WEST SENECA
PLANNING BOARD
1300 Union Road, West Seneca, NY 14224
6:00 PM in the Community Center
July 9, 2026

AGENDA

Meeting # 2026-07

CALL TO ORDER

APPROVAL OF PROOFS OF PUBLICATION

APPROVAL OF MINUTES

1. Minutes of Meeting #2026-06

OLD BUSINESS

SPR 2026-002
A request of New Leaf Energy, Inc. for site plan approval for property located at 705 Orchard Park Road to permit an EV Parking Station and all associated site work.

SPR 2026-003
A request of Home Leasing, for site plan approval for a property located at 2544 Clinton Street to permit a 3-story multi-unit residential building with all associated site work.

SPR 2026-005
A request of Zen Nails for property located at 1976 Ridge Road to permit an addition to the existing building and all associated site work.

SPR 2026-006
A request of Carmina Wood Design, on behalf of the owner, for site plan approval for property located at 1425 Orchard Park Rd to permit the development of a multi-unit town house development with all associated site work.

NEW BUSINESS

2026-004
A request of Armstrong's Beer Company for property located at 1340 Orchard Park Road for a special permit to allow the service of alcohol.

ADJOURN

17 Computer Drive West
Albany, NY 12205
518.438.9900

70 Linden Oaks, Third Floor
Rochester, NY 14625
585.866.1100

Via Overnight Delivery
March 26, 2026.

Town of West Seneca
1250 Union Road
West Seneca, NY 14224

Attention: Jeffery Schieber

RE: Application for Site Plan Review
Proposed EV Charging Stations
705 Orchard Park Road \ NYS Route 240
Town of West Seneca, Erie County
Tax Account 143.06-1-16

Dear Mr. Schieber,

On behalf of our client, New Leaf Energy, Inc., we are pleased to submit the application documents enclosed for Planning Board review. Enclosed please find the following items in support of our application:

A. (22) Copies of the Letter of Intent, prepared by Bohler, dated 3/26/26.
B. (22) Copies of the Site Plan Application
C. (22) Copies of the Short Environmental Assessment Form, prepared by Bohler, dated 3/26/26
D. (22) Copies of the Canopy Rendering, prepared by Weston & Sampson design Studio
E. (1) 11x17 Copy of the Boundary & Topographic Map, prepared be Colliers, dated 8/15/25
F. (1) 11x17 Copy of the Site Plan, prepared by Bohler, dated 3/26/26
G. (22) Full-size copies of the Boundary & Topographic Map, prepared by Colliers, dated 8/15/25
H. (22) Full-size copies of the Site Plan, prepared by Bohler, dated 3/26/26
I. Check in the amount of $600 for Planning Board Review Fee
J. Email with a pdf of all submitted documents.

Existing Conditions
The existing 0.143-acre parcel is located between the Mobil gas station and the Wendy's restaurant rear parking area. The site is undeveloped and consists of maintained lawn. There is an existing curb cut with an asphalt driveway apron. The site sheet flows west to east toward Orchard Park Road.

Proposed Project
The applicant is proposing to construct (10) EV charging parking spaces with (5) EV Charging Stations and a canopy. One EV charging station will service two parking spaces. An ADA compliant space is being provided. The project will include associated site improvements consisting of modifying the existing curb cut onto Orchard Park Road, stormwater mitigation, transformer and electrical power equipment.

Zoning
The project site is zoned C-1 commercial where EV charging stations are an allowed use. Given the size of the existing parcel, we anticipate area variances will be required for pavement setbacks (10' required, 3' proposed) and building setbacks (40' front, 5' side and 30' rear required, 6.6' front, 0' side and 22.0' rear proposed). We will make application to the Zoning Board of Appeals to request area variances.

Stormwater
The project will disturb ±0.14 acres of land and substantially decrease green space. To mitigate stormwater runoff, an underground pipe detention system is proposed to reduce post construction discharge rates to pre-existing discharge rate. The intent would be to utilize perforated pipe to allow for infiltration. Infiltration testing will be completed to confirm the design.

Construction Schedule
The intent would be to start construction once all municipal approvals and permits are obtained. It is estimated that the duration of construction will be ±4 weeks.

We look forward to presenting this information at the May 14th Town Planning Board meeting. If you have any questions, please do not hesitate to contact our office.

Sincerely,
BOHLER ENGINEERING NY, PLLC

Randy Bebout

Cc:
James Rambone, New Leaf Energy

TOWN OF WEST SENECA

APPLICATION FOR SITE PLAN REVIEW APPROVAL

TO BE COMPLETED BY APPLICANT

DATE 3/24/26 FILE #_____

PROJECT NAME PROPOSED EV CHARGING STATIONS

PROJECT LOCATION (Include address and distance to nearest intersection) 705 ORCHARD PARK ROAD (BETWEEN MOBIL & WENDY'S)

APPLICANT NEW LEAF ENERGY, INC. PH/FAX 978-483-0037

ADDRESS 55 TECHNOLOGY DRIVE, SUITE 102,LOWELL, MA 01851

PROPERTY OWNER GLR HOLDINGS, LLC PH/FAX 585-262-3630

ADDRESS 180 Canal View Blvd. Suite 600, Rochester, New York 14623

ENGINEER/ ARCHITECT BOHLER ENGINEERING NY, PLLC PH/ FAX 585.866.1100

ADDRESS 70 LINDEN OAKS, THIRD FLOOR, ROCHESTER, NY 14625

SBL # 143.06-1-16

PROJECT DESCRIPTION (Include all uses and any required construction)

PROPOSED CONST. OF (10) EV CHARGING PARKING SPACES W\CANOPY,(5) CHARGING STATIONS, NEW ACCESS DRIVE AND ASSOCIATED SITE IMPROVEMENTS (STORM DRAINAGE, ELECTRICAL EQUIPMENT, ETC.)

SIZE OF LOT (acres) 0.143 ACREAGE TO BE REZONED N/A

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH

ORCHARD PARK ROAD, APPROX. 45' OF FRONTAGE

EXISTING ZONING C-1,COMMERCIAL PROPOSED ZONING NO CHANGE

EXISTING USE(S) ON PROPERTY UNDEVELOPED

PROPOSED USE(S) ON PROPERTY EV CHARGING STATIONS

EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET COMMERCIAL

PUBLIC SEWER YES ___ NO ___ N/A PUBLIC WATER YES ___ NO ___ N/A

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED

AREA VARIANCES WILL BE REQURED FOR PAVEMENT AND STRUCTURE SETBACKS

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED _____ BY _____

PLANNING BOARD MEETING DATE _____

TOWN BOARD MEETING DATE _____

TOWN BOARD RESOLUTION DATE _____

NON – REFUNDABLE FILING FEE (Payable to the Town Clerk): $

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
New Leaf West Seneca

Project Location (describe, and attach a location map):
705 Orchard Park Rd, Buffalo, NY 14224

Brief Description of Proposed Action:
The applicant is proposing to construct (10) EV charging parking spaces with (5) EV Charging Stations and a canopy. One EV charging station will service two parking spaces. An ADA compliant space is being provided. The project will include associated site improvements consisting of modifying the existing curb cut onto Orchard Park Road, stormwater mitigation, transformer and electrical power equipment.

Name of Applicant or Sponsor:	Telephone: (802) 233-9811
New Leaf Energy, INC.	E-Mail: jrambone@newleafenergy.com

Address:
55 Technology Drive, Suite 102

City/PO:	State:	Zip Code:
Lowell	MA	01851

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3. a. Total acreage of the site of the proposed action? 0.14 acres
   b. Total acreage to be physically disturbed? 0.14 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.14 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☑	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☑	☐

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☑	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☑	☐

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☑	☐
If Yes, briefly describe:		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☐	☑
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: BOHLER ENGINEERING NY, PLLC Date: 3-26-26

Signature: Garrett Stein Title: Project Engineer

PRINT FORM

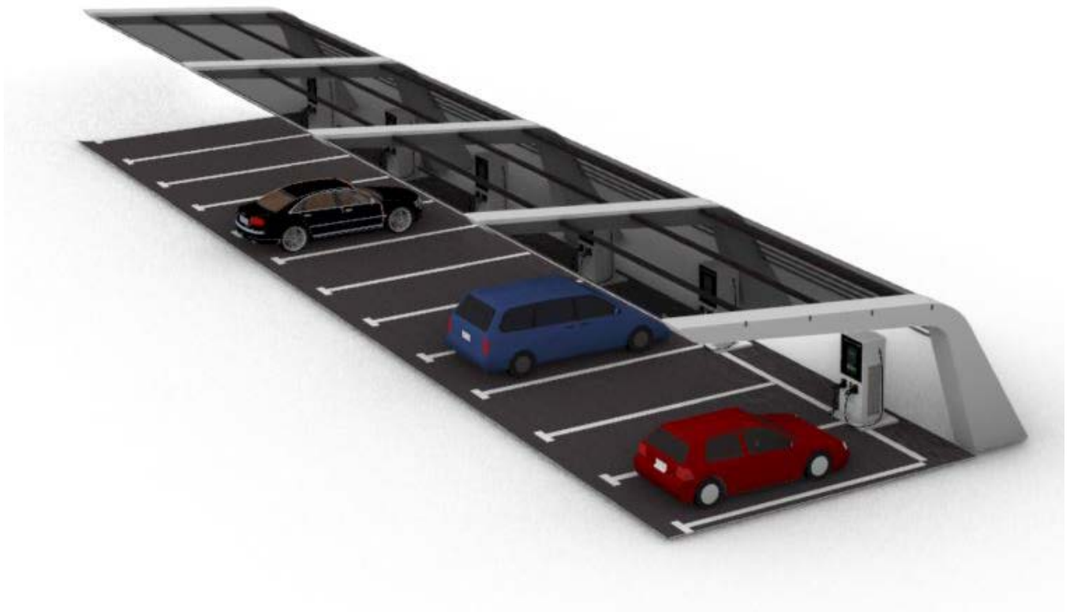


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources to confirm data provided by the Mapper or to obtain data not provided by the Mapper.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local, New York State, and federal wetlands and waterbodies is known to be incomplete. Refer to the EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	Yes

OP 1 | PULL-IN PARKING







OP 1 | BACK-IN PARKING







1) DESIGN CRITERIA

A. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE FOLLOWING CODES AND CRITERIA:

1. MASSACHUSETTS BUILDING CODE USED TO ADDRESS SNOW LOAD FOR EXAMPLE PURPOSES. EACH DESIGN WILL BE REFINED PER LOCATION.
2. 10TH EDITION OF THE MASSACHUSETTS BUILDING CODE
   2.1. BASED OFF 2021 INTERNATIONAL BUILDING CODE
3. ASCE 7-16, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
4. AISC360-16, AMERICAN INSTITUTE OF STEEL CONSTRUCTION

B. BUILDING CLASSIFICATION

1. BUILDING OCCUPANCY CLASSIFICATION: U

C. DEAD LOADS = 15.0 PSF

D. LIVE LOADS

ROOF = 20.0 PSF
REDUCIBLE PER 780 CMR, 10TH EDITION

E. WIND LOADS DESIGN CRITERIA

DESIGN WIND SPEED, V_{ULT}	=	127 MPH
NOMINAL WIND SPEED, V_{ASD}	=	97 MPH
RISK CATEGORY	=	II
EXPOSURE CATEGORY	=	C
INTERNAL PRESSURE, GC_{pi}	=	+/- 0.00
VELOCITY PRESSURE, K_d	=	0.85

F. SEISMIC DESIGN CRITERIA

DESIGN CATEGORY	=	B
IMPORTANCE FACTOR, I_e	=	1.00
MAPPED SPECTRAL RESPONSE ACCELERATION:		
S_S	=	0.198 g
S_1	=	0.055 g
SITE CLASS	=	D
SPECTRAL RESPONSE COEFFICIENTS:		
S_{DS}	=	0.211 g
S_{D1}	=	0.088 g
SEISMIC FORCE RESISTING SYSTEM:		
STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE		
R	=	3.00
C_S	=	0.071

ANALYSIS PROCEDURE USED:
EQUIVALENT LATERAL FORCE

G. SNOW LOADS

GROUND SNOW LOAD, P_g	=	30.0 PSF
FLAT ROOF SNOW LOAD, P_f	=	30.0 PSF
SNOW EXPOSURE FACTOR, C_e	=	1.00
THERMAL FACTOR, C_t	=	1.20
IMPORTANCE FACTOR, I_S	=	1.00

Note:

Loads from Carver, Massachusetts were chosen for demonstration purposes. Each design will be updated and refined based on the site and final loading criteria

2) STRUCTURAL STEEL

1. ASTM SPECIFICATION AND GRADE. UNLESS NOTED OTHERWISE ON THE DRAWINGS, STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   a) W-SHAPES: A992
   b) HSS, RECTANGULAR: A500, Gr. C - Fy = 50 ksi

3) FOUNDATION NOTES

1. FOUNDATION DESIGNED BASED ON THE FOLLOWING PROPERTIES:
   SOIL BEARING PRESSURE (NET) : 1,500 PSF
   SUBGRADE MODULUS: 100 PCI

NOTE: PROOF ROLL THE EXPOSED SUBGRADE WITH A MEDIUM-WEIGHT ROLLER TO DETERMINE IF ANY POCKETS OF SOFT, UNSUITABLE MATERIAL EXIST BENEATH THE EXPOSED SUBGRADE. REMOVE ANY UNSUITABLE MATERIAL ENCOUNTERED AND REPLACE WITH A PROPERLY COMPACTED GRANULAR MATERIAL

A. OWNER/CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO VERIFY THAT THE ABOVE NOTED FOUNDATION DESIGN PRESSURES AND MODULUS ARE MET

B. OWNER/CONTRACTOR SHALL EMPLOY QUALIFIED INDEPENDENT SOIL-TESTING AGENCY TO VERIFY THAT ALL EXCAVATION AND BACKFILL OPERATIONS MEET THE CRITERIA OF THESE NOTES AND THE SPECIFICATIONS

C. ENGINEERED FILL SHALL BE CLEAN, WELL GRADED, AND FREE DRAINING IN ITS COMPACTED STATE

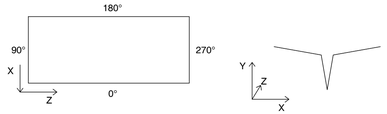
D. GRANULAR FILL MATERIAL SHALL BE A "PIT RUN GRAVEL" AS IT OCCURS IN A NATURAL STATE WITH NO LUMPS OF CLAY OR ROCKS LARGER THAN 2" IN DIAMETER. IT MUST CONFORM TO THE FOLLOWING GRADATIONS: 10 TO 40 PERCENT SAND, 40 TO 80 PERCENT GRAVEL, AND 0 TO 15 PERCENT CLAY. OBTAIN FROM A BORROW PIT APPROVED BY THE OWNER AND THE TESTING AGENCY

E. COMPACT ALL GRANULAR FILL BENEATH SLABS ON GRADE AND OVER FOOTINGS TO 95 PERCENT MODIFIED MAXIMUM DRY DENSITY, ASTM D-1557. INCREASE THE COMPACTION REQUIREMENTS FOR ENGINEERED FILL SUPPORTING FOOTINGS TO 97 PERCENT MODIFIED MAXIMUM DRY DENSITY, ASTM D-1557. COMPACT ALL BACKFILL NOT SUPPORTING SLABS, PAVEMENT, OR FOOTINGS TO 90 PERCENT MODIFIED MAXIMUM DRY DENSITY, ASTM D-1557. PLACEMENT AND COMPACTION OF FILL SHALL BE OVERSEEN BY THE TESTING AGENCY. PLACE ALL GRANULAR FILL MATERIAL IN LAYERS NOT EXCEEDING 6" IN LOOSE THICKNESS. MECHANICALLY COMPACT EACH LAYER TO AT LEAST THE REQUIRED MINIMUM DRY DENSITY

F. ALL BACKFILL PLACED AGAINST CONCRETE WALLS SHALL BE A WELL-GRADED, FREE-DRAINING, GRANULAR MATERIAL APPROVED BY THE TESTING AGENCY

4) CONCRETE

1. ALL CONCRETE SHALL BE MINIMUM 4,000 PSI WITH A MINIMUM AIR ENTRAINMENT OF 6%.
2. ALL STEEL REINFORCEMENT BARS SHALL BE ASTM A615 GRADE 60.
3. ALL STEEL REINFORCEMENT SPLICES SHALL BE LAPPED A MINIMUM OF 42", UNLESS NOTED OTHERWISE.



NOTES:

- ALL REACTIONS ARE SERVICE LEVEL (UNFACTORED)
- NEGATIVE VERTICAL REACTION (Y-AXIS) INDICATES UPLIFT
- ALL WIND AND SEISMIC REACTIONS ARE REVERSIBLE
- ALL WIND REACTIONS ARE PROVIDED AT V_{ULT}
- ALL SEISMIC REACTIONS TO BE MULTIPLIED BY APPROPRIATE Ω_O FACTORS FOR ANCHORAGE AND FOUNDATION DESIGN

FOUNDATION PLAN NOTES:

1. FINAL GRADE ELEVATION: 100'-0"
2. ⟨F#⟩ F# SIGNIFIES FOUNDATION SCHEDULE MARK

COLUMN REACTIONS @ GRIDLINE 1

LOAD CASE	HORIZONTAL REACTION, X-DIR. (KIP)	HORIZONTAL REACTION, Z-DIR. (KIP)	VERTICAL REACTION, Y-DIR. (KIP)	MOMENT REACTION ABOUT X-DIR (KIP-FT)	MOMENT REACTION ABOUT Y-DIR (KIP-FT)	MOMENT REACTION ABOUT Z-DIR (KIP-FT)
SELF-WEIGHT	~	~	4.14	~	~	-34.6
DEAD LOAD	~	~	7.20	~	~	-85.8
SNOW LOAD	~	~	14.4	~	~	-172
ROOF LIVE	~	~	9.60	~	~	-115
WIND 0° A	-4.67	~	-9.14	~	~	164
WIND 0° B	-4.67	~	7.31	~	~	-89.6
WIND 90° A	~	0.96	5.72	-11.5	-11.3	-68.1
WIND 90° B	~	0.96	-5.30	-11.5	-11.3	63.1
WIND 180° A	4.67	~	-9.17	~	~	53.6
WIND 180° B	4.67	~	7.31	~	~	-84.6

Project:

EV CANOPIES

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON
www.westonandsampson.com

Consultants:
COMPLETE STRUCTURAL CONSULTING
Complete Structural Consulting
9880 Westpoint Drive, Suite 100
Indianapolis, IN 46256
317.468.2004

N W E S

20 0 10 20
1" = 20'
(IN FEET)

No	Description	Date

Revisions

Seal:

DRAFT

Issued For:
REVIEW
(NOT FOR CONSTRUCTION)

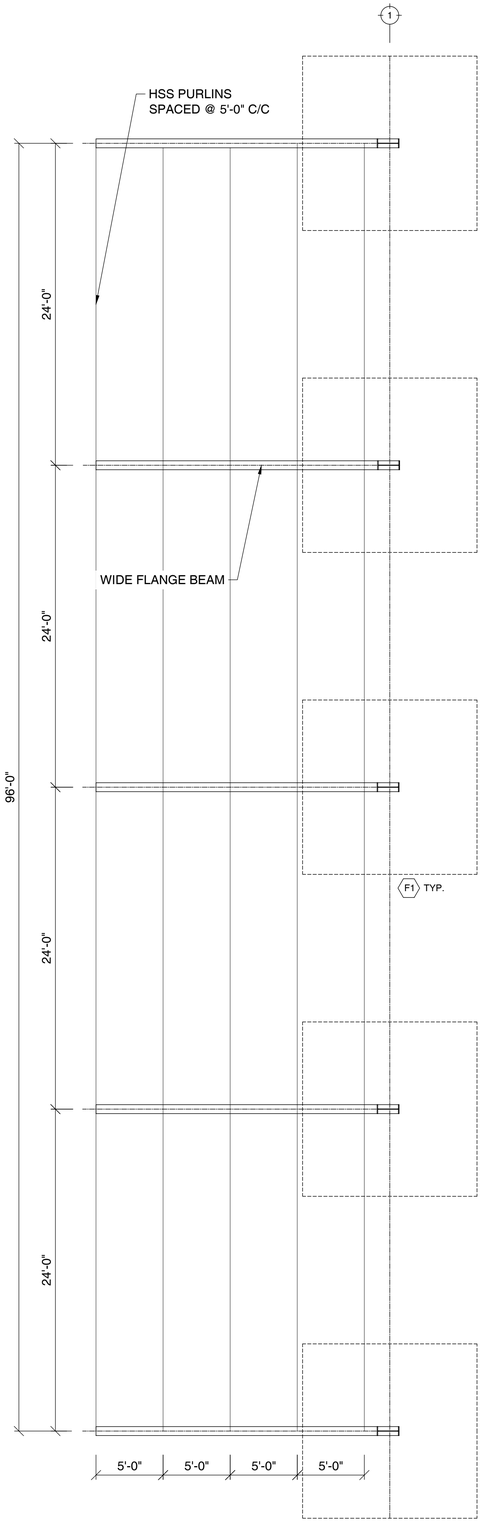
Issued Date:	12/12/2024
Drawn By:	RRK
Reviewed By:	ASK
Approved By:	ASK
W&S Project No.:	

Drawing Title:

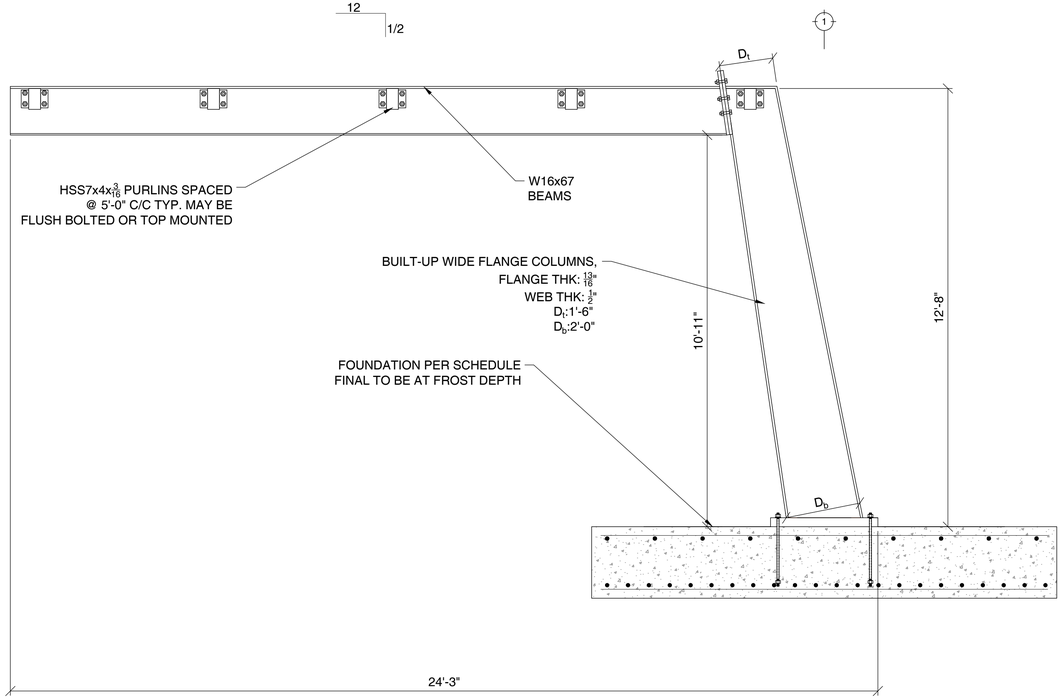
GENERAL NOTES

Sheet Number:

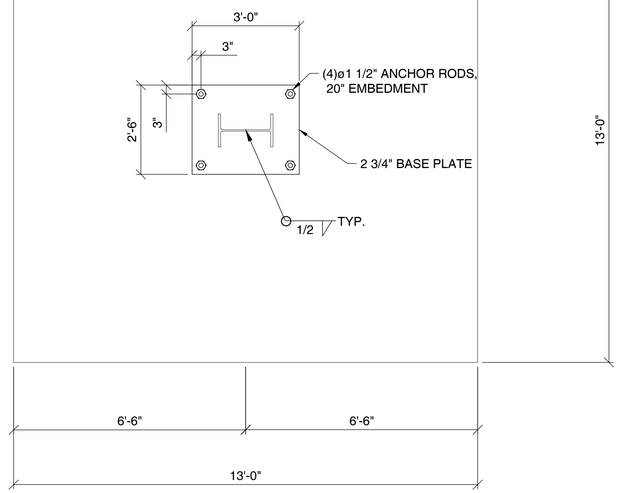
S100



1 PLAN VIEW
SCALE: 3/16" = 1'-0"



2 SECTION CUT
SCALE: 1/2" = 1'-0"



3 FOUNDATION PLAN VIEW
SCALE: N.T.S

STRUCTURAL SCHEDULE						
MARK	STEEL WEIGHT (LBS)	SIZE (L x W x T)	REINFORCING (TOP)	REINFORCING (BOTTOM)	TOP / FTG. ELEVATION	NOTES
F1	4,800 PER BAY (INCLUDES PURLINS)	13'-0" x 13'-0" X 2'-0"	(10) #5 EA. WAY	(22) #5 EA. WAY	100'-0"	FURTHER BORING REQUIRED AND SOIL CONDITIONS TO BE CONFIRMED PER LOCATION

Project:

EV CANOPIES

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON
www.westonandsampson.com

Consultants:

Complete Structural Consulting
9880 Westpoint Drive, Suite 100
Indianapolis, IN 46256
317.468.2004

N W E S

20 0 10 20
1" = 20'
(IN FEET)

No.	Description	Date

Revisions

Seal:

DRAFT

Issued For:
REVIEW
(NOT FOR CONSTRUCTION)

Issued Date:	12/12/2024
Drawn By:	RRK
Reviewed By:	ASK
Approved By:	ASK
W&S Project No.:	

Drawing Title:

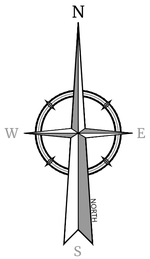
PULL IN PARKING

Sheet Number:

S200

P:\24.0612 Ev Canopies (WSE)\04 DWGs & MODELS_CSC DRAWINGS\EV Canopy_Roanoke.dwg





LEGEND

- RIGHT OF WAY LINE
- PROPERTY LINE
- FACE / BACK — CURB LINE
- WOOD FENCE
- MAJOR CONTOUR
- MINOR CONTOUR
- × 632.70 — SPOT ELEVATION
- × TC 633.50 — TOP OF CURB ELEV.
- × BC 633.00 — BOTTOM OF CURB ELEV.
- OHW — OVERHEAD WIRE
- W — WATER MAIN
- G — GAS MAIN
- S — SAN. SEWER
- STORM PIPE
- TREE
- ROADWAY SIGNS
- TRAFFIC FLOW
- POLE MOUNTED LIGHT
- UTILITY POLE
- GUY WIRE
- BOL. BOLLARD
- WV WATER VALVE
- CO SANITARY CLEANOUT
- CONCRETE MONUMENT
- CAPPED REBAR/IRON PIPE
- CATCH BASIN

ABBREVIATIONS

BC = BOTTOM OF CURB
TC = TOP OF CURB
BOL = BOLLARD
T.G. = TOP OF GRATE
MH = MANHOLE
PM = PARKING METER

UTILITIES CONTACTED BY UDIG NY:
ERIE COUNTY DIVISION OF SEWER MANAGEMENT (NO FACILITIES)
ERIE COUNTY WATER AUTHORITY (PLOTTED)
KIANTONE PIPELINE CORPORATION (NO FACILITIES)
NATIONAL FUEL GAS (PLOTTED)
N.Y.S.D.O.T. REGION 5 (NO FACILITIES)
N.Y.S.E.G. (NO N.Y.S.E.G. UNDERGROUND FACILITIES IN AREA)
TOWN OF WEST SENECA HIGHWAY (SAN. SEWER PLOTTED)
VERIZON (NO RESPONSE)

10 0 10 20
SCALE : 1" = 10'
Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

Colliers
Engineering & Design
www.colliersengineering.com

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Formerly Known as BERGMANN

REV	DATE	DESCRIPTION

NEW LEAF ENERGY

705 ORCHARD PARK ROAD
TOWN OF WEST SENECA
ERIE COUNTY, N.Y.

Colliers Engineering & Design
BUFFALO (BA)
40 LaRiviere Drive, Suite 200
Buffalo, NY 14202
Phone: 716.852.3211
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C.

SCALE:	DRAWN BY:
AS SHOWN	MJE
DESIGNED BY:	REVIEWED BY:
	MJE
DATE ISSUED:	PROJECT NUMBER:
08/15/25	25903004

SHEET NAME:

BOUNDARY & TOPOGRAPHIC MAP

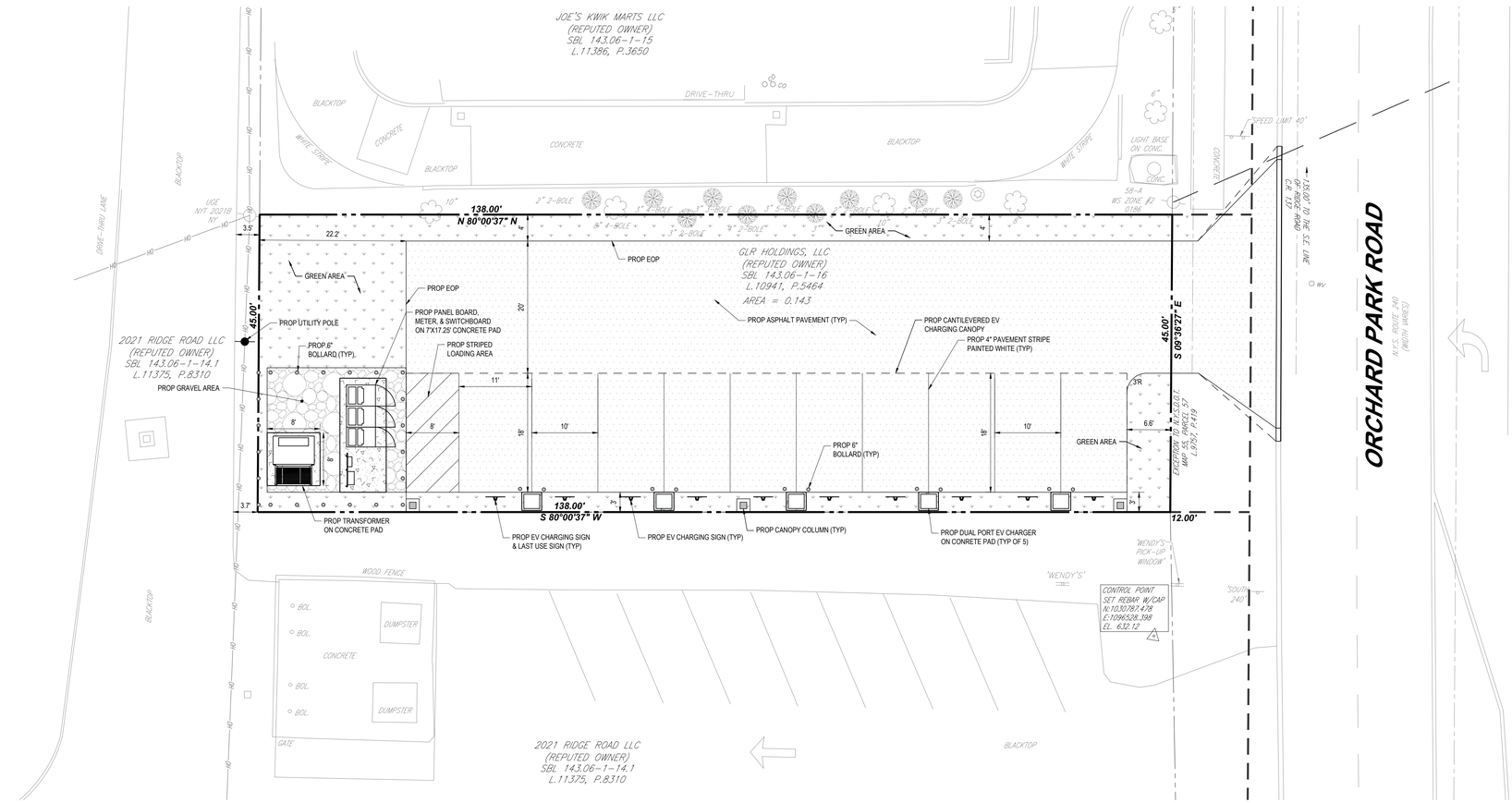
DRAWING NUMBER:

1 of 1

R:\Projects\2025\25903000\25903004\Survey\25903004-VSURV.dwg By: MICHAEL.EWER on 2025-08-21 – 03:17pm

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING DOCUMENT BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY DOCUMENTS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



SITE INFORMATION

APPLICANT:
NEW LEAF ENERGY, INC.
55 TECHNOLOGY DRIVE, SUITE #102 ,
LOWELL, MA 01851

OWNER:
GLR HOLDINGS, LLC
180 CANAL VIEW BLVD, SUITE 600
ROCHESTER, NY 14623

SITE NOTES

(REV. 5/2024)

1. ALL CONCRETE MUST BE AIR ENTRAINED AND INCLUDE THE MINIMUM COMPRESSIVE STRENGTH OF JURISDICTIONAL STANDARD PSI AT 28 DAYS (OR 4,000 PSI) UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT. IF THERE ARE ANY DISCREPANCIES BETWEEN THE PLANS, DETAILS AND GEOTECHNICAL REPORT THEN THE GEOTECHNICAL REPORT SHALL GOVERN.
2. THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, PAVEMENT MARKINGS, AND PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.
3. CONTRACTOR IS CAUTIONED OF EXISTING UTILITY SERVICES TO REMAIN IN PROXIMITY TO PROPOSED BOLLARDS AND SIGNS. CONTRACTOR SHALL PROVIDE FIELD MODIFICATION LOCATIONS OF BOLLARDS AND BOLLARDS WITH SIGNAGE AS NEEDED TO AVOID CONFLICTS WITH EXISTING UTILITY SERVICES TO REMAIN.

UTILITY NOTES

(REV. 7/2024)

1. ALL WORK ASSOCIATED WITH UTILITY POLES, OVERHEAD WIRES AND ANY/ALL APPURTENANCES SHALL BE COORDINATED BY THE GC WITH THE LOCAL UTILITY COMPANIES PRIOR TO THE ORDERING OF ANY MATERIALS. THIS MAY INCLUDE BUT IS NOT LIMITED TO THE REMOVAL, INSTALLATION, RELOCATION OR PROTECTION OF ANY BRACING, GUY WIRES, OVERHEAD WIRES, ETC. AS MAY BE REQUIRED TO ACCOMMODATE THE PROJECT.
2. TRANSFORMERS AND SWITCH GEARS: GC SHALL PROVIDE ALL APPURTENANCES IN ACCORDANCE WITH UTILITY COMPANY SPECIFICATIONS AND CARRY SAME IN BASE BID. APPURTENANCES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE CONCRETE PAD, SECONDARY SPILL CONTAINMENT AREAS (IF REQUIRED), BOLLARD / VEHICULAR PROTECTION, AND OTHER ITEMS AS MAY BE REQUIRED BY THE UTILITY PROVIDER FOR INSTALLATION OF THE TRANSFORMER AND SWITCH GEAR (IF REQUIRED). GC SHALL COORDINATE ALL ASPECTS OF INSTALLATION WITH UTILITY PROVIDER PRIOR TO ORDERING OF MATERIALS AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS IN WRITING.

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

10 5 2.5 0 10
1"= 10'

811 Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

GENERAL NOTE:
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

THIS DOCUMENT IS PROVIDED BY NEW LEAF ENERGY, INC. TO FACILITATE THE SALE OF THE ELECTRIC CHARGING STATION PROJECT REPRESENTED HEREIN. REPRODUCTION, RELEASE OR UTILIZATION FOR ANY OTHER PURPOSE, WITHOUT PRIOR WRITTEN CONSENT IS STRICTLY PROHIBITED.

new leaf energy
55 TECHNOLOGY DRIVE, SUITE 102
LOWELL, MA 01851
PHONE: (888) 898-6273
FAX: (888) 843-6778
WWW.NEWLEAFENERGY.COM

NOT FOR CONSTRUCTION

BOHLER
70 LINDEN OAKS
THIRD FLOOR
ROCHESTER, NY 14625
PHONE: (585) 381-9250
www.BohlerEngineering.com

IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER ANY DOCUMENT WHICH BEARS THE SEAL OF A PROFESSIONAL ENGINEER, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

PROPOSED EV CHARGING STATIONS
705 ORCHARD PARK RD
WEST SENECA, NY 14224

PROJECT NUMBER:
NYB260024

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-2.1
SITE PLAN

TOWN OF WEST SENECA

CODE ENFORCEMENT OFFICE
"BUILDING SAFETY IS NO ACCIDENT"

TOWN SUPERVISOR
GARY A. DICKSON

TOWN COUNCIL
ROBERT J. BREIDENSTEIN
JEFFREY A. PIEKAREC
SCOTT D. ROBERTSON
MARY T. SHERMAN

March 31, 2026

Town of West Seneca Building Dept.
1250 Union Rd
West Seneca, NY 14224

Re: 705 Orchard Park Road
Site Plan Approval

To Whom It May Concern:

Please find enclosed a submittal for a proposed development of an EV Parking Station and all associated site work. The scheduled Planning Board meeting is set for May 14, 2026.

Pursuant to Article 8 of the Environmental Conservation law, State Environmental Quality Review Act (SEQRA):

The Town of West Seneca is seeking lead agency designation in this matter. The Town of West Seneca will make a determination of its significance. All submitted materials will be posted on Town web site from review and comment. Please return any comments or concerns within 30 days of the date of notification.

If you have any questions, please call our office 716-558-3242.

Yours truly,
Jeffrey A Schieber
Jeffrey A Schieber
Code Enforcement Officer
jschieber@twsny.org

JAS:sl
cc: E. C. Dept of Planning via online submittal
Reserve Fire Dept.
Historical Commission
SHPO via online submittal
NYS DOT
Erie County DOT
NYS DEC via online submittal

TOWN OF WEST SENECA

APPLICATION FOR SITE PLAN REVIEW APPROVAL

TO BE COMPLETED BY APPLICANT

DATE 3/24/26 FILE # 2026-002

PROJECT NAME PROPOSED EV CHARGING STATIONS

PROJECT LOCATION (Include address and distance to nearest intersection) 705 ORCHARD PARK ROAD (BETWEEN MOBIL & WENDY'S)

APPLICANT NEW LEAF ENERGY, INC. PH/FAX 978-483-0037

ADDRESS 55 TECHNOLOGY DRIVE, SUITE 102,LOWELL, MA 01851

PROPERTY OWNER GLR HOLDINGS, LLC PH/FAX 585-262-3630

ADDRESS 180 Canal View Blvd. Suite 600, Rochester, New York 14623

ENGINEER/ ARCHITECT BOHLER ENGINEERING NY, PLLC PH/ FAX 585.866.1100

ADDRESS 70 LINDEN OAKS, THIRD FLOOR, ROCHESTER, NY 14625

SBL # 143.06-1-16

PROJECT DESCRIPTION (Include all uses and any required construction)

PROPOSED CONST. OF (10) EV CHARGING PARKING SPACES W\CANOPY,(5) CHARGING STATIONS, NEW ACCESS DRIVE AND ASSOCIATED SITE IMPROVEMENTS (STORM DRAINAGE, ELECTRICAL EQUIPMENT, ETC.)

SIZE OF LOT (acres) 0.143 ACREAGE TO BE REZONED N/A

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH

ORCHARD PARK ROAD, APPROX. 45' OF FRONTAGE

EXISTING ZONING C-1,COMMERCIAL PROPOSED ZONING NO CHANGE

EXISTING USE(S) ON PROPERTY UNDEVELOPED

PROPOSED USE(S) ON PROPERTY EV CHARGING STATIONS

EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET COMMERCIAL

PUBLIC SEWER YES X NO ___ N/A PUBLIC WATER YES X NO ___ N/A

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED

AREA VARIANCES WILL BE REQURED FOR PAVEMENT AND STRUCTURE SETBACKS

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED ___ BY JS

PLANNING BOARD MEETING DATE MAY 14, 2026

TOWN BOARD MEETING DATE NA

TOWN BOARD RESOLUTION DATE NA.

NON – REFUNDABLE FILING FEE (Payable to the Town Clerk): $ 600.00

SITE PLAN OR ZONING REFERRAL TO COUNTY OF ERIE, N.Y.
AND REPLY TO MUNICIPALITY

Submit this form with full statement of proposed action (as described in GML 239-m(c)) at www.Erie.gov/IRonline, OR mail a hard copy (retain a copy for your files) to: Erie County Division of Planning, 95 Franklin Street, Room 1053, Buffalo, N.Y., 14202

DO NOT WRITE IN THIS SPACE

Case No.: _____

Postmark/Delivery Date: _____

The proposed action described herein is referred in accordance with the provisions of NYS General Municipal Law §239 l - nn

A Municipal Referral Map is available to help determine whether an applicable action is subject to referral.

Description of Proposed Action

1. Name of Municipality: Town of West Seneca

§239-m(4)(b) provides that the county shall have 30 days after receipt of a full statement of the proposed action to reply.
If the county fails to reply within such period, the referring body may take final action.
However, any county reply received after 30 days but 2 or more days prior to final action by the referring body shall be subject to §239-m(5)
The referring body shall file a report of its final action with the county within 30 days per §239-m(6).

2. Hearing Schedule: **Date** May 14th, 2026 **Time** 6:00pm **Location** 1300 Union Rd West Seneca

3. Action is before: ☐ Legislative Body ☐ Board of Appeals ☑ Planning Board

4. Action consists of: ☐ New Ordinance ☐ Rezone/Map Change ☐ Ordinance Amendment

☑ Site Plan ☐ Variance ☐ Special Use Permit ☐ Other: _____

5. Location of Property: ☐ Entire Municipality ☐ Address: 705 Orchard Park Rd West Seneca, NY 14224

5a. S.B.L. of Property: 143.06-1-16

6. Referral required as site is within 500' of: ☐ State or County Property/Institution ☐ Municipal Boundary ☐ Farm Operation located in an Agricultural District

☐ Expressway ☐ County Road ☑ State Highway ☐ Proposed State or County Road, Property, Building/Institution, Drainageway

7. Proposed change or use: *(specify the action, such as the scope of variances or site plans)* Develop vacant site for EV charging stations

8. Other remarks: _____

9. Submitted by: Jeffrey Schieber **Email:** jschieber@twsny.org

10. Return Address: 1250 Union Rd West Seneca NY 14224

Reply to Municipality by Erie County Division of Planning

Receipt of the above-described proposed action is acknowledged on _____. The Division herewith submits its review and reply under the provisions of applicable state and local law, based on the information submitted with this referral.

1. ☐ **The proposed action is not subject to review under the law.**
2. ☐ **Comment on proposed action is attached hereto.**
3. ☐ **The proposed action is subject to review; Recommendation on Proposed Action is attached hereto.**
4. ☐ **No Recommendation; proposed action has been reviewed and determined to be of local concern.**

By the Division of Planning: _____ **Date:** _____

17 Computer Drive West
Albany, NY 12205
518.438.9900

70 Linden Oaks, Third Floor
Rochester, NY 14625
585.866.1100

Via Overnight Delivery
March 26, 2026.

Town of West Seneca
1250 Union Road
West Seneca, NY 14224

Attention: Jeffery Schieber

RE: Application for Site Plan Review
Proposed EV Charging Stations
705 Orchard Park Road \ NYS Route 240
Town of West Seneca, Erie County
Tax Account 143.06-1-16

Dear Mr. Schieber,

On behalf of our client, New Leaf Energy, Inc., we are pleased to submit the application documents enclosed for Planning Board review. Enclosed please find the following items in support of our application:

A. (22) Copies of the Letter of Intent, prepared by Bohler, dated 3/26/26.
B. (22) Copies of the Site Plan Application
C. (22) Copies of the Short Environmental Assessment Form, prepared by Bohler, dated 3/26/26
D. (22) Copies of the Canopy Rendering, prepared by Weston & Sampson design Studio
E. (1) 11x17 Copy of the Boundary & Topographic Map, prepared be Colliers, dated 8/15/25
F. (1) 11x17 Copy of the Site Plan, prepared by Bohler, dated 3/26/26
G. (22) Full-size copies of the Boundary & Topographic Map, prepared by Colliers, dated 8/15/25
H. (22) Full-size copies of the Site Plan, prepared by Bohler, dated 3/26/26
I. Check in the amount of $600 for Planning Board Review Fee
J. Email with a pdf of all submitted documents.

Existing Conditions
The existing 0.143-acre parcel is located between the Mobil gas station and the Wendy's restaurant rear parking area. The site is undeveloped and consists of maintained lawn. There is an existing curb cut with an asphalt driveway apron. The site sheet flows west to east toward Orchard Park Road.

Proposed Project
The applicant is proposing to construct (10) EV charging parking spaces with (5) EV Charging Stations and a canopy. One EV charging station will service two parking spaces. An ADA compliant space is being provided. The project will include associated site improvements consisting of modifying the existing curb cut onto Orchard Park Road, stormwater mitigation, transformer and electrical power equipment.

Zoning
The project site is zoned C-1 commercial where EV charging stations are an allowed use. Given the size of the existing parcel, we anticipate area variances will be required for pavement setbacks (10' required, 3' proposed) and building setbacks (40' front, 5' side and 30' rear required, 6.6' front, 0' side and 22.0' rear proposed). We will make application to the Zoning Board of Appeals to request area variances.

Stormwater
The project will disturb ±0.14 acres of land and substantially decrease green space. To mitigate stormwater runoff, an underground pipe detention system is proposed to reduce post construction discharge rates to pre-existing discharge rate. The intent would be to utilize perforated pipe to allow for infiltration. Infiltration testing will be completed to confirm the design.

Construction Schedule
The intent would be to start construction once all municipal approvals and permits are obtained. It is estimated that the duration of construction will be ±4 weeks.

We look forward to presenting this information at the May 14th Town Planning Board meeting. If you have any questions, please do not hesitate to contact our office.

Sincerely,
BOHLER ENGINEERING NY, PLLC

Randy Bebout

Cc:
James Rambone, New Leaf Energy

TOWN OF WEST SENECA

APPLICATION FOR SITE PLAN REVIEW APPROVAL

TO BE COMPLETED BY APPLICANT

DATE 3/24/26 FILE #_____

PROJECT NAME PROPOSED EV CHARGING STATIONS

PROJECT LOCATION (Include address and distance to nearest intersection) 705 ORCHARD PARK ROAD (BETWEEN MOBIL & WENDY'S)

APPLICANT NEW LEAF ENERGY, INC. PH/FAX 978-483-0037

ADDRESS 55 TECHNOLOGY DRIVE, SUITE 102,LOWELL, MA 01851

PROPERTY OWNER GLR HOLDINGS, LLC PH/FAX 585-262-3630

ADDRESS 180 Canal View Blvd. Suite 600, Rochester, New York 14623

ENGINEER/ ARCHITECT BOHLER ENGINEERING NY, PLLC PH/ FAX 585.866.1100

ADDRESS 70 LINDEN OAKS, THIRD FLOOR, ROCHESTER, NY 14625

SBL # 143.06-1-16

PROJECT DESCRIPTION (Include all uses and any required construction)

PROPOSED CONST. OF (10) EV CHARGING PARKING SPACES W\CANOPY,(5) CHARGING STATIONS, NEW ACCESS DRIVE AND ASSOCIATED SITE IMPROVEMENTS (STORM DRAINAGE, ELECTRICAL EQUIPMENT, ETC.)

SIZE OF LOT (acres) 0.143 ACREAGE TO BE REZONED N/A

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH

ORCHARD PARK ROAD, APPROX. 45' OF FRONTAGE

EXISTING ZONING C-1,COMMERCIAL PROPOSED ZONING NO CHANGE

EXISTING USE(S) ON PROPERTY UNDEVELOPED

PROPOSED USE(S) ON PROPERTY EV CHARGING STATIONS

EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET COMMERCIAL

PUBLIC SEWER YES ___ NO ___ N/A PUBLIC WATER YES ___ NO ___ N/A

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED

AREA VARIANCES WILL BE REQURED FOR PAVEMENT AND STRUCTURE SETBACKS

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED _____ BY _____

PLANNING BOARD MEETING DATE _____

TOWN BOARD MEETING DATE _____

TOWN BOARD RESOLUTION DATE _____

NON – REFUNDABLE FILING FEE (Payable to the Town Clerk): $

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
New Leaf West Seneca

Project Location (describe, and attach a location map):
705 Orchard Park Rd, Buffalo, NY 14224

Brief Description of Proposed Action:
The applicant is proposing to construct (10) EV charging parking spaces with (5) EV Charging Stations and a canopy. One EV charging station will service two parking spaces. An ADA compliant space is being provided. The project will include associated site improvements consisting of modifying the existing curb cut onto Orchard Park Road, stormwater mitigation, transformer and electrical power equipment.

Name of Applicant or Sponsor:	Telephone: (802) 233-9811
New Leaf Energy, INC.	E-Mail: jrambone@newleafenergy.com

Address:
55 Technology Drive, Suite 102

City/PO:	State:	Zip Code:
Lowell	MA	01851

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3. a. Total acreage of the site of the proposed action? 0.14 acres
   b. Total acreage to be physically disturbed? 0.14 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.14 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☑	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☑	☐

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☑	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☑	☐

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☑	☐
If Yes, briefly describe:		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☐	☑
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: BOHLER ENGINEERING NY, PLLC Date: 3-26-26

Signature: Garrett Stein Title: Project Engineer

PRINT FORM

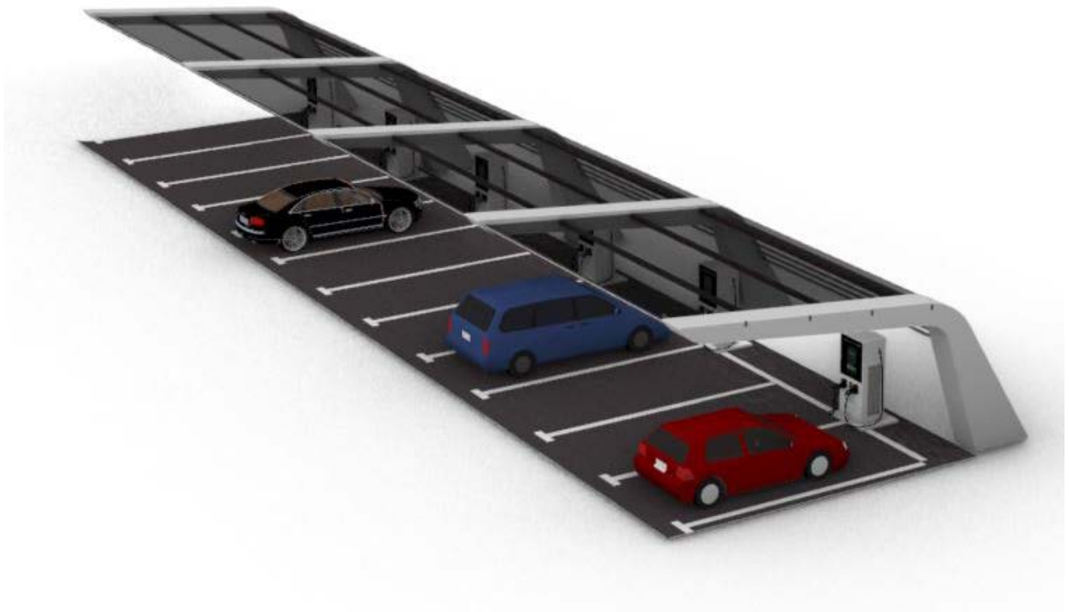


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources to confirm data provided by the Mapper or to obtain data not provided by the Mapper.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local, New York State, and federal wetlands and waterbodies is known to be incomplete. Refer to the EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	Yes

OP 1 | PULL-IN PARKING







OP 1 | BACK-IN PARKING







1) DESIGN CRITERIA

A. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE FOLLOWING CODES AND CRITERIA:

1. MASSACHUSETTS BUILDING CODE USED TO ADDRESS SNOW LOAD FOR EXAMPLE PURPOSES. EACH DESIGN WILL BE REFINED PER LOCATION.
2. 10TH EDITION OF THE MASSACHUSETTS BUILDING CODE
   2.1. BASED OFF 2021 INTERNATIONAL BUILDING CODE
3. ASCE 7-16, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
4. AISC360-16, AMERICAN INSTITUTE OF STEEL CONSTRUCTION

B. BUILDING CLASSIFICATION

1. BUILDING OCCUPANCY CLASSIFICATION: U

C. DEAD LOADS = 15.0 PSF

D. LIVE LOADS

ROOF = 20.0 PSF
REDUCIBLE PER 780 CMR, 10TH EDITION

E. WIND LOADS DESIGN CRITERIA

DESIGN WIND SPEED, V_{ULT}	=	127 MPH
NOMINAL WIND SPEED, V_{ASD}	=	97 MPH
RISK CATEGORY	=	II
EXPOSURE CATEGORY	=	C
INTERNAL PRESSURE, GC_{pi}	=	+/- 0.00
VELOCITY PRESSURE, K_d	=	0.85

F. SEISMIC DESIGN CRITERIA

DESIGN CATEGORY	=	B
IMPORTANCE FACTOR, I_e	=	1.00
MAPPED SPECTRAL RESPONSE ACCELERATION:		
S_S	=	0.198 g
S_1	=	0.055 g
SITE CLASS	=	D
SPECTRAL RESPONSE COEFFICIENTS:		
S_{DS}	=	0.211 g
S_{D1}	=	0.088 g
SEISMIC FORCE RESISTING SYSTEM:		
STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE		
R	=	3.00
C_S	=	0.071

ANALYSIS PROCEDURE USED:
EQUIVALENT LATERAL FORCE

G. SNOW LOADS

GROUND SNOW LOAD, P_g	=	30.0 PSF
FLAT ROOF SNOW LOAD, P_f	=	30.0 PSF
SNOW EXPOSURE FACTOR, C_e	=	1.00
THERMAL FACTOR, C_t	=	1.20
IMPORTANCE FACTOR, I_S	=	1.00

Note:

Loads from Carver, Massachusetts were chosen for demonstration purposes. Each design will be updated and refined based on the site and final loading criteria

2) STRUCTURAL STEEL

1. ASTM SPECIFICATION AND GRADE. UNLESS NOTED OTHERWISE ON THE DRAWINGS, STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   a) W-SHAPES: A992
   b) HSS, RECTANGULAR: A500, Gr. C - Fy = 50 ksi

3) FOUNDATION NOTES

1. FOUNDATION DESIGNED BASED ON THE FOLLOWING PROPERTIES:
   SOIL BEARING PRESSURE (NET) : 1,500 PSF
   SUBGRADE MODULUS: 100 PCI

NOTE: PROOF ROLL THE EXPOSED SUBGRADE WITH A MEDIUM-WEIGHT ROLLER TO DETERMINE IF ANY POCKETS OF SOFT, UNSUITABLE MATERIAL EXIST BENEATH THE EXPOSED SUBGRADE. REMOVE ANY UNSUITABLE MATERIAL ENCOUNTERED AND REPLACE WITH A PROPERLY COMPACTED GRANULAR MATERIAL

A. OWNER/CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO VERIFY THAT THE ABOVE NOTED FOUNDATION DESIGN PRESSURES AND MODULUS ARE MET

B. OWNER/CONTRACTOR SHALL EMPLOY QUALIFIED INDEPENDENT SOIL-TESTING AGENCY TO VERIFY THAT ALL EXCAVATION AND BACKFILL OPERATIONS MEET THE CRITERIA OF THESE NOTES AND THE SPECIFICATIONS

C. ENGINEERED FILL SHALL BE CLEAN, WELL GRADED, AND FREE DRAINING IN ITS COMPACTED STATE

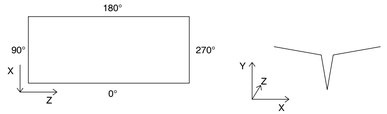
D. GRANULAR FILL MATERIAL SHALL BE A "PIT RUN GRAVEL" AS IT OCCURS IN A NATURAL STATE WITH NO LUMPS OF CLAY OR ROCKS LARGER THAN 2" IN DIAMETER. IT MUST CONFORM TO THE FOLLOWING GRADATIONS: 10 TO 40 PERCENT SAND, 40 TO 80 PERCENT GRAVEL, AND 0 TO 15 PERCENT CLAY. OBTAIN FROM A BORROW PIT APPROVED BY THE OWNER AND THE TESTING AGENCY

E. COMPACT ALL GRANULAR FILL BENEATH SLABS ON GRADE AND OVER FOOTINGS TO 95 PERCENT MODIFIED MAXIMUM DRY DENSITY, ASTM D-1557. INCREASE THE COMPACTION REQUIREMENTS FOR ENGINEERED FILL SUPPORTING FOOTINGS TO 97 PERCENT MODIFIED MAXIMUM DRY DENSITY, ASTM D-1557. COMPACT ALL BACKFILL NOT SUPPORTING SLABS, PAVEMENT, OR FOOTINGS TO 90 PERCENT MODIFIED MAXIMUM DRY DENSITY, ASTM D-1557. PLACEMENT AND COMPACTION OF FILL SHALL BE OVERSEEN BY THE TESTING AGENCY. PLACE ALL GRANULAR FILL MATERIAL IN LAYERS NOT EXCEEDING 6" IN LOOSE THICKNESS. MECHANICALLY COMPACT EACH LAYER TO AT LEAST THE REQUIRED MINIMUM DRY DENSITY

F. ALL BACKFILL PLACED AGAINST CONCRETE WALLS SHALL BE A WELL-GRADED, FREE-DRAINING, GRANULAR MATERIAL APPROVED BY THE TESTING AGENCY

4) CONCRETE

1. ALL CONCRETE SHALL BE MINIMUM 4,000 PSI WITH A MINIMUM AIR ENTRAINMENT OF 6%.
2. ALL STEEL REINFORCEMENT BARS SHALL BE ASTM A615 GRADE 60.
3. ALL STEEL REINFORCEMENT SPLICES SHALL BE LAPPED A MINIMUM OF 42", UNLESS NOTED OTHERWISE.



NOTES:

- ALL REACTIONS ARE SERVICE LEVEL (UNFACTORED)
- NEGATIVE VERTICAL REACTION (Y-AXIS) INDICATES UPLIFT
- ALL WIND AND SEISMIC REACTIONS ARE REVERSIBLE
- ALL WIND REACTIONS ARE PROVIDED AT V_{ULT}
- ALL SEISMIC REACTIONS TO BE MULTIPLIED BY APPROPRIATE Ω_O FACTORS FOR ANCHORAGE AND FOUNDATION DESIGN

FOUNDATION PLAN NOTES:

1. FINAL GRADE ELEVATION: 100'-0"
2. ⟨F#⟩ F# SIGNIFIES FOUNDATION SCHEDULE MARK

COLUMN REACTIONS @ GRIDLINE 1

LOAD CASE	HORIZONTAL REACTION, X-DIR. (KIP)	HORIZONTAL REACTION, Z-DIR. (KIP)	VERTICAL REACTION, Y-DIR. (KIP)	MOMENT REACTION ABOUT X-DIR (KIP-FT)	MOMENT REACTION ABOUT Y-DIR (KIP-FT)	MOMENT REACTION ABOUT Z-DIR (KIP-FT)
SELF-WEIGHT	~	~	4.14	~	~	-34.6
DEAD LOAD	~	~	7.20	~	~	-85.8
SNOW LOAD	~	~	14.4	~	~	-172
ROOF LIVE	~	~	9.60	~	~	-115
WIND 0° A	-4.67	~	-9.14	~	~	164
WIND 0° B	-4.67	~	7.31	~	~	-89.6
WIND 90° A	~	0.96	5.72	-11.5	-11.3	-68.1
WIND 90° B	~	0.96	-5.30	-11.5	-11.3	63.1
WIND 180° A	4.67	~	-9.17	~	~	53.6
WIND 180° B	4.67	~	7.31	~	~	-84.6

Project:

EV CANOPIES

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON
www.westonandsampson.com

Consultants:
COMPLETE STRUCTURAL CONSULTING
Complete Structural Consulting
9880 Westpoint Drive, Suite 100
Indianapolis, IN 46256
317.468.2004

N W E S

20 0 10 20
1" = 20'
(IN FEET)

No	Description	Date
	Revisions	

Seal:

DRAFT

Issued For:
REVIEW
(NOT FOR CONSTRUCTION)

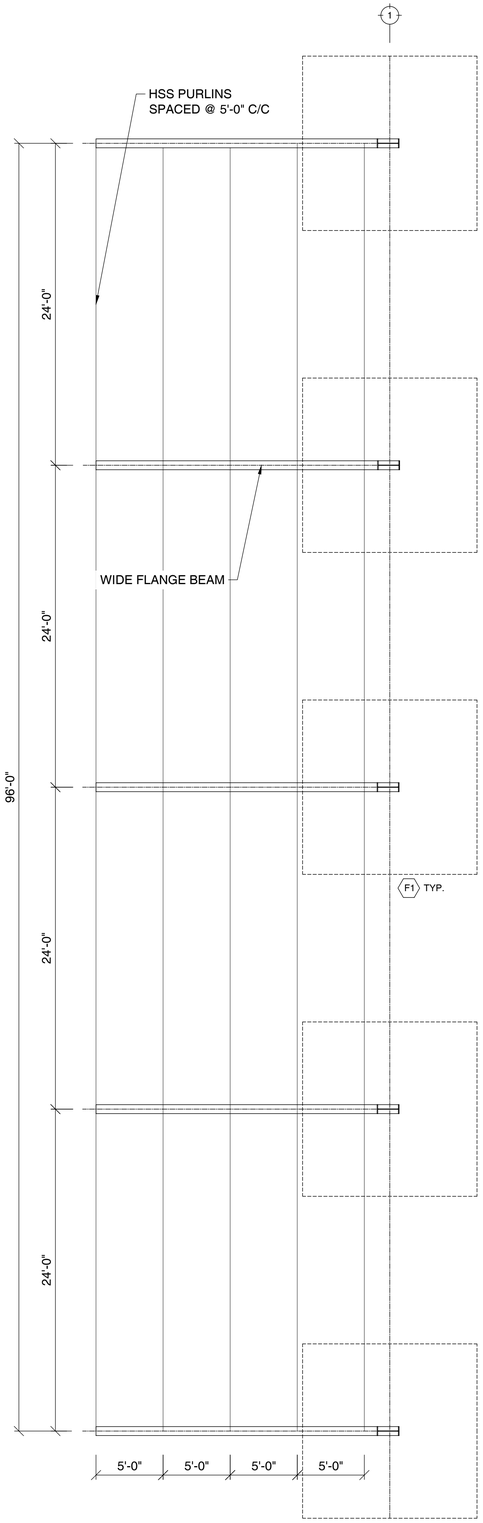
Issued Date:	12/12/2024
Drawn By:	RRK
Reviewed By:	ASK
Approved By:	ASK
W&S Project No.:	

Drawing Title:

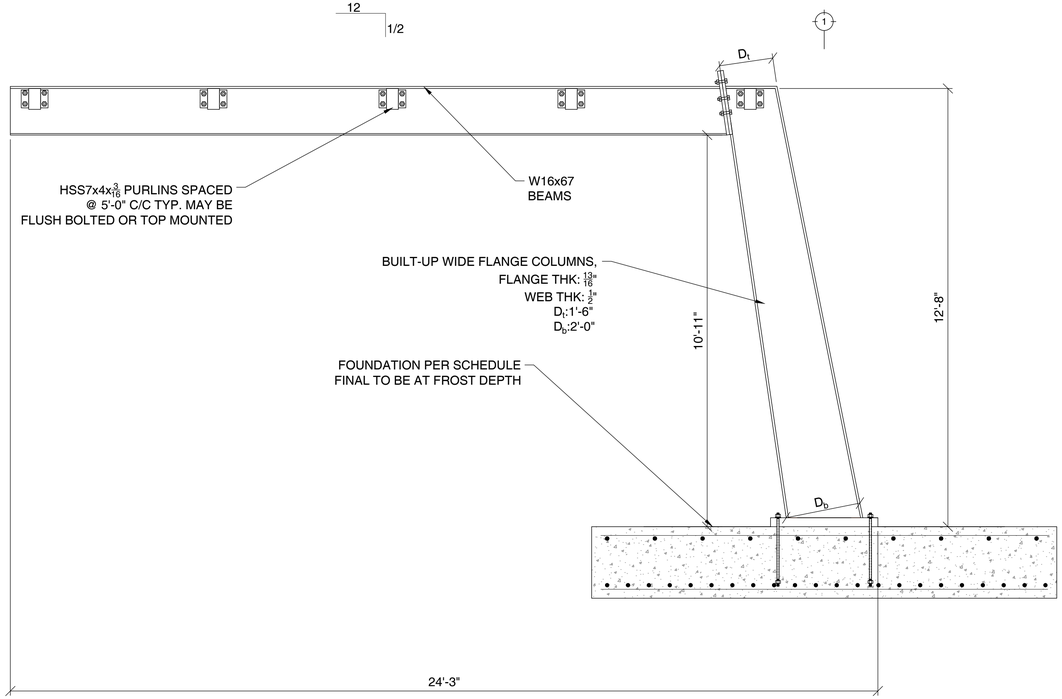
GENERAL NOTES

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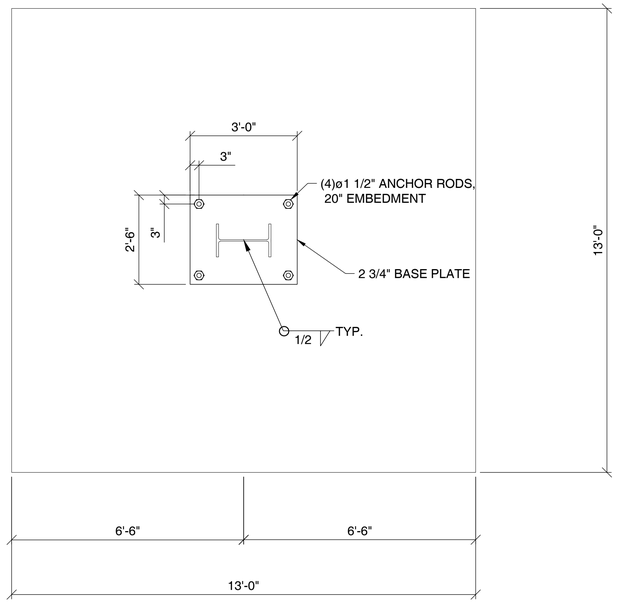
S100



1 PLAN VIEW
SCALE: 3/16" = 1'-0"



2 SECTION CUT
SCALE: 1/2" = 1'-0"



3 FOUNDATION PLAN VIEW
SCALE: N.T.S

STRUCTURAL SCHEDULE						
MARK	STEEL WEIGHT (LBS)	SIZE (L x W x T)	REINFORCING (TOP)	REINFORCING (BOTTOM)	TOP / FTG. ELEVATION	NOTES
F1	4,800 PER BAY (INCLUDES PURLINS)	13'-0" x 13'-0" X 2'-0"	(10) #5 EA. WAY	(22) #5 EA. WAY	100'-0"	FURTHER BORING REQUIRED AND SOIL CONDITIONS TO BE CONFIRMED PER LOCATION

Project:

EV CANOPIES

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON
www.westonandsampson.com

Consultants:

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N W E S

20 0 10 20
1" = 20'
(IN FEET)

No.	Description	Date

Revisions

Seal:

DRAFT

Issued For:
REVIEW
(NOT FOR CONSTRUCTION)

Issued Date:	12/12/2024
Drawn By:	RRK
Reviewed By:	ASK
Approved By:	ASK
W&S Project No.:	

Drawing Title:

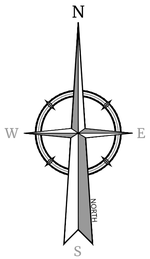
PULL IN PARKING

Sheet Number:

S200

P:\24.0612 Ev Canopies (WSE)\04 DWGs & MODELS_CSC DRAWINGS\EV Canopy_Roanoke.dwg





LEGEND

- RIGHT OF WAY LINE
- PROPERTY LINE
- FACE / BACK — CURB LINE
- WOOD FENCE
- MAJOR CONTOUR
- MINOR CONTOUR
- × 632.70 — SPOT ELEVATION
- × TC 633.50 — TOP OF CURB ELEV.
- × BC 633.00 — BOTTOM OF CURB ELEV.
- OHW — OVERHEAD WIRE
- W — WATER MAIN
- G — GAS MAIN
- S — SAN. SEWER
- STORM PIPE
- TREE
- ROADWAY SIGNS
- TRAFFIC FLOW
- POLE MOUNTED LIGHT
- UTILITY POLE
- GUY WIRE
- BOL. BOLLARD
- WV WATER VALVE
- CO SANITARY CLEANOUT
- CONCRETE MONUMENT
- CAPPED REBAR/IRON PIPE
- CATCH BASIN

ABBREVIATIONS

BC = BOTTOM OF CURB
TC = TOP OF CURB
BOL = BOLLARD
T.G. = TOP OF GRATE
MH = MANHOLE
PM = PARKING METER

UTILITIES CONTACTED BY UDIG NY:
ERIE COUNTY DIVISION OF SEWER MANAGEMENT (NO FACILITIES)
ERIE COUNTY WATER AUTHORITY (PLOTTED)
KIANTONE PIPELINE CORPORATION (NO FACILITIES)
NATIONAL FUEL GAS (PLOTTED)
N.Y.S.D.O.T. REGION 5 (NO FACILITIES)
N.Y.S.E.G. (NO N.Y.S.E.G. UNDERGROUND FACILITIES IN AREA)
TOWN OF WEST SENECA HIGHWAY (SAN. SEWER PLOTTED)
VERIZON (NO RESPONSE)

10 0 10 20
SCALE : 1" = 10'
Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

Colliers
Engineering & Design
www.colliersengineering.com

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Formerly Known as BERGMANN

REV	DATE	DESCRIPTION

NEW LEAF ENERGY

705 ORCHARD PARK ROAD
TOWN OF WEST SENECA
ERIE COUNTY, N.Y.

Colliers Engineering & Design
BUFFALO (BA)
40 LaRiviere Drive, Suite 200
Buffalo, NY 14202
Phone: 716.852.3211
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C.

SCALE: AS SHOWN
DRAWN BY: MJE
DESIGNED BY:
REVIEWED BY: MJE
DATE ISSUED: 08/15/25
PROJECT NUMBER: 25903004
SHEET NAME:

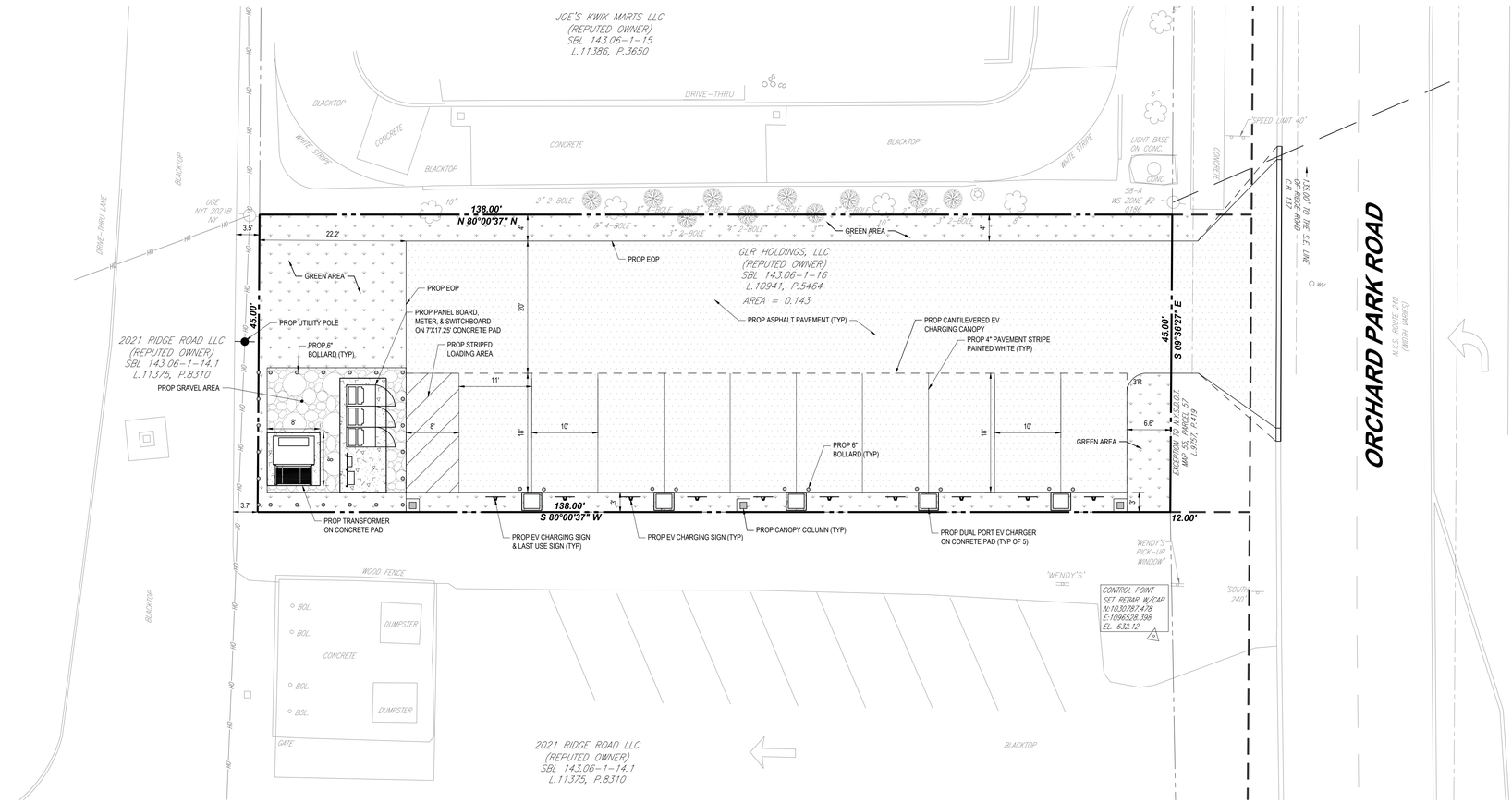
BOUNDARY & TOPOGRAPHIC MAP

DRAWING NUMBER:
1 of 1

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING DOCUMENT BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY DOCUMENTS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

R:\Projects\2025\25903000\25903004\Survey\25903004-VSURV.dwg By: MICHAEL.EWER on 2025-08-21 – 03:17pm



SITE INFORMATION

APPLICANT:
NEW LEAF ENERGY, INC.
55 TECHNOLOGY DRIVE, SUITE #102 ,
LOWELL, MA 01851

OWNER:
GLR HOLDINGS, LLC
180 CANAL VIEW BLVD, SUITE 600
ROCHESTER, NY 14623

SITE NOTES

(REV. 5/2024)

1. ALL CONCRETE MUST BE AIR ENTRAINED AND INCLUDE THE MINIMUM COMPRESSIVE STRENGTH OF JURISDICTIONAL STANDARD PSI AT 28 DAYS (OR 4,000 PSI) UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT. IF THERE ARE ANY DISCREPANCIES BETWEEN THE PLANS, DETAILS AND GEOTECHNICAL REPORT THEN THE GEOTECHNICAL REPORT SHALL GOVERN.
2. THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, PAVEMENT MARKINGS, AND PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.
3. CONTRACTOR IS CAUTIONED OF EXISTING UTILITY SERVICES TO REMAIN IN PROXIMITY TO PROPOSED BOLLARDS AND SIGNS. CONTRACTOR SHALL PROVIDE FIELD MODIFICATION LOCATIONS OF BOLLARDS AND BOLLARDS WITH SIGNAGE AS NEEDED TO AVOID CONFLICTS WITH EXISTING UTILITY SERVICES TO REMAIN.

UTILITY NOTES

(REV. 7/2024)

1. ALL WORK ASSOCIATED WITH UTILITY POLES, OVERHEAD WIRES AND ANY/ALL APPURTENANCES SHALL BE COORDINATED BY THE GC WITH THE LOCAL UTILITY COMPANIES PRIOR TO THE ORDERING OF ANY MATERIALS. THIS MAY INCLUDE BUT IS NOT LIMITED TO THE REMOVAL, INSTALLATION, RELOCATION OR PROTECTION OF ANY BRACING, GUY WIRES, OVERHEAD WIRES, ETC. AS MAY BE REQUIRED TO ACCOMMODATE THE PROJECT.
2. TRANSFORMERS AND SWITCH GEARS: GC SHALL PROVIDE ALL APPURTENANCES IN ACCORDANCE WITH UTILITY COMPANY SPECIFICATIONS AND CARRY SAME IN BASE BID. APPURTENANCES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE CONCRETE PAD, SECONDARY SPILL CONTAINMENT AREAS (IF REQUIRED), BOLLARD / VEHICULAR PROTECTION, AND OTHER ITEMS AS MAY BE REQUIRED BY THE UTILITY PROVIDER FOR INSTALLATION OF THE TRANSFORMER AND SWITCH GEAR (IF REQUIRED). GC SHALL COORDINATE ALL ASPECTS OF INSTALLATION WITH UTILITY PROVIDER PRIOR TO ORDERING OF MATERIALS AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS IN WRITING.

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

10 5 2.5 0 10
1"= 10'

Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

GENERAL NOTE:
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

THIS DOCUMENT IS PROVIDED BY NEW LEAF ENERGY, INC. TO FACILITATE THE SALE OF THE ELECTRIC CHARGING STATION PROJECT REPRESENTED HEREIN. REPRODUCTION, RELEASE OR UTILIZATION FOR ANY OTHER PURPOSE, WITHOUT PRIOR WRITTEN CONSENT IS STRICTLY PROHIBITED.

new leaf energy
55 TECHNOLOGY DRIVE, SUITE 102
LOWELL, MA 01851
PHONE: (888) 898-6273
FAX: (888) 843-6778
WWW.NEWLEAFENERGY.COM

NOT FOR CONSTRUCTION

BOHLER
70 LINDEN OAKS
THIRD FLOOR
ROCHESTER, NY 14625
PHONE: (585) 381-9460
www.BohlerEngineering.com

IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER ANY DOCUMENT WHICH BEARS THE SEAL OF A PROFESSIONAL ENGINEER, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

PROPOSED EV CHARGING STATIONS
705 ORCHARD PARK RD
WEST SENECA, NY 14224

PROJECT NUMBER:
NYB260024

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-2.1
SITE PLAN

TOWN OF WEST SENECA

CODE ENFORCEMENT OFFICE
"BUILDING SAFETY IS NO ACCIDENT"

TOWN SUPERVISOR
GARY A. DICKSON

TOWN COUNCIL
ROBERT J. BREIDENSTEIN
JEFFREY A. PIEKAREC
SCOTT D. ROBERTSON
MARY T. SHERMAN

March 31, 2026

Town of West Seneca Building Dept.
1250 Union Rd
West Seneca, NY 14224

Re: 705 Orchard Park Road
Site Plan Approval

To Whom It May Concern:

Please find enclosed a submittal for a proposed development of an EV Parking Station and all associated site work. The scheduled Planning Board meeting is set for May 14, 2026.

Pursuant to Article 8 of the Environmental Conservation law, State Environmental Quality Review Act (SEQRA):

The Town of West Seneca is seeking lead agency designation in this matter. The Town of West Seneca will make a determination of its significance. All submitted materials will be posted on Town web site from review and comment. Please return any comments or concerns within 30 days of the date of notification.

If you have any questions, please call our office 716-558-3242.

Yours truly,
Jeffrey A Schieber
Jeffrey A Schieber
Code Enforcement Officer
jschieber@twsny.org

JAS:sl
cc: E. C. Dept of Planning via online submittal
Reserve Fire Dept.
Historical Commission
SHPO via online submittal
NYS DOT
Erie County DOT
NYS DEC via online submittal

TOWN OF WEST SENECA

APPLICATION FOR SITE PLAN REVIEW APPROVAL

TO BE COMPLETED BY APPLICANT

DATE 3/24/26 FILE # 2026-002

PROJECT NAME PROPOSED EV CHARGING STATIONS

PROJECT LOCATION (Include address and distance to nearest intersection) 705 ORCHARD PARK ROAD (BETWEEN MOBIL & WENDY'S)

APPLICANT NEW LEAF ENERGY, INC. PH/FAX 978-483-0037

ADDRESS 55 TECHNOLOGY DRIVE, SUITE 102,LOWELL, MA 01851

PROPERTY OWNER GLR HOLDINGS, LLC PH/FAX 585-262-3630

ADDRESS 180 Canal View Blvd. Suite 600, Rochester, New York 14623

ENGINEER/ ARCHITECT BOHLER ENGINEERING NY, PLLC PH/ FAX 585.866.1100

ADDRESS 70 LINDEN OAKS, THIRD FLOOR, ROCHESTER, NY 14625

SBL # 143.06-1-16

PROJECT DESCRIPTION (Include all uses and any required construction)

PROPOSED CONST. OF (10) EV CHARGING PARKING SPACES W\CANOPY,(5) CHARGING STATIONS, NEW ACCESS DRIVE AND ASSOCIATED SITE IMPROVEMENTS (STORM DRAINAGE, ELECTRICAL EQUIPMENT, ETC.)

SIZE OF LOT (acres) 0.143 ACREAGE TO BE REZONED N/A

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH

ORCHARD PARK ROAD, APPROX. 45' OF FRONTAGE

EXISTING ZONING C-1,COMMERCIAL PROPOSED ZONING NO CHANGE

EXISTING USE(S) ON PROPERTY UNDEVELOPED

PROPOSED USE(S) ON PROPERTY EV CHARGING STATIONS

EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET COMMERCIAL

PUBLIC SEWER YES X NO ___ N/A PUBLIC WATER YES X NO ___ N/A

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED

AREA VARIANCES WILL BE REQURED FOR PAVEMENT AND STRUCTURE SETBACKS

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED ___ BY JS

PLANNING BOARD MEETING DATE MAY 14, 2026

TOWN BOARD MEETING DATE NA

TOWN BOARD RESOLUTION DATE NA.

NON – REFUNDABLE FILING FEE (Payable to the Town Clerk): $ 600.00

SITE PLAN OR ZONING REFERRAL TO COUNTY OF ERIE, N.Y. AND REPLY TO MUNICIPALITY

Submit this form with full statement of proposed action (as described in GML 239-m(c)) at www.Erie.gov/IRonline, OR mail a hard copy (retain a copy for your files) to: Erie County Division of Planning, 95 Franklin Street, Room 1053, Buffalo, N.Y., 14202

DO NOT WRITE IN THIS SPACE

Case No.: _____

Postmark/Delivery Date: _____

The proposed action described herein is referred in accordance with the provisions of NYS General Municipal Law §239 l - nn

A Municipal Referral Map is available to help determine whether an applicable action is subject to referral.

Description of Proposed Action

1. Name of Municipality: Town of West Seneca

§239-m(4)(b) provides that the county shall have 30 days after receipt of a full statement of the proposed action to reply. If the county fails to reply within such period, the referring body may take final action. However, any county reply received after 30 days but 2 or more days prior to final action by the referring body shall be subject to §239-m(5) The referring body shall file a report of its final action with the county within 30 days per §239-m(6).

2. Hearing Schedule: **Date** May 14th, 2026 **Time** 6:00pm **Location** 1300 Union Rd West Seneca

3. Action is before: ☐ Legislative Body ☐ Board of Appeals ☑ Planning Board

4. Action consists of: ☐ New Ordinance ☐ Rezone/Map Change ☐ Ordinance Amendment

☑ Site Plan ☐ Variance ☐ Special Use Permit ☐ Other: _____

5. Location of Property: ☐ Entire Municipality ☐ Address: 705 Orchard Park Rd West Seneca, NY 14224

5a. S.B.L. of Property: 143.06-1-16

6. Referral required as site is within 500' of: ☐ State or County Property/Institution ☐ Municipal Boundary ☐ Farm Operation located in an Agricultural District

☐ Expressway ☐ County Road ☑ State Highway ☐ Proposed State or County Road, Property, Building/Institution, Drainageway

7. Proposed change or use: *(specify the action, such as the scope of variances or site plans)* Develop vacant site for EV charging stations

8. Other remarks: _____

9. Submitted by: Jeffrey Schieber **Email:** jschieber@twsny.org

10. Return Address: 1250 Union Rd West Seneca NY 14224

Reply to Municipality by Erie County Division of Planning

Receipt of the above-described proposed action is acknowledged on _____. The Division herewith submits its review and reply under the provisions of applicable state and local law, based on the information submitted with this referral.

1. ☐ **The proposed action is not subject to review under the law.**
2. ☐ **Comment on proposed action is attached hereto.**
3. ☐ **The proposed action is subject to review; Recommendation on Proposed Action is attached hereto.**
4. ☐ **No Recommendation; proposed action has been reviewed and determined to be of local concern.**

By the Division of Planning: _____ **Date:** _____

April 20, 2026

Jeffery Schieber
Code Enforcement Officer
1250 Union Road – Room 210
West Seneca, New York 14224

RE: 2544 Clinton Street – Home Leasing Development
Site Plan Review Application Package

Mr. Schieber:

On behalf of Home Leasing Development, I am pleased to submit a Site Plan Review Application Package for the proposed affordable multi-family housing project "West Seneca Apartments", located on one parcel at 2544 Clinton Street.

Home Leasing is seeking Site Plan Approval to develop the project on an approximately 12.7-acre site. (TA#124.00-2-5). The project proposes the construction of 75-units spanning across two buildings – the existing mansion on site (15-units) and a new 3-story multifamily apartment building (60-units) with associated parking, site and drainage improvements.

The original project was approved by the Town Board for Rezoning, Special Use Permit and SEQR Negative Declaration on 1/27/2025. The revised layout for the project was approved by the Town Board for an Amendment to the existing Special Use Permit on 2/9/2026.

This package includes a fully engineered site package for Planning Board Review.

Per Town of West Seneca Code – Site Plan Review Criteria - "Planning Board Actions; project review criteria" (Code Section 102-12 (A & B)), we offer the following responses:

(1) Conformance with this chapter and other adopted Town plans, an approved development plan that includes the subject site, if one exists, and all other applicable laws;

To the best of our knowledge, the project is in compliance with all regulations of the R-50 zoning district and supplemental multifamily housing requirements. Based on the 2016 Comprehensive Plan – Neighborhoods – Section A, B and C – the plan supports continuing to build affordable housing with West Seneca.

(2) Compatibility of the proposed development with the natural features of the land and the environmental attributes of the site;

The project is designed to preserve and avoid disturbance in the environmentally sensitive areas located on the site. There will be no disturbance within the archeological buffer area and 100-year floodplain. All development is located in FEMA Zone X and areas of minimal flood hazard. Development is located away from Cayuga creek to maintaining an existing natural buffer. The site layout is designed to maintain existing trees/vegetation along Clinton Street and along the perimeter of the parcel.

(3) The project's compliance with grading and drainage requirements of the Town;

The project is designed to comply with the town standards. Stormwater is designed to meet NYS Stormwater Design Manual standards, grading and disturbance will be limited to areas as required for installation of stormwater practices and to achieve positive drainage away from buildings/across hardscape areas.

(4) The project's compliance with the Town's Flood Damage Prevention Law;

The project is located partially within FEMA Zone X, with the majority of the development sitting outside of all mapped zones. Per Town Code Section 77-12 – A floodplain development permit is not required for development within Zone X.

(5) The general layout and design of buildings, lighting, signage, open space and development features consistent with reasonable planning principles;

The proposed singular new 3-story building (60-units) along with utilizing the existing mansion for an additional 15-units was chosen to lessen the overall footprint on the property. The existing landscaping and stone wall are being preserved to the greatest extent possible, providing screening of the new building and parking lot from Clinton Street. Roads and parking lots have been designed to meet town standards and allow for proper emergency access.

(6) The location and design of vehicular entrances/exits, including emergency access and fire lanes, in relation to the street system, traffic circulation and control within the site, and coordination of access points and circulation with adjoining properties;

The existing entrance to the property is being utilized with minor widening to allow for adequate space for emergency vehicles. The parking lot and roadways are designed to meet NYS Fire Code including: fire lanes for aerial apparatus access along two sides of building, fire turnarounds, a looped parking lot, and two new private fire hydrants.

(7) The provision and protection of pedestrian movement on the site and coordination of pedestrian movement on adjoining properties and the street system;

Sidewalks are provided throughout the proposed development. All sidewalks (as shown on the plans) are ADA compliant. Sidewalk access is provided out to Clinton Street and a new segment of sidewalk within the ROW and extends to the west to the limits of the existing guardrail, in accordance with previous coordination with NYSDOT.

(8) The location, design, layout and adequacy of parking, loading and stacking areas, including the provision of opportunities for handicapped parking;

The parking lot provides the code required 170 spaces – including 20 visitor spaces. The submitted plans proposes 20-banked parking spaces to be constructed in the future if demand requires it. ADA and EV spaces are provided at both buildings, adjacent to the accessible entrances for the respective buildings.

(9) Provision of landscaping, screening and buffers to complement development and protect adjacent uses and public rights-of-way from unsightliness, noise, glare and other nuisances. Such elements shall also be used to promote the availability of green space in nonresidential development and recreation space in residential development to avoid a continuous paved or built environment;

The project layout was designed to preserve open space. Existing natural buffers will be maintained along the north, east and west boundaries of the site. Trees along the south (Clinton Street) will be maintained – other than removal required for the widening of the driveway. A patio area and playground are provided, along with landscaped islands throughout the parking lot. Trees will be added along the entrance drive to provide additional screening of the new development from Clinton Street.

(10) Adequate provision of drainage and stormwater management facilities;

A Stormwater Pollution Prevention Plan (SWPPP) was prepared for the site and is included in this submission package. The site is designed per the NYS Stormwater Design Manual standards and NYSDEC Standards and Specifications for Erosion and Sediment Control. Several stormwater practices are proposed for the site including bioretention areas, underground stormwater chambers and use of a hydrodynamic separator (water quality unit).

(11) Adequacy of sewer and water facilities, fire protection and conformance with Town regulations for the provision and construction of those services;

A full sewer report (including flow testing) has been completed. Findings of the monitoring was reviewed and approved by Erie County Sewer, concluding that the sewer has sufficient capacity to support the proposed project. Existing flow tests for the watermain on Clinton Street have been reviewed and it was determined that the existing watermain has sufficient pressure to support the proposed project. Both buildings will be designed to meet NYS Fire Code (for rehabilitation of the existing building and new construction).

(12) Where appropriate and applicable, the concurrence of Town agencies, New York State Department of Transportation, New York State Department of Environmental Conservation and other county or state agencies, as appropriate; and

Correspondence with reviewing agencies will be/has been provided to the town as a part of the site plan review. To date NYSDOT and SHPO correspondence was provided as part of SEQR review and issuance of the Special Use Permit.

(13) Meeting the requirements for a site plan, as identified in this chapter.

This application package as submitted meets the requirements of the Town Code, to the best of our knowledge.

Included for your consideration in the Site Plan Review are the following items:

- Site Plan Application
- Civil Plan Set
- Architectural Elevations & Rendering
- Preliminary ALTA
- Engineering Report
- SWPPP
- Check – Review Fee (mailed separately)

We look forward to presenting this project to the Planning Board on May 14th, 2026. If you have any questions or need any additional information, please feel free to contact me at 585-770-2525 or svakiener@labellapc.com.

Respectfully submitted,

LaBella Associates



Shelby Vakiener, Civil Engineer

TOWN OF WEST SENECA

APPLICATION FOR SITE PLAN REVIEW APPROVAL

TO BE COMPLETED BY APPLICANT

DATE 4/20/2026 FILE # _____

PROJECT NAME West Seneca Apartments

PROJECT LOCATION (Include address and distance to nearest intersection)
2544 Clinton Street - Nearest cross street - Lakeside Court (+/- 750 LF to the East)

APPLICANT Home Leasing - (contact - Angela Eicholtz) PH/FAX (248) 978-4420

ADDRESS 45 East Avenue, 2nd Floor, Rochester, NY 14604

PROPERTY OWNER Clinton Street Realty Holdings PH/FAX _____

ADDRESS _____

ENGINEER/ ARCHITECT Labella Associates DPC - (contact - Shelby Vakiener) PH/ FAX (585) 454-6110

ADDRESS 300 Pearl Street, Suite 130, Buffalo, NY 14202

SBL # 124.00-2-5

PROJECT DESCRIPTION (Include all uses and any required construction)

Construction of a new multifamily housing project with 75 total units. Includes a new +/- 75,900 SF building with 60 units and the re-purposing of the existing mansion on site with 15 units. Also includes, driveway, parking, stormwater management facilities

SIZE OF LOT (acres) 12.7 (to creek CL) ACREAGE TO BE REZONED N/A

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH
Clinton Street: +/- 205 LF of frontage

EXISTING ZONING R-50 PROPOSED ZONING R-50

EXISTING USE(S) ON PROPERTY Commercial

PROPOSED USE(S) ON PROPERTY Residential - Mutlifamily

EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET

Zoning: R75(S), R-100 A, R-100A(S), C-2, C-2(S)
Uses include: 1 Family Residential, 2 Family Residential, Residential vacant land, Residential w/ community use, warehouse, converted residential

PUBLIC SEWER YES X NO ___ PUBLIC WATER YES X NO ___

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED
Special Use Permit - Issued by Town Board on 2/9/2026

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED _____ BY _____

PLANNING BOARD MEETING DATE _____

TOWN BOARD MEETING DATE _____

TOWN BOARD RESOLUTION DATE _____

NON – REFUNDABLE FILING FEE (Payable to the Town Clerk): $

TOWN OF WEST SENECA

APPLICANT CHECKLIST FOR SITE PLAN REVIEW

PLEASE REFER TO APPENDICES A, B, & C AND THE TOWN OF WEST SENECA ZONING ORDINANCE FOR ADDITIONAL DESIGN INFORMATION. THE APPLICANT/ AGENT MUST INITIAL EACH ELEMENT AS PROOF THAT ALL REQUIREMENTS HAVE BEEN MET.

I. SITE PLAN All site plan drawings shall be prepared, signed, and sealed by an architect, landscape architect, engineer, or surveyor licensed in the State of New York, drawn to scale, and must include the following elements (also see checklist in Appendix A) :

__SV__ Title of drawing.

__SV__ Name, address, and telephone number of applicant, owner of record, and person who prepared the drawing. If owner of record is different from applicant, a letter of authorization from the owner or a contract of sale is required.

__SV__ North arrow, scale, revisions block and date.

__SV__ Site location map.

__SV__ Name, location, width, and jurisdiction of existing roads and sidewalks.

__SV__ Location of curb cuts on project site and on adjacent properties (including properties across the street).

__SV__ Location of all existing and proposed buildings and structures, paving, curbs, and pedestrian and bicycle facilities with those to be removed clearly identified.

__SV__ Show all zoning district boundaries, zoning classifications for all adjacent properties (including across the street), and zoning setback dimensions. If a portion of the site is proposed to be rezoned, the new zoning district boundaries should be shown.

__SV__ Zoning data block comparing existing and proposed requirements, including greenspace and parking calculations.

__SV__ Location of any areas proposed for outdoor display and sale of merchandise, if applicable.

__SV__ Layout of all off-street parking areas showing access drives, aisles, parking spaces, handicapped accessible spaces, and loading areas (conforming to all requirements of the Town of West Seneca Zoning Ordinance). A cross-section of proposed pavement must be provided.

__SV__ Existing and proposed rights-of-way and easements and location of areas to be in common ownership or to be offered for dedication.

__SV__ Existing and proposed watercourses including wetlands, floodways, and floodplains (this information should also appear in the drainage plan and grading plan).

__SV__ Location of all proposed signage (conforming to all requirements of the Town of West Seneca Zoning Ordinance).

__SV__ Any other information as might be required by the Planning Board.

II. BOUNDARY SURVEY

__SV__ A **topographic boundary survey** and a **written legal description.** (metes and bounds)
Provide in Electronic Form as well as written

III. UTILITY PLAN – to include the following elements (also see checklist in Appendix A)

__SV__ Location of existing water mains, showing main size and material type, o-site and off-site fire hydrant locations, and on-site main line valve locations.

__SV__ Location of proposed water service showing material type and diameter of water main.

__SV__ Location of existing and proposed gas and electric service.

__SV__ Sanitary service showing location, proposed line, and existing main size. Include all manhole rim and invert elevations, pipe slope, and construction materials, if appropriate

__SV__ The estimated daily sanitary sewage flow calculations must be included in the site plan Engineering Report.

__SV__ Written confirmation that the process has been initiated with County or State Highway Departments for sanitary sewer connection, curb cuts, work permits, etc. (Applicant must furnish a letter from the appropriate County or State agency indicating their approval of the proposal prior to issuance of a Building Permit)(if necessary).

IV. GRADING PLAN – To include the following elements (also see checklist in Appendix A).

__SV__ Existing and proposed grade elevation with contour lines at 1-foot intervals.

__SV__ Finished floor elevations for all proposed and adjacent structures.

V. DRAINAGE PLAN – to include the following elements (also see checklist in Appendix A):

__SV__ All catch basins, line size, and proposed construction materials. No stormwater shall drain onto adjoining properties. All downspouts shall be connected to the stormwater collection system.

__SV__ Systems shall be designed for a minimum 10-year storm.

__SV__ Stormwater calculations, prepared by a person licensed to design a storm drainage system in New York State.

__SV__ Site plan Engineering Report (refer to requirements in Appendices A & B).

__SV__ Any proposed project that will involve one or more acres of soil disturbance is required to comply with NYSDEC SPDES General Permit requirements for stormwater discharges. A copy of the Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (WPPP) must be provided with the site plan Engineering Report..

VI. LANDSCAPING PLAN – to include the following elements (also see Appendix C).

_SV_ All existing and proposed tree lines.

FUTURE All proposed trees, shrubs, and other plantings with appropriate labeling.

FUTURE Planting schedule data block with legend key, species name (botanical and common names), quantity, size, and spacing.

_SV_ Planting details for trees and evergreens must illustrate the crown of root ball at six (6) inches above finished grade; three (3) inches for shrubs.

_SV_ Refer to the Town of West Seneca Zoning Ordinance for applicable landscaping and screening requirements.

VII. CLEARING 7 SOIL EROSION CONTROL PLAN - to include the following elements:

_SV_ Site preparation and clearing shall be designed to fit with the vegetation, topography, and other natural features of the site and shall preserve as many of these features of the sight and shall preserve as many of these features as possible.

_SV_ Show clearing limits, stock pile area, and all temporary and permanent drainage facilities. Erosion and sediment control facilities must be shown.

_SV_ A time schedule that is keyed to the operation must be provided.

_SV_ Include a note on the plan to indicate that stumps and brush may not be buried in the Town and that topsoil may not be removed from the work site without a permit.

VII. LIGHTING PLAN – to include the following elements:

_SV_ Location of all lighting fixtures and standards on the property and structures, including a fixture schedule.

_SV_ Photometric data for site illumination.

IX. BUILDING HEIGHT AND DESIGN

_SV_ Building elevations and floor plans of all non – residential structures and all residential structures containing three (3) or more dwelling units (including net floor area calculations).

I, Shelby Vakiener - agent for applicant as owner/applicant of West Seneca Apartments, located at 2544 Clinton Street. Town of West Seneca, to the best of my knowledge has submitted a complete application package for a site plan for review.

TOWN OF WEST SENECA

APPENDIX A-SITE PLAN APPLICATION CHECKLIST

I. GENERAL

_SV_ All elevations must reference the actual elevation of the site and proposed building (utilize Town of West Seneca data). Setting a base elevation at the centerline of the road to use as reference is not acceptable.

_SV_ All profiles provided must be drawn so that the horizontal scale is no more than 1" = 10' horizontal, and 1" = 5' vertical.

_SV_ Profiles be provided for utility crossings, the sanitary sewer system, and storm sewer system.

_SV_ Profiles for any utilities as deemed necessary by the engineer for construction.

II. UTILITY PLAN

_SV_ Add a note to the plan that states: "A minimum of 10 feet of horizontal and 18 inches of vertical separation must be maintained between all sanitary sewer and water services".

_SV_ Add a note to the plan that states: "The Erie County Water Authority is to be notified a minimum of 48-hours prior to starting the connection to the new water service.

_SV_ Add a note to the plan that states: "Select backfill is required for all utilities (gas, water, storm, sanitary) that cross through any pavement area." The limits of the select backfill must be shown on the utility plan.

_SV_ The plans must clearly state the type of proposed connection to the existing waterline to be made. Will it saddle with corporation stop or tapping sleeve and valve.

_SV_ All existing utilities, grading, etc. must be shown as a grey line type.

_SV_ All proposed utilities, grading, etc. must be shown as a black line type.

_SV_ Provide a trench detail for the proposed waterline installation. The detail must show the depth of cover, stone bedding, and indicate the use of underground waterline marker tape.

_SV_ Provide a trench detail for the proposed sanitary sewer lateral. The detail must show the depth of cover, stone bedding, and indicate the use of underground waterline marker tape. /when connecting the Erie County Sewer District No. 1 or No. 3 system, their details must be provided.

FUTURE Provide a profile for the proposed sanitary sewer service showing the connection to the existing system and connection at the facility.

III. PAVEMENT

SV Asphalt pavement grades should be at least 1.5%, preferably 2.0% to drain properly, minimize public safety concerns, and avoid liability issues. Theses grades must be shown on the drainage plan with flow arrows showing the direction of water flow.

SV Show on the plans a cross-section of the proposed sidewalk.

SV Show on the plans a cross-section of the proposed asphalt pavement. It is suggested that a thicker asphalt section be used for high traffic travel areas, where the dumpster is located, or where the deliveries will occur.

SV On the asphalt pavement cross-section, show the use of filter fabric (Mirafi 140N, or equal) under the pavement sub-base.

n/a If connections to cross –access driveways are being made with adjacent sites, a detail must be shown on the plans for the proposed connection. The pavement transition detail must include a V-shaped saw cut into the existing pavement and tack coat.

IV. DRAINAGE/GRADING

SV The stockpile area for topsoil and fill must be shown on the design plans.

SV Spot elevations for adjacent properties must be provided on the grading plan.

SV A minimum of 6-nches of cover are required for all storm sewer pipes in grass area. A minimum of 12-inches of cover are required for all storm sewer pipes in pavement. Storm sewer pipe located within the sub-base of the pavement is not allowed.

SV Invert elevations must be shown for all culverts under driveways.

n/a Provide stone rip rap at the pipe outlets from the detention pond.

n/a Provide emergency overflow for the detention pond for the 100-year storm elevation.

SV All culverts under driveways must be shown with galvanized end sections.

SV Diameter, material type, and inverts of all roof leader downspouts must be shown.

SV Diameter, material type, and inverts of all storm sewer pipes must be shown on the plans.

n/a For sites with less than one (1) acre of disturbance, the design engineer is required to detain the difference between the 10-year pre-developed storm and the 25-year post-developed storm.

SV For sites with greater than one (1) acre of disturbance, the design engineer is required to comply with all NYSDEC Stormwater Phase 2 regulations and design guidance.

V. SITE PLAN ENGINEERING REPORT

SV The applicant must provide three (3) copies of the site plan Engineering Report. This report will contain (at a minimum), the following sections:

- General Project Description.
- Project Location Map.
- Water System Calculations.
- Sanitary Sewer System Calculations.
- Stormwater Calculations

SV Provide the following information related to the proposed waterline for the facility in the design report. This would include the following:

- Domestic water demand (include calculations).
- Static waterline pressure (at the water right-of way).

FUTURE Anticipated pressure at the facility (include head loss calculations through the water service and backflow preventer/RPZ and meter); the design engineer must comment on the need to provide a sprinkler system for the facility. Provide fire flow calculation s for the facility (if applicable). Provide the following information related to the proposed sanitary sewer system for the facility in the design report. This would include the following:

- Number of employees at the facility.
- Sanitary sewer demand and lateral pipe sizing (include calculations).

SV Provide the following information related to the stormwater calculations for the facility in the design report. This would include the following:

Soil types of the site.

- Permeability and depth of water table of the soil.
- Description/dialogue on existing grading and stormwater runoff.
- Description/dialogue on proposed grading and stormwater runoff.
- Comment on the presence and show location of any NYSDEC or Federal Wetlands or 100-year Floodplain boundary.
- For sites with less than one (1) acre of disturbance, the design engineer is required to detain the difference between the 10-year pre-developed storm and the 25-year post-developed storm. Calculations must be provided
- For sites with greater than one (1) acre of disturbance, the design engineer is required to comply with all NYSDEC Stormwater Phase 2 regulations. Calculations must be provided.
- Calculations to be provided must include all assumptions, time of concentration, and detention pond sizing, and stormwater pipe sizing.
- All existing headwater and tailwater conditions must be considered for the design calculations.

Refer to APPENDIX B "Design of Stormwater Detention Facilities" for design guidance.

APPENDIX B-DESIGN OF STORMWATER DETENTION FACILITIES

The following method of determining the size of stormwater detention and retention facilities is presented as a guide for engineers, architects, and developers involved with construction projects in the Town of West Seneca.

Detention facilities are those facilities that detain the flow of stormwater runoff and discharge it at a reduced rate from the detention area. /this type of system operates by gravity with a large inlet and a small inlet. Retention facilities retain stormwater runoff, and it is necessary to pump the collected water into the downstream drainage system after peak flows have passed. Normally, detention facilities are installed much more frequently than retention facilities.

The Town of West Seneca requires that the stormwater detention system be designed in accordance with the following documents:

1. NYS Stormwater Design Manual
2. NYSDEC:SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001)
3. NYSDEC: Standards and Specifications for Erosion and Sediment Control

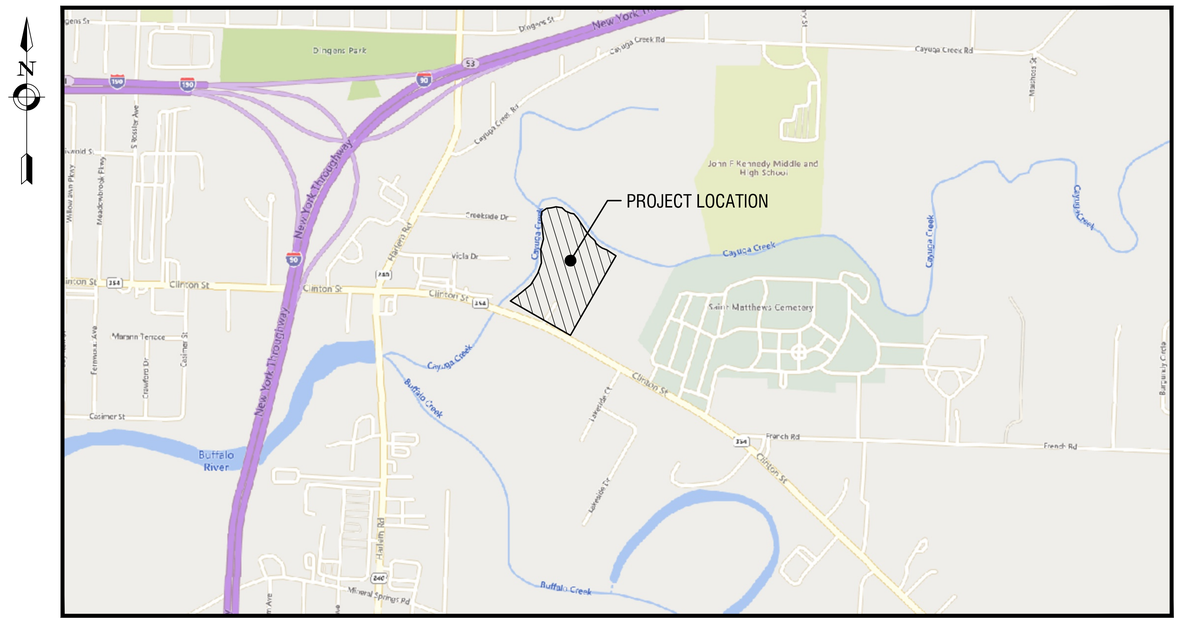
A copy of the Notice of Intent (NOI) and Storm Water Pollution Prevention Plan(SWPPP) as required by the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-10-001) must be received and accepted by the Town prior to construction activities.

- For projects accepted by the town, construction cannot begin until:
  * Five (5) business days from the date the NYSDEC receives a copy of the NOI; or the applicant receives an Acknowledgement Letter from the NYSDEC.

The engineer must provide all calculation and mappings, and state all assumptions necessary for review by the Town of West Seneca.

WEST SENECA APARTMENTS

2544 CLINTON ST,
WEST SENECA, NY 14224



LOCATION MAP
N.T.S.

HOME LEASING

75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604
PROJECT NO: 2241067
APRIL 2026

LaBella
Powered by partnership.

300 Pearl Street, Suite 130
Buffalo, NY 14202
716-551-6281

labellapc.com

ISSUED FOR SITE PLAN APPROVAL
APRIL 2026

HOME LEASING
PROJECT NO: 2241067

WEST SENECA APARTMENTS
2544 CLINTON ST, WEST SENECA, NY 14224

GENERAL NOTES

1. THE CONTRACTOR ALONE SHALL BE RESPONSIBLE TO LOCATE UTILITIES OUTSIDE THE RIGHT-OF-WAY INCLUDING PRIVATE ROADS.
2. SITE DRAINAGE, INCLUDING THE PROJECT SITE AND ADJACENT PRIVATE AND PUBLIC ROADWAYS, DRIVES, PARKING AREAS OR PROPERTIES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL MATERIALS, TOOLS AND EQUIPMENT, INCLUDING SPECIAL CUTTING DEVICES, NECESSARY TO PERFORM THE WORK CONTAINED IN THIS CONTRACT.
4. THE SIZES AND MATERIAL OF CONSTRUCTION OF WATER MAINS, SANITARY SEWERS AND STORM SEWERS TO REMAIN ARE REPUTED. THE CONTRACTOR SHALL VERIFY SIZES OF ALL UTILITIES WHERE CONNECTIONS TO SAID EXISTING UTILITIES ARE REQUIRED. EXCAVATION TO VERIFY THESE UTILITIES SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL PROTECT ALL EXISTING SITE AMENITIES NOT DESIGNATED FOR REMOVAL.
6. UNLESS OTHERWISE INDICATED ON THE PLANS OR DIRECTED BY THE ARCHITECT/ENGINEER, THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING AND PROTECTING FROM DAMAGE ALL TREES, SHRUBS AND PLANTS IN THE VICINITY OF THE PROPOSED WORK.
7. THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING UTILITIES DESIGNATED TO REMAIN FOR THE DURATION OF THE CONTRACT.
8. ANY SITE AMENITY, UTILITY, STREET APPURTENANCE, OR OTHER ITEM WHICH BECOMES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR AS DETERMINED BY THE PROJECT MANAGER OR ARCHITECT/ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.

SURVEY NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. NO ALLOWANCE WILL BE MADE FOR ADDITIONAL COSTS DUE TO CONTRACTOR'S FAILURE TO VERIFY EXISTING CONDITIONS.
2. THE CONTRACTOR SHALL LOCATE, MARK, SAFEGUARD AND PRESERVE ALL SURVEY MARKERS AND RIGHT-OF-WAY MARKERS IN THE AREA OF CONSTRUCTION.
3. ANY IRON PINS, MONUMENTS OR OTHER ITEMS DEFINING PROPERTY LINES WHICH ARE DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE PROPERLY TIED AND ACCURATELY RESET BY A NYS LICENSED SURVEYOR UPON COMPLETION OF THE WORK.
4. HORIZONTAL DATUM BASED OFF NAD83.
5. VERTICAL BASED OFF OF NAVD88.

DEMOLITION NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. NO ALLOWANCE WILL BE MADE FOR ADDITIONAL COSTS DUE TO CONTRACTOR'S FAILURE TO VERIFY EXISTING CONDITIONS AND DIMENSIONS.
2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY DIG SAFE NEW YORK AT 811 TO REQUEST UTILITY STAKEOUT OF ALL PUBLIC UTILITIES.
3. WORK ASSOCIATED WITH THIS CONTRACT WILL OCCUR AT AN ACTIVE AND FUNCTIONAL FACILITY. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO MINIMIZE DISRUPTION TO THE OPERATIONS OF THE FACILITY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE A SAFE WORK SITE AND TO PROTECT THE PUBLIC, VISITORS AND EMPLOYEES FROM HARM AS A RESULT OF HIS CONSTRUCTION ACTIVITIES.
4. THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING ABOVE GROUND AND BELOW GROUND UTILITIES, STRUCTURES, AND APPURTENANCES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, STRUCTURES, AND APPURTENANCES IN THE PATH OF AND ADJACENT TO THE PROPOSED WORK.
5. SITE DRAINAGE, INCLUDING THE PROJECT SITE AND ADJACENT PRIVATE AND PUBLIC ROADWAYS, DRIVES, PARKING AREAS OR PROPERTIES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
6. CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING UTILITIES DESIGNATED TO REMAIN FOR THE DURATION OF THE CONTRACT.
7. THE CONTRACTOR SHALL NOTIFY THE LOCAL GOVERNMENT, LOCAL FIRE DEPARTMENT AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) AS NECESSARY AND SHALL OBTAIN ANY REQUIRED PERMITS PRIOR TO BEGINNING WORK. COPIES OF ANY REQUIRED PERMITS SHALL BE PROVIDED TO THE OWNER PRIOR TO BEGINNING THE WORK.
8. CONTRACTOR SHALL REMOVE FROM SITE, MATERIALS NOT INDICATED TO BE SALVAGED INCLUDING ALL DEBRIS. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF CONTRACTOR WHO SHALL LEGALLY DISPOSE OF SAME.
9. ALL TREES, SHRUBS AND PLANTS DESIGNATED TO REMAIN AND DISTURBED BY CONSTRUCTION OPERATIONS, SHALL BE REPLACED IN-KIND AS DIRECTED BY THE ARCHITECT/ENGINEER AND/OR OWNER'S DESIGNATED REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
10. THE CONTRACTOR SHALL MAINTAIN SAFE VEHICULAR AND PEDESTRIAN ACCESS TO THE EXISTING BUILDINGS FOR THE DURATION OF THE CONTRACT.
11. WHEN EXISTING CONSTRUCTION WHICH IS TO REMAIN IS DAMAGED DURING THE COURSE OF CONSTRUCTION AS A RESULT OF CONTRACTORS WORK, IT SHALL BE REPAIRED AND/OR REPLACED WITH SIMILAR OR LIKE MATERIALS AS MUCH AS POSSIBLE, AT NO COST TO THE OWNER. ALL REPAIRS AND/OR REPLACEMENTS WILL BE SUBJECT TO OWNERS APPROVAL.
12. COORDINATE LOCATION OF TEMPORARY CONSTRUCTION FENCE AND TEMPORARY STONE STAGING AREA WITH OWNER

SITE NOTES

1. WELL COMPACTED SUBGRADE SHALL BE UTILIZED UNDERNEATH CONSTRUCTION OF PAVEMENT AND CONCRETE BASES.
2. ALL STAKEOUT FOR THE PROPOSED SITE IMPROVEMENTS SHALL BE COMPLETED BY A NEW YORK STATE LICENSED LAND SURVEYOR.
3. IF ANY DISCREPANCIES ARE NOTED BETWEEN THESE CONSTRUCTION DOCUMENTS AND INFORMATION PROVIDED OR AN ERROR IS SUSPECT, IT SHALL BE IMMEDIATELY REPORTED TO THE CONSTRUCTION MANAGER AND LABELLA ASSOCIATES PROJECT MANAGER IN WRITING.
4. ANY PROOF-ROLLING OF EXPOSED SUBBASE BY A MINIMUM 10 TON SMOOTH DRUM ROLLER SHALL BE DONE UNDER THE GUIDANCE OF, AND OBSERVED BY, QUALIFIED ENGINEERING PERSONNEL PRIOR TO PLACEMENT OF SUBBASE MATERIAL. THE ROLLER SHOULD BE OPERATED IN THE STATIC MODE AND COMPLETE AT LEAST TWO (2) PASSES OVER THE EXPOSED SUBGRADES.
5. EXISTING WETLANDS DELINEATED BY XXXX ON XX/XX/XXXX.
6. PARCEL LINES AS SHOWN BY XXXX COUNTY GIS DATABASE, FOR THE TOWN OF XXXX.

UTILITY NOTES

1. CONTRACTOR SHALL COORDINATE INSTALLATION OF WATER MAIN / WATER SERVICE WITH ERIE COUNTY WATER AUTHORITY AND THE ERIE COUNTY HEALTH DEPARTMENT (ECDOH). NO WORK SHALL BEGIN ON THE WATER MAIN / WATER SERVICE WITHOUT ECWA AND ECDOH SIGNATURES ON THE UTILITY PLAN.
2. CONTRACTOR SHALL COORDINATE INSTALLATION OF SANITARY MAIN / SANITARY SERVICE WITH ERIE COUNTY PURE WATERS (ECPW). NO WORK SHALL BEGIN ON THE SANITARY MAIN / SANITARY SERVICE WITHOUT ECPW SIGNATURE ON THE UTILITY PLAN.

GRADING NOTES

1. THE CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF OSHA, AND ANY OTHER AGENCY HAVING JURISDICTION WITH REGARD TO SAFETY PRECAUTIONS WITH TRENCHING OPERATIONS. THE REQUIREMENTS SET FORTH HEREIN ARE INTENDED TO SUPPLEMENT REQUIREMENTS ESTABLISHED BY THESE AGENCIES. IN THE CASE OF A CONFLICT BETWEEN REQUIREMENTS OF OTHER JURISDICTIONAL AGENCIES AND THESE DOCUMENTS, THE MORE STRINGENT REQUIREMENT ON THE CONTRACTOR SHALL APPLY.
2. SHEETING, IF REQUIRED DURING CONSTRUCTION, IS CONSIDERED TO BE PART OF THIS CONTRACT AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
3. ALL TRENCHES THROUGH PAVEMENT SHALL BE SAW CUT PRIOR TO EXCAVATION AND AGAIN PRIOR TO PAVEMENT RESTORATION.
4. CONTRACTOR SHALL ADJUST THE RIMS OF ALL MANHOLES, CATCH BASINS, VALVE BOXES AND OTHER UTILITY SITE STRUCTURES TO MEET FINISHED GRADE IN AREAS REQUIRING REPAVING OR REGRADING AS PART OF THE WORK, INCLUDING THOSE THAT MAY NOT BE SHOWN ON THE PLANS.
5. VOIDS LEFT BY UTILITY OR STRUCTURE REMOVAL OR GRUBBING OPERATIONS SHALL BE BACKFILLED AND PROPERLY COMPACTED WITH STRUCTURAL FILL (NYSDOT ITEM 304.12) IN AREAS UNDER AND WITHIN 5 FEET HORIZONTALLY OF ALL STRUCTURES, BUILDINGS AND PAVEMENTS, IN GRASSED AREAS, VOIDS LEFT SHALL BE FILLED AND PROPERLY COMPACTED WITH SUITABLE ON-SITE OR IMPORTED EARTHEN BACKFILL. ALL DISTURBED AREAS SHALL BE RESTORED.
6. THE CONTRACTOR SHALL DEWATER ALL EXCAVATIONS TO PREVENT THE INTRODUCTION OF GROUNDWATER INTO THE TRENCHES/EXCAVATIONS. PROVIDE ALL EQUIPMENT NECESSARY TO MAINTAIN THE GROUNDWATER LEVEL AS NECESSARY.
7. THE CONTRACTOR SHALL PLACE AT MINIMUM 6 INCHES OF CLEANED SCREENED TOPSOIL IN ALL DISTURBED AREAS PRIOR TO SEEDING.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, AND LOCAL GOVERNING SOIL AND WATER CONSERVATION AGENCY RECOMMENDATIONS AND STANDARDS. CONTRACTOR SHALL SUBMIT PROPOSED EROSION CONTROL PLAN INCLUDING SEQUENCING OF WORK TO THE ENGINEER FOR REVIEW PRIOR TO START OF WORK.
2. UTILIZE CONSTRUCTION METHODS/TECHNIQUES, WHICH WILL LIMIT THE EXPOSED EARTHEN AREAS AND MINIMIZE THE EFFECT OF EARTH DISTURBANCE ACTIVITIES ON SOIL EROSION. THE AREA OF DISTURBANCE SHALL BE LIMITED TO A MAXIMUM OF 5 ACRES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. ALL SEDIMENTATION BARRIERS AND OTHER TEMPORARY OR PERMANENT MEASURES SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION. PLANS SHOW THE SUGGESTED MINIMUM MEASURES REQUIRED.
4. REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE COMPLETED AT THE APPROVAL OF THE OWNER AND ENGINEER. THE COST OF REMOVING THESE MEASURES SHALL ALSO BE INCLUDED IN THE BID PRICE.
5. FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL PROTECT ALL ON-SITE, ADJACENT AND/OR DOWNSTREAM STORM/SANITARY SEWERS, AND/OR OTHER WATER COURSES FROM CONTAMINATION BY WATER BORNE SILTS, SEDIMENTS, FUELS, SOLVENTS, LUBRICANTS OR OTHER POLLUTANTS ORIGINATING FROM ANY WORK DONE ON, OR IN SUPPORT OF THIS PROJECT.
6. DURING CONSTRUCTION NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO STORM/SANITARY SEWERS, DITCHES OR OTHER WATERS OF NEW YORK STATE, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY STORM/SANITARY SEWERS, DITCHES, RIVERS, OR WATER COURSES.
7. ALL EXCAVATED OR IMPORTED EARTHEN STOCKPILES SHALL BE SUITABLY STABILIZED AND PROTECTED BY SILT FENCE SO THAT IT CANNOT REASONABLY ENTER ANY WATER BODY, OR STORM OR SANITARY SEWER.
8. ALL METHODS AND EQUIPMENT PROPOSED BY THE CONTRACTOR TO ACCOMPLISH THE WORK FOR EROSION AND POLLUTION CONTROL SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
9. THE CONTRACTOR SHALL BE REQUIRED TO TREAT TRAVELED AREAS TO CONTROL DUST. WATER SHALL BE APPLIED TO SUCH TRAVELED AREAS AS THE ARCHITECT/ENGINEER OR OWNER'S DESIGNATED REPRESENTATIVE MAY DESIGNATE. THE NUMBER OF APPLICATIONS AND THE AMOUNT OF WATER SHALL BE BASED UPON FIELD AND WEATHER CONDITIONS.
10. ALL AREAS OF SOIL DISTURBANCE RESULTING FROM THIS PROJECT WHICH WILL NOT BE SUBJECT TO FURTHER EARTHWORK OR CONSTRUCTION ACTIVITIES SHALL BE PERMANENTLY SEEDED TO ESTABLISH GRASS, AND MULCHED WITH HAY OR STRAW WITHIN ONE WEEK OF FINAL DISTURBANCE. MULCH SHALL BE MAINTAINED UNTIL A SUITABLE VEGETATIVE COVER IS ESTABLISHED.
11. CONTRACTOR STAGING AREAS AND CONSTRUCTION ENTRANCE LOCATIONS SHALL BE COORDINATED WITH THE OWNER PRIOR TO START OF CONSTRUCTION. STABILIZED CONSTRUCTION ENTRANCE(S), AS SHOWN ON THE PLANS SHALL BE PROVIDED. ALL DISTURBED AREAS SHALL BE RESTORED.
12. ALL CATCH BASINS/DRAINAGE INLETS SHALL HAVE STONED INLET PROTECTION AROUND THEM AND GEOTEXTILE FABRIC OVER THE GRATE TO PREVENT SEDIMENTATION FROM ENTERING THE STORM SYSTEM.
13. TILL ALL COMPACTED SOILS LOCATED IN LAWN AREAS TO RESTORE THE ORIGINAL PROPERTIES OF THE SOIL PRIOR TO SEEDING.

LEGEND

EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION
		FLOODZONE			END SECTION
		ARCHAEOLOGICAL BUFFER			CATCH BASIN
		TREE REMOVAL			DRAIN BASIN
		UTILITY REMOVAL			INLET MANHOLE
		SAWCUT			STORM MANHOLE
		TREE PROTECTION			SANITARY MANHOLE
		CHAIN LINK FENCE			INLET DRYWELL
		BOARD-ON-BOARD FENCE			CLEAN OUT
		GUARD RAIL			DOWN SPOUT
		TREE/VEGETATION LIMIT			HYDRANT
BLDG	BLDG	BUILDING/STRUCTURE			VALVE
		PROPERTY LINE			FLOW ARROW
		EASEMENTS			TELEPHONE LINE
		RIGHT-OF-WAY			OVERHEAD ELECTRIC
		RETAINING WALL			UNDERGROUND ELECTRIC
		BOLLARD			GAS LINE
FLAG POLE		FLAG POLE			SANITARY LINE
		SIGN			STORM LINE
		DECIDUOUS TREE			STORM UNDERDRAIN PIPE
		CONIFEROUS TREE			WATER FIRE SERVICE LINE
		TREE STUMP			WATER LINE
		OUTLET PROTECTION	-510-	510	MAJOR CONTOUR
		BIORETENTION	-509-	509	MINOR CONTOUR
		BOLLARD LIGHT POLE			% OF DRAINAGE SWALE
		LIGHT POLE SINGLE			EROSION FENCE
		LIGHT POLE DOUBLE			FLOW/SLOPE DIRECTION
		UTILITY POLE			SILT SOCK INLET PROTECTION
HH	HH	HANDHOLE			SILT FENCE INLET PROTECTION
E	E	MANHOLE			CHECK DAM
					STABILIZED CONSTRUCTION ENTRANCE

DRAWING INDEX

C001 GENERAL NOTES, LEGEND, AND DRAWING INDEX
C003 TOTAL LAND HOLDINGS
C101 EXISTING CONDITIONS AND DEMOLITION PLAN
C102 EXISTING CONDITIONS AND DEMOLITION PLAN
C200 OVERALL SITE PLAN
C201 SITE PLAN
C202 SITE PLAN
C203 FIRE TRUCK AND SITE EMERGENCY ACCESS PLAN
C301 UTILITY PLAN
C302 UTILITY PLAN
C401 GRADING, EROSION, AND SEDIMENT CONTROL PLAN
C402 GRADING, EROSION, AND SEDIMENT CONTROL PLAN
C501 CONSTRUCTION DETAILS
C502 CONSTRUCTION DETAILS
C503 CONSTRUCTION DETAILS
C504 CONSTRUCTION DETAILS
C505 CONSTRUCTION DETAILS
C506 CONSTRUCTION DETAILS
C507 CONSTRUCTION DETAILS
C508 CONSTRUCTION DETAILS
L501 LANDSCAPE DETAILS

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STATE OF NEW YORK — PETER J. GIANNI — 84011 — LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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WEST SENECA APARTMENTS
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WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

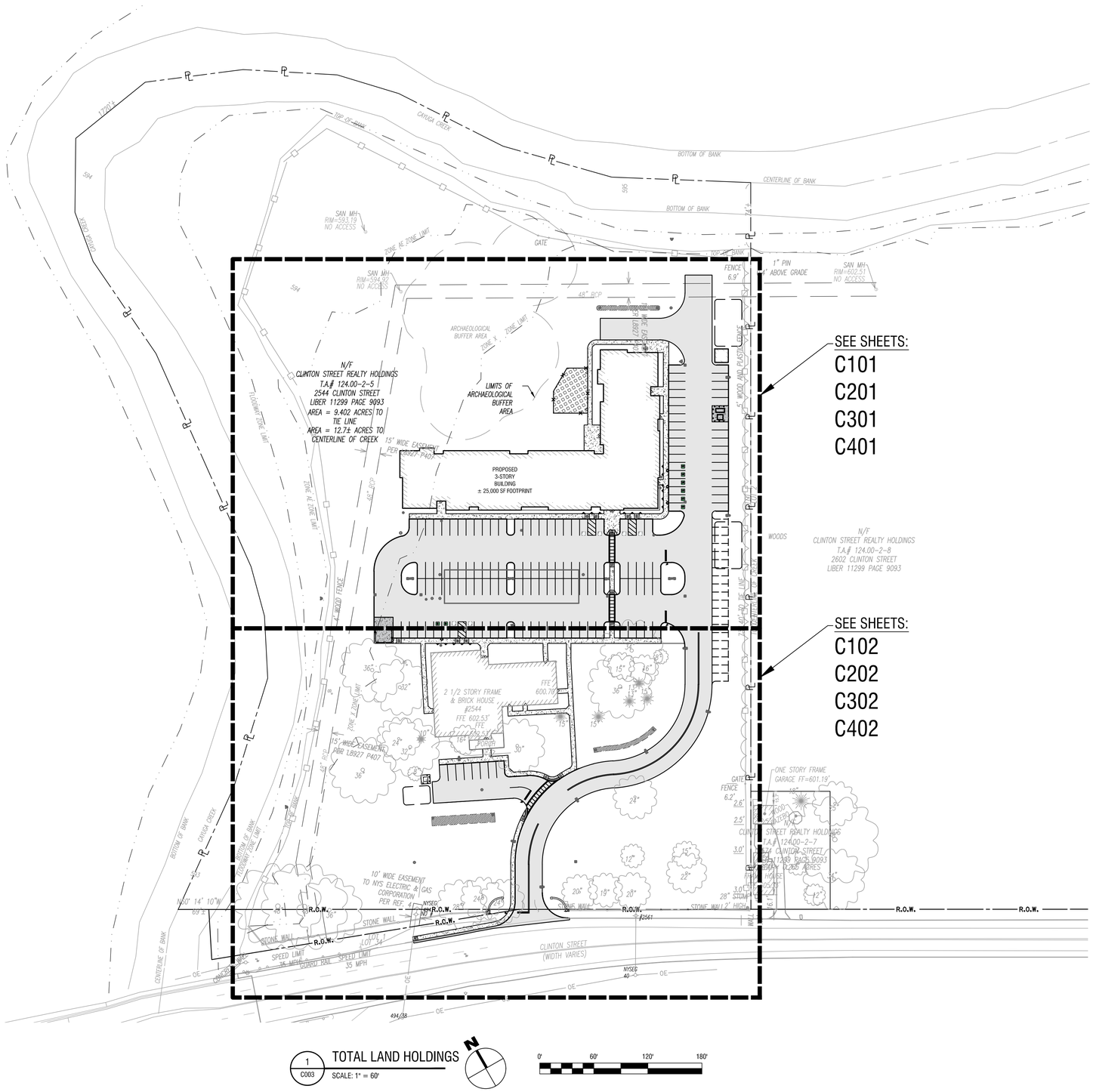
GENERAL NOTES, LEGEND, AND DRAWING INDEX

DRAWING NUMBER:

C001

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1 / C003 TOTAL LAND HOLDINGS
SCALE: 1" = 60'

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Revisions		

PROJECT NUMBER: 2241067
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ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
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TOTAL LAND HOLDINGS

DRAWING NUMBER:

C003

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DEMOLITION KEY NOTES

1	REMOVE AND DISPOSE OF ASPHALT PAVEMENT SECTION, FULL DEPTH
2	REMOVE AND DISPOSE OF BUILDING, STRUCTURES, AND FOUNDATIONS (REFER TO ARCHITECTURAL DRAWINGS AND SOIL MANAGEMENT PLAN (SMP) FOR WORK WITHIN ARCHAEOLOGICAL BUFFER AREA)
3	REMOVE AND DISPOSE OF CONCRETE SIDEWALK SECTION, FULL DEPTH
4	FULL DEPTH SAWCUT
5	REMOVE AND DISPOSE OF TREE AND STUMP
6	REMOVE AND DISPOSE OF STUMP
7	REMOVE EXISTING UNDERGROUND UTILITY. EXACT EXTENTS OF UTILITY REMOVAL TO BE DETERMINED IN FIELD.
8	REMOVE EXISTING UTILITY STRUCTURE
9	REMOVE AND DISPOSE OF MOUNTED BUILDING LIGHTS(TYP.)
10	REMOVE AND DISPOSE OF MAILBOX
11	REMOVE AND PROTECT PORTION OF EXISTING STONE WALL FOR REINSTALLATION
12	REMOVE AND DISPOSE OF GATE
13	PROTECT EXISTING TREE
14	PROTECT EXISTING UTILITY
15	PROTECT EXISTING FENCE. FENCE TO BE EVALUATED BY OWNER. SECTIONS TO BE REPLACED AS DETERMINED BY OWNER.
16	REMOVE AND DISPOSE OF EXISTING FLAG POLE AND FOUNDATION
17	REMOVE AND DISPOSE OF EXISTING SIGN
18	REMOVE AND DISPOSE OF EXISTING HVAC UNITS
19	PROTECT EXISTING STONE WALL

DEMOLITION PLAN NOTE:

1. ALL STUMPS AND BRUSH MAY NOT BE BURIED IN THE TOWN AND TOPSOIL MAY NOT BE REMOVED FROM THE WORK SITE WITHOUT A PERMIT.

N/F
CLINTON STREET REALTY HOLDINGS
T.A.# 124.00-2-5
2544 CLINTON STREET
LIBER 11299 PAGE 9093
AREA = 9.402 ACRES TO TIE LINE
AREA = 12.7± ACRES TO CENTERLINE OF CREEK

ARCHAEOLOGICAL BUFFER AREA
ZONE X ZONE LIMIT
LIMITS OF ARCHAEOLOGICAL BUFFER AREA
FRAME GARAGE FFE 599.29'
TWO STORY FRAME BARN FFE 600.25'
FRAME SHED FFE 600.15'
ASPH.
GRASS
CONC.
15' WIDE EASEMENT PER L8927 P407
48" RCP
SAN MH RIM=594.91 NO ACCESS
ST CB RIM=598.70 N INV=596.80 NE INV=596.95
6" PVC
4" PVC
FENCE 6.9'
5' WOOD AND PLASTIC FENCE
4' WOOD FENCE
733.40' TO TIE LINE
807'± TO CENTERLINE OF CREEK
LOT 1
LOT 2
MATCH TO SHEET: C102

1 C101 EXISTING CONDITIONS AND DEMOLITION PLAN
SCALE: 1" = 20'

N

0' 20' 40' 60'

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STATE OF NEW YORK
PETER J. GRIECO
084011
LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
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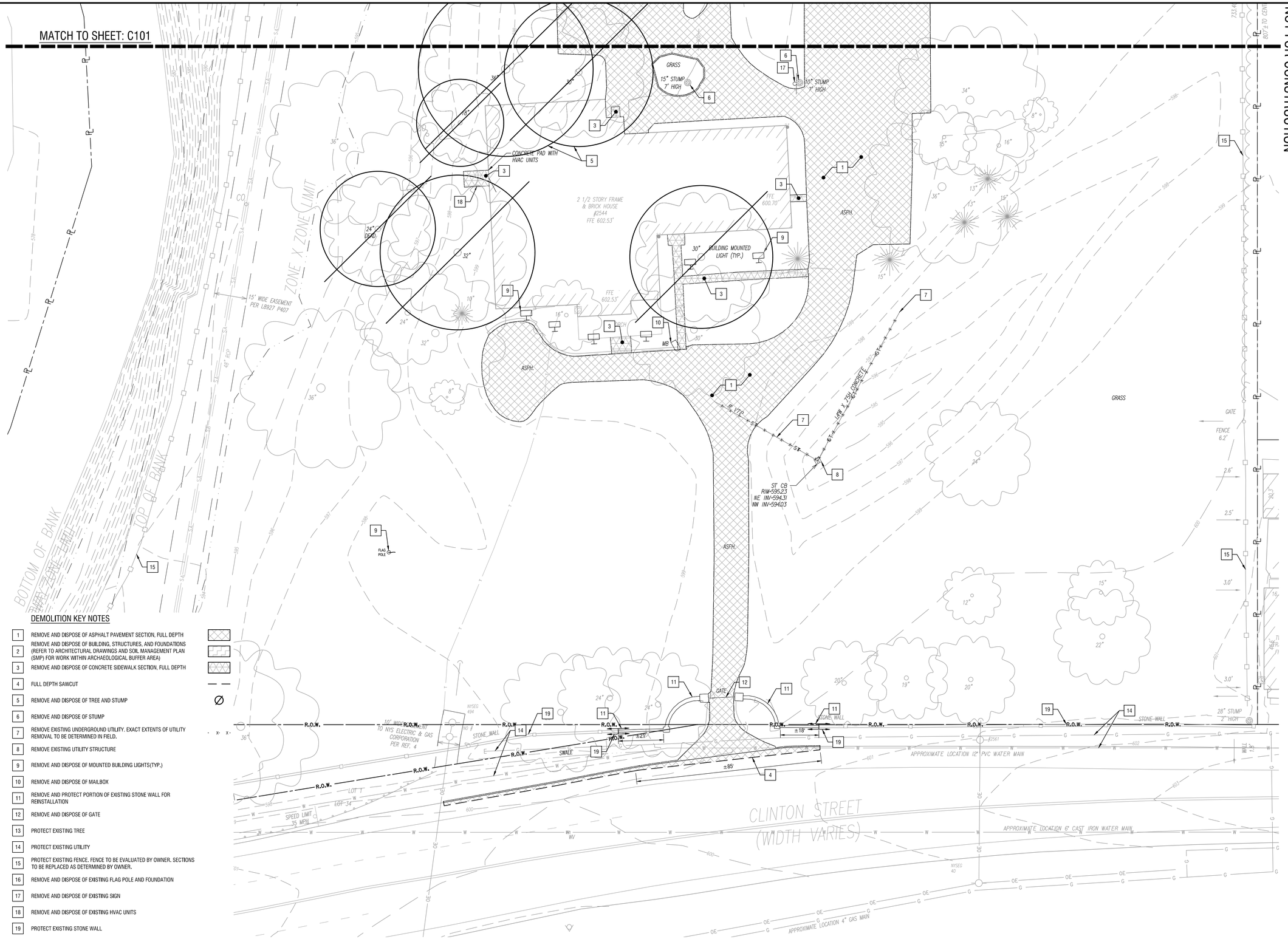
EXISTING CONDITIONS AND DEMOLITION PLAN

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C101

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DEMOLITION KEY NOTES

1	REMOVE AND DISPOSE OF ASPHALT PAVEMENT SECTION, FULL DEPTH	
2	REMOVE AND DISPOSE OF BUILDING, STRUCTURES, AND FOUNDATIONS (REFER TO ARCHITECTURAL DRAWINGS AND SOIL MANAGEMENT PLAN (SMP) FOR WORK WITHIN ARCHAEOLOGICAL BUFFER AREA)	
3	REMOVE AND DISPOSE OF CONCRETE SIDEWALK SECTION, FULL DEPTH	
4	FULL DEPTH SAWCUT	
5	REMOVE AND DISPOSE OF TREE AND STUMP	∅
6	REMOVE AND DISPOSE OF STUMP	
7	REMOVE EXISTING UNDERGROUND UTILITY. EXACT EXTENTS OF UTILITY REMOVAL TO BE DETERMINED IN FIELD.	. x . x .
8	REMOVE EXISTING UTILITY STRUCTURE	
9	REMOVE AND DISPOSE OF MOUNTED BUILDING LIGHTS(TYP.)	
10	REMOVE AND DISPOSE OF MAILBOX	
11	REMOVE AND PROTECT PORTION OF EXISTING STONE WALL FOR REINSTALLATION	
12	REMOVE AND DISPOSE OF GATE	
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16	REMOVE AND DISPOSE OF EXISTING FLAG POLE AND FOUNDATION	
17	REMOVE AND DISPOSE OF EXISTING SIGN	
18	REMOVE AND DISPOSE OF EXISTING HVAC UNITS	
19	PROTECT EXISTING STONE WALL	

DEMOLITION PLAN NOTE:
1. ALL STUMPS AND BRUSH MAY NOT BE BURIED IN THE TOWN AND TOPSOIL MAY NOT BE REMOVED FROM THE WORK SITE WITHOUT A PERMIT.

1 / C102 EXISTING CONDITIONS AND DEMOLITION PLAN
SCALE: 1" = 20'

0' 20' 40' 60'

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STATE OF NEW YORK
RICHARD D. BAUER, JR.
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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
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NO:	DATE:	DESCRIPTION:
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PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

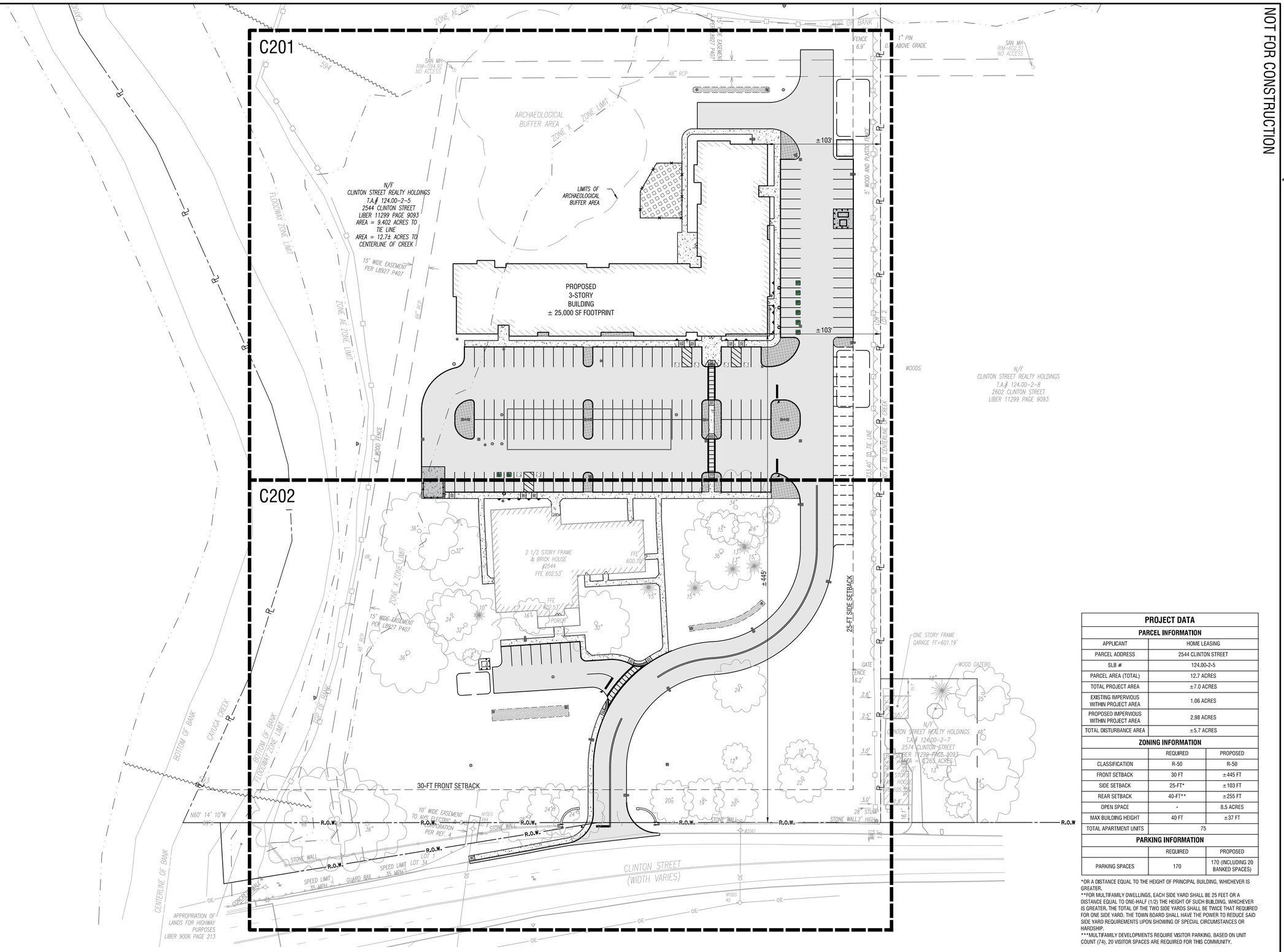
EXISTING CONDITIONS AND DEMOLITION PLAN

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C102

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1 C200 OVERALL SITE PLAN
SCALE: 1" = 40'

0' 40' 80' 120'

PROJECT DATA		
PARCEL INFORMATION		
APPLICANT	HOME LEASING	
PARCEL ADDRESS	2544 CLINTON STREET	
SLB #	124.00-2-5	
PARCEL AREA (TOTAL)	12.7 ACRES	
TOTAL PROJECT AREA	±7.0 ACRES	
EXISTING IMPERVIOUS WITHIN PROJECT AREA	1.06 ACRES	
PROPOSED IMPERVIOUS WITHIN PROJECT AREA	2.98 ACRES	
TOTAL DISTURBANCE AREA	±5.7 ACRES	
ZONING INFORMATION		
	REQUIRED	PROPOSED
CLASSIFICATION	R-50	R-50
FRONT SETBACK	30 FT	±445 FT
SIDE SETBACK	25-FT*	±103 FT
REAR SETBACK	40-FT**	±255 FT
OPEN SPACE	-	8.5 ACRES
MAX BUILDING HEIGHT	40 FT	±37 FT
TOTAL APARTMENT UNITS	75	
PARKING INFORMATION		
	REQUIRED	PROPOSED
PARKING SPACES	170	170 (INCLUDING 20 BANKED SPACES)

*OR A DISTANCE EQUAL TO THE HEIGHT OF PRINCIPAL BUILDING, WHICHEVER IS GREATER.
**FOR MULTIFAMILY DWELLINGS, EACH SIDE YARD SHALL BE 25 FEET OR A DISTANCE EQUAL TO ONE-HALF (1/2) THE HEIGHT OF SUCH BUILDING, WHICHEVER IS GREATER, THE TOTAL OF THE TWO SIDE YARDS SHALL BE TWICE THAT REQUIRED FOR ONE SIDE YARD. THE TOWN BOARD SHALL HAVE THE POWER TO REDUCE SAID SIDE YARD REQUIREMENTS UPON SHOWING OF SPECIAL CIRCUMSTANCES OR HARDSHIP.
***MULTIFAMILY DEVELOPMENTS REQUIRE VISITOR PARKING. BASED ON UNIT COUNT (74), 20 VISITOR SPACES ARE REQUIRED FOR THIS COMMUNITY.

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STATE OF NEW YORK
DANIEL J. SCHMITT
084011
LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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WEST SENECA APARTMENTS
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NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

OVERALL SITE PLAN

DRAWING NUMBER:

C200

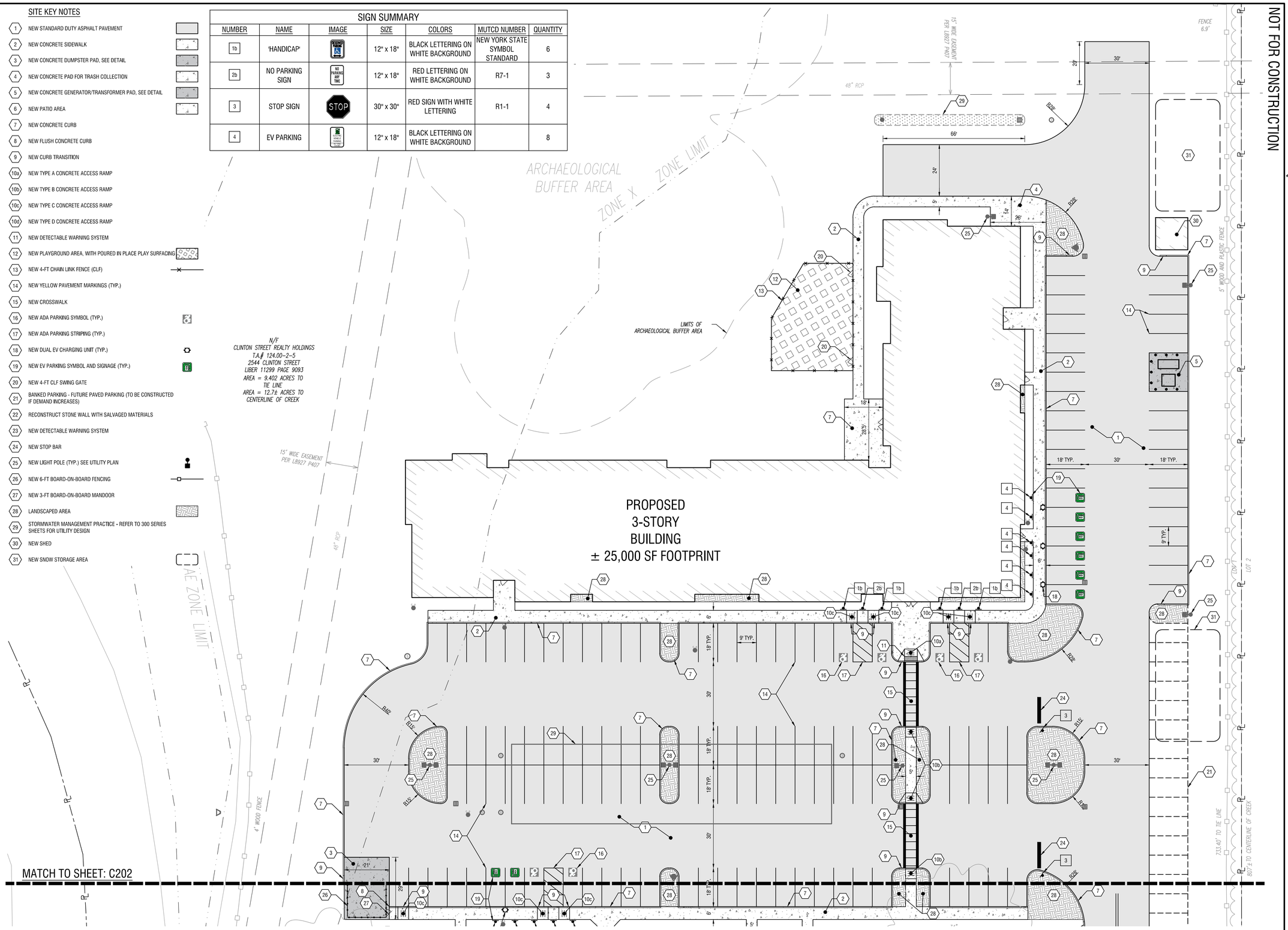
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\\cesh.lab\PGLOBAL\Projects\Home Leasing Services\2241067 - Affordable Housing West Seneca\06_Drawings\Civil\C200 SITE PLAN.dwg

SITE KEY NOTES

1. NEW STANDARD DUTY ASPHALT PAVEMENT
2. NEW CONCRETE SIDEWALK
3. NEW CONCRETE DUMPSTER PAD, SEE DETAIL
4. NEW CONCRETE PAD FOR TRASH COLLECTION
5. NEW CONCRETE GENERATOR/TRANSFORMER PAD, SEE DETAIL
6. NEW PATIO AREA
7. NEW CONCRETE CURB
8. NEW FLUSH CONCRETE CURB
9. NEW CURB TRANSITION
10a. NEW TYPE A CONCRETE ACCESS RAMP
10b. NEW TYPE B CONCRETE ACCESS RAMP
10c. NEW TYPE C CONCRETE ACCESS RAMP
10d. NEW TYPE D CONCRETE ACCESS RAMP
11. NEW DETECTABLE WARNING SYSTEM
12. NEW PLAYGROUND AREA, WITH POURED IN PLACE PLAY SURFACING
13. NEW 4-FT CHAIN LINK FENCE (CLF)
14. NEW YELLOW PAVEMENT MARKINGS (TYP.)
15. NEW CROSSWALK
16. NEW ADA PARKING SYMBOL (TYP.)
17. NEW ADA PARKING STRIPING (TYP.)
18. NEW DUAL EV CHARGING UNIT (TYP.)
19. NEW EV PARKING SYMBOL AND SIGNAGE (TYP.)
20. NEW 4-FT CLF SWING GATE
21. BANKED PARKING - FUTURE PAVED PARKING (TO BE CONSTRUCTED IF DEMAND INCREASES)
22. RECONSTRUCT STONE WALL WITH SALVAGED MATERIALS
23. NEW DETECTABLE WARNING SYSTEM
24. NEW STOP BAR
25. NEW LIGHT POLE (TYP.) SEE UTILITY PLAN
26. NEW 6-FT BOARD-ON-BOARD FENCING
27. NEW 3-FT BOARD-ON-BOARD MANDOOR
28. LANDSCAPED AREA
29. STORMWATER MANAGEMENT PRACTICE - REFER TO 300 SERIES SHEETS FOR UTILITY DESIGN
30. NEW SHED
31. NEW SNOW STORAGE AREA

SIGN SUMMARY

NUMBER	NAME	IMAGE	SIZE	COLORS	MUTCD NUMBER	QUANTITY
1b	'HANDICAP'		12" x 18"	BLACK LETTERING ON WHITE BACKGROUND	NEW YORK STATE SYMBOL STANDARD	6
2b	NO PARKING SIGN		12" x 18"	RED LETTERING ON WHITE BACKGROUND	R7-1	3
3	STOP SIGN		30" x 30"	RED SIGN WITH WHITE LETTERING	R1-1	4
4	EV PARKING		12" x 18"	BLACK LETTERING ON WHITE BACKGROUND		8



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ROCHESTER, NEW YORK 14604

HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

SITE PLAN

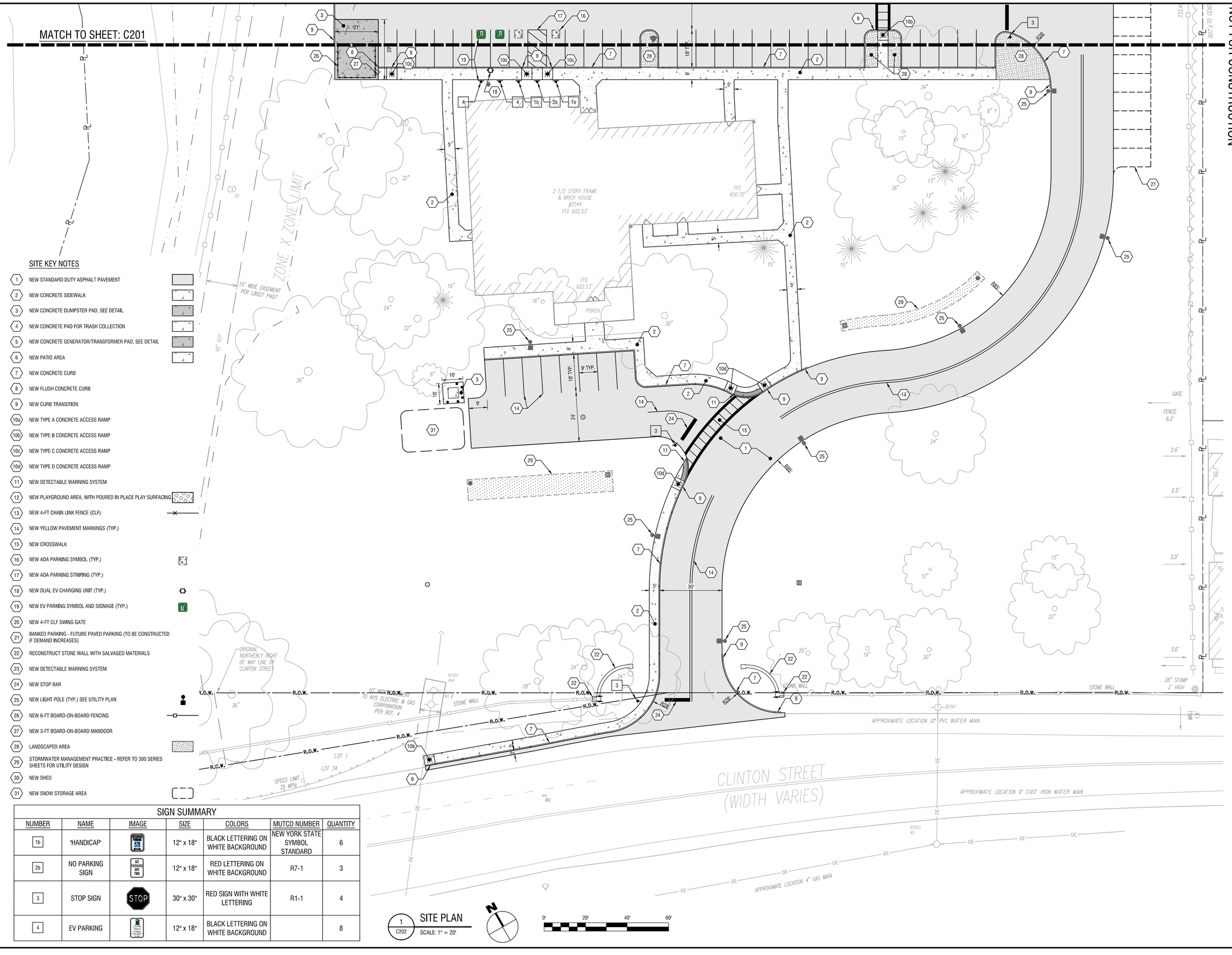
DRAWING NUMBER:

C201

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NOT FOR CONSTRUCTION

MATCH TO SHEET: C201



SITE KEY NOTES

1	NEW STANDARD DUTY ASPHALT PAVEMENT
2	NEW CONCRETE SIDEWALK
3	NEW CONCRETE DUMPSTER PAD, SEE DETAIL
4	NEW CONCRETE PAD FOR TRASH COLLECTION
5	NEW CONCRETE GENERATOR/TRANSFORMER PAD, SEE DETAIL
6	NEW PATIO AREA
7	NEW CONCRETE CURB
8	NEW FLUSH CONCRETE CURB
9	NEW CURB TRANSITION
10a	NEW TYPE A CONCRETE ACCESS RAMP
10b	NEW TYPE B CONCRETE ACCESS RAMP
10c	NEW TYPE C CONCRETE ACCESS RAMP
10d	NEW TYPE D CONCRETE ACCESS RAMP
11	NEW DETECTABLE WARNING SYSTEM
12	NEW PLAYGROUND AREA, WITH POURED IN PLACE PLAY SURFACING
13	NEW 4-FT CHAIN LINK FENCE (CLF)
14	NEW YELLOW PAVEMENT MARKINGS (TYP.)
15	NEW CROSSWALK
16	NEW ADA PARKING SYMBOL (TYP.)
17	NEW ADA PARKING STRIPING (TYP.)
18	NEW DUAL EV CHARGING UNIT (TYP.)
19	NEW EV PARKING SYMBOL AND SIGNAGE (TYP.)
20	NEW 4-FT CLF SWING GATE
21	BANKED PARKING - FUTURE PAVED PARKING (TO BE CONSTRUCTED IF DEMAND INCREASES)
22	RECONSTRUCT STONE WALL WITH SALVAGED MATERIALS
23	NEW DETECTABLE WARNING SYSTEM
24	NEW STOP BAR
25	NEW LIGHT POLE (TYP.) SEE UTILITY PLAN
26	NEW 6-FT BOARD-ON-BOARD FENCING
27	NEW 3-FT BOARD-ON-BOARD MANDOOR
28	LANDSCAPED AREA
29	STORMWATER MANAGEMENT PRACTICE - REFER TO 300 SERIES SHEETS FOR UTILITY DESIGN
30	NEW SHED
31	NEW SNOW STORAGE AREA

SIGN SUMMARY

NUMBER	NAME	IMAGE	SIZE	COLORS	MUTCD NUMBER	QUANTITY
1b	'HANDICAP'	PARKING SIGN	12" x 18"	BLACK LETTERING ON WHITE BACKGROUND	NEW YORK STATE SYMBOL STANDARD	6
2b	NO PARKING SIGN	NO PARKING ANY TIME	12" x 18"	RED LETTERING ON WHITE BACKGROUND	R7-1	3
3	STOP SIGN	STOP	30" x 30"	RED SIGN WITH WHITE LETTERING	R1-1	4
4	EV PARKING	EV CAPABLE SPACE	12" x 18"	BLACK LETTERING ON WHITE BACKGROUND		8

1 C202 SITE PLAN
SCALE: 1" = 20'

0' 20' 40' 60'

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Buffalo, NY 14202
716-551-6281
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STATE OF NEW YORK — PAUL J. GRIECO — 084011 — LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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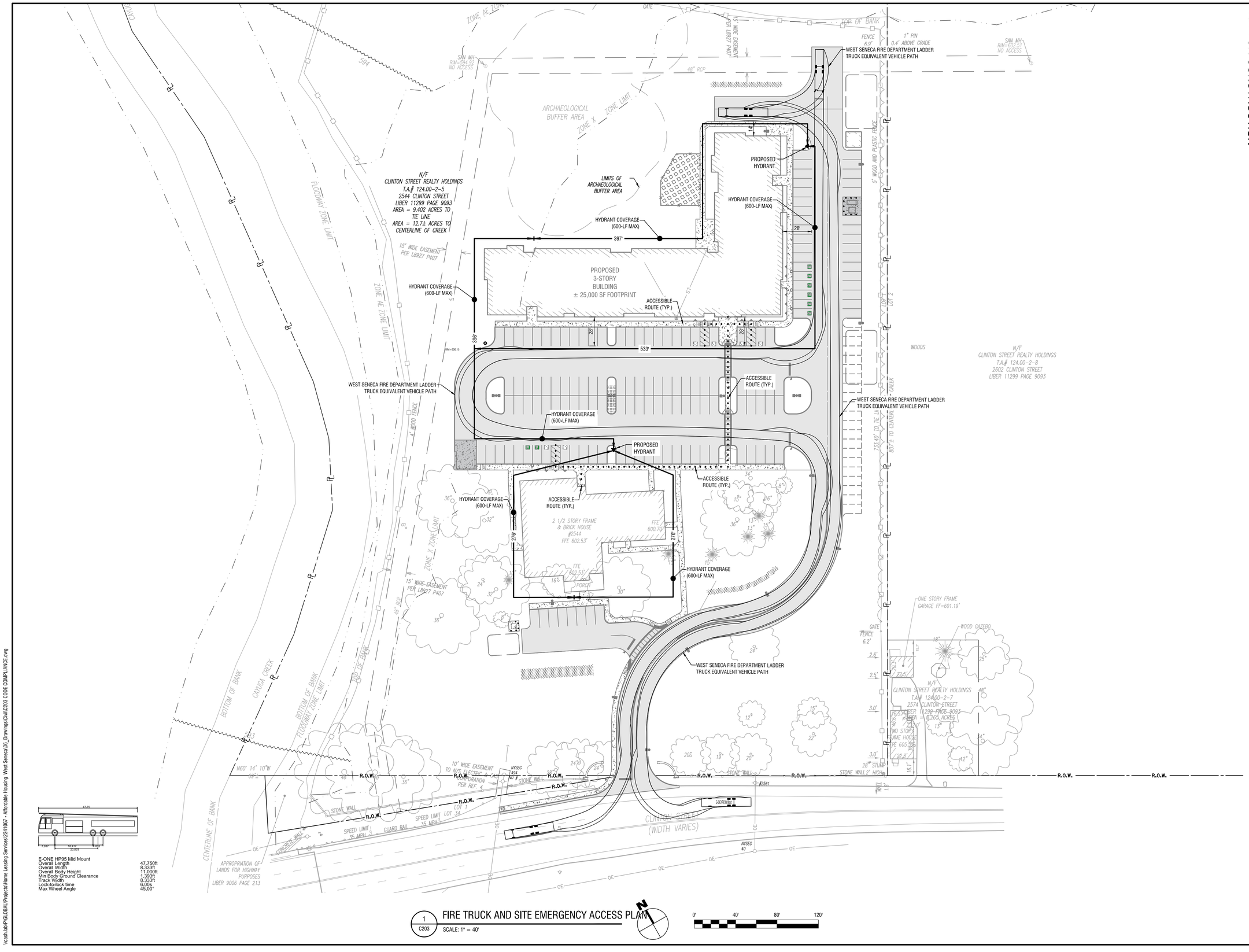
SITE PLAN

DRAWING NUMBER:

C202

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1 C203 FIRE TRUCK AND SITE EMERGENCY ACCESS PLAN

SCALE: 1" = 40'

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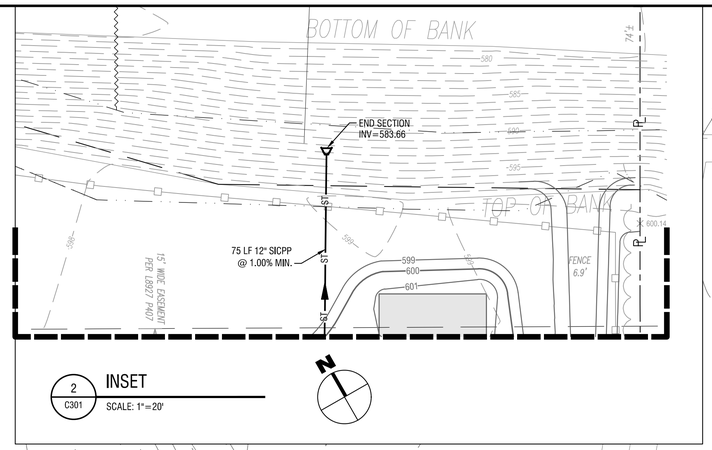
FIRE TRUCK AND SITE EMERGENCY ACCESS PLAN

DRAWING NUMBER:

C203

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NOT FOR CONSTRUCTION



UTILITY PLAN NOTES:

1. A MINIMUM OF 10 FEET OF HORIZONTAL AND 18" OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY AND WATER SERVICES
2. THE ERIE COUNTY WATER AUTHORITY IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE
3. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH ANY PAVEMENT AREA

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STATE OF NEW YORK
PETER J. GALGOCZI
084011
LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
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GEOLOGICAL: 0021659

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WEST SENECA, NY 14224

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REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C301

4/20/2026 1:18:02 PM
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MATCH TO SHEET: C301

NOT FOR CONSTRUCTION

W INV=593.62
NE INV=593.62
NEW 4" PVC SDR-21
SANITARY LATERAL

RIM=599.00
E INV=591.15
W INV=591.15

NEW PRIVATE
FIRE HYDRANT

(100 CHAMBERS)
INV=591.25

N INV=593.30
W INV=593.30

NE INV=595.00
W INV=595.00

SAN CO
TYP.

NEW 6" FIRE SERVICE
(AFTER BACKFLOW
PREVENTOR)

2 1/2 STORY FRAME
& BRICK HOUSE
#2544
FFE 602.53'

FFE
600.70'

FFE
602.53'

PORCH

NEW BACKFLOW PREVENTOR
(IN MECHANICAL ROOM) FOR
COMBINED SERVICE.
DOMESTIC SERVICE WILL BE
METERED AFTER THE
BACKFLOW.

15' WIDE EASEMENT
PER L8927 P407

ZONE X ZONE LIMIT

NEW BIORETENTION
AREA #2 (± 370 SF)

ST-5.2
24"x24" CB
RIM=597.00
W INV=592.86

132 LF 12"
SICPP @ 0.50%

NEW 6" COMBINED
WATER SERVICE

ST-5.0
4' DIA. MH
RIM=599.08
S INV=591.30
E INV=591.92
W INV=591.20

28 LF 12" SICPP
@ 1.00%

220 LF 12"
SICPP @ 0.50%

END SECTION
INV=589.00

ST-5.1
24"x24" CB
RIM=596.00
N INV=591.58

NEW BIORETENTION
AREA #3 (± 700 SF)

BOTTOM OF BANK
TOP OF BANK

ST-6.0
4' DIA. MH
RIM=597.50
E INV=590.10
W INV=590.00

END SECTION
INV=S#.##

175 LF 12"
SICPP @ 1.00%

175 LF 12"
SICPP @ 1.00%

ST-6.1
36"x36" CB
RIM=594.35
W INV=591.85

CONNECT TO EXISTING 6"
WATERMAIN WITH TS&V

GATE

FENCE
6.2'

STONE WALL

10' WIDE EASEMENT
TO NYS ELECTRIC & GAS
CORPORATION
PER REF. 4

APPROXIMATE LOCATION 12" PVC WATER MAIN

APPROXIMATE LOCATION 6" CAST IRON WATER MAIN

APPROXIMATE LOCATION 4" GAS MAIN

CLINTON STREET
(WIDTH VARIES)

LOT 7

LOT 14

SPEED LIMIT
35 MPH

GUARD RAIL

28" STUMP
2' HIGH

1 UTILITY PLAN
C302
SCALE: 1" = 20'

0' 20' 40' 60'

UTILITY PLAN NOTES:
1. A MINIMUM OF 10 FEET OF HORIZONTAL AND 18" OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY AND WATER SERVICES
2. THE ERIE COUNTY WATER AUTHORITY IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE
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STATE OF NEW YORK
PETER D. SORGI
084011
LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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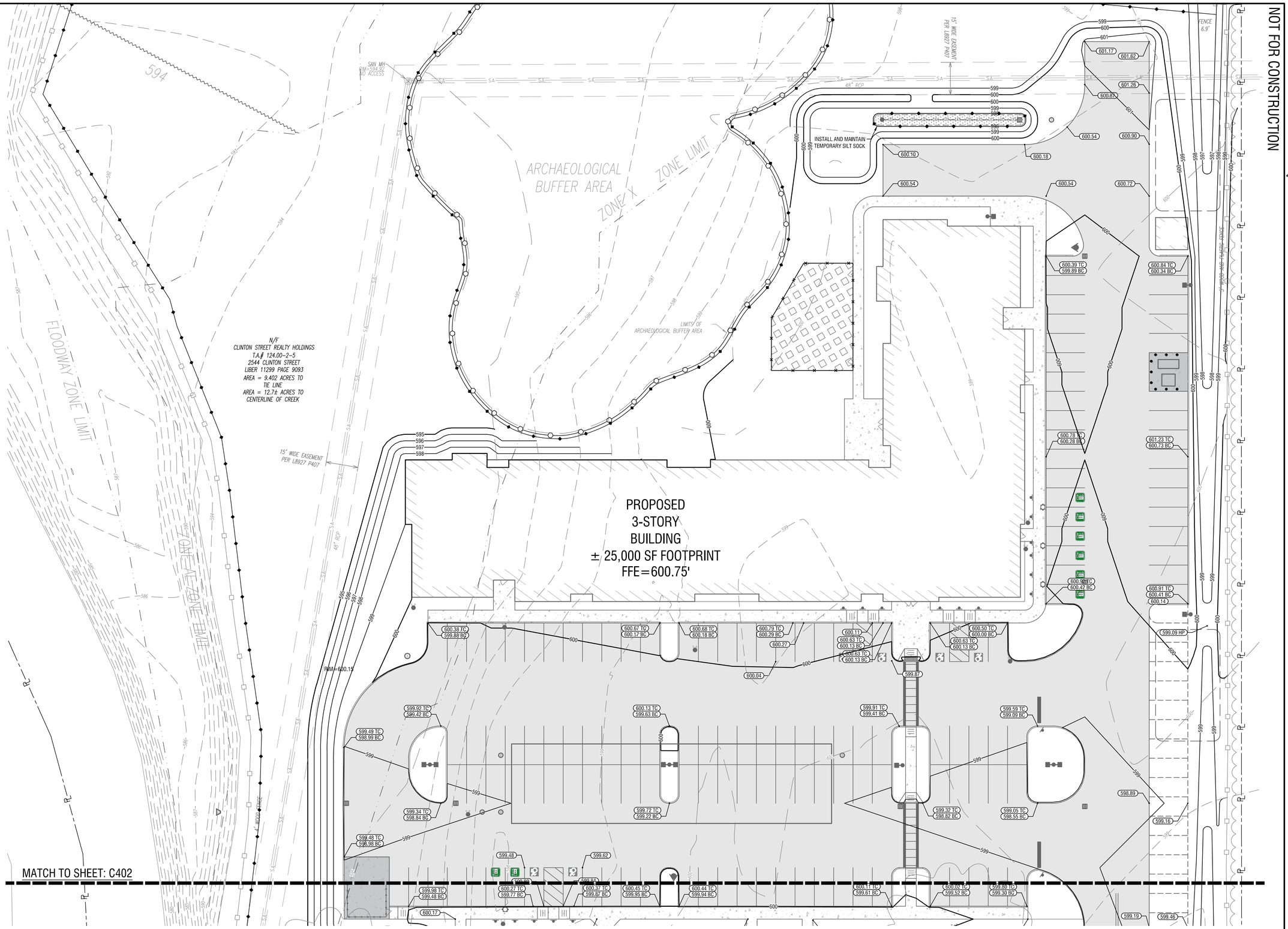
UTILITY PLAN

DRAWING NUMBER:

C302

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NOT FOR CONSTRUCTION



1 C401 GRADING, EROSION, AND SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

0' 20' 40' 60'

4/20/2026 1:17:56 PM
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STATE OF NEW YORK
PAUL J. GIANNI
084011
LICENSED PROFESSIONAL ENGINEER

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GRADING, EROSION, AND SEDIMENT CONTROL PLAN

DRAWING NUMBER:

C401

MATCH TO SHEET: C401

NOT FOR CONSTRUCTION

2 1/2 STORY FRAME & BRICK HOUSE #2544 FFE 602.53'

FFE 600.70'

FFE 602.53'

PORCH

ZONE X ZONE LIMIT

BOTTOM OF BANK

TOP OF BANK

FEDERAL WETLAND LIMIT

INSTALL AND MAINTAIN TEMPORARY SILT SOCK

INSTALL AND MAINTAIN TEMPORARY CONCRETE WASHOUT

INSTALL AND MAINTAIN TEMPORARY CONSTRUCTION ENTRANCE

CLINTON STREET (WIDTH VARIES)

APPROXIMATE LOCATION 12" PVC WATER MAIN

APPROXIMATE LOCATION 6" CAST IRON WATER MAIN

LOT 1

LOT 34

1 C402 GRADING, EROSION, AND SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

0' 20' 40' 60'

4/20/2026 1:17:35 PM
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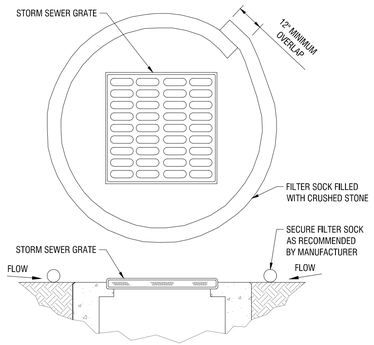
ISSUED FOR: SITE PLAN APPROVAL

DATE: 4/20/2026

DRAWING NAME: GRADING, EROSION, AND SEDIMENT CONTROL PLAN

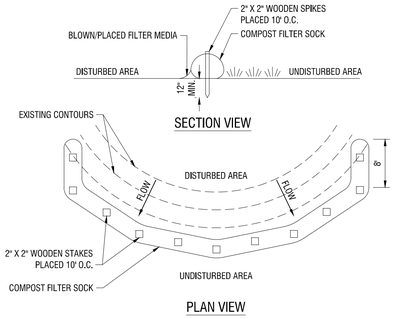
DRAWING NUMBER: C402

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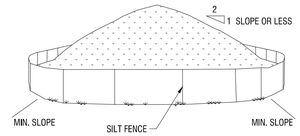
6 C501 **INLET PROTECTION IN PAVEMENT**

N.T.S.



5 C501 **COMPOST FILTER SOCK**

NYS DEC DETAIL: COMPOST FILTER SOCK

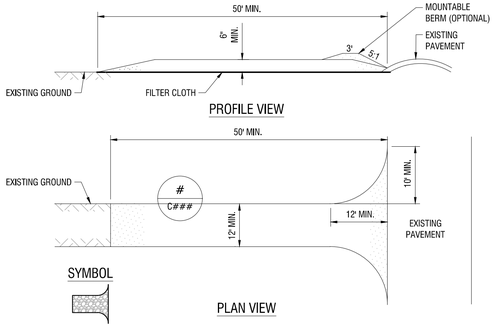


NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS AND DETAIL FOR INSTALLATION OF SILT FENCE.

4 C501 **TEMPORARY SOIL STOCKPILE**

N.T.S.

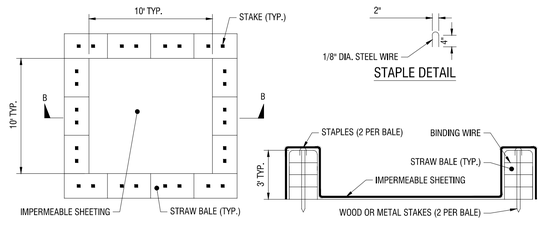


CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

3 C501 **STABILIZED CONSTRUCTION ENTRANCE**

N.YS DEC DETAIL: STABILIZED CONSTRUCTION ACCESS



NOTE:

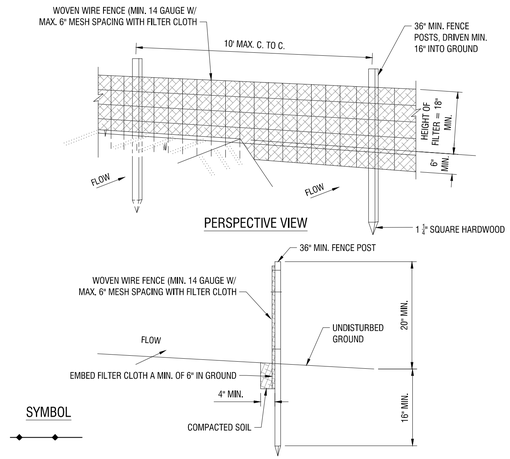
1. CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 100 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

2 C501 **CONCRETE WASHOUT AREA WITH STRAW BALES**

N.T.S.



NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA 140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

1 C501 **SILT FENCE**

NYS DEC DETAIL: SILT FENCE

LaBella Powered by partnership.

300 Pearl Street, Suite 130
Buffalo, NY 14202
716-551-6281

labellapc.com

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec, 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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HOME LEASING
75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604

HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

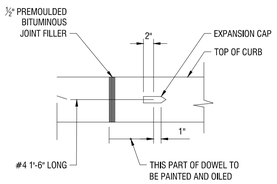
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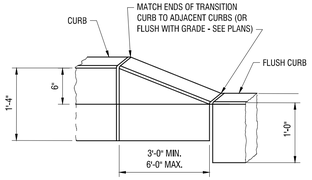
C501

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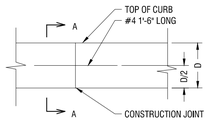
NOT FOR CONSTRUCTION



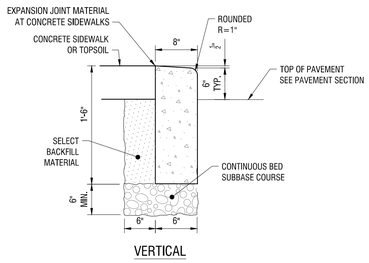
ELEVATION AT EXPANSION JOINT



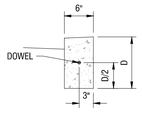
TERMINAL/TRANSITION CURB



ELEVATION AT CONSTRUCTION JOINT



VERTICAL

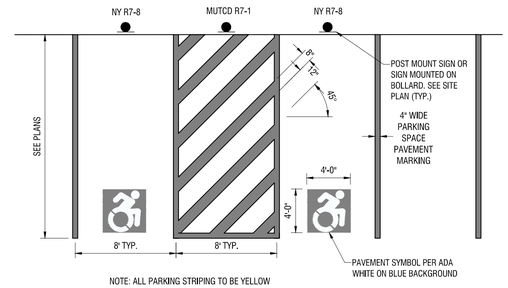


SECTION A-A

NOTES:

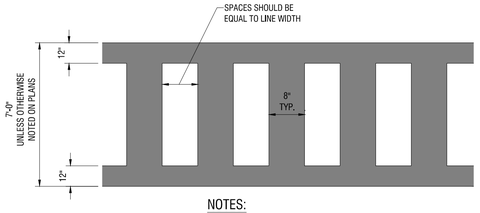
1. SLOPE TOP OF CURB 1/4" PER FOOT TOWARD PAVEMENT.
2. CONTRACTION JOINTS SHALL BE FORMED OR SAWCUT EVERY 10 FEET TO DEPTHS SLIGHTLY BELOW THE PAVEMENT SURFACE.
3. EXPANSION JOINTS 1/2" IN WIDTH SHALL BE FORMED WITH A PREMOULDED BITUMINOUS JOINT FILLER EVERY 40 FEET.
4. EXPANSIONS JOINTS AND FORMED CONTRACTION JOINTS ARE TO BE EDGED WITH CONCRETE FINISHING TOOLS.
5. CONCRETE SEALING AGENT SHALL BE APPLIED THE SAME DAY THAT CURBS ARE CONSTRUCTED.
6. CONCRETE CURBING WITHIN R.O.W. SHALL CONFORM WITH NYSS M609-2R1.
7. CURB THICKNESS T IS TO BE 5" OR AS INDICATED ON THE DRAWINGS.
8. PROVIDE 0" CURB REVEAL FOR HEADER CURB CURB AT SIDEWALK RAMPS AND 1" CURB REVEAL FOR HEADER CURB AT DRIVEWAYS.
9. ALL CURB, EXCEPT HEADER CURB USED FOR SIDEWALK ACCESS RAMPS, IS TO HAVE THE 1" RADIUS.
10. GRADED STONE BACKING IS TO BE PLACED WHEN SIDEWALK DOES NOT ABUT CURB.
11. USE 5000 PSI CONCRETE FOR CONVENTIONALLY FORMED CURB. AND 5000 PSI CONCRETE FOR MACHINE FORMED CURB.

10 C502 CONCRETE CURB
N.T.S.



NOTE: ALL PARKING STRIPING TO BE YELLOW

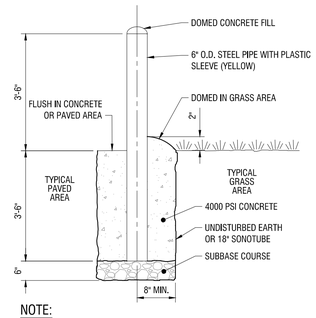
12 C502 ADA PARKING SPACE STRIPING
N.T.S.



NOTES:

1. ALL STRIPING SHALL BE WHITE

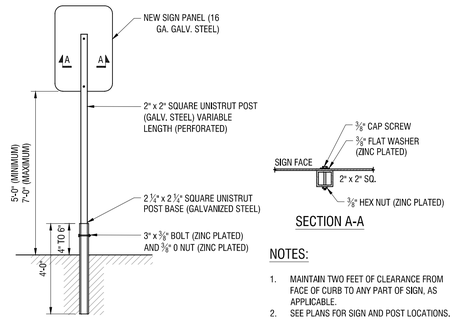
11 C502 CROSSWALK
N.T.S.



NOTE:

1. FINAL LOCATION OF BOLLARDS SHALL BE APPROVED BY THE OWNER OR ARCHITECT/ENGINEER.

9 C502 BOLLARD
N.T.S.

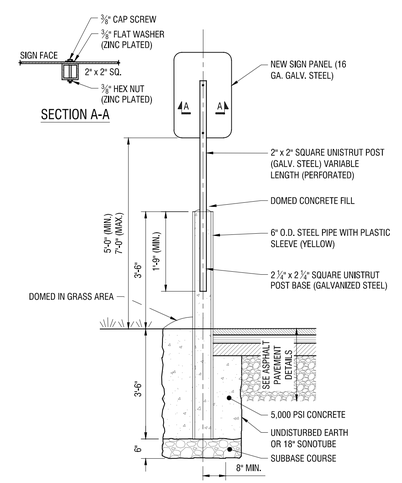


8 C502 POST MOUNT SIGN
N.T.S.

SECTION A-A

NOTES:

1. MAINTAIN TWO FEET OF CLEARANCE FROM FACE OF CURB TO ANY PART OF SIGN, AS APPLICABLE.
2. SEE PLANS FOR SIGN AND POST LOCATIONS.



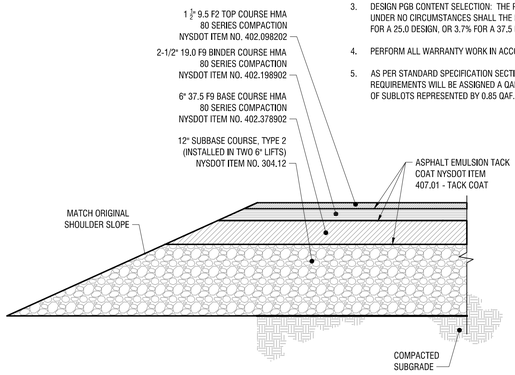
NOTES:

1. FINAL LOCATION OF BOLLARDS SHALL BE APPROVED BY THE OWNER OR ARCHITECT/ENGINEER.

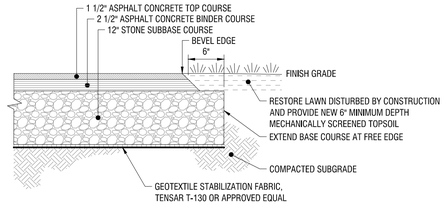
7 C502 BOLLARD MOUNTED SIGN
N.T.S.

ASPHALT PAVEMENT NOTES:

1. HMA ITEMS ARE BASED ON PG 64-22 BINDER, ESALs LESS THAN 30,000,000, TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF ASPHALT, USE OF POLYPHOSPHORIC ACID (PPA) TO MODIFY THE BINDER PROPERTIES IS PROHIBITED. THIS PROHIBITION ALSO APPLIES TO THE USE OF PPA AS A CROSS-LINKING AGENT FOR POLYMER MODIFICATION.
2. BUTT JOINTS, CREATED BY A FULL-DEPTH SAWCUT, SHALL BE USED BETWEEN NEW AND EXISTING PAVEMENTS. THE ASPHALT TOP COURSE SHALL BE LAID SUCH THAT IT UNIFORMLY OVERLAPS THE ADJACENT COLD MAT BY 2"-3". THE THICKNESS OF THE OVERLAP MATERIAL SHALL BE 1/4 THE COMPACTED THICKNESS OF THE COURSE, SO AS TO RESULT IN A SMOOTH AND WELL-COMPACTED JOINT AFTER ROLLING. BROADCASTING OF THE OVERLAP MATERIAL ONTO THE LANE IS NOT ALLOWED. IF THE OVERLAP IS EXCESSIVE, THE EXCESS MATERIAL SHALL BE TRIMMED OFF SO THAT THE MATERIAL ALONG THE JOINT IS UNIFORM. THE COARSE PARTICLES OF AGGREGATE IN THE OVERLAP MATERIAL SHALL BE REMOVED AND WASTED IF DEEMED NECESSARY BY THE INSPECTOR.
3. DESIGN PGB CONTENT SELECTION: THE PRODUCER SELECTS THE DESIGN PGB CONTENT THAT RESULTS IN A COMPACTED DENSITY OF 96.5% Gmm AT THE DESIGN NUMBER OF GYRATIONS (Ndesign), UNDER NO CIRCUMSTANCES SHALL THE PERFORMANCE GRADED BINDER CONTENT IN THE HMA MIXTURE BE LESS THAN 5.8% FOR A 9.5 DESIGN, 5.2% FOR A 12.5 DESIGN, 4.5% FOR A 19.0 DESIGN, 4.2% FOR A 25.0 DESIGN, OR 3.7% FOR A 37.5 DESIGN. ALL VOLUMETRIC AND MECHANICAL PROPERTIES ARE CHECKED AT THIS PGB CONTENT TO ENSURE THAT ALL REQUIREMENTS ARE MET.
4. PERFORM ALL WARRANTY WORK IN ACCORDANCE WITH MATERIALS PROCEDURE (MP) 402-01, WARRANTY REQUIREMENTS FOR HOT MIX ASPHALT (HMA) TOP COURSE.
5. AS PER STANDARD SPECIFICATION SECTION 401-4.01 CERTIFIED PRODUCTION, PRODUCTION LESS THAN 500 TONS, AND HIGHWAY PERMIT PRODUCTION, PRODUCTION MEETING THE SPECIFICATION REQUIREMENTS WILL BE ASSIGNED A QAF OF 1.00. PRODUCTION FAILING TO MEET THE SPECIFICATION REQUIREMENTS WILL BE SUBJECT TO EVALUATION ACCORDING TO SECTION 401-4.03, EVALUATION OF SUBLOTS REPRESENTED BY 0.85 QAF.



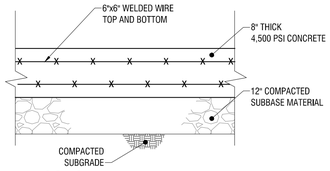
4 C502 PAVEMENT SECTION WITHIN R.O.W.
N.T.S.



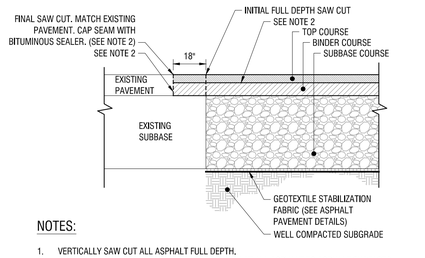
NOTES:

1. PROVIDE ADDITIONAL SUBBASE MATERIAL WHERE FILL IS REQUIRED TO OBTAIN PROPER SUBGRADE ELEVATION, OR TO REPLACE UNSUITABLE SUBGRADE MATERIAL.

3 C502 ASPHALT PAVEMENT SECTION
N.T.S.



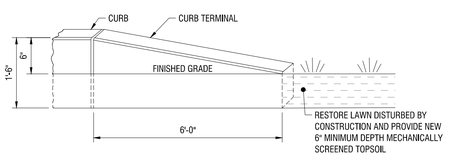
6 C502 CONCRETE PAD
N.T.S.



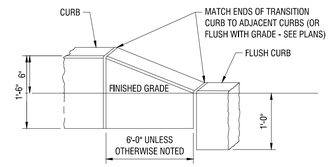
NOTES:

1. VERTICALLY SAW CUT ALL ASPHALT FULL DEPTH.
2. BLOW CLEAN AND APPLY TACK COAT 0.050 GAL/SY AT ALL ASPHALT TO ASPHALT SURFACES.
3. REFER TO STANDARD DUTY PAVEMENT SECTION DETAIL FOR COURSE THICKNESS.

5 C502 STANDARD DUTY PAVEMENT JOINT
N.T.S.



2 C502 CURB TERMINAL
N.T.S.



1 C502 CURB TRANSITION
N.T.S.

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STATE OF NEW YORK
PETER J. GALLI
084011
LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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HOME LEASING
75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604

HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

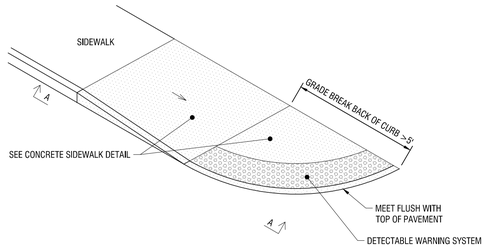
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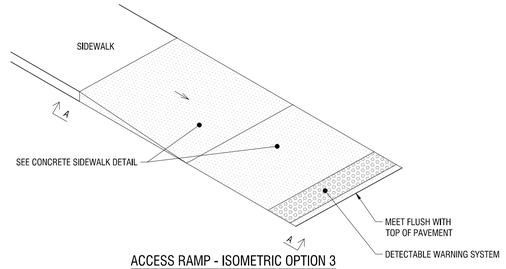
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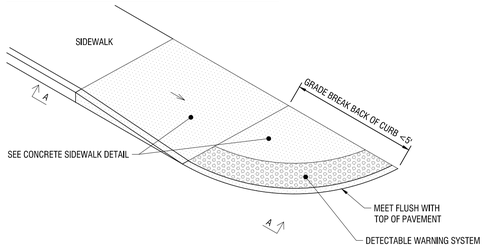
NOT FOR CONSTRUCTION



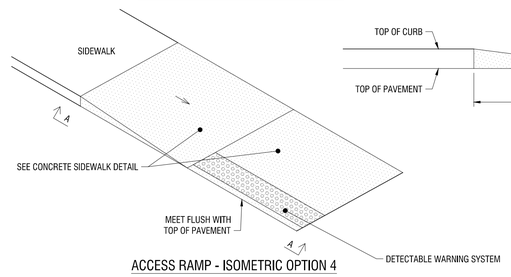
ACCESS RAMP AT CORNER - ISOMETRIC OPTION 1



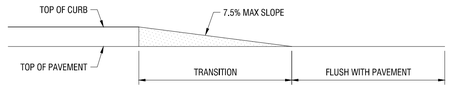
ACCESS RAMP - ISOMETRIC OPTION 3



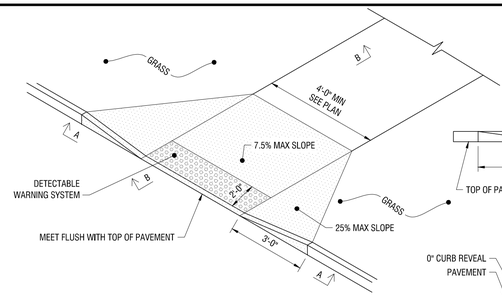
ACCESS RAMP AT CORNER - ISOMETRIC OPTION 2



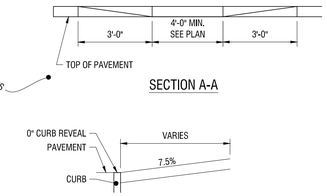
ACCESS RAMP - ISOMETRIC OPTION 4



SECTION A-A



TYPE "B" RAMP ISOMETRIC



SECTION A-A

SECTION B-B

NOTES:

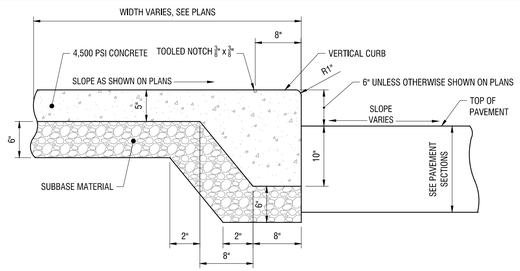
1. 7.5% IS MAXIMUM SLOPE OF ACCESS RAMP.
2. SURFACE OF ACCESS RAMP IS TO BE STABLE, FIRM AND SLIP-RESISTANT. TEXTURE SURFACE WITH COARSE BROOM RUNNING TRANSVERSE TO SLOPE OF ACCESS RAMP.
3. ENTIRE AREA OF ACCESS RAMP AND LANDING PAD IS TO BE 7 INCH THICK CONCRETE.

7 / C503 SIDEWALK RAMP TYPE B

N.T.S.

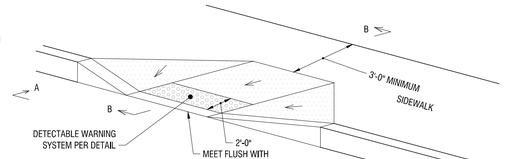
8 / C503 SIDEWALK RAMP TYPE D

N.T.S.

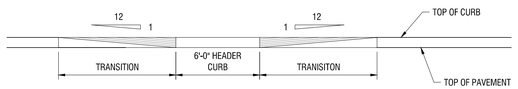


6 / C503 CONCRETE SIDEWALK AND INTEGRAL VERTICAL CURB SECTION

N.T.S.



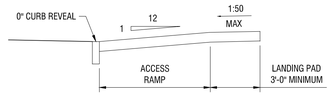
SIDEWALK RAMP TYPE A ISOMETRIC



VIEW A-A

NOTES:

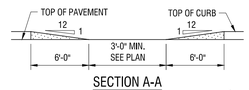
1. 1:12 IS MAXIMUM SLOPE OF ACCESS RAMP AND SIDE FLARE IN PAVED AREA.
2. SURFACE OF ACCESS RAMP IS TO BE STABLE, FIRM AND SLIP-RESISTANT. TEXTURE SURFACE WITH COARSE BROOM RUNNING TRANSVERSE TO SLOPE OF ACCESS RAMP.
3. ENTIRE AREA OF ACCESS RAMP AND LANDING PAD IS TO BE 7 INCH THICK CONCRETE.



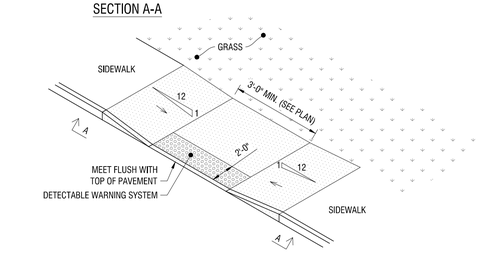
SECTION B-B

5 / C503 SIDEWALK RAMP TYPE A

N.T.S.



SECTION A-A



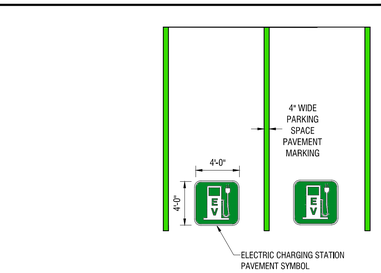
ACCESS RAMP - TYPE C ISOMETRIC

NOTES:

1. 1:12 IS MAXIMUM SLOPE OF ACCESS RAMP.
2. SURFACE OF ACCESS RAMP IS TO BE STABLE, FIRM AND SLIP-RESISTANT. TEXTURE SURFACE WITH COARSE BROOM RUNNING TRANSVERSE TO SLOPE OF ACCESS RAMP.
3. ENTIRE AREA OF ACCESS RAMP AND LANDING PAD IS TO BE 7 INCH THICK CONCRETE.

4 / C503 SIDEWALK RAMP TYPE C

N.T.S.





ACCESSIBLE SYMBOL
COLOR WHITE ON BLUE BACKGROUND



12" X 18"
ELECTRIC VEHICLE CHARGING STATION



12" X 18"
NO PARKING
MUTCD R7-1
FEDERAL DESIGNATION



ELECTRIC CHARGING SYMBOL
4'x4', COLOR WHITE ON GREEN BACKGROUND

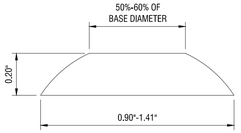


12" X 18"
RESERVED
NY R7-8
FEDERAL DESIGNATION

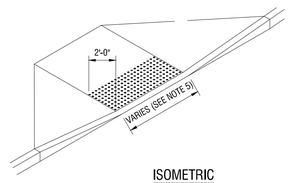
12" X 6"
VAN ACCESSIBLE
MUTCD R7-8a
FEDERAL DESIGNATION

3 / C503 PAVEMENT MARKINGS AND SIGNAGE

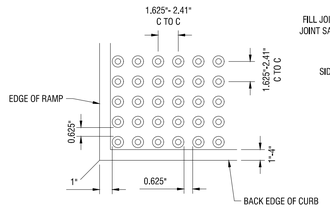
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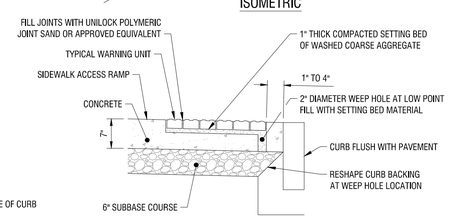
DOME SECTION



ISOMETRIC



DOME SPACING



SECTION

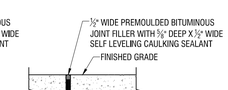
NOTES:

1. QUANTITY OF TRUNCATED DOMES SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND TO DEPICT REQUIRED SQUARE GRID PATTERN.
2. TRUNCATED DOMES ARE TO BE ALIGNED ON THE SQUARE GRID PATTERN IN THE PREDOMINANT DIRECTION OF TRAVEL.
3. ENTIRE DETECTABLE WARNING SYSTEM FIELD, INCLUDING TRUNCATED DOMES, IS TO BE DARK GRAY IN COLOR, N7 PER MUNSELL BOOK NOTATION, OR APPROVED EQUIVALENT.
4. OUTER EDGE OF THE DETECTABLE WARNING SYSTEM FIELD IS TO BE LOCATED SO THAT THE EDGE OF THE WARNING FIELD NEAREST TO THE STREET IS 1 TO 4 INCHES BEHIND THE BACK EDGE OF THE CURB SECTION.
5. DETECTABLE WARNING SYSTEM IS TO EXTEND ACROSS THE FULL WIDTH OF A SIDEWALK ACCESS RAMP, BUT NOT UP THE SIDE FLARES.

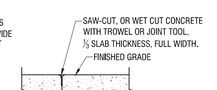
2 / C503 BRICK DETECTABLE WARNING SYSTEM AT CURB

N.T.S.

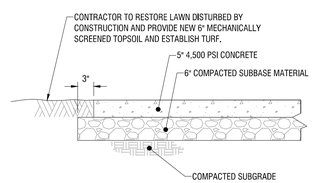




EXPANSION JOINT



CONTROL JOINT



SIDEWALK NOTES:

1. CONCRETE SHALL BE 4,500 PSI AIR ENTRAINED MIX AT 28 DAYS
2. COMPACTED SUBBASE MATERIAL SHALL COMPLY WITH NYSDOT ITEM 304.14, TYPE 4
3. CONCRETE SURFACE SHALL RECEIVE A BROOM FINISH AND TWO COATS OF A MEMBRANE FORMING SEALER AT RATES SPECIFIED BY THE PRODUCT MANUFACTURE.
4. EXPANSION JOINTS SHALL BE PROVIDED AT ALL FITTED STRUCTURES AND AT EVERY 25' ON CENTER.
5. CONTROL JOINTS SHALL BE EVERY 5' OR AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH ACI 330-R92. THESE JOINTS SHALL BE COMPLETED WITHIN 24 HOURS OF CONCRETE PLACEMENT. SCORED JOINTS SHALL BE ¼-INCH WIDTH MINIMUM AND ¼ OF THE THICKNESS OF THE CONCRETE
6. SIDEWALK ADJACENT TO THE CURB SHALL HAVE A 2.00% CROSS-SLOPE TO THE CURB. OTHER AREA AS INDICATED ON THE GRADING PLAN.
7. ALL JOINTS AND EXPOSED EDGES SHALL BE ROUNDED WITH JOINT TOOL.

1 / C503 CONCRETE SIDEWALK

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Buffalo, NY 14202
716-551-6281

labellapc.com

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec, 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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Revisions		

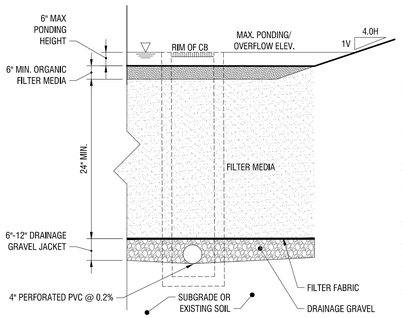
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DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

CONSTRUCTION DETAILS

DRAWING NUMBER:

C503

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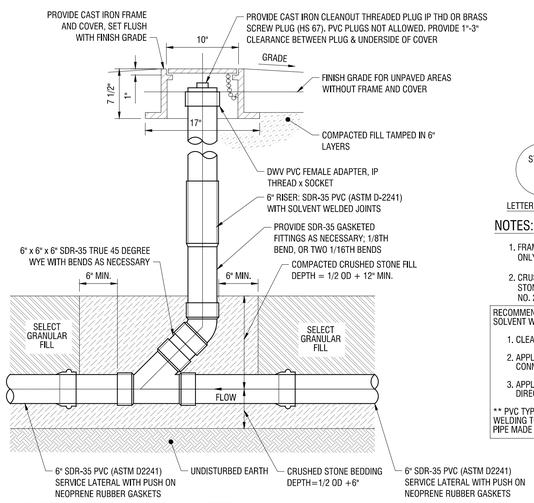


NOTES:

1. CONTRACTOR SHALL INSTALL FILTER MEDIA AFTER SITE HAS BEEN STABILIZED TO MINIMIZE POTENTIAL OF SEDIMENT CONTAMINATION OF MEDIA.
2. FILTER MEDIA SHALL BE LOAM/SAND MIX, NYSDOT BIO SOIL MIX ITEM #208.01030022, CONTAINING A MINIMUM OF 85% TO 88% COARSE/MEDIUM SAND BY VOLUME, 8% TO 12% SOIL FINES, AND 3% TO 5% ORGANIC MATTER.
3. ORGANIC FILTER MEDIA SHALL MEET SAME CRITERIA AS ABOVE WITH THE EXCEPTION OF CONTAINING 10% TO 12% ORGANIC MATTER.
4. SOIL SHOULD FALL WITHIN USCS TYPES SM OR ML WITH PERMEABILITY OF AT LEAST 1.0 FEET PER DAY. SOIL SHOULD BE FREE FROM STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER.
5. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED TO AT MOST 80% PROCTOR TEST. PH RANGE: 5.2 - 7.00.
6. FILTER FABRIC TO BE NON-WOVEN CLASS 'C', MIRAFI 180-N OR APPROVED EQUIVALENT
7. DRAINAGE GRAVEL TO MEET AASHTO M-43. NO.67, SIZE 0.25" TO 0.75"
8. CONTRACTOR TO PROVIDE PLANTING SOIL SUBMITTAL SPECIFICATION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
9. WETLAND SEED MIX SHALL BE USED AS INDICATED IN SPECIFICATIONS.
10. CONTRACTOR SHALL PROVIDE AT LEAST TWO PERMEABILITY TESTS FOR EACH FACILITY LOCATED AT OPPOSITE SIDES OF FACILITY.

8 / C504 BIORETENTION

N.T.S.



STORM C.O.

LETTERING ON COVER

NOTES:

1. FRAME AND COVER TO BE USED ONLY IN PAVED AREAS.
2. CRUSHED STONE: NO. 1 WASHED STONE OR A MIX OF NO. 1 AND NO. 2 WASHED STONE

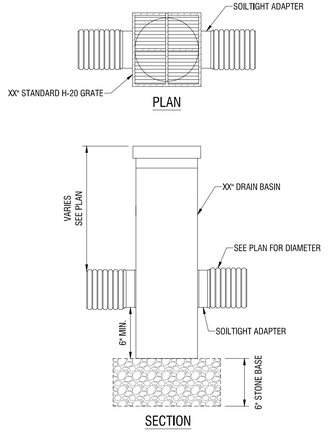
RECOMMENDED METHODS FOR JOINING OF SOLVENT WELD PIPE:

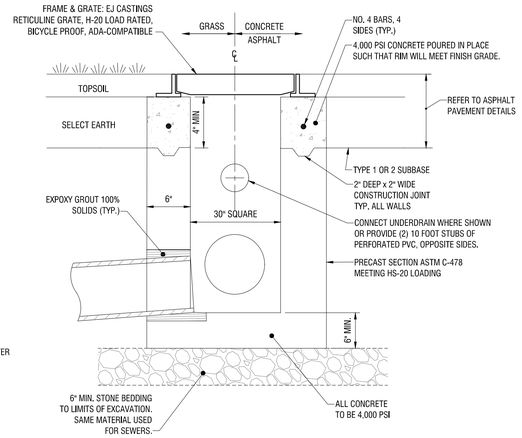
1. CLEAN DRY HUBS & SPIGOTS
2. APPLY PRIMER TO PARTS BEING CONNECTED
3. APPLY PVC SOLVENT WELD CEMENT DIRECTLY OVER PRIMER

** PVC TYPE IS COMPATIBLE FOR SOLVENT WELDING TO SDR-35 OR ANY OTHER PVC TYPE I PIPE MADE TO STEEL PIPE OUTSIDE DIMENSIONS

6 / C504 CLEANOUT FOR NEW STORM LATERAL

N.T.S.





NOTES:

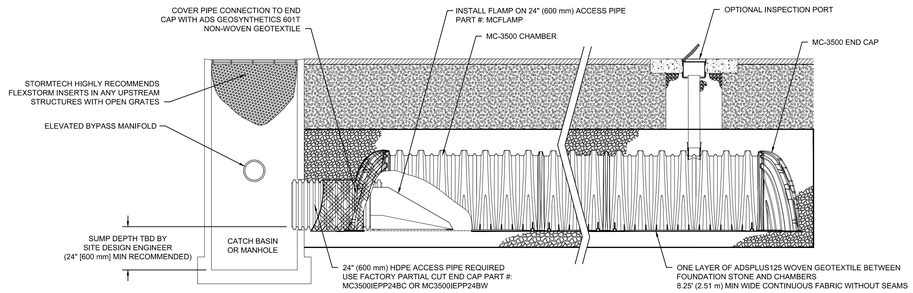
1. THE ENTIRE EXTERIOR & INTERIOR SURFACES OF THE CATCH BASIN SHALL BE PAINTED WITH TWO COATS OF BITUMASTIC COATING.
2. CATCH BASIN SHALL NOT BE CONNECTED TO ANY SANITARY SEWER.
3. PROVIDE FRAMES AND GRATES CONFORMING TO NYSDOT STANDARD SHEETS M655-10R3, M655-6.
4. FRAMES TO HAVE APPROPRIATE STRAP ANCHORS.

3 / C504 DRAIN BASIN

N.T.S.

2 / C504 CATCH BASIN

N.T.S.

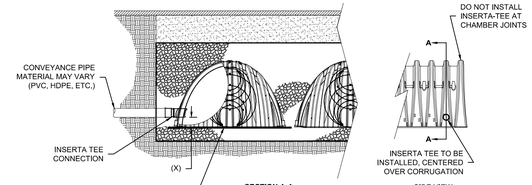


7 / C504 MC-3500 ISOLATOR ROW PLUS DETAIL

N.T.S.

INSERTA TEE DETAIL

NTS



CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-800	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	8" (200 mm)
MC-7200	12" (300 mm)	8" (200 mm)

INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON

NOTES:

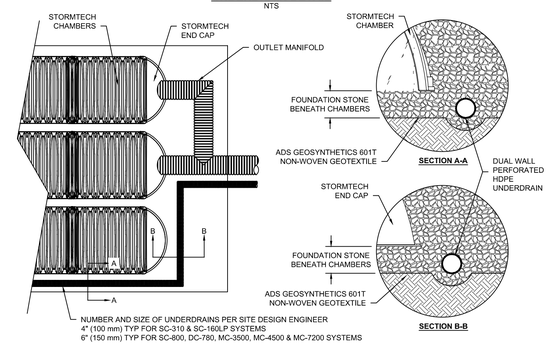
- PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.
- CONTACT ADS ENGINEERING SERVICES IF INSERTA TEE INLET MUST BE RAISED AS NOT ALL INVERTS ARE POSSIBLE.

5 / C504 MC-3500 INSERTA-TEE INLET

N.T.S.

UNDERDRAIN DETAIL

NTS



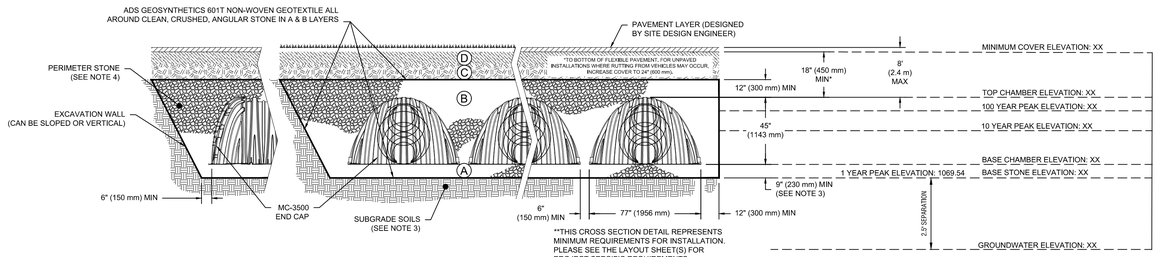
4 / C504 MC-3500 UNDERDRAIN

N.T.S.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 18" (450 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3" (75 mm).
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 / C504 MC-3500 CROSS SECTION

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CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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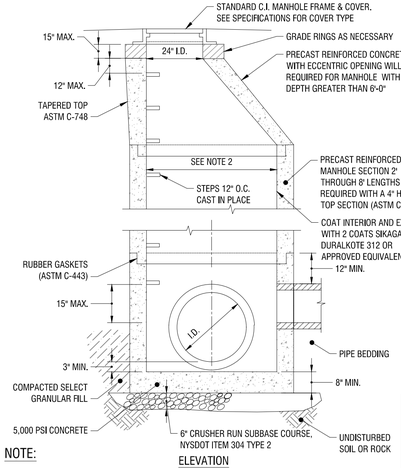
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REVIEWED BY: SRV / DPB
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DATE: 4/20/2026
DRAWING NAME:

CONSTRUCTION DETAILS

DRAWING NUMBER:

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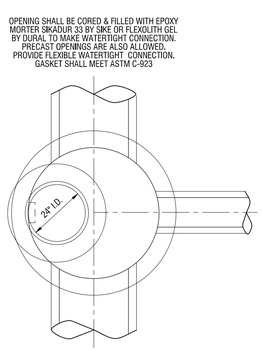
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ELEVATION

NOTE:

1. PRECAST REINFORCED CONCRETE BASE REQUIRED FOR MANHOLE WITH DEPTH GREATER THAN 6'-0".
2. REFER TO TABLE
3. MANHOLES ARE TO BE FLANGED AND WATER TIGHT IN HIGH WATER TABLE AREAS



PLAN

MINIMUM MANHOLE DIAMETERS

# OF CONNECTIONS	PIPE DIAMETERS 8"	10"	12"	15"	16"	18"	21"	24"	30"	36"	42" & UP
ONE	4'	4'	4'	4'	4'	4'	4'	4'	5'	5'	REQUIRES SPECIAL MANHOLE
TWO	4'	4'	4'	4'	4'	4'	4'	4'	5'	5'	
THREE	4'	4'	4'	4'	4'	4'	5'	5'	5'	5'	
FOUR	4'	4'	4'	5'	5'	5'	5'	5'	5'	5'	

8 C505 CONCENTRIC STORM MANHOLE

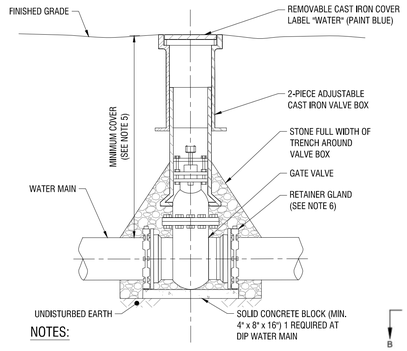
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LETTERING ON COVER

MINIMUM MANHOLE DIAMETERS

# OF CONNECTIONS	PIPE DIAMETERS 8"	10"	12"	15"	16"	18"	21"	24"	30"	36"	42" & UP
ONE	4'	4'	4'	4'	4'	4'	4'	4'	5'	5'	REQUIRES SPECIAL MANHOLE
TWO	4'	4'	4'	4'	4'	4'	4'	4'	5'	5'	
THREE	4'	4'	4'	4'	4'	4'	5'	5'	5'	5'	
FOUR	4'	4'	4'	5'	5'	5'	5'	5'	5'	5'	

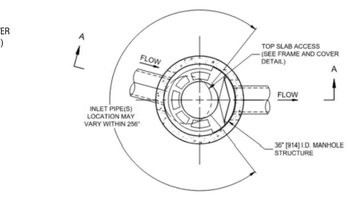


NOTES:

1. VALVE BOXES SHALL BE CENTERED ON VALVE AND SET ON COMPACTED BACKFILL.
2. VALVE SHALL NOT SUPPORT VALVE BOX.
3. BODY AND BONNET BOLTS SHALL BE STAINLESS STEEL.
4. VALVES SHALL BE OPEN RIGHT.
5. MINIMUM COVER SHALL BE AS SHOWN ON WATER MAIN TRENCH DETAIL.
6. RETAINER GLANDS NOT REQUIRED AT HYDRANT GUARD VALVES. GUARD VALVES SHALL BE RESTRAINED WITH ANCHOR PIPE.
7. REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

7 C505 MJ GATE VALVE

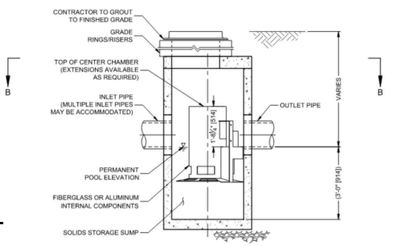
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PLAN VIEW B-B
NOT TO SCALE



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CASCADE separator™

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-3 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
NOTES / SPECIAL REQUIREMENTS:			

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE, www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION, ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES

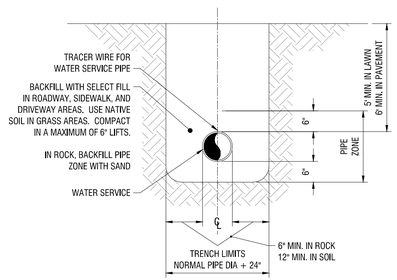
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CS-3
CASCADE SEPARATOR
STANDARD DETAIL

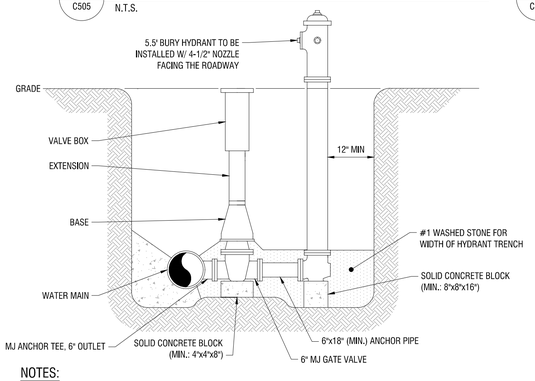
6 C505 WATER QUALITY UNIT

N.T.S.



5 C505 WATER SERVICE TRENCH

N.T.S.

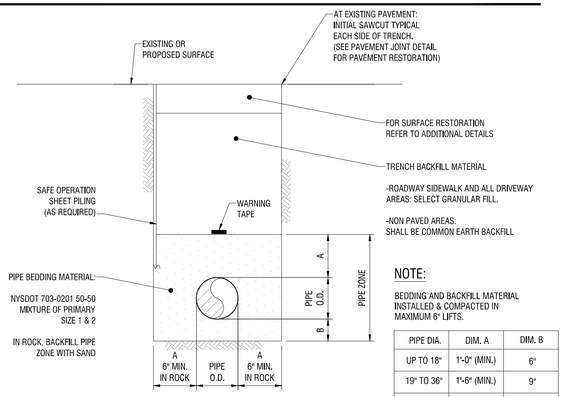


NOTES:

1. HYDRANT TO BE MUELLER SUPER CENTURION 250 - MODEL A-423 OR APPROVED EQUAL.
2. HYDRANT TO BE PAINTED RED.
3. HYDRANT MAIN VALVE SEAT SHALL BE 4 1/2" IN DIAMETER.
4. HYDRANT VALVE TO TURN LEFT.

4 C505 TYPICAL WATER MAIN VERTICAL TRANSITION

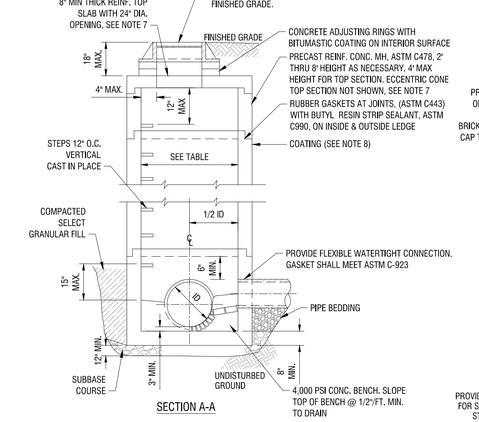
N.T.S.



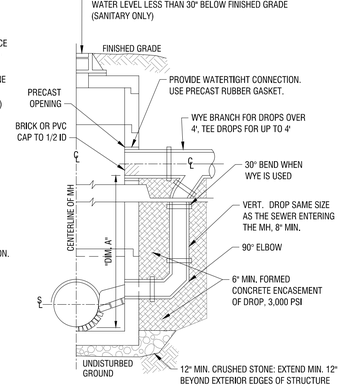
NOTE:

BEDDING AND BACKFILL MATERIAL INSTALLED & COMPACTED IN MAXIMUM 6" LIFTS.

PIPE DIA.	DIM. A	DIM. B
UP TO 18"	1'-0" (MIN.)	6"
19" TO 36"	1'-6" (MIN.)	9"
OVER 36"	2'-0" (MIN.)	12"



SECTION A-A

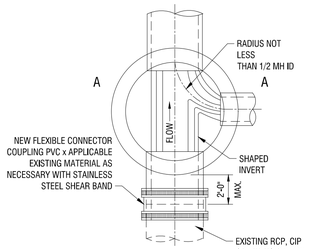


PROVIDE DROP WHERE DIM. "A" IS EQUAL TO OR GREATER THAN 2' FOR SANITARY SEWERS, OR EQUAL TO OR GREATER THAN 5' FOR STORM SEWERS, UNLESS NOTED OTHERWISE ON PLANS.

SECTION A-A
(FOR OUTSIDE DROP CONNECTION & WATERTIGHT MH FRAME & COVER)

NOTES:

1. IF AN INVERT IS NOT GIVEN, THE CROWN OF THE INFLUENT SEWER(S) SHOULD BE AT THE SAME LEVEL OR ABOVE THE CROWN OF THE OUTLET SEWER.
2. PIPE CONNECTIONS 6" DIAMETER AND SMALLER MAY BE FIELD CORED. CORED OPENINGS IN MANHOLE RISER SECTIONS SHALL BE NOT LESS THAN 6" FROM A RISER JOINT.
3. ALL RISER JOINTS SHALL BE RUBBER RING GASKETS CONFORMING TO ASTM C443 WITH FLEXIBLE JOINT SEALER ON OUTSIDE OF JOINTS.
4. PRECAST BASES, RISER SECTIONS & TOP SLABS SHALL CONFORM WITH ASTM C478, W/ HS-20 LOADING AND 30% IMPACT LOADING DESIGN.
5. CONCRETE FOR STRUCTURE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
6. INVERT AND BENCH MAY BE CONSTRUCTED WITH BRICK OR POURED CONCRETE. PVC AND/OR ABS PIPE SHALL NOT BE USED WITHIN THE MANHOLE.
7. ECCENTRIC CONE TYPE TOP SECTIONS FOR MANHOLES SHALL BE USED WHERE THE INSIDE HEIGHT DIMENSION FROM THE BENCH WALL TO THE BOTTOM OF THE ECCENTRIC SECTION EXCEEDS 8', OTHERWISE PROVIDE FLAT SLAB TOP SECTIONS.
8. INSIDE AND OUTSIDE OF MANHOLE TO BE EPOXY COATED TO ONE FOOT ABOVE THE HIGHEST PIPE CROWN. AREAS OUTSIDE OF ONE FOOT ABOVE HIGHEST PIPE CROWN TO RECEIVE TWO COATS OF BITUMASTIC COATING ON BOTH THE INSIDE AND OUTSIDE OF MANHOLE.



3 C505 SANITARY MANHOLE

N.T.S.

2 C505 HYDRANT ASSEMBLY

N.T.S.

1 C505 STORM/SANITARY SEWER TRENCH AND PIPE BEDDING

N.T.S.

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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NO:	DATE:	DESCRIPTION:
Revisions		

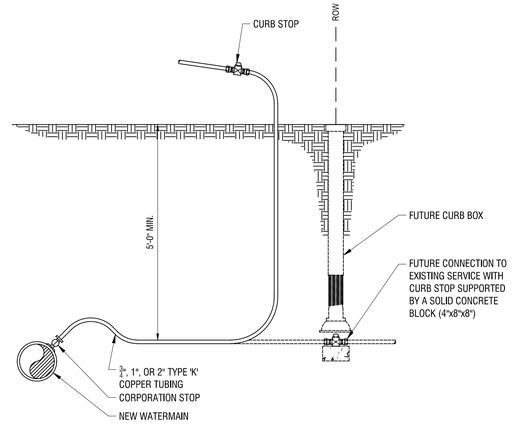
PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

CONSTRUCTION DETAILS

DRAWING NUMBER:

C505

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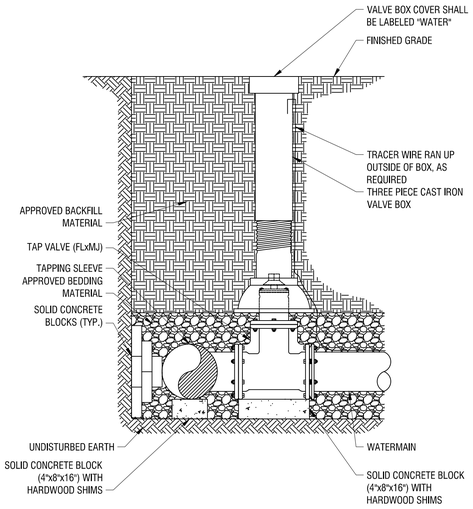


NOTES:

1. AFTER COMPLETION OF TESTING, THE SAMPLE POINT SHALL BE UTILIZED FOR A SERVICE CONNECTION. IF UNABLE TO UTILIZE FOR A SERVICE REPLACE THE CORPORATION STOP IN PIPE WITH A THREADED BRASS PLUG.

5 C506 TEMPORARY BLOW-OFF / SAMPLE POINT

ECWA STANDARD DETAIL

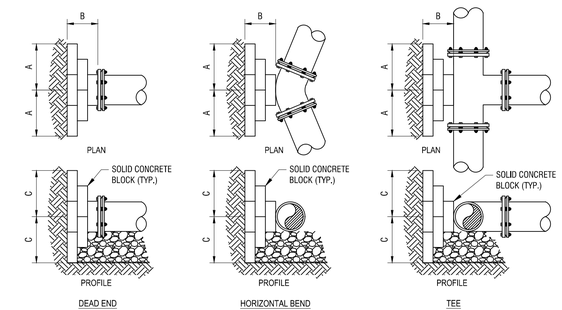


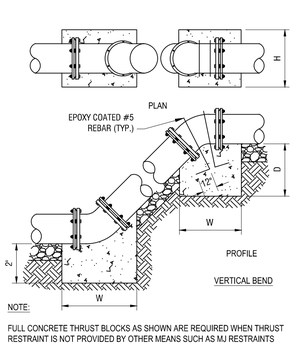
NOTES:

1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. TAP VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

4 C506 TAPPING SLEEVE AND VALVE

ECWA STANDARD DETAIL





PIPE SIZE	90° BEND, TEE, OR DEAD END			45° BEND		
	A	B	C	A	B	C
6"	1.5'	1.0'	0.5'	0.75'	1.0'	0.5'
8"	1.5'	1.0'	0.75'	1.5'	1.0'	0.5'
10"	1.5'	1.5'	1.0'	1.5'	1.5'	0.75'
12"	2.0'	2.0'	1.0'	1.75'	1.75'	0.75'

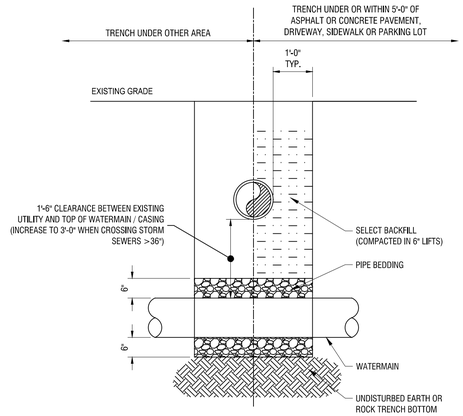
PIPE SIZE	22.5° BEND			11.25° BEND		
	A	B	C	A	B	C
6"	0.5'	1.0'	0.5	0.5'	1.0'	0.5
8"	0.75'	1.0'	0.5'	0.5'	1.0'	0.5'
10"	1.0'	1.5'	0.75'	1.0'	1.0'	0.75'
12"	1.25'	1.75'	0.75'	1.25'	1.25'	0.75'

PIPE SIZE	VERTICAL BEND UP			VERTICAL BEND DOWN		
	D	H	W	D	H	W
6"	2.0'	5.0'	3.0'	3.5'	3.5'	3.0'
8"	2.0'	6.0'	4.0'	4.5'	4.5'	4.0'
10"	2.0'	6.25'	4.5'	4.75'	4.75'	4.5'
12"	2.0'	6.5'	5.0'	5.0'	5.0'	5.0'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

3 C506 THRUST BLOCKS

ECWA STANDARD DETAIL

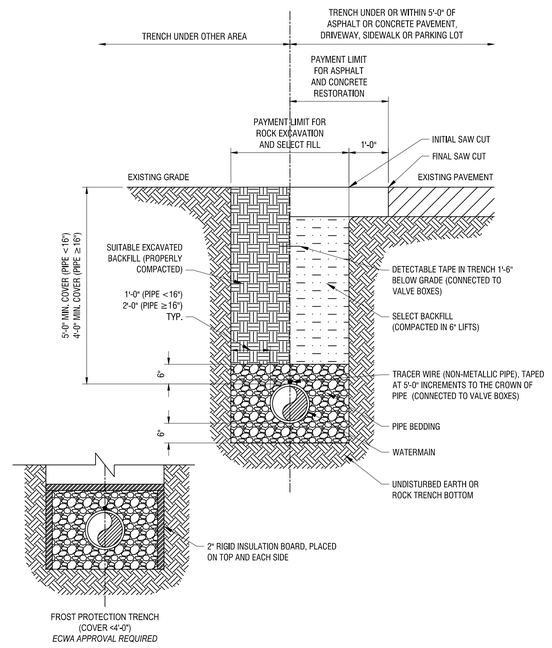


NOTES:

1. ALL EXISTING UTILITIES MUST BE SUPPORTED WITH APPROPRIATE CHAINS / STRAPS DURING CONSTRUCTION OF THE NEW WATERMAIN. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE OWNER FOR THEIR PREFERRED SUPPORT REQUIREMENTS.
2. WHEN CROSSING A SEWER LINE WITH NEW WATERMAIN (AND WITHOUT A CASING PIPE), ONE FULL LENGTH (18'-0" MIN.) SHALL BE USED AT THE POINT OF CROSSING. THE WATERMAIN SHALL BE PLACED SO THAT BOTH JOINT ENDS ARE AS FAR AS POSSIBLE FROM THE EXISTING SEWER.
3. IF CASING PIPE IS USED, IT SHALL EXTEND 5'-0" BEYOND THE EXISTING PIPE OUTER EDGE IN EACH DIRECTION, AND NO WATERMAIN JOINTS OR FITTINGS SHALL BE LOCATED WITHIN 4'-0" FROM THE CASING PIPE EDGE.

2 C506 PIPE CROSSING DETAIL

ECWA STANDARD DETAIL



1 C506 TYPICAL TRENCH DETAIL

ECWA STANDARD DETAIL

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PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
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CONSTRUCTION DETAILS

DRAWING NUMBER:

C506

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STANDARD FRAME AND COVER (PRIVATE SEWER)
(NOVEMBER 2023)

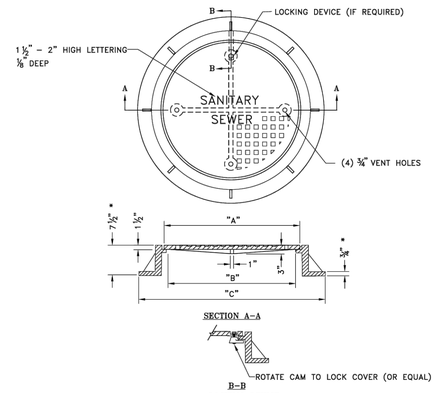


TABLE				
PIPE SIZE	DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	WEIGHT OF COVER
8" THRU 18"	24"	22 1/4"	35"(MAX.)	150 LBS. ± 5%
OVER 18"	32"	30"	46"(MAX.)	200 LBS. ± 5%

STANDARD FRAME AND COVER NOTES

1. MATERIAL: ASTM A48 CLASS 30B CAST IRON CONFORMING TO AASHTO DESIGNATION M105–06.
2. UNIT MUST WITHSTAND H–20 WHEEL LOADING, AND CONFORM TO AASHTO DESIGNATION M306–10.
3. ALL DIMENSIONS ARE TO BE CONSIDERED MINIMUM WITH THE EXCEPTION OF THE COVER, WHICH MUST CONFORM EXACTLY TO MAINTAIN INTERCHANGEABILITY WITHIN THE COUNTY.
4. COVER WEIGHT 210 LBS. (MAX)
5. COATING NOT REQUIRED.
6. FRAMES AND COVERS SHALL HAVE MACHINED BEARING SURFACES.
7. LOCKING DEVICE MUST BE SITUATED TO ALLOW EASY REMOVAL OF COVER.
8. NO COMMERCIAL "BRAND NAME" LETTERING WILL BE ALLOWED ON THE EXPOSED SURFACE OF THE COVER.
9. * 1/2" FLANGE THICKNESS AND 7" HEIGHT ACCEPTABLE IF CLASS 35 CAST IRON MATERIAL PROVIDED.

ERIE COUNTY
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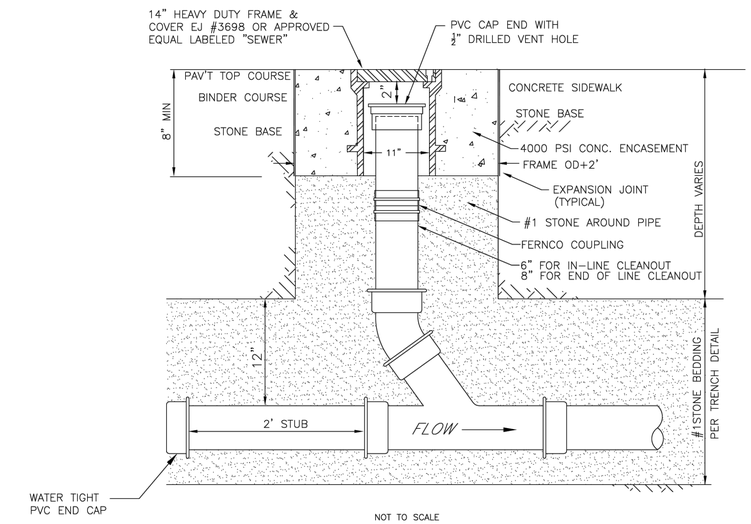
Rev. 1	11/28/18	REVISED NOTES 1 & 2 TO REFERENCE AASHTO STANDARDS & ADDED NOTE 9
Rev. 2		
Rev. 3		
Rev. 4		
File: D–13P	Date: 2/05	

STD.DETAIL
13P

File: V:\DSA\Engineering\CAD\Details\Details November 2023\D–13P.dwg, Last saved: 12/5/2023, Plot Date: 2/2/2015, Plot Style: DETAILS.CTB

4 C507 STANDARD FRAME AND COVER DETAIL
ERIE COUNTY SEWER STANDARD DETAIL

Cleanout in Pavement/Sidewalks
(NOVEMBER 2023)



NOT TO SCALE

ERIE COUNTY
DEPT. OF ENVIRONMENT & PLANNING
DIVISION OF SEWERAGE MANAGEMENT

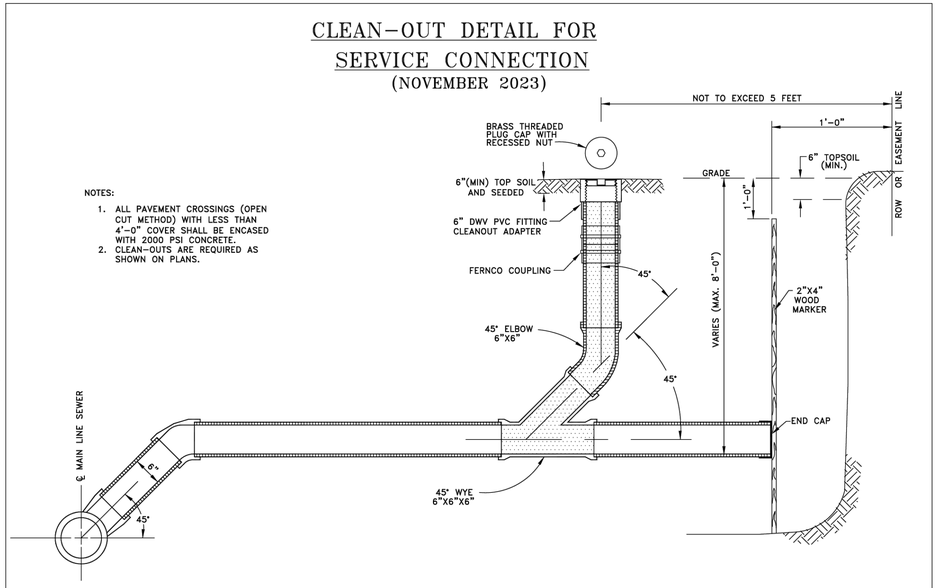
REV 07/99	ADD MIN. DISTANCE AND MARKER	
REV 12/01	ADDED #1 STONE AROUND PIPE	
REV 01/12	REMOVED 2X4 MARKER	
REV 11/23	ADD FERNCO COUPLING & EJ 3698	
File: D–53	Date: 5/13/97	

STD. DETAIL
53

File: V:\DSA\Engineering\CAD\Details\Details November 2023\D–53.dwg, Last saved: 12/13/2023, Plot Date: 12/14/2023, Plot Style: DETAILS.CTB

3 C507 CLEANOUT IN PAVEMENT/SIDEWALK DETAIL
ERIE COUNTY SEWER STANDARD DETAIL

CLEAN–OUT DETAIL FOR SERVICE CONNECTION
(NOVEMBER 2023)



NOTES:
1. ALL PAVEMENT CROSSINGS (OPEN CUT METHOD) WITH LESS THAN 4'–0" COVER SHALL BE ENCASED WITH 2000 PSI CONCRETE.
2. CLEAN–OUTS ARE REQUIRED AS SHOWN ON PLANS.

ERIE COUNTY
DEPT. OF ENVIRONMENT & PLANNING
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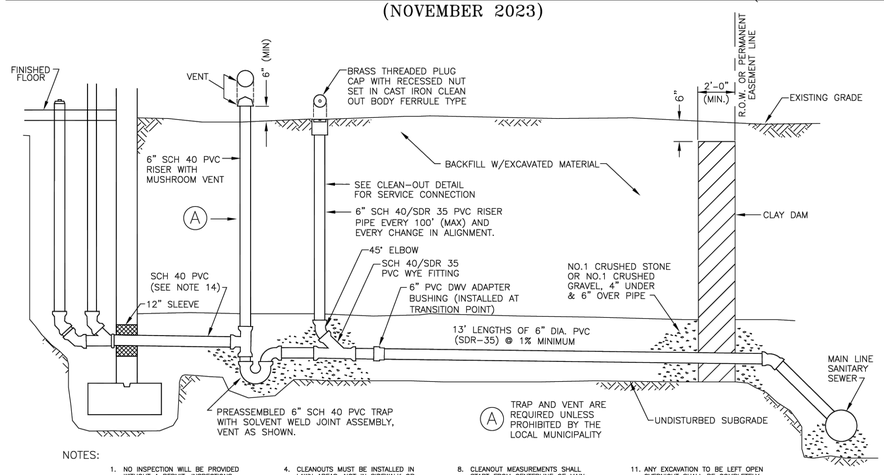
Rev. 1	2/94	CHANGED DIM LINE FOR MAX. DEPTH
Rev. 2	12/01	ADDED NOTE 7
Rev. 3	5/02	CHANGED C.I. CAP TO BRASS
Rev. 4	6/05	1' MIN. FROM EDGE OF WALK NOTE
Rev. 5	1/12	CHANGED C.I. TO BRASS NOTES 1 & 3
Rev. 5	3/24	REVISED NOTES & REMOVED CAST IRON
File: D–28	Date: 3/1/91	

STD. DETAIL
28

File: V:\DSA\Engineering\CAD\Details\Details November 2023\D–28.dwg, Last saved: 3/15/2024, Plot Date: 3/15/2024, Plot Style: DETAILS.CTB

2 C507 CLEANOUT DETAIL FOR SERVICE CONNECTION
ERIE COUNTY SEWER STANDARD DETAIL

TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (NEW BUILDS)
(NOVEMBER 2023)



NOTES:
1. NO INSPECTION WILL BE PROVIDED WITHOUT A PERMIT. INSPECTIONS REQUIRE 48 HR. ADVANCE NOTICE FOR SCHEDULING.
2. ALL WORK MUST BE INSPECTED BY A COUNTY INSPECTOR.
3. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D–3033/D–3034.
4. CLEANOUTS MUST BE INSTALLED IN LAWN AREAS, NOT IN SIDEWALK OR DRIVEWAY AREAS, PREFERABLY BETWEEN THE CURB OR EDGE OF PAVEMENT AND THE SIDEWALK.
5. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
6. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'–0" UNDER PAVED AREAS.
7. MIN. DEPTH OF COVER 3'–0".
8. CLEANOUT MEASUREMENTS SHALL START FROM CENTERLINE OF MAIN SEWER FOR NEARSIDE LATERALS AND FROM THE 6" CLEANOUT FOR FAR SIDE CONNECTIONS. A CLEANOUT MAY BE REQUIRED FOR ANY ABRUPT CHANGES IN LATERAL DIRECTION FLOW.
9. A 6" CLEANOUT IS REQUIRED AT R.O.W. WHENEVER THE MAIN SEWER IS UNDER THE PAVEMENT LIMITS OR AT FAR SIDE OF PAVEMENT.
10. SEPTIC TANKS MUST BE ABANDONED PER NYSDEC APPROVED METHODS.
11. ANY EXCAVATION TO BE LEFT OPEN OVERNIGHT SHALL BE COMPLETELY ENCLOSED IN FENCING, OR WHERE NECESSARY, COVERED WITH STEEL PLATES.
12. DOWN SPOUTS, SUMP PUMPS, AND FOOTING DRAINS ARE NOT PERMITTED TO BE CONNECTED TO THE LATERAL.
13. NO CONNECTION SHALL BE MADE UNTIL BUILDING ROOF IS ERECTED.
14. IF CAST IRON IS USED EXITING THE BUILDING, A MISSION COUPLING IS REQUIRED BEFORE THE TRAP.

ERIE COUNTY
DEPT. OF ENVIRONMENT & PLANNING
DIVISION OF SEWERAGE MANAGEMENT

Rev. 1/07	REMOVED OLD NOTES 2 AND 18 ADDED 1% MIN. TO SERVICE PIPE DETAIL	
Rev. 11/08	ADDED SLEEVE AND PVC–SDR 35	
Rev. 1/12	REVISED 6" CAST IRON TRAP NOTE	
Rev. 10/21	REMOVED VENT, RISER, AND TRAP ASSEMBLY	
Rev. 11/23	ADDED VENT, RISER, TRAP ASSEMBLY & Ⓐ	
Rev. 3/24	CHANGED VENT, RISER, TRAP ASSEMBLY SCH 40	
File: D–22	Date: 3/1/91	

STD. DETAIL
22

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1 C507 TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL
ERIE COUNTY SEWER STANDARD DETAIL

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Revisions		

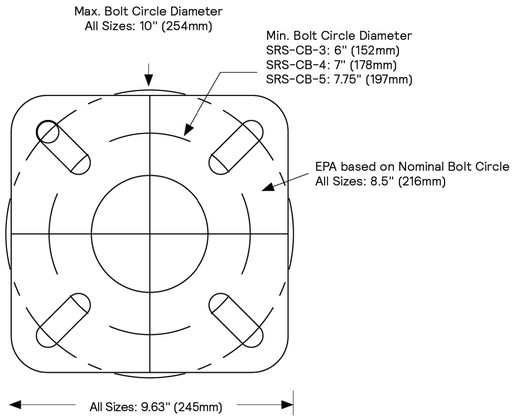
PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

CONSTRUCTION DETAILS

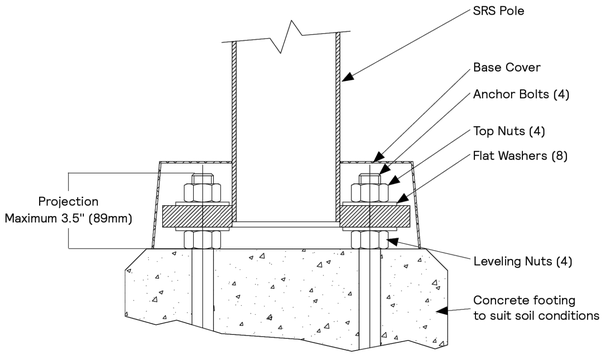
DRAWING NUMBER:

C507

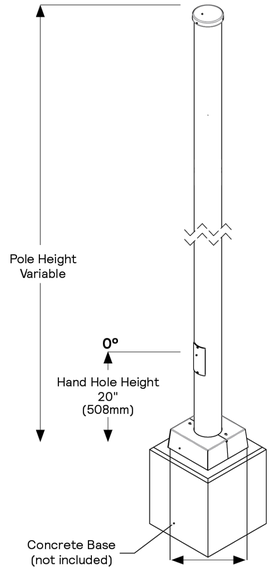
4/20/2026 1:17:17 PM
\\cash.lab\PGLOBAL\Projects\Home Leasing Services\2241067 - Affordable Housing West Seneca\06_Drawings\Civil\C500 CONSTRUCTION DETAILS.dwg



Legacy Model: Round 10.5" Diameter Base
with 8.5" Nominal Bolt Circle (not shown)



Section Base



Base Cover Dimensions (L x W x H)
All Sizes: 10.32" x 10.32" x 4.08"
(262mm x 262mm x 104mm)

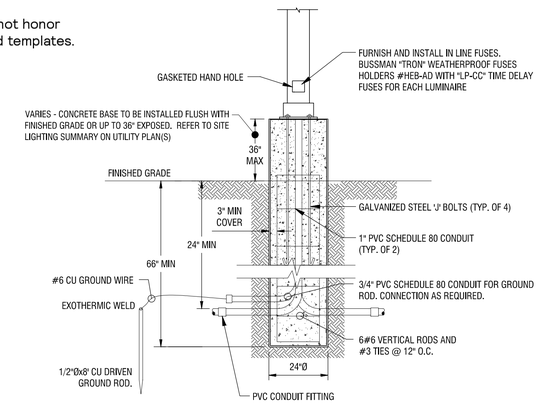
SRS Legacy Design not shown.
Legacy Base Cover: Round - 10.7" Diameter x 4.5" Height
Hand Hole: 12" Above Base

* Anchor Bolt Lock Washers are not normally required and are not included in standard anchor bolt sets. They are available upon request at additional cost.

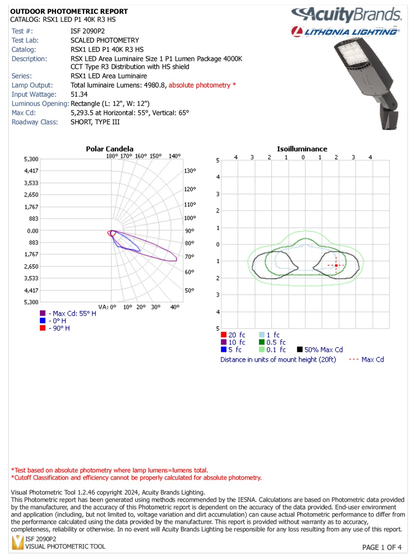
** Grouting should include a drainage slot or tube (by others) to permit water to drain from the base of the pole. Failure to provide drainage may weaken the pole base structure over time and may result in pole base failure, for which Gardco is not responsible.

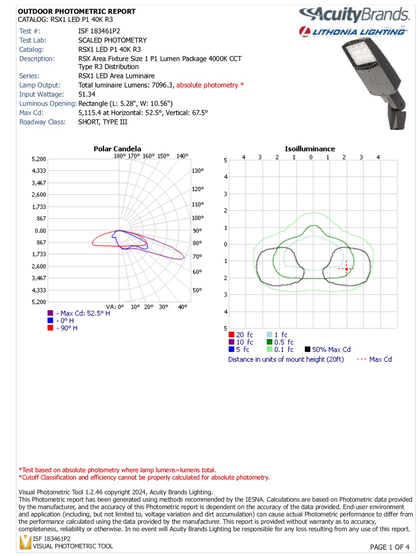
NOTE: Factory supplied template must be used when setting anchor bolts. Gardco will not honor any claim for incorrect anchorage placement from failure to use factory supplied templates.

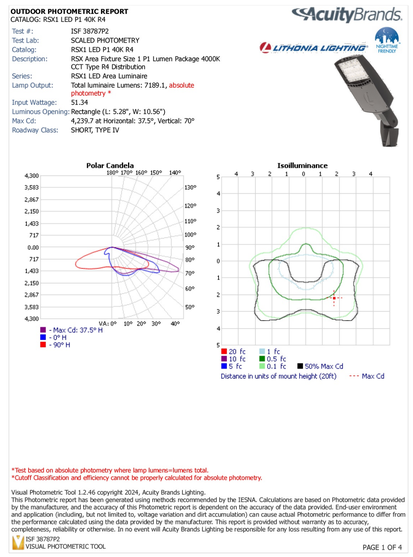
3 / C508 PARKING LOT STEEL POLE (MC-01 POLE)
N.T.S.

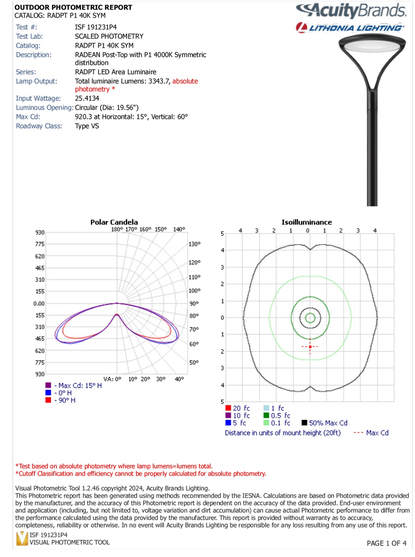


2 / C508 TYPICAL SITE LIGHTING POLE BASE DETAIL
N.T.S.









1 / C508 LIGHTING FIXTURES / PHOTO METRICS
N.T.S.

NOT FOR CONSTRUCTION

LaBella
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300 Pearl Street, Suite 130
Buffalo, NY 14202
716-551-6281

labellapc.com

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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HOME LEASING
75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604

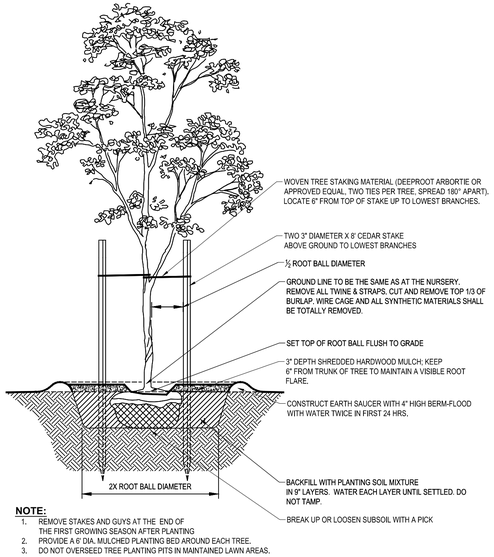
HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME: CONSTRUCTION DETAILS
DRAWING NUMBER: C508

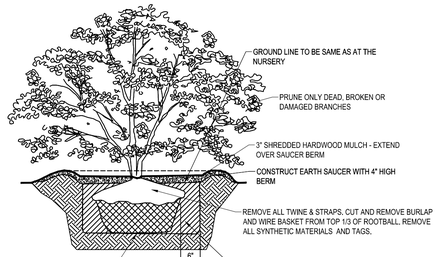
NOT FOR CONSTRUCTION



NOTE:
1. REMOVE STAKES AND GUYS AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING
2. PROVIDE A 6' DIA. MULCHED PLANTING BED AROUND EACH TREE.
3. DO NOT OVERSEED TREE PLANTING PITS IN MAINTAINED LAWN AREAS.

4 / L501 DECIDUOUS TREE PLANTING

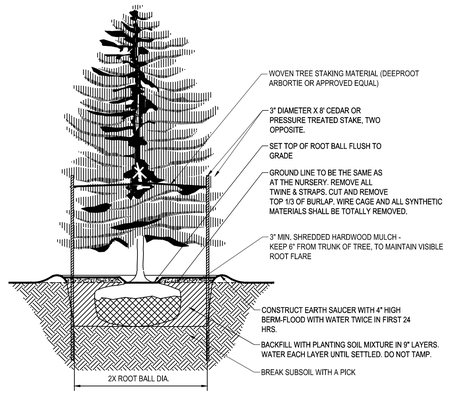
N.T.S.



NOTE:
1. PROVIDE A CONTINUOUS MULCHED PLANTING BED FOR ALL SHRUB PLANTINGS.
2. DO NOT OVERSEED SHRUBS IN PLANTING BEDS OR PITS IN MAINTAINED LAWN AREAS

3 / L501 SHRUB PLANTING

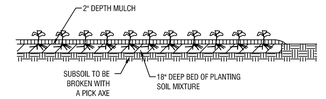
N.T.S.



NOTE:
1. REMOVE STAKES AND GUYS AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING
2. PROVIDE A 6' DIA. MULCHED PLANTING BED AROUND EACH TREE.
3. DO NOT OVERSEED TREE PLANTING PITS IN MAINTAINED LAWN AREAS.

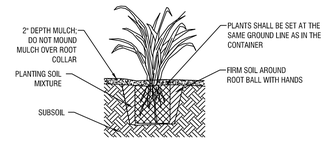
2 / L501 EVERGREEN TREE PLANTING

N.T.S.



NOTE: GROUND COVERS SHALL BE POT OR CONTAINER GROWN.

GROUNDCOVER SECTION



PERENNIAL SECTION

NOTES:
1. PROVIDE 18" DEPTH PLANTING SOIL MIX , ADD FERTILIZER WHEN MIXING. DO NOT COMPACT AFTER PLANTING.
2. WATER THOROUGHLY AFTER PLANTING.
3. PROVIDE WELL DRAINING SUBSOIL WHEN SOIL IS HEAVY OR COMPACTED.
4. PLANTS SHALL BE REMOVED FROM ALL CONTAINERS WHEN PLANTED, UNLESS OTHERWISE STATED IN THE PLANT SCHEDULE.

1 / L501 PERENNIAL - GROUNDCOVER PLANTING

N.T.S.

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716-551-6281

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
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GEOLOGICAL: 0021659

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HOME LEASING
75 S CLINTON AVE SUITE 700,
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HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
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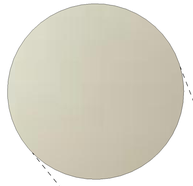
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DATE: 4/20/2026
DRAWING NAME:

LANDSCAPE DETAILS

DRAWING NUMBER:

L501

FIBER CEMENT PANEL -
HARDIE "COBBLESTONE"



BRICK -
WATSONTOWN "ELK"

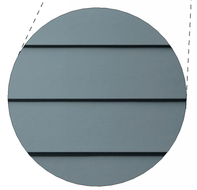




FIBER CEMENT BOARD
AND BATTEN -
HARDIE "IRON GRAY"

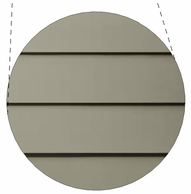


ALTERNATE MATERIAL:
FIBER CEMENT SIDING
- HARDIE "BOOTHBAY BLUE"



VINYL SIDING - VYTEC
PRESTIGE "LAKESHORE BLUE"

VINYL SIDING - VTEC
PRESTIGE "SPRING MEADOW"



ALTERNATE MATERIAL:
FIBER CEMENT SIDING
- HARDIE "MONTEREY TAUPE"

3D View and Material Palette

Home Leasing - West Seneca

SWBR



4 EXTERIOR ELEVATION - WEST
1/16" = 1'-0"



3 EXTERIOR ELEVATION - NORTH
1/16" = 1'-0"



2 EXTERIOR ELEVATION - EAST
1/16" = 1'-0"



1 EXTERIOR ELEVATION - SOUTH
1/16" = 1'-0"

ELEVATION KEY NOTES

NO.	DESCRIPTION
E1	MASONRY VENEER. COLOR AND PATTERN TBD.
E2	FIBER CEMENT PANEL SYSTEM. COLOR TBD
E3	FIBER CEMENT BOARD AND BATTEN SYSTEM. COLOR TBD
E4	VINYL LAP SIDING, 7" EXPOSURE. COLOR TBD. (ALTERNATE MATERIAL: FIBER CEMENT SIDING)
E5	ALUMINUM STOREFRONT SYSTEM. COLOR AND FINISH TBD.
E6	EXTERIOR WALL SCONCE. FIXTURE TBD.
E7	FRAMED CANOPY W/ GFRC CORNICE
E8	ROOF PARAPET W/ GFRC CORNICE
E9	6" TRIM BOARD
E10	12" TRIM BOARD AND ALUMINUM PARAPET COPING
E11	VINYL DOUBLE HUNG WINDOW. COLOR AND TRIM TBD

Exterior Elevations

Home Leasing - West Seneca

SWBR

3-STORY BLDG - UNIT COUNTS

1 BR = 15 UNITS
2 BR = 25 UNITS
3 BR = 20 UNITS

60 UNITS TOTAL

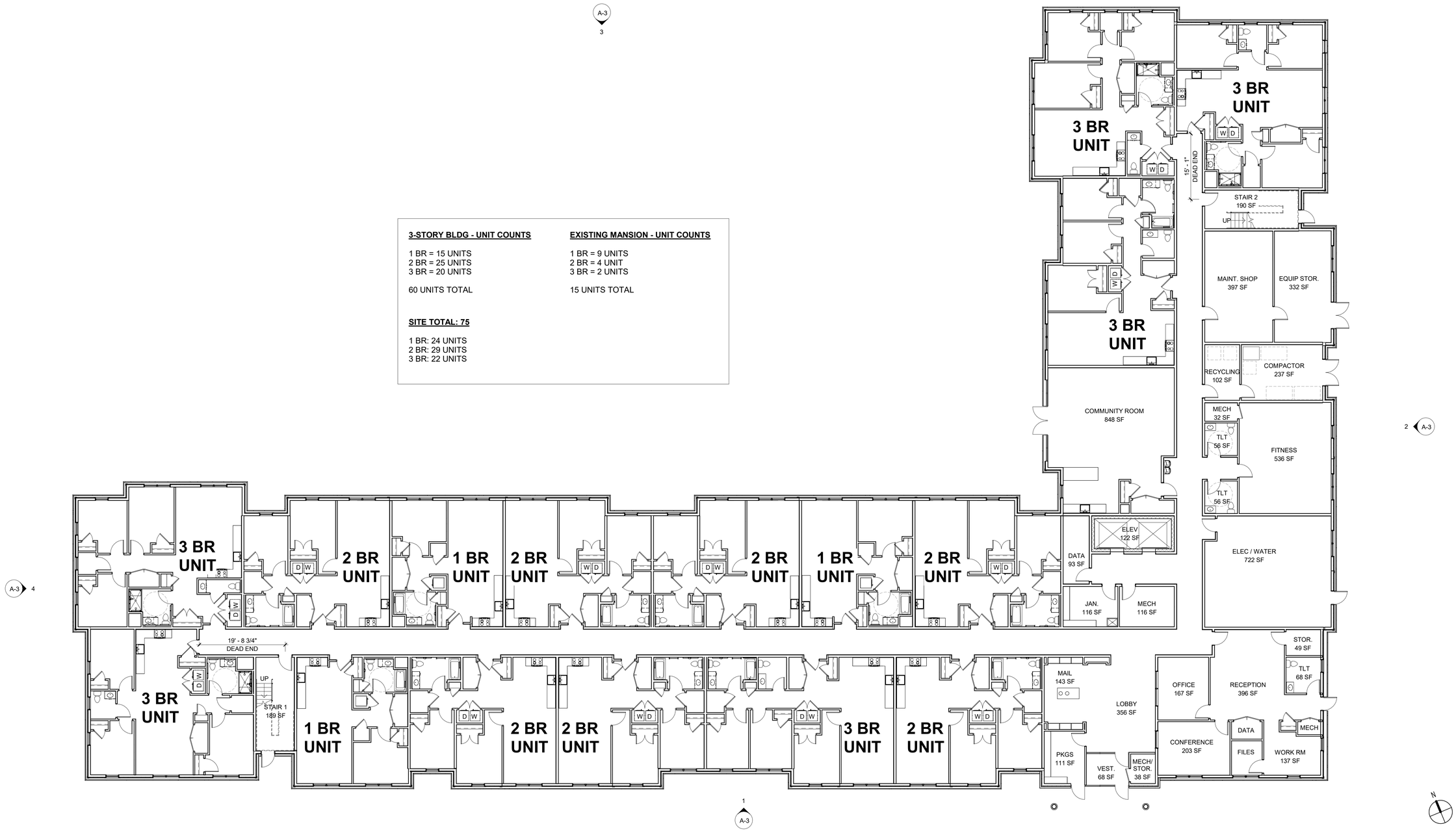
EXISTING MANSION - UNIT COUNTS

1 BR = 9 UNITS
2 BR = 4 UNIT
3 BR = 2 UNITS

15 UNITS TOTAL

SITE TOTAL: 75

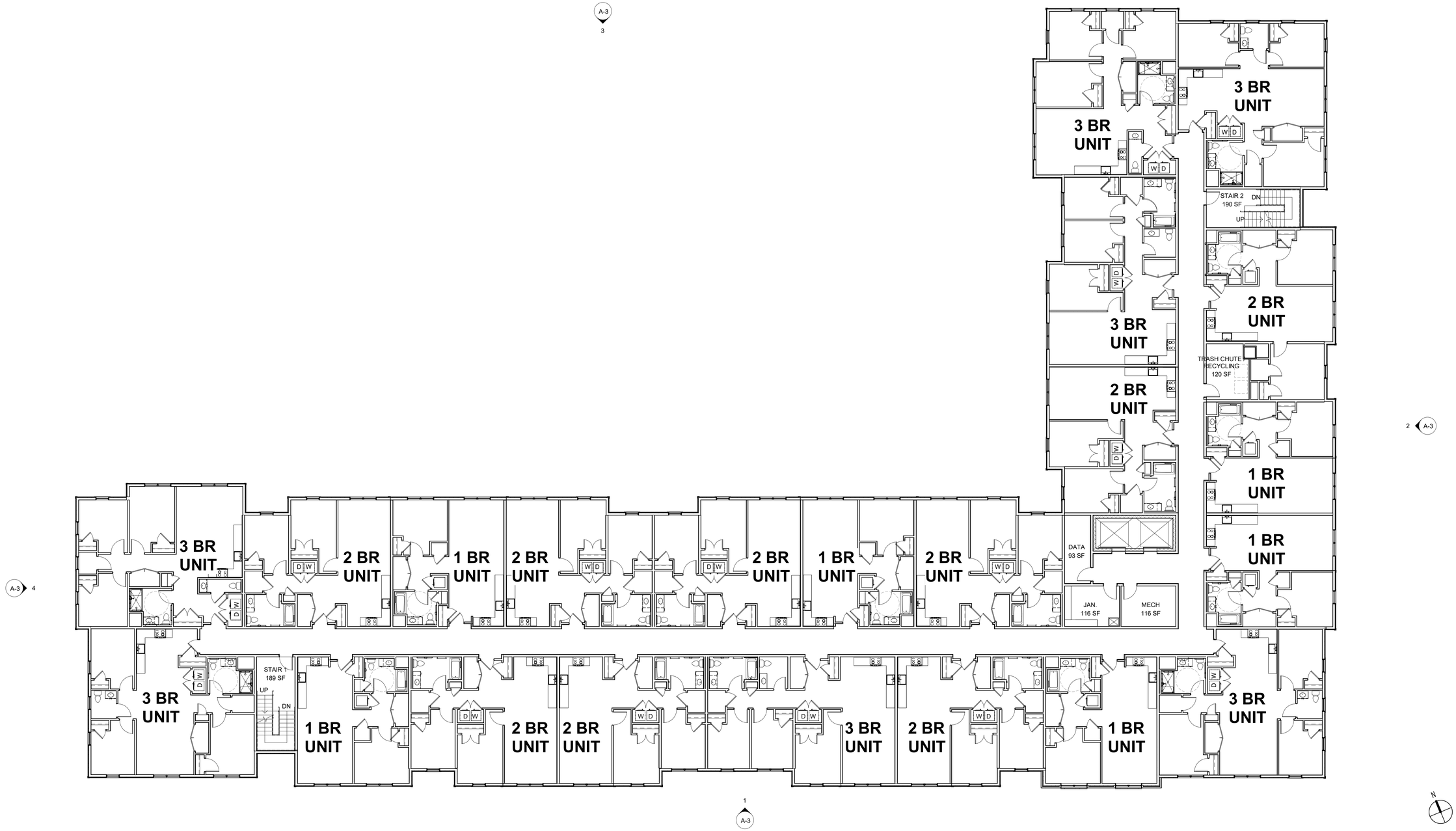
1 BR: 24 UNITS
2 BR: 29 UNITS
3 BR: 22 UNITS



First Floor Plan

Home Leasing - West Seneca

SWBR



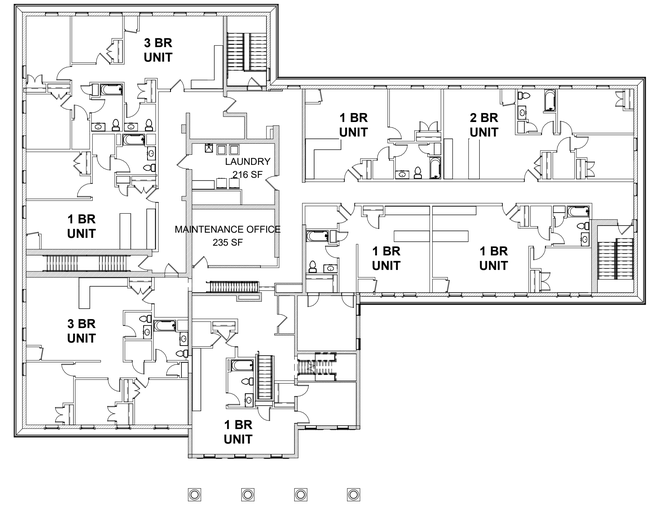
Second and Third Floor Plans

Home Leasing - West Seneca

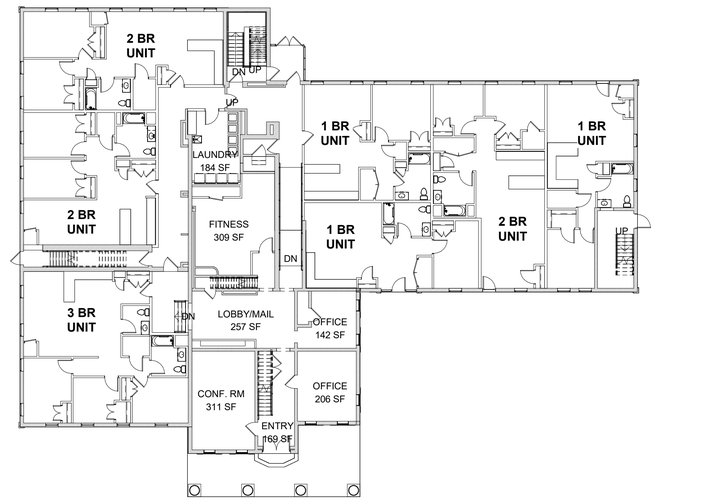
SWBR



CONCEPTUAL RENDERING



2 SECOND FLOOR PLAN
1/16" = 1'-0"



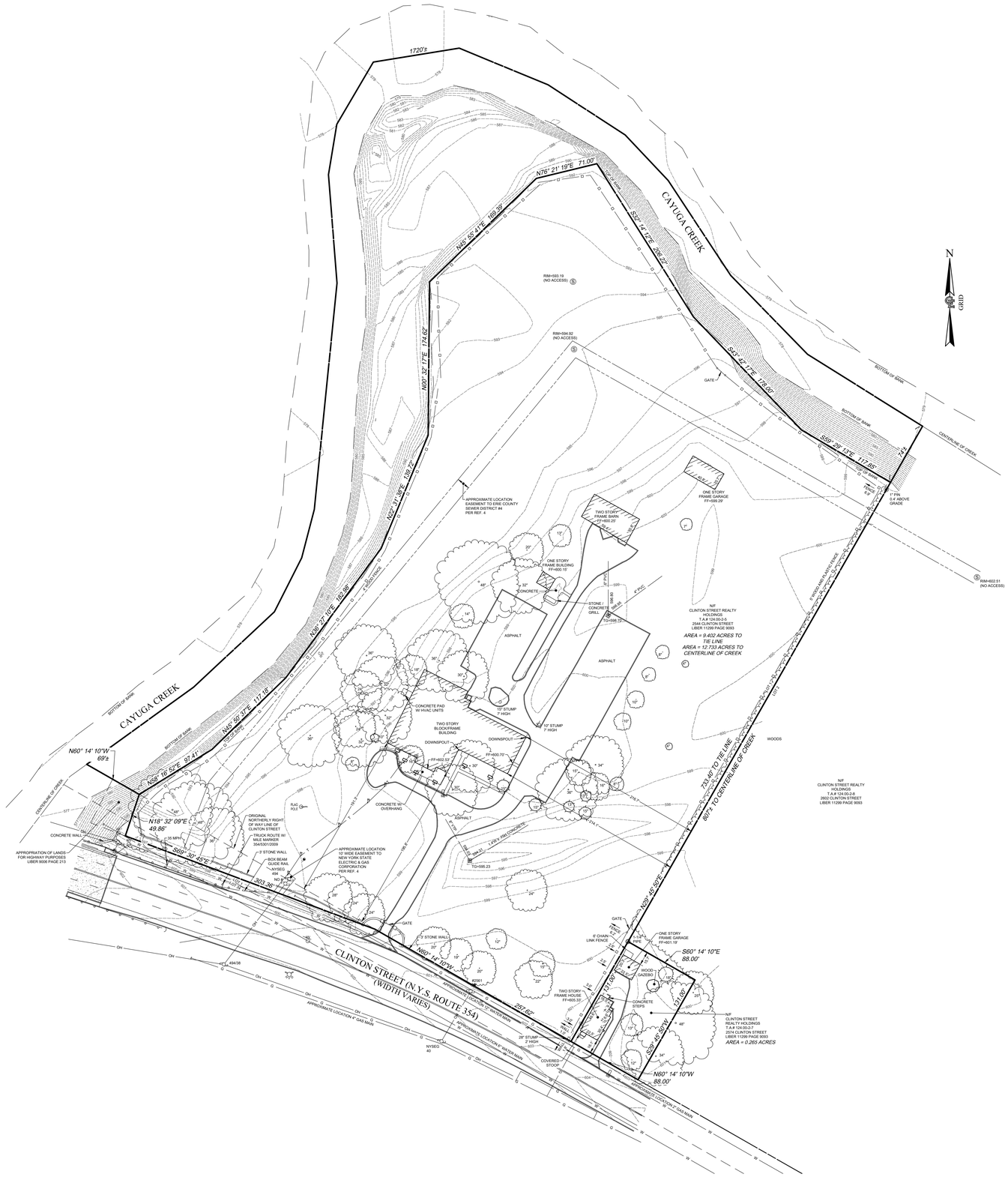
1 FIRST FLOOR PLAN
1/16" = 1'-0"

N

Existing Building Plans and Rendering

Home Leasing - West Seneca

SWBR

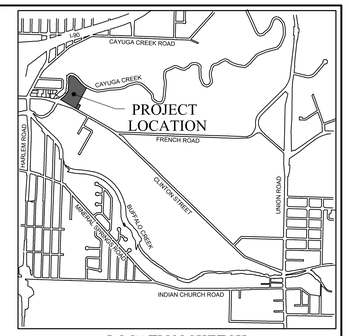


LINE LEGEND

- SECTION/PARCEL BOUNDARY
- MIN. BUILDING SETBACK
- CENTER LINE
- EXIST. EASEMENT LINE
- EXIST. RIGHT-OF-WAY LINE
- EXIST. EDGE OF PAVEMENT
- EXISTING WATER MAIN, VALVE, & HYDRANT.
- EXISTING SANITARY SEWER, & MANHOLE.
- EXISTING DRAINAGE SEWER, FIELD INLET, INLET MANHOLE, MANHOLE, & END SECTION.
- EXISTING OVERHEAD UTILITIES
- EXISTING TELEPHONE
- EXISTING UNDERGROUND UTILITIES
- EXISTING GAS
- EXISTING ELECTRIC
- EXISTING GUARD RAIL
- TREE,HEDGE,EDGE OF WOODS
- EXISTING SWALE
- BARBED WIRE,STOCKADE,CHAIN LINKED FENCE
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION @ X
- CONCRETE PAD/ CONCRETE SIDEWALK

SYMBOL LEGEND

- DRAINAGE MANHOLE
- INLET DRAINAGE MANHOLE
- CATCH BASIN
- END SECTION
- END OF PIPE
- MANHOLE
- SANITARY MANHOLE
- CLEAN OUT
- GAS VALVE
- GAS SERVICE
- GAS METER
- SPRINKLER VALVE
- SPRINKLER HEAD
- WATER VALVE
- WATER SERVICE
- HYDRANT
- WATER METER
- WELL
- BORE
- CABLE TV PEDESTAL
- SIGNAL POLE
- UTILITY POLE
- GUY WIRE
- PULL BOX
- ELECTRIC PULL BOX
- TELEPHONE PULL BOX
- TRAFFIC PULL BOX
- TRANSFORMER
- ELECTRIC MANHOLE
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- PEDESTRIAN POLE
- TRAFFIC CONTROL CABINET
- LAMP POST
- LIGHT POLE
- UTILITY POLE WITH LIGHT
- FLAG POLE
- MAILBOX
- BOLLARD
- POST
- SIGN
- TURNING ARROW
- HANDICAP
- STOP BAR
- TREE DECIDUOUS
- TREE CONIFEROUS
- BUSH
- AIR CONDITIONING UNIT
- SANITARY UTILITY LATH
- GAS UTILITY LATH
- WATER UTILITY LATH
- TELEPHONE UTILITY LATH
- ELECTRIC UTILITY LATH
- CABLE UTILITY LATH



LOCATION SKETCH

NOT TO SCALE

UTILITY INFORMATION

UTILITY INFORMATION PER UFPO DESIGN TICKET # 10313-000-071-00
DATED OCTOBER 31, 2023

1.	BUCKEYE PIPELINE COMPANY	610-904-4475
2.	CHARTER COM NORTHEAST WESTERN NY	317-575-7800 x2
3.	ERIE COUNTY DIVISION OF SEWER MANAGEMENT	716-858-8760
4.	ERIE COUNTY WATER AUTHORITY	716-685-8207
5.	NATIONAL FUEL GAS | BUFFALO - NFG101	716-857-7431
6.	NYS THRUWAY AUTHORITY | BUFFALO	716-635-6224
7.	NYSEG LANCASTER ELECTRIC	585-484-5115
8.	TOWN OF CHEEKTOWAGA	716-686-3450
9.	TOWN OF WEST SENECA HIGHWAY	716-674-5600 x261
10.	VERIZON | BUFFALO	315-937-2515

SURVEY NOTES

1. TOPOGRAPHY SHOWN FROM A FIELD SURVEY BY COSTICH ENGINEERING ON 12/8/2023 HORIZONTAL AND VERTICAL DATA OBTAINED THROUGH NYSDOT CORS NETWORK REFERENCED TO THE FOLLOWING MONUMENT

   HAMBURG CORS STATION
   -LATITUDE: 42-43-02.66326 (N) NAD 83 (CORS)
   -LONGITUDE: 078-50-47.27326 (W)
   -ELLIP HEIGHT: 212.494 METERS NAVD 88 (CORS)

SITE DATA

1. EXISTING ZONING: M-1 (MANUFACTURING DISTRICT)
2. BULK REQUIREMENTS:

	REQUIRED
MIN. LOT AREA (SF)	20,000
MAX LOT COVERAGE	N/A
MIN. LOT WIDTH (FT)	100
MAX. BUILDING HEIGHT (FT)	40
MIN. FRONT YARD SETBACK (FT)	50
MIN. SIDE YARD SETBACK (FT)	50
MIN. REAR YARD SETBACK (FT)	10

REFERENCES

1. DEEDS AS SHOWN ON FILE AT THE ERIE COUNTY CLERK'S OFFICE.
2. MAP OF THE EBENEZER LANDS FILED IN THE ERIE COUNTY CLERK'S OFFICE UNDER COVER NO. 58.
3. NEW YORK STATE DEPARTMENT OF TRANSPORTATION ACQUISITION MAP, CLINTON STREET, PART 1, S.H. NO. 371, ERIE COUNTY, MAP NO. 44, PARCEL NO. 37., FILED AT LIBER 9006 OF DEEDS, PAGE 213.
4. MAP ENTITLED "BOUNDARY SURVEY OF 2544 CLINTON STREET", PREPARED BY NUSSBAUMER & CLARKE, INC., HAVING JOB NO 15J2-0079, DRAWING NO. SB-2535, DATED 2/4/2015.
5. MAP ENTITLED "BOUNDARY SURVEY OF 2602 CLINTON STREET", PREPARED BY NUSSBAUMER & CLARKE, INC., HAVING JOB NO 15J2-0080, DRAWING NO. SB-2534, DATED 2/4/2015.

CERTIFICATION

WE, COSTICH ENGINEERING, D.P.C., HEREBY CERTIFY TO:

THIS MAP WAS PREPARED FROM NOTES OF AN INSTRUMENT SURVEY COMPLETED ON DECEMBER 8, 2023 AND FROM THE REFERENCE(S) LISTED HEREON. NO SEARCH OF RECORDS, OTHER THAN THOSE REFERENCED, WAS MADE FOR EASEMENTS OR ENCUMBRANCES AFFECTING THIS PARCEL.

PRELIMINARY

By:_____ Date: _____
Daniel T. Hickok, N.Y.S. L.S., No. 050449

FLOOD NOTE:
By graphic plotting only, this property is in Zone X & Zone AE of the Flood Insurance Rate Map No. 36029C0331H Community Panel No. 360262, Town of West Seneca, which bears an effective date of 6/7/2019 and Zone X & Zone AE of the Flood Insurance Rate Map No. 36029C0332H Community Panel No. 360262, Town of West Seneca, which bears an effective date of 6/7/2019, No field surveying was performed to determine this zone and an elevation certificate may be needed to verify this determination or apply for a variance from the Federal Emergency Management Agency.

UDIG-NY | 811

EXISTING UTILITIES (LOCATION, SIZES AND INVERTS) SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT CERTIFIED AS TO THE ACCURACY OF THEIR LOCATION OR COMPLETENESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES AND STRUCTURES IN THE PATH OF, OR CLOSELY PARALLEL TO, OR UNDER, THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DELAYS OR DAMAGES OCCURRING AS A RESULT OF INCORRECTLY LOCATED UTILITIES. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITY OWNERS IN AMPLE TIME FOR THEM TO LOCATE AND MARK THEIR FACILITIES. THE CONTRACTOR SHALL ALSO NOTIFY UNDERGROUND UTILITY LOCATION SERVICE AT LEAST 48 HOURS IN ADVANCE OF COMMENCING ANY WORK.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

NO.	DATE	REVISION	BY	CHKD.	APVLS.

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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR, ARCHITECT OR LANDSCAPE ARCHITECT, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY. IF ANY LICENSEE WHO ALTERS THIS DOCUMENT IS REQUIRED BY LAW TO AFFIX HIS/HER SEAL AND THE NOTATION "ALTERED BY", FOLLOWED BY HIS/HER SIGNATURE AND SPECIFIC DESCRIPTION OF THE ALTERATION. TO THE DOCUMENT.

STATE OF NEW YORK · DANIEL T. HICKOK · L.S. NO. 050449 · LICENSED LAND SURVEYOR

PROJECT MANAGER	D.T.H.
DRAWN BY	K.E.L.
BOUNDARY	G.M.S.
TOPOGRAPHY	M.G.
DATE	12/18/2023
SCALE	1"=50'

COSTICH ENGINEERING
217 LAKE AVENUE
ROCHESTER, NY 14608
(585) 458-3020

- CIVIL ENGINEERING
- LAND SURVEYING
- LANDSCAPE ARCHITECTURE

TITLE OF PROJECT	2544 & 2574 CLINTON STREET PROPERTIES WEST SENECA
TITLE OF DRAWING	EXISTING FEATURES
LOCATION OF PROJECT	TAX PARCEL NO'S 124.00-2-5 & 124.00-2-7 PART OF LOTS 1,2, & 34 OF THE EBENEZER LANDS, LOT 123, TOWNSHIP 10, RANGE 7, BUFFALO CREEK RESERVATION, TOWN OF WEST SENECA, COUNTY OF ERIE, STATE OF NEW YORK
CLIENT	LABELLA ASSOCIATES 300 STATE STREET - SUITE 201 ROCHESTER, NEW YORK 14614
DWG #	9263 VA100 SHEET 1 OF 1

Prepared For:
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Submitted by:
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Powered by partnership.

ENGINEERING REPORT FOR WEST SENECA

Date: October 2024

Last Revised: April 2026

LBA Project No. 2241067

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Section 1 – Introduction

Home Leasing is proposing the development of a new affordable housing complex on a +/- 12.7-acre parcel in West Seneca, NY. Home Leasing is also seeking Site Plan Approval from West Seneca and HCR 9% funding from New York State. The proposed development includes 75 units split between a repurposing of the existing mansion on site to and a new 3-story apartment building in the rear of the property. The project includes a private road accessing the apartments, parking, sidewalks, playground, landscaping and stormwater management facilities.

1.1 Site Location

The 12.7-acre site is nestled between Clinton Street (State Route 354) to the south and Cayuga Creek to the North and West. Within a quarter mile of the development there are multiple commercial uses and Interstate 90. The neighborhood is predominately comprised of agricultural land, single- and two-family homes and industrial/manufacturing facilities. See appendix A for location site map.

Section 2 – General

2.1 Existing Site Conditions

The existing site includes the above-mentioned mansion, two barns, a stone wall along Clinton Street and parking areas. The barns and parking areas will be demolished, while the existing stone wall will remain, with the entrance being widened to allow for emergency vehicle access to the site.

The site topography is relatively flat with elevations generally ranging from 600 to 580. Storm water runoff from site drains either via sheet flow directly to Cayuga Street, or to drainage inlets that drain to Cayuga Creek. The existing drainage system on site is minimal and consists of a small swale and dry detention basis which collects and re-directs off-site drainage from the east. Drainage is then conveyed to Cayuga Creek via storm pipes and open drainage swales.

2.2 Proposed Site Conditions

The proposed development includes 75 units split between a repurposing of the existing mansion on site to now include apartments and one apartment building in the rear of the property.

Project Data:

Facility Type:	Affordable Housing
No. of Buildings:	2 (Including one existing)

Section 3 – Proposed Sanitary Facilities

3.1 Building Utility Services – Sanitary

The following summarizes the sanitary sewer service sizes for each building.

Table 1: Sanitary Lateral Sizes

Building #	Description	Sanitary Lateral Size
1	Existing Mansion	6"
2	Proposed Building	6"

3.2 Sanitary Sewer

The project requires a Down Stream Sewer Capacity analysis (DSCA) to conform with NYSDEC regulations considering proposed sanitary flows are intended to convey a flow greater than 2,500 gallons per day.

In accordance with Erie County policy a downstream, dry weather sanitary capacity analysis is included. The monitoring report is included in the appendices.

Based on the flow depth measurements recorded the following conclusions are reached:

- At no time did the flow depth exceed pipe diameter at any of the downstream monitoring points during the wet weather events monitored.
- One time during the monitoring period the depth of flow exceeded the diameter of the pipe.

3.3 DSCA Summary

Erie County provided three (3) nodes, described below:

- Flow Monitoring Period: August 13, 2024, to September 18, 2024
- Dry Week Days Monitored: Aug 13-15, Aug 20-23, Aug 26-30, Sept 2-5, Sept 10-13, and Sept 16-18.
- Dry Weekend Days Monitored: Aug 24-25, Sept 8, and Sept 14-15.

Nodes (manholes):

- Node 1 MH BAA8A – 48" RCP (Matthews Cemetery NW Corner)
- Node 2 MH BAA9A – 60" RCP (Casimer Street)
- Node 3 MH BAAA8 – 66" RCP (8 Cable Street)

Design Parameters:

Hydraulic Loading rates per NYS Design Standards for Intermediate Wastewater Treatment Systems, March 5, 2014. Calculations included below:

Apartments – Bedroom Units = 110 gpd/unit
Office Space= 15 gpd / employee

Average Daily Design Flow:

One Bdrm Units:(24 units) x (1 bdrm/unit)x 110gpd/bdrm=2,640 gpd
Two Bdrm Units:(29 units) x (2 bdrm/unit)x110gpd/bdrm=6,380 gpd

Three Bdrm Units:(22 units) x (3 bdrm/unit)x110gpd/bdrm=7,260 gpd
Office Space: 4 Employees x 15 gpd = 60 gpd
Total = 16,340 gpd

Peak Hourly Flow (Sanitary): 16,340 gpd x Peak Factor
Total Population=[(24x1)+(29x2)+(22x3)]x2 people per bedroom=
=148x2= 296People (assume 2 people per bedroom)+4 office employees=300. P = 0.300 (in thousands)
Peaking Factor = (18 + √P) / (4+√P) = (18+0.548)/(4+0.548)=4.08
Peak Sanitary Demand =16,340x 4.08 = 66,667 gpd
0.06667 MGD
(0.10 CFS)

Sanitary Demand Calculations:
Node 1 – Average 16,340 gpd (0.016 MGD)

Entire Site:
110-gal/d/unit x 1bdrmx24 units=2,640 gpd
+ 110-gal/d/unit x 2bdrmx29 units=6,380 gpd
+110-gal/d/unitx3bdrmx22 units=7,260 gpd
4 employees x 15 gpd=60 gpd
Site total= 16,340 gpd

Ave. Total = 16,340 gpd (0.016 MGD)
Assume 2 people per bedroom. 2 x 148 bedrooms = 296 people + 4 office employees = 300 people. P = 0.300 (in thousands)
Peaking Factor = (18 + √P) / (4+√P) = 4.08
Peak Sanitary Demand = 16,340 x 4.08 = 66,667 gpd
0.06667 MGD
(0.10 CFS)

Node 2 – Average 16,340 gpd (0.016 MGD)

Entire Site:
110-gal/d/unit x 1bdrmx24 units=2,640 gpd
+ 110-gal/d/unit x 2bdrmx29 units=6,380 gpd
+110-gal/d/unitx3bdrmx22 units=7,260 gpd
4 employees x 15 gpd=60 gpd
Site total= 16,340 gpd
Ave. Total = 16,340 gpd (0.016 MGD)
Assume 2 people per bedroom. 2 x 148 bedrooms = 296 people + 4 office employees = 300 people. P = 0.300 (in thousands)
Peaking Factor = (18 + √P) / (4+√P) = 4.08
Peak Sanitary Demand = 16,340 x 4.08 = 66,667 gpd
0.06667 MGD
(0.10 CFS)

Node 3 – Average 16,340 gpd (0.016 MGD)

Entire Site:
110-gal/d/unit x 1bdrmx24 units=2,640 gpd
+ 110-gal/d/unit x 2bdrmx29 units=6,380 gpd
+110-gal/d/unitx3bdrmx22 units=7,260 gpd
4 employees x 15 gpd=60 gpd
Site total= 16,340 gpd

Ave. Total = 16,340 gpd (0.017 MGD)
Assume 2 people per bedroom. 2 x 148 bedrooms = 296 people + 4 office employees = 300 people. P = 0.300 (in thousands)
Peaking Factor = (18 + √P) / (4+√P) = 4.08
Peak Sanitary Demand = 16,340 x 4.08 = 66,667 gpd
0.06667 MGD
(0.10 CFS)

Table 2: Dry Weather Peak Weekday

Node	Sewer	Ave. Daily Flow (mgd)	Existing Peak Flow (mgd)	Proposed Peak Sanitary Flow (mgd)	Total Peak Flow (mgd)	Theoretical Capacity (mgd)	Available Capacity (Y/N)
1-MH BAA8A	48" RCP @ 0.41% (Matthews Cemetery NW Corner)	0.016	7.953*	0.067	8.020	59.6	Y
2-MH BAA9A	60" RCP @ 0.042% (Casimer Street)	0.016	11.619**	0.067	11.686	34.6	Y
3-MH BAAA8	66" RCP @ 0.026% (8 Cable Street)	0.016	10.614***	0.067	10.614	35.1	Y

Notes:
***Peak Dry Week Day for Nodes 1 on Aug 27,2024**
****Peak Dry Week Day for Node 2 on Aug 21,2024**
*****Peak Dry Week Day for Node 3 on Aug 21,2024**

Table 3: Dry Weather Peak Weekend Day

Node	Sewer	Ave. Daily Flow (mgd)	Existing Peak Flow (mgd)	Proposed Peak Sanitary Flow (mgd)	Total Peak Flow (mgd)	Theoretical Capacity (mgd)	Available Capacity (Y/N)
1-MH BAA8A	48" RCP @ 0.41% (Matthews Cemetery NW Corner)	0.016	6.070*	0.067	6.137	59.6	Y

2-MH BAA9A	60" RCP @ 0.042% (Casimer Street)	0.016	11.972**	0.067	12.039	34.6	Y
3-MH BAAA8	66" RCP @ 0.026% (8 Cable Street)	0.016	11.615***	0.067	11.682	35.1	Y

Notes:
***Peak Dry Weekend Day for Nodes 1 on Aug 25,2024**
****Peak Dry Weekend Day for Node 2 on Sept 14,2024**
*****Peak Dry Weekend Day for Node 3 on Sept 14,2024**

3.5 DSCA CONCLUSION

Based on the analysis and flow monitoring results the flow depth peak increases are described below. The combined sewer has sufficient capacity to handle projected peak flows.

- Node 1 projected peak 0.067 MGD flow (0.10 CFS) result in approximately a 1.6 inch water level increase within the 48" RCP sewer.
- Node 2 projected peak 0.067 MGD flow (0.10 CFS) result in approximately 2.6 inch water level increase within the 60" RCP sewer.
- Node 3 projected peak 0.067 MGD flow (0.10 CFS) result in approximately 2.9 inch water level increase within the 66" RCP sewer.

Full sewer calculations including – TECsmith Flow Monitoring Data, TECsmith Time Tables, Eire County Flow Monitoring and Erie County Time Tables are included in the Full Sewer Report which was previously provided to the town as a part of the Special Use Permit review process.

Section 4 – Proposed Stormwater Facilities

4.1 Proposed Stormwater Loading

A Stormwater Pollution Prevention Plan (SWPPP) has been developed as part of this project and is included under a separate cover. The proposed on-site storm system will outlet to Cayuga Creek. The stormwater design meets the Town of West Seneca Town Code (2025-09-08) - Chapter 102A Stormwater Management and Erosion and Sediment Control and the NYSDEC 2024 Stormwater Design Manual Regulations. However, pertinent information pertaining to existing and proposed stormwater loading has been included for analysis in the table below.

4.2 Required WQv

Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are

transported from land, particularly the impervious surfaces, during the initial stages of storm events.

The Design Manual requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the "Water Quality Volume" (WQv). Section 4.2 of the Design Manual defines the Water Quality Volume as follows:

$$WQv = \frac{[(P)(R_v)(A)]}{12}$$

Where: P = 90% Rainfall Event Number
R_v = 0.05 + 0.009 (I)
I = Impervious Cover (Percent)
A = Contributing Area in Acres

This definition ensures that, all other things being equal, the Water Quality Volume will increase along with the impervious cover percentage. This redevelopment project is proposing a combination of WQv treatment by standard practice(s) and alternative practice(s) as shown in the following tables:

Table 4: Required WQv Summary

P (inches)	A (Ac)	I (Ac)	Rv	WQv Required (cf)
1.00	5.68	2.98	0.29	8,672

4.3 RRv Requirements

Land use change and development in the watershed increases the volume of runoff. As such, reductions in the amount of runoff from new development, accomplished through the implementation of a stormwater management plan for the site, will play an important role in the success or failure of the watershed-wide stormwater management plan. Runoff reduction techniques can be applied to manage, reduce, and treat stormwater, while maintaining and restoring natural hydrology through infiltration, evapo-transpiration, and the capture and reuse of stormwater. Volume reduction techniques by themselves typically are not sufficient to provide adequate attenuation of stormwater runoff, but they can decrease the size of the peak runoff rate reduction facilities.

Section 9.2.1.B of the 2024 NYSDEC Design Manual indicates, "Although encouraged, meeting the RRv criteria is not required for the redevelopment activity portion of a project. The need to provide RRv shall be considered separately for each design point. For design points with a net increase in impervious area, RRv is required for the increase in impervious area only."
As such, bioretentions and a water quality unit have been applied to the project to meet the WQv objective for the redevelopment activity of the project. The increase in impervious cover will be treated as new development and both the WQv criteria and RRv criteria are met. The table below indicates the required RRv for the site.

Table 5: Required RRv

Total Increase in Impervious Area (Ac)	Soil Group A (%)	Soil Group B (%)	Soil Group C (%)	Soil Group D (%)	Rv	Weighted S Factor	Minimum RRv Required (cf)
1.92	0	0	0	100	0.95	0.20	1,324

4.4 Provided WQv and RRv

The following table summarizes both the water quality volume and reduced runoff volume provided by each practice:

Stormwater Practice	WQv Treated (cf)	RRv Provided (cf)
Bioretention (3 total areas)	3,338	1,337
Water Quality Unit	6,627	0
Total	9,965	1,337

Based on the above table, the WQv and RRv requirements are being met.

4.5 Discharge Rates

A comparison of the pre- and post-development watershed conditions was performed for all Design Points and storm events evaluated. For all Design Points and design storms, this comparison demonstrates that the peak rate of runoff will not be increased. Therefore, the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in the following table below:

Table 6: Summary of Pre-Development and Post-Development Peak Discharge Rates

Analysis Point (AP)	10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post
1	16.3	13.9	36.8	31.7

Based on the table above, the proposed stormwater flows have been reduced for all storm events to below pre-development conditions.

A full stormwater pollution prevention plan per NYS Stormwater Design Manual, NYSDEC SPDES General Permit for Stormwater Discharge from Construction Activity and NYSDEC

Standards and Specifications for Erosion and Sediment Control has been prepared for this project. The SWPPP is included in the Site Plan Application Package.

Section 5 – Proposed Water Facilities

5.1 Proposed Water Connections

The project is proposing a new water connection to the Eire County Water Authority (EWCA) 12" water main on the north side of Clinton Street.

5.2 Existing Flow Test Data

Existing hydrant flow test data was provided for hydrant J11F55 and completed on 7/15/2019. The existing water line is a 6" cast iron pipe on the south side of Clinton Street. The residual pressure was 54 psi at 872 gpm.

5.3 Proposed Water Demand

The anticipated average daily water demand from the proposed development was calculated using Table B-3 of the NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems, dated March 5, 2014. For apartments constructed after 1994, the average daily water demand per bedroom is 110-gallons per day. The proposed project includes updating all water fixtures to modern energy efficient fixtures. Based on this, the anticipated average daily water demand for the proposed development is as follows:

Table 7: Anticipated Water Demand

No. of Bedrooms	No. of Units	Water Demand Per Unit (GPD)	Average Daily Demand (GPD)
1 Bedroom	24	110	2,640
2 Bedroom	29	220	6,380
3 Bedroom	22	330	7,260
		Total Average Daily Demand	16,340
		Maximum Day (2x Average Daily)	32,680
		Peak Hourly (4x Average Daily)	35,360

5.4 Proposed Fire Protection and Backflow

The project is proposing one combined service from Clinton Street, which will split into combined services feeding the existing mansion and new building respectively. New backflow prevention devices are proposed for each of the buildings, splitting into separate domestic and fire services after the backflows. The domestic services will be metered within each building. The private hydrants on site will be fed after the backflow within each building. Refer to the MEP and FP plans for detailed design.

Stormwater Pollution Prevention Plan

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LaBella
Powered by partnership.

West Seneca Apartments

Town of West Seneca, Erie County, New York

DATE: APRIL 2026
LAST REVISED: APRIL 2026
PROJECT NO. 2241067

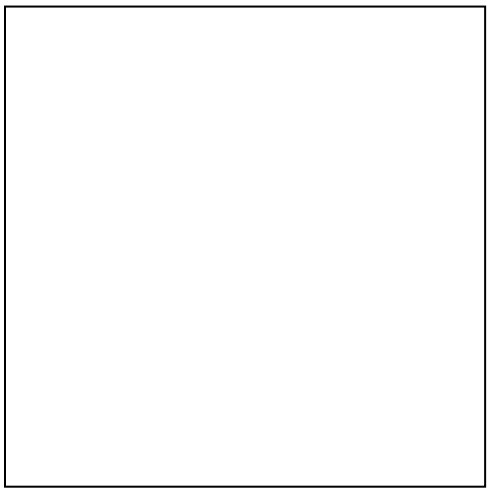
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PREPARER OF THE SWPPP

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and Title[1]: Kristopher Winkler, PE

Date: Issued: April 2026



[1] *This is a signature of a New York State licensed Professional Engineer employed by LaBella Associates that is duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), NOIs, and NOTs prepared under their direct supervision. Refer to Appendix B for the SWPPP Preparer Certification Form, and Appendix I for the LaBella Certifying Professionals Letter.*

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Appendix B: Forms

- Notice of Intent (NOI)
- MS4 SWPPP Acceptance Form
- SWPPP Preparer Certification Form
- Owner/Operator Certification Form
- Contractor and Subcontractor Certification Forms
- Notice of Termination (NOT)

Appendix C: Project Evaluation and Design Calculations

Appendix D: Pre-Development Stormwater Modeling

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Appendix F: SWPPP Inspection Report (Sample Form)

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Appendix H: NYSDEC “Deep-Ripping and Decompaction,” April 2008

Appendix I: LaBella Certifying Professionals Letter

Appendix J: NYSDEC SPDES General Permit GP-0-25-001

1.0 EXECUTIVE SUMMARY

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared for major activities associated with construction of a 75-unit affordable housing complex and related site work in the Town of West Seneca. This SWPPP includes the elements necessary to comply with the national baseline general permit for construction activities enacted by the U.S. Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) program and all local governing agency requirements. This SWPPP must be executed, and permit coverage must be obtained prior to the commencement of construction activity.

This SWPPP has been developed in accordance with the "New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity," Permit No. GP-0-25-001, effective January 29, 2025 through January 28, 2030. The SWPPP and accompanying plans identify and detail stormwater management, pollution prevention, and erosion and sediment control measures necessary during and following completion of construction.

This SWPPP and the accompanying plans entitled "West Seneca Apartments" have been submitted as a set. These engineering drawings are considered an integral part of this SWPPP. Therefore, this SWPPP is not considered complete without them. References made herein to "the plans" or to a specific "sheet" refer to these drawings.

This report considers the impacts associated with the intended development with the purpose of:

1. Maintaining existing drainage patterns as much as possible while continuing the conveyance of upland watershed runoff;
2. Controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions; and
3. Mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater runoff generated both during and after construction.

The analysis and design completed and documented in this report is intended to be part of the application made for a multi-family residential redevelopment project with an increase in impervious area completed on behalf of the Owner/Operator.

1.1 Project Description

Home Leasing is proposing redevelopment project with an increase in impervious area, to include: 75-unit affordable housing building, associated parking, sidewalks, and landscaping. The total project area of disturbance proposed is 5.7 acres. The project will disturb one (1) or more acres and as such, preparation of this SWPPP is required under GP-0-25-001. A Site Location Map has been provided in Appendix A, as Figure A-1.

This type of project is included in Table 2 of Appendix B of GP-0-25-001; and the project site is not located in one of the watersheds listed in Appendix C of GP-0-25-001. Therefore, this SWPPP includes post-construction stormwater management practices, as well as erosion and sediment controls.

project is located within the Town Of West Seneca regulated, traditional land use control Municipal Separate Stormwater Sewer System (MS4). Therefore, an MS4 SWPPP Acceptance Form is required to accompany NOIs submitted to the NYSDEC.

Runoff from the project site will discharge to the Cayuga Creek, which is not included in the list of Section 303(d) water bodies included in Appendix D of GP-0-25-001.

Project construction activities will consist primarily of site grading, paving, building construction, and the installation of storm drainage, water supply, sanitary sewer, and public utility infrastructure necessary to support the proposed redevelopment project with an increase in impervious area. Construction phase pollutant sources anticipated at the site are disturbed (exposed) soil, vehicle fuels and lubricants, chemicals associated with building construction, and building materials. Without adequate control there is the potential for each type of pollutant to be transported by stormwater.

1.2 Stormwater Pollution Controls

The stormwater pollution controls outlined herein have been designed and evaluated in accordance with the following standards and guidelines:

- New York State Stormwater Management Design Manual, dated July 31, 2024 (Design Manual).
- New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016 (SSESC).
- Town of West Seneca Town Code (2025-09-08) - Chapter 102A Stormwater Management and Erosion and Sediment Control

Stormwater quality will be enhanced through the implementation of temporary and permanent erosion and sediment control measures, the proposed stormwater management practice(s), and other construction-phase pollution controls outlined herein.

The proposed stormwater management approach consisting of pipes, open drainage ways, and on-site stormwater management practices will adequately collect, treat, and convey the stormwater runoff.

Bioretentions and a water quality unit will be used to manage and treat stormwater runoff generated by the proposed redevelopment project with an increase in impervious area.

Pre- and post-development surface runoff rates have been evaluated for the 1-, 10-, and 100-year 24-hour storm events. Comparison of pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the project site will not be increased.

The pollutant loading analysis indicates stormwater quality will be enhanced through the implementation of the proposed stormwater management practices outlined herein.

The post-construction stormwater management practice(s) will be privately owned by Home Leasing. Deed restrictions will be in place, which require operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

2.0 SITE CHARACTERISTICS

2.1 State Environmental Quality Review

The construction activity is subject to State Environmental Quality Review (SEQR). The project is considered a Unlisted action. As such, SEQR coordination has been completed. Negative Declaration issued on 1/27/2025, amended on 2/9/2026. A copy of the SEQR documentation, in accordance with Part I.A.5. of GP-0-25-001, is provided in Appendix A, as Figure A-5 upon receipt.

2.2 Land Use and Topography

The project site is located within the R-50 zoning district. Multiple-family dwellings is a permitted use subject to a special use permit within this district. Special Use Permit was obtained on 2/9/2026.

The overall site is slightly sloping, with slopes ranging from 1 to 10 percent. Site elevations range from approximately 580 feet above mean sea level (MSL) to 600 feet MSL. The site generally slopes to the north and the west towards Cayuga Creek.

2.3 Soils and Groundwater

The US Department of Agriculture (USDA) Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/) was used to obtain surficial soil conditions for the study area, as follows:

Table 1: USDA Soil Data

Map Symbol & Description	Hydrologic Soil Group	Erosion Factor K	Depth to Water Table (feet)	Depth to Bedrock (feet)
Fu - Fluvaquents and Udifluvents, frequently flooded	A/D	0.17	0.50	>6.0
GaA - Galen very fine sandy loam, 0 to 3 percent slopes	A/D	0.37	1.75	>6.0
GaB - Galen very fine sandy loam, 3 to 8 percent slopes	A/D	0.37	1.75	>6.0
Te – Teel silt loam	B/D	0.37	1.75	>6.0

Upon review of the soil data presented in Table 1, the project site does not contain soils with a soil slope phase of D with a map unit name that inclusive of slopes greater than 25%, and does not contain soils with a soil slope phase of E or F.

The project site is composed of HSG A soils, HSG B soils, and HSG D soils, as shown in the table below. For the purposes of this report, HSG X/D soils were modeled as HSG D soils to reflect the undrained condition.

Table 2: Project Site HSG Data

HSG A	HSG B	HSG C	HSG D
0%	0%	0%	100%

The Soil Conservation Service defines the hydrologic soil groups as follows:

- Type A Soils: Soils having a high infiltration rate and low runoff potential when thoroughly wet. These soils consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a moderate rate of water transmission.
- Type B Soils: Soils having a moderate infiltration rate when thoroughly wet and consisting mainly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately course textures. These soils have a moderate rate of water transmission.
- Type D Soils: Soils having a very low infiltration rate and high runoff potential when thoroughly wet. These soils consist chiefly of clays that have high shrink-swell potential, soils that have a permanent high water table, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very low rate of water transmission.

The soils map for the study area is presented in Appendix A, as Figure A-2.

2.4 Watershed Designation

The project site is not located in a restricted watershed identified in Appendix C of GP-0-25-001.

2.5 Receiving Water Bodies

The nearest natural classified water course into which runoff from the project site will discharge is Cayuga Creek. Cayuga Creek is classified by NYSDEC as a Class C water course, and is not included in the Section 303(d) list of impaired waters found in Appendix D of GP-0-25-001.

2.6 Aquifer Designation

The project site is not located over a US EPA designated Sole Source aquifer; nor is it located over a Primary or Principal aquifer listed in the NYSDEC Technical and Operational Guidance Series (TOGS) 2.1.3 (1980).

2.7 Wetlands

A search on the NYSDEC Environmental Resource Mapper on April 16, 2026, and a review of GIS data, determined that there are no known regulated wetlands located on or in the vicinity of the project site. A wetland delineation is scheduled for Spring 2026 to field verify if there are any wetland on site.

2.8 Flood Plains

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM), Town of West Seneca, New York, Community, the project site lies within Flood Zone X, areas determined to be outside 500-year floodplain The FEMA Flood Map has been provided in Appendix A, as Figure A-5.

2.9 Listed, Endangered, or Threatened Species

A search was performed on the NYSDEC Environmental Resource Mapper on April 16, 2026, and determined that the project site may contain threatened or endangered species, or critical habitat. An Environmental Resource Map has been provided in Appendix A, as Figure A-4.

2.10 Historic Places

A search on the New York State Cultural Resource Information System (CRIS) database, performed on April 16, 2026, revealed the construction activity is located within an archeologically sensitive area A printout of the historic places screening map is presented in Appendix A, as Figure A-3. As such, NYSOPRHP coordination has been completed and a Phase 1 Archeological Survey was conducted on June 22, 2023 by archeologist. A copy of the NYSOPRHP documentation, in accordance with Part I.A.4. of GP-0-25-001, is provided in Appendix A, as Figure A-3A upon receipt.

2.11 Rainfall Data

Rainfall data utilized in the modeling and analysis was obtained from the Cornell University online Extreme Precipitation in New York & New England website (http://precip.eas.cornell.edu/). A local IDF file was imported, and specific mass curves were generated, in HydroCAD to evaluate the pre- and post-development stormwater runoff characteristics. Rainfall data specific to the portion of Erie County under consideration, for various 24-hour storm events, is presented in the following Table:

Table 3: Rainfall Data

Storm Event Return Period	24-Hour Rainfall (inches)
1-year	1.82
10-year	3.14
100-year	5.22

2.12 Pre-development Watershed Conditions

The pre-development project site is covered predominantly by buildings, pavement, grass, and woods. Analysis of pre-development conditions considered existing drainage patterns, soil types, ground cover, and topography. The Pre-Development Watershed Delineation Map has been provided in Appendix A, as Figure A-5.

The results of the computer modeling used to analyze the overall watershed under pre-development conditions are presented in Appendix D. A summary of the pre-development watershed runoff rates at each Design Point is presented in Table 10.

Subcatchment one is a 3.38± acre watershed consisting of grass and pavement. Runoff flows south overland via sheet and shallow concentrated flow toward a swale and catch basin at the southeast corner of the site. This subcatchment is tributary to Design Point (AP) 1.

Subcatchment two is a 7.74± acre watershed consisting of grass, pavement, and multiple buildings. Runoff flows west overland via sheet and shallow concentrated flow toward Cayuga Creek west of the site. This subcatchment is tributary to Design Point (AP) 1.

2.13 Post-development Watershed Conditions

The post-development project site is covered predominantly by buildings, pavement, sidewalks, grass, and woods. The analysis of post-development conditions considered existing drainage patterns, soil types, ground cover to remain, planned site development, site grading, and stormwater management facilities proposed as part of site improvements. The Post-Development Watershed Delineation Map has been provided in Appendix A, as Figure A-6.

The results of the computer modeling used to analyze the overall watershed under post-development conditions are presented in Appendix D. A summary of the post-development watershed runoff rates at each Design Point is presented in Table 11.

There are numerous locations and methods for providing controls of off-site discharge of stormwater from the project site. Each has been designed to provide the above quantity controls by attenuating stormwater runoff and releasing runoff to off-site locations at a rate equal to or less than that which existed prior to development of the site. Each device is detailed on the accompanying plans. A Post-Development Watershed Delineation Map, with the tributary areas to each stormwater management practice proposed, has been provided in Appendix A, as Figure A-6.

2.14 Description of Design Points

The study area consists of the 11.2 acre project site and 5.7 acre area of disturbance. The overall watershed was broken down into smaller watersheds, or subcatchments, to allow for analysis of runoff conditions at several locations throughout the study area. Each of these locations was defined as a Design Point (DP) in order to compare the effects resulting from stormwater management facilities proposed as part of the project. Descriptions of each of the selected Design Points are provided below.

- Design Point 1: Off-site discharge to Cayuga Creek

3.0 STORMWATER MANAGEMENT PLANNING

Chapter 3 of the Design Manual outlines a six-step planning process for site planning and selection of stormwater management practices that must be implemented for both new development and redevelopment projects. This process is intended to develop a design that maintains pre-construction hydrologic conditions through the application of environmentally sound development principles, as well as treatment and control of runoff discharges from the site. The following sections outline the step-by-step process and how it has been applied to this project.

The goals of this Stormwater Management Plan are to analyze the peak rate of runoff under pre- and post-development conditions, to maintain the pre-development rate of runoff in order to minimize impacts to adjacent or downstream properties, and to minimize the impact to the quality of runoff exiting the site.

The Design Manual provides both water quality and water quantity objectives to be met by projects requiring a “Full SWPPP”. These objectives will be met by applying stormwater control practices to limit peak runoff rates and improve the quality of runoff leaving the developed site.

3.1 STEP 1 – Site Planning

During the Site Planning process, the project site is evaluated for implementation of the green infrastructure planning measures identified in Table 3.1 of the Design Manual, in order to preserve natural resources and reduce impervious cover. Appendix C provides a description of each green infrastructure planning measure, along with a project specific evaluation.

3.2 STEP 2 – Calculate Water Quality Treatment Volume (WQv)

Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are transported from land, particularly the impervious surfaces, during the initial stages of storm events.

3.2.1 NYSDEC Requirements for Water Quality Volume

The Design Manual requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the "Water Quality Volume" (WQv). Section 4.2 of the Design Manual defines the Water Quality Volume as follows:

$$WQv = \frac{[(P)(R_v)(A)]}{12}$$

Where: P = 90% Rainfall Event Number
R_v = 0.05 + 0.009 (I)
I = Impervious Cover (Percent)
A = Contributing Area in Acres

This definition ensures that, all other things being equal, the Water Quality Volume will increase along with the impervious cover percentage.

3.2.2 Methodology for Redevelopment Projects

Chapter 9 of the Design Manual outlines alternative WQv treatment objectives for redevelopment projects.

According to Section 9.2.1.B.IV, redevelopment activities can achieve the water quality treatment objective through a combination of impervious cover reduction, standard SMPs, and alternative SMPs that provide a weighted average of at least two of the above methods, calculated as shown below. In this case, 100% of any new increase in impervious area to a given design point must be treated by approved alternate SMPs, standard SMPs, or RR techniques.

$$\%ALT = [25-(\% IC_{RED} + \%SMP + \%RR)] \times 3$$

Where:
%ALT = Percent of redevelopment impervious area treated by alternative SMP(s)
$\%IC_{RED}$ = Percent reduction in existing disturbed impervious area
%SMP = Percent of redevelopment impervious area treated by standard SMP(s)
%RR = Percent of redevelopment impervious area treated by runoff reduction techniques(s)

This redevelopment project is proposing a combination of WQv treatment by standard practice(s) and alternative practice(s) as shown in the following tables:

Table 4: Required WQv Treatment by Alternative Practice

WQv Treatment by Alternative Practice		Impervious Cover Reduction (IC)		WQv Treatment by Standard Practice		Runoff Reduction	
%	Area (ac)	%	Area (ac)	%	Area (ac)	%	Area (ac)
38	2.13	0	0	34	1.96	0	0

Table 5: WQv Required Summary

P (inches)	A (ac)	I (ac)	Rv	WQv Required	
1.00	5.68	2.98	0.29	8,672 cf	0.20 AF

The Water Quality Volume equation has been applied to the drainage area tributary to each of the stormwater quality practices proposed for this project. The practices have been sized to accommodate the Water Quality Volume, as per the performance criteria presented in Chapter 6 and/or Chapter 9 of the Design Manual. Water quality volume calculations for each of the proposed practices are presented in Appendix C.

3.3 STEP 3 – Apply RR Techniques and Standard SMPs with RRv Capacity to Reduce Total WQv

Land use change and development in the watershed increases the volume of runoff. As such, reductions in the amount of runoff from new development, accomplished through the implementation of a stormwater management plan for the site, will play an important role in the success or failure of the watershed-wide stormwater management plan. Runoff reduction techniques can be applied to manage, reduce, and treat stormwater, while maintaining and restoring natural hydrology through infiltration, evapo-transpiration, and the capture and reuse of stormwater. Volume reduction techniques by themselves typically are not sufficient to provide adequate attenuation of stormwater runoff, but they can decrease the size of the peak runoff rate reduction facilities.

3.3.1 NYSDEC Requirements for Redevelopment

Section 9.2.1.B of the Design Manual indicates, "Although encouraged, meeting the RRv criteria is not required for the redevelopment activity portion of a project. The need to provide RRv shall be considered separately for each design point. For design points with a net increase in impervious area, RRv is required for the increase in impervious area only."

As such, bioretentions and a water quality unit have been applied to the project to meet the WQv objective for the redevelopment activity of the project. The increase in impervious cover will be treated as new development and both the WQv criteria and RRv criteria are met.

3.3.2 Application of Standard Stormwater Management Practices (SMPs) with RRv Capacity

The following Table demonstrates a summary of the standard SMP(s) with RRv capacity that have been incorporated into the stormwater management plan for this project. The standard SMP(s) with RRv capacity have been designed in accordance with Chapter 6 of the Design Manual. Refer to the contract drawings for practice dimensions, material specifications, and installation details. Practice specific calculations are presented in Appendix C.

Table 6: Summary of Standard SMPs with RRv Capacity being Applied

Standard SMP with RRv Capacity	Design Variant	Pretreatment Volume Required (% of WQv)	Pretreatment Volume Provided (CF)	RRv Capacity	WQv Required (CF)	WQv Reduced /RRv Provided (CF)	WQv Treated[1] (CF)	Total WQv Provided[2] (CF)
Filtration Bioretention	F-5	25	835	40%	8,672	1,337	2,001	3,338

Footnotes:
[1]*WQv Treated = WQV Required - RRv Provided*
[2]*Total WQv Provided = WQV Treated + RRv Provided*

3.3.3 RRv Performance Summary

A summary of the RRv provided is presented in the following table:

Table 7: RRv Summary

WQv Required (CF)	RRv Provided WQv Reduced (CF)	% RRv Provided/ WQv Reduced
8,672	1,337	>100%

As indicated in the above table, the RRv provided is greater than the RRv required for the project site. As such, the RRv criteria has been met and the designer can proceed to Step 6.

3.4 STEP 4 – Calculate the Minimum RRv Required

As indicated above, Section 9.2.1.B of the Design Manual indicates, "Although encouraged, meeting the RRv criteria is not required for the redevelopment activity portion of a project."

3.5 STEP 5 – Apply Standard SMPs to Address Remaining Water Quality Volume

If the entire Water Quality Volume is not treated through implementation of RR techniques and standard SMPs with RRv capacity, then the design must achieve the remaining WQv through the standard SMPs listed in Table 3.3 of the Design Manual or the Alternative Practices outlined in Section 9.4 of the Design Manual.

Table 8: Summary of WQv Provided

Step 2 WQv Required (CF)	Step 3 WQv Reduction by Standard SMPs w/ RRv Capacity (CF)[1]	Step 5 Reduced WQv to be Treated by Standard SMPs or Alternative Practices (CF)[2]
8,672	3,338	6,627
Footnotes: *[1]Step 3: WQv Reduction = RRv Provided + WQv Treated by Standard SMP with RRv Capacity* *[2]Step 5: Reduced WQv to be Treated = WQv Required – WQv Reduced*		

Based upon the results listed in the above Table, the entire WQv has not been treated by application of RR techniques and standard SMPs with RRv capacity. As such, the standard SMPs or the Alternative Practices (without RRv capacity) described in the following sections, have been incorporated into the stormwater management plan for this project, to meet the WQv objective. Practice-specific calculations are presented in Appendix C.

3.5.1 Underground Stormwater Detention System

Underground stormwater detention systems store and detain stormwater runoff in order to meet water quantity control requirements. Stormwater is stored in subsurface vaults and/or a system of large diameter interconnected storage pipes. Stored water is then released at rates designed to reduce peak run-off flows during post-development storms. Underground stormwater storage provides minimal stormwater quality benefits, but can be an effective component of a development's overall stormwater management plan.

3.5.2 Hydrodynamic Separators

Hydrodynamic separators accelerate the separation of floating and settling pollutants from stormwater through the use of a vortex. These pre-fabricated devices come in the form of an underground manhole or vault. The devices have no moving parts and are typically fabricated from concrete and marine grade aluminum.

During operation, stormwater runoff enters the unit tangentially to promote a gentle swirling motion in a treatment chamber. As stormwater circles within the chamber, settable solids fall into a sump and are retained. Buoyant debris, oil, and grease rise to the surface and are separated from the water as it flows under a baffle wall. Finally, treated water exits the treatment chamber through a flow control orifice located behind the baffle wall.

During low-flow conditions all runoff is diverted into the treatment chamber by a flow partition. At higher flow rates, a portion of the runoff spills over the flow partition and is diverted around the treatment chamber to prevent re-suspension and washout of previously trapped pollutants. Water that spills over the partition flows into a head equalization chamber above the treatment chamber outlet. As the head equalization chamber fills, the head differential driving flow through the treatment chamber collapses. The result is that flow rates in the treatment chamber remain relatively constant even as total flow rates increase substantially. This configuration further reduces the potential for re-suspension or washout.

According to Chapter 9 of the Design Manual, hydrodynamic separators of the type proposed for this project have been approved for use as a pretreatment system in new and redevelopment projects or as a primary treatment system on redevelopment projects.

According to Chapter 9 of the Design Manual, membrane filtration, of the type proposed for this project, has been approved for use as a primary treatment system on redevelopment projects.

The following Table summarizes both the Water Quality Volume requirements and the treatment volumes provided.

Table 9: Summary of Hydrodynamic Unit(s)

SWM Practice ID	NYSDEC Design Variant	Required WQv (CF)	Required WQv Flow Rate (CFS)	Approved Manufactured Treatment Flow Rate (MTFR) (CFS)	Product Name and Manufacturer
HYD-1	ALT	6,627	1.88	2.00	Contech Cascade CS4

3.6 STEP 6 - Apply Volume and Peak Rate Control

This report presents the pre-development and post-development features and conditions associated with the rate of surface water runoff within the study area. For both cases, the drainage patterns, drainage structures, soil types, and ground cover types are considered in this study.

3.6.1 NYSDEC Requirements for New Development

Chapter 4 of the Design Manual requires that projects meet three separate stormwater quantity criteria:

1. The Channel Protection (CPv) requirement is designed to protect stream channels from erosion. This is accomplished by providing 24 hours of extended detention for the 1-year, 24-hour storm event. The Manual defines the CPv detention time as the center of mass detention time through each stormwater management practice.

2. The Overbank Flood Control (Qp) requirement is designed to prevent an increase in the frequency and magnitude of flow events that exceed the bank-full capacity of a channel, and therefore must spill over into the floodplain. This is accomplished by providing detention storage to ensure that, at each Design Point, the post-development 10-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

3. The Extreme Flood Control (Qf) requirement is designed to prevent the increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. This is accomplished by providing detention storage to ensure that, at each Design Point, the post-development 100-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

3.6.2 Methodology

In order to demonstrate that the NYSDEC detention requirements are being met, the Design Manual requires that a hydrologic and hydraulic analysis of the pre- and post-development conditions be performed using the Natural Resources Conservation Service Technical Release 20 (TR-20) and Technical Release 55 (TR-55) methodologies. HydroCAD, developed by HydroCAD Software Solutions LLC of Tamworth, New Hampshire, is a Computer-Aided-Design (CAD) program for analyzing the hydrologic and hydraulic characteristics of a given watershed and associated stormwater management facilities. HydroCAD uses the TR-20 algorithms and TR-55 methods to create and route runoff hydrographs.

HydroCAD has the capability of computing hydrographs (which represent discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors) combining hydrographs and routing flows though pipes, streams and ponds. HydroCAD can also calculate the center of mass detention time for various hydraulic features. Documentation for HydroCAD can be found on their website: http://www.hydrocad.net/.

For this analysis, the watershed and drainage system was broken down into a network consisting of three types of components as described below:

1. Subcatchment: A relatively homogeneous area of land, which produces a volume and rate of runoff unique to that area.
2. Reach: Uniform streams, channels, or pipes that convey stormwater from one point to another.
3. Pond: Natural or man-made impoundment, which temporarily stores stormwater runoff and empties in a manner determined by its geometry and the hydraulic structure located at its outlets.

Subcatchments, reaches, and ponds are represented by hexagons, squares, and triangles, respectively, on the watershed routing diagrams provided with the computations included in Appendix D and Appendix E.

The analysis of hydrologic and hydraulic conditions and proposed stormwater management facilities, servicing the study area, was performed by dividing the tributary watershed into relatively homogeneous subcatchments. The separation of the watershed into subcatchments was dictated by watershed conditions, methods of collection, conveyance, and points of discharge. Watershed characteristics for each subcatchment were then assessed from United States Geological Service (USGS) 7.5-minute topographic maps, aerial photographs, a topographical survey, soil surveys, site investigations, and land use maps.

Proposed stormwater management practices were designed and evaluated in accordance with the Design Manual and local regulatory requirements. A local IDF file was imported, and specific mass curves were generated, in HydroCAD to evaluate the pre- and post-development stormwater runoff characteristics for various 24-hour storm events identified in the following Table.

Table 10: Design Events

Facility	24-hour Storm Event
Storm Sewer	10-year
Stormwater Management Practice(s)	1-year
	10-year
	100-year
Flood Conditions	100-year

3.6.3 Performance Summary

A comparison of the total required and provided CPv for the 1-year 24-hour storm event is shown in the following table:

Table 11: CPv Summary

Design Point (DP)	Required CPv (af)	Provided CPv (af)
1	0.20	0.36

A comparison of the pre- and post-development watershed conditions was performed for all Design Points and storm events evaluated herein. For all Design Points and design storms, this comparison demonstrates that the peak rate of runoff will not be increased. Therefore, the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in Appendix D and Appendix E, respectively. The following Table summarizes the results of this analysis.

Table 12: Summary of Pre- and Post-Development Peak Discharge Rates

Pre- vs. Post-Development Discharge Rate (cfs)				
Design Point (DP)	10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post
1	16.3	13.9	36.8	31.7

3.7 Climate Change Consideration

This report presents the consideration for future physical risks due to climate change, in accordance with Part III.A.2 of the permit. Overall site planning, control measures and practices, conveyance systems and detention systems were evaluated against the seven (7) physical risks identified by NYSDEC due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR 490, and associated guidance. Appendix C provides a description of each consideration, specific to the project.

4.0 CONSTRUCTION SEQUENCE

This project has not received written approval from the Town of West Seneca allowing the disturbance of more than five acres of land at any one time. Therefore, if the Contractor's construction sequence requires the disturbance of more than five acres at any one time, written approval must be obtained from written approval from the Town of West Seneca prior to disturbing more than five acres at once.

The "Erosion and Sediment Control Plan" and the "Erosion and Sediment Control Plan Prior to Construction" in the accompanying drawings and waiver request identifies the major construction activities that are the subject of this SWPPP. The order (or sequence) in which the major activities are expected to begin is presented on the accompanying drawings, though each activity will not necessarily be completed before the next begins. In addition, these activities could occur in a different order if necessary to maintain adequate erosion and sediment control. If this is the case, the contractor shall notify the Owner's/Operator's Engineer overseeing the implementation of the SWPPP.

The Contractor will be responsible for implementing the erosion and sediment control measures identified on the plans. The Contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and ensuring their proper function remains with the Contractor.

In accordance with Part III.B.c.iv. a phasing plan for the project and sequencing plans for all phases have been provided. The plans address clearing and grubbing, excavation and grading, utility and infrastructure installation, final stabilization, and any other construction activity at the site that will result in soil disturbance. Refer to the plans for further information on the project phasing and sequencing.

5.0 CONSTRUCTION-PHASE POLLUTION CONTROL

The SWPPP and accompanying plans identify the temporary and permanent erosion and sediment control measures that have been incorporated into the design of this project. These measures will be implemented during construction, to minimize soil erosion and control sediment transport off-site, and after construction, to control the quality and quantity of stormwater runoff from the developed site.

Erosion control measures, designed to minimize soil loss, and sediment control measures, intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties, have been developed in accordance with the following documents:

- NYSDEC SPDES General Permit for Stormwater Discharges From Construction Activity, Permit No. GP-0-25-001 (effective January 29, 2025 through January 28, 2030)
- New York State Standards and Specifications for Erosion and Sediment Control, NYSDEC (November 2016)

The SWPPP and accompanying plans outline the construction scheduling for implementing the erosion and sediment control measures. These documents include limitations on the duration of soil exposure, criteria and specifications for placement and installation of the erosion and sediment control measures, a maintenance schedule, and specifications for the implementation of erosion and sediment control practices and procedures.

Temporary and permanent erosion and sediment control measures that shall be applied during construction generally include:

1. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction site discharges.
2. Preservation of existing vegetation to the greatest extent practical. Following the completion of construction activities in any portion of the site, permanent vegetation shall be established on all exposed soils.
3. Site preparation activities to minimize the area and duration of soil disruption.
4. Establishment of permanent traffic corridors to ensure that "routes of convenience" are avoided.

5.1 Temporary Erosion and Sediment Control Measures

The temporary erosion and sediment control measures described in the following sections are included as part of the construction documents.

5.1.1 Stabilized Construction Access

Prior to construction, stabilized construction access(es) will be installed, per accompanying plans, to reduce the tracking of sediment onto public roadways.

Construction traffic must enter and exit the site at the stabilized construction access(es). The intent is to trap dust and mud that would otherwise be carried off-site by construction traffic.

The access(es) shall be maintained in a condition, which will control tracking of sediment onto public rights-of-way or streets. When necessary, additional aggregate will be placed atop the filter fabric to assure the minimum thickness is maintained. All sediment and/or soil spilled, dropped, or washed onto public rights-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

5.1.2 Dust Control

Water trucks shall be used as needed during construction to reduce dust generated on-site. Dust control must be provided by the Contractor(s) to a degree that is acceptable to the Owner, and in compliance with the applicable local and state dust control requirements.

5.1.3 Temporary Soil Stockpile

Materials, such as topsoil, will be temporarily stockpiled (if necessary) on the site during the construction process. Stockpiles shall be located in an area away from storm drainage, water bodies and/or courses, and will be properly protected from erosion by a surrounding silt fence barrier.

5.1.4 Silt Fencing

Prior to the initiation of and during construction activities, a geotextile filter fabric (or silt fence) will be established downgradient of all disturbed areas. These barriers may extend into non-impact areas to provide adequate protection of adjacent lands.

Clearing and grubbing will be performed only as necessary for the installation of the sediment control barrier. To facilitate effectiveness of the silt fencing, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s). Maintenance of the fence will be performed as needed.

5.1.5 Temporary Seeding

For areas undergoing clearing, grading, and disturbance as part of construction activities, where work has temporarily ceased, temporary soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has temporarily ceased.

5.1.6 Manufactured Insert Inlet Protection

Install insert inlet protection beneath the grate of all catch basins, to prevent sediment from entering the catch basins and storm sewer system. Remove sediment accumulation and repair or replace insert as necessary to ensure proper function.

5.1.7 Filter Fabric Drop Inlet Protection

Install filter fabric or silt fence with wooden stakes at the perimeter of existing or proposed catch basins located in lawn areas, to prevent sediment from entering the catch basins and storm sewer system. Remove sediment accumulation and repair or replace fabric as necessary to ensure proper function.

5.1.8 Erosion Control Blanket

Erosion control blankets shall be installed in accordance with manufacturer's requirements on all slopes exceeding 3:1. Erosion control blankets provide temporary erosion protection, rapid vegetative establishment, and long-term erosion resistance to shear stresses generated by high runoff flow velocities associated with steep slopes.

5.1.9 Stone Check Dams

Stone check dams will be installed within drainage ditches to reduce the velocity of stormwater runoff, promote settling of sediment, and reduce sediment transport off-site.

Sediment accumulated behind the stone check dam will be removed as needed to maintain flow through the stone check dam and prevent large flows from carrying sediment over or around the dam. Stones shall be replaced as needed to maintain the design cross section of the structures.

5.1.10 Temporary Sediment Trap

Temporary sediment traps shall be constructed to intercept sediment-laden runoff, reduce the amount of sediment leaving the disturbed areas, and protect drainage ways, properties, and rights-of-way.

Accumulated sediment shall be removed from the trap when it reaches no greater than 50 percent of the design capacity. Sediment shall not be placed downstream from the embankment, adjacent to a stream, or floodplain.

Temporary sediment traps depicted on the accompanying plans have been designed to provide 3,600 CF of storage per acre of tributary watershed.

5.1.11 Temporary Diversion Swales

Temporary diversion swales shall be used to divert off-site runoff around the construction site and divert runoff from stabilized areas around disturbed areas.

5.1.12 Dewatering Operations

Dewatering will be used to intercept sediment-laden stormwater or pumped groundwater and allow it to settle out of the pumped discharge prior to being discharged from the site. Water from dewatering

operations shall be treated to eliminate the discharge of sediment and other pollutants. Water resulting from dewatering operations shall be directed to temporary sediment traps or dewatering devices. Temporary sediment traps and dewatering bags will be provided, installed, and maintained at downgradient locations to control sediment deposits to downstream surfaces.

5.1.13 Fiber Roll

Prior to the initiation of and during construction activities, fiber rolls (12" minimum diameter) will be established downgradient of all disturbed areas to reduce sheet flow on slopes. These rolls may extend into non-impact areas to provide adequate protection of adjacent lands. Spacing will conform to NYSDEC specification for straw bale dike.

Clearing and grubbing will be performed only as necessary for the installation of the fiber rolls. To facilitate effectiveness, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s) and maintenance will be performed as needed.

5.2 Permanent Erosion and Sediment Control Measures

The permanent erosion and sediment control measures described in the following sections are included as part of the construction documents.

5.2.1 Establishment of Permanent Vegetation

Disturbed areas that will be vegetated must be seeded in accordance with the contract documents. The type of seed, mulch, and maintenance measures as described in the contract documents shall also be followed.

Permanent soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has permanently ceased.

Final site stabilization is achieved when all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80 percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

5.2.2 Rock Outlet Protection

Rock outlet protection shall be installed at the locations as indicated and detailed on the accompanying plans. The installation of rock outlet protection will reduce the velocity and energy of water, such that the flow will not erode downstream surfaces.

5.3 Implementation Schedule for Erosion and Sediment Control Measures

Proper implementation of the outlined erosion and sediment control measures is critical to minimizing soil erosion and controlling off-site sediment transport during construction, as well as controlling the quality and quantity of stormwater runoff from the developed site after construction. The following table outlines the implementation schedule for initial placement of these measures, and the duration for which they should remain in place.

Table 13: Implementation Schedule for Erosion and Sediment Control Measures

Erosion and Sediment Control Measure	Initial Placement	Duration to Remain In-Place
Stabilized Construction Access	Upon mobilizing to site	Until construction is complete
Dust Control	As needed	As needed
Temporary Soil Stockpile	Upon delivery of materials to the site or excavation of on-site materials for reuse	Until materials have been placed or removed from the site
Silt Fencing	Prior to upgradient soil disturbance	Until upgradient area has achieved permanent stabilization
Temporary Seeding	Apply to any disturbed soil that will remain exposed for more than 14 days	Apply additional seed as needed for temporary stabilization
Manufactured Insert Inlet Protection	*Existing structures:* prior to upgradient soil disturbance *New structures:* upon installation of structure/grate	Until upgradient area has achieved permanent stabilization
Erosion Control Blanket	Upon completion of slope grading operations	Prior to final grading, or kept in place permanently
Stone Check Dams	*Existing swales:* upon completion of swale reshaping *New swales:* upon completion of swale excavation	Permanent
Temporary Sediment Trap	As needed during grading operations	Until final grading of tributary area is complete
Temporary Diversion Swales	As needed to divert flow around work area	Until permanent drainage methods are established (i.e. closed storm sewer, open conveyance swales, etc.)
Dewatering Operations	As needed during excavation	Until excavation/backfilling is complete
Fiber Roll	Prior to upgradient soil disturbance	Until upgradient area has achieved permanent stabilization
Establishment of Permanent Vegetation	As soon as possible after completion of final grading	Permanent, apply additional seed as needed to achieve 80% minimum uniform coverage
Rock Outlet Protection	During installation of tributary culverts/pipes	Permanent

5.4 Other Pollutant Controls

Part I.C.1 of GP-0-25-001 prohibits discharges from construction material wastewater, pollutants used in vehicle and equipment operation and maintenance, vehicle and equipment washing and toxic or hazardous substances.

The following table identifies materials and/or chemicals commonly used and/or stored on construction sites and should be addressed in the site-specific spill prevention and response plan:

Table 14: Common Construction Pollutants

Material/Chemical	Physical Description	Stormwater Pollutants	Location*
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Herbicides used for noxious weed control
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits
Asphalt	Black solid	Oil, petroleum distillates	Streets and roofing
Concrete	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, building construction
Curing compounds	Creamy white liquid	Naphtha	Curb and gutter
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment / staging area
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment / staging area
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	Secondary containment / staging area
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment
Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging area
Construction materials			
Granular fill	Various colored solids	Sediment	Stockpile / fill areas
Subbase course	Gray/brown solid	Sediment, dust	Stockpile
Topsoil	Brown solid	Sediment	Stockpile
Mulch	Various colored solid	Sediment, debris	Staging area
Seed	Brown/yellow solid	Nutrients, debris	Staging area
HDPE Storm Pipe	Black solid		Staging area
SDR-35, SDR-21 PVC Pipe	Various colored solid		Staging area
Metals Frames and Grates	Gray solid		Staging area
Joint Sealant	Light gray viscous solid	Polyurethane	Staging area

*(Area where material/chemical is used on-site)

5.5 Construction Housekeeping Practices

During the construction phase, the Contractor(s) will implement the following measures:

5.5.1 Sediment Sweeping/Vacuuming

Any sediment that is tracked by construction vehicles or erosion onto adjacent public or private impervious surfaces must be swept or vacuumed, utilizing self-propelled and/or walk-behind equipment, and removed on a daily basis. Kick brooms and sweeper attachments are not an acceptable means of sweeping. Sweeping or vacuuming should not take place while tracked sediment is wet. If tracked sediment is compacted, the sediment must be scraped loose prior to sweeping or vacuuming.

5.5.2 Material Stockpiles

Material resulting from clearing and grubbing operations that will be stockpiled on-site, must be adequately protected with downgradient erosion and sediment controls.

5.5.3 Equipment Cleaning and Maintenance

The Contractor(s) will designate areas for equipment cleaning, maintenance, and repair. The Contractor(s) and subcontractor(s) will utilize those areas. The areas will be protected by a temporary perimeter berm.

5.5.4 Detergents

The use of detergents for large-scale washing is prohibited (i.e., vehicles, buildings, pavement surfaces, etc.)

5.5.5 Spill Prevention and Response

A Spill Prevention and Response Plan shall be developed, for the pollutants identified in Section 5.3, for the site by the Contractor(s) that addresses the following:

1. Reducing chance of spills
2. Stopping the source of spills
3. Containing and cleaning up spills
4. Disposing of materials contaminated by spills
5. Training personnel responsible for spill prevention/response
6. Material handling procedures
7. Material storage requirements

The plan shall detail the steps required in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

The plan shall include Safety Data Sheets (SDS) for all materials to be stored on-site. All workers on-site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction. Regular tailgate safety meetings shall be held and all workers that are expected on the site during the week shall be required to attend.

5.5.6 Concrete Washout Areas

A temporary concrete washout area shall be provided for every project where concrete will be poured or otherwise formed on-site and shall consist of an excavated or above-ground lined construction pit

where concrete trucks or equipment can be washed out after their loads have been discharged. Waste generated from concrete wash water that shall not be allowed to flow into drainage ways, inlets, receiving waters, highway right-of-way, or any location other than the designated concrete washout area(s). Proper signage shall be placed adjacent to the facility to designate the "Concrete Washout Area". Locate the facility a minimum of 100-feet from drainage swales, storm drain inlets, wetlands, streams, and other surface waters. Prevent surface water from entering the washout area.

The hardened residue from the concrete wash areas will be disposed of in the same manner as other non-hazardous construction waste materials. Maintenance of the washout area shall include removal of hardened material when 75% of the storage capacity is filled, and a minimum freeboard of 12 inches shall be maintained. The Contractor will be responsible for seeing that these procedures are followed. The project may require the use of multiple concrete washout areas based on the frequency of concrete pours.

5.5.7 Material Storage

Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that prevents negative impacts of construction materials on stormwater quality.

Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in trucks or within storage facilities. Runoff containing such material must be collected, removed from the site, treated, and disposed of at an approved solid waste or chemical disposal facility.

6.0 INSPECTIONS, MAINTENANCE, AND REPORTING

6.1 Inspection and Maintenance Requirements

6.1.1 Pre-Construction Inspection and Certification

Prior to the commencement of construction, the Qualified Inspector/Qualified Professional shall conduct an assessment of the site and certify that the appropriate erosion and sediment control measures have been adequately installed and implemented. The Contractor shall contact the Qualified Inspector/Qualified Professional once the erosion and sediment control measures have been installed.

6.1.2 Construction Phase Inspections and Maintenance

A Qualified Inspector/Qualified Professional, as defined in Appendix A of the General Permit GP-0-25-001, shall conduct regular site inspections between the time this SWPPP is implemented and final site stabilization. Site inspections shall occur at an interval of at least once every seven (7) calendar days.

The purpose of site inspections is to assess performance of pollutant controls. Based on these inspections, the Qualified Inspector/Qualified Professional will decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the site via stormwater runoff. The general contractor has the duty to cause pollutant control measures to be repaired, modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant

control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

1. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction access will be constructed where vehicles enter and exit. This access will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.
2. Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. All material from behind sediment barriers will be stockpiled on the up slope side. Additional sediment barriers must be constructed as needed.
3. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
4. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building foundation or pavement, or have a stand of grass with at least 80 percent density. The density of 80 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.
5. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

The inspection reports must be completed entirely and additional remarks should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWPPP at the time of inspection and specifically identify all incidents of non-compliance.

Within one (1) business day of the completion of an inspection, the *Qualified Inspector/Qualified Professional* shall notify the Owner/Operator and appropriate contractor or subcontractor of any corrective actions that need to be taken. For corrective actions not requiring engineering design, the contractor must begin implementing corrective actions within one business day and complete the corrective actions within five business days. For corrective actions requiring engineering design, the engineering design process must begin within five business days and the contractor must complete the corrective action in a reasonable time frame but no later than 60 calendar days.

In addition to the inspections performed by the *Qualified Inspector/Qualified Professional*, the Contractor shall perform routine inspections that include a visual check of all erosion and sediment control measures. All inspections and maintenance shall be performed in accordance with the inspection and maintenance schedule provided on the accompanying plans. Sediment removed from erosion and sediment control measures will be exported from the site, stockpiled for later use, or used immediately for general non-structural fill.

It is the responsibility of the general contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the accompanying plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers, sediment traps, etc.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

6.1.3 Temporary Suspension of Construction Activities

For construction sites where soil disturbance activities have been temporarily suspended (e.g. Winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the frequency of Qualified Inspector/Qualified Professional inspections can be reduced to once every 30 calendar days. Prior to reducing the frequency of inspections, the Owner/Operator shall notify the NYSDEC Region 9 stormwater contact person and the Town of West Seneca in writing.

6.1.4 Partial Project Completion

For construction sites where soil disturbance activities have been shut down with partial project completion, all areas disturbed as of the project shutdown date have achieved final stabilization, and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational, the inspections by the Qualified Inspector/Qualified Professional can stop. Prior to the shutdown, the Owner/Operator shall notify the NYSDEC Region 9 stormwater contact person and the Town of West Seneca in writing.

If soil disturbance activities have not resumed within two years from the date of shutdown, a Notice of Termination (NOT) shall be properly completed and submitted to the NYSDEC.

6.1.5 Post-Construction Inspections and Maintenance

Inspections and maintenance of final stabilization measures and post-construction stormwater management practices shall be performed in accordance with Appendix G, once all disturbed areas are stabilized and all stormwater management systems are in place and operable.

6.2 Reporting Requirements

6.2.1 Inspection Reports

Pursuant to Part IV.C of GP-0-25-001, inspection reports shall be prepared for the duration of construction, as outlined herein, and shall be signed by the *Qualified Inspector* or *Qualified Professional*. A sample inspection form is provided in Appendix F.

At a minimum, each inspection report shall record the following information:

1. Permit identification number; and
2. Date and time of inspection; and
3. Name and title of person(s) performing inspection; and
4. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and
5. A description of the condition of the runoff at all points of discharge from the construction site. This must include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; and
6. A description of the condition of all surface waters of the State located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This must include identification of any discharges of sediment to the surface waters of the State; and

7. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and
8. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and
9. Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and
10. Estimates, in square feet or acres, of the following areas:
    a. Total area with active soil disturbance (not requiring either temporary stabilization or final stabilization); and
    b. Total area with inactive soil disturbance (requiring either temporary stabilization or final stabilization); and
    c. Total area that has achieved temporary stabilization; and
    d. Total area that has achieved final stabilization; and
11. Current stage of construction of all SMPs and identification of all construction activity on site that is not in conformance with the SWPPP and technical standards; and
12. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and
13. Identification and status of all corrective actions that were required by previous inspection; and
14. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The qualified inspector must attach color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The qualified inspector must also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The qualified inspector must attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

6.2.2 Site Log Book

Pursuant to Part I.E.3 of GP-0-25-001, the Owner/Operator shall retain a copy of the General Permit, NOI, NOI Acknowledgment Letter, MS4 SWPPP Acceptance Form (if applicable), inspection reports, contractor and subcontractor certification forms, and all documentation necessary to demonstrate eligibility under the permit, at the construction site from commencement of construction activity until the date that all areas of disturbance have achieved final stabilization and the Notice of Termination has been submitted to the NYSDEC.

The Site Log Book shall be maintained on-site in a secure location (i.e. job trailer, on-site construction office, or mailbox with lock) and must be accessible during normal business hours to an individual performing a compliance inspection.

6.2.3 Post Construction Records and Archiving

Following construction, the Owner/Operator shall retain copies of the SWPPP, the complete construction Site Log Book, and records of all data used to complete the NOI to be covered by this permit, for a period of at least five years from the date that the site is finally stabilized. This period may be extended by the NYSDEC, at its sole discretion, at any time upon written notification.

Records shall be maintained of all post construction inspections and maintenance work performed in accordance with the requirements outlined in Appendix G.

7.0 SWPPP IMPLEMENTATION RESPONSIBILITIES

A summary of the responsibilities and obligations of all parties involved with compliance with the NYSDEC SPDES General Permit GP-0-25-001 conditions is outlined in the subsequent sections. For a complete listing of the definitions, responsibilities, and obligations, refer to the SPDES General Permit GP-0-25-001 presented in Appendix J.

7.1 Owner's/Operator's Responsibilities

1. Ensure that control measures are selected, designed, installed, implemented and maintained to minimize the discharge of pollutants and prevent a violation of the water quality standards, meeting the non-numeric effluent limitations in Part II.B.1.(a)-(e) of the SPDES General Permit and in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

2. Ensure that practices are selected, designed, installed, and maintained to meet the performance criteria in the Design Manual. Practices must be designed to meet the applicable sizing criteria in Part II.C.2.a., b., c. or d. of GP-0-25-001.

3. Retain the services of a "Qualified Inspector" or "Qualified Professional" as defined under GP-0-25-001, to provide the services outlined in Section 7.5 "Qualified Inspector's/Qualified Professional's Responsibilities."

4. Retain the services of a "Qualified Professional," as defined under GP-0-25-001, to provide the services outlined in Section 2.3 "Owner's/Operator's Engineers Responsibilities."

5. Have an authorized corporate officer sign the Owner/Operator Certification Form to accompany the eNOI. A copy of the completed NOI is included in Appendix B.

6. Submit the electronic version of the NOI (eNOI) along with the MS4 SWPPP acceptance form using the NYSDEC's website (http://www.dec.ny.gov/chemical/43133.html).

7. Pay the required initial and annual fees upon receipt of invoices from NYSDEC. These invoices are generally issued in the fall of each year. The initial fee is calculated as $110.00 per acre disturbed plus $675.00 per acre of net increase in impervious cover, and the annual fee is $110.00.

8. Prior to the commencement of construction activity, identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion control practices included in the SWPPP and the

contractor(s) and subcontractor(s) that will be responsible for constructing the SMPs included in the SWPPP. Each of the contractors and subcontractors must identify at least one person from their company to be the trained contractor that will be responsible for implementation of the SWPPP. Ensure that at least one trained contractor is on site daily when soil disturbance activities are being performed.

9. Schedule a pre-construction meeting which shall include the Town of West Seneca representative, Owner's/Operator's Engineer, Qualified Inspector, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.

10. Retain the services of an independent certified materials testing and inspection firm operating under the direction of a licensed Professional Engineer to perform regular tests, inspections, and certifications of the construction materials used in the construction of all post-construction stormwater management practices.

11. Retain the services of a NYS licensed land surveyor to perform an as-built topographic survey of the completed post-construction stormwater management facilities.

12. Require the Contractor to fully implement the SWPPP prepared for the site by the Owner/Operator's Engineer to ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until all areas of disturbance have achieved final stabilization and the Notice of Termination (NOT) has been submitted to the NYSDEC.

13. The Owner/Operator is authorized to commence construction activity as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.

14. Within five (5) business days of receipt of the LOA, send an electronic copy of the LOA to the MS4 operator(s) with review authority.

15. Forward a copy of the LOA received from DEC to the Owner's/Operator's Engineer for project records, and to the Contractor for display at the construction site.

16. As of the date the LOA is received, the Owner/Operator must make the eNOI, SWPPP and LOA available for review and copying in accordance with the requirements in Part VII.H. of GP-0-25-001. When applicable, as of the date an updated LOA is received, the Owner/Operator must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.

17. The Owner/Operator must ensure compliance with all requirements of GP-0-25-001 and that the provisions of the SWPPP, including any changes made to the SWPPP in accordance with Part III.A.5., are properly implemented and maintained from the commencement of construction activity until all area of disturbance have achieved final stabilization; and the Owner/Operator's coverage under the permit is terminated in accordance with Part V.A.5.a.

18. As of the date of the commencement of construction activities until Part I.E.2.a. and b. have been met, the Owner/Operator must maintain at the construction site, a copy of all documentation necessary to demonstrate eligibility with GP-0-25-001, a copy of GP-0-25-001, the SWPPP, the signed SWPPP Preparer Certification Form, the signed MS4 SWPPP Acceptance Form, signed Owner/Operator Certification Form, eNOI, and LOA, and LOA transmittal to the MS4 Operator in accordance with Part I.D.3.c.

19. The Owner/Operator must maintain at the construction site, until Part I.E.2.a and b. have been met, as of the date the documents become final or are received, a copy of the responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7, and inspection reports in accordance with Part IV.C.4. and 6.

20. The Owner/Operator must maintain the documents in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the Owner/Operator must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.

21. Upon finding a significant non-compliance with the practices described in the SWPPP or violation of GP-0-25-001, NYSDEC may order an immediate stop to all construction activity at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the Owner/Operator. Forward a copy of any stop work order received immediately to the Owner's/Operator's Engineer and to the Contractor.

22. If any human remains or archaeological remains are encountered during excavation, the Owner/Operator must immediately cease, or cause to cease, all construction activity in the area of the remains and notify the appropriate Regional Water Engineer (RWE). Construction activity shall not resume until written permission to do so has been received from the RWE.

23. To be authorized to implement modifications to the information previously submitted in the eNOI, the Owner/Operator must notify NYSDEC via email at Stormwater_info@dec.ny.gov requesting access to update the eNOI, update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D., and receive an updated LOA.

24. The eNOI, SWPPP, LOA, updated LOAs, and inspection reports required by GP-0-25-001 are public documents that the Owner/Operator must make available for review and copying by any person within five (5) business days of the Owner/Operator receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

25. The Owner/Operator must terminate coverage when the project reaches total project completion, has a planned shutdown with partial project completion, is changing Owner/Operator or has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.

26. Have a qualified inspector perform a final site inspection prior to submitting the eNOT.

27. Have the MS4 sign the MS4 Acceptance statement on the eNOT in accordance with the requirements in Part VII.J.

28. Prior to submitting a Notice of Termination, ensure for SMP(s) that are privately owned, the Owner/Operator has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the Owner/Operator's deed of record.

29. Submit a complete Notice of Termination form electronically using the NYSDEC eNOT. Coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

30. Request and receive all SWPPP records from the Owner's/Operator's Engineer and archive those records, along with the LOT, for a period of at least five (5) years from the date that NYSDEC accepts a complete NOT submitted.

31. Implement the Post-Construction Inspections and Maintenance procedures outlined in Appendix G.

32. The Owner/Operator must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the Owner/Operator shall amend the SWPPP, including construction drawings:
    a) Whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater discharges from the project site;
    b) Whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
    c) To address issues or deficiencies identified during an inspection by the "Qualified Inspector," the Department, or other Regulatory Authority.
    d) To document the final construction conditions.

33. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original owner or operator must notify the new owner or operator, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department, in conformance with Part I.G.. For construction activities subject to the requirements of a regulated, traditional land use control MS4, the original owner or operator must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

7.2 Owner's/Operator's Engineer's Responsibilities

1. Prepare the SWPPP using good engineering practices, best management practices, and in compliance with all federal, state, and local regulatory requirements.

2. Prepare the electronic Notice of Intent (eNOI) (see Appendix B) and sign the "SWPPP Preparer Certification Form." Forward the Owner/Operator Certification Form to the Owner/Operator for signature.

3. Provide copies of the SWPPP to the Town of West Seneca once all signatures and attachments are complete.

4. Enter Contractor's information in Section 7.5 "SWPPP Participants" once a Contractor is selected by the Owner/Operator.

5. Participate in a pre-construction meeting which shall include the Town of West Seneca representative, Owner/Operator, Qualified Inspector, Contractor, and all subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

6. Update the SWPPP each time there is a significant modification to the pollution prevention measures or a change of the principal Contractor working on the project who may disturb site soil.

7.3 Contractor's Responsibilities

1. Sign the SWPPP Contractor's Certification Form contained within Appendix B and forward to the Owner's/Operator's Engineer for inclusion in the Site Log Book.

2. Identify at least one Trained Contractor that will be responsible for implementation of this SWPPP. Ensure that at least one Trained Contractor is on site on a daily basis when soil disturbance activities are being performed. The Trained Contractor shall inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating conditions at all times. For corrective actions not requiring engineering design, the contractor must begin implementing corrective actions within one business day and complete the corrective actions within five business days. For corrective actions requiring engineering design, the engineering design process must begin within five business days and the contractor must complete the corrective action in a reasonable time frame but no later than 60 calendar days.

3. Provide the names and addresses of all subcontractors working on the project site. Require all subcontractors who will be involved with construction activities that will result in soil disturbance to identify at least one Trained Contractor that will be on site on a daily basis when soil disturbance activities are being performed; and to sign a copy of the Subcontractor's Certification Form contained within Appendix B, then forward to the Owner's/Operator's Engineer for inclusion into the Site Log Book. This information must be retained as part of the Site Log Book.

4. Maintain a Spill Prevention and Response Plan in accordance with requirements outlined in Section 5 of this SWPPP. This plan shall be provided to the Owner's/Operator's Engineer for inclusion in the Site Log Book, prior to mobilization on-site.

5. Participate in a pre-construction meeting which shall include the Town of West Seneca representative, Owner/Operator, Owner's/Operator's Engineer, Qualified Inspector, and all subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

6. If Contractor plans on utilizing adjacent properties for material, waste, borrow, or equipment storage areas, or if Contractor plans to engage in industrial activity other than construction (such as operating asphalt and/or concrete plants) at the site, Contractor shall submit appropriate documentation to the Owner's/Operator's Engineer so that the SWPPP can be modified accordingly.

7. Implement site stabilization, erosion and sediment control measures, and other requirements of the SWPPP.

8. In accordance with the requirements in the most current version of the NYS Standards and Specifications for Erosion and Sediment Control, conduct inspections of erosion and sediment control measures installed at the site to ensure that they remain in effective operating condition at all times. Prepare and retain written documentation of inspections as well as of

all repairs/maintenance activities performed. This information must be retained as part of the Site Log Book.

9. Begin implementing corrective actions within one (1) business day of receipt of notification by the Qualified Inspector/Qualified Professional of any corrective actions. For corrective actions not requiring engineering design, the contractor must begin implementing corrective actions within one business day and complete the corrective actions within five business days. For corrective actions requiring engineering design, the engineering design process must begin within five business days and the contractor must complete the corrective action in a reasonable time frame but no later than 60 calendar days.

10. Maintain a record of the date(s) and location(s) that soil restoration is performed in accordance with the accompanying plans and NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," dated April 2008. A copy of this publication is provided in Appendix H. The record that is to be maintained shall be a copy of the overall site grading plan delineating the area(s) and date(s) that the soil was restored.

11. Upon completion of all construction at the site, the contractor responsible for overall SWPPP Compliance shall sign the certification on their Contractor Certification Form indicating that: a.) all temporary erosion and sediment control measures have been removed from the site, b.) the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," and c.) all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents.

7.4 Qualified Inspector's/Qualified Professional's Responsibilities

1. Participate in a pre-construction meeting with the Town of West Seneca representative, Owner/Operator, Owner/Operator's Engineer, Contractor, and their subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

2. Conduct an initial assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment control measures described within this SWPPP have been adequately installed and implemented to ensure overall preparedness of the site.

3. Provide on-site inspections to determine compliance with the SWPPP. Site inspections shall occur at an interval of at least once every seven calendar days. A written inspection report shall be provided to the Owner/Operator and general contractor within one business day of the completion of the inspection, with any deficiencies identified. A sample inspection form is provided in Appendix F.

4. Prepare an inspection report subsequent to each and every inspection that shall include/address the items listed in Part IV.C.4 of GP-0-25-001. Sign all inspection reports and maintain on site with the SWPPP.

5. Notify the owner/operator and appropriate contractor or subcontractor of any corrective actions that need to be taken.

6. Prepare a construction Site Log Book to be used as a record of all inspection reports generated throughout the duration of construction. Ensure that the construction Site Log Book is maintained and kept up-to-date throughout the duration of construction.

7. Review the Contractor's SWPPP records on a periodic basis to ensure compliance with the requirements for daily reports, soil restoration, inspections, and maintenance logs.

8. Based on the as-built survey and material testing certifications performed by others, the Qualified Professional shall perform evaluations of the completed stormwater management practices to determine whether they were constructed in accordance with this SWPPP.

9. The Qualified Professional shall conduct a final site assessment and prepare a certification letter to the Owner/Operator indicating that, upon review of the material testing and inspection reports prepared by the firm retained by the Owner/Operator, review of the completed topographic survey, and evaluation of the completed stormwater management facilities, the stormwater management facilities have been constructed substantially in accordance with the contract documents and should function as designed.

10. Prepare the Notice of Termination (NOT). The Qualified Professional shall sign the NOT Certifications VI (Final Stabilization) and VII (Post-construction Stormwater Management Practices) and forward the NOT to the Owner/Operator for signature on Certification VIII (Owner/Operator Certification).

11. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

12. Transfer the SWPPP documents, along with all NOI's, LOA, permit certificates, NOT's, LOT, construction Site Log Book, and written records required by the General Permit to the Owner/Operator for archiving.

7.5 SWPPP Participants

1. Owner's/Operator's Engineer [3]: Kristopher Winkler, PE
   LaBella Associates, DPC
   300 Pearl Street, Suite 130
   Buffalo, NY 14202
   Phone: (716) 483-3153

2. Owner/Operator [4]: Home Leasing
   75 South Clinton Avenue, Suite 700,
   Rochester, NY 14604
   Phone: 585-262-6210

3. Contractor[5,6]:

   Name and Title: _____

   Company Name: _____

   Mailing Address: _____

   _____

   Phone: _____

   Fax: _____

[3] *Refer to Appendix B for the SWPPP Preparer Certification Form.*
[4] *Refer to Appendix B for the Owner/Operator Certification Form.*
[5] *Refer to Appendix B for Contractor and Subcontractor Certification Form.*
[6] *Contractor's information to be entered once the Contractor has been selected.*

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APPENDIX A:
FIGURES

A-1: Site Location Map
A-2: Soils Map
A-3: Historic Places Screening Map
A-4: Environmental Resource Map
A-5: Environmental Review Documentation
A-6: FEMA Firm Map
A-7: Pre-Development Watershed Delineation Map
A-8: Post-Development Watershed Delineation Map

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **SITE LOCATION MAP**

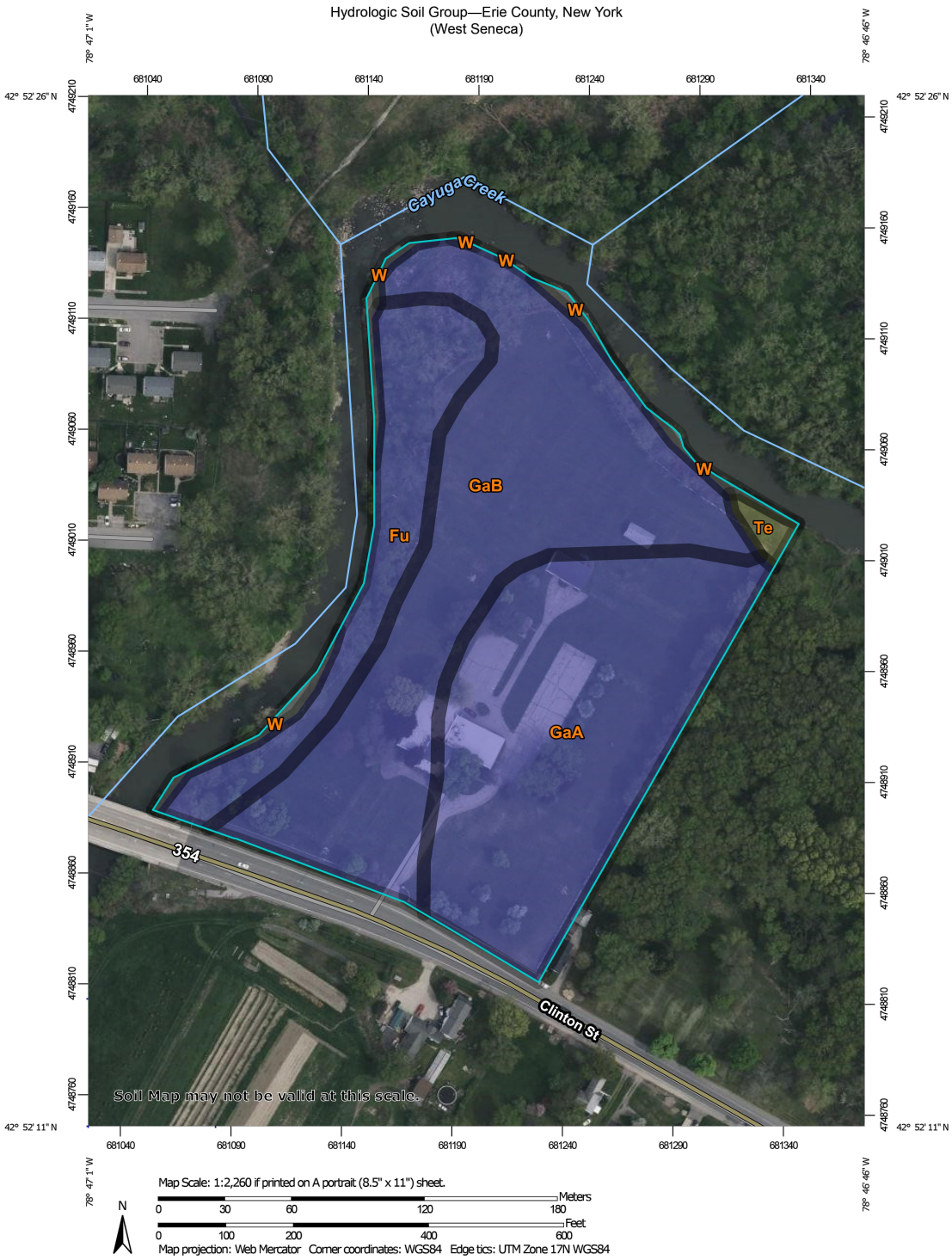
DRAWN BY:	DATE:	PROJECT NO.:
--	04/20/2026	2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: **A-1**

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Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

4/13/2026
Page 1 of 4

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ISSUED FOR:
SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME:
SOILS MAP

DRAWN BY:	DATE:	PROJECT NO.:
	04/20/2026	2241067

PROJECT NAME:
WEST SENECA APARTMENTS
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER:
A-2a

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MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 25, Sep 4, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 13, 2023—May 27, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **SOILS LEGEND**

DRAWN BY: --

DATE: 04/20/2026

PROJECT NO.: 2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: **A-2b**

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Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Fu	Fluvaquents and Udifluvents, frequently flooded	A/D	1.7	14.7%
GaA	Galen very fine sandy loam, 0 to 3 percent slopes	A/D	4.4	37.9%
GaB	Galen very fine sandy loam, 3 to 8 percent slopes	A/D	5.2	44.5%
Te	Teel silt loam	B/D	0.1	1.1%
W	Water		0.2	1.8%
Totals for Area of Interest			**11.7**	**100.0%**

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: SOILS TABLE

DRAWN BY: -- DATE: 04/20/2026 PROJECT NO.: 2241067

PROJECT NAME: WEST SENECA APARTMENTS
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: A-2c

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Consultation Projects (View)

Survey Archaeology Areas (View)

Survey Building Areas (View)

LPC Historic Districts

Archeologically Sensitive Areas

National Register Building Sites (View)

USN Building Districts (View)

LPC Landmarks

USN Building Points (View)

- Eligible
- Listed
- Not Eligible
- Not Eligible - Demolished
- Undetermined

Cemeteries

Missing or invalid reference

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **HISTORIC PLACES SCREENING MAP**

DRAWN BY:	DATE:	PROJECT NO.:
--	04/20/2026	2241067

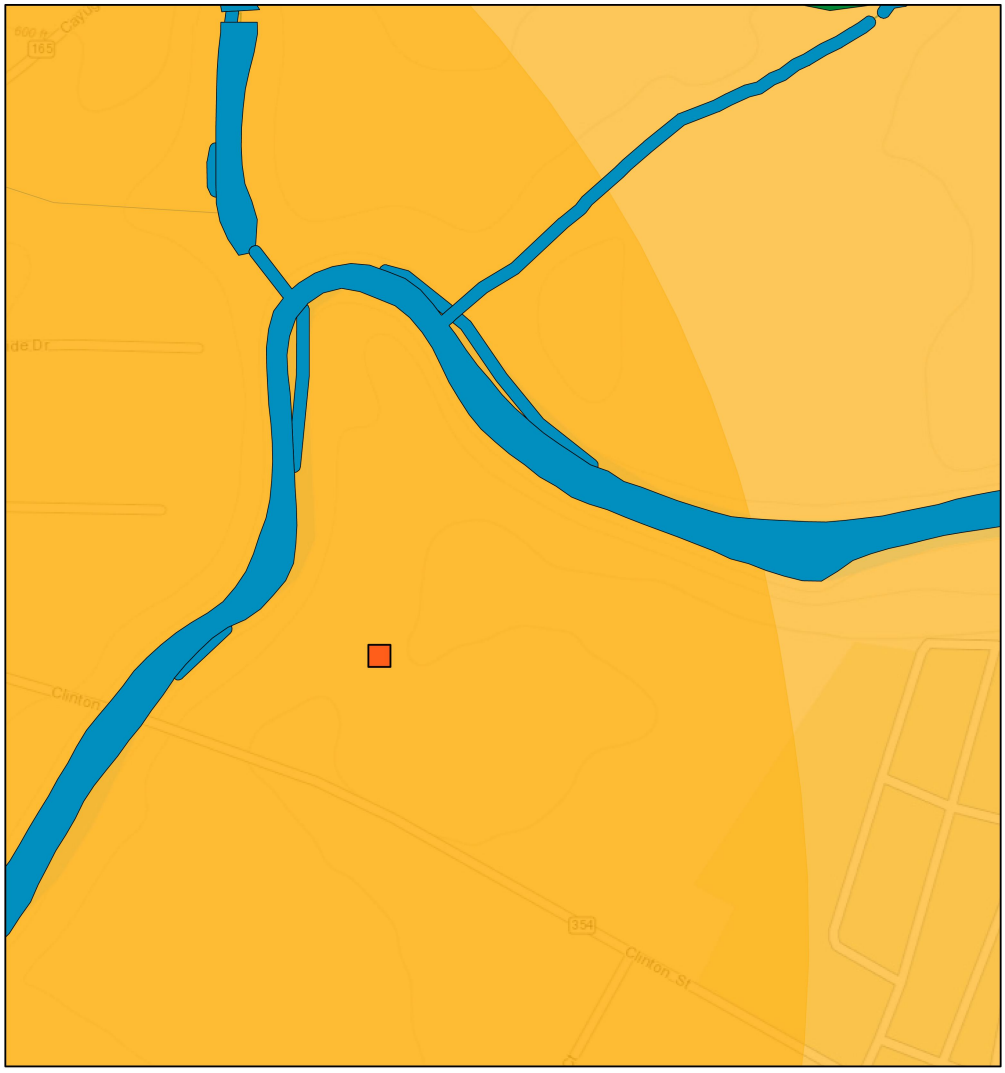
PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: **A-3**

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Environmental Resource Mapper



April 16, 2026

1:4,514

0 0.03 0.06 0.11 mi

0 0.04 0.09 0.17 km

- Unique Geological Features
- Waterbody Classifications for Rivers/Streams
- Waterbody Classifications for Lakes

Waterbody Inventory/Priority Waterbodies List
- Lakes and Reservoirs
- Estuaries
- Rivers and Streams
- Shorelines

- State Regulated Freshwater Wetlands (Outside of the Adirondack Park)
- State Regulated Wetland Checkzone
- Significant Natural Communities
- Natural Communities Near This Location
- Rare Plants or Animals

National Wetlands Inventory
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **ENVIRONMENTAL RESOURCE MAP**

DRAWN BY:	DATE:	PROJECT NO.:
--	04/20/2026	2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: **A-4**

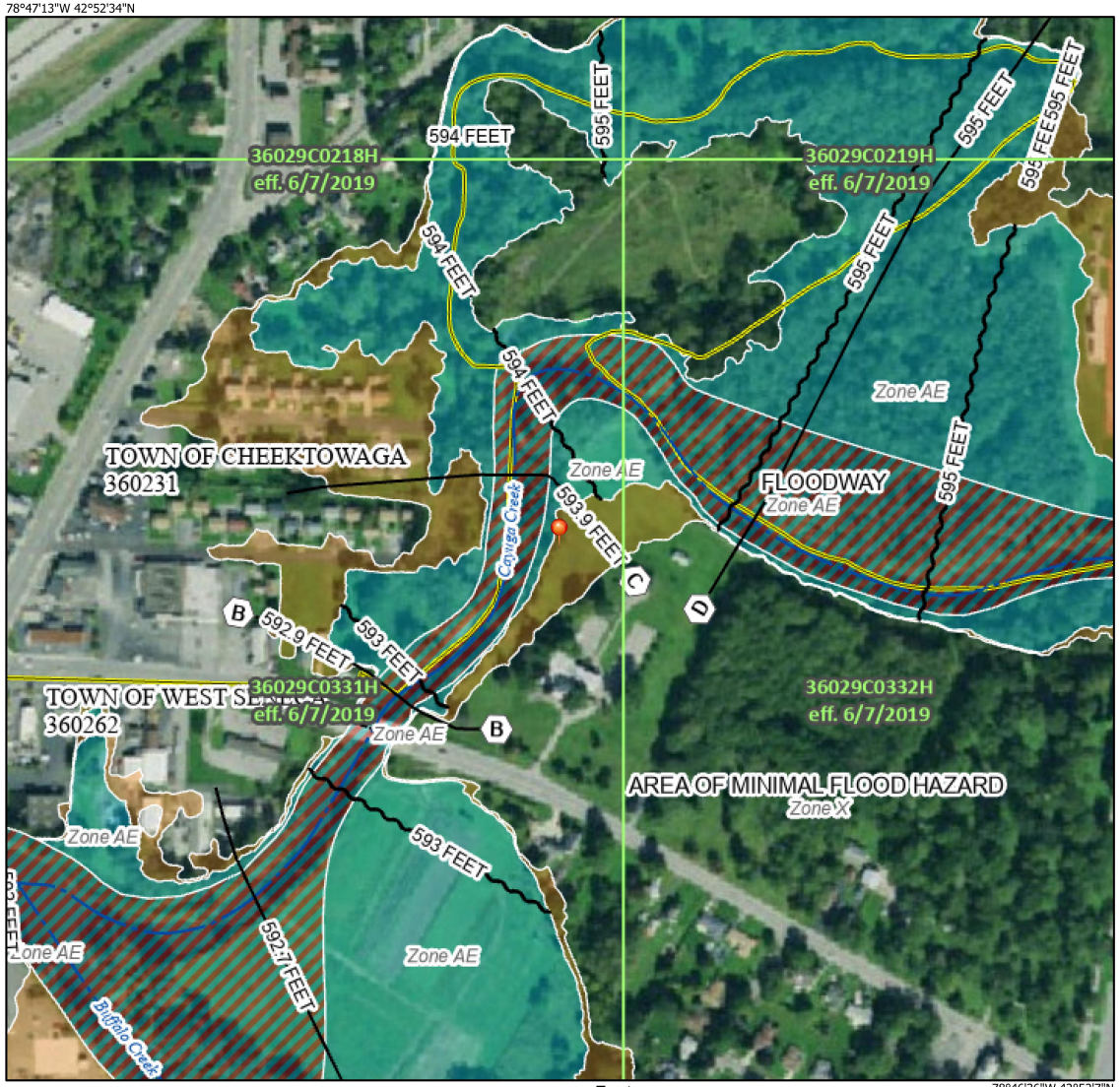
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National Flood Hazard Layer FIRMette

FEMA

78°47'13"W 42°52'34"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

78°46'36"W 42°52'7"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS
  - Without Base Flood Elevation (BFE) *Zone A, V, A99*
  - With BFE or Depth *Zone AE, AO, AH, VE, AR*
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
  - Future Conditions 1% Annual Chance Flood Hazard *Zone X*
  - Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
  - Area with Flood Risk due to Levee *Zone D*
- OTHER AREAS
  - NO SCREEN Area of Minimal Flood Hazard *Zone X*
  - Effective LOMRs
  - Area of Undetermined Flood Hazard *Zone D*
- GENERAL STRUCTURES
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES
  - 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/6/2026 at 2:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION			
DRAWING NAME: **FEMA FIRM MAP**	DRAWN BY: --	DATE: 04/20/2026	PROJECT NO.: 2241067
PROJECT NAME: **WEST SENECA APARTMENTS** 2544 CLINTON ST, WEST SENECA, NY 14224	DRAWING NUMBER: **A-5**		

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ROLL CALL: Present Supervisor Dickson
Councilmember Breidenstein
Councilmember Kims
Councilmember Piekarec
Councilmember Robertson

Absent None

Supervisor Dickson read the Fire Prevention Code instructing the public where to exit in case of a fire, or an emergency was stated.

APPROVAL OF AGENDA

1. Town Clerk re Approval of Agenda as submitted

Motion by Supervisor Dickson, seconded by Councilmember Piekarec, to approve the agenda with the additional item from the Director of Senior Services.

Ayes: All Noes: None Motion Carried

MINUTES TO BE APPROVED

1. Town Clerk Newton re Reorganizational Meeting Minutes from January 13, 2025

Motion by Supervisor Dickson, seconded by Councilmember Robertson, to approve the Reorganizational Meeting Minutes from January 13, 2025.

Ayes: All Noes: None Motion Carried

2. Town Clerk re Meeting Minutes 2025-01 of January 13, 2025

Motion by Supervisor Dickson, seconded by Councilmember Kims, to approve Meeting Minutes 2025-01 of January 13, 2025.

Ayes: All Noes: None Motion Carried

PUBLIC COMMENTS

Courtney Fallon, Treehaven Road, referred to Communications Item No. 10, Summer employee bonus:

- ✓ Requested the Town Board not to approve the item and in her opinion the bonus should be higher for water safety instructors
- ✓ Recommended terms to better accommodate pool staff, specifically college students
- ✓ Qualification 4.d in her opinion does not accommodate employees' scheduling challenges, for example, summer school

Mary Jane Held, 1442 Orchard Park Road, referred to the proposed project at 1425 Orchard Park Road:

- ✓ Is opposed to the project and suggested a dog park instead – Supervisor Dickson stated the town is reviewing adding a dog park and NYS is planning to add sidewalks along Orchard Park Road.
- ✓ Is concerned about additional traffic

TABLED ITEM

1. Code Enforcement re Request for special use permit – 1850 Union Road

The item remained tabled.

OLD BUSINESS

1. Code Enforcement re Rezone & Special Use Permit – 1425 Orchard Park Road

Code Enforcement Officer Schieber stated the following information has been received:

- ✓ Fully coordinated SEQR
- ✓ SHPO clearance regarding a full investigation of the archeologically sensitive area near cemetery
- ✓ NYSDOT have no objections to the traffic generated by the project

Town Engineer Foote stated the lining of the trunk sewers is reducing overflow occurrences.

Councilmember Breidenstein questioned Mr. Foote on the completion date of the Phase 8 project. Mr. Foote stated he anticipates the project will be completed this summer noting the lining will be completed this spring.

Councilmember Piekarec stated he is in favor of the project and noted he does not agree with the Town Board having tabled the project last year.

Councilmember Kims stated in her opinion it was prudent of the town to address the downstream sewer problems before approving the project.

Motion by Supervisor Dickson, seconded by Councilmember Breidenstein, to approve the request for rezoning and special use permit for property located at 1425 Orchard Park Road, changing its classification from C- 1 and R-75 to C-1(S) for construction of a multi-unit residential development.

On the question, Councilmember Breidenstein recognized the Engineering Departments efforts to clear the sewer lines and acknowledged the concerns of residents whose basements have flooded on a routine basis. Furthermore, Councilmember Breidenstein stated that sometimes government takes time, however we have a responsibility to the residents and developers to get it right.

Supervisor Dickson further advised there is a playground for children at the school and would support a town shared playground for the neighborhood.

