Village Square
Residential and Commercial Development

3095 Albany Post Road
Village of Buchanan, NY

Sponsor
Carbone Brothers 3095 LLC
2043 Albany Post Road
Croton-on-Hudson, NY 10520

August 10, 2023

Civil / Environmental Engineer:
Ralph G. Mastromonaco, PE PC
13 Dove Court
Croton-on-Hudson, NY 10520
(194) 271-4762

Architect:
Joseph Thompson, R.A.
108 North division Street
Peekskill, NY 10566
(845) 532-8156

Traffic Engineer:
John Canning, PE
Kimley-Horn
1 N. Lexington Avenue
Suite 505 White Plains, Ny10601
(914) 924-4177

Wetlands & Ecology
Steven Marino, PWS
Tim Miller Associates, Inc.
10 North Street
Cold Spring, NY 10516
(845) 265-4400

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Village Square Residences and Commercial Development
Project Overview
August 14, 2023

The Village Square is composed of three (3) new multi-family residential apartment buildings and a free-standing commercial pad site at 3095 Albany Post Road in the Village of Buchanan.

The existing property at 3095 Albany Post Road is a visually prominent wooded lot at the corner of Albany Post and Lake Street and is located the gateway to the Village of Buchanan.

The overall design, scale and composition of the new buildings seek to visually compliment and be a positive addition to the Village nature and character of the surrounding neighborhood.

The proposed redevelopment of this property is to enhance the Village's active corridor by constructing new modern buildings, rented at market-rates that would serve to contribute to the ambiance of the current hamlet providing new high-quality housing and new locally based commercial services:

- Three (3) new seventeen (17) unit 5,840 SF footprint multi-family residential apartment buildings providing for a total of fifty-one (51) new units:
  - Buildings are a three-story design with access from the street and to the lower level to the rear parking area with the street-side visual impact mitigated by the drop in elevation at the rear.
  - All units are Two-Bedroom with layouts ranging in size from 930 SF – 1,100 SF.
  - Elevator Access with Stretcher ability
  - Protected by Fire Alarm and Suppression Systems
  - Multi-Purpose Community Rooms
  - Common tenant storage areas.
  - Common Laundry Rooms
  - Buildings shall be heated and cooled with high efficiency HVAC units.
- One new commercial pad site with Drive-thru.
- Streetscape with historic style street lamps, landscaping, sidewalks and street trees.
- All buildings interconnected and connected to adjacent properties with new sidewalks.
- Increase in aesthetic value that compliments the historic Village character.
- Increase to property value by modern construction.
- Convenient to bus lines and the Montrose railroad station will minimize traffic

Figure: Front Elevation of Single Building - Typical

Zoning Conformance C1 / C2 Overlay District – Special Permit Description Parts 1 and 2:

Chart: Schedule of Uses –Zoning Code – Chapter 211 Attachment 1 Part A

1	2	3
Districts	**Uses Permitted by Right**	**Uses by Special Permit of the Planning Board or Board of Appeals**
C-1/C-2 Overlay District	One- and two-bedroom multifamily apartment dwellings on parcels of land not less than 20,000 square feet, in back of or over a commercial establishment, provided that each dwelling unit contains a minimum of 750 square feet, with a maximum of 8 dwelling units per 40,000 square feet (prorated), that building height does not exceed 40 feet and 3 stories, subject to compliance with § 211-24.1. No more than 50% of the total floor area may be utilized for residential purposes. Notwithstanding the above, at the sole discretion of the Planning Board, a number of the dwellings not exceeding 20% of the total may be three-bedroom units.	A. One- and two-bedroom multifamily apartment dwellings or two-family dwellings on parcels of land not less than 20,000 square feet, provided that each dwelling unit contains a minimum of 750 square feet, with a maximum of 12 dwelling units per 40,000 square feet (prorated), that building height does not exceed 40 feet and 3 stories, subject to compliance with § 211-24.1. Notwithstanding the above, at the sole discretion of the Planning Board, a number of the dwellings not exceeding 20% of the total may be three-bedroom units. B. Multifamily one- and two-bedroom townhouse dwellings or two-family dwellings on parcels of land not less than 20,000 square feet, provided that each dwelling unit contains a minimum of 750 square feet, with a maximum of 6 dwelling units per 40,000 square feet (prorated), that building height does not exceed 40 feet and 3 stories, subject to compliance with § 211-24.1. Notwithstanding the above, at the sole discretion of the Planning Board, a number of the dwellings not exceeding 20% of the total may be three-bedroom units.

(1) As per Column 3 Part A the property of 212,150 square feet would allow 63 apartment units with a Special Permit, based on 12 units per each 40,000 square feet of land area – though only 51 are proposed.

As of Right in Column 2 of the chart, the Overlay rules in the zoning code would permit 38 units, consequently the application requests a Special Permit to allow the proposed 51 units, which is an addition of 13 units over the as-of-right number of units but less than the 63 units allowable by Special Permit. The benefit to the Village would be increased tax revenues from the 13 additional units.

(2) The underlying C-2 Zone requires that no more than 50% of the total area may be used for residential purposes.

> B. Dwelling units in back of or over a commercial establishment, provided that each dwelling unit contains a minimum of 750 square feet, with a maximum of four dwelling units per acre. No more than 50% of total floor area may be utilized for residential purposes.

The Special Permit is required to allow fully residential uses in the C1/C2 Overlay District so as to construct residential uses without vertically layering the uses above retail uses. This is done to maintain the privacy of the residential units and to reduce inherent conflicts with the commercial uses.

The small proposed Commercial plot is permitted by right in the underlying C2 zone. The commercial uses may be, generally; restaurants, pharmacies, funeral parlors, food stores, delicatessens, beauty shops and other retail uses as indicated on the zoning schedule.

General Information:

Population Commercial			
Location	Net Floor Area	Estimated Employee Rate	Estimated Employees
		per/1000 sf	
Retail 1	**2275**	**2**	**5**

Population Residential			
Method (ref: CEQR 2014)			
Unit Type	Number	Estimated Occupancy	Estimated Population
2 Bedrooms	51	2.34	119
Total	**51**		**119**

Solid Waste Generation			
(ref: CEQR 2014)			
Type of Use	Population	Rate (lb/day)	Generated Waste (lb/day)
Residential	119	2.43	289
Type of Use	Employees	Rate (lb/week)	Generated Waste (lb/day)
Commercial	5	79	56
Total			**345**

The Village of Buchanan provides services for both residential and commercial waste and is expected to service the Village Square project. The weekly generation of solid waste would be about **1.2** tons per week.

Water Use / Sewage Generation		
Residential		
Population	gallons per capita/day	Water Demand
		(gallons per day)
119	100	**11,900**
Commercial		Water Demand
Floor Area	Rate per Floor Area	(gallons per day)
2275	0.1	**227**
Total		**12,127**

Sewage Systems:

The project will generate approximately 12,127 gallons of sewage per day, or an average of 8.5 gallons per minute. The peak hourly flow would be about 4 times that value or about 37 gallons per minute.

This flow is to be discharged to the 8" public sewer on the site. The hydraulic capacity of that sewer is between 1200 and 1900 gallons per minute. There are no other users upstream and the proposed sewer would appear to have more than enough capacity for the project.

The Village of Buchanan Wastewater Treatment Plant is the receiving sewage works. The plant presently receives an average daily flow of 0.3 million gallons per day (MGD). The Village Square would contribute an additional 0.012 million gallons per day. The capacity of the Plant, is 0.5 MGD and as such the flow from the project would not exceed the capacity of the plant nor impact the operation, being an increase of about 4 per cent.

Each building will connect to the existing sewer on the site by 6" service laterals. A small portion of the public sewer will be relocated away from the commercial pad.

Water Supply Services:

The water use of 12,127 gallons per day would come from the reputed 8" diameter water main bordering the site on Albany Post Road. The water main and hydrants are generally within the road shoulder. The water main would have spare capacity to handle the peak demand of 37 gallons per minute from the project.

The pressure in the system is regulated by Buchanan to 80 psi which would be adequate for the building height of 40 feet since the pressure at that height would be 6 0 psi which is more than adequate for residential and sprinkler use.

Electricity Use and Natural Gas:

Village Square will use electricity and natural gas from Con Edison. There is currently a moratorium on the use of new natural gas, however, the moratorium may be resolved by upcoming agreements between Con Edison and other suppliers. It is expected that the project will be able to use natural gas by the time of construction.

To increase efficiency, the building will contain zoned heating and cooling systems internal to each unit utilizing programmable thermostats. In addition, common areas and probably internal units will most likely use modern LED lighting to reduce electric demand. The windows and doors exposed to the exterior will be Energy Star rated double-paned glass to increase insulating ability.

Police / Emergency Medical Services / Fire Fighting Services

The Village Police Department patrols the proposed Village Square area. There are 6 members of the Police Department including the Chief. Given the proposed population at the project of 119 persons, we would expect an increase of from 2 to 4 offenses per year.

Generally, the possible need for increased police personnel would be covered by the increases in revenue from the new taxes provided to the Village for the 51 new apartments and commercial space on the site.

In addition, the NYS State Police office is located less than a mile south in Montrose and patrol the State Road bordering the site and environs.

Fire services are provided by the Village of Buchanan, Engine Company No. 1. There were 125 alarms in 2022 to date as compared to about 152 estimated alarms in 2021. The Fire station is less than one-half mile north of the site.

The Buchanan Fire Department is an all-volunteer service. There is not expected to be a need for additional fire personnel due to the construction of Village Square. Access to the buildings are not affected by street wiring in this location.

The Emergency Medical Service (EMS) operates nearby at Kings Ferry Road and Albany Post Road. One may expect a slight increase in the number of emergency calls based upon the population increase of 119 persons.

Estimate of School Age Children

Based on the overall multiplier of 0.094 from the “Case Study of Westchester Multi-Family Developments” for 51 units, the estimate of School Age Children would be 5 students. The project is in the Hendrick Hudson School District. (Similarly, the Rutgers study provides a multiplier of 0.065, yielding 4 students).

(Ref: Rutgers University, Center for Urban Policy Research, Demographic Multipliers – pg. 50, November 2018. Total number of school age children in buildings with fifty or more units and highest assumed rents)

Stormwater:

A Stormwater Report was prepared for the project. The resulting peak flows from the site will be controlled by a detention system that limits the outflows from the completed project to the existing conditions. As such, there should be no stormwater impacts as a result of the project.

Wetlands and Wetland Buffers:

The project will disturb approximately 0.4 acres of wetland. To mitigate any impacts, the applicant's wetland expert provided a wetland mitigation plan. To further mitigate any impacts, a large, new wetland will be created on the site in accordance with the NYS DEC Stormwater Design Manual. The description of these is prepared in detail on the Site Plans and Stormwater Report.

It is important to note that the new Stormwater Wetland has been designed to be the same area as the amount of wetland to be disturbed, being approximately 17,358 square feet.

Commercial Plot:

The Village Square, at the corner of Lake Street, incorporates a small commercial building of about 2,275 square feet and a related parking area. Parking is provided at 1 space per 250 square feet of commercial retail space. The commercial plot is to be subdivided according to the Preliminary Plat provided for the project.

Easements:

The Commercial plot will be provided with an easement over the residential plot for the purposes of drainage and access. A utility easement will be provided to the Village for the water utilities at Lake Street.

In addition, there will be a proposed sewer easement to the Village for the purpose of the relocated sanitary sewer.

Erosion Control:

During construction, the Contractor will be required to provide aggressive erosion control measures that protect the adjoining wetland and nearby Lake. A portion of the proposed Stormwater Wetland will be used as a sediment basin to settle solids from runoff.

Some external runoff will be directed around the site to avoid the exposed soil. Also, hay bales and silt fences will be used throughout to further protect the on-site wetland and downstream Lake.

Landscaping:

The Park and Wetland areas are landscaped as per the Wetlands Consultant's landscape plans for wetland enhancement.

The Architect has provided a Landscaping Plan that provides attractive new plantings along the frontage as illustrated in the following renderings:

Landscape Renderings:

Project Team:

Joseph G. Thompson, Architect PLLC
108 North division Street Suite 100
Peekskill, NY 10566
(845) 532-8156

Ralph G. Mastromonaco, PE, PC
Consulting Engineers
Croton-on-Hudson, NY 10520
(914) 271-4762

Steve Marino (Wetland Specialist) / Tim Miller Associates, Inc.
10 North Street
Cold Spring, NY 10516
(845) 265-4400

John Canning, PE
Kimley-Horn
1 N. Lexington Avenue
Suite 505 White Plains, Ny10601
(914) 924-4177

VILLAGE SQUARE

3095 ALBANY POST ROAD

Date: August 24, 2023

Prepared for:

Village of Buchanan Planning Board

Project Team:

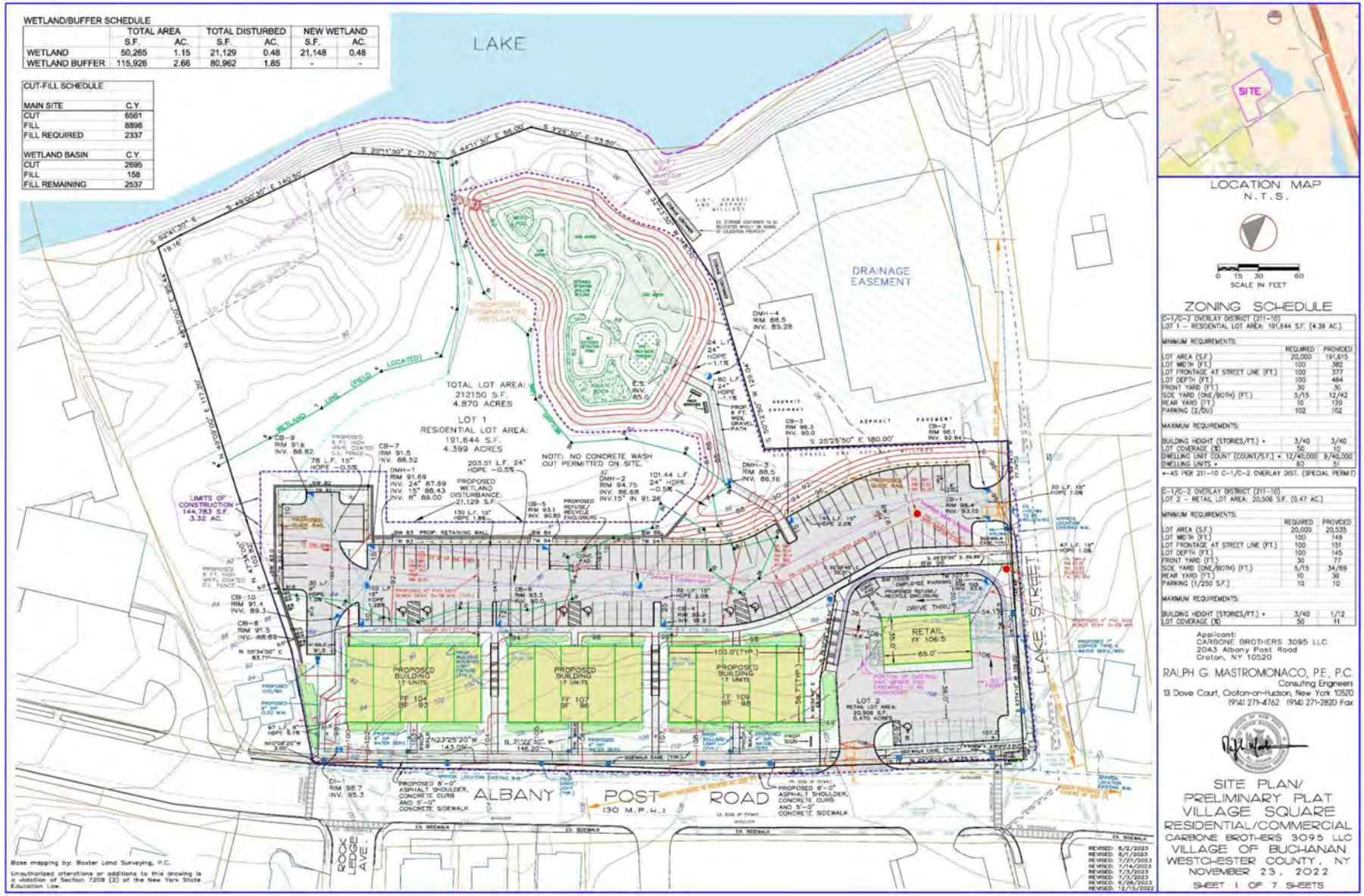
Carbone Brothers 3095, LLC

Ralph G. Mastromonaco P.E., P.C.

Joseph G Thompson Architect, PLLC

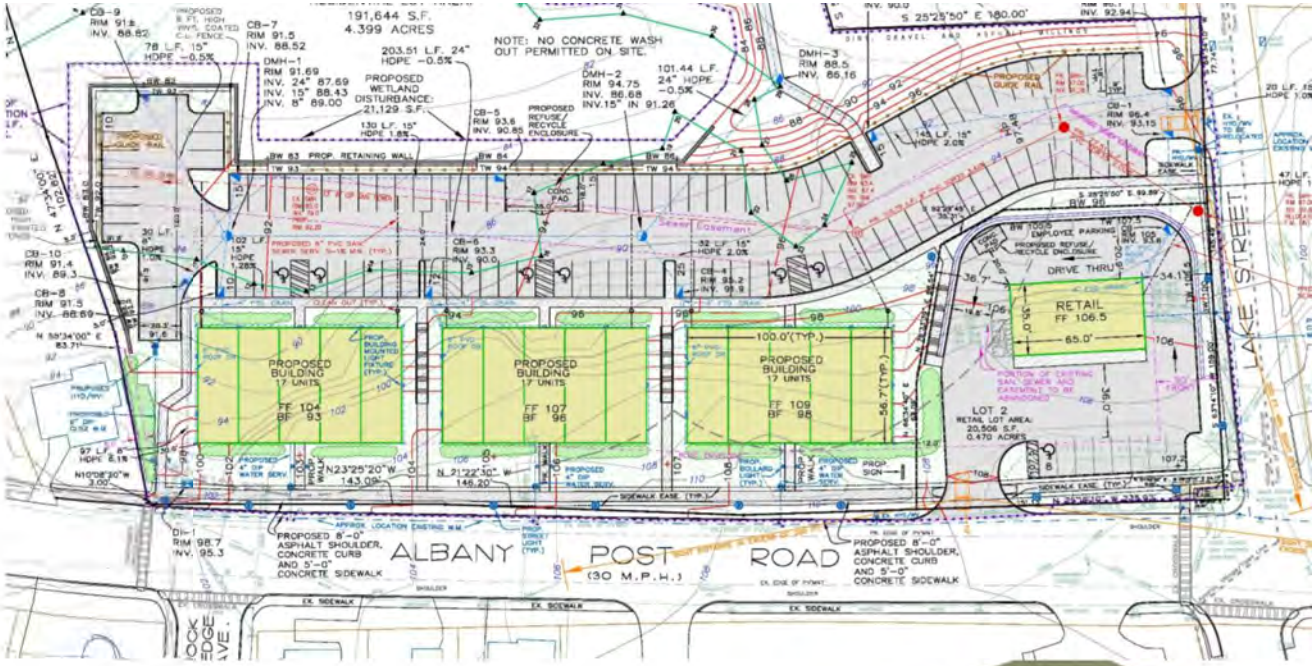
Tim Miller Associates, Inc.

Kimley-Horn Engineering and Landscape Architecture of New York, P.C.



PROPOSED SITE PLAN

- BUILDINGS SITED CLOSE TO STREET FRONTAGE
- RESIDENTIAL PARKING LOCATED TO REAR OF BUIDLINGS
- BUILDING ENTRANCES FRONT THE STREET
- BUILDING ROOF LINES ARE PARALLEL AND PERPENDICULAR TO THE STREET.



DESIGN GUIDELINES – BUILDING LOCATION AND ORIENTATION

ARCHITECUTRAL STYLE AND BUILDING FORM:

- TRADITIONAL ARCHITECUTRAL DESIGN ELEMENTS- GABLE ROOFS, 6/1 DOUBLE HUNG WINDOWS, BRACKETED ENTRANCE ROOFS, SHAKE AND CLAPBOARD STYLE SIDING

- CONSISTENT ARCHITECTURAL DESIGN ON ALL FACADES

- BUILDING ELEMENTS DO NOT FUNCTION AS SIGNAGE.

DESIGN GUIDELINES – BUILDING DESIGN

BUILDING HEIGHT AND MASSING:

- BUILDING HEIGHT AND MASSING SEEK TO CREATE A BALANCED SENSE OF ENCLOSURE ALONG THE NEW STREETSCAPE
- BUILDING IS A MULTI-STORY COMPOSITION
- BUILDING FOOTPRINT UNDULATES TO ENHANCE BUILDING FORM AND CREATE WELL PROPORTIONED MASSING

DESIGN GUIDELINES – BUILDING DESIGN

ROOF MASSING & PITCH:

- VARIED ROOF COMPOSITION OF TRADITIONAL GABLE FORMS.
- BUILDING ENTRANCES ARE ARTICULATED WITH BRACKETED STANDING SEAM METAL SHED ROOFS
- BUILDING ROOF LINES ARE PARALLEL AND PERPENDICULAR TO THE STREET
- 12:12 ROOF PITCH IS WITHIN TOLERANCES RECOMMENDED BY THE DESIGN GUIDELINES
- NO VISIBLE ROOFTOP EQUIPMENT

DESIGN GUIDELINES – BUILDING DESIGN

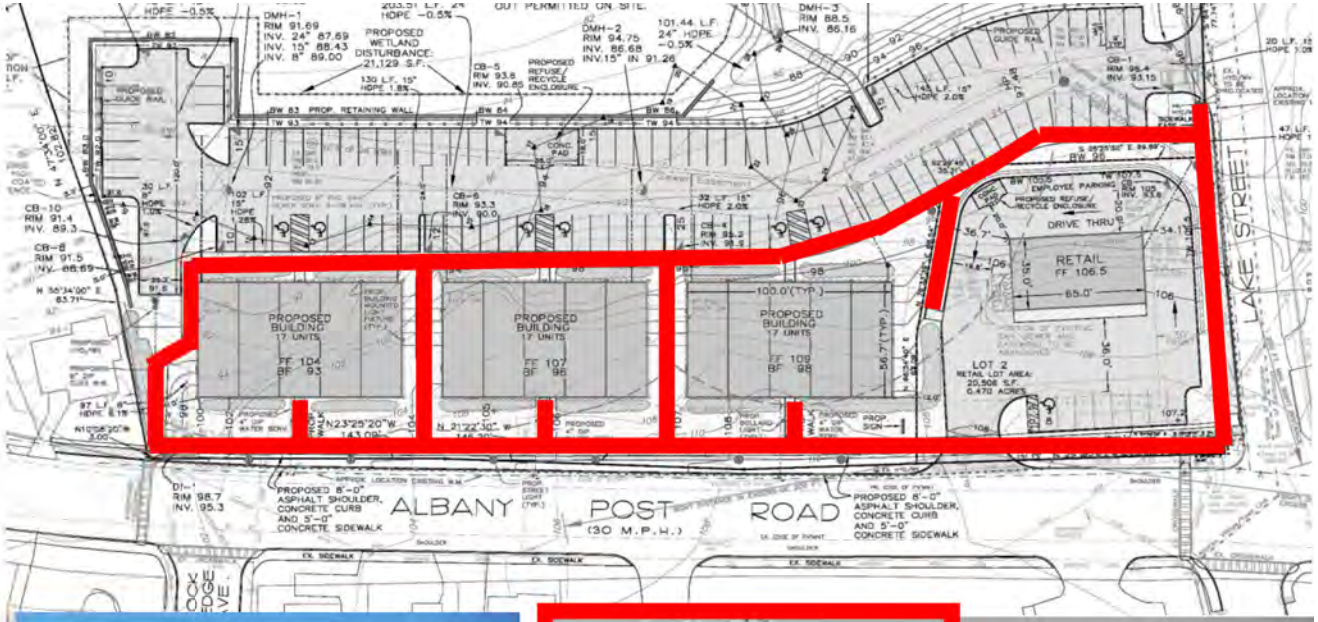
BUILDING MATERIAL AND COLOR:

- A FIVE PART COLOR SCHEME IS PROPOSED TO ENHANCE BUILDING MASSING AND TO CREATE VISUAL INTEREST
- FAÇADE COLORS ARE LOW REFLECTING AND SUBTLE
- BUILDING TRIM IS ACCENTED IN CONTRASTING COLORS
- WINDOW AND DOOR FENESTATION ARE CAREFULLY PLANNED FOR A BALANCED FACADE

DESIGN GUIDELINES – BUILDING DESIGN

SIDEWALKS:

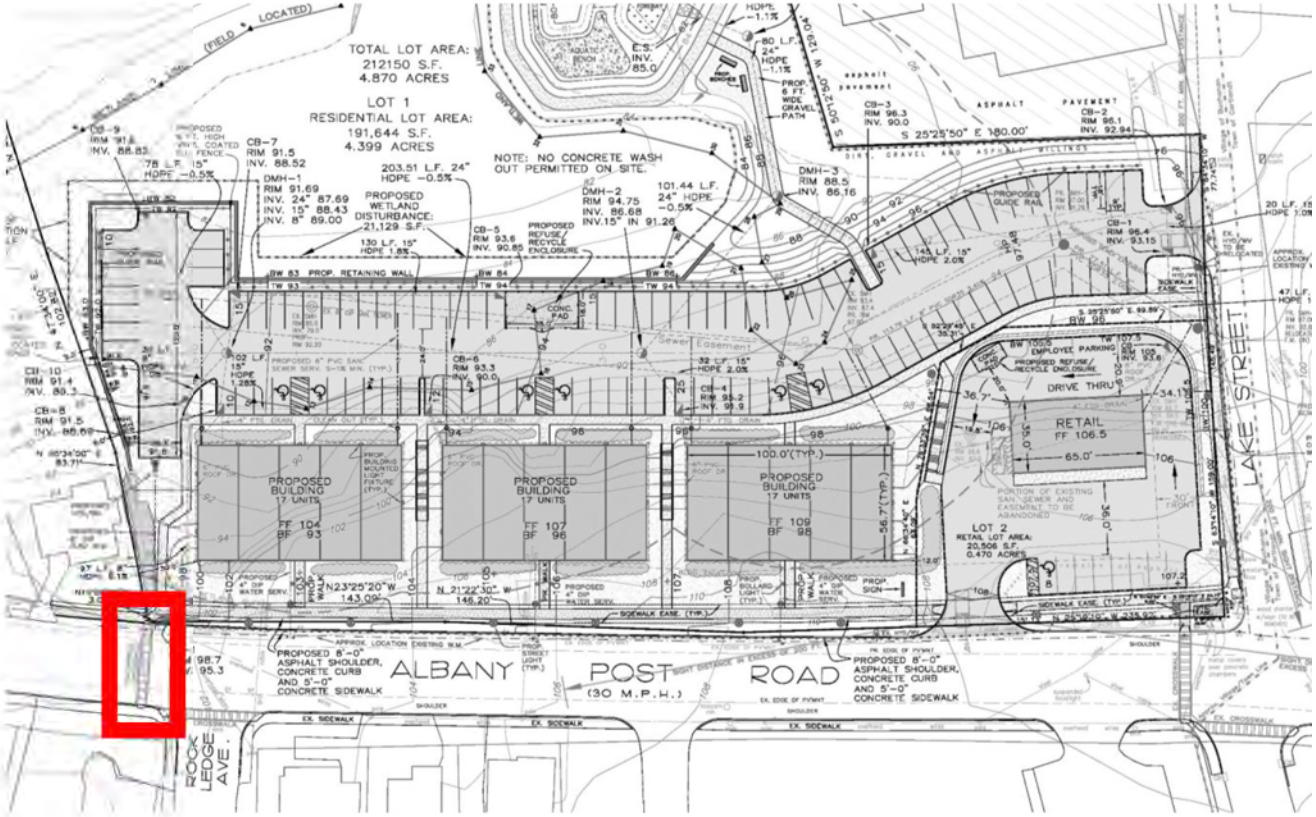
- ALL BUILDINGS ARE INTERCONNECTED AND CONNECTED TO ADJACENT PROPERTIES WITH SIDEWALKS TO INCREASE COMMUNITY WALKABILITY
- A LANDSCAPE BUFFER OF 4’ OR GREATER IS PROVIDED TO SEPARATE PEDESTRIANS FROM TRAFFIC, ALLOW FOR STREET TREES, STREET LAMPS AND SNOW STORAGE
- SIDEWALKS ALONG ALBANY POST ROAD SHALL BE A MINIMUM OF 6’ IN WIDTH



DESIGN GUIDELINES – ACCESS, MOVEMENT & STREETSCAPE

CROSSWALKS AND CURBS:

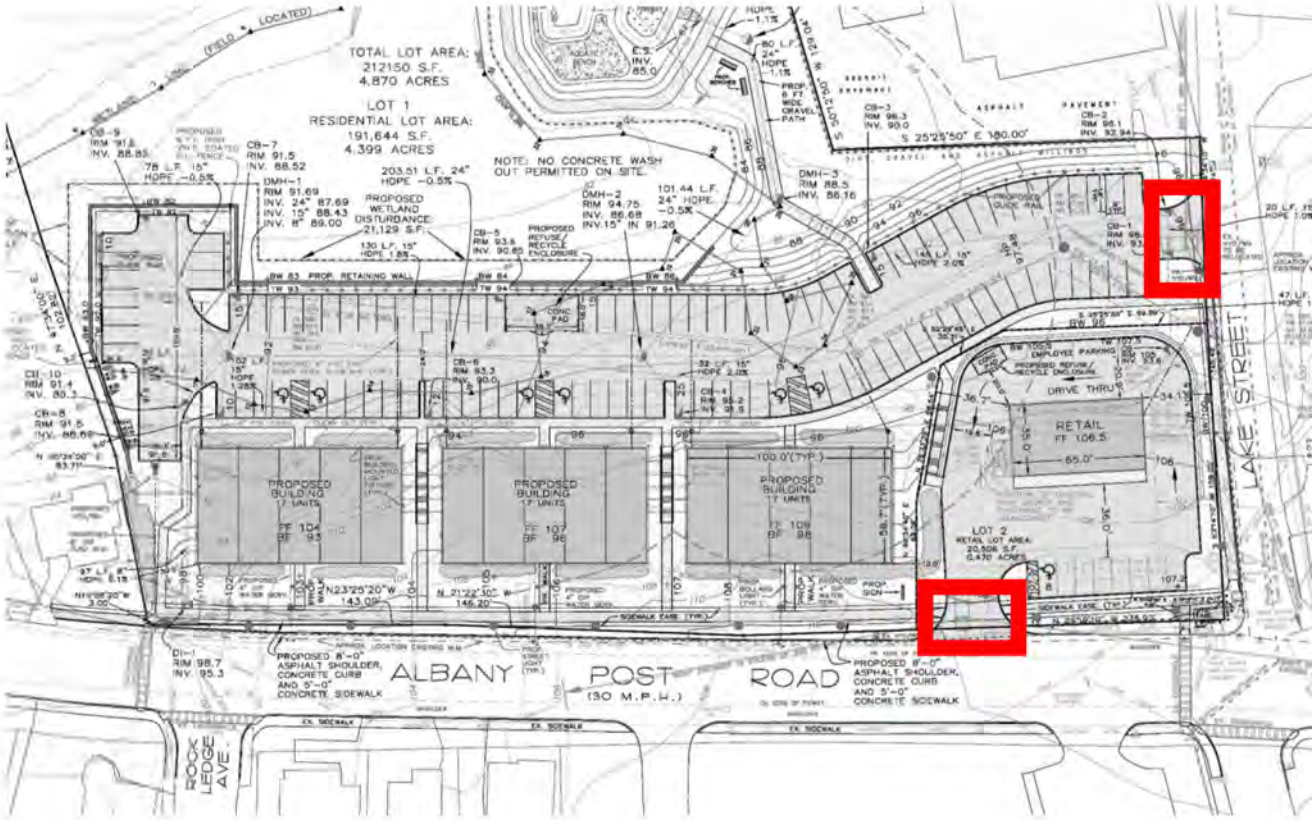
- A NEW CROSSWALK IS PROPOSED TO ENHANCE WALKABILITY.
- CROSSING DISTANCE IS THE MOST DIRECT AND SHORTEST DISTANCE POSSIBLE.
- CROSSWALK WIDTH SHALL BE 10’-0” WIDE.