Ayes: All Noes: None Motion Carried

Motion by Supervisor Dickson, seconded by Councilmember Piekarec, to adopt the following resolution:

WHEREAS, the Town Board of the Town of West Seneca, as lead agency acting pursuant to the State Environmental Quality Review Act, Article 8 of the New York State Environmental Conservation Law, has reviewed Part I of the Short Environmental Assessment Form ("EAF") prepared by the applicant for property located at 1425 Orchard Park Road ("Subject Property"), for construction of a new 30 unit multi-family residential development and associated site work and parking (the "Project"), and reviewed the draft completed Part II and Part III of the EAF analyzing the potential for the Project to result in any significant adverse environmental impacts and has otherwise taken a hard look at the identified potential environmental impacts utilizing the criteria specified in 6 NYCRR 617.7(c); and

WHEREAS, the Erie County Division of Planning, after carefully and fully reviewing a description of the proposed project, along with the application and other documents as submitted to the Town of West Seneca, replied in writing that the project was to be of local concern; and

WHEREAS, the Town Board held a public hearing which was properly noticed to the public wherein the project was discussed; and

WHEREAS, the Town Board herein determines that it shall act as lead agency for such purposes and there has been no opposition thereto by any other interested agency; and

WHEREAS, the Town Board, carefully and fully reviewed the application including the following documents submitted by the applicant and other interested entities: Response from DEC, SHPO, NYSDOT, Army Corp of Engineers, and the reports of Powers Archaeology, LLC; and

WHEREAS, the Town Board, upon taking an independent hard look and reasoned evaluation of all of the above-referenced information, comments and written documentation with regard to the project;

WHEREAS, upon review of Parts I, II, and III of the EAF and documentation and plans submitted by the applicant in connection with the review of the Project, the Town Board has not identified any potentially significant adverse environmental impacts associated with the proposed use of the Subject Property, has determined that this is an unlisted action and preparation of a Full Environmental Impact Statement is not necessary and that the issuance of a Negative Declaration is therefore appropriate; now, therefore, be it

RESOLVED that pursuant to 6 NYCRR 617.7(a) the Town Board hereby accepts its designation as lead agency and does hereby adopt a Negative Declaration with respect to the Project based on its determination that the Project will not result in any potentially significant adverse environmental impacts.

Ayes: All Noes: None Motion Carried

2. Code Enforcement re Rezone & Special Use Permit – 2544 Clinton Street

Mr. Schieber stated the applicant has provided the following:

- ✓ Adjusted conceptual plan for the addition of parking spaces
- ✓ Information and schematics for the existing mansion building to temporarily house residents in the event of emergencies
- ✓ Cover letter

Town Attorney Trapp stated he sent letters to the Seneca Nation and received no response which can be interpreted as agreement with SHPO. The West Seneca Central School District indicated that they have sufficient capacity for the program. The SEQR documents are in front of the Town Board and a full EAF for the site was completed.

Supervisor Dickson stated he received a letter from the West Seneca Superintendent indicating her full support of the project.

Councilmember Breidenstein addressed the concerns he expressed about the project:

- ✓ Lack of a response from Seneca Nation – Councilmember Breidenstein's own correspondence went unanswered
- ✓ Parking spaces – Questioned the number of handicapped spaces required in the town code. Mr. Schieber stated the number is determined by the overall quantity of the site and 2-3 handicapped spaces are required per 100; the applicant exceeds this amount.

- ✓ Sidewalks – NYS has indicated sidewalks will not be added to Clinton Street and questioned if sidewalks have been added by the developer. Mr. Schieber referred to the drawing and stated sidewalks are included in the interior of the development. Additionally, NYS requested the development carry the sidewalk out of the property west on Clinton Street up to the bridge area.
- ✓ Did not see elevators or lifts in the plans of the 3-story buildings and questioned how individuals with mobility issues will be accommodated – Mr. Schieber stated the applicant will address the question.
- ✓ Concerned that the dumpster site is inadequate for the property – Supervisor Dickson stated he understands the Planning Board can review and recommend changes or additions.
- ✓ How many electric car charging stations will be installed accommodated – Mr. Schieber stated the applicant will address the question.
- ✓ Is the entire parcel being rezoned – Mr. Schieber stated the entire parcel and noted the remainder is not suitable for development.

Councilmember Piekarec questioned if the current M-1 zoning allows manufacturing businesses. Mr. Schieber confirmed this. Councilmember Piekarec questioned if the town requires any new projects to include electric car charging stations. Mr. Schieber stated the requirement is not in the town code but is regularly discussed at the Planning Board meetings. Councilmember Piekarec stated in his opinion most of the residents will have gasoline powered vehicles.

Dan Brock of LaBella Associates made the following comments:

- ✓ Handicap parking spaces were addressed
- ✓ ADA compliant units are located on the ground floors of buildings and the plans meet all NYS requirements
- ✓ Dumpsters are for garbage overflow, each unit will have a tote – Councilmember Breidenstein questioned what party will be responsible for garbage collection and mentioned a concern with the garbage generated by parties moving in and out of the development. Mr. Brock understands it will be the developer's responsibility and will investigate the particulars of collection.
- ✓ NYS guidelines require a certain number of electric vehicle charging stations and the plans accommodate 5 stations

Councilmember Piekarec asked if the sidewalks are ADA compliant along the length of the property. Mr. Brock confirmed the development must be ADA compliant. Councilmember Piekarec asked if the community mansion can accommodate all residents. Mr. Brock stated that there will be enough room to accommodate 200 people and noted there are office spaces that will be on a generator and can accommodate additional people.

Councilmember Robertson asked which power company will service the development. Mr. Brock stated NYSEG will supply electricity. Councilmember Robertson stated he does not believe the location is right for an all-electric community and added the condition that the applicant must provide the development plans to NYSEG for the utility company's review and approval. NYSEG's report will be submitted to the town.

Councilmember Piekarec asked Mr. Schieber and Mr. Foote if the applicant is required as a part of the site plan process to obtain approval from the electric company for hook-ups. Mr. Schieber stated in this instance, he will reach out to his contacts to facilitate this request.

Councilmember Breidenstein questioned if school buses will be able to navigate the site. Mr. Brock stated buses are generally provided with a central loop and accessible areas for the students.

Motion by Supervisor Dickson, seconded by Councilmember Piekarec, to approve the request for rezoning and special use permit for property located at 2544 Clinton Street changing its classification from M-1 to R-

50(S) for construction of multiple family dwelling with all related site improvements with the condition that the applicant contact NYSEG and receive approval for the electrical development and that the report will be sent to the Town Board and Planning Board.

Ayes: All Noes: None Motion Carried

Motion by Supervisor Dickson, seconded by Councilmember Piekarec, to adopt the following resolution:

WHEREAS, the Town Board of the Town of West Seneca, as lead agency acting pursuant to the State Environmental Quality Review Act, Article 8 of the New York State Environmental Conservation Law, has reviewed Part I of the Full Environmental Assessment Form ("FEAF") prepared by the applicant for property located at 2544 Clinton Street ("Subject Property"), for development of affordable housing multi-family residential units and associated site work and parking (the "Project"), and reviewed the draft completed Part II and Part III of the EAF analyzing the potential for the Project to result in any significant adverse environmental impacts and has otherwise taken a hard look at the identified potential environmental impacts utilizing the criteria specified in 6 NYCRR 617.7(c); and

WHEREAS, the Erie County Division of Planning, after carefully and fully reviewing a description of the proposed project, along with the application and other documents as submitted to the Town of West Seneca, replied in writing that the project was to be of local concern; and

WHEREAS, the Town Board held a public hearing which was properly noticed to the public wherein the project was discussed; and

WHEREAS, the Town Board herein determines that it shall act as lead agency for such purposes and there has been no opposition thereto by any other interested agency; and

WHEREAS, the Town Board, carefully and fully reviewed the application including the following documents submitted by the applicant and other interested entities: Response from DEC, SHPO, NYSDOT, West Seneca Central School District, and the reports and submissions from LaBella, PC; and

WHEREAS, the Town Board, upon taking an independent hard look and reasoned evaluation of all of the above-referenced information, comments and written documentation with regard to the project;

WHEREAS, upon review of Parts I, II, and III of the FEAF and documentation and plans submitted by the applicant in connection with the review of the Project, the Town Board has not identified any potentially significant adverse environmental impacts associated with the proposed use of the Subject Property, has determined that this is an unlisted action and preparation of a Full Environmental Impact Statement is not necessary and that the issuance of a Negative Declaration is therefore appropriate; now, therefore, be it

RESOLVED that pursuant to 6 NYCRR 617.7(a) the Town Board hereby accepts its designation as lead agency and does hereby adopt a Negative Declaration with respect to the Project based on its determination that the Project will not result in any potentially significant adverse environmental impacts.

Councilmember Breidenstein noted that he experienced internet issues today and was unable to download and view the materials that were sent to him today and will be abstaining for that reason.

Ayes: 4 (Dickson, Kims, Piekarec, Robertson) Abstain: 1 (Breidenstein) Noes: None Motion Carried

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LEGEND

- SUBCATCHMENT BOUNDARY
- Tc PATH
- # SUBCATCHMENT
- # REACH

N

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **PRE-DEVELOPMENT WATERSHED DELINEATION MAP**

DRAWN BY:

DATE: 04/20/2026

PROJECT NO.: 2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON STREET, BUFFALO, NY 14224

DRAWING NUMBER: **A-6**

VERSION 21.1
4/20/2026 10:59:33 AM



LEGEND

- SUBCATCHMENT BOUNDARY
- Tc PATH
- # SUBCATCHMENT
- # REACH
- # POND

N

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **POST-DEVELOPMENT WATERSHED DELINEATION MAP**

DRAWN BY:

DATE: 04/20/2026

PROJECT NO.: 2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON STREET, BUFFALO, NY 14224

DRAWING NUMBER: **A-7**

VERSION 21.1
4/20/2026 11:02:52 AM

APPENDIX B: FORMS

Notice of Intent (NOI) Draft
MS4 SWPPP Acceptance Form
SWPPP Preparer Certification Form
Owner/Operator Certification Form
Contractor and Subcontractor Certification Forms
Notice of Termination (NOT)

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MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4 Operator:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Street Address:
14. City/State/Zip:
15. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name[1]:

Title/Position:

Signature:

Date:

VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

(NYSDEC - MS4 SWPPP Acceptance Form - January 2025)

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:

eNOI Submission ID:

Owner/Operator Name:

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SWPPP Preparer First Name | MI | SWPPP Preparer Last Name

Signature | Date

Revised: January 2025

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: _____

eNOI Submission ID: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name MI Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

Stormwater Pollution Prevention Plan
Contractor Certification Statement
(Responsible for overall SWPPP Compliance)

West Seneca
Town of West Seneca, Erie County, New York

This is to certify that the following contracting firm will be responsible for installing, constructing, repairing, inspecting and/or maintaining the erosion and sediment control practices and post-construction stormwater management control practices required by the SWPPP.

Contracting Firm Information

Name: _____

Address: _____

Telephone & Fax: _____

Trained Contractor(s)[1] Responsible for SWPPP Implementation (Provide name, title, and date of last training)

_____

_____

Prior to commencement of construction activity, the following certification shall be issued:

I hereby certify under penalty of law that I understand and agree to comply with the requirements of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

Upon completion of construction activities, the following certification shall be issued, prior to issuance of the NOT:

I hereby certify that that all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents. I further certify that all temporary erosion and sediment control measures have been removed from the site, and that the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction".

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

[1] "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company that meets the "qualified inspector" qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

Stormwater Pollution Prevention Plan
Subcontractor Certification Statement
(whose work involves soil disturbance)

West Seneca
Town of West Seneca, Erie County, New York

Each Subcontractor whose work will involve soil disturbance of any kind is required to complete and sign this Certification Statement before commencing any construction activity at the site. This completed Certification Statement(s) shall be maintained at the construction site in the Site Log Book.

Subcontracting Firm Information

Name: _____

Address: _____

_____

Telephone & Fax: _____

Trained Contractor(s)[2] Responsible for SWPPP Implementation (Provide name, title, and date of last training)

_____

_____

Prior to commencement of construction activities, the following certification shall be issued:

I hereby certify under penalty of law that I understand and agree to comply with the requirements of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

[2] "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company that meets the "qualified inspector" qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

eNOT Owner or Operator Certification

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I certify that I have met the requirements of CGP Part V.A.1., 2., 3., and 4. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Owner or Operator:

b. Title/Position:

c. Signature:

d. Date:

eNOT Qualified Inspector Certification – Final Stabilization

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I hereby certify that all the requirements in CGP Part V.A.1.a.i., ii., and iii. or CGP Part V.A.1.b.i., ii., and iii. have been achieved. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Qualified Inspector:

b. Title/Position:

c. Signature:

d. Date:

eNOT Qualified Inspector Certification – SMPs

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I hereby certify that all the requirements in CGP Part V.A.1.a.iv. or CGP Part V.A.1.b.iv. have been achieved. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Qualified Inspector:

b. Title/Position:

c. Signature:

d. Date:

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APPENDIX C:
PROJECT EVALUATION AND DESIGN CALCULATIONS

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P=	1.00	*inch*

AREA	Total Area *(Acres)*	Existing Imperv *(Acres)*	Proposed Imperv *(Acres)*	Existing Disturbed Imperv Area *(Acres)*	Imperv Reduction *(Acres)*
TO ALTERNATIVE PRACTICES	2.13	0.47	1.91	0.47	0%
TO AREA REDUCTION SMPS					
SITE REMAINING AREA	3.55	0.59	1.07	0.35	0%
TOTAL SITE	5.68	1.06	2.98	0.82	0%

Water Quality Volume Calculation

New Development / Redevelopment	WQv Treatment %	Total Area *(Acres)*	Exist Disturbed Imperv Area (REDEVELOPMENT) (Acres)	Imperv Area (NEW DEVELOPMENT) *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	WQv Adjusted *(ft^3)*	TOTAL WQV REQUIRED *(ft^3)*	System Generated Notes
REDEVELOPMENT ALTERNATIVE	75%	0.47	0.47	-	100%	0.95	1,621	1,216	8,672	
NEW DEVELOPMENT ALTERNATIVE	100%	1.66	-	1.44	87%	0.83	5,006	5,006		
REDEVELOPMENT REMAINING AREA	25%	0.35	0.35	-	100%	0.95	1,207	302		
NEW DEVELOPMENT REMAINING AREA	100%	3.20	-	0.48	15%	0.19	2,149	2,149		

Minimum Runoff Reduction Volume Calculation

AREA	Total Impervious Area Added (NEW DEVELOPMENT) *(Acres)*	Soil Group A *%*	Soil Group B *%*	Soil Group C *%*	Soil Group D *%*	Percent Impervious *%*	Rv	Weighted S Factor	MINIMUM RRv REQUIRED *(ft^3)*	System Generated Notes
TOTAL SITE	1.92	0%	0%	0%	100%	100%	0.95	0.20	1,324	

Step 2 - Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	No
What is the nature of this construction project?	Redevelopment with increase in impervious area

Design Point:	1		
P=	1.00	inches	*Enter 90% Rainfall Event as P*

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1	0.63	0.22	34	0.36	817	Filtration Bioretention
2	1.70	1.48	87	0.83	5,144	Flow Based Alternative Practice
3	0.65	0.22	33	0.35	829	Filtration Bioretention
4	0.68	0.48	71	0.69	1,692	Filtration Bioretention
5	0.43	0.43	100	0.95	1,483	Flow Based Alternative Practice
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	4.09	2.82	69	0.67	**9964**	**Required WQv**

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Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	0.63	0.22	34	0.36	817	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	6	
Enter depth to bedrock (ft)	6	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	1	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	340	sf	
Enter Provided Filter Area	Af	340	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	816	cf	

Calculate Runoff Reduction			
RRv Provided	**326**	***cf***	
WQv Treated	491	cf	This is the portion of the WQv that is not reduced in the practice.

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Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
3	0.65	0.22	33	0.35	829	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	6	
Enter depth to bedrock (ft)	6	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	1	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	345	sf	
Enter Provided Filter Area	Af	348	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	835.2	cf	

Calculate Runoff Reduction			
RRv Provided	**334**	***cf***	
WQv Treated	495	cf	This is the portion of the WQv that is not reduced in the practice.

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Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
4	0.68	0.48	71	0.69	1,692	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	6	
Enter depth to bedrock (ft)	6	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	1	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	705	sf	
Enter Provided Filter Area	Af	705	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	1692	cf	

Calculate Runoff Reduction			
RRv Provided	**677**	***cf***	
WQv Treated	1015	cf	This is the portion of the WQv that is not reduced in the practice.

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Water Quality Peak Flow Calclations

NYSDEC Water Quality Volume (WQv) & Water Quality Peak Flow (Qp) Calculation Worksheet (REQUIRED Qp)

PROJECT INFORMATION			
Total Drainage Area	**A:**	2.09	**ac**
Impervious Area	**I:**	1.90	**ac**
Percent Impervious		90.9	**%**
NYSDEC 90% Rainfall	**P:**	1.00	**in.**
Time of Concentration	**T_c:**	0.27	**hrs**
	Rv:	0.87	
WATER QUALITY VOLUME			
Water Quality Volume $WQ_v=([(P)*(Rv)*(A)]/12)*43560$	WQv:	6,587	cf
WATER QUALITY PEAK FLOW (NEW DEVELOPMENT)			
Runoff Volume $Q=WQ_v/(A*3600)$	Q:	0.87	in.
$CN=1000/(10+5*P+10*Q-10(Q^2+1.25*Q*P)^{½})$	CN:	98.80	
CN Rounded	CN:	99	
CN < or = 98	CN:	98	
Initial Abstraction ($I_a=200/CN-2$)	Ia:	0.04	in.
RATIO $R=I_a/P$	R:	0.04	
$C_0 = A*R^2 +B*R +C$	C_0:	2.54	
$C_1 = A*R^2 +B*R +C$	C_1:	-0.58	
$C_2 = A*R^2 +B*R +C$	C_2:	-0.17	
Unit Peak Discharge $qu=10^(C_0+C_1*Log(T_c)+C_2*(log(T_c))^2)$	qu:	663.03	$cfs/mi^2/in$
Water Quality Peak Flow $Q_p=qu*A*Q/640$ (100%)	**Qp:**	**1.88**	**cfs**
REDVELOPMENT			
Impeverious Area Reduction	IC	0.00	%
WQv Treatment by Standard Practice	SP	0.00	%
Runoff Reduction	RR	0.00	%
Req. WQv% By Alt. Practice AP=(25-(% IC+%SP+%RR))*3:	AP	75.0	%
Required Water Quality Peak Flow RD QP=(Qp*AP):	**RD Qp:**	**1.41**	**cfs**

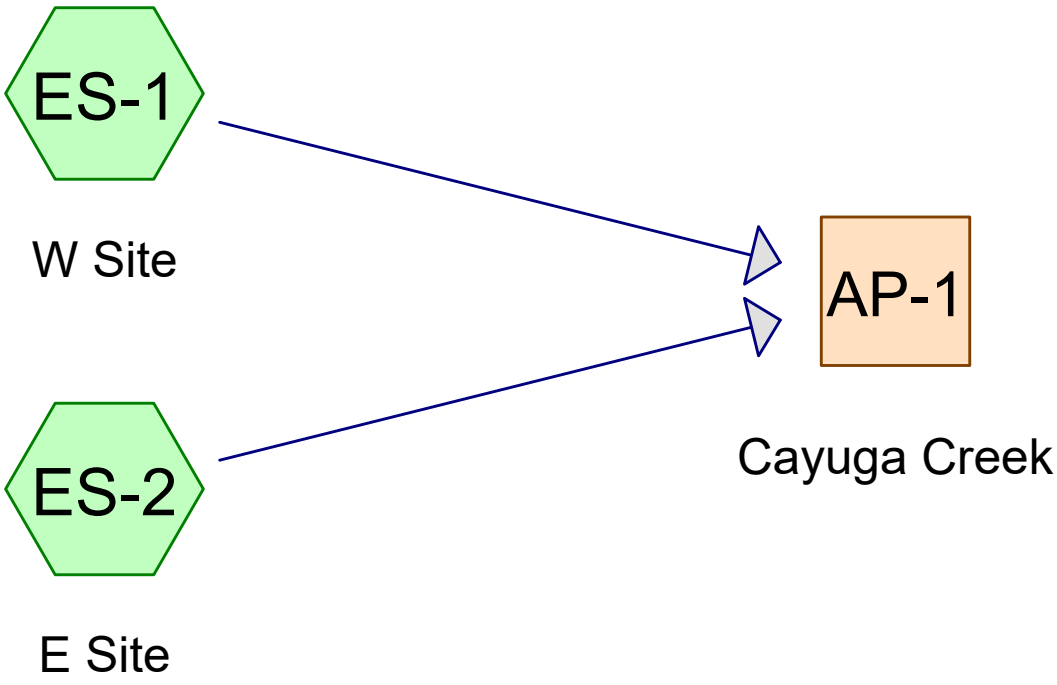
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APPENDIX D:
PRE-DEVELOPMENT STORMWATER MODELING

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Subcat Reach Pond Link

Routing Diagram for D_App D_Pre-Development Model
Prepared by Labella Associates, Printed 4/17/2026
HydroCAD® 10.20-7a s/n 09581 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY-West Seneca 24-hr S1	1-yr	Default	24.00	1	1.82	2
2	10-yr	NY-West Seneca 24-hr S1	10-yr	Default	24.00	1	3.14	2
3	100-yr	NY-West Seneca 24-hr S1	100-yr	Default	24.00	1	5.22	2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
10.061	80	>75% Grass cover, Good, HSG D (ES-1, ES-2)
1.056	98	Paved parking, HSG D (ES-1, ES-2)
11.117	**82**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
11.117	HSG D	ES-1, ES-2
0.000	Other	
11.117		**TOTAL AREA**

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: W Site Runoff Area=337,194 sf 11.34% Impervious Runoff Depth=0.53"
Flow Length=391' Tc=14.0 min CN=82 Runoff=4.22 cfs 0.344 af

Subcatchment ES-2: E Site Runoff Area=147,058 sf 5.28% Impervious Runoff Depth=0.49"
Flow Length=390' Tc=19.4 min CN=81 Runoff=1.42 cfs 0.139 af

Reach AP-1: Cayuga Creek Inflow=5.48 cfs 0.483 af
Outflow=5.48 cfs 0.483 af

Total Runoff Area = 11.117 ac Runoff Volume = 0.483 af Average Runoff Depth = 0.52"
90.50% Pervious = 10.061 ac 9.50% Impervious = 1.056 ac

Summary for Subcatchment ES-1: W Site

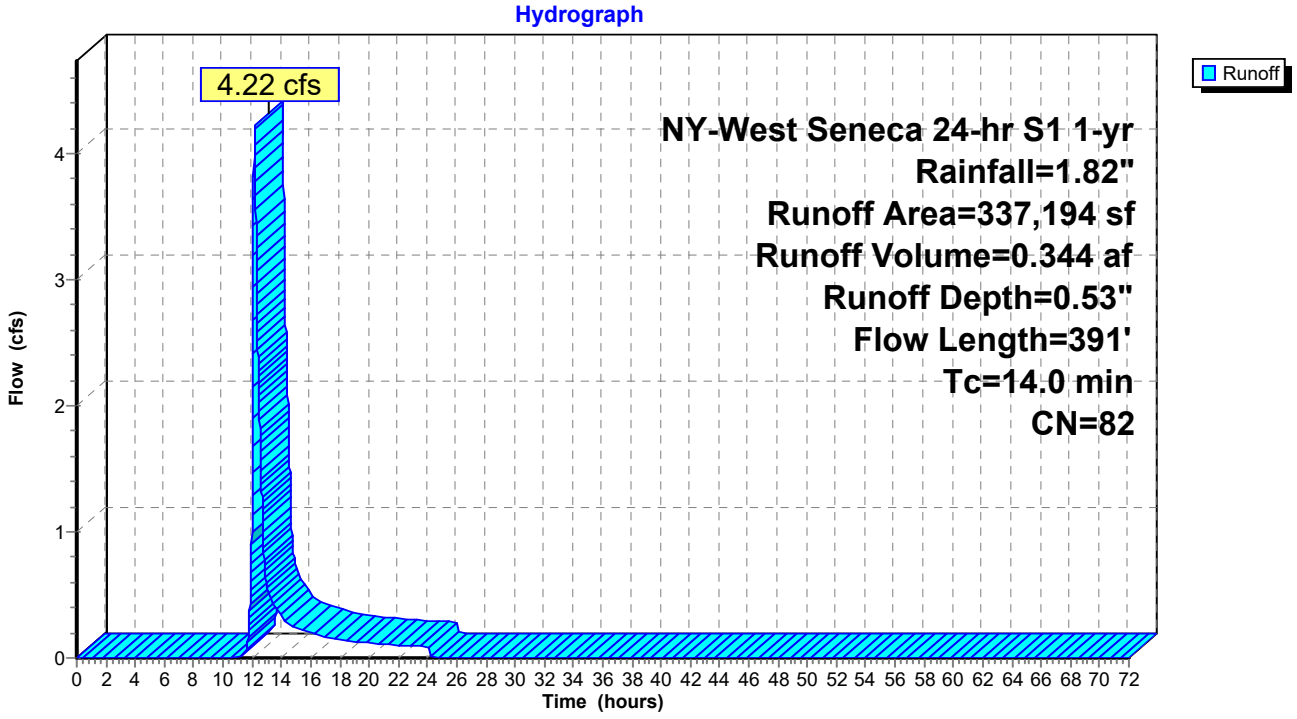
Runoff = 4.22 cfs @ 12.16 hrs, Volume= 0.344 af, Depth= 0.53"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
38,223	98	Paved parking, HSG D
298,971	80	>75% Grass cover, Good, HSG D
337,194	82	Weighted Average
298,971		88.66% Pervious Area
38,223		11.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment ES-1: W Site



Summary for Subcatchment ES-2: E Site

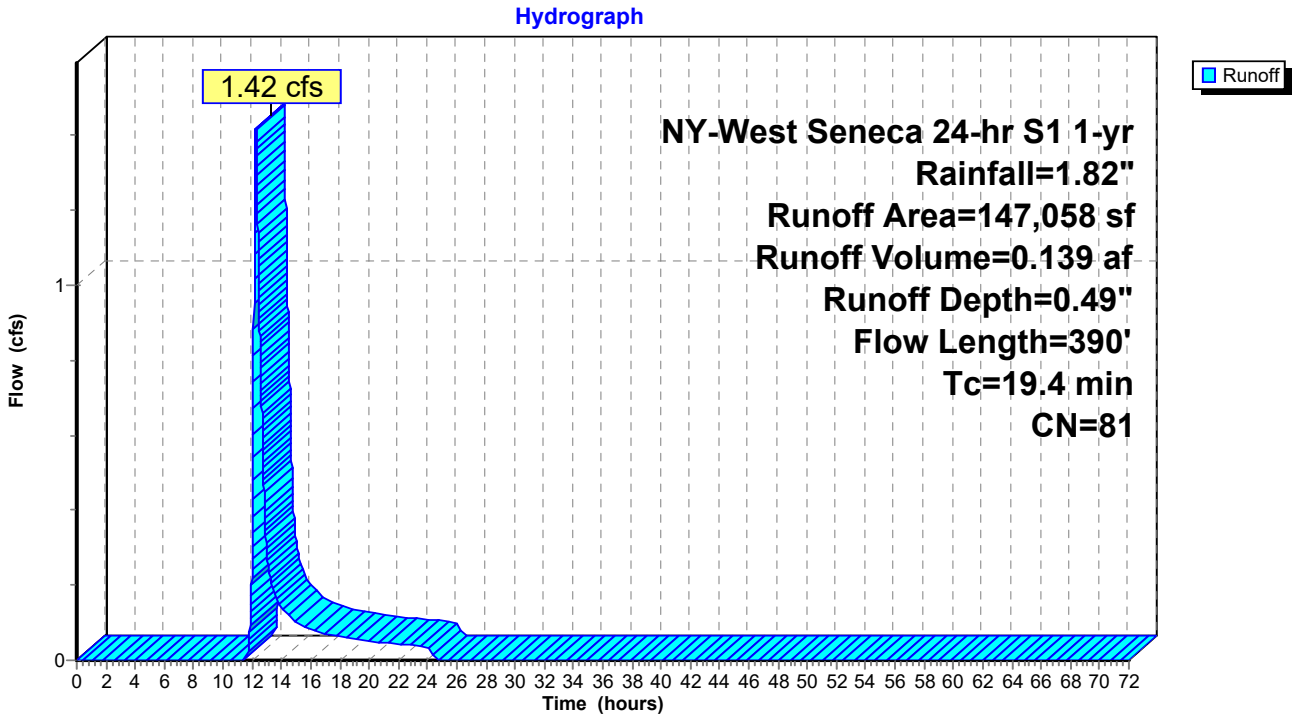
Runoff = 1.42 cfs @ 12.25 hrs, Volume= 0.139 af, Depth= 0.49"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
7,764	98	Paved parking, HSG D
139,294	80	>75% Grass cover, Good, HSG D
147,058	81	Weighted Average
139,294		94.72% Pervious Area
7,764		5.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0150	0.13		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
6.1	290	0.0130	0.80		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
19.4	390	Total			

Subcatchment ES-2: E Site

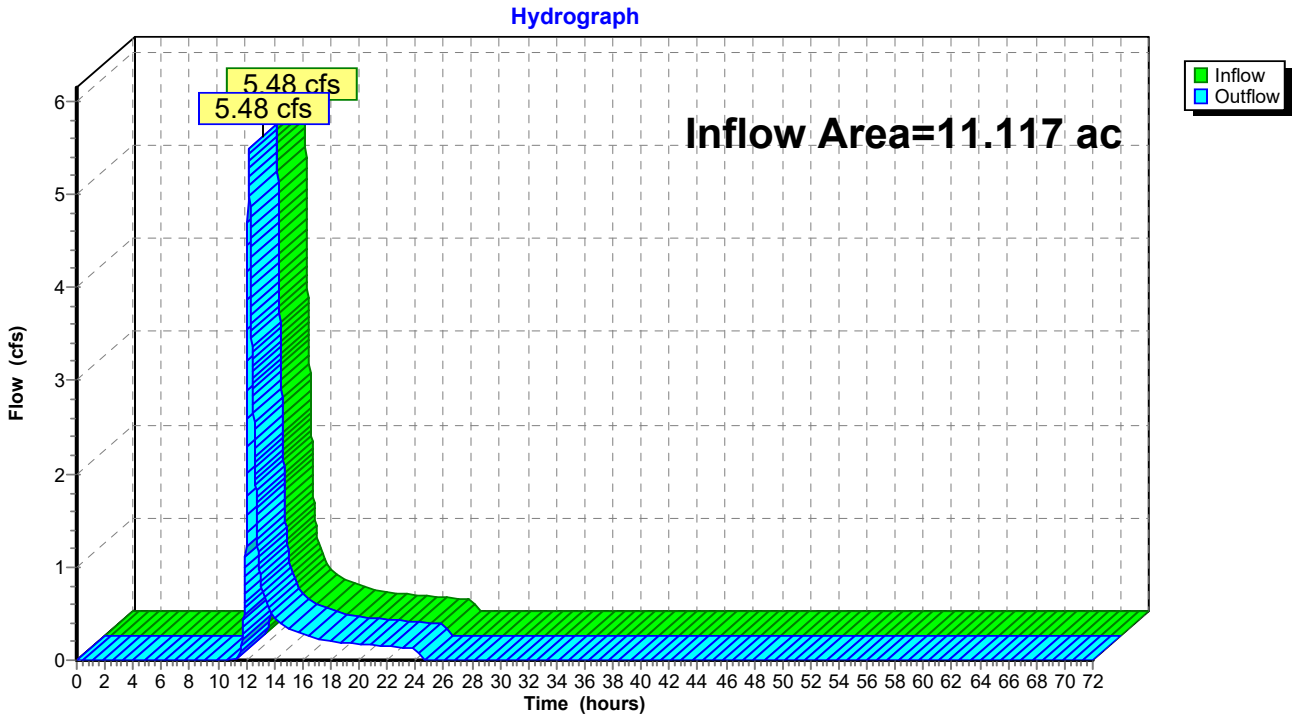


Summary for Reach AP-1: Cayuga Creek

Inflow Area = 11.117 ac, 9.50% Impervious, Inflow Depth = 0.52" for 1-yr event
Inflow = 5.48 cfs @ 12.18 hrs, Volume= 0.483 af
Outflow = 5.48 cfs @ 12.18 hrs, Volume= 0.483 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach AP-1: Cayuga Creek



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: W Site Runoff Area=337,194 sf 11.34% Impervious Runoff Depth=1.49"
Flow Length=391' Tc=14.0 min CN=82 Runoff=12.32 cfs 0.961 af

Subcatchment ES-2: E Site Runoff Area=147,058 sf 5.28% Impervious Runoff Depth=1.42"
Flow Length=390' Tc=19.4 min CN=81 Runoff=4.40 cfs 0.400 af

Reach AP-1: Cayuga Creek Inflow=16.27 cfs 1.361 af
Outflow=16.27 cfs 1.361 af

Total Runoff Area = 11.117 ac Runoff Volume = 1.361 af Average Runoff Depth = 1.47"
90.50% Pervious = 10.061 ac 9.50% Impervious = 1.056 ac

Summary for Subcatchment ES-1: W Site

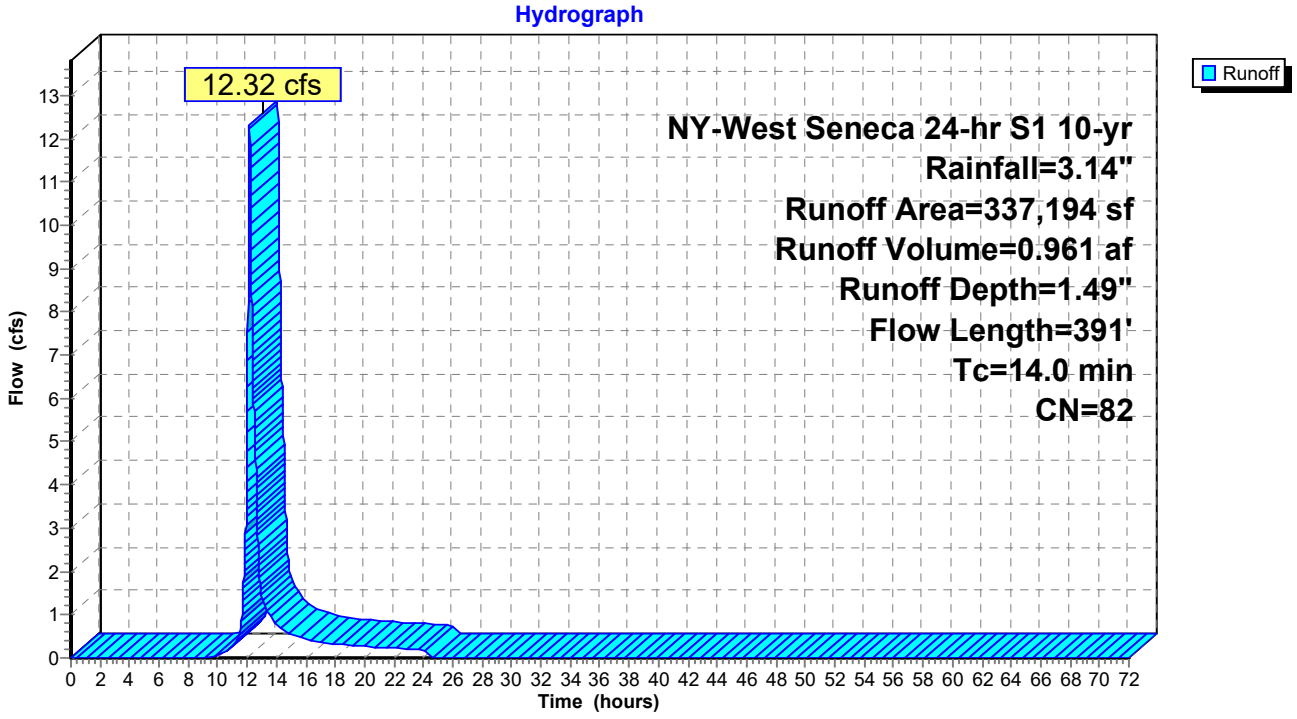
Runoff = 12.32 cfs @ 12.15 hrs, Volume= 0.961 af, Depth= 1.49"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
38,223	98	Paved parking, HSG D
298,971	80	>75% Grass cover, Good, HSG D
337,194	82	Weighted Average
298,971		88.66% Pervious Area
38,223		11.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment ES-1: W Site



Summary for Subcatchment ES-2: E Site

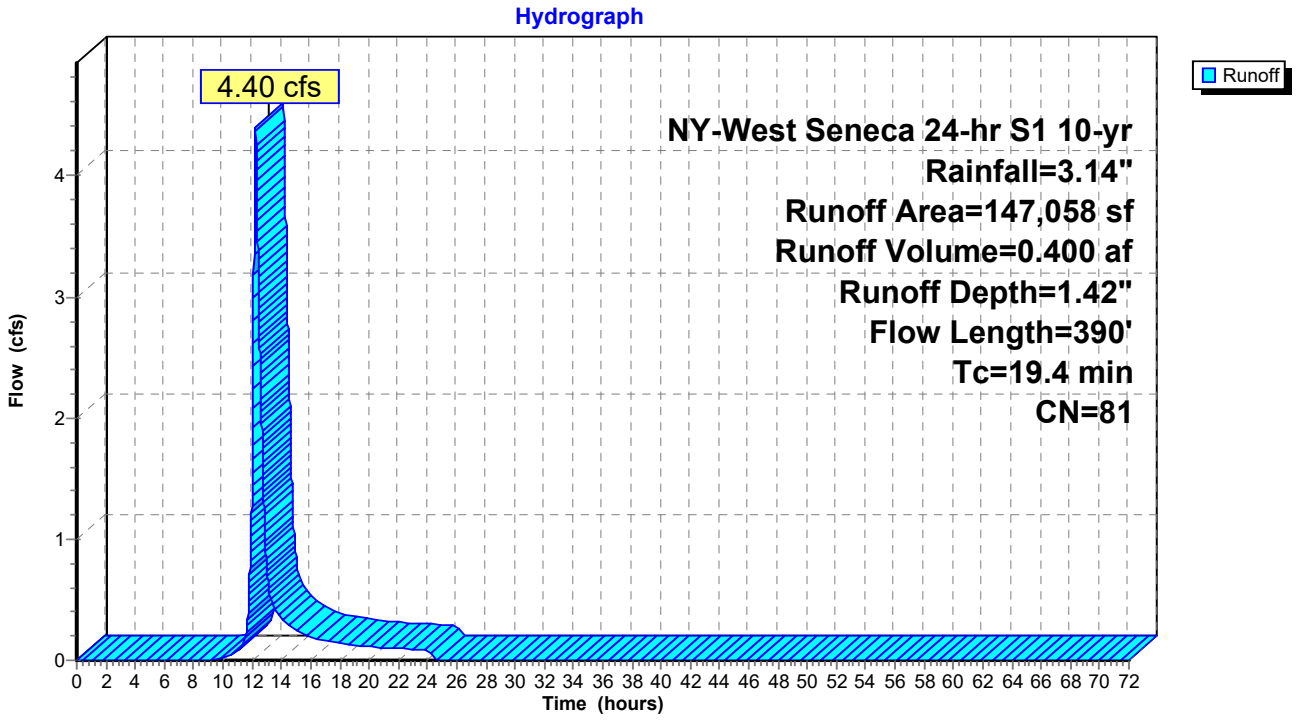
Runoff = 4.40 cfs @ 12.23 hrs, Volume= 0.400 af, Depth= 1.42"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
7,764	98	Paved parking, HSG D
139,294	80	>75% Grass cover, Good, HSG D
147,058	81	Weighted Average
139,294		94.72% Pervious Area
7,764		5.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0150	0.13		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
6.1	290	0.0130	0.80		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
19.4	390	Total			

Subcatchment ES-2: E Site

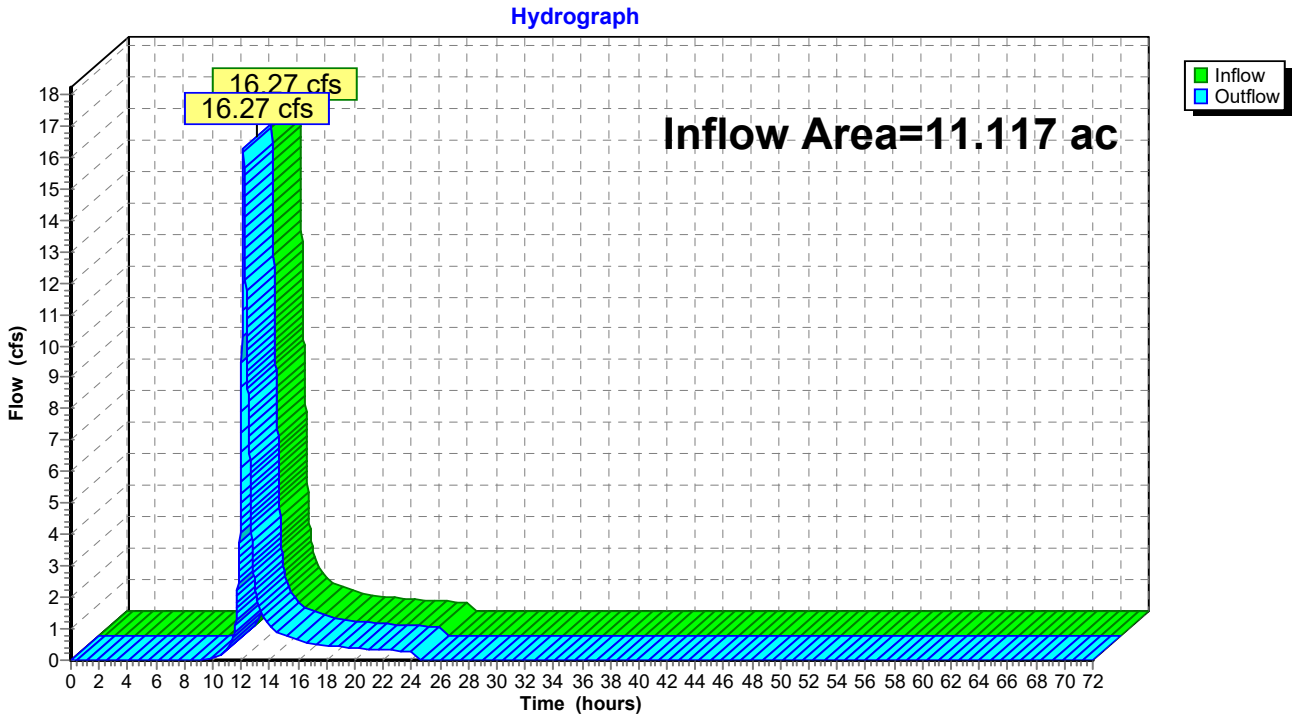


Summary for Reach AP-1: Cayuga Creek

Inflow Area = 11.117 ac, 9.50% Impervious, Inflow Depth = 1.47" for 10-yr event
Inflow = 16.27 cfs @ 12.17 hrs, Volume= 1.361 af
Outflow = 16.27 cfs @ 12.17 hrs, Volume= 1.361 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach AP-1: Cayuga Creek



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: W Site Runoff Area=337,194 sf 11.34% Impervious Runoff Depth=3.28"
Flow Length=391' Tc=14.0 min CN=82 Runoff=27.59 cfs 2.114 af

Subcatchment ES-2: E Site Runoff Area=147,058 sf 5.28% Impervious Runoff Depth=3.18"
Flow Length=390' Tc=19.4 min CN=81 Runoff=10.17 cfs 0.895 af

Reach AP-1: Cayuga Creek Inflow=36.80 cfs 3.008 af
Outflow=36.80 cfs 3.008 af

Total Runoff Area = 11.117 ac Runoff Volume = 3.008 af Average Runoff Depth = 3.25"
90.50% Pervious = 10.061 ac 9.50% Impervious = 1.056 ac

Summary for Subcatchment ES-1: W Site

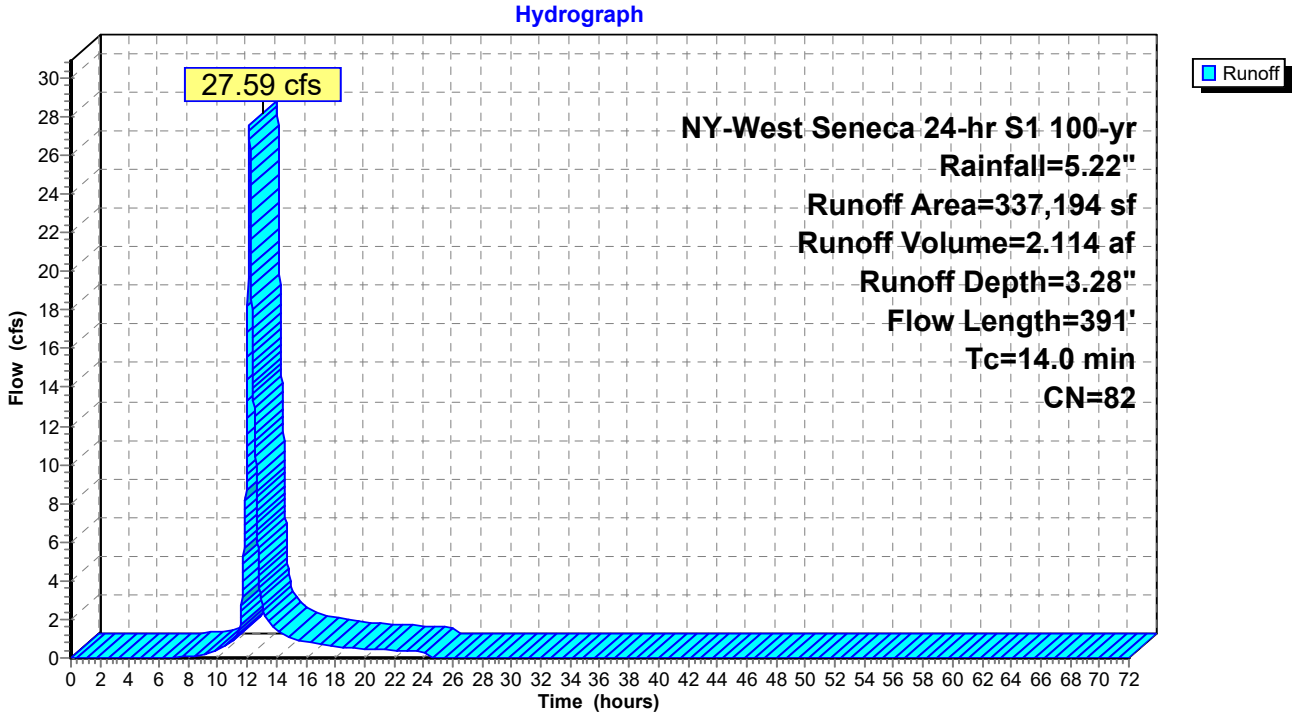
Runoff = 27.59 cfs @ 12.15 hrs, Volume= 2.114 af, Depth= 3.28"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
38,223	98	Paved parking, HSG D
298,971	80	>75% Grass cover, Good, HSG D
337,194	82	Weighted Average
298,971		88.66% Pervious Area
38,223		11.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment ES-1: W Site



Summary for Subcatchment ES-2: E Site

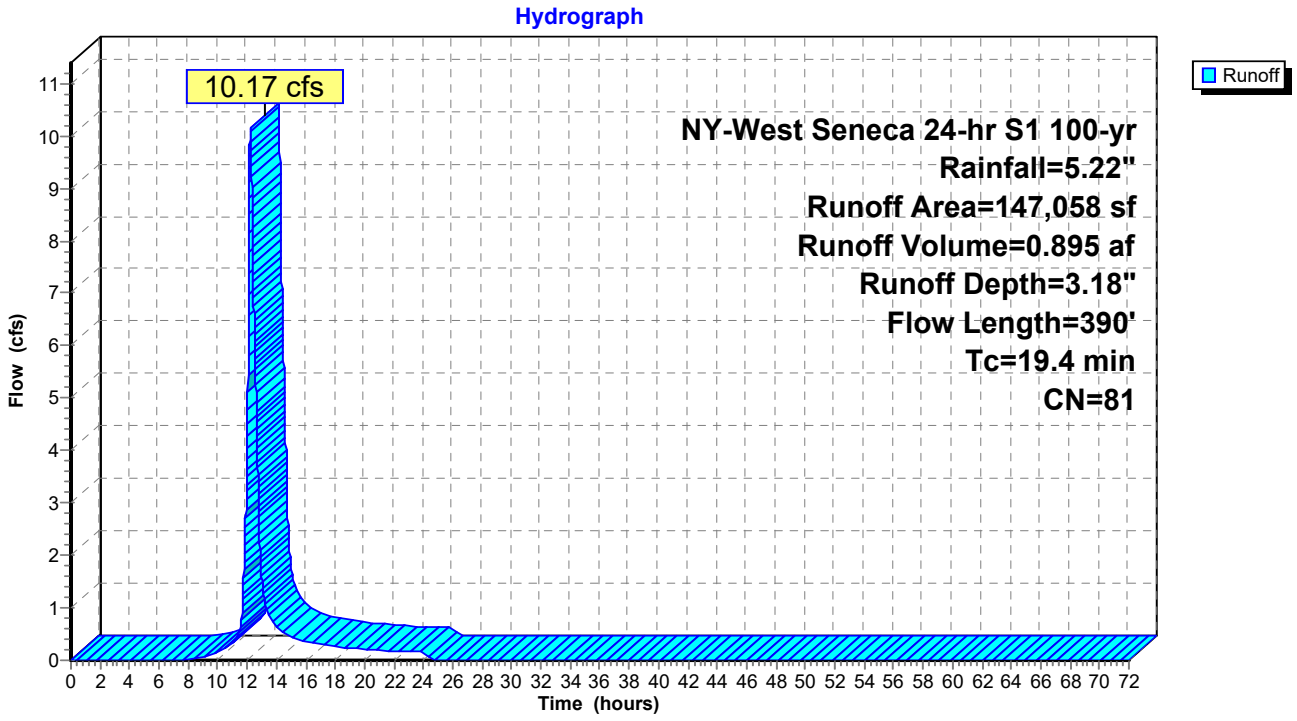
Runoff = 10.17 cfs @ 12.22 hrs, Volume= 0.895 af, Depth= 3.18"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
7,764	98	Paved parking, HSG D
139,294	80	>75% Grass cover, Good, HSG D
147,058	81	Weighted Average
139,294		94.72% Pervious Area
7,764		5.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0150	0.13		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
6.1	290	0.0130	0.80		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
19.4	390	Total			

Subcatchment ES-2: E Site

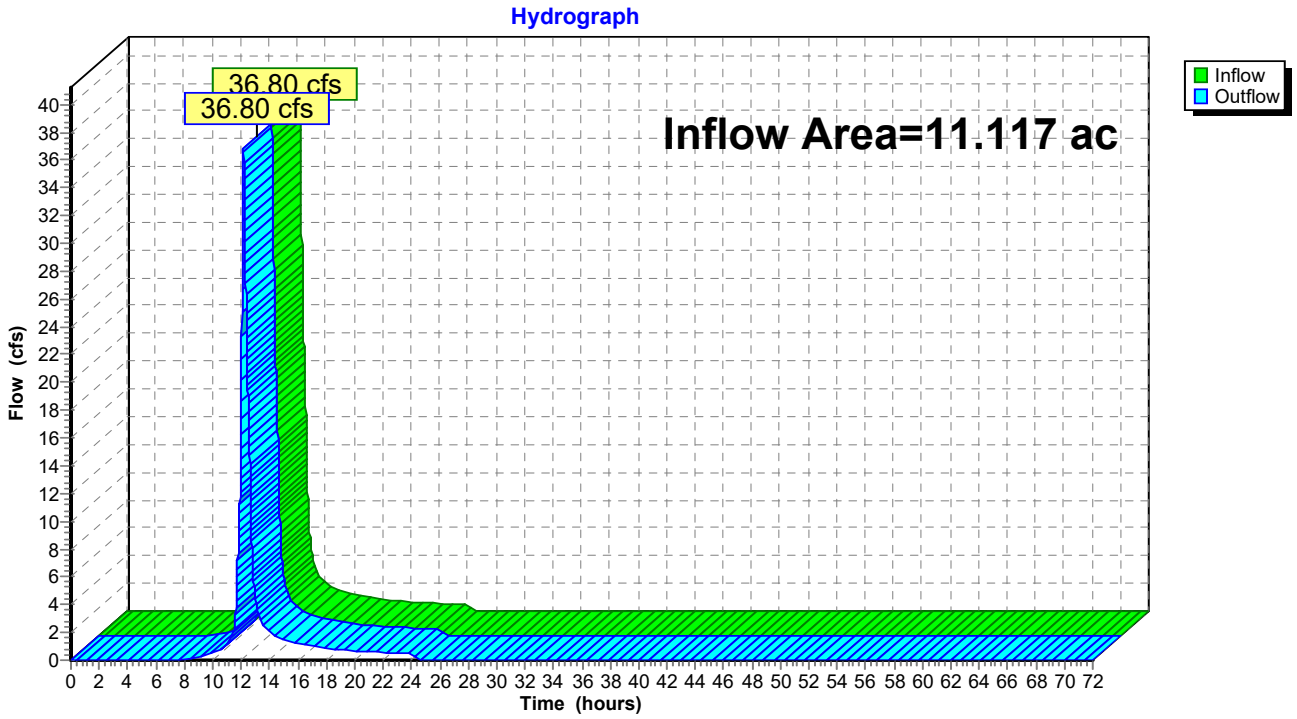


Summary for Reach AP-1: Cayuga Creek

Inflow Area = 11.117 ac, 9.50% Impervious, Inflow Depth = 3.25" for 100-yr event
Inflow = 36.80 cfs @ 12.16 hrs, Volume= 3.008 af
Outflow = 36.80 cfs @ 12.16 hrs, Volume= 3.008 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach AP-1: Cayuga Creek



Events for Subcatchment ES-1: W Site

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	4.22	0.344	0.53
10-yr	3.14	12.32	0.961	1.49
100-yr	**5.22**	**27.59**	**2.114**	**3.28**

Events for Subcatchment ES-2: E Site

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	1.42	0.139	0.49
10-yr	3.14	4.40	0.400	1.42
100-yr	**5.22**	**10.17**	**0.895**	**3.18**

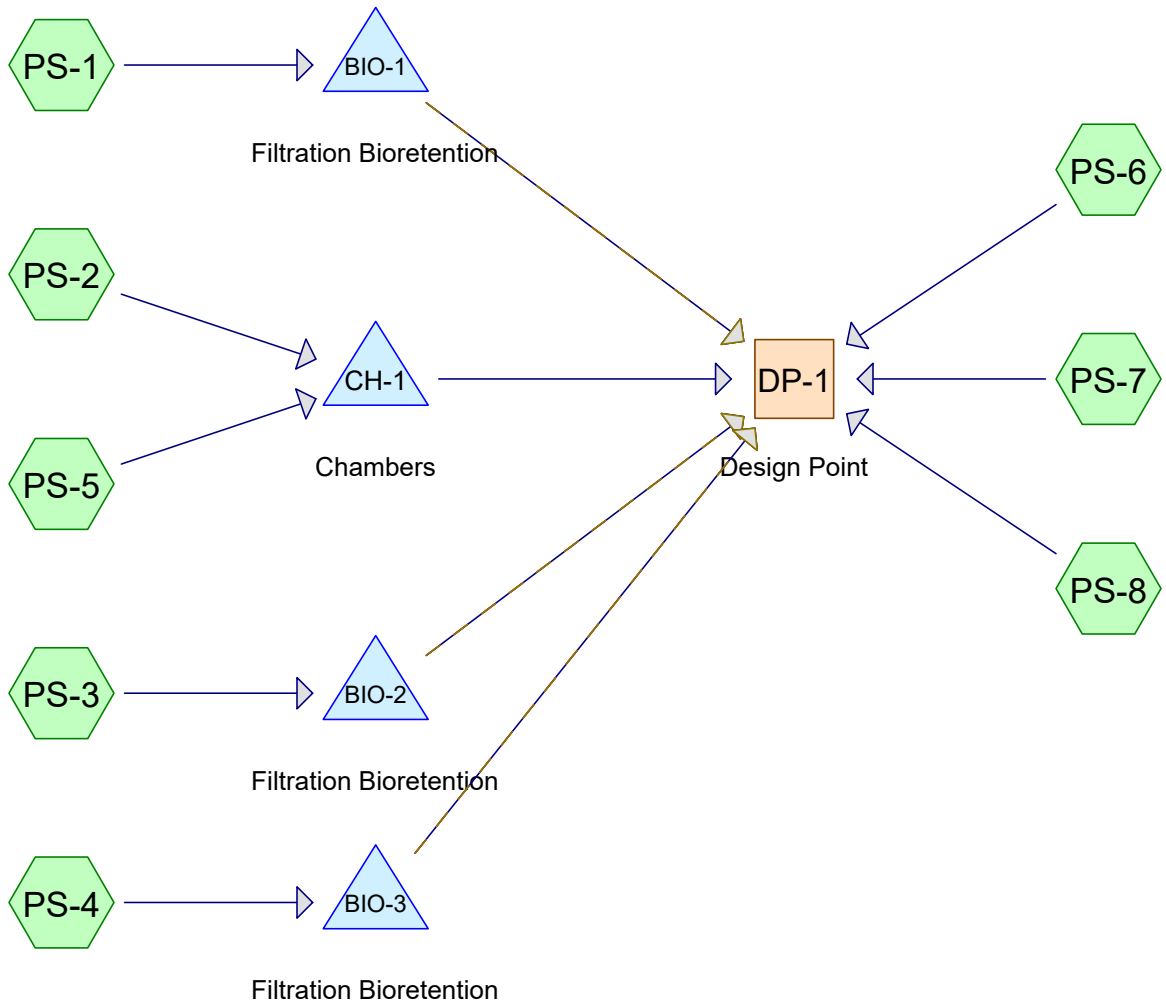
Events for Reach AP-1: Cayuga Creek

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	5.48	5.48	**0.00**	**0**
10-yr	16.27	16.27	0.00	0
100-yr	**36.80**	**36.80**	0.00	0

APPENDIX E:
POST DEVELOPMENT STORMWATER MODELING

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Subcat Reach Pond Link

Routing Diagram for E_App E_Post-Development Model
Prepared by Labella Associates, Printed 4/20/2026
HydroCAD® 10.20-7a s/n 09581 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY-West Seneca 24-hr S1	1-yr	Default	24.00	1	1.82	2
2	10-yr	NY-West Seneca 24-hr S1	10-yr	Default	24.00	1	3.14	2
3	100-yr	NY-West Seneca 24-hr S1	100-yr	Default	24.00	1	5.22	2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
8.107	80	>75% Grass cover, Good, HSG D (PS-1, PS-2, PS-3, PS-4, PS-7, PS-8)
2.967	98	Paved parking, HSG D (PS-1, PS-2, PS-3, PS-4, PS-5, PS-6)
11.074	**85**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
11.074	HSG D	PS-1, PS-2, PS-3, PS-4, PS-5, PS-6, PS-7, PS-8
0.000	Other	
11.074		**TOTAL AREA**

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PS-1: Runoff Area=27,596 sf 33.98% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=86 Runoff=0.72 cfs 0.038 af

Subcatchment PS-2: Runoff Area=72,316 sf 88.61% Impervious Runoff Depth=1.40"
Tc=6.0 min CN=96 Runoff=3.74 cfs 0.194 af

Subcatchment PS-3: Runoff Area=28,267 sf 33.49% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=86 Runoff=0.74 cfs 0.039 af

Subcatchment PS-4: Runoff Area=29,485 sf 70.98% Impervious Runoff Depth=1.15"
Tc=6.0 min CN=93 Runoff=1.28 cfs 0.065 af

Subcatchment PS-5: Runoff Area=18,756 sf 100.00% Impervious Runoff Depth=1.60"
Tc=6.0 min CN=98 Runoff=1.06 cfs 0.057 af

Subcatchment PS-6: Runoff Area=6,622 sf 100.00% Impervious Runoff Depth=1.60"
Tc=6.0 min CN=98 Runoff=0.37 cfs 0.020 af

Subcatchment PS-7: Runoff Area=245,856 sf 0.00% Impervious Runoff Depth=0.46"
Flow Length=391' Tc=14.0 min CN=80 Runoff=2.49 cfs 0.215 af

Subcatchment PS-8: Runoff Area=53,474 sf 0.00% Impervious Runoff Depth=0.46"
Flow Length=821' Slope=0.0100 '/' Tc=25.7 min CN=80 Runoff=0.40 cfs 0.047 af

Reach DP-1: Design Point Inflow=4.12 cfs 0.674 af
Outflow=4.12 cfs 0.674 af

Pond BIO-1: Filtration Bioretention Peak Elev=598.98' Storage=994 cf Inflow=0.72 cfs 0.038 af
Primary=0.02 cfs 0.038 af Secondary=0.00 cfs 0.000 af Tertiary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.038 af

Pond BIO-2: Filtration Bioretention Peak Elev=596.95' Storage=1,010 cf Inflow=0.74 cfs 0.039 af
Primary=0.02 cfs 0.039 af Secondary=0.00 cfs 0.000 af Tertiary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.039 af

Pond BIO-3: Filtration Bioretention Peak Elev=595.92' Storage=1,729 cf Inflow=1.28 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Tertiary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond CH-1: Chambers Peak Elev=592.38' Storage=0.079 af Inflow=4.80 cfs 0.251 af
8.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/' Outflow=1.18 cfs 0.251 af

Total Runoff Area = 11.074 ac Runoff Volume = 0.674 af Average Runoff Depth = 0.73"
73.21% Pervious = 8.107 ac 26.79% Impervious = 2.967 ac

Summary for Subcatchment PS-1:

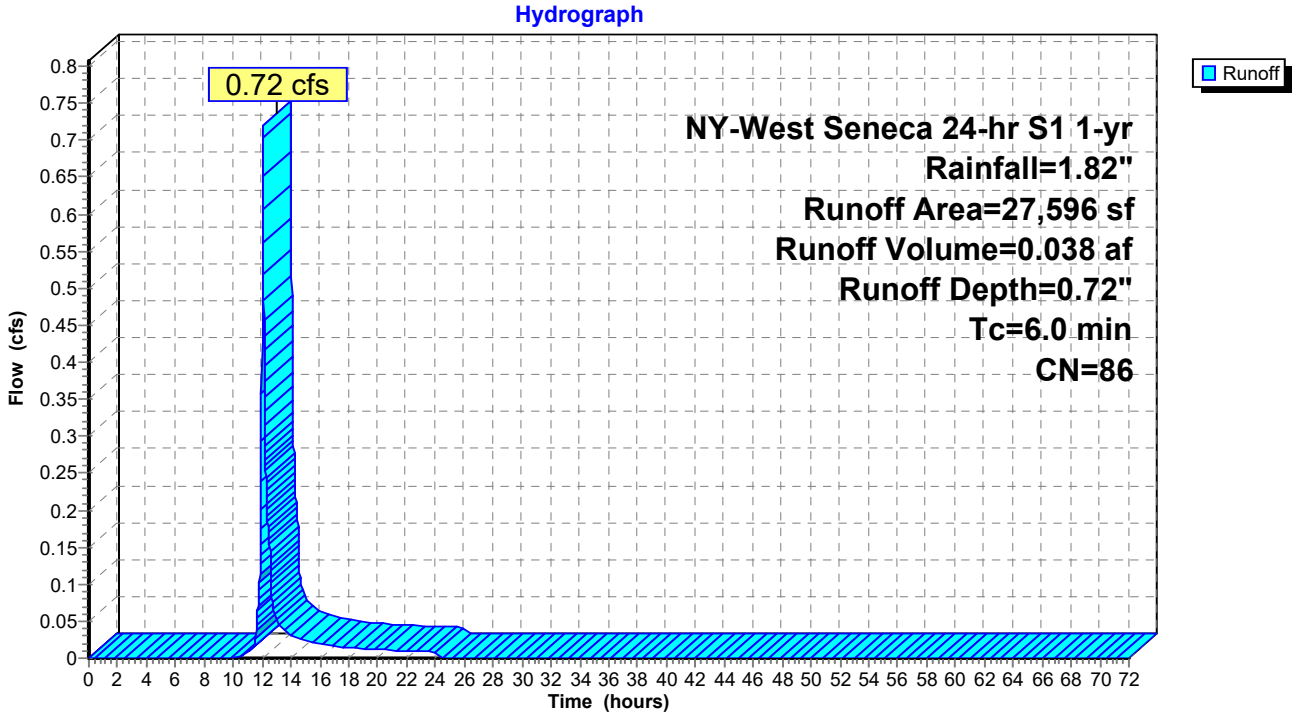
Runoff = 0.72 cfs @ 12.04 hrs, Volume= 0.038 af, Depth= 0.72"
Routed to Pond BIO-1 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
9,376	98	Paved parking, HSG D
18,220	80	>75% Grass cover, Good, HSG D
27,596	86	Weighted Average
18,220		66.02% Pervious Area
9,376		33.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-1:



Summary for Subcatchment PS-2:

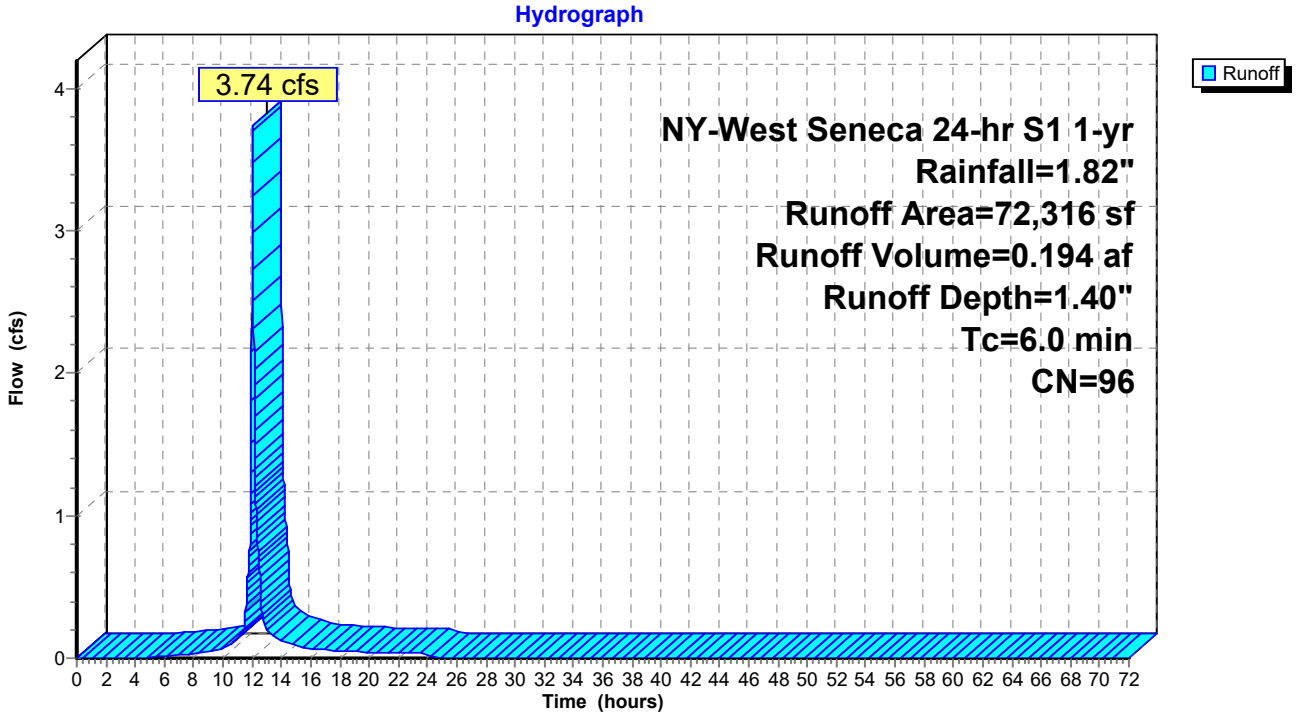
Runoff = 3.74 cfs @ 12.04 hrs, Volume= 0.194 af, Depth= 1.40"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
64,081	98	Paved parking, HSG D
8,235	80	>75% Grass cover, Good, HSG D
72,316	96	Weighted Average
8,235		11.39% Pervious Area
64,081		88.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-2:



Summary for Subcatchment PS-3:

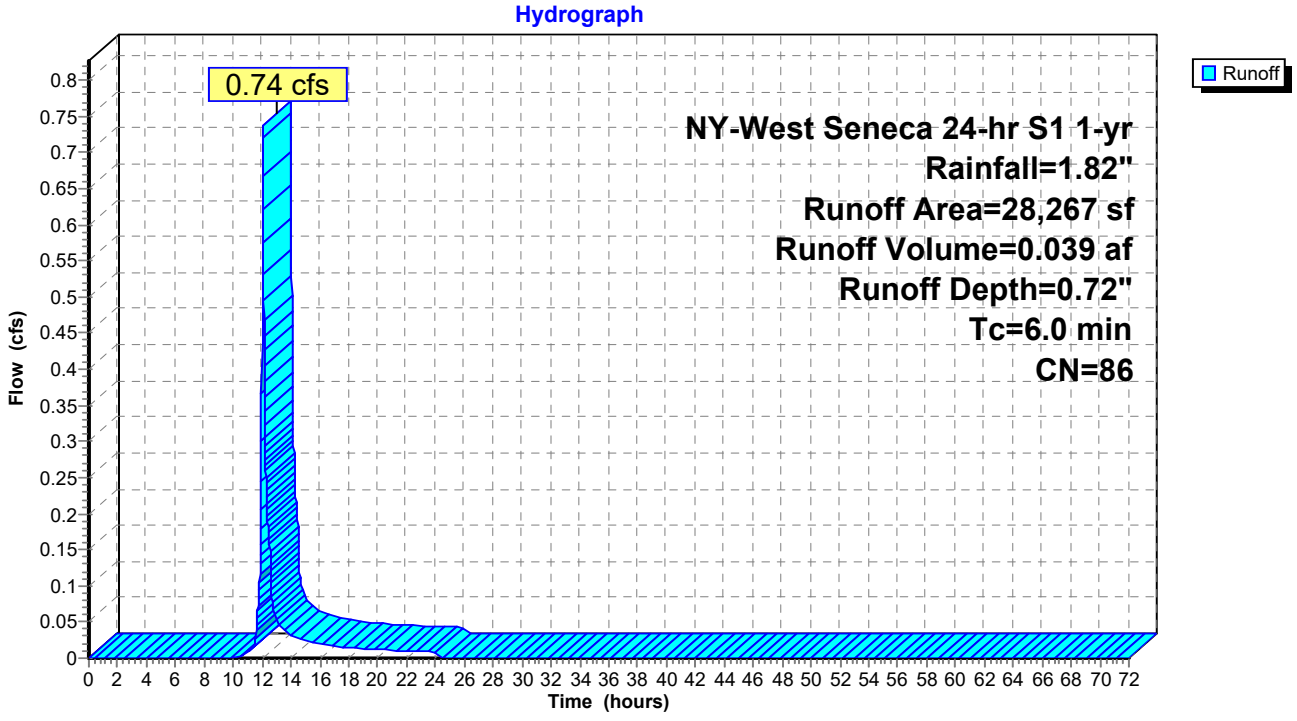
Runoff = 0.74 cfs @ 12.04 hrs, Volume= 0.039 af, Depth= 0.72"
Routed to Pond BIO-2 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
9,466	98	Paved parking, HSG D
18,801	80	>75% Grass cover, Good, HSG D
28,267	86	Weighted Average
18,801		66.51% Pervious Area
9,466		33.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-3:



Summary for Subcatchment PS-4:

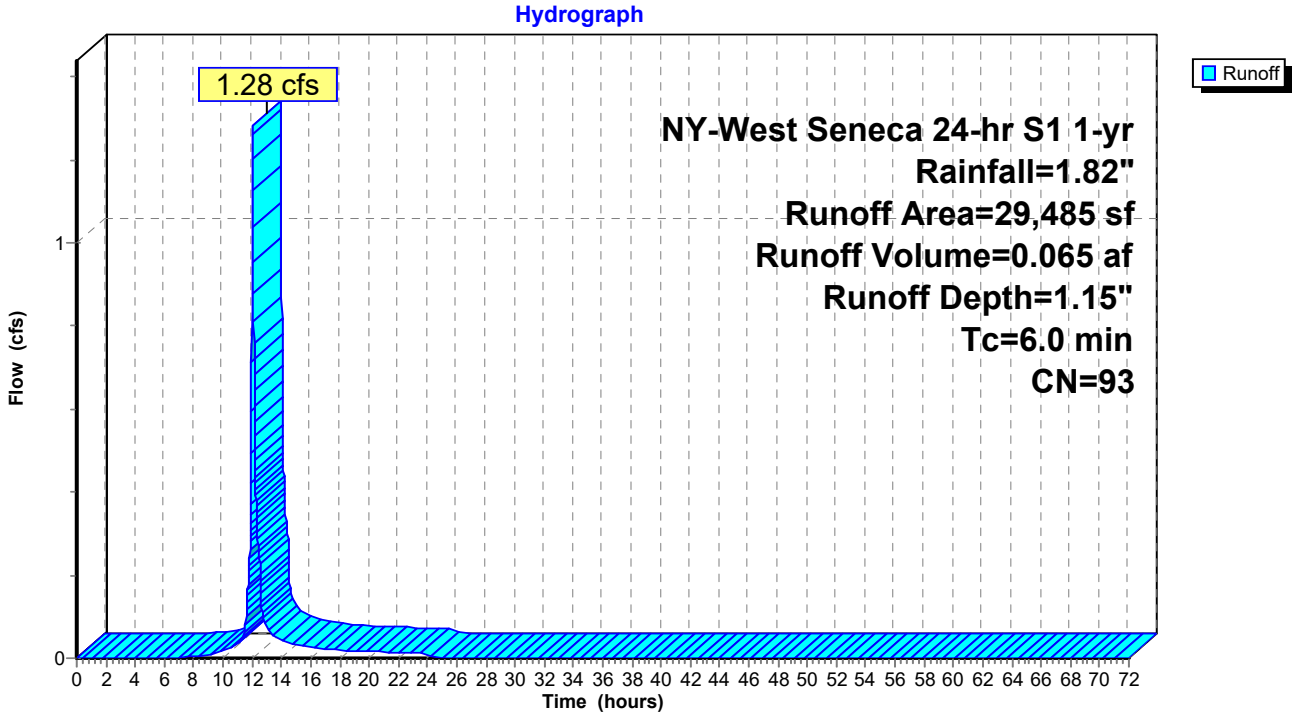
Runoff = 1.28 cfs @ 12.04 hrs, Volume= 0.065 af, Depth= 1.15"
Routed to Pond BIO-3 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
20,928	98	Paved parking, HSG D
8,557	80	>75% Grass cover, Good, HSG D
29,485	93	Weighted Average
8,557		29.02% Pervious Area
20,928		70.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-4:



Summary for Subcatchment PS-5:

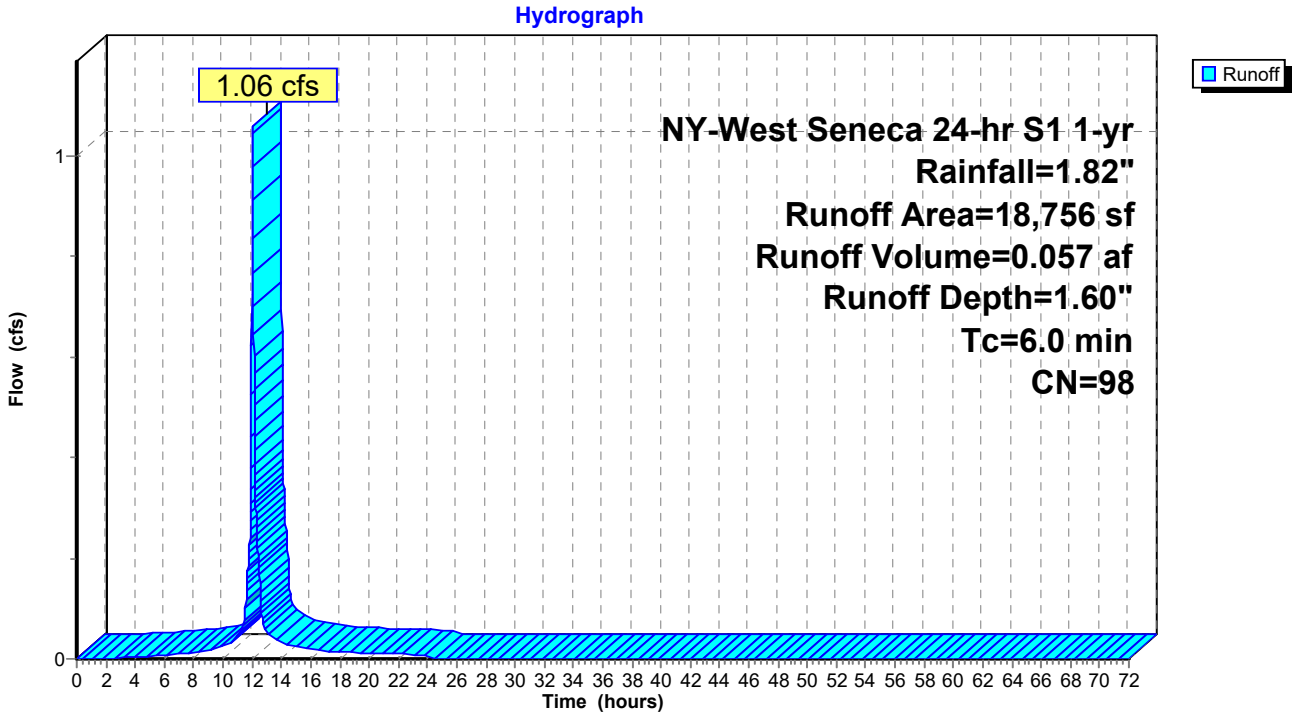
Runoff = 1.06 cfs @ 12.04 hrs, Volume= 0.057 af, Depth= 1.60"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
18,756	98	Paved parking, HSG D
18,756		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-5:



Summary for Subcatchment PS-6:

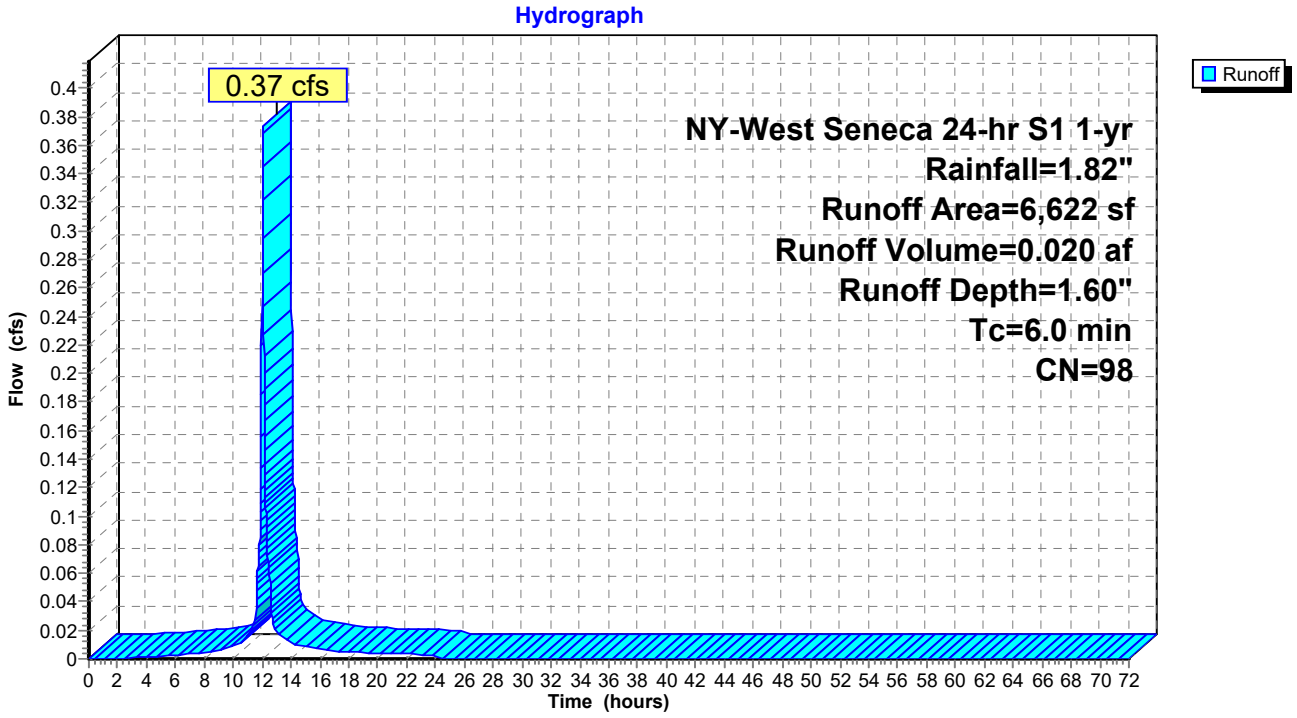
Runoff = 0.37 cfs @ 12.04 hrs, Volume= 0.020 af, Depth= 1.60"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
6,622	98	Paved parking, HSG D
6,622		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-6:



Summary for Subcatchment PS-7:

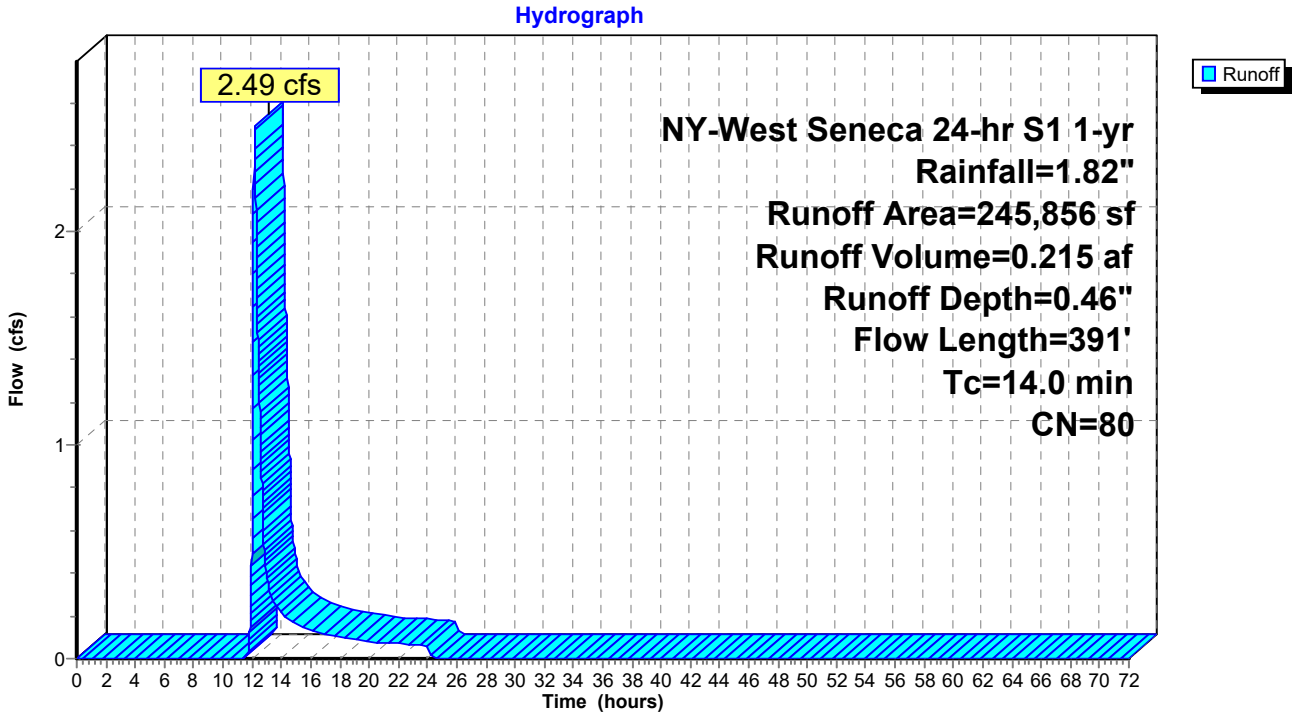
Runoff = 2.49 cfs @ 12.17 hrs, Volume= 0.215 af, Depth= 0.46"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
245,856	80	>75% Grass cover, Good, HSG D
245,856		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment PS-7:



Summary for Subcatchment PS-8:

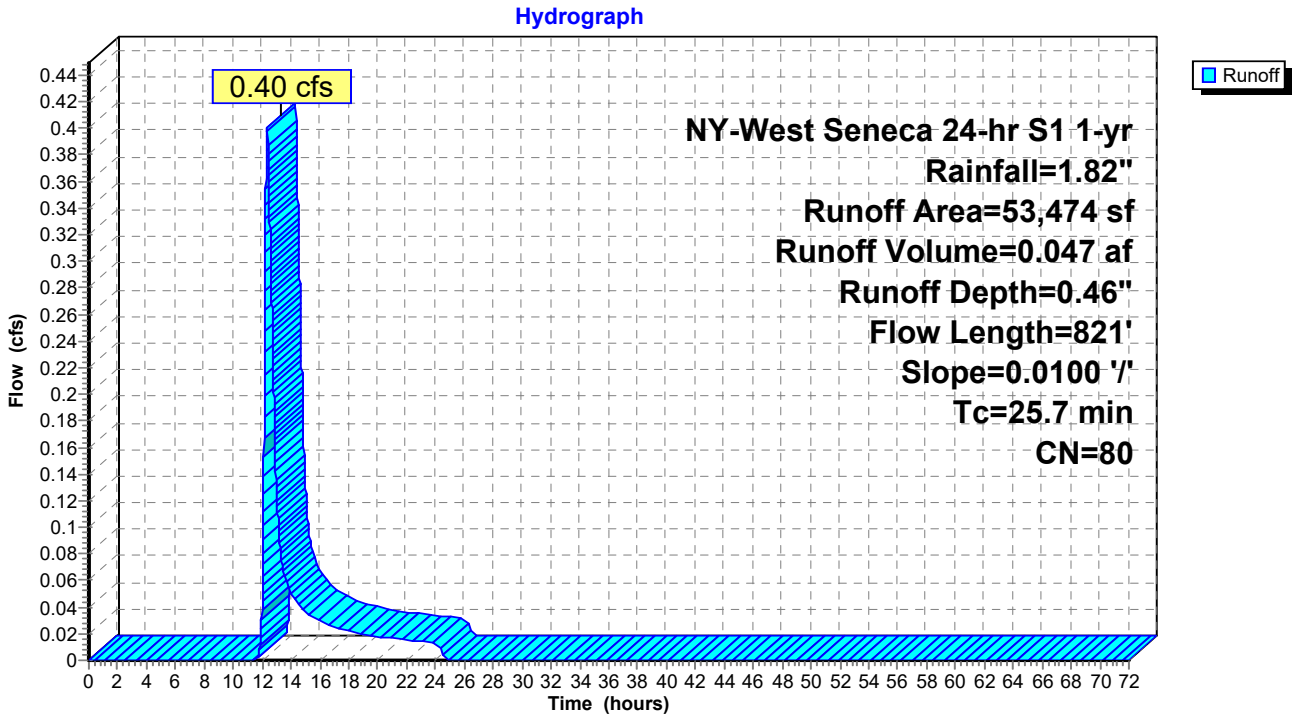
Runoff = 0.40 cfs @ 12.36 hrs, Volume= 0.047 af, Depth= 0.46"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
53,474	80	>75% Grass cover, Good, HSG D
53,474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0100	0.11		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
8.8	371	0.0100	0.70		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
1.3	350	0.0100	4.54	3.56	**Pipe Channel, Pipe Flow** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
25.7	821	Total			

Subcatchment PS-8:

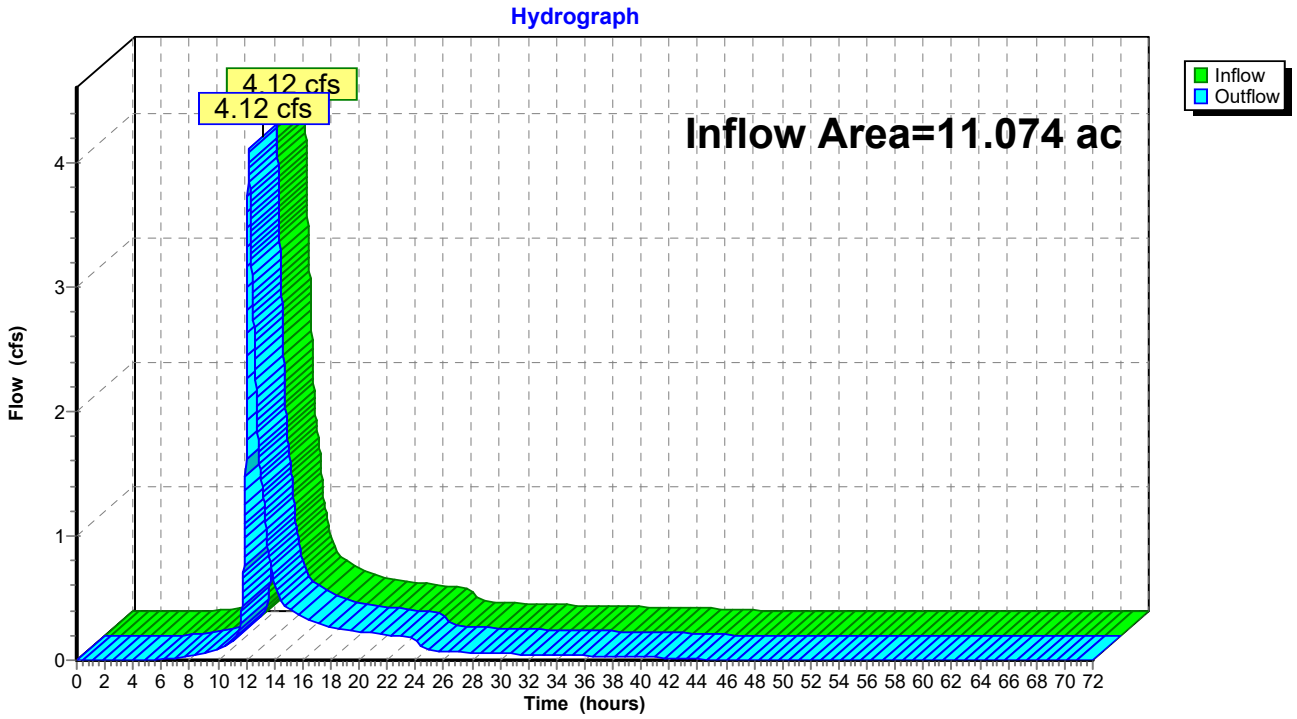


Summary for Reach DP-1: Design Point

Inflow Area = 11.074 ac, 26.79% Impervious, Inflow Depth = 0.73" for 1-yr event
Inflow = 4.12 cfs @ 12.18 hrs, Volume= 0.674 af
Outflow = 4.12 cfs @ 12.18 hrs, Volume= 0.674 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Design Point



Summary for Pond BIO-1: Filtration Bioretention

Inflow Area = 0.634 ac, 33.98% Impervious, Inflow Depth = 0.72" for 1-yr event
Inflow = 0.72 cfs @ 12.04 hrs, Volume= 0.038 af
Outflow = 0.02 cfs @ 15.87 hrs, Volume= 0.038 af, Atten= 97%, Lag= 229.9 min
Primary = 0.02 cfs @ 15.87 hrs, Volume= 0.038 af
Routed to Reach DP-1 : Design Point
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 598.98' @ 15.87 hrs Surf.Area= 1,679 sf Storage= 994 cf
Flood Elev= 600.00' Surf.Area= 2,500 sf Storage= 3,120 cf

Plug-Flow detention time= 645.9 min calculated for 0.038 af (100% of inflow)
Center-of-Mass det. time= 646.0 min (1,495.6 - 849.7)

Volume	Invert	Avail.Storage	Storage Description
#1	598.00'	3,120 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
598.00	340	0	0
599.00	1,700	1,020	1,020
600.00	2,500	2,100	3,120

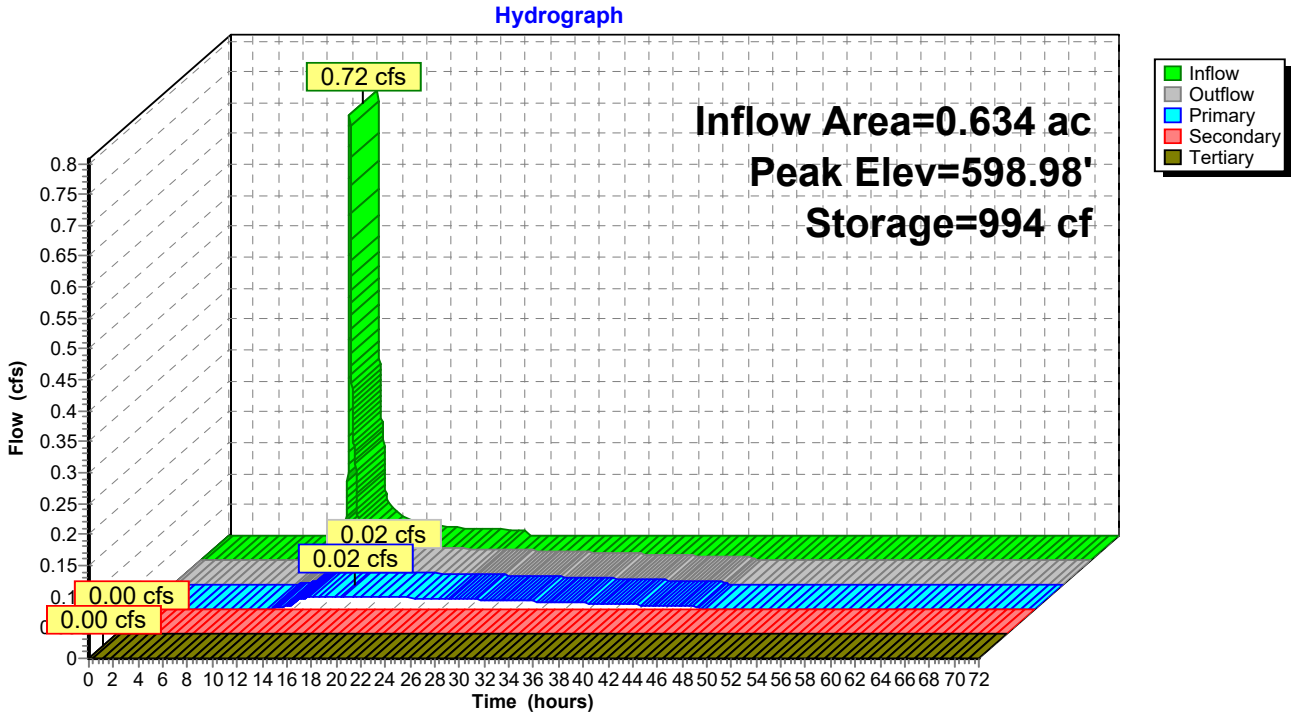
Device	Routing	Invert	Outlet Devices
#1	Primary	598.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	599.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	594.58'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 594.58' / 594.33' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	599.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 15.87 hrs HW=598.98' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=598.00' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.00 cfs of 5.10 cfs potential flow)
└**2=Overflow Grate** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=598.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-1: Filtration Bioretention



Summary for Pond BIO-2: Filtration Bioretention

Inflow Area = 0.649 ac, 33.49% Impervious, Inflow Depth = 0.72" for 1-yr event
Inflow = 0.74 cfs @ 12.04 hrs, Volume= 0.039 af
Outflow = 0.02 cfs @ 15.70 hrs, Volume= 0.039 af, Atten= 97%, Lag= 219.6 min
Primary = 0.02 cfs @ 15.70 hrs, Volume= 0.039 af
Routed to Reach DP-1 : Design Point
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 596.95' @ 15.70 hrs Surf.Area= 1,776 sf Storage= 1,010 cf
Flood Elev= 598.00' Surf.Area= 2,630 sf Storage= 3,339 cf

Plug-Flow detention time= 621.3 min calculated for 0.039 af (100% of inflow)
Center-of-Mass det. time= 621.4 min (1,471.1 - 849.7)

Volume	Invert	Avail.Storage	Storage Description
#1	596.00'	3,339 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
596.00	348	0	0
597.00	1,850	1,099	1,099
598.00	2,630	2,240	3,339

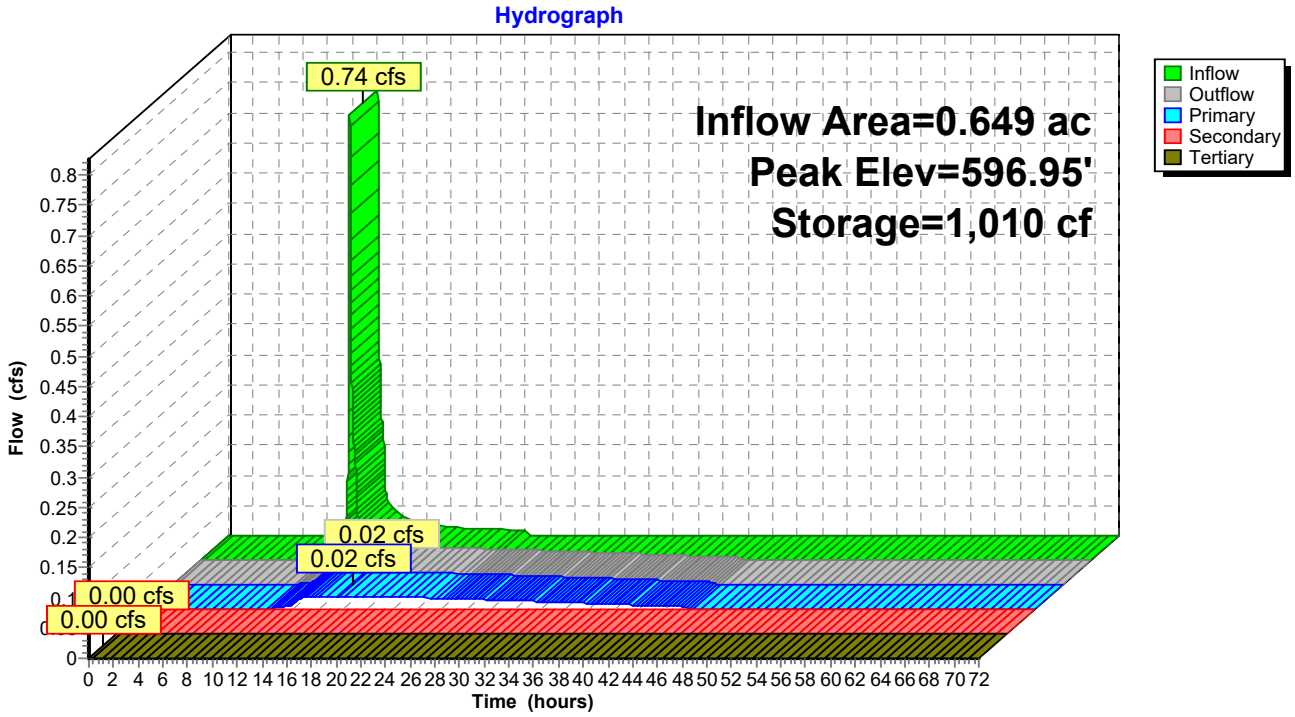
Device	Routing	Invert	Outlet Devices
#1	Primary	596.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	597.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	592.58'	**12.0" Round Culvert** L= 132.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 592.58' / 591.92' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	597.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 15.70 hrs HW=596.95' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=596.00' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.00 cfs of 4.75 cfs potential flow)
└**2=Overflow Grate** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=596.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-2: Filtration Bioretention



Summary for Pond BIO-3: Filtration Bioretention

Inflow Area = 0.677 ac, 70.98% Impervious, Inflow Depth = 1.15" for 1-yr event
Inflow = 1.28 cfs @ 12.04 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.68 hrs, Volume= 0.065 af, Atten= 97%, Lag= 158.5 min
Primary = 0.04 cfs @ 14.68 hrs, Volume= 0.065 af
Routed to Reach DP-1 : Design Point
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 595.92' @ 14.68 hrs Surf.Area= 3,049 sf Storage= 1,729 cf
Flood Elev= 597.00' Surf.Area= 3,978 sf Storage= 5,592 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 587.3 min (1,401.4 - 814.2)

Volume	Invert	Avail.Storage	Storage Description
#1	595.00'	5,592 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
595.00	705	0	0
596.00	3,250	1,978	1,978
597.00	3,978	3,614	5,592

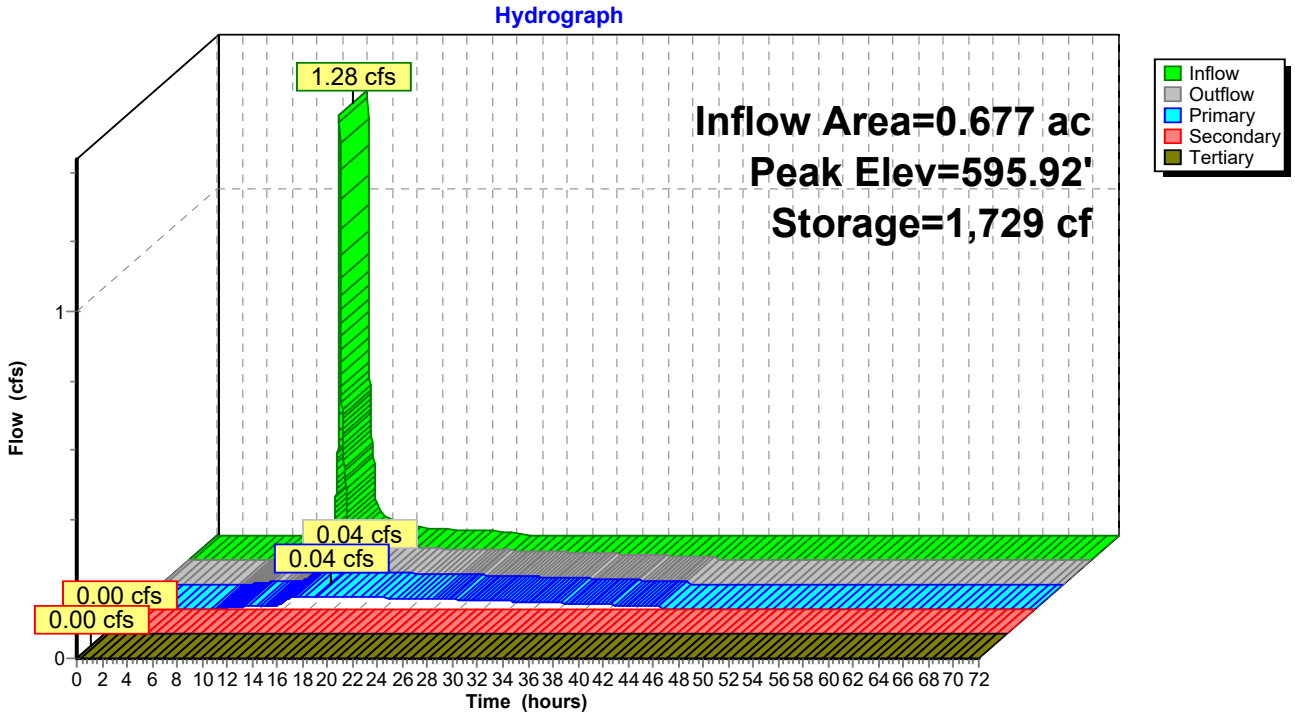
Device	Routing	Invert	Outlet Devices
#1	Primary	595.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	596.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	591.58'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.58' / 591.30' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	596.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.04 cfs @ 14.68 hrs HW=595.92' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.04 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=595.00' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.00 cfs of 5.10 cfs potential flow)
└**2=Overflow Grate** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=595.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-3: Filtration Bioretention



Summary for Pond CH-1: Chambers

Inflow Area = 2.091 ac, 90.96% Impervious, Inflow Depth = 1.44" for 1-yr event
Inflow = 4.80 cfs @ 12.04 hrs, Volume= 0.251 af
Outflow = 1.18 cfs @ 12.29 hrs, Volume= 0.251 af, Atten= 75%, Lag= 15.4 min
Primary = 1.18 cfs @ 12.29 hrs, Volume= 0.251 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 592.38' @ 12.29 hrs Surf.Area= 0.127 ac Storage= 0.079 af
Flood Elev= 598.32' Surf.Area= 0.127 ac Storage= 0.433 af

Plug-Flow detention time= 60.5 min calculated for 0.251 af (100% of inflow)
Center-of-Mass det. time= 60.2 min (847.2 - 787.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	591.25'	0.177 af	**37.08'W x 149.10'L x 5.50'H Field A** 0.698 af Overall - 0.256 af Embedded = 0.442 af x 40.0% Voids
#2A	592.00'	0.256 af	**ADS_StormTech MC-3500 d +Cap**x 100 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 100 Chambers in 5 Rows Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf
		0.433 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	591.25'	**8.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.25' / 591.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.18 cfs @ 12.29 hrs HW=592.38' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.18 cfs @ 3.38 fps)

Pond CH-1: Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

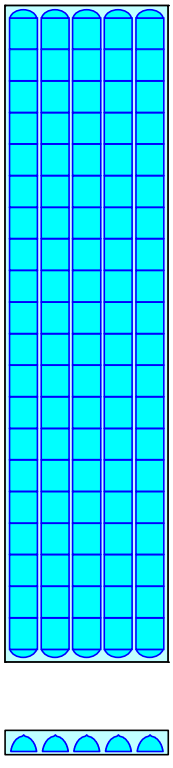
20 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 147.10' Row Length +12.0" End Stone x 2 = 149.10' Base Length
5 Rows x 77.0" Wide + 9.0" Spacing x 4 + 12.0" Side Stone x 2 = 37.08' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

100 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 5 Rows = 11,144.2 cf Chamber Storage

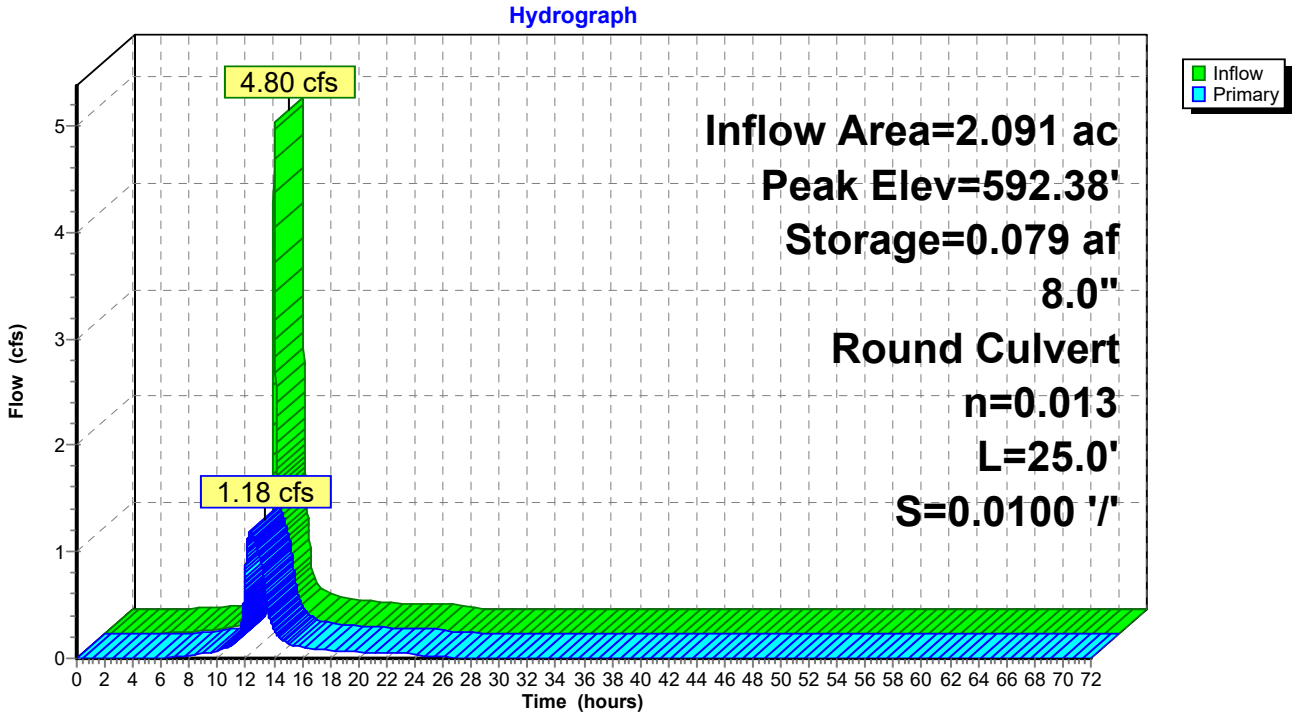
30,410.2 cf Field - 11,144.2 cf Chambers = 19,266.0 cf Stone x 40.0% Voids = 7,706.4 cf Stone Storage

Chamber Storage + Stone Storage = 18,850.6 cf = 0.433 af
Overall Storage Efficiency = 62.0%
Overall System Size = 149.10' x 37.08' x 5.50'

100 Chambers
1,126.3 cy Field
713.6 cy Stone



Pond CH-1: Chambers



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PS-1: Runoff Area=27,596 sf 33.98% Impervious Runoff Depth=1.78"
Tc=6.0 min CN=86 Runoff=1.71 cfs 0.094 af

Subcatchment PS-2: Runoff Area=72,316 sf 88.61% Impervious Runoff Depth=2.69"
Tc=6.0 min CN=96 Runoff=6.39 cfs 0.372 af

Subcatchment PS-3: Runoff Area=28,267 sf 33.49% Impervious Runoff Depth=1.78"
Tc=6.0 min CN=86 Runoff=1.75 cfs 0.096 af

Subcatchment PS-4: Runoff Area=29,485 sf 70.98% Impervious Runoff Depth=2.39"
Tc=6.0 min CN=93 Runoff=2.39 cfs 0.135 af

Subcatchment PS-5: Runoff Area=18,756 sf 100.00% Impervious Runoff Depth=2.91"
Tc=6.0 min CN=98 Runoff=1.72 cfs 0.104 af

Subcatchment PS-6: Runoff Area=6,622 sf 100.00% Impervious Runoff Depth=2.91"
Tc=6.0 min CN=98 Runoff=0.61 cfs 0.037 af

Subcatchment PS-7: Runoff Area=245,856 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=391' Tc=14.0 min CN=80 Runoff=8.08 cfs 0.638 af

Subcatchment PS-8: Runoff Area=53,474 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=821' Slope=0.0100 '/' Tc=25.7 min CN=80 Runoff=1.32 cfs 0.139 af

Reach DP-1: Design Point Inflow=13.96 cfs 1.615 af
Outflow=13.96 cfs 1.615 af

Pond BIO-1: Filtration Bioretention Peak Elev=599.12' Storage=1,232 cf Inflow=1.71 cfs 0.094 af
Primary=0.02 cfs 0.045 af Secondary=1.10 cfs 0.049 af Tertiary=0.00 cfs 0.000 af Outflow=1.12 cfs 0.094 af

Pond BIO-2: Filtration Bioretention Peak Elev=597.12' Storage=1,319 cf Inflow=1.75 cfs 0.096 af
Primary=0.02 cfs 0.048 af Secondary=1.04 cfs 0.048 af Tertiary=0.00 cfs 0.000 af Outflow=1.06 cfs 0.096 af

Pond BIO-3: Filtration Bioretention Peak Elev=596.12' Storage=2,359 cf Inflow=2.39 cfs 0.135 af
Primary=0.04 cfs 0.084 af Secondary=1.03 cfs 0.050 af Tertiary=0.00 cfs 0.000 af Outflow=1.07 cfs 0.135 af

Pond CH-1: Chambers Peak Elev=593.15' Storage=0.161 af Inflow=8.11 cfs 0.476 af
8.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/' Outflow=1.66 cfs 0.476 af

Total Runoff Area = 11.074 ac Runoff Volume = 1.615 af Average Runoff Depth = 1.75"
73.21% Pervious = 8.107 ac 26.79% Impervious = 2.967 ac

Summary for Subcatchment PS-1:

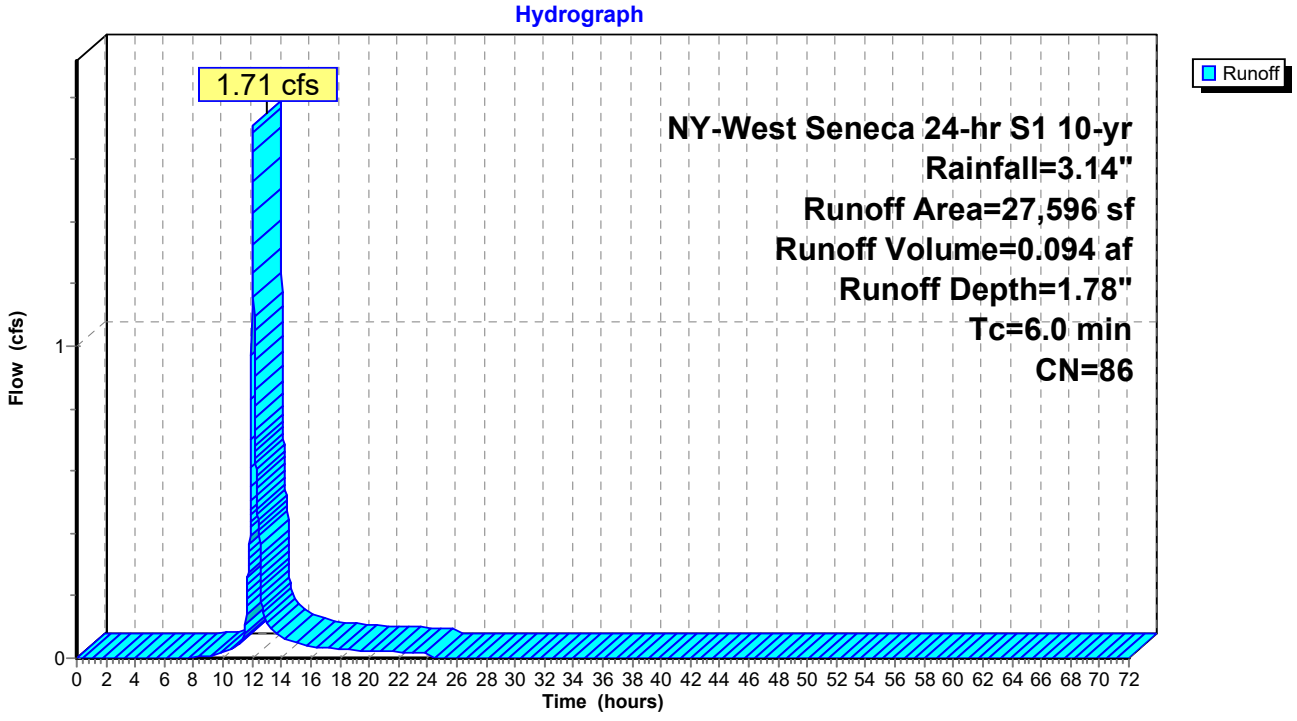
Runoff = 1.71 cfs @ 12.04 hrs, Volume= 0.094 af, Depth= 1.78"
Routed to Pond BIO-1 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
9,376	98	Paved parking, HSG D
18,220	80	>75% Grass cover, Good, HSG D
27,596	86	Weighted Average
18,220		66.02% Pervious Area
9,376		33.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-1:



Summary for Subcatchment PS-2:

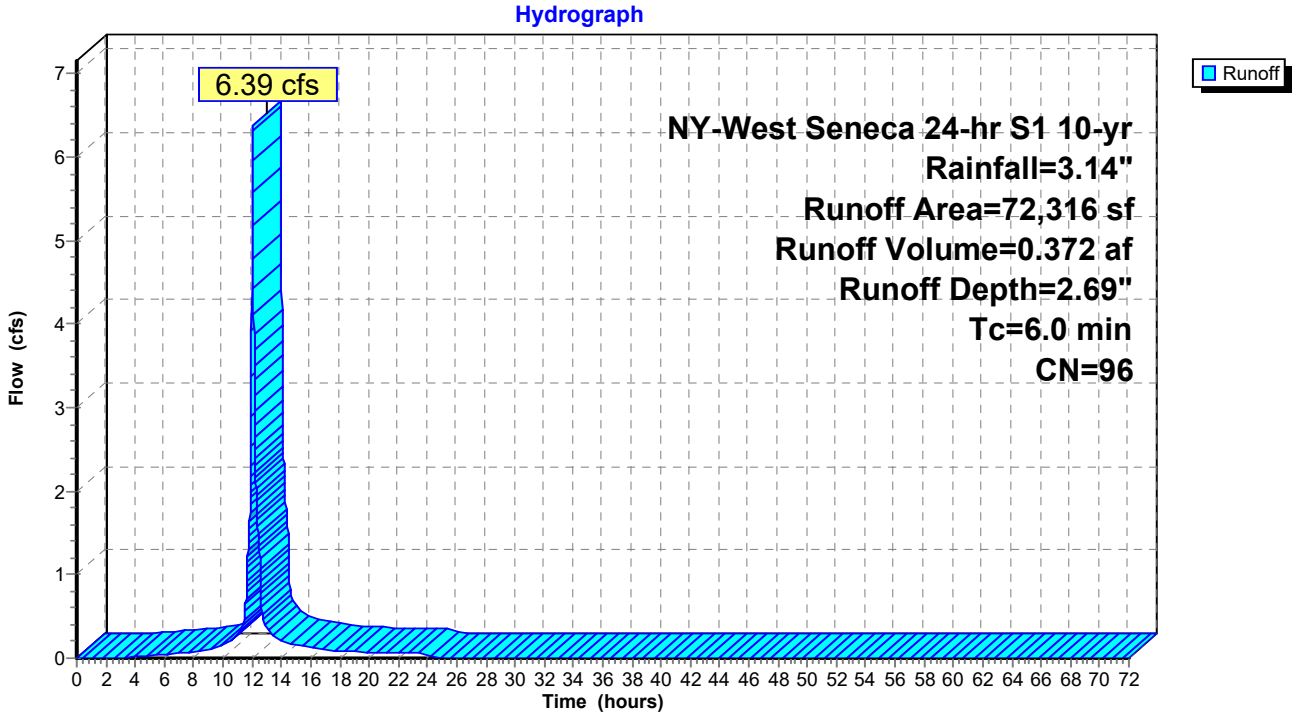
Runoff = 6.39 cfs @ 12.04 hrs, Volume= 0.372 af, Depth= 2.69"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
64,081	98	Paved parking, HSG D
8,235	80	>75% Grass cover, Good, HSG D
72,316	96	Weighted Average
8,235		11.39% Pervious Area
64,081		88.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-2:



Summary for Subcatchment PS-3:

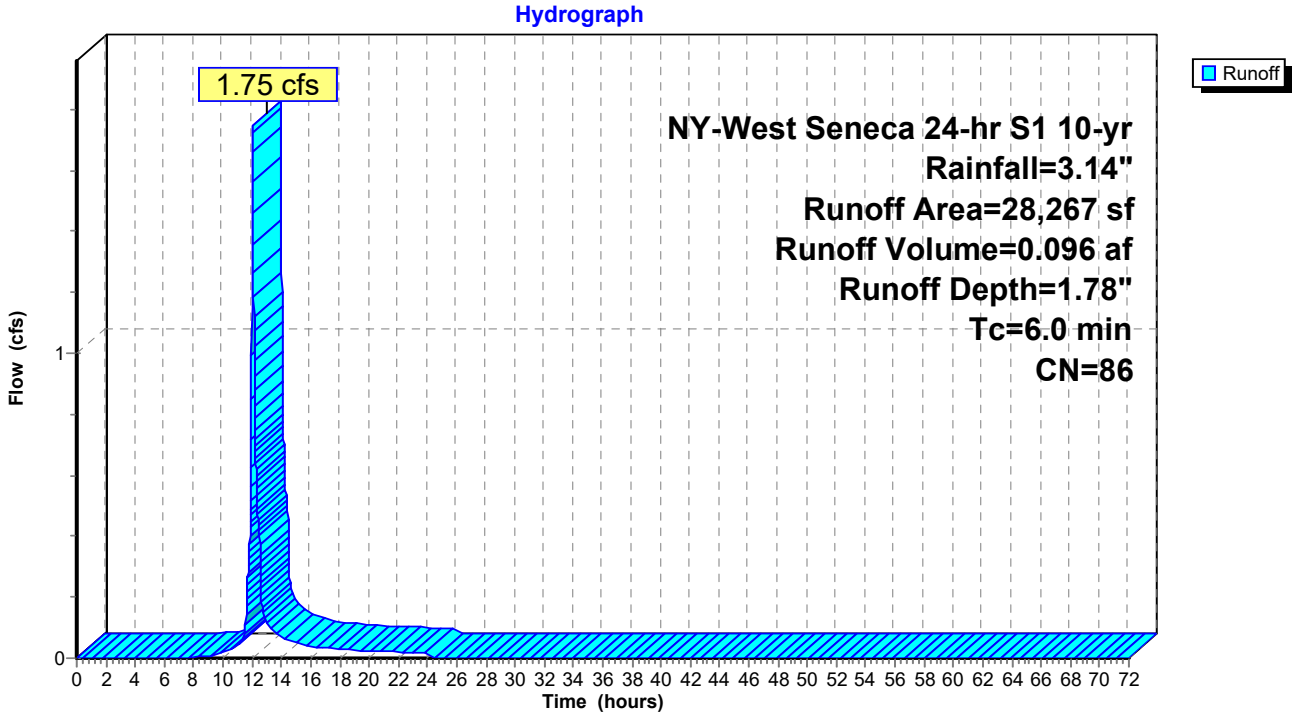
Runoff = 1.75 cfs @ 12.04 hrs, Volume= 0.096 af, Depth= 1.78"
Routed to Pond BIO-2 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
9,466	98	Paved parking, HSG D
18,801	80	>75% Grass cover, Good, HSG D
28,267	86	Weighted Average
18,801		66.51% Pervious Area
9,466		33.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-3:



Summary for Subcatchment PS-4:

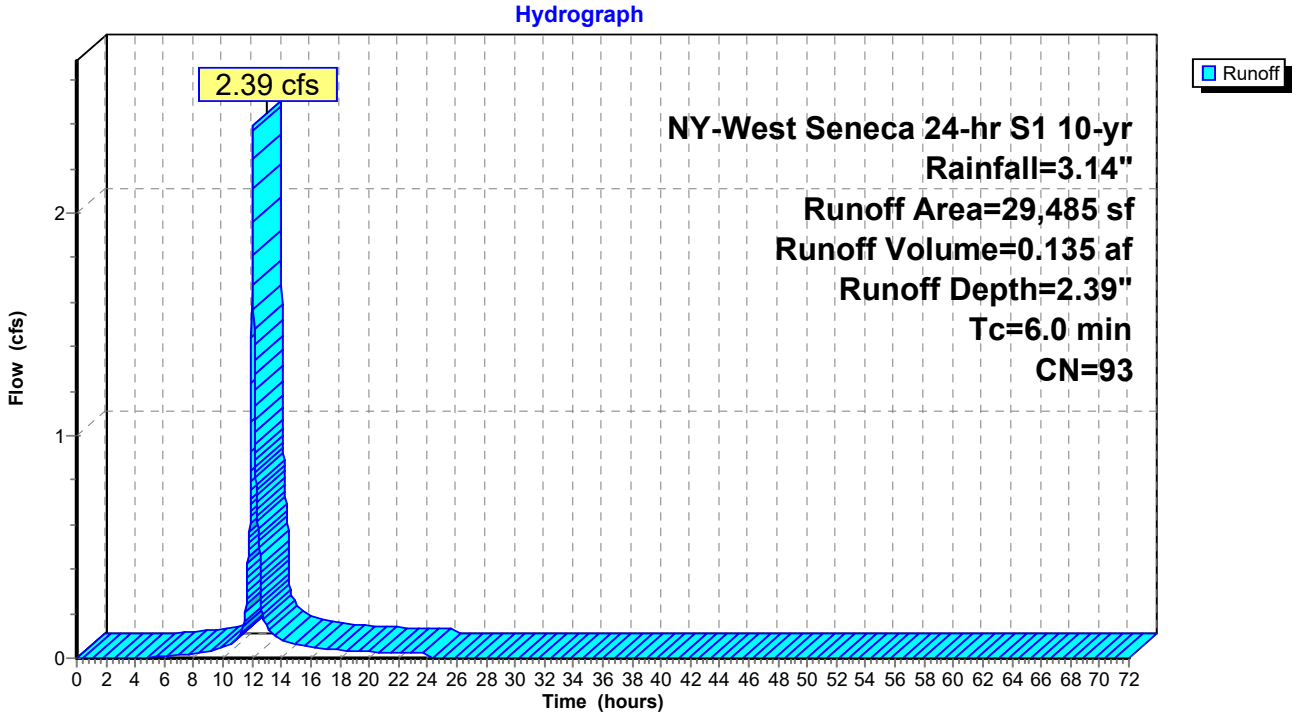
Runoff = 2.39 cfs @ 12.04 hrs, Volume= 0.135 af, Depth= 2.39"
Routed to Pond BIO-3 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
20,928	98	Paved parking, HSG D
8,557	80	>75% Grass cover, Good, HSG D
29,485	93	Weighted Average
8,557		29.02% Pervious Area
20,928		70.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-4:



Summary for Subcatchment PS-5:

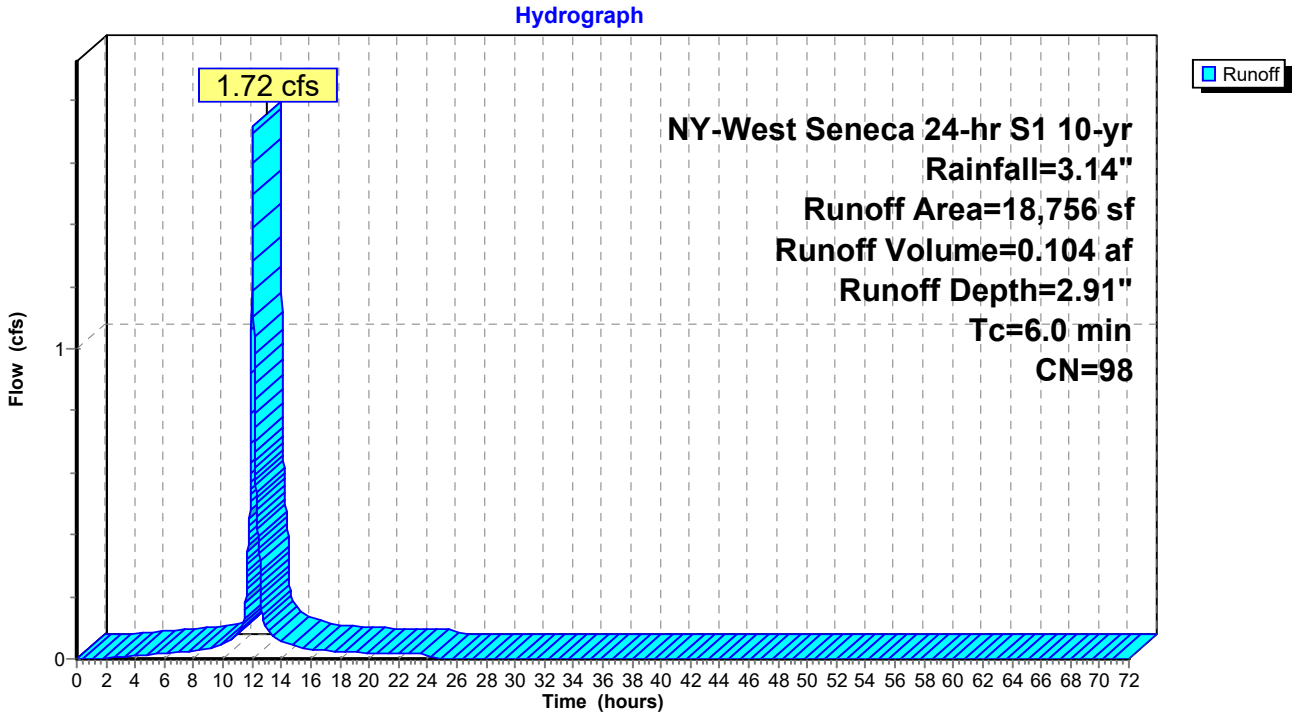
Runoff = 1.72 cfs @ 12.04 hrs, Volume= 0.104 af, Depth= 2.91"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
18,756	98	Paved parking, HSG D
18,756		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-5:



Summary for Subcatchment PS-6:

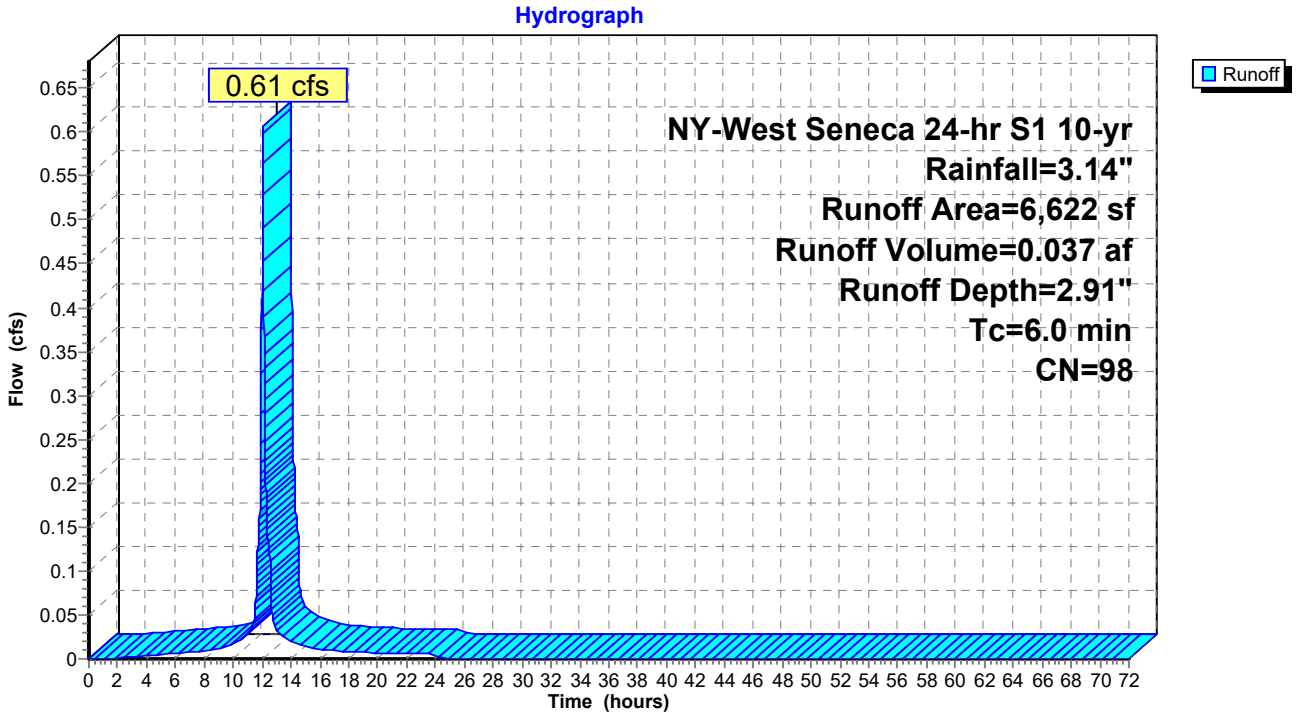
Runoff = 0.61 cfs @ 12.04 hrs, Volume= 0.037 af, Depth= 2.91"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
6,622	98	Paved parking, HSG D
6,622		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-6:



Summary for Subcatchment PS-7:

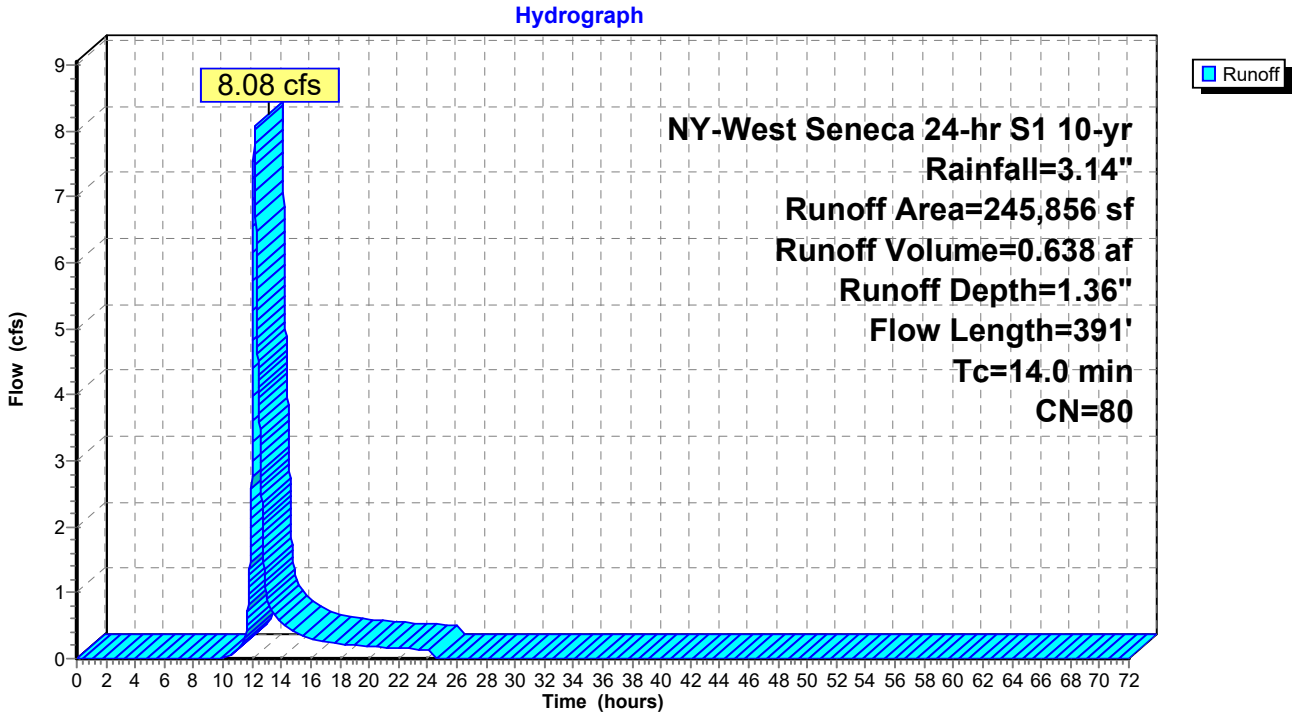
Runoff = 8.08 cfs @ 12.15 hrs, Volume= 0.638 af, Depth= 1.36"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
245,856	80	>75% Grass cover, Good, HSG D
245,856		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment PS-7:



Summary for Subcatchment PS-8:

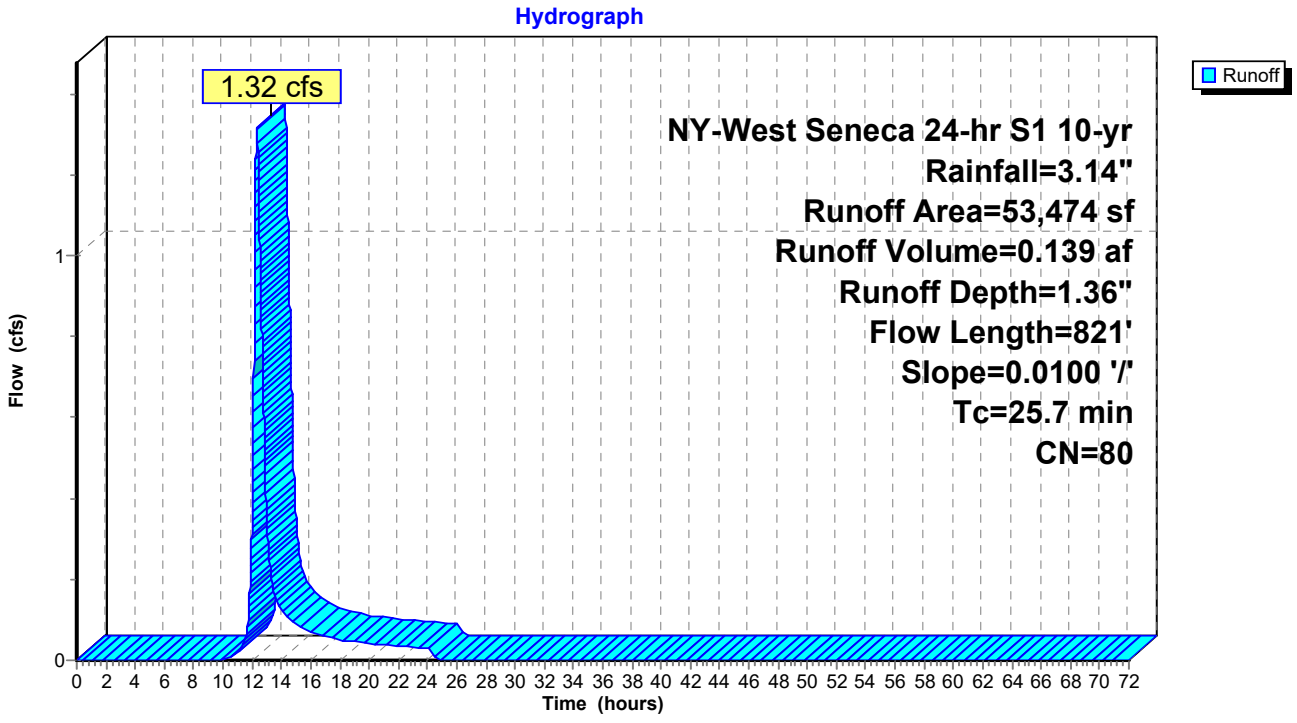
Runoff = 1.32 cfs @ 12.32 hrs, Volume= 0.139 af, Depth= 1.36"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
53,474	80	>75% Grass cover, Good, HSG D
53,474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0100	0.11		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
8.8	371	0.0100	0.70		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
1.3	350	0.0100	4.54	3.56	**Pipe Channel, Pipe Flow** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
25.7	821	Total			

Subcatchment PS-8:

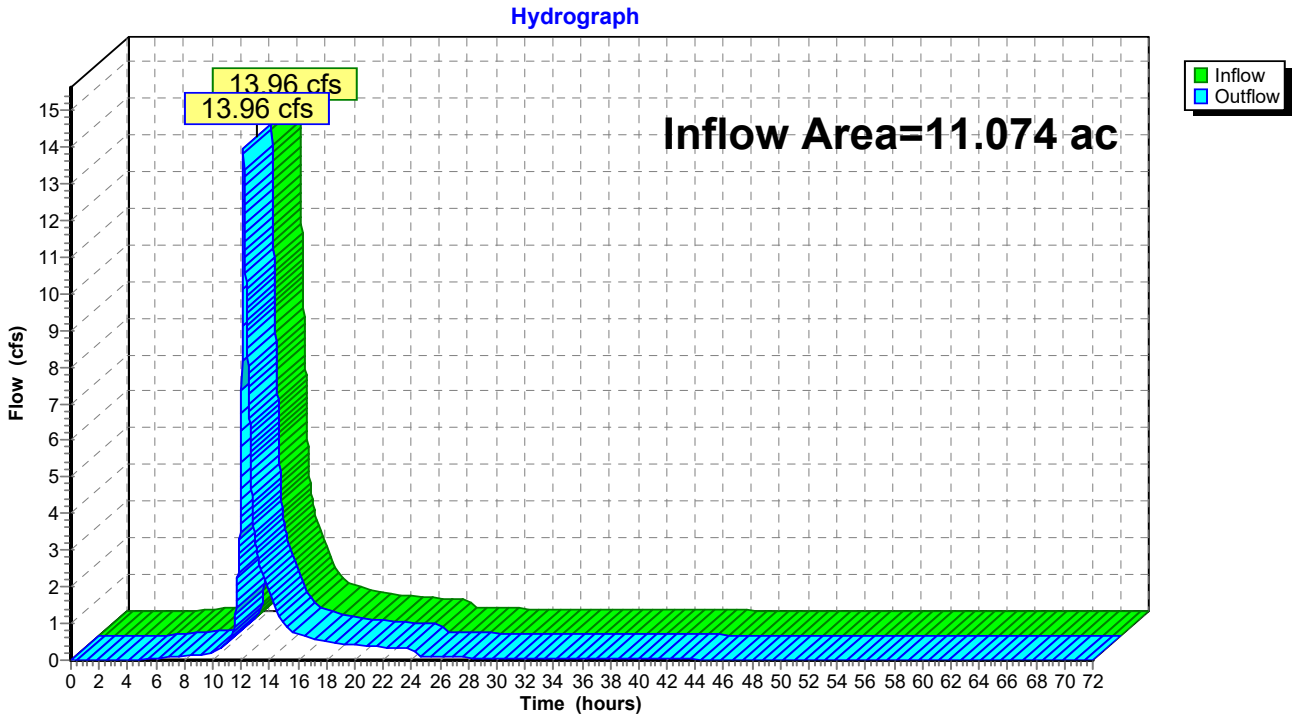


Summary for Reach DP-1: Design Point

Inflow Area = 11.074 ac, 26.79% Impervious, Inflow Depth = 1.75" for 10-yr event
Inflow = 13.96 cfs @ 12.15 hrs, Volume= 1.615 af
Outflow = 13.96 cfs @ 12.15 hrs, Volume= 1.615 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Design Point



Summary for Pond BIO-1: Filtration Bioretention

Inflow Area = 0.634 ac, 33.98% Impervious, Inflow Depth = 1.78" for 10-yr event
Inflow = 1.71 cfs @ 12.04 hrs, Volume= 0.094 af
Outflow = 1.12 cfs @ 12.12 hrs, Volume= 0.094 af, Atten= 34%, Lag= 4.6 min
Primary = 0.02 cfs @ 12.12 hrs, Volume= 0.045 af
Routed to Reach DP-1 : Design Point
Secondary = 1.10 cfs @ 12.12 hrs, Volume= 0.049 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 599.12' @ 12.12 hrs Surf.Area= 1,797 sf Storage= 1,232 cf
Flood Elev= 600.00' Surf.Area= 2,500 sf Storage= 3,120 cf

Plug-Flow detention time= 326.2 min calculated for 0.094 af (100% of inflow)
Center-of-Mass det. time= 326.4 min (1,148.5 - 822.1)

Volume	Invert	Avail.Storage	Storage Description
#1	598.00'	3,120 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
598.00	340	0	0
599.00	1,700	1,020	1,020
600.00	2,500	2,100	3,120

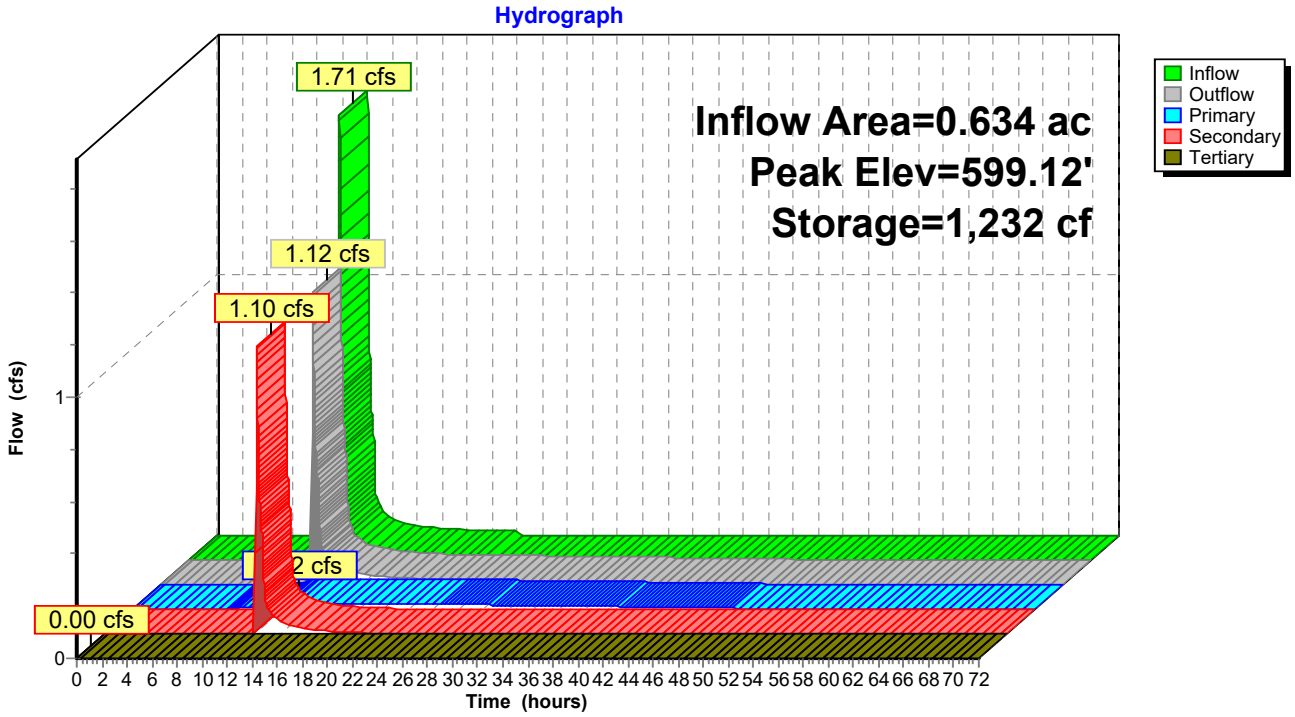
Device	Routing	Invert	Outlet Devices
#1	Primary	598.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	599.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	594.58'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 594.58' / 594.33' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	599.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 12.12 hrs HW=599.12' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=1.10 cfs @ 12.12 hrs HW=599.12' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 1.10 cfs of 6.00 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 1.10 cfs @ 1.14 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=598.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-1: Filtration Bioretention



Summary for Pond BIO-2: Filtration Bioretention

Inflow Area = 0.649 ac, 33.49% Impervious, Inflow Depth = 1.78" for 10-yr event
Inflow = 1.75 cfs @ 12.04 hrs, Volume= 0.096 af
Outflow = 1.06 cfs @ 12.13 hrs, Volume= 0.096 af, Atten= 39%, Lag= 5.6 min
Primary = 0.02 cfs @ 12.13 hrs, Volume= 0.048 af
Routed to Reach DP-1 : Design Point
Secondary = 1.04 cfs @ 12.13 hrs, Volume= 0.048 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 597.12' @ 12.13 hrs Surf.Area= 1,941 sf Storage= 1,319 cf
Flood Elev= 598.00' Surf.Area= 2,630 sf Storage= 3,339 cf

Plug-Flow detention time= 339.7 min calculated for 0.096 af (100% of inflow)
Center-of-Mass det. time= 339.9 min (1,162.0 - 822.1)

Volume	Invert	Avail.Storage	Storage Description
#1	596.00'	3,339 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
596.00	348	0	0
597.00	1,850	1,099	1,099
598.00	2,630	2,240	3,339

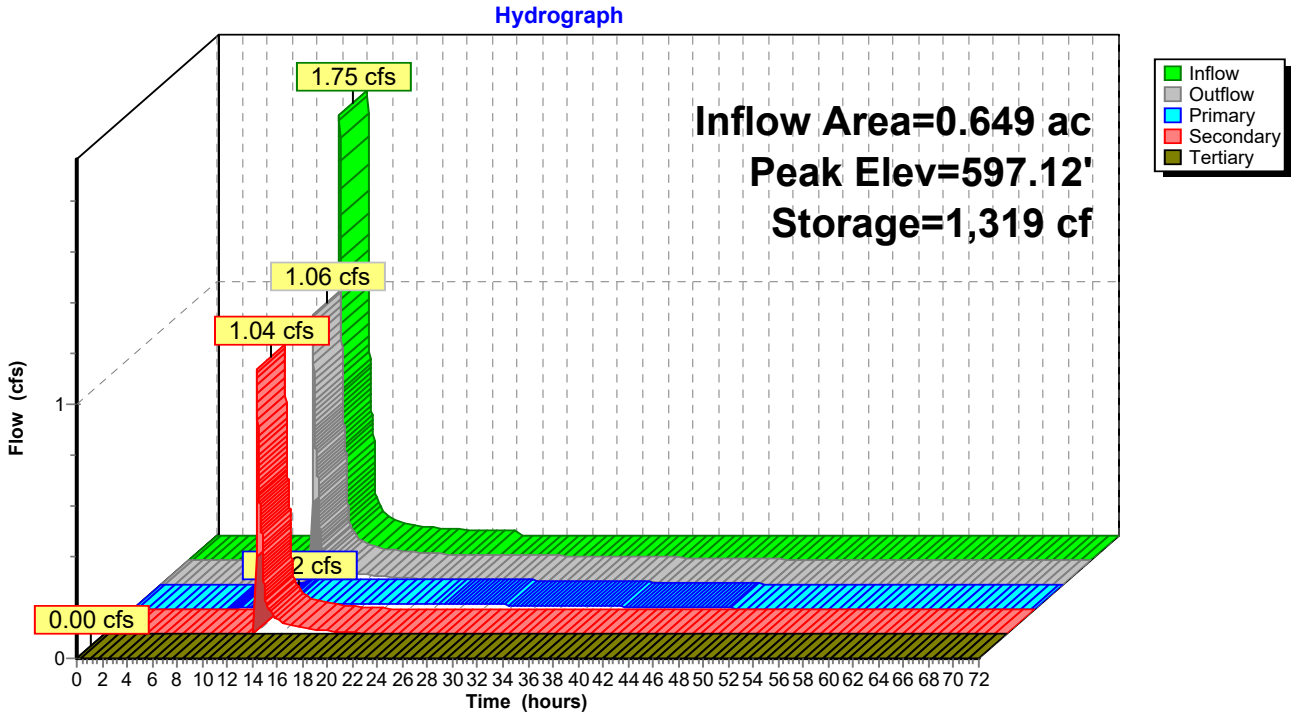
Device	Routing	Invert	Outlet Devices
#1	Primary	596.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	597.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	592.58'	**12.0" Round Culvert** L= 132.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 592.58' / 591.92' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	597.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 12.13 hrs HW=597.12' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=1.04 cfs @ 12.13 hrs HW=597.12' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 1.04 cfs of 5.54 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 1.04 cfs @ 1.11 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=596.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-2: Filtration Bioretention



Summary for Pond BIO-3: Filtration Bioretention

Inflow Area = 0.677 ac, 70.98% Impervious, Inflow Depth = 2.39" for 10-yr event
Inflow = 2.39 cfs @ 12.04 hrs, Volume= 0.135 af
Outflow = 1.07 cfs @ 12.18 hrs, Volume= 0.135 af, Atten= 55%, Lag= 8.6 min
Primary = 0.04 cfs @ 12.18 hrs, Volume= 0.084 af
Routed to Reach DP-1 : Design Point
Secondary = 1.03 cfs @ 12.18 hrs, Volume= 0.050 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 596.12' @ 12.18 hrs Surf.Area= 3,334 sf Storage= 2,359 cf
Flood Elev= 597.00' Surf.Area= 3,978 sf Storage= 5,592 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 411.1 min (1,203.9 - 792.8)

Volume	Invert	Avail.Storage	Storage Description
#1	595.00'	5,592 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
595.00	705	0	0
596.00	3,250	1,978	1,978
597.00	3,978	3,614	5,592

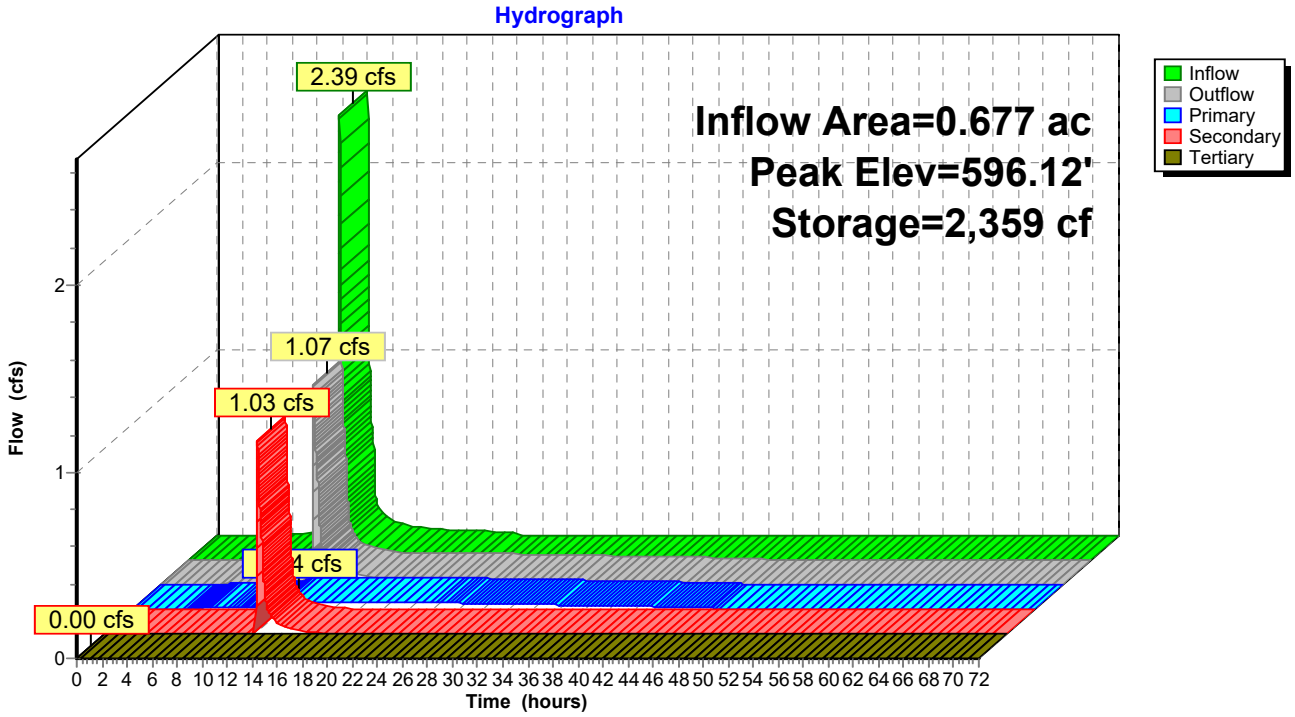
Device	Routing	Invert	Outlet Devices
#1	Primary	595.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	596.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	591.58'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.58' / 591.30' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	596.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.04 cfs @ 12.18 hrs HW=596.12' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.04 cfs)

Secondary OutFlow Max=1.03 cfs @ 12.18 hrs HW=596.12' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 1.03 cfs of 6.00 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 1.03 cfs @ 1.11 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=595.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-3: Filtration Bioretention



Summary for Pond CH-1: Chambers

Inflow Area = 2.091 ac, 90.96% Impervious, Inflow Depth = 2.73" for 10-yr event
Inflow = 8.11 cfs @ 12.04 hrs, Volume= 0.476 af
Outflow = 1.66 cfs @ 12.48 hrs, Volume= 0.476 af, Atten= 80%, Lag= 26.9 min
Primary = 1.66 cfs @ 12.48 hrs, Volume= 0.476 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 593.15' @ 12.48 hrs Surf.Area= 0.127 ac Storage= 0.161 af
Flood Elev= 598.32' Surf.Area= 0.127 ac Storage= 0.433 af

Plug-Flow detention time= 60.0 min calculated for 0.476 af (100% of inflow)
Center-of-Mass det. time= 59.7 min (829.9 - 770.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	591.25'	0.177 af	**37.08'W x 149.10'L x 5.50'H Field A** 0.698 af Overall - 0.256 af Embedded = 0.442 af x 40.0% Voids
#2A	592.00'	0.256 af	**ADS_StormTech MC-3500 d +Cap**x 100 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 100 Chambers in 5 Rows Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf
		0.433 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	591.25'	**8.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.25' / 591.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.66 cfs @ 12.48 hrs HW=593.15' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.66 cfs @ 4.75 fps)

Pond CH-1: Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

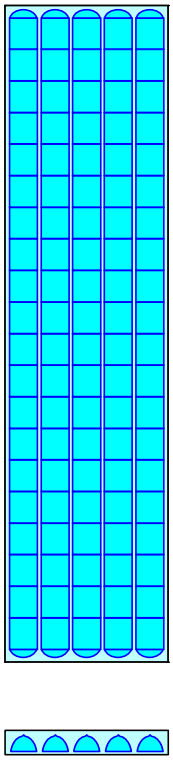
20 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 147.10' Row Length +12.0" End Stone x 2 = 149.10' Base Length
5 Rows x 77.0" Wide + 9.0" Spacing x 4 + 12.0" Side Stone x 2 = 37.08' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

100 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 5 Rows = 11,144.2 cf Chamber Storage

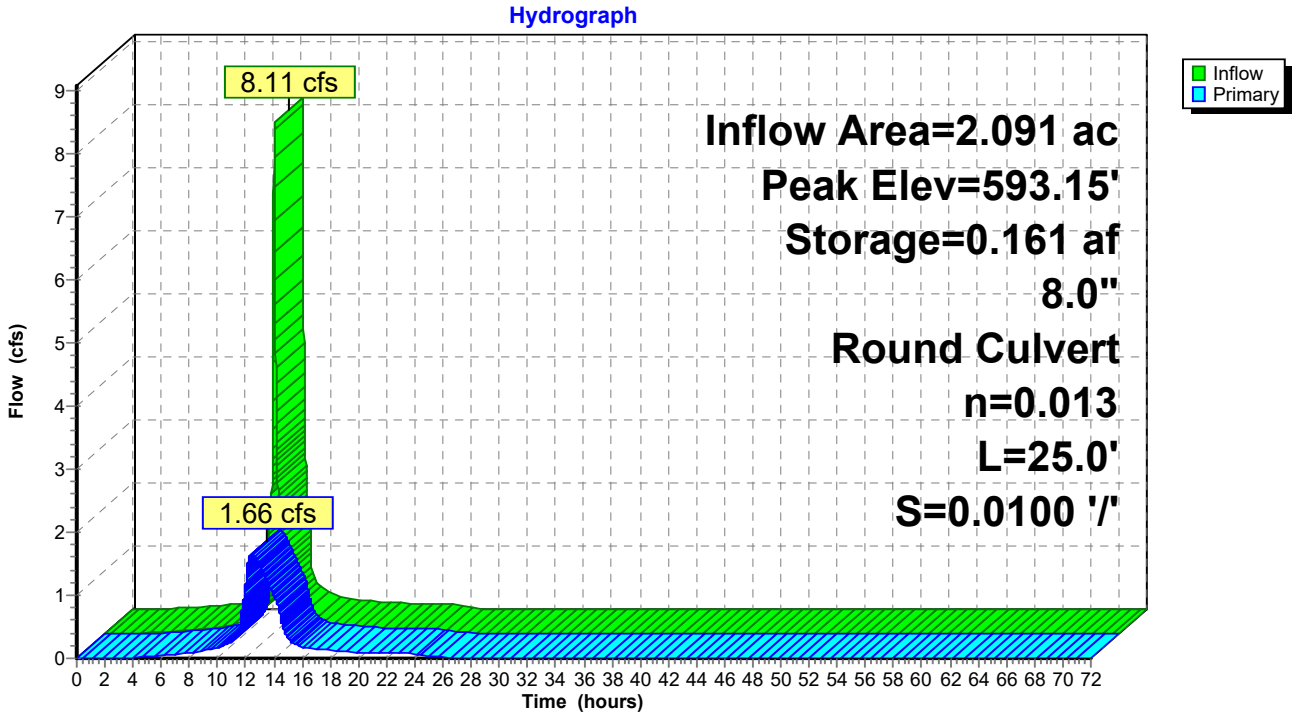
30,410.2 cf Field - 11,144.2 cf Chambers = 19,266.0 cf Stone x 40.0% Voids = 7,706.4 cf Stone Storage

Chamber Storage + Stone Storage = 18,850.6 cf = 0.433 af
Overall Storage Efficiency = 62.0%
Overall System Size = 149.10' x 37.08' x 5.50'

100 Chambers
1,126.3 cy Field
713.6 cy Stone



Pond CH-1: Chambers



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PS-1: Runoff Area=27,596 sf 33.98% Impervious Runoff Depth=3.67"
Tc=6.0 min CN=86 Runoff=3.44 cfs 0.194 af

Subcatchment PS-2: Runoff Area=72,316 sf 88.61% Impervious Runoff Depth=4.75"
Tc=6.0 min CN=96 Runoff=10.80 cfs 0.657 af

Subcatchment PS-3: Runoff Area=28,267 sf 33.49% Impervious Runoff Depth=3.67"
Tc=6.0 min CN=86 Runoff=3.52 cfs 0.199 af

Subcatchment PS-4: Runoff Area=29,485 sf 70.98% Impervious Runoff Depth=4.41"
Tc=6.0 min CN=93 Runoff=4.23 cfs 0.249 af

Subcatchment PS-5: Runoff Area=18,756 sf 100.00% Impervious Runoff Depth=4.98"
Tc=6.0 min CN=98 Runoff=2.85 cfs 0.179 af

Subcatchment PS-6: Runoff Area=6,622 sf 100.00% Impervious Runoff Depth=4.98"
Tc=6.0 min CN=98 Runoff=1.01 cfs 0.063 af

Subcatchment PS-7: Runoff Area=245,856 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=391' Tc=14.0 min CN=80 Runoff=18.94 cfs 1.451 af

Subcatchment PS-8: Runoff Area=53,474 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=821' Slope=0.0100 '/' Tc=25.7 min CN=80 Runoff=3.15 cfs 0.316 af

Reach DP-1: Design Point Inflow=31.66 cfs 3.307 af
Outflow=31.66 cfs 3.307 af

Pond BIO-1: Filtration Bioretention Peak Elev=599.25' Storage=1,462 cf Inflow=3.44 cfs 0.194 af
Primary=0.02 cfs 0.048 af Secondary=3.18 cfs 0.146 af Tertiary=0.00 cfs 0.000 af Outflow=3.21 cfs 0.194 af

Pond BIO-2: Filtration Bioretention Peak Elev=597.25' Storage=1,582 cf Inflow=3.52 cfs 0.199 af
Primary=0.02 cfs 0.052 af Secondary=3.23 cfs 0.147 af Tertiary=0.00 cfs 0.000 af Outflow=3.26 cfs 0.199 af

Pond BIO-3: Filtration Bioretention Peak Elev=596.27' Storage=2,865 cf Inflow=4.23 cfs 0.249 af
Primary=0.04 cfs 0.094 af Secondary=3.57 cfs 0.155 af Tertiary=0.00 cfs 0.000 af Outflow=3.61 cfs 0.249 af

Pond CH-1: Chambers Peak Elev=594.85' Storage=0.322 af Inflow=13.65 cfs 0.836 af
8.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/' Outflow=2.40 cfs 0.836 af

Total Runoff Area = 11.074 ac Runoff Volume = 3.308 af Average Runoff Depth = 3.58"
73.21% Pervious = 8.107 ac 26.79% Impervious = 2.967 ac

Summary for Subcatchment PS-1:

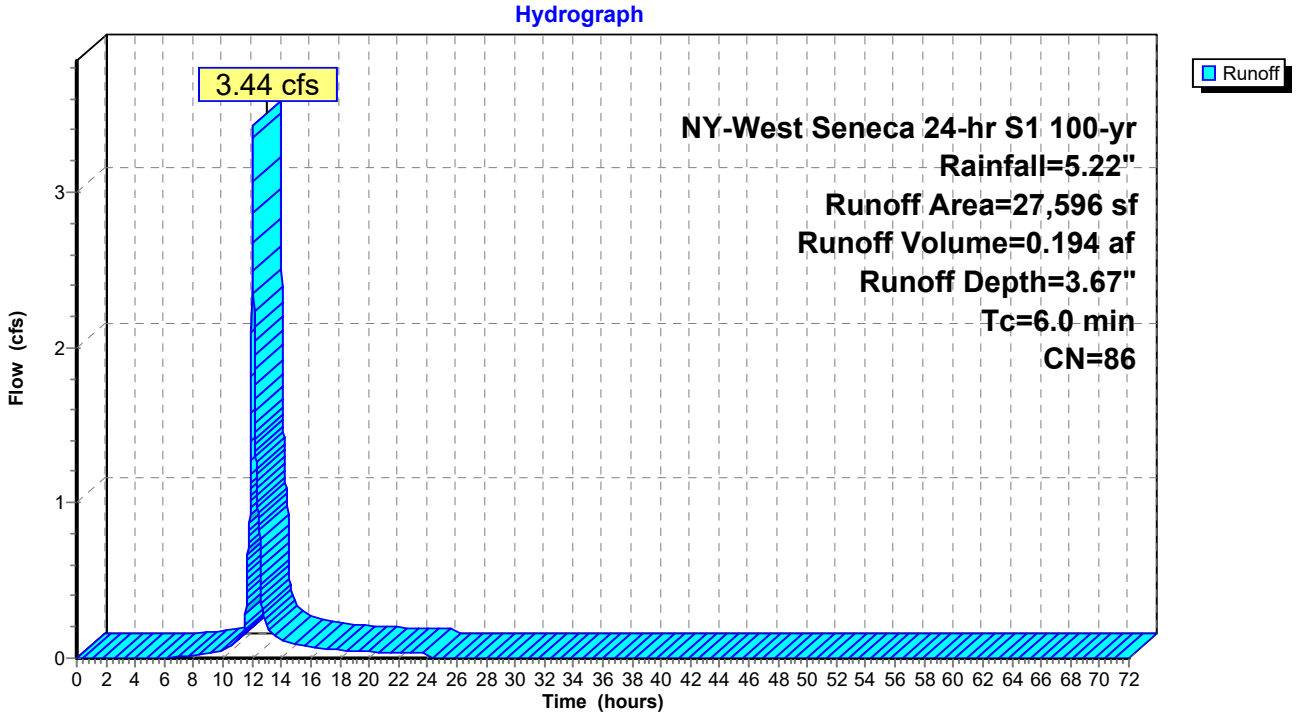
Runoff = 3.44 cfs @ 12.04 hrs, Volume= 0.194 af, Depth= 3.67"
Routed to Pond BIO-1 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
9,376	98	Paved parking, HSG D
18,220	80	>75% Grass cover, Good, HSG D
27,596	86	Weighted Average
18,220		66.02% Pervious Area
9,376		33.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-1:



Summary for Subcatchment PS-2:

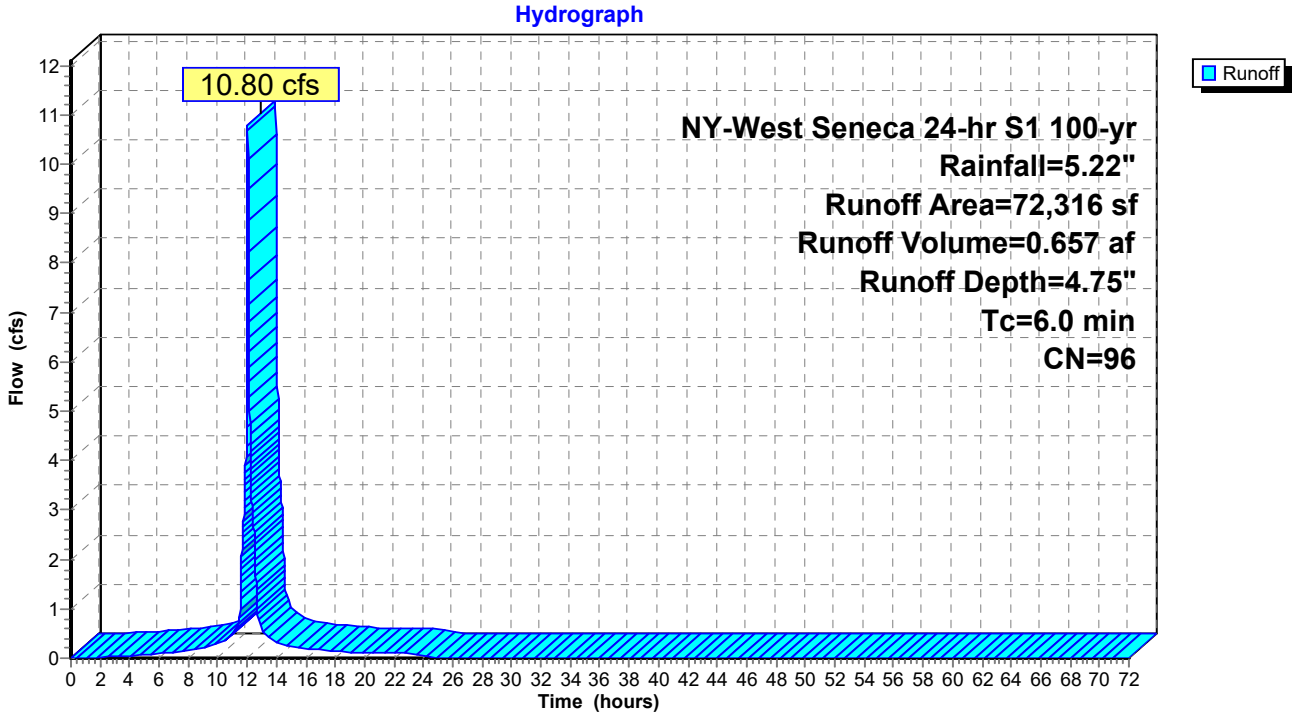
Runoff = 10.80 cfs @ 12.04 hrs, Volume= 0.657 af, Depth= 4.75"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
64,081	98	Paved parking, HSG D
8,235	80	>75% Grass cover, Good, HSG D
72,316	96	Weighted Average
8,235		11.39% Pervious Area
64,081		88.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-2:



Summary for Subcatchment PS-3:

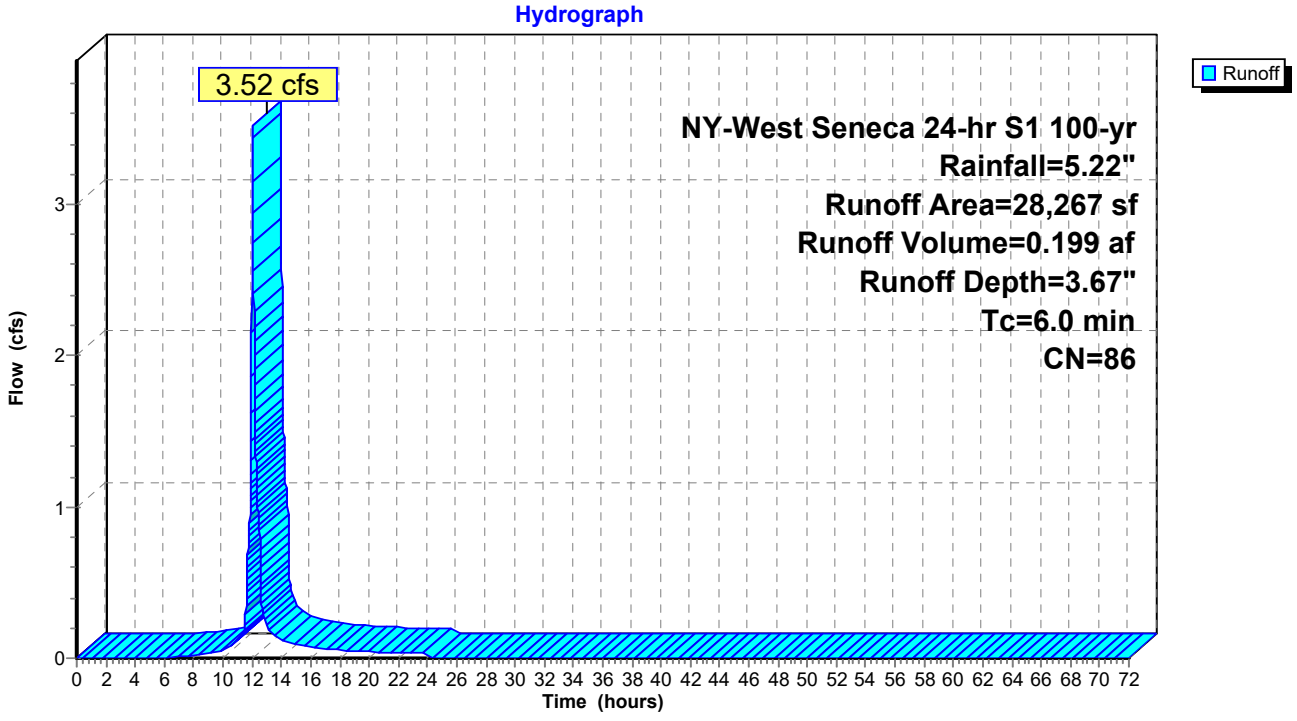
Runoff = 3.52 cfs @ 12.04 hrs, Volume= 0.199 af, Depth= 3.67"
Routed to Pond BIO-2 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
9,466	98	Paved parking, HSG D
18,801	80	>75% Grass cover, Good, HSG D
28,267	86	Weighted Average
18,801		66.51% Pervious Area
9,466		33.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-3:



Summary for Subcatchment PS-4:

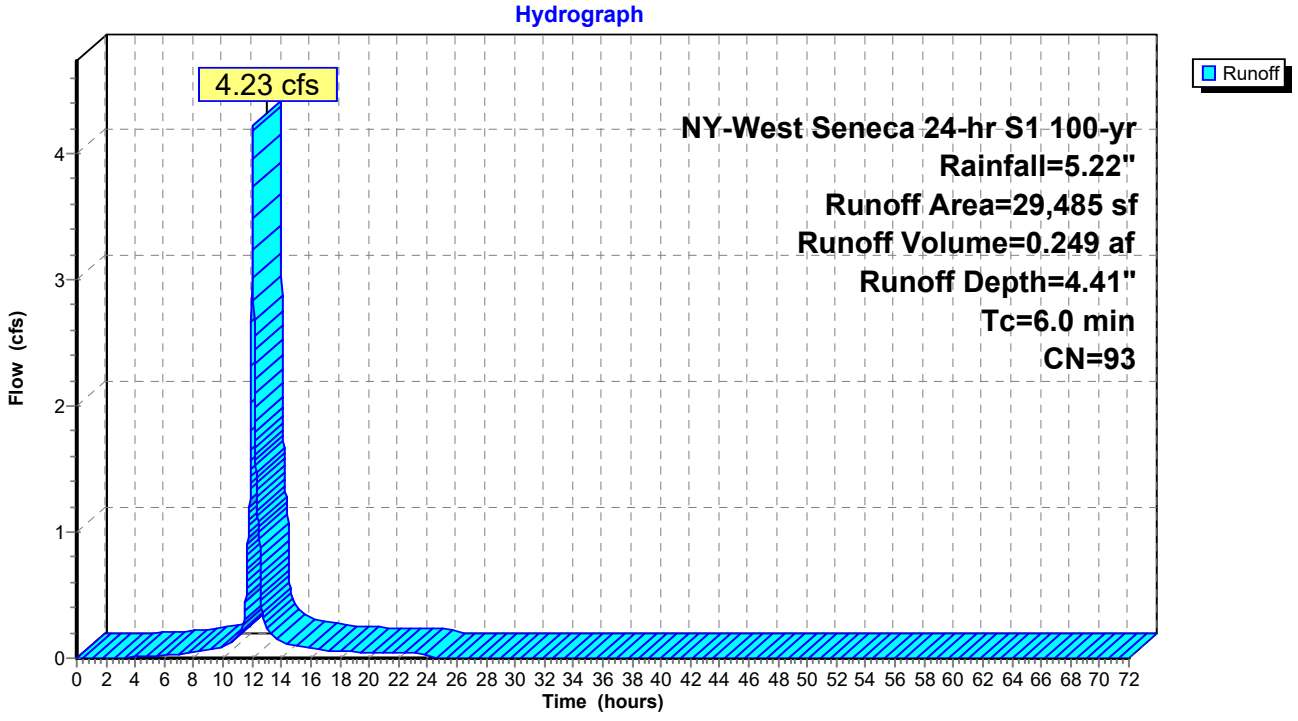
Runoff = 4.23 cfs @ 12.04 hrs, Volume= 0.249 af, Depth= 4.41"
Routed to Pond BIO-3 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
20,928	98	Paved parking, HSG D
8,557	80	>75% Grass cover, Good, HSG D
29,485	93	Weighted Average
8,557		29.02% Pervious Area
20,928		70.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-4:



Summary for Subcatchment PS-5:

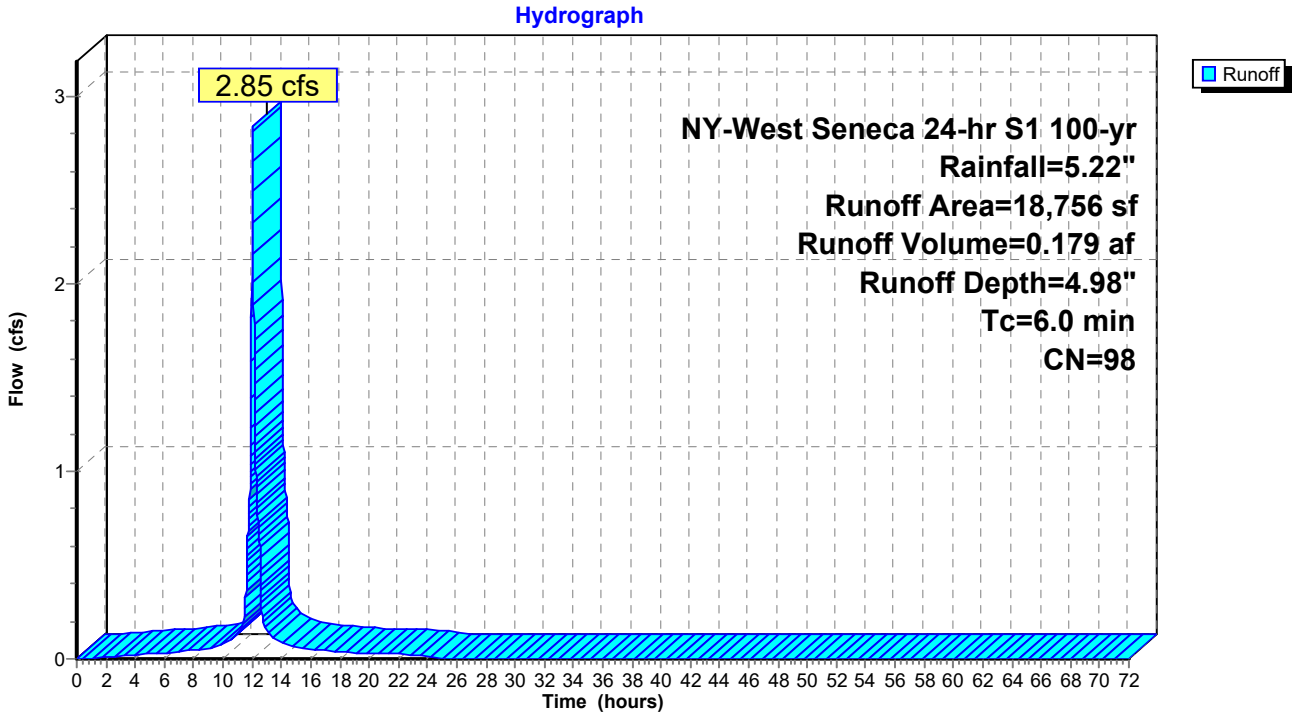
Runoff = 2.85 cfs @ 12.04 hrs, Volume= 0.179 af, Depth= 4.98"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
18,756	98	Paved parking, HSG D
18,756		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-5:



Summary for Subcatchment PS-6:

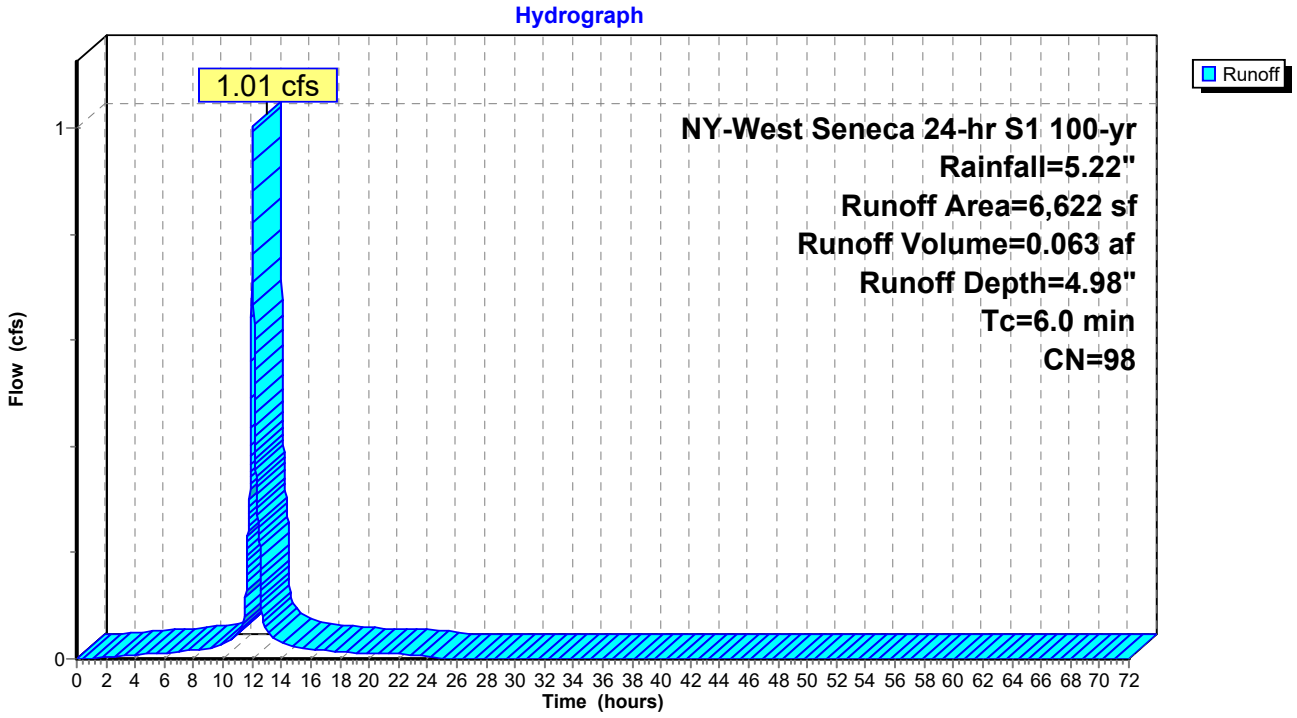
Runoff = 1.01 cfs @ 12.04 hrs, Volume= 0.063 af, Depth= 4.98"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
6,622	98	Paved parking, HSG D
6,622		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-6:



Summary for Subcatchment PS-7:

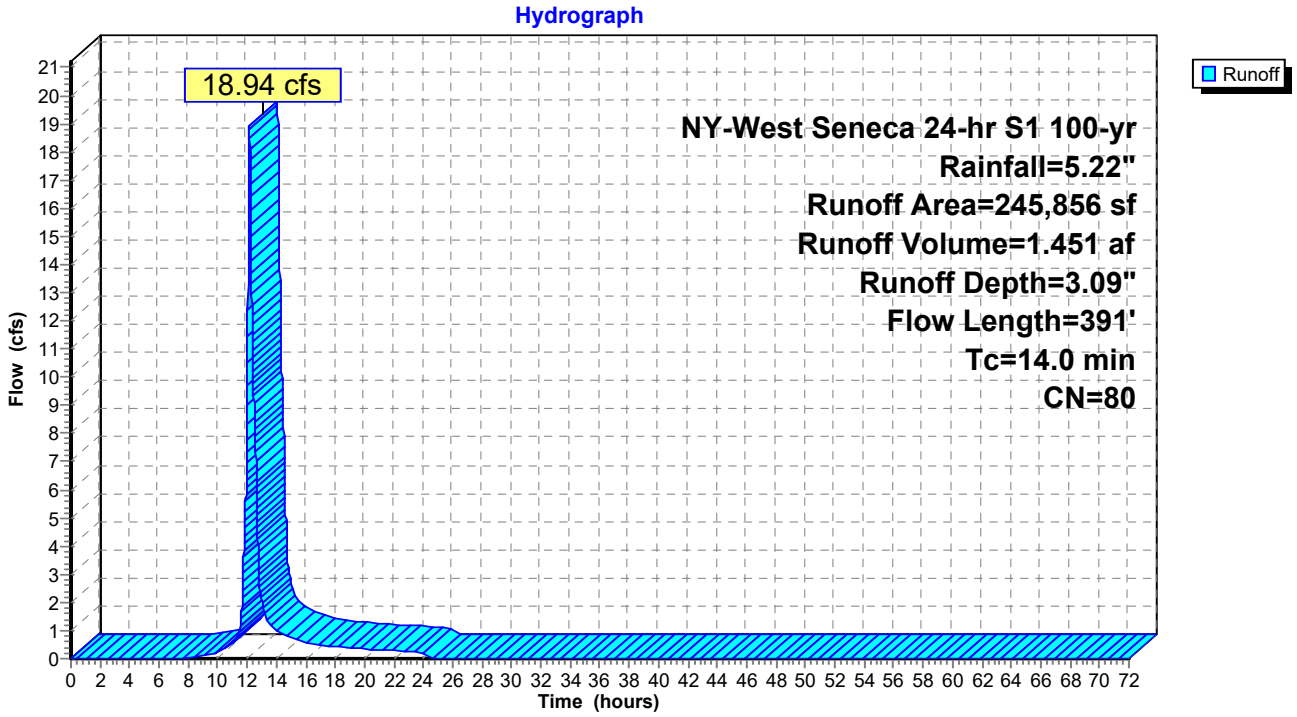
Runoff = 18.94 cfs @ 12.15 hrs, Volume= 1.451 af, Depth= 3.09"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
245,856	80	>75% Grass cover, Good, HSG D
245,856		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment PS-7:



Summary for Subcatchment PS-8:

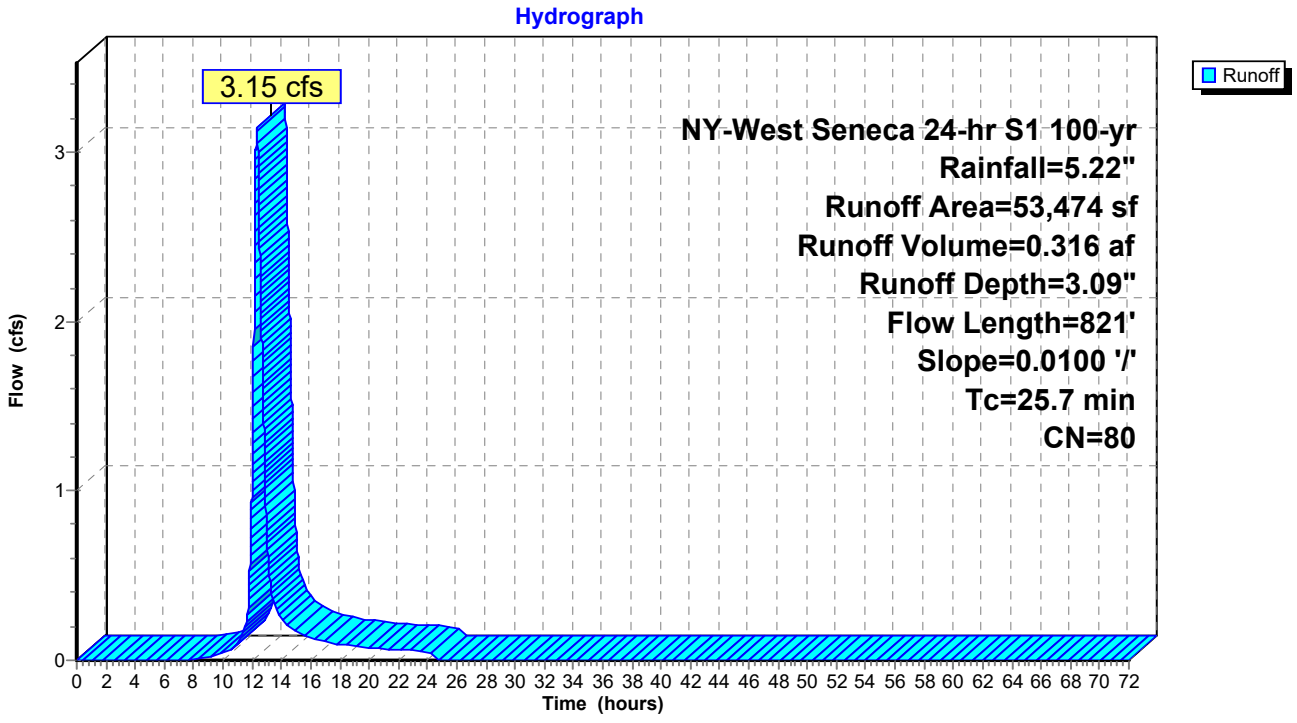
Runoff = 3.15 cfs @ 12.31 hrs, Volume= 0.316 af, Depth= 3.09"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
53,474	80	>75% Grass cover, Good, HSG D
53,474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0100	0.11		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
8.8	371	0.0100	0.70		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
1.3	350	0.0100	4.54	3.56	**Pipe Channel, Pipe Flow** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
25.7	821	Total			

Subcatchment PS-8:

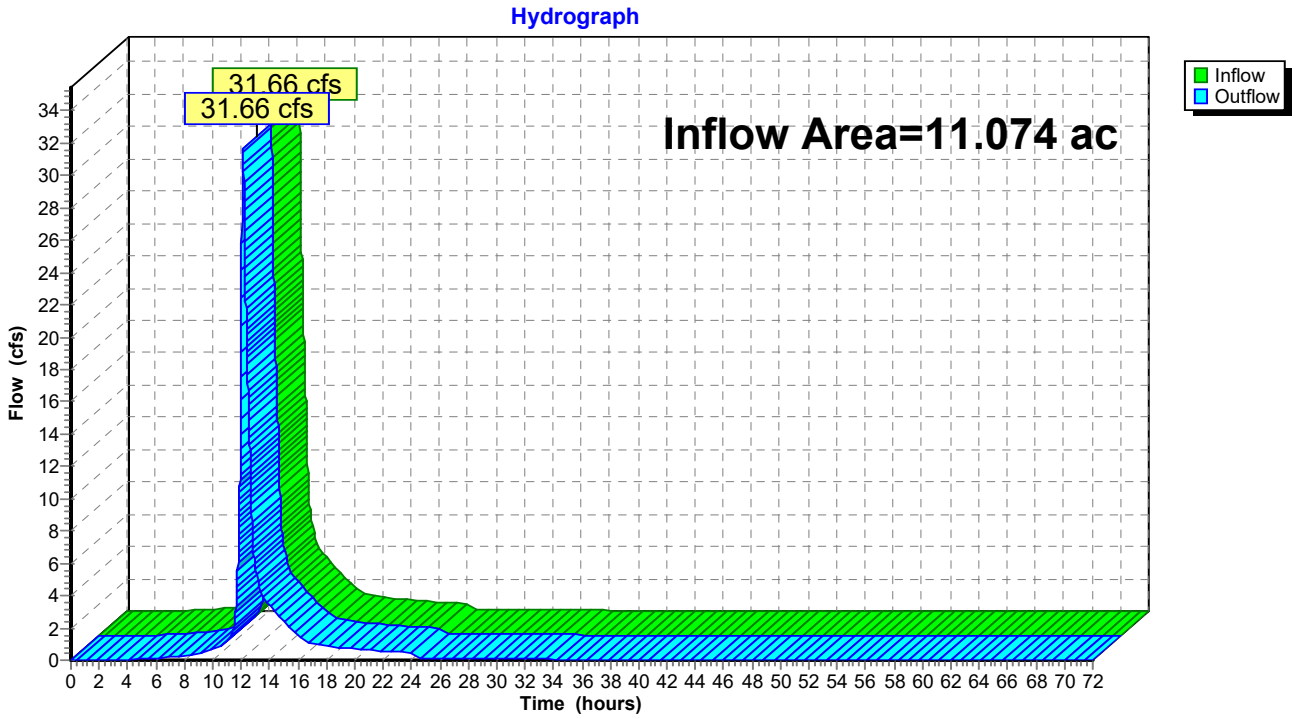


Summary for Reach DP-1: Design Point

Inflow Area = 11.074 ac, 26.79% Impervious, Inflow Depth = 3.58" for 100-yr event
Inflow = 31.66 cfs @ 12.12 hrs, Volume= 3.307 af
Outflow = 31.66 cfs @ 12.12 hrs, Volume= 3.307 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Design Point



Summary for Pond BIO-1: Filtration Bioretention

Inflow Area = 0.634 ac, 33.98% Impervious, Inflow Depth = 3.67" for 100-yr event
Inflow = 3.44 cfs @ 12.04 hrs, Volume= 0.194 af
Outflow = 3.21 cfs @ 12.06 hrs, Volume= 0.194 af, Atten= 7%, Lag= 1.5 min
Primary = 0.02 cfs @ 12.06 hrs, Volume= 0.048 af
Routed to Reach DP-1 : Design Point
Secondary = 3.18 cfs @ 12.06 hrs, Volume= 0.146 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 599.25' @ 12.06 hrs Surf.Area= 1,896 sf Storage= 1,462 cf
Flood Elev= 600.00' Surf.Area= 2,500 sf Storage= 3,120 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 168.5 min (967.4 - 798.9)

Volume	Invert	Avail.Storage	Storage Description
#1	598.00'	3,120 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
598.00	340	0	0
599.00	1,700	1,020	1,020
600.00	2,500	2,100	3,120

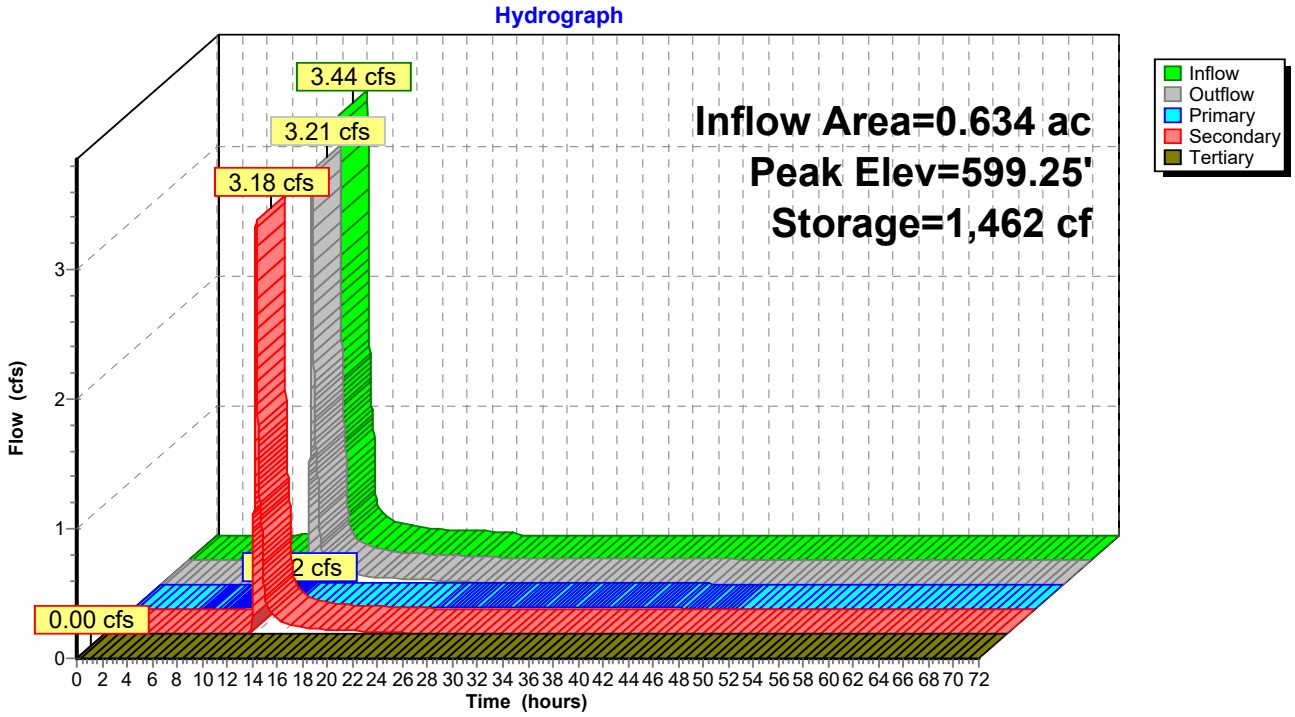
Device	Routing	Invert	Outlet Devices
#1	Primary	598.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	599.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	594.58'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 594.58' / 594.33' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	599.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 12.06 hrs HW=599.25' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=3.18 cfs @ 12.06 hrs HW=599.25' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 3.18 cfs of 6.09 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 3.18 cfs @ 1.62 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=598.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-1: Filtration Bioretention



Summary for Pond BIO-2: Filtration Bioretention

Inflow Area = 0.649 ac, 33.49% Impervious, Inflow Depth = 3.67" for 100-yr event
Inflow = 3.52 cfs @ 12.04 hrs, Volume= 0.199 af
Outflow = 3.26 cfs @ 12.06 hrs, Volume= 0.199 af, Atten= 8%, Lag= 1.6 min
Primary = 0.02 cfs @ 12.06 hrs, Volume= 0.052 af
Routed to Reach DP-1 : Design Point
Secondary = 3.23 cfs @ 12.06 hrs, Volume= 0.147 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 597.25' @ 12.06 hrs Surf.Area= 2,044 sf Storage= 1,582 cf
Flood Elev= 598.00' Surf.Area= 2,630 sf Storage= 3,339 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 176.3 min (975.2 - 798.9)

Volume	Invert	Avail.Storage	Storage Description
#1	596.00'	3,339 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
596.00	348	0	0
597.00	1,850	1,099	1,099
598.00	2,630	2,240	3,339

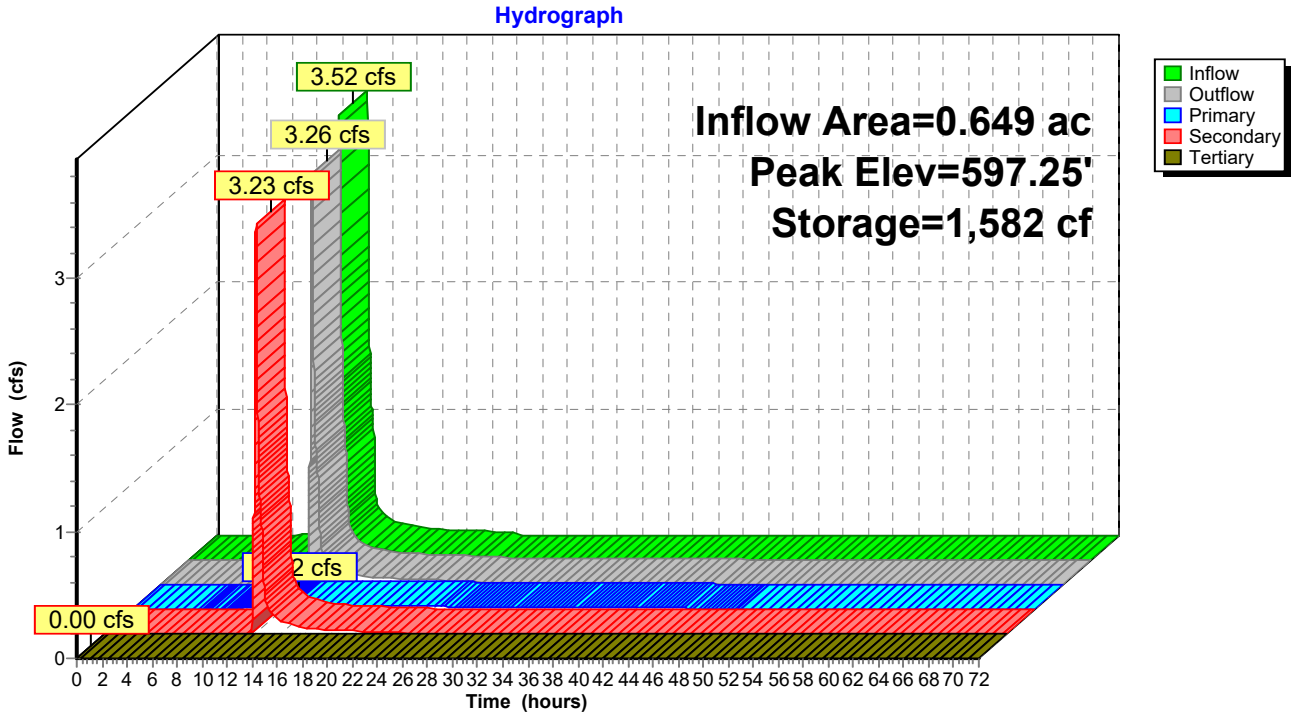
Device	Routing	Invert	Outlet Devices
#1	Primary	596.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	597.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	592.58'	**12.0" Round Culvert** L= 132.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 592.58' / 591.92' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	597.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 12.06 hrs HW=597.25' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=3.22 cfs @ 12.06 hrs HW=597.25' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 3.22 cfs of 5.63 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 3.22 cfs @ 1.63 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=596.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-2: Filtration Bioretention



Summary for Pond BIO-3: Filtration Bioretention

Inflow Area = 0.677 ac, 70.98% Impervious, Inflow Depth = 4.41" for 100-yr event
Inflow = 4.23 cfs @ 12.04 hrs, Volume= 0.249 af
Outflow = 3.61 cfs @ 12.08 hrs, Volume= 0.249 af, Atten= 15%, Lag= 2.3 min
Primary = 0.04 cfs @ 12.08 hrs, Volume= 0.094 af
Routed to Reach DP-1 : Design Point
Secondary = 3.57 cfs @ 12.08 hrs, Volume= 0.155 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 596.27' @ 12.08 hrs Surf.Area= 3,443 sf Storage= 2,865 cf
Flood Elev= 597.00' Surf.Area= 3,978 sf Storage= 5,592 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 255.7 min (1,030.5 - 774.9)

Volume	Invert	Avail.Storage	Storage Description
#1	595.00'	5,592 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
595.00	705	0	0
596.00	3,250	1,978	1,978
597.00	3,978	3,614	5,592

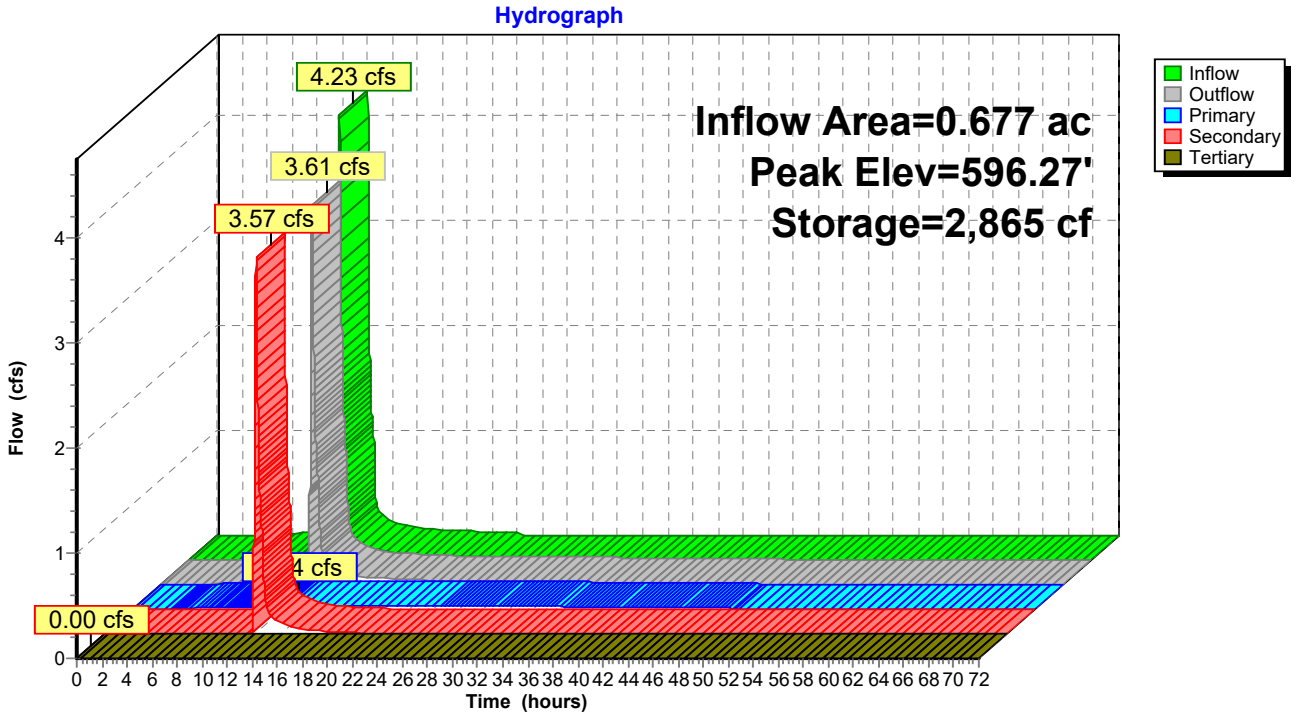
Device	Routing	Invert	Outlet Devices
#1	Primary	595.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	596.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	591.58'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.58' / 591.30' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	596.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.04 cfs @ 12.08 hrs HW=596.26' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.04 cfs)

Secondary OutFlow Max=3.57 cfs @ 12.08 hrs HW=596.26' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 3.57 cfs of 6.11 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 3.57 cfs @ 1.68 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=595.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-3: Filtration Bioretention



Summary for Pond CH-1: Chambers

Inflow Area = 2.091 ac, 90.96% Impervious, Inflow Depth = 4.80" for 100-yr event
Inflow = 13.65 cfs @ 12.04 hrs, Volume= 0.836 af
Outflow = 2.40 cfs @ 12.57 hrs, Volume= 0.836 af, Atten= 82%, Lag= 31.8 min
Primary = 2.40 cfs @ 12.57 hrs, Volume= 0.836 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 594.85' @ 12.57 hrs Surf.Area= 0.127 ac Storage= 0.322 af
Flood Elev= 598.32' Surf.Area= 0.127 ac Storage= 0.433 af

Plug-Flow detention time= 68.0 min calculated for 0.836 af (100% of inflow)
Center-of-Mass det. time= 68.1 min (825.0 - 757.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	591.25'	0.177 af	**37.08'W x 149.10'L x 5.50'H Field A** 0.698 af Overall - 0.256 af Embedded = 0.442 af x 40.0% Voids
#2A	592.00'	0.256 af	**ADS_StormTech MC-3500 d +Cap**x 100 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 100 Chambers in 5 Rows Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf
		0.433 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	591.25'	**8.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.25' / 591.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.40 cfs @ 12.57 hrs HW=594.85' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.40 cfs @ 6.87 fps)

Pond CH-1: Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

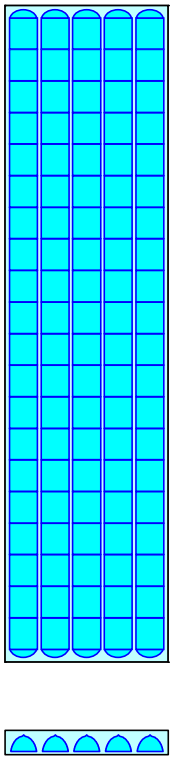
20 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 147.10' Row Length +12.0" End Stone x 2 = 149.10' Base Length
5 Rows x 77.0" Wide + 9.0" Spacing x 4 + 12.0" Side Stone x 2 = 37.08' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

100 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 5 Rows = 11,144.2 cf Chamber Storage

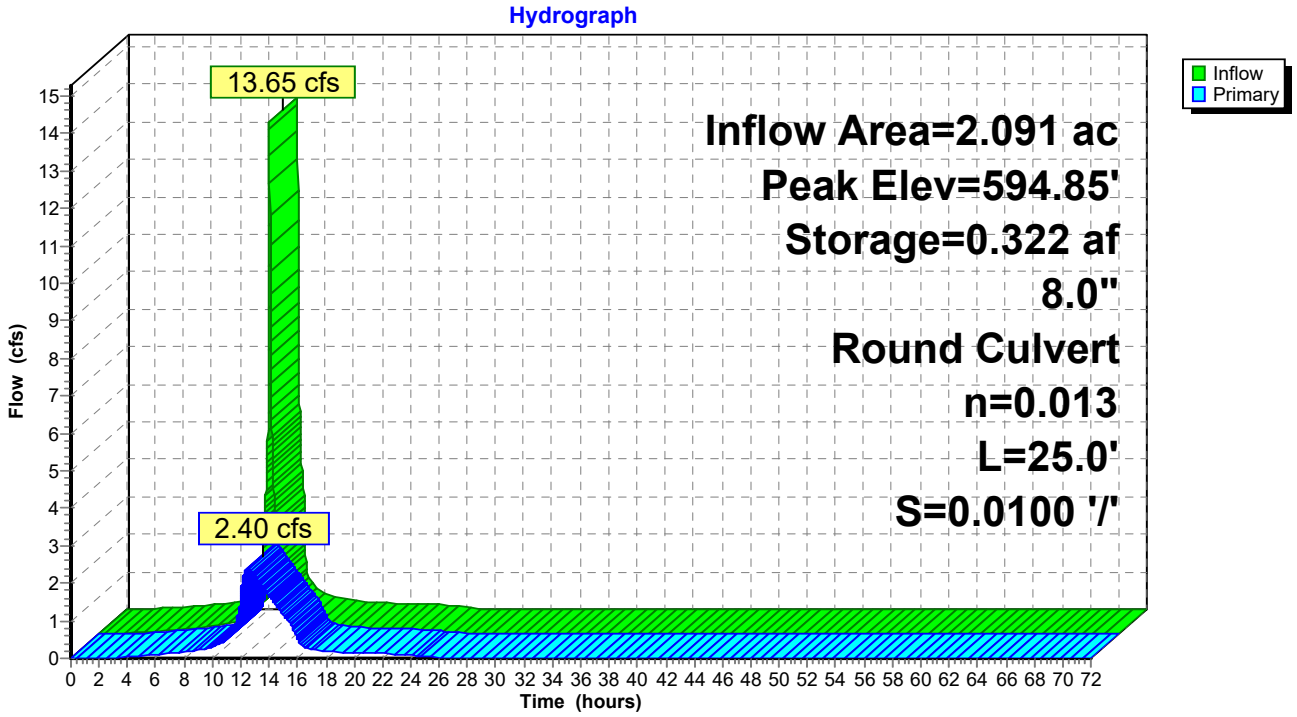
30,410.2 cf Field - 11,144.2 cf Chambers = 19,266.0 cf Stone x 40.0% Voids = 7,706.4 cf Stone Storage

Chamber Storage + Stone Storage = 18,850.6 cf = 0.433 af
Overall Storage Efficiency = 62.0%
Overall System Size = 149.10' x 37.08' x 5.50'

100 Chambers
1,126.3 cy Field
713.6 cy Stone



Pond CH-1: Chambers



Events for Subcatchment PS-1:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	0.72	0.038	0.72
10-yr	3.14	1.71	0.094	1.78
100-yr	**5.22**	**3.44**	**0.194**	**3.67**

Events for Subcatchment PS-2:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	3.74	0.194	1.40
10-yr	3.14	6.39	0.372	2.69
100-yr	**5.22**	**10.80**	**0.657**	**4.75**

Events for Subcatchment PS-3:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	0.74	0.039	0.72
10-yr	3.14	1.75	0.096	1.78
100-yr	**5.22**	**3.52**	**0.199**	**3.67**

Events for Subcatchment PS-4:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	1.28	0.065	1.15
10-yr	3.14	2.39	0.135	2.39
100-yr	**5.22**	**4.23**	**0.249**	**4.41**

Events for Subcatchment PS-5:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	1.06	0.057	1.60
10-yr	3.14	1.72	0.104	2.91
100-yr	**5.22**	**2.85**	**0.179**	**4.98**

Events for Subcatchment PS-6:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	0.37	0.020	1.60
10-yr	3.14	0.61	0.037	2.91
100-yr	**5.22**	**1.01**	**0.063**	**4.98**

Events for Subcatchment PS-7:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	2.49	0.215	0.46
10-yr	3.14	8.08	0.638	1.36
100-yr	**5.22**	**18.94**	**1.451**	**3.09**

Events for Subcatchment PS-8:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	0.40	0.047	0.46
10-yr	3.14	1.32	0.139	1.36
100-yr	**5.22**	**3.15**	**0.316**	**3.09**

Events for Reach DP-1: Design Point

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	4.12	4.12	**0.00**	**0**
10-yr	13.96	13.96	0.00	0
100-yr	**31.66**	**31.66**	0.00	0

Events for Pond BIO-1: Filtration Bioretention

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	0.72	0.02	0.02	0.00	**0.00**	598.98	994
10-yr	1.71	1.12	0.02	1.10	0.00	599.12	1,232
100-yr	**3.44**	**3.21**	**0.02**	**3.18**	0.00	**599.25**	**1,462**

Events for Pond BIO-2: Filtration Bioretention

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	0.74	0.02	0.02	0.00	**0.00**	596.95	1,010
10-yr	1.75	1.06	0.02	1.04	0.00	597.12	1,319
100-yr	**3.52**	**3.26**	**0.02**	**3.23**	0.00	**597.25**	**1,582**

Events for Pond BIO-3: Filtration Bioretention

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	1.28	0.04	0.04	0.00	**0.00**	595.92	1,729
10-yr	2.39	1.07	0.04	1.03	0.00	596.12	2,359
100-yr	**4.23**	**3.61**	**0.04**	**3.57**	0.00	**596.27**	**2,865**

Events for Pond CH-1: Chambers

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (acre-feet)
1-yr	4.80	1.18	592.38	0.079
10-yr	8.11	1.66	593.15	0.161
100-yr	**13.65**	**2.40**	**594.85**	**0.322**

APPENDIX F:
SWPPP INSPECTION REPORT
(SAMPLE FORM)

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Prepared by:
LaBella Associates
Choose an item.
Choose an item.
Choose an item.

SWPPP INSPECTION REPORT NUMBER XX
CLIENT NAME
PROJECT NAME
PROJECT ADDRESS, TOWN OF X, X COUNTY, NY
PERMIT NUMBER

Performed: 2/1/2025 @ 12:00 AM
Report Issued: 2/1/2025

Status: SATISFACTORY (All erosion control measures are installed and in working order)

Qualified Inspector (name and title)	Qualified Professional (name and title)
Click or tap to enter a date.	Click or tap to enter a date.
Date	Date
Signature	Signature

NYSDEC Documentation and SWPPP Forms

The project has received a Letter of Authorization (LOA) from NYSDEC	Choose an item.
The project has received a five acre waiver approved by NYSDEC or MS4	Choose an item.
The project currently has disturbance greater than five acres	Choose an item.
The project directly discharges to a 303d waterbody/course	Choose an item.
The project is within a phosphorus enhanced watershed	Choose an item.
Number of inspections required per week	Choose an item.

Included in Site Log Book

Preconstruction Assessment	Choose an item.
Copy of Notice of Intent (NOI)	Choose an item.
Letter of Authorization (LOA)	Choose an item.
SWPPP Preparer Certification Form	Choose an item.
Owner/Operator Certification Form	Choose an item.
MS4 SWPPP Acceptance Form	Choose an item.
NYCDEP SWPPP Acceptance/Approval Form	Choose an item.
MS4 No Jurisdiction Form	Choose an item.
Contractor and Subcontractor Certifications	Choose an item.
SPDES General Permit	Choose an item.
Five Acre Waiver Authorization	Choose an item.
Notice of Termination (NOT)	Choose an item.

Site Conditions

Total area (acres) with active soil disturbance (not requiring temporary or final stabilization)	
Total area (acres) with inactive soil disturbance (requiring temporary or final stabilization)	
Total area (acres) that has achieved temporary stabilization	
Total area (acres) that has achieved final stabilization	
Allowable disturbed area (acres) per NOI and/or five acre waiver	

Provide a general description of construction activities ongoing during inspection:

Weather Conditions	Choose an item.
Temperature at time of inspection	XX degrees F
Soil conditions at time of inspection	Choose an item.

Description of Discharge Point/Surface Waters of the State	Condition of Runoff	Sediment Discharge Noted	Corrective Action(s)
	Choose an item.	Choose an item.	
	Choose an item.	Choose an item.	
	Choose an item.	Choose an item.	
	Choose an item.	Choose an item.	

Erosion and Sediment Control Deficiencies and Corrective Actions

In the following table, provide marks in the appropriate columns to indicate the conditions of all erosion and sediment control practices at the site.

Erosion & Sediment Control Practice	Not Applicable	Functioning as Designed	Needs Repair or Maintenance	Not Installed Properly
Temporary Erosion & Sediment Control Practices				
General Site Conditions	☐	☐	☐	☐
Stabilized Construction Access	☐	☐	☐	☐
Silt Fence	☐	☐	☐	☐
Inlet Protection Measures	☐	☐	☐	☐
Soil Stockpiles	☐	☐	☐	☐
Dust Control Measures	☐	☐	☐	☐
Pavement Sweeping	☐	☐	☐	☐
Temporary Stabilization	☐	☐	☐	☐
Dewatering Operations	☐	☐	☐	☐
Slope Protection Measures	☐	☐	☐	☐
Temporary Parking Areas	☐	☐	☐	☐
Concrete Washout	☐	☐	☐	☐
Temporary Swales and Berms	☐	☐	☐	☐
Stone Check Dams	☐	☐	☐	☐
Sediment Traps/Basins	☐	☐	☐	☐
Compost Filter Sock	☐	☐	☐	☐
Temporary Stream Crossing	☐	☐	☐	☐
Fiber Roll	☐	☐	☐	☐
Water Bars	☐	☐	☐	☐
Flow Diffusers	☐	☐	☐	☐
Other:	☐	☐	☐	☐
Permanent Erosion & Sediment Control Practices				
Rock Outlet Protection	☐	☐	☐	☐
Permanent Turf Reinforcement	☐	☐	☐	☐
Permanent Stabilization	☐	☐	☐	☐
Other:	☐	☐	☐	☐
Refer to the following page for deficiencies and corrective actions				

Corrective Actions

For all erosion and sediment control practices identified in the above table as “needs repair or maintenance” or “not installed properly,” provide detailed corrective actions that are required.

ESC Practice ID	Deficiency and Corrective Action	Date Deficiency First Reported	Deficiency Corrected?	Date Deficiency Corrected
Choose an item.		Click or	Choose an	Click or tap
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Choose an item.		Click or	Choose an	Click or tap

Stormwater Management Practices

For all stormwater management practices proposed on the project, indicate the status of each practice at the time of inspection, any deficiencies (if applicable) and corresponding corrective actions.

SMP Practice ID	Sign Installed	Status	Deficiency and Corrective Action (if Applicable)	Deficiency Date	Corrected Action Date
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.

Deficiencies and Corrective Action Photo Log

Deficiency Photo 1 *ESC/SMP Practice ID:* *Deficiency Date:* Click or tap to enter a date.	***Corrective Action Photo 1*** *ESC/SMP Practice ID:* *Corrective Action Photo Date:* Click or tap to enter a date.
Deficiency Photo 2 *ESC/SMP Practice ID:* *Deficiency Date:* Click or tap to enter a date.	***Corrective Action Photo 2*** *ESC/SMP Practice ID:* *Corrective Action Photo Date:* Click or tap to enter a date.
Deficiency Photo 3 *ESC/SMP Practice ID:* *Deficiency Date:* Click or tap to enter a date.	***Corrective Action Photo 3*** *ESC/SMP Practice ID:* *Corrective Action Photo Date:* Click or tap to enter a date.

Deficiencies and Corrective Action Photo Log (continued)

Deficiency Photo 4	***Corrective Action Photo 4***
ESC/SMP Practice ID:	*ESC/SMP Practice ID:*
Deficiency Date: Click or tap to enter a date.	*Corrective Action Photo Date:* Click or tap to enter a date.
Deficiency Photo 5	***Corrective Action Photo 5***
ESC/SMP Practice ID:	*ESC/SMP Practice ID:*
Deficiency Date: Click or tap to enter a date.	*Corrective Action Photo Date:* Click or tap to enter a date.
Deficiency Photo 6	***Corrective Action Photo 6***
ESC/SMP Practice ID:	*ESC/SMP Practice ID:*
Deficiency Date: Click or tap to enter a date.	*Corrective Action Photo Date:* Click or tap to enter a date.

Disturbance / Photo Location Map

Replace this page to include an 11x17 erosion control plan sketch to scale showing:

1. Areas with active soil disturbance activity
2. Areas with inactive soil disturbance activity
3. Areas that have achieved temporary stabilization
4. Areas that have achieved final stabilization
5. Photo locations for deficiencies
6. Photo locations for corrective actions
7. Location of erosion and sediment control practices installed

Use Bluebeam template with standard colors to indicate limits

APPENDIX G:
POST-CONSTRUCTION INSPECTIONS AND MAINTENANCE

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Bioretention Stormwater Management Practices Level 1 Inspection Checklist

SMP ID #		**SMP Owner**		☐ Private ☐ Public
SMP Location (Address; Latitude & Longitude)				
	Latitude		**Longitude**	

Party Responsible for Maintenance	**System Type**		**Type of Site**
☐ Same as SMP Owner ☐ Other _____	☐ Seasonal ☐ Continuous Use ☐ Other	☐ Above Ground ☐ Below Ground	☐ Commercial ☐ Industrial ☐ Residential ☐ State

Inspection Date		**Inspection Time**	
Inspector			
Date of Last Inspection			

BR Drainage Area

Look for areas that are uphill from the Bioretention cell.

Problem (Check if Present)	**Follow-Up Actions**
 ☐ Bare soil, erosion of the ground (rills washing out the dirt)	☐ Seed and mulch areas of bare soil to establish vegetation. ☐ Fill in erosion areas with soil, compact, and seed and straw to establish vegetation. ☐ If a rill or small channel is forming, try to redirect water flowing to this area by creating a small berm or adding topsoil to areas that are heavily compacted. ☐ Other:

BR Drainage Area

Look for areas that are uphill from the Bioretention cell.

Problem (Check if Present)	Follow-Up Actions
	☐ Kick-Out to Level 2 Inspection: Large areas of soil have been eroded, or larger channels are forming. May require rerouting of flow paths.
 ☐ Piles of grass clippings, mulch, dirt, salt, or other materials	☐ Remove or cover piles of grass clippings, mulch, dirt, etc. ☐ Other:
 ☐ Open containers of oil, grease, paint, or other substances	☐ Cover or properly dispose of materials; consult your local solid waste authority for guidance on materials that may be toxic or hazardous. ☐ Other:

BR Inlets

Stand in the Bioretention cell itself and look for all the places where water flows in. Often there will be multiple points of inflow to the practice.

Problem (Check if Present)	Follow-Up Actions
 ☐ Inlets collect grit and debris or grass/weeds. Some water may not be getting into the Bioretention cell. The objective is to have a clear pathway for water to flow into the cell.	☐ Use a flat shovel to remove grit and debris (especially at curb inlets or openings). Parking lots generate fine grit that will accumulate at these spots. ☐ Pull out clumps of growing grass or weeds and scoop out the soil or grit that the plants are growing in. ☐ Remove any grass clippings, leaves, sticks, and other debris that is collecting at inlets. ☐ For pipes and ditches, remove sediment and debris that is partially blocking the pipe or ditch opening where it enters the Bioretention cell. ☐ Dispose of all material properly where it will not re-enter the Bioretention cell. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Inlets are blocked to the extent that most of the water does not seem to be entering the Bioretention cell.
 ☐ Some or all of the inlets are eroding so that rills, gullies, and other erosion is present, or there is bare dirt that is washing into the Bioretention cell.	☐ For small areas of erosion, smooth out the eroded part and apply rock or stone (e.g., river cobble) to prevent further erosion. Usually, filter fabric is placed under the rock or stone. ☐ In some cases, reseeding and applying erosion-control matting can be used to prevent further erosion. Some of these materials may be available at a garden center, but it may be best to consult a landscape contractor. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Erosion is occurring at most of the inlets, and it looks like there is too much water that is concentrating at these points. The inlet design may have to be modified.

BR Ponding Area

Examine the entire Bioretention surface and side slopes

Problem (Check if Present)	Follow-Up Actions
 ☐ Mulch (if used) needs to be replaced or replenished. The mulch layer had decomposed or is less than 1-inch thick.	☐ Add new mulch to a total depth (including any existing mulch that is left) of 2 to 3 inches. The mulch should be shredded hardwood mulch that is less likely to float away during rainstorms. ☐ Avoid adding too much mulch so that inlets are obstructed or certain areas become higher than the rest of the Bioretention surface. ☐ Other:
 ☐ Minor areas of sediment, grit, trash, or other debris are accumulating on the bottom.	☐ Use a shovel to scoop out minor areas of sediment or grit, especially in the spring after winter sanding materials may wash in and accumulate. Dispose of the material where it cannot re-enter the Bioretention cell . ☐ If removing the material creates a hole or low area, fill with soil mix that matches original mix and cover with mulch so that the Bioretention surface area is as flat as possible. ☐ Remove trash, vegetative debris, and other undesirable materials. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Sediment has accumulated more than 2-inches deep and covers 25% or more of the Bioretention surface. ☐ Kick-Out to Level 2 Inspection: The Bioretention cell is too densely vegetated to assess sediment accumulation or ponding; see BR-4, Vegetation.

BR Ponding Area

Examine the entire Bioretention surface and side slopes

Problem (Check if Present)	Follow-Up Actions
 ☐ There is erosion in the bottom or on the side slopes. Water seems to be carving out rills as it flows across the Bioretention surface or on the slopes, or sinkholes are forming in certain areas. ☐ Source: Stormwater Maintenance, LLC.	☐ Try filling the eroded areas with clean topsoil or sand, and cover with mulch. ☐ If the problem recurs, you may have to use stone (e.g., river cobble) to fill in problem areas. ☐ If the erosion is on a side slope, fill with clay that can be compacted and seed and mulch the area. ☐ Other: ☐ Kick-Out to Level 2 Inspection: The problem persists or the erosion is more than 3-inches deep and seems to be an issue with how water enters and moves through the Bioretention cell. ☐ Kick-Out to Level 2 Inspection: The problem does not seem to be caused by flowing water, but a collapse or sinking of the surface (e.g., “sinkhole”) due to some underground problem.
 ☐ The bottom of the Bioretention cell is not flat, and the water pools at one end, along an edge, or in certain pockets. The whole bottom is not uniformly covered with water. See design plan to verify that bioretention surface is intended to be flat. Check during or immediately after a rainstorm.	☐ If the problem is minor (just small, isolated areas are not covered with water), try raking the surface OR adding mulch to low spots to create a more level surface. You may need to remove and replace plantings in order to properly even off the surface. ☐ Check the surface with a string and bubble level to get the surface as flat as possible. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Ponding water is isolated to less than half of the Bioretention surface area, and there seem to be elevation differences of more than a couple of inches across the surface.

BR Ponding Area

Examine the entire Bioretention surface and side slopes

Problem (Check if Present)	Follow-Up Actions
 ☐ Water stands on the surface more than 72 hours after a rainstorm and /or wetland-type vegetation is present. The Bioretention cell does not appear to be draining properly.	☐ Kick-Out to Level 2 Inspection: This is generally a serious problem, and it will be necessary to activate a Level 2 Inspection.

BR Vegetation

Examine all Bioretention cell vegetation.

Problem (Check if Present)	Follow-Up Actions
 ☐ Vegetation requires regular maintenance—pulling weeds, removing dead and diseased plants, replacing mulch around plants, adding plants to fill in areas that are not well vegetated, etc.	☐ If you can identify which plants are weeds or not intended to be part of the planting plan, eliminate these, preferably by hand pulling. ☐ If weeds are widespread, check with the local stormwater authority and/or Extension Office about proper use of herbicides for areas connected with the flow of water. ☐ Even vegetation that is intended to be present can become large, overgrown, and/or crowd out surrounding plants. Prune and thin accordingly. ☐ If weeds or invasive plants have overtaken the whole Bioretention cell , bush-hog the entire area before seedheads form in the spring. It will be necessary to remove the root mat manually or with appropriate herbicides, as noted above. ☐ Re-plant with species that are aesthetically pleasing and seem to be doing well in the Bioretention cell. ☐ Other: ☐ Kick-Out to Level 2 Inspection: You are unsure of the original planting design, or the vegetation maintenance task is beyond your capabilities of time, expertise, or resources. If you are unsure of the health of the vegetation (e.g. salt damage, invasives, which plants are undesirable) or the appropriate season to conduct vegetation management, consult a landscape professional before undertaking any cutting, pruning, mowing, or brush hogging.

BR Vegetation

Examine all Bioretention cell vegetation.

Problem (Check if Present)	Follow-Up Actions
 ☐ Vegetation is too thin, is not healthy, and there are many spots that are not well vegetated.	☐ The original plants are likely not suited for the actual conditions within the Bioretention cell . If you are knowledgeable about plants, select and plant more appropriate vegetation (preferably native plants) so that almost the entire surface area will be covered by the end of the second growing season. ☐ Other: ☐ Kick-Out to Level 2 Inspection: For all but small practices (e.g., rain gardens), this task will likely require a landscape design professional or horticulturalist.

BR Outlets

Examine outlets that release water out of the Bioretention cell.

Problem (Check if Present)	Follow-Up Actions
☐ Erosion at outlet	☐ Add stone to reduce the impact from the water flowing out of the outlet pipe or weir during storms. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Rills have formed and erosion problem becomes more severe.
 ☐ Outlet obstructed with mulch, sediment, debris, trash, etc.	☐ Remove the debris and dispose of it where it cannot re-enter the Bioretention cell . ☐ Other: ☐ Kick-Out to Level 2 Inspection: Outlet is completely clogged or obstructed; there is too much material to remove by hand or with simple hand tools.

Additional Notes:

Inspector:_____ Date: _____

Complete the following if follow-up/corrective actions were identified during this inspection:

Certified Completion of Follow-Up Actions:

"I hereby certify that the follow-up/corrective actions identified in the inspection performed on _____ (DATE) have been completed and any required maintenance deficiencies have been adequately corrected."

Inspector/Operator: _____ Date: _____

Bioretention Stormwater Management Practices Level 2 Inspection Checklist

SMP ID #		**SMP Owner**		☐ Private ☐ Public
SMP Location (Address; Latitude & Longitude)				
	Latitude		**Longitude**	

Party Responsible for Maintenance	**System Type**		**Type of Site**
☐ Same as SMP Owner ☐ Other _____	☐ Seasonal ☐ Continuous Use ☐ Other	☐ Above Ground ☐ Below Ground	☐ Commercial ☐ Industrial ☐ Residential ☐ State

Inspection Date		**Inspection Time**	
Inspector			
Date of Last Inspection			

Level 2 Inspection: BIORETENTION NOTE: Key Source for this Information *(CSN, 2013)*	
Recommended Repairs	**Triggers for Level 3 Inspection**
Observed Condition: Water Stands on Surface for More than 72 Hours after Storm	
☐ Condition 1: Small pockets of standing water Use a soil probe or auger to examine the soil profile. If isolated areas have accumulated grit, fines, or vegetative debris or have bad soil media, try scraping off top 3 inches of media and replacing with clean material. Also check to see that surface is level and water is not ponding selectively in certain areas. ☐ Condition 2: Standing water is widespread or covers entire surface Requires diagnosis and resolution of problem: • Clogged underdrain? • Filter fabric between soil media and underdrain stone? • Need to install underdrain if not present? • Too much sediment/grit washing in from drainage area? • Too much ponding depth? • Improper soil media?	• Soil media is clogged and problem is not evident from Level 2 inspection. • Level 2 inspection identifies problem, but it cannot be resolved easily or is associated with the original design of the practice. ☐ Level 3 inspection necessary
Observed Condition: Vegetation is sparse or out of control	
☐ Condition 1: Original design planting plan seems good but has not been maintained, so there are many invasives and/or dead plants Will require some horticultural experience to restore vegetation to intended condition by weeding, pruning, removing plants, and adding new plants. ☐ Condition 2: Original design planting plan is unknown or cannot be actualized A landscape architect or horticulturalist will be needed to redo the planting plan. Will likely require analysis of soil pH, moisture, organic content, sun/shade, and other conditions to make sure plants match conditions. Plan should include invasive plant management and maintenance plan to include mulching, watering, disease intervention, periodic thinning/pruning, etc.	• Vegetation deviates significantly from original planting plan; Bioretention has been neglected and suffered from deferred maintenance. • Owner/responsible party does not know how to maintain the practice. ☐ Level 3 inspection necessary
Observed Condition: Bioretention does not conform to original design plan in surface area or storage	
☐ Condition 1: Level 2 Inspection reveals that practice is too small based on design dimension, does not have adequate storage (e.g., ponding depth) based on the plan, and/or does not treat the drainage area runoff as indicated on the plan Small areas of deviation can be corrected by the property owner or responsible party, but it is likely that a Qualified Professional will have to revisit the design and attempt a redesign that meets original objectives or that can be resubmitted to the municipality for approval.	• More than a 25% departure from the approved plan in surface area, storage, or drainage area; sometimes less than this threshold at the discretion of the Level 2 inspector. ☐ Level 3 inspection necessary

Level 2 Inspection: BIORETENTION NOTE: Key Source for this Information *(CSN, 2013)*	
Recommended Repairs	**Triggers for Level 3 Inspection**
Observed Condition: Severe erosion of filter bed, inlets, or around outlets	
☐ Condition 1: Erosion at inlets The lining (e.g., grass, matting, stone, rock) may not be adequate for the actual flow velocities coming through the inlets. First line of defense is to try a more non-erosive lining and/or to extend the lining further down to where inlet slopes meet the Bioretention surface. If problem persists, analysis by a Qualified Professional is warranted. ☐ Condition 2: Erosion of Bioretention filter bed This is often caused by "preferential flow paths" through and along the Bioretention surface. The source of flow should be analyzed and methods employed to dissipate energy and disperse the flow (e.g., check dams, rock splash pads). ☐ Condition 3: Erosion on side slopes Again, the issue is likely linked with unanticipated flow paths down the side slopes (probably overland flow that concentrates as it hits the edge of the slope). For small or isolated areas, try filling, compacting, and re-establishing healthy ground cover vegetation. If the problem is more widespread, further analysis is required to determine how to redirect the flow.	• Erosion (rills, gullies) is more than 12 inches deep at inlets or the filter bed or more than 3 inches deep on side slopes. • If the issue is not caused by moving water but some sort of subsurface defect. This may manifest as a sinkhole or linear depression and be associated with problems with the underdrain stone or pipe or underlying soil. ☐ Level 3 inspection necessary
Observed Condition: Significant sediment accumulation, indicating an uncontrolled source of sediment	
☐ Condition 1: Isolated areas of sediment accumulation, generally less than 3-inches deep Sediment source may be from a one-time or isolated event. Remove accumulated sediment and top 2 to 3 inches of Bioretention soil media; replace with clean material. Check drainage area for any ongoing sources of sediment. ☐ Condition 2: Majority of the surface is caked with "hard pan" (thin layer of clogging material) or accumulated sediment that is 3-inches deep or more This can be caused by an improper construction sequence (drainage area not fully stabilized prior to installation of Bioretention soil media) or another chronic source of sediment in the drainage area. Augering several holes down through the media can indicate how severe the problem is; often the damage is confined to the first several inches of soil media. Removing and replacing this top layer (or to the depth where sediment incursion is seen in auger holes) can be adequate, as long as the problem does not recur.	• More than 2 inches of accumulated sediment cover 25% or more of the Bioretention surface area. • "Hard pan" of thin, crusty layer covers majority of Bioretention surface area and seems to be impeding flow of water down through the soil media. • New sources of sediment seem to be accumulating with each significant rainfall event. ☐ Level 3 inspection necessary

Notes:

Inspector:_____ Date: _____

Complete the following if follow-up/corrective actions were identified during this inspection:

Certified Completion of Follow-Up Actions:

"I hereby certify that the follow-up/corrective actions identified in the inspection performed on _____ (DATE) have been completed and any required maintenance deficiencies have been adequately corrected."

Inspector/Operator: _____ Date: _____

APPENDIX E:
NYSDEC "DEEP-RIPPING AND DECOMPACTION," APRIL 2008

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New York State
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water

Deep-Ripping and Decompaction

April 2008

Document Prepared by:

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New York State
Department of Environmental Conservation

Alternative Stormwater Management
Deep-Ripping and Decompaction

Description

The two-phase practice of 1) “Deep Ripping;” and 2) “Decompaction” (deep subsoiling), of the soil material as a step in the cleanup and restoration/landscaping of a construction site, helps mitigate the physically induced impacts of soil compression; i.e.: soil compaction or the substantial increase in the bulk density of the soil material.

Deep Ripping and Decompaction are key factors which help in restoring soil pore space and permeability for water infiltration. Conversely, the physical actions of cut-and-fill work, land grading, the ongoing movement of construction equipment and the transport of building materials throughout a site alter the architecture and structure of the soil, resulting in: the mixing of layers (horizons) of soil materials, compression of those materials and diminished soil porosity which, if left unchecked, severely impairs the soil’s water holding capacity and vertical drainage (rainfall infiltration), from the surface downward.

In a humid climate region, compaction damage on a site is virtually guaranteed over the duration of a project. Soil in very moist to wet condition when compacted, will have severely reduced permeability. Figure 1 displays the early stage of the deep-ripping phase (Note that all topsoil was stripped prior to construction access, and it remains stockpiled until the next phase – decompaction – is complete). A heavy-duty tractor is pulling a three-shank ripper on the first of several series of incrementally deepening passes through the construction access corridor's densely compressed subsoil material. Figure 2 illustrates the approximate volumetric composition of a loam surface soil when conditions are good for plant growth, with adequate natural pore space for fluctuating moisture conditions.



Fig. 1. A typical deep ripping phase of this practice, during the first in a series of progressively deeper “rips” through severely compressed subsoil.

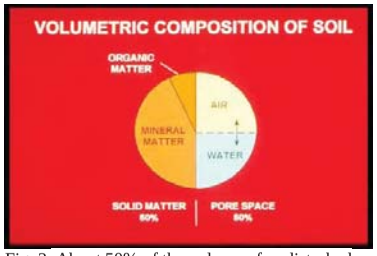


Fig. 2. About 50% of the volume of undisturbed loam surface soil is pore space, when soil is in good condition for plant growth. Brady, 2002.

Recommended Application of Practice



Fig. 3. Construction site with significant compaction of the deep basal till subsoil extends 24 inches below this exposed cut-and-fill work surface.

The objective of Deep Ripping and Decompaction is to effectively fracture (vertically and laterallly) through the thickness of the physically compressed subsoil material (see Figure 3), restoring soil porosity and permeability and aiding infiltration to help reduce runoff. Together with topsoil stripping, the “two-phase” practice of Deep Ripping and Decompaction first became established as a “best management practice” through ongoing success on commercial farmlands affected by heavy utility construction right-of-way projects (transmission pipelines and large power lines).

Soil permeability, soil drainage and cropland productivity were restored. For broader construction application, the two-phase practice of Deep Ripping and Decompaction is best adapted to areas impacted with significant soil compaction, on contiguous open portions of large construction sites and inside long, open construction corridors used as temporary access over the duration of construction. Each mitigation area should have minimal above-and-below-ground obstructions for the easy avoidance and maneuvering of a large tractor and ripping/decompacting implements. Conversely, the complete two-phase practice is not recommended in congested or obstructed areas due to the limitations on tractor and implement movement.

Benefits

Aggressive “deep ripping” through the compressed thickness of exposed subsoil before the replacement/respreading of the topsoil layer, followed by “decompaction,” i.e.: “sub-soiling,” through the restored topsoil layer down into the subsoil, offers the following benefits:

- Increases the project (larger size) area’s direct surface infiltration of rainfall by providing the open site’s mitigated soil condition and lowers the demand on concentrated runoff control structures
- Enhances direct groundwater recharge through greater dispersion across and through a broader surface than afforded by some runoff-control structural measures
- Decreases runoff volume generated and provides hydrologic source control
- May be planned for application in feasible open locations either alone or in

conjunction with plans for structural practices (e.g., subsurface drain line or infiltration basin) serving the same or contiguous areas

- Promotes successful long-term revegetation by restoring soil permeability, drainage and water holding capacity for healthy (rather than restricted) root-system development of trees, shrubs and deep rooted ground cover, minimizing plant drowning during wet periods and burnout during dry periods.

Feasibility/Limitations

The effectiveness of Deep Ripping and Decompaction is governed mostly by site factors such as: the original (undisturbed) soil's hydrologic characteristics; the general slope; local weather/timing (soil moisture) for implementation; the space-related freedom of equipment/implement maneuverability (noted above in **Recommended Application of Practice**), and by the proper selection and operation of tractor and implements (explained below in **Design Guidance**). The more notable site-related factors include:

Soil
In the undisturbed condition, each identified soil type comprising a site is grouped into one of four categories of soil hydrology, Hydrologic Soil Group A, B, C or D, determined primarily by a range of characteristics including soil texture, drainage capability when thoroughly wet, and depth to water table. The natural rates of infiltration and transmission of soil-water through the undisturbed soil layers for Group A is "high" with a low runoff potential while soils in Group B are moderate in infiltration and the transmission of soil-water with a moderate runoff potential, depending somewhat on slope. Soils in Group C have slow rates of infiltration and transmission of soil-water and a moderately high runoff potential influenced by soil texture and slope; while soils in Group D have exceptionally slow rates of infiltration and transmission of soil-water, and high runoff potential.

In Figure 4, the profile displays the undisturbed horizons of a soil in Hydrologic Soil Group C and the naturally slow rate of infiltration through the subsoil. The slow rate of infiltration begins immediately below the topsoil horizon (30 cm), due to the limited amount of macro pores, e.g.: natural subsoil fractures, worm holes and root channels. Infiltration after the construction-induced mixing and compression of such subsoil material is virtually absent; but can be restored back to this natural level with the two-phase practice of deep ripping and decompaction, followed by the permanent establishment of an appropriate, deep taproot

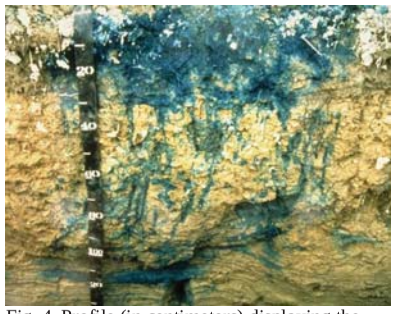


Fig. 4. Profile (in centimeters) displaying the infiltration test result of the natural undisturbed horizons of a soil in Hydrologic Soil Group C.

lawn/ground cover to help maintain the restored subsoil structure. Infiltration after construction-induced mixing and compression of such subsoil material can be notably rehabilitated with the Deep Ripping and Decompaction practice, which prepares the site for the appropriate long-term lawn/ground cover mix including deep taproot plants such as clover, fescue or trefoil, etc. needed for all rehabilitated soils.

Generally, soils in Hydrologic Soil Groups A and B, which respectively may include deep, well-drained, sandy-gravelly materials or deep, moderately well-drained basal till materials, are among the easier ones to restore permeability and infiltration, by deep ripping and decompaction. Among the many different soils in Hydrologic Soil Group C are those unique glacial tills having a natural fragipan zone, beginning about 12 to 18 inches (30 – 45cm), below surface. Although soils in Hydrologic Soil Group C do require a somewhat more carefully applied level of the Deep Ripping and Decompaction practice, it can greatly benefit such affected areas by reducing the runoff and fostering infiltration to a level equal to that of pre-disturbance.

Soils in Hydrologic Soil Group D typically have a permanent high water table close to the surface, influenced by a clay or other highly impervious layer of material. In many locations with clay subsoil material, the bulk density is so naturally high that heavy trafficking has little or no added impact on infiltration; and structural runoff control practices rather than Deep Ripping and Decompaction should be considered.

The information about Hydrologic Soil Groups is merely a general guideline. Site-specific data such as limited depths of cut-and-fill grading with minimal removal or translocation of the inherent subsoil materials (as analyzed in the county soil survey) or, conversely, the excavation and translocation of deeper, unconsolidated substratum or consolidated bedrock materials (unlike the analyzed subsoil horizons' materials referred to in the county soil survey) should always be taken into account.

Sites made up with significant quantities of large rocks, or having a very shallow depth to bedrock, are not conducive to deep ripping and decompation (subsoiling); and other measures may be more practical.

Slope
The two-phase application of 1) deep ripping and 2) decompaction (deep subsoiling), is most practical on flat, gentle and moderate slopes. In some situations, such as but not limited to temporary construction access corridors, inclusion areas that are moderately steep along a project's otherwise gentle or moderate slope may also be deep ripped and decompacted. For limited instances of moderate steepness on other projects, however, the post-construction land use and the relative alignment of the potential ripping and decompaction work in relation to the lay of the slope should be reviewed for safety and practicality. In broad construction areas predominated by moderately steep or steep slopes, the practice is generally not used.

Local Weather/Timing/Soil Moisture
Effective fracturing of compressed subsoil material from the exposed work surface, laterally and vertically down through the affected zone is achieved only when the soil material is moderately dry to moderately moist. Neither one of the two-phases, deep ripping nor decompaction (deep

subsoiling), can be effectively conducted when the soil material (subsoil or replaced topsoil) is in either a “plastic” or “liquid” state of soil consistency. Pulling the respective implements legs through the soil when it is overly moist only results in the “slicing and smearing” of the material or added “squeezing and compression” instead of the necessary fracturing. Ample drying time is needed for a “rippable” soil condition not merely in the material close to the surface, but throughout the material located down to the bottom of the physically compressed zone of the subsoil.

The “poor man’s Atterberg field test” for soil plasticity is a simple “hand-roll” method used for quick, on-site determination of whether or not the moisture level of the affected soil material is low enough for: effective deep ripping of subsoil; respreading of topsoil in a friable state; and final decompaction (deep subsoiling). Using a sample of soil material obtained from the planned bottom depth of ripping, e.g.: 20 - 24 inches below exposed subsoil surface, the sample is hand rolled between the palms down to a 1/8-inch diameter thread. (Use the same test for stored topsoil material before respreading on the site.) If the respective soil sample crumbles apart in segments no greater than 3/8 of an inch long, by the time it is rolled down to 1/8 inch diameter, it is low enough in moisture for deep ripping (or topsoil replacement), and decompaction. Conversely, as shown in Figure 5, if the rolled sample stretches out in increments greater than 3/8 of an inch long before crumbling, it is in a “plastic” state of soil consistency and is too wet for subsoil ripping (as well as topsoil replacement) and final decompaction.



Fig. 5. Augered from a depth of 19 inches below the surface of the replaced topsoil, this subsoil sample was hand rolled to a 1/8-inch diameter. The test shows the soil at this site stretches out too far without crumbling; it indicates the material is in a plastic state of consistence, too wet for final decompaction (deep subsoiling) at this time.

Design Guidance

Beyond the above-noted site factors, a vital requirement for the effective Deep Ripping and Decompaction (deep subsoiling), is implementing the practice in its distinct, two-phase process:

1) Deep rip the affected thickness of exposed subsoil material (see Figure 10 and 11), aggressively fracturing it before the protected topsoil is reapplied on the site (see Figure 12); and

2) Decompact (deep subsoil), simultaneously through the restored topsoil layer and the upper half of the affected subsoil (Figure 13). The second phase, “decompaction,” mitigates the partial recompaction which occurs during the heavy process of topsoil spreading/grading. Prior to deep ripping and decompacting the site, all construction activity, including construction equipment and material storage, site cleanup and trafficking (Figure 14), should be finished; and the site closed off to further disturbance. Likewise, once the practice is underway and the area’s soil permeability and

rainfall infiltration are being restored, a policy limiting all further traffic to permanent travel lanes is maintained.

The other critical elements, outlined below, are: using the proper implements (deep, heavy-duty rippers and subsoilers), and ample pulling-power equipment (tractors); and conducting the practice at the appropriate speed, depth and pattern(s) of movement.

Note that an appropriate plan for the separate practice of establishing a healthy perennial ground cover, with deep rooting to help maintain the restored soil structure, should be developed in advance. This may require the assistance of an agronomist or landscape horticulturist.

Implements

Avoid the use of all undersize implements. The small-to-medium, light-duty tool will, at best, only “scarify” the uppermost surface portion of the mass of compacted subsoil material. The term “chisel plow” is commonly but incorrectly applied to a broad range of implements. While a few may be adapted for the moderate subsoiling of non-impacted soils, the majority are less durable and used for only lighter land-fitting (see Figure 6).



Fig. 6. A light duty chisel implement, not adequate for either the deep ripping or decompaction (deep subsoiling) phase.



Fig. 7. One of several variations of an agricultural ripper. This unit has long, rugged shanks mounted on a steel V-frame for deep, aggressive fracturing through Phase 1.

Use a “heavy duty” agricultural-grade, deep ripper (see Figures 7,9,10 and 11) for the first phase: the lateral and vertical fracturing of the mass of exposed and compressed subsoil, down and through, to the bottom of impact, prior to the replacement of the topsoil layer. (Any oversize rocks which are uplifted to the subsoil surface during the deep ripping phase are picked and removed.) Like the heavy-duty class of implement for the first phase, the decompaction (deep subsoiling) of Phase 2 is conducted with the heavy-duty version of the deep subsoiler. More preferable is the angled-leg variety of deep subsoiler (shown in Figures 8 and 13). It minimizes the inversion of the subsoil and topsoil layers while laterally and vertically fracturing the upper half of the previously ripped subsoil layer and all of the topsoil layer by delivering a momentary, wave-like “lifting and shattering” action up through the soil layers as it is pulled.

Pulling-Power of Equipment
Use the following rule of thumb for tractor horsepower (hp) whenever deep ripping and decompacting a significantly impacted site: For both types of implement, have at least 40 hp of tractor pull available for each mounted shank/ leg.

Using the examples of a 3-shank and a 5-shank implement, the respective tractors should have 120 and 200 hp available for fracturing down to the final depth of 20-to-24 inches per phase. Final depth for the deep ripping in Phase 1 is achieved incrementally by a progressive series of passes (see Depth and Patterns of Movement, below); while for Phase 2, the full operating depth of the deep subsoiler is applied from the beginning.

The operating speed for pulling both types of implement should not exceed 2 to 3 mph. At this slow and managed rate of operating speed, maximum functional performance is sustained by the tractor and the implement performing the soil fracturing. Referring to Figure 8, the implement is the 6-leg version of the deep angled-leg subsoiler. Its two outside legs are "chained up" so that only four legs will be engaged (at the maximum depth), requiring no less than 160 hp, (rather than 240 hp) of pull. The 4-wheel drive, articulated-frame tractor in Figure 8 is 174 hp. It will be decompacting this unobstructed, former construction access area simultaneously through 11 inches of replaced topsoil and the upper 12 inches of the previously deep-ripped subsoil. In constricted areas of Phase 1) Deep Ripping, a medium-size tractor with adequate hp, such as the one in Figure 9 pulling a 3-shank deep ripper, may be more maneuverable.


Fig. 8. A deep, angled-leg subsoiler, ideal for Phase 2 decompaction of after the topsoil layer is graded on top of the ripped subsoil.


Fig. 9. This medium tractor is pulling a 3-shank deep ripper. The severely compacted construction access corridor is narrow, and the 120 hp tractor is more maneuverable for Phase 1 deep ripping (subsoil fracturing), here.

Some industrial-grade variations of ripping implements are attached to power graders and bulldozers. Although highly durable, they are generally not recommended. Typically, the shanks or "teeth" of these rippers are too short and stout; and they are mounted too far apart to achieve the well-distributed type of lateral and vertical fracturing of the soil materials necessary to restore soil permeability and infiltration. In addition, the power graders and bulldozers, as pullers, are far less maneuverable for turns and patterns than the tractor.

Depth and Patterns of Movement
As previously noted both Phase 1 Deep Ripping through significantly compressed, exposed subsoil and Phase 2 Decompaction (deep subsoiling) through the replaced topsoil and upper subsoil need to be performed at maximum capable depth of each implement. With an implement's guide wheels attached, some have a "normal" maximum operating depth of 18 inches, while others may go deeper. In many situations, however, the tractor/implement operator must first remove the guide wheels and other non essential elements from the implement. This adapts the ripper or the deep subsoiler for skillful pulling with its frame only a few inches above surface, while the shanks or legs, fracture the soil material 20-to-24 inches deep.

There may be construction sites where the depth of the exposed subsoil's compression is moderate, e.g.: 12 inches, rather than deep. This can be verified by using a ¾ inch cone penetrometer and a shovel to test the subsoil for its level of compaction, incrementally, every three inches of increasing depth. Once the full thickness of the subsoil's compacted zone is finally "pieced" and there is a significant drop in the psi measurements of the soil penetrometer, the depth/thickness of compaction is determined. This is repeated at several representative locations of the construction site. If the thickness of the site's subsoil compaction is verified as, for example, ten inches, then the Phase 1 Deep Ripping can be correspondingly reduced to the implement's minimum operable depth of 12 inches. However, the Phase 2 simultaneous Decompation (subsoiling) of an 11 inch thick layer of replaced topsoil and the upper subsoil should run at the subsoiling implements full operating depth.


Fig. 10. An early pass with a 3-shank deep ripper penetrating only 8 inches into this worksite's severely compressed subsoil.


Fig. 11. A repeat run of the 3-shank ripper along the same patterned pass area as Fig. 9; here, incrementally reaching 18 of the needed 22 inches of subsoil fracture.

Typically, three separate series (patterns) are used for both the Phase 1 Deep Ripping and the Phase 2 Decompaction on significantly compacted sites. For Phase 1, each series begins with a moderate depth of rip and, by repeat-pass, continues until full depth is reached. Phase 2 applies the full depth of Decompation (subsoiling), from the beginning.

Every separate series (pattern) consists of parallel, forward-and-return runs, with each progressive

pass of the implement's legs or shanks evenly staggered between those from the previous pass. This compensates for the shank or leg-spacing on the implement, e.g., with 24-to-30 inches between each shank or leg. The staggered return pass ensures lateral and vertical fracturing actuated every 12 to 15 inches across the densely compressed soil mass.

Large, Unobstructed Areas
For larger easy areas, use the standard patterns of movement:

- The first series (pattern) of passes is applied lengthwise, parallel with the longest spread of the site; gradually progressing across the site's width, with each successive pass.

- The second series runs obliquely, crossing the first series at an angle of about 45 degrees.

- The third series runs at right angle (or 90 degrees), to the first series to complete the fracturing and shattering on severely compacted sites, and avoid leaving large unbroken blocks of compressed soil material. (In certain instances, the third series may be optional, depending on how thoroughly the first two series loosen the material and eliminate large chunks/blocks of material as verified by tests with a ¾-inch cone penetrometer.)



Fig. 12. Moderately dry topsoil is being replaced on the affected site now that Phase 1 deep ripping of the compressed subsoil is complete.



Fig. 13. The same deep, angled-leg subsoiler shown in Fig. 7 is engaged at maximum depth for Phase 2, decompaction (deep soiling), of the replaced topsoil and the upper subsoil materials.

Corridors
In long corridors of limited width and less maneuverability than larger sites, e.g.: along compacted areas used as temporary construction access, a modified series of pattern passes are used.

- First, apply the same initial lengthwise, parallel series of passes described above.

- A second series of passes makes a broad "S" shaped pattern of rips, continually and gradually alternating the "S" curves between opposite edges inside the compacted corridor.

- The third and final series again uses the broad, alternating S pattern, but it is "flip-flopped" to continually cross the previous S pattern along the corridor's centerline. This final series of the S pattern curves back along the edge areas skipped by the second series.

Maintenance and Cost

Once the two-phase practice of Deep Ripping and Decompation is completed, two items are essential for maintaining a site's soil porosity and permeability for infiltration. They are: planting and maintaining the appropriate ground cover with deep roots to maintain the soil structure (see Figure 15); and keeping the site free of traffic or other weight loads.

Note that site-specific choice of an appropriate vegetative ground-cover seed mix, including the proper seeding ratio of one or more perennial species with a deep taproot system and the proper amount of lime and soil nutrients (fertilizer mix) adapted to the soil-needs, are basic to the final practice of landscaping, i.e: surface tillage, seeding/planting/fertilizing and culti-packing or mulching is applied. The "maintenance" of an effectively deep-ripped and decompacted area is generally limited to the successful perennial (long-term) landscape ground cover; as long as no weight-bearing force of soil compaction is applied.



Fig. 14. The severely compacted soil of a temporary construction yard used daily by heavy equipment for four months; shown before deep ripping, topsoil replacement, and decompaction.



Fig. 15. The same site as Fig. 14 after deep ripping of the exposed subsoil, topsoil replacement, decompaction through the topsoil and upper subsoil and final surface tillage and revegetation to maintain soil permeability and infiltration.

The Deep Ripping and Decompaction practice is, by necessity, more extensive than periodic subsoiling of farmland.The cost of deep ripping and decompacting (deep subsoiling), will vary according to the depth and severity of soil-material compression and the relative amount of tractor and implement time that is required. In some instances, depending on open maneuverability, two-to-three acres of compacted project area may be deep-ripped in one day. In other situations of more severe compaction and - or less maneuverability, as little as one acre may be fully ripped in a day. Generally, if the Phase 1) Deep Ripping is fully effective, the Phase 2) Decompaction should be completed in 2/3 to 3/4 of the time required for Phase 1.

Using the example of two acres of Phase 1) Deep Ripping in one day, at $1800 per day, the net cost is $900 per acre. If the Phase 2) Decompacting or deep subsoiling takes 3/4 the time as Phase 1, it costs $675 per acre for a combined total of $1575 per acre to complete the practice (these figures do not include the cost of the separate practice of topsoil stripping and replacement). Due to the many variables, it must be recognized that cost will be determined by the specific conditions or constraints of the site and the availability of proper equipment.

Resources

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- Union Gas Limited, Ontario, Canada. 1984. *Rehabilitation of Agricultural Lands, Dawn-Kerwood Loop Pipeline; Technical Report.* Ecological Services for Planning, Ltd.; Robinson, Merritt & Devries, Ltd. and Smith, Hoffman Associates, Ltd.
- US Department of Agriculture in cooperation with Cornell University Agricultural Experiment Station. Various years. *Soil Survey of (various names) County, New York.* USDA.

Internet Access:

- Examples of implements:

V-Rippers. Access by internet search of *John Deere Ag -New Equipment for 915* (larger-frame model) *V-Rippe*; and, *for 913* (smaller-frame model) *V-Ripper*. Deep, angled-leg subsoiler. Access by internet search of: B*igham Brothers Shear Bolt Paratill-Subsoiler.* http://salesmanual.deere.com/sales/salesmanual/en_NA/primary_tillage/2008/feature/rippers/915v_pattern_frame.html?sbu=ag&link=prodcat Last visited March 08.

- Soils data of USDA Natural Resources Conservation Service. *NRCS Web Soil Survey.* http://websoilsurvey.nrcs.usda.gov/app/ and *USDA-NRCS Official Soil Series Descriptions; View by Name.* http://ortho.ftw.nrcs.usda.gov/cgi-bin/osd/osdname.cgi . *Last visited Jan. 08.*
- Soil penetrometer information. Access by internet searches of: *Diagnosing Soil Compaction using a Penetrometer (soil compaction tester), PSU Extension;* as well as *Dickey-john Soil Compaction Tester.* http://www.dickey-johnproducts.com/pdf/SoilCompactionTest.pdf and http://cropsoil.psu.edu/Extension/Facts/uc178pdf Last visited Sept. 07

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APPENDIX F: LABELLA CERTIFYING PROFESSIONALS LETTER

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February 21, 2025

RE: LaBella Certifying Professionals for NYSDEC SPDES GP-0-25-001

To Whom it May Concern:

In accordance with the NYSDEC SPDES General Permit GP-0-25-001, Part VII.J.2, Kristopher Winkler, PE, a New York State Qualified Professional employed by LaBella Associates, is duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), Notice of Intents (NOIs) and Notice of Terminations (NOTs).

Respectfully submitted,

LaBella Associates

Timothy Webber
Vice President, Civil Division Director

Kristopher Winkler, PE
Senior Civil Engineer
Team Leader

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APPENDIX G:
NYSDEC SPDES GENERAL PERMIT GP-0-25-001

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NEW YORK STATE | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION (NYSDEC)

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP-0-25-001

Construction General Permit (CGP)

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2025 Expiration Date: January 28, 2030

Scott E. Sheeley

Chief Permit Administrator

Scott E. Sheeley JAN. 29, 2025

Authorized Signature Date

Address: NYSDEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (CWA), and 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), *stormwater discharges* from certain *construction activities* are unlawful unless they are authorized by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. New York State administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7 and 8, and Article 70, as well as 6 NYCRR Parts 621 and 750.

Construction activities constitute construction of a *point source* and, therefore, pursuant to ECL sections 17-0505, 17-0701, and 17-0803, the *owner or operator* must have coverage under a SPDES permit prior to *commencement of construction activities*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES CONSTRUCTION GENERAL PERMIT (CGP) GP-0-25-001
FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part I. How to Obtain Coverage and General Requirements

To be covered under this permit, the *owner or operator* must meet all eligibility requirements in Part I.A. and follow the requirements for obtaining permit coverage in Part I.D., F., or G.

A. Eligibility Requirements

For a *common plan of development or sale*, the *phase(s)* that meet the eligibility requirements in Part I.A. may obtain coverage under this permit even if other *phase(s)* of the same *common plan of development or sale* do not meet the eligibility requirements and require an individual SPDES permit.

1. The *owner's or operator's construction activities* involve soil disturbances of:
    a. one or more acres; or
    b. less than one acre which are part of a *common plan of development or sale* that will ultimately disturb one or more acres; or
    c. less than one acre where NYSDEC has determined that a SPDES permit is required for *stormwater discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of pollutants to *surface waters of the State*.
        i. 5,000 square feet or more, but less than one acre, and are in the New York City Watershed located east of the Hudson River, Appendix C Figure 1; or
        ii. 20,000 square feet or more, but less than one acre, within the municipal boundaries of the City of New York (NYC); or
        iii. less than 20,000 square feet which are part of a *common plan of development or sale* that will ultimately disturb 20,000 square feet or more, but less than one acre, within the municipal boundaries of NYC; or
        iv. that creates 5,000 square feet or more of *impervious area* within the municipal boundaries of NYC.

2. *Discharges* from the *owner's or operator's construction activities* are/were not:
    a. already covered by a different SPDES permit; or
    b. covered under a different SPDES permit that was denied, terminated, or revoked; or
    c. identified in an expired individual SPDES permit that was not renewed; or
    d. required to obtain an individual SPDES permit or another general SPDES permit in accordance with Part VII.K.
3. If *construction activities* may adversely affect a species that is endangered or threatened, the *owner or operator* must obtain a:
    a. permit issued pursuant to 6 NYCRR Part 182 for the project; or
    b. letter issued by NYSDEC of non-jurisdiction pursuant to 6 NYCRR Part 182 for the project.
4. If *construction activities* have the potential to affect an *historic property*, the *owner or operator* must obtain one of the following:
    a. documentation that the *construction activity* is not within an archeological buffer area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:
        i. 1-5 acres of disturbance - 20 feet; or
        ii. 5-20 acres of disturbance - 50 feet; or

iii. 20+ acres of disturbance - 100 feet.

b. NYSDEC consultation form sent to OPRHP,[1] and copied to NYSDEC's Agency Historic Preservation Officer (APO), and

i. the State Environmental Quality Review Act (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or

ii. documentation from OPRHP that the *construction activity* will result in No Impact; or

iii. documentation from OPRHP providing a determination of No Adverse Impact; or

iv. a Letter of Resolution signed by the *owner or operator*, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA).

c. documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

i. No Affect; or

ii. No Adverse Affect; or

iii. Executed Memorandum of Agreement.

d. documentation that SHPA Section 14.09 has been completed by NYSDEC or another state agency.

5. If *construction activities* are subject to SEQR, the *owner or operator* must obtain documentation that SEQR has been satisfied.

6. If *construction activities* are not subject to SEQR, but subject to the equivalent environmental review from another New York State or federal agency, the

[1] The consultation form can be submitted, along with other project information, through OPRHP's Cultural Resource Information System (CRIS) portal. If submitted through CRIS, paper copies of the consultation form need not be mailed.

owner or operator must obtain documentation that project review, pursuant to a process equivalent to SEQR from another New York State or federal agency, has been satisfied.

7. If *construction activities* require Uniform Procedures Act (UPA) Permits (see 6 NYCRR Part 621) from NYSDEC, or the equivalent from another New York State or federal agency, the *owner or operator* must:

a. obtain all such necessary permits; or

b. receive notification from NYSDEC pursuant to 6 NYCRR 621.3(a)(4) excepting Part I.A.7.a.

8. *Construction activities* are not eligible if they meet the following criteria in Part I.A.8.a. or b.:

a. For linear transportation and linear utility project types, the *construction activities*:

i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

ii. are undertaken on land with no existing *impervious cover*; and

iii. disturb two or more acres of *steep slope*.

b. For all other project types, the *construction activities*:

i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

ii. are undertaken on land with no existing *impervious cover*; and

iii. disturb one or more acres of *steep slope*.

B. Types of *Discharges* Authorized

1. The following *stormwater discharges* are authorized under this permit:

   a. *Stormwater discharges*, including *stormwater* runoff, snowmelt runoff, and surface runoff and drainage, associated with *construction activity*, are authorized under this permit provided that appropriate *stormwater* controls are designed, installed, and maintained in accordance with Part II. and Part III.

   b. *Stormwater discharges* from construction support activities at the *construction site* (including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and borrow areas) if the following requirements are met:

      i. The support activity is directly related to the *construction site* required to have permit coverage for *stormwater discharges*; and

      ii. The support activity is not a commercial operation, nor does it serve multiple unrelated *construction sites*; and

      iii. The support activity does not continue to operate beyond the completion of the *construction activity* at the site it supports; and

      iv. *Stormwater* controls are implemented in accordance with Part II. and Part III. for *discharges* from the support activity areas.

2. The following non-*stormwater discharges* associated with *construction activity* are authorized under this permit:

   a. Non-*stormwater discharges* listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "*Discharges* from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; and

   b. Non-*stormwater discharges* of waters to which other components have not been added that are used in accordance with the *SWPPP* to control dust or irrigate vegetation in stabilized areas; and

   c. Uncontaminated *discharges* from *dewatering* operations

3. Authorized *discharges* of *stormwater* or authorized *discharges* of non-*stormwater*, commingled with a *discharge* authorized by a different SPDES permit and/or a *discharge* that does not require SPDES permit authorization, are also authorized under this permit.

C. Prohibited *Discharges*

1. Non-*stormwater discharges* prohibited under this permit include but are not limited to:

   a. Wastewater from washout of concrete; and

   b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials; and

   c. Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance; and

   d. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

   e. Toxic or hazardous substances from a spill or other release.

D. Electronic Notice of Intent (eNOI) Submittal

To receive authorization in accordance with Part I.D.3.b., the *owner or operator* must submit a complete eNOI in accordance with the requirements in Part I.D. The eNOI contains questions to: ensure eligibility requirements in Part I.A. have been met; obtain *owner or operator* contact information; obtain the total area to be disturbed and the existing/future *impervious areas* (rounded to the nearest tenth of an acre); confirm *Traditional Land Use Control MS4 Operator* jurisdiction over construction projects; satisfy the EPA eRule requirements; confirm that the Water Quality-Based Effluent Limitations in Part II. have been met; demonstrate consideration of the future risks due to climate change in accordance with Part III.A.2.; and confirm that the other *Stormwater Pollution Prevention Plan (SWPPP)* requirements in Part III. have been met.

1. An eNOI may be submitted for:

   a. *construction activities* that are not part of a *common plan of development or sale*; or

b. an entire *common plan of development or sale*; or

c. separate *phase(s)* of a *common plan of development or sale* if the following requirements are met:

i. the *common plan of development or sale* meets the eligibility requirements of Part I.A.5. or 6.; and

ii. the *phase(s)* meet(s) all other eligibility requirements of Part I.A.; and

iii. Part III.C. Required *SWPPP* Components by Project Type is based on the *common plan of development or sale*, not the *phase(s)*; or

d. *tree clearing* that is associated with, or will support, a *renewable energy* generation, transmission, or storage project that meets Part I.A.5. and 6., if the *tree clearing*:

i. meets all other eligibility requirements of Part I.A.; and

ii. will occur in NYSDEC's Regions 3-9; and

iii. is not within ¼ mile of a bat hibernaculum protected pursuant to 6 NYCRR Part 182; and

iv. will occur between November 1st and March 31st.

2. As prerequisites for submitting an eNOI, the *owner or operator* must:

a. prepare a *SWPPP* for Part I.D.1.a., b., c., or d. in accordance with Part III.; and

b. based on the following criteria, upload the following signature forms signed in accordance with Part VII.J. to the eNOI prior to submission:

i. for all eNOIs:

1. the SWPPP Preparer Certification Form, Appendix F, signed by the *SWPPP* preparer; and

2. the Owner/Operator Certification Form, Appendix J, signed by the *owner or operator*; and

ii. if an eNOI includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that will *discharge* to the *MS4(s)*:

1. determine if the *Traditional Land Use Control MS4 Operator(s)* have review authority. A *Traditional Land Use Control MS4 Operator* does not have review authority where:

a. the *owner or operator* of the *construction activities* in Part I.D.2.b.ii. is the same entity as the *Traditional Land Use Control MS4 Operator* identified in Part I.D.2.b.ii.; or

b. there is a statute exempting the *owner or operator* from zoning review by the *Traditional Land Use Control MS4 Operator*; or

c. there is no such statute per Part I.D.2.b.ii.1.b., the *Traditional Land Use Control MS4 Operator* concludes, after public hearing, that it does not have zoning review authority in accordance with Legal Memorandum LU14 Updated January 2020 "Governmental Immunity from Zoning and Other Legislation"; and

2. if the *Traditional Land Use Control MS4 Operator(s)* have review authority, submit the *SWPPP* to the *Traditional Land Use Control MS4 Operator(s)* for review and have:

a. if outside the municipal boundaries of NYC: the MS4 SWPPP Acceptance Form, Appendix G, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.; or

b. if within the municipal boundaries of NYC: The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval Form, Appendix H, signed by the principal executive officer or ranking elected official from the Traditional Land Use Control MS4 Operator, or by a duly authorized representative of that person in accordance with Part VII.J.2.; and

3. if the *Traditional Land Use Control MS4 Operator* does not have review authority, have the MS4 No Jurisdiction Form, Appendix I, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.

3. Submitting an eNOI:

a. The *owner or operator* must submit a complete Notice of Intent electronically using a NYSDEC approved form.[2]

b. The *owner or operator* is authorized to *commence construction activity* as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.

i. If an eNOI is received for a *SWPPP* that deviates from one of the technical standards but demonstrates *equivalence* in accordance with Part III.B.1.a.ii. or Part III.B.2.b.ii., if the *SWPPP* includes *construction activities* that are not within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)*, and/or if the *SWPPP* includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that do not have review authority in accordance with Part I.D.2.b.ii.1., the authorization date indicated in the LOA will be 60 business days after the eNOI submission date.

[2] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

c. If *Traditional Land Use Control MS4 Operator(s)* have review authority in accordance with Part I.D.2.b.ii.2., the *owner or operator* must, within five business days of receipt of the LOA, send an electronic copy of the LOA to the *Traditional Land Use Control MS4 Operator(s)* with review authority.

E. General Requirements for *Owners or Operators* with Permit Coverage

1. As of the date the LOA is received, the *owner or operator* must make the eNOI, *SWPPP*, and LOA available for review and copying in accordance with the requirements in Part VII.H. When applicable, as of the date an updated LOA is received, the *owner or operator* must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.

2. The *owner or operator* must ensure compliance with all requirements of this permit and that the provisions of the *SWPPP*, including any changes made to the *SWPPP* in accordance with Part III.A.5., are properly implemented and maintained from the *commencement of construction activity* until:

a. all areas of disturbance have achieved *final stabilization;* and

b. the owner's or operator's coverage under this permit is terminated in accordance with Part V.A.5.a.

3. As of the date of the *commencement of construction activities* until Part I.E.2.a. and b. have been met, the *owner or operator* must maintain at the *construction site*, a copy of:

a. all documentation necessary to demonstrate eligibility with this permit; and

b. this permit; and

c. the *SWPPP*; and

d. the signed SWPPP Preparer Certification Form; and

e. the signed MS4 SWPPP Acceptance Form or signed NYCDEP SWPPP Acceptance/Approval Form or signed MS4 No Jurisdiction Form (when applicable); and

f. the signed Owner/Operator Certification Form; and

g. the eNOI; and

h. the LOA; and

i. the LOA transmittal to the Traditional Land Use Control MS4 Operator in accordance with Part I.D.3.c. (when applicable).

4. The *owner or operator* must maintain at the *construction site*, until Part I.E.2.a. and b. have been met, as of the date the documents become final or are received, a copy of the:

   a. responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7.; and

   b. inspection reports in accordance with Part IV.C.4. and 6.; and

   c. Request to Disturb Greater Than Five Acres and the Authorization Letter to Disturb Greater Than Five Acres in accordance with Part I.E.6. (when applicable); and

   d. Request to Continue Coverage and the Letter of Continued Coverage (LOCC) in accordance with Part I.F.2. and 4. (when applicable); and

   e. The updated LOA(s) in accordance with Part I.E.9. (when applicable).

5. The *owner or operator* must maintain the documents in Part I.E.3. and 4. in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the *owner or operator* must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.

6. The *owner or operator* must meet the following requirements prior to disturbing greater than five acres of soil at any one time:

   a. The *owner or operator* must submit a written Request to Disturb Greater Than Five Acres to:

   i. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, if a *Traditional Land Use Control MS4 Operator* does not have review authority in accordance with Part I.D.2.b.ii.1.; or

   ii. the *Traditional Land Use Control MS4 Operator*, if a *Traditional Land Use Control MS4 Operator* has review authority in accordance with Part I.D.2.b.ii.1.; or

   iii. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, and each involved *Traditional Land Use Control MS4 Operator*, if the project spans multiple municipalities with more than one *Traditional Land Use Control MS4 Operator* involved with review authority in accordance with Part I.D.2.b.ii.1.

   b. The written Request to Disturb Greater Than Five Acres must include:

      i. The SPDES permit identification number (Permit ID); and

      ii. Full technical justification demonstrating why alternative methods of construction that would result in five acres of soil disturbance or less at any one time are not feasible; and

      iii. The phasing plan for the project and sequencing plans for all *phases* from the *SWPPP* in accordance with Part III.B.1.d.; and

      iv. Plans with locations and details of erosion and sediment control practices such that the heightened concern for erosion when disturbing greater than five acres at one time has been addressed; and

      v. Acknowledgment that "the *owner or operator* will comply with the requirements in Part IV.C.2.b."; and

      vi. Acknowledgment that "the *owner or operator* will comply with the requirements in Part II.B.1.b."

   c. The *owner or operator* must be in receipt of an Authorization Letter to Disturb Greater Than Five Acres, which will include when the

authorization begins and ends and indicate a maximum area (acres) of soil disturbance allowed at any one time, from:

i. NYSDEC, if Part I.E.6.a.i. or iii. apply; or

ii. the *Traditional Land Use Control MS4 Operator*, if Part I.E.6.a.ii. applies.

7. Upon a finding of significant non-compliance with the practices described in the *SWPPP* or violation of this permit, NYSDEC may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

8. If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE).[3] *Construction activity* shall not resume until written permission to do so has been received from the RWE.

9. To be authorized to implement modifications to the information previously submitted in the eNOI, the *owner or operator* must:

   a. notify NYSDEC via email at Stormwater_info@dec.ny.gov requesting access to update the eNOI; and

   b. update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D.; and

   c. receive an updated LOA.

10. The eNOI, *SWPPP*, LOA, updated LOAs (when applicable), and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

[3] The Regional Water Manager where a DEC Region does not have a RWE.

F. Permit Coverage for *Discharges* Authorized Under GP-0-20-001

When applicable:

1. Upon the effective date of this permit, an *owner or operator* of *a construction activity*, with coverage under GP-0-20-001, will have interim coverage under GP-0-25-001 for 45 calendar days starting on the effective date of GP-0-25-001 so long as the *owner or operator* maintains compliance with all applicable requirements of this permit.

2. Within 30 calendar days of the effective date of this permit, the *owner or operator*, with coverage under GP-0-20-001, must submit a complete Request to Continue Coverage electronically using a NYSDEC approved form,[4] which contains the information identified in Part I.F.3. below, if:

   a. the *owner or operator* continues to implement the SMP component in conformance with the technical standards in place at the time of initial project authorization; and

   b. the *owner or operator* will comply with all non-design requirements of GP-0-25-001.

3. The Request to Continue Coverage form contains questions to: ensure eligibility requirements in Part I.A. have been met; verify *owner or operator* contact information; verify the permit identification number; verify the original eNOI submission ID, if applicable; verify Part I.F.2.a. and b.; verify the version of the Design Manual that the technical/design components conform to; and receive an updated Owner/Operator Certification Form, Appendix I.

4. The *owner or operator* has obtained continued coverage under GP-0-25-001 as of the date indicated in the LOCC, which is sent by NYSDEC after a complete Request to Continue Coverage form is submitted.

5. If the owner or operator does not submit the Request to Continue Coverage form in accordance with Part I.F.2. and 3., coverage under this permit is automatically terminated after interim coverage expires.

[4] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

G. Change of *Owner or Operator*

When applicable:

1. When property ownership changes, or when there is a change in operational control over the construction plans and specifications, the following process applies:

   a. The new *owner or operator* must meet the applicable prerequisites for submitting an eNOI in accordance with Part I.D.2.; and

   b. The new *owner or operator* must submit an eNOI in accordance with Part I.D.3.; and

   c. Permit coverage for the new *owner or operator* will be effective upon receipt of the LOA in accordance with Part I.D.3.b.; and

   d. The new *owner or operator*, upon receipt of their LOA, must provide their Permit ID to the original *owner or operator*; and

   e. If the original *owner or operator* will no longer be the *owner or operator* of the *construction activity* identified in the original *owner's or operator's* eNOI, the original *owner or operator*, upon receipt of the new *owner's or operator's* Permit ID in accordance with Part I.G.1.d., must submit to NYSDEC a completed eNOT in accordance with Part V. that includes the name and Permit ID of the new *owner or operator*; or

   f. If the original *owner or operator* maintains ownership of a portion of the *construction activity*, the original *owner or operator* must maintain their coverage under the permit by modifying their eNOI; modifications to the eNOI must include:

      i. the revised area of disturbance and/or *impervious area(s)*; and

      ii. the revised SMP information, if applicable; and

      iii. a narrative description of what has changed; and

      iv. the new *owner's or operator's* Permit ID for the portion of the project removed from the eNOI.

   Owners or operators must follow Part I.E.9. to modify the eNOI.

Part II. Water Quality-Based Effluent Limitations

A. Maintaining Water Quality

NYSDEC expects that compliance with the requirements of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any *discharge* to either cause or contribute to a violation of the following *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York:

1. There must be no increase in turbidity that will cause a substantial visible contrast to natural conditions; and

2. There must be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There must be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the *stormwater discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standard,* the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this permit and document in accordance with Part IV.C.4. of this permit. To address the *water quality standard* violation the *owner or operator* must include and implement appropriate controls in the *SWPPP* to correct the problem or obtain an individual SPDES permit.

If, despite compliance with the requirements of this permit, it is demonstrated that the *stormwater discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if NYSDEC determines that a modification of this permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit, and the *owner or operator* must obtain an individual SPDES permit prior to further *discharges* from the *construction site*.

B. Effluent Limitations Applicable to *Discharges* from *Construction Activities*

Discharges authorized by this permit must achieve, at a minimum, the effluent limitations in Part II.B.1.a., b., c., d., and e. These limitations represent the

degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement, and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part II.B.1.a., b., c., d., and e. and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (BB), dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in *SWPPP* the reason(s) for the deviation, or alternative design, and provide information in the *SWPPP* demonstrating that the deviation or alternative design is *equivalent* to the technical standard.

   a. **Erosion and Sediment Controls.** At a minimum, erosion and sediment controls must be selected, designed, installed, implemented, and maintained to:

      i. *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*; and

      ii. Control *stormwater discharges*, including both peak flow rates and total *stormwater* volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points; and

      iii. *Minimize* the amount of soil exposed during *construction activity*; and

      iv. *Minimize* the disturbance of *steep slope*; and

      v. *Minimize* sediment *discharges* from the site; and

      vi. Provide and maintain *natural buffers* around surface waters, direct *stormwater* to vegetated areas and maximize *stormwater* infiltration to reduce *pollutant discharges*, unless *infeasible*; and

      vii. *Minimize* soil compaction. *Minimizing* soil compaction is not required

      where the intended function of a specific area of the site dictates that it be compacted; and

      viii. Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

      ix. *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of *pollutants* that could be discharged from the site.

   b. **Soil Stabilization.** In areas where soil disturbance activity has ceased, whether permanently or *temporarily ceased*, the application of soil stabilization measures must be initiated by the end of the next business day and completed within 14 calendar days from the date the current soil disturbance activity ceased. For *construction sites* that *directly discharge* to one of the 303(d) segments listed in Appendix D, or are located in one of the watersheds listed in Appendix C, or are authorized to disturb greater than five acres in accordance with Part I.E.5.a.viii., the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven calendar days from the date the soil disturbance activity ceased.

   c. **Dewatering.** *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

   d. **Pollution Prevention Measures.** Select, design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be selected, designed, installed, implemented, and maintained to:

      i. *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. Soaps, detergents and solvents cannot be used; and

      ii. *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation

and to *stormwater*. *Minimization* of exposure is not required in cases where the exposure to precipitation and to *stormwater* will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of *stormwater* contamination (such as final products and materials intended for outdoor use); and

iii. Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Surface Outlets.** When discharging from basins and impoundments, the surface outlets must be designed, constructed, and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-Construction Stormwater Management Practice (SMP) Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction SMPs, in accordance with Part III.C., must select, design, install, implement, and maintain the SMPs to meet the *performance criteria* in the New York State Stormwater Management Design Manual, dated July 31, 2024 (DM), using sound engineering judgment. Where SMPs are not designed in conformance with the *performance criteria* in the DM, the *owner or operator* must include in the *SWPPP* the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity*, that requires SMPs in accordance with Part III.C., must design the practices to meet the applicable *sizing criteria* in Part II.C.2.a., b., c., or d.

a. Sizing Criteria for *New Development*

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the total WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv must be calculated in accordance with the criteria in Section 4.2 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the requirements in Part II.C.2.a.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.4 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs without detention or velocity controls; or

3. The site *directly discharges* into a fifth order or larger water body (stream, river, or lake), or tidal waters, where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watersheds

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24-hour design storm over the post-developed watershed and must be calculated in accordance with the criteria in Section 4.3 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part II.C.2.b.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include

documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.5 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs; or

3. The site *directly discharges* to tidal waters, or a fifth order or larger water body (stream, river, or lake) where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

c. *Sizing Criteria* for *Redevelopment Activity*

i. Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* must be addressed by one of the following options, as outlined in Section 9.2.1. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C) must calculate the WQv in accordance with Section 4.3 of the DM. All other *redevelopment activities* must calculate the WQv in accordance with Section 4.2 of the DM.

1. Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the DM must be applied to all newly created pervious areas; or

2. Capture and treat 100% of the required WQv, for a minimum of 25% of the disturbed redevelopment *impervious area*, by implementation of standard SMPs or reduced by application of runoff reduction techniques; or

3. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a volume-based alternative SMP, as defined in Section 9.4 of the DM; or

4. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a flow-through alternative SMP sized to treat the peak rate of runoff from the WQv design storm; or

5. Application of a combination of 1 through 4 above that provide a weighted average of at least two of the above methods. Application of this method must be in accordance with the criteria in Section 9.2.1(A)(V) of the DM; or

6. If there is an existing SMP located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 through 5 above.

ii. Channel Protection Volume (CPv) is not required if there is 0% change to hydrology that increases the *discharge* rate and volume from the project site.

iii. *Overbank* Flood Control (Qp) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

iv. Extreme Flood Control (Qf) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

d. *Sizing Criteria* for Combination of *Redevelopment Activity* and *New Development*

Construction projects, that include both *new development* and *redevelopment activity*, must use SMPs that meet the *sizing criteria* calculated as an aggregate of the *sizing criteria* in Part II.C.2.a. or b. for the *new development* portion of the project and Part II.C.2.c. for the *redevelopment activity* portion of the project.

Part III. Stormwater Pollution Prevention Plan (SWPPP)

A. General *SWPPP* Requirements

1. A *SWPPP* must be prepared and implemented by the *owner or operator* of all *construction activity* covered by this permit. All authorized *discharges* must be identified in the *SWPPP*. The *SWPPP* must document the selection, design, installation, implementation and maintenance of the control measures and

practices that will be used to meet the effluent limitations in Part II.B. and, where applicable, the SMP requirements in Part II.C.

2. The *SWPPP* must demonstrate consideration in narrative format of the future physical risks due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR Part 490, and associated guidance.

   a. The owner or operator must consider:

      i. the following physical risks due to climate change:

         (i) increasing temperature; and

         (ii) increasing precipitation; and

         (iii) increasing variability in precipitation, including chance of drought; and

         (iv) increasing frequency and severity of flooding; and

         (v) rising sea level; and

         (vi) increasing storm surge; and

         (vii) shifting ecology.

      ii. for each of the following:

         (i) overall site planning; and

         (ii) location, elevation, and sizing of:

            a. control measures and practices; and

            b. conveyance system(s); and

            c. detention system(s).

3. The *SWPPP* must describe the erosion and sediment control practices and where required, SMPs that will be used and/or constructed to reduce the *pollutants* in *stormwater discharges* and to assure compliance with the

requirements of this permit. In addition, the *SWPPP* must identify potential sources of pollution which may reasonably be expected to affect the quality of *stormwater discharges*.

4. All *SWPPPs*, that require the SMP component in accordance with Part III.B.2., must be prepared by a *qualified professional*.

5. The *owner or operator* must keep the *SWPPP* current so that, at all times, it accurately documents the erosion and sediment control practices that are being used or will be used during construction, and all SMPs that will be constructed on the site. At a minimum, the *owner or operator* must modify the *SWPPP*, including construction drawings:

   a. whenever the current provisions prove to be ineffective in *minimizing pollutants* in *stormwater discharges* from the site; and

   b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*; and

   c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* NYSDEC, or other regulatory authority; and

   d. to document the final construction conditions in an as-built drawing.

6. NYSDEC may notify the *owner or operator* at any time that the *SWPPP* does not meet one or more of the minimum requirements of this permit. The notification must be in writing and identify the provisions of the *SWPPP* that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by NYSDEC, the *owner or operator* must make the required changes to the *SWPPP* and submit written notification to NYSDEC that the changes have been made. If the *owner or operator* does not respond to NYSDEC's comments in the specified time frame, NYSDEC may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4.

7. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion and sediment control practices included in the *SWPPP* and the

contractor(s) and subcontractor(s) that will be responsible for constructing the SMPs included in the *SWPPP*. The *owner or operator* must have each of the contractors and subcontractors identify at least one person from their company to be *trained contractor* that will be responsible for implementation of the *SWPPP*. The *owner or operator* must ensure that at least one *trained contractor* is on site daily when soil disturbance activities are being performed.

The *owner or operator* must have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before the *commencement of construction activities*:

> "I hereby certify under penalty of law that I understand and agree to comply with the requirements of the *SWPPP* and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the *SWPPP* that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for *SWPPP* implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* must attach the certification statement(s) to the copy of the *SWPPP* that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the *SWPPP* after the *commencement of construction activities*, they must also sign the certification statement and provide the information listed above prior to performing *construction activities*.

B. Required *SWPPP* Contents

1. Erosion and sediment control component - The *owner or operator* must prepare a *SWPPP* that includes erosion and sediment control practices.

    a. Erosion and sediment control practices must be designed:

        i. in conformance with the BB; or

        ii. *equivalent* to the BB if deviating from Part III.B.1.a.i.

    b. If the erosion and sediment control practices are designed in conformance with Part III.B.1.a.ii., the *SWPPP* must include a demonstration of *equivalence* to the BB.

    c. At a minimum, the erosion and sediment control component of the *SWPPP* must include the following:

        i. Background information about the scope of the project, including the location, type and size of project; and

        ii. A site map/construction drawing(s) with north arrows for the project, including a general location map. At a minimum, the site map must show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the *stormwater discharge*(s) and receiving surface water(s); and

        iii. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG); and

        iv. A phasing plan for the project and sequencing plans for all *phases*, both of which must address clearing and grubbing, excavation and grading, utility and infrastructure installation, *final stabilization*,

and any other *construction activity* at the site that will result in soil disturbance.

1. The phasing plan must include:

    a. a map delineating and labeling the limits of soil disturbance for all *phases* of a project; and

    b. a table identifying the order and intended schedule of when each *phase* will begin and end its sequencing plan. The table must identify the total disturbed area for each *phase* at any one time and the total disturbed area for the overall project at any one time all on one timeline showing all overlapping quantities of disturbed area at any one time; and

2. A sequencing plan for a specific *phase* must include:

    a. a table indicating the order and intended schedule of *construction activities* within a *phase*, and corresponding construction drawings with a description of the work to be performed; and

    b. all permanent and *temporary stabilization* measures; and

v. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented; and

vi. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice; and

vii. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any

temporary sediment basins and structural practices that will be used to divert flows from exposed soils; and

viii. A maintenance inspection schedule for the contractor(s) and subcontractor(s) identified in Part III.A.7. to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule must be in accordance with the requirements in the BB technical standard; and

ix. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the *stormwater discharges*; and

x. A description and location of any *stormwater discharges* associated with industrial activity other than construction at the site, including, but not limited to, *stormwater discharges* from asphalt plants and concrete plants located on the *construction site*; and

xi. Identification of any elements of the design that are not in conformance with the design criteria in the BB technical standard. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. SMP component – The *owner or operator* of *construction activity* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs.

    a. SMPs must be designed in conformance with the applicable *sizing criteria* in Part II.C.2.a., c., or d.; and

    b. SMPs must be designed in conformance with the *performance criteria*:

        i. in the DM; or

        ii. *equivalent* to the DM if deviating from Part III.B.2.b.i.; or

        iii. in the New York State Stormwater Management Design Manual, dated January 2015 (2015 Design Manual), or *equivalent* to it, if the following criteria are met:

1. The eNOI is submitted in accordance with Part I.D. before January 29, 2027 for *construction activities* that are either:

    a. subject to governmental review and approval:

        i. where the *owner or operator* made any application to that governmental entity prior to the effective date of this permit; and

        ii. such application included a *SWPPP* developed using the 2015 Design Manual or *equivalent* to it; or

    b. not subject to governmental review and approval:

        i. where a fiscal allocation for the *construction activities* has been developed and approved by a governmental entity; and

        ii. the *SWPPP* was developed using the 2015 Design Manual or *equivalent* to it; and

c. If SMPs are designed in conformance with Part III.B.2.b.ii., the *SWPPP* must include the reason(s) for the deviation or alternative design and a demonstration of *equivalence* to the DM; and

d. If SMPs are designed in conformance with Part III.B.2.b.iii., the *SWPPP* must include supporting information or documentation demonstrating that Part III.B.2.b.iii.1.a. or b. apply; and

e. The SMP component of the *SWPPP* must include the following:

    i. Identification of all SMPs to be constructed as part of the project, including which option the SMP designs conform to, either Part III.B.2.b.i., ii., or iii. Include the dimensions, material specifications and installation details for each SMP; and

    ii. A site map/construction drawing(s) showing the specific location and size of each SMP; and

iii. A Stormwater Modeling and Analysis Report that includes:

    (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points; and

    (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and SMPs; and

    (iii) Results of *stormwater* modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre- and post-development runoff rates and volumes for the different storm events; and

    (iv) Summary table, with supporting calculations, which demonstrates that each SMP has been designed in conformance with the *sizing criteria* included in the DM; and

    (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part II.C.; and

    (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the DM. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the DM.

iv. Soil testing results and locations (test pits, borings); and

v. Infiltration test results, when required in accordance with Part III.B.2.a.; and

vi. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each SMP. The plan must identify the entity

that will be responsible for the long-term operation and maintenance of each practice; and

3. Enhanced Phosphorus Removal Standards - The *owner or operator* of *construction activity* identified in Table 2 of Appendix B that is located in a watershed identified in Appendix C must prepare a *SWPPP* that includes SMPs designed in conformance with the applicable *sizing criteria* in Part II.C.2.b., c., or d. and the *performance criteria* Enhanced Phosphorus Removal Standards included in the DM. At a minimum, the SMP component of the *SWPPP* must meet the requirements of Part III.B.2.

C. Required *SWPPP* Components by Project Type

Owners or operators of *construction activities*, identified in Table 1 of Appendix B, are required to prepare a *SWPPP* that only includes erosion and sediment control practices designed in accordance with Part III.B.1. *Owners or operators* of the *construction activities*, identified in Table 2 of Appendix B, must prepare a *SWPPP* that also includes SMPs designed in accordance with Part III.B.2 or 3.

For the entire area of disturbance, including the entire *common plan of development or sale* if applicable, the owner or operator must evaluate every bullet from Appendix B Table 1 and Table 2 separately. If bullets from both Table 1 and Table 2 apply, the *SWPPP* must include erosion and sediment control practices for all *construction activities* but SMPs for only those portions of the *construction activities* that fall under Table 2 bullet(s).

Part IV. Inspection and Maintenance Requirements

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures), and all SMPs identified in the *SWPPP*, are inspected and maintained in accordance with Part IV.B. and C.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity*, identified in Tables 1 and 2 of Appendix B, must have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being

implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor must:

a. if the corrective action does not require engineering design:

   i. begin implementing corrective actions within one business day; and

   ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

   i. begin the engineering design process within five business days; and

   ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

2. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. The *trained contractor* must begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.

3. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational.

C. *Qualified Inspector* Inspection Requirements

1. With the exception of the following *construction activities* identified in Tables 1 and 2 of Appendix B, a *qualified inspector* must conduct site inspections for all other *construction activities* identified in Tables 1 and 2 of Appendix B:

   a. the construction of a single-family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than or equal to five (5) acres and is

not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

b. the construction of a single-family home that involves soil disturbances of one (1) or more acres but less than or equal to five (5) acres and is not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

c. construction on *agricultural property* that involves soil disturbances of one (1) or more acres but less than five (5) acres; and

d. *construction activities* located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances of 5,000 square feet or more, but less than one acre.

2. The *qualified inspector* must conduct site inspections in accordance with the following timetable:

a. For *construction sites* where soil disturbance activities are on-going, the *qualified inspector* must conduct a site inspection at least once every seven (7) calendar days; or

b. For *construction sites* where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part I.E.6. to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days; or

c. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* must conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas under the jurisdiction of a *Traditional Land Use Control MS4 Operator,* the *Traditional Land Use Control MS4 Operator* (provided the *Traditional Land Use Control MS4 Operator* is not the *owner or operator* of the *construction activity*) by hard copy or email prior to reducing the inspections to this frequency and again by hard copy or email prior to re-commencing construction; or

d. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the requirement to have the *qualified inspector* conduct inspections ceases if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1., the *Traditional Land Use Control MS4 Operator(s)* (provided the *Traditional Land Use Control MS4 Operator(s)* are not the *owners or operators* of the *construction activity*) in writing prior to the shutdown and again in writing prior to resuming *construction activity*. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* must terminate coverage by meeting the requirements of Part V; or

e. For *construction sites* involving soil disturbance of one (1) or more acres that *directly discharge* to one of the 303(d) segments listed in Appendix D or is located in one of the watersheds listed in Appendix C, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* must inspect:

a. all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness; and

b. all SMPs under construction to ensure that they are constructed in conformance with the *SWPPP*; and

c. all areas of disturbance that have not achieved *final stabilization*; and

d. all points of *discharge* to *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site*; and

e. all points of *discharge* from the *construction site*.

4. The *qualified inspector* must prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report must include and/or address all of the following, for all *construction activities* except those listed in Part IV.C.1.:

   a. Permit identification number; and

   b. Date and time of inspection; and

   c. Name and title of person(s) performing inspection; and

   d. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and

   e. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This must include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; and

   f. A description of the condition of all *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This must include identification of any *discharges* of sediment to the *surface waters of the State*; and

   g. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and

   h. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and

   i. Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and

   j. Estimates, in square feet or acres, of the following areas:

      i. Total area with active soil disturbance (not requiring either *temporary stabilization* or *final stabilization*); and

      ii. Total area with inactive soil disturbance (requiring either *temporary stabilization* or *final stabilization*); and

      iii. Total area that has achieved *temporary stabilization*; and

      iv. Total area that has achieved *final stabilization*; and

   k. Current stage of construction of all SMPs and identification of all *construction activity* on site that is not in conformance with the *SWPPP* and technical standards; and

   l. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and

   m. Identification and status of all corrective actions that were required by previous inspection; and

   n. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* must attach color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* must also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* must attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* must notify the *owner or operator*, and appropriate contractor or subcontractor identified in Part III.A.7., of any corrective actions that need to be taken. The contractor or subcontractor must:

   a. if the corrective action does not require engineering design:

i. begin implementing corrective actions within one business day; and

ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

i. begin the engineering design process within five business days; and

ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

6. All inspection reports must be signed by the *qualified inspector.* In accordance with Part I.E.3., the inspection reports must be maintained on site with the *SWPPP*.

Part V. How to Terminate CGP Coverage

A. Electronic Notice of Termination (eNOT) Submittal

The eNOT contains questions to ensure requirements in Part V.A. have been met.

1. An *owner or operator* must terminate coverage when one or more of the following requirements have been met:

a. Total project completion:

i. all *construction activity* identified in the *SWPPP* has been completed; and

ii. all areas of disturbance have achieved *final stabilization*; and

iii. all temporary, structural erosion and sediment control measures have been removed; and

iv. all SMPs have been constructed in conformance with the *SWPPP* and are operational; and

v. an as-built drawing has been prepared; or

b. Planned shutdown with partial project completion:

i. all soil disturbance activities have ceased; and

ii. all areas disturbed as of the project shutdown date have achieved *final stabilization*; and

iii. all temporary, structural erosion and sediment control measures have been removed; and

iv. all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational; and

v. an as-built drawing has been prepared; or

c. In accordance with Part I.G. Change of Owner or Operator; or

d. The *owner or operator* has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.

2. For *construction activities* that require *qualified inspector* inspections in accordance with Part IV.C.1. and have met Part V.A.1.a. or b., the *owner or operator* must have the *qualified inspector* perform a final site inspection prior to submitting the eNOT. The *qualified inspector* must, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice(s)" certification statements on the eNOT, certify that all the requirements in Part V.A.1.a. or b. have been achieved.

3. For *construction activities* that are subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1. and meet Part V.A.1.a. or b., the *owner or operator* must have the *Traditional Land Use Control MS4 Operator(s)* sign the "MS4 Acceptance" statement on the eNOT in accordance with the requirements in Part VII.J. A *Traditional Land Use Control MS4 Operator* official, by signing this statement, determined that it is acceptable for the *owner or operator* to submit the eNOT in accordance with the requirements of this Part. A *Traditional Land Use Control MS4 Operator* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) when required in Part V.A.2.

4. For *construction activities* that require SMPs and meet Part V.A.1.a. or b., the *owner or operator* must, prior to submitting the eNOT, ensure one of the following:

   a. for SMP(s) that were constructed by a private entity, but will be owned, operated, and maintained by a public entity, the SMP(s) and any right-of-way(s) needed to operate and maintain such practice(s) have been deeded to the municipality in which the practice(s) is located; or

   b. for SMP(s) that are privately owned, but will be operated and maintained by a public entity, an executed operation and maintenance agreement is in place with the municipality that will operate and maintain the SMP(s); or

   c. for SMP(s) that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record; or

   d. for SMP(s) that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility, the *owner or operator* has policies and procedures in place that ensure operation and maintenance of the practices in accordance with the operation and maintenance plan.

5. An *owner or operator* that has met the requirements of Part V.A.1., 2., 3., and 4. must request termination of coverage under this permit by submitting a complete Notice of Termination form electronically using a NYSDEC approved form.[5]

   a. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

[5] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

Part VI. Record Retention and Reporting

A. Record Retention

The *owner or operator* must retain a copy of the documents listed in Part I.E.3. and a copy of the LOT for a period of at least five years from the date that NYSDEC accepts a complete NOT submitted in accordance with Part V.

B. Reporting

Except for the eNOI, the signature forms associated with the eNOI, and the eNOT, all other written correspondence requested by NYSDEC, including individual permit applications, must be sent to the address of the appropriate DOW (SPDES) Program contact at the Regional Office listed in Appendix E.

Part VII. Standard Permit Requirements

For the purposes of this permit, examples of contractors and subcontractors include: third-party maintenance and construction contractors.

A. Duty to Comply

The *owner or operator*, and all contractors or subcontractors, must comply with all requirements of this permit. Any non-compliance with the requirements of this permit constitutes a violation of the New York State Environmental Conservation Law (ECL), and its implementing regulations, and is grounds for enforcement action. Filing of a request for termination of coverage under this permit, or a notification of planned changes or anticipated non-compliance, does not limit, diminish or stay compliance with any requirements of this permit.

B. Need to Halt or Reduce Activity Not a Defense

The necessity to halt or reduce the *construction activity* regulated by this permit, in order to maintain compliance with the requirements of this permit, must not be a defense in an enforcement action.

C. Penalties

There are substantial criminal, civil, and administrative penalties associated with violating the requirements of this permit. Fines of up to $37,500 per day for each

violation and imprisonment for up to 15 years may be assessed depending upon the nature and degree of the offense.

D. False Statements

Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance must, upon conviction, be punished in accordance with ECL §71-1933 and or New York State Penal Law Articles 175 and 210.

E. Re-Opener Clause

Upon issuance of this permit, a determination has been made on the basis of a submitted Notice of Intent, plans, or other available information, that compliance with the specified permit requirements will reasonably protect classified water use and assure compliance with applicable *water quality standards*. Satisfaction of the requirements of this permit notwithstanding, if operation pursuant to this permit causes or contributes to a condition in contravention of State *water quality standards* or guidance values, or if NYSDEC determines that a modification is necessary to prevent impairment of the best use of the waters or to assure maintenance of *water quality standards* or compliance with other provisions of ECL Article 17 or the Clean Water Act (CWA), or any regulations adopted pursuant thereto, NYSDEC may require such modification and the Commissioner may require abatement action to be taken by the *owner or operator* and may also prohibit such operation until the modification has been implemented.

F. Duty to Mitigate

The *owner or operator*, and its contractors and subcontractors, must take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

G. Requiring Another General Permit or Individual SPDES Permit

NYSDEC may require any *owner or operator* authorized to *discharge* in accordance with this permit to apply for and obtain an individual SPDES permit or apply for authorization to *discharge* in accordance with another general SPDES permit.

1. Cases where an individual SPDES permit or authorization to discharge in accordance with another general SPDES permit may be required include, but is not limited to the following:

   a. the *owner or operator* is not in compliance with the conditions of this permit or does not meet the requirements for coverage under this permit; and

   b. a change has occurred in the availability of demonstrated technology or practices for the control or abatement of *pollutants* applicable to the *point source*; and

   c. new effluent limitation guidelines or new source performance standards are promulgated that are applicable to *point sources* authorized to *discharge* in accordance with this permit; and

   d. existing effluent limitation guidelines or new source performance standards that are applicable to *point sources* authorized to *discharge* in accordance with this permit are modified; and

   e. a water quality management plan containing requirements applicable to such *point sources* is approved by NYSDEC; and

   f. circumstances have changed since the time of the request to be covered so that the *owner or operator* is no longer appropriately controlled under this permit, or either a temporary or permanent reduction or elimination of the authorized *discharge* is necessary; and

   g. the *discharge* is in violation of section 17-0501 of the ECL; and

   h. the *discharge(s)* is a significant contributor of *pollutants*. In making this determination, NYSDEC may consider the following factors:

      i. the location of the *discharge(s)* with respect to *surface waters of the State*; and

      ii. the size of the *discharge(s)*; and

      iii. the quantity and nature of the *pollutants discharged* to *surface waters of the State*; and

      iv. other relevant factors including compliance with other provisions of ECL Article 17, or the CWA.

2. When NYSDEC requires any *owner or operator* authorized by this permit to apply for an individual SPDES permit as provided for in this subdivision, it must notify the *owner or operator* in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application

form, a statement setting a time for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from the *owner's or operator's* receipt of the notification letter, whereby the authorization to *discharge* under this permit must be terminated. NYSDEC may grant additional time upon demonstration, to the satisfaction of the RWE,[6] that additional time to apply for an alternative authorization is necessary or where NYSDEC has not provided a permit determination in accordance with 6 NYCRR Part 621.

3. When an individual SPDES permit is issued to an *owner or operator* authorized to *discharge* under this permit for the same *discharge(s)*, this permit authorization for *construction activities* authorized under the individual SPDES permit is automatically terminated on the effective date of the individual SPDES permit unless termination is earlier in accordance with 6 NYCRR Part 750.

H. Duty to Provide Information

The *owner or operator* must furnish to NYSDEC, within five business days, unless otherwise set forth by NYSDEC, any information that NYSDEC may request to determine whether cause exists to determine compliance with this permit or to determine whether cause exists for requiring an individual SPDES permit in accordance with 6 NYCRR 750-1.21(e) (see Part VII.G. Requiring Another General Permit or Individual Permit).

The *owner or operator* must make available to NYSDEC, for inspection and copying, or furnish to NYSDEC within 25 business days of receipt of a NYSDEC request for such information, any information retained in accordance with this permit.

Except for Part I.D.4. and 5. and Part I.G., the following applies: where the *owner or operator* becomes aware that it failed to submit any relevant facts on the Notice of Intent, or submitted incorrect information in a Notice of Intent or in any report to NYSDEC, the *owner or operator* must submit such facts or corrected information to NYSDEC within five business days.

I. Extension

In the event a new permit is not issued and effective prior to the expiration of this permit, and this permit is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, then the *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the requirements of this permit until a new permit is issued and effective.

[6] The Regional Water Manager where a DEC Region does not have a RWE.

J. Signatories and Certification

The Notice of Intent, Notice of Termination, and reports required by this permit must be signed as provided in 40 CFR §122.22.

1. All Notices of Intent and Notices of Termination must be signed as follows:

   a. For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

      (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

      (ii) the manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for Notice of Intent or Notice of Termination requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

      Note: NYSDEC does not require specific assignments or delegations of authority to responsible corporate officers identified in 40 CFR §122.22(a)(1)(i). NYSDEC will presume that these responsible corporate officers have the requisite authority to sign the Notice of Intent or Notice of Termination unless the corporation has notified NYSDEC to the contrary. Corporate procedures governing authority to sign a Notice of Intent or Notice of Termination may provide for assignment or delegation to applicable corporate positions under 40 CFR §122.22(a)(1)(ii) rather than to specific individuals.

   b. For a partnership or sole proprietorship. By a general partner or the proprietor, respectively.

c. For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

   1. the chief executive officer of the agency; or

   2. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. All reports required by this permit, and other information requested by NYSDEC, must be signed by a person described in Part VII.J.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Part VII.J.1. or using the Duly Authorized Form, found on the DEC website; and

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

   c. The written authorization is submitted to NYSDEC.

3. Changes to authorization. If an authorization under Part VII.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the *construction activity*, a new authorization satisfying the requirements of Part VII.J.2. must be submitted to NYSDEC prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under Part VII.J.1. or 2. must make the following certification:

   I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who

manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

5. Electronic reporting. If documents described in Part VII.J.1. or 2. are submitted electronically by or on behalf of the *construction activity* with coverage under this permit, any person providing the electronic signature for such documents must meet all relevant requirements of this section, and must ensure that all of the relevant requirements of 40 CFR Part 3 (including, in all cases, subpart D to Part 3) (Cross-Media Electronic Reporting) and 40 CFR Part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

K. Inspection and Entry

The *owner or operator* must allow NYSDEC, the USEPA Regional Administrator, the applicable county health department, or any authorized representatives of those entities, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the *discharge*, upon the presentation of credentials and other documents as may be required by law, to:

1. enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the requirements of this permit; and

2. have access to and copy at reasonable times, any records that must be kept under the requirements of this permit, including records required to be maintained for purposes of operation and maintenance; and

3. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. sample or monitor at reasonable times, for the purposes of assuring general SPDES permit compliance or as otherwise authorized by the CWA or ECL, any substances or parameters at any location; and

5. enter upon the property of any contributor to the regulated facility or activity under authority of the *owner or operator*.

L. Confidentiality of Information

The following must not be held confidential: this permit, the fact sheet for this permit, the name and address of any *owner or operator*, effluent data, the Notice of Intent, and information regarding the need to obtain an individual permit or an alternative general SPDES permit. This includes information submitted on forms themselves and any attachments used to supply information required by the forms (except information submitted on usage of substances). Upon the request of the *owner or operator*, NYSDEC must make determinations of confidentiality in accordance with 6 NYCRR Part 616, except as set forth in the previous sentence. Any information accorded confidential status must be disclosed to the Regional Administrator upon his or her written request. Prior to disclosing such information to the Regional Administrator, NYSDEC will notify the Regional Administrator of the confidential status of such information.

M. Other Permits May Be Required

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

N. NYSDEC Orders or Civil Decrees/Judgments

The issuance of this permit by the NYSDEC, and the coverage under this permit by the *owner or operator*, does not supersede, revoke, or rescind any existing order on consent or civil Decree/Judgment, or modification to any such documents or to any order issued by the Commissioner, or any of the terms, conditions, or requirements contained in such order or modification therefore, unless expressly noted.

O. Property Rights

Coverage under this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the *discharge* authorized.

P. Compliance with Interstate Standards

If the *construction activity* covered by this permit originates within the jurisdiction of an interstate water pollution control agency, then the *construction activity* must also comply with any applicable effluent standards or *water quality standards* promulgated by that interstate agency and as set forth in this permit for such *construction activities*.

Q. Oil and Hazardous Substance Liability

Coverage under this permit does not affect the imposition of responsibilities upon, or the institution of any legal action against, the *owner or operator* under section 311 of the CWA, which must be in conformance with regulations promulgated pursuant to section 311 governing the applicability of section 311 of the CWA to *discharges* from facilities with *NPDES* permits, nor must such issuance preclude the institution of any legal action or relieve the *owner or operator* from any responsibilities, liabilities, or penalties to which the *owner or operator* is or may be subject pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. section 9601 et seq. (CERCLA).

R. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, must not be affected thereby.

S. NYSDEC Approved Forms

The *owner or operator* must provide all relevant information that is requested by NYSDEC, and required by this permit, on all NYSDEC approved forms.

APPENDIX A – Abbreviations and Definitions

Abbreviations

APO – Agency Preservation Officer
BB – New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), dated November 2016
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
CPv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DM – New York State Stormwater Management Design Manual (Design Manual), dated July 31, 2024
DOW – Division of Water
EAF – Environmental Assessment Form
ECL – chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law
EPA – U.S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
NYC – The City of New York
NYCDEP – The City of New York Department of Environmental Protection
NYSDEC – The New York State Department of Environmental Conservation
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RR – Runoff Reduction
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SMP – Post-Construction Stormwater Management Practice
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit. If a word is not italicized in the permit, use its common definition.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023).

Alter Hydrology from Pre- to Post-Development Conditions – the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer System – a sewer system which conveys sewage and *stormwater* through a single pipe system to a publicly owned treatment works.

Commence (Commencement of) Construction Activities – the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the *SWPPP*. See definition for "*Construction Activity(ies)*" also.

Common Plan of Development or Sale – a contiguous area where multiple separate and distinct *construction activities* are occurring, or may occur, under one plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQR) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating *construction activities* may occur on a specific plot. A *common plan of development or sale* is comprised of two or more *phases*.

Common plan of development or sale does not include separate and distinct *construction activities* that are occurring, or may occur, under one plan that are at least 1/4 mile apart provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Construction Activity(ies) – identified within 40 CFR 122.26(b)(14)(x), 122.26(b)(15)(i), and 122.26(b)(15)(ii), any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, mechanized logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal.

Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, which is excluded from the calculation of the soil disturbance for a project. Routine maintenance includes, but is not limited to:

- Re-grading of gravel roads or parking lots; and
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of the ditch; and
- Replacement of existing culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of a ditch; and
- Replacement of existing bridges that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity beneath the bridges; and
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch); and
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*; and
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material; and
- Long-term use of equipment storage areas at or near highway maintenance facilities; and
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*; and
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts; and
- Maintenance of ski trails including brush hog use and mowing; and
- Above ground snowmaking pipe replacement; and
- Replacement of existing utility poles; etc.

Construction Site – the land area where *construction activity(ies)* will occur. See also the definitions for "*Commence (Commencement of) Construction Activities"* and "*Common Plan of Development or Sale."*

Dewatering – the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Directly Discharge(s)(ing) (to a specific surface waterbody) – runoff flows from a *construction site* by overland flow and the first point of *discharge* is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system and the first point of *discharge* from the separate storm sewer system is the specific surface waterbody.

Discharge(s)(d) – any addition of any *pollutant* to waters of the State through an outlet or *point source*.

Embankment – an earthen or rock slope that supports a road/highway.

Equivalent (Equivalence) – the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization – all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other *equivalent* stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

Historic Property – any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) – all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and compacted gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – not technologically possible, or not economically practicable and achievable considering best industry practices.

Minimize(ing)(ation) – reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer System (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. owned or operated by a State, city, town, village, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, *stormwater*, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA, that *discharges* to *surface waters of the State*; and

2. designed or used for collecting or conveying *stormwater*; and

3. which is not a *combined sewer system*; and

4. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Natural Buffer(s) – an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – any land disturbance that does not meet the definition of *Redevelopment Activity* included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

Nonpoint Source(s) – any source of water pollution or *pollutants* which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank – flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator – the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit requirements.

Performance Criteria – the six performance criteria for each group of SMPs in Chapters 5 and 6 of the technical standard, New York State Stormwater Management Design Manual (DM), dated July 31, 2024. These include feasibility, conveyance, pretreatment, treatment, landscaping, and maintenance. It does not include the *Sizing Criteria* (i.e. WQv, RRv, CPv, Qp and Qf) in Part I.C.2. of the permit.

Phase – a defined area in which *construction activities* are occurring or will occur separate from other defined area(s).

Point Source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be *discharged*.

Pollutant(s) – dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast *discharged* into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq.

Qualified Inspector – a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder or other NYSDEC endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any SMPs that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional – a person that is knowledgeable in the principles and practices of *stormwater* management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other NYSDEC endorsed individual(s). Individuals preparing *SWPPPs* that require the SMP component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the *SWPPP* that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – the disturbance and reconstruction of existing *impervious area*, including *impervious areas* that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Renewable Energy – electricity or thermal energy generated by renewable energy systems through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.

Site Limitations – site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical *site limitations* include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of *site limitations* shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – the criteria included in Part I.C.2 of the permit that are used to size SMPs. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

Steep Slope – land area designated on the current United States Department of Agriculture (USDA) Soil Survey as Soil Slope Phase D, (provided the map unit name or description is inclusive of slopes greater than 25%), or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Stormwater – that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.

Streambank – the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – a project specific report, including construction drawings, that among other things: describes the *construction activity(ies)*, identifies the potential sources of pollution at the *construction site*; describes and shows the *stormwater* controls that will be used to control the *pollutants* (i.e. erosion and sediment controls; for many projects, includes SMPs); and identifies procedures the *owner or operator* will implement to comply with the requirements of the permit. See Part III of the permit for a complete description of the information that must be included in the *SWPPP*.

Surface Waters of the State – shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization – exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Load (TMDL) – the sum of the allowable loads of a single *pollutant* from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a *pollutant* that a waterbody can receive and still meet *water quality standards*, and an allocation of that amount to the *pollutant's* sources. A TMDL stipulates Waste Load Allocations (WLA) for *point source discharges*, Load Allocations (LA) for *nonpoint sources*, and a margin of safety (MOS).

Traditional Land Use Control MS4 Operator – a city, town, or village with land use control authority that is authorized to *discharge* under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Trained Contractor – an employee from the contracting (construction) company, identified in Part III.A.7., that has received four (4) hours of NYSDEC endorsed training

in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.7., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity).

The *trained contractor* is responsible for the day-to-day implementation of the *SWPPP*.

Tree Clearing – *construction activities* limited to felling and removal of trees.

Tree clearing does not include hand felling and leaving the trees in place with no support from mechanized equipment, which is not considered *construction activity* requiring coverage under this permit.

Water Quality Standard – such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1

***CONSTRUCTION ACTIVITIES* THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS**

The following *construction activities* that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres: • Single-family home not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D • Single-family residential subdivisions with 25% or less *impervious cover* at total site build-out and not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D • Construction of a barn or other *agricultural building*, silo, stock yard or pen. • Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that include construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
The following *construction activities* that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land: • All construction activities located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
Within the municipal boundaries of NYC: • Stand-alone road reconstruction, where the total soil disturbance from only that road construction, is less than one (1) acre of land.
The following *construction activities*: • Installation of underground linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains • Environmental enhancement projects, such as wetland mitigation, *stormwater* retrofits, stream restoration, and resiliency projects that reconstruct shoreline areas to address sea level rise • Pond construction • Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an *impervious cover* • Cross-country ski trails, walking/hiking trails, and mountain biking trails, including a de minimis parking lot (maximum 10 spaces total, sized for passenger cars) with 35 feet minimum preservation of undisturbed area downgradient from the parking lot • Dam rehabilitation (the structure of the dam itself) • Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are not part of residential, commercial, or institutional development; • Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path, or walking path.

Table 1 (Continued)
CONSTRUCTION ACTIVITIES **THAT REQUIRE THE PREPARATION OF A *SWPPP***
THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities*:

- Slope stabilization
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Vegetated open space (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) that do not *alter hydrology from pre- to post-development* conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions
- Demolition where vegetation will be established, and no *redevelopment activity* is planned[1]
- Installation or replacement of either an overhead electric transmission line or a ski lift tower that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*.
- Solar array field areas that have tables elevated off the ground, spaced one table width apart, do not *alter hydrology from pre- to post-development conditions*, and address water quality volume and runoff reduction volume by maintaining sheet flow on slopes less than 8%.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that do not include construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions.
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary *impervious areas* that will be restored to pre-construction conditions once the *construction activity* is complete (in this context, "temporary" means the *impervious area* will be in place for two years or less)
- Other *construction activities* that do not include the construction or reconstruction of *impervious area*, and do not *alter hydrology from pre- to post-development* conditions, and are not listed in Table 2.

1. If the site is redeveloped in the future, a new eNOI must be submitted.

Table 2
CONSTRUCTION ACTIVITIES **THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES**
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Single-family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family home that disturbs five (5) or more acres of land
- Single-family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of between 20,000 square feet and one (1) acre of land within the municipal boundaries of NYC with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single-family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a *common plan of development or sale* that will ultimately disturb five (5) or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Creation of 5,000 square feet or more of *impervious area* in the municipal boundaries of NYC
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) that involves soil disturbance greater than five acres.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that involves soil disturbance greater than five acres and include the construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
- Facility buildings, including ski lodges, restroom buildings, pumphouses, ski lift terminals, and maintenance and groomer garages
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills; including creation of landfills or capping landfills.
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTWs, water treatment plants, and water storage tanks
- Golf courses
- Office complexes

Table 2 (Continued)

***CONSTRUCTION ACTIVITIES* THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPs)**

The following *construction activities*:

- Permanent laydown yards and equipment storage lots
- Playgrounds that include the construction or reconstruction of *impervious area*
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surfaces
- Road construction or reconstruction, outside the municipal boundaries of NYC
- Road construction within the municipal boundaries of NYC
- Stand-alone road reconstruction, within the municipal boundaries of NYC where the total soil disturbance from that road reconstruction involves soil disturbance of one (1) acre or more of land
- Parking lot construction or reconstruction (as with all Table 2 bullets, this includes parking lots constructed as part of the *construction activities* listed in Table 1, unless a Table 1 bullet specifies otherwise)
- Athletic fields (natural grass) that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations, and well drilling pads, surfaced with *impervious cover,* and constructed as part of an overhead electric transmission line, wind-power, cell tower, oil or gas well drilling, sewer or water main, ski lift, or other linear utility project
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of a residential, commercial or institutional development
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of highway construction or reconstruction
- Solar array field areas on slopes greater than 8% that cannot maintain sheet flow using management practices identified in the BB or the DM
- Solar array field areas on slopes less than 8% that will *alter the hydrology from pre- to post-development* conditions
- Solar array field areas with tables that are not elevated high enough to achieve *final stabilization* beneath the tables
- Traditional *impervious areas* associated with solar development (e.g. roads, buildings, transformers)
- Utility pads surfaced with *impervious cover*, including electric vehicle charging stations
- All other *construction activities* that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre- to post-development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of *construction activities* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs designed in conformance with the Enhanced Phosphorus Removal Standards included in the DM technical standard.

- Entire New York City Watershed located east of the Hudson River – Figure 1
- Onondaga Lake Watershed – Figure 2
- Greenwood Lake Watershed – Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

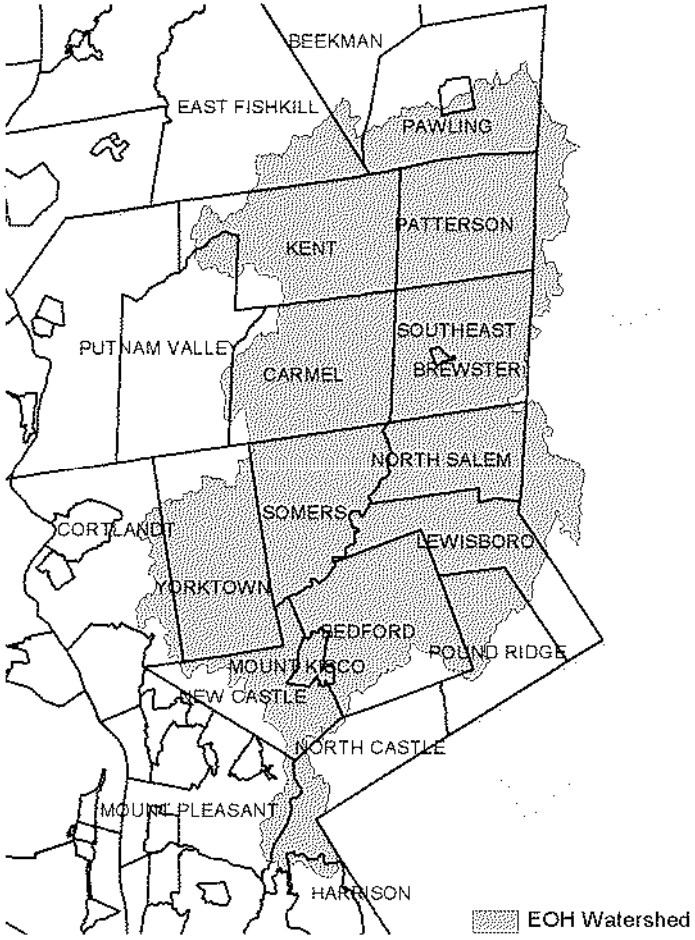


Figure 2 - Onondaga Lake Watershed

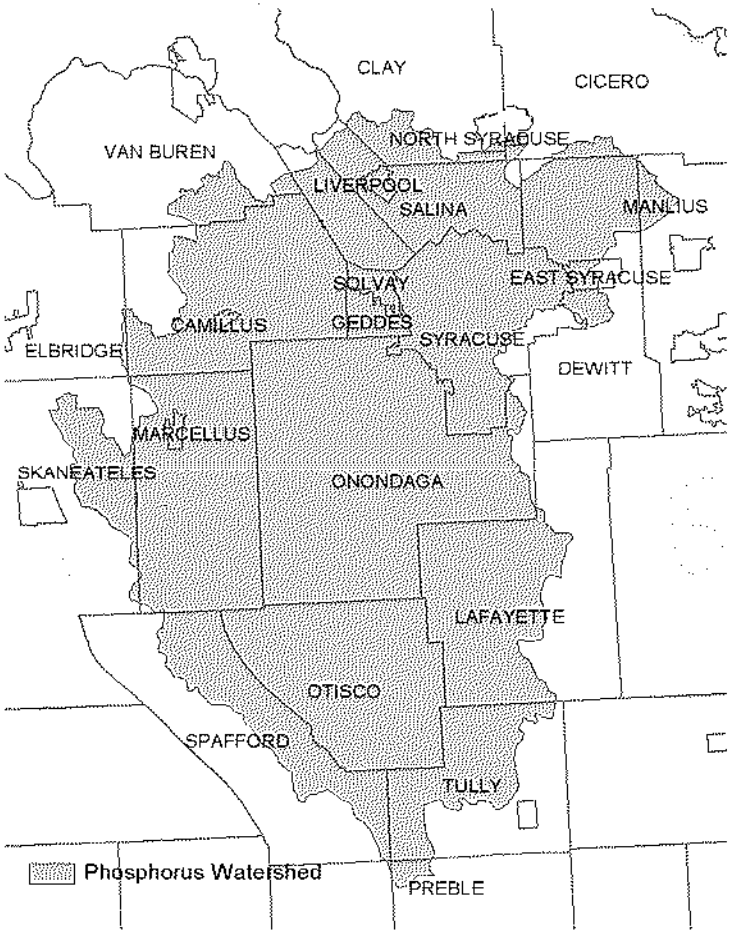


Figure 3 - Greenwood Lake Watershed



Figure 4 - Oscawana Lake Watershed

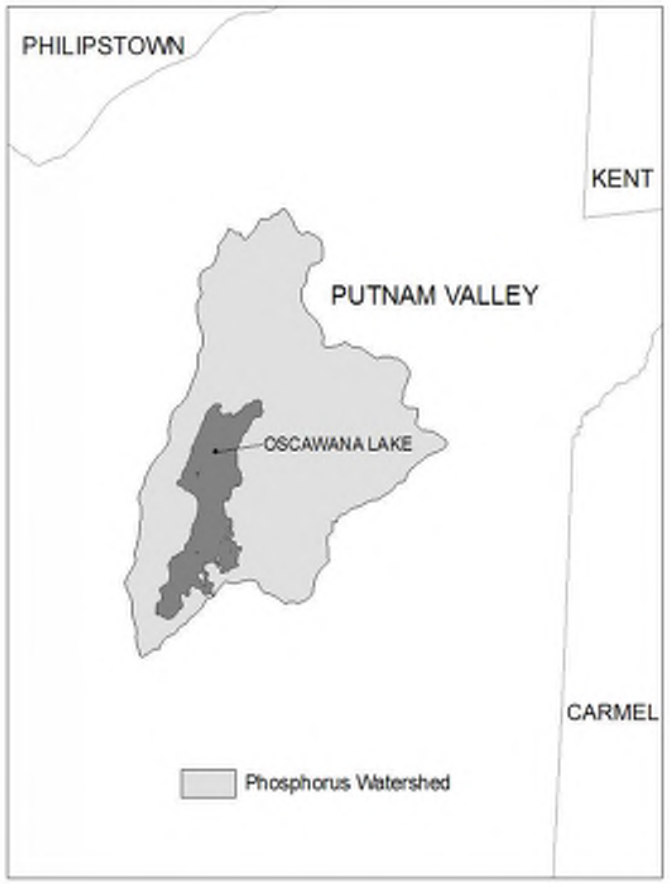
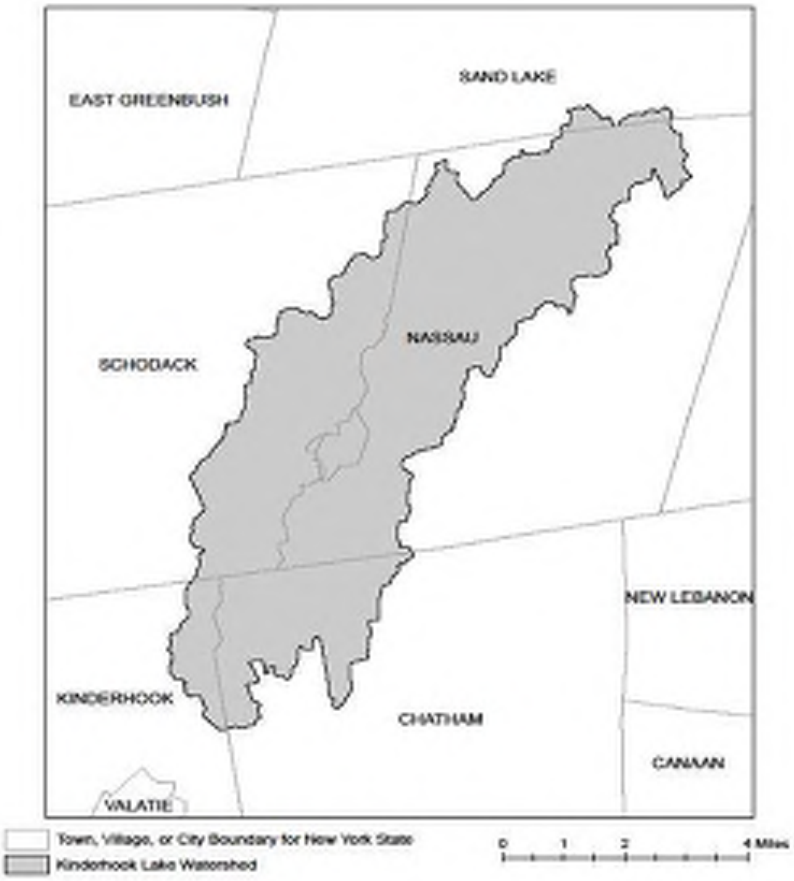


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Impaired Waterbodies (by Construction Related Pollutants)

List of waterbodies impaired by *pollutants* related to *construction activity*, including turbidity, silt/sediment, and nutrients (e.g. nitrogen, phosphorus). This list is a subset of "The Final New York State 2018 Section 303(d) List of Impaired Waters Requiring a TMDL" dated June 2020.

County	Waterbody	Pollutant
Albany	Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	Phosphorus
Albany	Lawsons Lake (1301-0235)	Phosphorus
Allegany	Amity Lake, Saunders Pond (0403-0054)	Phosphorus
Allegany	Andover Pond (0403-0056)	Phosphorus
Bronx	Reservoir No.1/Lake Isle (1702-0075)	Phosphorus
Bronx	Van Cortlandt Lake (1702-0008)	Phosphorus
Broome	Blueberry, Laurel Lakes (1404-0033)	Phosphorus
Broome	Fly Pond, Deer Lake (1404-0038)	Phosphorus
Broome	Minor Tribs to Lower Susquehanna (0603-0044)	Phosphorus
Broome	Whitney Point Lake/Reservoir (0602-0004)	Phosphorus
Cattaraugus	Allegheny River/Reservoir (0201-0023)	Phosphorus
Cattaraugus	Beaver Lake/Alma Pond (0201-0073)	Phosphorus
Cattaraugus	Case Lake (0201-0020)	Phosphorus
Cattaraugus	Linlyco/Club Pond (0201-0035)	Phosphorus
Cayuga	Duck Lake (0704-0025)	Phosphorus
Cayuga	Owasco Inlet, Upper, and tribs (0706-0014)	Nutrients
Chautauqua	Chadakoin River and tribs (0202-0018)	Phosphorus
Chautauqua	Hulburt/Clymer Pond (0202-0079)	Phosphorus
Chautauqua	Middle Cassadaga Lake (0202-0002)	Phosphorus
Clinton	Great Chazy River, Lower, Main Stem (1002-0001)	Silt/Sediment
Columbia	Robinson Pond (1308-0003)	Phosphorus
Cortland	Dean Pond (0602-0077)	Phosphorus
Dutchess	Fallkill Creek (1301-0087)	Phosphorus
Dutchess	Hillside Lake (1304-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Silt/Sediment
Erie	Beeman Creek and tribs (0102-0030)	Phosphorus
Erie	Delaware Park Pond (0101-0026)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Silt/Sediment
Erie	Green Lake (0101-0038)	Phosphorus
Erie	Little Sister Creek, Lower, and tribs (0104-0045)	Phosphorus
Erie	Murder Creek, Lower, and tribs (0102-0031)	Phosphorus

Erie	Rush Creek and tribs (0104-0018)	Phosphorus
Erie	Scajaquada Creek, Lower, and tribs (0101-0023)	Phosphorus
Erie	Scajaquada Creek, Middle, and tribs (0101-0033)	Phosphorus
Erie	Scajaquada Creek, Upper, and tribs (0101-0034)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Silt/Sediment
Genesee	Bigelow Creek and tribs (0402-0016)	Phosphorus
Genesee	Black Creek, Middle, and minor tribs (0402 0028)	Phosphorus
Genesee	Black Creek, Upper, and minor tribs (0402-0048)	Phosphorus
Genesee	Bowen Brook and tribs (0102-0036)	Phosphorus
Genesee	LeRoy Reservoir (0402-0003)	Phosphorus
Genesee	Mill Pond (0402-0050)	Phosphorus
Genesee	Oak Orchard Cr, Upper, and tribs (0301-0014)	Phosphorus
Genesee	Oatka Creek, Middle, and minor tribs (0402-0031)	Phosphorus
Genessee	Tonawanda Cr, Middle, Main Stem (0102-0002)	Phosphorus
Greene	Schoharie Reservoir (1202-0012)	Silt/Sediment
Greene	Sleepy Hollow Lake (1301-0059)	Silt/Sediment
Herkimer	Steele Creek tribs (1201-0197)	Phosphorus
Herkimer	Steele Creek tribs (1201-0197)	Silt/Sediment
Kings	Hendrix Creek (1701-0006) 18	Nitrogen
Kings	Prospect Park Lake (1701-0196)	Phosphorus
Lewis	Mill Creek/South Branch, and tribs (0801-0200)	Nutrients
Livingston	Christie Creek and tribs (0402-0060)	Phosphorus
Livingston	Conesus Lake (0402-0004)	Phosphorus
Livingston	Mill Creek and minor tribs (0404-0011)	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs (0402-0033)	Phosphorus
Monroe	Buck Pond (0301-0017)	Phosphorus
Monroe	Cranberry Pond (0301-0016)	Phosphorus
Monroe	Durand, Eastman Lakes (0302-0037)	Phosphorus
Monroe	Lake Ontario Shoreline, Western (0301-0069) 9	Phosphorus
Monroe	Long Pond (0301-0015)	Phosphorus
Monroe	Mill Creek and tribs (0302-0025)	Phosphorus 2
Monroe	Mill Creek/Blue Pond Outlet and tribs (0402-0049)	Phosphorus
Monroe	Minor Tribs to Irondequoit Bay (0302-0038)	Phosphorus
Monroe	Rochester Embayment - East (0302-0002) [9]	Phosphorus
Monroe	Rochester Embayment - West (0301-0068) 9	Phosphorus
Monroe	Shipbuilders Creek and tribs (0302-0026)	Phosphorus 2
Monroe	Thomas Creek/White Brook and tribs (0302-0023)	Phosphorus

Nassau	Bannister Creek/Bay (1701-0380)	Nitrogen
Nassau	Beaver Lake (1702-0152)	Phosphorus
Nassau	Browswere Bay (1701-0383)	Nitrogen
Nassau	Camaans Pond (1701-0052)	Phosphorus
Nassau	East Meadow Brook, Upper, and tribs (1701-0211)	Silt/Sediment
Nassau	East Rockaway Channel (1701-0381)	Nitrogen
Nassau	Glen Cove Creek, Lower, and tribs (1702-0146)	Silt/Sediment
Nassau	Grant Park Pond (1701-0054)	Phosphorus
Nassau	Hempstead Bay, Broad Channel (1701-0032)	Nitrogen
Nassau	Hempstead Lake (1701-0015)	Phosphorus
Nassau	Hewlett Bay (1701-0382)	Nitrogen
Nassau	Hog Island Channel (1701-0220)	Nitrogen
Nassau	Massapequa Creek, Upper, and tribs (1701-0174)	Phosphorus
Nassau	Milburn/Parsonage Creeks, Upp, and tribs (1701-0212)	Phosphorus
Nassau	Reynolds Channel, East (1701-0215) [12]	Nitrogen
Nassau	Reynolds Channel, West (1701-0216) 12	Nitrogen
Nassau	Tidal Tribs to Hempstead Bay (1701-0218)	Nitrogen
Nassau	Tribs (fresh) to East Bay (1701-0204)	Silt/Sediment
Nassau	Tribs (fresh) to East Bay (1701-0204)	Phosphorus
Nassau	Tribs to Smith Pond/Halls Pond (1701-0221)	Phosphorus
Nassau	Woodmere Channel (1701-0219)	Nitrogen
New York	Harlem Meer (1702-0103)	Phosphorus
New York	The Lake in Central Park (1702-0105)	Phosphorus
Niagara	Bergholtz Creek and tribs (0101-0004)	Phosphorus
Niagara	Hyde Park Lake (0101-0030)	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0053) 9	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0072) 9	Phosphorus
Oneida	Ballou, Nail Creeks (1201-0203)	Phosphorus
Onondaga	Ley Creek and tribs (0702-0001) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nitrogen (NH3, NO2)
Onondaga	Onondaga Creek, Lower (0702-0023) 10	Nutrients (phosphorus)
Onondaga	Onondaga Creek, Lower, and tribs (0702-0023)	Turbidity
Onondaga	Onondaga Creek, Middle, and tribs (0702-0004)	Turbidity
Onondaga	Onondaga Creek, Upper, and tribs (0702-0024)	Turbidity
Ontario	Great Brook and minor tribs (0704-0034)	Phosphorus 2
Ontario	Great Brook and minor tribs (0704-0034)	Silt/Sediment

Ontario	Hemlock Lake Outlet and minor tribs (0402-0013)	Phosphorus
Ontario	Honeoye Lake (0402-0032)	Phosphorus
Orange	Brown Pond Reservoir (1303-0013)	Phosphorus
Orange	Lake Washington (1303-0012)	Phosphorus
Orange	Minor Tribs to Middle Wallkill (1306-0061)	Phosphorus
Orange	Monhagen Brook and tribs (1306-0074)	Phosphorus
Orange	Orange Lake (1301-0008) [16]	Phosphorus
Orange	Quaker Creek and tribs (1306-0025)	Phosphorus
Orange	Wallkill River, Middle, Main Stem (1306-0038)	Phosphorus
Orange	Wallkill River, Upper, and Minor tribs (1306-0017)	Phosphorus
Orleans	Glenvwood Lake (0301-0041)	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0070) 9	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0071) 9	Phosphorus
Oswego	Lake Neatahwanta (0701-0018)	Nutrients (phosphorus)
Oswego	Pleasant Lake (0703-0047)	Phosphorus
Putnam	Lost Lake, Putnam Lake (1302-0053)	Phosphorus
Putnam	Minor Tribs to Croton Falls Reservoir (1302-0001)	Phosphorus
Queens	Bergen Basin (1701-0009) 18	Nitrogen
Queens	Jamaica Bay, Eastern, and tribs, Queens (1701-0005) 18	Nitrogen
Queens	Kissena Lake (1702-0258)	Phosphorus
Queens	Meadow Lake (1702-0030)	Phosphorus
Queens	Shellbank Basin (1701-0001) 18	Nitrogen
Queens	Willow Lake (1702-0031)	Phosphorus
Rensselaer	Nassau Lake (1310-0001)	Phosphorus
Rensselaer	Snyders Lake (1301-0043)	Phosphorus
Richmond	Grassmere Lake/Bradys Pond (1701-0357)	Phosphorus
Rockland	Congers Lake, Swartout Lake (1501-0019)	Phosphorus
Rockland	Rockland Lake (1501-0021)	Phosphorus
Saratoga	Ballston Lake (1101-0036)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Silt/Sediment
Saratoga	Lake Lonely (1101-0034)	Phosphorus
Saratoga	Round Lake (1101-0060)	Phosphorus
Saratoga	Tribs to Lake Lonely (1101-0001)	Phosphorus
Schenectady	Collins Lake (1201-0077)	Phosphorus
Schenectady	Duane Lake (1311-0006)	Phosphorus
Schenectady Lake	Mariaville Lake (1201-0113)	Phosphorus
Schuyler	Cayuta Lake (0603-0005)	Phosphorus

Seneca	Reeder Creek and tribs (0705-0074)	Phosphorus
St.Lawrence	Black Lake Outlet, Black Lake (0906-0001)	Phosphorus
St.Lawrence	Fish Creek and minor tribs (0906-0026)	Phosphorus
Steuben	Smith Pond (0502-0012)	Phosphorus
Suffolk	Agawam Lake (1701-0117)	Phosphorus
Suffolk	Big/Little Fresh Ponds (1701-0125)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Silt/Sediment
Suffolk	Fresh Pond (1701-0241)	Phosphorus
Suffolk	Great South Bay, East (1701-0039)	Nitrogen
Suffolk	Great South Bay, Middle (1701-0040)	Nitrogen
Suffolk	Great South Bay, West (1701-0173)	Nitrogen
Suffolk	Lake Ronkonkoma (1701-0020)	Phosphorus
Suffolk	Mattituck/Marratooka Pond (1701-0129)	Phosphorus
Suffolk	Mill and Seven Ponds (1701-0113)	Phosphorus
Suffolk	Millers Pond (1702-0013)	Phosphorus
Suffolk	Moriches Bay, East (1701-0305)	Nitrogen
Suffolk	Moriches Bay, West (1701-0038)	Nitrogen
Suffolk	Quantuck Bay (1701-0042)	Nitrogen
Suffolk	Shinnecock Bay and Inlet (1701-0033)	Nitrogen
Suffolk	Tidal Tribs to West Moriches Bay (1701-0312)	Nitrogen
Sullivan	Bodine, Mongomery Lakes (1401-0091)	Phosphorus
Sullivan	Davies Lake (1402-0047)	Phosphorus
Sullivan	Evens Lake (1402-0004)	Phosphorus
Sullivan	Pleasure Lake (1402-0055)	Phosphorus
Sullivan	Swan Lake (1401-0063)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Silt/Sediment
Ulster	Ashokan Reservoir (1307-0004)	Silt/Sediment
Ulster	Esopus Creek, Lower, Main Stem (1307-0010) [17]	Turbidity
Ulster	Esopus Creek, Middle, Main Stem (1307-0003) 17	Turbidity
Ulster	Esopus Creek, Upper, and minor tribs (1307-0007)[3]	Silt/Sediment
Ulster	Wallkill River, Lower, Main Stem (1306-0027)	Phosphorus
Warren	Hague Brook and tribs (1006-0006)	Silt/Sediment
Warren	Huddle/Finkle Brooks and tribs (1006-0003)	Silt/Sediment
Warren	Indian Brook and tribs (1006-0002)	Silt/Sediment
Warren	Lake George (1006-0016) and tribs	Silt/Sediment
Warren	Tribs to Lake George, East Shore (1006-0020)	Silt/Sediment
Warren	Tribs to Lake George, Lk.George Village (1006-0008)	Silt/Sediment

Washington	Wood Cr/Champlain Canal and tribs (1005-0036)	Phosphorus
Westchester	Lake Katonah (1302-0136)	Phosphorus
Westchester	Lake Lincolndale (1302-0089)	Phosphorus
Westchester	Lake Meahagh (1301-0053)	Phosphorus
Westchester	Lake Mohegan (1301-0149)	Phosphorus
Westchester	Lake Shenorock (1302-0083)	Phosphorus
Westchester	Mamaroneck River, Lower (1702-0071)	Silt/Sediment
Westchester	Mamaroneck River, Upp, & minor tribs (1702-0123)	Silt/Sediment
Westchester	Saw Mill River (1301-0007)	Phosphorus
Westchester	Saw Mill River, Middle, and tribs (1301-0100)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Silt/Sedimnt
Westchester	Silver Lake (1702-0040)	Phosphorus
Westchester	Teatown Lake (1302-0150)	Phosphorus
Westchester	Truesdale Lake (1302-0054)	Phosphorus
Westchester	Wallace Pond (1301-0140)	Phosphorus

APPENDIX E – List of NYSDEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	220 White Plains Road, Suite 110 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7438	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7165	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7070

APPENDIX F – SWPPP Preparer Certification Form

The SWPPP Preparer Certification Form required by this permit begins on the following page.

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:

eNOI Submission ID:

Owner/Operator Name:

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SWPPP Preparer First Name | MI | SWPPP Preparer Last Name

Signature | Date

Revised: January 2025

APPENDIX G – MS4 SWPPP Acceptance Form

The MS4 SWPPP Acceptance Form required by this permit begins on the following page.

NEW YORK STATE | Department of Environmental Conservation

MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4 Operator:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Street Address:
14. City/State/Zip:
15. Telephone Number:

MS4 SWPPP Acceptance Form - continued
V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative
I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.
Printed Name[1]:
Title/Position:
Signature:
Date:
VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

APPENDIX H – NYCDEP SWPPP Acceptance/Approval Form

The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval form required by this permit begins on the following page.

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis
59-17 Junction Blvd., 9th Floor; Flushing, NY 11373

SWPPP Acceptance/Approval

Application Number:

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance/Approval
8. SWPPP Reviewed by:
9. Title/Position: /
10. Date Final SWPPP Reviewed and Accepted:
11. Acceptance/Approval Expiration Date:
IV. Regulated MS4 Information for projects that require coverage under the NY State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity
12. Name of MS4: *CITY OF NEW YORK*
13. MS4 SPDES Permit Identification Number: *NY-0287890*
14. Contact Person:
15. Street Address: *59-17 Junction Blvd. 9th Floor*
16. City/State/Zip: *Flushing, NY 11373*
17. Telephone Number:

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis
59-17 Junction Blvd., 9th Floor; Flushing, NY 11373

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative
I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.
Printed Name:
Title/Position:
Signature:
Date:
VI. Conditions of Acceptance/Approval and Additional Information

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

APPENDIX I – MS4 No Jurisdiction Form

The MS4 No Jurisdiction Form required by this permit begins on the following page.

NEW YORK STATE | Department of Environmental Conservation

MS4 No Jurisdiction Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. eNOI Submission ID:

III. Traditional Land Use Control MS4 Operator Information

a. Name of MS4 Operator:

b. MS4 SPDES Permit ID Number: NYR20A

c. Street Address:

d. City/State/Zip:

e. Telephone Number:

IV. Certification Statement

In accordance with CGP Part I.D.2.b.ii.3., I hereby certify that the Traditional Land Use Control MS4 Operator identified in section III. of this form does not have review authority over the construction project identified in section II. of this form, which is owned/operated by the entity identified in section I. of this form. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.:

b. Title/Position:

c. Signature:

d. Date:

APPENDIX J – Owner/Operator Certification Form

The Owner/Operator Certification Form required by this permit begins on the following page.

NEW YORK STATE | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: _____

eNOI Submission ID: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name MI Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

April 20, 2026

Jeffery Schieber
Code Enforcement Officer
1250 Union Road – Room 210
West Seneca, New York 14224

RE: 2544 Clinton Street – Home Leasing Development
Site Plan Review Application Package

Mr. Schieber:

On behalf of Home Leasing Development, I am pleased to submit a Site Plan Review Application Package for the proposed affordable multi-family housing project "West Seneca Apartments", located on one parcel at 2544 Clinton Street.

Home Leasing is seeking Site Plan Approval to develop the project on an approximately 12.7-acre site. (TA#124.00-2-5). The project proposes the construction of 75-units spanning across two buildings – the existing mansion on site (15-units) and a new 3-story multifamily apartment building (60-units) with associated parking, site and drainage improvements.

The original project was approved by the Town Board for Rezoning, Special Use Permit and SEQR Negative Declaration on 1/27/2025. The revised layout for the project was approved by the Town Board for an Amendment to the existing Special Use Permit on 2/9/2026.

This package includes a fully engineered site package for Planning Board Review.

Per Town of West Seneca Code – Site Plan Review Criteria - "Planning Board Actions; project review criteria" (Code Section 102-12 (A & B)), we offer the following responses:

(1) Conformance with this chapter and other adopted Town plans, an approved development plan that includes the subject site, if one exists, and all other applicable laws;

To the best of our knowledge, the project is in compliance with all regulations of the R-50 zoning district and supplemental multifamily housing requirements. Based on the 2016 Comprehensive Plan – Neighborhoods – Section A, B and C – the plan supports continuing to build affordable housing with West Seneca.

(2) Compatibility of the proposed development with the natural features of the land and the environmental attributes of the site;

The project is designed to preserve and avoid disturbance in the environmentally sensitive areas located on the site. There will be no disturbance within the archeological buffer area and 100-year floodplain. All development is located in FEMA Zone X and areas of minimal flood hazard. Development is located away from Cayuga creek to maintaining an existing natural buffer. The site layout is designed to maintain existing trees/vegetation along Clinton Street and along the perimeter of the parcel.

(3) *The project's compliance with grading and drainage requirements of the Town;*

The project is designed to comply with the town standards. Stormwater is designed to meet NYS Stormwater Design Manual standards, grading and disturbance will be limited to areas as required for installation of stormwater practices and to achieve positive drainage away from buildings/across hardscape areas.

(4) *The project's compliance with the Town's Flood Damage Prevention Law;*

The project is located partially within FEMA Zone X, with the majority of the development sitting outside of all mapped zones. Per Town Code Section 77-12 – A floodplain development permit is not required for development within Zone X.

(5) *The general layout and design of buildings, lighting, signage, open space and development features consistent with reasonable planning principles;*

The proposed singular new 3-story building (60-units) along with utilizing the existing mansion for an additional 15-units was chosen to lessen the overall footprint on the property. The existing landscaping and stone wall are being preserved to the greatest extent possible, providing screening of the new building and parking lot from Clinton Street. Roads and parking lots have been designed to meet town standards and allow for proper emergency access.

(6) *The location and design of vehicular entrances/exits, including emergency access and fire lanes, in relation to the street system, traffic circulation and control within the site, and coordination of access points and circulation with adjoining properties;*

The existing entrance to the property is being utilized with minor widening to allow for adequate space for emergency vehicles. The parking lot and roadways are designed to meet NYS Fire Code including: fire lanes for aerial apparatus access along two sides of building, fire turnarounds, a looped parking lot, and two new private fire hydrants.

(7) *The provision and protection of pedestrian movement on the site and coordination of pedestrian movement on adjoining properties and the street system;*

Sidewalks are provided throughout the proposed development. All sidewalks (as shown on the plans) are ADA compliant. Sidewalk access is provided out to Clinton Street and a new segment of sidewalk within the ROW and extends to the west to the limits of the existing guardrail, in accordance with previous coordination with NYSDOT.

(8) *The location, design, layout and adequacy of parking, loading and stacking areas, including the provision of opportunities for handicapped parking;*

The parking lot provides the code required 170 spaces – including 20 visitor spaces. The submitted plans proposes 20-banked parking spaces to be constructed in the future if demand requires it. ADA and EV spaces are provided at both buildings, adjacent to the accessible entrances for the respective buildings.

(9) *Provision of landscaping, screening and buffers to complement development and protect adjacent uses and public rights-of-way from unsightliness, noise, glare and other nuisances. Such elements shall also be used to promote the availability of green space in nonresidential development and recreation space in residential development to avoid a continuous paved or built environment;*

The project layout was designed to preserve open space. Existing natural buffers will be maintained along the north, east and west boundaries of the site. Trees along the south (Clinton Street) will be maintained – other than removal required for the widening of the driveway. A patio area and playground are provided, along with landscaped islands throughout the parking lot. Trees will be added along the entrance drive to provide additional screening of the new development from Clinton Street.

(10) Adequate provision of drainage and stormwater management facilities;

A Stormwater Pollution Prevention Plan (SWPPP) was prepared for the site and is included in this submission package. The site is designed per the NYS Stormwater Design Manual standards and NYSDEC Standards and Specifications for Erosion and Sediment Control. Several stormwater practices are proposed for the site including bioretention areas, underground stormwater chambers and use of a hydrodynamic separator (water quality unit).

(11) Adequacy of sewer and water facilities, fire protection and conformance with Town regulations for the provision and construction of those services;

A full sewer report (including flow testing) has been completed. Findings of the monitoring was reviewed and approved by Erie County Sewer, concluding that the sewer has sufficient capacity to support the proposed project. Existing flow tests for the watermain on Clinton Street have been reviewed and it was determined that the existing watermain has sufficient pressure to support the proposed project. Both buildings will be designed to meet NYS Fire Code (for rehabilitation of the existing building and new construction).

(12) Where appropriate and applicable, the concurrence of Town agencies, New York State Department of Transportation, New York State Department of Environmental Conservation and other county or state agencies, as appropriate; and

Correspondence with reviewing agencies will be/has been provided to the town as a part of the site plan review. To date NYSDOT and SHPO correspondence was provided as part of SEQR review and issuance of the Special Use Permit.

(13) Meeting the requirements for a site plan, as identified in this chapter.

This application package as submitted meets the requirements of the Town Code, to the best of our knowledge.

Included for your consideration in the Site Plan Review are the following items:

- Site Plan Application
- Civil Plan Set
- Architectural Elevations & Rendering
- Preliminary ALTA
- Engineering Report
- SWPPP
- Check – Review Fee (mailed separately)

We look forward to presenting this project to the Planning Board on May 14th, 2026. If you have any questions or need any additional information, please feel free to contact me at 585-770-2525 or svakiener@labellapc.com.

Respectfully submitted,

LaBella Associates



Shelby Vakiener, Civil Engineer

TOWN OF WEST SENECA

APPLICATION FOR SITE PLAN REVIEW APPROVAL

TO BE COMPLETED BY APPLICANT

DATE 4/20/2026 FILE # _____

PROJECT NAME West Seneca Apartments

PROJECT LOCATION (Include address and distance to nearest intersection)
2544 Clinton Street - Nearest cross street - Lakeside Court (+/- 750 LF to the East)

APPLICANT Home Leasing - (contact - Angela Eicholtz) PH/FAX (248) 978-4420

ADDRESS 45 East Avenue, 2nd Floor, Rochester, NY 14604

PROPERTY OWNER Clinton Street Realty Holdings PH/FAX _____

ADDRESS _____

ENGINEER/ ARCHITECT Labella Associates DPC - (contact - Shelby Vakiener) PH/ FAX (585) 454-6110

ADDRESS 300 Pearl Street, Suite 130, Buffalo, NY 14202

SBL # 124.00-2-5

PROJECT DESCRIPTION (Include all uses and any required construction)

Construction of a new multifamily housing project with 75 total units. Includes a new +/- 75,900 SF building with 60 units and the re-purposing of the existing mansion on site with 15 units. Also includes, driveway, parking, stormwater management facilities

SIZE OF LOT (acres) 12.7 (to creek CL) ACREAGE TO BE REZONED N/A

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH
Clinton Street: +/- 205 LF of frontage

EXISTING ZONING R-50 PROPOSED ZONING R-50

EXISTING USE(S) ON PROPERTY Commercial

PROPOSED USE(S) ON PROPERTY Residential - Mutlifamily

EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET

Zoning: R75(S), R-100 A, R-100A(S), C-2, C-2(S)
Uses include: 1 Family Residential, 2 Family Residential, Residential vacant land, Residential w/ community use, warehouse, converted residential

PUBLIC SEWER YES X NO ___ PUBLIC WATER YES X NO ___

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED
Special Use Permit - Issued by Town Board on 2/9/2026

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED _____ BY _____

PLANNING BOARD MEETING DATE _____

TOWN BOARD MEETING DATE _____

TOWN BOARD RESOLUTION DATE _____

NON – REFUNDABLE FILING FEE (Payable to the Town Clerk): $

TOWN OF WEST SENECA

APPLICANT CHECKLIST FOR SITE PLAN REVIEW

PLEASE REFER TO APPENDICES A, B, & C AND THE TOWN OF WEST SENECA ZONING ORDINANCE FOR ADDITIONAL DESIGN INFORMATION. THE APPLICANT/ AGENT MUST INITIAL EACH ELEMENT AS PROOF THAT ALL REQUIREMENTS HAVE BEEN MET.

I. SITE PLAN All site plan drawings shall be prepared, signed, and sealed by an architect, landscape architect, engineer, or surveyor licensed in the State of New York, drawn to scale, and must include the following elements (also see checklist in Appendix A) :

__SV__ Title of drawing.

__SV__ Name, address, and telephone number of applicant, owner of record, and person who prepared the drawing. If owner of record is different from applicant, a letter of authorization from the owner or a contract of sale is required.

__SV__ North arrow, scale, revisions block and date.

__SV__ Site location map.

__SV__ Name, location, width, and jurisdiction of existing roads and sidewalks.

__SV__ Location of curb cuts on project site and on adjacent properties (including properties across the street).

__SV__ Location of all existing and proposed buildings and structures, paving, curbs, and pedestrian and bicycle facilities with those to be removed clearly identified.

__SV__ Show all zoning district boundaries, zoning classifications for all adjacent properties (including across the street), and zoning setback dimensions. If a portion of the site is proposed to be rezoned, the new zoning district boundaries should be shown.

__SV__ Zoning data block comparing existing and proposed requirements, including greenspace and parking calculations.

__SV__ Location of any areas proposed for outdoor display and sale of merchandise, if applicable.

__SV__ Layout of all off-street parking areas showing access drives, aisles, parking spaces, handicapped accessible spaces, and loading areas (conforming to all requirements of the Town of West Seneca Zoning Ordinance). A cross-section of proposed pavement must be provided.

__SV__ Existing and proposed rights-of-way and easements and location of areas to be in common ownership or to be offered for dedication.

__SV__ Existing and proposed watercourses including wetlands, floodways, and floodplains (this information should also appear in the drainage plan and grading plan).

__SV__ Location of all proposed signage (conforming to all requirements of the Town of West Seneca Zoning Ordinance).

__SV__ Any other information as might be required by the Planning Board.

II. BOUNDARY SURVEY

__SV__ A **topographic boundary survey** and a **written legal description.** (metes and bounds)
Provide in Electronic Form as well as written

III. UTILITY PLAN – to include the following elements (also see checklist in Appendix A)

__SV__ Location of existing water mains, showing main size and material type, o-site and off-site fire hydrant locations, and on-site main line valve locations.

__SV__ Location of proposed water service showing material type and diameter of water main.

__SV__ Location of existing and proposed gas and electric service.

__SV__ Sanitary service showing location, proposed line, and existing main size. Include all manhole rim and invert elevations, pipe slope, and construction materials, if appropriate

__SV__ The estimated daily sanitary sewage flow calculations must be included in the site plan Engineering Report.

__SV__ Written confirmation that the process has been initiated with County or State Highway Departments for sanitary sewer connection, curb cuts, work permits, etc. (Applicant must furnish a letter from the appropriate County or State agency indicating their approval of the proposal prior to issuance of a Building Permit)(if necessary).

IV. GRADING PLAN – To include the following elements (also see checklist in Appendix A).

__SV__ Existing and proposed grade elevation with contour lines at 1-foot intervals.

__SV__ Finished floor elevations for all proposed and adjacent structures.

V. DRAINAGE PLAN – to include the following elements (also see checklist in Appendix A):

__SV__ All catch basins, line size, and proposed construction materials. No stormwater shall drain onto adjoining properties. All downspouts shall be connected to the stormwater collection system.

__SV__ Systems shall be designed for a minimum 10-year storm.

__SV__ Stormwater calculations, prepared by a person licensed to design a storm drainage system in New York State.

__SV__ Site plan Engineering Report (refer to requirements in Appendices A & B).

__SV__ Any proposed project that will involve one or more acres of soil disturbance is required to comply with NYSDEC SPDES General Permit requirements for
stormwater discharges. A copy of the Notice of Intent (NOI) and Stormwater
Pollution Prevention Plan (WPPP) must be provided with the site plan Engineering Report..

VI. LANDSCAPING PLAN – to include the following elements (also see Appendix C).

_SV_ All existing and proposed tree lines.

FUTURE All proposed trees, shrubs, and other plantings with appropriate labeling.

FUTURE Planting schedule data block with legend key, species name (botanical and common names), quantity, size, and spacing.

_SV_ Planting details for trees and evergreens must illustrate the crown of root ball at six (6) inches above finished grade; three (3) inches for shrubs.

_SV_ Refer to the Town of West Seneca Zoning Ordinance for applicable landscaping and screening requirements.

VII. CLEARING 7 SOIL EROSION CONTROL PLAN - to include the following elements:

_SV_ Site preparation and clearing shall be designed to fit with the vegetation, topography, and other natural features of the site and shall preserve as many of these features of the sight and shall preserve as many of these features as possible.

_SV_ Show clearing limits, stock pile area, and all temporary and permanent drainage facilities. Erosion and sediment control facilities must be shown.

_SV_ A time schedule that is keyed to the operation must be provided.

_SV_ Include a note on the plan to indicate that stumps and brush may not be buried in the Town and that topsoil may not be removed from the work site without a permit.

VII. LIGHTING PLAN – to include the following elements:

_SV_ Location of all lighting fixtures and standards on the property and structures, including a fixture schedule.

_SV_ Photometric data for site illumination.

IX. BUILDING HEIGHT AND DESIGN

_SV_ Building elevations and floor plans of all non – residential structures and all residential structures containing three (3) or more dwelling units (including net floor area calculations).

I, Shelby Vakiener - agent for applicant as owner/applicant of West Seneca Apartments, located at 2544 Clinton Street. Town of West Seneca, to the best of my knowledge has submitted a complete application package for a site plan for review.

TOWN OF WEST SENECA

APPENDIX A-SITE PLAN APPLICATION CHECKLIST

I. GENERAL

_SV_ All elevations must reference the actual elevation of the site and proposed building (utilize Town of West Seneca data). Setting a base elevation at the centerline of the road to use as reference is not acceptable.

_SV_ All profiles provided must be drawn so that the horizontal scale is no more than 1" = 10' horizontal, and 1" = 5' vertical.

_SV_ Profiles be provided for utility crossings, the sanitary sewer system, and storm sewer system.

_SV_ Profiles for any utilities as deemed necessary by the engineer for construction.

II. UTILITY PLAN

_SV_ Add a note to the plan that states: "A minimum of 10 feet of horizontal and 18 inches of vertical separation must be maintained between all sanitary sewer and water services".

_SV_ Add a note to the plan that states: "The Erie County Water Authority is to be notified a minimum of 48-hours prior to starting the connection to the new water service.

_SV_ Add a note to the plan that states: "Select backfill is required for all utilities (gas, water, storm, sanitary) that cross through any pavement area." The limits of the select backfill must be shown on the utility plan.

_SV_ The plans must clearly state the type of proposed connection to the existing waterline to be made. Will it saddle with corporation stop or tapping sleeve and valve.

_SV_ All existing utilities, grading, etc. must be shown as a grey line type.

_SV_ All proposed utilities, grading, etc. must be shown as a black line type.

_SV_ Provide a trench detail for the proposed waterline installation. The detail must show the depth of cover, stone bedding, and indicate the use of underground waterline marker tape.

_SV_ Provide a trench detail for the proposed sanitary sewer lateral. The detail must show the depth of cover, stone bedding, and indicate the use of underground waterline marker tape. /when connecting the Erie County Sewer District No. 1 or No. 3 system, their details must be provided.

FUTURE Provide a profile for the proposed sanitary sewer service showing the connection to the existing system and connection at the facility.

III. PAVEMENT

SV Asphalt pavement grades should be at least 1.5%, preferably 2.0% to drain properly, minimize public safety concerns, and avoid liability issues. Theses grades must be shown on the drainage plan with flow arrows showing the direction of water flow.

SV Show on the plans a cross-section of the proposed sidewalk.

SV Show on the plans a cross-section of the proposed asphalt pavement. It is suggested that a thicker asphalt section be used for high traffic travel areas, where the dumpster is located, or where the deliveries will occur.

SV On the asphalt pavement cross-section, show the use of filter fabric (Mirafi 140N, or equal) under the pavement sub-base.

n/a If connections to cross –access driveways are being made with adjacent sites, a detail must be shown on the plans for the proposed connection. The pavement transition detail must include a V-shaped saw cut into the existing pavement and tack coat.

IV. DRAINAGE/GRADING

SV The stockpile area for topsoil and fill must be shown on the design plans.

SV Spot elevations for adjacent properties must be provided on the grading plan.

SV A minimum of 6-nches of cover are required for all storm sewer pipes in grass area. A minimum of 12-inches of cover are required for all storm sewer pipes in pavement. Storm sewer pipe located within the sub-base of the pavement is not allowed.

SV Invert elevations must be shown for all culverts under driveways.

n/a Provide stone rip rap at the pipe outlets from the detention pond.

n/a Provide emergency overflow for the detention pond for the 100-year storm elevation.

SV All culverts under driveways must be shown with galvanized end sections.

SV Diameter, material type, and inverts of all roof leader downspouts must be shown.

SV Diameter, material type, and inverts of all storm sewer pipes must be shown on the plans.

n/a For sites with less than one (1) acre of disturbance, the design engineer is required to detain the difference between the 10-year pre-developed storm and the 25-year post-developed storm.

SV For sites with greater than one (1) acre of disturbance, the design engineer is required to comply with all NYSDEC Stormwater Phase 2 regulations and design guidance.

V. SITE PLAN ENGINEERING REPORT

SV The applicant must provide three (3) copies of the site plan Engineering Report. This report will contain (at a minimum), the following sections:

- General Project Description.
- Project Location Map.
- Water System Calculations.
- Sanitary Sewer System Calculations.
- Stormwater Calculations

SV Provide the following information related to the proposed waterline for the facility in the design report. This would include the following:

- Domestic water demand (include calculations).
- Static waterline pressure (at the water right-of way).

FUTURE Anticipated pressure at the facility (include head loss calculations through the water service and backflow preventer/RPZ and meter); the design engineer must comment on the need to provide a sprinkler system for the facility. Provide fire flow calculation s for the facility (if applicable). Provide the following information related to the proposed sanitary sewer system for the facility in the design report. This would include the following:

- Number of employees at the facility.
- Sanitary sewer demand and lateral pipe sizing (include calculations).

SV Provide the following information related to the stormwater calculations for the facility in the design report. This would include the following:

Soil types of the site.

- Permeability and depth of water table of the soil.
- Description/dialogue on existing grading and stormwater runoff.
- Description/dialogue on proposed grading and stormwater runoff.
- Comment on the presence and show location of any NYSDEC or Federal Wetlands or 100-year Floodplain boundary.
- For sites with less than one (1) acre of disturbance, the design engineer is required to detain the difference between the 10-year pre-developed storm and the 25-year post-developed storm. Calculations must be provided
- For sites with greater than one (1) acre of disturbance, the design engineer is required to comply with all NYSDEC Stormwater Phase 2 regulations. Calculations must be provided.
- Calculations to be provided must include all assumptions, time of concentration, and detention pond sizing, and stormwater pipe sizing.
- All existing headwater and tailwater conditions must be considered for the design calculations.

Refer to APPENDIX B "Design of Stormwater Detention Facilities" for design guidance.

APPENDIX B-DESIGN OF STORMWATER DETENTION FACILITIES

The following method of determining the size of stormwater detention and retention facilities is presented as a guide for engineers, architects, and developers involved with construction projects in the Town of West Seneca.

Detention facilities are those facilities that detain the flow of stormwater runoff and discharge it at a reduced rate from the detention area. /this type of system operates by gravity with a large inlet and a small inlet. Retention facilities retain stormwater runoff, and it is necessary to pump the collected water into the downstream drainage system after peak flows have passed. Normally, detention facilities are installed much more frequently than retention facilities.

The Town of West Seneca requires that the stormwater detention system be designed in accordance with the following documents:

1. NYS Stormwater Design Manual
2. NYSDEC:SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001)
3. NYSDEC: Standards and Specifications for Erosion and Sediment Control

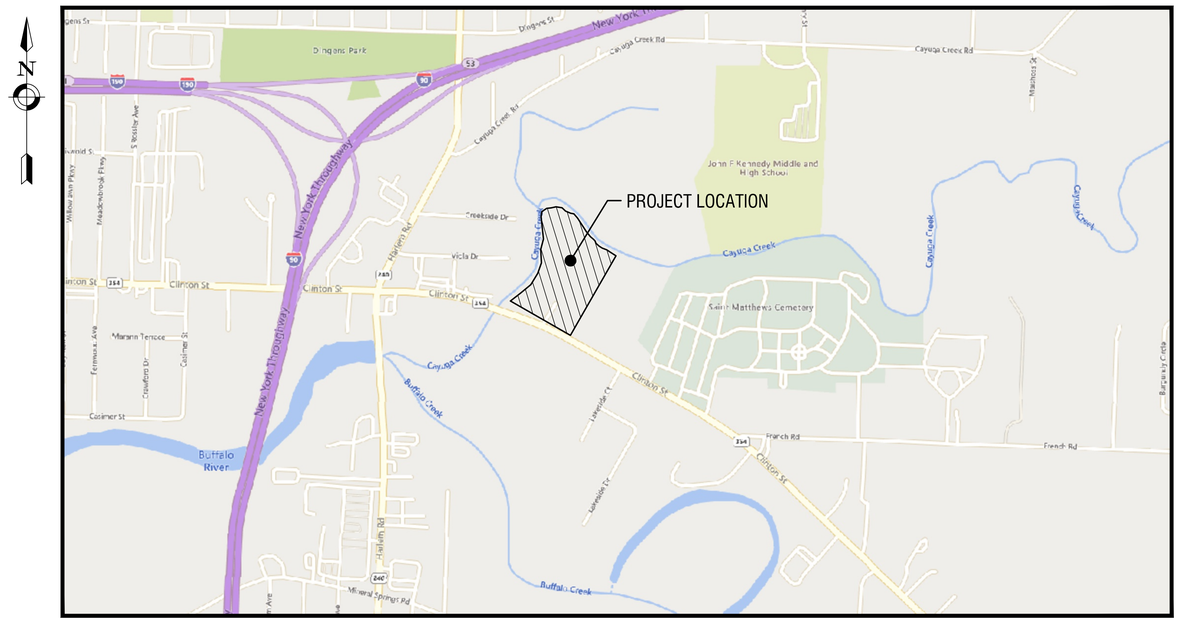
A copy of the Notice of Intent (NOI) and Storm Water Pollution Prevention Plan(SWPPP) as required by the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-10-001) must be received and accepted by the Town prior to construction activities.

- For projects accepted by the town, construction cannot begin until:
  * Five (5) business days from the date the NYSDEC receives a copy of the NOI; or the applicant receives an Acknowledgement Letter from the NYSDEC.

The engineer must provide all calculation and mappings, and state all assumptions necessary for review by the Town of West Seneca.

WEST SENECA APARTMENTS

2544 CLINTON ST,
WEST SENECA, NY 14224



LOCATION MAP
N.T.S.

HOME LEASING

75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604
PROJECT NO: 2241067
APRIL 2026

LaBella
Powered by partnership.

300 Pearl Street, Suite 130
Buffalo, NY 14202
716-551-6281

labellapc.com

ISSUED FOR SITE PLAN APPROVAL
APRIL 2026

HOME LEASING
PROJECT NO: 2241067

WEST SENECA APARTMENTS
2544 CLINTON ST, WEST SENECA, NY 14224

GENERAL NOTES

1. THE CONTRACTOR ALONE SHALL BE RESPONSIBLE TO LOCATE UTILITIES OUTSIDE THE RIGHT-OF-WAY INCLUDING PRIVATE ROADS.
2. SITE DRAINAGE, INCLUDING THE PROJECT SITE AND ADJACENT PRIVATE AND PUBLIC ROADWAYS, DRIVES, PARKING AREAS OR PROPERTIES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL MATERIALS, TOOLS AND EQUIPMENT, INCLUDING SPECIAL CUTTING DEVICES, NECESSARY TO PERFORM THE WORK CONTAINED IN THIS CONTRACT.
4. THE SIZES AND MATERIAL OF CONSTRUCTION OF WATER MAINS, SANITARY SEWERS AND STORM SEWERS TO REMAIN ARE REPUTED. THE CONTRACTOR SHALL VERIFY SIZES OF ALL UTILITIES WHERE CONNECTIONS TO SAID EXISTING UTILITIES ARE REQUIRED. EXCAVATION TO VERIFY THESE UTILITIES SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL PROTECT ALL EXISTING SITE AMENITIES NOT DESIGNATED FOR REMOVAL.
6. UNLESS OTHERWISE INDICATED ON THE PLANS OR DIRECTED BY THE ARCHITECT/ENGINEER, THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING AND PROTECTING FROM DAMAGE ALL TREES, SHRUBS AND PLANTS IN THE VICINITY OF THE PROPOSED WORK.
7. THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING UTILITIES DESIGNATED TO REMAIN FOR THE DURATION OF THE CONTRACT.
8. ANY SITE AMENITY, UTILITY, STREET APPURTENANCE, OR OTHER ITEM WHICH BECOMES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR AS DETERMINED BY THE PROJECT MANAGER OR ARCHITECT/ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.

SURVEY NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. NO ALLOWANCE WILL BE MADE FOR ADDITIONAL COSTS DUE TO CONTRACTOR'S FAILURE TO VERIFY EXISTING CONDITIONS.
2. THE CONTRACTOR SHALL LOCATE, MARK, SAFEGUARD AND PRESERVE ALL SURVEY MARKERS AND RIGHT-OF-WAY MARKERS IN THE AREA OF CONSTRUCTION.
3. ANY IRON PINS, MONUMENTS OR OTHER ITEMS DEFINING PROPERTY LINES WHICH ARE DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE PROPERLY TIED AND ACCURATELY RESET BY A NYS LICENSED SURVEYOR UPON COMPLETION OF THE WORK.
4. HORIZONTAL DATUM BASED OFF NAD83.
5. VERTICAL BASED OFF OF NAVD88.

DEMOLITION NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. NO ALLOWANCE WILL BE MADE FOR ADDITIONAL COSTS DUE TO CONTRACTOR'S FAILURE TO VERIFY EXISTING CONDITIONS AND DIMENSIONS.
2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY DIG SAFE NEW YORK AT 811 TO REQUEST UTILITY STAKEOUT OF ALL PUBLIC UTILITIES.
3. WORK ASSOCIATED WITH THIS CONTRACT WILL OCCUR AT AN ACTIVE AND FUNCTIONAL FACILITY. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO MINIMIZE DISRUPTION TO THE OPERATIONS OF THE FACILITY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE A SAFE WORK SITE AND TO PROTECT THE PUBLIC, VISITORS AND EMPLOYEES FROM HARM AS A RESULT OF HIS CONSTRUCTION ACTIVITIES.
4. THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING ABOVE GROUND AND BELOW GROUND UTILITIES, STRUCTURES, AND APPURTENANCES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, STRUCTURES, AND APPURTENANCES IN THE PATH OF AND ADJACENT TO THE PROPOSED WORK.
5. SITE DRAINAGE, INCLUDING THE PROJECT SITE AND ADJACENT PRIVATE AND PUBLIC ROADWAYS, DRIVES, PARKING AREAS OR PROPERTIES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
6. CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING UTILITIES DESIGNATED TO REMAIN FOR THE DURATION OF THE CONTRACT.
7. THE CONTRACTOR SHALL NOTIFY THE LOCAL GOVERNMENT, LOCAL FIRE DEPARTMENT AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) AS NECESSARY AND SHALL OBTAIN ANY REQUIRED PERMITS PRIOR TO BEGINNING WORK. COPIES OF ANY REQUIRED PERMITS SHALL BE PROVIDED TO THE OWNER PRIOR TO BEGINNING THE WORK.
8. CONTRACTOR SHALL REMOVE FROM SITE, MATERIALS NOT INDICATED TO BE SALVAGED INCLUDING ALL DEBRIS. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF CONTRACTOR WHO SHALL LEGALLY DISPOSE OF SAME.
9. ALL TREES, SHRUBS AND PLANTS DESIGNATED TO REMAIN AND DISTURBED BY CONSTRUCTION OPERATIONS, SHALL BE REPLACED IN-KIND AS DIRECTED BY THE ARCHITECT/ENGINEER AND/OR OWNER'S DESIGNATED REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
10. THE CONTRACTOR SHALL MAINTAIN SAFE VEHICULAR AND PEDESTRIAN ACCESS TO THE EXISTING BUILDINGS FOR THE DURATION OF THE CONTRACT.
11. WHEN EXISTING CONSTRUCTION WHICH IS TO REMAIN IS DAMAGED DURING THE COURSE OF CONSTRUCTION AS A RESULT OF CONTRACTORS WORK, IT SHALL BE REPAIRED AND/OR REPLACED WITH SIMILAR OR LIKE MATERIALS AS MUCH AS POSSIBLE, AT NO COST TO THE OWNER. ALL REPAIRS AND/OR REPLACEMENTS WILL BE SUBJECT TO OWNERS APPROVAL.
12. COORDINATE LOCATION OF TEMPORARY CONSTRUCTION FENCE AND TEMPORARY STONE STAGING AREA WITH OWNER

SITE NOTES

1. WELL COMPACTED SUBGRADE SHALL BE UTILIZED UNDERNEATH CONSTRUCTION OF PAVEMENT AND CONCRETE BASES.
2. ALL STAKEOUT FOR THE PROPOSED SITE IMPROVEMENTS SHALL BE COMPLETED BY A NEW YORK STATE LICENSED LAND SURVEYOR.
3. IF ANY DISCREPANCIES ARE NOTED BETWEEN THESE CONSTRUCTION DOCUMENTS AND INFORMATION PROVIDED OR AN ERROR IS SUSPECT, IT SHALL BE IMMEDIATELY REPORTED TO THE CONSTRUCTION MANAGER AND LABELLA ASSOCIATES PROJECT MANAGER IN WRITING.
4. ANY PROOF-ROLLING OF EXPOSED SUBBASE BY A MINIMUM 10 TON SMOOTH DRUM ROLLER SHALL BE DONE UNDER THE GUIDANCE OF, AND OBSERVED BY, QUALIFIED ENGINEERING PERSONNEL PRIOR TO PLACEMENT OF SUBBASE MATERIAL. THE ROLLER SHOULD BE OPERATED IN THE STATIC MODE AND COMPLETE AT LEAST TWO (2) PASSES OVER THE EXPOSED SUBGRADES.
5. EXISTING WETLANDS DELINEATED BY XXXX ON XX/XX/XXXX.
6. PARCEL LINES AS SHOWN BY XXXX COUNTY GIS DATABASE, FOR THE TOWN OF XXXX.

UTILITY NOTES

1. CONTRACTOR SHALL COORDINATE INSTALLATION OF WATER MAIN / WATER SERVICE WITH ERIE COUNTY WATER AUTHORITY AND THE ERIE COUNTY HEALTH DEPARTMENT (ECDOH). NO WORK SHALL BEGIN ON THE WATER MAIN / WATER SERVICE WITHOUT ECWA AND ECDOH SIGNATURES ON THE UTILITY PLAN.
2. CONTRACTOR SHALL COORDINATE INSTALLATION OF SANITARY MAIN / SANITARY SERVICE WITH ERIE COUNTY PURE WATERS (ECPW). NO WORK SHALL BEGIN ON THE SANITARY MAIN / SANITARY SERVICE WITHOUT ECPW SIGNATURE ON THE UTILITY PLAN.

GRADING NOTES

1. THE CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF OSHA, AND ANY OTHER AGENCY HAVING JURISDICTION WITH REGARD TO SAFETY PRECAUTIONS WITH TRENCHING OPERATIONS. THE REQUIREMENTS SET FORTH HEREIN ARE INTENDED TO SUPPLEMENT REQUIREMENTS ESTABLISHED BY THESE AGENCIES. IN THE CASE OF A CONFLICT BETWEEN REQUIREMENTS OF OTHER JURISDICTIONAL AGENCIES AND THESE DOCUMENTS, THE MORE STRINGENT REQUIREMENT ON THE CONTRACTOR SHALL APPLY.
2. SHEETING, IF REQUIRED DURING CONSTRUCTION, IS CONSIDERED TO BE PART OF THIS CONTRACT AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
3. ALL TRENCHES THROUGH PAVEMENT SHALL BE SAW CUT PRIOR TO EXCAVATION AND AGAIN PRIOR TO PAVEMENT RESTORATION.
4. CONTRACTOR SHALL ADJUST THE RIMS OF ALL MANHOLES, CATCH BASINS, VALVE BOXES AND OTHER UTILITY SITE STRUCTURES TO MEET FINISHED GRADE IN AREAS REQUIRING REPAVING OR REGRADING AS PART OF THE WORK, INCLUDING THOSE THAT MAY NOT BE SHOWN ON THE PLANS.
5. VOIDS LEFT BY UTILITY OR STRUCTURE REMOVAL OR GRUBBING OPERATIONS SHALL BE BACKFILLED AND PROPERLY COMPACTED WITH STRUCTURAL FILL (NYSDOT ITEM 304.12) IN AREAS UNDER AND WITHIN 5 FEET HORIZONTALLY OF ALL STRUCTURES, BUILDINGS AND PAVEMENTS, IN GRASSED AREAS, VOIDS LEFT SHALL BE FILLED AND PROPERLY COMPACTED WITH SUITABLE ON-SITE OR IMPORTED EARTHEN BACKFILL. ALL DISTURBED AREAS SHALL BE RESTORED.
6. THE CONTRACTOR SHALL DEWATER ALL EXCAVATIONS TO PREVENT THE INTRODUCTION OF GROUNDWATER INTO THE TRENCHES/EXCAVATIONS. PROVIDE ALL EQUIPMENT NECESSARY TO MAINTAIN THE GROUNDWATER LEVEL AS NECESSARY.
7. THE CONTRACTOR SHALL PLACE AT MINIMUM 6 INCHES OF CLEANED SCREENED TOPSOIL IN ALL DISTURBED AREAS PRIOR TO SEEDING.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, AND LOCAL GOVERNING SOIL AND WATER CONSERVATION AGENCY RECOMMENDATIONS AND STANDARDS. CONTRACTOR SHALL SUBMIT PROPOSED EROSION CONTROL PLAN INCLUDING SEQUENCING OF WORK TO THE ENGINEER FOR REVIEW PRIOR TO START OF WORK.
2. UTILIZE CONSTRUCTION METHODS/TECHNIQUES, WHICH WILL LIMIT THE EXPOSED EARTHEN AREAS AND MINIMIZE THE EFFECT OF EARTH DISTURBANCE ACTIVITIES ON SOIL EROSION. THE AREA OF DISTURBANCE SHALL BE LIMITED TO A MAXIMUM OF 5 ACRES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. ALL SEDIMENTATION BARRIERS AND OTHER TEMPORARY OR PERMANENT MEASURES SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION. PLANS SHOW THE SUGGESTED MINIMUM MEASURES REQUIRED.
4. REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE COMPLETED AT THE APPROVAL OF THE OWNER AND ENGINEER. THE COST OF REMOVING THESE MEASURES SHALL ALSO BE INCLUDED IN THE BID PRICE.
5. FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL PROTECT ALL ON-SITE, ADJACENT AND/OR DOWNSTREAM STORM/SANITARY SEWERS, AND/OR OTHER WATER COURSES FROM CONTAMINATION BY WATER BORNE SILTS, SEDIMENTS, FUELS, SOLVENTS, LUBRICANTS OR OTHER POLLUTANTS ORIGINATING FROM ANY WORK DONE ON, OR IN SUPPORT OF THIS PROJECT.
6. DURING CONSTRUCTION NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO STORM/SANITARY SEWERS, DITCHES OR OTHER WATERS OF NEW YORK STATE, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY STORM/SANITARY SEWERS, DITCHES, RIVERS, OR WATER COURSES.
7. ALL EXCAVATED OR IMPORTED EARTHEN STOCKPILES SHALL BE SUITABLY STABILIZED AND PROTECTED BY SILT FENCE SO THAT IT CANNOT REASONABLY ENTER ANY WATER BODY, OR STORM OR SANITARY SEWER.
8. ALL METHODS AND EQUIPMENT PROPOSED BY THE CONTRACTOR TO ACCOMPLISH THE WORK FOR EROSION AND POLLUTION CONTROL SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
9. THE CONTRACTOR SHALL BE REQUIRED TO TREAT TRAVELED AREAS TO CONTROL DUST. WATER SHALL BE APPLIED TO SUCH TRAVELED AREAS AS THE ARCHITECT/ENGINEER OR OWNER'S DESIGNATED REPRESENTATIVE MAY DESIGNATE. THE NUMBER OF APPLICATIONS AND THE AMOUNT OF WATER SHALL BE BASED UPON FIELD AND WEATHER CONDITIONS.
10. ALL AREAS OF SOIL DISTURBANCE RESULTING FROM THIS PROJECT WHICH WILL NOT BE SUBJECT TO FURTHER EARTHWORK OR CONSTRUCTION ACTIVITIES SHALL BE PERMANENTLY SEEDED TO ESTABLISH GRASS, AND MULCHED WITH HAY OR STRAW WITHIN ONE WEEK OF FINAL DISTURBANCE. MULCH SHALL BE MAINTAINED UNTIL A SUITABLE VEGETATIVE COVER IS ESTABLISHED.
11. CONTRACTOR STAGING AREAS AND CONSTRUCTION ENTRANCE LOCATIONS SHALL BE COORDINATED WITH THE OWNER PRIOR TO START OF CONSTRUCTION. STABILIZED CONSTRUCTION ENTRANCE(S), AS SHOWN ON THE PLANS SHALL BE PROVIDED. ALL DISTURBED AREAS SHALL BE RESTORED.
12. ALL CATCH BASINS/DRAINAGE INLETS SHALL HAVE STONED INLET PROTECTION AROUND THEM AND GEOTEXTILE FABRIC OVER THE GRATE TO PREVENT SEDIMENTATION FROM ENTERING THE STORM SYSTEM.
13. TILL ALL COMPACTED SOILS LOCATED IN LAWN AREAS TO RESTORE THE ORIGINAL PROPERTIES OF THE SOIL PRIOR TO SEEDING.

LEGEND

EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION
		FLOODZONE			END SECTION
		ARCHAEOLOGICAL BUFFER			CATCH BASIN
		TREE REMOVAL			DRAIN BASIN
		UTILITY REMOVAL			INLET MANHOLE
		SAWCUT			STORM MANHOLE
		TREE PROTECTION			SANITARY MANHOLE
		CHAIN LINK FENCE			INLET DRYWELL
		BOARD-ON-BOARD FENCE			CLEAN OUT
		GUARD RAIL			DOWN SPOUT
		TREE/VEGETATION LIMIT			HYDRANT
BLDG	BLDG	BUILDING/STRUCTURE			VALVE
		PROPERTY LINE			FLOW ARROW
		EASEMENTS			TELEPHONE LINE
		RIGHT-OF-WAY			OVERHEAD ELECTRIC
		RETAINING WALL			UNDERGROUND ELECTRIC
		BOLLARD			GAS LINE
FLAG POLE		FLAG POLE			SANITARY LINE
		SIGN			STORM LINE
		DECIDUOUS TREE			STORM UNDERDRAIN PIPE
		CONIFEROUS TREE			WATER FIRE SERVICE LINE
		TREE STUMP			WATER LINE
		OUTLET PROTECTION	-510-	510	MAJOR CONTOUR
		BIORETENTION	-509-	509	MINOR CONTOUR
		BOLLARD LIGHT POLE			% OF DRAINAGE SWALE
		LIGHT POLE SINGLE			EROSION FENCE
		LIGHT POLE DOUBLE			FLOW/SLOPE DIRECTION
		UTILITY POLE			SILT SOCK INLET PROTECTION
HH	HH	HANDHOLE			SILT FENCE INLET PROTECTION
E	E	MANHOLE			CHECK DAM
					STABILIZED CONSTRUCTION ENTRANCE

DRAWING INDEX

C001 GENERAL NOTES, LEGEND, AND DRAWING INDEX
C003 TOTAL LAND HOLDINGS
C101 EXISTING CONDITIONS AND DEMOLITION PLAN
C102 EXISTING CONDITIONS AND DEMOLITION PLAN
C200 OVERALL SITE PLAN
C201 SITE PLAN
C202 SITE PLAN
C203 FIRE TRUCK AND SITE EMERGENCY ACCESS PLAN
C301 UTILITY PLAN
C302 UTILITY PLAN
C401 GRADING, EROSION, AND SEDIMENT CONTROL PLAN
C402 GRADING, EROSION, AND SEDIMENT CONTROL PLAN
C501 CONSTRUCTION DETAILS
C502 CONSTRUCTION DETAILS
C503 CONSTRUCTION DETAILS
C504 CONSTRUCTION DETAILS
C505 CONSTRUCTION DETAILS
C506 CONSTRUCTION DETAILS
C507 CONSTRUCTION DETAILS
C508 CONSTRUCTION DETAILS
L501 LANDSCAPE DETAILS

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STATE OF NEW YORK — JOHN P. LABELLA — 84011 — LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

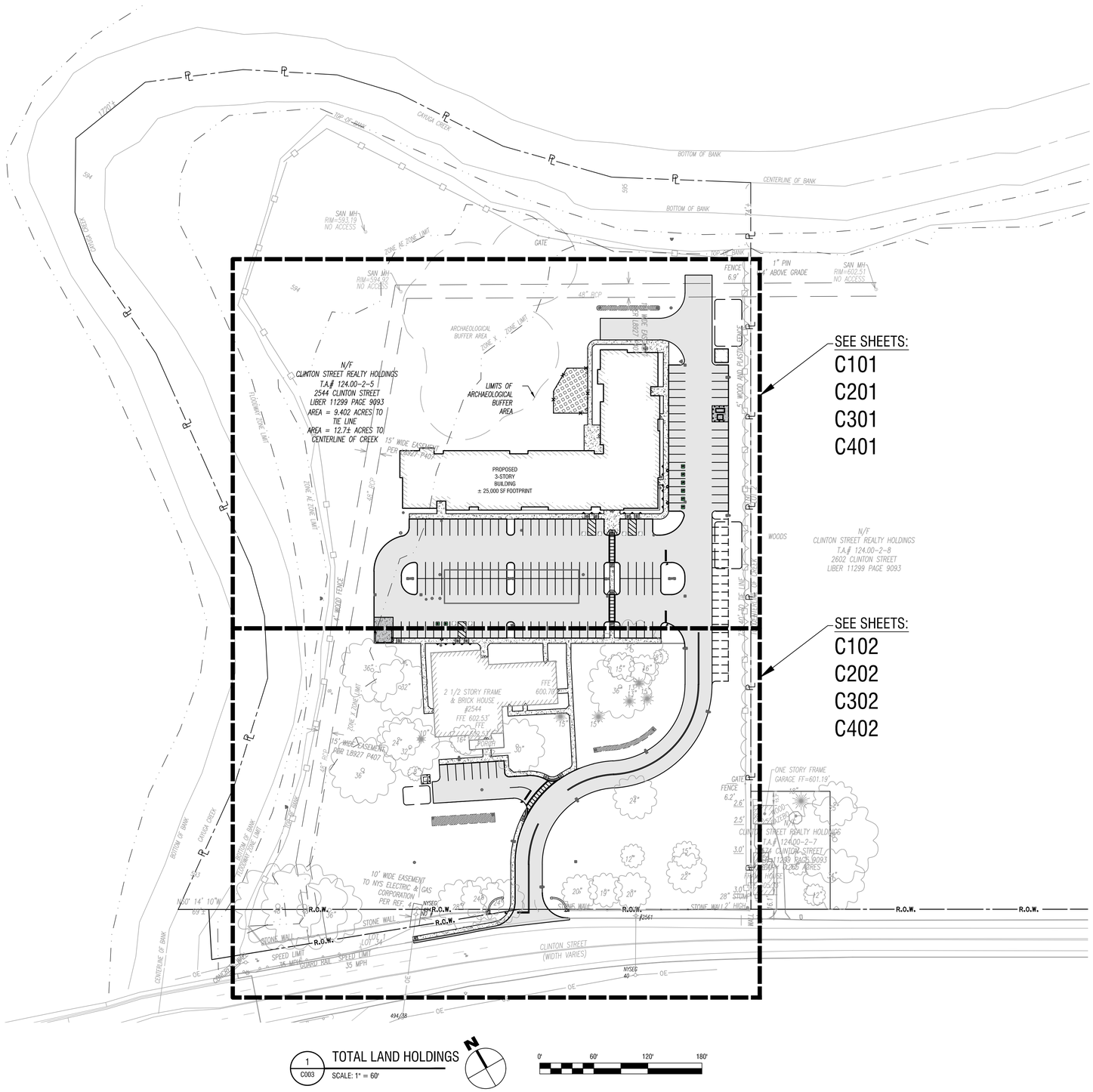
GENERAL NOTES, LEGEND, AND DRAWING INDEX

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C001

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1 / C003 TOTAL LAND HOLDINGS
SCALE: 1" = 60'

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TOTAL LAND HOLDINGS

DRAWING NUMBER:

C003

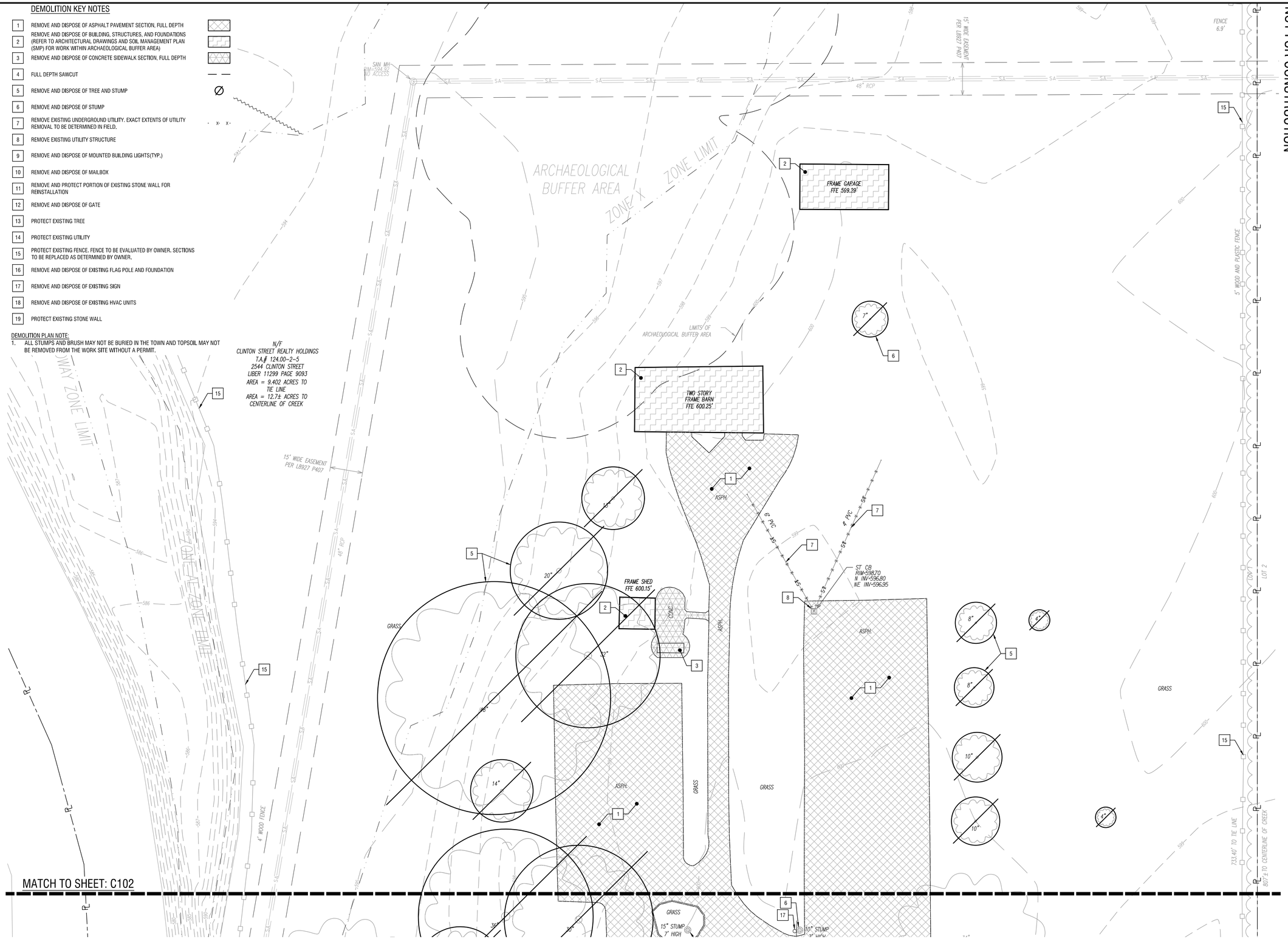
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DEMOLITION KEY NOTES

1	REMOVE AND DISPOSE OF ASPHALT PAVEMENT SECTION, FULL DEPTH
2	REMOVE AND DISPOSE OF BUILDING, STRUCTURES, AND FOUNDATIONS (REFER TO ARCHITECTURAL DRAWINGS AND SOIL MANAGEMENT PLAN (SMP) FOR WORK WITHIN ARCHAEOLOGICAL BUFFER AREA)
3	REMOVE AND DISPOSE OF CONCRETE SIDEWALK SECTION, FULL DEPTH
4	FULL DEPTH SAWCUT
5	REMOVE AND DISPOSE OF TREE AND STUMP
6	REMOVE AND DISPOSE OF STUMP
7	REMOVE EXISTING UNDERGROUND UTILITY. EXACT EXTENTS OF UTILITY REMOVAL TO BE DETERMINED IN FIELD.
8	REMOVE EXISTING UTILITY STRUCTURE
9	REMOVE AND DISPOSE OF MOUNTED BUILDING LIGHTS(TYP.)
10	REMOVE AND DISPOSE OF MAILBOX
11	REMOVE AND PROTECT PORTION OF EXISTING STONE WALL FOR REINSTALLATION
12	REMOVE AND DISPOSE OF GATE
13	PROTECT EXISTING TREE
14	PROTECT EXISTING UTILITY
15	PROTECT EXISTING FENCE. FENCE TO BE EVALUATED BY OWNER. SECTIONS TO BE REPLACED AS DETERMINED BY OWNER.
16	REMOVE AND DISPOSE OF EXISTING FLAG POLE AND FOUNDATION
17	REMOVE AND DISPOSE OF EXISTING SIGN
18	REMOVE AND DISPOSE OF EXISTING HVAC UNITS
19	PROTECT EXISTING STONE WALL

DEMOLITION PLAN NOTE:

1. ALL STUMPS AND BRUSH MAY NOT BE BURIED IN THE TOWN AND TOPSOIL MAY NOT BE REMOVED FROM THE WORK SITE WITHOUT A PERMIT.



1 C101 EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: 1" = 20'

0' 20' 40' 60'

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STATE OF NEW YORK — PETER J. GALLI — 084011 — LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
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ISSUED FOR: SITE PLAN APPROVAL
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DRAWING NAME:

EXISTING CONDITIONS AND DEMOLITION PLAN

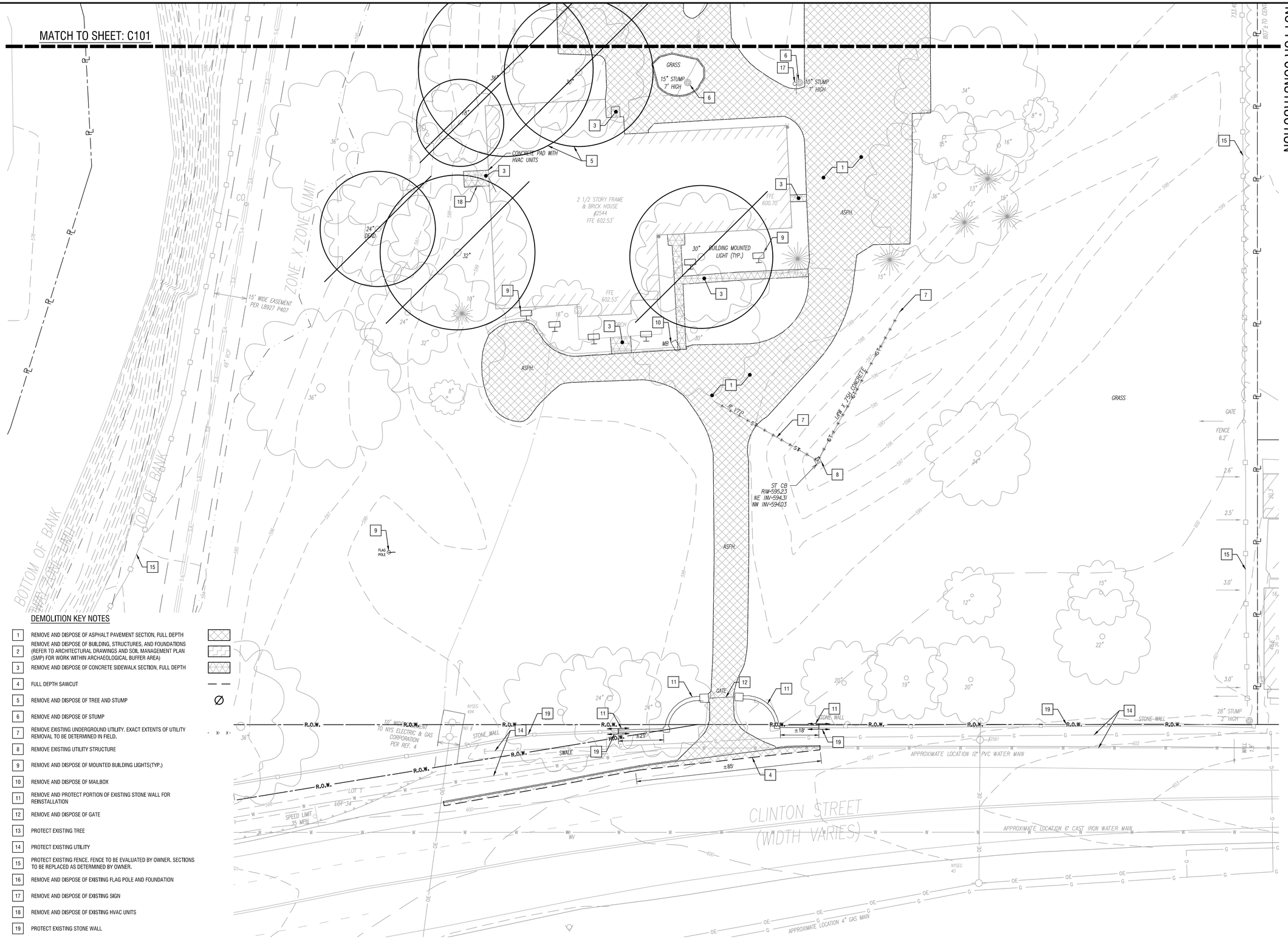
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MATCH TO SHEET: C101

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DEMOLITION KEY NOTES

1	REMOVE AND DISPOSE OF ASPHALT PAVEMENT SECTION, FULL DEPTH	
2	REMOVE AND DISPOSE OF BUILDING, STRUCTURES, AND FOUNDATIONS (REFER TO ARCHITECTURAL DRAWINGS AND SOIL MANAGEMENT PLAN (SMP) FOR WORK WITHIN ARCHAEOLOGICAL BUFFER AREA)	
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19	PROTECT EXISTING STONE WALL	

DEMOLITION PLAN NOTE:

1. ALL STUMPS AND BRUSH MAY NOT BE BURIED IN THE TOWN AND TOPSOIL MAY NOT BE REMOVED FROM THE WORK SITE WITHOUT A PERMIT.

1 / C102 EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: 1" = 20'

N

0' 20' 40' 60'

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WEST SENECA APARTMENTS
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Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

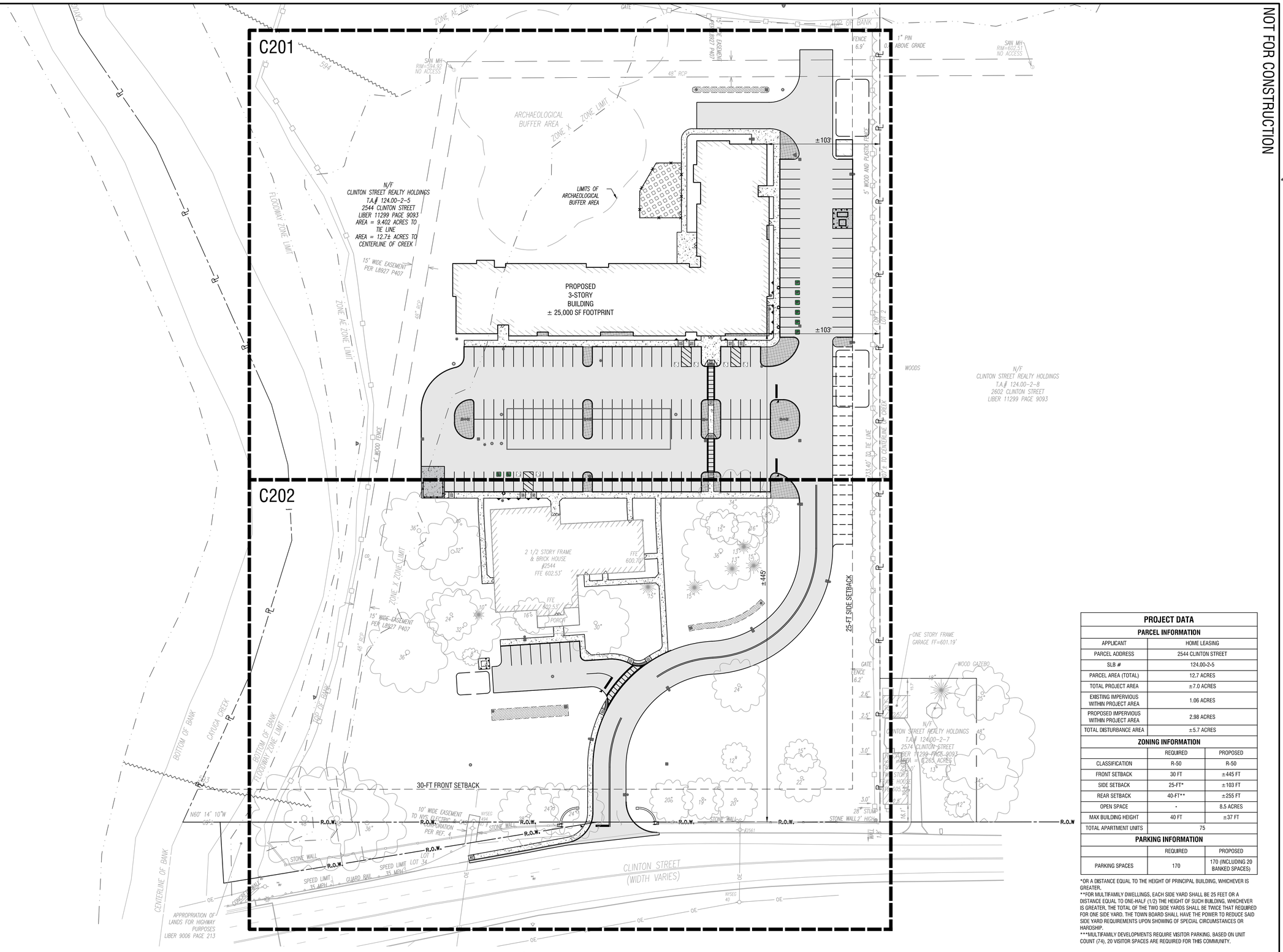
EXISTING CONDITIONS AND DEMOLITION PLAN

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C102

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1 / C200 OVERALL SITE PLAN
SCALE: 1" = 40'

PROJECT DATA		
PARCEL INFORMATION		
APPLICANT	HOME LEASING	
PARCEL ADDRESS	2544 CLINTON STREET	
SLB #	124.00-2-5	
PARCEL AREA (TOTAL)	12.7 ACRES	
TOTAL PROJECT AREA	±7.0 ACRES	
EXISTING IMPERVIOUS WITHIN PROJECT AREA	1.06 ACRES	
PROPOSED IMPERVIOUS WITHIN PROJECT AREA	2.98 ACRES	
TOTAL DISTURBANCE AREA	±5.7 ACRES	
ZONING INFORMATION		
	REQUIRED	PROPOSED
CLASSIFICATION	R-50	R-50
FRONT SETBACK	30 FT	±445 FT
SIDE SETBACK	25-FT*	±103 FT
REAR SETBACK	40-FT**	±255 FT
OPEN SPACE	-	8.5 ACRES
MAX BUILDING HEIGHT	40 FT	±37 FT
TOTAL APARTMENT UNITS	75	
PARKING INFORMATION		
	REQUIRED	PROPOSED
PARKING SPACES	170	170 (INCLUDING 20 BANKED SPACES)

*OR A DISTANCE EQUAL TO THE HEIGHT OF PRINCIPAL BUILDING, WHICHEVER IS GREATER.
**FOR MULTIFAMILY DWELLINGS, EACH SIDE YARD SHALL BE 25 FEET OR A DISTANCE EQUAL TO ONE-HALF (1/2) THE HEIGHT OF SUCH BUILDING, WHICHEVER IS GREATER, THE TOTAL OF THE TWO SIDE YARDS SHALL BE TWICE THAT REQUIRED FOR ONE SIDE YARD. THE TOWN BOARD SHALL HAVE THE POWER TO REDUCE SAID SIDE YARD REQUIREMENTS UPON SHOWING OF SPECIAL CIRCUMSTANCES OR HARDSHIP.
***MULTIFAMILY DEVELOPMENTS REQUIRE VISITOR PARKING. BASED ON UNIT COUNT (74), 20 VISITOR SPACES ARE REQUIRED FOR THIS COMMUNITY.

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STATE OF NEW YORK
DANIEL J. PRATT
084011
LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

OVERALL SITE PLAN

DRAWING NUMBER:

C200

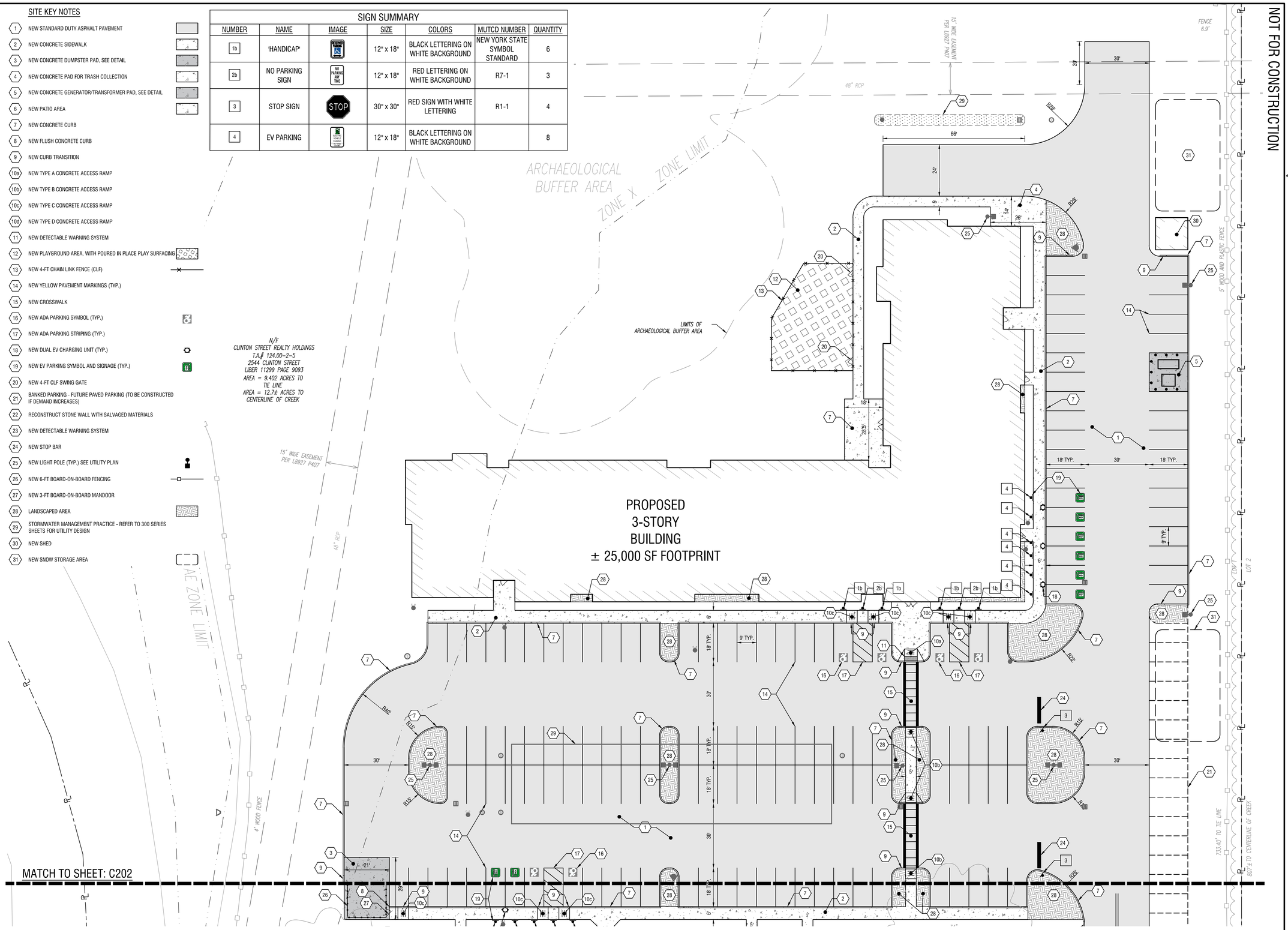
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\\cesh.lab\PGLOBAL\Projects\Home Leasing Services\2241067 - Affordable Housing West Seneca\06_Drawings\Civil\C200 SITE PLAN.dwg

SITE KEY NOTES

1. NEW STANDARD DUTY ASPHALT PAVEMENT
2. NEW CONCRETE SIDEWALK
3. NEW CONCRETE DUMPSTER PAD, SEE DETAIL
4. NEW CONCRETE PAD FOR TRASH COLLECTION
5. NEW CONCRETE GENERATOR/TRANSFORMER PAD, SEE DETAIL
6. NEW PATIO AREA
7. NEW CONCRETE CURB
8. NEW FLUSH CONCRETE CURB
9. NEW CURB TRANSITION
10a. NEW TYPE A CONCRETE ACCESS RAMP
10b. NEW TYPE B CONCRETE ACCESS RAMP
10c. NEW TYPE C CONCRETE ACCESS RAMP
10d. NEW TYPE D CONCRETE ACCESS RAMP
11. NEW DETECTABLE WARNING SYSTEM
12. NEW PLAYGROUND AREA, WITH POURED IN PLACE PLAY SURFACING
13. NEW 4-FT CHAIN LINK FENCE (CLF)
14. NEW YELLOW PAVEMENT MARKINGS (TYP.)
15. NEW CROSSWALK
16. NEW ADA PARKING SYMBOL (TYP.)
17. NEW ADA PARKING STRIPING (TYP.)
18. NEW DUAL EV CHARGING UNIT (TYP.)
19. NEW EV PARKING SYMBOL AND SIGNAGE (TYP.)
20. NEW 4-FT CLF SWING GATE
21. BANKED PARKING - FUTURE PAVED PARKING (TO BE CONSTRUCTED IF DEMAND INCREASES)
22. RECONSTRUCT STONE WALL WITH SALVAGED MATERIALS
23. NEW DETECTABLE WARNING SYSTEM
24. NEW STOP BAR
25. NEW LIGHT POLE (TYP.) SEE UTILITY PLAN
26. NEW 6-FT BOARD-ON-BOARD FENCING
27. NEW 3-FT BOARD-ON-BOARD MANDOOR
28. LANDSCAPED AREA
29. STORMWATER MANAGEMENT PRACTICE - REFER TO 300 SERIES SHEETS FOR UTILITY DESIGN
30. NEW SHED
31. NEW SNOW STORAGE AREA

SIGN SUMMARY

NUMBER	NAME	IMAGE	SIZE	COLORS	MUTCD NUMBER	QUANTITY
1b	'HANDICAP'		12" x 18"	BLACK LETTERING ON WHITE BACKGROUND	NEW YORK STATE SYMBOL STANDARD	6
2b	NO PARKING SIGN		12" x 18"	RED LETTERING ON WHITE BACKGROUND	R7-1	3
3	STOP SIGN		30" x 30"	RED SIGN WITH WHITE LETTERING	R1-1	4
4	EV PARKING		12" x 18"	BLACK LETTERING ON WHITE BACKGROUND		8



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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec. 7209 & Art, 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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ROCHESTER, NEW YORK 14604

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DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

SITE PLAN

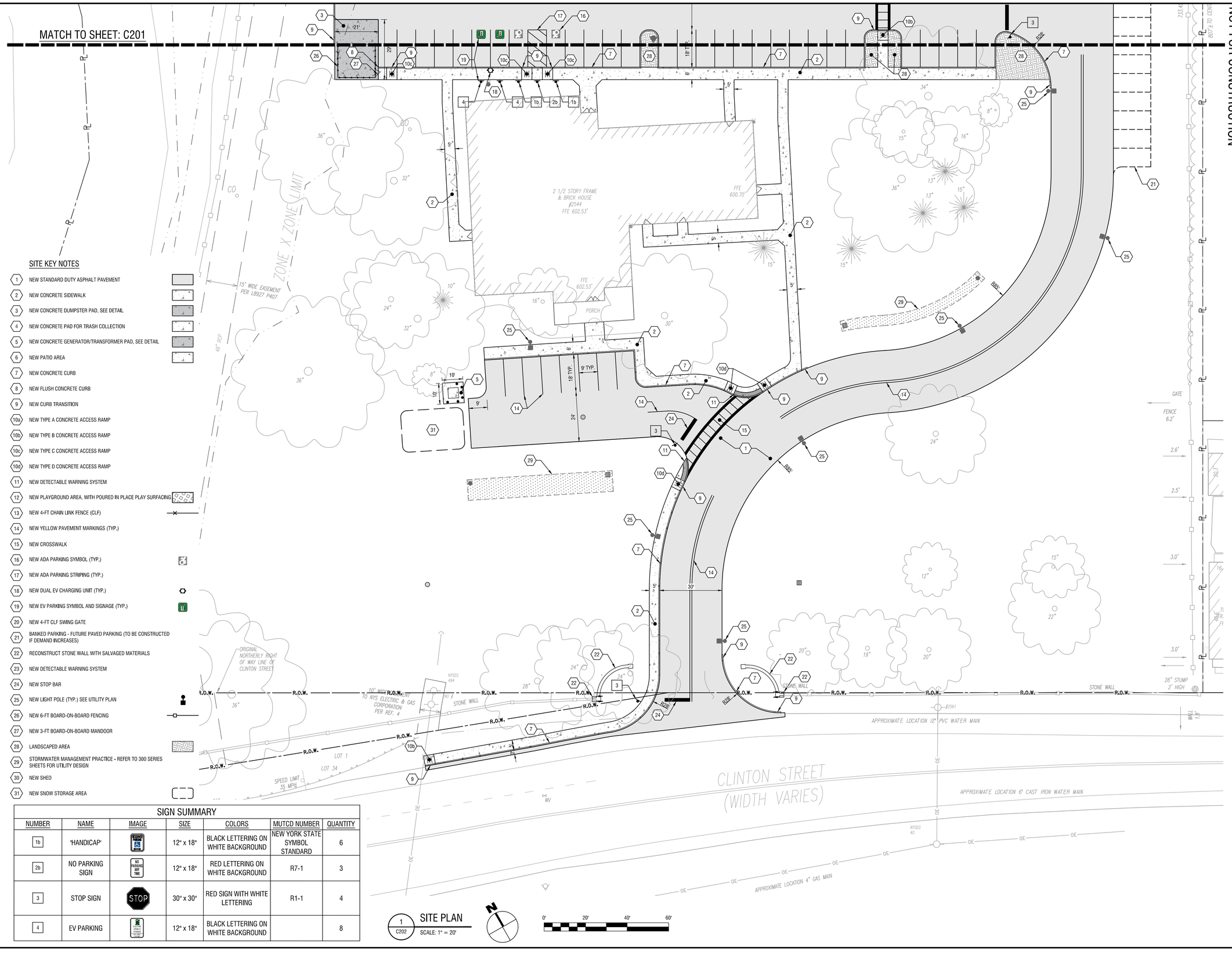
DRAWING NUMBER:

C201

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NOT FOR CONSTRUCTION

MATCH TO SHEET: C201



SITE KEY NOTES

1. NEW STANDARD DUTY ASPHALT PAVEMENT
2. NEW CONCRETE SIDEWALK
3. NEW CONCRETE DUMPSTER PAD, SEE DETAIL
4. NEW CONCRETE PAD FOR TRASH COLLECTION
5. NEW CONCRETE GENERATOR/TRANSFORMER PAD, SEE DETAIL
6. NEW PATIO AREA
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28. LANDSCAPED AREA
29. STORMWATER MANAGEMENT PRACTICE - REFER TO 300 SERIES SHEETS FOR UTILITY DESIGN
30. NEW SHED
31. NEW SNOW STORAGE AREA

SIGN SUMMARY

NUMBER	NAME	IMAGE	SIZE	COLORS	MUTCD NUMBER	QUANTITY
1b	'HANDICAP'		12" x 18"	BLACK LETTERING ON WHITE BACKGROUND	NEW YORK STATE SYMBOL STANDARD	6
2b	NO PARKING SIGN	NO PARKING ANY TIME	12" x 18"	RED LETTERING ON WHITE BACKGROUND	R7-1	3
3	STOP SIGN	STOP	30" x 30"	RED SIGN WITH WHITE LETTERING	R1-1	4
4	EV PARKING		12" x 18"	BLACK LETTERING ON WHITE BACKGROUND		8

1 / C202 SITE PLAN
SCALE: 1" = 20'

0' 20' 40' 60'

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STATE OF NEW YORK — MICHAEL J. LABELLA — 084011 — LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

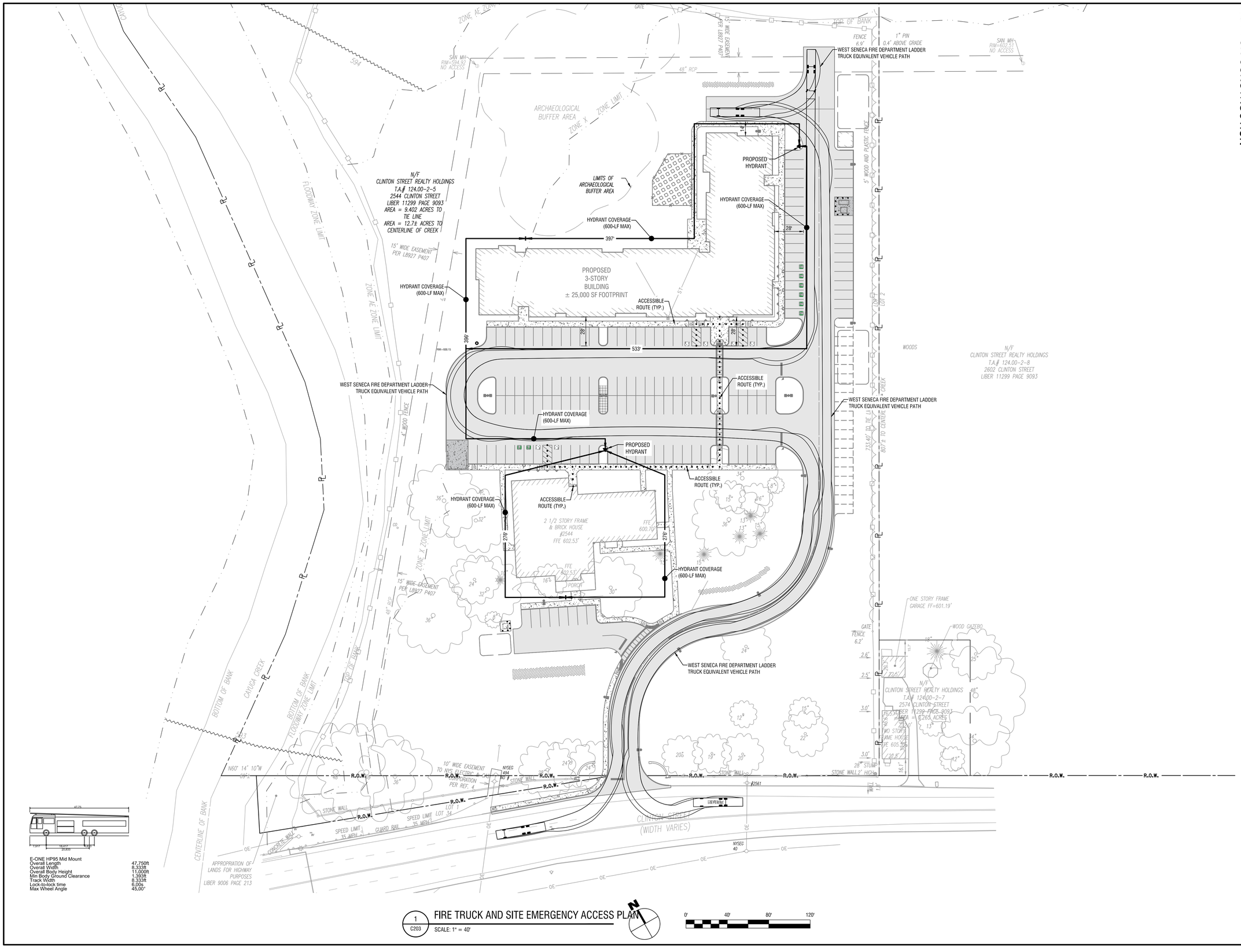
SITE PLAN

DRAWING NUMBER:

C202

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1 C203 FIRE TRUCK AND SITE EMERGENCY ACCESS PLAN

SCALE: 1" = 40'

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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WEST SENECA APARTMENTS
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WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067

DRAWN BY: EMM / SCB

REVIEWED BY: SRV / DPB

ISSUED FOR: SITE PLAN APPROVAL

DATE: 4/20/2026

DRAWING NAME:

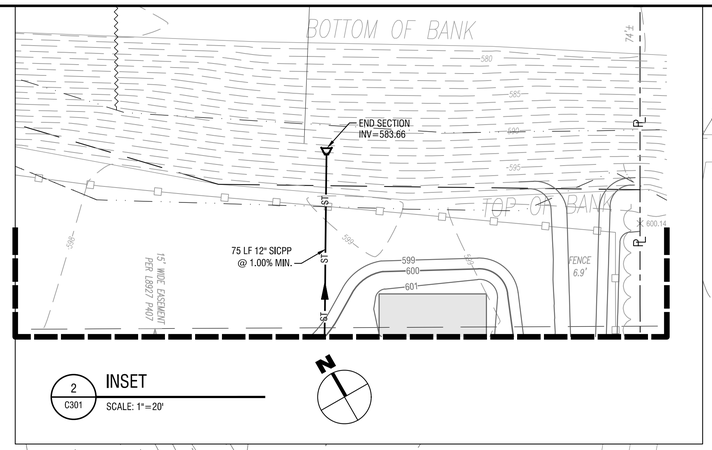
FIRE TRUCK AND SITE EMERGENCY ACCESS PLAN

DRAWING NUMBER:

C203

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UTILITY PLAN NOTES:

1. A MINIMUM OF 10 FEET OF HORIZONTAL AND 18" OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY AND WATER SERVICES
2. THE ERIE COUNTY WATER AUTHORITY IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE
3. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH ANY PAVEMENT AREA

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STATE OF NEW YORK
PETER J. GALLO
040111
LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C301

4/20/2026 1:18:02 PM
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MATCH TO SHEET: C301

NOT FOR CONSTRUCTION

W INV=593.62
NE INV=593.62
NEW 4" PVC SDR-21
SANITARY LATERAL

RIM=599.00
E INV=591.15
W INV=591.15

NEW PRIVATE
FIRE HYDRANT

(100 CHAMBERS)
INV=591.25

N INV=593.30
W INV=593.30

NE INV=595.00
W INV=595.00

SAN CO
TYP.

NEW 6" FIRE SERVICE
(AFTER BACKFLOW
PREVENTOR)

2 1/2 STORY FRAME
& BRICK HOUSE
#2544
FFE 602.53'

FFE
600.70'

FFE
602.53'

PORCH

NEW BACKFLOW PREVENTOR
(IN MECHANICAL ROOM) FOR
COMBINED SERVICE.
DOMESTIC SERVICE WILL BE
METERED AFTER THE
BACKFLOW.

NEW BIORETENTION
AREA #2 (± 370 SF)

ST-5.2
24"x24" CB
RIM=597.00
W INV=592.86

132 LF 12"
SICPP @ 0.50%

NEW 6" COMBINED
WATER SERVICE

15' WIDE EASEMENT
PER L8927 P407

ZONE X ZONE LIMIT

ST-5.0
4' DIA. MH
RIM=599.08
S INV=591.30
E INV=591.92
W INV=591.20

28 LF 12" SICPP
@ 1.00%

220 LF 12"
SICPP @ 0.50%

END SECTION
INV=589.00

ST-5.1
24"x24" CB
RIM=596.00
N INV=591.58

NEW BIORETENTION
AREA #3 (± 700 SF)

BOTTOM OF BANK
TOP OF BANK

ST-6.0
4' DIA. MH
RIM=597.50
E INV=590.10
W INV=590.00

175 LF 12"
SICPP @ 1.00%

175 LF 12"
SICPP @ 1.00%

END SECTION
INV=S#.##

ST-6.1
36"x36" CB
RIM=594.35
W INV=591.85

CONNECT TO EXISTING 6"
WATERMAIN WITH TS&V

10' WIDE EASEMENT
TO NYS ELECTRIC & GAS
CORPORATION
PER REF. 4

STONE WALL

APPROXIMATE LOCATION 12" PVC WATER MAIN

APPROXIMATE LOCATION 6" CAST IRON WATER MAIN

APPROXIMATE LOCATION 4" GAS MAIN

CLINTON STREET
(WIDTH VARIES)

LOT 7

LOT 14

SPEED LIMIT
35 MPH

GUARD RAIL

GATE

FENCE
6.2'

2.6'

2.5'

3.0'

3.0'

28" STUMP
2' HIGH

WALL
1.5'

1 C302 UTILITY PLAN
SCALE: 1" = 20'

0' 20' 40' 60'

UTILITY PLAN NOTES:
1. A MINIMUM OF 10 FEET OF HORIZONTAL AND 18" OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY AND WATER SERVICES
2. THE ERIE COUNTY WATER AUTHORITY IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE
3. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH ANY PAVEMENT AREA

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STATE OF NEW YORK
PAUL D. BOEHNER
PROFESSIONAL ENGINEER
084011

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

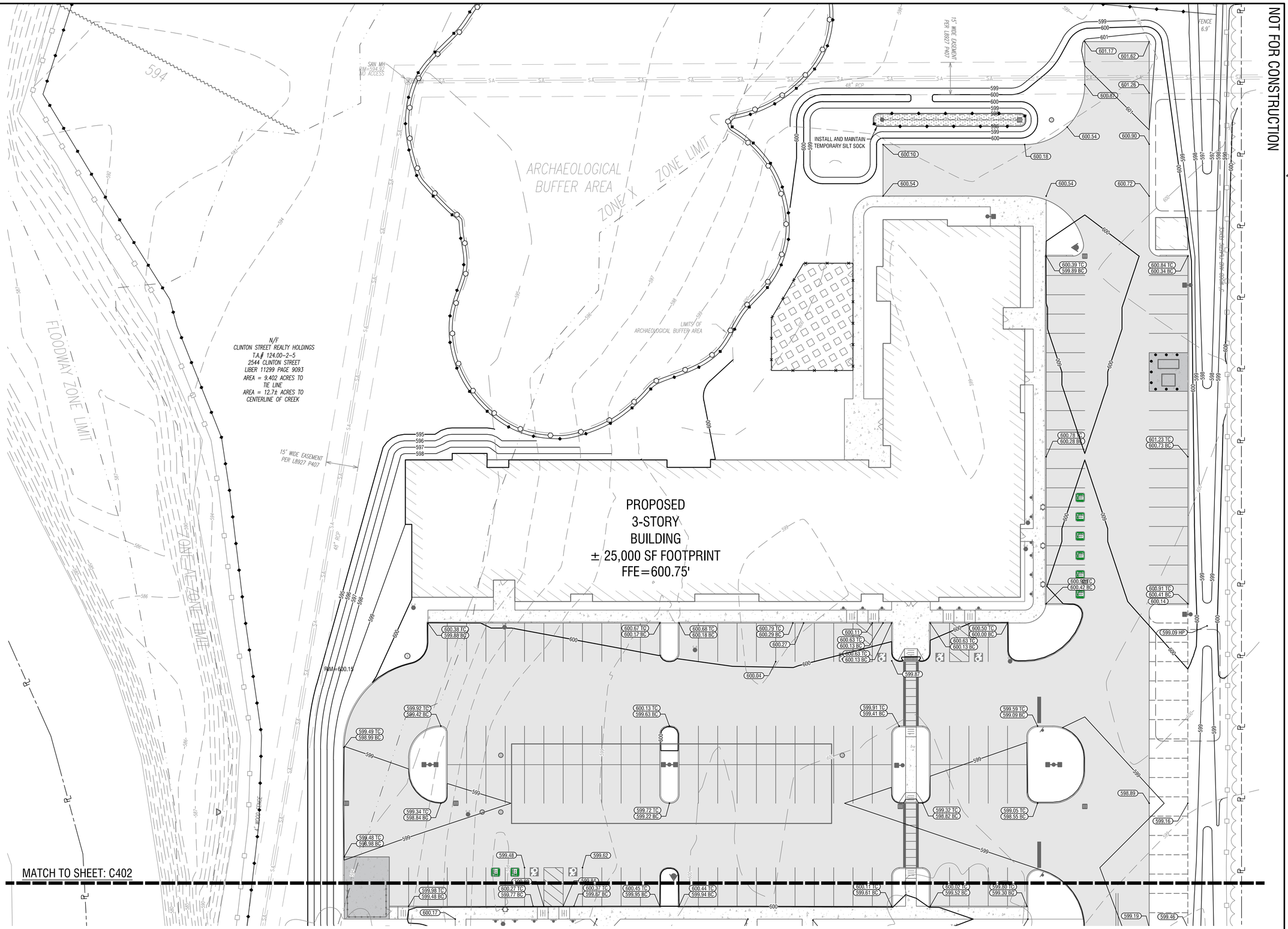
UTILITY PLAN

DRAWING NUMBER:

C302

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NOT FOR CONSTRUCTION



1 C401 GRADING, EROSION, AND SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

0' 20' 40' 60'

4/20/2026 1:17:56 PM
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STATE OF NEW YORK
PAUL J. GIANNI
084011
LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

GRADING, EROSION, AND SEDIMENT CONTROL PLAN

DRAWING NUMBER:

C401

MATCH TO SHEET: C401

NOT FOR CONSTRUCTION

2 1/2 STORY FRAME & BRICK HOUSE #2544 FFE 602.53'

FFE 600.70'

FFE 602.53'

PORCH

ZONE X ZONE LIMIT

BOTTOM OF BANK

TOP OF BANK

FEDERAL WETLAND LIMIT

INSTALL AND MAINTAIN TEMPORARY SILT SOCK

INSTALL AND MAINTAIN TEMPORARY CONCRETE WASHOUT

INSTALL AND MAINTAIN TEMPORARY CONSTRUCTION ENTRANCE

CLINTON STREET (WIDTH VARIES)

APPROXIMATE LOCATION 12" PVC WATER MAIN

APPROXIMATE LOCATION 6" CAST IRON WATER MAIN

LOT 1

LOT 34

1 C402 GRADING, EROSION, AND SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

0' 20' 40' 60'

4/20/2026 1:17:35 PM
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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067

DRAWN BY: EMM / SCB

REVIEWED BY: SRV / DPB

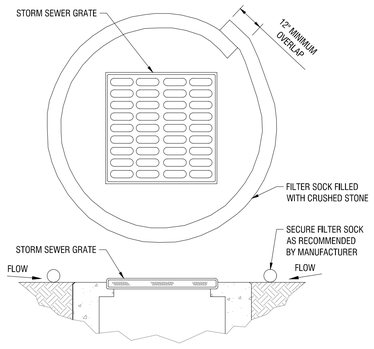
ISSUED FOR: SITE PLAN APPROVAL

DATE: 4/20/2026

DRAWING NAME: GRADING, EROSION, AND SEDIMENT CONTROL PLAN

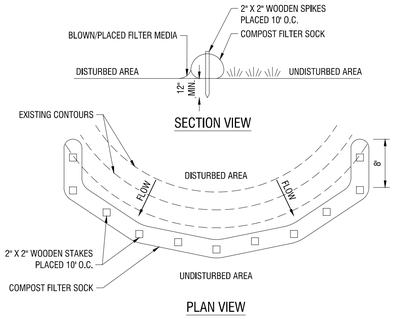
DRAWING NUMBER: C402

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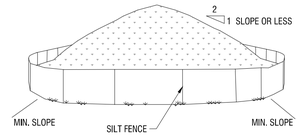
6 C501 **INLET PROTECTION IN PAVEMENT**

N.T.S.



5 C501 **COMPOST FILTER SOCK**

NYS DEC DETAIL: COMPOST FILTER SOCK

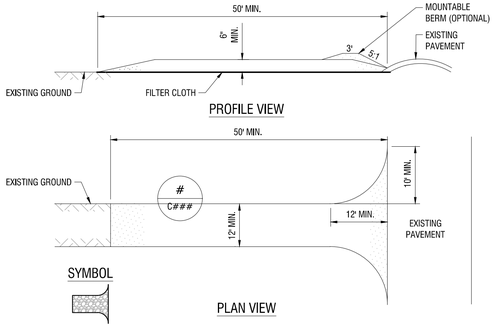


NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS AND DETAIL FOR INSTALLATION OF SILT FENCE.

4 C501 **TEMPORARY SOIL STOCKPILE**

N.T.S.

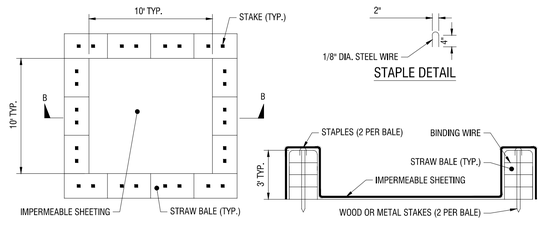


CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

3 C501 **STABILIZED CONSTRUCTION ENTRANCE**

N.YS DEC DETAIL: STABILIZED CONSTRUCTION ACCESS



NOTE:

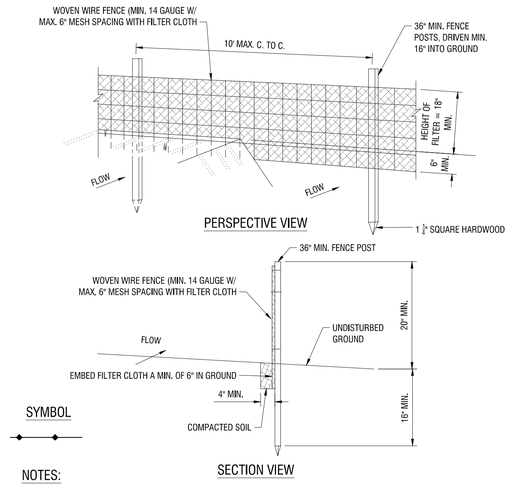
1. CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 100 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

2 C501 **CONCRETE WASHOUT AREA WITH STRAW BALES**

N.T.S.



NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA 140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

1 C501 **SILT FENCE**

NYS DEC DETAIL: SILT FENCE

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716-551-6281

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec, 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604

HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

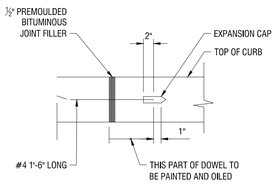
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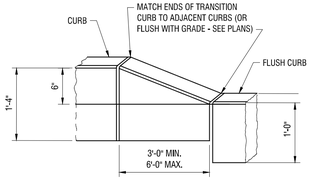
C501

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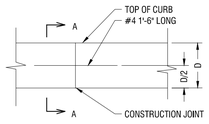
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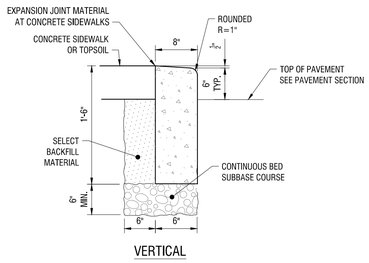
ELEVATION AT EXPANSION JOINT



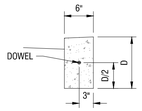
TERMINAL/TRANSITION CURB



ELEVATION AT CONSTRUCTION JOINT



VERTICAL

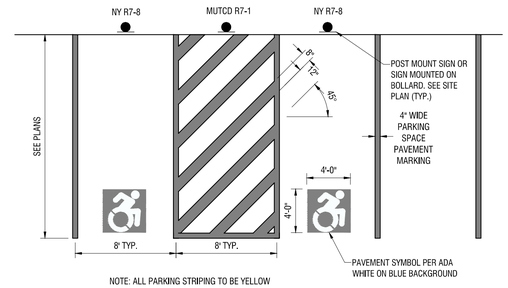


SECTION A-A

NOTES:

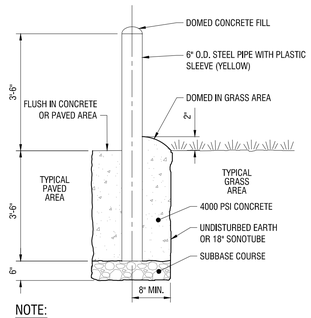
1. SLOPE TOP OF CURB 1/4" PER FOOT TOWARD PAVEMENT.
2. CONTRACTION JOINTS SHALL BE FORMED OR SAWCUT EVERY 10 FEET TO DEPTHS SLIGHTLY BELOW THE PAVEMENT SURFACE.
3. EXPANSION JOINTS 1/2" IN WIDTH SHALL BE FORMED WITH A PREMOULDED BITUMINOUS JOINT FILLER EVERY 40 FEET.
4. EXPANSIONS JOINTS AND FORMED CONTRACTION JOINTS ARE TO BE EDGED WITH CONCRETE FINISHING TOOLS.
5. CONCRETE SEALING AGENT SHALL BE APPLIED THE SAME DAY THAT CURBS ARE CONSTRUCTED.
6. CONCRETE CURBING WITHIN R.O.W. SHALL CONFORM WITH NYSS M609-2R1.
7. CURB THICKNESS T IS TO BE 5" OR AS INDICATED ON THE DRAWINGS.
8. PROVIDE 0" CURB REVEAL FOR HEADER CURB CURB AT SIDEWALK RAMPS AND 1" CURB REVEAL FOR HEADER CURB AT DRIVEWAYS.
9. ALL CURB, EXCEPT HEADER CURB USED FOR SIDEWALK ACCESS RAMPS, IS TO HAVE THE 1" RADIUS.
10. GRADED STONE BACKING IS TO BE PLACED WHEN SIDEWALK DOES NOT ABUT CURB.
11. USE 5000 PSI CONCRETE FOR CONVENTIONALLY FORMED CURB. AND 5000 PSI CONCRETE FOR MACHINE FORMED CURB.

10 C502 CONCRETE CURB
N.T.S.



NOTE: ALL PARKING STRIPING TO BE YELLOW

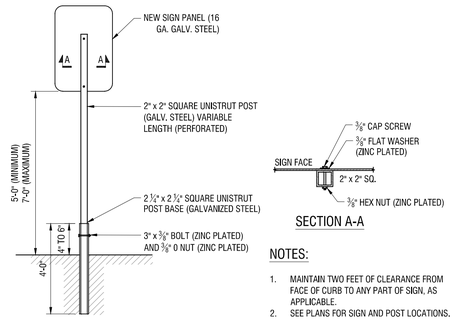
12 C502 ADA PARKING SPACE STRIPING
N.T.S.



NOTE:

1. FINAL LOCATION OF BOLLARDS SHALL BE APPROVED BY THE OWNER OR ARCHITECT/ENGINEER.

9 C502 BOLLARD
N.T.S.

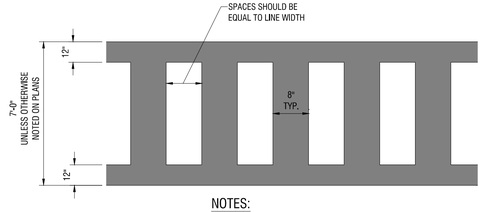


8 C502 POST MOUNT SIGN
N.T.S.

SECTION A-A

NOTES:

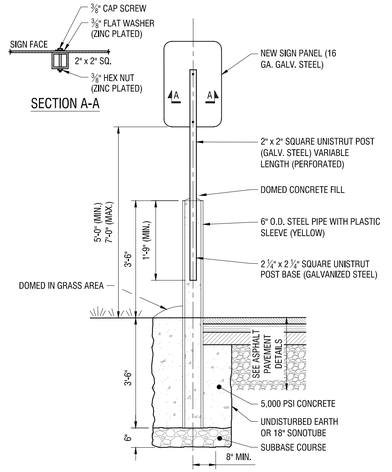
1. MAINTAIN TWO FEET OF CLEARANCE FROM FACE OF CURB TO ANY PART OF SIGN, AS APPLICABLE.
2. SEE PLANS FOR SIGN AND POST LOCATIONS.



NOTES:

1. ALL STRIPING SHALL BE WHITE

11 C502 CROSSWALK
N.T.S.



SECTION A-A

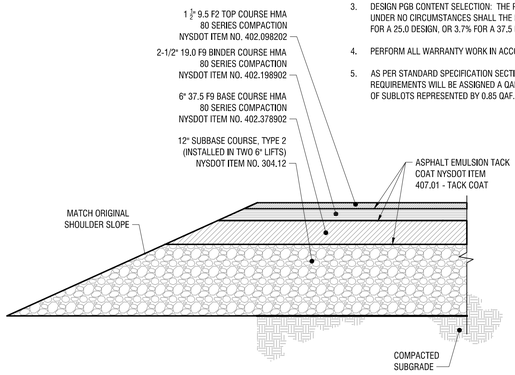
NOTES:

1. FINAL LOCATION OF BOLLARDS SHALL BE APPROVED BY THE OWNER OR ARCHITECT/ENGINEER.

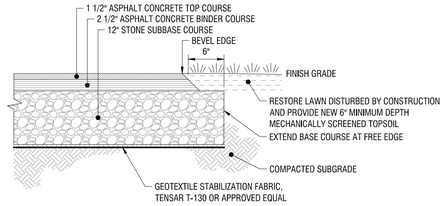
7 C502 BOLLARD MOUNTED SIGN
N.T.S.

ASPHALT PAVEMENT NOTES:

1. HMA ITEMS ARE BASED ON PG 64-22 BINDER, ESALs LESS THAN 30,000,000, TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF ASPHALT, USE OF POLYPHOSPHORIC ACID (PPA) TO MODIFY THE BINDER PROPERTIES IS PROHIBITED. THIS PROHIBITION ALSO APPLIES TO THE USE OF PPA AS A CROSS-LINKING AGENT FOR POLYMER MODIFICATION.
2. BUTT JOINTS, CREATED BY A FULL-DEPTH SAWCUT, SHALL BE USED BETWEEN NEW AND EXISTING PAVEMENTS. THE ASPHALT TOP COURSE SHALL BE LAID SUCH THAT IT UNIFORMLY OVERLAPS THE ADJACENT COLD MAT BY 2"-3". THE THICKNESS OF THE OVERLAP MATERIAL SHALL BE 1/4 THE COMPACTED THICKNESS OF THE COURSE, SO AS TO RESULT IN A SMOOTH AND WELL-COMPACTED JOINT AFTER ROLLING. BROADCASTING OF THE OVERLAP MATERIAL ONTO THE LANE IS NOT ALLOWED. IF THE OVERLAP IS EXCESSIVE, THE EXCESS MATERIAL SHALL BE TRIMMED OFF SO THAT THE MATERIAL ALONG THE JOINT IS UNIFORM. THE COARSE PARTICLES OF AGGREGATE IN THE OVERLAP MATERIAL SHALL BE REMOVED AND WASTED IF DEEMED NECESSARY BY THE INSPECTOR.
3. DESIGN PGB CONTENT SELECTION: THE PRODUCER SELECTS THE DESIGN PGB CONTENT THAT RESULTS IN A COMPACTED DENSITY OF 96.5% Gmm AT THE DESIGN NUMBER OF GYRATIONS (Ndesign), UNDER NO CIRCUMSTANCES SHALL THE PERFORMANCE GRADED BINDER CONTENT IN THE HMA MIXTURE BE LESS THAN 5.8% FOR A 9.5 DESIGN, 5.2% FOR A 12.5 DESIGN, 4.5% FOR A 19.0 DESIGN, 4.2% FOR A 25.0 DESIGN, OR 3.7% FOR A 37.5 DESIGN. ALL VOLUMETRIC AND MECHANICAL PROPERTIES ARE CHECKED AT THIS PGB CONTENT TO ENSURE THAT ALL REQUIREMENTS ARE MET.
4. PERFORM ALL WARRANTY WORK IN ACCORDANCE WITH MATERIALS PROCEDURE (MP) 402-01, WARRANTY REQUIREMENTS FOR HOT MIX ASPHALT (HMA) TOP COURSE.
5. AS PER STANDARD SPECIFICATION SECTION 401-4.01 CERTIFIED PRODUCTION, PRODUCTION LESS THAN 500 TONS, AND HIGHWAY PERMIT PRODUCTION, PRODUCTION MEETING THE SPECIFICATION REQUIREMENTS WILL BE ASSIGNED A QAF OF 1.00. PRODUCTION FAILING TO MEET THE SPECIFICATION REQUIREMENTS WILL BE SUBJECT TO EVALUATION ACCORDING TO SECTION 401-4.03, EVALUATION OF SUBLOTS REPRESENTED BY 0.85 QAF.



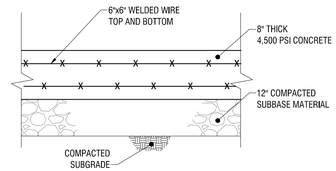
4 C502 PAVEMENT SECTION WITHIN R.O.W.
N.T.S.



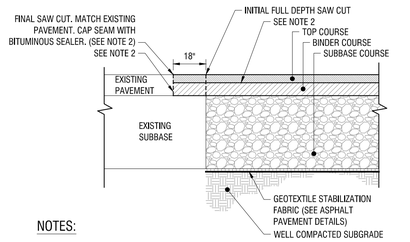
NOTES:

1. PROVIDE ADDITIONAL SUBBASE MATERIAL WHERE FILL IS REQUIRED TO OBTAIN PROPER SUBGRADE ELEVATION, OR TO REPLACE UNSUITABLE SUBGRADE MATERIAL.

3 C502 ASPHALT PAVEMENT SECTION
N.T.S.



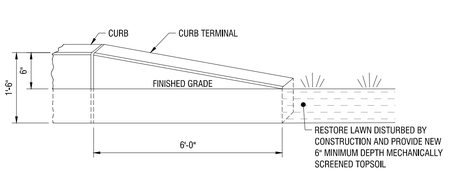
6 C502 CONCRETE PAD
N.T.S.



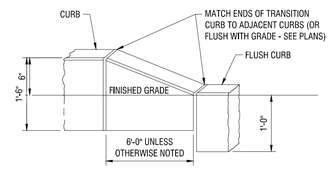
NOTES:

1. VERTICALLY SAW CUT ALL ASPHALT FULL DEPTH.
2. BLOW CLEAN AND APPLY TACK COAT 0.050 GAL/SY AT ALL ASPHALT TO ASPHALT SURFACES.
3. REFER TO STANDARD DUTY PAVEMENT SECTION DETAIL FOR COURSE THICKNESS.

5 C502 STANDARD DUTY PAVEMENT JOINT
N.T.S.



2 C502 CURB TERMINAL
N.T.S.



1 C502 CURB TRANSITION
N.T.S.

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STATE OF NEW YORK — PETER J. GALLI — 084011 — LICENSED PROFESSIONAL ENGINEER

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

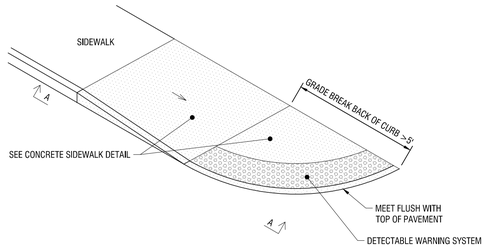
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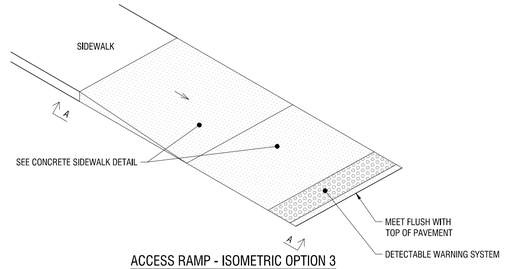
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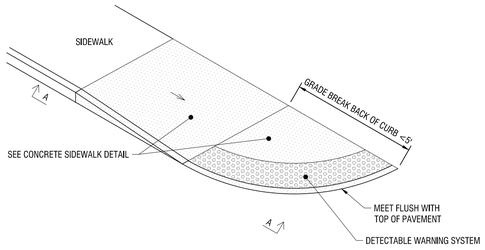
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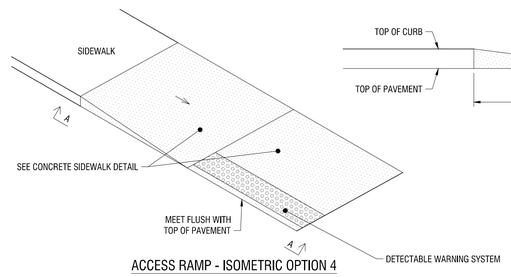
ACCESS RAMP AT CORNER - ISOMETRIC OPTION 1



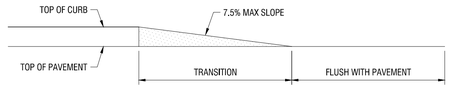
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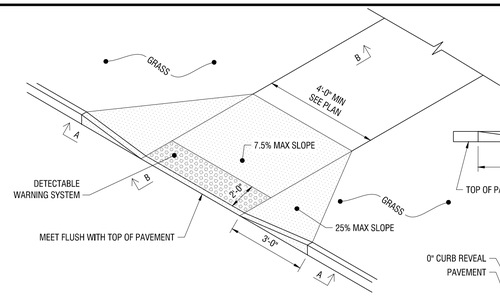
ACCESS RAMP AT CORNER - ISOMETRIC OPTION 2



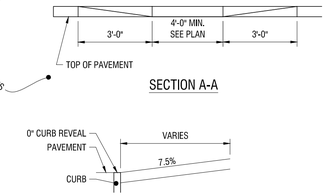
ACCESS RAMP - ISOMETRIC OPTION 4



SECTION A-A



TYPE "B" RAMP ISOMETRIC



SECTION A-A

SECTION B-B

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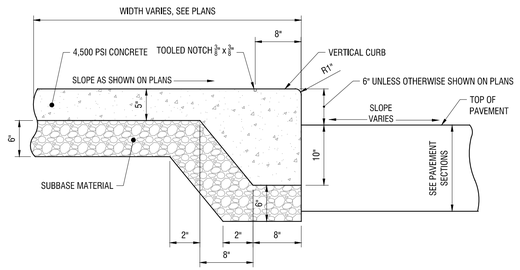
1. 7.5% IS MAXIMUM SLOPE OF ACCESS RAMP.
2. SURFACE OF ACCESS RAMP IS TO BE STABLE, FIRM AND SLIP-RESISTANT. TEXTURE SURFACE WITH COARSE BROOM RUNNING TRANSVERSE TO SLOPE OF ACCESS RAMP.
3. ENTIRE AREA OF ACCESS RAMP AND LANDING PAD IS TO BE 7 INCH THICK CONCRETE.

7 C503 SIDEWALK RAMP TYPE B

N.T.S.

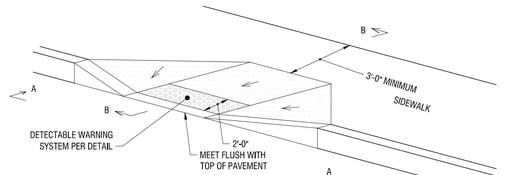
8 C503 SIDEWALK RAMP TYPE D

N.T.S.

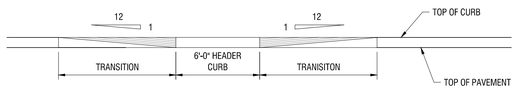


6 C503 CONCRETE SIDEWALK AND INTEGRAL VERTICAL CURB SECTION

N.T.S.



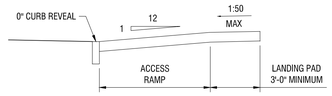
SIDEWALK RAMP TYPE A ISOMETRIC



VIEW A-A

NOTES:

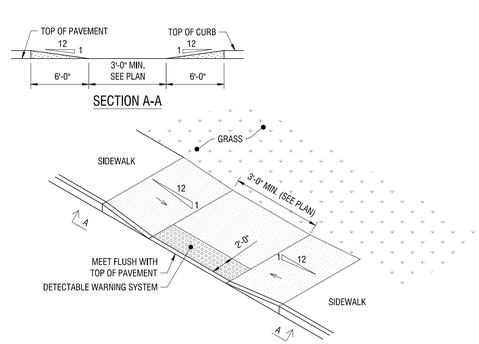
1. 1:12 IS MAXIMUM SLOPE OF ACCESS RAMP AND SIDE FLARE IN PAVED AREA.
2. SURFACE OF ACCESS RAMP IS TO BE STABLE, FIRM AND SLIP-RESISTANT. TEXTURE SURFACE WITH COARSE BROOM RUNNING TRANSVERSE TO SLOPE OF ACCESS RAMP.
3. ENTIRE AREA OF ACCESS RAMP AND LANDING PAD IS TO BE 7 INCH THICK CONCRETE.



SECTION B-B

5 C503 SIDEWALK RAMP TYPE A

N.T.S.



SECTION A-A

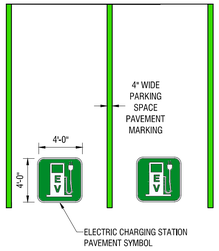
ACCESS RAMP - TYPE C ISOMETRIC

NOTES:

1. 1:12 IS MAXIMUM SLOPE OF ACCESS RAMP.
2. SURFACE OF ACCESS RAMP IS TO BE STABLE, FIRM AND SLIP-RESISTANT. TEXTURE SURFACE WITH COARSE BROOM RUNNING TRANSVERSE TO SLOPE OF ACCESS RAMP.
3. ENTIRE AREA OF ACCESS RAMP AND LANDING PAD IS TO BE 7 INCH THICK CONCRETE.

4 C503 SIDEWALK RAMP TYPE C

N.T.S.





ACCESSIBLE SYMBOL
COLOR WHITE ON BLUE BACKGROUND



12" X 18"
ELECTRIC VEHICLE CHARGING STATION



12" X 18"
NO PARKING
MUTCD R7-1
FEDERAL DESIGNATION



ELECTRIC CHARGING SYMBOL
4'x4', COLOR WHITE ON GREEN BACKGROUND

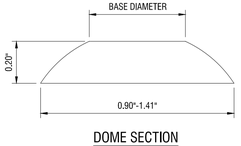


12" X 18"
RESERVED
NY R7-8
FEDERAL DESIGNATION

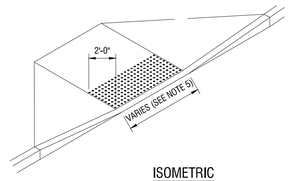
12" X 6"
VAN ACCESSIBLE
MUTCD R7-8a
FEDERAL DESIGNATION

3 C503 PAVEMENT MARKINGS AND SIGNAGE

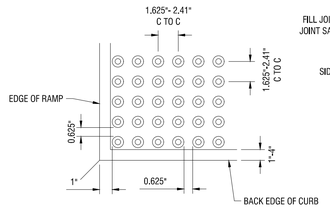
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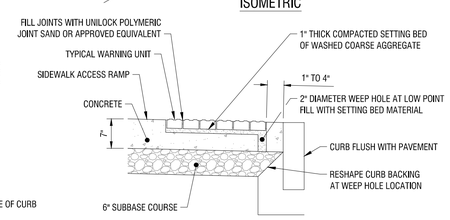
DOME SECTION



ISOMETRIC



DOME SPACING



SECTION

NOTES:

1. QUANTITY OF TRUNCATED DOMES SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND TO DEPICT REQUIRED SQUARE GRID PATTERN.
2. TRUNCATED DOMES ARE TO BE ALIGNED ON THE SQUARE GRID PATTERN IN THE PREDOMINANT DIRECTION OF TRAVEL.
3. ENTIRE DETECTABLE WARNING SYSTEM FIELD, INCLUDING TRUNCATED DOMES, IS TO BE DARK GRAY IN COLOR, N7 PER MUNSELL BOOK NOTATION, OR APPROVED EQUIVALENT.
4. OUTER EDGE OF THE DETECTABLE WARNING SYSTEM FIELD IS TO BE LOCATED SO THAT THE EDGE OF THE WARNING FIELD NEAREST TO THE STREET IS 1 TO 4 INCHES BEHIND THE BACK EDGE OF THE CURB SECTION.
5. DETECTABLE WARNING SYSTEM IS TO EXTEND ACROSS THE FULL WIDTH OF A SIDEWALK ACCESS RAMP, BUT NOT UP THE SIDE FLARES.

2 C503 BRICK DETECTABLE WARNING SYSTEM AT CURB

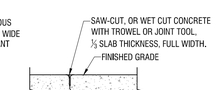
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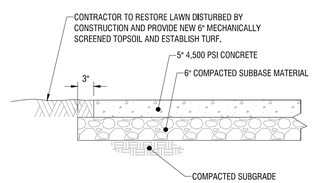


EXPANSION JOINT



CONTROL JOINT





SIDEWALK NOTES:

1. CONCRETE SHALL BE 4,500 PSI AIR ENTRAINED MIX AT 28 DAYS
2. COMPACTED SUBBASE MATERIAL SHALL COMPLY WITH NYSDOT ITEM 304.14, TYPE 4
3. CONCRETE SURFACE SHALL RECEIVE A BROOM FINISH AND TWO COATS OF A MEMBRANE FORMING SEALER AT RATES SPECIFIED BY THE PRODUCT MANUFACTURE.
4. EXPANSION JOINTS SHALL BE PROVIDED AT ALL FITTED STRUCTURES AND AT EVERY 25' ON CENTER.
5. CONTROL JOINTS SHALL BE EVERY 5' OR AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH ACI 330-R92. THESE JOINTS SHALL BE COMPLETED WITHIN 24 HOURS OF CONCRETE PLACEMENT. SCORED JOINTS SHALL BE ¼-INCH WIDTH MINIMUM AND ¼ OF THE THICKNESS OF THE CONCRETE
6. SIDEWALK ADJACENT TO THE CURB SHALL HAVE A 2.00% CROSS-SLOPE TO THE CURB. OTHER AREA AS INDICATED ON THE GRADING PLAN.
7. ALL JOINTS AND EXPOSED EDGES SHALL BE ROUNDED WITH JOINT TOOL.

1 C503 CONCRETE SIDEWALK

N.T.S.

LaBella Powered by partnership.

300 Pearl Street, Suite 130
Buffalo, NY 14202
716-551-6281

labellapc.com

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec, 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

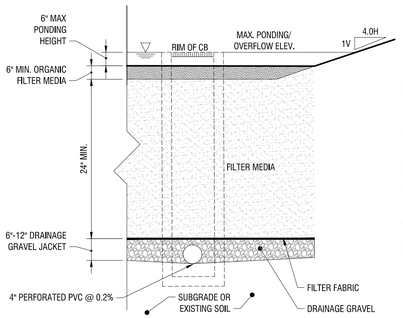
PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

CONSTRUCTION DETAILS

DRAWING NUMBER:

C503

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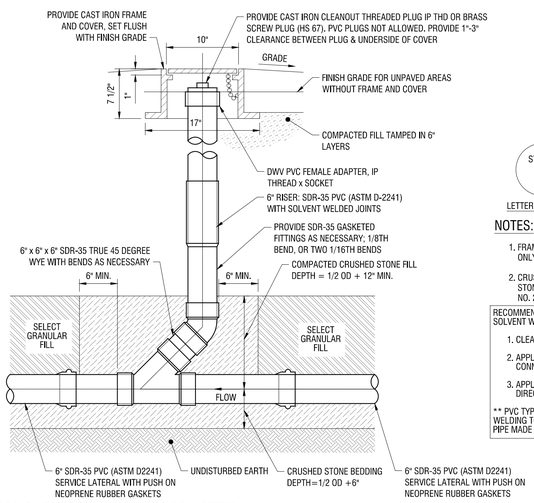


NOTES:

1. CONTRACTOR SHALL INSTALL FILTER MEDIA AFTER SITE HAS BEEN STABILIZED TO MINIMIZE POTENTIAL OF SEDIMENT CONTAMINATION OF MEDIA.
2. FILTER MEDIA SHALL BE LOAM/SAND MIX, NYSDOT BIO SOIL MIX ITEM #208.01030022, CONTAINING A MINIMUM OF 85% TO 88% COARSE/MEDIUM SAND BY VOLUME, 8% TO 12% SOIL FINES, AND 3% TO 5% ORGANIC MATTER.
3. ORGANIC FILTER MEDIA SHALL MEET SAME CRITERIA AS ABOVE WITH THE EXCEPTION OF CONTAINING 10% TO 12% ORGANIC MATTER.
4. SOIL SHOULD FALL WITHIN USCS TYPES SM OR ML WITH PERMEABILITY OF AT LEAST 1.0 FEET PER DAY. SOIL SHOULD BE FREE FROM STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER.
5. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED TO AT MOST 80% PROCTOR TEST. PH RANGE: 5.2 - 7.00.
6. FILTER FABRIC TO BE NON-WOVEN CLASS 'C', MIRAFI 180-N OR APPROVED EQUIVALENT
7. DRAINAGE GRAVEL TO MEET AASHTO M-43. NO.67, SIZE 0.25" TO 0.75"
8. CONTRACTOR TO PROVIDE PLANTING SOIL SUBMITTAL SPECIFICATION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
9. WETLAND SEED MIX SHALL BE USED AS INDICATED IN SPECIFICATIONS.
10. CONTRACTOR SHALL PROVIDE AT LEAST TWO PERMEABILITY TESTS FOR EACH FACILITY LOCATED AT OPPOSITE SIDES OF FACILITY.

8 / C504 BIORETENTION

N.T.S.



STORM C.O.

LETTERING ON COVER

NOTES:

1. FRAME AND COVER TO BE USED ONLY IN PAVED AREAS.
2. CRUSHED STONE: NO. 1 WASHED STONE OR A MIX OF NO. 1 AND NO. 2 WASHED STONE

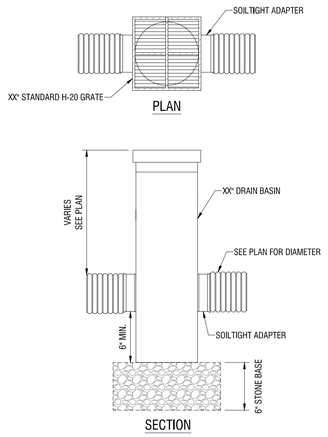
RECOMMENDED METHODS FOR JOINING OF SOLVENT WELD PIPE:

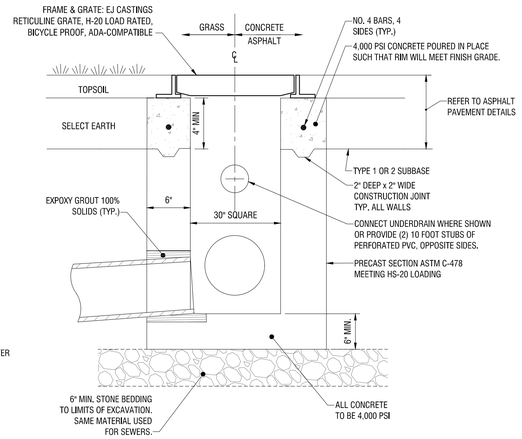
1. CLEAN DRY HUBS & SPIGOTS
2. APPLY PRIMER TO PARTS BEING CONNECTED
3. APPLY PVC SOLVENT WELD CEMENT DIRECTLY OVER PRIMER

** PVC TYPE IS COMPATIBLE FOR SOLVENT WELDING TO SDR-35 OR ANY OTHER PVC TYPE I PIPE MADE TO STEEL PIPE OUTSIDE DIMENSIONS

6 / C504 CLEANOUT FOR NEW STORM LATERAL

N.T.S.





NOTES:

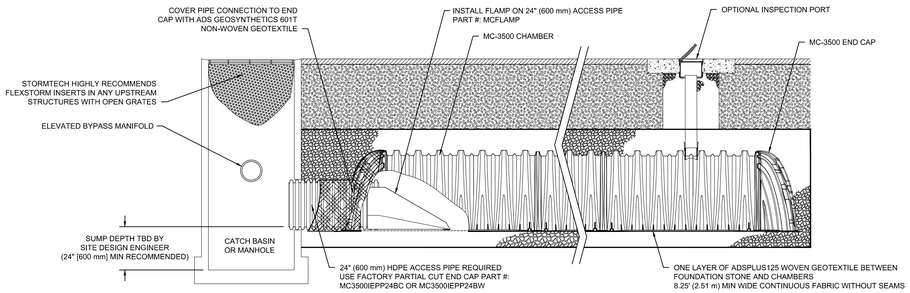
1. THE ENTIRE EXTERIOR & INTERIOR SURFACES OF THE CATCH BASIN SHALL BE PAINTED WITH TWO COATS OF BITUMASTIC COATING.
2. CATCH BASIN SHALL NOT BE CONNECTED TO ANY SANITARY SEWER.
3. PROVIDE FRAMES AND GRATES CONFORMING TO NYSDOT STANDARD SHEETS M655-10R3, M655-6.
4. FRAMES TO HAVE APPROPRIATE STRAP ANCHORS.

3 / C504 DRAIN BASIN

N.T.S.

2 / C504 CATCH BASIN

N.T.S.

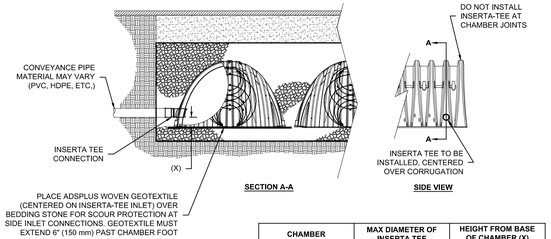


7 / C504 MC-3500 ISOLATOR ROW PLUS DETAIL

N.T.S.

INSERTA TEE DETAIL

NTS



CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-800	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	8" (200 mm)
MC-7200	12" (300 mm)	8" (200 mm)
INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON		

NOTES:

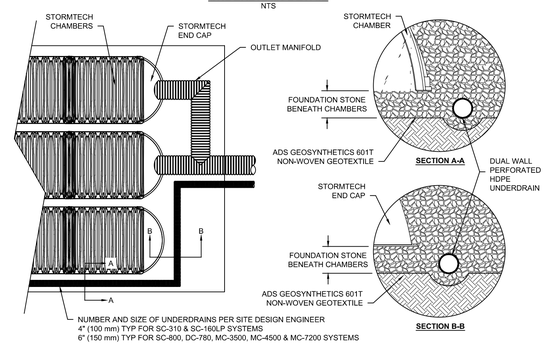
- PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.
- CONTACT ADS ENGINEERING SERVICES IF INSERTA TEE INLET MUST BE RAISED AS NOT ALL INVERTS ARE POSSIBLE.

5 / C504 MC-3500 INSERTA-TEE INLET

N.T.S.

UNDERDRAIN DETAIL

NTS



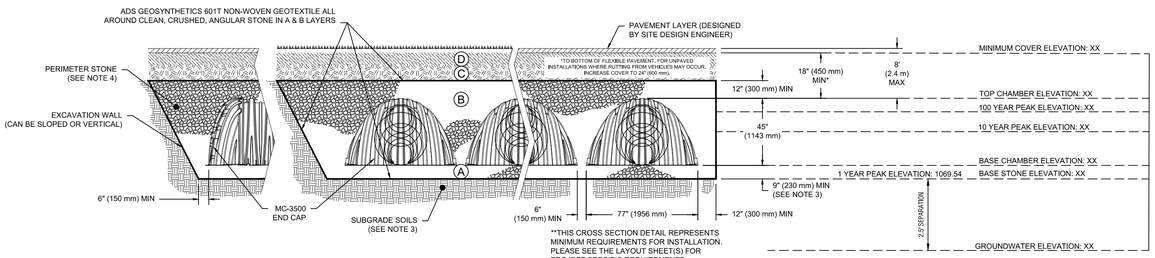
4 / C504 MC-3500 UNDERDRAIN

N.T.S.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 18" (450 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3" (75 mm).
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 / C504 MC-3500 CROSS SECTION

N.T.S.

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

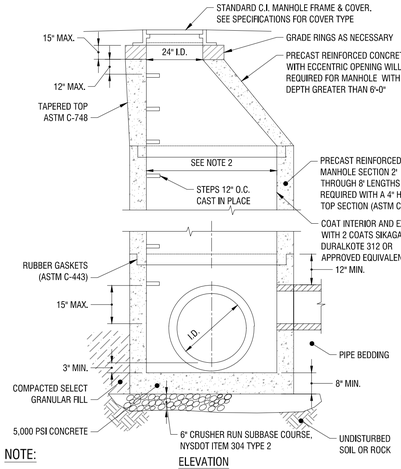
CONSTRUCTION DETAILS

DRAWING NUMBER:

C504

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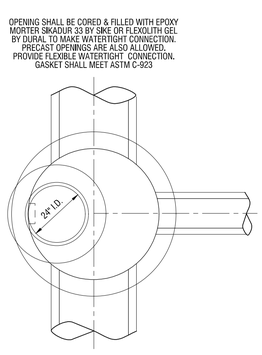
NOT FOR CONSTRUCTION



ELEVATION

NOTE:

1. PRECAST REINFORCED CONCRETE BASE REQUIRED FOR MANHOLE WITH DEPTH GREATER THAN 6'-0".
2. REFER TO TABLE
3. MANHOLES ARE TO BE FLANGED AND WATER TIGHT IN HIGH WATER TABLE AREAS



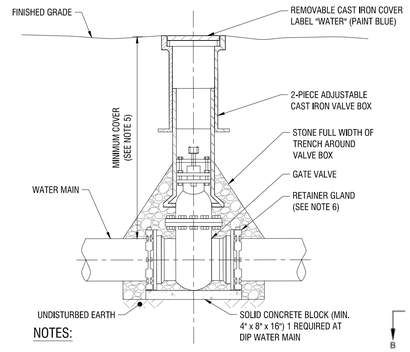
PLAN

MINIMUM MANHOLE DIAMETERS

# OF CONNECTIONS	PIPE DIAMETERS 8"	10"	12"	15"	16"	18"	21"	24"	30"	36"	42" & UP
ONE	4'	4'	4'	4'	4'	4'	4'	4'	5'	5'	REQUIRES SPECIAL MANHOLE
TWO	4'	4'	4'	4'	4'	4'	4'	4'	5'	5'	
THREE	4'	4'	4'	4'	4'	4'	5'	5'	5'	5'	
FOUR	4'	4'	4'	5'	5'	5'	5'	5'	5'	5'	

8 C505 CONCENTRIC STORM MANHOLE

N.T.S.

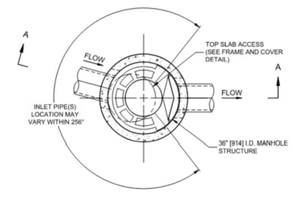


NOTES:

1. VALVE BOXES SHALL BE CENTERED ON VALVE AND SET ON COMPACTED BACKFILL.
2. VALVE SHALL NOT SUPPORT VALVE BOX.
3. BODY AND BONNET BOLTS SHALL BE STAINLESS STEEL.
4. VALVES SHALL BE OPEN RIGHT.
5. MINIMUM COVER SHALL BE AS SHOWN ON WATER MAIN TRENCH DETAIL.
6. RETAINER GLANDS NOT REQUIRED AT HYDRANT GUARD VALVES. GUARD VALVES SHALL BE RESTRAINED WITH ANCHOR PIPE.
7. REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

7 C505 MJ GATE VALVE

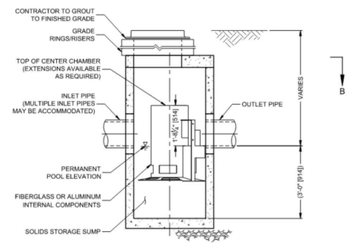
N.T.S.



PLAN VIEW B-B
NOT TO SCALE



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-3 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
NOTES / SPECIAL REQUIREMENTS:			

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE, www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION, ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

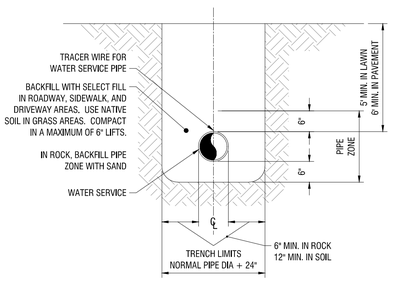
CASCADE separator™

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CS-3
CASCADE SEPARATOR
STANDARD DETAIL

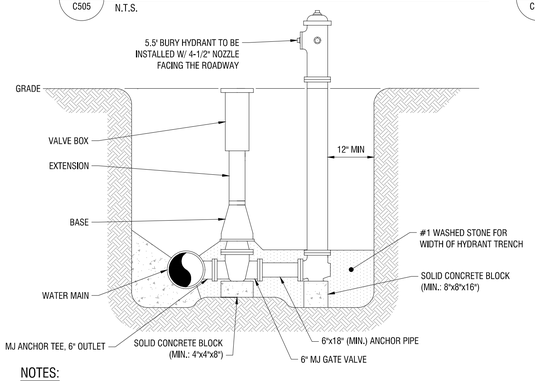
6 C505 WATER QUALITY UNIT

N.T.S.



5 C505 WATER SERVICE TRENCH

N.T.S.

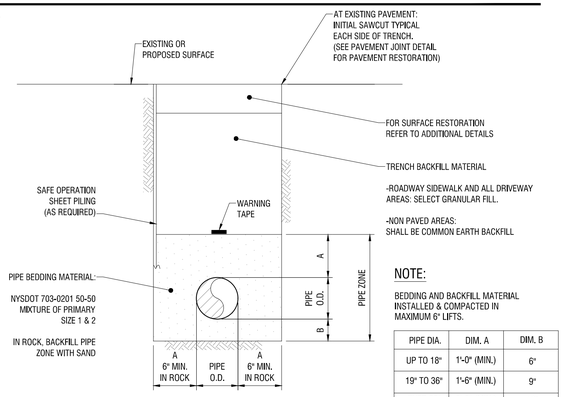


NOTES:

1. HYDRANT TO BE MUELLER SUPER CENTURION 250 - MODEL A-423 OR APPROVED EQUAL.
2. HYDRANT TO BE PAINTED RED.
3. HYDRANT MAIN VALVE SEAT SHALL BE 4 1/2" IN DIAMETER.
4. HYDRANT VALVE TO TURN LEFT.

4 C505 TYPICAL WATER MAIN VERTICAL TRANSITION

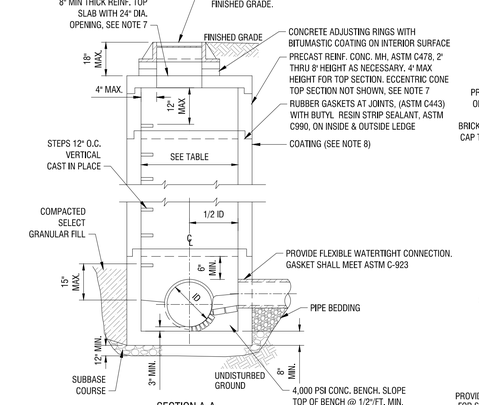
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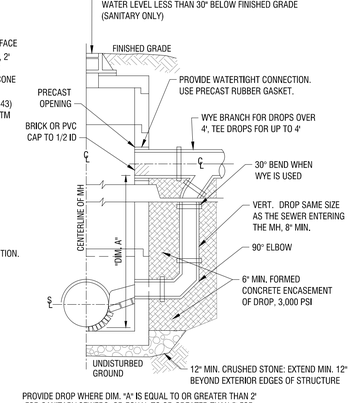
NOTE:

BEDDING AND BACKFILL MATERIAL INSTALLED & COMPACTED IN MAXIMUM 6" LIFTS.

PIPE DIA.	DIM. A	DIM. B
UP TO 18"	1'-0" (MIN.)	6"
19" TO 36"	1'-6" (MIN.)	9"
OVER 36"	2'-0" (MIN.)	12"



SECTION A-A



PROVIDE DROP WHERE DIM. "A" IS EQUAL TO OR GREATER THAN 2' FOR SANITARY SEWERS, OR EQUAL TO OR GREATER THAN 5' FOR STORM SEWERS, UNLESS NOTED OTHERWISE ON PLANS.

SECTION A-A
(FOR OUTSIDE DROP CONNECTION & WATERTIGHT MH FRAME & COVER)

NOTES:

1. IF AN INVERT IS NOT GIVEN, THE CROWN OF THE INFLUENT SEWER(S) SHOULD BE AT THE SAME LEVEL OR ABOVE THE CROWN OF THE OUTLET SEWER.
2. PIPE CONNECTIONS 6" DIAMETER AND SMALLER MAY BE FIELD CORED. CORED OPENINGS IN MANHOLE RISER SECTIONS SHALL BE NOT LESS THAN 6" FROM A RISER JOINT.
3. ALL RISER JOINTS SHALL BE RUBBER RING GASKETS CONFORMING TO ASTM C443 WITH FLEXIBLE JOINT SEALER ON OUTSIDE OF JOINTS.
4. PRECAST BASES, RISER SECTIONS & TOP SLABS SHALL CONFORM WITH ASTM C478, W/ HS-20 LOADING AND 30% IMPACT LOADING DESIGN.
5. CONCRETE FOR STRUCTURE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
6. INVERT AND BENCH MAY BE CONSTRUCTED WITH BRICK OR POURED CONCRETE. PVC AND/OR ABS PIPE SHALL NOT BE USED WITHIN THE MANHOLE.
7. ECCENTRIC CONE TYPE TOP SECTIONS FOR MANHOLES SHALL BE USED WHERE THE INSIDE HEIGHT DIMENSION FROM THE BENCH WALL TO THE BOTTOM OF THE ECCENTRIC SECTION EXCEEDS 8', OTHERWISE PROVIDE FLAT SLAB TOP SECTIONS.
8. INSIDE AND OUTSIDE OF MANHOLE TO BE EPOXY COATED TO ONE FOOT ABOVE THE HIGHEST PIPE CROWN. AREAS OUTSIDE OF ONE FOOT ABOVE HIGHEST PIPE CROWN TO RECEIVE TWO COATS OF BITUMASTIC COATING ON BOTH THE INSIDE AND OUTSIDE OF MANHOLE.

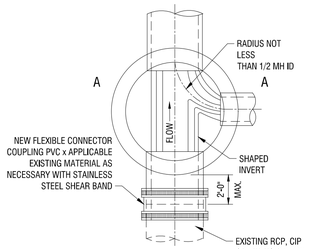
3 C505 SANITARY MANHOLE

N.T.S.

MINIMUM MANHOLE DIAMETERS

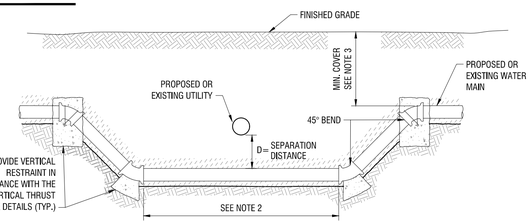
# OF CONNECTIONS	PIPE DIAMETERS 8"	10"	12"	15"	16"	18"	21"	24"	30"	36"	42" & UP
ONE	4'	4'	4'	4'	4'	4'	4'	4'	5'	5'	REQUIRES SPECIAL MANHOLE
TWO	4'	4'	4'	4'	4'	4'	4'	4'	5'	5'	
THREE	4'	4'	4'	4'	4'	4'	5'	5'	5'	5'	
FOUR	4'	4'	4'	5'	5'	5'	5'	5'	5'	5'	

LETTERING ON COVER



2 C505 HYDRANT ASSEMBLY

N.T.S.



NOTES:

1. SEPARATION DISTANCE DIMENSION D, (OUTSIDE EDGE TO OUTSIDE EDGE) SHALL BE PROVIDED AS FOLLOWS: GAS AND WATER LINES D = 12" MIN, SANITARY FORCEMAINS, STORM SEWERS, AND SANITARY SEWERS D = 18" MIN.
2. ONE STANDARD FULL LENGTH OF WATER MAIN SHALL BE CENTERED UNDER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.
3. MIN. COVER DEPTH - SEE WATER MAIN TRENCH DETAIL.

1 C505 STORM/SANITARY SEWER TRENCH AND PIPE BEDDING

N.T.S.

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300 Pearl Street, Suite 130
Buffalo, NY 14202
716-551-6281

labellapc.com

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec, 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604

HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

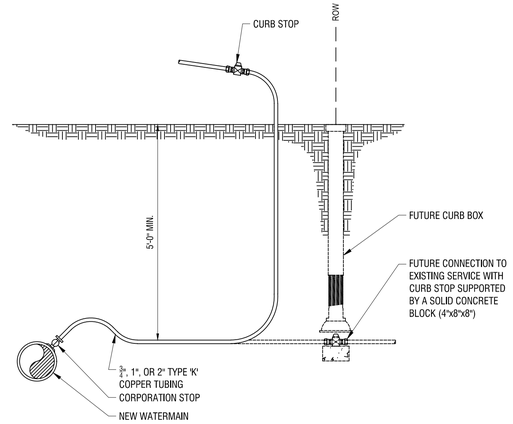
CONSTRUCTION DETAILS

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C505

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NOT FOR CONSTRUCTION

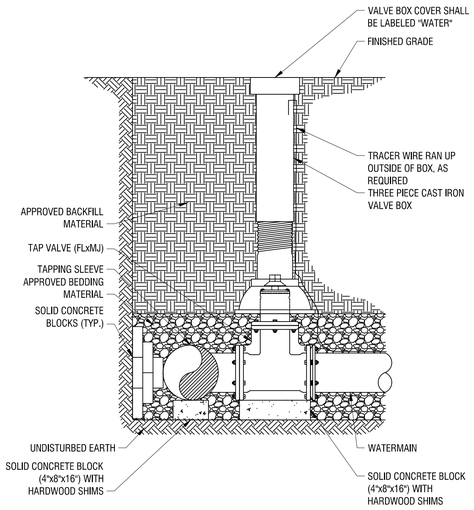


NOTES:

1. AFTER COMPLETION OF TESTING, THE SAMPLE POINT SHALL BE UTILIZED FOR A SERVICE CONNECTION. IF UNABLE TO UTILIZE FOR A SERVICE REPLACE THE CORPORATION STOP IN PIPE WITH A THREADED BRASS PLUG.

5 C506 TEMPORARY BLOW-OFF / SAMPLE POINT

ECWA STANDARD DETAIL

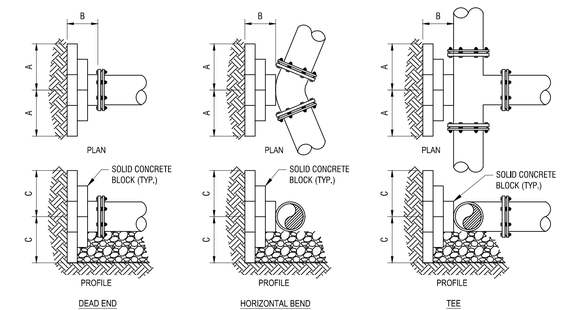


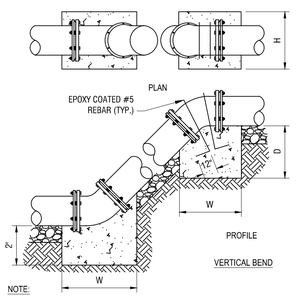
NOTES:

1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. TAP VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

4 C506 TAPPING SLEEVE AND VALVE

ECWA STANDARD DETAIL





NOTE:
FULL CONCRETE THRUST BLOCKS AS SHOWN ARE REQUIRED WHEN THRUST RESTRAINT IS NOT PROVIDED BY OTHER MEANS SUCH AS MJ RESTRAINTS

PIPE SIZE	90° BEND, TEE, OR DEAD END			45° BEND		
	A	B	C	A	B	C
6"	1.5'	1.0'	0.5'	0.75'	1.0'	0.5'
8"	1.5'	1.0'	0.75'	1.5'	1.0'	0.5'
10"	1.5'	1.5'	1.0'	1.5'	1.5'	0.75'
12"	2.0'	2.0'	1.0'	1.75'	1.75'	0.75'

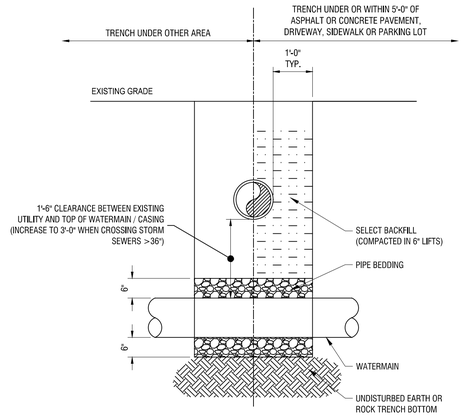
PIPE SIZE	22.5° BEND			11.25° BEND		
	A	B	C	A	B	C
6"	0.5'	1.0'	0.5	0.5'	1.0'	0.5
8"	0.75'	1.0'	0.5'	0.5'	1.0'	0.5'
10"	1.0'	1.5'	0.75'	1.0'	1.0'	0.75'
12"	1.25'	1.75'	0.75'	1.25'	1.25'	0.75'

PIPE SIZE	VERTICAL BEND UP			VERTICAL BEND DOWN		
	D	H	W	D	H	W
6"	2.0'	5.0'	3.0'	3.5'	3.5'	3.0'
8"	2.0'	6.0'	4.0'	4.5'	4.5'	4.0'
10"	2.0'	6.25'	4.5'	4.75'	4.75'	4.5'
12"	2.0'	6.5'	5.0'	5.0'	5.0'	5.0'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

3 C506 THRUST BLOCKS

ECWA STANDARD DETAIL

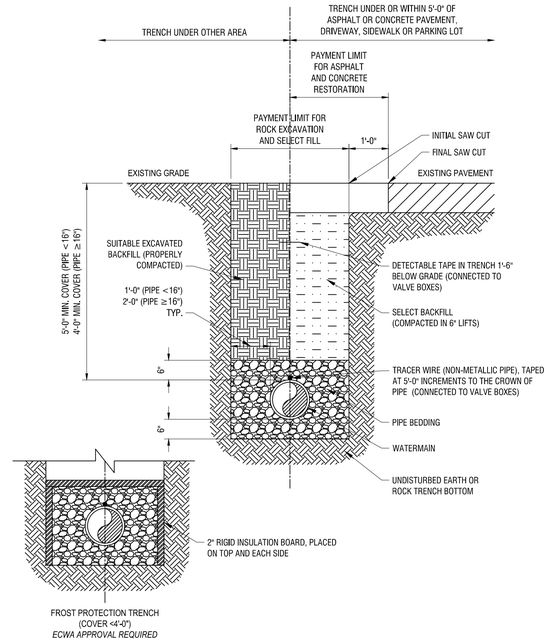


NOTES:

1. ALL EXISTING UTILITIES MUST BE SUPPORTED WITH APPROPRIATE CHAINS / STRAPS DURING CONSTRUCTION OF THE NEW WATERMAIN. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE OWNER FOR THEIR PREFERRED SUPPORT REQUIREMENTS.
2. WHEN CROSSING A SEWER LINE WITH NEW WATERMAIN (AND WITHOUT A CASING PIPE), ONE FULL LENGTH (18'-0" MIN.) SHALL BE USED AT THE POINT OF CROSSING. THE WATERMAIN SHALL BE PLACED SO THAT BOTH JOINT ENDS ARE AS FAR AS POSSIBLE FROM THE EXISTING SEWER.
3. IF CASING PIPE IS USED, IT SHALL EXTEND 5'-0" BEYOND THE EXISTING PIPE OUTER EDGE IN EACH DIRECTION, AND NO WATERMAIN JOINTS OR FITTINGS SHALL BE LOCATED WITHIN 4'-0" FROM THE CASING PIPE EDGE.

2 C506 PIPE CROSSING DETAIL

ECWA STANDARD DETAIL



1 C506 TYPICAL TRENCH DETAIL

ECWA STANDARD DETAIL

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CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec. 7209 & Art, 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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ROCHESTER, NEW YORK 14604

HOME LEASING
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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
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DATE: 4/20/2026
DRAWING NAME:

CONSTRUCTION DETAILS

DRAWING NUMBER:

C506

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STANDARD FRAME AND COVER (PRIVATE SEWER)
(NOVEMBER 2023)

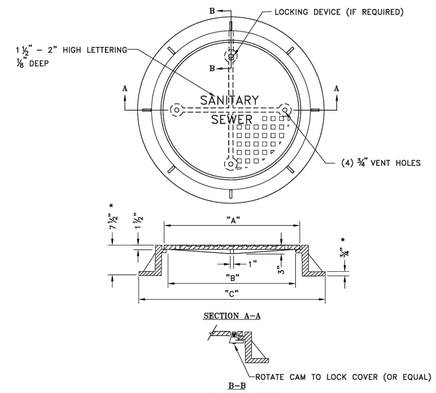


TABLE				
PIPE SIZE	DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	WEIGHT OF COVER
8" THRU 18"	24"	22 1/4"	35"(MAX.)	150 LBS. ± 5%
OVER 18"	32"	30"	46"(MAX.)	200 LBS. ± 5%

STANDARD FRAME AND COVER NOTES

1. MATERIAL: ASTM A48 CLASS 30B CAST IRON CONFORMING TO AASHTO DESIGNATION M105–06.
2. UNIT MUST WITHSTAND H–20 WHEEL LOADING, AND CONFORM TO AASHTO DESIGNATION M306–10.
3. ALL DIMENSIONS ARE TO BE CONSIDERED MINIMUM WITH THE EXCEPTION OF THE COVER, WHICH MUST CONFORM EXACTLY TO MAINTAIN INTERCHANGEABILITY WITHIN THE COUNTY.
4. COVER WEIGHT 210 LBS. (MAX)
5. COATING NOT REQUIRED.
6. FRAMES AND COVERS SHALL HAVE MACHINED BEARING SURFACES.
7. LOCKING DEVICE MUST BE SITUATED TO ALLOW EASY REMOVAL OF COVER.
8. NO COMMERCIAL "BRAND NAME" LETTERING WILL BE ALLOWED ON THE EXPOSED SURFACE OF THE COVER.
9. * 1/2" FLANGE THICKNESS AND 7" HEIGHT ACCEPTABLE IF CLASS 35 CAST IRON MATERIAL PROVIDED.

ERIE COUNTY
DEPT. OF ENVIRONMENT & PLANNING
DIVISION OF SEWERAGE MANAGEMENT

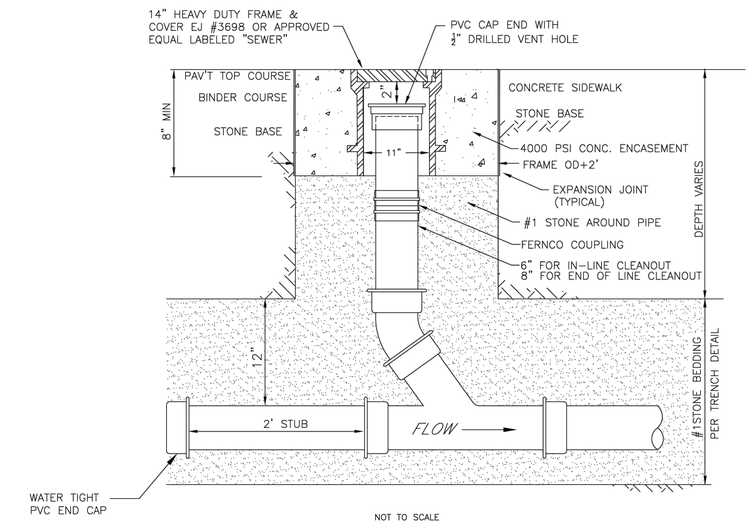
Rev. 1	11/28/18	REVISED NOTES 1 & 2 TO REFERENCE AASHTO STANDARDS & ADDED NOTE 9
Rev. 2		
Rev. 3		
Rev. 4		
File: D–13P	Date: 2/05	

STD.DETAIL
13P

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4 C507 STANDARD FRAME AND COVER DETAIL
ERIE COUNTY SEWER STANDARD DETAIL

Cleanout in Pavement/Sidewalks
(NOVEMBER 2023)



NOT TO SCALE

ERIE COUNTY
DEPT. OF ENVIRONMENT & PLANNING
DIVISION OF SEWERAGE MANAGEMENT

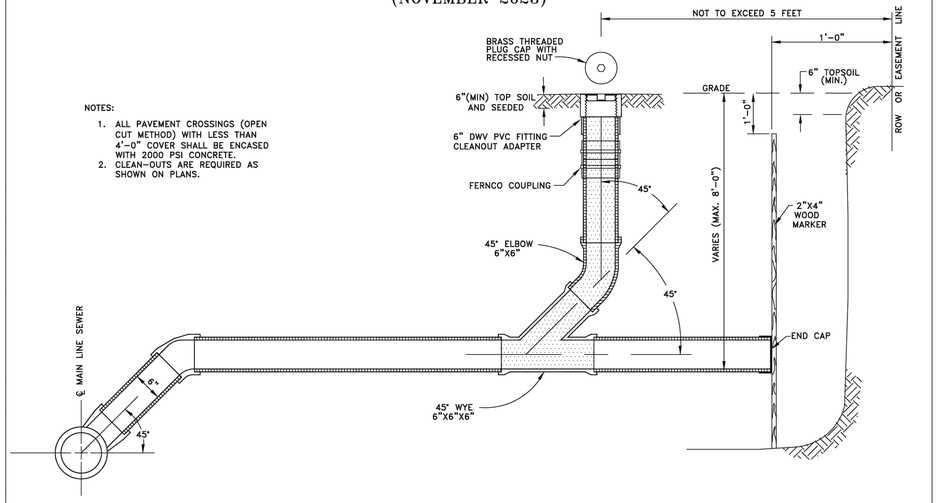
REV 07/99	ADD MIN. DISTANCE AND MARKER	
REV 12/01	ADDED #1 STONE AROUND PIPE	
REV 01/12	REMOVED 2X4 MARKER	
REV 11/23	ADD FERNCO COUPLING & EJ 3698	
File: D–53	Date: 5/13/97	

STD. DETAIL
53

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3 C507 CLEANOUT IN PAVEMENT/SIDEWALK DETAIL
ERIE COUNTY SEWER STANDARD DETAIL

CLEAN–OUT DETAIL FOR SERVICE CONNECTION
(NOVEMBER 2023)



ERIE COUNTY
DEPT. OF ENVIRONMENT & PLANNING
DIVISION OF SEWERAGE MANAGEMENT

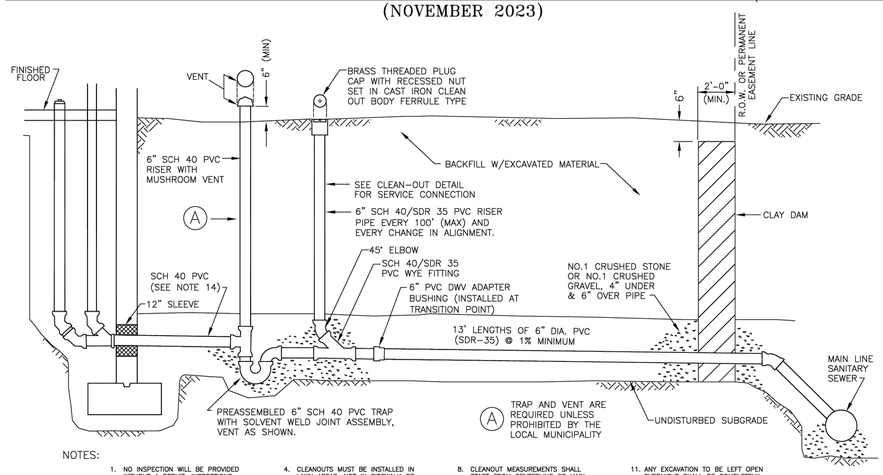
Rev. 1	2/94	CHANGED DIM LINE FOR MAX. DEPTH
Rev. 2	12/01	ADDED NOTE 7
Rev. 3	5/02	CHANGED C.I. CAP TO BRASS
Rev. 4	6/05	1' MIN. FROM EDGE OF WALK NOTE
Rev. 5	1/12	CHANGED C.I. TO BRASS NOTES 1 & 3
Rev. 5	3/24	REVISED NOTES & REMOVED CAST IRON
File: D–28	Date: 3/1/91	

STD. DETAIL
28

File: V:\DSA\Engineering\CAD\Details\Details November 2023\D–28.dwg, Last saved: 3/15/2024, Plot Date: 3/15/2024, Plot Style: DETAILS.CTB

2 C507 CLEANOUT DETAIL FOR SERVICE CONNECTION
ERIE COUNTY SEWER STANDARD DETAIL

TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (NEW BUILDS)
(NOVEMBER 2023)



NOTES:

1. NO INSPECTION WILL BE PROVIDED WITHOUT A PERMIT. INSPECTIONS REQUIRE 48 HR. ADVANCE NOTICE FOR SCHEDULING.
2. ALL WORK MUST BE INSPECTED BY A COUNTY INSPECTOR.
3. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D–3033/D–3034.
4. CLEANOUTS MUST BE INSTALLED IN LAWN AREAS, NOT IN SIDEWALK OR DRIVEWAY AREAS, PREFERABLY BETWEEN THE CURB OR EDGE OF PAVEMENT AND THE SIDEWALK.
5. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
6. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'–0" UNDER PAVED AREAS.
7. MIN. DEPTH OF COVER 3'–0".
8. CLEANOUT MEASUREMENTS SHALL START FROM CENTERLINE OF MAIN SEWER FOR NEARSIDE LATERALS AND FROM THE 6" CLEANOUT FOR FAR SIDE CONNECTIONS. A CLEANOUT MAY BE REQUIRED FOR ANY ABRUPT CHANGES IN LATERAL DIRECTION FLOW.
9. A 6" CLEANOUT IS REQUIRED AT R.O.W. WHENEVER THE MAIN SEWER IS UNDER THE PAVEMENT LIMITS OR AT FAR SIDE OF PAVEMENT.
10. SEPTIC TANKS MUST BE ABANDONED PER NYSDEC APPROVED METHODS.
11. ANY EXCAVATION TO BE LEFT OPEN OVERNIGHT SHALL BE COMPLETELY ENCLOSED IN FENCING, OR WHERE NECESSARY, COVERED WITH STEEL PLATES.
12. DOWN SPOUTS, SUMP PUMPS, AND FOOTING DRAINS ARE NOT PERMITTED TO BE CONNECTED TO THE LATERAL.
13. NO CONNECTION SHALL BE MADE UNTIL BUILDING ROOF IS ERECTED.
14. IF CAST IRON IS USED EXITING THE BUILDING, A MISSION COUPLING IS REQUIRED BEFORE THE TRAP.

ERIE COUNTY
DEPT. OF ENVIRONMENT & PLANNING
DIVISION OF SEWERAGE MANAGEMENT

Rev. 1/07	REMOVED OLD NOTES 2 AND 18 ADDED 1% MIN. TO SERVICE PIPE DETAIL	
Rev. 11/08	ADDED SLEEVE AND PVC–SDR 35	
Rev. 1/12	REVISED 6" CAST IRON TRAP NOTE	
Rev. 10/21	REMOVED VENT, RISER, AND TRAP ASSEMBLY	
Rev. 11/23	ADDED VENT, RISER, TRAP ASSEMBLY & Ⓐ	
Rev. 3/24	CHANGED VENT, RISER, TRAP ASSEMBLY SCH 40	
File: D–22	Date: 3/1/91	

STD. DETAIL
22

File: V:\DSA\Engineering\CAD\Details\Details November 2023\D–22.dwg, Last saved: 3/15/2024, Plot Date: 3/15/2024, Plot Style: DETAILS.CTB

1 C507 TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL
ERIE COUNTY SEWER STANDARD DETAIL

NOT FOR CONSTRUCTION

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec. 7209 & Art, 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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HOME LEASING
75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604

HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

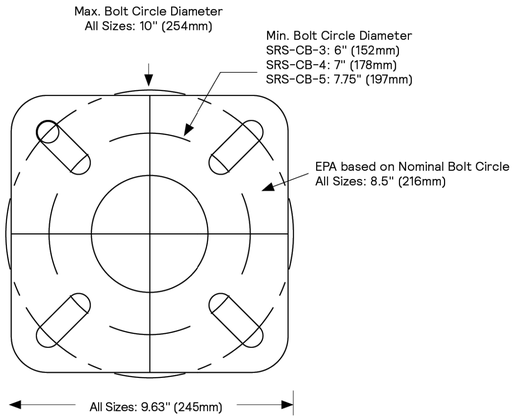
NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

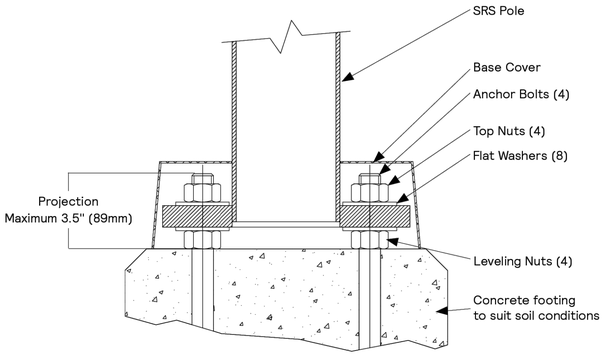
CONSTRUCTION DETAILS

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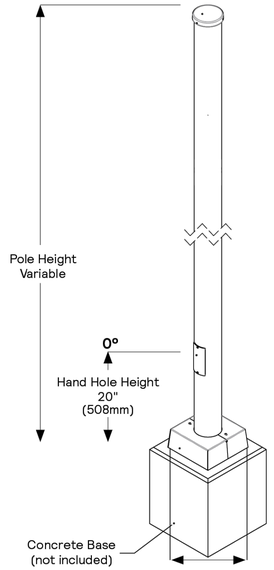
C507



Legacy Model: Round 10.5" Diameter Base
with 8.5" Nominal Bolt Circle (not shown)



Section Base



Base Cover Dimensions (L x W x H)
All Sizes: 10.32" x 10.32" x 4.08"
(262mm x 262mm x 104mm)

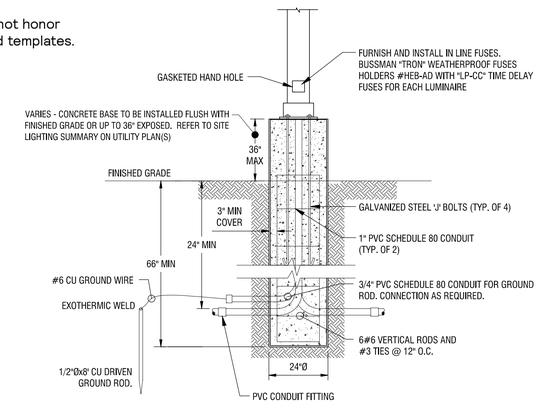
SRS Legacy Design not shown.
Legacy Base Cover: Round - 10.7" Diameter x 4.5" Height
Hand Hole: 12" Above Base

* Anchor Bolt Lock Washers are not normally required and are not included in standard anchor bolt sets. They are available upon request at additional cost.

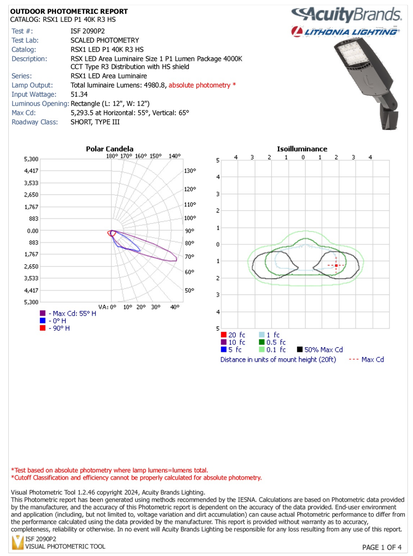
** Grouting should include a drainage slot or tube (by others) to permit water to drain from the base of the pole. Failure to provide drainage may weaken the pole base structure over time and may result in pole base failure, for which Gardco is not responsible.

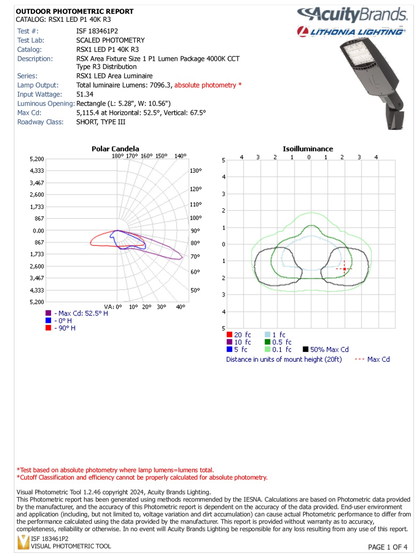
NOTE: Factory supplied template must be used when setting anchor bolts. Gardco will not honor any claim for incorrect anchorage placement from failure to use factory supplied templates.

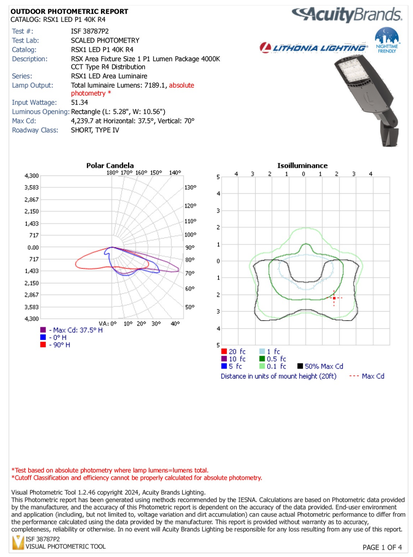
3 / C508 PARKING LOT STEEL POLE (MC-01 POLE)
N.T.S.

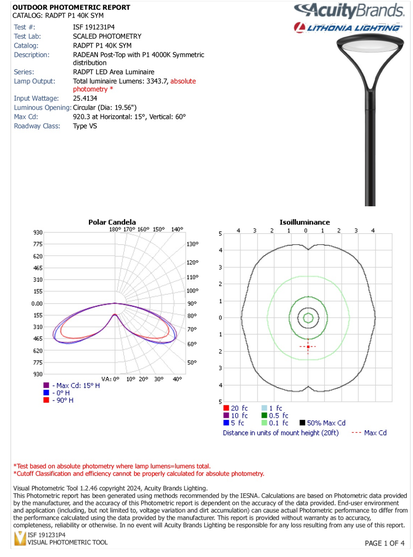


2 / C508 TYPICAL SITE LIGHTING POLE BASE DETAIL
N.T.S.









1 / C508 LIGHTING FIXTURES / PHOTO METRICS
N.T.S.

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EXP: EXP:

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LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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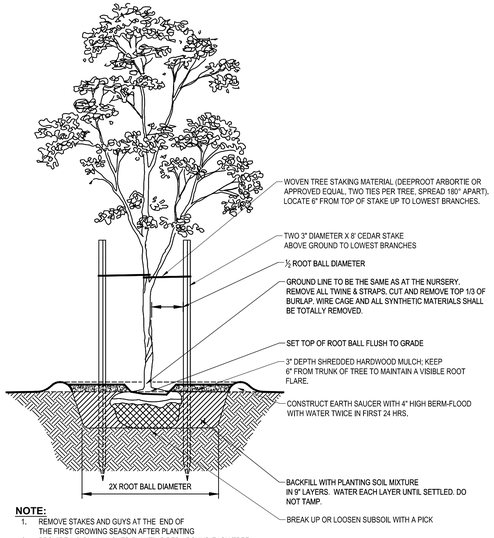
HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / SCB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME: CONSTRUCTION DETAILS
DRAWING NUMBER: C508

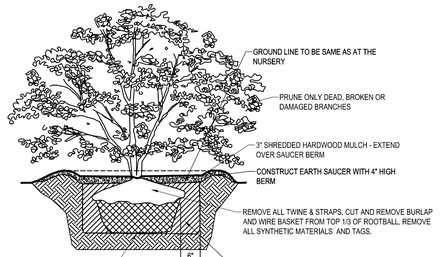
NOT FOR CONSTRUCTION



NOTE:
1. REMOVE STAKES AND GUYS AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING
2. PROVIDE A 6' DIA. MULCHED PLANTING BED AROUND EACH TREE.
3. DO NOT OVERSEED TREE PLANTING PITS IN MAINTAINED LAWN AREAS.

4 / L501 DECIDUOUS TREE PLANTING

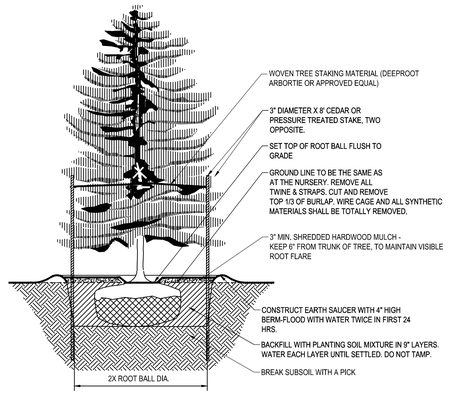
N.T.S.



NOTE:
1. PROVIDE A CONTINUOUS MULCHED PLANTING BED FOR ALL SHRUB PLANTINGS.
2. DO NOT OVERSEED SHRUBS IN PLANTING BEDS OR PITS IN MAINTAINED LAWN AREAS

3 / L501 SHRUB PLANTING

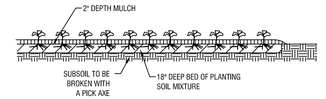
N.T.S.



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2. PROVIDE A 6' DIA. MULCHED PLANTING BED AROUND EACH TREE.
3. DO NOT OVERSEED TREE PLANTING PITS IN MAINTAINED LAWN AREAS.

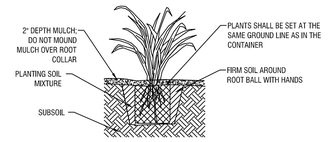
2 / L501 EVERGREEN TREE PLANTING

N.T.S.



NOTE: GROUND COVERS SHALL BE POT OR CONTAINER GROWN.

GROUNDCOVER SECTION



PERENNIAL SECTION

NOTES:
1. PROVIDE 18" DEPTH PLANTING SOIL MIX , ADD FERTILIZER WHEN MIXING. DO NOT COMPACT AFTER PLANTING.
2. WATER THOROUGHLY AFTER PLANTING.
3. PROVIDE WELL DRAINING SUBSOIL WHEN SOIL IS HEAVY OR COMPACTED.
4. PLANTS SHALL BE REMOVED FROM ALL CONTAINERS WHEN PLANTED, UNLESS OTHERWISE STATED IN THE PLANT SCHEDULE.

1 / L501 PERENNIAL - GROUNDCOVER PLANTING

N.T.S.

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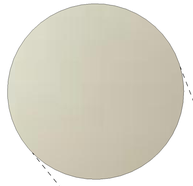
LANDSCAPE DETAILS

DRAWING NUMBER:

L501

4/20/2026 1:17:53 PM
\\cash.lab\u\Projects\Home Leasing Services\2241067 - Affordable Housing West Seneca\06_Drawings\Civil\C500 CONSTRUCTION DETAILS.dwg

FIBER CEMENT PANEL -
HARDIE "COBBLESTONE"



BRICK -
WATSONTOWN "ELK"

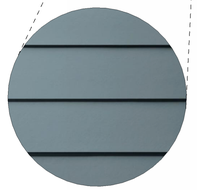




FIBER CEMENT BOARD
AND BATTEN -
HARDIE "IRON GRAY"

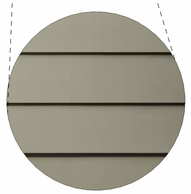


ALTERNATE MATERIAL:
FIBER CEMENT SIDING
- HARDIE "BOOTHBAY BLUE"



VINYL SIDING - VYTEC
PRESTIGE "LAKESHORE BLUE"

VINYL SIDING - VTEC
PRESTIGE "SPRING MEADOW"



ALTERNATE MATERIAL:
FIBER CEMENT SIDING
- HARDIE "MONTEREY TAUPE"

3D View and Material Palette

Home Leasing - West Seneca

SWBR



4 EXTERIOR ELEVATION - WEST
1/16" = 1'-0"



3 EXTERIOR ELEVATION - NORTH
1/16" = 1'-0"



2 EXTERIOR ELEVATION - EAST
1/16" = 1'-0"



1 EXTERIOR ELEVATION - SOUTH
1/16" = 1'-0"

ELEVATION KEY NOTES

NO.	DESCRIPTION
E1	MASONRY VENEER. COLOR AND PATTERN TBD.
E2	FIBER CEMENT PANEL SYSTEM. COLOR TBD
E3	FIBER CEMENT BOARD AND BATTEN SYSTEM. COLOR TBD
E4	VINYL LAP SIDING, 7" EXPOSURE. COLOR TBD. (ALTERNATE MATERIAL: FIBER CEMENT SIDING)
E5	ALUMINUM STOREFRONT SYSTEM. COLOR AND FINISH TBD.
E6	EXTERIOR WALL SCONCE. FIXTURE TBD.
E7	FRAMED CANOPY W/ GFRC CORNICE
E8	ROOF PARAPET W/ GFRC CORNICE
E9	6" TRIM BOARD
E10	12" TRIM BOARD AND ALUMINUM PARAPET COPING
E11	VINYL DOUBLE HUNG WINDOW. COLOR AND TRIM TBD

Exterior Elevations

Home Leasing - West Seneca

SWBR

A-3
3

3-STORY BLDG - UNIT COUNTS

1 BR = 15 UNITS
2 BR = 25 UNITS
3 BR = 20 UNITS

60 UNITS TOTAL

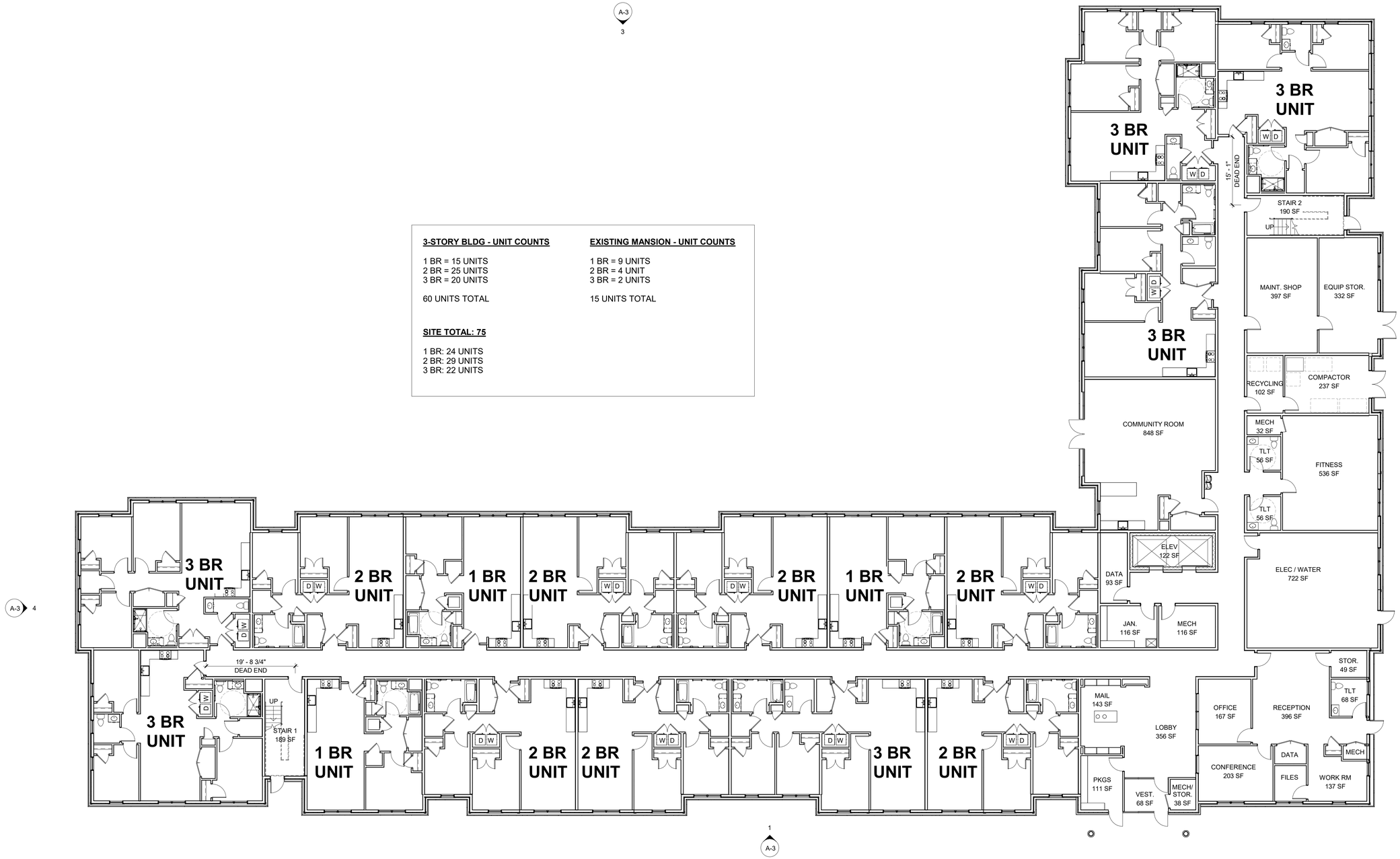
EXISTING MANSION - UNIT COUNTS

1 BR = 9 UNITS
2 BR = 4 UNIT
3 BR = 2 UNITS

15 UNITS TOTAL

SITE TOTAL: 75

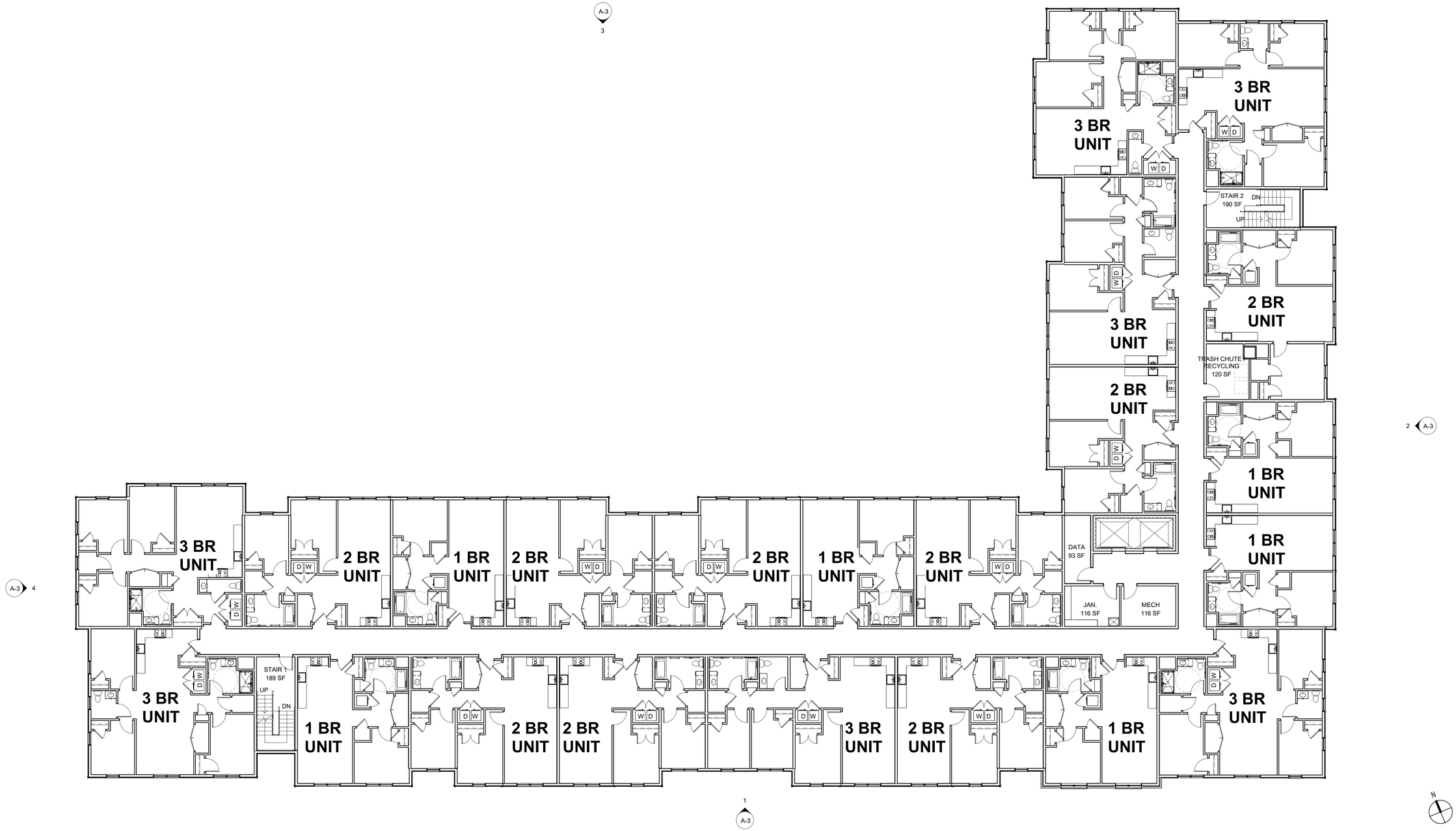
1 BR: 24 UNITS
2 BR: 29 UNITS
3 BR: 22 UNITS



First Floor Plan

Home Leasing - West Seneca

SWBR



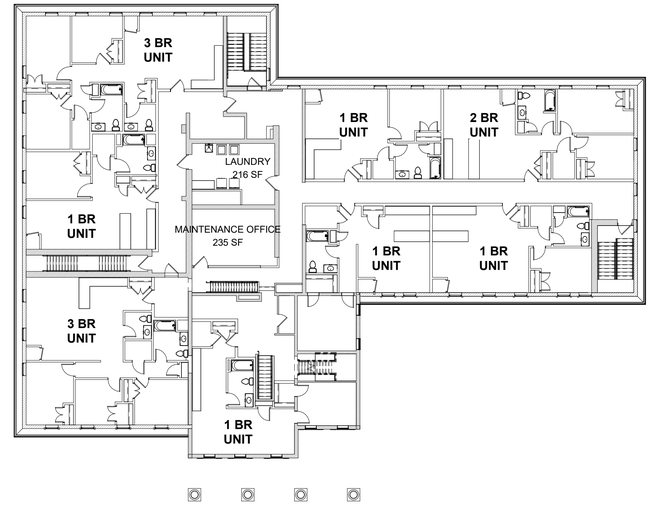
Second and Third Floor Plans

Home Leasing - West Seneca

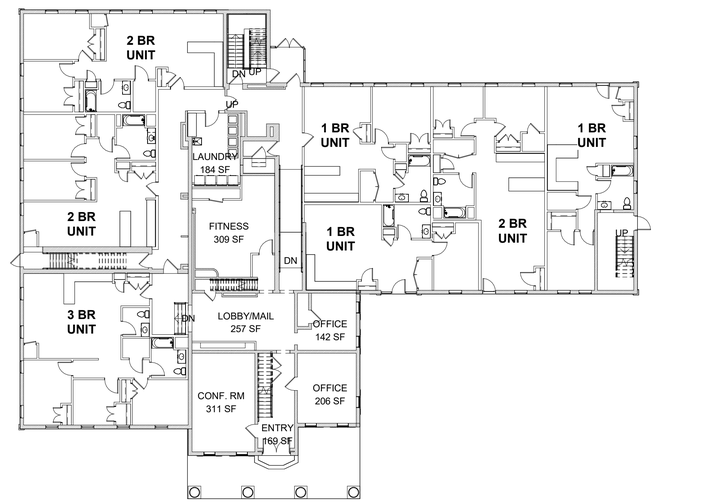
SWBR



CONCEPTUAL RENDERING



2 SECOND FLOOR PLAN
1/16" = 1'-0"



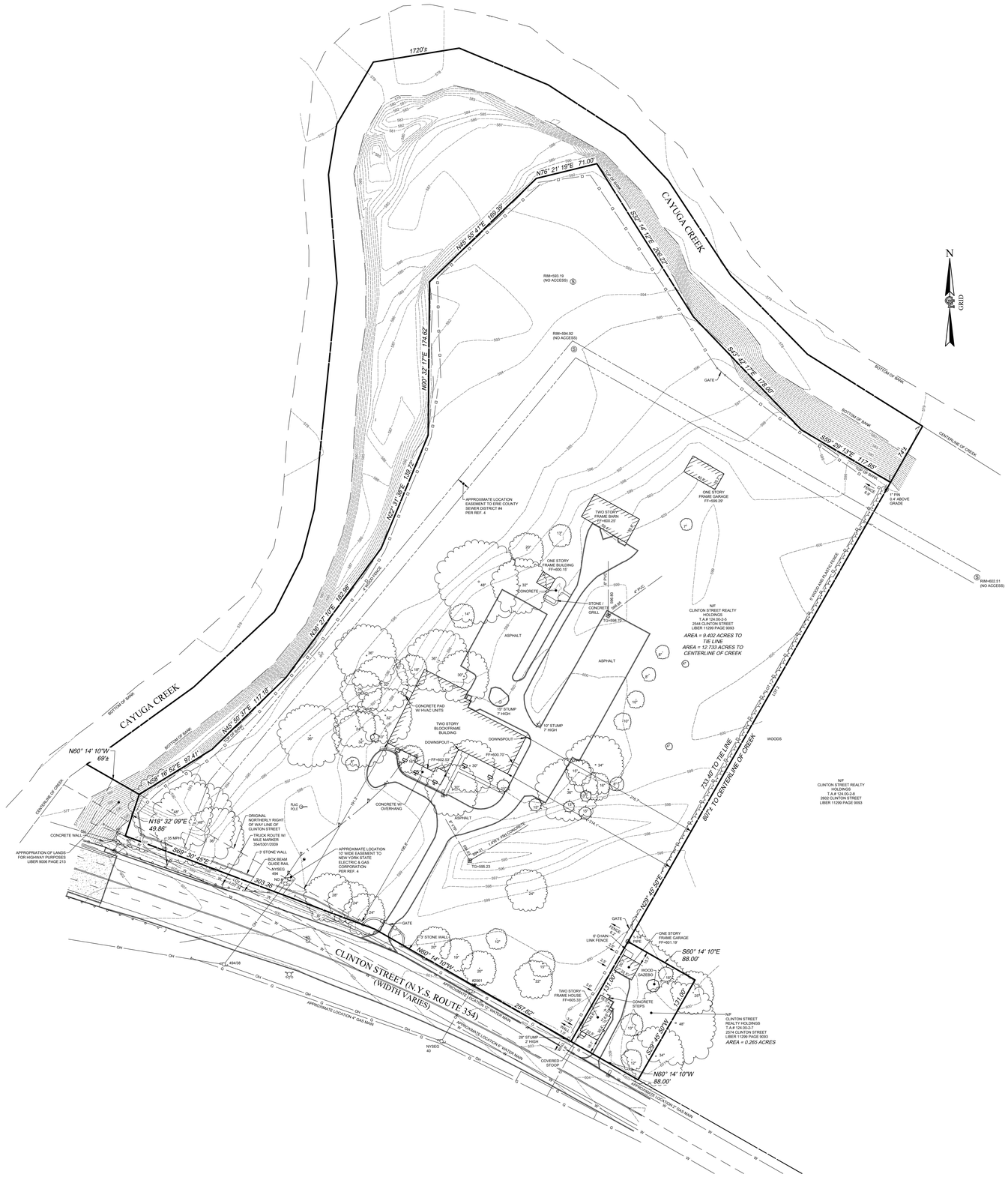
1 FIRST FLOOR PLAN
1/16" = 1'-0"

N

Existing Building Plans and Rendering

Home Leasing - West Seneca

SWBR

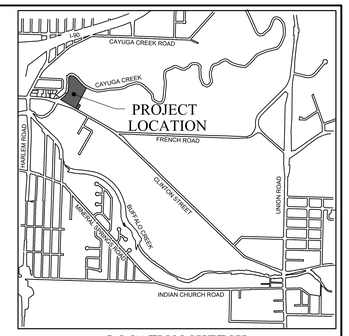


LINE LEGEND

- SECTION/PARCEL BOUNDARY
- MIN. BUILDING SETBACK
- CENTER LINE
- EXIST. EASEMENT LINE
- EXIST. RIGHT-OF-WAY LINE
- EXIST. EDGE OF PAVEMENT
- EXISTING WATER MAIN, VALVE, & HYDRANT.
- EXISTING SANITARY SEWER, & MANHOLE.
- EXISTING DRAINAGE SEWER, FIELD INLET, INLET MANHOLE, MANHOLE, & END SECTION.
- EXISTING OVERHEAD UTILITIES
- EXISTING TELEPHONE
- EXISTING UNDERGROUND UTILITIES
- EXISTING GAS
- EXISTING ELECTRIC
- EXISTING GUARD RAIL
- TREE,HEDGE,EDGE OF WOODS
- EXISTING SWALE
- BARBED WIRE,STOCKADE,CHAIN LINKED FENCE
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION @ X
- CONCRETE PAD/ CONCRETE SIDEWALK

SYMBOL LEGEND

- DRAINAGE MANHOLE
- INLET DRAINAGE MANHOLE
- CATCH BASIN
- END SECTION
- END OF PIPE
- MANHOLE
- SANITARY MANHOLE
- CLEAN OUT
- GAS VALVE
- GAS SERVICE
- GAS METER
- SPRINKLER VALVE
- SPRINKLER HEAD
- WATER VALVE
- WATER SERVICE
- HYDRANT
- WATER METER
- WELL
- BORE
- CABLE TV PEDESTAL
- SIGNAL POLE
- UTILITY POLE
- GUY WIRE
- PULL BOX
- ELECTRIC PULL BOX
- TELEPHONE PULL BOX
- TRAFFIC PULL BOX
- TRANSFORMER
- ELECTRIC MANHOLE
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- PEDESTRIAN POLE
- TRAFFIC CONTROL CABINET
- LAMP POST
- LIGHT POLE
- UTILITY POLE WITH LIGHT
- FLAG POLE
- MAILBOX
- BOLLARD
- POST
- SIGN
- TURNING ARROW
- HANDICAP
- STOP BAR
- TREE DECIDUOUS
- TREE CONIFEROUS
- BUSH
- AIR CONDITIONING UNIT
- SANITARY UTILITY LATH
- GAS UTILITY LATH
- WATER UTILITY LATH
- TELEPHONE UTILITY LATH
- ELECTRIC UTILITY LATH
- CABLE UTILITY LATH



LOCATION SKETCH

NOT TO SCALE

UTILITY INFORMATION

UTILITY INFORMATION PER UFPO DESIGN TICKET # 10313-000-071-00
DATED OCTOBER 31, 2023

1.	BUCKEYE PIPELINE COMPANY	610-904-4475
2.	CHARTER COM NORTHEAST WESTERN NY	317-575-7800 x2
3.	ERIE COUNTY DIVISION OF SEWER MANAGEMENT	716-858-8760
4.	ERIE COUNTY WATER AUTHORITY	716-685-8207
5.	NATIONAL FUEL GAS | BUFFALO - NFG101	716-857-7431
6.	NYS THRUWAY AUTHORITY | BUFFALO	716-635-6224
7.	NYSEG LANCASTER ELECTRIC	585-484-5115
8.	TOWN OF CHEEKTOWAGA	716-686-3450
9.	TOWN OF WEST SENECA HIGHWAY	716-674-5600 x261
10.	VERIZON | BUFFALO	315-937-2515

SURVEY NOTES

1. TOPOGRAPHY SHOWN FROM A FIELD SURVEY BY COSTICH ENGINEERING ON 12/8/2023 HORIZONTAL AND VERTICAL DATA OBTAINED THROUGH NYSDOT CORS NETWORK REFERENCED TO THE FOLLOWING MONUMENT

   HAMBURG CORS STATION
   -LATITUDE: 42-43-02.66326 (N) NAD 83 (CORS)
   -LONGITUDE: 078-50-47.27326 (W)
   -ELLIP HEIGHT: 212.494 METERS NAVD 88 (CORS)

SITE DATA

1. EXISTING ZONING: M-1 (MANUFACTURING DISTRICT)
2. BULK REQUIREMENTS:

	REQUIRED
MIN. LOT AREA (SF)	20,000
MAX LOT COVERAGE	N/A
MIN. LOT WIDTH (FT)	100
MAX. BUILDING HEIGHT (FT)	40
MIN. FRONT YARD SETBACK (FT)	50
MIN. SIDE YARD SETBACK (FT)	50
MIN. REAR YARD SETBACK (FT)	10

REFERENCES

1. DEEDS AS SHOWN ON FILE AT THE ERIE COUNTY CLERK'S OFFICE.
2. MAP OF THE EBENEZER LANDS FILED IN THE ERIE COUNTY CLERK'S OFFICE UNDER COVER NO. 58.
3. NEW YORK STATE DEPARTMENT OF TRANSPORTATION ACQUISITION MAP, CLINTON STREET, PART I, S.H. NO. 371, ERIE COUNTY, MAP NO. 44, PARCEL NO. 37., FILED AT LIBER 9006 OF DEEDS, PAGE 213.
4. MAP ENTITLED "BOUNDARY SURVEY OF 2544 CLINTON STREET", PREPARED BY NUSSBAUMER & CLARKE, INC., HAVING JOB NO 15J2-0079, DRAWING NO. SB-2535, DATED 2/4/2015.
5. MAP ENTITLED "BOUNDARY SURVEY OF 2602 CLINTON STREET", PREPARED BY NUSSBAUMER & CLARKE, INC., HAVING JOB NO 15J2-0080, DRAWING NO. SB-2534, DATED 2/4/2015.

CERTIFICATION

WE, COSTICH ENGINEERING, D.P.C., HEREBY CERTIFY TO:

THIS MAP WAS PREPARED FROM NOTES OF AN INSTRUMENT SURVEY COMPLETED ON DECEMBER 8, 2023 AND FROM THE REFERENCE(S) LISTED HEREON. NO SEARCH OF RECORDS, OTHER THAN THOSE REFERENCED, WAS MADE FOR EASEMENTS OR ENCUMBRANCES AFFECTING THIS PARCEL.

PRELIMINARY

By:_____ Date: _____
Daniel T. Hickok, N.Y.S. L.S., No. 050449

FLOOD NOTE:
By graphic plotting only, this property is in Zone X & Zone AE of the Flood Insurance Rate Map No. 36029C0331H Community Panel No. 360262, Town of West Seneca, which bears an effective date of 6/7/2019 and Zone X & Zone AE of the Flood Insurance Rate Map No. 36029C0332H Community Panel No. 360262, Town of West Seneca, which bears an effective date of 6/7/2019, No field surveying was performed to determine this zone and an elevation certificate may be needed to verify this determination or apply for a variance from the Federal Emergency Management Agency.

UDIG-NY | 811

EXISTING UTILITIES (LOCATION, SIZES AND INVERTS) SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT CERTIFIED AS TO THE ACCURACY OF THEIR LOCATION OR COMPLETENESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES AND STRUCTURES IN THE PATH OF, OR CLOSELY PARALLEL TO, OR UNDER, THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DELAYS OR DAMAGES OCCURRING AS A RESULT OF INCORRECTLY LOCATED UTILITIES. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITY OWNERS IN AMPLE TIME FOR THEM TO LOCATE AND MARK THEIR FACILITIES. THE CONTRACTOR SHALL ALSO NOTIFY UNDERGROUND UTILITY LOCATION SERVICE AT LEAST 48 HOURS IN ADVANCE OF COMMENCING ANY WORK.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

NO.	DATE	REVISION	BY	CHKD.	APVLS.

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STATE OF NEW YORK · DANIEL T. HICKOK · L.S. NO. 050449 · LICENSED LAND SURVEYOR

PROJECT MANAGER	D.T.H.
DRAWN BY	K.E.L.
BOUNDARY	G.M.S.
TOPOGRAPHY	M.G.
DATE	12/18/2023
SCALE	1"=50'

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- CIVIL ENGINEERING
- LAND SURVEYING
- LANDSCAPE ARCHITECTURE

TITLE OF PROJECT	2544 & 2574 CLINTON STREET PROPERTIES WEST SENECA
TITLE OF DRAWING	EXISTING FEATURES
LOCATION OF PROJECT	TAX PARCEL NO'S 124.00-2-5 & 124.00-2-7 PART OF LOTS 1,2, & 34 OF THE EBENEZER LANDS, LOT 123, TOWNSHIP 10, RANGE 7, BUFFALO CREEK RESERVATION, TOWN OF WEST SENECA, COUNTY OF ERIE, STATE OF NEW YORK
CLIENT	LABELLA ASSOCIATES 300 STATE STREET - SUITE 201 ROCHESTER, NEW YORK 14614
DWG #	9263 VA100 SHEET 1 OF 1

Prepared For:
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75 South Clinton Avenue, Suite 700
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Submitted by:
LaBella Associates
300 State Street, Suite 201
Rochester, NY 14614
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LaBella
Powered by partnership.

ENGINEERING REPORT FOR WEST SENECA

Date: October 2024

Last Revised: April 2026

LBA Project No. 2241067

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Section 1 – Introduction

Home Leasing is proposing the development of a new affordable housing complex on a +/- 12.7-acre parcel in West Seneca, NY. Home Leasing is also seeking Site Plan Approval from West Seneca and HCR 9% funding from New York State. The proposed development includes 75 units split between a repurposing of the existing mansion on site to and a new 3-story apartment building in the rear of the property. The project includes a private road accessing the apartments, parking, sidewalks, playground, landscaping and stormwater management facilities.

1.1 Site Location

The 12.7-acre site is nestled between Clinton Street (State Route 354) to the south and Cayuga Creek to the North and West. Within a quarter mile of the development there are multiple commercial uses and Interstate 90. The neighborhood is predominately comprised of agricultural land, single- and two-family homes and industrial/manufacturing facilities. See appendix A for location site map.

Section 2 – General

2.1 Existing Site Conditions

The existing site includes the above-mentioned mansion, two barns, a stone wall along Clinton Street and parking areas. The barns and parking areas will be demolished, while the existing stone wall will remain, with the entrance being widened to allow for emergency vehicle access to the site.

The site topography is relatively flat with elevations generally ranging from 600 to 580. Storm water runoff from site drains either via sheet flow directly to Cayuga Street, or to drainage inlets that drain to Cayuga Creek. The existing drainage system on site is minimal and consists of a small swale and dry detention basis which collects and re-directs off-site drainage from the east. Drainage is then conveyed to Cayuga Creek via storm pipes and open drainage swales.

2.2 Proposed Site Conditions

The proposed development includes 75 units split between a repurposing of the existing mansion on site to now include apartments and one apartment building in the rear of the property.

Project Data:

Facility Type:	Affordable Housing
No. of Buildings:	2 (Including one existing)

Section 3 – Proposed Sanitary Facilities

3.1 Building Utility Services – Sanitary

The following summarizes the sanitary sewer service sizes for each building.

Table 1: Sanitary Lateral Sizes

Building #	Description	Sanitary Lateral Size
1	Existing Mansion	6"
2	Proposed Building	6"

3.2 Sanitary Sewer

The project requires a Down Stream Sewer Capacity analysis (DSCA) to conform with NYSDEC regulations considering proposed sanitary flows are intended to convey a flow greater than 2,500 gallons per day.

In accordance with Erie County policy a downstream, dry weather sanitary capacity analysis is included. The monitoring report is included in the appendices.

Based on the flow depth measurements recorded the following conclusions are reached:

- At no time did the flow depth exceed pipe diameter at any of the downstream monitoring points during the wet weather events monitored.
- One time during the monitoring period the depth of flow exceeded the diameter of the pipe.

3.3 DSCA Summary

Erie County provided three (3) nodes, described below:

- Flow Monitoring Period: August 13, 2024, to September 18, 2024
- Dry Week Days Monitored: Aug 13-15, Aug 20-23, Aug 26-30, Sept 2-5, Sept 10-13, and Sept 16-18.
- Dry Weekend Days Monitored: Aug 24-25, Sept 8, and Sept 14-15.

Nodes (manholes):

- Node 1 MH BAA8A – 48" RCP (Matthews Cemetery NW Corner)
- Node 2 MH BAA9A – 60" RCP (Casimer Street)
- Node 3 MH BAAA8 – 66" RCP (8 Cable Street)

Design Parameters:

Hydraulic Loading rates per NYS Design Standards for Intermediate Wastewater Treatment Systems, March 5, 2014. Calculations included below:

Apartments – Bedroom Units = 110 gpd/unit
Office Space= 15 gpd / employee

Average Daily Design Flow:

One Bdrm Units:(24 units) x (1 bdrm/unit)x 110gpd/bdrm=2,640 gpd
Two Bdrm Units:(29 units) x (2 bdrm/unit)x110gpd/bdrm=6,380 gpd

Three Bdrm Units:(22 units) x (3 bdrm/unit)x110gpd/bdrm=7,260 gpd
Office Space: 4 Employees x 15 gpd = 60 gpd
Total = 16,340 gpd

Peak Hourly Flow (Sanitary): 16,340 gpd x Peak Factor
Total Population=[(24x1)+(29x2)+(22x3)]x2 people per bedroom=
=148x2= 296People (assume 2 people per bedroom)+4 office employees=300. P = 0.300 (in thousands)
Peaking Factor = (18 + √P) / (4+√P) = (18+0.548)/(4+0.548)=4.08
Peak Sanitary Demand =16,340x 4.08 = 66,667 gpd
0.06667 MGD
(0.10 CFS)

Sanitary Demand Calculations:
Node 1 – Average 16,340 gpd (0.016 MGD)

Entire Site:
110-gal/d/unit x 1bdrmx24 units=2,640 gpd
+ 110-gal/d/unit x 2bdrmx29 units=6,380 gpd
+110-gal/d/unitx3bdrmx22 units=7,260 gpd
4 employees x 15 gpd=60 gpd
Site total= 16,340 gpd

Ave. Total = 16,340 gpd (0.016 MGD)
Assume 2 people per bedroom. 2 x 148 bedrooms = 296 people + 4 office employees = 300 people. P = 0.300 (in thousands)
Peaking Factor = (18 + √P) / (4+√P) = 4.08
Peak Sanitary Demand = 16,340 x 4.08 = 66,667 gpd
0.06667 MGD
(0.10 CFS)

Node 2 – Average 16,340 gpd (0.016 MGD)

Entire Site:
110-gal/d/unit x 1bdrmx24 units=2,640 gpd
+ 110-gal/d/unit x 2bdrmx29 units=6,380 gpd
+110-gal/d/unitx3bdrmx22 units=7,260 gpd
4 employees x 15 gpd=60 gpd
Site total= 16,340 gpd
Ave. Total = 16,340 gpd (0.016 MGD)
Assume 2 people per bedroom. 2 x 148 bedrooms = 296 people + 4 office employees = 300 people. P = 0.300 (in thousands)
Peaking Factor = (18 + √P) / (4+√P) = 4.08
Peak Sanitary Demand = 16,340 x 4.08 = 66,667 gpd
0.06667 MGD
(0.10 CFS)

Node 3 – Average 16,340 gpd (0.016 MGD)

Entire Site:
110-gal/d/unit x 1bdrmx24 units=2,640 gpd
+ 110-gal/d/unit x 2bdrmx29 units=6,380 gpd
+110-gal/d/unitx3bdrmx22 units=7,260 gpd
4 employees x 15 gpd=60 gpd
Site total= 16,340 gpd

Ave. Total = 16,340 gpd (0.017 MGD)
Assume 2 people per bedroom. 2 x 148 bedrooms = 296 people + 4 office employees = 300 people. P = 0.300 (in thousands)
Peaking Factor = (18 + √P) / (4+√P) = 4.08
Peak Sanitary Demand = 16,340 x 4.08 = 66,667 gpd
0.06667 MGD
(0.10 CFS)

Table 2: Dry Weather Peak Weekday

Node	Sewer	Ave. Daily Flow (mgd)	Existing Peak Flow (mgd)	Proposed Peak Sanitary Flow (mgd)	Total Peak Flow (mgd)	Theoretical Capacity (mgd)	Available Capacity (Y/N)
1-MH BAA8A	48" RCP @ 0.41% (Matthews Cemetery NW Corner)	0.016	7.953*	0.067	8.020	59.6	Y
2-MH BAA9A	60" RCP @ 0.042% (Casimer Street)	0.016	11.619**	0.067	11.686	34.6	Y
3-MH BAAA8	66" RCP @ 0.026% (8 Cable Street)	0.016	10.614***	0.067	10.614	35.1	Y

Notes:
***Peak Dry Week Day for Nodes 1 on Aug 27,2024**
****Peak Dry Week Day for Node 2 on Aug 21,2024**
*****Peak Dry Week Day for Node 3 on Aug 21,2024**

Table 3: Dry Weather Peak Weekend Day

Node	Sewer	Ave. Daily Flow (mgd)	Existing Peak Flow (mgd)	Proposed Peak Sanitary Flow (mgd)	Total Peak Flow (mgd)	Theoretical Capacity (mgd)	Available Capacity (Y/N)
1-MH BAA8A	48" RCP @ 0.41% (Matthews Cemetery NW Corner)	0.016	6.070*	0.067	6.137	59.6	Y

2-MH BAA9A	60" RCP @ 0.042% (Casimer Street)	0.016	11.972**	0.067	12.039	34.6	Y
3-MH BAAA8	66" RCP @ 0.026% (8 Cable Street)	0.016	11.615***	0.067	11.682	35.1	Y

Notes:
***Peak Dry Weekend Day for Nodes 1 on Aug 25,2024**
****Peak Dry Weekend Day for Node 2 on Sept 14,2024**
*****Peak Dry Weekend Day for Node 3 on Sept 14,2024**

3.5 DSCA CONCLUSION

Based on the analysis and flow monitoring results the flow depth peak increases are described below. The combined sewer has sufficient capacity to handle projected peak flows.

- Node 1 projected peak 0.067 MGD flow (0.10 CFS) result in approximately a 1.6 inch water level increase within the 48" RCP sewer.
- Node 2 projected peak 0.067 MGD flow (0.10 CFS) result in approximately 2.6 inch water level increase within the 60" RCP sewer.
- Node 3 projected peak 0.067 MGD flow (0.10 CFS) result in approximately 2.9 inch water level increase within the 66" RCP sewer.

Full sewer calculations including – TECsmith Flow Monitoring Data, TECsmith Time Tables, Eire County Flow Monitoring and Erie County Time Tables are included in the Full Sewer Report which was previously provided to the town as a part of the Special Use Permit review process.

Section 4 – Proposed Stormwater Facilities

4.1 Proposed Stormwater Loading

A Stormwater Pollution Prevention Plan (SWPPP) has been developed as part of this project and is included under a separate cover. The proposed on-site storm system will outlet to Cayuga Creek. The stormwater design meets the Town of West Seneca Town Code (2025-09-08) - Chapter 102A Stormwater Management and Erosion and Sediment Control and the NYSDEC 2024 Stormwater Design Manual Regulations. However, pertinent information pertaining to existing and proposed stormwater loading has been included for analysis in the table below.

4.2 Required WQv

Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are

transported from land, particularly the impervious surfaces, during the initial stages of storm events.

The Design Manual requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the "Water Quality Volume" (WQv). Section 4.2 of the Design Manual defines the Water Quality Volume as follows:

$$WQv = \frac{[(P)(R_v)(A)]}{12}$$

Where: P = 90% Rainfall Event Number
R_v = 0.05 + 0.009 (I)
I = Impervious Cover (Percent)
A = Contributing Area in Acres

This definition ensures that, all other things being equal, the Water Quality Volume will increase along with the impervious cover percentage. This redevelopment project is proposing a combination of WQv treatment by standard practice(s) and alternative practice(s) as shown in the following tables:

Table 4: Required WQv Summary

P (inches)	A (Ac)	I (Ac)	Rv	WQv Required (cf)
1.00	5.68	2.98	0.29	8,672

4.3 RRv Requirements

Land use change and development in the watershed increases the volume of runoff. As such, reductions in the amount of runoff from new development, accomplished through the implementation of a stormwater management plan for the site, will play an important role in the success or failure of the watershed-wide stormwater management plan. Runoff reduction techniques can be applied to manage, reduce, and treat stormwater, while maintaining and restoring natural hydrology through infiltration, evapo-transpiration, and the capture and reuse of stormwater. Volume reduction techniques by themselves typically are not sufficient to provide adequate attenuation of stormwater runoff, but they can decrease the size of the peak runoff rate reduction facilities.

Section 9.2.1.B of the 2024 NYSDEC Design Manual indicates, "Although encouraged, meeting the RRv criteria is not required for the redevelopment activity portion of a project. The need to provide RRv shall be considered separately for each design point. For design points with a net increase in impervious area, RRv is required for the increase in impervious area only."
As such, bioretentions and a water quality unit have been applied to the project to meet the WQv objective for the redevelopment activity of the project. The increase in impervious cover will be treated as new development and both the WQv criteria and RRv criteria are met. The table below indicates the required RRv for the site.

Table 5: Required RRv

Total Increase in Impervious Area (Ac)	Soil Group A (%)	Soil Group B (%)	Soil Group C (%)	Soil Group D (%)	Rv	Weighted S Factor	Minimum RRv Required (cf)
1.92	0	0	0	100	0.95	0.20	1,324

4.4 Provided WQv and RRv

The following table summarizes both the water quality volume and reduced runoff volume provided by each practice:

Stormwater Practice	WQv Treated (cf)	RRv Provided (cf)
Bioretention (3 total areas)	3,338	1,337
Water Quality Unit	6,627	0
Total	9,965	1,337

Based on the above table, the WQv and RRv requirements are being met.

4.5 Discharge Rates

A comparison of the pre- and post-development watershed conditions was performed for all Design Points and storm events evaluated. For all Design Points and design storms, this comparison demonstrates that the peak rate of runoff will not be increased. Therefore, the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in the following table below:

Table 6: Summary of Pre-Development and Post-Development Peak Discharge Rates

Analysis Point (AP)	10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post
1	16.3	13.9	36.8	31.7

Based on the table above, the proposed stormwater flows have been reduced for all storm events to below pre-development conditions.

A full stormwater pollution prevention plan per NYS Stormwater Design Manual, NYSDEC SPDES General Permit for Stormwater Discharge from Construction Activity and NYSDEC

Standards and Specifications for Erosion and Sediment Control has been prepared for this project. The SWPPP is included in the Site Plan Application Package.

Section 5 – Proposed Water Facilities

5.1 Proposed Water Connections

The project is proposing a new water connection to the Eire County Water Authority (EWCA) 12" water main on the north side of Clinton Street.

5.2 Existing Flow Test Data

Existing hydrant flow test data was provided for hydrant J11F55 and completed on 7/15/2019. The existing water line is a 6" cast iron pipe on the south side of Clinton Street. The residual pressure was 54 psi at 872 gpm.

5.3 Proposed Water Demand

The anticipated average daily water demand from the proposed development was calculated using Table B-3 of the NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems, dated March 5, 2014. For apartments constructed after 1994, the average daily water demand per bedroom is 110-gallons per day. The proposed project includes updating all water fixtures to modern energy efficient fixtures. Based on this, the anticipated average daily water demand for the proposed development is as follows:

Table 7: Anticipated Water Demand

No. of Bedrooms	No. of Units	Water Demand Per Unit (GPD)	Average Daily Demand (GPD)
1 Bedroom	24	110	2,640
2 Bedroom	29	220	6,380
3 Bedroom	22	330	7,260
		Total Average Daily Demand	16,340
		Maximum Day (2x Average Daily)	32,680
		Peak Hourly (4x Average Daily)	35,360

5.4 Proposed Fire Protection and Backflow

The project is proposing one combined service from Clinton Street, which will split into combined services feeding the existing mansion and new building respectively. New backflow prevention devices are proposed for each of the buildings, splitting into separate domestic and fire services after the backflows. The domestic services will be metered within each building. The private hydrants on site will be fed after the backflow within each building. Refer to the MEP and FP plans for detailed design.

Stormwater Pollution Prevention Plan

Prepared for:
Home Leasing
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Rochester, NY 14604

Submitted by:
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300 Pearl Street, Suite 130
Buffalo, NY 14202
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LaBella
Powered by partnership.

West Seneca Apartments

Town of West Seneca, Erie County, New York

DATE: APRIL 2026
LAST REVISED: APRIL 2026
PROJECT NO. 2241067

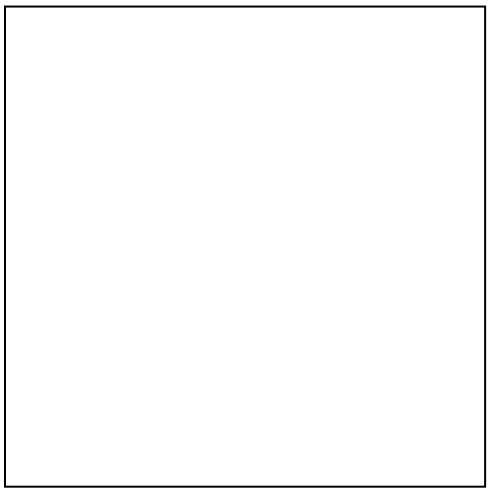
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PREPARER OF THE SWPPP

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and Title[1]: Kristopher Winkler, PE

Date: Issued: April 2026



[1] *This is a signature of a New York State licensed Professional Engineer employed by LaBella Associates that is duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), NOIs, and NOTs prepared under their direct supervision. Refer to Appendix B for the SWPPP Preparer Certification Form, and Appendix I for the LaBella Certifying Professionals Letter.*

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Appendix B: Forms

- Notice of Intent (NOI)
- MS4 SWPPP Acceptance Form
- SWPPP Preparer Certification Form
- Owner/Operator Certification Form
- Contractor and Subcontractor Certification Forms
- Notice of Termination (NOT)

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Appendix G: Post-Construction Inspections and Maintenance

Appendix H: NYSDEC “Deep-Ripping and Decompaction,” April 2008

Appendix I: LaBella Certifying Professionals Letter

Appendix J: NYSDEC SPDES General Permit GP-0-25-001

1.0 EXECUTIVE SUMMARY

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared for major activities associated with construction of a 75-unit affordable housing complex and related site work in the Town of West Seneca. This SWPPP includes the elements necessary to comply with the national baseline general permit for construction activities enacted by the U.S. Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) program and all local governing agency requirements. This SWPPP must be executed, and permit coverage must be obtained prior to the commencement of construction activity.

This SWPPP has been developed in accordance with the "New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity," Permit No. GP-0-25-001, effective January 29, 2025 through January 28, 2030. The SWPPP and accompanying plans identify and detail stormwater management, pollution prevention, and erosion and sediment control measures necessary during and following completion of construction.

This SWPPP and the accompanying plans entitled "West Seneca Apartments" have been submitted as a set. These engineering drawings are considered an integral part of this SWPPP. Therefore, this SWPPP is not considered complete without them. References made herein to "the plans" or to a specific "sheet" refer to these drawings.

This report considers the impacts associated with the intended development with the purpose of:

1. Maintaining existing drainage patterns as much as possible while continuing the conveyance of upland watershed runoff;
2. Controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions; and
3. Mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater runoff generated both during and after construction.

The analysis and design completed and documented in this report is intended to be part of the application made for a multi-family residential redevelopment project with an increase in impervious area completed on behalf of the Owner/Operator.

1.1 Project Description

Home Leasing is proposing redevelopment project with an increase in impervious area, to include: 75-unit affordable housing building, associated parking, sidewalks, and landscaping. The total project area of disturbance proposed is 5.7 acres. The project will disturb one (1) or more acres and as such, preparation of this SWPPP is required under GP-0-25-001. A Site Location Map has been provided in Appendix A, as Figure A-1.

This type of project is included in Table 2 of Appendix B of GP-0-25-001; and the project site is not located in one of the watersheds listed in Appendix C of GP-0-25-001. Therefore, this SWPPP includes post-construction stormwater management practices, as well as erosion and sediment controls.

project is located within the Town Of West Seneca regulated, traditional land use control Municipal Separate Stormwater Sewer System (MS4). Therefore, an MS4 SWPPP Acceptance Form is required to accompany NOIs submitted to the NYSDEC.

Runoff from the project site will discharge to the Cayuga Creek, which is not included in the list of Section 303(d) water bodies included in Appendix D of GP-0-25-001.

Project construction activities will consist primarily of site grading, paving, building construction, and the installation of storm drainage, water supply, sanitary sewer, and public utility infrastructure necessary to support the proposed redevelopment project with an increase in impervious area. Construction phase pollutant sources anticipated at the site are disturbed (exposed) soil, vehicle fuels and lubricants, chemicals associated with building construction, and building materials. Without adequate control there is the potential for each type of pollutant to be transported by stormwater.

1.2 Stormwater Pollution Controls

The stormwater pollution controls outlined herein have been designed and evaluated in accordance with the following standards and guidelines:

- New York State Stormwater Management Design Manual, dated July 31, 2024 (Design Manual).
- New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016 (SSESC).
- Town of West Seneca Town Code (2025-09-08) - Chapter 102A Stormwater Management and Erosion and Sediment Control

Stormwater quality will be enhanced through the implementation of temporary and permanent erosion and sediment control measures, the proposed stormwater management practice(s), and other construction-phase pollution controls outlined herein.

The proposed stormwater management approach consisting of pipes, open drainage ways, and on-site stormwater management practices will adequately collect, treat, and convey the stormwater runoff.

Bioretentions and a water quality unit will be used to manage and treat stormwater runoff generated by the proposed redevelopment project with an increase in impervious area.

Pre- and post-development surface runoff rates have been evaluated for the 1-, 10-, and 100-year 24-hour storm events. Comparison of pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the project site will not be increased.

The pollutant loading analysis indicates stormwater quality will be enhanced through the implementation of the proposed stormwater management practices outlined herein.

The post-construction stormwater management practice(s) will be privately owned by Home Leasing. Deed restrictions will be in place, which require operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

2.0 SITE CHARACTERISTICS

2.1 State Environmental Quality Review

The construction activity is subject to State Environmental Quality Review (SEQR). The project is considered a Unlisted action. As such, SEQR coordination has been completed. Negative Declaration issued on 1/27/2025, amended on 2/9/2026. A copy of the SEQR documentation, in accordance with Part I.A.5. of GP-0-25-001, is provided in Appendix A, as Figure A-5 upon receipt.

2.2 Land Use and Topography

The project site is located within the R-50 zoning district. Multiple-family dwellings is a permitted use subject to a special use permit within this district. Special Use Permit was obtained on 2/9/2026.

The overall site is slightly sloping, with slopes ranging from 1 to 10 percent. Site elevations range from approximately 580 feet above mean sea level (MSL) to 600 feet MSL. The site generally slopes to the north and the west towards Cayuga Creek.

2.3 Soils and Groundwater

The US Department of Agriculture (USDA) Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/) was used to obtain surficial soil conditions for the study area, as follows:

Table 1: USDA Soil Data

Map Symbol & Description	Hydrologic Soil Group	Erosion Factor K	Depth to Water Table (feet)	Depth to Bedrock (feet)
Fu - Fluvaquents and Udifluvents, frequently flooded	A/D	0.17	0.50	>6.0
GaA - Galen very fine sandy loam, 0 to 3 percent slopes	A/D	0.37	1.75	>6.0
GaB - Galen very fine sandy loam, 3 to 8 percent slopes	A/D	0.37	1.75	>6.0
Te – Teel silt loam	B/D	0.37	1.75	>6.0

Upon review of the soil data presented in Table 1, the project site does not contain soils with a soil slope phase of D with a map unit name that inclusive of slopes greater than 25%, and does not contain soils with a soil slope phase of E or F.

The project site is composed of HSG A soils, HSG B soils, and HSG D soils, as shown in the table below. For the purposes of this report, HSG X/D soils were modeled as HSG D soils to reflect the undrained condition.

Table 2: Project Site HSG Data

HSG A	HSG B	HSG C	HSG D
0%	0%	0%	100%

The Soil Conservation Service defines the hydrologic soil groups as follows:

- Type A Soils: Soils having a high infiltration rate and low runoff potential when thoroughly wet. These soils consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a moderate rate of water transmission.
- Type B Soils: Soils having a moderate infiltration rate when thoroughly wet and consisting mainly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately course textures. These soils have a moderate rate of water transmission.
- Type D Soils: Soils having a very low infiltration rate and high runoff potential when thoroughly wet. These soils consist chiefly of clays that have high shrink-swell potential, soils that have a permanent high water table, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very low rate of water transmission.

The soils map for the study area is presented in Appendix A, as Figure A-2.

2.4 Watershed Designation

The project site is not located in a restricted watershed identified in Appendix C of GP-0-25-001.

2.5 Receiving Water Bodies

The nearest natural classified water course into which runoff from the project site will discharge is Cayuga Creek. Cayuga Creek is classified by NYSDEC as a Class C water course, and is not included in the Section 303(d) list of impaired waters found in Appendix D of GP-0-25-001.

2.6 Aquifer Designation

The project site is not located over a US EPA designated Sole Source aquifer; nor is it located over a Primary or Principal aquifer listed in the NYSDEC Technical and Operational Guidance Series (TOGS) 2.1.3 (1980).

2.7 Wetlands

A search on the NYSDEC Environmental Resource Mapper on April 16, 2026, and a review of GIS data, determined that there are no known regulated wetlands located on or in the vicinity of the project site. A wetland delineation is scheduled for Spring 2026 to field verify if there are any wetland on site.

2.8 Flood Plains

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM), Town of West Seneca, New York, Community, the project site lies within Flood Zone X, areas determined to be outside 500-year floodplain The FEMA Flood Map has been provided in Appendix A, as Figure A-5.

2.9 Listed, Endangered, or Threatened Species

A search was performed on the NYSDEC Environmental Resource Mapper on April 16, 2026, and determined that the project site may contain threatened or endangered species, or critical habitat. An Environmental Resource Map has been provided in Appendix A, as Figure A-4.

2.10 Historic Places

A search on the New York State Cultural Resource Information System (CRIS) database, performed on April 16, 2026, revealed the construction activity is located within an archeologically sensitive area A printout of the historic places screening map is presented in Appendix A, as Figure A-3. As such, NYSOPRHP coordination has been completed and a Phase 1 Archeological Survey was conducted on June 22, 2023 by archeologist. A copy of the NYSOPRHP documentation, in accordance with Part I.A.4. of GP-0-25-001, is provided in Appendix A, as Figure A-3A upon receipt.

2.11 Rainfall Data

Rainfall data utilized in the modeling and analysis was obtained from the Cornell University online Extreme Precipitation in New York & New England website (http://precip.eas.cornell.edu/). A local IDF file was imported, and specific mass curves were generated, in HydroCAD to evaluate the pre- and post-development stormwater runoff characteristics. Rainfall data specific to the portion of Erie County under consideration, for various 24-hour storm events, is presented in the following Table:

Table 3: Rainfall Data

Storm Event Return Period	24-Hour Rainfall (inches)
1-year	1.82
10-year	3.14
100-year	5.22

2.12 Pre-development Watershed Conditions

The pre-development project site is covered predominantly by buildings, pavement, grass, and woods. Analysis of pre-development conditions considered existing drainage patterns, soil types, ground cover, and topography. The Pre-Development Watershed Delineation Map has been provided in Appendix A, as Figure A-5.

The results of the computer modeling used to analyze the overall watershed under pre-development conditions are presented in Appendix D. A summary of the pre-development watershed runoff rates at each Design Point is presented in Table 10.

Subcatchment one is a 3.38± acre watershed consisting of grass and pavement. Runoff flows south overland via sheet and shallow concentrated flow toward a swale and catch basin at the southeast corner of the site. This subcatchment is tributary to Design Point (AP) 1.

Subcatchment two is a 7.74± acre watershed consisting of grass, pavement, and multiple buildings. Runoff flows west overland via sheet and shallow concentrated flow toward Cayuga Creek west of the site. This subcatchment is tributary to Design Point (AP) 1.

2.13 Post-development Watershed Conditions

The post-development project site is covered predominantly by buildings, pavement, sidewalks, grass, and woods. The analysis of post-development conditions considered existing drainage patterns, soil types, ground cover to remain, planned site development, site grading, and stormwater management facilities proposed as part of site improvements. The Post-Development Watershed Delineation Map has been provided in Appendix A, as Figure A-6.

The results of the computer modeling used to analyze the overall watershed under post-development conditions are presented in Appendix D. A summary of the post-development watershed runoff rates at each Design Point is presented in Table 11.

There are numerous locations and methods for providing controls of off-site discharge of stormwater from the project site. Each has been designed to provide the above quantity controls by attenuating stormwater runoff and releasing runoff to off-site locations at a rate equal to or less than that which existed prior to development of the site. Each device is detailed on the accompanying plans. A Post-Development Watershed Delineation Map, with the tributary areas to each stormwater management practice proposed, has been provided in Appendix A, as Figure A-6.

2.14 Description of Design Points

The study area consists of the 11.2 acre project site and 5.7 acre area of disturbance. The overall watershed was broken down into smaller watersheds, or subcatchments, to allow for analysis of runoff conditions at several locations throughout the study area. Each of these locations was defined as a Design Point (DP) in order to compare the effects resulting from stormwater management facilities proposed as part of the project. Descriptions of each of the selected Design Points are provided below.

- Design Point 1: Off-site discharge to Cayuga Creek

3.0 STORMWATER MANAGEMENT PLANNING

Chapter 3 of the Design Manual outlines a six-step planning process for site planning and selection of stormwater management practices that must be implemented for both new development and redevelopment projects. This process is intended to develop a design that maintains pre-construction hydrologic conditions through the application of environmentally sound development principles, as well as treatment and control of runoff discharges from the site. The following sections outline the step-by-step process and how it has been applied to this project.

The goals of this Stormwater Management Plan are to analyze the peak rate of runoff under pre- and post-development conditions, to maintain the pre-development rate of runoff in order to minimize impacts to adjacent or downstream properties, and to minimize the impact to the quality of runoff exiting the site.

The Design Manual provides both water quality and water quantity objectives to be met by projects requiring a “Full SWPPP”. These objectives will be met by applying stormwater control practices to limit peak runoff rates and improve the quality of runoff leaving the developed site.

3.1 STEP 1 – Site Planning

During the Site Planning process, the project site is evaluated for implementation of the green infrastructure planning measures identified in Table 3.1 of the Design Manual, in order to preserve natural resources and reduce impervious cover. Appendix C provides a description of each green infrastructure planning measure, along with a project specific evaluation.

3.2 STEP 2 – Calculate Water Quality Treatment Volume (WQv)

Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are transported from land, particularly the impervious surfaces, during the initial stages of storm events.

3.2.1 NYSDEC Requirements for Water Quality Volume

The Design Manual requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the "Water Quality Volume" (WQv). Section 4.2 of the Design Manual defines the Water Quality Volume as follows:

$$WQv = \frac{[(P)(R_v)(A)]}{12}$$

Where: P = 90% Rainfall Event Number
R_v = 0.05 + 0.009 (I)
I = Impervious Cover (Percent)
A = Contributing Area in Acres

This definition ensures that, all other things being equal, the Water Quality Volume will increase along with the impervious cover percentage.

3.2.2 Methodology for Redevelopment Projects

Chapter 9 of the Design Manual outlines alternative WQv treatment objectives for redevelopment projects.

According to Section 9.2.1.B.IV, redevelopment activities can achieve the water quality treatment objective through a combination of impervious cover reduction, standard SMPs, and alternative SMPs that provide a weighted average of at least two of the above methods, calculated as shown below. In this case, 100% of any new increase in impervious area to a given design point must be treated by approved alternate SMPs, standard SMPs, or RR techniques.

$$\%ALT = [25-(\% IC_{RED} + \%SMP + \%RR)] \times 3$$

Where:
%ALT = Percent of redevelopment impervious area treated by alternative SMP(s)
$\%IC_{RED}$ = Percent reduction in existing disturbed impervious area
%SMP = Percent of redevelopment impervious area treated by standard SMP(s)
%RR = Percent of redevelopment impervious area treated by runoff reduction techniques(s)

This redevelopment project is proposing a combination of WQv treatment by standard practice(s) and alternative practice(s) as shown in the following tables:

Table 4: Required WQv Treatment by Alternative Practice

WQv Treatment by Alternative Practice		Impervious Cover Reduction (IC)		WQv Treatment by Standard Practice		Runoff Reduction	
%	Area (ac)	%	Area (ac)	%	Area (ac)	%	Area (ac)
38	2.13	0	0	34	1.96	0	0

Table 5: WQv Required Summary

P (inches)	A (ac)	I (ac)	Rv	WQv Required	
1.00	5.68	2.98	0.29	8,672 cf	0.20 AF

The Water Quality Volume equation has been applied to the drainage area tributary to each of the stormwater quality practices proposed for this project. The practices have been sized to accommodate the Water Quality Volume, as per the performance criteria presented in Chapter 6 and/or Chapter 9 of the Design Manual. Water quality volume calculations for each of the proposed practices are presented in Appendix C.

3.3 STEP 3 – Apply RR Techniques and Standard SMPs with RRv Capacity to Reduce Total WQv

Land use change and development in the watershed increases the volume of runoff. As such, reductions in the amount of runoff from new development, accomplished through the implementation of a stormwater management plan for the site, will play an important role in the success or failure of the watershed-wide stormwater management plan. Runoff reduction techniques can be applied to manage, reduce, and treat stormwater, while maintaining and restoring natural hydrology through infiltration, evapo-transpiration, and the capture and reuse of stormwater. Volume reduction techniques by themselves typically are not sufficient to provide adequate attenuation of stormwater runoff, but they can decrease the size of the peak runoff rate reduction facilities.

3.3.1 NYSDEC Requirements for Redevelopment

Section 9.2.1.B of the Design Manual indicates, "Although encouraged, meeting the RRv criteria is not required for the redevelopment activity portion of a project. The need to provide RRv shall be considered separately for each design point. For design points with a net increase in impervious area, RRv is required for the increase in impervious area only."

As such, bioretentions and a water quality unit have been applied to the project to meet the WQv objective for the redevelopment activity of the project. The increase in impervious cover will be treated as new development and both the WQv criteria and RRv criteria are met.

3.3.2 Application of Standard Stormwater Management Practices (SMPs) with RRv Capacity

The following Table demonstrates a summary of the standard SMP(s) with RRv capacity that have been incorporated into the stormwater management plan for this project. The standard SMP(s) with RRv capacity have been designed in accordance with Chapter 6 of the Design Manual. Refer to the contract drawings for practice dimensions, material specifications, and installation details. Practice specific calculations are presented in Appendix C.

Table 6: Summary of Standard SMPs with RRv Capacity being Applied

Standard SMP with RRv Capacity	Design Variant	Pretreatment Volume Required (% of WQv)	Pretreatment Volume Provided (CF)	RRv Capacity	WQv Required (CF)	WQv Reduced /RRv Provided (CF)	WQv Treated[1] (CF)	Total WQv Provided[2] (CF)
Filtration Bioretention	F-5	25	835	40%	8,672	1,337	2,001	3,338

Footnotes:
[1]*WQv Treated = WQV Required - RRv Provided*
[2]*Total WQv Provided = WQV Treated + RRv Provided*

3.3.3 RRv Performance Summary

A summary of the RRv provided is presented in the following table:

Table 7: RRv Summary

WQv Required (CF)	RRv Provided WQv Reduced (CF)	% RRv Provided/ WQv Reduced
8,672	1,337	>100%

As indicated in the above table, the RRv provided is greater than the RRv required for the project site. As such, the RRv criteria has been met and the designer can proceed to Step 6.

3.4 STEP 4 – Calculate the Minimum RRv Required

As indicated above, Section 9.2.1.B of the Design Manual indicates, "Although encouraged, meeting the RRv criteria is not required for the redevelopment activity portion of a project."

3.5 STEP 5 – Apply Standard SMPs to Address Remaining Water Quality Volume

If the entire Water Quality Volume is not treated through implementation of RR techniques and standard SMPs with RRv capacity, then the design must achieve the remaining WQv through the standard SMPs listed in Table 3.3 of the Design Manual or the Alternative Practices outlined in Section 9.4 of the Design Manual.

Table 8: Summary of WQv Provided

Step 2 WQv Required (CF)	Step 3 WQv Reduction by Standard SMPs w/ RRv Capacity (CF)[1]	Step 5 Reduced WQv to be Treated by Standard SMPs or Alternative Practices (CF)[2]
8,672	3,338	6,627
Footnotes: *[1]Step 3: WQv Reduction = RRv Provided + WQv Treated by Standard SMP with RRv Capacity* *[2]Step 5: Reduced WQv to be Treated = WQv Required – WQv Reduced*		

Based upon the results listed in the above Table, the entire WQv has not been treated by application of RR techniques and standard SMPs with RRv capacity. As such, the standard SMPs or the Alternative Practices (without RRv capacity) described in the following sections, have been incorporated into the stormwater management plan for this project, to meet the WQv objective. Practice-specific calculations are presented in Appendix C.

3.5.1 Underground Stormwater Detention System

Underground stormwater detention systems store and detain stormwater runoff in order to meet water quantity control requirements. Stormwater is stored in subsurface vaults and/or a system of large diameter interconnected storage pipes. Stored water is then released at rates designed to reduce peak run-off flows during post-development storms. Underground stormwater storage provides minimal stormwater quality benefits, but can be an effective component of a development's overall stormwater management plan.

3.5.2 Hydrodynamic Separators

Hydrodynamic separators accelerate the separation of floating and settling pollutants from stormwater through the use of a vortex. These pre-fabricated devices come in the form of an underground manhole or vault. The devices have no moving parts and are typically fabricated from concrete and marine grade aluminum.

During operation, stormwater runoff enters the unit tangentially to promote a gentle swirling motion in a treatment chamber. As stormwater circles within the chamber, settable solids fall into a sump and are retained. Buoyant debris, oil, and grease rise to the surface and are separated from the water as it flows under a baffle wall. Finally, treated water exits the treatment chamber through a flow control orifice located behind the baffle wall.

During low-flow conditions all runoff is diverted into the treatment chamber by a flow partition. At higher flow rates, a portion of the runoff spills over the flow partition and is diverted around the treatment chamber to prevent re-suspension and washout of previously trapped pollutants. Water that spills over the partition flows into a head equalization chamber above the treatment chamber outlet. As the head equalization chamber fills, the head differential driving flow through the treatment chamber collapses. The result is that flow rates in the treatment chamber remain relatively constant even as total flow rates increase substantially. This configuration further reduces the potential for re-suspension or washout.

According to Chapter 9 of the Design Manual, hydrodynamic separators of the type proposed for this project have been approved for use as a pretreatment system in new and redevelopment projects or as a primary treatment system on redevelopment projects.

According to Chapter 9 of the Design Manual, membrane filtration, of the type proposed for this project, has been approved for use as a primary treatment system on redevelopment projects.

The following Table summarizes both the Water Quality Volume requirements and the treatment volumes provided.

Table 9: Summary of Hydrodynamic Unit(s)

SWM Practice ID	NYSDEC Design Variant	Required WQv (CF)	Required WQv Flow Rate (CFS)	Approved Manufactured Treatment Flow Rate (MTFR) (CFS)	Product Name and Manufacturer
HYD-1	ALT	6,627	1.88	2.00	Contech Cascade CS4

3.6 STEP 6 - Apply Volume and Peak Rate Control

This report presents the pre-development and post-development features and conditions associated with the rate of surface water runoff within the study area. For both cases, the drainage patterns, drainage structures, soil types, and ground cover types are considered in this study.

3.6.1 NYSDEC Requirements for New Development

Chapter 4 of the Design Manual requires that projects meet three separate stormwater quantity criteria:

1. The Channel Protection (CPv) requirement is designed to protect stream channels from erosion. This is accomplished by providing 24 hours of extended detention for the 1-year, 24-hour storm event. The Manual defines the CPv detention time as the center of mass detention time through each stormwater management practice.

2. The Overbank Flood Control (Qp) requirement is designed to prevent an increase in the frequency and magnitude of flow events that exceed the bank-full capacity of a channel, and therefore must spill over into the floodplain. This is accomplished by providing detention storage to ensure that, at each Design Point, the post-development 10-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

3. The Extreme Flood Control (Qf) requirement is designed to prevent the increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. This is accomplished by providing detention storage to ensure that, at each Design Point, the post-development 100-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

3.6.2 Methodology

In order to demonstrate that the NYSDEC detention requirements are being met, the Design Manual requires that a hydrologic and hydraulic analysis of the pre- and post-development conditions be performed using the Natural Resources Conservation Service Technical Release 20 (TR-20) and Technical Release 55 (TR-55) methodologies. HydroCAD, developed by HydroCAD Software Solutions LLC of Tamworth, New Hampshire, is a Computer-Aided-Design (CAD) program for analyzing the hydrologic and hydraulic characteristics of a given watershed and associated stormwater management facilities. HydroCAD uses the TR-20 algorithms and TR-55 methods to create and route runoff hydrographs.

HydroCAD has the capability of computing hydrographs (which represent discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors) combining hydrographs and routing flows though pipes, streams and ponds. HydroCAD can also calculate the center of mass detention time for various hydraulic features. Documentation for HydroCAD can be found on their website: http://www.hydrocad.net/.

For this analysis, the watershed and drainage system was broken down into a network consisting of three types of components as described below:

1. Subcatchment: A relatively homogeneous area of land, which produces a volume and rate of runoff unique to that area.
2. Reach: Uniform streams, channels, or pipes that convey stormwater from one point to another.
3. Pond: Natural or man-made impoundment, which temporarily stores stormwater runoff and empties in a manner determined by its geometry and the hydraulic structure located at its outlets.

Subcatchments, reaches, and ponds are represented by hexagons, squares, and triangles, respectively, on the watershed routing diagrams provided with the computations included in Appendix D and Appendix E.

The analysis of hydrologic and hydraulic conditions and proposed stormwater management facilities, servicing the study area, was performed by dividing the tributary watershed into relatively homogeneous subcatchments. The separation of the watershed into subcatchments was dictated by watershed conditions, methods of collection, conveyance, and points of discharge. Watershed characteristics for each subcatchment were then assessed from United States Geological Service (USGS) 7.5-minute topographic maps, aerial photographs, a topographical survey, soil surveys, site investigations, and land use maps.

Proposed stormwater management practices were designed and evaluated in accordance with the Design Manual and local regulatory requirements. A local IDF file was imported, and specific mass curves were generated, in HydroCAD to evaluate the pre- and post-development stormwater runoff characteristics for various 24-hour storm events identified in the following Table.

Table 10: Design Events

Facility	24-hour Storm Event
Storm Sewer	10-year
Stormwater Management Practice(s)	1-year
	10-year
	100-year
Flood Conditions	100-year

3.6.3 Performance Summary

A comparison of the total required and provided CPv for the 1-year 24-hour storm event is shown in the following table:

Table 11: CPv Summary

Design Point (DP)	Required CPv (af)	Provided CPv (af)
1	0.20	0.36

A comparison of the pre- and post-development watershed conditions was performed for all Design Points and storm events evaluated herein. For all Design Points and design storms, this comparison demonstrates that the peak rate of runoff will not be increased. Therefore, the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in Appendix D and Appendix E, respectively. The following Table summarizes the results of this analysis.

Table 12: Summary of Pre- and Post-Development Peak Discharge Rates

Pre- vs. Post-Development Discharge Rate (cfs)				
Design Point (DP)	10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post
1	16.3	13.9	36.8	31.7

3.7 Climate Change Consideration

This report presents the consideration for future physical risks due to climate change, in accordance with Part III.A.2 of the permit. Overall site planning, control measures and practices, conveyance systems and detention systems were evaluated against the seven (7) physical risks identified by NYSDEC due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR 490, and associated guidance. Appendix C provides a description of each consideration, specific to the project.

4.0 CONSTRUCTION SEQUENCE

This project has not received written approval from the Town of West Seneca allowing the disturbance of more than five acres of land at any one time. Therefore, if the Contractor's construction sequence requires the disturbance of more than five acres at any one time, written approval must be obtained from written approval from the Town of West Seneca prior to disturbing more than five acres at once.

The "Erosion and Sediment Control Plan" and the "Erosion and Sediment Control Plan Prior to Construction" in the accompanying drawings and waiver request identifies the major construction activities that are the subject of this SWPPP. The order (or sequence) in which the major activities are expected to begin is presented on the accompanying drawings, though each activity will not necessarily be completed before the next begins. In addition, these activities could occur in a different order if necessary to maintain adequate erosion and sediment control. If this is the case, the contractor shall notify the Owner's/Operator's Engineer overseeing the implementation of the SWPPP.

The Contractor will be responsible for implementing the erosion and sediment control measures identified on the plans. The Contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and ensuring their proper function remains with the Contractor.

In accordance with Part III.B.c.iv. a phasing plan for the project and sequencing plans for all phases have been provided. The plans address clearing and grubbing, excavation and grading, utility and infrastructure installation, final stabilization, and any other construction activity at the site that will result in soil disturbance. Refer to the plans for further information on the project phasing and sequencing.

5.0 CONSTRUCTION-PHASE POLLUTION CONTROL

The SWPPP and accompanying plans identify the temporary and permanent erosion and sediment control measures that have been incorporated into the design of this project. These measures will be implemented during construction, to minimize soil erosion and control sediment transport off-site, and after construction, to control the quality and quantity of stormwater runoff from the developed site.

Erosion control measures, designed to minimize soil loss, and sediment control measures, intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties, have been developed in accordance with the following documents:

- NYSDEC SPDES General Permit for Stormwater Discharges From Construction Activity, Permit No. GP-0-25-001 (effective January 29, 2025 through January 28, 2030)
- New York State Standards and Specifications for Erosion and Sediment Control, NYSDEC (November 2016)

The SWPPP and accompanying plans outline the construction scheduling for implementing the erosion and sediment control measures. These documents include limitations on the duration of soil exposure, criteria and specifications for placement and installation of the erosion and sediment control measures, a maintenance schedule, and specifications for the implementation of erosion and sediment control practices and procedures.

Temporary and permanent erosion and sediment control measures that shall be applied during construction generally include:

1. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction site discharges.
2. Preservation of existing vegetation to the greatest extent practical. Following the completion of construction activities in any portion of the site, permanent vegetation shall be established on all exposed soils.
3. Site preparation activities to minimize the area and duration of soil disruption.
4. Establishment of permanent traffic corridors to ensure that "routes of convenience" are avoided.

5.1 Temporary Erosion and Sediment Control Measures

The temporary erosion and sediment control measures described in the following sections are included as part of the construction documents.

5.1.1 Stabilized Construction Access

Prior to construction, stabilized construction access(es) will be installed, per accompanying plans, to reduce the tracking of sediment onto public roadways.

Construction traffic must enter and exit the site at the stabilized construction access(es). The intent is to trap dust and mud that would otherwise be carried off-site by construction traffic.

The access(es) shall be maintained in a condition, which will control tracking of sediment onto public rights-of-way or streets. When necessary, additional aggregate will be placed atop the filter fabric to assure the minimum thickness is maintained. All sediment and/or soil spilled, dropped, or washed onto public rights-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

5.1.2 Dust Control

Water trucks shall be used as needed during construction to reduce dust generated on-site. Dust control must be provided by the Contractor(s) to a degree that is acceptable to the Owner, and in compliance with the applicable local and state dust control requirements.

5.1.3 Temporary Soil Stockpile

Materials, such as topsoil, will be temporarily stockpiled (if necessary) on the site during the construction process. Stockpiles shall be located in an area away from storm drainage, water bodies and/or courses, and will be properly protected from erosion by a surrounding silt fence barrier.

5.1.4 Silt Fencing

Prior to the initiation of and during construction activities, a geotextile filter fabric (or silt fence) will be established downgradient of all disturbed areas. These barriers may extend into non-impact areas to provide adequate protection of adjacent lands.

Clearing and grubbing will be performed only as necessary for the installation of the sediment control barrier. To facilitate effectiveness of the silt fencing, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s). Maintenance of the fence will be performed as needed.

5.1.5 Temporary Seeding

For areas undergoing clearing, grading, and disturbance as part of construction activities, where work has temporarily ceased, temporary soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has temporarily ceased.

5.1.6 Manufactured Insert Inlet Protection

Install insert inlet protection beneath the grate of all catch basins, to prevent sediment from entering the catch basins and storm sewer system. Remove sediment accumulation and repair or replace insert as necessary to ensure proper function.

5.1.7 Filter Fabric Drop Inlet Protection

Install filter fabric or silt fence with wooden stakes at the perimeter of existing or proposed catch basins located in lawn areas, to prevent sediment from entering the catch basins and storm sewer system. Remove sediment accumulation and repair or replace fabric as necessary to ensure proper function.

5.1.8 Erosion Control Blanket

Erosion control blankets shall be installed in accordance with manufacturer's requirements on all slopes exceeding 3:1. Erosion control blankets provide temporary erosion protection, rapid vegetative establishment, and long-term erosion resistance to shear stresses generated by high runoff flow velocities associated with steep slopes.

5.1.9 Stone Check Dams

Stone check dams will be installed within drainage ditches to reduce the velocity of stormwater runoff, promote settling of sediment, and reduce sediment transport off-site.

Sediment accumulated behind the stone check dam will be removed as needed to maintain flow through the stone check dam and prevent large flows from carrying sediment over or around the dam. Stones shall be replaced as needed to maintain the design cross section of the structures.

5.1.10 Temporary Sediment Trap

Temporary sediment traps shall be constructed to intercept sediment-laden runoff, reduce the amount of sediment leaving the disturbed areas, and protect drainage ways, properties, and rights-of-way.

Accumulated sediment shall be removed from the trap when it reaches no greater than 50 percent of the design capacity. Sediment shall not be placed downstream from the embankment, adjacent to a stream, or floodplain.

Temporary sediment traps depicted on the accompanying plans have been designed to provide 3,600 CF of storage per acre of tributary watershed.

5.1.11 Temporary Diversion Swales

Temporary diversion swales shall be used to divert off-site runoff around the construction site and divert runoff from stabilized areas around disturbed areas.

5.1.12 Dewatering Operations

Dewatering will be used to intercept sediment-laden stormwater or pumped groundwater and allow it to settle out of the pumped discharge prior to being discharged from the site. Water from dewatering

operations shall be treated to eliminate the discharge of sediment and other pollutants. Water resulting from dewatering operations shall be directed to temporary sediment traps or dewatering devices. Temporary sediment traps and dewatering bags will be provided, installed, and maintained at downgradient locations to control sediment deposits to downstream surfaces.

5.1.13 Fiber Roll

Prior to the initiation of and during construction activities, fiber rolls (12" minimum diameter) will be established downgradient of all disturbed areas to reduce sheet flow on slopes. These rolls may extend into non-impact areas to provide adequate protection of adjacent lands. Spacing will conform to NYSDEC specification for straw bale dike.

Clearing and grubbing will be performed only as necessary for the installation of the fiber rolls. To facilitate effectiveness, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s) and maintenance will be performed as needed.

5.2 Permanent Erosion and Sediment Control Measures

The permanent erosion and sediment control measures described in the following sections are included as part of the construction documents.

5.2.1 Establishment of Permanent Vegetation

Disturbed areas that will be vegetated must be seeded in accordance with the contract documents. The type of seed, mulch, and maintenance measures as described in the contract documents shall also be followed.

Permanent soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has permanently ceased.

Final site stabilization is achieved when all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80 percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

5.2.2 Rock Outlet Protection

Rock outlet protection shall be installed at the locations as indicated and detailed on the accompanying plans. The installation of rock outlet protection will reduce the velocity and energy of water, such that the flow will not erode downstream surfaces.

5.3 Implementation Schedule for Erosion and Sediment Control Measures

Proper implementation of the outlined erosion and sediment control measures is critical to minimizing soil erosion and controlling off-site sediment transport during construction, as well as controlling the quality and quantity of stormwater runoff from the developed site after construction. The following table outlines the implementation schedule for initial placement of these measures, and the duration for which they should remain in place.

Table 13: Implementation Schedule for Erosion and Sediment Control Measures

Erosion and Sediment Control Measure	Initial Placement	Duration to Remain In-Place
Stabilized Construction Access	Upon mobilizing to site	Until construction is complete
Dust Control	As needed	As needed
Temporary Soil Stockpile	Upon delivery of materials to the site or excavation of on-site materials for reuse	Until materials have been placed or removed from the site
Silt Fencing	Prior to upgradient soil disturbance	Until upgradient area has achieved permanent stabilization
Temporary Seeding	Apply to any disturbed soil that will remain exposed for more than 14 days	Apply additional seed as needed for temporary stabilization
Manufactured Insert Inlet Protection	*Existing structures:* prior to upgradient soil disturbance *New structures:* upon installation of structure/grate	Until upgradient area has achieved permanent stabilization
Erosion Control Blanket	Upon completion of slope grading operations	Prior to final grading, or kept in place permanently
Stone Check Dams	*Existing swales:* upon completion of swale reshaping *New swales:* upon completion of swale excavation	Permanent
Temporary Sediment Trap	As needed during grading operations	Until final grading of tributary area is complete
Temporary Diversion Swales	As needed to divert flow around work area	Until permanent drainage methods are established (i.e. closed storm sewer, open conveyance swales, etc.)
Dewatering Operations	As needed during excavation	Until excavation/backfilling is complete
Fiber Roll	Prior to upgradient soil disturbance	Until upgradient area has achieved permanent stabilization
Establishment of Permanent Vegetation	As soon as possible after completion of final grading	Permanent, apply additional seed as needed to achieve 80% minimum uniform coverage
Rock Outlet Protection	During installation of tributary culverts/pipes	Permanent

5.4 Other Pollutant Controls

Part I.C.1 of GP-0-25-001 prohibits discharges from construction material wastewater, pollutants used in vehicle and equipment operation and maintenance, vehicle and equipment washing and toxic or hazardous substances.

The following table identifies materials and/or chemicals commonly used and/or stored on construction sites and should be addressed in the site-specific spill prevention and response plan:

Table 14: Common Construction Pollutants

Material/Chemical	Physical Description	Stormwater Pollutants	Location*
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Herbicides used for noxious weed control
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits
Asphalt	Black solid	Oil, petroleum distillates	Streets and roofing
Concrete	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, building construction
Curing compounds	Creamy white liquid	Naphtha	Curb and gutter
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment / staging area
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment / staging area
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	Secondary containment / staging area
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment
Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging area
Construction materials			
Granular fill	Various colored solids	Sediment	Stockpile / fill areas
Subbase course	Gray/brown solid	Sediment, dust	Stockpile
Topsoil	Brown solid	Sediment	Stockpile
Mulch	Various colored solid	Sediment, debris	Staging area
Seed	Brown/yellow solid	Nutrients, debris	Staging area
HDPE Storm Pipe	Black solid		Staging area
SDR-35, SDR-21 PVC Pipe	Various colored solid		Staging area
Metals Frames and Grates	Gray solid		Staging area
Joint Sealant	Light gray viscous solid	Polyurethane	Staging area

*(Area where material/chemical is used on-site)

5.5 Construction Housekeeping Practices

During the construction phase, the Contractor(s) will implement the following measures:

5.5.1 Sediment Sweeping/Vacuuming

Any sediment that is tracked by construction vehicles or erosion onto adjacent public or private impervious surfaces must be swept or vacuumed, utilizing self-propelled and/or walk-behind equipment, and removed on a daily basis. Kick brooms and sweeper attachments are not an acceptable means of sweeping. Sweeping or vacuuming should not take place while tracked sediment is wet. If tracked sediment is compacted, the sediment must be scraped loose prior to sweeping or vacuuming.

5.5.2 Material Stockpiles

Material resulting from clearing and grubbing operations that will be stockpiled on-site, must be adequately protected with downgradient erosion and sediment controls.

5.5.3 Equipment Cleaning and Maintenance

The Contractor(s) will designate areas for equipment cleaning, maintenance, and repair. The Contractor(s) and subcontractor(s) will utilize those areas. The areas will be protected by a temporary perimeter berm.

5.5.4 Detergents

The use of detergents for large-scale washing is prohibited (i.e., vehicles, buildings, pavement surfaces, etc.)

5.5.5 Spill Prevention and Response

A Spill Prevention and Response Plan shall be developed, for the pollutants identified in Section 5.3, for the site by the Contractor(s) that addresses the following:

1. Reducing chance of spills
2. Stopping the source of spills
3. Containing and cleaning up spills
4. Disposing of materials contaminated by spills
5. Training personnel responsible for spill prevention/response
6. Material handling procedures
7. Material storage requirements

The plan shall detail the steps required in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

The plan shall include Safety Data Sheets (SDS) for all materials to be stored on-site. All workers on-site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction. Regular tailgate safety meetings shall be held and all workers that are expected on the site during the week shall be required to attend.

5.5.6 Concrete Washout Areas

A temporary concrete washout area shall be provided for every project where concrete will be poured or otherwise formed on-site and shall consist of an excavated or above-ground lined construction pit

where concrete trucks or equipment can be washed out after their loads have been discharged. Waste generated from concrete wash water that shall not be allowed to flow into drainage ways, inlets, receiving waters, highway right-of-way, or any location other than the designated concrete washout area(s). Proper signage shall be placed adjacent to the facility to designate the "Concrete Washout Area". Locate the facility a minimum of 100-feet from drainage swales, storm drain inlets, wetlands, streams, and other surface waters. Prevent surface water from entering the washout area.

The hardened residue from the concrete wash areas will be disposed of in the same manner as other non-hazardous construction waste materials. Maintenance of the washout area shall include removal of hardened material when 75% of the storage capacity is filled, and a minimum freeboard of 12 inches shall be maintained. The Contractor will be responsible for seeing that these procedures are followed. The project may require the use of multiple concrete washout areas based on the frequency of concrete pours.

5.5.7 Material Storage

Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that prevents negative impacts of construction materials on stormwater quality.

Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in trucks or within storage facilities. Runoff containing such material must be collected, removed from the site, treated, and disposed of at an approved solid waste or chemical disposal facility.

6.0 INSPECTIONS, MAINTENANCE, AND REPORTING

6.1 Inspection and Maintenance Requirements

6.1.1 Pre-Construction Inspection and Certification

Prior to the commencement of construction, the Qualified Inspector/Qualified Professional shall conduct an assessment of the site and certify that the appropriate erosion and sediment control measures have been adequately installed and implemented. The Contractor shall contact the Qualified Inspector/Qualified Professional once the erosion and sediment control measures have been installed.

6.1.2 Construction Phase Inspections and Maintenance

A Qualified Inspector/Qualified Professional, as defined in Appendix A of the General Permit GP-0-25-001, shall conduct regular site inspections between the time this SWPPP is implemented and final site stabilization. Site inspections shall occur at an interval of at least once every seven (7) calendar days.

The purpose of site inspections is to assess performance of pollutant controls. Based on these inspections, the Qualified Inspector/Qualified Professional will decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the site via stormwater runoff. The general contractor has the duty to cause pollutant control measures to be repaired, modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant

control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

1. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction access will be constructed where vehicles enter and exit. This access will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.
2. Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. All material from behind sediment barriers will be stockpiled on the up slope side. Additional sediment barriers must be constructed as needed.
3. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
4. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building foundation or pavement, or have a stand of grass with at least 80 percent density. The density of 80 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.
5. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

The inspection reports must be completed entirely and additional remarks should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWPPP at the time of inspection and specifically identify all incidents of non-compliance.

Within one (1) business day of the completion of an inspection, the *Qualified Inspector/Qualified Professional* shall notify the Owner/Operator and appropriate contractor or subcontractor of any corrective actions that need to be taken. For corrective actions not requiring engineering design, the contractor must begin implementing corrective actions within one business day and complete the corrective actions within five business days. For corrective actions requiring engineering design, the engineering design process must begin within five business days and the contractor must complete the corrective action in a reasonable time frame but no later than 60 calendar days.

In addition to the inspections performed by the *Qualified Inspector/Qualified Professional*, the Contractor shall perform routine inspections that include a visual check of all erosion and sediment control measures. All inspections and maintenance shall be performed in accordance with the inspection and maintenance schedule provided on the accompanying plans. Sediment removed from erosion and sediment control measures will be exported from the site, stockpiled for later use, or used immediately for general non-structural fill.

It is the responsibility of the general contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the accompanying plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers, sediment traps, etc.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

6.1.3 Temporary Suspension of Construction Activities

For construction sites where soil disturbance activities have been temporarily suspended (e.g. Winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the frequency of Qualified Inspector/Qualified Professional inspections can be reduced to once every 30 calendar days. Prior to reducing the frequency of inspections, the Owner/Operator shall notify the NYSDEC Region 9 stormwater contact person and the Town of West Seneca in writing.

6.1.4 Partial Project Completion

For construction sites where soil disturbance activities have been shut down with partial project completion, all areas disturbed as of the project shutdown date have achieved final stabilization, and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational, the inspections by the Qualified Inspector/Qualified Professional can stop. Prior to the shutdown, the Owner/Operator shall notify the NYSDEC Region 9 stormwater contact person and the Town of West Seneca in writing.

If soil disturbance activities have not resumed within two years from the date of shutdown, a Notice of Termination (NOT) shall be properly completed and submitted to the NYSDEC.

6.1.5 Post-Construction Inspections and Maintenance

Inspections and maintenance of final stabilization measures and post-construction stormwater management practices shall be performed in accordance with Appendix G, once all disturbed areas are stabilized and all stormwater management systems are in place and operable.

6.2 Reporting Requirements

6.2.1 Inspection Reports

Pursuant to Part IV.C of GP-0-25-001, inspection reports shall be prepared for the duration of construction, as outlined herein, and shall be signed by the *Qualified Inspector* or *Qualified Professional*. A sample inspection form is provided in Appendix F.

At a minimum, each inspection report shall record the following information:

1. Permit identification number; and
2. Date and time of inspection; and
3. Name and title of person(s) performing inspection; and
4. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and
5. A description of the condition of the runoff at all points of discharge from the construction site. This must include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; and
6. A description of the condition of all surface waters of the State located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This must include identification of any discharges of sediment to the surface waters of the State; and

7. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and
8. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and
9. Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and
10. Estimates, in square feet or acres, of the following areas:
    a. Total area with active soil disturbance (not requiring either temporary stabilization or final stabilization); and
    b. Total area with inactive soil disturbance (requiring either temporary stabilization or final stabilization); and
    c. Total area that has achieved temporary stabilization; and
    d. Total area that has achieved final stabilization; and
11. Current stage of construction of all SMPs and identification of all construction activity on site that is not in conformance with the SWPPP and technical standards; and
12. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and
13. Identification and status of all corrective actions that were required by previous inspection; and
14. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The qualified inspector must attach color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The qualified inspector must also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The qualified inspector must attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

6.2.2 Site Log Book

Pursuant to Part I.E.3 of GP-0-25-001, the Owner/Operator shall retain a copy of the General Permit, NOI, NOI Acknowledgment Letter, MS4 SWPPP Acceptance Form (if applicable), inspection reports, contractor and subcontractor certification forms, and all documentation necessary to demonstrate eligibility under the permit, at the construction site from commencement of construction activity until the date that all areas of disturbance have achieved final stabilization and the Notice of Termination has been submitted to the NYSDEC.

The Site Log Book shall be maintained on-site in a secure location (i.e. job trailer, on-site construction office, or mailbox with lock) and must be accessible during normal business hours to an individual performing a compliance inspection.

6.2.3 Post Construction Records and Archiving

Following construction, the Owner/Operator shall retain copies of the SWPPP, the complete construction Site Log Book, and records of all data used to complete the NOI to be covered by this permit, for a period of at least five years from the date that the site is finally stabilized. This period may be extended by the NYSDEC, at its sole discretion, at any time upon written notification.

Records shall be maintained of all post construction inspections and maintenance work performed in accordance with the requirements outlined in Appendix G.

7.0 SWPPP IMPLEMENTATION RESPONSIBILITIES

A summary of the responsibilities and obligations of all parties involved with compliance with the NYSDEC SPDES General Permit GP-0-25-001 conditions is outlined in the subsequent sections. For a complete listing of the definitions, responsibilities, and obligations, refer to the SPDES General Permit GP-0-25-001 presented in Appendix J.

7.1 Owner's/Operator's Responsibilities

1. Ensure that control measures are selected, designed, installed, implemented and maintained to minimize the discharge of pollutants and prevent a violation of the water quality standards, meeting the non-numeric effluent limitations in Part II.B.1.(a)-(e) of the SPDES General Permit and in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

2. Ensure that practices are selected, designed, installed, and maintained to meet the performance criteria in the Design Manual. Practices must be designed to meet the applicable sizing criteria in Part II.C.2.a., b., c. or d. of GP-0-25-001.

3. Retain the services of a "Qualified Inspector" or "Qualified Professional" as defined under GP-0-25-001, to provide the services outlined in Section 7.5 "Qualified Inspector's/Qualified Professional's Responsibilities."

4. Retain the services of a "Qualified Professional," as defined under GP-0-25-001, to provide the services outlined in Section 2.3 "Owner's/Operator's Engineers Responsibilities."

5. Have an authorized corporate officer sign the Owner/Operator Certification Form to accompany the eNOI. A copy of the completed NOI is included in Appendix B.

6. Submit the electronic version of the NOI (eNOI) along with the MS4 SWPPP acceptance form using the NYSDEC's website (http://www.dec.ny.gov/chemical/43133.html).

7. Pay the required initial and annual fees upon receipt of invoices from NYSDEC. These invoices are generally issued in the fall of each year. The initial fee is calculated as $110.00 per acre disturbed plus $675.00 per acre of net increase in impervious cover, and the annual fee is $110.00.

8. Prior to the commencement of construction activity, identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion control practices included in the SWPPP and the

contractor(s) and subcontractor(s) that will be responsible for constructing the SMPs included in the SWPPP. Each of the contractors and subcontractors must identify at least one person from their company to be the trained contractor that will be responsible for implementation of the SWPPP. Ensure that at least one trained contractor is on site daily when soil disturbance activities are being performed.

9. Schedule a pre-construction meeting which shall include the Town of West Seneca representative, Owner's/Operator's Engineer, Qualified Inspector, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.

10. Retain the services of an independent certified materials testing and inspection firm operating under the direction of a licensed Professional Engineer to perform regular tests, inspections, and certifications of the construction materials used in the construction of all post-construction stormwater management practices.

11. Retain the services of a NYS licensed land surveyor to perform an as-built topographic survey of the completed post-construction stormwater management facilities.

12. Require the Contractor to fully implement the SWPPP prepared for the site by the Owner/Operator's Engineer to ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until all areas of disturbance have achieved final stabilization and the Notice of Termination (NOT) has been submitted to the NYSDEC.

13. The Owner/Operator is authorized to commence construction activity as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.

14. Within five (5) business days of receipt of the LOA, send an electronic copy of the LOA to the MS4 operator(s) with review authority.

15. Forward a copy of the LOA received from DEC to the Owner's/Operator's Engineer for project records, and to the Contractor for display at the construction site.

16. As of the date the LOA is received, the Owner/Operator must make the eNOI, SWPPP and LOA available for review and copying in accordance with the requirements in Part VII.H. of GP-0-25-001. When applicable, as of the date an updated LOA is received, the Owner/Operator must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.

17. The Owner/Operator must ensure compliance with all requirements of GP-0-25-001 and that the provisions of the SWPPP, including any changes made to the SWPPP in accordance with Part III.A.5., are properly implemented and maintained from the commencement of construction activity until all area of disturbance have achieved final stabilization; and the Owner/Operator's coverage under the permit is terminated in accordance with Part V.A.5.a.

18. As of the date of the commencement of construction activities until Part I.E.2.a. and b. have been met, the Owner/Operator must maintain at the construction site, a copy of all documentation necessary to demonstrate eligibility with GP-0-25-001, a copy of GP-0-25-001, the SWPPP, the signed SWPPP Preparer Certification Form, the signed MS4 SWPPP Acceptance Form, signed Owner/Operator Certification Form, eNOI, and LOA, and LOA transmittal to the MS4 Operator in accordance with Part I.D.3.c.

19. The Owner/Operator must maintain at the construction site, until Part I.E.2.a and b. have been met, as of the date the documents become final or are received, a copy of the responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7, and inspection reports in accordance with Part IV.C.4. and 6.

20. The Owner/Operator must maintain the documents in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the Owner/Operator must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.

21. Upon finding a significant non-compliance with the practices described in the SWPPP or violation of GP-0-25-001, NYSDEC may order an immediate stop to all construction activity at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the Owner/Operator. Forward a copy of any stop work order received immediately to the Owner's/Operator's Engineer and to the Contractor.

22. If any human remains or archaeological remains are encountered during excavation, the Owner/Operator must immediately cease, or cause to cease, all construction activity in the area of the remains and notify the appropriate Regional Water Engineer (RWE). Construction activity shall not resume until written permission to do so has been received from the RWE.

23. To be authorized to implement modifications to the information previously submitted in the eNOI, the Owner/Operator must notify NYSDEC via email at Stormwater_info@dec.ny.gov requesting access to update the eNOI, update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D., and receive an updated LOA.

24. The eNOI, SWPPP, LOA, updated LOAs, and inspection reports required by GP-0-25-001 are public documents that the Owner/Operator must make available for review and copying by any person within five (5) business days of the Owner/Operator receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

25. The Owner/Operator must terminate coverage when the project reaches total project completion, has a planned shutdown with partial project completion, is changing Owner/Operator or has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.

26. Have a qualified inspector perform a final site inspection prior to submitting the eNOT.

27. Have the MS4 sign the MS4 Acceptance statement on the eNOT in accordance with the requirements in Part VII.J.

28. Prior to submitting a Notice of Termination, ensure for SMP(s) that are privately owned, the Owner/Operator has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the Owner/Operator's deed of record.

29. Submit a complete Notice of Termination form electronically using the NYSDEC eNOT. Coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

30. Request and receive all SWPPP records from the Owner's/Operator's Engineer and archive those records, along with the LOT, for a period of at least five (5) years from the date that NYSDEC accepts a complete NOT submitted.

31. Implement the Post-Construction Inspections and Maintenance procedures outlined in Appendix G.

32. The Owner/Operator must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the Owner/Operator shall amend the SWPPP, including construction drawings:
    a) Whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater discharges from the project site;
    b) Whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
    c) To address issues or deficiencies identified during an inspection by the "Qualified Inspector," the Department, or other Regulatory Authority.
    d) To document the final construction conditions.

33. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original owner or operator must notify the new owner or operator, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department, in conformance with Part I.G.. For construction activities subject to the requirements of a regulated, traditional land use control MS4, the original owner or operator must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

7.2 Owner's/Operator's Engineer's Responsibilities

1. Prepare the SWPPP using good engineering practices, best management practices, and in compliance with all federal, state, and local regulatory requirements.

2. Prepare the electronic Notice of Intent (eNOI) (see Appendix B) and sign the "SWPPP Preparer Certification Form." Forward the Owner/Operator Certification Form to the Owner/Operator for signature.

3. Provide copies of the SWPPP to the Town of West Seneca once all signatures and attachments are complete.

4. Enter Contractor's information in Section 7.5 "SWPPP Participants" once a Contractor is selected by the Owner/Operator.

5. Participate in a pre-construction meeting which shall include the Town of West Seneca representative, Owner/Operator, Qualified Inspector, Contractor, and all subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

6. Update the SWPPP each time there is a significant modification to the pollution prevention measures or a change of the principal Contractor working on the project who may disturb site soil.

7.3 Contractor's Responsibilities

1. Sign the SWPPP Contractor's Certification Form contained within Appendix B and forward to the Owner's/Operator's Engineer for inclusion in the Site Log Book.

2. Identify at least one Trained Contractor that will be responsible for implementation of this SWPPP. Ensure that at least one Trained Contractor is on site on a daily basis when soil disturbance activities are being performed. The Trained Contractor shall inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating conditions at all times. For corrective actions not requiring engineering design, the contractor must begin implementing corrective actions within one business day and complete the corrective actions within five business days. For corrective actions requiring engineering design, the engineering design process must begin within five business days and the contractor must complete the corrective action in a reasonable time frame but no later than 60 calendar days.

3. Provide the names and addresses of all subcontractors working on the project site. Require all subcontractors who will be involved with construction activities that will result in soil disturbance to identify at least one Trained Contractor that will be on site on a daily basis when soil disturbance activities are being performed; and to sign a copy of the Subcontractor's Certification Form contained within Appendix B, then forward to the Owner's/Operator's Engineer for inclusion into the Site Log Book. This information must be retained as part of the Site Log Book.

4. Maintain a Spill Prevention and Response Plan in accordance with requirements outlined in Section 5 of this SWPPP. This plan shall be provided to the Owner's/Operator's Engineer for inclusion in the Site Log Book, prior to mobilization on-site.

5. Participate in a pre-construction meeting which shall include the Town of West Seneca representative, Owner/Operator, Owner's/Operator's Engineer, Qualified Inspector, and all subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

6. If Contractor plans on utilizing adjacent properties for material, waste, borrow, or equipment storage areas, or if Contractor plans to engage in industrial activity other than construction (such as operating asphalt and/or concrete plants) at the site, Contractor shall submit appropriate documentation to the Owner's/Operator's Engineer so that the SWPPP can be modified accordingly.

7. Implement site stabilization, erosion and sediment control measures, and other requirements of the SWPPP.

8. In accordance with the requirements in the most current version of the NYS Standards and Specifications for Erosion and Sediment Control, conduct inspections of erosion and sediment control measures installed at the site to ensure that they remain in effective operating condition at all times. Prepare and retain written documentation of inspections as well as of

all repairs/maintenance activities performed. This information must be retained as part of the Site Log Book.

9. Begin implementing corrective actions within one (1) business day of receipt of notification by the Qualified Inspector/Qualified Professional of any corrective actions. For corrective actions not requiring engineering design, the contractor must begin implementing corrective actions within one business day and complete the corrective actions within five business days. For corrective actions requiring engineering design, the engineering design process must begin within five business days and the contractor must complete the corrective action in a reasonable time frame but no later than 60 calendar days.

10. Maintain a record of the date(s) and location(s) that soil restoration is performed in accordance with the accompanying plans and NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," dated April 2008. A copy of this publication is provided in Appendix H. The record that is to be maintained shall be a copy of the overall site grading plan delineating the area(s) and date(s) that the soil was restored.

11. Upon completion of all construction at the site, the contractor responsible for overall SWPPP Compliance shall sign the certification on their Contractor Certification Form indicating that: a.) all temporary erosion and sediment control measures have been removed from the site, b.) the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," and c.) all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents.

7.4 Qualified Inspector's/Qualified Professional's Responsibilities

1. Participate in a pre-construction meeting with the Town of West Seneca representative, Owner/Operator, Owner/Operator's Engineer, Contractor, and their subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

2. Conduct an initial assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment control measures described within this SWPPP have been adequately installed and implemented to ensure overall preparedness of the site.

3. Provide on-site inspections to determine compliance with the SWPPP. Site inspections shall occur at an interval of at least once every seven calendar days. A written inspection report shall be provided to the Owner/Operator and general contractor within one business day of the completion of the inspection, with any deficiencies identified. A sample inspection form is provided in Appendix F.

4. Prepare an inspection report subsequent to each and every inspection that shall include/address the items listed in Part IV.C.4 of GP-0-25-001. Sign all inspection reports and maintain on site with the SWPPP.

5. Notify the owner/operator and appropriate contractor or subcontractor of any corrective actions that need to be taken.

6. Prepare a construction Site Log Book to be used as a record of all inspection reports generated throughout the duration of construction. Ensure that the construction Site Log Book is maintained and kept up-to-date throughout the duration of construction.

7. Review the Contractor's SWPPP records on a periodic basis to ensure compliance with the requirements for daily reports, soil restoration, inspections, and maintenance logs.

8. Based on the as-built survey and material testing certifications performed by others, the Qualified Professional shall perform evaluations of the completed stormwater management practices to determine whether they were constructed in accordance with this SWPPP.

9. The Qualified Professional shall conduct a final site assessment and prepare a certification letter to the Owner/Operator indicating that, upon review of the material testing and inspection reports prepared by the firm retained by the Owner/Operator, review of the completed topographic survey, and evaluation of the completed stormwater management facilities, the stormwater management facilities have been constructed substantially in accordance with the contract documents and should function as designed.

10. Prepare the Notice of Termination (NOT). The Qualified Professional shall sign the NOT Certifications VI (Final Stabilization) and VII (Post-construction Stormwater Management Practices) and forward the NOT to the Owner/Operator for signature on Certification VIII (Owner/Operator Certification).

11. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

12. Transfer the SWPPP documents, along with all NOI's, LOA, permit certificates, NOT's, LOT, construction Site Log Book, and written records required by the General Permit to the Owner/Operator for archiving.

7.5 SWPPP Participants

1. Owner's/Operator's Engineer [3]: Kristopher Winkler, PE
   LaBella Associates, DPC
   300 Pearl Street, Suite 130
   Buffalo, NY 14202
   Phone: (716) 483-3153

2. Owner/Operator [4]: Home Leasing
   75 South Clinton Avenue, Suite 700,
   Rochester, NY 14604
   Phone: 585-262-6210

3. Contractor[5,6]:

   Name and Title: _____

   Company Name: _____

   Mailing Address: _____

   _____

   Phone: _____

   Fax: _____

[3] *Refer to Appendix B for the SWPPP Preparer Certification Form.*
[4] *Refer to Appendix B for the Owner/Operator Certification Form.*
[5] *Refer to Appendix B for Contractor and Subcontractor Certification Form.*
[6] *Contractor's information to be entered once the Contractor has been selected.*

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APPENDIX A:
FIGURES

A-1: Site Location Map
A-2: Soils Map
A-3: Historic Places Screening Map
A-4: Environmental Resource Map
A-5: Environmental Review Documentation
A-6: FEMA Firm Map
A-7: Pre-Development Watershed Delineation Map
A-8: Post-Development Watershed Delineation Map

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **SITE LOCATION MAP**

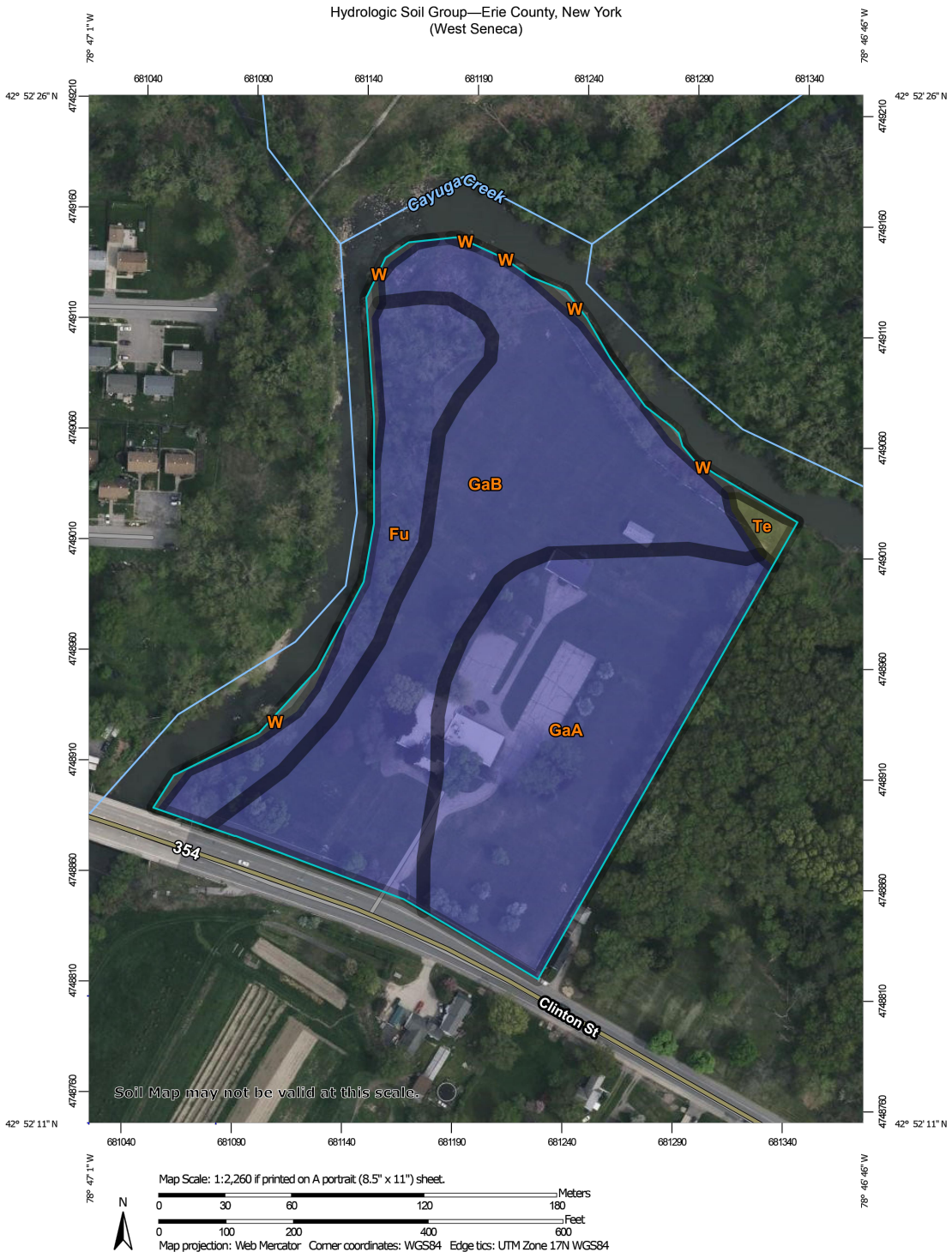
DRAWN BY:	DATE:	PROJECT NO.:
--	04/20/2026	2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: **A-1**

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Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

4/13/2026
Page 1 of 4

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ISSUED FOR:
SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME:
SOILS MAP

DRAWN BY:	DATE:	PROJECT NO.:
	04/20/2026	2241067

PROJECT NAME:
WEST SENECA APARTMENTS
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER:
A-2a

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MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 25, Sep 4, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 13, 2023—May 27, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **SOILS LEGEND**

DRAWN BY: --

DATE: 04/20/2026

PROJECT NO.: 2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: **A-2b**

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Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Fu	Fluvaquents and Udifluvents, frequently flooded	A/D	1.7	14.7%
GaA	Galen very fine sandy loam, 0 to 3 percent slopes	A/D	4.4	37.9%
GaB	Galen very fine sandy loam, 3 to 8 percent slopes	A/D	5.2	44.5%
Te	Teel silt loam	B/D	0.1	1.1%
W	Water		0.2	1.8%
Totals for Area of Interest			**11.7**	**100.0%**

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: SOILS TABLE

DRAWN BY: --
DATE: 04/20/2026
PROJECT NO.: 2241067

PROJECT NAME: WEST SENECA APARTMENTS
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: A-2c

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Consultation Projects (View)

Survey Archaeology Areas (View)

Survey Building Areas (View)

LPC Historic Districts

Archeologically Sensitive Areas

National Register Building Sites (View)

USN Building Districts (View)

LPC Landmarks

USN Building Points (View)

- Eligible
- Listed
- Not Eligible
- Not Eligible - Demolished
- Undetermined

Cemeteries

Missing or invalid reference

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **HISTORIC PLACES SCREENING MAP**

DRAWN BY:	DATE:	PROJECT NO.:
--	04/20/2026	2241067

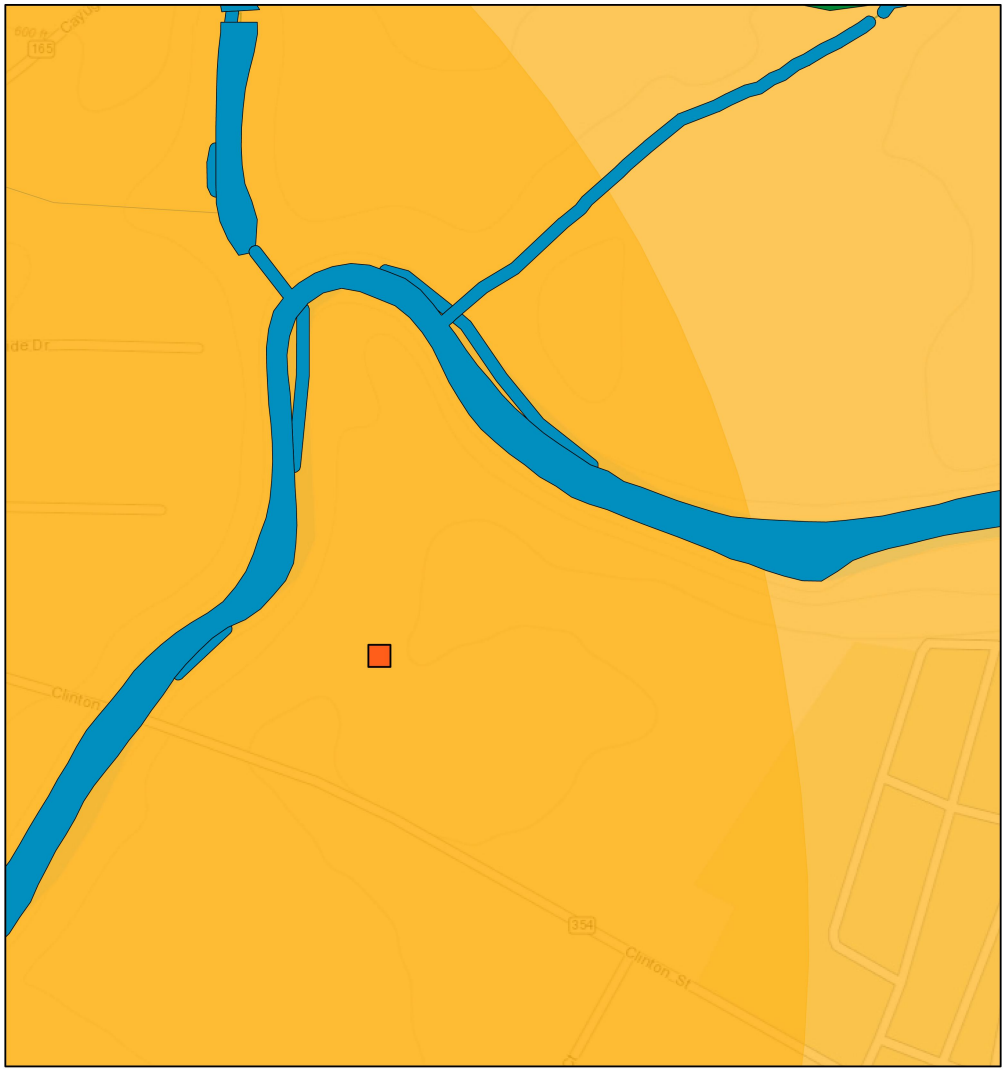
PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: **A-3**

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Environmental Resource Mapper



April 16, 2026

1:4,514

0 0.03 0.06 0.11 mi

0 0.04 0.09 0.17 km

- Unique Geological Features
- Waterbody Classifications for Rivers/Streams
- Waterbody Classifications for Lakes

Waterbody Inventory/Priority Waterbodies List
- Lakes and Reservoirs
- Estuaries
- Rivers and Streams
- Shorelines

- State Regulated Freshwater Wetlands (Outside of the Adirondack Park)
- State Regulated Wetland Checkzone
- Significant Natural Communities
- Natural Communities Near This Location
- Rare Plants or Animals

National Wetlands Inventory
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **ENVIRONMENTAL RESOURCE MAP**

DRAWN BY:	DATE:	PROJECT NO.:
--	04/20/2026	2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON ST, WEST SENECA, NY 14224

DRAWING NUMBER: **A-4**

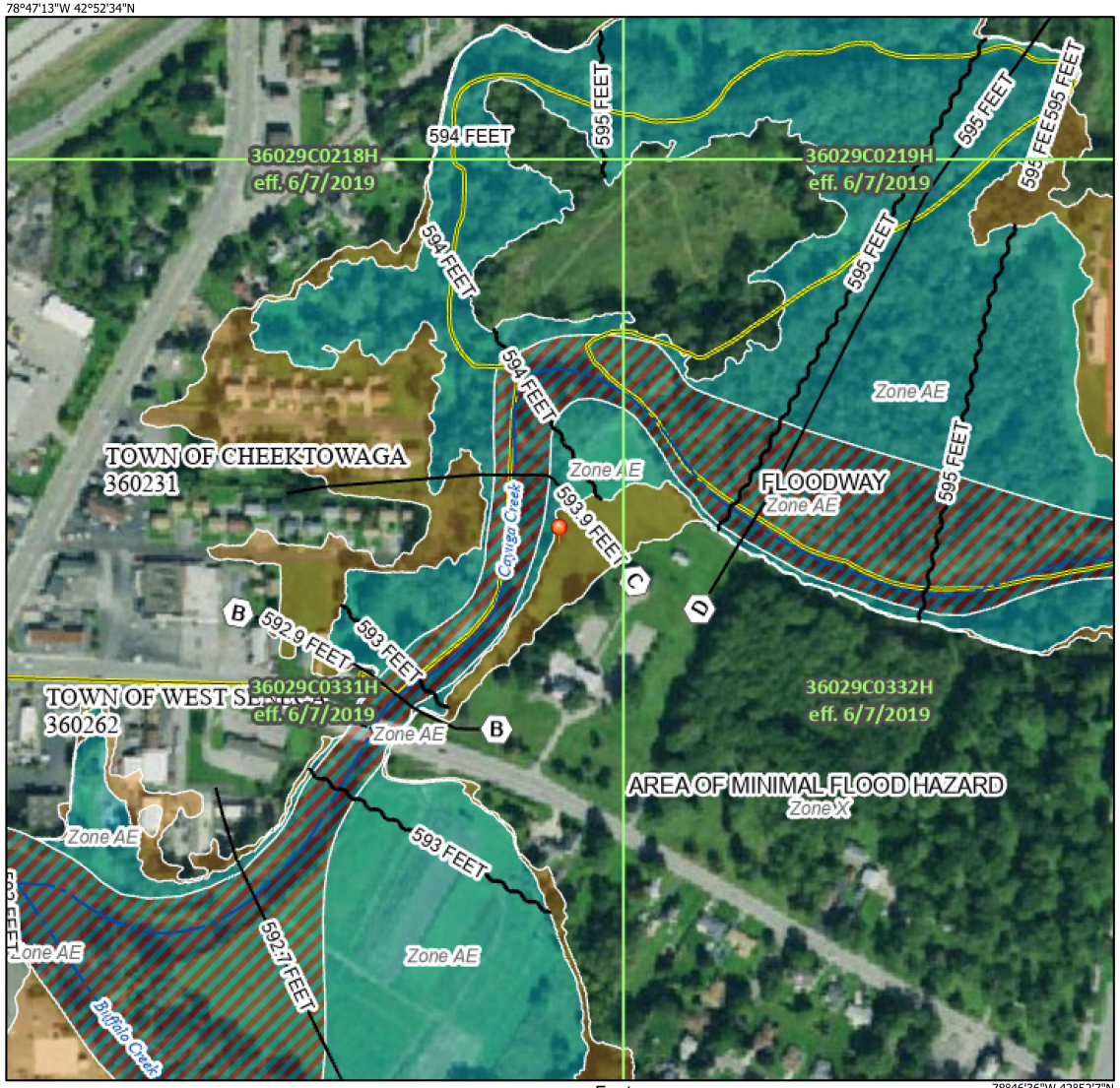
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National Flood Hazard Layer FIRMette

FEMA

78°47'13"W 42°52'34"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

78°46'36"W 42°52'7"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS
  - Without Base Flood Elevation (BFE) *Zone A, V, A99*
  - With BFE or Depth *Zone AE, AO, AH, VE, AR*
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
  - Future Conditions 1% Annual Chance Flood Hazard *Zone X*
  - Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
  - Area with Flood Risk due to Levee *Zone D*
- OTHER AREAS
  - NO SCREEN Area of Minimal Flood Hazard *Zone X*
  - Effective LOMRs
  - Area of Undetermined Flood Hazard *Zone D*
- GENERAL STRUCTURES
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES
  - 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/6/2026 at 2:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION			
DRAWING NAME: **FEMA FIRM MAP**	DRAWN BY: --	DATE: 04/20/2026	PROJECT NO.: 2241067
PROJECT NAME: **WEST SENECA APARTMENTS** 2544 CLINTON ST, WEST SENECA, NY 14224	DRAWING NUMBER: **A-5**		

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ROLL CALL: Present Supervisor Dickson
Councilmember Breidenstein
Councilmember Kims
Councilmember Piekarec
Councilmember Robertson

Absent None

Supervisor Dickson read the Fire Prevention Code instructing the public where to exit in case of a fire, or an emergency was stated.

APPROVAL OF AGENDA

1. Town Clerk re Approval of Agenda as submitted

Motion by Supervisor Dickson, seconded by Councilmember Piekarec, to approve the agenda with the additional item from the Director of Senior Services.

Ayes: All Noes: None Motion Carried

MINUTES TO BE APPROVED

1. Town Clerk Newton re Reorganizational Meeting Minutes from January 13, 2025

Motion by Supervisor Dickson, seconded by Councilmember Robertson, to approve the Reorganizational Meeting Minutes from January 13, 2025.

Ayes: All Noes: None Motion Carried

2. Town Clerk re Meeting Minutes 2025-01 of January 13, 2025

Motion by Supervisor Dickson, seconded by Councilmember Kims, to approve Meeting Minutes 2025-01 of January 13, 2025.

Ayes: All Noes: None Motion Carried

PUBLIC COMMENTS

Courtney Fallon, Treehaven Road, referred to Communications Item No. 10, Summer employee bonus:

- ✓ Requested the Town Board not to approve the item and in her opinion the bonus should be higher for water safety instructors
- ✓ Recommended terms to better accommodate pool staff, specifically college students
- ✓ Qualification 4.d in her opinion does not accommodate employees' scheduling challenges, for example, summer school

Mary Jane Held, 1442 Orchard Park Road, referred to the proposed project at 1425 Orchard Park Road:

- ✓ Is opposed to the project and suggested a dog park instead – Supervisor Dickson stated the town is reviewing adding a dog park and NYS is planning to add sidewalks along Orchard Park Road.
- ✓ Is concerned about additional traffic

TABLED ITEM

1. Code Enforcement re Request for special use permit – 1850 Union Road

The item remained tabled.

OLD BUSINESS

1. Code Enforcement re Rezone & Special Use Permit – 1425 Orchard Park Road

Code Enforcement Officer Schieber stated the following information has been received:

- ✓ Fully coordinated SEQR
- ✓ SHPO clearance regarding a full investigation of the archeologically sensitive area near cemetery
- ✓ NYSDOT have no objections to the traffic generated by the project

Town Engineer Foote stated the lining of the trunk sewers is reducing overflow occurrences.

Councilmember Breidenstein questioned Mr. Foote on the completion date of the Phase 8 project. Mr. Foote stated he anticipates the project will be completed this summer noting the lining will be completed this spring.

Councilmember Piekarec stated he is in favor of the project and noted he does not agree with the Town Board having tabled the project last year.

Councilmember Kims stated in her opinion it was prudent of the town to address the downstream sewer problems before approving the project.

Motion by Supervisor Dickson, seconded by Councilmember Breidenstein, to approve the request for rezoning and special use permit for property located at 1425 Orchard Park Road, changing its classification from C- 1 and R-75 to C-1(S) for construction of a multi-unit residential development.

On the question, Councilmember Breidenstein recognized the Engineering Departments efforts to clear the sewer lines and acknowledged the concerns of residents whose basements have flooded on a routine basis. Furthermore, Councilmember Breidenstein stated that sometimes government takes time, however we have a responsibility to the residents and developers to get it right.

Supervisor Dickson further advised there is a playground for children at the school and would support a town shared playground for the neighborhood.

Ayes: All Noes: None Motion Carried

Motion by Supervisor Dickson, seconded by Councilmember Piekarec, to adopt the following resolution:

WHEREAS, the Town Board of the Town of West Seneca, as lead agency acting pursuant to the State Environmental Quality Review Act, Article 8 of the New York State Environmental Conservation Law, has reviewed Part I of the Short Environmental Assessment Form ("EAF") prepared by the applicant for property located at 1425 Orchard Park Road ("Subject Property"), for construction of a new 30 unit multi-family residential development and associated site work and parking (the "Project"), and reviewed the draft completed Part II and Part III of the EAF analyzing the potential for the Project to result in any significant adverse environmental impacts and has otherwise taken a hard look at the identified potential environmental impacts utilizing the criteria specified in 6 NYCRR 617.7(c); and

WHEREAS, the Erie County Division of Planning, after carefully and fully reviewing a description of the proposed project, along with the application and other documents as submitted to the Town of West Seneca, replied in writing that the project was to be of local concern; and

WHEREAS, the Town Board held a public hearing which was properly noticed to the public wherein the project was discussed; and

WHEREAS, the Town Board herein determines that it shall act as lead agency for such purposes and there has been no opposition thereto by any other interested agency; and

WHEREAS, the Town Board, carefully and fully reviewed the application including the following documents submitted by the applicant and other interested entities: Response from DEC, SHPO, NYSDOT, Army Corp of Engineers, and the reports of Powers Archaeology, LLC; and

WHEREAS, the Town Board, upon taking an independent hard look and reasoned evaluation of all of the above-referenced information, comments and written documentation with regard to the project;

WHEREAS, upon review of Parts I, II, and III of the EAF and documentation and plans submitted by the applicant in connection with the review of the Project, the Town Board has not identified any potentially significant adverse environmental impacts associated with the proposed use of the Subject Property, has determined that this is an unlisted action and preparation of a Full Environmental Impact Statement is not necessary and that the issuance of a Negative Declaration is therefore appropriate; now, therefore, be it

RESOLVED that pursuant to 6 NYCRR 617.7(a) the Town Board hereby accepts its designation as lead agency and does hereby adopt a Negative Declaration with respect to the Project based on its determination that the Project will not result in any potentially significant adverse environmental impacts.

Ayes: All Noes: None Motion Carried

2. Code Enforcement re Rezone & Special Use Permit – 2544 Clinton Street

Mr. Schieber stated the applicant has provided the following:

- ✓ Adjusted conceptual plan for the addition of parking spaces
- ✓ Information and schematics for the existing mansion building to temporarily house residents in the event of emergencies
- ✓ Cover letter

Town Attorney Trapp stated he sent letters to the Seneca Nation and received no response which can be interpreted as agreement with SHPO. The West Seneca Central School District indicated that they have sufficient capacity for the program. The SEQR documents are in front of the Town Board and a full EAF for the site was completed.

Supervisor Dickson stated he received a letter from the West Seneca Superintendent indicating her full support of the project.

Councilmember Breidenstein addressed the concerns he expressed about the project:

- ✓ Lack of a response from Seneca Nation – Councilmember Breidenstein's own correspondence went unanswered
- ✓ Parking spaces – Questioned the number of handicapped spaces required in the town code. Mr. Schieber stated the number is determined by the overall quantity of the site and 2-3 handicapped spaces are required per 100; the applicant exceeds this amount.

- ✓ Sidewalks – NYS has indicated sidewalks will not be added to Clinton Street and questioned if sidewalks have been added by the developer. Mr. Schieber referred to the drawing and stated sidewalks are included in the interior of the development. Additionally, NYS requested the development carry the sidewalk out of the property west on Clinton Street up to the bridge area.
- ✓ Did not see elevators or lifts in the plans of the 3-story buildings and questioned how individuals with mobility issues will be accommodated – Mr. Schieber stated the applicant will address the question.
- ✓ Concerned that the dumpster site is inadequate for the property – Supervisor Dickson stated he understands the Planning Board can review and recommend changes or additions.
- ✓ How many electric car charging stations will be installed accommodated – Mr. Schieber stated the applicant will address the question.
- ✓ Is the entire parcel being rezoned – Mr. Schieber stated the entire parcel and noted the remainder is not suitable for development.

Councilmember Piekarec questioned if the current M-1 zoning allows manufacturing businesses. Mr. Schieber confirmed this. Councilmember Piekarec questioned if the town requires any new projects to include electric car charging stations. Mr. Schieber stated the requirement is not in the town code but is regularly discussed at the Planning Board meetings. Councilmember Piekarec stated in his opinion most of the residents will have gasoline powered vehicles.

Dan Brock of LaBella Associates made the following comments:

- ✓ Handicap parking spaces were addressed
- ✓ ADA compliant units are located on the ground floors of buildings and the plans meet all NYS requirements
- ✓ Dumpsters are for garbage overflow, each unit will have a tote – Councilmember Breidenstein questioned what party will be responsible for garbage collection and mentioned a concern with the garbage generated by parties moving in and out of the development. Mr. Brock understands it will be the developer's responsibility and will investigate the particulars of collection.
- ✓ NYS guidelines require a certain number of electric vehicle charging stations and the plans accommodate 5 stations

Councilmember Piekarec asked if the sidewalks are ADA compliant along the length of the property. Mr. Brock confirmed the development must be ADA compliant. Councilmember Piekarec asked if the community mansion can accommodate all residents. Mr. Brock stated that there will be enough room to accommodate 200 people and noted there are office spaces that will be on a generator and can accommodate additional people.

Councilmember Robertson asked which power company will service the development. Mr. Brock stated NYSEG will supply electricity. Councilmember Robertson stated he does not believe the location is right for an all-electric community and added the condition that the applicant must provide the development plans to NYSEG for the utility company's review and approval. NYSEG's report will be submitted to the town.

Councilmember Piekarec asked Mr. Schieber and Mr. Foote if the applicant is required as a part of the site plan process to obtain approval from the electric company for hook-ups. Mr. Schieber stated in this instance, he will reach out to his contacts to facilitate this request.

Councilmember Breidenstein questioned if school buses will be able to navigate the site. Mr. Brock stated buses are generally provided with a central loop and accessible areas for the students.

Motion by Supervisor Dickson, seconded by Councilmember Piekarec, to approve the request for rezoning and special use permit for property located at 2544 Clinton Street changing its classification from M-1 to R-

50(S) for construction of multiple family dwelling with all related site improvements with the condition that the applicant contact NYSEG and receive approval for the electrical development and that the report will be sent to the Town Board and Planning Board.

Ayes: All Noes: None Motion Carried

Motion by Supervisor Dickson, seconded by Councilmember Piekarec, to adopt the following resolution:

WHEREAS, the Town Board of the Town of West Seneca, as lead agency acting pursuant to the State Environmental Quality Review Act, Article 8 of the New York State Environmental Conservation Law, has reviewed Part I of the Full Environmental Assessment Form ("FEAF") prepared by the applicant for property located at 2544 Clinton Street ("Subject Property"), for development of affordable housing multi-family residential units and associated site work and parking (the "Project"), and reviewed the draft completed Part II and Part III of the EAF analyzing the potential for the Project to result in any significant adverse environmental impacts and has otherwise taken a hard look at the identified potential environmental impacts utilizing the criteria specified in 6 NYCRR 617.7(c); and

WHEREAS, the Erie County Division of Planning, after carefully and fully reviewing a description of the proposed project, along with the application and other documents as submitted to the Town of West Seneca, replied in writing that the project was to be of local concern; and

WHEREAS, the Town Board held a public hearing which was properly noticed to the public wherein the project was discussed; and

WHEREAS, the Town Board herein determines that it shall act as lead agency for such purposes and there has been no opposition thereto by any other interested agency; and

WHEREAS, the Town Board, carefully and fully reviewed the application including the following documents submitted by the applicant and other interested entities: Response from DEC, SHPO, NYSDOT, West Seneca Central School District, and the reports and submissions from LaBella, PC; and

WHEREAS, the Town Board, upon taking an independent hard look and reasoned evaluation of all of the above-referenced information, comments and written documentation with regard to the project;

WHEREAS, upon review of Parts I, II, and III of the FEAF and documentation and plans submitted by the applicant in connection with the review of the Project, the Town Board has not identified any potentially significant adverse environmental impacts associated with the proposed use of the Subject Property, has determined that this is an unlisted action and preparation of a Full Environmental Impact Statement is not necessary and that the issuance of a Negative Declaration is therefore appropriate; now, therefore, be it

RESOLVED that pursuant to 6 NYCRR 617.7(a) the Town Board hereby accepts its designation as lead agency and does hereby adopt a Negative Declaration with respect to the Project based on its determination that the Project will not result in any potentially significant adverse environmental impacts.

Councilmember Breidenstein noted that he experienced internet issues today and was unable to download and view the materials that were sent to him today and will be abstaining for that reason.

Ayes: 4 (Dickson, Kims, Piekarec, Robertson) Abstain: 1 (Breidenstein) Noes: None Motion Carried

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LEGEND

- SUBCATCHMENT BOUNDARY
- Tc PATH
- # SUBCATCHMENT
- # REACH

N

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Rochester, NY 14614
585-454-6110
labellapc.com

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It is a violation of New York Education Law Article 145 Sec.7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **PRE-DEVELOPMENT WATERSHED DELINEATION MAP**

DRAWN BY:

DATE: 04/20/2026

PROJECT NO.: 2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON STREET, BUFFALO, NY 14224

DRAWING NUMBER: **A-6**

VERSION 21.1
4/20/2026 10:59:33 AM



LEGEND

- SUBCATCHMENT BOUNDARY
- Tc PATH
- # SUBCATCHMENT
- # REACH
- # POND

N

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ISSUED FOR: SWPPP FIGURE - NOT FOR CONSTRUCTION

DRAWING NAME: **POST-DEVELOPMENT WATERSHED DELINEATION MAP**

DRAWN BY:

DATE: 04/20/2026

PROJECT NO.: 2241067

PROJECT NAME: **WEST SENECA APARTMENTS**
2544 CLINTON STREET, BUFFALO, NY 14224

DRAWING NUMBER: **A-7**

VERSION 21.1
4/20/2026 11:02:52 AM

APPENDIX B:
FORMS

Notice of Intent (NOI) Draft
MS4 SWPPP Acceptance Form
SWPPP Preparer Certification Form
Owner/Operator Certification Form
Contractor and Subcontractor Certification Forms
Notice of Termination (NOT)

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MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4 Operator:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Street Address:
14. City/State/Zip:
15. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name[1]:

Title/Position:

Signature:

Date:

VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

(NYSDEC - MS4 SWPPP Acceptance Form - January 2025)

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:

eNOI Submission ID:

Owner/Operator Name:

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SWPPP Preparer First Name | MI | SWPPP Preparer Last Name

Signature | Date

Revised: January 2025

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: _____

eNOI Submission ID: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name MI Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

Stormwater Pollution Prevention Plan
Contractor Certification Statement
(Responsible for overall SWPPP Compliance)

West Seneca
Town of West Seneca, Erie County, New York

This is to certify that the following contracting firm will be responsible for installing, constructing, repairing, inspecting and/or maintaining the erosion and sediment control practices and post-construction stormwater management control practices required by the SWPPP.

Contracting Firm Information

Name: _____

Address: _____

Telephone & Fax: _____

Trained Contractor(s)[1] Responsible for SWPPP Implementation (Provide name, title, and date of last training)

_____

_____

Prior to commencement of construction activity, the following certification shall be issued:

I hereby certify under penalty of law that I understand and agree to comply with the requirements of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

Upon completion of construction activities, the following certification shall be issued, prior to issuance of the NOT:

I hereby certify that that all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents. I further certify that all temporary erosion and sediment control measures have been removed from the site, and that the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction".

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

[1] "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company that meets the "qualified inspector" qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

Stormwater Pollution Prevention Plan
Subcontractor Certification Statement
(whose work involves soil disturbance)

West Seneca
Town of West Seneca, Erie County, New York

Each Subcontractor whose work will involve soil disturbance of any kind is required to complete and sign this Certification Statement before commencing any construction activity at the site. This completed Certification Statement(s) shall be maintained at the construction site in the Site Log Book.

Subcontracting Firm Information

Name: _____

Address: _____

_____

Telephone & Fax: _____

Trained Contractor(s)[2] Responsible for SWPPP Implementation (Provide name, title, and date of last training)

_____

_____

Prior to commencement of construction activities, the following certification shall be issued:

I hereby certify under penalty of law that I understand and agree to comply with the requirements of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

[2] "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company that meets the "qualified inspector" qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

eNOT Owner or Operator Certification

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I certify that I have met the requirements of CGP Part V.A.1., 2., 3., and 4. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Owner or Operator:

b. Title/Position:

c. Signature:

d. Date:

eNOT Qualified Inspector Certification – Final Stabilization

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I hereby certify that all the requirements in CGP Part V.A.1.a.i., ii., and iii. or CGP Part V.A.1.b.i., ii., and iii. have been achieved. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Qualified Inspector:

b. Title/Position:

c. Signature:

d. Date:

eNOT Qualified Inspector Certification – SMPs

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I hereby certify that all the requirements in CGP Part V.A.1.a.iv. or CGP Part V.A.1.b.iv. have been achieved. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Qualified Inspector:

b. Title/Position:

c. Signature:

d. Date:

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APPENDIX C:
PROJECT EVALUATION AND DESIGN CALCULATIONS

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P=	1.00	*inch*

AREA	Total Area *(Acres)*	Existing Imperv *(Acres)*	Proposed Imperv *(Acres)*	Existing Disturbed Imperv Area *(Acres)*	Imperv Reduction *(Acres)*
TO ALTERNATIVE PRACTICES	2.13	0.47	1.91	0.47	0%
TO AREA REDUCTION SMPS					
SITE REMAINING AREA	3.55	0.59	1.07	0.35	0%
TOTAL SITE	5.68	1.06	2.98	0.82	0%

Water Quality Volume Calculation

New Development / Redevelopment	WQv Treatment %	Total Area *(Acres)*	Exist Disturbed Imperv Area (REDEVELOPMENT) (Acres)	Imperv Area (NEW DEVELOPMENT) *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	WQv Adjusted *(ft^3)*	TOTAL WQV REQUIRED *(ft^3)*	System Generated Notes
REDEVELOPMENT ALTERNATIVE	75%	0.47	0.47	-	100%	0.95	1,621	1,216	8,672	
NEW DEVELOPMENT ALTERNATIVE	100%	1.66	-	1.44	87%	0.83	5,006	5,006		
REDEVELOPMENT REMAINING AREA	25%	0.35	0.35	-	100%	0.95	1,207	302		
NEW DEVELOPMENT REMAINING AREA	100%	3.20	-	0.48	15%	0.19	2,149	2,149		

Minimum Runoff Reduction Volume Calculation

AREA	Total Impervious Area Added (NEW DEVELOPMENT) *(Acres)*	Soil Group A *%*	Soil Group B *%*	Soil Group C *%*	Soil Group D *%*	Percent Impervious *%*	Rv	Weighted S Factor	MINIMUM RRv REQUIRED *(ft^3)*	System Generated Notes
TOTAL SITE	1.92	0%	0%	0%	100%	100%	0.95	0.20	1,324	

Step 2 - Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	No
What is the nature of this construction project?	Redevelopment with increase in impervious area

Design Point:	1		
P=	1.00	inches	*Enter 90% Rainfall Event as P*

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1	0.63	0.22	34	0.36	817	Filtration Bioretention
2	1.70	1.48	87	0.83	5,144	Flow Based Alternative Practice
3	0.65	0.22	33	0.35	829	Filtration Bioretention
4	0.68	0.48	71	0.69	1,692	Filtration Bioretention
5	0.43	0.43	100	0.95	1,483	Flow Based Alternative Practice
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
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18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	4.09	2.82	69	0.67	**9964**	**Required WQv**

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Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	0.63	0.22	34	0.36	817	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	6	
Enter depth to bedrock (ft)	6	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	1	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	340	sf	
Enter Provided Filter Area	Af	340	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	816	cf	

Calculate Runoff Reduction			
RRv Provided	**326**	***cf***	
WQv Treated	491	cf	This is the portion of the WQv that is not reduced in the practice.

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Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
3	0.65	0.22	33	0.35	829	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	6	
Enter depth to bedrock (ft)	6	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	1	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	345	sf	
Enter Provided Filter Area	Af	348	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	835.2	cf	

Calculate Runoff Reduction			
RRv Provided	**334**	***cf***	
WQv Treated	495	cf	This is the portion of the WQv that is not reduced in the practice.

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Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
4	0.68	0.48	71	0.69	1,692	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	6	
Enter depth to bedrock (ft)	6	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	1	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	705	sf	
Enter Provided Filter Area	Af	705	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	1692	cf	

Calculate Runoff Reduction			
RRv Provided	**677**	***cf***	
WQv Treated	1015	cf	This is the portion of the WQv that is not reduced in the practice.

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Water Quality Peak Flow Calclations

NYSDEC Water Quality Volume (WQv) & Water Quality Peak Flow (Qp) Calculation Worksheet (REQUIRED Qp)

PROJECT INFORMATION			
Total Drainage Area	**A:**	2.09	**ac**
Impervious Area	**I:**	1.90	**ac**
Percent Impervious		90.9	**%**
NYSDEC 90% Rainfall	**P:**	1.00	**in.**
Time of Concentration	**T_c:**	0.27	**hrs**
	Rv:	0.87	
WATER QUALITY VOLUME			
Water Quality Volume $WQ_v=([(P)*(Rv)*(A)]/12)*43560$	WQv:	6,587	cf
WATER QUALITY PEAK FLOW (NEW DEVELOPMENT)			
Runoff Volume $Q=WQ_v/(A*3600)$	Q:	0.87	in.
$CN=1000/(10+5*P+10*Q-10(Q^2+1.25*Q*P)^{½})$	CN:	98.80	
CN Rounded	CN:	99	
CN < or = 98	CN:	98	
Initial Abstraction ($I_a=200/CN-2$)	Ia:	0.04	in.
RATIO $R=I_a/P$	R:	0.04	
$C_0 = A*R^2 +B*R +C$	C_0:	2.54	
$C_1 = A*R^2 +B*R +C$	C_1:	-0.58	
$C_2 = A*R^2 +B*R +C$	C_2:	-0.17	
Unit Peak Discharge $qu=10^(C_0+C_1*Log(T_c)+C_2*(log(T_c))^2)$	qu:	663.03	$cfs/mi^2/in$
Water Quality Peak Flow $Q_p=qu*A*Q/640$ (100%)	**Qp:**	**1.88**	**cfs**
REDVELOPMENT			
Impeverious Area Reduction	IC	0.00	%
WQv Treatment by Standard Practice	SP	0.00	%
Runoff Reduction	RR	0.00	%
Req. WQv% By Alt. Practice AP=(25-(% IC+%SP+%RR))*3:	AP	75.0	%
Required Water Quality Peak Flow RD QP=(Qp*AP):	**RD Qp:**	**1.41**	**cfs**

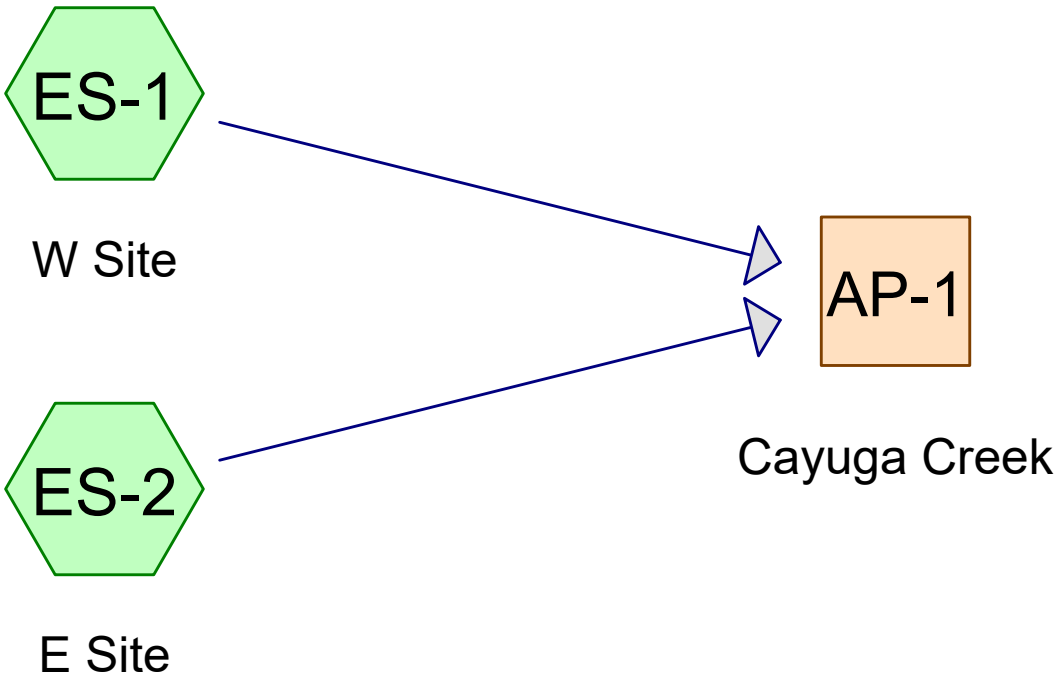
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APPENDIX D:
PRE-DEVELOPMENT STORMWATER MODELING

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Subcat Reach Pond Link

Routing Diagram for D_App D_Pre-Development Model
Prepared by Labella Associates, Printed 4/17/2026
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY-West Seneca 24-hr S1	1-yr	Default	24.00	1	1.82	2
2	10-yr	NY-West Seneca 24-hr S1	10-yr	Default	24.00	1	3.14	2
3	100-yr	NY-West Seneca 24-hr S1	100-yr	Default	24.00	1	5.22	2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
10.061	80	>75% Grass cover, Good, HSG D (ES-1, ES-2)
1.056	98	Paved parking, HSG D (ES-1, ES-2)
11.117	**82**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
11.117	HSG D	ES-1, ES-2
0.000	Other	
11.117		**TOTAL AREA**

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: W Site Runoff Area=337,194 sf 11.34% Impervious Runoff Depth=0.53"
Flow Length=391' Tc=14.0 min CN=82 Runoff=4.22 cfs 0.344 af

Subcatchment ES-2: E Site Runoff Area=147,058 sf 5.28% Impervious Runoff Depth=0.49"
Flow Length=390' Tc=19.4 min CN=81 Runoff=1.42 cfs 0.139 af

Reach AP-1: Cayuga Creek Inflow=5.48 cfs 0.483 af
Outflow=5.48 cfs 0.483 af

Total Runoff Area = 11.117 ac Runoff Volume = 0.483 af Average Runoff Depth = 0.52"
90.50% Pervious = 10.061 ac 9.50% Impervious = 1.056 ac

Summary for Subcatchment ES-1: W Site

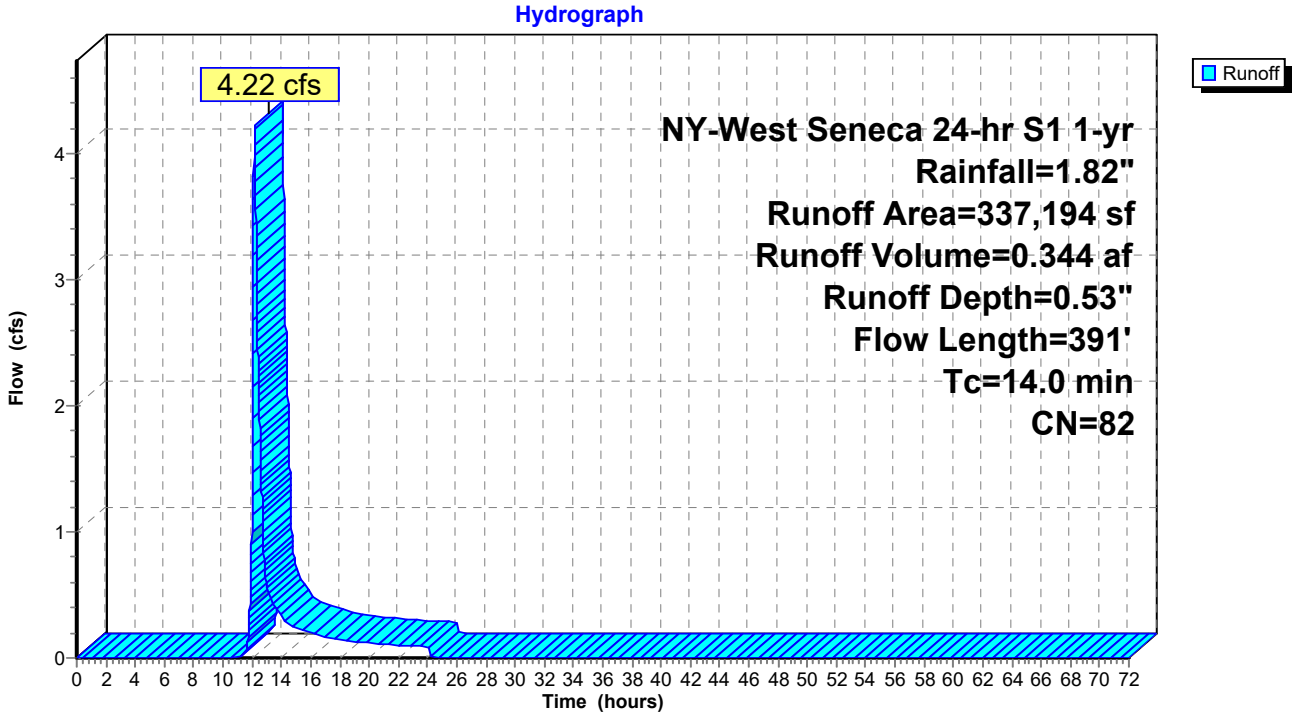
Runoff = 4.22 cfs @ 12.16 hrs, Volume= 0.344 af, Depth= 0.53"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
38,223	98	Paved parking, HSG D
298,971	80	>75% Grass cover, Good, HSG D
337,194	82	Weighted Average
298,971		88.66% Pervious Area
38,223		11.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment ES-1: W Site



Summary for Subcatchment ES-2: E Site

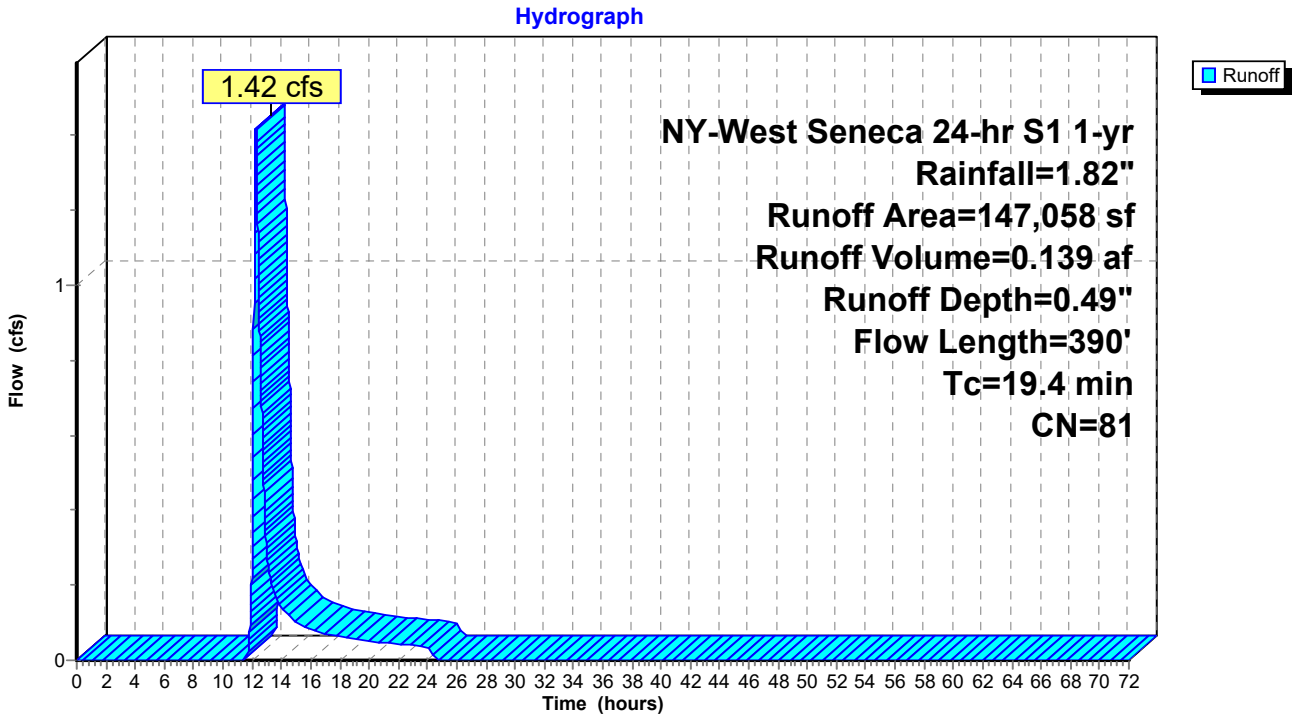
Runoff = 1.42 cfs @ 12.25 hrs, Volume= 0.139 af, Depth= 0.49"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
7,764	98	Paved parking, HSG D
139,294	80	>75% Grass cover, Good, HSG D
147,058	81	Weighted Average
139,294		94.72% Pervious Area
7,764		5.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0150	0.13		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
6.1	290	0.0130	0.80		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
19.4	390	Total			

Subcatchment ES-2: E Site

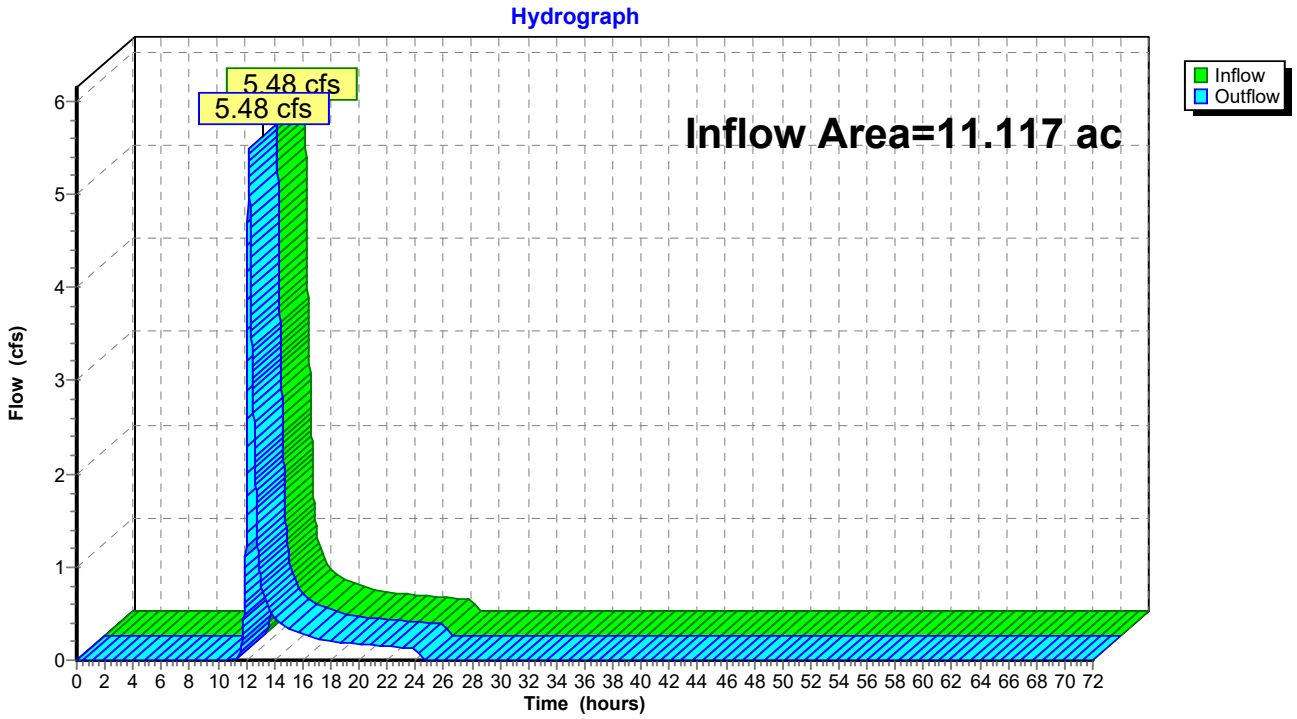


Summary for Reach AP-1: Cayuga Creek

Inflow Area = 11.117 ac, 9.50% Impervious, Inflow Depth = 0.52" for 1-yr event
Inflow = 5.48 cfs @ 12.18 hrs, Volume= 0.483 af
Outflow = 5.48 cfs @ 12.18 hrs, Volume= 0.483 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach AP-1: Cayuga Creek



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: W Site Runoff Area=337,194 sf 11.34% Impervious Runoff Depth=1.49"
Flow Length=391' Tc=14.0 min CN=82 Runoff=12.32 cfs 0.961 af

Subcatchment ES-2: E Site Runoff Area=147,058 sf 5.28% Impervious Runoff Depth=1.42"
Flow Length=390' Tc=19.4 min CN=81 Runoff=4.40 cfs 0.400 af

Reach AP-1: Cayuga Creek Inflow=16.27 cfs 1.361 af
Outflow=16.27 cfs 1.361 af

Total Runoff Area = 11.117 ac Runoff Volume = 1.361 af Average Runoff Depth = 1.47"
90.50% Pervious = 10.061 ac 9.50% Impervious = 1.056 ac

Summary for Subcatchment ES-1: W Site

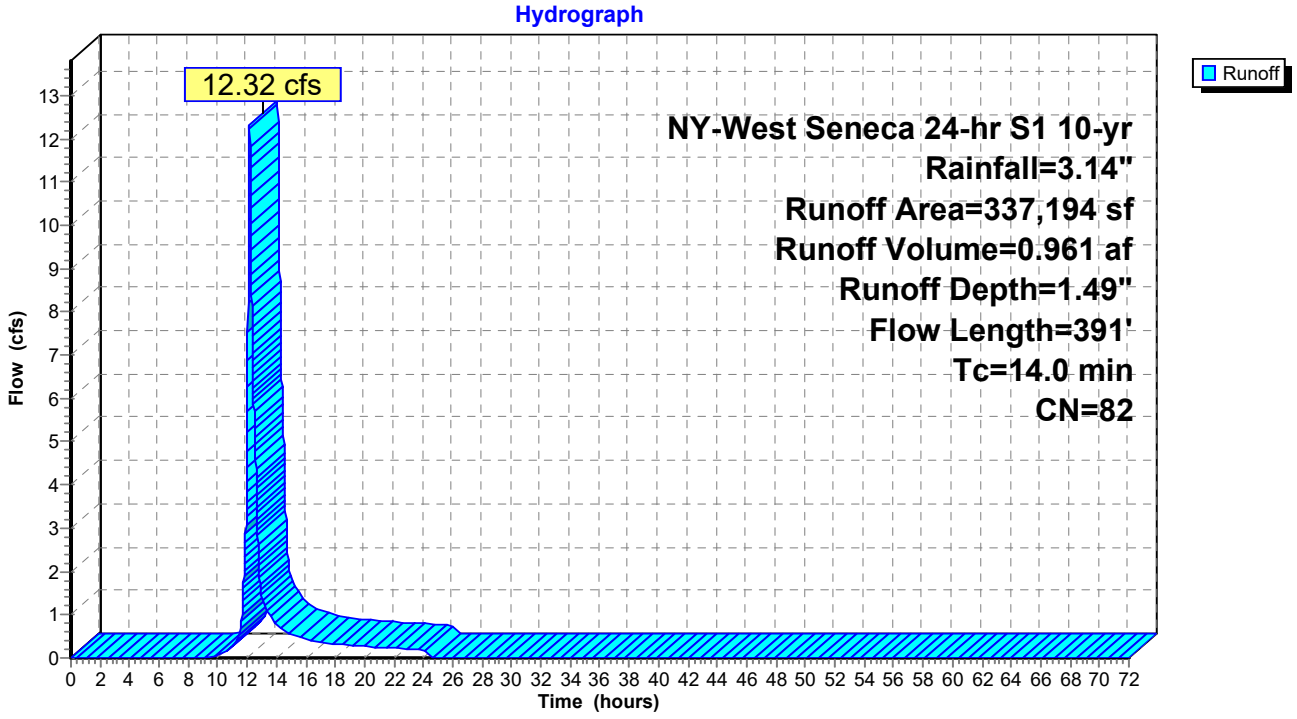
Runoff = 12.32 cfs @ 12.15 hrs, Volume= 0.961 af, Depth= 1.49"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
38,223	98	Paved parking, HSG D
298,971	80	>75% Grass cover, Good, HSG D
337,194	82	Weighted Average
298,971		88.66% Pervious Area
38,223		11.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment ES-1: W Site



Summary for Subcatchment ES-2: E Site

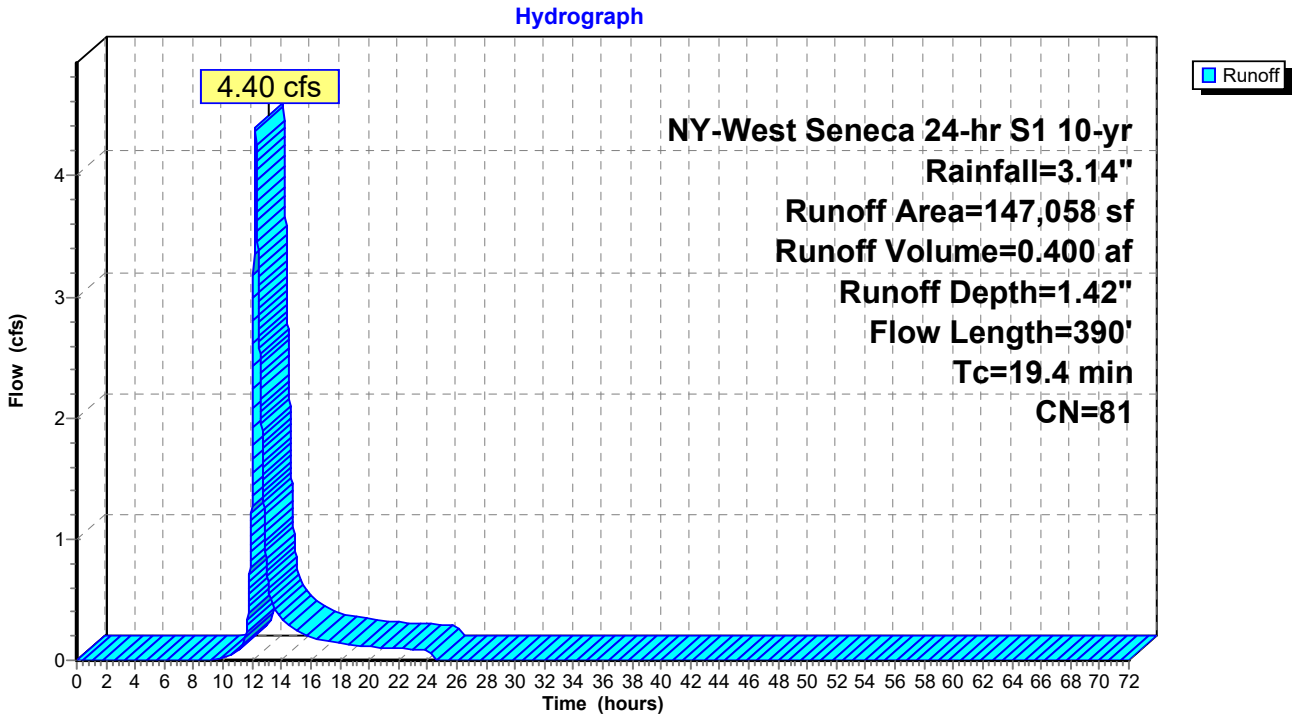
Runoff = 4.40 cfs @ 12.23 hrs, Volume= 0.400 af, Depth= 1.42"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
7,764	98	Paved parking, HSG D
139,294	80	>75% Grass cover, Good, HSG D
147,058	81	Weighted Average
139,294		94.72% Pervious Area
7,764		5.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0150	0.13		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
6.1	290	0.0130	0.80		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
19.4	390	Total			

Subcatchment ES-2: E Site

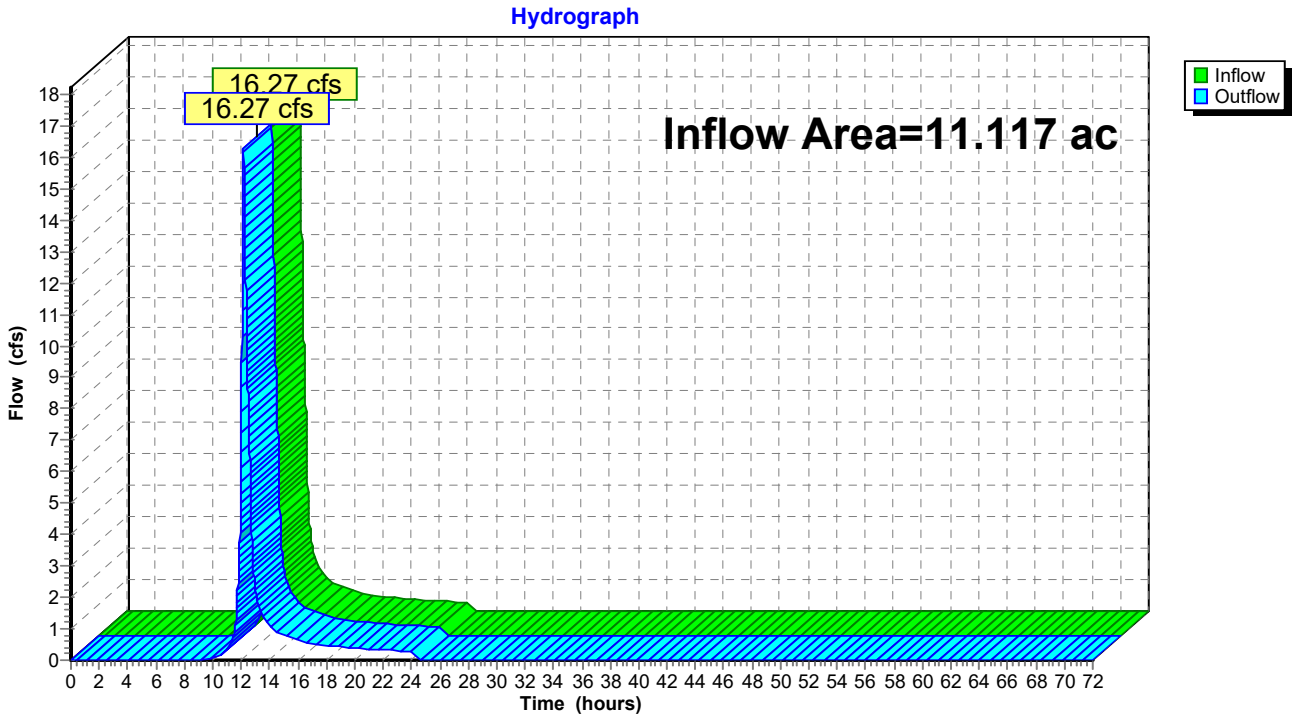


Summary for Reach AP-1: Cayuga Creek

Inflow Area = 11.117 ac, 9.50% Impervious, Inflow Depth = 1.47" for 10-yr event
Inflow = 16.27 cfs @ 12.17 hrs, Volume= 1.361 af
Outflow = 16.27 cfs @ 12.17 hrs, Volume= 1.361 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach AP-1: Cayuga Creek



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: W Site Runoff Area=337,194 sf 11.34% Impervious Runoff Depth=3.28"
Flow Length=391' Tc=14.0 min CN=82 Runoff=27.59 cfs 2.114 af

Subcatchment ES-2: E Site Runoff Area=147,058 sf 5.28% Impervious Runoff Depth=3.18"
Flow Length=390' Tc=19.4 min CN=81 Runoff=10.17 cfs 0.895 af

Reach AP-1: Cayuga Creek Inflow=36.80 cfs 3.008 af
Outflow=36.80 cfs 3.008 af

Total Runoff Area = 11.117 ac Runoff Volume = 3.008 af Average Runoff Depth = 3.25"
90.50% Pervious = 10.061 ac 9.50% Impervious = 1.056 ac

Summary for Subcatchment ES-1: W Site

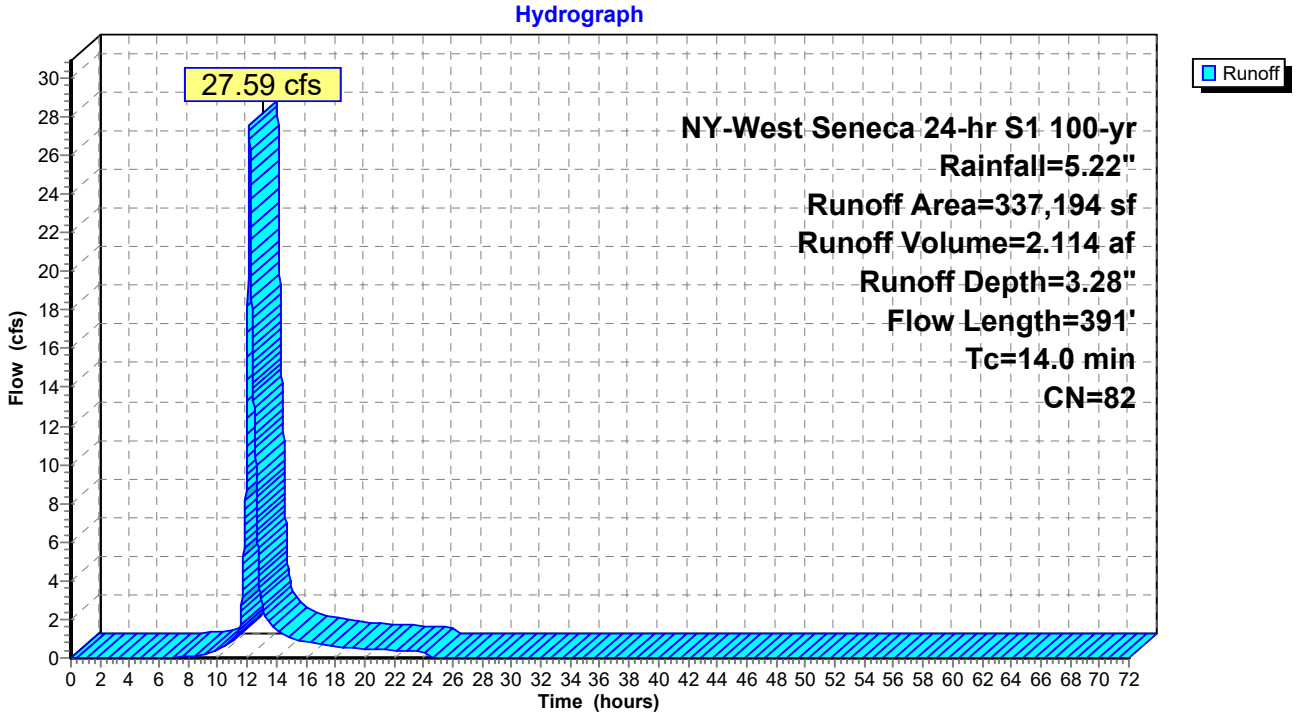
Runoff = 27.59 cfs @ 12.15 hrs, Volume= 2.114 af, Depth= 3.28"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
38,223	98	Paved parking, HSG D
298,971	80	>75% Grass cover, Good, HSG D
337,194	82	Weighted Average
298,971		88.66% Pervious Area
38,223		11.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment ES-1: W Site



Summary for Subcatchment ES-2: E Site

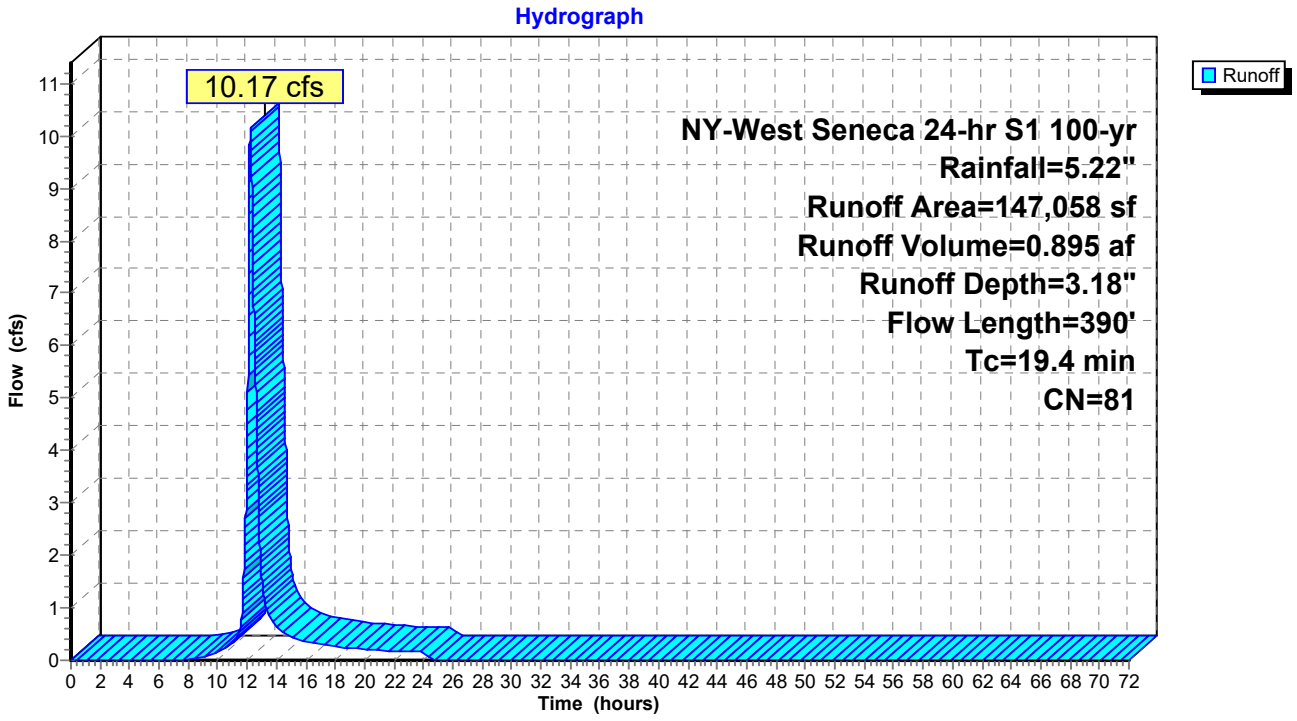
Runoff = 10.17 cfs @ 12.22 hrs, Volume= 0.895 af, Depth= 3.18"
Routed to Reach AP-1 : Cayuga Creek

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
7,764	98	Paved parking, HSG D
139,294	80	>75% Grass cover, Good, HSG D
147,058	81	Weighted Average
139,294		94.72% Pervious Area
7,764		5.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0150	0.13		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
6.1	290	0.0130	0.80		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
19.4	390	Total			

Subcatchment ES-2: E Site

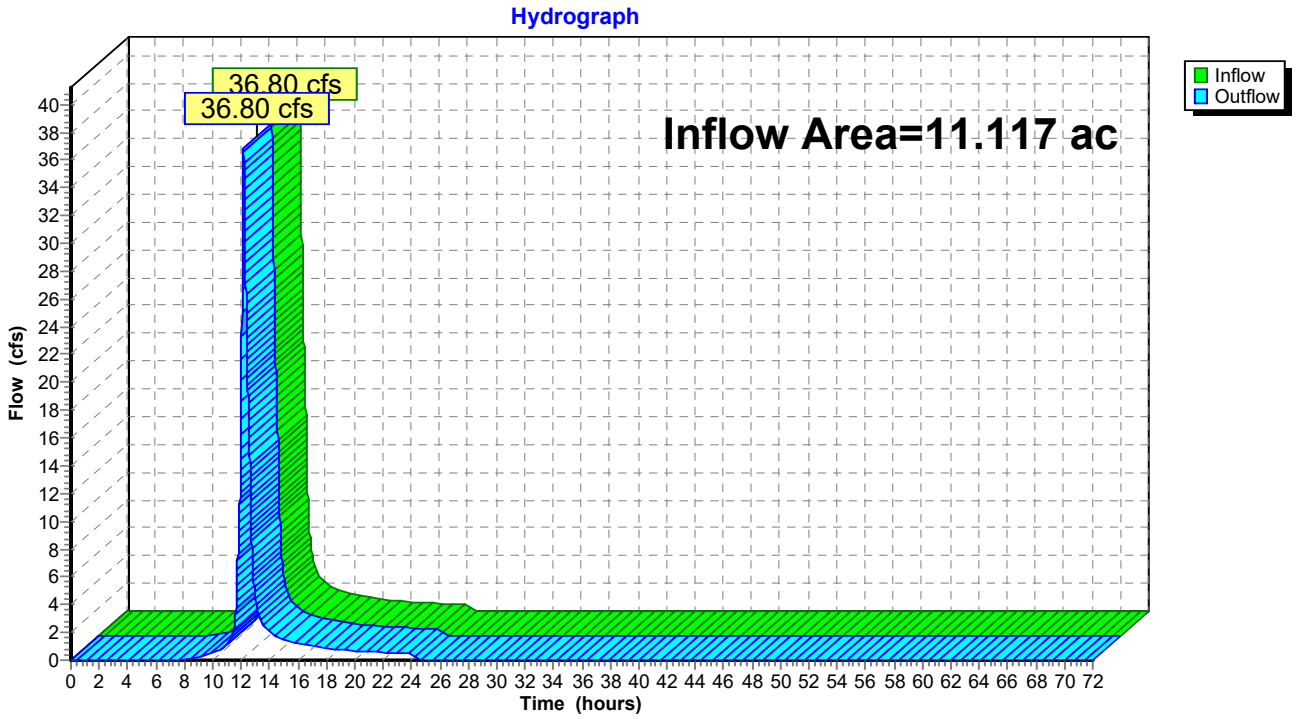


Summary for Reach AP-1: Cayuga Creek

Inflow Area = 11.117 ac, 9.50% Impervious, Inflow Depth = 3.25" for 100-yr event
Inflow = 36.80 cfs @ 12.16 hrs, Volume= 3.008 af
Outflow = 36.80 cfs @ 12.16 hrs, Volume= 3.008 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach AP-1: Cayuga Creek



Events for Subcatchment ES-1: W Site

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	4.22	0.344	0.53
10-yr	3.14	12.32	0.961	1.49
100-yr	**5.22**	**27.59**	**2.114**	**3.28**

Events for Subcatchment ES-2: E Site

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	1.42	0.139	0.49
10-yr	3.14	4.40	0.400	1.42
100-yr	**5.22**	**10.17**	**0.895**	**3.18**

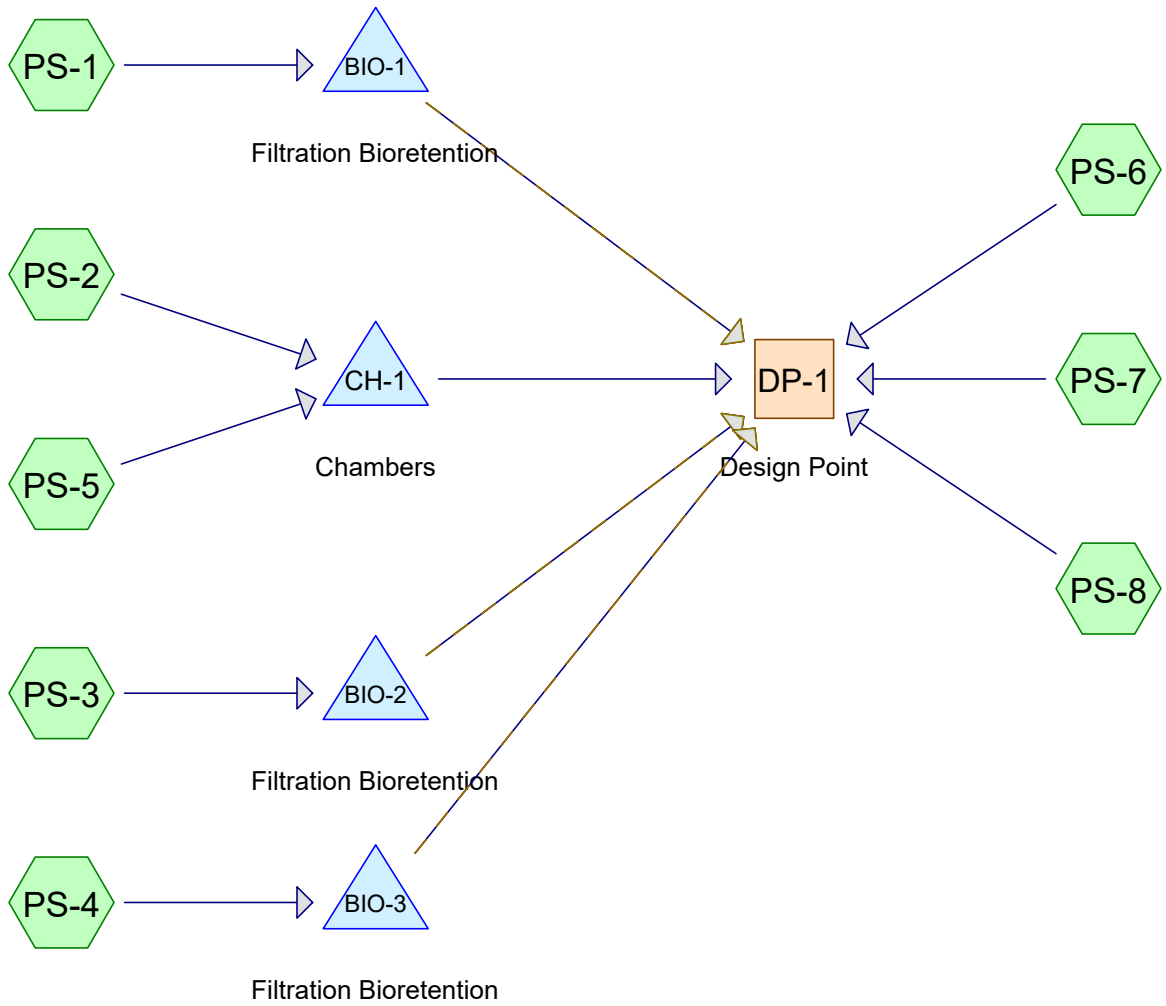
Events for Reach AP-1: Cayuga Creek

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	5.48	5.48	**0.00**	**0**
10-yr	16.27	16.27	0.00	0
100-yr	**36.80**	**36.80**	0.00	0

APPENDIX E:
POST DEVELOPMENT STORMWATER MODELING

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Subcat Reach Pond Link

Routing Diagram for E_App E_Post-Development Model
Prepared by Labella Associates, Printed 4/20/2026
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY-West Seneca 24-hr S1	1-yr	Default	24.00	1	1.82	2
2	10-yr	NY-West Seneca 24-hr S1	10-yr	Default	24.00	1	3.14	2
3	100-yr	NY-West Seneca 24-hr S1	100-yr	Default	24.00	1	5.22	2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
8.107	80	>75% Grass cover, Good, HSG D (PS-1, PS-2, PS-3, PS-4, PS-7, PS-8)
2.967	98	Paved parking, HSG D (PS-1, PS-2, PS-3, PS-4, PS-5, PS-6)
11.074	**85**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
11.074	HSG D	PS-1, PS-2, PS-3, PS-4, PS-5, PS-6, PS-7, PS-8
0.000	Other	
11.074		**TOTAL AREA**

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PS-1: Runoff Area=27,596 sf 33.98% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=86 Runoff=0.72 cfs 0.038 af

Subcatchment PS-2: Runoff Area=72,316 sf 88.61% Impervious Runoff Depth=1.40"
Tc=6.0 min CN=96 Runoff=3.74 cfs 0.194 af

Subcatchment PS-3: Runoff Area=28,267 sf 33.49% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=86 Runoff=0.74 cfs 0.039 af

Subcatchment PS-4: Runoff Area=29,485 sf 70.98% Impervious Runoff Depth=1.15"
Tc=6.0 min CN=93 Runoff=1.28 cfs 0.065 af

Subcatchment PS-5: Runoff Area=18,756 sf 100.00% Impervious Runoff Depth=1.60"
Tc=6.0 min CN=98 Runoff=1.06 cfs 0.057 af

Subcatchment PS-6: Runoff Area=6,622 sf 100.00% Impervious Runoff Depth=1.60"
Tc=6.0 min CN=98 Runoff=0.37 cfs 0.020 af

Subcatchment PS-7: Runoff Area=245,856 sf 0.00% Impervious Runoff Depth=0.46"
Flow Length=391' Tc=14.0 min CN=80 Runoff=2.49 cfs 0.215 af

Subcatchment PS-8: Runoff Area=53,474 sf 0.00% Impervious Runoff Depth=0.46"
Flow Length=821' Slope=0.0100 '/' Tc=25.7 min CN=80 Runoff=0.40 cfs 0.047 af

Reach DP-1: Design Point Inflow=4.12 cfs 0.674 af
Outflow=4.12 cfs 0.674 af

Pond BIO-1: Filtration Bioretention Peak Elev=598.98' Storage=994 cf Inflow=0.72 cfs 0.038 af
Primary=0.02 cfs 0.038 af Secondary=0.00 cfs 0.000 af Tertiary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.038 af

Pond BIO-2: Filtration Bioretention Peak Elev=596.95' Storage=1,010 cf Inflow=0.74 cfs 0.039 af
Primary=0.02 cfs 0.039 af Secondary=0.00 cfs 0.000 af Tertiary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.039 af

Pond BIO-3: Filtration Bioretention Peak Elev=595.92' Storage=1,729 cf Inflow=1.28 cfs 0.065 af
Primary=0.04 cfs 0.065 af Secondary=0.00 cfs 0.000 af Tertiary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.065 af

Pond CH-1: Chambers Peak Elev=592.38' Storage=0.079 af Inflow=4.80 cfs 0.251 af
8.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/' Outflow=1.18 cfs 0.251 af

Total Runoff Area = 11.074 ac Runoff Volume = 0.674 af Average Runoff Depth = 0.73"
73.21% Pervious = 8.107 ac 26.79% Impervious = 2.967 ac

Summary for Subcatchment PS-1:

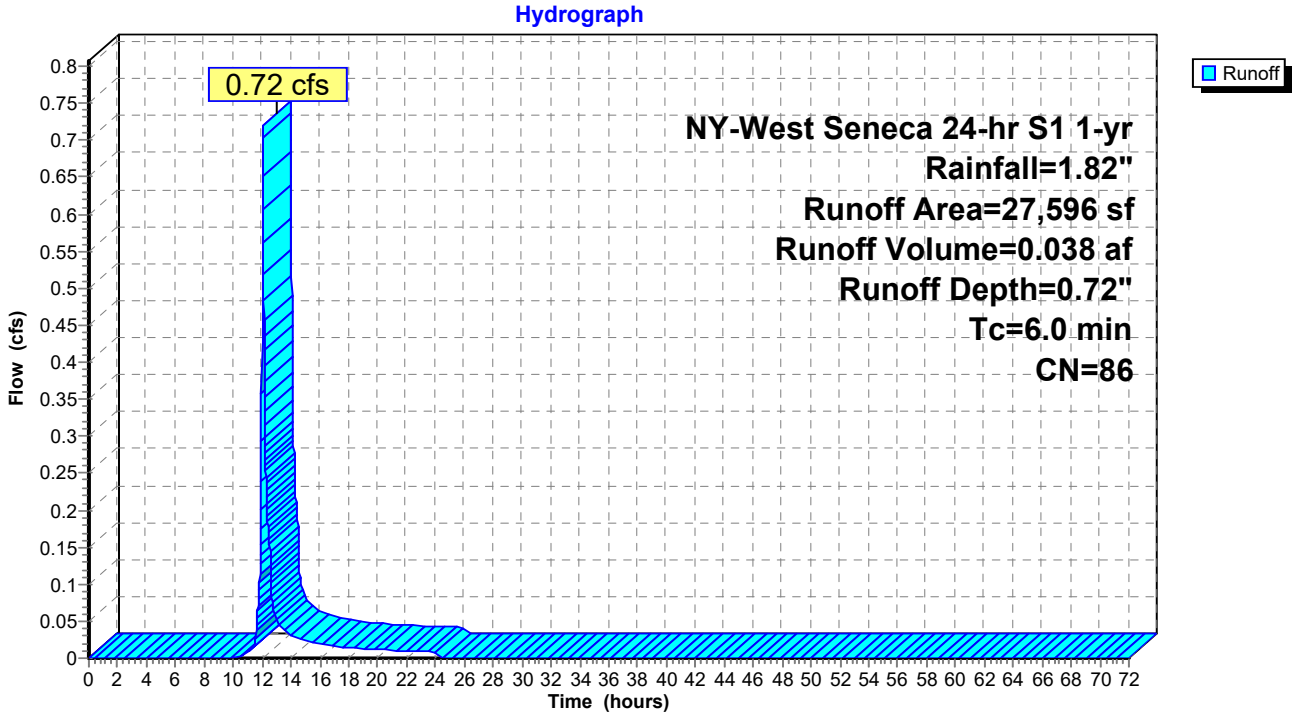
Runoff = 0.72 cfs @ 12.04 hrs, Volume= 0.038 af, Depth= 0.72"
Routed to Pond BIO-1 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
9,376	98	Paved parking, HSG D
18,220	80	>75% Grass cover, Good, HSG D
27,596	86	Weighted Average
18,220		66.02% Pervious Area
9,376		33.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-1:



Summary for Subcatchment PS-2:

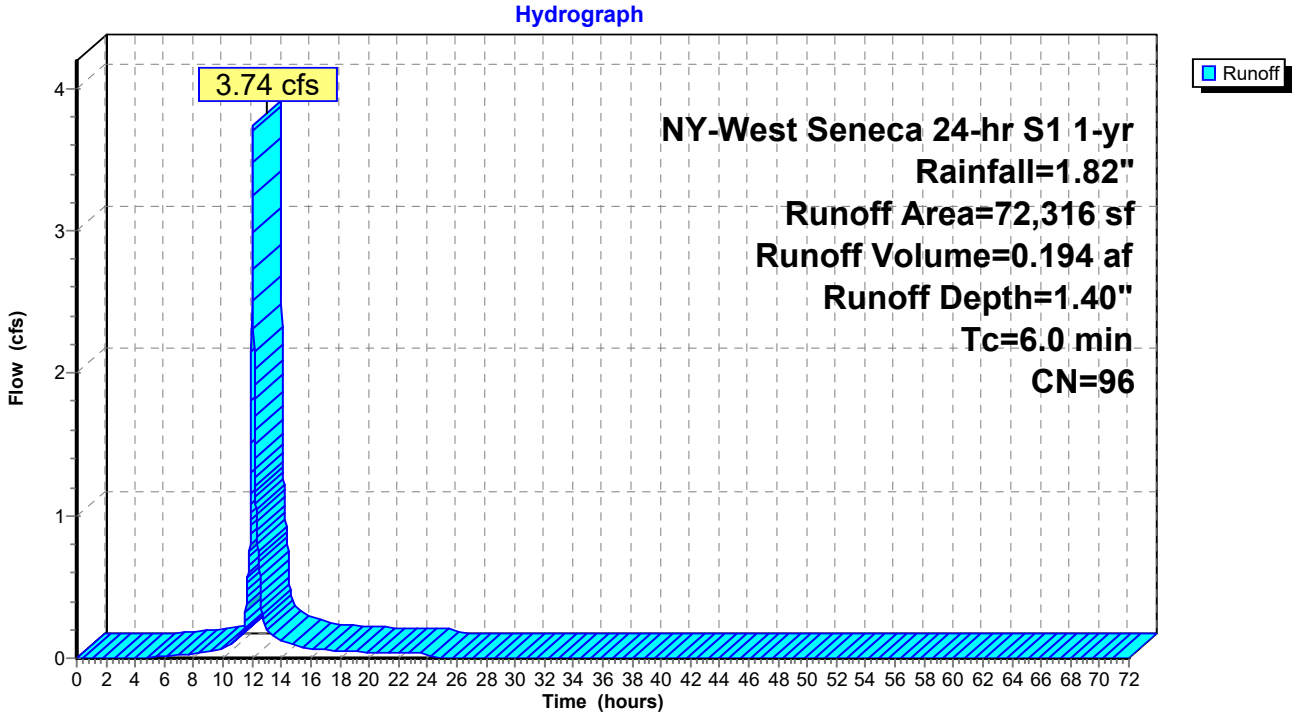
Runoff = 3.74 cfs @ 12.04 hrs, Volume= 0.194 af, Depth= 1.40"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
64,081	98	Paved parking, HSG D
8,235	80	>75% Grass cover, Good, HSG D
72,316	96	Weighted Average
8,235		11.39% Pervious Area
64,081		88.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-2:



Summary for Subcatchment PS-3:

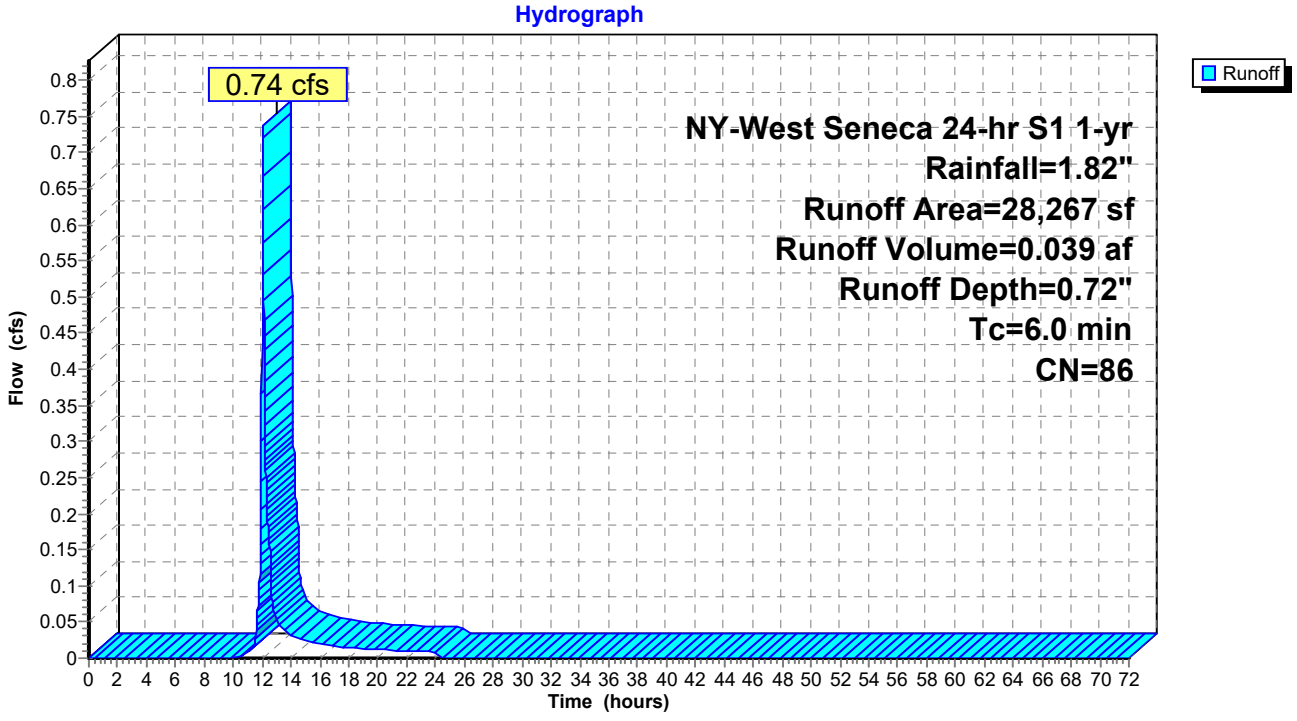
Runoff = 0.74 cfs @ 12.04 hrs, Volume= 0.039 af, Depth= 0.72"
Routed to Pond BIO-2 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
9,466	98	Paved parking, HSG D
18,801	80	>75% Grass cover, Good, HSG D
28,267	86	Weighted Average
18,801		66.51% Pervious Area
9,466		33.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-3:



Summary for Subcatchment PS-4:

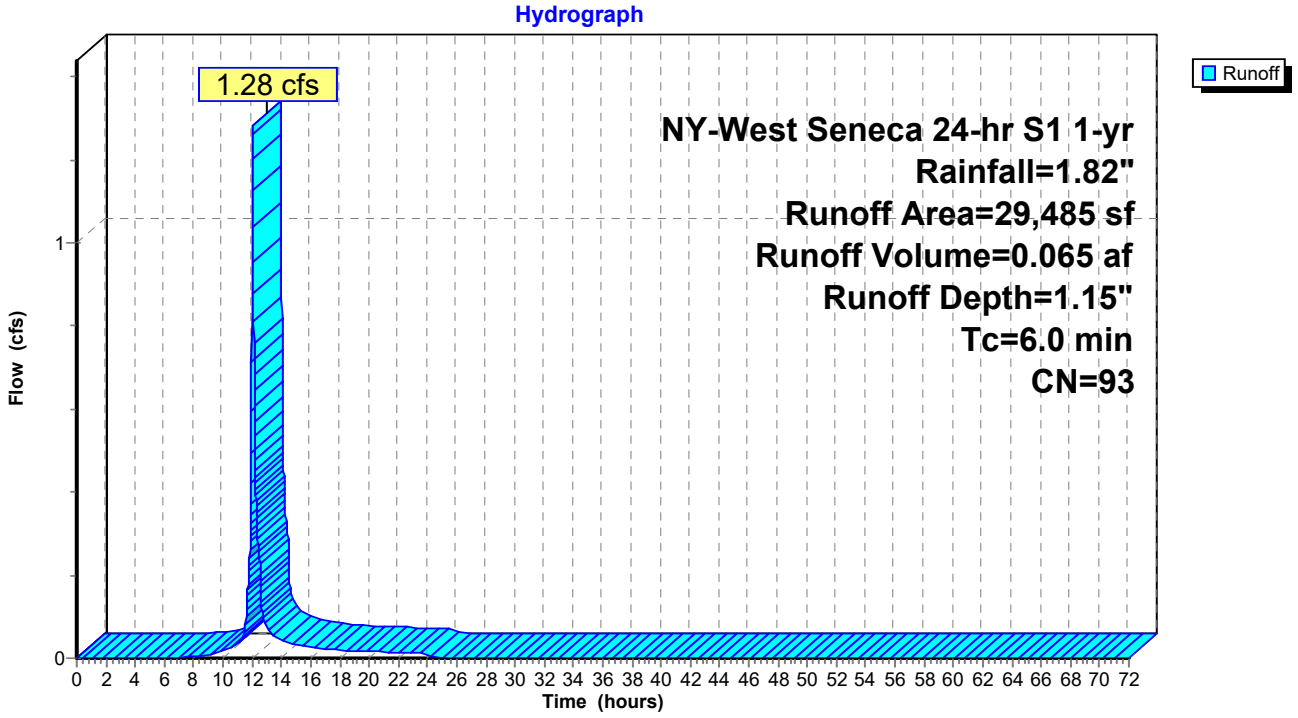
Runoff = 1.28 cfs @ 12.04 hrs, Volume= 0.065 af, Depth= 1.15"
Routed to Pond BIO-3 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
20,928	98	Paved parking, HSG D
8,557	80	>75% Grass cover, Good, HSG D
29,485	93	Weighted Average
8,557		29.02% Pervious Area
20,928		70.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-4:



Summary for Subcatchment PS-5:

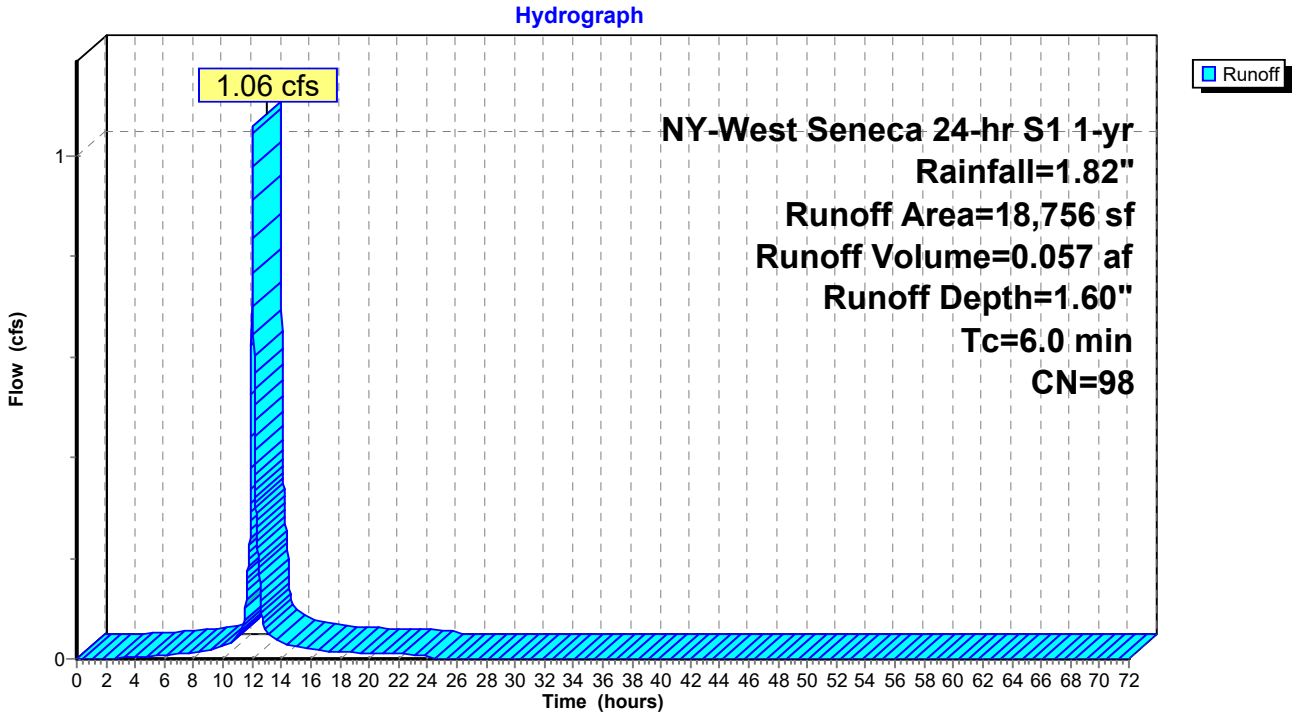
Runoff = 1.06 cfs @ 12.04 hrs, Volume= 0.057 af, Depth= 1.60"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
18,756	98	Paved parking, HSG D
18,756		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-5:



Summary for Subcatchment PS-6:

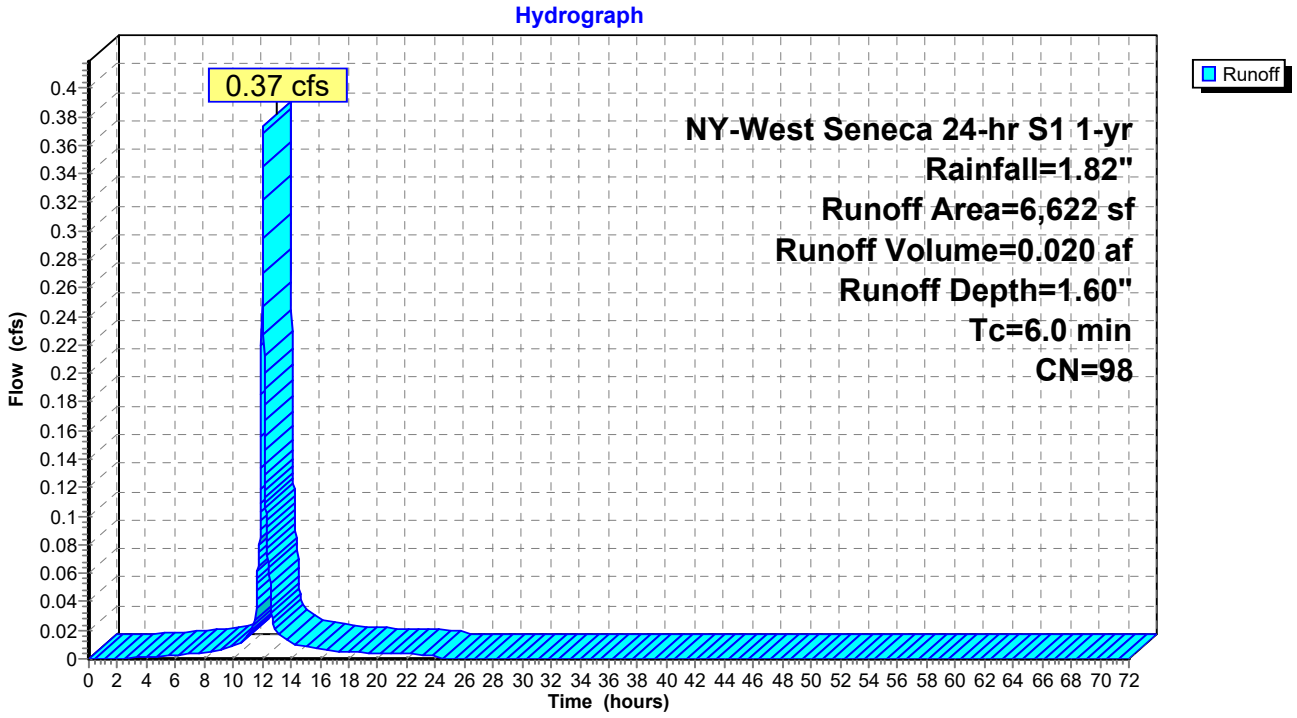
Runoff = 0.37 cfs @ 12.04 hrs, Volume= 0.020 af, Depth= 1.60"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
6,622	98	Paved parking, HSG D
6,622		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-6:



Summary for Subcatchment PS-7:

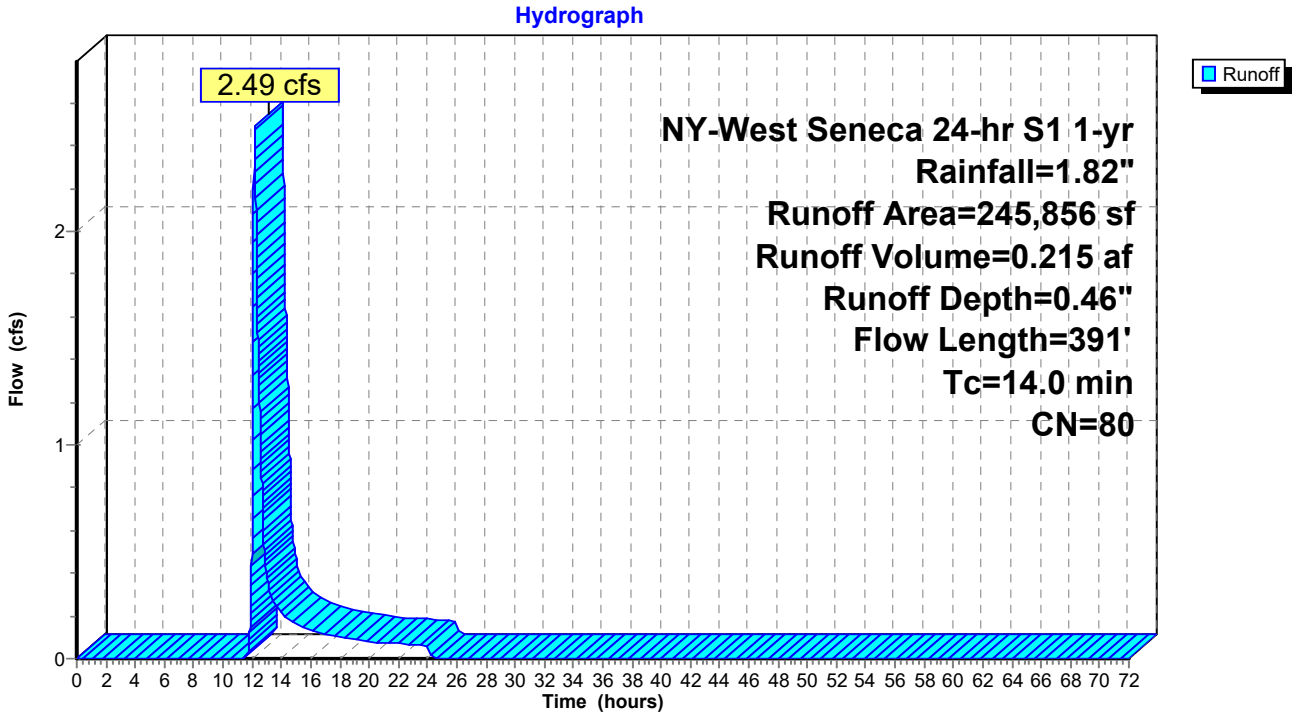
Runoff = 2.49 cfs @ 12.17 hrs, Volume= 0.215 af, Depth= 0.46"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
245,856	80	>75% Grass cover, Good, HSG D
245,856		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment PS-7:



Summary for Subcatchment PS-8:

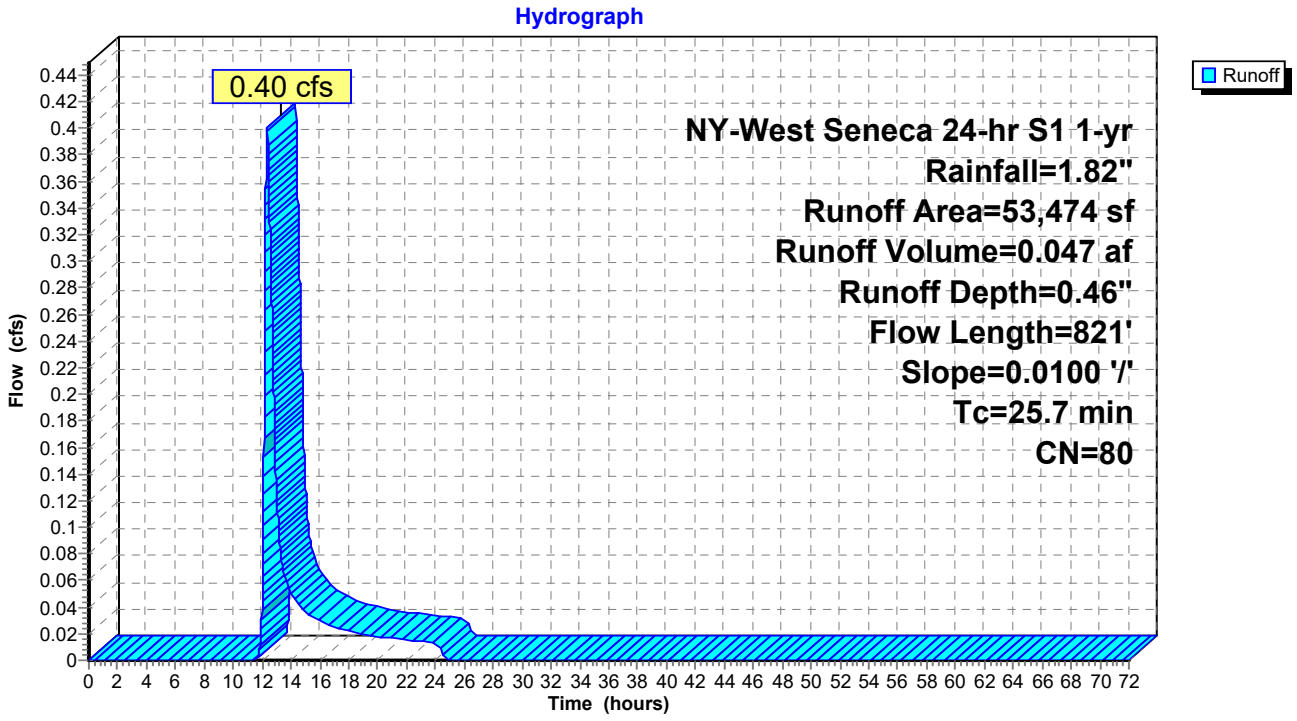
Runoff = 0.40 cfs @ 12.36 hrs, Volume= 0.047 af, Depth= 0.46"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 1-yr Rainfall=1.82"

Area (sf)	CN	Description
53,474	80	>75% Grass cover, Good, HSG D
53,474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0100	0.11		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
8.8	371	0.0100	0.70		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
1.3	350	0.0100	4.54	3.56	**Pipe Channel, Pipe Flow** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
25.7	821	Total			

Subcatchment PS-8:

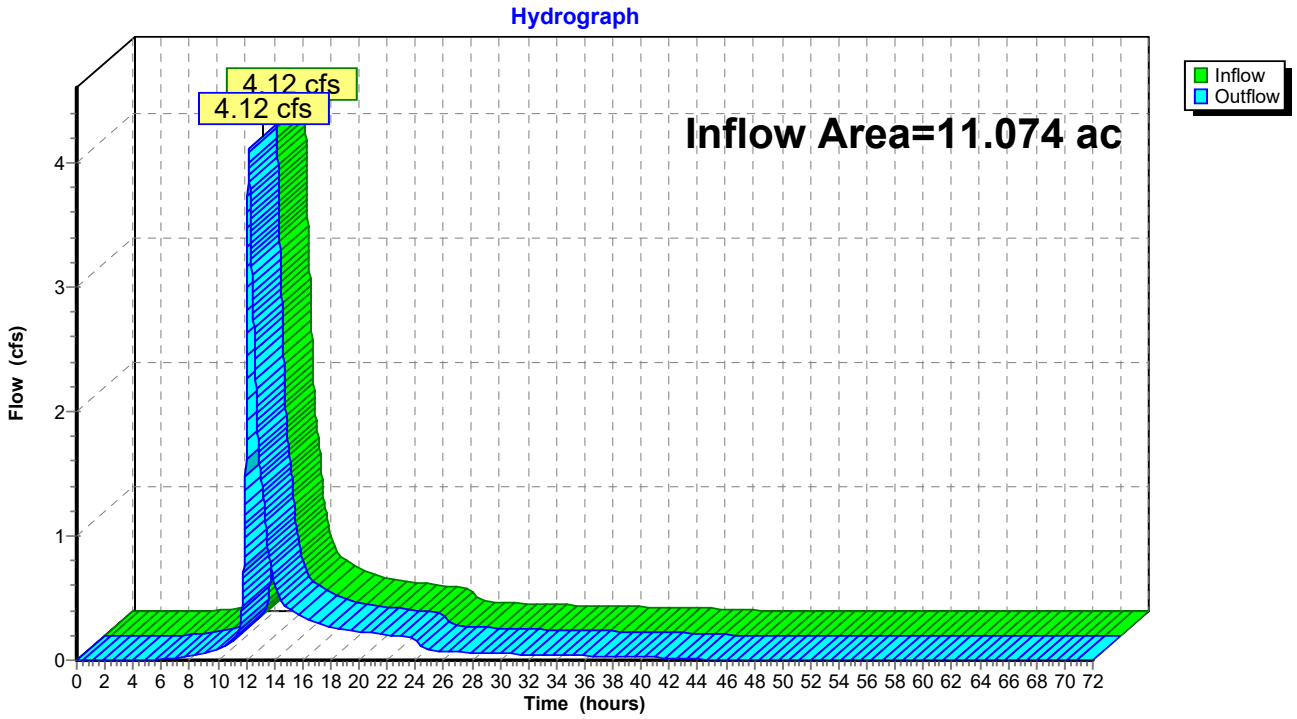


Summary for Reach DP-1: Design Point

Inflow Area = 11.074 ac, 26.79% Impervious, Inflow Depth = 0.73" for 1-yr event
Inflow = 4.12 cfs @ 12.18 hrs, Volume= 0.674 af
Outflow = 4.12 cfs @ 12.18 hrs, Volume= 0.674 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Design Point



Summary for Pond BIO-1: Filtration Bioretention

Inflow Area = 0.634 ac, 33.98% Impervious, Inflow Depth = 0.72" for 1-yr event
Inflow = 0.72 cfs @ 12.04 hrs, Volume= 0.038 af
Outflow = 0.02 cfs @ 15.87 hrs, Volume= 0.038 af, Atten= 97%, Lag= 229.9 min
Primary = 0.02 cfs @ 15.87 hrs, Volume= 0.038 af
Routed to Reach DP-1 : Design Point
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 598.98' @ 15.87 hrs Surf.Area= 1,679 sf Storage= 994 cf
Flood Elev= 600.00' Surf.Area= 2,500 sf Storage= 3,120 cf

Plug-Flow detention time= 645.9 min calculated for 0.038 af (100% of inflow)
Center-of-Mass det. time= 646.0 min (1,495.6 - 849.7)

Volume	Invert	Avail.Storage	Storage Description
#1	598.00'	3,120 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
598.00	340	0	0
599.00	1,700	1,020	1,020
600.00	2,500	2,100	3,120

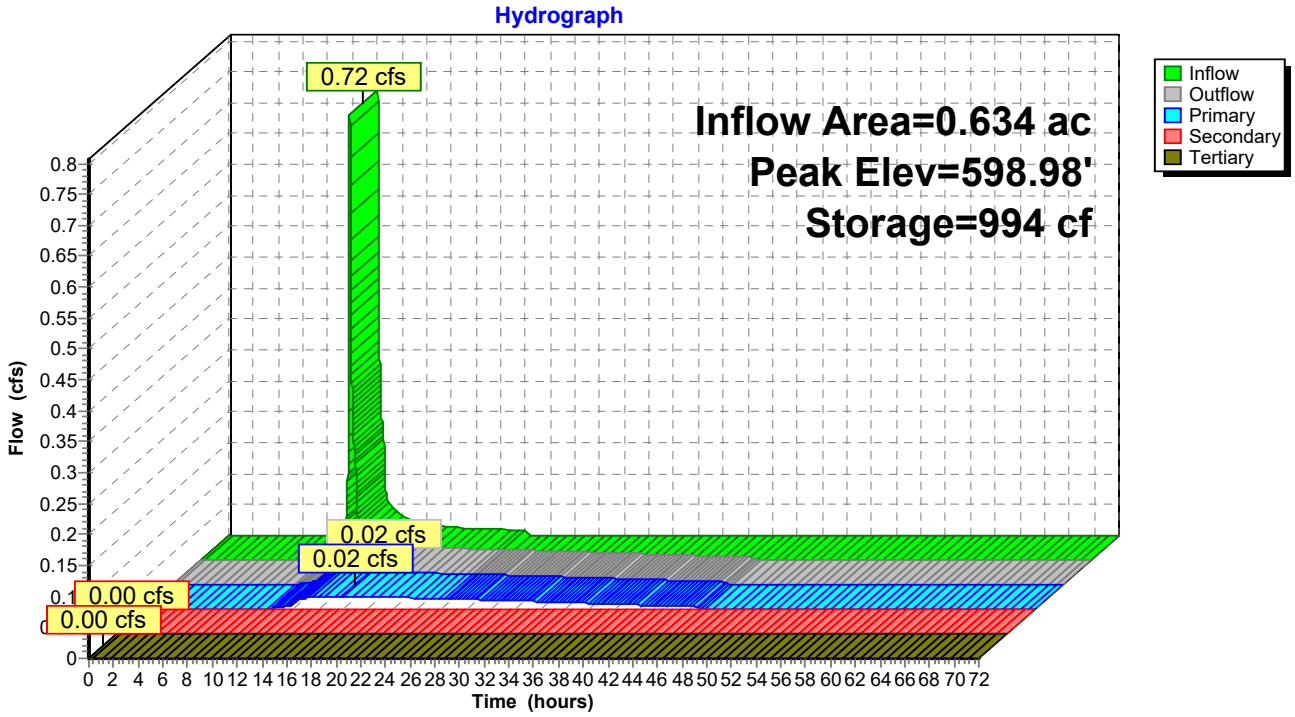
Device	Routing	Invert	Outlet Devices
#1	Primary	598.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	599.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	594.58'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 594.58' / 594.33' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	599.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 15.87 hrs HW=598.98' TW=0.00' (Dynamic Tailwater)
└─**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=598.00' TW=0.00' (Dynamic Tailwater)
└─**3=Culvert** (Passes 0.00 cfs of 5.10 cfs potential flow)
└─**2=Overflow Grate** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=598.00' TW=0.00' (Dynamic Tailwater)
└─**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-1: Filtration Bioretention



Summary for Pond BIO-2: Filtration Bioretention

Inflow Area = 0.649 ac, 33.49% Impervious, Inflow Depth = 0.72" for 1-yr event
Inflow = 0.74 cfs @ 12.04 hrs, Volume= 0.039 af
Outflow = 0.02 cfs @ 15.70 hrs, Volume= 0.039 af, Atten= 97%, Lag= 219.6 min
Primary = 0.02 cfs @ 15.70 hrs, Volume= 0.039 af
Routed to Reach DP-1 : Design Point
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 596.95' @ 15.70 hrs Surf.Area= 1,776 sf Storage= 1,010 cf
Flood Elev= 598.00' Surf.Area= 2,630 sf Storage= 3,339 cf

Plug-Flow detention time= 621.3 min calculated for 0.039 af (100% of inflow)
Center-of-Mass det. time= 621.4 min (1,471.1 - 849.7)

Volume	Invert	Avail.Storage	Storage Description
#1	596.00'	3,339 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
596.00	348	0	0
597.00	1,850	1,099	1,099
598.00	2,630	2,240	3,339

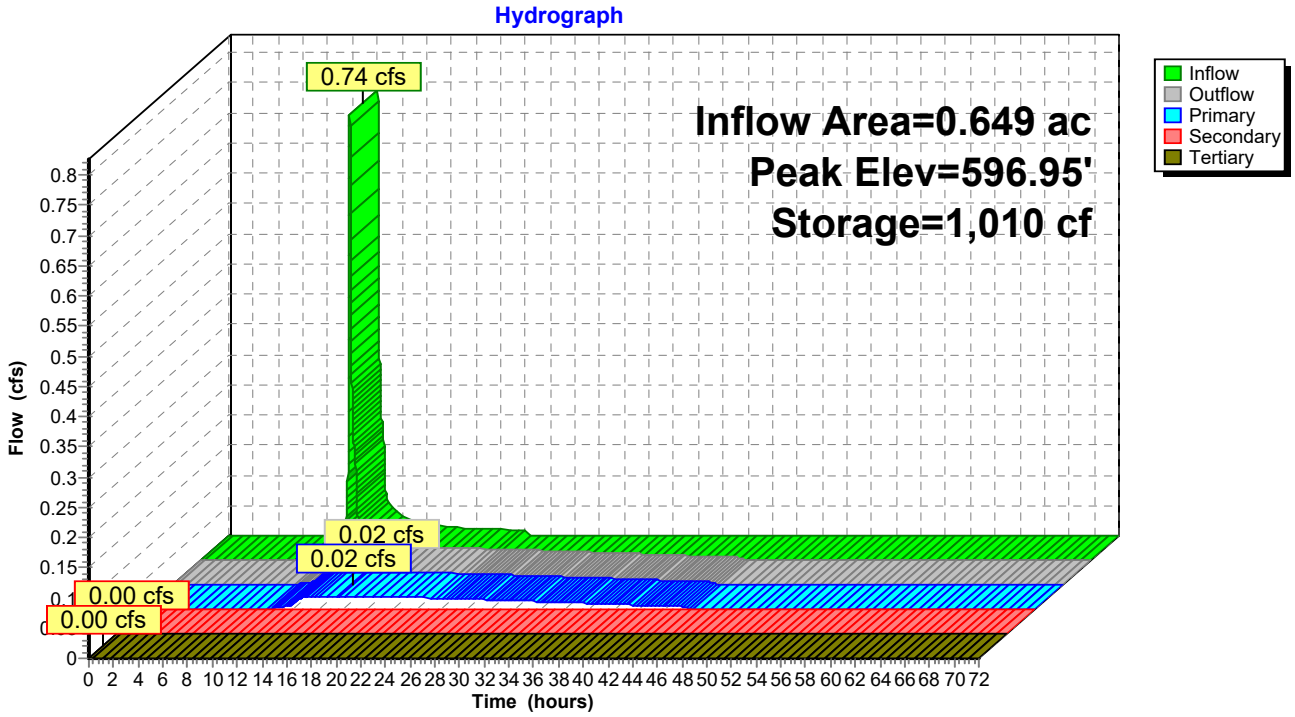
Device	Routing	Invert	Outlet Devices
#1	Primary	596.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	597.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	592.58'	**12.0" Round Culvert** L= 132.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 592.58' / 591.92' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	597.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 15.70 hrs HW=596.95' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=596.00' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.00 cfs of 4.75 cfs potential flow)
└**2=Overflow Grate** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=596.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-2: Filtration Bioretention



Summary for Pond BIO-3: Filtration Bioretention

Inflow Area = 0.677 ac, 70.98% Impervious, Inflow Depth = 1.15" for 1-yr event
Inflow = 1.28 cfs @ 12.04 hrs, Volume= 0.065 af
Outflow = 0.04 cfs @ 14.68 hrs, Volume= 0.065 af, Atten= 97%, Lag= 158.5 min
Primary = 0.04 cfs @ 14.68 hrs, Volume= 0.065 af
Routed to Reach DP-1 : Design Point
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 595.92' @ 14.68 hrs Surf.Area= 3,049 sf Storage= 1,729 cf
Flood Elev= 597.00' Surf.Area= 3,978 sf Storage= 5,592 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 587.3 min (1,401.4 - 814.2)

Volume	Invert	Avail.Storage	Storage Description
#1	595.00'	5,592 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
595.00	705	0	0
596.00	3,250	1,978	1,978
597.00	3,978	3,614	5,592

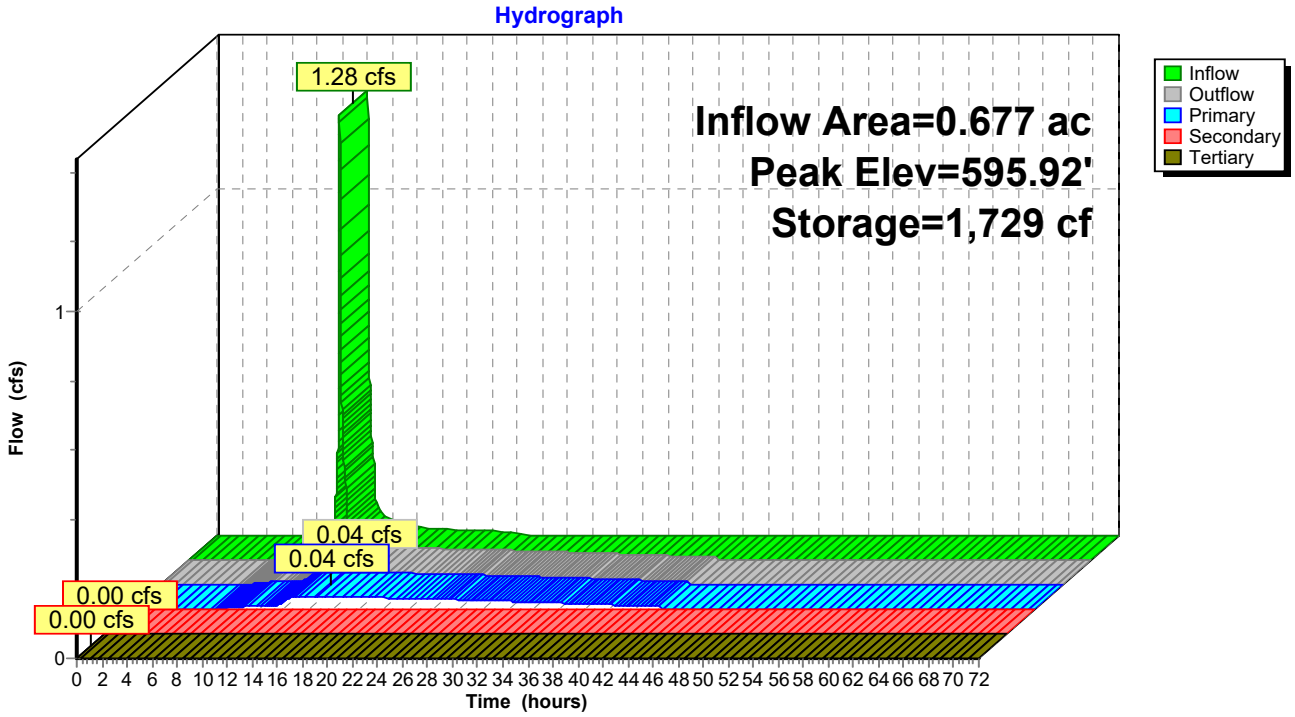
Device	Routing	Invert	Outlet Devices
#1	Primary	595.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	596.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	591.58'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.58' / 591.30' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	596.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.04 cfs @ 14.68 hrs HW=595.92' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.04 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=595.00' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.00 cfs of 5.10 cfs potential flow)
└**2=Overflow Grate** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=595.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-3: Filtration Bioretention



Summary for Pond CH-1: Chambers

Inflow Area = 2.091 ac, 90.96% Impervious, Inflow Depth = 1.44" for 1-yr event
Inflow = 4.80 cfs @ 12.04 hrs, Volume= 0.251 af
Outflow = 1.18 cfs @ 12.29 hrs, Volume= 0.251 af, Atten= 75%, Lag= 15.4 min
Primary = 1.18 cfs @ 12.29 hrs, Volume= 0.251 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 592.38' @ 12.29 hrs Surf.Area= 0.127 ac Storage= 0.079 af
Flood Elev= 598.32' Surf.Area= 0.127 ac Storage= 0.433 af

Plug-Flow detention time= 60.5 min calculated for 0.251 af (100% of inflow)
Center-of-Mass det. time= 60.2 min (847.2 - 787.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	591.25'	0.177 af	**37.08'W x 149.10'L x 5.50'H Field A** 0.698 af Overall - 0.256 af Embedded = 0.442 af x 40.0% Voids
#2A	592.00'	0.256 af	**ADS_StormTech MC-3500 d +Cap**x 100 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 100 Chambers in 5 Rows Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf
		0.433 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	591.25'	**8.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.25' / 591.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.18 cfs @ 12.29 hrs HW=592.38' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.18 cfs @ 3.38 fps)

Pond CH-1: Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

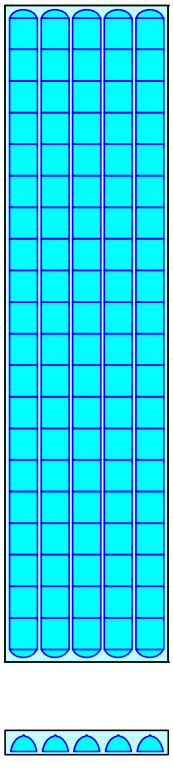
20 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 147.10' Row Length +12.0" End Stone x 2 = 149.10' Base Length
5 Rows x 77.0" Wide + 9.0" Spacing x 4 + 12.0" Side Stone x 2 = 37.08' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

100 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 5 Rows = 11,144.2 cf Chamber Storage

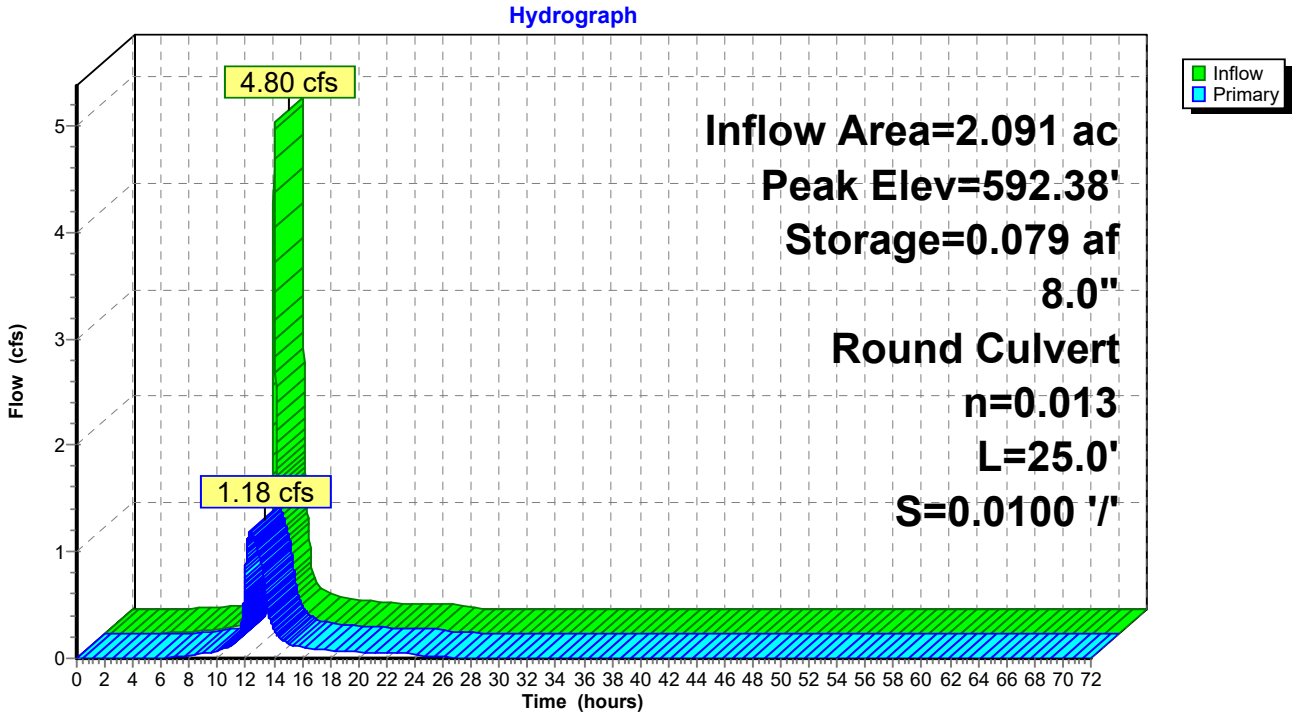
30,410.2 cf Field - 11,144.2 cf Chambers = 19,266.0 cf Stone x 40.0% Voids = 7,706.4 cf Stone Storage

Chamber Storage + Stone Storage = 18,850.6 cf = 0.433 af
Overall Storage Efficiency = 62.0%
Overall System Size = 149.10' x 37.08' x 5.50'

100 Chambers
1,126.3 cy Field
713.6 cy Stone



Pond CH-1: Chambers



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PS-1: Runoff Area=27,596 sf 33.98% Impervious Runoff Depth=1.78"
Tc=6.0 min CN=86 Runoff=1.71 cfs 0.094 af

Subcatchment PS-2: Runoff Area=72,316 sf 88.61% Impervious Runoff Depth=2.69"
Tc=6.0 min CN=96 Runoff=6.39 cfs 0.372 af

Subcatchment PS-3: Runoff Area=28,267 sf 33.49% Impervious Runoff Depth=1.78"
Tc=6.0 min CN=86 Runoff=1.75 cfs 0.096 af

Subcatchment PS-4: Runoff Area=29,485 sf 70.98% Impervious Runoff Depth=2.39"
Tc=6.0 min CN=93 Runoff=2.39 cfs 0.135 af

Subcatchment PS-5: Runoff Area=18,756 sf 100.00% Impervious Runoff Depth=2.91"
Tc=6.0 min CN=98 Runoff=1.72 cfs 0.104 af

Subcatchment PS-6: Runoff Area=6,622 sf 100.00% Impervious Runoff Depth=2.91"
Tc=6.0 min CN=98 Runoff=0.61 cfs 0.037 af

Subcatchment PS-7: Runoff Area=245,856 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=391' Tc=14.0 min CN=80 Runoff=8.08 cfs 0.638 af

Subcatchment PS-8: Runoff Area=53,474 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=821' Slope=0.0100 '/' Tc=25.7 min CN=80 Runoff=1.32 cfs 0.139 af

Reach DP-1: Design Point Inflow=13.96 cfs 1.615 af
Outflow=13.96 cfs 1.615 af

Pond BIO-1: Filtration Bioretention Peak Elev=599.12' Storage=1,232 cf Inflow=1.71 cfs 0.094 af
Primary=0.02 cfs 0.045 af Secondary=1.10 cfs 0.049 af Tertiary=0.00 cfs 0.000 af Outflow=1.12 cfs 0.094 af

Pond BIO-2: Filtration Bioretention Peak Elev=597.12' Storage=1,319 cf Inflow=1.75 cfs 0.096 af
Primary=0.02 cfs 0.048 af Secondary=1.04 cfs 0.048 af Tertiary=0.00 cfs 0.000 af Outflow=1.06 cfs 0.096 af

Pond BIO-3: Filtration Bioretention Peak Elev=596.12' Storage=2,359 cf Inflow=2.39 cfs 0.135 af
Primary=0.04 cfs 0.084 af Secondary=1.03 cfs 0.050 af Tertiary=0.00 cfs 0.000 af Outflow=1.07 cfs 0.135 af

Pond CH-1: Chambers Peak Elev=593.15' Storage=0.161 af Inflow=8.11 cfs 0.476 af
8.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/' Outflow=1.66 cfs 0.476 af

Total Runoff Area = 11.074 ac Runoff Volume = 1.615 af Average Runoff Depth = 1.75"
73.21% Pervious = 8.107 ac 26.79% Impervious = 2.967 ac

Summary for Subcatchment PS-1:

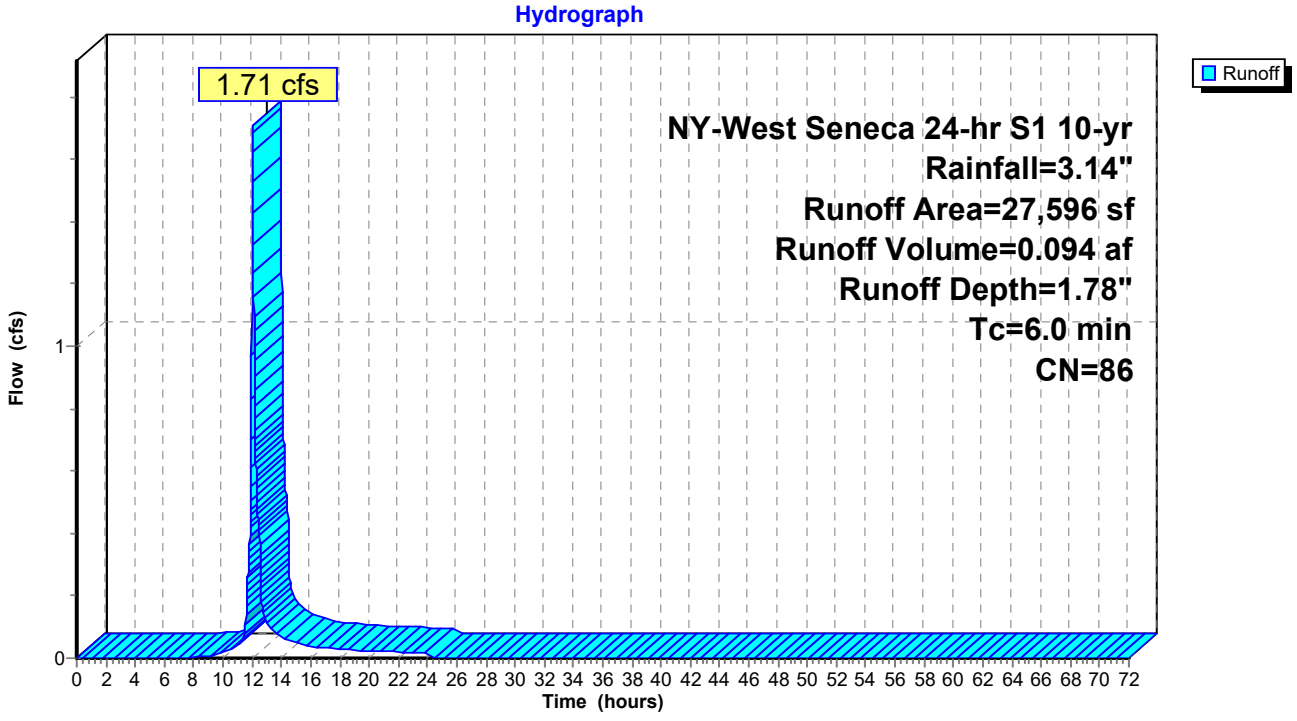
Runoff = 1.71 cfs @ 12.04 hrs, Volume= 0.094 af, Depth= 1.78"
Routed to Pond BIO-1 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
9,376	98	Paved parking, HSG D
18,220	80	>75% Grass cover, Good, HSG D
27,596	86	Weighted Average
18,220		66.02% Pervious Area
9,376		33.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-1:



Summary for Subcatchment PS-2:

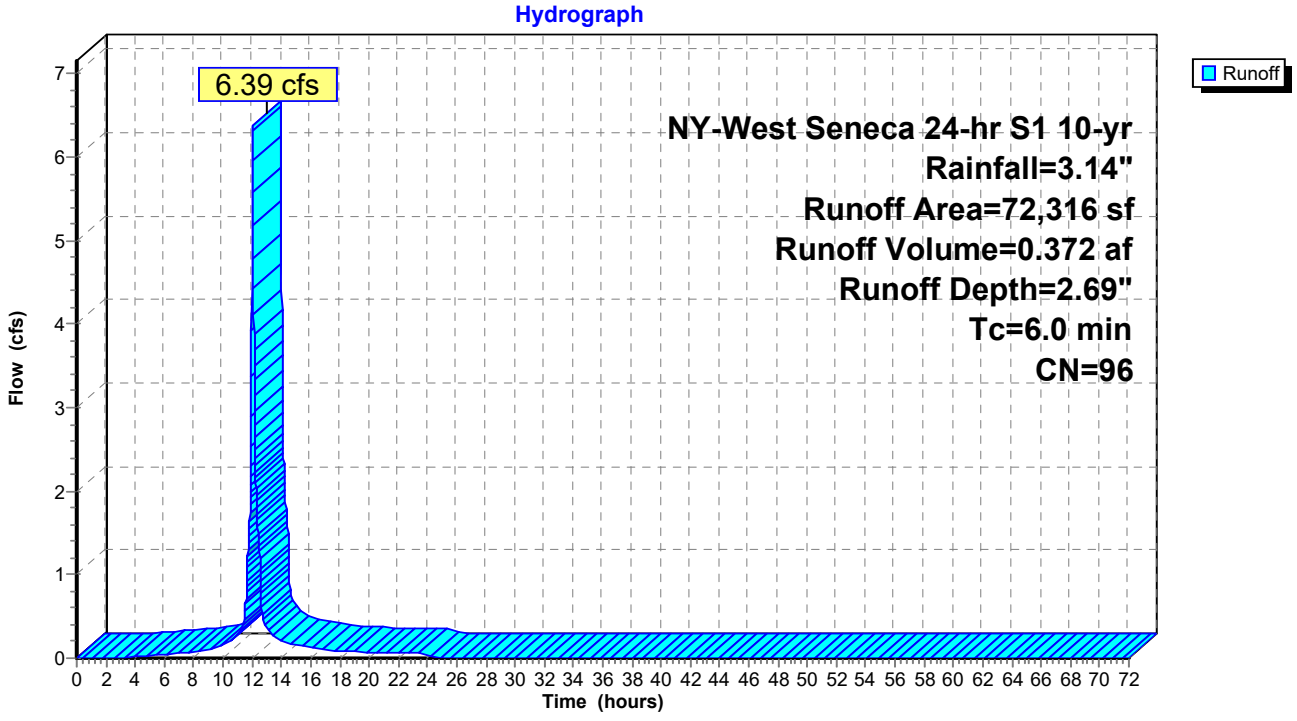
Runoff = 6.39 cfs @ 12.04 hrs, Volume= 0.372 af, Depth= 2.69"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
64,081	98	Paved parking, HSG D
8,235	80	>75% Grass cover, Good, HSG D
72,316	96	Weighted Average
8,235		11.39% Pervious Area
64,081		88.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-2:



Summary for Subcatchment PS-3:

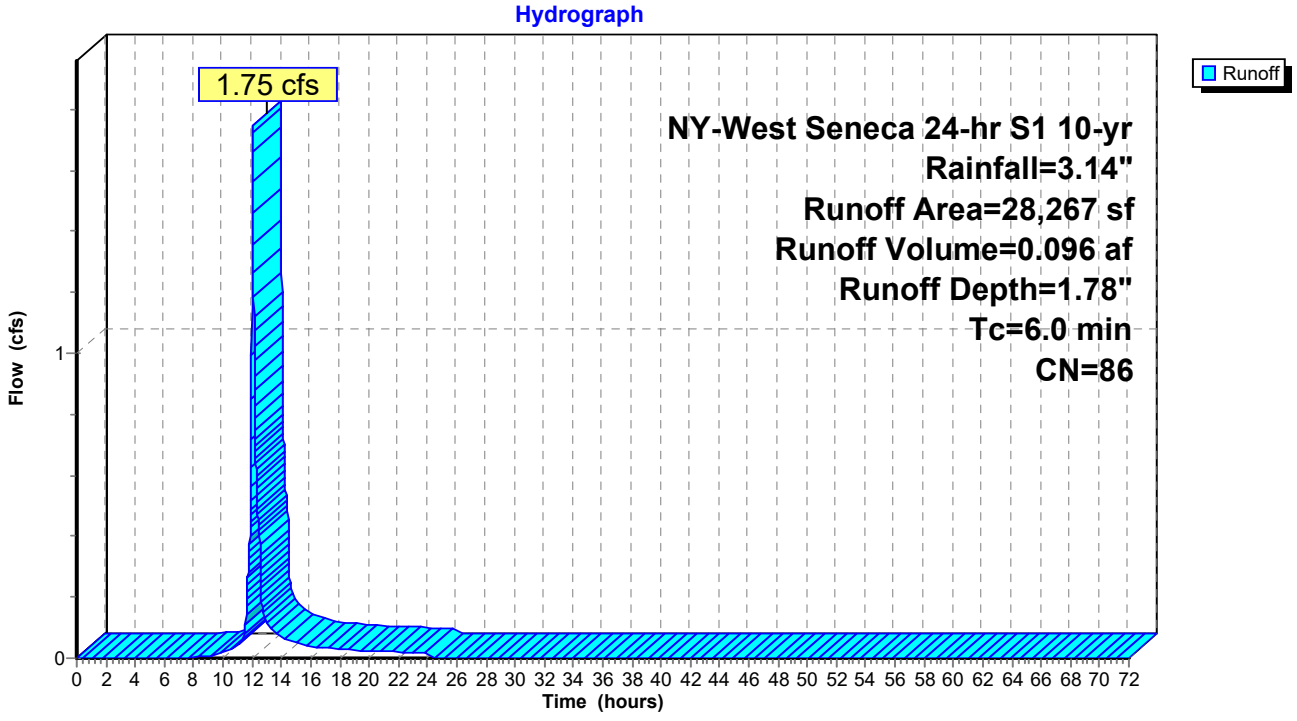
Runoff = 1.75 cfs @ 12.04 hrs, Volume= 0.096 af, Depth= 1.78"
Routed to Pond BIO-2 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
9,466	98	Paved parking, HSG D
18,801	80	>75% Grass cover, Good, HSG D
28,267	86	Weighted Average
18,801		66.51% Pervious Area
9,466		33.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-3:



Summary for Subcatchment PS-4:

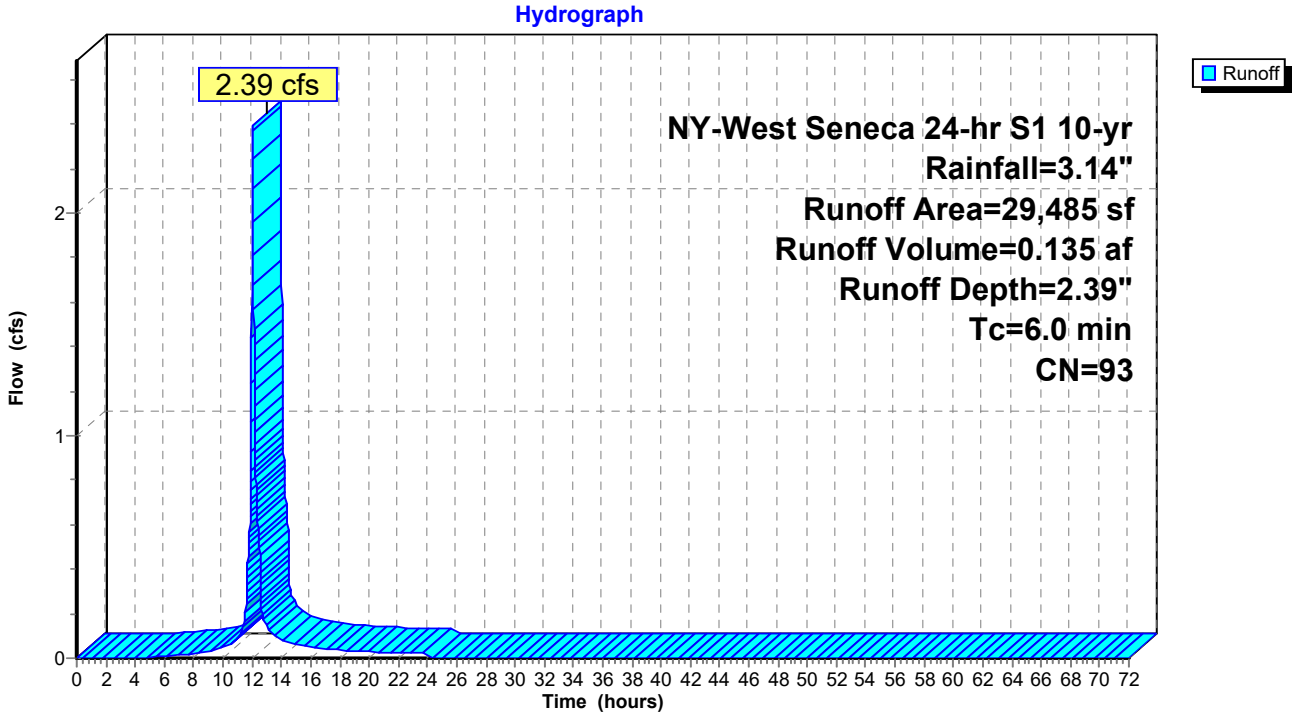
Runoff = 2.39 cfs @ 12.04 hrs, Volume= 0.135 af, Depth= 2.39"
Routed to Pond BIO-3 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
20,928	98	Paved parking, HSG D
8,557	80	>75% Grass cover, Good, HSG D
29,485	93	Weighted Average
8,557		29.02% Pervious Area
20,928		70.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-4:



Summary for Subcatchment PS-5:

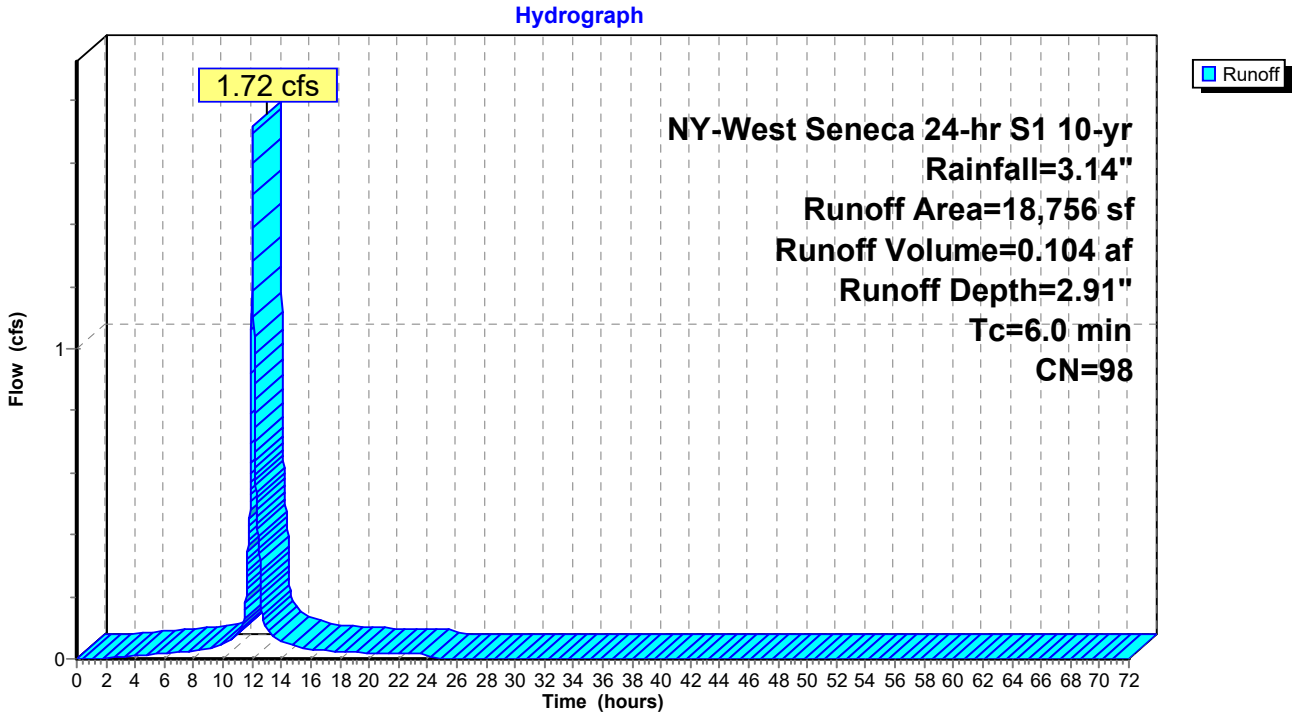
Runoff = 1.72 cfs @ 12.04 hrs, Volume= 0.104 af, Depth= 2.91"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
18,756	98	Paved parking, HSG D
18,756		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-5:



Summary for Subcatchment PS-6:

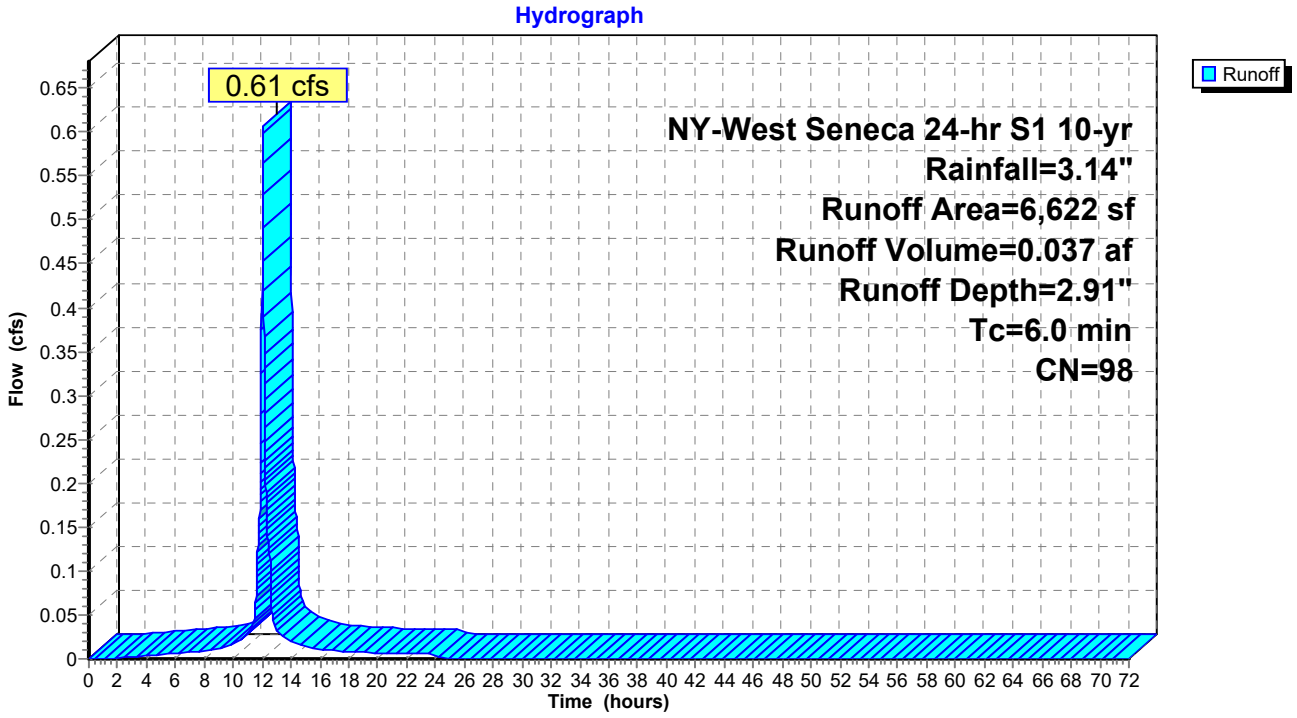
Runoff = 0.61 cfs @ 12.04 hrs, Volume= 0.037 af, Depth= 2.91"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
6,622	98	Paved parking, HSG D
6,622		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-6:



Summary for Subcatchment PS-7:

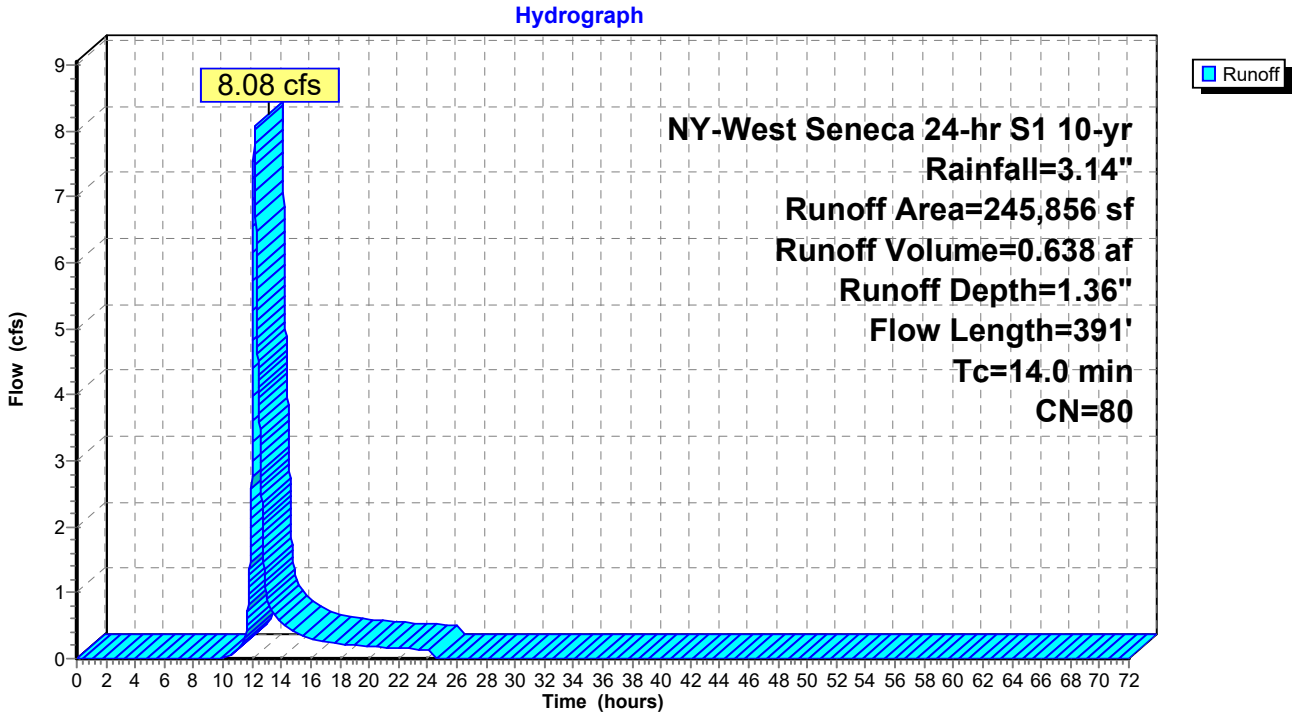
Runoff = 8.08 cfs @ 12.15 hrs, Volume= 0.638 af, Depth= 1.36"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
245,856	80	>75% Grass cover, Good, HSG D
245,856		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment PS-7:



Summary for Subcatchment PS-8:

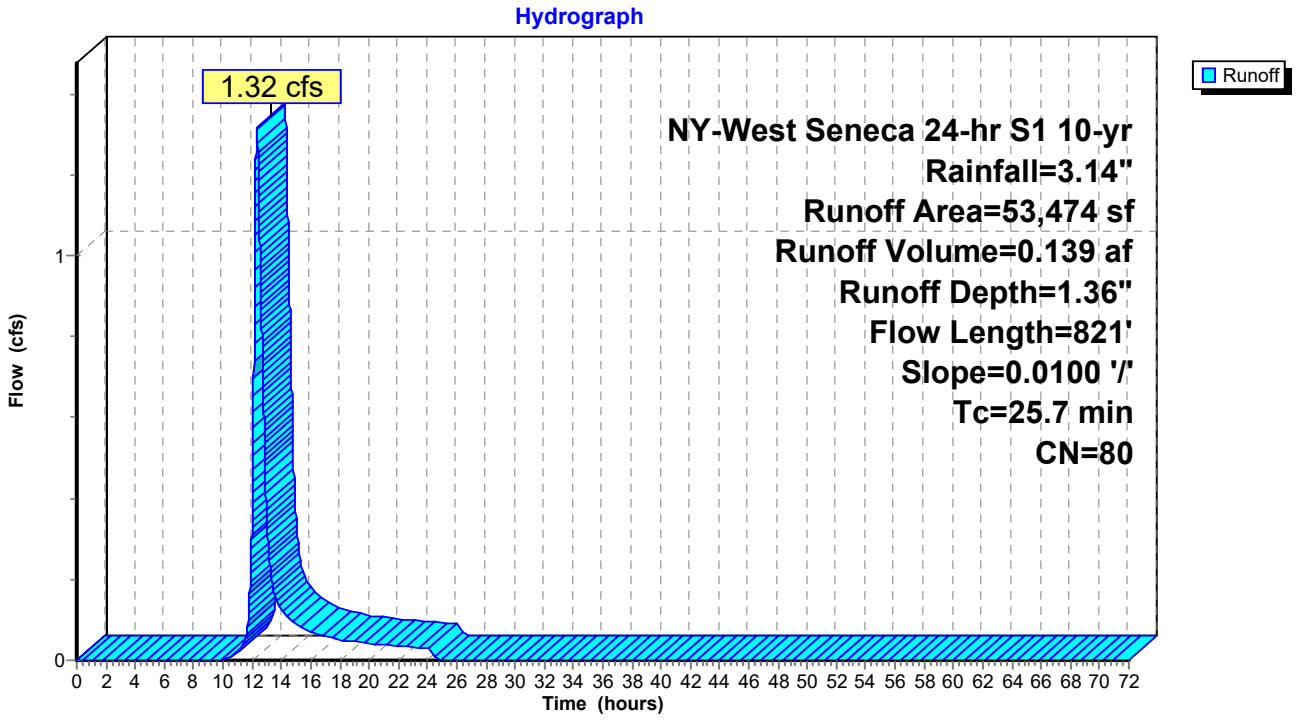
Runoff = 1.32 cfs @ 12.32 hrs, Volume= 0.139 af, Depth= 1.36"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 10-yr Rainfall=3.14"

Area (sf)	CN	Description
53,474	80	>75% Grass cover, Good, HSG D
53,474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0100	0.11		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
8.8	371	0.0100	0.70		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
1.3	350	0.0100	4.54	3.56	**Pipe Channel, Pipe Flow** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
25.7	821	Total			

Subcatchment PS-8:

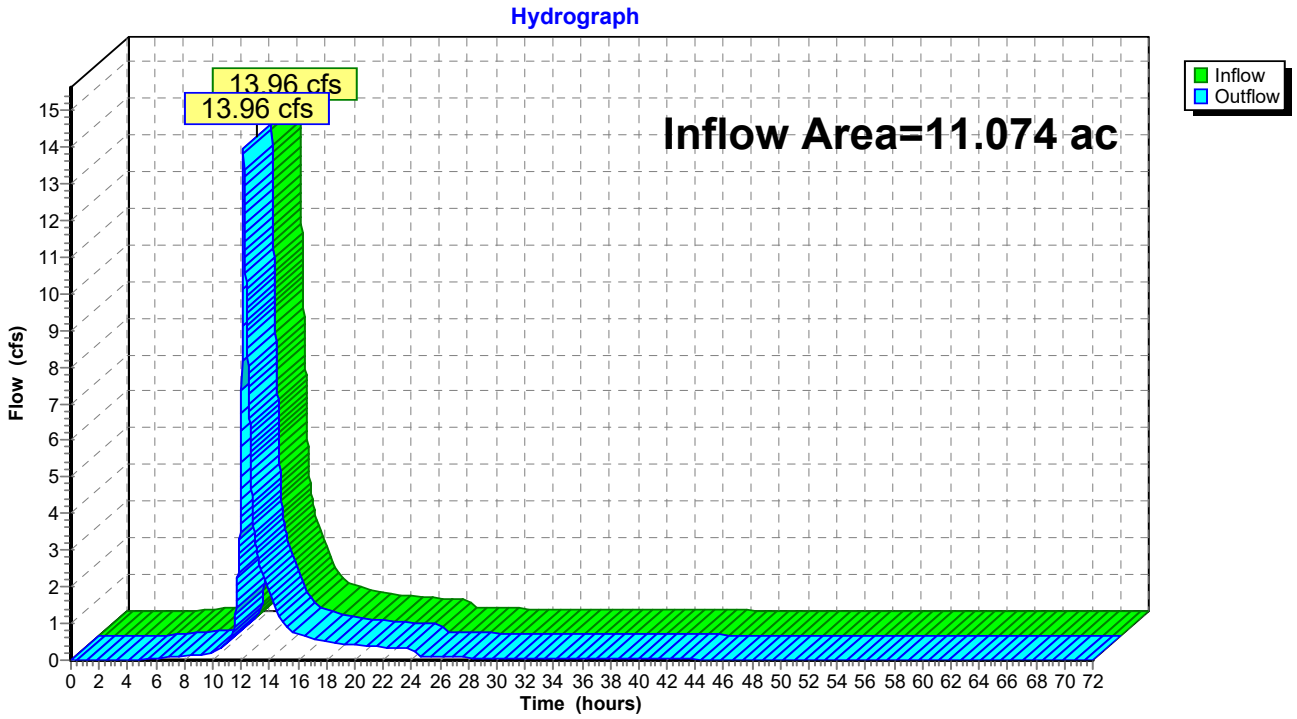


Summary for Reach DP-1: Design Point

Inflow Area = 11.074 ac, 26.79% Impervious, Inflow Depth = 1.75" for 10-yr event
Inflow = 13.96 cfs @ 12.15 hrs, Volume= 1.615 af
Outflow = 13.96 cfs @ 12.15 hrs, Volume= 1.615 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Design Point



Summary for Pond BIO-1: Filtration Bioretention

Inflow Area = 0.634 ac, 33.98% Impervious, Inflow Depth = 1.78" for 10-yr event
Inflow = 1.71 cfs @ 12.04 hrs, Volume= 0.094 af
Outflow = 1.12 cfs @ 12.12 hrs, Volume= 0.094 af, Atten= 34%, Lag= 4.6 min
Primary = 0.02 cfs @ 12.12 hrs, Volume= 0.045 af
Routed to Reach DP-1 : Design Point
Secondary = 1.10 cfs @ 12.12 hrs, Volume= 0.049 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 599.12' @ 12.12 hrs Surf.Area= 1,797 sf Storage= 1,232 cf
Flood Elev= 600.00' Surf.Area= 2,500 sf Storage= 3,120 cf

Plug-Flow detention time= 326.2 min calculated for 0.094 af (100% of inflow)
Center-of-Mass det. time= 326.4 min (1,148.5 - 822.1)

Volume	Invert	Avail.Storage	Storage Description
#1	598.00'	3,120 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
598.00	340	0	0
599.00	1,700	1,020	1,020
600.00	2,500	2,100	3,120

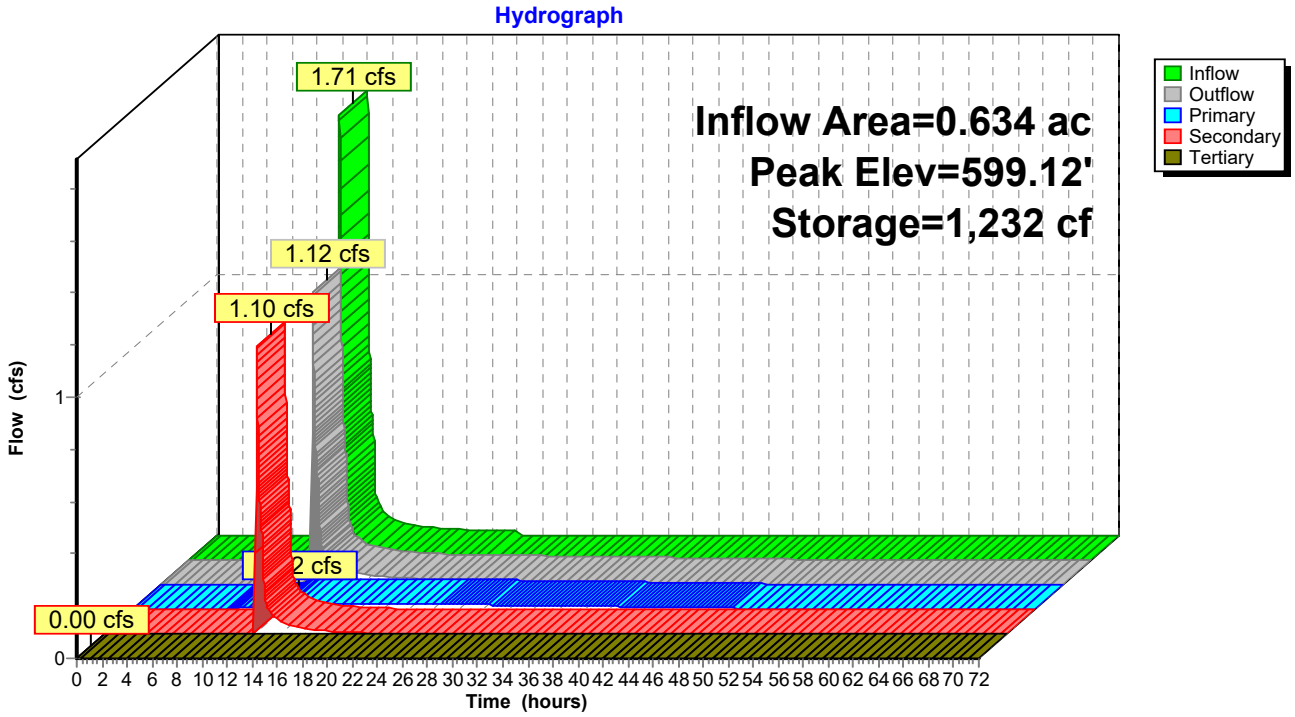
Device	Routing	Invert	Outlet Devices
#1	Primary	598.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	599.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	594.58'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 594.58' / 594.33' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	599.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 12.12 hrs HW=599.12' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=1.10 cfs @ 12.12 hrs HW=599.12' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 1.10 cfs of 6.00 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 1.10 cfs @ 1.14 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=598.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-1: Filtration Bioretention



Summary for Pond BIO-2: Filtration Bioretention

Inflow Area = 0.649 ac, 33.49% Impervious, Inflow Depth = 1.78" for 10-yr event
Inflow = 1.75 cfs @ 12.04 hrs, Volume= 0.096 af
Outflow = 1.06 cfs @ 12.13 hrs, Volume= 0.096 af, Atten= 39%, Lag= 5.6 min
Primary = 0.02 cfs @ 12.13 hrs, Volume= 0.048 af
Routed to Reach DP-1 : Design Point
Secondary = 1.04 cfs @ 12.13 hrs, Volume= 0.048 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 597.12' @ 12.13 hrs Surf.Area= 1,941 sf Storage= 1,319 cf
Flood Elev= 598.00' Surf.Area= 2,630 sf Storage= 3,339 cf

Plug-Flow detention time= 339.7 min calculated for 0.096 af (100% of inflow)
Center-of-Mass det. time= 339.9 min (1,162.0 - 822.1)

Volume	Invert	Avail.Storage	Storage Description
#1	596.00'	3,339 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
596.00	348	0	0
597.00	1,850	1,099	1,099
598.00	2,630	2,240	3,339

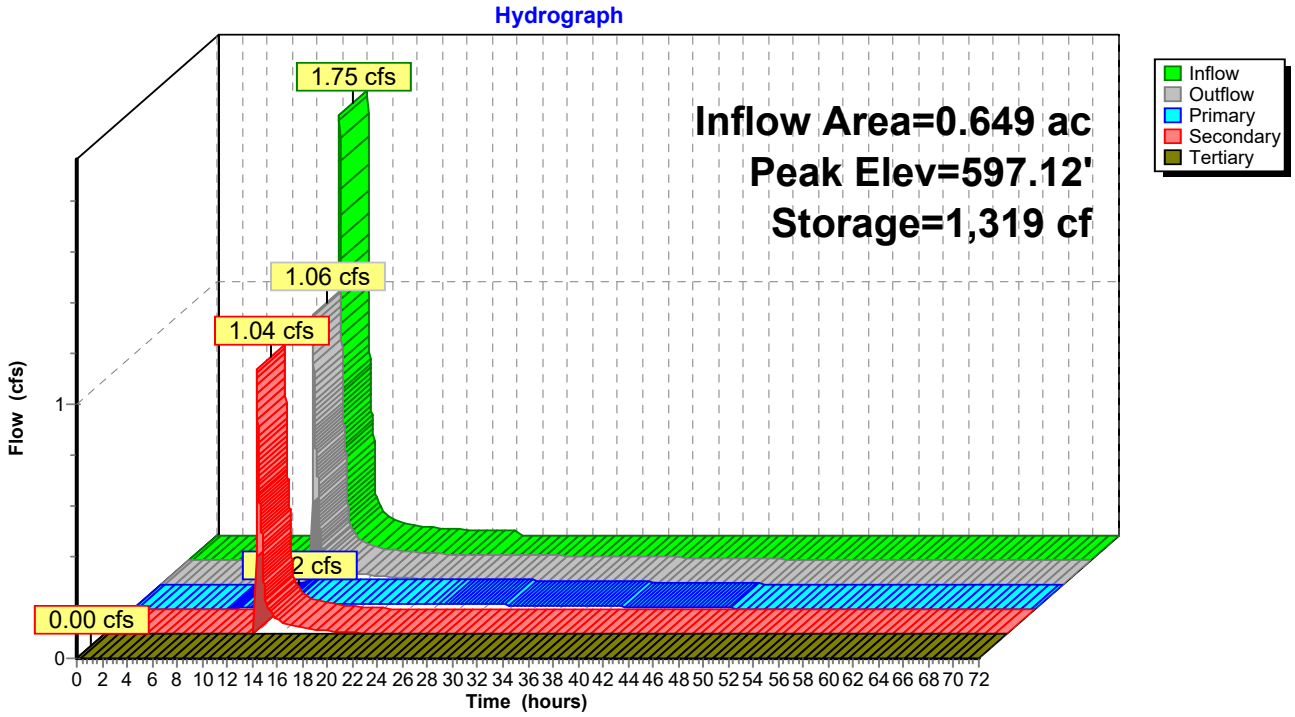
Device	Routing	Invert	Outlet Devices
#1	Primary	596.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	597.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	592.58'	**12.0" Round Culvert** L= 132.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 592.58' / 591.92' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	597.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 12.13 hrs HW=597.12' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=1.04 cfs @ 12.13 hrs HW=597.12' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 1.04 cfs of 5.54 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 1.04 cfs @ 1.11 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=596.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-2: Filtration Bioretention



Summary for Pond BIO-3: Filtration Bioretention

Inflow Area = 0.677 ac, 70.98% Impervious, Inflow Depth = 2.39" for 10-yr event
Inflow = 2.39 cfs @ 12.04 hrs, Volume= 0.135 af
Outflow = 1.07 cfs @ 12.18 hrs, Volume= 0.135 af, Atten= 55%, Lag= 8.6 min
Primary = 0.04 cfs @ 12.18 hrs, Volume= 0.084 af
Routed to Reach DP-1 : Design Point
Secondary = 1.03 cfs @ 12.18 hrs, Volume= 0.050 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 596.12' @ 12.18 hrs Surf.Area= 3,334 sf Storage= 2,359 cf
Flood Elev= 597.00' Surf.Area= 3,978 sf Storage= 5,592 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 411.1 min (1,203.9 - 792.8)

Volume	Invert	Avail.Storage	Storage Description
#1	595.00'	5,592 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
595.00	705	0	0
596.00	3,250	1,978	1,978
597.00	3,978	3,614	5,592

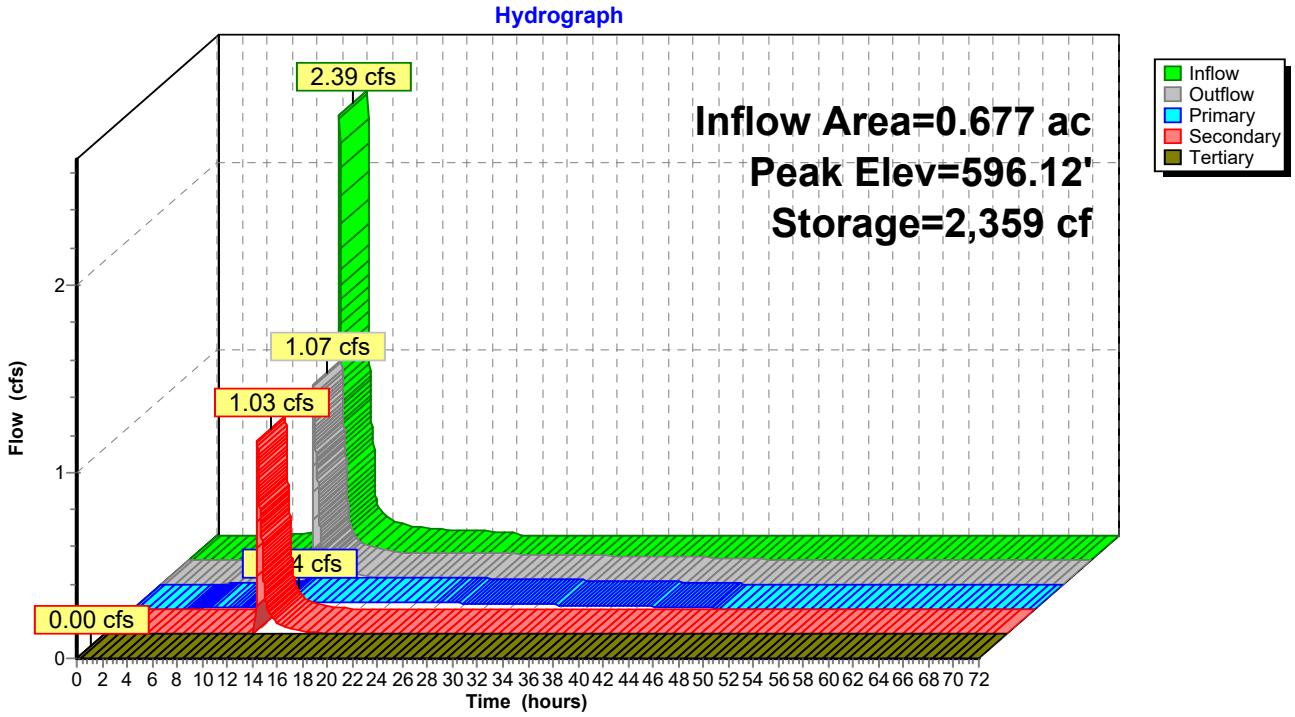
Device	Routing	Invert	Outlet Devices
#1	Primary	595.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	596.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	591.58'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.58' / 591.30' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	596.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.04 cfs @ 12.18 hrs HW=596.12' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.04 cfs)

Secondary OutFlow Max=1.03 cfs @ 12.18 hrs HW=596.12' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 1.03 cfs of 6.00 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 1.03 cfs @ 1.11 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=595.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-3: Filtration Bioretention



Summary for Pond CH-1: Chambers

Inflow Area = 2.091 ac, 90.96% Impervious, Inflow Depth = 2.73" for 10-yr event
Inflow = 8.11 cfs @ 12.04 hrs, Volume= 0.476 af
Outflow = 1.66 cfs @ 12.48 hrs, Volume= 0.476 af, Atten= 80%, Lag= 26.9 min
Primary = 1.66 cfs @ 12.48 hrs, Volume= 0.476 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 593.15' @ 12.48 hrs Surf.Area= 0.127 ac Storage= 0.161 af
Flood Elev= 598.32' Surf.Area= 0.127 ac Storage= 0.433 af

Plug-Flow detention time= 60.0 min calculated for 0.476 af (100% of inflow)
Center-of-Mass det. time= 59.7 min (829.9 - 770.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	591.25'	0.177 af	**37.08'W x 149.10'L x 5.50'H Field A** 0.698 af Overall - 0.256 af Embedded = 0.442 af x 40.0% Voids
#2A	592.00'	0.256 af	**ADS_StormTech MC-3500 d +Cap**x 100 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 100 Chambers in 5 Rows Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf
		0.433 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	591.25'	**8.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.25' / 591.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.66 cfs @ 12.48 hrs HW=593.15' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.66 cfs @ 4.75 fps)

Pond CH-1: Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

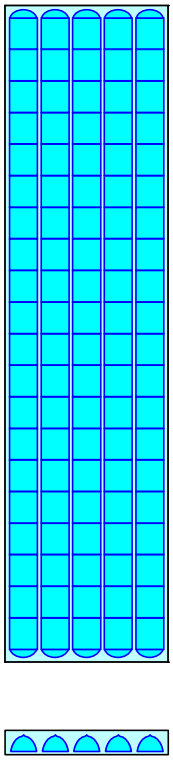
20 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 147.10' Row Length +12.0" End Stone x 2 = 149.10' Base Length
5 Rows x 77.0" Wide + 9.0" Spacing x 4 + 12.0" Side Stone x 2 = 37.08' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

100 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 5 Rows = 11,144.2 cf Chamber Storage

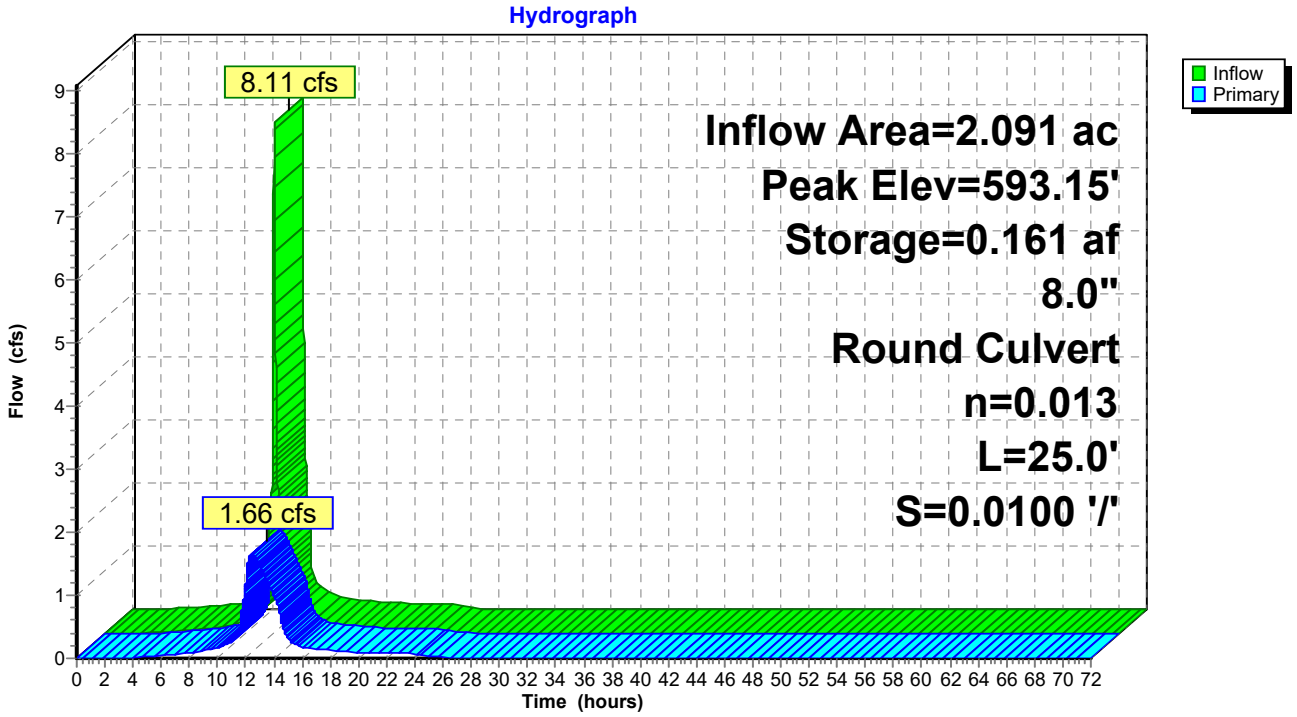
30,410.2 cf Field - 11,144.2 cf Chambers = 19,266.0 cf Stone x 40.0% Voids = 7,706.4 cf Stone Storage

Chamber Storage + Stone Storage = 18,850.6 cf = 0.433 af
Overall Storage Efficiency = 62.0%
Overall System Size = 149.10' x 37.08' x 5.50'

100 Chambers
1,126.3 cy Field
713.6 cy Stone



Pond CH-1: Chambers



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PS-1: Runoff Area=27,596 sf 33.98% Impervious Runoff Depth=3.67"
Tc=6.0 min CN=86 Runoff=3.44 cfs 0.194 af

Subcatchment PS-2: Runoff Area=72,316 sf 88.61% Impervious Runoff Depth=4.75"
Tc=6.0 min CN=96 Runoff=10.80 cfs 0.657 af

Subcatchment PS-3: Runoff Area=28,267 sf 33.49% Impervious Runoff Depth=3.67"
Tc=6.0 min CN=86 Runoff=3.52 cfs 0.199 af

Subcatchment PS-4: Runoff Area=29,485 sf 70.98% Impervious Runoff Depth=4.41"
Tc=6.0 min CN=93 Runoff=4.23 cfs 0.249 af

Subcatchment PS-5: Runoff Area=18,756 sf 100.00% Impervious Runoff Depth=4.98"
Tc=6.0 min CN=98 Runoff=2.85 cfs 0.179 af

Subcatchment PS-6: Runoff Area=6,622 sf 100.00% Impervious Runoff Depth=4.98"
Tc=6.0 min CN=98 Runoff=1.01 cfs 0.063 af

Subcatchment PS-7: Runoff Area=245,856 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=391' Tc=14.0 min CN=80 Runoff=18.94 cfs 1.451 af

Subcatchment PS-8: Runoff Area=53,474 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=821' Slope=0.0100 '/' Tc=25.7 min CN=80 Runoff=3.15 cfs 0.316 af

Reach DP-1: Design Point Inflow=31.66 cfs 3.307 af
Outflow=31.66 cfs 3.307 af

Pond BIO-1: Filtration Bioretention Peak Elev=599.25' Storage=1,462 cf Inflow=3.44 cfs 0.194 af
Primary=0.02 cfs 0.048 af Secondary=3.18 cfs 0.146 af Tertiary=0.00 cfs 0.000 af Outflow=3.21 cfs 0.194 af

Pond BIO-2: Filtration Bioretention Peak Elev=597.25' Storage=1,582 cf Inflow=3.52 cfs 0.199 af
Primary=0.02 cfs 0.052 af Secondary=3.23 cfs 0.147 af Tertiary=0.00 cfs 0.000 af Outflow=3.26 cfs 0.199 af

Pond BIO-3: Filtration Bioretention Peak Elev=596.27' Storage=2,865 cf Inflow=4.23 cfs 0.249 af
Primary=0.04 cfs 0.094 af Secondary=3.57 cfs 0.155 af Tertiary=0.00 cfs 0.000 af Outflow=3.61 cfs 0.249 af

Pond CH-1: Chambers Peak Elev=594.85' Storage=0.322 af Inflow=13.65 cfs 0.836 af
8.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/' Outflow=2.40 cfs 0.836 af

Total Runoff Area = 11.074 ac Runoff Volume = 3.308 af Average Runoff Depth = 3.58"
73.21% Pervious = 8.107 ac 26.79% Impervious = 2.967 ac

Summary for Subcatchment PS-1:

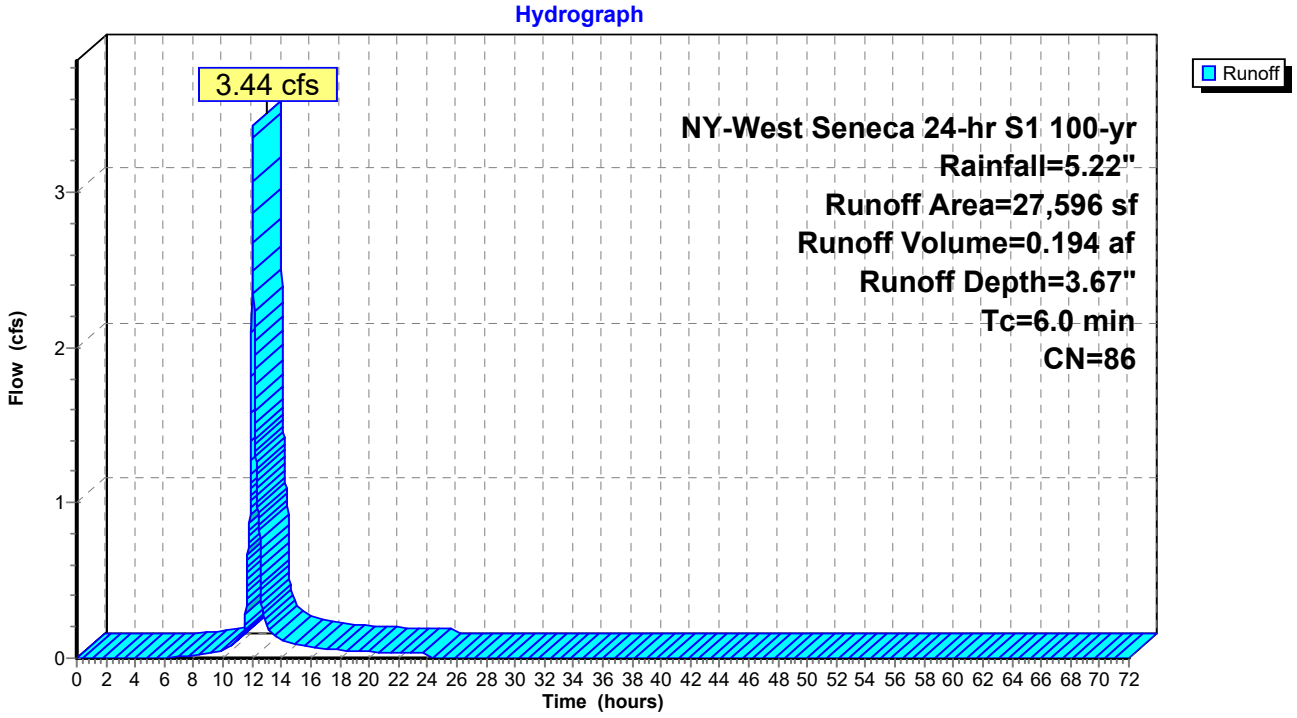
Runoff = 3.44 cfs @ 12.04 hrs, Volume= 0.194 af, Depth= 3.67"
Routed to Pond BIO-1 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
9,376	98	Paved parking, HSG D
18,220	80	>75% Grass cover, Good, HSG D
27,596	86	Weighted Average
18,220		66.02% Pervious Area
9,376		33.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-1:



Summary for Subcatchment PS-2:

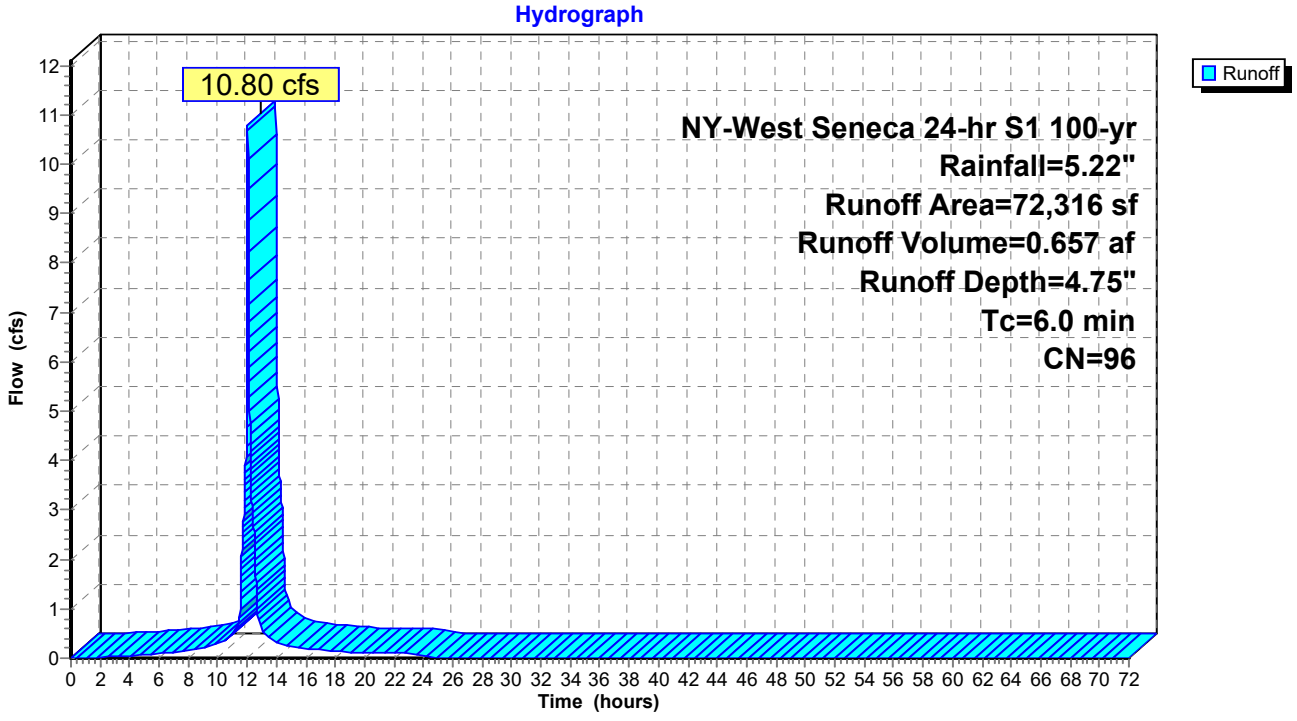
Runoff = 10.80 cfs @ 12.04 hrs, Volume= 0.657 af, Depth= 4.75"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
64,081	98	Paved parking, HSG D
8,235	80	>75% Grass cover, Good, HSG D
72,316	96	Weighted Average
8,235		11.39% Pervious Area
64,081		88.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-2:



Summary for Subcatchment PS-3:

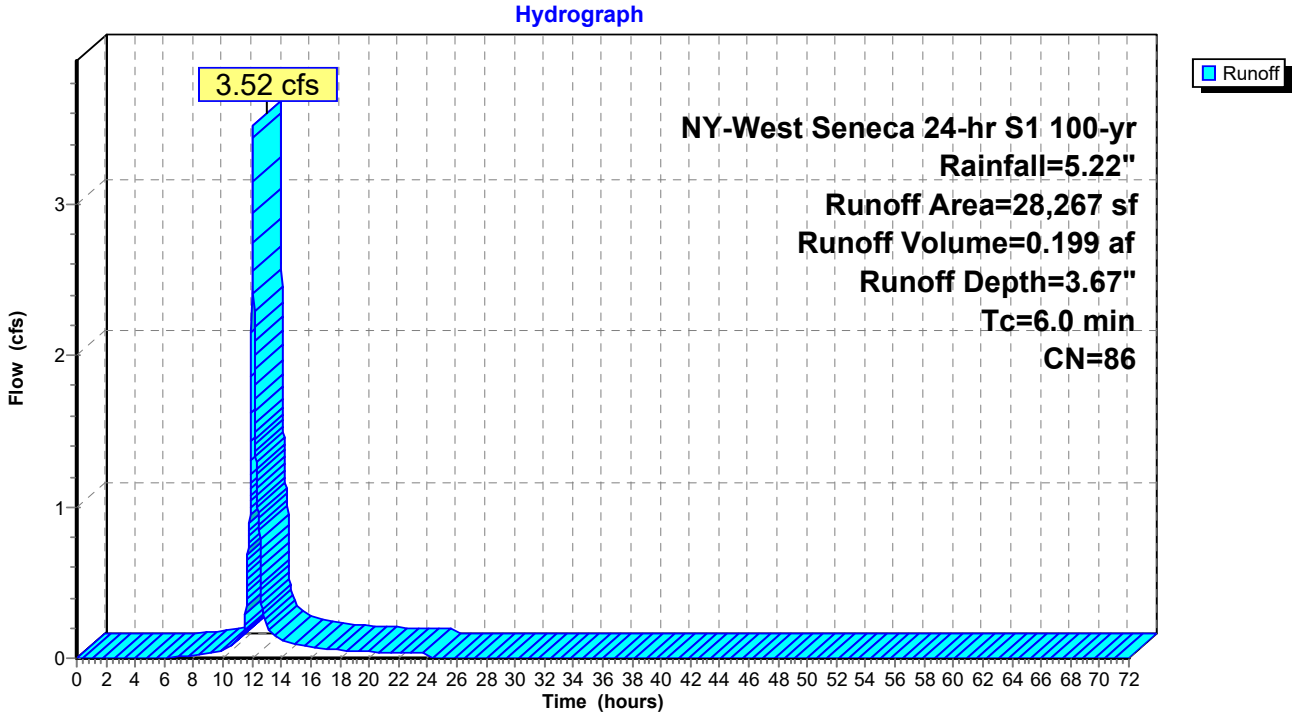
Runoff = 3.52 cfs @ 12.04 hrs, Volume= 0.199 af, Depth= 3.67"
Routed to Pond BIO-2 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
9,466	98	Paved parking, HSG D
18,801	80	>75% Grass cover, Good, HSG D
28,267	86	Weighted Average
18,801		66.51% Pervious Area
9,466		33.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-3:



Summary for Subcatchment PS-4:

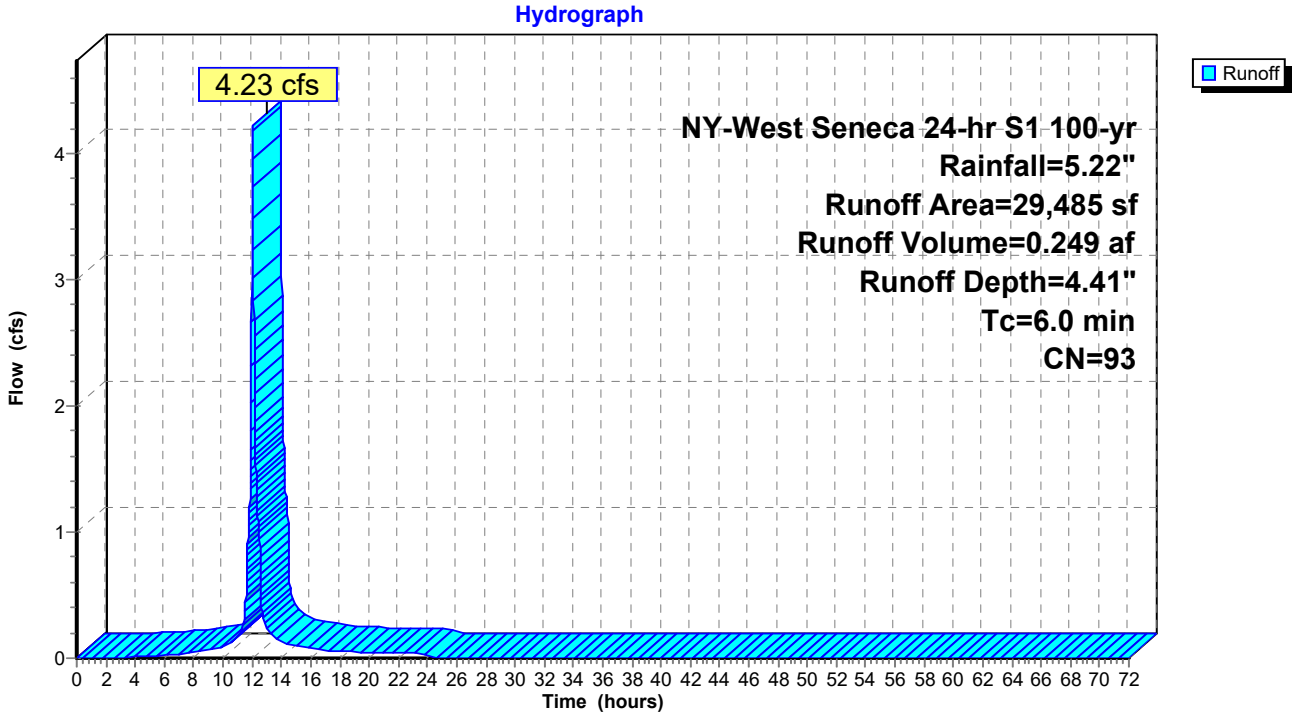
Runoff = 4.23 cfs @ 12.04 hrs, Volume= 0.249 af, Depth= 4.41"
Routed to Pond BIO-3 : Filtration Bioretention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
20,928	98	Paved parking, HSG D
8,557	80	>75% Grass cover, Good, HSG D
29,485	93	Weighted Average
8,557		29.02% Pervious Area
20,928		70.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-4:



Summary for Subcatchment PS-5:

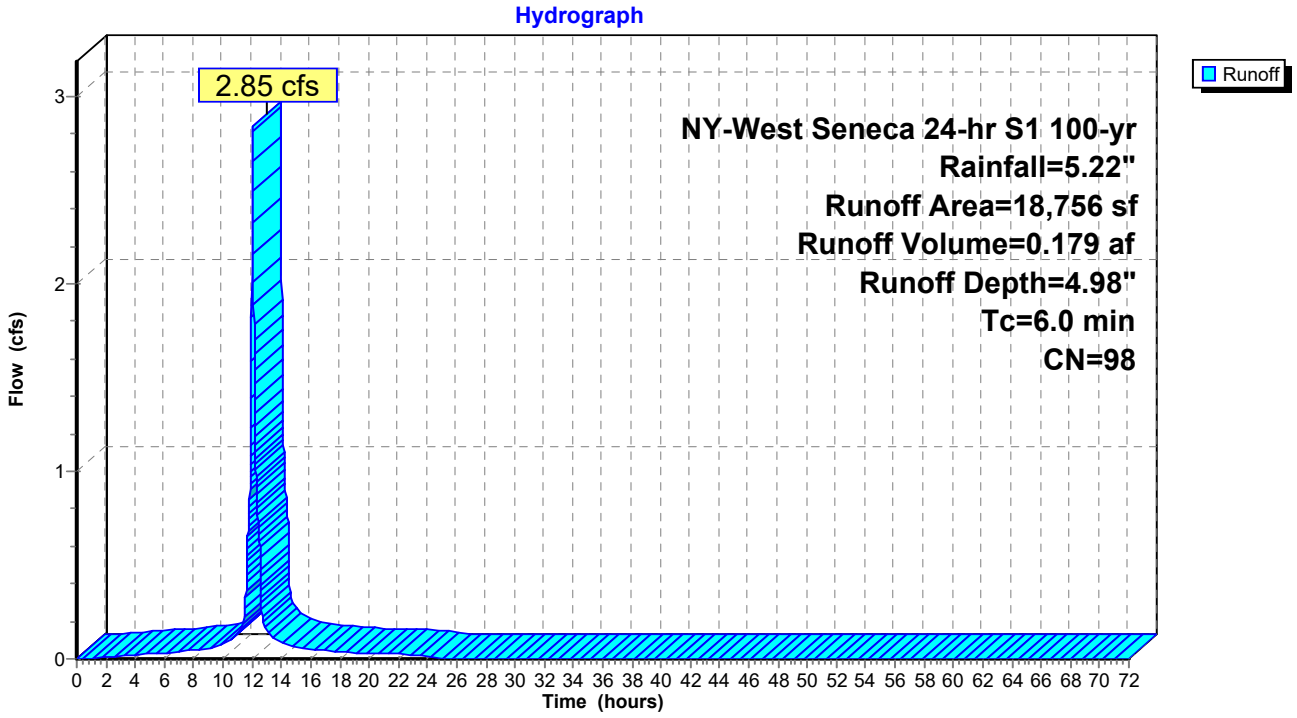
Runoff = 2.85 cfs @ 12.04 hrs, Volume= 0.179 af, Depth= 4.98"
Routed to Pond CH-1 : Chambers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
18,756	98	Paved parking, HSG D
18,756		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-5:



Summary for Subcatchment PS-6:

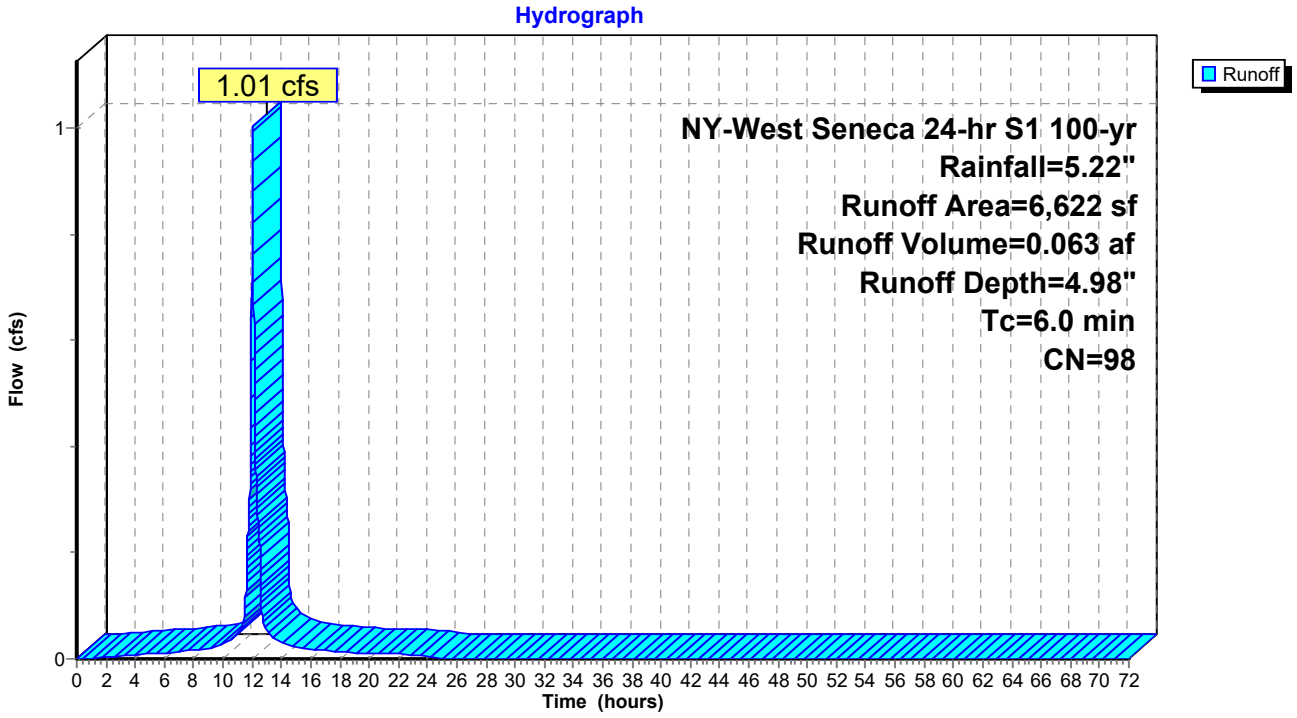
Runoff = 1.01 cfs @ 12.04 hrs, Volume= 0.063 af, Depth= 4.98"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
6,622	98	Paved parking, HSG D
6,622		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct**

Subcatchment PS-6:



Summary for Subcatchment PS-7:

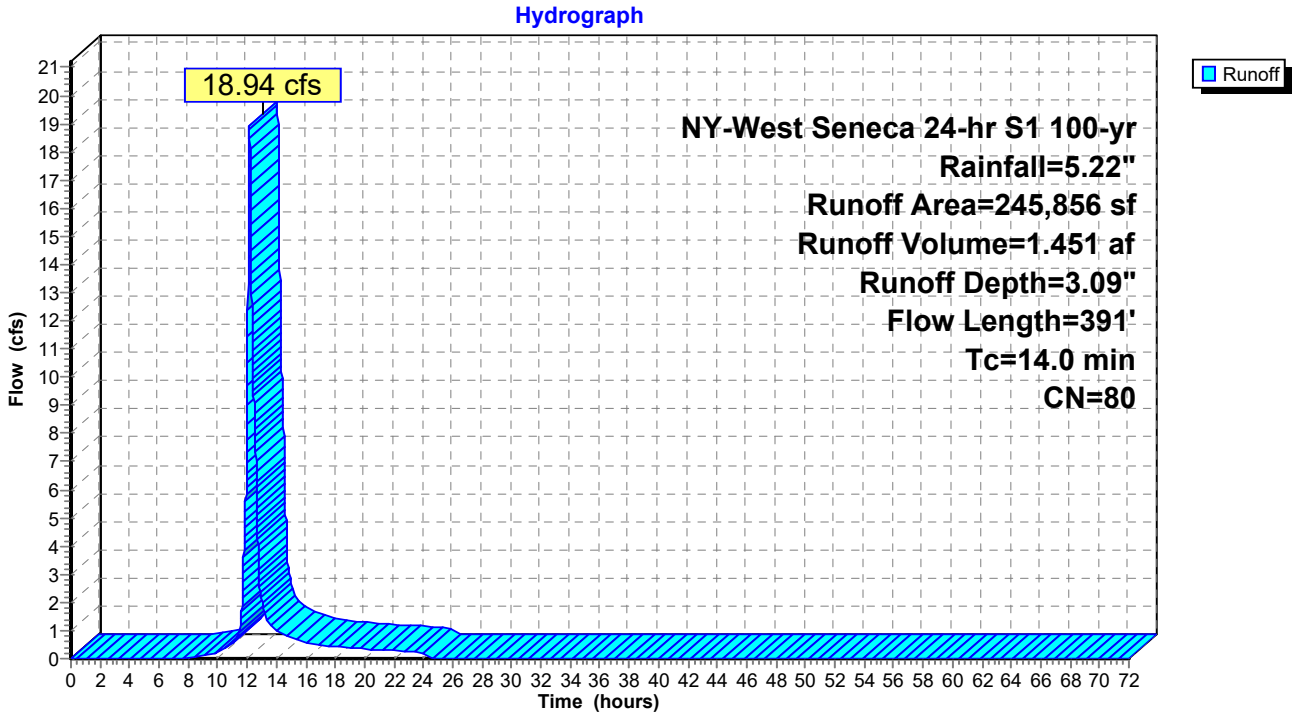
Runoff = 18.94 cfs @ 12.15 hrs, Volume= 1.451 af, Depth= 3.09"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
245,856	80	>75% Grass cover, Good, HSG D
245,856		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	100	0.0450	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.20"
5.3	271	0.0148	0.85		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
0.2	20	0.1500	1.94		**Shallow Concentrated Flow, SCF** Woodland Kv= 5.0 fps
14.0	391	Total			

Subcatchment PS-7:



Summary for Subcatchment PS-8:

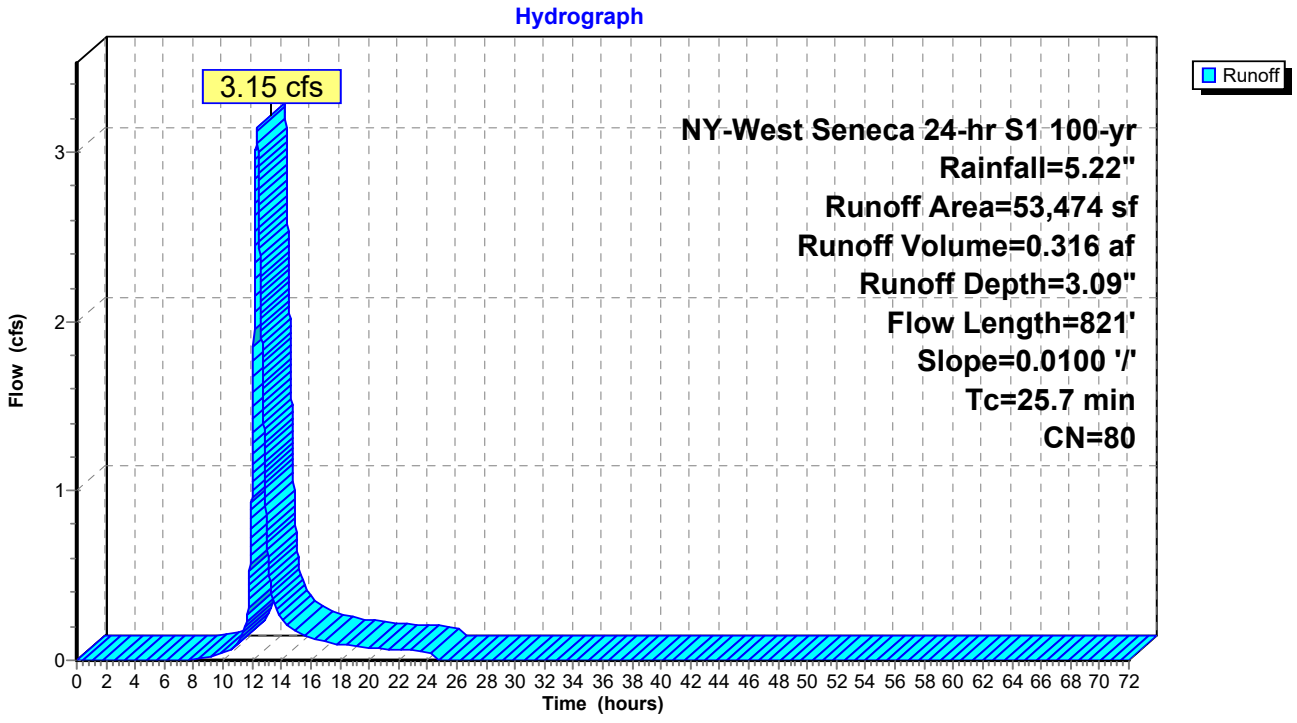
Runoff = 3.15 cfs @ 12.31 hrs, Volume= 0.316 af, Depth= 3.09"
Routed to Reach DP-1 : Design Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NY-West Seneca 24-hr S1 100-yr Rainfall=5.22"

Area (sf)	CN	Description
53,474	80	>75% Grass cover, Good, HSG D
53,474		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0100	0.11		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.20"
8.8	371	0.0100	0.70		**Shallow Concentrated Flow, SCF** Short Grass Pasture Kv= 7.0 fps
1.3	350	0.0100	4.54	3.56	**Pipe Channel, Pipe Flow** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
25.7	821	Total			

Subcatchment PS-8:

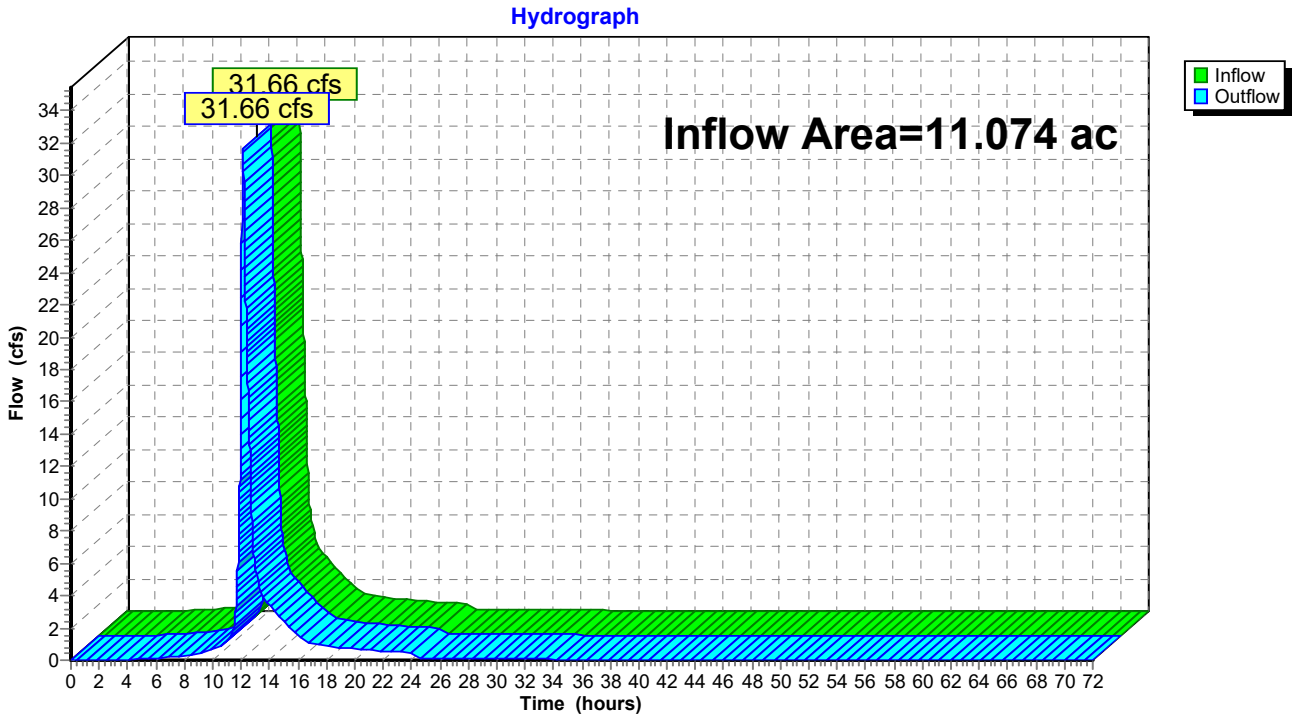


Summary for Reach DP-1: Design Point

Inflow Area = 11.074 ac, 26.79% Impervious, Inflow Depth = 3.58" for 100-yr event
Inflow = 31.66 cfs @ 12.12 hrs, Volume= 3.307 af
Outflow = 31.66 cfs @ 12.12 hrs, Volume= 3.307 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Design Point



Summary for Pond BIO-1: Filtration Bioretention

Inflow Area = 0.634 ac, 33.98% Impervious, Inflow Depth = 3.67" for 100-yr event
Inflow = 3.44 cfs @ 12.04 hrs, Volume= 0.194 af
Outflow = 3.21 cfs @ 12.06 hrs, Volume= 0.194 af, Atten= 7%, Lag= 1.5 min
Primary = 0.02 cfs @ 12.06 hrs, Volume= 0.048 af
Routed to Reach DP-1 : Design Point
Secondary = 3.18 cfs @ 12.06 hrs, Volume= 0.146 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 599.25' @ 12.06 hrs Surf.Area= 1,896 sf Storage= 1,462 cf
Flood Elev= 600.00' Surf.Area= 2,500 sf Storage= 3,120 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 168.5 min (967.4 - 798.9)

Volume	Invert	Avail.Storage	Storage Description
#1	598.00'	3,120 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
598.00	340	0	0
599.00	1,700	1,020	1,020
600.00	2,500	2,100	3,120

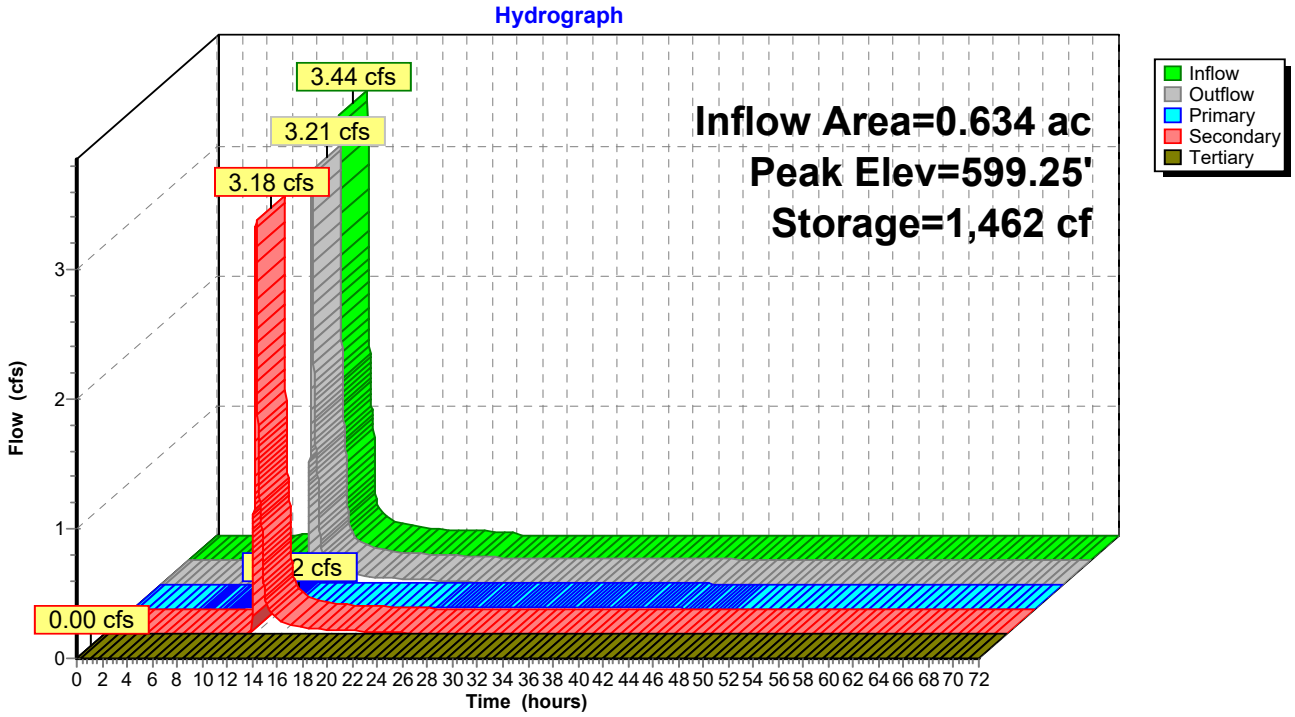
Device	Routing	Invert	Outlet Devices
#1	Primary	598.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	599.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	594.58'	**12.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 594.58' / 594.33' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	599.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 12.06 hrs HW=599.25' TW=0.00' (Dynamic Tailwater)
└─**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=3.18 cfs @ 12.06 hrs HW=599.25' TW=0.00' (Dynamic Tailwater)
└─**3=Culvert** (Passes 3.18 cfs of 6.09 cfs potential flow)
└─**2=Overflow Grate** (Weir Controls 3.18 cfs @ 1.62 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=598.00' TW=0.00' (Dynamic Tailwater)
└─**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-1: Filtration Bioretention



Summary for Pond BIO-2: Filtration Bioretention

Inflow Area = 0.649 ac, 33.49% Impervious, Inflow Depth = 3.67" for 100-yr event
Inflow = 3.52 cfs @ 12.04 hrs, Volume= 0.199 af
Outflow = 3.26 cfs @ 12.06 hrs, Volume= 0.199 af, Atten= 8%, Lag= 1.6 min
Primary = 0.02 cfs @ 12.06 hrs, Volume= 0.052 af
Routed to Reach DP-1 : Design Point
Secondary = 3.23 cfs @ 12.06 hrs, Volume= 0.147 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 597.25' @ 12.06 hrs Surf.Area= 2,044 sf Storage= 1,582 cf
Flood Elev= 598.00' Surf.Area= 2,630 sf Storage= 3,339 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 176.3 min (975.2 - 798.9)

Volume	Invert	Avail.Storage	Storage Description
#1	596.00'	3,339 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
596.00	348	0	0
597.00	1,850	1,099	1,099
598.00	2,630	2,240	3,339

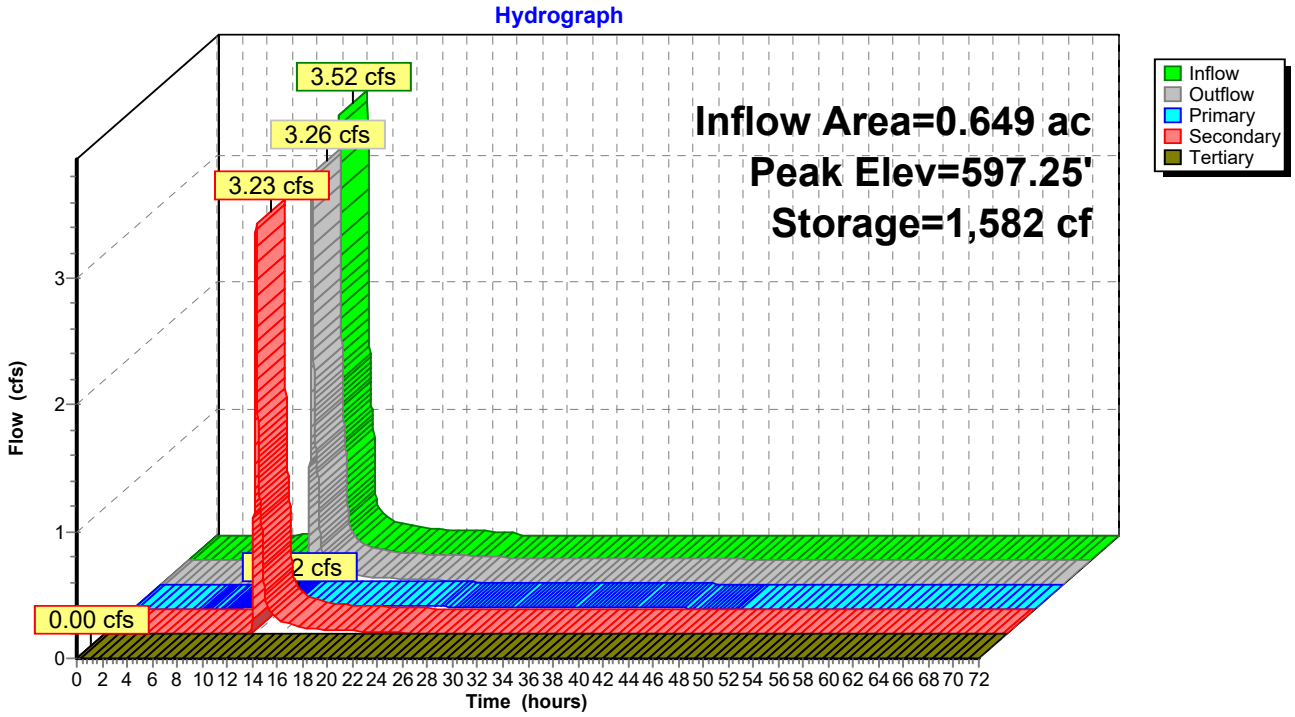
Device	Routing	Invert	Outlet Devices
#1	Primary	596.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	597.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	592.58'	**12.0" Round Culvert** L= 132.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 592.58' / 591.92' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	597.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.02 cfs @ 12.06 hrs HW=597.25' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.02 cfs)

Secondary OutFlow Max=3.22 cfs @ 12.06 hrs HW=597.25' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 3.22 cfs of 5.63 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 3.22 cfs @ 1.63 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=596.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-2: Filtration Bioretention



Summary for Pond BIO-3: Filtration Bioretention

Inflow Area = 0.677 ac, 70.98% Impervious, Inflow Depth = 4.41" for 100-yr event
Inflow = 4.23 cfs @ 12.04 hrs, Volume= 0.249 af
Outflow = 3.61 cfs @ 12.08 hrs, Volume= 0.249 af, Atten= 15%, Lag= 2.3 min
Primary = 0.04 cfs @ 12.08 hrs, Volume= 0.094 af
Routed to Reach DP-1 : Design Point
Secondary = 3.57 cfs @ 12.08 hrs, Volume= 0.155 af
Routed to Reach DP-1 : Design Point
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 596.27' @ 12.08 hrs Surf.Area= 3,443 sf Storage= 2,865 cf
Flood Elev= 597.00' Surf.Area= 3,978 sf Storage= 5,592 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 255.7 min (1,030.5 - 774.9)

Volume	Invert	Avail.Storage	Storage Description
#1	595.00'	5,592 cf	**Above Mulch Surface (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
595.00	705	0	0
596.00	3,250	1,978	1,978
597.00	3,978	3,614	5,592

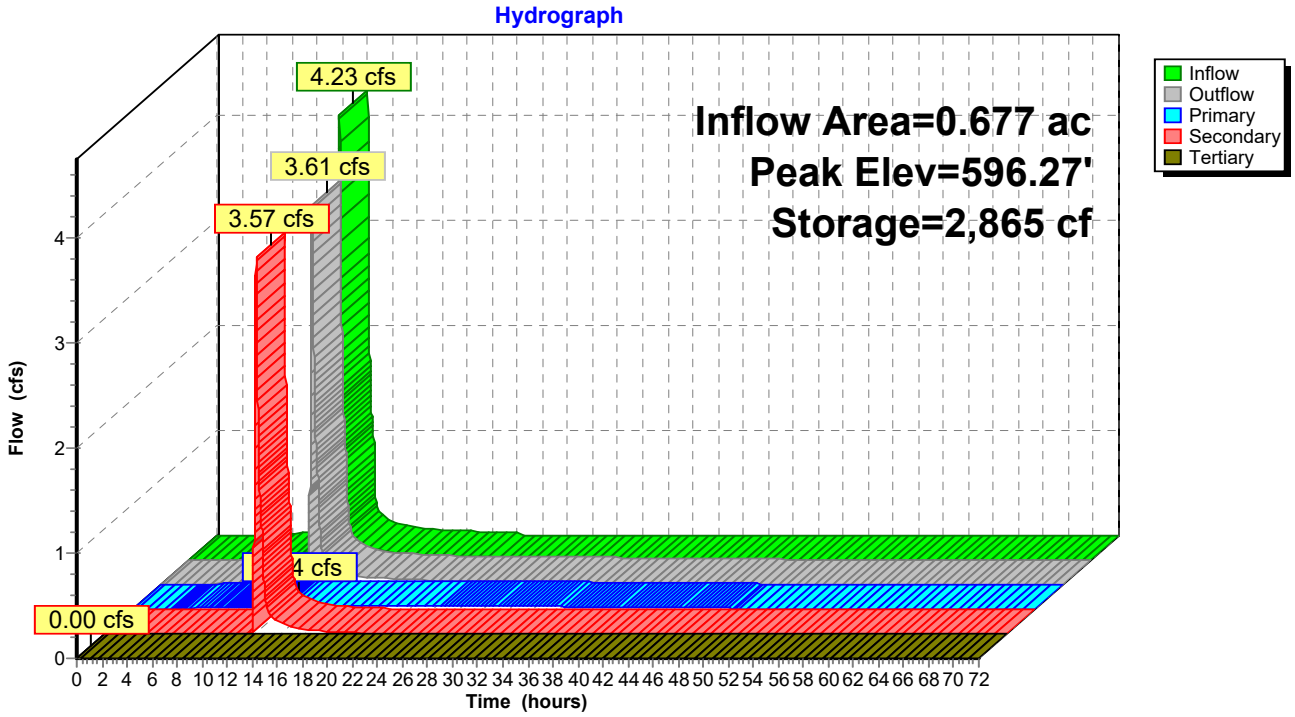
Device	Routing	Invert	Outlet Devices
#1	Primary	595.00'	**0.500 in/hr Exfiltration Through Media over Surface area**
#2	Device 3	596.00'	**24.0" x 24.0" Horiz. Overflow Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	591.58'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.58' / 591.30' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Tertiary	596.50'	**10.0' long x 3.0' breadth Emergency Overflow Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.04 cfs @ 12.08 hrs HW=596.26' TW=0.00' (Dynamic Tailwater)
└**1=Exfiltration Through Media** (Exfiltration Controls 0.04 cfs)

Secondary OutFlow Max=3.57 cfs @ 12.08 hrs HW=596.26' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 3.57 cfs of 6.11 cfs potential flow)
└**2=Overflow Grate** (Weir Controls 3.57 cfs @ 1.68 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=595.00' TW=0.00' (Dynamic Tailwater)
└**4=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond BIO-3: Filtration Bioretention



Summary for Pond CH-1: Chambers

Inflow Area = 2.091 ac, 90.96% Impervious, Inflow Depth = 4.80" for 100-yr event
Inflow = 13.65 cfs @ 12.04 hrs, Volume= 0.836 af
Outflow = 2.40 cfs @ 12.57 hrs, Volume= 0.836 af, Atten= 82%, Lag= 31.8 min
Primary = 2.40 cfs @ 12.57 hrs, Volume= 0.836 af
Routed to Reach DP-1 : Design Point

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 594.85' @ 12.57 hrs Surf.Area= 0.127 ac Storage= 0.322 af
Flood Elev= 598.32' Surf.Area= 0.127 ac Storage= 0.433 af

Plug-Flow detention time= 68.0 min calculated for 0.836 af (100% of inflow)
Center-of-Mass det. time= 68.1 min (825.0 - 757.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	591.25'	0.177 af	**37.08'W x 149.10'L x 5.50'H Field A** 0.698 af Overall - 0.256 af Embedded = 0.442 af x 40.0% Voids
#2A	592.00'	0.256 af	**ADS_StormTech MC-3500 d +Cap**x 100 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 100 Chambers in 5 Rows Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf
		0.433 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	591.25'	**8.0" Round Culvert** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 591.25' / 591.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.40 cfs @ 12.57 hrs HW=594.85' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.40 cfs @ 6.87 fps)

Pond CH-1: Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 5 rows = 149.0 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

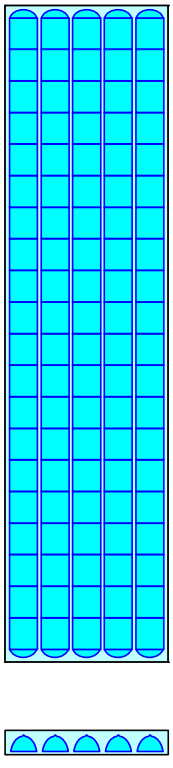
20 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 147.10' Row Length +12.0" End Stone x 2 = 149.10' Base Length
5 Rows x 77.0" Wide + 9.0" Spacing x 4 + 12.0" Side Stone x 2 = 37.08' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

100 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 5 Rows = 11,144.2 cf Chamber Storage

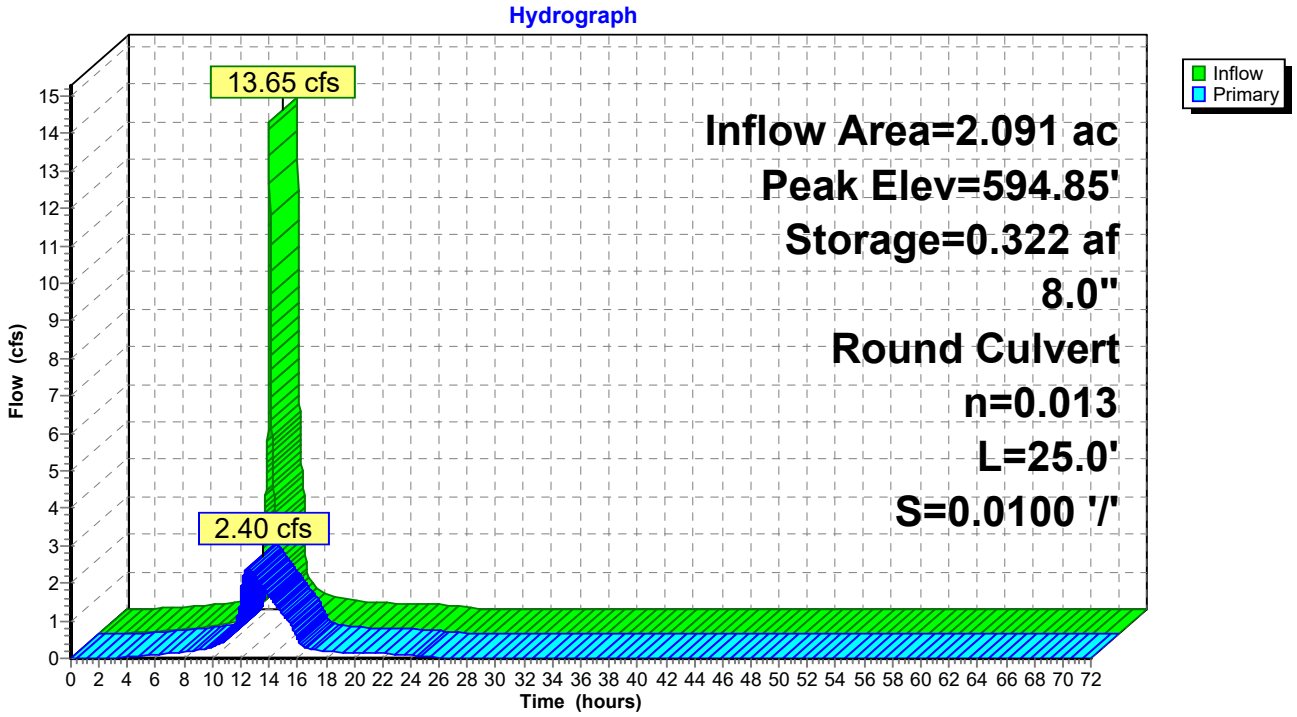
30,410.2 cf Field - 11,144.2 cf Chambers = 19,266.0 cf Stone x 40.0% Voids = 7,706.4 cf Stone Storage

Chamber Storage + Stone Storage = 18,850.6 cf = 0.433 af
Overall Storage Efficiency = 62.0%
Overall System Size = 149.10' x 37.08' x 5.50'

100 Chambers
1,126.3 cy Field
713.6 cy Stone



Pond CH-1: Chambers



Events for Subcatchment PS-1:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	0.72	0.038	0.72
10-yr	3.14	1.71	0.094	1.78
100-yr	**5.22**	**3.44**	**0.194**	**3.67**

Events for Subcatchment PS-2:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	3.74	0.194	1.40
10-yr	3.14	6.39	0.372	2.69
100-yr	**5.22**	**10.80**	**0.657**	**4.75**

Events for Subcatchment PS-3:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	0.74	0.039	0.72
10-yr	3.14	1.75	0.096	1.78
100-yr	**5.22**	**3.52**	**0.199**	**3.67**

Events for Subcatchment PS-4:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	1.28	0.065	1.15
10-yr	3.14	2.39	0.135	2.39
100-yr	**5.22**	**4.23**	**0.249**	**4.41**

Events for Subcatchment PS-5:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	1.06	0.057	1.60
10-yr	3.14	1.72	0.104	2.91
100-yr	**5.22**	**2.85**	**0.179**	**4.98**

Events for Subcatchment PS-6:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	0.37	0.020	1.60
10-yr	3.14	0.61	0.037	2.91
100-yr	**5.22**	**1.01**	**0.063**	**4.98**

Events for Subcatchment PS-7:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	2.49	0.215	0.46
10-yr	3.14	8.08	0.638	1.36
100-yr	**5.22**	**18.94**	**1.451**	**3.09**

Events for Subcatchment PS-8:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	1.82	0.40	0.047	0.46
10-yr	3.14	1.32	0.139	1.36
100-yr	**5.22**	**3.15**	**0.316**	**3.09**

Events for Reach DP-1: Design Point

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	4.12	4.12	**0.00**	**0**
10-yr	13.96	13.96	0.00	0
100-yr	**31.66**	**31.66**	0.00	0

Events for Pond BIO-1: Filtration Bioretention

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	0.72	0.02	0.02	0.00	**0.00**	598.98	994
10-yr	1.71	1.12	0.02	1.10	0.00	599.12	1,232
100-yr	**3.44**	**3.21**	**0.02**	**3.18**	0.00	**599.25**	**1,462**

Events for Pond BIO-2: Filtration Bioretention

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	0.74	0.02	0.02	0.00	**0.00**	596.95	1,010
10-yr	1.75	1.06	0.02	1.04	0.00	597.12	1,319
100-yr	**3.52**	**3.26**	**0.02**	**3.23**	0.00	**597.25**	**1,582**

Events for Pond BIO-3: Filtration Bioretention

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	1.28	0.04	0.04	0.00	**0.00**	595.92	1,729
10-yr	2.39	1.07	0.04	1.03	0.00	596.12	2,359
100-yr	**4.23**	**3.61**	**0.04**	**3.57**	0.00	**596.27**	**2,865**

Events for Pond CH-1: Chambers

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (acre-feet)
1-yr	4.80	1.18	592.38	0.079
10-yr	8.11	1.66	593.15	0.161
100-yr	**13.65**	**2.40**	**594.85**	**0.322**

APPENDIX F:
SWPPP INSPECTION REPORT
(SAMPLE FORM)

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Prepared by:
LaBella Associates
Choose an item.
Choose an item.
Choose an item.

SWPPP INSPECTION REPORT NUMBER XX
CLIENT NAME
PROJECT NAME
PROJECT ADDRESS, TOWN OF X, X COUNTY, NY
PERMIT NUMBER

Performed: 2/1/2025 @ 12:00 AM
Report Issued: 2/1/2025

Status: SATISFACTORY (All erosion control measures are installed and in working order)

Qualified Inspector (name and title)	Qualified Professional (name and title)
Click or tap to enter a date.	Click or tap to enter a date.
Date	Date
Signature	Signature

NYSDEC Documentation and SWPPP Forms

The project has received a Letter of Authorization (LOA) from NYSDEC	Choose an item.
The project has received a five acre waiver approved by NYSDEC or MS4	Choose an item.
The project currently has disturbance greater than five acres	Choose an item.
The project directly discharges to a 303d waterbody/course	Choose an item.
The project is within a phosphorus enhanced watershed	Choose an item.
Number of inspections required per week	Choose an item.

Included in Site Log Book

Preconstruction Assessment	Choose an item.
Copy of Notice of Intent (NOI)	Choose an item.
Letter of Authorization (LOA)	Choose an item.
SWPPP Preparer Certification Form	Choose an item.
Owner/Operator Certification Form	Choose an item.
MS4 SWPPP Acceptance Form	Choose an item.
NYCDEP SWPPP Acceptance/Approval Form	Choose an item.
MS4 No Jurisdiction Form	Choose an item.
Contractor and Subcontractor Certifications	Choose an item.
SPDES General Permit	Choose an item.
Five Acre Waiver Authorization	Choose an item.
Notice of Termination (NOT)	Choose an item.

Site Conditions

Total area (acres) with active soil disturbance (not requiring temporary or final stabilization)	
Total area (acres) with inactive soil disturbance (requiring temporary or final stabilization)	
Total area (acres) that has achieved temporary stabilization	
Total area (acres) that has achieved final stabilization	
Allowable disturbed area (acres) per NOI and/or five acre waiver	

Provide a general description of construction activities ongoing during inspection:

Weather Conditions	Choose an item.
Temperature at time of inspection	XX degrees F
Soil conditions at time of inspection	Choose an item.

Description of Discharge Point/Surface Waters of the State	Condition of Runoff	Sediment Discharge Noted	Corrective Action(s)
	Choose an item.	Choose an item.	
	Choose an item.	Choose an item.	
	Choose an item.	Choose an item.	
	Choose an item.	Choose an item.	

Erosion and Sediment Control Deficiencies and Corrective Actions

In the following table, provide marks in the appropriate columns to indicate the conditions of all erosion and sediment control practices at the site.

Erosion & Sediment Control Practice	Not Applicable	Functioning as Designed	Needs Repair or Maintenance	Not Installed Properly
Temporary Erosion & Sediment Control Practices				
General Site Conditions	☐	☐	☐	☐
Stabilized Construction Access	☐	☐	☐	☐
Silt Fence	☐	☐	☐	☐
Inlet Protection Measures	☐	☐	☐	☐
Soil Stockpiles	☐	☐	☐	☐
Dust Control Measures	☐	☐	☐	☐
Pavement Sweeping	☐	☐	☐	☐
Temporary Stabilization	☐	☐	☐	☐
Dewatering Operations	☐	☐	☐	☐
Slope Protection Measures	☐	☐	☐	☐
Temporary Parking Areas	☐	☐	☐	☐
Concrete Washout	☐	☐	☐	☐
Temporary Swales and Berms	☐	☐	☐	☐
Stone Check Dams	☐	☐	☐	☐
Sediment Traps/Basins	☐	☐	☐	☐
Compost Filter Sock	☐	☐	☐	☐
Temporary Stream Crossing	☐	☐	☐	☐
Fiber Roll	☐	☐	☐	☐
Water Bars	☐	☐	☐	☐
Flow Diffusers	☐	☐	☐	☐
Other:	☐	☐	☐	☐
Permanent Erosion & Sediment Control Practices				
Rock Outlet Protection	☐	☐	☐	☐
Permanent Turf Reinforcement	☐	☐	☐	☐
Permanent Stabilization	☐	☐	☐	☐
Other:	☐	☐	☐	☐
Refer to the following page for deficiencies and corrective actions				

Corrective Actions

For all erosion and sediment control practices identified in the above table as “needs repair or maintenance” or “not installed properly,” provide detailed corrective actions that are required.

ESC Practice ID	Deficiency and Corrective Action	Date Deficiency First Reported	Deficiency Corrected?	Date Deficiency Corrected
Choose an item.		Click or	Choose an	Click or tap
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Stormwater Management Practices

For all stormwater management practices proposed on the project, indicate the status of each practice at the time of inspection, any deficiencies (if applicable) and corresponding corrective actions.

SMP Practice ID	Sign Installed	Status	Deficiency and Corrective Action (if Applicable)	Deficiency Date	Corrected Action Date
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.
	Choose an item.	Choose an item.		Click or tap to enter a date.	Click or tap to enter a date.

Deficiencies and Corrective Action Photo Log

Deficiency Photo 1 *ESC/SMP Practice ID:* *Deficiency Date:* Click or tap to enter a date.	***Corrective Action Photo 1*** *ESC/SMP Practice ID:* *Corrective Action Photo Date:* Click or tap to enter a date.
Deficiency Photo 2 *ESC/SMP Practice ID:* *Deficiency Date:* Click or tap to enter a date.	***Corrective Action Photo 2*** *ESC/SMP Practice ID:* *Corrective Action Photo Date:* Click or tap to enter a date.
Deficiency Photo 3 *ESC/SMP Practice ID:* *Deficiency Date:* Click or tap to enter a date.	***Corrective Action Photo 3*** *ESC/SMP Practice ID:* *Corrective Action Photo Date:* Click or tap to enter a date.

Deficiencies and Corrective Action Photo Log (continued)

Deficiency Photo 4	***Corrective Action Photo 4***
ESC/SMP Practice ID:	*ESC/SMP Practice ID:*
Deficiency Date: Click or tap to enter a date.	*Corrective Action Photo Date:* Click or tap to enter a date.
Deficiency Photo 5	***Corrective Action Photo 5***
ESC/SMP Practice ID:	*ESC/SMP Practice ID:*
Deficiency Date: Click or tap to enter a date.	*Corrective Action Photo Date:* Click or tap to enter a date.
Deficiency Photo 6	***Corrective Action Photo 6***
ESC/SMP Practice ID:	*ESC/SMP Practice ID:*
Deficiency Date: Click or tap to enter a date.	*Corrective Action Photo Date:* Click or tap to enter a date.

Disturbance / Photo Location Map

Replace this page to include an 11x17 erosion control plan sketch to scale showing:

1. Areas with active soil disturbance activity
2. Areas with inactive soil disturbance activity
3. Areas that have achieved temporary stabilization
4. Areas that have achieved final stabilization
5. Photo locations for deficiencies
6. Photo locations for corrective actions
7. Location of erosion and sediment control practices installed

Use Bluebeam template with standard colors to indicate limits

APPENDIX G:
POST-CONSTRUCTION INSPECTIONS AND MAINTENANCE

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Bioretention Stormwater Management Practices Level 1 Inspection Checklist

SMP ID #		**SMP Owner**		☐ Private ☐ Public
SMP Location (Address; Latitude & Longitude)				
	Latitude		**Longitude**	

Party Responsible for Maintenance	**System Type**		**Type of Site**
☐ Same as SMP Owner ☐ Other _____	☐ Seasonal ☐ Continuous Use ☐ Other	☐ Above Ground ☐ Below Ground	☐ Commercial ☐ Industrial ☐ Residential ☐ State

Inspection Date		**Inspection Time**	
Inspector			
Date of Last Inspection			

BR Drainage Area

Look for areas that are uphill from the Bioretention cell.

Problem (Check if Present)	**Follow-Up Actions**
 ☐ Bare soil, erosion of the ground (rills washing out the dirt)	☐ Seed and mulch areas of bare soil to establish vegetation. ☐ Fill in erosion areas with soil, compact, and seed and straw to establish vegetation. ☐ If a rill or small channel is forming, try to redirect water flowing to this area by creating a small berm or adding topsoil to areas that are heavily compacted. ☐ Other:

BR Drainage Area

Look for areas that are uphill from the Bioretention cell.

Problem (Check if Present)	Follow-Up Actions
	☐ Kick-Out to Level 2 Inspection: Large areas of soil have been eroded, or larger channels are forming. May require rerouting of flow paths.
 ☐ Piles of grass clippings, mulch, dirt, salt, or other materials	☐ Remove or cover piles of grass clippings, mulch, dirt, etc. ☐ Other:
 ☐ Open containers of oil, grease, paint, or other substances	☐ Cover or properly dispose of materials; consult your local solid waste authority for guidance on materials that may be toxic or hazardous. ☐ Other:

BR Inlets

Stand in the Bioretention cell itself and look for all the places where water flows in. Often there will be multiple points of inflow to the practice.

Problem (Check if Present)	Follow-Up Actions
 ☐ Inlets collect grit and debris or grass/weeds. Some water may not be getting into the Bioretention cell. The objective is to have a clear pathway for water to flow into the cell.	☐ Use a flat shovel to remove grit and debris (especially at curb inlets or openings). Parking lots generate fine grit that will accumulate at these spots. ☐ Pull out clumps of growing grass or weeds and scoop out the soil or grit that the plants are growing in. ☐ Remove any grass clippings, leaves, sticks, and other debris that is collecting at inlets. ☐ For pipes and ditches, remove sediment and debris that is partially blocking the pipe or ditch opening where it enters the Bioretention cell. ☐ Dispose of all material properly where it will not re-enter the Bioretention cell. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Inlets are blocked to the extent that most of the water does not seem to be entering the Bioretention cell.
 ☐ Some or all of the inlets are eroding so that rills, gullies, and other erosion is present, or there is bare dirt that is washing into the Bioretention cell.	☐ For small areas of erosion, smooth out the eroded part and apply rock or stone (e.g., river cobble) to prevent further erosion. Usually, filter fabric is placed under the rock or stone. ☐ In some cases, reseeding and applying erosion-control matting can be used to prevent further erosion. Some of these materials may be available at a garden center, but it may be best to consult a landscape contractor. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Erosion is occurring at most of the inlets, and it looks like there is too much water that is concentrating at these points. The inlet design may have to be modified.

BR Ponding Area

Examine the entire Bioretention surface and side slopes

Problem (Check if Present)	Follow-Up Actions
 ☐ Mulch (if used) needs to be replaced or replenished. The mulch layer had decomposed or is less than 1-inch thick.	☐ Add new mulch to a total depth (including any existing mulch that is left) of 2 to 3 inches. The mulch should be shredded hardwood mulch that is less likely to float away during rainstorms. ☐ Avoid adding too much mulch so that inlets are obstructed or certain areas become higher than the rest of the Bioretention surface. ☐ Other:
 ☐ Minor areas of sediment, grit, trash, or other debris are accumulating on the bottom.	☐ Use a shovel to scoop out minor areas of sediment or grit, especially in the spring after winter sanding materials may wash in and accumulate. Dispose of the material where it cannot re-enter the Bioretention cell . ☐ If removing the material creates a hole or low area, fill with soil mix that matches original mix and cover with mulch so that the Bioretention surface area is as flat as possible. ☐ Remove trash, vegetative debris, and other undesirable materials. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Sediment has accumulated more than 2-inches deep and covers 25% or more of the Bioretention surface. ☐ Kick-Out to Level 2 Inspection: The Bioretention cell is too densely vegetated to assess sediment accumulation or ponding; see BR-4, Vegetation.

BR Ponding Area

Examine the entire Bioretention surface and side slopes

Problem (Check if Present)	Follow-Up Actions
 ☐ There is erosion in the bottom or on the side slopes. Water seems to be carving out rills as it flows across the Bioretention surface or on the slopes, or sinkholes are forming in certain areas. ☐ Source: Stormwater Maintenance, LLC.	☐ Try filling the eroded areas with clean topsoil or sand, and cover with mulch. ☐ If the problem recurs, you may have to use stone (e.g., river cobble) to fill in problem areas. ☐ If the erosion is on a side slope, fill with clay that can be compacted and seed and mulch the area. ☐ Other: ☐ Kick-Out to Level 2 Inspection: The problem persists or the erosion is more than 3-inches deep and seems to be an issue with how water enters and moves through the Bioretention cell. ☐ Kick-Out to Level 2 Inspection: The problem does not seem to be caused by flowing water, but a collapse or sinking of the surface (e.g., “sinkhole”) due to some underground problem.
 ☐ The bottom of the Bioretention cell is not flat, and the water pools at one end, along an edge, or in certain pockets. The whole bottom is not uniformly covered with water. See design plan to verify that bioretention surface is intended to be flat. Check during or immediately after a rainstorm.	☐ If the problem is minor (just small, isolated areas are not covered with water), try raking the surface OR adding mulch to low spots to create a more level surface. You may need to remove and replace plantings in order to properly even off the surface. ☐ Check the surface with a string and bubble level to get the surface as flat as possible. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Ponding water is isolated to less than half of the Bioretention surface area, and there seem to be elevation differences of more than a couple of inches across the surface.

BR Ponding Area

Examine the entire Bioretention surface and side slopes

Problem (Check if Present)	Follow-Up Actions
 ☐ Water stands on the surface more than 72 hours after a rainstorm and /or wetland-type vegetation is present. The Bioretention cell does not appear to be draining properly.	☐ Kick-Out to Level 2 Inspection: This is generally a serious problem, and it will be necessary to activate a Level 2 Inspection.

BR Vegetation

Examine all Bioretention cell vegetation.

Problem (Check if Present)	Follow-Up Actions
 ☐ Vegetation requires regular maintenance—pulling weeds, removing dead and diseased plants, replacing mulch around plants, adding plants to fill in areas that are not well vegetated, etc.	☐ If you can identify which plants are weeds or not intended to be part of the planting plan, eliminate these, preferably by hand pulling. ☐ If weeds are widespread, check with the local stormwater authority and/or Extension Office about proper use of herbicides for areas connected with the flow of water. ☐ Even vegetation that is intended to be present can become large, overgrown, and/or crowd out surrounding plants. Prune and thin accordingly. ☐ If weeds or invasive plants have overtaken the whole Bioretention cell , bush-hog the entire area before seedheads form in the spring. It will be necessary to remove the root mat manually or with appropriate herbicides, as noted above. ☐ Re-plant with species that are aesthetically pleasing and seem to be doing well in the Bioretention cell. ☐ Other: ☐ Kick-Out to Level 2 Inspection: You are unsure of the original planting design, or the vegetation maintenance task is beyond your capabilities of time, expertise, or resources. If you are unsure of the health of the vegetation (e.g. salt damage, invasives, which plants are undesirable) or the appropriate season to conduct vegetation management, consult a landscape professional before undertaking any cutting, pruning, mowing, or brush hogging.

BR Vegetation

Examine all Bioretention cell vegetation.

Problem (Check if Present)	Follow-Up Actions
 ☐ Vegetation is too thin, is not healthy, and there are many spots that are not well vegetated.	☐ The original plants are likely not suited for the actual conditions within the Bioretention cell . If you are knowledgeable about plants, select and plant more appropriate vegetation (preferably native plants) so that almost the entire surface area will be covered by the end of the second growing season. ☐ Other: ☐ Kick-Out to Level 2 Inspection: For all but small practices (e.g., rain gardens), this task will likely require a landscape design professional or horticulturalist.

BR Outlets

Examine outlets that release water out of the Bioretention cell.

Problem (Check if Present)	Follow-Up Actions
☐ Erosion at outlet	☐ Add stone to reduce the impact from the water flowing out of the outlet pipe or weir during storms. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Rills have formed and erosion problem becomes more severe.
 ☐ Outlet obstructed with mulch, sediment, debris, trash, etc.	☐ Remove the debris and dispose of it where it cannot re-enter the Bioretention cell . ☐ Other: ☐ Kick-Out to Level 2 Inspection: Outlet is completely clogged or obstructed; there is too much material to remove by hand or with simple hand tools.

Additional Notes:

Inspector:_____ Date: _____

Complete the following if follow-up/corrective actions were identified during this inspection:

Certified Completion of Follow-Up Actions:

"I hereby certify that the follow-up/corrective actions identified in the inspection performed on _____ (DATE) have been completed and any required maintenance deficiencies have been adequately corrected."

Inspector/Operator: _____ Date: _____

Bioretention Stormwater Management Practices Level 2 Inspection Checklist

SMP ID #		**SMP Owner**		☐ Private ☐ Public
SMP Location (Address; Latitude & Longitude)				
	Latitude		**Longitude**	

Party Responsible for Maintenance	**System Type**		**Type of Site**
☐ Same as SMP Owner ☐ Other _____	☐ Seasonal ☐ Continuous Use ☐ Other	☐ Above Ground ☐ Below Ground	☐ Commercial ☐ Industrial ☐ Residential ☐ State

Inspection Date		**Inspection Time**	
Inspector			
Date of Last Inspection			

Level 2 Inspection: BIORETENTION NOTE: Key Source for this Information *(CSN, 2013)*	
Recommended Repairs	**Triggers for Level 3 Inspection**
Observed Condition: Water Stands on Surface for More than 72 Hours after Storm	
☐ Condition 1: Small pockets of standing water Use a soil probe or auger to examine the soil profile. If isolated areas have accumulated grit, fines, or vegetative debris or have bad soil media, try scraping off top 3 inches of media and replacing with clean material. Also check to see that surface is level and water is not ponding selectively in certain areas. ☐ Condition 2: Standing water is widespread or covers entire surface Requires diagnosis and resolution of problem: • Clogged underdrain? • Filter fabric between soil media and underdrain stone? • Need to install underdrain if not present? • Too much sediment/grit washing in from drainage area? • Too much ponding depth? • Improper soil media?	• Soil media is clogged and problem is not evident from Level 2 inspection. • Level 2 inspection identifies problem, but it cannot be resolved easily or is associated with the original design of the practice. ☐ Level 3 inspection necessary
Observed Condition: Vegetation is sparse or out of control	
☐ Condition 1: Original design planting plan seems good but has not been maintained, so there are many invasives and/or dead plants Will require some horticultural experience to restore vegetation to intended condition by weeding, pruning, removing plants, and adding new plants. ☐ Condition 2: Original design planting plan is unknown or cannot be actualized A landscape architect or horticulturalist will be needed to redo the planting plan. Will likely require analysis of soil pH, moisture, organic content, sun/shade, and other conditions to make sure plants match conditions. Plan should include invasive plant management and maintenance plan to include mulching, watering, disease intervention, periodic thinning/pruning, etc.	• Vegetation deviates significantly from original planting plan; Bioretention has been neglected and suffered from deferred maintenance. • Owner/responsible party does not know how to maintain the practice. ☐ Level 3 inspection necessary
Observed Condition: Bioretention does not conform to original design plan in surface area or storage	
☐ Condition 1: Level 2 Inspection reveals that practice is too small based on design dimension, does not have adequate storage (e.g., ponding depth) based on the plan, and/or does not treat the drainage area runoff as indicated on the plan Small areas of deviation can be corrected by the property owner or responsible party, but it is likely that a Qualified Professional will have to revisit the design and attempt a redesign that meets original objectives or that can be resubmitted to the municipality for approval.	• More than a 25% departure from the approved plan in surface area, storage, or drainage area; sometimes less than this threshold at the discretion of the Level 2 inspector. ☐ Level 3 inspection necessary

Level 2 Inspection: BIORETENTION NOTE: Key Source for this Information *(CSN, 2013)*	
Recommended Repairs	**Triggers for Level 3 Inspection**
Observed Condition: Severe erosion of filter bed, inlets, or around outlets	
☐ Condition 1: Erosion at inlets The lining (e.g., grass, matting, stone, rock) may not be adequate for the actual flow velocities coming through the inlets. First line of defense is to try a more non-erosive lining and/or to extend the lining further down to where inlet slopes meet the Bioretention surface. If problem persists, analysis by a Qualified Professional is warranted. ☐ Condition 2: Erosion of Bioretention filter bed This is often caused by "preferential flow paths" through and along the Bioretention surface. The source of flow should be analyzed and methods employed to dissipate energy and disperse the flow (e.g., check dams, rock splash pads). ☐ Condition 3: Erosion on side slopes Again, the issue is likely linked with unanticipated flow paths down the side slopes (probably overland flow that concentrates as it hits the edge of the slope). For small or isolated areas, try filling, compacting, and re-establishing healthy ground cover vegetation. If the problem is more widespread, further analysis is required to determine how to redirect the flow.	• Erosion (rills, gullies) is more than 12 inches deep at inlets or the filter bed or more than 3 inches deep on side slopes. • If the issue is not caused by moving water but some sort of subsurface defect. This may manifest as a sinkhole or linear depression and be associated with problems with the underdrain stone or pipe or underlying soil. ☐ Level 3 inspection necessary
Observed Condition: Significant sediment accumulation, indicating an uncontrolled source of sediment	
☐ Condition 1: Isolated areas of sediment accumulation, generally less than 3-inches deep Sediment source may be from a one-time or isolated event. Remove accumulated sediment and top 2 to 3 inches of Bioretention soil media; replace with clean material. Check drainage area for any ongoing sources of sediment. ☐ Condition 2: Majority of the surface is caked with "hard pan" (thin layer of clogging material) or accumulated sediment that is 3-inches deep or more This can be caused by an improper construction sequence (drainage area not fully stabilized prior to installation of Bioretention soil media) or another chronic source of sediment in the drainage area. Augering several holes down through the media can indicate how severe the problem is; often the damage is confined to the first several inches of soil media. Removing and replacing this top layer (or to the depth where sediment incursion is seen in auger holes) can be adequate, as long as the problem does not recur.	• More than 2 inches of accumulated sediment cover 25% or more of the Bioretention surface area. • "Hard pan" of thin, crusty layer covers majority of Bioretention surface area and seems to be impeding flow of water down through the soil media. • New sources of sediment seem to be accumulating with each significant rainfall event. ☐ Level 3 inspection necessary

Notes:

Inspector:_____ Date: _____

Complete the following if follow-up/corrective actions were identified during this inspection:

Certified Completion of Follow-Up Actions:

"I hereby certify that the follow-up/corrective actions identified in the inspection performed on _____ (DATE) have been completed and any required maintenance deficiencies have been adequately corrected."

Inspector/Operator: _____ Date: _____

APPENDIX E:
NYSDEC "DEEP-RIPPING AND DECOMPACTION," APRIL 2008

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New York State
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water

Deep-Ripping and Decompaction

April 2008

Document Prepared by:

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NYS Dept. of Agriculture & Markets)

New York State
Department of Environmental Conservation

Alternative Stormwater Management
Deep-Ripping and Decompaction

Description

The two-phase practice of 1) “Deep Ripping;” and 2) “Decompaction” (deep subsoiling), of the soil material as a step in the cleanup and restoration/landscaping of a construction site, helps mitigate the physically induced impacts of soil compression; i.e.: soil compaction or the substantial increase in the bulk density of the soil material.

Deep Ripping and Decompaction are key factors which help in restoring soil pore space and permeability for water infiltration. Conversely, the physical actions of cut-and-fill work, land grading, the ongoing movement of construction equipment and the transport of building materials throughout a site alter the architecture and structure of the soil, resulting in: the mixing of layers (horizons) of soil materials, compression of those materials and diminished soil porosity which, if left unchecked, severely impairs the soil’s water holding capacity and vertical drainage (rainfall infiltration), from the surface downward.

In a humid climate region, compaction damage on a site is virtually guaranteed over the duration of a project. Soil in very moist to wet condition when compacted, will have severely reduced permeability. Figure 1 displays the early stage of the deep-ripping phase (Note that all topsoil was stripped prior to construction access, and it remains stockpiled until the next phase – decompaction – is complete). A heavy-duty tractor is pulling a three-shank ripper on the first of several series of incrementally deepening passes through the construction access corridor's densely compressed subsoil material. Figure 2 illustrates the approximate volumetric composition of a loam surface soil when conditions are good for plant growth, with adequate natural pore space for fluctuating moisture conditions.



Fig. 1. A typical deep ripping phase of this practice, during the first in a series of progressively deeper “rips” through severely compressed subsoil.

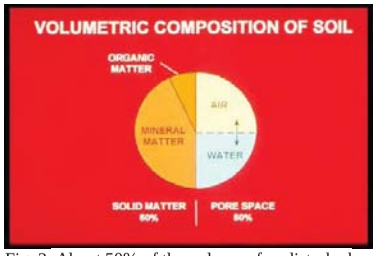


Fig. 2. About 50% of the volume of undisturbed loam surface soil is pore space, when soil is in good condition for plant growth. Brady, 2002.

Recommended Application of Practice



Fig. 3. Construction site with significant compaction of the deep basal till subsoil extends 24 inches below this exposed cut-and-fill work surface.

The objective of Deep Ripping and Decompaction is to effectively fracture (vertically and laterallly) through the thickness of the physically compressed subsoil material (see Figure 3), restoring soil porosity and permeability and aiding infiltration to help reduce runoff. Together with topsoil stripping, the “two-phase” practice of Deep Ripping and Decompaction first became established as a “best management practice” through ongoing success on commercial farmlands affected by heavy utility construction right-of-way projects (transmission pipelines and large power lines).

Soil permeability, soil drainage and cropland productivity were restored. For broader construction application, the two-phase practice of Deep Ripping and Decompaction is best adapted to areas impacted with significant soil compaction, on contiguous open portions of large construction sites and inside long, open construction corridors used as temporary access over the duration of construction. Each mitigation area should have minimal above-and-below-ground obstructions for the easy avoidance and maneuvering of a large tractor and ripping/decompacting implements. Conversely, the complete two-phase practice is not recommended in congested or obstructed areas due to the limitations on tractor and implement movement.

Benefits

Aggressive “deep ripping” through the compressed thickness of exposed subsoil before the replacement/respreading of the topsoil layer, followed by “decompaction,” i.e.: “sub-soiling,” through the restored topsoil layer down into the subsoil, offers the following benefits:

- Increases the project (larger size) area’s direct surface infiltration of rainfall by providing the open site’s mitigated soil condition and lowers the demand on concentrated runoff control structures
- Enhances direct groundwater recharge through greater dispersion across and through a broader surface than afforded by some runoff-control structural measures
- Decreases runoff volume generated and provides hydrologic source control
- May be planned for application in feasible open locations either alone or in

conjunction with plans for structural practices (e.g., subsurface drain line or infiltration basin) serving the same or contiguous areas

- Promotes successful long-term revegetation by restoring soil permeability, drainage and water holding capacity for healthy (rather than restricted) root-system development of trees, shrubs and deep rooted ground cover, minimizing plant drowning during wet periods and burnout during dry periods.

Feasibility/Limitations

The effectiveness of Deep Ripping and Decompaction is governed mostly by site factors such as: the original (undisturbed) soil's hydrologic characteristics; the general slope; local weather/timing (soil moisture) for implementation; the space-related freedom of equipment/implement maneuverability (noted above in **Recommended Application of Practice**), and by the proper selection and operation of tractor and implements (explained below in **Design Guidance**). The more notable site-related factors include:

Soil
In the undisturbed condition, each identified soil type comprising a site is grouped into one of four categories of soil hydrology, Hydrologic Soil Group A, B, C or D, determined primarily by a range of characteristics including soil texture, drainage capability when thoroughly wet, and depth to water table. The natural rates of infiltration and transmission of soil-water through the undisturbed soil layers for Group A is "high" with a low runoff potential while soils in Group B are moderate in infiltration and the transmission of soil-water with a moderate runoff potential, depending somewhat on slope. Soils in Group C have slow rates of infiltration and transmission of soil-water and a moderately high runoff potential influenced by soil texture and slope; while soils in Group D have exceptionally slow rates of infiltration and transmission of soil-water, and high runoff potential.

In Figure 4, the profile displays the undisturbed horizons of a soil in Hydrologic Soil Group C and the naturally slow rate of infiltration through the subsoil. The slow rate of infiltration begins immediately below the topsoil horizon (30 cm), due to the limited amount of macro pores, e.g.: natural subsoil fractures, worm holes and root channels. Infiltration after the construction-induced mixing and compression of such subsoil material is virtually absent; but can be restored back to this natural level with the two-phase practice of deep ripping and decompaction, followed by the permanent establishment of an appropriate, deep taproot

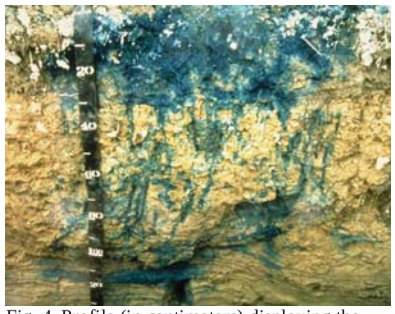


Fig. 4. Profile (in centimeters) displaying the infiltration test result of the natural undisturbed horizons of a soil in Hydrologic Soil Group C.

lawn/ground cover to help maintain the restored subsoil structure. Infiltration after construction-induced mixing and compression of such subsoil material can be notably rehabilitated with the Deep Ripping and Decompaction practice, which prepares the site for the appropriate long-term lawn/ground cover mix including deep taproot plants such as clover, fescue or trefoil, etc. needed for all rehabilitated soils.

Generally, soils in Hydrologic Soil Groups A and B, which respectively may include deep, well-drained, sandy-gravelly materials or deep, moderately well-drained basal till materials, are among the easier ones to restore permeability and infiltration, by deep ripping and decompaction. Among the many different soils in Hydrologic Soil Group C are those unique glacial tills having a natural fragipan zone, beginning about 12 to 18 inches (30 – 45cm), below surface. Although soils in Hydrologic Soil Group C do require a somewhat more carefully applied level of the Deep Ripping and Decompaction practice, it can greatly benefit such affected areas by reducing the runoff and fostering infiltration to a level equal to that of pre-disturbance.

Soils in Hydrologic Soil Group D typically have a permanent high water table close to the surface, influenced by a clay or other highly impervious layer of material. In many locations with clay subsoil material, the bulk density is so naturally high that heavy trafficking has little or no added impact on infiltration; and structural runoff control practices rather than Deep Ripping and Decompaction should be considered.

The information about Hydrologic Soil Groups is merely a general guideline. Site-specific data such as limited depths of cut-and-fill grading with minimal removal or translocation of the inherent subsoil materials (as analyzed in the county soil survey) or, conversely, the excavation and translocation of deeper, unconsolidated substratum or consolidated bedrock materials (unlike the analyzed subsoil horizons' materials referred to in the county soil survey) should always be taken into account.

Sites made up with significant quantities of large rocks, or having a very shallow depth to bedrock, are not conducive to deep ripping and decompation (subsoiling); and other measures may be more practical.

Slope
The two-phase application of 1) deep ripping and 2) decompaction (deep subsoiling), is most practical on flat, gentle and moderate slopes. In some situations, such as but not limited to temporary construction access corridors, inclusion areas that are moderately steep along a project's otherwise gentle or moderate slope may also be deep ripped and decompacted. For limited instances of moderate steepness on other projects, however, the post-construction land use and the relative alignment of the potential ripping and decompaction work in relation to the lay of the slope should be reviewed for safety and practicality. In broad construction areas predominated by moderately steep or steep slopes, the practice is generally not used.

Local Weather/Timing/Soil Moisture
Effective fracturing of compressed subsoil material from the exposed work surface, laterally and vertically down through the affected zone is achieved only when the soil material is moderately dry to moderately moist. Neither one of the two-phases, deep ripping nor decompaction (deep

subsoiling), can be effectively conducted when the soil material (subsoil or replaced topsoil) is in either a “plastic” or “liquid” state of soil consistency. Pulling the respective implements legs through the soil when it is overly moist only results in the “slicing and smearing” of the material or added “squeezing and compression” instead of the necessary fracturing. Ample drying time is needed for a “rippable” soil condition not merely in the material close to the surface, but throughout the material located down to the bottom of the physically compressed zone of the subsoil.

The “poor man’s Atterberg field test” for soil plasticity is a simple “hand-roll” method used for quick, on-site determination of whether or not the moisture level of the affected soil material is low enough for: effective deep ripping of subsoil; respreading of topsoil in a friable state; and final decompaction (deep subsoiling). Using a sample of soil material obtained from the planned bottom depth of ripping, e.g.: 20 - 24 inches below exposed subsoil surface, the sample is hand rolled between the palms down to a 1/8-inch diameter thread. (Use the same test for stored topsoil material before respreading on the site.) If the respective soil sample crumbles apart in segments no greater than 3/8 of an inch long, by the time it is rolled down to 1/8 inch diameter, it is low enough in moisture for deep ripping (or topsoil replacement), and decompaction. Conversely, as shown in Figure 5, if the rolled sample stretches out in increments greater than 3/8 of an inch long before crumbling, it is in a “plastic” state of soil consistency and is too wet for subsoil ripping (as well as topsoil replacement) and final decompaction.



Fig. 5. Augered from a depth of 19 inches below the surface of the replaced topsoil, this subsoil sample was hand rolled to a 1/8-inch diameter. The test shows the soil at this site stretches out too far without crumbling; it indicates the material is in a plastic state of consistence, too wet for final decompaction (deep subsoiling) at this time.

Design Guidance

Beyond the above-noted site factors, a vital requirement for the effective Deep Ripping and Decompaction (deep subsoiling), is implementing the practice in its distinct, two-phase process:

1) Deep rip the affected thickness of exposed subsoil material (see Figure 10 and 11), aggressively fracturing it before the protected topsoil is reapplied on the site (see Figure 12); and

2) Decompact (deep subsoil), simultaneously through the restored topsoil layer and the upper half of the affected subsoil (Figure 13). The second phase, “decompaction,” mitigates the partial recompaction which occurs during the heavy process of topsoil spreading/grading. Prior to deep ripping and decompacting the site, all construction activity, including construction equipment and material storage, site cleanup and trafficking (Figure 14), should be finished; and the site closed off to further disturbance. Likewise, once the practice is underway and the area’s soil permeability and

rainfall infiltration are being restored, a policy limiting all further traffic to permanent travel lanes is maintained.

The other critical elements, outlined below, are: using the proper implements (deep, heavy-duty rippers and subsoilers), and ample pulling-power equipment (tractors); and conducting the practice at the appropriate speed, depth and pattern(s) of movement.

Note that an appropriate plan for the separate practice of establishing a healthy perennial ground cover, with deep rooting to help maintain the restored soil structure, should be developed in advance. This may require the assistance of an agronomist or landscape horticulturist.

Implements

Avoid the use of all undersize implements. The small-to-medium, light-duty tool will, at best, only “scarify” the uppermost surface portion of the mass of compacted subsoil material. The term “chisel plow” is commonly but incorrectly applied to a broad range of implements. While a few may be adapted for the moderate subsoiling of non-impacted soils, the majority are less durable and used for only lighter land-fitting (see Figure 6).



Fig. 6. A light duty chisel implement, not adequate for either the deep ripping or decompaction (deep subsoiling) phase.



Fig. 7. One of several variations of an agricultural ripper. This unit has long, rugged shanks mounted on a steel V-frame for deep, aggressive fracturing through Phase 1.

Use a “heavy duty” agricultural-grade, deep ripper (see Figures 7,9,10 and 11) for the first phase: the lateral and vertical fracturing of the mass of exposed and compressed subsoil, down and through, to the bottom of impact, prior to the replacement of the topsoil layer. (Any oversize rocks which are uplifted to the subsoil surface during the deep ripping phase are picked and removed.) Like the heavy-duty class of implement for the first phase, the decompaction (deep subsoiling) of Phase 2 is conducted with the heavy-duty version of the deep subsoiler. More preferable is the angled-leg variety of deep subsoiler (shown in Figures 8 and 13). It minimizes the inversion of the subsoil and topsoil layers while laterally and vertically fracturing the upper half of the previously ripped subsoil layer and all of the topsoil layer by delivering a momentary, wave-like “lifting and shattering” action up through the soil layers as it is pulled.

Pulling-Power of Equipment

Use the following rule of thumb for tractor horsepower (hp) whenever deep ripping and decompacting a significantly impacted site: For both types of implement, have at least 40 hp of tractor pull available for each mounted shank/ leg.

Using the examples of a 3-shank and a 5-shank implement, the respective tractors should have 120 and 200 hp available for fracturing down to the final depth of 20-to-24 inches per phase. Final depth for the deep ripping in Phase 1 is achieved incrementally by a progressive series of passes (see Depth and Patterns of Movement, below); while for Phase 2, the full operating depth of the deep subsoiler is applied from the beginning.

The operating speed for pulling both types of implement should not exceed 2 to 3 mph. At this slow and managed rate of operating speed, maximum functional performance is sustained by the tractor and the implement performing the soil fracturing. Referring to Figure 8, the implement is the 6-leg version of the deep angled-leg subsoiler. Its two outside legs are "chained up" so that only four legs will be engaged (at the maximum depth), requiring no less than 160 hp, (rather than 240 hp) of pull. The 4-wheel drive, articulated-frame tractor in Figure 8 is 174 hp. It will be decompacting this unobstructed, former construction access area simultaneously through 11 inches of replaced topsoil and the upper 12 inches of the previously deep-ripped subsoil. In constricted areas of Phase 1) Deep Ripping, a medium-size tractor with adequate hp, such as the one in Figure 9 pulling a 3-shank deep ripper, may be more maneuverable.



Fig. 8. A deep, angled-leg subsoiler, ideal for Phase 2 decompaction of after the topsoil layer is graded on top of the ripped subsoil.



Fig. 9. This medium tractor is pulling a 3-shank deep ripper. The severely compacted construction access corridor is narrow, and the 120 hp tractor is more maneuverable for Phase 1 deep ripping (subsoil fracturing), here.

Some industrial-grade variations of ripping implements are attached to power graders and bulldozers. Although highly durable, they are generally not recommended. Typically, the shanks or "teeth" of these rippers are too short and stout; and they are mounted too far apart to achieve the well-distributed type of lateral and vertical fracturing of the soil materials necessary to restore soil permeability and infiltration. In addition, the power graders and bulldozers, as pullers, are far less maneuverable for turns and patterns than the tractor.

Depth and Patterns of Movement

As previously noted both Phase 1 Deep Ripping through significantly compressed, exposed subsoil and Phase 2 Decompaction (deep subsoiling) through the replaced topsoil and upper subsoil need to be performed at maximum capable depth of each implement. With an implement's guide wheels attached, some have a "normal" maximum operating depth of 18 inches, while others may go deeper. In many situations, however, the tractor/implement operator must first remove the guide wheels and other non essential elements from the implement. This adapts the ripper or the deep subsoiler for skillful pulling with its frame only a few inches above surface, while the shanks or legs, fracture the soil material 20-to-24 inches deep.

There may be construction sites where the depth of the exposed subsoil's compression is moderate, e.g.: 12 inches, rather than deep. This can be verified by using a ¾ inch cone penetrometer and a shovel to test the subsoil for its level of compaction, incrementally, every three inches of increasing depth. Once the full thickness of the subsoil's compacted zone is finally "pieced" and there is a significant drop in the psi measurements of the soil penetrometer, the depth/thickness of compaction is determined. This is repeated at several representative locations of the construction site. If the thickness of the site's subsoil compaction is verified as, for example, ten inches, then the Phase 1 Deep Ripping can be correspondingly reduced to the implement's minimum operable depth of 12 inches. However, the Phase 2 simultaneous Decompation (subsoiling) of an 11 inch thick layer of replaced topsoil and the upper subsoil should run at the subsoiling implements full operating depth.



Fig. 10. An early pass with a 3-shank deep ripper penetrating only 8 inches into this worksite's severely compressed subsoil.



Fig. 11. A repeat run of the 3-shank ripper along the same patterned pass area as Fig. 9; here, incrementally reaching 18 of the needed 22 inches of subsoil fracture.

Typically, three separate series (patterns) are used for both the Phase 1 Deep Ripping and the Phase 2 Decompaction on significantly compacted sites. For Phase 1, each series begins with a moderate depth of rip and, by repeat-pass, continues until full depth is reached. Phase 2 applies the full depth of Decompation (subsoiling), from the beginning.

Every separate series (pattern) consists of parallel, forward-and-return runs, with each progressive

pass of the implement's legs or shanks evenly staggered between those from the previous pass. This compensates for the shank or leg-spacing on the implement, e.g., with 24-to-30 inches between each shank or leg. The staggered return pass ensures lateral and vertical fracturing actuated every 12 to 15 inches across the densely compressed soil mass.

Large, Unobstructed Areas
For larger easy areas, use the standard patterns of movement:

- The first series (pattern) of passes is applied lengthwise, parallel with the longest spread of the site; gradually progressing across the site's width, with each successive pass.

- The second series runs obliquely, crossing the first series at an angle of about 45 degrees.

- The third series runs at right angle (or 90 degrees), to the first series to complete the fracturing and shattering on severely compacted sites, and avoid leaving large unbroken blocks of compressed soil material. (In certain instances, the third series may be optional, depending on how thoroughly the first two series loosen the material and eliminate large chunks/blocks of material as verified by tests with a ¾-inch cone penetrometer.)



Fig. 12. Moderately dry topsoil is being replaced on the affected site now that Phase 1 deep ripping of the compressed subsoil is complete.



Fig. 13. The same deep, angled-leg subsoiler shown in Fig. 7 is engaged at maximum depth for Phase 2, decompaction (deep soiling), of the replaced topsoil and the upper subsoil materials.

Corridors
In long corridors of limited width and less maneuverability than larger sites, e.g.: along compacted areas used as temporary construction access, a modified series of pattern passes are used.

- First, apply the same initial lengthwise, parallel series of passes described above.

- A second series of passes makes a broad "S" shaped pattern of rips, continually and gradually alternating the "S" curves between opposite edges inside the compacted corridor.

- The third and final series again uses the broad, alternating S pattern, but it is "flip-flopped" to continually cross the previous S pattern along the corridor's centerline. This final series of the S pattern curves back along the edge areas skipped by the second series.

Maintenance and Cost

Once the two-phase practice of Deep Ripping and Decompation is completed, two items are essential for maintaining a site's soil porosity and permeability for infiltration. They are: planting and maintaining the appropriate ground cover with deep roots to maintain the soil structure (see Figure 15); and keeping the site free of traffic or other weight loads.

Note that site-specific choice of an appropriate vegetative ground-cover seed mix, including the proper seeding ratio of one or more perennial species with a deep taproot system and the proper amount of lime and soil nutrients (fertilizer mix) adapted to the soil-needs, are basic to the final practice of landscaping, i.e: surface tillage, seeding/planting/fertilizing and culti-packing or mulching is applied. The "maintenance" of an effectively deep-ripped and decompacted area is generally limited to the successful perennial (long-term) landscape ground cover; as long as no weight-bearing force of soil compaction is applied.



Fig. 14. The severely compacted soil of a temporary construction yard used daily by heavy equipment for four months; shown before deep ripping, topsoil replacement, and decompaction.



Fig. 15. The same site as Fig. 14 after deep ripping of the exposed subsoil, topsoil replacement, decompaction through the topsoil and upper subsoil and final surface tillage and revegetation to maintain soil permeability and infiltration.

The Deep Ripping and Decompaction practice is, by necessity, more extensive than periodic subsoiling of farmland.The cost of deep ripping and decompacting (deep subsoiling), will vary according to the depth and severity of soil-material compression and the relative amount of tractor and implement time that is required. In some instances, depending on open maneuverability, two-to-three acres of compacted project area may be deep-ripped in one day. In other situations of more severe compaction and - or less maneuverability, as little as one acre may be fully ripped in a day. Generally, if the Phase 1) Deep Ripping is fully effective, the Phase 2) Decompaction should be completed in 2/3 to 3/4 of the time required for Phase 1.

Using the example of two acres of Phase 1) Deep Ripping in one day, at $1800 per day, the net cost is $900 per acre. If the Phase 2) Decompacting or deep subsoiling takes 3/4 the time as Phase 1, it costs $675 per acre for a combined total of $1575 per acre to complete the practice (these figures do not include the cost of the separate practice of topsoil stripping and replacement). Due to the many variables, it must be recognized that cost will be determined by the specific conditions or constraints of the site and the availability of proper equipment.

Resources

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- US Department of Agriculture in cooperation with Cornell University Agricultural Experiment Station. Various years. *Soil Survey of (various names) County, New York.* USDA.

Internet Access:

- Examples of implements:

V-Rippers. Access by internet search of *John Deere Ag -New Equipment for 915* (larger-frame model) *V-Rippe*; and, *for 913* (smaller-frame model) *V-Ripper*. Deep, angled-leg subsoiler. Access by internet search of: B*igham Brothers Shear Bolt Paratill-Subsoiler.* http://salesmanual.deere.com/sales/salesmanual/en_NA/primary_tillage/2008/feature/rippers/915v_pattern_frame.html?sbu=ag&link=prodcat Last visited March 08.

- Soils data of USDA Natural Resources Conservation Service. *NRCS Web Soil Survey.* http://websoilsurvey.nrcs.usda.gov/app/ and *USDA-NRCS Official Soil Series Descriptions; View by Name.* http://ortho.ftw.nrcs.usda.gov/cgi-bin/osd/osdname.cgi . *Last visited Jan. 08.*
- Soil penetrometer information. Access by internet searches of: *Diagnosing Soil Compaction using a Penetrometer (soil compaction tester), PSU Extension;* as well as *Dickey-john Soil Compaction Tester.* http://www.dickey-johnproducts.com/pdf/SoilCompactionTest.pdf and http://cropsoil.psu.edu/Extension/Facts/uc178pdf Last visited Sept. 07

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APPENDIX F: LABELLA CERTIFYING PROFESSIONALS LETTER

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February 21, 2025

RE: LaBella Certifying Professionals for NYSDEC SPDES GP-0-25-001

To Whom it May Concern:

In accordance with the NYSDEC SPDES General Permit GP-0-25-001, Part VII.J.2, Kristopher Winkler, PE, a New York State Qualified Professional employed by LaBella Associates, is duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), Notice of Intents (NOIs) and Notice of Terminations (NOTs).

Respectfully submitted,

LaBella Associates

Timothy Webber
Vice President, Civil Division Director

Kristopher Winkler, PE
Senior Civil Engineer
Team Leader

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APPENDIX G:
NYSDEC SPDES GENERAL PERMIT GP-0-25-001

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NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION (NYSDEC)

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP-0-25-001

Construction General Permit (CGP)

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2025 Expiration Date: January 28, 2030

Scott E. Sheeley

Chief Permit Administrator

Scott E. Sheeley JAN. 29, 2025

Authorized Signature Date

Address: NYSDEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (CWA), and 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), *stormwater discharges* from certain *construction activities* are unlawful unless they are authorized by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. New York State administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7 and 8, and Article 70, as well as 6 NYCRR Parts 621 and 750.

Construction activities constitute construction of a *point source* and, therefore, pursuant to ECL sections 17-0505, 17-0701, and 17-0803, the *owner or operator* must have coverage under a SPDES permit prior to *commencement of construction activities*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES CONSTRUCTION GENERAL PERMIT (CGP) GP-0-25-001
FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part I. How to Obtain Coverage and General Requirements

To be covered under this permit, the *owner or operator* must meet all eligibility requirements in Part I.A. and follow the requirements for obtaining permit coverage in Part I.D., F., or G.

A. Eligibility Requirements

For a *common plan of development or sale*, the *phase(s)* that meet the eligibility requirements in Part I.A. may obtain coverage under this permit even if other *phase(s)* of the same *common plan of development or sale* do not meet the eligibility requirements and require an individual SPDES permit.

1. The *owner's or operator's construction activities* involve soil disturbances of:
    a. one or more acres; or
    b. less than one acre which are part of a *common plan of development or sale* that will ultimately disturb one or more acres; or
    c. less than one acre where NYSDEC has determined that a SPDES permit is required for *stormwater discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of pollutants to *surface waters of the State*.
        i. 5,000 square feet or more, but less than one acre, and are in the New York City Watershed located east of the Hudson River, Appendix C Figure 1; or
        ii. 20,000 square feet or more, but less than one acre, within the municipal boundaries of the City of New York (NYC); or
        iii. less than 20,000 square feet which are part of a *common plan of development or sale* that will ultimately disturb 20,000 square feet or more, but less than one acre, within the municipal boundaries of NYC; or
        iv. that creates 5,000 square feet or more of *impervious area* within the municipal boundaries of NYC.

2. *Discharges* from the *owner's or operator's construction activities* are/were not:
    a. already covered by a different SPDES permit; or
    b. covered under a different SPDES permit that was denied, terminated, or revoked; or
    c. identified in an expired individual SPDES permit that was not renewed; or
    d. required to obtain an individual SPDES permit or another general SPDES permit in accordance with Part VII.K.
3. If *construction activities* may adversely affect a species that is endangered or threatened, the *owner or operator* must obtain a:
    a. permit issued pursuant to 6 NYCRR Part 182 for the project; or
    b. letter issued by NYSDEC of non-jurisdiction pursuant to 6 NYCRR Part 182 for the project.
4. If *construction activities* have the potential to affect an *historic property*, the *owner or operator* must obtain one of the following:
    a. documentation that the *construction activity* is not within an archeological buffer area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:
        i. 1-5 acres of disturbance - 20 feet; or
        ii. 5-20 acres of disturbance - 50 feet; or

iii. 20+ acres of disturbance - 100 feet.

b. NYSDEC consultation form sent to OPRHP,[1] and copied to NYSDEC's Agency Historic Preservation Officer (APO), and

i. the State Environmental Quality Review Act (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or

ii. documentation from OPRHP that the *construction activity* will result in No Impact; or

iii. documentation from OPRHP providing a determination of No Adverse Impact; or

iv. a Letter of Resolution signed by the *owner or operator*, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA).

c. documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

i. No Affect; or

ii. No Adverse Affect; or

iii. Executed Memorandum of Agreement.

d. documentation that SHPA Section 14.09 has been completed by NYSDEC or another state agency.

5. If *construction activities* are subject to SEQR, the *owner or operator* must obtain documentation that SEQR has been satisfied.

6. If *construction activities* are not subject to SEQR, but subject to the equivalent environmental review from another New York State or federal agency, the

[1] The consultation form can be submitted, along with other project information, through OPRHP's Cultural Resource Information System (CRIS) portal. If submitted through CRIS, paper copies of the consultation form need not be mailed.

owner or operator must obtain documentation that project review, pursuant to a process equivalent to SEQR from another New York State or federal agency, has been satisfied.

7. If *construction activities* require Uniform Procedures Act (UPA) Permits (see 6 NYCRR Part 621) from NYSDEC, or the equivalent from another New York State or federal agency, the *owner or operator* must:

a. obtain all such necessary permits; or

b. receive notification from NYSDEC pursuant to 6 NYCRR 621.3(a)(4) excepting Part I.A.7.a.

8. *Construction activities* are not eligible if they meet the following criteria in Part I.A.8.a. or b.:

a. For linear transportation and linear utility project types, the *construction activities*:

i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

ii. are undertaken on land with no existing *impervious cover*; and

iii. disturb two or more acres of *steep slope*.

b. For all other project types, the *construction activities*:

i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

ii. are undertaken on land with no existing *impervious cover*; and

iii. disturb one or more acres of *steep slope*.

B. Types of *Discharges* Authorized

1. The following *stormwater discharges* are authorized under this permit:

   a. *Stormwater discharges*, including *stormwater* runoff, snowmelt runoff, and surface runoff and drainage, associated with *construction activity*, are authorized under this permit provided that appropriate *stormwater* controls are designed, installed, and maintained in accordance with Part II. and Part III.

   b. *Stormwater discharges* from construction support activities at the *construction site* (including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and borrow areas) if the following requirements are met:

      i. The support activity is directly related to the *construction site* required to have permit coverage for *stormwater discharges*; and

      ii. The support activity is not a commercial operation, nor does it serve multiple unrelated *construction sites*; and

      iii. The support activity does not continue to operate beyond the completion of the *construction activity* at the site it supports; and

      iv. *Stormwater* controls are implemented in accordance with Part II. and Part III. for *discharges* from the support activity areas.

2. The following non-*stormwater discharges* associated with *construction activity* are authorized under this permit:

   a. Non-*stormwater discharges* listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "*Discharges* from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; and

   b. Non-*stormwater discharges* of waters to which other components have not been added that are used in accordance with the *SWPPP* to control dust or irrigate vegetation in stabilized areas; and

   c. Uncontaminated *discharges* from *dewatering* operations

3. Authorized *discharges* of *stormwater* or authorized *discharges* of non-*stormwater*, commingled with a *discharge* authorized by a different SPDES permit and/or a *discharge* that does not require SPDES permit authorization, are also authorized under this permit.

C. Prohibited *Discharges*

1. Non-*stormwater discharges* prohibited under this permit include but are not limited to:

   a. Wastewater from washout of concrete; and

   b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials; and

   c. Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance; and

   d. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

   e. Toxic or hazardous substances from a spill or other release.

D. Electronic Notice of Intent (eNOI) Submittal

To receive authorization in accordance with Part I.D.3.b., the *owner or operator* must submit a complete eNOI in accordance with the requirements in Part I.D. The eNOI contains questions to: ensure eligibility requirements in Part I.A. have been met; obtain *owner or operator* contact information; obtain the total area to be disturbed and the existing/future *impervious areas* (rounded to the nearest tenth of an acre); confirm *Traditional Land Use Control MS4 Operator* jurisdiction over construction projects; satisfy the EPA eRule requirements; confirm that the Water Quality-Based Effluent Limitations in Part II. have been met; demonstrate consideration of the future risks due to climate change in accordance with Part III.A.2.; and confirm that the other *Stormwater Pollution Prevention Plan (SWPPP)* requirements in Part III. have been met.

1. An eNOI may be submitted for:

   a. *construction activities* that are not part of a *common plan of development or sale*; or

b. an entire *common plan of development or sale*; or

c. separate *phase(s)* of a *common plan of development or sale* if the following requirements are met:

i. the *common plan of development or sale* meets the eligibility requirements of Part I.A.5. or 6.; and

ii. the *phase(s)* meet(s) all other eligibility requirements of Part I.A.; and

iii. Part III.C. Required *SWPPP* Components by Project Type is based on the *common plan of development or sale*, not the *phase(s)*; or

d. *tree clearing* that is associated with, or will support, a *renewable energy* generation, transmission, or storage project that meets Part I.A.5. and 6., if the *tree clearing*:

i. meets all other eligibility requirements of Part I.A.; and

ii. will occur in NYSDEC's Regions 3-9; and

iii. is not within ¼ mile of a bat hibernaculum protected pursuant to 6 NYCRR Part 182; and

iv. will occur between November 1st and March 31st.

2. As prerequisites for submitting an eNOI, the *owner or operator* must:

a. prepare a *SWPPP* for Part I.D.1.a., b., c., or d. in accordance with Part III.; and

b. based on the following criteria, upload the following signature forms signed in accordance with Part VII.J. to the eNOI prior to submission:

i. for all eNOIs:

1. the SWPPP Preparer Certification Form, Appendix F, signed by the *SWPPP* preparer; and

2. the Owner/Operator Certification Form, Appendix J, signed by the *owner or operator*; and

ii. if an eNOI includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that will *discharge* to the *MS4(s)*:

1. determine if the *Traditional Land Use Control MS4 Operator(s)* have review authority. A *Traditional Land Use Control MS4 Operator* does not have review authority where:

a. the *owner or operator* of the *construction activities* in Part I.D.2.b.ii. is the same entity as the *Traditional Land Use Control MS4 Operator* identified in Part I.D.2.b.ii.; or

b. there is a statute exempting the *owner or operator* from zoning review by the *Traditional Land Use Control MS4 Operator*; or

c. there is no such statute per Part I.D.2.b.ii.1.b., the *Traditional Land Use Control MS4 Operator* concludes, after public hearing, that it does not have zoning review authority in accordance with Legal Memorandum LU14 Updated January 2020 "Governmental Immunity from Zoning and Other Legislation"; and

2. if the *Traditional Land Use Control MS4 Operator(s)* have review authority, submit the *SWPPP* to the *Traditional Land Use Control MS4 Operator(s)* for review and have:

a. if outside the municipal boundaries of NYC: the MS4 SWPPP Acceptance Form, Appendix G, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.; or

b. if within the municipal boundaries of NYC: The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval Form, Appendix H, signed by the principal executive officer or ranking elected official from the Traditional Land Use Control MS4 Operator, or by a duly authorized representative of that person in accordance with Part VII.J.2.; and

3. if the *Traditional Land Use Control MS4 Operator* does not have review authority, have the MS4 No Jurisdiction Form, Appendix I, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.

3. Submitting an eNOI:

   a. The *owner or operator* must submit a complete Notice of Intent electronically using a NYSDEC approved form.[2]

   b. The *owner or operator* is authorized to *commence construction activity* as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.

      i. If an eNOI is received for a *SWPPP* that deviates from one of the technical standards but demonstrates *equivalence* in accordance with Part III.B.1.a.ii. or Part III.B.2.b.ii., if the *SWPPP* includes *construction activities* that are not within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)*, and/or if the *SWPPP* includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that do not have review authority in accordance with Part I.D.2.b.ii.1., the authorization date indicated in the LOA will be 60 business days after the eNOI submission date.

[2] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

c. If *Traditional Land Use Control MS4 Operator(s)* have review authority in accordance with Part I.D.2.b.ii.2., the *owner or operator* must, within five business days of receipt of the LOA, send an electronic copy of the LOA to the *Traditional Land Use Control MS4 Operator(s)* with review authority.

E. General Requirements for *Owners or Operators* with Permit Coverage

1. As of the date the LOA is received, the *owner or operator* must make the eNOI, *SWPPP*, and LOA available for review and copying in accordance with the requirements in Part VII.H. When applicable, as of the date an updated LOA is received, the *owner or operator* must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.

2. The *owner or operator* must ensure compliance with all requirements of this permit and that the provisions of the *SWPPP*, including any changes made to the *SWPPP* in accordance with Part III.A.5., are properly implemented and maintained from the *commencement of construction activity* until:

   a. all areas of disturbance have achieved *final stabilization;* and

   b. the owner's or operator's coverage under this permit is terminated in accordance with Part V.A.5.a.

3. As of the date of the *commencement of construction activities* until Part I.E.2.a. and b. have been met, the *owner or operator* must maintain at the *construction site*, a copy of:

   a. all documentation necessary to demonstrate eligibility with this permit; and

   b. this permit; and

   c. the *SWPPP*; and

   d. the signed SWPPP Preparer Certification Form; and

   e. the signed MS4 SWPPP Acceptance Form or signed NYCDEP SWPPP Acceptance/Approval Form or signed MS4 No Jurisdiction Form (when applicable); and

   f. the signed Owner/Operator Certification Form; and

g. the eNOI; and

h. the LOA; and

i. the LOA transmittal to the Traditional Land Use Control MS4 Operator in accordance with Part I.D.3.c. (when applicable).

4. The *owner or operator* must maintain at the *construction site*, until Part I.E.2.a. and b. have been met, as of the date the documents become final or are received, a copy of the:

   a. responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7.; and

   b. inspection reports in accordance with Part IV.C.4. and 6.; and

   c. Request to Disturb Greater Than Five Acres and the Authorization Letter to Disturb Greater Than Five Acres in accordance with Part I.E.6. (when applicable); and

   d. Request to Continue Coverage and the Letter of Continued Coverage (LOCC) in accordance with Part I.F.2. and 4. (when applicable); and

   e. The updated LOA(s) in accordance with Part I.E.9. (when applicable).

5. The *owner or operator* must maintain the documents in Part I.E.3. and 4. in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the *owner or operator* must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.

6. The *owner or operator* must meet the following requirements prior to disturbing greater than five acres of soil at any one time:

   a. The *owner or operator* must submit a written Request to Disturb Greater Than Five Acres to:

   i. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, if a *Traditional Land Use Control MS4 Operator* does not have review authority in accordance with Part I.D.2.b.ii.1.; or

   ii. the *Traditional Land Use Control MS4 Operator*, if a *Traditional Land Use Control MS4 Operator* has review authority in accordance with Part I.D.2.b.ii.1.; or

   iii. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, and each involved *Traditional Land Use Control MS4 Operator*, if the project spans multiple municipalities with more than one *Traditional Land Use Control MS4 Operator* involved with review authority in accordance with Part I.D.2.b.ii.1.

   b. The written Request to Disturb Greater Than Five Acres must include:

      i. The SPDES permit identification number (Permit ID); and

      ii. Full technical justification demonstrating why alternative methods of construction that would result in five acres of soil disturbance or less at any one time are not feasible; and

      iii. The phasing plan for the project and sequencing plans for all *phases* from the *SWPPP* in accordance with Part III.B.1.d.; and

      iv. Plans with locations and details of erosion and sediment control practices such that the heightened concern for erosion when disturbing greater than five acres at one time has been addressed; and

      v. Acknowledgment that "the *owner or operator* will comply with the requirements in Part IV.C.2.b."; and

      vi. Acknowledgment that "the *owner or operator* will comply with the requirements in Part II.B.1.b."

   c. The *owner or operator* must be in receipt of an Authorization Letter to Disturb Greater Than Five Acres, which will include when the

authorization begins and ends and indicate a maximum area (acres) of soil disturbance allowed at any one time, from:

i. NYSDEC, if Part I.E.6.a.i. or iii. apply; or

ii. the *Traditional Land Use Control MS4 Operator*, if Part I.E.6.a.ii. applies.

7. Upon a finding of significant non-compliance with the practices described in the *SWPPP* or violation of this permit, NYSDEC may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

8. If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE).[3] *Construction activity* shall not resume until written permission to do so has been received from the RWE.

9. To be authorized to implement modifications to the information previously submitted in the eNOI, the *owner or operator* must:

   a. notify NYSDEC via email at Stormwater_info@dec.ny.gov requesting access to update the eNOI; and

   b. update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D.; and

   c. receive an updated LOA.

10. The eNOI, *SWPPP*, LOA, updated LOAs (when applicable), and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

[3] The Regional Water Manager where a DEC Region does not have a RWE.

F. Permit Coverage for *Discharges* Authorized Under GP-0-20-001

When applicable:

1. Upon the effective date of this permit, an *owner or operator* of *a construction activity*, with coverage under GP-0-20-001, will have interim coverage under GP-0-25-001 for 45 calendar days starting on the effective date of GP-0-25-001 so long as the *owner or operator* maintains compliance with all applicable requirements of this permit.

2. Within 30 calendar days of the effective date of this permit, the *owner or operator*, with coverage under GP-0-20-001, must submit a complete Request to Continue Coverage electronically using a NYSDEC approved form,[4] which contains the information identified in Part I.F.3. below, if:

   a. the *owner or operator* continues to implement the SMP component in conformance with the technical standards in place at the time of initial project authorization; and

   b. the *owner or operator* will comply with all non-design requirements of GP-0-25-001.

3. The Request to Continue Coverage form contains questions to: ensure eligibility requirements in Part I.A. have been met; verify *owner or operator* contact information; verify the permit identification number; verify the original eNOI submission ID, if applicable; verify Part I.F.2.a. and b.; verify the version of the Design Manual that the technical/design components conform to; and receive an updated Owner/Operator Certification Form, Appendix I.

4. The *owner or operator* has obtained continued coverage under GP-0-25-001 as of the date indicated in the LOCC, which is sent by NYSDEC after a complete Request to Continue Coverage form is submitted.

5. If the owner or operator does not submit the Request to Continue Coverage form in accordance with Part I.F.2. and 3., coverage under this permit is automatically terminated after interim coverage expires.

[4] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

G. Change of *Owner or Operator*

When applicable:

1. When property ownership changes, or when there is a change in operational control over the construction plans and specifications, the following process applies:

   a. The new *owner or operator* must meet the applicable prerequisites for submitting an eNOI in accordance with Part I.D.2.; and

   b. The new *owner or operator* must submit an eNOI in accordance with Part I.D.3.; and

   c. Permit coverage for the new *owner or operator* will be effective upon receipt of the LOA in accordance with Part I.D.3.b.; and

   d. The new *owner or operator*, upon receipt of their LOA, must provide their Permit ID to the original *owner or operator*; and

   e. If the original *owner or operator* will no longer be the *owner or operator* of the *construction activity* identified in the original *owner's or operator's* eNOI, the original *owner or operator*, upon receipt of the new *owner's or operator's* Permit ID in accordance with Part I.G.1.d., must submit to NYSDEC a completed eNOT in accordance with Part V. that includes the name and Permit ID of the new *owner or operator*; or

   f. If the original *owner or operator* maintains ownership of a portion of the *construction activity*, the original *owner or operator* must maintain their coverage under the permit by modifying their eNOI; modifications to the eNOI must include:

      i. the revised area of disturbance and/or *impervious area(s)*; and

      ii. the revised SMP information, if applicable; and

      iii. a narrative description of what has changed; and

      iv. the new *owner's or operator's* Permit ID for the portion of the project removed from the eNOI.

   Owners or operators must follow Part I.E.9. to modify the eNOI.

Part II. Water Quality-Based Effluent Limitations

A. Maintaining Water Quality

NYSDEC expects that compliance with the requirements of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any *discharge* to either cause or contribute to a violation of the following *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York:

1. There must be no increase in turbidity that will cause a substantial visible contrast to natural conditions; and

2. There must be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There must be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the *stormwater discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standard,* the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this permit and document in accordance with Part IV.C.4. of this permit. To address the *water quality standard* violation the *owner or operator* must include and implement appropriate controls in the *SWPPP* to correct the problem or obtain an individual SPDES permit.

If, despite compliance with the requirements of this permit, it is demonstrated that the *stormwater discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if NYSDEC determines that a modification of this permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit, and the *owner or operator* must obtain an individual SPDES permit prior to further *discharges* from the *construction site*.

B. Effluent Limitations Applicable to *Discharges* from *Construction Activities*

Discharges authorized by this permit must achieve, at a minimum, the effluent limitations in Part II.B.1.a., b., c., d., and e. These limitations represent the

degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement, and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part II.B.1.a., b., c., d., and e. and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (BB), dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in *SWPPP* the reason(s) for the deviation, or alternative design, and provide information in the *SWPPP* demonstrating that the deviation or alternative design is *equivalent* to the technical standard.

   a. **Erosion and Sediment Controls.** At a minimum, erosion and sediment controls must be selected, designed, installed, implemented, and maintained to:

      i. *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*; and

      ii. Control *stormwater discharges*, including both peak flow rates and total *stormwater* volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points; and

      iii. *Minimize* the amount of soil exposed during *construction activity*; and

      iv. *Minimize* the disturbance of *steep slope*; and

      v. *Minimize* sediment *discharges* from the site; and

      vi. Provide and maintain *natural buffers* around surface waters, direct *stormwater* to vegetated areas and maximize *stormwater* infiltration to reduce *pollutant discharges*, unless *infeasible*; and

      vii. *Minimize* soil compaction. *Minimizing* soil compaction is not required

      where the intended function of a specific area of the site dictates that it be compacted; and

      viii. Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

      ix. *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of *pollutants* that could be discharged from the site.

   b. **Soil Stabilization.** In areas where soil disturbance activity has ceased, whether permanently or *temporarily ceased*, the application of soil stabilization measures must be initiated by the end of the next business day and completed within 14 calendar days from the date the current soil disturbance activity ceased. For *construction sites* that *directly discharge* to one of the 303(d) segments listed in Appendix D, or are located in one of the watersheds listed in Appendix C, or are authorized to disturb greater than five acres in accordance with Part I.E.5.a.viii., the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven calendar days from the date the soil disturbance activity ceased.

   c. **Dewatering.** *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

   d. **Pollution Prevention Measures.** Select, design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be selected, designed, installed, implemented, and maintained to:

      i. *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. Soaps, detergents and solvents cannot be used; and

      ii. *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation

and to *stormwater*. *Minimization* of exposure is not required in cases where the exposure to precipitation and to *stormwater* will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of *stormwater* contamination (such as final products and materials intended for outdoor use); and

iii. Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Surface Outlets.** When discharging from basins and impoundments, the surface outlets must be designed, constructed, and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-Construction Stormwater Management Practice (SMP) Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction SMPs, in accordance with Part III.C., must select, design, install, implement, and maintain the SMPs to meet the *performance criteria* in the New York State Stormwater Management Design Manual, dated July 31, 2024 (DM), using sound engineering judgment. Where SMPs are not designed in conformance with the *performance criteria* in the DM, the *owner or operator* must include in the *SWPPP* the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity*, that requires SMPs in accordance with Part III.C., must design the practices to meet the applicable *sizing criteria* in Part II.C.2.a., b., c., or d.

a. Sizing Criteria for *New Development*

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the total WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv must be calculated in accordance with the criteria in Section 4.2 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the requirements in Part II.C.2.a.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.4 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs without detention or velocity controls; or

3. The site *directly discharges* into a fifth order or larger water body (stream, river, or lake), or tidal waters, where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watersheds

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24-hour design storm over the post-developed watershed and must be calculated in accordance with the criteria in Section 4.3 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part II.C.2.b.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include

documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.5 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs; or

3. The site *directly discharges* to tidal waters, or a fifth order or larger water body (stream, river, or lake) where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

c. *Sizing Criteria* for *Redevelopment Activity*

i. Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* must be addressed by one of the following options, as outlined in Section 9.2.1. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C) must calculate the WQv in accordance with Section 4.3 of the DM. All other *redevelopment activities* must calculate the WQv in accordance with Section 4.2 of the DM.

1. Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the DM must be applied to all newly created pervious areas; or

2. Capture and treat 100% of the required WQv, for a minimum of 25% of the disturbed redevelopment *impervious area*, by implementation of standard SMPs or reduced by application of runoff reduction techniques; or

3. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a volume-based alternative SMP, as defined in Section 9.4 of the DM; or

4. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a flow-through alternative SMP sized to treat the peak rate of runoff from the WQv design storm; or

5. Application of a combination of 1 through 4 above that provide a weighted average of at least two of the above methods. Application of this method must be in accordance with the criteria in Section 9.2.1(A)(V) of the DM; or

6. If there is an existing SMP located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 through 5 above.

ii. Channel Protection Volume (CPv) is not required if there is 0% change to hydrology that increases the *discharge* rate and volume from the project site.

iii. *Overbank* Flood Control (Qp) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

iv. Extreme Flood Control (Qf) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

d. *Sizing Criteria* for Combination of *Redevelopment Activity* and *New Development*

Construction projects, that include both *new development* and *redevelopment activity*, must use SMPs that meet the *sizing criteria* calculated as an aggregate of the *sizing criteria* in Part II.C.2.a. or b. for the *new development* portion of the project and Part II.C.2.c. for the *redevelopment activity* portion of the project.

Part III. Stormwater Pollution Prevention Plan (SWPPP)

A. General *SWPPP* Requirements

1. A *SWPPP* must be prepared and implemented by the *owner or operator* of all *construction activity* covered by this permit. All authorized *discharges* must be identified in the *SWPPP*. The *SWPPP* must document the selection, design, installation, implementation and maintenance of the control measures and

practices that will be used to meet the effluent limitations in Part II.B. and, where applicable, the SMP requirements in Part II.C.

2. The *SWPPP* must demonstrate consideration in narrative format of the future physical risks due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR Part 490, and associated guidance.

   a. The owner or operator must consider:

      i. the following physical risks due to climate change:

         (i) increasing temperature; and

         (ii) increasing precipitation; and

         (iii) increasing variability in precipitation, including chance of drought; and

         (iv) increasing frequency and severity of flooding; and

         (v) rising sea level; and

         (vi) increasing storm surge; and

         (vii) shifting ecology.

      ii. for each of the following:

         (i) overall site planning; and

         (ii) location, elevation, and sizing of:

            a. control measures and practices; and

            b. conveyance system(s); and

            c. detention system(s).

3. The *SWPPP* must describe the erosion and sediment control practices and where required, SMPs that will be used and/or constructed to reduce the *pollutants* in *stormwater discharges* and to assure compliance with the

requirements of this permit. In addition, the *SWPPP* must identify potential sources of pollution which may reasonably be expected to affect the quality of *stormwater discharges*.

4. All *SWPPPs*, that require the SMP component in accordance with Part III.B.2., must be prepared by a *qualified professional*.

5. The *owner or operator* must keep the *SWPPP* current so that, at all times, it accurately documents the erosion and sediment control practices that are being used or will be used during construction, and all SMPs that will be constructed on the site. At a minimum, the *owner or operator* must modify the *SWPPP*, including construction drawings:

   a. whenever the current provisions prove to be ineffective in *minimizing pollutants* in *stormwater discharges* from the site; and

   b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*; and

   c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* NYSDEC, or other regulatory authority; and

   d. to document the final construction conditions in an as-built drawing.

6. NYSDEC may notify the *owner or operator* at any time that the *SWPPP* does not meet one or more of the minimum requirements of this permit. The notification must be in writing and identify the provisions of the *SWPPP* that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by NYSDEC, the *owner or operator* must make the required changes to the *SWPPP* and submit written notification to NYSDEC that the changes have been made. If the *owner or operator* does not respond to NYSDEC's comments in the specified time frame, NYSDEC may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4.

7. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion and sediment control practices included in the *SWPPP* and the

contractor(s) and subcontractor(s) that will be responsible for constructing the SMPs included in the *SWPPP*. The *owner or operator* must have each of the contractors and subcontractors identify at least one person from their company to be *trained contractor* that will be responsible for implementation of the *SWPPP*. The *owner or operator* must ensure that at least one *trained contractor* is on site daily when soil disturbance activities are being performed.

The *owner or operator* must have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before the *commencement of construction activities*:

> "I hereby certify under penalty of law that I understand and agree to comply with the requirements of the *SWPPP* and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the *SWPPP* that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for *SWPPP* implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* must attach the certification statement(s) to the copy of the *SWPPP* that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the *SWPPP* after the *commencement of construction activities*, they must also sign the certification statement and provide the information listed above prior to performing *construction activities*.

B. Required *SWPPP* Contents

1. Erosion and sediment control component - The *owner or operator* must prepare a *SWPPP* that includes erosion and sediment control practices.

    a. Erosion and sediment control practices must be designed:

        i. in conformance with the BB; or

        ii. *equivalent* to the BB if deviating from Part III.B.1.a.i.

    b. If the erosion and sediment control practices are designed in conformance with Part III.B.1.a.ii., the *SWPPP* must include a demonstration of *equivalence* to the BB.

    c. At a minimum, the erosion and sediment control component of the *SWPPP* must include the following:

        i. Background information about the scope of the project, including the location, type and size of project; and

        ii. A site map/construction drawing(s) with north arrows for the project, including a general location map. At a minimum, the site map must show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the *stormwater discharge*(s) and receiving surface water(s); and

        iii. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG); and

        iv. A phasing plan for the project and sequencing plans for all *phases*, both of which must address clearing and grubbing, excavation and grading, utility and infrastructure installation, *final stabilization*,

and any other *construction activity* at the site that will result in soil disturbance.

1. The phasing plan must include:

    a. a map delineating and labeling the limits of soil disturbance for all *phases* of a project; and

    b. a table identifying the order and intended schedule of when each *phase* will begin and end its sequencing plan. The table must identify the total disturbed area for each *phase* at any one time and the total disturbed area for the overall project at any one time all on one timeline showing all overlapping quantities of disturbed area at any one time; and

2. A sequencing plan for a specific *phase* must include:

    a. a table indicating the order and intended schedule of *construction activities* within a *phase*, and corresponding construction drawings with a description of the work to be performed; and

    b. all permanent and *temporary stabilization* measures; and

v. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented; and

vi. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice; and

vii. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any

temporary sediment basins and structural practices that will be used to divert flows from exposed soils; and

viii. A maintenance inspection schedule for the contractor(s) and subcontractor(s) identified in Part III.A.7. to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule must be in accordance with the requirements in the BB technical standard; and

ix. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the *stormwater discharges*; and

x. A description and location of any *stormwater discharges* associated with industrial activity other than construction at the site, including, but not limited to, *stormwater discharges* from asphalt plants and concrete plants located on the *construction site*; and

xi. Identification of any elements of the design that are not in conformance with the design criteria in the BB technical standard. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. SMP component – The *owner or operator* of *construction activity* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs.

    a. SMPs must be designed in conformance with the applicable *sizing criteria* in Part II.C.2.a., c., or d.; and

    b. SMPs must be designed in conformance with the *performance criteria*:

        i. in the DM; or

        ii. *equivalent* to the DM if deviating from Part III.B.2.b.i.; or

        iii. in the New York State Stormwater Management Design Manual, dated January 2015 (2015 Design Manual), or *equivalent* to it, if the following criteria are met:

1. The eNOI is submitted in accordance with Part I.D. before January 29, 2027 for *construction activities* that are either:

    a. subject to governmental review and approval:

        i. where the *owner or operator* made any application to that governmental entity prior to the effective date of this permit; and

        ii. such application included a *SWPPP* developed using the 2015 Design Manual or *equivalent* to it; or

    b. not subject to governmental review and approval:

        i. where a fiscal allocation for the *construction activities* has been developed and approved by a governmental entity; and

        ii. the *SWPPP* was developed using the 2015 Design Manual or *equivalent* to it; and

c. If SMPs are designed in conformance with Part III.B.2.b.ii., the *SWPPP* must include the reason(s) for the deviation or alternative design and a demonstration of *equivalence* to the DM; and

d. If SMPs are designed in conformance with Part III.B.2.b.iii., the *SWPPP* must include supporting information or documentation demonstrating that Part III.B.2.b.iii.1.a. or b. apply; and

e. The SMP component of the *SWPPP* must include the following:

    i. Identification of all SMPs to be constructed as part of the project, including which option the SMP designs conform to, either Part III.B.2.b.i., ii., or iii. Include the dimensions, material specifications and installation details for each SMP; and

    ii. A site map/construction drawing(s) showing the specific location and size of each SMP; and

iii. A Stormwater Modeling and Analysis Report that includes:

    (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points; and

    (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and SMPs; and

    (iii) Results of *stormwater* modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre- and post-development runoff rates and volumes for the different storm events; and

    (iv) Summary table, with supporting calculations, which demonstrates that each SMP has been designed in conformance with the *sizing criteria* included in the DM; and

    (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part II.C.; and

    (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the DM. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the DM.

iv. Soil testing results and locations (test pits, borings); and

v. Infiltration test results, when required in accordance with Part III.B.2.a.; and

vi. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each SMP. The plan must identify the entity

that will be responsible for the long-term operation and maintenance of each practice; and

3. Enhanced Phosphorus Removal Standards - The *owner or operator* of *construction activity* identified in Table 2 of Appendix B that is located in a watershed identified in Appendix C must prepare a *SWPPP* that includes SMPs designed in conformance with the applicable *sizing criteria* in Part II.C.2.b., c., or d. and the *performance criteria* Enhanced Phosphorus Removal Standards included in the DM. At a minimum, the SMP component of the *SWPPP* must meet the requirements of Part III.B.2.

C. Required *SWPPP* Components by Project Type

Owners or operators of *construction activities*, identified in Table 1 of Appendix B, are required to prepare a *SWPPP* that only includes erosion and sediment control practices designed in accordance with Part III.B.1. *Owners or operators* of the *construction activities*, identified in Table 2 of Appendix B, must prepare a *SWPPP* that also includes SMPs designed in accordance with Part III.B.2 or 3.

For the entire area of disturbance, including the entire *common plan of development or sale* if applicable, the owner or operator must evaluate every bullet from Appendix B Table 1 and Table 2 separately. If bullets from both Table 1 and Table 2 apply, the *SWPPP* must include erosion and sediment control practices for all *construction activities* but SMPs for only those portions of the *construction activities* that fall under Table 2 bullet(s).

Part IV. Inspection and Maintenance Requirements

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures), and all SMPs identified in the *SWPPP*, are inspected and maintained in accordance with Part IV.B. and C.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity*, identified in Tables 1 and 2 of Appendix B, must have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being

implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor must:

a. if the corrective action does not require engineering design:

   i. begin implementing corrective actions within one business day; and

   ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

   i. begin the engineering design process within five business days; and

   ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

2. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. The *trained contractor* must begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.

3. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational.

C. *Qualified Inspector* Inspection Requirements

1. With the exception of the following *construction activities* identified in Tables 1 and 2 of Appendix B, a *qualified inspector* must conduct site inspections for all other *construction activities* identified in Tables 1 and 2 of Appendix B:

   a. the construction of a single-family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than or equal to five (5) acres and is

not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

b. the construction of a single-family home that involves soil disturbances of one (1) or more acres but less than or equal to five (5) acres and is not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

c. construction on *agricultural property* that involves soil disturbances of one (1) or more acres but less than five (5) acres; and

d. *construction activities* located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances of 5,000 square feet or more, but less than one acre.

2. The *qualified inspector* must conduct site inspections in accordance with the following timetable:

a. For *construction sites* where soil disturbance activities are on-going, the *qualified inspector* must conduct a site inspection at least once every seven (7) calendar days; or

b. For *construction sites* where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part I.E.6. to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days; or

c. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* must conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas under the jurisdiction of a *Traditional Land Use Control MS4 Operator,* the *Traditional Land Use Control MS4 Operator* (provided the *Traditional Land Use Control MS4 Operator* is not the *owner or operator* of the *construction activity*) by hard copy or email prior to reducing the inspections to this frequency and again by hard copy or email prior to re-commencing construction; or

d. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the requirement to have the *qualified inspector* conduct inspections ceases if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1., the *Traditional Land Use Control MS4 Operator(s)* (provided the *Traditional Land Use Control MS4 Operator(s)* are not the *owners or operators* of the *construction activity*) in writing prior to the shutdown and again in writing prior to resuming *construction activity*. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* must terminate coverage by meeting the requirements of Part V; or

e. For *construction sites* involving soil disturbance of one (1) or more acres that *directly discharge* to one of the 303(d) segments listed in Appendix D or is located in one of the watersheds listed in Appendix C, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* must inspect:

a. all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness; and

b. all SMPs under construction to ensure that they are constructed in conformance with the *SWPPP*; and

c. all areas of disturbance that have not achieved *final stabilization*; and

d. all points of *discharge* to *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site*; and

e. all points of *discharge* from the *construction site*.

4. The *qualified inspector* must prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report must include and/or address all of the following, for all *construction activities* except those listed in Part IV.C.1.:

   a. Permit identification number; and

   b. Date and time of inspection; and

   c. Name and title of person(s) performing inspection; and

   d. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and

   e. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This must include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; and

   f. A description of the condition of all *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This must include identification of any *discharges* of sediment to the *surface waters of the State*; and

   g. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and

   h. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and

   i. Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and

   j. Estimates, in square feet or acres, of the following areas:

      i. Total area with active soil disturbance (not requiring either *temporary stabilization* or *final stabilization*); and

      ii. Total area with inactive soil disturbance (requiring either *temporary stabilization* or *final stabilization*); and

      iii. Total area that has achieved *temporary stabilization*; and

      iv. Total area that has achieved *final stabilization*; and

   k. Current stage of construction of all SMPs and identification of all *construction activity* on site that is not in conformance with the *SWPPP* and technical standards; and

   l. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and

   m. Identification and status of all corrective actions that were required by previous inspection; and

   n. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* must attach color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* must also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* must attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* must notify the *owner or operator*, and appropriate contractor or subcontractor identified in Part III.A.7., of any corrective actions that need to be taken. The contractor or subcontractor must:

   a. if the corrective action does not require engineering design:

i. begin implementing corrective actions within one business day; and

ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

i. begin the engineering design process within five business days; and

ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

6. All inspection reports must be signed by the *qualified inspector.* In accordance with Part I.E.3., the inspection reports must be maintained on site with the *SWPPP*.

Part V. How to Terminate CGP Coverage

A. Electronic Notice of Termination (eNOT) Submittal

The eNOT contains questions to ensure requirements in Part V.A. have been met.

1. An *owner or operator* must terminate coverage when one or more of the following requirements have been met:

a. Total project completion:

i. all *construction activity* identified in the *SWPPP* has been completed; and

ii. all areas of disturbance have achieved *final stabilization*; and

iii. all temporary, structural erosion and sediment control measures have been removed; and

iv. all SMPs have been constructed in conformance with the *SWPPP* and are operational; and

v. an as-built drawing has been prepared; or

b. Planned shutdown with partial project completion:

i. all soil disturbance activities have ceased; and

ii. all areas disturbed as of the project shutdown date have achieved *final stabilization*; and

iii. all temporary, structural erosion and sediment control measures have been removed; and

iv. all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational; and

v. an as-built drawing has been prepared; or

c. In accordance with Part I.G. Change of Owner or Operator; or

d. The *owner or operator* has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.

2. For *construction activities* that require *qualified inspector* inspections in accordance with Part IV.C.1. and have met Part V.A.1.a. or b., the *owner or operator* must have the *qualified inspector* perform a final site inspection prior to submitting the eNOT. The *qualified inspector* must, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice(s)" certification statements on the eNOT, certify that all the requirements in Part V.A.1.a. or b. have been achieved.

3. For *construction activities* that are subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1. and meet Part V.A.1.a. or b., the *owner or operator* must have the *Traditional Land Use Control MS4 Operator(s)* sign the "MS4 Acceptance" statement on the eNOT in accordance with the requirements in Part VII.J. A *Traditional Land Use Control MS4 Operator* official, by signing this statement, determined that it is acceptable for the *owner or operator* to submit the eNOT in accordance with the requirements of this Part. A *Traditional Land Use Control MS4 Operator* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) when required in Part V.A.2.

4. For *construction activities* that require SMPs and meet Part V.A.1.a. or b., the *owner or operator* must, prior to submitting the eNOT, ensure one of the following:

   a. for SMP(s) that were constructed by a private entity, but will be owned, operated, and maintained by a public entity, the SMP(s) and any right-of-way(s) needed to operate and maintain such practice(s) have been deeded to the municipality in which the practice(s) is located; or

   b. for SMP(s) that are privately owned, but will be operated and maintained by a public entity, an executed operation and maintenance agreement is in place with the municipality that will operate and maintain the SMP(s); or

   c. for SMP(s) that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record; or

   d. for SMP(s) that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility, the *owner or operator* has policies and procedures in place that ensure operation and maintenance of the practices in accordance with the operation and maintenance plan.

5. An *owner or operator* that has met the requirements of Part V.A.1., 2., 3., and 4. must request termination of coverage under this permit by submitting a complete Notice of Termination form electronically using a NYSDEC approved form.[5]

   a. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

[5] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

Part VI. Record Retention and Reporting

A. Record Retention

The *owner or operator* must retain a copy of the documents listed in Part I.E.3. and a copy of the LOT for a period of at least five years from the date that NYSDEC accepts a complete NOT submitted in accordance with Part V.

B. Reporting

Except for the eNOI, the signature forms associated with the eNOI, and the eNOT, all other written correspondence requested by NYSDEC, including individual permit applications, must be sent to the address of the appropriate DOW (SPDES) Program contact at the Regional Office listed in Appendix E.

Part VII. Standard Permit Requirements

For the purposes of this permit, examples of contractors and subcontractors include: third-party maintenance and construction contractors.

A. Duty to Comply

The *owner or operator*, and all contractors or subcontractors, must comply with all requirements of this permit. Any non-compliance with the requirements of this permit constitutes a violation of the New York State Environmental Conservation Law (ECL), and its implementing regulations, and is grounds for enforcement action. Filing of a request for termination of coverage under this permit, or a notification of planned changes or anticipated non-compliance, does not limit, diminish or stay compliance with any requirements of this permit.

B. Need to Halt or Reduce Activity Not a Defense

The necessity to halt or reduce the *construction activity* regulated by this permit, in order to maintain compliance with the requirements of this permit, must not be a defense in an enforcement action.

C. Penalties

There are substantial criminal, civil, and administrative penalties associated with violating the requirements of this permit. Fines of up to $37,500 per day for each

violation and imprisonment for up to 15 years may be assessed depending upon the nature and degree of the offense.

D. False Statements

Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance must, upon conviction, be punished in accordance with ECL §71-1933 and or New York State Penal Law Articles 175 and 210.

E. Re-Opener Clause

Upon issuance of this permit, a determination has been made on the basis of a submitted Notice of Intent, plans, or other available information, that compliance with the specified permit requirements will reasonably protect classified water use and assure compliance with applicable *water quality standards*. Satisfaction of the requirements of this permit notwithstanding, if operation pursuant to this permit causes or contributes to a condition in contravention of State *water quality standards* or guidance values, or if NYSDEC determines that a modification is necessary to prevent impairment of the best use of the waters or to assure maintenance of *water quality standards* or compliance with other provisions of ECL Article 17 or the Clean Water Act (CWA), or any regulations adopted pursuant thereto, NYSDEC may require such modification and the Commissioner may require abatement action to be taken by the *owner or operator* and may also prohibit such operation until the modification has been implemented.

F. Duty to Mitigate

The *owner or operator*, and its contractors and subcontractors, must take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

G. Requiring Another General Permit or Individual SPDES Permit

NYSDEC may require any *owner or operator* authorized to *discharge* in accordance with this permit to apply for and obtain an individual SPDES permit or apply for authorization to *discharge* in accordance with another general SPDES permit.

1. Cases where an individual SPDES permit or authorization to discharge in accordance with another general SPDES permit may be required include, but is not limited to the following:

   a. the *owner or operator* is not in compliance with the conditions of this permit or does not meet the requirements for coverage under this permit; and

   b. a change has occurred in the availability of demonstrated technology or practices for the control or abatement of *pollutants* applicable to the *point source*; and

   c. new effluent limitation guidelines or new source performance standards are promulgated that are applicable to *point sources* authorized to *discharge* in accordance with this permit; and

   d. existing effluent limitation guidelines or new source performance standards that are applicable to *point sources* authorized to *discharge* in accordance with this permit are modified; and

   e. a water quality management plan containing requirements applicable to such *point sources* is approved by NYSDEC; and

   f. circumstances have changed since the time of the request to be covered so that the *owner or operator* is no longer appropriately controlled under this permit, or either a temporary or permanent reduction or elimination of the authorized *discharge* is necessary; and

   g. the *discharge* is in violation of section 17-0501 of the ECL; and

   h. the *discharge(s)* is a significant contributor of *pollutants*. In making this determination, NYSDEC may consider the following factors:

      i. the location of the *discharge(s)* with respect to *surface waters of the State*; and

      ii. the size of the *discharge(s)*; and

      iii. the quantity and nature of the *pollutants discharged* to *surface waters of the State*; and

      iv. other relevant factors including compliance with other provisions of ECL Article 17, or the CWA.

2. When NYSDEC requires any *owner or operator* authorized by this permit to apply for an individual SPDES permit as provided for in this subdivision, it must notify the *owner or operator* in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application

form, a statement setting a time for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from the *owner's or operator's* receipt of the notification letter, whereby the authorization to *discharge* under this permit must be terminated. NYSDEC may grant additional time upon demonstration, to the satisfaction of the RWE,[6] that additional time to apply for an alternative authorization is necessary or where NYSDEC has not provided a permit determination in accordance with 6 NYCRR Part 621.

3. When an individual SPDES permit is issued to an *owner or operator* authorized to *discharge* under this permit for the same *discharge(s)*, this permit authorization for *construction activities* authorized under the individual SPDES permit is automatically terminated on the effective date of the individual SPDES permit unless termination is earlier in accordance with 6 NYCRR Part 750.

H. Duty to Provide Information

The *owner or operator* must furnish to NYSDEC, within five business days, unless otherwise set forth by NYSDEC, any information that NYSDEC may request to determine whether cause exists to determine compliance with this permit or to determine whether cause exists for requiring an individual SPDES permit in accordance with 6 NYCRR 750-1.21(e) (see Part VII.G. Requiring Another General Permit or Individual Permit).

The *owner or operator* must make available to NYSDEC, for inspection and copying, or furnish to NYSDEC within 25 business days of receipt of a NYSDEC request for such information, any information retained in accordance with this permit.

Except for Part I.D.4. and 5. and Part I.G., the following applies: where the *owner or operator* becomes aware that it failed to submit any relevant facts on the Notice of Intent, or submitted incorrect information in a Notice of Intent or in any report to NYSDEC, the *owner or operator* must submit such facts or corrected information to NYSDEC within five business days.

I. Extension

In the event a new permit is not issued and effective prior to the expiration of this permit, and this permit is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, then the *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the requirements of this permit until a new permit is issued and effective.

[6] The Regional Water Manager where a DEC Region does not have a RWE.

J. Signatories and Certification

The Notice of Intent, Notice of Termination, and reports required by this permit must be signed as provided in 40 CFR §122.22.

1. All Notices of Intent and Notices of Termination must be signed as follows:

   a. For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

      (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

      (ii) the manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for Notice of Intent or Notice of Termination requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

      Note: NYSDEC does not require specific assignments or delegations of authority to responsible corporate officers identified in 40 CFR §122.22(a)(1)(i). NYSDEC will presume that these responsible corporate officers have the requisite authority to sign the Notice of Intent or Notice of Termination unless the corporation has notified NYSDEC to the contrary. Corporate procedures governing authority to sign a Notice of Intent or Notice of Termination may provide for assignment or delegation to applicable corporate positions under 40 CFR §122.22(a)(1)(ii) rather than to specific individuals.

   b. For a partnership or sole proprietorship. By a general partner or the proprietor, respectively.

c. For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

   1. the chief executive officer of the agency; or

   2. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. All reports required by this permit, and other information requested by NYSDEC, must be signed by a person described in Part VII.J.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Part VII.J.1. or using the Duly Authorized Form, found on the DEC website; and

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

   c. The written authorization is submitted to NYSDEC.

3. Changes to authorization. If an authorization under Part VII.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the *construction activity*, a new authorization satisfying the requirements of Part VII.J.2. must be submitted to NYSDEC prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under Part VII.J.1. or 2. must make the following certification:

   I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who

manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

5. Electronic reporting. If documents described in Part VII.J.1. or 2. are submitted electronically by or on behalf of the *construction activity* with coverage under this permit, any person providing the electronic signature for such documents must meet all relevant requirements of this section, and must ensure that all of the relevant requirements of 40 CFR Part 3 (including, in all cases, subpart D to Part 3) (Cross-Media Electronic Reporting) and 40 CFR Part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

K. Inspection and Entry

The *owner or operator* must allow NYSDEC, the USEPA Regional Administrator, the applicable county health department, or any authorized representatives of those entities, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the *discharge*, upon the presentation of credentials and other documents as may be required by law, to:

1. enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the requirements of this permit; and

2. have access to and copy at reasonable times, any records that must be kept under the requirements of this permit, including records required to be maintained for purposes of operation and maintenance; and

3. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. sample or monitor at reasonable times, for the purposes of assuring general SPDES permit compliance or as otherwise authorized by the CWA or ECL, any substances or parameters at any location; and

5. enter upon the property of any contributor to the regulated facility or activity under authority of the *owner or operator*.

L. Confidentiality of Information

The following must not be held confidential: this permit, the fact sheet for this permit, the name and address of any *owner or operator*, effluent data, the Notice of Intent, and information regarding the need to obtain an individual permit or an alternative general SPDES permit. This includes information submitted on forms themselves and any attachments used to supply information required by the forms (except information submitted on usage of substances). Upon the request of the *owner or operator*, NYSDEC must make determinations of confidentiality in accordance with 6 NYCRR Part 616, except as set forth in the previous sentence. Any information accorded confidential status must be disclosed to the Regional Administrator upon his or her written request. Prior to disclosing such information to the Regional Administrator, NYSDEC will notify the Regional Administrator of the confidential status of such information.

M. Other Permits May Be Required

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

N. NYSDEC Orders or Civil Decrees/Judgments

The issuance of this permit by the NYSDEC, and the coverage under this permit by the *owner or operator*, does not supersede, revoke, or rescind any existing order on consent or civil Decree/Judgment, or modification to any such documents or to any order issued by the Commissioner, or any of the terms, conditions, or requirements contained in such order or modification therefore, unless expressly noted.

O. Property Rights

Coverage under this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the *discharge* authorized.

P. Compliance with Interstate Standards

If the *construction activity* covered by this permit originates within the jurisdiction of an interstate water pollution control agency, then the *construction activity* must also comply with any applicable effluent standards or *water quality standards* promulgated by that interstate agency and as set forth in this permit for such *construction activities*.

Q. Oil and Hazardous Substance Liability

Coverage under this permit does not affect the imposition of responsibilities upon, or the institution of any legal action against, the *owner or operator* under section 311 of the CWA, which must be in conformance with regulations promulgated pursuant to section 311 governing the applicability of section 311 of the CWA to *discharges* from facilities with *NPDES* permits, nor must such issuance preclude the institution of any legal action or relieve the *owner or operator* from any responsibilities, liabilities, or penalties to which the *owner or operator* is or may be subject pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. section 9601 et seq. (CERCLA).

R. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, must not be affected thereby.

S. NYSDEC Approved Forms

The *owner or operator* must provide all relevant information that is requested by NYSDEC, and required by this permit, on all NYSDEC approved forms.

APPENDIX A – Abbreviations and Definitions

Abbreviations

APO – Agency Preservation Officer
BB – New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), dated November 2016
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
CPv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DM – New York State Stormwater Management Design Manual (Design Manual), dated July 31, 2024
DOW – Division of Water
EAF – Environmental Assessment Form
ECL – chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law
EPA – U.S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
NYC – The City of New York
NYCDEP – The City of New York Department of Environmental Protection
NYSDEC – The New York State Department of Environmental Conservation
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RR – Runoff Reduction
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SMP – Post-Construction Stormwater Management Practice
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit. If a word is not italicized in the permit, use its common definition.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023).

Alter Hydrology from Pre- to Post-Development Conditions – the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer System – a sewer system which conveys sewage and *stormwater* through a single pipe system to a publicly owned treatment works.

Commence (Commencement of) Construction Activities – the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the *SWPPP*. See definition for "*Construction Activity(ies)*" also.

Common Plan of Development or Sale – a contiguous area where multiple separate and distinct *construction activities* are occurring, or may occur, under one plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQR) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating *construction activities* may occur on a specific plot. A *common plan of development or sale* is comprised of two or more *phases*.

Common plan of development or sale does not include separate and distinct *construction activities* that are occurring, or may occur, under one plan that are at least 1/4 mile apart provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Construction Activity(ies) – identified within 40 CFR 122.26(b)(14)(x), 122.26(b)(15)(i), and 122.26(b)(15)(ii), any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, mechanized logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal.

Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, which is excluded from the calculation of the soil disturbance for a project. Routine maintenance includes, but is not limited to:

- Re-grading of gravel roads or parking lots; and
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of the ditch; and
- Replacement of existing culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of a ditch; and
- Replacement of existing bridges that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity beneath the bridges; and
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch); and
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*; and
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material; and
- Long-term use of equipment storage areas at or near highway maintenance facilities; and
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*; and
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts; and
- Maintenance of ski trails including brush hog use and mowing; and
- Above ground snowmaking pipe replacement; and
- Replacement of existing utility poles; etc.

Construction Site – the land area where *construction activity(ies)* will occur. See also the definitions for "*Commence (Commencement of) Construction Activities"* and "*Common Plan of Development or Sale."*

Dewatering – the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Directly Discharge(s)(ing) (to a specific surface waterbody) – runoff flows from a *construction site* by overland flow and the first point of *discharge* is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system and the first point of *discharge* from the separate storm sewer system is the specific surface waterbody.

Discharge(s)(d) – any addition of any *pollutant* to waters of the State through an outlet or *point source*.

Embankment – an earthen or rock slope that supports a road/highway.

Equivalent (Equivalence) – the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization – all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other *equivalent* stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

Historic Property – any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) – all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and compacted gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – not technologically possible, or not economically practicable and achievable considering best industry practices.

Minimize(ing)(ation) – reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer System (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. owned or operated by a State, city, town, village, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, *stormwater*, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA, that *discharges* to *surface waters of the State*; and

2. designed or used for collecting or conveying *stormwater*; and

3. which is not a *combined sewer system*; and

4. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Natural Buffer(s) – an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – any land disturbance that does not meet the definition of *Redevelopment Activity* included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

Nonpoint Source(s) – any source of water pollution or *pollutants* which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank – flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator – the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit requirements.

Performance Criteria – the six performance criteria for each group of SMPs in Chapters 5 and 6 of the technical standard, New York State Stormwater Management Design Manual (DM), dated July 31, 2024. These include feasibility, conveyance, pretreatment, treatment, landscaping, and maintenance. It does not include the *Sizing Criteria* (i.e. WQv, RRv, CPv, Qp and Qf) in Part I.C.2. of the permit.

Phase – a defined area in which *construction activities* are occurring or will occur separate from other defined area(s).

Point Source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be *discharged*.

Pollutant(s) – dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast *discharged* into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq.

Qualified Inspector – a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder or other NYSDEC endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any SMPs that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional – a person that is knowledgeable in the principles and practices of *stormwater* management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other NYSDEC endorsed individual(s). Individuals preparing *SWPPPs* that require the SMP component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the *SWPPP* that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – the disturbance and reconstruction of existing *impervious area*, including *impervious areas* that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Renewable Energy – electricity or thermal energy generated by renewable energy systems through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.

Site Limitations – site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical *site limitations* include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of *site limitations* shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – the criteria included in Part I.C.2 of the permit that are used to size SMPs. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

Steep Slope – land area designated on the current United States Department of Agriculture (USDA) Soil Survey as Soil Slope Phase D, (provided the map unit name or description is inclusive of slopes greater than 25%), or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Stormwater – that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.

Streambank – the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – a project specific report, including construction drawings, that among other things: describes the *construction activity(ies)*, identifies the potential sources of pollution at the *construction site*; describes and shows the *stormwater* controls that will be used to control the *pollutants* (i.e. erosion and sediment controls; for many projects, includes SMPs); and identifies procedures the *owner or operator* will implement to comply with the requirements of the permit. See Part III of the permit for a complete description of the information that must be included in the *SWPPP*.

Surface Waters of the State – shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization – exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Load (TMDL) – the sum of the allowable loads of a single *pollutant* from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a *pollutant* that a waterbody can receive and still meet *water quality standards*, and an allocation of that amount to the *pollutant's* sources. A TMDL stipulates Waste Load Allocations (WLA) for *point source discharges*, Load Allocations (LA) for *nonpoint sources*, and a margin of safety (MOS).

Traditional Land Use Control MS4 Operator – a city, town, or village with land use control authority that is authorized to *discharge* under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Trained Contractor – an employee from the contracting (construction) company, identified in Part III.A.7., that has received four (4) hours of NYSDEC endorsed training

in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.7., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity).

The *trained contractor* is responsible for the day-to-day implementation of the *SWPPP*.

Tree Clearing – *construction activities* limited to felling and removal of trees.

Tree clearing does not include hand felling and leaving the trees in place with no support from mechanized equipment, which is not considered *construction activity* requiring coverage under this permit.

Water Quality Standard – such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1

***CONSTRUCTION ACTIVITIES* THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS**

The following *construction activities* that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres: • Single-family home not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D • Single-family residential subdivisions with 25% or less *impervious cover* at total site build-out and not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D • Construction of a barn or other *agricultural building*, silo, stock yard or pen. • Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that include construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
The following *construction activities* that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land: • All construction activities located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
Within the municipal boundaries of NYC: • Stand-alone road reconstruction, where the total soil disturbance from only that road construction, is less than one (1) acre of land.
The following *construction activities*: • Installation of underground linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains • Environmental enhancement projects, such as wetland mitigation, *stormwater* retrofits, stream restoration, and resiliency projects that reconstruct shoreline areas to address sea level rise • Pond construction • Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an *impervious cover* • Cross-country ski trails, walking/hiking trails, and mountain biking trails, including a de minimis parking lot (maximum 10 spaces total, sized for passenger cars) with 35 feet minimum preservation of undisturbed area downgradient from the parking lot • Dam rehabilitation (the structure of the dam itself) • Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are not part of residential, commercial, or institutional development; • Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path, or walking path.

Table 1 (Continued)
CONSTRUCTION ACTIVITIES **THAT REQUIRE THE PREPARATION OF A *SWPPP***
THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities*:

- Slope stabilization
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Vegetated open space (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) that do not *alter hydrology from pre- to post-development* conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions
- Demolition where vegetation will be established, and no *redevelopment activity* is planned[1]
- Installation or replacement of either an overhead electric transmission line or a ski lift tower that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*.
- Solar array field areas that have tables elevated off the ground, spaced one table width apart, do not *alter hydrology from pre- to post-development conditions*, and address water quality volume and runoff reduction volume by maintaining sheet flow on slopes less than 8%.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that do not include construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions.
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary *impervious areas* that will be restored to pre-construction conditions once the *construction activity* is complete (in this context, "temporary" means the *impervious area* will be in place for two years or less)
- Other *construction activities* that do not include the construction or reconstruction of *impervious area*, and do not *alter hydrology from pre- to post-development* conditions, and are not listed in Table 2.

1. If the site is redeveloped in the future, a new eNOI must be submitted.

Table 2
CONSTRUCTION ACTIVITIES **THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES**
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Single-family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family home that disturbs five (5) or more acres of land
- Single-family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of between 20,000 square feet and one (1) acre of land within the municipal boundaries of NYC with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single-family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a *common plan of development or sale* that will ultimately disturb five (5) or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Creation of 5,000 square feet or more of *impervious area* in the municipal boundaries of NYC
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) that involves soil disturbance greater than five acres.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that involves soil disturbance greater than five acres and include the construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
- Facility buildings, including ski lodges, restroom buildings, pumphouses, ski lift terminals, and maintenance and groomer garages
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills; including creation of landfills or capping landfills.
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTWs, water treatment plants, and water storage tanks
- Golf courses
- Office complexes

Table 2 (Continued)

***CONSTRUCTION ACTIVITIES* THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPs)**

The following *construction activities*:

- Permanent laydown yards and equipment storage lots
- Playgrounds that include the construction or reconstruction of *impervious area*
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surfaces
- Road construction or reconstruction, outside the municipal boundaries of NYC
- Road construction within the municipal boundaries of NYC
- Stand-alone road reconstruction, within the municipal boundaries of NYC where the total soil disturbance from that road reconstruction involves soil disturbance of one (1) acre or more of land
- Parking lot construction or reconstruction (as with all Table 2 bullets, this includes parking lots constructed as part of the *construction activities* listed in Table 1, unless a Table 1 bullet specifies otherwise)
- Athletic fields (natural grass) that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations, and well drilling pads, surfaced with *impervious cover,* and constructed as part of an overhead electric transmission line, wind-power, cell tower, oil or gas well drilling, sewer or water main, ski lift, or other linear utility project
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of a residential, commercial or institutional development
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of highway construction or reconstruction
- Solar array field areas on slopes greater than 8% that cannot maintain sheet flow using management practices identified in the BB or the DM
- Solar array field areas on slopes less than 8% that will *alter the hydrology from pre- to post-development* conditions
- Solar array field areas with tables that are not elevated high enough to achieve *final stabilization* beneath the tables
- Traditional *impervious areas* associated with solar development (e.g. roads, buildings, transformers)
- Utility pads surfaced with *impervious cover*, including electric vehicle charging stations
- All other *construction activities* that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre- to post-development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of *construction activities* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs designed in conformance with the Enhanced Phosphorus Removal Standards included in the DM technical standard.

- Entire New York City Watershed located east of the Hudson River – Figure 1
- Onondaga Lake Watershed – Figure 2
- Greenwood Lake Watershed – Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

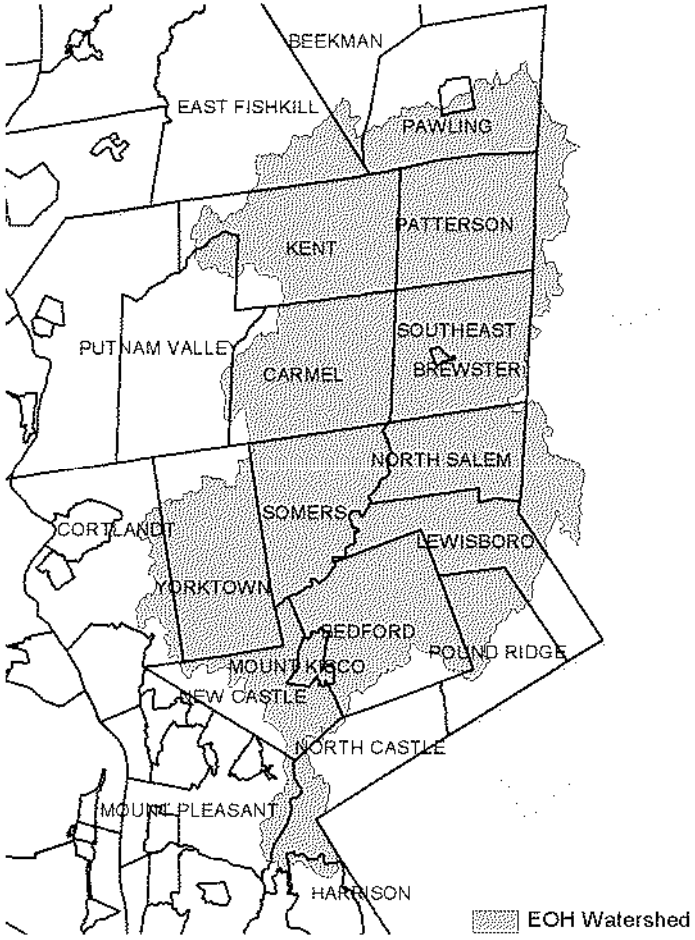


Figure 2 - Onondaga Lake Watershed

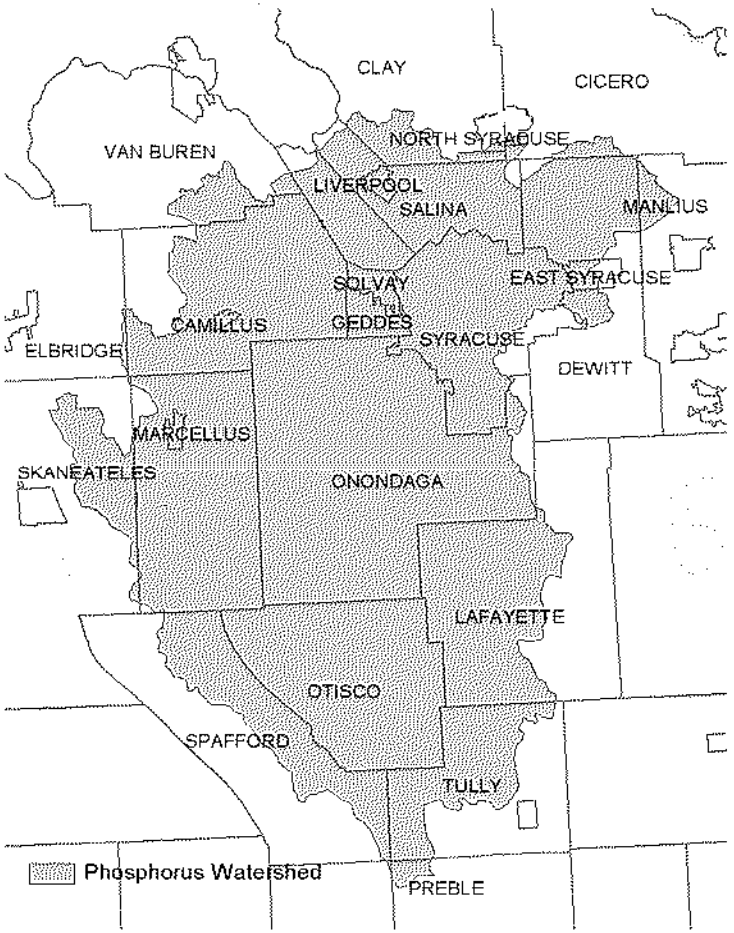


Figure 3 - Greenwood Lake Watershed



Figure 4 - Oscawana Lake Watershed

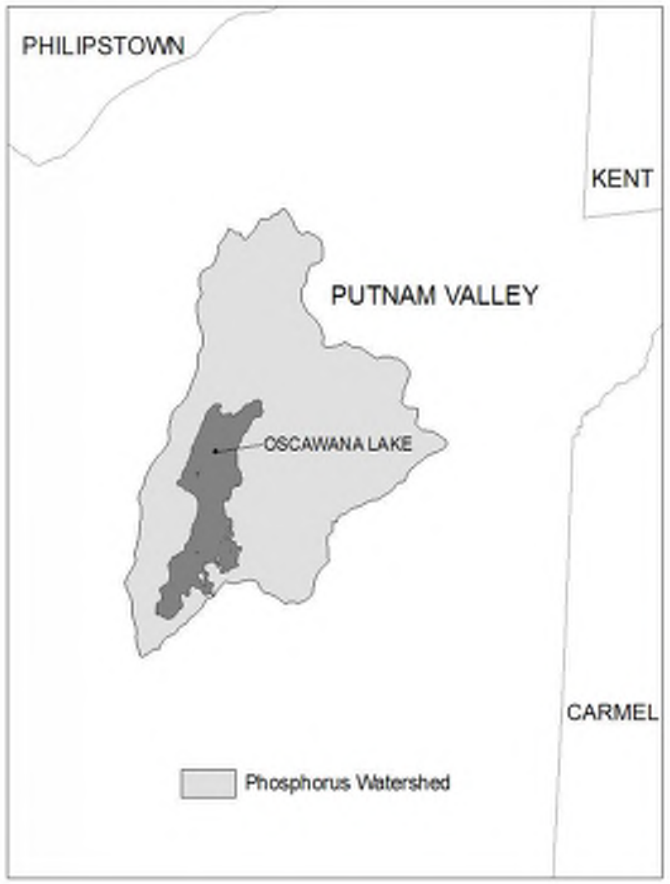
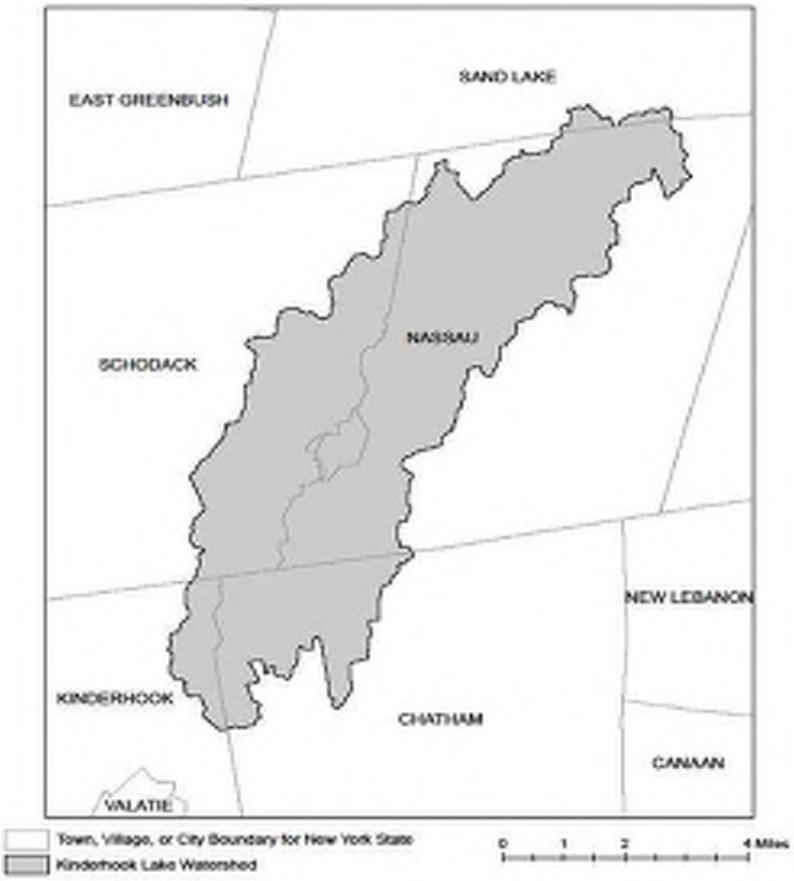


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Impaired Waterbodies (by Construction Related Pollutants)

List of waterbodies impaired by *pollutants* related to *construction activity*, including turbidity, silt/sediment, and nutrients (e.g. nitrogen, phosphorus). This list is a subset of "The Final New York State 2018 Section 303(d) List of Impaired Waters Requiring a TMDL" dated June 2020.

County	Waterbody	Pollutant
Albany	Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	Phosphorus
Albany	Lawsons Lake (1301-0235)	Phosphorus
Allegany	Amity Lake, Saunders Pond (0403-0054)	Phosphorus
Allegany	Andover Pond (0403-0056)	Phosphorus
Bronx	Reservoir No.1/Lake Isle (1702-0075)	Phosphorus
Bronx	Van Cortlandt Lake (1702-0008)	Phosphorus
Broome	Blueberry, Laurel Lakes (1404-0033)	Phosphorus
Broome	Fly Pond, Deer Lake (1404-0038)	Phosphorus
Broome	Minor Tribs to Lower Susquehanna (0603-0044)	Phosphorus
Broome	Whitney Point Lake/Reservoir (0602-0004)	Phosphorus
Cattaraugus	Allegheny River/Reservoir (0201-0023)	Phosphorus
Cattaraugus	Beaver Lake/Alma Pond (0201-0073)	Phosphorus
Cattaraugus	Case Lake (0201-0020)	Phosphorus
Cattaraugus	Linlyco/Club Pond (0201-0035)	Phosphorus
Cayuga	Duck Lake (0704-0025)	Phosphorus
Cayuga	Owasco Inlet, Upper, and tribs (0706-0014)	Nutrients
Chautauqua	Chadakoin River and tribs (0202-0018)	Phosphorus
Chautauqua	Hulburt/Clymer Pond (0202-0079)	Phosphorus
Chautauqua	Middle Cassadaga Lake (0202-0002)	Phosphorus
Clinton	Great Chazy River, Lower, Main Stem (1002-0001)	Silt/Sediment
Columbia	Robinson Pond (1308-0003)	Phosphorus
Cortland	Dean Pond (0602-0077)	Phosphorus
Dutchess	Fallkill Creek (1301-0087)	Phosphorus
Dutchess	Hillside Lake (1304-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Silt/Sediment
Erie	Beeman Creek and tribs (0102-0030)	Phosphorus
Erie	Delaware Park Pond (0101-0026)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Silt/Sediment
Erie	Green Lake (0101-0038)	Phosphorus
Erie	Little Sister Creek, Lower, and tribs (0104-0045)	Phosphorus
Erie	Murder Creek, Lower, and tribs (0102-0031)	Phosphorus

Erie	Rush Creek and tribs (0104-0018)	Phosphorus
Erie	Scajaquada Creek, Lower, and tribs (0101-0023)	Phosphorus
Erie	Scajaquada Creek, Middle, and tribs (0101-0033)	Phosphorus
Erie	Scajaquada Creek, Upper, and tribs (0101-0034)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Silt/Sediment
Genesee	Bigelow Creek and tribs (0402-0016)	Phosphorus
Genesee	Black Creek, Middle, and minor tribs (0402 0028)	Phosphorus
Genesee	Black Creek, Upper, and minor tribs (0402-0048)	Phosphorus
Genesee	Bowen Brook and tribs (0102-0036)	Phosphorus
Genesee	LeRoy Reservoir (0402-0003)	Phosphorus
Genesee	Mill Pond (0402-0050)	Phosphorus
Genesee	Oak Orchard Cr, Upper, and tribs (0301-0014)	Phosphorus
Genesee	Oatka Creek, Middle, and minor tribs (0402-0031)	Phosphorus
Genessee	Tonawanda Cr, Middle, Main Stem (0102-0002)	Phosphorus
Greene	Schoharie Reservoir (1202-0012)	Silt/Sediment
Greene	Sleepy Hollow Lake (1301-0059)	Silt/Sediment
Herkimer	Steele Creek tribs (1201-0197)	Phosphorus
Herkimer	Steele Creek tribs (1201-0197)	Silt/Sediment
Kings	Hendrix Creek (1701-0006) 18	Nitrogen
Kings	Prospect Park Lake (1701-0196)	Phosphorus
Lewis	Mill Creek/South Branch, and tribs (0801-0200)	Nutrients
Livingston	Christie Creek and tribs (0402-0060)	Phosphorus
Livingston	Conesus Lake (0402-0004)	Phosphorus
Livingston	Mill Creek and minor tribs (0404-0011)	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs (0402-0033)	Phosphorus
Monroe	Buck Pond (0301-0017)	Phosphorus
Monroe	Cranberry Pond (0301-0016)	Phosphorus
Monroe	Durand, Eastman Lakes (0302-0037)	Phosphorus
Monroe	Lake Ontario Shoreline, Western (0301-0069) 9	Phosphorus
Monroe	Long Pond (0301-0015)	Phosphorus
Monroe	Mill Creek and tribs (0302-0025)	Phosphorus 2
Monroe	Mill Creek/Blue Pond Outlet and tribs (0402-0049)	Phosphorus
Monroe	Minor Tribs to Irondequoit Bay (0302-0038)	Phosphorus
Monroe	Rochester Embayment - East (0302-0002) [9]	Phosphorus
Monroe	Rochester Embayment - West (0301-0068) 9	Phosphorus
Monroe	Shipbuilders Creek and tribs (0302-0026)	Phosphorus 2
Monroe	Thomas Creek/White Brook and tribs (0302-0023)	Phosphorus

Nassau	Bannister Creek/Bay (1701-0380)	Nitrogen
Nassau	Beaver Lake (1702-0152)	Phosphorus
Nassau	Browswere Bay (1701-0383)	Nitrogen
Nassau	Camaans Pond (1701-0052)	Phosphorus
Nassau	East Meadow Brook, Upper, and tribs (1701-0211)	Silt/Sediment
Nassau	East Rockaway Channel (1701-0381)	Nitrogen
Nassau	Glen Cove Creek, Lower, and tribs (1702-0146)	Silt/Sediment
Nassau	Grant Park Pond (1701-0054)	Phosphorus
Nassau	Hempstead Bay, Broad Channel (1701-0032)	Nitrogen
Nassau	Hempstead Lake (1701-0015)	Phosphorus
Nassau	Hewlett Bay (1701-0382)	Nitrogen
Nassau	Hog Island Channel (1701-0220)	Nitrogen
Nassau	Massapequa Creek, Upper, and tribs (1701-0174)	Phosphorus
Nassau	Milburn/Parsonage Creeks, Upp, and tribs (1701-0212)	Phosphorus
Nassau	Reynolds Channel, East (1701-0215) [12]	Nitrogen
Nassau	Reynolds Channel, West (1701-0216) 12	Nitrogen
Nassau	Tidal Tribs to Hempstead Bay (1701-0218)	Nitrogen
Nassau	Tribs (fresh) to East Bay (1701-0204)	Silt/Sediment
Nassau	Tribs (fresh) to East Bay (1701-0204)	Phosphorus
Nassau	Tribs to Smith Pond/Halls Pond (1701-0221)	Phosphorus
Nassau	Woodmere Channel (1701-0219)	Nitrogen
New York	Harlem Meer (1702-0103)	Phosphorus
New York	The Lake in Central Park (1702-0105)	Phosphorus
Niagara	Bergholtz Creek and tribs (0101-0004)	Phosphorus
Niagara	Hyde Park Lake (0101-0030)	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0053) 9	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0072) 9	Phosphorus
Oneida	Ballou, Nail Creeks (1201-0203)	Phosphorus
Onondaga	Ley Creek and tribs (0702-0001) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nitrogen (NH3, NO2)
Onondaga	Onondaga Creek, Lower (0702-0023) 10	Nutrients (phosphorus)
Onondaga	Onondaga Creek, Lower, and tribs (0702-0023)	Turbidity
Onondaga	Onondaga Creek, Middle, and tribs (0702-0004)	Turbidity
Onondaga	Onondaga Creek, Upper, and tribs (0702-0024)	Turbidity
Ontario	Great Brook and minor tribs (0704-0034)	Phosphorus 2
Ontario	Great Brook and minor tribs (0704-0034)	Silt/Sediment

Ontario	Hemlock Lake Outlet and minor tribs (0402-0013)	Phosphorus
Ontario	Honeoye Lake (0402-0032)	Phosphorus
Orange	Brown Pond Reservoir (1303-0013)	Phosphorus
Orange	Lake Washington (1303-0012)	Phosphorus
Orange	Minor Tribs to Middle Wallkill (1306-0061)	Phosphorus
Orange	Monhagen Brook and tribs (1306-0074)	Phosphorus
Orange	Orange Lake (1301-0008) [16]	Phosphorus
Orange	Quaker Creek and tribs (1306-0025)	Phosphorus
Orange	Wallkill River, Middle, Main Stem (1306-0038)	Phosphorus
Orange	Wallkill River, Upper, and Minor tribs (1306-0017)	Phosphorus
Orleans	Glenvwood Lake (0301-0041)	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0070) 9	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0071) 9	Phosphorus
Oswego	Lake Neatahwanta (0701-0018)	Nutrients (phosphorus)
Oswego	Pleasant Lake (0703-0047)	Phosphorus
Putnam	Lost Lake, Putnam Lake (1302-0053)	Phosphorus
Putnam	Minor Tribs to Croton Falls Reservoir (1302-0001)	Phosphorus
Queens	Bergen Basin (1701-0009) 18	Nitrogen
Queens	Jamaica Bay, Eastern, and tribs, Queens (1701-0005) 18	Nitrogen
Queens	Kissena Lake (1702-0258)	Phosphorus
Queens	Meadow Lake (1702-0030)	Phosphorus
Queens	Shellbank Basin (1701-0001) 18	Nitrogen
Queens	Willow Lake (1702-0031)	Phosphorus
Rensselaer	Nassau Lake (1310-0001)	Phosphorus
Rensselaer	Snyders Lake (1301-0043)	Phosphorus
Richmond	Grassmere Lake/Bradys Pond (1701-0357)	Phosphorus
Rockland	Congers Lake, Swartout Lake (1501-0019)	Phosphorus
Rockland	Rockland Lake (1501-0021)	Phosphorus
Saratoga	Ballston Lake (1101-0036)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Silt/Sediment
Saratoga	Lake Lonely (1101-0034)	Phosphorus
Saratoga	Round Lake (1101-0060)	Phosphorus
Saratoga	Tribs to Lake Lonely (1101-0001)	Phosphorus
Schenectady	Collins Lake (1201-0077)	Phosphorus
Schenectady	Duane Lake (1311-0006)	Phosphorus
Schenectady Lake	Mariaville Lake (1201-0113)	Phosphorus
Schuyler	Cayuta Lake (0603-0005)	Phosphorus

Seneca	Reeder Creek and tribs (0705-0074)	Phosphorus
St.Lawrence	Black Lake Outlet, Black Lake (0906-0001)	Phosphorus
St.Lawrence	Fish Creek and minor tribs (0906-0026)	Phosphorus
Steuben	Smith Pond (0502-0012)	Phosphorus
Suffolk	Agawam Lake (1701-0117)	Phosphorus
Suffolk	Big/Little Fresh Ponds (1701-0125)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Silt/Sediment
Suffolk	Fresh Pond (1701-0241)	Phosphorus
Suffolk	Great South Bay, East (1701-0039)	Nitrogen
Suffolk	Great South Bay, Middle (1701-0040)	Nitrogen
Suffolk	Great South Bay, West (1701-0173)	Nitrogen
Suffolk	Lake Ronkonkoma (1701-0020)	Phosphorus
Suffolk	Mattituck/Marratooka Pond (1701-0129)	Phosphorus
Suffolk	Mill and Seven Ponds (1701-0113)	Phosphorus
Suffolk	Millers Pond (1702-0013)	Phosphorus
Suffolk	Moriches Bay, East (1701-0305)	Nitrogen
Suffolk	Moriches Bay, West (1701-0038)	Nitrogen
Suffolk	Quantuck Bay (1701-0042)	Nitrogen
Suffolk	Shinnecock Bay and Inlet (1701-0033)	Nitrogen
Suffolk	Tidal Tribs to West Moriches Bay (1701-0312)	Nitrogen
Sullivan	Bodine, Mongomery Lakes (1401-0091)	Phosphorus
Sullivan	Davies Lake (1402-0047)	Phosphorus
Sullivan	Evens Lake (1402-0004)	Phosphorus
Sullivan	Pleasure Lake (1402-0055)	Phosphorus
Sullivan	Swan Lake (1401-0063)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Silt/Sediment
Ulster	Ashokan Reservoir (1307-0004)	Silt/Sediment
Ulster	Esopus Creek, Lower, Main Stem (1307-0010) [17]	Turbidity
Ulster	Esopus Creek, Middle, Main Stem (1307-0003) 17	Turbidity
Ulster	Esopus Creek, Upper, and minor tribs (1307-0007)[3]	Silt/Sediment
Ulster	Wallkill River, Lower, Main Stem (1306-0027)	Phosphorus
Warren	Hague Brook and tribs (1006-0006)	Silt/Sediment
Warren	Huddle/Finkle Brooks and tribs (1006-0003)	Silt/Sediment
Warren	Indian Brook and tribs (1006-0002)	Silt/Sediment
Warren	Lake George (1006-0016) and tribs	Silt/Sediment
Warren	Tribs to Lake George, East Shore (1006-0020)	Silt/Sediment
Warren	Tribs to Lake George, Lk.George Village (1006-0008)	Silt/Sediment

Washington	Wood Cr/Champlain Canal and tribs (1005-0036)	Phosphorus
Westchester	Lake Katonah (1302-0136)	Phosphorus
Westchester	Lake Lincolndale (1302-0089)	Phosphorus
Westchester	Lake Meahagh (1301-0053)	Phosphorus
Westchester	Lake Mohegan (1301-0149)	Phosphorus
Westchester	Lake Shenorock (1302-0083)	Phosphorus
Westchester	Mamaroneck River, Lower (1702-0071)	Silt/Sediment
Westchester	Mamaroneck River, Upp, & minor tribs (1702-0123)	Silt/Sediment
Westchester	Saw Mill River (1301-0007)	Phosphorus
Westchester	Saw Mill River, Middle, and tribs (1301-0100)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Silt/Sedimnt
Westchester	Silver Lake (1702-0040)	Phosphorus
Westchester	Teatown Lake (1302-0150)	Phosphorus
Westchester	Truesdale Lake (1302-0054)	Phosphorus
Westchester	Wallace Pond (1301-0140)	Phosphorus

APPENDIX E – List of NYSDEC Regional Offices

Region	Covering the following counties:	Division of Environmental Permits (DEP) Permit Administrators	Division of Water (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	220 White Plains Road, Suite 110 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7438	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7165	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7070

APPENDIX F – SWPPP Preparer Certification Form

The SWPPP Preparer Certification Form required by this permit begins on the following page.

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:

eNOI Submission ID:

Owner/Operator Name:

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SWPPP Preparer First Name | MI | SWPPP Preparer Last Name

Signature | Date

Revised: January 2025

APPENDIX G – MS4 SWPPP Acceptance Form

The MS4 SWPPP Acceptance Form required by this permit begins on the following page.

NEW YORK STATE | Department of Environmental Conservation

MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4 Operator:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Street Address:
14. City/State/Zip:
15. Telephone Number:

MS4 SWPPP Acceptance Form - continued
V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative
I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.
Printed Name[1]:
Title/Position:
Signature:
Date:
VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

APPENDIX H – NYCDEP SWPPP Acceptance/Approval Form

The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval form required by this permit begins on the following page.

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis
59-17 Junction Blvd., 9th Floor; Flushing, NY 11373

SWPPP Acceptance/Approval

Application Number:

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance/Approval
8. SWPPP Reviewed by:
9. Title/Position: /
10. Date Final SWPPP Reviewed and Accepted:
11. Acceptance/Approval Expiration Date:
IV. Regulated MS4 Information for projects that require coverage under the NY State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity
12. Name of MS4: *CITY OF NEW YORK*
13. MS4 SPDES Permit Identification Number: *NY-0287890*
14. Contact Person:
15. Street Address: *59-17 Junction Blvd. 9th Floor*
16. City/State/Zip: *Flushing, NY 11373*
17. Telephone Number:

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis
59-17 Junction Blvd., 9th Floor; Flushing, NY 11373

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative
I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.
Printed Name:
Title/Position:
Signature:
Date:
VI. Conditions of Acceptance/Approval and Additional Information

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

APPENDIX I – MS4 No Jurisdiction Form

The MS4 No Jurisdiction Form required by this permit begins on the following page.

NEW YORK STATE | Department of Environmental Conservation

MS4 No Jurisdiction Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. eNOI Submission ID:

III. Traditional Land Use Control MS4 Operator Information

a. Name of MS4 Operator:

b. MS4 SPDES Permit ID Number: NYR20A

c. Street Address:

d. City/State/Zip:

e. Telephone Number:

IV. Certification Statement

In accordance with CGP Part I.D.2.b.ii.3., I hereby certify that the Traditional Land Use Control MS4 Operator identified in section III. of this form does not have review authority over the construction project identified in section II. of this form, which is owned/operated by the entity identified in section I. of this form. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.:

b. Title/Position:

c. Signature:

d. Date:

APPENDIX J – Owner/Operator Certification Form

The Owner/Operator Certification Form required by this permit begins on the following page.

NEW YORK STATE | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: _____

eNOI Submission ID: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name MI Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

NOT FOR CONSTRUCTION

Luminaire Schedule										
Symbol	Tag	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	Mounting Height	BUG Rating
	S1	LITHONIA RSX1 LED P1 40K R3	Single	RSX1 LED P1 40K R3	0.850	7096	51.34	718.76	20	B1-U0-G2
	S2	LITHONIA RSX1 LED P1 40K R5	Back-Back	RSX1 LED P1 40K R5	0.850	7284	51.34	410.72	20	B3-U0-G2
	S3	LITHONIA RSX1 LED P1 40K R3	Single	RSX1 LED P1 40K R3	0.850	7096	51.34	718.76	10	B1-U0-G2

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Max/Avg
Parking Lot	Illuminance	Fc	0.86	5.0	0.0	N.A.	N.A.	5.81

Isoline Legend	
Illuminance (Fc)	
Color	Value
	0.1
	0.5
	1

N/F
ON STREET REALTY HOLDINGS
T.A.# 124.00-2-5
2544 CLINTON STREET
LIBER 11299 PAGE 9093
AREA = 9.402 ACRES TO TIE LINE
AREA = 12.7± ACRES TO CENTERLINE OF CREEK

PROPOSED
3-STORY
BUILDING
± 25,000 SF FOOTPRINT

MATCH TO SHEET: E052

1 E051 SITE PHOTOMETRIC PLAN
SCALE: 1" = 20'

LaBella
Powered by partnership.

300 Pearl Street, Suite 130
Buffalo, NY 14202
716-551-6281

labellapc.com

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec, 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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HOME LEASING
75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604

HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
1	06/23/2026	PLANNING BOARD COMMENTS
Revisions		

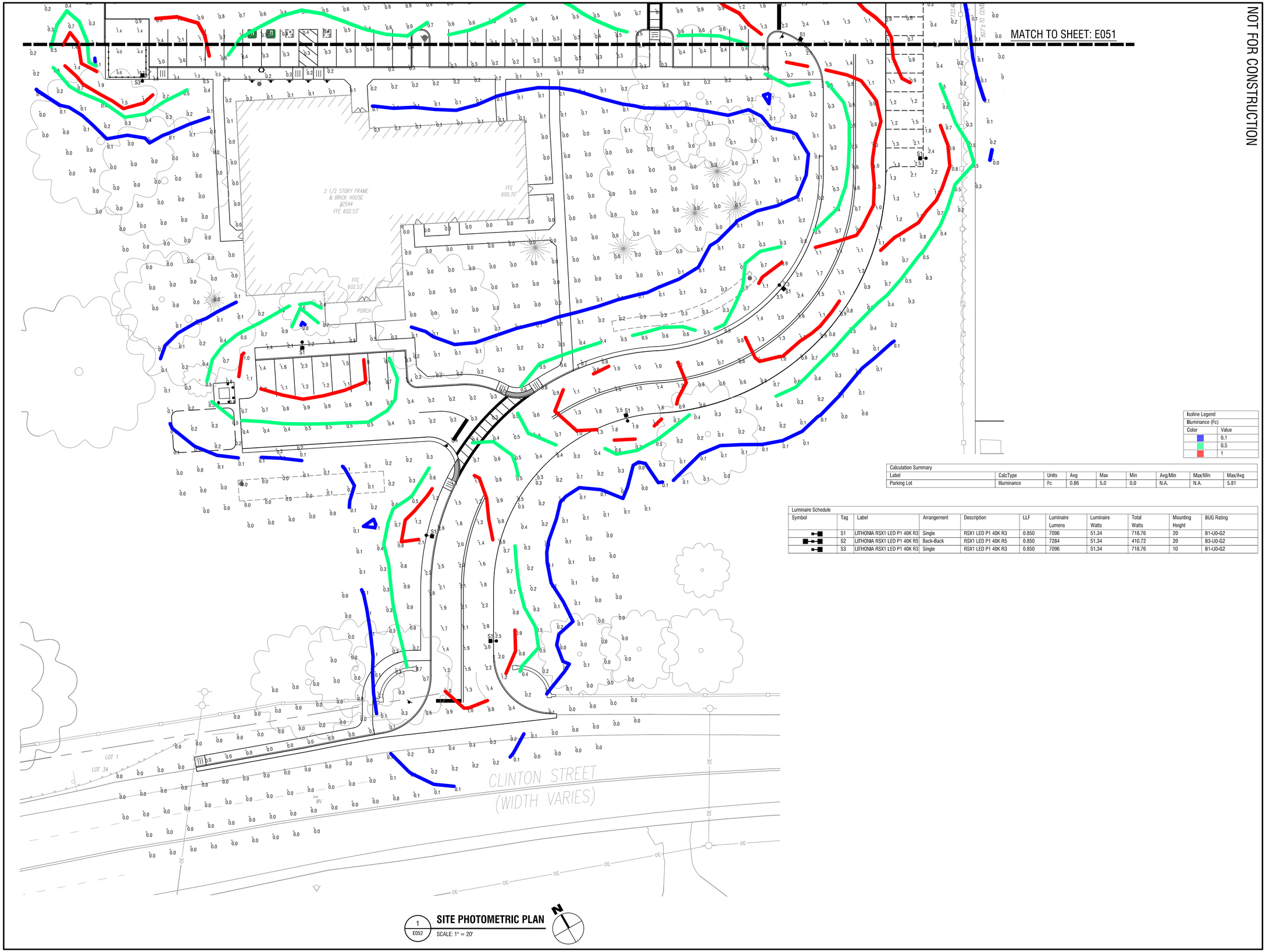
PROJECT NUMBER: 2241067
DRAWN BY: KBB
REVIEWED BY: CCL
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

SITE PHOTOMETRIC PLAN

DRAWING NUMBER:

E051

6/23/2026 1:56:56 PM
B:\GLOBAL\Projects\Home Leasing Services\2241067 - Affordable Housing West Seneca\06_Drawings\Electrical\E100 SITE PLAN.dwg



NOT FOR CONSTRUCTION

Isoline Legend	
Illuminance (Fc)	
Color	Value
	0.1
	0.5
	1

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Max/Avg
Parking Lot	Illuminance	Fc	0.86	5.0	0.0	N.A.	N.A.	5.81

Luminaire Schedule

Symbol	Tag	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	Mounting Height	BUG Rating
	S1	LITHONIA RSX1 LED P1 40K R3	Single	RSX1 LED P1 40K R3	0.850	7096	51.34	718.76	20	B1-U0-G2
	S2	LITHONIA RSX1 LED P1 40K R5	Back-Back	RSX1 LED P1 40K R5	0.850	7284	51.34	410.72	20	B3-U0-G2
	S3	LITHONIA RSX1 LED P1 40K R3	Single	RSX1 LED P1 40K R3	0.850	7096	51.34	718.76	10	B1-U0-G2

1 E052 **SITE PHOTOMETRIC PLAN**
SCALE: 1" = 20'

LaBella
Powered by partnership.
300 Pearl Street, Suite 130
Buffalo, NY 14202
716-551-6281
labellapc.com

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art, 145 Sec, 7209 & Art, 147 Sec, 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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HOME LEASING
75 S CLINTON AVE SUITE 700,
ROCHESTER, NEW YORK 14604

HOME LEASING
DEVELOPMENT | CONSTRUCTION | MANAGEMENT

WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
1	06/23/2026	PLANNING BOARD COMMENTS
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: KBB
REVIEWED BY: CCL
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

SITE PHOTOMETRIC PLAN

DRAWING NUMBER:

E052

6/23/2026 1:57:28 PM
B:\GLOBAL\Projects\Home Leasing Services\2241067 - Affordable Housing West Seneca\06_Drawings\Electrical\E100 SITE PLAN.dwg

#

June 23, 2026

Jeffery Schieber
Code Enforcement Officer
1250 Union Road – Room 210
West Seneca, New York 14224

RE: 2544 Clinton Street – Home Leasing – West Seneca Apartments
Planning Board Submission – Additional Items for Review

Mr. Schieber:

On behalf of Home Leasing, we offer the following supplemental information and drawings based on the feedback we received from meeting with at the June 11th Planning Board meeting, and outstanding engineering comments (from the engineering comments from CPL dated 5/8/2026).

Supplemental Drawings:

1. Landscaping Plans (sheets L401 – L403) per the Town of West Seneca Code are provided for Planning Board review.

2. Site Photometric Plans (sheets E051 and E052) per the Town of West Seneca Code are provided for Planning Board review. All proposed lights are downward facing, night sky compliant with shielding (if needed).

3. Profile Views for Sanitary and Stormwater (sheets C303 and C304) per the Town of West Seneca Code. Sketches SK-01-C305 and SK-02-C306 are also provided to show each utility run and stationing correlating with the profile views.

Supplemental Data:

4. Pipe Sizing Calculation Sheets – calculation sheets for storm pipe sizing throughout the site. Pipe sizes have been revised (as needed) to match the calculations for conveyance of the 10-year storm event. Revised pipe sizes are shown the utility plans on C305 and C306.

5. Pipe Sizing Drainage Map – Map correlating the site plan to the pipe runs in the spreadsheets.

Attached with this submission are the following additional drawings to be added into the set.

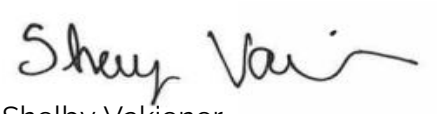
- L401 – Planting Plan – Overall
- L402 – Planting Plan -Enlargement 1
- L403 – Planting Plan – Enlargement 2
- E051 – Site Photometric Plan

- E052 – Site Photometric Plan
- C303 – Storm Profiles
- C304 – Storm Profiles
- C305 – Utility Profile Legend
- C306 - Utility Profile Legend

We look forward to presenting this project to the Planning Board on July 9th, 2026. If you have any questions or need any additional information, please feel free to contact me at 585-770-2525 or svakiener@labellapc.com.

Respectfully submitted,

LaBella Associates



Shelby Vakiener
Civil Engineer



1 OVERALL PLANTING PIAN
1" = 40'-0"

KEYNOTE SCHEDULE	
NO.	**Keynote Description**
1	TRANSFORMER PAD
2	GENERATOR
3	EXISTING FENCE
4	TRANSFORMER PAD
5	STONE PIER TO MATCH FRONT WALL
6	COLLAPSIBLE BOLLARDS FOR FIRE LANE ACCESS
7	PLAYGROUND / COURTYARD
8	STONE SEATWALL TO BE SIMILAR TO FRONT WALL
9	LIMITS OF ARCHAEOLOGICAL BUFFER AREA
10	EXISTING LAWN AREA WITH EXISTING TOPOGRAPHY
11	HAMMERHEAD TURNAROUND
12	OUTDOOR SEATING
13	CONCRETE SEATING AREA
14	PLAYGROUND / COURTYARD

PLANT SCHEDULE				
SYMBOL	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**REMARKS**
Deciduous Trees				
ACE RBR	10	Acer rubrum	Red Maple	
ACE SUG	1	Acer saccharum	Sugar Maple	
CEL OCC	9	Celtis occidentalis	Common Hackberry	
FRA MAS	9	Fraxinus pennsylvanica `Marshall`s Seedless`	Marshall`s Seedless Green Ash	
FRA SUM	10	Fraxinus pennsylvanica `Summit`	Summit Green Ash	
GLE SKY	5	Gleditsia triacanthos inermis `Skyline`	Skyline Honey Locust	
MAL FLO	2	Malus floribunda	Flowering Crabapple	
SYR RET	2	Syringa reticulata	Japanese Tree Lilac	
TIL GSP	5	Tilia cordata `Greenspire`	Greenspire Littleleaf Linden	
Evergreen Shrubs				
BUX WME	49	Buxus x `Gold Gem`	Gold Gem Boxwood	
JUN SK2	30	Juniperus scopulorum `Skyrocket`	Skyrocket Juniper	
Shrubs				
ABE DIS	113	Abeliophyllum distichum	White Forsythia	
COR GR2	59	Cornus racemosa	Gray Dogwood	
COR SI6	5	Cornus alba `Siberian Pearls`	Siberian Pearls Tatarian Dogwood	
DIE LON	37	Diervilla lonicera	Bush Honeysuckle	
HAM XIN	69	Hamamelis x `Rochester`	Rochester Witch Hazel	
VIB DEN	35	Viburnum dentatum `Arrowwood`	Arrowwood Viburnum	
VIB L2	39	Viburnum lentago	Nannyberry	

0 40' 80' 120'
SCALE: 1" = 40'

N

SWBR
260 E Main St Suite 4000 Rochester, NY 14604
585 232 8300 | rochester@swbr.com
SWBR NYS Certificate of Authorization #: 021723

Drawn By: RC/DK
Checked By: ES
Project Manager:

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Revisions

Project Name
SWBR Project Number 26054.00

Owner

L-401

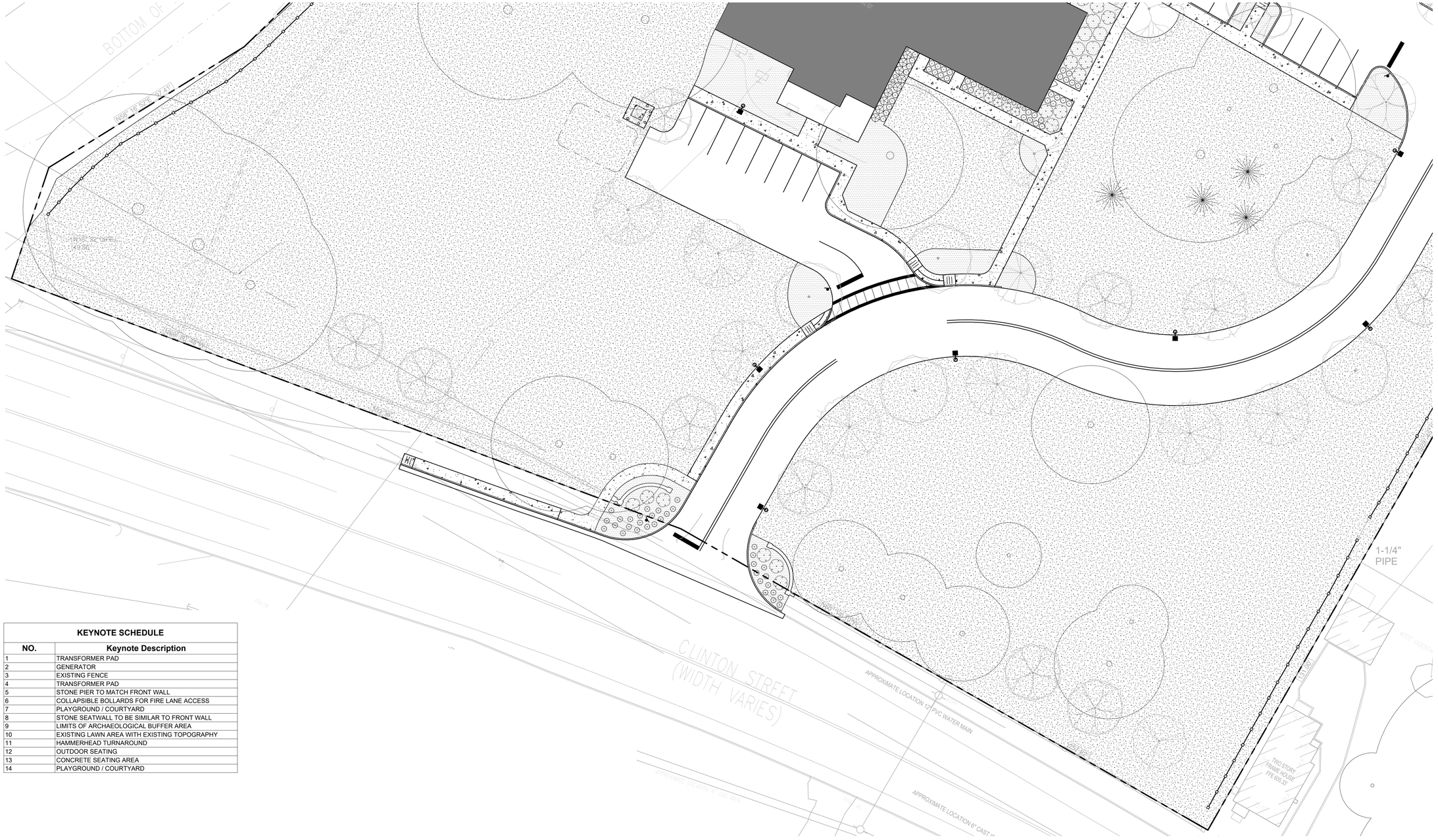
PLANTING PLAN - OVERALL

2026-06-23
PLANNING BOARD ISSUANCE

FILE PATH: Autodesk Docs://26054.00 Penrose West Seneca Apartments/Penrose West Seneca Apartments LA_R25.rvt

PLANT SCHEDULE				
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
Deciduous Trees				
ACE RBR	10	Acer rubrum	Red Maple	
ACE SUG	1	Acer saccharum	Sugar Maple	
CEL OCC	9	Celtis occidentalis	Common Hackberry	
FRA MAS	9	Fraxinus pennsylvanica `Marshall`s Seedless`	Marshall`s Seedless Green Ash	
FRA SUM	10	Fraxinus pennsylvanica `Summit`	Summit Green Ash	
GLE SKY	5	Gleditsia triacanthos inermis `Skyline`	Skyline Honey Locust	
MAL FLO	2	Malus floribunda	Flowering Crabapple	
SYR RET	2	Syringa reticulata	Japanese Tree Lilac	
TIL GSP	5	Tilia cordata `Greenspire`	Greenspire Littleleaf Linden	

PLANT SCHEDULE				
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
Evergreen Shrubs				
BUX WME	49	Buxus x `Gold Gem`	Gold Gem Boxwood	
JUN SK2	30	Juniperus scopulorum `Skyrocket`	Skyrocket Juniper	
Shrubs				
ABE DIS	113	Abeliophyllum distichum	White Forsythia	
COR GR2	59	Cornus racemosa	Gray Dogwood	
COR SI6	5	Cornus alba `Siberian Pearls`	Siberian Pearls Tatarian Dogwood	
DIE LON	37	Diervilla lonicera	Bush Honeysuckle	
HAM XIN	69	Hamamelis x `Rochester`	Rochester Witch Hazel	
VIB DEN	35	Viburnum dentatum `Arrowwood`	Arrowwood Viburnum	
VIB L2	39	Viburnum lentago	Nannyberry	



KEYNOTE SCHEDULE	
NO.	Keynote Description
1	TRANSFORMER PAD
2	GENERATOR
3	EXISTING FENCE
4	TRANSFORMER PAD
5	STONE PIER TO MATCH FRONT WALL
6	COLLAPSIBLE BOLLARDS FOR FIRE LANE ACCESS
7	PLAYGROUND / COURTYARD
8	STONE SEATWALL TO BE SIMILAR TO FRONT WALL
9	LIMITS OF ARCHAEOLOGICAL BUFFER AREA
10	EXISTING LAWN AREA WITH EXISTING TOPOGRAPHY
11	HAMMERHEAD TURNAROUND
12	OUTDOOR SEATING
13	CONCRETE SEATING AREA
14	PLAYGROUND / COURTYARD

1 SITE PLAN ENLARGEMENT - ENTRANCE AND DRIVEWAY / PARKING
1" = 20'-0"

0 20' 40' 60'
SCALE: 1" = 20'

N

SWBR
260 E Main St Suite 4000 Rochester, NY 14604
585 232 8300 | rochester@swbr.com
SWBR NYS Certificate of Authorization #: 021723

Drawn By: RC / DK
Checked By: ES
Project Manager:

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Revisions

Project Name
SWBR Project Number 26054.00

Owner

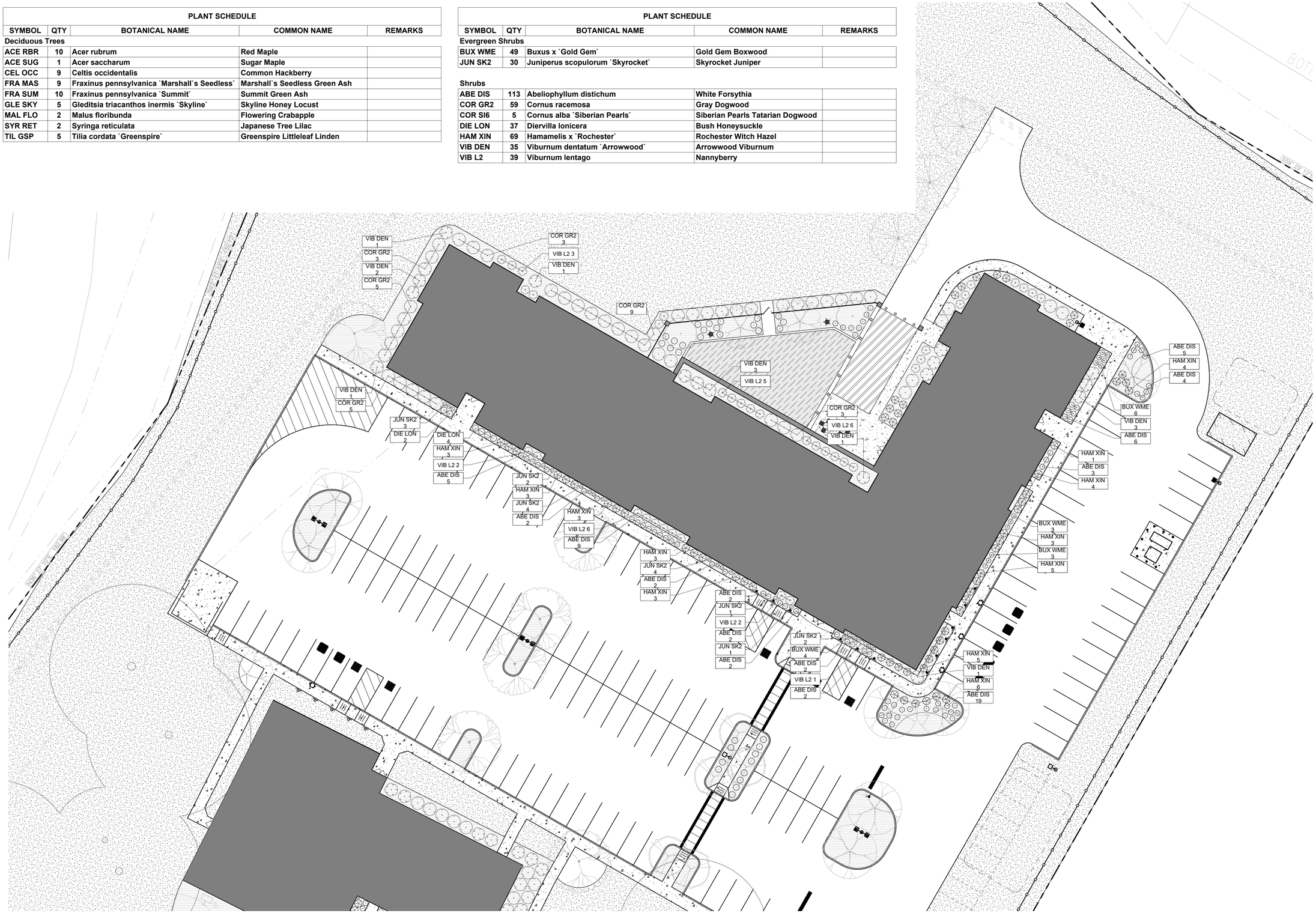
L-402

PLANTING PLAN ENLARGEMENT 1

2026-06-23
PLANNING BOARD ISSUANCE

PLANT SCHEDULE				
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
Deciduous Trees				
ACE RBR	10	Acer rubrum	Red Maple	
ACE SUG	1	Acer saccharum	Sugar Maple	
CEL OCC	9	Celtis occidentalis	Common Hackberry	
FRA MAS	9	Fraxinus pennsylvanica `Marshall`s Seedless`	Marshall`s Seedless Green Ash	
FRA SUM	10	Fraxinus pennsylvanica `Summit`	Summit Green Ash	
GLE SKY	5	Gleditsia triacanthos inermis `Skyline`	Skyline Honey Locust	
MAL FLO	2	Malus floribunda	Flowering Crabapple	
SYR RET	2	Syringa reticulata	Japanese Tree Lilac	
TIL GSP	5	Tilia cordata `Greenspire`	Greenspire Littleleaf Linden	

PLANT SCHEDULE				
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
Evergreen Shrubs				
BUX WME	49	Buxus x `Gold Gem`	Gold Gem Boxwood	
JUN SK2	30	Juniperus scopulorum `Skyrocket`	Skyrocket Juniper	
Shrubs				
ABE DIS	113	Abeliophyllum distichum	White Forsythia	
COR GR2	59	Cornus racemosa	Gray Dogwood	
COR SI6	5	Cornus alba `Siberian Pearls`	Siberian Pearls Tatarian Dogwood	
DIE LON	37	Diervilla lonicera	Bush Honeysuckle	
HAM XIN	69	Hamamelis x `Rochester`	Rochester Witch Hazel	
VIB DEN	35	Viburnum dentatum `Arrowwood`	Arrowwood Viburnum	
VIB L2	39	Viburnum lentago	Nannyberry	



1 SITE PLAN ENLARGEMENT - PLAYGROUND / COURTYARD / PARKING LOT 1
1" = 20'-0"

0 20' 40' 60'
SCALE: 1" = 20'

N

SWBR
260 E Main St Suite 4000 Rochester, NY 14604
585 232 8300 | rochester@swbr.com
SWBR NYS Certificate of Authorization #: 021723

Drawn By: RC/DK
Checked By: ES
Project Manager:

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Revisions

Project Name
SWBR Project Number 26054.00

Owner

L-403

PLANTING PLAN ENLARGEMENT 2

2026-06-23
PLANNING BOARD ISSUANCE

LABELLA Associates, D.P.C.
ENGINEERING.ARCHITECTURE.ENVIRONMENTAL.PLANNING
300 State Street, Suite 201 ● Rochester, NY 14614
Phone 585.454.6110 ● Fax 585.454.3066
www.labellapc.com

Project:	West Seneca Apartments
Project No.:	2241067
Subject	Pipe Sizing Calculations
Calc By:	JB
Date:	6/15/2026

Catchment # COLUMN C	Pervious (SF)	Impervious (SF)	Total (Acre) COLUMN D	Weighted Value COLUMN E
1 ST-3.4	816.00	8,177.00	0.21	0.84
2 ST-3.3	300.00	4,946.00	0.12	0.86
3 ST-3.2	3,905.00	12,827.00	0.38	0.74
4.1 CHAM	0.00	7,189.00	0.17	0.90
5 ST-3.1	1,198.00	17,386.00	0.43	0.85
6 ST-2.1	760.00	15,654.00	0.38	0.87
7 ST-2.2	548.00	6,725.00	0.17	0.85
8 ST-6.1	41,805.00	0.00	0.96	0.20
4.2 ST-3.0	0.00	7,189.00	0.17	0.90
4.3 ST-3.3	0.00	4,388.00	0.10	0.90
4.4 ST-3.4	0.00	6,627.00	0.15	0.90
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			0.00	#DIV/0!
			0.00	#DIV/0!
			0.00	#DIV/0!
			0.00	#DIV/0!
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			0.00	#DIV/0!
			0.00	#DIV/0!
			0.00	#DIV/0!
			0.00	#DIV/0!
			0.00	#DIV/0!
			0.00	#DIV/0!
			0.00	#DIV/0!

Totals for System			
Catchment	48516 SF	82931 SF	3.02 Acres
	1.11 Acres	1.9 Acres	

LABELLA Associates, D.P.C.
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Job # 2241067
Project: West Seneca Apartments
Date: 6/15/2026
By: JB

Location: West Seneca, NY
Design Storm Event: 10-Year
Roughness Coefficient, N = 0.013

Storm Sewer Sizing Calculations, Run 01

From	To	Area Number	Area	Coefficient	Equivalent	Accum.	Time of Concentration	Intensity	Q = CIA	Pipe Dia.	Pipe Length	Pipe Slope	Partially Full Pipe	Velocity at Reqd.	Time of Flow	Pipe Dia.	Pipe Area	Wetted Perimeter	Hydraulic Radius	Qmax (Full Pipe)	
ST	ST	(see map)	(Ac)	of Runoff	Area (Ac)	Area (Ac)	(min)	(in/hr)	(cfs)	(in.)	(ft)	(%)	Area (sf)	(fps)	(min)	(ft)	(sf)	(ft)	(ft)	(cfs)	
ST-3.4	ST-3.3	1 ST-3.4	0.21	0.84	0.17	0.31	6.00	12.19	3.77	18	150	0.90%	0.67	5.7	0.44	1.50	1.767	4.712	0.375	9.99	PASS
ST-3.3	ST-3.2	2 ST-3.3	0.12	0.86	0.10	0.50	10.00	9.52	4.80	18	102	0.90%	0.85	5.7	0.30	1.50	1.767	4.712	0.375	9.99	PASS
ST-3.2	ST-3.1	3 ST-3.2	0.38	0.74	0.28	0.79	10.30	9.37	7.38	18	85	2.00%	0.88	8.4	0.17	1.50	1.767	4.712	0.375	14.90	PASS
ST-3.1	ST-3.0	5 ST-3.1	0.43	0.85	0.36	1.15	10.47	9.30	10.70	18	35	1.30%	1.58	6.8	0.09	1.50	1.767	4.712	0.375	12.01	PASS
			#N/A	#N/A	#N/A	#N/A	10.55	9.26	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!

Contributing Area =	1.15	Ac
Next Tc =	10.55	Min.

Storm Sewer Sizing Calculations, Run 02

From	To	Area Number	Area	Coefficient	Equivalent	Accum.	Time of Concentration	Intensity	Q = CIA	Pipe Dia.	Pipe Length	Pipe Slope	Partially Full Pipe	Velocity at Reqd.	Time of Flow	Pipe Dia.	Pipe Area	Wetted Perimeter	Hydraulic Radius	Qmax (Full Pipe)	
ST	ST	(see map)	(Ac)	of Runoff	Area (Ac)	Area (Ac)	(min)	(in/hr)	(cfs)	(in.)	(ft)	(%)	Area (sf)	(fps)	(min)	(ft)	(sf)	(ft)	(ft)	(cfs)	
ST-2.2	ST-2.1	7 ST-2.2	0.17	0.85	0.14	0.14	5.00	13.19	1.87	12	50	2.00%	0.29	6.4	0.13	1.00	0.785	3.142	0.250	5.05	PASS
ST-2.1	CHAM	6 ST-2.1	0.38	0.87	0.33	0.47	5.13	13.05	6.11	18	30	1.83%	0.76	8.1	0.06	1.50	1.767	4.712	0.375	14.25	PASS
			#N/A	#N/A	#N/A	#N/A	5.19	12.98	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!

Contributing Area =	0.47	Ac
Next Tc =	5.19	Min.

Storm Sewer Sizing Calculations, Run 03

From	To	Area Number	Area	Coefficient	Equivalent	Accum.	Time of Concentration	Intensity	Q = CIA	Pipe Dia.	Pipe Length	Pipe Slope	Partially Full Pipe	Velocity at Reqd.	Time of Flow	Pipe Dia.	Pipe Area	Wetted Perimeter	Hydraulic Radius	Qmax (Full Pipe)	
ST	ST	(see map)	(Ac)	of Runoff	Area (Ac)	Area (Ac)	(min)	(in/hr)	(cfs)	(in.)	(ft)	(%)	Area (sf)	(fps)	(min)	(ft)	(sf)	(ft)	(ft)	(cfs)	
BLDG	CHAM	4.1 CHAM	0.17	0.90	0.15	0.15	5.00	13.19	1.96	10	206	1.25%	0.43	4.5	0.76	0.83	0.545	2.618	0.208	2.46	PASS
			#N/A	#N/A	#N/A	#N/A	5.76	12.41	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!

Contributing Area =	0.15	Ac
Next Tc =	5.76	Min.

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Storm Sewer Sizing Calculations, Run 04

From	To	Area Number	Area	Coefficient	Equivalent	Accum.	Time of Concentration	Intensity	Q = CIA	Pipe Dia.	Pipe Length	Pipe Slope	Partially Full Pipe	Velocity at Reqd.	Time of Flow	Pipe Dia.	Pipe Area	Wetted Perimeter	Hydraulic Radius	Qmax (Full Pipe)	
ST	ST	(see map)	(Ac)	of Runoff	Area (Ac)	Area (Ac)	(min)	(in/hr)	(cfs)	(in.)	(ft)	(%)	Area (sf)	(fps)	(min)	(ft)	(sf)	(ft)	(ft)	(cfs)	
SWALE	ST-6.1	8 ST-6.1	0.96	0.20	0.19	0.19	30.00	5.05	0.97	12	177	1.00%	0.21	4.5	0.65	1.00	0.785	3.142	0.250	3.57	PASS
			#N/A	#N/A	#N/A	#N/A	30.65	4.98	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!

Contributing Area =	0.19	Ac
Next Tc =	30.65	Min.

Storm Sewer Sizing Calculations, Run 05

From	To	Area Number	Area	Coefficient	Equivalent	Accum.	Time of Concentration	Intensity	Q = CIA	Pipe Dia.	Pipe Length	Pipe Slope	Partially Full Pipe	Velocity at Reqd.	Time of Flow	Pipe Dia.	Pipe Area	Wetted Perimeter	Hydraulic Radius	Qmax (Full Pipe)	
ST	ST	(see map)	(Ac)	of Runoff	Area (Ac)	Area (Ac)	(min)	(in/hr)	(cfs)	(in.)	(ft)	(%)	Area (sf)	(fps)	(min)	(ft)	(sf)	(ft)	(ft)	(cfs)	
AREA 4.2	ST-3.0	4.2 ST-3.0	0.17	0.90	0.15	0.17	5.00	13.19	2.18	10	209	1.00%	0.54	4.0	0.86	0.83	0.545	2.618	0.208	2.20	PASS
			#N/A	#N/A	#N/A	#N/A	5.86	12.31	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!

Contributing Area =	0.17	Ac
Next Tc =	5.86	Min.

Storm Sewer Sizing Calculations, Run 06

From	To	Area Number	Area	Coefficient	Equivalent	Accum.	Time of Concentration	Intensity	Q = CIA	Pipe Dia.	Pipe Length	Pipe Slope	Partially Full Pipe	Velocity at Reqd.	Time of Flow	Pipe Dia.	Pipe Area	Wetted Perimeter	Hydraulic Radius	Qmax (Full Pipe)	
ST	ST	(see map)	(Ac)	of Runoff	Area (Ac)	Area (Ac)	(min)	(in/hr)	(cfs)	(in.)	(ft)	(%)	Area (sf)	(fps)	(min)	(ft)	(sf)	(ft)	(ft)	(cfs)	
AREA 4.3	AREA 2	4.3 ST-3.3	0.10	0.90	0.09	0.09	5.00	13.19	1.20	10	26	3.38%	0.16	7.4	0.06	0.83	0.545	2.618	0.208	4.04	PASS
			#N/A	#N/A	#N/A	#N/A	5.06	13.12	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!

Contributing Area =	0.09	Ac
Next Tc =	5.06	Min.

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Storm Sewer Sizing Calculations, Run 07																				
From	To	Area Number	Area	Coefficient	Equivalent	Accum.	Time of Concentration	Intensity	Q = CIA	Pipe Dia.	Pipe Length	Pipe Slope	Partially Full Pipe	Velocity at Reqd.	Time of Flow	Pipe Dia.	Pipe Area	Wetted Perimeter	Hydraulic Radius	Qmax (Full Pipe)	
ST	ST	(see map)	(Ac)	of Runoff	Area (Ac)	Area (Ac)	(min)	(in/hr)	(cfs)	(in.)	(ft)	(%)	Area (sf)	(fps)	(min)	(ft)	(sf)	(ft)	(ft)	(cfs)	
AREA 4.4	AREA 3.4	4.4 ST-3.4	0.15	0.90	0.14	0.14	5.00	13.19	1.81	10	26	1.00%	0.45	4.0	0.11	0.83	0.545	2.618	0.208	2.20	PASS
			#N/A	#N/A	#N/A	#N/A	5.11	13.07	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A				#N/A	#N/A	#N/A	0.00	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
Contributing Area =		0.14	Ac																		
Next Tc =		5.11	Min.																		

AREA 4.4
ST-3.4

AREA 1
ST-3.4

AREA 4.1
CHAM

PROPOSED
3-STORY
BUILDING
± 25,000 SF FOOTPRINT

AREA 4.2
ST-3.0

AREA 4.3
ST-3.3

AREA 2
ST-3.3

AREA 7
ST-2.2

AREA 6
ST-2.1

AREA 5
ST-3.1

AREA 3
ST-3.2

AREA 8
ST-6.1

PROPOSED PLAYGROUND

ARCHAEOLOGICAL BUFFER AREA

ZONE A

ZONE AE ZONE LIMIT

ZONE X ZONE LIMIT

FLOODWAY ZONE LIMIT

LIMITS OF ARCHAEOLOGICAL BUFFER AREA

N/F
CLINTON STREET REALTY HOLDINGS
T.A.# 124.00-2-5
2544 CLINTON STREET
LIBER 11299 PAGE 9093
AREA = 9.402 ACRES TO TIE LINE
AREA = 12.7± ACRES TO CENTERLINE OF CREEK

15' WIDE EASEMENT PER LB927 P407

N/F
CLINTON STREET REALTY HOLDINGS
T.A.# 124.00-2-8
2602 CLINTON STREET
LIBER 11299 PAGE 9093

N/F
CLINTON STREET REALTY HOLDINGS
T.A.# 124.00-2-7
2574 CLINTON STREET
LIBER 11299 PAGE 9093
AREA = 0.765 ACRES

2 1/2 STORY FRAME & BRICK HOUSE #2544
FFE 600.70
FFE 602.53

ONE STORY FRAME GARAGE FF=601.19'

TWO STORY FRAME HOUSE FF= 605.35

NEW 8" COMBINED WATER SERVICE

NEW 6" FIRE SERVICE (AFTER BACKFLOW PREVENTER)

NEW BACKFLOW PREVENTER (IN MECHANICAL ROOM) FOR COMBINED SERVICE, DOMESTIC SERVICE WILL BE METERED AFTER THE BACKFLOW.

NEW PRIVATE FIRE HYDRANT

NEW PUBLIC FIRE HYDRANT

CONNECT TO EXISTING 8" WATERMAIN WITH TS&V

APPROXIMATE LOCATION 12" PVC WATER MAIN

APPROXIMATE LOCATION 2" GAS MAIN

10' WIDE EASEMENT TO NYS ELECTRIC & GAS CORPORATION PER REF. 1

ORIGINAL NORTHERLY RIGHT OF WAY LINE OF CLINTON STREET

CLINTON STREET

CAYUGA CREEK

BOTTOM OF BANK

TOP OF BANK

STONE WALL

4' WOOD FENCE

5' WOOD AND PLASTIC FENCE

FENCE 6.9'

GATE

CATE FENCE 6.2'

1" PIN 0.4' ABOVE GRADE

SAN MH RIM=602.51 NO ACCESS

SAN MH RIM=594.92 NO ACCESS

SAN MH NO ACCESS

WOODS

R.O.W.

S59° 29' 15"E 117.05'

S60° 14' 10"E 88.00'

N60° 14' 10"W 69.1'

N60° 14' 10"W 257.62'

N60° 14' 10"W 88.00'

N18° 32' 09"E 49.86'

N69° 30' 45"W 303.36'

SPEED LIMIT LOW 30

WEST SENECA APARTMENTS

SITE PIPE SIZING CONTRIBUTING AREAS

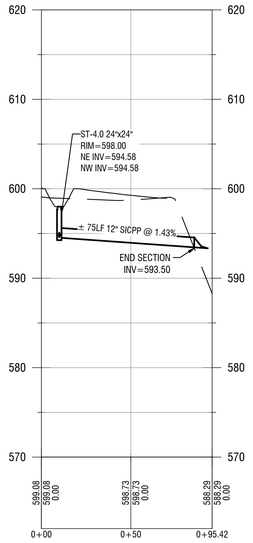
DATE: 06/23/2026

SCALE: 1"=40'

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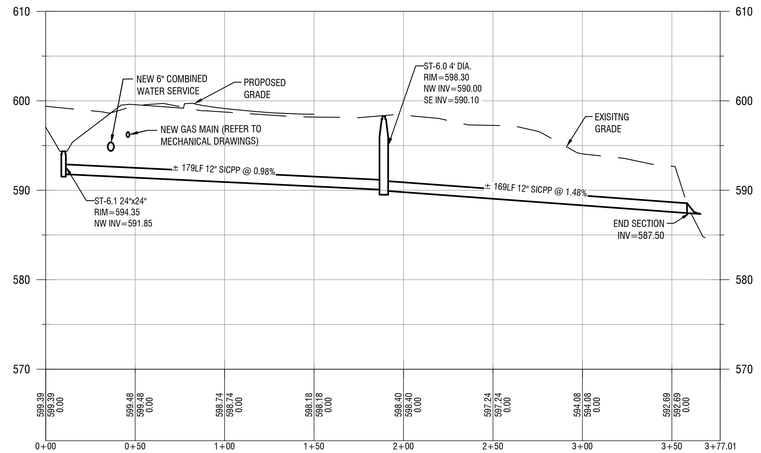
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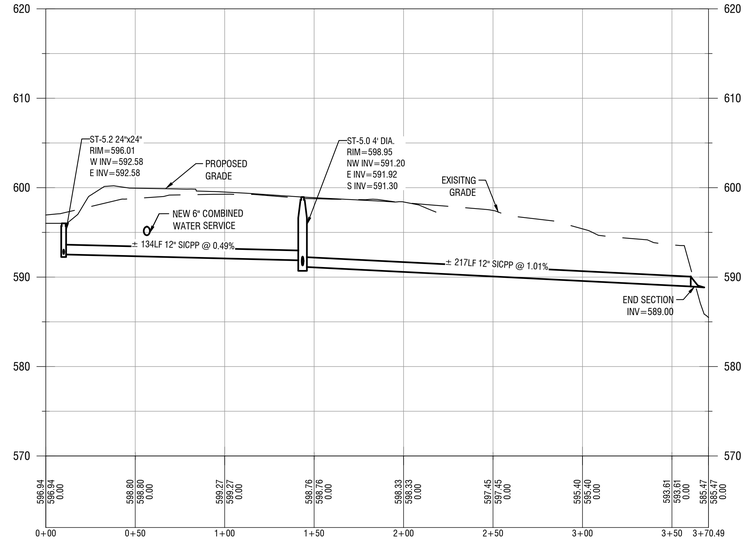
5 C303 **E STORM**

SCALE: H: 1" = 40' V: 1"=8'



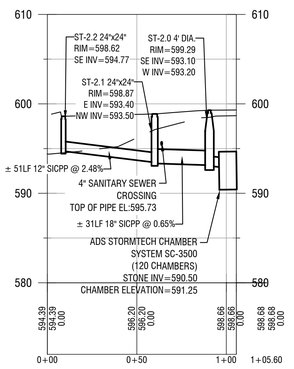
4 C303 **D STORM**

SCALE: H: 1" = 40' V: 1"=8'



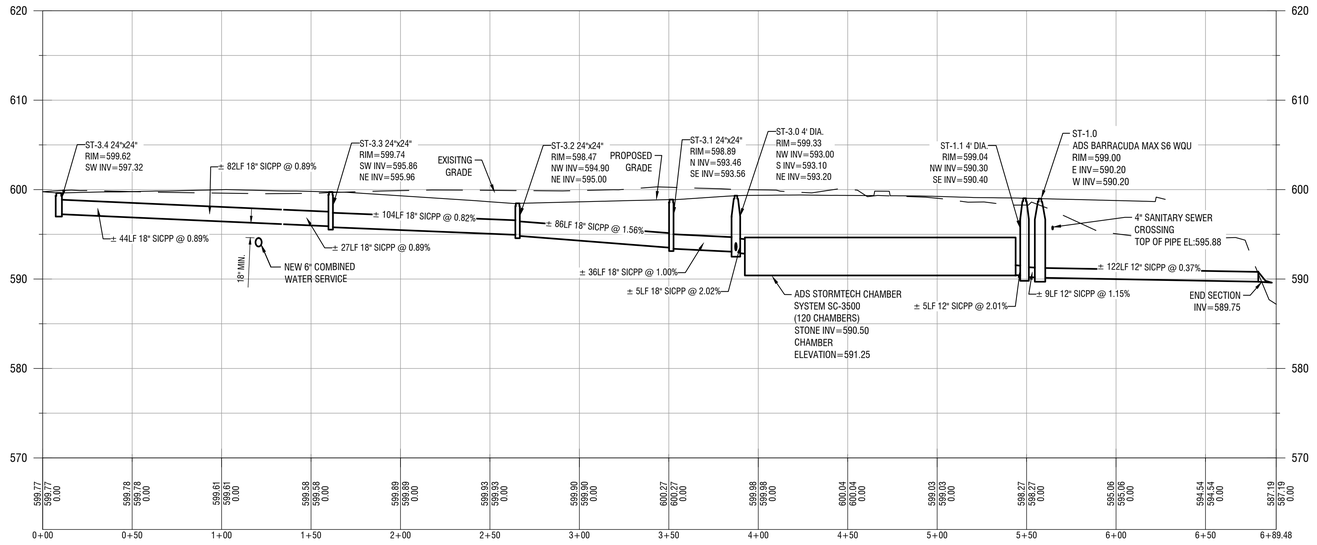
3 C303 **C STORM**

SCALE: H: 1" = 40' V: 1"=8'



2 C303 **B STORM**

SCALE: H: 1" = 40' V: 1"=8'



1 C303 **A STORM**

SCALE: H: 1" = 40' V: 1"=8'

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
1	06/23/2026	PLANNING BOARD COMMENTS
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / JBB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

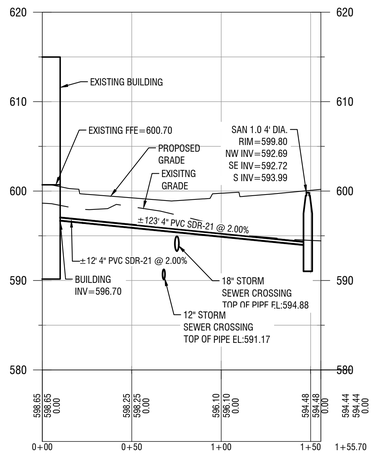
STORM PROFILES

DRAWING NUMBER:

C303

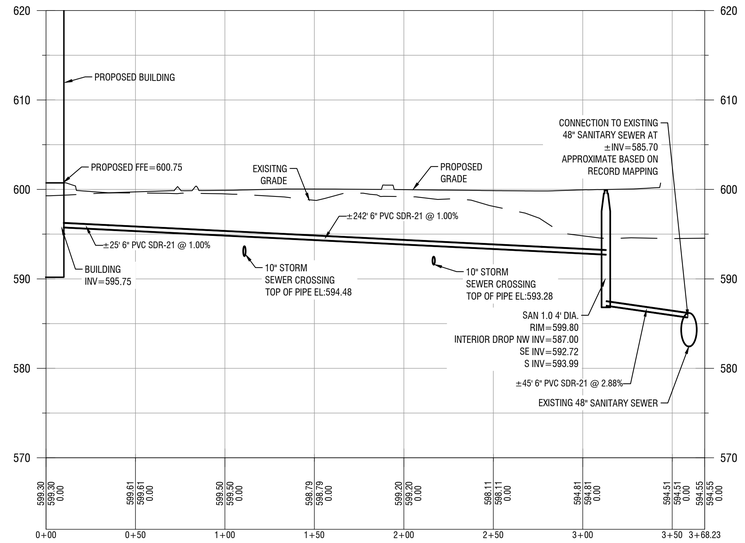
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1 C304 B SANITARY

SCALE: H: 1" = 40' V: 1"=8'



1 C304 A SANITARY

SCALE: H: 1" = 40' V: 1"=8'

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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
1	06/23/2026	PLANNING BOARD COMMENTS
Revisions		

PROJECT NUMBER: 2241067
DRAWN BY: EMM / JBB
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ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

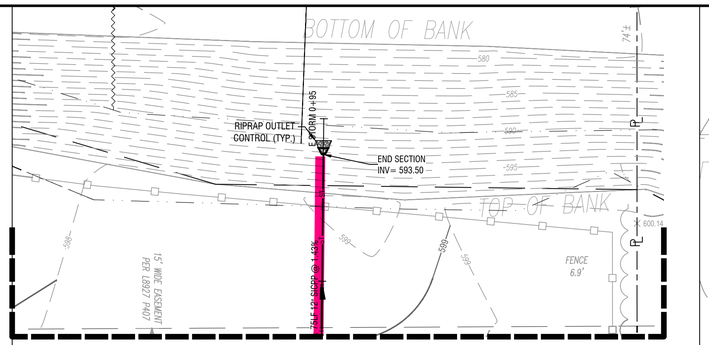
SANITARY PROFILES

DRAWING NUMBER:

C304

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MATCH TO INSET

PROFILE LEGEND
- A STORM
- B STORM
- C STORM
- D STORM
- E STORM
- A SANITARY
- B SANITARY

ARCHAEOLOGICAL BUFFER AREA
ZONE X ZONE LIMIT
LIMITS OF ARCHAEOLOGICAL BUFFER AREA

N/F
CLINTON STREET REALTY HOLDINGS
T.A.# 124.00-2-5
2544 CLINTON STREET
LIBER 11299 PAGE 9093
AREA = 9.402 ACRES TO TIE LINE
AREA = 12.7± ACRES TO CENTERLINE OF CREEK

PROPOSED PLAYGROUND

PROPOSED 3-STORY BUILDING ± 25,000 SF FOOTPRINT FFE=600.75'

NEW BIORETENTION AREA #1 (± 375 SF)
NEW 2' WIDE GRAVEL DIAPHRAGM
ST-4.0 24"X24" CB RIM=598.00
E STORM 1+00
NEW PRIVATE FIRE HYDRANT
ST-3.4 24"X24" CB RIM=599.62
A STORM 0+00
CLEANOUT SE INV=597.26
NEW 6" FIRE SERVICE (AFTER BACKFLOW PREVENTOR)
A STORM 1+00
NEW BACKFLOW PREVENTOR (IN MECHANICAL ROOM) FOR COMBINED SERVICE. DOMESTIC SERVICE WILL BE METERED AFTER THE BACKFLOW.
CLEANOUT SE INV=596.51
ST-3.3 24"X24" CB RIM=599.74
A SANITARY 0+00
CLEANOUT NW INV=594.85
A STORM 2+00
ST-3.2 24"X24" CB RIM=598.47
A STORM 3+00
ST-3.1 24"X24" CB RIM=598.89
ST-3.0 4' DIA. MH RIM=599.33
A STORM 4+00
A STORM 5+00
ADS STORMTECH CHAMBER SYSTEM SC-3500 (120 CHAMBERS)
NEW 6" COMBINED WATER SERVICE
A SANITARY 1+00
A SANITARY 2+00
A SANITARY 3+00
SAN 1 0 4' DIA. RIM=594.70 NW INV=587.00 SE INV=592.72 S INV=593.99
CLEANOUT RIM=593.62 WYE THRU NW INV=593.08 SE INV=593.08 E INV=593.08
ST-2.0 4' DIA. MH RIM=599.29
B STORM 1+00
B STORM 1+06
ST-1.1 4' DIA. MH RIM=599.04
ST-1.0 ADS BARRACUDA MAX S6 WQU RIM=599.00
ST-2.1 24"X24" CB RIM=598.87
A STORM 6+00
ST-2.2 24"X24" CB RIM=598.62
RIM 0+00
RIPRAP OUTLET CONTROL (TYP.)
A STORM 6+89
END SECTION INV= 589.75
CONNECT INTO EXISTING SANITARY MAIN A SANITARY 3+58
B SANITARY 1+00
B SANITARY 1+58
CLEANOUT SE INV=594.00
BLDG INV= SW INV=595.08
CLEANOUT SW INV=592.75 NW INV=592.75 SE INV=592.75
CLEANOUT NW INV=593.50
CLEANOUT SE INV=594.38
CLEANOUT SW INV=593.90 NW INV=593.90 SE INV=593.90
BLDG INV= SW INV=595.75
SAN CO TYP.
NEW PRIVATE FIRE HYDRANT
MATCH TO SHEET: C302
15" WIDE EASEMENT PER L8927 P407
5' WOOD AND PLASTIC FENCE
FENCE 6.9'

1 C305 UTILITY PROFILE LEGEND
SCALE: 1" = 20'

N
0' 20' 40' 60'

UTILITY PLAN NOTES:
1. A MINIMUM OF 10 FEET OF HORIZONTAL AND 18" OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY AND WATER SERVICES
2. THE ERIE COUNTY WATER AUTHORITY IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE
3. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH ANY PAVEMENT AREA

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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HOME LEASING
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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
1	06/23/2026	PLANNING BOARD COMMENTS

Revisions

PROJECT NUMBER: 2241067
DRAWN BY: EMM / JBB
REVIEWED BY: SRV / DPB
ISSUED FOR: SITE PLAN APPROVAL
DATE: 4/20/2026
DRAWING NAME:

UTILITY PROFILE LEGEND

DRAWING NUMBER:

C305

NOT FOR CONSTRUCTION

MATCH TO SHEET: C301

PROFILE LEGEND
- A STORM
- B STORM
- C STORM
- D STORM
- E STORM
- A SANITARY
- B SANITARY

ADS BARRACUDA MAX S6 WQU RIM=599.00

NEW PRIVATE FIRE HYDRANT

ADS STORMTECH CHAMBER SYSTEM SC-3500 (120 CHAMBERS)

NEW 6" COMBINED WATER SERVICE

±12' 4" PVC SDR-21 @ 2.00%

SAN CO TYP.

B SANITARY 0+00

BLDG INV= NE INV=596.70

NEW 6" FIRE SERVICE (AFTER BACKFLOW PREVENTOR)

2 1/2 STORY FRAME & BRICK HOUSE #2544 FFE 602.53'

FFE 600.70'

FFE 602.53'

PORCH

NEW BACKFLOW PREVENTOR (IN MECHANICAL ROOM) FOR COMBINED SERVICE. DOMESTIC SERVICE WILL BE METERED AFTER THE BACKFLOW.

ZONE X ZONE LIMIT

15' WIDE EASEMENT PER L8927 P407

NEW BIORETENTION AREA #2 (± 370 SF)

NEW 2' WIDE GRAVEL DIAPHRAGM

ST-5.2 24"X24" CB RIM=596.01

596.50

596.50

C STORM 0+00

NEW 6" COMBINED WATER SERVICE

ST-5.0 4' DIA. MH RIM=598.95

C STORM 1+00

C STORM 2+00

C STORM 3+00

RIPRAP OUTLET CONTROL (TYP.)

C STORM 3+68

END SECTION INV= 589.00

NEW 2' WIDE GRAVEL DIAPHRAGM

ST-5.1 24"X24" CB RIM=596.10

NEW BIORETENTION AREA #3 (± 700 SF)

595.50

ST ES-5 SE INV=585.58

NEW 6" COMBINED WATER SERVICE

PROPOSED SWALE 460 LF @ 1.0% BOTTOM WIDTH 1' MIN.

ST-5.3 24"X24" CB RIM=598.85

RIPRAP OUTLET CONTROL (TYP.)

D STORM 3+68

END SECTION INV= 587.50

D STORM 3+00

D STORM 2+00

ST-6.0 4' DIA. MH RIM=598.30

D STORM 1+00

D STORM 0+00

ST-6.1 30"X30" CB RIM=594.35

10' WIDE EASEMENT TO NYS ELECTRIC & GAS CORPORATION PER REF. 4

STONE WALL

R.O.W.

LOT 34

LOT 1

SPEED LIMIT 35 MPH

GUARD RAIL

CLINTON STREET (WIDTH VARIES)

APPROXIMATE LOCATION 12" PVC WATER MAIN

APPROXIMATE LOCATION 6" CAST IRON WATER MAIN

APPROXIMATE LOCATION 4" GAS MAIN

CONNECT TO EXISTING 6" WATERMAIN WITH TS&V

GATE

FENCE 6.2'

STONE WALL

28" STUMP 2' HIGH

1 C306 UTILITY PROFILE LEGEND

SCALE: 1" = 20'

0' 20' 40' 60'

UTILITY PLAN NOTES:
1. A MINIMUM OF 10 FEET OF HORIZONTAL AND 18" OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY AND WATER SERVICES
2. THE ERIE COUNTY WATER AUTHORITY IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE
3. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH ANY PAVEMENT AREA

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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WEST SENECA APARTMENTS
2544 CLINTON ST,
WEST SENECA, NY 14224

NO:	DATE:	DESCRIPTION:
1	06/23/2026	PLANNING BOARD COMMENTS
Revisions		

PROJECT NUMBER: 2241067

DRAWN BY: EMM / JBB

REVIEWED BY: SRV / DPB

ISSUED FOR: SITE PLAN APPROVAL

DATE: 4/20/2026

DRAWING NAME: UTILITY PROFILE LEGEND

DRAWING NUMBER: C306

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:

Zen Nails

Project Location (describe, and attach a location map):

1976 Ridge Road - West Seneca, NY 14224

Brief Description of Proposed Action:

The property is currently owned by Tiffany Truc Phan, owner of Tiffany Zen Nails Spa of Erie LLC. The work included for this project will be the partial demolition to an existing building to include a new addition. The project will provide a new salon with programs such as pedicure stations, manicure stations, a bar and other aesthetic amenities. This property is located in the C-2 Zone.

Name of Applicant or Sponsor:	Telephone: 716-932-7156
Michael Berger	E-Mail: mikeb@design2build.com

Address:

5409 Main Street

City/PO:	State:	Zip Code:
Williamsville	New York	14221

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Building Permit, Planning Approval, Demo Permit, ZBA Parking Reduction	☐	☑

3. a. Total acreage of the site of the proposed action? 0.460 acres
   b. Total acreage to be physically disturbed? 0.460 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.460 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies:		
Project will meet all state energy requirements	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____	☐	☑

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☑	☐

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe:		
All Stormwater runoff will be directed to stormwater drains (Re-use existing)		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Michael Berger Date: 3/2/2021

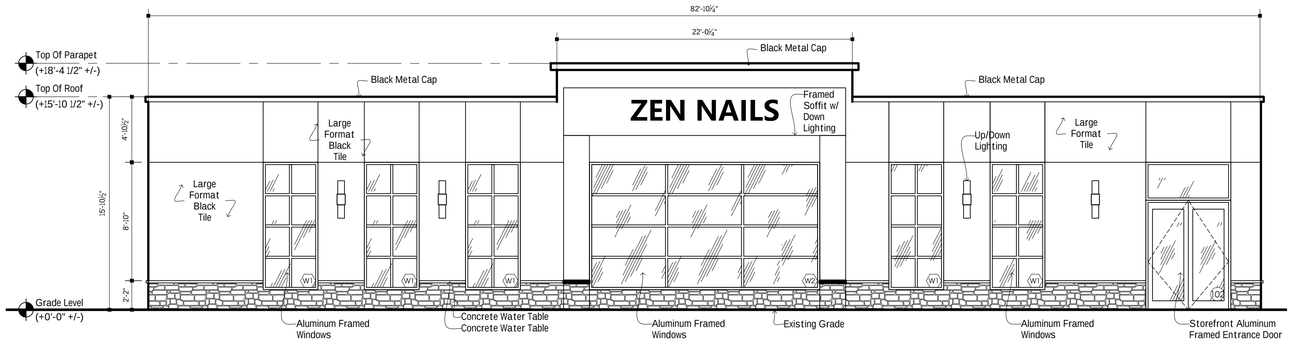
Signature: _____ Title: Architect

PRINT FORM



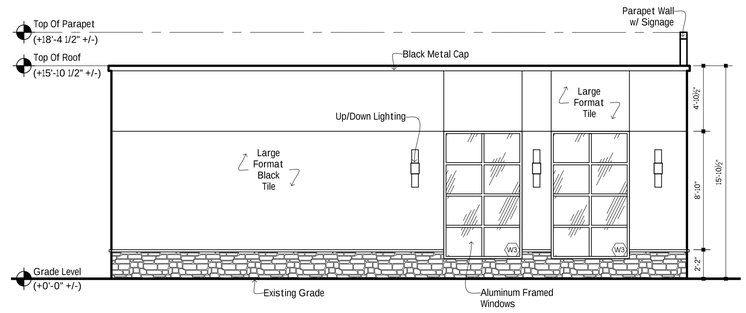
Concept Rendering

NTS



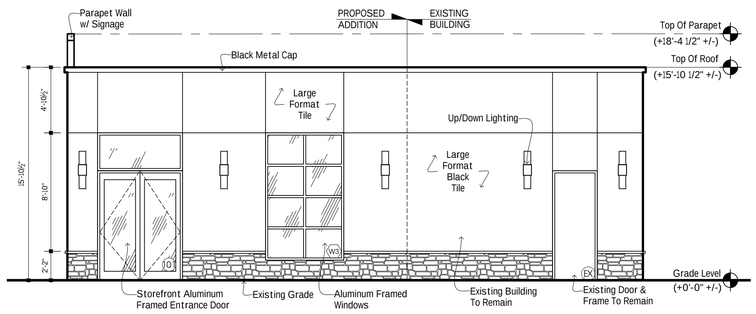
South Elevation

3/16" = 1'-0"



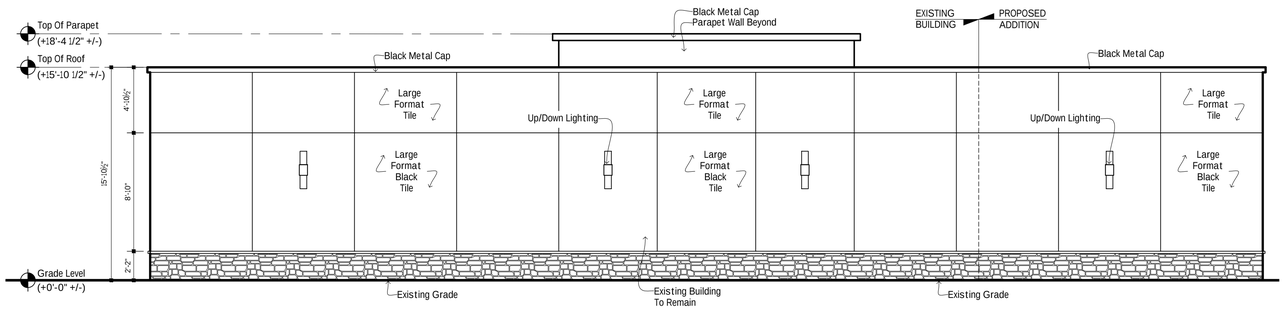
East Elevation

3/16" = 1'-0"



West Elevation

3/16" = 1'-0"



North Elevation

3/16" = 1'-0"

Proposed Elevations For:

Zen Nails
1976 Ridge Road
West Seneca, NY 14224

SUTTON architecture
"Design 2 Build"

SUTTON
architecture
PLLC

March 25, 2026

Town of West Seneca
Building Department
1250 Union Road
West Seneca, NY 14224
ATTN: Code Enforcement Officer

Re: Proposed Addition & Change of Occupancy

Dear Jeff;

Zen Nails is proposing a new location at 1976 Ridge Road, West Seneca. The subject property is a former car rental facility with associated garage space. The client proposes to construct an addition and renovate the existing interior and exterior façade to accommodate a new nail salon classified as a Business ("B") Occupancy.

Per zoning requirements, parking is required at a rate of three (3) spaces per salon chair. The proposed design provides twenty-two (22) salon chairs, resulting in a required total of sixty-six (66) parking spaces. Due to site constraints, the property is able to accommodate only twenty-six (26) parking spaces, necessitating a request for a parking variance of forty (40) spaces. The client has made a good-faith effort to secure shared parking agreements with adjacent commercial properties that have larger parking facilities; however, no neighboring property owners were willing to enter into such an agreement. The business will operate primarily on an appointment-only basis, allowing the owner to actively manage customer flow and parking demand using the on-site parking provided.

Sutton Architecture, PLLC is submitting a concept design in support of this parking variance request. The drawings reflect the proposed scope of work for the project. Should you have any questions regarding the information provided or the project in general, please feel free to contact our office at your convenience.

Sincerely,
SUTTON ARCHITECTURE, PLLC



Michael J. Berger, RA
Project Architect/Partner

design2build.com

Tel: 716.932.7156
Fax: 716.932.7873

5409 Main Street
Williamsville, NY 14221

TOWN OF WEST SENECA

TERESSA STACEY
Secretary to Zoning Board

TOWN SUPERVISOR
GARY A. DICKSON

TOWN COUNCIL
ROBERT J. BREIDENSTEIN
MARY SHERMAN

SCOTT D. ROBERSTON

April 23, 2026

Michael Berger with Sutton Architecture
5409 Main Street #2
Williamsville, NY 14221

Re: **Zoning Board Meeting — Variance Approval**
#2026-009 (Address Located at 1976 Ridge Road)

Dear, Michael Berger

At the April 22, 2026 Zoning Board of Appeals meeting a variance was granted to the above-mentioned property to allow for 26 parking spaces for a proposed nail salon. (66 parking spots required)

You may request your building permit from the Code Enforcement office if you have not done so already.

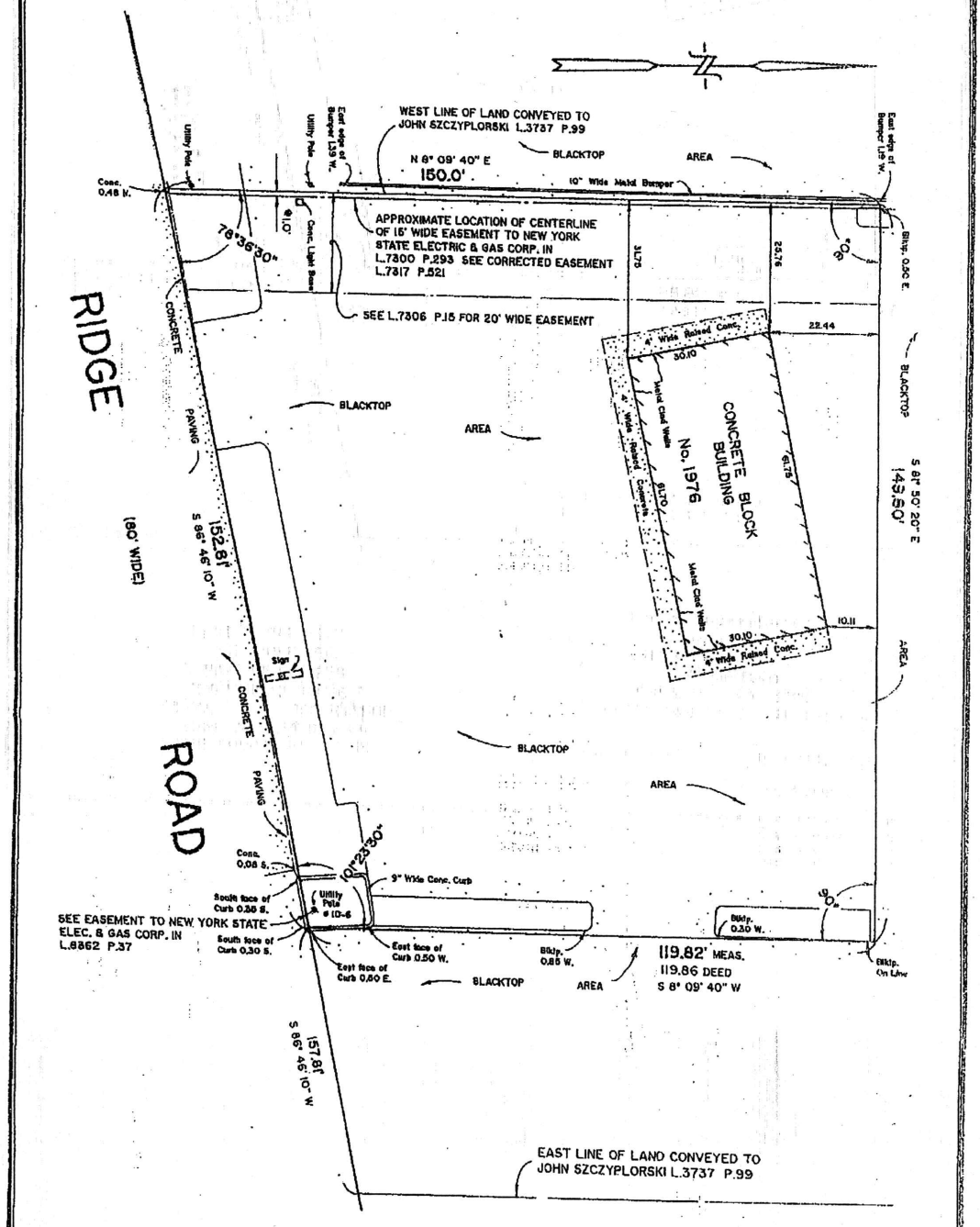
Sincerely yours,

Teressa Stacey

Teressa Stacey
Zoning Board Secretary

cc: Code Enforcement Officer
Zoning Board Chairman

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PART OF PARCEL "E"
MAP COVER 611
PART OF LOT 296
TOWNSHIP 10, RANGE 7
BUFFALO CREEK RESERVATION
TOWN OF WEST SENECA
ERIE COUNTY, NEW YORK

Ray L. Sonnenberger
Land Surveyor
N.Y.S. Lic. No. 036193
60 Niagara Street
Buffalo, New York 14202
Phone: 716-854-0159 Fax: 716-854-1462

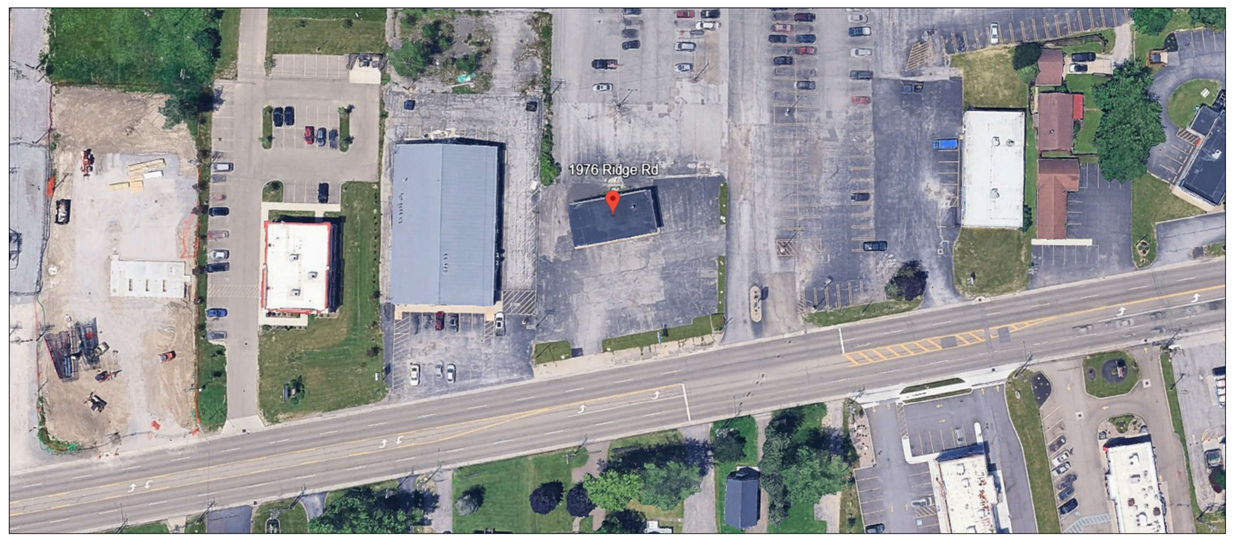
SCALE 1" = 20' DATE OCT. 2, 2013

SHEET 47762 NO. 13-295

This map void unless EMBOSSED With New York State Licensed Land Surveyor's Seal No. 036193

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Altering any item on this map is in violation of The law, excepting as provided in Section 7209, Part of the New York State Education Law



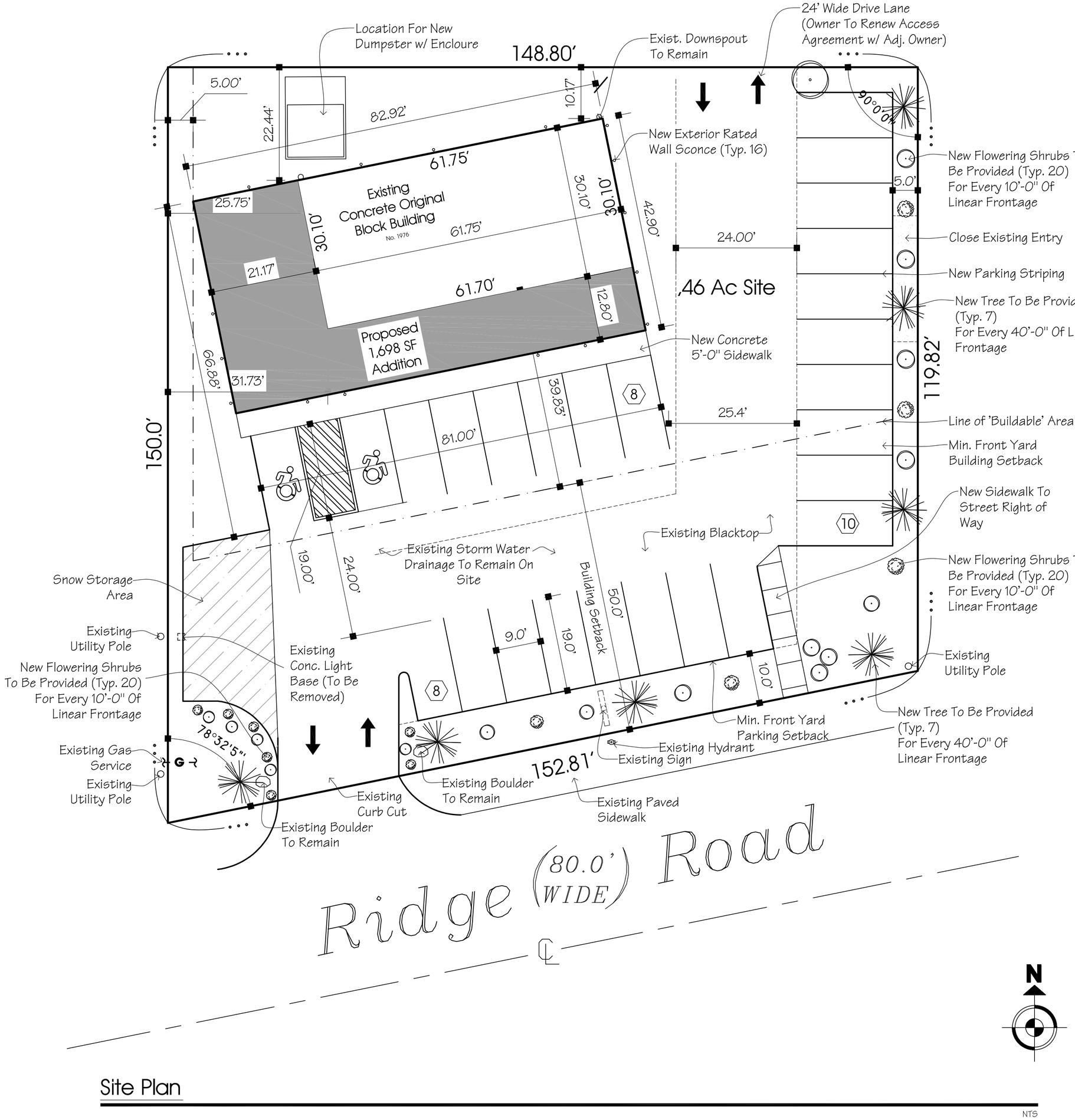
Aerial View



Existing Photo #1



Existing Photo #2



Site Plan

NTS

LANDSCAPING NOTES:

1. Site landscaping shall be required at the location of all entrances, exits, and signage.

2. Building setback areas along streets, accessways, or along private drives shall be landscaped with a minimum of one tree for every 40 feet of linear frontage.

3. Building setback areas shall include compact massings of ornamental plant material, such as ornamental trees, flowering shrubs, perennials, and ground covers, at a minimum of one plant for every 10 feet of linear frontage.

4. Landscaping shall observe the regulations set forth in S120-33 of the Town of West Seneca code, visibility at intersections.

5. Plantings should decrease in size and increase in detail, color, and variety near entryways into developments.

6. Planting shall be limited to species endemic, indigenous, hardy, and those known to be noninvasive to this area. Plants should be consistent with the most current USDA Plant Hardiness Zone for the Town of West Seneca (Zone 6a - Average Annual Extreme Minimum Temperature of -10 degrees fahrenheit to -5 degrees fahrenheit, accessed July 2016).

Parking Analysis:

Total Site Area: 20,074 sf / 0.460 Acres

Building Areas:
Retail Area: 3,550 sf / 0.08 Acres

Parking Calculations:
(3) Parking Spaces Per Salon Chair =
22 Chairs = 66 Parking Spaces

Total Parking Requirements: **66 Parking Spaces**

Total Parking Available: 26 Parking Spaces

Additional Parking Needed: *40 Parking Spaces*

ZBA Approved on April 22nd, 2026

Proposed Site Plan For:

Zen Nails
1976 Ridge Road
West Seneca, NY 14224

SUTTON architecture
"Design 2 Build"

TOWN OF WEST SENECA

APPLICATION FOR SITE PLAN REVIEW APPROVAL

TO BE COMPLETED BY APPLICANT

DATE 5/8/26 FILE #_____

PROJECT NAME Zen Nails

PROJECT LOCATION (Include address and distance to nearest intersection)
1976 Ridge Road - West Seneca, NY 14224. Approximately 650 feet to nearest intersection -

APPLICANT Sutton Architecture PH/FAX (716) 932-7156

ADDRESS 5409 Main Street (716) 932-7873 Fax

PROPERTY OWNER Tiffany Truc Phan PH/FAX _____

ADDRESS 1976 Ridge Road West Seneca, NY 14224

ENGINEER/ ARCHITECT Michael Berger @ Sutton Architecture PH/ FAX (716) 932-7156 ext. 205

ADDRESS 5409 Main Street - Williamsville, NY 14221

SBL # 143.06-4-19

PROJECT DESCRIPTION (Include all uses and any required construction)
Work included will be the partial demolition to an existing building to include a new addition. Project will provide a new salon w/ programs such as pedicures, manicures, bar and other aesthetic amenities. Proposed addition of 1,698 sq. ft.

SIZE OF LOT (acres) 0.460 ACREAGE TO BE REZONED 0.038

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH

Ridge Road - 82.91' / Orchard Park Road - 30.10'

EXISTING ZONING C PROPOSED ZONING "B" Occupancy

EXISTING USE(S) ON PROPERTY Commercial "C"

PROPOSED USE(S) ON PROPERTY Business "B" Occupancy

EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET
Auto dealer exist. use.

Zones within 500 feet: Single family, commercial, industrial, multi-family / mixed use, 2 family / office

PUBLIC SEWER YES ✓ NO ___ PUBLIC WATER YES ✓ NO ___

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED
Parking variance - a certificate of zoning compliance

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED _____ BY _____

PLANNING BOARD MEETING DATE _____

TOWN BOARD MEETING DATE _____

TOWN BOARD RESOLUTION DATE _____

NON – REFUNDABLE FILING FEE (Payable to the Town Clerk): $

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:

Zen Nails

Project Location (describe, and attach a location map):

1976 Ridge Road - West Seneca, NY 14224

Brief Description of Proposed Action:

The property is currently owned by Tiffany Truc Phan, owner of Tiffany Zen Nails Spa of Erie LLC. The work included for this project will be the partial demolition to an existing building to include a new addition. The project will provide a new salon with programs such as pedicure stations, manicure stations, a bar and other aesthetic amenities. This property is located in the C-2 Zone.

Name of Applicant or Sponsor:	Telephone: 716-932-7156
Michael Berger	E-Mail: mikeb@design2build.com

Address:

5409 Main Street

City/PO:	State:	Zip Code:
Williamsville	New York	14221

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Building Permit, Planning Approval, Demo Permit, ZBA Parking Reduction	☐	☑

3. a. Total acreage of the site of the proposed action? 0.460 acres
   b. Total acreage to be physically disturbed? 0.460 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.460 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES
If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES
	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES
If the proposed action will exceed requirements, describe design features and technologies:		
Project will meet all state energy requirements	☐	☑
10. Will the proposed action connect to an existing public/private water supply?	NO	YES
If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities?	NO	YES
If No, describe method for providing wastewater treatment: _____	☐	☑
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO	YES
	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☑	☐
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES
	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe:		
All Stormwater runoff will be directed to stormwater drains (Re-use existing)		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Michael Berger Date: 3/2/2021

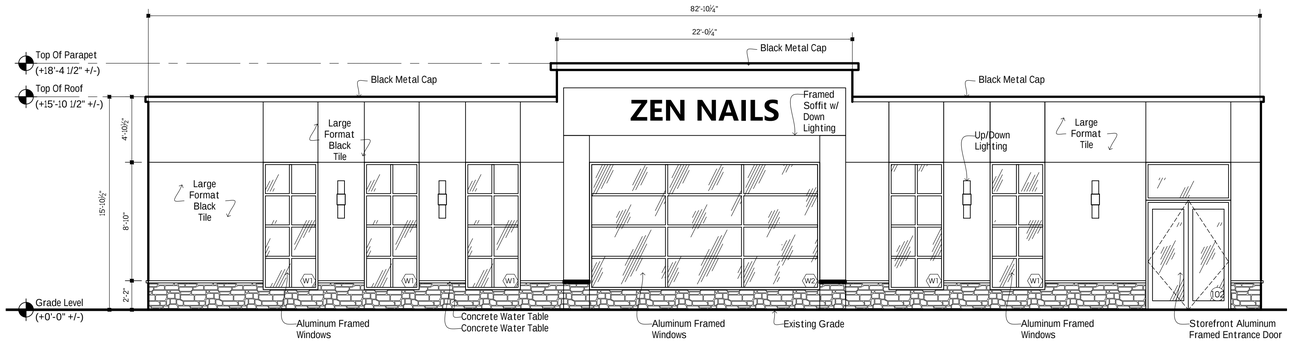
Signature: _____ Title: Architect

PRINT FORM



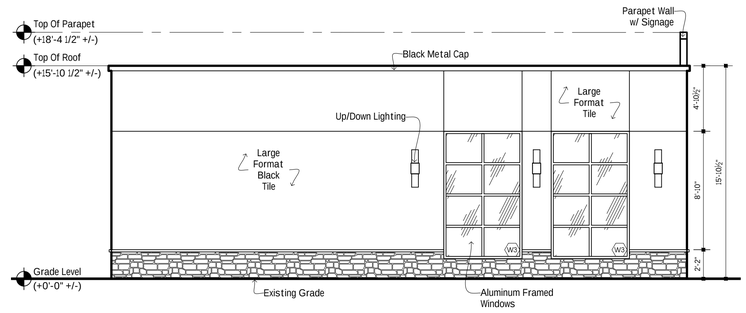
Concept Rendering

NTS



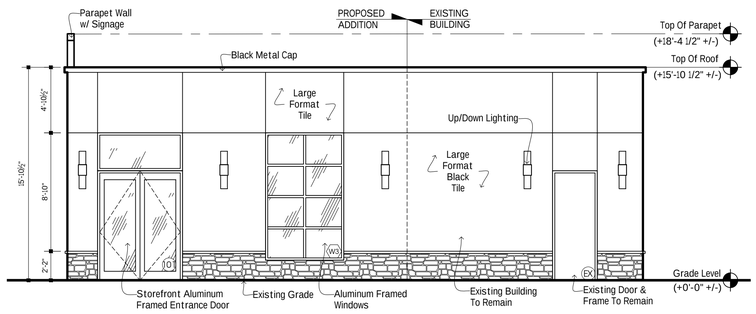
South Elevation

3/16" = 1'-0"



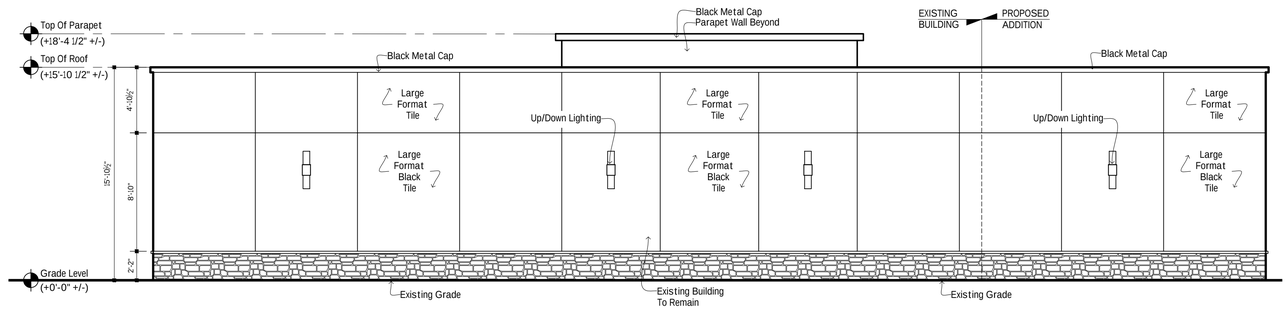
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West Elevation

3/16" = 1'-0"



North Elevation

3/16" = 1'-0"

Proposed Elevations For:

Zen Nails
1976 Ridge Road
West Seneca, NY 14224

SUTTON architecture
"Design 2 Build"

SUTTON
architecture
PLLC

March 25, 2026

Town of West Seneca
Building Department
1250 Union Road
West Seneca, NY 14224
ATTN: Code Enforcement Officer

Re: Proposed Addition & Change of Occupancy

Dear Jeff;

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Sincerely,
SUTTON ARCHITECTURE, PLLC

REGISTERED ARCHITECT
MICHAEL J. BERGER
No. 034013
STATE OF NEW YORK

Michael J. Berger, RA
Project Architect/Partner

design2build.com

Tel: 716.932.7156
Fax: 716.932.7873

5409 Main Street
Williamsville, NY 14221

TOWN OF WEST SENECA

TERESSA STACEY
Secretary to Zoning Board

TOWN SUPERVISOR
GARY A. DICKSON

TOWN COUNCIL
ROBERT J. BREIDENSTEIN
MARY SHERMAN

SCOTT D. ROBERSTON

April 23, 2026

Michael Berger with Sutton Architecture
5409 Main Street #2
Williamsville, NY 14221

Re: **Zoning Board Meeting — Variance Approval**
#2026-009 (Address Located at 1976 Ridge Road)

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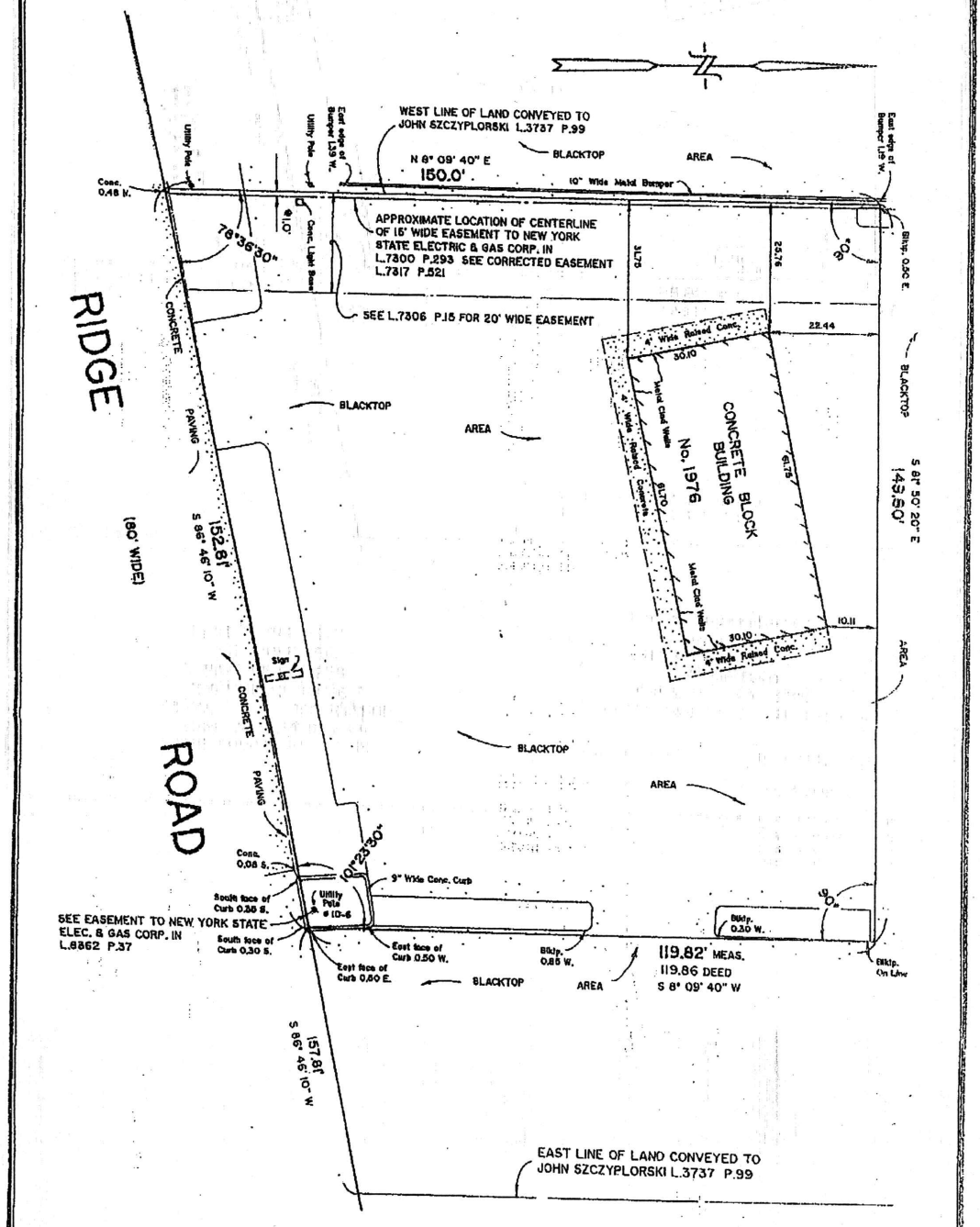
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Teressa Stacey

Teressa Stacey
Zoning Board Secretary

cc: Code Enforcement Officer
Zoning Board Chairman

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MAP COVER 611
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TOWNSHIP 10, RANGE 7
BUFFALO CREEK RESERVATION
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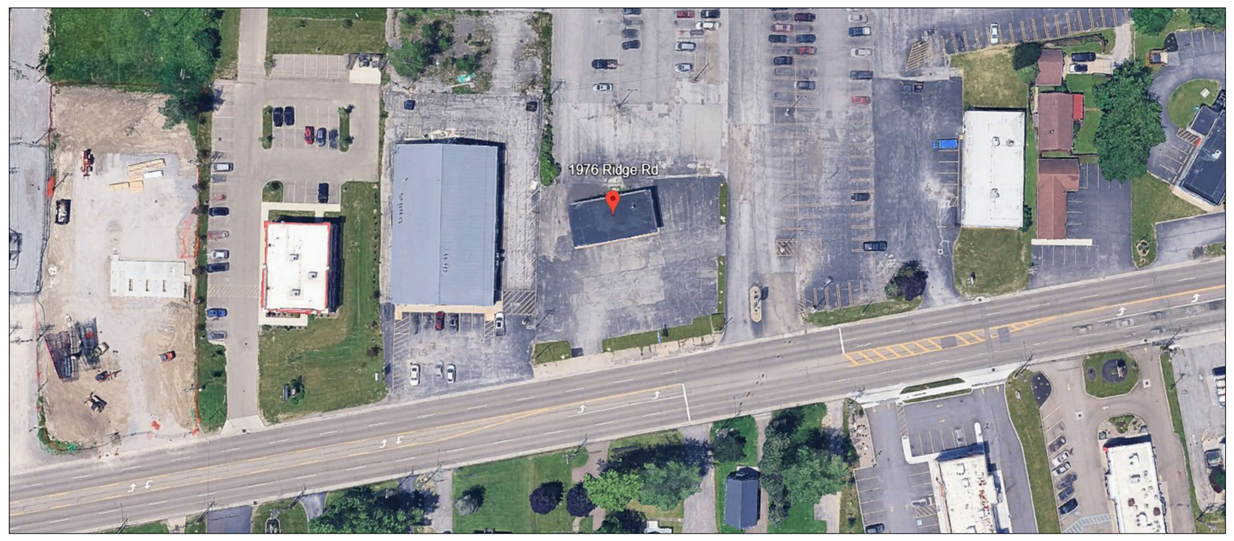
SCALE 1" = 20' DATE OCT. 2, 2013

SHEET 47762 NO. 13-295

This map void unless EMBOSSED With New York State Licensed Land Surveyor's Seal No. 036193

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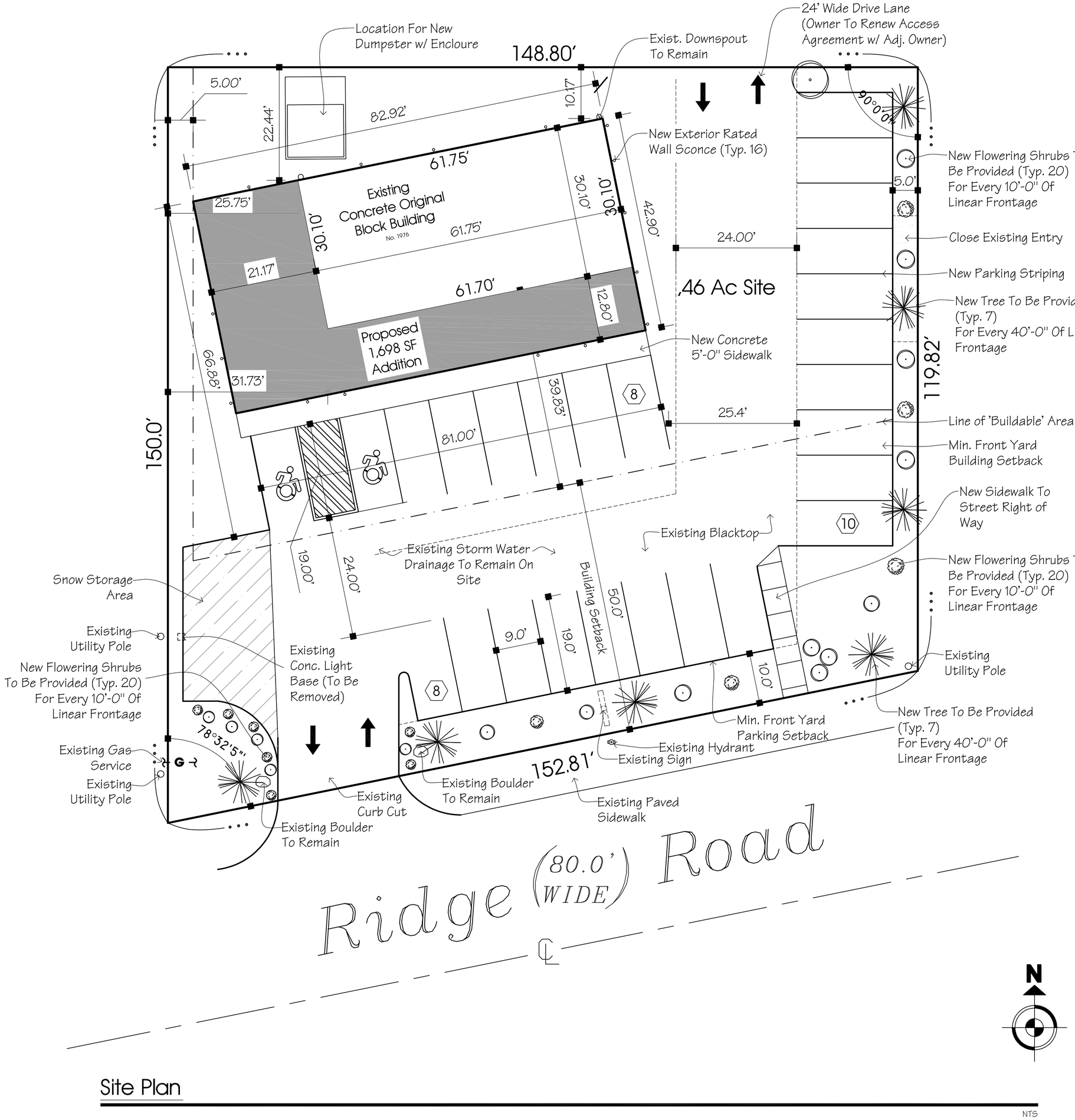
Aerial View



Existing Photo #1



Existing Photo #2



Site Plan

NTS

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ZBA Approved on April 22nd, 2026

Proposed Site Plan For:

Zen Nails
1976 Ridge Road
West Seneca, NY 14224

SUTTON architecture
"Design 2 Build"

TOWN OF WEST SENECA

APPLICATION FOR SITE PLAN REVIEW APPROVAL

TO BE COMPLETED BY APPLICANT

DATE 5/8/26 FILE #_____

PROJECT NAME Zen Nails

PROJECT LOCATION (Include address and distance to nearest intersection)
1976 Ridge Road - West Seneca, NY 14224. Approximately 650 feet to nearest intersection -

APPLICANT Sutton Architecture PH/FAX (716) 932-7156

ADDRESS 5409 Main Street (716) 932-7873 Fax

PROPERTY OWNER Tiffany Truc Phan PH/FAX _____

ADDRESS 1976 Ridge Road West Seneca, NY 14224

ENGINEER/ ARCHITECT Michael Berger @ Sutton Architecture PH/ FAX (716) 932-7156 ext. 205

ADDRESS 5409 Main Street - Williamsville, NY 14221

SBL # 143.06-4-19

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SIZE OF LOT (acres) 0.460 ACREAGE TO BE REZONED 0.038

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH

Ridge Road - 82.91' / Orchard Park Road - 30.10'

EXISTING ZONING C PROPOSED ZONING "B" Occupancy

EXISTING USE(S) ON PROPERTY Commercial "C"

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EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET
Auto dealer exist. use.
Zones within 500 feet: Single family, commercial, industrial, multi-family / mixed use, 2 family / office

PUBLIC SEWER YES ✓ NO ___ PUBLIC WATER YES ✓ NO ___

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED
Parking variance - a certificate of zoning compliance

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED _____ BY _____

PLANNING BOARD MEETING DATE _____

TOWN BOARD MEETING DATE _____

TOWN BOARD RESOLUTION DATE _____

NON – REFUNDABLE FILING FEE (Payable to the Town Clerk): $

617.20
Appendix B
Short Environmental Assessment Form

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
Zen Nails WNY LLC

Project Location (describe, and attach a location map):
1976 Ridge Road

Brief Description of Proposed Action:
New addition to an existing building and change of use for a new nail salon

Name of Applicant or Sponsor:	Telephone: 716-932-7156
Sutton Architecture	E-Mail: mikeb@design2build.com

Address:
5409 Main Street

City/PO:	State:	Zip Code:
Williamsville	NY	14221

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: Planning, ZBA, building permit	☐	☑

3.a. Total acreage of the site of the proposed action? 0.46 acres
b. Total acreage to be physically disturbed? .008 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.46 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☐ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☑	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies:		
Project will meet the State energy requiements	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____	☐	☑

	NO	YES
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐
b. Is the proposed action located in an archeological sensitive area?	☑	☐

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐

	NO	YES
16. Is the project site located in the 100 year flood plain?	☑	☐

	NO	YES
17. Will the proposed action create storm water discharge, either from point or non-point sources?		
If Yes,		
a. Will storm water discharges flow to adjacent properties? ☑ NO ☐ YES	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?		
If Yes, briefly describe: ☐ NO ☑ YES		
Existing storm drainage on the site will be utilized and connected to for this project		

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Michael Berger Date: 06.24.26

Signature:

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐

	No, or small impact may occur	Moderate to large impact may occur
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3. For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

PRINT

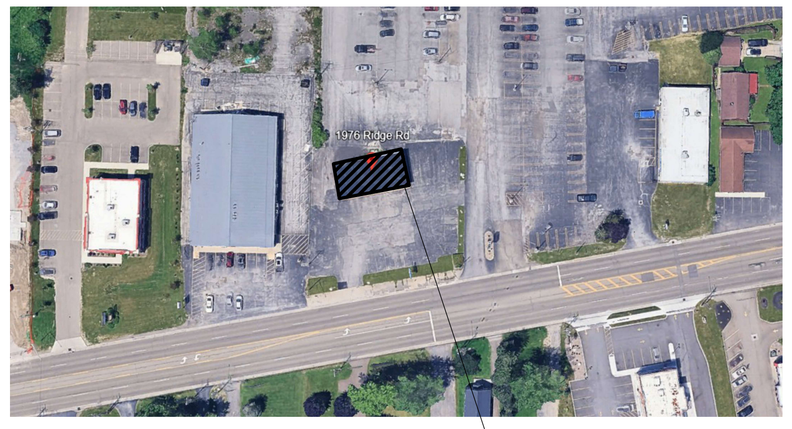
PROJECT TEAM

PROJECT OWNER:
Truc Phan
TEL: (716) 330-0679

PROJECT ARCHITECT:
Sutton Architecture
5409 Main Street
Williamsville, NY 14221
CONTACT: Michael Berger
TEL: (716) 932-7156 x205

AUTHORITIES HAVING JURISDICTION

BUILDING DEPARTMENT:
Town of West Seneca
1250 Union Road
West Seneca, NY 14224
TEL: (716) 674-5600



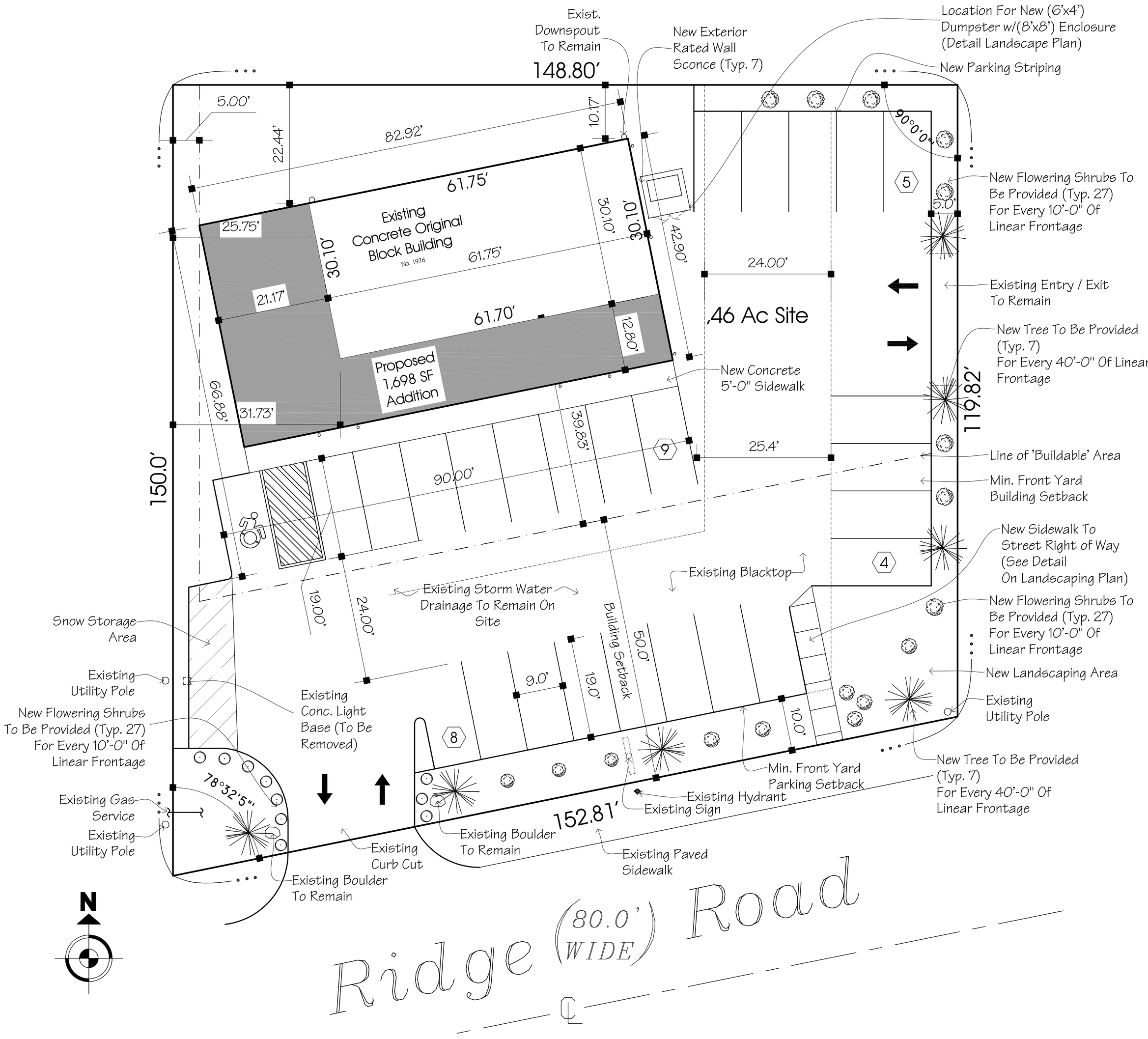
Aerial View



Existing Photo #1



Existing Photo #2



Site Plan

1" = 10'-0"

LANDSCAPING NOTES:

1. Site landscaping shall be required at the location of all entrances, exits, and signage.

2. Building setback areas along streets, accessways, or along private drives shall be landscaped with a minimum of one tree for every 40 feet of linear frontage.

3. Building setback areas shall include compact massings of ornamental plant material, such as ornamental trees, flowering shrubs, perennials, and ground covers, at a minimum of one plant for every 10 feet of linear frontage.

4. Landscaping shall observe the regulations set forth in S120-33 of the Town of West Seneca code, visibility at intersections.

5. Plantings should decrease in size and increase in detail, color, and variety near entryways into developments.

6. Planting shall be limited to species endemic, indigenous, hardy, and those known to be noninvasive to this area. Plants should be consistent with the most current USDA Plant Hardiness Zone for the Town of West Seneca (Zone 6a - Average Annual Extreme Minimum Temperature of -10 degrees fahrenheit to -5 degrees fahrenheit, accessed July 2016).

Parking Analysis:

Total Site Area:	20,074 sf / 0.460 Acres
Building Areas:	
Retail Area:	3,550 sf / 0.08 Acres
Parking Calculations:	
(3) Parking Spaces Per Salon Chair = 22 Chairs = 66 Parking Spaces	
Total Parking Requirements:	**66 Parking Spaces**
Total Parking Available:	26 Parking Spaces
Additional Parking Needed:	*40 Parking Spaces*

ZBA Approved on April 22nd, 2026

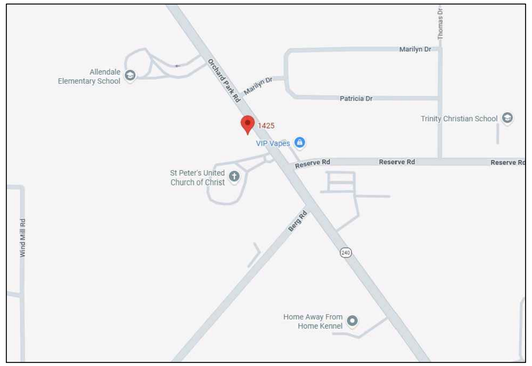
Proposed Site Plan For:

Zen Nails
1976 Ridge Road
West Seneca, NY 14224

SUTTON architecture
"Design 2 Build"

Multifamily Development

1425 & 1475 Orchard Park Road
West Seneca, New York



LOCATION MAP
NOT TO SCALE

AGENCIES

ENGINEERING DEPT.
NAME/TITLE: JASON FOOTE, TOWN ENGINEER
COMPANY/DEPT:. TOWN OF WEST SENECA ENGINEERING DEPT.
ADDRESS: 1250 UNION ROAD
WEST SENECA, NEW YORK 14224

TELEPHONE 716-558-3220

CODE ENFORCEMENT DEPT.
NAME/TITLE: JEFFREY SCHIEBER, CODE ENFORCEMENT OFFICER
TOWN OF WEST SENECA CODE ENFORCEMENT DEPT.
COMPANY/DEPT:. 1250 UNION ROAD
ADDRESS: WEST SENECA, NEW YORK 14224

716-558-3237
TELEPHONE

ECDOH
NAME/TITLE:
COMPANY/DEPT:. ERIE COUNTY DEPARTMENT OF HEALTH
ADDRESS: 503 KENSINGTON AVE
BUFFALO, NEW YORK 14214

TELEPHONE 716-961-6854

NYSDEC
NAME/TITLE:
COMPANY/DEPT: NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
ADDRESS: 270 MICHIGAN AVENUE
BUFFALO, NEW YORK 14203

TELEPHONE 716-851-7070

UTILITIES

NATURAL GAS
NAME/TITLE: DAVID KOZLOWSKI
COMPANY/DEPT:. NATIONAL FUEL GAS
ADDRESS: ORCHARD PARK, NEW YORK 14127

TELEPHONE 716-667-5503

TELEPHONE COMPANY
NAME/TITLE: JIM MURPHY
COMPANY/DEPT:. VERIZON
ADDRESS: 65 FRANKLIN STREET RM 601
BUFFALO, NEW YORK 14202

TELEPHONE 716-840-8698

ELECTRIC
NAME/TITLE: DAN LOSEL
COMPANY/DEPT:. NEW YORK STATE ELECTRIC & GAS
ADDRESS: HAMBURG, NEW YORK 14075

TELEPHONE 716-649-5556

WATER
NAME/TITLE: LEONARD KOWALSKI
COMPANY/DEPT:. ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION ROAD
CHEEKTOWAGA, NEW YORK 14227

TELEPHONE 716-684-1510

DIG SAFELY NEW YORK

TELEPHONE 811

DESIGN CONSULTANTS

PROJECT SURVEYOR
NAME/TITLE:
COMPANY/DEPT:. 360° LAND SURVEY
ADDRESS: PO BOX 207
SANBRON, NEW YORK 14132

TELEPHONE 716-587-8380

OWNER/DEVELOPER

Name: Brian Hillery & William Sahlem
Address: 1 Woodthrush Trail
Orchard Park
Telephone: (716) 512-3425

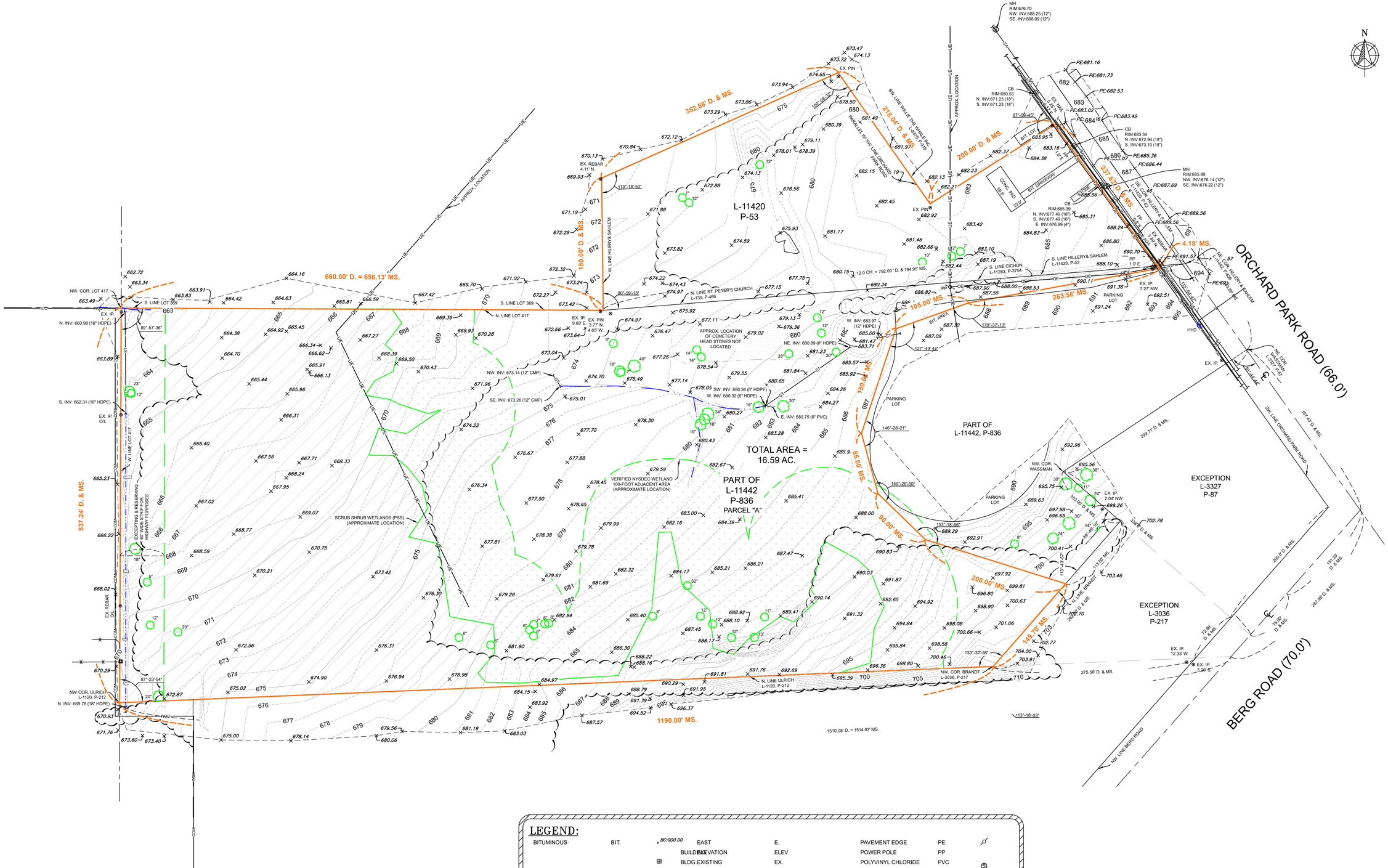
CARMINAWOOD DESIGN

80 Silo City Row
Buffalo, New York 14203
Phone: (716) 842-3165

111 Bain Street, Suite 332
Greensboro, North Carolina 27406
Phone: (336) 937-9009

May 2026

DRAWING NO.	DRAWING TITLE
–	COVER SHEET
–	BOUNDARY/TOPO SURVEY (by 360° LAND SURVEY)
C-001	DEMOLITION & EROSION CONTROL PLAN
C-002	DEMOLITION & EROSION CONTROL DETAILS
C-100	OVERALL SITE PLAN
C-101	SITE PLAN – NORTH
C-102	SITE PLAN – SOUTH
C-103	SITE DETAILS
C-200	OVERALL GRADING PLAN
C-201	GRADING PLAN – NORTH
C-202	GRADING PLAN – SOUTH
C-300	OVERALL DRAINAGE PLAN
C-301	DRAINAGE PLAN – NORTH
C-302	DRAINAGE PLAN – SOUTH
C-303	DRAINAGE DETAILS
C-400	OVERALL UTILITY PLAN
C-401	UTILITY PLAN – NORTH
C-402	UTILITY PLAN – SOUTH
C-403	UTILITY DETAILS
C-404	UTILITY DETAILS
C-405	UTILITY DETAILS
C-406	UTILITY DETAILS
L-100	LANDSCAPE PLAN
LP-100	LIGHTING PLAN



LEGEND:

BITUMINOUS	BIT.	BC:000.00	EAST	E.	
BUILDING			ELEVATION	ELEV	
CATCH BASIN			BLDG.EXISTING	EX.	
CONCRETE	CONC.	2"	FENCE	FNC.	
CONIFEROUS TREE W/ DIAMETER			FIRE HYDRANT		
CORRUGATED METAL PIPE	CMP	2"	HIGH-DENSITY POLYETHYLENE	HPDE	
DECIDUOUS TREE W/ DIAMETER			IRON PIPE		
			INVERT	INV.	
			NORTH	N.	PE:000.00
MAJOR CONTOUR LINE (5')		XXX	PROPERTY LINE		
MINOR CONTOUR LINE (1')		XXX	OVERHEAD ELECTRIC LINE		OE
FENCE LINE (AS NOTED)			SANITARY STORM		SA
GAS LINE		G	STORM SEWER LINE		ST
SCRUB SHRUB WETLAND (PSS)			VERIFIED NYSDEC WETLAND 100-FOOT ADJACENT AREA		
PAVEMENT EDGE	PE				
POWER POLE	PP				
POLYVINYL CHLORIDE	PVC				
SANITARY SEWER MAN HOLE	SMH				
SOUTH	S.	600.00			
SPOT ELEVATION					
STORY	STY.				
WATER VALVE	WV				
WEST	W.				
WITH	W/				
UNDERGROUND COMMUNICATIONS		COM			
UNDERGROUND ELECTRIC		UE			
WATER LINE		WV			
CEMETERY LIMITS					
TOPOGRAPHIC SURVEY LIMITS					

GENERAL NOTES:

1. THIS SURVEY WAS PREPARED FROM A FIELD SURVEY BY 360 LAND SURVEY, DPC. ON FEBRUARY 27, 2026.
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET) .
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET).
4. UTILITY INFORMATION SHOWN ON THIS MAP IS FROM VISIBLE FIELD EVIDENCE AT THE TIME OF FIELD SURVEY, FIELD MARKOUTS BY UTILITY COMPANIES, AND INFORMATION PROVIDED BY A 811 DESIGN TICKET.
5. WETLANDS INFORMATION TAKEN FROM A WETLAND AND STREAM DELINEATION SURVEY COMPLETE BY LABELLA, PROJECT No: 2251287 DATE: 12/1/2025.

Know what's **below.**
Call before you dig.

PREPARED FOR:

BRIAN HILLARY &
WILLIAM SAHLEM

1 WOODTHRUSH TRAIL
ORCHARD PARK
NEW YORK 14127

PROJECT:

1425 & 1475 ORCHARD PARK ROAD,
TOWN OF WEST SENECA,
COUNTY OF EIRE,
STATE OF NEW YORK

BEING PART OF
LOTS 369 & 417, TOWNSHIP 10 RANGE 7
BUFFALO CREEK RESERVATION

SBL No. 143.19-1-8 & 143.19-1-9
& 152.07-1-1

BOUNDARY | TOPOGRAPHIC
360° LAND SURVEY
3D MODELING | CONSTRUCTION
PO Box 207
Sanborn, New York 14132
PHONE: (716) 587-8380
FAX: 716.587.8379
WEBSITE: www.360landsurvey.com

STATE OF NEW YORK
CHRISTOPHER JOHN SCHOTT
LICENSED LAND SURVEYOR
No. 050705

REV.	NOTE	DATE
1	SANITARY MH INFORMATION	4/29/2026

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209. PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

0" 1" 2"
SHEET SCALE BAR
ADJUST ACCORDINGLY IF SCALE IS NOT TWO INCHES

DRAWING NAME

TOPOGRAPHIC SURVEY

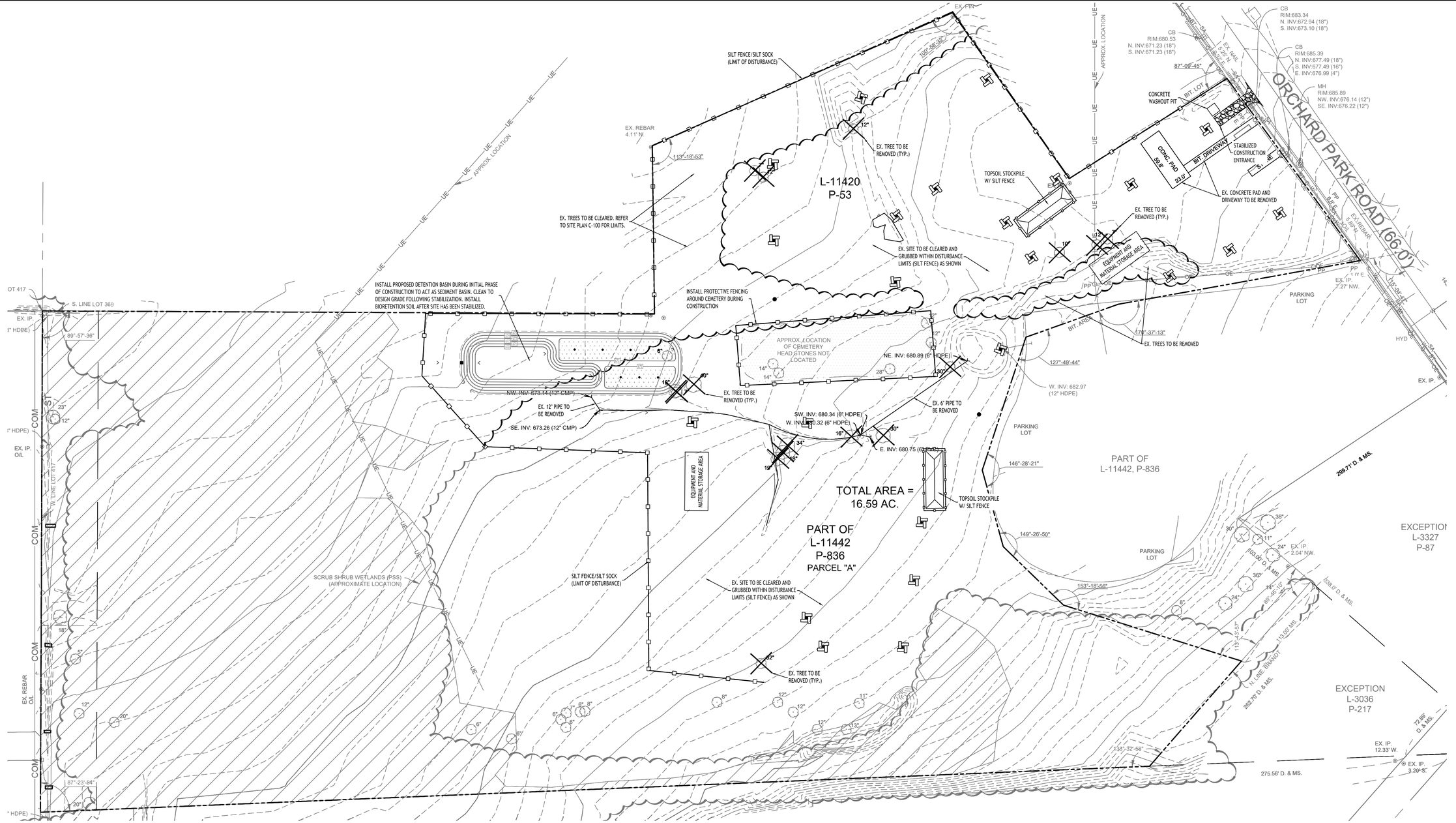
PROJ. NO.	26-040	SCALE	1"=60'
CREW	PTH	DATE	3/17/2026
DWN.	AJM	CHK.	CJS

DRAWING NUMBER

SHEET 1 OF 1

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Demo & Erosion Control Plan

SCALE: 1"=50'

EROSION CONTROL NOTES

THE FOLLOWING EROSION CONTROL PROCEDURES SHALL BE ADHERED TO BY THE CONTRACTOR:

1. INSTALL TEMPORARY SILT FENCE BARRIERS AS DIRECTED BY THE OWNER AND AT ALL EXISTING STORMWATER CATCH BASINS WITHIN THE WORK AREA TO PREVENT SEDIMENT MIGRATION. ALL SILT FENCE BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.
2. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR RE-USE AS DIRECTED BY THE OWNER. ALL LOCAL ORDINANCES REGARDING THE SALE OF TOPSOIL MUST BE FOLLOWED. TOPSOIL MAY NOT BE REMOVED WITHOUT A PERMIT.
3. ALL SILT FENCE BARRIERS SHALL BE REPLACED WHEREVER THEY BECOME CLOGGED OR INOPERABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
5. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION. DURING EARTHWORK OPERATIONS, WATER-SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR, AND SPREAD WATER AS NECESSARY AND AS DIRECTED BY THE OWNER IN ORDER TO CONTROL DUST.
6. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED AND ROAD SURFACES CLEANED BY THE CONTRACTOR ON A DAILY BASIS.
7. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM 4" DEPTH AND SEEDED IMMEDIATELY AFTER FINE GRADING TAKES PLACE AND AS SOON AS PHYSICALLY POSSIBLE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES, AND CULVERTS. SILT BUILDUP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR THE TOWN/CITY.
9. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION, AS DIRECTED BY THE ENGINEER.
10. INSTALL TEMPORARY SILT FENCE AROUND THE BASE OF STOCKPILES.
11. THE PROFESSIONAL CERTIFYING COMPLIANCE TO NYSDEC PHASE II STORMWATER REGULATION REQUIREMENTS MUST INSPECT AT A MINIMUM WEEKLY AND SHALL PROVIDE THESE INSPECTION REPORT WITH A WRITTEN CERTIFICATION OF CONSTRUCTION COMPLIANCE TO THE TOWN OF WEST SENECA WEEKLY.
12. THE ENGINEER OF RECORD FOR THIS PROJECT CERTIFIES THAT THESE DESIGN PLANS MEET THE REQUIREMENTS AND ARE IN COMPLIANCE WITH THE NEW YORK STORMWATER MANAGEMENT DESIGN MANUAL AND NYSDEC PHASE II STORMWATER REGULATION REQUIREMENTS. DUE TO SOIL DISTURBANCE BEING GREATER THAN ONE ACRE, A NYSDEC SPDES PERMIT MUST BE OBTAINED BEFORE ANY ON-SITE DISTURBANCE IS MADE.

NOTES:

1. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT THOSE ITEMS TO REMAIN, SUCH AS TREES, PROPERTY CORNER PINS, UTILITY POLES, VALVES, HYDRANTS, CURBS, MANHOLES AND CATCH BASINS.
2. TEMPORARY SILT FENCE AND STRAW BALES TO BE INSTALLED AS DIRECTED BY THE OWNERS FIELD REPRESENTATIVE. MAINTAIN UNTIL VEGATATION IS ESTABLISHED AND PAVEMENT IS INSTALLED.
3. FOR THOSE STRUCTURES TO BE DEMOLISHED, ALL EXISTING UTILITY SERVICES SHALL BE ABANDONED IN ACCORDANCE WITH LOCAL REGULATIONS, ALL METERS SHALL BE RETURNED TO PROPER OWNERS.
4. THE CONTRACTOR SHALL INSTALL STABILIZED CONSTRUCTION ENTRANCES WHERE ACCESSING THE SITE FROM PAVED ROADWAYS.
5. THE CONTRACTOR SHALL INSTALL TEMPORARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH NYS M.U.T.C.D. STANDARDS PRIOR TO STARTING WORK.

DEMO & EROSION CONTROL LEGEND:

- INSTALL STORM DRAINAGE INLET PROTECTION
- PROPOSED SILT FENCE/SILT SOCK

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50' 0 50 100FL.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * CHRISTOPHER WOOD * LICENSED PROFESSIONAL ENGINEER 076394

DRAWING NAME:

Demo & Erosion Control Plan

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

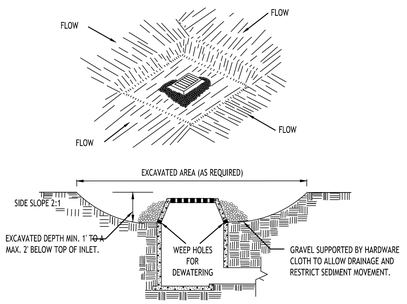
DRAWING NO.

C-001

Project No: 23-4121

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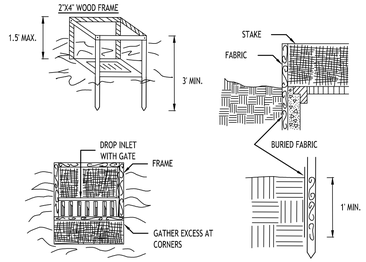
CONSTRUCTION SPECIFICATIONS

1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

   MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 1

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

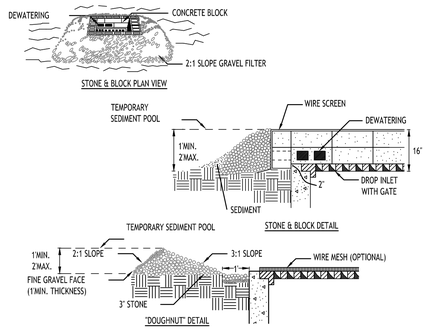
1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

   MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 2

NOT TO SCALE

NOTE: INSTALL ONE OF THE INLET PROTECTION OPTIONS SHOWN PRIOR TO CONSTRUCTION



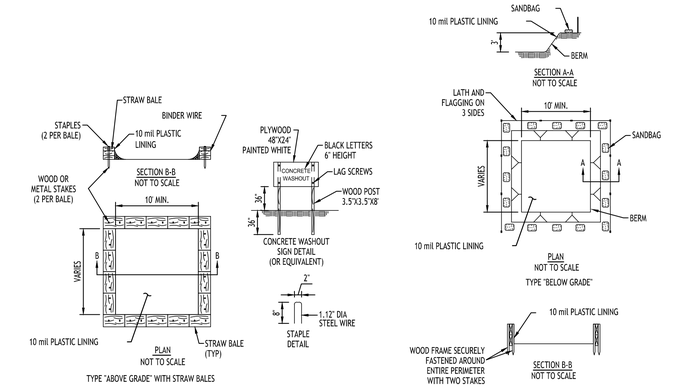
CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

   MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 3

NOT TO SCALE

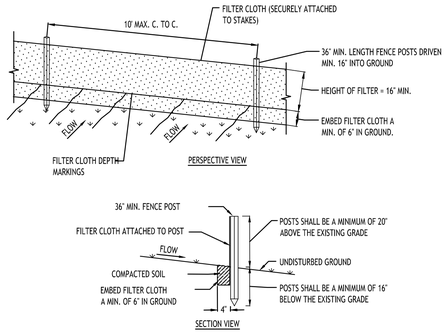


NOTES

1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

CONCRETE WASHOUT DETAIL

NOT TO SCALE

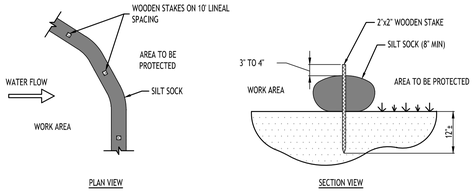


CONSTRUCTION SPECIFICATIONS

1. WOVEN FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER 'T' OR 'U' TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL

NOT TO SCALE



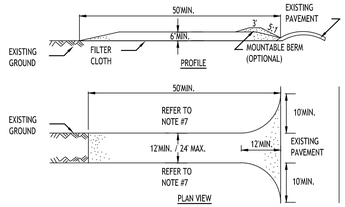
NOTES:

CONTRACTOR SHALL INSPECT AND MAINTAIN SILT SOCK AS NEEDED DURING THE DURATION OF CONSTRUCTION PROJECT.

CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK WHEN IT HAS REACHED ½ OF THE EXPOSED HEIGHT OF THE SILT SOCK. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, THE ENGINEER MAY CALL FOR ADDITIONAL SILT SOCK TO BE ADDED AT AREAS OF HIGH SEDIMENTATION, PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOCK.

SILT SOCK DETAIL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. TEMPORARY ASPHALT SHALL BE PLACED WITHIN RIGHT-OR-WAY TO ENSURE THIS.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
CHRISTOPHER WOOD
078394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:

Demo & Erosion Control Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

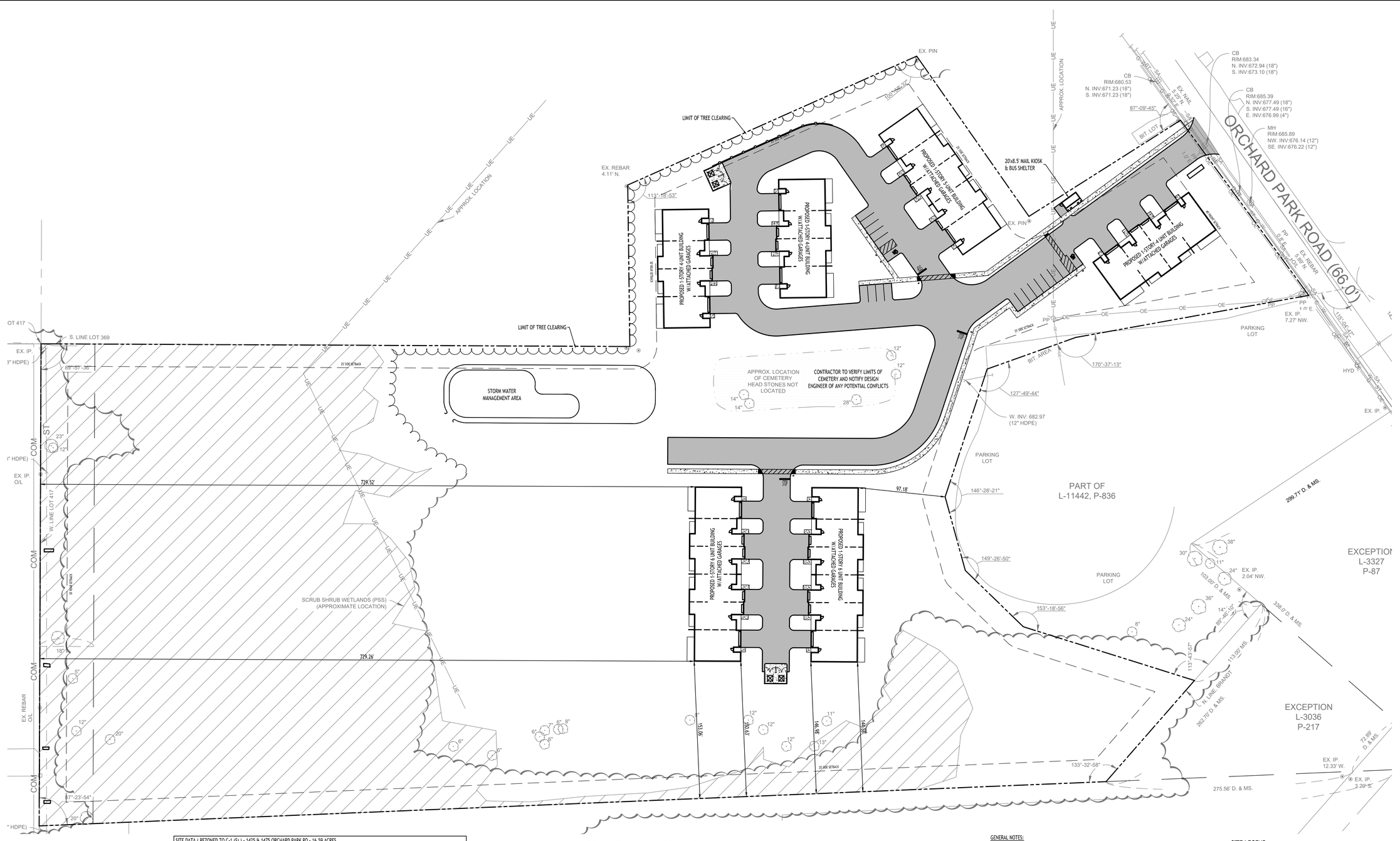
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C-002

Project No: 23-4121

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Overall Site Plan

SCALE: 1"=50'

SITE DATA (REZONED TO C-1 (S)) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES

MULTI-FAMILY ALLOWED BY SPECIAL PERMIT

MIN. LOT WIDTH = 50 FT FOR FIRST DWELLING UNIT, PLUS 10 FT FOR EACH ADDITIONAL UNIT NEED NOT EXCEED 100 FT

MIN. LOT AREA = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

FRONT SETBACK = 40 FT
SIDE SETBACK = 25 FT MIN. OR A DISTANCE EQUAL TO ½ HGT. OF SUCH BUILDING, WHICHEVER IS GREATER
REAR SETBACK = 30 FT or EQUAL TO THE HEIGHT OF THE BUILDING

MAXIMUM BUILDING HEIGHT = 40 FT (MULTI-FAMILY)

DRIVEWAY: 30 FT WIDE REQUIRED FOR MULTI-FAMILY

DWELLING SIZE: 500 SF EACH MULTI-FAMILY UNIT

GROUP DWELLING: NO BUILDING SHALL BE NEARER TO ANY OTHER PRINCIPAL STRUCTURE THAN A DISTANCE EQUAL TO THE AVERAGE HEIGHT OF SUCH BUILDINGS

PARKING CALCULATION:
MULTI-FAMILY:

REQ'D = 2 SPACES PER UNIT + 5/25 UNITS VISITORS
REQ'D = 2 SPACES x 29 UNITS + (29/25 x 5) = 64 SPACES

TOTAL PROVIDED = 65 SPACES + 42 GARAGE SPACES = 107 SPACES

DENSITY CALCULATION (16.59 AC)

REQ'D = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

ALLOWED NUMBER OF UNITS:
1ST UNIT: 722,660 SF - 8,000 SF = 714,660 SF REMAINING
ADDITIONAL UNITS: 714,660 SF / 5,000 SF = 142 UNITS

TOTAL ALLOWED UNITS = 143 UNITS

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. ALL REASONABLE MEASURES SHALL BE TAKEN TO PROTECT EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE; INCLUDING BUT NOT LIMITED TO, RETAINING WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR EXCAVATING TREE ROOTS.

NOTES:

1. ALL RADII SHALL BE 3'-0" UNLESS OTHERWISE NOTED.
2. ALL DISTURBED AREAS: SHALL HAVE 4" MIN. OF TOPSOIL & SEED.
3. ALL DIMENSIONS FROM PROPERTY LINES SHALL BE MEASURED PERPENDICULAR TO THE PROPERTY LINE.
4. CENTER ENTRANCE SIDEWALKS ON DOOR OPENINGS.
5. BUILDING DIMENSIONS ARE APPROXIMATE, REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.