DESIGN GUIDELINES – ACCESS, MOVEMENT & STREETSCAPE

ACCESS:

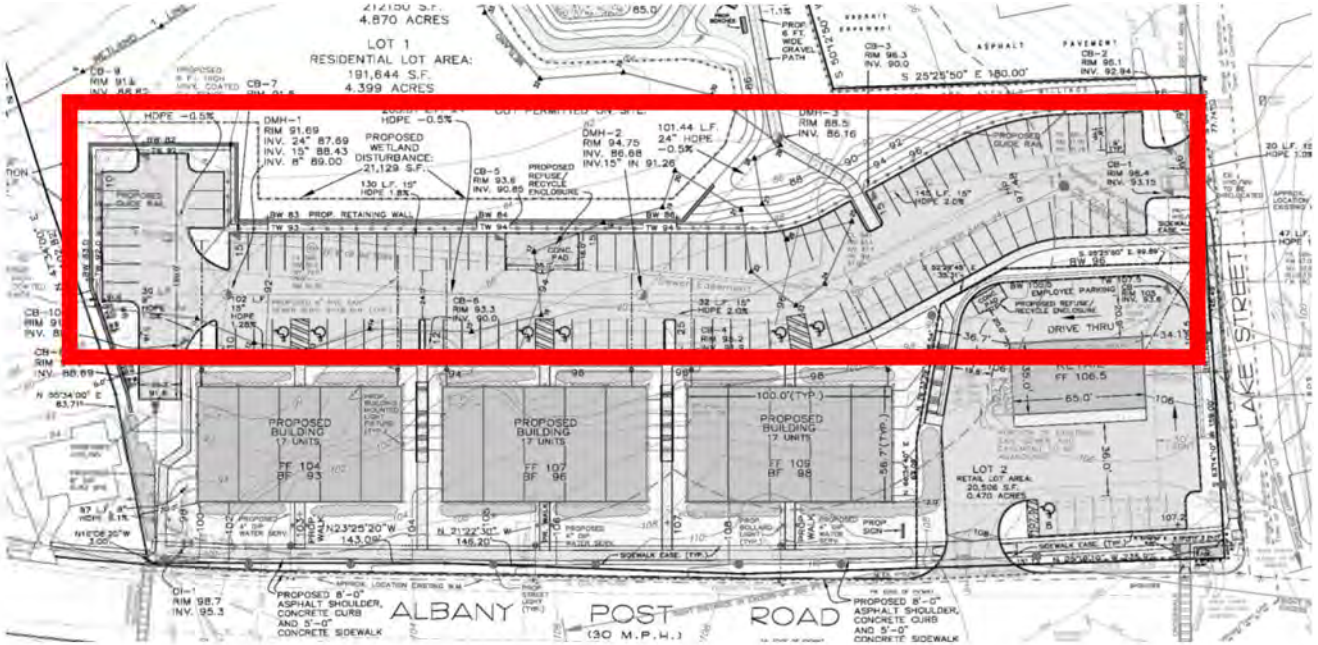
- PROPERTY ACCESS POINTS ARE LIMITED TO ONE CURB CUT FOR THE RESIDENTIAL USE AND ONE CURB CUT FOR THE COMMERCIAL USE.
- THE RESIDENTIAL CURB CUT HAS BEEN LOCATED ON LESSER TRAFFICKED LAKE STREET TO FACILITATE ACCESS AND TO MITIGATE IMPACT ON TRAFFIC.

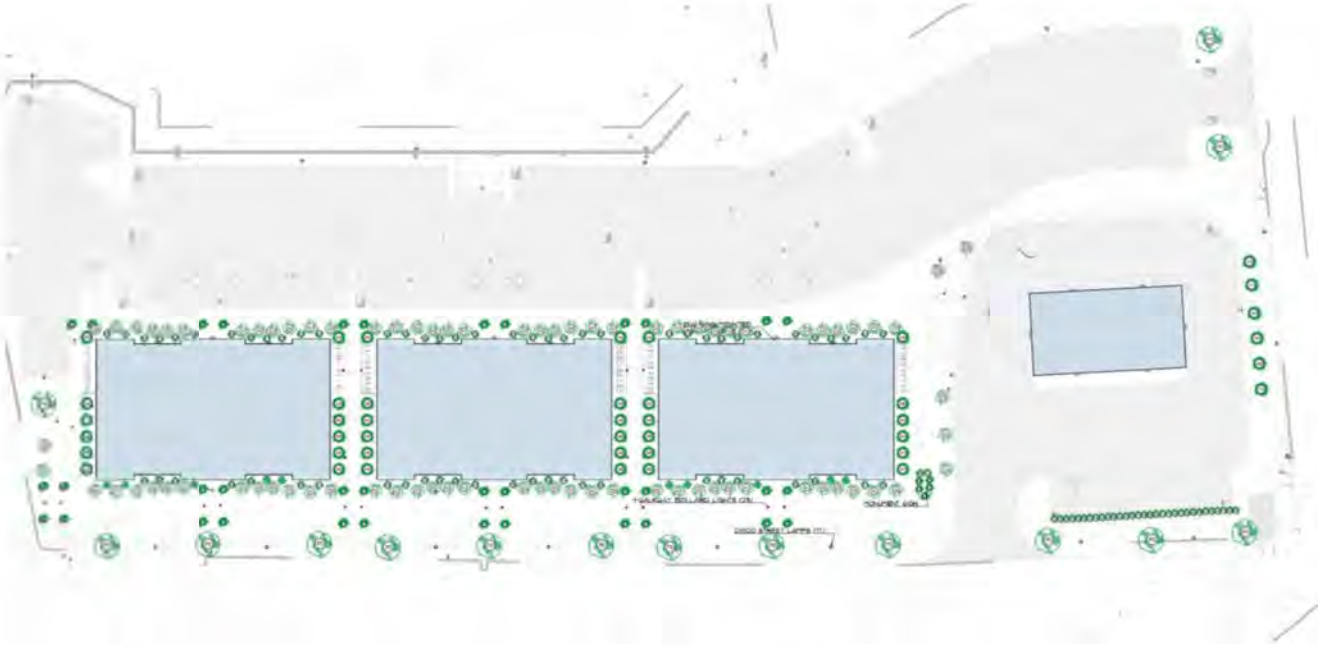


DESIGN GUIDELINES – ACCESS, MOVEMENT & STREETSCAPE

PARKING:

- THE RESIDENTIAL USE PARKING HAS BEEN LOCATED TO THE REAR OF THE BUILDINGS.
- LANDSCAPE SCREENING IS SPECIFIED AT THE PERIMETER OF THE PARKING LOT.
- PEDESTRIAN PATHWAYS CONNECTING FROM PARKING TO BUILDING ARE DEFINED.
- SECURE BICYCLE STORAGE SHALL BE PROVIDED WITHIN THE BUIDLING.

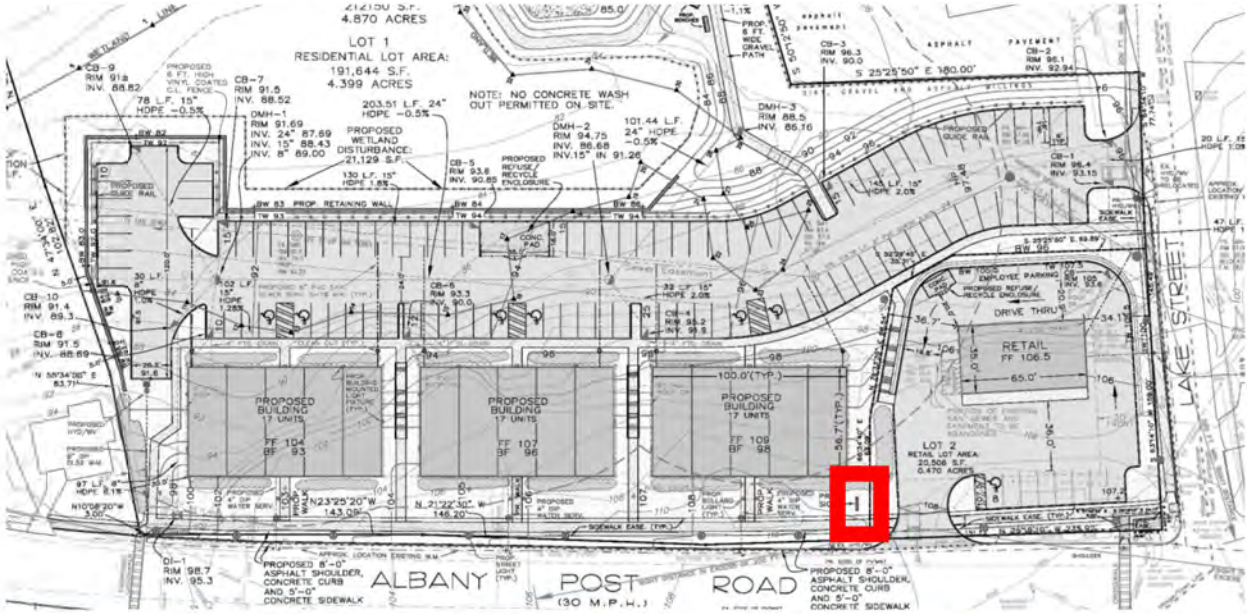




DESIGN GUIDELINES – ACCESS, MOVEMENT & STREETSCAPE

SIGNAGE:

- COMMERCIAL USE SIGNAGE SHALL BE DETERMINED ONCE A TENANT IS ESTABLISHED.
- A MONUMENT SIGN IS PLANNED TO IDENTIFY THE NEW DEVELOPMENT.



DESIGN GUIDELINES – SIGNAGE

LANDSCAPING:

- APPROPRIATE NATIVE AND COMMONLY UTILIZED PLANTINGS THAT ARE NON-ONVASIVE ARE SPECIFIED.
- DIVERSE PLANTINGS ARE SPECIFIED IN WETLAND AND NON-WETLAND PORTIONS OF THE SITE.
- SUBSTANTIAL LANDSCAPING IS PLANNED IN A MANNER THAT SEEKS TO COMPLIMENT THE BUILDING ARCHITECTURE, SCREEN MECHANICAL EQUIPMENT, AND PARKING AREAS.

DESIGN GUIDELINES – LANDSCAPING

1 C1.01 **Landscaping Plan**
Scale: 1" = 20'-0"

Planting Table - Village Square, Bulshaven, NY - Zone 4					
Genus Specie	Common Name	Size	Key	Quantity	Notes	Zone
Hosta Elsevier	Purple Heart Hosta	18"	PH	30	Blue Purple Flowers	4-9
Rhododendron spp.	Azalea	48"	A2	79	Pinkish Purple Flowers	4-8
Phlox subulata	Creeping Phlox	24"	CP	5	Pink Flower Groundcover	5-10
Buxus Sinica var insularis	Wintergreen Boxwood	36"	WB	105	Potted and trimmed for spiral topiary	4-9
Thuja occidentalis	Emerald green arborvitae	5'-6' Planting Size	AB	42	Evergreen, moderate growth rate	2-7
Cornus florida f. rubra	Pink Dogwood	8'-10' Planting Size	PD	15	Flowering Deciduous Tree	5-8

JTA
JOSEPH THOMPSON ARCHITECT

Joseph G. Thompson Architect, PLLC
104 N Division Street, Suite 100
Peekskill, New York 10566
Ph: (845)512-8156
EM: joe@thompsonarch.com

REGISTERED ARCHITECT JOSEPH G. THOMPSON 036057 STATE OF NEW YORK

SEAL
Joseph G. Thompson, RA
New York State License #036057

Village Square - LANDSCAPING PLAN

Caribou Brothers 3065, LLC (Owner)
3065 Albany Post Road
Buchanan, New York 10511
S.B.L. 43.20-2-6
Village of Buchanan - Westchester County

FOR PLANNING BOARD REVIEW AND APPROVAL

Date: November 22, 2022

Revisions:
1 August 10, 2023
2
3
4
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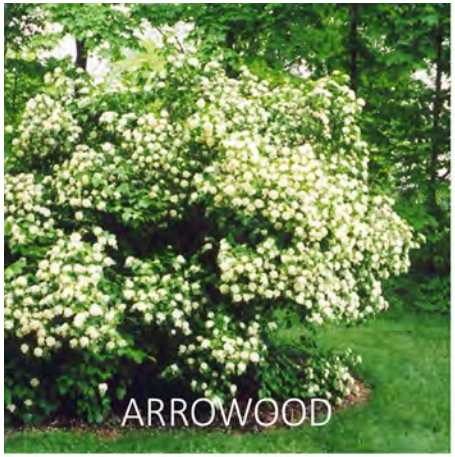
C1.01

LANDSCAPING PLAN

PROPOSED PLANTINGS

PROPOSED WETLAND RESTORATION & ENHANCEMENT PLAN



PROPOSED WETLAND PLANTINGS

WOODCHIP WALKING TRAILS

ECOLOGICAL PRESERVE/ WETLAND INFORMATIONAL SIGNAGE

BENCHES/SITTING AREAS

RECREATIONAL GREEN SPACE

DESIGN GUIDELINES – LIGHTING

- ALL EXTERIOR LIGHTING SHALL BE LED TYPE AND HAVE A COLOR TEMPERATURE OF 3,000K OR LESS
- LIGHTING SPECIFIED SHALL NOT RESULT IN TRESSPASS OVER NEIGHBORING PROPERTY LINES
- LIGHTING SHALL BE PROVIDED WITH ILLUMINATION LEVELS CONSISTENT TO THOSE SPECIFIED IN THE DESIGN GUIDELINES.
- ALL NEW PARKING LIGHTING SHALL BE NIGHT SKY COMPLIANT.
- POLE HEIGHTS SHALL NOT EXCEED 16’
- NEW STREET LAMPS SHALL BE A HISTORIC ACORN STYLE NOT OUT OF CHARACTER WITH THE SURROUNDING COMMUNITY.

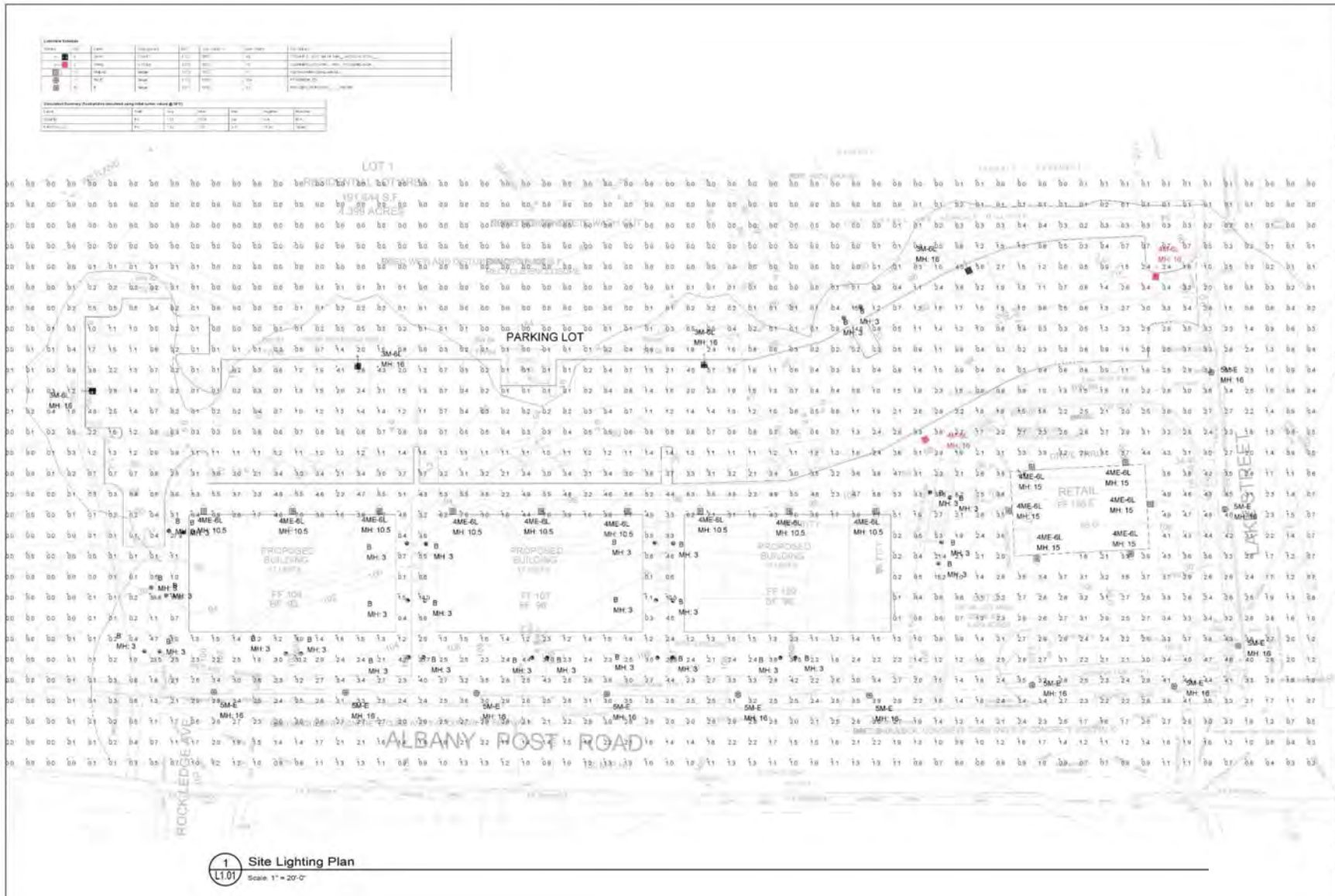
Pole Fixture Specification

Wall Mounted Fixture Specification

Pole Specification

Bollard Fixture Specification

SAMPLE ACORN STYLE STREET LAMP PHOTOGRAPH



1 L1.01 Site Lighting Plan

Scale: 1" = 20'-0"

JTA ARCHITECT

Joseph G. Thompson Architect, PLLC
105 N Greeley Street, Suite 100
Pawling, New York 12564
PH (914) 532-9165
EM joe@thompsonarch.com

REGISTERED ARCHITECT Joseph G. Thompson 028037 STATE OF NEW YORK

SEAL
Joseph G Thompson, NA
New York State License #028037

Village Square - SITE LIGHTING PLAN

Cafaro Northern 3035, LLC (Owner)
3035 Albany Post Road
Buchanan, New York 10511
Tax Lot 13.-1-35.-6
Village of Buchanan - Westchester County

FOR PLANNING BOARD REVIEW AND APPROVAL

Date: November 22, 2022

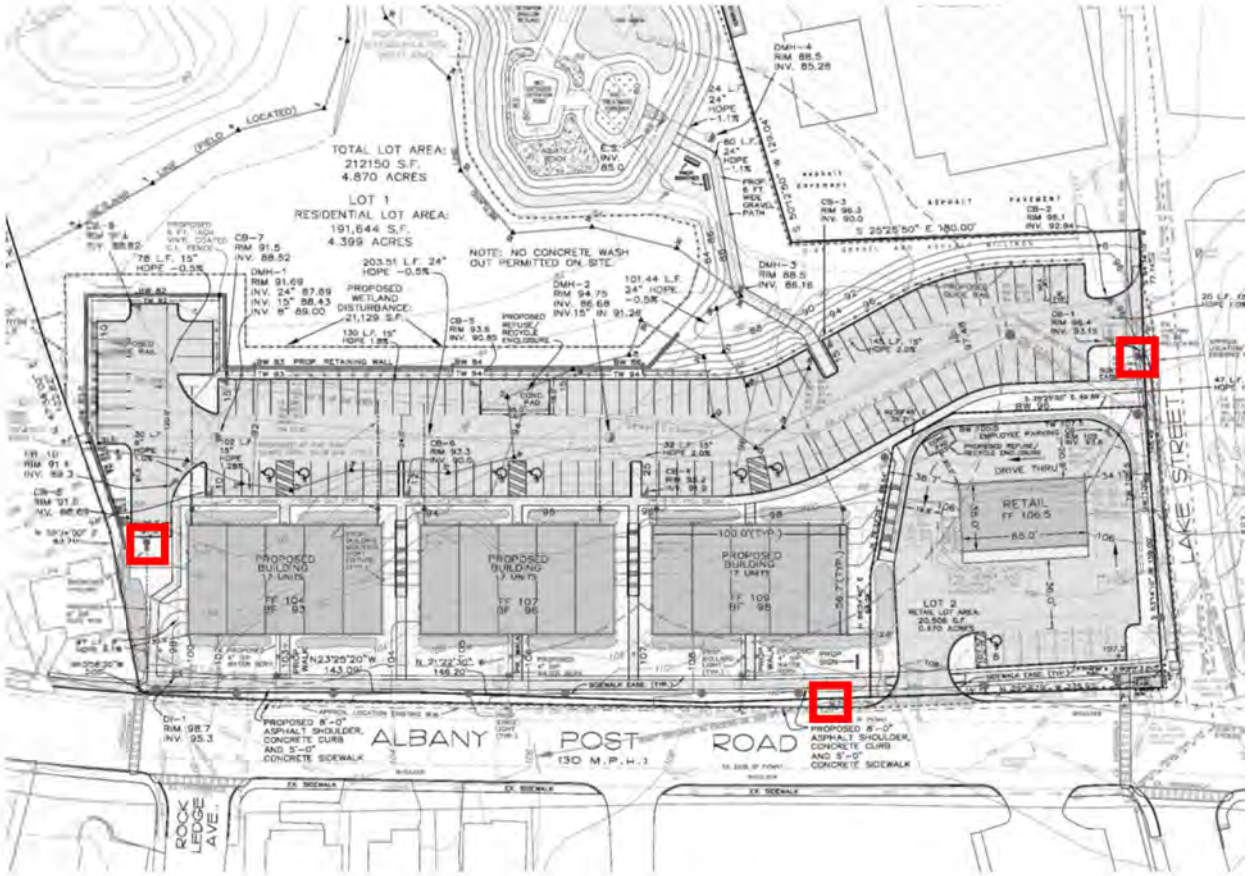
Revisions:
1 August 10, 2023
2
3
4
5

L1.01

SITE LIGHTING PLAN

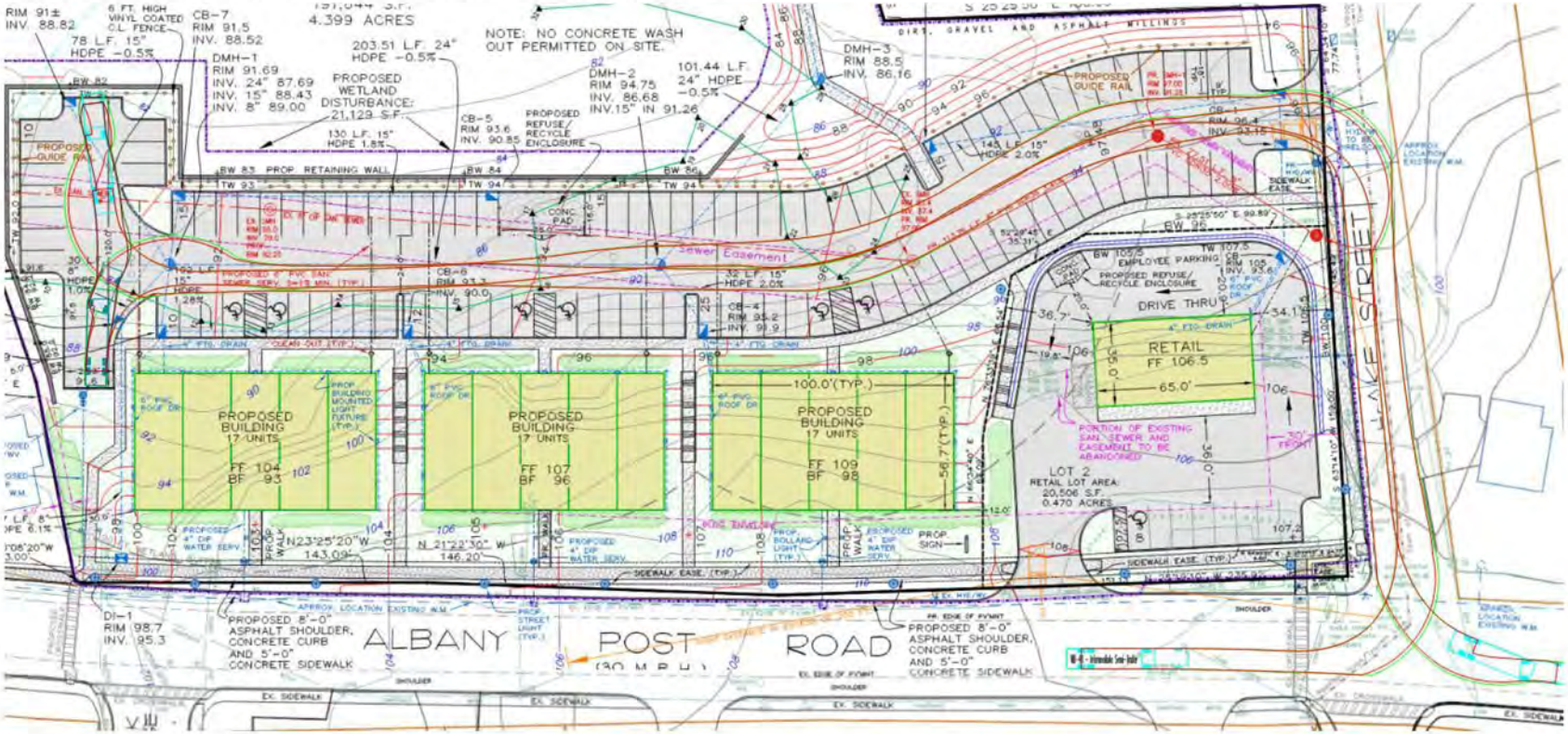
SIGNAGE:

- HYDRANT LOCATIONS COORINDATED WITH FIRE DEPARTMENT
- FIRE TRUCK ACCESS HAS BEEN COORDIANTE WITH FIRE DEPARTMENT
- RESIDENTIAL BUILDINGS SHALL BE FULLY SPRINKLERED
- ADDRESSABLE FIRE ALARMS SHALL BE PROVIDED THROUGHTOUT ALL REISDENTIAL APARTMENT UNITS AND COMMON SPACES

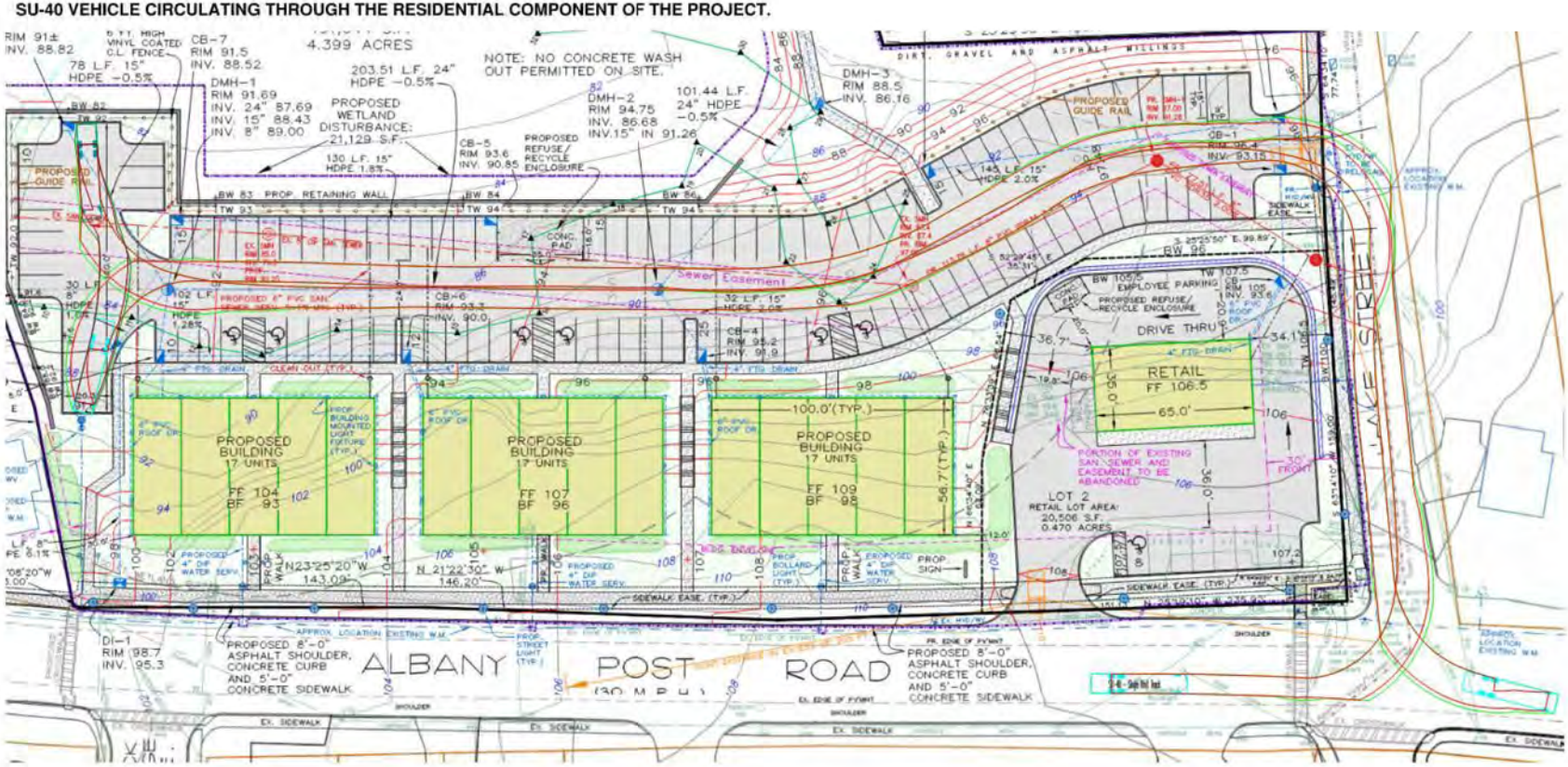


FIRE SAFETY

WB-40 VEHICLE CIRCULATING THROUGH THE RESIDENTIAL COMPONENT OF THE PROJECT.

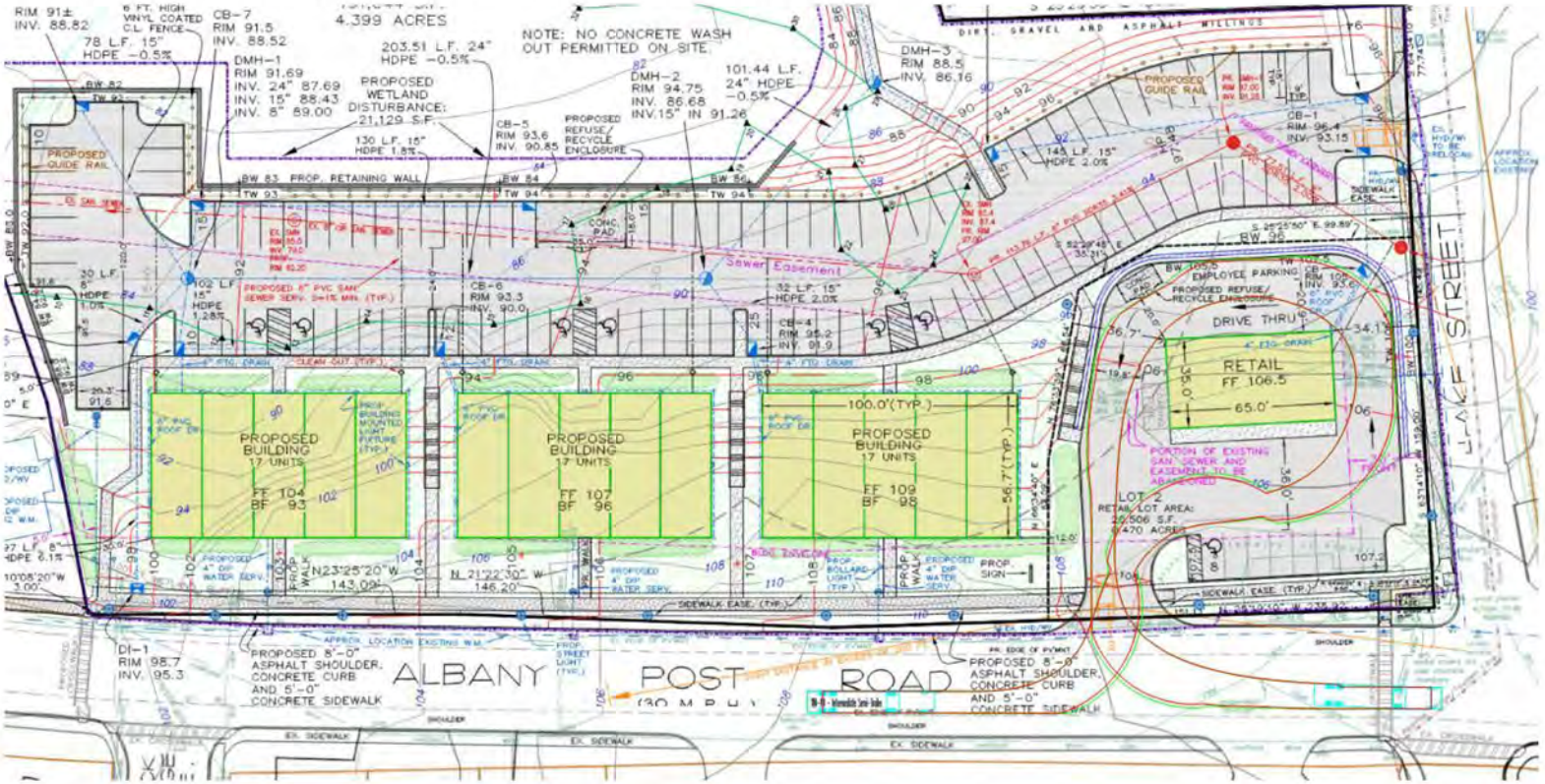


RESIDENTIAL SITE CIRCULATION DIAGRAM (WB-40 VEHICLE)



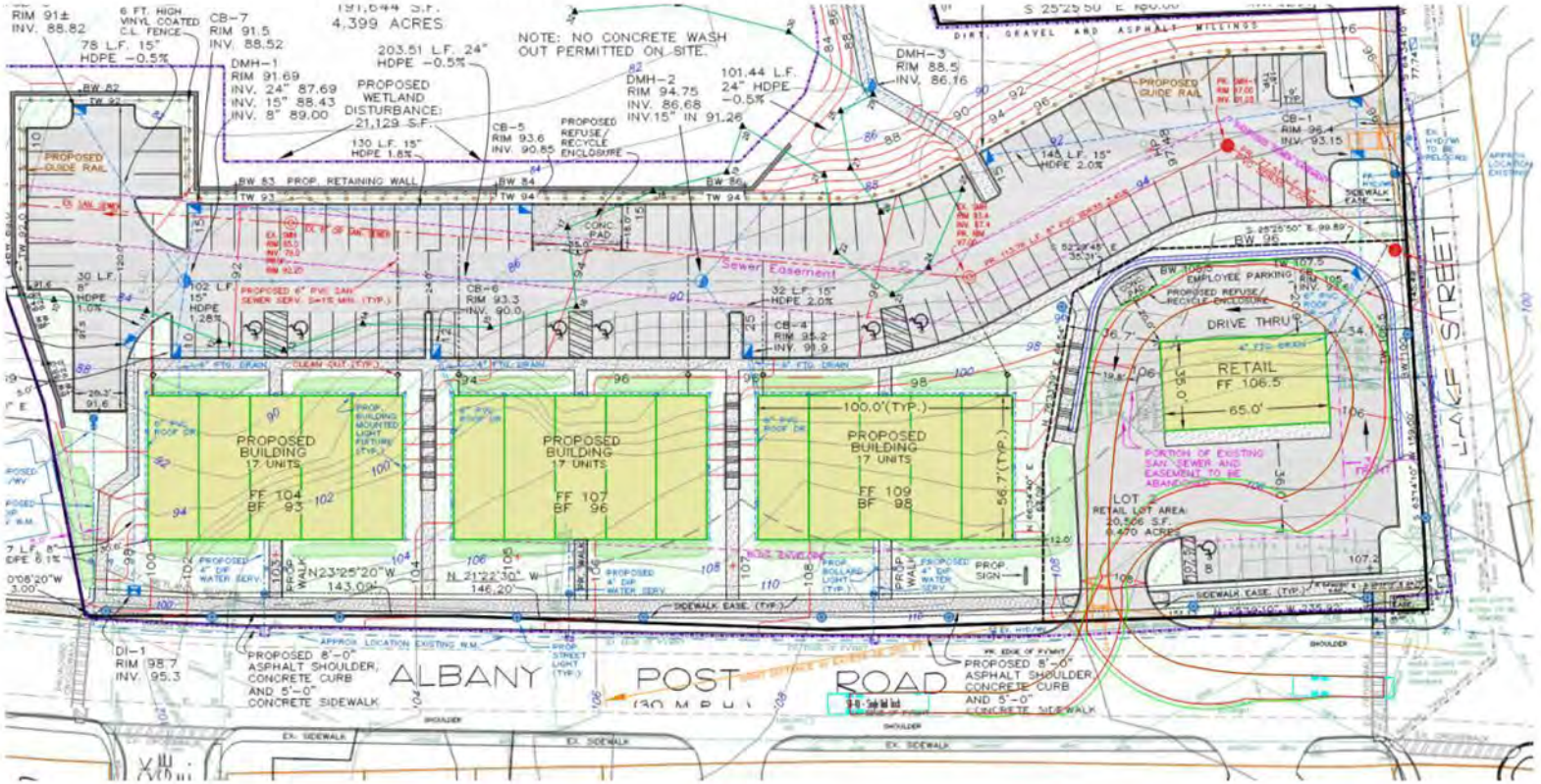
RESIDENTIAL SITE CIRCULATION DIAGRAM (SU-40 VEHICLE)

WB-40 VEHICLE CIRCULATING THROUGH THE COMMERCIAL COMPONENT OF THE PROJECT.



COMMERCIAL SITE CIRCULATION DIAGRAM (WB-40 VEHICLE)

SU-40 VEHICLE CIRCULATING THROUGH THE COMMERCIAL COMPONENT OF THE PROJECT.



COMMERCIAL SITE CIRCULATION DIAGRAM (SU-40 VEHICLE)

ARCHITECTURAL RENDERINGS

PROPOSED ARCHITECTURAL RENDERING

PROPOSED ARCHITECTURAL RENDERING

PROPOSED ARCHITECTURAL RENDERING

PROPOSED GROUND FLOOR PLAN

PROPOSED GROUND FLOOR PLAN

PROPOSED TYPICAL UPPER FLOOR PLAN

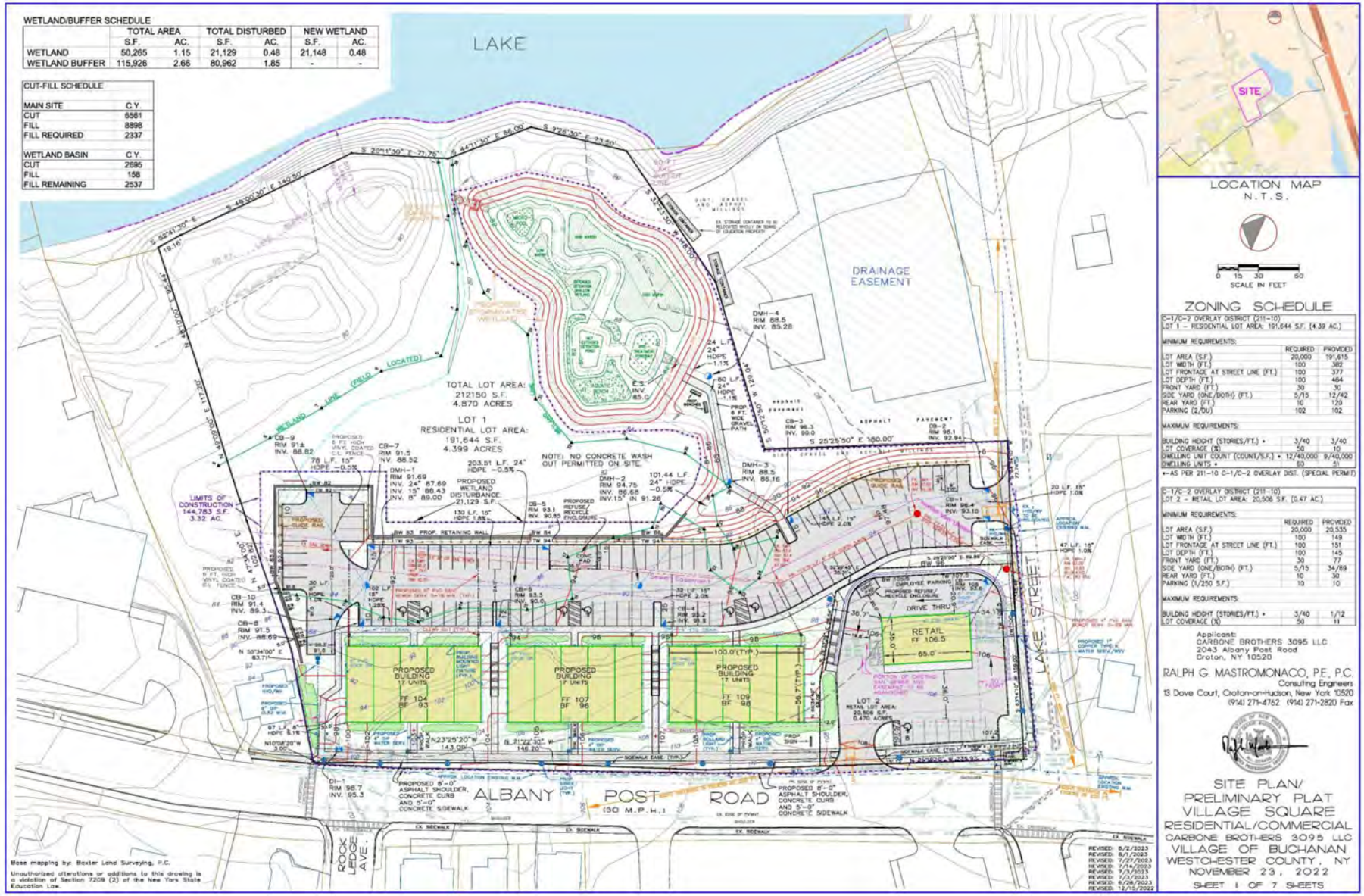
1 A2.01 Front Elevation

Scale: 3/16" = 1'-0"

PROPOSED FRONT BUILDING ELEVATION

PROPOSED BUILDING ELEVATIONS

PROPOSED REAR BUILDING ELEVATIONS



PROPOSED SITE PLAN

LEGEND

EXISTING	PROPOSED	
☒	■	CATCH BASIN
⊖	●	DRAIN MANHOLE
◎	●	SAN. SEWER MANHOLE
☌	●	HYDRANT
⊠	■	DRAIN INLET
⋇	⋇	WATER VALVE
(	(	HEADWALL
	▽	END SECTION
		CONTOUR LINE

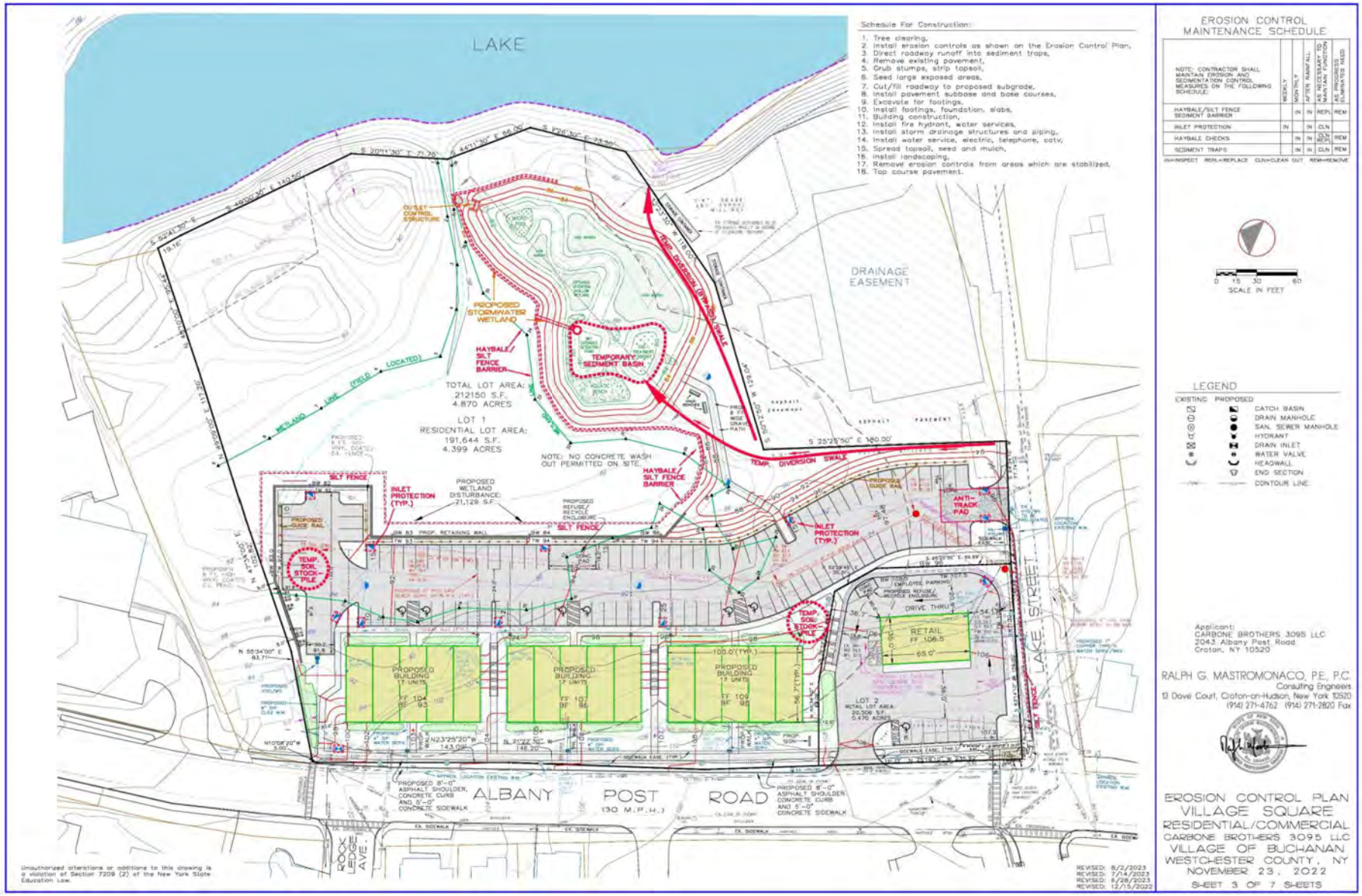
Applicant:
CARBONE BROTHERS 3095 LLC
2043 Albany Post Road
Croton, NY 10520

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

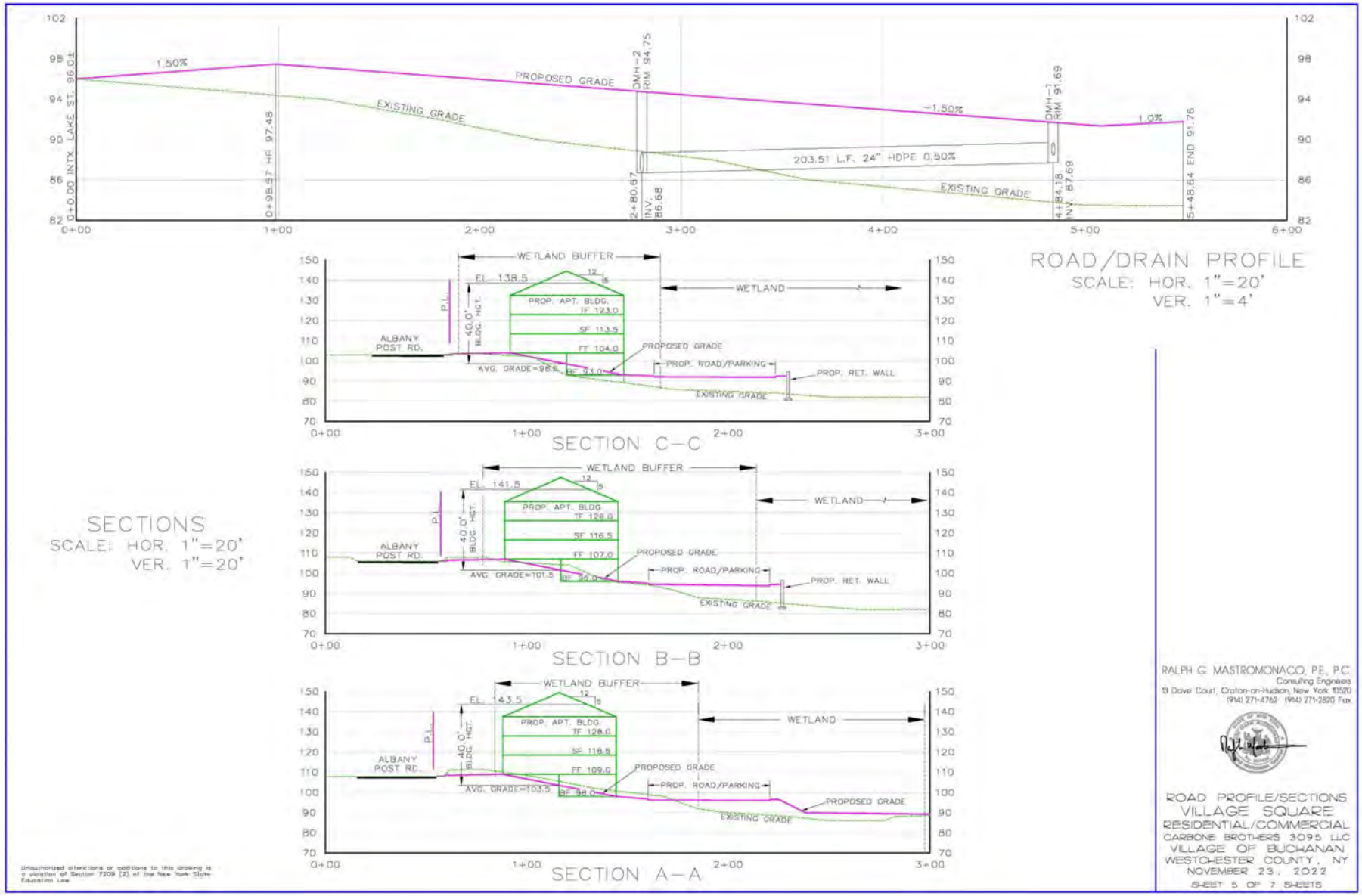
UTILITY PLAN
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
NOVEMBER 23, 2022
SHEET 2 OF 7 SHEETS

REVISED: 8/2/2023
REVISED: 7/14/2023
REVISED: 6/28/2023
REVISED: 12/15/2022

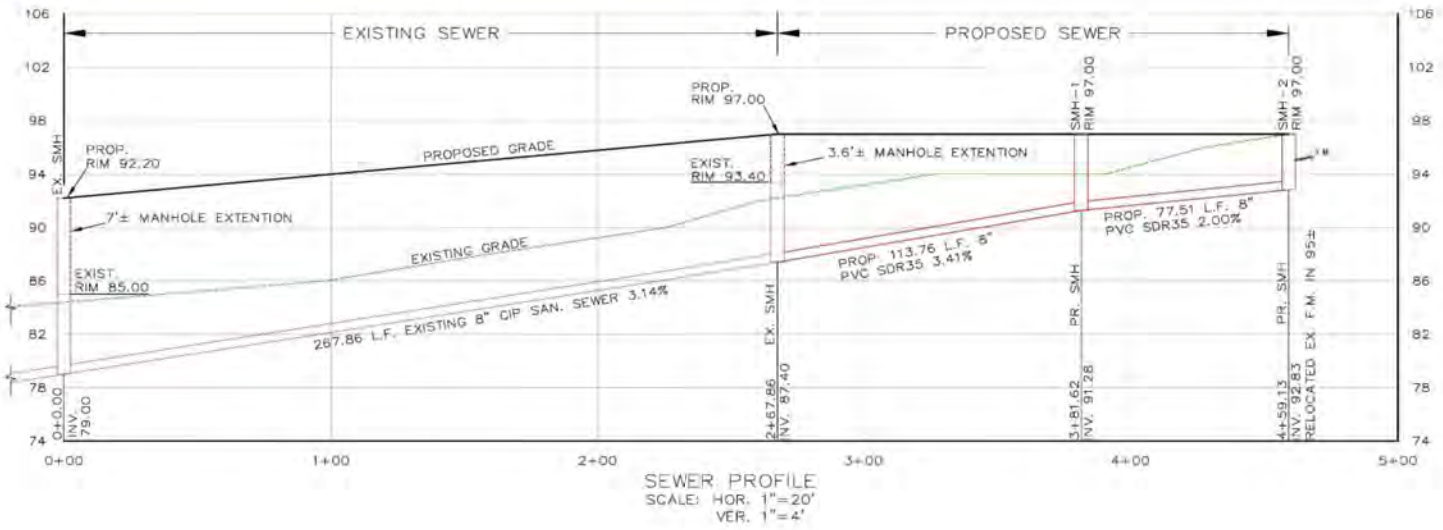
PROPOSED UTILITY PLAN



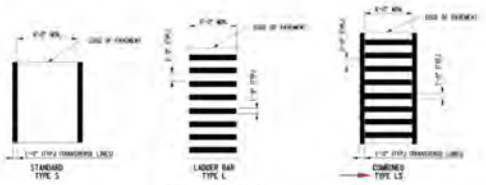
PROPOSED EROSION CONTROL PLAN



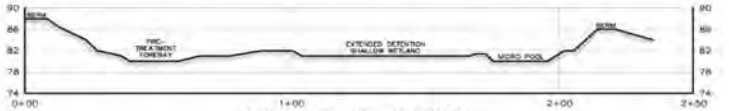
PROPOSED SITE SECTIONS



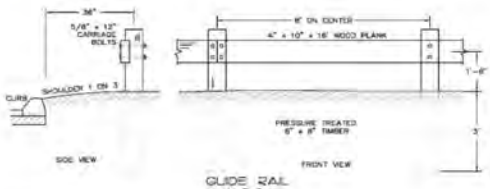
SEWER PROFILE
SCALE: HOR. 1"=20'
VER. 1"=4'



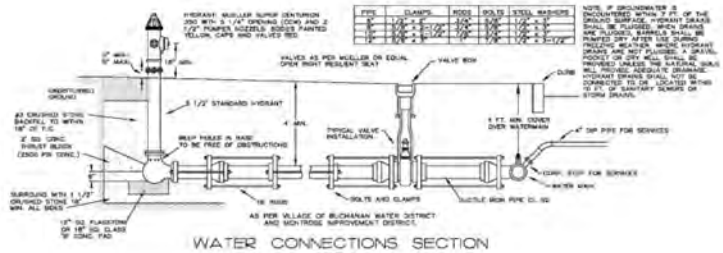
TYPICAL CROSSWALK DETAILS



STORMWATER WETLAND SECTION
SCALE: HOR. 1"=20'
VER. 1"=4'



GUIDE RAIL
N.T.S.