SITE LEGEND

- PROPERTY LINE
- PROPOSED CONCRETE CURB
- PROPOSED SIDEWALK / CONCRETE PAD
- NUMBER OF PARKING SPACES (27)
- PROPOSED SIGN
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED LIGHT POLE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Overall Site Plan

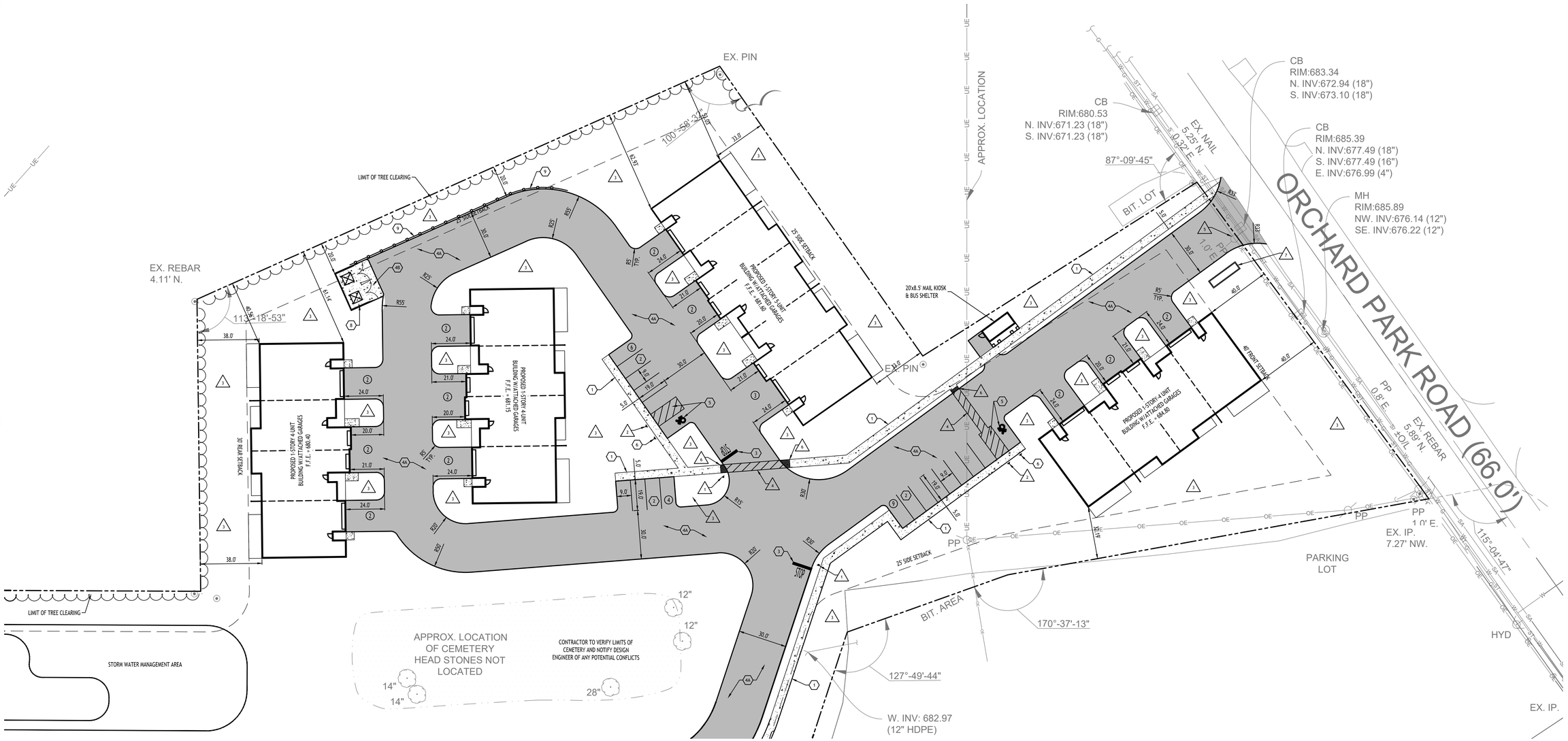
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Scale: As Noted

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C-100

Project No: 23-4121

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Site Plan - North

SCALE: 1"=30'

SITE DATA (REZONED TO C-1 (S)) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES

MULTI-FAMILY ALLOWED BY SPECIAL PERMIT

MIN. LOT WIDTH = 50 FT FOR FIRST DWELLING UNIT, PLUS 10 FT FOR EACH ADDITIONAL UNIT NEED NOT EXCEED 100 FT

MIN. LOT AREA = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

FRONT SETBACK = 40 FT
SIDE SETBACK = 25 FT MIN. OR A DISTANCE EQUAL TO ½ HGT. OF SUCH BUILDING, WHICHEVER IS GREATER
REAR SETBACK = 30 FT or EQUAL TO THE HEIGHT OF THE BUILDING

MAXIMUM BUILDING HEIGHT = 40 FT (MULTI-FAMILY)

DRIVEWAY: 30 FT WIDE REQUIRED FOR MULTI-FAMILY

DWELLING SIZE: 500 SF EACH MULTI-FAMILY UNIT

GROUP DWELLING: NO BUILDING SHALL BE NEARER TO ANY OTHER PRINCIPAL STRUCTURE THAN A DISTANCE EQUAL TO THE AVERAGE HEIGHT OF SUCH BUILDINGS

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DETAIL LEGEND

SEE SITE DETAIL SHEET

1. CONCRETE SIDEWALK
2. 90° PARKING STALL
3. STOP BAR
4A. STANDARD DUTY ASPHALT
4B. EXTERIOR CONCRETE SLAB ON GRADE
5. HANDICAPPED PAVEMENT MARKINGS
6. HANDICAPPED PARKING SIGN
7. LIGHT POLE FOUNDATION
8. DUMPSTER ENCLOSURE
9. WOODEN GUIDE RAIL

NOTE LEGEND

1. INSTALL STOP SIGN - M.U.T.C.D. SIGN NO. R1-1B
2. INSTALL "NO PARKING" SIGN, M.U.T.C.D. SIGN NO. P1-1C
3. LANDSCAPED AREA - SEE LANDSCAPE PLAN, IF NO PLANTINGS, INSTALL TOPSOIL & SEED
4. 1' WIDE WHITE PAVEMENT STRIPES @ 1' SPACING BETWEEN 4' WIDE WHITE CROSSWALK LINES
5. RELOCATE EX. UTILITY POLE - COORDINATE WITH UTILITY COMPANY
6. TACTILE WARNING MAT
7. HOTBOX

GENERAL NOTES:

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NOTES:

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SITE LEGEND

- PROPERTY LINE
- PROPOSED CONCRETE CURB
- PROPOSED SIDEWALK / CONCRETE PAD
- NUMBER OF PARKING SPACES (27)
- PROPOSED SIGN
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED LIGHT POLE

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30' 30 0 30 60Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * R. CHRISTOPHER WOOD * LICENSED PROFESSIONAL ENGINEER * 078394

DRAWING NAME:
Site Plan - North

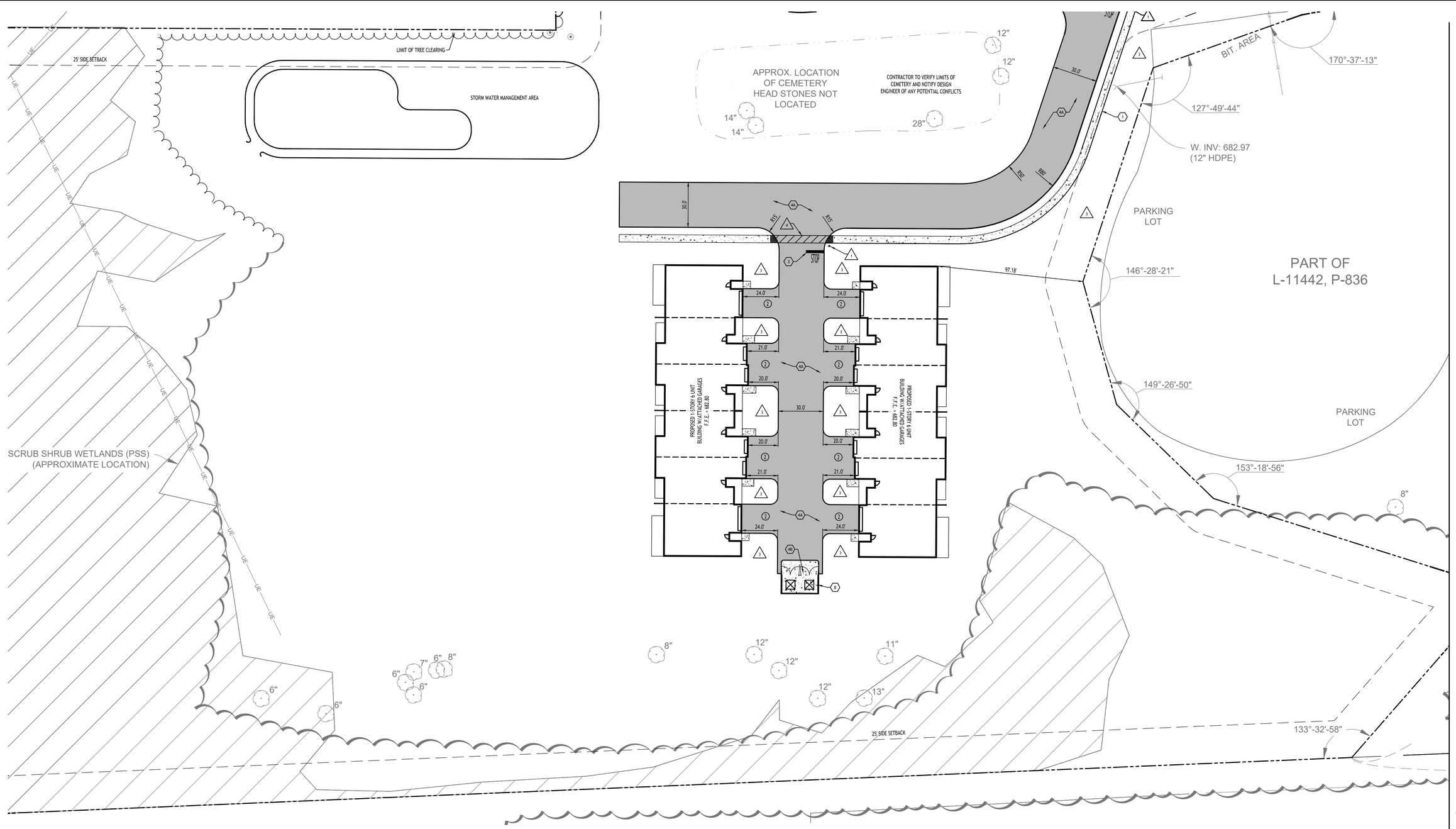
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Site Plan - South

SCALE: 1"=30'

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SEE SITE DETAIL SHEET

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3. STOP BAR
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NOTE LEGEND

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2. INSTALL 'NO PARKING' SIGN, M.U.T.C.D. SIGN NO. P1-1C
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REVISIONS:

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DRAWING NAME:
Site Plan - South

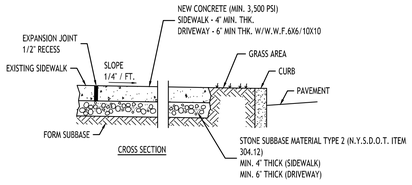
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C-102

Project No: 23-4121

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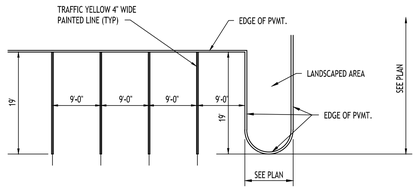
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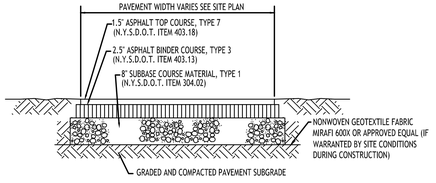
NOTES:

1. CONTROL JOINTS TO BE AT 5'-0" O.C., BOTH WAYS WHERE APPLICABLE. SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.
2. CONCRETE SIDEWALK AND DRIVEWAY MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 608-3.
3. SUBBASE GRADE SHALL FOLLOW THE PROPOSED GRADE OF THE SIDEWALK AND SLOPE AWAY FROM BUILDING WHERE APPLICABLE, PROVIDE CONTINUOUS STONE PATH TO CURB UNDERDRAIN WHERE PROVIDED.
4. FULL DEPTH EXPANSION JOINTS SHALL BE INSTALLED EVERY 20' O.C., BOTHWAYS WHERE APPLICABLE. SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.
5. SEE CURB DETAIL FOR DOWLING REQUIREMENTS WHERE ABUTTING CURB.
6. INSTALL 6' LONG #3 DOWELS @ 12" O.C. WHERE SIDEWALK ABUTS A BUILDING WALL AT AN ENTRANCE, THICKEN SIDEWALK TO 6' AT BUILDING WALL AND INSTALL DOWEL CENTERED IN THE 6' DEPTH. DOWELS AND THICKENING OF SIDEWALK SHALL EXTEND 18" EITHER SIDE OF ENTRANCE.
7. INSTALL 1/2" PREMOLDED EXPANSION JOINT WITH BACKER ROD & SEALANT WHERE SIDEWALK ABUTS BUILDING OR OTHER STRUCTURE.

CONCRETE SIDEWALK - 1

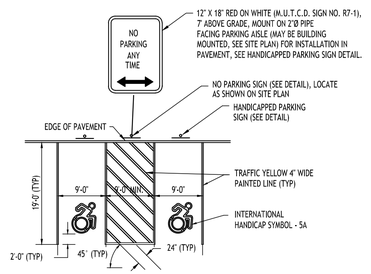


90° PARKING STALL LAYOUT - 2

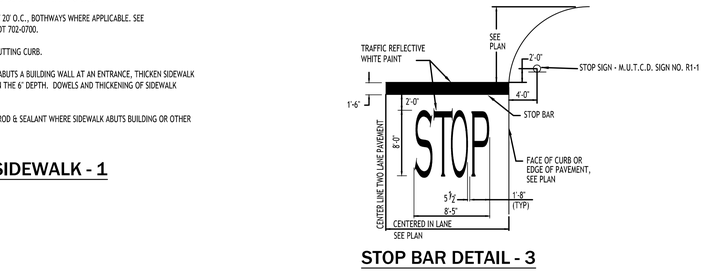


NOTE: CONSTRUCTION METHODS FOR ASPHALT PAVEMENT SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 401-3, WITH SUBBASE CONSTRUCTION METHODS CONFORMING TO NYSDOT STANDARD SPECIFICATION 304-3.

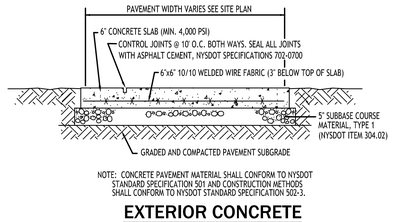
STANDARD DUTY ASPHALT SECTION - 4A



HANDICAPPED PAVEMENT MARKINGS & SIGNAGE - 5

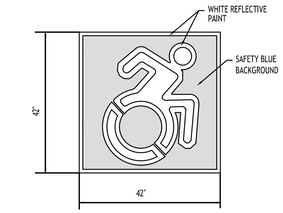


STOP BAR DETAIL - 3



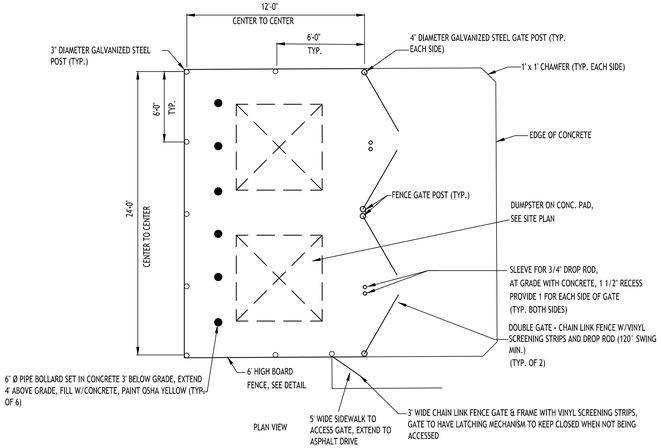
NOTE: CONCRETE PAVEMENT MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 502-3.

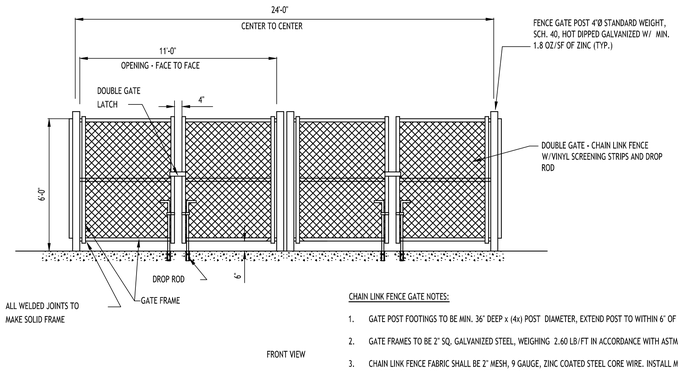
EXTERIOR CONCRETE SLAB-ON-GRADE SECTION - 4B



SYMBOL TO BE CENTERED IN PARKING SPACE

INTERNATIONAL HANDICAP SYMBOL - 5A

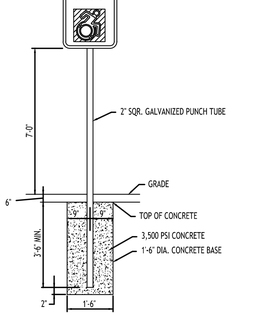




CHAIN LINK FENCE GATE NOTES:

1. GATE POST FOOTINGS TO BE MIN. 36" DEEP x (4x) POST DIAMETER, EXTEND POST TO WITHIN 6" OF BOTTOM.
2. GATE FRAMES TO BE 2" SQ. GALVANIZED STEEL, WEIGHING 2.60 LB/FT IN ACCORDANCE WITH ASTM F 900.
3. CHAIN LINK FENCE FABRIC SHALL BE 2" MESH, 9 GAUGE, ZINC COATED STEEL CORE WIRE. INSTALL MESH WITH HOOK BOLTS AND TENSION BARS ON ALL 4 SIDES, ATTACH AT 15" MAX.
4. DOUBLE GATE LATCH TO BE FORKED TYPE CAPABLE OF RETAINING GATE IN CLOSED POSITION AND HAVE PROVISION FOR PAD LOCK. LATCH SHALL BE OPERABLE FROM EITHER SIDE OF GATE.
5. ALL HARDWARE TO BE HOT DIPPED GALVANIZED STEEL TO SUIT GATE SIZE.

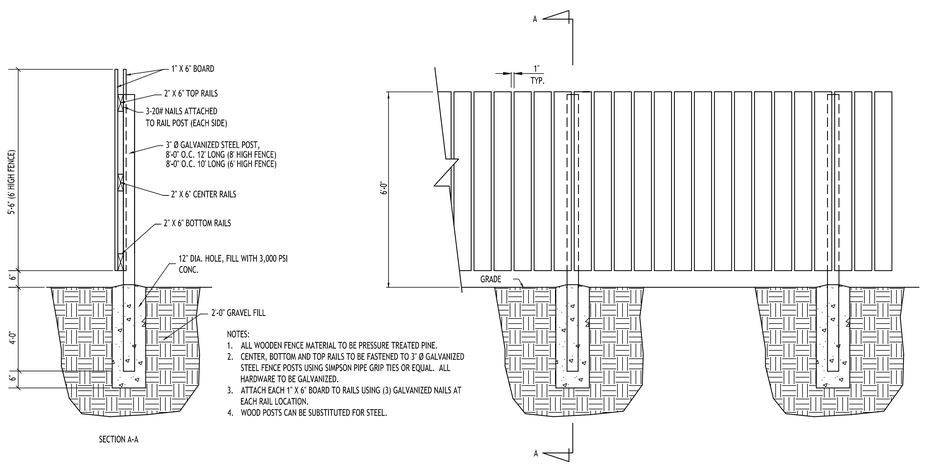
DUMPSTER ENCLOSURE - 8



NOTES:
1. HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS.

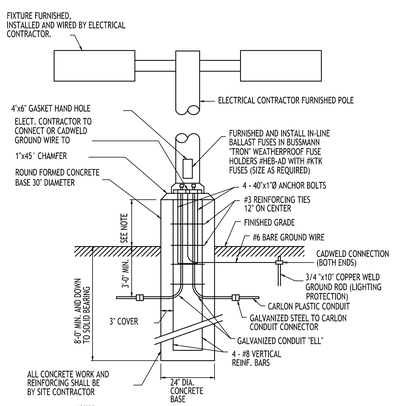
HANDICAP PARKING SIGNS - 6

INSTALLED IN GRASS/LANDSCAPED AREA



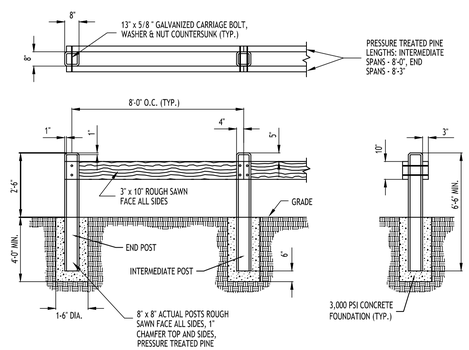
NOTES:
1. ALL WOODEN FENCE MATERIAL TO BE PRESSURE TREATED PINE.
2. CENTER, BOTTOM AND TOP RAILS TO BE FASTENED TO 3" Ø GALVANIZED STEEL FENCE POSTS USING SIMPSON PIPE GRIP TIES OR EQUAL. ALL HARDWARE TO BE GALVANIZED.
3. ATTACH EACH 1" X 6" BOARD TO RAILS USING (3) GALVANIZED NAILS AT EACH RAIL LOCATION.
4. WOOD POSTS CAN BE SUBSTITUTED FOR STEEL.

BOARD ON BOARD FENCE - FOR DUMPSTER ENCLOSURE



NOTES:
1. FOR LOCATIONS OF FOUNDATIONS SEE SITE PLAN
2. FOR LIGHT FIXTURE ORDERING INFORMATION SEE SITE LIGHTING PLAN
3. LIGHT POLE BASE EXPOSURE ABOVE GRADE SHALL BE:
   IN CURBED ISLANDS: 6" ABOVE TOP OF CURB ELEVATION
   IN PAVEMENT: 3" ABOVE GRADE
   IN NON-CURBED GRASS AREAS: 6" ABOVE GRADE

LIGHT POLE FOUNDATION - 7



DECORATIVE WOODEN GUIDE RAIL - 9

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Multifamily Development
1425 & 1475 Orchard Park Rd
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STATE OF NEW YORK * CHRISTOPHER WOOD * 076394 LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Site Details

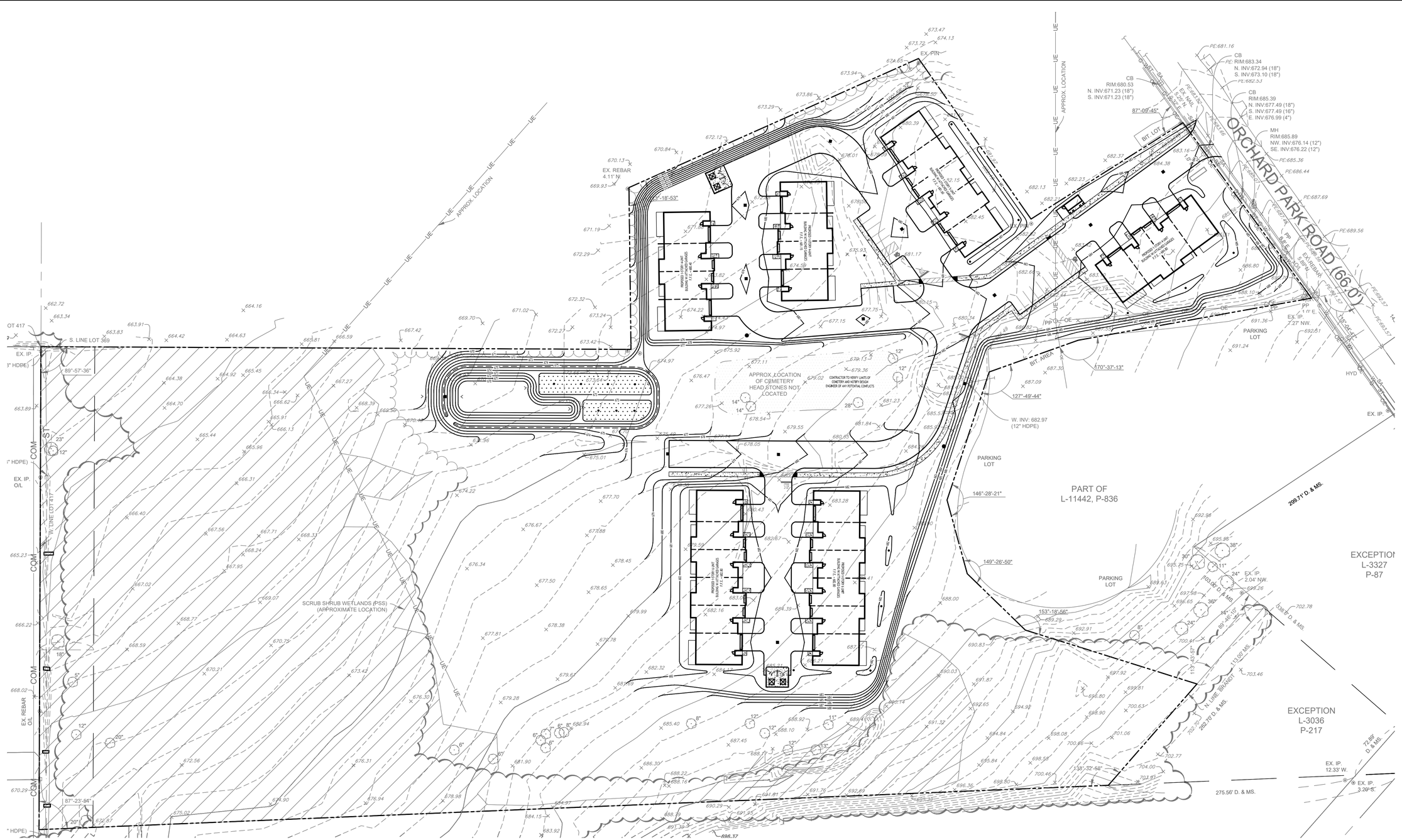
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Overall Grading Plan

SCALE: 1"=50'

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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DRAWING NAME:
Overall Grading Plan

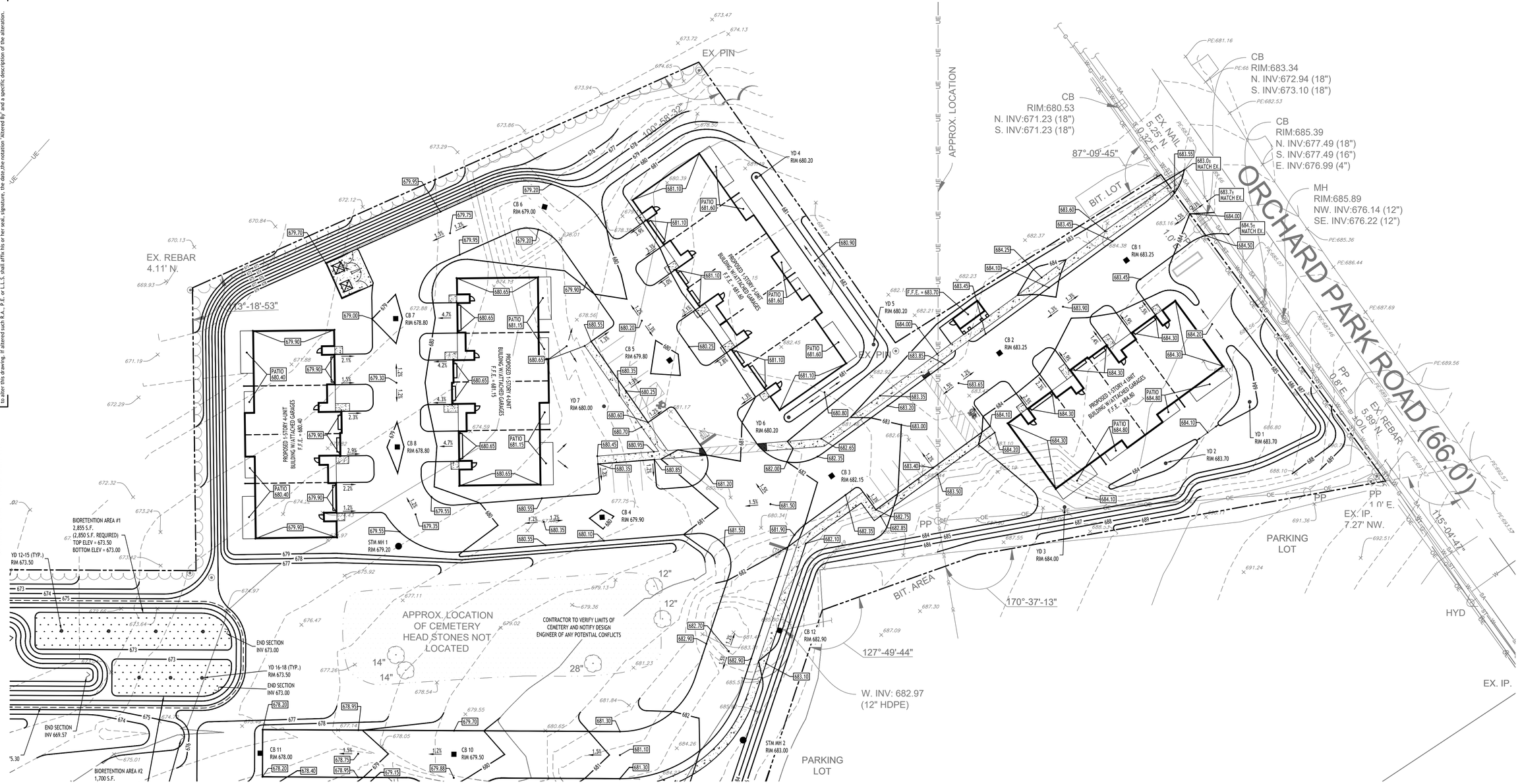
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Grading Plan - North

SCALE: 1"=30'

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 / BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

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30' 30 0 30 60Ft.

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076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Grading Plan - North

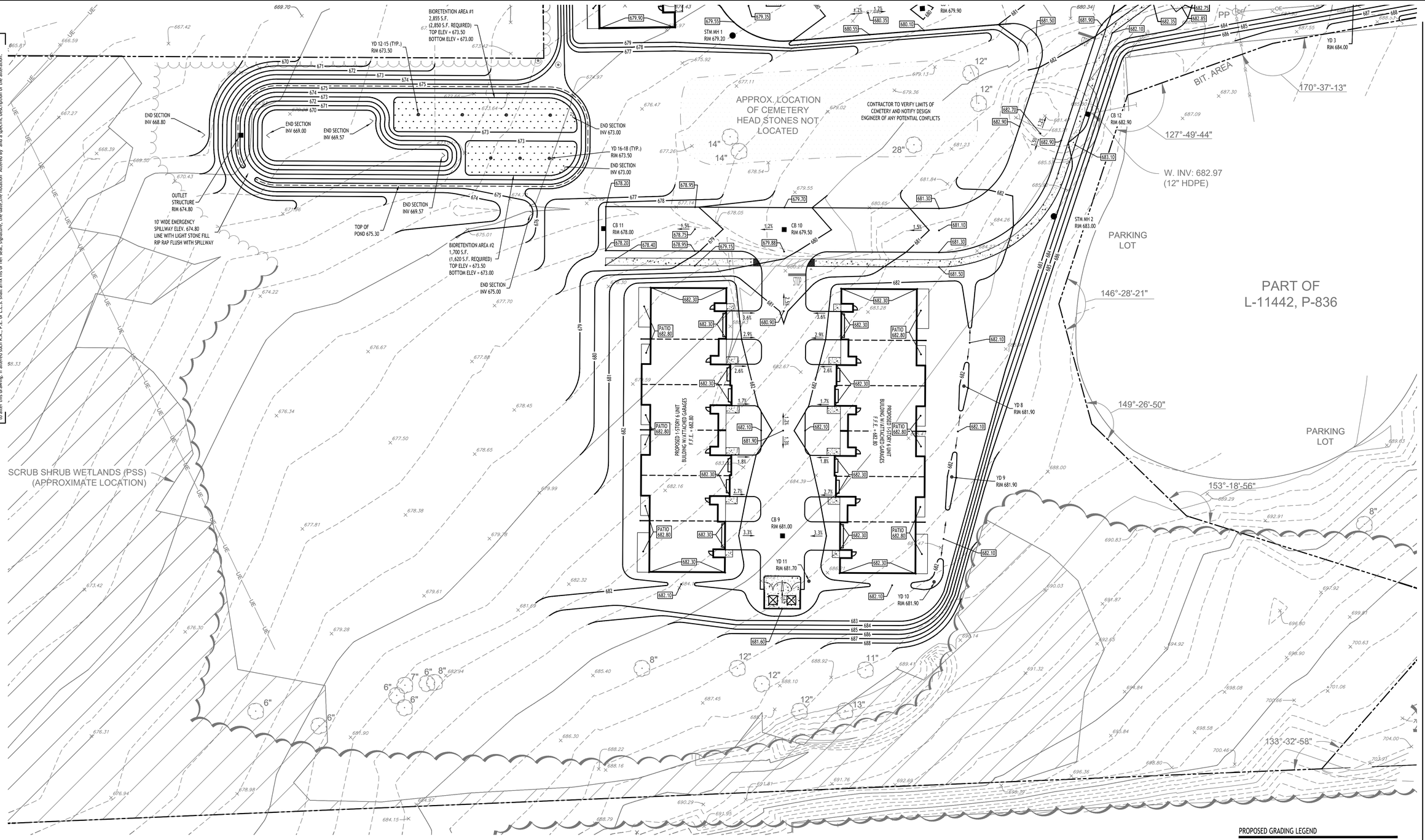
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Grading Plan - South

SCALE: 1"=30'

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 / BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

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LICENSED PROFESSIONAL ENGINEER
076394

DRAWING NAME:
Grading Plan - South

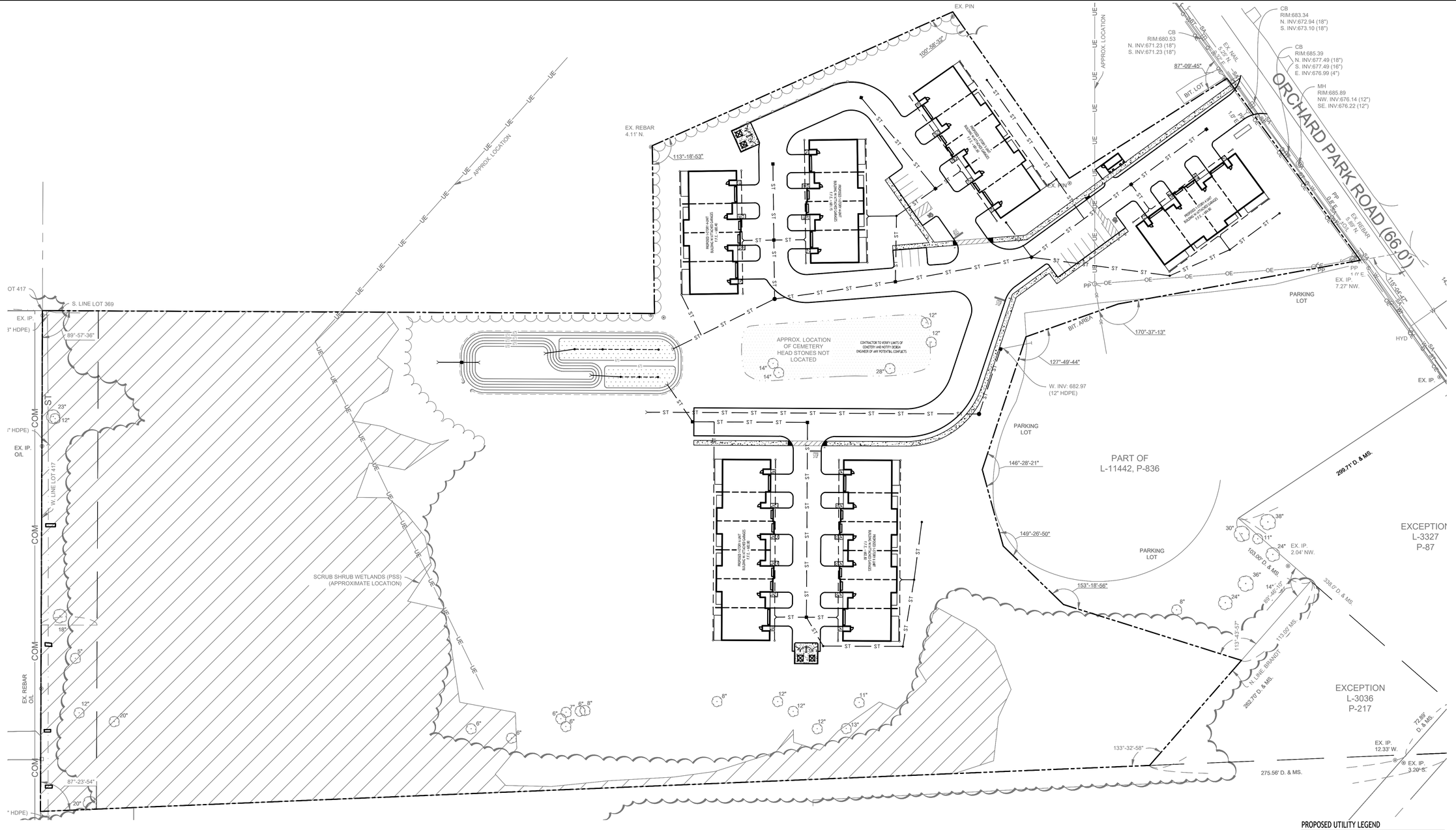
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Overall Drainage Plan

SCALE: 1"=50'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
1-YEAR	1.94	671.04	5,335
10-YEAR	2.82	672.95	15,013
25-YEAR	3.10	673.70	21,268
100-YEAR	3.45	674.73	34,966

DIRECT:

EVENT	PROP. RUNOFF (CFS)
1-YEAR	0.38
10-YEAR	1.12
25-YEAR	1.57
100-YEAR	2.52

TOTAL SITE:

EVENT	EX. RUNOFF (CFS)	PROP. RUNOFF (CFS)
1-YEAR	2.63	2.32
10-YEAR	8.17	3.94
25-YEAR	11.66	4.67
100-YEAR	18.97	5.97

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

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DRAWING NAME:

Overall Drainage Plan

Date: 5/22/26
Drawn By: A. Pandolfe
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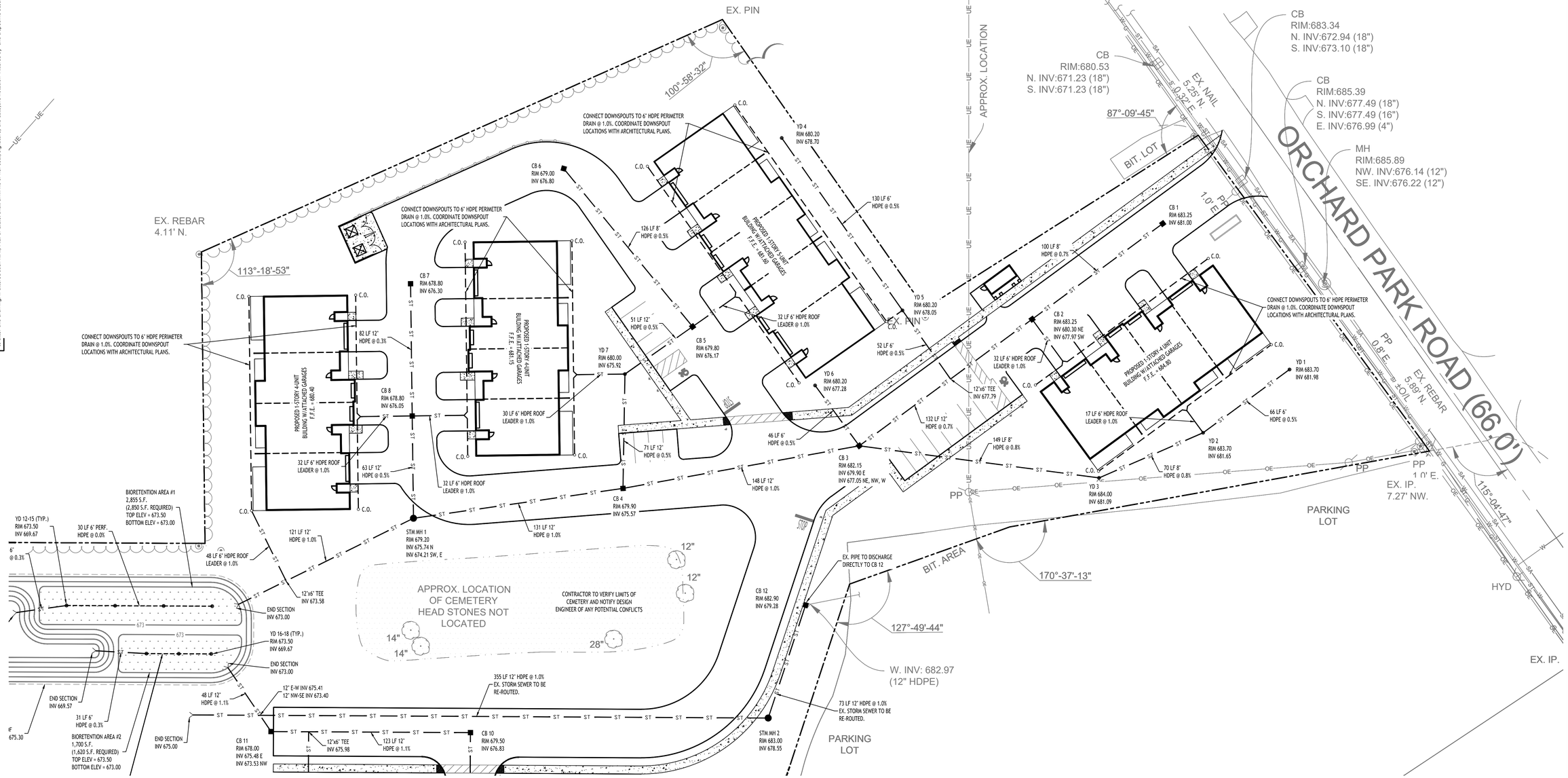
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Drainage Plan - North

SCALE: 1"=30'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
1-YEAR	1.94	671.04	5,335
10-YEAR	2.82	672.95	15,013
25-YEAR	3.10	673.70	21,268
100-YEAR	3.45	674.73	34,966

DIRECT:

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25-YEAR	11.66	4.67
100-YEAR	18.97	5.97

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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Drainage Plan - North

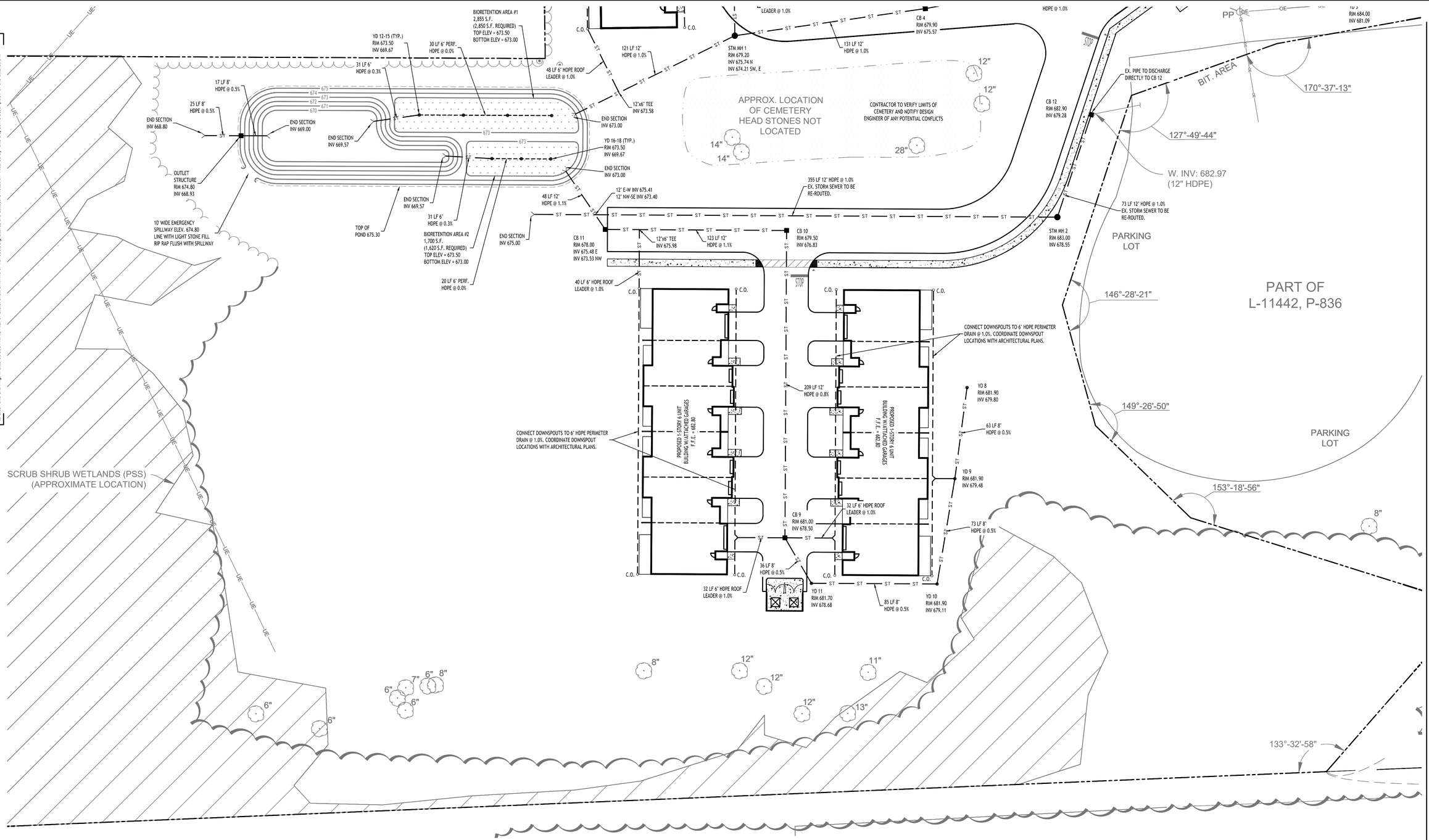
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N

Drainage Plan - South

SCALE: 1"=30'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
1-YEAR	1.94	671.04	5,335
10-YEAR	2.82	672.95	15,013
25-YEAR	3.10	673.70	21,268
100-YEAR	3.45	674.73	34,966

DIRECT:

EVENT	PROP. RUNOFF (CFS)
1-YEAR	0.38
10-YEAR	1.12
25-YEAR	1.57
100-YEAR	2.52

TOTAL SITE:

EVENT	EX. RUNOFF (CFS)	PROP. RUNOFF (CFS)
1-YEAR	2.63	2.32
10-YEAR	8.17	3.94
25-YEAR	11.66	4.67
100-YEAR	18.97	5.97

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

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Drainage Plan - South

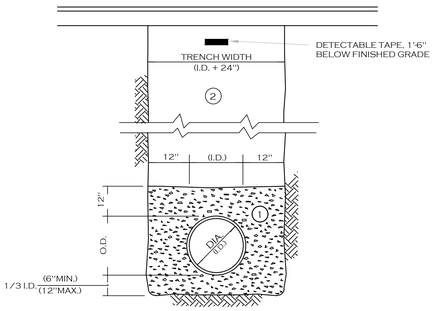
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C-302

Project No: 23-4121

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NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

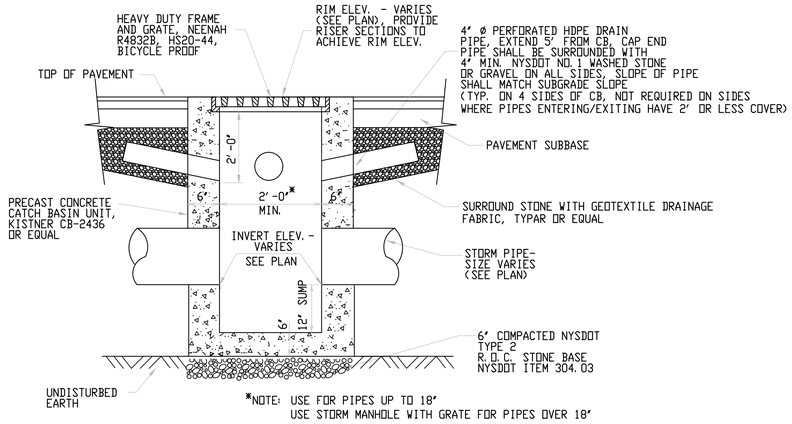
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERAIL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

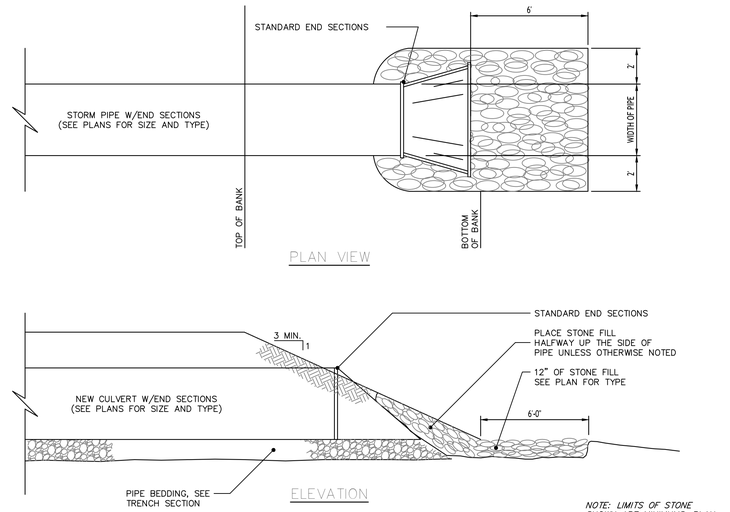
NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

STORM SEWER TRENCH SECTION IN PAVED AREAS



*NOTE: USE FOR PIPES UP TO 18'
USE STORM MANHOLE WITH GRATE FOR PIPES OVER 18'

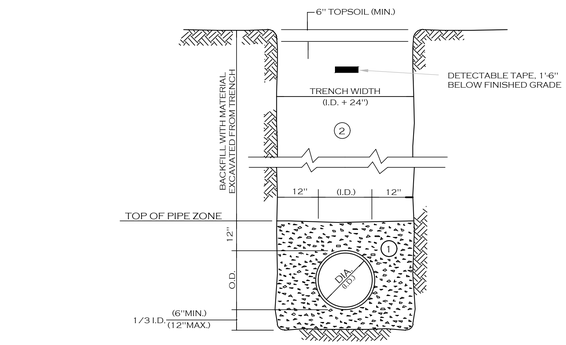
TYPICAL PRECAST CATCH BASIN



NOTE: LIMITS OF STONE SHOWN ARE MINIMUMS, PLAN MAY INDICATE GREATER LIMITS

TYPICAL PIPE OUTLET W/END SECTION & RIP RAP

NOT TO SCALE



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

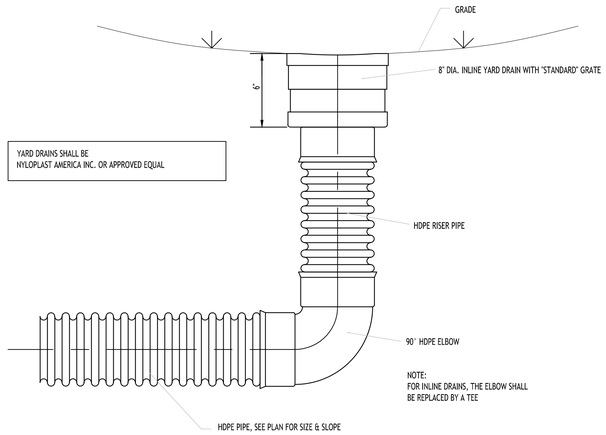
PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

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NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

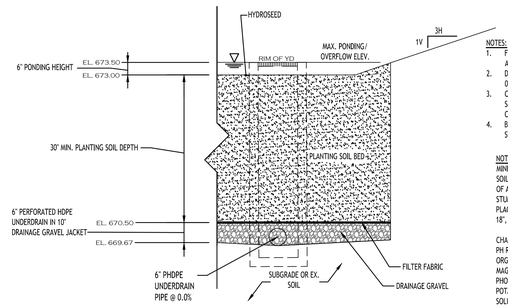
(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

STORM SEWER TRENCH SECTION IN UNPAVED AREAS



NOTE:
SEE TYPICAL TRENCH SECTION FOR BEDDING REQUIREMENTS

TYPICAL YARD DRAIN DETAIL



BIORETENTION AREA #1 & #2 - TYPICAL SECTION

NOTES:
1. FILTER FABRIC TO BE NON-WOVEN CLASS 'C', MIRAFI 180-N OR APPROVED EQUIVALENT
2. DRAINAGE GRAVEL TO MEET AASHTO M-43. NO.67, SIZE 0.25" TO 0.75"
3. CONTRACTOR TO PROVIDE PLANTING SOIL SUBMITTAL SPECIFICATION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
4. BIORETENTION SOIL IS NOT TO BE INSTALLED UNTIL SITE IS STABILIZED.

NOTE: PLANTING SOIL SHALL BE LOAM/SAND MIX CONTAINING A MINIMUM OF 35 TO 60% SAND BY VOLUME AND LESS THAN 25% CLAY. SOIL SHOULD FALL WITHIN USCS TYPES SM OR ML WITH PERMEABILITY OF AT LEAST 1.0 FEET PER DAY. SOIL SHOULD BE FREE FROM STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED.

CHARACTERISTICS SHALL BE:
PH RANGE: 5.2 - 7.00
ORGANIC MATTER: 1.5 - 4.0%
MAGNESIUM: 35 LBS PER ACRE MIN.
PHOSPHORUS: 75 LBS PER ACRE MIN.
POTASSIUM: 85 LBS PER ACRE MIN.
SOLUBLE SALTS: 500 PPM
CLAY: 10 TO 25%
SILT: 30 TO 55%
SAND: 35 TO 60%

bio-retention area seeding spec (Northeast Wetland Grass Seed Mix):

Seed Mixture	Variety	Percent by No. of Seeds
Creeping Bentgrass	Agrostis stolonifera	63.0
Rough Bluegrass	Poa trivialis	17.0
Meadow Foxtail	Alopecurus arundinaceus	11.0
Annual Ryegrass	Lolium multiflorum	4.5
Deertongue	Panicum clandestinum	4.5

CARMINAWOOD DESIGN
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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
CHRISTOPHER WOOD
LICENSED PROFESSIONAL ENGINEER
078394

DRAWING NAME:
Drainage Details

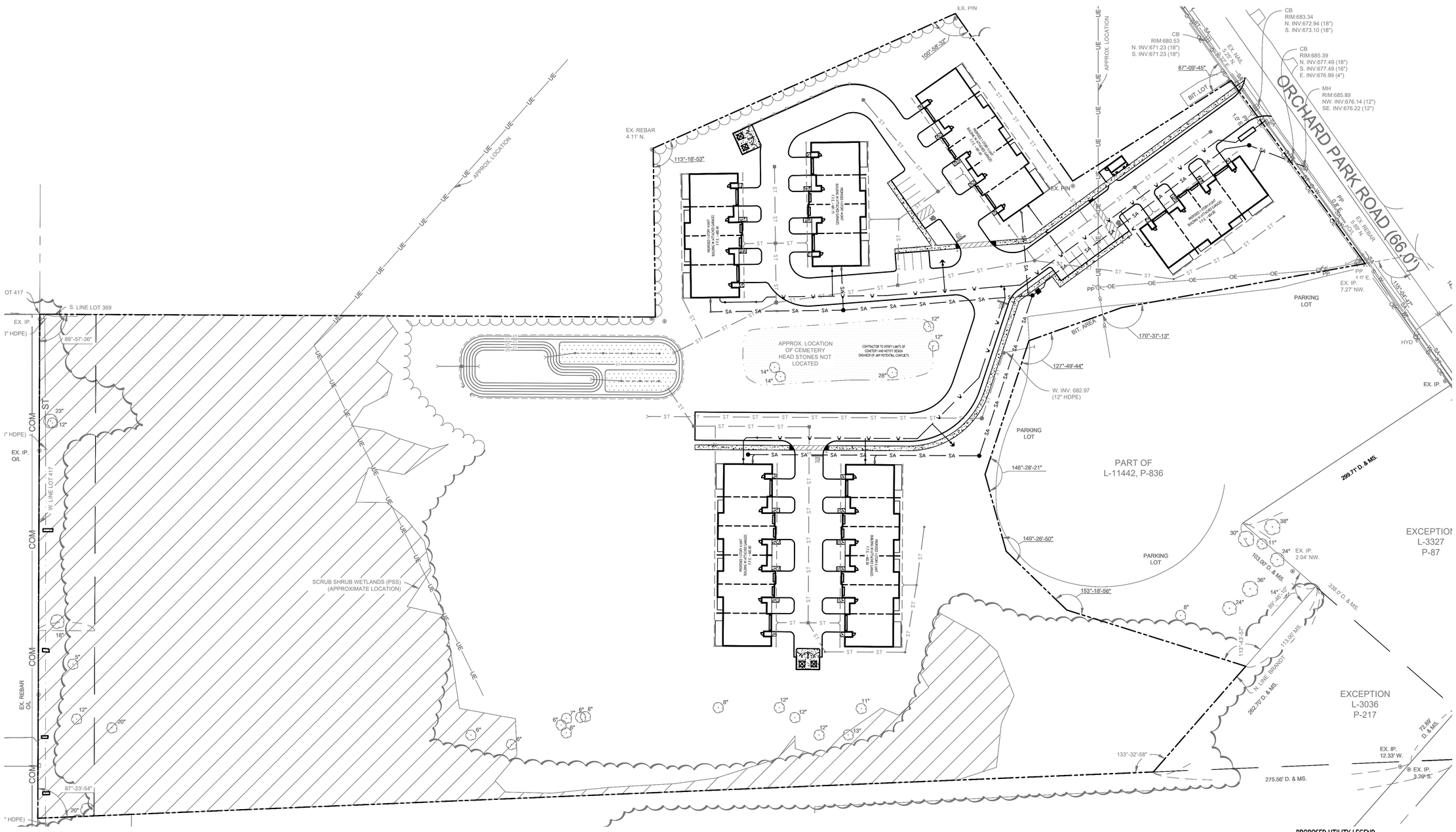
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-303

Project No: 23-4121

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Overall Utility Plan

SCALE: 1"=50'

UTILITY NOTES:

1. FOR ALL SANITARY SEWERS, INSTALL SELECT FILL IN PAVED AREAS, EXTEND 5' MIN. BEYOND PAVEMENT LIMITS
2. BUILDINGS TO HAVE A 6" HOUSE TRAP, VENT AND CLEANOUT INSTALLED AT ENTRANCE POINT. INVERT ELEVATION TO BE 5' MIN. BELOW F.F.E. OF THE BUILDING. PIPE TO BE 6" SDR-35 PVC @ 1.0% MIN WITH MIN 4' OF COVER. ADD ADDITIONAL CLEANOUTS @ 100' MAX. SPACING FOR 6" LATERALS OVER 90' IN LENGTH.
3. COORDINATE GAS & ELEC. METER BANK LOCATIONS ON BUILDINGS WITH M.E.P. PLANS & UTILITY CO.'S.
4. COORDINATE LOCATION OF CTV & TELEPHONE SERVICE TO BUILDINGS WITH M.E.P. PLANS AND UTILITY CO.'S.
5. ANY EXISTING UTILITIES WHICH ARE TO BE ABANDONED AND FALL UNDER PAVEMENT OR BUILDINGS SHALL BE REMOVED VS. BEING ABANDONED UNLESS THOSE UTILITIES ARE FILLED WITH FLOWABLE FILL.
6. EXISTING GAS SERVICES TO REMAIN UNLESS OTHERWISE NOTED. ANY PORTIONS TO BE RELOCATED SHALL BE COORDINATED WITH NATIONAL FUEL GAS.
7. ALL UNDERGROUND TELEPHONE SERVICES SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION.
8. A MINIMUM OF 10 FEET HORIZONTAL AND 18 INCHES OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
9. ERIE COUNTY WATER AUTHORITY (ECWA) IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE.
10. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH PAVEMENT AREAS.

NOTES:

1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO TOWN OF WEST SENECA SEWER SPECIFICATIONS AND DETAILS, AND ERIE COUNTY DEPARTMENT OF HEALTH RULES AND REGULATIONS.
2. PRIOR STARTING ANY WORK ASSOCIATED WITH OR NEAR EXISTING SANITARY MANHOLES, THE CONTRACTOR SHALL MEET WITH THE TOWN OF WEST SENECA TO DISCUSS AND AGREE TO THE WORK.
3. FILL SHALL BE PLACED AND SATISFACTORILY COMPACTED PRIOR TO INSTALLATION OF UTILITIES, AND MUST BE APPROVED BY THE SUPERVISING PROJECT ENGINEER.
4. ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF WEST SENECA ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6' WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

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50' 50 0 50 100Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * CHRISTOPHER WOOD * 076394 LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:

Overall Utility Plan

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

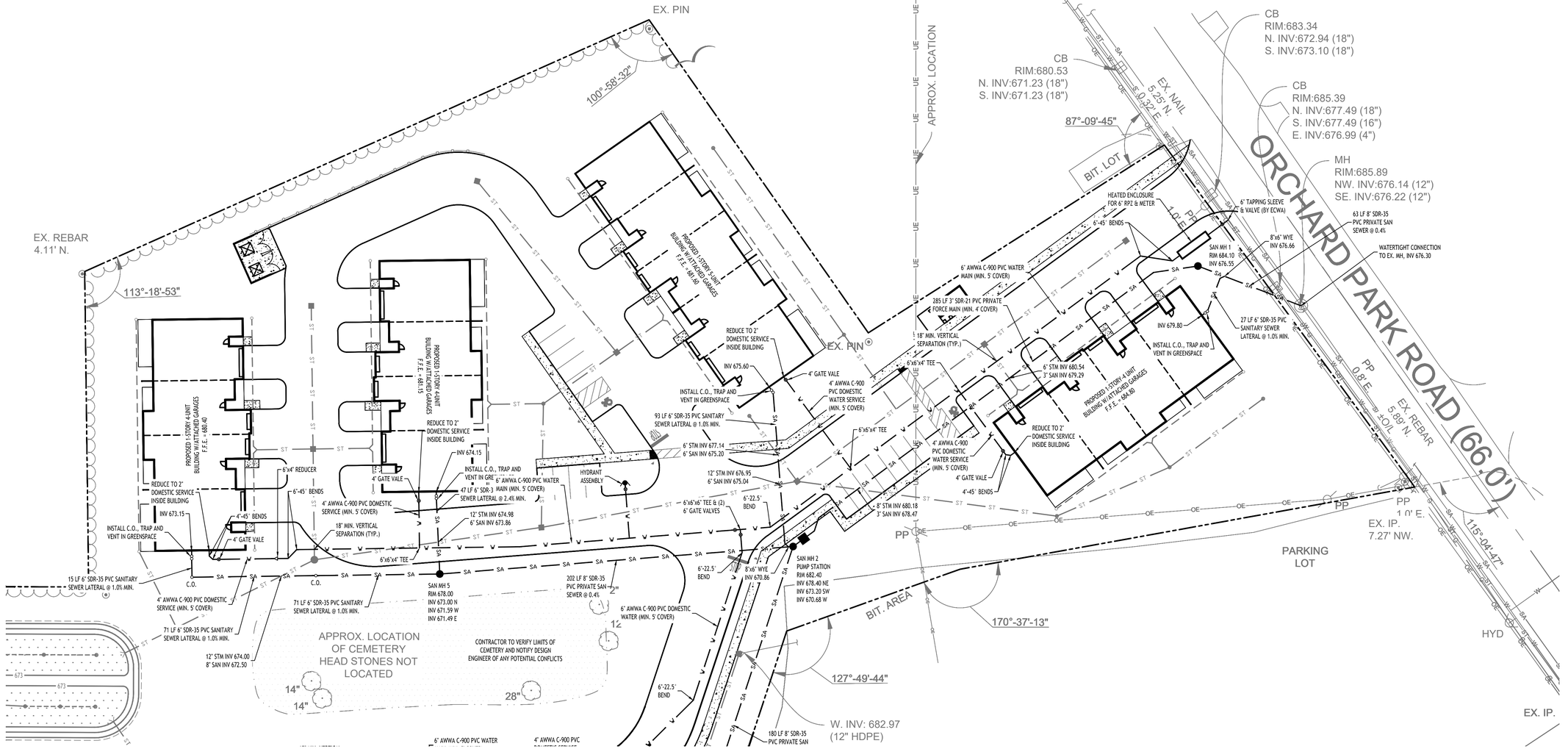
DRAWING NO.

C-400

Project No: 23-4121

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Utility Plan - North

SCALE: 1"=30'

UTILITY NOTES:

1. FOR ALL SANITARY SEWERS, INSTALL SELECT FILL IN PAVED AREAS, EXTEND 5' MIN. BEYOND PAVEMENT LIMITS
2. BUILDINGS TO HAVE A 6" HOUSE TRAP, VENT AND CLEANOUT INSTALLED AT ENTRANCE POINT. INVERT ELEVATION TO BE 5' MIN. BELOW F.F.E. OF THE BUILDING. PIPE TO BE 6" SDR-35 PVC @ 1.0% MIN WITH MIN 4' OF COVER. ADD ADDITIONAL CLEANOUTS @ 100' MAX. SPACING FOR 6" LATERALS OVER 90' IN LENGTH.
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PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	— ST —
PROPOSED SANITARY SEWER	— 6" SA —
PROPOSED WATERLINE	— 1" W —
PROPOSED CATCH BASIN	■ CB
PROPOSED YARD DRAIN	⊗ YD
PROPOSED MANHOLE	● MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	⊕ GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6' WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

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30' 30 0 30 60Ft.

CARMINAWOOD DESIGN
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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * A. CHRISTOPHER WOOD * LICENSED PROFESSIONAL ENGINEER * 076394

DRAWING NAME:
Utility Plan - North

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-401

Project No: 23-4121

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SCRUB SHRUB WETLANDS (PSS)
(APPROXIMATE LOCATION)

15 LF 6" SDR-35 PVC SANITARY SEWER LATERAL @ 1.0% MIN.
C.O.
4" AWWA C-900 PVC DOMESTIC SERVICE (MIN. 5' COVER)
71 LF 6" SDR-35 PVC SANITARY SEWER LATERAL @ 1.0% MIN.
12" STM INV 674.00
8" SAN INV 672.50
C.O.
71 LF 6" SDR-35 PVC SANITARY SEWER LATERAL @ 1.0% MIN.
SAN MH 5
RIM 678.00
INV 673.00 N
INV 671.59 W
INV 671.49 E
APPROX. LOCATION OF CEMETERY HEAD STONES NOT LOCATED
CONTRACTOR TO VERIFY LIMITS OF CEMETERY AND NOTIFY DESIGN ENGINEER OF ANY POTENTIAL CONFLICTS
14"
14"
28"
202 LF 8" SDR-35 PVC PRIVATE SAN SEWER @ 0.4%
6" AWWA C-900 PVC DOMESTIC WATER (MIN. 5' COVER)
6'-22.5° BEND
6'-22.5° BEND
8"x6" WYE
INV 670.86
PUMP STATION
RIM 682.40
INV 678.40 NE
INV 673.20 SW
INV 670.68 W
BIT. AREA
170°-37'-13"
127°-49'-44"
W. INV: 682.97
(12" HDPE)
180 LF 8" SDR-35 PVC PRIVATE SAN SEWER @ 0.4%
PARKING LOT
PART OF L-11442, P-836
146°-28'-21"
149°-26'-50"
PARKING LOT
153°-18'-56"
8"
133°-32'-58"
18" MIN. VERTICAL SEPARATION (TYP.)
6" AWWA C-900 PVC WATER MAIN (MIN. 5' COVER)
4" AWWA C-900 PVC DOMESTIC SERVICE (MIN. 5' COVER)
SAN MH 4
RIM 680.00
INV 675.00 E
6"x4" REDUCER
4"-45° BENDS
8"x6" WYE
INV 675.14
6"x6"x4" TEE
6"-45° BEND
12" STM INV 677.07
8" SAN INV 674.74
8"x6" WYE
INV 674.62
HYDRANT ASSEMBLY
SAN MH 3
RIM 686.00
INV 674.02 W
INV 673.92 NE
STOP
4" GATE VALE
11 LF 6" SDR-35 PVC SANITARY SEWER LATERAL @ 1.0% MIN.
INSTALL C.O., TRAP AND VENT IN GREENSPACE
INV 677.80
REDUCE TO 2" DOMESTIC SERVICE INSIDE BUILDING
246 LF 8" SDR-35 PVC PRIVATE SAN SEWER @ 0.4%
4" GATE VALE
11 LF 6" SDR-35 PVC SANITARY SEWER LATERAL @ 1.0% MIN.
INSTALL C.O., TRAP AND VENT IN GREENSPACE
INV 677.80
REDUCE TO 2" DOMESTIC SERVICE INSIDE BUILDING
PROPOSED 1-STORY 6 UNIT BUILDING W/ ATTACHED GARAGES F.F.E. = 682.80
PROPOSED 1-STORY 6 UNIT BUILDING W/ ATTACHED GARAGES F.F.E. = 682.80
8"
12"
12"
11"
12"
13"
6"
6"
7"
6"
8"
6"
6"
6"

N

Utility Plan - South

SCALE: 1"=30'

UTILITY NOTES:

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PROPOSED UTILITY LEGEND

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PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
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PROPOSED HYDRANT ASSEMBLY	
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30' 30 0 30 60Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
R CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Utility Plan - South

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

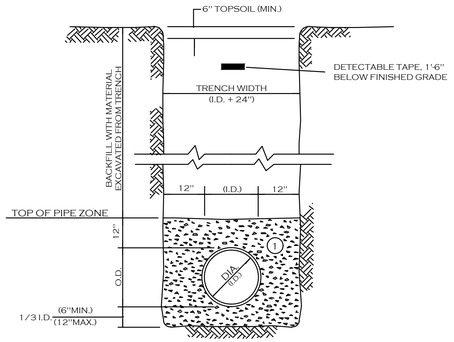
DRAWING NO.

C-402

Project No: 23-4121

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D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

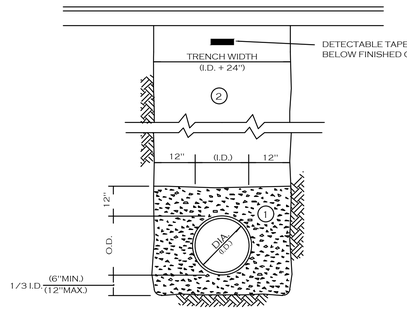
PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

(1) NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

SELECT MATERIAL BACKFILL (NYSDOT LATEST EDITION)

(2) NO.2 RUN OF CRUSHER STONE OR NO.2 RUN OF CRUSHER GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02. (COMPACTED IN 6"LIFTS TO 90% DENSITY) NOTE: SLAG SHALL NOT BE ALLOWED FOR MATERIALS (1) AND (2)

UTILITY TRENCH SECTION IN UNPAVED AREAS



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

(1) NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

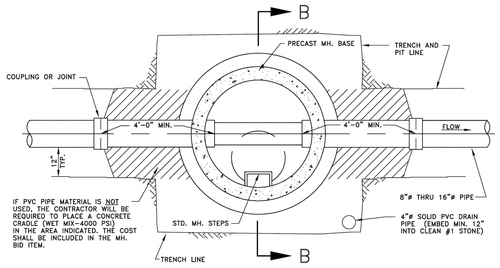
SELECT MATERIAL BACKFILL (NYSDOT LATEST EDITION)

(2) NO.2 RUN OF CRUSHER STONE OR NO.2 RUN OF CRUSHER GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02. (COMPACTED IN 6"LIFTS TO 90% DENSITY) NOTE: SLAG SHALL NOT BE ALLOWED FOR MATERIALS (1) AND (2)

UTILITY TRENCH SECTION IN PAVED AREAS

MONOLITHIC PRECAST BASE MANHOLES 4'-0" DIA. BASE FOR 15"ø SEWERS OR LESS

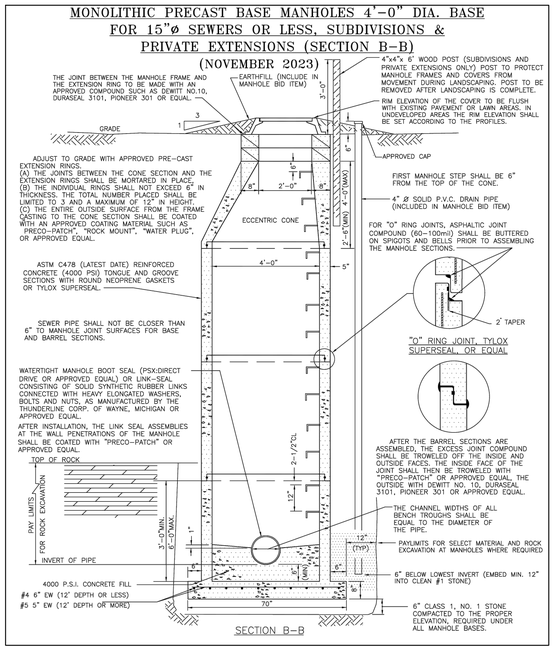
(NOVEMBER 2023)



PLAN

MONOLITHIC PRECAST BASE MANHOLES 4'-0" DIA. BASE FOR 15"ø SEWERS OR LESS, SUBDIVISIONS & PRIVATE EXTENSIONS (SECTION B-B)

(NOVEMBER 2023)



SECTION B-B

STANDARD FRAME AND COVER (PRIVATE SEWER)

(NOVEMBER 2023)

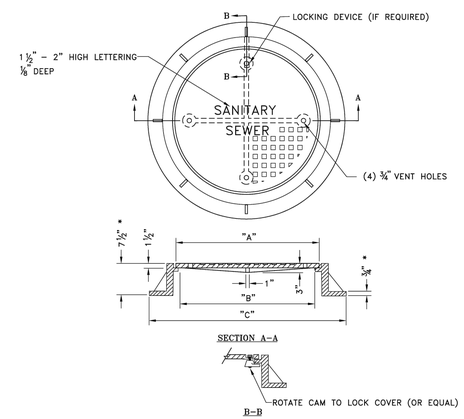


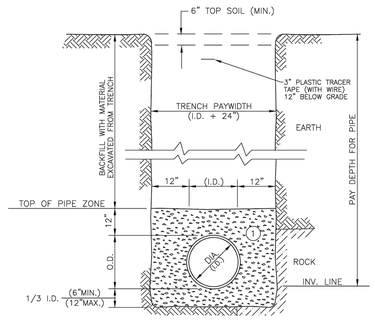
TABLE				
PIPE SIZE	DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	WEIGHT OF COVER
8" THRU 18"	24"	22 1/4"	35"(MAX.)	150 LBS. ± 5%
OVER 18"	32"	30"	46"(MAX.)	200 LBS. ± 5%

STANDARD FRAME AND COVER NOTES

1. MATERIAL: ASTM A48 CLASS 30B CAST IRON CONFORMING TO AASHTO DESIGNATION M105-06.
2. UNIT MUST WITHSTAND H-20 WHEEL LOADING, AND CONFORM TO AASHTO DESIGNATION M306-10.
3. ALL DIMENSIONS ARE TO BE CONSIDERED MINIMUM WITH THE EXCEPTION OF THE COVER, WHICH MUST CONFORM EXACTLY TO MAINTAIN INTERCHANGEABILITY WITHIN THE COUNTY.
4. COVER WEIGHT 210 LBS. (MAX)
5. COATING NOT REQUIRED.
6. FRAMES AND COVERS SHALL HAVE MACHINED BEARING SURFACES.
7. LOCKING DEVICE MUST BE SITUATED TO ALLOW EASY REMOVAL OF COVER.
8. NO COMMERCIAL "BRAND NAME" LETTERING WILL BE ALLOWED ON THE EXPOSED SURFACE OF THE COVER.
9. * 1/2" FLANGE THICKNESS AND 7" HEIGHT ACCEPTABLE IF CLASS 35 CAST IRON MATERIAL PROVIDED.

FORCE MAIN TRENCH DETAIL

(NOVEMBER 2023)



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. FORCE MAIN MARKERS SHALL BE INSTALLED AT 500 FOOT INTERVALS AND AT POINTS WHERE THE FORCE MAIN DEFLECTS AND/OR CHANGES DIRECTION.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

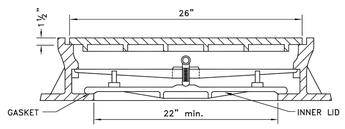
MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

(1) NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

WATER TIGHT FRAME AND COVER

(NOVEMBER 2023)

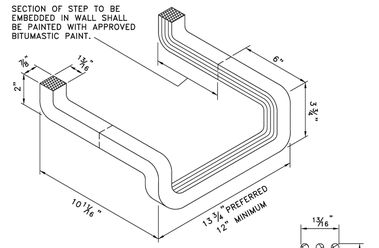


WATER TIGHT FRAME AND COVER NOTES

1. MATERIAL: ASTM A48 CLASS 30B CAST IRON CONFORMING TO AASHTO DESIGNATION M105-06.
2. UNIT MUST WITHSTAND H-20 WHEEL LOADING, AND CONFORM TO AASHTO DESIGNATION M306-10.
3. ALL DIMENSIONS ARE TO BE CONSIDERED MINIMUM WITH THE EXCEPTION OF THE COVER, WHICH MUST CONFORM EXACTLY TO MAINTAIN INTERCHANGEABILITY WITHIN THE COUNTY.
4. WATER TIGHT MANHOLE UNITS SHALL HAVE 4" STEEL VENT PIPE ASSEMBLY AS PER MANHOLE VENT DETAIL.
4. FRAMES AND COVERS SHALL HAVE MECHANICAL BEARING SURFACES.
6. COVERS SHALL BE SOLID WITH NON-PENETRATING PICKHOLES.
7. NO COMMERCIAL "BRAND NAME" LETTERING WILL BE ALLOWED ON THE EXPOSED SURFACE OF THE COVER.
8. COVER TO BEAR THE INSCRIPTION "ECSD SANITARY", EXCEPT FOR PRIVATE SYSTEMS.
9. THE FRAME SHALL BE PROVIDED WITH 6 HOLES ON FLANGE TO ACCEPT 1/2" ø ANCHOR BOLTS.

STANDARD MANHOLE STEP

(NOVEMBER 2023)

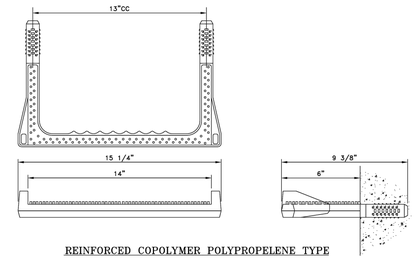


(DROP FRONT TYPE)

TYPICAL SECTION

NOTES:

1. MANHOLE STEPS SHALL BE OF FORGED ALUMINUM ALLOY.
2. AN ACCEPTABLE ALTERNATE IS THE STEEL REINFORCED COPOLYMER POLYPROPYLENE MANHOLE STEP.
3. THE STEPS SHALL BE EMBEDDED IN THE WALLS OF THE CONCRETE MANHOLE BARREL WHILE THE MANHOLE IS BEING CAST OR SECURELY GROUTED IN PLACE AFTER CASTING.



REINFORCED COPOLYMER POLYPROPELENE TYPE

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * A. CHRISTOPHER WOOD * 078394 LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:

Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.

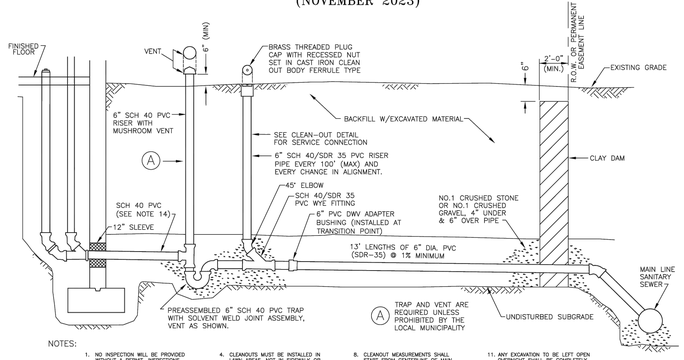
C-403

Project No: 23-4121

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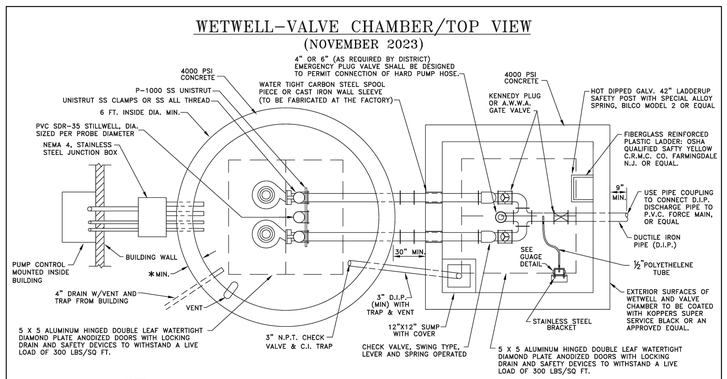
TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (NEW BUILDS)
(NOVEMBER 2023)



NOTES:

1. NO INSPECTION WILL BE PROVIDED WITHOUT A PERMIT. INSPECTIONS REQUIRE A 48 HR. ADVANCE NOTICE FOR SCHEDULING.
2. ALL WORK MUST BE INSPECTED BY A COUNTY INSPECTOR.
3. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D-3033/D-3034.
4. CLEANOUTS MUST BE INSTALLED IN THE SIDEWALK OR THE SIDEWALK OR ORDINARY AREAS, PREFERABLY BETWEEN THE CURB OR EDGE OF PAVEMENT AND THE SIDEWALK.
5. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
6. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS.
7. MIN. DEPTH OF COVER 3'-0".
8. CLEANOUT MEASUREMENTS SHALL BE TAKEN FROM THE MAIN SEWER SEWER FOR NEWSIDE LATERALS AND FROM THE 6" CLEANOUT FOR FAR SIDE CONNECTIONS. A CLEANOUT MAY BE REQUIRED FOR ANY ABRUPT CHANGES IN LATERAL DIRECTION FLOW.
9. A 6" CLEANOUT IS REQUIRED AT R.O.W. WHENEVER THE MAIN SEWER IS UNDER THE PAVEMENT LIMITS OR AT FAR SIDE OF PAVEMENT.
10. SEPTIC TANKS MUST BE ABANDONED PER NYSDEC APPROVED METHODS.
11. ANY EXCAVATION TO BE LEFT OPEN OVERNIGHT SHALL BE COMPLETELY ENCLOSED BY FENCING, AND WHERE NECESSARY, COVERED WITH STEEL PLATES.
12. DOWN SPOUTS, SUMP PUMPS, AND FOOTING DRAINS ARE NOT PERMITTED TO BE CONNECTED TO THE LATERAL.
13. NO CONNECTION SHALL BE MADE UNTIL BUILDING ROOF IS ERECTED.
14. 6" CAST IRON IS USED EXITING THE BUILDING, A MISSION COUPLING IS REQUIRED BEFORE THE TRAP.

WETWELL-VALVE CHAMBER/TOP VIEW
(NOVEMBER 2023)



NOTES:

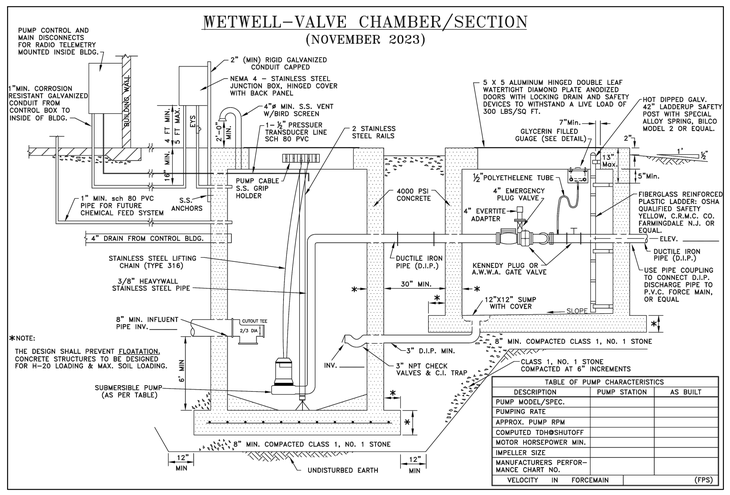
JUNCTION BOX TO CONTAIN COMPRESSION TYPE TERMINAL STRIPS MOUNTED ON BACK PANEL. ALL CONDUCTORS AND TERMINALS TO BE PERMANENTLY MARKED. SPARE WIRE TO BE TERMINATED, 3 MOTOR LEADS & 4 CONTROL LEADS.

ALL PIPE FLANGES MUST EXTEND A MINIMUM OF 6" INSIDE VALVE CHAMBER.

ALL PIPING IN WETWELL AND VALVE PIT SHALL BE DUCTILE IRON MECHANICAL JOINT.

CORBIN PADLOCK TO BE PROVIDED PER ERIE COUNTY SEWER DISTRICT KEYING REQUIREMENTS.

WETWELL-VALVE CHAMBER/SECTION
(NOVEMBER 2023)

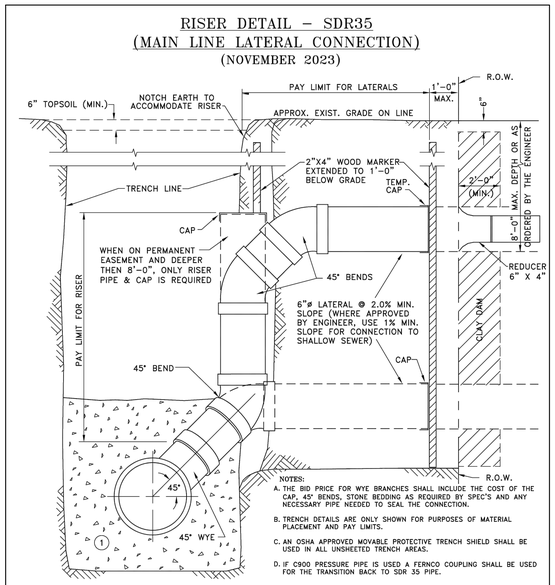


*NOTE:
THE DESIGN SHALL PREVENT FLOATATION. CONCRETE STRUCTURES TO BE DESIGNED FOR H-20 LOADING & MAX. SOIL LOADING.

TABLE OF PUMP CHARACTERISTICS

DESCRIPTION	PUMP STATION	AS BUILT
PUMP MODEL/SPEC.		
PUMPING RATE		
APPROX. PUMP RPM		
COMPUTED TDH⊕SHUTOFF		
MOTOR HORSEPOWER MIN.		
IMPELLER SIZE		
MANUFACTURERS PERFOR-MANCE CHART NO.		
VELOCITY IN FORCEMAIN		(FPS)

RISER DETAIL - SDR35
(MAIN LINE LATERAL CONNECTION)
(NOVEMBER 2023)



NOTES:

A. THE BID PRICE FOR WYE BRANCHES SHALL INCLUDE THE COST OF THE CAP, 45° BENDS, STONE BEDDING AS REQUIRED BY SPEC'S AND ANY NECESSARY PIPE NEEDED TO SEAL THE CONNECTION.

B. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND PAY LIMITS.

C. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

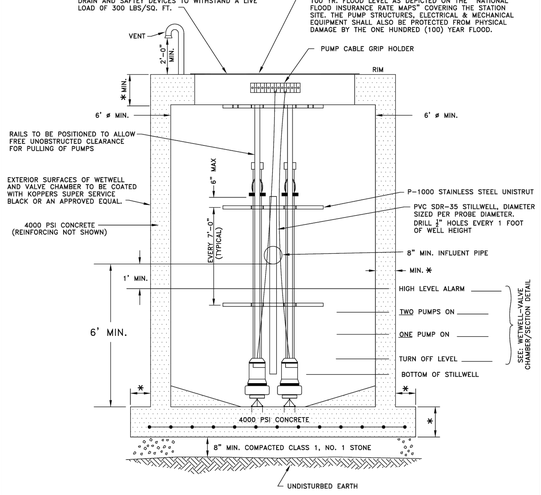
D. IF C900 PRESSURE PIPE IS USED A FERNCO COUPLING SHALL BE USED FOR THE TRANSITION BACK TO SDR 35 PIPE.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

(1) NO. 1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER. NO SLAG WILL BE ALLOWED.

WETWELL/SIDE VIEW
(NOVEMBER 2023)

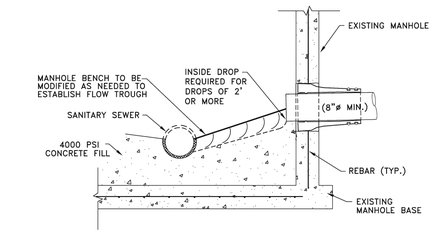


NOTE:

* 1. THE DESIGN SHALL PREVENT FLOATATION

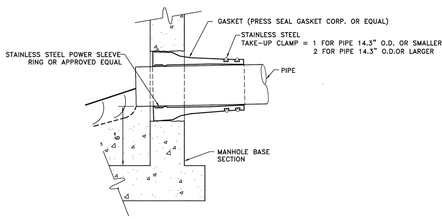
2. ALL HARDWARE USED IN WETWELLS SHALL BE 316 STAINLESS STEEL.

CONNECTION TO EXISTING MANHOLE
(NOVEMBER 2023)

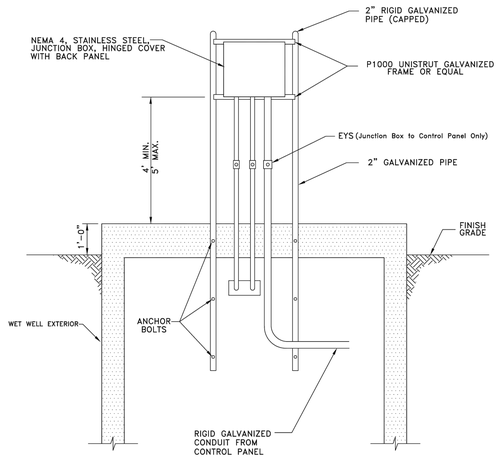


NOTES:

1. CORE DRILL ENTRANCE HOLE IN PRECAST MANHOLE BARREL, BASE AND/OR BENCH FOR REQUIRED PIPE CLEARANCE. PER MANUFACTURERS RECOMMENDATIONS.
2. DOES NOT APPLY TO HOUSE LATERALS.
3. WATERTIGHT PIPE TO MANHOLE BOOT SEAL REQUIRED FOR ALL CORE DRILLED ENTRANCE HOLES IN MANHOLE BARREL AS SHOWN BELOW.



WETWELL JUNCTION BOX
(NOVEMBER 2023)



NOTE: JUNCTION BOX TO CONTAIN COMPRESSION TYPE TERMINAL STRIPS MOUNTED ON BACK PANEL. ALL CONDUCTORS AND TERMINALS TO BE MARKED PERMANENTLY. SPARE WIRES TO BE TERMINATED. 3 MOTOR LEADS AND 4 CONTROL LEADS.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * CHRISTOPHER R. WOOD * LICENSED PROFESSIONAL ENGINEER 076394

DRAWING NAME:
Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

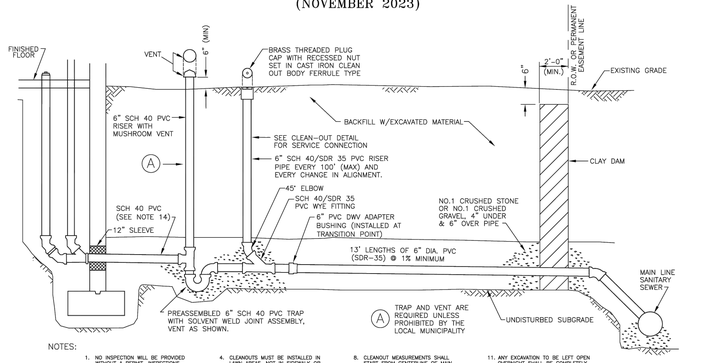
DRAWING NO.
C-404

Project No: 23-4121

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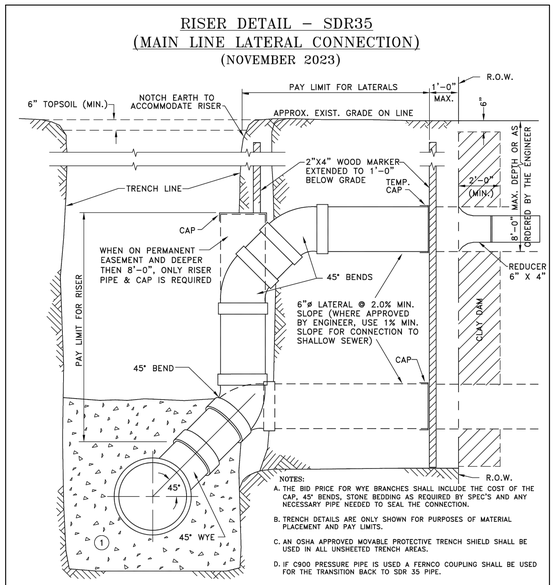
TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (NEW BUILDS)
(NOVEMBER 2023)



NOTES:

1. NO INSPECTION WILL BE PROVIDED WITHOUT A PERMIT. INSPECTIONS REQUIRE A 48 HR. ADVANCE NOTICE FOR SCHEDULING.
2. ALL WORK MUST BE INSPECTED BY A COUNTY INSPECTOR.
3. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D-3033/D-3034.
4. CLEANOUTS MUST BE INSTALLED IN THE SIDEWALK OR THE SIDEWALK OR ORDINARY AREAS, PREFERABLY BETWEEN THE CURB OR EDGE OF PAVEMENT AND THE SIDEWALK.
5. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
6. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS.
7. MIN. DEPTH OF COVER 3'-0".
8. CLEANOUT MEASUREMENTS SHALL BE TAKEN FROM THE MAIN SEWER LINE SEWER FOR NEWSIDE LATERALS AND FROM THE 6" CLEANOUT FOR FAR SIDE CONNECTIONS. A CLEANOUT MAY BE REQUIRED FOR ANY ABRUPT CHANGES IN LATERAL DIRECTION FLOW.
9. A 6" CLEANOUT IS REQUIRED AT R.O.W. WHENEVER THE MAIN SEWER IS UNDER THE PAVEMENT LIMITS OR AT FAR SIDE OF PAVEMENT.
10. SEPTIC TANKS MUST BE ABANDONED PER NYSDEC APPROVED METHODS.
11. ANY EXCAVATION TO BE LEFT OPEN OVERNIGHT SHALL BE COMPLETELY ENCLOSED BY FENCING, AND WHERE NECESSARY, COVERED WITH STEEL PLATES.
12. DOWN SPOUTS, SUMP PUMPS, AND FOOTING DRAINS ARE NOT PERMITTED TO BE CONNECTED TO THE LATERAL.
13. NO CONNECTION SHALL BE MADE UNTIL BUILDING ROOF IS ERECTED.
14. 6" CAST IRON IS USED EXITING THE BUILDING, A MISSION COUPLING IS REQUIRED BEFORE THE TRAP.

RISER DETAIL – SDR35
(MAIN LINE LATERAL CONNECTION)
(NOVEMBER 2023)



NOTES:

A. THE BID PRICE FOR WYE BRANCHES SHALL INCLUDE THE COST OF THE CAP, 45° BENDS, STONE BEDDING AS REQUIRED BY SPEC'S AND ANY NECESSARY PIPE NEEDED TO SEAL THE CONNECTION.

B. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND PAY LIMITS.

C. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

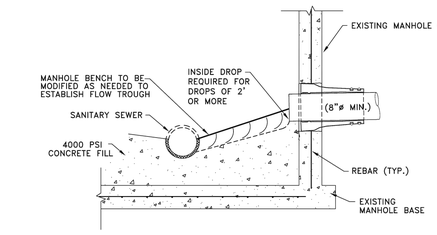
D. IF C900 PRESSURE PIPE IS USED A FERNCO COUPLING SHALL BE USED FOR THE TRANSITION BACK TO SDR 35 PIPE.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

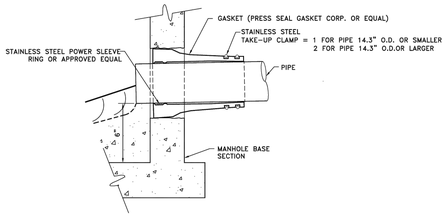
(1) NO. 1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER. NO SLAG WILL BE ALLOWED.

CONNECTION TO EXISTING MANHOLE
(NOVEMBER 2023)

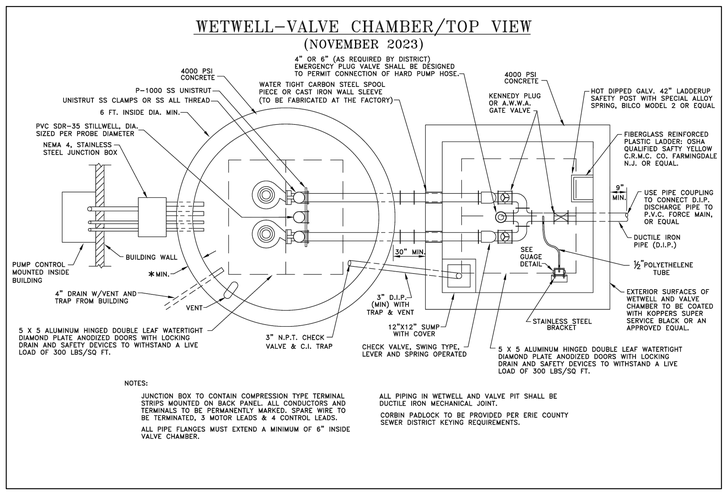


NOTES:

1. CORE DRILL ENTRANCE HOLE IN PRECAST MANHOLE BARREL, BASE AND/OR BENCH FOR REQUIRED PIPE CLEARANCE. PER MANUFACTURERS RECOMMENDATIONS.
2. DOES NOT APPLY TO HOUSE LATERALS.
3. WATERTIGHT PIPE TO MANHOLE BOOT SEAL REQUIRED FOR ALL CORE DRILLED ENTRANCE HOLES IN MANHOLE BARREL AS SHOWN BELOW.



WETWELL-VALVE CHAMBER/TOP VIEW
(NOVEMBER 2023)



NOTES:

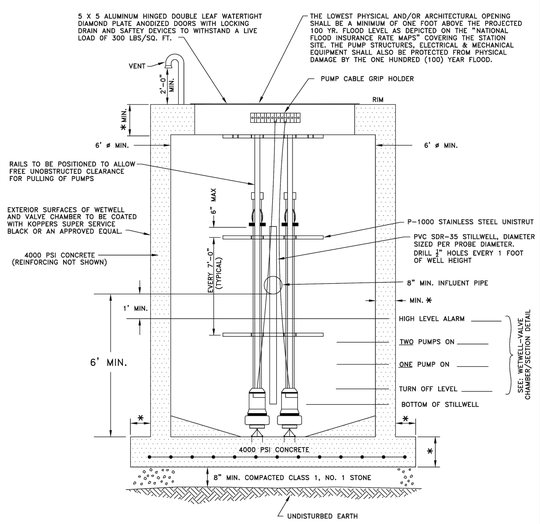
JUNCTION BOX TO CONTAIN COMPRESSION TYPE TERMINAL STRIPS MOUNTED ON BACK PANEL. ALL CONDUCTORS AND TERMINALS TO BE PERMANENTLY MARKED. SPARE WIRE TO BE TERMINATED, 3 MOTOR LEADS & 4 CONTROL LEADS.

ALL PIPE FLANGES MUST EXTEND A MINIMUM OF 6" INSIDE VALVE CHAMBER.

ALL PIPING IN WETWELL AND VALVE PIT SHALL BE DUCTILE IRON MECHANICAL JOINT.

CORBIN PADLOCK TO BE PROVIDED PER ERIE COUNTY SEWER DISTRICT KEYING REQUIREMENTS.

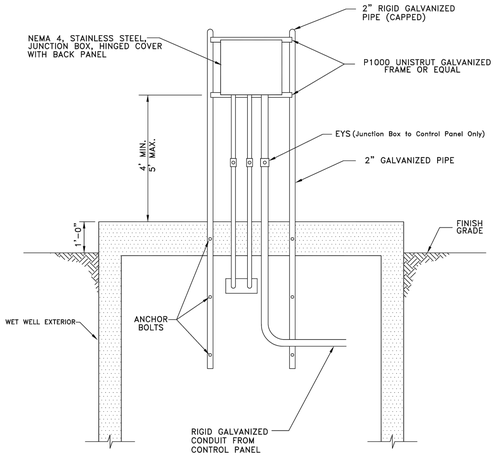
WETWELL/SIDE VIEW
(NOVEMBER 2023)



NOTE:

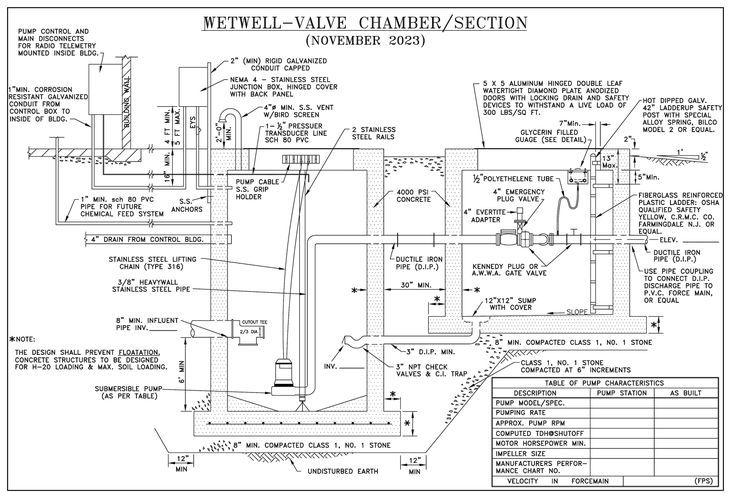
* 1. THE DESIGN SHALL PREVENT FLOATATION
2. ALL HARDWARE USED IN WETWELLS SHALL BE 316 STAINLESS STEEL.

WETWELL JUNCTION BOX
(NOVEMBER 2023)



NOTE: JUNCTION BOX TO CONTAIN COMPRESSION TYPE TERMINAL STRIPS MOUNTED ON BACK PANEL. ALL CONDUCTORS AND TERMINALS TO BE MARKED PERMANENTLY. SPARE WIRES TO BE TERMINATED. 3 MOTOR LEADS AND 4 CONTROL LEADS.

WETWELL-VALVE CHAMBER/SECTION
(NOVEMBER 2023)



*NOTE:
THE DESIGN SHALL PREVENT FLOATATION. CONCRETE STRUCTURES TO BE DESIGNED FOR H-20 LOADING & MAX. SOIL LOADING.

TABLE OF PUMP CHARACTERISTICS

DESCRIPTION	PUMP STATION	AS BUILT
PUMP MODEL/SPEC.		
PUMPING RATE		
APPROX. PUMP RPM		
COMPUTED TDH@SHUTOFF		
MOTOR HORSEPOWER MIN.		
IMPELLER SIZE		
MANUFACTURERS PERFOR-MANCE CHART NO.		
VELOCITY IN FORCEMAIN		(FPS)

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * CHRISTOPHER R. WOOD * LICENSED PROFESSIONAL ENGINEER 076394

DRAWING NAME:
Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

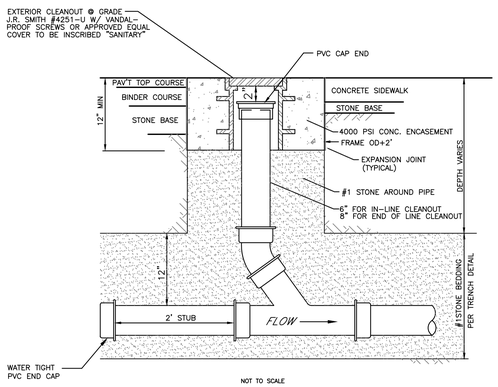
DRAWING NO.
C-405

Project No: 23-4121

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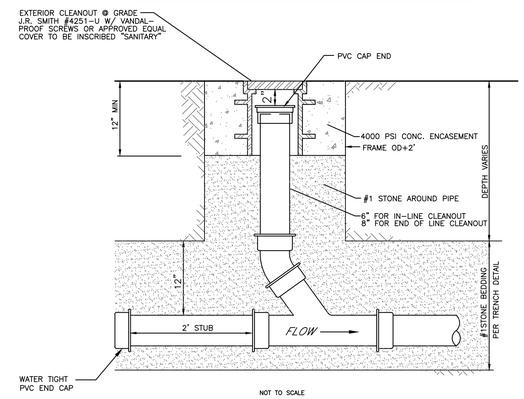
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CLEANOUT IN PAVEMENT/SIDEWALKS
NON RESIDENTIAL AND COMMERCIAL PROJECTS

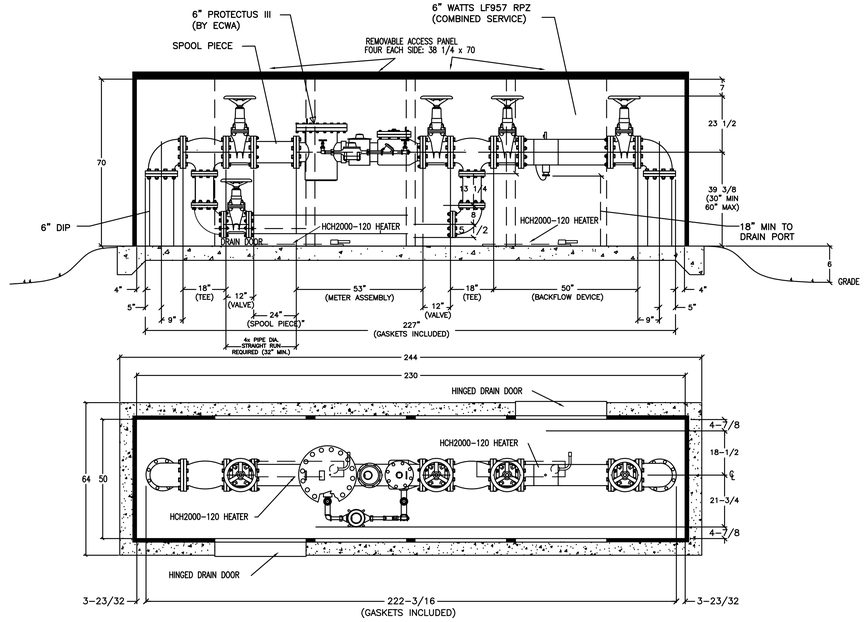


NOT TO SCALE

CLEANOUT IN FIELD/LAWN AREAS
NON RESIDENTIAL AND COMMERCIAL PROJECTS



NOT TO SCALE



LEGEND:

REMOVABLE ACCESS PANEL 38 1/4"W x 70"H w/DRAIN DOOR

REMOVABLE ACCESS PANEL 38 1/4"W x 70"H

6" METER & RPZ INSULATED ENCLOSURE

NOTES:

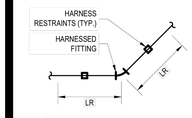
1. BACKFLOW PREVENTER DIMENSIONS FURNISHED BY WATTS
2. ALL DIMENSIONS ARE IN INCHES
3. WALL & INSULATION THICKNESS IS 1-1/2"
4. ROOF & INSULATION THICKNESS IS 3"
5. ENCLOSURE SHOWN IS SAFE-T-COVER MODEL 1000D-ALC00-17
6. EXTERIOR ENCLOSURE DIMENSIONS: 53"W x 233"L x 73" H
7. CONCRETE PAD IS 64"W x 244"L x 6"THK W/W.W.F. 6X6/10X10
8. METER SHOWN: 6" PROTECTUS III, SPOOL PIECE & METER SUPPLIED BY ECWA. VERIFY DIMENSIONS PRIOR TO ORDERING
9. RPZ SHOWN: 6" WATTS LF957 RPZ
10. CONTRACTOR TO INSTALL ELECTRIC SERVICE TO ENCLOSURE, COORDINATE SOURCE WITH OWNER
11. INSTALL A 120V GFI OUTLET IN THE ENCLOSURE
12. HEATERS TO HAVE THERMOSTAT CONTROL
13. ALL 6" PIPING & FITTINGS WITHIN THE ENCLOSURE SHALL BE DUCTILE IRON
14. CONCRETE PAD TO BE 6" ABOVE ADJACENT GRADE



TEE SIZE (RUN x BRANCH)	LR RUN	LR BRANCH	TEE SIZE (RUN x BRANCH)	LR RUN	LR BRANCH
8"x6"	5'	40'	12"x10"	5'	80'
8"x8"	5'	70'	12"x12"	5'	110'
10"x6"	5'	30'	16"x6"	5'	20'
10"x8"	5'	60'	16"x8"	5'	35'
10"x10"	5'	90'	16"x10"	5'	65'
12"x6"	5'	20'	16"x12"	5'	90'
12"x8"	5'	55'	16"x16"	5'	145'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

TEES

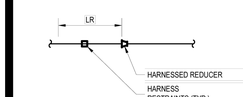


PIPE SIZE	LR 90° BEND	LR 45° BEND	LR 22.5° BEND	LR 11.25° BEND
6"	35'	15'	10'	5'
8"	40'	20'	10'	5'
10"	55'	25'	15'	10'
12"	60'	30'	15'	10'
16"	80'	35'	20'	10'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

NOTE:
BACK TO BACK FITTINGS WITHIN 5' OF EACH OTHER SHALL BE RESTRAINED AT LENGTHS OF 2 TIMES THE FITTING DEGREES (I.E. 2- 45° = 90° RESTRAINT LENGTH)

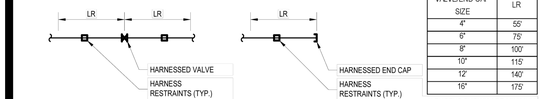
BENDS



REDUCER SIZE	LR	REDUCER SIZE	LR
6"x4"	40'	12"x8"	75'
8"x4"	70'	12"x10"	40'
8"x6"	45'	16"x6"	150'
10"x6"	75'	16"x8"	130'
10"x8"	40'	16"x10"	105'
12"x6"	100'	16"x12"	75'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

REDUCERS



VALVE/END CAP SIZE	LR
4"	55'
6"	75'
8"	100'
10"	115'
12"	140'
16"	175'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

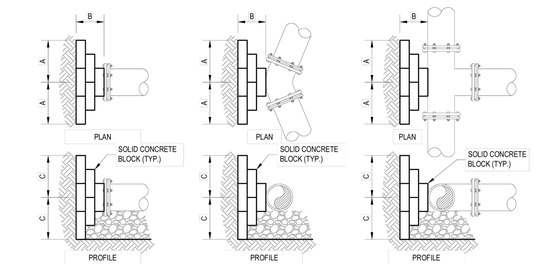
VALVES / END CAPS

ERIE COUNTY WATER AUTHORITY

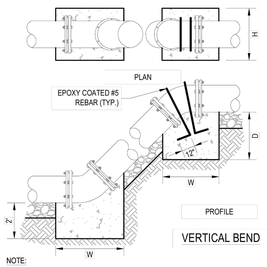
RESTRAINED JOINT SCHEDULE
SCALE: NTS

Revision: 2024-01
Detail: SD-09

THRUST BLOCKS



PIPE SIZE	90° BEND, TEE, OR DEAD END A	B	C	45° BEND A	B	C
6"	1.5'	1.0'	0.5'	0.75'	1.0'	0.5'
8"	1.5'	1.0'	0.75'	1.5'	1.0'	0.5'
10"	1.5'	1.5'	1.0'	1.5'	1.5'	0.75'
12"	2.0'	2.0'	1.0'	1.75'	1.75'	0.75'



PIPE SIZE	22.5° BEND A	B	C	11.25° BEND A	B	C
6"	0.5'	1.0'	0.5	0.5'	1.0'	0.5
8"	0.75'	1.0'	0.5'	0.5'	1.0'	0.5'
10"	1.0'	1.5'	0.75'	1.0'	1.0'	0.75'
12"	1.25'	1.75'	0.75'	1.25'	1.25'	0.75'

PIPE SIZE	VERTICAL BEND UP D	H	W	VERTICAL BEND DOWN D	H	W
6"	2.0'	5.0'	3.0'	3.5'	3.5'	3.0'
8"	2.0'	6.0'	4.0'	4.5'	4.5'	4.0'
10"	2.0'	6.25'	4.5'	4.75'	4.75'	4.5'
12"	2.0'	6.5'	5.0'	5.0'	5.0'	5.0'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

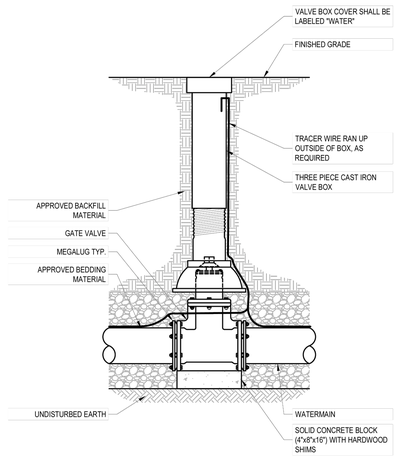
NOTE:
FULL CONCRETE THRUST BLOCKS AS SHOWN ARE REQUIRED WHEN THRUST RESTRAINT IS NOT PROVIDED BY OTHER MEANS SUCH AS MJ RESTRAINTS

ERIE COUNTY WATER AUTHORITY

THRUST BLOCKS
SCALE: NTS

Revision: 2024-01
Detail: SD-10

GATE VALVE SETTING



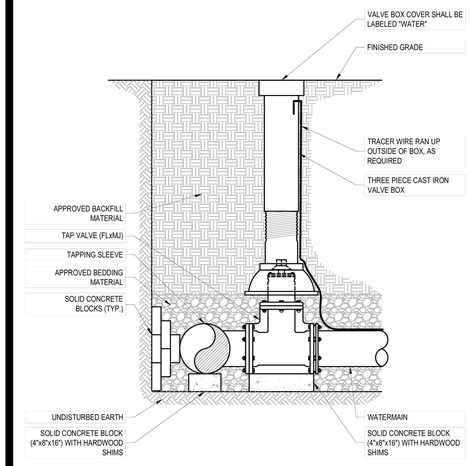
NOTES:
1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. GATE VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

ERIE COUNTY WATER AUTHORITY

GATE VALVE SETTING
SCALE: NTS

Revision: 2024-01
Detail: SD-12

TAPPING SLEEVE AND VALVE



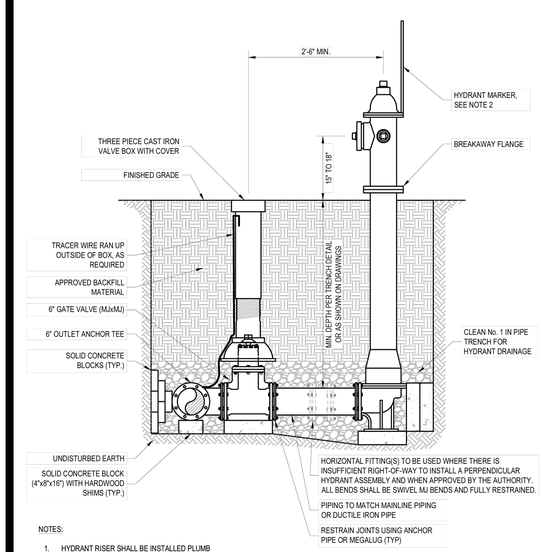
NOTES:
1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. TAP VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

ERIE COUNTY WATER AUTHORITY

TAPPING SLEEVE AND VALVE
SCALE: NTS

Revision: 2024-01
Detail: SD-14

HYDRANT ASSEMBLY INSTALLATION



NOTES:
1. HYDRANT RISER SHALL BE INSTALLED PLUMB
2. FOR WATERMAIN REPLACEMENT PROJECTS, RELOCATE EXISTING MARKERS TO NEW HYDRANTS. MUNICIPALITY SHALL BE RESPONSIBLE TO PROVIDE ANY NEW HYDRANT MARKERS AS NEEDED. CONTRACTOR TO COORDINATE WITH ALL MUNICIPALITIES AND FIRE DISTRICTS.
3. HYDRANT FACE TO BE A MINIMUM OF 3'-0" FROM THE BACK FACE OF ALL CURBS OR A MINIMUM OF 5'-0" FROM ALL EDGE OF PAVEMENT.

ERIE COUNTY WATER AUTHORITY

HYDRANT ASSEMBLY INSTALLATION
SCALE: NTS

Revision: 2024-01
Detail: SD-16

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. Description Date

STATE OF NEW YORK
CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-406

Project No: 23-4121

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Lighting Plan

SCALE: 1"=50'

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	VOLTS	NOTE 1	QUANTITY	LUMENS / LAMP	TOTAL LUMENS
S		(24) 4617W (32) 4000K CCT, 70 CRI LEDS	PREVAIL AREA AND WALL LUMINAIRE(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS	ELECTRONIC	POLE	COOPER LIGHTING SOLUTIONS – LUMARK (FORMERLY EATON), PRV–P–PA1D–740–U–T3	120V 1P 2W	Mounting Height: 18'	14	9945	238680
W		(1) 3719W 3000K CCT, 70 CRI LEDS	WALL PACK	ELECTRONIC	WALL	COOPER LIGHTING SOLUTIONS – HALO, WXPS40UNVDBZ–30W–4000K	120V 1P 2W	Mounting Height: 12'	20	3719	3719

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50' 50 0 50 100Ft.

CARMINAWOOD
DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. Description Date

STATE OF NEW YORK
R. CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Lighting Plan

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
LP-100

Project No: 23-4121

CARMINA WOOD
DESIGN

ENGINEER'S REPORT

for

Multifamily Development

1425 & 1475 Orchard Park Road
West Seneca, Erie County, New York

Prepared for

Brian Hillery & William Sahlem

1 Woodthrush Trail
Orchard Park, NY 14127

Prepared by

Carmina Wood Design

80 Silo City Row, Suite 100
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

May 2026



Table of Contents

Written Engineer's Report

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Section 2 – Water Service Page 1
Section 3 – Sanitary Sewer Service Page 1
Section 4 – Storm Sewer Service Page 2
Section 5 – Erosion Control Summary Page 3
Section 6 – Geotechnical Items Page 4

Appendices

Appendix A Site Location Map

Appendix B Sanitary Sewer & Water Demand Calculations

Appendix C Downstream Sewer Capacity Analysis Report

Appendix D Storm Water Calculations

Appendix E Soil Information

Section 1 – Location & Description

This new development project involves the construction of three (3) 4-unit, one (1) 5-unit and two (2) 6-unit ranch style townhomes, for a total of 29 units. Construction will also consist of associated parking, storm water management, utility, lighting, and landscaping improvements. The site is currently vacant consisting of grass, brush and tree cover. The total area of the site is 16.59 acres with an area of disturbance of approximately 7.37 acres. The site has been rezoned to C-1(S) to allow for the development.

See Appendix A for Site Location Map.

Section 2 – Water System

The proposed 6" combined water service will connect to an existing 8" PVC water main located on the west side of Orchard Park Road. The proposed service will tap the main and enter a heated enclosure where an RPZ and meter will be provided. The combined service will enter the buildings and reduce to a 2" domestic service. Two (2) private fire hydrants are proposed to provide fire protection. Drainage from the hotbox due to testing or failure will be via gravity to the nearest drainage inlet. Water inside the building will be used for typical bathroom and janitorial uses.

Domestic Summary:

Peak Operating Demand:	87 gpm
Water Main:	8" PVC water main along Orchard Park Road
Static Pressure:	70 psi
Friction Loss:	0.2 psi
Elevation Loss:	-2.0 psi
Meter & RPZ Loss:	13 psi
Pressure at furthest unit:	58.8 psi

Fire Summary:

Peak Operating Demand:	1,000 gpm
Water Main:	8" PVC water main along Orchard Park Road
Static Pressure:	70 psi
Friction Loss:	12.6 psi
Elevation Loss:	-2.0 psi
Meter & RPZ Loss:	13 psi
Pressure at furthest hydrant:	46.4 psi

Repairs to all devices will be made during off hours; dual backflow preventers are not required. The site is not located in a 100-year flood plain.

Disinfection of the water service following installation will be continuous feed, according to AWWA C-651, latest revision.

See Appendix B for Sanitary Sewer & Water Calculations.

Section 3 – Sanitary Sewer Service

The proposed sanitary sewer service will connect to an existing manhole located along the west side of Orchard Park Road. The proposed service will consist of approximately 691 LF of 8" SDR-35 PVC private sanitary sewer main at a slope of 0.4%, 346 LF of 6" SDR-35 PVC sanitary sewer lateral at a minimum slope of 1.0% and 285 LF of 3" SDR-21 PVC force main with a minimum cover of 4'.

Design Parameters:
Multifamily Development: 29 units x 220 gpd/unit = 6,380 gpd

Since the sanitary sewer extension is designed to convey greater than 2,500 gpd, a downstream sewer capacity analysis was performed to ensure that the existing sewer could handle the additional flow.

The hydraulic loading rates per "Design Standard for Wastewater Treatment Works" 2014, NYSDEC.

See Appendix B for Sanitary Sewer & Water Calculations

See Appendix C for Downstream Sewer Capacity Analysis Report

Section 4 – Storm Sewer Service

The existing site sheet drains from east to west to a USACE jurisdictional wetland area at the rear of the site.

The proposed development will replicate the existing hydrology of the site. The proposed hydrology for the development project area will consist of overland sheet flow and pipe channel flow. The storm sewer system for this site will consist of 6", 8" and 12" HDPE pipes connected by a series of catch basins and yard drains. Stormwater runoff generated from the site will enter the pipe network and be conveyed to a detention basin on the west side of the site. The detention basin will discharge runoff, at a controlled rate, to the existing wetlands. To meet NYSDEC water quality requirements, runoff will be conveyed to a bioretention areas prior to the detention basin. Runoff that is currently being discharged on to the site from the church parking lot to the east will be collected and piped to the west side of the site.

Design Criteria
Storm pipes: 10-year storm
Detention: Comparison of the existing 1-year vs. the proposed 1-year runoff.
Comparison of the existing 10-year vs. the proposed 10-year runoff.
Comparison of the existing 10-year vs. the proposed 25-year runoff.
Comparison of the existing 100-year vs. the proposed 100-year runoff.

Stormwater Runoff Summary:

To Detention:

Event	Prop. Runoff (cfs)	Elevation (ft)	Storage (cf)
1-yr	1.94	671.04	5,335
10-yr	2.82	672.95	15,013
25-yr	3.10	673.70	21,268
100-yr	3.45	674.73	34,966

Direct:

Event	Prop. Runoff (cfs)
1-yr	0.38
10-yr	1.12
25-yr	1.57
100-yr	2.52

Total Site:

Event	Ex. Runoff (cfs)	Prop. Runoff (cfs)
1-yr	2.63	2.32
10-yr	8.17	3.94
25-yr	11.66	4.67
100-yr	18.97	5.97

See Appendix D for Storm Water Calculations

Section 5 – Erosion Control Summary

Stabilization Practices
Stabilization practices for this site include:

A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
B. Use of stabilization fabric for all slopes having a slope greater than 1V:3H.
C. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
D. Mulching exposed areas.
E. Frequent watering to minimize wind erosion during construction.

Structural Practices
Structural practices for this site include:

A. Inlet protection using a method detailed in the Construction Documents
B. Perimeter protection using temporary silt fence
C. Temporary stone wash off areas

Sequence of Major Activities

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

A. Construct temporary construction exit at location shown on the Demo & Erosion Control Plan Sheet.
B. Install perimeter silt fences in the locations shown on the Demo & Erosion Control Plan sheet.
C. Clear and grub site within disturbance (silt fence) limits.
D. Installation of detention basin to act as sediment basin (do not install bioretention soil or underdrains until stabilized)
E. Commence site grading.
F. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
G. Construction of buildings.
H. Installation of proposed utilities.
I. Finalize pavement subgrade preparation.
J. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all new inlets.
K. Dust control.
L. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
M. Install base material as required for pavement.
N. Carry out final grading and seeding and planting.
O. Clean storm system following construction.
P. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.

Section 6 – Geotechnical Items

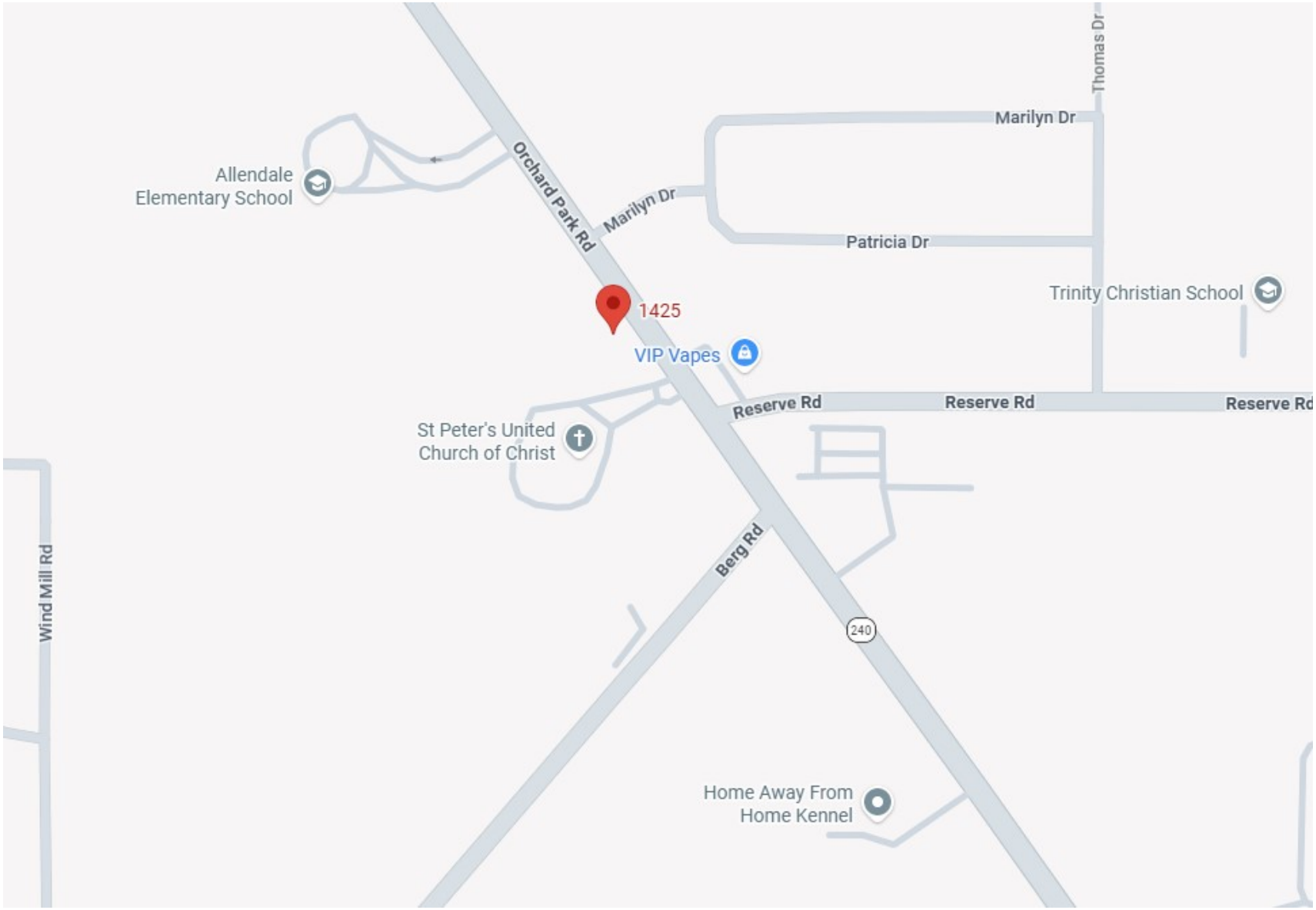
According to the USDA Web Soil Survey, the onsite soil is made up of Darien silt loam, Niagara silt loam and Remsen silty clay loam. These soils are categorized under hydrologic soil groups C/D and D and will have a slow infiltration rate when thoroughly wet.

See Appendix D for Soil Information.

Appendix A

Site Location Map

Site Location Map



Appendix B

Sanitary Sewer & Water Demand Calculations

CARMINA WOOD DESIGN
80 Silo City Row, Suite 100
Buffalo, New York 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 5/22/2026
Project Name: Multifamily Development
Project Address: 1425-1475 Orchard Park Road - West Seneca
Subject: Sanitary Sewer Demand Calcs
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Townhomes

220 gal/d/unit x 29 units = 6,380 gpd *use 220 gallons per unit per day (2-bdrm)

Find Peak Sanitary Demand:

Peaking Factor based on Population:

Total demand: 6,380 gpd / 51.96 gpcd = 123 per capita

Population (P) = 123 people

Peaking Factor : (18 +√P) / (4 + √P) where P is in thousands

Peaking Factor = 4.22

Peak Sanitary Demand = 6,380 x 4.22 = 26,911 gpd
= 0.027 MGD
= 0.042 cfs

Required Infiltration and Inflow Mitigation:

Mitigation Fee = $2.40 /gal = $15,312.00

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Project No.: 23-4121 Date: 5/18/2026
Project Name: Multifamily Development
Project Address: 1475 Orchard Park Road - Town of West Seneca
Subject: Sanitary Sewage Pump Station Design
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Apartments

220 gpd/unit x 25 units = 5,500 gpd

Average Site Sanitary Flow: = 5,500 gpd

Peak Site Sanitary Flow: = 22,000 gpd

PF = 4.0

* assume flow over 18 hour period

Peak Site Sanitary Flow: = 20.4 gpm

8" inlet into pump station invert: 670.68

Forcemain invert at tie into downstream sewer: 676.55

Pump chamber diameter: 5 ft (147 gal/ft)

Storge required:

* use filling time of 30 minutes @ 20.4 gpm (peak flow)

Storage required = 20.4 gpm x 30 mins / 147 gal = 4.16 ft

Top of pump station:	682.40	
Inlet & Alarm:	670.68	
2 pumps on:	670.18	(inlet minus 0.5 ft)
1 pump on:	669.68	(2 pumps on minus 0.5 ft)
pumps off:	665.52	(1 pump on minus storage required)
Bottom of station:	664.27	(pumps off minus 1.15 ft)

Total depth: **18.13** ft

Cleansing velocity:

Using a 3 inch forcemain, find flow for min 2 fps cleansing velocity

A = 0.05 ft^2

Q = V x A = 2 fps x 0.05 ft^2 = 0.09817 cfs = **44.1** gpm

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Project No.: 23-4121 Date: 5/22/2026
Project Name: Multifamily Development
Project Address: 1425-1475 Orchard Park Road - West Seneca
Subject: Water Demand Calcs
Sheet: 1 of 1

Water Demand Calculations (domestic):

Townhome Development:

Q = 3 gpm/unit x 29 units = 87 gpm ECDOH Requirement

Water Demand Calculations (fire):

Q = 1500 gpm * per ISO Guidelines

Elev. at ex. residual hydrant = 684.5 ft

Static pressure at ex. hydrant = 70 psi

El. @ road tap = 684.5 ft

Δ elev ex. hydrant to road tap = 0 ft = 0.0 psi (positive is decrease in pressure from static)
(negative is increase in pressure from static)

Static pressure at road tap = 70.0 psi

El. @ furthest building = 679.9 ft

Δ elev road tap to furthest building = -4.6 ft = -2.0 psi (positive is decrease in pressure from static)
(negative is increase in pressure from static)

Find residual at furthest unit using domestic flow:

Headlosses:

Q_{peak} = 87.0 gpm
Pipe = 6 inch PVC C = 150
Length = 646 LF (approx. distance from tap to furthest building)

$$H_L = \frac{10.44\, L\, Q^{1.85}}{C^{1.85}\, D^{4.866}} = \frac{10.44(646)(87)^{1.85}}{(150)^{1.85}\,(6)^{4.866}} = 0.40 \text{ ft} = 0.2 \text{ psi}$$

Loss through 6-inch RPZ & meter = 13 psi

Residual pressure at furthest unit = Static pressure at road tap - headlosses - Δ elev
=70.0 - 0.2 - 13 - (-2)
= 58.8 psi

Find residual at furthest hydrant using fire flow:

Headlosses:

Q_{peak} = 1000 gpm
Pipe = 6 inch PVC C = 150
Length = 509 LF (approx. distance from tap to furthest hydrant)

$$H_L = \frac{10.44\, L\, Q^{1.85}}{C^{1.85}\, D^{4.866}} = \frac{10.44(509)(1000)^{1.85}}{(150)^{1.85}\,(6)^{4.866}} = 29.05 \text{ ft} = 12.6 \text{ psi}$$

Loss through 6-inch RPZ = 13 psi

Residual pressure at furthest unit = Static pressure at road tap - headloss - Δ elev
= 70.0 - 12.6 - 13 - (-2)
= 46.4 psi

Appendix C

Downstream Sewer Capacity Analysis Report

TOWN OF WEST SENECA

ENGINEERING DEPARTMENT

TOWN SUPERVISOR
GARY A. DICKSON
TOWN COUNCIL
JEFF PIEKAREC
SCOTT ROBERTSON
ROBERT BREIDENSTEIN
MARY SHERMAN

1/6/2026

Jeffrey Scheiber
Code Enforcement Officer
Town of West Seneca

Re: Proposed Townhouses (1425 Orchard Park Road)
Sanitary Sewer Capacity Analysis (Revised December 2025)

Dear Mr. Schieber,

In January 2025, the Town Board approved the discharge of sanitary sewage flow from the proposed developments at 1425 Orchard Park Road and 1130 Orchard Park Road into the Town's existing 10" sewer main located along Orchard Park Road which is part of the Town's Sewer District 13.

At that time, the proposed average daily flow from 1425 Orchard Park Road development was calculated to be 7,040 gallons per day. This volume was based on a total of (32) 2-bedroom apartments, assuming 110 gallons per day per bedroom.

PROPOSED CHANGES:

The developer is now proposing to construct twenty-nine (29) 2-bedroom townhouses instead of the apartment units, which has **reduced the proposed sewage flow** from 7,040 gallons per day to 6,380 gallons per day, assuming 110 gallons per day per bedroom.

CONCLUSION:

Since the proposed sewer flow for the twenty nine, 2 bedroom townhouses is less than the previously approved apartments, I have **no additional concerns** with the capacity of the sewer.

SEWER MITIGATION FEE

Please note in July 2024 the Town increased the cost per gallon for the sewer mitigation fee from $1.20/gallon to $2.40/gallon. The original application was submitted prior to that date but the revised project for 1425 Orchard Park Road was submitted after the fee changed, so I am proposing to utilize the new fee to calculate the total amount for the revised project as follows:

1425 Orchard Park Road:

6,380 GPD (increase of average daily flow)
x $2.40 ($/gallon)
$15,312

A sewer mitigation fee, as calculated above, should be collected by your office and applied toward the sewer repair fund for Sewer District 13.

Very truly yours,



Jason A. Foote, P.E.
Town Engineer

cc: Files:
Chris Trapp, Town Attorney
Supervisor Dickson and Town Board Members

CARMINAWOOD
DESIGN

DOWNSTREAM SANITARY SEWER CAPACITY ANALYSIS REPORT

for

Proposed Apartments

1425 Orchard Park Road
Town of West Seneca, Erie, NY

Prepared for

William Sahlem and Brian Hillery

1 Woodthrush Trail,
Orchard Park, NY 14127

Prepared by

Carmina Wood Design

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

December 2023



Project Description

This project is a development of a 3.17 acre +/- site located on the west side of Orchard Park Road in the Town of West Seneca. The property will be developed with (26) 2-bedroom apartment units and (4) 3-bedroom apartment units. This analysis will also include the recently approved multi-family project at 1130 Orchard Park Road (45 2-bedroom units).

The proposed sewer service for this development will connect to an existing 10" Town of West Seneca sewer main the runs along the west side of Orchard Park Road.

Node 1 – 1001 Orchard Park Rd (12"):

Existing Peak Flow measured (wet weather event)	= 2.844 cfs (1.838 mgd)*
Proposed Apartments Peak Flow (Flattery's)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 2.955 cfs

Theoretical capacity of existing 12" pipe @ 0.36% = 2.314 cfs

Conclusion: Monitored flows the day following the 0.72" rainfall event exceeded the capacity of the existing pipe 12" sewer. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 1, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. The 12" sewer receives surcharges from a 27" sewer and 36" sewer downstream during high rainfall events. Outside of these events, the 12" sewer has ample capacity to handle the additional proposed total peak flow. I/I mitigation shall be required for the contribution proposed for this project.

Node 2 – Orchard Park Rd (15"):

Existing Peak Flow measured (wet weather event)	= 2.917 cfs (1.885 mgd)*
Proposed Apartments Peak Flow (Flattery's)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 3.028 cfs

Theoretical capacity of existing 15" pipe @ 0.34% = 4.077 cfs

Conclusion: The proposed total peak flow is less than the capacity of the 15" pipe, therefore there is sufficient capacity. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 2, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. The 15" sewer receives surcharges from a 27" sewer and 36" sewer downstream during high rainfall events. Outside of these events, the 15" sewer has ample capacity to handle the additional proposed total peak flow. I/I mitigation shall be required for the contribution proposed for this project.

Node 3 – Orchard Park Rd & Fairfax (48”):

Existing Peak Flow measured (wet weather event)	= 14.470 cfs (9.352 mgd)*
Proposed Apartments Peak Flow (Flattery’s)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 14.581 cfs

Existing Peak Flow measured (overall)	= 16.150 cfs (10.438 mgd)*
Proposed Apartments Peak Flow (Flattery’s)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 16.261 cfs

Theoretical capacity of existing 48” pipe @ 0.15% = 60.218 cfs

Conclusion: The proposed total peak flow is less than the capacity of the 48” pipe, therefore there is sufficient capacity. At no time during the monitoring period did flow depth exceed the pipe diameter at Node 3 of the downstream monitoring points during the rain events monitored.

Foot Notes:

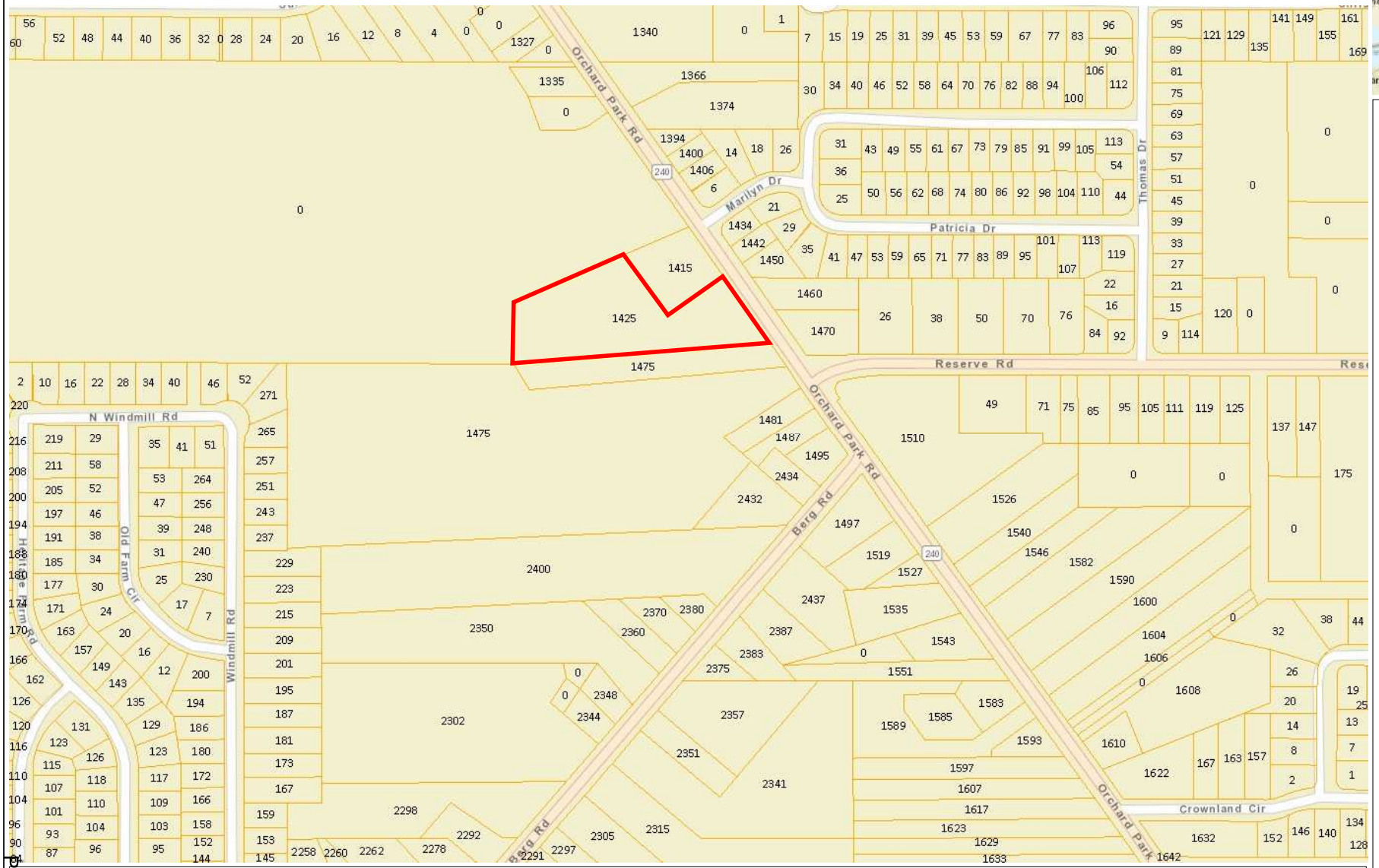
Downstream capacity node information provided by Town of West Seneca

*Converted from measurements in TECSmith report dated 9/15/22 & 4/19/22

** See Sanitary Sewage Demand Calculations

Location Map

Erie County On-Line Mapping Application





Legend

- Parcels

1:4,514

0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

Sanitary Demand Calculations

CARMINA WOOD DESIGN
487 MAIN STREET, SUITE 500
BUFFALO, NEW YORK, 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 12/11/2023
Project Name: Proposed Apartment Development
Project Address: 1425 Orchard Park Road
Subject: I & I Mitigation
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Development

220	gal/d/unit	x	26	units	=	5,720	gpd	*use 220 gal/d/unit (2-bdrm apt)
330	gal/d/unit	x	4	units	=	1,320	gpd	*use 330 gal/d/unit (3-bdrm apt)

Total Site Sanitary Demand: = 7,040 gpd

Find Peak Sanitary Demand:

Peaking Factor based on Population:

Total demand: 7,040 gpd / 52 gpcd = 135 per capita

Population (P) = 135 people

Peaking Factor : (18 +√P) / (4 + √P) where P is in thousands

Peaking Factor = 4.21

Peak Sanitary Demand = 7,040 x 4.21 = 29,604 gpd
= 0.030 MGD
= 0.046 cfs

Required Infiltration and Inflow Mitigation:

Total Sanitary Flow = 7,040 gpd

Mitigation Credit = $1.20 / gpm (Town of West Seneca)

Mitigation Agreement Amount = **$8,448.00**

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487 MAIN STREET, SUITE 500
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(716) 842-3165
FAX (716) 842-0263

Project No.: 22.128 Date: 10/3/2022
Project Name: Residential Apartments
Project Address: 1130 Orchard Park Road West Seneca, NY
Subject: Sanitary Sewer Demand Calcs
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Apartments

220 gal/d/unit	x	45 units	=	9,900	gpd		*use 220 gallons per unit per day (2-bdrm)

Total Site Sanitary Demand: = 9,900 gpd

Find Peak Sanitary Demand:

Peaking Factor based on Population:

Total demand: 9,900 gpd / 100 gpcd = 99 per capita

Population (P) = 99 people

Peaking Factor : (18 +ÖP) / (4 + ÖP) where P is in thousands

Peaking Factor = 4.24

Peak Sanitary Demand	=	9,900	x	4.24	=	42,023	gpd
					=	0.042	MGD
					=	0.065	cfs

Required Infiltration and Inflow Mitigation:

Peak Sanitary Flow	=	42,023	gpd	=	29.18	gpm			
4:1 offset flow per NYSDEC requirements	=	29.18	x	4	=	116.73	gpm req'd		
Mitigation Credit	=	30	gpm / lateral						
Laterals to be replaced*	=	3.9	laterals						
	=	**4**	**laterals**						***(or other mitigation as identified by the Town)**

From DSCA for Multi-family project
at 1130 Orchard Park Road

TECSmith Monitoring Report

Date	Node 1			Node 2			Rain₂	Date	Node 3			Rain₂	Snow
	1001 Orchard Park Rd (12")			Orchard Park Rd 15" (15")					Orchard Park Rd & Fairfax (48")				
	FLOW (GAL x 1,000)	PEAK FLOW (MGD)	PEAK LEVEL (IN)	FLOW (GAL x 1,000)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	(inches)		FLOW (GAL x 1,000)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	(inches)	(inches)
8/16/2022	89.257	0.440	5.964	168.586	0.721	4.437	0.23	3/17/2022	3196.614	6.783	13.938	0	0
8/17/2022	215.037	0.376	4.744	438.779	0.622	3.770	0	3/18/2022	5684.090	6.485	13.639	0	0
8/18/2022	189.150	0.370	4.686	427.549	0.628	3.826	0	3/19/2022	6314.024	7.874	17.857	0.27	0
8/19/2022	185.188	0.342	4.512	414.203	0.666	4.069	0	3/20/2022	7506.892	9.168	20.985	0.08	0
8/20/2022	202.299	0.331	4.923	396.354	0.689	4.133	0	3/21/2022	6601.632	8.220	19.365	0	0
8/21/2022	242.472	0.443	5.850	452.414	0.758	4.278	0.11	3/22/2022	5911.885	6.708	14.066	0	0
8/22/2022	211.005	0.478	4.897	492.229	0.645	3.891	0.14	3/23/2022	6366.253	9.352	21.857	0.51	0
8/23/2022	205.428	0.447	4.517	162.364	0.422	3.395	0.05	3/24/2022	8410.107	10.438	23.577	0	0
8/24/2022	203.451	0.394	4.725	253.953	0.604	4.307	0.45	3/25/2022	7059.230	8.020	19.386	0	0
8/25/2022	181.878	0.416	4.675	439.324	0.669	4.150	0	3/26/2022	7112.401	8.489	19.148	0.09	0.1
8/26/2022	190.142	0.419	4.851	414.269	0.625	3.883	0	3/27/2022	7001.414	8.461	18.753	0.06	2.3
8/27/2022	177.502	0.405	4.759	424.759	0.670	4.011	0	3/28/2022	6396.917	7.538	17.111	0.01	0.4
8/28/2022	149.262	0.306	4.729	402.881	0.700	4.187	0	3/29/2022	5909.058	6.957	14.053	0	0
8/29/2022	131.545	0.272	4.563	409.867	0.776	4.384	0	3/30/2022	5521.696	6.653	13.811	0.01	0
8/30/2022	277.592	0.705	7.523	530.810	1.126	5.440	0.97	3/31/2022	5943.213	7.661	16.548	0.09	0
8/31/2022	207.872	0.351	5.185	507.470	0.687	4.085	0	4/1/2022	5419.635	6.277	14.053	0.06	0.1
9/1/2022	185.028	0.361	5.419	434.561	0.610	3.756	0	4/2/2022	5147.186	6.140	13.371	0	0
9/2/2022	157.770	0.346	4.843	411.119	0.619	3.892	0	4/3/2022	5083.174	6.186	13.093	0.01	0
9/3/2022	147.788	0.355	5.089	391.309	0.645	4.003	0	4/4/2022	4946.766	6.325	12.723	0	0
9/4/2022	166.764	0.303	4.897	378.377	0.635	3.860	0.04	4/5/2022	4901.882	5.708	12.382	0	0
9/5/2022	464.216	1.838	32.342	716.100	1.885	64.943	0.72	4/6/2022	4842.495	5.943	12.848	0.21	0
9/6/2022	241.691	0.307	5.076	505.569	0.654	4.013	0	4/7/2022	7751.294	9.369	21.493	0.25	0
9/7/2022	190.037	0.354	5.440	449.703	0.749	4.317	0.01	4/8/2022	7000.725	8.355	18.804	0	0
9/8/2022	182.211	0.372	4.852	443.591	0.642	3.912	0	4/9/2022	6041.826	7.017	13.864	0	0
9/9/2022	180.567	0.332	5.309	426.468	0.702	4.143	0	4/10/2022	5473.970	6.521	13.216	0	0
9/10/2022	169.443	0.373	5.192	428.528	0.686	4.058	0	4/11/2022	5257.193	7.976	15.138	0.13	0
9/11/2022	98.925	0.532	6.704	397.027	0.919	4.930	0.03	4/12/2022	7299.038	9.109	16.993	0.14	0
9/12/2022	336.528	0.958	8.256	552.252	1.290	5.735	0.28	4/13/2022	6134.522	7.267	14.479	0.05	0
9/13/2022	356.909	0.736	6.372	589.969	0.876	4.687	0.14	4/14/2022	3692.282	6.917	14.240	0	0
9/14/2022	112.265	0.350	5.193	258.683	0.696	4.002	0	---	---	---	---	---	---
---	---	---	---	---	---	---	3.17	---	---	---	---	1.97	2.9

	MGD	CFS
Wet	1.838	2.844
Dry	0.958	1.482

	MGD	CFS
Wet	1.885	2.917
Dry	1.290	1.996

	MGD	CFS
Wet	9.352	14.470
Dry	10.438	16.150

TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
Tel: 716-462-0382

Date: September 15, 2022

SANITARY SEWER FLOW CAPACITY STUDY – Summary Review

Prepared For: 1130 Orchard Park Road Capacity Analysis

R. Christopher Wood, PE Partner
487 Main Street, Suite 500
Buffalo, New York 14203

Project Name: 1130 Orchard Park Road Capacity Analysis

Flow Monitoring Period: August 16, 2022 to September 14, 2022

Rain Events (> 0.5-inches) Monitored: August 30 (0.97”), and September 5 (0.72”)

Number of Monitoring Nodes: Two (2) downstream manholes

Node Locations and Descriptions:

- Node 1 1001 Orchard Park Rd (12”)
- Node 2 Orchard Park Rd 15" (15”)

Summary Conclusion:

Based on the data presented in this report, specifically the flow depth measurements recorded (see graphs below)

- One time the flow depth exceeds pipe diameter at all nodes of the downstream monitoring points during the wet weather events monitored.

TECsmith

TECSMITH, Inc.
PO Box 383
Elma, New York 14059-0383
Tel: 716-462-0382
Fax: 716-687-1418

Date: April 19, 2022

SANITARY SEWER FLOW CAPACITY STUDY – Summary Review

Prepared For: 1130 Orchard Park Road Capacity Analysis

R. Christopher Wood, PE Partner
487 Main Street, Suite 500
Buffalo, New York 14203

Project Name: 1130 Orchard Park Road Capacity Analysis

Flow Monitoring Period: March 17, 22 to April 14, 2022

Rain Events (> 0.5-inches) Monitored: March 23, (0.51")

Number of Monitoring Nodes: Three (3) downstream manholes

Node Locations and Descriptions:

- Node 3 Orchard Park Rd & Fairfax (48")

Summary Conclusion:

Based on the data presented in this report, specifically the flow depth measurements recorded (see graphs below)

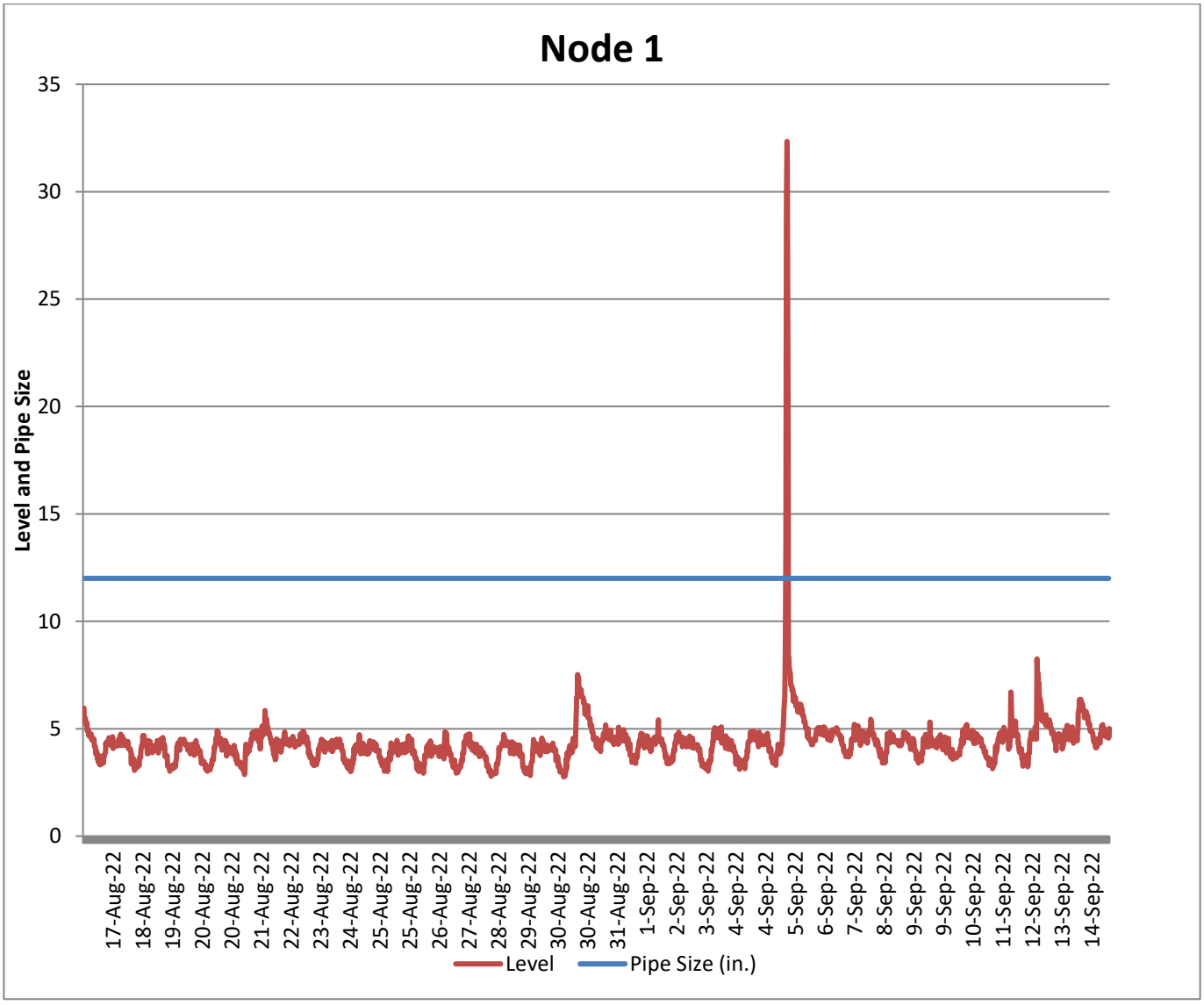
- At no time the flow depth exceeds pipe diameter at Node 3 of the downstream monitoring points during the wet weather events monitored.

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
Tel: 716-462-0382

Depth of Flow Capacity Summary:

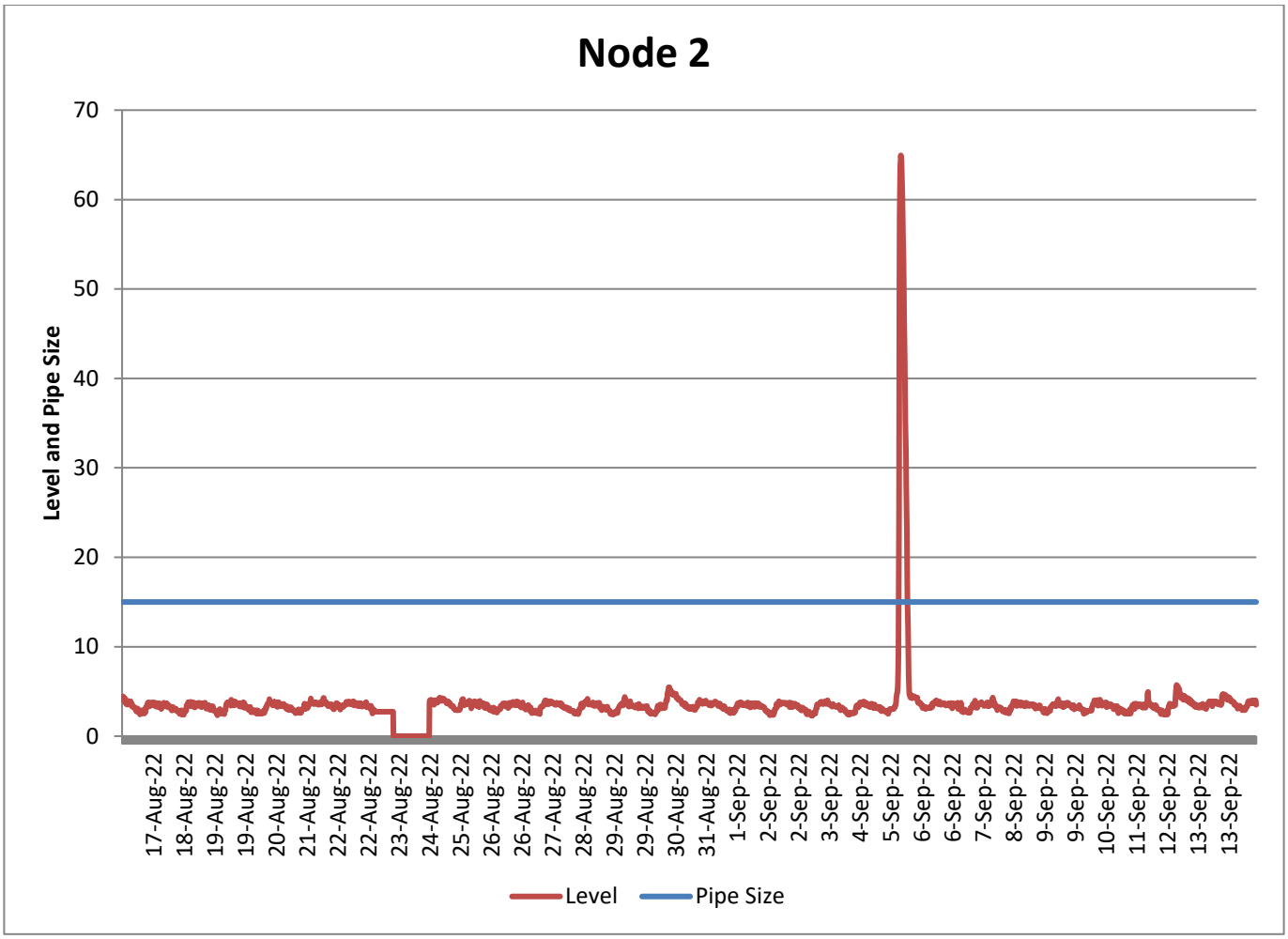
Depth of flow capacity is based on diameter of pipe. See graphs below.

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 1.



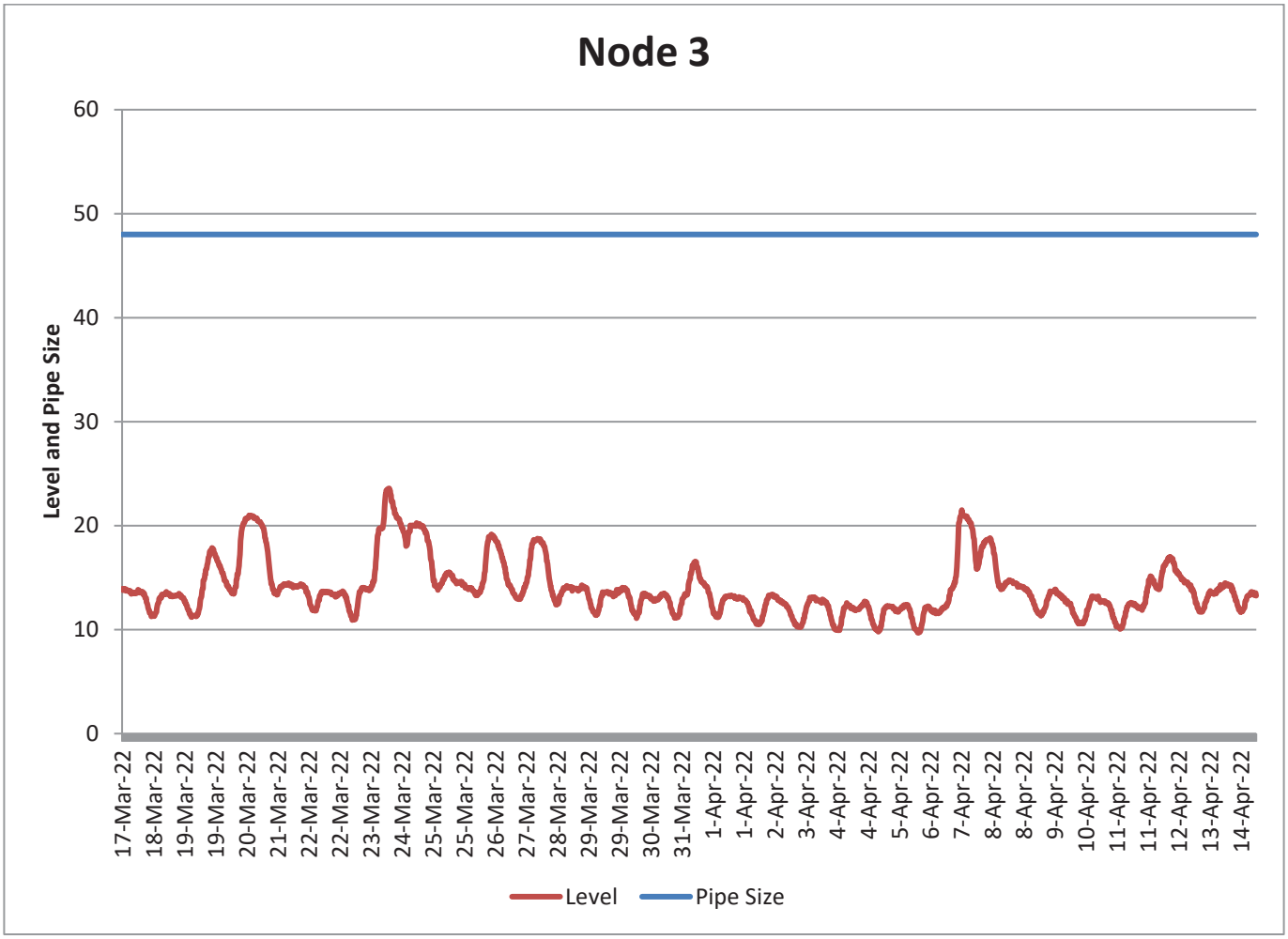
TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
Tel: 716-462-0382

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 2.

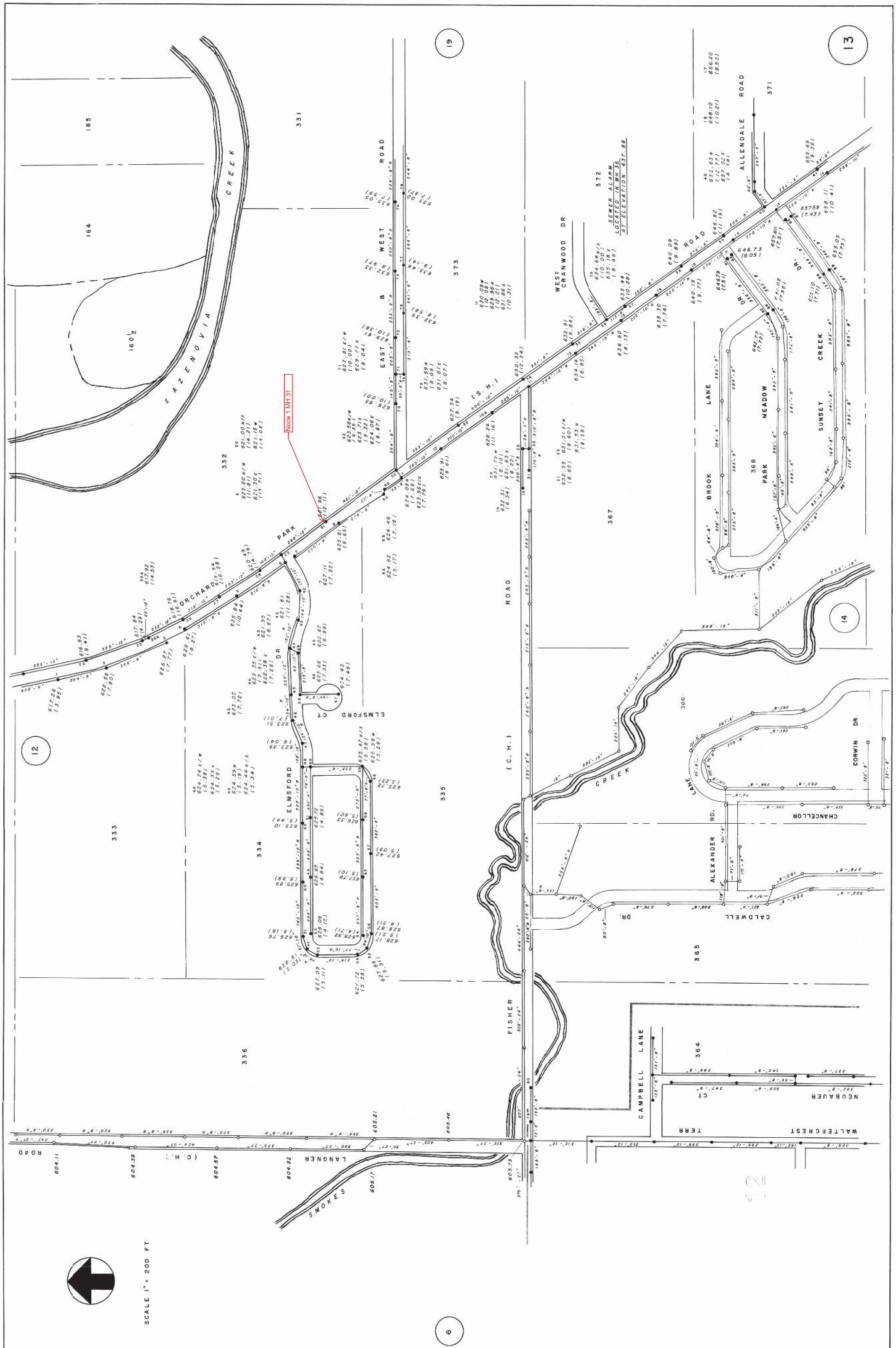


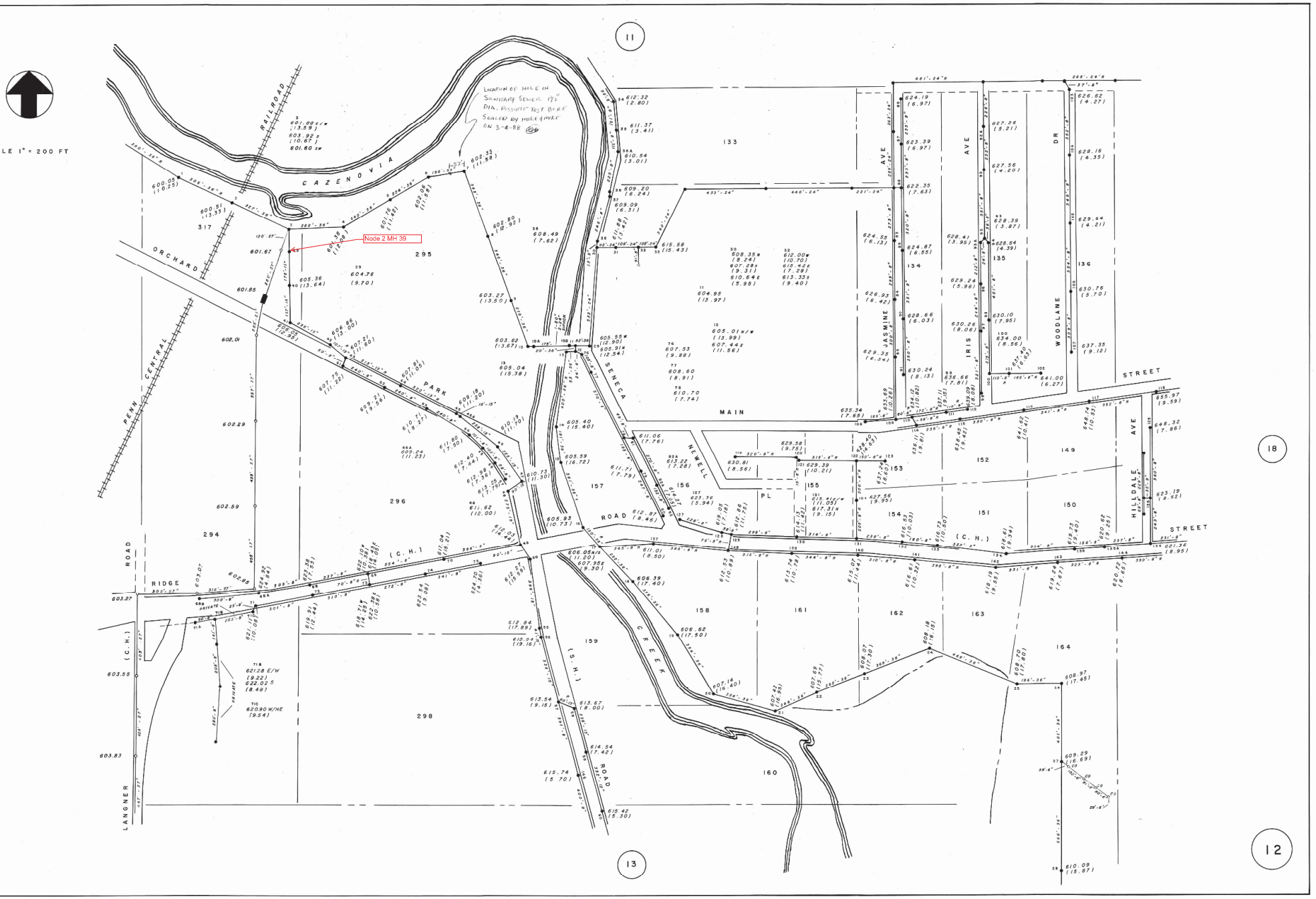
TECSMITH, Inc.
PO Box 383
Elma, New York 14059-0383
Tel: 716-462-0382
Fax: 716-687-1418

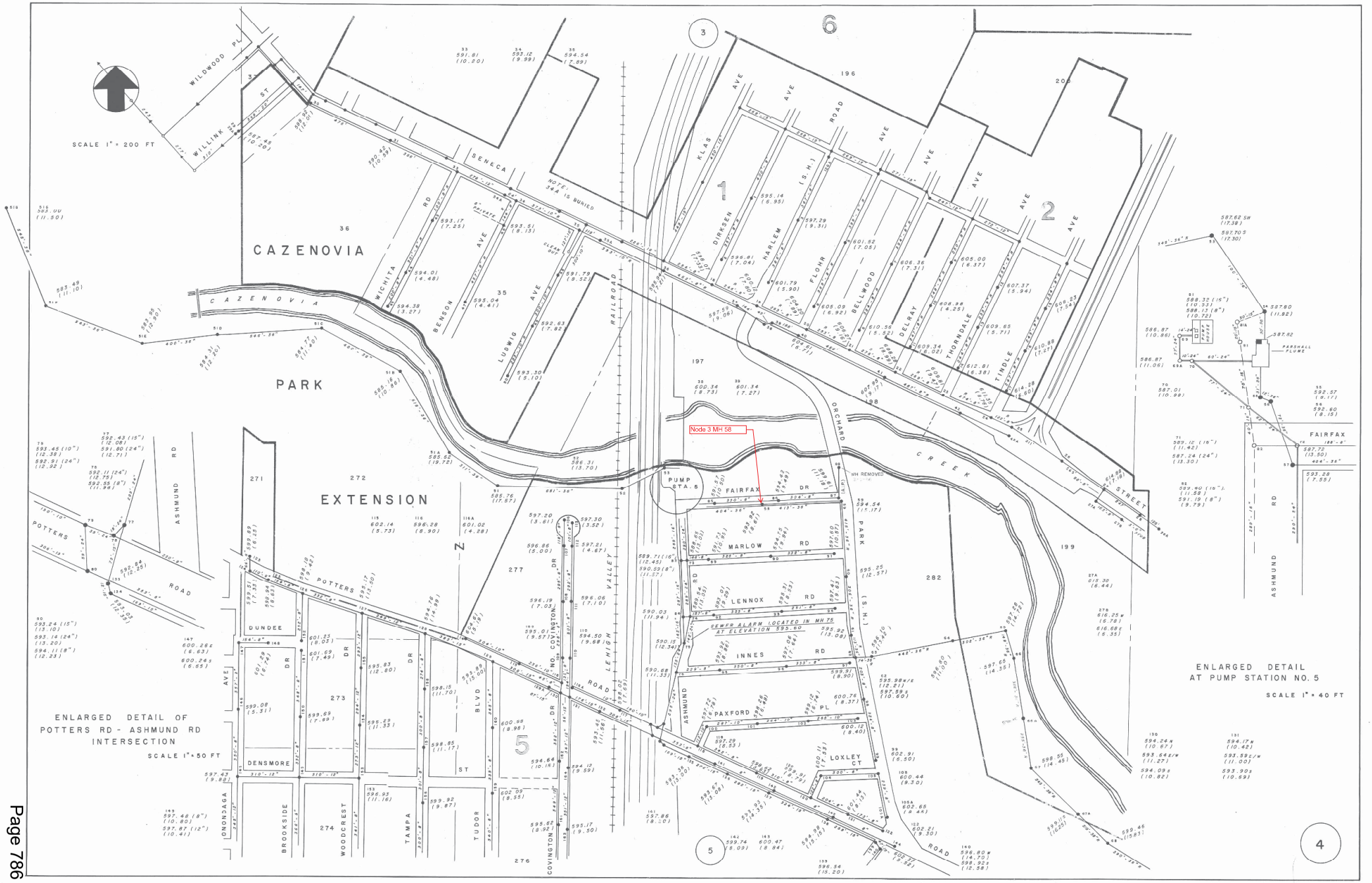
- At no time during the monitoring period did depth of flow exceed pipe diameter at Node 3.



Sewer Node Maps


Node 1 MH 31
CAZENOVIA CREEK
EAST & WEST ROAD
WEST CRANWOOD DR
ALLENDALE ROAD
SEWER ALARM LOCATED IN MH 36 AT ELEVATION 637.88
ORCHARD PARK
ELMSFORD DR
ELMSFORD CT
(S.H.)
(C.H.)
BROOK LANE
MEADOW PARK
SUNSET CREEK
CHANCELLOR DR.
ALEXANDER RD.
CALDWELL DR.
CORWIN DR.
CAMPBELL LANE
WALTERCREST TERR
NEUBAUER CT
FISHER ROAD
LANGNER ROAD
SMOKES CREEK
SCALE 1" = 200 FT


SCALE 1" = 200 FT
CAZENOVIA
RAILROAD
ORCHARD
PENN CENTRAL
PARK
SENECA
MAIN
NEWELL
PL
ROAD
RIDGE
LANGNER
CREEK
STREET
AVE
DR
WOODLANE
JASMINE
IRIS
HILLDALE
Node 2 MH 39
LOCATION OF HOLE IN SANITARY SEWER 12" DIA. PASSED TEST BEE SEALED BY MIKE HYMER ON 3-4-88
(C. H.)
(S. H.)
11
12
13
5
18


SCALE 1" = 200 FT
CAZENOVIA
PARK
EXTENSION
Node 3 MH 58
PUMP STA. 5
MH REMOVED
SEWER ALARM LOCATED IN MH 75 AT ELEVATION 595.60
ENLARGED DETAIL OF POTTERS RD - ASHMUND RD INTERSECTION
SCALE 1" = 50 FT
ENLARGED DETAIL AT PUMP STATION NO. 5
SCALE 1" = 40 FT
WILDWOOD PL
WILLINK ST
SENECA
NOTE: 24A IS BURIED
WICHITA RD
BENSON AVE
LUDWIG AVE
RAILROAD
KLAS AVE
DIRKSEN AVE
HARLEM AVE
FLOHR AVE
BELLWOOD AVE
DELRAY AVE
THORNDALE AVE
TINDLE AVE
ROAD
CAZENOVIA
ORCHARD
CREEK
STREET
FAIRFAX
DR
MARLOW
RD
LENNOX
INNES
PAXFORD
PL
LOXLEY
CT
ASHMUND
RD
PARK
LEHIGH VALLEY
RAILROAD
POTTERS
ROAD
DUNDEE
DENSMORE
ST
BLVD
AVE
ONONDAGA
BROOKSIDE
WOODCREST
TAMPA
TUDOR
COVINGTON
PARSHALL FLUME
196
197
198
199
200
271
272
273
274
275
276
277
282
1
2
3
4
5
6

Appendix D

Storm Water Calculations

Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	No
What is the nature of this construction project?	New Construction

Design Point:	1		
P=	1.00	inches	*Enter 90% Rainfall Event as P*

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1	3.66	1.89	52	0.51	6,839	Filtration Bioretention
2	2.16	1.07	50	0.50	3,888	Filtration Bioretention
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	5.82	2.96	51	0.51	**10727**	**Required WQv**

Calcuate Minimum RRv Required

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B		40%
C		30%
D	2.96	20%
Total Area	2.96	

Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	2.96	*acres*
Precipitation	1.00	*inches*
Rv	0.95	
Minimum RRv	**0.047**	***af***
	2047	cf

Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	3.66	1.89	52	0.51	6,839	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	>2	
Enter depth to bedrock (ft)	>2	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	2850	sf	
Enter Provided Filter Area	Af	2855	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	6852	cf	

Calculate Runoff Reduction			
RRv Provided	**2,741**	***cf***	
WQv Treated	4098	cf	This is the portion of the WQv that is not reduced in the practice.

Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
2	2.16	1.07	50	0.50	3,888	1.00	Filtration Bioretention

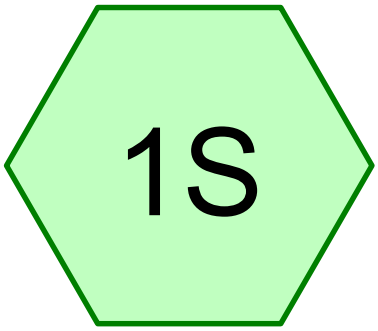
Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	>2	
Enter depth to bedrock (ft)	>2	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	1620	sf	
Enter Provided Filter Area	Af	1705	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	4092	cf	

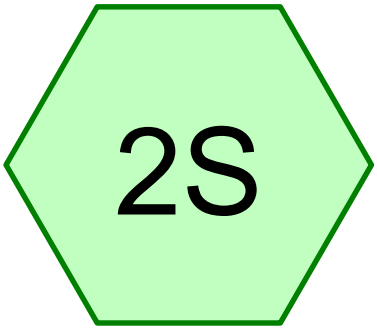
Calculate Runoff Reduction			
RRv Provided	**1,637**	***cf***	
WQv Treated	2251	cf	This is the portion of the WQv that is not reduced in the practice.

Filtration Bioretention (F-5)

Total Area	5.82	acres
Total Impervious	3	acres
Total RRv Provided	4,378	cf
Total WQv Provided	6,349	cf



Existing - North



Existing - South

Subcat Reach Pond Link

Routing Diagram for 23-4121 storm calcs - Existing
Prepared by Carmina Wood Design, Printed 5/14/2026
HydroCAD® 10.20-8a s/n 05019 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	1.87	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.14	2
3	25-Year	Type II 24-hr		Default	24.00	1	3.84	2
4	100-Year	Type II 24-hr		Default	24.00	1	5.23	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
225,751	80	Pasture/grassland/range, Good, HSG D (1S, 2S)
49,422	79	Woods/grass comb., Good, HSG D (1S)
275,173	**80**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
275,173	HSG D	1S, 2S
0	Other	
275,173		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	0	225,751	0	225,751	Pasture/grassland/range, Good
0	0	0	49,422	0	49,422	Woods/grass comb., Good
0	**0**	**0**	**275,173**	**0**	**275,173**	**TOTAL AREA**

Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=0.48"
Flow Length=806' Tc=28.2 min CN=80 Runoff=1.59 cfs 7,325 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=0.48"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=1.04 cfs 3,797 cf

Total Runoff Area = 275,173 sf Runoff Volume = 11,121 cf Average Runoff Depth = 0.48"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

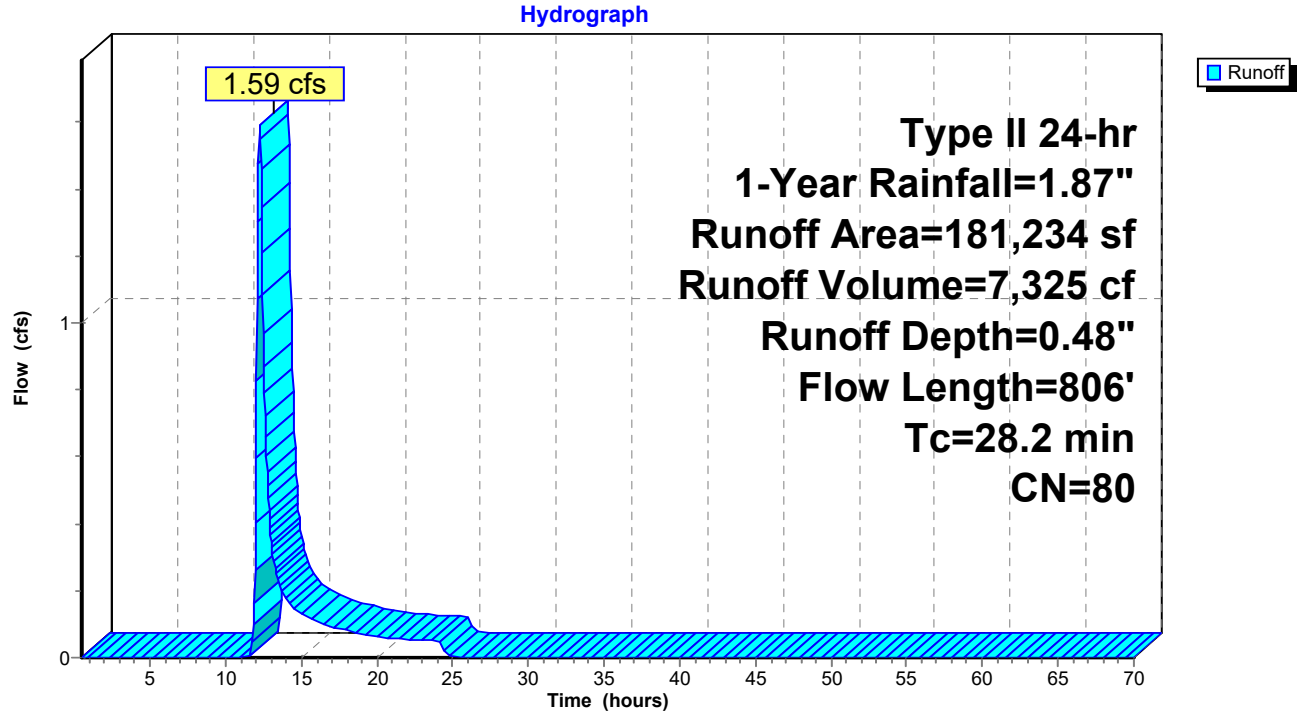
Runoff = 1.59 cfs @ 12.25 hrs, Volume= 7,325 cf, Depth= 0.48"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

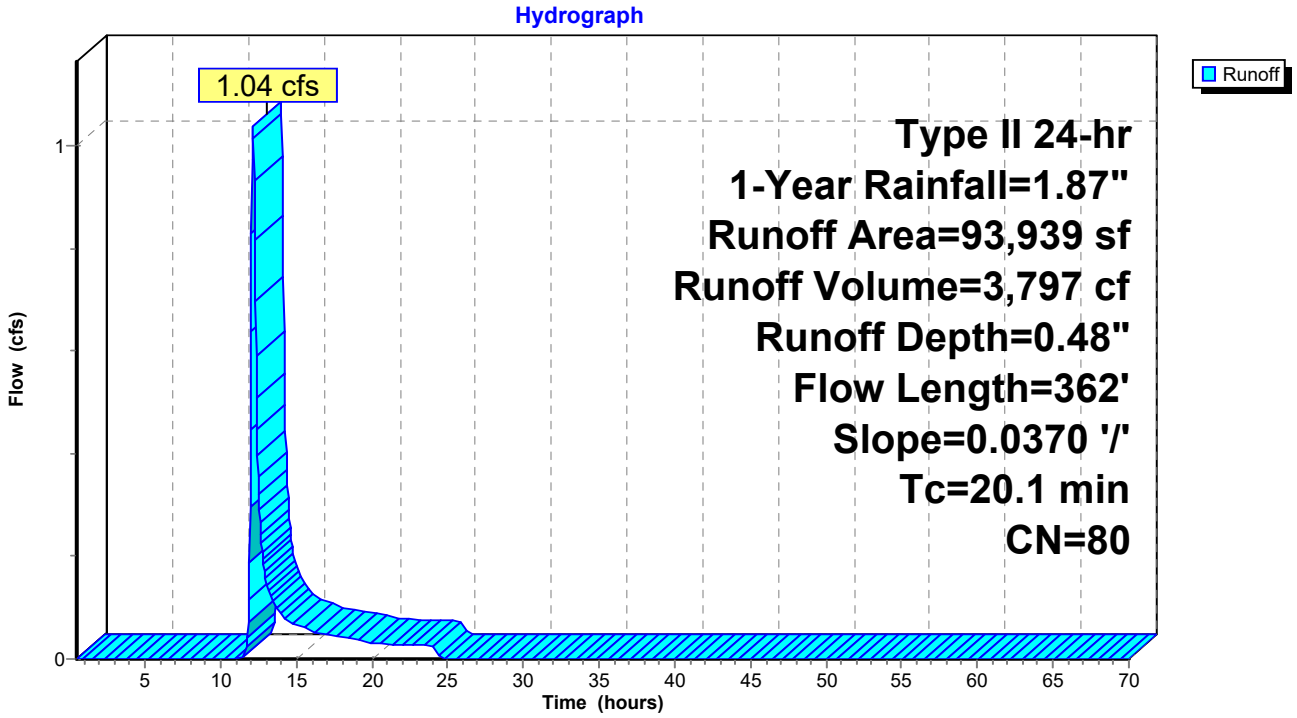
Runoff = 1.04 cfs @ 12.15 hrs, Volume= 3,797 cf, Depth= 0.48"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=806' Tc=28.2 min CN=80 Runoff=4.98 cfs 20,479 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=3.19 cfs 10,615 cf

Total Runoff Area = 275,173 sf Runoff Volume = 31,093 cf Average Runoff Depth = 1.36"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

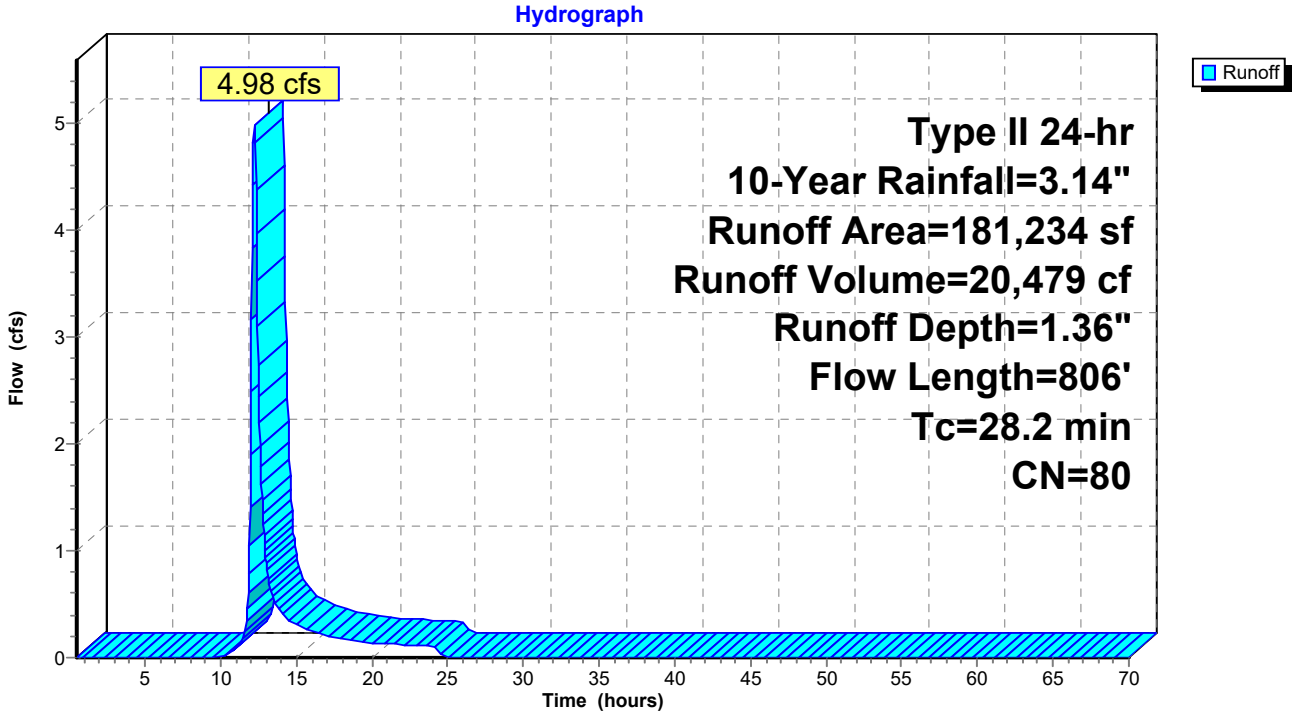
Runoff = 4.98 cfs @ 12.23 hrs, Volume= 20,479 cf, Depth= 1.36"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

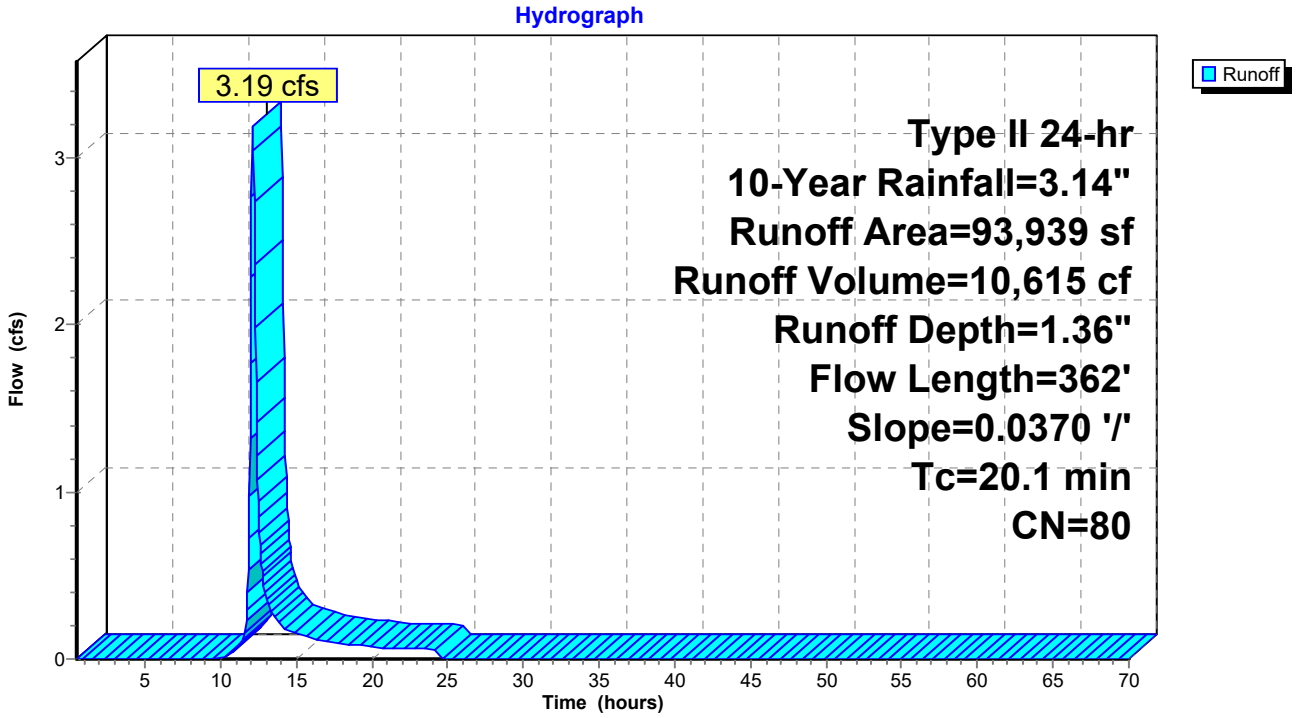
Runoff = 3.19 cfs @ 12.13 hrs, Volume= 10,615 cf, Depth= 1.36"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=806' Tc=28.2 min CN=80 Runoff=7.12 cfs 28,850 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=4.54 cfs 14,954 cf

Total Runoff Area = 275,173 sf Runoff Volume = 43,803 cf Average Runoff Depth = 1.91"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

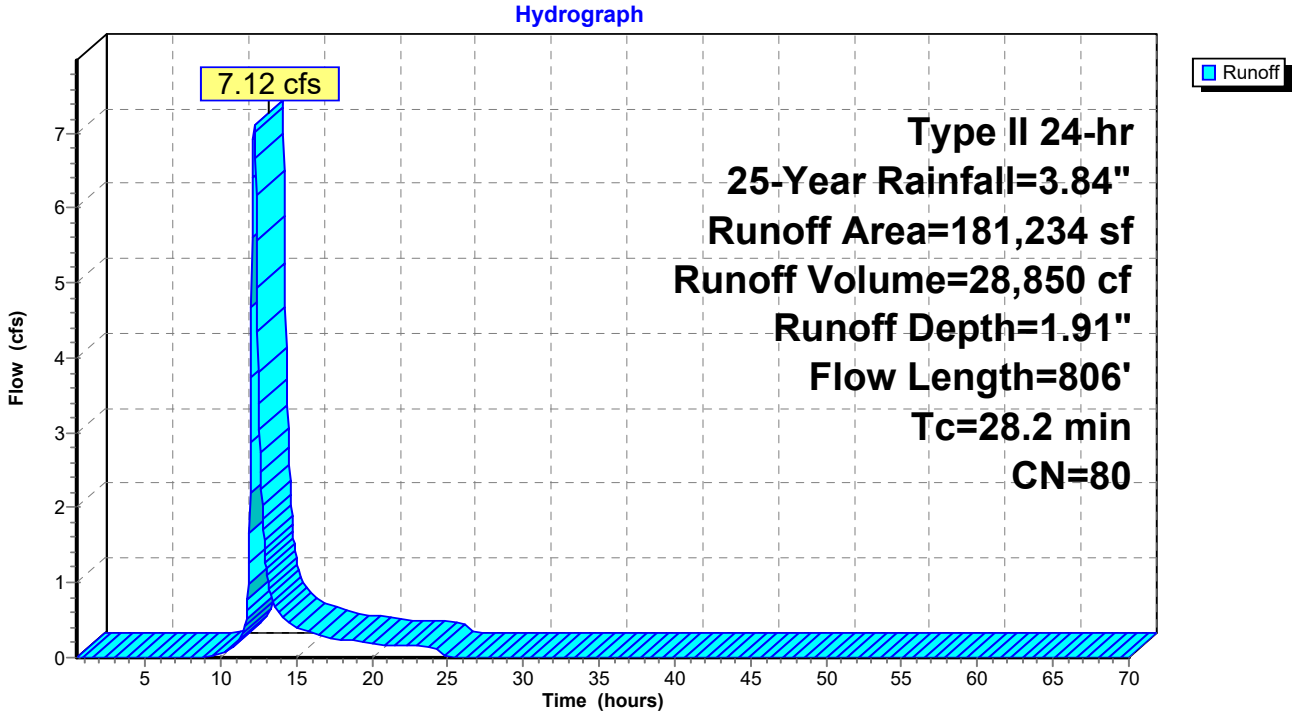
Runoff = 7.12 cfs @ 12.23 hrs, Volume= 28,850 cf, Depth= 1.91"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

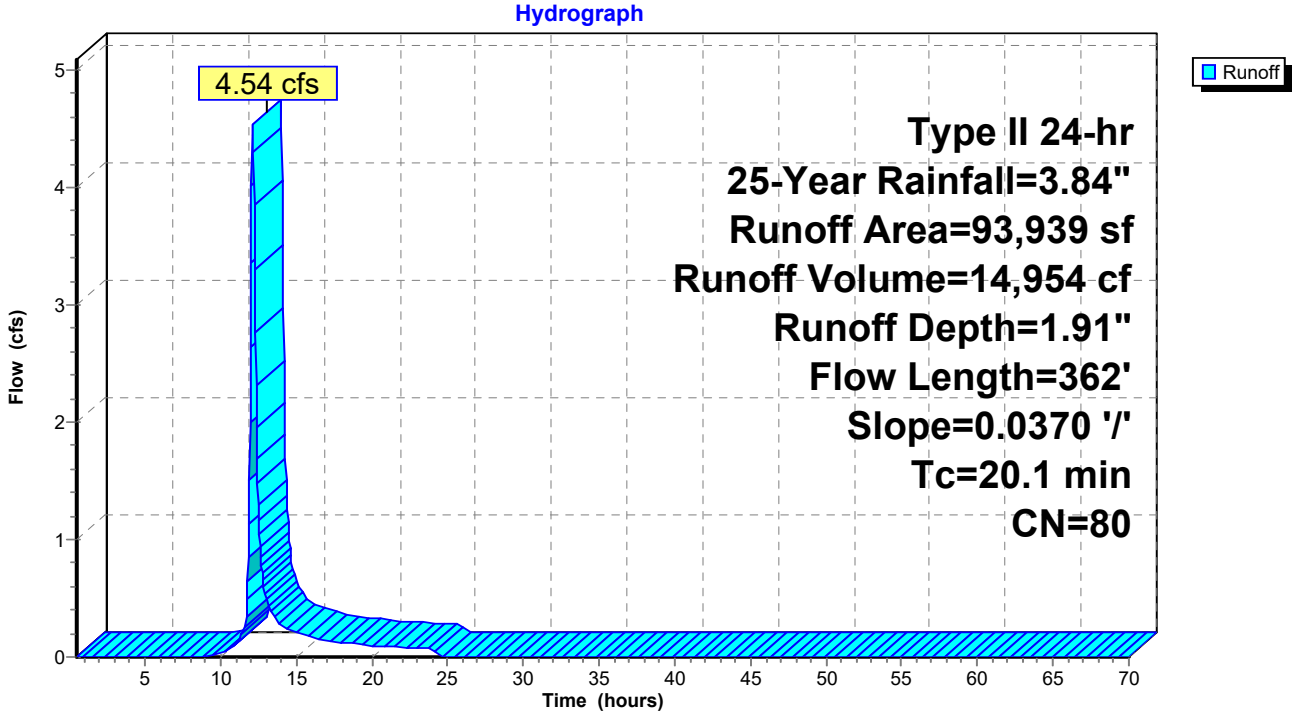
Runoff = 4.54 cfs @ 12.13 hrs, Volume= 14,954 cf, Depth= 1.91"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=806' Tc=28.2 min CN=80 Runoff=11.60 cfs 46,735 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=7.37 cfs 24,224 cf

Total Runoff Area = 275,173 sf Runoff Volume = 70,959 cf Average Runoff Depth = 3.09"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

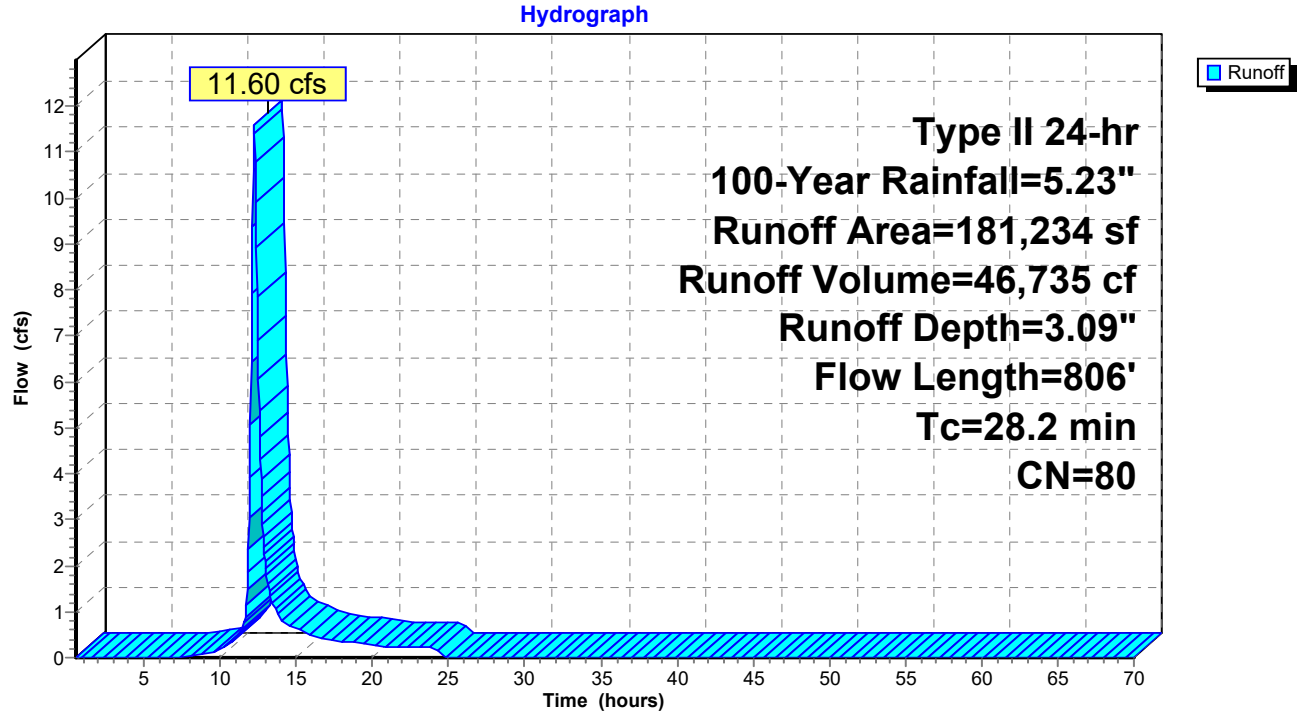
Runoff = 11.60 cfs @ 12.22 hrs, Volume= 46,735 cf, Depth= 3.09"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

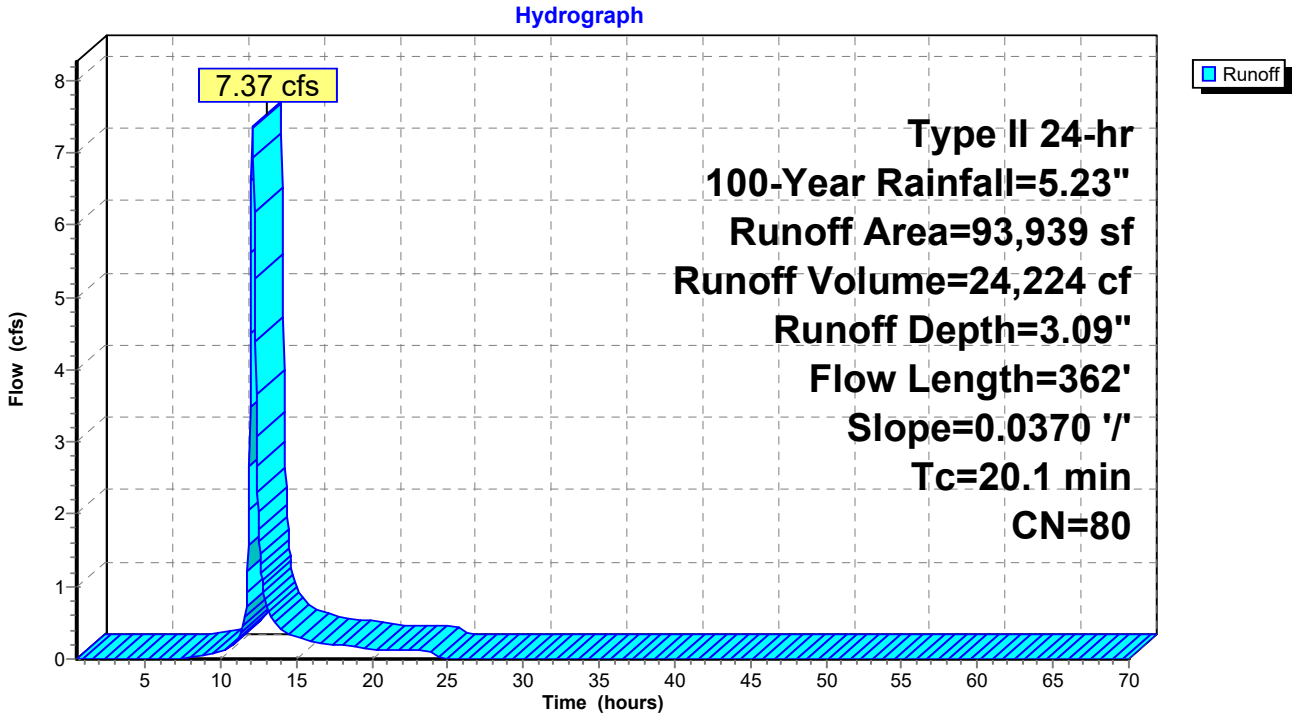
Runoff = 7.37 cfs @ 12.13 hrs, Volume= 24,224 cf, Depth= 3.09"
Routed to nonexistent node 6L

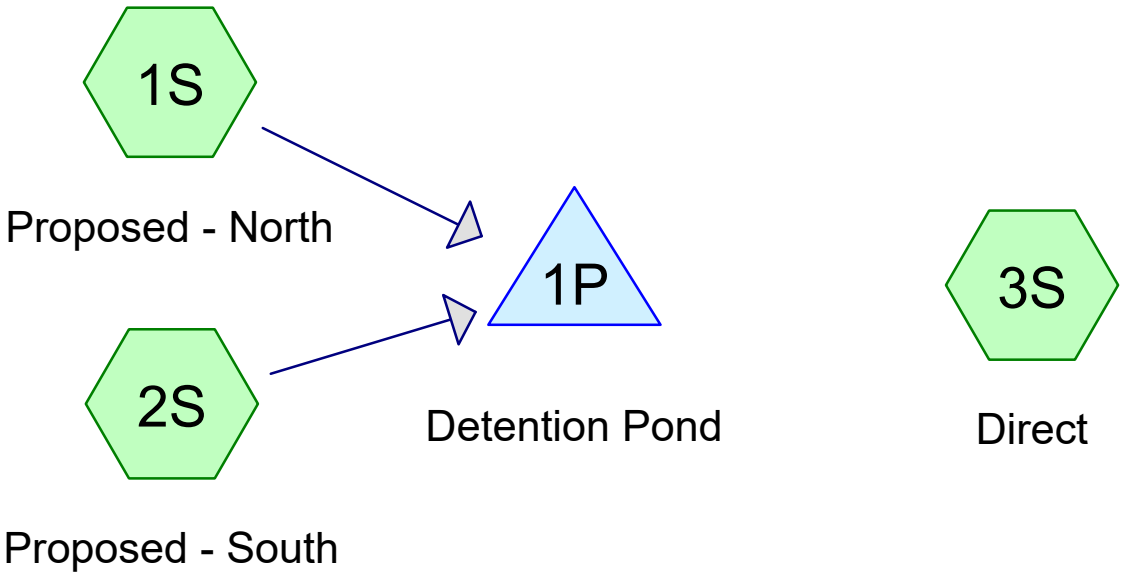
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South





Subcat Reach Pond Link

Routing Diagram for 23-4121 storm calcs - Proposed
Prepared by Carmina Wood Design, Printed 5/14/2026
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Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	1.87	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.14	2
3	25-Year	Type II 24-hr		Default	24.00	1	3.84	2
4	100-Year	Type II 24-hr		Default	24.00	1	5.23	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
146,543	80	>75% Grass cover, Good, HSG D (1S, 2S, 3S)
1,626	98	Concrete, HSG D (2S)
67,908	98	Paved parking, HSG D (1S, 2S)
55,578	98	Roofs, HSG D (1S, 2S)
3,518	98	Sidewalk, HSG D (1S)
275,173	**88**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
275,173	HSG D	1S, 2S, 3S
0	Other	
275,173		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
0	0	0	146,543	0	146,543	>75% Grass cover, Good	
0	0	0	1,626	0	1,626	Concrete	
0	0	0	67,908	0	67,908	Paved parking	
0	0	0	55,578	0	55,578	Roofs	
0	0	0	3,518	0	3,518	Sidewalk	
0	**0**	**0**	**275,173**	**0**	**275,173**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1S	0.00	0.00	182.0	0.0050	0.013	0.0	6.0	0.0	
2	1S	0.00	0.00	70.0	0.0070	0.013	0.0	12.0	0.0	
3	1S	0.00	0.00	400.0	0.0100	0.013	0.0	12.0	0.0	
4	2S	0.00	0.00	194.0	0.0050	0.013	0.0	8.0	0.0	
5	2S	0.00	0.00	209.0	0.0080	0.013	0.0	12.0	0.0	
6	2S	0.00	0.00	171.0	0.0110	0.013	0.0	12.0	0.0	
7	1P	669.00	668.92	17.0	0.0047	0.013	0.0	8.0	0.0	
8	1P	668.92	668.80	25.0	0.0048	0.013	0.0	8.0	0.0	

Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=0.92"
Flow Length=738' Tc=24.8 min CN=89 Runoff=3.28 cfs 12,245 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=0.92"
Flow Length=627' Tc=19.8 min CN=89 Runoff=2.21 cfs 7,211 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=0.48"
Flow Length=58' Tc=7.8 min CN=80 Runoff=0.38 cfs 878 cf

Pond 1P: Detention Pond Peak Elev=671.04' Storage=5,335 cf Inflow=5.40 cfs 19,456 cf
Outflow=1.94 cfs 19,456 cf

Total Runoff Area = 275,173 sf Runoff Volume = 20,334 cf Average Runoff Depth = 0.89"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

[47] Hint: Peak is 826% of capacity of segment #3
[47] Hint: Peak is 110% of capacity of segment #4

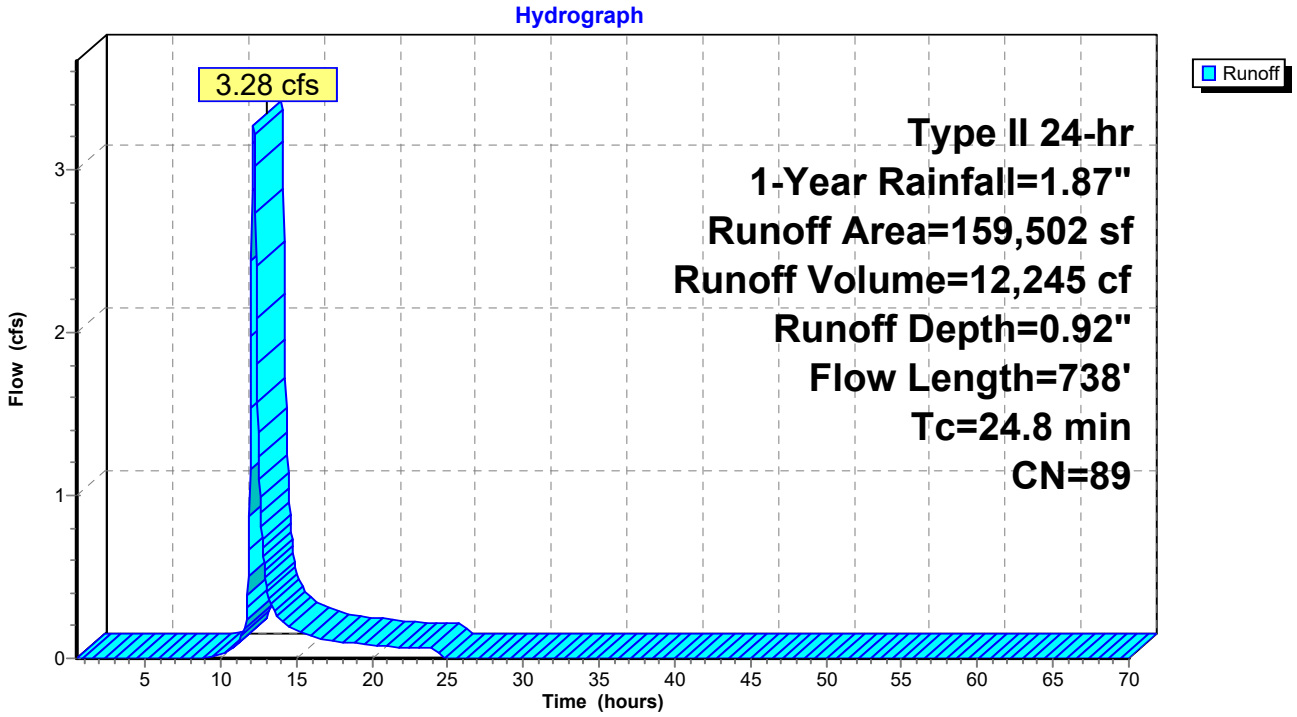
Runoff = 3.28 cfs @ 12.19 hrs, Volume= 12,245 cf, Depth= 0.92"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

[47] Hint: Peak is 258% of capacity of segment #3

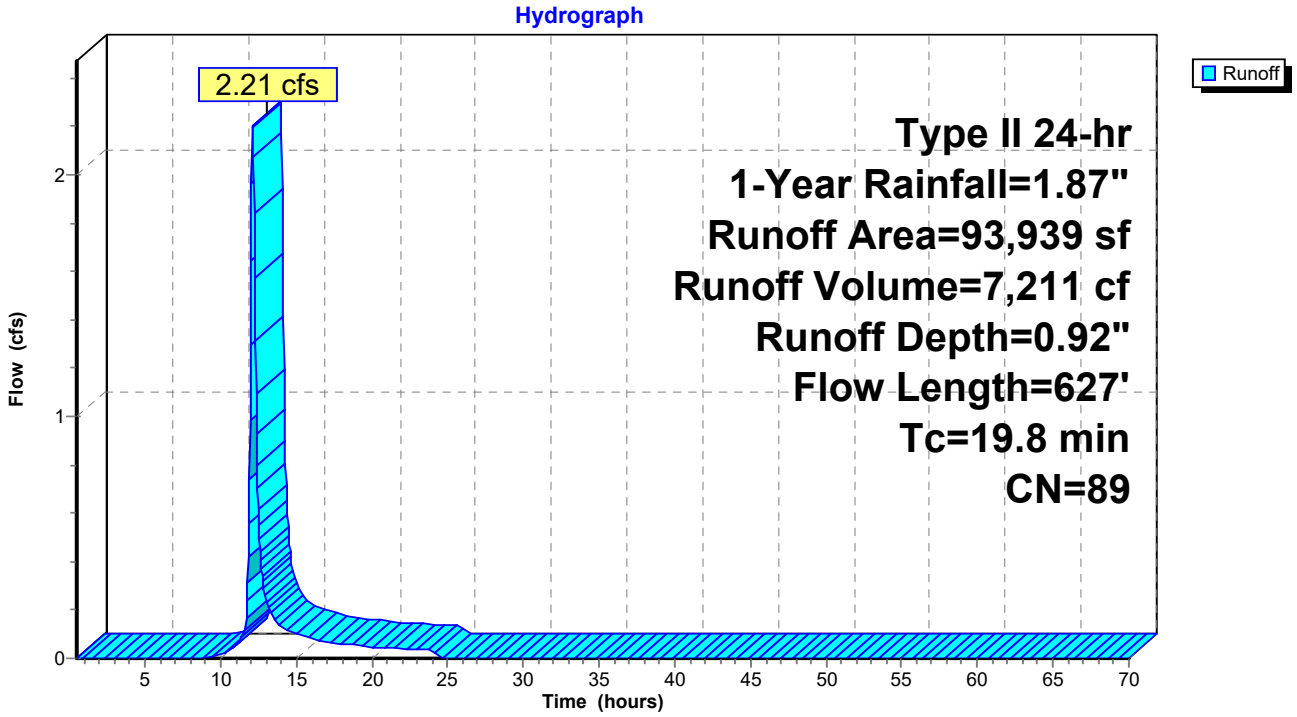
Runoff = 2.21 cfs @ 12.13 hrs, Volume= 7,211 cf, Depth= 0.92"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

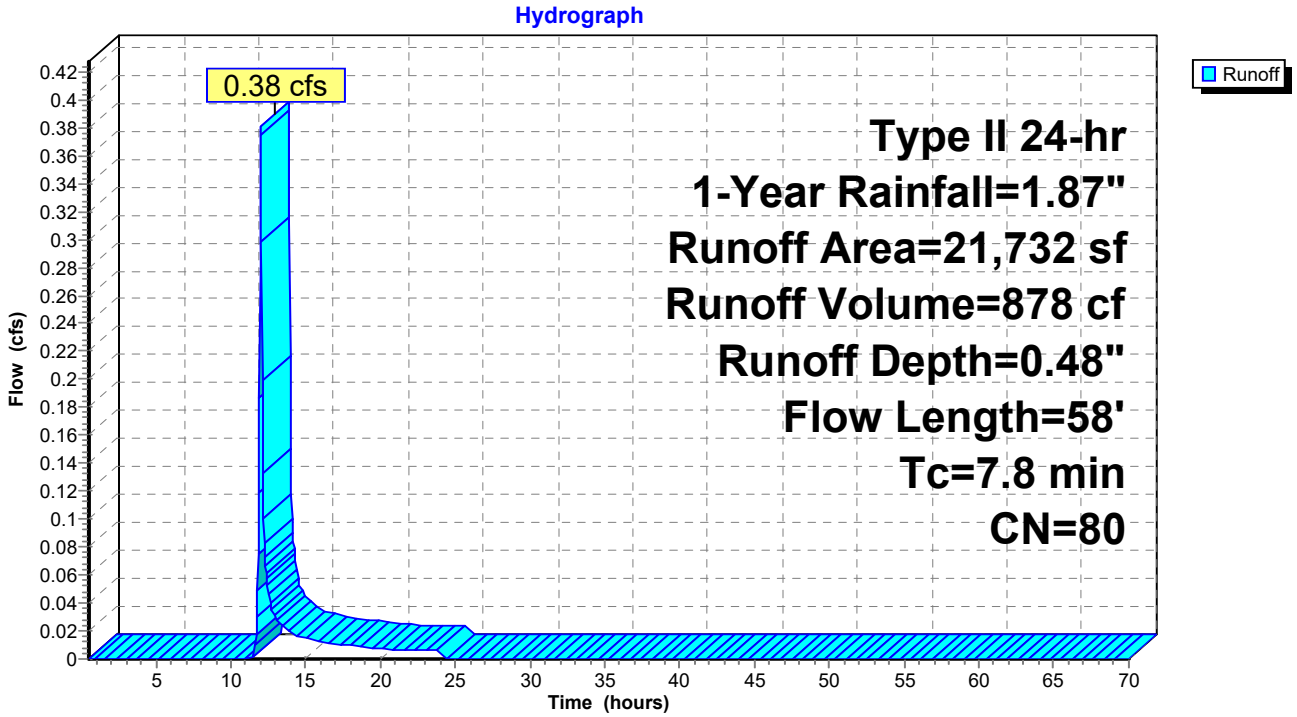
Runoff = 0.38 cfs @ 12.00 hrs, Volume= 878 cf, Depth= 0.48"
Routed to nonexistent node 2P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 0.92" for 1-Year event
Inflow = 5.40 cfs @ 12.16 hrs, Volume= 19,456 cf
Outflow = 1.94 cfs @ 12.51 hrs, Volume= 19,456 cf, Atten= 64%, Lag= 21.3 min
Primary = 1.94 cfs @ 12.51 hrs, Volume= 19,456 cf

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 671.04' @ 12.51 hrs Surf.Area= 4,107 sf Storage= 5,335 cf

Plug-Flow detention time= 26.2 min calculated for 19,456 cf (100% of inflow)
Center-of-Mass det. time= 26.2 min (873.2 - 847.0)

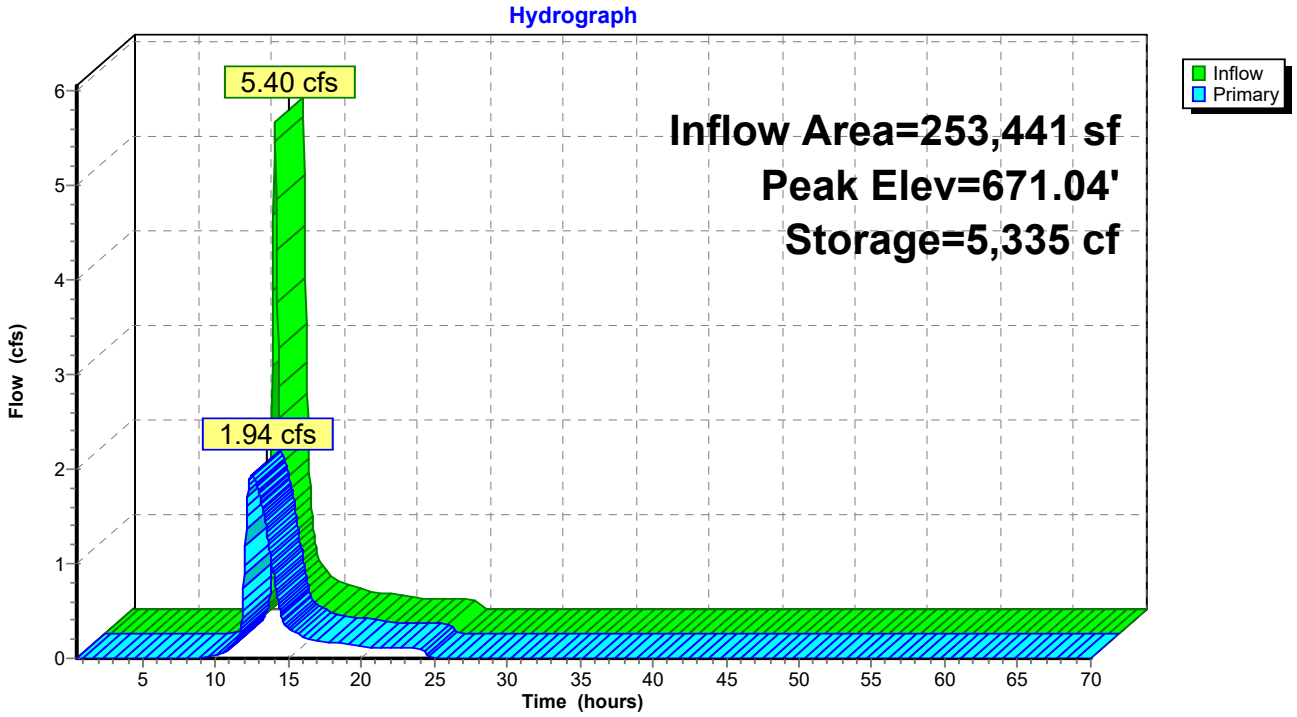
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.94 cfs @ 12.51 hrs HW=671.04' (Free Discharge)
└**3=Culvert** (Passes 1.94 cfs of 1.98 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 1.94 cfs @ 5.55 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 1P: Detention Pond



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=2.03"
Flow Length=738' Tc=24.8 min CN=89 Runoff=7.22 cfs 26,940 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=2.03"
Flow Length=627' Tc=19.8 min CN=89 Runoff=4.85 cfs 15,867 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=58' Tc=7.8 min CN=80 Runoff=1.12 cfs 2,456 cf

Pond 1P: Detention Pond Peak Elev=672.95' Storage=15,013 cf Inflow=11.90 cfs 42,807 cf
Outflow=2.82 cfs 42,807 cf

Total Runoff Area = 275,173 sf Runoff Volume = 45,263 cf Average Runoff Depth = 1.97"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

[47] Hint: Peak is 1821% of capacity of segment #3
[47] Hint: Peak is 242% of capacity of segment #4
[47] Hint: Peak is 203% of capacity of segment #5

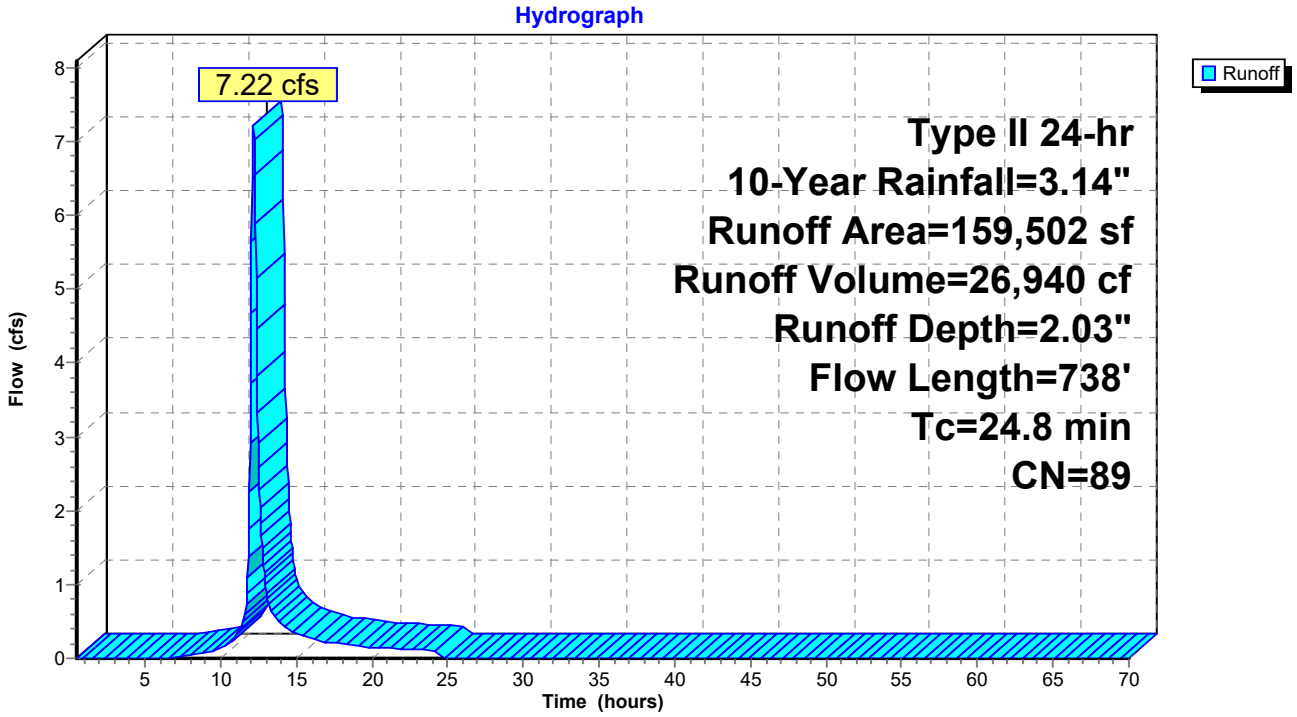
Runoff = 7.22 cfs @ 12.18 hrs, Volume= 26,940 cf, Depth= 2.03"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

[47] Hint: Peak is 567% of capacity of segment #3
[47] Hint: Peak is 152% of capacity of segment #4
[47] Hint: Peak is 130% of capacity of segment #5

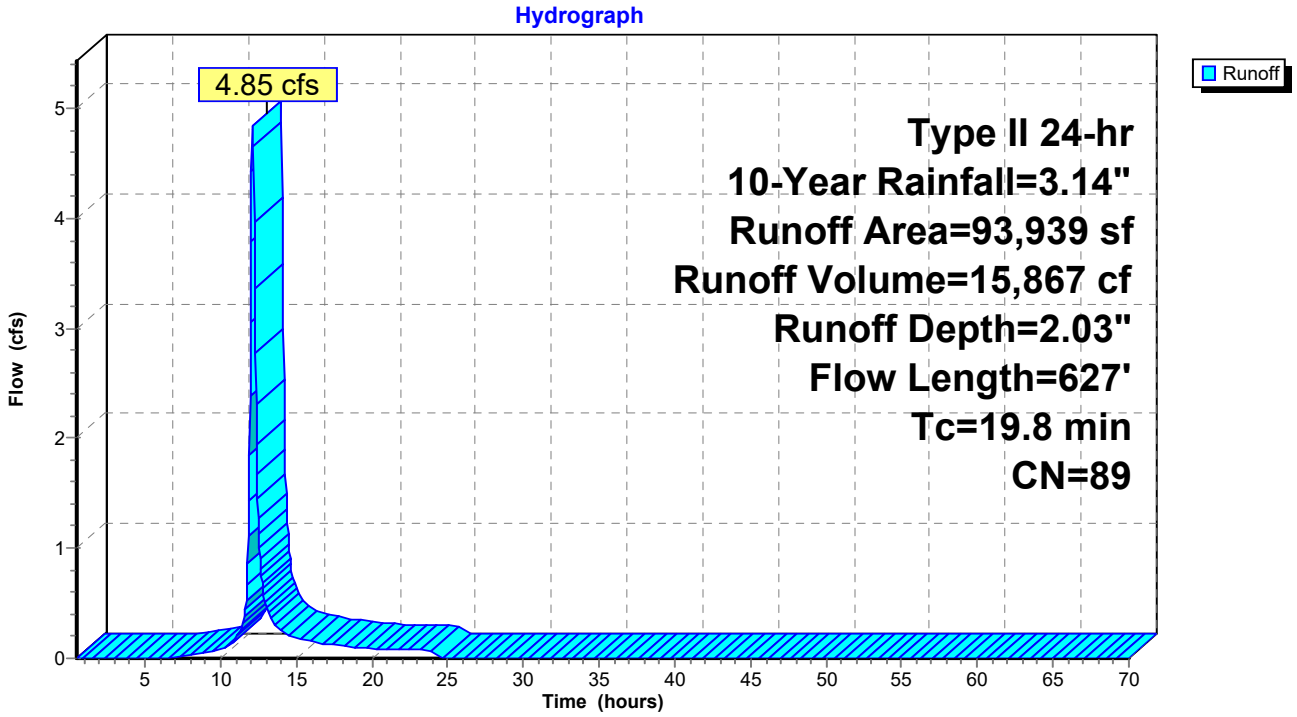
Runoff = 4.85 cfs @ 12.12 hrs, Volume= 15,867 cf, Depth= 2.03"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

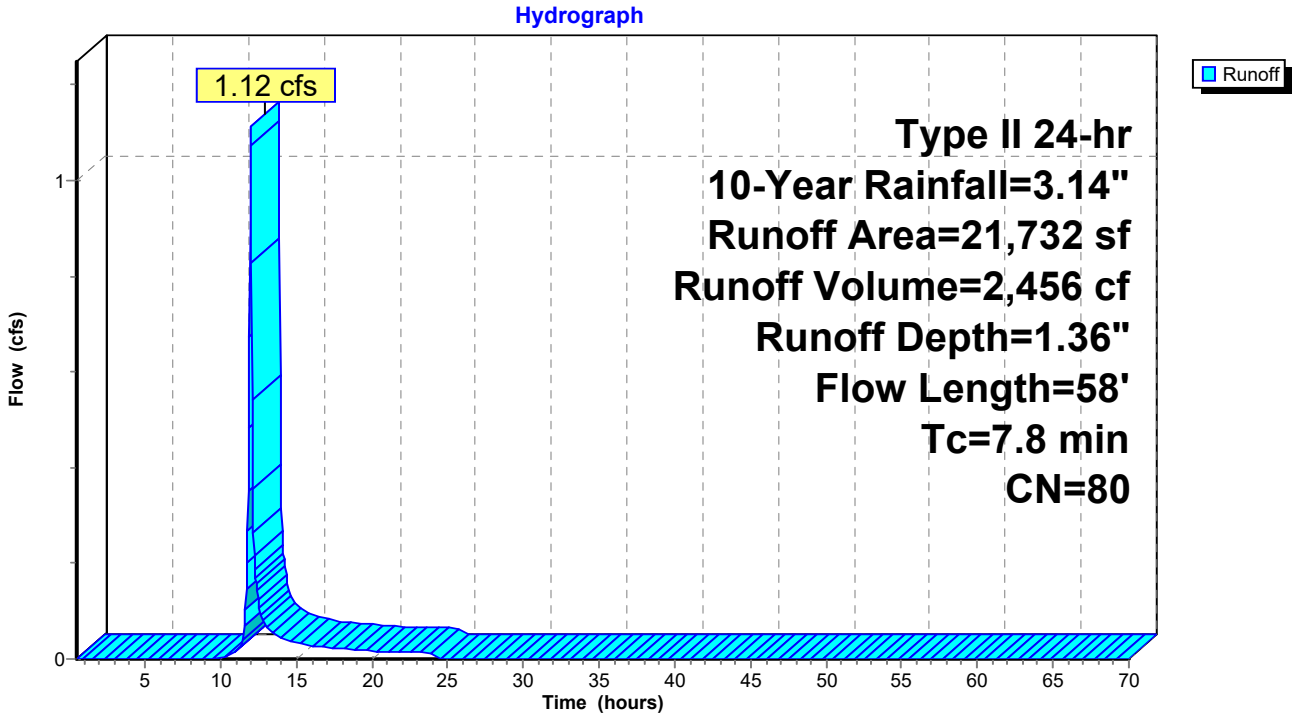
Runoff = 1.12 cfs @ 12.00 hrs, Volume= 2,456 cf, Depth= 1.36"
Routed to nonexistent node 2P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 2.03" for 10-Year event
Inflow = 11.90 cfs @ 12.15 hrs, Volume= 42,807 cf
Outflow = 2.82 cfs @ 12.64 hrs, Volume= 42,807 cf, Atten= 76%, Lag= 29.2 min
Primary = 2.82 cfs @ 12.64 hrs, Volume= 42,807 cf

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 672.95' @ 12.64 hrs Surf.Area= 6,059 sf Storage= 15,013 cf

Plug-Flow detention time= 47.9 min calculated for 42,782 cf (100% of inflow)
Center-of-Mass det. time= 47.9 min (872.3 - 824.5)

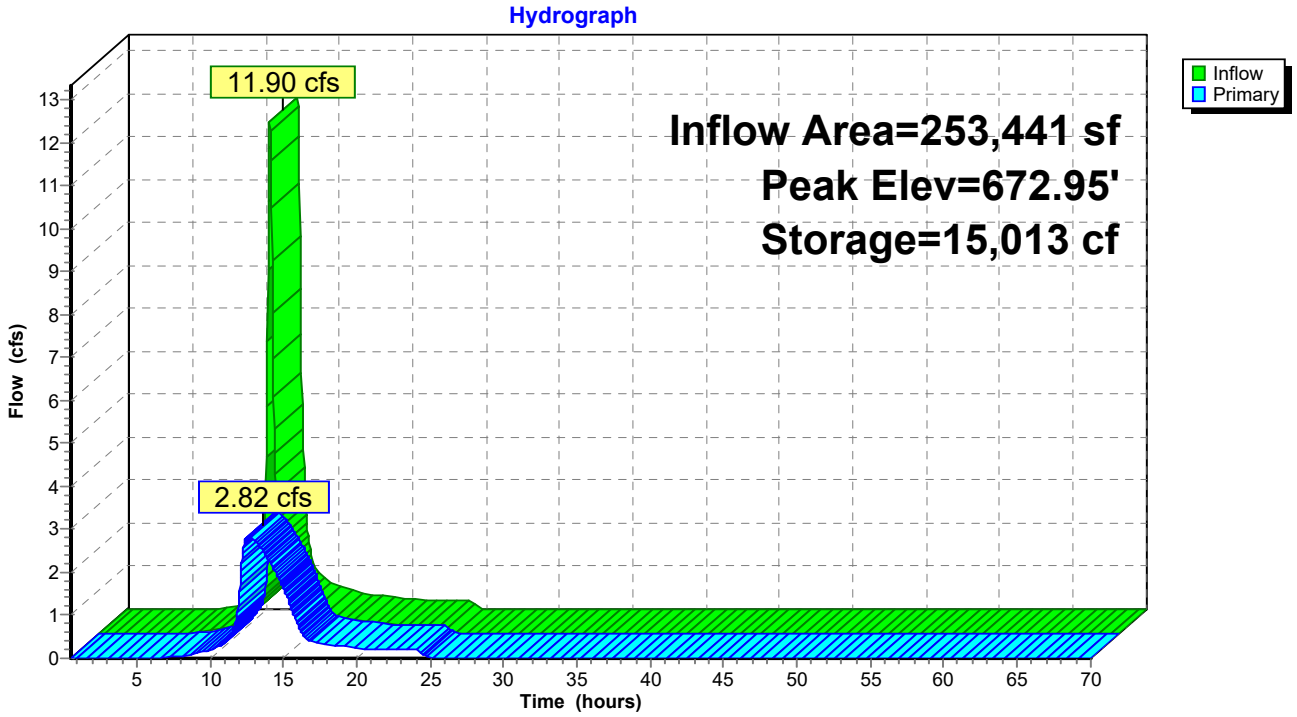
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.82 cfs @ 12.64 hrs HW=672.95' (Free Discharge)
└**3=Culvert** (Passes 2.82 cfs of 2.85 cfs potential flow)
  └**1=Culvert** (Inlet Controls 2.82 cfs @ 8.08 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 1P: Detention Pond



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=2.67"
Flow Length=738' Tc=24.8 min CN=89 Runoff=9.47 cfs 35,532 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=2.67"
Flow Length=627' Tc=19.8 min CN=89 Runoff=6.35 cfs 20,927 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=58' Tc=7.8 min CN=80 Runoff=1.57 cfs 3,459 cf

Pond 1P: Detention Pond Peak Elev=673.70' Storage=21,268 cf Inflow=15.59 cfs 56,458 cf
Outflow=3.10 cfs 56,458 cf

Total Runoff Area = 275,173 sf Runoff Volume = 59,918 cf Average Runoff Depth = 2.61"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

[47] Hint: Peak is 2386% of capacity of segment #3
[47] Hint: Peak is 318% of capacity of segment #4
[47] Hint: Peak is 266% of capacity of segment #5

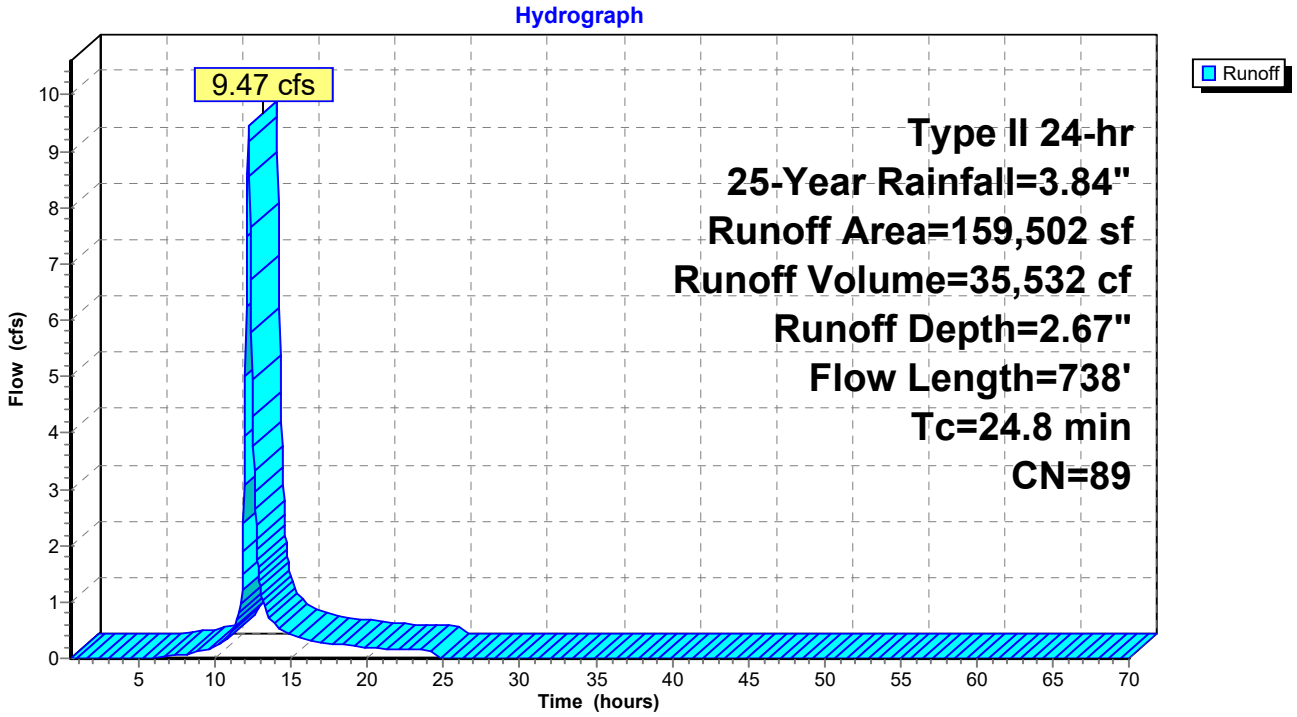
Runoff = 9.47 cfs @ 12.18 hrs, Volume= 35,532 cf, Depth= 2.67"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

[47] Hint: Peak is 743% of capacity of segment #3
[47] Hint: Peak is 199% of capacity of segment #4
[47] Hint: Peak is 170% of capacity of segment #5

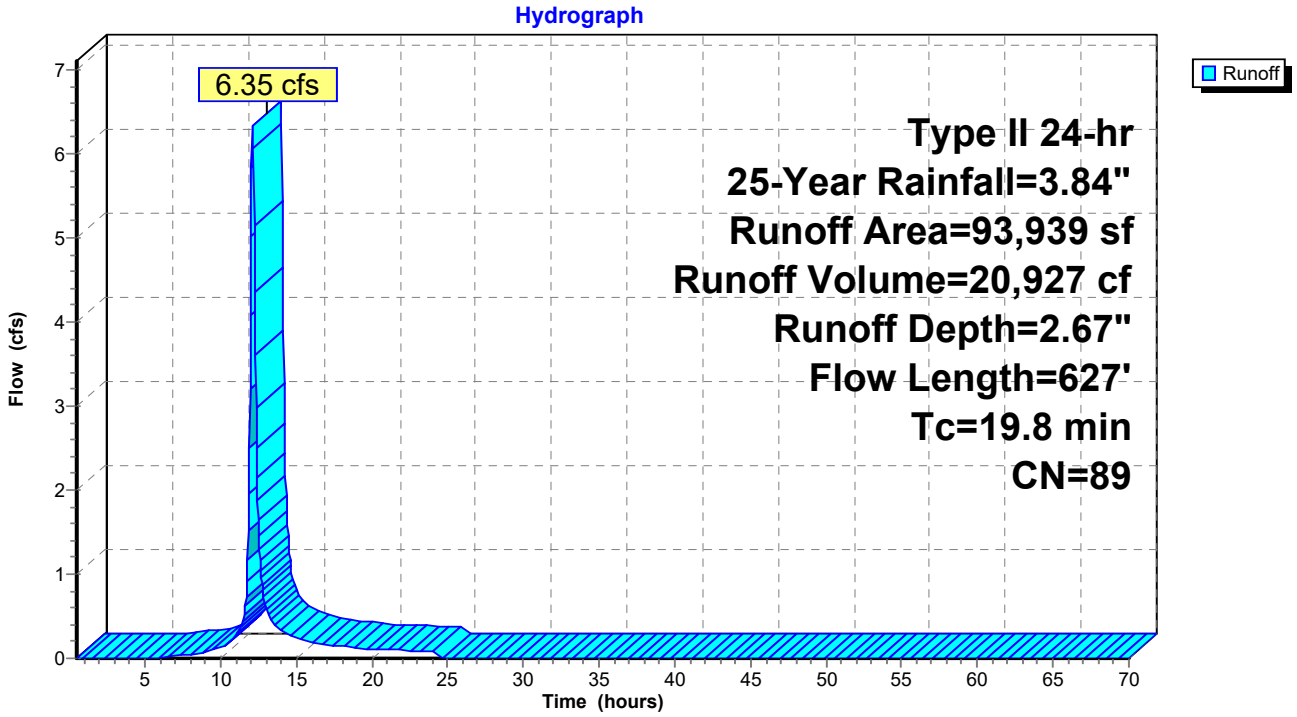
Runoff = 6.35 cfs @ 12.12 hrs, Volume= 20,927 cf, Depth= 2.67"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

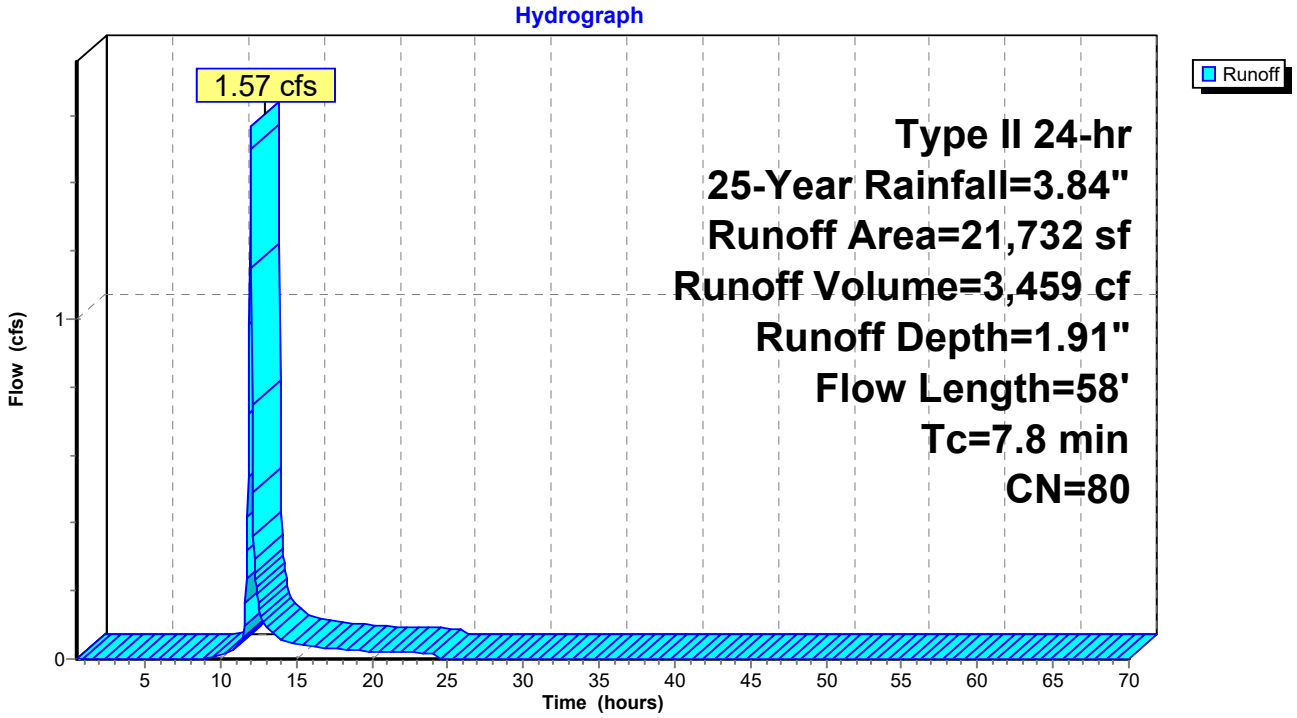
Runoff = 1.57 cfs @ 11.99 hrs, Volume= 3,459 cf, Depth= 1.91"
Routed to nonexistent node 2P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 2.67" for 25-Year event
Inflow = 15.59 cfs @ 12.15 hrs, Volume= 56,458 cf
Outflow = 3.10 cfs @ 12.70 hrs, Volume= 56,458 cf, Atten= 80%, Lag= 33.0 min
Primary = 3.10 cfs @ 12.70 hrs, Volume= 56,458 cf

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 673.70' @ 12.70 hrs Surf.Area= 10,997 sf Storage= 21,268 cf

Plug-Flow detention time= 60.6 min calculated for 56,426 cf (100% of inflow)
Center-of-Mass det. time= 60.6 min (877.2 - 816.6)

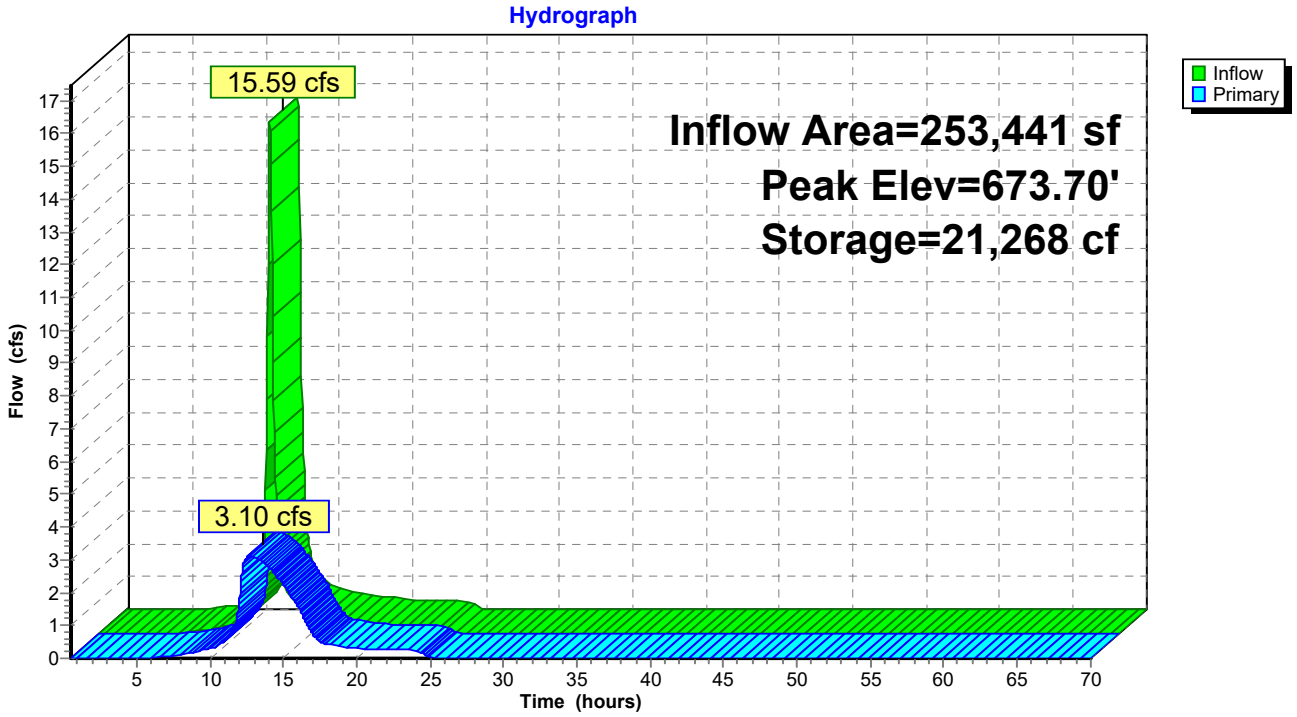
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.10 cfs @ 12.70 hrs HW=673.70' (Free Discharge)
└**3=Culvert** (Passes 3.10 cfs of 3.13 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 3.10 cfs @ 8.87 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 1P: Detention Pond



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=3.99"
Flow Length=738' Tc=24.8 min CN=89 Runoff=13.94 cfs 53,068 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=3.99"
Flow Length=627' Tc=19.8 min CN=89 Runoff=9.33 cfs 31,254 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=58' Tc=7.8 min CN=80 Runoff=2.52 cfs 5,604 cf

Pond 1P: Detention Pond Peak Elev=674.73' Storage=34,966 cf Inflow=22.95 cfs 84,322 cf
Outflow=3.45 cfs 84,322 cf

Total Runoff Area = 275,173 sf Runoff Volume = 89,926 cf Average Runoff Depth = 3.92"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

[47] Hint: Peak is 3513% of capacity of segment #3
[47] Hint: Peak is 468% of capacity of segment #4
[47] Hint: Peak is 391% of capacity of segment #5

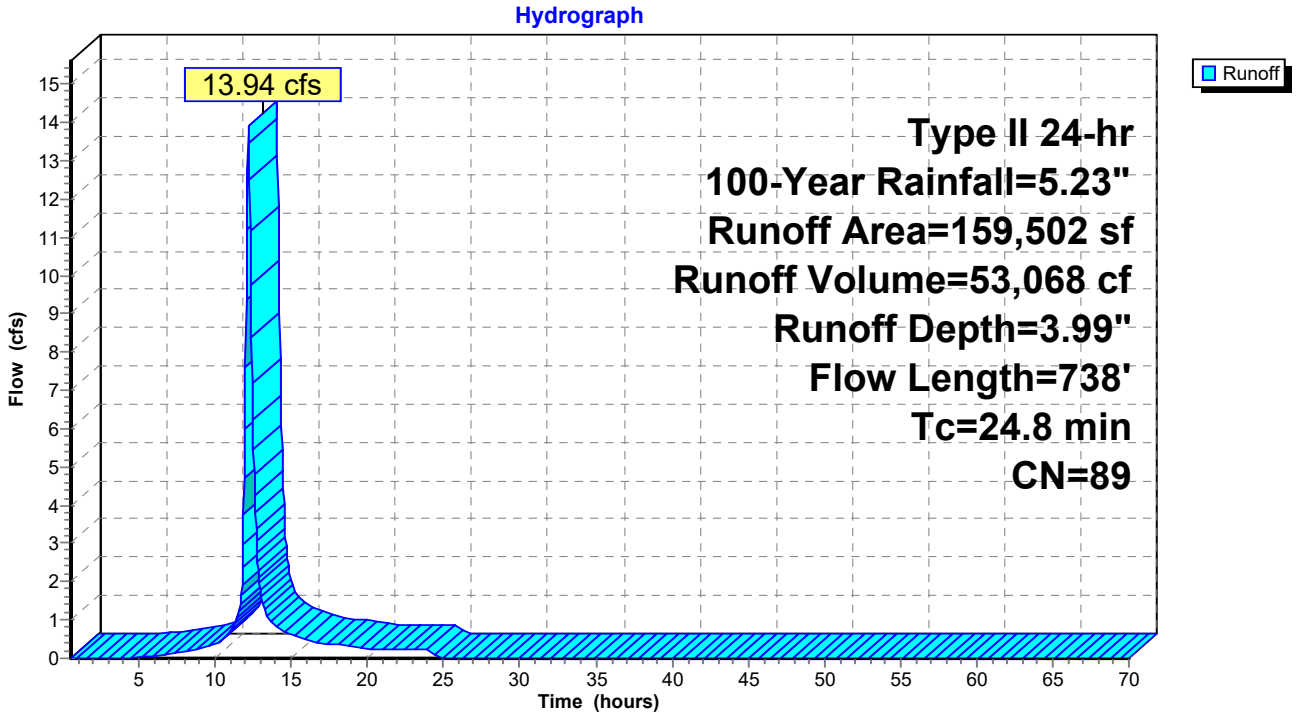
Runoff = 13.94 cfs @ 12.17 hrs, Volume= 53,068 cf, Depth= 3.99"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

[47] Hint: Peak is 1092% of capacity of segment #3
[47] Hint: Peak is 293% of capacity of segment #4
[47] Hint: Peak is 250% of capacity of segment #5

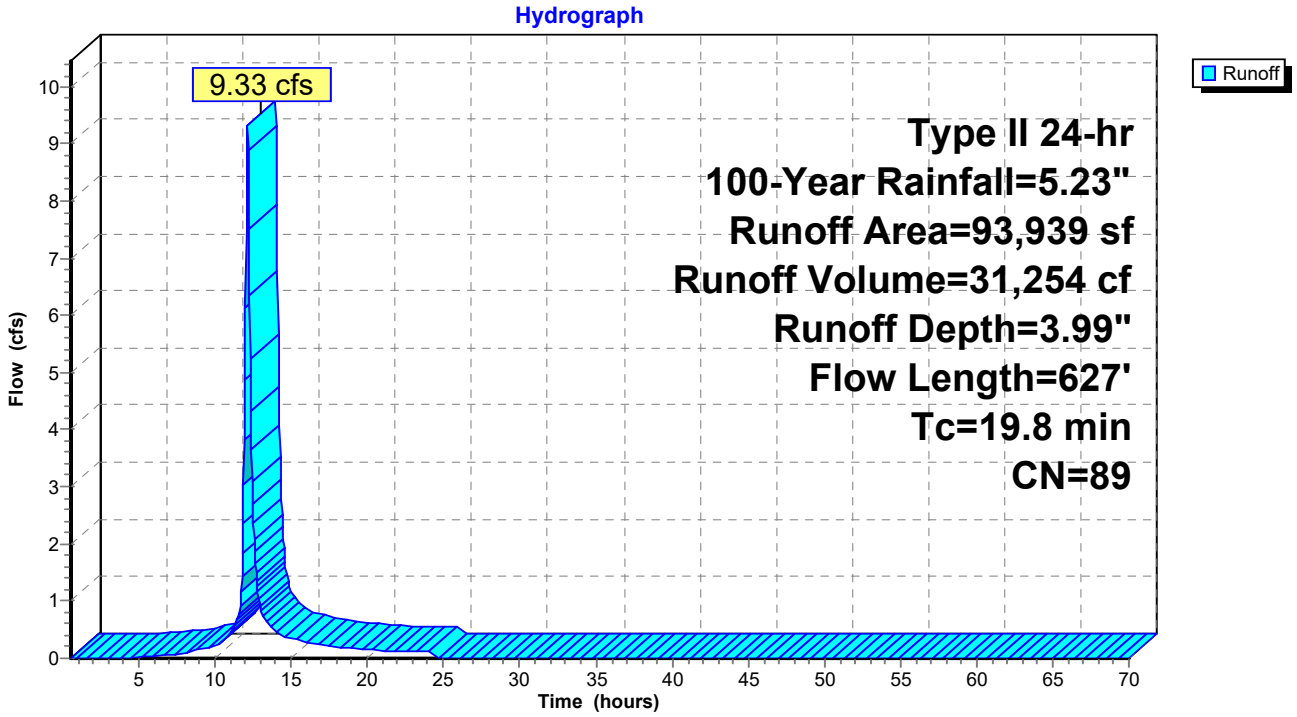
Runoff = 9.33 cfs @ 12.12 hrs, Volume= 31,254 cf, Depth= 3.99"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

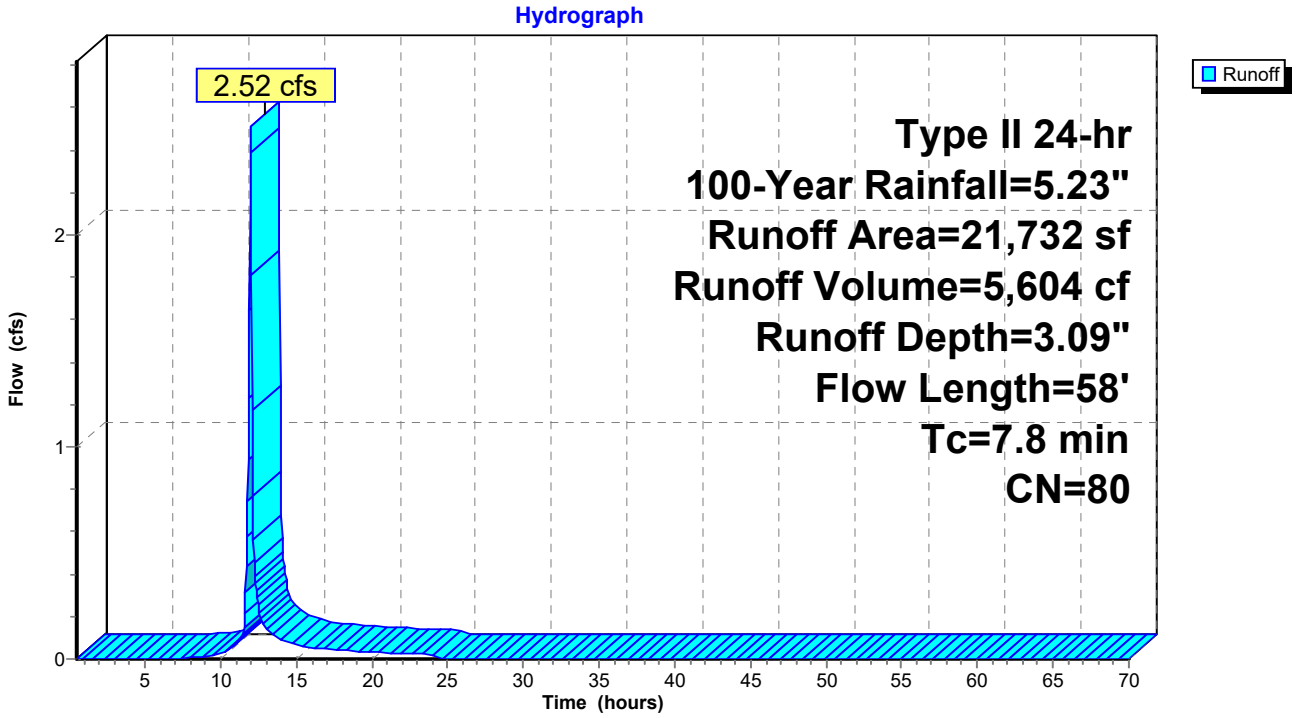
Runoff = 2.52 cfs @ 11.99 hrs, Volume= 5,604 cf, Depth= 3.09"
Routed to nonexistent node 2P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 3.99" for 100-Year event
Inflow = 22.95 cfs @ 12.15 hrs, Volume= 84,322 cf
Outflow = 3.45 cfs @ 12.81 hrs, Volume= 84,322 cf, Atten= 85%, Lag= 39.9 min
Primary = 3.45 cfs @ 12.81 hrs, Volume= 84,322 cf

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 674.73' @ 12.81 hrs Surf.Area= 14,332 sf Storage= 34,966 cf

Plug-Flow detention time= 89.0 min calculated for 84,273 cf (100% of inflow)
Center-of-Mass det. time= 89.0 min (894.3 - 805.3)

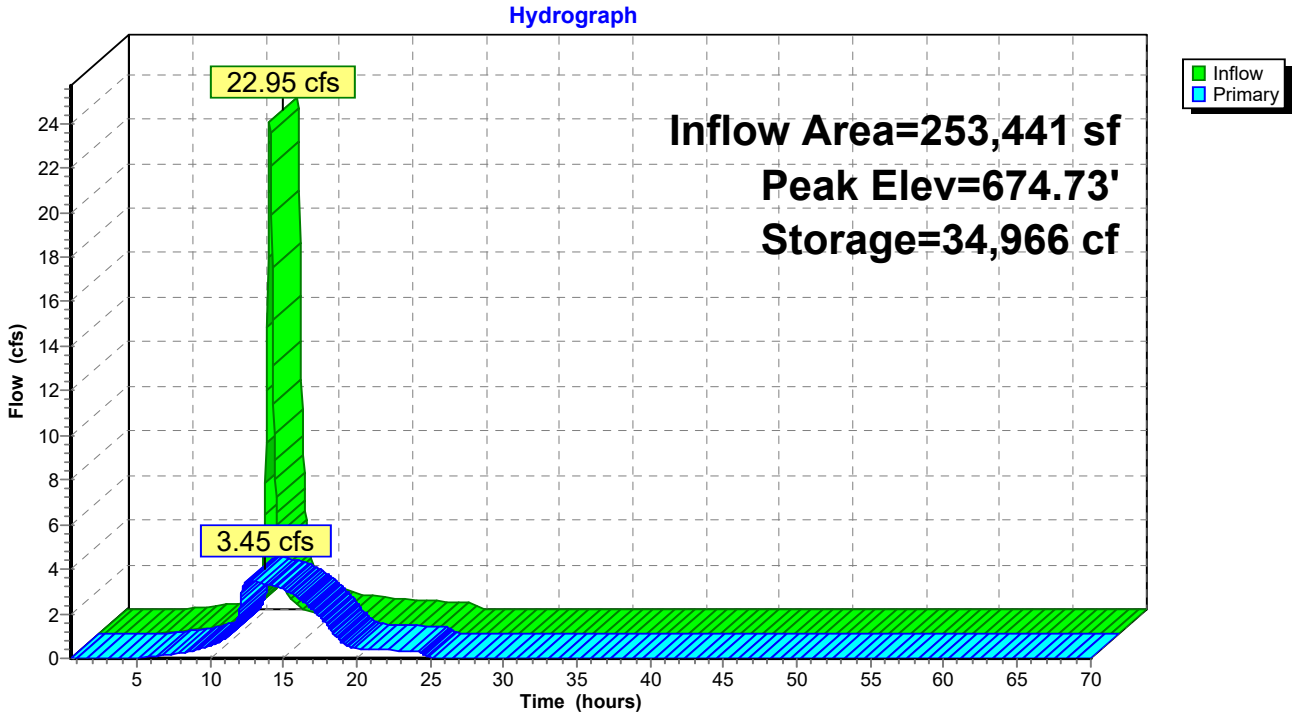
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.45 cfs @ 12.81 hrs HW=674.73' (Free Discharge)
└**3=Culvert** (Passes 3.45 cfs of 3.47 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 3.45 cfs @ 9.87 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 1P: Detention Pond



Appendix E

Soil Information



Map Scale: 1:2,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 25, Sep 4, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 13, 2023—May 27, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DbA	Darien silt loam, 0 to 3 percent slopes	C/D	6.3	43.8%
Nh	Niagara silt loam, till substratum	C/D	2.1	14.5%
RfB	Remsen silty clay loam, 3 to 8 percent slopes	D	6.0	41.7%
Totals for Area of Interest			**14.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

CARMINA WOOD
DESIGN

STORMWATER POLLUTION PREVENTION PLAN
for
CONSTRUCTION ACTIVITIES

At

Multifamily Development
1425 & 1475 Orchard Park Road
West Seneca, Erie County, New York

Prepared for

Brian Hillery & William Sahlem

1 Woodthrush Trail
Orchard Park, NY 14127

Prepared by

Carmina Wood Design

80 Silo City Row, Suite 100
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

May 2026



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Appendix B NYSDEC Notice of Intent (NOI)

Appendix C MS4 SWPPP Acceptance Form

Appendix D Engineer's Report

Appendix E NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-25-001

Appendix F Forms

- Contractor's Certification
- Owner/Operator Certification
- SWPPP Preparer Certification
- NYSDEC Letter of Acknowledgment

Appendix G NYSDEC Notice of Termination (NOT)

Appendix H Construction Documents

Appendix I Standard Erosion Control Details

Appendix J Wetland Delineation Figure: by LaBella

Appendix K OPRHP Clearance Letter

Appendix L NYSDEC Stormwater Management Inspection Lists

101 SCOPE

A. **PURPOSE:** Brian Hellery & William Sahlem have placed an emphasis on following the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity governing storm water discharges during construction, and in accordance with erosion control practices. The Contractor's participation in this program is mandatory and its non-compliance is subject to various remedies, including without limitation, monetary set-offs, withholding payments; reimbursement for costs, expenses (including reasonable attorney's fees), fines and civil penalties incurred by the owner; and/or liquidated damages. This section provides a descriptive explanation of the owner's Storm Water Pollution Prevention Program and required Contractor participation.

The Engineer of record for this project certifies that this SWPPP meets the requirements and is in compliance with the New York State Stormwater Management Design Manual and latest NYSDEC Phase II stormwater regulation requirements.

B. **SPDES General Permit for Stormwater Discharges from Construction Activity:** Regulations promulgated by the NYSDEC to regulate the discharge of storm water from construction activities on sites where more than one (1) acre of soil is disturbed. One of the ways to comply with these regulations for affected sites is to request coverage under the General Permit for Construction Activities for New York State. In order to use the General Permit, a Notice of Intent (NOI) form must be completed and electronically submitted to the NYSDEC at least 5 business days prior to any earth-disturbing activities (this time frame may increase to 60 business days if a full review of the SWPPP is determined necessary by the NYSDEC) and a Storm Water Pollution Prevention Plan (SWPPP) for the site must be prepared and followed during the construction activities. Once a copy of the SPDES permit is received from NYSDEC, a copy will be included in Appendix F of this report.

Approval from a regulated, traditional land use control MS4:

1. An **owner or operator** of a construction activity that is <u>not</u> subject to the requirements of a regulated, traditional land use control MS4 must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the NYSDEC.

2. An **owner or operator** of a construction activity that is subject to the requirements of a regulated, traditional land use control MS4 must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the MS4 prior to submitting the NOI to the NYSDEC. The **owner or operator** shall have the "MS4 SWPPP Acceptance" form signed by the principal executive officer or ranking elected official from the regulated, traditional land use control MS4, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under "Notice of Intent (NOI) Submittal".

C. **RESPONSIBILITIES OF THE CONTRACTOR:** The Contractor shall manage the discharge of storm water from the site in accordance with the NYSDEC General Permit for Construction Activities conditions and the following provisions of this section. The Operator shall be responsible for conducting the storm water management practices in accordance with the permit. The Contractor shall be responsible for providing **qualified inspector**s to conduct the inspections required by the SWPPP. The Contractor shall be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the Contractor's failure to comply with the permit provisions. It shall be the responsibility of the Contractor to make any changes to the SWPPP necessary when the Contractor or any of his subcontractors elects to use borrow or fill or

material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites which are used for multiple construction projects are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The Contractor should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.

D. **NOTICE OF INTENT:** The Operator has petitioned the NYSDEC for coverage under the storm water discharges during construction at this site to be covered by the SPDES General Permit for Construction Activity for the State of New York. A Notice of Intent (NOI) for coverage under this permit has been filed by the Operator. The SWPPP must be prepared prior to submittal of the NOI form. The Operator will require the Contractor to be a co-permittee with the Operator. The Contractor will be required to post the NOI at the construction site along with any building permits.

E. **CONTRACTOR CERTIFICATION & TRAINING:** Proof of Training/Certification of the Contractor's designated individual shall be kept on site at all times.

F. **REQUIREMENTS FOR THE GENERAL CONTRACTOR AND SUBCONTRACTOR(S):** The General Contractor and Subcontractor(s) shall sign the "Contractor's Certification Statement" (located in the Appendix of this report) verifying they have been instructed on how to comply with and fully understand the requirements of the SPDES General Permit for Construction Activity for the State of New York and the SWPPP. These certifications must be signed, by a responsible corporate officer or other party meeting the "Signatory Requirements" of the SPDES General Permit, on behalf of each entity, prior to the beginning of any construction activities.

G. **STORM WATER POLLUTION PREVENTION PROGRAM LOCATION REQUIREMENTS:** The SWPPP is meant to be a working document that shall be maintained at the site of the Construction Activities at all times throughout the project, shall be readily available upon request by the Operator's personnel or NYSDEC or any other agency with regulatory authority over storm water issues, and shall be kept on-site until the site complies with the Final Stabilization section of this document. A sign or other notice must be posted near the main entrance of the construction site which contains a completed NOI, the location of the SWPPP and the name and phone number of a contact person responsible for scheduling SWPPP viewing times, and any other state specific requirements.

H. **INSPECTIONS AND RECORD-KEEPING:**

A. **<u>General Construction Site Inspection and Maintenance Requirements</u>**

1. The **owner or operator** must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. **<u>Owner or operator Maintenance Inspection Requirements</u>**

1. The **owner or operator** shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications

for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the **owner or operator** can stop conducting the maintenance inspections. The **owner or operator** shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of the General Permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the **owner or operator** can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. **Qualified inspector Inspection Requirements**

The **owner or operator** shall have a **qualified inspector** conduct site inspections in conformance with the following requirements:

Note: The **trained contractor** identified in Part III.A.6 of the General Permit **cannot** conduct the **qualified inspector** site inspections unless they meet the **qualified inspector** qualifications included in Appendix A of the General Permit. In order to perform these inspections, the trained contractor would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity.

1. A **qualified inspector** shall conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B of the General Permit, with the exception of:

   a. The construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C of the General Permit and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

   b. The construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

c. Construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. Construction activities located in the watersheds identified in Appendix D of the General Permit that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the **qualified inspector** shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the **qualified inspector** shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the **owner or operator** has received authorization in accordance with Part II.C.3 of the General Permit to **disturb greater than five (5) acres** of soil at any one time, the **qualified inspector** shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been **temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas**, the **qualified inspector** shall conduct a site inspection at least once every thirty (30) calendar days. The **owner or operator** shall notify the Regional Office stormwater contact person (see contact information in Appendix F of the General Permit) or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the **owner or operator** of the construction activity) in writing prior to reducing the frequency of inspections.

d. For construction sites where **soil disturbance activities have been shut down with partial project completion**, the **qualified inspector** can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The **owner or operator** shall notify the Regional Office stormwater contact person or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the **owner or operator** of the construction activity). in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the **owner or operator** shall have the **qualified inspector** perform a final inspection and certify that all disturbed areas have achieved final stabilization, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The **owner or operator** shall then submit the completed NOT form to the address in Part II.A.1 of the General Permit.

3. At a minimum, the **qualified inspector** shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved final stabilization, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.

4. The **qualified inspector** shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

    a. Date and time of inspection;

    b. Name and title of person(s) performing inspection;

    c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

    d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

    e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface waterbody;

    f. Identification of all erosion and sediment control practices that need repair or maintenance;

    g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

    h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

    i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

    j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and

    k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The **qualified inspector** shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The **qualified inspector** shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The **qualified inspector** shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the **qualified inspector** shall notify the **owner or operator** and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the **qualified inspector**. Pursuant to Part II.C.2 of the General Permit, the inspection reports shall be maintained on site with the SWPPP.

Record Retention - The **owner or operator** shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves final stabilization. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

I. **SWPPP MODIFICATIONS:** The inspection report should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP is meant to be a dynamic working guide that is to be kept current and amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants or when the plan proves to be ineffective in eliminating or significantly minimizing pollutant discharges. The Contractor's failure to modify or report deficiencies to the Operator will result in the Contractor being liable for fines and construction delays resulting from any federal, state, or local agency enforcement action.

J. **FINAL STABILIZATION AND TERMINATION OF PERMIT COVERAGE:** A site can be considered finally stabilized when all soil disturbing activities have been completed and a uniform perennial vegetative cover with a density of **85%** for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the facility no longer discharges storm water associated with construction activities and a Notice of Termination (NOT) form filed by the Operator(s) with the NYSDEC. The Operator's Project Manager must complete the NOT. The NOT must be signed by the signatory (or equivalent position) on the NOI and subsequently submitted to the appropriate agency. The Operator's Project Manager must provide a completed copy of the NOT to the Contractor for inclusion in the SWPPP, which will then be optically scanned into the final SWPPP document as required. This filing terminates coverage under the General Permit and terminates the Contractor's responsibility to implement the SWPPP, but the requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed. The **owner or operator** shall also have the **qualified inspector** perform a final site inspection prior to submitting the NOT to the Department. Final payment and/or the release of retainage will be withheld until all provisions of the SWPPP have been submitted, completed and accepted by the Operator.

102 PROJECT NAME AND LOCATION

Multifamily Development

1425 & 1475 Orchard Park Road

Town of West Seneca, County of Erie, New York

Easting: 192275

Northing: 4746778

Estimated Area of Site ≈ 16.59 acres

Estimated Area to be disturbed by Construction Activities ≈ 7.37 acres

A general location map is included as Appendix A.

103 OPERATOR'S NAME AND ADDRESS

Brian Hillery & William Sahlem

1 Woodthrush Trail

Orchard Park, NY 14127

Contact Person: Brian Hillery

Telephone: 716-512-3425

104 PROJECT DESCRIPTION

This new development project involves the construction of three (3) 4-unit, one (1) 5-unit and two (2) 6-unit ranch style townhomes, for a total of 29 units. Construction will also consist of associated parking, storm water management, utility, lighting, and landscaping improvements. The site is currently vacant consisting of grass, brush and tree cover. The total area of the site is 16.59 acres with an area of disturbance of approximately 7.37 acres. The site has been rezoned to C-1(S) to allow for the development.

Soil disturbing activities will include:

A. Construction of temporary construction exit points

B. Clearing & grubbing of the site within disturbance limits

C. Installation of the detention basin & bioretention areas including topsoil & seed

D. Installation of storm sewer pipes and inlets

E. Construction of utilities

F. Construction of curb and parking lot

G. Final grading & landscaping

H. Construction of buildings

This project is owned by Brian Hillery and William Sahlem and will be developed by the same. The work area consists of approximately 7.37 acres for which erosion and sediment controls have been developed and fully addressed in this written plan and the Erosion and Sediment Control Plans. See the construction documents for additional details.

105 RUNOFF COEFFICIENT, SOILS, AND RAINFALL INFORMATION

The initial runoff curve number for the pre-construction site is "CN" = 80. The post-construction runoff curve number for the site will be "CN" = 88. The site is 7.37 acres of which approximately 7.37 acres will be disturbed by construction activities.

The site is in Erie County, which receives an average of approximately 45 inches rainfall annually with the highest amounts of rainfall received in the months of May through September. Annual snow for this area is approximately 120 inches.

106 WATERS

The runoff generated from this site will discharge to existing wetlands on the west side of the project site. Runoff is eventually discharged to Smoke Creek.

107 INDIAN COUNTRY LANDS

This project is not located on Indian Lands.

108 ENDANGERED AND THREATENED SPECIES

No endangered or threatened species have been determined to be on the site.

109 CRITICAL HABITAT

See section 108 above.

110 HISTORIC PLACES

The assessed property is shown on the NYSHPO map as an archeologically sensitive area. A Phase I Cultural Resource Investigation Report was prepared for the site.

Refer to Appendix K for OPRHP Clearance Letter

111 WETLANDS AND/OR OTHER SURFACE WATERS

Approximately 5.60 acres of USACE wetlands were delineated on site. The proposed development will not encroach on nor disturb the wetlands.

Refer to Appendix J for Wetland Delineation Figure: by LaBella

112 EROSION AND SEDIMENT CONTROLS

112.1 STABILIZATION PRACTICES

Stabilization practices for this site include:

A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.

B. Use of stabilization method for all slopes having a slope greater than 1V:3H.

C. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.

D. Mulching exposed areas.

E. Vegetation preservation in undisturbed areas.

F. Frequent watering to minimize wind erosion during construction.

a. **For sites where 5 acres or more are disturbed at any one time**: In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the New York Standards and Specifications for Erosion and Sediment Control.

b. The **owner or operator** shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

c. The **owner or operator** shall install any additional measures needed to protect water quality.

112.2 STRUCTURAL PRACTICES

Structural practices for this site include:

A. Inlet protection using a method detailed in the Construction Documents.

B. Perimeter protection using temporary silt fence/silt sock or silt sock.

C. Outlet protection using rip-rap stone and end sections.

D. Stabilized Construction Entrance.

E. Temporary stone wash off areas.

F. Storm sewer, curb/gutter.

G. Sediment traps and basins.

112.3 SEQUENCE OF MAJOR ACTIVITIES

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

A. Construct temporary construction exit at location shown on the Demo & Erosion Control Plan Sheet.

B. Install perimeter silt fences in the locations shown on the Demo & Erosion Control Plan sheet.

C. Clear and grub site within disturbance (silt fence) limits.

D. Installation of detention basin to act as sediment basin (do not install bioretention soil or underdrains until stabilized)

E. Commence site grading.

F. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.

G. Construction of buildings.

H. Installation of proposed utilities.

I. Finalize pavement subgrade preparation.

J. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all new inlets.

K. Dust control.

L. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.

M. Install base material as required for pavement.

N. Carry out final grading and seeding and planting.

O. Clean storm system following construction.

P. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.

Note: Sediment control storage during construction (traps & basins) during construction shall be 134 cy per acre of disturbance per NYSDEC requirements.

112.4 STORM WATER MANAGEMENT

The existing site sheet drains from east to west to a USACE jurisdictional wetland area at the rear of the site.

The proposed development will replicate the existing hydrology of the site. The proposed hydrology for the development project area will consist of overland sheet flow and pipe channel flow. The storm sewer system for this site will consist of 6", 8" and 12" HDPE pipes connected by a series of catch basins and yard drains. Stormwater runoff generated from the site will enter the pipe network and be conveyed to a detention basin on the west side of the site. The detention basin will discharge runoff, at a controlled rate, to the existing wetlands. To meet NYSDEC water quality requirements, runoff will be conveyed to a bioretention areas prior to the detention basin. Runoff that is currently being discharged on to the site from the church parking lot to the east will be collected and piped to the west side of the site.

The NYSDEC Stormwater Management Design Manual requires a five-step process for Stormwater Management Planning as outlined in Chapter 3. The five steps include:

1. Site planning to preserve natural features and reduce impervious cover.
    - Approximately 5.6 acres of existing vegetation within the existing wetlands will remain and be protected.
2. Calculation of Water Quality Volume (WQv=RRv) for site.
    - See Stormwater Drainage Calculations.
3. Incorporation of Green Infrastructure techniques and standard SMPs with Runoff Reduction Volume (RRv) capacity.
    - Bioretention areas were incorporated into the site design to provide required RRv for the development. See Stormwater Drainage Calculations.
4. Use of standard SMPs where applicable, to treat the portion of water quality volume not addressed by green infrastructure techniques and standard SMPs with RRv capacity.
    - The bioretention areas serve to the treat the remaining WQv.
5. Design of volume and peak rate control practices where required.
    - See Stormwater Drainage Calculations.

The NYSDEC Stormwater Management Design Manual requires (5) five different criteria be considered when designing a stormwater management system. Those criteria are Water Quality, Runoff Reduction Volume, Channel Protection, Overbank Flooding and Extreme Storm Protection. Below is a summary of each item and how it is incorporated into this project.

Water Quality & Runoff Reduction Volume:

The NYSDEC requires reduction of the total water quality volume by green infrastructure techniques and SMP's to replicate pre-development hydrology. Bioretention areas were incorporated into the site layout to provide the required RRv for contributing WQv runoff area for the development. The bioretention areas will provide 4,378 cf RRv. The minimum RRv required is 2,047 cf. The bioretention areas will also treat 6,349 cf of WQv. The required WQv = 10,727 cf. The sum of the WQv treated and the RRv is equal to the required WQv, therefore the practice is acceptable.

Channel Protection:

The NYSDEC requires that 24-Hour extended detention be provided for the proposed 1-year storm event. A volume of 5,335 cf is accommodated in the detention basin at elevation 671.04.

Overbank Flooding:

The NYSDEC requires that the 10-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. A volume of 15,013 cf is accommodated in the detention basin at elevation 672.95.

Extreme Storm Protection:

The NYSDEC requires that the 100-year proposed storm event be attenuated with detention and that the outlet be restricted to the 100-year existing storm event. A volume of 34,966 cf is accommodated in the detention basin at elevation 674.73.

Refer to the engineer's report for storm sewer design criteria, runoff summary tables and stormwater drainage calculations.

113 OTHER CONTROLS

113.1 OFF-SITE VEHICLE TRACKING

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments. Existing paved areas will remain as long as possible and will be used for vehicle wash areas and to further aid in the reduction of vehicle tracking of sediments. The paved streets adjacent to the site entrance shall be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material to/from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

113.2 EXCAVATION SPOIL MATERIALS

Excavation spoil materials are generated during the excavation of the development's building and utilities installation. These materials must be properly managed to prevent them from contributing to storm water discharges. The materials generated from the development of this project will be hauled off-site or stockpiled for re-use in designated areas which will have temporary erosion & sediment control measures installed. Any removal from site will be done under the necessary permits required by the local governing agencies.

113.3 DUST CONTROL

Minimizing wind erosion and controlling dust will be accomplished by one or more of the following methods:

A. Frequent watering of excavation and fill areas.

B. Providing gravel or paving at entrance/exit drives, parking areas and transit paths.

113.4 WASTE DISPOSAL

If needed, all waste materials will be collected and stored in securely lidded metal dumpsters rented from an approved waste management company. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpsters. The dumpsters will be emptied when full and then hauled to a NYSDEC approved landfill for proper disposal. No construction waste will be buried on-site. All personnel will be instructed regarding the correct procedures for waste disposal.

113.5 SANITARY WASTE

If needed, portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

113.6 CONCRETE WASTE FROM CONCRETE TRUCKS

A. Emptying of excess unhardened concrete and/or washout from concrete delivery trucks will be allowed on the job site, but in either (1) specifically designated diked areas which have been prepared to prevent contact between concrete and/or washout and storm water which will be discharged from the site or (2) in locations where waste concrete will be poured into forms to make rip-rap or other useful concrete products.

B. Hardened waste concrete from the designated diked areas described above will be disposed of in accordance with applicable local and state regulations with regards to disposal of construction debris.

113.7 HAZARDOUS SUBSTANCES & HAZARDOUS WASTE

A. All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job superintendent, who will also be responsible for seeing these practices are followed. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such products are stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

B. The contractor will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this SWPPP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials of hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge shall be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job superintendent to properly train all personnel in the use of the SPCC plan.

C. Any spills of hazardous materials which are in excess of the Reportable Quantities as defined by the EPA regulations shall be immediately reported to the EPA National Response Center at 1-100-424-1102. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

D. In order to minimize the potential for a spill of hazardous materials to come in contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, under cover, when not in use.

2. The minimum practical quantity of all such materials will be kept on the job site.

3. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

4. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

5. All products will be stored in and used from the original container with the original product label.

6. All products will be used in strict compliance with instructions on the product label.

7. The disposal of excess or used products will be in strict compliance with instructions on the product label.

113.8 CONTAMINATED SOILS

A. Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations.

B. The job site superintendent will be responsible for seeing that these procedures are followed.

114 COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

The Contractor will obtain copies of any and all local and state regulations which are applicable to storm water management, erosion control, and pollution minimization at this job site and will comply fully with such regulations. The Contractor will submit written evidence of such compliance if requested by the Operator or any agent of a regulatory body. The Contractor will comply with all conditions of the SPDES General Permit for Construction Activity for the State of New York, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

The SWPPP for this site development project requires regulated MS4 approval from the Town of West Seneca. All changes to the SWPPP must be approved by the Town of West Seneca prior to applying changes to the SWPPP in the field.

115 INSPECTION AND MAINTENANCE PROCEDURES

The following inspection and maintenance practices will be used to maintain erosion and sediment controls and stabilization measures.

1. All control measures will be inspected by the owner/operator at least weekly and shall continue until the site complies with the Final Stabilization section of this document (See Section 116).

2. All control measures will be inspected by a Qualified Professional at least weekly and shall continue until the site complies with the Final Stabilization section of this document (See Section 116).

3. All measures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be initiated within 24 hours of report.

4. Built up sediment will be removed from silt fence/silt sock when it has reached one-third the height of the fence.

5. Silt fence/silt socks will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.

6. Temporary and permanent seeding and all other stabilization measures will be inspected for bare spots, washouts, and healthy growth.

7. A maintenance inspection report will be made after each inspection. Copies of the report forms to be completed by the inspector are included in this SWPPP.

8. The job site superintendent will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.

9. Personnel selected for the inspection and maintenance responsibilities will receive training from the job site superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms. Documentation of this personnel training will be kept on site with the SWPPP.

10. Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.

11. Report to the NYSDEC within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event. The following events require 24 hour reporting: a) any unanticipated bypass which exceeds any effluent limitation in the permit, b) any upset which exceeds any effluent limitation in the permit, and c) a violation of a maximum daily discharge limitation for any of the pollutants listed by the NYSDEC in the permit to be reported within 24 hours. The written submission must contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.

12. Releases of hazardous substances or oil in excess of reportable quantities (as established under 40 CFR 110, 40 CFR 117 or 40 CFR 302) must be reported.

Upon completion of construction, the property owner is responsible for ensuring that the stormwater facilities are regularly inspected and maintained. Maintenance and inspection procedures are as follows.

1. On a quarterly basis and following significant rainfall events or snow-melts, perform the following:

    - Inspect catch basins, storm manholes, treatment structures, storm piping and stormwater pond for debris and accumulation of sediment.
    - Remove and properly dispose of any collected debris and sediment in accordance with applicable state, federal and local regulations.
    - Flush piping with water if necessary to remove accumulated sediment.
    - Bioretention areas shall be maintained per the NYSDEC Maintenance and Management Checklist included in this SWPPP.
    - Check all stone outfall structures for erosion and re-stone if necessary to prevent further erosion.
    - Inspect grassed/landscaped areas for un-vegetated areas or areas with less than 85% healthy stand of grass and reseed and mulch as necessary. Water daily if reseeded in July and August.
    - A record of all inspections should be kept.

2. Maintain all lawn areas by regular mowing, including the grassed slopes of the stormwater pond and any grass swales. Any eroded areas shall be regarded, seeded and mulched immediately.

116 INSPECTION AND MAINTENANCE REPORT FORMS

Once installation of any required or optional erosion control device or measure has been implemented, inspections shall be performed by a Qualified Professional at least once every seven (7) calendar days. For construction sites where soil disturbance activities are on-going and the **owner or operator** has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the **qualified inspector** shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. The owner and contractor shall obtain from the MS4 an approval for disturbing more than five-acres at any given time. For construction sites where active construction has been suspended, inspection frequency under the general permit can be reduced to once every 30 days, provided temporary stabilization measures have been applied to all disturbed areas. The forms found in this SWPPP shall be used by the inspectors to inventory and report the condition of each measure to assist in maintaining the erosion and sediment control measures in good working order.

These report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the Operator's Engineer, and the Operator for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these persons, upon request, via mail or facsimile transmission. Inspection and maintenance report forms are to be maintained by the permittee for five years following the final stabilization of the site.

117 OTHER RECORD-KEEPING REQUIREMENTS

The Contractor shall keep the following records related to construction activities at the site:

- Dates when major grading activities occur and the areas which were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when an areas is stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

118 SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN

118.1 MATERIALS COVERED

The following materials or substances are expected to be present onsite during construction:

- Concrete/Additives/Wastes
- Cleaning solvents
- Sanitary wastes
- Detergents
- Petroleum based products
- Paints/Solvents
- Pesticides
- Solid and construction wastes
- Acids
- Fertilizers
- Soil stabilization additives

118.2 MATERIAL MANAGEMENT PRACTICES

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff. The job site superintendent will be responsible for ensuring that these procedures are followed.

A. Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project.

1. An effort will be made to store only enough products required to do the job.
2. All materials stored onsite will be stored in a neat, orderly manner and, if possible, under a roof or in a containment area. At a minimum, all containers will be stored with their lids on when not in use. Drip pans shall be provided under all dispensers.
3. Products will be kept in their original containers with the original manufacturer's label in legible condition.
4. Substances will not be mixed with one another unless recommended by the manufacturer.
5. Whenever possible, all of a product will be used up before disposing of the container.

6. Manufacturer's recommendations for proper use and disposal will be followed.

7. The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

B. Hazardous Products

These practices will be used to reduce the risks associated with hazardous materials. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

1. Products will be kept in original containers with the original labels in legible condition.

2. Original labels and material safety data sheets (MSDS's) will be procured and used for each material.

3. If surplus product must be disposed of, manufacturer's or local/state/federal recommended methods for proper disposal will be followed.

4. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

5. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

C. Hazardous Waste

All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job site superintendent, who will also be responsible for seeing that these practices are followed.

D. Product Specific Practices

The following product specific practices will be followed on the job site.

1. Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any petroleum storage tanks stored onsite will be located within a containment area that is designed with an impervious surface between the tank and the ground. The secondary containment must be designed to provide a containment volume that is equal to 110% of the volume of the largest tank. Drip pans shall be provided for all dispensers. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations. The

location of any fuel tanks and/or equipment storage areas must be identified on a plan by the contractor once the locations have been determined.

2. Fertilizers

Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked in the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

3. Paints, Paint Solvents, and Cleaning Solvents

All containers will be tightly sealed and stored when not in use. Excess paint and solvents will not be discharged to the storm sewer system but will be properly disposed of according to manufacturer's instructions or state and federal regulations.

4. Concrete Wastes

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or wash out and storm water which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

The hardened residue from the concrete wash out diked areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the Contractor. The job site superintendent will be responsible for seeing that these procedures are followed.

All concrete wash out areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges. The location of concrete wash out area(s) must be identified on a plan by the contractor once the locations have been determined. In addition, a standard detail on the construction of the concrete wash out shall be included on this plan.

E. Solid and Construction Wastes

All waste materials will be collected and stored in an appropriately covered container and/or securely lidded metal dumpster rented from a local waste management company which must be a solid waste management company licensed to do business in New York and the Town of Orchard Park. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of twice per week or more often if necessary, and the trash will be hauled to a landfill approved by the NYSDEC. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedures for waste disposal.

All waste dumpsters and roll-off containers will be located in an area where the likelihood of the containers contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of waste dumpsters and roll-off containers must be identified on a plan by the contractor once the locations have been determined.

F. Sanitary Wastes

Portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

All sanitary waste units will be located in an area where the likelihood of the unit contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of sanitary waste units must be identified on a plan by the contractor once the locations have been determined.

G. Contaminated Soils

Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Materials Management Plan and in accordance with applicable state and federal regulations.

118.3 SPILL PREVENTION AND RESPONSE PROCEDURES

The Contractor will train all personnel in the proper handling and cleanup of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job site superintendent to properly train all personnel in spill prevention and clean up procedures.

A. In order to minimize the potential for a spill of hazardous materials to come into contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, with their lids on, preferably under cover, when not in use.

2. The minimum practical quantity of all such materials will be kept on the job site.

3. A spill control and containment kit (containing, for example, absorbent materials, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

4. Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.

B. In the event of a spill, the following procedures should be followed

1. All spills will be cleaned up immediately after discovery.

2. The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substances.

3. The project manager and the Engineer of Record will be notified immediately.

   Spills of toxic or hazardous materials will be reported to the appropriate federal, state, and/or local government agency, regardless of the size of the spill. Spills of amounts that exceed Reportable Quantities of certain substances specifically mentioned in federal regulations (40 CFR 110, 40 CFR 117, and 40 CFR 302) must be immediately reported to the EPA National Response Center, telephone 1-100-424-1102. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

4. If the spill exceeds a Reportable Quantity, the SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The plans must identify measures to prevent the recurrence of such releases and to respond to such releases.

C. The job site superintendent will be the spill prevention and response coordinator. He will designate the individuals who will receive spill prevention and response training. These individuals will each become responsible for a particular phase of prevention and response. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

119 CONTROL OF NON-STORM WATER DISCHARGES

Certain types of discharges are allowable under the NYSDEC SPDES General Permit for Construction Activity for the State of New York, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures which have been outlined previously in this SWPPP will be strictly followed to ensure that no contamination of these non-storm water discharges takes place. The following allowable non-storm water discharges which may occur at the job site include:

A. Discharges from firefighting activities.

B. Fire hydrant flushings (see note below)

C. Waters used to wash vehicles or control dust in order to minimize offsite sediment tracking.

D. Routine external building washdown which does not use detergents.

E. Pavement wash waters where spills or leaks of hazardous materials have not occurred or detergents have not been used.

F. Air conditioning condensate.

G. Springs or other uncontaminated groundwater, including dewatering ground water infiltration.

H. Foundation or footing drains where no contamination with process materials such as solvents is present.

   Note: The Contractor shall discharge any super-chlorinated water from water distribution pipe disinfection activities into sanitary sewer system

120 STORM WATER CONTROL FACILITY MAINTENANCE

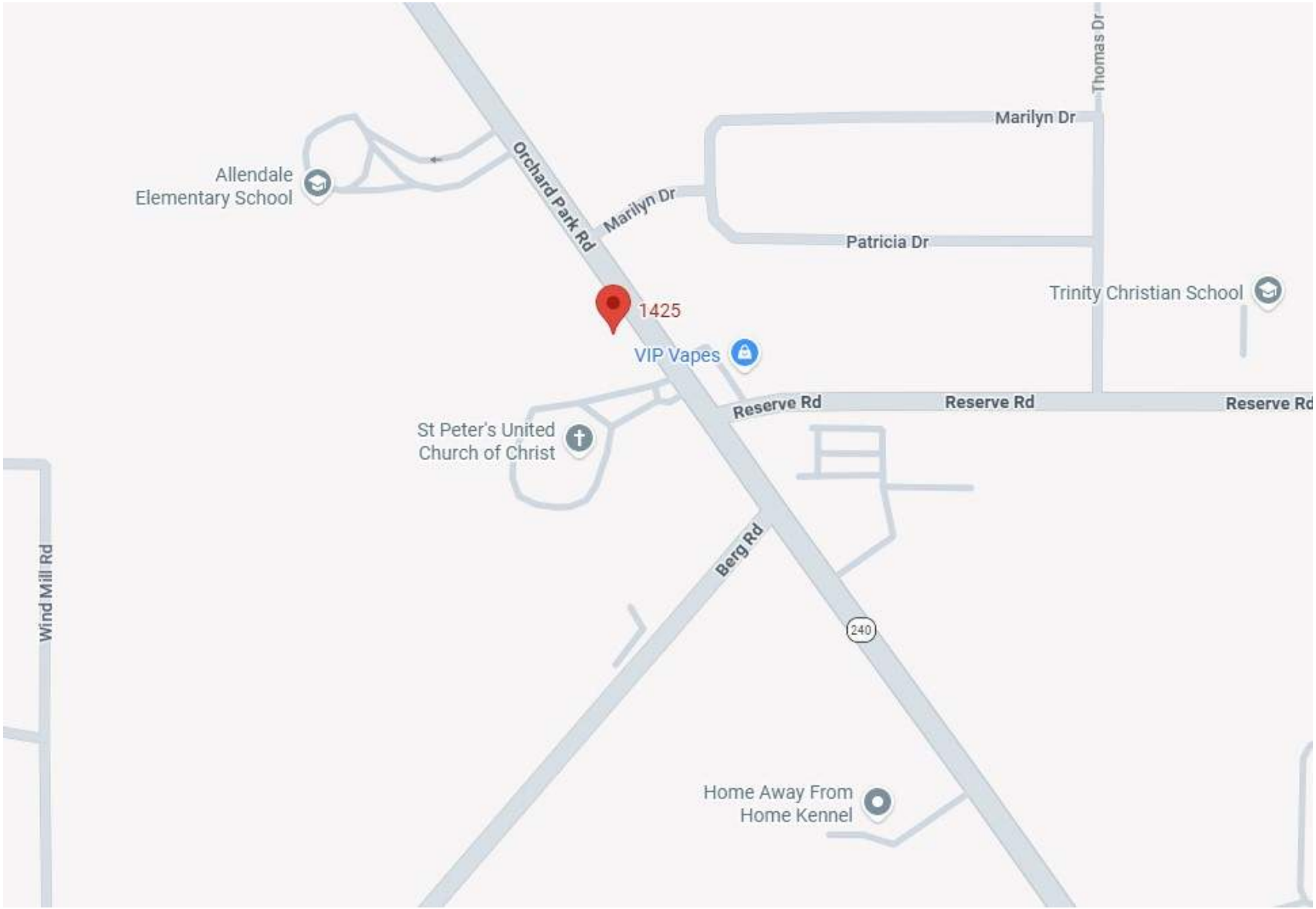
The frequency of inspections for the bioretention areas shall match the frequencies listed on the "Bioretention Operation, Maintenance and Management Inspection Checklist" in Appendix L of the SWPPP.

The proposed catch basins, as per section 115, shall be inspected 4 times per year for removal of floatable debris. Any silt buildup over 6" in depth shall be removed and disposed of properly off-site.

Appendix A

Site Location Map

Site Location Map



Appendix B

NYSDEC Notice of Intent (NOI)

Construction General Permit (CGP) Electronic Notice of Intent (eNOI) GP-0-25-001

version 1.18

(Submission #: HQN-V818-KWDXZ, version 1)

Details

Originally Started By	Anthony Pandolfe
Alternate Identifier	Multifamily Development—Region 9
Submission ID	HQN-V818-KWDXZ
Status	Draft

Form Input

Eligibility

Disturbance Threshold

1. Will the construction activity involve soil disturbances listed in Part I.A.1 of GP-0-25-001?
Yes

1.a. Will any runoff from the site enter a sewer system classified as a combined sewer?
No

1.b. Is this a remediation project being done under a Department approved work plan (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) with a SWPPP which meets the substantive requirements of GP-0-25-001?
No

1.c. Is the construction activity related to a stormwater discharge that does not require a permit as described in 40 CFR 122.3(e), e.g. non-point source agriculture or silviculture activities?
No

Other SPDES Permits

2. Will the discharge from the construction activity meet all conditions listed in Part I.A.2 of GP-0-25-001?
Yes

Threatened and Endangered Species

3. Will the construction activity potentially adversely affect a species that is endangered or threatened per Part I.A.3.?
No

State Historic Preservation Act (SHPA)

4. Is the construction activity designated by the Commissioner of the Office of Parks, Recreation and Historic Preservation (OPRHP), pursuant to 9 NYCRR §§428.12 or 428.13 as exempt from the SHPA review (see Attachment 2 of the Letter of Resolution between NYSDEC and OPRHP, dated January 9, 2015)?
No

4.a. Will the construction activity:

a) occur within an archeologically sensitive area indicated on the sensitivity map, or

b) have the potential to affect a property that is listed or determined to be eligible for listing on the Na or State Registers of Historic Places, or

c) include a new permanent building on the construction site within the following distances from a building, structure, or object that is more than 50 years old and OPRHP, a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determinec historically/archeologically significant building, structure, or object:

- 1-5 acres of disturbance—20 feet
- 5-20 acres of disturbance—50 feet
- 20+ acres of disturbance—100 feet?

Yes

4.a.i. Have the impacts to historic properties been resolved?
Yes

4.a.i.1. Which of the following documentation will be maintained at the construction site?
b) Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area

Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:
No Effect/No Historic Properties Affected

State Environmental Quality Review (SEQR)

5. Is the construction activity subject to SEQR (Part I.A.5.), or the equivalent environmental review from another NYS or federal agency (Part I.A.6.)?
Yes

5.a. Has the owner/operator obtained documentation that the project review pursuant to SEQR, or the equivalent, has been satisfied per Part I.A.5. or I.A.6. of GP-0-25-001?
Yes

Uniform Procedures Act (UPA) Permits

6. Has the owner/operator obtained all necessary UPA permits from NYSDEC, or the equivalent from another NYS or federal agency per Part I.A.7.a. of GP-0-25-001? Select "Yes" if no UPA permits, or the equivalent, are required for this construction activity.
Yes

Steep Slope

7. Is the construction activity within the watershed of surface waters of the State classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website?
No

Owner/Operator Information

8. Owner/Operator Name
Brian Hillery & William Sahlem

9. Owner/Operator Contact Person Information

First and Last Name	Phone	E-mail
Brian Hillery	716-512-3425	brian.hillery@huntrealestate.com

10. Owner/Operator Mailing Address
1 Woodthrush Trail
Orchard Park, NY 14127
USA

11. Is the billing contact different from the Owner/Operator Contact?
No

12. What type of organization is the owner/operator?
Individual

Site Information

13. Project/Site Name
Multifamily Development

14. Site Address
1425 Orchard Park Road
West Seneca, NY 14224
Erie

DEC Region
9

15. Site Latitude & Longitude
42.8117955,-78.7633328

Project Details

16. This eNOI submission is for:
A construction activity not part of a common plan of development or sale in accordance with Part I.D.1.a.

17. Does the project type fall under Table 1 or Table 2 of Appendix B of GP-0-25-001? If any portion of the construction activity falls under Table 2, regardless of the size of the disturbance, select "Table 2".
Table 2

18. Consistent with Part III.B.1.c.i. of GP-0-25-001, provide a concise overview of the project. Describe existing and proposed conditions, and include any other relevant information.
This new development project involves the construction of three (3) 4-unit, one (1) 5-unit and two (2) 6-unit ranch style townhomes, for a total of 29 units. Construction will also consist of associated parking, storm water management, utility, lighting, and landscaping improvements. The site is currently vacant consisting of grass, brush and tree cover. The total area of the site is 16.59 acres with an area of disturbance of approximately 7.37 acres. The site has been rezoned to C-1(S) to allow for the development.

Enter the total project site acreage, the acreage to be disturbed, and the future impervious area (acreage) within the disturbed area, rounded to the nearest tenth of an acre.

19. Total Site Area (acres)
16.6

20. Total Area to be Disturbed (acres)
7.4

21. Existing Impervious Area to be Disturbed (acres)
0.0

22. Future Impervious Area Within Disturbed Area (acres)
3.0

Nature of the project:
New Construction

23. Do you plan to disturb more than 5 acres of soil at any one time?
Yes

> The owner/operator must meet the requirements in Part I.E.6. before disturbing greater than five acres at any one time.

---

24. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)
0

B (%)
0

C (%)
0

D (%)
100

25. Enter the planned start and end dates of the disturbance activities.

Start Date
02/01/2027

End Date
12/31/2027

26. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
wetlands

27. Type of waterbody identified in question 26?
Wetland/Federal Jurisdiction On Site

28. Has the surface waterbody in question 26 been identified as a 303(d) segment in Appendix D of GP-0-25-001?
No

29. Is this project located in one of the Watersheds identified in Appendix C of GP-0-25-001?
No

30. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?
No

31. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?
No

32. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?
No

33. Is this property owned by a state authority, state agency, federal government or local government?
No

Required SWPPP Components

General SWPPP Requirements

34. Has a SWPPP been developed in conformance with the requirements in Part III. of GP-0-25-001?
Yes

35. Does the SWPPP demonstrate consideration of the future physical risks due to climate change pursuant to the CRRA, 6 NYCRR Part 490, and associated guidance per Part III.A.2. of GP-0-25-001?
Yes

36. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?
Yes

37. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the NYS Stormwater Management Design Manual?
Yes

37.a. Which version of the NYS Stormwater Management Design Manual was used to develop the SWPPP?
2024

SWPPP Preparer

39. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:
Professional Engineer (P.E.)

40. Name of the person who prepared the SWPPP
Anthony Pandolfe

41. SWPPP Preparer Organization Name
Carmina Wood Design

42. SWPPP Preparer Contact Information

First and Last Name	Phone	E-mail
Anthony Pandolfe	716-842-3165	apandolfe@carminawooddesign.com

43. SWPPP Preparer Address

80 Silo City Row, Suite 100
Buffalo, NY 14203

Download SWPPP Preparer Certification Form

Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form
3) Upload the completed form
Download SWPPP Preparer Certification Form

44. Please upload the SWPPP Preparer Certification

swppcertform signed.pdf - 05/26/2026 12:50 PM
Comment
NONE PROVIDED

44.a. Has the SWPPP Preparer Certification Form been signed by the SWPPP preparer in accordance with Part VII.J of GP-0-25-001?
Yes

Erosion & Sediment Control Criteria

45. Has a construction sequence schedule for the planned management practices been prepared?
Yes

Post-Construction Criteria

Site Planning and Soil Restoration

46. Identify all site planning practices that were used to prepare the final site plan/layout for the project.
Preservation of Undisturbed Area
Preservation of Buffers
Reduction of Clearing and Grading

47. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6 ("Soil Restoration") of the Design Manual.
All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).

Water Quality Criteria

49. Water Quality Sizing Criteria

Total WQv required (acre-feet)	Total RRv provided (acre-feet)	Minimum RRv (acre-feet)	Total WQv provided (acre-feet)	Sum of RRv and WQv provided
0.246	0.101	0.047	0.146	0.247

49.a. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required.
Site limitations include soils with slow infiltration rates (Type D)

Water Quantity Criteria

51. Does one of the waiver conditions apply to the channel protection for this construction activity?
No

51.b.i. CPv Required (acre-feet)
0.122

51.b.ii. CPv Provided (acre-feet)
0.122

52. Does one of the waiver conditions apply to the Qp and Qf for this construction activity?
No

Overbank Flood Control Criteria (Qp)

52.b.i. Pre-Development (CFS)
8.17

52.b.ii. Post-Development (CFS)
3.94

Total Extreme Flood Control Criteria (Qf)

52.b.iii. Pre-Development (CFS)
18.97

52.b.iv. Post-Development (CFS)
5.97

Operation and Maintenance

53. Has a long-term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?
Yes

53.a. Identify the entity responsible for the long-term Operation and Maintenance.
Brian Hillery

Post-Construction SMP Identification

54. Post-Construction RR Techniques and Standard SMPs

RR Techniques and SMPs	Contributing Impervious Area (acres)	Total Contributing Area (acres)
Filtration Bioretention (F-5)	3.0	

55. Alternative SMPs

Type of Alternative SMP	Manufacturer of the Alternative SMP	Name of the Alternative SMP	Contributing Impervious Area (acres)
NONE PROVIDED	*NONE PROVIDED*	*NONE PROVIDED*	*NONE PROVIDED*

Other Permits

56. Identify other permits, existing and new, that are required for this project/facility.
None

57. Is this NOI for a change in owner/operator per Part I.G.?
No

MS4 SWPPP Acceptance

59. Will the construction activities be within the municipal boundary(ies) of Traditional Land Use Control MS4 Operator(s) and discharge to the MS4(s)?
Yes

59.a. Which form is required per Part I.D.2.b.ii.?
MS4 SWPPP Acceptance Form

MS4 SWPPP Acceptance Form Download

Download the MS4 SWPPP Acceptance Form from the link below.
MS4 SWPPP Acceptance Form

60. MS4 Acceptance or No Jurisdiction Form Upload

NONE PROVIDED
Comment
NONE PROVIDED

60.a. Has the form been signed by the principal executive officer or ranking elected official—or duly authorized representative of that person—in accordance with Part VII.J. and submitted along with this NOI?
No

All forms submitted with the eNOI must be signed in accordance with Part VII.J. per Part I.D.2.b. of GP-0-25-001.

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the Owner/Operator Certification Form by clicking the link below.
Owner/Operator Certification Form

61. Upload Owner/Operator Certification Form

NONE PROVIDED

Comment

NONE PROVIDED

61.a. Has the Owner/Operator Certification Form from Appendix J been signed by the owner/operator, or a representative of the owner/operator in accordance with Part VII.J of GP-0-25-001 and uploaded to the eNOI?

No

All forms submitted with the eNOI must be signed in accordance with Part VII.J. per Part I.D.2.b. of GP-0-25-001.

Additional Project Information

62. Enter any additional pertinent project information in the text box below.

NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
5/26/2026 12:50 PM	swppcertform signed.pdf	Attachment	Anthony Pandolfe

Appendix C

MS4 SWPPP Acceptance Form

MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information	
1. Owner/Operator Name:	Brian Hillery & William Sahlem
2. Contact Person:	Brian Hillery
3. Street Address:	1 Woodthrush Trail
4. City/State/Zip:	Orchard Park, NY 14127
II. Project Site Information	
5. Project/Site Name:	Multifamily Development
6. Street Address:	1425 & 1475 Orchard Park Road
7. City/State/Zip:	West Seneca, NY 14224
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information	
8. SWPPP Reviewed by:	
9. Title/Position:	
10. Date Final SWPPP Reviewed and Accepted:	
IV. Regulated MS4 Information	
11. Name of MS4 Operator:	
12. MS4 SPDES Permit Identification Number: NYR20A	
13. Street Address:	
14. City/State/Zip:	
15. Telephone Number:	

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name[1]:

Title/Position:

Signature:

Date:

VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

Appendix D

Engineer's Report

CARMINA WOOD
DESIGN

ENGINEER'S REPORT

for

Multifamily Development

1425 & 1475 Orchard Park Road
West Seneca, Erie County, New York

Prepared for

Brian Hillery & William Sahlem

1 Woodthrush Trail
Orchard Park, NY 14127

Prepared by

Carmina Wood Design

80 Silo City Row, Suite 100
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

May 2026



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Section 2 – Water Service Page 1
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Appendices

Appendix A Site Location Map

Appendix B Sanitary Sewer & Water Demand Calculations

Appendix C Downstream Sewer Capacity Analysis Report

Appendix D Storm Water Calculations

Appendix E Soil Information

Section 1 – Location & Description

This new development project involves the construction of three (3) 4-unit, one (1) 5-unit and two (2) 6-unit ranch style townhomes, for a total of 29 units. Construction will also consist of associated parking, storm water management, utility, lighting, and landscaping improvements. The site is currently vacant consisting of grass, brush and tree cover. The total area of the site is 16.59 acres with an area of disturbance of approximately 7.37 acres. The site has been rezoned to C-1(S) to allow for the development.

See Appendix A for Site Location Map.

Section 2 – Water System

The proposed 6" combined water service will connect to an existing 8" PVC water main located on the west side of Orchard Park Road. The proposed service will tap the main and enter a heated enclosure where an RPZ and meter will be provided. The combined service will enter the buildings and reduce to a 2" domestic service. Two (2) private fire hydrants are proposed to provide fire protection. Drainage from the hotbox due to testing or failure will be via gravity to the nearest drainage inlet. Water inside the building will be used for typical bathroom and janitorial uses.

Domestic Summary:

Peak Operating Demand:	87 gpm
Water Main:	8" PVC water main along Orchard Park Road
Static Pressure:	70 psi
Friction Loss:	0.2 psi
Elevation Loss:	-2.0 psi
Meter & RPZ Loss:	13 psi
Pressure at furthest unit:	58.8 psi

Fire Summary:

Peak Operating Demand:	1,000 gpm
Water Main:	8" PVC water main along Orchard Park Road
Static Pressure:	70 psi
Friction Loss:	12.6 psi
Elevation Loss:	-2.0 psi
Meter & RPZ Loss:	13 psi
Pressure at furthest hydrant:	46.4 psi

Repairs to all devices will be made during off hours; dual backflow preventers are not required. The site is not located in a 100-year flood plain.

Disinfection of the water service following installation will be continuous feed, according to AWWA C-651, latest revision.

See Appendix B for Sanitary Sewer & Water Calculations.

Section 3 – Sanitary Sewer Service

The proposed sanitary sewer service will connect to an existing manhole located along the west side of Orchard Park Road. The proposed service will consist of approximately 691 LF of 8" SDR-35 PVC private sanitary sewer main at a slope of 0.4%, 346 LF of 6" SDR-35 PVC sanitary sewer lateral at a minimum slope of 1.0% and 285 LF of 3" SDR-21 PVC force main with a minimum cover of 4'.

Design Parameters:
Multifamily Development: 29 units x 220 gpd/unit = 6,380 gpd

Since the sanitary sewer extension is designed to convey greater than 2,500 gpd, a downstream sewer capacity analysis was performed to ensure that the existing sewer could handle the additional flow.

The hydraulic loading rates per "Design Standard for Wastewater Treatment Works" 2014, NYSDEC.

See Appendix B for Sanitary Sewer & Water Calculations

See Appendix C for Downstream Sewer Capacity Analysis Report

Section 4 – Storm Sewer Service

The existing site sheet drains from east to west to a USACE jurisdictional wetland area at the rear of the site.

The proposed development will replicate the existing hydrology of the site. The proposed hydrology for the development project area will consist of overland sheet flow and pipe channel flow. The storm sewer system for this site will consist of 6", 8" and 12" HDPE pipes connected by a series of catch basins and yard drains. Stormwater runoff generated from the site will enter the pipe network and be conveyed to a detention basin on the west side of the site. The detention basin will discharge runoff, at a controlled rate, to the existing wetlands. To meet NYSDEC water quality requirements, runoff will be conveyed to a bioretention areas prior to the detention basin. Runoff that is currently being discharged on to the site from the church parking lot to the east will be collected and piped to the west side of the site.

Design Criteria
Storm pipes: 10-year storm
Detention: Comparison of the existing 1-year vs. the proposed 1-year runoff.
Comparison of the existing 10-year vs. the proposed 10-year runoff.
Comparison of the existing 10-year vs. the proposed 25-year runoff.
Comparison of the existing 100-year vs. the proposed 100-year runoff.

Stormwater Runoff Summary:

To Detention:

Event	Prop. Runoff (cfs)	Elevation (ft)	Storage (cf)
1-yr	1.94	671.04	5,335
10-yr	2.82	672.95	15,013
25-yr	3.10	673.70	21,268
100-yr	3.45	674.73	34,966

Direct:

Event	Prop. Runoff (cfs)
1-yr	0.38
10-yr	1.12
25-yr	1.57
100-yr	2.52

Total Site:

Event	Ex. Runoff (cfs)	Prop. Runoff (cfs)
1-yr	2.63	2.32
10-yr	8.17	3.94
25-yr	11.66	4.67
100-yr	18.97	5.97

See Appendix D for Storm Water Calculations

Section 5 – Erosion Control Summary

Stabilization Practices
Stabilization practices for this site include:

A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
B. Use of stabilization fabric for all slopes having a slope greater than 1V:3H.
C. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
D. Mulching exposed areas.
E. Frequent watering to minimize wind erosion during construction.

Structural Practices
Structural practices for this site include:

A. Inlet protection using a method detailed in the Construction Documents
B. Perimeter protection using temporary silt fence
C. Temporary stone wash off areas

Sequence of Major Activities

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

A. Construct temporary construction exit at location shown on the Demo & Erosion Control Plan Sheet.
B. Install perimeter silt fences in the locations shown on the Demo & Erosion Control Plan sheet.
C. Clear and grub site within disturbance (silt fence) limits.
D. Installation of detention basin to act as sediment basin (do not install bioretention soil or underdrains until stabilized)
E. Commence site grading.
F. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
G. Construction of buildings.
H. Installation of proposed utilities.
I. Finalize pavement subgrade preparation.
J. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all new inlets.
K. Dust control.
L. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
M. Install base material as required for pavement.
N. Carry out final grading and seeding and planting.
O. Clean storm system following construction.
P. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.

Section 6 – Geotechnical Items

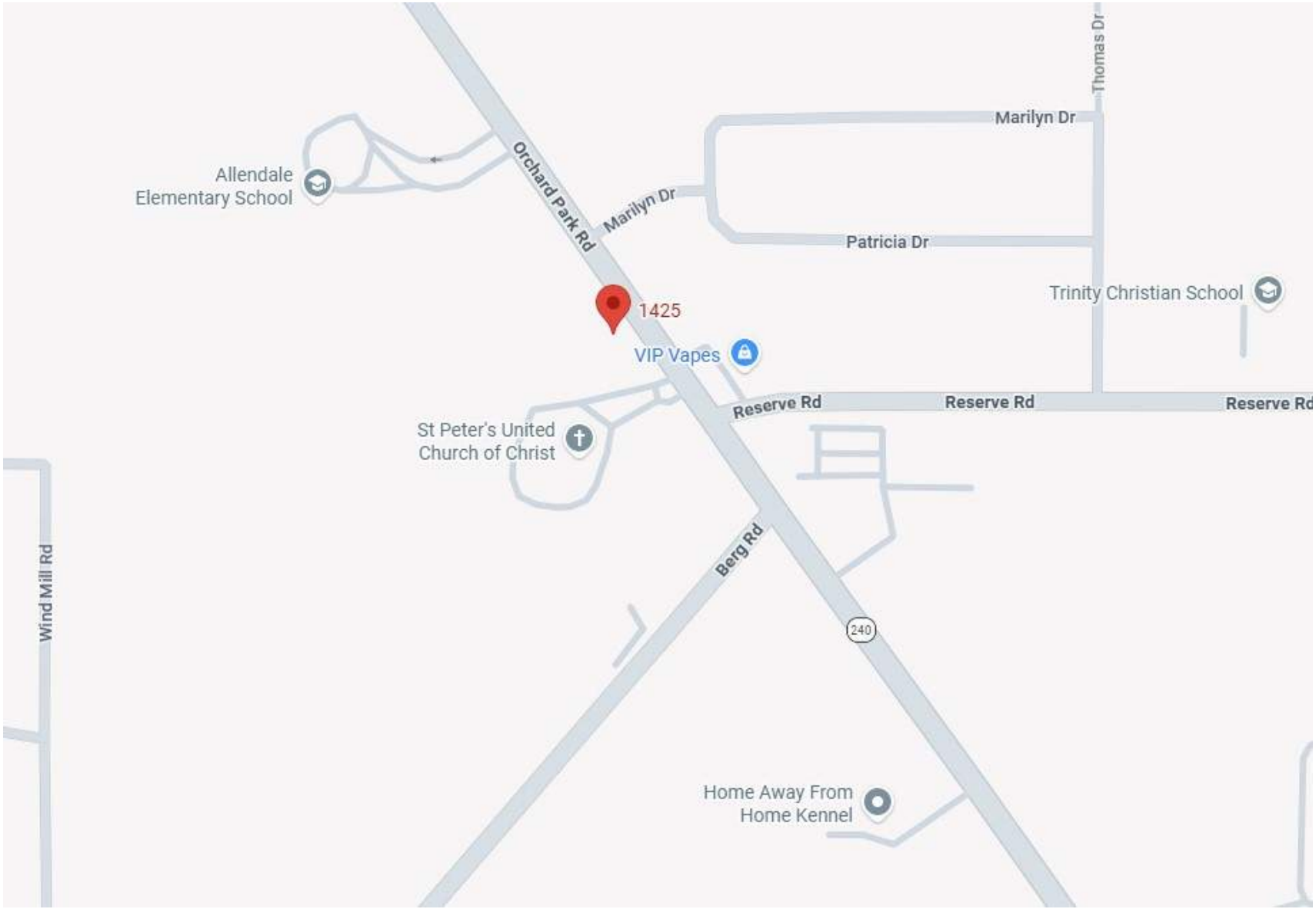
According to the USDA Web Soil Survey, the onsite soil is made up of Darien silt loam, Niagara silt loam and Remsen silty clay loam. These soils are categorized under hydrologic soil groups C/D and D and will have a slow infiltration rate when thoroughly wet.

See Appendix D for Soil Information.

Appendix A

Site Location Map

Site Location Map



Appendix B

Sanitary Sewer & Water Demand Calculations

CARMINA WOOD DESIGN
80 Silo City Row, Suite 100
Buffalo, New York 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 5/22/2026
Project Name: Multifamily Development
Project Address: 1425-1475 Orchard Park Road - West Seneca
Subject: Sanitary Sewer Demand Calcs
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Townhomes

220 gal/d/unit x 29 units = 6,380 gpd *use 220 gallons per unit per day (2-bdrm)

Find Peak Sanitary Demand:

Peaking Factor based on Population:

Total demand: 6,380 gpd / 51.96 gpcd = 123 per capita

Population (P) = 123 people

Peaking Factor : (18 +√P) / (4 + √P) where P is in thousands

Peaking Factor = 4.22

Peak Sanitary Demand = 6,380 x 4.22 = 26,911 gpd
= 0.027 MGD
= 0.042 cfs

Required Infiltration and Inflow Mitigation:

Mitigation Fee = $2.40 /gal = $15,312.00

Carmina Wood Design
80 Silo City Row, Suite 100
Buffalo, NY 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 5/18/2026
Project Name: Multifamily Development
Project Address: 1475 Orchard Park Road - Town of West Seneca
Subject: Sanitary Sewage Pump Station Design
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Apartments

220 gpd/unit x 25 units = 5,500 gpd

Average Site Sanitary Flow: = 5,500 gpd

Peak Site Sanitary Flow: = 22,000 gpd

PF = 4.0

* assume flow over 18 hour period

Peak Site Sanitary Flow: = 20.4 gpm

8" inlet into pump station invert: 670.68

Forcemain invert at tie into downstream sewer: 676.55

Pump chamber diameter: 5 ft (147 gal/ft)

Storge required:

* use filling time of 30 minutes @ 20.4 gpm (peak flow)

Storage required = 20.4 gpm x 30 mins / 147 gal = 4.16 ft

Top of pump station:	682.40	
Inlet & Alarm:	670.68	
2 pumps on:	670.18	(inlet minus 0.5 ft)
1 pump on:	669.68	(2 pumps on minus 0.5 ft)
pumps off:	665.52	(1 pump on minus storage required)
Bottom of station:	664.27	(pumps off minus 1.15 ft)

Total depth: **18.13** ft

Cleansing velocity:

Using a 3 inch forcemain, find flow for min 2 fps cleansing velocity

A = 0.05 ft^2

Q = V x A = 2 fps x 0.05 ft^2 = 0.09817 cfs = **44.1** gpm

CARMINA WOOD DESIGN
80 Silo City Row, Suite 100
Buffalo, New York 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 5/22/2026
Project Name: Multifamily Development
Project Address: 1425-1475 Orchard Park Road - West Seneca
Subject: Water Demand Calcs
Sheet: 1 of 1

Water Demand Calculations (domestic):

Townhome Development:

Q = 3 gpm/unit x 29 units = 87 gpm ECDOH Requirement

Water Demand Calculations (fire):

Q = 1500 gpm * per ISO Guidelines

Elev. at ex. residual hydrant = 684.5 ft

Static pressure at ex. hydrant = 70 psi

El. @ road tap = 684.5 ft

Δ elev ex. hydrant to road tap = 0 ft = 0.0 psi (positive is decrease in pressure from static)
(negative is increase in pressure from static)

Static pressure at road tap = 70.0 psi

El. @ furthest building = 679.9 ft

Δ elev road tap to furthest building = -4.6 ft = -2.0 psi (positive is decrease in pressure from static)
(negative is increase in pressure from static)

Find residual at furthest unit using domestic flow:

Headlosses:

Q_{peak} = 87.0 gpm
Pipe = 6 inch PVC C = 150
Length = 646 LF (approx. distance from tap to furthest building)

$$H_L = \frac{10.44\, L\, Q^{1.85}}{C^{1.85}\, D^{4.866}} = \frac{10.44(646)(87)^{1.85}}{(150)^{1.85}\,(6)^{4.866}} = 0.40 \text{ ft} = 0.2 \text{ psi}$$

Loss through 6-inch RPZ & meter = 13 psi

Residual pressure at furthest unit = Static pressure at road tap - headlosses - Δ elev
=70.0 - 0.2 - 13 - (-2)
= 58.8 psi

Find residual at furthest hydrant using fire flow:

Headlosses:

Q_{peak} = 1000 gpm
Pipe = 6 inch PVC C = 150
Length = 509 LF (approx. distance from tap to furthest hydrant)

$$H_L = \frac{10.44\, L\, Q^{1.85}}{C^{1.85}\, D^{4.866}} = \frac{10.44(509)(1000)^{1.85}}{(150)^{1.85}\,(6)^{4.866}} = 29.05 \text{ ft} = 12.6 \text{ psi}$$

Loss through 6-inch RPZ = 13 psi

Residual pressure at furthest unit = Static pressure at road tap - headloss - Δ elev
= 70.0 - 12.6 - 13 - (-2)
= 46.4 psi

Appendix C

Downstream Sewer Capacity Analysis Report

TOWN OF WEST SENECA

ENGINEERING DEPARTMENT

TOWN SUPERVISOR
GARY A. DICKSON
TOWN COUNCIL
JEFF PIEKAREC
SCOTT ROBERTSON
ROBERT BREIDENSTEIN
MARY SHERMAN

1/6/2026

Jeffrey Scheiber
Code Enforcement Officer
Town of West Seneca

Re: Proposed Townhouses (1425 Orchard Park Road)
Sanitary Sewer Capacity Analysis (Revised December 2025)

Dear Mr. Schieber,

In January 2025, the Town Board approved the discharge of sanitary sewage flow from the proposed developments at 1425 Orchard Park Road and 1130 Orchard Park Road into the Town's existing 10" sewer main located along Orchard Park Road which is part of the Town's Sewer District 13.

At that time, the proposed average daily flow from 1425 Orchard Park Road development was calculated to be 7,040 gallons per day. This volume was based on a total of (32) 2-bedroom apartments, assuming 110 gallons per day per bedroom.

PROPOSED CHANGES:

The developer is now proposing to construct twenty-nine (29) 2-bedroom townhouses instead of the apartment units, which has **reduced the proposed sewage flow** from 7,040 gallons per day to 6,380 gallons per day, assuming 110 gallons per day per bedroom.

CONCLUSION:

Since the proposed sewer flow for the twenty nine, 2 bedroom townhouses is less than the previously approved apartments, I have **no additional concerns** with the capacity of the sewer.

SEWER MITIGATION FEE

Please note in July 2024 the Town increased the cost per gallon for the sewer mitigation fee from $1.20/gallon to $2.40/gallon. The original application was submitted prior to that date but the revised project for 1425 Orchard Park Road was submitted after the fee changed, so I am proposing to utilize the new fee to calculate the total amount for the revised project as follows:

1425 Orchard Park Road:

6,380 GPD (increase of average daily flow)
x $2.40 ($/gallon)
$15,312

A sewer mitigation fee, as calculated above, should be collected by your office and applied toward the sewer repair fund for Sewer District 13.

Very truly yours,



Jason A. Foote, P.E.
Town Engineer

cc: Files:
Chris Trapp, Town Attorney
Supervisor Dickson and Town Board Members

CARMINAWOOD
DESIGN

DOWNSTREAM SANITARY SEWER CAPACITY ANALYSIS REPORT

for

Proposed Apartments

1425 Orchard Park Road
Town of West Seneca, Erie, NY

Prepared for

William Sahlem and Brian Hillery

1 Woodthrush Trail,
Orchard Park, NY 14127

Prepared by

Carmina Wood Design

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

December 2023



Project Description

This project is a development of a 3.17 acre +/- site located on the west side of Orchard Park Road in the Town of West Seneca. The property will be developed with (26) 2-bedroom apartment units and (4) 3-bedroom apartment units. This analysis will also include the recently approved multi-family project at 1130 Orchard Park Road (45 2-bedroom units).

The proposed sewer service for this development will connect to an existing 10" Town of West Seneca sewer main the runs along the west side of Orchard Park Road.

Node 1 – 1001 Orchard Park Rd (12"):

Existing Peak Flow measured (wet weather event)	= 2.844 cfs (1.838 mgd)*
Proposed Apartments Peak Flow (Flattery's)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 2.955 cfs

Theoretical capacity of existing 12" pipe @ 0.36% = 2.314 cfs

Conclusion: Monitored flows the day following the 0.72" rainfall event exceeded the capacity of the existing pipe 12" sewer. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 1, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. The 12" sewer receives surcharges from a 27" sewer and 36" sewer downstream during high rainfall events. Outside of these events, the 12" sewer has ample capacity to handle the additional proposed total peak flow. I/I mitigation shall be required for the contribution proposed for this project.

Node 2 – Orchard Park Rd (15"):

Existing Peak Flow measured (wet weather event)	= 2.917 cfs (1.885 mgd)*
Proposed Apartments Peak Flow (Flattery's)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 3.028 cfs

Theoretical capacity of existing 15" pipe @ 0.34% = 4.077 cfs

Conclusion: The proposed total peak flow is less than the capacity of the 15" pipe, therefore there is sufficient capacity. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 2, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. The 15" sewer receives surcharges from a 27" sewer and 36" sewer downstream during high rainfall events. Outside of these events, the 15" sewer has ample capacity to handle the additional proposed total peak flow. I/I mitigation shall be required for the contribution proposed for this project.

Node 3 – Orchard Park Rd & Fairfax (48”):

Existing Peak Flow measured (wet weather event)	= 14.470 cfs (9.352 mgd)*
Proposed Apartments Peak Flow (Flattery’s)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 14.581 cfs

Existing Peak Flow measured (overall)	= 16.150 cfs (10.438 mgd)*
Proposed Apartments Peak Flow (Flattery’s)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 16.261 cfs

Theoretical capacity of existing 48” pipe @ 0.15% = 60.218 cfs

Conclusion: The proposed total peak flow is less than the capacity of the 48” pipe, therefore there is sufficient capacity. At no time during the monitoring period did flow depth exceed the pipe diameter at Node 3 of the downstream monitoring points during the rain events monitored.

Foot Notes:

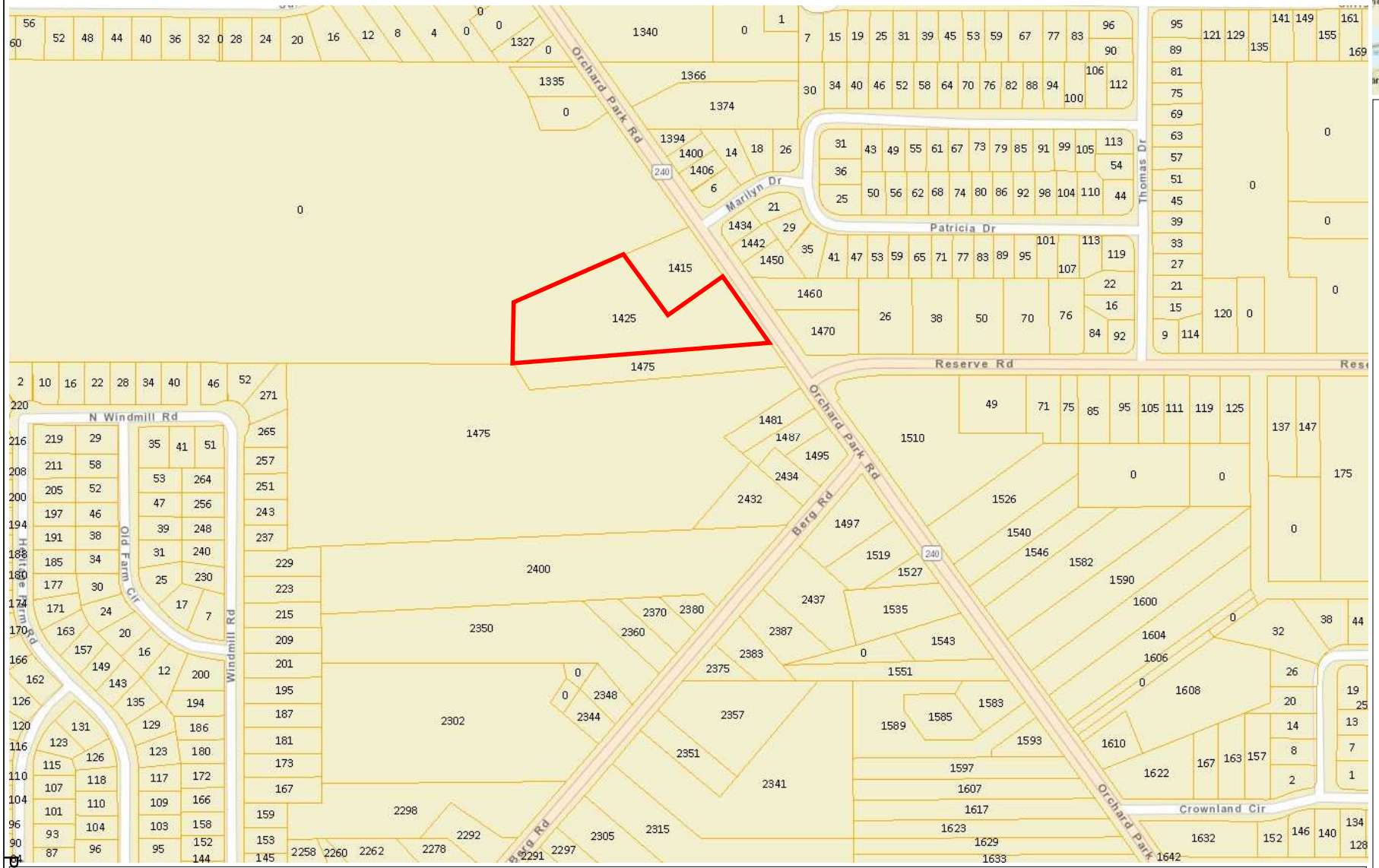
Downstream capacity node information provided by Town of West Seneca

*Converted from measurements in TECSmith report dated 9/15/22 & 4/19/22

** See Sanitary Sewage Demand Calculations

Location Map

Erie County On-Line Mapping Application



Legend

- Parcels

1: 4,514

0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

Sanitary Demand Calculations

CARMINA WOOD DESIGN
487 MAIN STREET, SUITE 500
BUFFALO, NEW YORK, 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 12/11/2023
Project Name: Proposed Apartment Development
Project Address: 1425 Orchard Park Road
Subject: I & I Mitigation
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Development

220	gal/d/unit	x	26	units	=	5,720	gpd	*use 220 gal/d/unit (2-bdrm apt)
330	gal/d/unit	x	4	units	=	1,320	gpd	*use 330 gal/d/unit (3-bdrm apt)

Total Site Sanitary Demand: = 7,040 gpd

Find Peak Sanitary Demand:

Peaking Factor based on Population:

Total demand: 7,040 gpd / 52 gpcd = 135 per capita

Population (P) = 135 people

Peaking Factor : (18 +√P) / (4 + √P) where P is in thousands

Peaking Factor = 4.21

Peak Sanitary Demand = 7,040 x 4.21 = 29,604 gpd
= 0.030 MGD
= 0.046 cfs

Required Infiltration and Inflow Mitigation:

Total Sanitary Flow = 7,040 gpd

Mitigation Credit = $1.20 / gpm (Town of West Seneca)

Mitigation Agreement Amount = **$8,448.00**

CARMINA WOOD DESIGN
487 MAIN STREET, SUITE 500
BUFFALO, NEW YORK, 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 22.128 Date: 10/3/2022
Project Name: Residential Apartments
Project Address: 1130 Orchard Park Road West Seneca, NY
Subject: Sanitary Sewer Demand Calcs
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Apartments

220 gal/d/unit	x	45 units	=	9,900	gpd		*use 220 gallons per unit per day (2-bdrm)

Total Site Sanitary Demand: = 9,900 gpd

Find Peak Sanitary Demand:

Peaking Factor based on Population:

Total demand: 9,900 gpd / 100 gpcd = 99 per capita

Population (P) = 99 people

Peaking Factor : (18 +ÖP) / (4 + ÖP) where P is in thousands

Peaking Factor = 4.24

Peak Sanitary Demand = 9,900 x 4.24 = 42,023 gpd
= 0.042 MGD
= 0.065 cfs

Required Infiltration and Inflow Mitigation:

Peak Sanitary Flow = 42,023 gpd = 29.18 gpm

4:1 offset flow per NYSDEC requirements = 29.18 x 4 = 116.73 gpm req'd

Mitigation Credit = 30 gpm / lateral

Laterals to be replaced* = 3.9 laterals
= 4 laterals *(or other mitigation as identified by the Town)

From DSCA for Multi-family project
at 1130 Orchard Park Road

TECSmith Monitoring Report

Date	Node 1			Node 2			Rain₂	Date	Node 3			Rain₂	Snow
	1001 Orchard Park Rd (12")			Orchard Park Rd 15" (15")					Orchard Park Rd & Fairfax (48")				
	FLOW (GAL x 1,000)	PEAK FLOW (MGD)	PEAK LEVEL (IN)	FLOW (GAL x 1,000)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	(inches)		FLOW (GAL x 1,000)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	(inches)	(inches)
8/16/2022	89.257	0.440	5.964	168.586	0.721	4.437	*0.23*	3/17/2022	3196.614	6.783	13.938	*0*	*0*
8/17/2022	215.037	0.376	4.744	438.779	0.622	3.770	*0*	3/18/2022	5684.090	6.485	13.639	*0*	*0*
8/18/2022	189.150	0.370	4.686	427.549	0.628	3.826	*0*	3/19/2022	6314.024	7.874	17.857	*0.27*	*0*
8/19/2022	185.188	0.342	4.512	414.203	0.666	4.069	*0*	3/20/2022	7506.892	9.168	20.985	*0.08*	*0*
8/20/2022	202.299	0.331	4.923	396.354	0.689	4.133	*0*	3/21/2022	6601.632	8.220	19.365	*0*	*0*
8/21/2022	242.472	0.443	5.850	452.414	0.758	4.278	*0.11*	3/22/2022	5911.885	6.708	14.066	*0*	*0*
8/22/2022	211.005	0.478	4.897	492.229	0.645	3.891	*0.14*	3/23/2022	6366.253	9.352	21.857	*0.51*	*0*
8/23/2022	205.428	0.447	4.517	162.364	0.422	3.395	*0.05*	3/24/2022	8410.107	10.438	23.577	*0*	*0*
8/24/2022	203.451	0.394	4.725	253.953	0.604	4.307	*0.45*	3/25/2022	7059.230	8.020	19.386	*0*	*0*
8/25/2022	181.878	0.416	4.675	439.324	0.669	4.150	*0*	3/26/2022	7112.401	8.489	19.148	*0.09*	*0.1*
8/26/2022	190.142	0.419	4.851	414.269	0.625	3.883	*0*	3/27/2022	7001.414	8.461	18.753	*0.06*	*2.3*
8/27/2022	177.502	0.405	4.759	424.759	0.670	4.011	*0*	3/28/2022	6396.917	7.538	17.111	*0.01*	*0.4*
8/28/2022	149.262	0.306	4.729	402.881	0.700	4.187	*0*	3/29/2022	5909.058	6.957	14.053	*0*	*0*
8/29/2022	131.545	0.272	4.563	409.867	0.776	4.384	*0*	3/30/2022	5521.696	6.653	13.811	*0.01*	*0*
8/30/2022	277.592	0.705	7.523	530.810	1.126	5.440	*0.97*	3/31/2022	5943.213	7.661	16.548	*0.09*	*0*
8/31/2022	207.872	0.351	5.185	507.470	0.687	4.085	*0*	4/1/2022	5419.635	6.277	14.053	*0.06*	*0.1*
9/1/2022	185.028	0.361	5.419	434.561	0.610	3.756	*0*	4/2/2022	5147.186	6.140	13.371	*0*	*0*
9/2/2022	157.770	0.346	4.843	411.119	0.619	3.892	*0*	4/3/2022	5083.174	6.186	13.093	*0.01*	*0*
9/3/2022	147.788	0.355	5.089	391.309	0.645	4.003	*0*	4/4/2022	4946.766	6.325	12.723	*0*	*0*
9/4/2022	166.764	0.303	4.897	378.377	0.635	3.860	*0.04*	4/5/2022	4901.882	5.708	12.382	*0*	*0*
9/5/2022	464.216	1.838	32.342	716.100	1.885	64.943	*0.72*	4/6/2022	4842.495	5.943	12.848	*0.21*	*0*
9/6/2022	241.691	0.307	5.076	505.569	0.654	4.013	*0*	4/7/2022	7751.294	9.369	21.493	*0.25*	*0*
9/7/2022	190.037	0.354	5.440	449.703	0.749	4.317	*0.01*	4/8/2022	7000.725	8.355	18.804	*0*	*0*
9/8/2022	182.211	0.372	4.852	443.591	0.642	3.912	*0*	4/9/2022	6041.826	7.017	13.864	*0*	*0*
9/9/2022	180.567	0.332	5.309	426.468	0.702	4.143	*0*	4/10/2022	5473.970	6.521	13.216	*0*	*0*
9/10/2022	169.443	0.373	5.192	428.528	0.686	4.058	*0*	4/11/2022	5257.193	7.976	15.138	*0.13*	*0*
9/11/2022	98.925	0.532	6.704	397.027	0.919	4.930	*0.03*	4/12/2022	7299.038	9.109	16.993	*0.14*	*0*
9/12/2022	336.528	0.958	8.256	552.252	1.290	5.735	*0.28*	4/13/2022	6134.522	7.267	14.479	*0.05*	*0*
9/13/2022	356.909	0.736	6.372	589.969	0.876	4.687	*0.14*	4/14/2022	3692.282	6.917	14.240	*0*	*0*
9/14/2022	112.265	0.350	5.193	258.683	0.696	4.002	*0*	---	---	---	---	*---*	*---*
---	---	---	---	---	---	---	*3.17*	---	---	---	---	*1.97*	*2.9*

	MGD	CFS
Wet	1.838	2.844
Dry	0.958	1.482

	MGD	CFS
Wet	1.885	2.917
Dry	1.290	1.996

	MGD	CFS
Wet	9.352	14.470
Dry	10.438	16.150

TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
Tel: 716-462-0382

Date: September 15, 2022

SANITARY SEWER FLOW CAPACITY STUDY – Summary Review

Prepared For: 1130 Orchard Park Road Capacity Analysis

R. Christopher Wood, PE Partner
487 Main Street, Suite 500
Buffalo, New York 14203

Project Name: 1130 Orchard Park Road Capacity Analysis

Flow Monitoring Period: August 16, 2022 to September 14, 2022

Rain Events (> 0.5-inches) Monitored: August 30 (0.97”), and September 5 (0.72”)

Number of Monitoring Nodes: Two (2) downstream manholes

Node Locations and Descriptions:

- Node 1 1001 Orchard Park Rd (12”)
- Node 2 Orchard Park Rd 15" (15”)

Summary Conclusion:

Based on the data presented in this report, specifically the flow depth measurements recorded (see graphs below)

- One time the flow depth exceeds pipe diameter at all nodes of the downstream monitoring points during the wet weather events monitored.

TECsmith

TECSMITH, Inc.
PO Box 383
Elma, New York 14059-0383
Tel: 716-462-0382
Fax: 716-687-1418

Date: April 19, 2022

SANITARY SEWER FLOW CAPACITY STUDY – Summary Review

Prepared For: 1130 Orchard Park Road Capacity Analysis

R. Christopher Wood, PE Partner
487 Main Street, Suite 500
Buffalo, New York 14203

Project Name: 1130 Orchard Park Road Capacity Analysis

Flow Monitoring Period: March 17, 22 to April 14, 2022

Rain Events (> 0.5-inches) Monitored: March 23, (0.51")

Number of Monitoring Nodes: Three (3) downstream manholes

Node Locations and Descriptions:

- Node 3 Orchard Park Rd & Fairfax (48")

Summary Conclusion:

Based on the data presented in this report, specifically the flow depth measurements recorded (see graphs below)

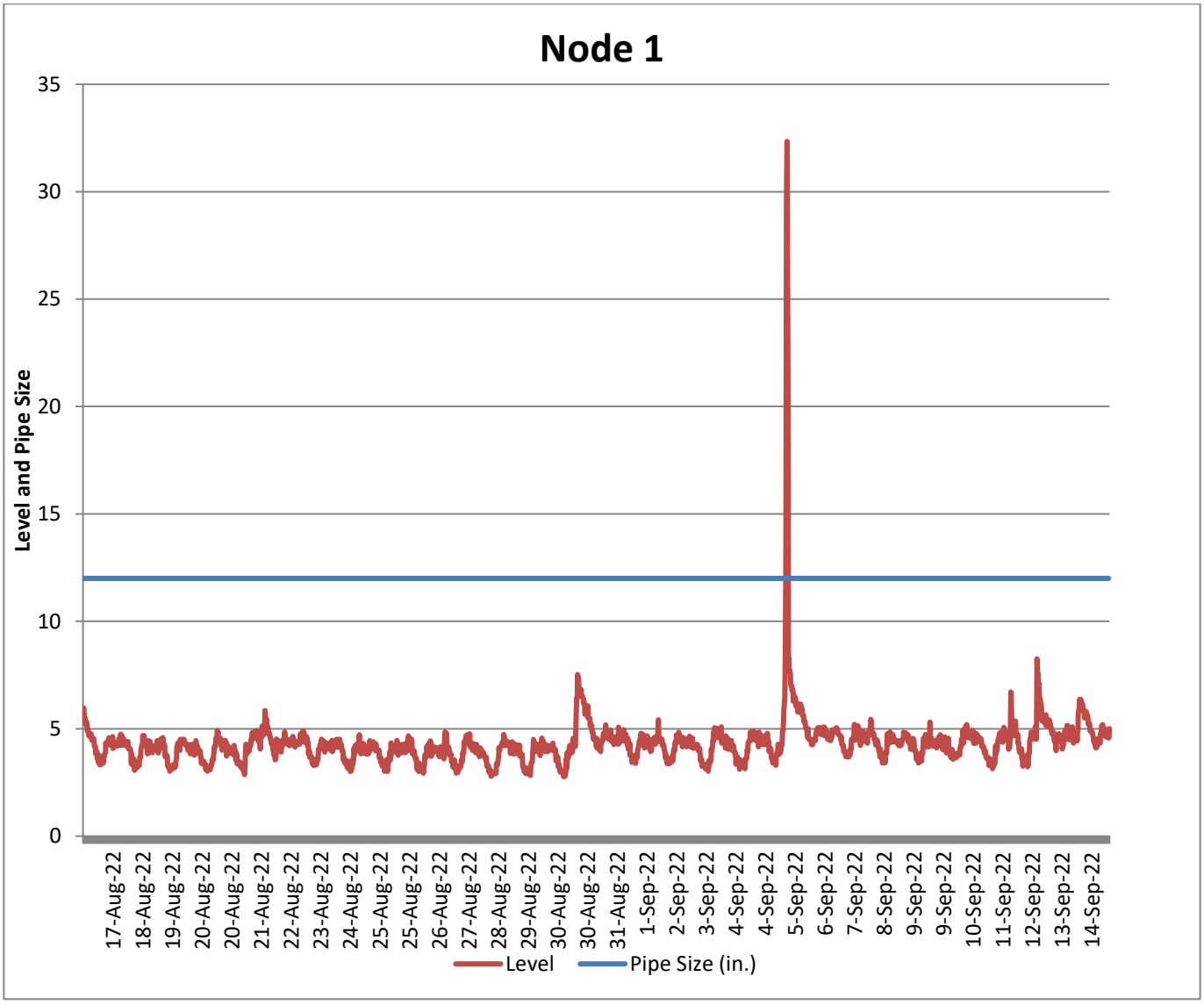
- At no time the flow depth exceeds pipe diameter at Node 3 of the downstream monitoring points during the wet weather events monitored.

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Tel: 716-462-0382

Depth of Flow Capacity Summary:

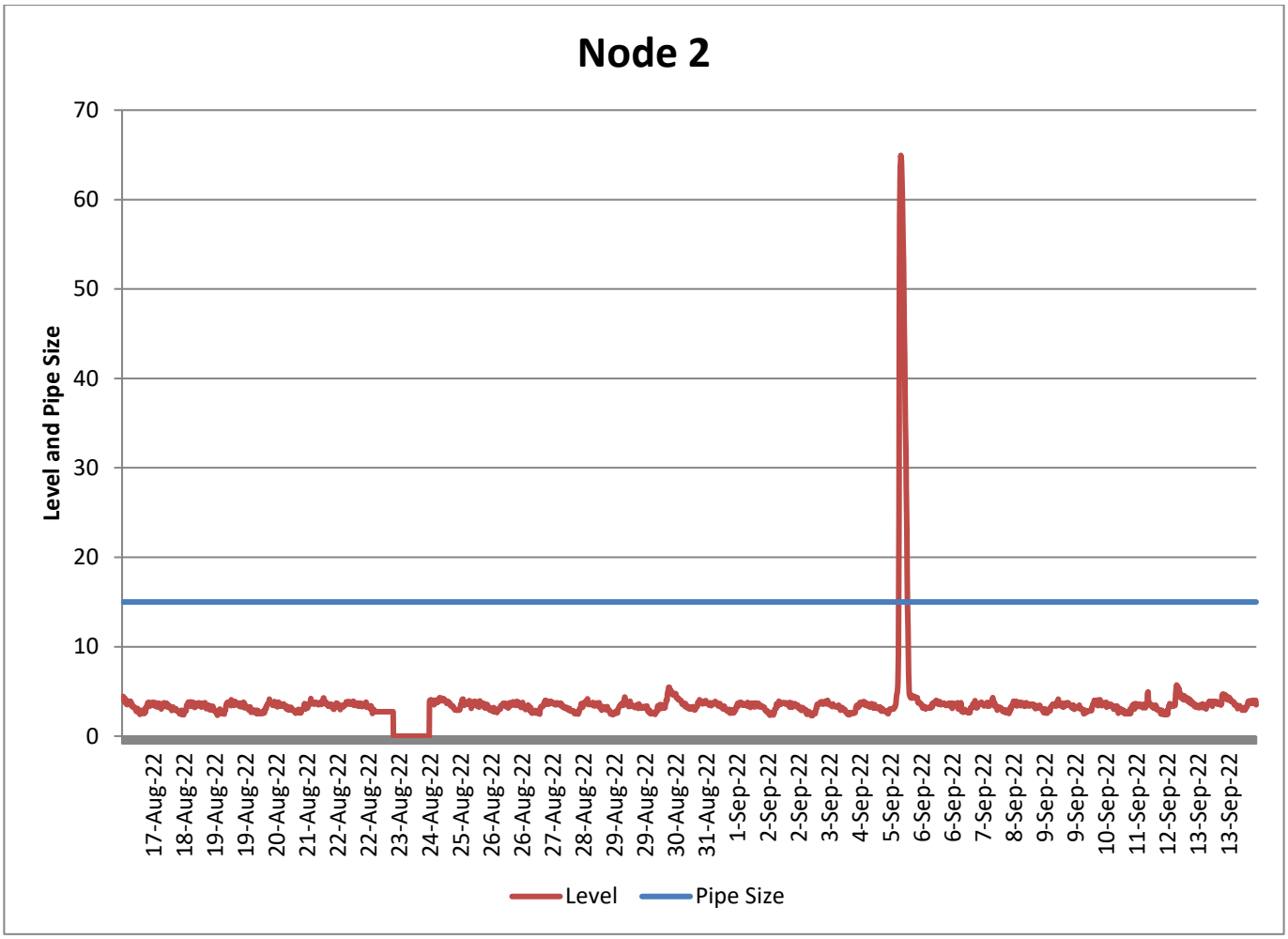
Depth of flow capacity is based on diameter of pipe. See graphs below.

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 1.



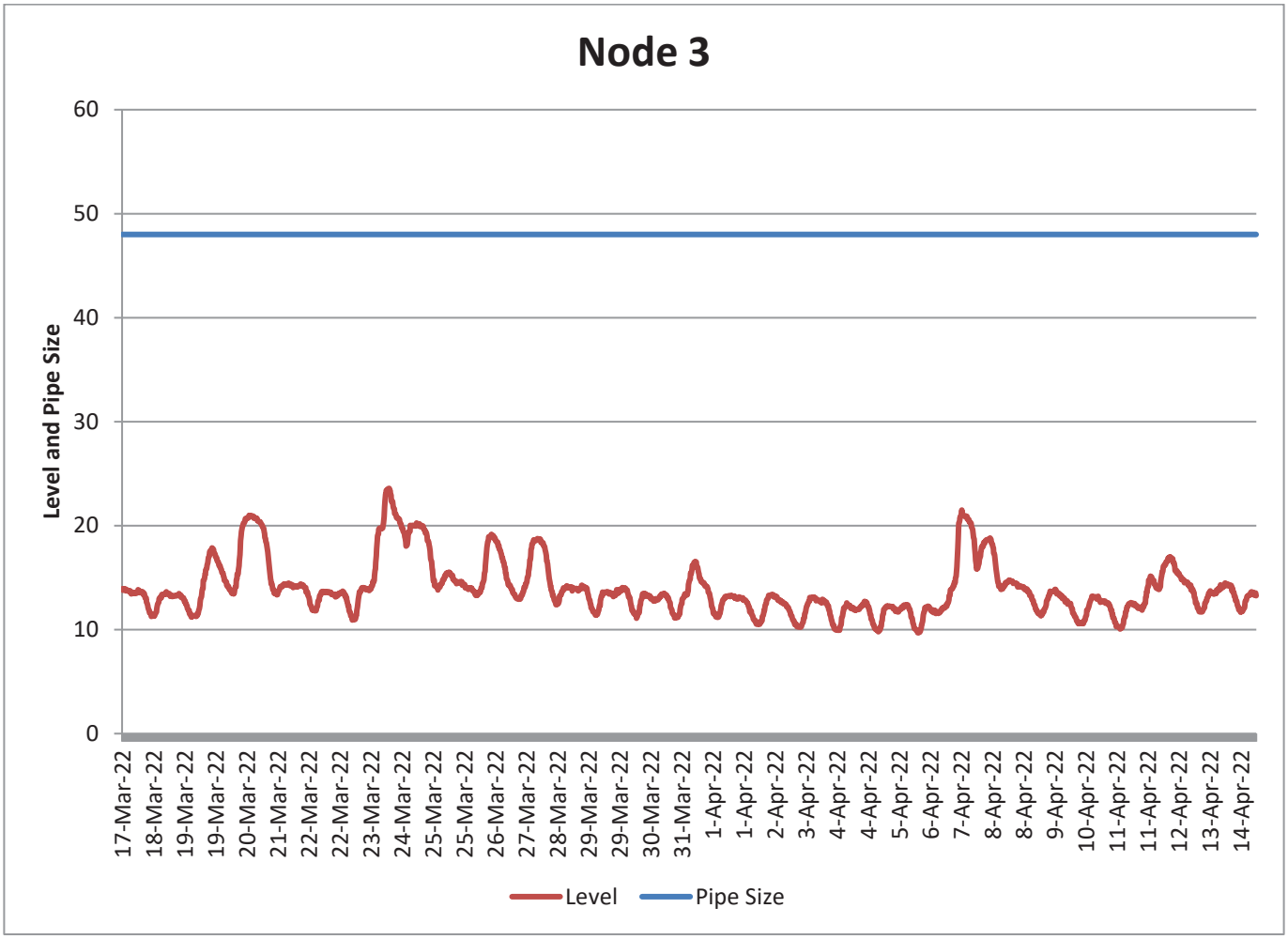
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Clarence, NY 14031
Tel: 716-462-0382

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 2.

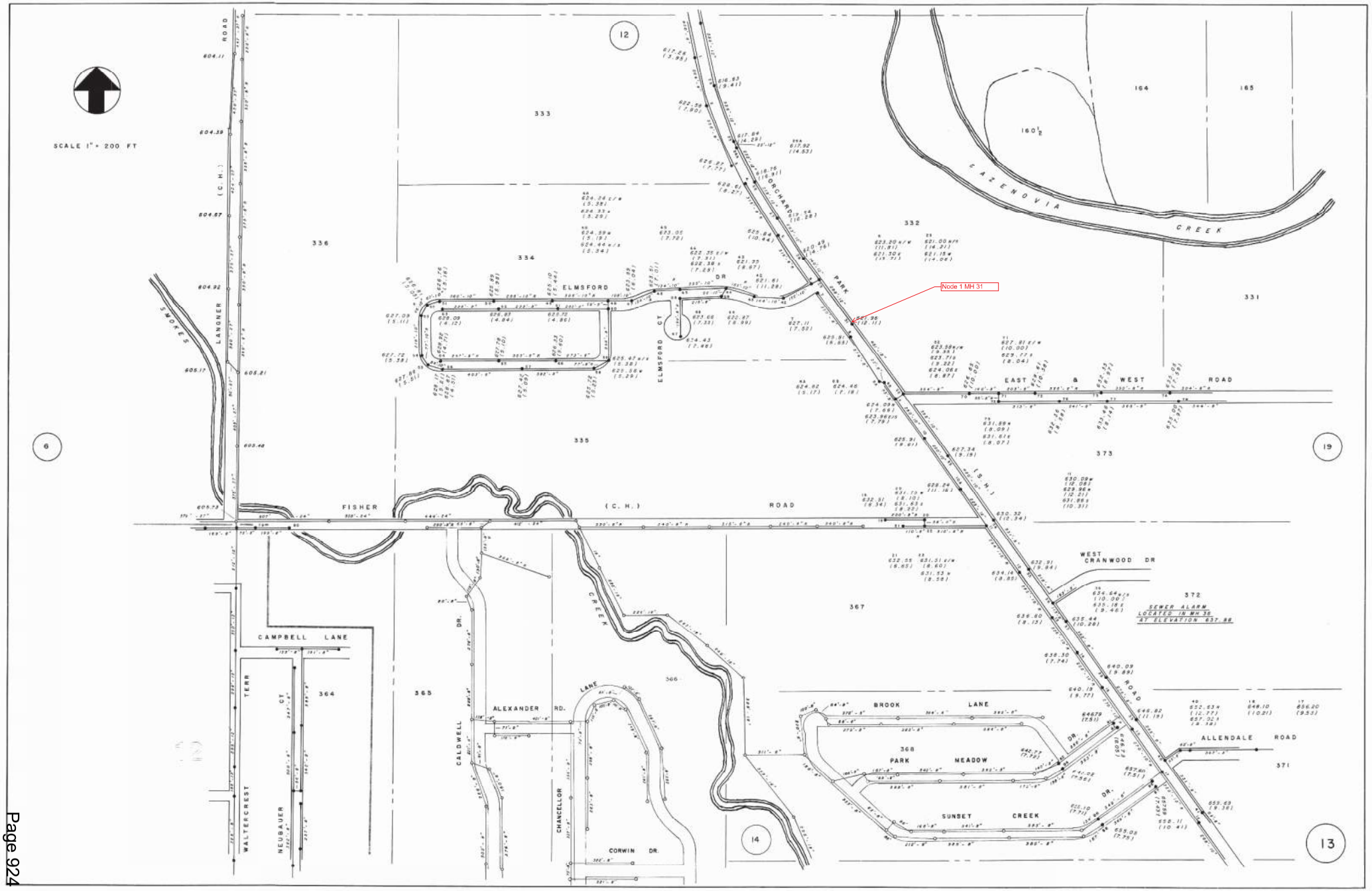


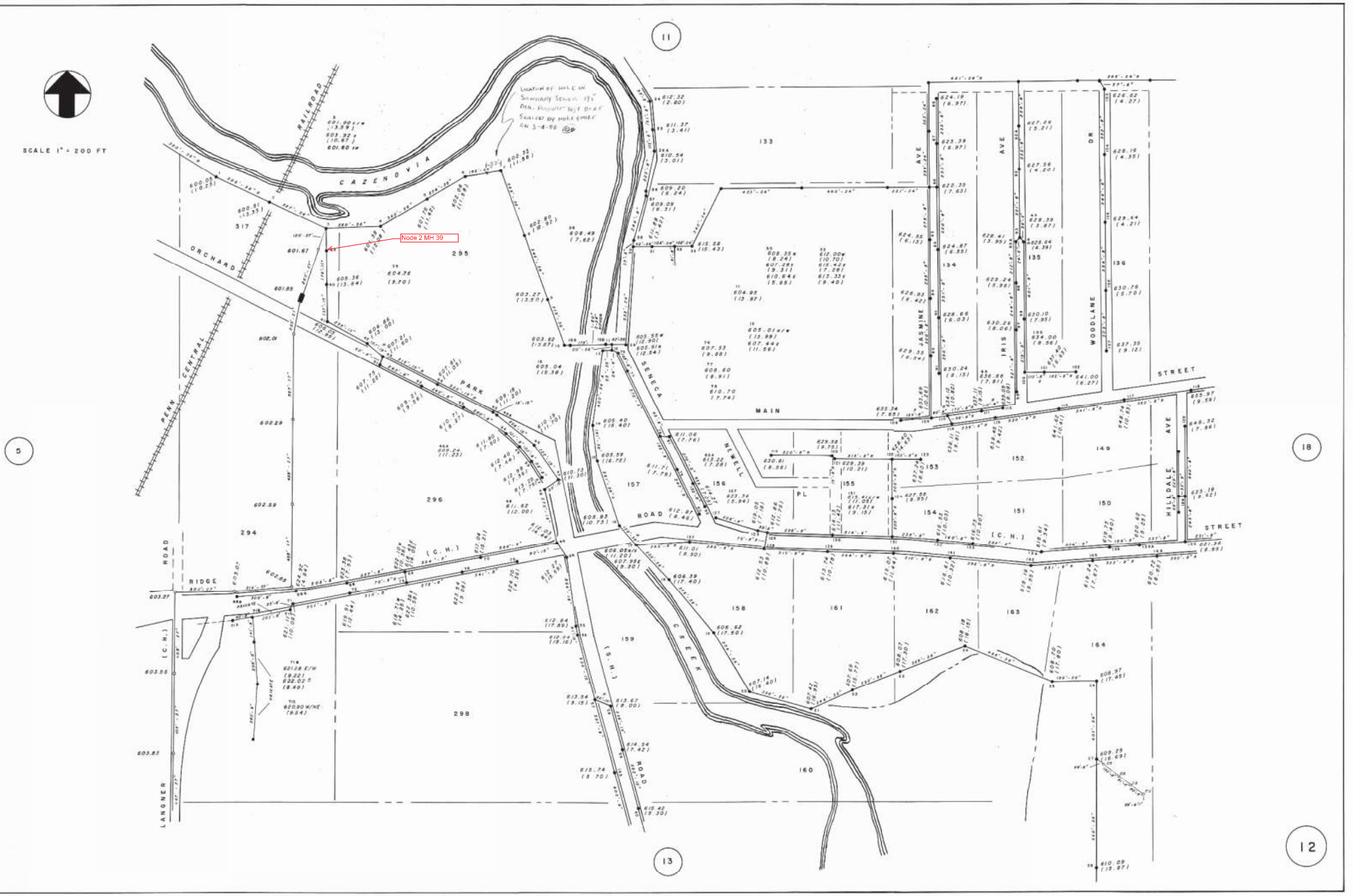
TECSMITH, Inc.
PO Box 383
Elma, New York 14059-0383
Tel: 716-462-0382
Fax: 716-687-1418

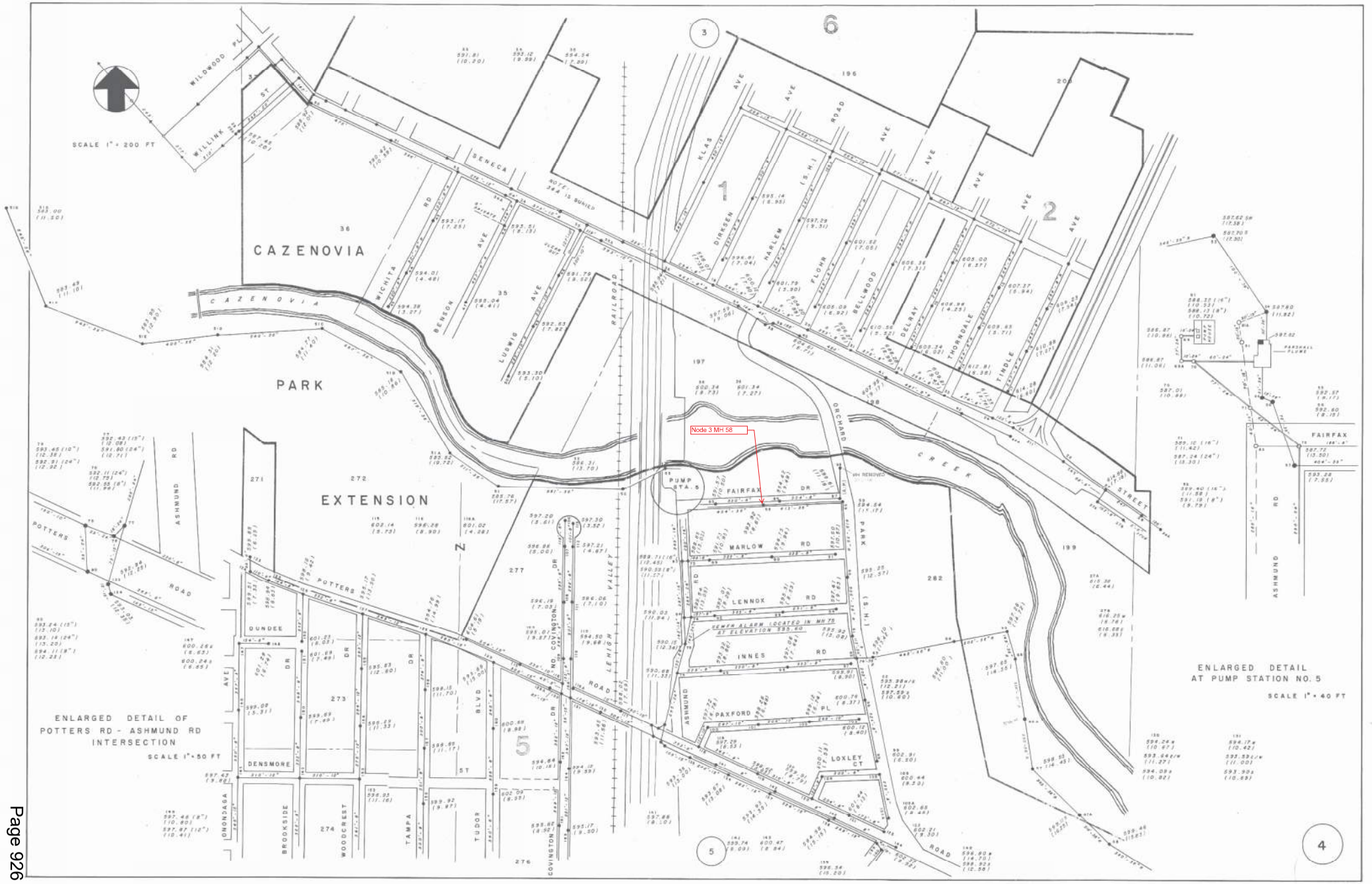
- At no time during the monitoring period did depth of flow exceed pipe diameter at Node 3.



Sewer Node Maps


SCALE 1" = 200 FT
Node 1 MH 31
SEWER ALARM LOCATED IN MH 36 AT ELEVATION 637.88
ELMSFORD
ELMSFORD CT
DR
ORCHARD
PARK
EAST
B
WEST
ROAD
FISHER
(C. H.)
ROAD
LANGNER
(C. H.)
SMOKES
CAMPBELL
LANE
TERR
CT.
WALTERCREST
NEUBAUER
ALEXANDER
RD.
CALDWELL
DR.
CHANCELLOR
LANE
CORWIN
DR.
CREEK
WEST CRANWOOD DR
BROOK
LANE
PARK
MEADOW
SUNSET
CREEK
ALLENDALE
ROAD
EAZENOVIA
CREEK
333
334
335
336
332
331
164
165
160½
373
372
371
368
367
366
365
364
12
13
14
19
6


SCALE 1" = 200 FT
Node 2 MH 39
CAZENOVIA
RAILROAD
ORCHARD
PENN CENTRAL
PARK
SENECA
MAIN
NEWELL
PL
ROAD
RIDGE
LANGNER
CREEK
JASMINE
IRIS
WOODLANE
DR
AVE
STREET
HILLDALE
(C. H.)
(S. H.)
11
12
13
5
18
133
134
135
136
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
294
295
296
298
317


SCALE 1" = 200 FT
CAZENOVIA
PARK
EXTENSION
Node 3 MH 58
PUMP STA. 5
ENLARGED DETAIL OF POTTERS RD - ASHMUND RD INTERSECTION
SCALE 1" = 50 FT
ENLARGED DETAIL AT PUMP STATION NO. 5
SCALE 1" = 40 FT

Appendix D

Storm Water Calculations

Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	No
What is the nature of this construction project?	New Construction

Design Point:	1		
P=	1.00	inches	*Enter 90% Rainfall Event as P*

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1	3.66	1.89	52	0.51	6,839	Filtration Bioretention
2	2.16	1.07	50	0.50	3,888	Filtration Bioretention
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	5.82	2.96	51	0.51	**10727**	**Required WQv**

Calcuate Minimum RRv Required

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B		40%
C		30%
D	2.96	20%
Total Area	2.96	

Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	2.96	*acres*
Precipitation	1.00	*inches*
Rv	0.95	
Minimum RRv	**0.047**	***af***
	2047	cf

Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	3.66	1.89	52	0.51	6,839	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	>2	
Enter depth to bedrock (ft)	>2	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	2850	sf	
Enter Provided Filter Area	Af	2855	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	6852	cf	

Calculate Runoff Reduction			
RRv Provided	**2,741**	***cf***	
WQv Treated	4098	cf	This is the portion of the WQv that is not reduced in the practice.

Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
2	2.16	1.07	50	0.50	3,888	1.00	Filtration Bioretention

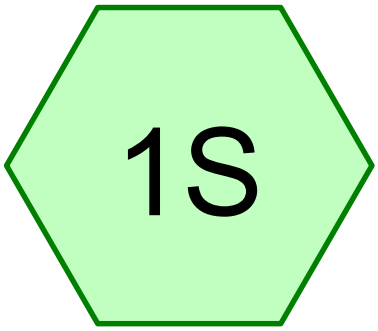
Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	>2	
Enter depth to bedrock (ft)	>2	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	1620	sf	
Enter Provided Filter Area	Af	1705	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	4092	cf	

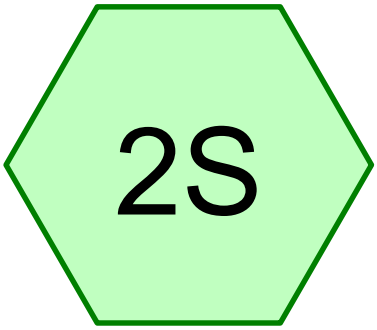
Calculate Runoff Reduction			
RRv Provided	**1,637**	***cf***	
WQv Treated	2251	cf	This is the portion of the WQv that is not reduced in the practice.

Filtration Bioretention (F-5)

Total Area	5.82	acres
Total Impervious	3	acres
Total RRv Provided	4,378	cf
Total WQv Provided	6,349	cf



Existing - North



Existing - South

Subcat Reach Pond Link

Routing Diagram for 23-4121 storm calcs - Existing
Prepared by Carmina Wood Design, Printed 5/14/2026
HydroCAD® 10.20-8a s/n 05019 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	1.87	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.14	2
3	25-Year	Type II 24-hr		Default	24.00	1	3.84	2
4	100-Year	Type II 24-hr		Default	24.00	1	5.23	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
225,751	80	Pasture/grassland/range, Good, HSG D (1S, 2S)
49,422	79	Woods/grass comb., Good, HSG D (1S)
275,173	**80**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
275,173	HSG D	1S, 2S
0	Other	
275,173		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	0	225,751	0	225,751	Pasture/grassland/range, Good
0	0	0	49,422	0	49,422	Woods/grass comb., Good
0	**0**	**0**	**275,173**	**0**	**275,173**	**TOTAL AREA**

Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=0.48"
Flow Length=806' Tc=28.2 min CN=80 Runoff=1.59 cfs 7,325 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=0.48"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=1.04 cfs 3,797 cf

Total Runoff Area = 275,173 sf Runoff Volume = 11,121 cf Average Runoff Depth = 0.48"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

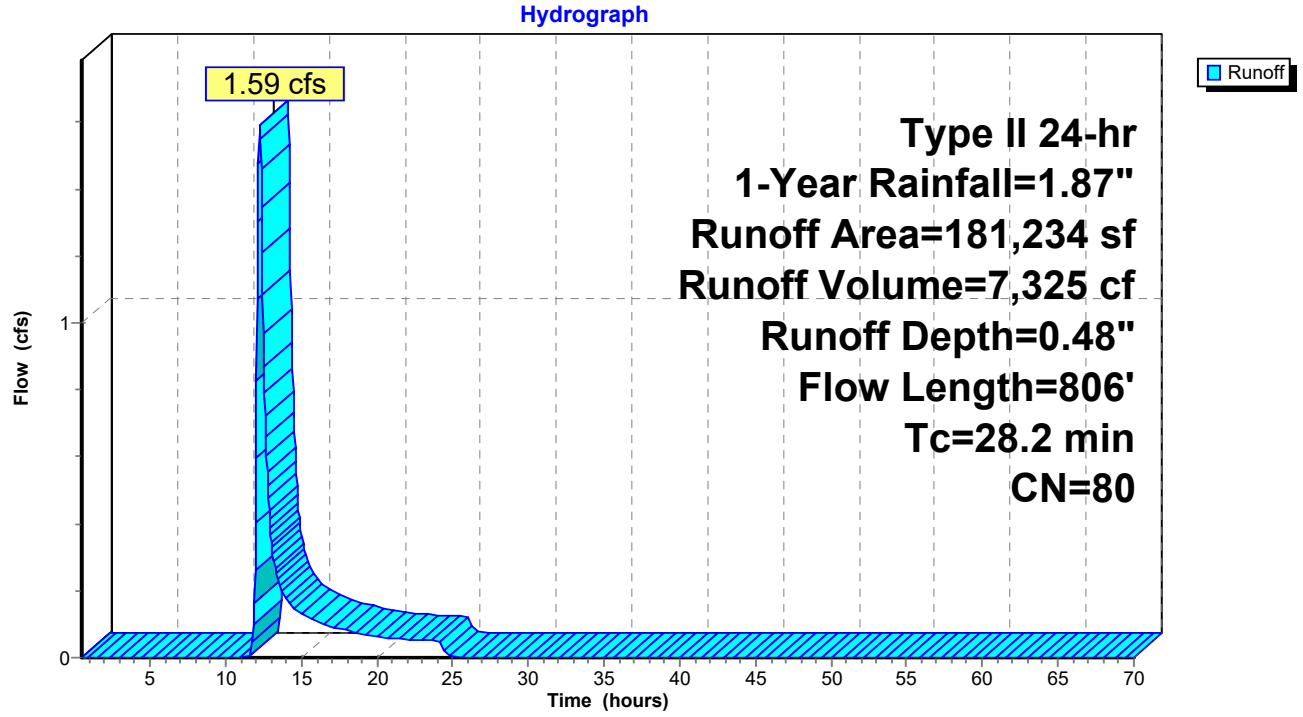
Runoff = 1.59 cfs @ 12.25 hrs, Volume= 7,325 cf, Depth= 0.48"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

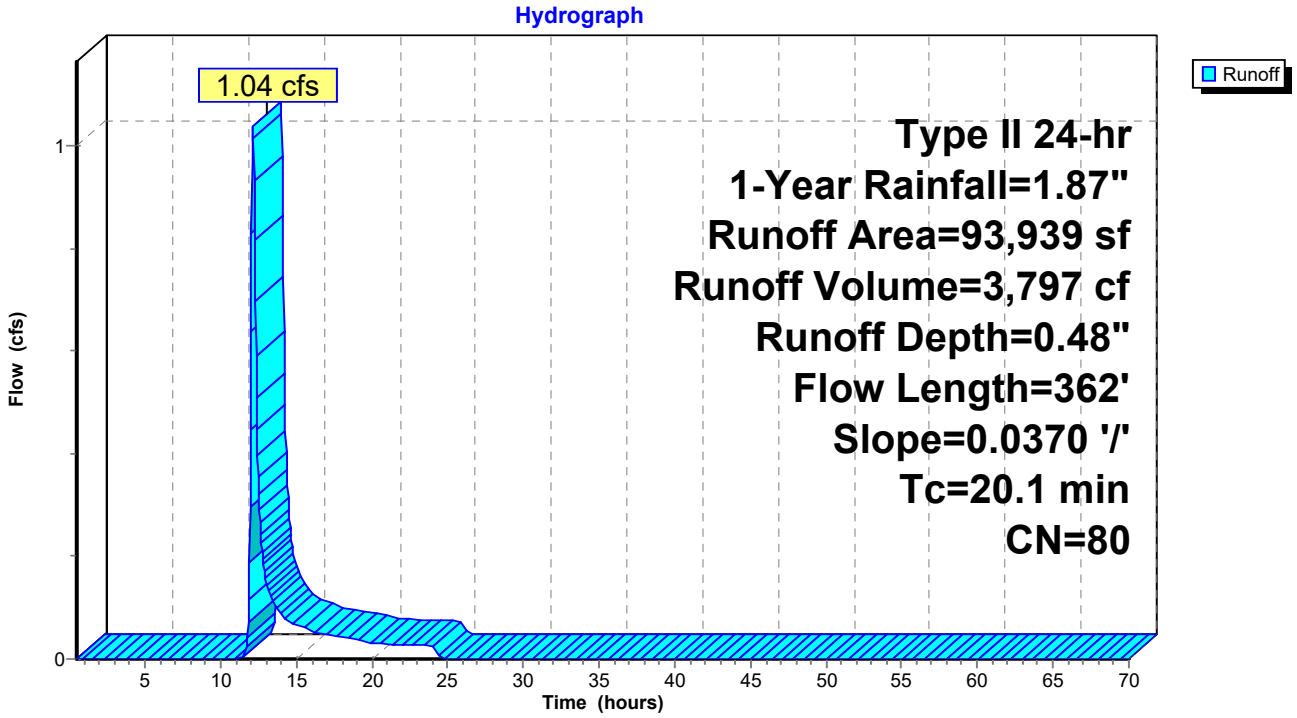
Runoff = 1.04 cfs @ 12.15 hrs, Volume= 3,797 cf, Depth= 0.48"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=806' Tc=28.2 min CN=80 Runoff=4.98 cfs 20,479 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=3.19 cfs 10,615 cf

Total Runoff Area = 275,173 sf Runoff Volume = 31,093 cf Average Runoff Depth = 1.36"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

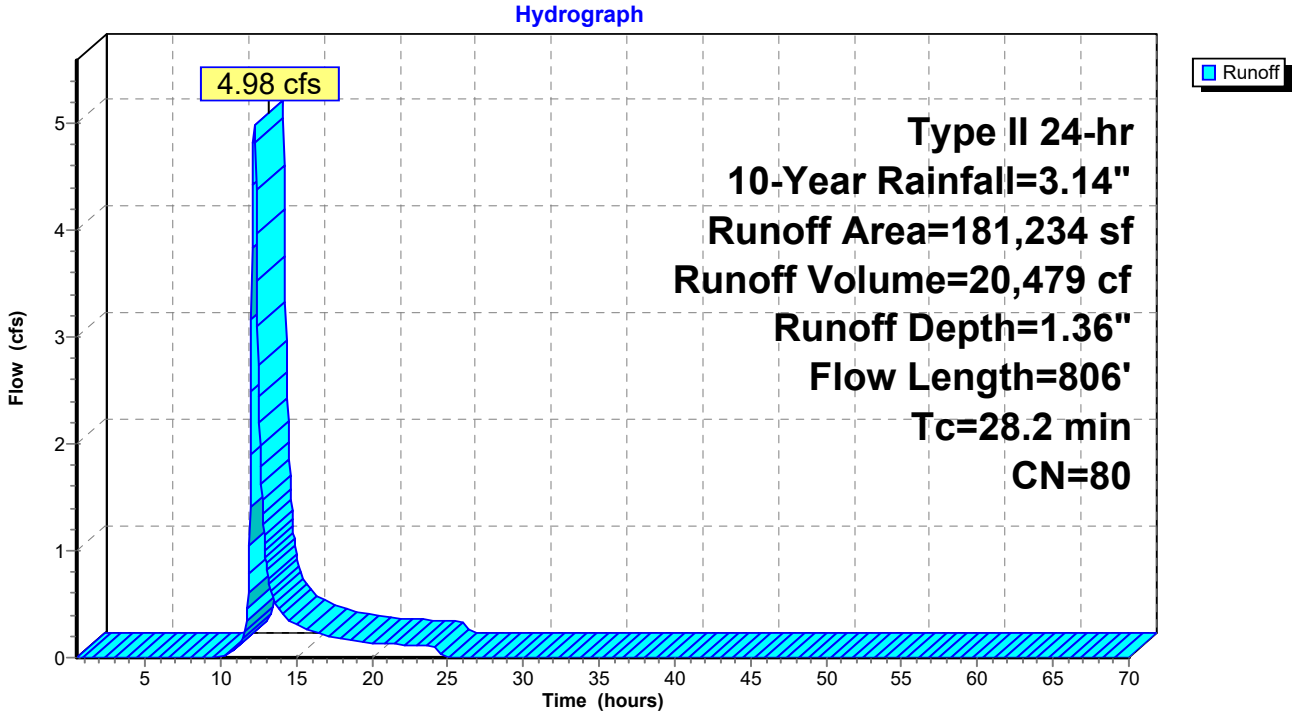
Runoff = 4.98 cfs @ 12.23 hrs, Volume= 20,479 cf, Depth= 1.36"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

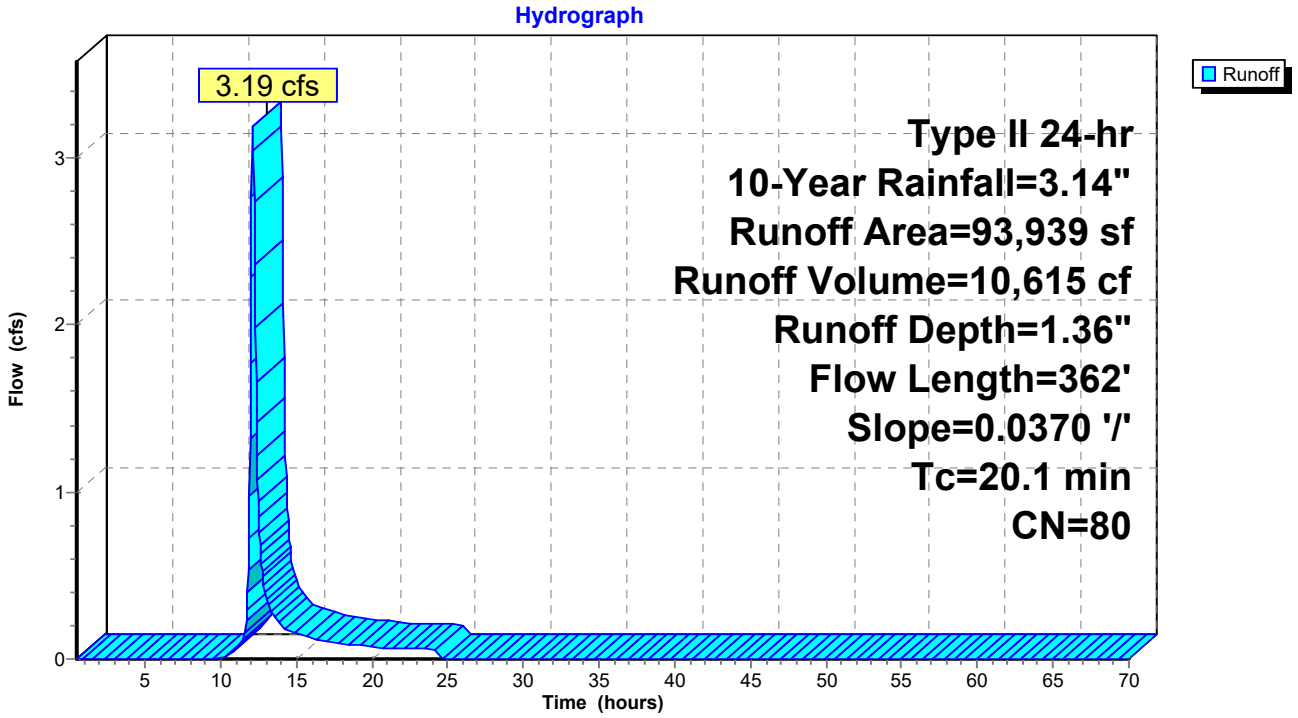
Runoff = 3.19 cfs @ 12.13 hrs, Volume= 10,615 cf, Depth= 1.36"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=806' Tc=28.2 min CN=80 Runoff=7.12 cfs 28,850 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=4.54 cfs 14,954 cf

Total Runoff Area = 275,173 sf Runoff Volume = 43,803 cf Average Runoff Depth = 1.91"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

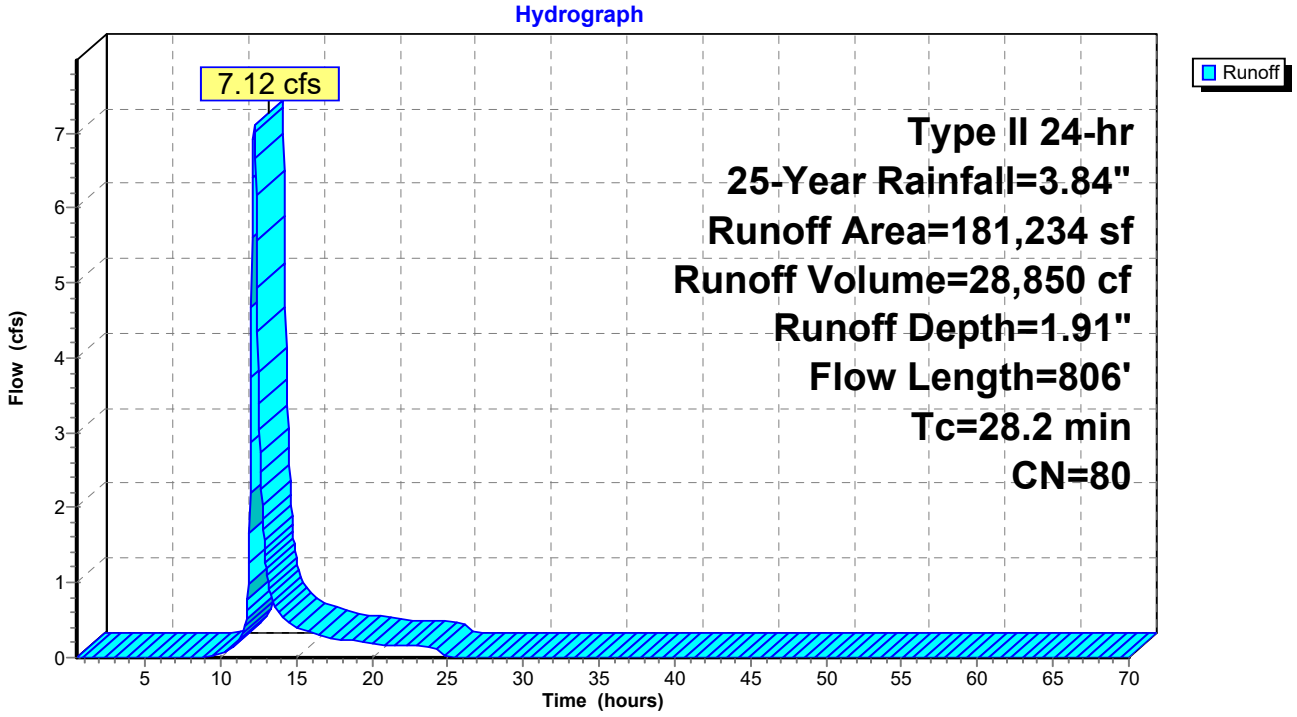
Runoff = 7.12 cfs @ 12.23 hrs, Volume= 28,850 cf, Depth= 1.91"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

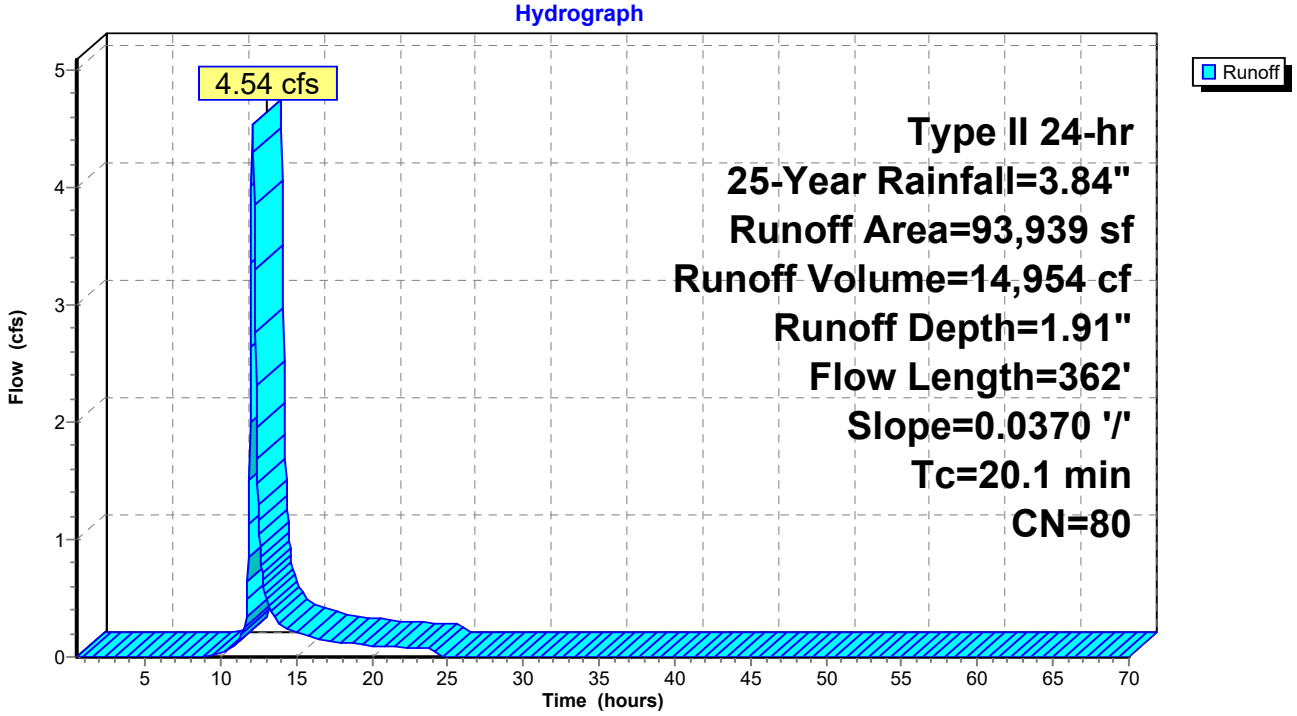
Runoff = 4.54 cfs @ 12.13 hrs, Volume= 14,954 cf, Depth= 1.91"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=806' Tc=28.2 min CN=80 Runoff=11.60 cfs 46,735 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=7.37 cfs 24,224 cf

Total Runoff Area = 275,173 sf Runoff Volume = 70,959 cf Average Runoff Depth = 3.09"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

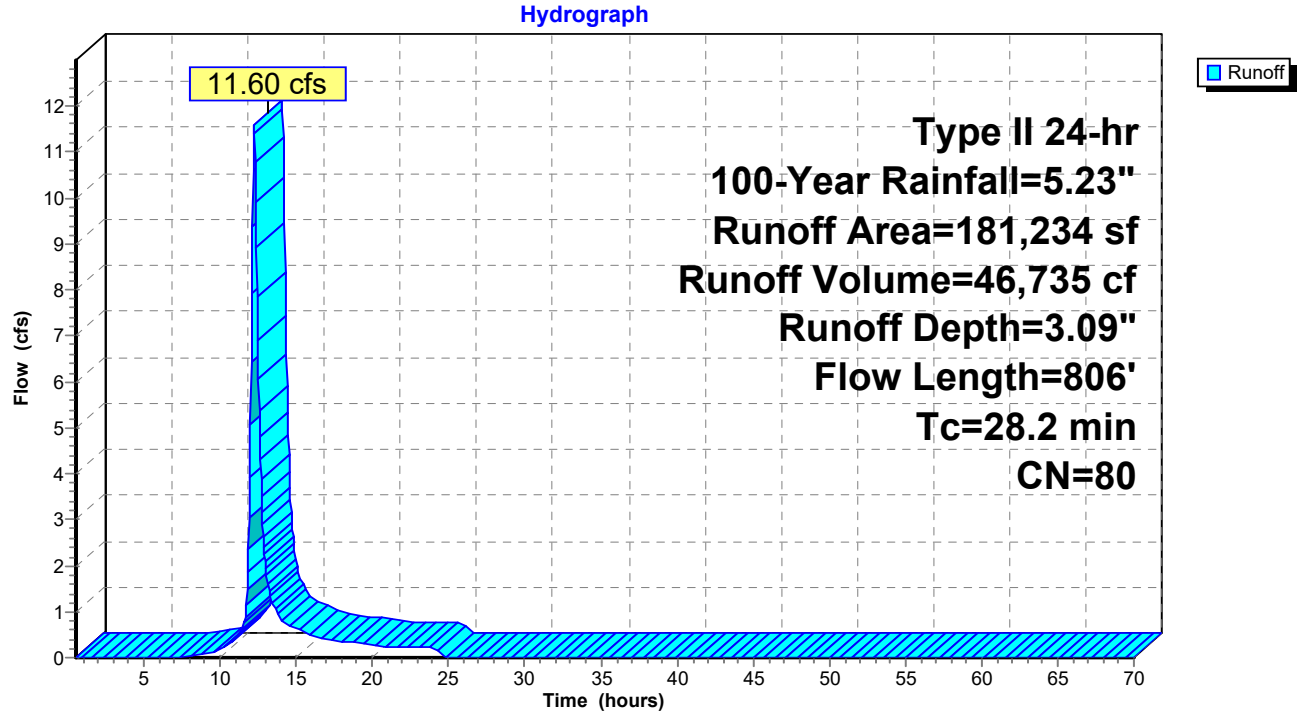
Runoff = 11.60 cfs @ 12.22 hrs, Volume= 46,735 cf, Depth= 3.09"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

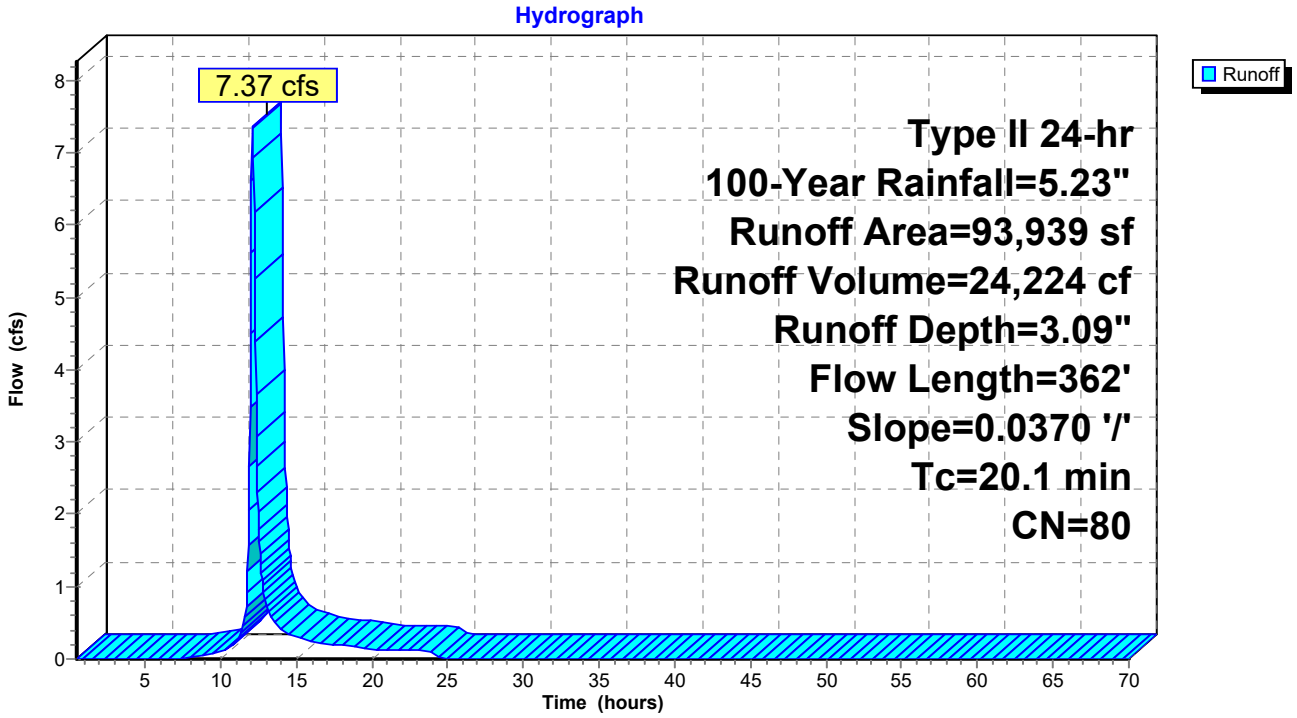
Runoff = 7.37 cfs @ 12.13 hrs, Volume= 24,224 cf, Depth= 3.09"
Routed to nonexistent node 6L

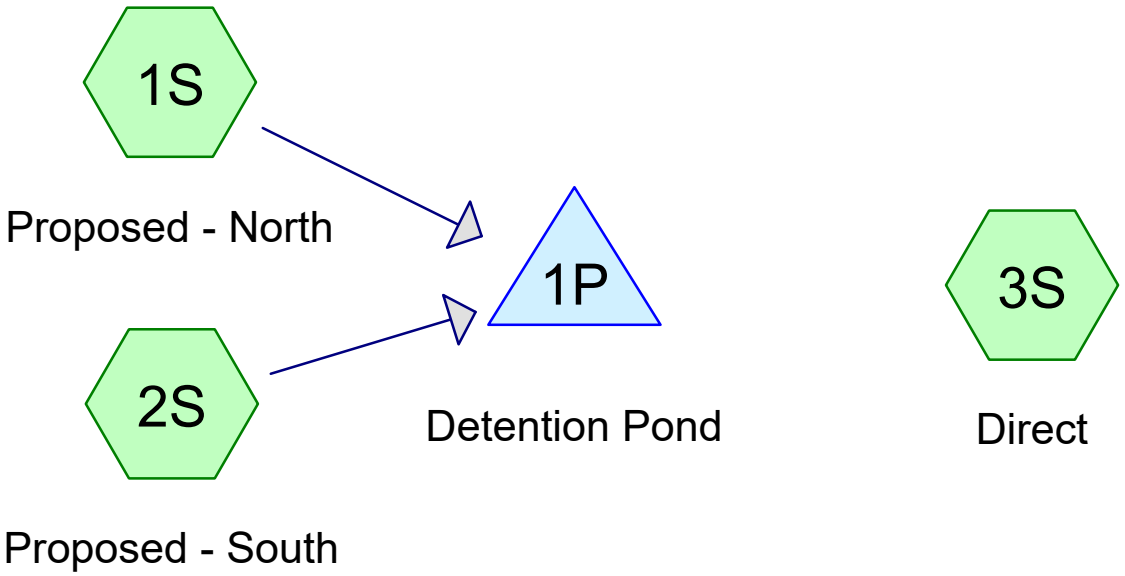
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South





Subcat Reach Pond Link

Routing Diagram for 23-4121 storm calcs - Proposed
Prepared by Carmina Wood Design, Printed 5/14/2026
HydroCAD® 10.20-8a s/n 05019 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	1.87	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.14	2
3	25-Year	Type II 24-hr		Default	24.00	1	3.84	2
4	100-Year	Type II 24-hr		Default	24.00	1	5.23	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
146,543	80	>75% Grass cover, Good, HSG D (1S, 2S, 3S)
1,626	98	Concrete, HSG D (2S)
67,908	98	Paved parking, HSG D (1S, 2S)
55,578	98	Roofs, HSG D (1S, 2S)
3,518	98	Sidewalk, HSG D (1S)
275,173	**88**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
275,173	HSG D	1S, 2S, 3S
0	Other	
275,173		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
0	0	0	146,543	0	146,543	>75% Grass cover, Good	
0	0	0	1,626	0	1,626	Concrete	
0	0	0	67,908	0	67,908	Paved parking	
0	0	0	55,578	0	55,578	Roofs	
0	0	0	3,518	0	3,518	Sidewalk	
0	**0**	**0**	**275,173**	**0**	**275,173**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1S	0.00	0.00	182.0	0.0050	0.013	0.0	6.0	0.0	
2	1S	0.00	0.00	70.0	0.0070	0.013	0.0	12.0	0.0	
3	1S	0.00	0.00	400.0	0.0100	0.013	0.0	12.0	0.0	
4	2S	0.00	0.00	194.0	0.0050	0.013	0.0	8.0	0.0	
5	2S	0.00	0.00	209.0	0.0080	0.013	0.0	12.0	0.0	
6	2S	0.00	0.00	171.0	0.0110	0.013	0.0	12.0	0.0	
7	1P	669.00	668.92	17.0	0.0047	0.013	0.0	8.0	0.0	
8	1P	668.92	668.80	25.0	0.0048	0.013	0.0	8.0	0.0	

Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=0.92"
Flow Length=738' Tc=24.8 min CN=89 Runoff=3.28 cfs 12,245 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=0.92"
Flow Length=627' Tc=19.8 min CN=89 Runoff=2.21 cfs 7,211 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=0.48"
Flow Length=58' Tc=7.8 min CN=80 Runoff=0.38 cfs 878 cf

Pond 1P: Detention Pond Peak Elev=671.04' Storage=5,335 cf Inflow=5.40 cfs 19,456 cf
Outflow=1.94 cfs 19,456 cf

Total Runoff Area = 275,173 sf Runoff Volume = 20,334 cf Average Runoff Depth = 0.89"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

[47] Hint: Peak is 826% of capacity of segment #3
[47] Hint: Peak is 110% of capacity of segment #4

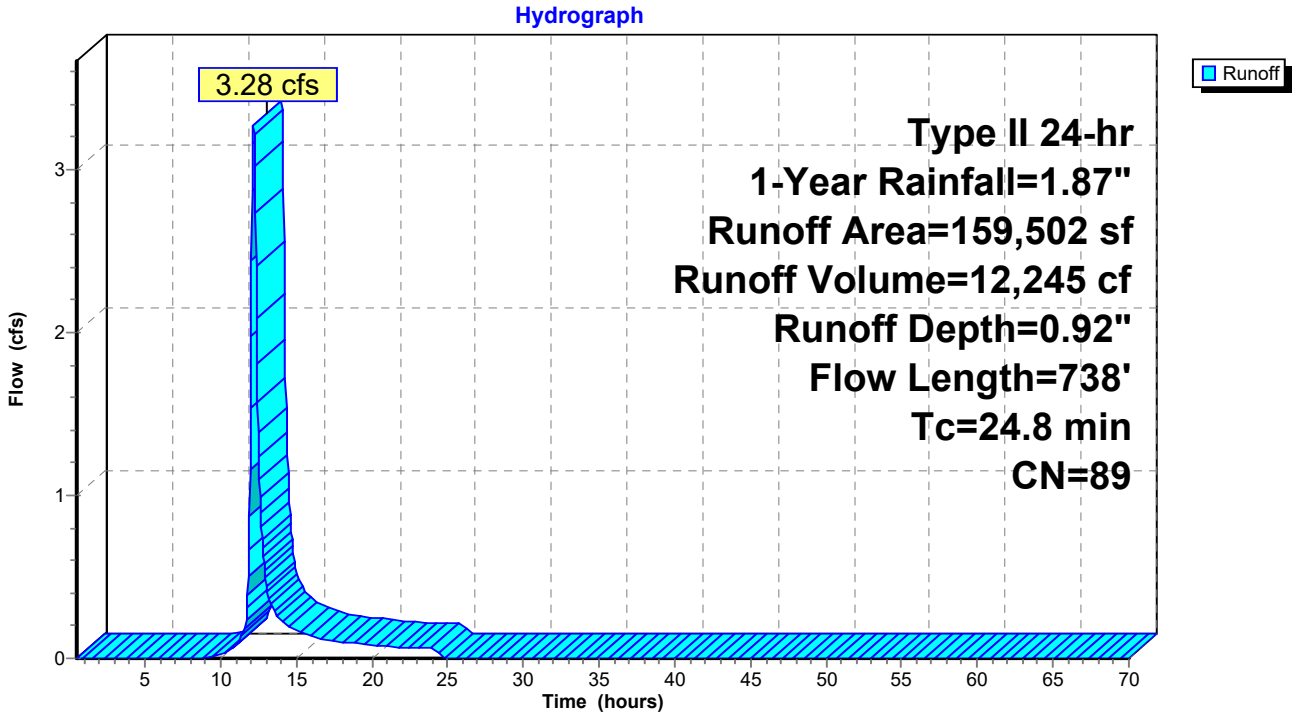
Runoff = 3.28 cfs @ 12.19 hrs, Volume= 12,245 cf, Depth= 0.92"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

[47] Hint: Peak is 258% of capacity of segment #3

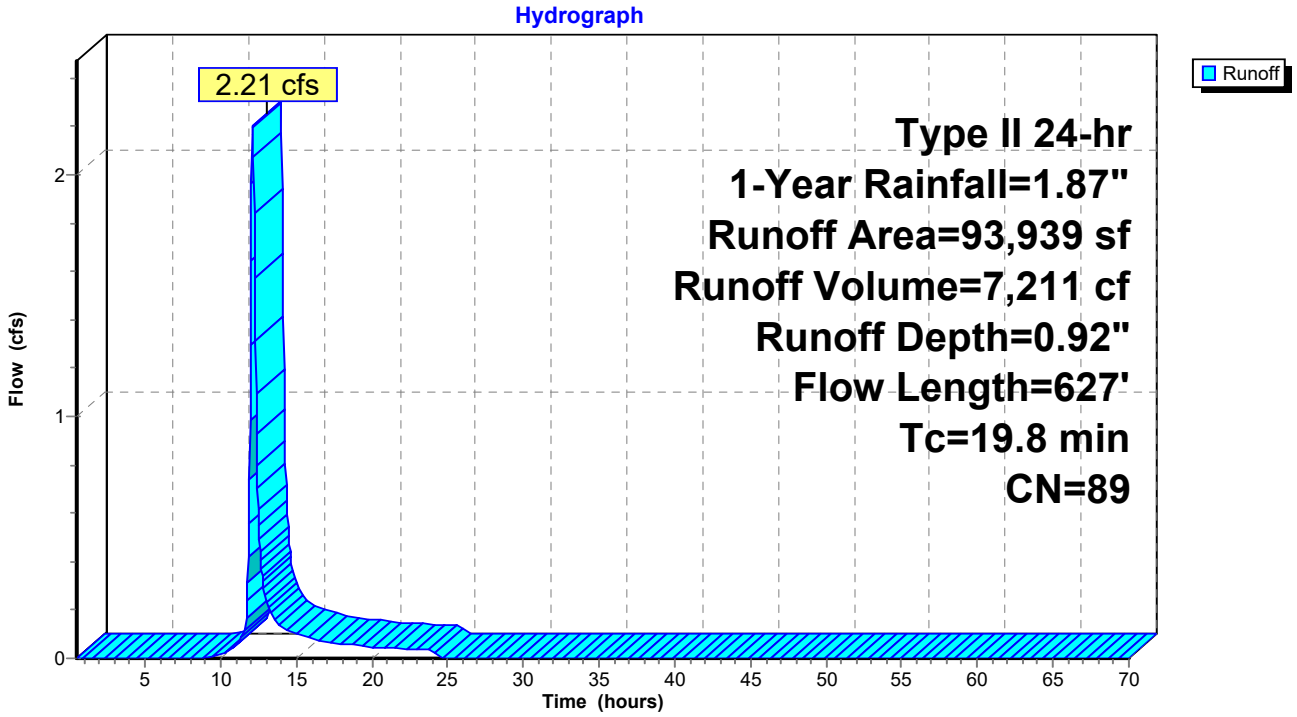
Runoff = 2.21 cfs @ 12.13 hrs, Volume= 7,211 cf, Depth= 0.92"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

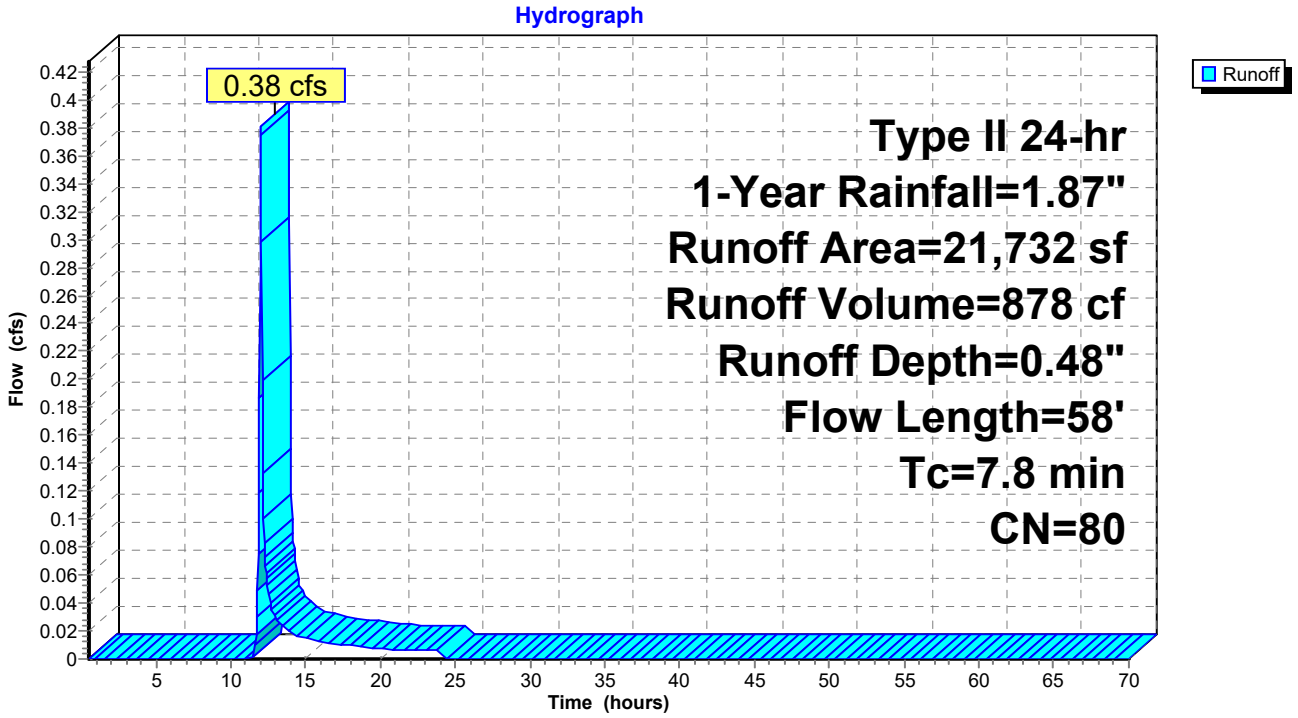
Runoff = 0.38 cfs @ 12.00 hrs, Volume= 878 cf, Depth= 0.48"
Routed to nonexistent node 2P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 0.92" for 1-Year event
Inflow = 5.40 cfs @ 12.16 hrs, Volume= 19,456 cf
Outflow = 1.94 cfs @ 12.51 hrs, Volume= 19,456 cf, Atten= 64%, Lag= 21.3 min
Primary = 1.94 cfs @ 12.51 hrs, Volume= 19,456 cf

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 671.04' @ 12.51 hrs Surf.Area= 4,107 sf Storage= 5,335 cf

Plug-Flow detention time= 26.2 min calculated for 19,456 cf (100% of inflow)
Center-of-Mass det. time= 26.2 min (873.2 - 847.0)

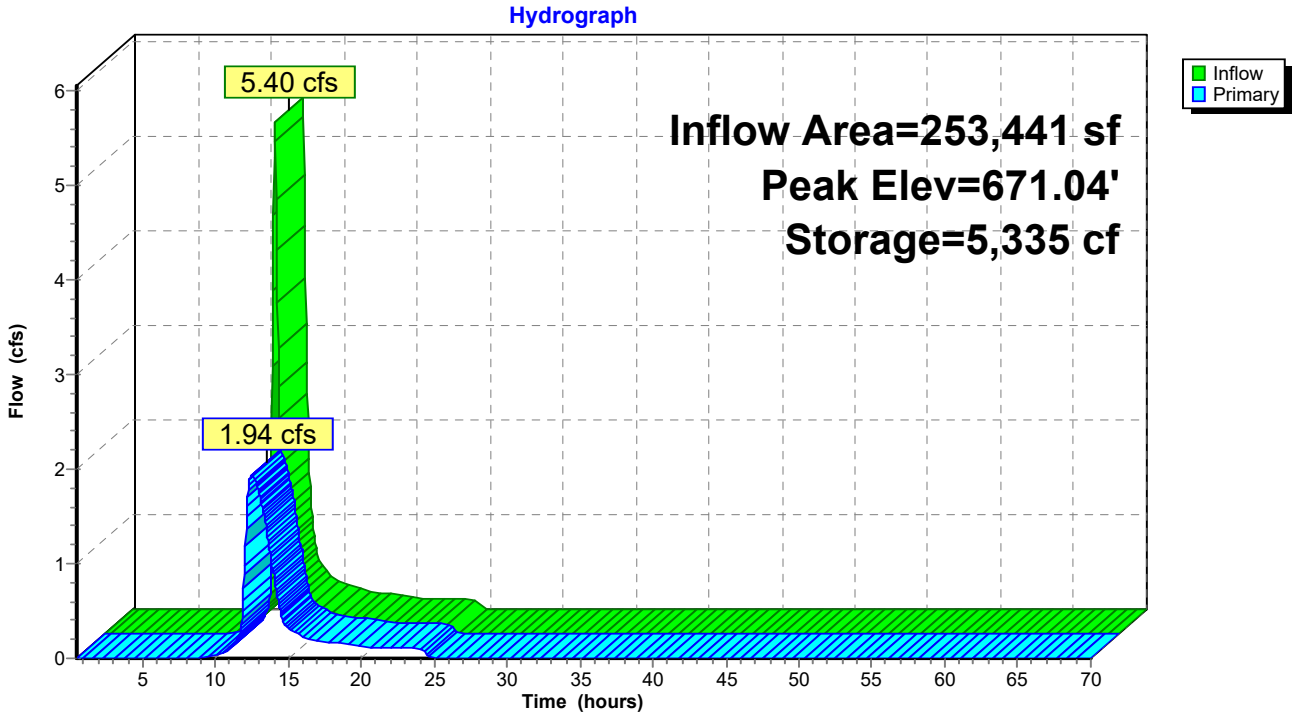
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.94 cfs @ 12.51 hrs HW=671.04' (Free Discharge)
└**3=Culvert** (Passes 1.94 cfs of 1.98 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 1.94 cfs @ 5.55 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 1P: Detention Pond



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=2.03"
Flow Length=738' Tc=24.8 min CN=89 Runoff=7.22 cfs 26,940 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=2.03"
Flow Length=627' Tc=19.8 min CN=89 Runoff=4.85 cfs 15,867 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=58' Tc=7.8 min CN=80 Runoff=1.12 cfs 2,456 cf

Pond 1P: Detention Pond Peak Elev=672.95' Storage=15,013 cf Inflow=11.90 cfs 42,807 cf
Outflow=2.82 cfs 42,807 cf

Total Runoff Area = 275,173 sf Runoff Volume = 45,263 cf Average Runoff Depth = 1.97"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

[47] Hint: Peak is 1821% of capacity of segment #3
[47] Hint: Peak is 242% of capacity of segment #4
[47] Hint: Peak is 203% of capacity of segment #5

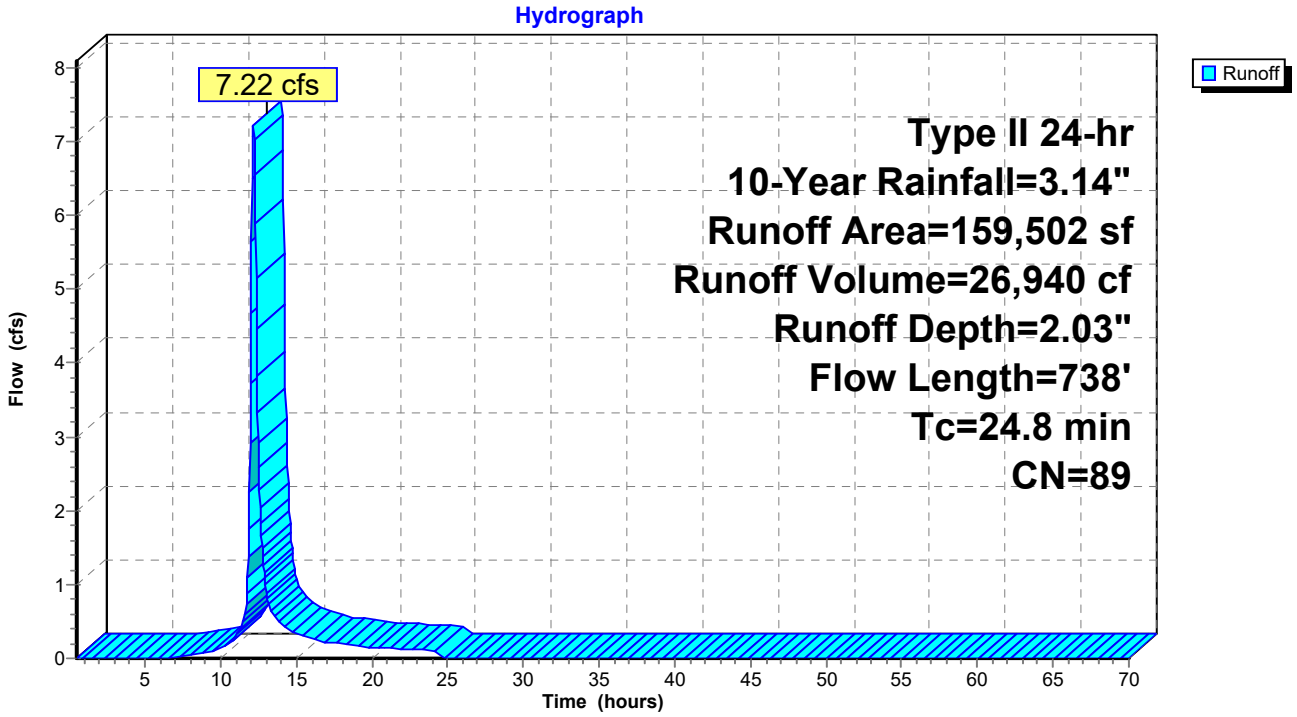
Runoff = 7.22 cfs @ 12.18 hrs, Volume= 26,940 cf, Depth= 2.03"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

[47] Hint: Peak is 567% of capacity of segment #3
[47] Hint: Peak is 152% of capacity of segment #4
[47] Hint: Peak is 130% of capacity of segment #5

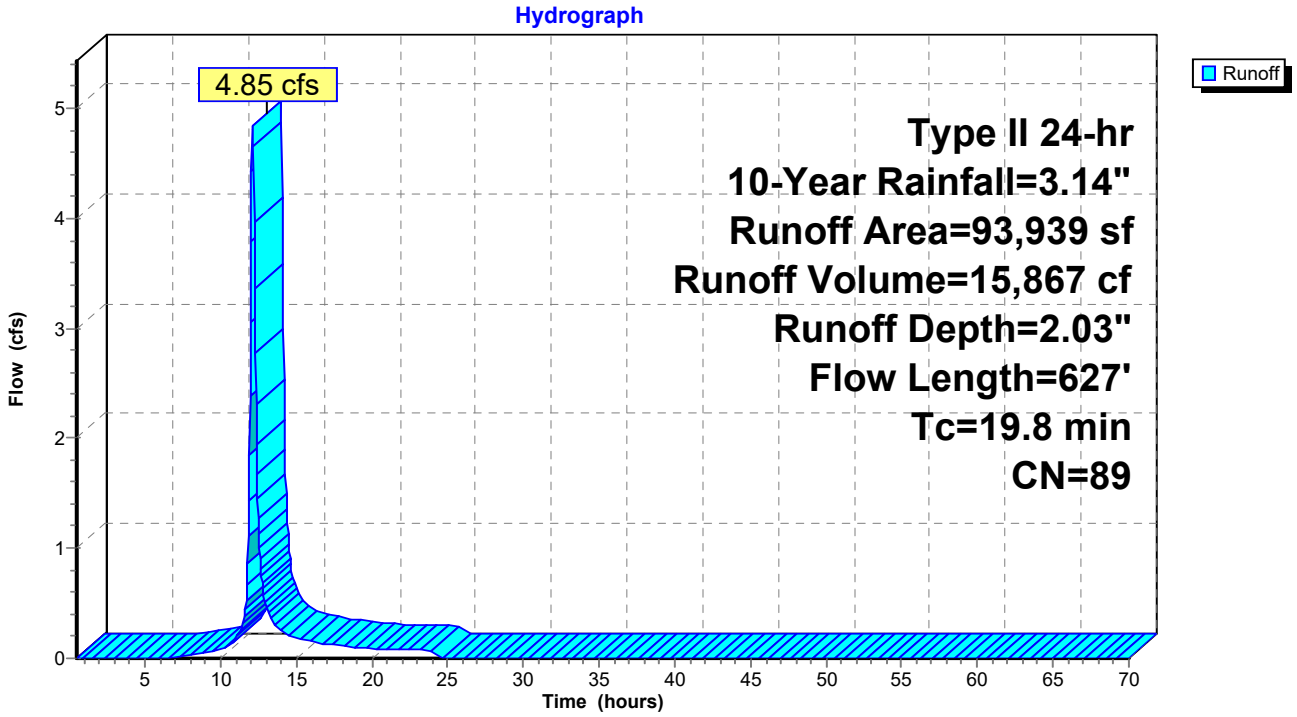
Runoff = 4.85 cfs @ 12.12 hrs, Volume= 15,867 cf, Depth= 2.03"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

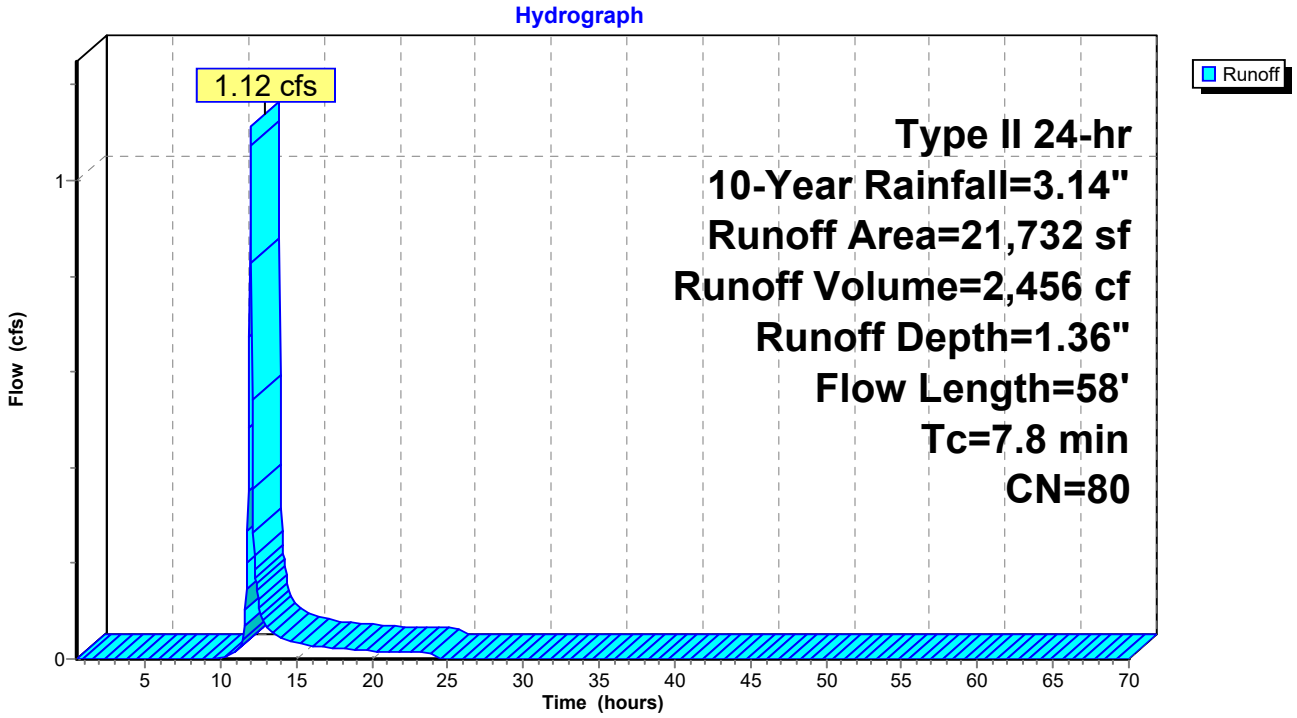
Runoff = 1.12 cfs @ 12.00 hrs, Volume= 2,456 cf, Depth= 1.36"
Routed to nonexistent node 2P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 2.03" for 10-Year event
Inflow = 11.90 cfs @ 12.15 hrs, Volume= 42,807 cf
Outflow = 2.82 cfs @ 12.64 hrs, Volume= 42,807 cf, Atten= 76%, Lag= 29.2 min
Primary = 2.82 cfs @ 12.64 hrs, Volume= 42,807 cf

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 672.95' @ 12.64 hrs Surf.Area= 6,059 sf Storage= 15,013 cf

Plug-Flow detention time= 47.9 min calculated for 42,782 cf (100% of inflow)
Center-of-Mass det. time= 47.9 min (872.3 - 824.5)

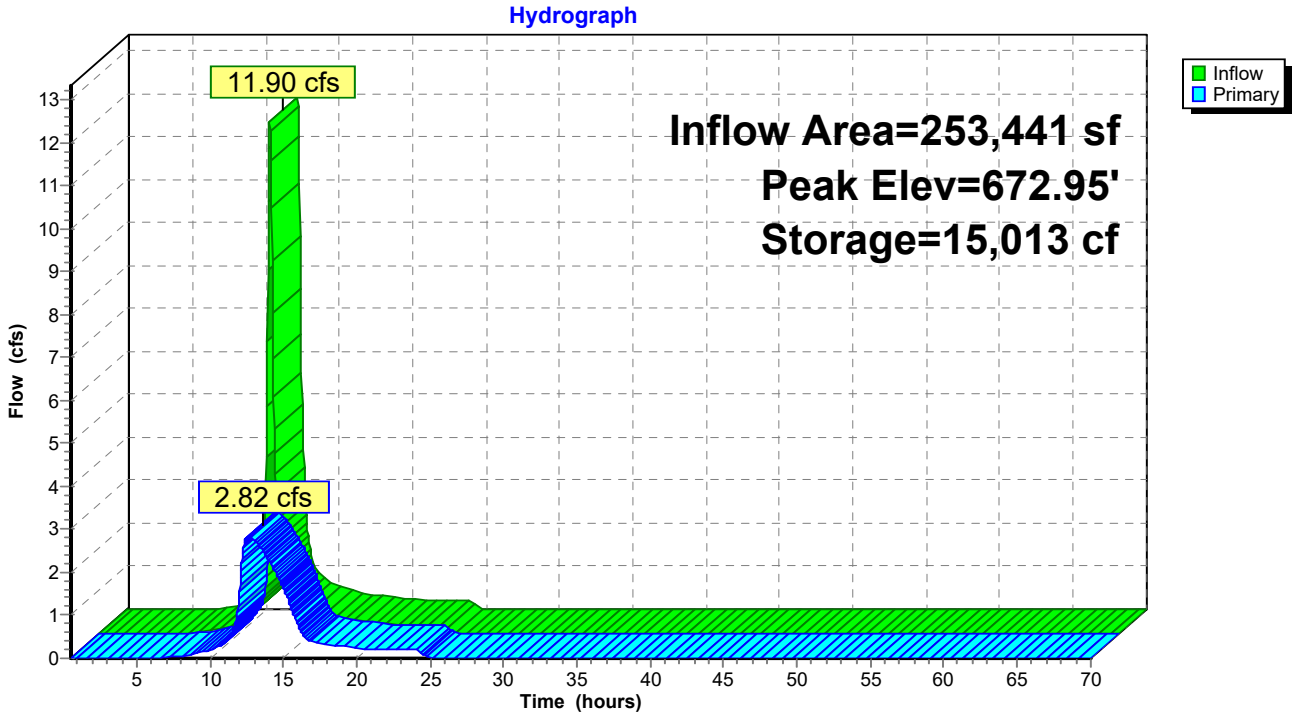
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.82 cfs @ 12.64 hrs HW=672.95' (Free Discharge)
└**3=Culvert** (Passes 2.82 cfs of 2.85 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 2.82 cfs @ 8.08 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 1P: Detention Pond



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=2.67"
Flow Length=738' Tc=24.8 min CN=89 Runoff=9.47 cfs 35,532 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=2.67"
Flow Length=627' Tc=19.8 min CN=89 Runoff=6.35 cfs 20,927 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=58' Tc=7.8 min CN=80 Runoff=1.57 cfs 3,459 cf

Pond 1P: Detention Pond Peak Elev=673.70' Storage=21,268 cf Inflow=15.59 cfs 56,458 cf
Outflow=3.10 cfs 56,458 cf

Total Runoff Area = 275,173 sf Runoff Volume = 59,918 cf Average Runoff Depth = 2.61"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

[47] Hint: Peak is 2386% of capacity of segment #3
[47] Hint: Peak is 318% of capacity of segment #4
[47] Hint: Peak is 266% of capacity of segment #5

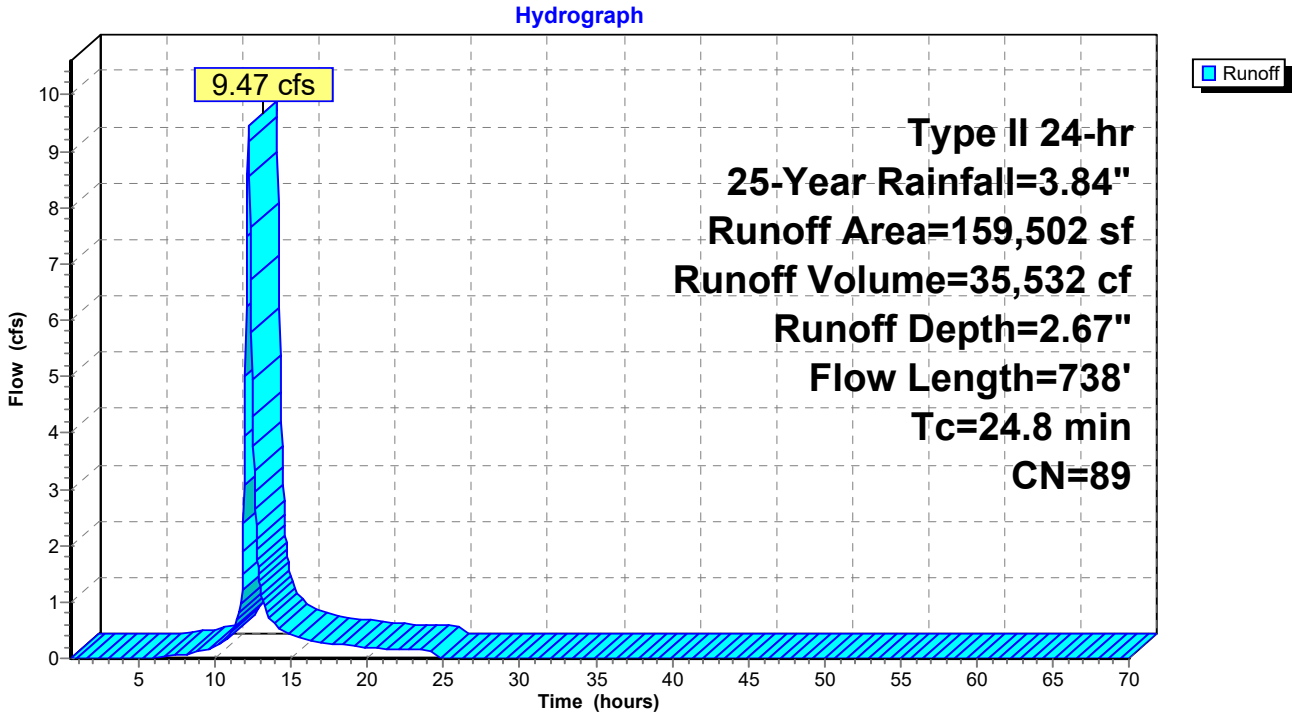
Runoff = 9.47 cfs @ 12.18 hrs, Volume= 35,532 cf, Depth= 2.67"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

[47] Hint: Peak is 743% of capacity of segment #3
[47] Hint: Peak is 199% of capacity of segment #4
[47] Hint: Peak is 170% of capacity of segment #5

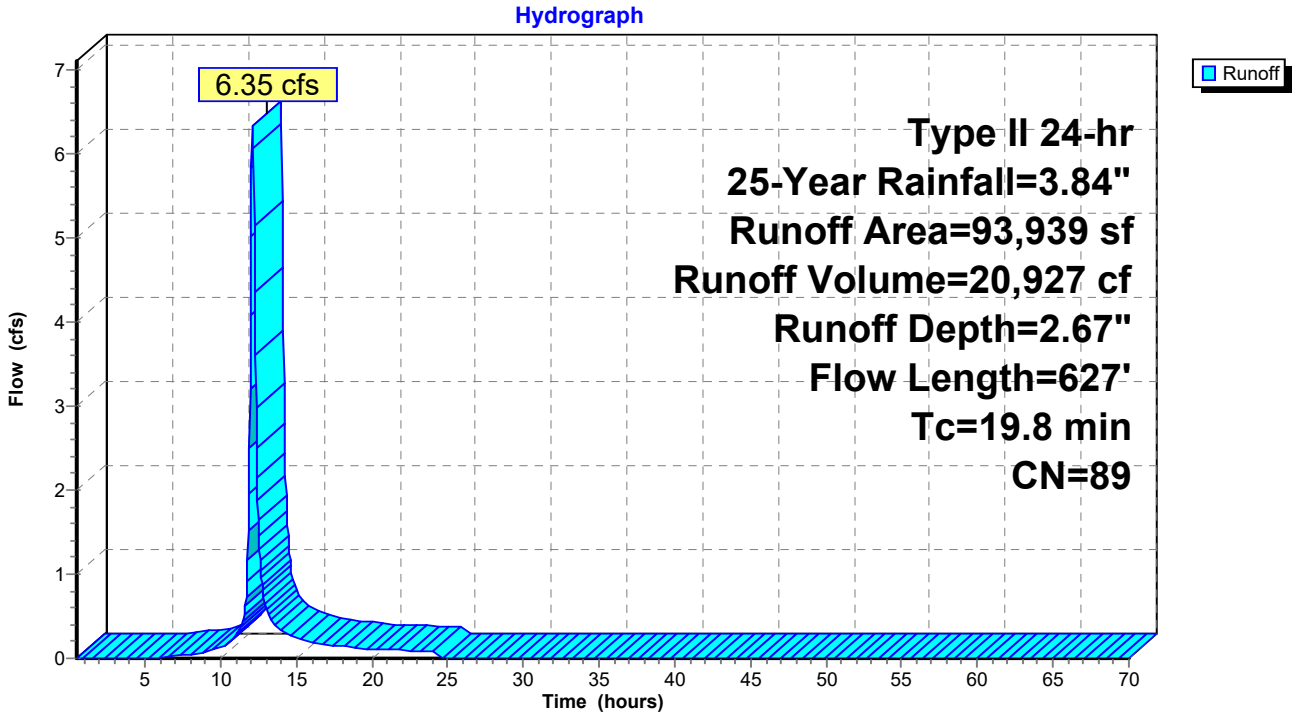
Runoff = 6.35 cfs @ 12.12 hrs, Volume= 20,927 cf, Depth= 2.67"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

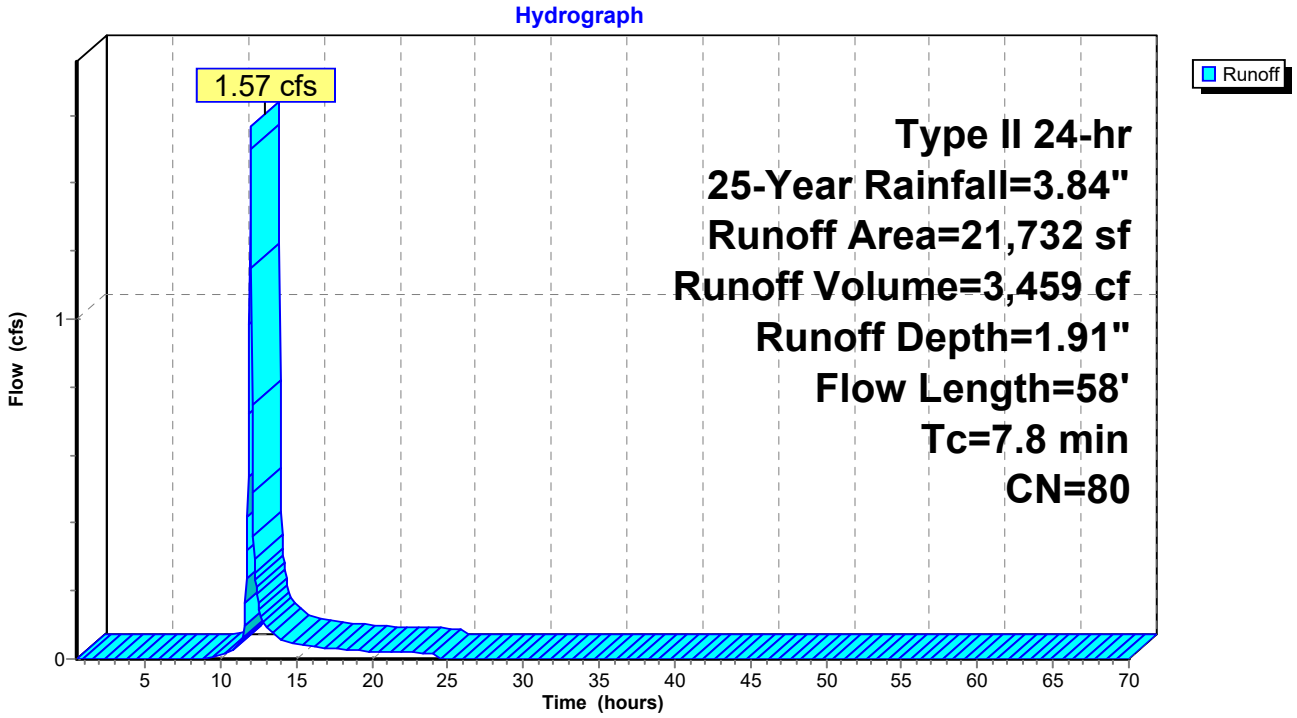
Runoff = 1.57 cfs @ 11.99 hrs, Volume= 3,459 cf, Depth= 1.91"
Routed to nonexistent node 2P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 2.67" for 25-Year event
Inflow = 15.59 cfs @ 12.15 hrs, Volume= 56,458 cf
Outflow = 3.10 cfs @ 12.70 hrs, Volume= 56,458 cf, Atten= 80%, Lag= 33.0 min
Primary = 3.10 cfs @ 12.70 hrs, Volume= 56,458 cf

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 673.70' @ 12.70 hrs Surf.Area= 10,997 sf Storage= 21,268 cf

Plug-Flow detention time= 60.6 min calculated for 56,426 cf (100% of inflow)
Center-of-Mass det. time= 60.6 min (877.2 - 816.6)

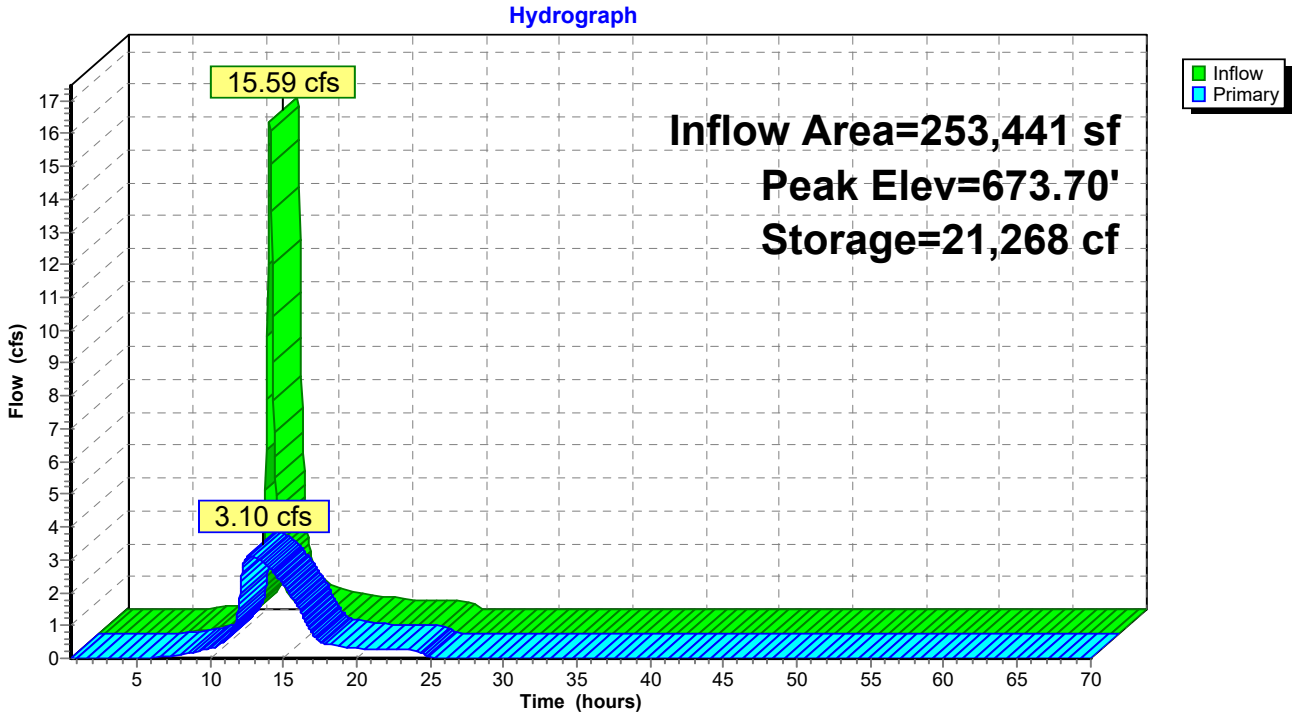
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.10 cfs @ 12.70 hrs HW=673.70' (Free Discharge)
└**3=Culvert** (Passes 3.10 cfs of 3.13 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 3.10 cfs @ 8.87 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 1P: Detention Pond



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=3.99"
Flow Length=738' Tc=24.8 min CN=89 Runoff=13.94 cfs 53,068 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=3.99"
Flow Length=627' Tc=19.8 min CN=89 Runoff=9.33 cfs 31,254 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=58' Tc=7.8 min CN=80 Runoff=2.52 cfs 5,604 cf

Pond 1P: Detention Pond Peak Elev=674.73' Storage=34,966 cf Inflow=22.95 cfs 84,322 cf
Outflow=3.45 cfs 84,322 cf

Total Runoff Area = 275,173 sf Runoff Volume = 89,926 cf Average Runoff Depth = 3.92"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

[47] Hint: Peak is 3513% of capacity of segment #3
[47] Hint: Peak is 468% of capacity of segment #4
[47] Hint: Peak is 391% of capacity of segment #5

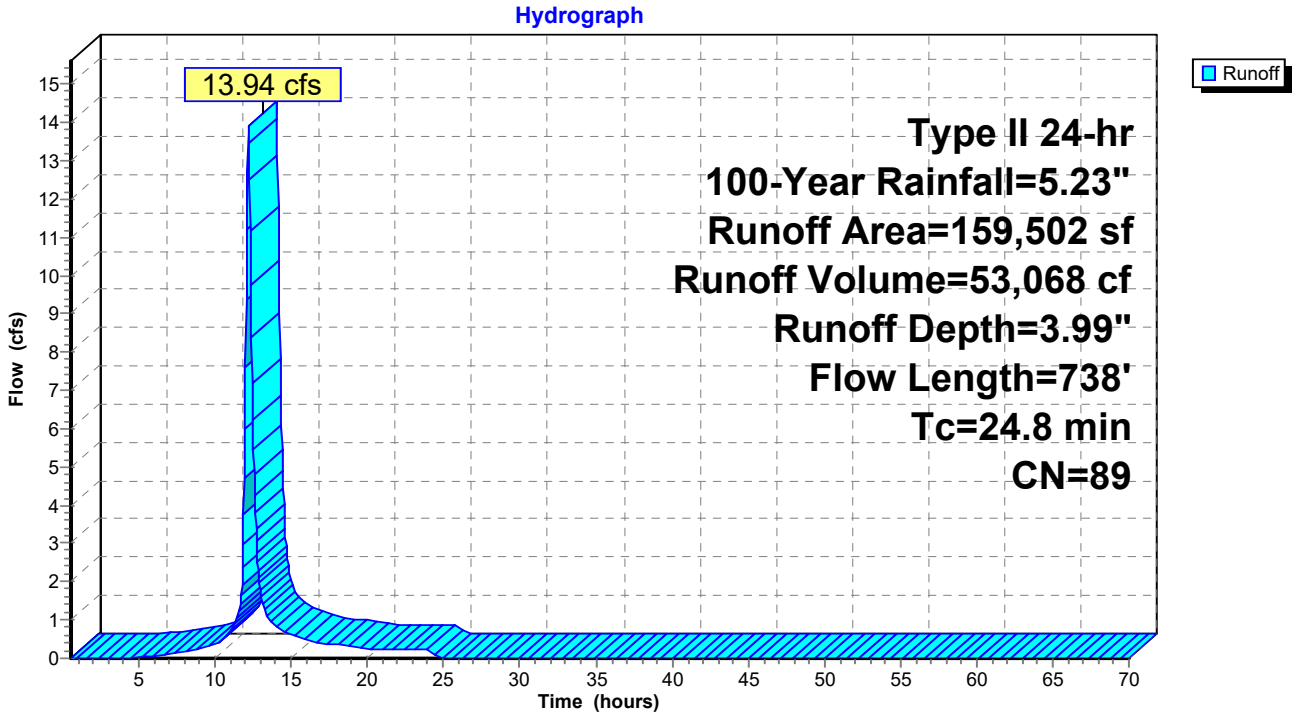
Runoff = 13.94 cfs @ 12.17 hrs, Volume= 53,068 cf, Depth= 3.99"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

[47] Hint: Peak is 1092% of capacity of segment #3
[47] Hint: Peak is 293% of capacity of segment #4
[47] Hint: Peak is 250% of capacity of segment #5

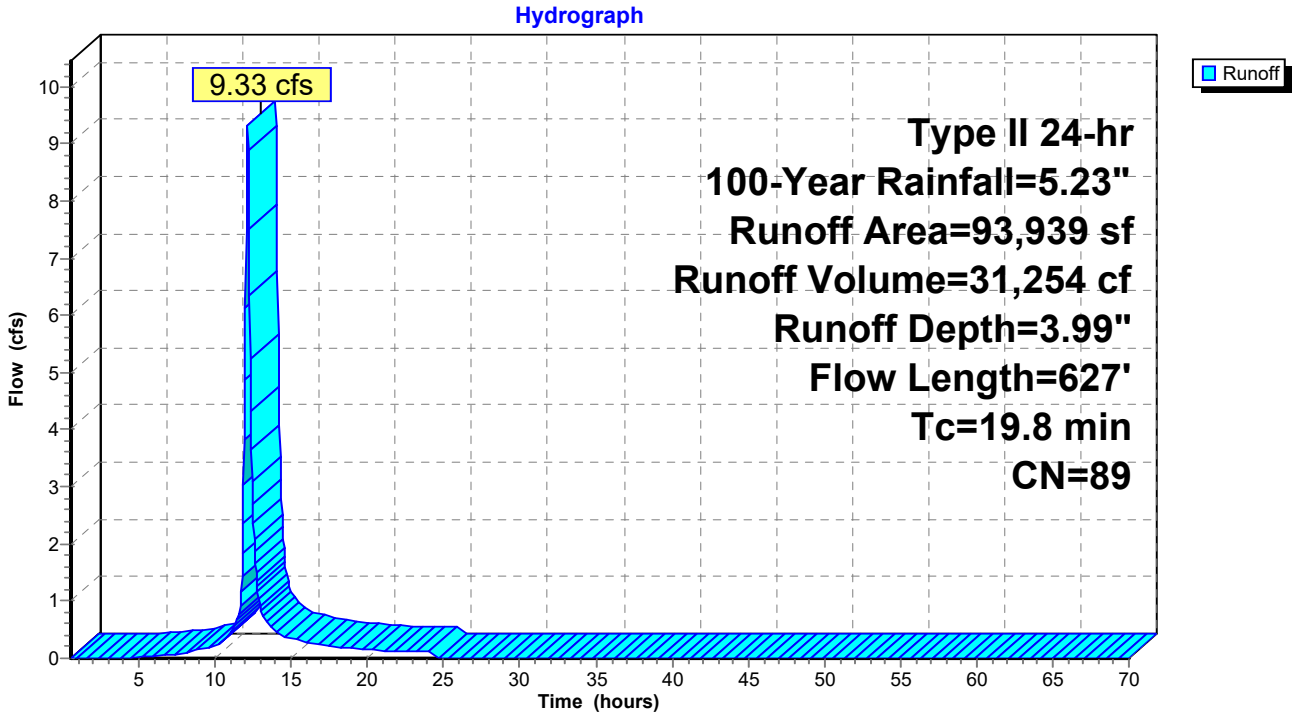
Runoff = 9.33 cfs @ 12.12 hrs, Volume= 31,254 cf, Depth= 3.99"
Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

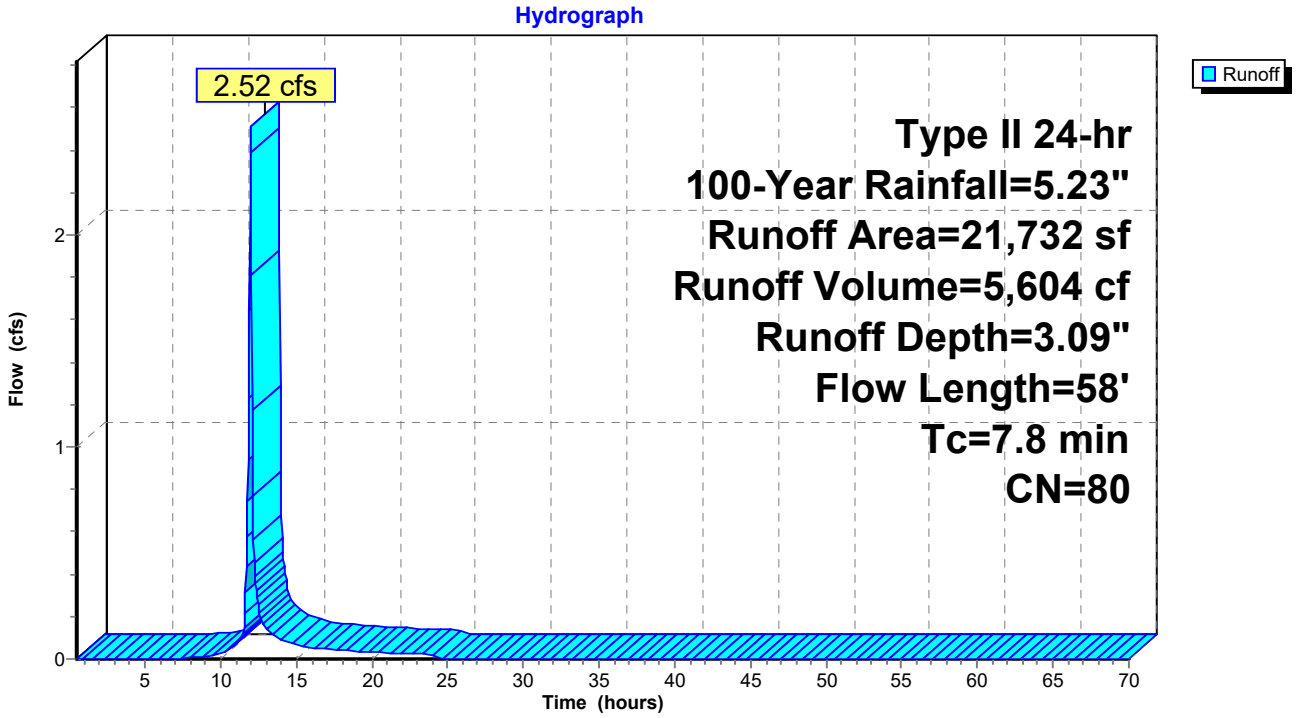
Runoff = 2.52 cfs @ 11.99 hrs, Volume= 5,604 cf, Depth= 3.09"
Routed to nonexistent node 2P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 3.99" for 100-Year event
Inflow = 22.95 cfs @ 12.15 hrs, Volume= 84,322 cf
Outflow = 3.45 cfs @ 12.81 hrs, Volume= 84,322 cf, Atten= 85%, Lag= 39.9 min
Primary = 3.45 cfs @ 12.81 hrs, Volume= 84,322 cf

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 674.73' @ 12.81 hrs Surf.Area= 14,332 sf Storage= 34,966 cf

Plug-Flow detention time= 89.0 min calculated for 84,273 cf (100% of inflow)
Center-of-Mass det. time= 89.0 min (894.3 - 805.3)

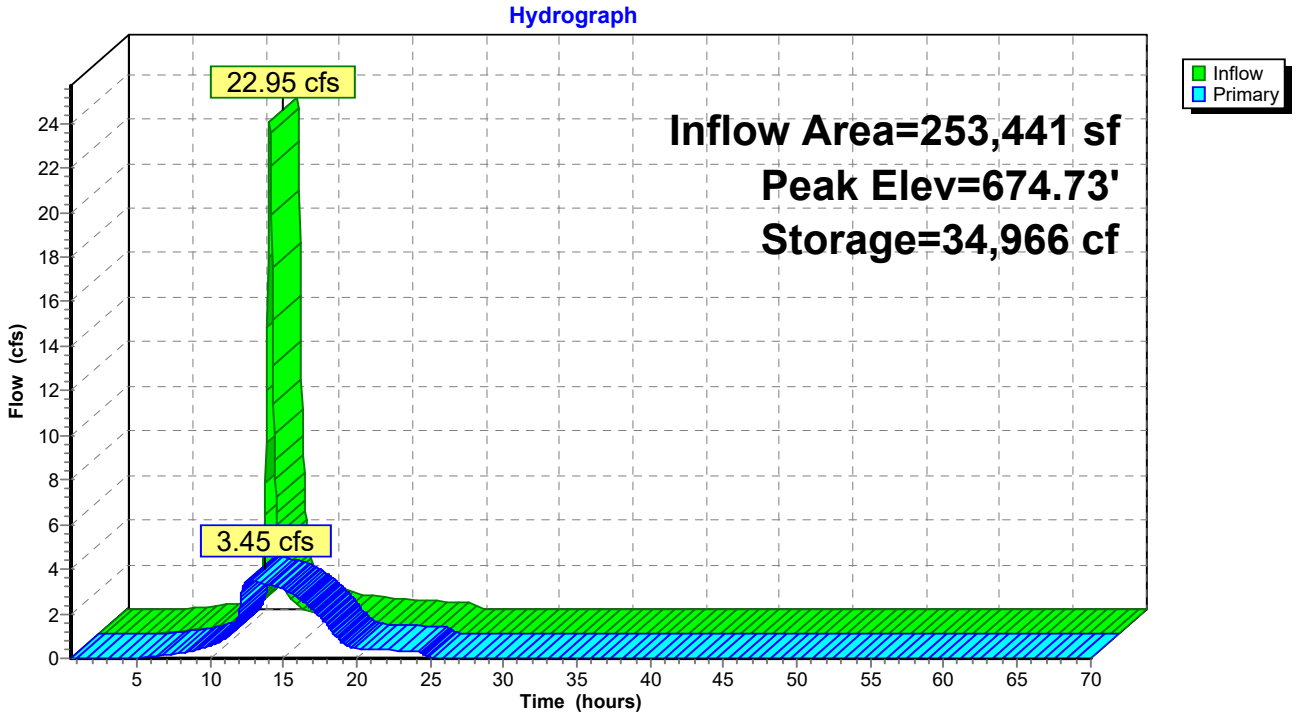
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.45 cfs @ 12.81 hrs HW=674.73' (Free Discharge)
└**3=Culvert** (Passes 3.45 cfs of 3.47 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 3.45 cfs @ 9.87 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 1P: Detention Pond



Appendix E

Soil Information



Map Scale: 1:2,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 30 60 120 180

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 25, Sep 4, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 13, 2023—May 27, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DbA	Darien silt loam, 0 to 3 percent slopes	C/D	6.3	43.8%
Nh	Niagara silt loam, till substratum	C/D	2.1	14.5%
RfB	Remsen silty clay loam, 3 to 8 percent slopes	D	6.0	41.7%
Totals for Area of Interest			**14.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix E

NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-25-001

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION (NYSDEC)

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP-0-25-001

Construction General Permit (CGP)

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2025 Expiration Date: January 28, 2030

Scott E. Sheeley

Chief Permit Administrator

Scott E. Sheeley JAN. 29, 2025

Authorized Signature Date

Address: NYSDEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (CWA), and 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), *stormwater discharges* from certain *construction activities* are unlawful unless they are authorized by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. New York State administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7 and 8, and Article 70, as well as 6 NYCRR Parts 621 and 750.

C*onstruction activities* constitute construction of a *point source* and, therefore, pursuant to ECL sections 17-0505, 17-0701, and 17-0803, the *owner or operator* must have coverage under a SPDES permit prior to *commencement of construction activities*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES CONSTRUCTION GENERAL PERMIT (CGP) GP-0-25-001
FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part I. How to Obtain Coverage and General Requirements

To be covered under this permit, the *owner or operator* must meet all eligibility requirements in Part I.A. and follow the requirements for obtaining permit coverage in Part I.D., F., or G.

A. Eligibility Requirements

For a *common plan of development or sale*, the *phase(s)* that meet the eligibility requirements in Part I.A. may obtain coverage under this permit even if other *phase(s)* of the same *common plan of development or sale* do not meet the eligibility requirements and require an individual SPDES permit.

1. The *owner's or operator's construction activities* involve soil disturbances of:

    a. one or more acres; or

    b. less than one acre which are part of a *common plan of development or sale* that will ultimately disturb one or more acres; or

    c. less than one acre where NYSDEC has determined that a SPDES permit is required for *stormwater discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of pollutants to *surface waters of the State*.

        i. 5,000 square feet or more, but less than one acre, and are in the New York City Watershed located east of the Hudson River, Appendix C Figure 1; or

        ii. 20,000 square feet or more, but less than one acre, within the municipal boundaries of the City of New York (NYC); or

        iii. less than 20,000 square feet which are part of a *common plan of development or sale* that will ultimately disturb 20,000 square feet or more, but less than one acre, within the municipal boundaries of NYC; or

        iv. that creates 5,000 square feet or more of *impervious area* within the municipal boundaries of NYC.

2. *Discharges* from the *owner's or operator's construction activities* are/were not:

    a. already covered by a different SPDES permit; or

    b. covered under a different SPDES permit that was denied, terminated, or revoked; or

    c. identified in an expired individual SPDES permit that was not renewed; or

    d. required to obtain an individual SPDES permit or another general SPDES permit in accordance with Part VII.K.

3. If *construction activities* may adversely affect a species that is endangered or threatened, the *owner or operator* must obtain a:

    a. permit issued pursuant to 6 NYCRR Part 182 for the project; or

    b. letter issued by NYSDEC of non-jurisdiction pursuant to 6 NYCRR Part 182 for the project.

4. If *construction activities* have the potential to affect an *historic property*, the *owner or operator* must obtain one of the following:

    a. documentation that the *construction activity* is not within an archeological buffer area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:

        i. 1-5 acres of disturbance - 20 feet; or

        ii. 5-20 acres of disturbance - 50 feet; or

iii. 20+ acres of disturbance - 100 feet.

b. NYSDEC consultation form sent to OPRHP,[1] and copied to NYSDEC's Agency Historic Preservation Officer (APO), and

i. the State Environmental Quality Review Act (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or

ii. documentation from OPRHP that the *construction activity* will result in No Impact; or

iii. documentation from OPRHP providing a determination of No Adverse Impact; or

iv. a Letter of Resolution signed by the *owner or operator*, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA).

c. documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

i. No Affect; or

ii. No Adverse Affect; or

iii. Executed Memorandum of Agreement.

d. documentation that SHPA Section 14.09 has been completed by NYSDEC or another state agency.

5. If *construction activities* are subject to SEQR, the *owner or operator* must obtain documentation that SEQR has been satisfied.

6. If *construction activities* are not subject to SEQR, but subject to the equivalent environmental review from another New York State or federal agency, the

[1] The consultation form can be submitted, along with other project information, through OPRHP's Cultural Resource Information System (CRIS) portal. If submitted through CRIS, paper copies of the consultation form need not be mailed.

owner or operator must obtain documentation that project review, pursuant to a process equivalent to SEQR from another New York State or federal agency, has been satisfied.

7. If *construction activities* require Uniform Procedures Act (UPA) Permits (see 6 NYCRR Part 621) from NYSDEC, or the equivalent from another New York State or federal agency, the *owner or operator* must:

    a. obtain all such necessary permits; or

    b. receive notification from NYSDEC pursuant to 6 NYCRR 621.3(a)(4) excepting Part I.A.7.a.

8. *Construction activities* are not eligible if they meet the following criteria in Part I.A.8.a. or b.:

    a. For linear transportation and linear utility project types, the *construction activities*:

        i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

        ii. are undertaken on land with no existing *impervious cover*; and

        iii. disturb two or more acres of *steep slope*.

    b. For all other project types, the *construction activities*:

        i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

        ii. are undertaken on land with no existing *impervious cover*; and

        iii. disturb one or more acres of *steep slope*.

B. Types of *Discharges* Authorized

1. The following *stormwater discharges* are authorized under this permit:

   a. *Stormwater discharges*, including *stormwater* runoff, snowmelt runoff, and surface runoff and drainage, associated with *construction activity*, are authorized under this permit provided that appropriate *stormwater* controls are designed, installed, and maintained in accordance with Part II. and Part III.

   b. *Stormwater discharges* from construction support activities at the *construction site* (including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and borrow areas) if the following requirements are met:

      i. The support activity is directly related to the *construction site* required to have permit coverage for *stormwater discharges*; and

      ii. The support activity is not a commercial operation, nor does it serve multiple unrelated *construction sites*; and

      iii. The support activity does not continue to operate beyond the completion of the *construction activity* at the site it supports; and

      iv. *Stormwater* controls are implemented in accordance with Part II. and Part III. for *discharges* from the support activity areas.

2. The following non-*stormwater discharges* associated with *construction activity* are authorized under this permit:

   a. Non-*stormwater discharges* listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "*Discharges* from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; and

   b. Non-*stormwater discharges* of waters to which other components have not been added that are used in accordance with the *SWPPP* to control dust or irrigate vegetation in stabilized areas; and

   c. Uncontaminated *discharges* from *dewatering* operations

3. Authorized *discharges* of *stormwater* or authorized *discharges* of non-*stormwater*, commingled with a *discharge* authorized by a different SPDES permit and/or a *discharge* that does not require SPDES permit authorization, are also authorized under this permit.

C. Prohibited *Discharges*

1. Non-*stormwater discharges* prohibited under this permit include but are not limited to:

    a. Wastewater from washout of concrete; and

    b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials; and

    c. Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance; and

    d. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

    e. Toxic or hazardous substances from a spill or other release.

D. Electronic Notice of Intent (eNOI) Submittal

To receive authorization in accordance with Part I.D.3.b., the *owner or operator* must submit a complete eNOI in accordance with the requirements in Part I.D. The eNOI contains questions to: ensure eligibility requirements in Part I.A. have been met; obtain *owner or operator* contact information; obtain the total area to be disturbed and the existing/future *impervious areas* (rounded to the nearest tenth of an acre); confirm *Traditional Land Use Control MS4 Operator* jurisdiction over construction projects; satisfy the EPA eRule requirements; confirm that the Water Quality-Based Effluent Limitations in Part II. have been met; demonstrate consideration of the future risks due to climate change in accordance with Part III.A.2.; and confirm that the other *Stormwater Pollution Prevention Plan (SWPPP)* requirements in Part III. have been met.

1. An eNOI may be submitted for:

    a. *construction activities* that are not part of a *common plan of development or sale*; or

b. an entire *common plan of development or sale*; or

c. separate *phase(s)* of a *common plan of development or sale* if the following requirements are met:

    i. the *common plan of development or sale* meets the eligibility requirements of Part I.A.5. or 6.; and

    ii. the *phase(s)* meet(s) all other eligibility requirements of Part I.A.; and

    iii. Part III.C. Required *SWPPP* Components by Project Type is based on the *common plan of development or sale*, not the *phase(s)*; or

d. *tree clearing* that is associated with, or will support, a *renewable energy* generation, transmission, or storage project that meets Part I.A.5. and 6., if the *tree clearing*:

    i. meets all other eligibility requirements of Part I.A.; and

    ii. will occur in NYSDEC's Regions 3-9; and

    iii. is not within ¼ mile of a bat hibernaculum protected pursuant to 6 NYCRR Part 182; and

    iv. will occur between November 1st and March 31st.

2. As prerequisites for submitting an eNOI, the *owner or operator* must:

    a. prepare a *SWPPP* for Part I.D.1.a., b., c., or d. in accordance with Part III.; and

    b. based on the following criteria, upload the following signature forms signed in accordance with Part VII.J. to the eNOI prior to submission:

        i. for all eNOIs:

            1. the SWPPP Preparer Certification Form, Appendix F, signed by the *SWPPP* preparer; and

2. the Owner/Operator Certification Form, Appendix J, signed by the *owner or operator*; and

ii. if an eNOI includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that will *discharge* to the *MS4(s)*:

1. determine if the *Traditional Land Use Control MS4 Operator(s)* have review authority. A *Traditional Land Use Control MS4 Operator* does not have review authority where:

a. the *owner or operator* of the *construction activities* in Part I.D.2.b.ii. is the same entity as the *Traditional Land Use Control MS4 Operator* identified in Part I.D.2.b.ii.; or

b. there is a statute exempting the *owner or operator* from zoning review by the *Traditional Land Use Control MS4 Operator*; or

c. there is no such statute per Part I.D.2.b.ii.1.b., the *Traditional Land Use Control MS4 Operator* concludes, after public hearing, that it does not have zoning review authority in accordance with Legal Memorandum LU14 Updated January 2020 “Governmental Immunity from Zoning and Other Legislation”; and

2. if the *Traditional Land Use Control MS4 Operator(s)* have review authority, submit the *SWPPP* to the *Traditional Land Use Control MS4 Operator(s)* for review and have:

a. if outside the municipal boundaries of NYC: the MS4 SWPPP Acceptance Form, Appendix G, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.; or

b. if within the municipal boundaries of NYC: The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval Form, Appendix H, signed by the principal executive officer or ranking elected official from the Traditional Land Use Control MS4 Operator, or by a duly authorized representative of that person in accordance with Part VII.J.2.; and

3. if the *Traditional Land Use Control MS4 Operator* does not have review authority, have the MS4 No Jurisdiction Form, Appendix I, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.

3. Submitting an eNOI:

a. The *owner or operator* must submit a complete Notice of Intent electronically using a NYSDEC approved form.[2]

b. The *owner or operator* is authorized to *commence construction activity* as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.

i. If an eNOI is received for a *SWPPP* that deviates from one of the technical standards but demonstrates *equivalence* in accordance with Part III.B.1.a.ii. or Part III.B.2.b.ii., if the *SWPPP* includes *construction activities* that are not within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)*, and/or if the *SWPPP* includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that do not have review authority in accordance with Part I.D.2.b.ii.1., the authorization date indicated in the LOA will be 60 business days after the eNOI submission date.

[2] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

c. If *Traditional Land Use Control MS4 Operator(s)* have review authority in accordance with Part I.D.2.b.ii.2., the *owner or operator* must, within five business days of receipt of the LOA, send an electronic copy of the LOA to the *Traditional Land Use Control MS4 Operator(s)* with review authority.

E. General Requirements for *Owners or Operators* with Permit Coverage

1. As of the date the LOA is received, the *owner or operator* must make the eNOI, *SWPPP*, and LOA available for review and copying in accordance with the requirements in Part VII.H. When applicable, as of the date an updated LOA is received, the *owner or operator* must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.

2. The *owner or operator* must ensure compliance with all requirements of this permit and that the provisions of the *SWPPP*, including any changes made to the *SWPPP* in accordance with Part III.A.5., are properly implemented and maintained from the *commencement of construction activity* until:

   a. all areas of disturbance have achieved *final stabilization;* and

   b. the owner's or operator's coverage under this permit is terminated in accordance with Part V.A.5.a.

3. As of the date of the *commencement of construction activities* until Part I.E.2.a. and b. have been met, the *owner or operator* must maintain at the *construction site*, a copy of:

   a. all documentation necessary to demonstrate eligibility with this permit; and

   b. this permit; and

   c. the *SWPPP*; and

   d. the signed SWPPP Preparer Certification Form; and

   e. the signed MS4 SWPPP Acceptance Form or signed NYCDEP SWPPP Acceptance/Approval Form or signed MS4 No Jurisdiction Form (when applicable); and

   f. the signed Owner/Operator Certification Form; and

g. the eNOI; and

h. the LOA; and

i. the LOA transmittal to the Traditional Land Use Control MS4 Operator in accordance with Part I.D.3.c. (when applicable).

4. The *owner or operator* must maintain at the *construction site*, until Part I.E.2.a. and b. have been met, as of the date the documents become final or are received, a copy of the:

   a. responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7.; and

   b. inspection reports in accordance with Part IV.C.4. and 6.; and

   c. Request to Disturb Greater Than Five Acres and the Authorization Letter to Disturb Greater Than Five Acres in accordance with Part I.E.6. (when applicable); and

   d. Request to Continue Coverage and the Letter of Continued Coverage (LOCC) in accordance with Part I.F.2. and 4. (when applicable); and

   e. The updated LOA(s) in accordance with Part I.E.9. (when applicable).

5. The *owner or operator* must maintain the documents in Part I.E.3. and 4. in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the *owner or operator* must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.

6. The *owner or operator* must meet the following requirements prior to disturbing greater than five acres of soil at any one time:

   a. The *owner or operator* must submit a written Request to Disturb Greater Than Five Acres to:

i. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, if a *Traditional Land Use Control MS4 Operator* does not have review authority in accordance with Part I.D.2.b.ii.1.; or

ii. the *Traditional Land Use Control MS4 Operator*, if a *Traditional Land Use Control MS4 Operator* has review authority in accordance with Part I.D.2.b.ii.1.; or

iii. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, and each involved *Traditional Land Use Control MS4 Operator*, if the project spans multiple municipalities with more than one *Traditional Land Use Control MS4 Operator* involved with review authority in accordance with Part I.D.2.b.ii.1.

b. The written Request to Disturb Greater Than Five Acres must include:

i. The SPDES permit identification number (Permit ID); and

ii. Full technical justification demonstrating why alternative methods of construction that would result in five acres of soil disturbance or less at any one time are not feasible; and

iii. The phasing plan for the project and sequencing plans for all *phases* from the *SWPPP* in accordance with Part III.B.1.d.; and

iv. Plans with locations and details of erosion and sediment control practices such that the heightened concern for erosion when disturbing greater than five acres at one time has been addressed; and

v. Acknowledgment that "the *owner or operator* will comply with the requirements in Part IV.C.2.b."; and

vi. Acknowledgment that "the *owner or operator* will comply with the requirements in Part II.B.1.b."

c. The *owner or operator* must be in receipt of an Authorization Letter to Disturb Greater Than Five Acres, which will include when the

authorization begins and ends and indicate a maximum area (acres) of soil disturbance allowed at any one time, from:

i. NYSDEC, if Part I.E.6.a.i. or iii. apply; or

ii. the *Traditional Land Use Control MS4 Operator*, if Part I.E.6.a.ii. applies.

7. Upon a finding of significant non-compliance with the practices described in the *SWPPP* or violation of this permit, NYSDEC may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

8. If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE).[3] *Construction activity* shall not resume until written permission to do so has been received from the RWE.

9. To be authorized to implement modifications to the information previously submitted in the eNOI, the *owner or operator* must:

   a. notify NYSDEC via email at Stormwater_info@dec.ny.gov requesting access to update the eNOI; and

   b. update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D.; and

   c. receive an updated LOA.

10. The eNOI, *SWPPP*, LOA, updated LOAs (when applicable), and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

[3] The Regional Water Manager where a DEC Region does not have a RWE.

F. Permit Coverage for *Discharges* Authorized Under GP-0-20-001

When applicable:

1. Upon the effective date of this permit, an *owner or operator* of *a construction activity*, with coverage under GP-0-20-001, will have interim coverage under GP-0-25-001 for 45 calendar days starting on the effective date of GP-0-25-001 so long as the *owner or operator* maintains compliance with all applicable requirements of this permit.

2. Within 30 calendar days of the effective date of this permit, the *owner or operator*, with coverage under GP-0-20-001, must submit a complete Request to Continue Coverage electronically using a NYSDEC approved form,[4] which contains the information identified in Part I.F.3. below, if:

   a. the *owner or operator* continues to implement the SMP component in conformance with the technical standards in place at the time of initial project authorization; and

   b. the *owner or operator* will comply with all non-design requirements of GP-0-25-001.

3. The Request to Continue Coverage form contains questions to: ensure eligibility requirements in Part I.A. have been met; verify *owner or operator* contact information; verify the permit identification number; verify the original eNOI submission ID, if applicable; verify Part I.F.2.a. and b.; verify the version of the Design Manual that the technical/design components conform to; and receive an updated Owner/Operator Certification Form, Appendix I.

4. The *owner or operator* has obtained continued coverage under GP-0-25-001 as of the date indicated in the LOCC, which is sent by NYSDEC after a complete Request to Continue Coverage form is submitted.

5. If the owner or operator does not submit the Request to Continue Coverage form in accordance with Part I.F.2. and 3., coverage under this permit is automatically terminated after interim coverage expires.

[4] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

G. Change of *Owner or Operator*

When applicable:

1. When property ownership changes, or when there is a change in operational control over the construction plans and specifications, the following process applies:

    a. The new *owner or operator* must meet the applicable prerequisites for submitting an eNOI in accordance with Part I.D.2.; and

    b. The new *owner or operator* must submit an eNOI in accordance with Part I.D.3.; and

    c. Permit coverage for the new *owner or operator* will be effective upon receipt of the LOA in accordance with Part I.D.3.b.; and

    d. The new *owner or operator*, upon receipt of their LOA, must provide their Permit ID to the original *owner or operator*; and

    e. If the original *owner or operator* will no longer be the *owner or operator* of the *construction activity* identified in the original *owner's or operator's* eNOI, the original *owner or operator*, upon receipt of the new *owner's or operator's* Permit ID in accordance with Part I.G.1.d., must submit to NYSDEC a completed eNOT in accordance with Part V. that includes the name and Permit ID of the new *owner or operator*; or

    f. If the original *owner or operator* maintains ownership of a portion of the *construction activity*, the original *owner or operator* must maintain their coverage under the permit by modifying their eNOI; modifications to the eNOI must include:

        i. the revised area of disturbance and/or *impervious area(s)*; and

        ii. the revised SMP information, if applicable; and

        iii. a narrative description of what has changed; and

        iv. the new *owner's or operator's* Permit ID for the portion of the project removed from the eNOI.

    Owners or operators must follow Part I.E.9. to modify the eNOI.

Part II. Water Quality-Based Effluent Limitations

A. Maintaining Water Quality

NYSDEC expects that compliance with the requirements of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any *discharge* to either cause or contribute to a violation of the following *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York:

1. There must be no increase in turbidity that will cause a substantial visible contrast to natural conditions; and

2. There must be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There must be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the *stormwater discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standard,* the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this permit and document in accordance with Part IV.C.4. of this permit. To address the *water quality standard* violation the *owner or operator* must include and implement appropriate controls in the *SWPPP* to correct the problem or obtain an individual SPDES permit.

If, despite compliance with the requirements of this permit, it is demonstrated that the *stormwater discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if NYSDEC determines that a modification of this permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit, and the *owner or operator* must obtain an individual SPDES permit prior to further *discharges* from the *construction site*.

B. Effluent Limitations Applicable to *Discharges* from *Construction Activities*

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part II.B.1.a., b., c., d., and e. These limitations represent the

degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement, and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part II.B.1.a., b., c., d., and e. and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (BB), dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in *SWPPP* the reason(s) for the deviation, or alternative design, and provide information in the *SWPPP* demonstrating that the deviation or alternative design is *equivalent* to the technical standard.

    a. **Erosion and Sediment Controls.** At a minimum, erosion and sediment controls must be selected, designed, installed, implemented, and maintained to:

        i. *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s; and

        ii. Control *stormwater discharge*s, including both peak flow rates and total *stormwater* volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points; and

        iii. *Minimize* the amount of soil exposed during *construction activity*; and

        iv. *Minimize* the disturbance of *steep slope*; and

        v. *Minimize* sediment *discharge*s from the site; and

        vi. Provide and maintain *natural buffers* around surface waters, direct *stormwater* to vegetated areas and maximize *stormwater* infiltration to reduce *pollutant discharge*s, unless *infeasible*; and

        vii. *Minimize* soil compaction. *Minimizing* soil compaction is not required

where the intended function of a specific area of the site dictates that it be compacted; and

viii. Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

ix. *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of *pollutants* that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has ceased, whether permanently or *temporarily ceased*, the application of soil stabilization measures must be initiated by the end of the next business day and completed within 14 calendar days from the date the current soil disturbance activity ceased. For *construction sites* that *directly discharge* to one of the 303(d) segments listed in Appendix D, or are located in one of the watersheds listed in Appendix C, or are authorized to disturb greater than five acres in accordance with Part I.E.5.a.viii., the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven calendar days from the date the soil disturbance activity ceased.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Select, design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be selected, designed, installed, implemented, and maintained to:

i. *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. Soaps, detergents and solvents cannot be used; and

ii. *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation

and to *stormwater*. *Minimization* of exposure is not required in cases where the exposure to precipitation and to *stormwater* will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of *stormwater* contamination (such as final products and materials intended for outdoor use); and

iii. Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Surface Outlets.** When discharging from basins and impoundments, the surface outlets must be designed, constructed, and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-Construction Stormwater Management Practice (SMP) Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction SMPs, in accordance with Part III.C., must select, design, install, implement, and maintain the SMPs to meet the *performance criteria* in the New York State Stormwater Management Design Manual, dated July 31, 2024 (DM), using sound engineering judgment. Where SMPs are not designed in conformance with the *performance criteria* in the DM, the *owner or operator* must include in the *SWPPP* the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity*, that requires SMPs in accordance with Part III.C., must design the practices to meet the applicable *sizing criteria* in Part II.C.2.a., b., c., or d.

a. Sizing Criteria for *New Development*

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the total WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv must be calculated in accordance with the criteria in Section 4.2 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the requirements in Part II.C.2.a.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

   In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.4 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

   1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

   2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs without detention or velocity controls; or

   3. The site *directly discharges* into a fifth order or larger water body (stream, river, or lake), or tidal waters, where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watersheds

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24-hour design storm over the post-developed watershed and must be calculated in accordance with the criteria in Section 4.3 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part II.C.2.b.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include

documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.5 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs; or

3. The site *directly discharges* to tidal waters, or a fifth order or larger water body (stream, river, or lake) where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

c. *Sizing Criteria* for *Redevelopment Activity*

i. Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* must be addressed by one of the following options, as outlined in Section 9.2.1. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C) must calculate the WQv in accordance with Section 4.3 of the DM. All other *redevelopment activities* must calculate the WQv in accordance with Section 4.2 of the DM.

1. Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the DM must be applied to all newly created pervious areas; or

2. Capture and treat 100% of the required WQv, for a minimum of 25% of the disturbed redevelopment *impervious area*, by implementation of standard SMPs or reduced by application of runoff reduction techniques; or

3. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a volume-based alternative SMP, as defined in Section 9.4 of the DM; or

4. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a flow-through alternative SMP sized to treat the peak rate of runoff from the WQv design storm; or

5. Application of a combination of 1 through 4 above that provide a weighted average of at least two of the above methods. Application of this method must be in accordance with the criteria in Section 9.2.1(A)(V) of the DM; or

6. If there is an existing SMP located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 through 5 above.

ii. Channel Protection Volume (CPv) is not required if there is 0% change to hydrology that increases the *discharge* rate and volume from the project site.

iii. *Overbank* Flood Control (Qp) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

iv. Extreme Flood Control (Qf) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

d. *Sizing Criteria* for Combination of *Redevelopment Activity* and *New Development*

Construction projects, that include both *new development* and *redevelopment activity*, must use SMPs that meet the *sizing criteria* calculated as an aggregate of the *sizing criteria* in Part II.C.2.a. or b. for the *new development* portion of the project and Part II.C.2.c. for the *redevelopment activity* portion of the project.

Part III. Stormwater Pollution Prevention Plan (SWPPP)

A. General *SWPPP* Requirements

1. A *SWPPP* must be prepared and implemented by the *owner or operator* of all *construction activity* covered by this permit. All authorized *discharges* must be identified in the *SWPPP*. The *SWPPP* must document the selection, design, installation, implementation and maintenance of the control measures and

practices that will be used to meet the effluent limitations in Part II.B. and, where applicable, the SMP requirements in Part II.C.

2. The *SWPPP* must demonstrate consideration in narrative format of the future physical risks due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR Part 490, and associated guidance.

    a. The owner or operator must consider:

        i. the following physical risks due to climate change:

            (i) increasing temperature; and

            (ii) increasing precipitation; and

            (iii) increasing variability in precipitation, including chance of drought; and

            (iv) increasing frequency and severity of flooding; and

            (v) rising sea level; and

            (vi) increasing storm surge; and

            (vii) shifting ecology.

        ii. for each of the following:

            (i) overall site planning; and

            (ii) location, elevation, and sizing of:

                a. control measures and practices; and

                b. conveyance system(s); and

                c. detention system(s).

3. The *SWPPP* must describe the erosion and sediment control practices and where required, SMPs that will be used and/or constructed to reduce the *pollutants* in *stormwater discharges* and to assure compliance with the

requirements of this permit. In addition, the *SWPPP* must identify potential sources of pollution which may reasonably be expected to affect the quality of *stormwater discharges*.

4. All *SWPPPs*, that require the SMP component in accordance with Part III.B.2., must be prepared by a *qualified professional*.

5. The *owner or operator* must keep the *SWPPP* current so that, at all times, it accurately documents the erosion and sediment control practices that are being used or will be used during construction, and all SMPs that will be constructed on the site. At a minimum, the *owner or operator* must modify the *SWPPP*, including construction drawings:

   a. whenever the current provisions prove to be ineffective in *minimizing pollutants* in *stormwater discharges* from the site; and

   b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*; and

   c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* NYSDEC, or other regulatory authority; and

   d. to document the final construction conditions in an as-built drawing.

6. NYSDEC may notify the *owner or operator* at any time that the *SWPPP* does not meet one or more of the minimum requirements of this permit. The notification must be in writing and identify the provisions of the *SWPPP* that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by NYSDEC, the *owner or operator* must make the required changes to the *SWPPP* and submit written notification to NYSDEC that the changes have been made. If the *owner or operator* does not respond to NYSDEC's comments in the specified time frame, NYSDEC may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4.

7. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion and sediment control practices included in the *SWPPP* and the

contractor(s) and subcontractor(s) that will be responsible for constructing the SMPs included in the *SWPPP*. The *owner or operator* must have each of the contractors and subcontractors identify at least one person from their company to be *trained contractor* that will be responsible for implementation of the *SWPPP*. The *owner or operator* must ensure that at least one *trained contractor* is on site daily when soil disturbance activities are being performed.

The *owner or operator* must have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before the *commencement of construction activities*:

> "I hereby certify under penalty of law that I understand and agree to comply with the requirements of the *SWPPP* and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the *SWPPP* that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for *SWPPP* implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* must attach the certification statement(s) to the copy of the *SWPPP* that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the *SWPPP* after the *commencement of construction activities*, they must also sign the certification statement and provide the information listed above prior to performing *construction activities*.

B. Required *SWPPP* Contents

1. Erosion and sediment control component - The *owner or operator* must prepare a *SWPPP* that includes erosion and sediment control practices.

    a. Erosion and sediment control practices must be designed:

        i. in conformance with the BB; or

        ii. *equivalent* to the BB if deviating from Part III.B.1.a.i.

    b. If the erosion and sediment control practices are designed in conformance with Part III.B.1.a.ii., the *SWPPP* must include a demonstration of *equivalence* to the BB.

    c. At a minimum, the erosion and sediment control component of the *SWPPP* must include the following:

        i. Background information about the scope of the project, including the location, type and size of project; and

        ii. A site map/construction drawing(s) with north arrows for the project, including a general location map. At a minimum, the site map must show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the *stormwater discharge*(s) and receiving surface water(s); and

        iii. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG); and

        iv. A phasing plan for the project and sequencing plans for all *phases*, both of which must address clearing and grubbing, excavation and grading, utility and infrastructure installation, *final stabilization*,

and any other *construction activity* at the site that will result in soil disturbance.

1. The phasing plan must include:

    a. a map delineating and labeling the limits of soil disturbance for all *phases* of a project; and

    b. a table identifying the order and intended schedule of when each *phase* will begin and end its sequencing plan. The table must identify the total disturbed area for each *phase* at any one time and the total disturbed area for the overall project at any one time all on one timeline showing all overlapping quantities of disturbed area at any one time; and

2. A sequencing plan for a specific *phase* must include:

    a. a table indicating the order and intended schedule of *construction activities* within a *phase*, and corresponding construction drawings with a description of the work to be performed; and

    b. all permanent and *temporary stabilization* measures; and

v. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented; and

vi. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice; and

vii. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any

temporary sediment basins and structural practices that will be used to divert flows from exposed soils; and

viii. A maintenance inspection schedule for the contractor(s) and subcontractor(s) identified in Part III.A.7. to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule must be in accordance with the requirements in the BB technical standard; and

ix. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the *stormwater discharges*; and

x. A description and location of any *stormwater discharges* associated with industrial activity other than construction at the site, including, but not limited to, *stormwater discharges* from asphalt plants and concrete plants located on the *construction site*; and

xi. Identification of any elements of the design that are not in conformance with the design criteria in the BB technical standard. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. SMP component – The *owner or operator* of *construction activity* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs.

   a. SMPs must be designed in conformance with the applicable *sizing criteria* in Part II.C.2.a., c., or d.; and

   b. SMPs must be designed in conformance with the *performance criteria*:

      i. in the DM; or

      ii. *equivalent* to the DM if deviating from Part III.B.2.b.i.; or

      iii. in the New York State Stormwater Management Design Manual, dated January 2015 (2015 Design Manual), or *equivalent* to it, if the following criteria are met:

1. The eNOI is submitted in accordance with Part I.D. before January 29, 2027 for *construction activities* that are either:

    a. subject to governmental review and approval:

        i. where the *owner or operator* made any application to that governmental entity prior to the effective date of this permit; and

        ii. such application included a *SWPPP* developed using the 2015 Design Manual or *equivalent* to it; or

    b. not subject to governmental review and approval:

        i. where a fiscal allocation for the *construction activities* has been developed and approved by a governmental entity; and

        ii. the *SWPPP* was developed using the 2015 Design Manual or *equivalent* to it; and

c. If SMPs are designed in conformance with Part III.B.2.b.ii., the *SWPPP* must include the reason(s) for the deviation or alternative design and a demonstration of *equivalence* to the DM; and

d. If SMPs are designed in conformance with Part III.B.2.b.iii., the *SWPPP* must include supporting information or documentation demonstrating that Part III.B.2.b.iii.1.a. or b. apply; and

e. The SMP component of the *SWPPP* must include the following:

    i. Identification of all SMPs to be constructed as part of the project, including which option the SMP designs conform to, either Part III.B.2.b.i., ii., or iii. Include the dimensions, material specifications and installation details for each SMP; and

    ii. A site map/construction drawing(s) showing the specific location and size of each SMP; and

iii. A Stormwater Modeling and Analysis Report that includes:

(i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points; and

(ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and SMPs; and

(iii) Results of *stormwater* modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre- and post-development runoff rates and volumes for the different storm events; and

(iv) Summary table, with supporting calculations, which demonstrates that each SMP has been designed in conformance with the *sizing criteria* included in the DM; and

(v) Identification of any *sizing criteria* that is not required based on the requirements included in Part II.C.; and

(vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the DM. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the DM.

iv. Soil testing results and locations (test pits, borings); and

v. Infiltration test results, when required in accordance with Part III.B.2.a.; and

vi. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each SMP. The plan must identify the entity

that will be responsible for the long-term operation and maintenance of each practice; and

3. Enhanced Phosphorus Removal Standards - The *owner or operator* of *construction activity* identified in Table 2 of Appendix B that is located in a watershed identified in Appendix C must prepare a *SWPPP* that includes SMPs designed in conformance with the applicable *sizing criteria* in Part II.C.2.b., c., or d. and the *performance criteria* Enhanced Phosphorus Removal Standards included in the DM. At a minimum, the SMP component of the *SWPPP* must meet the requirements of Part III.B.2.

C. Required *SWPPP* Components by Project Type

Owners or operators of *construction activities*, identified in Table 1 of Appendix B, are required to prepare a *SWPPP* that only includes erosion and sediment control practices designed in accordance with Part III.B.1. *Owners or operators* of the *construction activities*, identified in Table 2 of Appendix B, must prepare a *SWPPP* that also includes SMPs designed in accordance with Part III.B.2 or 3.

For the entire area of disturbance, including the entire *common plan of development or sale* if applicable, the owner or operator must evaluate every bullet from Appendix B Table 1 and Table 2 separately. If bullets from both Table 1 and Table 2 apply, the *SWPPP* must include erosion and sediment control practices for all *construction activities* but SMPs for only those portions of the *construction activities* that fall under Table 2 bullet(s).

Part IV. Inspection and Maintenance Requirements

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures), and all SMPs identified in the *SWPPP*, are inspected and maintained in accordance with Part IV.B. and C.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity*, identified in Tables 1 and 2 of Appendix B, must have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being

implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor must:

a. if the corrective action does not require engineering design:

    i. begin implementing corrective actions within one business day; and

    ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

    i. begin the engineering design process within five business days; and

    ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

2. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. The *trained contractor* must begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.

3. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational.

C. *Qualified Inspector* Inspection Requirements

1. With the exception of the following *construction activities* identified in Tables 1 and 2 of Appendix B, a *qualified inspector* must conduct site inspections for all other *construction activities* identified in Tables 1 and 2 of Appendix B:

    a. the construction of a single-family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than or equal to five (5) acres and is

not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

b. the construction of a single-family home that involves soil disturbances of one (1) or more acres but less than or equal to five (5) acres and is not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

c. construction on *agricultural property* that involves soil disturbances of one (1) or more acres but less than five (5) acres; and

d. *construction activities* located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances of 5,000 square feet or more, but less than one acre.

2. The *qualified inspector* must conduct site inspections in accordance with the following timetable:

a. For *construction sites* where soil disturbance activities are on-going, the *qualified inspector* must conduct a site inspection at least once every seven (7) calendar days; or

b. For *construction sites* where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part I.E.6. to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days; or

c. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* must conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas under the jurisdiction of a *Traditional Land Use Control MS4 Operator,* the *Traditional Land Use Control MS4 Operator* (provided the *Traditional Land Use Control MS4 Operator* is not the *owner or operator* of the *construction activity*) by hard copy or email prior to reducing the inspections to this frequency and again by hard copy or email prior to re-commencing construction; or

d. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the requirement to have the *qualified inspector* conduct inspections ceases if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1., the *Traditional Land Use Control MS4 Operator(s)* (provided the *Traditional Land Use Control MS4 Operator(s)* are not the *owners or operators* of the *construction activity*) in writing prior to the shutdown and again in writing prior to resuming *construction activity*. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* must terminate coverage by meeting the requirements of Part V; or

e. For *construction sites* involving soil disturbance of one (1) or more acres that *directly discharge* to one of the 303(d) segments listed in Appendix D or is located in one of the watersheds listed in Appendix C, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* must inspect:

   a. all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness; and

   b. all SMPs under construction to ensure that they are constructed in conformance with the *SWPPP*; and

   c. all areas of disturbance that have not achieved *final stabilization*; and

   d. all points of *discharge* to *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site*; and

   e. all points of *discharge* from the *construction site*.

4. The *qualified inspector* must prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report must include and/or address all of the following, for all *construction activities* except those listed in Part IV.C.1.:

   a. Permit identification number; and

   b. Date and time of inspection; and

   c. Name and title of person(s) performing inspection; and

   d. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and

   e. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This must include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; and

   f. A description of the condition of all *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This must include identification of any *discharges* of sediment to the *surface waters of the State*; and

   g. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and

   h. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and

   i. Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and

   j. Estimates, in square feet or acres, of the following areas:

i. Total area with active soil disturbance (not requiring either *temporary stabilization* or *final stabilization*); and

ii. Total area with inactive soil disturbance (requiring either *temporary stabilization* or *final stabilization*); and

iii. Total area that has achieved *temporary stabilization*; and

iv. Total area that has achieved *final stabilization*; and

k. Current stage of construction of all SMPs and identification of all *construction activity* on site that is not in conformance with the *SWPPP* and technical standards; and

l. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and

m. Identification and status of all corrective actions that were required by previous inspection; and

n. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* must attach color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* must also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* must attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* must notify the *owner or operator*, and appropriate contractor or subcontractor identified in Part III.A.7., of any corrective actions that need to be taken. The contractor or subcontractor must:

a. if the corrective action does not require engineering design:

i. begin implementing corrective actions within one business day; and

ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

i. begin the engineering design process within five business days; and

ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

6. All inspection reports must be signed by the *qualified inspector.* In accordance with Part I.E.3., the inspection reports must be maintained on site with the *SWPPP*.

Part V. How to Terminate CGP Coverage

A. Electronic Notice of Termination (eNOT) Submittal

The eNOT contains questions to ensure requirements in Part V.A. have been met.

1. An *owner or operator* must terminate coverage when one or more of the following requirements have been met:

a. Total project completion:

i. all *construction activity* identified in the *SWPPP* has been completed; and

ii. all areas of disturbance have achieved *final stabilization*; and

iii. all temporary, structural erosion and sediment control measures have been removed; and

iv. all SMPs have been constructed in conformance with the *SWPPP* and are operational; and

v. an as-built drawing has been prepared; or

b. Planned shutdown with partial project completion:

   i. all soil disturbance activities have ceased; and

   ii. all areas disturbed as of the project shutdown date have achieved *final stabilization*; and

   iii. all temporary, structural erosion and sediment control measures have been removed; and

   iv. all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational; and

   v. an as-built drawing has been prepared; or

c. In accordance with Part I.G. Change of Owner or Operator; or

d. The *owner or operator* has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.

2. For *construction activities* that require *qualified inspector* inspections in accordance with Part IV.C.1. and have met Part V.A.1.a. or b., the *owner or operator* must have the *qualified inspector* perform a final site inspection prior to submitting the eNOT. The *qualified inspector* must, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice(s)" certification statements on the eNOT, certify that all the requirements in Part V.A.1.a. or b. have been achieved.

3. For *construction activities* that are subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1. and meet Part V.A.1.a. or b., the *owner or operator* must have the *Traditional Land Use Control MS4 Operator(s)* sign the "MS4 Acceptance" statement on the eNOT in accordance with the requirements in Part VII.J. A *Traditional Land Use Control MS4 Operator* official, by signing this statement, determined that it is acceptable for the *owner or operator* to submit the eNOT in accordance with the requirements of this Part. A *Traditional Land Use Control MS4 Operator* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) when required in Part V.A.2.

4. For *construction activities* that require SMPs and meet Part V.A.1.a. or b., the *owner or operator* must, prior to submitting the eNOT, ensure one of the following:

    a. for SMP(s) that were constructed by a private entity, but will be owned, operated, and maintained by a public entity, the SMP(s) and any right-of-way(s) needed to operate and maintain such practice(s) have been deeded to the municipality in which the practice(s) is located; or

    b. for SMP(s) that are privately owned, but will be operated and maintained by a public entity, an executed operation and maintenance agreement is in place with the municipality that will operate and maintain the SMP(s); or

    c. for SMP(s) that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record; or

    d. for SMP(s) that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility, the *owner or operator* has policies and procedures in place that ensure operation and maintenance of the practices in accordance with the operation and maintenance plan.

5. An *owner or operator* that has met the requirements of Part V.A.1., 2., 3., and 4. must request termination of coverage under this permit by submitting a complete Notice of Termination form electronically using a NYSDEC approved form.[5]

    a. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

[5] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

Part VI. Record Retention and Reporting

A. Record Retention

The *owner or operator* must retain a copy of the documents listed in Part I.E.3. and a copy of the LOT for a period of at least five years from the date that NYSDEC accepts a complete NOT submitted in accordance with Part V.

B. Reporting

Except for the eNOI, the signature forms associated with the eNOI, and the eNOT, all other written correspondence requested by NYSDEC, including individual permit applications, must be sent to the address of the appropriate DOW (SPDES) Program contact at the Regional Office listed in Appendix E.

Part VII. Standard Permit Requirements

For the purposes of this permit, examples of contractors and subcontractors include: third-party maintenance and construction contractors.

A. Duty to Comply

The *owner or operator*, and all contractors or subcontractors, must comply with all requirements of this permit. Any non-compliance with the requirements of this permit constitutes a violation of the New York State Environmental Conservation Law (ECL), and its implementing regulations, and is grounds for enforcement action. Filing of a request for termination of coverage under this permit, or a notification of planned changes or anticipated non-compliance, does not limit, diminish or stay compliance with any requirements of this permit.

B. Need to Halt or Reduce Activity Not a Defense

The necessity to halt or reduce the *construction activity* regulated by this permit, in order to maintain compliance with the requirements of this permit, must not be a defense in an enforcement action.

C. Penalties

There are substantial criminal, civil, and administrative penalties associated with violating the requirements of this permit. Fines of up to $37,500 per day for each

violation and imprisonment for up to 15 years may be assessed depending upon the nature and degree of the offense.

D. False Statements

Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance must, upon conviction, be punished in accordance with ECL §71-1933 and or New York State Penal Law Articles 175 and 210.

E. Re-Opener Clause

Upon issuance of this permit, a determination has been made on the basis of a submitted Notice of Intent, plans, or other available information, that compliance with the specified permit requirements will reasonably protect classified water use and assure compliance with applicable *water quality standards*. Satisfaction of the requirements of this permit notwithstanding, if operation pursuant to this permit causes or contributes to a condition in contravention of State *water quality standards* or guidance values, or if NYSDEC determines that a modification is necessary to prevent impairment of the best use of the waters or to assure maintenance of *water quality standards* or compliance with other provisions of ECL Article 17 or the Clean Water Act (CWA), or any regulations adopted pursuant thereto, NYSDEC may require such modification and the Commissioner may require abatement action to be taken by the *owner or operator* and may also prohibit such operation until the modification has been implemented.

F. Duty to Mitigate

The *owner or operator*, and its contractors and subcontractors, must take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

G. Requiring Another General Permit or Individual SPDES Permit

NYSDEC may require any *owner or operator* authorized to *discharge* in accordance with this permit to apply for and obtain an individual SPDES permit or apply for authorization to *discharge* in accordance with another general SPDES permit.

1. Cases where an individual SPDES permit or authorization to discharge in accordance with another general SPDES permit may be required include, but is not limited to the following:

a. the *owner or operator* is not in compliance with the conditions of this permit or does not meet the requirements for coverage under this permit; and

b. a change has occurred in the availability of demonstrated technology or practices for the control or abatement of *pollutants* applicable to the *point source*; and

c. new effluent limitation guidelines or new source performance standards are promulgated that are applicable to *point sources* authorized to *discharge* in accordance with this permit; and

d. existing effluent limitation guidelines or new source performance standards that are applicable to *point sources* authorized to *discharge* in accordance with this permit are modified; and

e. a water quality management plan containing requirements applicable to such *point sources* is approved by NYSDEC; and

f. circumstances have changed since the time of the request to be covered so that the *owner or operator* is no longer appropriately controlled under this permit, or either a temporary or permanent reduction or elimination of the authorized *discharge* is necessary; and

g. the *discharge* is in violation of section 17-0501 of the ECL; and

h. the *discharge(s)* is a significant contributor of *pollutants*. In making this determination, NYSDEC may consider the following factors:

   i. the location of the *discharge(s)* with respect to *surface waters of the State*; and

   ii. the size of the *discharge(s)*; and

   iii. the quantity and nature of the *pollutants discharged* to *surface waters of the State*; and

   iv. other relevant factors including compliance with other provisions of ECL Article 17, or the CWA.

2. When NYSDEC requires any *owner or operator* authorized by this permit to apply for an individual SPDES permit as provided for in this subdivision, it must notify the *owner or operator* in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application

form, a statement setting a time for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from the *owner's or operator's* receipt of the notification letter, whereby the authorization to *discharge* under this permit must be terminated. NYSDEC may grant additional time upon demonstration, to the satisfaction of the RWE,[6] that additional time to apply for an alternative authorization is necessary or where NYSDEC has not provided a permit determination in accordance with 6 NYCRR Part 621.

3. When an individual SPDES permit is issued to an *owner or operator* authorized to *discharge* under this permit for the same *discharge(s)*, this permit authorization for *construction activities* authorized under the individual SPDES permit is automatically terminated on the effective date of the individual SPDES permit unless termination is earlier in accordance with 6 NYCRR Part 750.

H. Duty to Provide Information

The *owner or operator* must furnish to NYSDEC, within five business days, unless otherwise set forth by NYSDEC, any information that NYSDEC may request to determine whether cause exists to determine compliance with this permit or to determine whether cause exists for requiring an individual SPDES permit in accordance with 6 NYCRR 750-1.21(e) (see Part VII.G. Requiring Another General Permit or Individual Permit).

The *owner or operator* must make available to NYSDEC, for inspection and copying, or furnish to NYSDEC within 25 business days of receipt of a NYSDEC request for such information, any information retained in accordance with this permit.

Except for Part I.D.4. and 5. and Part I.G., the following applies: where the *owner or operator* becomes aware that it failed to submit any relevant facts on the Notice of Intent, or submitted incorrect information in a Notice of Intent or in any report to NYSDEC, the *owner or operator* must submit such facts or corrected information to NYSDEC within five business days.

I. Extension

In the event a new permit is not issued and effective prior to the expiration of this permit, and this permit is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, then the *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the requirements of this permit until a new permit is issued and effective.

[6] The Regional Water Manager where a DEC Region does not have a RWE.

J. Signatories and Certification

The Notice of Intent, Notice of Termination, and reports required by this permit must be signed as provided in 40 CFR §122.22.

1. All Notices of Intent and Notices of Termination must be signed as follows:

    a. For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

        (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

        (ii) the manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for Notice of Intent or Notice of Termination requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

        Note: NYSDEC does not require specific assignments or delegations of authority to responsible corporate officers identified in 40 CFR §122.22(a)(1)(i). NYSDEC will presume that these responsible corporate officers have the requisite authority to sign the Notice of Intent or Notice of Termination unless the corporation has notified NYSDEC to the contrary. Corporate procedures governing authority to sign a Notice of Intent or Notice of Termination may provide for assignment or delegation to applicable corporate positions under 40 CFR §122.22(a)(1)(ii) rather than to specific individuals.

    b. For a partnership or sole proprietorship. By a general partner or the proprietor, respectively.

c. For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

    1. the chief executive officer of the agency; or

    2. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. All reports required by this permit, and other information requested by NYSDEC, must be signed by a person described in Part VII.J.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Part VII.J.1. or using the Duly Authorized Form, found on the DEC website; and

    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

    c. The written authorization is submitted to NYSDEC.

3. Changes to authorization. If an authorization under Part VII.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the *construction activity*, a new authorization satisfying the requirements of Part VII.J.2. must be submitted to NYSDEC prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under Part VII.J.1. or 2. must make the following certification:

    I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who

manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

5. Electronic reporting. If documents described in Part VII.J.1. or 2. are submitted electronically by or on behalf of the *construction activity* with coverage under this permit, any person providing the electronic signature for such documents must meet all relevant requirements of this section, and must ensure that all of the relevant requirements of 40 CFR Part 3 (including, in all cases, subpart D to Part 3) (Cross-Media Electronic Reporting) and 40 CFR Part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

K. Inspection and Entry

The *owner or operator* must allow NYSDEC, the USEPA Regional Administrator, the applicable county health department, or any authorized representatives of those entities, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the *discharge*, upon the presentation of credentials and other documents as may be required by law, to:

1. enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the requirements of this permit; and

2. have access to and copy at reasonable times, any records that must be kept under the requirements of this permit, including records required to be maintained for purposes of operation and maintenance; and

3. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. sample or monitor at reasonable times, for the purposes of assuring general SPDES permit compliance or as otherwise authorized by the CWA or ECL, any substances or parameters at any location; and

5. enter upon the property of any contributor to the regulated facility or activity under authority of the *owner or operator*.

L. Confidentiality of Information

The following must not be held confidential: this permit, the fact sheet for this permit, the name and address of any *owner or operator*, effluent data, the Notice of Intent, and information regarding the need to obtain an individual permit or an alternative general SPDES permit. This includes information submitted on forms themselves and any attachments used to supply information required by the forms (except information submitted on usage of substances). Upon the request of the *owner or operator*, NYSDEC must make determinations of confidentiality in accordance with 6 NYCRR Part 616, except as set forth in the previous sentence. Any information accorded confidential status must be disclosed to the Regional Administrator upon his or her written request. Prior to disclosing such information to the Regional Administrator, NYSDEC will notify the Regional Administrator of the confidential status of such information.

M. Other Permits May Be Required

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

N. NYSDEC Orders or Civil Decrees/Judgments

The issuance of this permit by the NYSDEC, and the coverage under this permit by the *owner or operator*, does not supersede, revoke, or rescind any existing order on consent or civil Decree/Judgment, or modification to any such documents or to any order issued by the Commissioner, or any of the terms, conditions, or requirements contained in such order or modification therefore, unless expressly noted.

O. Property Rights

Coverage under this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the *discharge* authorized.

P. Compliance with Interstate Standards

If the *construction activity* covered by this permit originates within the jurisdiction of an interstate water pollution control agency, then the *construction activity* must also comply with any applicable effluent standards or *water quality standards* promulgated by that interstate agency and as set forth in this permit for such *construction activities*.

Q. Oil and Hazardous Substance Liability

Coverage under this permit does not affect the imposition of responsibilities upon, or the institution of any legal action against, the *owner or operator* under section 311 of the CWA, which must be in conformance with regulations promulgated pursuant to section 311 governing the applicability of section 311 of the CWA to *discharges* from facilities with *NPDES* permits, nor must such issuance preclude the institution of any legal action or relieve the *owner or operator* from any responsibilities, liabilities, or penalties to which the *owner or operator* is or may be subject pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. section 9601 et seq. (CERCLA).

R. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, must not be affected thereby.

S. NYSDEC Approved Forms

The *owner or operator* must provide all relevant information that is requested by NYSDEC, and required by this permit, on all NYSDEC approved forms.

APPENDIX A – Abbreviations and Definitions

Abbreviations

APO – Agency Preservation Officer
BB – New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), dated November 2016
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
CPv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DM – New York State Stormwater Management Design Manual (Design Manual), dated July 31, 2024
DOW – Division of Water
EAF – Environmental Assessment Form
ECL – chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law
EPA – U.S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
NYC – The City of New York
NYCDEP – The City of New York Department of Environmental Protection
NYSDEC – The New York State Department of Environmental Conservation
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RR – Runoff Reduction
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SMP – Post-Construction Stormwater Management Practice
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit. If a word is not italicized in the permit, use its common definition.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023).

Alter Hydrology from Pre- to Post-Development Conditions – the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer System – a sewer system which conveys sewage and *stormwater* through a single pipe system to a publicly owned treatment works.

Commence (Commencement of) Construction Activities – the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the *SWPPP*. See definition for "*Construction Activity(ies)*" also.

Common Plan of Development or Sale – a contiguous area where multiple separate and distinct *construction activities* are occurring, or may occur, under one plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQR) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating *construction activities* may occur on a specific plot. A *common plan of development or sale* is comprised of two or more *phases*.

Common plan of development or sale does not include separate and distinct *construction activities* that are occurring, or may occur, under one plan that are at least 1/4 mile apart provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Construction Activity(ies) – identified within 40 CFR 122.26(b)(14)(x), 122.26(b)(15)(i), and 122.26(b)(15)(ii), any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, mechanized logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal.

Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, which is excluded from the calculation of the soil disturbance for a project. Routine maintenance includes, but is not limited to:

- Re-grading of gravel roads or parking lots; and
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of the ditch; and
- Replacement of existing culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of a ditch; and
- Replacement of existing bridges that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity beneath the bridges; and
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch); and
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*; and
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material; and
- Long-term use of equipment storage areas at or near highway maintenance facilities; and
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*; and
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts; and
- Maintenance of ski trails including brush hog use and mowing; and
- Above ground snowmaking pipe replacement; and
- Replacement of existing utility poles; etc.

Construction Site – the land area where *construction activity(ies)* will occur. See also the definitions for "*Commence (Commencement of) Construction Activities"* and "*Common Plan of Development or Sale."*

Dewatering – the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Directly Discharge(s)(ing) (to a specific surface waterbody) – runoff flows from a *construction site* by overland flow and the first point of *discharge* is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system and the first point of *discharge* from the separate storm sewer system is the specific surface waterbody.

Discharge(s)(d) – any addition of any *pollutant* to waters of the State through an outlet or *point source*.

Embankment – an earthen or rock slope that supports a road/highway.

Equivalent (Equivalence) – the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization – all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other *equivalent* stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

Historic Property – any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) – all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and compacted gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – not technologically possible, or not economically practicable and achievable considering best industry practices.

Minimize(ing)(ation) – reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer System (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. owned or operated by a State, city, town, village, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, *stormwater*, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA, that *discharges* to *surface waters of the State*; and

2. designed or used for collecting or conveying *stormwater*; and

3. which is not a *combined sewer system*; and

4. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Natural Buffer(s) – an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – any land disturbance that does not meet the definition of *Redevelopment Activity* included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

Nonpoint Source(s) – any source of water pollution or *pollutants* which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank – flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator – the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit requirements.

Performance Criteria – the six performance criteria for each group of SMPs in Chapters 5 and 6 of the technical standard, New York State Stormwater Management Design Manual (DM), dated July 31, 2024. These include feasibility, conveyance, pretreatment, treatment, landscaping, and maintenance. It does not include the *Sizing Criteria* (i.e. WQv, RRv, CPv, Qp and Qf) in Part I.C.2. of the permit.

Phase – a defined area in which *construction activities* are occurring or will occur separate from other defined area(s).

Point Source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be *discharged*.

Pollutant(s) – dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast *discharged* into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq.

Qualified Inspector – a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder or other NYSDEC endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any SMPs that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional – a person that is knowledgeable in the principles and practices of *stormwater* management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other NYSDEC endorsed individual(s). Individuals preparing *SWPPPs* that require the SMP component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the *SWPPP* that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – the disturbance and reconstruction of existing *impervious area*, including *impervious areas* that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Renewable Energy – electricity or thermal energy generated by renewable energy systems through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.

Site Limitations – site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical *site limitations* include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of *site limitations* shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – the criteria included in Part I.C.2 of the permit that are used to size SMPs. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

Steep Slope – land area designated on the current United States Department of Agriculture (USDA) Soil Survey as Soil Slope Phase D, (provided the map unit name or description is inclusive of slopes greater than 25%), or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Stormwater – that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.

Streambank – the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – a project specific report, including construction drawings, that among other things: describes the *construction activity(ies)*, identifies the potential sources of pollution at the *construction site*; describes and shows the *stormwater* controls that will be used to control the *pollutants* (i.e. erosion and sediment controls; for many projects, includes SMPs); and identifies procedures the *owner or operator* will implement to comply with the requirements of the permit. See Part III of the permit for a complete description of the information that must be included in the *SWPPP*.

Surface Waters of the State – shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization – exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Load (TMDL) – the sum of the allowable loads of a single *pollutant* from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a *pollutant* that a waterbody can receive and still meet *water quality standards*, and an allocation of that amount to the *pollutant's* sources. A TMDL stipulates Waste Load Allocations (WLA) for *point source discharges*, Load Allocations (LA) for *nonpoint source*s, and a margin of safety (MOS).

Traditional Land Use Control MS4 Operator – a city, town, or village with land use control authority that is authorized to *discharge* under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Trained Contractor – an employee from the contracting (construction) company, identified in Part III.A.7., that has received four (4) hours of NYSDEC endorsed training

in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.7., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity).

The *trained contractor* is responsible for the day-to-day implementation of the *SWPPP*.

Tree Clearing – *construction activities* limited to felling and removal of trees.

Tree clearing does not include hand felling and leaving the trees in place with no support from mechanized equipment, which is not considered *construction activity* requiring coverage under this permit.

Water Quality Standard – such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities* that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single-family home not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions with 25% or less *impervious cover* at total site build-out and not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that include construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.

The following *construction activities* that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

- All construction activities located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

Within the municipal boundaries of NYC:

- Stand-alone road reconstruction, where the total soil disturbance from only that road construction, is less than one (1) acre of land.

The following *construction activities*:

- Installation of underground linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation, *stormwater* retrofits, stream restoration, and resiliency projects that reconstruct shoreline areas to address sea level rise
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an *impervious cover*
- Cross-country ski trails, walking/hiking trails, and mountain biking trails, including a de minimis parking lot (maximum 10 spaces total, sized for passenger cars) with 35 feet minimum preservation of undisturbed area downgradient from the parking lot
- Dam rehabilitation (the structure of the dam itself)
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are not part of residential, commercial, or institutional development;
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path, or walking path.

Table 1 (Continued)
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities*:

- Slope stabilization
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Vegetated open space (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) that do not *alter hydrology from pre- to post-development* conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions
- Demolition where vegetation will be established, and no *redevelopment activity* is planned[1]
- Installation or replacement of either an overhead electric transmission line or a ski lift tower that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*.
- Solar array field areas that have tables elevated off the ground, spaced one table width apart, do not *alter hydrology from pre- to post-development conditions*, and address water quality volume and runoff reduction volume by maintaining sheet flow on slopes less than 8%.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that do not include construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions.
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary *impervious areas* that will be restored to pre-construction conditions once the *construction activity* is complete (in this context, "temporary" means the *impervious area* will be in place for two years or less)
- Other *construction activities* that do not include the construction or reconstruction of *impervious area*, and do not *alter hydrology from pre- to post-development* conditions, and are not listed in Table 2.

1. If the site is redeveloped in the future, a new eNOI must be submitted.

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Single-family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family home that disturbs five (5) or more acres of land
- Single-family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of between 20,000 square feet and one (1) acre of land within the municipal boundaries of NYC with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single-family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a *common plan of development or sale* that will ultimately disturb five (5) or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Creation of 5,000 square feet or more of *impervious area* in the municipal boundaries of NYC
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) that involves soil disturbance greater than five acres.
- Structural agricultural conservation practices as identified in Table II in the “Agricultural Best Management Practice Systems Catalogue” (dated June 2023) that involves soil disturbance greater than five acres and include the construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
- Facility buildings, including ski lodges, restroom buildings, pumphouses, ski lift terminals, and maintenance and groomer garages
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills; including creation of landfills or capping landfills.
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTWs, water treatment plants, and water storage tanks
- Golf courses
- Office complexes

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Permanent laydown yards and equipment storage lots
- Playgrounds that include the construction or reconstruction of *impervious area*
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surfaces
- Road construction or reconstruction, outside the municipal boundaries of NYC
- Road construction within the municipal boundaries of NYC
- Stand-alone road reconstruction, within the municipal boundaries of NYC where the total soil disturbance from that road reconstruction involves soil disturbance of one (1) acre or more of land
- Parking lot construction or reconstruction (as with all Table 2 bullets, this includes parking lots constructed as part of the *construction activities* listed in Table 1, unless a Table 1 bullet specifies otherwise)
- Athletic fields (natural grass) that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations, and well drilling pads, surfaced with *impervious cover,* and constructed as part of an overhead electric transmission line, wind-power, cell tower, oil or gas well drilling, sewer or water main, ski lift, or other linear utility project
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of a residential, commercial or institutional development
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of highway construction or reconstruction
- Solar array field areas on slopes greater than 8% that cannot maintain sheet flow using management practices identified in the BB or the DM
- Solar array field areas on slopes less than 8% that will *alter the hydrology from pre- to post-development* conditions
- Solar array field areas with tables that are not elevated high enough to achieve *final stabilization* beneath the tables
- Traditional *impervious areas* associated with solar development (e.g. roads, buildings, transformers)
- Utility pads surfaced with *impervious cover*, including electric vehicle charging stations
- All other *construction activities* that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre- to post-development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of *construction activities* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs designed in conformance with the Enhanced Phosphorus Removal Standards included in the DM technical standard.

- Entire New York City Watershed located east of the Hudson River – Figure 1
- Onondaga Lake Watershed – Figure 2
- Greenwood Lake Watershed – Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

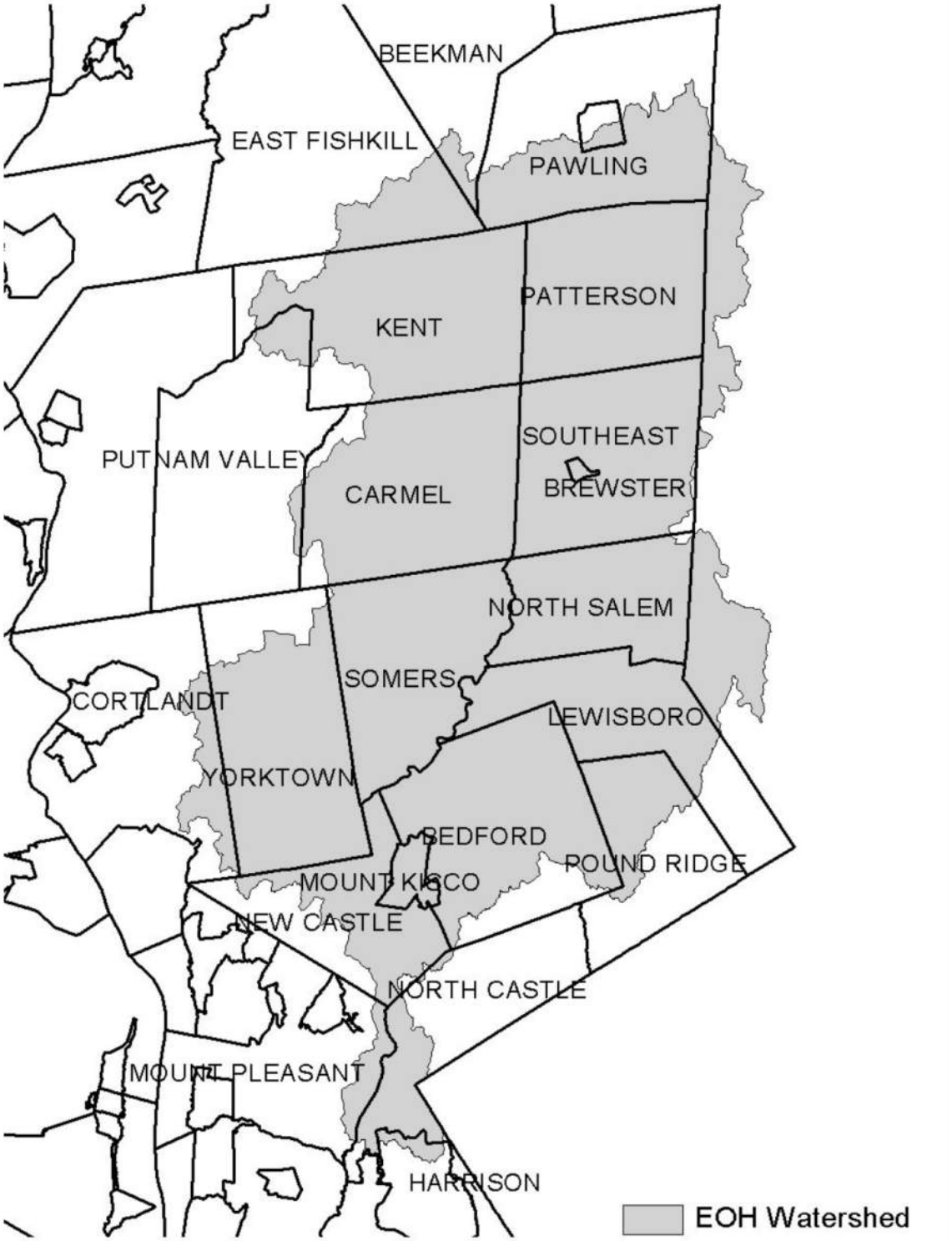


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed

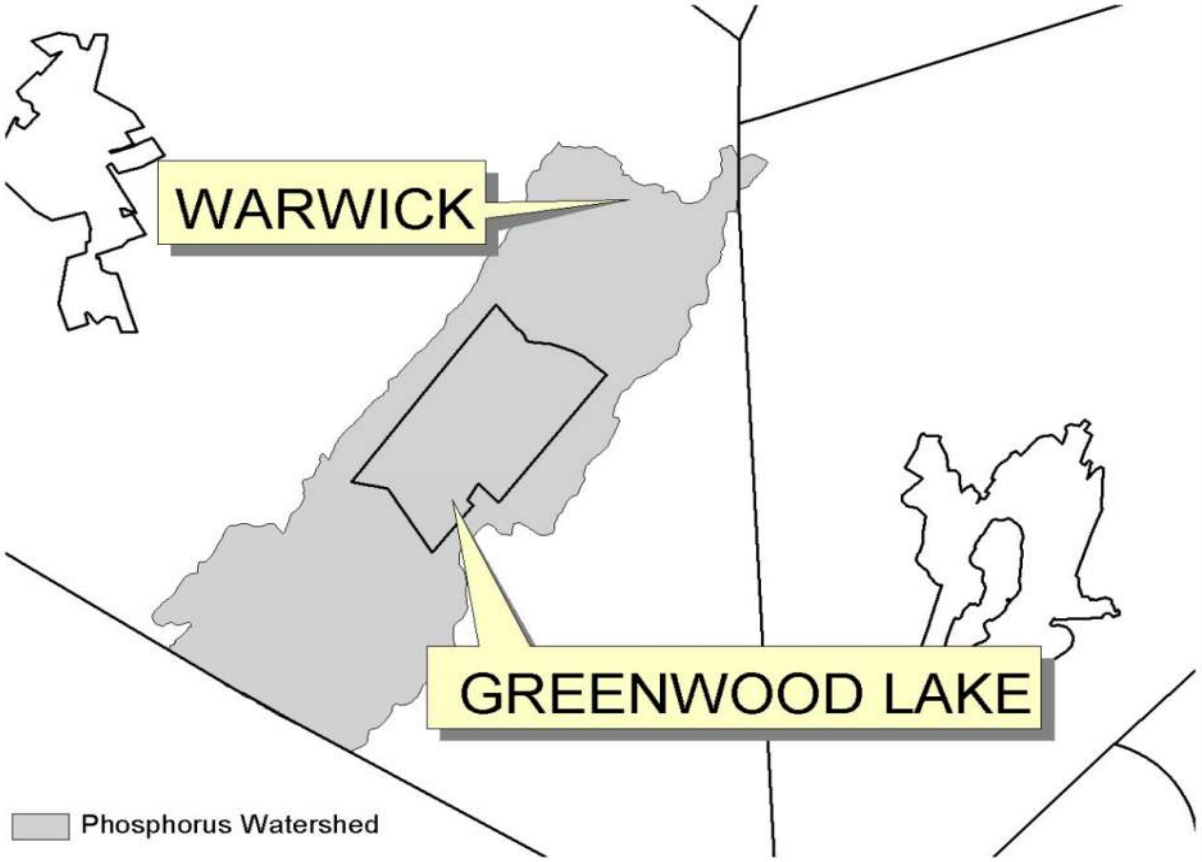


Figure 4 - Oscawana Lake Watershed

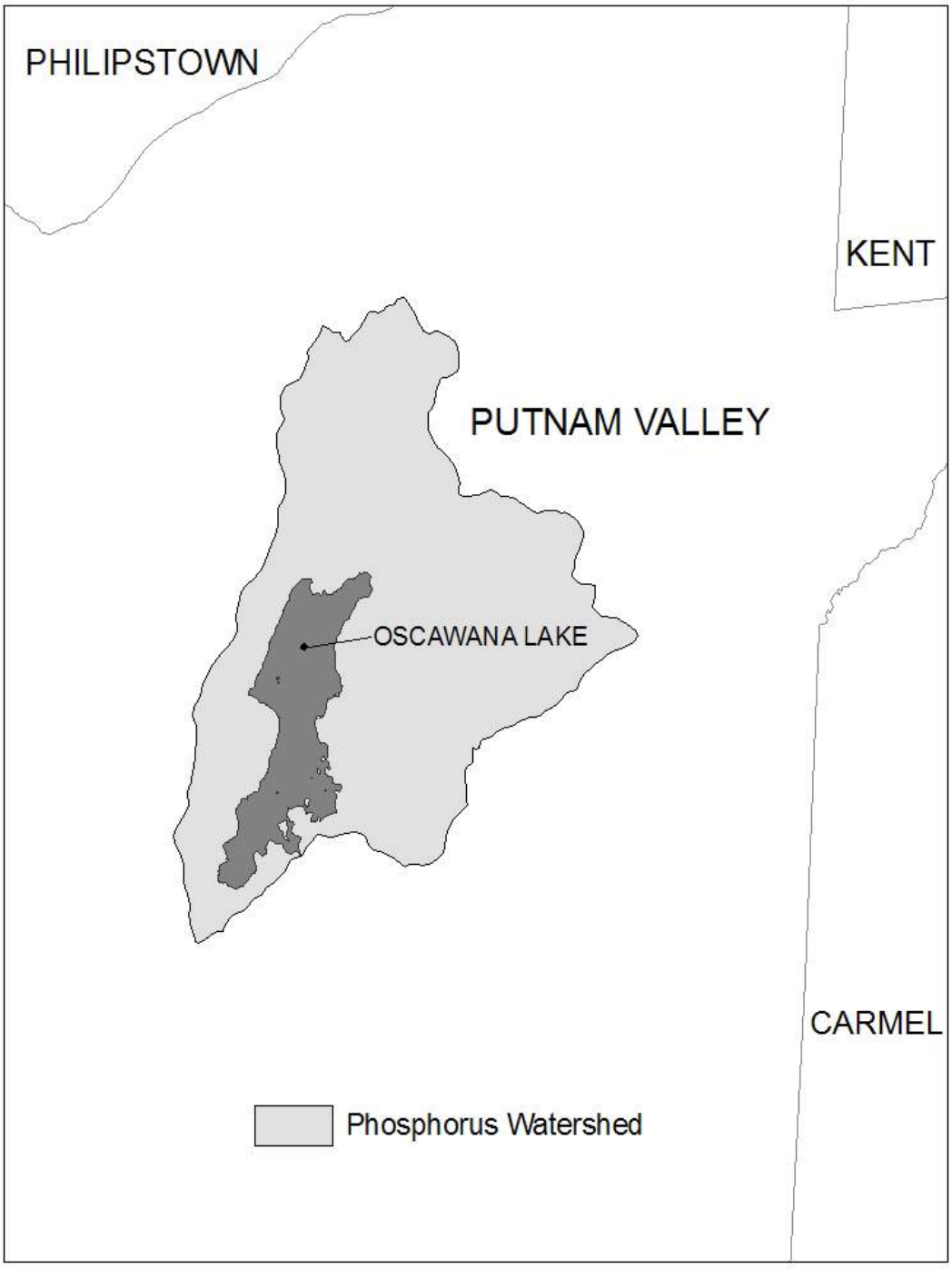
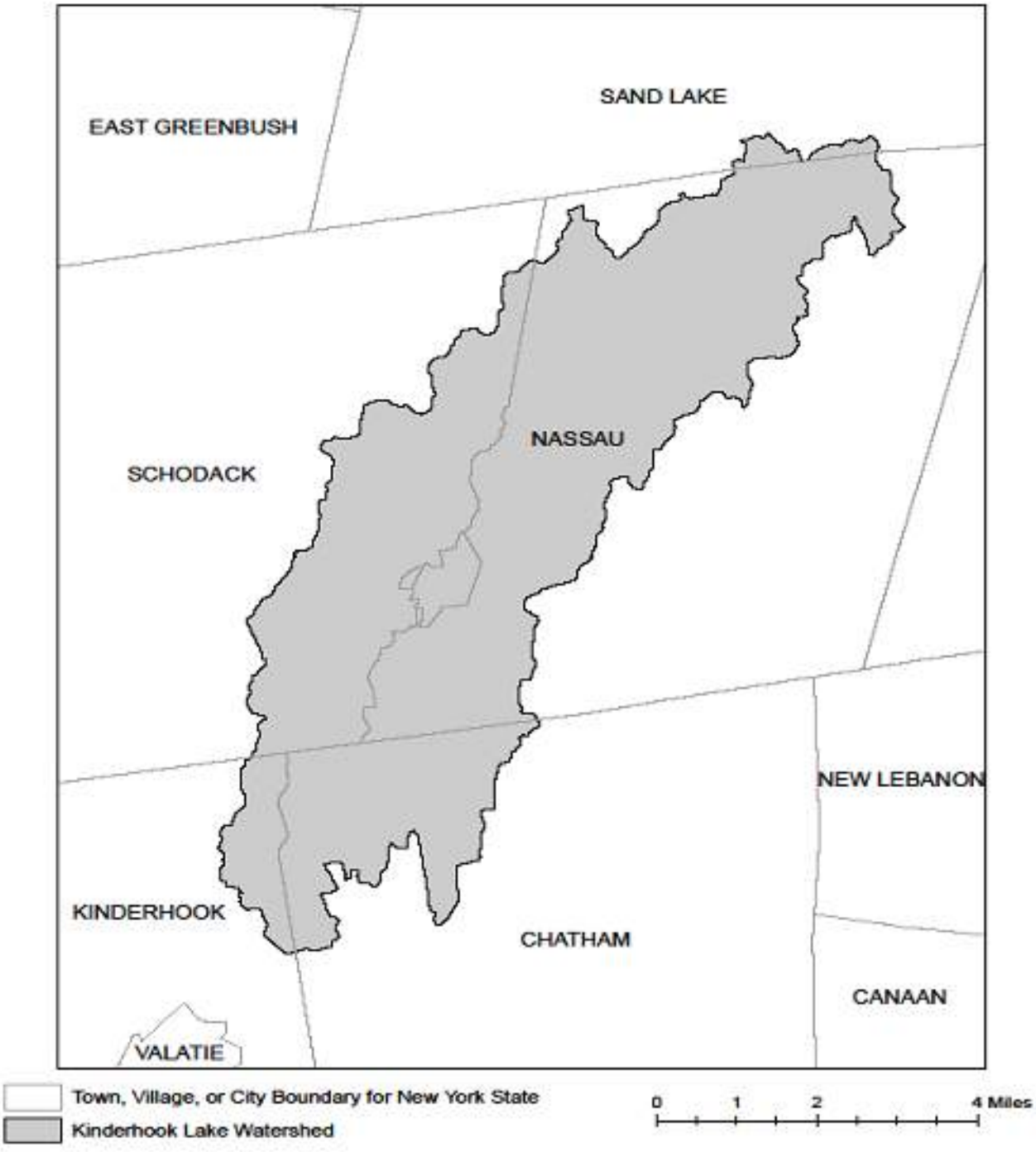


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Impaired Waterbodies (by Construction Related Pollutants)

List of waterbodies impaired by *pollutants* related to *construction activity*, including turbidity, silt/sediment, and nutrients (e.g. nitrogen, phosphorus). This list is a subset of "The Final New York State 2018 Section 303(d) List of Impaired Waters Requiring a TMDL" dated June 2020.

County	Waterbody	Pollutant
Albany	Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	Phosphorus
Albany	Lawsons Lake (1301-0235)	Phosphorus
Allegany	Amity Lake, Saunders Pond (0403-0054)	Phosphorus
Allegany	Andover Pond (0403-0056)	Phosphorus
Bronx	Reservoir No.1/Lake Isle (1702-0075)	Phosphorus
Bronx	Van Cortlandt Lake (1702-0008)	Phosphorus
Broome	Blueberry, Laurel Lakes (1404-0033)	Phosphorus
Broome	Fly Pond, Deer Lake (1404-0038)	Phosphorus
Broome	Minor Tribs to Lower Susquehanna (0603-0044)	Phosphorus
Broome	Whitney Point Lake/Reservoir (0602-0004)	Phosphorus
Cattaraugus	Allegheny River/Reservoir (0201-0023)	Phosphorus
Cattaraugus	Beaver Lake/Alma Pond (0201-0073)	Phosphorus
Cattaraugus	Case Lake (0201-0020)	Phosphorus
Cattaraugus	Linlyco/Club Pond (0201-0035)	Phosphorus
Cayuga	Duck Lake (0704-0025)	Phosphorus
Cayuga	Owasco Inlet, Upper, and tribs (0706-0014)	Nutrients
Chautauqua	Chadakoin River and tribs (0202-0018)	Phosphorus
Chautauqua	Hulburt/Clymer Pond (0202-0079)	Phosphorus
Chautauqua	Middle Cassadaga Lake (0202-0002)	Phosphorus
Clinton	Great Chazy River, Lower, Main Stem (1002-0001)	Silt/Sediment
Columbia	Robinson Pond (1308-0003)	Phosphorus
Cortland	Dean Pond (0602-0077)	Phosphorus
Dutchess	Fallkill Creek (1301-0087)	Phosphorus
Dutchess	Hillside Lake (1304-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Silt/Sediment
Erie	Beeman Creek and tribs (0102-0030)	Phosphorus
Erie	Delaware Park Pond (0101-0026)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Silt/Sediment
Erie	Green Lake (0101-0038)	Phosphorus
Erie	Little Sister Creek, Lower, and tribs (0104-0045)	Phosphorus
Erie	Murder Creek, Lower, and tribs (0102-0031)	Phosphorus

Erie	Rush Creek and tribs (0104-0018)	Phosphorus
Erie	Scajaquada Creek, Lower, and tribs (0101-0023)	Phosphorus
Erie	Scajaquada Creek, Middle, and tribs (0101-0033)	Phosphorus
Erie	Scajaquada Creek, Upper, and tribs (0101-0034)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Silt/Sediment
Genesee	Bigelow Creek and tribs (0402-0016)	Phosphorus
Genesee	Black Creek, Middle, and minor tribs (0402 0028)	Phosphorus
Genesee	Black Creek, Upper, and minor tribs (0402-0048)	Phosphorus
Genesee	Bowen Brook and tribs (0102-0036)	Phosphorus
Genesee	LeRoy Reservoir (0402-0003)	Phosphorus
Genesee	Mill Pond (0402-0050)	Phosphorus
Genesee	Oak Orchard Cr, Upper, and tribs (0301-0014)	Phosphorus
Genesee	Oatka Creek, Middle, and minor tribs (0402-0031)	Phosphorus
Genessee	Tonawanda Cr, Middle, Main Stem (0102-0002)	Phosphorus
Greene	Schoharie Reservoir (1202-0012)	Silt/Sediment
Greene	Sleepy Hollow Lake (1301-0059)	Silt/Sediment
Herkimer	Steele Creek tribs (1201-0197)	Phosphorus
Herkimer	Steele Creek tribs (1201-0197)	Silt/Sediment
Kings	Hendrix Creek (1701-0006) 18	Nitrogen
Kings	Prospect Park Lake (1701-0196)	Phosphorus
Lewis	Mill Creek/South Branch, and tribs (0801-0200)	Nutrients
Livingston	Christie Creek and tribs (0402-0060)	Phosphorus
Livingston	Conesus Lake (0402-0004)	Phosphorus
Livingston	Mill Creek and minor tribs (0404-0011)	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs (0402-0033)	Phosphorus
Monroe	Buck Pond (0301-0017)	Phosphorus
Monroe	Cranberry Pond (0301-0016)	Phosphorus
Monroe	Durand, Eastman Lakes (0302-0037)	Phosphorus
Monroe	Lake Ontario Shoreline, Western (0301-0069) 9	Phosphorus
Monroe	Long Pond (0301-0015)	Phosphorus
Monroe	Mill Creek and tribs (0302-0025)	Phosphorus 2
Monroe	Mill Creek/Blue Pond Outlet and tribs (0402-0049)	Phosphorus
Monroe	Minor Tribs to Irondequoit Bay (0302-0038)	Phosphorus
Monroe	Rochester Embayment - East (0302-0002) [9]	Phosphorus
Monroe	Rochester Embayment - West (0301-0068) 9	Phosphorus
Monroe	Shipbuilders Creek and tribs (0302-0026)	Phosphorus 2
Monroe	Thomas Creek/White Brook and tribs (0302-0023)	Phosphorus

Nassau	Bannister Creek/Bay (1701-0380)	Nitrogen
Nassau	Beaver Lake (1702-0152)	Phosphorus
Nassau	Browswere Bay (1701-0383)	Nitrogen
Nassau	Camaans Pond (1701-0052)	Phosphorus
Nassau	East Meadow Brook, Upper, and tribs (1701-0211)	Silt/Sediment
Nassau	East Rockaway Channel (1701-0381)	Nitrogen
Nassau	Glen Cove Creek, Lower, and tribs (1702-0146)	Silt/Sediment
Nassau	Grant Park Pond (1701-0054)	Phosphorus
Nassau	Hempstead Bay, Broad Channel (1701-0032)	Nitrogen
Nassau	Hempstead Lake (1701-0015)	Phosphorus
Nassau	Hewlett Bay (1701-0382)	Nitrogen
Nassau	Hog Island Channel (1701-0220)	Nitrogen
Nassau	Massapequa Creek, Upper, and tribs (1701-0174)	Phosphorus
Nassau	Milburn/Parsonage Creeks, Upp, and tribs (1701-0212)	Phosphorus
Nassau	Reynolds Channel, East (1701-0215) [12]	Nitrogen
Nassau	Reynolds Channel, West (1701-0216) 12	Nitrogen
Nassau	Tidal Tribs to Hempstead Bay (1701-0218)	Nitrogen
Nassau	Tribs (fresh) to East Bay (1701-0204)	Silt/Sediment
Nassau	Tribs (fresh) to East Bay (1701-0204)	Phosphorus
Nassau	Tribs to Smith Pond/Halls Pond (1701-0221)	Phosphorus
Nassau	Woodmere Channel (1701-0219)	Nitrogen
New York	Harlem Meer (1702-0103)	Phosphorus
New York	The Lake in Central Park (1702-0105)	Phosphorus
Niagara	Bergholtz Creek and tribs (0101-0004)	Phosphorus
Niagara	Hyde Park Lake (0101-0030)	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0053) 9	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0072) 9	Phosphorus
Oneida	Ballou, Nail Creeks (1201-0203)	Phosphorus
Onondaga	Ley Creek and tribs (0702-0001) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nitrogen (NH3, NO2)
Onondaga	Onondaga Creek, Lower (0702-0023) 10	Nutrients (phosphorus)
Onondaga	Onondaga Creek, Lower, and tribs (0702-0023)	Turbidity
Onondaga	Onondaga Creek, Middle, and tribs (0702-0004)	Turbidity
Onondaga	Onondaga Creek, Upper, and tribs (0702-0024)	Turbidity
Ontario	Great Brook and minor tribs (0704-0034)	Phosphorus 2
Ontario	Great Brook and minor tribs (0704-0034)	Silt/Sediment

Ontario	Hemlock Lake Outlet and minor tribs (0402-0013)	Phosphorus
Ontario	Honeoye Lake (0402-0032)	Phosphorus
Orange	Brown Pond Reservoir (1303-0013)	Phosphorus
Orange	Lake Washington (1303-0012)	Phosphorus
Orange	Minor Tribs to Middle Wallkill (1306-0061)	Phosphorus
Orange	Monhagen Brook and tribs (1306-0074)	Phosphorus
Orange	Orange Lake (1301-0008) [16]	Phosphorus
Orange	Quaker Creek and tribs (1306-0025)	Phosphorus
Orange	Wallkill River, Middle, Main Stem (1306-0038)	Phosphorus
Orange	Wallkill River, Upper, and Minor tribs (1306-0017)	Phosphorus
Orleans	Glenvwood Lake (0301-0041)	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0070) 9	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0071) 9	Phosphorus
Oswego	Lake Neatahwanta (0701-0018)	Nutrients (phosphorus)
Oswego	Pleasant Lake (0703-0047)	Phosphorus
Putnam	Lost Lake, Putnam Lake (1302-0053)	Phosphorus
Putnam	Minor Tribs to Croton Falls Reservoir (1302-0001)	Phosphorus
Queens	Bergen Basin (1701-0009) 18	Nitrogen
Queens	Jamaica Bay, Eastern, and tribs, Queens (1701-0005) 18	Nitrogen
Queens	Kissena Lake (1702-0258)	Phosphorus
Queens	Meadow Lake (1702-0030)	Phosphorus
Queens	Shellbank Basin (1701-0001) 18	Nitrogen
Queens	Willow Lake (1702-0031)	Phosphorus
Rensselaer	Nassau Lake (1310-0001)	Phosphorus
Rensselaer	Snyders Lake (1301-0043)	Phosphorus
Richmond	Grassmere Lake/Bradys Pond (1701-0357)	Phosphorus
Rockland	Congers Lake, Swartout Lake (1501-0019)	Phosphorus
Rockland	Rockland Lake (1501-0021)	Phosphorus
Saratoga	Ballston Lake (1101-0036)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Silt/Sediment
Saratoga	Lake Lonely (1101-0034)	Phosphorus
Saratoga	Round Lake (1101-0060)	Phosphorus
Saratoga	Tribs to Lake Lonely (1101-0001)	Phosphorus
Schenectady	Collins Lake (1201-0077)	Phosphorus
Schenectady	Duane Lake (1311-0006)	Phosphorus
Schenectady Lake	Mariaville Lake (1201-0113)	Phosphorus
Schuyler	Cayuta Lake (0603-0005)	Phosphorus

Seneca	Reeder Creek and tribs (0705-0074)	Phosphorus
St.Lawrence	Black Lake Outlet, Black Lake (0906-0001)	Phosphorus
St.Lawrence	Fish Creek and minor tribs (0906-0026)	Phosphorus
Steuben	Smith Pond (0502-0012)	Phosphorus
Suffolk	Agawam Lake (1701-0117)	Phosphorus
Suffolk	Big/Little Fresh Ponds (1701-0125)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Silt/Sediment
Suffolk	Fresh Pond (1701-0241)	Phosphorus
Suffolk	Great South Bay, East (1701-0039)	Nitrogen
Suffolk	Great South Bay, Middle (1701-0040)	Nitrogen
Suffolk	Great South Bay, West (1701-0173)	Nitrogen
Suffolk	Lake Ronkonkoma (1701-0020)	Phosphorus
Suffolk	Mattituck/Marratooka Pond (1701-0129)	Phosphorus
Suffolk	Mill and Seven Ponds (1701-0113)	Phosphorus
Suffolk	Millers Pond (1702-0013)	Phosphorus
Suffolk	Moriches Bay, East (1701-0305)	Nitrogen
Suffolk	Moriches Bay, West (1701-0038)	Nitrogen
Suffolk	Quantuck Bay (1701-0042)	Nitrogen
Suffolk	Shinnecock Bay and Inlet (1701-0033)	Nitrogen
Suffolk	Tidal Tribs to West Moriches Bay (1701-0312)	Nitrogen
Sullivan	Bodine, Mongomery Lakes (1401-0091)	Phosphorus
Sullivan	Davies Lake (1402-0047)	Phosphorus
Sullivan	Evens Lake (1402-0004)	Phosphorus
Sullivan	Pleasure Lake (1402-0055)	Phosphorus
Sullivan	Swan Lake (1401-0063)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Silt/Sediment
Ulster	Ashokan Reservoir (1307-0004)	Silt/Sediment
Ulster	Esopus Creek, Lower, Main Stem (1307-0010) [17]	Turbidity
Ulster	Esopus Creek, Middle, Main Stem (1307-0003) 17	Turbidity
Ulster	Esopus Creek, Upper, and minor tribs (1307-0007)[3]	Silt/Sediment
Ulster	Wallkill River, Lower, Main Stem (1306-0027)	Phosphorus
Warren	Hague Brook and tribs (1006-0006)	Silt/Sediment
Warren	Huddle/Finkle Brooks and tribs (1006-0003)	Silt/Sediment
Warren	Indian Brook and tribs (1006-0002)	Silt/Sediment
Warren	Lake George (1006-0016) and tribs	Silt/Sediment
Warren	Tribs to Lake George, East Shore (1006-0020)	Silt/Sediment
Warren	Tribs to Lake George, Lk.George Village (1006-0008)	Silt/Sediment

Washington	Wood Cr/Champlain Canal and tribs (1005-0036)	Phosphorus
Westchester	Lake Katonah (1302-0136)	Phosphorus
Westchester	Lake Lincolndale (1302-0089)	Phosphorus
Westchester	Lake Meahagh (1301-0053)	Phosphorus
Westchester	Lake Mohegan (1301-0149)	Phosphorus
Westchester	Lake Shenorock (1302-0083)	Phosphorus
Westchester	Mamaroneck River, Lower (1702-0071)	Silt/Sediment
Westchester	Mamaroneck River, Upp, & minor tribs (1702-0123)	Silt/Sediment
Westchester	Saw Mill River (1301-0007)	Phosphorus
Westchester	Saw Mill River, Middle, and tribs (1301-0100)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Silt/Sedimnt
Westchester	Silver Lake (1702-0040)	Phosphorus
Westchester	Teatown Lake (1302-0150)	Phosphorus
Westchester	Truesdale Lake (1302-0054)	Phosphorus
Westchester	Wallace Pond (1301-0140)	Phosphorus

APPENDIX E – List of NYSDEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	220 White Plains Road, Suite 110 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7438	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7165	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7070

APPENDIX F – SWPPP Preparer Certification Form

The SWPPP Preparer Certification Form required by this permit begins on the following page.

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:

eNOI Submission ID:

Owner/Operator Name:

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SWPPP Preparer First Name | MI | SWPPP Preparer Last Name

Signature | Date

Revised: January 2025

APPENDIX G – MS4 SWPPP Acceptance Form

The MS4 SWPPP Acceptance Form required by this permit begins on the following page.

MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4 Operator:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Street Address:
14. City/State/Zip:
15. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name[1]:

Title/Position:

Signature:

Date:

VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

(NYSDEC - MS4 SWPPP Acceptance Form - January 2025)

APPENDIX H – NYCDEP SWPPP Acceptance/Approval Form

The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval form required by this permit begins on the following page.

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis
59-17 Junction Blvd., 9th Floor; Flushing, NY 11373

SWPPP Acceptance/Approval

Application Number:

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance/Approval
8. SWPPP Reviewed by:
9. Title/Position: /
10. Date Final SWPPP Reviewed and Accepted:
11. Acceptance/Approval Expiration Date:
IV. Regulated MS4 Information for projects that require coverage under the NY State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity
12. Name of MS4: *CITY OF NEW YORK*
13. MS4 SPDES Permit Identification Number: *NY-0287890*
14. Contact Person:
15. Street Address: *59-17 Junction Blvd. 9th Floor*
16. City/State/Zip: *Flushing, NY 11373*
17. Telephone Number:

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis
59-17 Junction Blvd., 9th Floor; Flushing, NY 11373

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s).

Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Conditions of Acceptance/Approval and Additional Information

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

APPENDIX I – MS4 No Jurisdiction Form

The MS4 No Jurisdiction Form required by this permit begins on the following page.

MS4 No Jurisdiction Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. eNOI Submission ID:

III. Traditional Land Use Control MS4 Operator Information

a. Name of MS4 Operator:

b. MS4 SPDES Permit ID Number: NYR20A

c. Street Address:

d. City/State/Zip:

e. Telephone Number:

IV. Certification Statement

In accordance with CGP Part I.D.2.b.ii.3., I hereby certify that the Traditional Land Use Control MS4 Operator identified in section III. of this form does not have review authority over the construction project identified in section II. of this form, which is owned/operated by the entity identified in section I. of this form. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.:

b. Title/Position:

c. Signature:

d. Date:

APPENDIX J – Owner/Operator Certification Form

The Owner/Operator Certification Form required by this permit begins on the following page.

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: _____

eNOI Submission ID: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name MI Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

Appendix F

Forms

STORM WATER POLLUTION PREVENTION PLAN
CONTRACTOR'S CERTIFICATION STATEMENT

Multifamily Development – 1425 & 1475 Orchard Park Road

CONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Note: The contractor shall have at least one NYSDEC trained individual onsite at all times when earthwork and other SWPPP associated work is being performed from each contractor(s) and subcontractor(s). Each contractor(s) and subcontractor(s) shall provide copies of these individuals' certifications to the Town of West Seneca.

Name: _____
(Print)

Signature: _____

Title: _____

Company Name: _____

Address: _____

Telephone Number: _____

Date: _____

Scope of Services: _____

Trained Individual(s) Responsible for Implementation: _____

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" of the NYSDEC SPDES General Permit

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: Multifamily Development

eNOI Submission ID: HQN-V818-KWDXZ

eNOI Submitted by: ☐ **Owner/Operator** ☑ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Brian		Hillery
Owner/Operator First Name	MI	Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:	Multifamily Development
eNOI Submission ID:	HQN-V818-KWDXZ
Owner/Operator Name:	Brian Hillery & William Sahlem

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Anthony	J	Pandolfe
SWPPP Preparer First Name	MI	SWPPP Preparer Last Name



Signature

5/26/26

Date

Revised: January 2025

Appendix G

NYSDEC Notice of Termination (NOT)

eNOT MS4 Acceptance

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Traditional Land Use Control MS4 Operator Information

a. Name of MS4 Operator:

b. MS4 SPDES Permit ID Number: NYR20A

c. Street Address:

d. City/State/Zip:

e. Telephone Number:

IV. Certification Statement

I have determined that it is acceptable for the owner or operator of the construction project identified above to submit the electronic Notice of Termination in accordance with CGP Part V. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.:

b. Title/Position:

c. Signature:

d. Date:

eNOT Owner or Operator Certification

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I certify that I have met the requirements of CGP Part V.A.1., 2., 3., and 4. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Owner or Operator:

b. Title/Position:

c. Signature:

d. Date:

eNOT Qualified Inspector Certification – Final Stabilization

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I hereby certify that all the requirements in CGP Part V.A.1.a.i., ii., and iii. or CGP Part V.A.1.b.i., ii., and iii. have been achieved. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Qualified Inspector:

b. Title/Position:

c. Signature:

d. Date:

eNOT Qualified Inspector Certification – SMPs

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I hereby certify that all the requirements in CGP Part V.A.1.a.iv. or CGP Part V.A.1.b.iv. have been achieved. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Qualified Inspector:

b. Title/Position:

c. Signature:

d. Date:

Appendix H

Construction Documents

Multifamily Development

1425 & 1475 Orchard Park Road
West Seneca, New York

AGENCIES

ENGINEERING DEPT.
NAME/TITLE: JASON FOOTE, TOWN ENGINEER
COMPANY/DEPT:. TOWN OF WEST SENECA ENGINEERING DEPT.
ADDRESS: 1250 UNION ROAD
WEST SENECA, NEW YORK 14224

TELEPHONE 716-558-3220

CODE ENFORCEMENT DEPT.
NAME/TITLE: JEFFREY SCHIEBER, CODE ENFORCEMENT OFFICER
TOWN OF WEST SENECA CODE ENFORCEMENT DEPT.
COMPANY/DEPT:. 1250 UNION ROAD
ADDRESS: WEST SENECA, NEW YORK 14224

716-558-3237
TELEPHONE

ECDOH
NAME/TITLE:
COMPANY/DEPT:. ERIE COUNTY DEPARTMENT OF HEALTH
ADDRESS: 503 KENSINGTON AVE
BUFFALO, NEW YORK 14214

TELEPHONE 716-961-6854

NYSDEC
NAME/TITLE:
COMPANY/DEPT: NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
ADDRESS: 270 MICHIGAN AVENUE
BUFFALO, NEW YORK 14203

TELEPHONE 716-851-7070

UTILITIES

NATURAL GAS
NAME/TITLE: DAVID KOZLOWSKI
COMPANY/DEPT:. NATIONAL FUEL GAS
ADDRESS: ORCHARD PARK, NEW YORK 14127

TELEPHONE 716-667-5503

TELEPHONE COMPANY
NAME/TITLE: JIM MURPHY
COMPANY/DEPT:. VERIZON
ADDRESS: 65 FRANKLIN STREET RM 601
BUFFALO, NEW YORK 14202

TELEPHONE 716-840-8698

ELECTRIC
NAME/TITLE: DAN LOSEL
COMPANY/DEPT:. NEW YORK STATE ELECTRIC & GAS
ADDRESS: HAMBURG, NEW YORK 14075

TELEPHONE 716-649-5556

WATER
NAME/TITLE: LEONARD KOWALSKI
COMPANY/DEPT:. ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION ROAD
CHEEKTOWAGA, NEW YORK 14227

TELEPHONE 716-684-1510

DIG SAFELY NEW YORK

TELEPHONE 811

DESIGN CONSULTANTS

PROJECT SURVEYOR
NAME/TITLE:
COMPANY/DEPT:. 360° LAND SURVEY
ADDRESS: PO BOX 207
SANBRON, NEW YORK 14132

TELEPHONE 716-587-8380

OWNER/DEVELOPER

Name: Brian Hillery & William Sahlem
Address: 1 Woodthrush Trail
Orchard Park
Telephone: (716) 512-3425

CARMINAWOOD DESIGN

80 Silo City Row
Buffalo, New York 14203
Phone: (716) 842-3165

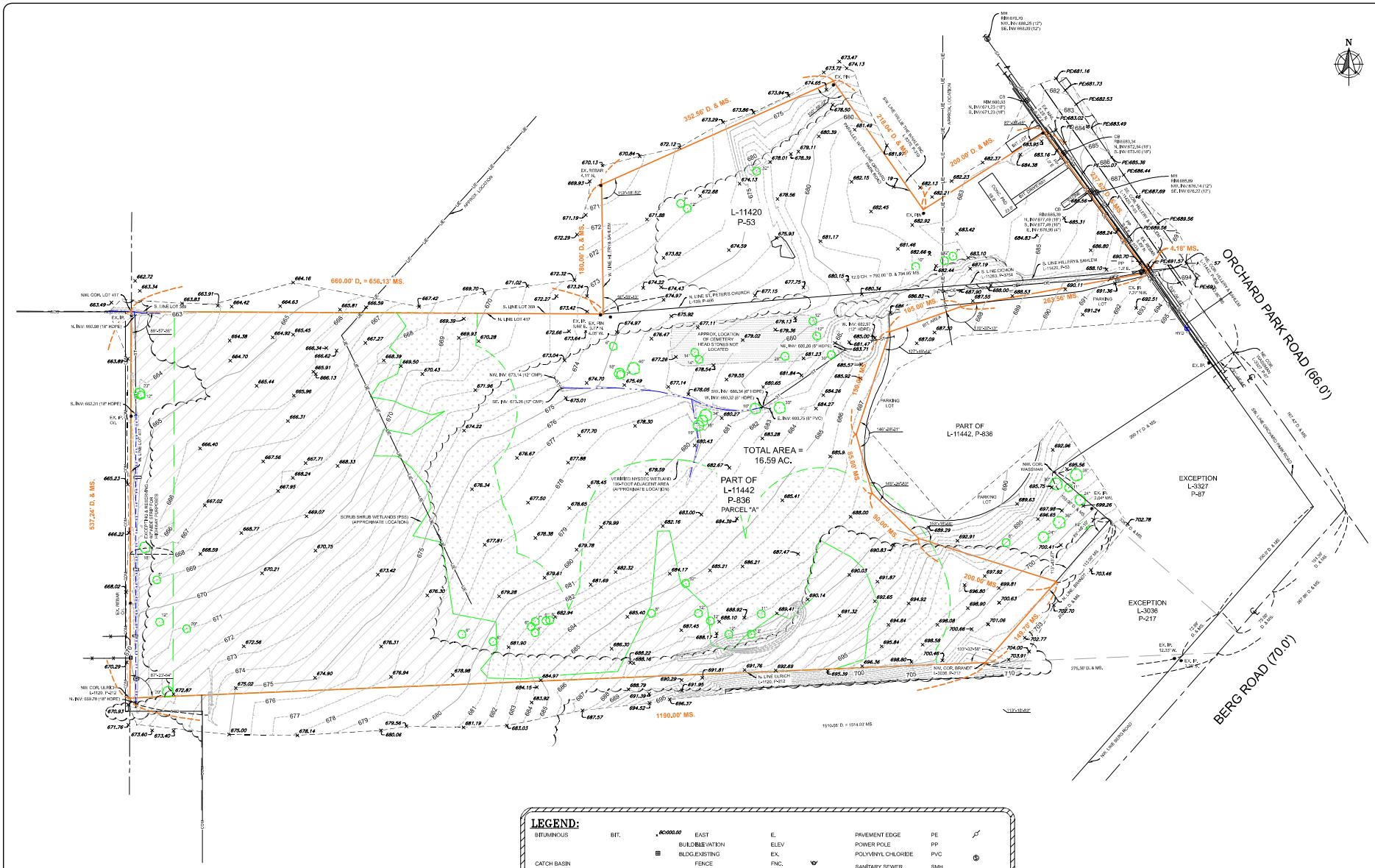
111 Bain Street, Suite 332
Greensboro, North Carolina 27406
Phone: (336) 937-9009

May 2026



LOCATION MAP
NOT TO SCALE

DRAWING NO.	DRAWING TITLE
–	COVER SHEET
–	BOUNDARY/TOPO SURVEY (by 360° LAND SURVEY)
C-001	DEMOLITION & EROSION CONTROL PLAN
C-002	DEMOLITION & EROSION CONTROL DETAILS
C-100	OVERALL SITE PLAN
C-101	SITE PLAN – NORTH
C-102	SITE PLAN – SOUTH
C-103	SITE DETAILS
C-200	OVERALL GRADING PLAN
C-201	GRADING PLAN – NORTH
C-202	GRADING PLAN – SOUTH
C-300	OVERALL DRAINAGE PLAN
C-301	DRAINAGE PLAN – NORTH
C-302	DRAINAGE PLAN – SOUTH
C-303	DRAINAGE DETAILS
C-400	OVERALL UTILITY PLAN
C-401	UTILITY PLAN – NORTH
C-402	UTILITY PLAN – SOUTH
C-403	UTILITY DETAILS
C-404	UTILITY DETAILS
C-405	UTILITY DETAILS
C-406	UTILITY DETAILS
L-100	LANDSCAPE PLAN
LP-100	LIGHTING PLAN



GENERAL NOTES:

1. THIS SURVEY WAS PREPARED FROM A FIELD SURVEY BY 360 LAND SURVEY, DPC. ON FEBRUARY 27, 2026.
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET) .
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET).
4. UTILITY INFORMATION SHOWN ON THIS MAP IS FROM VISIBLE FIELD EVIDENCE AT THE TIME OF FIELD SURVEY, FIELD MARKOUTS BY UTILITY COMPANIES, AND INFORMATION PROVIDED BY A 811 DESIGN TICKET.
5. WETLANDS INFORMATION TAKEN FROM A WETLAND AND STREAM DELINEATION SURVEY COMPLETE BY LABELLA. PROJECT No: 2251287 DATE: 12/1/2025.

LEGEND:

BITUMINOUS	BIT.	EAST	E.	PAVEMENT EDGE	PE
		BUILDING ELEVATION	ELEV	POWER POLE	PP
		BLDG./EXISTING	EX.	POLYVINYL CHLORIDE	PVC
CATCH BASIN		FENCE	FNC.	SANITARY SEWER MAN HOLE	SMH
CONCRETE	CONC.	FIRE HYDRANT		SOUTH	S.
CONIFEROUS TREE W/ DIAMETER		HIGH-DENSITY POLYETHYLENE	HPDE	SPOT ELEVATION	
CORRUGATED METAL PIPE	CMP	IRON PIPE		STORY	STY.
DECIDUOUS TREE W/ DIAMETER		INVERT	INV.	WATER VALVE	WV
		NORTH	N.	WEST	W.
MAJOR CONTOUR LINE (5')	XXX	PROPERTY LINE		WITH LINE	W
MINOR CONTOUR LINE (1')	XXX	OVERHEAD ELECTRIC LINE	OE	UNDERGROUND COMMUNICATIONS	COM
FENCE LINE (AS NOTED)		SANITARY STORM	SA	UNDERGROUND ELECTRIC	UE
GAS LINE	G	STORM SEWER LINE	ST	WATER LINE	WV
SCRUB SHRUB WETLAND (PSS)		VERIFIED NYSDEC WETLAND 100-FOOT ADJACENT AREA		CEMETERY LIMITS	
				TOPOGRAPHIC SURVEY LIMITS	

Know what's **below.** **Call** before you dig.

PREPARED FOR:

BRIAN HILLARY &
WILLIAM SAHLEM

1 WOODTHRUSH TRAIL
ORCHARD PARK
NEW YORK 14127

PROJECT:

1425 & 1475 ORCHARD PARK ROAD,
TOWN OF WEST SENECA,
COUNTY OF ERIE,
STATE OF NEW YORK

BEING PART OF
LOTS 389 & 417, TOWNSHIP 10 RANGE 7
BUFFALO CREEK RESERVATION

SBL No. 143.19-1-8 & 143.19-1-9
& 152.07-1-1

360° LAND SURVEY
PO Box 207
Sanborn, New York 14132
PHONE: (716) 591-4380
FAX: 716.297.8979
WEBSITE: www.360landsurvey.com

STATE OF NEW YORK
BRYDONER JOHN WOOD
No. 050706
LICENSED LAND SURVEYOR

REV.	NOTE	DATE
1	SANITARY MH INFORMATION	4/29/2026

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

0" 1" 2"
SHEET SCALE BAR
ADJUST ACCORDINGLY IF SCALE IS NOT TWO INCHES

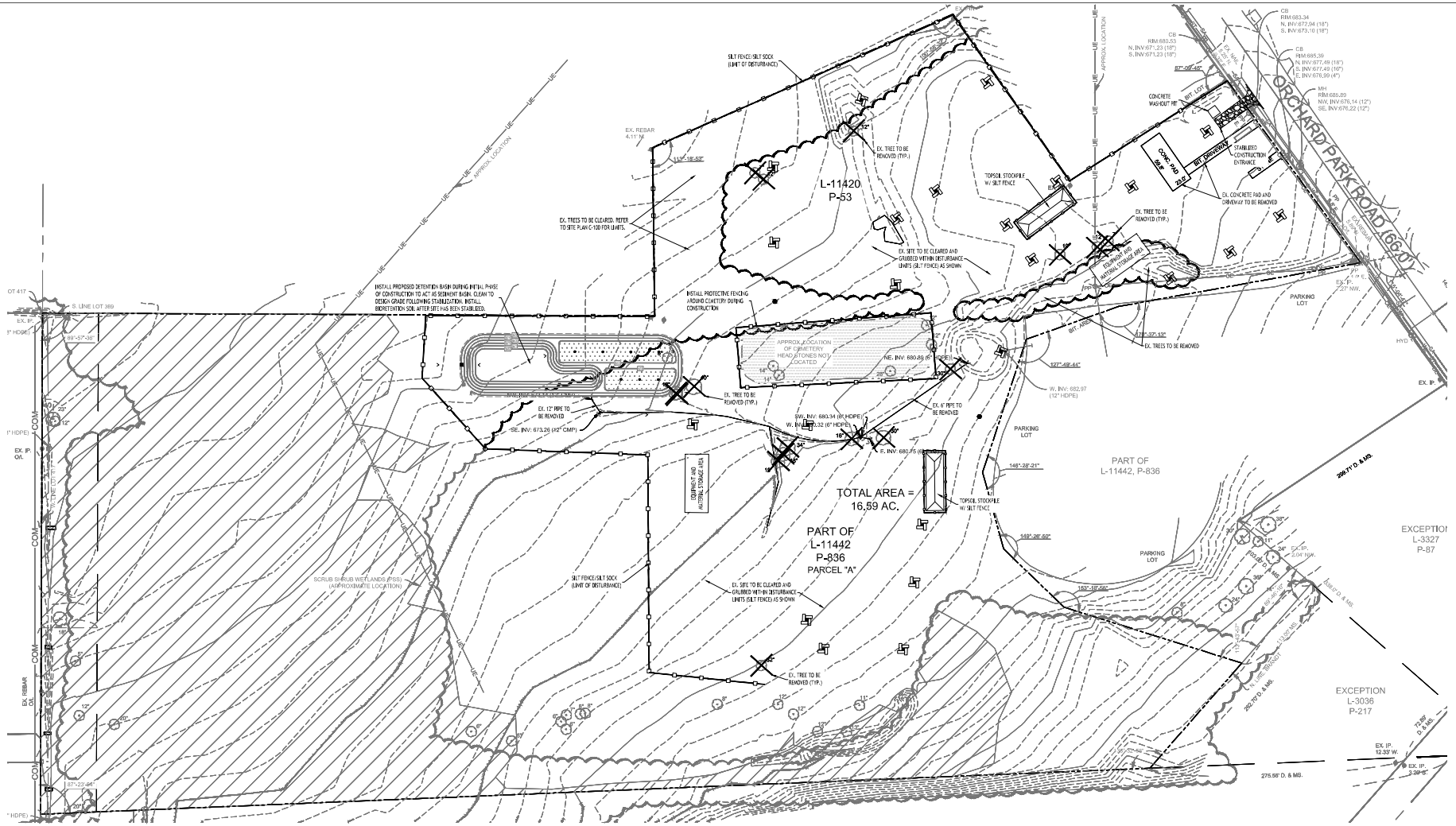
DRAWING NAME

TOPOGRAPHIC SURVEY

PROJ. NO.	26-040	SCALE	1"=60'
CREW	PTH	DATE	3/17/2026
DWN.	AJM	CHK.	CJS

DRAWING NUMBER

SHEET 1 OF 1



Demo & Erosion Control Plan

SCALE: 1"=50'

EROSION CONTROL NOTES

THE FOLLOWING EROSION CONTROL PROCEDURES SHALL BE ADHERED TO BY THE CONTRACTOR:

1. INSTALL TEMPORARY SILT FENCE BARRIERS AS DIRECTED BY THE OWNER AND AT ALL EXISTING STORMWATER CATCH BASINS WITHIN THE WORK AREA TO PREVENT SEDIMENT MIGRATION. ALL SILT FENCE BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.
2. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR RE-USE AS DIRECTED BY THE OWNER. ALL LOCAL ORDINANCES REGARDING THE SALE OF TOPSOIL MUST BE FOLLOWED. TOPSOIL MAY NOT BE REMOVED WITHOUT A PERMIT.
3. ALL SILT FENCE BARRIERS SHALL BE REPLACED WHEREVER THEY BECOME CLOGGED OR INOPERABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
5. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION. DURING EARTHWORK OPERATIONS, WATER-SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR, AND SPREAD WATER AS NECESSARY AND AS DIRECTED BY THE OWNER IN ORDER TO CONTROL DUST.
6. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED AND ROAD SURFACES CLEANED BY THE CONTRACTOR ON A DAILY BASIS.
7. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM 4" DEPTH AND SEEDED IMMEDIATELY AFTER FINE GRADING TAKES PLACE AND AS SOON AS PHYSICALLY POSSIBLE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES, AND CULVERTS. SILT BUILDUP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR THE TOWN/CITY.
9. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION, AS DIRECTED BY THE ENGINEER.
10. INSTALL TEMPORARY SILT FENCE AROUND THE BASE OF STOCKPILES.
11. THE PROFESSIONAL CERTIFYING COMPLIANCE TO NYSDEC PHASE II STORMWATER REGULATION REQUIREMENTS MUST INSPECT AT A MINIMUM WEEKLY AND SHALL PROVIDE THESE INSPECTION REPORT WITH A WRITTEN CERTIFICATION OF CONSTRUCTION COMPLIANCE TO THE TOWN OF WEST SENECA WEEKLY.
12. THE ENGINEER OF RECORD FOR THIS PROJECT CERTIFIES THAT THESE DESIGN PLANS MEET THE REQUIREMENTS AND ARE IN COMPLIANCE WITH THE NEW YORK STORMWATER MANAGEMENT DESIGN MANUAL AND NYSDEC PHASE II STORMWATER REGULATION REQUIREMENTS. DUE TO SOIL DISTURBANCE BEING GREATER THAN ONE ACRE, A NYSDEC SPDES PERMIT MUST BE OBTAINED BEFORE ANY ON-SITE DISTURBANCE IS MADE.

NOTES:

1. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT THOSE ITEMS TO REMAIN, SUCH AS TREES, PROPERTY CORNER PINS, UTILITY POLES, VALVES, HYDRANTS, CURBS, MANHOLES AND CATCH BASINS.
2. TEMPORARY SILT FENCE AND STRAW BALES TO BE INSTALLED AS DIRECTED BY THE OWNERS FIELD REPRESENTATIVE. MAINTAIN UNTIL VEGATATION IS ESTABLISHED AND PAVEMENT IS INSTALLED.
3. FOR THOSE STRUCTURES TO BE DEMOLISHED, ALL EXISTING UTILITY SERVICES SHALL BE ABANDONED IN ACCORDANCE WITH LOCAL REGULATIONS, ALL METERS SHALL BE RETURNED TO PROPER OWNERS.
4. THE CONTRACTOR SHALL INSTALL STABILIZED CONSTRUCTION ENTRANCES WHERE ACCESSING THE SITE FROM PAVED ROADWAYS.
5. THE CONTRACTOR SHALL INSTALL TEMPORARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH NYS M.U.T.C.D. STANDARDS PRIOR TO STARTING WORK.

DEMO & EROSION CONTROL LEGEND:

- INSTALL STORM DRAINAGE INLET PROTECTION
- PROPOSED SILT FENCE/SILT SOCK

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50 0 50 100FT.

CARMINAWOOD DESIGN
Buffalo | Utica | Syracuse

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Demo & Erosion Control Plan

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-001

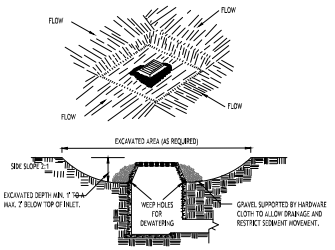
Project No: 23-4121

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All Rights Reserved. Reuse of these documents without the expressed written permission of CARMINAWOOD DESIGN is prohibited. WARNING it is a violation of article 145 section 7209(2) and 7307 of the New York State Education Law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor to alter in any way, a drawing, specification, plan, report or other document prepared by the latter for the purpose. Any party or parties found in violation of this law will be subject to the full extent of the law.

All Rights Reserved. Reuse of these documents without the expressed written permission of CARMINAWOOD DESIGN is prohibited. WARNING it is a violation of article 145 section 7209 and 7209 of the New York State Education Law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor duly authorized by the laws of the New York, to alter any of the work. Signature, the seal and the notation "Altered by" and specific description of the alteration.

© CARMINA WOOD DESIGN

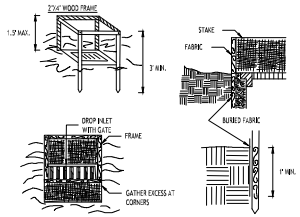


CONSTRUCTION SPECIFICATIONS

1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 1
NOT TO SCALE

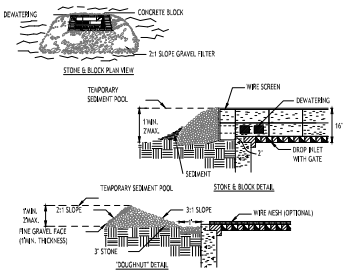


CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 2
NOT TO SCALE



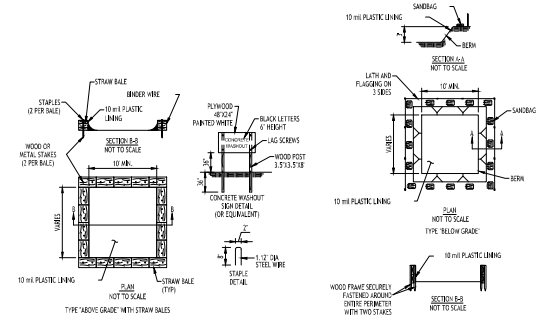
CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 3
NOT TO SCALE

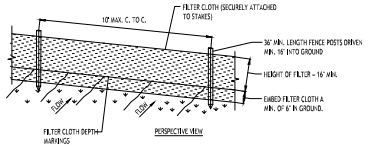
NOTE: INSTALL ONE OF THE INLET PROTECTION OPTIONS SHOWN PRIOR TO CONSTRUCTION



NOTES

1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

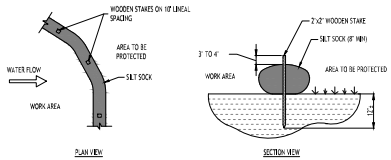
CONCRETE WASHOUT DETAIL
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. WOVEN FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUIVALENT.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL
NOT TO SCALE

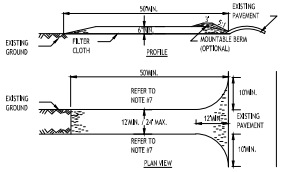


NOTES:

CONTRACTOR SHALL INSPECT AND MAINTAIN SILT SOCK AS NEEDED DURING THE DURATION OF CONSTRUCTION PROJECT.

CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK WHEN IT HAS REACHED ½ OF THE EXPOSED HEIGHT OF THE SILT SOCK. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, THE ENGINEER MAY CALL FOR ADDITIONAL SILT SOCK TO BE ADDED AT AREAS OF HIGH SEDIMENTATION, PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOCK.

SILT SOCK DETAIL
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. TEMPORARY ASPHALT SHALL BE PLACED WITHIN RIGHT-OF-WAY TO ENSURE THIS.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Demo & Erosion Control Details

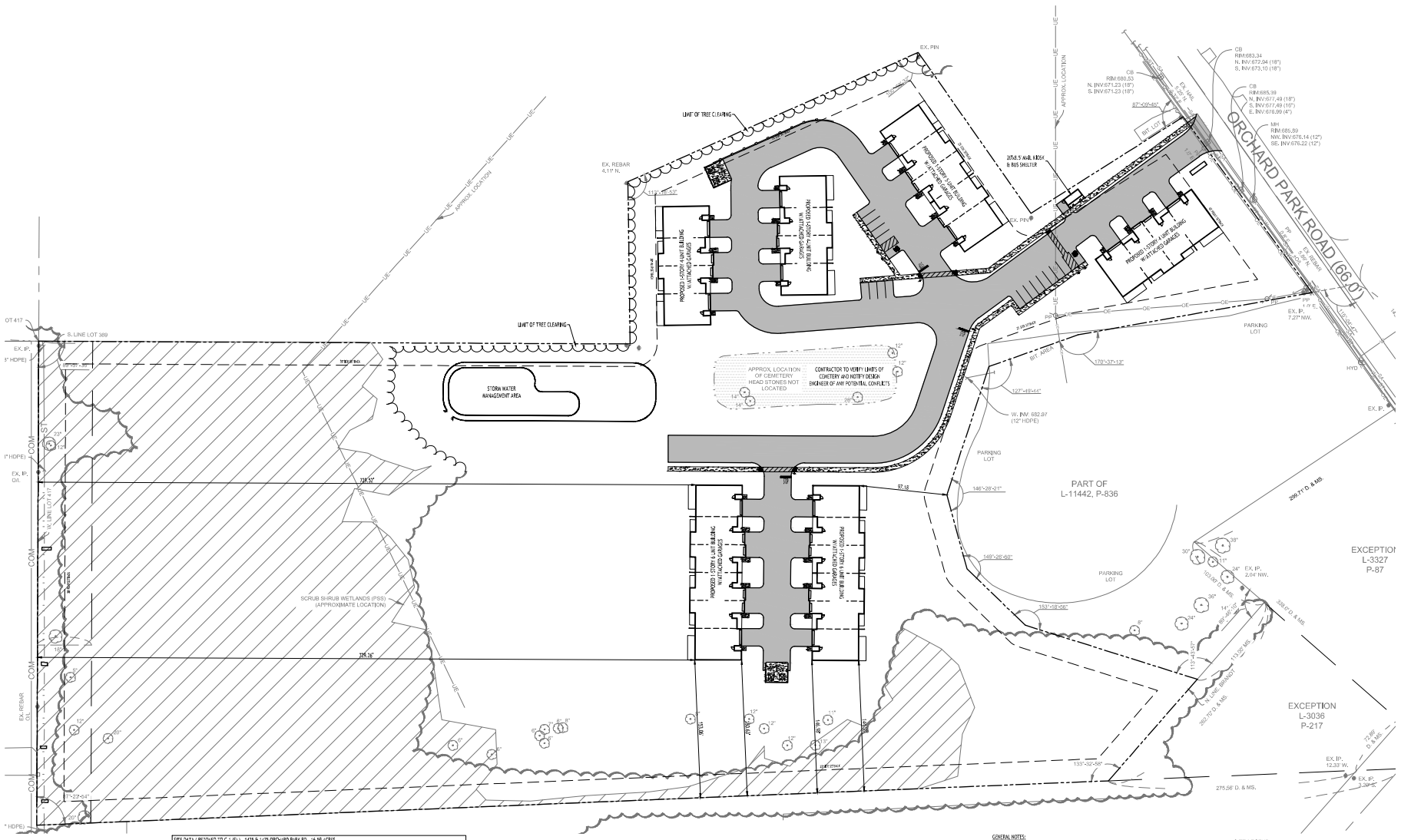
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Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-002

Project No: 23-4121

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Overall Site Plan

SCALE: 1"=50'

SITE DATA | REZONED TO C-1 (S) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES

MULTI-FAMILY ALLOWED BY SPECIAL PERMIT

MIN. LOT WIDTH = 50 FT FOR FIRST DWELLING UNIT, PLUS 10 FT FOR EACH ADDITIONAL UNIT NEED NOT EXCEED 100 FT

MIN. LOT AREA = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

FRONT SETBACK = 40 FT
SIDE SETBACK = 25 FT. MIN. OR A DISTANCE EQUAL TO ½ HGT. OF SUCH BUILDING, WHICHEVER IS GREATER
REAR SETBACK = 30 FT or EQUAL TO THE HEIGHT OF THE BUILDING

MAXIMUM BUILDING HEIGHT = 40 FT (MULTI-FAMILY)

DRIVEWAY: 30 FT WIDE REQUIRED FOR MULTI-FAMILY

DWELLING SIZE: 500 SF EACH MULTI-FAMILY UNIT

GROUP DWELLING: NO BUILDING SHALL BE NEARER TO ANY OTHER PRINCIPAL STRUCTURE THAN A DISTANCE EQUAL TO THE AVERAGE HEIGHT OF SUCH BUILDINGS

PARKING CALCULATION:
MULTI-FAMILY:

REQ'D = 2 SPACES PER UNIT + 5/35 UNITS VISITORS
REQ'D = 2 SPACES x 29 UNITS + (29/35 x 5) = 64 SPACES

TOTAL PROVIDED = 65 SPACES + 42 GARAGE SPACES = 107 SPACES

DENSITY CALCULATION (16.59 AC)

REQ'D = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

ALLOWED NUMBER OF UNITS:
1ST UNIT: 722,660 SF - 8,000 SF = 714,660 SF REMAINING
ADDITIONAL UNITS: 714,660 SF / 5,000 SF = 142 UNITS

TOTAL ALLOWED UNITS = 143 UNITS

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURERS RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNERS APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THE WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. ALL REASONABLE MEASURES SHALL BE TAKEN TO PROTECT EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE; INCLUDING BUT NOT LIMITED TO, RETAINING WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR EXCAVATING TREE ROOTS.

NOTES:

1. ALL RADII SHALL BE 3'-0" UNLESS OTHERWISE NOTED.
2. ALL DISTURBED AREAS SHALL HAVE 4" MIN. OF TOPSOIL & SEED.
3. ALL DIMENSIONS FROM PROPERTY LINES SHALL BE MEASURED PERPENDICULAR TO THE PROPERTY LINE.
4. CENTER ENTRANCE SIDEWALKS ON DOOR OPENINGS.
5. BUILDING DIMENSIONS ARE APPROXIMATE, REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.

SITE LEGEND

- PROPERTY LINE
- PROPOSED CONCRETE CURB
- PROPOSED SIDEWALK / CONCRETE PAD
- NUMBER OF PARKING SPACES (27)
- PROPOSED SIGN
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED LIGHT POLE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Overall Site Plan

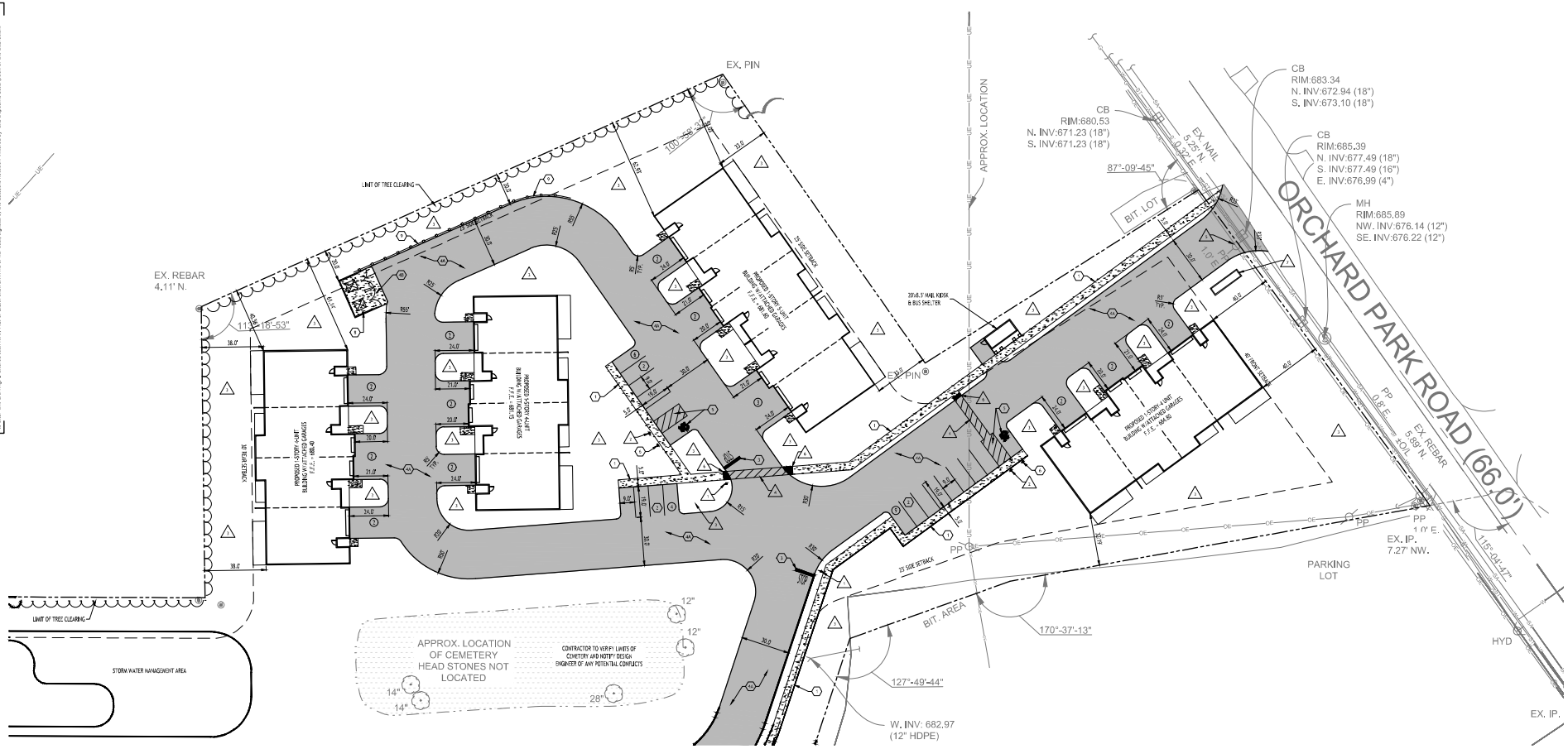
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Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-100

Project No: 23-4121

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Site Plan - North

SCALE: 1"=30

SITE DATA (REZONED TO C-1 (S)) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES

MULTI-FAMILY ALLOWED BY SPECIAL PERMIT

MIN. LOT WIDTH = 50 FT FOR FIRST DWELLING UNIT, PLUS 10 FT FOR EACH ADDITIONAL UNIT NEED NOT EXCEED 100 FT

MIN. LOT AREA = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

FRONT SETBACK = 40 FT
SIDE SETBACK = 25 FT MIN. OR A DISTANCE EQUAL TO HGT. OF SUCH BUILDING, WHICHEVER IS GREATER
REAR SETBACK = 30 FT OR EQUAL TO THE HEIGHT OF THE BUILDING

MAXIMUM BUILDING HEIGHT = 40 FT (MULTI-FAMILY)

DRIVEWAY: 30 FT WIDE REQUIRED FOR MULTI-FAMILY

DWELLING SIZE: 500 SF EACH MULTI-FAMILY UNIT

GROUP DWELLING: NO BUILDING SHALL BE NEARER TO ANY OTHER PRINCIPAL STRUCTURE THAN A DISTANCE EQUAL TO THE AVERAGE HEIGHT OF SUCH BUILDINGS

PARKING CALCULATION:
MULTI-FAMILY:

REQ'D = 2 SPACES PER UNIT + 5/25 UNITS VISITORS
REQ'D = 2 SPACES x 29 UNITS + (29/25 x 5) = 64 SPACES

TOTAL PROVIDED = 65 SPACES + 42 GARAGE SPACES = 107 SPACES

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REQ'D = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

ALLOWED NUMBER OF UNITS:
1ST UNIT: 722,660 SF - 8,000 SF = 714,660 SF REMAINING
ADDITIONAL UNITS: 714,660 SF / 5,000 SF = 142 UNITS

TOTAL ALLOWED UNITS = 143 UNITS

DETAIL LEGEND
SEE SITE DETAIL SHEET

1. CONCRETE SIDEWALK
2. 90° PARKING STALL
3. STOP BAR
4A. STANDARD DUTY ASPHALT
4B. EXTERIOR CONCRETE SLAB ON GRADE
5. HANDICAPPED PAVEMENT MARKINGS
6. HANDICAPPED PARKING SIGN
7. LIGHT POLE FOUNDATION
8. DUMPSTER ENCLOSURE
9. WOODEN GUIDE RAIL

NOTE LEGEND

1. INSTALL STOP SIGN - M.U.T.C.D. SIGN NO. R1-1B
2. INSTALL 'NO PARKING' SIGN, M.U.T.C.D. SIGN NO. P1-1C
3. LANDSCAPED AREA - SEE LANDSCAPE PLAN, IF NO PLANTINGS, INSTALL TOPSOIL & SEED
4. 1" WIDE WHITE PAVEMENT STRIPES @ 1' SPACING BETWEEN 4" WIDE WHITE CROSSWALK LINES
5. RELOCATE EX. UTILITY POLE - COORDINATE WITH UTILITY COMPANY
6. TACTILE WARNING MAT
7. HOTBOX

GENERAL NOTES:

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NOTES:

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- PROPOSED LIGHT POLE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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CARMINAWOOD DESIGN
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Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. | Description | Date

DRAWING NAME:
Site Plan - North

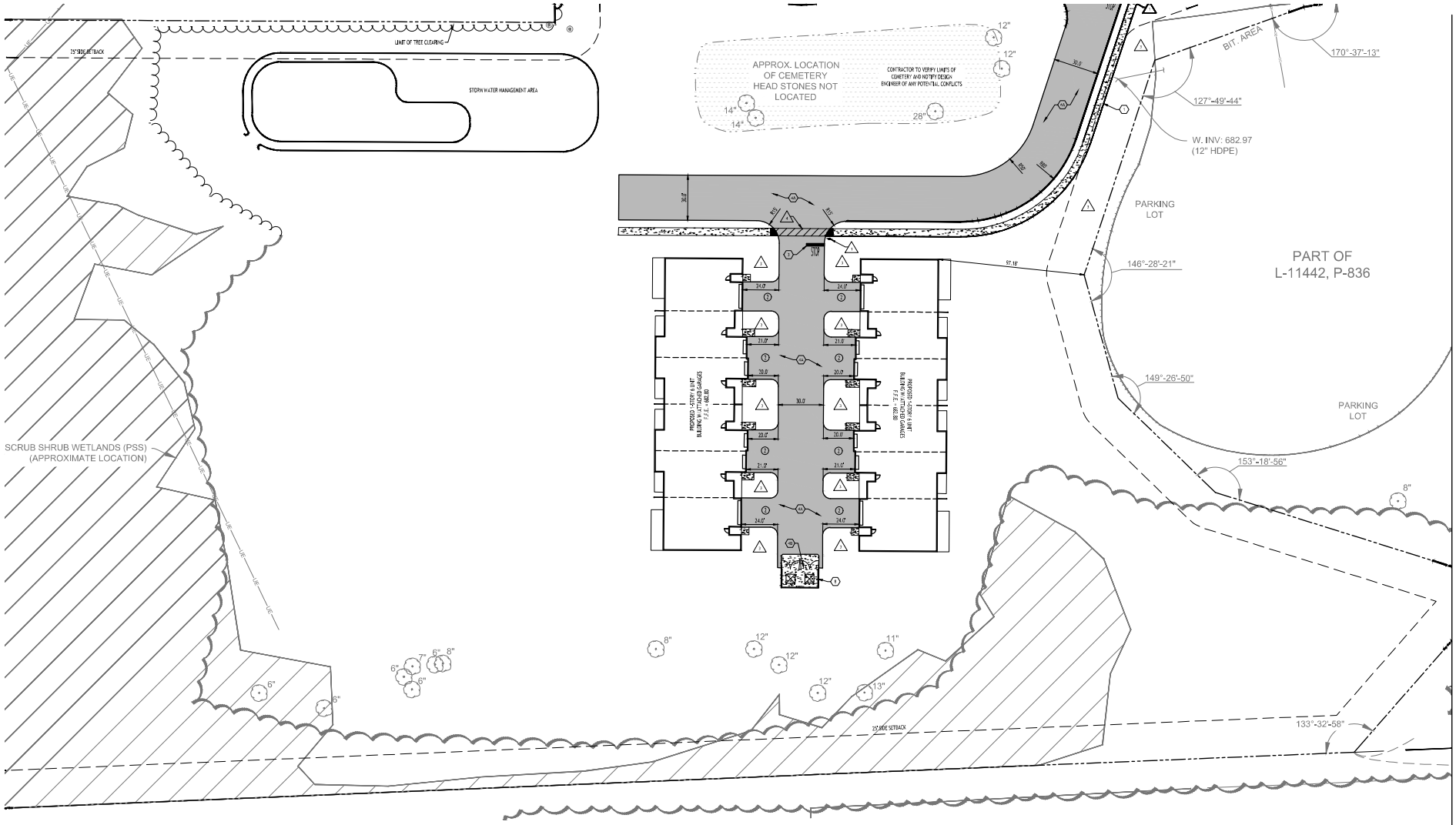
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C-101

Project No: 23-4121

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Site Plan - South

SCALE: 1"=30'

SITE DATA (REZONED TO C-1 (SU) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES

MULTI-FAMILY ALLOWED BY SPECIAL PERMIT

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FRONT SETBACK = 40 FT
SIDE SETBACK = 75 FT MIN. OR A DISTANCE EQUAL TO 1/2 HGT. OF SUCH BUILDING, WHICHEVER IS GREATER
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6. HANDICAPPED PARKING SIGN
7. LIGHT POLE FOUNDATION
8. DUMPSTER ENCLOSURE
9. WOODEN GUIDE RAIL

NOTE LEGEND

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2. INSTALL "NO PARKING" SIGN, M.U.T.C.D. SIGN NO. R7-1C
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DRAWING NAME:
Site Plan - South

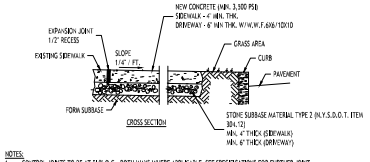
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-102

Project No: 23-4121

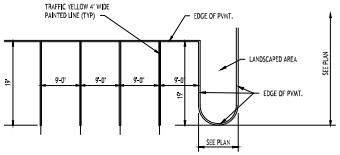
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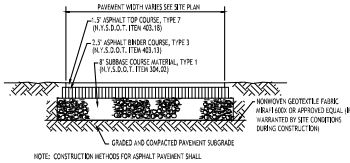


NOTES:
1. CONTROL JOINTS TO BE AT 5'-0" O.C., BOTH WAYS WHERE APPLICABLE. SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-07(10).
2. CONCRETE SIDEWALK AND DRIVEWAY MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 608-3.
3. SUBBASE GRADE SHALL FOLLOW THE PROPOSED GRADE OF THE SIDEWALK AND SLOPE AWAY FROM BUILDING WHERE APPLICABLE, PROVIDE CONTINUOUS STONE PATH TO CURB UNDERDRAIN WHERE PROVIDED.
4. FULL DEPTH EXPANSION JOINTS SHALL BE INSTALLED EVERY 20' O.C., BOTHWAYS WHERE APPLICABLE. SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-07(10).
5. SEE CURB DETAIL FOR DOWLING REQUIREMENTS WHERE ABUTTING CURB.
6. INSTALL 6' LONG #3 DOWELS @ 12" O.C. WHERE SIDEWALK ABUTS A BUILDING WALL AT AN ENTRANCE, THICKEN SIDEWALK TO 6" AT BUILDING WALL AND INSTALL DOWEL CENTERED IN THE 6" DEPTH. DOWELS AND THICKENING OF SIDEWALK SHALL EXTEND 10' EITHER SIDE OF ENTRANCE.
7. INSTALL 1/2" PREMOLDED EXPANSION JOINT WITH BACKER ROD & SEALANT WHERE SIDEWALK ABUTS BUILDING OR OTHER STRUCTURE.

CONCRETE SIDEWALK - 1

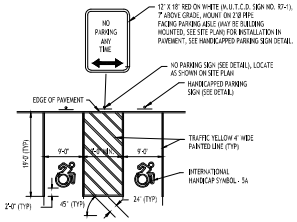


90° PARKING STALL LAYOUT - 2

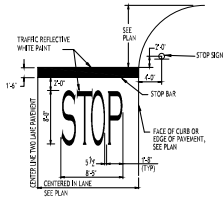


NOTE: CONSTRUCTION METHODS FOR ASPHALT PAVEMENT SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 401-403-3, WITH SUBBASE CONSTRUCTION METHODS CONFORMING TO NYSDOT STANDARD SPECIFICATION 304-3.

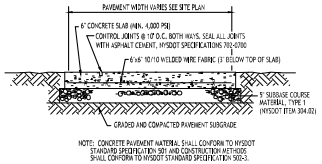
STANDARD DUTY ASPHALT SECTION - 4A



HANDICAPPED PAVEMENT MARKINGS & SIGNAGE - 5

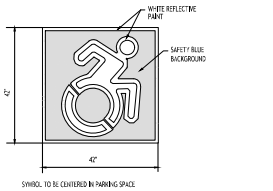


STOP BAR DETAIL - 3



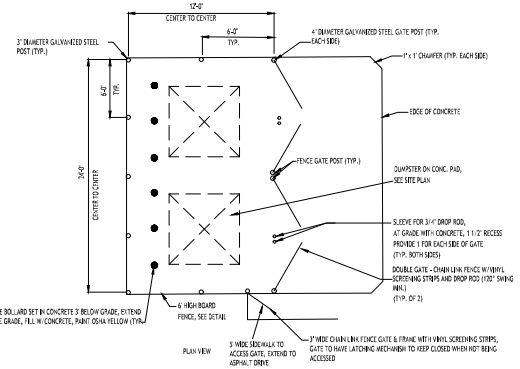
NOTE: CONCRETE PAVEMENT MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 502-3.

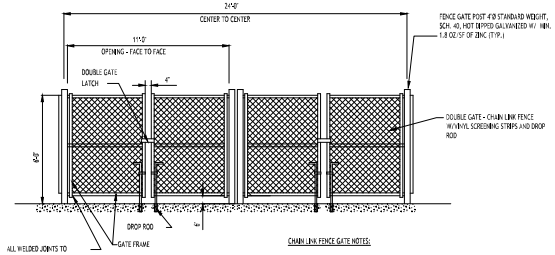
EXTERIOR CONCRETE SLAB-ON-GRADE SECTION - 4B



SYMBOL TO BE CENTERED IN PARKING SPACE

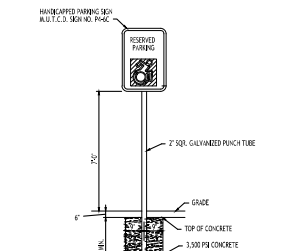
INTERNATIONAL HANDICAP SYMBOL - 5A





CHAIN LINK FENCE GATE NOTES:
1. GATE POST FOOTINGS TO BE MIN. 36" DEEP x (4x) POST DIAMETER, EXTEND POST TO WITHIN 6" OF BOTTOM.
2. GATE FRAMES TO BE 2" SQ. GALVANIZED STEEL., WEIGHING 2.60 LB/FT IN ACCORDANCE WITH ASTM F 900.
3. CHAIN LINK FENCE FABRIC SHALL BE 2" MESH, 9 GAUGE, ZINC COATED STEEL CORE WIRE. INSTALL MESH WITH HOOK BOLTS AND TENSION BARS ON ALL 4 SIDES, ATTACH AT 15" MAX.
4. DOUBLE GATE LATCH TO BE FORKED TYPE CAPABLE OF RETAINING GATE IN CLOSED POSITION AND HAVE PROVISION FOR PAD LOCK. LATCH SHALL BE OPERABLE FROM EITHER SIDE OF GATE.
5. ALL HARDWARE TO BE HOT DIPPED GALVANIZED STEEL TO SUIT GATE SIZE.

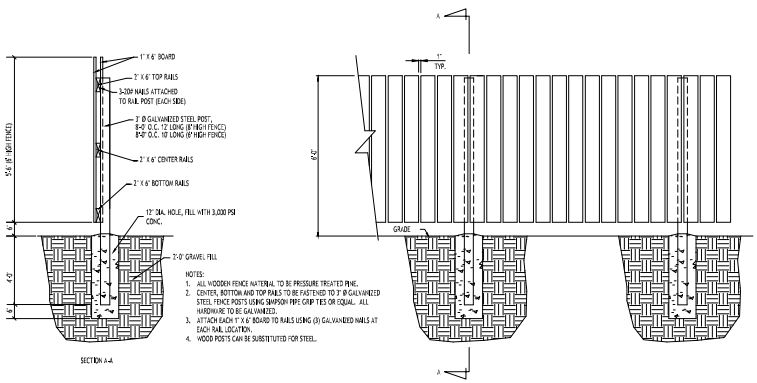
DUMPSTER ENCLOSURE - 8



NOTES:
1. HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS.

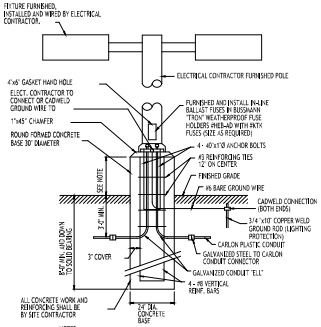
HANDICAP PARKING SIGNS - 6

INSTALLED IN GRASS/LANDSCAPED AREA



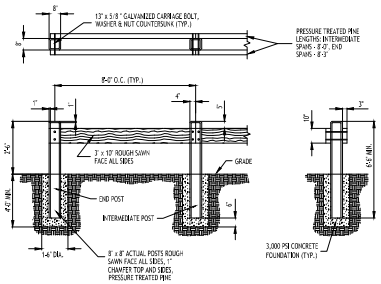
NOTES:
1. ALL WOODEN FENCE MATERIAL TO BE PRESSURE TREATED PINE.
2. CENTER, BOTTOM AND TOP RAILS TO BE FASTENED TO 3" Ø GALVANIZED STEEL FENCE POSTS USING SIMPSON PIPE GRIP TIES OR EQUAL. ALL HARDWARE TO BE GALVANIZED.
3. ATTACH EACH 1" X 6" BOARD TO RAILS USING (3) GALVANIZED NAILS AT EACH RAIL LOCATION.
4. WOOD POSTS CAN BE SUBSTITUTED FOR STEEL.

BOARD ON BOARD FENCE - FOR DUMPSTER ENCLOSURE



NOTES:
1. FOR LOCATIONS OF FOUNDATIONS SEE SITE PLAN
2. FOR LIGHT FIXTURE ORDERING INFORMATION SEE SITE LIGHTING PLAN
3. LIGHT POLE BASE EXPOSURE ABOVE GRADE SHALL BE:
   IN CURBED ISLANDS: 6" ABOVE TOP OF CURB ELEVATION
   IN PAVEMENT: 3" ABOVE GRADE
   IN NON-CURBED GRASS AREAS: 6" ABOVE GRADE

LIGHT POLE FOUNDATION - 7



DECORATIVE WOODEN GUIDE RAIL - 9

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. Description Date

DRAWING NAME:
Site Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-103

Project No: 23-4121

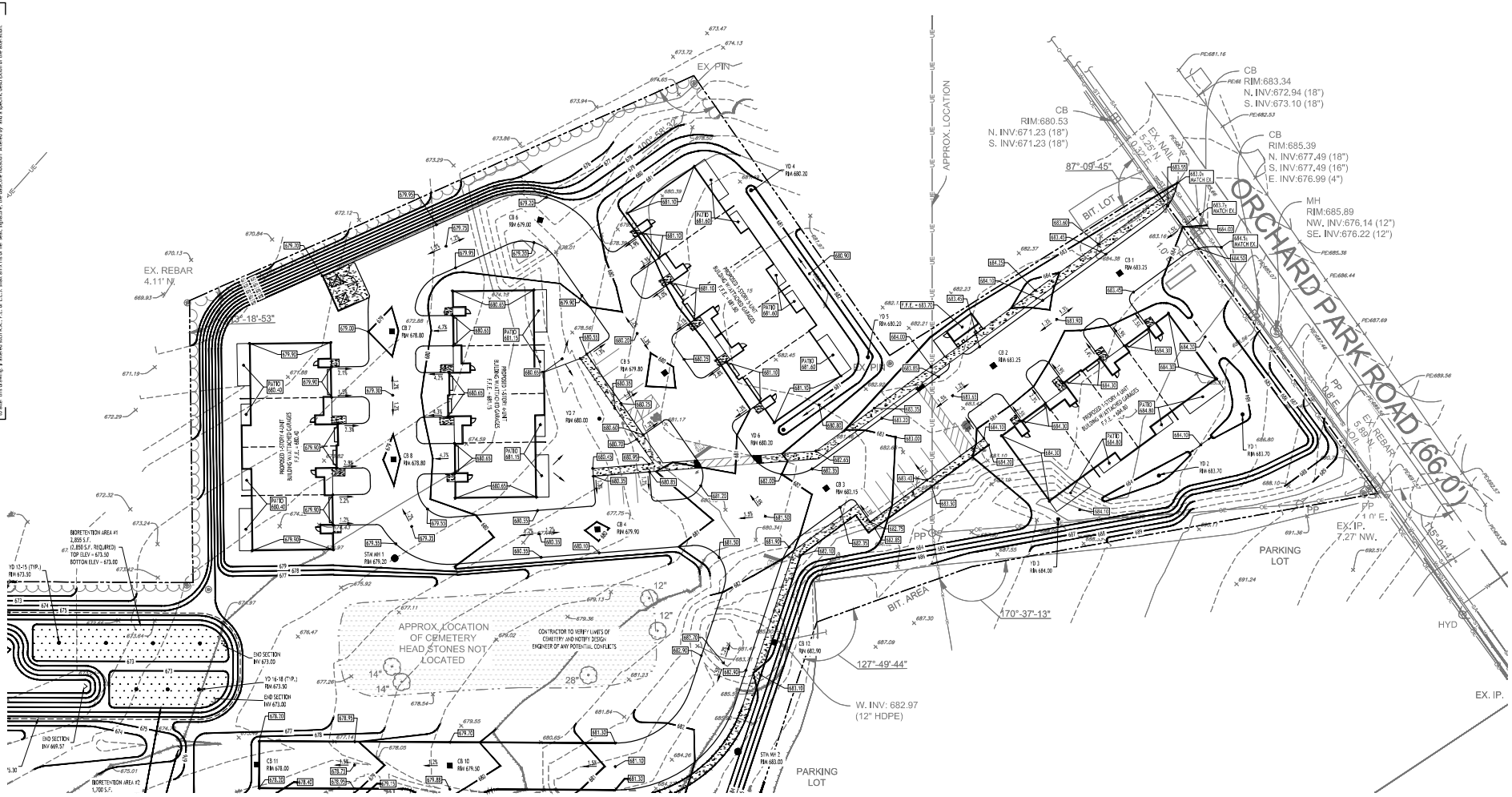
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SCALE: 1"=50'
PROPOSED GRADING LEGEND
PROPOSED CONTOUR
PROPOSED SPOT ELEVATION
PROPOSED TOP/BOTTOM OF WALL/EOF.
PROPOSED CATCH BASIN
PROPOSED MANHOLE
PROPOSED YARD DRAIN
PAVEMENT/GROUND SLOPE
PROPOSED SILT FENCE
PROPOSED CONSTRUCTION ENTRANCE
PROPOSED CONSTRUCTION FENCE
PROPOSED TREE PROTECTION FENCE
PROPOSED STONE CHECK DAM
PROPOSED INLET PROTECTION
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N

Grading Plan - North

SCALE: 1"=30

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 / BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60'

CARMINAWOOD DESIGN
Buffalo I Utica I Geneseo

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

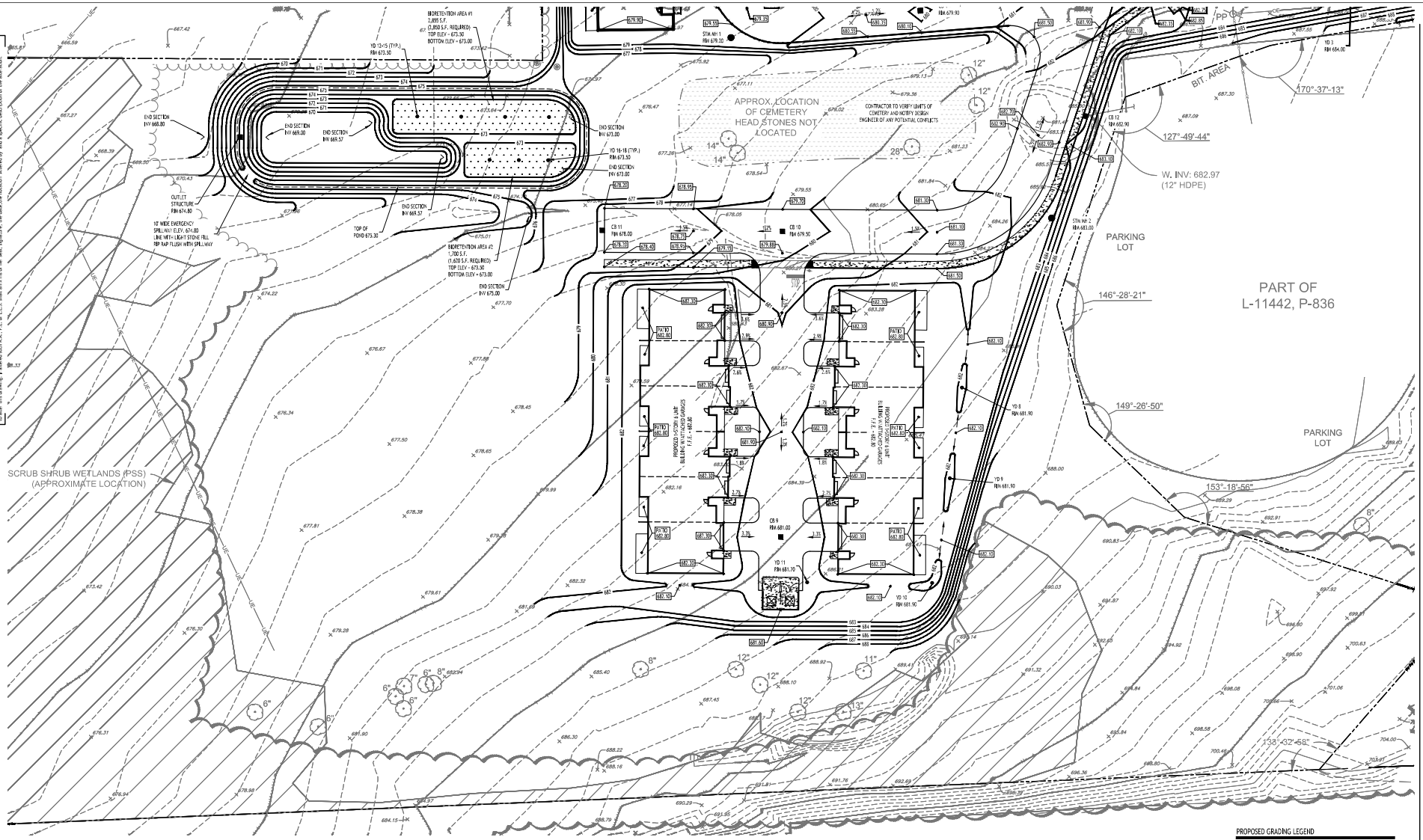
DRAWING NAME:
Grading Plan - North

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.

C-201

Project No: 23-4121



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Grading Plan - South

SCALE: 1"=30'

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

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30' 30 0 30 60'

CARMINAWOOD DESIGN
Buffalo | Utica | Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. | Description | Date

DRAWING NAME:
Grading Plan - South

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-202

Project No: 23-4121

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SUBCATCHMENTS RUNOFF SUMMARY				
TIME DESCRIPTION				
EXIST.	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)	
5+TEAR	1.94	631.84	3,133	
10+YEAR	2.26	632.19	4,155	
25+YEAR	3.10	632.70	5,588	
100+YEAR	3.46	633.20	7,288	
		633.73	34,986	
DIRECT:				
EXIST.	PROP. RUNOFF (CFS)			
5+YEAR	0.38			
10+YEAR	1.42			
25+YEAR	1.92			
100+YEAR	2.32			
TOTAL SITE:				
EXIST.	PROP. RUNOFF (CFS)			
5+YEAR	2.32			
10+YEAR	3.34			
25+YEAR	5.67			
100+YEAR	5.67			

NOTE: SURVEY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

NOTE: FOR PROPOSED WATER BOXES, CLEANOUTS, ETC. INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, OR 4", THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

0' 25' 50' 100'

REVISIONS:

No.	Description	Date

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

DRAWING NAME: Overall Drainage Plan

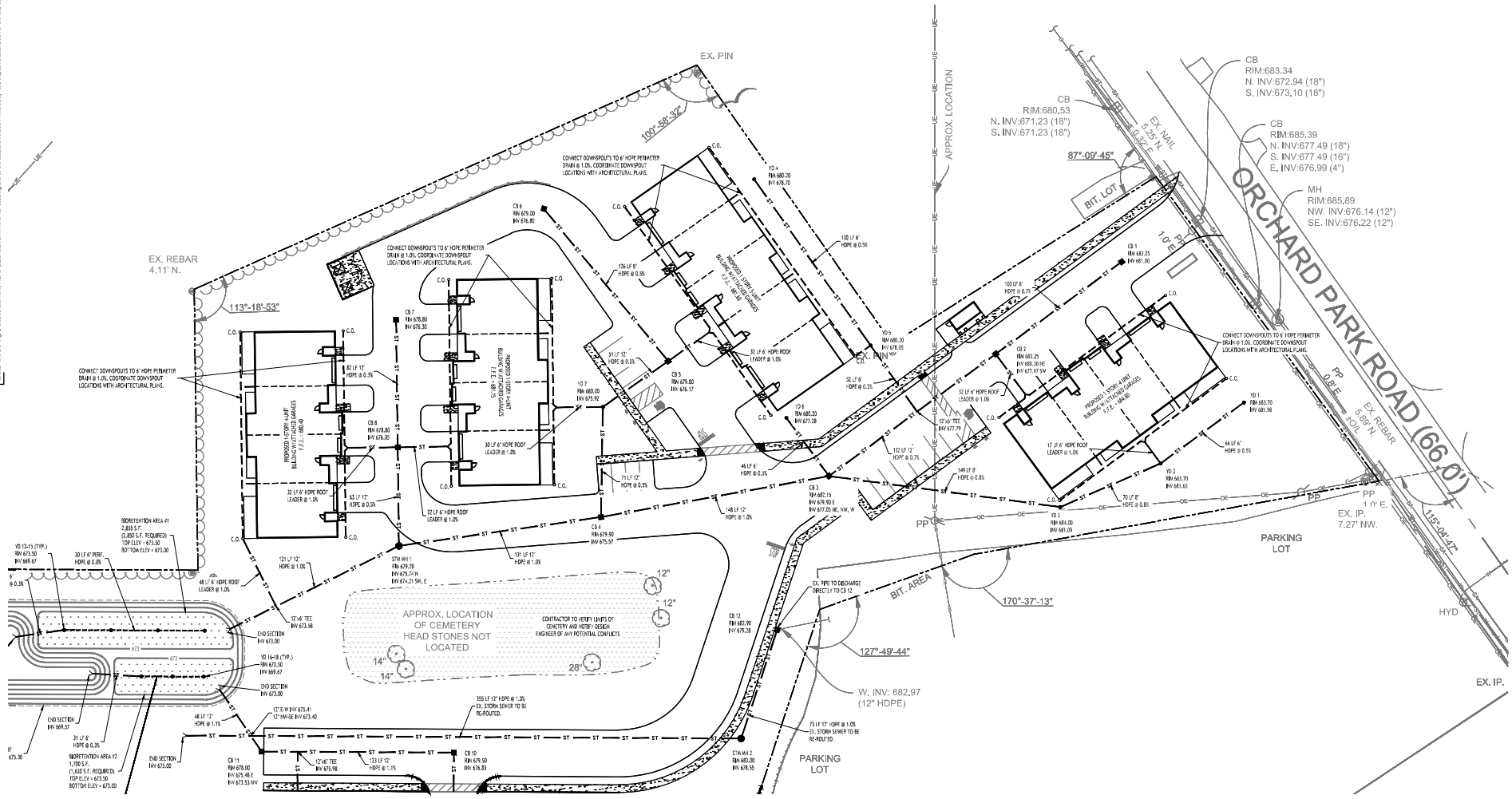
DRAWING NO. C-300

Project No: 23-4121

Date: 7/22/26
Drawn By: [illegible]
Scale: As Noted

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Drainage Plan - North

SCALE: 1"=30'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
1-YEAR	1.94	671.04	3,335
10-YEAR	2.82	672.95	15,013
25-YEAR	3.10	673.70	21,268
100-YEAR	3.45	674.73	34,966

DIRECT:

EVENT	PROP. RUNOFF (CFS)
1-YEAR	0.38
10-YEAR	1.12
25-YEAR	1.52
100-YEAR	2.52

TOTAL SITE:

EVENT	EX. RUNOFF (CFS)	PROP. RUNOFF (CFS)
1-YEAR	2.63	2.32
10-YEAR	8.17	3.94
25-YEAR	11.66	4.67
100-YEAR	18.97	5.97

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL: BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

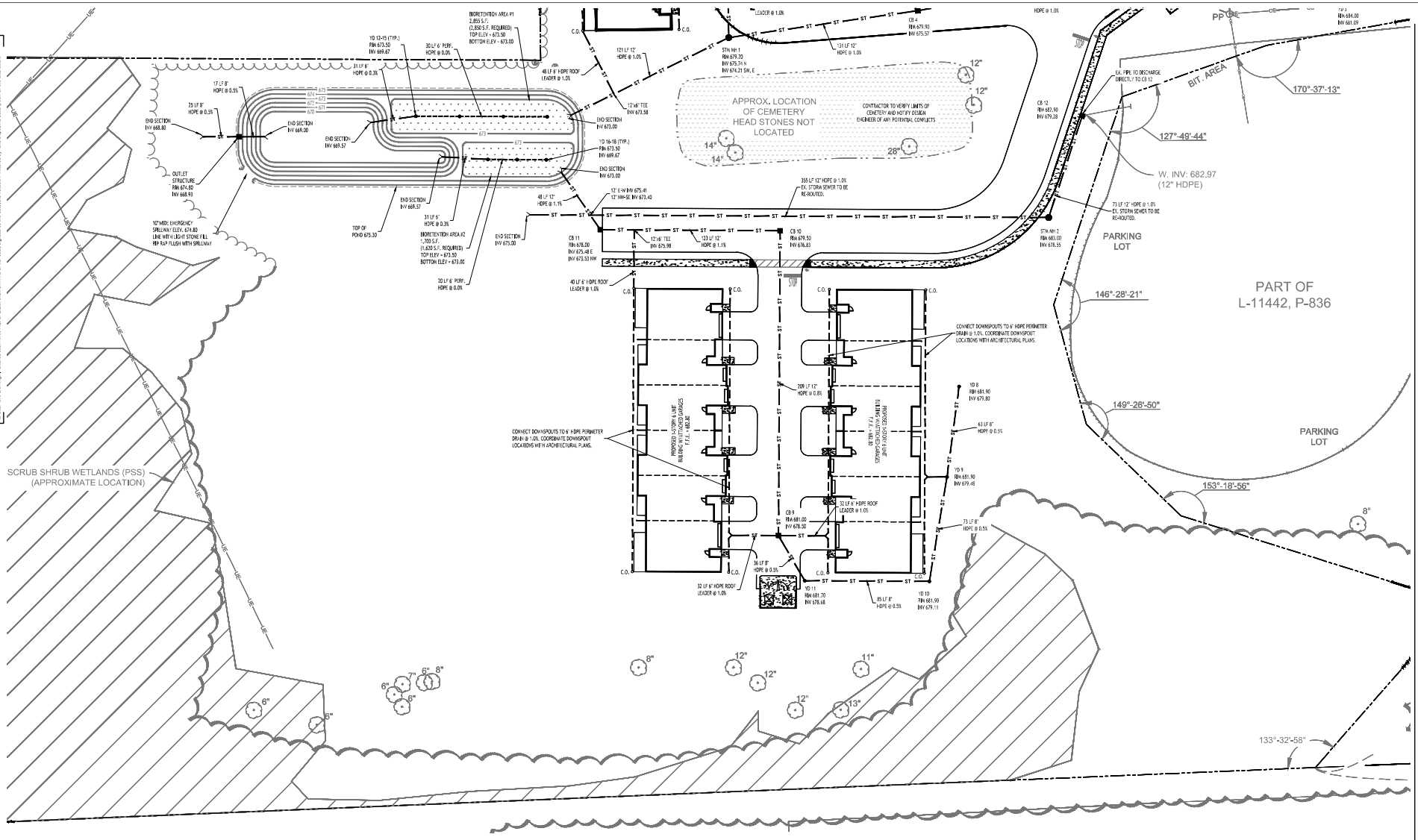
No.	Description	Date

DRAWING NAME:
Drainage Plan - North

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-301

Project No: 23-4121



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Drainage Plan - South

SCALE: 1"=30'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
5-YEAR	1.94	671.64	9,335
10-YEAR	2.82	672.95	13,013
25-YEAR	3.10	673.70	21,268
100-YEAR	3.45	674.73	34,966

DIRECT:

EVENT	PROP. RUNOFF (CFS)
5-YEAR	0.38
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25-YEAR	1.37
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TOTAL SITE:

EVENT	EX. RUNOFF (CFS)	PROP. RUNOFF (CFS)
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25-YEAR	11.66	4.67
100-YEAR	18.97	5.97

PROPOSED UTILITY LEGEND

- PROPOSED STORM SEWER — ST
- PROPOSED SANITARY SEWER — 6" SA
- PROPOSED WATERLINE — 1" W
- PROPOSED CATCH BASIN — CB
- PROPOSED YARD DRAIN — YD
- PROPOSED MANHOLE — MH
- PROPOSED HYDRANT ASSEMBLY
- PROPOSED GATE VALVE — GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

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REVISIONS:

No.	Description	Date

DRAWING NAME:
Drainage Plan - South

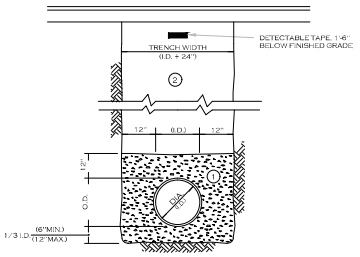
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-302

Project No: 23-4121

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NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

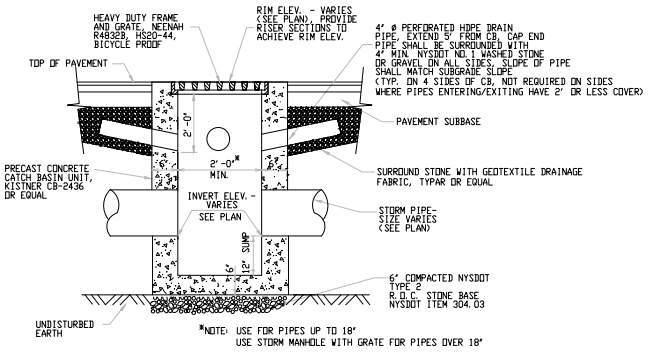
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304.2.02 TYPE 2. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

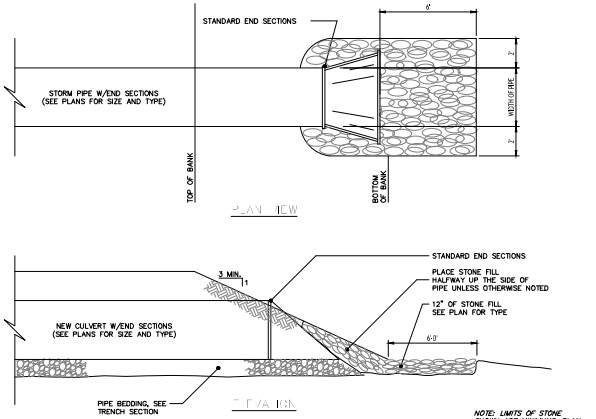
NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

STORM SEWER TRENCH SECTION IN PAVED AREAS



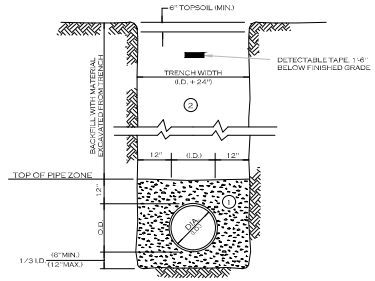
*NOTE: USE FOR PIPES UP TO 18"
USE STORM MANHOLE WITH GRATE FOR PIPES OVER 18"

TYPICAL PRECAST CATCH BASIN



TYPICAL PIPE OUTLET W/END SECTION & RIP RAP

NOT TO SCALE



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

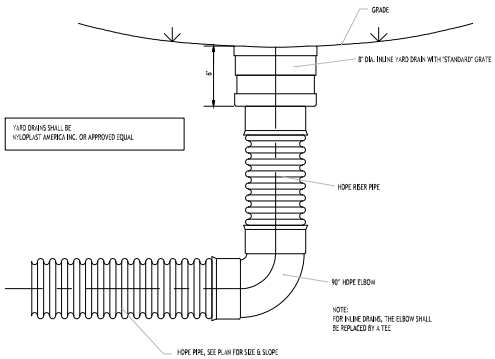
PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

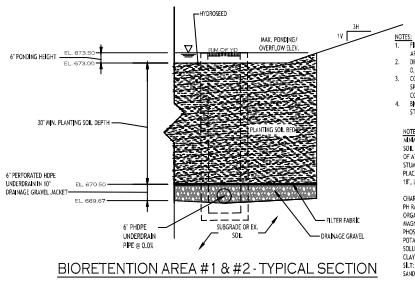
(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

STORM SEWER TRENCH SECTION IN UNPAVED AREAS



NOTE:
SEE TYPICAL TRENCH SECTION FOR BEDDING REQUIREMENTS

TYPICAL YARD DRAIN DETAIL



BIORETENTION AREA #1 & #2 - TYPICAL SECTION

bio-retention area seeding spec (Northeast Wetland Grass Seed Mix):

Seed Mixture	Variety	Percent by Wt. of Seeds
Creeping Bentgrass	Agrostis stolonifera	43.0
Rough Bluegrass	Poa trivialis	17.0
Meadow Foxtail	Alopecurus arundinaceus	11.0
Annual Ryegrass	Lolium multiflorum	4.3
Deertongue	Panicum clandestinum	4.3

CARMINAWOOD DESIGN
Buffalo | Utica | Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Drainage Details

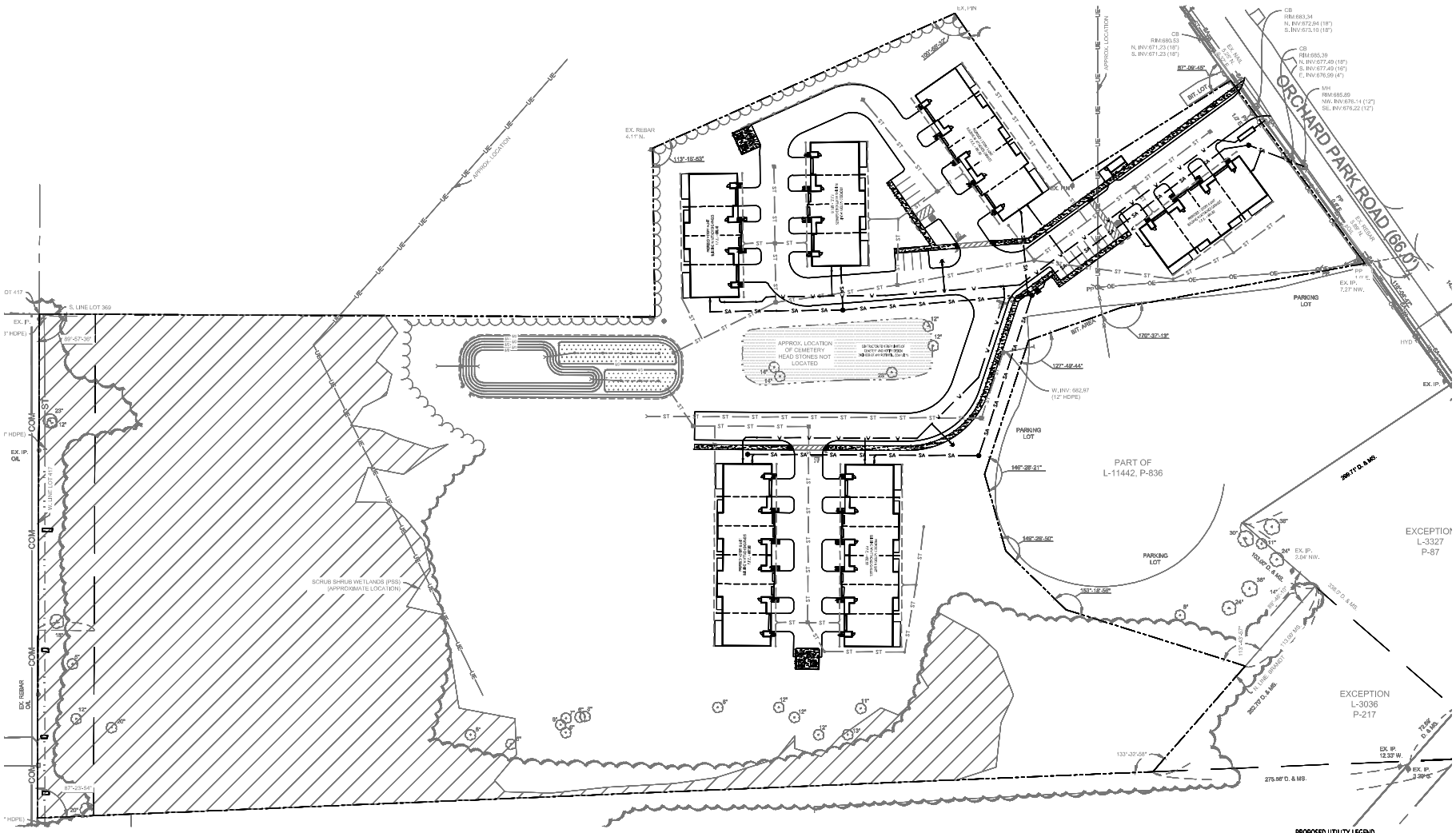
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-303

Project No: 23-4121

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Overall Utility Plan

SCALE: 1"=50'

UTILITY NOTES:

1. FOR ALL SANITARY SEWERS, INSTALL SELECT FILL IN PAVED AREAS, EXTEND 5' MIN. BEYOND PAVEMENT LIMITS
2. BUILDINGS TO HAVE A 6" HOUSE TRAP, VENT AND CLEANOUT INSTALLED AT ENTRANCE POINT. INVERT ELEVATION TO BE 3' MIN. BELOW F.F.E. OF THE BUILDING. PIPE TO BE 6" SDR-35 PVC @ 1.0% MIN WITH MIN 4' OF COVER. ADD ADDITIONAL CLEANOUTS @ 100' MAX. SPACING FOR 6" LATERALS OVER 90' IN LENGTH.
3. COORDINATE GAS & ELEC. METER BANK LOCATIONS ON BUILDINGS WITH M.E.P. PLANS & UTILITY CO'S.
4. COORDINATE LOCATION OF CTV & TELEPHONE SERVICE TO BUILDINGS WITH M.E.P. PLANS AND UTILITY CO'S.
5. ANY EXISTING UTILITIES WHICH ARE TO BE ABANDONED AND FALL UNDER PAVEMENT OR BUILDINGS SHALL BE REMOVED VS. BEING ABANDONED UNLESS THOSE UTILITIES ARE FILLED WITH FLOWABLE FILL.
6. EXISTING GAS SERVICES TO REMAIN UNLESS OTHERWISE NOTED. ANY PORTIONS TO BE RELOCATED SHALL BE COORDINATED WITH NATIONAL FUEL GAS.
7. ALL UNDERGROUND TELEPHONE SERVICES SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION.
8. A MINIMUM OF 10 FEET HORIZONTAL AND 18 INCHES OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
9. ERIE COUNTY WATER AUTHORITY (ECWA) IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE.
10. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH PAVEMENT AREAS.

NOTES:

1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO TOWN OF WEST SENECA SEWER SPECIFICATIONS AND DETAILS, AND ERIE COUNTY DEPARTMENT OF HEALTH RULES AND REGULATIONS.
2. PRIOR STARTING ANY WORK ASSOCIATED WITH OR NEAR EXISTING SANITARY MANHOLES, THE CONTRACTOR SHALL MEET WITH THE TOWN OF WEST SENECA TO DISCUSS AND AGREE TO THE WORK.
3. FILL SHALL BE PLACED AND SATISFACTORILY COMPACTED PRIOR TO INSTALLATION OF UTILITIES, AND MUST BE APPROVED BY THE SUPERVISING PROJECT ENGINEER.
4. ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF WEST SENECA ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6' WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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Buffalo | Utica | Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Overall Utility Plan

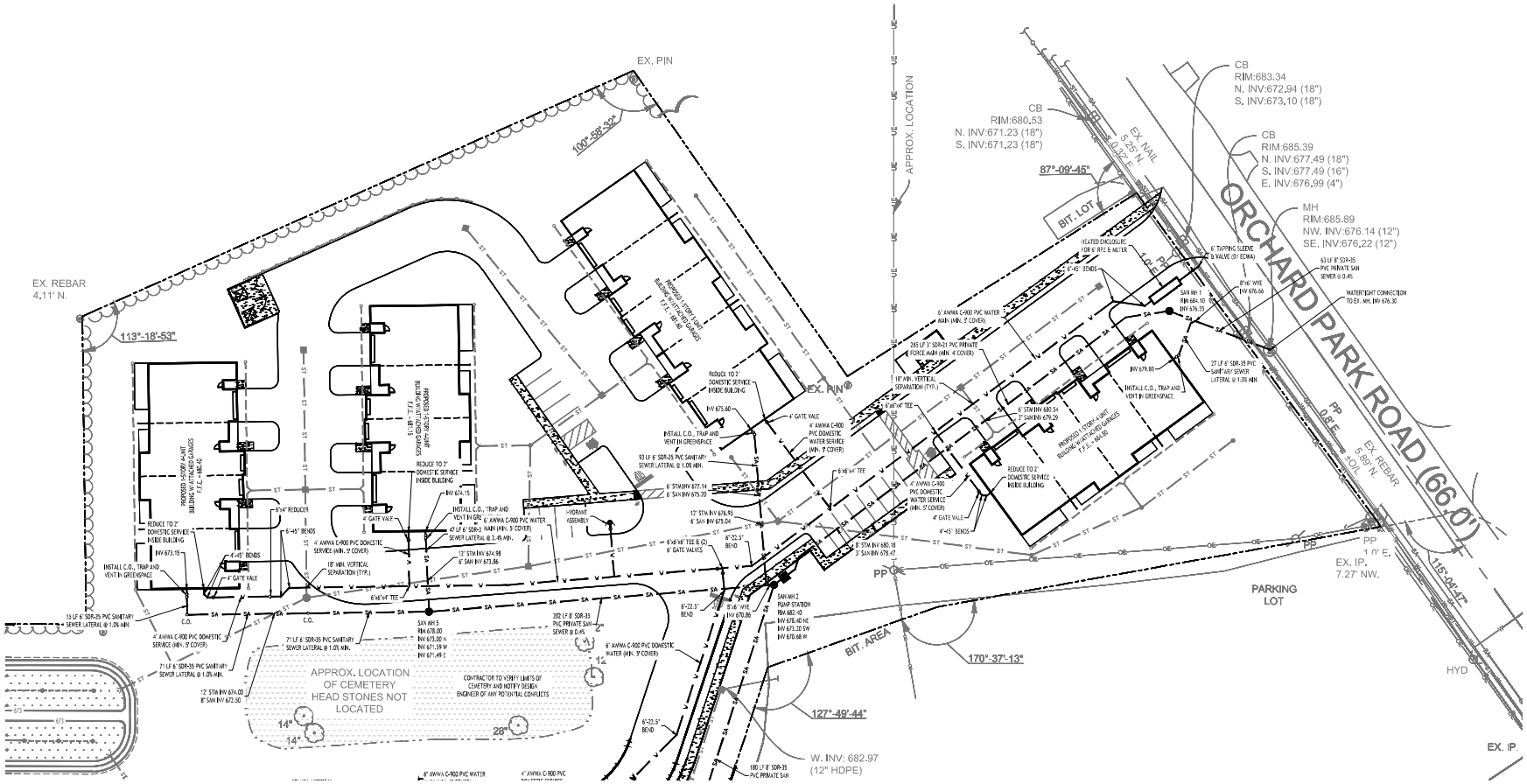
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-400

Project No: 23-4121

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Utility Plan - North

SCALE: 1"=30

UTILITY NOTES:

1. FOR ALL SANITARY SEWERS, INSTALL SELECT FILL IN PAVED AREAS, EXTEND 5' MIN. BEYOND PAVEMENT LIMITS
2. BUILDINGS TO HAVE A 6" HOUSE TRAP, VENT AND CLEANOUT INSTALLED AT ENTRANCE POINT. INVERT ELEVATION TO BE 3' MIN. BELOW F.F.E. OF THE BUILDING. PIPE TO BE 6" SDR-35 PVC @ 1.0% MIN WITH MIN 4' OF COVER. ADD ADDITIONAL CLEANOUTS @ 100' MAX. SPACING FOR 6" LATERALS OVER 90' IN LENGTH.
3. COORDINATE GAS & ELEC. METER BANK LOCATIONS ON BUILDINGS WITH M.E.P. PLANS & UTILITY CO'S.
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NOTES:

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4. ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF WEST SENECA ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6' WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60Ft.

CARMINAWOOD DESIGN
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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

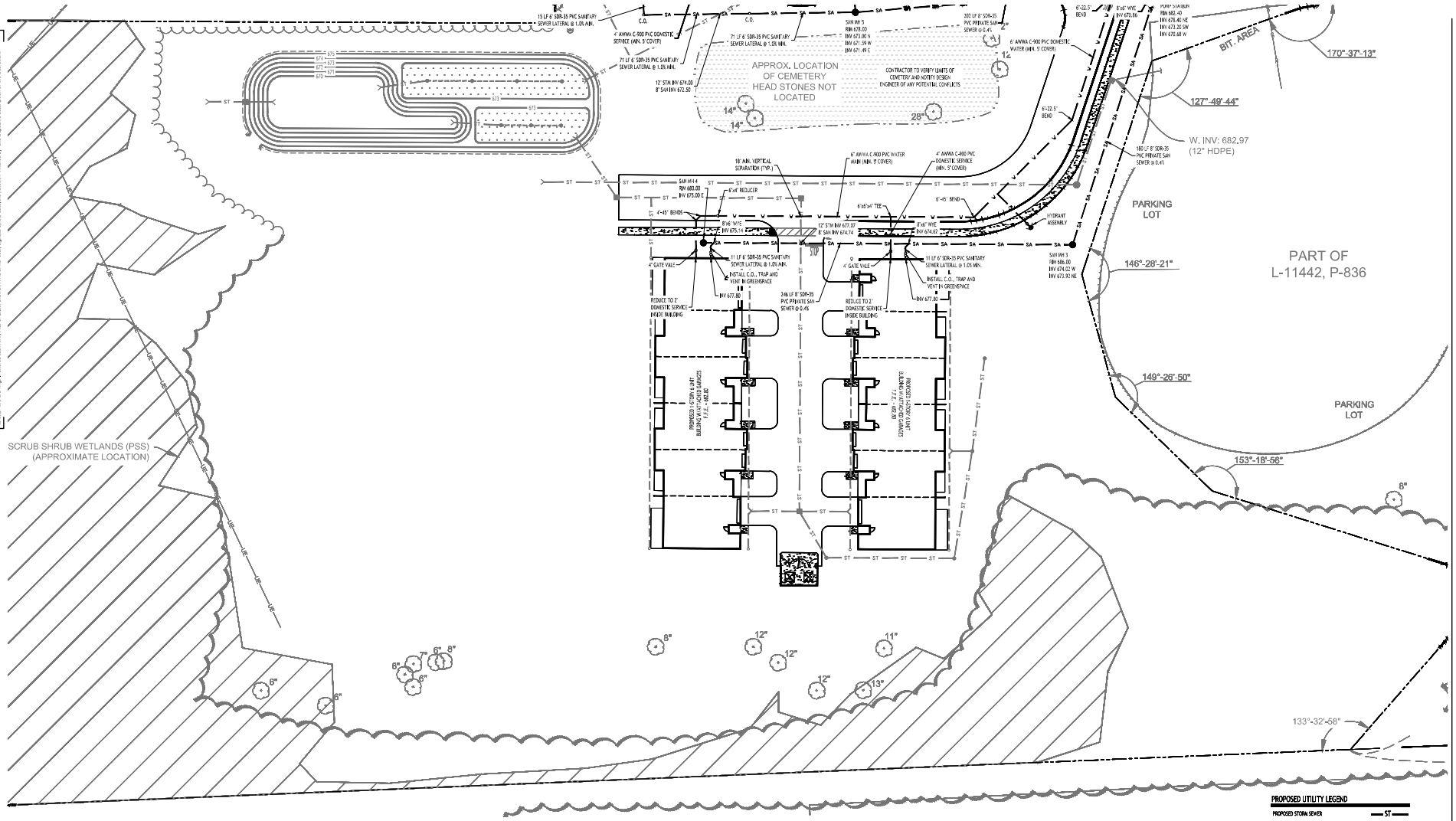
DRAWING NAME:
Utility Plan - North

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.

C-401

Project No: 23-4121



Utility Plan - South

SCALE: 1"=30'

UTILITY NOTES:

1. FOR ALL SANITARY SEWERS, INSTALL SELECT FILL IN PAVED AREAS, EXTEND 5' MIN. BEYOND PAVEMENT LIMITS
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PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
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30' 0 30 60Ft.

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Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. Description Date

DRAWING NAME:
Utility Plan - South

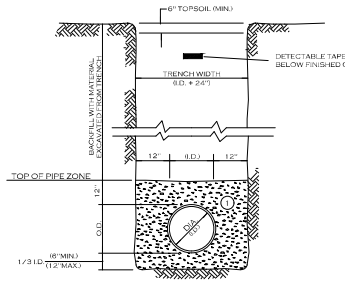
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-402

Project No: 23-4121

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MATERIALS

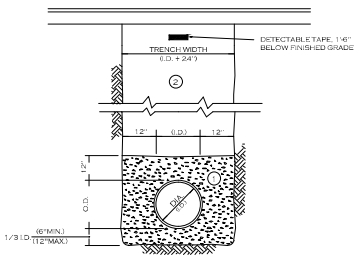
PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

① NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

SELECT MATERIAL BACKFILL (NYSDOT LATEST EDITION)

② NO.2 RUN OF CRUSHER STONE OR NO.2 RUN OF CRUSHER GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02. (COMPACTED IN 6"LIFTS TO 90% DENSITY) NOTE: SLAG SHALL NOT BE ALLOWED FOR MATERIALS ① AND ②

UTILITY TRENCH SECTION IN UNPAVED AREAS



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

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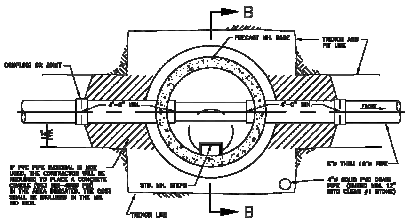
SELECT MATERIAL BACKFILL (NYSDOT LATEST EDITION)

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UTILITY TRENCH SECTION IN PAVED AREAS

MONOLITHIC PRECAST BASE MANHOLES 4'-0" DIA. BASE FOR 15"ø SEWERS OR LESS

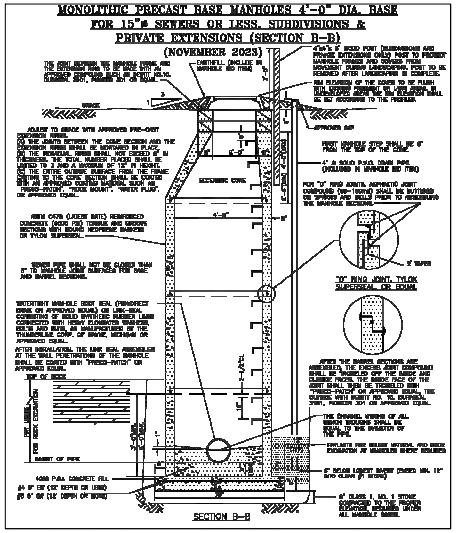
(NOVEMBER 2023)



PLAN

MONOLITHIC PRECAST BASE MANHOLES 4'-0" DIA. BASE FOR 15"ø SEWERS OR LESS, SUBDIVISIONS & PRIVATE EXTENSIONS (SECTION B-B)

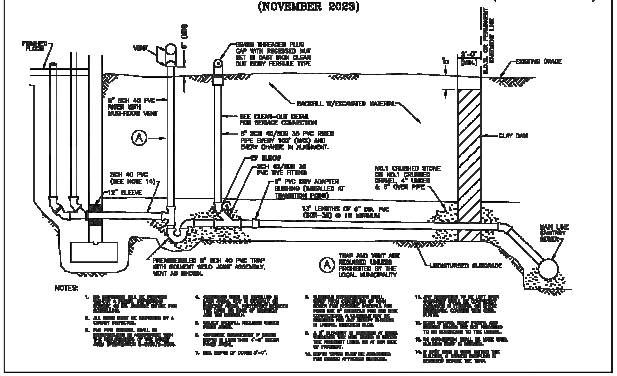
(NOVEMBER 2023)


4'-0" I.D. PRECAST CONCRETE MANHOLE BASE
CONCRETE COVER
4'-0"
4'-0"
4'-0"

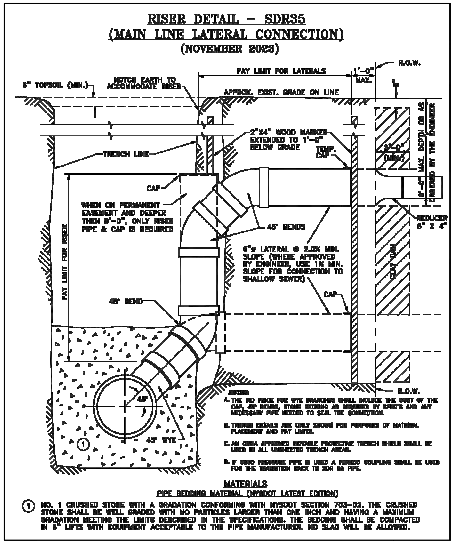
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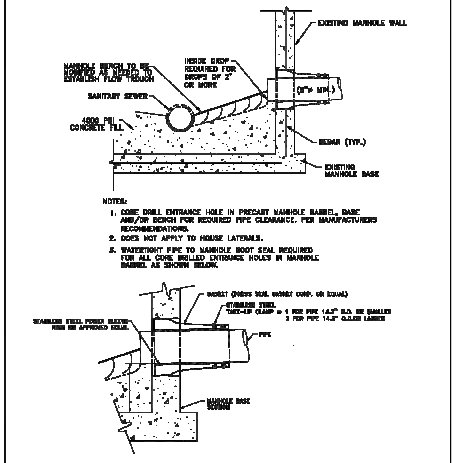
TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (NEW BUILDS)
(NOVEMBER 2023)



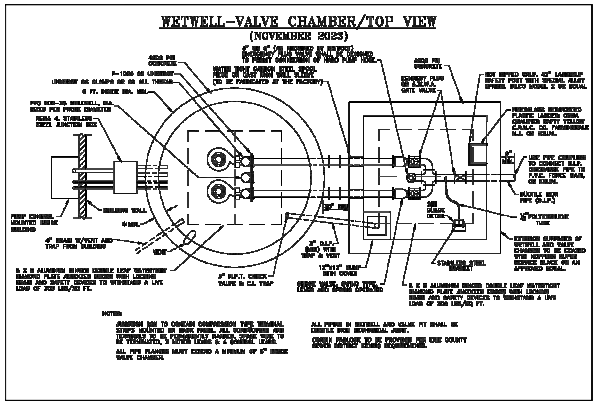
RISER DETAIL – SDR35
(MAIN LINE LATERAL CONNECTION)
(NOVEMBER 2023)



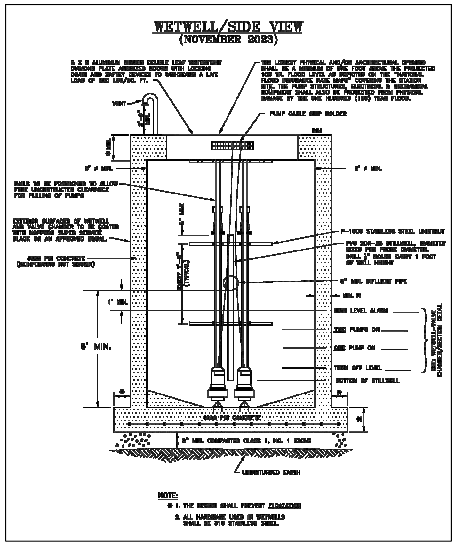
CONNECTION TO EXISTING MANHOLE
(NOVEMBER 2023)



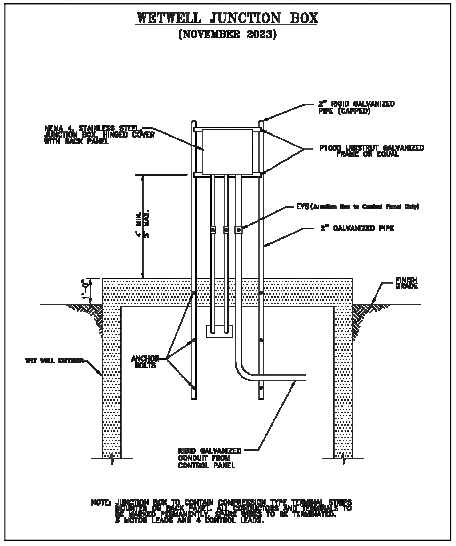
WETWELL–VALVE CHAMBER/TOP VIEW
(NOVEMBER 2023)



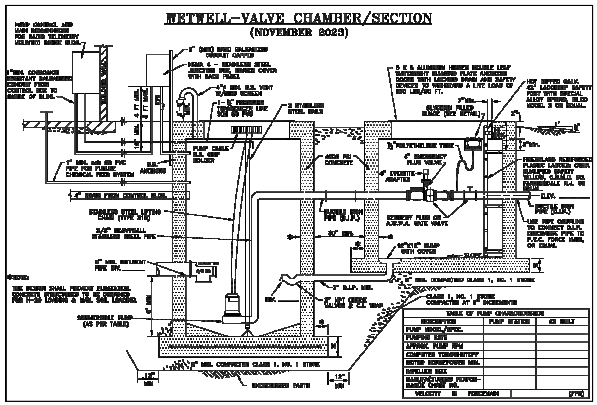
WETWELL/SIDE VIEW
(NOVEMBER 2023)



WETWELL JUNCTION BOX
(NOVEMBER 2023)



WETWELL–VALVE CHAMBER/SECTION
(NOVEMBER 2023)



CARMINAWOOD DESIGN
Buffalo | Utica | Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.

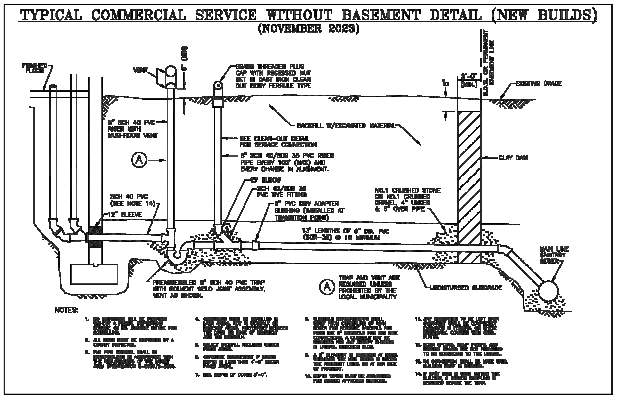
C-404

Project No: 23-4121

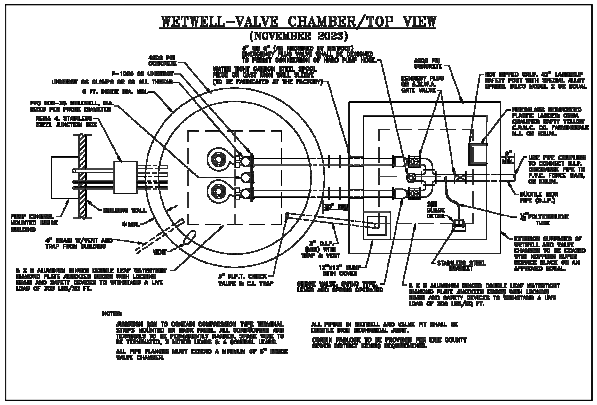
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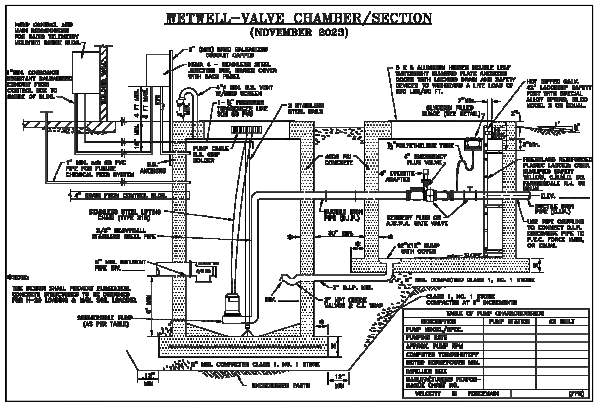
TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (NEW BUILDS)
(NOVEMBER 2023)



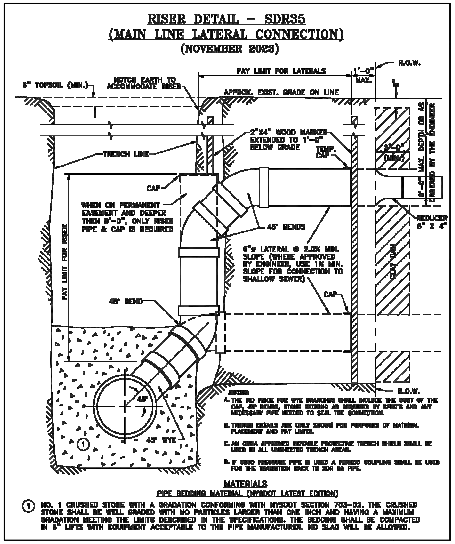
WETWELL–VALVE CHAMBER/TOP VIEW
(NOVEMBER 2023)



WETWELL–VALVE CHAMBER/SECTION
(NOVEMBER 2023)



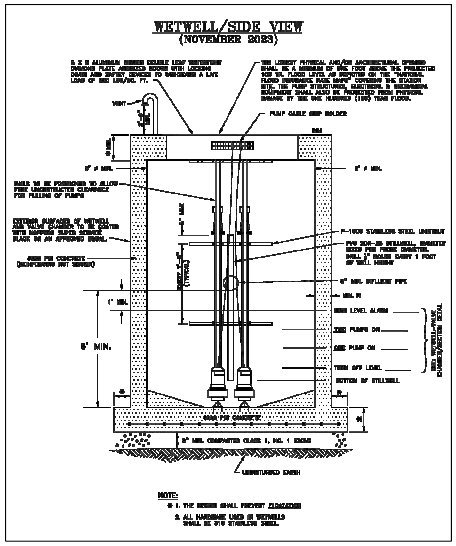
RISER DETAIL – SDR35
(MAIN LINE LATERAL CONNECTION)
(NOVEMBER 2023)



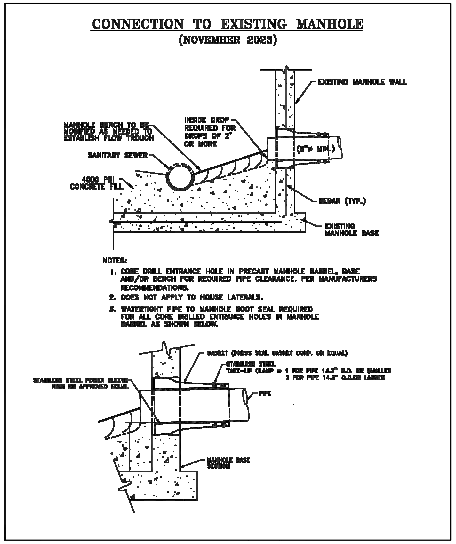
MATERIALS
(SEE BEDDING MATERIAL (WYNDOT LATEST EDITION))

① NO. 1 CRUSHED STONE WITH A GRADATION CONFORMING WITH WYDOT SECTION 703-2.2, THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM SMAGATION PASSING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER. NO SLAG WILL BE ALLOWED.

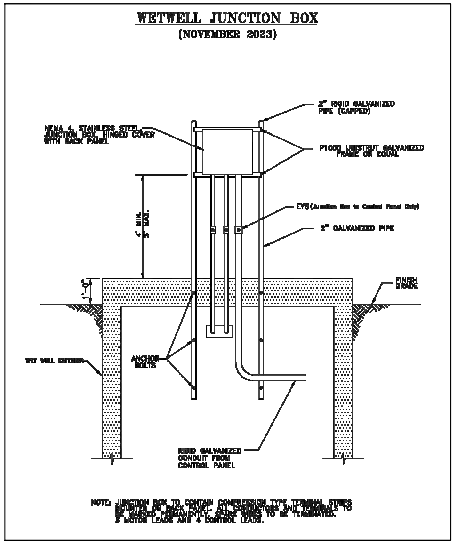
WETWELL/SIDE VIEW
(NOVEMBER 2023)



CONNECTION TO EXISTING MANHOLE
(NOVEMBER 2023)



WETWELL JUNCTION BOX
(NOVEMBER 2023)



CARMINAWOOD DESIGN
Buffalo | Utica | Greenport

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West Seneca, NY

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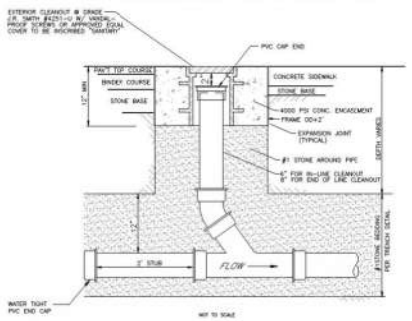
DRAWING NO.
C-405

Project No: 23-4121

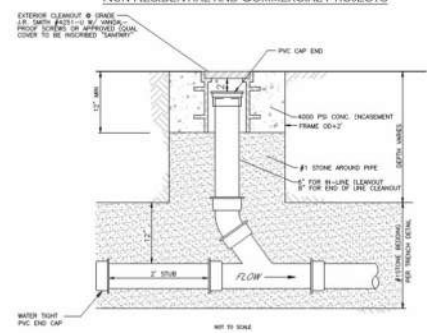
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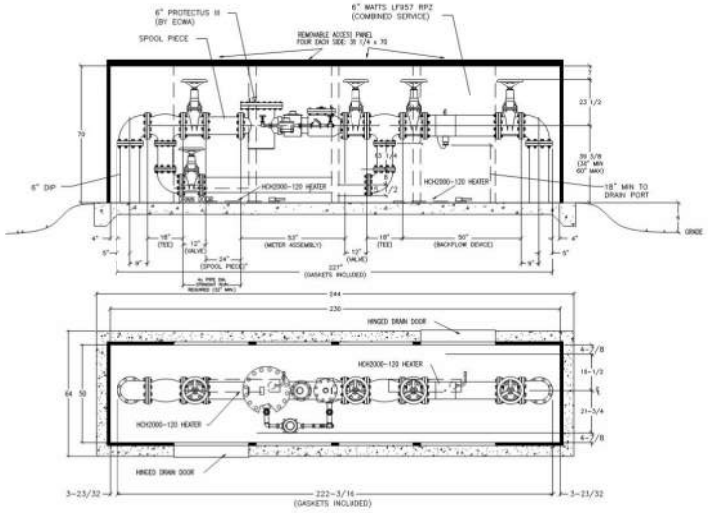
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CLEANOUT IN PAVEMENT/SIDEWALKS
NON RESIDENTIAL AND COMMERCIAL PROJECTS



CLEANOUT IN FIELD/LAWN AREAS
NON RESIDENTIAL AND COMMERCIAL PROJECTS





LEGEND:

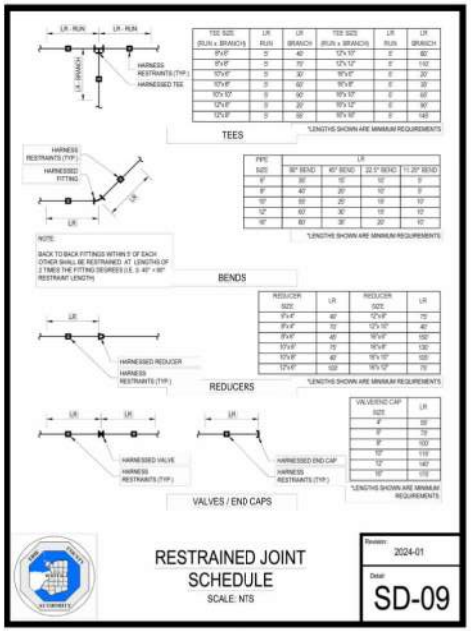
REMOVABLE ACCESS PANEL 38 1/4"W x 70"H w/DRAIN DOOR

REMOVABLE ACCESS PANEL 38 1/4"W x 70"H

6" METER & RPZ INSULATED ENCLOSURE

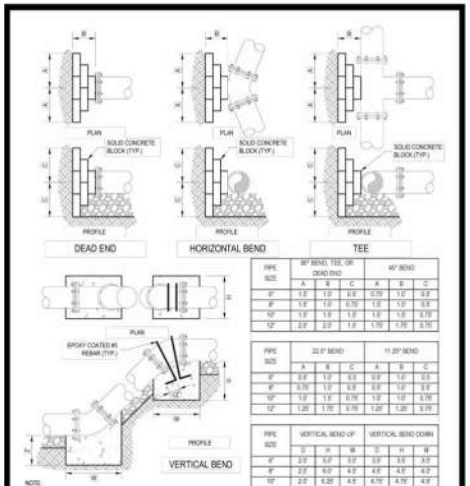
NOTES:

1. BACKFLOW PREVENTER DIMENSIONS FURNISHED BY WATTS
2. ALL DIMENSIONS ARE IN INCHES
3. WALL & INSULATION THICKNESS IS 1-1/2"
4. ROOF & INSULATION THICKNESS IS 3"
5. ENCLOSURE SHOWN IS SAFE-T-COVER MODEL 10000-ALCOO-17
6. EXTERIOR ENCLOSURE DIMENSIONS: 53"W x 233"L x 73" H
7. CONCRETE PAD IS 64"W x 244"L x 6"THK W/WWF. 6X6/10X10
8. METER SHOWN: 6" PROTECTUS III, SPOOL PIECE & METER SUPPLIED BY ECWA, VERIFY DIMENSIONS PRIOR TO ORDERING
9. RPZ SHOWN: 6" WATTS LF957 RPZ
10. CONTRACTOR TO INSTALL ELECTRIC SERVICE TO ENCLOSURE, COORDINATE SOURCE WITH OWNER
11. INSTALL A 120V GFI OUTLET IN THE ENCLOSURE
12. HEATERS TO HAVE THERMOSTAT CONTROL
13. ALL 6" PIPING & FITTINGS WITHIN THE ENCLOSURE SHALL BE DUCTILE IRON
14. CONCRETE PAD TO BE 6" ABOVE ADJACENT GRADE



RESTRAINED JOINT SCHEDULE
SCALE: NTS

Revision: 2024-01
Detail: SD-09

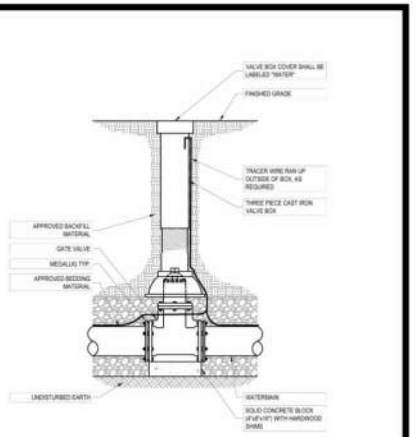


NOTE:
FULL CONCRETE THRUST BLOCKS AS SHOWN ARE REQUIRED WHEN THRUST RESTRAINT IS NOT PROVIDED BY OTHER MEANS SUCH AS MJ RESTRAINTS

"LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

THRUST BLOCKS
SCALE: NTS

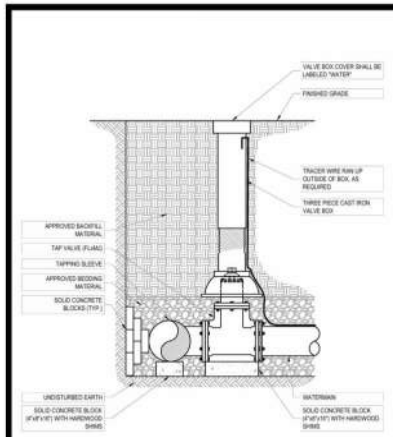
Revision: 2024-01
Detail: SD-10



NOTES:
1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. GATE VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

GATE VALVE SETTING
SCALE: NTS

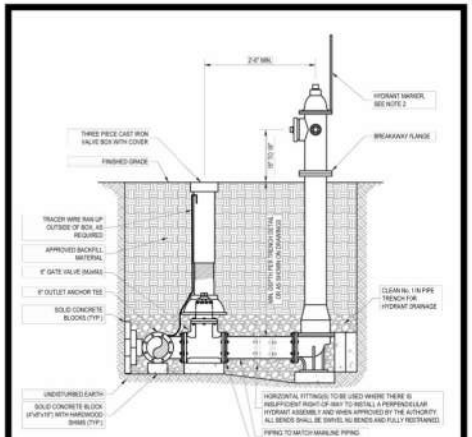
Revision: 2024-01
Detail: SD-12



NOTES:
1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. TAP VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

TAPPING SLEEVE AND VALVE
SCALE: NTS

Revision: 2024-01
Detail: SD-14



NOTES:
1. HYDRANT RISER SHALL BE INSTALLED PLUMB.
2. FOR WATERMAIN REPLACEMENT PROJECTS, RELOCATE EXISTING MARKERS TO NEW HYDRANTS. MUNICIPALITY SHALL BE RESPONSIBLE TO PROVIDE ANY NEW HYDRANT MARKERS AS NEEDED. CONTRACTOR TO COORDINATE WITH ALL MUNICIPALITIES AND FIRE DISTRICTS.
3. HYDRANT FACE TO BE A MINIMUM OF 3'-0" FROM THE BACK FACE OF ALL CURBS OR A MINIMUM OF 5'-0" FROM ALL EDGE OF PAVEMENT.

HYDRANT ASSEMBLY INSTALLATION
SCALE: NTS

Revision: 2024-01
Detail: SD-16

CARMINAWOOD DESIGN
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Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

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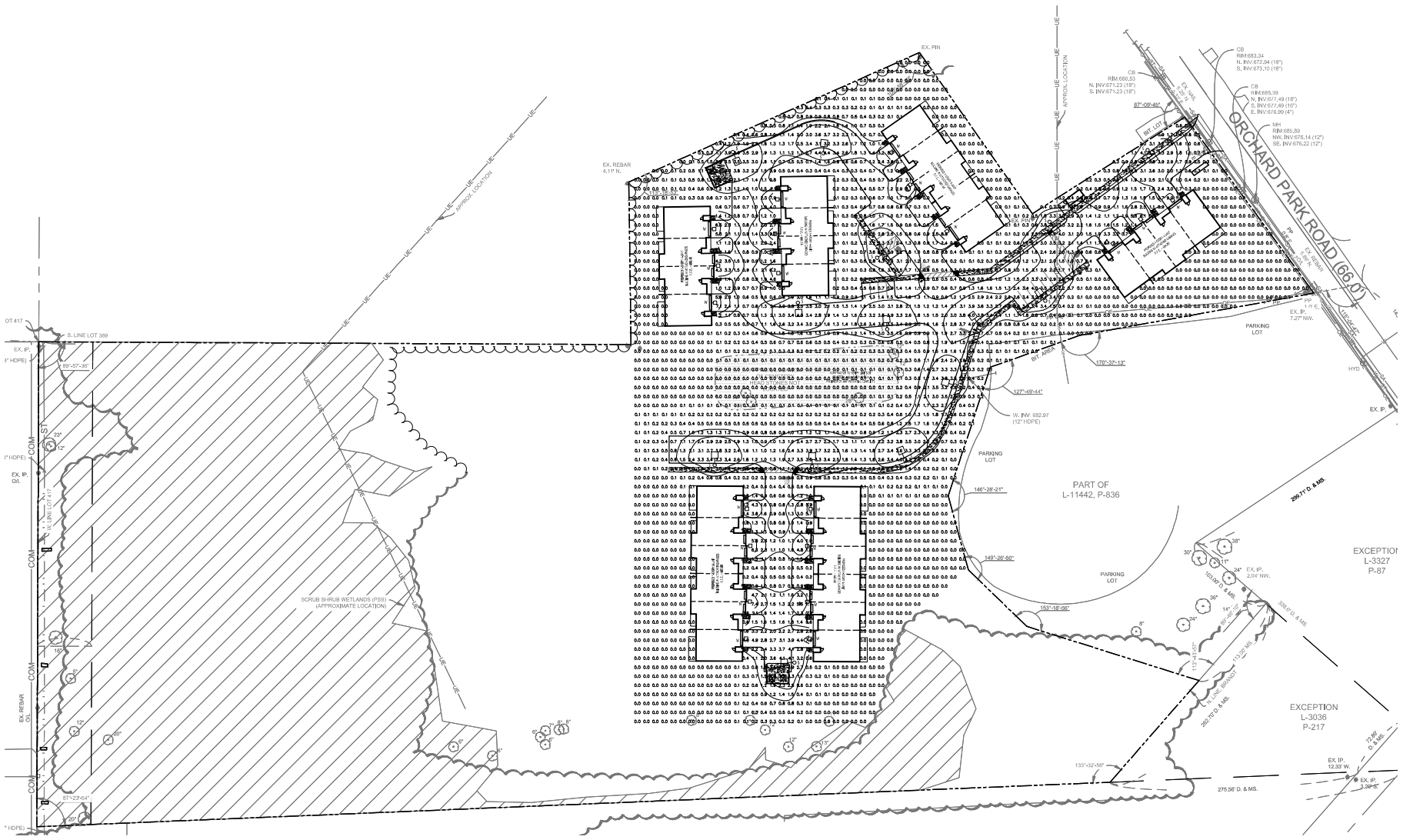
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DRAWING NO.
C-406

Project No: 23-4121

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N

Lighting Plan

SCALE: 1"-50'

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	VOLTS	NOTE 1	QUANTITY	LUMENS / LAMP	TOTAL LUMENS
S		(24) 4617W (32) 4000K CCT, 70 CRI LEDS	PREVAIL AREA AND WALL LUMINAIRE(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS	ELECTRONIC	POLE	COOPER LIGHTING SOLUTIONS – LUMARK (FORMERLY EATON), PRV-P--PA1D-740-U-T3	120V 1P 2W	Mounting Height: 18'	14	9945	238680
W		(1) 3719W 3000K CCT, 70 CRI LEDS	WALL PACK	ELECTRONIC	WALL	COOPER LIGHTING SOLUTIONS – HALO, WXPS40UNVDBZ-30W-4000K	120V 1P 2W	Mounting Height: 12'	20	3719	3719

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50' 0 50 100Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. Description Date

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Lighting Plan

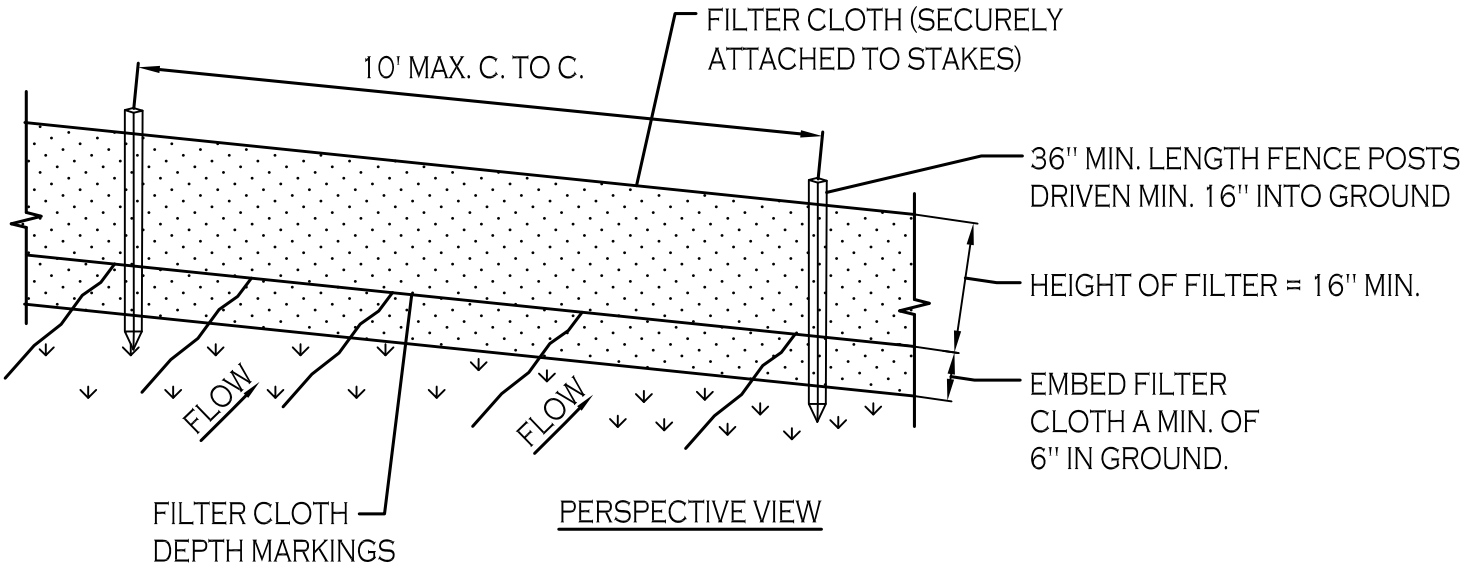
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

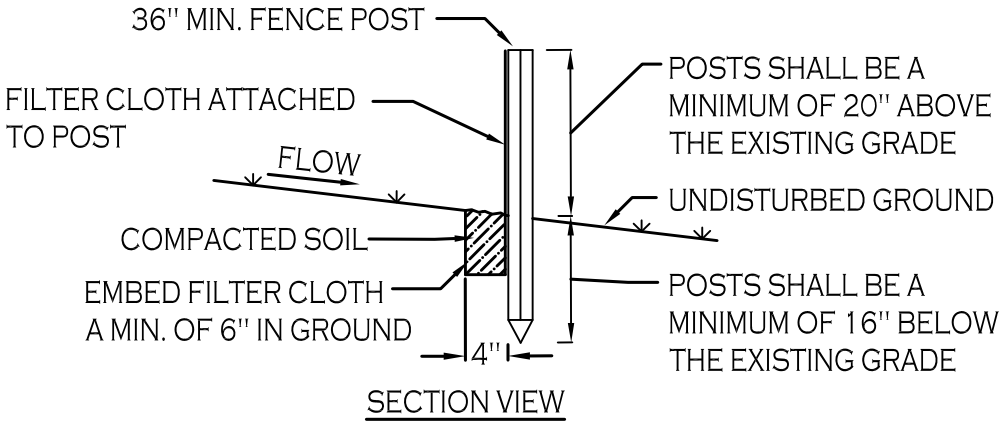
DRAWING NO.
LP-100

Project No: 23-4121

Appendix I

Standard Erosion Control Details





CONSTRUCTION SPECIFICATIONS

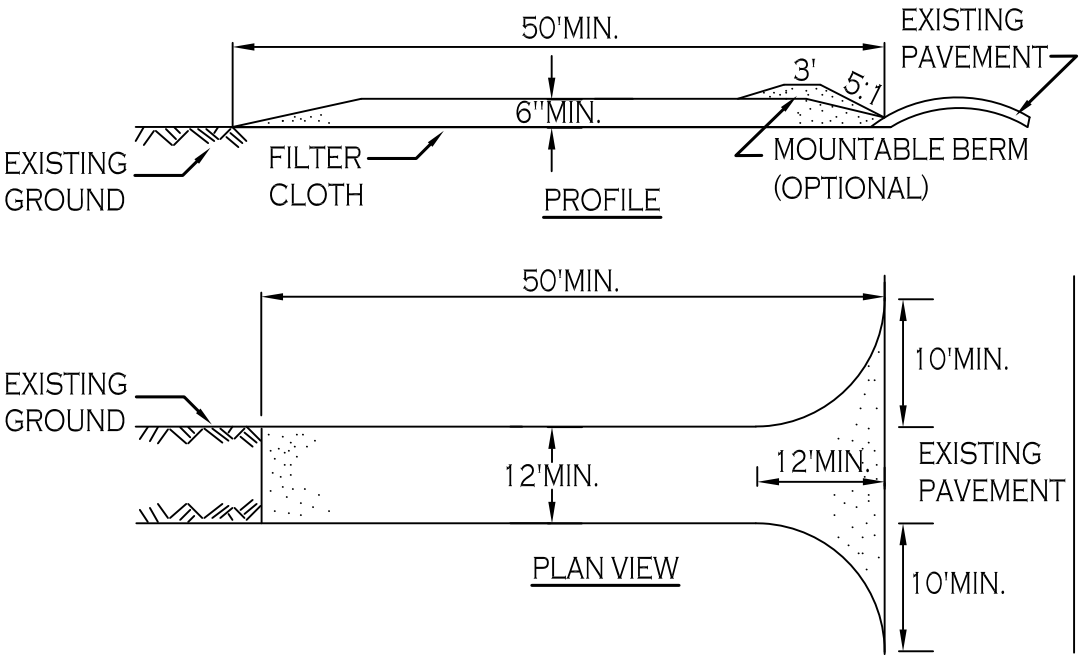
1. WOVEN FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.

2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.

3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).

3. THICKNESS - NOT LESS THAN SIX (6) INCHES.

4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.

5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

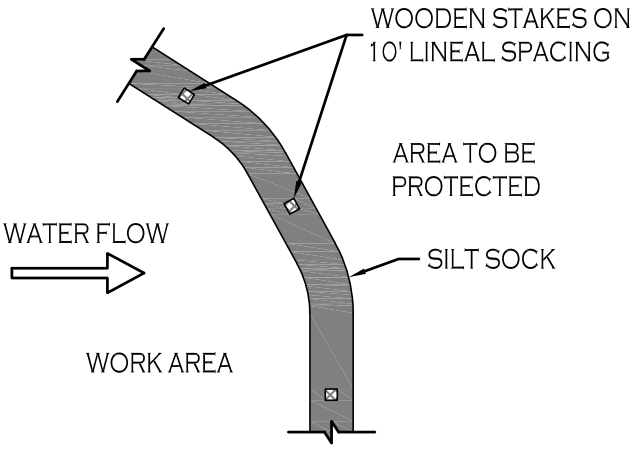
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

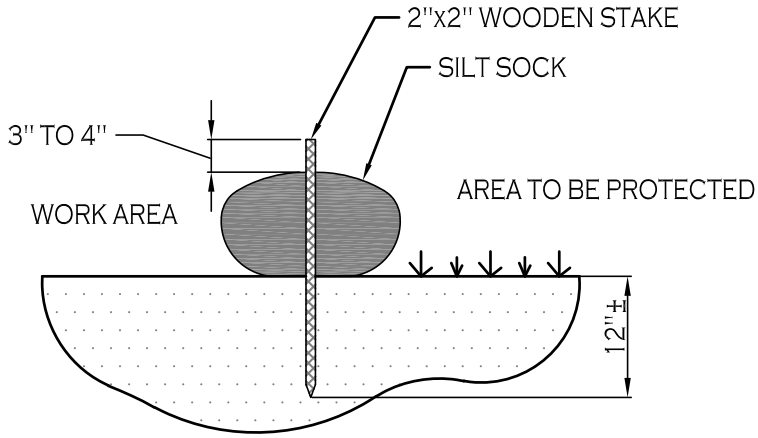
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



PLAN VIEW



SECTION VIEW

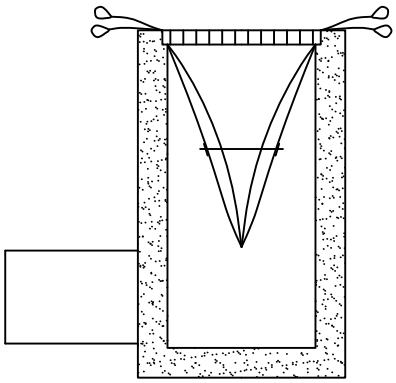
NOTES:

CONTRACTOR SHALL INSPECT AND MAINTAIN SILT SOCK AS NEEDED DURING THE DURATION OF CONSTRUCTION PROJECT.

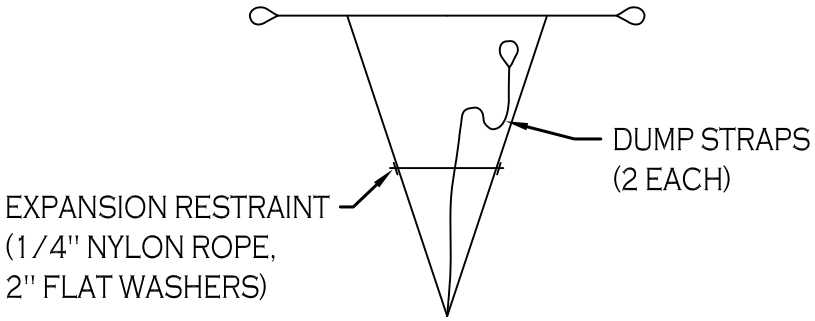
CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK WHEN IT HAS REACHED $\frac{1}{2}$ OF THE EXPOSED HEIGHT OF THE SILT SOCK. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, THE ENGINEER MAY CALL FOR ADDITIONAL SILT SOCK TO BE ADDED AT AREAS OF HIGH SEDIMENTATION, PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOCK.

SILT SOCK DETAIL

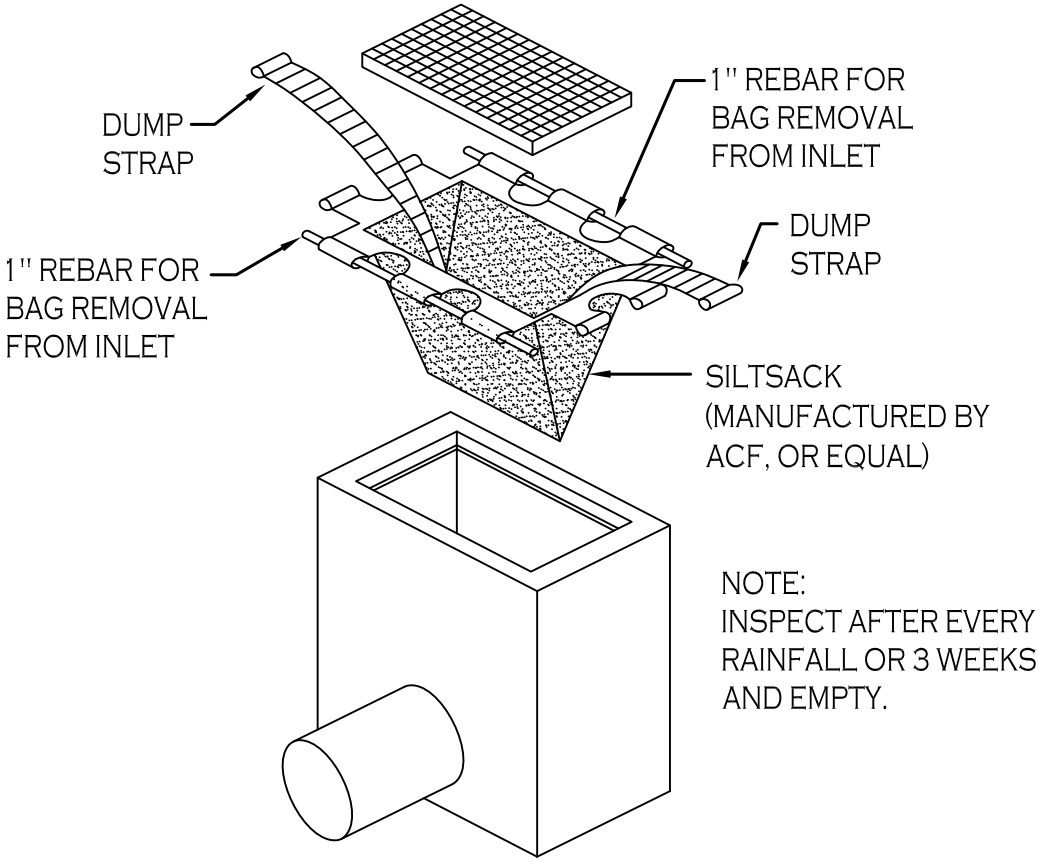
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INSTALLATION DETAIL



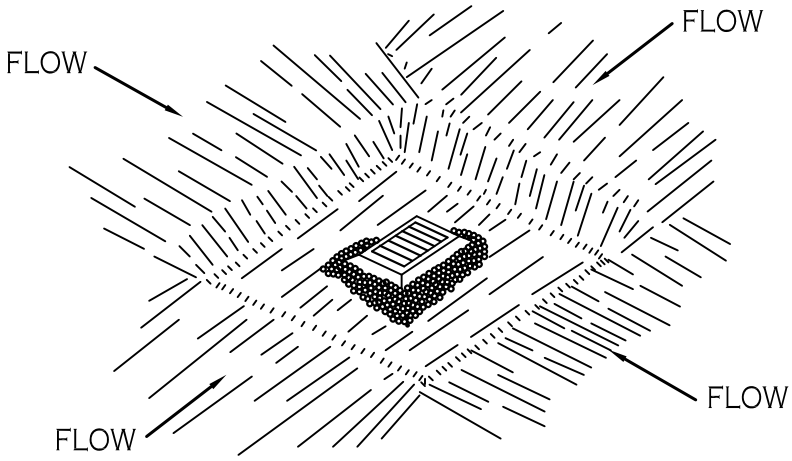
BAG DETAIL

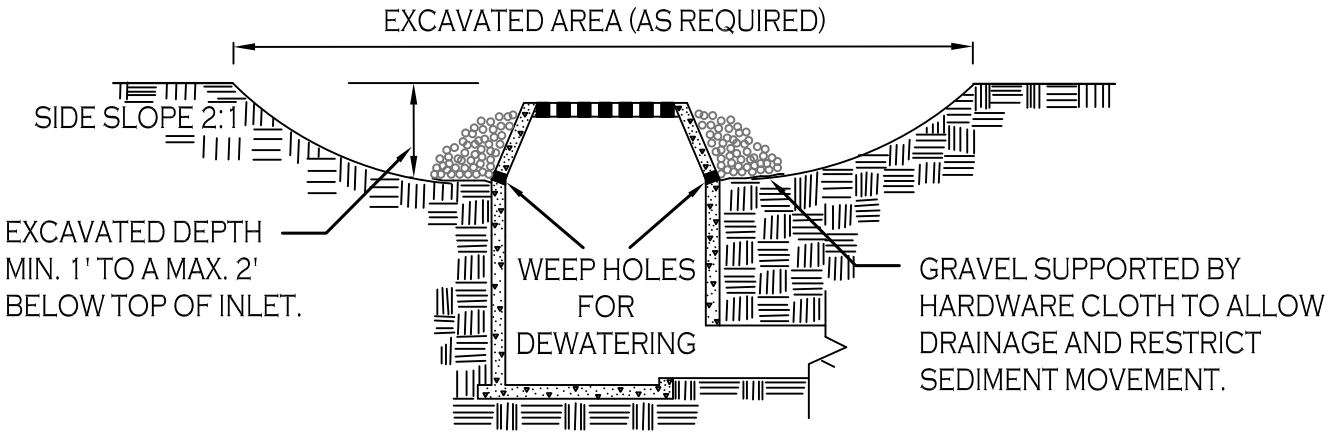


NOTE:
INSPECT AFTER EVERY
RAINFALL OR 3 WEEKS
AND EMPTY.

SILT SACK DETAIL

NOT TO SCALE





CONSTRUCTION SPECIFICATIONS

1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.

2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.

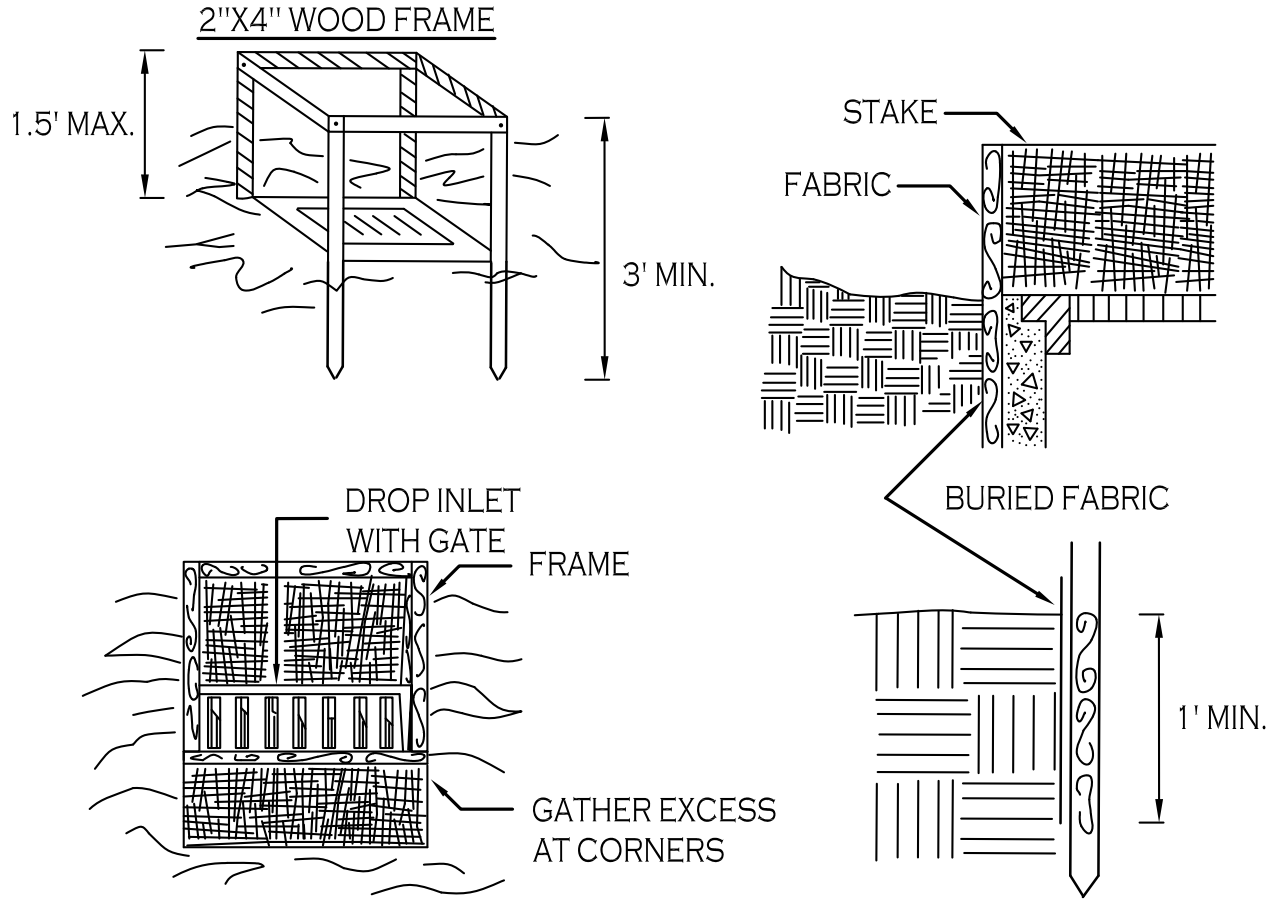
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.

4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 1

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.

2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.

3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.

4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.

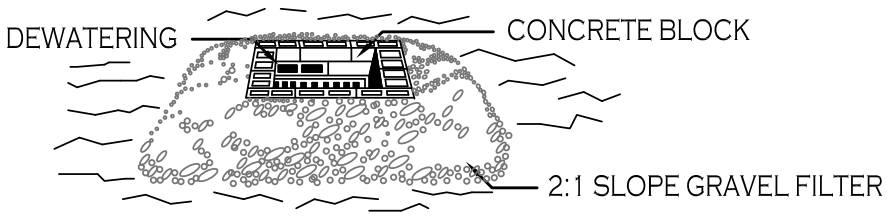
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.

6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

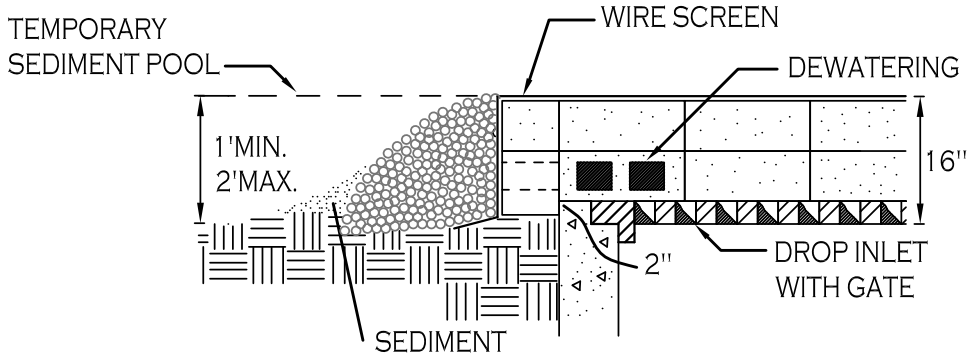
MAXIMUN DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 2

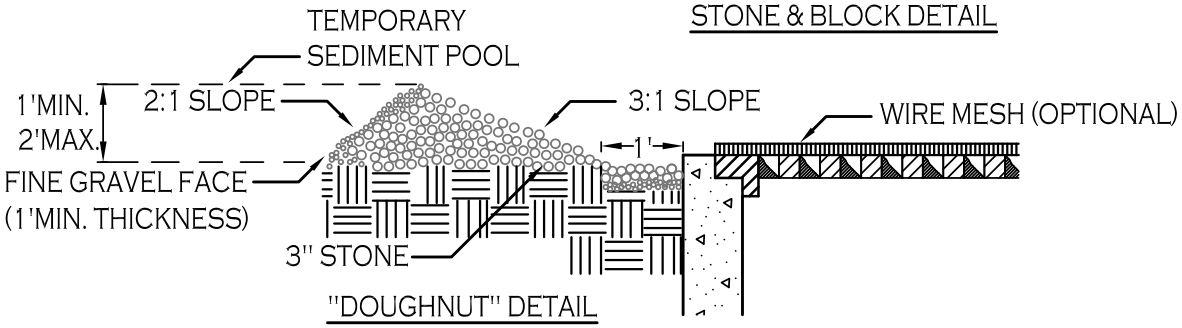
NOT TO SCALE



STONE & BLOCK PLAN VIEW



STONE & BLOCK DETAIL



"DOUGHNUT" DETAIL

CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.

2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.

3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.

4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 3

NOT TO SCALE

EXISTING TREE PROTECTION FENCE

MATERIALS

MATERIALS FOR TEMPORARY PLASTIC BARRIER FENCES SHALL MEET THE FOLLOWING REQUIREMENTS:

- FENCE: HIGH-DENSITY POLYETHYLENE MESH, ULTRAVIOLET-STABILIZED MIN. 2 YEARS; MINIMUM HEIGHT 4.0 FEET. COLOR: HIGH-VISIBILITY ORANGE OR GREEN. WHEN USED TO PROTECT TREES OR OTHER VEGETATION, COLOR SHALL BE HIGH-VISIBILITY ORANGE.
- POSTS: RIGID METAL OR WOOD POSTS, MINIMUM LENGTH 6.0 FEET.
- TIES: STEEL WIRE, #14 GAUGE OR NYLON CABLE TIES.
- WARNING SIGNS: SHEET METAL, PLASTIC OR OTHER RIGID, WATERPROOF MATERIAL, 1.5 FEET BY 2.0 FEET WITH 4 INCH BLACK LETTERS ON A WHITE BACKGROUND. TEXT SHALL BE: "PROTECTED SITE - KEEP OUT" UNLESS OTHERWISE SPECIFIED.

DETAILS

FENCES SHALL BE ERECTED PRIOR TO MOVING CONSTRUCTION EQUIPMENT ONTO ANY AREA DESIGNATED FOR PROTECTION.

THE LINE OF FENCES SHALL BE STAKED OR MARKED OUT ON THE GROUND BY THE CONTRACTOR AND APPROVED BY THE ENGINEER/OWNER BEFORE ANY FENCE IS INSTALLED. WHERE USED FOR PROTECTION OF INDIVIDUAL TREES, FENCE SHALL BE PLACED AT THE DRIP LINE (EXTENT OF CANOPY). IF NOT POSSIBLE, PLACEMENT SHALL BE AS CLOSE TO THE DRIP LINE AS POSSIBLE AND IN NO CASE LESS THAN 5.0 FEET AWAY FROM THE TREE TRUNK.

ON APPROVAL OF THE STAKEOUT, POSTS SHALL BE SECURELY DRIVEN ON 6.0 FOOT-MAXIMUM CENTERS, NORMAL TO THE GROUND, TO A DEPTH 1/3 OF THE TOTAL POST LENGTH. PLASTIC BARRIER FENCE SHALL BE PLACED ALONG THE SIDE OF ALL POSTS. ENDS OF FENCING SEGMENTS SHALL OVERLAP A DISTANCE OF AT LEAST ONE HALF THE FENCE HEIGHT.

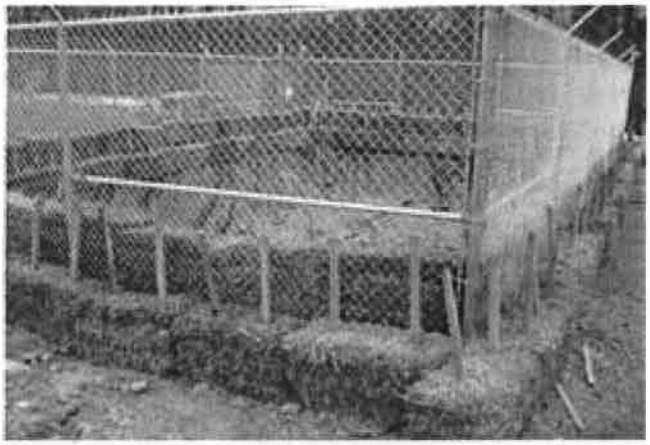
FENCING SHALL BE SECURED TO POSTS WITH WIRE OR CABLE TIES AT TOP, MIDDLE AND BOTTOM OF POST. FASTENER SHALL BE TIGHT ENOUGH TO PREVENT THE FENCING FROM SLIPPING DOWN. OVERLAPS SHALL ALSO BE SECURELY FASTENED.

BARRIER FENCE WHICH IS NOT ORANGE IN COLOR SHALL BE FLAGGED AT 6.0 FOOT INTERVALS WITH RED OR ORANGE FLORESCENT TAPE. WARNING SIGNS SHALL BE MOUNTED ON THE FENCE AT NO MORE THAN 100 FOOT INTERVALS.

MAINTENANCE SHALL COMMENCE IMMEDIATELY AFTER ERECTION OF THE FENCE AND CONTINUE UNTIL ONE WEEK PRIOR TO ACCEPTANCE OF THE CONTRACT, AND SHALL CONSIST OF: REPLACING DAMAGED POST(S) AND FENCING; RE-FASTENING AND TIGHTENING FENCING; AND RESTORING FENCE TO ITS INTENDED HEIGHT.

FENCING USED FOR TREE OR OTHER VEGETATION PROTECTION SHALL NOT BE TEMPORARILY REMOVED TO ALLOW EQUIPMENT ACCESS OVER A PROTECTED AREA, EXCEPT AS REQUIRED FOR ITEMS OF WORK SPECIFICALLY SHOWN ON THE PLANS AND APPROVED BY THE ENGINEER IN WRITING.

STANDARD AND SPECIFICATIONS FOR CONCRETE TRUCK WASHOUT



Definition & Scope

A temporary excavated or above ground lined constructed pit where concrete truck mixers and equipment can be washed after their loads have been discharged, to prevent highly alkaline runoff from entering storm drainage systems or leaching into soil.

Conditions Where Practice Applies

Washout facilities shall be provided for every project where concrete will be poured or otherwise formed on the site. This facility will receive highly alkaline wash water from the cleaning of chutes, mixers, hoppers, vibrators, placing equipment, trowels, and screeds. Under no circumstances will wash water from these operations be allowed to infiltrate into the soil or enter surface waters.

Design Criteria

Capacity: The washout facility should be sized to contain solids, wash water, and rainfall and sized to allow for the evaporation of the wash water and rainfall. Wash water shall be estimated at 7 gallons per chute and 50 gallons per hopper of the concrete pump truck and/or discharging drum. The minimum size shall be 8 feet by 8 feet at the bottom and 2 feet deep. If excavated, the side slopes shall be 2 horizontal to 1 vertical.

Location: Locate the facility a minimum of 100 feet from drainage swales, storm drain inlets, wetlands, streams and other surface waters. Prevent surface water from entering the structure except for the access road. Provide appropriate access with a gravel access road sloped down to the structure. Signs shall be placed to direct drivers to the facility after their load is discharged.

Liner: All washout facilities will be lined to prevent leaching of liquids into the ground. The liner shall be plastic sheeting with a minimum thickness of 10 mils with no holes or tears, and anchored beyond the top of the pit with an earthen berm, sand bags, stone, or other structural appurtenance except at the access point.

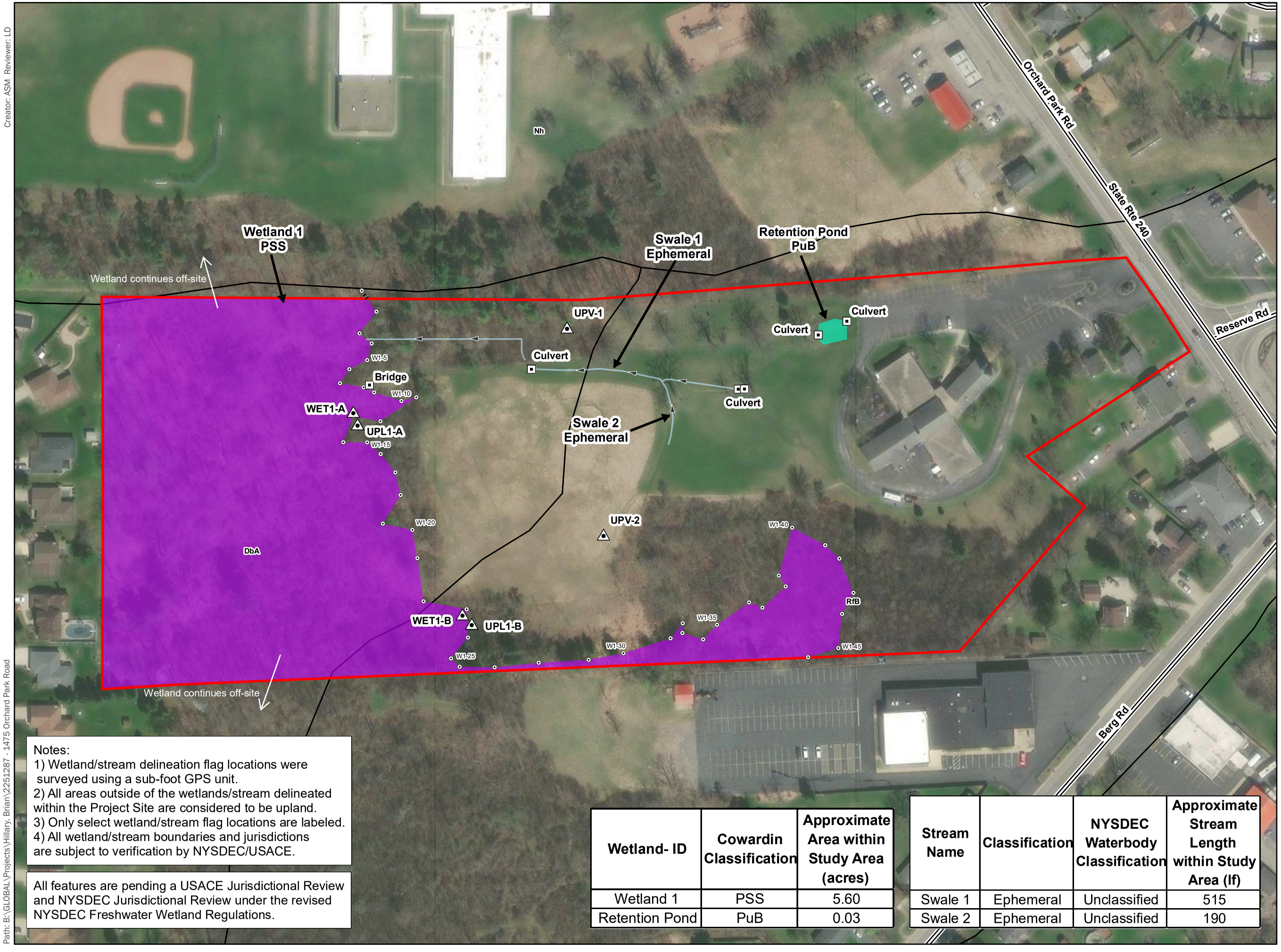
If pre-fabricated washouts are used they must ensure the capture and containment of the concrete wash and be sized based on the expected frequency of concrete pours. They shall be sited as noted in the location criteria.

Maintenance

- All concrete washout facilities shall be inspected daily. Damaged or leaking facilities shall be deactivated and repaired or replaced immediately. Excess rainwater that has accumulated over hardened concrete should be pumped to a stabilized area, such as a grass filter strip.
- Accumulated hardened material shall be removed when 75% of the storage capacity of the structure is filled. Any excess wash water shall be pumped into a containment vessel and properly disposed of off site.
- Dispose of the hardened material off-site in a construction/demolition landfill. On-site disposal may be allowed if this has been approved and accepted as part of the projects SWPPP. In that case, the material should be recycled as specified, or buried and covered with a minimum of 2 feet of clean compacted earthfill that is permanently stabilized to prevent erosion.
- The plastic liner shall be replaced with each cleaning of the washout facility.
- Inspect the project site frequently to ensure that no concrete discharges are taking place in non-designated areas.

Appendix J

Wetland Delineation Figure: by LaBella



Notes:
1) Wetland/stream delineation flag locations were surveyed using a sub-foot GPS unit.
2) All areas outside of the wetlands/stream delineated within the Project Site are considered to be upland.
3) Only select wetland/stream flag locations are labeled.
4) All wetland/stream boundaries and jurisdictions are subject to verification by NYSDEC/USACE.

All features are pending a USACE Jurisdictional Review and NYSDEC Jurisdictional Review under the revised NYSDEC Freshwater Wetland Regulations.

Wetland- ID	Cowardin Classification	Approximate Area within Study Area (acres)
Wetland 1	PSS	5.60
Retention Pond	PuB	0.03

Stream Name	Classification	NYSDEC Waterbody Classification	Approximate Stream Length within Study Area (lf)
Swale 1	Ephemeral	Unclassified	515
Swale 2	Ephemeral	Unclassified	190

LaBella
Powered by partnership.

Brian Hillary

Wetland and Stream Delineation Report

1475 Orchard Park Road Orchard Park, NY

N

0 62.5 125 Feet

1 inch = 125 feet

Legend
- Study Area
- Data Point Location
- Wetland/Stream Flag Location
- Culvert/Bridge
- Scrub-Shrub Wetland (PSS)
- Retention Pond
- Ephemeral Stream
- Culvert Area
- Approximate Offsite Wetland/ Stream Boundary
- Stream Flow Direction
- Road
- Soil

Sources:
1. Study Area: Created by LaBella using information provided by the client.
2. Basemap: Esri, DigitalGloce, GeoEye, Earthstar, Geographics, CNES/Airbus DS, USDA, USGS AeroGRID, IGN, and GIS User Community, 2023.
3. Mapped soil data were obtained from the NRCS online Soil Data (soildatamart.nrcs.usda.gov).

Wetland and Stream Delineation Survey

FIGURE 4

LaBella Project No: 2251287
Date: 3/27/2025

Creator: ASM Reviewer: LD
Path: B:\GLOBAL\Projects\Hillary, Brian\2251287 - 1475 Orchard Park Road

Appendix K

OPRHP Clearance Letter

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

January 29, 2024

Jeffrey Schieber
Town of West Seneca
1250 Union Rd
West Seneca, NY 14224

Re: DEC
Multi-Family Residential New Development
1425 Orchard Park Rd, Buffalo, NY 14224
23PR10321

Dear Jeffrey Schieber:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project.

The Archaeology Unit has reviewed the Phase IA/IB Archaeological Survey Report prepared for this project (24SR00034; January 2024). No archaeological sites were identified by the survey and the OPRHP concurs with the report recommendation that no additional archaeological work is necessary.

Please note that these comments pertain only to archaeological resources. Please continue to consult with our Survey and National Register Unit. If you have any questions concerning archaeology, I can be reached at Sydney.Snyder@parks.ny.gov.

Sincerely,

Sydney Snyder
Scientist - Archaeology

Appendix L

NYSDEC Stormwater Management Inspection Lists

Bioretention Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Bioretention and contributing areas clean of debris		
No dumping of yard wastes into practice		
Litter (branches, etc.) have been removed		
2. Vegetation (Monthly)		
Plant height not less than design water depth		
Fertilized per specifications		
Plant composition according to approved plans		
No placement of inappropriate plants		
Grass height not greater than 6 inches		
No evidence of erosion		
3. Check Dams/Energy Dissipaters/Sumps (Annual, After Major Storms)		
No evidence of sediment buildup		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Sumps should not be more than 50% full of sediment		
No evidence of erosion at downstream toe of drop structure		
4. Dewatering (Monthly)		
Dewaters between storms		
No evidence of standing water		
5. Sediment Deposition (Annual)		
Swale clean of sediments		
Sediments should not be > 20% of swale design depth		
6. Outlet/Overflow Spillway (Annual, After Major Storms)		
Good condition, no need for repair		
No evidence of erosion		
No evidence of any blockages		
7. Integrity of Filter Bed (Annual)		
Filter bed has not been blocked or filled inappropriately		

Comments:

Actions to be Taken:

Multifamily Development

1425 & 1475 Orchard Park Road
West Seneca, New York

AGENCIES

ENGINEERING DEPT.
NAME/TITLE: JASON FOOTE, TOWN ENGINEER
COMPANY/DEPT:. TOWN OF WEST SENECA ENGINEERING DEPT.
ADDRESS: 1250 UNION ROAD
WEST SENECA, NEW YORK 14224

TELEPHONE 716–558–3220

CODE ENFORCEMENT DEPT.
NAME/TITLE: JEFFREY SCHIEBER, CODE ENFORCEMENT OFFICER
TOWN OF WEST SENECA CODE ENFORCEMENT DEPT.
COMPANY/DEPT:. 1250 UNION ROAD
ADDRESS: WEST SENECA, NEW YORK 14224

716–558–3237
TELEPHONE

ECDOH
NAME/TITLE:
COMPANY/DEPT:. ERIE COUNTY DEPARTMENT OF HEALTH
ADDRESS: 503 KENSINGTON AVE
BUFFALO, NEW YORK 14214

TELEPHONE 716–961–6854

NYSDEC
NAME/TITLE:
COMPANY/DEPT: NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
ADDRESS: 270 MICHIGAN AVENUE
BUFFALO, NEW YORK 14203

TELEPHONE 716–851–7070

UTILITIES

NATURAL GAS
NAME/TITLE: DAVID KOZLOWSKI
COMPANY/DEPT:. NATIONAL FUEL GAS
ADDRESS: ORCHARD PARK, NEW YORK 14127

TELEPHONE 716–667–5503

TELEPHONE COMPANY
NAME/TITLE: JIM MURPHY
COMPANY/DEPT:. VERIZON
ADDRESS: 65 FRANKLIN STREET RM 601
BUFFALO, NEW YORK 14202

TELEPHONE 716–840–8698

ELECTRIC
NAME/TITLE: DAN LOSEL
COMPANY/DEPT:. NEW YORK STATE ELECTRIC & GAS
ADDRESS: HAMBURG, NEW YORK 14075

TELEPHONE 716–649–5556

WATER
NAME/TITLE: LEONARD KOWALSKI
COMPANY/DEPT:. ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION ROAD
CHEEKTOWAGA, NEW YORK 14227

TELEPHONE 716–684–1510

DIG SAFELY NEW YORK

TELEPHONE 811

DESIGN CONSULTANTS

PROJECT SURVEYOR
NAME/TITLE:
COMPANY/DEPT:. 360° LAND SURVEY
ADDRESS: PO BOX 207
SANBRON, NEW YORK 14132

TELEPHONE 716–587–8380

OWNER/DEVELOPER

Name: Brian Hillery & William Sahlem
Address: 1 Woodthrush Trail
Orchard Park
Telephone: (716) 512-3425

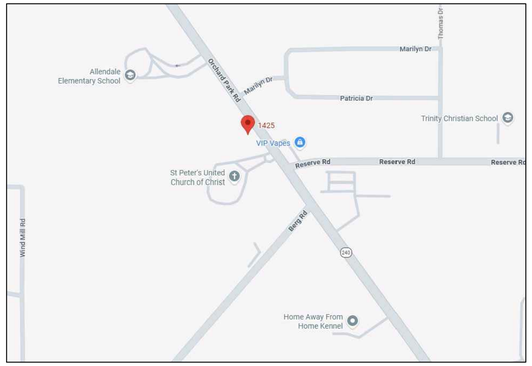
CARMINAWOOD DESIGN

80 Silo City Row
Buffalo, New York 14203
Phone: (716) 842-3165

111 Bain Street, Suite 332
Greensboro, North Carolina 27406
Phone: (336) 937-9009

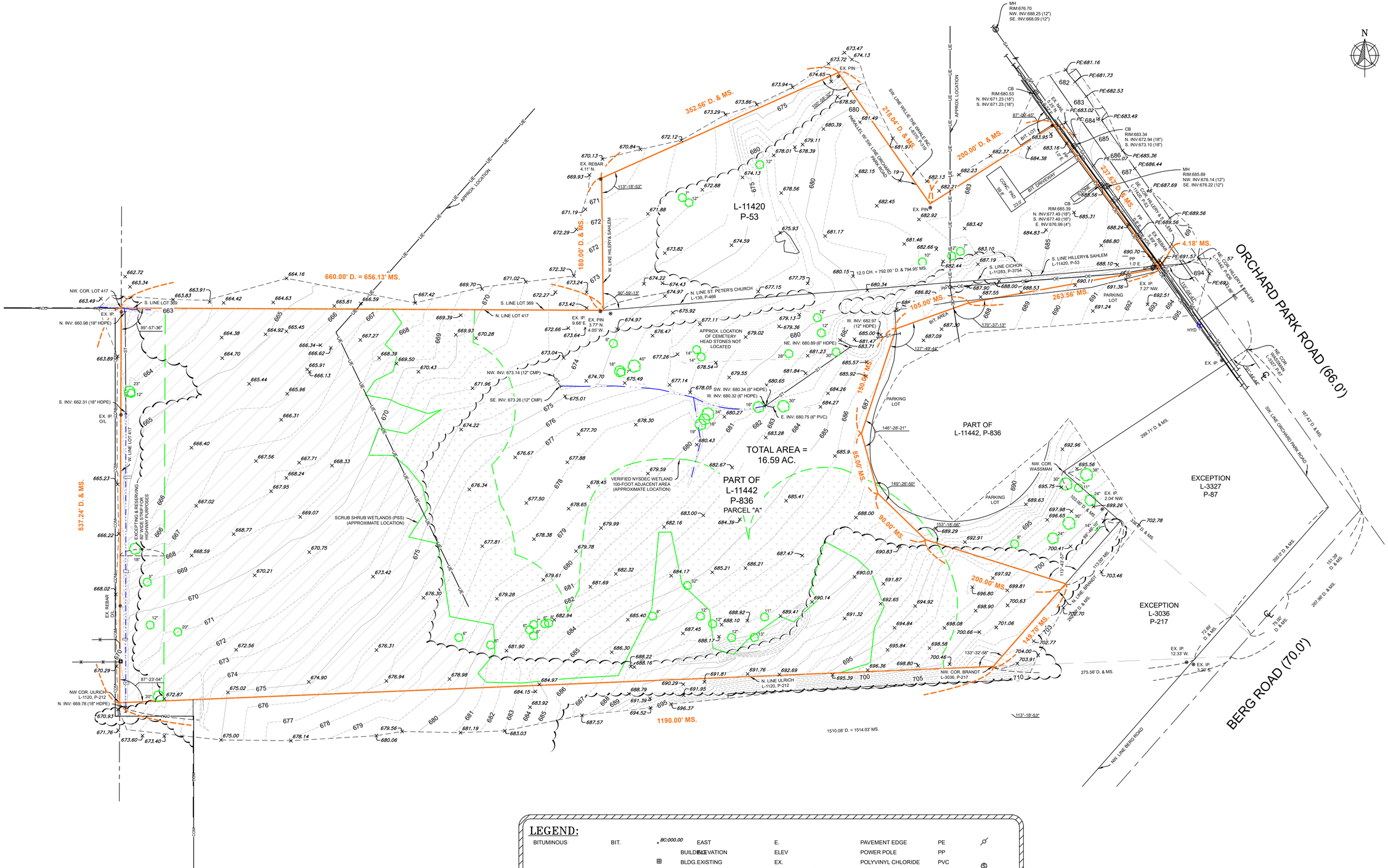
May 2026

Revised June 2026



LOCATION MAP
NOT TO SCALE

DRAWING NO.	DRAWING TITLE
–	COVER SHEET
–	BOUNDARY/TOPO SURVEY (by 360° LAND SURVEY)
C–001	DEMOLITION & EROSION CONTROL PLAN
C–002	DEMOLITION & EROSION CONTROL DETAILS
C–100	OVERALL SITE PLAN
C–101	SITE PLAN – NORTH
C–102	SITE PLAN – SOUTH
C–103	SITE DETAILS
C–200	OVERALL GRADING PLAN
C–201	GRADING PLAN – NORTH
C–202	GRADING PLAN – SOUTH
C–300	OVERALL DRAINAGE PLAN
C–301	DRAINAGE PLAN – NORTH
C–302	DRAINAGE PLAN – SOUTH
C–303	DRAINAGE DETAILS
C–400	OVERALL UTILITY PLAN
C–401	UTILITY PLAN – NORTH
C–402	UTILITY PLAN – SOUTH
C–403	UTILITY DETAILS
C–404	UTILITY DETAILS
C–405	UTILITY DETAILS
C–406	UTILITY PROFILES
L–100	OVERALL LANDSCAPE PLAN
L–101	LANDSCAPE PLAN – EAST
L–102	LANDSCAPE PLAN – WEST
L–103	LANDSCAPE PLAN – SOUTH
L–104	FOUNDATION PLANTING PLAN
L–105	LANDSCAPE DETAILS
LP–100	LIGHTING PLAN



LEGEND:

BITUMINOUS	BIT.	BC:000.00	EAST	E.	
BUILDING			ELEVATION	ELEV	
CATCH BASIN		BLDG.	EXISTING	EX.	
CONCRETE	CONC.		FENCE	FNC.	
CONIFEROUS TREE W/ DIAMETER		2"	FIRE HYDRANT		
CORRUGATED METAL PIPE	CMP		HIGH-DENSITY POLYETHYLENE	HPDE	
DECIDUOUS TREE W/ DIAMETER		2"	IRON PIPE		
			INVERT	INV.	
			NORTH	N.	PE:000.00
MAJOR CONTOUR LINE (5')		XXX	PROPERTY LINE		
MINOR CONTOUR LINE (1')		XXX	OVERHEAD ELECTRIC LINE		OE
FENCE LINE (AS NOTED)			SANITARY STORM		SA
GAS LINE		G	STORM SEWER LINE		ST
SCRUB SHRUB WETLAND (PSS)			VERIFIED NYSDEC WETLAND 100-FOOT ADJACENT AREA		

PAVEMENT EDGE	PE				
POWER POLE	PP				
POLYVINYL CHLORIDE	PVC				
SANITARY SEWER MAN HOLE	SMH				
SOUTH	S.	600.00			
SPOT ELEVATION					
STORY	STY.				
WATER VALVE	WV				
WEST	W.				
TREE LINE	W/				
UNDERGROUND COMMUNICATIONS		COM			
UNDERGROUND ELECTRIC		UE			
WATER LINE		WV			
CEMETERY LIMITS					
TOPOGRAPHIC SURVEY LIMITS					

GENERAL NOTES:

1. THIS SURVEY WAS PREPARED FROM A FIELD SURVEY BY 360 LAND SURVEY, DPC. ON FEBRUARY 27, 2026.
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET) .
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET).
4. UTILITY INFORMATION SHOWN ON THIS MAP IS FROM VISIBLE FIELD EVIDENCE AT THE TIME OF FIELD SURVEY, FIELD MARKOUTS BY UTILITY COMPANIES, AND INFORMATION PROVIDED BY A 811 DESIGN TICKET.
5. WETLANDS INFORMATION TAKEN FROM A WETLAND AND STREAM DELINEATION SURVEY COMPLETE BY LABELLA, PROJECT No: 2251287 DATE: 12/1/2025.

Know what's **below.**
Call before you dig.

PREPARED FOR:

BRIAN HILLARY &
WILLIAM SAHLEM

1 WOODTHRUSH TRAIL
ORCHARD PARK
NEW YORK 14127

PROJECT:

1425 & 1475 ORCHARD PARK ROAD,
TOWN OF WEST SENECA,
COUNTY OF EIRE,
STATE OF NEW YORK

BEING PART OF
LOTS 369 & 417, TOWNSHIP 10 RANGE 7
BUFFALO CREEK RESERVATION

SBL No. 143.19-1-8 & 143.19-1-9
& 152.07-1-1

BOUNDARY | TOPOGRAPHIC
360° LAND SURVEY
3D MODELING | CONSTRUCTION
PO Box 207
Sanborn, New York 14132
PHONE: (716) 587-8380
FAX: 716.587.8379
WEBSITE: www.360landsurvey.com

STATE OF NEW YORK
CHRISTOPHER JOHN SCHOTT
LICENSED LAND SURVEYOR
No. 050705

REV.	NOTE	DATE
1	SANITARY MH INFORMATION	4/29/2026

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209. PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

0" 1" 2"
SHEET SCALE BAR
ADJUST ACCORDINGLY IF SCALE IS NOT TWO INCHES

DRAWING NAME

TOPOGRAPHIC SURVEY

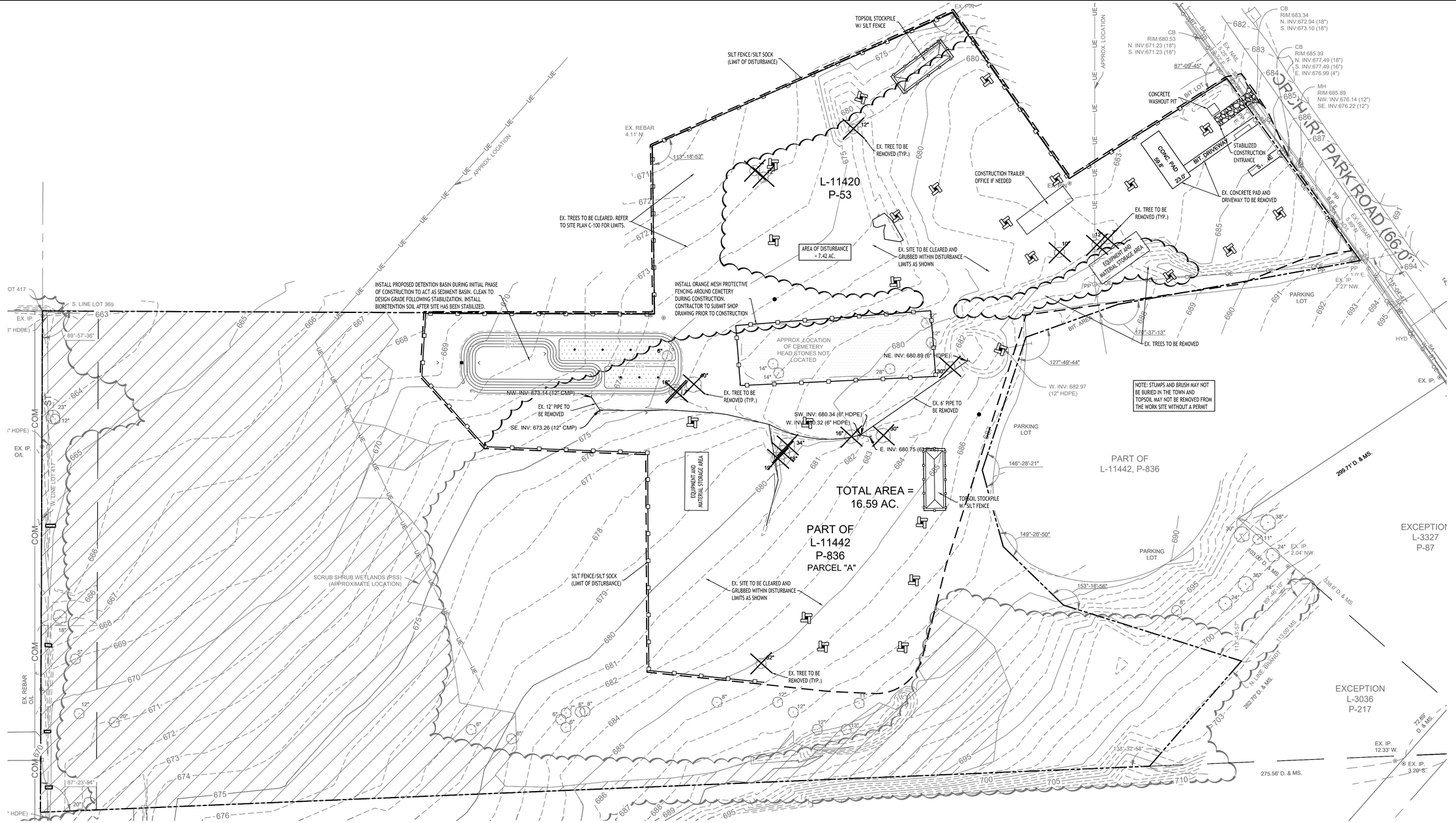
PROJ. NO.	26-040	SCALE	1"=60'
CREW	PTH	DATE	3/17/2026
DWN.	AJM	CHK.	CJS

DRAWING NUMBER

SHEET 1 OF 1

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EROSION CONTROL NOTES

THE FOLLOWING EROSION CONTROL PROCEDURES SHALL BE ADHERED TO BY THE CONTRACTOR:

1. INSTALL TEMPORARY SILT FENCE BARRIERS AS DIRECTED BY THE OWNER AND AT ALL EXISTING STORMWATER CATCH BASINS WITHIN THE WORK AREA TO PREVENT SEDIMENT MIGRATION. ALL SILT FENCE BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.
2. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR RE-USE AS DIRECTED BY THE OWNER. ALL LOCAL ORDINANCES REGARDING THE SALE OF TOPSOIL MUST BE FOLLOWED. TOPSOIL MAY NOT BE REMOVED WITHOUT A PERMIT.
3. ALL SILT FENCE BARRIERS SHALL BE REPLACED WHEREVER THEY BECOME CLOGGED OR INOPERABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
5. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION. DURING EARTHWORK OPERATIONS, WATER-SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR, AND SPREAD WATER AS NECESSARY AND AS DIRECTED BY THE OWNER IN ORDER TO CONTROL DUST.
6. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED AND ROAD SURFACES CLEANED BY THE CONTRACTOR ON A DAILY BASIS.
7. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM 4" DEPTH AND SEEDED IMMEDIATELY AFTER FINE GRADING TAKES PLACE AND AS SOON AS PHYSICALLY POSSIBLE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES, AND CULVERTS. SILT BUILDUP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR THE TOWN/CITY.
9. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION, AS DIRECTED BY THE ENGINEER.
10. INSTALL TEMPORARY SILT FENCE AROUND THE BASE OF STOCKPILES.
11. THE PROFESSIONAL CERTIFYING COMPLIANCE TO NYSDEC PHASE II STORMWATER REGULATION REQUIREMENTS MUST INSPECT AT A MINIMUM WEEKLY AND SHALL PROVIDE THESE INSPECTION REPORT WITH A WRITTEN CERTIFICATION OF CONSTRUCTION COMPLIANCE TO THE TOWN OF WEST SENECA WEEKLY.
12. THE ENGINEER OF RECORD FOR THIS PROJECT CERTIFIES THAT THESE DESIGN PLANS MEET THE REQUIREMENTS AND ARE IN COMPLIANCE WITH THE NEW YORK STORMWATER MANAGEMENT DESIGN MANUAL AND NYSDEC PHASE II STORMWATER REGULATION REQUIREMENTS. DUE TO SOIL DISTURBANCE BEING GREATER THAN ONE ACRE, A NYSDEC SPDES PERMIT MUST BE OBTAINED BEFORE ANY ON-SITE DISTURBANCE IS MADE.

Demo & Erosion Control Plan

SCALE: 1"=50'

NOTES:

1. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT THOSE ITEMS TO REMAIN, SUCH AS TREES, PROPERTY CORNER PINS, UTILITY POLES, VALVES, HYDRANTS, CURBS, MANHOLES AND CATCH BASINS.
2. TEMPORARY SILT FENCE AND STRAW BALES TO BE INSTALLED AS DIRECTED BY THE OWNERS FIELD REPRESENTATIVE. MAINTAIN UNTIL VEGATATION IS ESTABLISHED AND PAVEMENT IS INSTALLED.
3. FOR THOSE STRUCTURES TO BE DEMOLISHED, ALL EXISTING UTILITY SERVICES SHALL BE ABANDONED IN ACCORDANCE WITH LOCAL REGULATIONS, ALL METERS SHALL BE RETURNED TO PROPER OWNERS.
4. THE CONTRACTOR SHALL INSTALL STABILIZED CONSTRUCTION ENTRANCES WHERE ACCESSING THE SITE FROM PAVED ROADWAYS.
5. THE CONTRACTOR SHALL INSTALL TEMPORARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH NYS M.U.T.C.D. STANDARDS PRIOR TO STARTING WORK.
6. STUMPS AND BRUSH MAY NOT BE BURIED IN THE TOWN AND TOPSOIL MAY NOT BE REMOVED FROM THE WORK SITE WITHOUT A PERMIT

DEMO & EROSION CONTROL LEGEND:

- INSTALL STORM DRAINAGE INLET PROTECTION
- PROPOSED SILT FENCE/SILT SOCK
- AREA OF DISTURBANCE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50' 0 50 100FT.

CARMINAWOOD DESIGN
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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Engineering comments	6/15/26

STATE OF NEW YORK
CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Demo & Erosion Control Plan

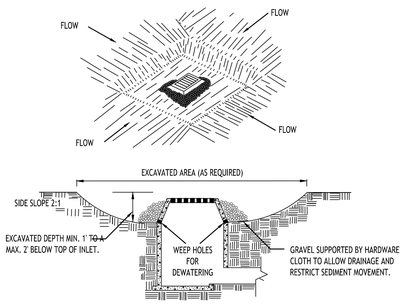
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-001

Project No: 23-4121

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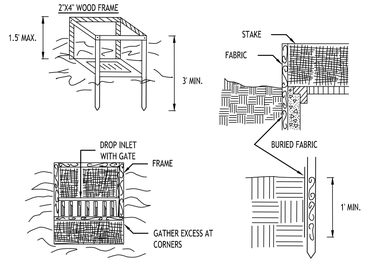
CONSTRUCTION SPECIFICATIONS

1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

   MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 1

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

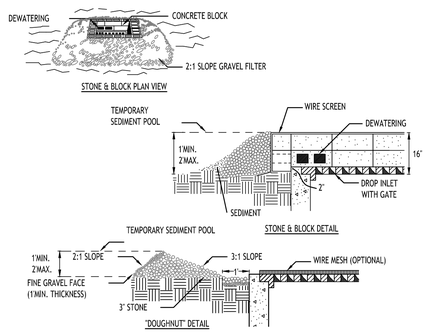
1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

   MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 2

NOT TO SCALE

NOTE: INSTALL ONE OF THE INLET PROTECTION OPTIONS SHOWN PRIOR TO CONSTRUCTION



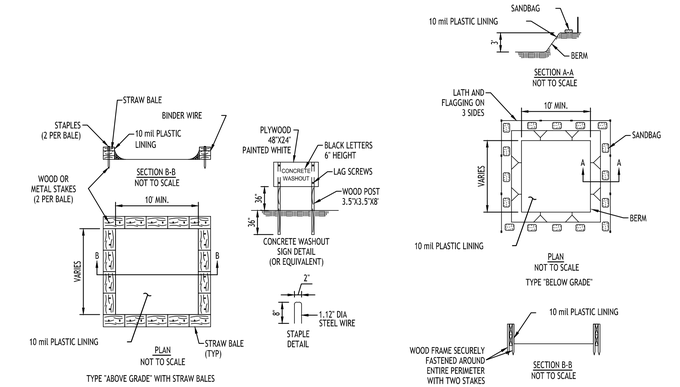
CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

   MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 3

NOT TO SCALE

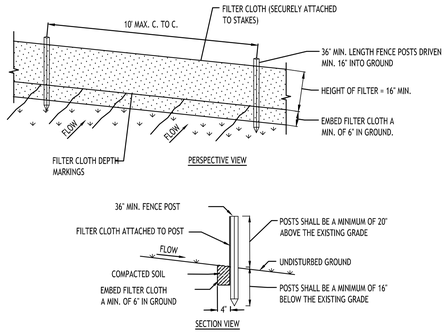


NOTES

1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

CONCRETE WASHOUT DETAIL

NOT TO SCALE

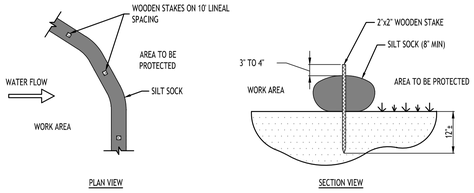


CONSTRUCTION SPECIFICATIONS

1. WOVEN FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER 'T' OR 'U' TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL

NOT TO SCALE



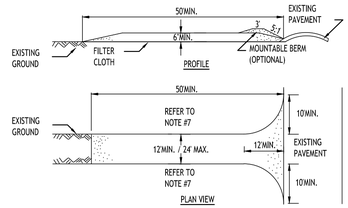
NOTES:

CONTRACTOR SHALL INSPECT AND MAINTAIN SILT SOCK AS NEEDED DURING THE DURATION OF CONSTRUCTION PROJECT.

CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK WHEN IT HAS REACHED ½ OF THE EXPOSED HEIGHT OF THE SILT SOCK. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, THE ENGINEER MAY CALL FOR ADDITIONAL SILT SOCK TO BE ADDED AT AREAS OF HIGH SEDIMENTATION, PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOCK.

SILT SOCK DETAIL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. TEMPORARY ASPHALT SHALL BE PLACED WITHIN RIGHT-OR-WAY TO ENSURE THIS.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
CHRISTOPHER WOOD
078394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:

Demo & Erosion Control Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

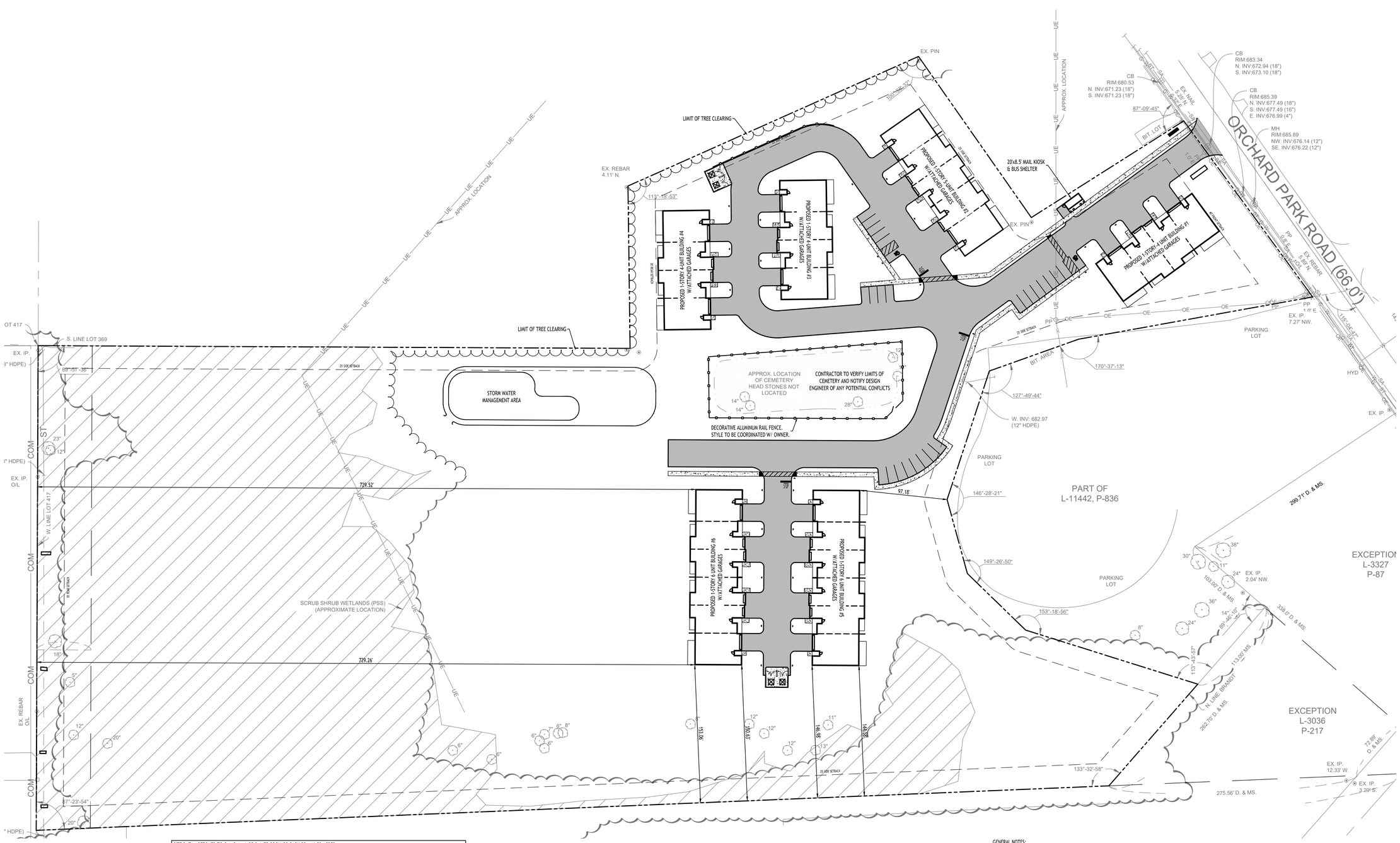
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Overall Site Plan

SCALE: 1"=50'

SITE DATA (REZONED TO C-1 (S)) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES

MULTI-FAMILY ALLOWED BY SPECIAL PERMIT

MIN. LOT WIDTH = 50 FT FOR FIRST DWELLING UNIT, PLUS 10 FT FOR EACH ADDITIONAL UNIT NEED NOT EXCEED 100 FT

MIN. LOT AREA = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

FRONT SETBACK = 40 FT
SIDE SETBACK = 25 FT MIN. OR A DISTANCE EQUAL TO ½ HGT. OF SUCH BUILDING, WHICHEVER IS GREATER
REAR SETBACK = 30 FT or EQUAL TO THE HEIGHT OF THE BUILDING

MAXIMUM BUILDING HEIGHT = 40 FT (MULTI-FAMILY)

DRIVEWAY: 30 FT WIDE REQUIRED FOR MULTI-FAMILY

DWELLING SIZE: 500 SF EACH MULTI-FAMILY UNIT

GROUP DWELLING: NO BUILDING SHALL BE NEARER TO ANY OTHER PRINCIPAL STRUCTURE THAN A DISTANCE EQUAL TO THE AVERAGE HEIGHT OF SUCH BUILDINGS

PARKING CALCULATION:
MULTI-FAMILY:

REQ'D = 2 SPACES PER UNIT + 5/25 UNITS VISITORS
REQ'D = 2 SPACES x 29 UNITS + (29/25 x 5) = 64 SPACES

TOTAL PROVIDED = 41 DRIVEWAY + 41 GARAGE + 27 OFF-STREET = 109 SPACES

DENSITY CALCULATION (16.59 AC)

REQ'D = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

ALLOWED NUMBER OF UNITS:
1ST UNIT: 722,660 SF = 8,000 SF = 714,660 SF REMAINING
ADDITIONAL UNITS: 714,660 SF / 5,000 SF = 142 UNITS

TOTAL ALLOWED UNITS = 143 UNITS

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. ALL REASONABLE MEASURES SHALL BE TAKEN TO PROTECT EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE; INCLUDING BUT NOT LIMITED TO, RETAINING WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR EXCAVATING TREE ROOTS.

NOTES:

1. ALL RADII SHALL BE 3'-0" UNLESS OTHERWISE NOTED.
2. ALL DISTURBED AREAS: SHALL HAVE 4" MIN. OF TOPSOIL & SEED.
3. ALL DIMENSIONS FROM PROPERTY LINES SHALL BE MEASURED PERPENDICULAR TO THE PROPERTY LINE.
4. CENTER ENTRANCE SIDEWALKS ON DOOR OPENINGS.
5. BUILDING DIMENSIONS ARE APPROXIMATE, REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.

SITE LEGEND

- PROPERTY LINE
- PROPOSED CONCRETE CURB
- PROPOSED SIDEWALK / CONCRETE PAD
- NUMBER OF PARKING SPACES (27)
- PROPOSED SIGN
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED LIGHT POLE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50' 50 0 50 100Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Planning Board comments	6/15/26

STATE OF NEW YORK · CHRISTOPHER R. WOOD · 076394 · LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Overall Site Plan

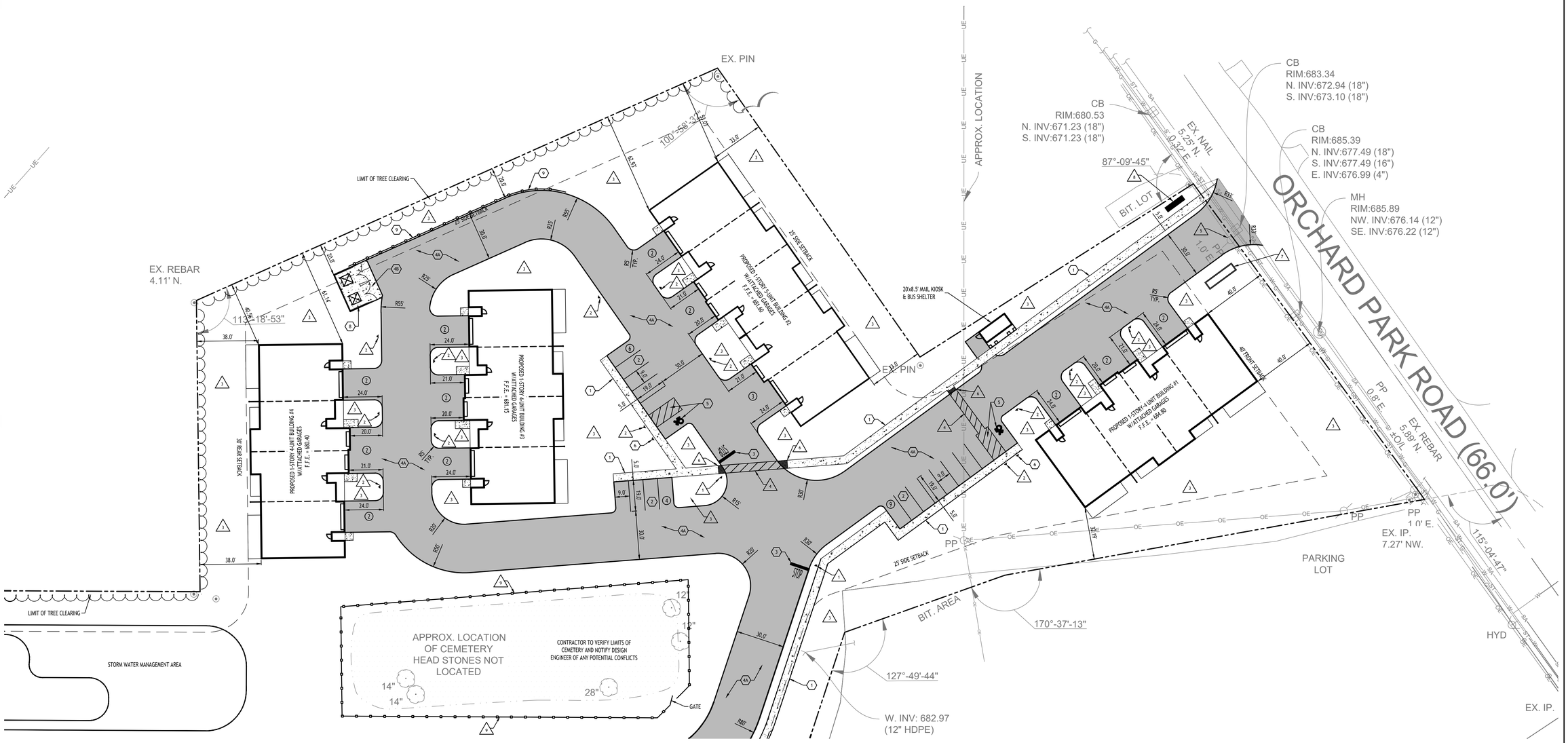
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C-100

Project No: 23-4121

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Site Plan - North

SCALE: 1"=30'

SITE DATA (REZONED TO C-1 (5)) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES

MULTI-FAMILY ALLOWED BY SPECIAL PERMIT

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MIN. LOT AREA = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

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DETAIL LEGEND

SEE SITE DETAIL SHEET

1. CONCRETE SIDEWALK
2. 90° PARKING STALL
3. STOP BAR
4A. STANDARD DUTY ASPHALT
4B. EXTERIOR CONCRETE SLAB ON GRADE
5. HANDICAPPED PAVEMENT MARKINGS
6. HANDICAPPED PARKING SIGN
7. LIGHT POLE FOUNDATION
8. DUMPSTER ENCLOSURE
9. WOODEN GUIDE RAIL

NOTE LEGEND

1. INSTALL STOP SIGN - M.U.T.C.D. SIGN NO. R1-1B
2. INSTALL "NO PARKING" SIGN, M.U.T.C.D. SIGN NO. P1-1C
3. LANDSCAPED AREA - SEE LANDSCAPE PLAN, IF NO PLANTINGS, INSTALL TOPSOIL & SEED
4. 1' WIDE WHITE PAVEMENT STRIPES @ 1' SPACING BETWEEN 4' WIDE WHITE CROSSWALK LINES
5. RELOCATE EX. UTILITY POLE - COORDINATE WITH UTILITY COMPANY
6. TACTILE WARNING MAT
7. HOTBOX
8. GROUND SIGN - SEE PLANS FROM OTHERS & COORDINATE LOCATION W/ OWNER
9. DECORATIVE ALUMINUM RAIL FENCE - COORDINATE STYLE W/ OWNER

GENERAL NOTES:

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30' 30 0 30 60Ft.