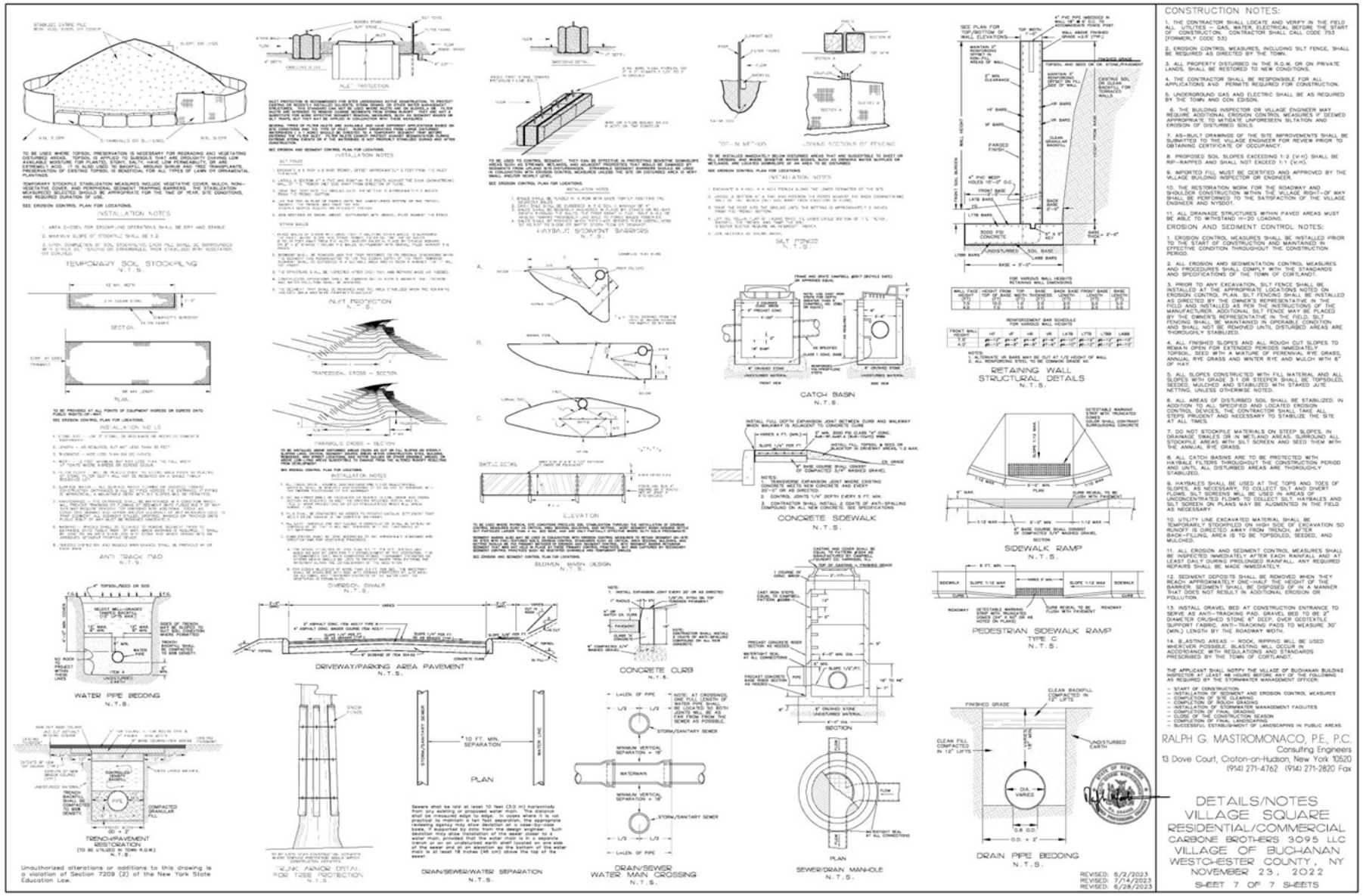


WATER CONNECTIONS SECTION
N.T.S.

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
10 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

SEWER PROFILE/
DETAILS
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
AUGUST 2, 2023

PROPOSED SITE DETAILS



PROPOSED SITE DETAILS

JTA JOSEPH THOMPSON ARCHITECT
108 N DIVISION STREET, SUITE 100, PEEKSKILL, NEW YORK 10566

To: **Village of Buchanan Planning Board**
Municipal Building
236 Tate Avenue
Buchanan, New York 10511

Attn: **Chair Faiella & Planning Board Members**

Date: August 10, 2023

RE: **VILLAGE OF BUCHANAN COMPREHENSIVE PLAN NARRATIVE- VILLAGE SQUARE**
3095 Albany Post Road, Buchanan, New York 10511
S-B-L: 43.20-2-6

The Village Square project located at 3095 Albany Post Road seeks to be a positive addition to the community with the intent of meeting the objectives outlined in the Village of Buchanan's Comprehensive Plan adopted in March 2005 as follows:

Comprehensive Plan Criteria	**Project Specific Attributes**
Community Character and Resources:	
Appearance of the Route 9A corridor. may likely form an impression of the Village based on the appearance of the Route 9A corridor. Improvements to the Route 9A "streetscape" could help improve the appearance and function of this corridor.	The existing property at 3095 Albany Post Road is a visually prominent lot at the corner of Albany Post and Lake Streets at a gateway point entering into Village downtown. The overall design, scale and composition of the new buildings seeks to be a positive addition and enhance the character of the Route 9A corridor in a manner that meets objectives outlined in the Village of Buchanan Design Guidelines. Streetscape improvements include new curbing, sidewalks, decorative streetlamps, street trees. and landscaping that will additionally improve the appearance of the 9A corridor.
Tax Base/ Tax Burden.	The proposed project will significantly increase the valuation of the currently vacant parcel. A cost-benefit analysis has been submitted as part of this application demonstrating that the benefits of the proposed new development outweigh the burdens.

Open Space Preservation	A significant portion of the site will remain undeveloped in the interest of protecting and enhancing the wetlands that are present. A walking trail is proposed to allow the community the ability to appreciate what is anticipated to be biodiverse natural habitat upon completion of enhancement efforts.
Planning Objectives:	
Quality of Life	The project is planned in a manner that seeks to compliment the historic character of Village architecture, provides streetscape improvements that seek to enhance the quality of life in the Village.
Scale and Character	The project is planned in a manner that seeks to compliment the scale and character of Village architecture in compliance with zoning bulk allowed for this parcel and the Village of Buchanan Design Guidelines.
Protect, preserve and enhance access to and use of the remaining open space lands.	A significant portion of the site will remain undeveloped in the interest of protecting and enhancing the wetlands that are present. A walking trail is proposed to allow the community the ability to appreciate what is anticipated to be biodiverse natural habitat upon completion of enhancement efforts.
Planning Recommendations:	
Architectural, Site Layout and Streetscape Improvements defined are consistent with the Village of Buchanan Design Guidelines since published in May 2021.	Please refer to the Village of Buchanan Design Guidelines Project Narrative included with this application outlining measures taken by the project's for conformance with the standards.

We look forward to further reviewing this application with the Board. Please contact me should you have any questions or should any further information be required.

Respectfully Submitted,

Joseph G. Thompson, RA, M. Arch, NCARB, LEED AP, CSBA, CDT
NYS Registered Architect

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
Tel: (914) 271-4762 Fax: (914) 271-2820

Civil / Site / Environmental

www.rgmpepc.com

Project: Village Square – Buchanan, NY

Scope: Analysis of Special Permit Conformance to Village Code Chapter 211

Date: August 2, 2023

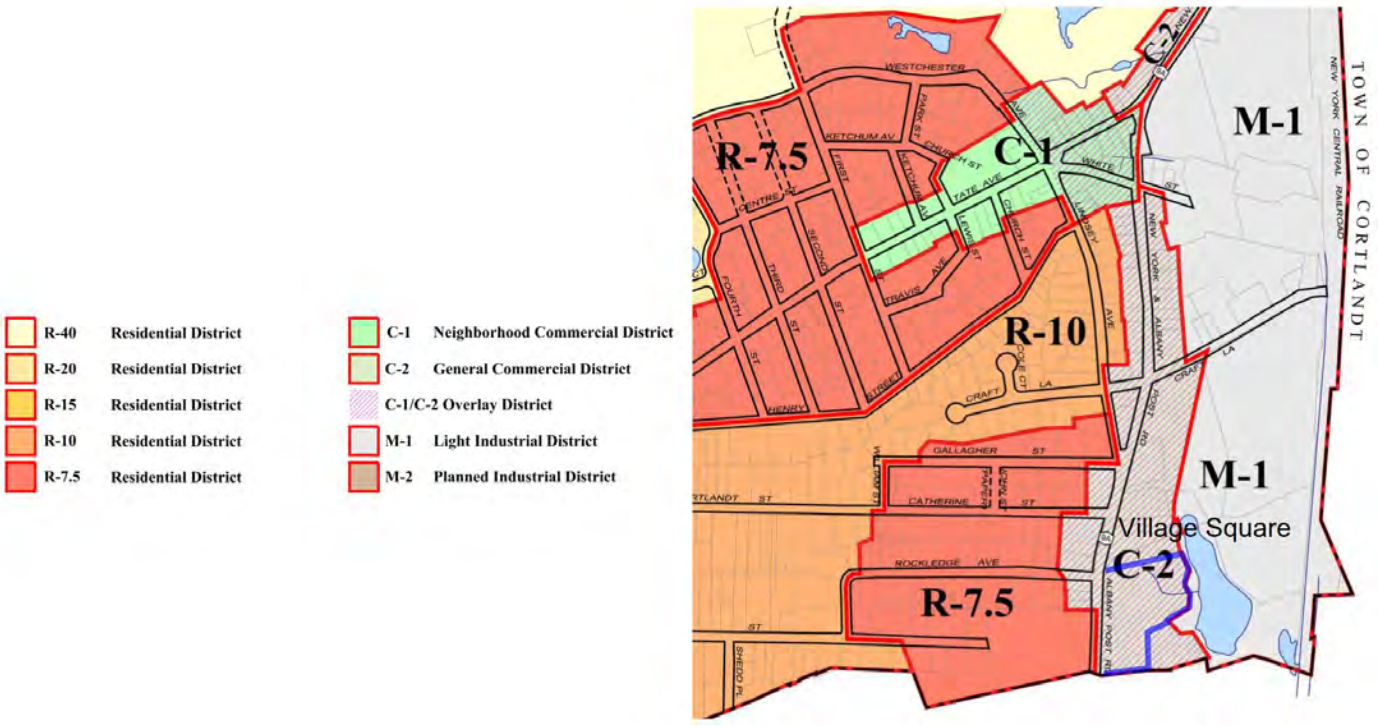
By: Ralph G. Mastromonaco, PE

The Village requires an analysis of conditions for a Special Permit, in this case to allow 51 units, in the C-2 Overlay District. The C-2 Overlay District allows 38 units by right in the proposed residential lot. A Special Permit would allow an additional 13 units and would allow stand-alone residential and stand-alone commercial. Accordingly, we address the conditions for a Special Permit, as follows:

General: The Village Square project adjoins the M-1 Light Industrial district. Across the street are the Hendrick Hudson High School and a Church. The residential buildings and small commercial lot will be consistent and adaptive to the uses nearby, especially compared to the potential development of the large, vacant Industrial area to the east.

It is desirable to separate the commercial component from the residential for a variety of reasons, including privacy. Placing numerous commercial uses along Albany Post Road would require numerous curb cuts on a State Road. Further, each commercial space would need front parking, and the presence of such parking along Albany Post Road would be highly visible as compared to the Village feel of the proposed, landscaped residential buildings.

Figure: Portion of the Buchanan Zoning Map near Village Square



Village Code Conformance Criteria:

(1) That all proposed structures, equipment or material shall be readily accessible to fire and police protection.

Response: The project is accessible by roadways, on both front and rear, for the purpose of fire-fighting and police protection. There are no physical barriers to the residential buildings, nor the proposed commercial building. This matter has been reviewed twice by the Fire Department.

(2) That the proposed use shall be of such location, size and character that, in general, it will be in harmony with the appropriate and orderly development of the district in which it is proposed to be situated and will not be detrimental to the orderly development of adjacent properties in accordance with the zoning classification of such properties.

Response: The project, of 51 residential units, would conform to the area requirements of the underlying zoning. Accordingly, the overall mass, height and width of each building would be consistent with any future development in the area. The project would not prevent any adjacent properties from being developed since it is self-sufficient as to utilities and access.

(3) The location and size of such use, the nature and intensity of operations involved in or conducted in connection therewith, its site layout and its relation to access streets shall be such that both pedestrian and vehicular traffic to and from the use and the assembly of persons in connection therewith will not be hazardous or inconvenient to, or incongruous with, or conflict with the normal traffic of the neighborhood.

Response: The project will provide a needed sidewalk along Albany Post Road, and will interconnect with crosswalks to improve safety for pedestrians in the area.

(4) The location and height of buildings, the location, nature and height of walls and fences and the nature and extent of landscaping on the site shall be such that the use will not hinder or discourage the appropriate development and use of adjacent land and buildings.

Response: The project's Site Plan and Landscape Plan demonstrates that there would be no walls or fences that would hinder the development of adjacent land or buildings.

(5) The impact of the proposed use shall not engender avoidable impacts upon the environment of the site or adjacent lands and that any such impacts will be the minimum necessary to accommodate the proposed use, and further that there shall be the maximum preservation of unique ecological or environmental assets particularly as such effect the value and viability of adjacent areas.

Response: As to environmental effects, the project will have a benefit to the area as the sponsor will provide a new Stormwater Wetland that will reduce stormwater peak flows and will provide a high-level habitat. Much of the current wetland on the site will remain intact, and the new wetland will be of a higher quality that the portion of the distressed wetland that will be removed. The loss of trees will be mitigated by the dense landscape plan in the area of the Stormwater Wetland. A new Landscape Plan will provide decorative and enhanced greenery along Albany Post Road.

Village Special Permit Application Procedure:

(1) A survey of the property, topography and soils classification, present zoning classification, any special districts, easements or other restrictions, including covenants on the development of the property and ownership of the property.

Response: These materials are included in the Site Plan and accompanying documents

(2) Description of the proposed use, with reference to the appropriate use and bulk regulations herein, including any supplementary regulations applying thereto.

Response: The Site Plan addresses the conformance to the Zoning Code.

(3) A plan of the proposed development generally setting forth the location of buildings, structures or other improvements to the land, means of access and egress, fire protection, topographical alteration and effects on drainage, both on the proposed site and downstream of the site.

Response: The Site Plan and Stormwater Plan provides the requested information

(4) A cost benefit analysis or similar study to review the estimated municipal costs, services and prospective revenues which would be generated by the proposed use.

Response: The applicant has provided the Cost-Benefit analysis.

(5) Evidence that the proposed use is consistent with and compatible to the goals of the Village Master Plan.

Response: The Architect has provided an analysis of the project in relation to the Village's Master Plan

(6) A traffic and circulation study projecting the effects of the proposed use on the existing and probable future traffic and access in the vicinity of the proposed use.

Response: The applicant's Traffic Engineers have submitted a detailed traffic report for the project.

(7) Copies of environmental assessments or permit applications and supporting materials which may be required to meet New York State Department of Environmental Conservation regulations.

Response: The only NYS DEC requirement is met by the providing of a Stormwater Plan which has been done and will be completed upon acceptance of the Special Permit.

(8) Names and mailing addresses of all owners of property abutting or within 200 feet of the property for which application is made shall be submitted. The applicant shall furnish stamped (certified mail) envelopes, addressed with each such property owner at the time of application

Response: We have provided the names and addresses of properties within 200 feet of the site, including within the Town of Cortlandt proper for the eventual certified mailings.

CARBONE BROTHERS 3095 LLC

2043 ALBANY POST ROAD CROTON, NY 10520

August 7, 2023

MR. DAVID B SMITH
PLANNING & DEVELOPMENT ADVISORS
VILLAGE OF BUCHANAN

re: VILLAGE SQUARE
3095 ALBANY POST ROAD
BUCHANAN, NEW YORK 10511

ECONOMIC AND FISCAL ANALYSIS

This section corresponds to the Special Permit review criteria in §211.42(A)(4) of the Village's Zoning Code.

CURRENT PROPERTY TAX REVENUE

The Current Property Tax Revenue for 3095 Albany Post Road is shown in Table 1.

Table 1 - Current Property Tax Revenue

Taxing Purpose	Taxable Assessed Value	Tax Rate per $1000 of Assessed Value (Mill Rate)	Approximate Amount Raised by Taxation
General Town	$3,375	31.800000	$107.33
Westchester Tax	$3,375	193.160000	$651.92
Library	$3,375	7.500001	$25.31
Hendrick Hudson School District	$3,375	1156.381801	$3,902.79
Hendrick Hudson Library	$3,375	27.814690	$93.87
Village Tax	$5,100	626.490000	$3,195.10
TOTAL			$7,976.32

ECONOMIC AND FISCAL BENEFITS

PROPOSED PROPERTY TAX REVENUE

We estimate that the full market value of the proposed **VILLAGE SQUARE** project would be approximately $7,987,500.00. The residential component of the project is estimated to be valued at $7,650,000 ($150,000 per unit x 51 units), and the estimated value of the commercial drive thru building is $337,500.00. The estimated taxable assessed property value of the residential component would be approximately $102,510.00. The estimated taxable assessed property value of the drive-thru building would be approximately $4,523.00. (The taxable assessed value of property within the Town of Cortlandt as of 2023 is 1.34 percent of the total market value).

CARBONE BROTHERS 3095 LLC

2043 ALBANY POST ROAD CROTON, NY 10520

ESTIMATED PROPERTY TAX REVENUE

Table 2 shows the estimated tax revenue for 3 as-of right Mixed-Use Buildings, totaling 18 retail stores and 16 rental apartments. These mixed use buildings are allowed in the C1/C2 Overlay District. The estimated value for these 3 buildings is $5,400,000.00.

Table 2 – Estimated As-of-Right Mixed Use Tax Revenues

Taxing Purpose	Taxable Assessed Value	Tax Rate per $1000 of Assessed Value (Mill Rate)	Approximate Amount Raised by Taxation
General Town	$72,360	31.800000	$2,301.05
Westchester Tax	$72,360	193.160000	$13,977.06
Library	$72,360	7.500001	$542.70
Cortlandt Ambulance	$72,360	12.450002	$900.88
County Refuse	$72,360	22.790002	$1,649.08
Hendrick Hudson School District	$72,360	1156.381801	$83,675.79
Hendrick Hudson Library	$72,360	27.814690	$2,012.68
Village Tax	$72,360	626.490000	$45,332.82
TOTAL			$150,392.06

Although Mixed-Use is allowed as-of-right, we do not believe that now is the time for more major commercial development to happen in our area. The Village of Buchanan does not currently have enough population to support the addition of new stores into the area. We believe that with the addition of our proposed 51 residential units, and the 148 units of AMS, that new commercial development along Albany Post Road may be possible in the future, with the addition of new population. Businesses cannot live without customers, so we need to bring in the population to allow for our current local businesses to thrive more, and for new local businesses to open in the near future.

As shown below in Table 3, the proposed **VILLAGE SQUARE** residential project is estimated to generate approximately **$213,055.40** in property tax revenue annually.

Table 3 – Proposed Village Square Tax Revenues (51 Residential Units)

Taxing Purpose	Taxable Assessed Value	Tax Rate per $1000 of Assessed Value (Mill Rate)	Approximate Amount Raised by Taxation
General Town	$102,510	31.800000	$3,259.82
Westchester Tax	$102,510	193.160000	$19,800.83
Library	$102,510	7.500001	$768.83
Cortlandt Ambulance	$102,510	12.450002	$1,276.25
County Refuse	$102,510	22.790002	$2,336.20
Hendrick Hudson School District	$102,510	1156.381801	$118,540.70
Hendrick Hudson Library	$102,510	27.814690	$2,851.28
Village Tax	$102,510	626.490000	$64,221.49
TOTAL			$213,055.40

CARBONE BROTHERS 3095 LLC

2043 ALBANY POST ROAD CROTON, NY 10520

As shown below in Table 4, the proposed **VILLAGE SQUARE** commercial drive thru building is estimated to generate approximately **$9,399.52** in property tax revenue annually.

Table 4 – Proposed Village Square Commercial Retail Drive-Thru Tax Revenues

Taxing Purpose	Taxable Assessed Value	Tax Rate per $1000 of Assessed Value (Mill Rate)	Approximate Amount Raised by Taxation
General Town	$4,522.50	31.800000	$143.82
Westchester Tax	$4,522.50	193.160000	$873.57
Library	$4,522.50	7.500001	$33.92
Cortlandt Ambulance	$4,522.50	12.450002	$56.31
County Refuse	$4,522.50	22.790002	$103.07
Hendrick Hudson School District	$4,522.50	1156.381801	$5,229.74
Hendrick Hudson Library	$4,522.50	27.814690	$125.79
Village Tax	$4,522.50	626.490000	$2,833.30
TOTAL			$9,399.52

NOTE:

The Difference of Tax Revenues between 3 as-of-right Mixed-Use Buildings (18 Commercial Spaces with 16 Apartments) ($150,392.06) and the proposed Village Square development project (51 apartments / 1 Drive-Thru Commercial Space) ($222,454.92) is $72,062.86 per year.

POTENTIAL COSTS TO THE VILLAGE OF BUCHANAN

With the addition of the proposed 51 residential units from Village Square and the 148 units from AMS Buchanan, a cost to the Village as a result of the new developments could be for the potential hiring of a new police officer for the Village of Buchanan. In our opinion, the proposed Village Square project is anticipated to generate a slight increase in the demand for police services, which we anticipate would be accommodated by the current Buchanan Police Department staff.

ESTIMATED PUBLIC SCHOOL-AGE CHILDREN

As requested, we are using the calculations that AMS Buchanan had used to estimate their number of school children in their development. Using Rutgers University's Center for Urban Policy Research 2018 multiplier of 0.065 (used for newly constructed multifamily buildings with 50 or more units; 2 bedroom units), the estimated number of public school age children living in our development would be **3.32**, rounded to **4 children**. Using AMS Buchanan's Case Study of Westchester Multi-Family Developments, using a multiplier of 0.094, the estimated number of public school age children living in our development would be **4.79**, rounded to **5 children**.

IMPACT ON THE SCHOOL DISTRICT

Table 5 below shows the K-12 Enrollment of Hendrick Hudson School District between the years 2007-2022, totaling 15 years.

Table 5 – Hendrick Hudson School District Enrollment over the years

School Year	Enrollment (K-12)	% Change in Enrollment from Previous Year
2007-2008	2,715	+/- %
2008-2009	2,690	-0.92%
2009-2010	2,701	+0.41%
2010-2011	2,621	-2.96%
2011-2012	2,576	-1.72%
2012-2013	2,485	-3.53%
2013-2014	2,402	-3.34%
2014-2015	2,344	-2.41%
2015-2016	2,366	+0.94%
2016-2017	2,324	-1.78%
2017-2018	2,309	-0.65%
2018-2019	2,320	+0.48%
2019-2020	2,267	-2.28%
2020-2021	2,211	-2.47%
2021-2022	2,208	-0.14%
Source: data.nysed.gov / NYS District Report Card		

As shown in the table above, the Hendrick Hudson School District has had a decline in enrollment of 20.37% over the past 15 years. The addition of the estimated Village Square school age children (5) and AMS Buchanan's public school age children (14) would increase the school district's enrollment by 19 students.

The Hendrick Hudson School District's 2022-2023 budget allocated $71,378,017 towards its instructional budget for its 2,208 students (*student count from NYS District Report Card*), totaling an instructional cost of approximately $32,327.00 per student. 65.2% of the instructional cost would be funded through property tax or PILOT payments, which is about $21,077.20 per student. With the estimated 5 school children that Village Square's development may bring in, the annual cost to the district would be $105,386.00, which would be fully paid for with estimated School Tax payment of $118,540.70 per year.

ECONOMIC BENEFITS

The estimated average annual household income in the Village of Buchanan and the Town of Cortlandt is approximately $104,000. Using the 2021 U.S. Bureau of Labor Statistics Consumer Expenditure Survey, households at this income level spend approximately 32 percent of their income on consumer goods and services such as groceries, restaurant meals, alcohol, home furnishings, medical care, gasoline, and other miscellaneous goods and services. The 51 residential units in the proposed **VILLAGE SQUARE** project have an estimated total consumer expenditure potential of approximately **$1.7 million annually**.

ECONOMIC BENEFITS (continued)

As per AMS BUCHANAN:

"Based on the businesses located in the Village and the Town, and location-based services spending and travel pattern data[5], the Village of Buchanan could capture 8 percent of new residents' consumer expenditure potential […] annually and the Town could capture approximately 48 percent of new residents' consumer expenditure potential […] Westchester County would capture approximately 72 percent of the new residents' consumer expenditure potential."

Using the pattern data stated above, the 51 residential units in the Proposed Project have an estimated consumer expenditure potential of:

- **$136,000 towards the Village of Buchanan**
- **$816,000 towards the Town of Cortlandt**
- **$1,224,000 towards the County of Westchester**

The residents local spending would have rippling effects in the economy through increased business-to-business spending and increased household incomes. With the addition of our residential units, there will be more single individuals, couples and families who will shop at our local businesses, restaurants and stores for their everyday items.

SUBDIVISION OF LAND, RESERVATION OF RECREATION

As you know, we are proposing a subdivision to separate the residential component of this project from the commercial component. Pursuant to §171-11 of the Village Code "*Reservation of recreation areas or moneys in lieu thereof*," the Planning Board shall require land for playgrounds or recreational facilities, or receive payment in lieu of in subdivisions in which the Planning Board determines that the reservation of land for a recreation area is desirable. We do not believe that the reservation of recreation area or money in lieu of a recreation area is desirable in this case, because this is not a major subdivision that we are proposing. We are only estimating 5 public school age children, which does not warrant the need of a new playground. The nearest playground that the school age children could go to is at Frank G. Lindsey Elementary School, which is a 7 minute walk, or a 2 minute drive from the proposed development

PARKS AND OPEN SPACE

Pursuant to §211-27.1 of the Village Code, "*Reservation of parkland*", and in conformance with NYS law, the Village is permitted to require the provision of a park, playground or other recreational purposes on site plans containing residential units. The Planning Board must make a finding that a park is warranted. A park is a tract of land that often includes lawns, woodland, and pasture. Although we do not believe that a park is warranted due to the nature of this development, and given the environmental constraints on the Project Site, the Project's park will be the new Stormwater Wetland in the rear of the property woodlands that abuts the Lake. There will be a gravel/woodchip trail that leads to the park area, along with some sitting benches for the residents. The residents may use the new park for leisure and enjoyment, to walk around and jog, and to get some fresh air. There will be native plants in the park area, with new vegetative diversity and wildlife habitat featured.

CARBONE BROTHERS 3095 LLC

2043 ALBANY POST ROAD CROTON, NY 10520

DEFINITE SAVINGS TO THE VILLAGE OF BUCHANAN

As previously mentioned by Village Administrator Marcus Serrano, the Village will not be providing waste management to our new development. If we assume that the Village were to remove our garbage and charge us accordingly per pickup twice a week per dumpster, at $25.00 per dumpster, times 16 dumpsters, times 26 pickups per quarter, times 4 quarters, the Village would charge us $41,600.00 per year for garbage removal, which is already included in our Village Tax. Therefore, since the Village will not remove our garbage, the Village is saving $41,600.00 per year.

OBJECTIVES OF THE VILLAGE

Two important objectives of the Village of Buchanan in the Comprehensive Master Plan are to ***"Promote a range of rental and home ownership opportunities in varied housing types and prices for Village residents"*** and to ***"Preserve the quality, character and stability of the Village's neighborhoods."*** Our end goal is to provide beautiful rental apartments to the Main Corridor of the Village of Buchanan to enhance the appearance of the Village. We would allow for many additional rental opportunities within the Town of Cortlandt, which would attract more business to our area with the addition of our new residents.

In conclusion, we believe that our project is net positive to the Village of Buchanan and to the Town of Cortlandt. There are many positive impacts to come from this development, which strongly overpowers any negative impacts, which there are none of.

Respectfully submitted,

Pasqualino Carbone

CARBONE BROTHERS 3095 LLC

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
Tel: (914) 271-4762 Fax: (914) 271-2820

Civil / Site / Environmental

www.rgmpepc.com

Project: Village Square – Buchanan, NY

Scope: Analysis of Steep Slope Requirements of Village Code Chapter 165

Date: August 2, 2023

By: Ralph G. Mastromonaco, PE

The Village Square project will disturb some areas of 30% slope. As required by Chapter 165 (I) (2):

> *"With respect to applications involving proposed disturbance or alteration of any steep slope with a grade of 30% or greater, the applicant shall have the additional burden of demonstrating, again by clear and convincing evidence, that the applicant's circumstances are compelling and exceptional, including, at a minimum, demonstrating by clear and convincing evidence that no reasonable use of the site, lot or parcel is possible without disturbance to a steep slope area having a grade of 30% or greater."*

The 30% slope on this site is characterized by thin bands, nominally about 15 feet wide. These strips of 30% slope are located in the buildable areas of the site. There will be no disturbance of 30% slope in the wetlands. The disturbance of 30% slope would be about 7600 square feet and represents only 5.3% of the total site disturbance. The slope is spread out over four small areas and are not interconnected. All of the 30% slope would be eliminated by the proposed construction and would not represent a continuing problem of stability.

In general, the concern over the disturbance of steep slopes relates to the stability of the remaining slope. In this case, given the narrow formations, the steep slope would be completely removed and would be replaced by much flatter slopes or portions of the building foundation. The stability of the soils in the area would be improved by the proposed work.

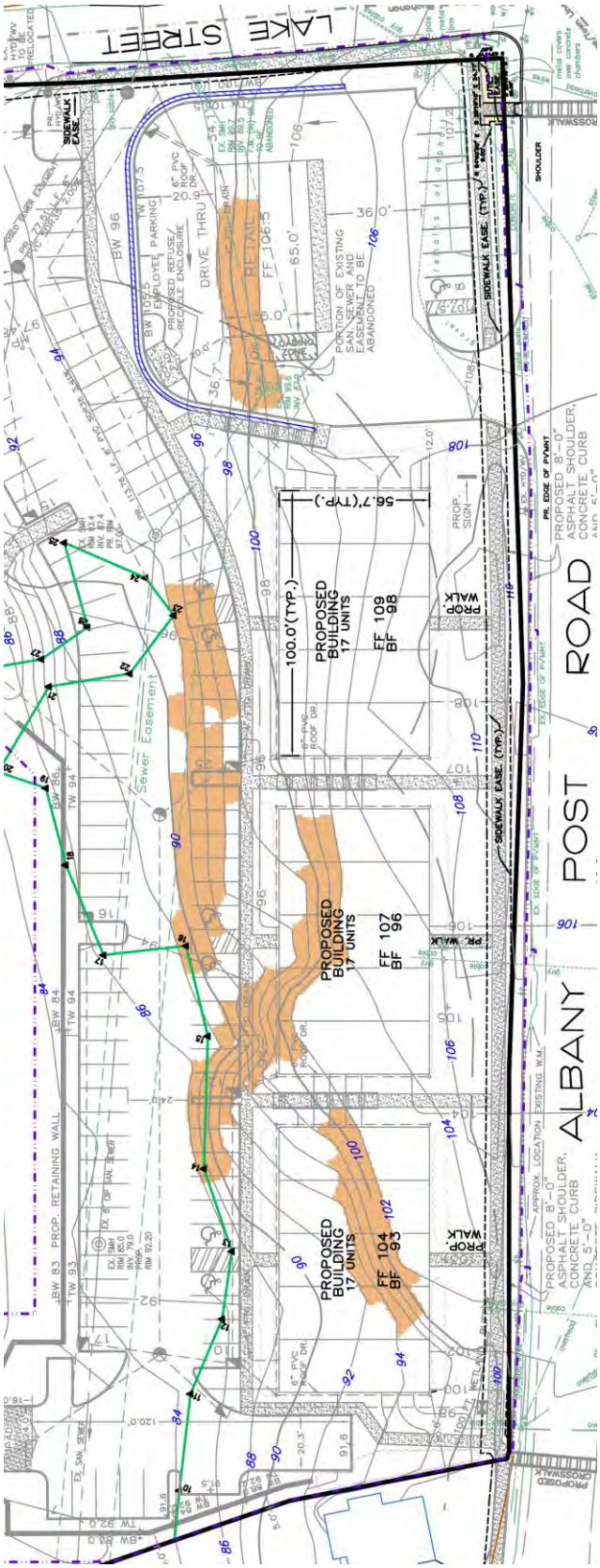
The enclosed profiles illustrate the location of the 30% slope in relation to the proposed construction. The excavation of the thin strips of 30% slope are highlighted and it is clear that their relation to the overall excavation is that these steep slopes will be eliminated.

The profiles are taken through the proposed buildings as indicated on the Site Plan enclosed. These are labeled, A, B, and C profiles.

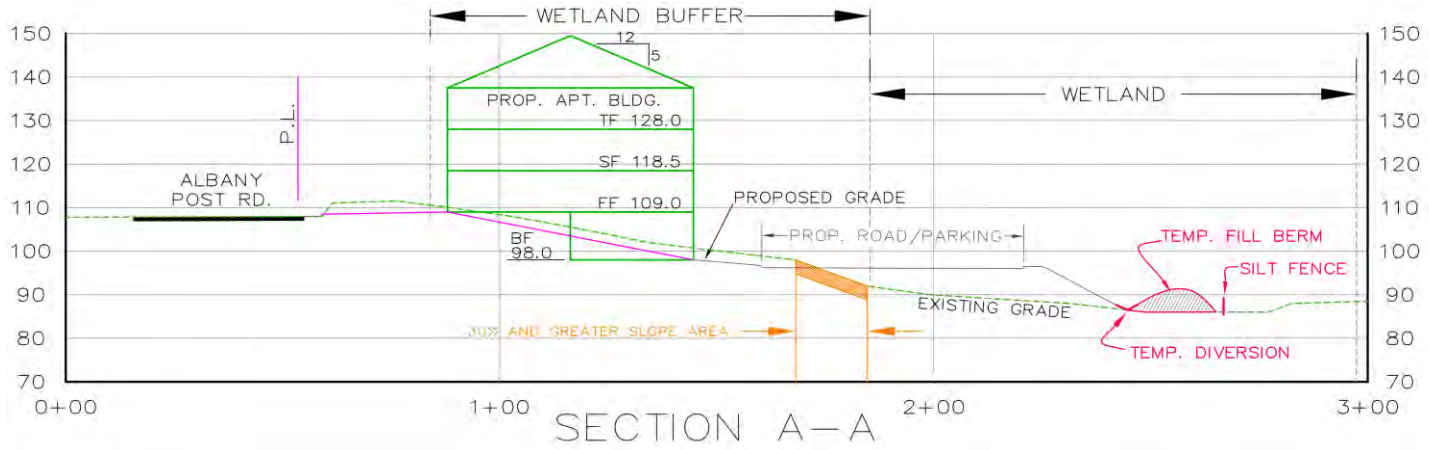
Further, it can be seen that the proposed disturbance would not affect any off-site or adjoining properties. It is also clear from the profile that the 30% slopes would be replaced by much flatter slopes having no permanent effects.

Accordingly, there would be no specific impact due to the disturbance of the 30% slopes on this site and any development of the site would necessarily need to disturb some amount of 30% slope.

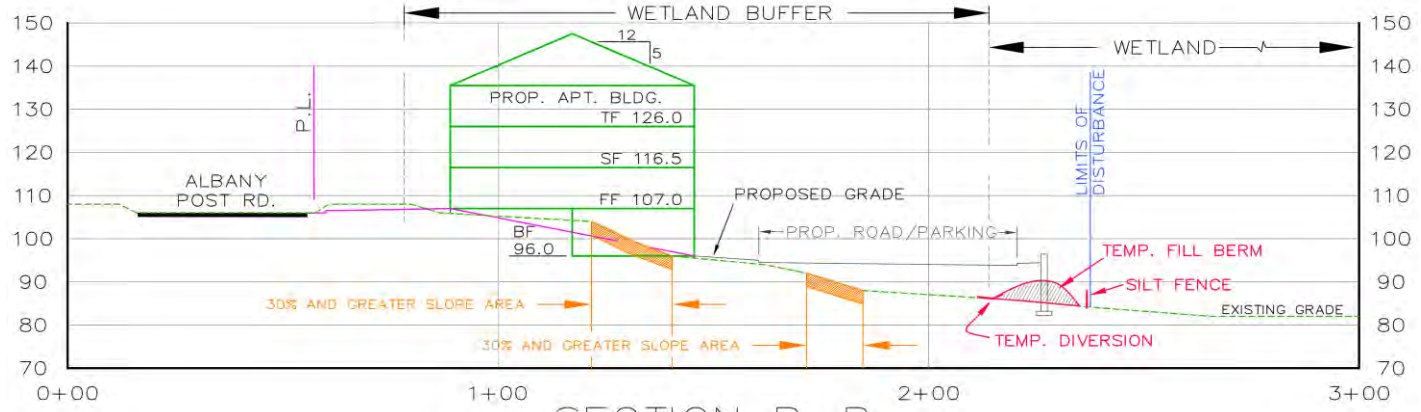
Figure: Plan View - Areas of Existing 30% Slope



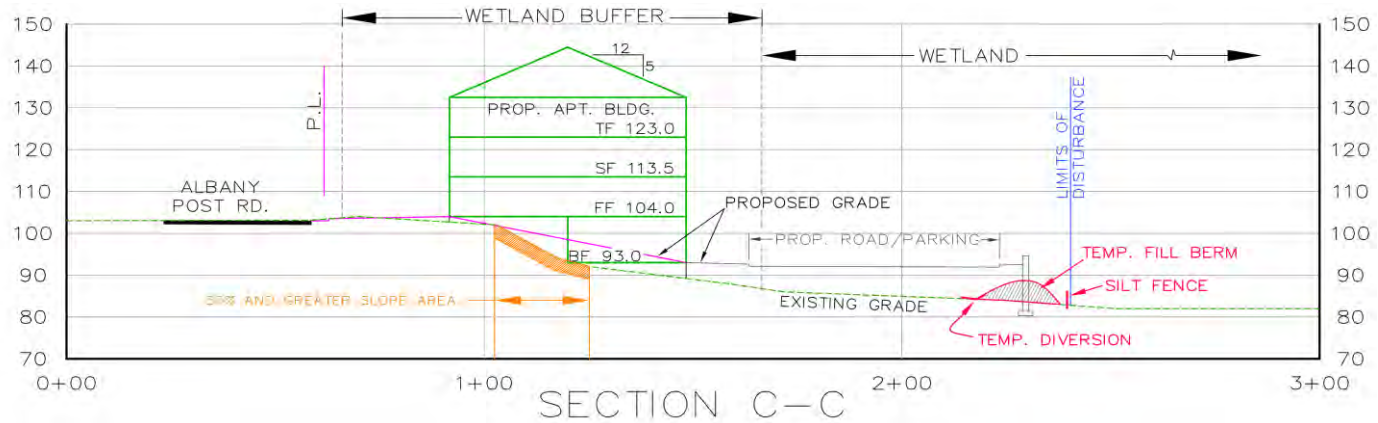
Figures: Profiles Indicating the 30% Slopes and Wetland Protection



SECTION A–A

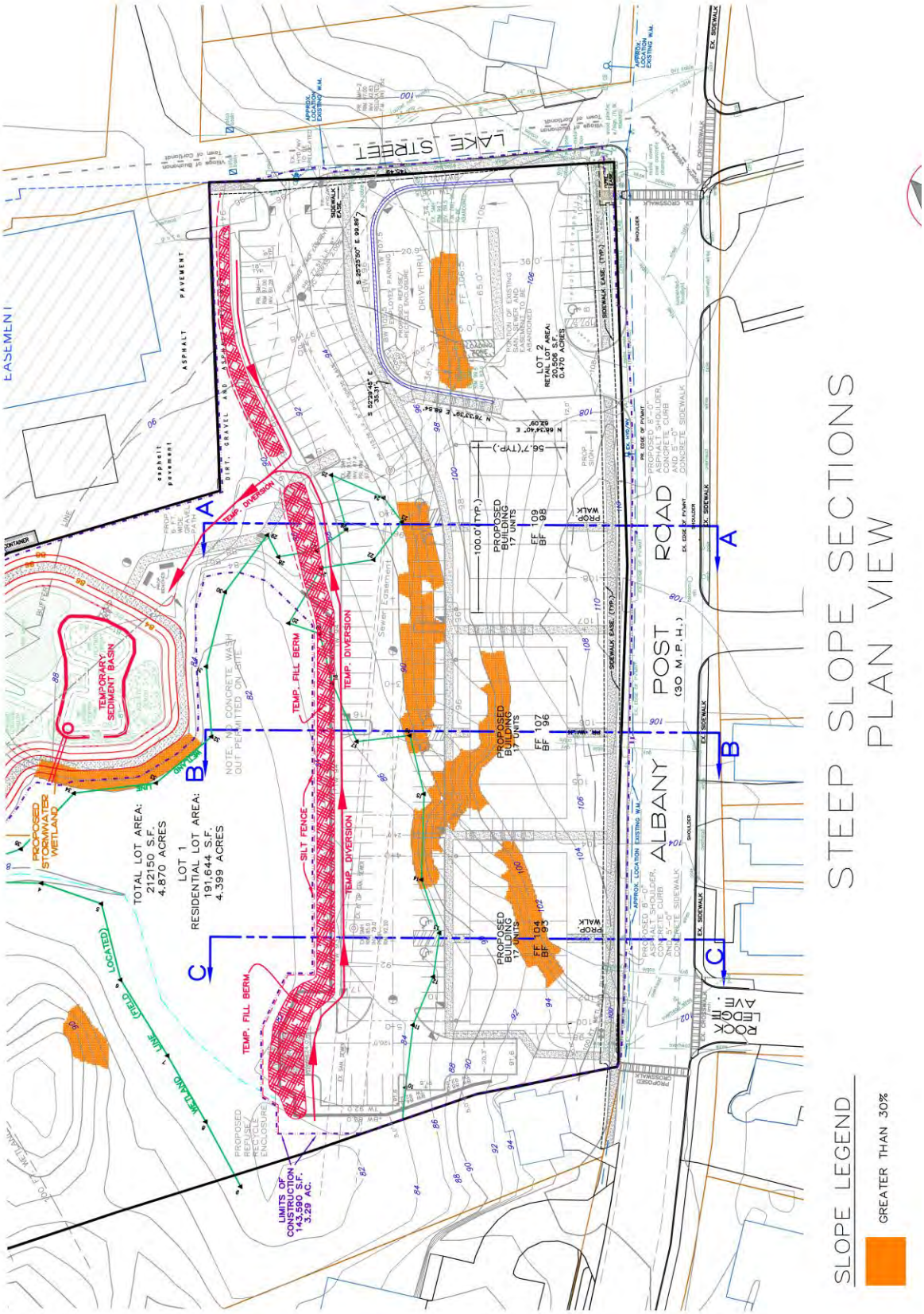


SECTION B–B



SECTION C–C

Figure: Location of 30% Slopes and Section Indicator



RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
Tel: (914) 271-4762 Fax: (914) 271-2820

Civil / Site / Environmental

www.rgmpepc.com

Project: Village Square – Buchanan, NY

Scope: Response to Comments of David B. Smith of July 26, 2023
Village Planning Advisor

Date: August 8, 2023

By: Ralph G. Mastromonaco, PE

The following is a response to the comments by David Smith with the comments summarized:

Comment: Special Permit Uses

(1) A revised Cost Benefit Analysis is provided by the Applicant.

(2) The Architect is providing an analysis of the proposed use and the consistency with the Master Plan.

(3) We are providing a mailing list of owners within 200 feet of the property.

Comment: Conformance to the Comprehensive Master Plan

(1) The Architect is providing the analysis

Comment: Subdivision of Land

(1) The revised submission includes a Preliminary Plat and shows the features indicated in 171-20G

Comment: Design Guidelines

(1) The Architect has provided the analysis of the Design Guidelines

Comment: Landscape Plans

(1) The Architect has provided a Landscape Plan

Comment: Construction Management Plan

(1) The revised Site Plan submission includes a Construction Sequence Plan that outlines the steps in the construction of the project.

Comment: EAF suggestions

The EAF has been revised to include and address the comments made.

Comment: Elevators in the Building

(1) The Architect is reviewing the elevator system – this is not a Site Plan issue but will be addressed for Building Permit.

Comment: Bicycle Racks

(1) There is space within the building for secure bike storage. If a need develops for outside racks the applicant will evaluate the need and provide such racks where needed.

Comment: Lighting

(1) The Applicant has provided a lighting plan with illumination data
(2) The lighting shown is shielded from offsite areas and the sky.
(3) The lighting fixtures are a part of the Site Plan while the illumination data are included as an exhibit only and not a part of the Site Plan set.

Comment: Garbage and Recycling

(1) The Site Plans have been revised to centralize the dumpster enclosure. In addition it has been expanded in size based on the Applicant's experience with apartments and private carting.

Submitted by:

Ralph G. Mastromonaco

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
Tel: (914) 271-4762 Fax: (914) 271-2820

Civil / Site / Environmental

www.rgmpepc.com

Project: Village Square – Buchanan, NY

Scope: Response to Comments of NYS DEC of April 12, 2023

Date: August 7, 2023

By: Ralph G. Mastromonaco, PE

We have summarized the Comments by NYS DEC and provide the following responses:

Comment: Protection of Water Stream Disturbance within 50 feet.

(1) There is not disturbance within 50 feet of the identified Lake.

Comment: Freshwater Wetlands

(1) There are no NYS DEC wetlands or adjacent areas to be disturbed.

Comment: State Listed Species

(1) We have added the Least Bittern, a threatened species, to the EAF

Comment: SPDES Stormwater

(1) The applicant is providing a Stormwater Pollution Protection Plan (SWPPP).

Comment: Critical Environmental Area (CEA)

(1) The project is within a CEA and is noted as such on the EAF

Submitted by:

Ralph G. Mastromonaco

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
Tel: (914) 271-4762 Fax: (914) 271-2820

Civil / Site / Environmental

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Jeff Faiella, Chairman and Members
Village of Buchanan Planning Board
Municipal Building
236 Tate Avenue
Buchanan, NY 10511

August 10, 2023

Re: Village Square Residences and Commercial Development
3095 Albany Post Road
Village of Buchanan, NY

Dear Mr. Chairman and Members:

We received comments from George Pommer, PE, of James J. Hahn Engineering, PC dated July 21, 2023 and offer the following information:

Comments 1 through 38:

1. As previously mentioned, to construct the proposed retaining wall, it appears additional wetland disturbance will be required. The limits shown (3.5 ft.+/-) do not seem practicable and should be revised.

Response: The retaining wall has been relocated away from the property line.

2. As previously mentioned, a sewer profile is required. Additionally, a sewer easement description will be required.

Response: A sewer profile has been added, also showing the new section.

3. As previously mentioned, all right-of—way improvements shall conform to Village and NYSDOT standards as applicable. Additionally, a proposed signage plan will be required. Signage visible and located along the NYSDOT right-of-way will need to be approved by the NYSDOT. Signage and right-of-way details have not been provided.

Response: The only signage proposed is a monument sign of the Village Square to be located at the south side of the residential buildings. No signs are proposed in relation to NYS DOT. Any signs for the commercial property will be provided at the Site Plan approval for the commercial lot.

4. As previously mentioned, the proposed refuse enclosure for the residential buildings appears difficult for collection trucks to access. Turning movements should be provided. Additionally, it should be verified sufficient space for containers is provided.

Response: The refuse areas has been consolidated to the center of the site and expanded in size. The private carter will roll-out the dumpsters.

5. As previously mentioned, the SWPPP shall include all of the information required by the General Permit GP-0-20-001. This shall include inspection requirements, contractor certification, maintenance agreement, draft NOI, post-construction maintenance requirements, and all of the other items required by the permit.

Response: The Preliminary SWPPP and NOI will be updated for such information upon approval of the Site Plan. This material is generally provided at the end of the approval process in the Village once the extent of the project is known.

6. As previously mentioned, curbing is proposed along Albany Post Road. Drainage may be required.

Response: We have added a drain to control runoff from the sidewalk. No other drains are needed along Albany Post Road.

7. As previously mentioned, wall drains should be considered. Discharge locations should be identified.

Response: The weep holes for the walls will discharge to the wetland and there is to be no other wall drainage.

8. As previously mentioned, the applicant proposes to use natural gas expecting the current moratorium to be resolved by the time construction begins. A contingency in the event the moratorium is not resolved should be provided. Additionally, the natural gas main location and proposed connection should be shown on the Utility Plan.

Response: The owner has chosen to use electric appliances.

9. As previously mentioned, a construction sequence should be shown on the plans.

Response: We have provided a Construction Sequence on the Erosion Control Plans.

10. As previously mentioned, a concrete wash-out location and detail should be provided. After pouring concrete, including sidewalks and foundations, the contractor will require a location to discharge concrete waste from deliveries.

Response: We noted on the Site Plans that there would be no concrete washout on the site and we provided a note to that effect on the Site Plans.

11. As previously mentioned, the architectural drawings should include a sheet title in the title block of each sheet. The titles should match those listed in the drawing index. Revised architectural plans were not provided.

Response: The Architect will provide such titles at a later date. Currently the architectural plans are exhibits rather than construction documents.

12. More than 30% of the site's excessively steep slopes are proposed to be disturbed. A before and after visual impact analysis and a report prepared by a NYS licensed geotechnical engineer indicating the impacts of the disturbance to the steep slopes and a slope stability analysis should be provided, in accordance with the revised Village Code.

Response: Our office provided a detailed analysis to the Village Engineer which we believe was acceptable.

13. The proposed wall along the north property line is greater than 6 feet. As a result, it is considered an accessory structure subject to the requirements of Village Code §211-19. A variance may be required. Additionally, to construct the wall as proposed, a temporary construction easement from the adjacent property may be required. It appears the wall's footing will be located on the adjacent property.

Response: The wall was relocated to be in conformance with the Zoning Code.

14. The Westchester County Planning Board Referral Review dated February 3, 2023, indicated that the drive-thru should be removed from the proposed retail site due to sites proximity to residential uses and conformance to other uses on Albany Post Road. This should be addressed.

Response: This was reviewed earlier and does not meet the expectation of the developer.

15. The wetland delineation skipped Flag #25. The delineation and buffer should be revised along with the values in the Wetland/Buffer Schedule.

Response: This is now corrected and made only a slight difference in the overall wetland computations.

16. The proposed wetland disturbance and limits of construction should be revised to include erosion and sediment control installation.

Response: This was completed.

17. The site does not provide a recreational green space. Per Village Code §211—27.1, the reservation of parkland or payment in lieu of should be considered.

Response: There is a recreational area, to be considered as a park under the Code.

18. A traffic study should be provided and modifications shown on the plans.

Response: The traffic Engineer has provided a detailed study.

19. The applicant should address comments from the wetland consultant.

Response: There were no comments from the wetland consultant.

20. A landscaping plan should be provided showing the plantings around the proposed buildings. Additionally, screening plants should be provided between the parking lot and the school property.

Response: The project Architect has prepared a Landscape Plan.

21. A catch basin is proposed over the existing sewer main; this should be revised. If possible, ten feet of separation should be provided between the sewer main and drainage pipes or structures.

Response: This has been addressed.

22. Details for the proposed crosswalk at the intersection of Rockledge Avenue and Albany Post Road should be provided.

Response: This has been addressed.

23. Water and fire suppression service connections and metering should be addressed with Building and Fire Departments prior to issuance of a building permit.

Response: We have had two meetings with the Fire Department and have adopted their recommendations.

24. A section through the proposed stormwater wetland should be provided on the plans.

Response: This has been provided.

25. A fence or barrier around the stormwater wetland should be considered.

Response: There is no need for a fence around a wetland.

26. It should be demonstrated how a Tc of 20 minutes was calculated.

Response: We submitted detailed information to the Village Engineer on the assumptions made in the Stormwater Report. Essentially, the results of the study are poorly correlated to the value of the time of concentration and that a range of possible values would produce the same results.

27. The area of the proposed stormwater wetland and any tributary offsite runoff from the school property should be considered in the HydroCAD model.

Response: The stormwater wetland is considered in the total acreage tributary to the stormwater wetland as RCN 80, Soils type 'D'.

28. It appears the HydroCAD model used an empty pond as the start of storage. In actuality, the wetland is proposed with a permanent pool elevation. That elevation should be the start of the storage model.

Response: The stormwater wetland is modeled as a wetland and not a pond. We have provided information to the Village Engineer that shows that if the Stormwater Wetland was modeled as a pond the results would be no different.

29. Typically, footing drains should daylight and not connect into the stormwater mitigation system unless they are accounted for.

Response: We have provided information to the Village Engineer, as advised by our Wetland Consultant, Steven Marino, that the imposition of limited groundwater is needed for the viability of the stormwater wetland and the drains should connect to the Stormwater Wetland via the new drainage system.