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STATE OF NEW YORK
R. CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Site Plan - North

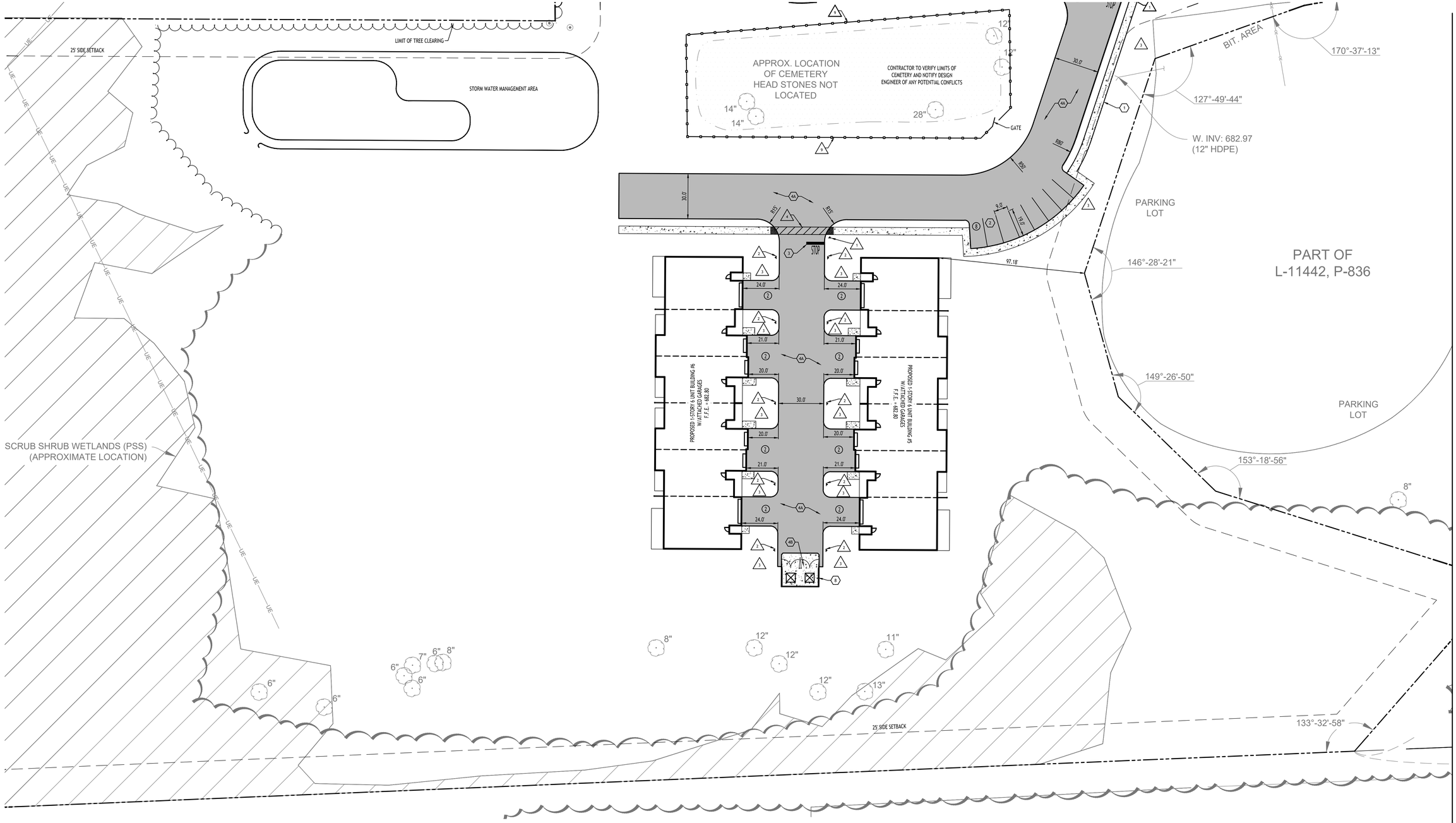
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C-101

Project No: 23-4121

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Site Plan - South

SCALE: 1"=30'

SITE DATA (REZONED TO C-1 (S)) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES
MULTI-FAMILY ALLOWED BY SPECIAL PERMIT
MIN. LOT WIDTH = 50 FT FOR FIRST DWELLING UNIT, PLUS 10 FT FOR EACH ADDITIONAL UNIT NEED NOT EXCEED 100 FT
MIN. LOT AREA = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT
FRONT SETBACK = 40 FT SIDE SETBACK = 25 FT MIN. OR A DISTANCE EQUAL TO ¾ HGT. OF SUCH BUILDING, WHICHEVER IS GREATER REAR SETBACK = 30 FT or EQUAL TO THE HEIGHT OF THE BUILDING
MAXIMUM BUILDING HEIGHT = 40 FT (MULTI-FAMILY)
DRIVEWAY: 30 FT WIDE REQUIRED FOR MULTI-FAMILY
DWELLING SIZE: 500 SF EACH MULTI-FAMILY UNIT
GROUP DWELLING: NO BUILDING SHALL BE NEARER TO ANY OTHER PRINCIPAL STRUCTURE THAN A DISTANCE EQUAL TO THE AVERAGE HEIGHT OF SUCH BUILDINGS

PARKING CALCULATION:
MULTI-FAMILY:
REQD = 2 SPACES PER UNIT + 5/25 UNITS VISITORS REQD = 2 SPACES x 29 UNITS + (29/25 x 5) = 64 SPACES
TOTAL PROVIDED = 41 DRIVEWAY + 41 GARAGE + 27 OFF-STREET = 109 SPACES

DENSITY CALCULATION (16.59 AC)
REQD = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT
ALLOWED NUMBER OF UNITS: 1ST UNIT: 722,660 SF - 8,000 SF = 714,660 SF REMAINING ADDITIONAL UNITS: 714,660 SF / 5,000 SF = 142 UNITS
TOTAL ALLOWED UNITS = 143 UNITS

DETAIL LEGEND

SEE SITE DETAIL SHEET

1. CONCRETE SIDEWALK
2. 90° PARKING STALL
3. STOP BAR
4A. STANDARD DUTY ASPHALT
4B. EXTERIOR CONCRETE SLAB ON GRADE
5. HANDICAPPED PAVEMENT MARKINGS
6. HANDICAPPED PARKING SIGN
7. LIGHT POLE FOUNDATION
8. DUMPSTER ENCLOSURE
9. WOODEN GUIDE RAIL

NOTE LEGEND

1. INSTALL STOP SIGN - M.U.T.C.D. SIGN NO. R1-1B
2. INSTALL 'NO PARKING' SIGN, M.U.T.C.D. SIGN NO. P1-1C
3. LANDSCAPED AREA - SEE LANDSCAPE PLAN, IF NO PLANTINGS, INSTALL TOPSOIL & SEED
4. 1' WIDE WHITE PAVEMENT STRIPES @ 1' SPACING BETWEEN 4' WIDE WHITE CROSSWALK LINES
5. RELOCATE EX. UTILITY POLE - COORDINATE WITH UTILITY COMPANY
6. TACTILE WARNING MAT
7. HOTBOX
8. GROUND SIGN - SEE PLANS FROM OTHERS & COORDINATE LOCATION W/ OWNER
9. DECORATIVE ALUMINUM RAIL FENCE - COORDINATE STYLE W/ OWNER

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. ALL REASONABLE MEASURES SHALL BE TAKEN TO PROTECT EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE; INCLUDING BUT NOT LIMITED TO, RETAINING WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR EXCAVATING TREE ROOTS.

NOTES:

1. ALL RADII SHALL BE 3'-0" UNLESS OTHERWISE NOTED.
2. ALL DISTURBED AREAS: SHALL HAVE 4" MIN. OF TOPSOIL & SEED.
3. ALL DIMENSIONS FROM PROPERTY LINES SHALL BE MEASURED PERPENDICULAR TO THE PROPERTY LINE.
4. CENTER ENTRANCE SIDEWALKS ON DOOR OPENINGS.
5. BUILDING DIMENSIONS ARE APPROXIMATE, REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.

SITE LEGEND

- PROPERTY LINE
- PROPOSED CONCRETE CURB
- PROPOSED SIDEWALK / CONCRETE PAD
- NUMBER OF PARKING SPACES (27)
- PROPOSED SIGN
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED LIGHT POLE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30 0 30 60Ft.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Planning Board comments	6/15/26

STATE OF NEW YORK * R. CHRISTOPHER WOOD * LICENSED PROFESSIONAL ENGINEER * 078394

DRAWING NAME:
Site Plan - South

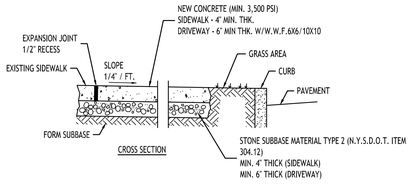
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Scale: As Noted

DRAWING NO.
C-102

Project No: 23-4121

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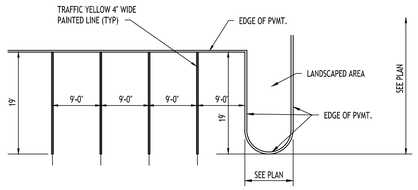
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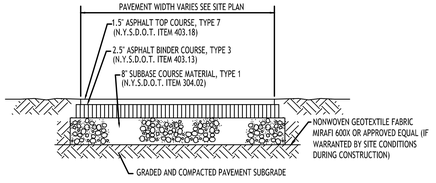
NOTES:

1. CONTROL JOINTS TO BE AT 5'-0" O.C., BOTH WAYS WHERE APPLICABLE. SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.
2. CONCRETE SIDEWALK AND DRIVEWAY MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 608-3.
3. SUBBASE GRADE SHALL FOLLOW THE PROPOSED GRADE OF THE SIDEWALK AND SLOPE AWAY FROM BUILDING WHERE APPLICABLE, PROVIDE CONTINUOUS STONE PATH TO CURB UNDERDRAIN WHERE PROVIDED.
4. FULL DEPTH EXPANSION JOINTS SHALL BE INSTALLED EVERY 20' O.C., BOTHWAYS WHERE APPLICABLE. SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.
5. SEE CURB DETAIL FOR DOWLING REQUIREMENTS WHERE ABUTTING CURB.
6. INSTALL 6' LONG #3 DOWELS @ 12" O.C. WHERE SIDEWALK ABUTS A BUILDING WALL AT AN ENTRANCE, THICKEN SIDEWALK TO 6' AT BUILDING WALL AND INSTALL DOWEL CENTERED IN THE 6' DEPTH. DOWELS AND THICKENING OF SIDEWALK SHALL EXTEND 18" EITHER SIDE OF ENTRANCE.
7. INSTALL 1/2" PREMOLDED EXPANSION JOINT WITH BACKER ROD & SEALANT WHERE SIDEWALK ABUTS BUILDING OR OTHER STRUCTURE.

CONCRETE SIDEWALK - 1

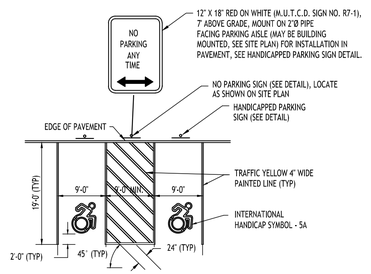


90° PARKING STALL LAYOUT - 2

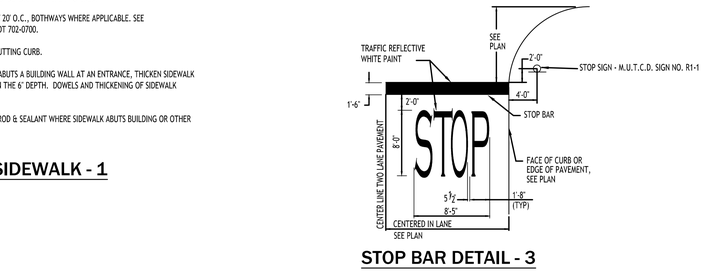


NOTE: CONSTRUCTION METHODS FOR ASPHALT PAVEMENT SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 401-3, WITH SUBBASE CONSTRUCTION METHODS CONFORMING TO NYSDOT STANDARD SPECIFICATION 304-3.

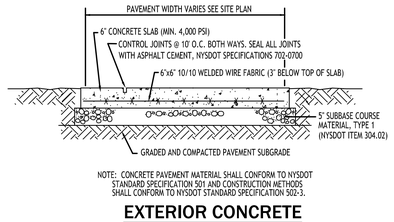
STANDARD DUTY ASPHALT SECTION - 4A



HANDICAPPED PAVEMENT MARKINGS & SIGNAGE - 5

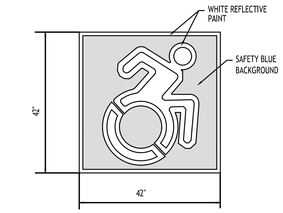


STOP BAR DETAIL - 3



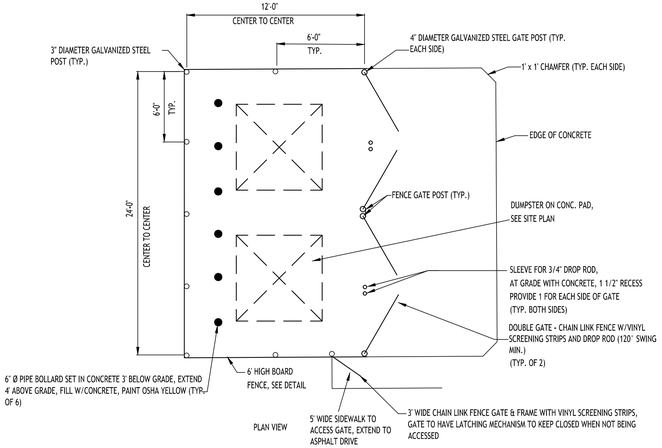
NOTE: CONCRETE PAVEMENT MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 502-3.

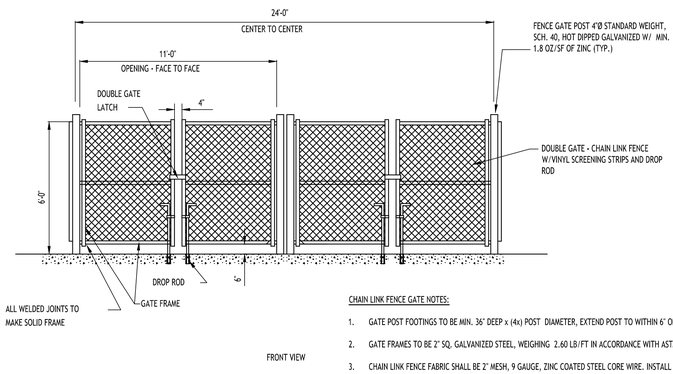
EXTERIOR CONCRETE SLAB-ON-GRADE SECTION - 4B



SYMBOL TO BE CENTERED IN PARKING SPACE

INTERNATIONAL HANDICAP SYMBOL - 5A

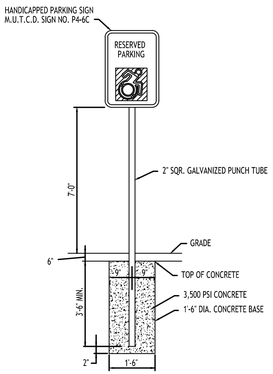




CHAIN LINK FENCE GATE NOTES:

1. GATE POST FOOTINGS TO BE MIN. 36" DEEP x (4x) POST DIAMETER, EXTEND POST TO WITHIN 6" OF BOTTOM.
2. GATE FRAMES TO BE 2" SQ. GALVANIZED STEEL, WEIGHING 2.60 LB/FT IN ACCORDANCE WITH ASTM F 900.
3. CHAIN LINK FENCE FABRIC SHALL BE 2" MESH, 9 GAUGE, ZINC COATED STEEL CORE WIRE. INSTALL MESH WITH HOOK BOLTS AND TENSION BARS ON ALL 4 SIDES, ATTACH AT 15" MAX.
4. DOUBLE GATE LATCH TO BE FORKED TYPE CAPABLE OF RETAINING GATE IN CLOSED POSITION AND HAVE PROVISION FOR PAD LOCK. LATCH SHALL BE OPERABLE FROM EITHER SIDE OF GATE.
5. ALL HARDWARE TO BE HOT DIPPED GALVANIZED STEEL TO SUIT GATE SIZE.

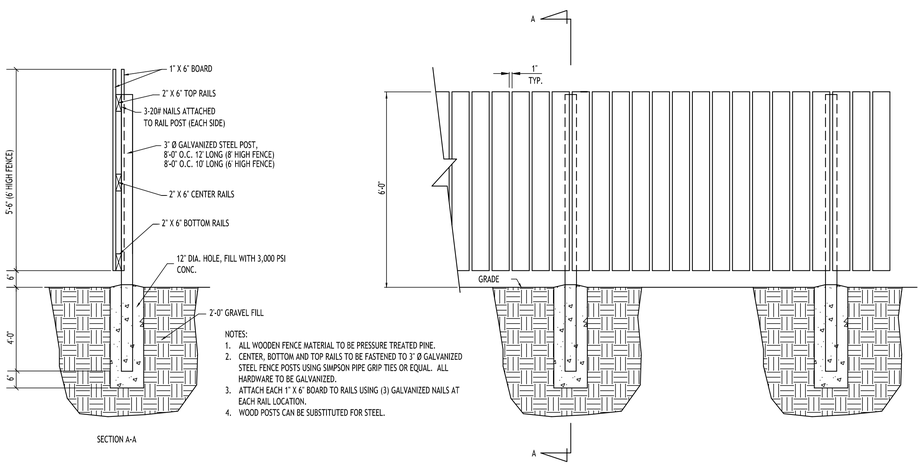
DUMPSTER ENCLOSURE - 8



NOTES:
1. HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS.

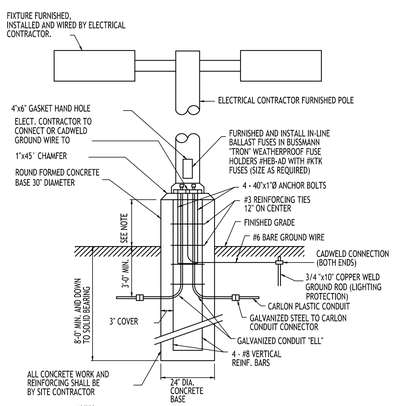
HANDICAP PARKING SIGNS - 6

INSTALLED IN GRASS/LANDSCAPED AREA



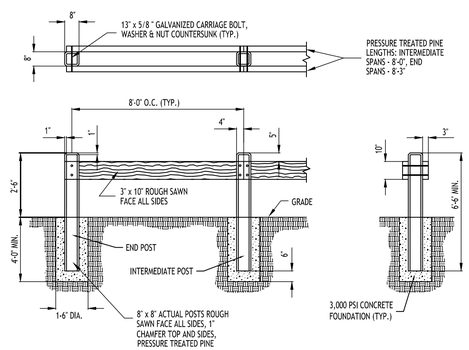
NOTES:
1. ALL WOODEN FENCE MATERIAL TO BE PRESSURE TREATED PINE.
2. CENTER, BOTTOM AND TOP RAILS TO BE FASTENED TO 3" Ø GALVANIZED STEEL FENCE POSTS USING SIMPSON PIPE GRIP TIES OR EQUAL. ALL HARDWARE TO BE GALVANIZED.
3. ATTACH EACH 1" X 6" BOARD TO RAILS USING (3) GALVANIZED NAILS AT EACH RAIL LOCATION.
4. WOOD POSTS CAN BE SUBSTITUTED FOR STEEL.

BOARD ON BOARD FENCE - FOR DUMPSTER ENCLOSURE



NOTES:
1. FOR LOCATIONS OF FOUNDATIONS SEE SITE PLAN
2. FOR LIGHT FIXTURE ORDERING INFORMATION SEE SITE LIGHTING PLAN
3. LIGHT POLE BASE EXPOSURE ABOVE GRADE SHALL BE:
   IN CURBED ISLANDS: 6" ABOVE TOP OF CURB ELEVATION
   IN PAVEMENT: 3" ABOVE GRADE
   IN NON-CURBED GRASS AREAS: 6" ABOVE GRADE

LIGHT POLE FOUNDATION - 7



DECORATIVE WOODEN GUIDE RAIL - 9

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * CHRISTOPHER WOOD * 076394 LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Site Details

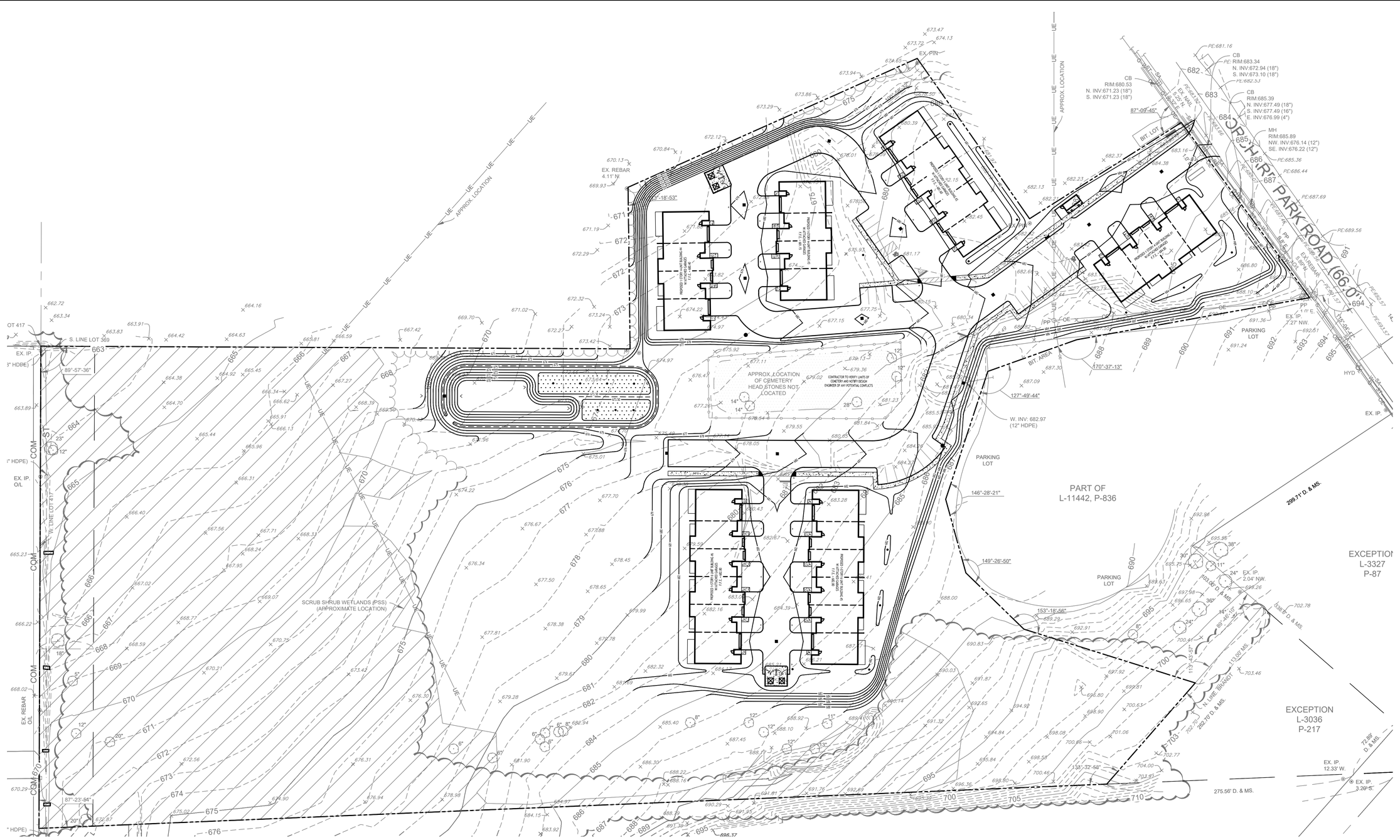
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Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-103

Project No: 23-4121

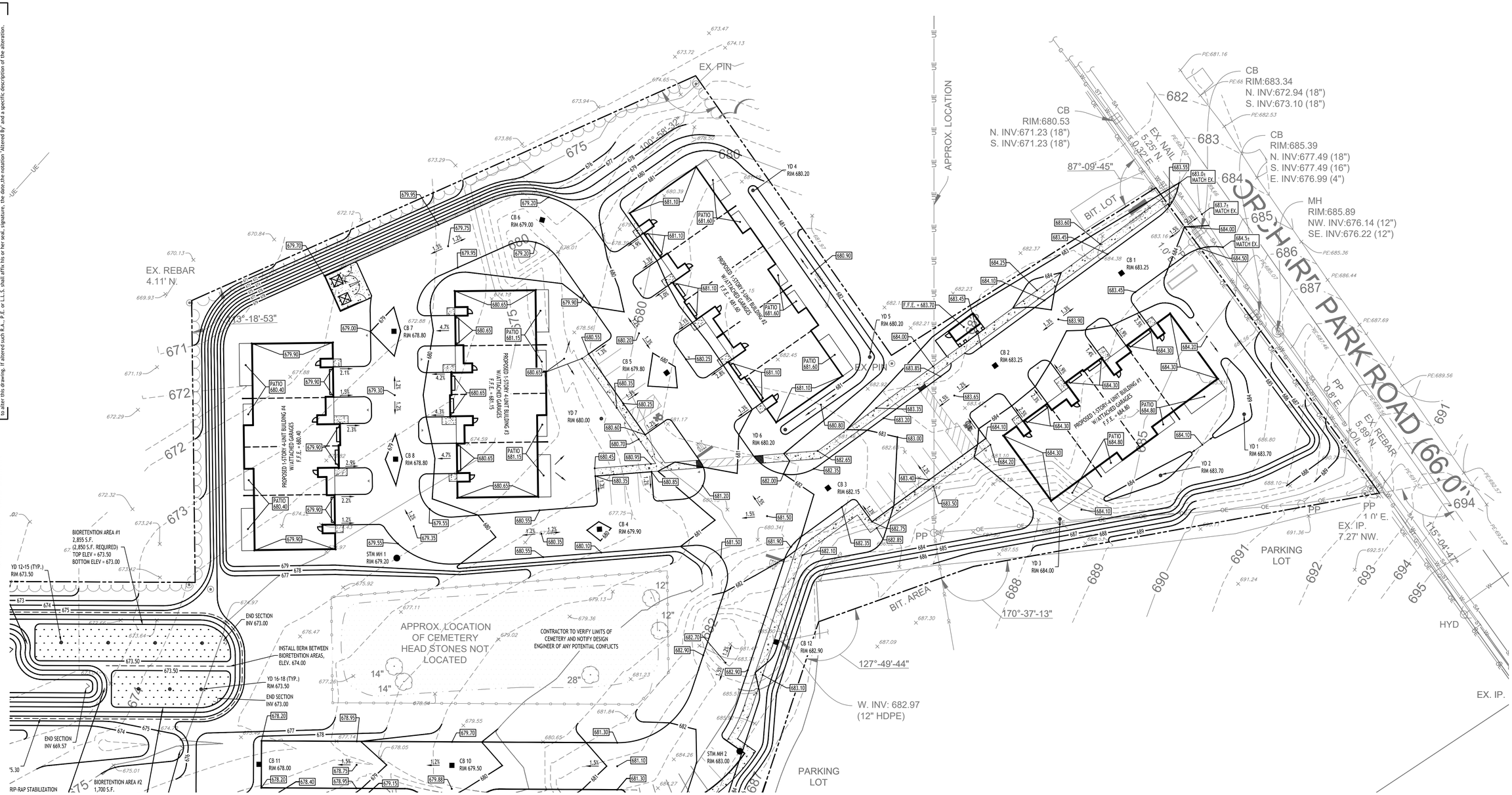
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APPROX. LOCATION
EX. PIN
EX. REBAR 4.11' N
APPROX LOCATION OF CEMETERY HEAD STONES NOT LOCATED
CONTRACTOR TO VERIFY LIMITS OF CEMETERY AND NOTIFY DESIGN ENGINEER OF ANY POTENTIAL CONFLICTS
PROPOSED 1 STORY 4 UNIT BUILDING W/ WITHOUT GARAGE F.F.E. = 685.50

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Grading Plan - North

SCALE: 1"=30'

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 / BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

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CARMINAWOOD DESIGN
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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Engineering comments	6/15/26

STATE OF NEW YORK
R. CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Grading Plan - North

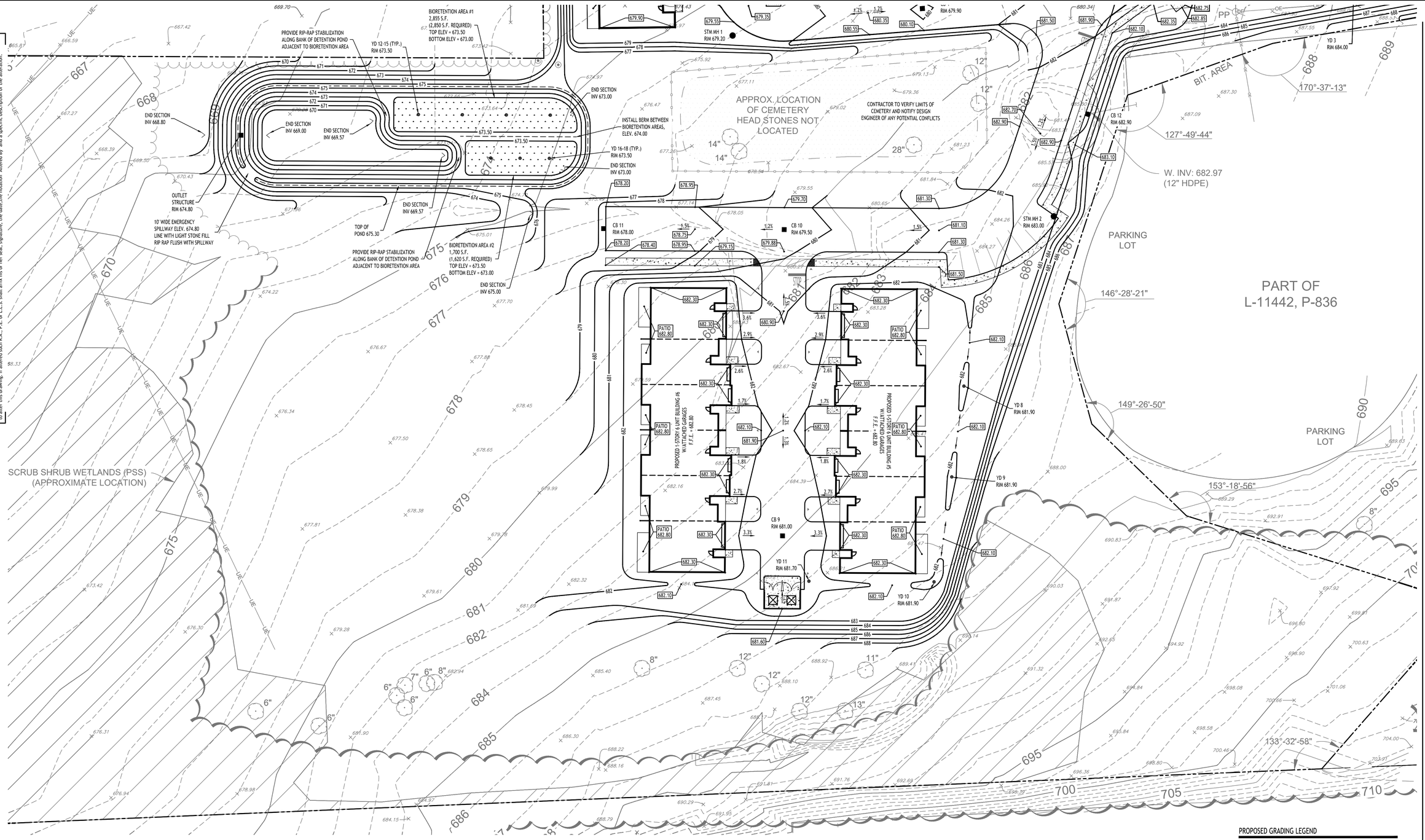
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Project No: 23-4121

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Grading Plan - South

SCALE: 1"=30'

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 / BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

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30' 30 0 30 60Ft.

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Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Engineering comments	6/15/26

STATE OF NEW YORK
R. CHRISTOPHER WOOD
LICENSED PROFESSIONAL ENGINEER
076394

DRAWING NAME:
Grading Plan - South

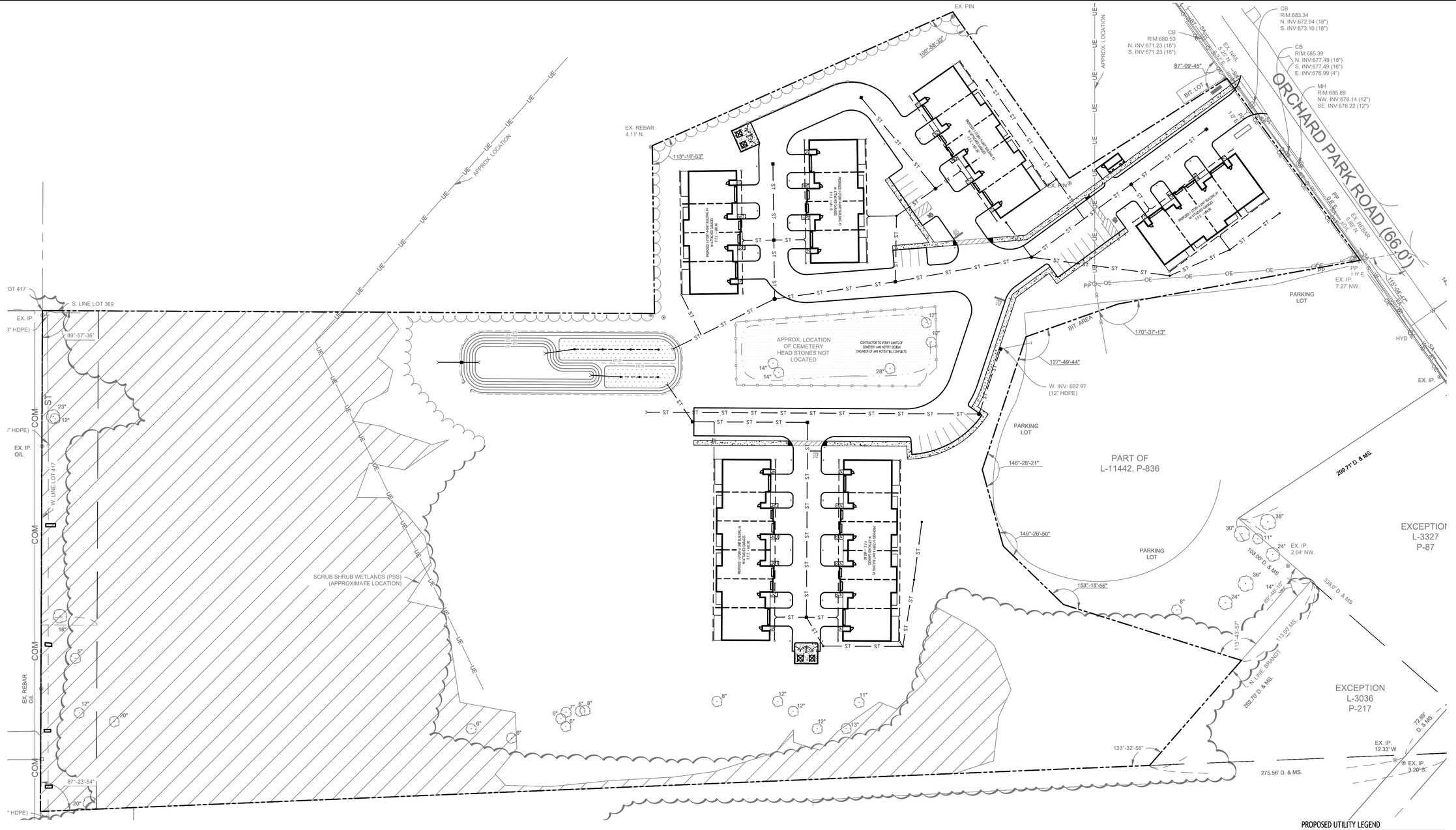
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C-202

Project No: 23-4121

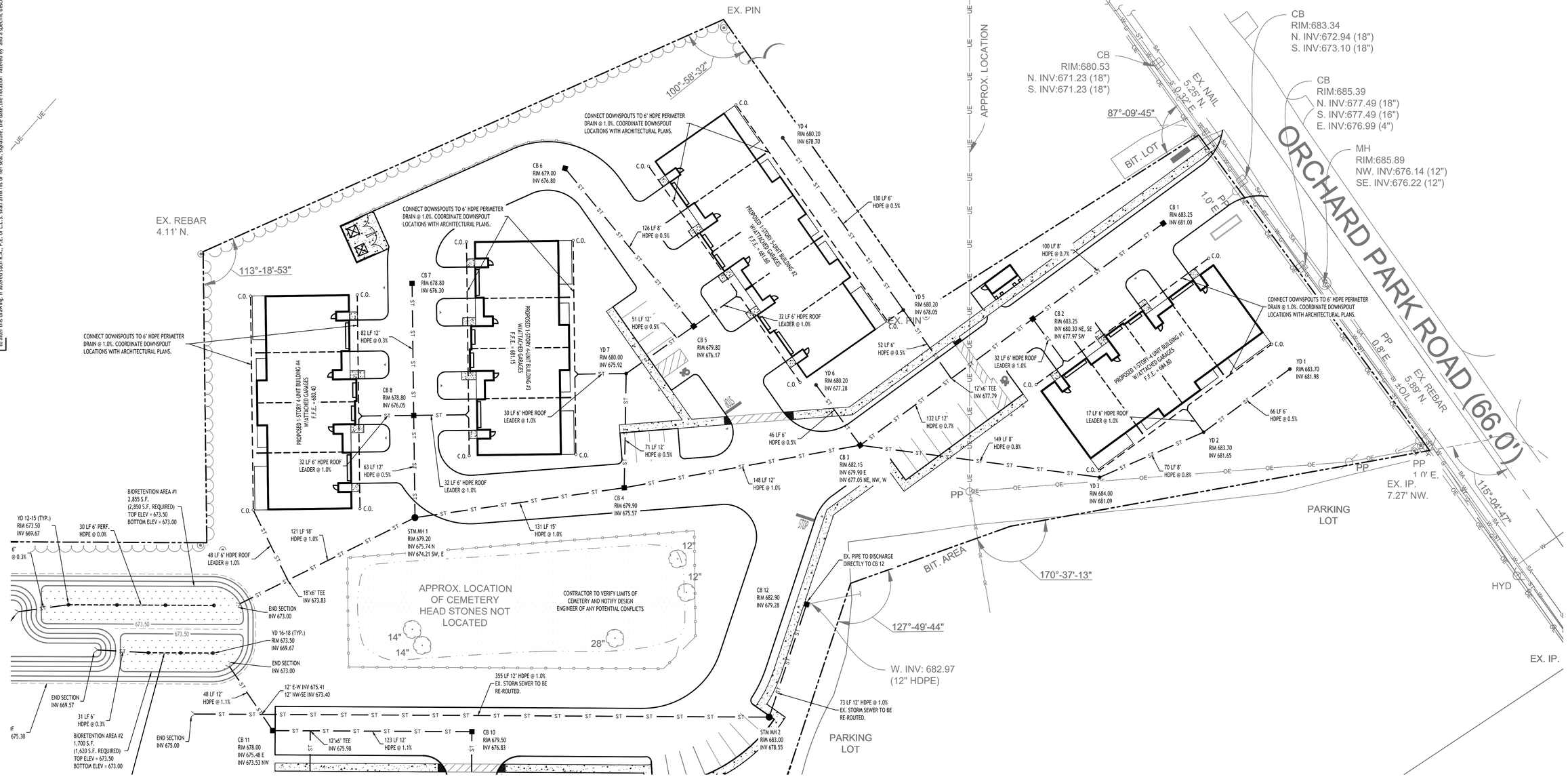
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EX. PIN
160°-58'-32"
EX. REBAR
4.11' N.
113°-18'-53"
APPROX. LOCATION
CB
RIM:683.34
N. INV:672.94 (18")
S. INV:673.10 (18")
CB
RIM:680.53
N. INV:671.23 (18")
S. INV:671.23 (18")
CB
RIM:685.39
N. INV:677.49 (18")
S. INV:677.49 (16")
E. INV:676.99 (4")
MH
RIM:685.89
NW. INV:676.14 (12")
SE. INV:676.22 (12")
EX. MH
EX. MH
EX. MH

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Drainage Plan - North

SCALE: 1"=30'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
1-YEAR	1.83	670.86	4,596
10-YEAR	2.80	672.91	14,741
25-YEAR	3.08	673.66	20,871
100-YEAR	3.43	674.69	34,430

DIRECT:

EVENT	PROP. RUNOFF (CFS)
1-YEAR	0.38
10-YEAR	1.12
25-YEAR	1.57
100-YEAR	2.52

TOTAL SITE:

EVENT	EX. RUNOFF (CFS)	PROP. RUNOFF (CFS)
1-YEAR	2.63	1.87
10-YEAR	8.17	2.89
25-YEAR	11.66	3.23
100-YEAR	18.97	4.61

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60Ft.

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1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Engineering comments	6/18/26

STATE OF NEW YORK
CHRISTOPHER WOOD
LICENSED PROFESSIONAL ENGINEER
076394

DRAWING NAME:

Drainage
Plan - North

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

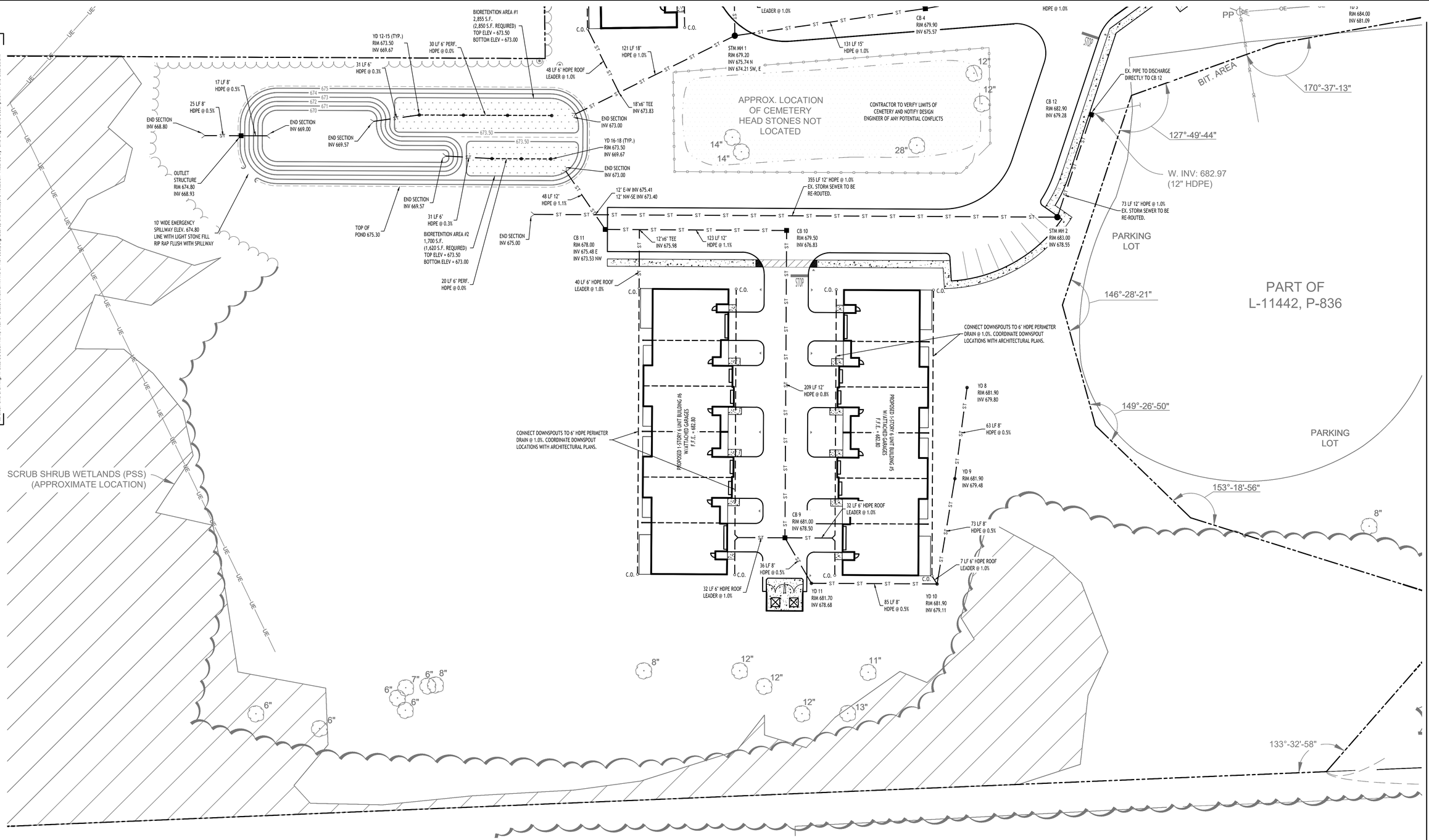
DRAWING NO.

C-301

Project No: 23-4121

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N

Drainage Plan - South

SCALE: 1"=30'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
1-YEAR	1.83	670.86	4,596
10-YEAR	2.80	672.91	14,741
25-YEAR	3.08	673.66	20,871
100-YEAR	3.43	674.69	34,430

DIRECT:

EVENT	PROP. RUNOFF (CFS)
1-YEAR	0.38
10-YEAR	1.12
25-YEAR	1.57
100-YEAR	2.52

TOTAL SITE:

EVENT	EX. RUNOFF (CFS)	PROP. RUNOFF (CFS)
1-YEAR	2.63	1.87
10-YEAR	8.17	2.89
25-YEAR	11.66	3.23
100-YEAR	18.97	4.61

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

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30' 30 0 30 60Ft.

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Multifamily Development

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West Seneca, NY

REVISIONS:

No.	Description	Date
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STATE OF NEW YORK
CHRISTOPHER WOOD
LICENSED PROFESSIONAL ENGINEER
076394

DRAWING NAME:
Drainage Plan - South

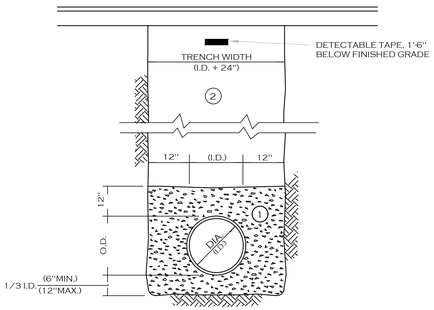
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-302

Project No: 23-4121

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NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

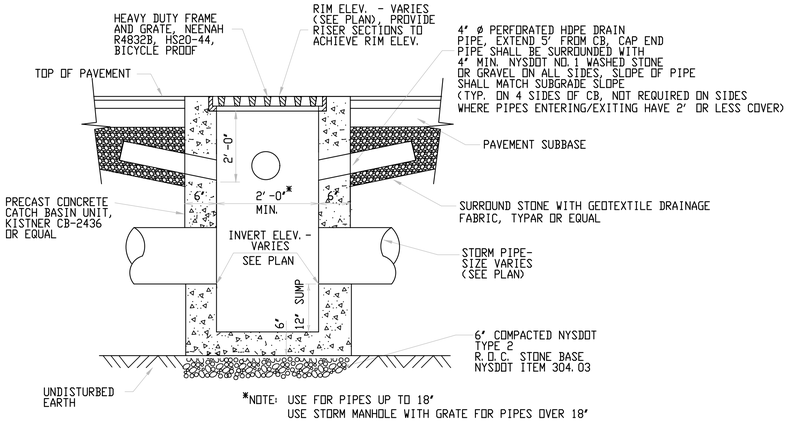
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

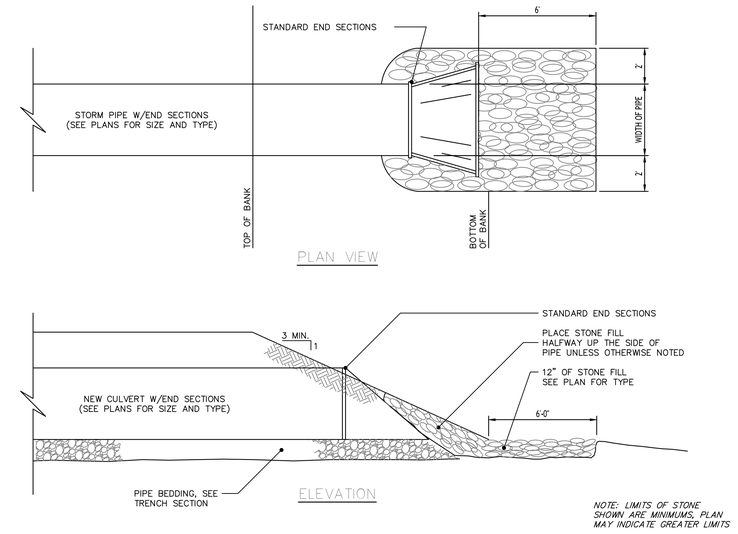
(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERAIL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

STORM SEWER TRENCH SECTION IN PAVED AREAS

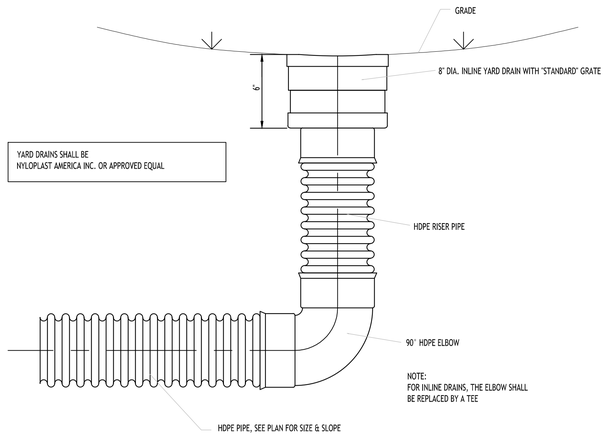


TYPICAL PRECAST CATCH BASIN



TYPICAL PIPE OUTLET W/END SECTION & RIP RAP

NOT TO SCALE



NOTE:
SEE TYPICAL TRENCH SECTION FOR BEDDING REQUIREMENTS

TYPICAL YARD DRAIN DETAIL

NOTES:
1. FILTER FABRIC TO BE NON-WOVEN CLASS 'C', MIRAFI 180-N OR APPROVED EQUIVALENT
2. DRAINAGE GRAVEL TO MEET AASHTO M-43. NO.67, SIZE 0.25" TO 0.75"
3. CONTRACTOR TO PROVIDE PLANTING SOIL SUBMITTAL SPECIFICATION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
4. BIORETENTION SOIL IS NOT TO BE INSTALLED UNTIL SITE IS STABILIZED.

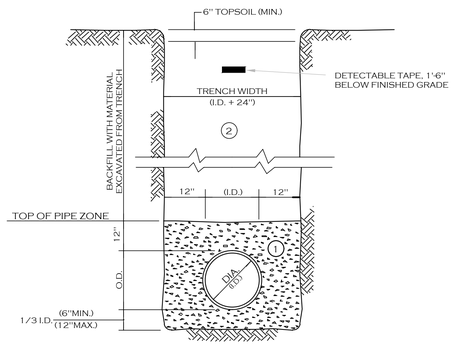
NOTE: PLANTING SOIL SHALL BE LOAM/SAND MIX CONTAINING A MINIMUM OF 35 TO 60% SAND BY VOLUME AND LESS THAN 25% CLAY. SOIL SHOULD FALL WITHIN USCS TYPES SM OR ML WITH PERMEABILITY OF AT LEAST 1.0 FEET PER DAY. SOIL SHOULD BE FREE FROM STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED.

CHARACTERISTICS SHALL BE:
PH RANGE: 5.2 - 7.00
ORGANIC MATTER: 1.5 - 4.0%
MAGNESIUM: 35 LBS PER ACRE MIN.
PHOSPHORUS: 75 LBS PER ACRE MIN.
POTASSIUM: 85 LBS PER ACRE MIN.
SOLUBLE SALTS: 500 PPM
CLAY: 10 TO 25%
SILT: 30 TO 55%
SAND: 35 TO 60%

BIORETENTION AREA #1 & #2 - TYPICAL SECTION

bio-retention area seeding spec (Northeast Wetland Grass Seed Mix):

Seed Mixture	Variety	Percent by No. of Seeds
Creeping Bentgrass	Agrostis stolonifera	63.0
Rough Bluegrass	Poa trivialis	17.0
Meadow Foxtail	Alopecurus arundinaceus	11.0
Annual Ryegrass	Lolium multiflorum	4.5
Deertongue	Panicum clandestinum	4.5



NOTES:

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MATERIALS

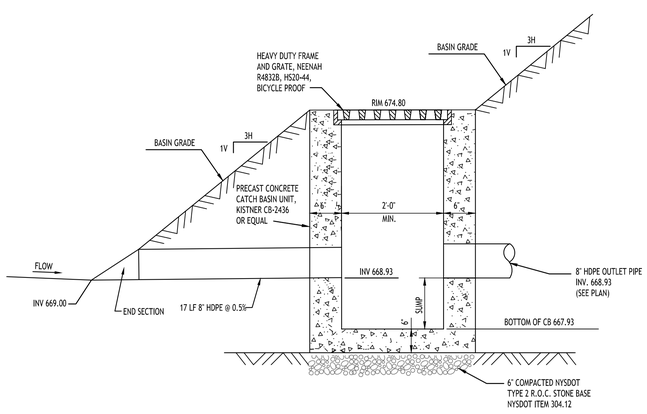
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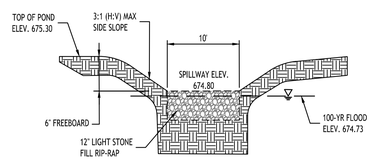
(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

STORM SEWER TRENCH SECTION IN UNPAVED AREAS



DETENTION BASIN OUTLET STRUCTURE

NOT TO SCALE



EMERGENCY SPILLWAY DETAIL

NOT TO SCALE

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Multifamily Development

1425 & 1475 Orchard Park Rd
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STATE OF NEW YORK
CHRISTOPHER WOOD
078394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Drainage Details

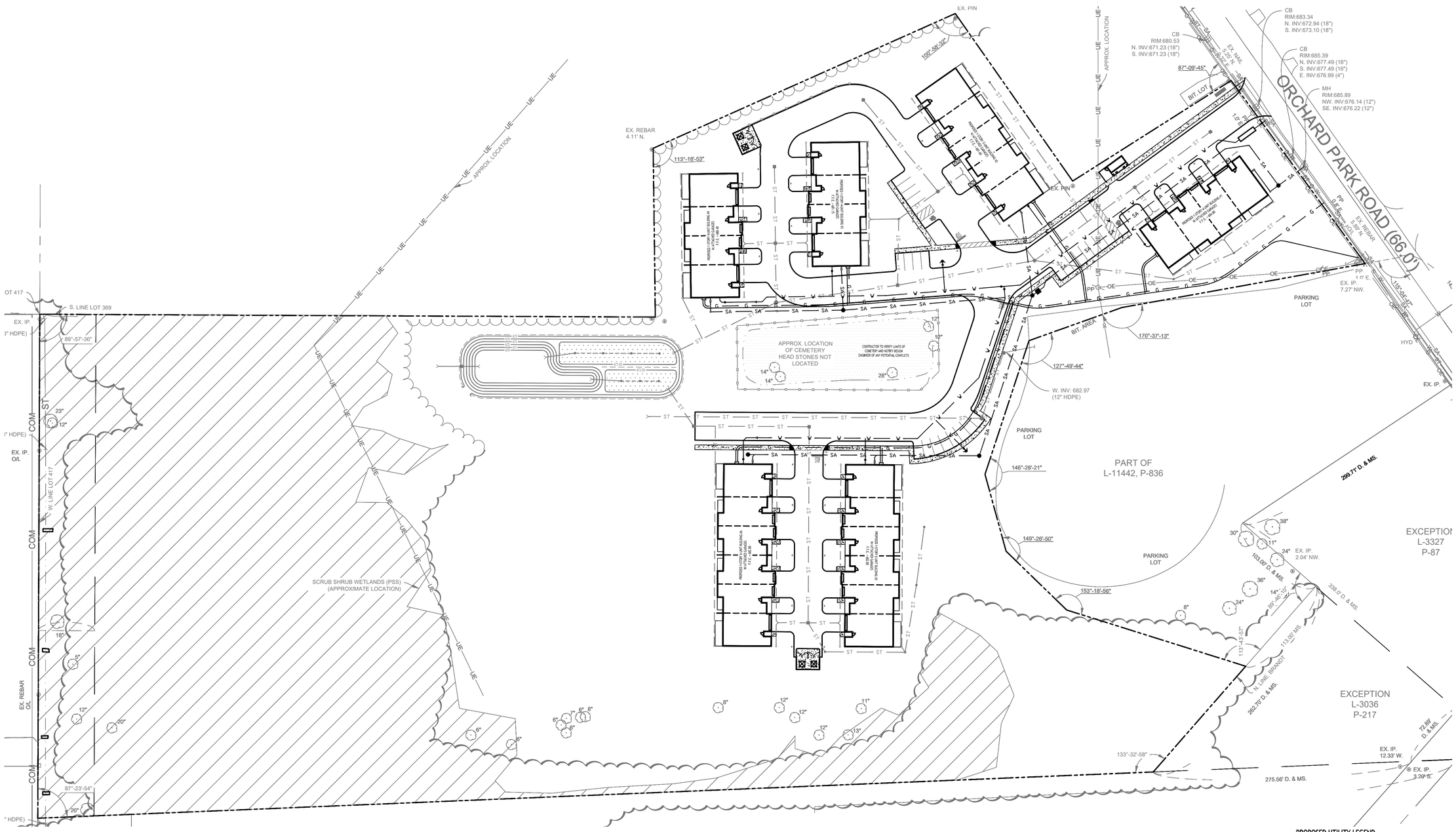
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-303

Project No: 23-4121

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Overall Utility Plan

SCALE: 1"=50'

UTILITY NOTES:

1. FOR ALL SANITARY SEWERS, INSTALL SELECT FILL IN PAVED AREAS, EXTEND 5' MIN. BEYOND PAVEMENT LIMITS
2. BUILDINGS TO HAVE A 6" HOUSE TRAP, VENT AND CLEANOUT INSTALLED AT ENTRANCE POINT. INVERT ELEVATION TO BE 5' MIN. BELOW F.F.E. OF THE BUILDING. PIPE TO BE 6" SDR-35 PVC @ 1.0% MIN WITH MIN 4' OF COVER. ADD ADDITIONAL CLEANOUTS @ 100' MAX. SPACING FOR 6" LATERALS OVER 90' IN LENGTH.
3. COORDINATE GAS & ELEC. METER BANK LOCATIONS ON BUILDINGS WITH M.E.P. PLANS & UTILITY CO.'S.
4. COORDINATE LOCATION OF CTV & TELEPHONE SERVICE TO BUILDINGS WITH M.E.P. PLANS AND UTILITY CO.'S.
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NOTES:

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PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
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50' 50 0 50 100Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
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STATE OF NEW YORK
CHRISTOPHER WOOD
LICENSED PROFESSIONAL ENGINEER
078394

DRAWING NAME:

Overall Utility Plan

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

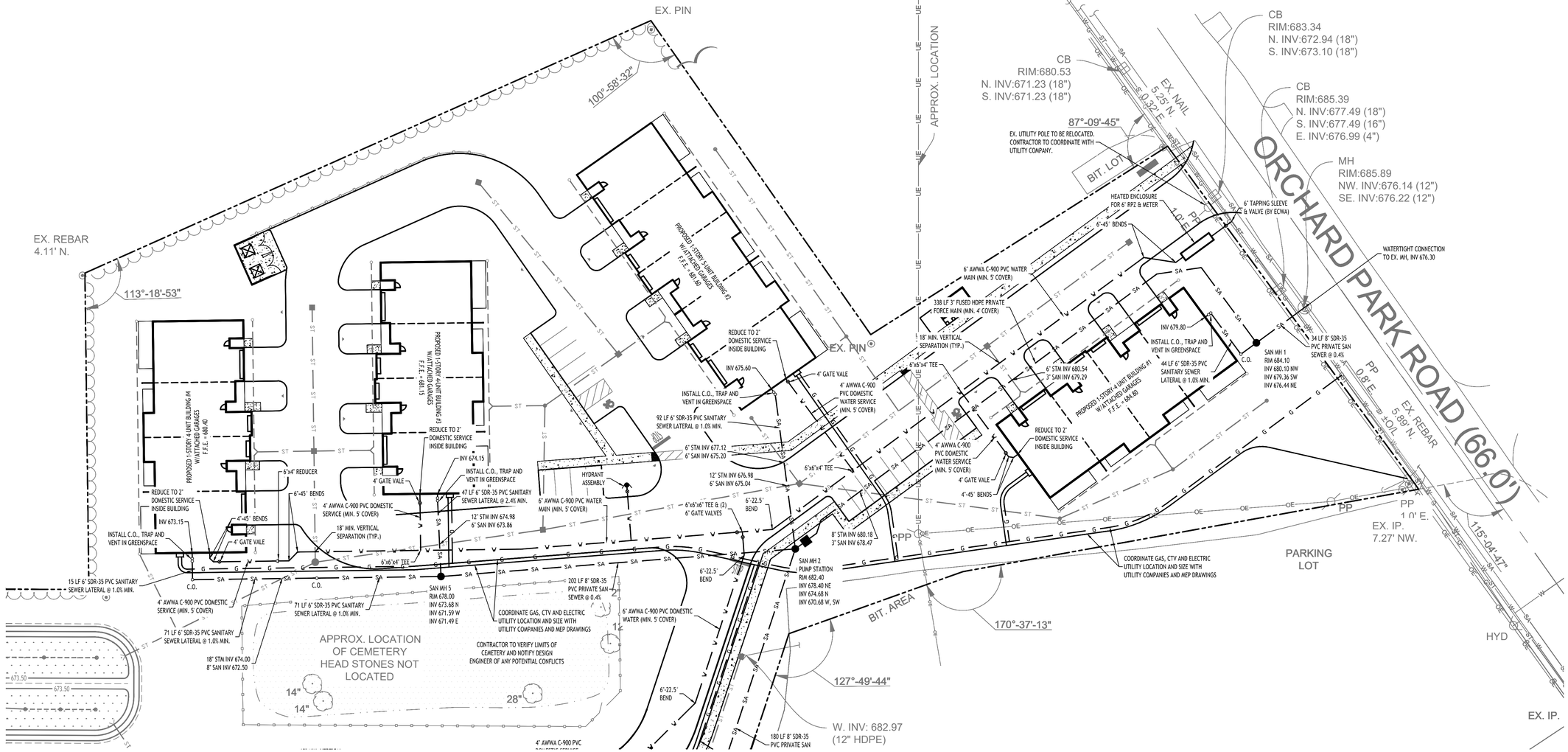
DRAWING NO.

C-400

Project No: 23-4121

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Utility Plan - North

SCALE: 1"=30'

UTILITY NOTES:

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PROPOSED SANITARY SEWER	6" SA
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30' 30 0 30 60Ft.

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Multifamily Development

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STATE OF NEW YORK * R. CHRISTOPHER WOOD * 076394 LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:

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Drawn By: A. Pandolfe
Scale: As Noted

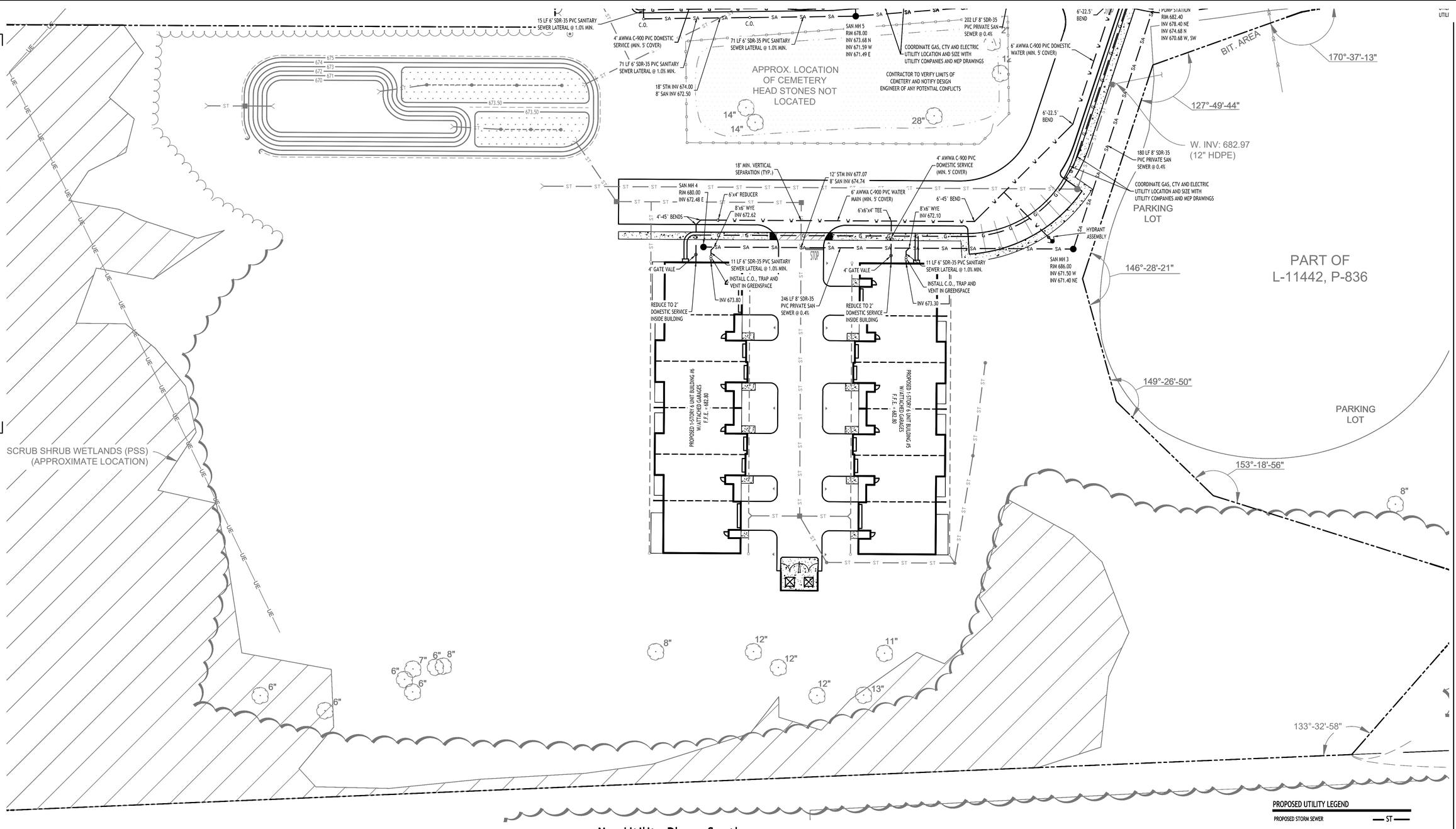
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C-401

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Utility Plan - South

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PROPOSED UTILITY LEGEND

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PROPOSED SANITARY SEWER	— 6" SA —
PROPOSED WATERLINE	— 1" W —
PROPOSED CATCH BASIN	■ CB
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Drawn By: A. Pandolfe
Scale: As Noted

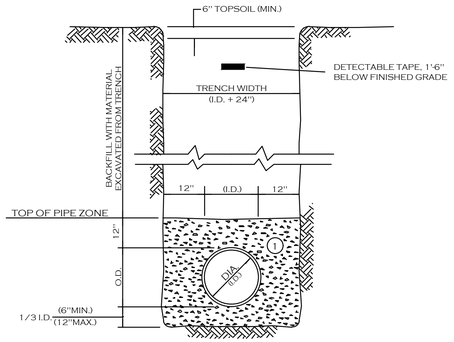
DRAWING NO.

C-402

Project No: 23-4121

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NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

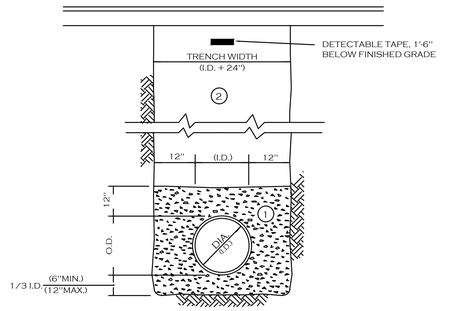
(1) NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

SELECT MATERIAL BACKFILL (NYSDOT LATEST EDITION)

(2) NO.2 RUN OF CRUSHER STONE OR NO.2 RUN OF CRUSHER GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02. (COMPACTED IN 6"LIFTS TO 90% DENSITY)

NOTE: SLAG SHALL NOT BE ALLOWED FOR MATERIALS (1) AND (2)

UTILITY TRENCH SECTION IN UNPAVED AREAS



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

(1) NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

SELECT MATERIAL BACKFILL (NYSDOT LATEST EDITION)

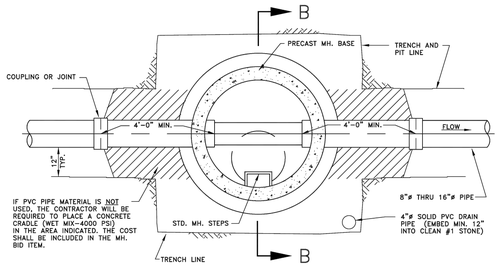
(2) NO.2 RUN OF CRUSHER STONE OR NO.2 RUN OF CRUSHER GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02. (COMPACTED IN 6"LIFTS TO 90% DENSITY)

NOTE: SLAG SHALL NOT BE ALLOWED FOR MATERIALS (1) AND (2)

UTILITY TRENCH SECTION IN PAVED AREAS

MONOLITHIC PRECAST BASE MANHOLES 4'-0" DIA. BASE FOR 15"ø SEWERS OR LESS

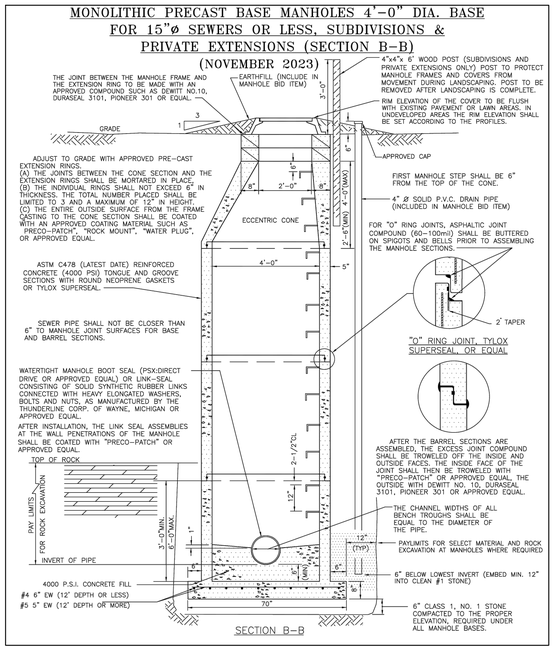
(NOVEMBER 2023)



PLAN

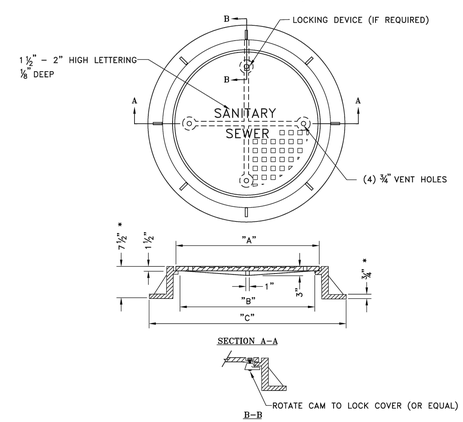
MONOLITHIC PRECAST BASE MANHOLES 4'-0" DIA. BASE FOR 15"ø SEWERS OR LESS, SUBDIVISIONS & PRIVATE EXTENSIONS (SECTION B-B)

(NOVEMBER 2023)



STANDARD FRAME AND COVER (PRIVATE SEWER)

(NOVEMBER 2023)



LOCKING DEVICE

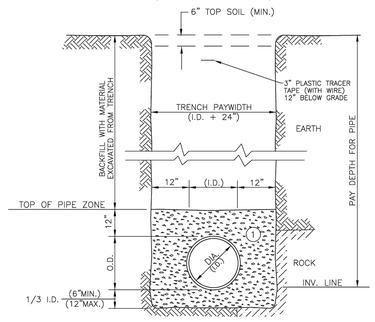
TABLE				
PIPE SIZE	DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	WEIGHT OF COVER
8" THRU 18"	24"	22 1/4"	35"(MAX.)	150 LBS. ± 5%
OVER 18"	32"	30"	46"(MAX.)	200 LBS. ± 5%

STANDARD FRAME AND COVER NOTES

1. MATERIAL: ASTM A48 CLASS 30B CAST IRON CONFORMING TO AASHTO DESIGNATION M105-06.
2. UNIT MUST WITHSTAND H-20 WHEEL LOADING, AND CONFORM TO AASHTO DESIGNATION M306-10.
3. ALL DIMENSIONS ARE TO BE CONSIDERED MINIMUM WITH THE EXCEPTION OF THE COVER, WHICH MUST CONFORM EXACTLY TO MAINTAIN INTERCHANGEABILITY WITHIN THE COUNTY.
4. COVER WEIGHT 210 LBS. (MAX)
5. COATING NOT REQUIRED.
6. FRAMES AND COVERS SHALL HAVE MACHINED BEARING SURFACES.
7. LOCKING DEVICE MUST BE SITUATED TO ALLOW EASY REMOVAL OF COVER.
8. NO COMMERCIAL "BRAND NAME" LETTERING WILL BE ALLOWED ON THE EXPOSED SURFACE OF THE COVER.
9. * 1/2" FLANGE THICKNESS AND 7" HEIGHT ACCEPTABLE IF CLASS 35 CAST IRON MATERIAL PROVIDED.

FORCE MAIN TRENCH DETAIL

(NOVEMBER 2023)



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. FORCE MAIN MARKERS SHALL BE INSTALLED AT 500 FOOT INTERVALS AND AT POINTS WHERE THE FORCE MAIN DEFLECTS AND/OR CHANGES DIRECTION.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

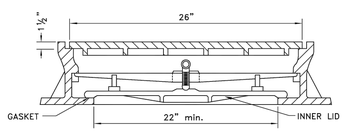
MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

(1) NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

WATER TIGHT FRAME AND COVER

(NOVEMBER 2023)

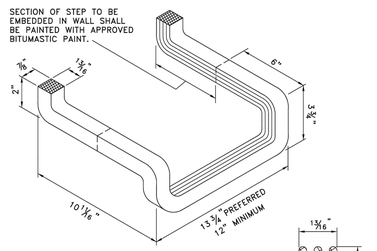


WATER TIGHT FRAME AND COVER NOTES

1. MATERIAL: ASTM A48 CLASS 30B CAST IRON CONFORMING TO AASHTO DESIGNATION M105-06.
2. UNIT MUST WITHSTAND H-20 WHEEL LOADING, AND CONFORM TO AASHTO DESIGNATION M306-10.
3. ALL DIMENSIONS ARE TO BE CONSIDERED MINIMUM WITH THE EXCEPTION OF THE COVER, WHICH MUST CONFORM EXACTLY TO MAINTAIN INTERCHANGEABILITY WITHIN THE COUNTY.
4. WATER TIGHT MANHOLE UNITS SHALL HAVE 4" STEEL VENT PIPE ASSEMBLY AS PER MANHOLE VENT DETAIL.
4. FRAMES AND COVERS SHALL HAVE MECHANICAL BEARING SURFACES.
6. COVERS SHALL BE SOLID WITH NON-PENETRATING PICKHOLES.
7. NO COMMERCIAL "BRAND NAME" LETTERING WILL BE ALLOWED ON THE EXPOSED SURFACE OF THE COVER.
8. COVER TO BEAR THE INSCRIPTION "ECSD SANITARY", EXCEPT FOR PRIVATE SYSTEMS.
9. THE FRAME SHALL BE PROVIDED WITH 6 HOLES ON FLANGE TO ACCEPT 1/2" ø ANCHOR BOLTS.

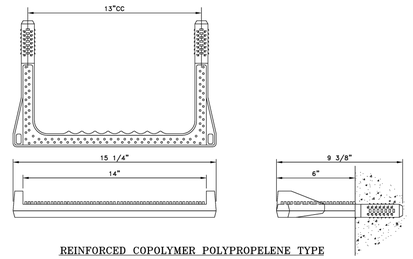
STANDARD MANHOLE STEP

(NOVEMBER 2023)



NOTES:

1. MANHOLE STEPS SHALL BE OF FORGED ALUMINUM ALLOY.
2. AN ACCEPTABLE ALTERNATE IS THE STEEL REINFORCED COPOLYMER POLYPROPYLENE MANHOLE STEP.
3. THE STEPS SHALL BE EMBEDDED IN THE WALLS OF THE CONCRETE MANHOLE BARREL WHILE THE MANHOLE IS BEING CAST OR SECURELY GROUTED IN PLACE AFTER CASTING.



REINFORCED COPOLYMER POLYPROPELENE TYPE

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * CHRISTOPHER WOOD * LICENSED PROFESSIONAL ENGINEER 076394

DRAWING NAME:

Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.

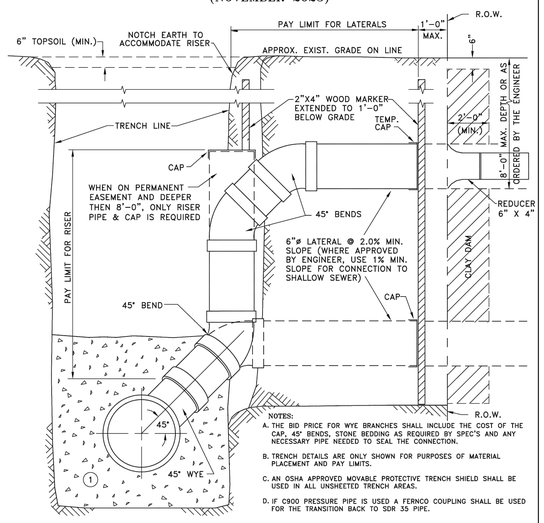
C-403

Project No: 23-4121

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RISER DETAIL – SDR35
(MAIN LINE LATERAL CONNECTION)
(NOVEMBER 2023)



NOTES:
A. THE BID PRICE FOR WYE BRANCHES SHALL INCLUDE THE COST OF THE CAP, 45° BENDS, STONE BEDDING AS REQUIRED BY SPEC'S AND ANY NECESSARY PIPE NEEDED TO SEAL THE CONNECTION.

B. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND PAY LIMITS.

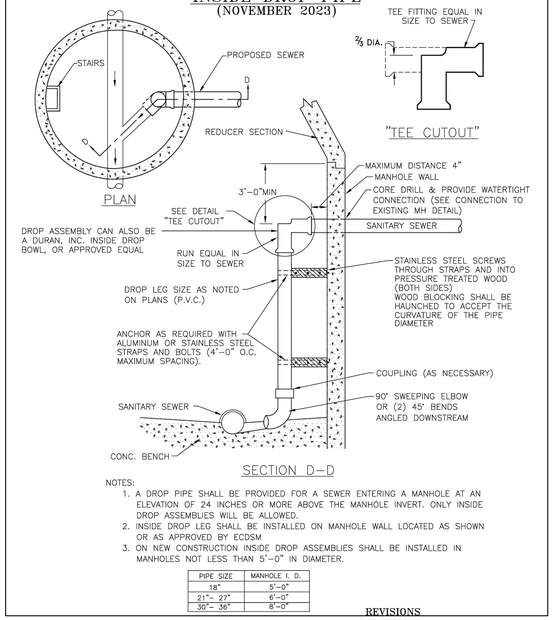
C. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

D. IF C900 PRESSURE PIPE IS USED A FERNCO COUPLING SHALL BE USED FOR THE TRANSITION BACK TO SDR 35 PIPE.

MATERIALS
PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

(1) NO. 1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER. NO SLAG WILL BE ALLOWED.

INSIDE DROP PIPE
(NOVEMBER 2023)



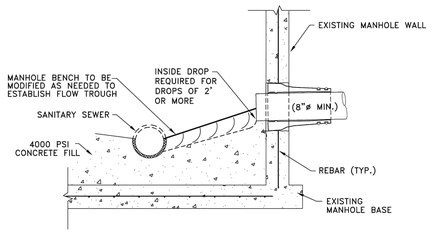
SECTION D-D

NOTES:
1. A DROP PIPE SHALL BE PROVIDED FOR A SEWER ENTERING A MANHOLE AT AN ELEVATION OF 24 INCHES OR MORE ABOVE THE MANHOLE INVERT. ONLY INSIDE DROP ASSEMBLIES WILL BE ALLOWED.
2. INSIDE DROP LEG SHALL BE INSTALLED ON MANHOLE WALL LOCATED AS SHOWN OR AS APPROVED BY ECDSM
3. ON NEW CONSTRUCTION INSIDE DROP ASSEMBLIES SHALL BE INSTALLED IN MANHOLES NOT LESS THAN 5'-0" IN DIAMETER.

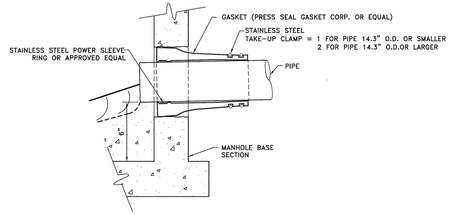
PIPE SIZE	MANHOLE I. D.
18"	5'-0"
21"– 27"	6'-0"
30"– 36"	8'-0"

REVISIONS

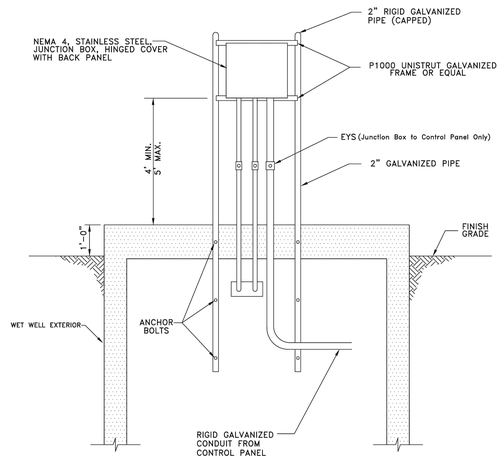
CONNECTION TO EXISTING MANHOLE
(NOVEMBER 2023)



NOTES:
1. CORE DRILL ENTRANCE HOLE IN PRECAST MANHOLE BARREL, BASE AND/OR BENCH FOR REQUIRED PIPE CLEARANCE. PER MANUFACTURERS RECOMMENDATIONS.
2. DOES NOT APPLY TO HOUSE LATERALS.
3. WATERTIGHT PIPE TO MANHOLE BOOT SEAL REQUIRED FOR ALL CORE DRILLED ENTRANCE HOLES IN MANHOLE BARREL AS SHOWN BELOW.

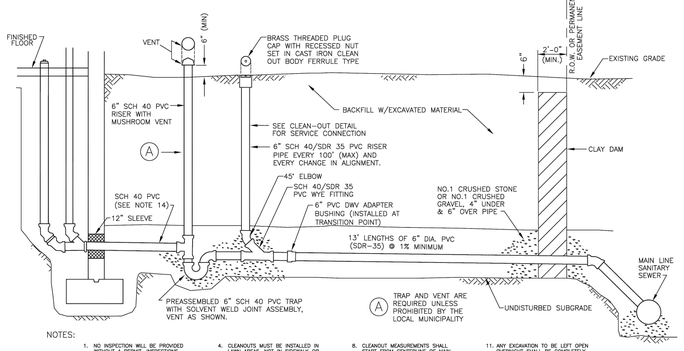


WETWELL JUNCTION BOX
(NOVEMBER 2023)



NOTE: JUNCTION BOX TO CONTAIN COMPRESSION TYPE TERMINAL STRIPS MOUNTED ON BACK PANEL. ALL CONDUCTORS AND TERMINALS TO BE MARKED PERMANENTLY. SPARE WIRES TO BE TERMINATED. 3 MOTOR LEADS AND 4 CONTROL LEADS.

TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (NEW BUILDS)
(NOVEMBER 2023)



NOTES:
1. NO INSPECTION WILL BE PROVIDED WITHOUT A PERMIT. INSPECTIONS REQUIRE 48 HR. ADVANCE NOTICE FOR SCHEDULING.
2. ALL WORK MUST BE INSPECTED BY A COUNTY INSPECTOR.
3. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF YEL LATEST ASTM SPECIFICATION D-3033/D-3034.
4. CLEANOUTS MUST BE INSTALLED IN LAWN AREAS, NOT IN SIDEWALK OR DRIVEWAY AREAS, PREFERABLY BETWEEN THE CURB OR EDGE OF PAVEMENT AND THE SIDEWALK.
5. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
6. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS.
7. MIN. DEPTH OF COVER 3'-0".
8. CLEANOUT MEASUREMENTS SHALL START FROM CENTERLINE OF MAIN SEWER FOR NEARSIDE LATERALS AND FROM THE 6" CLEANOUT FOR FAR SIDE CONNECTIONS. A CLEANOUT MAY BE REQUIRED FOR ANY ABRUPT CHANGES IN LATERAL DIRECTION FLOW.
9. A 6" CLEANOUT IS REQUIRED AT R.O.W. WHENEVER THE MAIN SEWER IS UNDER THE PAVEMENT LIMITS OR AT FAR SIDE OF PAVEMENT.
10. SEPTIC TANKS MUST BE ABANDONED PER NYSDEC APPROVED METHODS.
11. ANY EXCAVATION TO BE LEFT OPEN OVERNIGHT SHALL BE COMPLETELY ENCLOSED IN FENCING, OR WHERE NECESSARY, COVERED WITH STEEL PLATES.
12. DOWN SPOUTS, SUMP PUMPS, AND FOOTING DRAINS ARE NOT PERMITTED TO BE CONNECTED TO THE LATERAL.
13. NO CONNECTION SHALL BE MADE UNTIL BUILDING ROOF IS ERECTED.
14. IF CAST IRON IS USED EXITING THE BUILDING, A MISSION COUPLING IS REQUIRED BEFORE THE TRAP.

WETWELL-VALVE CHAMBER/SECTION
(NOVEMBER 2023)

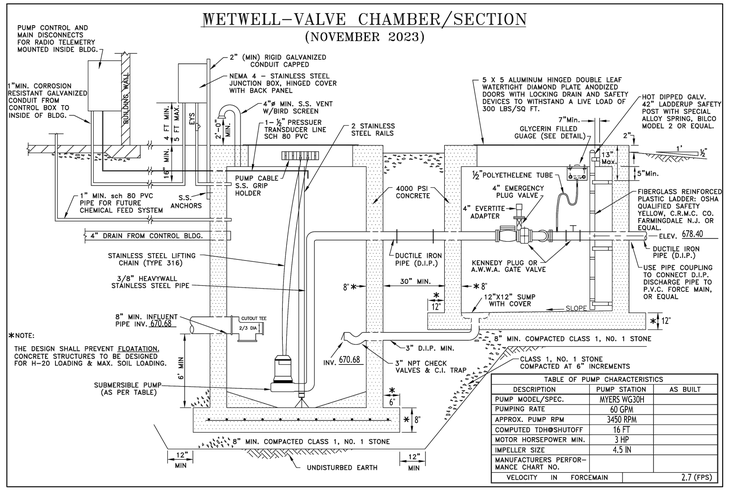
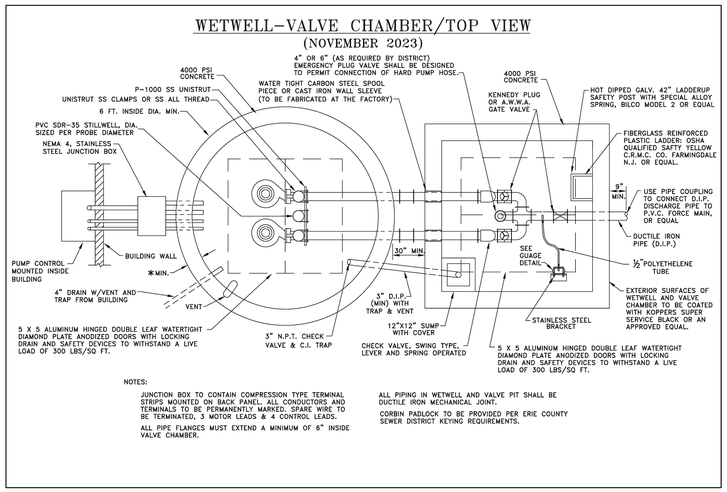


TABLE OF PUMP CHARACTERISTICS		
DESCRIPTION	PUMP STATION	AS BUILT
PUMP MODEL/SPEC.	MYERS WG30H	
PUMPING RATE	60 GPM	
APPROX. PUMP RPM	3450 RPM	
COMPUTED TDH@SHUTOFF	16 FT	
MOTOR HORSEPOWER MIN.	3 HP	
IMPELLER SIZE	4.5 IN	
MANUFACTURERS PERFOR-MANCE CHART NO.		
VELOCITY IN FORCEMAIN		2.7 (FPS)

WETWELL-VALVE CHAMBER/TOP VIEW
(NOVEMBER 2023)



NOTES:

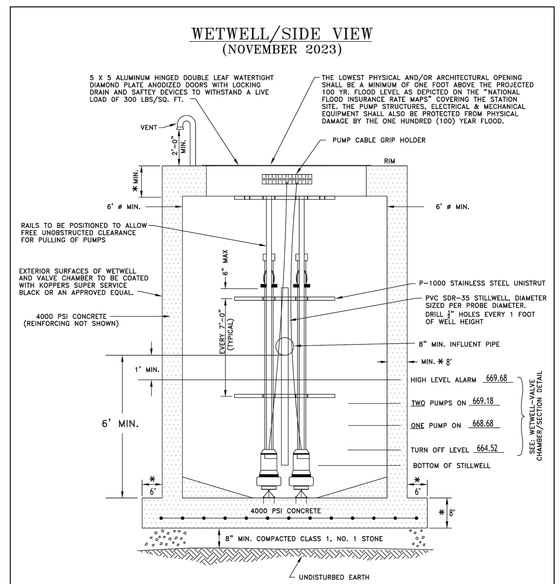
JUNCTION BOX TO CONTAIN COMPRESSION TYPE TERMINAL STRIPS MOUNTED ON BACK PANEL. ALL CONDUCTORS AND TERMINALS TO BE PERMANENTLY MARKED. SPARE WIRE TO BE TERMINATED, 3 MOTOR LEADS & 4 CONTROL LEADS.

ALL PIPE FLANGES MUST EXTEND A MINIMUM OF 6" INSIDE VALVE CHAMBER.

ALL PIPING IN WETWELL AND VALVE PIT SHALL BE DUCTILE IRON MECHANICAL JOINT.

CORBIN PADLOCK TO BE PROVIDED PER ERIE COUNTY SEWER DISTRICT KEYING REQUIREMENTS.

WETWELL/SIDE VIEW
(NOVEMBER 2023)



NOTE:
* 1. THE DESIGN SHALL PREVENT FLOATATION
2. ALL HARDWARE USED IN WETWELLS SHALL BE 316 STAINLESS STEEL.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/17/26

STATE OF NEW YORK
CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

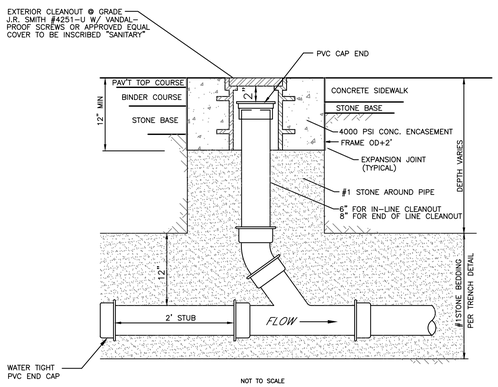
DRAWING NO.
C-404

Project No: 23-4121

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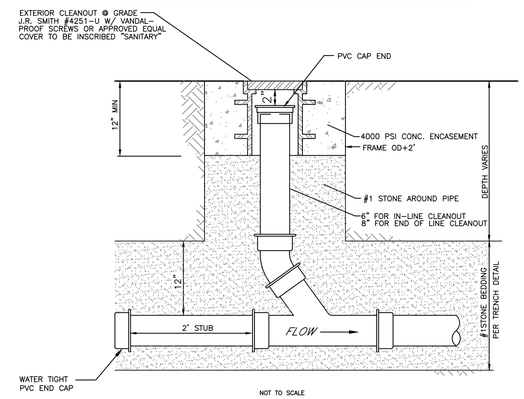
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CLEANOUT IN PAVEMENT/SIDEWALKS
NON RESIDENTIAL AND COMMERCIAL PROJECTS

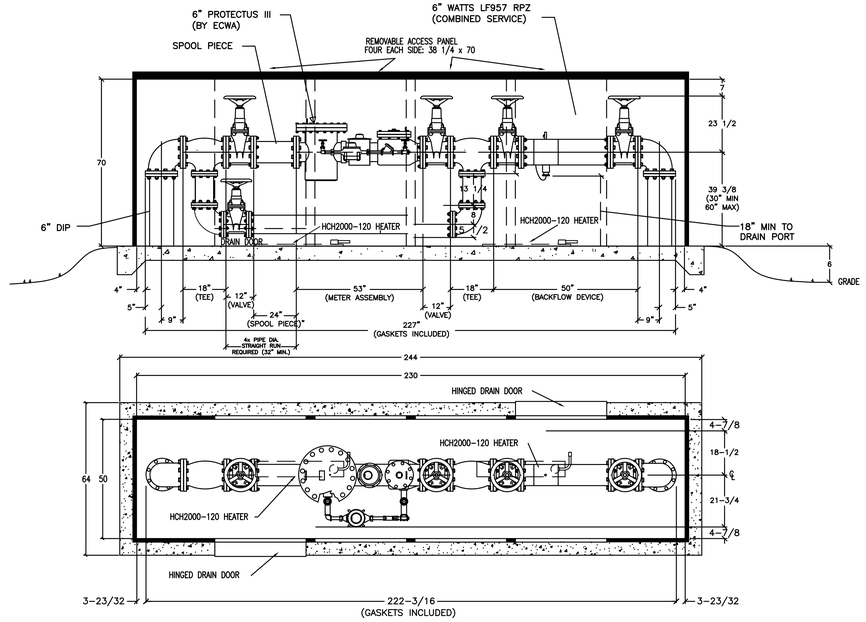


NOT TO SCALE

CLEANOUT IN FIELD/LAWN AREAS
NON RESIDENTIAL AND COMMERCIAL PROJECTS



NOT TO SCALE



LEGEND:

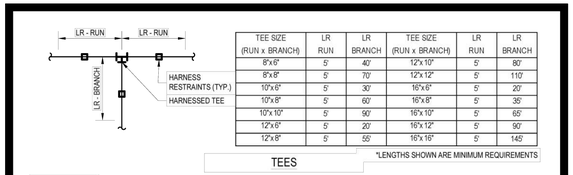
REMOVABLE ACCESS PANEL 38 1/4"W x 70"H w/DRAIN DOOR

REMOVABLE ACCESS PANEL 38 1/4"W x 70"H

6" METER & RPZ INSULATED ENCLOSURE

NOTES:

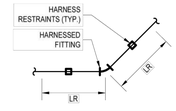
1. BACKFLOW PREVENTER DIMENSIONS FURNISHED BY WATTS
2. ALL DIMENSIONS ARE IN INCHES
3. WALL & INSULATION THICKNESS IS 1-1/2"
4. ROOF & INSULATION THICKNESS IS 3"
5. ENCLOSURE SHOWN IS SAFE-T-COVER MODEL 1000D-ALC00-17
6. EXTERIOR ENCLOSURE DIMENSIONS: 53"W x 233"L x 73" H
7. CONCRETE PAD IS 64"W x 244"L x 6"THK W/W.W.F. 6X6/10X10
8. METER SHOWN: 6" PROTECTUS III, SPOOL PIECE & METER SUPPLIED BY ECWA. VERIFY DIMENSIONS PRIOR TO ORDERING
9. RPZ SHOWN: 6" WATTS LF957 RPZ
10. CONTRACTOR TO INSTALL ELECTRIC SERVICE TO ENCLOSURE, COORDINATE SOURCE WITH OWNER
11. INSTALL A 120V GFI OUTLET IN THE ENCLOSURE
12. HEATERS TO HAVE THERMOSTAT CONTROL
13. ALL 6" PIPING & FITTINGS WITHIN THE ENCLOSURE SHALL BE DUCTILE IRON
14. CONCRETE PAD TO BE 6" ABOVE ADJACENT GRADE



TEE SIZE (RUN x BRANCH)	LR RUN	LR BRANCH	TEE SIZE (RUN x BRANCH)	LR RUN	LR BRANCH
8"x6"	5'	40'	12"x10"	5'	80'
8"x8"	5'	70'	12"x12"	5'	110'
10"x6"	5'	30'	16"x6"	5'	20'
10"x8"	5'	60'	16"x8"	5'	35'
10"x10"	5'	90'	16"x10"	5'	65'
12"x6"	5'	20'	16"x12"	5'	90'
12"x8"	5'	55'	16"x16"	5'	145'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

TEES

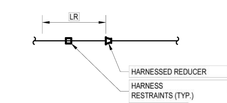


PIPE SIZE	LR 90° BEND	LR 45° BEND	LR 22.5° BEND	LR 11.25° BEND
6"	35'	15'	10'	5'
8"	40'	20'	10'	5'
10"	55'	25'	15'	10'
12"	60'	30'	15'	10'
16"	80'	35'	20'	10'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

NOTE:
BACK TO BACK FITTINGS WITHIN 5' OF EACH OTHER SHALL BE RESTRAINED AT LENGTHS OF 2 TIMES THE FITTING DEGREES (I.E. 2- 45° = 90° RESTRAINT LENGTH)

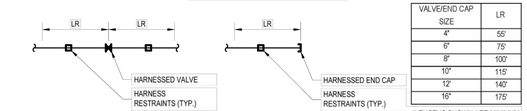
BENDS



REDUCER SIZE	LR	REDUCER SIZE	LR
6"x4"	40'	12"x8"	75'
8"x4"	70'	12"x10"	40'
8"x6"	45'	16"x6"	150'
10"x6"	75'	16"x8"	130'
10"x8"	40'	16"x10"	105'
12"x6"	100'	16"x12"	75'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

REDUCERS



VALVE/END CAP SIZE	LR
4"	55'
6"	75'
8"	100'
10"	115'
12"	140'
16"	175'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

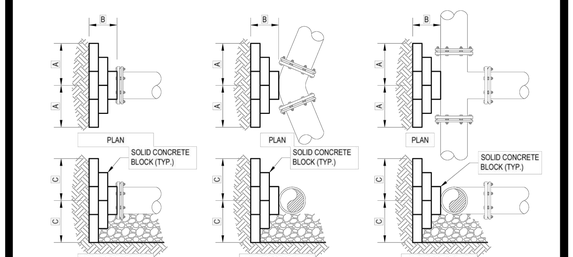
VALVES / END CAPS

RESTRAINED JOINT SCHEDULE

SCALE: NTS

Revision: 2024-01

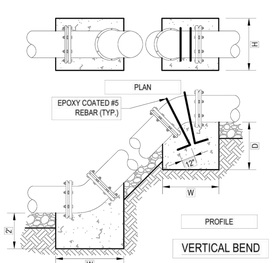
Detail: SD-09



DEAD END

HORIZONTAL BEND

TEE



VERTICAL BEND

PIPE SIZE	90° BEND, TEE, OR DEAD END A	B	C	45° BEND A	B	C
6"	1.5'	1.0'	0.5'	0.75'	1.0'	0.5'
8"	1.5'	1.0'	0.75'	1.5'	1.0'	0.5'
10"	1.5'	1.5'	1.0'	1.5'	1.5'	0.75'
12"	2.0'	2.0'	1.0'	1.75'	1.75'	0.75'

PIPE SIZE	22.5° BEND A	B	C	11.25° BEND A	B	C
6"	0.5'	1.0'	0.5	0.5'	1.0'	0.5
8"	0.75'	1.0'	0.5'	0.5'	1.0'	0.5'
10"	1.0'	1.5'	0.75'	1.0'	1.0'	0.75'
12"	1.25'	1.75'	0.75'	1.25'	1.25'	0.75'

PIPE SIZE	VERTICAL BEND UP D	H	W	VERTICAL BEND DOWN D	H	W
6"	2.0'	5.0'	3.0'	3.5'	3.5'	3.0'
8"	2.0'	6.0'	4.0'	4.5'	4.5'	4.0'
10"	2.0'	6.25'	4.5'	4.75'	4.75'	4.5'
12"	2.0'	6.5'	5.0'	5.0'	5.0'	5.0'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

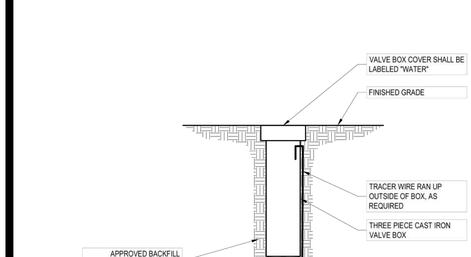
NOTE:
FULL CONCRETE THRUST BLOCKS AS SHOWN ARE REQUIRED WHEN THRUST RESTRAINT IS NOT PROVIDED BY OTHER MEANS SUCH AS MJ RESTRAINTS

THRUST BLOCKS

SCALE: NTS

Revision: 2024-01

Detail: SD-10



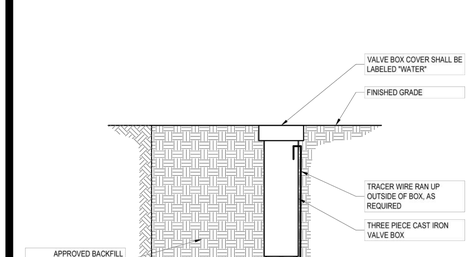
NOTES:
1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. GATE VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

GATE VALVE SETTING

SCALE: NTS

Revision: 2024-01

Detail: SD-12



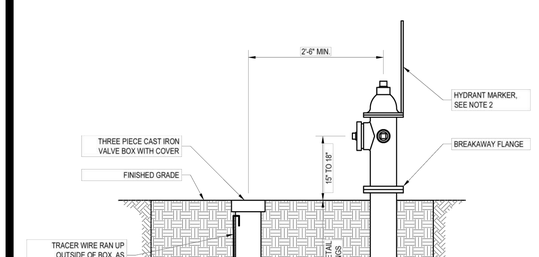
NOTES:
1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. TAP VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

TAPPING SLEEVE AND VALVE

SCALE: NTS

Revision: 2024-01

Detail: SD-14



NOTES:
1. HYDRANT RISER SHALL BE INSTALLED PLUMB
2. FOR WATERMAIN REPLACEMENT PROJECTS, RELOCATE EXISTING MARKERS TO NEW HYDRANTS. MUNICIPALITY SHALL BE RESPONSIBLE TO PROVIDE ANY NEW HYDRANT MARKERS AS NEEDED. CONTRACTOR TO COORDINATE WITH ALL MUNICIPALITIES AND FIRE DISTRICTS.
3. HYDRANT FACE TO BE A MINIMUM OF 3'-0" FROM THE BACK FACE OF ALL CURBS OR A MINIMUM OF 5'-0" FROM ALL EDGE OF PAVEMENT.

HYDRANT ASSEMBLY INSTALLATION

SCALE: NTS

Revision: 2024-01

Detail: SD-16

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK * R. CHRISTOPHER WOOD * LICENSED PROFESSIONAL ENGINEER * 076394

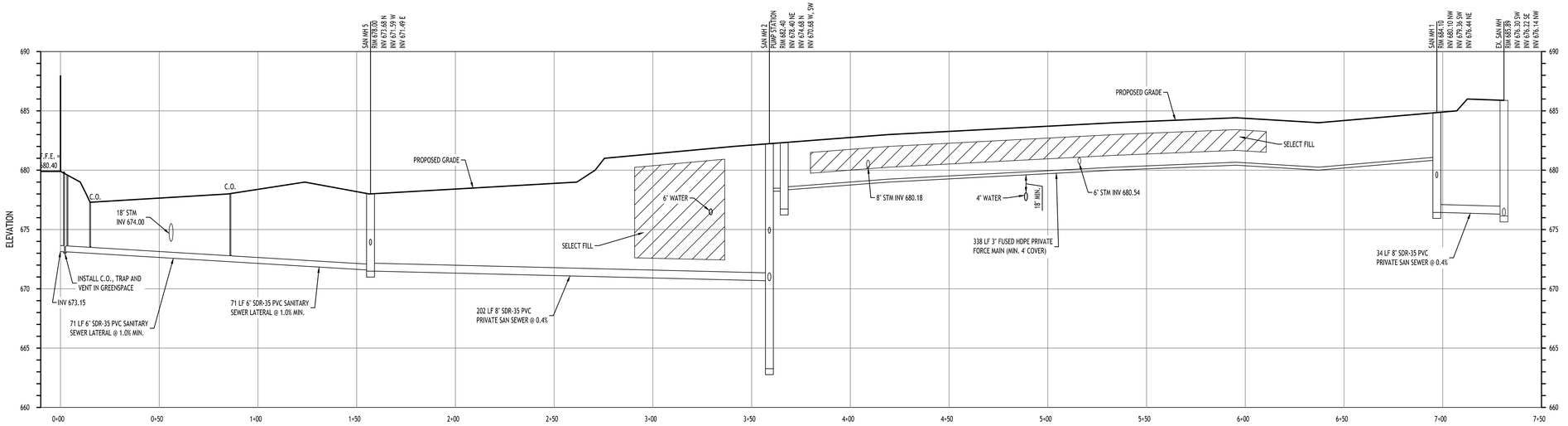
DRAWING NAME:
Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

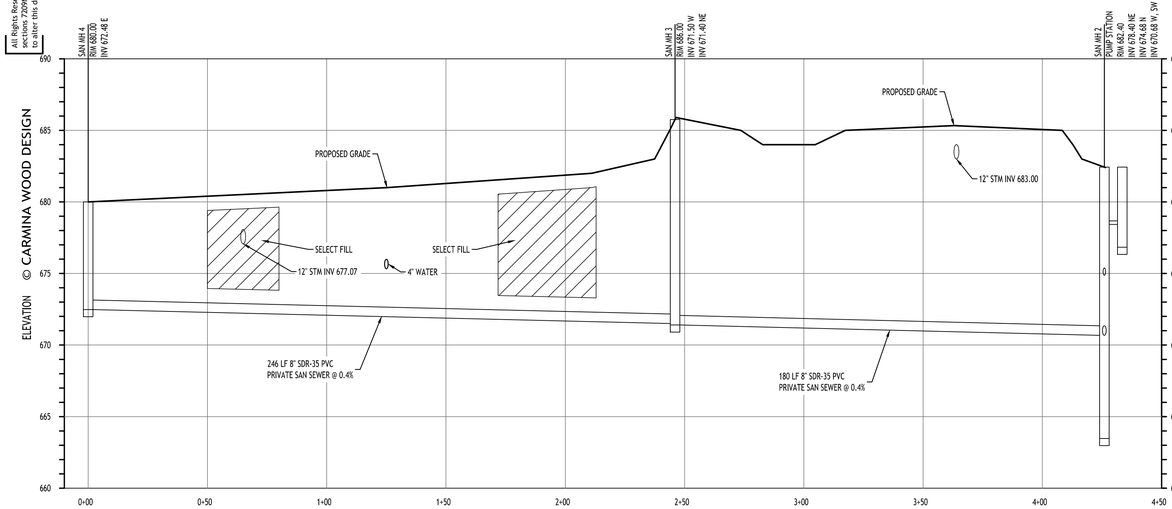
DRAWING NO.
C-405

Project No: 23-4121

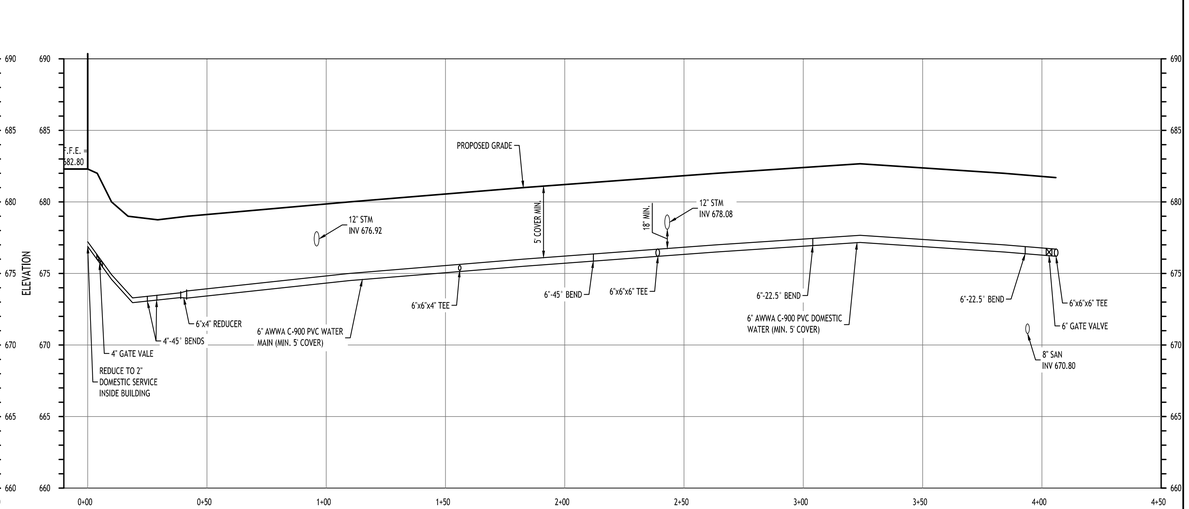
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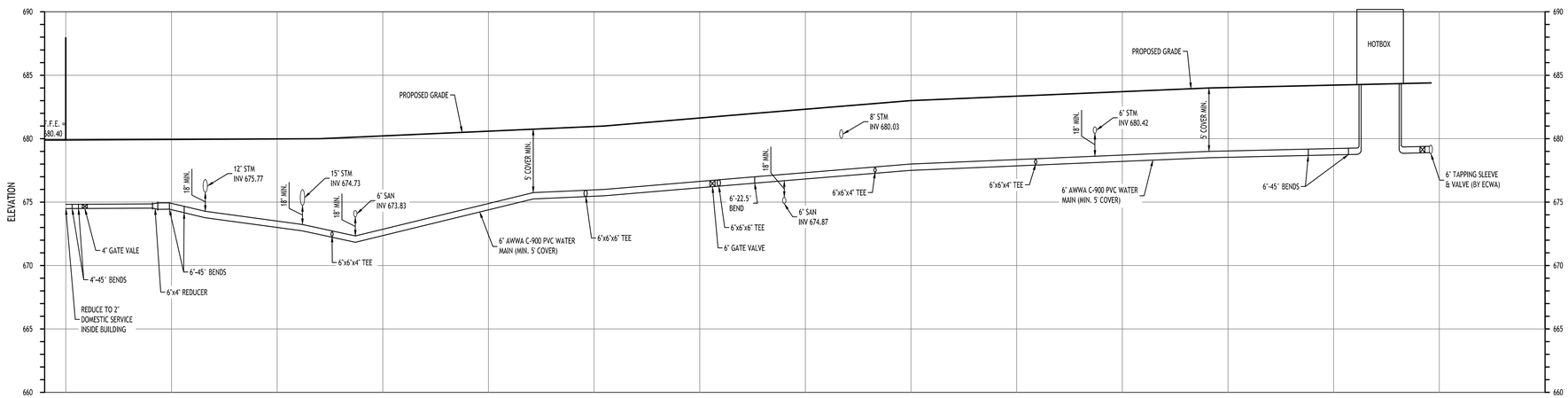
PRIVATE SANITARY SEWER - BLDG. #4 TO EX. SAN MH



PRIVATE SANITARY SEWER - SAN MH 4 TO PUMP STATION



PRIVATE WATER SERVICE - BLDG. #6 TO TEE



PRIVATE WATER SERVICE - BLDG. #4 TO TAP

CARMINAWOOD
DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Engineering comments	6/17/26

STATE OF NEW YORK * CHRISTOPHER WOOD * LICENSED PROFESSIONAL ENGINEER
076394

DRAWING NAME:
Utility Profiles

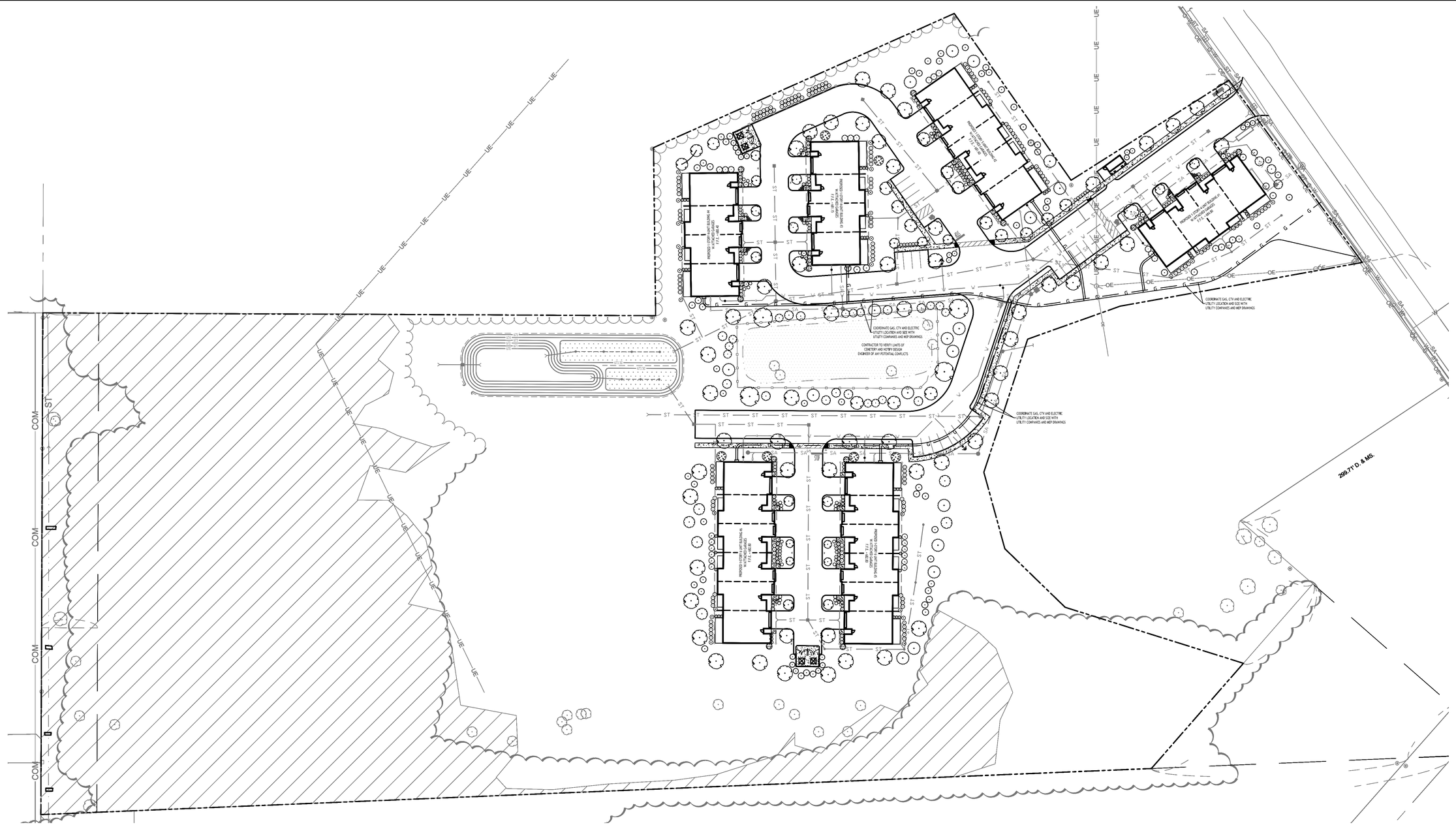
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-406

Project No: 23-4121

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N

Overall Landscape Plan

SCALE: 1"=50'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50' 50 0 50 100Ft.

Reference sheets L-101, L-102 and L-103 for Enlarged Landscape Plans

CARMINAWOOD
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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
CHRISTOPHER WOOD
LICENSED PROFESSIONAL ENGINEER
078394

DRAWING NAME:
Overall Landscape Plan

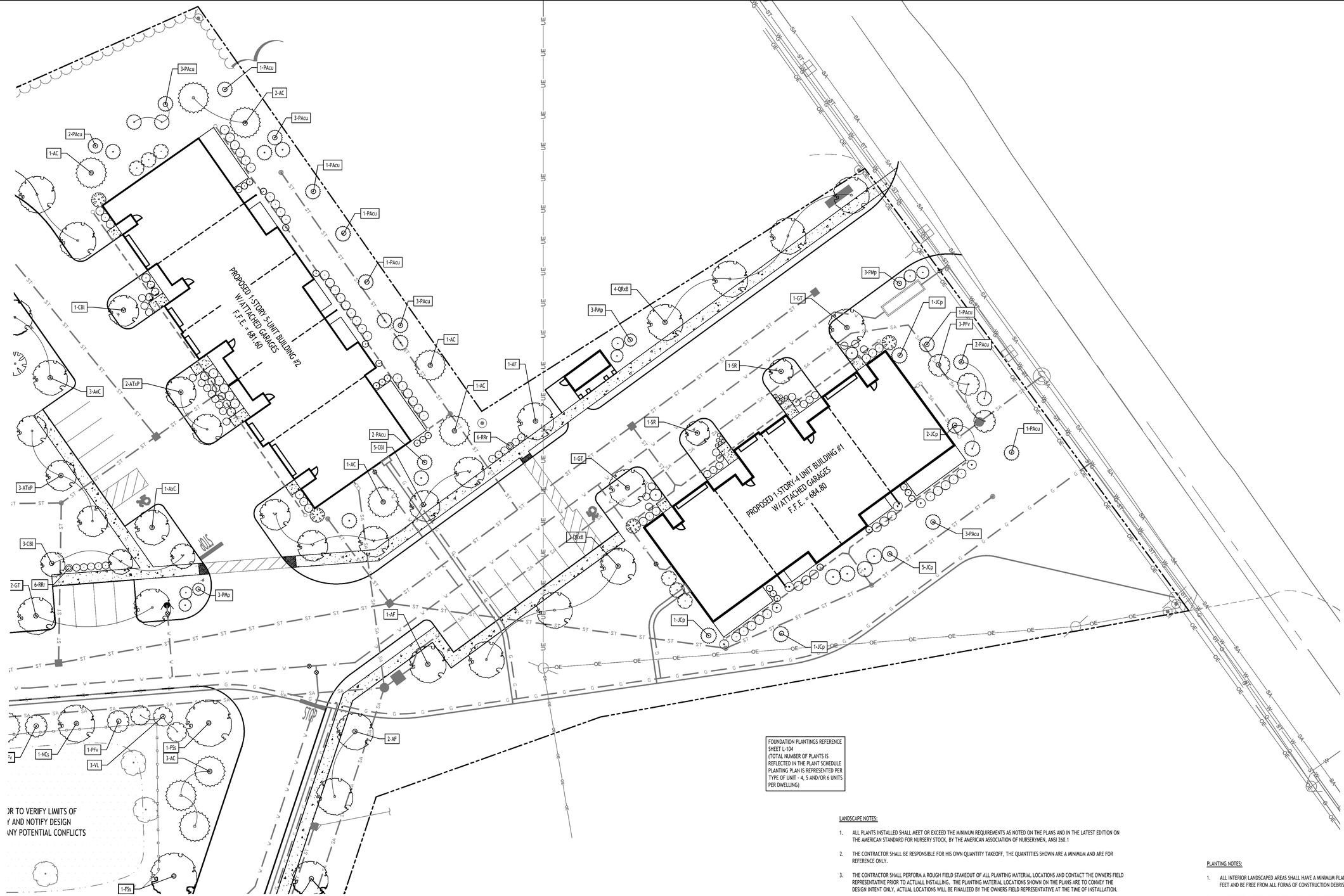
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
L-100

Project No: 23-4121

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FOUNDATION PLANTINGS REFERENCE SHEET L-104
(TOTAL NUMBER OF PLANTS IS REFLECTED IN THE PLANT SCHEDULE PLANTING PLAN IS REPRESENTED PER TYPE OF UNIT - 4, 5 AND/OR 6 UNITS PER DWELLING)

Landscape Plan - East

SCALE: 1"=20'

LANDSCAPE NOTES:

1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI 260.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF, THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY, ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY, CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, ½ PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A 3' LAYER OF SHREDDED PINE BARK MULCH OVER 10 MIL. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
10. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING, SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER, THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.

PLANTING NOTES:

1. ALL INTERIOR LANDSCAPED AREAS SHALL HAVE A MINIMUM PLANTING SOIL DEPTH OF THREE (3) FEET AND BE FREE FROM ALL FORMS OF CONSTRUCTION DEBRIS AND FOREIGN MATERIAL.
2. ALL TREE PIT SAUCERS, SHRUB BEDS, ORNAMENTAL GRASS BEDS, AND PERENNIAL FLOWER BEDS SHALL RECEIVE 'PREEN' HERBICIDE AND THREE (3) INCHES DEPTH OF DARK SHREDDED HARDWOOD BARK MULCH.
3. ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL-BLENDED MIXTURE OF 50% PEAT MOSS & 50% SCREENED TOPSOIL. SEASONAL FLOWER BEDS SHALL RECEIVE 'PREEN' HERBICIDE. NO MULCH SHALL BE INSTALLED IN THE SEASONAL FLOWER BEDS.
4. ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

20' 20 0 20 40Ft.

CARMINAWOOD
DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
R. CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Landscape Plan - East

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
L-101

Project No: 23-4121

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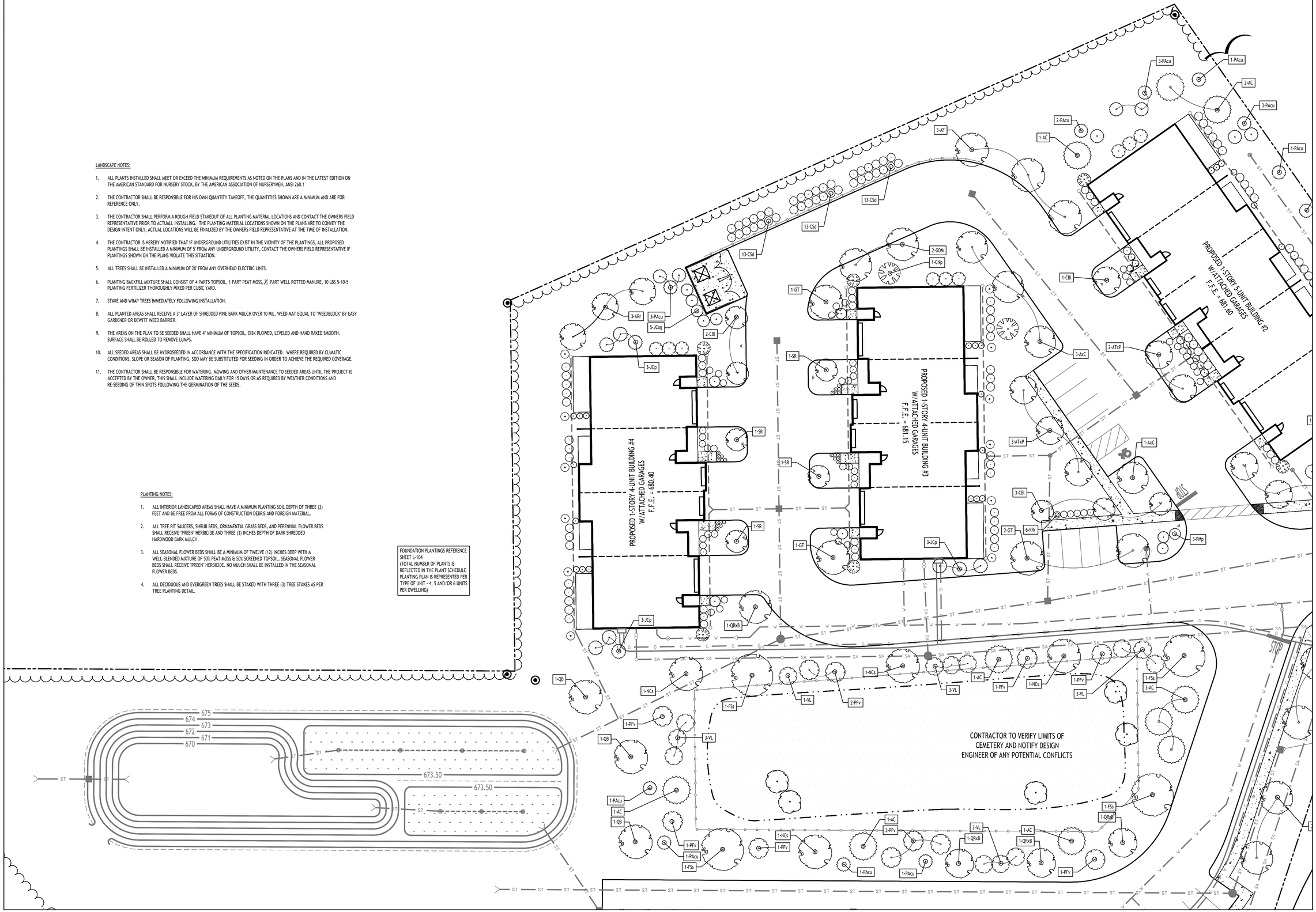
LANDSCAPE NOTES:

1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI 260.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF, THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY, ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY, CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, ⅓ PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER 10 MIL. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
10. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING, SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER, THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.

PLANTING NOTES:

1. ALL INTERIOR LANDSCAPED AREAS SHALL HAVE A MINIMUM PLANTING SOIL DEPTH OF THREE (3) FEET AND BE FREE FROM ALL FORMS OF CONSTRUCTION DEBRIS AND FOREIGN MATERIAL.
2. ALL TREE PIT SAUCERS, SHRUB BEDS, ORNAMENTAL GRASS BEDS, AND PERENNIAL FLOWER BEDS SHALL RECEIVE "PREEN" HERBICIDE AND THREE (3) INCHES DEPTH OF DARK SHREDDED HARDWOOD BARK MULCH.
3. ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL-BLENDED MIXTURE OF 50% PEAT MOSS & 50% SCREENED TOPSOIL. SEASONAL FLOWER BEDS SHALL RECEIVE "PREEN" HERBICIDE. NO MULCH SHALL BE INSTALLED IN THE SEASONAL FLOWER BEDS.
4. ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.

FOUNDATION PLANTINGS REFERENCE SHEET L-104
(TOTAL NUMBER OF PLANTS IS REFLECTED IN THE PLANT SCHEDULE PLANTING PLAN IS REPRESENTED PER TYPE OF UNIT - 4, 5 AND/OR 6 UNITS PER DWELLING)



N

Landscape Plan - West

SCALE: 1"=20'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

20' 20 0 20 40FT.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
R. CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Landscape Plan - West

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
L-102

Project No: 23-4121

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ENGINEER OF ANY POTENTIAL CONFLICTS

673.50

PROPOSED 1-STORY 6 UNIT BUILDING #6
W/ATTACHED GARAGES
F.F.E. = 682.80

PROPOSED 1-STORY 6 UNIT BUILDING #5
W/ATTACHED GARAGES
F.F.E. = 682.80

STOP

FOUNDATION PLANTINGS REFERENCE SHEET L-104
(TOTAL NUMBER OF PLANTS IS REFLECTED IN THE PLANT SCHEDULE PLANTING PLAN IS REPRESENTED PER TYPE OF UNIT - 4, 5 AND/OR 6 UNITS PER DWELLING)

N

Landscape Plan - South

SCALE: 1"=30'

LANDSCAPE NOTES:

1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF, THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY, ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY, CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, ⅓ PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER 10 MIL. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
10. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING, SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER, THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.

PLANTING NOTES:

1. ALL INTERIOR LANDSCAPED AREAS SHALL HAVE A MINIMUM PLANTING SOIL DEPTH OF THREE (3) FEET AND BE FREE FROM ALL FORMS OF CONSTRUCTION DEBRIS AND FOREIGN MATERIAL.
2. ALL TREE PIT SAUCERS, SHRUB BEDS, ORNAMENTAL GRASS BEDS, AND PERENNIAL FLOWER BEDS SHALL RECEIVE 'PREEN' HERBICIDE AND THREE (3) INCHES DEPTH OF DARK SHREDDED HARDWOOD BARK MULCH.
3. ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL-BLENDED MIXTURE OF 50% PEAT MOSS & 50% SCREENED TOPSOIL. SEASONAL FLOWER BEDS SHALL RECEIVE 'PREEN' HERBICIDE. NO MULCH SHALL BE INSTALLED IN THE SEASONAL FLOWER BEDS.
4. ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
R. CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Landscape
Plan - South

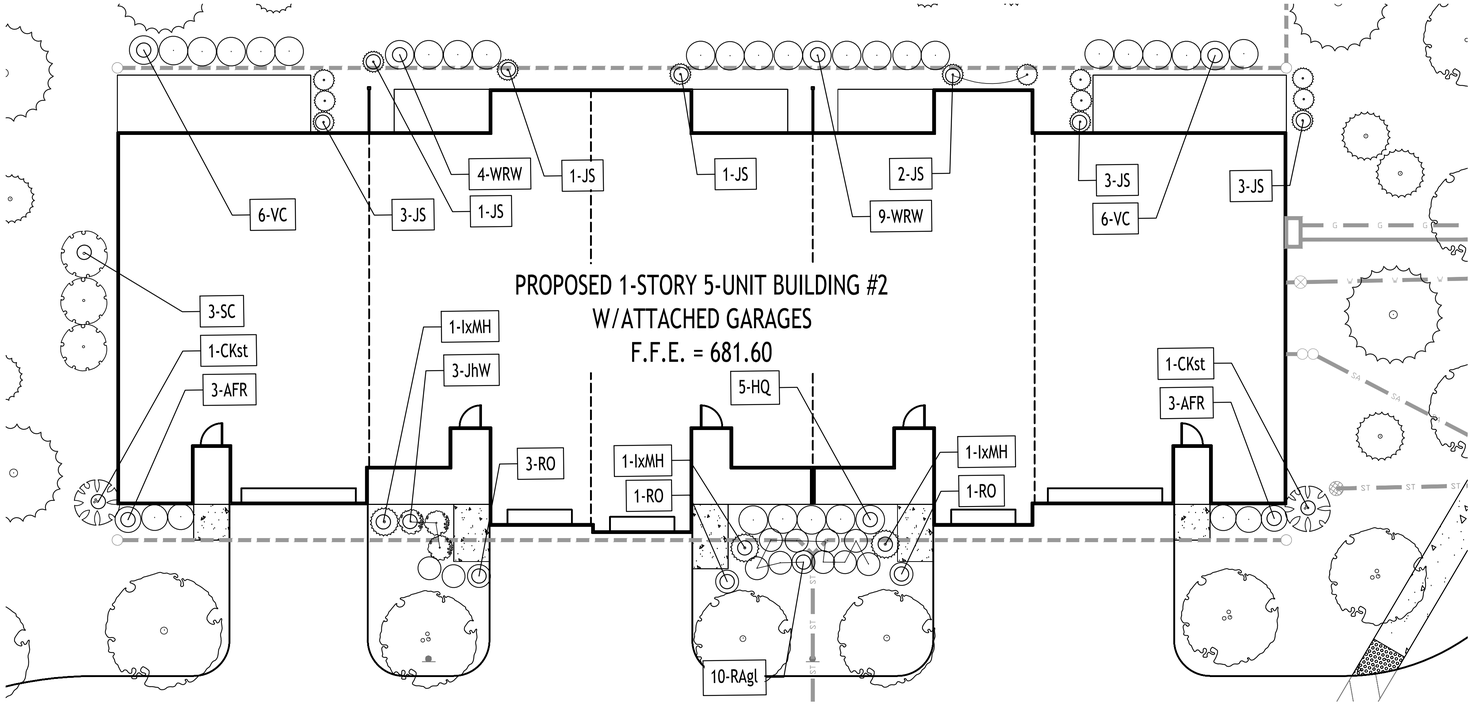
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
L-103

Project No: 23-4121

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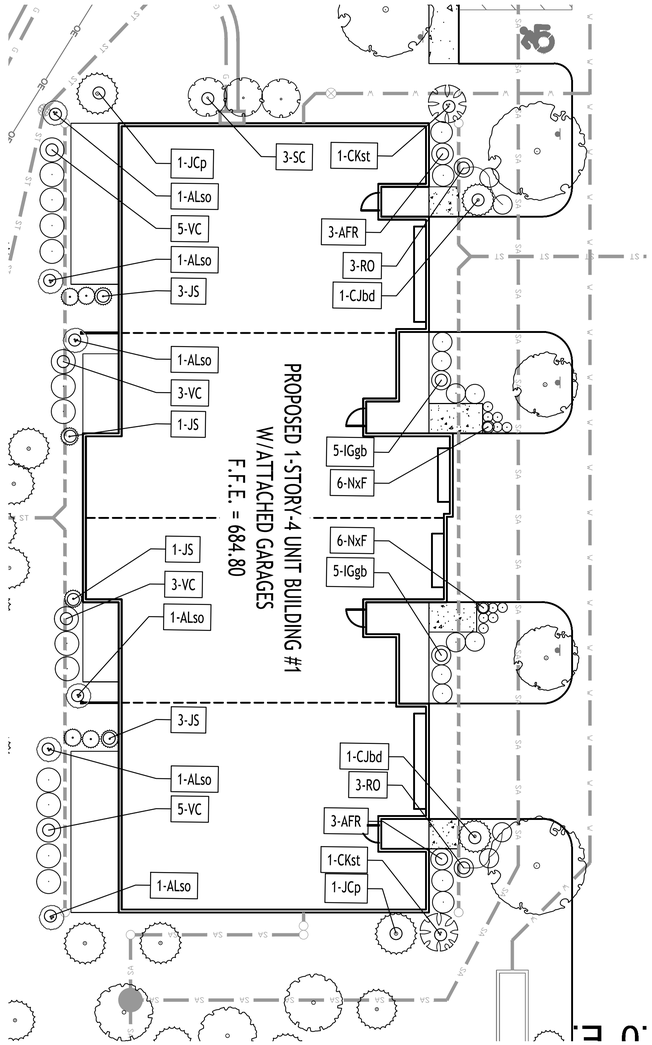


N

Foundation Planting Plan @ 5 Unit

SCALE: 1"=10'

NOTE: TOTAL OF 1 - 5 UNIT COMPLEX ON SITE

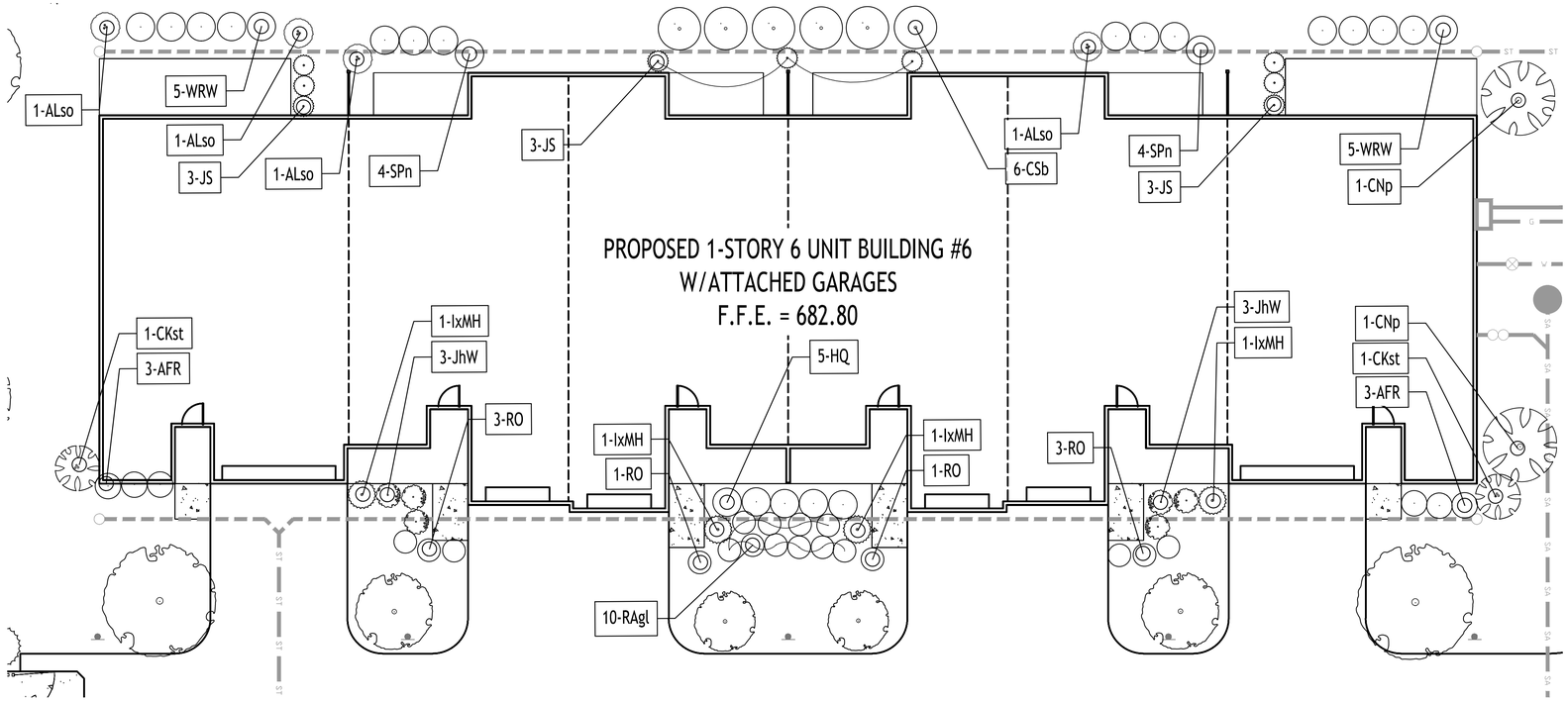


N

Foundation Planting Plan @ 4 Unit

SCALE: 1"=10'

NOTE: TOTAL OF 3 -4 UNIT COMPLEX(S) ON SITE



N

Foundation Planting Plan @ 6 Unit

SCALE: 1"=10'

NOTE: TOTAL OF 2 - 6 UNIT COMPLEX(S) ON SITE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

10' 10 0 10 20Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK
R. CHRISTOPHER WOOD
078394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Foundation Planting Plan

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.

L-104

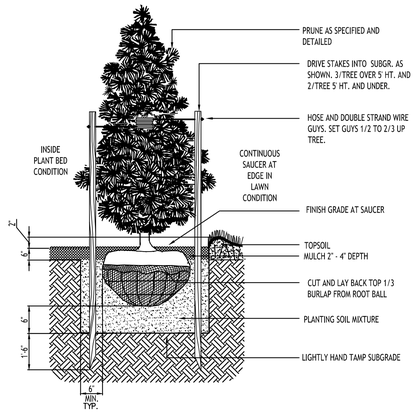
Project No: 23-4121

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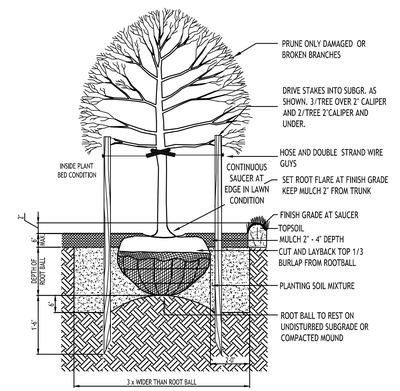
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Plant Schedule -Multi-Family Development 1425 & 1475 Orchard Park Road-West Seneca, New York

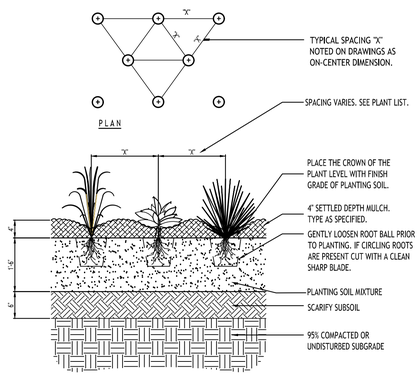
KEY	QTY.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	REMARKS
		D E C I D U O U S T R E E S			
QB	12	Quercus bicolor	Swamp White Oak	2 1/2" - 3" CAL.	B&B, HT. 60', W 40'
GT	11	Gleditsia triacanthos "Draves"	Street Keeper Honey Locust	2 1/2" - 3" CAL.	B&B, HT. 40', W 35'
AxC	4	Aesculus x carnea 'Briotii'	Red Horse Chestnut	2 1/2" - 3" CAL.	B&B, HT. 60', W 40'
ARr	3	Acer rubrum 'Frank Jr.'	Redpointe Maple	2 1/2" - 3" CAL.	B&B, HT. 40', W 35'
AF	7	Acer freemanii 'Jeffersred'	Autumn Blaze Maple	2 1/2" - 3" CAL.	B&B, HT. 40', W 35'
QPgp	2	Quercus palustris 'Green Pillar'	Green Pillar Pin Oak	2 1/2" - 3" CAL.	B&B, HT. 35', W 18'
NSW	6	Nyssa sylvatica 'Wildfire'	Wildfire Tupelo	2 1/2" - 3" CAL.	B&B, HT. 35', W 18'
NCs	4	Northern catalpa 'Speciosa'	Northern Catalpa	2 1/2" - 3" CAL.	B&B, HT. 40', W 35'
QRn	4	Quercus robur x bicolor Nadler PP17604'	Kindred Spirit Oak	2 1/2" - 3" CAL.	B&B, HT. 30', W 6'
GBps	1	Ginkgo biloba 'Princeton Sentry'	Prnceton Sentry Ginkgo(Maidenhair Tree)	2 1/2" - 3" CAL.	B&B, HT. 40', W 20'
CBl	11	Carpinus betulus 'Lucas'	Lucas Columnar Hornbeam	2 1/2" - 3" CAL.	B&B, HT. 50', W 30'
GDM	4	Gymnogladus dioicus 'Morton'	Kentucky Coffee Tree 'Morton'	2 1/2" - 3" CAL.	B&B, HT. 35', W 18'
QRxB	11	Quercus robur x bicolor 'Long'	Regal Prince Oak	2 1/2" - 3" CAL.	B&B, HT. 35', W 18'
FSs	4	Fagus sylvatica 'Riversii'	Rivers Purple European Beech	2 1/2" - 3" CAL.	B&B, HT. 45', W 25'
ATxP	5	Acer truncatum x plantanoides 'JFS-KW202'	Crimson Sunset Maple	2 1/2" - 3" CAL.	B&B, HT. 35', W 25'
		S M A L L / O R N A M E N T A L T R E E S			
ALso	26	Amelanchier 'Standing Ovation'	Standing Ovation Serviceberry	1 1/2" x 2" CAL.	B&B, HT. 20', W 15'
SR	10	Syringa reticulata 'Ivory Silk'	Ivory Silk Tree Lilac	1 1/2" X 2 1/2" CAL.	B&B, HT. 20', W 15'
CKst	12	Cornus kousa 'Snow Tower'	Kousa Dogwood	1 1/2" x 2 1/2" CAL.	B&B, HT. 15', W 8'
		E V E R G R E E N T R E E S			
JS	56	Juniperus scopolarum 'Skyrocket'	Skyrocket Juniper	6-8' Tall	B&B, HT. 16', W 4'
PAcu	40	Picea abies 'Cupressina'	Norway Spruce - Columnar	6-8' Tall	B&B, HT. 20', W 8'
AC	13	Abies concolor	White Fir	6-8' Tall	B&B, HT. 60', W 20'
CNp	6	Chamaecyparis nootkatensis 'Pendula'	Weeping Nootka Cypress	6-8' Tall	B&B, HT. 20', W 8'
PFv	14	Pinus flexilis 'Vanderwolf's'	Blue Limber Pine	6-8' Tall	B&B, HT. 20', W 8'
CJbd	6	Cryptomeria Japonica 'Black Dragon'	Back Dragon Japanese cedar	6-8' Tall	B&B, HT. 20', W 8'
PGd	5	Picea glauca "Densata"	Black Hills Spruce	6-8' Tall	B&B, HT. 25', W 15'
PMp	9	Pinus mugo 'Pumila'	Mugo Pine	24-36" Tall	B&B, HT. 3', W 4'
JCp	29	Juniperus chinensis 'Perfecta'	Perfecta Juniper	24-36" Tall	B&B, HT. 16', W 7'
JCog	11	Juniperus chinensis 'Ontario Green'	Ontario Green Juniper	24-36" Tall	B&B, HT. 8', W 6'
PR	6	Pinus resinosa	Red Pine	6-8' Tall	B&B, HT. 60', W 20'
		S H R U B S			
RAgl	30	Rhus aromatica 'Gro-low'	Fragrant Sumac	18-24" Tall	Cont. #3, HT. 2-3, W 6'
VC	60	Viburnum carlesii	Korean Spice Viburnum	24-36" Tall	B&B, HT. 4', W 4'
AFR	36	Cornus sericea 'Farrow'	Arctic Fire Red Twig Dogwood	24-36" Tall	B&B, HT. 4', W 4'
WRW	33	Ilex verticillata 'Winter Red'	Winter Red Winterberry Holly	24-36" Tall	B&B, HT. 7', W 5'
JhW	15	Juniperus horizontalis 'Wiltonii'	Blue Rug Juniper	6-8" Tall	B&B, HT.1.5', W 6'
CSd	39	Cornus sericea	Red Twig Dogwood	24-36" Tall	B&B, HT. 4', W 4'
SC	12	Sambucus canadensis	American Eldeberry	24-36" Tall	B&B, HT. 4', W 3'
RRr	12	Rosa radrazz	Knockout Rose	18-24" Tall	Cont. no.3 - 3'Tall, 3'Wide
HQ	15	Hydrangea quercifolia	Oakleaf Hydrangea	24-36" Tall	B&B, HT. 5', W 5'
VL	13	Viburnum lentago	Nannyberry Viburnum	36-48" Tall	B&B, HT. 5-7', W 6'
SPn	16	Salix purperea 'Nana'	Blue Arctic Willow	24-36" Tall	B&B, HT. 12', W 6'
IxMH	11	Ilex x meserveae 'Hachfee'	Castle Spire Blue Holly	24-36" Tall	B&B, HT. 10', W 4'
CSb	12	Cornus sericea baileyi	Red Twig Dogwood	24-36" Tall	B&B, HT. 8', W 8'
IGgb	30	Ilex glabra 'Gembox'	Gem Box Inkberry Holly	24-36" Tall	B&B, HT. 3', W 3'
SPs	0	Salix purperea 'Streamco'	Streamco Willow	24-36" Tall	B&B, HT. 12', W 6'
		G R A S S E S / P E R E N N I A L S / G R O U N D C O V E R S			
RO	29	Andropogon Gerardii 'Red October'	Red October Big Blue Stem	18-24" Tall	Cont. #3, HT. 4', W 6'
NxF	36	Nepeta x faassenii 'Walker's Low'	Walkers Low Catmint	6-12" Tall	Cont. no.3 - 18" Tall, 1-4'Wide



STD. EVERGREEN PLANTING
NOT TO SCALE

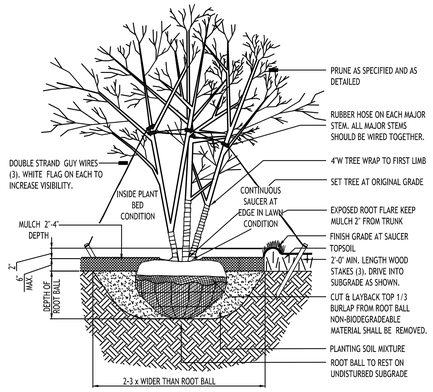


STD. DECIDUOUS TREET PLANTING
NOT TO SCALE

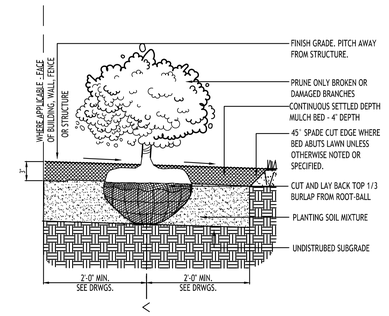


SECTION
NOTE: PLANT BULBS IN TRENCHES AND BOUQUET PLANTING

GROUND COVER PLANT SPACING
NO TO SCALE



DECIDUOUS TREE PLANTING - MULTI - STEM
NO TO SCALE



STD. SHRUB PLANTING
NOT TO SCALE

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Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
	Per Engineering comments	6/17/26

STATE OF NEW YORK
CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Landscape Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
L-105

Project No: 23-4121

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N

Lighting Plan

SCALE: 1"=50'

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	VOLTS	NOTE 1	QUANTITY	LUMENS / LAMP	TOTAL LUMENS
S	○—□	(24) 4617W (32) 4000K CCT, 70 CRI LEDS	PREVAIL AREA AND WALL LUMINAIRE(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS	ELECTRONIC	POLE	COOPER LIGHTING SOLUTIONS – LUMARK (FORMERLY EATON), PRV–P–PA1D–740–U–T3	120V 1P 2W	Mounting Height: 18'	14	9945	238680
W	⊢□	(1) 3719W 3000K CCT, 70 CRI LEDS	WALL PACK	ELECTRONIC	WALL	COOPER LIGHTING SOLUTIONS – HALO, WXPS40UNVDBZ–30W–4000K	120V 1P 2W	Mounting Height: 12'	20	3719	3719

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50' 50 0 50 100Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

STATE OF NEW YORK · R. CHRISTOPHER WOOD · 076394 · LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Lighting Plan

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
LP-100

Project No: 23-4121

CARMINAWOOD
DESIGN

June 23, 2026

Mr. Jeffrey Schieber
Town of West Seneca
Code Enforcement Officer
1250 Union Road – Room 210
West Seneca, NY 14224

Re: **Revised Site Plan Submittal**
Multifamily Development
1425 & 1475 Orchard Park Road
West Seneca, NY 14224

Dear Mr. Schieber:

On behalf of our client, Brian Hillery and William Sahlem, please find the enclosed revised civil site plans and SWPPP Report. These items have been updated based on input received from the Planning Board at their meeting held on June 11, 2026 and the engineering review comment letter issued on June 10, 2026.

Below is a summary of updates and revisions based on discussion with the Planning Board:

1. As requested, the Site Plan has been revised to include "No Parking" signs in the greenspace areas between units.
2. As requested, additional guest parking has been added for the two 6-unit buildings to the south.
3. A decorative aluminum rail fence has been added around the cemetery.

We offer the following responses to the engineering comment letter issued 6/10/26:

General Comments

1. Please include the 100' wetland buffer on all project plans.
Response: Due to the recent overturn of the 2025 NYSDEC regulations, DEC no longer has wetland jurisdiction over this site. Therefore the 100-ft buffer no longer applies.

2. In addition to previously mentioned details, please provide details for the following:
   a. All Proposed signage
   Response: A ground sign has been added to the site plan C-100. This will be approved and permitted by the Building Department under a separate application.

   b. Curbs (if applicable)
   Response: Not Applicable

   c. Curb Ramps (if applicable)

Response: Not Applicable

d. Bus Shelter
Response: Building plans for the bus shelter, and all other proposed structures, will be reviewed and approved by the Building Department under a separate application.

e. Emergency Spillway
Response: Detail has been added to Sheet C-303

f. Dumpster enclosure pad
Response: The dumpster pad will be the same as the concrete slab on grade detail and is noted as such on the site plans.

C-0 Series - Erosion & sediment Control Plans

1. Please indicate the full extent of the limits of disturbance on the ESC plan. Also indicate the total acreage of proposed disturbance. (This can be shown slightly offset from the true disturbance to avoid linework conflicts.)
   Response: The limits of disturbance and total acreage of disturbance are shown and noted on Sheet C-001.

2. Please add contour labels to the ESC plan.
   Response: Contour labels have been added to Sheet C-001.

3. Please provide a 'Protective Fencing Detail' as this is called out for protecting the cemetery. Has consideration been given to the effects of vibrations caused by heavy machinery (diggers, vibratory rollers, etc.) to the existing gravestones?
   Response: This note has been updated to indicate the fencing to be orange mesh construction fencing and for the contractor to submit shop drawings prior to construction. Consideration has been given to the proximity of the cemetery and it is our opinion that there is a sufficient buffer so as to not disturb the existing gravestones.

4. Please show the location for the construction trailer office/ contractor staging areas on the ESC plans.
   Response: Location of the construction trailer office / contractor staging area has been added to Sheet C-001.

5. Wherever possible, please adjust silt sock/fence to be installed parallel to contours.
   Response: Where possible, the silt sock / fence has been adjusted accordingly.

6. Please include a note on the plan to indicate that stumps and brush may not be buried in the Town and that topsoil may not be removed from the work site without a permit.
   Response: The requested not has been added to Sheet C-001.

C-2 Series - Grading Plans

1. Per the site plan checklist, the minimum slope of pavement is to be 1.5%. While the majority of asphalt grades are close to this, and drainage is not anticipated to be a major concern as shown, please review grading plans to best attempt to meet this requirement within reason.
   Response: The pavement grading, especially on the north section, was largely constrained due to placement of the buildings and the existing grade. It is our opinion that the 1.2% minimum slope will be sufficient to provide proper drainage.

2. It is assumed that two separate bioretention areas have been included in order to ensure each falls under the maximum contributing area threshold of 5-acres. We'd recommend to the applicant to further vertically separate these two bioretention areas to ensure they act independently from each other. Furthermore, we'd recommend the applicant review the potential need for rip-rap stabilization on the larger detention area's side slopes adjacent to the bioretention basins to prevent erosion in the case the bioretention basins overflow.
   Response: The grading plan has been revised to note a berm is to be installed between the two bioretention areas to ensure that they acti independently. In the case of overflow, runoff will be directed to the detention area, which has been noted to be lined with rip-rap.

C-3 Series - Drainage Plans/ Details

1. Please provide an outlet structure detail for the bioretention areas clearly showing the elevations of the proposed outlets. Maintain coordination with the HydroCAD model for these elevations.
   Response: An outlet structure detail has been added to Sheet C-303.

C-4 Series - Utility Plans/ Details

1. Please provide utility profiles for all proposed Sanitary Sewers/Laterals and Water service lines ensuring that all utility crossings are included.
   Response: Utility profiles are shown on Sheet C-406.

2. While it is anticipated final locations will be coordinated with and determined by the utility provider, please provide approximate locations for electrical and gas services.
   Response: Approximate locations for electrical and gas services have been added to the utility plans.

3. Please relocate San MH-1 further to the South such that the new gravity section of sewer is perpendicular with the existing manhole. The proposed force main and 6" gravity sewer lateral form the adjacent building can be extended and routed into the manhole. This will improve the hydraulics of the sewage from the site entering the Town System and eliminates a potential conflict with existing catch basins.
   Response: SAN MH 1 has been relocated as requested.

4. We recommend the applicant utilize fused 3" or 4" HDPE pipe instead of 3" SDR-21 PVC pipes as it will help eliminate bends and pipe joints which are potential points for leaks.

Response: The force main pipe material has been revised from PVC to fused HDPE.

5. We recommend the applicant relocate the sanitary lateral from the Northern apartment building such that it discharges directly into San MH-2 as opposed to the sewer main in order to provide improve maintenance access.
Response: The lateral in question has been relocated to connect directly to SAN MH 2.

6. Please provide more information on the size and capacity of the proposed sanitary pumps in order to ensure the discharge rate is not high enough to inundate the Town's sewers.
Response: The pump characteristic table on the pump station detail has been filled in on Sheet C-404.

L-Series - Landscaping Plans/ Details

1. Please review the planting details for trees, evergreens, and shrubs. The Town of West Seneca states that the 'crown of the root ball is to be 6" above finished grade for trees and 3" above finished grade for shrubs'.
Response: The planting details have been updated accordingly.

SWPPP Comments

1. Please add the SBL to Section 102 of the SWPPP document.
Response: SBL No's. added to Section 102.

2. In Section 110, it is understood that New York State Historic Preservation Office has given clearance to the project. Has the project engineer or developers reached out to West Seneca Historical Society or New York State Division of Cemeteries to receive input/comment on the potential impact to the onsite cemetery? The cemetery, St. Paul's Union Church of Christ Cemetery, is registered with the Town of West Seneca and is listed as an active cemetery. Correspondence with the Church should be had about the nature of how active the cemetery is, if there are any remaining plots to be filled or plots already purchased for use, and if these plots have been taken into account in the project design. Please forward all correspondence to the review engineers.
Response: The onsite cemetery is not listed on the New York State Division of Cemeteries list as an active cemetery. Conversations with representatives from the Church indicate that activity levels are low and that there are no remaining plots to be filed nor plots that have been purchased. The last burial at this cemetery was in 1921.

3. Is more than 5 acres of disturbance at one time proposed? If so, a waiver will need to be obtained from the Town of West Seneca. Number 23 of the eNOI was answered in the affirmative, if this is case then please specifically state this in the SWPPP document.
Response: It is expected that more than 5 acres will be disturbed at one time. The need for a 5 acre waiver has been added to Section 104 – Project Description.

4. Please mention the protective fence for the cemetery in Section 112.3 of the SWPPP.

Response: Installation of the temporary protective fencing around the cemetery has been added to Section 112.3.

5. Please include the number for NYSDEC Spill Response in section 118.3 B3 of the SWPPP.
   Response: The NYSDEC Spill Response number has been added to this section.

6. Please provide scaled pre and post drainage area maps for review including all watersheds, hatches indicating different types of land covers, and a time of concentration line. Please ensure these are annotated to correspond to the HydroCAD report.
   Response: Pre and post construction drainage area maps have been added to the Engineer's Report in Appendix D.

7. Please provide pre and post drainage area descriptions within the SWPPP.
   Response: Pre and post drainage area descriptions are provided in Section 104 – Project Description and Section 112.4 – Storm Water Management.

8. Please provide stage-storage table for the proposed bioretention node in the HydroCAD model.
   Response: The bioretention areas have been added to the HydroCAD model.

9. Please ensure all rainfall inputs into the HydroCAD model have been set following Section 4.9 of NYSDEC's 2024 Stormwater Management Design Manual.
   Response: The rainfall inputs have been set accordingly per the NYSSMDM.

10. Many of the HydroCAD nodes have warnings that the peak is exceeding the capacity. Please review and address or offer an explanation to these warnings.
    Response: The warnings refer to the runoff exceeding the capacity of the pipe that is modeled as part of the time of concentration. This is because the program assumes that all of the runoff from the subcatchment flows through this pipe, which is not the case.

11. Please include a final link node in the HydroCAD reports to directly compare the total runoff offsite of the existing and proposed conditions.
    Response: A final link has been added to the model accordingly.

12. It is recommended with a site of this size to further break-up watersheds, especially in the proposed conditions HydroCAD report to improve the accuracy, and better size the proposed drainage piping.
    Response: This is essentially achieved via the pipe sizing calculations provided which very closely match the HydroCAD model.

13. Please provide stormwater pipe sizing calculations.
    Response: Pipe sizing calculations have been added to the Engineer's Report in Appendix D.

14. Please note, further in-depth review of the SWPPP is needed and may result and further comments when information requested is provided for review.
Response: Comment acknowledged.

If you should have any questions regarding this letter, please contact me at (716) 213-3750 or via email at apandolfe@carminawooddesign.com.

Thank you.

Sincerely,
Carmina Wood Design



Anthony J. Pandolfe, PE | Senior Associate

CARMINA WOOD
DESIGN

STORMWATER POLLUTION PREVENTION PLAN

for

CONSTRUCTION ACTIVITIES

At

Multifamily Development

1425 & 1475 Orchard Park Road
West Seneca, Erie County, New York

Prepared for

Brian Hillery & William Sahlem

1 Woodthrush Trail
Orchard Park, NY 14127

Prepared by

Carmina Wood Design

80 Silo City Row, Suite 100
Buffalo, NY 14203

Telephone: (716) 842-3165
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May 2026
Revised June 2026



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101 SCOPE

A. **PURPOSE:** Brian Hellery & William Sahlem have placed an emphasis on following the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity governing storm water discharges during construction, and in accordance with erosion control practices. The Contractor's participation in this program is mandatory and its non-compliance is subject to various remedies, including without limitation, monetary set-offs, withholding payments; reimbursement for costs, expenses (including reasonable attorney's fees), fines and civil penalties incurred by the owner; and/or liquidated damages. This section provides a descriptive explanation of the owner's Storm Water Pollution Prevention Program and required Contractor participation.

The Engineer of record for this project certifies that this SWPPP meets the requirements and is in compliance with the New York State Stormwater Management Design Manual and latest NYSDEC Phase II stormwater regulation requirements.

B. **SPDES General Permit for Stormwater Discharges from Construction Activity:** Regulations promulgated by the NYSDEC to regulate the discharge of storm water from construction activities on sites where more than one (1) acre of soil is disturbed. One of the ways to comply with these regulations for affected sites is to request coverage under the General Permit for Construction Activities for New York State. In order to use the General Permit, a Notice of Intent (NOI) form must be completed and electronically submitted to the NYSDEC at least 5 business days prior to any earth-disturbing activities (this time frame may increase to 60 business days if a full review of the SWPPP is determined necessary by the NYSDEC) and a Storm Water Pollution Prevention Plan (SWPPP) for the site must be prepared and followed during the construction activities. Once a copy of the SPDES permit is received from NYSDEC, a copy will be included in Appendix F of this report.

Approval from a regulated, traditional land use control MS4:

1. An **owner or operator** of a construction activity that is <u>not</u> subject to the requirements of a regulated, traditional land use control MS4 must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the NYSDEC.

2. An **owner or operator** of a construction activity that is subject to the requirements of a regulated, traditional land use control MS4 must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the MS4 prior to submitting the NOI to the NYSDEC. The **owner or operator** shall have the "MS4 SWPPP Acceptance" form signed by the principal executive officer or ranking elected official from the regulated, traditional land use control MS4, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under "Notice of Intent (NOI) Submittal".

C. **RESPONSIBILITIES OF THE CONTRACTOR:** The Contractor shall manage the discharge of storm water from the site in accordance with the NYSDEC General Permit for Construction Activities conditions and the following provisions of this section. The Operator shall be responsible for conducting the storm water management practices in accordance with the permit. The Contractor shall be responsible for providing **qualified inspector**s to conduct the inspections required by the SWPPP. The Contractor shall be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the Contractor's failure to comply with the permit provisions. It shall be the responsibility of the Contractor to make any changes to the SWPPP necessary when the Contractor or any of his subcontractors elects to use borrow or fill or

material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites which are used for multiple construction projects are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The Contractor should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.

D. **NOTICE OF INTENT:** The Operator has petitioned the NYSDEC for coverage under the storm water discharges during construction at this site to be covered by the SPDES General Permit for Construction Activity for the State of New York. A Notice of Intent (NOI) for coverage under this permit has been filed by the Operator. The SWPPP must be prepared prior to submittal of the NOI form. The Operator will require the Contractor to be a co-permittee with the Operator. The Contractor will be required to post the NOI at the construction site along with any building permits.

E. **CONTRACTOR CERTIFICATION & TRAINING:** Proof of Training/Certification of the Contractor's designated individual shall be kept on site at all times.

F. **REQUIREMENTS FOR THE GENERAL CONTRACTOR AND SUBCONTRACTOR(S):** The General Contractor and Subcontractor(s) shall sign the "Contractor's Certification Statement" (located in the Appendix of this report) verifying they have been instructed on how to comply with and fully understand the requirements of the SPDES General Permit for Construction Activity for the State of New York and the SWPPP. These certifications must be signed, by a responsible corporate officer or other party meeting the "Signatory Requirements" of the SPDES General Permit, on behalf of each entity, prior to the beginning of any construction activities.

G. **STORM WATER POLLUTION PREVENTION PROGRAM LOCATION REQUIREMENTS:** The SWPPP is meant to be a working document that shall be maintained at the site of the Construction Activities at all times throughout the project, shall be readily available upon request by the Operator's personnel or NYSDEC or any other agency with regulatory authority over storm water issues, and shall be kept on-site until the site complies with the Final Stabilization section of this document. A sign or other notice must be posted near the main entrance of the construction site which contains a completed NOI, the location of the SWPPP and the name and phone number of a contact person responsible for scheduling SWPPP viewing times, and any other state specific requirements.

H. **INSPECTIONS AND RECORD-KEEPING:**

A. **<u>General Construction Site Inspection and Maintenance Requirements</u>**

1. The **owner or operator** must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. **<u>Owner or operator Maintenance Inspection Requirements</u>**

1. The **owner or operator** shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications

for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the **owner or operator** can stop conducting the maintenance inspections. The **owner or operator** shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of the General Permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the **owner or operator** can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. **Qualified inspector Inspection Requirements**

The **owner or operator** shall have a **qualified inspector** conduct site inspections in conformance with the following requirements:

Note: The **trained contractor** identified in Part III.A.6 of the General Permit **cannot** conduct the **qualified inspector** site inspections unless they meet the **qualified inspector** qualifications included in Appendix A of the General Permit. In order to perform these inspections, the trained contractor would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity.

1. A **qualified inspector** shall conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B of the General Permit, with the exception of:

   a. The construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C of the General Permit and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

   b. The construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

c. Construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. Construction activities located in the watersheds identified in Appendix D of the General Permit that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the **qualified inspector** shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the **qualified inspector** shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the **owner or operator** has received authorization in accordance with Part II.C.3 of the General Permit to **disturb greater than five (5) acres** of soil at any one time, the **qualified inspector** shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been **temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas**, the **qualified inspector** shall conduct a site inspection at least once every thirty (30) calendar days. The **owner or operator** shall notify the Regional Office stormwater contact person (see contact information in Appendix F of the General Permit) or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the **owner or operator** of the construction activity) in writing prior to reducing the frequency of inspections.

d. For construction sites where **soil disturbance activities have been shut down with partial project completion**, the **qualified inspector** can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The **owner or operator** shall notify the Regional Office stormwater contact person or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the **owner or operator** of the construction activity). in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the **owner or operator** shall have the **qualified inspector** perform a final inspection and certify that all disturbed areas have achieved final stabilization, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The **owner or operator** shall then submit the completed NOT form to the address in Part II.A.1 of the General Permit.

3. At a minimum, the **qualified inspector** shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved final stabilization, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.

4. The **qualified inspector** shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

    a. Date and time of inspection;

    b. Name and title of person(s) performing inspection;

    c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

    d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

    e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface waterbody;

    f. Identification of all erosion and sediment control practices that need repair or maintenance;

    g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

    h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

    i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

    j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and

    k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The **qualified inspector** shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The **qualified inspector** shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The **qualified inspector** shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the **qualified inspector** shall notify the **owner or operator** and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the **qualified inspector**. Pursuant to Part II.C.2 of the General Permit, the inspection reports shall be maintained on site with the SWPPP.

Record Retention - The **owner or operator** shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves final stabilization. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

I. **SWPPP MODIFICATIONS:** The inspection report should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP is meant to be a dynamic working guide that is to be kept current and amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants or when the plan proves to be ineffective in eliminating or significantly minimizing pollutant discharges. The Contractor's failure to modify or report deficiencies to the Operator will result in the Contractor being liable for fines and construction delays resulting from any federal, state, or local agency enforcement action.

J. **FINAL STABILIZATION AND TERMINATION OF PERMIT COVERAGE:** A site can be considered finally stabilized when all soil disturbing activities have been completed and a uniform perennial vegetative cover with a density of **85%** for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the facility no longer discharges storm water associated with construction activities and a Notice of Termination (NOT) form filed by the Operator(s) with the NYSDEC. The Operator's Project Manager must complete the NOT. The NOT must be signed by the signatory (or equivalent position) on the NOI and subsequently submitted to the appropriate agency. The Operator's Project Manager must provide a completed copy of the NOT to the Contractor for inclusion in the SWPPP, which will then be optically scanned into the final SWPPP document as required. This filing terminates coverage under the General Permit and terminates the Contractor's responsibility to implement the SWPPP, but the requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed. The **owner or operator** shall also have the **qualified inspector** perform a final site inspection prior to submitting the NOT to the Department. Final payment and/or the release of retainage will be withheld until all provisions of the SWPPP have been submitted, completed and accepted by the Operator.

102 PROJECT NAME AND LOCATION

Multifamily Development

1425 & 1475 Orchard Park Road (SBL Nos. 143.19-1-8, 143.19-1-9 & 152.07-1-1)

Town of West Seneca, County of Erie, New York

Easting: 192275

Northing: 4746778

Estimated Area of Site ≈ 16.59 acres

Estimated Area to be disturbed by Construction Activities ≈ 7.37 acres

A general location map is included as Appendix A.

103 OPERATOR'S NAME AND ADDRESS

Brian Hillery & William Sahlem

1 Woodthrush Trail

Orchard Park, NY 14127

Contact Person: Brian Hillery

Telephone: 716-512-3425

104 PROJECT DESCRIPTION

This new development project involves the construction of three (3) 4-unit, one (1) 5-unit and two (2) 6-unit ranch style townhomes, for a total of 29 units. Construction will also consist of associated parking, storm water management, utility, lighting, and landscaping improvements. The site is currently vacant consisting of grass, brush and tree cover. The total area of the site is 16.59 acres with an area of disturbance of approximately 7.37 acres. The site has been rezoned to C-1(S) to allow for the development. Since more than five (5) acres will be disturbed at one time, a waiver will be obtained from the Town of West Seneca and inspections shall be performed twice per week.

Soil disturbing activities will include:

A. Construction of temporary construction exit points

B. Clearing & grubbing of the site within disturbance limits

C. Installation of the detention basin & bioretention areas including topsoil & seed

D. Installation of storm sewer pipes and inlets

E. Construction of utilities

F. Construction of curb and parking lot

G. Final grading & landscaping

H. Construction of buildings

This project is owned by Brian Hillery and William Sahlem and will be developed by the same. The work area consists of approximately 7.37 acres for which erosion and sediment controls have been developed and fully addressed in this written plan and the Erosion and Sediment Control Plans. See the construction documents for additional details.

105 RUNOFF COEFFICIENT, SOILS, AND RAINFALL INFORMATION

The initial runoff curve number for the pre-construction site is "CN" = 80. The post-construction runoff curve number for the site will be "CN" = 88. The site is 7.37 acres of which approximately 7.37 acres will be disturbed by construction activities.

The site is in Erie County, which receives an average of approximately 45 inches rainfall annually with the highest amounts of rainfall received in the months of May through September. Annual snow for this area is approximately 120 inches.

106 WATERS

The runoff generated from this site will discharge to existing wetlands on the west side of the project site. Runoff is eventually discharged to Smoke Creek.

107 INDIAN COUNTRY LANDS

This project is not located on Indian Lands.

108 ENDANGERED AND THREATENED SPECIES

No endangered or threatened species have been determined to be on the site.

109 CRITICAL HABITAT

See section 108 above.

110 HISTORIC PLACES

The assessed property is shown on the NYSHPO map as an archeologically sensitive area. A Phase I Cultural Resource Investigation Report was prepared for the site.

Refer to Appendix K for OPRHP Clearance Letter

111 WETLANDS AND/OR OTHER SURFACE WATERS

Approximately 5.60 acres of USACE wetlands were delineated on site. The proposed development will not encroach on nor disturb the wetlands.

Refer to Appendix J for Wetland Delineation Figure: by LaBella

112 EROSION AND SEDIMENT CONTROLS

112.1 STABILIZATION PRACTICES

Stabilization practices for this site include:

A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.

B. Use of stabilization method for all slopes having a slope greater than 1V:3H.

C. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.

D. Mulching exposed areas.

E. Vegetation preservation in undisturbed areas.

F. Frequent watering to minimize wind erosion during construction.

a. **For sites where 5 acres or more are disturbed at any one time**: In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the New York Standards and Specifications for Erosion and Sediment Control.

b. The **owner or operator** shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

c. The **owner or operator** shall install any additional measures needed to protect water quality.

112.2 STRUCTURAL PRACTICES

Structural practices for this site include:

A. Inlet protection using a method detailed in the Construction Documents.

B. Perimeter protection using temporary silt fence/silt sock or silt sock.

C. Outlet protection using rip-rap stone and end sections.

D. Stabilized Construction Entrance.

E. Temporary stone wash off areas.

F. Storm sewer, curb/gutter.

G. Sediment traps and basins.

112.3 SEQUENCE OF MAJOR ACTIVITIES

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

A. Construct temporary construction exit at location shown on the Demo & Erosion Control Plan Sheet.

B. Install perimeter silt fences in the locations shown on the Demo & Erosion Control Plan Sheet.

C. Install protective fencing around cemetery as noted on the Demo & Erosion Control Plan Sheet.

D. Clear and grub site within disturbance (silt fence) limits.

E. Installation of detention basin to act as sediment basin (do not install bioretention soil or underdrains until stabilized)

F. Commence site grading.

G. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.

H. Construction of buildings.

I. Installation of proposed utilities.

J. Finalize pavement subgrade preparation.

K. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all new inlets.

L. Dust control.

M. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.

N. Install base material as required for pavement.

O. Carry out final grading and seeding and planting.

P. Clean storm system following construction.

Q. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.

Note: Sediment control storage during construction (traps & basins) during construction shall be 134 cy per acre of disturbance per NYSDEC requirements.

112.4 STORM WATER MANAGEMENT

The existing site sheet drains from east to west to a USACE jurisdictional wetland area at the rear of the site.

The proposed development will replicate the existing hydrology of the site. The proposed hydrology for the development project area will consist of overland sheet flow and pipe channel flow. The storm sewer system for this site will consist of 6", 8" and 12" HDPE pipes connected by a series of catch basins and yard drains. Stormwater runoff generated from the site will enter the pipe network and be conveyed to a detention basin on the west side of the site. The detention basin will discharge runoff, at a controlled rate, to the existing wetlands. To meet NYSDEC water quality requirements, runoff will be conveyed to a bioretention areas prior to the detention basin. Runoff that is currently being discharged on to the site from the church parking lot to the east will be collected and piped to the west side of the site.

The NYSDEC Stormwater Management Design Manual requires a five-step process for Stormwater Management Planning as outlined in Chapter 3. The five steps include:

1. Site planning to preserve natural features and reduce impervious cover.
    - Approximately 5.6 acres of existing vegetation within the existing wetlands will remain and be protected.
2. Calculation of Water Quality Volume (WQv=RRv) for site.
    - See Stormwater Drainage Calculations.
3. Incorporation of Green Infrastructure techniques and standard SMPs with Runoff Reduction Volume (RRv) capacity.
    - Bioretention areas were incorporated into the site design to provide required RRv for the development. See Stormwater Drainage Calculations.
4. Use of standard SMPs where applicable, to treat the portion of water quality volume not addressed by green infrastructure techniques and standard SMPs with RRv capacity.
    - The bioretention areas serve to the treat the remaining WQv.
5. Design of volume and peak rate control practices where required.
    - See Stormwater Drainage Calculations.

The NYSDEC Stormwater Management Design Manual requires (5) five different criteria be considered when designing a stormwater management system. Those criteria are Water Quality, Runoff Reduction Volume, Channel Protection, Overbank Flooding and Extreme Storm Protection. Below is a summary of each item and how it is incorporated into this project.

Water Quality & Runoff Reduction Volume:

The NYSDEC requires reduction of the total water quality volume by green infrastructure techniques and SMP's to replicate pre-development hydrology. Bioretention areas were incorporated into the site layout to provide the required RRv for contributing WQv runoff area for the development. The bioretention areas will provide 4,378 cf RRv. The minimum RRv required is 2,047 cf. The bioretention areas will also treat 6,349 cf of WQv. The required WQv = 10,727 cf. The sum of the WQv treated and the RRv is equal to the required WQv, therefore the practice is acceptable.

Channel Protection:

The NYSDEC requires that 24-Hour extended detention be provided for the proposed 1-year storm event. A volume of 5,335 cf is accommodated in the detention basin at elevation 671.04.

Overbank Flooding:

The NYSDEC requires that the 10-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. A volume of 15,013 cf is accommodated in the detention basin at elevation 672.95.

Extreme Storm Protection:

The NYSDEC requires that the 100-year proposed storm event be attenuated with detention and that the outlet be restricted to the 100-year existing storm event. A volume of 34,966 cf is accommodated in the detention basin at elevation 674.73.

Refer to the engineer's report for storm sewer design criteria, runoff summary tables and stormwater drainage calculations.

113 OTHER CONTROLS

113.1 OFF-SITE VEHICLE TRACKING

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments. Existing paved areas will remain as long as possible and will be used for vehicle wash areas and to further aid in the reduction of vehicle tracking of sediments. The paved streets adjacent to the site entrance shall be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material to/from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

113.2 EXCAVATION SPOIL MATERIALS

Excavation spoil materials are generated during the excavation of the development's building and utilities installation. These materials must be properly managed to prevent them from contributing to storm water discharges. The materials generated from the development of this project will be hauled off-site or stockpiled for re-use in designated areas which will have temporary erosion & sediment control measures installed. Any removal from site will be done under the necessary permits required by the local governing agencies.

113.3 DUST CONTROL

Minimizing wind erosion and controlling dust will be accomplished by one or more of the following methods:

A. Frequent watering of excavation and fill areas.

B. Providing gravel or paving at entrance/exit drives, parking areas and transit paths.

113.4 WASTE DISPOSAL

If needed, all waste materials will be collected and stored in securely lidded metal dumpsters rented from an approved waste management company. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpsters. The dumpsters will be emptied when full and then hauled to a NYSDEC approved landfill for proper disposal. No construction waste will be buried on-site. All personnel will be instructed regarding the correct procedures for waste disposal.

113.5 SANITARY WASTE

If needed, portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

113.6 CONCRETE WASTE FROM CONCRETE TRUCKS

A. Emptying of excess unhardened concrete and/or washout from concrete delivery trucks will be allowed on the job site, but in either (1) specifically designated diked areas which have been prepared to prevent contact between concrete and/or washout and storm water which will be discharged from the site or (2) in locations where waste concrete will be poured into forms to make rip-rap or other useful concrete products.

B. Hardened waste concrete from the designated diked areas described above will be disposed of in accordance with applicable local and state regulations with regards to disposal of construction debris.

113.7 HAZARDOUS SUBSTANCES & HAZARDOUS WASTE

A. All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job superintendent, who will also be responsible for seeing these practices are followed. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such products are stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

B. The contractor will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this SWPPP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials of hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge shall be

contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job superintendent to properly train all personnel in the use of the SPCC plan.

C. Any spills of hazardous materials which are in excess of the Reportable Quantities as defined by the EPA regulations shall be immediately reported to the EPA National Response Center at 1-100-424-1102. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

D. In order to minimize the potential for a spill of hazardous materials to come in contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, under cover, when not in use.

2. The minimum practical quantity of all such materials will be kept on the job site.

3. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

4. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

5. All products will be stored in and used from the original container with the original product label.

6. All products will be used in strict compliance with instructions on the product label.

7. The disposal of excess or used products will be in strict compliance with instructions on the product label.

113.8 CONTAMINATED SOILS

A. Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations.

B. The job site superintendent will be responsible for seeing that these procedures are followed.

114 COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

The Contractor will obtain copies of any and all local and state regulations which are applicable to storm water management, erosion control, and pollution minimization at this job site and will comply fully with such regulations. The Contractor will submit written evidence of such compliance if requested by the Operator or any agent of a regulatory body. The Contractor will comply with all conditions of the SPDES General Permit for Construction Activity for the State of New York, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

The SWPPP for this site development project requires regulated MS4 approval from the Town of West Seneca. All changes to the SWPPP must be approved by the Town of West Seneca prior to applying changes to the SWPPP in the field.

115 INSPECTION AND MAINTENANCE PROCEDURES

The following inspection and maintenance practices will be used to maintain erosion and sediment controls and stabilization measures.

1. All control measures will be inspected by the owner/operator at least weekly and shall continue until the site complies with the Final Stabilization section of this document (See Section 116).

2. All control measures will be inspected by a Qualified Professional at least weekly and shall continue until the site complies with the Final Stabilization section of this document (See Section 116).

3. All measures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be initiated within 24 hours of report.

4. Built up sediment will be removed from silt fence/silt sock when it has reached one-third the height of the fence.

5. Silt fence/silt socks will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.

6. Temporary and permanent seeding and all other stabilization measures will be inspected for bare spots, washouts, and healthy growth.

7. A maintenance inspection report will be made after each inspection. Copies of the report forms to be completed by the inspector are included in this SWPPP.

8. The job site superintendent will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.

9. Personnel selected for the inspection and maintenance responsibilities will receive training from the job site superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms. Documentation of this personnel training will be kept on site with the SWPPP.

10. Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.

11. Report to the NYSDEC within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event. The following events require 24 hour reporting: a) any unanticipated bypass which exceeds any effluent limitation in the permit, b) any upset which exceeds any effluent limitation in the permit, and c) a violation of a maximum daily discharge limitation for any of the pollutants listed by the NYSDEC in the permit to be reported within 24 hours. The written submission must contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been

corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.

12. Releases of hazardous substances or oil in excess of reportable quantities (as established under 40 CFR 110, 40 CFR 117 or 40 CFR 302) must be reported.

Upon completion of construction, the property owner is responsible for ensuring that the stormwater facilities are regularly inspected and maintained. Maintenance and inspection procedures are as follows.

1. On a quarterly basis and following significant rainfall events or snow-melts, perform the following:

   - Inspect catch basins, storm manholes, treatment structures, storm piping and stormwater pond for debris and accumulation of sediment.
   - Remove and properly dispose of any collected debris and sediment in accordance with applicable state, federal and local regulations.
   - Flush piping with water if necessary to remove accumulated sediment.
   - Bioretention areas shall be maintained per the NYSDEC Maintenance and Management Checklist included in this SWPPP.
   - Check all stone outfall structures for erosion and re-stone if necessary to prevent further erosion.
   - Inspect grassed/landscaped areas for un-vegetated areas or areas with less than 85% healthy stand of grass and reseed and mulch as necessary. Water daily if reseeded in July and August.
   - A record of all inspections should be kept.

2. Maintain all lawn areas by regular mowing, including the grassed slopes of the stormwater pond and any grass swales. Any eroded areas shall be regarded, seeded and mulched immediately.

116 INSPECTION AND MAINTENANCE REPORT FORMS

Once installation of any required or optional erosion control device or measure has been implemented, inspections shall be performed by a Qualified Professional at least once every seven (7) calendar days. For construction sites where soil disturbance activities are on-going and the **owner or operator** has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the **qualified inspector** shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. The owner and contractor shall obtain from the MS4 an approval for disturbing more than five-acres at any given time. For construction sites where active construction has been suspended, inspection frequency under the general permit can be reduced to once every 30 days, provided temporary stabilization measures have been applied to all disturbed areas. The forms found in this SWPPP shall be used by the inspectors to inventory and report the condition of each measure to assist in maintaining the erosion and sediment control measures in good working order.

These report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the Operator's Engineer, and the Operator for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these

persons, upon request, via mail or facsimile transmission. Inspection and maintenance report forms are to be maintained by the permittee for five years following the final stabilization of the site.

117 OTHER RECORD-KEEPING REQUIREMENTS

The Contractor shall keep the following records related to construction activities at the site:

- Dates when major grading activities occur and the areas which were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when an areas is stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

118 SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN

118.1 MATERIALS COVERED

The following materials or substances are expected to be present onsite during construction:

- Concrete/Additives/Wastes
- Cleaning solvents
- Sanitary wastes
- Detergents
- Petroleum based products
- Paints/Solvents
- Pesticides
- Solid and construction wastes
- Acids
- Fertilizers
- Soil stabilization additives

118.2 MATERIAL MANAGEMENT PRACTICES

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff. The job site superintendent will be responsible for ensuring that these procedures are followed.

A. Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project.

1. An effort will be made to store only enough products required to do the job.

2. All materials stored onsite will be stored in a neat, orderly manner and, if possible, under a roof or in a containment area. At a minimum, all containers will be stored with their lids on when not in use. Drip pans shall be provided under all dispensers.

3. Products will be kept in their original containers with the original manufacturer's label in legible condition.

4. Substances will not be mixed with one another unless recommended by the manufacturer.

5. Whenever possible, all of a product will be used up before disposing of the container.

6. Manufacturer's recommendations for proper use and disposal will be followed.

7. The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

B. Hazardous Products

These practices will be used to reduce the risks associated with hazardous materials. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

1. Products will be kept in original containers with the original labels in legible condition.

2. Original labels and material safety data sheets (MSDS's) will be procured and used for each material.

3. If surplus product must be disposed of, manufacturer's or local/state/federal recommended methods for proper disposal will be followed.

4. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

5. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

C. Hazardous Waste

All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job site superintendent, who will also be responsible for seeing that these practices are followed.

D. Product Specific Practices

The following product specific practices will be followed on the job site.

1. Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any petroleum storage tanks stored onsite will be located within a containment area that is designed with an impervious surface between the tank and the ground. The secondary containment must be designed to provide a containment volume that is equal to 110% of the volume of the largest tank. Drip pans shall be provided for all dispensers. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations. The location of any fuel tanks and/or equipment storage areas must be identified on a plan by the contractor once the locations have been determined.

2. Fertilizers

Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked in the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

3. Paints, Paint Solvents, and Cleaning Solvents

All containers will be tightly sealed and stored when not in use. Excess paint and solvents will not be discharged to the storm sewer system but will be properly disposed of according to manufacturer's instructions or state and federal regulations.

4. Concrete Wastes

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or wash out and storm water which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

The hardened residue from the concrete wash out diked areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the Contractor. The job site superintendent will be responsible for seeing that these procedures are followed.

All concrete wash out areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges. The location of concrete wash out area(s) must be identified on a plan by the contractor once the locations have been determined. In addition, a standard detail on the construction of the concrete wash out shall be included on this plan.

E. Solid and Construction Wastes

All waste materials will be collected and stored in an appropriately covered container and/or securely lidded metal dumpster rented from a local waste management company which must be a solid waste management company licensed to do business in New York and the Town of Orchard Park. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of twice per week or more often if necessary, and the trash will be

hauled to a landfill approved by the NYSDEC. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedures for waste disposal.

All waste dumpsters and roll-off containers will be located in an area where the likelihood of the containers contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of waste dumpsters and roll-off containers must be identified on a plan by the contractor once the locations have been determined.

F. Sanitary Wastes

Portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

All sanitary waste units will be located in an area where the likelihood of the unit contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of sanitary waste units must be identified on a plan by the contractor once the locations have been determined.

G. Contaminated Soils

Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Materials Management Plan and in accordance with applicable state and federal regulations.

118.3 SPILL PREVENTION AND RESPONSE PROCEDURES

The Contractor will train all personnel in the proper handling and cleanup of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job site superintendent to properly train all personnel in spill prevention and clean up procedures.

A. In order to minimize the potential for a spill of hazardous materials to come into contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, with their lids on, preferably under cover, when not in use.

2. The minimum practical quantity of all such materials will be kept on the job site.

3. A spill control and containment kit (containing, for example, absorbent materials, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

4. Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.

B. In the event of a spill, the following procedures should be followed

1. All spills will be cleaned up immediately after discovery.

2. The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substances.

3. The project manager and the Engineer of Record will be notified immediately.

Spills of toxic or hazardous materials will be reported to the appropriate federal, state, and/or local government agency, regardless of the size of the spill. Spills of amounts that exceed Reportable Quantities of certain substances specifically mentioned in federal regulations (40 CFR 110, 40 CFR 117, and 40 CFR 302) must be immediately reported to the EPA National Response Center, telephone 1-100-424-1102 and NYSDEC Spill Response, telephone 1-800-457-7362. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

4. If the spill exceeds a Reportable Quantity, the SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The plans must identify measures to prevent the recurrence of such releases and to respond to such releases.

C. The job site superintendent will be the spill prevention and response coordinator. He will designate the individuals who will receive spill prevention and response training. These individuals will each become responsible for a particular phase of prevention and response. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

119 CONTROL OF NON-STORM WATER DISCHARGES

Certain types of discharges are allowable under the NYSDEC SPDES General Permit for Construction Activity for the State of New York, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures which have been outlined previously in this SWPPP will be strictly followed to ensure that no contamination of these non-storm water discharges takes place. The following allowable non-storm water discharges which may occur at the job site include:

A. Discharges from firefighting activities.

B. Fire hydrant flushings (see note below)

C. Waters used to wash vehicles or control dust in order to minimize offsite sediment tracking.

D. Routine external building washdown which does not use detergents.

E. Pavement wash waters where spills or leaks of hazardous materials have not occurred or detergents have not been used.

F. Air conditioning condensate.

G. Springs or other uncontaminated groundwater, including dewatering ground water infiltration.

H. Foundation or footing drains where no contamination with process materials such as solvents is present.

Note: The Contractor shall discharge any super-chlorinated water from water distribution pipe disinfection activities into sanitary sewer system

120 STORM WATER CONTROL FACILITY MAINTENANCE

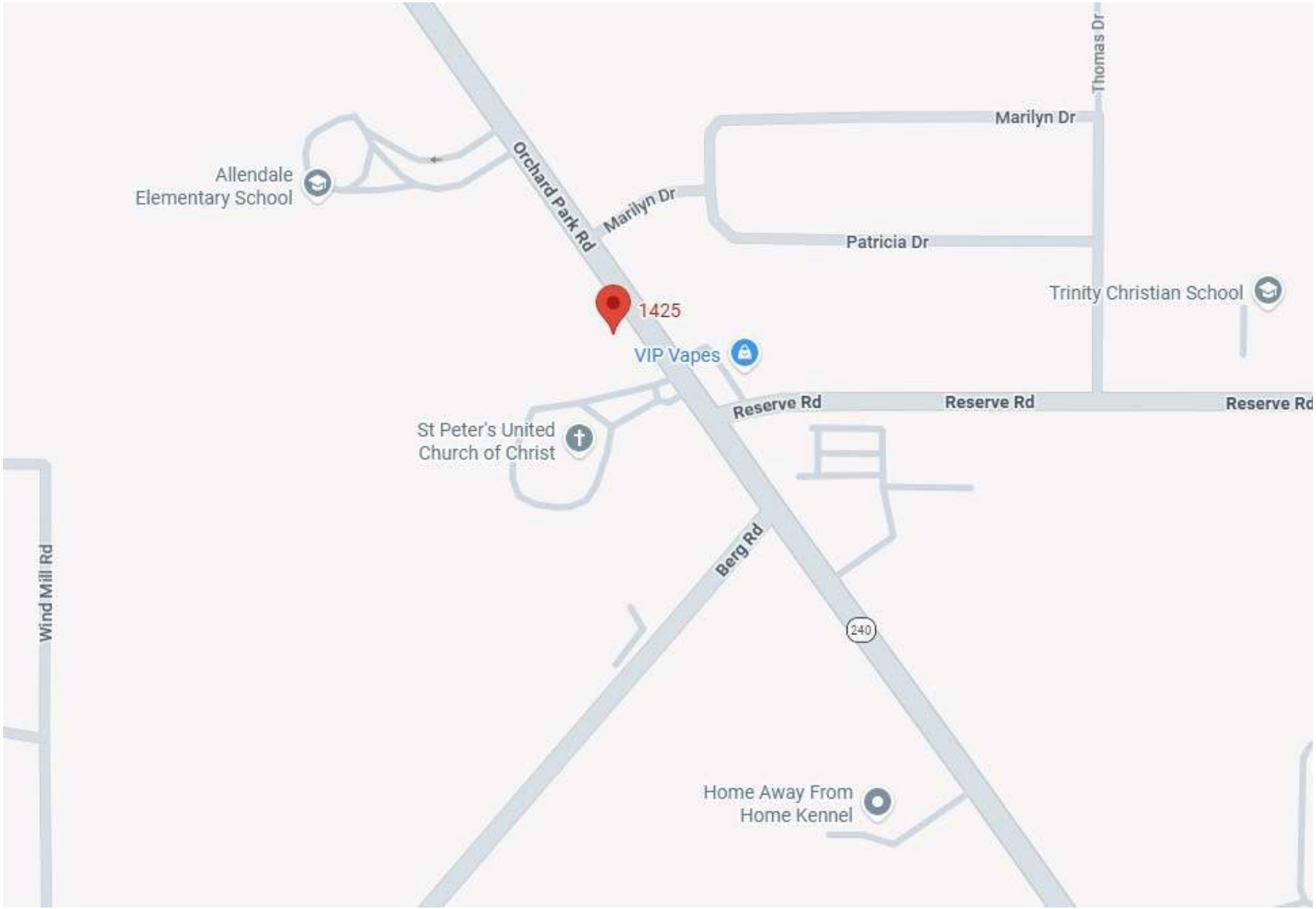
The frequency of inspections for the bioretention areas shall match the frequencies listed on the "Bioretention Operation, Maintenance and Management Inspection Checklist" in Appendix L of the SWPPP.

The proposed catch basins, as per section 115, shall be inspected 4 times per year for removal of floatable debris. Any silt buildup over 6" in depth shall be removed and disposed of properly off-site.

Appendix A

Site Location Map

Site Location Map



Appendix B

NYSDEC Notice of Intent (NOI)

Construction General Permit (CGP) Electronic Notice of Intent (eNOI) GP-0-25-001

version 1.18

(Submission #: HQN-V818-KWDXZ, version 1)

Details

Originally Started By	Anthony Pandolfe
Alternate Identifier	Multifamily Development—Region 9
Submission ID	HQN-V818-KWDXZ
Status	Draft

Form Input

Eligibility

Disturbance Threshold

1. Will the construction activity involve soil disturbances listed in Part I.A.1 of GP-0-25-001?
Yes

1.a. Will any runoff from the site enter a sewer system classified as a combined sewer?
No

1.b. Is this a remediation project being done under a Department approved work plan (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) with a SWPPP which meets the substantive requirements of GP-0-25-001?
No

1.c. Is the construction activity related to a stormwater discharge that does not require a permit as described in 40 CFR 122.3(e), e.g. non-point source agriculture or silviculture activities?
No

Other SPDES Permits

2. Will the discharge from the construction activity meet all conditions listed in Part I.A.2 of GP-0-25-001?
Yes

Threatened and Endangered Species

3. Will the construction activity potentially adversely affect a species that is endangered or threatened per Part I.A.3.?
No

State Historic Preservation Act (SHPA)

4. Is the construction activity designated by the Commissioner of the Office of Parks, Recreation and Historic Preservation (OPRHP), pursuant to 9 NYCRR §§428.12 or 428.13 as exempt from the SHPA review (see Attachment 2 of the Letter of Resolution between NYSDEC and OPRHP, dated January 9, 2015)?
No

4.a. Will the construction activity:

a) occur within an archeologically sensitive area indicated on the sensitivity map, or

b) have the potential to affect a property that is listed or determined to be eligible for listing on the Na or State Registers of Historic Places, or

c) include a new permanent building on the construction site within the following distances from a building, structure, or object that is more than 50 years old and OPRHP, a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determinec historically/archeologically significant building, structure, or object:

- 1-5 acres of disturbance—20 feet
- 5-20 acres of disturbance—50 feet
- 20+ acres of disturbance—100 feet?

Yes

4.a.i. Have the impacts to historic properties been resolved?
Yes

4.a.i.1. Which of the following documentation will be maintained at the construction site?
b) Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area

Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:
No Effect/No Historic Properties Affected

State Environmental Quality Review (SEQR)

5. Is the construction activity subject to SEQR (Part I.A.5.), or the equivalent environmental review from another NYS or federal agency (Part I.A.6.)?
Yes

5.a. Has the owner/operator obtained documentation that the project review pursuant to SEQR, or the equivalent, has been satisfied per Part I.A.5. or I.A.6. of GP-0-25-001?
Yes

Uniform Procedures Act (UPA) Permits

6. Has the owner/operator obtained all necessary UPA permits from NYSDEC, or the equivalent from another NYS or federal agency per Part I.A.7.a. of GP-0-25-001? Select "Yes" if no UPA permits, or the equivalent, are required for this construction activity.
Yes

Steep Slope

7. Is the construction activity within the watershed of surface waters of the State classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website?
No

Owner/Operator Information

8. Owner/Operator Name
Brian Hillery & William Sahlem

9. Owner/Operator Contact Person Information

First and Last Name	Phone	E-mail
Brian Hillery	716-512-3425	brian.hillery@huntrealestate.com

10. Owner/Operator Mailing Address
1 Woodthrush Trail
Orchard Park, NY 14127
USA

11. Is the billing contact different from the Owner/Operator Contact?
No

12. What type of organization is the owner/operator?
Individual

Site Information

13. Project/Site Name
Multifamily Development

14. Site Address
1425 Orchard Park Road
West Seneca, NY 14224
Erie

DEC Region
9

15. Site Latitude & Longitude
42.8117955,-78.7633328

Project Details

16. This eNOI submission is for:
A construction activity not part of a common plan of development or sale in accordance with Part I.D.1.a.

17. Does the project type fall under Table 1 or Table 2 of Appendix B of GP-0-25-001? If any portion of the construction activity falls under Table 2, regardless of the size of the disturbance, select "Table 2".
Table 2

18. Consistent with Part III.B.1.c.i. of GP-0-25-001, provide a concise overview of the project. Describe existing and proposed conditions, and include any other relevant information.
This new development project involves the construction of three (3) 4-unit, one (1) 5-unit and two (2) 6-unit ranch style townhomes, for a total of 29 units. Construction will also consist of associated parking, storm water management, utility, lighting, and landscaping improvements. The site is currently vacant consisting of grass, brush and tree cover. The total area of the site is 16.59 acres with an area of disturbance of approximately 7.37 acres. The site has been rezoned to C-1(S) to allow for the development.

Enter the total project site acreage, the acreage to be disturbed, and the future impervious area (acreage) within the disturbed area, rounded to the nearest tenth of an acre.

19. Total Site Area (acres)
16.6

20. Total Area to be Disturbed (acres)
7.4

21. Existing Impervious Area to be Disturbed (acres)
0.0

22. Future Impervious Area Within Disturbed Area (acres)
3.0

Nature of the project:
New Construction

23. Do you plan to disturb more than 5 acres of soil at any one time?
Yes

> The owner/operator must meet the requirements in Part I.E.6. before disturbing greater than five acres at any one time.

---

24. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)
0

B (%)
0

C (%)
0

D (%)
100

25. Enter the planned start and end dates of the disturbance activities.

Start Date
02/01/2027

End Date
12/31/2027

26. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
wetlands

27. Type of waterbody identified in question 26?
Wetland/Federal Jurisdiction On Site

28. Has the surface waterbody in question 26 been identified as a 303(d) segment in Appendix D of GP-0-25-001?
No

29. Is this project located in one of the Watersheds identified in Appendix C of GP-0-25-001?
No

30. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?
No

31. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?
No

32. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?
No

33. Is this property owned by a state authority, state agency, federal government or local government?
No

Required SWPPP Components

General SWPPP Requirements

34. Has a SWPPP been developed in conformance with the requirements in Part III. of GP-0-25-001?
Yes

35. Does the SWPPP demonstrate consideration of the future physical risks due to climate change pursuant to the CRRA, 6 NYCRR Part 490, and associated guidance per Part III.A.2. of GP-0-25-001?
Yes

36. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?
Yes

37. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the NYS Stormwater Management Design Manual?
Yes

37.a. Which version of the NYS Stormwater Management Design Manual was used to develop the SWPPP?
2024

SWPPP Preparer

39. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:
Professional Engineer (P.E.)

40. Name of the person who prepared the SWPPP
Anthony Pandolfe

41. SWPPP Preparer Organization Name
Carmina Wood Design

42. SWPPP Preparer Contact Information

First and Last Name	Phone	E-mail
Anthony Pandolfe	716-842-3165	apandolfe@carminawooddesign.com

43. SWPPP Preparer Address

80 Silo City Row, Suite 100
Buffalo, NY 14203

Download SWPPP Preparer Certification Form

Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form
3) Upload the completed form
Download SWPPP Preparer Certification Form

44. Please upload the SWPPP Preparer Certification

swppcertform signed.pdf - 05/26/2026 12:50 PM
Comment
NONE PROVIDED

44.a. Has the SWPPP Preparer Certification Form been signed by the SWPPP preparer in accordance with Part VII.J of GP-0-25-001?
Yes

Erosion & Sediment Control Criteria

45. Has a construction sequence schedule for the planned management practices been prepared?
Yes

Post-Construction Criteria

Site Planning and Soil Restoration

46. Identify all site planning practices that were used to prepare the final site plan/layout for the project.
Preservation of Undisturbed Area
Preservation of Buffers
Reduction of Clearing and Grading

47. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6 ("Soil Restoration") of the Design Manual.
All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).

Water Quality Criteria

49. Water Quality Sizing Criteria

Total WQv required (acre-feet)	Total RRv provided (acre-feet)	Minimum RRv (acre-feet)	Total WQv provided (acre-feet)	Sum of RRv and WQv provided
0.246	0.101	0.047	0.146	0.247

49.a. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required.
Site limitations include soils with slow infiltration rates (Type D)

Water Quantity Criteria

51. Does one of the waiver conditions apply to the channel protection for this construction activity?
No

51.b.i. CPv Required (acre-feet)
0.122

51.b.ii. CPv Provided (acre-feet)
0.122

52. Does one of the waiver conditions apply to the Qp and Qf for this construction activity?
No

Overbank Flood Control Criteria (Qp)

52.b.i. Pre-Development (CFS)
8.17

52.b.ii. Post-Development (CFS)
3.94

Total Extreme Flood Control Criteria (Qf)

52.b.iii. Pre-Development (CFS)
18.97

52.b.iv. Post-Development (CFS)
5.97

Operation and Maintenance

53. Has a long-term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?
Yes

53.a. Identify the entity responsible for the long-term Operation and Maintenance.
Brian Hillery

Post-Construction SMP Identification

54. Post-Construction RR Techniques and Standard SMPs

RR Techniques and SMPs	Contributing Impervious Area (acres)	Total Contributing Area (acres)
Filtration Bioretention (F-5)	3.0	

55. Alternative SMPs

Type of Alternative SMP	Manufacturer of the Alternative SMP	Name of the Alternative SMP	Contributing Impervious Area (acres)
NONE PROVIDED	*NONE PROVIDED*	*NONE PROVIDED*	*NONE PROVIDED*

Other Permits

56. Identify other permits, existing and new, that are required for this project/facility.
None

57. Is this NOI for a change in owner/operator per Part I.G.?
No

MS4 SWPPP Acceptance

59. Will the construction activities be within the municipal boundary(ies) of Traditional Land Use Control MS4 Operator(s) and discharge to the MS4(s)?
Yes

59.a. Which form is required per Part I.D.2.b.ii.?
MS4 SWPPP Acceptance Form

MS4 SWPPP Acceptance Form Download

Download the MS4 SWPPP Acceptance Form from the link below.
MS4 SWPPP Acceptance Form

60. MS4 Acceptance or No Jurisdiction Form Upload

NONE PROVIDED
Comment
NONE PROVIDED

60.a. Has the form been signed by the principal executive officer or ranking elected official—or duly authorized representative of that person—in accordance with Part VII.J. and submitted along with this NOI?
No

All forms submitted with the eNOI must be signed in accordance with Part VII.J. per Part I.D.2.b. of GP-0-25-001.

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the Owner/Operator Certification Form by clicking the link below.
Owner/Operator Certification Form

61. Upload Owner/Operator Certification Form

NONE PROVIDED

Comment

NONE PROVIDED

61.a. Has the Owner/Operator Certification Form from Appendix J been signed by the owner/operator, or a representative of the owner/operator in accordance with Part VII.J of GP-0-25-001 and uploaded to the eNOI?

No

All forms submitted with the eNOI must be signed in accordance with Part VII.J. per Part I.D.2.b. of GP-0-25-001.

Additional Project Information

62. Enter any additional pertinent project information in the text box below.

NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
5/26/2026 12:50 PM	swppcertform signed.pdf	Attachment	Anthony Pandolfe

Appendix C

MS4 SWPPP Acceptance Form

MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information	
1. Owner/Operator Name:	Brian Hillery & William Sahlem
2. Contact Person:	Brian Hillery
3. Street Address:	1 Woodthrush Trail
4. City/State/Zip:	Orchard Park, NY 14127
II. Project Site Information	
5. Project/Site Name:	Multifamily Development
6. Street Address:	1425 & 1475 Orchard Park Road
7. City/State/Zip:	West Seneca, NY 14224
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information	
8. SWPPP Reviewed by:	
9. Title/Position:	
10. Date Final SWPPP Reviewed and Accepted:	
IV. Regulated MS4 Information	
11. Name of MS4 Operator:	
12. MS4 SPDES Permit Identification Number: NYR20A	
13. Street Address:	
14. City/State/Zip:	
15. Telephone Number:	

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name[1]:

Title/Position:

Signature:

Date:

VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

(NYSDEC - MS4 SWPPP Acceptance Form - January 2025)

Appendix D

Engineer's Report

CARMINA WOOD
DESIGN

ENGINEER'S REPORT

for

Multifamily Development

1425 & 1475 Orchard Park Road
West Seneca, Erie County, New York

Prepared for

Brian Hillery & William Sahlem

1 Woodthrush Trail
Orchard Park, NY 14127

Prepared by

Carmina Wood Design

80 Silo City Row, Suite 100
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

May 2026
Revised June 2026



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Written Engineer's Report

Section 1 – Location & Description Page 1
Section 2 – Water Service Page 1
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Section 6 – Geotechnical Items Page 4

Appendices

Appendix A Site Location Map

Appendix B Sanitary Sewer & Water Demand Calculations

Appendix C Downstream Sewer Capacity Analysis Report

Appendix D Storm Water Calculations

Appendix E Soil Information

Section 1 – Location & Description

This new development project involves the construction of three (3) 4-unit, one (1) 5-unit and two (2) 6-unit ranch style townhomes, for a total of 29 units. Construction will also consist of associated parking, storm water management, utility, lighting, and landscaping improvements. The site is currently vacant consisting of grass, brush and tree cover. The total area of the site is 16.59 acres with an area of disturbance of approximately 7.37 acres. The site has been rezoned to C-1(S) to allow for the development.

See Appendix A for Site Location Map.

Section 2 – Water System

The proposed 6" combined water service will connect to an existing 8" PVC water main located on the west side of Orchard Park Road. The proposed service will tap the main and enter a heated enclosure where an RPZ and meter will be provided. The combined service will enter the buildings and reduce to a 2" domestic service. Two (2) private fire hydrants are proposed to provide fire protection. Drainage from the hotbox due to testing or failure will be via gravity to the nearest drainage inlet. Water inside the building will be used for typical bathroom and janitorial uses.

Domestic Summary:

Peak Operating Demand:	87 gpm
Water Main:	8" PVC water main along Orchard Park Road
Static Pressure:	70 psi
Friction Loss:	0.2 psi
Elevation Loss:	-2.0 psi
Meter & RPZ Loss:	13 psi
Pressure at furthest unit:	58.8 psi

Fire Summary:

Peak Operating Demand:	1,000 gpm
Water Main:	8" PVC water main along Orchard Park Road
Static Pressure:	70 psi
Friction Loss:	12.6 psi
Elevation Loss:	-2.0 psi
Meter & RPZ Loss:	13 psi
Pressure at furthest hydrant:	46.4 psi

Repairs to all devices will be made during off hours; dual backflow preventers are not required. The site is not located in a 100-year flood plain.

Disinfection of the water service following installation will be continuous feed, according to AWWA C-651, latest revision.

See Appendix B for Sanitary Sewer & Water Calculations.

Section 3 – Sanitary Sewer Service

The proposed sanitary sewer service will connect to an existing manhole located along the west side of Orchard Park Road. The proposed service will consist of approximately 691 LF of 8" SDR-35 PVC private sanitary sewer main at a slope of 0.4%, 346 LF of 6" SDR-35 PVC sanitary sewer lateral at a minimum slope of 1.0% and 285 LF of 3" SDR-21 PVC force main with a minimum cover of 4'.

Design Parameters:
Multifamily Development: 29 units x 220 gpd/unit = 6,380 gpd

Since the sanitary sewer extension is designed to convey greater than 2,500 gpd, a downstream sewer capacity analysis was performed to ensure that the existing sewer could handle the additional flow.

The hydraulic loading rates per "Design Standard for Wastewater Treatment Works" 2014, NYSDEC.

See Appendix B for Sanitary Sewer & Water Calculations

See Appendix C for Downstream Sewer Capacity Analysis Report

Section 4 – Storm Sewer Service

The existing site sheet drains from east to west to a USACE jurisdictional wetland area at the rear of the site.

The proposed development will replicate the existing hydrology of the site. The proposed hydrology for the development project area will consist of overland sheet flow and pipe channel flow. The storm sewer system for this site will consist of 6", 8" and 12" HDPE pipes connected by a series of catch basins and yard drains. Stormwater runoff generated from the site will enter the pipe network and be conveyed to a detention basin on the west side of the site. The detention basin will discharge runoff, at a controlled rate, to the existing wetlands. To meet NYSDEC water quality requirements, runoff will be conveyed to a bioretention areas prior to the detention basin. Runoff that is currently being discharged on to the site from the church parking lot to the east will be collected and piped to the west side of the site.

Design Criteria
Storm pipes: 10-year storm
Detention: Comparison of the existing 1-year vs. the proposed 1-year runoff.
Comparison of the existing 10-year vs. the proposed 10-year runoff.
Comparison of the existing 10-year vs. the proposed 25-year runoff.
Comparison of the existing 100-year vs. the proposed 100-year runoff.

Stormwater Runoff Summary:

To Detention:

Event	Prop. Runoff (cfs)	Elevation (ft)	Storage (cf)
1-yr	1.83	670.86	4,596
10-yr	2.80	672.91	14,741
25-yr	3.08	673.66	20,871
100-yr	3.43	674.69	34,430

Direct:

Event	Prop. Runoff (cfs)
1-yr	0.38
10-yr	1.12
25-yr	1.57
100-yr	2.52

Total Site:

Event	Ex. Runoff (cfs)	Prop. Runoff (cfs)
1-yr	2.63	1.87
10-yr	8.17	2.89
25-yr	11.66	3.23
100-yr	18.97	4.61

See Appendix D for Storm Water Calculations

Section 5 – Erosion Control Summary

Stabilization Practices
Stabilization practices for this site include:

A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
B. Use of stabilization fabric for all slopes having a slope greater than 1V:3H.
C. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
D. Mulching exposed areas.
E. Frequent watering to minimize wind erosion during construction.

Structural Practices
Structural practices for this site include:

A. Inlet protection using a method detailed in the Construction Documents
B. Perimeter protection using temporary silt fence
C. Temporary stone wash off areas

Sequence of Major Activities

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

A. Construct temporary construction exit at location shown on the Demo & Erosion Control Plan Sheet.
B. Install perimeter silt fences in the locations shown on the Demo & Erosion Control Plan Sheet.
C. Install protective fencing around cemetery as noted on the Demo & Erosion Control Plan Sheet.
D. Clear and grub site within disturbance (silt fence) limits.
E. Installation of detention basin to act as sediment basin (do not install bioretention soil or underdrains until stabilized)
F. Commence site grading.
G. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
H. Construction of buildings.
I. Installation of proposed utilities.
J. Finalize pavement subgrade preparation.
K. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all new inlets.
L. Dust control.
M. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
N. Install base material as required for pavement.
O. Carry out final grading and seeding and planting.
P. Clean storm system following construction.
Q. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.

Section 6 – Geotechnical Items

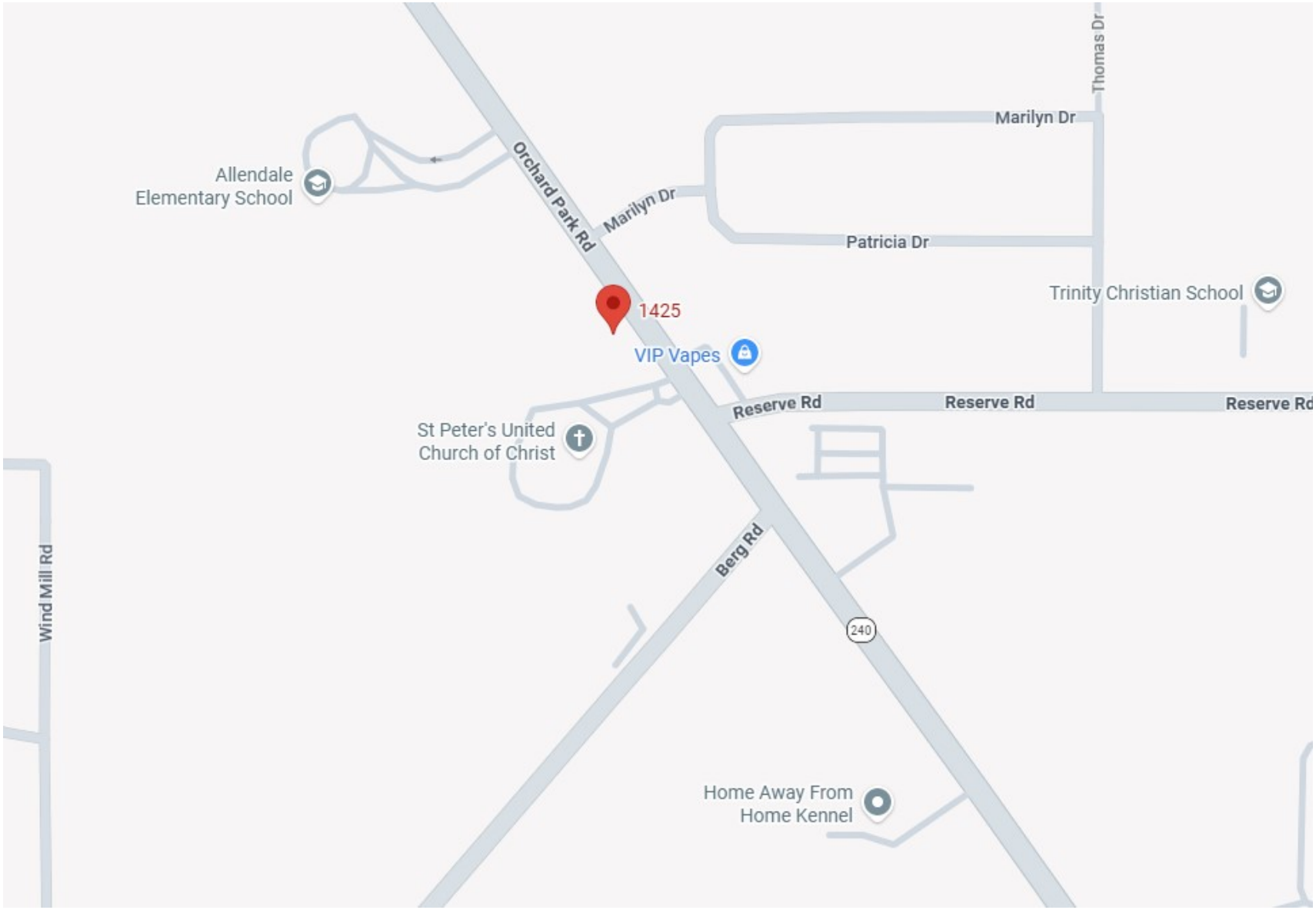
According to the USDA Web Soil Survey, the onsite soil is made up of Darien silt loam, Niagara silt loam and Remsen silty clay loam. These soils are categorized under hydrologic soil groups C/D and D and will have a slow infiltration rate when thoroughly wet.

See Appendix D for Soil Information.

Appendix A

Site Location Map

Site Location Map



Appendix B

Sanitary Sewer & Water Demand Calculations

CARMINA WOOD DESIGN
80 Silo City Row, Suite 100
Buffalo, New York 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 5/22/2026
Project Name: Multifamily Development
Project Address: 1425-1475 Orchard Park Road - West Seneca
Subject: Sanitary Sewer Demand Calcs
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Townhomes

220 gal/d/unit x 29 units = 6,380 gpd *use 220 gallons per unit per day (2-bdrm)

Find Peak Sanitary Demand:

Peaking Factor based on Population:

Total demand: 6,380 gpd / 51.96 gpcd = 123 per capita

Population (P) = 123 people

Peaking Factor : (18 +√P) / (4 + √P) where P is in thousands

Peaking Factor = 4.22

Peak Sanitary Demand = 6,380 x 4.22 = 26,911 gpd
= 0.027 MGD
= 0.042 cfs

Required Infiltration and Inflow Mitigation:

Mitigation Fee = $2.40 /gal = $15,312.00

Carmina Wood Design
80 Silo City Row, Suite 100
Buffalo, NY 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 5/18/2026
Project Name: Multifamily Development
Project Address: 1475 Orchard Park Road - Town of West Seneca
Subject: Sanitary Sewage Pump Station Design
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Apartments

220 gpd/unit x 25 units = 5,500 gpd

Average Site Sanitary Flow: = 5,500 gpd

Peak Site Sanitary Flow: = 22,000 gpd

PF = 4.0

* assume flow over 18 hour period

Peak Site Sanitary Flow: = 20.4 gpm

8" inlet into pump station invert: 670.68

Forcemain invert at tie into downstream sewer: 676.55

Pump chamber diameter: 5 ft (147 gal/ft)

Storge required:

* use filling time of 30 minutes @ 20.4 gpm (peak flow)

Storage required = 20.4 gpm x 30 mins / 147 gal = 4.16 ft

Top of pump station:	682.40	
Inlet & Alarm:	670.68	
2 pumps on:	670.18	(inlet minus 0.5 ft)
1 pump on:	669.68	(2 pumps on minus 0.5 ft)
pumps off:	665.52	(1 pump on minus storage required)
Bottom of station:	664.27	(pumps off minus 1.15 ft)

Total depth: **18.13** ft

Cleansing velocity:

Using a 3 inch forcemain, find flow for min 2 fps cleansing velocity

A = 0.05 ft^2

Q = V x A = 2 fps x 0.05 ft^2 = 0.09817 cfs = **44.1** gpm

CARMINA WOOD DESIGN
80 Silo City Row, Suite 100
Buffalo, New York 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 5/22/2026
Project Name: Multifamily Development
Project Address: 1425-1475 Orchard Park Road - West Seneca
Subject: Water Demand Calcs
Sheet: 1 of 1

Water Demand Calculations (domestic):

Townhome Development:

Q = 3 gpm/unit x 29 units = 87 gpm ECDOH Requirement

Water Demand Calculations (fire):

Q = 1500 gpm * per ISO Guidelines

Elev. at ex. residual hydrant = 684.5 ft

Static pressure at ex. hydrant = 70 psi

El. @ road tap = 684.5 ft

Δ elev ex. hydrant to road tap = 0 ft = 0.0 psi (positive is decrease in pressure from static)
(negative is increase in pressure from static)

Static pressure at road tap = 70.0 psi

El. @ furthest building = 679.9 ft

Δ elev road tap to furthest building = -4.6 ft = -2.0 psi (positive is decrease in pressure from static)
(negative is increase in pressure from static)

Find residual at furthest unit using domestic flow:

Headlosses:

Q_{peak} = 87.0 gpm
Pipe = 6 inch PVC C = 150
Length = 646 LF (approx. distance from tap to furthest building)

$$H_L = \frac{10.44\, L\, Q^{1.85}}{C^{1.85}\, D^{4.866}} = \frac{10.44(646)(87)^{1.85}}{(150)^{1.85}\,(6)^{4.866}} = 0.40 \text{ ft} = 0.2 \text{ psi}$$

Loss through 6-inch RPZ & meter = 13 psi

Residual pressure at furthest unit = Static pressure at road tap - headlosses - Δ elev
=70.0 - 0.2 - 13 - (-2)
= 58.8 psi

Find residual at furthest hydrant using fire flow:

Headlosses:

Q_{peak} = 1000 gpm
Pipe = 6 inch PVC C = 150
Length = 509 LF (approx. distance from tap to furthest hydrant)

$$H_L = \frac{10.44\, L\, Q^{1.85}}{C^{1.85}\, D^{4.866}} = \frac{10.44(509)(1000)^{1.85}}{(150)^{1.85}\,(6)^{4.866}} = 29.05 \text{ ft} = 12.6 \text{ psi}$$

Loss through 6-inch RPZ = 13 psi

Residual pressure at furthest unit = Static pressure at road tap - headloss - Δ elev
= 70.0 - 12.6 - 13 - (-2)
= 46.4 psi

Appendix C

Downstream Sewer Capacity Analysis Report

TOWN OF WEST SENECA

ENGINEERING DEPARTMENT

TOWN SUPERVISOR
GARY A. DICKSON
TOWN COUNCIL
JEFF PIEKAREC
SCOTT ROBERTSON
ROBERT BREIDENSTEIN
MARY SHERMAN

1/6/2026

Jeffrey Scheiber
Code Enforcement Officer
Town of West Seneca

Re: Proposed Townhouses (1425 Orchard Park Road)
Sanitary Sewer Capacity Analysis (Revised December 2025)

Dear Mr. Schieber,

In January 2025, the Town Board approved the discharge of sanitary sewage flow from the proposed developments at 1425 Orchard Park Road and 1130 Orchard Park Road into the Town's existing 10" sewer main located along Orchard Park Road which is part of the Town's Sewer District 13.

At that time, the proposed average daily flow from 1425 Orchard Park Road development was calculated to be 7,040 gallons per day. This volume was based on a total of (32) 2-bedroom apartments, assuming 110 gallons per day per bedroom.

PROPOSED CHANGES:

The developer is now proposing to construct twenty-nine (29) 2-bedroom townhouses instead of the apartment units, which has **reduced the proposed sewage flow** from 7,040 gallons per day to 6,380 gallons per day, assuming 110 gallons per day per bedroom.

CONCLUSION:

Since the proposed sewer flow for the twenty nine, 2 bedroom townhouses is less than the previously approved apartments, I have **no additional concerns** with the capacity of the sewer.

SEWER MITIGATION FEE

Please note in July 2024 the Town increased the cost per gallon for the sewer mitigation fee from $1.20/gallon to $2.40/gallon. The original application was submitted prior to that date but the revised project for 1425 Orchard Park Road was submitted after the fee changed, so I am proposing to utilize the new fee to calculate the total amount for the revised project as follows:

1425 Orchard Park Road:

6,380 GPD (increase of average daily flow)
x $2.40 ($/gallon)
$15,312

A sewer mitigation fee, as calculated above, should be collected by your office and applied toward the sewer repair fund for Sewer District 13.

Very truly yours,



Jason A. Foote, P.E.
Town Engineer

cc: Files:
Chris Trapp, Town Attorney
Supervisor Dickson and Town Board Members

CARMINAWOOD
DESIGN

DOWNSTREAM SANITARY SEWER CAPACITY ANALYSIS REPORT

for

Proposed Apartments

1425 Orchard Park Road
Town of West Seneca, Erie, NY

Prepared for

William Sahlem and Brian Hillery

1 Woodthrush Trail,
Orchard Park, NY 14127

Prepared by

Carmina Wood Design

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

December 2023



Project Description

This project is a development of a 3.17 acre +/- site located on the west side of Orchard Park Road in the Town of West Seneca. The property will be developed with (26) 2-bedroom apartment units and (4) 3-bedroom apartment units. This analysis will also include the recently approved multi-family project at 1130 Orchard Park Road (45 2-bedroom units).

The proposed sewer service for this development will connect to an existing 10" Town of West Seneca sewer main the runs along the west side of Orchard Park Road.

Node 1 – 1001 Orchard Park Rd (12"):

Existing Peak Flow measured (wet weather event)	= 2.844 cfs (1.838 mgd)*
Proposed Apartments Peak Flow (Flattery's)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 2.955 cfs

Theoretical capacity of existing 12" pipe @ 0.36% = 2.314 cfs

Conclusion: Monitored flows the day following the 0.72" rainfall event exceeded the capacity of the existing pipe 12" sewer. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 1, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. The 12" sewer receives surcharges from a 27" sewer and 36" sewer downstream during high rainfall events. Outside of these events, the 12" sewer has ample capacity to handle the additional proposed total peak flow. I/I mitigation shall be required for the contribution proposed for this project.

Node 2 – Orchard Park Rd (15"):

Existing Peak Flow measured (wet weather event)	= 2.917 cfs (1.885 mgd)*
Proposed Apartments Peak Flow (Flattery's)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 3.028 cfs

Theoretical capacity of existing 15" pipe @ 0.34% = 4.077 cfs

Conclusion: The proposed total peak flow is less than the capacity of the 15" pipe, therefore there is sufficient capacity. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 2, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. The 15" sewer receives surcharges from a 27" sewer and 36" sewer downstream during high rainfall events. Outside of these events, the 15" sewer has ample capacity to handle the additional proposed total peak flow. I/I mitigation shall be required for the contribution proposed for this project.

Node 3 – Orchard Park Rd & Fairfax (48”):

Existing Peak Flow measured (wet weather event)	= 14.470 cfs (9.352 mgd)*
Proposed Apartments Peak Flow (Flattery’s)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 14.581 cfs

Existing Peak Flow measured (overall)	= 16.150 cfs (10.438 mgd)*
Proposed Apartments Peak Flow (Flattery’s)	= 0.065 cfs**
Proposed Apartments Peak Flow (1425 OP Road)	= 0.046 cfs**
Proposed Total Peak Flow	= 16.261 cfs

Theoretical capacity of existing 48” pipe @ 0.15% = 60.218 cfs

Conclusion: The proposed total peak flow is less than the capacity of the 48” pipe, therefore there is sufficient capacity. At no time during the monitoring period did flow depth exceed the pipe diameter at Node 3 of the downstream monitoring points during the rain events monitored.

Foot Notes:

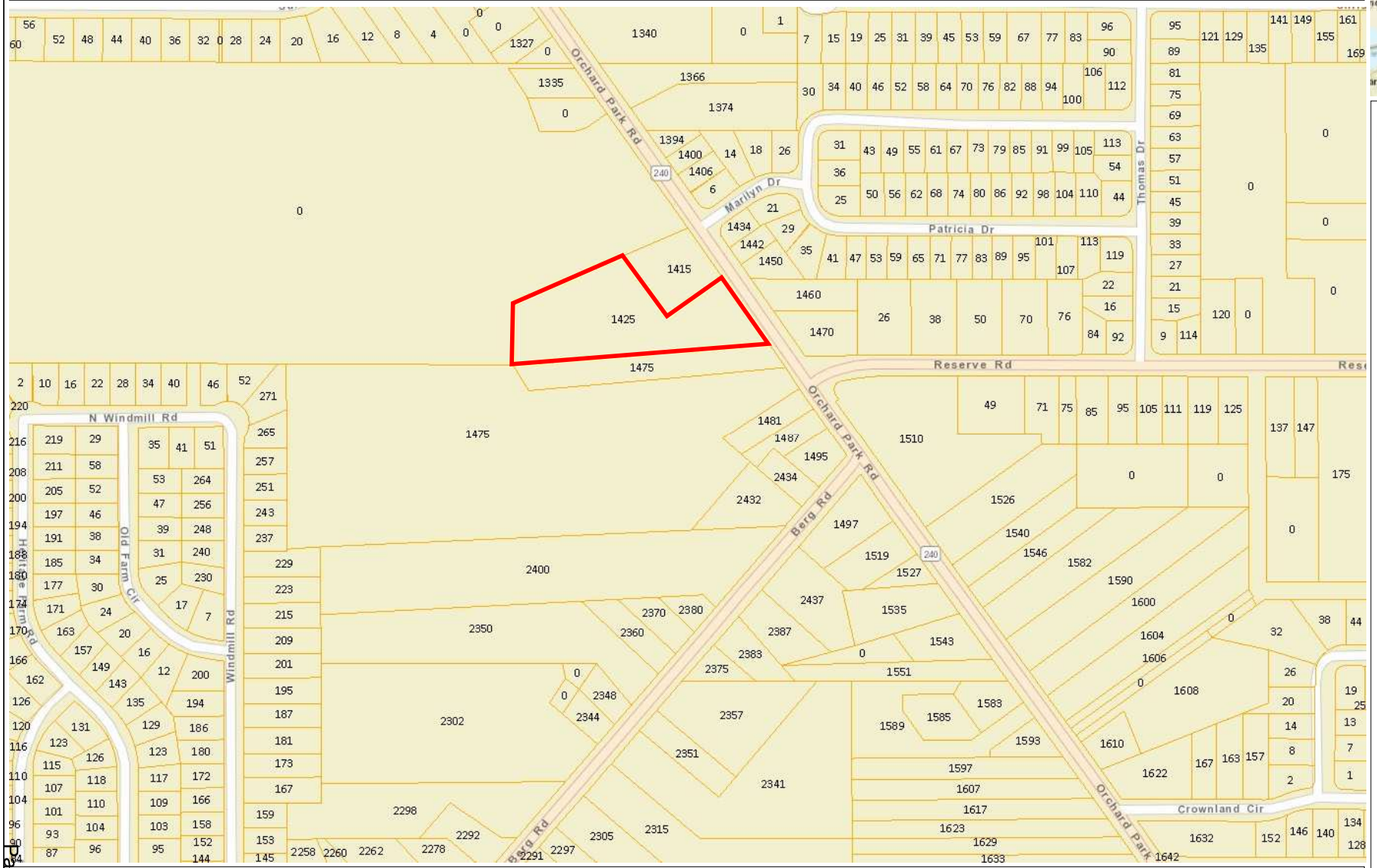
Downstream capacity node information provided by Town of West Seneca

*Converted from measurements in TECSmith report dated 9/15/22 & 4/19/22

** See Sanitary Sewage Demand Calculations

Location Map

Erie County On-Line Mapping Application





Legend

- Parcels

1: 4,514

0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

Sanitary Demand Calculations

CARMINA WOOD DESIGN
487 MAIN STREET, SUITE 500
BUFFALO, NEW YORK, 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 23-4121 Date: 12/11/2023
Project Name: Proposed Apartment Development
Project Address: 1425 Orchard Park Road
Subject: I & I Mitigation
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Development

220	gal/d/unit	x	26	units	=	5,720	gpd	*use 220 gal/d/unit (2-bdrm apt)
330	gal/d/unit	x	4	units	=	1,320	gpd	*use 330 gal/d/unit (3-bdrm apt)

Total Site Sanitary Demand: = 7,040 gpd

Find Peak Sanitary Demand:

Peaking Factor based on Population:

Total demand: 7,040 gpd / 52 gpcd = 135 per capita

Population (P) = 135 people

Peaking Factor : (18 +√P) / (4 + √P) where P is in thousands

Peaking Factor = 4.21

Peak Sanitary Demand = 7,040 x 4.21 = 29,604 gpd
= 0.030 MGD
= 0.046 cfs

Required Infiltration and Inflow Mitigation:

Total Sanitary Flow = 7,040 gpd

Mitigation Credit = $1.20 / gpm (Town of West Seneca)

Mitigation Agreement Amount = **$8,448.00**

CARMINA WOOD DESIGN
487 MAIN STREET, SUITE 500
BUFFALO, NEW YORK, 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 22.128 Date: 10/3/2022
Project Name: Residential Apartments
Project Address: 1130 Orchard Park Road West Seneca, NY
Subject: Sanitary Sewer Demand Calcs
Sheet: 1 of 1

Sanitary Sewage Demand Calculations:

Proposed Apartments

220 gal/d/unit	x	45 units	=	9,900	gpd		*use 220 gallons per unit per day (2-bdrm)

Total Site Sanitary Demand: = 9,900 gpd

Find Peak Sanitary Demand:

Peaking Factor based on Population:

Total demand: 9,900 gpd / 100 gpcd = 99 per capita

Population (P) = 99 people

Peaking Factor : (18 +ÖP) / (4 + ÖP) where P is in thousands

Peaking Factor = 4.24

Peak Sanitary Demand	=	9,900	x	4.24	=	42,023	gpd
					=	0.042	MGD
					=	0.065	cfs

Required Infiltration and Inflow Mitigation:

Peak Sanitary Flow	=	42,023	gpd	=	29.18	gpm			
4:1 offset flow per NYSDEC requirements	=	29.18	x	4	=	116.73	gpm req'd		
Mitigation Credit	=	30	gpm / lateral						
Laterals to be replaced*	=	3.9	laterals						
	=	**4**	**laterals**						***(or other mitigation as identified by the Town)**

From DSCA for Multi-family project
at 1130 Orchard Park Road

TECSmith Monitoring Report

Date	Node 1			Node 2			Rain₂	Date	Node 3			Rain₂	Snow
	1001 Orchard Park Rd (12")			Orchard Park Rd 15" (15")					Orchard Park Rd & Fairfax (48")				
	FLOW (GAL x 1,000)	PEAK FLOW (MGD)	PEAK LEVEL (IN)	FLOW (GAL x 1,000)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	(inches)		FLOW (GAL x 1,000)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	(inches)	(inches)
8/16/2022	89.257	0.440	5.964	168.586	0.721	4.437	0.23	3/17/2022	3196.614	6.783	13.938	0	0
8/17/2022	215.037	0.376	4.744	438.779	0.622	3.770	0	3/18/2022	5684.090	6.485	13.639	0	0
8/18/2022	189.150	0.370	4.686	427.549	0.628	3.826	0	3/19/2022	6314.024	7.874	17.857	0.27	0
8/19/2022	185.188	0.342	4.512	414.203	0.666	4.069	0	3/20/2022	7506.892	9.168	20.985	0.08	0
8/20/2022	202.299	0.331	4.923	396.354	0.689	4.133	0	3/21/2022	6601.632	8.220	19.365	0	0
8/21/2022	242.472	0.443	5.850	452.414	0.758	4.278	0.11	3/22/2022	5911.885	6.708	14.066	0	0
8/22/2022	211.005	0.478	4.897	492.229	0.645	3.891	0.14	3/23/2022	6366.253	9.352	21.857	0.51	0
8/23/2022	205.428	0.447	4.517	162.364	0.422	3.395	0.05	3/24/2022	8410.107	10.438	23.577	0	0
8/24/2022	203.451	0.394	4.725	253.953	0.604	4.307	0.45	3/25/2022	7059.230	8.020	19.386	0	0
8/25/2022	181.878	0.416	4.675	439.324	0.669	4.150	0	3/26/2022	7112.401	8.489	19.148	0.09	0.1
8/26/2022	190.142	0.419	4.851	414.269	0.625	3.883	0	3/27/2022	7001.414	8.461	18.753	0.06	2.3
8/27/2022	177.502	0.405	4.759	424.759	0.670	4.011	0	3/28/2022	6396.917	7.538	17.111	0.01	0.4
8/28/2022	149.262	0.306	4.729	402.881	0.700	4.187	0	3/29/2022	5909.058	6.957	14.053	0	0
8/29/2022	131.545	0.272	4.563	409.867	0.776	4.384	0	3/30/2022	5521.696	6.653	13.811	0.01	0
8/30/2022	277.592	0.705	7.523	530.810	1.126	5.440	0.97	3/31/2022	5943.213	7.661	16.548	0.09	0
8/31/2022	207.872	0.351	5.185	507.470	0.687	4.085	0	4/1/2022	5419.635	6.277	14.053	0.06	0.1
9/1/2022	185.028	0.361	5.419	434.561	0.610	3.756	0	4/2/2022	5147.186	6.140	13.371	0	0
9/2/2022	157.770	0.346	4.843	411.119	0.619	3.892	0	4/3/2022	5083.174	6.186	13.093	0.01	0
9/3/2022	147.788	0.355	5.089	391.309	0.645	4.003	0	4/4/2022	4946.766	6.325	12.723	0	0
9/4/2022	166.764	0.303	4.897	378.377	0.635	3.860	0.04	4/5/2022	4901.882	5.708	12.382	0	0
9/5/2022	464.216	1.838	32.342	716.100	1.885	64.943	0.72	4/6/2022	4842.495	5.943	12.848	0.21	0
9/6/2022	241.691	0.307	5.076	505.569	0.654	4.013	0	4/7/2022	7751.294	9.369	21.493	0.25	0
9/7/2022	190.037	0.354	5.440	449.703	0.749	4.317	0.01	4/8/2022	7000.725	8.355	18.804	0	0
9/8/2022	182.211	0.372	4.852	443.591	0.642	3.912	0	4/9/2022	6041.826	7.017	13.864	0	0
9/9/2022	180.567	0.332	5.309	426.468	0.702	4.143	0	4/10/2022	5473.970	6.521	13.216	0	0
9/10/2022	169.443	0.373	5.192	428.528	0.686	4.058	0	4/11/2022	5257.193	7.976	15.138	0.13	0
9/11/2022	98.925	0.532	6.704	397.027	0.919	4.930	0.03	4/12/2022	7299.038	9.109	16.993	0.14	0
9/12/2022	336.528	0.958	8.256	552.252	1.290	5.735	0.28	4/13/2022	6134.522	7.267	14.479	0.05	0
9/13/2022	356.909	0.736	6.372	589.969	0.876	4.687	0.14	4/14/2022	3692.282	6.917	14.240	0	0
9/14/2022	112.265	0.350	5.193	258.683	0.696	4.002	0	---	---	---	---	---	---
---	---	---	---	---	---	---	3.17	---	---	---	---	1.97	2.9

	MGD	CFS
Wet	1.838	2.844
Dry	0.958	1.482

	MGD	CFS
Wet	1.885	2.917
Dry	1.290	1.996

	MGD	CFS
Wet	9.352	14.470
Dry	10.438	16.150

TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
Tel: 716-462-0382

Date: September 15, 2022

SANITARY SEWER FLOW CAPACITY STUDY – Summary Review

Prepared For: 1130 Orchard Park Road Capacity Analysis

R. Christopher Wood, PE Partner
487 Main Street, Suite 500
Buffalo, New York 14203

Project Name: 1130 Orchard Park Road Capacity Analysis

Flow Monitoring Period: August 16, 2022 to September 14, 2022

Rain Events (> 0.5-inches) Monitored: August 30 (0.97”), and September 5 (0.72”)

Number of Monitoring Nodes: Two (2) downstream manholes

Node Locations and Descriptions:

- Node 1 1001 Orchard Park Rd (12”)
- Node 2 Orchard Park Rd 15" (15”)

Summary Conclusion:

Based on the data presented in this report, specifically the flow depth measurements recorded (see graphs below)

- One time the flow depth exceeds pipe diameter at all nodes of the downstream monitoring points during the wet weather events monitored.

TECsmith

TECSMITH, Inc.
PO Box 383
Elma, New York 14059-0383
Tel: 716-462-0382
Fax: 716-687-1418

Date: April 19, 2022

SANITARY SEWER FLOW CAPACITY STUDY – Summary Review

Prepared For: 1130 Orchard Park Road Capacity Analysis

R. Christopher Wood, PE Partner
487 Main Street, Suite 500
Buffalo, New York 14203

Project Name: 1130 Orchard Park Road Capacity Analysis

Flow Monitoring Period: March 17, 22 to April 14, 2022

Rain Events (> 0.5-inches) Monitored: March 23, (0.51”)

Number of Monitoring Nodes: Three (3) downstream manholes

Node Locations and Descriptions:

- Node 3 Orchard Park Rd & Fairfax (48")

Summary Conclusion:

Based on the data presented in this report, specifically the flow depth measurements recorded (see graphs below)

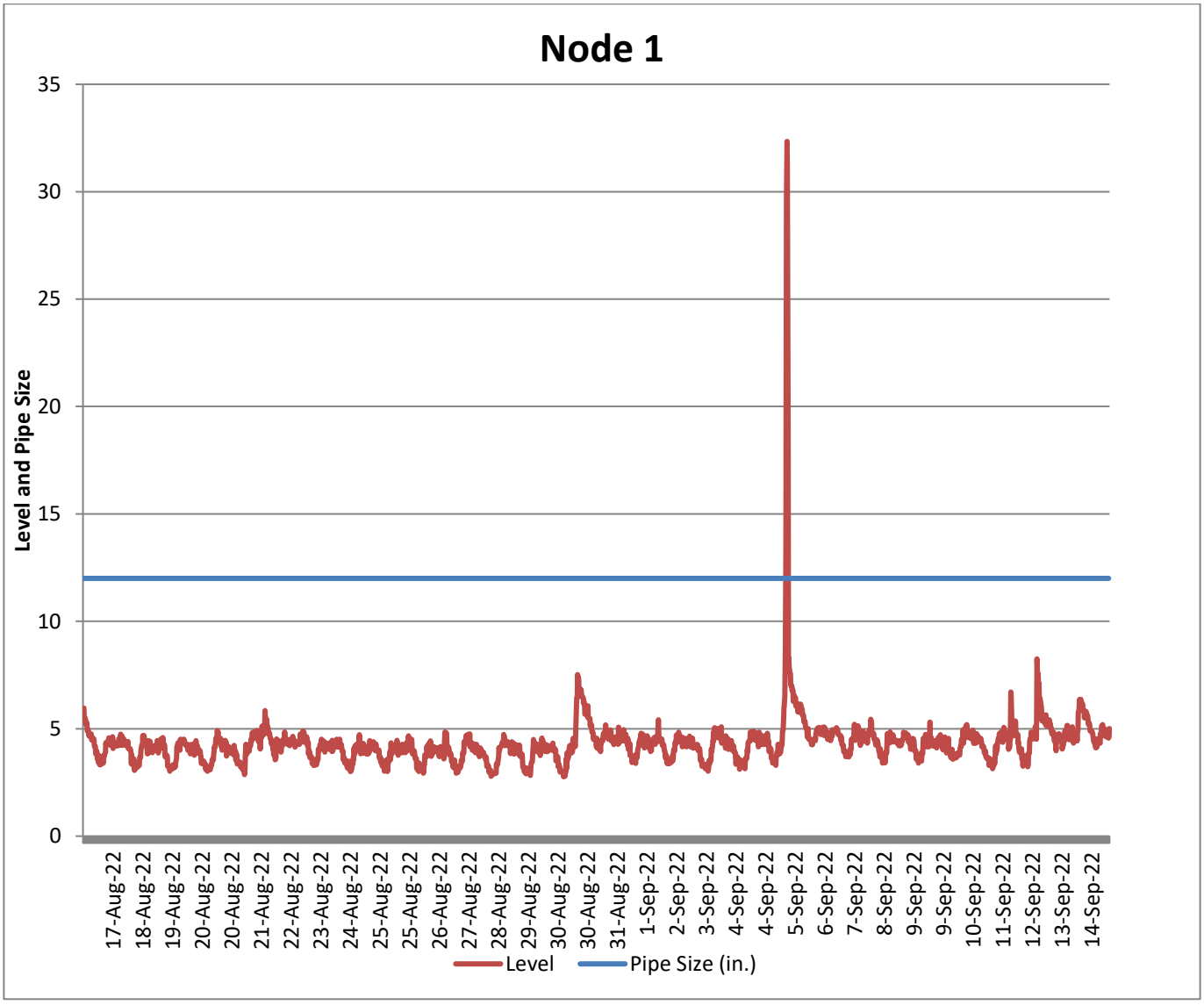
- At no time the flow depth exceeds pipe diameter at Node 3 of the downstream monitoring points during the wet weather events monitored.

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
Tel: 716-462-0382

Depth of Flow Capacity Summary:

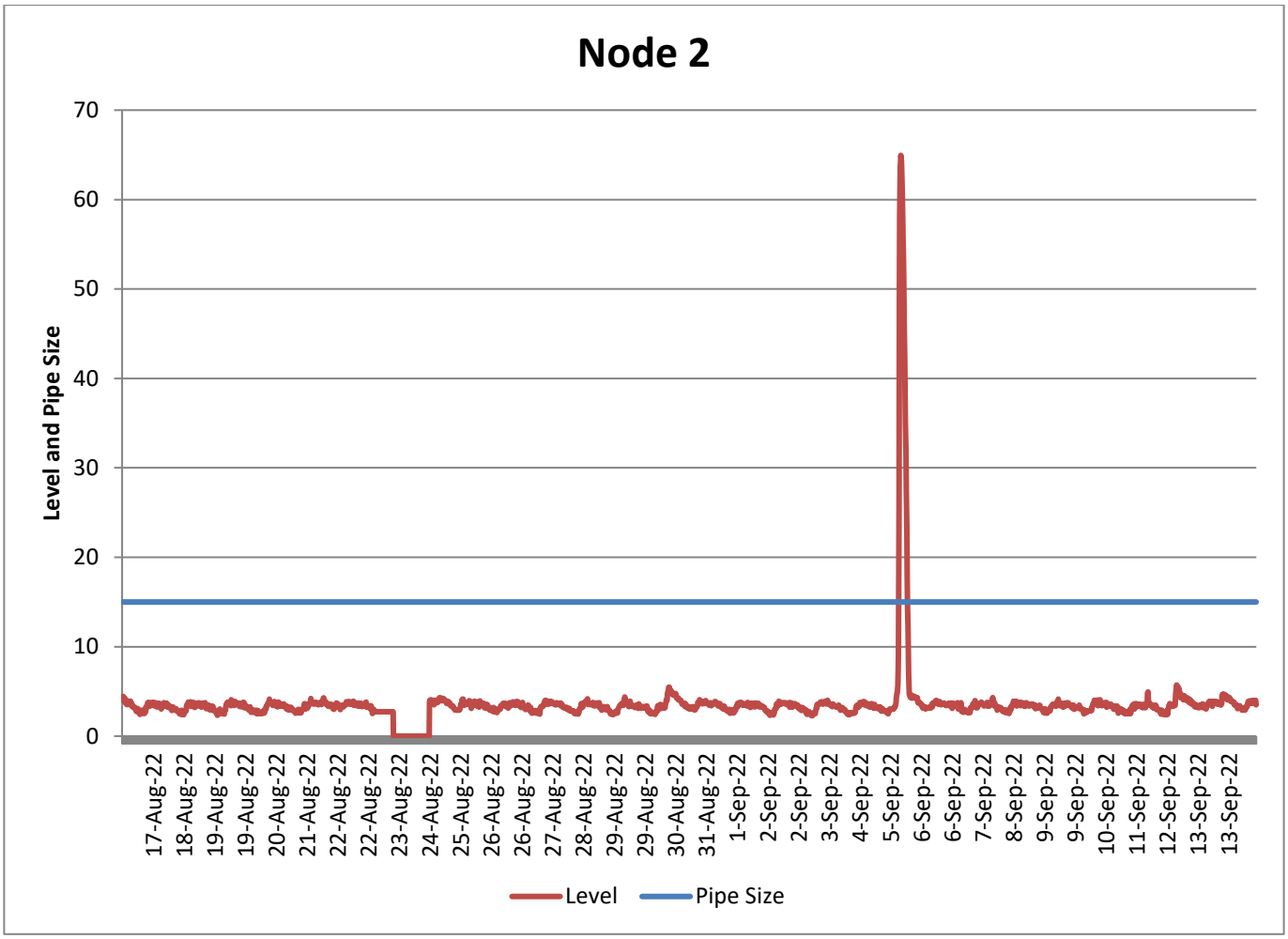
Depth of flow capacity is based on diameter of pipe. See graphs below.

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 1.



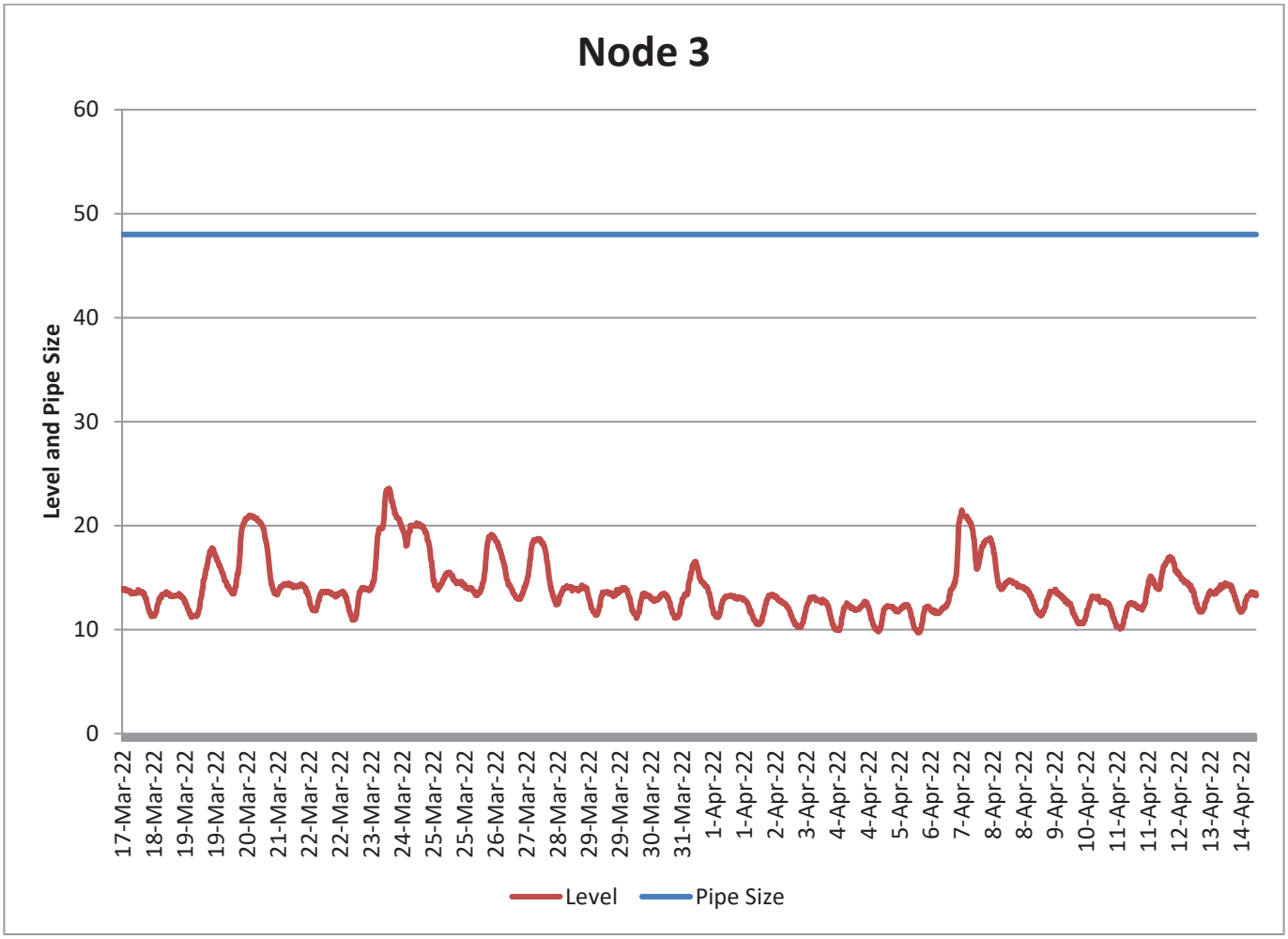
TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
Tel: 716-462-0382

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 2.

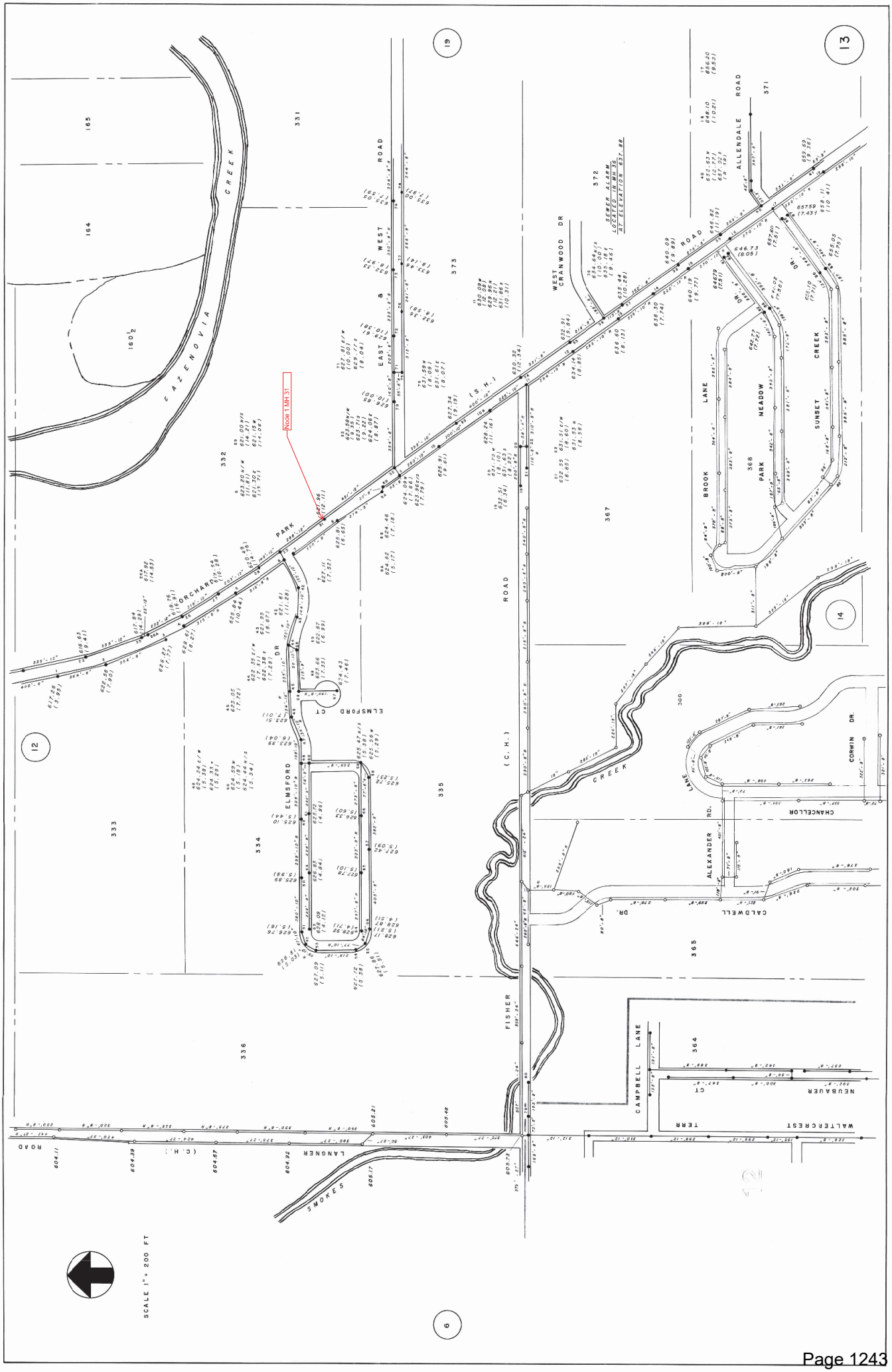


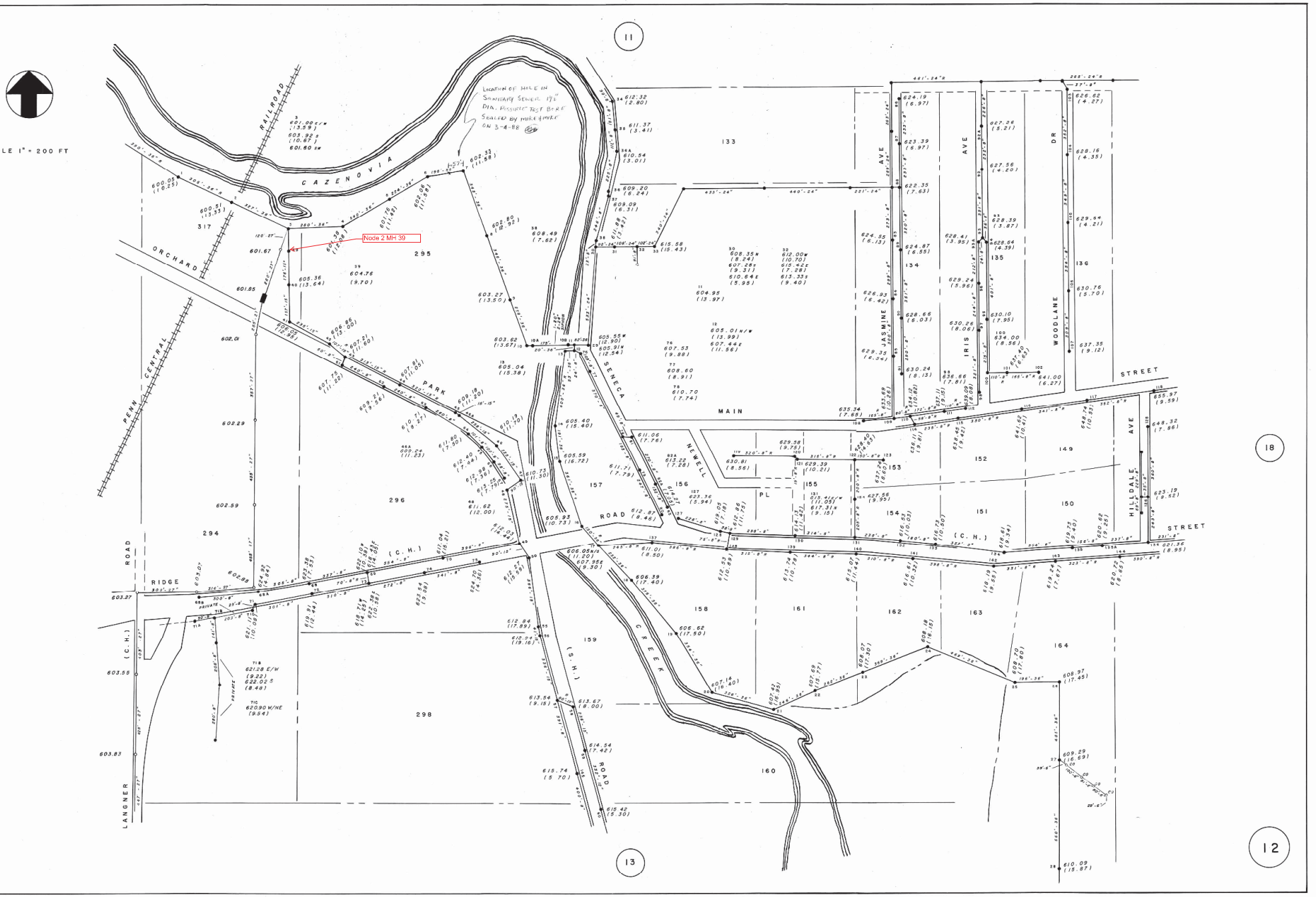
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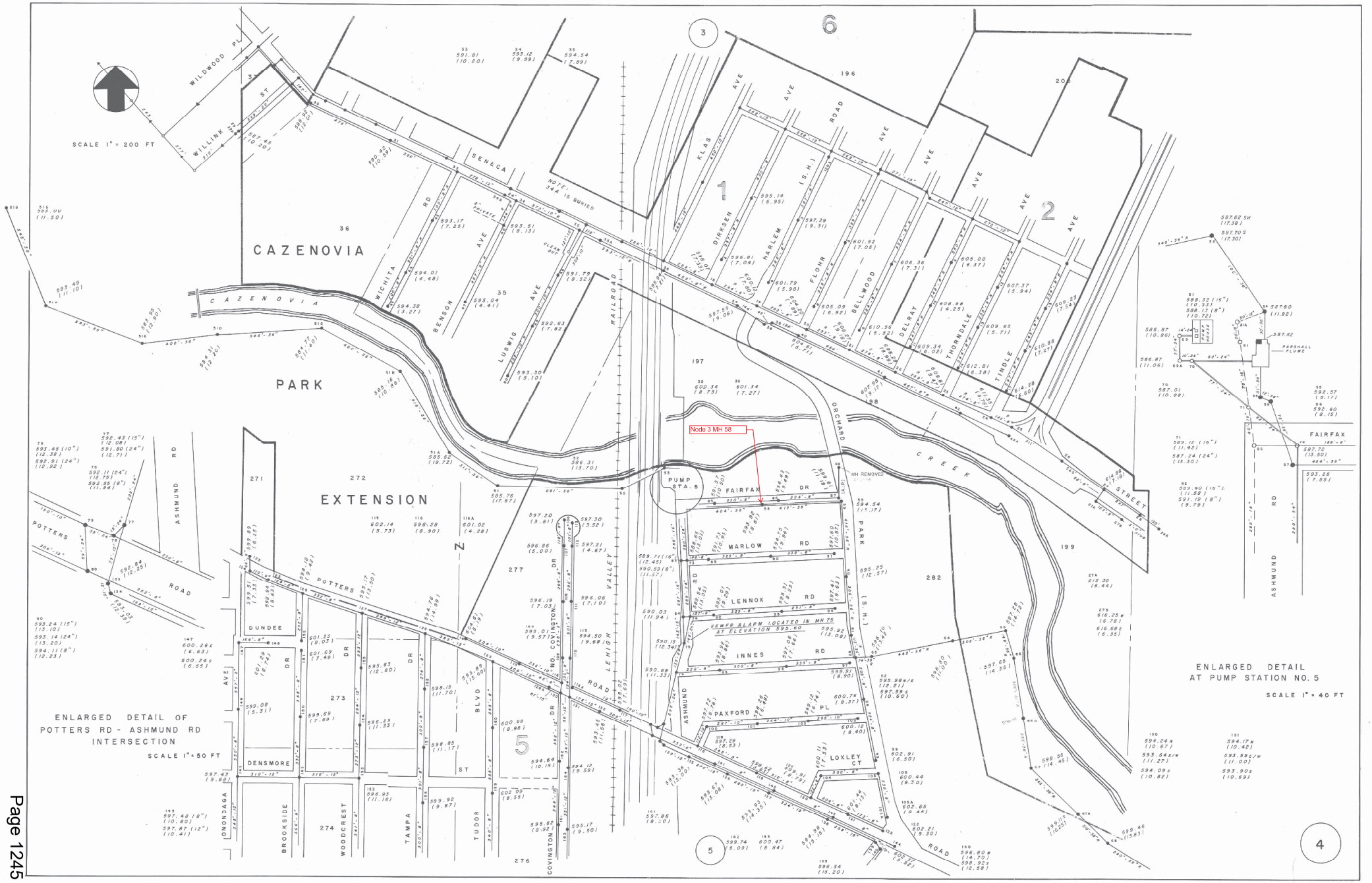
- At no time during the monitoring period did depth of flow exceed pipe diameter at Node 3.



Sewer Node Maps


Node 1 MH-31
CAZENOVIA CREEK
WEST & EAST ROAD
WEST CRANWOOD DR
ALLENDALE ROAD
SEWER ALARM LOCATED IN MH 36 AT ELEVATION 637.88
ORCHARD PARK
ELMSFORD DR
ELMSFORD CT
(S.H.)
(C.H.)
FISHER ROAD
BROOK LANE
MEADOW PARK
SUNSET CREEK
CHANCELLOR LANE
CORWIN DR.
ALEXANDER RD.
CALDWELL DR.
CAMPBELL LANE
NEUBAUER CT
WALTERCREST TERR
LANGNER ROAD
SMOKES CREEK
SCALE 1" = 200 FT


SCALE 1" = 200 FT
Node 2 MH 39
LOCATION OF HOLE IN SANITARY SEWER 12" DIA. PASSED TEST BEE SEALED BY MIKE HYMER ON 3-4-88
CAZENOVIA
RAILROAD
ORCHARD
PENN CENTRAL
SENECA
PARK
MAIN
NEWELL
ROAD
RIDGE
LANGNER
CREEK
PL
AVE
DR
STREET
JASMINE
IRIS
WOODLANE
HILLDALE
(C. H.)
(S. H.)
11
12
13
5
18


SCALE 1" = 200 FT
CAZENOVIA
PARK
EXTENSION
CAZENOVIA PARK
SENESEA
WILDWOOD PL
WILLINK ST
WICHITA RD
BENSON AVE
LUDWIG AVE
RAILROAD
KLAS AVE
DIRKSEN AVE
HARLEM AVE
FLOHR AVE
BELLWOOD AVE
DELRAY AVE
THORNDALE AVE
TINDLE AVE
ROAD
NOTE: 24A IS BURIED
Node 3 MH 58
PUMP STA. 5
MH REMOVED
ORCHARD
CREEK
STREET
FAIRFAX
DR
MARLOW
RD
LENNOX
RD
INNES
RD
PAXFORD
PL
LOXLEY
CT
PARK
ASHMUND
RD
SEWER ALARM LOCATED IN MH 75
AT ELEVATION 595.60
(S.H.)
POTTERS
ROAD
DUNDEE
DENSMORE
ST
AVE
DR
BLVD
ONONDAGA
BROOKSIDE
WOODCREST
TAMPA
TUDOR
COVINGTON
LEHIGH
VALLEY
ROAD
ENLARGED DETAIL OF
POTTERS RD - ASHMUND RD
INTERSECTION
SCALE 1"=50 FT
ENLARGED DETAIL
AT PUMP STATION NO. 5
SCALE 1" = 40 FT
PARSHALL FLUME
3
6
1
2
5
4
196
197
198
199
200
271
272
273
274
276
277
282

Appendix D

Storm Water Calculations

Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	No
What is the nature of this construction project?	New Construction

Design Point:	1		
P=	1.00	inches	*Enter 90% Rainfall Event as P*

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1	3.66	1.89	52	0.51	6,839	Filtration Bioretention
2	2.16	1.07	50	0.50	3,888	Filtration Bioretention
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	5.82	2.96	51	0.51	**10727**	**Required WQv**

Calcuate Minimum RRv Required

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B		40%
C		30%
D	2.96	20%
Total Area	2.96	

Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	2.96	*acres*
Precipitation	1.00	*inches*
Rv	0.95	
Minimum RRv	**0.047**	***af***
	2047	cf

Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	3.66	1.89	52	0.51	6,839	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	>2	
Enter depth to bedrock (ft)	>2	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	2850	sf	
Enter Provided Filter Area	Af	2855	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	6852	cf	

Calculate Runoff Reduction			
RRv Provided	**2,741**	***cf***	
WQv Treated	4098	cf	This is the portion of the WQv that is not reduced in the practice.

Filtration Bioretention (F-5)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
2	2.16	1.07	50	0.50	3,888	1.00	Filtration Bioretention

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	>2	
Enter depth to bedrock (ft)	>2	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	15	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	1620	sf	
Enter Provided Filter Area	Af	1705	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	4092	cf	

Calculate Runoff Reduction			
RRv Provided	**1,637**	***cf***	
WQv Treated	2251	cf	This is the portion of the WQv that is not reduced in the practice.

Filtration Bioretention (F-5)

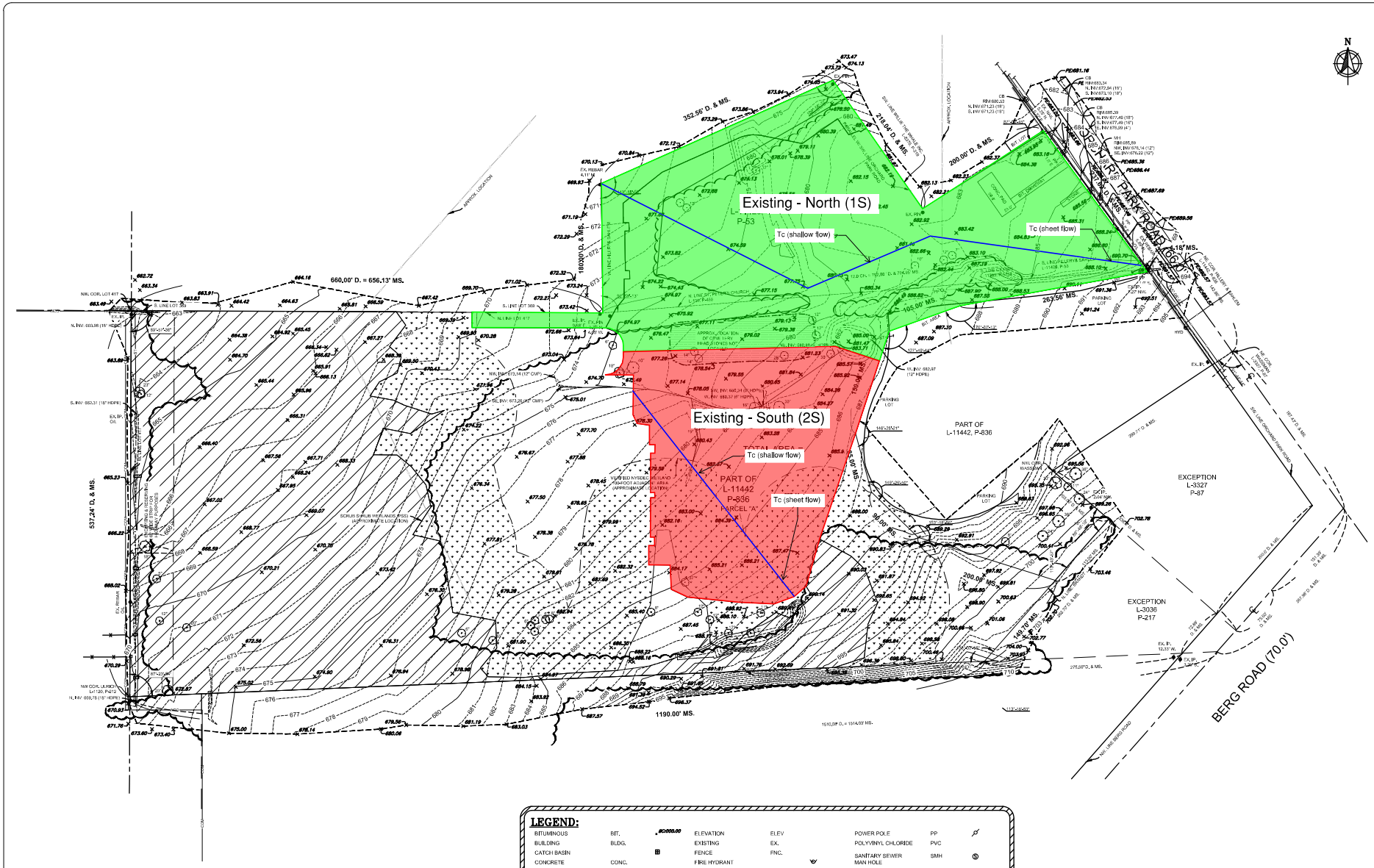
Total Area	5.82	acres
Total Impervious	3	acres
Total RRv Provided	4,378	cf
Total WQv Provided	6,349	cf

Project Name: Multifamily Development - 1425 & 1475 Orchard Park Rd
Job Number: 23-4121
Re: Storm Sewer Pipe Sizing Calculations
Calculated By: AJP **Date:** 06/17/26

STORM SEWER PIPE SIZING CALCULATIONS																
INLET &	TRIBUTARY		RUNOFF	INLET	TIME OF	INTENSITY	RUNOFF Q		PIPE DESIGN					PIPE FLOW	
STORM SEWER	AREA (A)		COEFF.	TIME	CONCEN.	i (10-yr)	DIRECT	SUM	DIA	S		V	Q	L	TIME
LOCATION	(sq ft)	(acres)	C	(min)	(total-min)	(in/hr)	(cfs)	(cfs)	(in)	(ft/ft)	n	(fps)	(cfs)	(ft)	(min)
YD 4	1933	0.04	0.20	21.5	21.5	2.90	0.03	**0.03**							
to									6	0.0050	0.013	2.03	**0.40**	130	1.1
YD 5	8896	0.20	0.61	21.5	22.5	2.90	0.36	**0.39**							
to									6	0.0050	0.013	2.03	**0.40**	52	0.4
CB 2															
YD 1	8274	0.19	0.20	14.0	14.0	3.60	0.14	**0.14**							
to									6	0.0050	0.013	2.03	**0.40**	66	0.5
YD 2	8696	0.20	0.50	15.2	15.2	3.40	0.34	**0.47**							
to									8	0.0080	0.013	3.10	**1.08**	70	0.4
YD 3	749	0.02	0.20	2.1	15.6	3.40	0.01	**0.48**							
to									8	0.0080	0.013	3.10	**1.08**	149	0.8
CB 3															
CB 6	10135	0.23	0.60	9.6	9.6	4.30	0.60	**0.60**							
to									8	0.0050	0.013	2.45	**0.86**	126	0.9
CB 5	14271	0.33	0.79	6.7	10.5	4.10	1.06	**1.67**							
to									12	0.0050	0.013	3.22	**2.52**	51	0.3
YD 7	6970	0.16	0.57	9.8	10.7	4.10	0.37	**2.04**							
to									12	0.0050	0.013	3.22	**2.52**	71	0.4
CB 4															
CB 7	8721	0.20	0.65	14.4	14.4	3.50	0.45	**0.45**							
to									12	0.0030	0.013	2.49	**1.96**	82	0.5
CB 8	21631	0.50	0.82	9.6	16.4	3.30	1.34	**2.27**							
to									12	0.0050	0.013	3.22	**2.52**	63	0.3
STM MH 1															
CB 1	8357	0.19	0.55	12.6	12.6	3.80	0.40	**0.40**							
to									8	0.0070	0.013	2.90	**1.01**	100	0.6
CB 2	10541	0.24	0.75	6.5	23.0	2.90	0.53	**1.32**							
to									12	0.0070	0.013	3.81	**2.99**	132	0.6
CB 3	13150	0.30	0.51	20.8	23.5	2.80	0.43	**2.23**							
to									12	0.0100	0.013	4.55	**3.57**	148	0.5
CB 4	14499	0.33	0.65	8.4	24.1	2.80	0.60	**4.87**							
to									15	0.0100	0.013	5.28	**6.47**	131	0.4
STM MH 1					24.5	2.80	0.00	**7.15**							
to									18	0.0100	0.013	5.96	**10.53**	121	0.3
Bioretention #1															
YD 8	4185	0.10	0.20	10.2	10.2	4.20	0.08	**0.08**							
to									8	0.0050	0.013	2.45	**0.86**	63	0.4

Project Name: Multifamily Development - 1425 & 1475 Orchard Park Rd
Job Number: 23-4121
Re: Storm Sewer Pipe Sizing Calculations
Calculated By: AJP **Date:** 06/17/26

STORM SEWER PIPE SIZING CALCULATIONS															
INLET &	TRIBUTARY		RUNOFF	INLET	TIME OF	INTENSITY	RUNOFF Q		PIPE DESIGN					PIPE FLOW	
STORM SEWER	AREA (A)		COEFF.	TIME	CONCEN.	i (10-yr)	DIRECT	SUM	DIA	S		V	Q	L	TIME
LOCATION	(sq ft)	(acres)	C	(min)	(total-min)	(in/hr)	(cfs)	(cfs)	(in)	(ft/ft)	n	(fps)	(cfs)	(ft)	(min)
YD 9	3540	0.08	0.20	14.3	14.3	3.60	0.06	**0.14**							
to									8	0.0050	0.013	2.45	**0.86**	73	0.5
YD 10	8114	0.19	0.66	10.2	14.8	3.50	0.43	**0.57**							
to									8	0.0050	0.013	2.45	**0.86**	85	0.6
YD 11	2896	0.07	0.20	16.5	16.5	3.30	0.04	**0.62**							
to									8	0.0050	0.013	2.45	**0.86**	36	0.2
CB 9	3540	0.08	0.73	14.3	16.8	3.30	0.20	**0.81**							
to									12	0.0080	0.013	4.07	**3.19**	209	0.9
CB 10	25464	0.58	0.61	13.2	17.6	3.20	1.14	**1.96**							
to									12	0.0110	0.013	4.77	**3.74**	123	0.4
CB 11	12587	0.29	0.79	4.4	18.0	3.20	0.73	**2.68**							
to									12	0.0110	0.013	4.77	**3.74**	121	0.4
Bioretention #2															



LEGEND:

BITUMINOUS	BIT.		ELEVATION	ELEV		POWER POLE	PP
BUILDING	BLDG.		EXISTING	EX.		POLYVINYL CHLORIDE	PVC
CATCH BASIN			FENCE	FNC.		SANITARY SEWER MAN HOLE	SMH
CONCRETE	CONC.		FIRE HYDRANT			SOUTH	S.
CONIFEROUS TREE W/ DIAMETER			HIGH-DENSITY POLYETHYLENE	HPDE		SPOT ELEVATION	
CORRUGATED METAL PIPE	CMP		IRON PIPE			STORY	STY.
DECIDUOUS TREE W/ DIAMETER			INVERT	INV.		WATER VALVE	WV
EAST	E.		NORTH	N.		WEST	W.
			PAVEMENT EDGE	PE		WITH	W/
MAJOR CONTOUR LINE (5')	XXX		PROPERTY LINE			TREE LINE	
MINOR CONTOUR LINE (1')	XXX		OVERHEAD ELECTRIC LINE	OE		UNDERGROUND COMMUNICATIONS	COM
FENCE LINE (AS NOTED)			SANITARY STORM	SA		UNDERGROUND ELECTRIC	UE
GAS LINE	G		STORM SEWER LINE	ST		WATER LINE	WV
SCRUB SHRUB WETLAND (PSS)			VERIFIED NYSDEC WETLAND 100-FOOT ADJACENT AREA			CEMETERY LIMITS	
						TOPOGRAPHIC SURVEY LIMITS	

GENERAL NOTES:

1. THIS SURVEY WAS PREPARED FROM A FIELD SURVEY BY 360 LAND SURVEY, DPC. ON FEBRUARY 27, 2026.
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET) .
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET).
4. UTILITY INFORMATION SHOWN ON THIS MAP IS FROM VISIBLE FIELD EVIDENCE AT THE TIME OF FIELD SURVEY, FIELD MARKOUTS BY UTILITY COMPANIES, AND INFORMATION PROVIDED BY A 811 DESIGN TICKET.
5. WETLANDS INFORMATION TAKEN FROM A WETLAND AND STREAM DELINEATION SURVEY COMPLETE BY LABELLA, PROJECT No: 2251287 DATE: 12/1/2025.

Know what's **below.** **Call** before you dig.

PREPARED FOR:

BRIAN HILLARY & WILLIAM SAHLEM

1 WOODTHRUSH TRAIL
ORCHARD PARK
NEW YORK 14127

PROJECT:

1425 & 1475 ORCHARD PARK ROAD,
TOWN OF WEST SENECA,
COUNTY OF ERIE,
STATE OF NEW YORK

BEING PART OF
LOTS 369 & 417, TOWNSHIP 10 RANGE 7
BUFFALO CREEK RESERVATION

SBL No. 143.19-1-8 & 143.19-1-9
& 152.07-1-1

360° LAND SURVEY
PO Box 207
Sanborn, New York 14132
PHONE: (716) 587-8380
FAX: 716.587.8379
WEBSITE: www.360landsurvey.com

REV.	NOTE	DATE

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

0" 1" 2"

SHEET SCALE BAR
ADJUST ACCORDINGLY IF SCALE IS NOT TWO INCHES

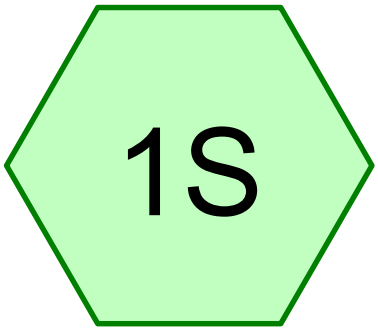
DRAWING NAME

TOPOGRAPHIC SURVEY

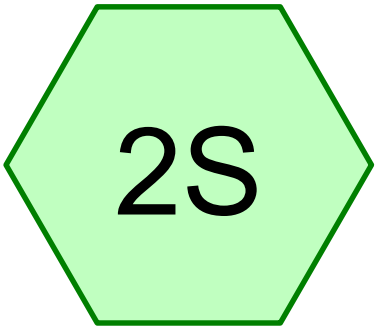
PROJ. NO.	26-040	SCALE	1"=60'
DRBY	PTH	DATE	3/17/2026
CHKD.	AJM	CHK.	CJS

DRAWING NUMBER

SHEET 1 OF 1



Existing - North



Existing - South

Subcat Reach Pond Link

Routing Diagram for 23-4121 storm calcs - Existing
Prepared by Carmina Wood Design, Printed 5/14/2026
HydroCAD® 10.20-8a s/n 05019 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	1.87	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.14	2
3	25-Year	Type II 24-hr		Default	24.00	1	3.84	2
4	100-Year	Type II 24-hr		Default	24.00	1	5.23	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
225,751	80	Pasture/grassland/range, Good, HSG D (1S, 2S)
49,422	79	Woods/grass comb., Good, HSG D (1S)
275,173	**80**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
275,173	HSG D	1S, 2S
0	Other	
275,173		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	0	225,751	0	225,751	Pasture/grassland/range, Good
0	0	0	49,422	0	49,422	Woods/grass comb., Good
0	**0**	**0**	**275,173**	**0**	**275,173**	**TOTAL AREA**

Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=0.48"
Flow Length=806' Tc=28.2 min CN=80 Runoff=1.59 cfs 7,325 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=0.48"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=1.04 cfs 3,797 cf

Total Runoff Area = 275,173 sf Runoff Volume = 11,121 cf Average Runoff Depth = 0.48"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

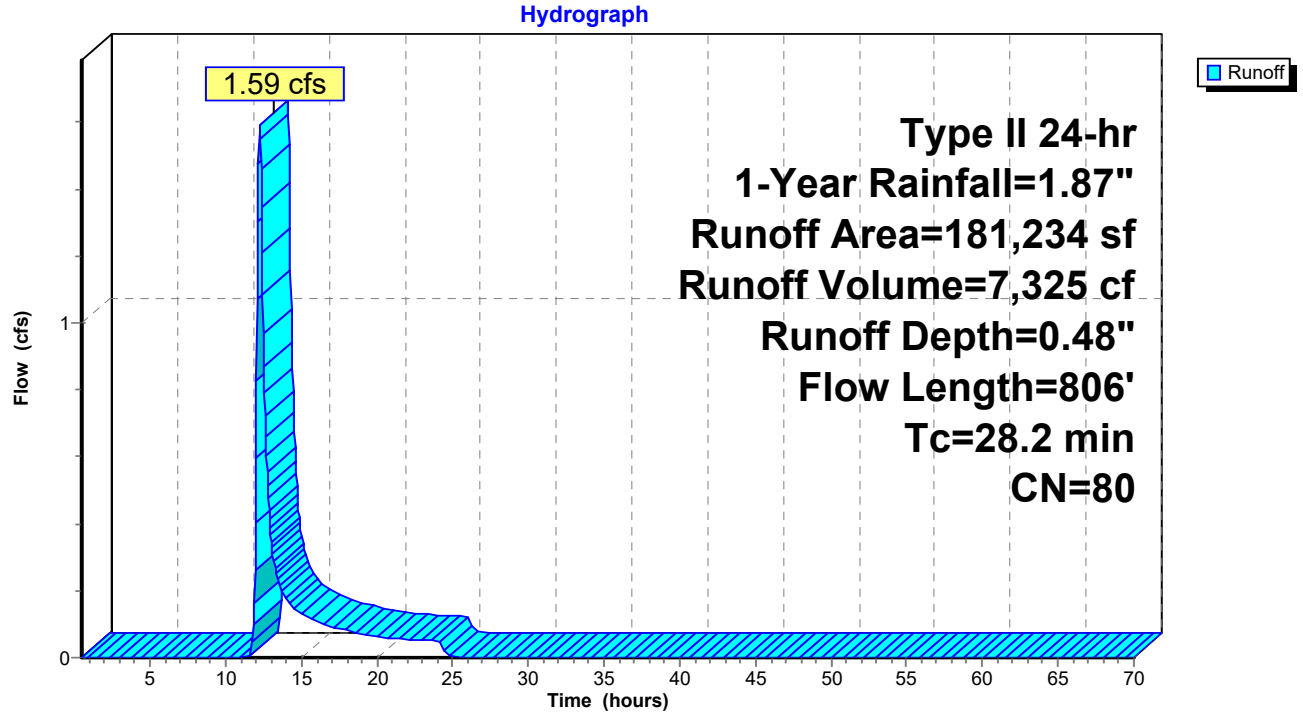
Runoff = 1.59 cfs @ 12.25 hrs, Volume= 7,325 cf, Depth= 0.48"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

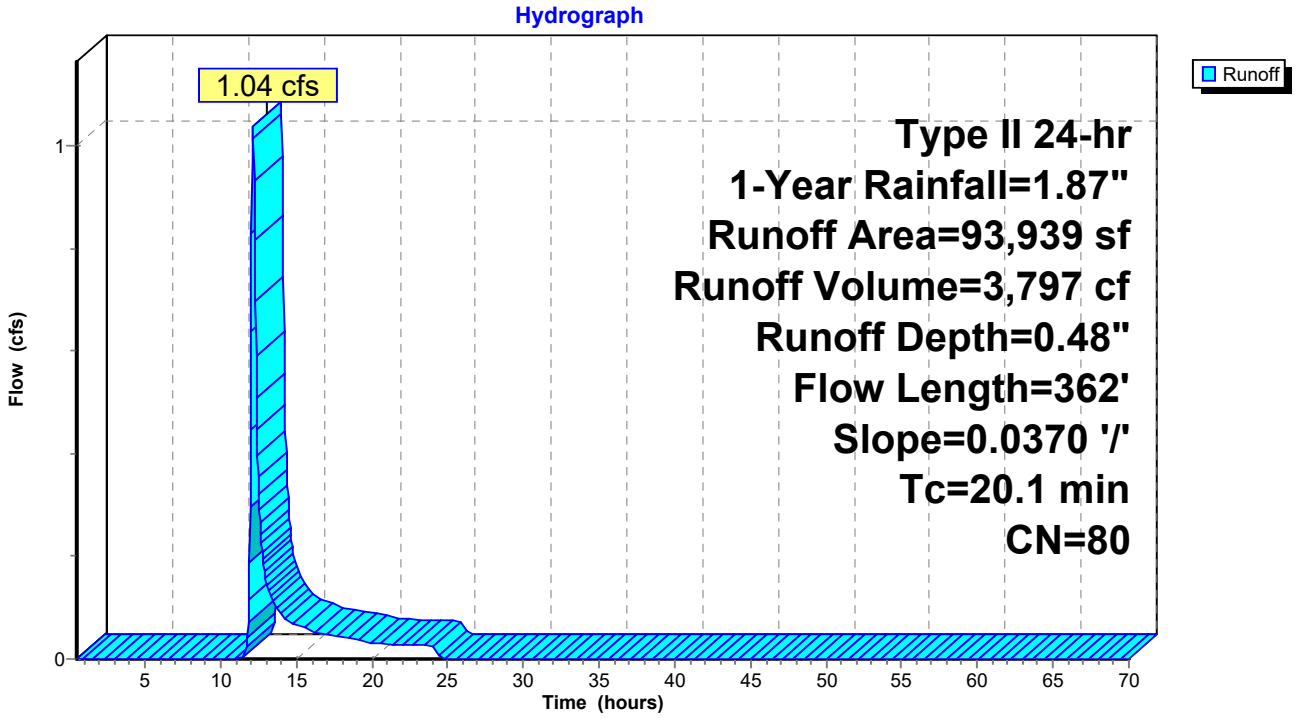
Runoff = 1.04 cfs @ 12.15 hrs, Volume= 3,797 cf, Depth= 0.48"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=806' Tc=28.2 min CN=80 Runoff=4.98 cfs 20,479 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=3.19 cfs 10,615 cf

Total Runoff Area = 275,173 sf Runoff Volume = 31,093 cf Average Runoff Depth = 1.36"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

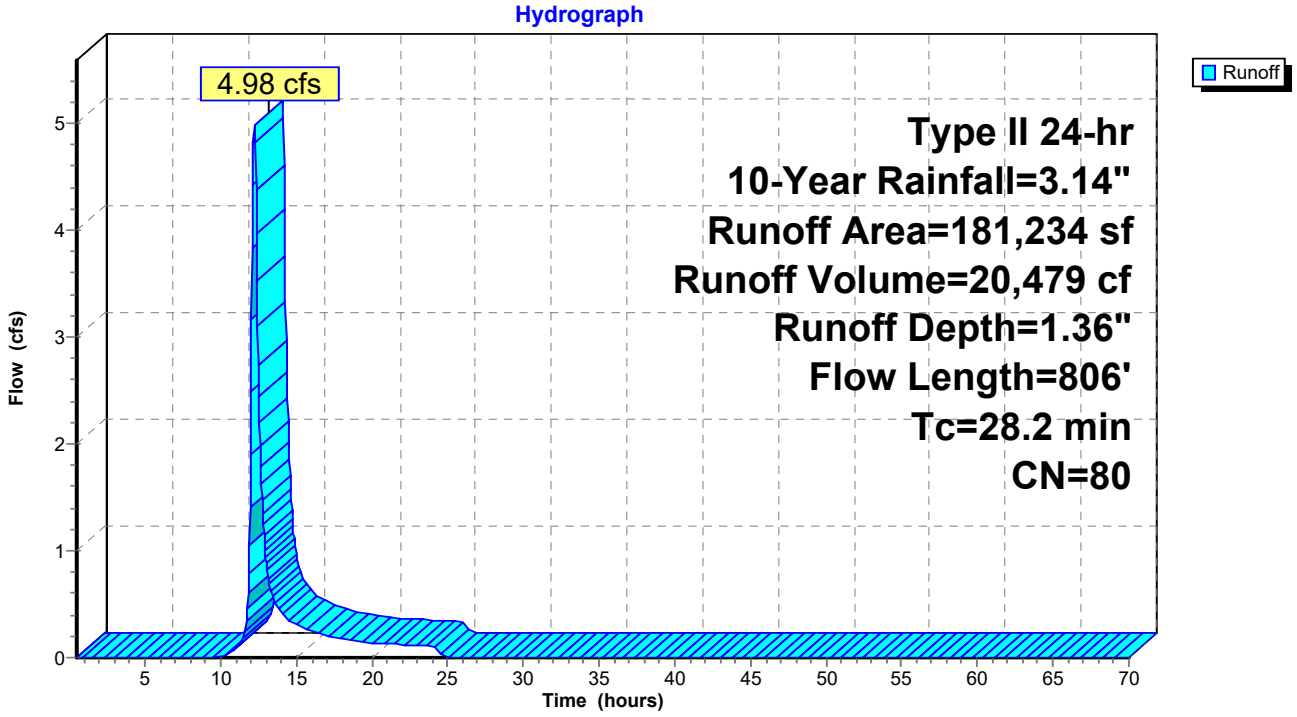
Runoff = 4.98 cfs @ 12.23 hrs, Volume= 20,479 cf, Depth= 1.36"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

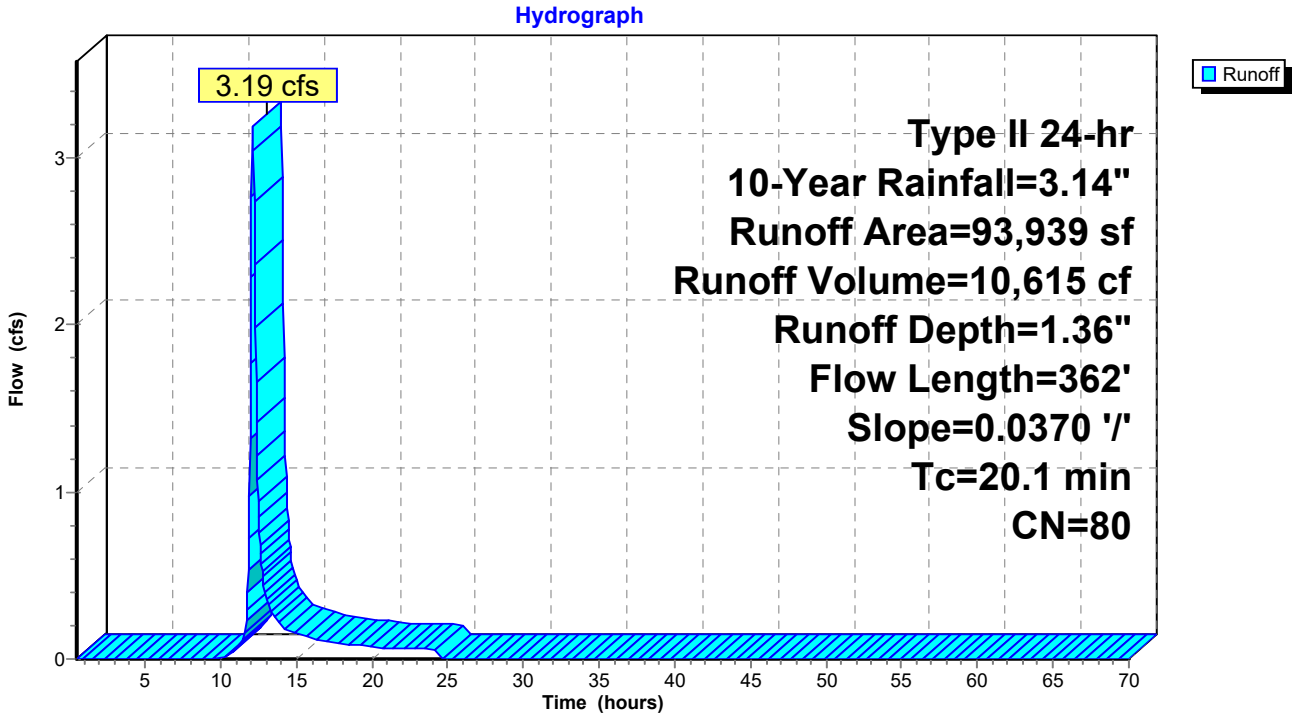
Runoff = 3.19 cfs @ 12.13 hrs, Volume= 10,615 cf, Depth= 1.36"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=806' Tc=28.2 min CN=80 Runoff=7.12 cfs 28,850 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=4.54 cfs 14,954 cf

Total Runoff Area = 275,173 sf Runoff Volume = 43,803 cf Average Runoff Depth = 1.91"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

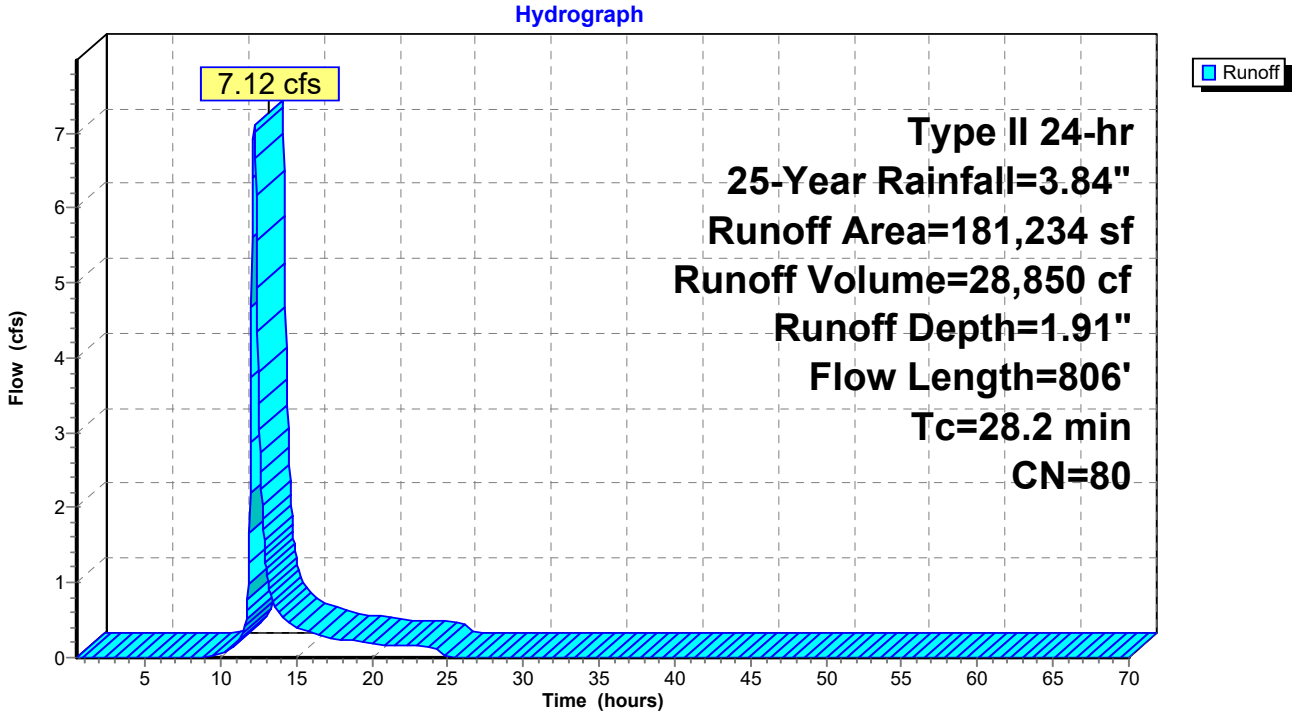
Runoff = 7.12 cfs @ 12.23 hrs, Volume= 28,850 cf, Depth= 1.91"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

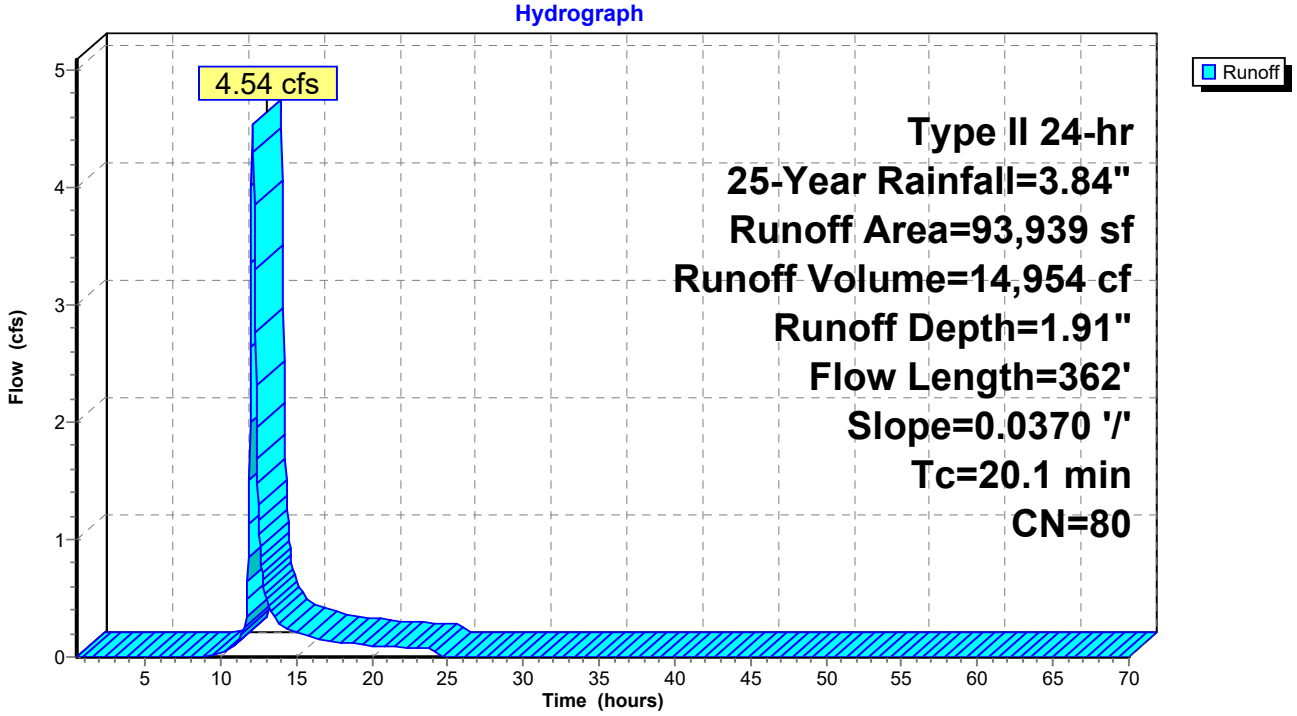
Runoff = 4.54 cfs @ 12.13 hrs, Volume= 14,954 cf, Depth= 1.91"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing - North Runoff Area=181,234 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=806' Tc=28.2 min CN=80 Runoff=11.60 cfs 46,735 cf

Subcatchment2S: Existing - South Runoff Area=93,939 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=362' Slope=0.0370 '/' Tc=20.1 min CN=80 Runoff=7.37 cfs 24,224 cf

Total Runoff Area = 275,173 sf Runoff Volume = 70,959 cf Average Runoff Depth = 3.09"
100.00% Pervious = 275,173 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1S: Existing - North

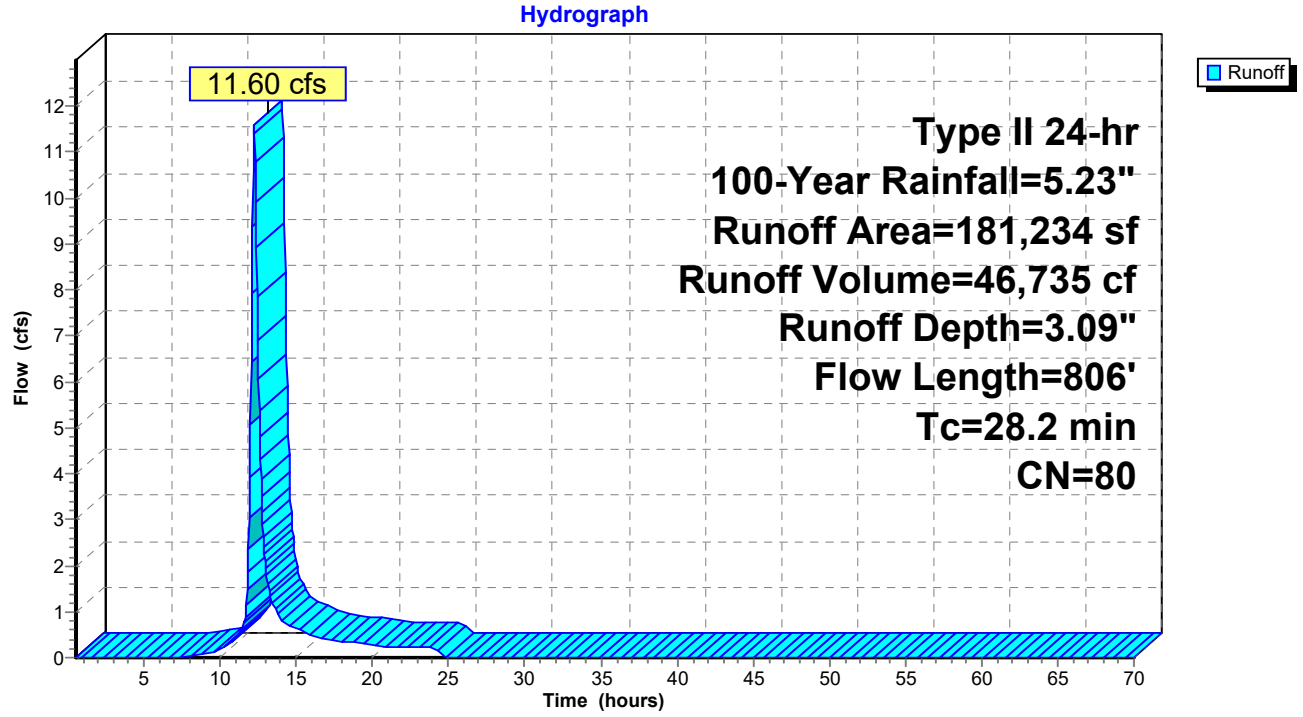
Runoff = 11.60 cfs @ 12.22 hrs, Volume= 46,735 cf, Depth= 3.09"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (sf)	CN	Description
131,812	80	Pasture/grassland/range, Good, HSG D
49,422	79	Woods/grass comb., Good, HSG D
181,234	80	Weighted Average
181,234		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0400	0.15		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
5.2	287	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	284	0.0280	1.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	85	0.0180	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.2	806	Total			

Subcatchment 1S: Existing - North



Summary for Subcatchment 2S: Existing - South

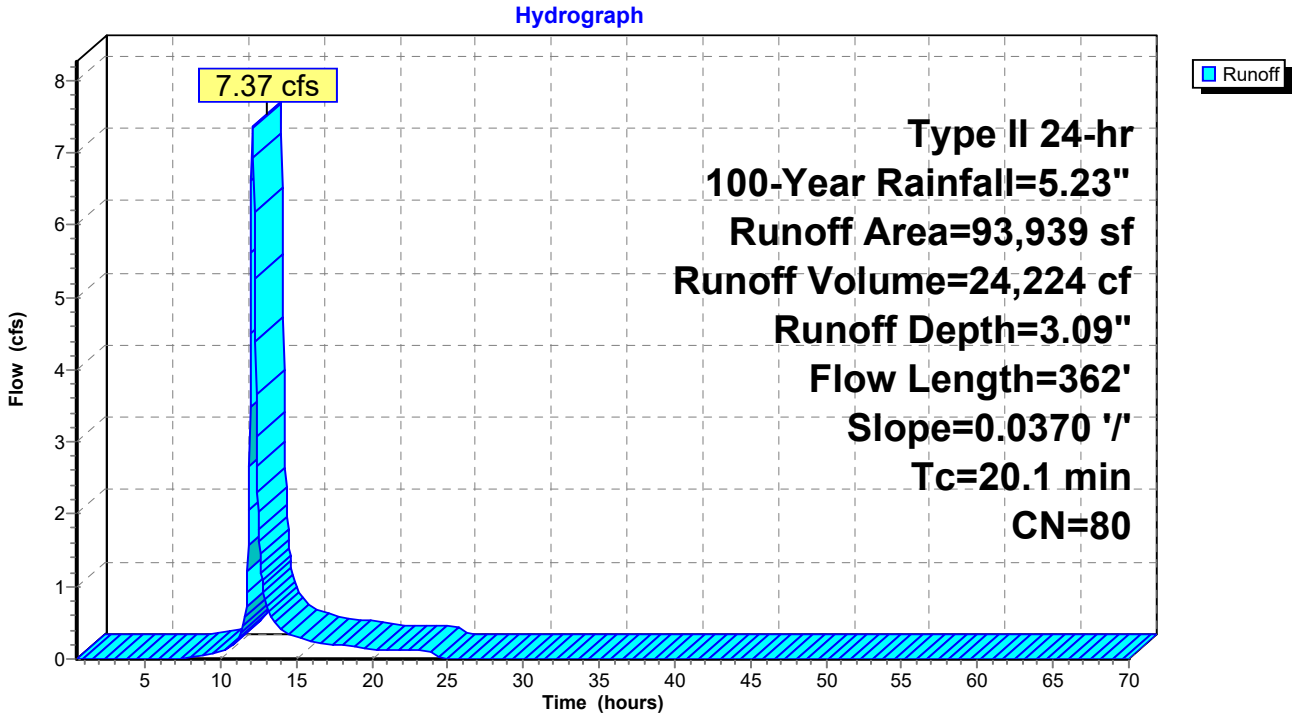
Runoff = 7.37 cfs @ 12.13 hrs, Volume= 24,224 cf, Depth= 3.09"
Routed to nonexistent node 6L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (sf)	CN	Description
93,939	80	Pasture/grassland/range, Good, HSG D
93,939		100.00% Pervious Area

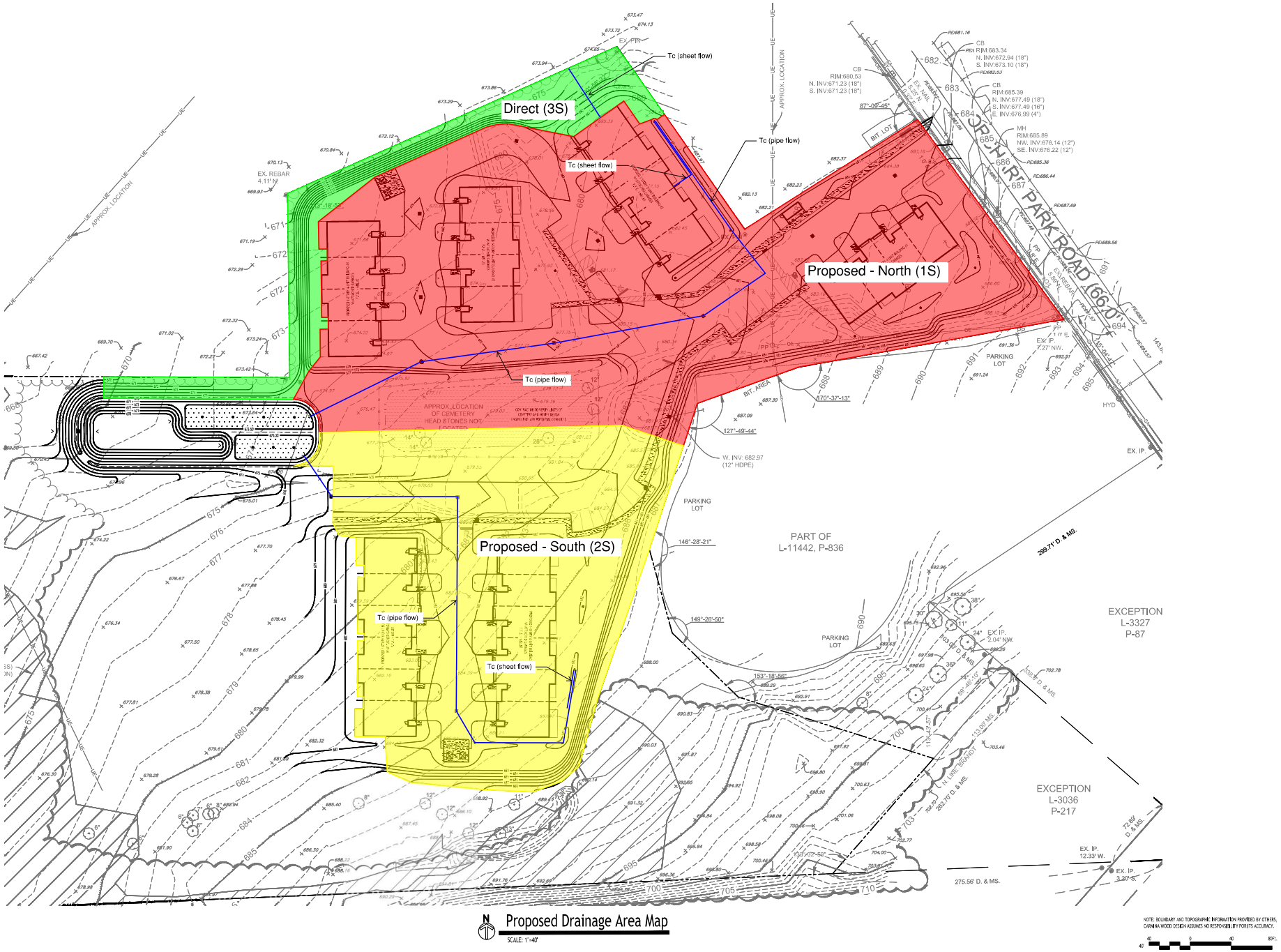
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	150	0.0370	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
2.6	212	0.0370	1.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
20.1	362	Total			

Subcatchment 2S: Existing - South



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Proposed Drainage Area Map

SCALE: 1"=40'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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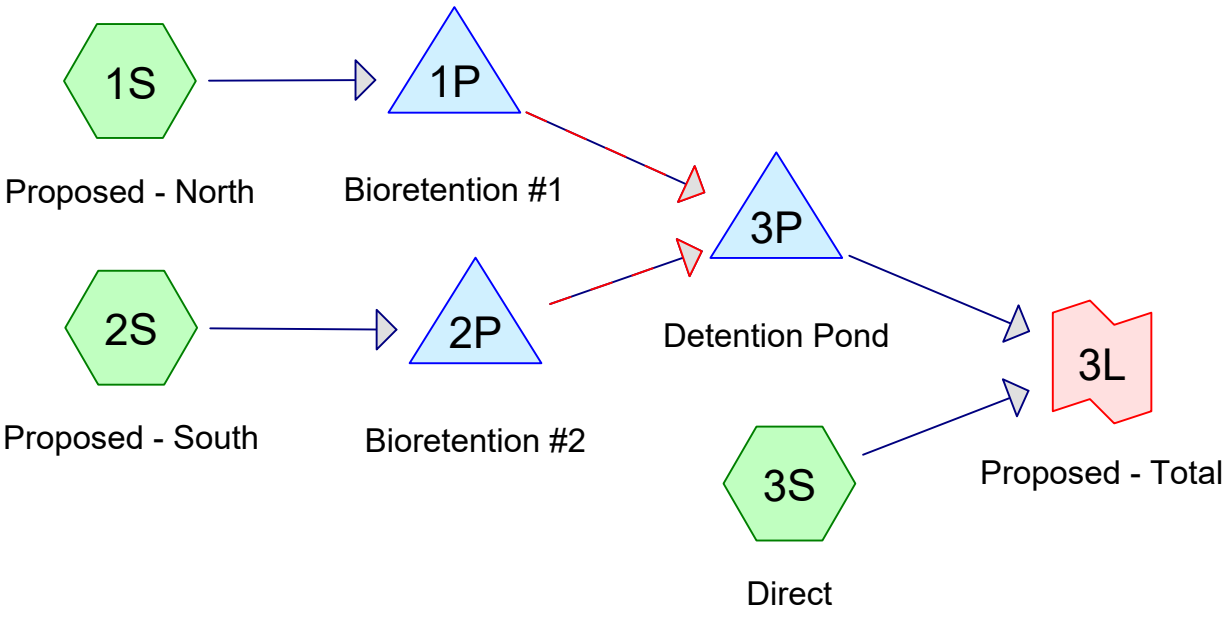
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/22/26

DRAWING NAME:
Proposed Drainage Area Map

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted
DRAWING NO.

Project No: 23-4121



Subcat Reach Pond Link

Routing Diagram for 23-4121 storm calcs - Proposed
Prepared by Carmina Wood Design, Printed 6/18/2026
HydroCAD® 10.20-8a s/n 05019 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	1.87	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.14	2
3	25-Year	Type II 24-hr		Default	24.00	1	3.84	2
4	100-Year	Type II 24-hr		Default	24.00	1	5.23	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
146,543	80	>75% Grass cover, Good, HSG D (1S, 2S, 3S)
1,626	98	Concrete, HSG D (2S)
67,908	98	Paved parking, HSG D (1S, 2S)
55,578	98	Roofs, HSG D (1S, 2S)
3,518	98	Sidewalk, HSG D (1S)
275,173	**88**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
275,173	HSG D	1S, 2S, 3S
0	Other	
275,173		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
0	0	0	146,543	0	146,543	>75% Grass cover, Good	
0	0	0	1,626	0	1,626	Concrete	
0	0	0	67,908	0	67,908	Paved parking	
0	0	0	55,578	0	55,578	Roofs	
0	0	0	3,518	0	3,518	Sidewalk	
0	**0**	**0**	**275,173**	**0**	**275,173**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1S	0.00	0.00	182.0	0.0050	0.013	0.0	6.0	0.0	
2	1S	0.00	0.00	70.0	0.0070	0.013	0.0	12.0	0.0	
3	1S	0.00	0.00	400.0	0.0100	0.013	0.0	12.0	0.0	
4	2S	0.00	0.00	194.0	0.0050	0.013	0.0	8.0	0.0	
5	2S	0.00	0.00	209.0	0.0080	0.013	0.0	12.0	0.0	
6	2S	0.00	0.00	171.0	0.0110	0.013	0.0	12.0	0.0	
7	1P	669.67	669.57	31.0	0.0032	0.013	0.0	6.0	0.0	
8	2P	669.67	669.57	31.0	0.0032	0.013	0.0	6.0	0.0	
9	3P	669.00	668.92	17.0	0.0047	0.013	0.0	8.0	0.0	
10	3P	668.92	668.80	25.0	0.0048	0.013	0.0	8.0	0.0	

Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=0.92"
Flow Length=738' Tc=24.8 min CN=89 Runoff=3.28 cfs 12,245 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=0.92"
Flow Length=627' Tc=19.8 min CN=89 Runoff=2.21 cfs 7,211 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=0.48"
Flow Length=58' Tc=7.8 min CN=80 Runoff=0.38 cfs 878 cf

Pond 1P: Bioretention #1 Peak Elev=673.76' Storage=2,122 cf Inflow=3.28 cfs 12,245 cf
Primary=2.90 cfs 10,904 cf Secondary=0.00 cfs 0 cf Outflow=2.90 cfs 10,904 cf

Pond 2P: Bioretention #2 Peak Elev=673.72' Storage=1,182 cf Inflow=2.21 cfs 7,211 cf
Primary=2.14 cfs 6,420 cf Secondary=0.00 cfs 0 cf Outflow=2.14 cfs 6,420 cf

Pond 3P: Detention Pond Peak Elev=670.86' Storage=4,596 cf Inflow=4.98 cfs 17,324 cf
Outflow=1.83 cfs 17,324 cf

Link 3L: Proposed - Total Inflow=1.87 cfs 18,202 cf
Primary=1.87 cfs 18,202 cf

Total Runoff Area = 275,173 sf Runoff Volume = 20,334 cf Average Runoff Depth = 0.89"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

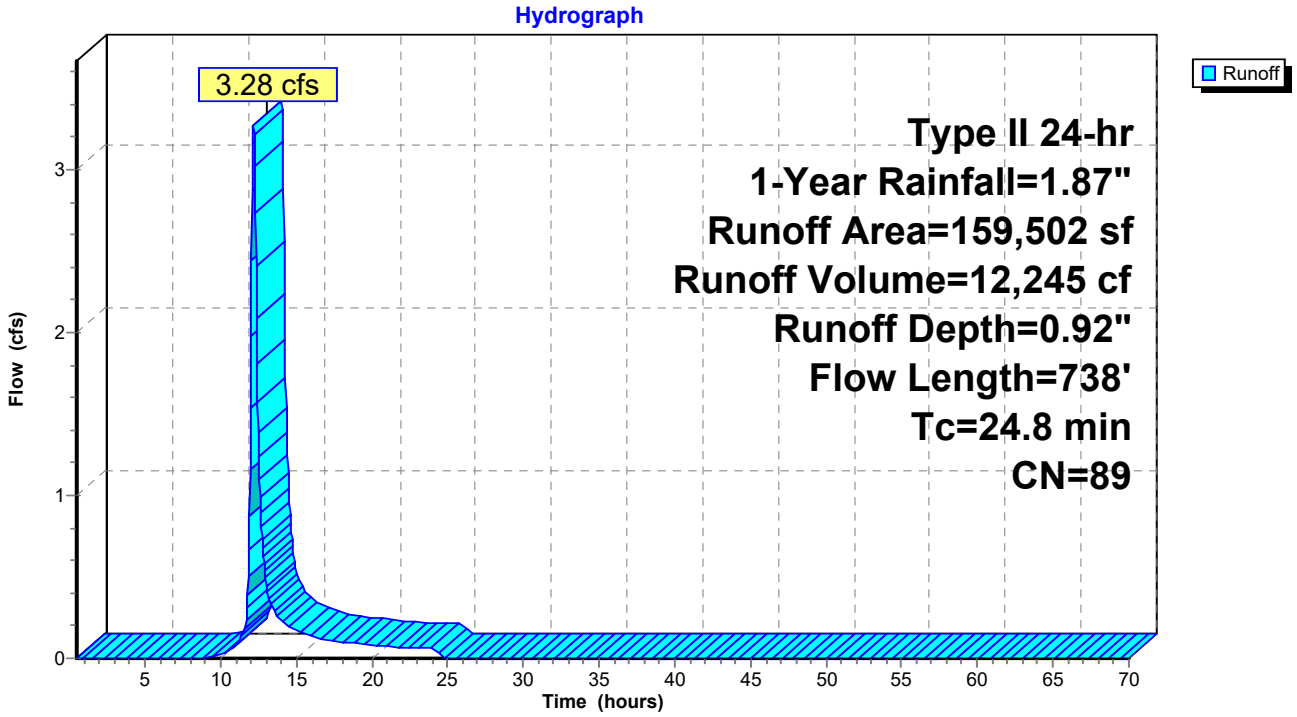
Runoff = 3.28 cfs @ 12.19 hrs, Volume= 12,245 cf, Depth= 0.92"
Routed to Pond 1P : Bioretention #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

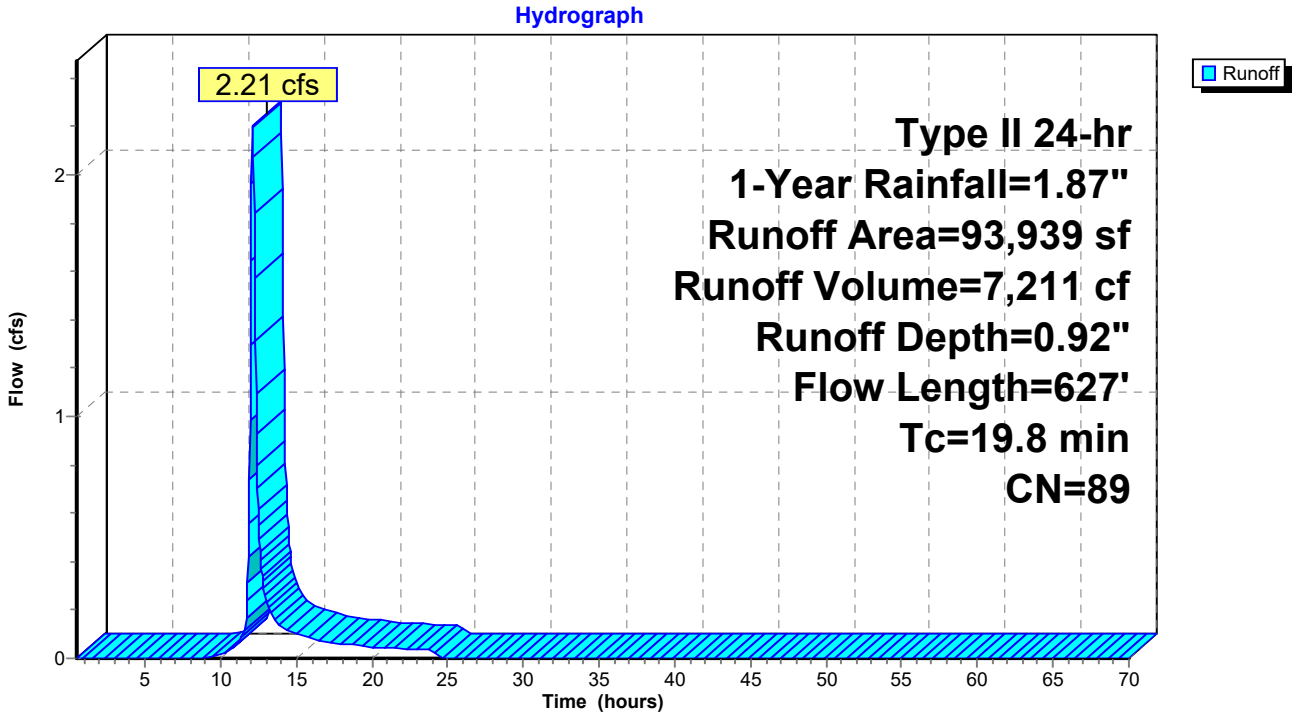
Runoff = 2.21 cfs @ 12.13 hrs, Volume= 7,211 cf, Depth= 0.92"
Routed to Pond 2P : Bioretention #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

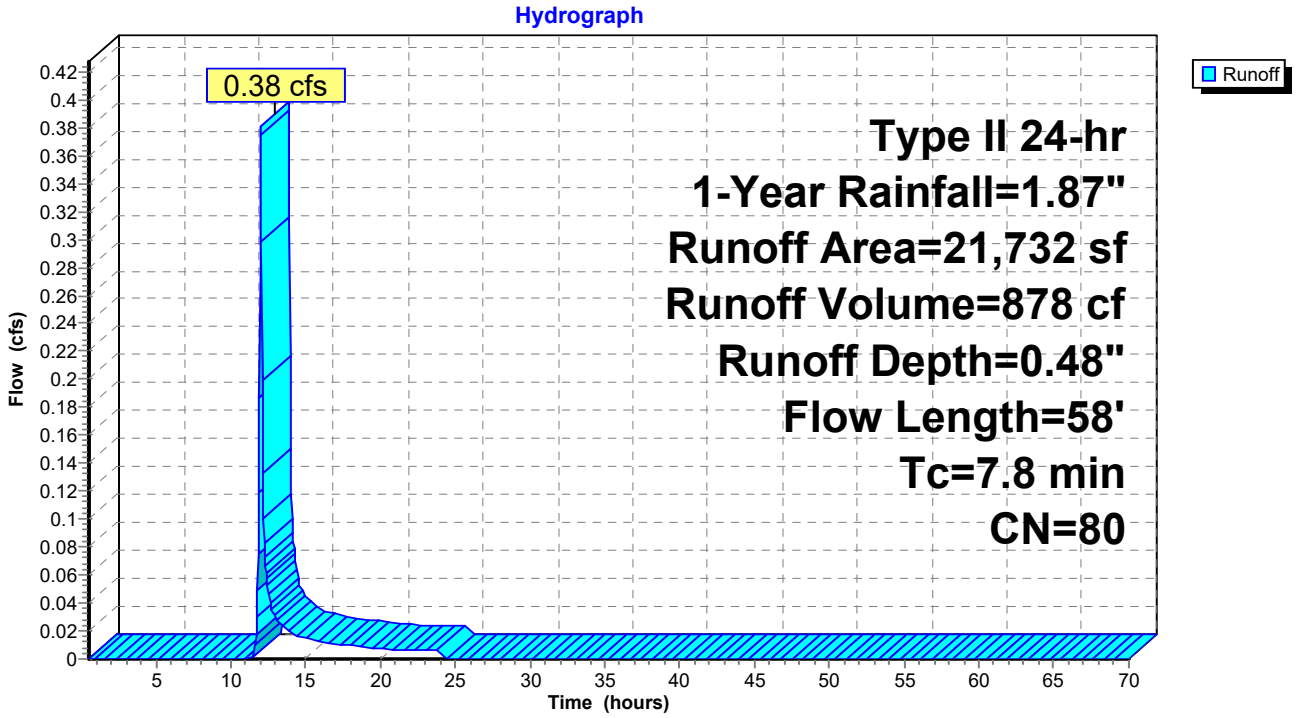
Runoff = 0.38 cfs @ 12.00 hrs, Volume= 878 cf, Depth= 0.48"
Routed to Link 3L : Proposed - Total

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Bioretention #1

Inflow Area = 159,502 sf, 51.54% Impervious, Inflow Depth = 0.92" for 1-Year event
Inflow = 3.28 cfs @ 12.19 hrs, Volume= 12,245 cf
Outflow = 2.90 cfs @ 12.28 hrs, Volume= 10,904 cf, Atten= 11%, Lag= 5.4 min
Primary = 2.90 cfs @ 12.28 hrs, Volume= 10,904 cf
Routed to Pond 3P : Detention Pond
Secondary = 0.00 cfs @ 0.50 hrs, Volume= 0 cf
Routed to Pond 3P : Detention Pond

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 673.76' @ 12.28 hrs Surf.Area= 3,084 sf Storage= 2,122 cf

Plug-Flow detention time= 81.0 min calculated for 10,898 cf (89% of inflow)
Center-of-Mass det. time= 26.2 min (874.9 - 848.7)

Volume	Invert	Avail.Storage	Storage Description
#1	673.00'	2,859 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	669.67'	18 cf	**6.0" Round Pipe Storage** L= 90.0'
		2,876 cf	Total Available Storage

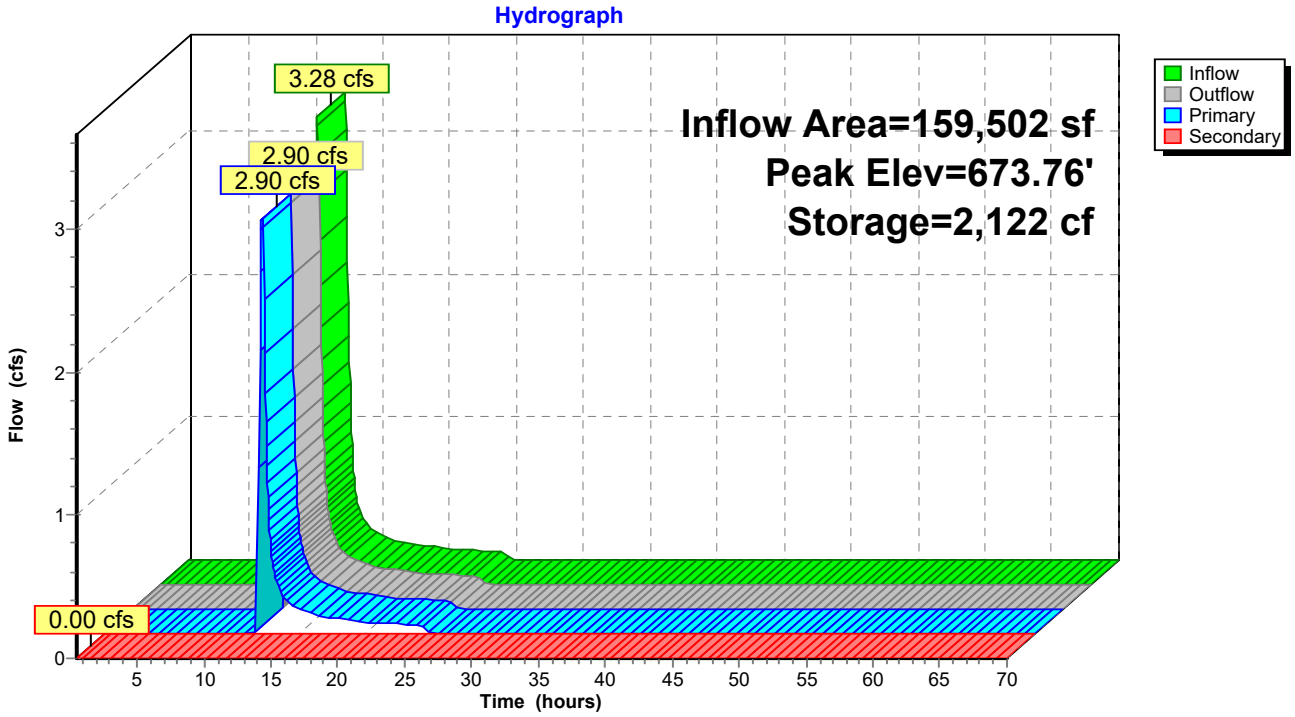
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
673.00	2,435	0	0
673.50	2,855	1,323	1,323
674.00	3,290	1,536	2,859

Device	Routing	Invert	Outlet Devices
#1	Device 2	673.50'	**8.0" Horiz. Orifice/Grate X 4.00** C= 1.000 Limited to weir flow at low heads
#2	Primary	669.67'	**6.0" Round Culvert X 2.00** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 669.67' / 669.57' S= 0.0032 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Secondary	674.00'	**18.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=2.90 cfs @ 12.28 hrs HW=673.76' (Free Discharge)
↑—**2=Culvert** (Barrel Controls 2.90 cfs @ 7.39 fps)
↑—**1=Orifice/Grate** (Passes 2.90 cfs of 3.67 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.50 hrs HW=669.67' (Free Discharge)
↑—**3=Sharp-Crested Vee/Trap Weir** (Controls 0.00 cfs)

Pond 1P: Bioretention #1



Summary for Pond 2P: Bioretention #2

Inflow Area = 93,939 sf, 49.41% Impervious, Inflow Depth = 0.92" for 1-Year event
Inflow = 2.21 cfs @ 12.13 hrs, Volume= 7,211 cf
Outflow = 2.14 cfs @ 12.17 hrs, Volume= 6,420 cf, Atten= 3%, Lag= 2.3 min
Primary = 2.14 cfs @ 12.17 hrs, Volume= 6,420 cf
Routed to Pond 3P : Detention Pond
Secondary = 0.00 cfs @ 0.50 hrs, Volume= 0 cf
Routed to Pond 3P : Detention Pond

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 673.72' @ 12.17 hrs Surf.Area= 1,833 sf Storage= 1,182 cf

Plug-Flow detention time= 79.8 min calculated for 6,416 cf (89% of inflow)
Center-of-Mass det. time= 24.9 min (869.0 - 844.1)

Volume	Invert	Avail.Storage	Storage Description
#1	673.00'	1,709 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	669.67'	8 cf	**6.0" Round Pipe Storage** L= 40.0'
		1,717 cf	Total Available Storage

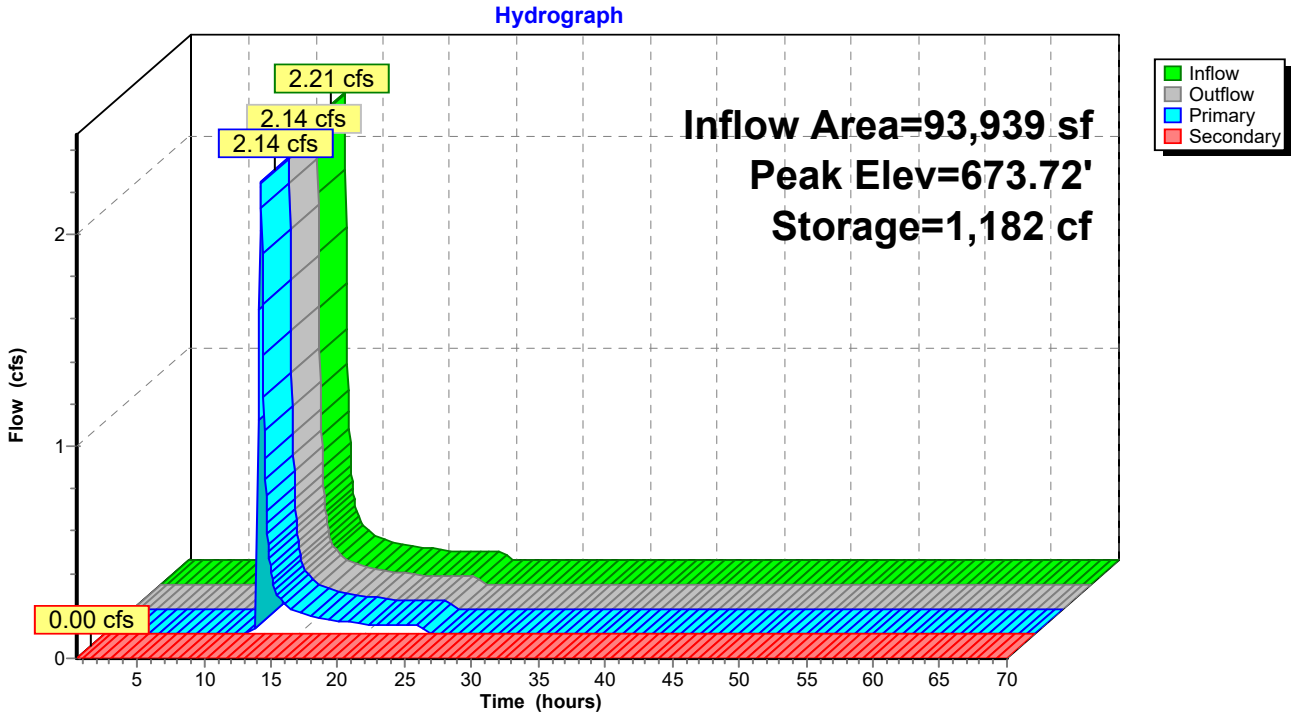
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
673.00	1,430	0	0
673.50	1,705	784	784
674.00	1,995	925	1,709

Device	Routing	Invert	Outlet Devices
#1	Device 2	673.50'	**8.0" Horiz. Orifice/Grate X 3.00** C= 1.000 Limited to weir flow at low heads
#2	Primary	669.67'	**6.0" Round Culvert X 2.00** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 669.67' / 669.57' S= 0.0032 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Secondary	674.00'	**18.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=2.11 cfs @ 12.17 hrs HW=673.72' (Free Discharge)
↑—**2=Culvert** (Passes 2.11 cfs of 2.89 cfs potential flow)
↑—**1=Orifice/Grate** (Weir Controls 2.11 cfs @ 1.53 fps)

Secondary OutFlow Max=0.00 cfs @ 0.50 hrs HW=669.67' (Free Discharge)
↑—**3=Sharp-Crested Vee/Trap Weir** (Controls 0.00 cfs)

Pond 2P: Bioretention #2



Summary for Pond 3P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 0.82" for 1-Year event
Inflow = 4.98 cfs @ 12.19 hrs, Volume= 17,324 cf
Outflow = 1.83 cfs @ 12.59 hrs, Volume= 17,324 cf, Atten= 63%, Lag= 23.9 min
Primary = 1.83 cfs @ 12.59 hrs, Volume= 17,324 cf
Routed to Link 3L : Proposed - Total

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 670.86' @ 12.59 hrs Surf.Area= 3,933 sf Storage= 4,596 cf

Plug-Flow detention time= 24.7 min calculated for 17,314 cf (100% of inflow)
Center-of-Mass det. time= 24.7 min (897.4 - 872.7)

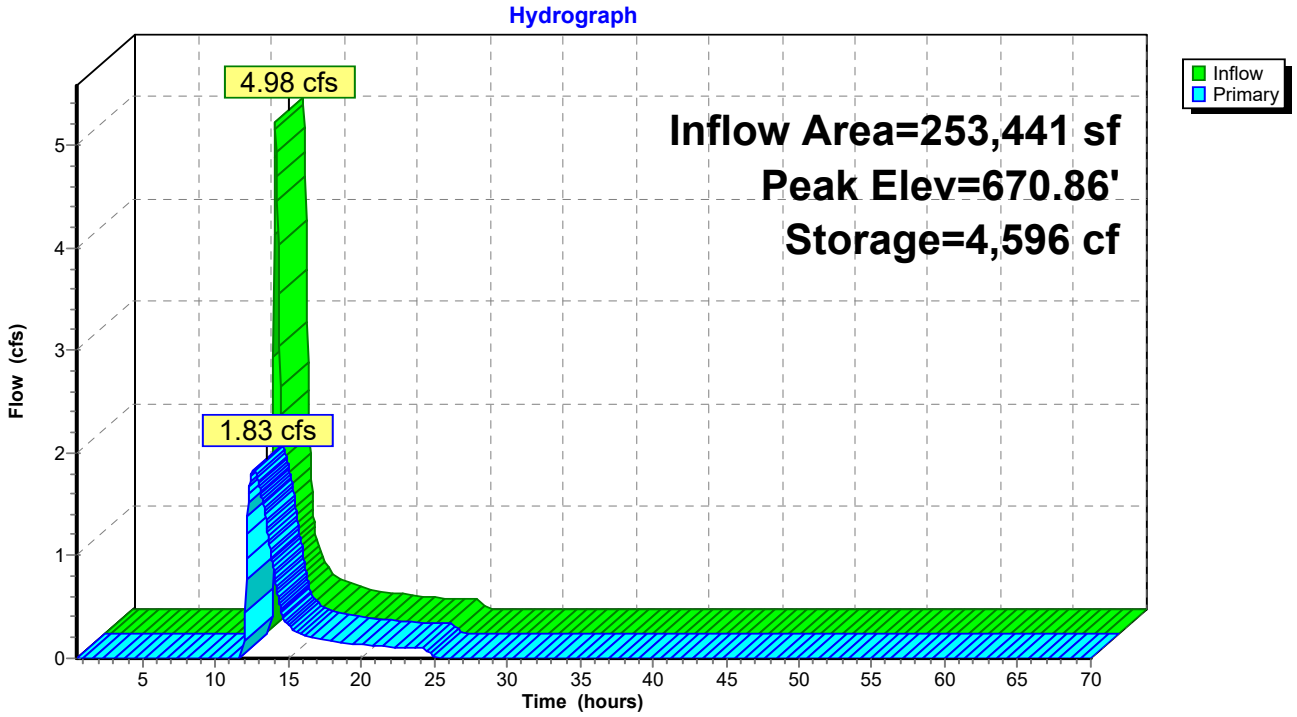
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.83 cfs @ 12.59 hrs HW=670.86' (Free Discharge)
└**3=Culvert** (Passes 1.83 cfs of 1.88 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 1.83 cfs @ 5.24 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 3P: Detention Pond

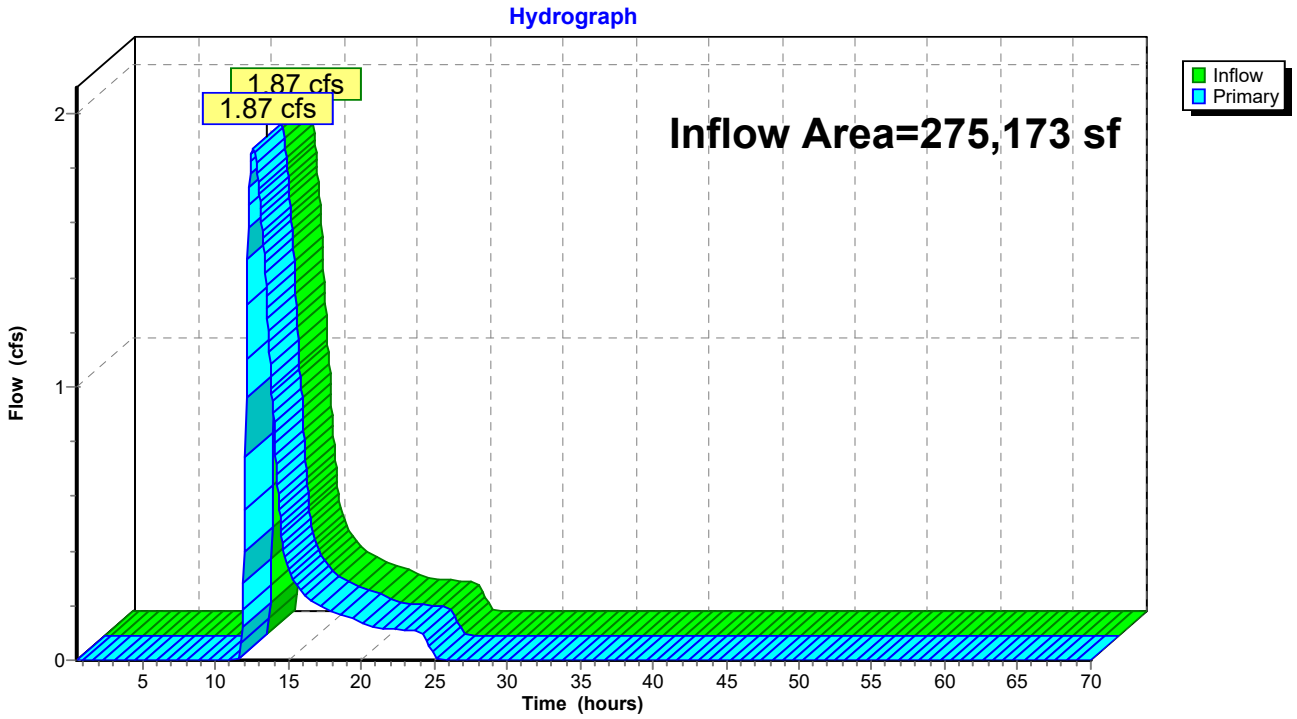


Summary for Link 3L: Proposed - Total

Inflow Area = 275,173 sf, 46.75% Impervious, Inflow Depth = 0.79" for 1-Year event
Inflow = 1.87 cfs @ 12.57 hrs, Volume= 18,202 cf
Primary = 1.87 cfs @ 12.57 hrs, Volume= 18,202 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs

Link 3L: Proposed - Total



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=2.03"
Flow Length=738' Tc=24.8 min CN=89 Runoff=7.22 cfs 26,940 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=2.03"
Flow Length=627' Tc=19.8 min CN=89 Runoff=4.85 cfs 15,867 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=1.36"
Flow Length=58' Tc=7.8 min CN=80 Runoff=1.12 cfs 2,456 cf

Pond 1P: Bioretention #1 Peak Elev=674.22' Storage=2,876 cf Inflow=7.22 cfs 26,940 cf
Primary=3.08 cfs 21,913 cf Secondary=6.13 cfs 3,688 cf Outflow=9.21 cfs 25,600 cf

Pond 2P: Bioretention #2 Peak Elev=674.14' Storage=1,717 cf Inflow=4.85 cfs 15,867 cf
Primary=3.05 cfs 14,217 cf Secondary=3.26 cfs 858 cf Outflow=6.31 cfs 15,075 cf

Pond 3P: Detention Pond Peak Elev=672.91' Storage=14,741 cf Inflow=15.52 cfs 40,675 cf
Outflow=2.80 cfs 40,675 cf

Link 3L: Proposed - Total Inflow=2.89 cfs 43,131 cf
Primary=2.89 cfs 43,131 cf

Total Runoff Area = 275,173 sf Runoff Volume = 45,263 cf Average Runoff Depth = 1.97"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

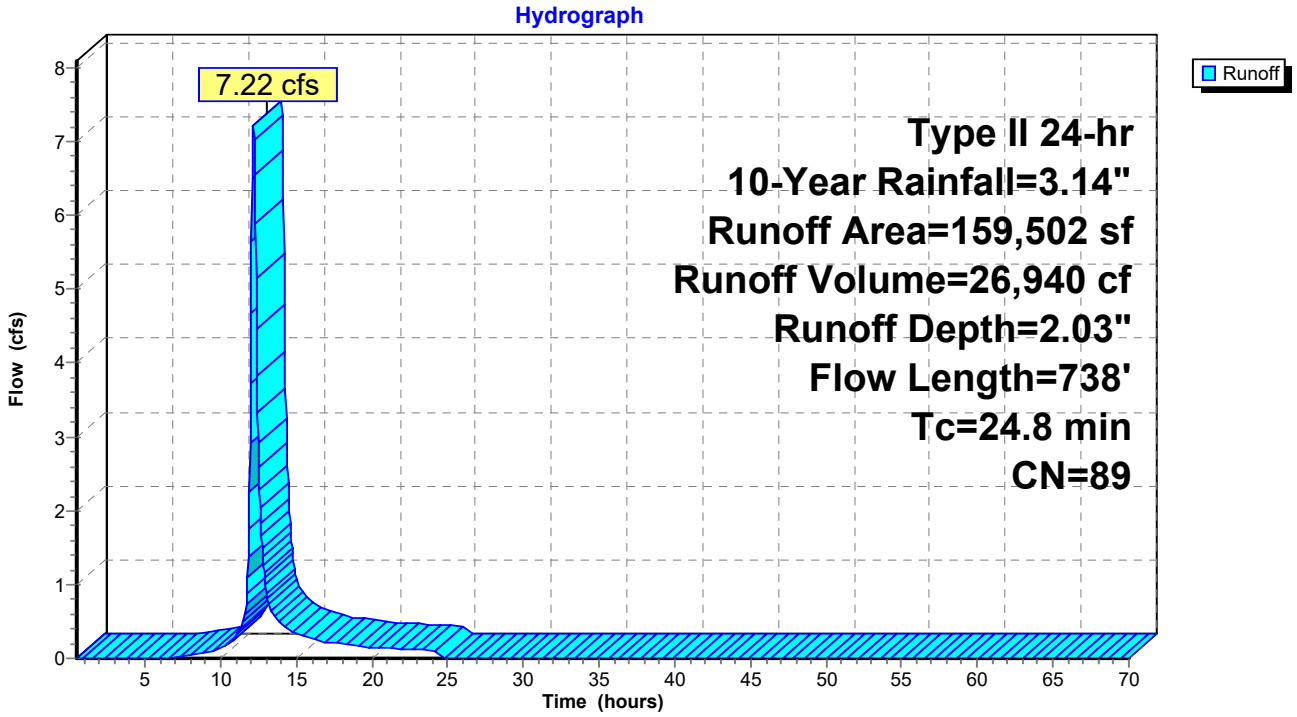
Runoff = 7.22 cfs @ 12.18 hrs, Volume= 26,940 cf, Depth= 2.03"
Routed to Pond 1P : Bioretention #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

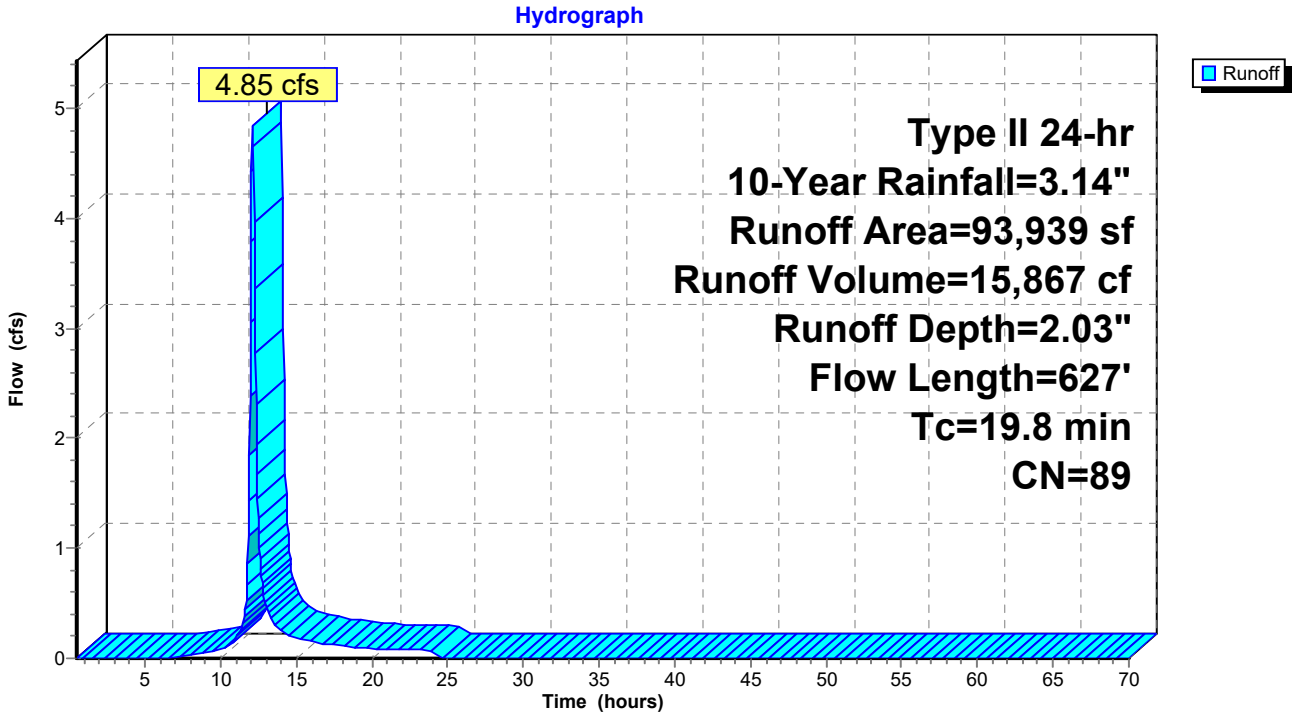
Runoff = 4.85 cfs @ 12.12 hrs, Volume= 15,867 cf, Depth= 2.03"
Routed to Pond 2P : Bioretention #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

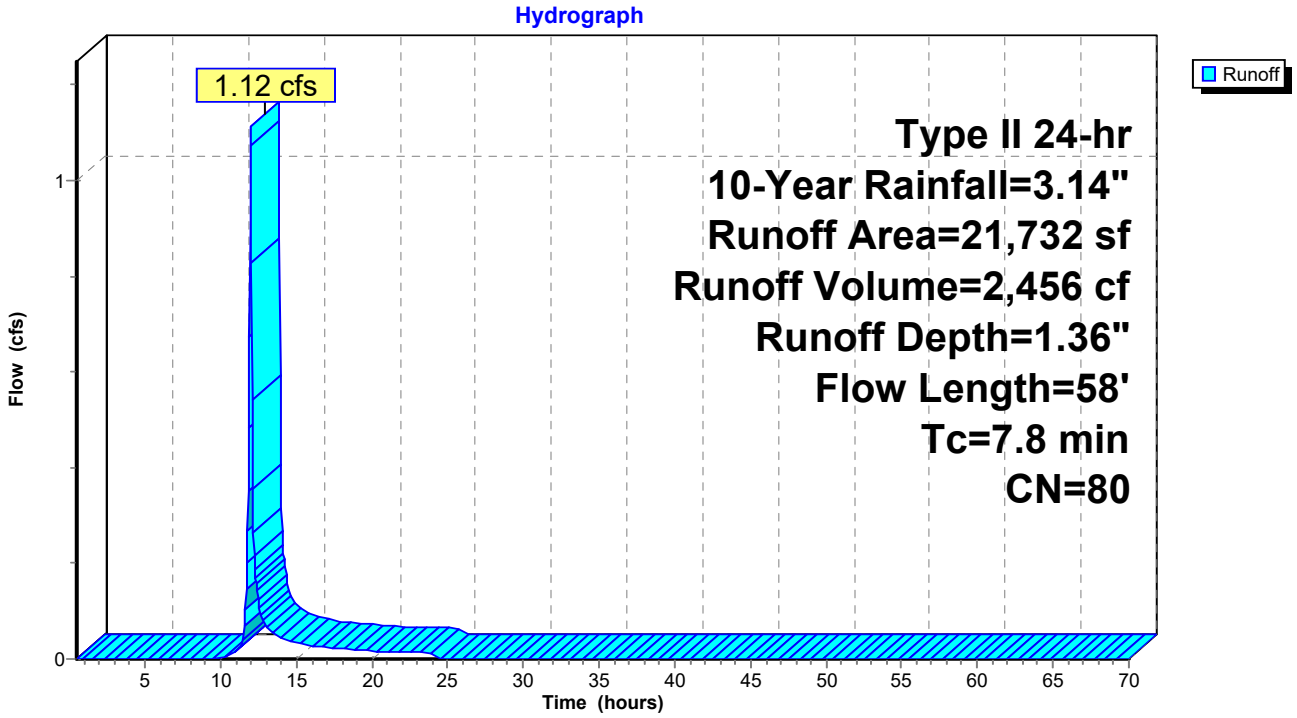
Runoff = 1.12 cfs @ 12.00 hrs, Volume= 2,456 cf, Depth= 1.36"
Routed to Link 3L : Proposed - Total

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Bioretention #1

Inflow Area = 159,502 sf, 51.54% Impervious, Inflow Depth = 2.03" for 10-Year event
Inflow = 7.22 cfs @ 12.18 hrs, Volume= 26,940 cf
Outflow = 9.21 cfs @ 12.14 hrs, Volume= 25,600 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.08 cfs @ 12.14 hrs, Volume= 21,913 cf
Routed to Pond 3P : Detention Pond
Secondary = 6.13 cfs @ 12.14 hrs, Volume= 3,688 cf
Routed to Pond 3P : Detention Pond

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 674.22' @ 12.14 hrs Surf.Area= 3,290 sf Storage= 2,876 cf

Plug-Flow detention time= 47.3 min calculated for 25,586 cf (95% of inflow)
Center-of-Mass det. time= 19.0 min (845.2 - 826.2)

Volume	Invert	Avail.Storage	Storage Description
#1	673.00'	2,859 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	669.67'	18 cf	**6.0" Round Pipe Storage** L= 90.0'
		2,876 cf	Total Available Storage

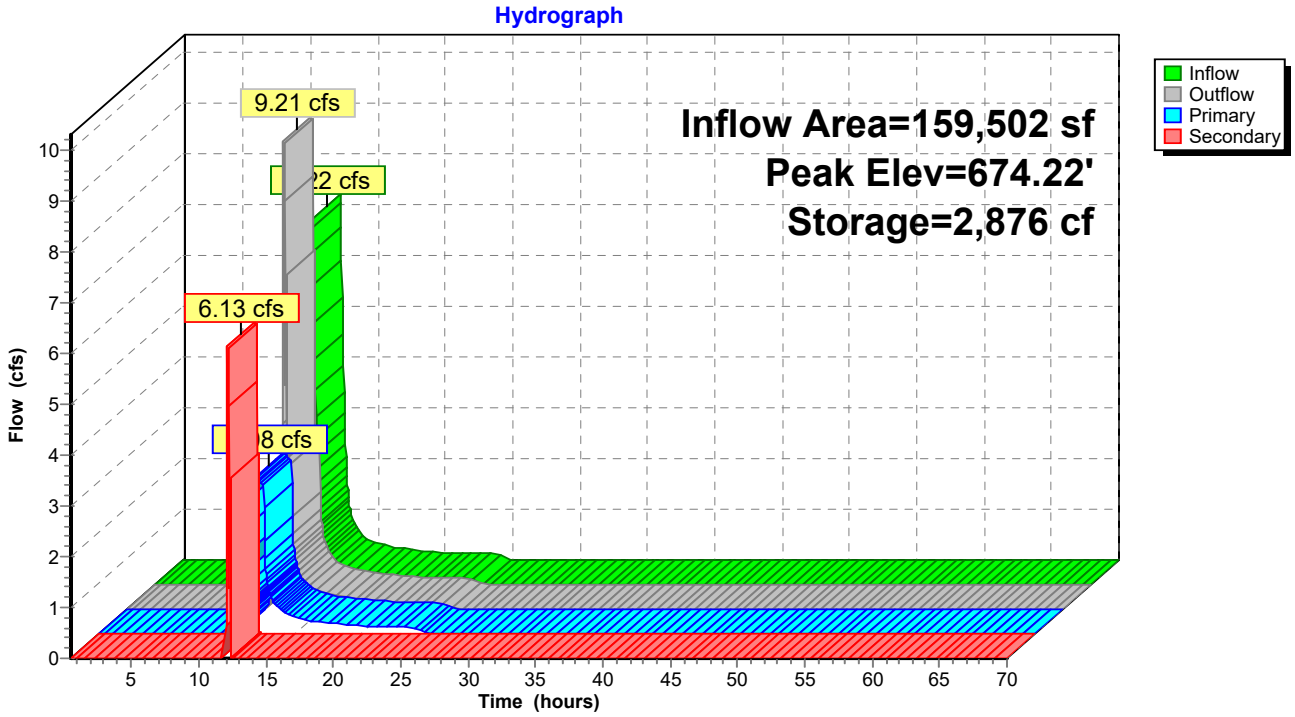
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
673.00	2,435	0	0
673.50	2,855	1,323	1,323
674.00	3,290	1,536	2,859

Device	Routing	Invert	Outlet Devices
#1	Device 2	673.50'	**8.0" Horiz. Orifice/Grate X 4.00** C= 1.000 Limited to weir flow at low heads
#2	Primary	669.67'	**6.0" Round Culvert X 2.00** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 669.67' / 669.57' S= 0.0032 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Secondary	674.00'	**18.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=3.08 cfs @ 12.14 hrs HW=674.22' (Free Discharge)
↑—**2=Culvert** (Barrel Controls 3.08 cfs @ 7.84 fps)
↑—**1=Orifice/Grate** (Passes 3.08 cfs of 9.51 cfs potential flow)

Secondary OutFlow Max=6.12 cfs @ 12.14 hrs HW=674.22' (Free Discharge)
↑—**3=Sharp-Crested Vee/Trap Weir** (Weir Controls 6.12 cfs @ 1.54 fps)

Pond 1P: Bioretention #1



Summary for Pond 2P: Bioretention #2

Inflow Area = 93,939 sf, 49.41% Impervious, Inflow Depth = 2.03" for 10-Year event
Inflow = 4.85 cfs @ 12.12 hrs, Volume= 15,867 cf
Outflow = 6.31 cfs @ 12.14 hrs, Volume= 15,075 cf, Atten= 0%, Lag= 1.1 min
Primary = 3.05 cfs @ 12.14 hrs, Volume= 14,217 cf
Routed to Pond 3P : Detention Pond
Secondary = 3.26 cfs @ 12.14 hrs, Volume= 858 cf
Routed to Pond 3P : Detention Pond

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 674.14' @ 12.14 hrs Surf.Area= 1,995 sf Storage= 1,717 cf

Plug-Flow detention time= 46.2 min calculated for 15,066 cf (95% of inflow)
Center-of-Mass det. time= 17.7 min (839.3 - 821.6)

Volume	Invert	Avail.Storage	Storage Description
#1	673.00'	1,709 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	669.67'	8 cf	**6.0" Round Pipe Storage** L= 40.0'
		1,717 cf	Total Available Storage

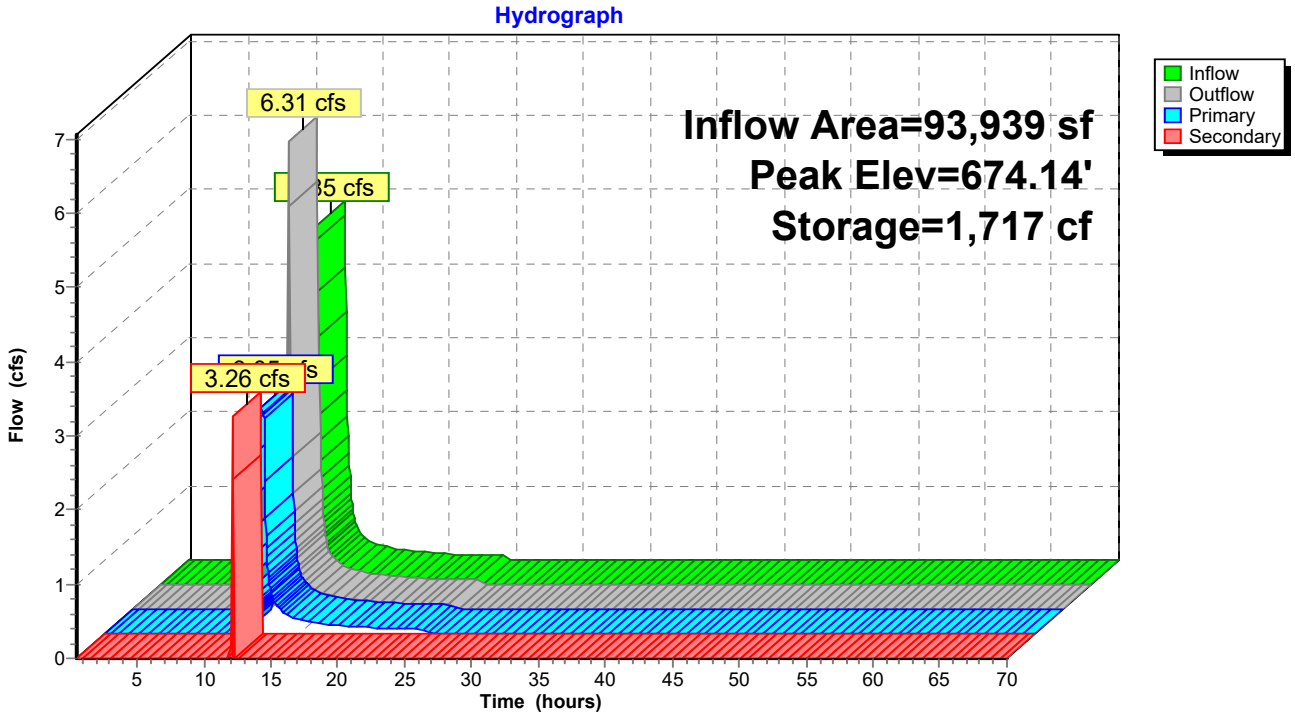
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
673.00	1,430	0	0
673.50	1,705	784	784
674.00	1,995	925	1,709

Device	Routing	Invert	Outlet Devices
#1	Device 2	673.50'	**8.0" Horiz. Orifice/Grate X 3.00** C= 1.000 Limited to weir flow at low heads
#2	Primary	669.67'	**6.0" Round Culvert X 2.00** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 669.67' / 669.57' S= 0.0032 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Secondary	674.00'	**18.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=3.05 cfs @ 12.14 hrs HW=674.14' (Free Discharge)
↑—**2=Culvert** (Barrel Controls 3.05 cfs @ 7.76 fps)
↑—**1=Orifice/Grate** (Passes 3.05 cfs of 6.72 cfs potential flow)

Secondary OutFlow Max=3.14 cfs @ 12.14 hrs HW=674.14' (Free Discharge)
↑—**3=Sharp-Crested Vee/Trap Weir** (Weir Controls 3.14 cfs @ 1.23 fps)

Pond 2P: Bioretention #2



Summary for Pond 3P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 1.93" for 10-Year event
Inflow = 15.52 cfs @ 12.14 hrs, Volume= 40,675 cf
Outflow = 2.80 cfs @ 12.80 hrs, Volume= 40,675 cf, Atten= 82%, Lag= 39.7 min
Primary = 2.80 cfs @ 12.80 hrs, Volume= 40,675 cf
Routed to Link 3L : Proposed - Total

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 672.91' @ 12.80 hrs Surf.Area= 6,011 sf Storage= 14,741 cf

Plug-Flow detention time= 49.3 min calculated for 40,652 cf (100% of inflow)
Center-of-Mass det. time= 49.3 min (892.3 - 843.0)

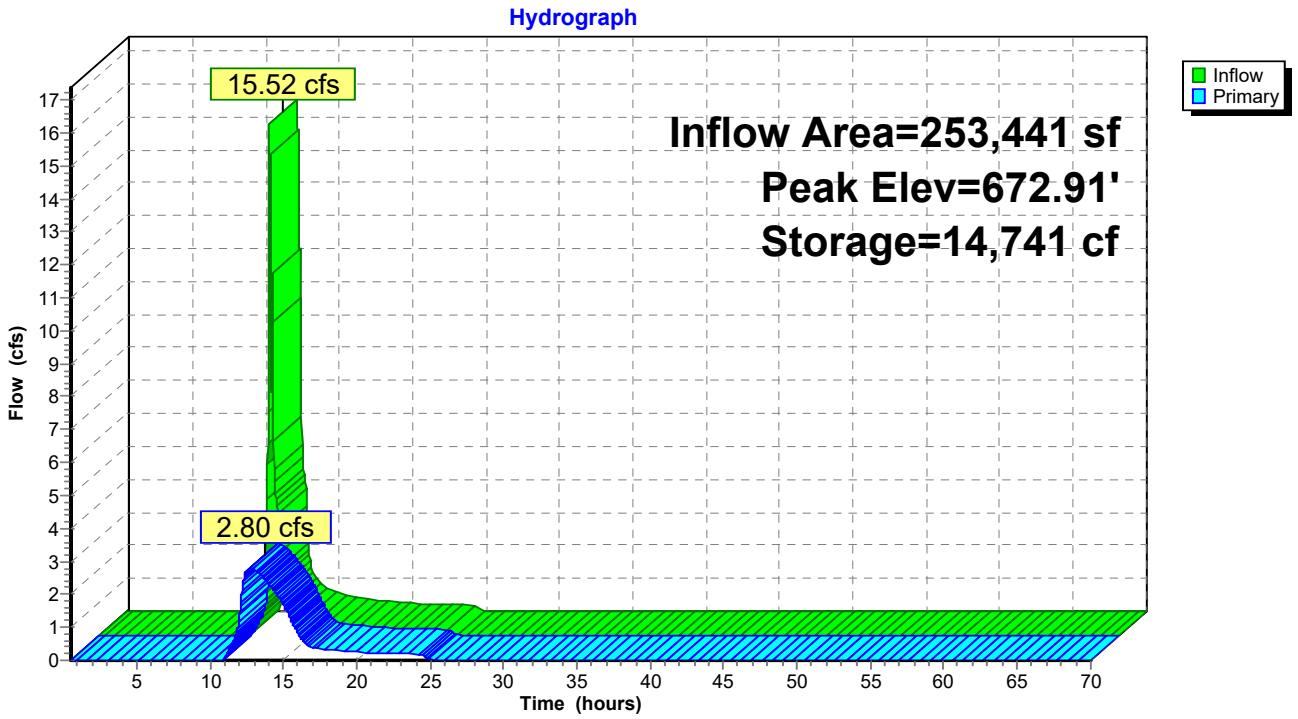
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.80 cfs @ 12.80 hrs HW=672.90' (Free Discharge)
└**3=Culvert** (Passes 2.80 cfs of 2.83 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 2.80 cfs @ 8.03 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 3P: Detention Pond

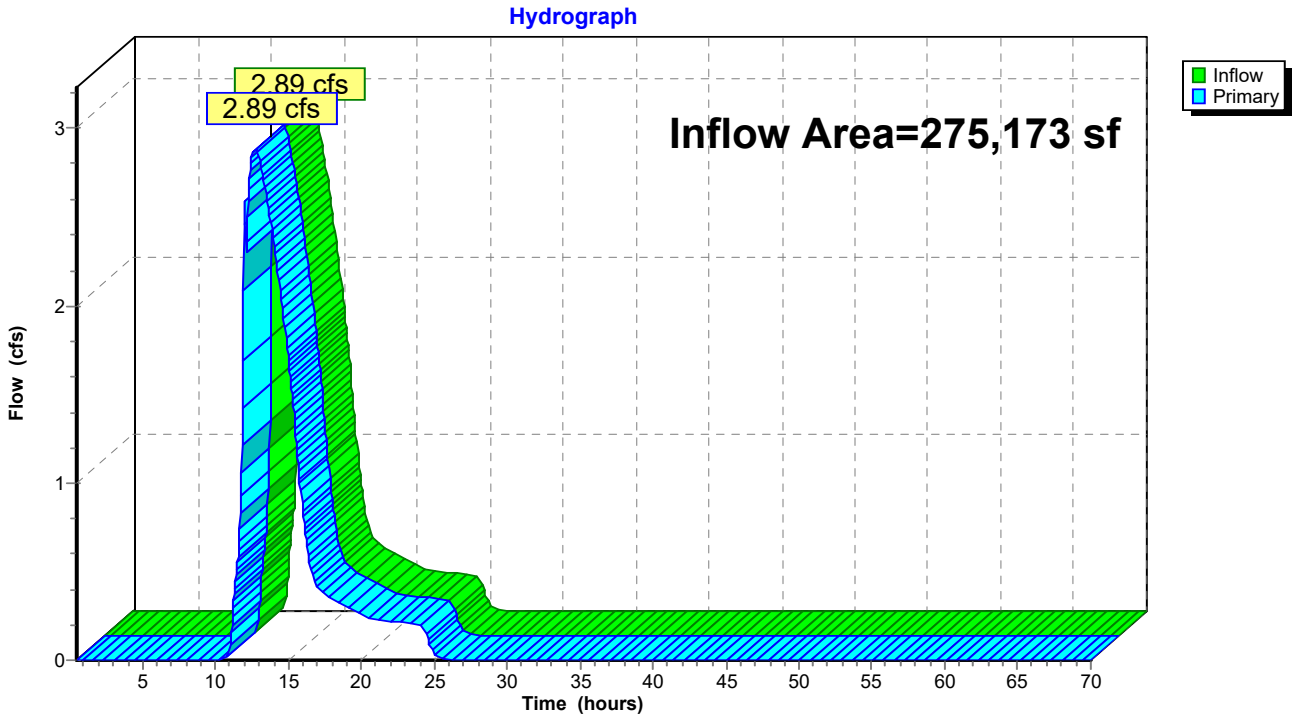


Summary for Link 3L: Proposed - Total

Inflow Area = 275,173 sf, 46.75% Impervious, Inflow Depth = 1.88" for 10-Year event
Inflow = 2.89 cfs @ 12.79 hrs, Volume= 43,131 cf
Primary = 2.89 cfs @ 12.79 hrs, Volume= 43,131 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs

Link 3L: Proposed - Total



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=2.67"
Flow Length=738' Tc=24.8 min CN=89 Runoff=9.47 cfs 35,532 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=2.67"
Flow Length=627' Tc=19.8 min CN=89 Runoff=6.35 cfs 20,927 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=1.91"
Flow Length=58' Tc=7.8 min CN=80 Runoff=1.57 cfs 3,459 cf

Pond 1P: Bioretention #1 Peak Elev=674.23' Storage=2,876 cf Inflow=9.47 cfs 35,532 cf
Primary=3.08 cfs 27,057 cf Secondary=6.47 cfs 7,134 cf Outflow=9.55 cfs 34,192 cf

Pond 2P: Bioretention #2 Peak Elev=674.16' Storage=1,717 cf Inflow=6.35 cfs 20,927 cf
Primary=3.05 cfs 17,745 cf Secondary=3.75 cfs 2,390 cf Outflow=6.81 cfs 20,135 cf

Pond 3P: Detention Pond Peak Elev=673.66' Storage=20,871 cf Inflow=16.28 cfs 54,327 cf
Outflow=3.08 cfs 54,327 cf

Link 3L: Proposed - Total Inflow=3.23 cfs 57,786 cf
Primary=3.23 cfs 57,786 cf

Total Runoff Area = 275,173 sf Runoff Volume = 59,918 cf Average Runoff Depth = 2.61"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

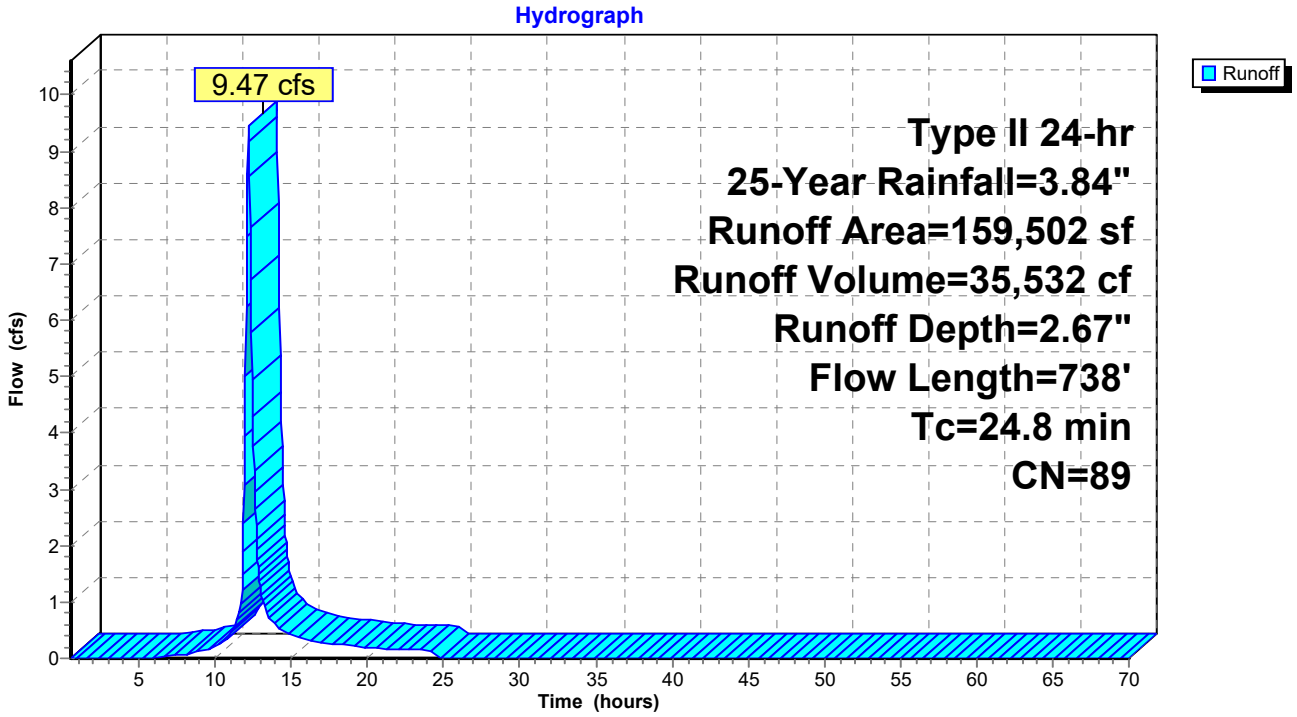
Runoff = 9.47 cfs @ 12.18 hrs, Volume= 35,532 cf, Depth= 2.67"
Routed to Pond 1P : Bioretention #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

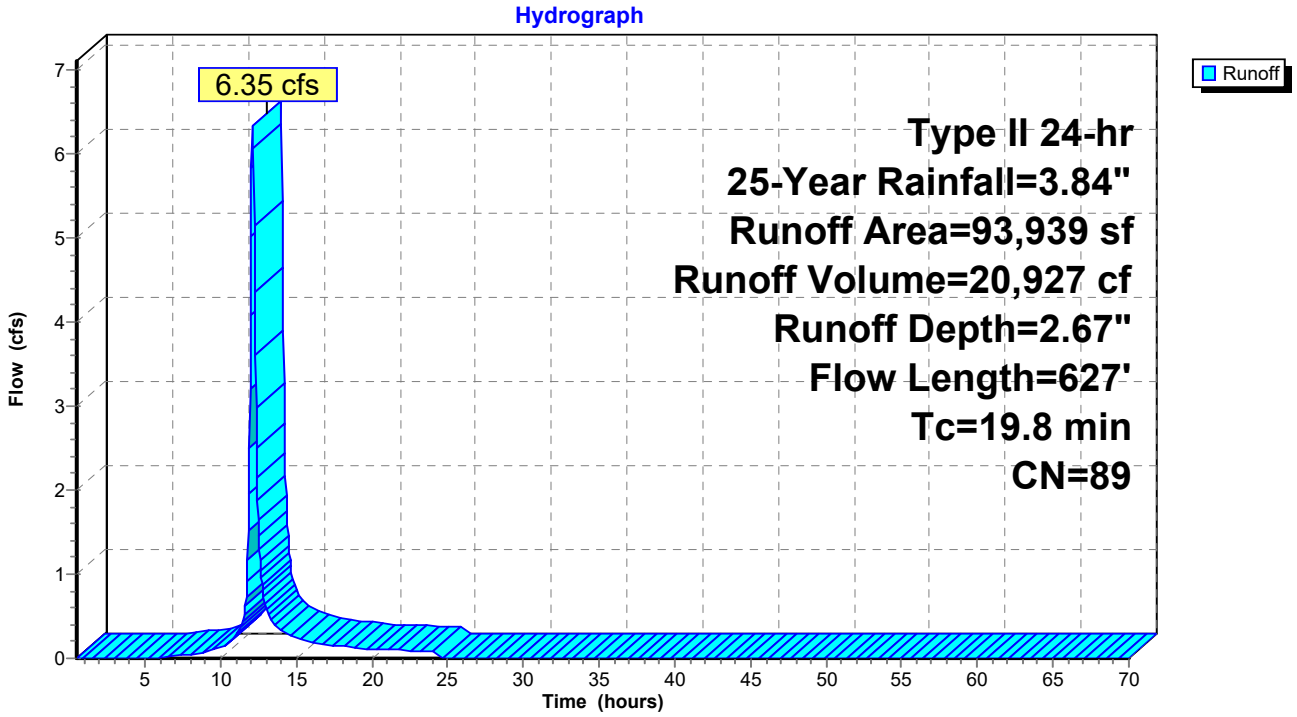
Runoff = 6.35 cfs @ 12.12 hrs, Volume= 20,927 cf, Depth= 2.67"
Routed to Pond 2P : Bioretention #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

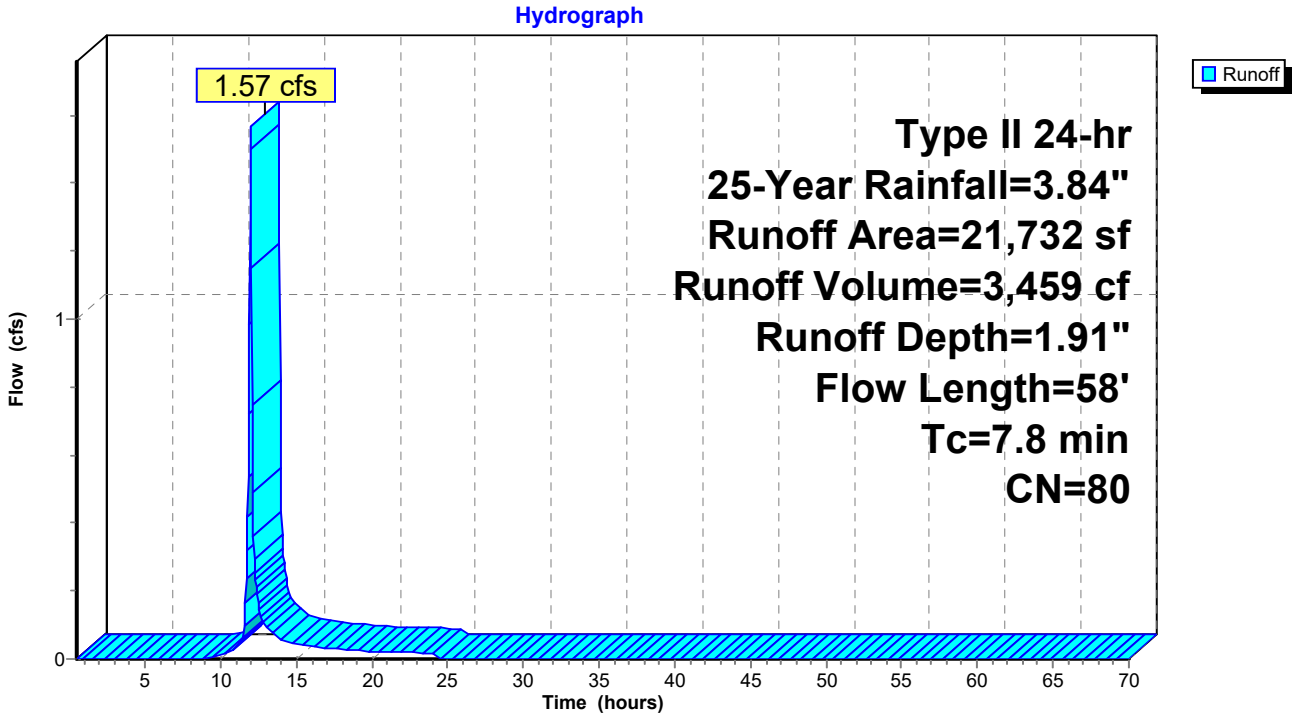
Runoff = 1.57 cfs @ 11.99 hrs, Volume= 3,459 cf, Depth= 1.91"
Routed to Link 3L : Proposed - Total

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Bioretention #1

Inflow Area = 159,502 sf, 51.54% Impervious, Inflow Depth = 2.67" for 25-Year event
Inflow = 9.47 cfs @ 12.18 hrs, Volume= 35,532 cf
Outflow = 9.55 cfs @ 12.15 hrs, Volume= 34,192 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.08 cfs @ 12.15 hrs, Volume= 27,057 cf
Routed to Pond 3P : Detention Pond
Secondary = 6.47 cfs @ 12.15 hrs, Volume= 7,134 cf
Routed to Pond 3P : Detention Pond

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 674.23' @ 12.15 hrs Surf.Area= 3,290 sf Storage= 2,876 cf

Plug-Flow detention time= 39.5 min calculated for 34,192 cf (96% of inflow)
Center-of-Mass det. time= 17.1 min (835.5 - 818.3)

Volume	Invert	Avail.Storage	Storage Description
#1	673.00'	2,859 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	669.67'	18 cf	**6.0" Round Pipe Storage** L= 90.0'
		2,876 cf	Total Available Storage

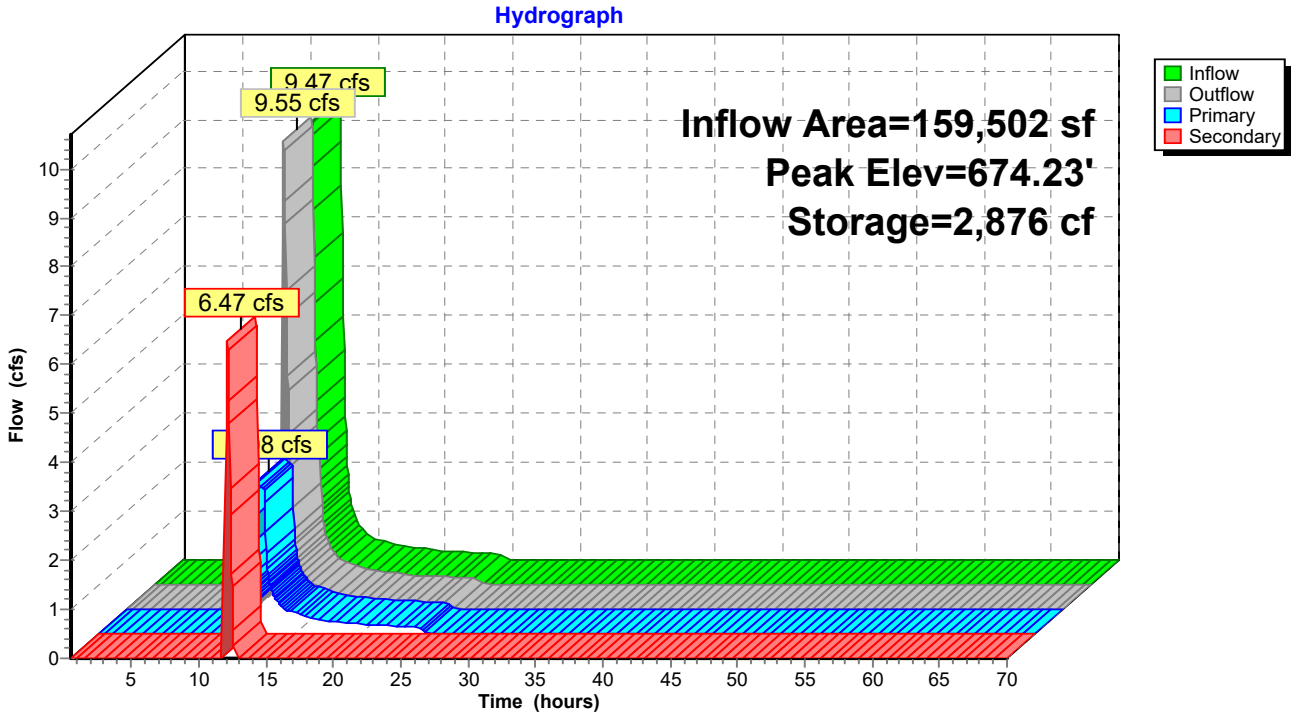
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
673.00	2,435	0	0
673.50	2,855	1,323	1,323
674.00	3,290	1,536	2,859

Device	Routing	Invert	Outlet Devices
#1	Device 2	673.50'	**8.0" Horiz. Orifice/Grate X 4.00** C= 1.000 Limited to weir flow at low heads
#2	Primary	669.67'	**6.0" Round Culvert X 2.00** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 669.67' / 669.57' S= 0.0032 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Secondary	674.00'	**18.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=3.08 cfs @ 12.15 hrs HW=674.23' (Free Discharge)
↑—**2=Culvert** (Barrel Controls 3.08 cfs @ 7.84 fps)
↑—**1=Orifice/Grate** (Passes 3.08 cfs of 9.54 cfs potential flow)

Secondary OutFlow Max=6.31 cfs @ 12.15 hrs HW=674.23' (Free Discharge)
↑—**3=Sharp-Crested Vee/Trap Weir** (Weir Controls 6.31 cfs @ 1.56 fps)

Pond 1P: Bioretention #1



Summary for Pond 2P: Bioretention #2

Inflow Area = 93,939 sf, 49.41% Impervious, Inflow Depth = 2.67" for 25-Year event
Inflow = 6.35 cfs @ 12.12 hrs, Volume= 20,927 cf
Outflow = 6.81 cfs @ 12.14 hrs, Volume= 20,135 cf, Atten= 0%, Lag= 1.0 min
Primary = 3.05 cfs @ 12.14 hrs, Volume= 17,745 cf
Routed to Pond 3P : Detention Pond
Secondary = 3.75 cfs @ 12.14 hrs, Volume= 2,390 cf
Routed to Pond 3P : Detention Pond

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 674.16' @ 12.14 hrs Surf.Area= 1,995 sf Storage= 1,717 cf

Plug-Flow detention time= 38.5 min calculated for 20,135 cf (96% of inflow)
Center-of-Mass det. time= 16.1 min (829.8 - 813.7)

Volume	Invert	Avail.Storage	Storage Description
#1	673.00'	1,709 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	669.67'	8 cf	**6.0" Round Pipe Storage** L= 40.0'
		1,717 cf	Total Available Storage

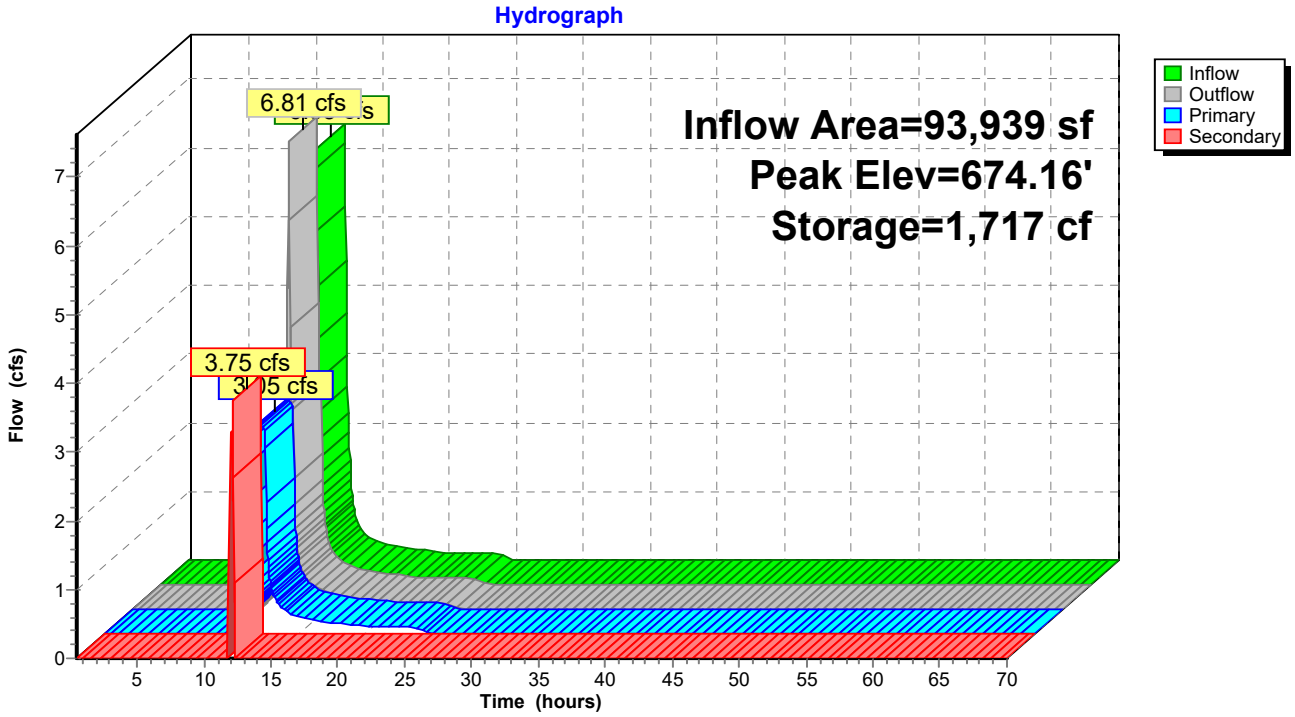
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
673.00	1,430	0	0
673.50	1,705	784	784
674.00	1,995	925	1,709

Device	Routing	Invert	Outlet Devices
#1	Device 2	673.50'	**8.0" Horiz. Orifice/Grate X 3.00** C= 1.000 Limited to weir flow at low heads
#2	Primary	669.67'	**6.0" Round Culvert X 2.00** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 669.67' / 669.57' S= 0.0032 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Secondary	674.00'	**18.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=3.05 cfs @ 12.14 hrs HW=674.16' (Free Discharge)
↑—**2=Culvert** (Barrel Controls 3.05 cfs @ 7.78 fps)
↑—**1=Orifice/Grate** (Passes 3.05 cfs of 6.80 cfs potential flow)

Secondary OutFlow Max=3.63 cfs @ 12.14 hrs HW=674.16' (Free Discharge)
↑—**3=Sharp-Crested Vee/Trap Weir** (Weir Controls 3.63 cfs @ 1.29 fps)

Pond 2P: Bioretention #2



Summary for Pond 3P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 2.57" for 25-Year event
Inflow = 16.28 cfs @ 12.14 hrs, Volume= 54,327 cf
Outflow = 3.08 cfs @ 12.88 hrs, Volume= 54,327 cf, Atten= 81%, Lag= 44.5 min
Primary = 3.08 cfs @ 12.88 hrs, Volume= 54,327 cf
Routed to Link 3L : Proposed - Total

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 673.66' @ 12.88 hrs Surf.Area= 10,740 sf Storage= 20,871 cf

Plug-Flow detention time= 62.2 min calculated for 54,327 cf (100% of inflow)
Center-of-Mass det. time= 62.2 min (895.6 - 833.4)

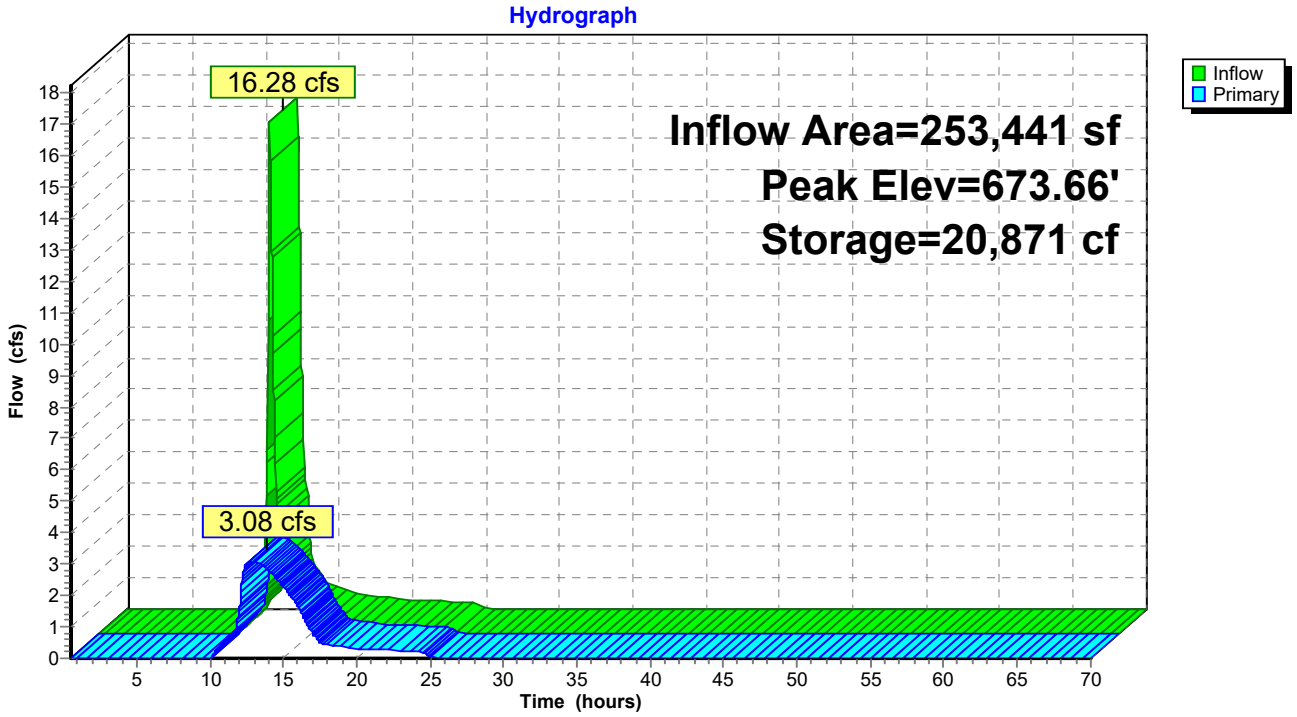
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.08 cfs @ 12.88 hrs HW=673.66' (Free Discharge)
└**3=Culvert** (Passes 3.08 cfs of 3.11 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 3.08 cfs @ 8.84 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 3P: Detention Pond

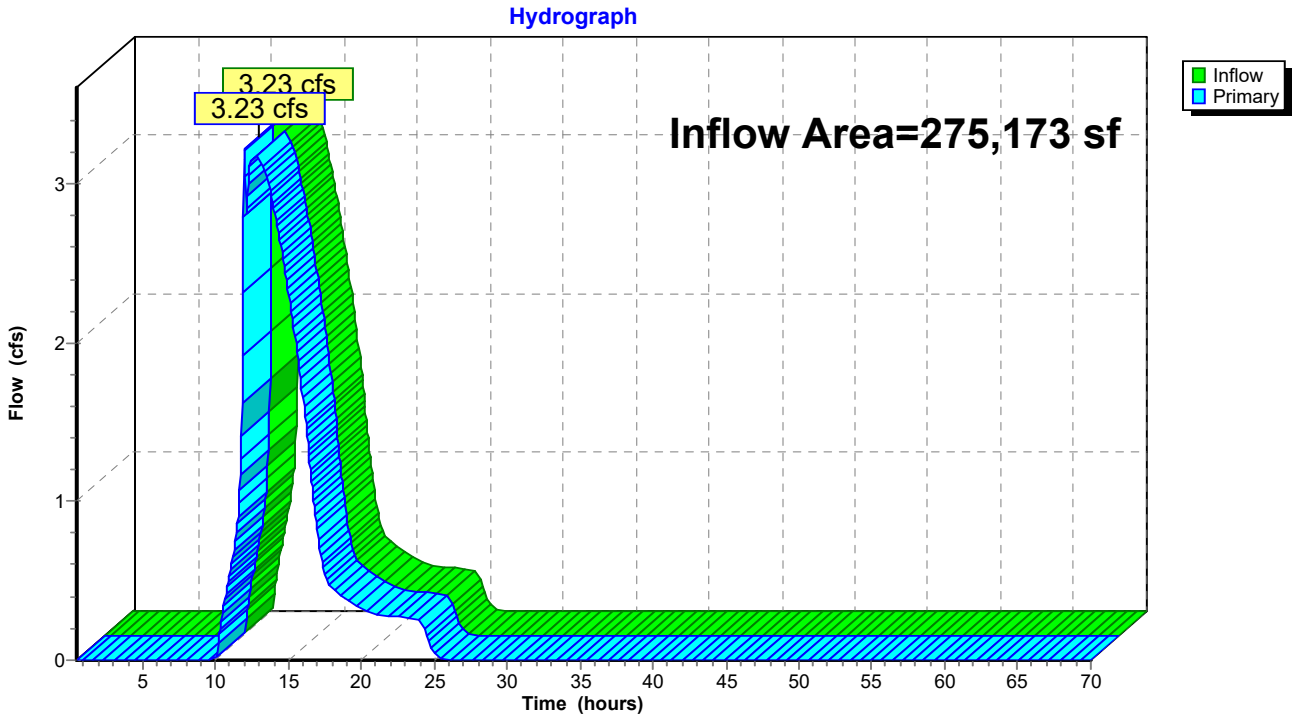


Summary for Link 3L: Proposed - Total

Inflow Area = 275,173 sf, 46.75% Impervious, Inflow Depth = 2.52" for 25-Year event
Inflow = 3.23 cfs @ 12.01 hrs, Volume= 57,786 cf
Primary = 3.23 cfs @ 12.01 hrs, Volume= 57,786 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs

Link 3L: Proposed - Total



Time span=0.50-70.00 hrs, dt=0.04 hrs, 1739 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Proposed - North Runoff Area=159,502 sf 51.54% Impervious Runoff Depth=3.99"
Flow Length=738' Tc=24.8 min CN=89 Runoff=13.94 cfs 53,068 cf

Subcatchment2S: Proposed - South Runoff Area=93,939 sf 49.41% Impervious Runoff Depth=3.99"
Flow Length=627' Tc=19.8 min CN=89 Runoff=9.33 cfs 31,254 cf

Subcatchment3S: Direct Runoff Area=21,732 sf 0.00% Impervious Runoff Depth=3.09"
Flow Length=58' Tc=7.8 min CN=80 Runoff=2.52 cfs 5,604 cf

Pond 1P: Bioretention #1 Peak Elev=674.34' Storage=2,876 cf Inflow=13.94 cfs 53,068 cf
Primary=3.12 cfs 36,834 cf Secondary=11.94 cfs 14,893 cf Outflow=15.07 cfs 51,727 cf

Pond 2P: Bioretention #2 Peak Elev=674.24' Storage=1,717 cf Inflow=9.33 cfs 31,254 cf
Primary=3.08 cfs 24,295 cf Secondary=6.77 cfs 6,168 cf Outflow=9.85 cfs 30,463 cf

Pond 3P: Detention Pond Peak Elev=674.69' Storage=34,430 cf Inflow=24.24 cfs 82,190 cf
Outflow=3.43 cfs 82,190 cf

Link 3L: Proposed - Total Inflow=4.61 cfs 87,794 cf
Primary=4.61 cfs 87,794 cf

Total Runoff Area = 275,173 sf Runoff Volume = 89,926 cf Average Runoff Depth = 3.92"
53.25% Pervious = 146,543 sf 46.75% Impervious = 128,630 sf

Summary for Subcatchment 1S: Proposed - North

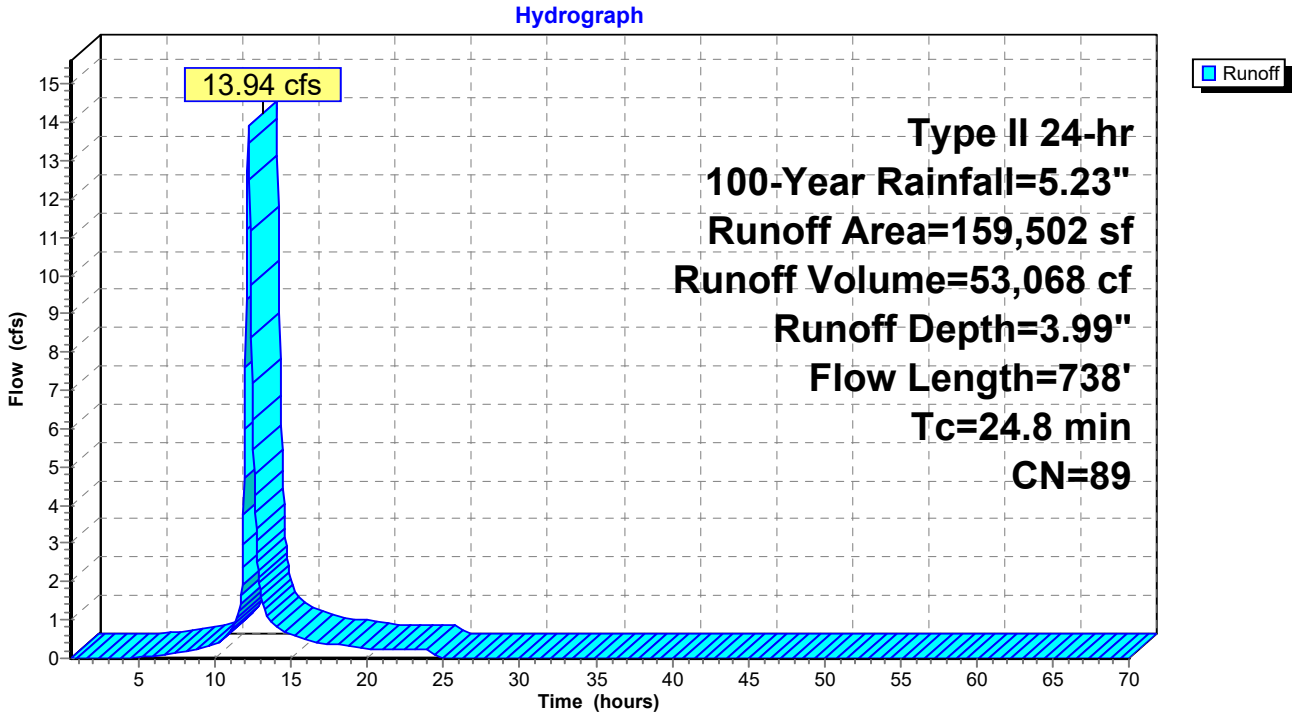
Runoff = 13.94 cfs @ 12.17 hrs, Volume= 53,068 cf, Depth= 3.99"
Routed to Pond 1P : Bioretention #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

	Area (sf)	CN	Description
	32,787	98	Roofs, HSG D
	45,906	98	Paved parking, HSG D
*	3,518	98	Sidewalk, HSG D
	77,291	80	>75% Grass cover, Good, HSG D
	159,502	89	Weighted Average
	77,291		48.46% Pervious Area
	82,211		51.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	21	0.0090	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.1	65	0.0100	0.07		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.5	182	0.0050	2.02	0.40	**Pipe Channel, 6" @ 0.5%** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
0.3	70	0.0070	3.80	2.98	**Pipe Channel, 12" @ 0.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.5	400	0.0100	4.54	3.56	**Pipe Channel, 12" @ 1.0%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
24.8	738	Total			

Subcatchment 1S: Proposed - North



Summary for Subcatchment 2S: Proposed - South

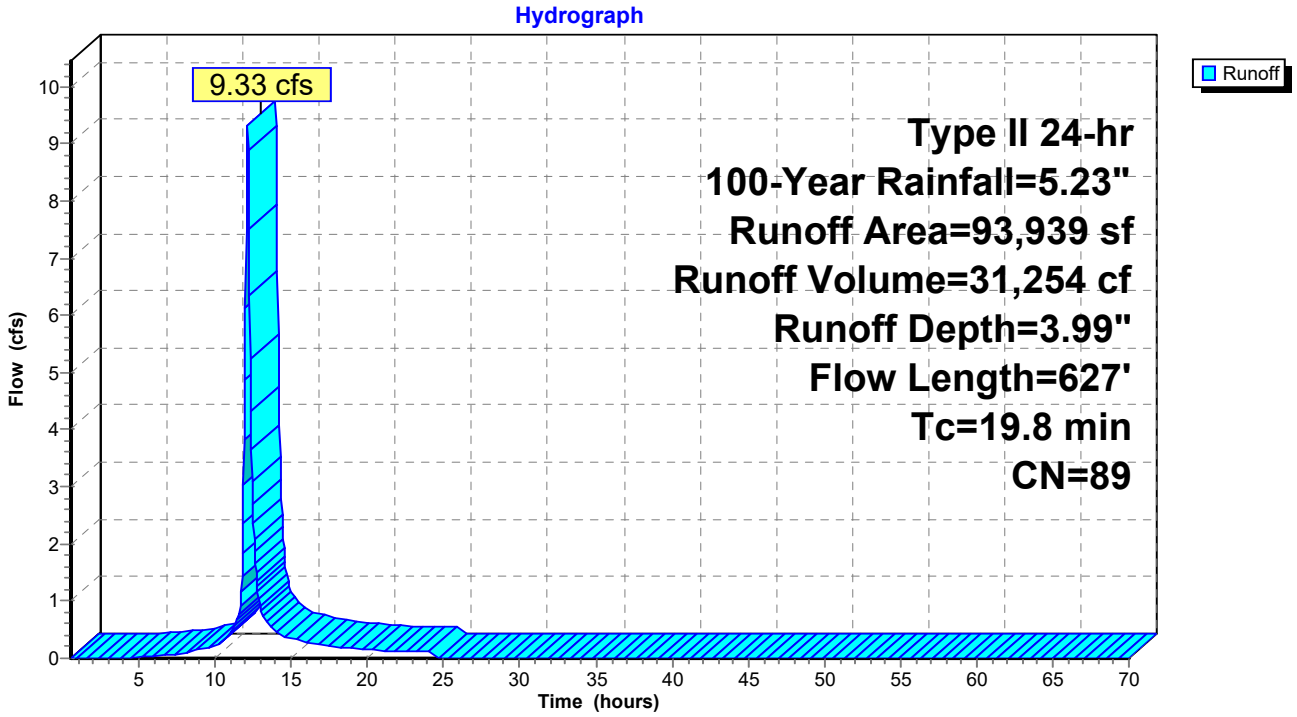
Runoff = 9.33 cfs @ 12.12 hrs, Volume= 31,254 cf, Depth= 3.99"
Routed to Pond 2P : Bioretention #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

	Area (sf)	CN	Description
	22,791	98	Roofs, HSG D
	22,002	98	Paved parking, HSG D
*	1,626	98	Concrete, HSG D
	47,520	80	>75% Grass cover, Good, HSG D
	93,939	89	Weighted Average
	47,520		50.59% Pervious Area
	46,419		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	10	0.0900	0.12		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
15.6	43	0.0040	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
1.3	194	0.0050	2.45	0.85	**Pipe Channel, 8" @ 0.5%** 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
0.9	209	0.0080	4.06	3.19	**Pipe Channel, 12" @ 0.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	171	0.0110	4.76	3.74	**Pipe Channel, 12" @ 1.1%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
19.8	627	Total			

Subcatchment 2S: Proposed - South



Summary for Subcatchment 3S: Direct

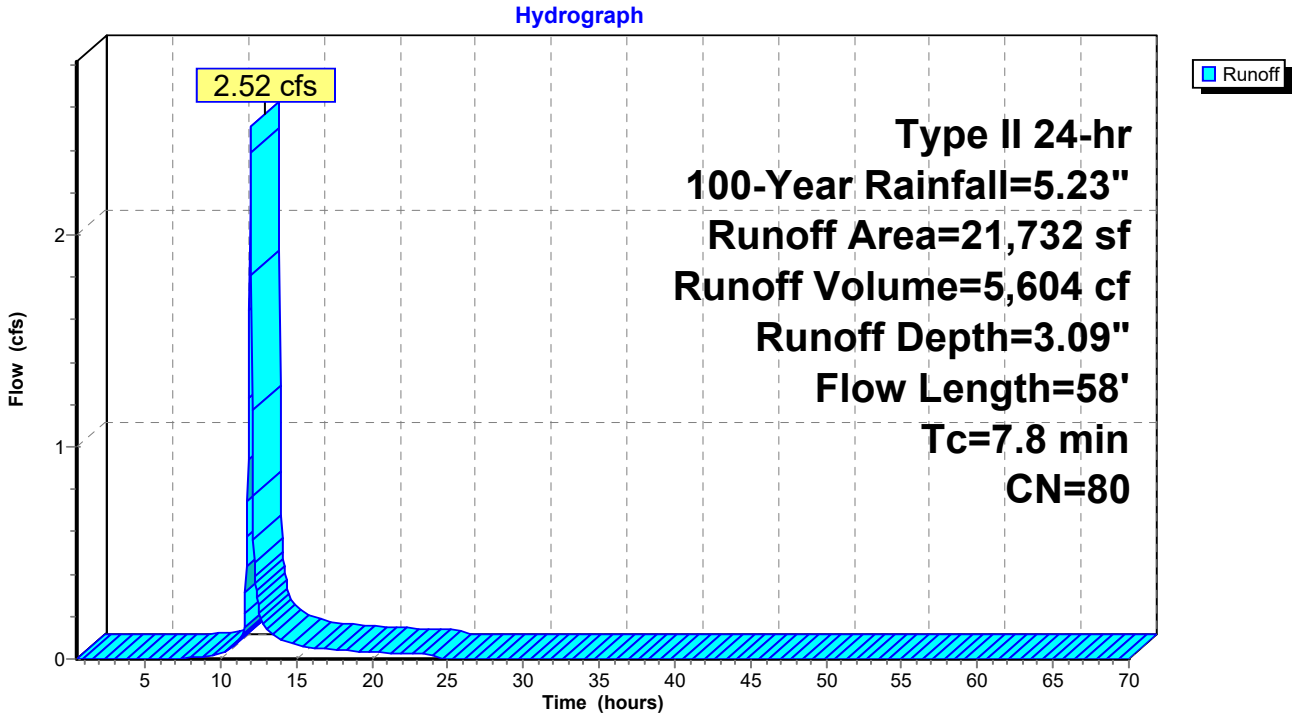
Runoff = 2.52 cfs @ 11.99 hrs, Volume= 5,604 cf, Depth= 3.09"
Routed to Link 3L : Proposed - Total

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (sf)	CN	Description
21,732	80	>75% Grass cover, Good, HSG D
21,732		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	10	0.0100	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
4.4	48	0.1200	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.50"
7.8	58	Total			

Subcatchment 3S: Direct



Summary for Pond 1P: Bioretention #1

Inflow Area = 159,502 sf, 51.54% Impervious, Inflow Depth = 3.99" for 100-Year event
Inflow = 13.94 cfs @ 12.17 hrs, Volume= 53,068 cf
Outflow = 15.07 cfs @ 12.18 hrs, Volume= 51,727 cf, Atten= 0%, Lag= 0.4 min
Primary = 3.12 cfs @ 12.18 hrs, Volume= 36,834 cf
Routed to Pond 3P : Detention Pond
Secondary = 11.94 cfs @ 12.18 hrs, Volume= 14,893 cf
Routed to Pond 3P : Detention Pond

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 674.34' @ 12.18 hrs Surf.Area= 3,290 sf Storage= 2,876 cf

Plug-Flow detention time= 30.0 min calculated for 51,698 cf (97% of inflow)
Center-of-Mass det. time= 14.5 min (821.6 - 807.1)

Volume	Invert	Avail.Storage	Storage Description
#1	673.00'	2,859 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	669.67'	18 cf	**6.0" Round Pipe Storage** L= 90.0'
		2,876 cf	Total Available Storage

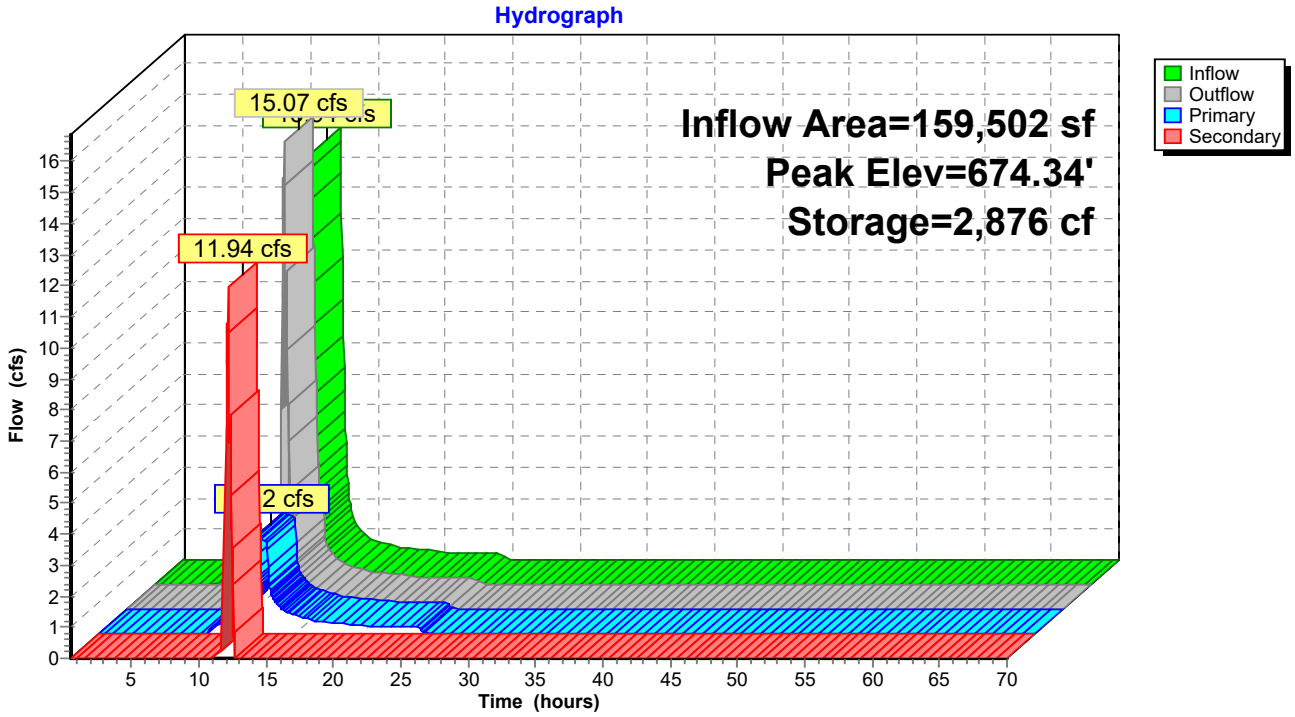
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
673.00	2,435	0	0
673.50	2,855	1,323	1,323
674.00	3,290	1,536	2,859

Device	Routing	Invert	Outlet Devices
#1	Device 2	673.50'	**8.0" Horiz. Orifice/Grate X 4.00** C= 1.000 Limited to weir flow at low heads
#2	Primary	669.67'	**6.0" Round Culvert X 2.00** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 669.67' / 669.57' S= 0.0032 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Secondary	674.00'	**18.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=3.12 cfs @ 12.18 hrs HW=674.34' (Free Discharge)
↑—**2=Culvert** (Barrel Controls 3.12 cfs @ 7.95 fps)
↑—**1=Orifice/Grate** (Passes 3.12 cfs of 10.29 cfs potential flow)

Secondary OutFlow Max=11.88 cfs @ 12.18 hrs HW=674.34' (Free Discharge)
↑—**3=Sharp-Crested Vee/Trap Weir** (Weir Controls 11.88 cfs @ 1.92 fps)

Pond 1P: Bioretention #1



Summary for Pond 2P: Bioretention #2

Inflow Area = 93,939 sf, 49.41% Impervious, Inflow Depth = 3.99" for 100-Year event
Inflow = 9.33 cfs @ 12.12 hrs, Volume= 31,254 cf
Outflow = 9.85 cfs @ 12.10 hrs, Volume= 30,463 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.08 cfs @ 12.10 hrs, Volume= 24,295 cf
Routed to Pond 3P : Detention Pond
Secondary = 6.77 cfs @ 12.10 hrs, Volume= 6,168 cf
Routed to Pond 3P : Detention Pond

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 674.24' @ 12.10 hrs Surf.Area= 1,995 sf Storage= 1,717 cf

Plug-Flow detention time= 29.3 min calculated for 30,463 cf (97% of inflow)
Center-of-Mass det. time= 13.7 min (816.1 - 802.4)

Volume	Invert	Avail.Storage	Storage Description
#1	673.00'	1,709 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	669.67'	8 cf	**6.0" Round Pipe Storage** L= 40.0'
		1,717 cf	Total Available Storage

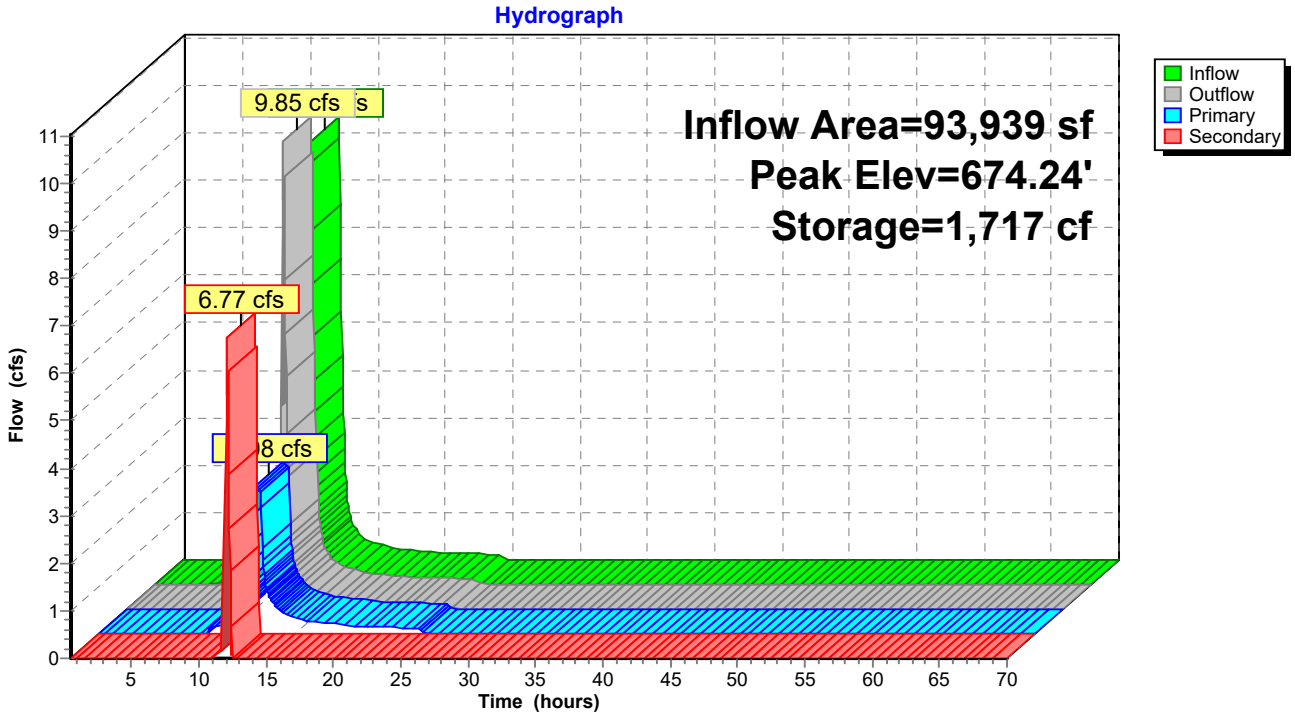
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
673.00	1,430	0	0
673.50	1,705	784	784
674.00	1,995	925	1,709

Device	Routing	Invert	Outlet Devices
#1	Device 2	673.50'	**8.0" Horiz. Orifice/Grate X 3.00** C= 1.000 Limited to weir flow at low heads
#2	Primary	669.67'	**6.0" Round Culvert X 2.00** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 669.67' / 669.57' S= 0.0032 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Secondary	674.00'	**18.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)

Primary OutFlow Max=3.08 cfs @ 12.10 hrs HW=674.23' (Free Discharge)
↑—**2=Culvert** (Barrel Controls 3.08 cfs @ 7.85 fps)
↑—**1=Orifice/Grate** (Passes 3.08 cfs of 7.19 cfs potential flow)

Secondary OutFlow Max=6.61 cfs @ 12.10 hrs HW=674.23' (Free Discharge)
↑—**3=Sharp-Crested Vee/Trap Weir** (Weir Controls 6.61 cfs @ 1.58 fps)

Pond 2P: Bioretention #2



Summary for Pond 3P: Detention Pond

Inflow Area = 253,441 sf, 50.75% Impervious, Inflow Depth = 3.89" for 100-Year event
Inflow = 24.24 cfs @ 12.18 hrs, Volume= 82,190 cf
Outflow = 3.43 cfs @ 13.03 hrs, Volume= 82,190 cf, Atten= 86%, Lag= 51.0 min
Primary = 3.43 cfs @ 13.03 hrs, Volume= 82,190 cf
Routed to Link 3L : Proposed - Total

Routing by Stor-Ind method, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs
Peak Elev= 674.69' @ 13.03 hrs Surf.Area= 14,270 sf Storage= 34,430 cf

Plug-Flow detention time= 90.9 min calculated for 82,190 cf (100% of inflow)
Center-of-Mass det. time= 90.8 min (910.4 - 819.6)

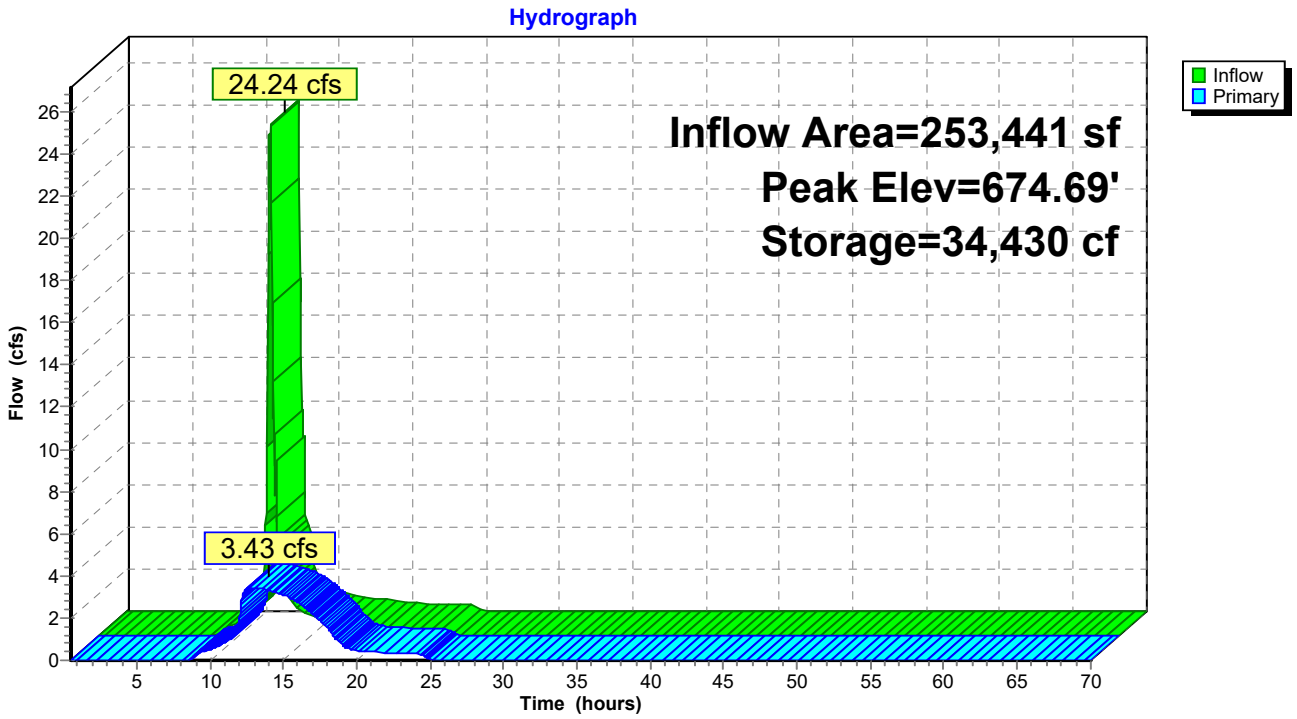
Volume	Invert	Avail.Storage	Storage Description
#1	669.00'	38,878 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
669.00	0	0	0
670.00	3,130	1,565	1,565
671.00	4,065	3,598	5,163
672.00	5,060	4,563	9,725
673.00	6,110	5,585	15,310
674.00	13,125	9,618	24,928
675.00	14,775	13,950	38,878

Device	Routing	Invert	Outlet Devices
#1	Device 3	669.00'	**8.0" Round Culvert** L= 17.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.00' / 668.92' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 3	674.80'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Primary	668.92'	**8.0" Round Culvert** L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 668.92' / 668.80' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.43 cfs @ 13.03 hrs HW=674.69' (Free Discharge)
└**3=Culvert** (Passes 3.43 cfs of 3.46 cfs potential flow)
  ├**1=Culvert** (Inlet Controls 3.43 cfs @ 9.84 fps)
  └**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 3P: Detention Pond

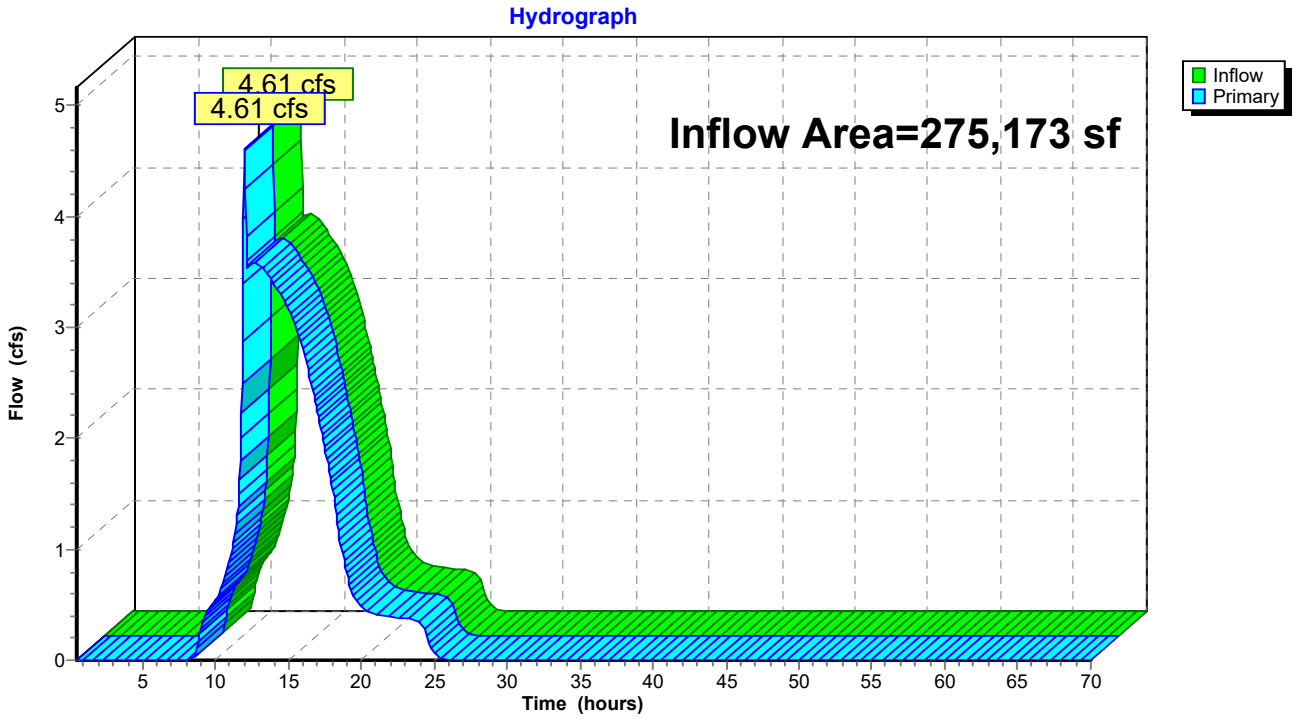


Summary for Link 3L: Proposed - Total

Inflow Area = 275,173 sf, 46.75% Impervious, Inflow Depth = 3.83" for 100-Year event
Inflow = 4.61 cfs @ 12.01 hrs, Volume= 87,794 cf
Primary = 4.61 cfs @ 12.01 hrs, Volume= 87,794 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.50-70.02 hrs, dt= 0.04 hrs

Link 3L: Proposed - Total



Appendix E

Soil Information



Map Scale: 1:2,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 30 60 120 180

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 25, Sep 4, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 13, 2023—May 27, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DbA	Darien silt loam, 0 to 3 percent slopes	C/D	6.3	43.8%
Nh	Niagara silt loam, till substratum	C/D	2.1	14.5%
RfB	Remsen silty clay loam, 3 to 8 percent slopes	D	6.0	41.7%
Totals for Area of Interest			**14.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix E

NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-25-001

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION (NYSDEC)

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP-0-25-001

Construction General Permit (CGP)

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2025 Expiration Date: January 28, 2030

Scott E. Sheeley

Chief Permit Administrator

Scott E. Sheeley JAN. 29, 2025

Authorized Signature Date

Address: NYSDEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (CWA), and 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), *stormwater discharges* from certain *construction activities* are unlawful unless they are authorized by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. New York State administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7 and 8, and Article 70, as well as 6 NYCRR Parts 621 and 750.