30. Grading should be revised to reflect the proposed curb on Albany Post Road.

Response: The grading has been modified slightly.

31. A guiderail should be considered along the edge of the parking lot.

Response: Guiderails and fencing have been added to the Site Plans.

32. It should be verified that the proposed loading zone shown for the retail building is adequate.

Response: This appear to be acceptable to the client and can be further discussed when the commercial lot applies for Site Plan approval.

33. Any trees to be protected should be shown on the plans.

Response: There are no Specimen Trees in the disturbed area.

34. The source of base survey and topographic information should be indicated on the plans.

Response: The base mapping is provided on the Site Plans.

35. A maintenance agreement and easement should be provided for the proposed stormwater practice.

Response: The owner of the site is responsible for the maintenance, as such, an easement is not required. The Site Plans refer to the NYS DEC "Maintenance Guidance" for "Stormwater Management Practices dated March 31, 2017" which would be followed by the sponsor.

This is available at: https://www.dec.ny.gov/docs/water_pdf/smpmaintguidance.pdf

36. The proposed commercial property is using the stormwater system on the residential property. An easement agreement should be provided.

Response: The commercial lot will be provided with a blanket easement over the residential lot to discharge stormwater and any other rights, as noted on the Preliminary Plat that has been now provided.

37. The proposed easement for the Village's water pit extending onto the property should be revised to include the entire vault structure.

Response: The utility easement has been revised to include the valves noted on the diagram sent to our office by the Village Engineer. The extents of the easement can be discussed further based on the review of the Village.

38. Easement descriptions for the proposed easements should be provided, including stormwater, sewer, water, and sidewalks.

Response: The easement documents will be prepared and filed upon Site Plan and subdivision approval.

Please call if you have any questions or require additional information.

Sincerely,

Ralph G. Mastromonaco, PE

Cc: A. Carbone, J. Thompson, RA, S. Marino, PWS

VILLAGE SQUARE

Wetland Functional Assessment and Evaluation of Impacts and Mitigation Measures

Project: Carbone Brothers 3095, LLC
Route 9A and Lake Street
Village of Buchanan, NY

Prepared By: Steve Marino, PWS
TIM MILLER ASSOCIATES, INC.
10 North Street
Cold Spring, New York 10516
(845) 265-4400

November, 2022

Introduction

The property owner, Mr. Anthony Carbone, is proposing to develop a 4.87 acre commercial property on the east side of Route 9A in the Village of Buchanan. Tim Miller Associates was retained to document and evaluate the existing wetland conditions, identify the potential impacts of the proposal and evaluate and recommend mitigation measures.

The site

The subject site is on the east side of Route 9A at the intersection with Lake Street, across from Hendrick Hudson High School and St. Christopher and St. Patrick Church (Figure 1). There are no existing buildings or structures on the site, although a portion of the rear of the property is paved.

The upland portions of the site are wooded, with common native and non-native species present. Red maple, Norway maple and slippery elm trees form the canopy while barberry and honeysuckle form the majority of the understory. In the northern part of the site the topography is generally flat for the first 100 - 150 feet from Route 9A, then slopes down to the delineated wetland area. The southern part of the site, adjacent to Lake Street, does not have wetlands and is about one half acre in size. According to historic aerial photos, buildings existed on this southern part of the site as recently as 1990 (Figures 2 thru 6). No New York State DEC wetlands are identified on the property; only the existing channel draining the wetland is shown on federal NWI mapping (Figure 7 and 8).

Included with the description of the wetland area is an evaluation of wetland functions. This evaluation is based on a modified version of the Magee Hollands "Rapid Procedure for Assessing Wetland Functional Capacity". The analysis is set up to allow evaluation of several parameters related to wetland value and function. These parameters are:

1. Position in the landscape
2. Hydrology
3. Soils
4. Vegetation

When considering the functions of the wetlands, parameters are evaluated based on a number of specific variables, including:

1. Modification of groundwater discharge
2. Modification of groundwater recharge
3. Storm and Flood-water storage
4. Modification of Stream Flow
5. Modification of Water Quality
6. Export of Detritus
7. Contribution to Abundance and Diversity of Wetland Vegetation
8. Contribution to Abundance and Diversity of Wetland Fauna

By evaluating aspects of each of these variables based on existing site conditions, it is possible to evaluate the level at which the existing wetland is providing these functions.

Wetland Description

The on-site wetland is a flat depressional area that extends approximately 320 feet from the northerly property line to the south. A small portion of the wetland extends onto the property to the north. Overflow of the depressional area flows out to the east through a narrow channel and into the lake on the property to the east of the site. Total area of the wetland is 50,082 square feet (1.15 ac.).

The majority of the wetland is vegetated with non-native, nuisance species. Wisteria (*Wisteria sinensis*), common reed (*Phragmites australis*), porcelainberry (*Ampelopsis glandulosa*) and Japanese knotweed (*Polygonum cuspidatum*) are the most common species observed. The small area of undisturbed wetland includes American elm (*Ulmus americana*) and red maple (*Acer rubrum*). See the attached photos for representative views of the wetland.

Soils within the wetland are identified as Leicester loam (LcA), a Westchester County hydric soil. Site examination confirms this description. See the attached NRCS soils mapping of the site.

Runoff from the surrounding properties and Route 9A flows overflow and as shallow lateral flow to the wetland area. The watershed draining to the site includes commercial and residential buildings along Route 9A, the bus garage to the south and a residence immediately to the north. Water leaves the site through a narrow channel to the east, entering the existing pond on Village of Buchanan property to the east along the existing power line easement. From here the water flows south, but it was not determined where the ultimate outlet to the Hudson occurs.

Based on the review of historic aerial photos portions of the site were disturbed by past activities until recently. Residences and parking areas are shown on the Route 9A frontage. A portion of the eastern side of the site was used as overflow parking for the school district bus depot to the south. This area is shown on the existing conditions survey as an asphalt pad.

Wetland Function

This wetland functions primarily in the storage of flood water and control of site runoff. In both cases the presence of vegetation and organic surface soils function to filter water physically and biochemically to improve water quality entering the system from upland areas. Watermarks on surrounding trees and the evidence of saturated soils indicate that there is seasonal or storm event related fluctuation of water in this wetland, but it is unknown at this time what the depth and duration of that water is.

The wetland on-site is too small to provide significant habitat for wetland dependent species, and is limited in the number of vegetation species it supports. Vegetative diversity is poor, and the invasive/non-native species outnumber the native species. The eastern part of the wetland is open form past disturbance and dominated by nuisance species. With the asphalt parking area immediately adjacent to the wetland, the capacity for buffering the wetland from human activity does not exist.

As part of the larger wetland system including the pond to the east and wetlands under the power line easement, it functions at a low level for wildlife habitat and vegetative diversity, primarily because of the presence of non-native species that dominate most of the on-site wetland. It does perform the important function of providing storage for flood control and stormwater runoff in large storm events.

Direct Impacts to Site Wetlands

It is our understanding that the proposed activities on site involve the construction of three residential buildings with frontage on Route 9A, and retail building at the corner of Route 9A and Lake Street. This development plan would require the filling of a portion of the wetland (approximately 17,000 square feet) for parking area and the construction of retaining wall. This retaining wall will separate the developed area from the wetland. A significant amount of non-native, invasive plant material is present in this area, and would require a good deal of work to clean out the vines and thicket (see attached photos).

This proposal would impact the primary function of the wetland, which is the storage and treatment of stormwater flows. Storage capacity for runoff would be lost, and the treatment of that runoff thorough the dense wetland vegetation and biologically active soils would be reduced. Most importantly, there should be no disruption of storm flows and flood waters into and out of the wetland, which could result in impacts to the primary function of this portion of the wetland.

The proposal would not significantly impact vegetative diversity or wildlife habitat, since the current condition of the wetland does not support those functions to any great extent.

Mitigation Proposal

In order to offset the impacts to the local wetlands, the applicant is proposing the construction of a stormwater wetland designed to replicate the existing wetland function as well as restore existing functions that are currently absent from the system. The project engineer has designed a shallow basin that will be excavated in the area in the eastern part of the site that is currently paved. This basin will flood periodically with storm events, providing hydrology for wetland plants that will be planted within and adjacent to the basin. Only native plants will be used, providing new vegetative diversity and wildlife habitat that is not currently available. It will also provide a wetland area adjacent to the existing pond on the neighboring property, enhancing the habitat value of that pond by adding diversity of structure and vegetation. The new wetland will offer a 1:1 replacement in area for the wetland being impacted, and significantly more functional benefit than the existing wetland. Long term maintenance and monitoring will be key to the success of the new wetland.

The remaining onsite wetland will be restored with an invasive species management, which will include the removal of nuisance vegetation such as *Phragmites*, porcelainberry, Japanese knotweed and wisteria.

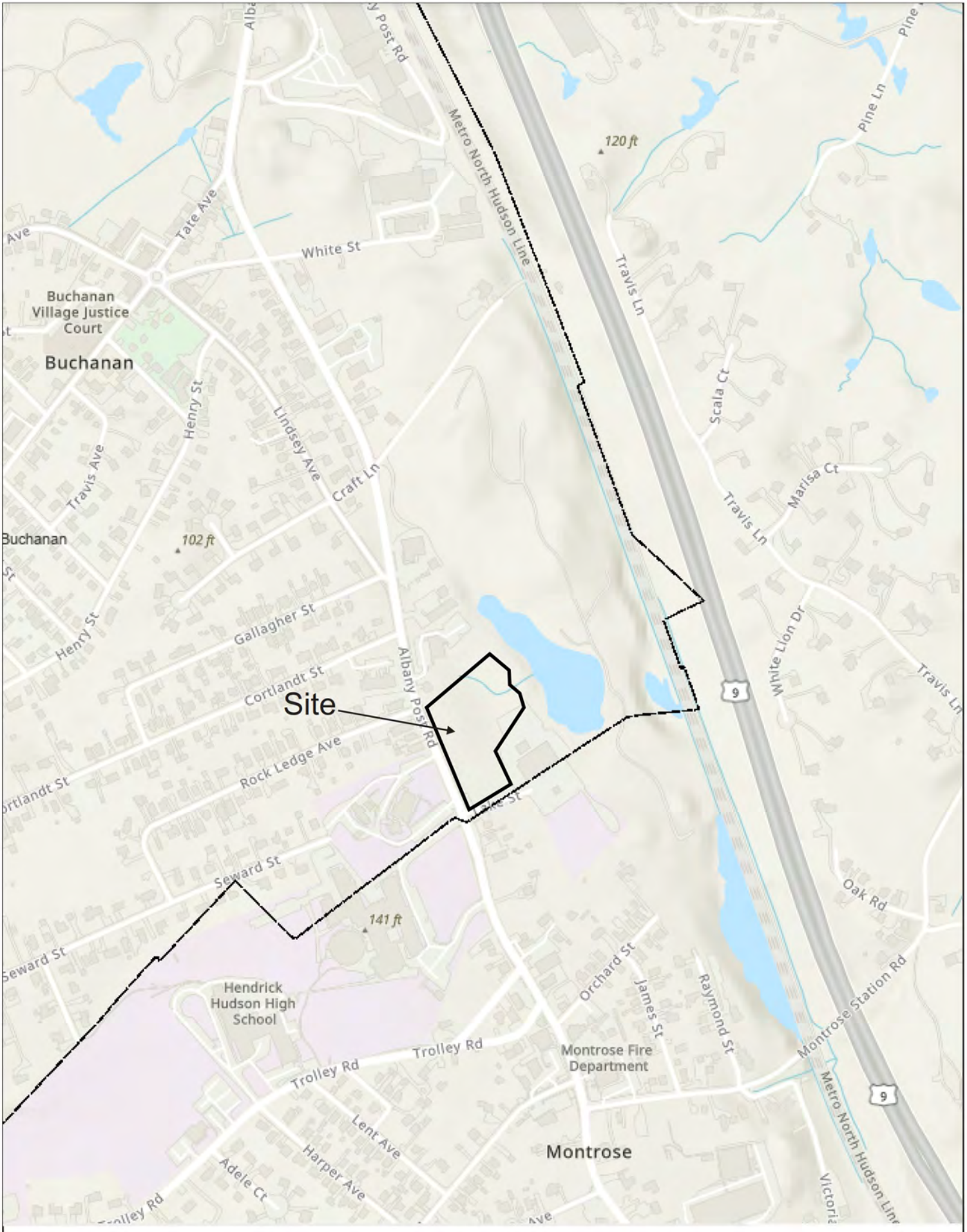


Figure 1: Site Location

Figure 2: 1960 Aerial Photo
Route 9A, Buchanan
Source: Westchester County GIS

Figure 3: 1976 Aerial Photo
Route 9A, Buchanan
Source: Westchester County GIS

Figure 4: 2000 Aerial Photo
Route 9A, Buchanan
Source: Westchester County GIS

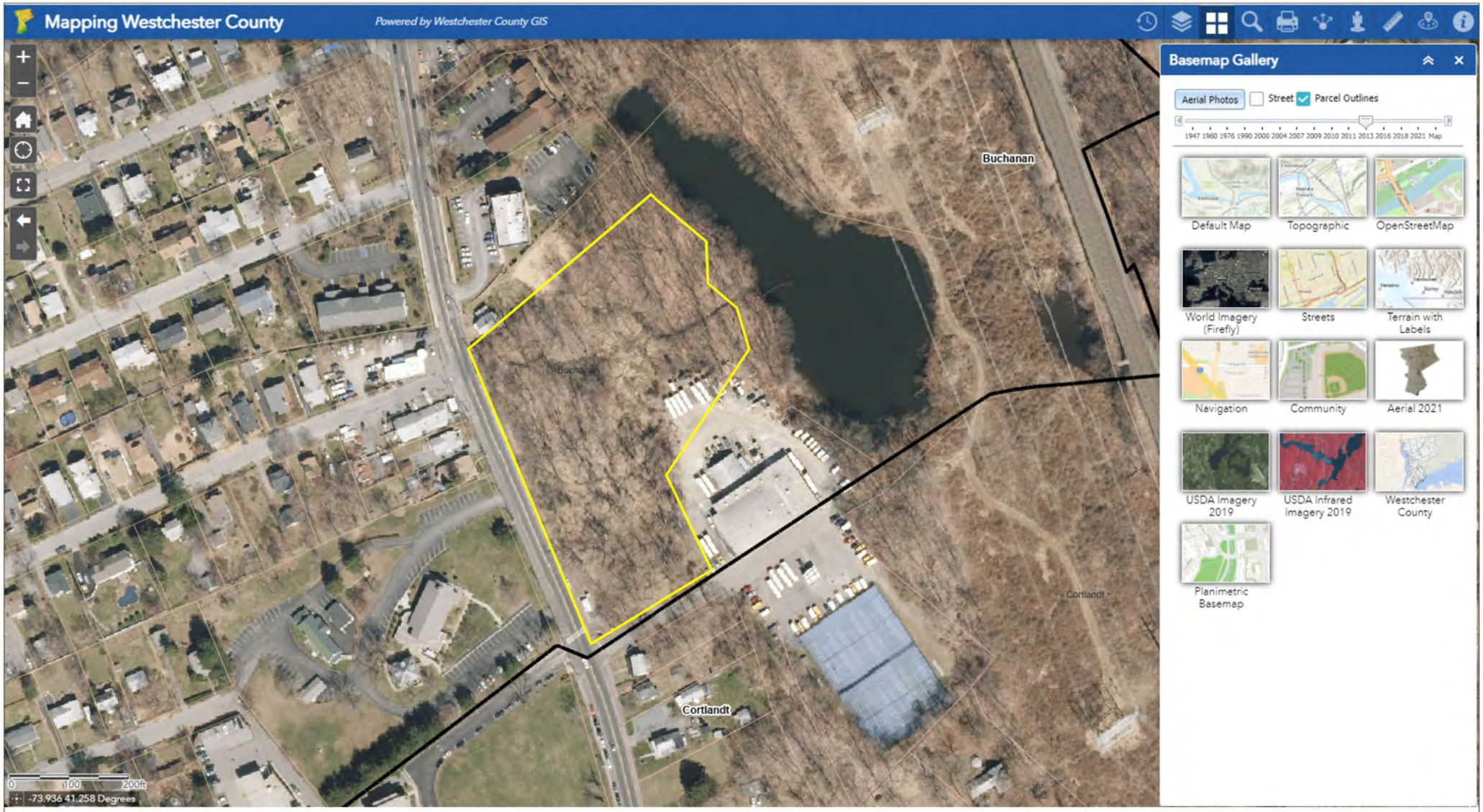


Figure 5: 2013 Aerial Photo
Route 9A, Buchanan
Source: Westchester County GIS

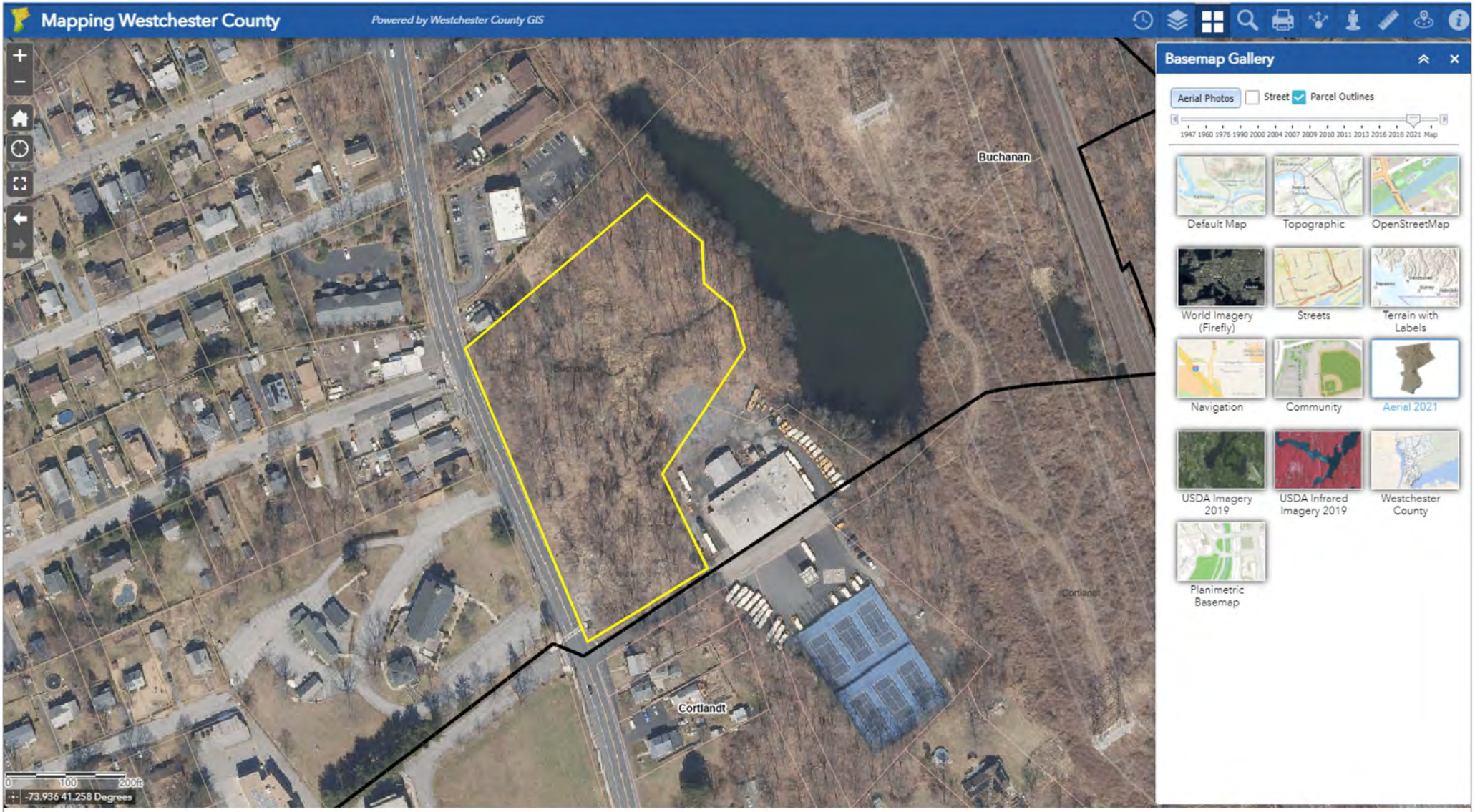


Figure 6: 2021 Aerial Photo
Route 9A, Buchanan
Source: Westchester County GIS

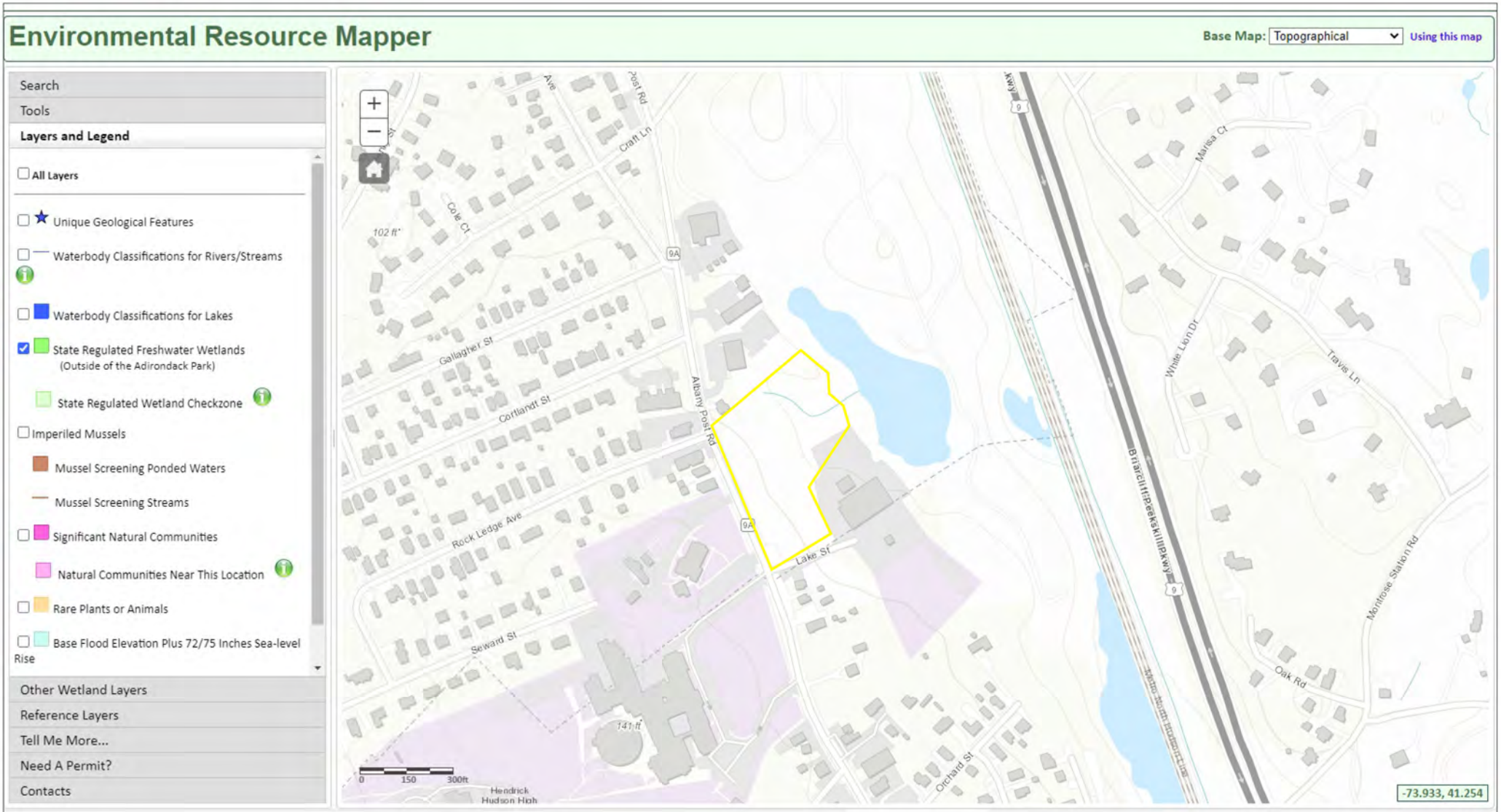


Figure 7: New York State DEC Wetland Mapping
Route 9A, Buchanan
Source: NYSDEC Environmental Resource Mapper

Figure 8: National Wetland Inventory Mapping
Route 9A, Buchanan
Source: NYSDEC Environmental Resource Mapper

Soil Map—Westchester County, New York
(Carbone, Route 9A Buchanan)

Map Scale: 1:1,280 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 1:12,000.

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: Westchester County, New York
Survey Area Data: Version 18, Sep 10, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 8, 2020—Oct 14, 2020

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	1.0	20.3%
LcA	Leicester loam, 0 to 3 percent slopes, stony	1.6	33.6%
UlC	Urban land-Charlton-Chatfield complex, rolling, very rocky	1.4	30.0%
UmC	Urban land-Chatfield-Rock outcrop complex, rolling	0.5	10.6%
W	Water	0.3	5.5%
Totals for Area of Interest		**4.8**	**100.0%**

Phragmites and porcelainberry on east side of wetland

Porcelainberry in trees in wetland

Existing pavement in area of proposed stormwater wetland

Knotweed on edge of wetland

Western area of wetland with stiltgrass and wisteria

Red maple poles with stiltgrass

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. 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; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Village Square Residences and Commercial Development		
Project Location (describe, and attach a general location map): 3095 Albany Post Road, Buchanan, NY 10511		
Brief Description of Proposed Action (include purpose or need): The Village Square is composed of three (3) new Multi-family residential apartment buildings and a free-standing commercial site. The site will have 102 parking spaces for residential use and a proposed Stormwater Wetland. This will require application of the C1/C2 Overlay District, Special Permit and Site Plan Approval. The Project also includes a 2 Lot subdivision including a 0.5 Acre lot containing 2,300 SF Retail with 10 parking spaces and will require Subdivision and Site Plan Approval		
Name of Applicant/Sponsor: Carbone Brothers 3095, LLC	Telephone: 914-737-3560 E-Mail: carbonekitcab@optonline.net	
Address: 2043 Albany Post Road		
City/PO: Croton-on-Hudson	State: NY	Zip Code: 10520
Project Contact (if not same as sponsor; give name and title/role): Anthony Carbone, President	Telephone: E-Mail:	
Address: Same As Above		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes☒No		
b. City, Town or Village Planning Board or Commission ☒Yes☐No	Site Plan Approval, Special Permit Wetland & Steep Slope Permits	November 2022
c. City, Town or Village Zoning Board of Appeals ☐Yes☒No		
d. Other local agencies ☒Yes☐No	Village of Buchanan Building Permit	
e. County agencies ☒Yes☐No	WCDH Sewer Relocation WCDH Subdivision Approval	
f. Regional agencies ☐Yes☒No		
g. State agencies ☒Yes☐No	NYS DOT Permit NYS DEC Stormwater Gen. Permit	
h. Federal agencies ☐Yes☒No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☒Yes☐No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☒No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☒No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☒No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☒Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes☒No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☒No

If Yes, identify the plan(s):

_____

_____

_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☒No

If Yes, identify the plan(s):

_____

_____

_____

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☒ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?

C2 with C1/C2 Overlay District

b. Is the use permitted or allowed by a special or conditional use permit? ☒ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☒ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Hendrick Hudson School District

b. What police or other public protection forces serve the project site? Village of Buchanan Police

c. Which fire protection and emergency medical services serve the project site? Village of Buchanan Fire Department

d. What parks serve the project site? Blue Mountain Reservation, Lent's Cove and a Village Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?
To construct 51 units of residential apartments in three (3) bldgs., Plus a 2,300 SF Commercial bldg. & parking

b. a. Total acreage of the site of the proposed action? 4.87 acres
b. Total acreage to be physically disturbed? 3.00 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 4.87 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☒ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☒ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Mixed, residential of 51 units and retail of 2,300 SF
ii. Is a cluster/conservation layout proposed? ☐ Yes ☒ No
iii. Number of lots proposed? 2
iv. Minimum and maximum proposed lot sizes? Minimum 0.47 Acre Maximum 4.39 Acre

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☒ No
i. If No, anticipated period of construction: 24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☒ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				51 Units in three (3) buildings

g. Does the proposed action include new non-residential construction (including expansions)? ☒ Yes ☐ No

If Yes,

i. Total number of structures One (1)

ii. Dimensions (in feet) of largest proposed structure: 12' height; 35' width; and 65' length

iii. Approximate extent of building space to be heated or cooled: 2,300 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☒ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Stormwater Management

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☒ Surface water streams ☐ Other specify: Stormwater Management

iii. If other than water, identify the type of impounded/contained liquids and their source. Stormwater Only

iv. Approximate size of the proposed impoundment. Volume: 11,337 CF ~~million gallons~~; surface area: 0.48 Acres acres

v. Dimensions of the proposed dam or impounding structure: 4' height; 550' length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): Earth Fill

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☒ No

If Yes:

i .What is the purpose of the excavation or dredging?

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☒ No

If yes, describe.

v. What is the total area to be dredged or excavated? acres

vi. What is the maximum area to be worked at any one time? acres

vii. What would be the maximum depth of excavation or dredging? feet

viii. Will the excavation require blasting? ☐ Yes ☒ No

ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☒ Yes ☐ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Local wetland buffer area

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

See Wetland Functional Assessment dated November 2022

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☒ No
If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☒ No
If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

See Wetland Functional Assessment dated November 2022

c. Will the proposed action use, or create a new demand for water? ☒ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: 24,027 GPD gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☒ Yes ☐ No
If Yes:

- Name of district or service area: Village of Buchanan
- Does the existing public water supply have capacity to serve the proposal? ☒ Yes ☐ No
- Is the project site in the existing district? ☒ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☒ No
- Do existing lines serve the project site? ☒ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☒ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: No Extensions Proposed
- Source(s) of supply for the district: Village of Buchanan, City of Peekskill, Montrose improvement District

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☒ No
If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☒ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: 24,027 GPD gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): Sewage
Project includes relocation of existing sewer main

iii. Will the proposed action use any existing public wastewater treatment facilities? ☒ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Village of Buchanan Wastewater Treatment Plant
- Name of district: Village of Buchanan
- Does the existing wastewater treatment plant have capacity to serve the project? ☒ Yes ☐ No
- Is the project site in the existing district? ☒ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☒ No

- Do existing sewer lines serve the project site? ☒ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☒ Yes ☐ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: No extension proposed Relocation of existing sewer

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☒ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☒ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 1.73 acres (impervious surface)

_____ Square feet or 4.87 acres (parcel size)

ii. Describe types of new point sources. The outlet of the proposed Stormwater Wetland

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater wetland and then to adjacent lake.

- If to surface waters, identify receiving water bodies or wetlands: Adjacent lake
- Will stormwater runoff flow to adjacent properties? ☒ Yes ☐ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☒ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐ Yes ☒ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☒ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☒No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☒No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☒Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☒ Morning ☒ Evening ☒Weekend ☒ Randomly between hours of 7:AM to 9:AM.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): 0

Evening Hours: 4:00 PM - 6:00 PM, Weekend Hours: 11:00 AM - 2:00 PM

iii. Parking spaces: Existing 0 Proposed 112 Net increase/decrease +112

iv. Does the proposed action include any shared use parking? ☐Yes ☒No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

Access will be from Lake Street and Albany Post Road.

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☒Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☒Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☒Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☒Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: 1,000,000 VA +/-

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

Con Edison

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☒No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 8 AM - 4 PM
- Saturday: 8 AM - 4 PM
- Sunday: N/A
- Holidays: N/A

ii. During Operations: 24 HRS/Day Per Residential Use

- Monday - Friday: See Section 119-5.B of the
- Saturday: Village of Buchanan Code
- Sunday:
- Holidays:

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☒ No

If yes:

i. Provide details including sources, time of day and duration:

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☒ No

Describe:

n. Will the proposed action have outdoor lighting? ☒ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Lamps over doors

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☒ No

Describe:

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☒ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☒ No

If Yes:

i. Product(s) to be stored

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☒ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☒ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☒ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ ~~tons~~ per _____ (unit of time)
- Operation : 56 lbs. ~~tons~~ per Day (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction:
- Operation:

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Commercial recycler
- Operation: RESCO Facility, Peekskill

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☒ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☒ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☒ Commercial ☒ Residential (suburban) ☐ Rural (non-farm)
☒ Forest ☐ Agriculture ☐ Aquatic ☒ Other (specify): Wetland

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.06	1.73	+ 1.67
• Forested	3.66	1.51	- 2.15
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)	1.15	1.63	+ 0.48
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☒ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☒ Yes ☐ No

If Yes,

i. Identify Facilities:

Hendrick Hudson High School, Franklin D. Roosevelt Veterans Administration Hospital (1 Mile)
Frank G. Lindsey Elementary School

e. Does the project site contain an existing dam? ☐ Yes ☒ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☒ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☒ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☒ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☒ No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☒ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☒ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☒ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☒ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 4' feet

b. Are there bedrock outcroppings on the project site? ☒ Yes ☐ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? < 1 %

c. Predominant soil type(s) present on project site:

Charlton-Chatfield	20 %
Leicaster Loam	30 %
Urban Land	45 %

d. What is the average depth to the water table on the project site? Average: 3' feet

e. Drainage status of project site soils:

☒ Well Drained:	25 % of site
☒ Moderately Well Drained:	50 % of site
☒ Poorly Drained	25 % of site

f. Approximate proportion of proposed action site with slopes:

☒ 0-10%:	20 % of site
☒ 10-15%:	50 % of site
☒ 15% or greater:	30 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☒ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☒ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☒ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☒ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name One (1) Lake Classification B
- Wetlands: Name Associated with lake Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☒ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☒ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☒ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☒ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☒ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:

Northeastern Woodland mammals and amphibians

n. Does the project site contain a designated significant natural community? ☐ Yes ☒ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation):

ii. Source(s) of description or evaluation:

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☒ Yes ☐ No

If Yes:

i. Species and listing (endangered or threatened): Site is within or near the State-Listed Least Bittern species.

There is likely no impact to the species from the project.

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☒ No

If Yes:

i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☒ No

If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☒ No

If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☒ No

i. If Yes: acreage(s) on project site?

ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☒ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☒ Yes ☐ No

If Yes:

i. CEA name: Hudson River

ii. Basis for designation: Exceptional or Unique Character

iii. Designating agency and date: Westchester County date: 1-31-90

e. 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? ☐ Yes ☒ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. 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? ☐ Yes ☒ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☒ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☒ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☒ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☒ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

Revised: August 22, 2023
Revised: August 8, 2023
Revised: July 20, 2023
Revised: June 30, 2023
Revised: January 27, 2023

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Ralph G. Mastromonaco, PE, PC Date November 29, 2022

Signature _____ Title President

PRINT FORM

0644089821

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____ (for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-15-002

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-

RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
Carbone Brothers 3095, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Carbone

Owner/Operator Contact Person First Name
Anthony

Owner/Operator Mailing Address
2043 Albany Post Road

City
Croton-on-Hudson

State
NY

Zip
10520-____

Phone (Owner/Operator)
914-737-3560

Fax (Owner/Operator)
___-___-____

Email (Owner/Operator)

FED TAX ID
__-_____ (not required for individuals)

Project Site Information

Project/Site Name
Village Square Residential/Commercial

Street Address (NOT P.O. BOX)
3095 Albany Post Road

Side of Street
○ **North** ○ **South** ● **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)
Village of Buchanan

State: NY
Zip: 10511-
County: Westchester
DEC Region: 3

Name of Nearest Cross Street
Lake Street

Distance to Nearest Cross Street (Feet)
0

Project In Relation to Cross Street
● **North** ○ **South** ○ **East** ○ **West**

Tax Map Numbers
Section-Block-Parcel
43.20-2-6

Tax Map Numbers
43.20-2-6

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting): 589346

Y Coordinates (Northing): 4567756

2. What is the nature of this construction project?

● **New Construction**

○ **Redevelopment with increase in impervious area**

○ **Redevelopment with no increase in impervious area**

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use	Post-Development Future Land Use
● FOREST	○ SINGLE FAMILY HOME
○ PASTURE/OPEN LAND	○ SINGLE FAMILY SUBDIVISION
○ CULTIVATED LAND	○ TOWN HOME RESIDENTIAL
○ SINGLE FAMILY HOME	● MULTIFAMILY RESIDENTIAL
○ SINGLE FAMILY SUBDIVISION	○ INSTITUTIONAL/SCHOOL
○ TOWN HOME RESIDENTIAL	○ INDUSTRIAL
○ MULTIFAMILY RESIDENTIAL	○ COMMERCIAL
○ INSTITUTIONAL/SCHOOL	○ MUNICIPAL
○ INDUSTRIAL	○ ROAD/HIGHWAY
○ COMMERCIAL	○ RECREATIONAL/SPORTS FIELD
○ ROAD/HIGHWAY	○ BIKE PATH/TRAIL
○ RECREATIONAL/SPORTS FIELD	○ LINEAR UTILITY (water, sewer, gas, etc.)
○ BIKE PATH/TRAIL	○ PARKING LOT
○ LINEAR UTILITY	○ CLEARING/GRADING ONLY
○ PARKING LOT	○ DEMOLITION, NO REDEVELOPMENT
○ OTHER	○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
	○ OTHER

Number of Lots

***Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
4.8	3.0	0.	1.7

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ○ **No**

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
%	%	%	%

7. Is this a phased project? ○ **Yes** ○ **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date	End Date
01/01/2024	01/01/2026

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

Unamed Lake Off Site

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ○ Stream / Creek Off Site
- ○ River On Site
- ○ River Off Site
- ○ Lake On Site
- ● Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ● Regulatory Map
- ○ Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-15-002? ○ **Yes** ● **No**

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-15-002? ○ **Yes** ● **No**

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ **Yes** ● **No**
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ **Yes** ● **No**
If Yes, what is the acreage to be disturbed?

.

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ **Yes** ● **No**

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ○ Yes ● No ○ Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

Village of Buchanan

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ Yes ● No ○ Unknown

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ○ Yes ● No

19. Is this property owned by a state authority, state agency, federal government or local government? ○ Yes ● No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ Yes ● No

21. 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 ○ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ● Yes ○ No
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ● Yes ○ No

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer
Ralph G. Mastromonaco, PE, PC

Contact Name (Last, Space, First)
Mastromonaco Ralph G.

Mailing Address
13 Dove Court

City
Croton-on-Hudson

State NY Zip 10520-

Phone 914-271-4762

Fax 914-271-2820

Email
hardycross@aol.com

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-15-002. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name Ralph **MI** G

Last Name Mastromonaco, PE

Signature

Date / /

25. Has a construction sequence schedule for the planned management practices been prepared? ○ Yes ○ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ○ Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ● Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ● Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ● Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ○ Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ○ Seeding
- ○ Sodding
- ● Straw/Hay Bale Dike
- ○ Streambank Protection
- ● Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ○ Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ○ Retaining Wall
- ○ Riprap Slope Protection
- ○ Rock Outlet Protection
- ○ Streambank Protection

Other

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ● **Preservation of Undisturbed Areas**
- ○ **Preservation of Buffers**
- ○ **Reduction of Clearing and Grading**
- ○ **Locating Development in Less Sensitive Areas**
- ○ **Roadway Reduction**
- ○ **Sidewalk Reduction**
- ○ **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ○ **Building Footprint Reduction**
- ○ **Parking Reduction**

27a. 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 (2010 version).

- ● 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).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

[ ][ ][ ].[ ][ ][ ] **acre-feet**

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area (acres)
RR Techniques (Area Reduction)			
○ Conservation of Natural Areas (RR-1)	___.___	and/or	___.___
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)	___.___	and/or	___.___
○ Tree Planting/Tree Pit (RR-3)	___.___	and/or	___.___
○ Disconnection of Rooftop Runoff (RR-4)	___.___	and/or	___.___
RR Techniques (Volume Reduction)			
○ Vegetated Swale (RR-5)			___.___
○ Rain Garden (RR-6)			___.___
○ Stormwater Planter (RR-7)			___.___
○ Rain Barrel/Cistern (RR-8)			___.___
○ Porous Pavement (RR-9)			___.___
○ Green Roof (RR-10)			___.___
Standard SMPs with RRv Capacity			
○ Infiltration Trench (I-1)			___.___
○ Infiltration Basin (I-2)			___.___
○ Dry Well (I-3)			___.___
○ Underground Infiltration System (I-4)			___.___
○ Bioretention (F-5)			___.___
○ Dry Swale (O-1)			___.___
Standard SMPs			
○ Micropool Extended Detention (P-1)			___.___
○ Wet Pond (P-2)			___.___
○ Wet Extended Detention (P-3)			___.___
○ Multiple Pond System (P-4)			___.___
○ Pocket Pond (P-5)			___.___
○ Surface Sand Filter (F-1)			___.___
○ Underground Sand Filter (F-2)			___.___
○ Perimeter Sand Filter (F-3)			___.___
○ Organic Filter (F-4)			___.___
○ Shallow Wetland (W-1)			___.___
○ Extended Detention Wetland (W-2)			___.___
○ Pond/Wetland System (W-3)			___.___
○ Pocket Wetland (W-4)			___.___
○ Wet Swale (O-2)			___.___

Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area (acres)
○ **Hydrodynamic**	
○ **Wet Vault**	
○ **Media Filter**	
○ **Other** [ ]	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

[ ].[ ] **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

○ **Yes** ○ **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

[ ].[ ] **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

○ **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a). [ ][ ][ ].[ ][ ][ ]

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ○ **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

[ ][ ][ ].[ ][ ][ ] **acre-feet**

CPv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

36a. The need to provide channel protection has been waived because:

○ Site discharges directly to tidal waters or a fifth order or larger stream.

○ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

[ ][ ][ ].[ ][ ][ ] **CFS**

Post-development

[ ][ ][ ].[ ][ ][ ] **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

[ ][ ][ ].[ ][ ][ ] **CFS**

Post-development

[ ][ ][ ].[ ][ ][ ] **CFS**

37a. The need to meet the Qp and Qf criteria has been waived because:

- ○ Site discharges directly to tidal waters or a fifth order or larger stream.
- ○ Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● **Yes** ○ **No**

If Yes, Identify the entity responsible for the long term Operation and Maintenance

Home Owners Association

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ○ Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP [N][Y][R][ ][ ][ ][ ][ ][ ]
- ○ Other [ ]
- ● None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ **Yes** ● **No**
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][ ][ ].[ ]

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ● **Yes** ○ **No**
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ○ **Yes** ● **No**

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

Anthony

MI

Print Last Name

Carbone

Owner/Operator Signature

Date

/ /

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
Tel: (914) 271-4762 Fax: (914) 271-2820

Civil / Site / Environmental

www.rgmpepc.com

Village Square Residences and Commercial Development August 8, 2023

List of adjoining property owners within 200-feet of Carbone Brothers 3095, LLC - 43.20-2-6

KEENAN JOHN & CAROL
245 CATHERINE ST
BUCHANAN, NY 10511
43.20-1-21

MILLS CHAD A & ERICA M
241 CATHERINE ST
BUCHANAN, NY 10511
43.20-1-21.2

TOWN CLERK
TOWN OF CORTLANDT
1 HEADY STREET
CORTLNDT MANOR, NY 10567

HALL JOYCE
243 CATHERINE ST
BUCHANAN, NY 10511
43.20-1-21.1

ROMAN CATHOLIC CHURCH
3094 ALBANY POST RD
BUCHANAN, NY 10511
43.20-1-40

HENDRICK HUDSON REALTY
2165 ALBANY POST RD
MONTROSE, NY 10548
43.20-4-3

AL DAR LLC
3102A ALBANY POST RD
BUCHANAN, NY 10511
43.20-1-36 & 37

CARBONE BROTHERS 3095 LLC
2043 ALBANY POST RD
CROTON-ON-HUDSON, NY 10520
43.20-2-6

CON EDISON CO OF NY
4 IRVING PL, 3RD FLOOR NW
NEW YORK, NY 10003
43.20-2-3 & 4

LEON JULIA C
2167 ALBANY POST RD
MONTROSE, NY 10548
43.20-4-2

ORDONEZ EDGAR R CHUQUIMAR
3 BUCHANAN, NY 10511
100 ALBANY POST RD
43.20-1-38

CENTRAL SCHOOL DIST NO 3
2166 ALBANY POST RD
MONTROSE, NY 10548
43.20-5-10

BOARD OF EDUCATION
TRALLY ROAD
MONTROSE,NY 10548
43.20-2-5

FOREST HILL PROPERTIES LL
2043 ALBANY POST RD
CROTON-ON-HUDSON, NY 10520
43.20-2-8

MATAILO LIDUVINA E Z
2169 ALBANY POST RD
MONTROSE, NY 10548
43.20-4-1

O'MARA FATIMA & SHAWN
237 CATHERINE ST
BUCHANAN,NY 10511
43.20-1-21.4

GUSTI REALTY LLC
33 CROTON POINT AVE
CROTON, NY 10520
43.20-2-2

SCHMITT PARVIN & DIETER
5887 CAVANO DRIVE
SARASOTA, FL 34231
43.20-1-21.3

CHACON-PAUL PAOLA
3109 ALBANY POST RD
BUCHANAN,NY 10511
43.20-2-7

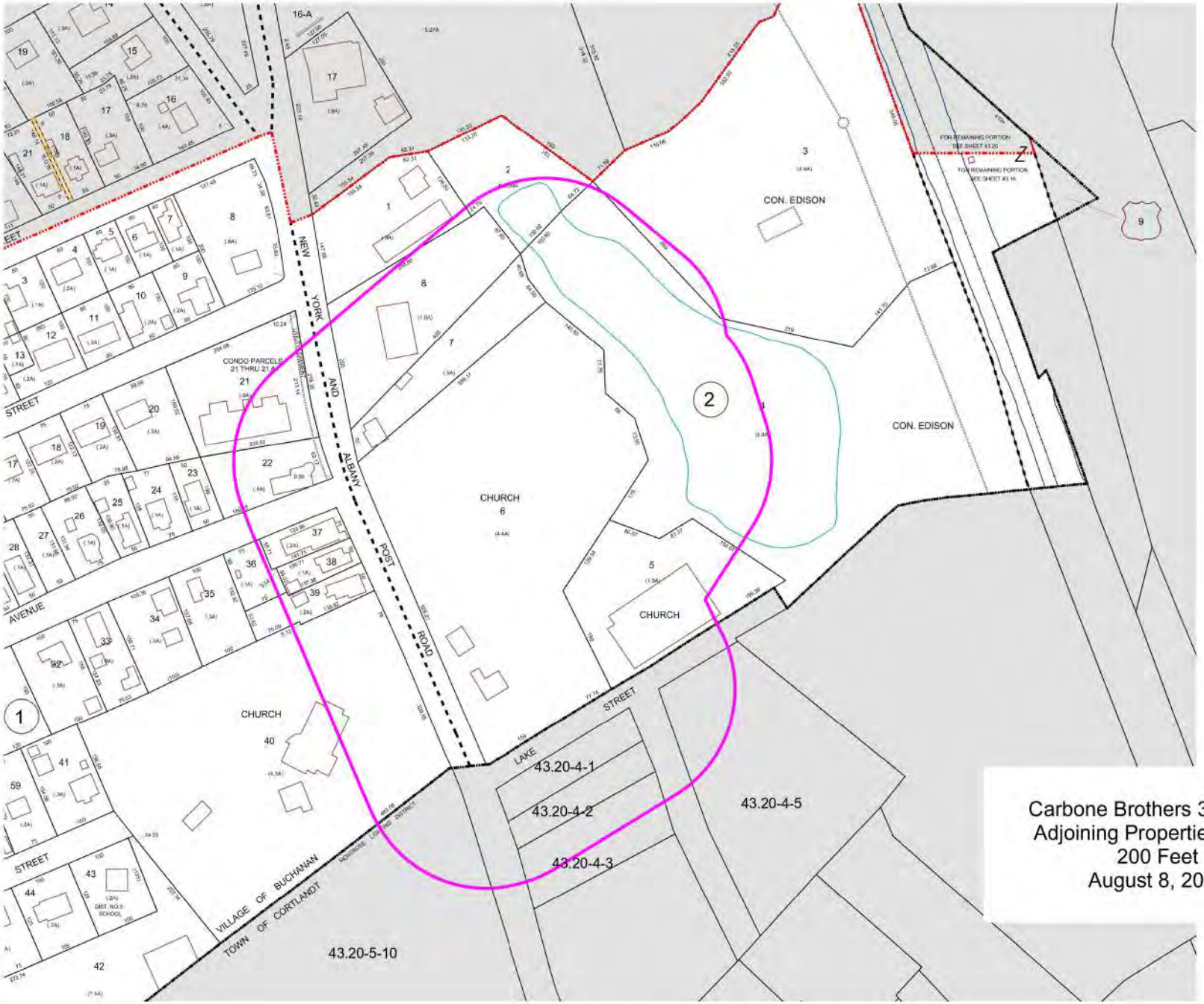
MAZZACONE RALPH & LINDA A
117 DALE AVE.
OSSINING,NY 10598
43.20-2-1

SCHMITT PARVIN & DIETER
239 CATHERINE ST
BUCHANAN,NY 10511
43.20-1-21.3

SALEH KAID
3098 ALBANY POST RD
BUCHANAN,NY 10511
43.20-1-39

3106 ALBANY POST INC
3106 ALBANY POST RD
BUCHANAN, NY 10511
43.20-1-22

VILLAGE OF BUCHANAN
236 TATE AVE.
BUCHANAN, NY 10511
43.20-2-4


NEW YORK AND ALBANY POST ROAD
CON. EDISON
CHURCH
CHURCH
CHURCH
CONDO PARCELS 21 THRU 21.4
STREET
AVENUE
STREET
STREET
LAKE
VILLAGE OF BUCHANAN
TOWN OF CORTLANDT
43.20-4-1
43.20-4-2
43.20-4-3
43.20-4-5
43.20-5-10
Carbone Brothers 3095 LLC
Adjoining Properties Within
200 Feet
August 8, 2023

Village Square Residences
and
Commercial Development

at

3095 Albany Post Road

Village of Buchanan
Montrose Hamlet
Westchester County, New York

Stormwater Pollution Prevention Plan
(SWPPP)

November 21, 2022

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Project: **Village Square Residences and Commercial Development Village of Buchanan, NY**

Scope: **Stormwater Report and SWPPP**

Date: **November 21, 2022**

Introduction:

The 4.87-acre, undeveloped, wooded site at 3095 Albany Post Road, is proposed for development for three (3) new apartment buildings and a small commercial plot. The project must follow the stormwater rules as a land development activity requiring conformance to the NYS Stormwater Design Manual and NYS General Permit. In addition, the project must conform to the Village's Stormwater Management Code, Chapter 211, condition C for disturbance between 1 and 5 acres.

Design Pont #1 evaluates the existing condition as well as the proposed buildings, parking and the remaining wooded and impervious areas. This design point discharges to a minor water course that travels to an existing pond off the site.

For each storm studied the proposed stormwater control systems limits the peak flows to the current, undeveloped condition.

Methodology:

The overall watershed was determined from site inspections and NYS GIS topographical maps. The Runoff Curve Numbers were determined from Soil mapping of the Natural Resources Conservation Division in the web soil survey. The area of interest is principally a 'D' hydrologic grouping based on the soil mapping. There is an on-site wetland and an off-site wetland pond that affect the site, and the disturbance is to be mitigated by a Stormwater Wetland Pond (W-3), as noted in the NYS Stormwater Design Manual that is to be constructed on the site.

The Hydrocad computer software is used to compute runoff from the watershed and routings through the Stormwater Wetland to the outlet control structure.

The purpose of this analysis is also to ensure that peak flows after development do not exceed the peak flows that occur currently for a range of storms. This report analyzes the; 90% occurring storm, 1-yr, 2-yr, 5-yr, 10-yr, 25-yr, 50-yr and 100 year storm frequencies.

Figure: Site Plan – Three Apartment Buildings and One Commercial Plot

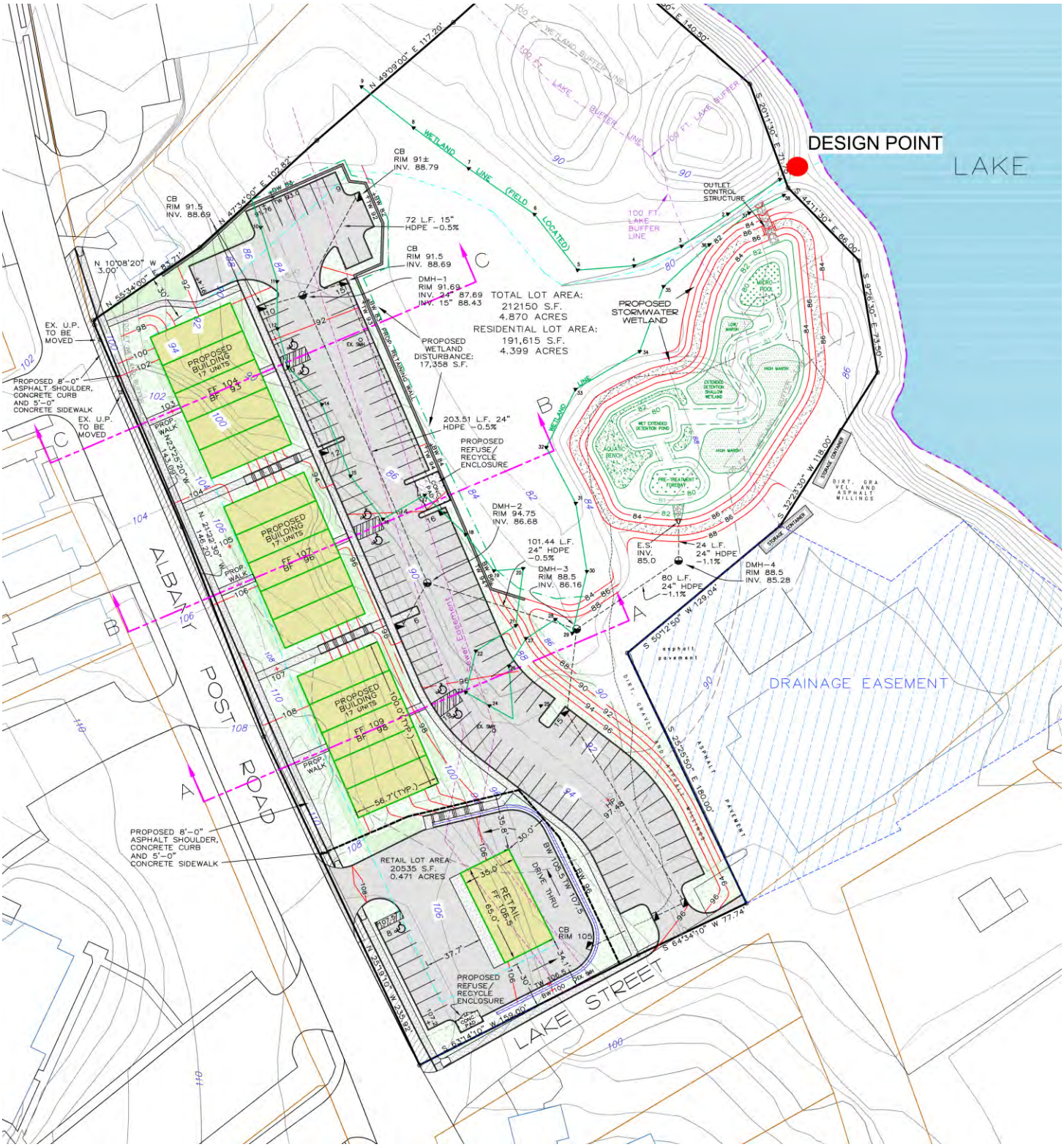


Figure: Watersheds to Design Point #1

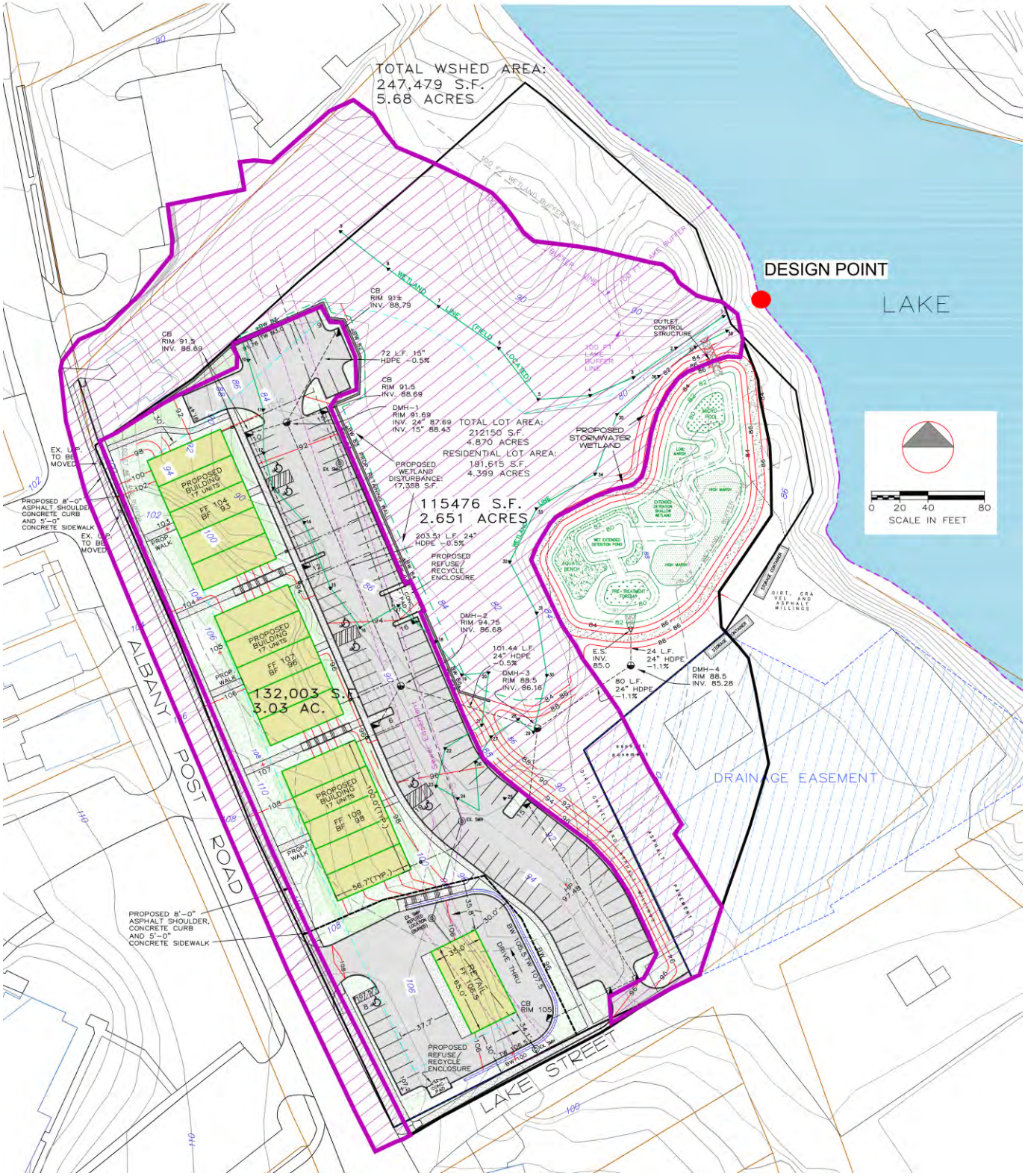


Table: Peak Flows at Design Point #1 Showing the Reduction in Final Flows

Storm (year)	**Rainfall** (in – 24 hr)	**Existing Flow** (cfs)	**Final Flow** (cfs)
100	9.24	32.5	**31.0**
50	7.71	26.4	**24.9**
25	6.44	21.3	**18.6**
10	5.09	15.9	**10.3**
5	4.26	12.6	**5.8**
2	3.37	9.1	**4.1**
1	2.75	6.6	**3.0**
90%	1.5	2.2	**0.9**