C*onstruction activities* constitute construction of a *point source* and, therefore, pursuant to ECL sections 17-0505, 17-0701, and 17-0803, the *owner or operator* must have coverage under a SPDES permit prior to *commencement of construction activities*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES CONSTRUCTION GENERAL PERMIT (CGP) GP-0-25-001
FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part I. How to Obtain Coverage and General Requirements

To be covered under this permit, the *owner or operator* must meet all eligibility requirements in Part I.A. and follow the requirements for obtaining permit coverage in Part I.D., F., or G.

A. Eligibility Requirements

For a *common plan of development or sale*, the *phase(s)* that meet the eligibility requirements in Part I.A. may obtain coverage under this permit even if other *phase(s)* of the same *common plan of development or sale* do not meet the eligibility requirements and require an individual SPDES permit.

1. The *owner's or operator's construction activities* involve soil disturbances of:

    a. one or more acres; or

    b. less than one acre which are part of a *common plan of development or sale* that will ultimately disturb one or more acres; or

    c. less than one acre where NYSDEC has determined that a SPDES permit is required for *stormwater discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of pollutants to *surface waters of the State*.

        i. 5,000 square feet or more, but less than one acre, and are in the New York City Watershed located east of the Hudson River, Appendix C Figure 1; or

        ii. 20,000 square feet or more, but less than one acre, within the municipal boundaries of the City of New York (NYC); or

        iii. less than 20,000 square feet which are part of a *common plan of development or sale* that will ultimately disturb 20,000 square feet or more, but less than one acre, within the municipal boundaries of NYC; or

        iv. that creates 5,000 square feet or more of *impervious area* within the municipal boundaries of NYC.

2. *Discharges* from the *owner's or operator's construction activities* are/were not:

    a. already covered by a different SPDES permit; or

    b. covered under a different SPDES permit that was denied, terminated, or revoked; or

    c. identified in an expired individual SPDES permit that was not renewed; or

    d. required to obtain an individual SPDES permit or another general SPDES permit in accordance with Part VII.K.

3. If *construction activities* may adversely affect a species that is endangered or threatened, the *owner or operator* must obtain a:

    a. permit issued pursuant to 6 NYCRR Part 182 for the project; or

    b. letter issued by NYSDEC of non-jurisdiction pursuant to 6 NYCRR Part 182 for the project.

4. If *construction activities* have the potential to affect an *historic property*, the *owner or operator* must obtain one of the following:

    a. documentation that the *construction activity* is not within an archeological buffer area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:

        i. 1-5 acres of disturbance - 20 feet; or

        ii. 5-20 acres of disturbance - 50 feet; or

iii. 20+ acres of disturbance - 100 feet.

b. NYSDEC consultation form sent to OPRHP,[1] and copied to NYSDEC's Agency Historic Preservation Officer (APO), and

i. the State Environmental Quality Review Act (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or

ii. documentation from OPRHP that the *construction activity* will result in No Impact; or

iii. documentation from OPRHP providing a determination of No Adverse Impact; or

iv. a Letter of Resolution signed by the *owner or operator*, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA).

c. documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

i. No Affect; or

ii. No Adverse Affect; or

iii. Executed Memorandum of Agreement.

d. documentation that SHPA Section 14.09 has been completed by NYSDEC or another state agency.

5. If *construction activities* are subject to SEQR, the *owner or operator* must obtain documentation that SEQR has been satisfied.

6. If *construction activities* are not subject to SEQR, but subject to the equivalent environmental review from another New York State or federal agency, the

[1] The consultation form can be submitted, along with other project information, through OPRHP's Cultural Resource Information System (CRIS) portal. If submitted through CRIS, paper copies of the consultation form need not be mailed.

owner or operator must obtain documentation that project review, pursuant to a process equivalent to SEQR from another New York State or federal agency, has been satisfied.

7. If *construction activities* require Uniform Procedures Act (UPA) Permits (see 6 NYCRR Part 621) from NYSDEC, or the equivalent from another New York State or federal agency, the *owner or operator* must:

    a. obtain all such necessary permits; or

    b. receive notification from NYSDEC pursuant to 6 NYCRR 621.3(a)(4) excepting Part I.A.7.a.

8. *Construction activities* are not eligible if they meet the following criteria in Part I.A.8.a. or b.:

    a. For linear transportation and linear utility project types, the *construction activities*:

        i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

        ii. are undertaken on land with no existing *impervious cover*; and

        iii. disturb two or more acres of *steep slope*.

    b. For all other project types, the *construction activities*:

        i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

        ii. are undertaken on land with no existing *impervious cover*; and

        iii. disturb one or more acres of *steep slope*.

B. Types of *Discharges* Authorized

1. The following *stormwater discharges* are authorized under this permit:

   a. *Stormwater discharges*, including *stormwater* runoff, snowmelt runoff, and surface runoff and drainage, associated with *construction activity*, are authorized under this permit provided that appropriate *stormwater* controls are designed, installed, and maintained in accordance with Part II. and Part III.

   b. *Stormwater discharges* from construction support activities at the *construction site* (including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and borrow areas) if the following requirements are met:

      i. The support activity is directly related to the *construction site* required to have permit coverage for *stormwater discharges*; and

      ii. The support activity is not a commercial operation, nor does it serve multiple unrelated *construction sites*; and

      iii. The support activity does not continue to operate beyond the completion of the *construction activity* at the site it supports; and

      iv. *Stormwater* controls are implemented in accordance with Part II. and Part III. for *discharges* from the support activity areas.

2. The following non-*stormwater discharges* associated with *construction activity* are authorized under this permit:

   a. Non-*stormwater discharges* listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "*Discharges* from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; and

   b. Non-*stormwater discharges* of waters to which other components have not been added that are used in accordance with the *SWPPP* to control dust or irrigate vegetation in stabilized areas; and

   c. Uncontaminated *discharges* from *dewatering* operations

3. Authorized *discharges* of *stormwater* or authorized *discharges* of non-*stormwater*, commingled with a *discharge* authorized by a different SPDES permit and/or a *discharge* that does not require SPDES permit authorization, are also authorized under this permit.

C. Prohibited *Discharges*

1. Non-*stormwater discharges* prohibited under this permit include but are not limited to:

    a. Wastewater from washout of concrete; and

    b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials; and

    c. Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance; and

    d. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

    e. Toxic or hazardous substances from a spill or other release.

D. Electronic Notice of Intent (eNOI) Submittal

To receive authorization in accordance with Part I.D.3.b., the *owner or operator* must submit a complete eNOI in accordance with the requirements in Part I.D. The eNOI contains questions to: ensure eligibility requirements in Part I.A. have been met; obtain *owner or operator* contact information; obtain the total area to be disturbed and the existing/future *impervious areas* (rounded to the nearest tenth of an acre); confirm *Traditional Land Use Control MS4 Operator* jurisdiction over construction projects; satisfy the EPA eRule requirements; confirm that the Water Quality-Based Effluent Limitations in Part II. have been met; demonstrate consideration of the future risks due to climate change in accordance with Part III.A.2.; and confirm that the other *Stormwater Pollution Prevention Plan (SWPPP)* requirements in Part III. have been met.

1. An eNOI may be submitted for:

    a. *construction activities* that are not part of a *common plan of development or sale*; or

b. an entire *common plan of development or sale*; or

c. separate *phase(s)* of a *common plan of development or sale* if the following requirements are met:

    i. the *common plan of development or sale* meets the eligibility requirements of Part I.A.5. or 6.; and

    ii. the *phase(s)* meet(s) all other eligibility requirements of Part I.A.; and

    iii. Part III.C. Required *SWPPP* Components by Project Type is based on the *common plan of development or sale*, not the *phase(s)*; or

d. *tree clearing* that is associated with, or will support, a *renewable energy* generation, transmission, or storage project that meets Part I.A.5. and 6., if the *tree clearing*:

    i. meets all other eligibility requirements of Part I.A.; and

    ii. will occur in NYSDEC's Regions 3-9; and

    iii. is not within ¼ mile of a bat hibernaculum protected pursuant to 6 NYCRR Part 182; and

    iv. will occur between November 1st and March 31st.

2. As prerequisites for submitting an eNOI, the *owner or operator* must:

    a. prepare a *SWPPP* for Part I.D.1.a., b., c., or d. in accordance with Part III.; and

    b. based on the following criteria, upload the following signature forms signed in accordance with Part VII.J. to the eNOI prior to submission:

        i. for all eNOIs:

            1. the SWPPP Preparer Certification Form, Appendix F, signed by the *SWPPP* preparer; and

2. the Owner/Operator Certification Form, Appendix J, signed by the *owner or operator*; and

ii. if an eNOI includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that will *discharge* to the *MS4(s)*:

1. determine if the *Traditional Land Use Control MS4 Operator(s)* have review authority. A *Traditional Land Use Control MS4 Operator* does not have review authority where:

a. the *owner or operator* of the *construction activities* in Part I.D.2.b.ii. is the same entity as the *Traditional Land Use Control MS4 Operator* identified in Part I.D.2.b.ii.; or

b. there is a statute exempting the *owner or operator* from zoning review by the *Traditional Land Use Control MS4 Operator*; or

c. there is no such statute per Part I.D.2.b.ii.1.b., the *Traditional Land Use Control MS4 Operator* concludes, after public hearing, that it does not have zoning review authority in accordance with Legal Memorandum LU14 Updated January 2020 “Governmental Immunity from Zoning and Other Legislation”; and

2. if the *Traditional Land Use Control MS4 Operator(s)* have review authority, submit the *SWPPP* to the *Traditional Land Use Control MS4 Operator(s)* for review and have:

a. if outside the municipal boundaries of NYC: the MS4 SWPPP Acceptance Form, Appendix G, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.; or

b. if within the municipal boundaries of NYC: The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval Form, Appendix H, signed by the principal executive officer or ranking elected official from the Traditional Land Use Control MS4 Operator, or by a duly authorized representative of that person in accordance with Part VII.J.2.; and

3. if the *Traditional Land Use Control MS4 Operator* does not have review authority, have the MS4 No Jurisdiction Form, Appendix I, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.

3. Submitting an eNOI:

a. The *owner or operator* must submit a complete Notice of Intent electronically using a NYSDEC approved form.[2]

b. The *owner or operator* is authorized to *commence construction activity* as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.

i. If an eNOI is received for a *SWPPP* that deviates from one of the technical standards but demonstrates *equivalence* in accordance with Part III.B.1.a.ii. or Part III.B.2.b.ii., if the *SWPPP* includes *construction activities* that are not within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)*, and/or if the *SWPPP* includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that do not have review authority in accordance with Part I.D.2.b.ii.1., the authorization date indicated in the LOA will be 60 business days after the eNOI submission date.

[2] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

c. If *Traditional Land Use Control MS4 Operator(s)* have review authority in accordance with Part I.D.2.b.ii.2., the *owner or operator* must, within five business days of receipt of the LOA, send an electronic copy of the LOA to the *Traditional Land Use Control MS4 Operator(s)* with review authority.

E. General Requirements for *Owners or Operators* with Permit Coverage

1. As of the date the LOA is received, the *owner or operator* must make the eNOI, *SWPPP*, and LOA available for review and copying in accordance with the requirements in Part VII.H. When applicable, as of the date an updated LOA is received, the *owner or operator* must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.

2. The *owner or operator* must ensure compliance with all requirements of this permit and that the provisions of the *SWPPP*, including any changes made to the *SWPPP* in accordance with Part III.A.5., are properly implemented and maintained from the *commencement of construction activity* until:

   a. all areas of disturbance have achieved *final stabilization;* and

   b. the owner's or operator's coverage under this permit is terminated in accordance with Part V.A.5.a.

3. As of the date of the *commencement of construction activities* until Part I.E.2.a. and b. have been met, the *owner or operator* must maintain at the *construction site*, a copy of:

   a. all documentation necessary to demonstrate eligibility with this permit; and

   b. this permit; and

   c. the *SWPPP*; and

   d. the signed SWPPP Preparer Certification Form; and

   e. the signed MS4 SWPPP Acceptance Form or signed NYCDEP SWPPP Acceptance/Approval Form or signed MS4 No Jurisdiction Form (when applicable); and

   f. the signed Owner/Operator Certification Form; and

g. the eNOI; and

h. the LOA; and

i. the LOA transmittal to the Traditional Land Use Control MS4 Operator in accordance with Part I.D.3.c. (when applicable).

4. The *owner or operator* must maintain at the *construction site*, until Part I.E.2.a. and b. have been met, as of the date the documents become final or are received, a copy of the:

   a. responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7.; and

   b. inspection reports in accordance with Part IV.C.4. and 6.; and

   c. Request to Disturb Greater Than Five Acres and the Authorization Letter to Disturb Greater Than Five Acres in accordance with Part I.E.6. (when applicable); and

   d. Request to Continue Coverage and the Letter of Continued Coverage (LOCC) in accordance with Part I.F.2. and 4. (when applicable); and

   e. The updated LOA(s) in accordance with Part I.E.9. (when applicable).

5. The *owner or operator* must maintain the documents in Part I.E.3. and 4. in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the *owner or operator* must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.

6. The *owner or operator* must meet the following requirements prior to disturbing greater than five acres of soil at any one time:

   a. The *owner or operator* must submit a written Request to Disturb Greater Than Five Acres to:

i. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, if a *Traditional Land Use Control MS4 Operator* does not have review authority in accordance with Part I.D.2.b.ii.1.; or

ii. the *Traditional Land Use Control MS4 Operator*, if a *Traditional Land Use Control MS4 Operator* has review authority in accordance with Part I.D.2.b.ii.1.; or

iii. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, and each involved *Traditional Land Use Control MS4 Operator*, if the project spans multiple municipalities with more than one *Traditional Land Use Control MS4 Operator* involved with review authority in accordance with Part I.D.2.b.ii.1.

b. The written Request to Disturb Greater Than Five Acres must include:

i. The SPDES permit identification number (Permit ID); and

ii. Full technical justification demonstrating why alternative methods of construction that would result in five acres of soil disturbance or less at any one time are not feasible; and

iii. The phasing plan for the project and sequencing plans for all *phases* from the *SWPPP* in accordance with Part III.B.1.d.; and

iv. Plans with locations and details of erosion and sediment control practices such that the heightened concern for erosion when disturbing greater than five acres at one time has been addressed; and

v. Acknowledgment that "the *owner or operator* will comply with the requirements in Part IV.C.2.b."; and

vi. Acknowledgment that "the *owner or operator* will comply with the requirements in Part II.B.1.b."

c. The *owner or operator* must be in receipt of an Authorization Letter to Disturb Greater Than Five Acres, which will include when the

authorization begins and ends and indicate a maximum area (acres) of soil disturbance allowed at any one time, from:

i. NYSDEC, if Part I.E.6.a.i. or iii. apply; or

ii. the *Traditional Land Use Control MS4 Operator*, if Part I.E.6.a.ii. applies.

7. Upon a finding of significant non-compliance with the practices described in the *SWPPP* or violation of this permit, NYSDEC may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

8. If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE).[3] *Construction activity* shall not resume until written permission to do so has been received from the RWE.

9. To be authorized to implement modifications to the information previously submitted in the eNOI, the *owner or operator* must:

   a. notify NYSDEC via email at Stormwater_info@dec.ny.gov requesting access to update the eNOI; and

   b. update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D.; and

   c. receive an updated LOA.

10. The eNOI, *SWPPP*, LOA, updated LOAs (when applicable), and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

[3] The Regional Water Manager where a DEC Region does not have a RWE.

F. Permit Coverage for *Discharges* Authorized Under GP-0-20-001

When applicable:

1. Upon the effective date of this permit, an *owner or operator* of *a construction activity*, with coverage under GP-0-20-001, will have interim coverage under GP-0-25-001 for 45 calendar days starting on the effective date of GP-0-25-001 so long as the *owner or operator* maintains compliance with all applicable requirements of this permit.

2. Within 30 calendar days of the effective date of this permit, the *owner or operator*, with coverage under GP-0-20-001, must submit a complete Request to Continue Coverage electronically using a NYSDEC approved form,[4] which contains the information identified in Part I.F.3. below, if:

   a. the *owner or operator* continues to implement the SMP component in conformance with the technical standards in place at the time of initial project authorization; and

   b. the *owner or operator* will comply with all non-design requirements of GP-0-25-001.

3. The Request to Continue Coverage form contains questions to: ensure eligibility requirements in Part I.A. have been met; verify *owner or operator* contact information; verify the permit identification number; verify the original eNOI submission ID, if applicable; verify Part I.F.2.a. and b.; verify the version of the Design Manual that the technical/design components conform to; and receive an updated Owner/Operator Certification Form, Appendix I.

4. The *owner or operator* has obtained continued coverage under GP-0-25-001 as of the date indicated in the LOCC, which is sent by NYSDEC after a complete Request to Continue Coverage form is submitted.

5. If the owner or operator does not submit the Request to Continue Coverage form in accordance with Part I.F.2. and 3., coverage under this permit is automatically terminated after interim coverage expires.

[4] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

G. Change of *Owner or Operator*

When applicable:

1. When property ownership changes, or when there is a change in operational control over the construction plans and specifications, the following process applies:

    a. The new *owner or operator* must meet the applicable prerequisites for submitting an eNOI in accordance with Part I.D.2.; and

    b. The new *owner or operator* must submit an eNOI in accordance with Part I.D.3.; and

    c. Permit coverage for the new *owner or operator* will be effective upon receipt of the LOA in accordance with Part I.D.3.b.; and

    d. The new *owner or operator*, upon receipt of their LOA, must provide their Permit ID to the original *owner or operator*; and

    e. If the original *owner or operator* will no longer be the *owner or operator* of the *construction activity* identified in the original *owner's or operator's* eNOI, the original *owner or operator*, upon receipt of the new *owner's or operator's* Permit ID in accordance with Part I.G.1.d., must submit to NYSDEC a completed eNOT in accordance with Part V. that includes the name and Permit ID of the new *owner or operator*; or

    f. If the original *owner or operator* maintains ownership of a portion of the *construction activity*, the original *owner or operator* must maintain their coverage under the permit by modifying their eNOI; modifications to the eNOI must include:

        i. the revised area of disturbance and/or *impervious area(s)*; and

        ii. the revised SMP information, if applicable; and

        iii. a narrative description of what has changed; and

        iv. the new *owner's or operator's* Permit ID for the portion of the project removed from the eNOI.

    Owners or operators must follow Part I.E.9. to modify the eNOI.

Part II. Water Quality-Based Effluent Limitations

A. Maintaining Water Quality

NYSDEC expects that compliance with the requirements of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any *discharge* to either cause or contribute to a violation of the following *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York:

1. There must be no increase in turbidity that will cause a substantial visible contrast to natural conditions; and

2. There must be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There must be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the *stormwater discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standard,* the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this permit and document in accordance with Part IV.C.4. of this permit. To address the *water quality standard* violation the *owner or operator* must include and implement appropriate controls in the *SWPPP* to correct the problem or obtain an individual SPDES permit.

If, despite compliance with the requirements of this permit, it is demonstrated that the *stormwater discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if NYSDEC determines that a modification of this permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit, and the *owner or operator* must obtain an individual SPDES permit prior to further *discharges* from the *construction site*.

B. Effluent Limitations Applicable to *Discharges* from *Construction Activities*

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part II.B.1.a., b., c., d., and e. These limitations represent the

degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement, and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part II.B.1.a., b., c., d., and e. and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (BB), dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in *SWPPP* the reason(s) for the deviation, or alternative design, and provide information in the *SWPPP* demonstrating that the deviation or alternative design is *equivalent* to the technical standard.

    a. **Erosion and Sediment Controls.** At a minimum, erosion and sediment controls must be selected, designed, installed, implemented, and maintained to:

        i. *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s; and

        ii. Control *stormwater discharge*s, including both peak flow rates and total *stormwater* volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points; and

        iii. *Minimize* the amount of soil exposed during *construction activity*; and

        iv. *Minimize* the disturbance of *steep slope*; and

        v. *Minimize* sediment *discharge*s from the site; and

        vi. Provide and maintain *natural buffers* around surface waters, direct *stormwater* to vegetated areas and maximize *stormwater* infiltration to reduce *pollutant discharge*s, unless *infeasible*; and

        vii. *Minimize* soil compaction. *Minimizing* soil compaction is not required

where the intended function of a specific area of the site dictates that it be compacted; and

viii. Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

ix. *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of *pollutants* that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has ceased, whether permanently or *temporarily ceased*, the application of soil stabilization measures must be initiated by the end of the next business day and completed within 14 calendar days from the date the current soil disturbance activity ceased. For *construction sites* that *directly discharge* to one of the 303(d) segments listed in Appendix D, or are located in one of the watersheds listed in Appendix C, or are authorized to disturb greater than five acres in accordance with Part I.E.5.a.viii., the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven calendar days from the date the soil disturbance activity ceased.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Select, design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be selected, designed, installed, implemented, and maintained to:

i. *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. Soaps, detergents and solvents cannot be used; and

ii. *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation

and to *stormwater*. *Minimization* of exposure is not required in cases where the exposure to precipitation and to *stormwater* will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of *stormwater* contamination (such as final products and materials intended for outdoor use); and

iii. Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Surface Outlets.** When discharging from basins and impoundments, the surface outlets must be designed, constructed, and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-Construction Stormwater Management Practice (SMP) Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction SMPs, in accordance with Part III.C., must select, design, install, implement, and maintain the SMPs to meet the *performance criteria* in the New York State Stormwater Management Design Manual, dated July 31, 2024 (DM), using sound engineering judgment. Where SMPs are not designed in conformance with the *performance criteria* in the DM, the *owner or operator* must include in the *SWPPP* the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity*, that requires SMPs in accordance with Part III.C., must design the practices to meet the applicable *sizing criteria* in Part II.C.2.a., b., c., or d.

a. Sizing Criteria for *New Development*

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the total WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv must be calculated in accordance with the criteria in Section 4.2 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the requirements in Part II.C.2.a.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

   In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.4 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

   1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

   2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs without detention or velocity controls; or

   3. The site *directly discharges* into a fifth order or larger water body (stream, river, or lake), or tidal waters, where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watersheds

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24-hour design storm over the post-developed watershed and must be calculated in accordance with the criteria in Section 4.3 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part II.C.2.b.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include

documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.5 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs; or

3. The site *directly discharges* to tidal waters, or a fifth order or larger water body (stream, river, or lake) where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

c. *Sizing Criteria* for *Redevelopment Activity*

i. Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* must be addressed by one of the following options, as outlined in Section 9.2.1. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C) must calculate the WQv in accordance with Section 4.3 of the DM. All other *redevelopment activities* must calculate the WQv in accordance with Section 4.2 of the DM.

1. Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the DM must be applied to all newly created pervious areas; or

2. Capture and treat 100% of the required WQv, for a minimum of 25% of the disturbed redevelopment *impervious area*, by implementation of standard SMPs or reduced by application of runoff reduction techniques; or

3. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a volume-based alternative SMP, as defined in Section 9.4 of the DM; or

4. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a flow-through alternative SMP sized to treat the peak rate of runoff from the WQv design storm; or

5. Application of a combination of 1 through 4 above that provide a weighted average of at least two of the above methods. Application of this method must be in accordance with the criteria in Section 9.2.1(A)(V) of the DM; or

6. If there is an existing SMP located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 through 5 above.

ii. Channel Protection Volume (CPv) is not required if there is 0% change to hydrology that increases the *discharge* rate and volume from the project site.

iii. *Overbank* Flood Control (Qp) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

iv. Extreme Flood Control (Qf) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

d. *Sizing Criteria* for Combination of *Redevelopment Activity* and *New Development*

Construction projects, that include both *new development* and *redevelopment activity*, must use SMPs that meet the *sizing criteria* calculated as an aggregate of the *sizing criteria* in Part II.C.2.a. or b. for the *new development* portion of the project and Part II.C.2.c. for the *redevelopment activity* portion of the project.

Part III. Stormwater Pollution Prevention Plan (SWPPP)

A. General *SWPPP* Requirements

1. A *SWPPP* must be prepared and implemented by the *owner or operator* of all *construction activity* covered by this permit. All authorized *discharges* must be identified in the *SWPPP*. The *SWPPP* must document the selection, design, installation, implementation and maintenance of the control measures and

practices that will be used to meet the effluent limitations in Part II.B. and, where applicable, the SMP requirements in Part II.C.

2. The *SWPPP* must demonstrate consideration in narrative format of the future physical risks due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR Part 490, and associated guidance.

    a. The owner or operator must consider:

        i. the following physical risks due to climate change:

            (i) increasing temperature; and

            (ii) increasing precipitation; and

            (iii) increasing variability in precipitation, including chance of drought; and

            (iv) increasing frequency and severity of flooding; and

            (v) rising sea level; and

            (vi) increasing storm surge; and

            (vii) shifting ecology.

        ii. for each of the following:

            (i) overall site planning; and

            (ii) location, elevation, and sizing of:

                a. control measures and practices; and

                b. conveyance system(s); and

                c. detention system(s).

3. The *SWPPP* must describe the erosion and sediment control practices and where required, SMPs that will be used and/or constructed to reduce the *pollutants* in *stormwater discharges* and to assure compliance with the

requirements of this permit. In addition, the *SWPPP* must identify potential sources of pollution which may reasonably be expected to affect the quality of *stormwater discharges*.

4. All *SWPPPs*, that require the SMP component in accordance with Part III.B.2., must be prepared by a *qualified professional*.

5. The *owner or operator* must keep the *SWPPP* current so that, at all times, it accurately documents the erosion and sediment control practices that are being used or will be used during construction, and all SMPs that will be constructed on the site. At a minimum, the *owner or operator* must modify the *SWPPP*, including construction drawings:

   a. whenever the current provisions prove to be ineffective in *minimizing pollutants* in *stormwater discharges* from the site; and

   b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*; and

   c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* NYSDEC, or other regulatory authority; and

   d. to document the final construction conditions in an as-built drawing.

6. NYSDEC may notify the *owner or operator* at any time that the *SWPPP* does not meet one or more of the minimum requirements of this permit. The notification must be in writing and identify the provisions of the *SWPPP* that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by NYSDEC, the *owner or operator* must make the required changes to the *SWPPP* and submit written notification to NYSDEC that the changes have been made. If the *owner or operator* does not respond to NYSDEC's comments in the specified time frame, NYSDEC may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4.

7. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion and sediment control practices included in the *SWPPP* and the

contractor(s) and subcontractor(s) that will be responsible for constructing the SMPs included in the *SWPPP*. The *owner or operator* must have each of the contractors and subcontractors identify at least one person from their company to be *trained contractor* that will be responsible for implementation of the *SWPPP*. The *owner or operator* must ensure that at least one *trained contractor* is on site daily when soil disturbance activities are being performed.

The *owner or operator* must have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before the *commencement of construction activities*:

> "I hereby certify under penalty of law that I understand and agree to comply with the requirements of the *SWPPP* and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the *SWPPP* that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for *SWPPP* implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* must attach the certification statement(s) to the copy of the *SWPPP* that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the *SWPPP* after the *commencement of construction activities*, they must also sign the certification statement and provide the information listed above prior to performing *construction activities*.

B. Required *SWPPP* Contents

1. Erosion and sediment control component - The *owner or operator* must prepare a *SWPPP* that includes erosion and sediment control practices.

    a. Erosion and sediment control practices must be designed:

        i. in conformance with the BB; or

        ii. *equivalent* to the BB if deviating from Part III.B.1.a.i.

    b. If the erosion and sediment control practices are designed in conformance with Part III.B.1.a.ii., the *SWPPP* must include a demonstration of *equivalence* to the BB.

    c. At a minimum, the erosion and sediment control component of the *SWPPP* must include the following:

        i. Background information about the scope of the project, including the location, type and size of project; and

        ii. A site map/construction drawing(s) with north arrows for the project, including a general location map. At a minimum, the site map must show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the *stormwater discharge*(s) and receiving surface water(s); and

        iii. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG); and

        iv. A phasing plan for the project and sequencing plans for all *phases*, both of which must address clearing and grubbing, excavation and grading, utility and infrastructure installation, *final stabilization*,

and any other *construction activity* at the site that will result in soil disturbance.

1. The phasing plan must include:

    a. a map delineating and labeling the limits of soil disturbance for all *phases* of a project; and

    b. a table identifying the order and intended schedule of when each *phase* will begin and end its sequencing plan. The table must identify the total disturbed area for each *phase* at any one time and the total disturbed area for the overall project at any one time all on one timeline showing all overlapping quantities of disturbed area at any one time; and

2. A sequencing plan for a specific *phase* must include:

    a. a table indicating the order and intended schedule of *construction activities* within a *phase*, and corresponding construction drawings with a description of the work to be performed; and

    b. all permanent and *temporary stabilization* measures; and

v. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented; and

vi. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice; and

vii. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any

temporary sediment basins and structural practices that will be used to divert flows from exposed soils; and

viii. A maintenance inspection schedule for the contractor(s) and subcontractor(s) identified in Part III.A.7. to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule must be in accordance with the requirements in the BB technical standard; and

ix. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the *stormwater discharges*; and

x. A description and location of any *stormwater discharges* associated with industrial activity other than construction at the site, including, but not limited to, *stormwater discharges* from asphalt plants and concrete plants located on the *construction site*; and

xi. Identification of any elements of the design that are not in conformance with the design criteria in the BB technical standard. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. SMP component – The *owner or operator* of *construction activity* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs.

   a. SMPs must be designed in conformance with the applicable *sizing criteria* in Part II.C.2.a., c., or d.; and

   b. SMPs must be designed in conformance with the *performance criteria*:

      i. in the DM; or

      ii. *equivalent* to the DM if deviating from Part III.B.2.b.i.; or

      iii. in the New York State Stormwater Management Design Manual, dated January 2015 (2015 Design Manual), or *equivalent* to it, if the following criteria are met:

1. The eNOI is submitted in accordance with Part I.D. before January 29, 2027 for *construction activities* that are either:

    a. subject to governmental review and approval:

        i. where the *owner or operator* made any application to that governmental entity prior to the effective date of this permit; and

        ii. such application included a *SWPPP* developed using the 2015 Design Manual or *equivalent* to it; or

    b. not subject to governmental review and approval:

        i. where a fiscal allocation for the *construction activities* has been developed and approved by a governmental entity; and

        ii. the *SWPPP* was developed using the 2015 Design Manual or *equivalent* to it; and

c. If SMPs are designed in conformance with Part III.B.2.b.ii., the *SWPPP* must include the reason(s) for the deviation or alternative design and a demonstration of *equivalence* to the DM; and

d. If SMPs are designed in conformance with Part III.B.2.b.iii., the *SWPPP* must include supporting information or documentation demonstrating that Part III.B.2.b.iii.1.a. or b. apply; and

e. The SMP component of the *SWPPP* must include the following:

    i. Identification of all SMPs to be constructed as part of the project, including which option the SMP designs conform to, either Part III.B.2.b.i., ii., or iii. Include the dimensions, material specifications and installation details for each SMP; and

    ii. A site map/construction drawing(s) showing the specific location and size of each SMP; and

iii. A Stormwater Modeling and Analysis Report that includes:

(i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points; and

(ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and SMPs; and

(iii) Results of *stormwater* modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre- and post-development runoff rates and volumes for the different storm events; and

(iv) Summary table, with supporting calculations, which demonstrates that each SMP has been designed in conformance with the *sizing criteria* included in the DM; and

(v) Identification of any *sizing criteria* that is not required based on the requirements included in Part II.C.; and

(vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the DM. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the DM.

iv. Soil testing results and locations (test pits, borings); and

v. Infiltration test results, when required in accordance with Part III.B.2.a.; and

vi. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each SMP. The plan must identify the entity

that will be responsible for the long-term operation and maintenance of each practice; and

3. Enhanced Phosphorus Removal Standards - The *owner or operator* of *construction activity* identified in Table 2 of Appendix B that is located in a watershed identified in Appendix C must prepare a *SWPPP* that includes SMPs designed in conformance with the applicable *sizing criteria* in Part II.C.2.b., c., or d. and the *performance criteria* Enhanced Phosphorus Removal Standards included in the DM. At a minimum, the SMP component of the *SWPPP* must meet the requirements of Part III.B.2.

C. Required *SWPPP* Components by Project Type

Owners or operators of *construction activities*, identified in Table 1 of Appendix B, are required to prepare a *SWPPP* that only includes erosion and sediment control practices designed in accordance with Part III.B.1. *Owners or operators* of the *construction activities*, identified in Table 2 of Appendix B, must prepare a *SWPPP* that also includes SMPs designed in accordance with Part III.B.2 or 3.

For the entire area of disturbance, including the entire *common plan of development or sale* if applicable, the owner or operator must evaluate every bullet from Appendix B Table 1 and Table 2 separately. If bullets from both Table 1 and Table 2 apply, the *SWPPP* must include erosion and sediment control practices for all *construction activities* but SMPs for only those portions of the *construction activities* that fall under Table 2 bullet(s).

Part IV. Inspection and Maintenance Requirements

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures), and all SMPs identified in the *SWPPP*, are inspected and maintained in accordance with Part IV.B. and C.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity*, identified in Tables 1 and 2 of Appendix B, must have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being

implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor must:

a. if the corrective action does not require engineering design:

    i. begin implementing corrective actions within one business day; and

    ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

    i. begin the engineering design process within five business days; and

    ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

2. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. The *trained contractor* must begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.

3. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational.

C. *Qualified Inspector* Inspection Requirements

1. With the exception of the following *construction activities* identified in Tables 1 and 2 of Appendix B, a *qualified inspector* must conduct site inspections for all other *construction activities* identified in Tables 1 and 2 of Appendix B:

    a. the construction of a single-family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than or equal to five (5) acres and is

not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

b. the construction of a single-family home that involves soil disturbances of one (1) or more acres but less than or equal to five (5) acres and is not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

c. construction on *agricultural property* that involves soil disturbances of one (1) or more acres but less than five (5) acres; and

d. *construction activities* located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances of 5,000 square feet or more, but less than one acre.

2. The *qualified inspector* must conduct site inspections in accordance with the following timetable:

a. For *construction sites* where soil disturbance activities are on-going, the *qualified inspector* must conduct a site inspection at least once every seven (7) calendar days; or

b. For *construction sites* where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part I.E.6. to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days; or

c. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* must conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas under the jurisdiction of a *Traditional Land Use Control MS4 Operator,* the *Traditional Land Use Control MS4 Operator* (provided the *Traditional Land Use Control MS4 Operator* is not the *owner or operator* of the *construction activity*) by hard copy or email prior to reducing the inspections to this frequency and again by hard copy or email prior to re-commencing construction; or

d. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the requirement to have the *qualified inspector* conduct inspections ceases if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1., the *Traditional Land Use Control MS4 Operator(s)* (provided the *Traditional Land Use Control MS4 Operator(s)* are not the *owners or operators* of the *construction activity*) in writing prior to the shutdown and again in writing prior to resuming *construction activity*. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* must terminate coverage by meeting the requirements of Part V; or

e. For *construction sites* involving soil disturbance of one (1) or more acres that *directly discharge* to one of the 303(d) segments listed in Appendix D or is located in one of the watersheds listed in Appendix C, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* must inspect:

   a. all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness; and

   b. all SMPs under construction to ensure that they are constructed in conformance with the *SWPPP*; and

   c. all areas of disturbance that have not achieved *final stabilization*; and

   d. all points of *discharge* to *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site*; and

   e. all points of *discharge* from the *construction site*.

4. The *qualified inspector* must prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report must include and/or address all of the following, for all *construction activities* except those listed in Part IV.C.1.:

   a. Permit identification number; and

   b. Date and time of inspection; and

   c. Name and title of person(s) performing inspection; and

   d. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and

   e. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This must include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; and

   f. A description of the condition of all *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This must include identification of any *discharges* of sediment to the *surface waters of the State*; and

   g. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and

   h. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and

   i. Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and

   j. Estimates, in square feet or acres, of the following areas:

i. Total area with active soil disturbance (not requiring either *temporary stabilization* or *final stabilization*); and

ii. Total area with inactive soil disturbance (requiring either *temporary stabilization* or *final stabilization*); and

iii. Total area that has achieved *temporary stabilization*; and

iv. Total area that has achieved *final stabilization*; and

k. Current stage of construction of all SMPs and identification of all *construction activity* on site that is not in conformance with the *SWPPP* and technical standards; and

l. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and

m. Identification and status of all corrective actions that were required by previous inspection; and

n. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* must attach color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* must also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* must attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* must notify the *owner or operator*, and appropriate contractor or subcontractor identified in Part III.A.7., of any corrective actions that need to be taken. The contractor or subcontractor must:

a. if the corrective action does not require engineering design:

i. begin implementing corrective actions within one business day; and

ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

i. begin the engineering design process within five business days; and

ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

6. All inspection reports must be signed by the *qualified inspector.* In accordance with Part I.E.3., the inspection reports must be maintained on site with the *SWPPP*.

Part V. How to Terminate CGP Coverage

A. Electronic Notice of Termination (eNOT) Submittal

The eNOT contains questions to ensure requirements in Part V.A. have been met.

1. An *owner or operator* must terminate coverage when one or more of the following requirements have been met:

a. Total project completion:

i. all *construction activity* identified in the *SWPPP* has been completed; and

ii. all areas of disturbance have achieved *final stabilization*; and

iii. all temporary, structural erosion and sediment control measures have been removed; and

iv. all SMPs have been constructed in conformance with the *SWPPP* and are operational; and

v. an as-built drawing has been prepared; or

b. Planned shutdown with partial project completion:

   i. all soil disturbance activities have ceased; and

   ii. all areas disturbed as of the project shutdown date have achieved *final stabilization*; and

   iii. all temporary, structural erosion and sediment control measures have been removed; and

   iv. all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational; and

   v. an as-built drawing has been prepared; or

c. In accordance with Part I.G. Change of Owner or Operator; or

d. The *owner or operator* has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.

2. For *construction activities* that require *qualified inspector* inspections in accordance with Part IV.C.1. and have met Part V.A.1.a. or b., the *owner or operator* must have the *qualified inspector* perform a final site inspection prior to submitting the eNOT. The *qualified inspector* must, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice(s)" certification statements on the eNOT, certify that all the requirements in Part V.A.1.a. or b. have been achieved.

3. For *construction activities* that are subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1. and meet Part V.A.1.a. or b., the *owner or operator* must have the *Traditional Land Use Control MS4 Operator(s)* sign the "MS4 Acceptance" statement on the eNOT in accordance with the requirements in Part VII.J. A *Traditional Land Use Control MS4 Operator* official, by signing this statement, determined that it is acceptable for the *owner or operator* to submit the eNOT in accordance with the requirements of this Part. A *Traditional Land Use Control MS4 Operator* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) when required in Part V.A.2.

4. For *construction activities* that require SMPs and meet Part V.A.1.a. or b., the *owner or operator* must, prior to submitting the eNOT, ensure one of the following:

    a. for SMP(s) that were constructed by a private entity, but will be owned, operated, and maintained by a public entity, the SMP(s) and any right-of-way(s) needed to operate and maintain such practice(s) have been deeded to the municipality in which the practice(s) is located; or

    b. for SMP(s) that are privately owned, but will be operated and maintained by a public entity, an executed operation and maintenance agreement is in place with the municipality that will operate and maintain the SMP(s); or

    c. for SMP(s) that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record; or

    d. for SMP(s) that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility, the *owner or operator* has policies and procedures in place that ensure operation and maintenance of the practices in accordance with the operation and maintenance plan.

5. An *owner or operator* that has met the requirements of Part V.A.1., 2., 3., and 4. must request termination of coverage under this permit by submitting a complete Notice of Termination form electronically using a NYSDEC approved form.[5]

    a. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

[5] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

Part VI. Record Retention and Reporting

A. Record Retention

The *owner or operator* must retain a copy of the documents listed in Part I.E.3. and a copy of the LOT for a period of at least five years from the date that NYSDEC accepts a complete NOT submitted in accordance with Part V.

B. Reporting

Except for the eNOI, the signature forms associated with the eNOI, and the eNOT, all other written correspondence requested by NYSDEC, including individual permit applications, must be sent to the address of the appropriate DOW (SPDES) Program contact at the Regional Office listed in Appendix E.

Part VII. Standard Permit Requirements

For the purposes of this permit, examples of contractors and subcontractors include: third-party maintenance and construction contractors.

A. Duty to Comply

The *owner or operator*, and all contractors or subcontractors, must comply with all requirements of this permit. Any non-compliance with the requirements of this permit constitutes a violation of the New York State Environmental Conservation Law (ECL), and its implementing regulations, and is grounds for enforcement action. Filing of a request for termination of coverage under this permit, or a notification of planned changes or anticipated non-compliance, does not limit, diminish or stay compliance with any requirements of this permit.

B. Need to Halt or Reduce Activity Not a Defense

The necessity to halt or reduce the *construction activity* regulated by this permit, in order to maintain compliance with the requirements of this permit, must not be a defense in an enforcement action.

C. Penalties

There are substantial criminal, civil, and administrative penalties associated with violating the requirements of this permit. Fines of up to $37,500 per day for each

violation and imprisonment for up to 15 years may be assessed depending upon the nature and degree of the offense.

D. False Statements

Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance must, upon conviction, be punished in accordance with ECL §71-1933 and or New York State Penal Law Articles 175 and 210.

E. Re-Opener Clause

Upon issuance of this permit, a determination has been made on the basis of a submitted Notice of Intent, plans, or other available information, that compliance with the specified permit requirements will reasonably protect classified water use and assure compliance with applicable *water quality standards*. Satisfaction of the requirements of this permit notwithstanding, if operation pursuant to this permit causes or contributes to a condition in contravention of State *water quality standards* or guidance values, or if NYSDEC determines that a modification is necessary to prevent impairment of the best use of the waters or to assure maintenance of *water quality standards* or compliance with other provisions of ECL Article 17 or the Clean Water Act (CWA), or any regulations adopted pursuant thereto, NYSDEC may require such modification and the Commissioner may require abatement action to be taken by the *owner or operator* and may also prohibit such operation until the modification has been implemented.

F. Duty to Mitigate

The *owner or operator*, and its contractors and subcontractors, must take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

G. Requiring Another General Permit or Individual SPDES Permit

NYSDEC may require any *owner or operator* authorized to *discharge* in accordance with this permit to apply for and obtain an individual SPDES permit or apply for authorization to *discharge* in accordance with another general SPDES permit.

1. Cases where an individual SPDES permit or authorization to discharge in accordance with another general SPDES permit may be required include, but is not limited to the following:

a. the *owner or operator* is not in compliance with the conditions of this permit or does not meet the requirements for coverage under this permit; and

b. a change has occurred in the availability of demonstrated technology or practices for the control or abatement of *pollutants* applicable to the *point source*; and

c. new effluent limitation guidelines or new source performance standards are promulgated that are applicable to *point sources* authorized to *discharge* in accordance with this permit; and

d. existing effluent limitation guidelines or new source performance standards that are applicable to *point sources* authorized to *discharge* in accordance with this permit are modified; and

e. a water quality management plan containing requirements applicable to such *point sources* is approved by NYSDEC; and

f. circumstances have changed since the time of the request to be covered so that the *owner or operator* is no longer appropriately controlled under this permit, or either a temporary or permanent reduction or elimination of the authorized *discharge* is necessary; and

g. the *discharge* is in violation of section 17-0501 of the ECL; and

h. the *discharge(s)* is a significant contributor of *pollutants*. In making this determination, NYSDEC may consider the following factors:

   i. the location of the *discharge(s)* with respect to *surface waters of the State*; and

   ii. the size of the *discharge(s)*; and

   iii. the quantity and nature of the *pollutants discharged* to *surface waters of the State*; and

   iv. other relevant factors including compliance with other provisions of ECL Article 17, or the CWA.

2. When NYSDEC requires any *owner or operator* authorized by this permit to apply for an individual SPDES permit as provided for in this subdivision, it must notify the *owner or operator* in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application

form, a statement setting a time for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from the *owner's or operator's* receipt of the notification letter, whereby the authorization to *discharge* under this permit must be terminated. NYSDEC may grant additional time upon demonstration, to the satisfaction of the RWE,[6] that additional time to apply for an alternative authorization is necessary or where NYSDEC has not provided a permit determination in accordance with 6 NYCRR Part 621.

3. When an individual SPDES permit is issued to an *owner or operator* authorized to *discharge* under this permit for the same *discharge(s)*, this permit authorization for *construction activities* authorized under the individual SPDES permit is automatically terminated on the effective date of the individual SPDES permit unless termination is earlier in accordance with 6 NYCRR Part 750.

H. Duty to Provide Information

The *owner or operator* must furnish to NYSDEC, within five business days, unless otherwise set forth by NYSDEC, any information that NYSDEC may request to determine whether cause exists to determine compliance with this permit or to determine whether cause exists for requiring an individual SPDES permit in accordance with 6 NYCRR 750-1.21(e) (see Part VII.G. Requiring Another General Permit or Individual Permit).

The *owner or operator* must make available to NYSDEC, for inspection and copying, or furnish to NYSDEC within 25 business days of receipt of a NYSDEC request for such information, any information retained in accordance with this permit.

Except for Part I.D.4. and 5. and Part I.G., the following applies: where the *owner or operator* becomes aware that it failed to submit any relevant facts on the Notice of Intent, or submitted incorrect information in a Notice of Intent or in any report to NYSDEC, the *owner or operator* must submit such facts or corrected information to NYSDEC within five business days.

I. Extension

In the event a new permit is not issued and effective prior to the expiration of this permit, and this permit is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, then the *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the requirements of this permit until a new permit is issued and effective.

[6] The Regional Water Manager where a DEC Region does not have a RWE.

J. Signatories and Certification

The Notice of Intent, Notice of Termination, and reports required by this permit must be signed as provided in 40 CFR §122.22.

1. All Notices of Intent and Notices of Termination must be signed as follows:

    a. For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

        (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

        (ii) the manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for Notice of Intent or Notice of Termination requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

        Note: NYSDEC does not require specific assignments or delegations of authority to responsible corporate officers identified in 40 CFR §122.22(a)(1)(i). NYSDEC will presume that these responsible corporate officers have the requisite authority to sign the Notice of Intent or Notice of Termination unless the corporation has notified NYSDEC to the contrary. Corporate procedures governing authority to sign a Notice of Intent or Notice of Termination may provide for assignment or delegation to applicable corporate positions under 40 CFR §122.22(a)(1)(ii) rather than to specific individuals.

    b. For a partnership or sole proprietorship. By a general partner or the proprietor, respectively.

c. For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

    1. the chief executive officer of the agency; or

    2. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. All reports required by this permit, and other information requested by NYSDEC, must be signed by a person described in Part VII.J.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Part VII.J.1. or using the Duly Authorized Form, found on the DEC website; and

    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

    c. The written authorization is submitted to NYSDEC.

3. Changes to authorization. If an authorization under Part VII.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the *construction activity*, a new authorization satisfying the requirements of Part VII.J.2. must be submitted to NYSDEC prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under Part VII.J.1. or 2. must make the following certification:

    I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who

manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

5. Electronic reporting. If documents described in Part VII.J.1. or 2. are submitted electronically by or on behalf of the *construction activity* with coverage under this permit, any person providing the electronic signature for such documents must meet all relevant requirements of this section, and must ensure that all of the relevant requirements of 40 CFR Part 3 (including, in all cases, subpart D to Part 3) (Cross-Media Electronic Reporting) and 40 CFR Part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

K. Inspection and Entry

The *owner or operator* must allow NYSDEC, the USEPA Regional Administrator, the applicable county health department, or any authorized representatives of those entities, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the *discharge*, upon the presentation of credentials and other documents as may be required by law, to:

1. enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the requirements of this permit; and

2. have access to and copy at reasonable times, any records that must be kept under the requirements of this permit, including records required to be maintained for purposes of operation and maintenance; and

3. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. sample or monitor at reasonable times, for the purposes of assuring general SPDES permit compliance or as otherwise authorized by the CWA or ECL, any substances or parameters at any location; and

5. enter upon the property of any contributor to the regulated facility or activity under authority of the *owner or operator*.

L. Confidentiality of Information

The following must not be held confidential: this permit, the fact sheet for this permit, the name and address of any *owner or operator*, effluent data, the Notice of Intent, and information regarding the need to obtain an individual permit or an alternative general SPDES permit. This includes information submitted on forms themselves and any attachments used to supply information required by the forms (except information submitted on usage of substances). Upon the request of the *owner or operator*, NYSDEC must make determinations of confidentiality in accordance with 6 NYCRR Part 616, except as set forth in the previous sentence. Any information accorded confidential status must be disclosed to the Regional Administrator upon his or her written request. Prior to disclosing such information to the Regional Administrator, NYSDEC will notify the Regional Administrator of the confidential status of such information.

M. Other Permits May Be Required

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

N. NYSDEC Orders or Civil Decrees/Judgments

The issuance of this permit by the NYSDEC, and the coverage under this permit by the *owner or operator*, does not supersede, revoke, or rescind any existing order on consent or civil Decree/Judgment, or modification to any such documents or to any order issued by the Commissioner, or any of the terms, conditions, or requirements contained in such order or modification therefore, unless expressly noted.

O. Property Rights

Coverage under this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the *discharge* authorized.

P. Compliance with Interstate Standards

If the *construction activity* covered by this permit originates within the jurisdiction of an interstate water pollution control agency, then the *construction activity* must also comply with any applicable effluent standards or *water quality standards* promulgated by that interstate agency and as set forth in this permit for such *construction activities*.

Q. Oil and Hazardous Substance Liability

Coverage under this permit does not affect the imposition of responsibilities upon, or the institution of any legal action against, the *owner or operator* under section 311 of the CWA, which must be in conformance with regulations promulgated pursuant to section 311 governing the applicability of section 311 of the CWA to *discharges* from facilities with *NPDES* permits, nor must such issuance preclude the institution of any legal action or relieve the *owner or operator* from any responsibilities, liabilities, or penalties to which the *owner or operator* is or may be subject pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. section 9601 et seq. (CERCLA).

R. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, must not be affected thereby.

S. NYSDEC Approved Forms

The *owner or operator* must provide all relevant information that is requested by NYSDEC, and required by this permit, on all NYSDEC approved forms.

APPENDIX A – Abbreviations and Definitions

Abbreviations

APO – Agency Preservation Officer
BB – New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), dated November 2016
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
CPv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DM – New York State Stormwater Management Design Manual (Design Manual), dated July 31, 2024
DOW – Division of Water
EAF – Environmental Assessment Form
ECL – chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law
EPA – U.S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
NYC – The City of New York
NYCDEP – The City of New York Department of Environmental Protection
NYSDEC – The New York State Department of Environmental Conservation
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RR – Runoff Reduction
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SMP – Post-Construction Stormwater Management Practice
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit. If a word is not italicized in the permit, use its common definition.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023).

Alter Hydrology from Pre- to Post-Development Conditions – the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer System – a sewer system which conveys sewage and *stormwater* through a single pipe system to a publicly owned treatment works.

Commence (Commencement of) Construction Activities – the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the *SWPPP*. See definition for "*Construction Activity(ies)*" also.

Common Plan of Development or Sale – a contiguous area where multiple separate and distinct *construction activities* are occurring, or may occur, under one plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQR) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating *construction activities* may occur on a specific plot. A *common plan of development or sale* is comprised of two or more *phases*.

Common plan of development or sale does not include separate and distinct *construction activities* that are occurring, or may occur, under one plan that are at least 1/4 mile apart provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Construction Activity(ies) – identified within 40 CFR 122.26(b)(14)(x), 122.26(b)(15)(i), and 122.26(b)(15)(ii), any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, mechanized logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal.

Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, which is excluded from the calculation of the soil disturbance for a project. Routine maintenance includes, but is not limited to:

- Re-grading of gravel roads or parking lots; and
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of the ditch; and
- Replacement of existing culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of a ditch; and
- Replacement of existing bridges that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity beneath the bridges; and
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch); and
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*; and
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material; and
- Long-term use of equipment storage areas at or near highway maintenance facilities; and
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*; and
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts; and
- Maintenance of ski trails including brush hog use and mowing; and
- Above ground snowmaking pipe replacement; and
- Replacement of existing utility poles; etc.

Construction Site – the land area where *construction activity(ies)* will occur. See also the definitions for "*Commence (Commencement of) Construction Activities"* and "*Common Plan of Development or Sale."*

Dewatering – the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Directly Discharge(s)(ing) (to a specific surface waterbody) – runoff flows from a *construction site* by overland flow and the first point of *discharge* is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system and the first point of *discharge* from the separate storm sewer system is the specific surface waterbody.

Discharge(s)(d) – any addition of any *pollutant* to waters of the State through an outlet or *point source*.

Embankment – an earthen or rock slope that supports a road/highway.

Equivalent (Equivalence) – the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization – all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other *equivalent* stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

Historic Property – any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) – all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and compacted gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – not technologically possible, or not economically practicable and achievable considering best industry practices.

Minimize(ing)(ation) – reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer System (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. owned or operated by a State, city, town, village, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, *stormwater*, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA, that *discharges* to *surface waters of the State*; and

2. designed or used for collecting or conveying *stormwater*; and

3. which is not a *combined sewer system*; and

4. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Natural Buffer(s) – an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – any land disturbance that does not meet the definition of *Redevelopment Activity* included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

Nonpoint Source(s) – any source of water pollution or *pollutants* which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank – flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator – the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit requirements.

Performance Criteria – the six performance criteria for each group of SMPs in Chapters 5 and 6 of the technical standard, New York State Stormwater Management Design Manual (DM), dated July 31, 2024. These include feasibility, conveyance, pretreatment, treatment, landscaping, and maintenance. It does not include the *Sizing Criteria* (i.e. WQv, RRv, CPv, Qp and Qf) in Part I.C.2. of the permit.

Phase – a defined area in which *construction activities* are occurring or will occur separate from other defined area(s).

Point Source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be *discharged*.

Pollutant(s) – dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast *discharged* into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq.

Qualified Inspector – a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder or other NYSDEC endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any SMPs that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional – a person that is knowledgeable in the principles and practices of *stormwater* management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other NYSDEC endorsed individual(s). Individuals preparing *SWPPPs* that require the SMP component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the *SWPPP* that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – the disturbance and reconstruction of existing *impervious area*, including *impervious areas* that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Renewable Energy – electricity or thermal energy generated by renewable energy systems through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.

Site Limitations – site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical *site limitations* include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of *site limitations* shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – the criteria included in Part I.C.2 of the permit that are used to size SMPs. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

Steep Slope – land area designated on the current United States Department of Agriculture (USDA) Soil Survey as Soil Slope Phase D, (provided the map unit name or description is inclusive of slopes greater than 25%), or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Stormwater – that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.

Streambank – the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – a project specific report, including construction drawings, that among other things: describes the *construction activity(ies)*, identifies the potential sources of pollution at the *construction site*; describes and shows the *stormwater* controls that will be used to control the *pollutants* (i.e. erosion and sediment controls; for many projects, includes SMPs); and identifies procedures the *owner or operator* will implement to comply with the requirements of the permit. See Part III of the permit for a complete description of the information that must be included in the *SWPPP*.

Surface Waters of the State – shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization – exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Load (TMDL) – the sum of the allowable loads of a single *pollutant* from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a *pollutant* that a waterbody can receive and still meet *water quality standards*, and an allocation of that amount to the *pollutant's* sources. A TMDL stipulates Waste Load Allocations (WLA) for *point source discharges*, Load Allocations (LA) for *nonpoint source*s, and a margin of safety (MOS).

Traditional Land Use Control MS4 Operator – a city, town, or village with land use control authority that is authorized to *discharge* under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Trained Contractor – an employee from the contracting (construction) company, identified in Part III.A.7., that has received four (4) hours of NYSDEC endorsed training

in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.7., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity).

The *trained contractor* is responsible for the day-to-day implementation of the *SWPPP*.

Tree Clearing – *construction activities* limited to felling and removal of trees.

Tree clearing does not include hand felling and leaving the trees in place with no support from mechanized equipment, which is not considered *construction activity* requiring coverage under this permit.

Water Quality Standard – such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities* that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single-family home not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions with 25% or less *impervious cover* at total site build-out and not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that include construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.

The following *construction activities* that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

- All construction activities located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

Within the municipal boundaries of NYC:

- Stand-alone road reconstruction, where the total soil disturbance from only that road construction, is less than one (1) acre of land.

The following *construction activities*:

- Installation of underground linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation, *stormwater* retrofits, stream restoration, and resiliency projects that reconstruct shoreline areas to address sea level rise
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an *impervious cover*
- Cross-country ski trails, walking/hiking trails, and mountain biking trails, including a de minimis parking lot (maximum 10 spaces total, sized for passenger cars) with 35 feet minimum preservation of undisturbed area downgradient from the parking lot
- Dam rehabilitation (the structure of the dam itself)
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are not part of residential, commercial, or institutional development;
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path, or walking path.

Table 1 (Continued)
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities*:

- Slope stabilization
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Vegetated open space (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) that do not *alter hydrology from pre- to post-development* conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions
- Demolition where vegetation will be established, and no *redevelopment activity* is planned[1]
- Installation or replacement of either an overhead electric transmission line or a ski lift tower that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*.
- Solar array field areas that have tables elevated off the ground, spaced one table width apart, do not *alter hydrology from pre- to post-development conditions*, and address water quality volume and runoff reduction volume by maintaining sheet flow on slopes less than 8%.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that do not include construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions.
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary *impervious areas* that will be restored to pre-construction conditions once the *construction activity* is complete (in this context, "temporary" means the *impervious area* will be in place for two years or less)
- Other *construction activities* that do not include the construction or reconstruction of *impervious area*, and do not *alter hydrology from pre- to post-development* conditions, and are not listed in Table 2.

1. If the site is redeveloped in the future, a new eNOI must be submitted.

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Single-family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family home that disturbs five (5) or more acres of land
- Single-family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of between 20,000 square feet and one (1) acre of land within the municipal boundaries of NYC with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single-family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a *common plan of development or sale* that will ultimately disturb five (5) or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Creation of 5,000 square feet or more of *impervious area* in the municipal boundaries of NYC
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) that involves soil disturbance greater than five acres.
- Structural agricultural conservation practices as identified in Table II in the “Agricultural Best Management Practice Systems Catalogue” (dated June 2023) that involves soil disturbance greater than five acres and include the construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
- Facility buildings, including ski lodges, restroom buildings, pumphouses, ski lift terminals, and maintenance and groomer garages
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills; including creation of landfills or capping landfills.
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTWs, water treatment plants, and water storage tanks
- Golf courses
- Office complexes

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Permanent laydown yards and equipment storage lots
- Playgrounds that include the construction or reconstruction of *impervious area*
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surfaces
- Road construction or reconstruction, outside the municipal boundaries of NYC
- Road construction within the municipal boundaries of NYC
- Stand-alone road reconstruction, within the municipal boundaries of NYC where the total soil disturbance from that road reconstruction involves soil disturbance of one (1) acre or more of land
- Parking lot construction or reconstruction (as with all Table 2 bullets, this includes parking lots constructed as part of the *construction activities* listed in Table 1, unless a Table 1 bullet specifies otherwise)
- Athletic fields (natural grass) that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations, and well drilling pads, surfaced with *impervious cover,* and constructed as part of an overhead electric transmission line, wind-power, cell tower, oil or gas well drilling, sewer or water main, ski lift, or other linear utility project
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of a residential, commercial or institutional development
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of highway construction or reconstruction
- Solar array field areas on slopes greater than 8% that cannot maintain sheet flow using management practices identified in the BB or the DM
- Solar array field areas on slopes less than 8% that will *alter the hydrology from pre- to post-development* conditions
- Solar array field areas with tables that are not elevated high enough to achieve *final stabilization* beneath the tables
- Traditional *impervious areas* associated with solar development (e.g. roads, buildings, transformers)
- Utility pads surfaced with *impervious cover*, including electric vehicle charging stations
- All other *construction activities* that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre- to post-development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of *construction activities* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs designed in conformance with the Enhanced Phosphorus Removal Standards included in the DM technical standard.

- Entire New York City Watershed located east of the Hudson River – Figure 1
- Onondaga Lake Watershed – Figure 2
- Greenwood Lake Watershed – Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

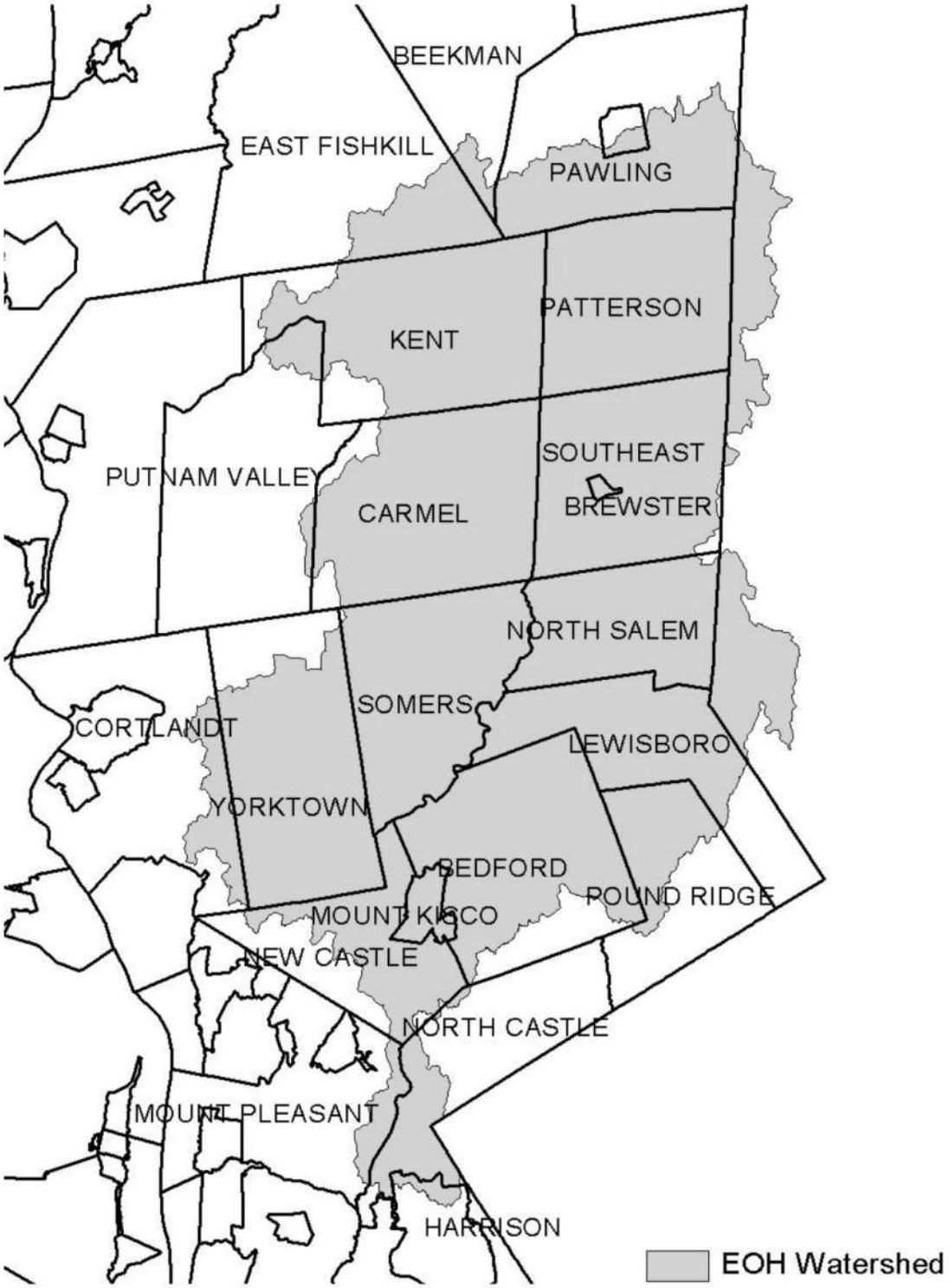


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed

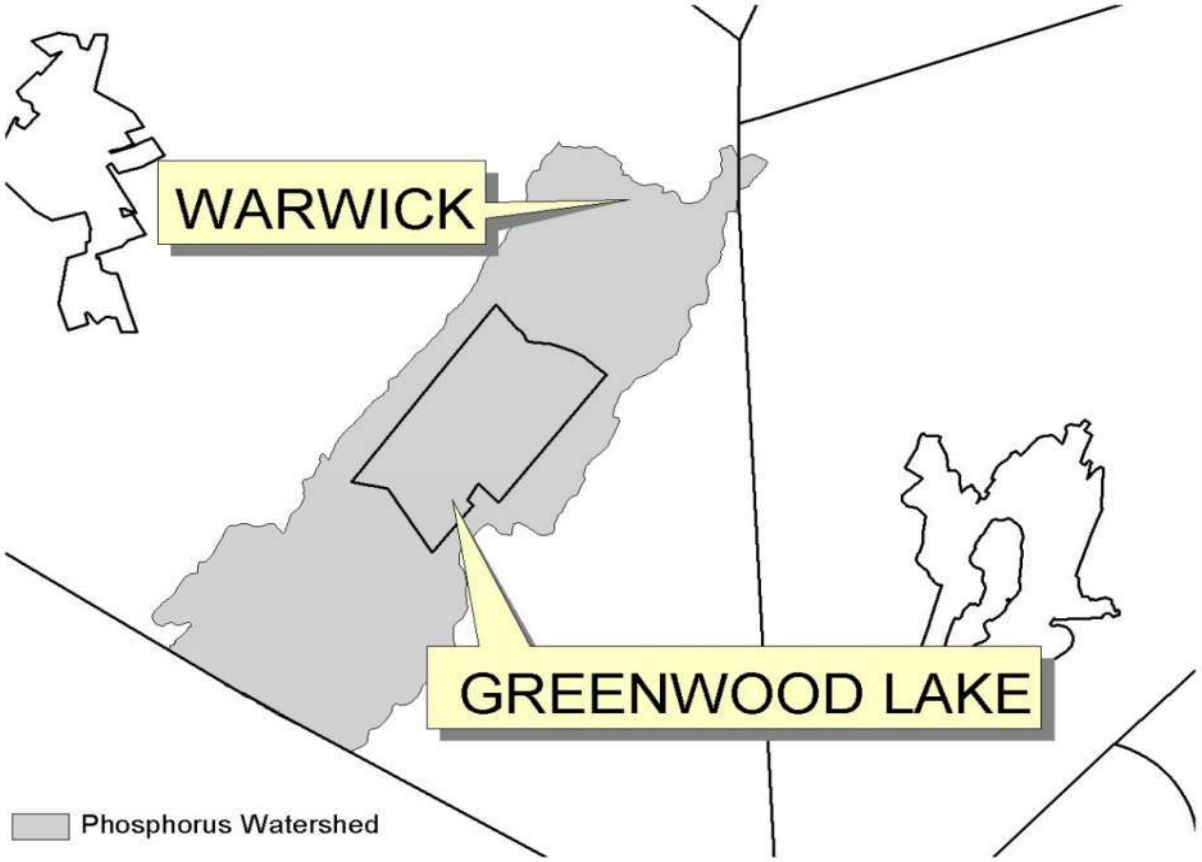


Figure 4 - Oscawana Lake Watershed

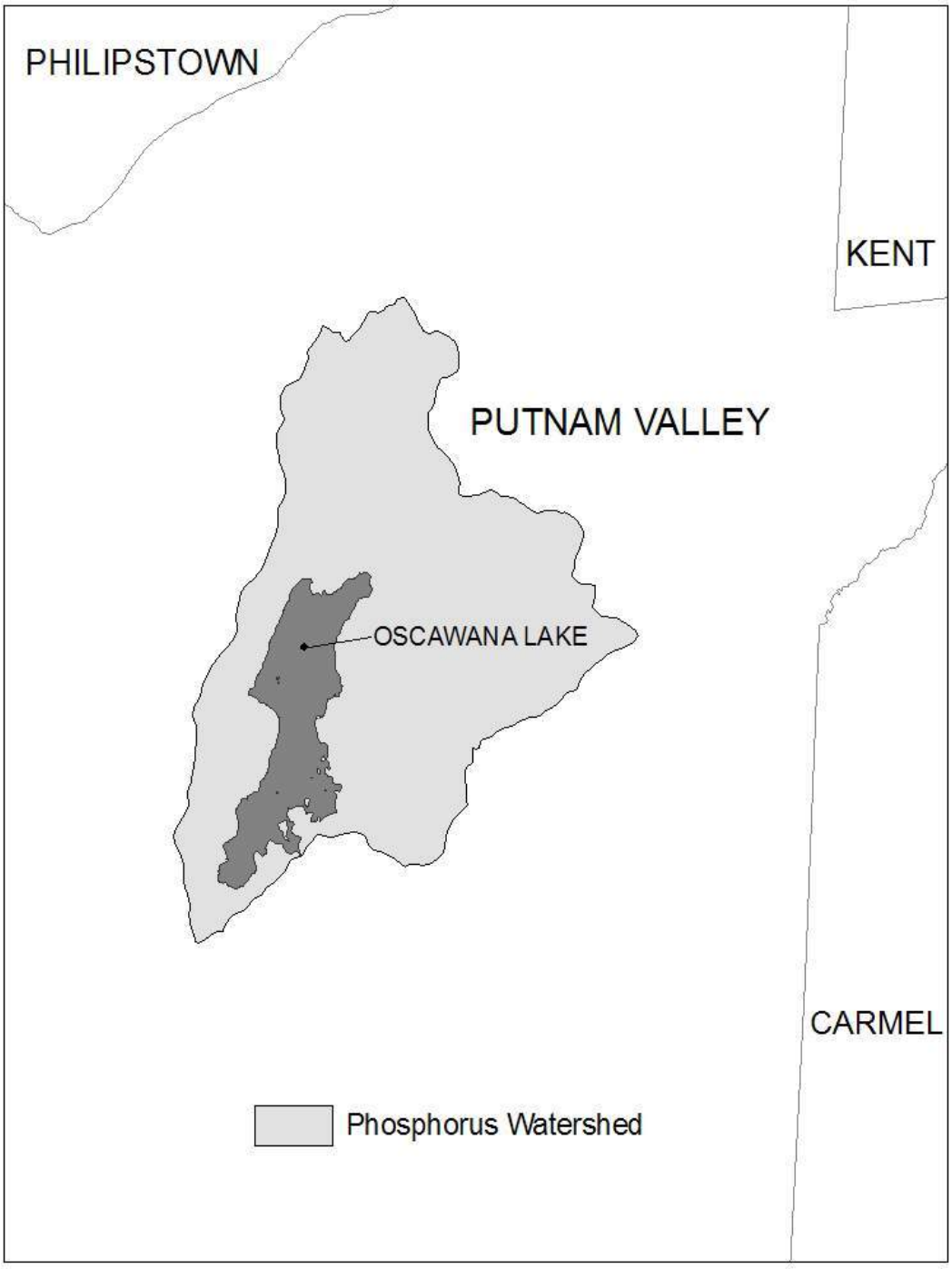
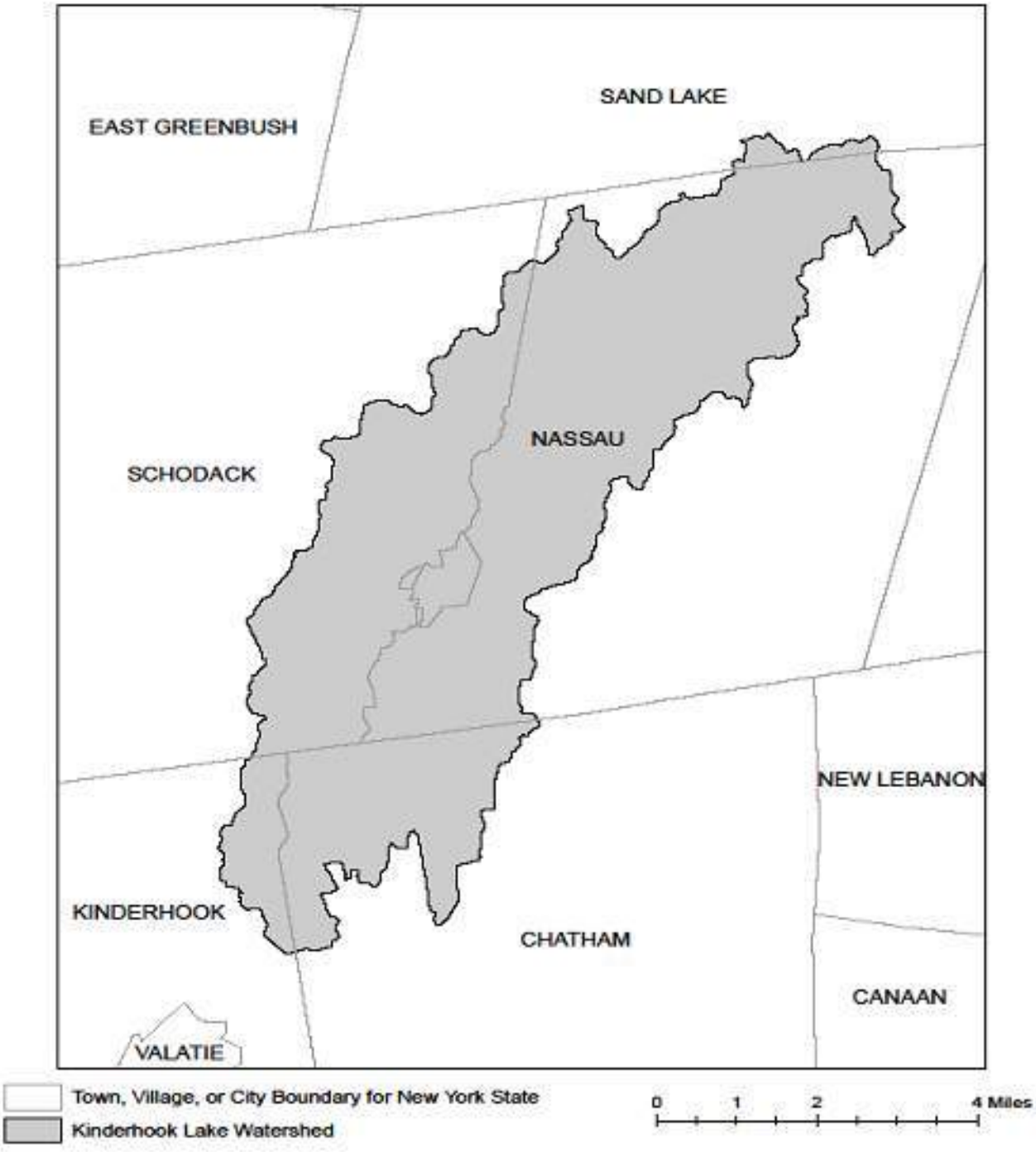


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Impaired Waterbodies (by Construction Related Pollutants)

List of waterbodies impaired by *pollutants* related to *construction activity*, including turbidity, silt/sediment, and nutrients (e.g. nitrogen, phosphorus). This list is a subset of "The Final New York State 2018 Section 303(d) List of Impaired Waters Requiring a TMDL" dated June 2020.

County	Waterbody	Pollutant
Albany	Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	Phosphorus
Albany	Lawsons Lake (1301-0235)	Phosphorus
Allegany	Amity Lake, Saunders Pond (0403-0054)	Phosphorus
Allegany	Andover Pond (0403-0056)	Phosphorus
Bronx	Reservoir No.1/Lake Isle (1702-0075)	Phosphorus
Bronx	Van Cortlandt Lake (1702-0008)	Phosphorus
Broome	Blueberry, Laurel Lakes (1404-0033)	Phosphorus
Broome	Fly Pond, Deer Lake (1404-0038)	Phosphorus
Broome	Minor Tribs to Lower Susquehanna (0603-0044)	Phosphorus
Broome	Whitney Point Lake/Reservoir (0602-0004)	Phosphorus
Cattaraugus	Allegheny River/Reservoir (0201-0023)	Phosphorus
Cattaraugus	Beaver Lake/Alma Pond (0201-0073)	Phosphorus
Cattaraugus	Case Lake (0201-0020)	Phosphorus
Cattaraugus	Linlyco/Club Pond (0201-0035)	Phosphorus
Cayuga	Duck Lake (0704-0025)	Phosphorus
Cayuga	Owasco Inlet, Upper, and tribs (0706-0014)	Nutrients
Chautauqua	Chadakoin River and tribs (0202-0018)	Phosphorus
Chautauqua	Hulburt/Clymer Pond (0202-0079)	Phosphorus
Chautauqua	Middle Cassadaga Lake (0202-0002)	Phosphorus
Clinton	Great Chazy River, Lower, Main Stem (1002-0001)	Silt/Sediment
Columbia	Robinson Pond (1308-0003)	Phosphorus
Cortland	Dean Pond (0602-0077)	Phosphorus
Dutchess	Fallkill Creek (1301-0087)	Phosphorus
Dutchess	Hillside Lake (1304-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Silt/Sediment
Erie	Beeman Creek and tribs (0102-0030)	Phosphorus
Erie	Delaware Park Pond (0101-0026)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Silt/Sediment
Erie	Green Lake (0101-0038)	Phosphorus
Erie	Little Sister Creek, Lower, and tribs (0104-0045)	Phosphorus
Erie	Murder Creek, Lower, and tribs (0102-0031)	Phosphorus

Erie	Rush Creek and tribs (0104-0018)	Phosphorus
Erie	Scajaquada Creek, Lower, and tribs (0101-0023)	Phosphorus
Erie	Scajaquada Creek, Middle, and tribs (0101-0033)	Phosphorus
Erie	Scajaquada Creek, Upper, and tribs (0101-0034)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Silt/Sediment
Genesee	Bigelow Creek and tribs (0402-0016)	Phosphorus
Genesee	Black Creek, Middle, and minor tribs (0402 0028)	Phosphorus
Genesee	Black Creek, Upper, and minor tribs (0402-0048)	Phosphorus
Genesee	Bowen Brook and tribs (0102-0036)	Phosphorus
Genesee	LeRoy Reservoir (0402-0003)	Phosphorus
Genesee	Mill Pond (0402-0050)	Phosphorus
Genesee	Oak Orchard Cr, Upper, and tribs (0301-0014)	Phosphorus
Genesee	Oatka Creek, Middle, and minor tribs (0402-0031)	Phosphorus
Genessee	Tonawanda Cr, Middle, Main Stem (0102-0002)	Phosphorus
Greene	Schoharie Reservoir (1202-0012)	Silt/Sediment
Greene	Sleepy Hollow Lake (1301-0059)	Silt/Sediment
Herkimer	Steele Creek tribs (1201-0197)	Phosphorus
Herkimer	Steele Creek tribs (1201-0197)	Silt/Sediment
Kings	Hendrix Creek (1701-0006) 18	Nitrogen
Kings	Prospect Park Lake (1701-0196)	Phosphorus
Lewis	Mill Creek/South Branch, and tribs (0801-0200)	Nutrients
Livingston	Christie Creek and tribs (0402-0060)	Phosphorus
Livingston	Conesus Lake (0402-0004)	Phosphorus
Livingston	Mill Creek and minor tribs (0404-0011)	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs (0402-0033)	Phosphorus
Monroe	Buck Pond (0301-0017)	Phosphorus
Monroe	Cranberry Pond (0301-0016)	Phosphorus
Monroe	Durand, Eastman Lakes (0302-0037)	Phosphorus
Monroe	Lake Ontario Shoreline, Western (0301-0069) 9	Phosphorus
Monroe	Long Pond (0301-0015)	Phosphorus
Monroe	Mill Creek and tribs (0302-0025)	Phosphorus 2
Monroe	Mill Creek/Blue Pond Outlet and tribs (0402-0049)	Phosphorus
Monroe	Minor Tribs to Irondequoit Bay (0302-0038)	Phosphorus
Monroe	Rochester Embayment - East (0302-0002) [9]	Phosphorus
Monroe	Rochester Embayment - West (0301-0068) 9	Phosphorus
Monroe	Shipbuilders Creek and tribs (0302-0026)	Phosphorus 2
Monroe	Thomas Creek/White Brook and tribs (0302-0023)	Phosphorus

Nassau	Bannister Creek/Bay (1701-0380)	Nitrogen
Nassau	Beaver Lake (1702-0152)	Phosphorus
Nassau	Browswere Bay (1701-0383)	Nitrogen
Nassau	Camaans Pond (1701-0052)	Phosphorus
Nassau	East Meadow Brook, Upper, and tribs (1701-0211)	Silt/Sediment
Nassau	East Rockaway Channel (1701-0381)	Nitrogen
Nassau	Glen Cove Creek, Lower, and tribs (1702-0146)	Silt/Sediment
Nassau	Grant Park Pond (1701-0054)	Phosphorus
Nassau	Hempstead Bay, Broad Channel (1701-0032)	Nitrogen
Nassau	Hempstead Lake (1701-0015)	Phosphorus
Nassau	Hewlett Bay (1701-0382)	Nitrogen
Nassau	Hog Island Channel (1701-0220)	Nitrogen
Nassau	Massapequa Creek, Upper, and tribs (1701-0174)	Phosphorus
Nassau	Milburn/Parsonage Creeks, Upp, and tribs (1701-0212)	Phosphorus
Nassau	Reynolds Channel, East (1701-0215) [12]	Nitrogen
Nassau	Reynolds Channel, West (1701-0216) 12	Nitrogen
Nassau	Tidal Tribs to Hempstead Bay (1701-0218)	Nitrogen
Nassau	Tribs (fresh) to East Bay (1701-0204)	Silt/Sediment
Nassau	Tribs (fresh) to East Bay (1701-0204)	Phosphorus
Nassau	Tribs to Smith Pond/Halls Pond (1701-0221)	Phosphorus
Nassau	Woodmere Channel (1701-0219)	Nitrogen
New York	Harlem Meer (1702-0103)	Phosphorus
New York	The Lake in Central Park (1702-0105)	Phosphorus
Niagara	Bergholtz Creek and tribs (0101-0004)	Phosphorus
Niagara	Hyde Park Lake (0101-0030)	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0053) 9	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0072) 9	Phosphorus
Oneida	Ballou, Nail Creeks (1201-0203)	Phosphorus
Onondaga	Ley Creek and tribs (0702-0001) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nitrogen (NH3, NO2)
Onondaga	Onondaga Creek, Lower (0702-0023) 10	Nutrients (phosphorus)
Onondaga	Onondaga Creek, Lower, and tribs (0702-0023)	Turbidity
Onondaga	Onondaga Creek, Middle, and tribs (0702-0004)	Turbidity
Onondaga	Onondaga Creek, Upper, and tribs (0702-0024)	Turbidity
Ontario	Great Brook and minor tribs (0704-0034)	Phosphorus 2
Ontario	Great Brook and minor tribs (0704-0034)	Silt/Sediment

Ontario	Hemlock Lake Outlet and minor tribs (0402-0013)	Phosphorus
Ontario	Honeoye Lake (0402-0032)	Phosphorus
Orange	Brown Pond Reservoir (1303-0013)	Phosphorus
Orange	Lake Washington (1303-0012)	Phosphorus
Orange	Minor Tribs to Middle Wallkill (1306-0061)	Phosphorus
Orange	Monhagen Brook and tribs (1306-0074)	Phosphorus
Orange	Orange Lake (1301-0008) [16]	Phosphorus
Orange	Quaker Creek and tribs (1306-0025)	Phosphorus
Orange	Wallkill River, Middle, Main Stem (1306-0038)	Phosphorus
Orange	Wallkill River, Upper, and Minor tribs (1306-0017)	Phosphorus
Orleans	Glenvwood Lake (0301-0041)	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0070) 9	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0071) 9	Phosphorus
Oswego	Lake Neatahwanta (0701-0018)	Nutrients (phosphorus)
Oswego	Pleasant Lake (0703-0047)	Phosphorus
Putnam	Lost Lake, Putnam Lake (1302-0053)	Phosphorus
Putnam	Minor Tribs to Croton Falls Reservoir (1302-0001)	Phosphorus
Queens	Bergen Basin (1701-0009) 18	Nitrogen
Queens	Jamaica Bay, Eastern, and tribs, Queens (1701-0005) 18	Nitrogen
Queens	Kissena Lake (1702-0258)	Phosphorus
Queens	Meadow Lake (1702-0030)	Phosphorus
Queens	Shellbank Basin (1701-0001) 18	Nitrogen
Queens	Willow Lake (1702-0031)	Phosphorus
Rensselaer	Nassau Lake (1310-0001)	Phosphorus
Rensselaer	Snyders Lake (1301-0043)	Phosphorus
Richmond	Grassmere Lake/Bradys Pond (1701-0357)	Phosphorus
Rockland	Congers Lake, Swartout Lake (1501-0019)	Phosphorus
Rockland	Rockland Lake (1501-0021)	Phosphorus
Saratoga	Ballston Lake (1101-0036)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Silt/Sediment
Saratoga	Lake Lonely (1101-0034)	Phosphorus
Saratoga	Round Lake (1101-0060)	Phosphorus
Saratoga	Tribs to Lake Lonely (1101-0001)	Phosphorus
Schenectady	Collins Lake (1201-0077)	Phosphorus
Schenectady	Duane Lake (1311-0006)	Phosphorus
Schenectady Lake	Mariaville Lake (1201-0113)	Phosphorus
Schuyler	Cayuta Lake (0603-0005)	Phosphorus

Seneca	Reeder Creek and tribs (0705-0074)	Phosphorus
St.Lawrence	Black Lake Outlet, Black Lake (0906-0001)	Phosphorus
St.Lawrence	Fish Creek and minor tribs (0906-0026)	Phosphorus
Steuben	Smith Pond (0502-0012)	Phosphorus
Suffolk	Agawam Lake (1701-0117)	Phosphorus
Suffolk	Big/Little Fresh Ponds (1701-0125)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Silt/Sediment
Suffolk	Fresh Pond (1701-0241)	Phosphorus
Suffolk	Great South Bay, East (1701-0039)	Nitrogen
Suffolk	Great South Bay, Middle (1701-0040)	Nitrogen
Suffolk	Great South Bay, West (1701-0173)	Nitrogen
Suffolk	Lake Ronkonkoma (1701-0020)	Phosphorus
Suffolk	Mattituck/Marratooka Pond (1701-0129)	Phosphorus
Suffolk	Mill and Seven Ponds (1701-0113)	Phosphorus
Suffolk	Millers Pond (1702-0013)	Phosphorus
Suffolk	Moriches Bay, East (1701-0305)	Nitrogen
Suffolk	Moriches Bay, West (1701-0038)	Nitrogen
Suffolk	Quantuck Bay (1701-0042)	Nitrogen
Suffolk	Shinnecock Bay and Inlet (1701-0033)	Nitrogen
Suffolk	Tidal Tribs to West Moriches Bay (1701-0312)	Nitrogen
Sullivan	Bodine, Mongomery Lakes (1401-0091)	Phosphorus
Sullivan	Davies Lake (1402-0047)	Phosphorus
Sullivan	Evens Lake (1402-0004)	Phosphorus
Sullivan	Pleasure Lake (1402-0055)	Phosphorus
Sullivan	Swan Lake (1401-0063)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Silt/Sediment
Ulster	Ashokan Reservoir (1307-0004)	Silt/Sediment
Ulster	Esopus Creek, Lower, Main Stem (1307-0010) [17]	Turbidity
Ulster	Esopus Creek, Middle, Main Stem (1307-0003) 17	Turbidity
Ulster	Esopus Creek, Upper, and minor tribs (1307-0007)[3]	Silt/Sediment
Ulster	Wallkill River, Lower, Main Stem (1306-0027)	Phosphorus
Warren	Hague Brook and tribs (1006-0006)	Silt/Sediment
Warren	Huddle/Finkle Brooks and tribs (1006-0003)	Silt/Sediment
Warren	Indian Brook and tribs (1006-0002)	Silt/Sediment
Warren	Lake George (1006-0016) and tribs	Silt/Sediment
Warren	Tribs to Lake George, East Shore (1006-0020)	Silt/Sediment
Warren	Tribs to Lake George, Lk.George Village (1006-0008)	Silt/Sediment

Washington	Wood Cr/Champlain Canal and tribs (1005-0036)	Phosphorus
Westchester	Lake Katonah (1302-0136)	Phosphorus
Westchester	Lake Lincolndale (1302-0089)	Phosphorus
Westchester	Lake Meahagh (1301-0053)	Phosphorus
Westchester	Lake Mohegan (1301-0149)	Phosphorus
Westchester	Lake Shenorock (1302-0083)	Phosphorus
Westchester	Mamaroneck River, Lower (1702-0071)	Silt/Sediment
Westchester	Mamaroneck River, Upp, & minor tribs (1702-0123)	Silt/Sediment
Westchester	Saw Mill River (1301-0007)	Phosphorus
Westchester	Saw Mill River, Middle, and tribs (1301-0100)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Silt/Sedimnt
Westchester	Silver Lake (1702-0040)	Phosphorus
Westchester	Teatown Lake (1302-0150)	Phosphorus
Westchester	Truesdale Lake (1302-0054)	Phosphorus
Westchester	Wallace Pond (1301-0140)	Phosphorus

APPENDIX E – List of NYSDEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	220 White Plains Road, Suite 110 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7438	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7165	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7070

APPENDIX F – SWPPP Preparer Certification Form

The SWPPP Preparer Certification Form required by this permit begins on the following page.

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:

eNOI Submission ID:

Owner/Operator Name:

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SWPPP Preparer First Name | MI | SWPPP Preparer Last Name

Signature | Date

Revised: January 2025

APPENDIX G – MS4 SWPPP Acceptance Form

The MS4 SWPPP Acceptance Form required by this permit begins on the following page.

MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4 Operator:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Street Address:
14. City/State/Zip:
15. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name[1]:

Title/Position:

Signature:

Date:

VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

APPENDIX H – NYCDEP SWPPP Acceptance/Approval Form

The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval form required by this permit begins on the following page.

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis
59-17 Junction Blvd., 9th Floor; Flushing, NY 11373

SWPPP Acceptance/Approval

Application Number:

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance/Approval
8. SWPPP Reviewed by:
9. Title/Position: /
10. Date Final SWPPP Reviewed and Accepted:
11. Acceptance/Approval Expiration Date:
IV. Regulated MS4 Information for projects that require coverage under the NY State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity
12. Name of MS4: *CITY OF NEW YORK*
13. MS4 SPDES Permit Identification Number: *NY-0287890*
14. Contact Person:
15. Street Address: *59-17 Junction Blvd. 9th Floor*
16. City/State/Zip: *Flushing, NY 11373*
17. Telephone Number:

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s).

Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Conditions of Acceptance/Approval and Additional Information

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

APPENDIX I – MS4 No Jurisdiction Form

The MS4 No Jurisdiction Form required by this permit begins on the following page.

MS4 No Jurisdiction Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. eNOI Submission ID:

III. Traditional Land Use Control MS4 Operator Information

a. Name of MS4 Operator:

b. MS4 SPDES Permit ID Number: NYR20A

c. Street Address:

d. City/State/Zip:

e. Telephone Number:

IV. Certification Statement

In accordance with CGP Part I.D.2.b.ii.3., I hereby certify that the Traditional Land Use Control MS4 Operator identified in section III. of this form does not have review authority over the construction project identified in section II. of this form, which is owned/operated by the entity identified in section I. of this form. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.:

b. Title/Position:

c. Signature:

d. Date:

APPENDIX J – Owner/Operator Certification Form

The Owner/Operator Certification Form required by this permit begins on the following page.

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: _____

eNOI Submission ID: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name MI Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

Appendix F

Forms

STORM WATER POLLUTION PREVENTION PLAN
CONTRACTOR'S CERTIFICATION STATEMENT

Multifamily Development – 1425 & 1475 Orchard Park Road

CONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Note: The contractor shall have at least one NYSDEC trained individual onsite at all times when earthwork and other SWPPP associated work is being performed from each contractor(s) and subcontractor(s). Each contractor(s) and subcontractor(s) shall provide copies of these individuals' certifications to the Town of West Seneca.

Name: _____
(Print)

Signature: _____

Title: _____

Company Name: _____

Address: _____

Telephone Number: _____

Date: _____

Scope of Services: _____

Trained Individual(s) Responsible for Implementation: _____

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" of the NYSDEC SPDES General Permit

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: Multifamily Development

eNOI Submission ID: HQN-V818-KWDXZ

eNOI Submitted by: ☐ **Owner/Operator** ☑ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Brian		Hillery
Owner/Operator First Name	MI	Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:	Multifamily Development
eNOI Submission ID:	HQN-V818-KWDXZ
Owner/Operator Name:	Brian Hillery & William Sahlem

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Anthony	J	Pandolfe
SWPPP Preparer First Name	MI	SWPPP Preparer Last Name



Signature

5/26/26

Date

Revised: January 2025

Appendix G

NYSDEC Notice of Termination (NOT)

eNOT MS4 Acceptance

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Traditional Land Use Control MS4 Operator Information

a. Name of MS4 Operator:

b. MS4 SPDES Permit ID Number: NYR20A

c. Street Address:

d. City/State/Zip:

e. Telephone Number:

IV. Certification Statement

I have determined that it is acceptable for the owner or operator of the construction project identified above to submit the electronic Notice of Termination in accordance with CGP Part V. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.:

b. Title/Position:

c. Signature:

d. Date:

eNOT Owner or Operator Certification

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I certify that I have met the requirements of CGP Part V.A.1., 2., 3., and 4. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Owner or Operator:

b. Title/Position:

c. Signature:

d. Date:

eNOT Qualified Inspector Certification – Final Stabilization

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I hereby certify that all the requirements in CGP Part V.A.1.a.i., ii., and iii. or CGP Part V.A.1.b.i., ii., and iii. have been achieved. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Qualified Inspector:

b. Title/Position:

c. Signature:

d. Date:

eNOT Qualified Inspector Certification – SMPs

for construction activities seeking termination from the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(The completed form must be attached to the eNOT, which must be submitted to NYSDEC electronically in accordance with CGP Part V.A.5.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. CGP SPDES Permit ID:

III. Certification Statement

I hereby certify that all the requirements in CGP Part V.A.1.a.iv. or CGP Part V.A.1.b.iv. have been achieved. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the Qualified Inspector:

b. Title/Position:

c. Signature:

d. Date:

Appendix H

Construction Documents

Multifamily Development

1425 & 1475 Orchard Park Road
West Seneca, New York

AGENCIES

ENGINEERING DEPT.
NAME/TITLE: JASON FOOTE, TOWN ENGINEER
COMPANY/DEPT:. TOWN OF WEST SENECA ENGINEERING DEPT.
ADDRESS: 1250 UNION ROAD
WEST SENECA, NEW YORK 14224

TELEPHONE 716-558-3220

CODE ENFORCEMENT DEPT.
NAME/TITLE: JEFFREY SCHIEBER, CODE ENFORCEMENT OFFICER
TOWN OF WEST SENECA CODE ENFORCEMENT DEPT.
COMPANY/DEPT:. 1250 UNION ROAD
ADDRESS: WEST SENECA, NEW YORK 14224

716-558-3237
TELEPHONE

ECDOH
NAME/TITLE:
COMPANY/DEPT:. ERIE COUNTY DEPARTMENT OF HEALTH
ADDRESS: 503 KENSINGTON AVE
BUFFALO, NEW YORK 14214

TELEPHONE 716-961-6854

NYSDEC
NAME/TITLE:
COMPANY/DEPT: NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
ADDRESS: 270 MICHIGAN AVENUE
BUFFALO, NEW YORK 14203

TELEPHONE 716-851-7070

UTILITIES

NATURAL GAS
NAME/TITLE: DAVID KOZLOWSKI
COMPANY/DEPT:. NATIONAL FUEL GAS
ADDRESS: ORCHARD PARK, NEW YORK 14127

TELEPHONE 716-667-5503

TELEPHONE COMPANY
NAME/TITLE: JIM MURPHY
COMPANY/DEPT:. VERIZON
ADDRESS: 65 FRANKLIN STREET RM 601
BUFFALO, NEW YORK 14202

TELEPHONE 716-840-8698

ELECTRIC
NAME/TITLE: DAN LOSEL
COMPANY/DEPT:. NEW YORK STATE ELECTRIC & GAS
ADDRESS: HAMBURG, NEW YORK 14075

TELEPHONE 716-649-5556

WATER
NAME/TITLE: LEONARD KOWALSKI
COMPANY/DEPT:. ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION ROAD
CHEEKTOWAGA, NEW YORK 14227

TELEPHONE 716-684-1510

DIG SAFELY NEW YORK

TELEPHONE 811

DESIGN CONSULTANTS

PROJECT SURVEYOR
NAME/TITLE:
COMPANY/DEPT:. 360° LAND SURVEY
ADDRESS: PO BOX 207
SANBRON, NEW YORK 14132

TELEPHONE 716-587-8380

OWNER/DEVELOPER

Name: Brian Hillery & William Sahlem
Address: 1 Woodthrush Trail
Orchard Park
Telephone: (716) 512-3425

CARMINAWOOD DESIGN

80 Silo City Row
Buffalo, New York 14203
Phone: (716) 842-3165

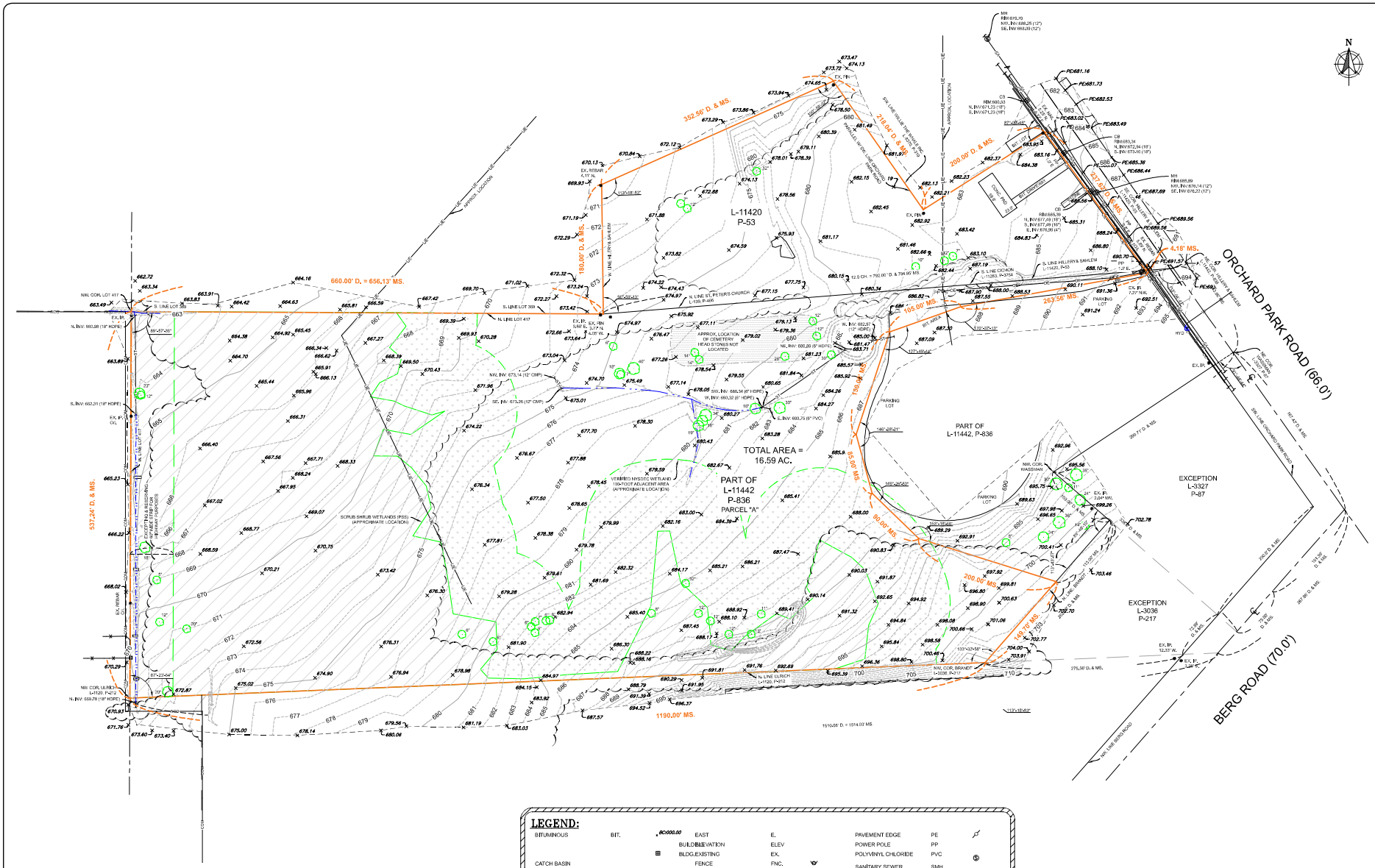
111 Bain Street, Suite 332
Greensboro, North Carolina 27406
Phone: (336) 937-9009

May 2026
Revised June 2026



LOCATION MAP
NOT TO SCALE

DRAWING NO.	DRAWING TITLE
–	COVER SHEET
–	BOUNDARY/TOPO SURVEY (by 360° LAND SURVEY)
C-001	DEMOLITION & EROSION CONTROL PLAN
C-002	DEMOLITION & EROSION CONTROL DETAILS
C-100	OVERALL SITE PLAN
C-101	SITE PLAN – NORTH
C-102	SITE PLAN – SOUTH
C-103	SITE DETAILS
C-200	OVERALL GRADING PLAN
C-201	GRADING PLAN – NORTH
C-202	GRADING PLAN – SOUTH
C-300	OVERALL DRAINAGE PLAN
C-301	DRAINAGE PLAN – NORTH
C-302	DRAINAGE PLAN – SOUTH
C-303	DRAINAGE DETAILS
C-400	OVERALL UTILITY PLAN
C-401	UTILITY PLAN – NORTH
C-402	UTILITY PLAN – SOUTH
C-403	UTILITY DETAILS
C-404	UTILITY DETAILS
C-405	UTILITY DETAILS
C-406	UTILITY PROFILES
L-100	OVERALL LANDSCAPE PLAN
L-101	LANDSCAPE PLAN – EAST
L-102	LANDSCAPE PLAN – WEST
L-103	LANDSCAPE PLAN – SOUTH
L-104	FOUNDATION PLANTING PLAN
L-105	LANDSCAPE DETAILS
LP-100	LIGHTING PLAN



LEGEND:

BITUMINOUS	BIT.	EAST	E.	PAVEMENT EDGE	PE
		BUILDING ELEVATION	ELEV	POWER POLE	PP
		BLDG./EXISTING	EX.	POLYVINYL CHLORIDE	PVC
CATCH BASIN		FENCE	FNC.	SANITARY SEWER MAN HOLE	SMH
CONCRETE	CONC.	FIRE HYDRANT		SOUTH	S.
CONIFEROUS TREE W/ DIAMETER		HIGH-DENSITY POLYETHYLENE	HPDE	SPOT ELEVATION	
CORRUGATED METAL PIPE	CMP	IRON PIPE		STORY	STY.
DECIDUOUS TREE W/ DIAMETER		INVERT	INV.	WATER VALVE	WV
		NORTH	N.	WEST	W.
MAJOR CONTOUR LINE (5')		PROPERTY LINE		WITH LINE	W/
MINOR CONTOUR LINE (1')		OVERHEAD ELECTRIC LINE	OE	UNDERGROUND COMMUNICATIONS	COM
FENCE LINE (AS NOTED)		SANITARY STORM	SA	UNDERGROUND ELECTRIC	UE
GAS LINE	G	STORM SEWER LINE	ST	WATER LINE	WV
SCRUB SHRUB WETLAND (PSS)		VERIFIED NYSDEC WETLAND 100-FOOT ADJACENT AREA		CEMETERY LIMITS	
				TOPOGRAPHIC SURVEY LIMITS	

GENERAL NOTES:

1. THIS SURVEY WAS PREPARED FROM A FIELD SURVEY BY 360 LAND SURVEY, DPC. ON FEBRUARY 27, 2026.
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET) .
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), ESTABLISHED WITH GPS USING THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK (NYSDOT RTN). (US SURVEY FEET).
4. UTILITY INFORMATION SHOWN ON THIS MAP IS FROM VISIBLE FIELD EVIDENCE AT THE TIME OF FIELD SURVEY, FIELD MARKOUTS BY UTILITY COMPANIES, AND INFORMATION PROVIDED BY A 811 DESIGN TICKET.
5. WETLANDS INFORMATION TAKEN FROM A WETLAND AND STREAM DELINEATION SURVEY COMPLETE BY LABELLA. PROJECT No: 2251287 DATE: 12/1/2025.

Know what's **below.**
Call before you dig.

PREPARED FOR:

BRIAN HILLARY &
WILLIAM SAHLEM

1 WOODTHRUSH TRAIL
ORCHARD PARK
NEW YORK 14127

PROJECT:

1425 & 1475 ORCHARD PARK ROAD,
TOWN OF WEST SENECA,
COUNTY OF ERIE,
STATE OF NEW YORK

BEING PART OF
LOTS 389 & 417, TOWNSHIP 10 RANGE 7
BUFFALO CREEK RESERVATION

SBL No. 143.19-1-8 & 143.19-1-9
& 152.07-1-1

360° LAND SURVEY
PO Box 207
Sanborn, New York 14132
PHONE: (716) 597-4380
FAX: 716.287.8979
WEBSITE: www.360landsurvey.com

STATE OF NEW YORK
BRYDONER JOHNSON
No. 050706
LICENSED LAND SURVEYOR

REV.	NOTE	DATE
1	SANITARY MH INFORMATION	4/29/2026

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

0" 1" 2"
SHEET SCALE BAR
ADJUST ACCORDINGLY IF SCALE IS NOT TWO INCHES

DRAWING NAME

TOPOGRAPHIC SURVEY

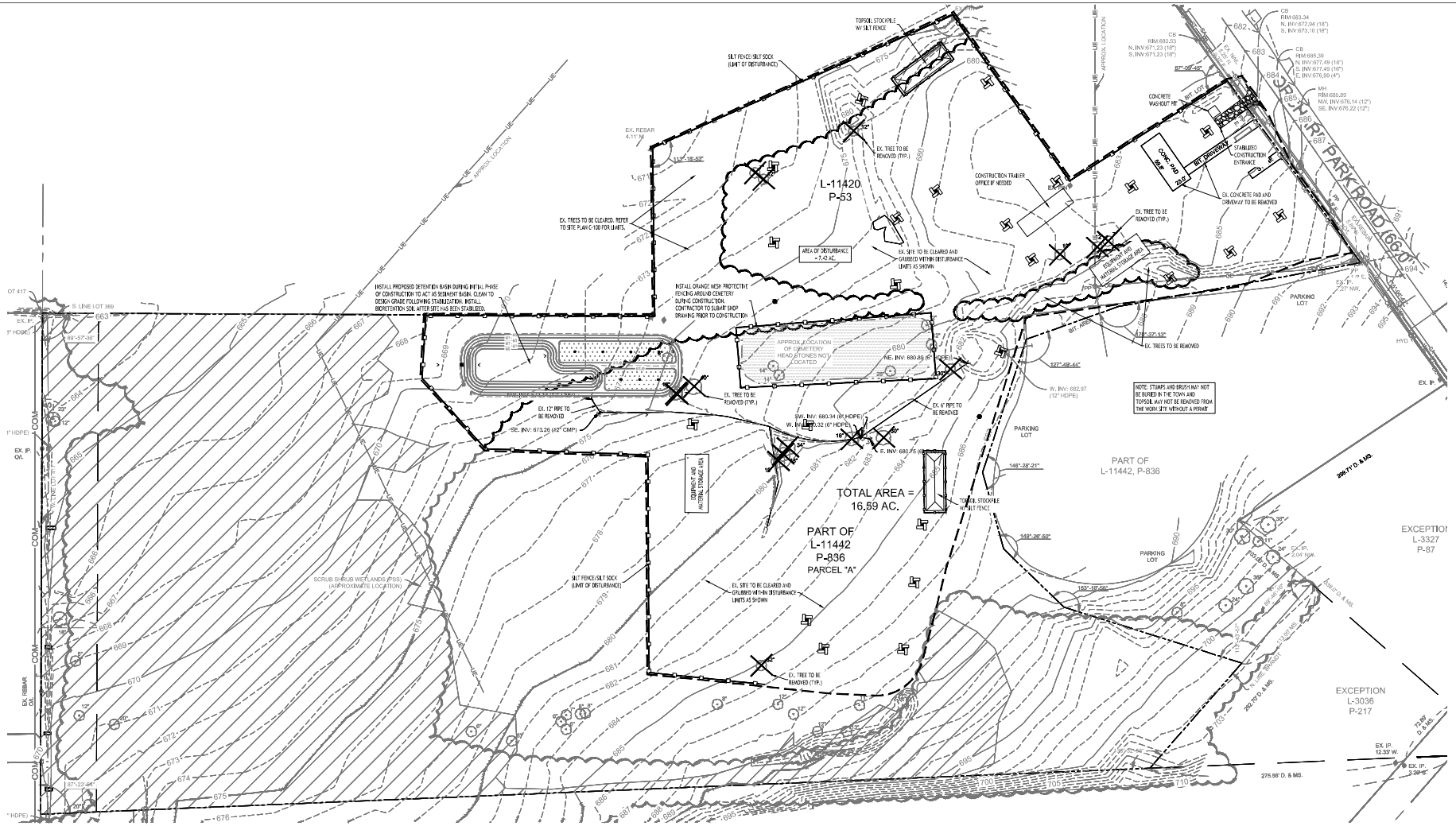
PROJ. NO.	26-040	SCALE	1"=60'
CREW	PTH	DATE	3/17/2026
DWN.	AJM	CHK.	CJS

DRAWING NUMBER

SHEET 1 OF 1

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© CARMINA WOOD DESIGN



Demo & Erosion Control Plan

SCALE: 1"=50'

EROSION CONTROL NOTES

THE FOLLOWING EROSION CONTROL PROCEDURES SHALL BE ADHERED TO BY THE CONTRACTOR:

1. INSTALL TEMPORARY SILT FENCE BARRIERS AS DIRECTED BY THE OWNER AND AT ALL EXISTING STORMWATER CATCH BASINS WITHIN THE WORK AREA TO PREVENT SEDIMENT MIGRATION. ALL SILT FENCE BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.
2. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR RE-USE AS DIRECTED BY THE OWNER. ALL LOCAL ORDINANCES REGARDING THE SALE OF TOPSOIL MUST BE FOLLOWED. TOPSOIL MAY NOT BE REMOVED WITHOUT A PERMIT.
3. ALL SILT FENCE BARRIERS SHALL BE REPLACED WHEREVER THEY BECOME CLOGGED OR INOPERABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
5. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION. DURING EARTHWORK OPERATIONS, WATER-SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR, AND SPREAD WATER AS NECESSARY AND AS DIRECTED BY THE OWNER IN ORDER TO CONTROL DUST.
6. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED AND ROAD SURFACES CLEANED BY THE CONTRACTOR ON A DAILY BASIS.
7. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM 4" DEPTH AND SEEDED IMMEDIATELY AFTER FINE GRADING TAKES PLACE AND AS SOON AS PHYSICALLY POSSIBLE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES, AND CULVERTS. SILT BUILDUP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR THE TOWN/CITY.
9. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION, AS DIRECTED BY THE ENGINEER.
10. INSTALL TEMPORARY SILT FENCE AROUND THE BASE OF STOCKPILES.
11. THE PROFESSIONAL CERTIFYING COMPLIANCE TO NYSDEC PHASE II STORMWATER REGULATION REQUIREMENTS MUST INSPECT AT A MINIMUM WEEKLY AND SHALL PROVIDE THESE INSPECTION REPORT WITH A WRITTEN CERTIFICATION OF CONSTRUCTION COMPLIANCE TO THE TOWN OF WEST SENECA WEEKLY.
12. THE ENGINEER OF RECORD FOR THIS PROJECT CERTIFIES THAT THESE DESIGN PLANS MEET THE REQUIREMENTS AND ARE IN COMPLIANCE WITH THE NEW YORK STORMWATER MANAGEMENT DESIGN MANUAL AND NYSDEC PHASE II STORMWATER REGULATION REQUIREMENTS. DUE TO SOIL DISTURBANCE BEING GREATER THAN ONE ACRE, A NYSDEC SPDES PERMIT MUST BE OBTAINED BEFORE ANY ON-SITE DISTURBANCE IS MADE.

NOTES:

1. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT THOSE ITEMS TO REMAIN, SUCH AS TREES, PROPERTY CORNER PINS, UTILITY POLES, VALVES, HYDRANTS, CURBS, MANHOLES AND CATCH BASINS.
2. TEMPORARY SILT FENCE AND STRAW BALES TO BE INSTALLED AS DIRECTED BY THE OWNERS FIELD REPRESENTATIVE. MAINTAIN UNTIL VEGATATION IS ESTABLISHED AND PAVEMENT IS INSTALLED.
3. FOR THOSE STRUCTURES TO BE DEMOLISHED, ALL EXISTING UTILITY SERVICES SHALL BE ABANDONED IN ACCORDANCE WITH LOCAL REGULATIONS, ALL METERS SHALL BE RETURNED TO PROPER OWNERS.
4. THE CONTRACTOR SHALL INSTALL STABILIZED CONSTRUCTION ENTRANCES WHERE ACCESSING THE SITE FROM PAVED ROADWAYS.
5. THE CONTRACTOR SHALL INSTALL TEMPORARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH NYS M.U.T.C.D. STANDARDS PRIOR TO STARTING WORK.
6. STUMPS AND BRUSH MAY NOT BE BURIED IN THE TOWN AND TOPSOIL MAY NOT BE REMOVED FROM THE WORK SITE WITHOUT A PERMIT

DEMO & EROSION CONTROL LEGEND:

- INSTALL STORM DRAINAGE INLET PROTECTION
- PROPOSED SILT FENCE/SILT SOCK
- AREA OF DISTURBANCE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50' 0 50 100FL

CARMINAWOOD DESIGN
Buffalo | Utica | Syracuse

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Engineering comments	6/15/26

DRAWING NAME:
Demo & Erosion Control Plan

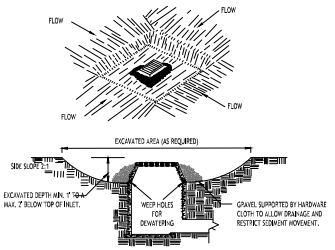
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-001

Project No: 23-4121

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© CARMINA WOOD DESIGN

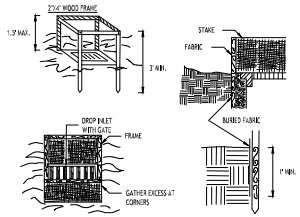


CONSTRUCTION SPECIFICATIONS

1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 1
NOT TO SCALE

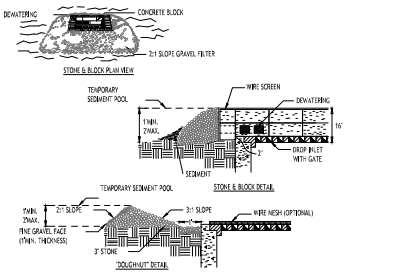


CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 2
NOT TO SCALE



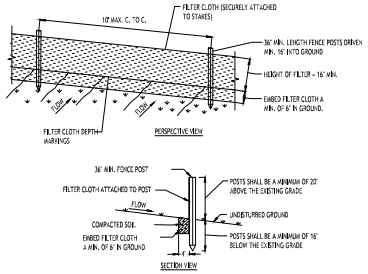
CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

MAYIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 3
NOT TO SCALE

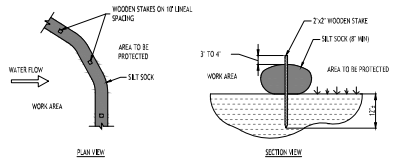
NOTE: INSTALL ONE OF THE INLET PROTECTION OPTIONS SHOWN PRIOR TO CONSTRUCTION



CONSTRUCTION SPECIFICATIONS

1. WOVEN FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUIVALENT.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL
NOT TO SCALE

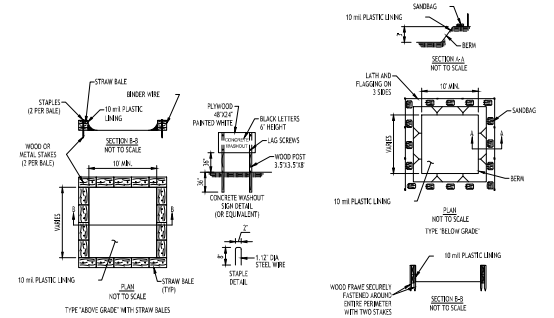


NOTES:

CONTRACTOR SHALL INSPECT AND MAINTAIN SILT SOCK AS NEEDED DURING THE DURATION OF CONSTRUCTION PROJECT.

CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK WHEN IT HAS REACHED ½ OF THE EXPOSED HEIGHT OF THE SILT SOCK. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, THE ENGINEER MAY CALL FOR ADDITIONAL SILT SOCK TO BE ADDED AT AREAS OF HIGH SEDIMENTATION, PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOCK.

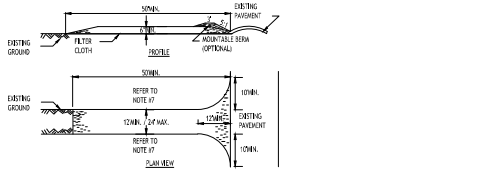
SILT SOCK DETAIL
NOT TO SCALE



NOTES

1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

CONCRETE WASHOUT DETAIL
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. TEMPORARY ASPHALT SHALL BE PLACED WITHIN RIGHT-OF-WAY TO ENSURE THIS.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

CARMINAWOOD DESIGN
Buffalo | Utica | Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Demo & Erosion Control Details

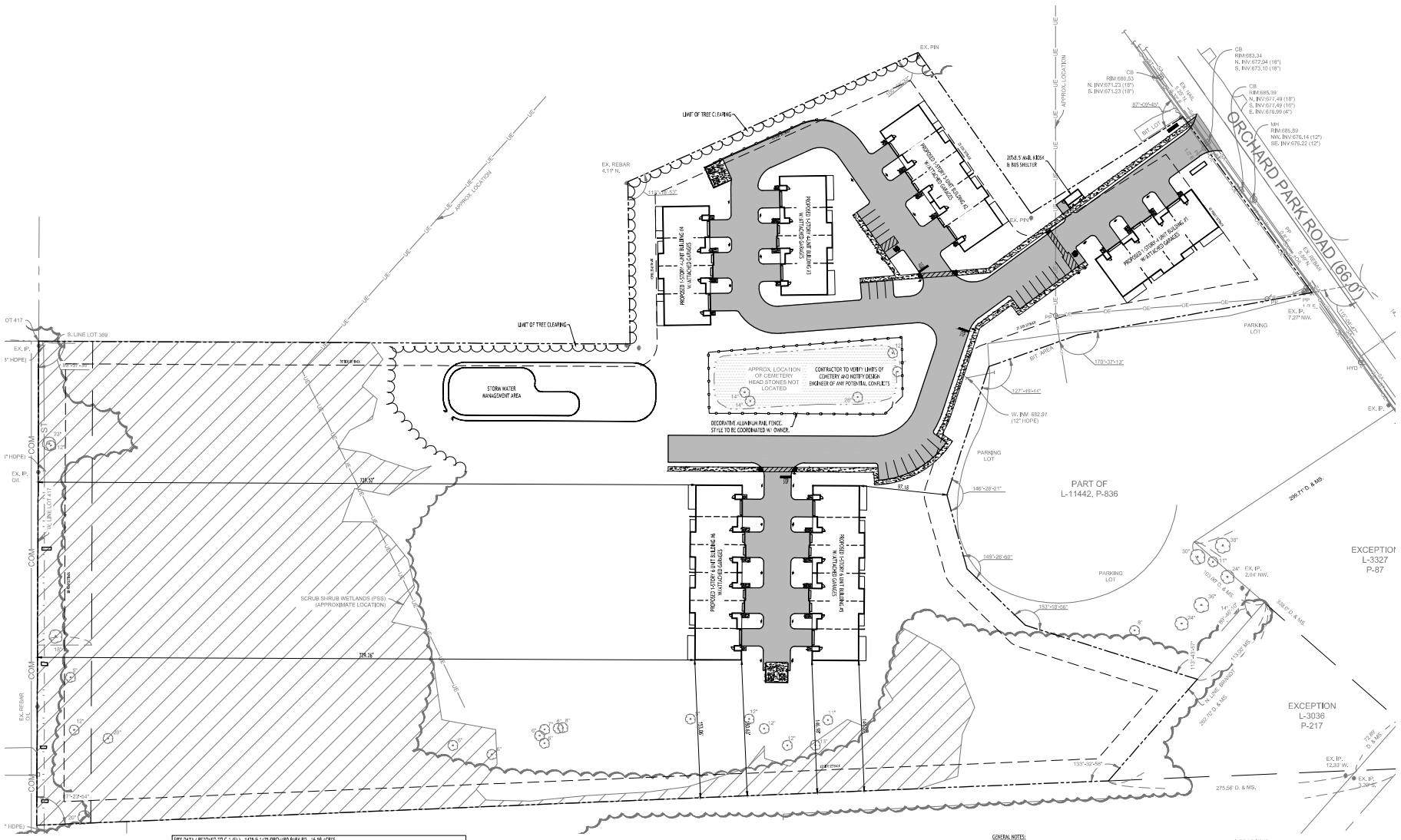
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Scale: As Noted

DRAWING NO.
C-002

Project No: 23-4121

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Overall Site Plan

SCALE: 1"=50'

SITE DATA (REZONED TO C-1 (S)) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES

MULTI-FAMILY ALLOWED BY SPECIAL PERMIT

MIN. LOT WIDTH = 50 FT FOR FIRST DWELLING UNIT, PLUS 10 FT FOR EACH ADDITIONAL UNIT NEED NOT EXCEED 100 FT

MIN. LOT AREA = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

FRONT SETBACK = 40 FT
SIDE SETBACK = 25 FT MIN. OR A DISTANCE EQUAL TO 1/2 HGT. OF SUCH BUILDING, WHICHEVER IS GREATER
REAR SETBACK = 30 FT or EQUAL TO THE HEIGHT OF THE BUILDING

MAXIMUM BUILDING HEIGHT = 40 FT (MULTI-FAMILY)

DRIVEWAY: 30 FT WIDE REQUIRED FOR MULTI-FAMILY

DWELLING SIZE: 500 SF EACH MULTI-FAMILY UNIT

GROUP DWELLING: NO BUILDING SHALL BE NEARER TO ANY OTHER PRINCIPAL STRUCTURE THAN A DISTANCE EQUAL TO THE AVERAGE HEIGHT OF SUCH BUILDINGS

PARKING CALCULATION:
MULTI-FAMILY:

REQ'D = 2 SPACES PER UNIT + 5/25 UNITS VISITORS
REQ'D = 2 SPACES x 29 UNITS + (29/25 x 5) = 64 SPACES

TOTAL PROVIDED = 41 DRIVEWAY + 41 GARAGE + 27 OFF-STREET = 109 SPACES

DENSITY CALCULATION (16.59 AC)

REQ'D = 8,000 SF FOR FIRST DWELLING UNIT, PLUS 5,000 FOR EACH ADDITIONAL DWELLING UNIT

ALLOWED NUMBER OF UNITS:
1ST UNIT: 722,660 SF - 8,000 SF = 714,660 SF REMAINING
ADDITIONAL UNITS: 714,660 SF / 5,000 SF = 142 UNITS

TOTAL ALLOWED UNITS = 143 UNITS

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURERS' RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNERS APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THE WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. ALL REASONABLE MEASURES SHALL BE TAKEN TO PROTECT EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE; INCLUDING BUT NOT LIMITED TO, RETAINING WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR EXCAVATING TREE ROOTS.

NOTES:

1. ALL RADII SHALL BE 3'-0" UNLESS OTHERWISE NOTED.
2. ALL DISTURBED AREAS SHALL HAVE 4" MIN. OF TOPSOIL & SEED.
3. ALL DIMENSIONS FROM PROPERTY LINES SHALL BE MEASURED PERPENDICULAR TO THE PROPERTY LINE.
4. CENTER ENTRANCE SIDEWALKS ON DOOR OPENINGS.
5. BUILDING DIMENSIONS ARE APPROXIMATE, REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.

SITE LEGEND

- PROPERTY LINE
- PROPOSED CONCRETE CURB
- PROPOSED SIDEWALK / CONCRETE PAD
- (27) NUMBER OF PARKING SPACES
- PROPOSED SIGN
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED LIGHT POLE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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CARMINAWOOD DESIGN
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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Planning Board comments	6/15/26

DRAWING NAME:
Overall Site Plan

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

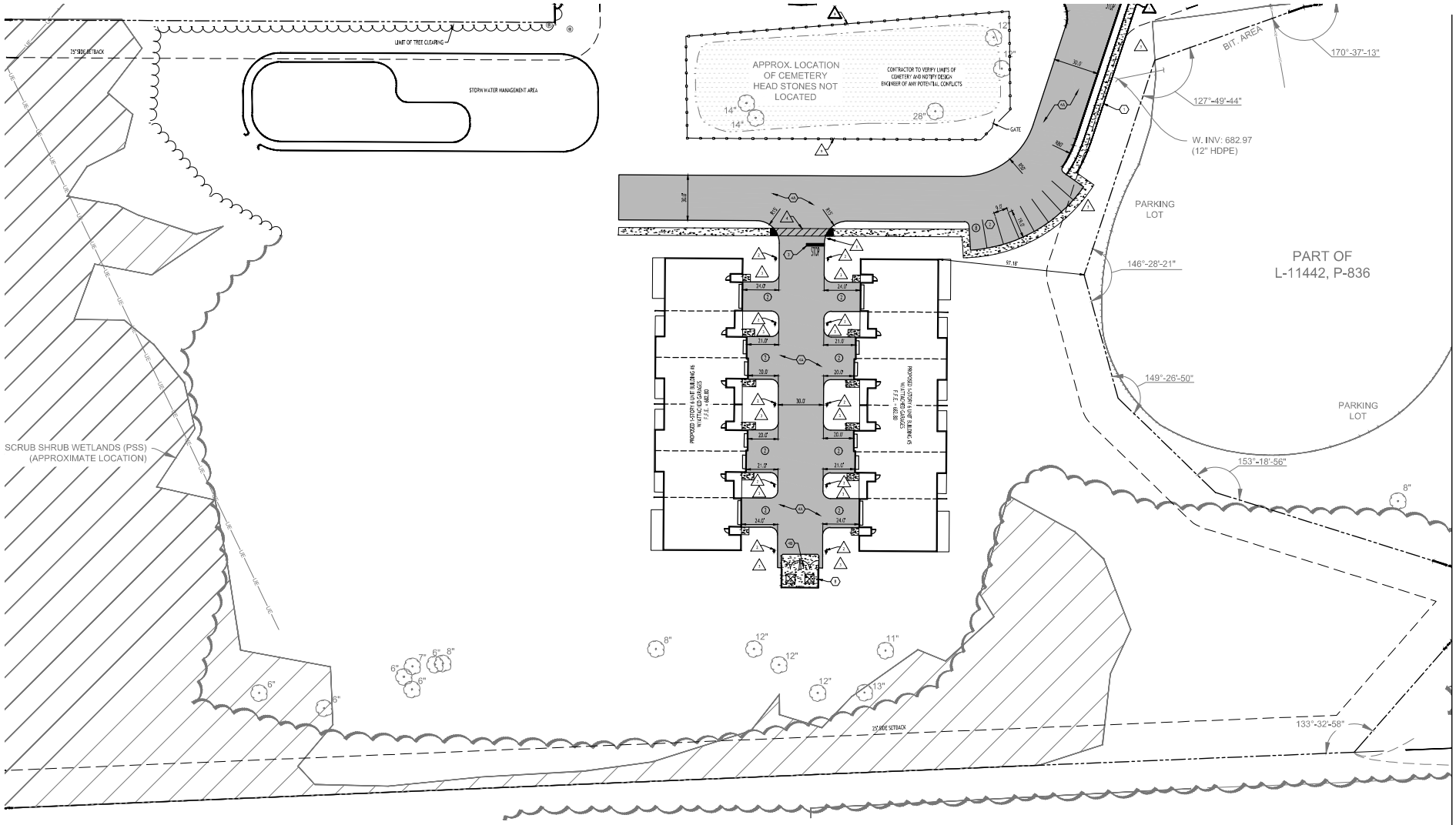
DRAWING NO.
C-100

Project No: 23-4121

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Site Plan - South

SCALE: 1"=30'

SITE DATA (REZONED TO C-1 (SU) - 1425 & 1475 ORCHARD PARK RD - 16.59 ACRES

MULTI-FAMILY ALLOWED BY SPECIAL PERMIT

MIN. LOT WIDTH - 50 FT FOR FIRST DWELLING UNIT, PLUS 10 FT FOR EACH ADDITIONAL UNIT NEED NOT EXCEED 100 FT

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FRONT SETBACK = 40 FT
SIDE SETBACK = 75 FT MIN. OR A DISTANCE EQUAL TO ½ HGT. OF SUCH BUILDING, WHICHEVER IS GREATER
REAR SETBACK = 30 FT or EQUAL TO THE HEIGHT OF THE BUILDING

MAXIMUM BUILDING HEIGHT = 40 FT (MULTI-FAMILY)

DRIVEWAY: 30 FT WIDE REQUIRED FOR MULTI-FAMILY

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DETAIL LEGEND SEE SITE DETAIL SHEET

1. CONCRETE SIDEWALK
2. 90° PARKING STALL
3. STOP BAR
4A. STANDARD DUTY ASPHALT
4B. EXTERIOR CONCRETE SLAB ON GRADE
5. HANDICAPPED PAVEMENT MARKINGS
6. HANDICAPPED PARKING SIGN
7. LIGHT POLE FOUNDATION
8. DUMPSTER ENCLOSURE
9. WOODEN GUIDE RAIL

NOTE LEGEND

1. INSTALL STOP SIGN - M.U.T.C.D. SIGN NO. R1-1B
2. INSTALL 'NO PARKING' SIGN, M.U.T.C.D. SIGN NO. R1-1C
3. LANDSCAPED AREA - SEE LANDSCAPE PLAN, IF NO PLANTINGS, INSTALL TOPSOIL & SEED
4. 1' WIDE WHITE PAVEMENT STRIPES @ 1' SPACING BETWEEN 4' WIDE WHITE CROSSWALK LINES
5. RELOCATE EX. UTILITY POLE - COORDINATE WITH UTILITY COMPANY
6. TACTILE WARNING MAT
7. HOTBOX
8. GROUND SIGN - SEE PLANS FROM OTHERS & COORDINATE LOCATION W/ OWNER
9. DECORATIVE ALUMINUM RAIL FENCE - COORDINATE STYLE W/ OWNER

GENERAL NOTES:

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- PROPOSED LIGHT POLE

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CARMINAWOOD DESIGN
Buffalo I Utica I Greenport

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Planning Board comments	6/15/26

DRAWING NAME:
Site Plan - South

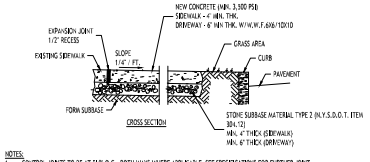
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Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-102

Project No: 23-4121

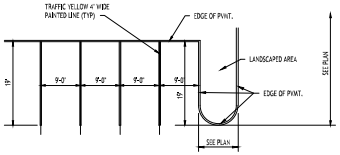
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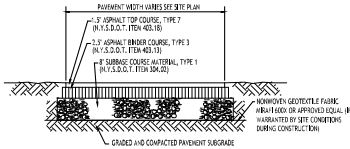


NOTES:
1. CONTROL JOINTS TO BE AT 5'-0" O.C., BOTH WAYS WHERE APPLICABLE. SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.
2. CONCRETE SIDEWALK AND DRIVEWAY MATERIAL SHALL CONFORM TO NYSDOT - STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 608-3.
3. SUBBASE GRADE SHALL FOLLOW THE PROPOSED GRADE OF THE SIDEWALK AND SLOPE AWAY FROM BUILDING WHERE APPLICABLE, PROVIDE CONTINUOUS STONE PATH TO CURB UNDERDRAIN WHERE PROVIDED.
4. FULL DEPTH EXPANSION JOINTS SHALL BE INSTALLED EVERY 30' O.C., BOTHWAYS WHERE APPLICABLE. SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.
5. SEE CURB DETAIL FOR DOWLING REQUIREMENTS WHERE ABUTTING CURB.
6. INSTALL 6' LONG #3 DOWELS @ 12" O.C. WHERE SIDEWALK ABUTS A BUILDING WALL AT AN ENTRANCE, THICKEN SIDEWALK TO 6" AT BUILDING WALL AND INSTALL DOWEL CENTERED IN THE 6" DEPTH. DOWELS AND THICKENING OF SIDEWALK SHALL EXTEND 10' EITHER SIDE OF ENTRANCE.
7. INSTALL 1/2" PREMOLDED EXPANSION JOINT WITH BACKER ROD & SEALANT WHERE SIDEWALK ABUTS BUILDING OR OTHER STRUCTURE.

CONCRETE SIDEWALK - 1

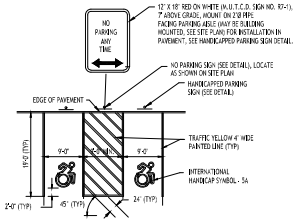


90° PARKING STALL LAYOUT - 2

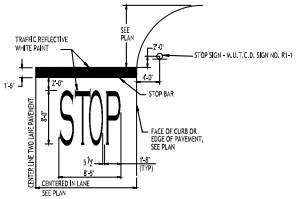


NOTE: CONSTRUCTION METHODS FOR ASPHALT PAVEMENT SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 401-403-3, WITH SUBBASE CONSTRUCTION METHODS CONFORMING TO NYSDOT STANDARD SPECIFICATION 304-3.

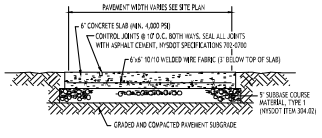
STANDARD DUTY ASPHALT SECTION - 4A



HANDICAPPED PAVEMENT MARKINGS & SIGNAGE - 5

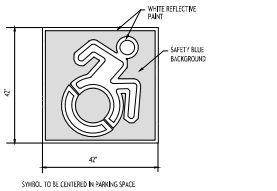


STOP BAR DETAIL - 3



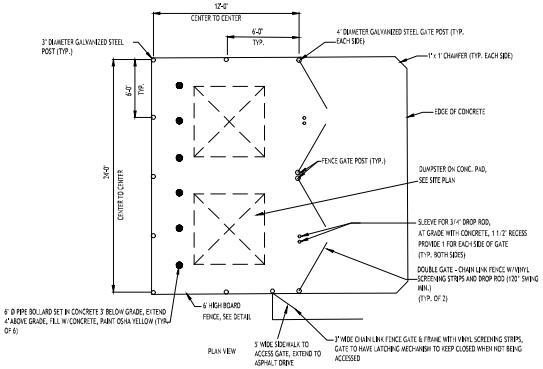
NOTE: CONCRETE PAVEMENT MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 502-3.

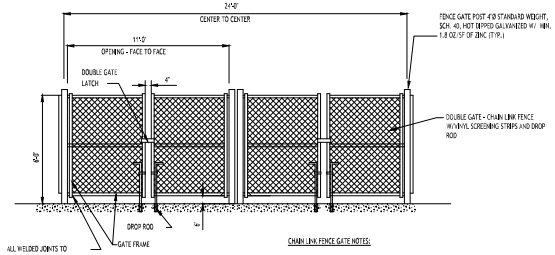
EXTERIOR CONCRETE SLAB-ON-GRADE SECTION - 4B



SYMBOL TO BE CENTERED IN PARKING SPACE

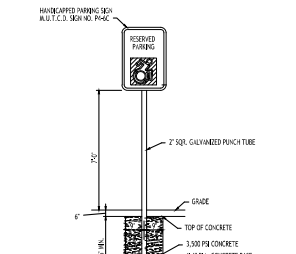
INTERNATIONAL HANDICAP SYMBOL - 5A





CHAIN LINK FENCE GATE NOTES:
1. GATE POST FOOTINGS TO BE MIN. 36" DEEP x (4x) POST DIAMETER, EXTEND POST TO WITHIN 6" OF BOTTOM.
2. GATE FRAMES TO BE 2" SQ. GALVANIZED STEEL, WEIGHING 2.60 LB/FT IN ACCORDANCE WITH ASTM F 900.
3. CHAIN LINK FENCE FABRIC SHALL BE 2" MESH, 9 GAUGE, ZINC COATED STEEL CORE WIRE. INSTALL MESH WITH HOOK BOLTS AND TENSION BARS ON ALL 4 SIDES, ATTACH AT 15" MAX.
4. DOUBLE GATE LATCH TO BE FORKED TYPE CAPABLE OF RETAINING GATE IN CLOSED POSITION AND HAVE PROVISION FOR PAD LOCK. LATCH SHALL BE OPERABLE FROM EITHER SIDE OF GATE.
5. ALL HARDWARE TO BE HOT DIPPED GALVANIZED STEEL TO SUIT GATE SIZE.

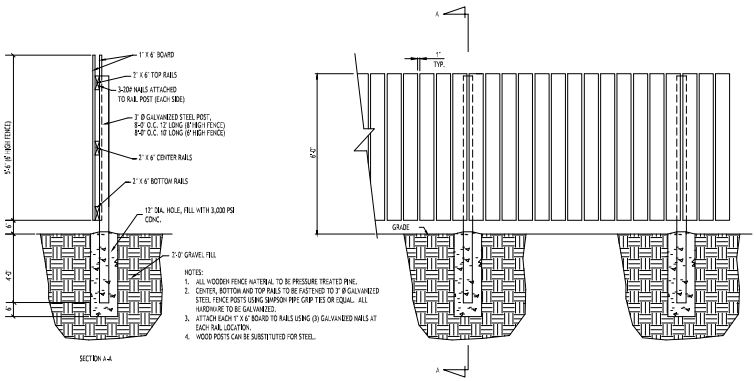
DUMPSTER ENCLOSURE - 8



NOTES:
1. HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS.

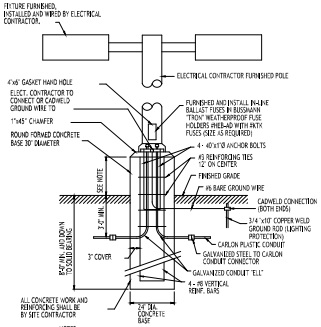
HANDICAP PARKING SIGNS - 6

INSTALLED IN GRASS/LANDSCAPED AREA



NOTES:
1. ALL WOODEN FENCE MATERIAL TO BE PRESSURE TREATED PINE.
2. CENTER, BOTTOM AND TOP RAILS TO BE FASTENED TO 3" Ø GALVANIZED STEEL FENCE POSTS USING SIMPSON PIPE GRIP TIES OR EQUAL. ALL HARDWARE TO BE GALVANIZED.
3. ATTACH EACH 1" X 6" BOARD TO RAILS USING (3) GALVANIZED NAILS AT EACH RAIL LOCATION.
4. WOOD POSTS CAN BE SUBSTITUTED FOR STEEL.

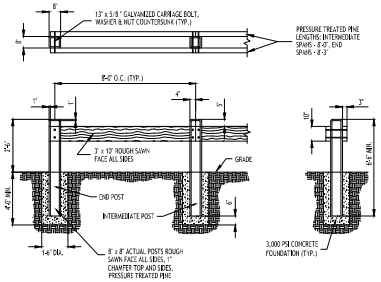
BOARD ON BOARD FENCE - FOR DUMPSTER ENCLOSURE



ALL CONCRETE WORK AND REINFORCING SHALL BE BY SITE CONTRACTOR

NOTES:
1. FOR LOCATIONS OF FOUNDATIONS SEE SITE PLAN
2. FOR LIGHT FIXTURE ORDERING INFORMATION SEE SITE LIGHTING PLAN
3. LIGHT POLE BASE EXPOSURE ABOVE GRADE SHALL BE:
   IN CURBED ISLANDS: 6" ABOVE TOP OF CURB ELEVATION
   IN PAVEMENT: 3" ABOVE GRADE
   IN NON-CURBED GRASS AREAS: 6" ABOVE GRADE

LIGHT POLE FOUNDATION - 7



DECORATIVE WOODEN GUIDE RAIL - 9

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West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Site Details

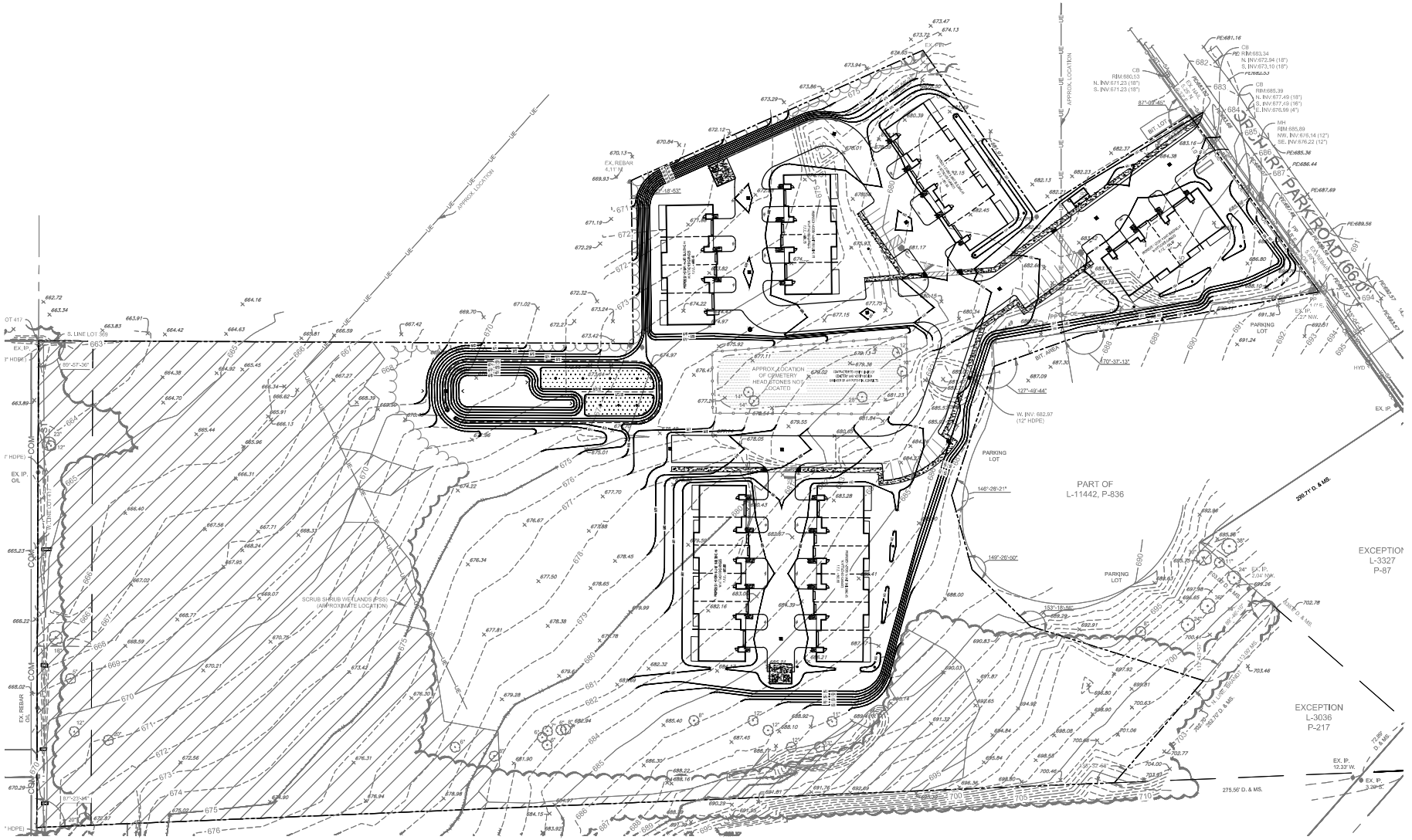
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Drawn By: A. Pandolfe
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DRAWING NO.
C-103

Project No: 23-4121

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Overall Grading Plan
SCALE: 1"=50'

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 / BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50 0 50 100Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/15/26

DRAWING NAME:
Overall Grading Plan

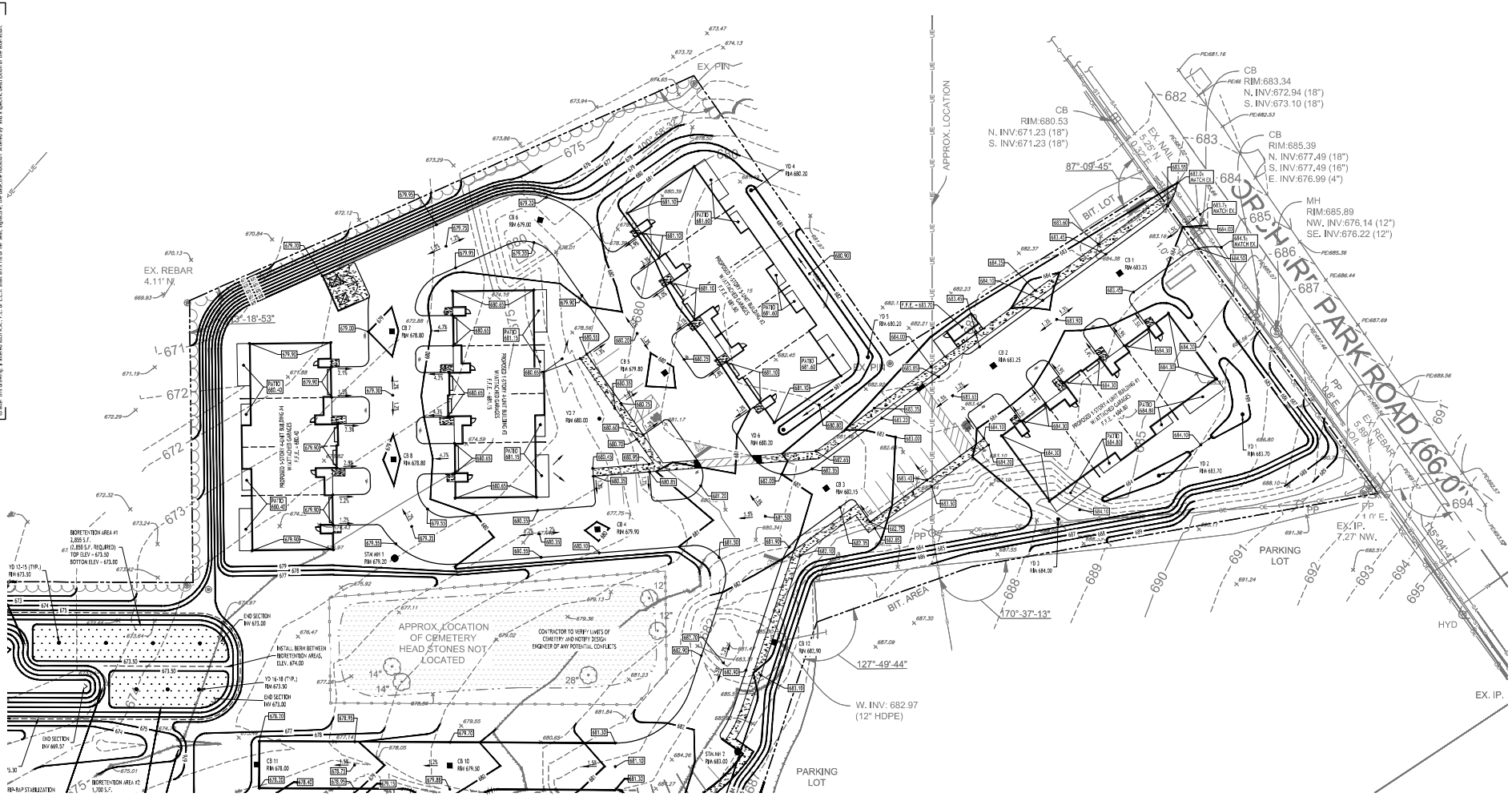
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DRAWING NO.
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Project No: 23-4121

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Grading Plan - North

SCALE: 1"=30

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 / BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

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30' 30 0 30 60'

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/15/26

DRAWING NAME:
Grading Plan - North

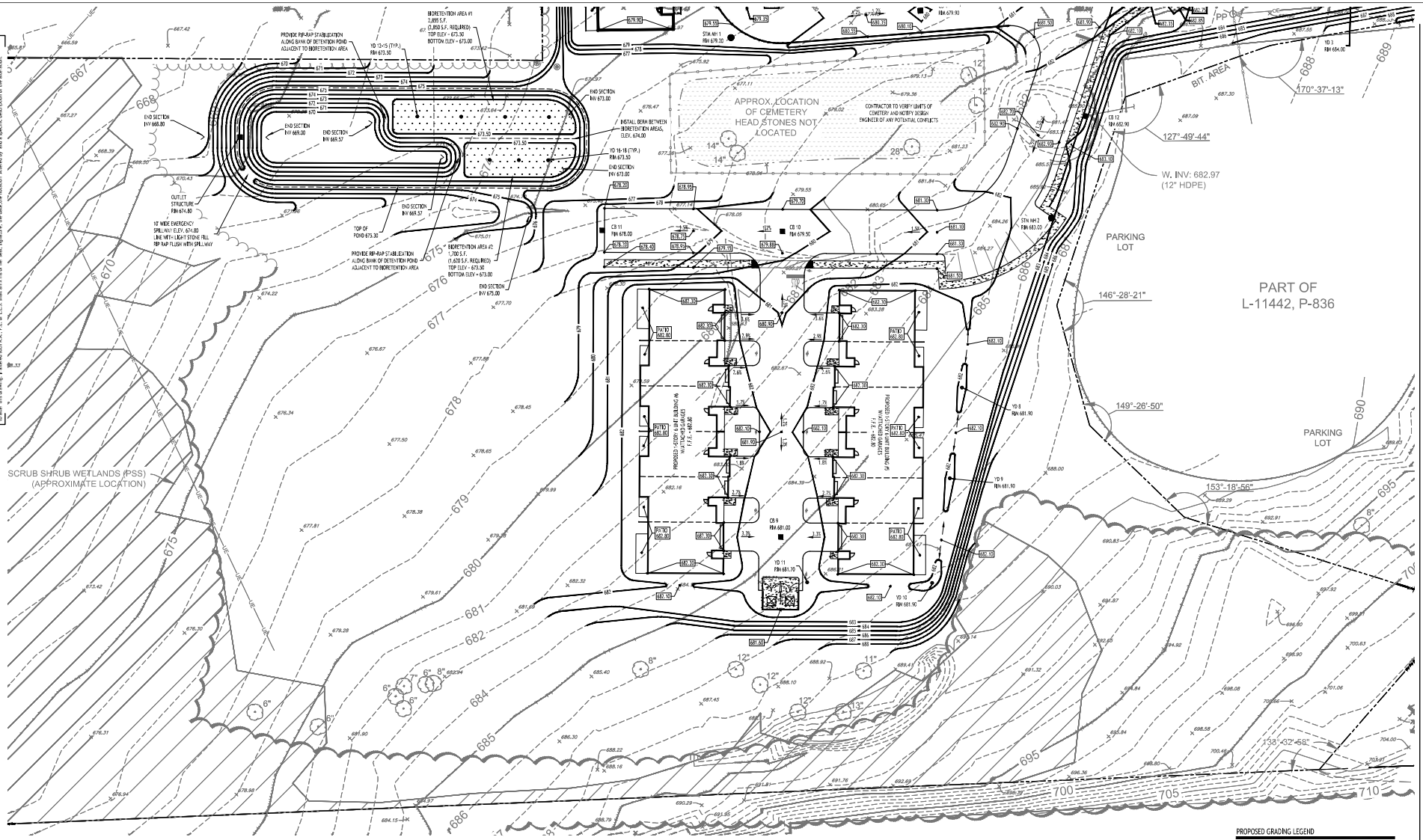
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C-201

Project No: 23-4121

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Grading Plan - South

SCALE: 1"=30'

PROPOSED GRADING LEGEND

PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.80
PROPOSED TOP/BOTTOM OF WALL ELEV.	TW 100.50 BW 100.00
PROPOSED CATCH BASIN	CB
PAVEMENT/GROUND SLOPE	
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30 0 30 60FT

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/15/26

DRAWING NAME:
Grading Plan - South

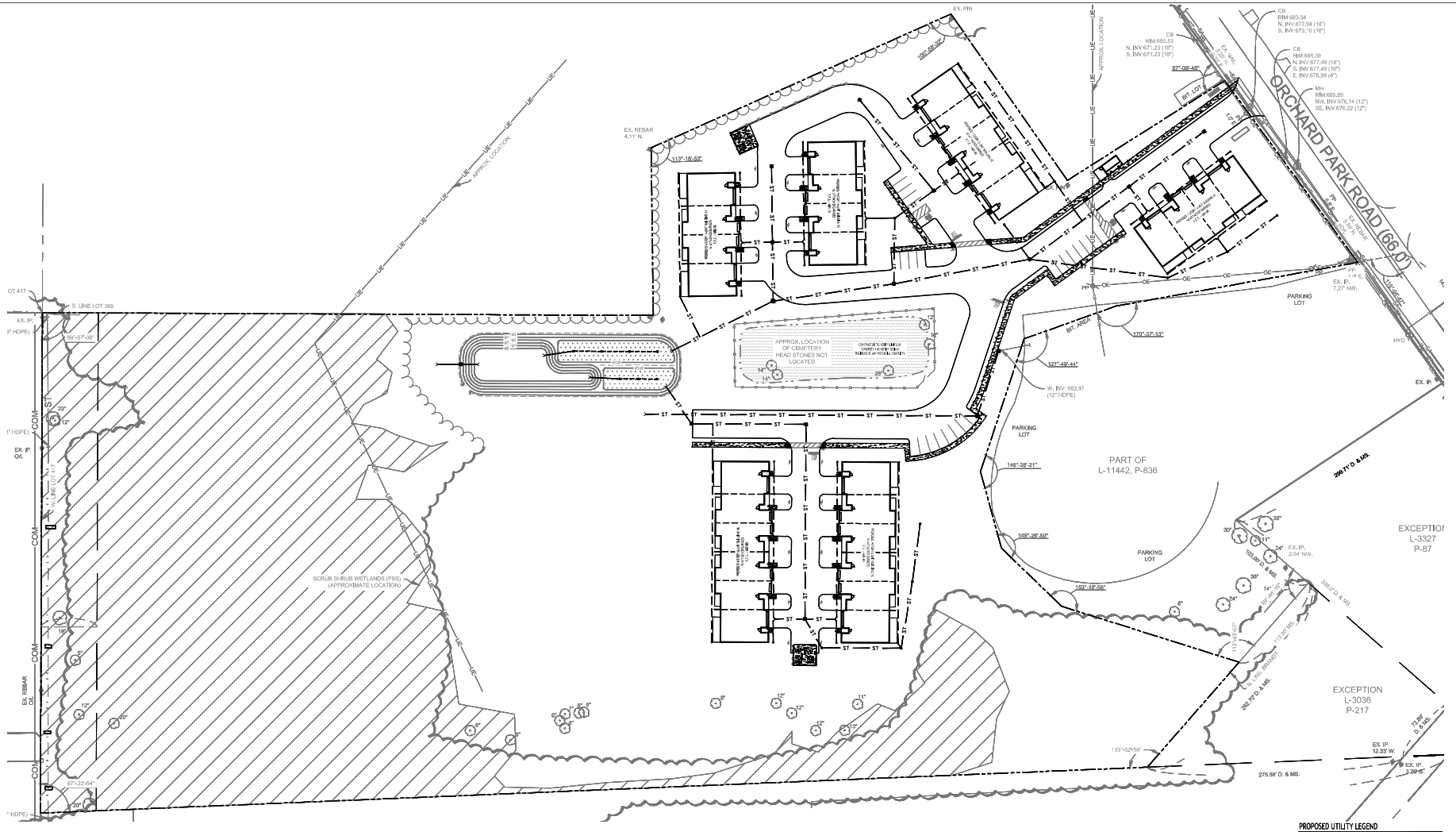
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Overall Drainage Plan

SCALE: 1"=50'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
5-YEAR	1.83	670.86	4,396
10-YEAR	2.80	672.91	14,741
25-YEAR	3.08	673.66	20,671
100-YEAR	3.43	674.69	34,430

DIRECT:

EVENT	PROP. RUNOFF (CFS)
5-YEAR	0.38
10-YEAR	1.12
25-YEAR	1.57
100-YEAR	2.52

TOTAL SITE:

EVENT	EX. RUNOFF (CFS)	PROP. RUNOFF (CFS)
5-YEAR	2.63	1.87
10-YEAR	8.17	2.89
25-YEAR	11.66	3.23
100-YEAR	18.97	4.61

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6' WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

50' 0 50 100Ft.

CARMINAWOOD DESIGN
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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date
1	Per Engineering comments	6/18/26

DRAWING NAME:
Overall Drainage Plan

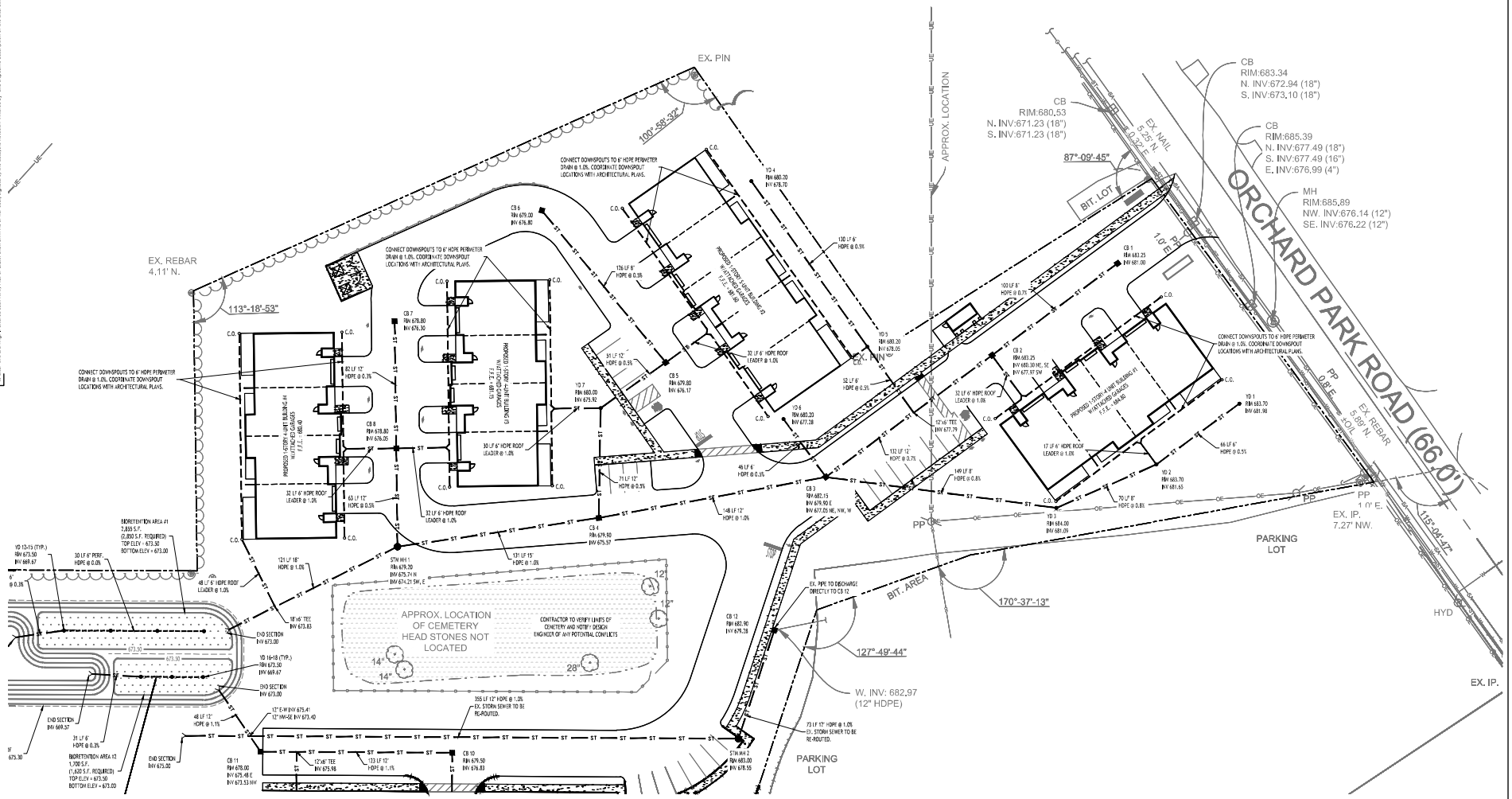
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DRAWING NO.
C-300

Project No: 23-4121

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Drainage Plan - North

SCALE: 1"=30'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
1-YEAR	1.83	670.86	4,596
10-YEAR	2.80	672.91	14,747
25-YEAR	3.08	673.66	20,871
100-YEAR	3.43	674.69	34,430

DIRECT:

EVENT	PROP. RUNOFF (CFS)
1-YEAR	0.38
10-YEAR	1.12
25-YEAR	1.57
100-YEAR	2.52

TOTAL SITE:

EVENT	EX. RUNOFF (CFS)	PROP. RUNOFF (CFS)
1-YEAR	2.63	1.87
10-YEAR	8.17	2.89
25-YEAR	11.66	3.23
100-YEAR	18.97	4.61

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60Ft.

CARMINAWOOD DESIGN
Buffalo I Utica I Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

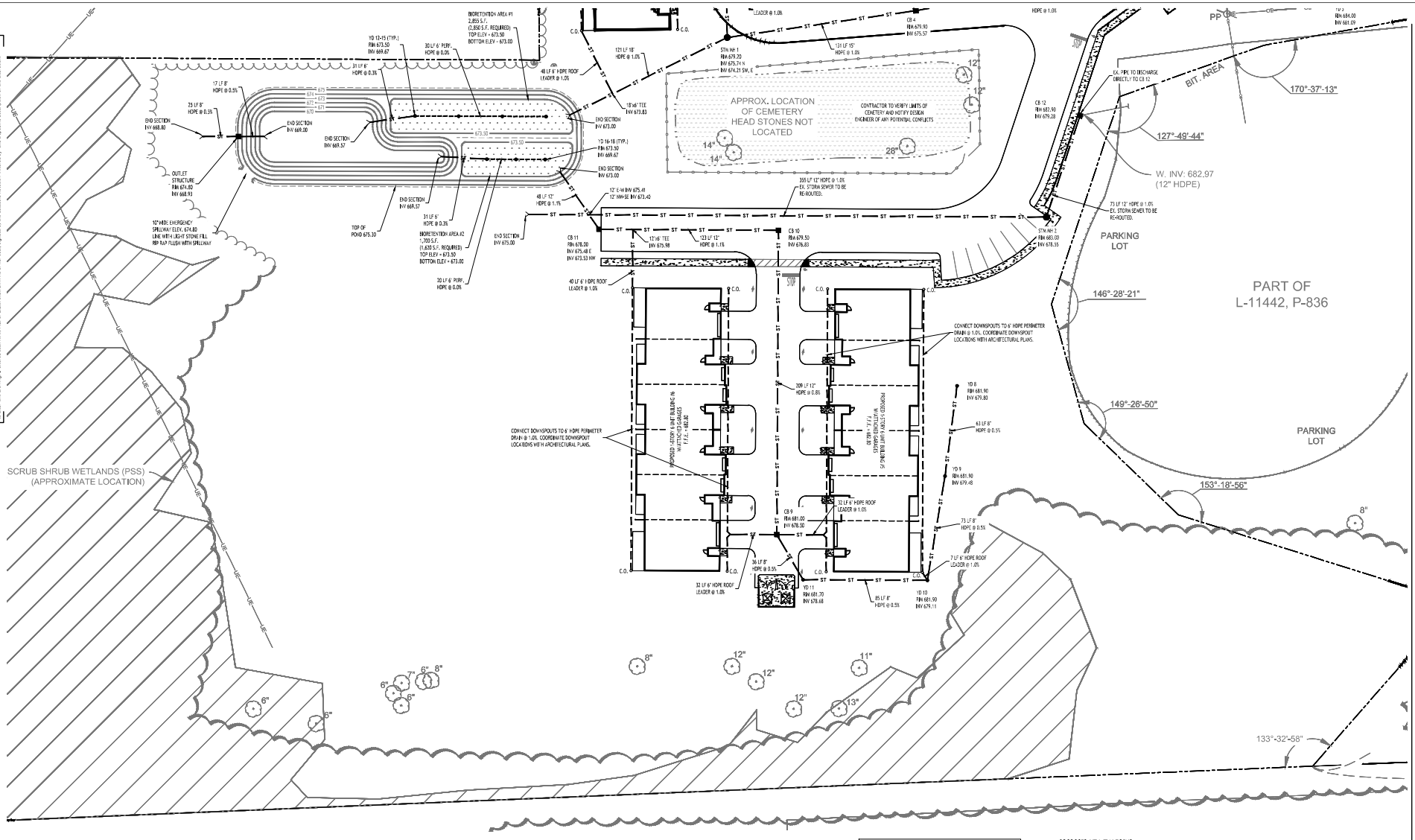
REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/18/26

DRAWING NAME:
Drainage Plan - North

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-301

Project No: 23-4121



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Drainage Plan - South

SCALE: 1"=30'

STORMWATER RUNOFF SUMMARY

TO DETENTION:

EVENT	PROP. RUNOFF (CFS)	ELEVATION (FEET)	STORAGE (CF)
5-YEAR	1.83	670.86	6,596
10-YEAR	2.80	672.91	14,741
25-YEAR	3.08	673.66	20,871
100-YEAR	3.43	674.69	34,430

DIRECT:

EVENT	PROP. RUNOFF (CFS)
5-YEAR	0.38
10-YEAR	1.12
25-YEAR	1.37
100-YEAR	2.52

TOTAL SITE:

EVENT	EX. RUNOFF (CFS)	PROP. RUNOFF (CFS)
5-YEAR	2.63	1.87
10-YEAR	8.17	2.89
25-YEAR	11.66	3.23
100-YEAR	18.97	4.61

PROPOSED UTILITY LEGEND

- PROPOSED STORM SEWER — ST
- PROPOSED SANITARY SEWER — 6" SA
- PROPOSED WATERLINE — 1" W
- PROPOSED CATCH BASIN — CB
- PROPOSED YARD DRAIN — YD
- PROPOSED MANHOLE — MH
- PROPOSED HYDRANT ASSEMBLY
- PROPOSED GATE VALVE — GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/18/26

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Drainage Plan - South

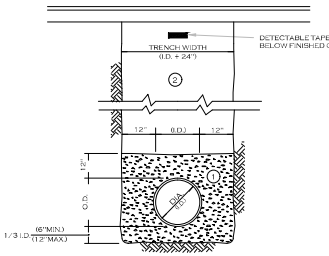
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Drawn By: A. Pandolfe
Scale: As Noted

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Project No: 23-4121

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NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

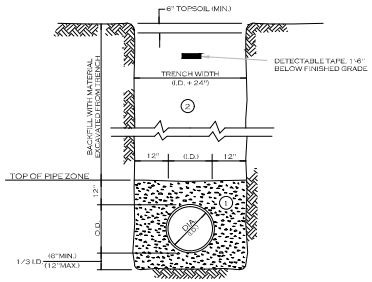
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

STORM SEWER TRENCH SECTION IN PAVED AREAS



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

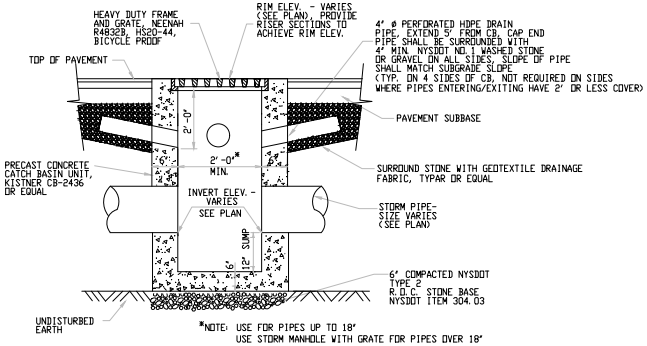
PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

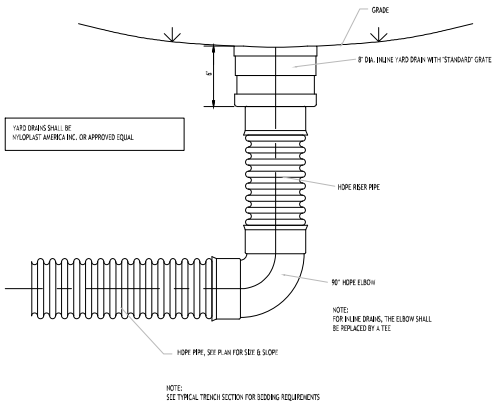
NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

STORM SEWER TRENCH SECTION IN UNPAVED AREAS

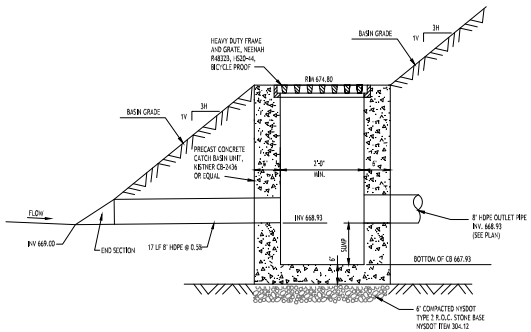


TYPICAL PRECAST CATCH BASIN



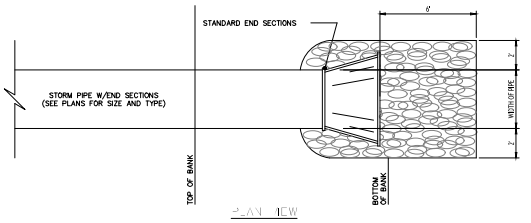
NOTE:
SEE TYPICAL TRENCH SECTION FOR BEDDING REQUIREMENTS

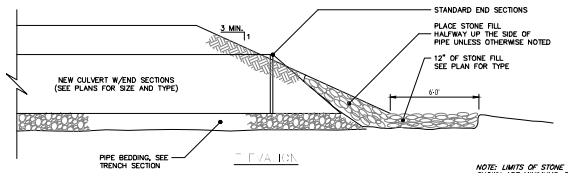
TYPICAL YARD DRAIN DETAIL



DETENTION BASIN OUTLET STRUCTURE

NOT TO SCALE

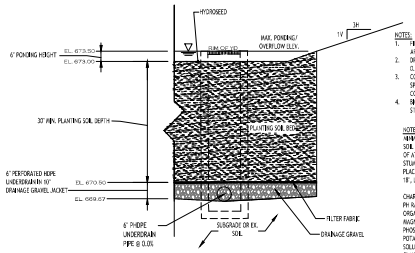




NOTE: LIMITS OF STONE SHOWN ARE MINIMUMS, PLAN MAY INDICATE GREATER LIMITS

TYPICAL PIPE OUTLET W/END SECTION & RIP RAP

NOT TO SCALE



NOTES:
1. FILTER FABRIC TO BE WOVEN/WOVEN CLASS "C", MIRAFI 180N OR APPROVED EQUIVALENT.
2. DRAINAGE GRAVEL TO MEET AASHTO M-43, NO.67, SIZE 0.25" TO 0.75"
3. CONTRACTOR TO PROVIDE PLANTING SOIL SUBMITTAL SPECIFICATION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
4. BIORETENTION SOIL IS NOT TO BE INSTALLED UNTIL SITE IS STABILIZED.

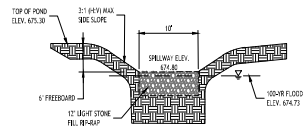
NOTE: PLANTING SOIL SHALL BE LOAM/SAND MIX CONTAINING A MINIMUM OF 35 TO 60% SAND BY VOLUME AND LESS THAN 25% CLAY. SOIL SHOULD FALL WITHIN USCS TYPES SM OR ML WITH PERMEABILITY OF AT LEAST 1.0 FEET PER DAY. SOIL SHOULD BE FREE FROM STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED.

CHARACTERISTICS SHALL BE:
PH RANGE: 5.2 - 7.0
ORGANIC MATTER: 1.5 - 4.0%
MAGNESIUM: 35 LBS PER ACRE MIN.
PHOSPHOROUS: 75 LBS PER ACRE MIN.
POTASSIUM: 85 LBS PER ACRE MIN.
SOLUBLE SALTS: 500 PPM
CLAY: 10 TO 25%
SILT: 30 TO 55%
SAND: 35 TO 60%

BIORETENTION AREA #1 & #2 - TYPICAL SECTION

bio-retention area seeding spec (Northeast Wetland Grass Seed Mix):

Seed Mixture	Variety	Percent by No. of Seeds
Creeping Bentgrass	Agrostis stoonifera	63.0
Rough Bluegrass	Poa trivialis	11.0
Meadow Fescue	Alopecurus arundinaceus	11.0
Annual Ryegrass	Lolium multiflorum	4.5
Deertongue	Panicum clandestinum	4.5



EMERGENCY SPILLWAY DETAIL

NOT TO SCALE

CARMINAWOOD DESIGN
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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/15/26

DRAWING NAME:
Drainage Details

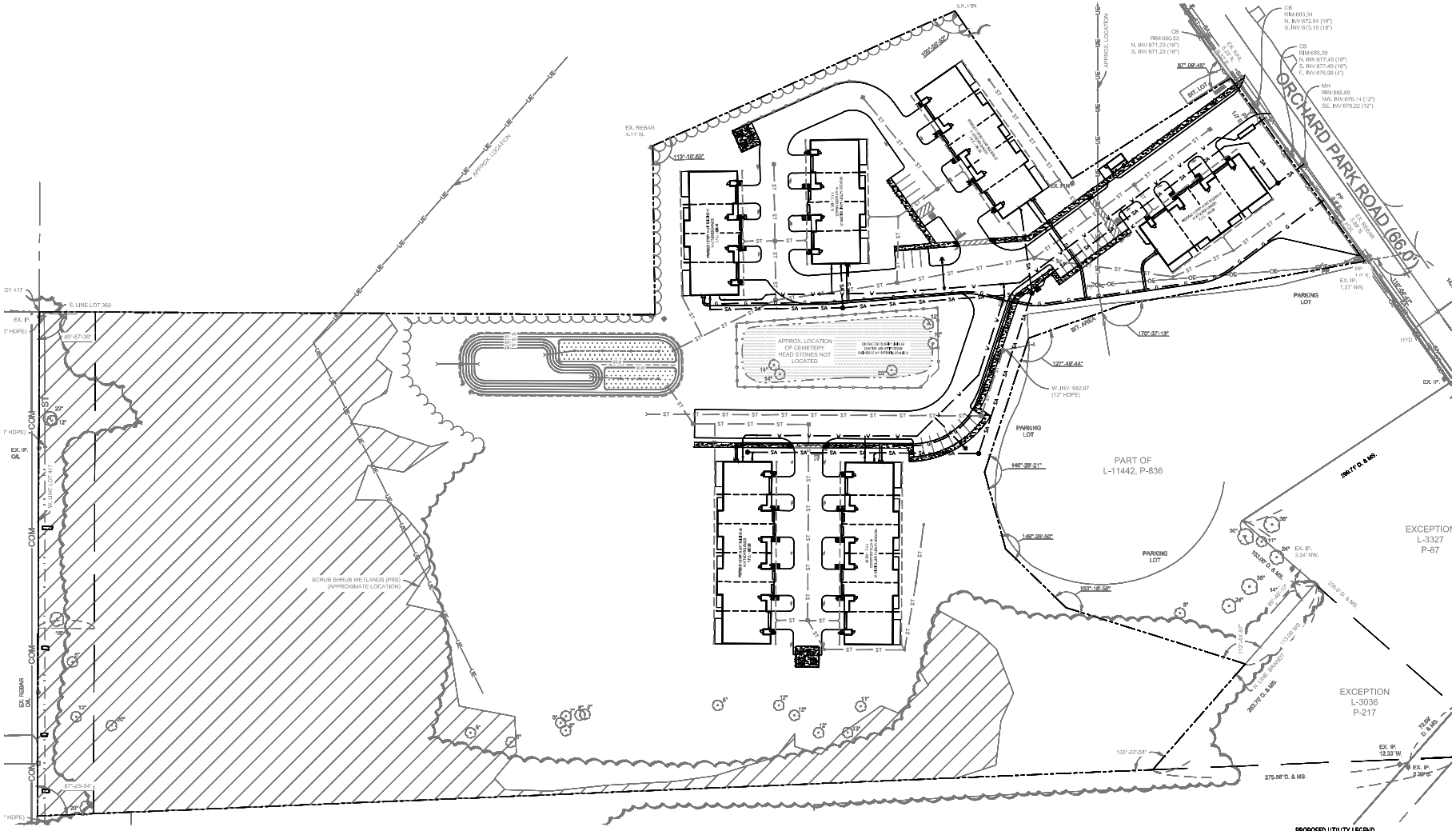
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DRAWING NO.
C-303

Project No: 23-4121

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Overall Utility Plan

SCALE: 1"=50'

UTILITY NOTES:

1. FOR ALL SANITARY SEWERS, INSTALL SELECT FILL IN PAVED AREAS, EXTEND 5' MIN. BEYOND PAVEMENT LIMITS
2. BUILDINGS TO HAVE A 6" HOUSE TRAP, VENT AND CLEANOUT INSTALLED AT ENTRANCE POINT. INVERT ELEVATION TO BE 3' MIN. BELOW F.F.E. OF THE BUILDING. PIPE TO BE 6" SDR-35 PVC @ 1.0% MIN WITH MIN 4' OF COVER. ADD ADDITIONAL CLEANOUTS @ 100' MAX. SPACING FOR 6" LATERALS OVER 90' IN LENGTH.
3. COORDINATE GAS & ELEC. METER BANK LOCATIONS ON BUILDINGS WITH M.E.P. PLANS & UTILITY CO'S.
4. COORDINATE LOCATION OF CTV & TELEPHONE SERVICE TO BUILDINGS WITH M.E.P. PLANS AND UTILITY CO.'S.
5. ANY EXISTING UTILITIES WHICH ARE TO BE ABANDONED AND FALL UNDER PAVEMENT OR BUILDINGS SHALL BE REMOVED VS. BEING ABANDONED UNLESS THOSE UTILITIES ARE FILLED WITH FLOWABLE FILL.
6. EXISTING GAS SERVICES TO REMAIN UNLESS OTHERWISE NOTED. ANY PORTIONS TO BE RELOCATED SHALL BE COORDINATED WITH NATIONAL FUEL GAS.
7. ALL UNDERGROUND TELEPHONE SERVICES SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION.
8. A MINIMUM OF 10 FEET HORIZONTAL AND 18 INCHES OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
9. ERIE COUNTY WATER AUTHORITY (ECWA) IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE.
10. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH PAVEMENT AREAS.

NOTES:

1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO TOWN OF WEST SENECA SEWER SPECIFICATIONS AND DETAILS, AND ERIE COUNTY DEPARTMENT OF HEALTH RULES AND REGULATIONS.
2. PRIOR STARTING ANY WORK ASSOCIATED WITH OR NEAR EXISTING SANITARY MANHOLES, THE CONTRACTOR SHALL MEET WITH THE TOWN OF WEST SENECA TO DISCUSS AND AGREE TO THE WORK.
3. FILL SHALL BE PLACED AND SATISFACTORILY COMPACTED PRIOR TO INSTALLATION OF UTILITIES, AND MUST BE APPROVED BY THE SUPERVISING PROJECT ENGINEER.
4. ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF WEST SENECA ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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CARMINA WOOD DESIGN
Buffalo | Utica | Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/17/26

DRAWING NAME:
Overall Utility Plan

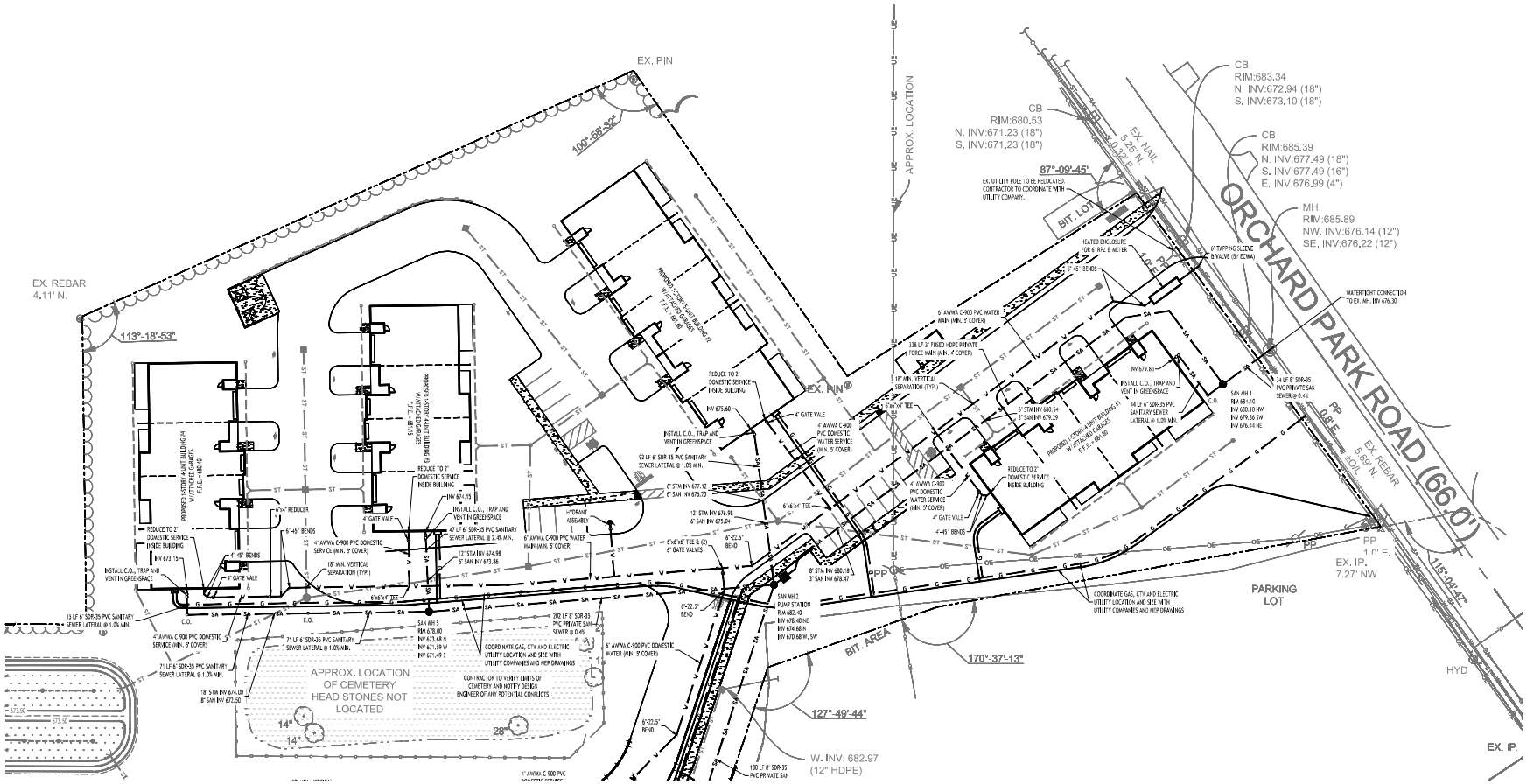
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-400

Project No: 23-4121

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Utility Plan - North

SCALE: 1"=30'

UTILITY NOTES:

1. FOR ALL SANITARY SEWERS, INSTALL SELECT FILL IN PAVED AREAS, EXTEND 5' MIN. BEYOND PAVEMENT LIMITS
2. BUILDINGS TO HAVE A 6" HOUSE TRAP, VENT AND CLEANOUT INSTALLED AT ENTRANCE POINT. INVERT ELEVATION TO BE 3' MIN. BELOW F.F.E. OF THE BUILDING. PIPE TO BE 6" SDR-35 PVC @ 1.0% MIN WITH MIN 4' OF COVER. ADD ADDITIONAL CLEANOUTS @ 100' MAX. SPACING FOR 6" LATERALS OVER 90' IN LENGTH.
3. COORDINATE GAS & ELEC. METER BANK LOCATIONS ON BUILDINGS WITH M.E.P. PLANS & UTILITY CO.'S.
4. COORDINATE LOCATION OF CTV & TELEPHONE SERVICE TO BUILDINGS WITH M.E.P. PLANS AND UTILITY CO.'S.
5. ANY EXISTING UTILITIES WHICH ARE TO BE ABANDONED AND FALL UNDER PAVEMENT OR BUILDINGS SHALL BE REMOVED VS. BEING ABANDONED UNLESS THOSE UTILITIES ARE FILLED WITH FLOWABLE FILL.
6. EXISTING GAS SERVICES TO REMAIN UNLESS OTHERWISE NOTED. ANY PORTIONS TO BE RELOCATED SHALL BE COORDINATED WITH NATIONAL FUEL GAS.
7. ALL UNDERGROUND TELEPHONE SERVICES SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION.
8. A MINIMUM OF 10 FEET HORIZONTAL AND 18 INCHES OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
9. ERIE COUNTY WATER AUTHORITY (ECWA) IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION TO THE NEW WATER SERVICE.
10. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH PAVEMENT AREAS.

NOTES:

1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO TOWN OF WEST SENECA SEWER SPECIFICATIONS AND DETAILS, AND ERIE COUNTY DEPARTMENT OF HEALTH RULES AND REGULATIONS.
2. PRIOR STARTING ANY WORK ASSOCIATED WITH OR NEAR EXISTING SANITARY MANHOLES, THE CONTRACTOR SHALL MEET WITH THE TOWN OF WEST SENECA TO DISCUSS AND AGREE TO THE WORK.
3. FILL SHALL BE PLACED AND SATISFACTORILY COMPACTED PRIOR TO INSTALLATION OF UTILITIES, AND MUST BE APPROVED BY THE SUPERVISING PROJECT ENGINEER.
4. ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF WEST SENECA ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6' WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60FT.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

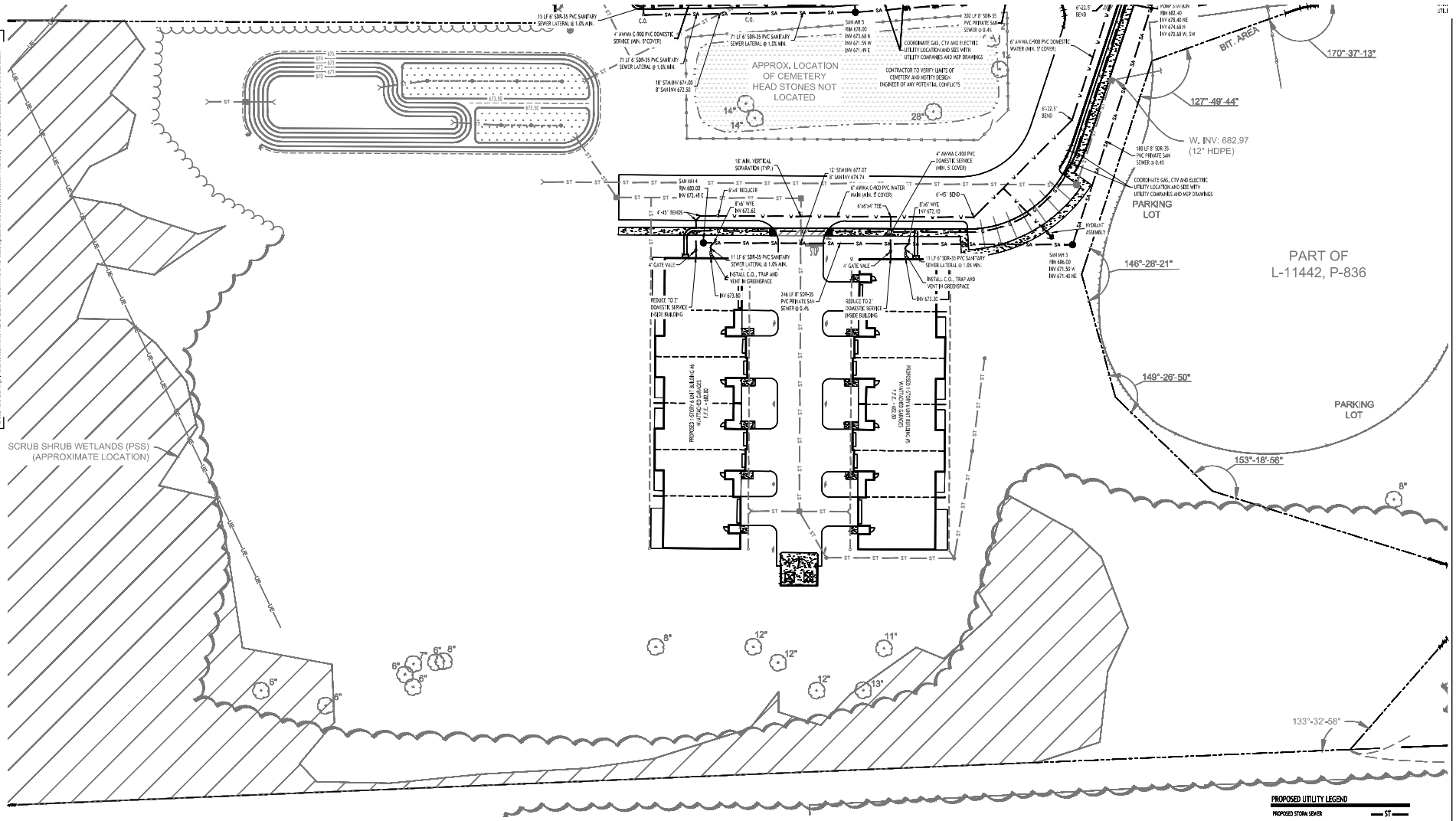
REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/17/26

DRAWING NAME:
Utility Plan - North

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-401

Project No: 23-4121



Utility Plan - South

SCALE: 1"=30'

UTILITY NOTES:

1. FOR ALL SANITARY SEWERS, INSTALL SELECT FILL IN PAVED AREAS, EXTEND 5' MIN. BEYOND PAVEMENT LIMITS
2. BUILDINGS TO HAVE A 6" HOUSE TRAP, VENT AND CLEANOUT INSTALLED AT ENTRANCE POINT. INVERT ELEVATION TO BE 3' MIN. BELOW F.F.E. OF THE BUILDING. PIPE TO BE 6" SDR-35 PVC @ 1.0% MIN WITH MIN 4' OF COVER. ADD ADDITIONAL CLEANOUTS @ 100' MAX. SPACING FOR 6" LATERALS OVER 90' IN LENGTH.
3. COORDINATE GAS & ELEC. METER BANK LOCATIONS ON BUILDINGS WITH M.E.P. PLANS & UTILITY CO'S.
4. COORDINATE LOCATION OF CTV & TELEPHONE SERVICE TO BUILDINGS WITH M.E.P. PLANS AND UTILITY CO.'S.
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NOTES:

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2. PRIOR STARTING ANY WORK ASSOCIATED WITH OR NEAR EXISTING SANITARY MANHOLES, THE CONTRACTOR SHALL MEET WITH THE TOWN OF WEST SENECA TO DISCUSS AND AGREE TO THE WORK.
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4. ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF WEST SENECA ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.

PROPOSED UTILITY LEGEND

PROPOSED STORM SEWER	ST
PROPOSED SANITARY SEWER	6" SA
PROPOSED WATERLINE	1" W
PROPOSED CATCH BASIN	CB
PROPOSED YARD DRAIN	YD
PROPOSED MANHOLE	MH
PROPOSED HYDRANT ASSEMBLY	
PROPOSED GATE VALVE	GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60Ft.

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Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/17/26

DRAWING NAME:
Utility Plan - South

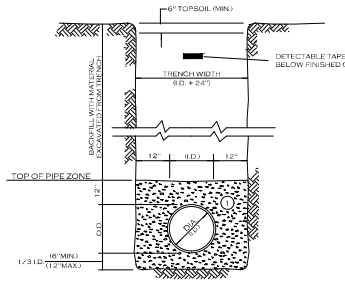
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-402

Project No: 23-4121

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NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

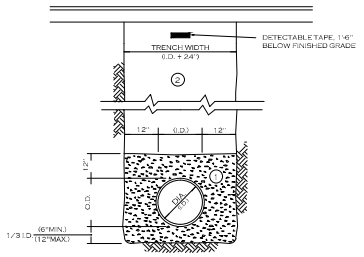
PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

① NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

SELECT MATERIAL BACKFILL (NYSDOT LATEST EDITION)

② NO.2 RUN OF CRUSHER STONE OR NO.2 RUN OF CRUSHER GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02. (COMPACTED IN 6"LIFTS TO 90% DENSITY) NOTE: SLAG SHALL NOT BE ALLOWED FOR MATERIALS ① AND ②

UTILITY TRENCH SECTION IN UNPAVED AREAS



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

① NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

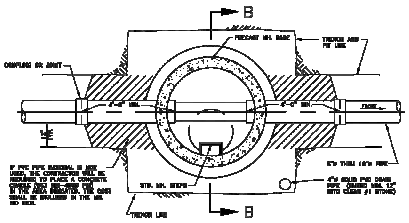
SELECT MATERIAL BACKFILL (NYSDOT LATEST EDITION)

② NO.2 RUN OF CRUSHER STONE OR NO.2 RUN OF CRUSHER GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02. (COMPACTED IN 6"LIFTS TO 90% DENSITY) NOTE: SLAG SHALL NOT BE ALLOWED FOR MATERIALS ① AND ②

UTILITY TRENCH SECTION IN PAVED AREAS

MONOLITHIC PRECAST BASE MANHOLES 4'-0" DIA. BASE FOR 15"ø SEWERS OR LESS

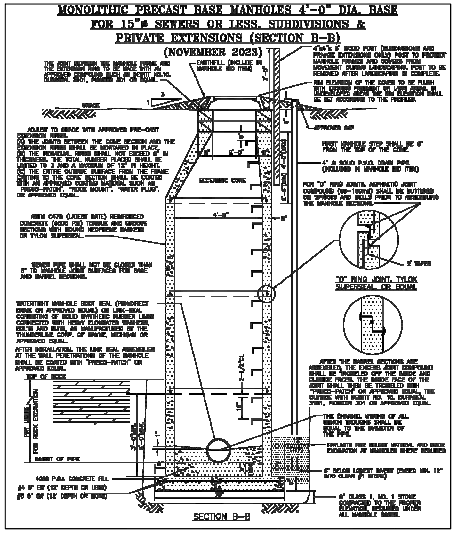
(NOVEMBER 2023)



PLAN

MONOLITHIC PRECAST BASE MANHOLES 4'-0" DIA. BASE FOR 15"ø SEWERS OR LESS, SUBDIVISIONS & PRIVATE EXTENSIONS (SECTION B-B)

(NOVEMBER 2023)



STANDARD FRAME AND COVER (PRIVATE SEWER)

(NOVEMBER 2023)

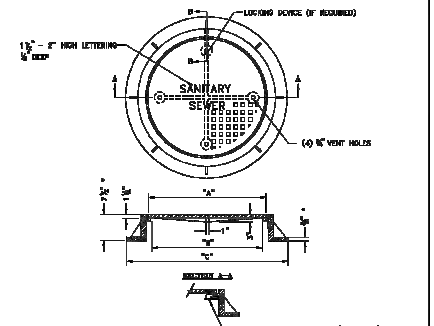


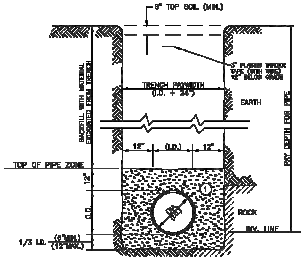
TABLE				
PIPE SIZE	DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	WEIGHT OF COVER
8" THRU 18"	24"	25 1/4"	26" (MAX.)	180 LBS. ± 5%
OVER 18"	32"	30"	48" (MAX.)	200 LBS. ± 5%

STANDARD FRAME AND COVER NOTES

1. MATERIAL: ASTM A48 CLASS 30B CAST IRON CONFORMING TO AASHTO DESIGNATION M105-08.
2. UNIT MUST WITHSTAND H-20 WHEEL LOADING, AND CONFORM TO AASHTO DESIGNATION M306-10.
3. ALL DIMENSIONS ARE TO BE CONSIDERED MINIMUM WITH THE EXCEPTION OF THE COVER, WHICH MUST CONFORM EXACTLY TO MAINTAIN INTERCHANGEABILITY WITHIN THE COUNTY.
4. COVER WEIGHT 210 LBS. (MIN)
5. COATING NOT REQUIRED.
6. FRAMES AND COVERS SHALL HAVE MACHINED BEARING SURFACES.
7. LOCKING DEVICE MUST BE SITUATED TO ALLOW EASY REMOVAL OF COVER.
8. NO COMMERCIAL "BRAND NAME" LETTERING WILL BE ALLOWED ON THE EXPOSED SURFACE OF THE COVER.
9. ½" 1/3" FLANGE THICKNESS AND 7" HEIGHT ACCEPTABLE IF CLASS 30 CAST IRON MATERIAL PROVIDED.

FORCE MAIN TRENCH DETAIL

(NOVEMBER 2023)



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. FORCE MAIN MARKERS SHALL BE INSTALLED AT 500 FOOT INTERVALS AND AT POINTS WHERE THE FORCE MAIN DEFLECTS AND/OR CHANGES DIRECTION.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

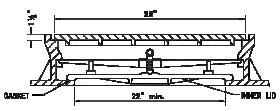
MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

① NO.1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN 1" AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

WATER TIGHT FRAME AND COVER

(NOVEMBER 2023)

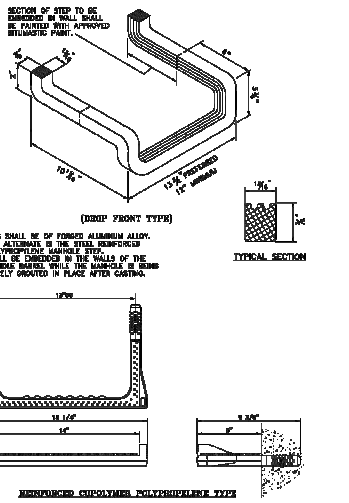


WATER TIGHT FRAME AND COVER NOTES

1. MATERIAL: ASTM A48 CLASS 30B CAST IRON CONFORMING TO AASHTO DESIGNATION M105-08.
2. UNIT MUST WITHSTAND H-20 WHEEL LOADING, AND CONFORM TO AASHTO DESIGNATION M306-10.
3. ALL DIMENSIONS ARE TO BE CONSIDERED MINIMUM WITH THE EXCEPTION OF THE COVER, WHICH MUST CONFORM EXACTLY TO MAINTAIN INTERCHANGEABILITY WITHIN THE COUNTY.
4. WATER TIGHT MANHOLE UNITS SHALL HAVE 4" STEEL VENT PIPE ASSEMBLY AS PER MANHOLE VENT DETAIL.
4. FRAMES AND COVERS SHALL HAVE MECHANICAL BEARING MACHINED.
6. COVERS SHALL BE SOLID WITH NON-PENETRATING PICKHOLES.
7. NO COMMERCIAL "BRAND NAME" LETTERING WILL BE ALLOWED ON THE EXPOSED SURFACE OF THE COVER.
8. COVER TO BEAR THE INSCRIPTION "SEWER MANHOLE". EXCEPT FOR PRIVATE SYSTEMS.
9. THE FRAME SHALL BE PROVIDED WITH LUGS OR SLOTS TO ACCEPT ⅞" Ø ANCHOR BOLTS.

STANDARD MANHOLE STEP

(NOVEMBER 2023)



NOTES:

1. MANHOLE STEPS SHALL BE OF FORGED ALUMINUM ALLOY.
2. AN ACCEPTABLE ALTERNATE IS THE STEEL REINFORCED COPOLYMER POLYPROPYLENE MANHOLE STEP.
3. THE STEPS SHALL BE EMBEDDED IN THE WALLS OF THE CONCRETE MANHOLE BARREL WHILE THE MANHOLE IS BEING CAST OR SECURELY GROUTED IN PLACE AFTER CASTING.

REINFORCED COPOLYMER POLYPROPYLENE TYPE

CARMINAWOOD DESIGN

Buffalo | Utica | Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.

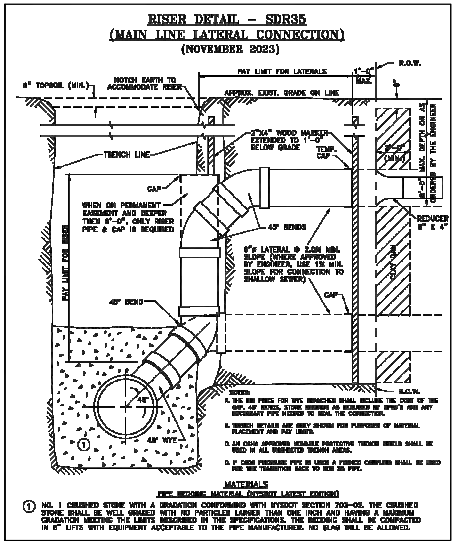
C-403

Project No: 23-4121

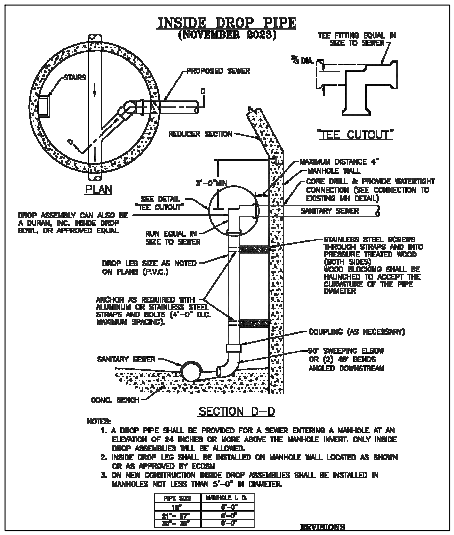
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RISER DETAIL – SDR35
(MAIN LINE LATERAL CONNECTION)
(NOVEMBER 2023)



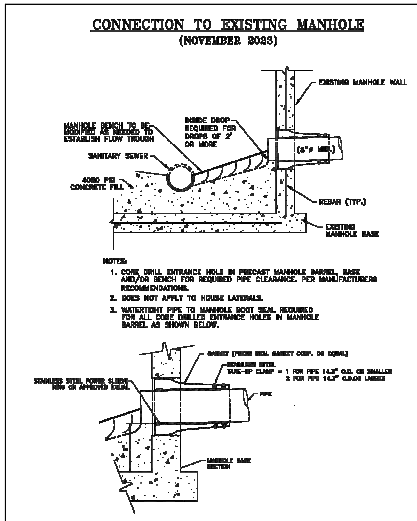
INSIDE DROP PIPE
(NOVEMBER 2023)



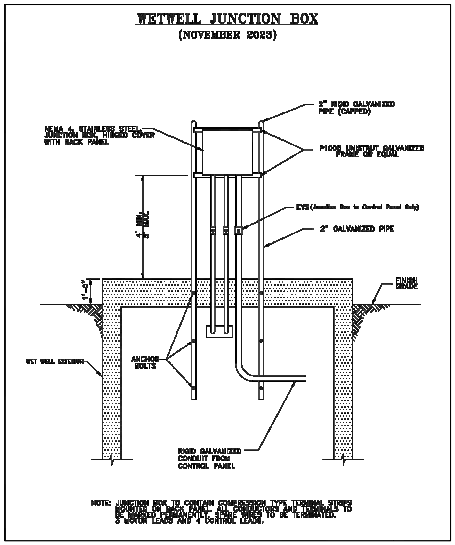
PIPE SIZE	MANHOLE I. D.
18"	6'-0"
21"– 27"	8'-0"
30"– 36"	9'-0"

REVISIONS

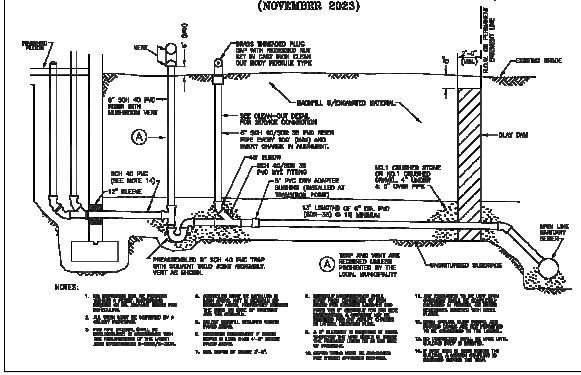
CONNECTION TO EXISTING MANHOLE
(NOVEMBER 2023)



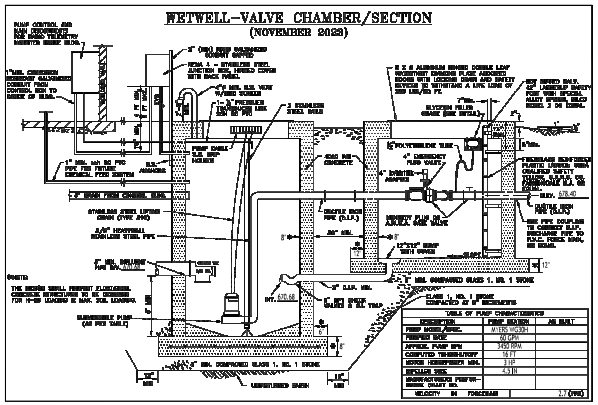
WETWELL JUNCTION BOX
(NOVEMBER 2023)



TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (NEW BUILDS)
(NOVEMBER 2023)

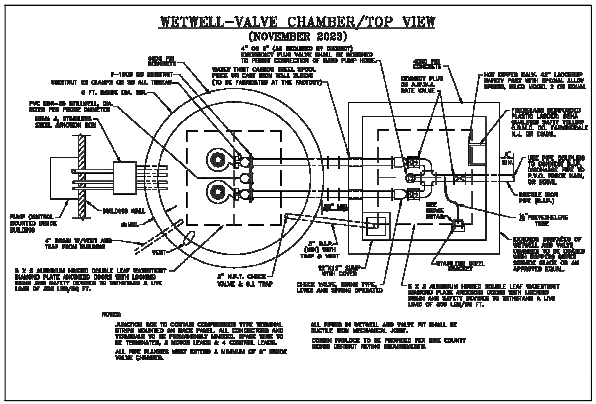


WETWELL–VALVE CHAMBER/SECTION
(NOVEMBER 2023)

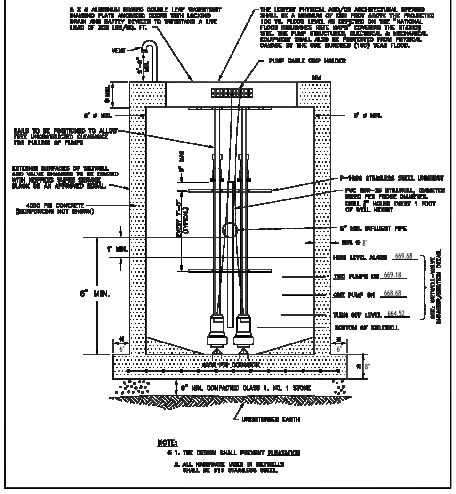


DESCRIPTION	PUMP DESIGN	AS BUILT
PUMP MANUF./MODEL	(PUTTING MACHINE)	
PUMPING RATE	60 GPM	
APPROX. PUMP RPM	1750 RPM	
COMPUTED TDH/HEAD/DUTY	16 FT.	
SERVICE HORSEPOWER MIN.	1 HP	
DRIVEN SIZE, MANUFACTURERS PREFERRED QUALITY NO.	4.3 FT.	
VELOCITY IN FORCEMAIN	2.7 (FPS)	

WETWELL–VALVE CHAMBER/TOP VIEW
(NOVEMBER 2023)



WETWELL/SIDE VIEW
(NOVEMBER 2023)



CARMINAWOOD DESIGN
Buffalo I Utica I Greenport

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/17/26

DRAWING NAME:
Utility Details

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

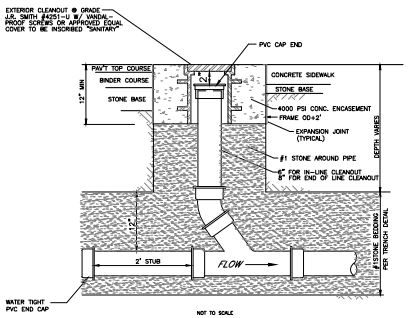
DRAWING NO.
C-404

Project No: 23-4121

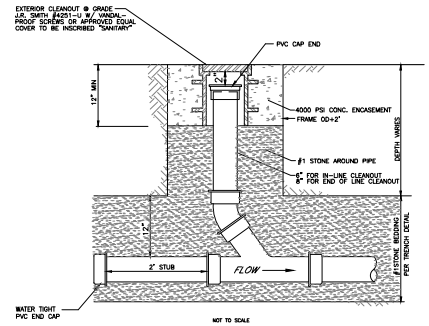
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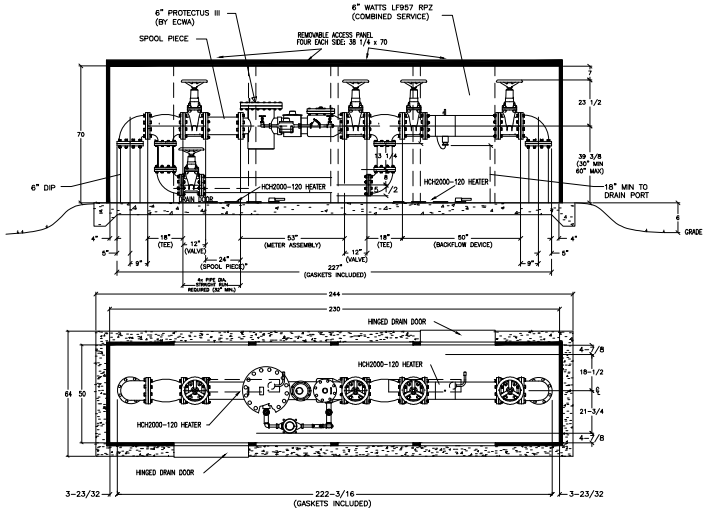
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CLEANOUT IN PAVEMENT/SIDEWALKS
NON RESIDENTIAL AND COMMERCIAL PROJECTS



CLEANOUT IN FIELD/LAWN AREAS
NON RESIDENTIAL AND COMMERCIAL PROJECTS





LEGEND:

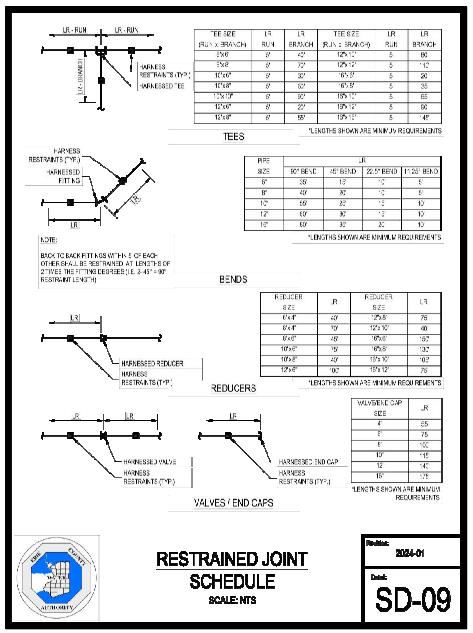
REMOVABLE ACCESS PANEL 38 1/4"W x 70"H w/DRAIN DOOR

REMOVABLE ACCESS PANEL 38 1/4"W x 70"H

6" METER & RPZ INSULATED ENCLOSURE

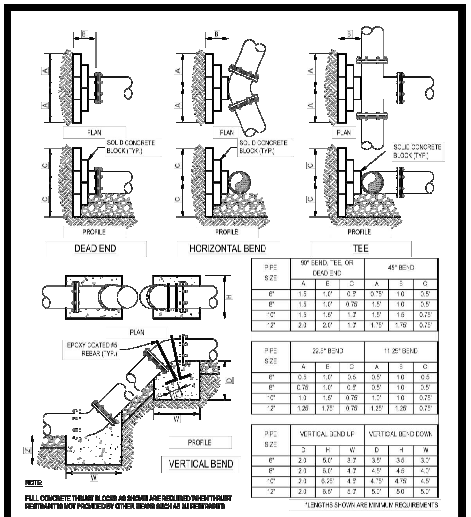
NOTES:

1. BACKFLOW PREVENTER DIMENSIONS FURNISHED BY WATTS
2. ALL DIMENSIONS ARE IN INCHES
3. WALL & INSULATION THICKNESS IS 1-1/2"
4. ROOF & INSULATION THICKNESS IS 3"
5. ENCLOSURE SHOWN IS SAFE-T-COVER MODEL 10000-ALCOO-17
6. EXTERIOR ENCLOSURE DIMENSIONS: 53"W x 233"L x 73" H
7. CONCRETE PAD IS 64"W x 244"L x 6"THK W/WWF, 6X6/10X10
8. METER SHOWN: 6" PROTECTUS III, SPOOL PIECE & METER SUPPLIED BY ECWA, VERIFY DIMENSIONS PRIOR TO ORDERING
9. RPZ SHOWN: 6" WATTS LF957 RPZ
10. CONTRACTOR TO INSTALL ELECTRIC SERVICE TO ENCLOSURE, COORDINATE SOURCE WITH OWNER
11. INSTALL A 120V GFI OUTLET IN THE ENCLOSURE
12. HEATERS TO HAVE THERMOSTAT CONTROL
13. ALL 6" PIPING & FITTINGS WITHIN THE ENCLOSURE SHALL BE DUCTILE IRON
14. CONCRETE PAD TO BE 6" ABOVE ADJACENT GRADE



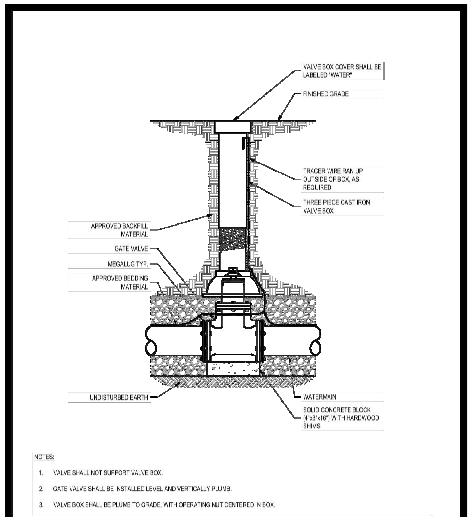
RESTRAINED JOINT SCHEDULE
SCALE: NTS

Revision: 2024-01
Detail: SD-09



THRUST BLOCKS
SCALE: NTS

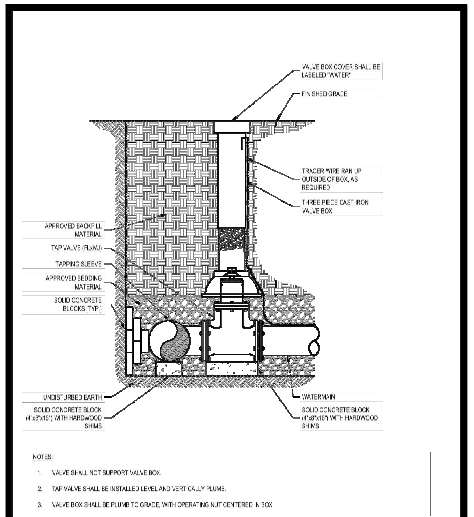
Revision: 2024-01
Detail: SD-10



NOTES:
1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. GATE VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

GATE VALVE SETTING
SCALE: NTS

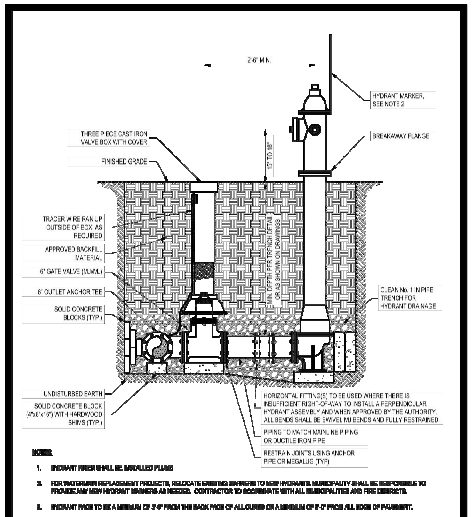
Revision: 2024-01
Detail: SD-12



NOTES:
1. VALVE SHALL NOT SUPPORT VALVE BOX.
2. TAP VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
3. VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

TAPPING SLEEVE AND VALVE
SCALE: NTS

Revision: 2024-01
Detail: SD-14



NOTES:
1. HYDRANT FINISH SHALL BE AMERICAN FLAME
2. NON TRACER WIRE ASSEMBLY PRODUCTS, SUCH AS FLANGED ADAPTERS TO MAKE HYDRANTS, MUELLER VALVE SHALL NOT BE PROVIDED AS MAIN HYDRANT DRAWINGS AS NEEDED. CONTRACTOR TO COORDINATE WITH ALL SUBCONTRACTORS AND FIRE DISTRICTS.
3. HYDRANT PRIOR TO BE A MINIMUM OF 3'-0" FROM THE BACK FACE OF ALL CURBS OR A MINIMUM OF 5'-0" FROM ALL SIDES OF PAVEMENT.

HYDRANT ASSEMBLY INSTALLATION
SCALE: NTS

Revision: 2024-01
Detail: SD-16

CARMINAWOOD DESIGN
Buffalo | Utica | Syracuse

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. Description Date

DRAWING NAME:
Utility Details

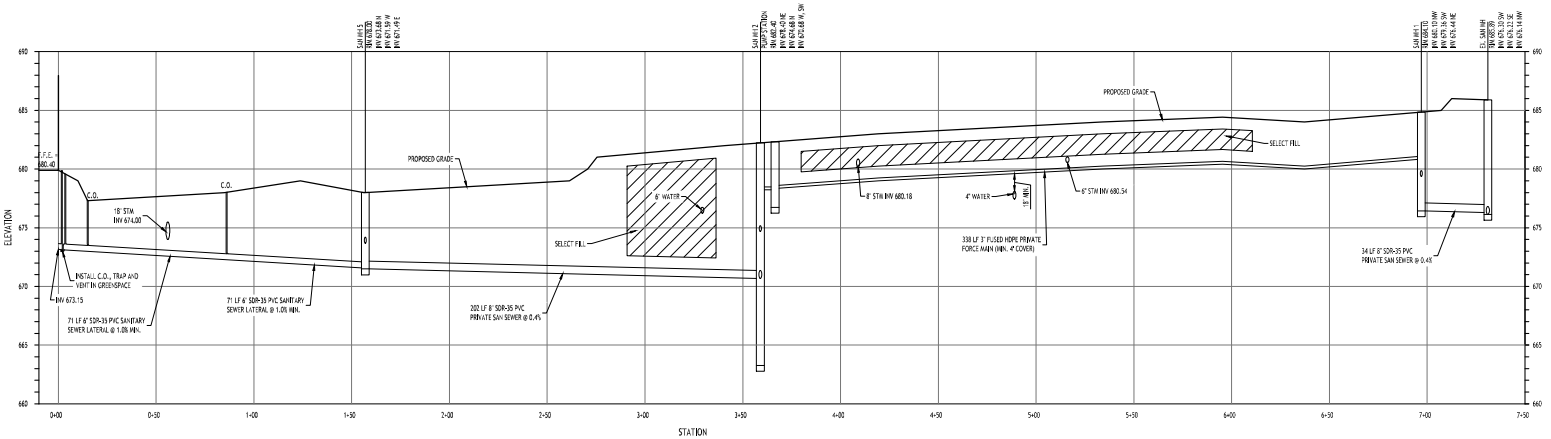
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-405

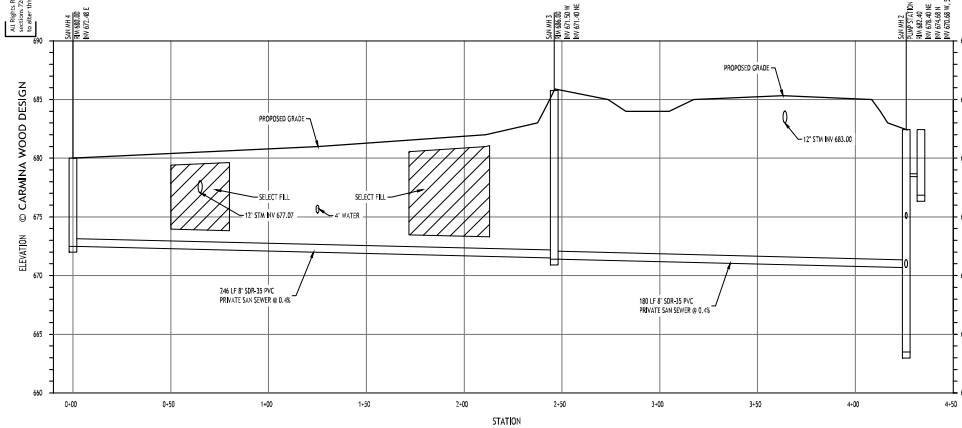
Project No: 23-4121

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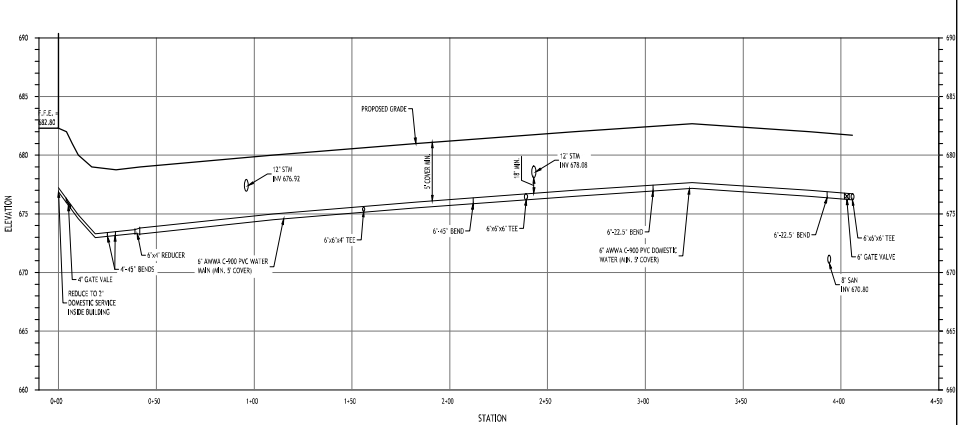
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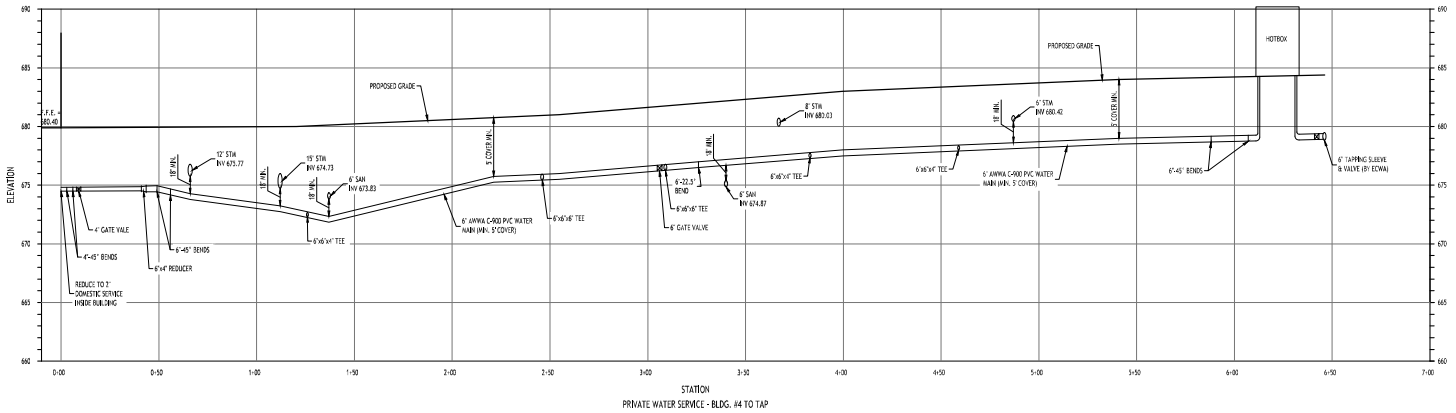
PRIVATE SANITARY SEWER - BLDG. #4 TO EX. SAN MH



PRIVATE SANITARY SEWER - SAN MH 4 TO PUMP STATION



PRIVATE WATER SERVICE - BLDG. #6 TO TEE



PRIVATE WATER SERVICE - BLDG. #4 TO TAP

CARMINAWOOD DESIGN
Buffalo I Utica I Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/17/26

DRAWING NAME:
Utility Profiles

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

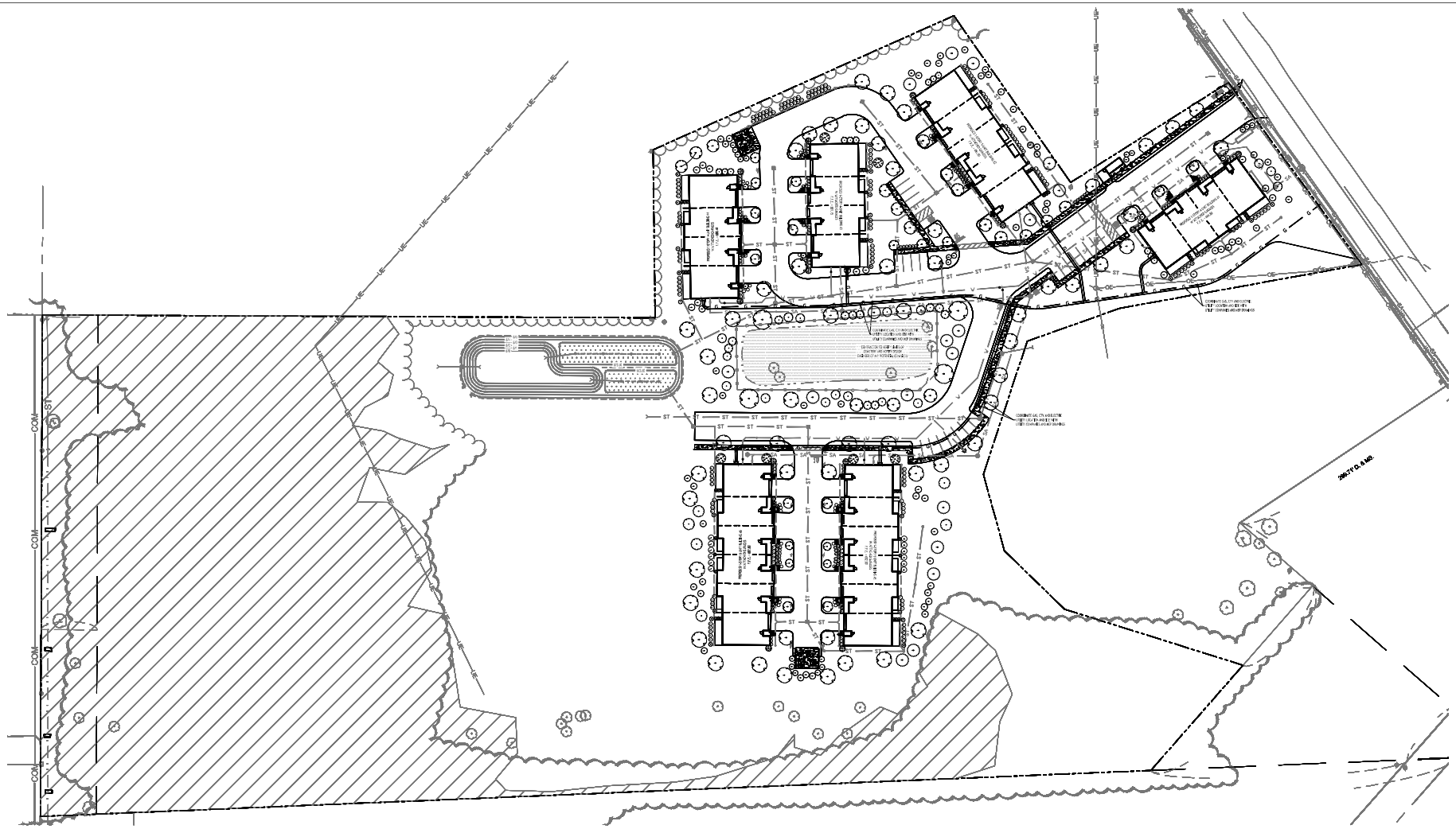
DRAWING NO.

C-406

Project No: 23-4121

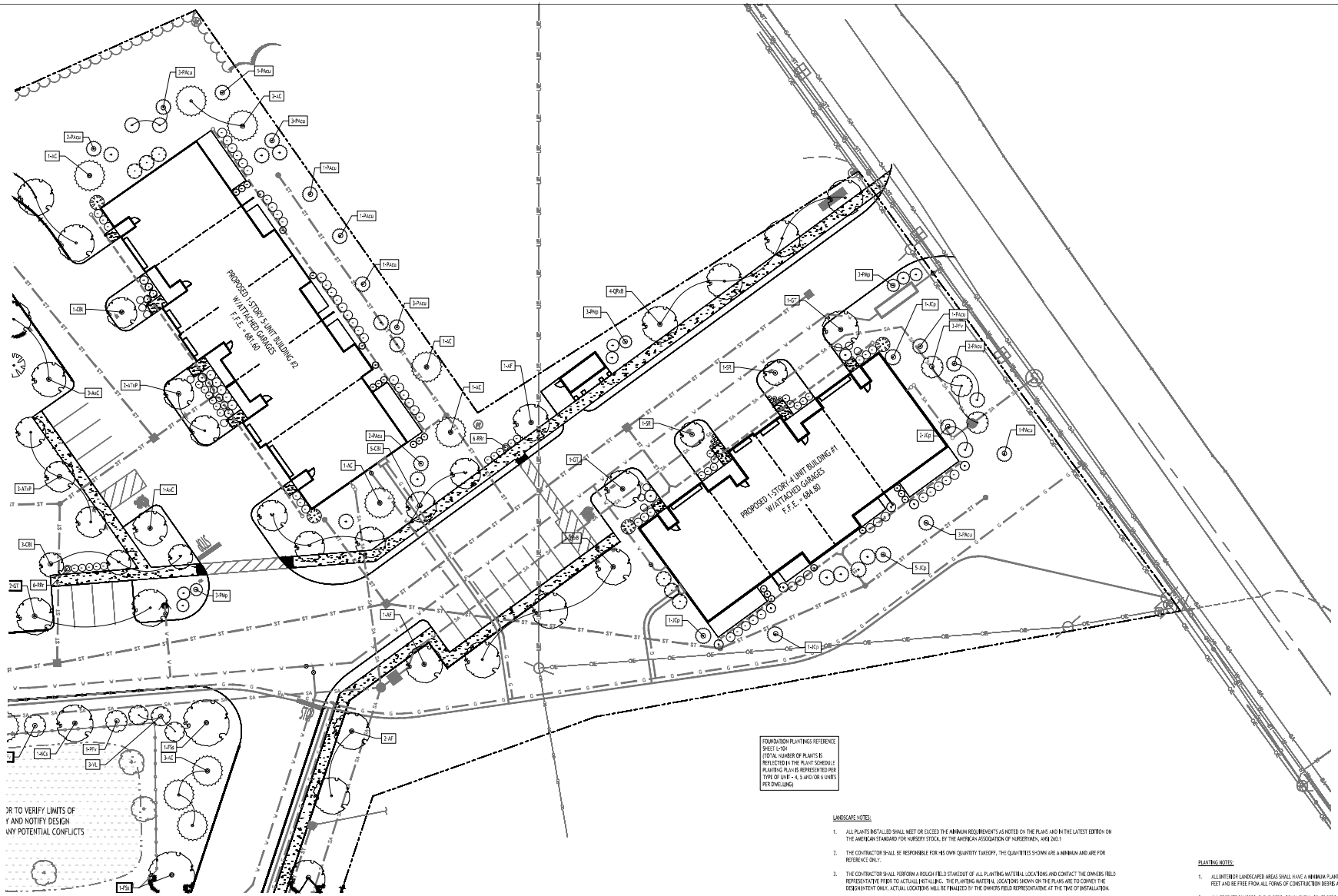
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Landscape Plan - East
SCALE: 1"=20'

FOUNDATION PLANTINGS REFERENCE SHEET L-104
(TOTAL NUMBER OF PLANTS IS REFLECTED IN THE PLANT SCHEDULE PLANTING PLAN IS REPRESENTED PER TYPE OF UNIT - 4, 5 AND/OR 6 UNITS PER DWELLING)

LANDSCAPE NOTES:

1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF, THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY, ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY, CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, X PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER 10 MIL. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
10. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING, SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.

PLANTING NOTES:

1. ALL INTERIOR LANDSCAPED AREAS SHALL HAVE A MINIMUM PLANTING SOIL DEPTH OF THREE (3) FEET AND BE FREE FROM ALL FORMS OF CONSTRUCTION DEBRIS AND FOREIGN MATERIAL.
2. ALL TREE PIT SAUCERS, SHRUB BEDS, ORNAMENTAL GRASS BEDS, AND PERENNIAL FLOWER BEDS SHALL RECEIVE "PREEN" HERBICIDE AND THREE (3) INCHES DEPTH OF DARK SHREDDED HARDWOOD BARK MULCH.
3. ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL-BLENDED MIXTURE OF 50% PEAT MOSS & 50% SCREENED TOPSOIL. SEASONAL FLOWER BEDS SHALL RECEIVE "PREEN" HERBICIDE. NO MULCH SHALL BE INSTALLED IN THE SEASONAL FLOWER BEDS.
4. ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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CARMINAWOOD DESIGN
Buffalo I Utica I Greenport

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. Description Date

DRAWING NAME:
Landscape Plan - East

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
L-101

Project No: 23-4121

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LANDSCAPE NOTES

1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF. THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD TAKEOFF OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNER'S FIELD REPRESENTATIVE IMMEDIATELY SHOULD THERE BE ANY DISCREPANCIES BETWEEN THE QUANTITIES SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS. ALL FINAL LOCATIONS SHALL BE INSTALLED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
4. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF ANY EXCAVATION. ALL PLANTINGS SHALL BE INSTALLED A MINIMUM OF 10' FROM ANY UNDERGROUND UTILITY. CONTACT THE APPROPRIATE UTILITY REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS OCCUR IN THESE AREAS.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 10' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIX FOR ALL PROPERTY PLANTING SHALL CONSIST OF THE FOLLOWING: 1 PART TOPSOIL, 1 PART PEAT HUMUS, 1 PART WELL ROTTED MANURE, 10 LBS 5-10-5 FERTILIZER PER CUBIC YARD OF MIXED SOIL.
7. STAKE AND GUY TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED BEDS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH COVER TO BE MIN. WIDTH NOT EQUAL TO WIDTH OF 18" GARDENER OR 24" MIN TILED DRAINS.
9. THE AREA ON THE PLAN TO BE SEEDED SHALL HAVE A MINIMUM OF TOPSOIL, NEW PICKING, LIFTED AND HAND RAKED SMOOTH. SURFACE SHALL BE FREED TO REMOVE LUMPS.
10. ALL SEEDED AREAS SHALL BE PROTECTED IN ACCORDANCE WITH THE SPECIFICATIONS INDICATED, WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING, SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE REQUIRED UNTIL THE PROJECT IS RECEIVED BY THE OWNER'S REPRESENTATIVE AND FINAL PAYMENT IS MADE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REPLACEMENT OF ANY DEAD OR UNSATISFACTORY PLANTS DURING THIS PERIOD.

PLANTING NOTES

1. ALL PERENNIALS AND GROUND COVERS SHALL HAVE A MINIMUM PLANTING DEPTH AS NOTED TO THE FIRST FIELD OF BRANCHING AND SHALL BE PLANTED AT THE SAME DEPTH AS THEY WERE GROWN IN THE CONTAINER. ALL PLANTS SHALL BE FREE FROM ALL SIGNS OF CONSTRUCTION DEBRIS AND STONES, NATURAL OR MAN-MADE.
2. ALL TREE AND SHRUB PITS SHALL BE EXCAVATED TO A DEPTH AND WIDTH AS SHOWN ON THE PLANTING DETAILS. PITS SHALL HAVE VERTICAL SIDES AND FLAT BOTTOMS. ROUGHEN SIDES AND BOTTOM OF PIT PRIOR TO PLACEMENT OF PLANTING MIX. ALL TREES AND SHRUBS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH AND A MINIMUM OF 18" DIAMETER WATERING RING.
3. ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL ALIGNED MIXTURE OF 50% PEAT MOSS & 50% SCREENED TOPSOIL. SEASONAL FLOWER BEDS SHALL BE PLANTED WITH PERENNIAL FLOWER BEDS. ALL SEASONAL FLOWER BEDS SHALL BE REPLANTED AS REQUIRED TO MAINTAIN A HEALTHY DISPLAY.
4. ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.

FOUNDATION PLANTINGS REFERENCE	
LETTER / NUMBER OF PLANTER	TOTAL NUMBER OF PLANTS REQUIRED IN THE PLANT SCHEDULE
A	3 PLANTS PER DWELLING
B	4 PLANTS PER DWELLING
C	5 PLANTS PER DWELLING

PROPOSED 1-STORY 4-UNIT BUILDING #4
W/ATTACHED GARAGES
F.F.E. = 680.40

PROPOSED 1-STORY 4-UNIT BUILDING #3
W/ATTACHED GARAGES
F.F.E. = 681.15

PROPOSED 1-STORY 5-UNIT BUILDING #2
W/ATTACHED GARAGES
F.F.E. = 681.40

CONTRACTOR TO VERIFY LIMITS OF CEMETERY AND NOTIFY DESIGN ENGINEER OF ANY POTENTIAL CONFLICTS

670 671 672 673 674 675 673.50

N Landscape Plan - West
SCALE: 1"=20'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

0 20 40

REVISIONS:

No.	Description	Date

DRAWING NAME: Landscape Plan - West

DRAWING NO. L-102

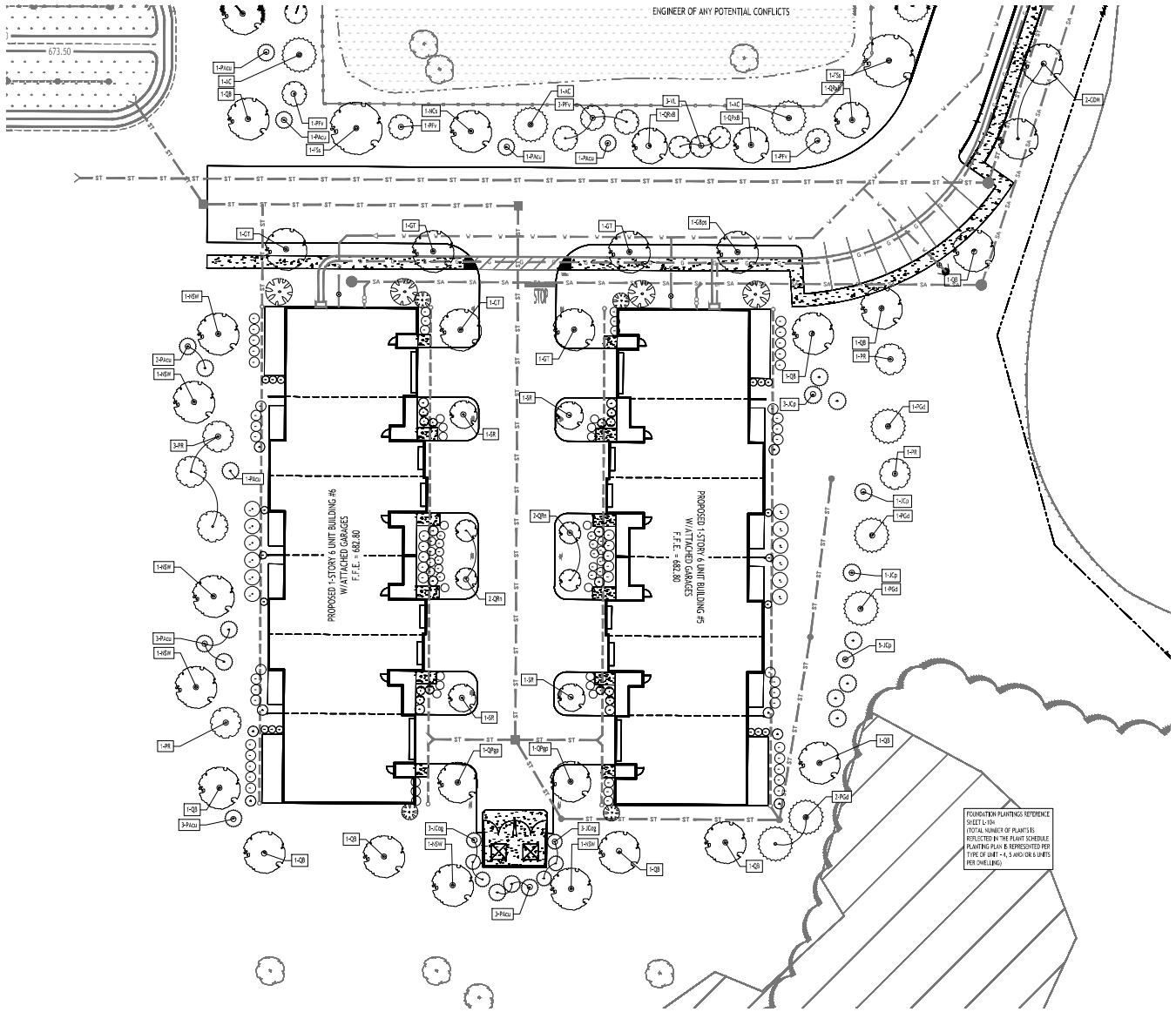
Project No: 23-4121

Date: 5/22/26
Drawn By: AJ
Scale: As Noted

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro



Landscape Plan - South

SCALE: 1"=30'

LANDSCAPE NOTES:

1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF, THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALLY INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY, ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY, CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, & PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER 90 MIL. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
10. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING, SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER, THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.

PLANTING NOTES:

1. ALL INTERIOR LANDSCAPED AREAS SHALL HAVE A MINIMUM PLANTING SOIL DEPTH OF THREE (3) FEET AND BE FREE FROM ALL FORMS OF CONSTRUCTION DEBRIS AND FOREIGN MATERIAL.
2. ALL "TREE PIT" SAUCERS, SHRUB BEDS, ORNAMENTAL GRASS BEDS, AND PERENNIAL FLOWER BEDS SHALL RECEIVE "PREEN" HERBICIDE AND THREE (3) INCHES DEPTH OF DARK SHREDDED HARDWOOD BARK MULCH.
3. ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL-BLENDED MIXTURE OF 50% PEAT MOSS & 50% SCREENED TOPSOIL. SEASONAL FLOWER BEDS SHALL RECEIVE "PREEN" HERBICIDE. NO MULCH SHALL BE INSTALLED IN THE SEASONAL FLOWER BEDS.
4. ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 0 30 60FT.

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CARMINAWOOD DESIGN
Buffalo I Utica I Greenport

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:

No.	Description	Date

DRAWING NAME:
Landscape Plan - South

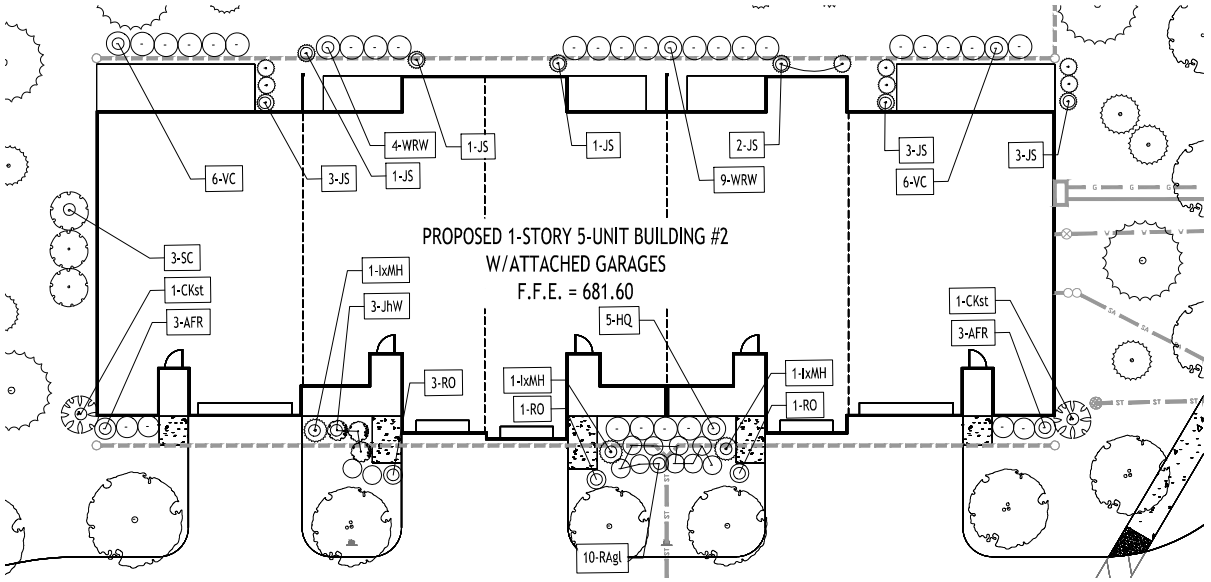
Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
L-103

Project No: 23-4121

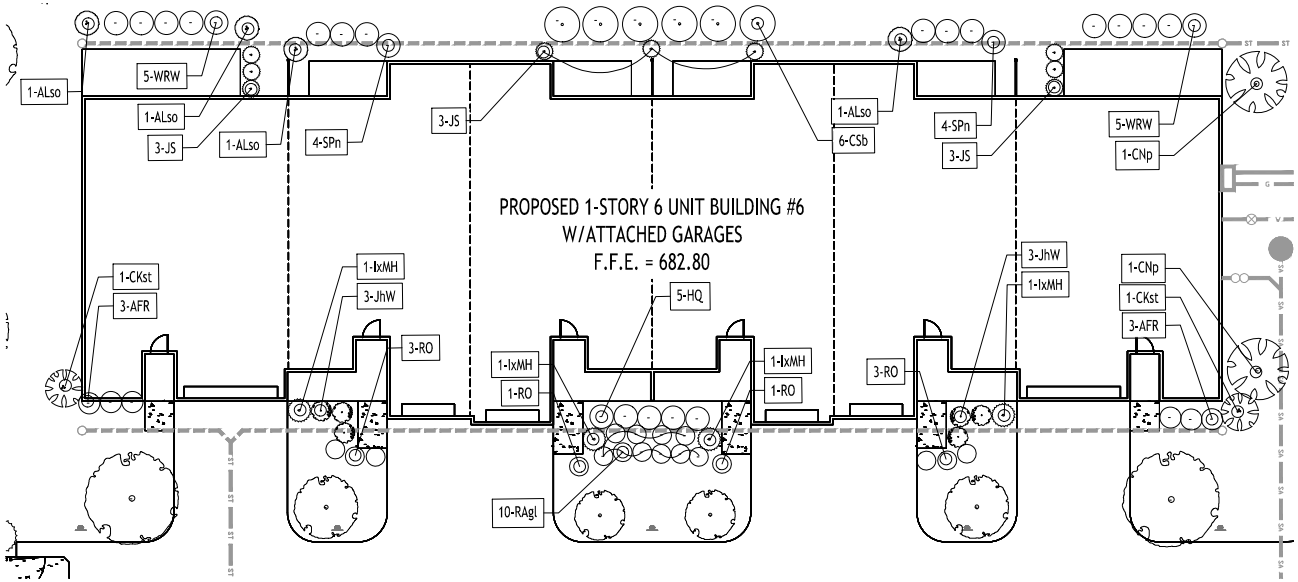
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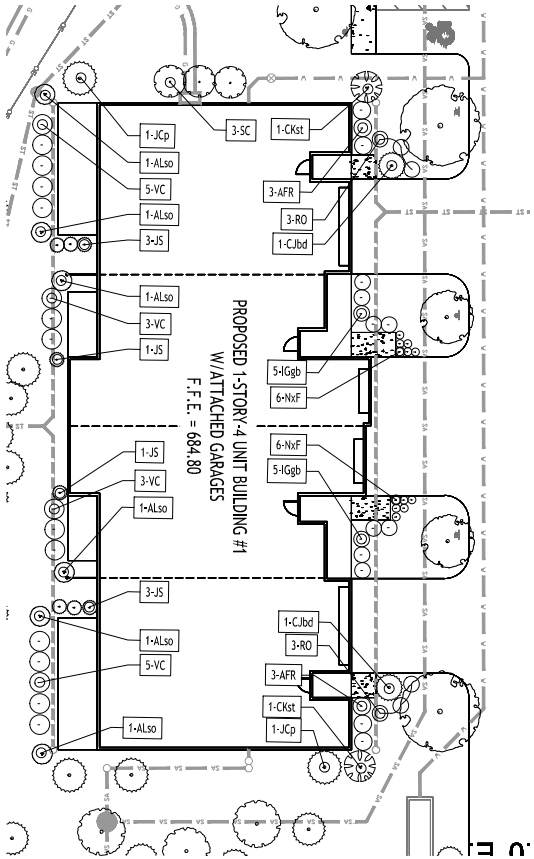
N Foundation Planting Plan @ 5 Unit

SCALE: 1"=10' NOTE: TOTAL OF 1 - 5 UNIT COMPLEX ON SITE



N Foundation Planting Plan @ 6 Unit

SCALE: 1"=10' NOTE: TOTAL OF 2 - 6 UNIT COMPLEX(S) ON SITE



N Foundation Planting Plan @ 4 Unit

SCALE: 1"=10' NOTE: TOTAL OF 3 -4 UNIT COMPLEX(S) ON SITE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

10 0 10 20FT.

CARMINAWOOD DESIGN
Buffalo I Utica I Greenport

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. Description Date

DRAWING NAME:
Foundation Planting Plan

Date: 5/22/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
L-104

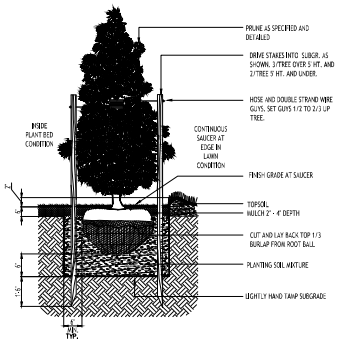
Project No: 23-4121

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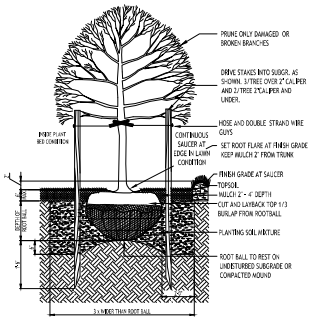
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Plant Schedule -Multi-Family Development 1425 & 1475 Orchard Park Road-West Seneca, New York

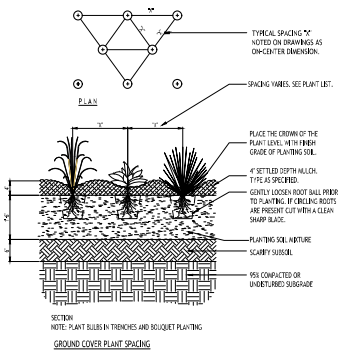
KEY	QTY.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	REMARKS
		DECIDUOUS TREES			
QB	12	Quercus bicolor	Swamp White Oak	2 1/2" - 3" CAL.	B&B, HT. 60', W 40'
GT	11	Gleditsia triacanthos "Draves"	Street Keeper Honey Locust	2 1/2" - 3" CAL.	B&B, HT. 40', W 35'
AxC	4	Aesculus x carnea 'Briotii'	Red Horse Chestnut	2 1/2" - 3" CAL.	B&B, HT. 60', W 40'
ARr	3	Acer rubrum 'Frank Jr.'	Redpointe Maple	2 1/2" - 3" CAL.	B&B, HT. 40', W 35'
AF	7	Acer freemanii 'Jeffersred'	Autumn Blaze Maple	2 1/2" - 3" CAL.	B&B, HT. 40', W 35'
QPgp	2	Quercus palustris 'Green Pillar'	Green Pillar Pin Oak	2 1/2" - 3" CAL.	B&B, HT. 35', W 18'
NSW	6	Nyssa sylvatica 'Wildfire'	Wildfire Tupelo	2 1/2" - 3" CAL.	B&B, HT. 35', W 18'
NCs	4	Northern catalpa 'Speciosa'	Northern Catalpa	2 1/2" - 3" CAL.	B&B, HT. 40', W 35'
QRn	4	Quercus robur x bicolor Nadler PP17604'	Kindred Spirit Oak	2 1/2" - 3" CAL.	B&B, HT. 30', W 8'
GBps	1	Ginkgo biloba 'Princeton Sentry'	Prnceton Sentry Ginkgo(Maidenhair Tree)	2 1/2" - 3" CAL.	B&B, HT. 40', W 20'
CBl	11	Carpinus betulus 'Lucas'	Lucas Columnar Hornbeam	2 1/2" - 3" CAL.	B&B, HT. 50', W 30'
GDM	4	Gymnogladus dioicus 'Morton'	Kentucky Coffee Tree 'Morton'	2 1/2" - 3" CAL.	B&B, HT. 35', W 18'
QRxB	11	Quercus robur x bicolor 'Long'	Regal Prince Oak	2 1/2" - 3" CAL.	B&B, HT. 35', W 18'
FSs	4	Fagus sylvatica 'Riversii'	Rivers Purple European Beech	2 1/2" - 3" CAL.	B&B, HT. 45', W 25'
ATxP	5	Acer truncatum x plantanoides 'JFS-KW202'	Crimson Sunset Maple	2 1/2" - 3" CAL.	B&B, HT. 35', W 25'
		SMALL / ORNAMENTAL TREES			
ALso	26	Amelanchier 'Standing Ovation'	Standing Ovation Serviceberry	1 1/2" x 2" CAL.	B&B, HT. 20', W 15'
SR	10	Syringa reticulata 'Ivory Silk'	Ivory Silk Tree Lilac	1 1/2" X 2 1/2" CAL.	B&B, HT. 20', W 15'
CKst	12	Cornus kousa 'Snow Tower'	Kousa Dogwood	1 1/2" x 2 1/2" CAL.	B&B, HT. 15', W 8'
		EVERGREEN TREES			
JS	56	Juniperus scopolarum 'Skyrocket'	Skyrocket Juniper	6-8' Tall	B&B, HT. 16', W 4'
PAcu	40	Picea abies 'Cupressina'	Norway Spruce - Columnar	6-8' Tall	B&B, HT. 20', W 8'
AC	13	Abies concolor	White Fir	6-8' Tall	B&B, HT. 60', W 20'
CNp	6	Chamaecyparis nootkatensis 'Pendula'	Weeping Nootka Cypress	6-8' Tall	B&B, HT. 20', W 8'
PFv	14	Pinus flexilis 'Vanderwolf's'	Blue Limber Pine	6-8' Tall	B&B, HT. 20', W 8'
CJbd	6	Cryptomeria Japonica 'Black Dragon'	Back Dragon Japanese cedar	6-8' Tall	B&B, HT. 20', W 8'
PGd	5	Picea glauca "Densata"	Black Hills Spruce	6-8' Tall	B&B, HT. 25', W 15'
PMp	9	Pinus mugo 'Pumila'	Mugo Pine	24-36" Tall	B&B, HT. 3', W 4'
JCp	29	Juniperus chinensis 'Perfecta'	Perfecta Juniper	24-36" Tall	B&B, HT. 16', W 7'
JCog	11	Juniperus chinensis 'Ontario Green'	Ontario Green Juniper	24-36" Tall	B&B, HT. 8', W 6'
PR	6	Pinus resinosa	Red Pine	6-8' Tall	B&B, HT. 60', W 20'
		SHRUBS			
RAgl	30	Rhus aromatica 'Gro-low'	Fragrant Sumac	18-24" Tall	Cont. #3, HT. 2-3, W 6'
VC	60	Viburnum carlesii	Korean Spice Viburnum	24-36" Tall	B&B, HT. 4', W 4'
AFR	36	Cornus sericea 'Farrow'	Arctic Fire Red Twig Dogwood	24-36" Tall	B&B, HT. 4', W 4'
WRW	33	Ilex verticillata 'Winter Red'	Winter Red Winterberry Holly	24-36" Tall	B&B, HT. 7', W 5'
JhW	15	Juniperus horizontalis 'Wiltonii'	Blue Rug Juniper	6-8" Tall	B&B, HT.1.5', W 6'
CSd	39	Cornus sericea	Red Twig Dogwood	24-36" Tall	B&B, HT. 4', W 4'
SC	12	Sambucus canadensis	American Eldeberry	24-36" Tall	B&B, HT. 4', W 3'
RRr	12	Rosa radrazz	Knockout Rose	18-24" Tall	Cont. no.3 - 3'Tall, 3'Wide
HQ	15	Hydrangea quercifolia	Oakleaf Hydrangea	24-36" Tall	B&B, HT. 5', W 5'
VL	13	Viburnum lentago	Nannyberry Viburnum	36-48" Tall	B&B, HT. 5-7', W 6'
SPn	16	Salix purpurea 'Nana'	Blue Arctic Willow	24-36" Tall	B&B, HT. 12', W 6'
IxMH	11	Ilex x meserveae 'Hachfee'	Castle Spire Blue Holly	24-36" Tall	B&B, HT. 10', W 4'
CSb	12	Cornus sericea baileyi	Red Twig Dogwood	24-36" Tall	B&B, HT. 8', W 8'
IGgb	30	Ilex glabra 'Gembox'	Gem Box Inkberry Holly	24-36" Tall	B&B, HT. 3', W 3'
SPs	0	Salix purperea 'Streamco'	Streamco Willow	24-36" Tall	B&B, HT. 12', W 6'
		GRASSES / PERENNIALS / GROUNDCOVERS			
RO	29	Andropogon Gerardii 'Red October'	Red October Big Blue Stem	18-24" Tall	Cont. #3, HT. 4', W 6'
NxF	36	Nepeta x faassenii 'Walker's Low'	Walkers Low Catmint	6-12" Tall	Cont. no.3 - 18" Tall, 1-4'Wide



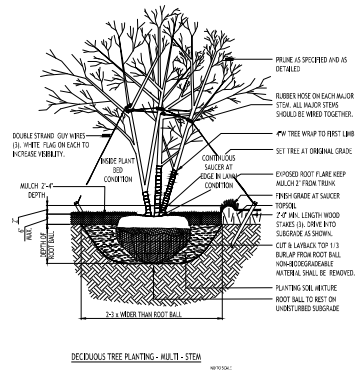
STD. EVERGREEN PLANTING



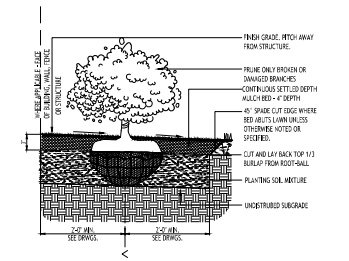
STD. DECIDUOUS TREET PLANTING



GROUND COVER PLANT SPACING



DECIDUOUS TREE PLANTING - MULTI - STEM



STD. SHRUB PLANTING

CARMINAWOOD DESIGN
Buffalo | Utica | Greenpoint

Multifamily Development
1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:		
No.	Description	Date
1	Per Engineering comments	6/17/26

DRAWING NAME:
Landscape Details

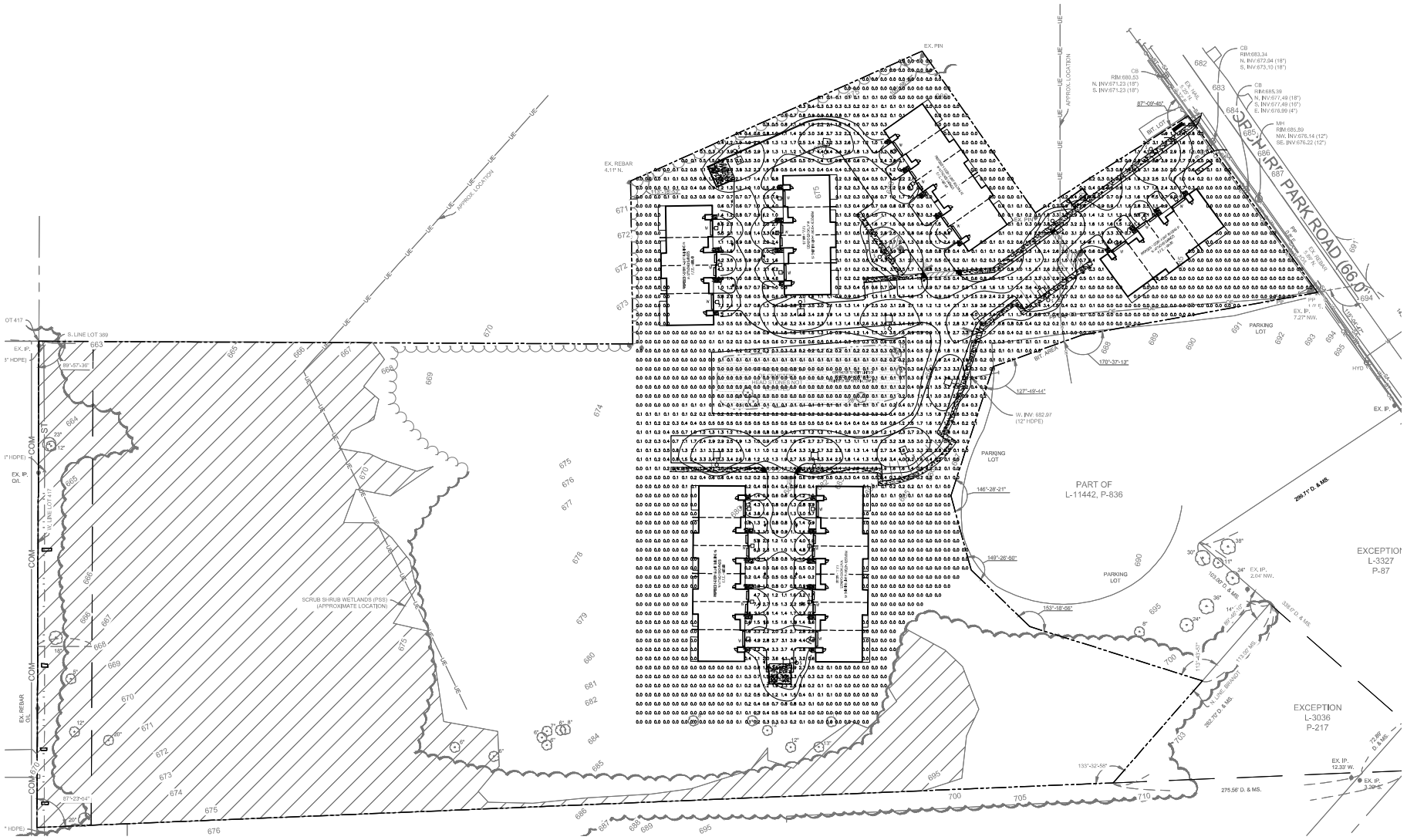
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DRAWING NO.
L-105

Project No: 23-4121

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N

Lighting Plan

SCALE: 1"-50'

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50' 0 50 100Ft.

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	VOLTS	NOTE 1	QUANTITY	LUMENS / LAMP	TOTAL LUMENS
S		(24) 4617W (32) 4000K CCT, 70 CRI LEDS	PREVAIL AREA AND WALL LUMINAIRE(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS	ELECTRONIC	POLE	COOPER LIGHTING SOLUTIONS – LUMARK (FORMERLY EATON), PRV-P--PA1D-740-U-T3	120V 1P 2W	Mounting Height: 18'	14	9945	238680
W		(1) 3719W 3000K CCT, 70 CRI LEDS	WALL PACK	ELECTRONIC	WALL	COOPER LIGHTING SOLUTIONS – HALO, WXPS40UNVDBZ-30W-4000K	120V 1P 2W	Mounting Height: 12'	20	3719	3719

CARMINAWOOD DESIGN
Buffalo I Utica I Greenport

Multifamily Development

1425 & 1475 Orchard Park Rd
West Seneca, NY

REVISIONS:
No. Description Date

DRAWING NAME:
Lighting Plan

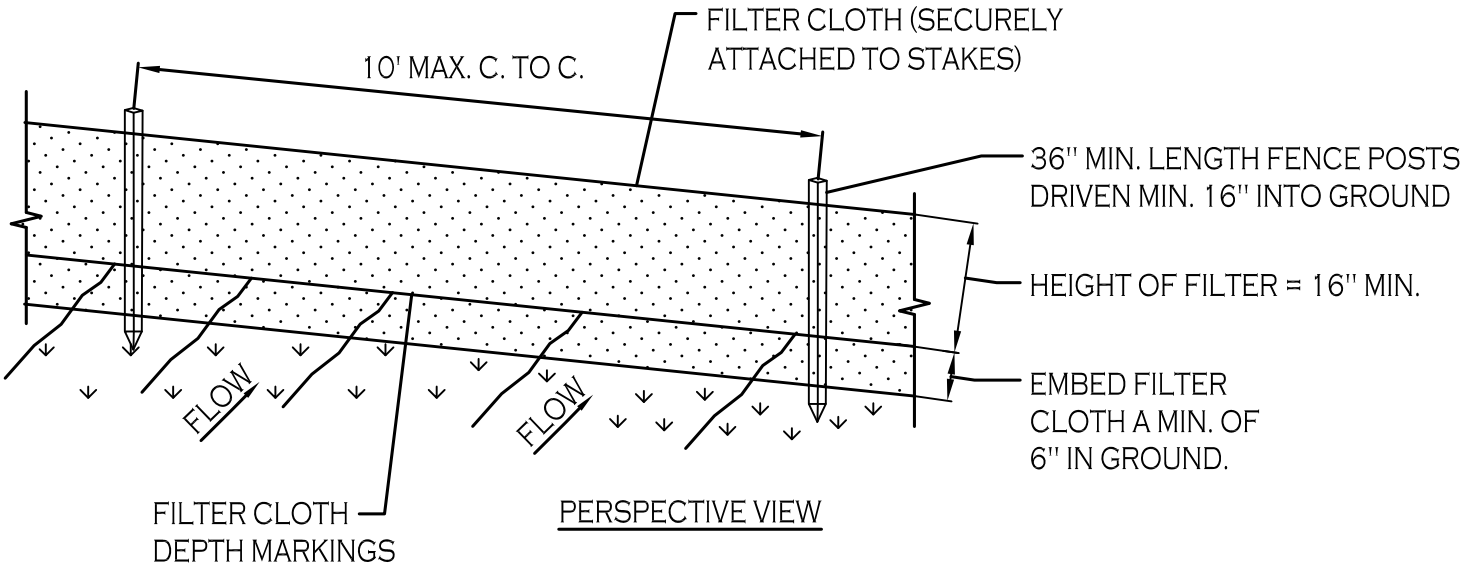
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Drawn By: A. Pandolfe
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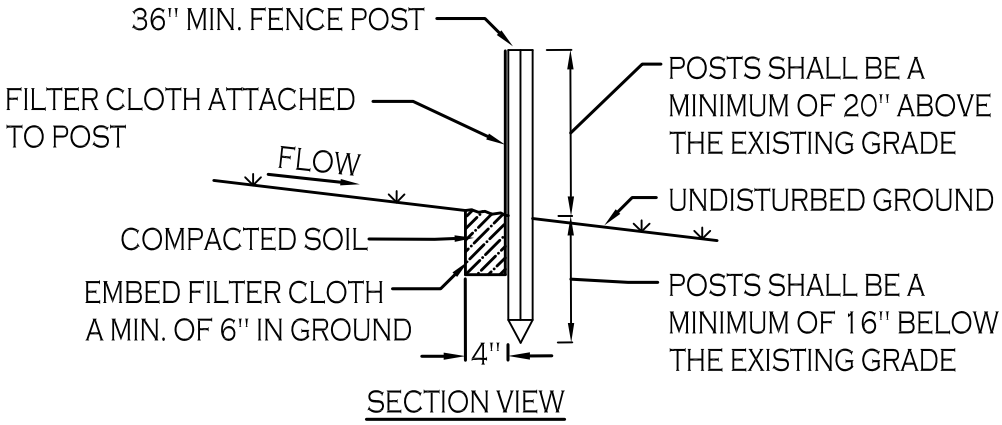
DRAWING NO.
LP-100

Project No: 23-4121

Appendix I

Standard Erosion Control Details





CONSTRUCTION SPECIFICATIONS

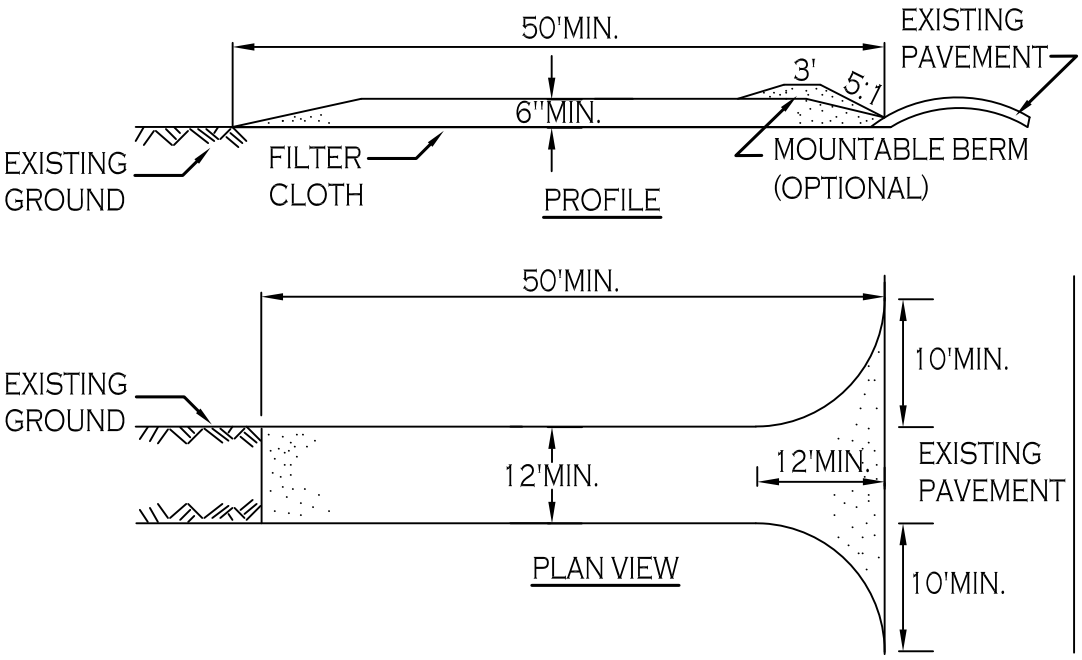
1. WOVEN FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.

2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.

3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).

3. THICKNESS - NOT LESS THAN SIX (6) INCHES.

4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.

5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

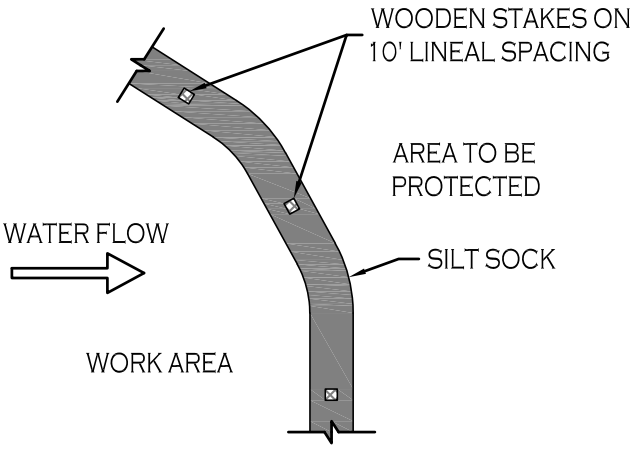
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

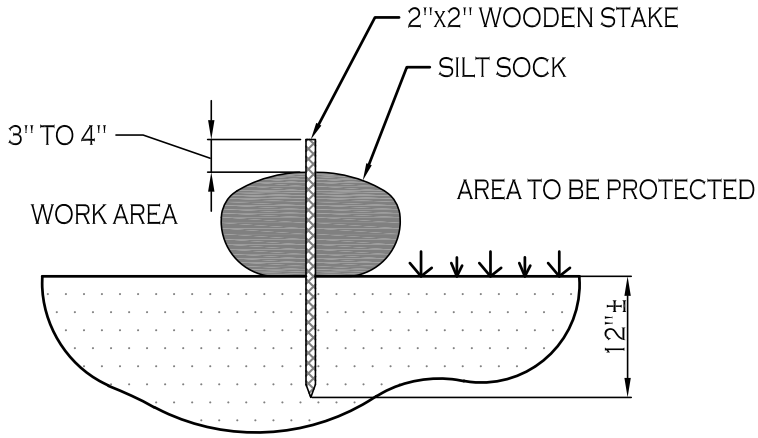
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



PLAN VIEW



SECTION VIEW

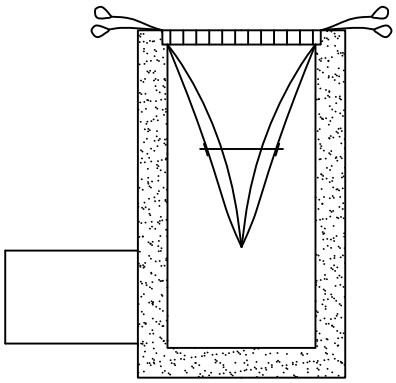
NOTES:

CONTRACTOR SHALL INSPECT AND MAINTAIN SILT SOCK AS NEEDED DURING THE DURATION OF CONSTRUCTION PROJECT.

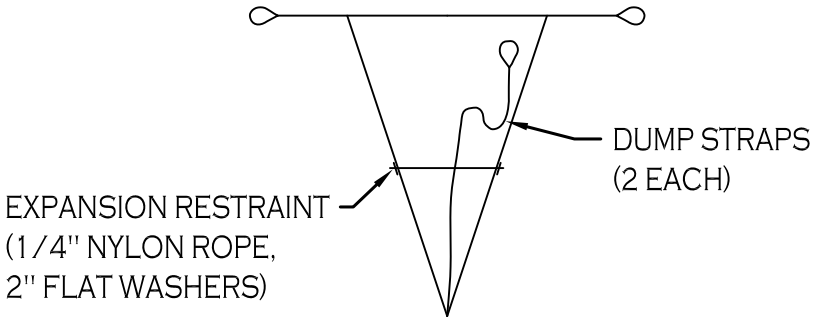
CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK WHEN IT HAS REACHED $\frac{1}{2}$ OF THE EXPOSED HEIGHT OF THE SILT SOCK. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, THE ENGINEER MAY CALL FOR ADDITIONAL SILT SOCK TO BE ADDED AT AREAS OF HIGH SEDIMENTATION, PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOCK.

SILT SOCK DETAIL

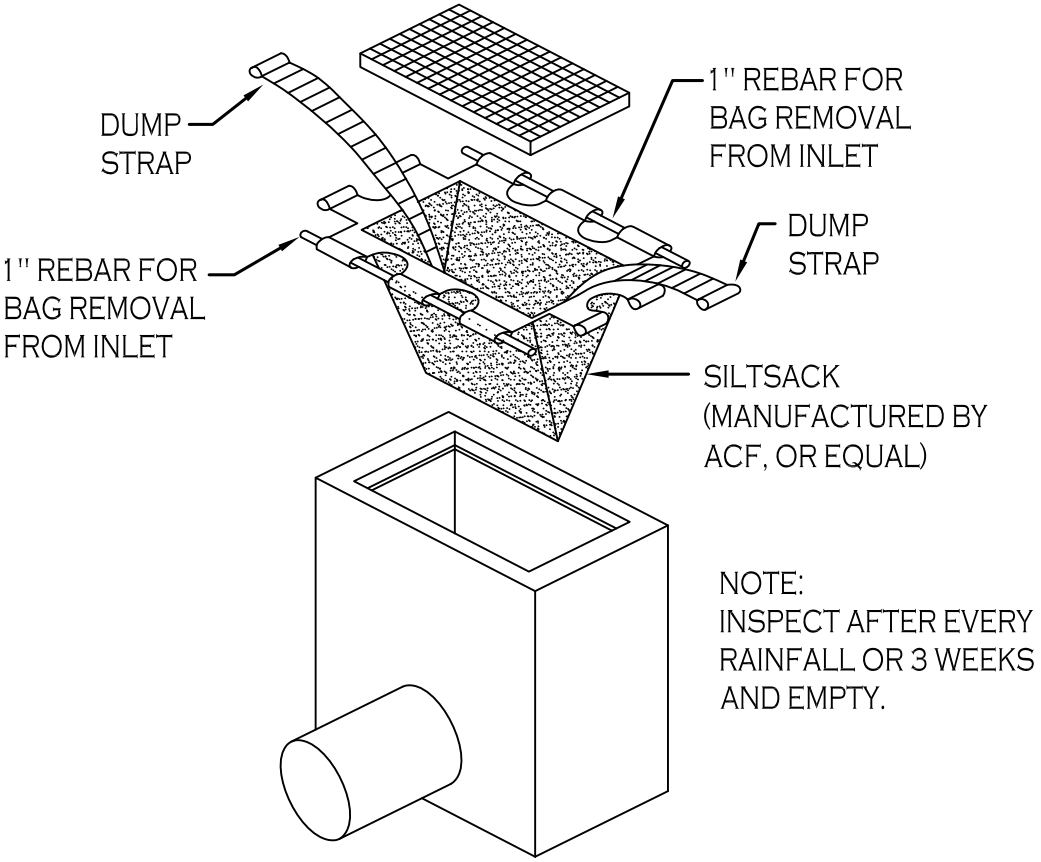
NOT TO SCALE



INSTALLATION DETAIL



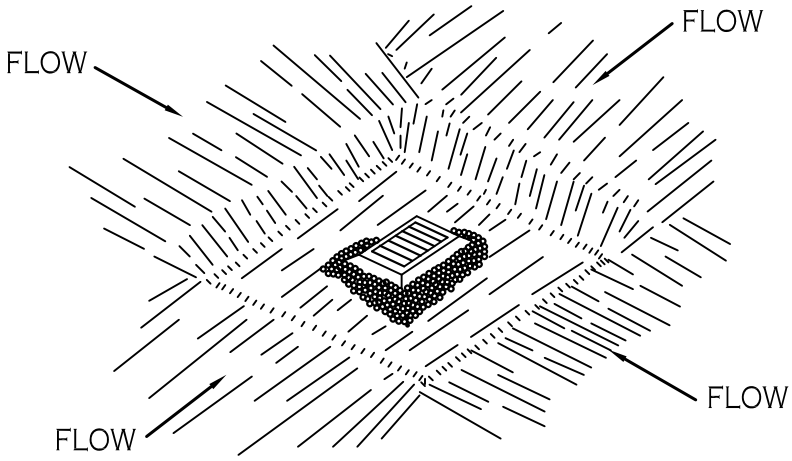
BAG DETAIL

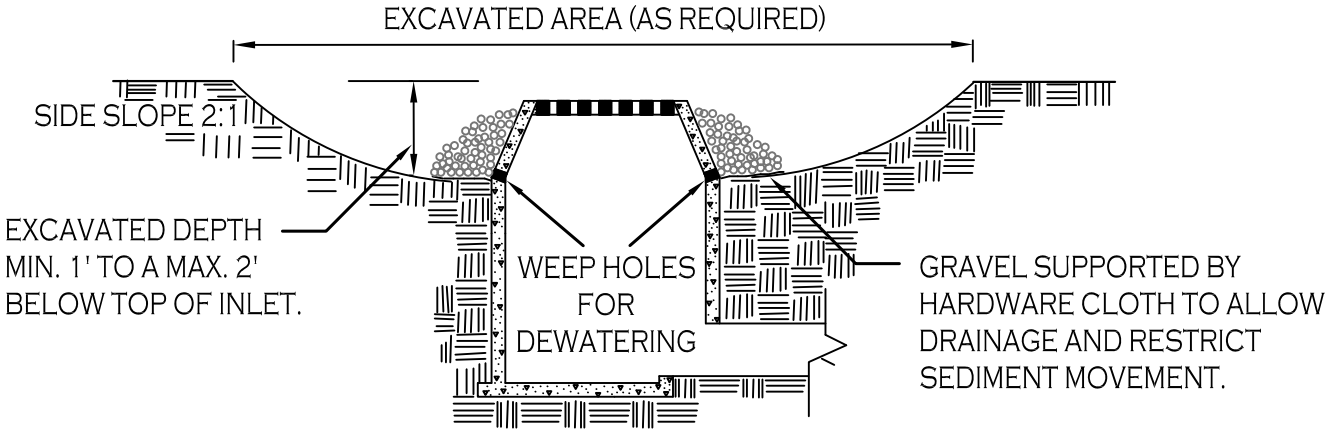


NOTE:
INSPECT AFTER EVERY
RAINFALL OR 3 WEEKS
AND EMPTY.

SILT SACK DETAIL

NOT TO SCALE





CONSTRUCTION SPECIFICATIONS

1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.

2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.

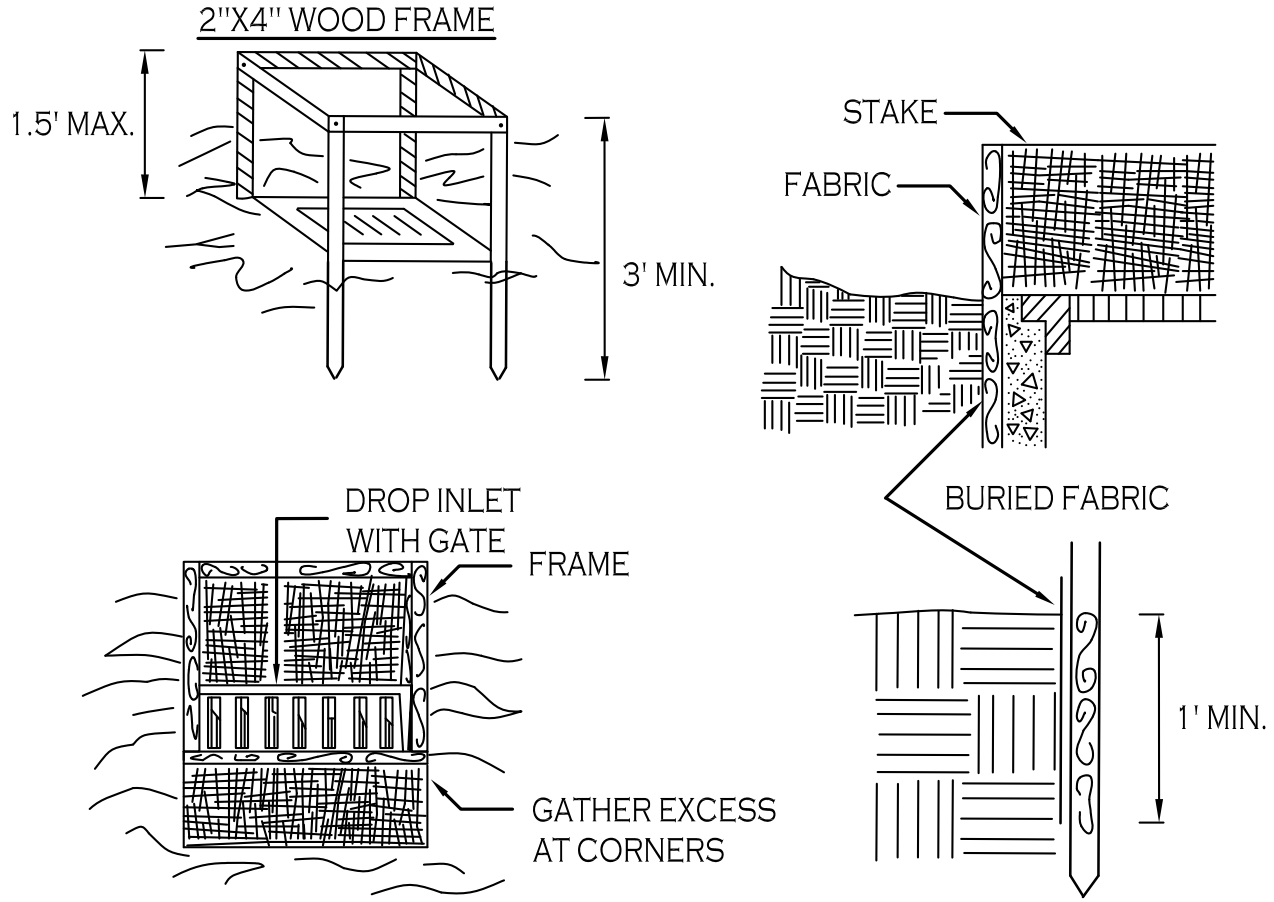
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.

4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 1

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.

2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.

3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.

4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.

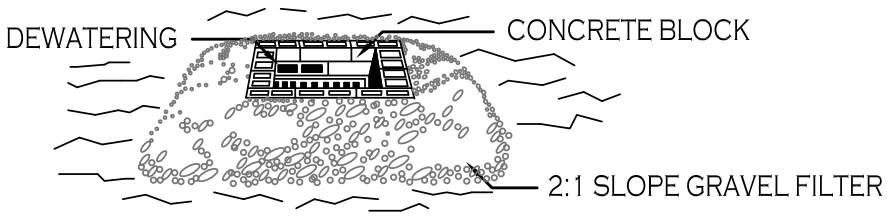
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.

6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

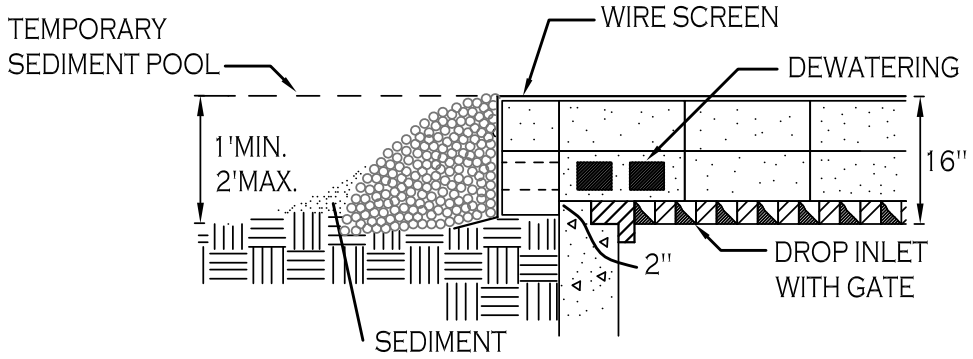
MAXIMUN DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 2

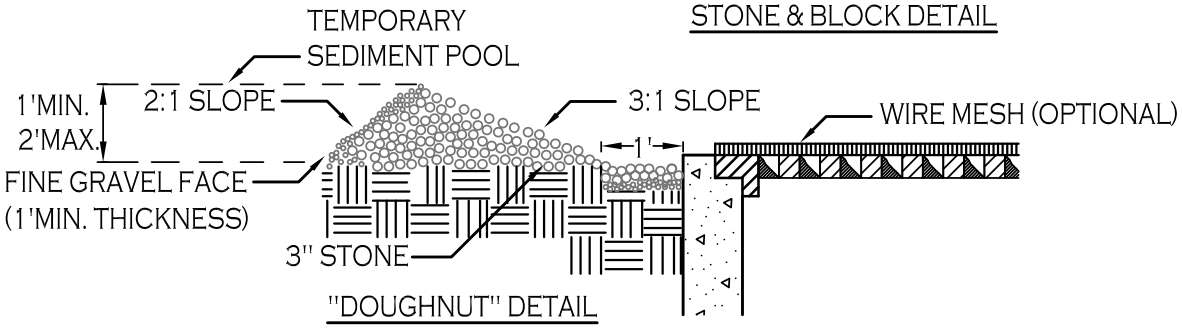
NOT TO SCALE



STONE & BLOCK PLAN VIEW



STONE & BLOCK DETAIL



"DOUGHNUT" DETAIL

CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.

2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.

3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.

4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

MAXIMUM DRAINAGE AREA 1 ACRE

INLET PROTECTION DETAIL 3

NOT TO SCALE

EXISTING TREE PROTECTION FENCE

MATERIALS

MATERIALS FOR TEMPORARY PLASTIC BARRIER FENCES SHALL MEET THE FOLLOWING REQUIREMENTS:

- FENCE: HIGH-DENSITY POLYETHYLENE MESH, ULTRAVIOLET-STABILIZED MIN. 2 YEARS; MINIMUM HEIGHT 4.0 FEET. COLOR: HIGH-VISIBILITY ORANGE OR GREEN. WHEN USED TO PROTECT TREES OR OTHER VEGETATION, COLOR SHALL BE HIGH-VISIBILITY ORANGE.
- POSTS: RIGID METAL OR WOOD POSTS, MINIMUM LENGTH 6.0 FEET.
- TIES: STEEL WIRE, #14 GAUGE OR NYLON CABLE TIES.
- WARNING SIGNS: SHEET METAL, PLASTIC OR OTHER RIGID, WATERPROOF MATERIAL, 1.5 FEET BY 2.0 FEET WITH 4 INCH BLACK LETTERS ON A WHITE BACKGROUND. TEXT SHALL BE: "PROTECTED SITE - KEEP OUT" UNLESS OTHERWISE SPECIFIED.

DETAILS

FENCES SHALL BE ERECTED PRIOR TO MOVING CONSTRUCTION EQUIPMENT ONTO ANY AREA DESIGNATED FOR PROTECTION.

THE LINE OF FENCES SHALL BE STAKED OR MARKED OUT ON THE GROUND BY THE CONTRACTOR AND APPROVED BY THE ENGINEER/OWNER BEFORE ANY FENCE IS INSTALLED. WHERE USED FOR PROTECTION OF INDIVIDUAL TREES, FENCE SHALL BE PLACED AT THE DRIP LINE (EXTENT OF CANOPY). IF NOT POSSIBLE, PLACEMENT SHALL BE AS CLOSE TO THE DRIP LINE AS POSSIBLE AND IN NO CASE LESS THAN 5.0 FEET AWAY FROM THE TREE TRUNK.

ON APPROVAL OF THE STAKEOUT, POSTS SHALL BE SECURELY DRIVEN ON 6.0 FOOT-MAXIMUM CENTERS, NORMAL TO THE GROUND, TO A DEPTH 1/3 OF THE TOTAL POST LENGTH. PLASTIC BARRIER FENCE SHALL BE PLACED ALONG THE SIDE OF ALL POSTS. ENDS OF FENCING SEGMENTS SHALL OVERLAP A DISTANCE OF AT LEAST ONE HALF THE FENCE HEIGHT.

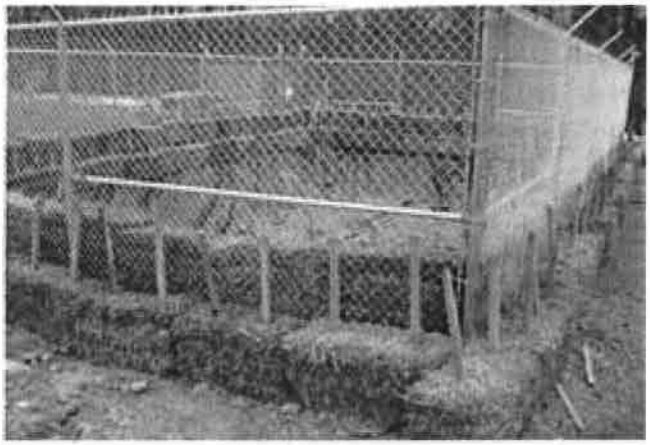
FENCING SHALL BE SECURED TO POSTS WITH WIRE OR CABLE TIES AT TOP, MIDDLE AND BOTTOM OF POST. FASTENER SHALL BE TIGHT ENOUGH TO PREVENT THE FENCING FROM SLIPPING DOWN. OVERLAPS SHALL ALSO BE SECURELY FASTENED.

BARRIER FENCE WHICH IS NOT ORANGE IN COLOR SHALL BE FLAGGED AT 6.0 FOOT INTERVALS WITH RED OR ORANGE FLORESCENT TAPE. WARNING SIGNS SHALL BE MOUNTED ON THE FENCE AT NO MORE THAN 100 FOOT INTERVALS.

MAINTENANCE SHALL COMMENCE IMMEDIATELY AFTER ERECTION OF THE FENCE AND CONTINUE UNTIL ONE WEEK PRIOR TO ACCEPTANCE OF THE CONTRACT, AND SHALL CONSIST OF: REPLACING DAMAGED POST(S) AND FENCING; RE-FASTENING AND TIGHTENING FENCING; AND RESTORING FENCE TO ITS INTENDED HEIGHT.

FENCING USED FOR TREE OR OTHER VEGETATION PROTECTION SHALL NOT BE TEMPORARILY REMOVED TO ALLOW EQUIPMENT ACCESS OVER A PROTECTED AREA, EXCEPT AS REQUIRED FOR ITEMS OF WORK SPECIFICALLY SHOWN ON THE PLANS AND APPROVED BY THE ENGINEER IN WRITING.

STANDARD AND SPECIFICATIONS FOR CONCRETE TRUCK WASHOUT



Definition & Scope

A temporary excavated or above ground lined constructed pit where concrete truck mixers and equipment can be washed after their loads have been discharged, to prevent highly alkaline runoff from entering storm drainage systems or leaching into soil.

Conditions Where Practice Applies

Washout facilities shall be provided for every project where concrete will be poured or otherwise formed on the site. This facility will receive highly alkaline wash water from the cleaning of chutes, mixers, hoppers, vibrators, placing equipment, trowels, and screeds. Under no circumstances will wash water from these operations be allowed to infiltrate into the soil or enter surface waters.

Design Criteria

Capacity: The washout facility should be sized to contain solids, wash water, and rainfall and sized to allow for the evaporation of the wash water and rainfall. Wash water shall be estimated at 7 gallons per chute and 50 gallons per hopper of the concrete pump truck and/or discharging drum. The minimum size shall be 8 feet by 8 feet at the bottom and 2 feet deep. If excavated, the side slopes shall be 2 horizontal to 1 vertical.

Location: Locate the facility a minimum of 100 feet from drainage swales, storm drain inlets, wetlands, streams and other surface waters. Prevent surface water from entering the structure except for the access road. Provide appropriate access with a gravel access road sloped down to the structure. Signs shall be placed to direct drivers to the facility after their load is discharged.

Liner: All washout facilities will be lined to prevent leaching of liquids into the ground. The liner shall be plastic sheeting with a minimum thickness of 10 mils with no holes or tears, and anchored beyond the top of the pit with an earthen berm, sand bags, stone, or other structural appurtenance except at the access point.

If pre-fabricated washouts are used they must ensure the capture and containment of the concrete wash and be sized based on the expected frequency of concrete pours. They shall be sited as noted in the location criteria.

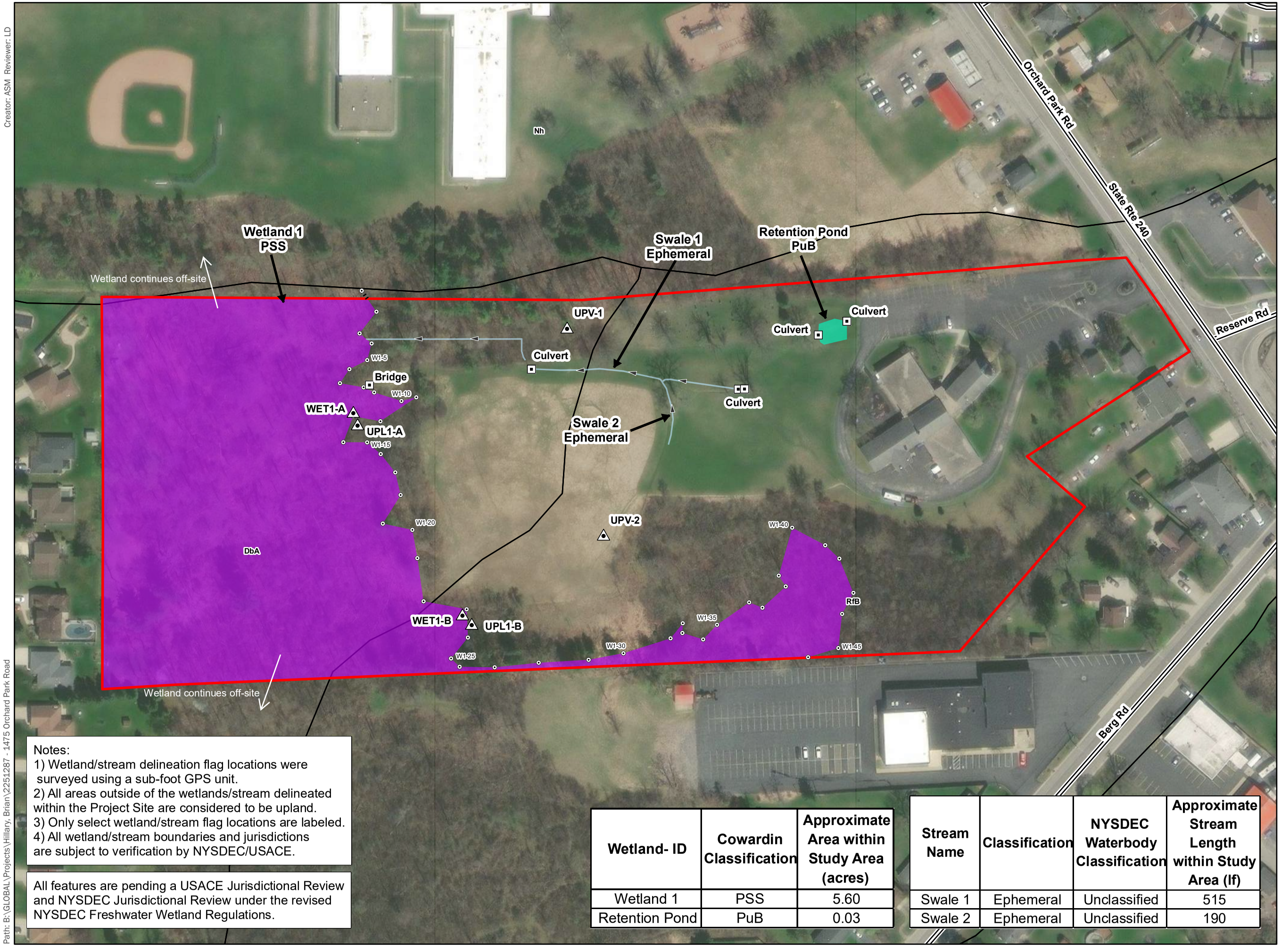
Maintenance

- All concrete washout facilities shall be inspected daily. Damaged or leaking facilities shall be deactivated and repaired or replaced immediately. Excess rainwater that has accumulated over hardened concrete should be pumped to a stabilized area, such as a grass filter strip.
- Accumulated hardened material shall be removed when 75% of the storage capacity of the structure is filled. Any excess wash water shall be pumped into a containment vessel and properly disposed of off site.
- Dispose of the hardened material off-site in a construction/demolition landfill. On-site disposal may be allowed if this has been approved and accepted as part of the projects SWPPP. In that case, the material should be recycled as specified, or buried and covered with a minimum of 2 feet of clean compacted earthfill that is permanently stabilized to prevent erosion.
- The plastic liner shall be replaced with each cleaning of the washout facility.
- Inspect the project site frequently to ensure that no concrete discharges are taking place in non-designated areas.

Appendix J

Wetland Delineation Figure: by LaBella

Creator: ASM Reviewer: LD



Notes:
1) Wetland/stream delineation flag locations were surveyed using a sub-foot GPS unit.
2) All areas outside of the wetlands/stream delineated within the Project Site are considered to be upland.
3) Only select wetland/stream flag locations are labeled.
4) All wetland/stream boundaries and jurisdictions are subject to verification by NYSDEC/USACE.

All features are pending a USACE Jurisdictional Review and NYSDEC Jurisdictional Review under the revised NYSDEC Freshwater Wetland Regulations.

Wetland- ID	Cowardin Classification	Approximate Area within Study Area (acres)
Wetland 1	PSS	5.60
Retention Pond	PuB	0.03

Stream Name	Classification	NYSDEC Waterbody Classification	Approximate Stream Length within Study Area (lf)
Swale 1	Ephemeral	Unclassified	515
Swale 2	Ephemeral	Unclassified	190

LaBella
Powered by partnership.

Brian Hillary

Wetland and Stream Delineation Report

1475 Orchard Park Road Orchard Park, NY

N

0 62.5 125 Feet

1 inch = 125 feet

Legend
- Study Area
- Data Point Location
- Wetland/Stream Flag Location
- Culvert/Bridge
- Scrub-Shrub Wetland (PSS)
- Retention Pond
- Ephemeral Stream
- Culvert Area
- Approximate Offsite Wetland/ Stream Boundary
- Stream Flow Direction
- Road
- Soil

Sources:
1. Study Area: Created by LaBella using information provided by the client.
2. Basemap: Esri, DigitalGloce, GeoEye, Earthstar, Geographics, CNES/Airbus DS, USDA, USGS AeroGRID, IGN, and GIS User Community, 2023.
3. Mapped soil data were obtained from the NRCS online Soil Data (soildatamart.nrcs.usda.gov).

Wetland and Stream Delineation Survey

FIGURE 4

LaBella Project No: 2251287
Date: 3/27/2025

Path: B:\GLOBAL\Projects\Hillary, Brian\2251287 - 1475 Orchard Park Road

Appendix K

OPRHP Clearance Letter

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

January 29, 2024

Jeffrey Schieber
Town of West Seneca
1250 Union Rd
West Seneca, NY 14224

Re: DEC
Multi-Family Residential New Development
1425 Orchard Park Rd, Buffalo, NY 14224
23PR10321

Dear Jeffrey Schieber:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project.

The Archaeology Unit has reviewed the Phase IA/IB Archaeological Survey Report prepared for this project (24SR00034; January 2024). No archaeological sites were identified by the survey and the OPRHP concurs with the report recommendation that no additional archaeological work is necessary.

Please note that these comments pertain only to archaeological resources. Please continue to consult with our Survey and National Register Unit. If you have any questions concerning archaeology, I can be reached at Sydney.Snyder@parks.ny.gov.

Sincerely,

Sydney Snyder
Scientist - Archaeology

Appendix L

NYSDEC Stormwater Management Inspection Lists

Bioretention Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Bioretention and contributing areas clean of debris		
No dumping of yard wastes into practice		
Litter (branches, etc.) have been removed		
2. Vegetation (Monthly)		
Plant height not less than design water depth		
Fertilized per specifications		
Plant composition according to approved plans		
No placement of inappropriate plants		
Grass height not greater than 6 inches		
No evidence of erosion		
3. Check Dams/Energy Dissipaters/Sumps (Annual, After Major Storms)		
No evidence of sediment buildup		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Sumps should not be more than 50% full of sediment		
No evidence of erosion at downstream toe of drop structure		
4. Dewatering (Monthly)		
Dewaters between storms		
No evidence of standing water		
5. Sediment Deposition (Annual)		
Swale clean of sediments		
Sediments should not be > 20% of swale design depth		
6. Outlet/Overflow Spillway (Annual, After Major Storms)		
Good condition, no need for repair		
No evidence of erosion		
No evidence of any blockages		
7. Integrity of Filter Bed (Annual)		
Filter bed has not been blocked or filled inappropriately		

Comments:

Actions to be Taken:

TOWN OF WEST SENECA

APPLICATION FOR REZONING – SPECIAL PERMIT

TO BE COMPLETED BY APPLICANT

DATE 6/2/2026 FILE # 2026-004

PROJECT NAME Armstrong's Beer Company

PROJECT LOCATION (Include address and distance to nearest intersection) 1340 Orchard Park rd

APPLICANT Alexander Armstrong PH/FAX 716.462.9900

ADDRESS 431 Pound rd, Elma 14059

PROPERTY OWNER BARRETT GENTRY HOLDING LLC PH/FAX

ADDRESS 197 N. ELLICOTT ST Williamsville NY 14221

ENGINEER/ ARCHITECT NA PH/ FAX

ADDRESS

SBL # 143.19-3-79

PROJECT DESCRIPTION (Include all uses and any required construction) Taproom/Service of Alcohol

SIZE OF LOT (acres) 1.8 ACREAGE TO BE REZONED NA

ADJACENT ROAD NAMES AND AMOUNT OF FRONTAGE ON EACH

Orchard Park Rd. 235 ft Road frontage

EXISTING ZONING C-2 PROPOSED ZONING C-2 S

EXISTING USE(S) ON PROPERTY Restaurant + Dog Daycare

PROPOSED USE(S) ON PROPERTY

EXISTING USE(S) AND ZONING ON ALL PROPERTY WITHIN 500 FEET

Commercial + Residential

PUBLIC SEWER YES ✓ NO ___ PUBLIC WATER YES ✓ NO ___

VARIANCES AND OTHER APPROVALS OR PERMITS REQUIRED N/A

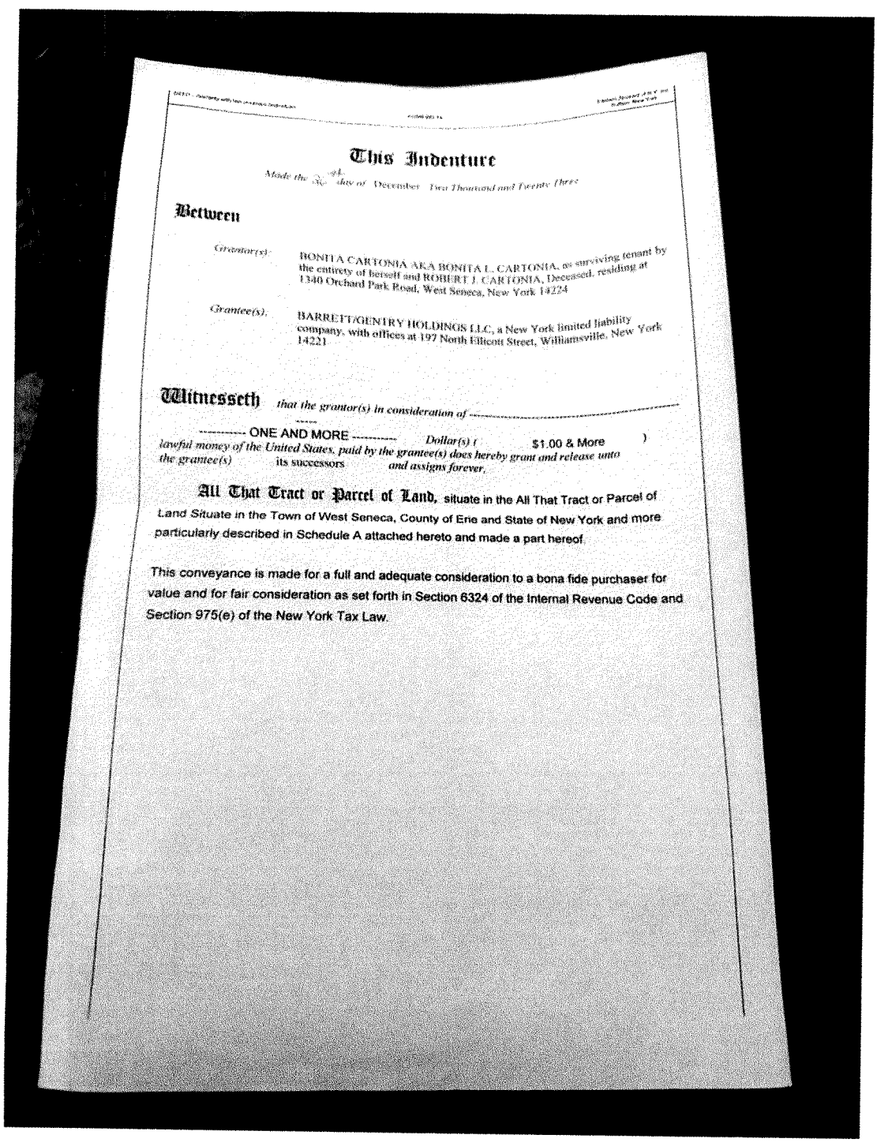
APPLICATIONS WILL NOT BE ACCEPTED WITHOUT COMPLETION OF ALL REQUIREMENTS LISTED HEREIN

TO BE COMPLETED BY THE TOWN OF WEST SENECA

DATE RECEIVED 6/4/26 BY JAS

PLANNING BOARD MEETING DATE July 9 2026

TOWN BOARD MEETING DATE TBD



This Indenture

Made the 2nd *day of* December *Two Thousand and Twenty Three*

Between

Grantor(s), BONITA CARTONIA AKA BONITA L. CARTONIA, as surviving tenant by the entirety of herself and ROBERT J. CARTONIA, Deceased, residing at 1340 Orchard Park Road, West Seneca, New York 14224

Grantee(s), BARRETT/GENTRY HOLDINGS LLC, a New York limited liability company, with offices at 197 North Ellicott Street, Williamsville, New York 14221

Witnesseth *that the grantor(s) in consideration of* ---------- ONE AND MORE ---------- *Dollar(s)* ($1.00 & More) *lawful money of the United States, paid by the grantee(s) does hereby grant and release unto the grantee(s)* its successors *and assigns forever,*

All That Tract or Parcel of Land, situate in the All That Tract or Parcel of Land Situate in the Town of West Seneca, County of Erie and State of New York and more particularly described in Schedule A attached hereto and made a part hereof.

This conveyance is made for a full and adequate consideration to a bona fide purchaser for value and for fair consideration as set forth in Section 6324 of the Internal Revenue Code and Section 975(e) of the New York Tax Law.

SITE PLAN – ARMSTRONG'S BEER COMPANY

1340 ORCHARD PARK RD., WEST SENECA, NY 14224



SITE DATA

ADDRESS:
1340 ORCHARD PARK RD.
WEST SENECA, NY 14224

TAX PARCEL / SBL:
146.17-1-10.2

PROPERTY OWNER:
1340 ORCHARD PARK, LLC

APPLICANT / BUSINESS:
ARMSTRONG'S BEER COMPANY

EXISTING ZONING DISTRICT:
C-2 (COMMERCIAL)

TOTAL LOT AREA:
0.92 ACRES ±

EXISTING BUILDING (TOTAL):
6,480 SF ±

AREA TO BE OCCUPIED BY
ARMSTRONG'S BEER COMPANY:
2,400 SF ±

LEGEND

- AREA TO BE OCCUPIED BY ARMSTRONG'S BEER COMPANY
- TRASH ENCLOSURE
- ADA PARKING SPACE
- PROPERTY LINE
- WOOD FENCE

NOTES

1. EXISTING PARKING TO REMAIN.
2. NO EXTERIOR STRUCTURAL MODIFICATIONS PROPOSED.
3. EXISTING INGRESS / EGRESS TO REMAIN.
4. ALL EXISTING BUILDINGS AND IMPROVEMENTS TO REMAIN.
5. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS.

SCALE:	1" = 30'
DATE:	05/20/2024
DRAWN BY:	RLA
REVISION:	0

05/26/2026

Alex Armstrong

Letter of Intent

My Intent is to open a taproom serving a rotating selection of beer and wine. In addition, I plan to offer a limited food menu consisting primarily of burgers, fries and light snack options such as chips.

The business will operate seven days a week, with anticipated hours of operation from 11:00 a.m. to 10 p.m.

Weather permitting, I also intend to provide outdoor seating at both the front and side of the building. Both areas already contain the necessary infrastructure to accommodate the installation of concrete seating barriers or pillars.

The goal of Armstrong's Beer Company is to create a welcoming; family friendly, community-oriented environment where customers can enjoy quality beverages, simple food offerings, and a comfortable atmosphere.

SITE & PROPERTY INFORMATION
ARMSTRONG'S BEER COMPANY

Project Address: 1340 Orchard Park Rd., West Seneca, NY 14224
Tax Parcel / SBL Number: 146.17-1-10.2
Property Owner: 1340 Orchard Park, LLC
Applicant / Tenant: Armstrong's Beer Company
Municipality: Town of West Seneca, Erie County, New York
Existing Zoning: C-2 Commercial

PROJECT DESCRIPTION

Armstrong's Beer Company proposes to occupy a designated portion of the existing commercial structure located at 1340 Orchard Park Rd., West Seneca, New York, for operation of a beer company/taproom use as illustrated on the accompanying site plan. Existing building conditions, parking areas, ingress/egress, utility connections, and paved surfaces are intended to remain. No exterior structural modifications are currently proposed as part of this submission.

This document and accompanying site plan are submitted for conceptual and/or municipal review purposes related to the proposed occupancy and operation of Armstrong's Beer Company.

Prepared For: Armstrong's Beer Company

Prepared By: _____

Date: 5/28/26

West Seneca Building Department

1250 Union Rd, West Seneca NY 14224

Barrett/Gentry holding LLC

~~241 S Shore Rd, Buffalo NY 14219~~
197 N. Ellicott St. Williamsville, N.Y. 14221

February 6th 2024

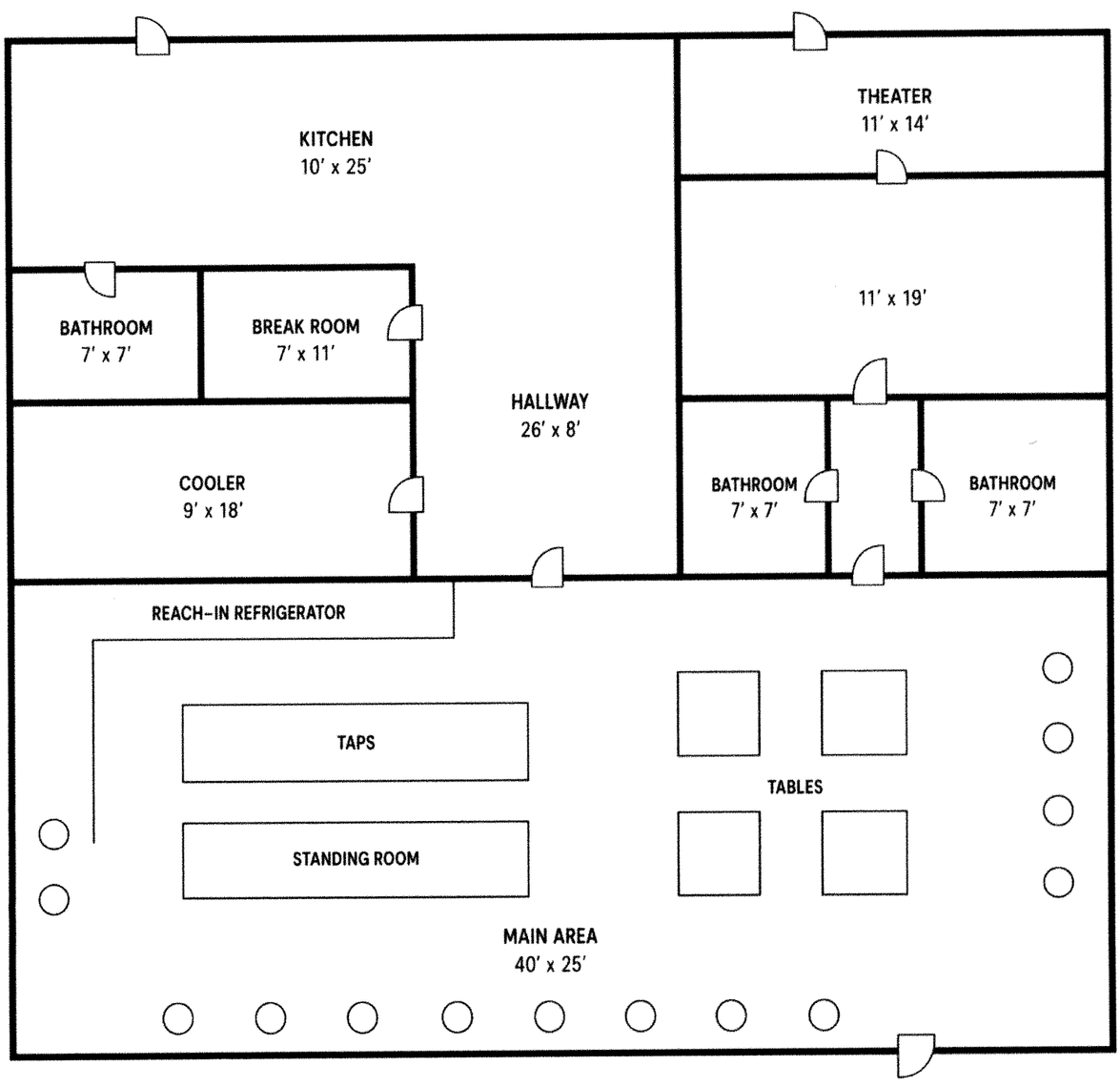
To Whom It May Concern,

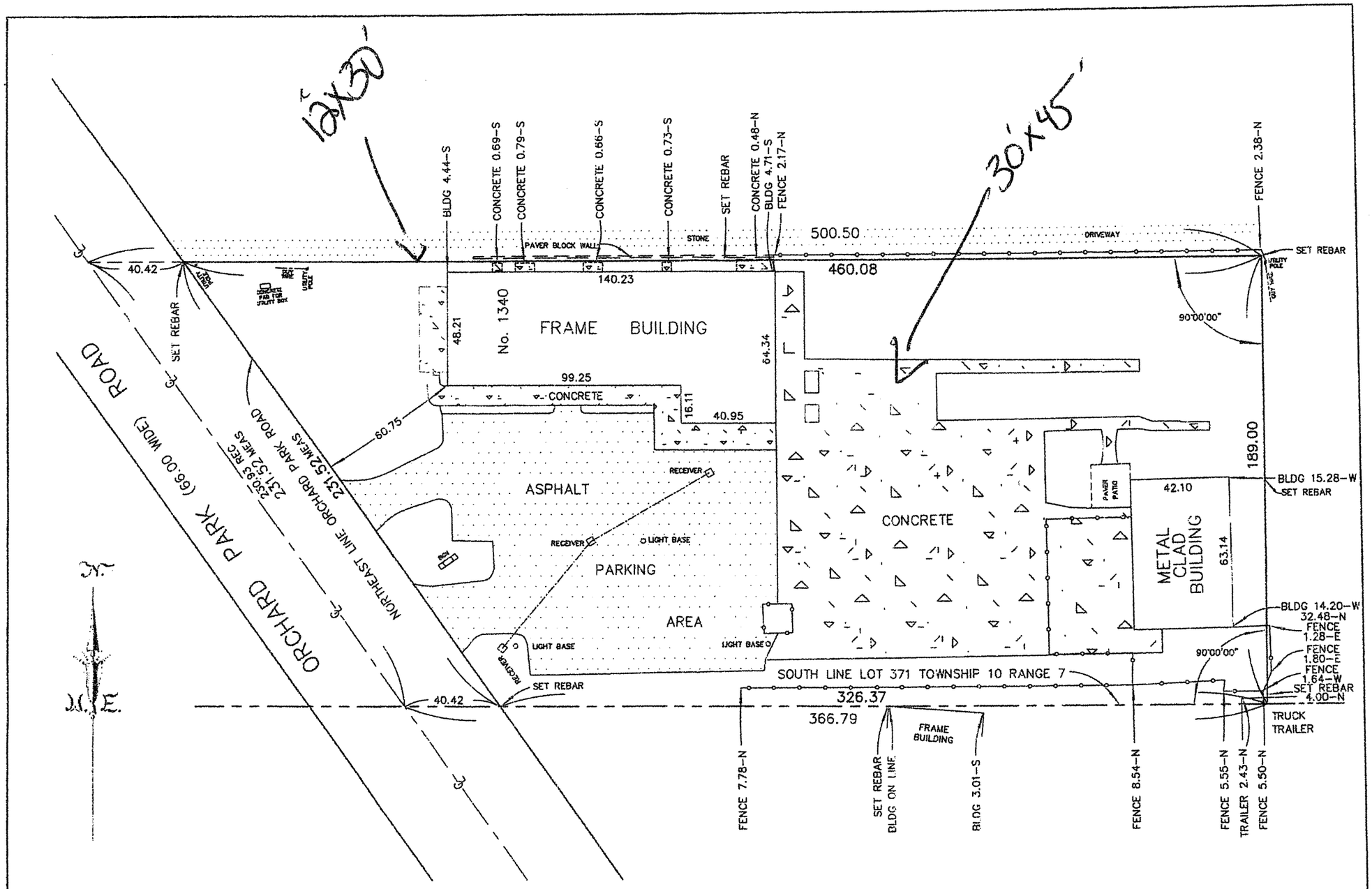
Please be advised that Barrett/Gentry Holdings is the legal owner of the property located at:

1340 Orchard Park Road, West Seneca NY 14224 and we support and approve the submission of the Special Use Permit Application by El Jefe for the purpose of seeking permission for serving of Alcohol within the building and Patio Area's of the property.

Molly R Barrett

Kevin M Gentry


KITCHEN
10' x 25'
THEATER
11' x 14'
11' x 19'
BATHROOM
7' x 7'
BREAK ROOM
7' x 11'
HALLWAY
26' x 8'
COOLER
9' x 18'
BATHROOM
7' x 7'
BATHROOM
7' x 7'
REACH-IN REFRIGERATOR
TAPS
TABLES
STANDING ROOM
MAIN AREA
40' x 25'



Part of Lot (Lots) 371, Section ____, Township 10, Range 7, Of The BUFFALO CREEK RESERVATION

City (or) Village of _____, Town of WEST SENECA, County of ERIE, State of New York

Notes:
1) This Survey is VOID unless embossed with New York State Licensed Land Surveyors Seal #050162
2) Altering any item on this Survey is in violation of law, excepting as provided in Section 7209 Part 2 of the New York State Education Law.
3) This Survey VOID if used with an Affidavit Of No Change.
4) This Survey was prepared without the benefit of an Abstract of Title and is subject to any state of facts that may be revealed by an examination of the same.

Drawing Scale : 1" = 25'

Marshall L. Mill PLS
Krause & Gantzer
Land Surveyors
13 Olean Street
East Aurora, New York 14052

Date of Survey OCTOBER 11, 2024

Signature _____

Feet	Inches	Feet	Inches
0.08	1 Inch	0.58	7 Inches
0.17	2 Inches	0.67	8 Inches
0.25	3 Inches	0.75	9 Inches
0.33	4 Inches	0.83	10 Inches
0.42	5 Inches	0.92	11 Inches
0.50	6 Inches	1.00	12 Inches

ESTABLISHED 1870 Job No. 173,742 LL 4402