Table: NYS DEC Standards

Storm (as noted)	**Existing Peak Flow** (cfs)	**Proposed Peak Flow** (cfs)
100-yr Extreme Storm	32.5	**31.0**
10-yr Overbank Flood	15.9	**10.3**
2-yr	9.1	**4.1**
1-yr	6.6	**3.0**

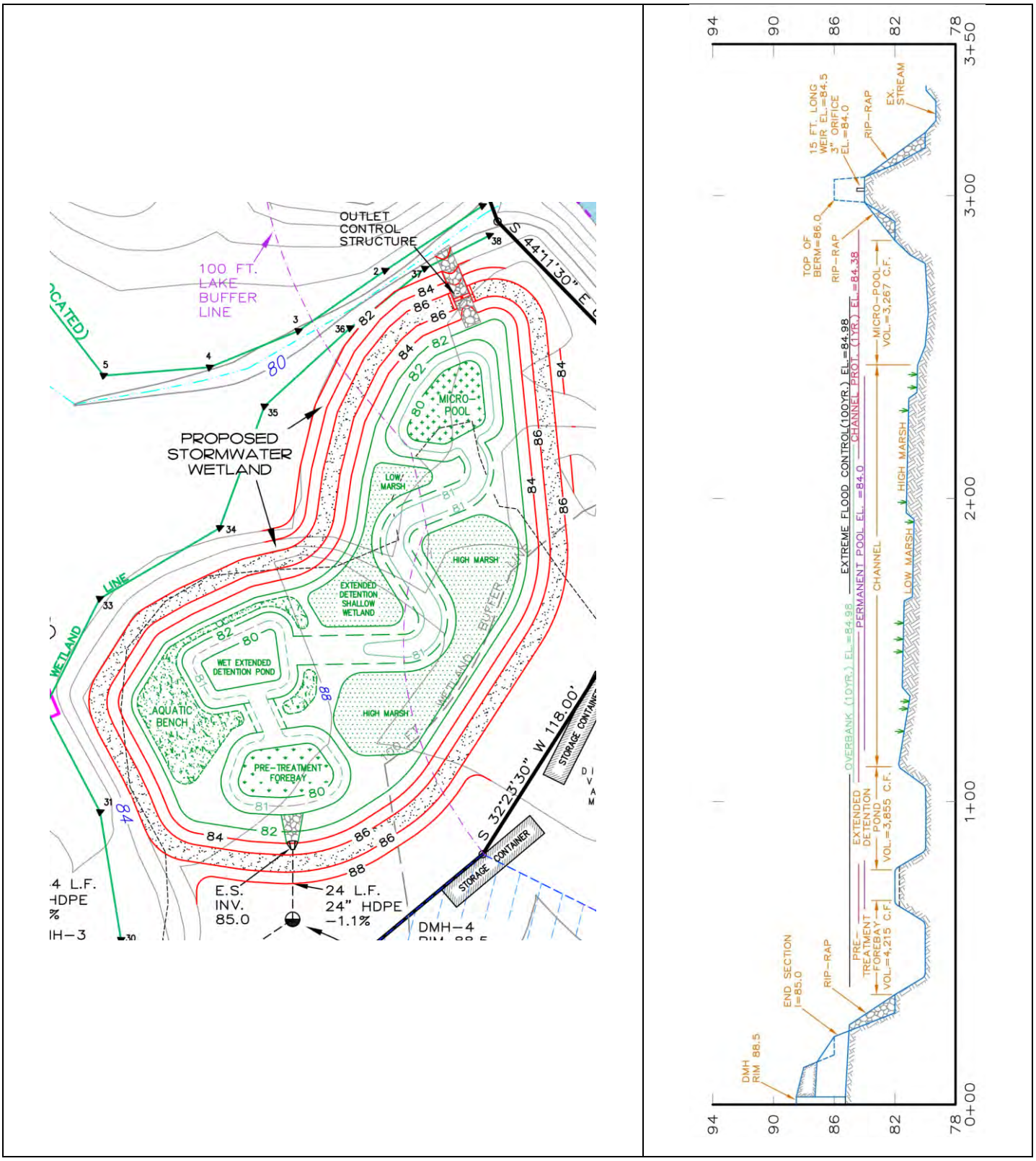
Channel Protection Volume (CPv), being the 24 hour detention of the 1-year storm, is computed at about 5.7 hours. However, this system uses using the NYS DEC criteria allowing a reduction in the CPv by using a minimum 3" low level orifice and complies as extended detention.

Table: Water Quality Volume Computation at DP1:

Item	**Area** (sq. ft)	**Imp. Area** (sq. ft)	**Imp.** %	**Prec.** In.	**Rv**	**WQv** (cu. ft.)	**50% WQv** (cu. ft.)
DP1	132,003	132,003	65%	1.5	0.64	**10,506**	**5,253**

The computed volume of the three low pools is 11,337 cubic feet. As noted in the enclosed Hydrocad report, the Stormwater Wetland provides in excess of the required minimum of 50% of the computed Water Quality Volume below the normal pool elevation, and in excess of the full WQ volume.

Figure: Plan and Cross-Section of the Stormwater Wetland



Soils:

The developed site Hydrologic Groups are generally noted as D throughout, indicating generally poor drainage throughout. This evaluation is confirmed by the existence of the central wetland.

Maintenance:

The stormwater wetland is protected by preliminary treatment areas that can be cleaned manually after annual inspection of silt levels.

Regulatory Notes:

The project requires that a Notice of Intent be filed with NYS DEC. Upon completion of the work, a Notice of Completion will be filed.

Conclusion:

Volumetric details of the proposed Stormwater Wetland are indicated in the attached Hydrocad printout. The printout indicates the storage amounts of each pool and the flow characteristics for each contributing area. The construction details are shown on the Site Plans for the project.

The stormwater wetland will treat the runoff of the Water Quality Volume (WQv) and will conform to the Channel Protection Volume requirements of NYS DEC in accordance with the standard methods of the NYS DEC.

The Overbank and Extreme Flooding are analyzed for the Design Point and these conform to the NYS DEC rules.

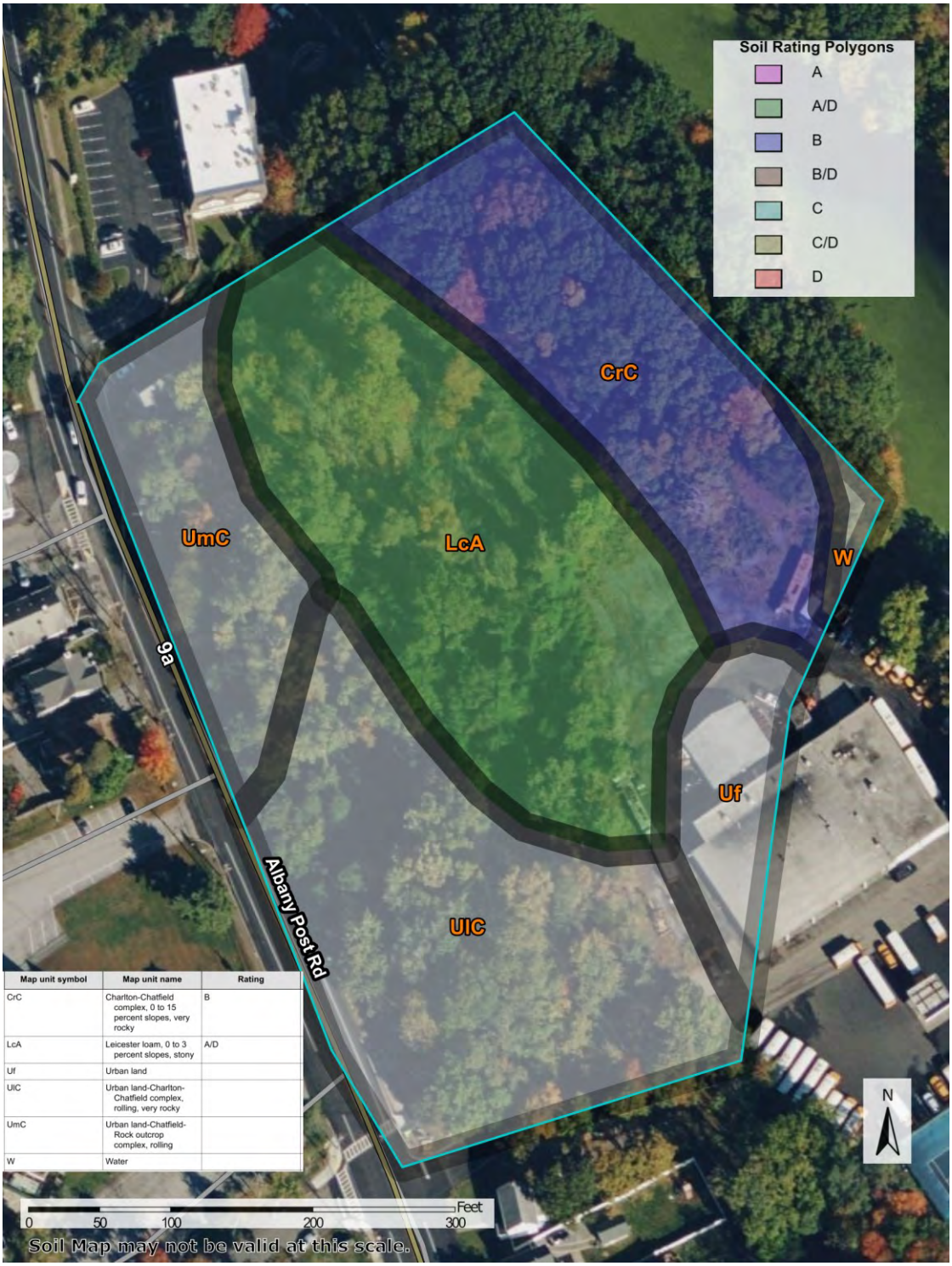
The stormwater system will also maintain peak flows to the same level or lower than existing conditions. Further, the stormwater treatment systems are in accordance with NYS DEC and Town rules, accordingly, no stormwater impacts are anticipated from this proposed development.

Submitted by:

Ralph G. Mastromonaco, PE

APPENDIX

Figure: Soil Hydrologic Groups

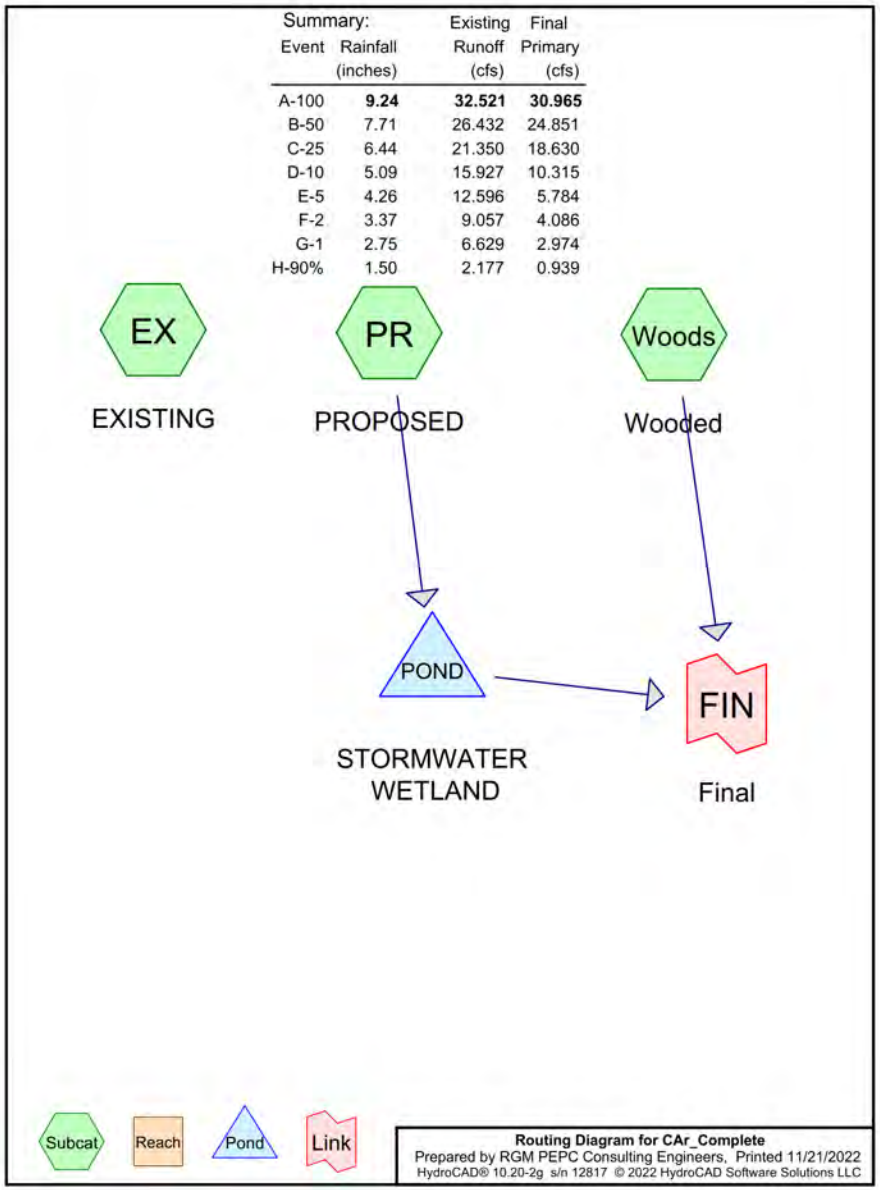


Map unit symbol	Map unit name	Rating
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B
LcA	Leicester loam, 0 to 3 percent slopes, stony	A/D
Uf	Urban land	
UIC	Urban land-Charlton-Chatfield complex, rolling, very rocky	
UmC	Urban land-Chatfield-Rock outcrop complex, rolling	
W	Water	

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.170	80.00	>75% Grass cover, Good, HSG D (PR, Woods)
0.750	98.00	Buildings (EX, PR, Woods)
1.410	98.00	Roads - Walkways (PR)
1.160	98.00	Roads / Walks (EX)
6.400	83.00	Woods, Poor, HSG D (EX, Woods)
0.470	98.00	roads and Walks (Woods)
11.360	**87.70**	**TOTAL AREA**

Summary: Event	Rainfall (inches)	Existing Runoff (cfs)	Final Primary (cfs)
A-100	**9.24**	**32.521**	**30.965**
B-50	7.71	26.432	24.851
C-25	6.44	21.350	18.630
D-10	5.09	15.927	10.315
E-5	4.26	12.596	5.784
F-2	3.37	9.057	4.086
G-1	2.75	6.629	2.974
H-90%	1.50	2.177	0.939



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX: EXISTING Runoff Area=5.680 ac 23.06% Impervious Runoff Depth=7.59"
Tc=20.00 min CN=86.46 Runoff=32.5 cfs 3.595 af

SubcatchmentPR: PROPOSED Runoff Area=3.030 ac 65.35% Impervious Runoff Depth=8.24"
Tc=20.00 min CN=91.76 Runoff=18.2 cfs 2.081 af

SubcatchmentWoods: Wooded Runoff Area=2.650 ac 18.87% Impervious Runoff Depth=7.50"
Tc=20.00 min CN=85.69 Runoff=15.0 cfs 1.656 af

Pond POND: STORMWATERWETLAND Peak Elev=84.98' Storage=26,125 cf Inflow=18.2 cfs 2.081 af
Outflow=16.6 cfs 1.789 af

Link FIN: Final Inflow=31.0 cfs 3.445 af
Primary=31.0 cfs 3.445 af

Total Runoff Area = 11.360 ac Runoff Volume = 7.332 af Average Runoff Depth = 7.75"
66.64% Pervious = 7.570 ac 33.36% Impervious = 3.790 ac

Summary for Subcatchment EX: EXISTING

Runoff = 32.5 cfs @ 12.26 hrs, Volume= 3.595 af, Depth= 7.59"

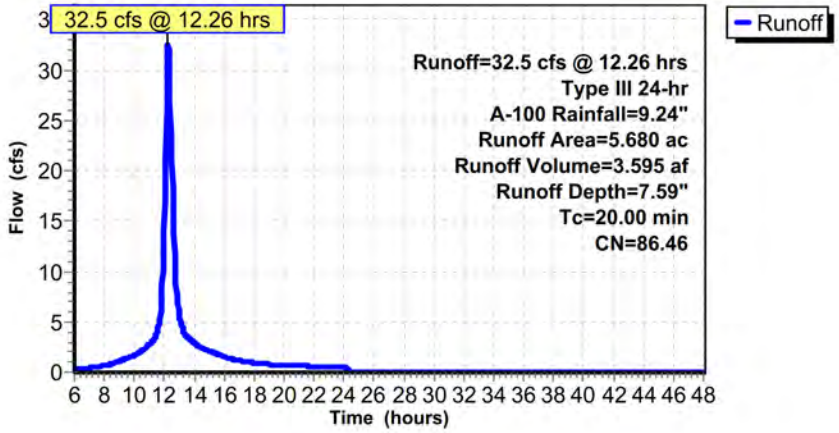
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr A-100 Rainfall=9.24"

	Area (ac)	CN	Description
*	0.150	98.00	Buildings
*	1.160	98.00	Roads / Walks
	4.370	83.00	Woods, Poor, HSG D
	5.680	86.46	Weighted Average
	4.370		76.94% Pervious Area
	1.310		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment EX: EXISTING

Hydrograph



Summary for Subcatchment PR: PROPOSED

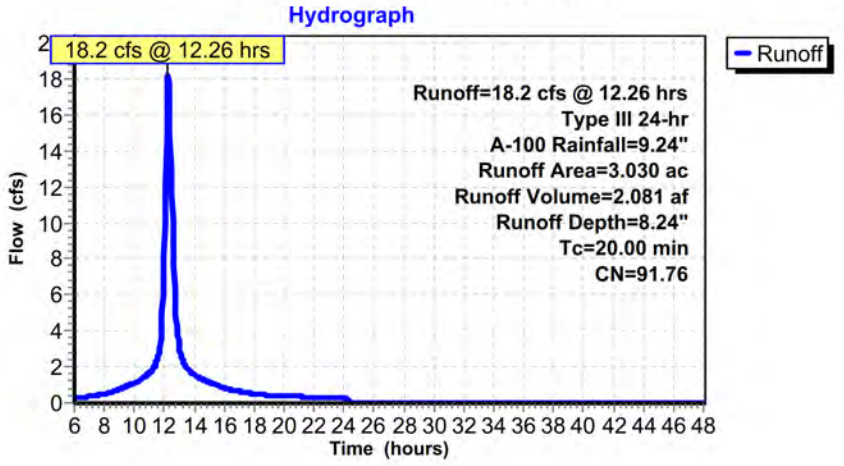
Runoff = 18.2 cfs @ 12.26 hrs, Volume= 2.081 af, Depth= 8.24"
Routed to Pond POND : STORMWATER WETLAND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr A-100 Rainfall=9.24"

	Area (ac)	CN	Description
*	0.570	98.00	Buildings
*	1.410	98.00	Roads - Walkways
	1.050	80.00	>75% Grass cover, Good, HSG D
	3.030	91.76	Weighted Average
	1.050		34.65% Pervious Area
	1.980		65.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment PR: PROPOSED



Summary for Subcatchment Woods: Wooded

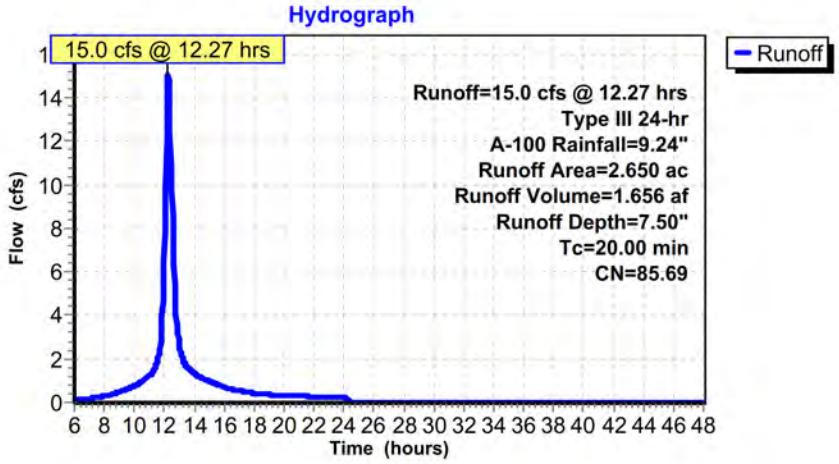
Runoff = 15.0 cfs @ 12.27 hrs, Volume= 1.656 af, Depth= 7.50"
Routed to Link FIN : Final

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr A-100 Rainfall=9.24"

	Area (ac)	CN	Description
	2.030	83.00	Woods, Poor, HSG D
*	0.030	98.00	Buildings
*	0.470	98.00	roads and Walks
	0.120	80.00	>75% Grass cover, Good, HSG D
	2.650	85.69	Weighted Average
	2.150		81.13% Pervious Area
	0.500		18.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment Woods: Wooded



Summary for Pond POND: STORMWATER WETLAND

Inflow Area = 3.030 ac, 65.35% Impervious, Inflow Depth = 8.24" for A-100 event
Inflow = 18.2 cfs @ 12.26 hrs, Volume= 2.081 af
Outflow = 16.6 cfs @ 12.35 hrs, Volume= 1.789 af, Atten= 9%, Lag= 5.19 min
Primary = 16.6 cfs @ 12.35 hrs, Volume= 1.789 af
Routed to Link FIN : Final

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 84.98' @ 12.35 hrs Surf.Area= 18,878 sf Storage= 26,125 cf

Plug-Flow detention time= 212.63 min calculated for 1.787 af (86% of inflow)
Center-of-Mass det. time= 153.01 min (932.17 - 779.15)

Volume	Invert	Avail.Storage	Storage Description
#1	84.00'	31,170 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	80.00'	4,215 cf	**pool 1 (Prismatic)** Listed below (Recalc)
#3	80.00'	3,855 cf	**pool 2 (Prismatic)** Listed below (Recalc)
#4	80.00'	3,267 cf	**Pool 3 (Prismatic)** Listed below (Recalc)
		42,507 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.00	14,514	0	0
86.00	16,656	31,170	31,170

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	534	0	0
82.00	1,227	1,761	1,761
84.00	1,227	2,454	4,215

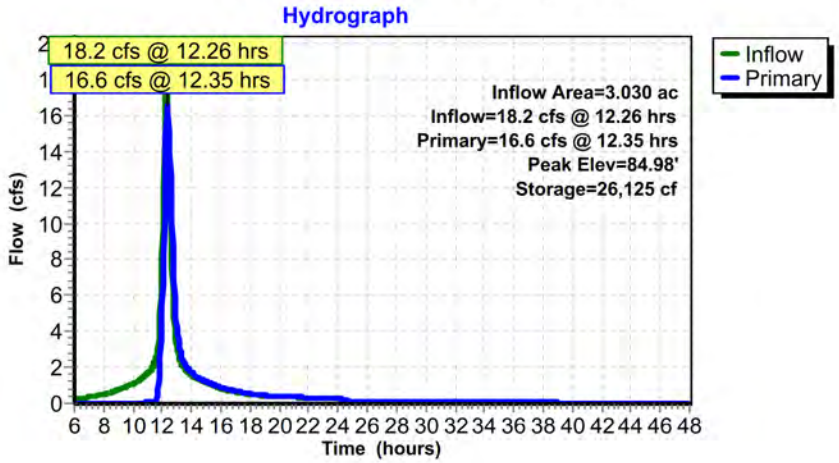
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	495	0	0
82.00	1,120	1,615	1,615
84.00	1,120	2,240	3,855

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	375	0	0
82.00	964	1,339	1,339
84.00	964	1,928	3,267

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	**15.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	84.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=16.6 cfs @ 12.35 hrs HW=84.98' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Weir Controls 16.4 cfs @ 2.27 fps)
└—**2=Orifice/Grate** (Orifice Controls 0.2 cfs @ 4.46 fps)

Pond POND: STORMWATER WETLAND



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX: EXISTING Runoff Area=5.680 ac 23.06% Impervious Runoff Depth=6.10"
Tc=20.00 min CN=86.46 Runoff=26.4 cfs 2.889 af

SubcatchmentPR: PROPOSED Runoff Area=3.030 ac 65.35% Impervious Runoff Depth=6.73"
Tc=20.00 min CN=91.76 Runoff=15.0 cfs 1.699 af

SubcatchmentWoods: Wooded Runoff Area=2.650 ac 18.87% Impervious Runoff Depth=6.01"
Tc=20.00 min CN=85.69 Runoff=12.2 cfs 1.328 af

Pond POND: STORMWATERWETLAND Peak Elev=84.92' Storage=25,101 cf Inflow=15.0 cfs 1.699 af
Outflow=13.4 cfs 1.406 af

Link FIN: Final Inflow=24.9 cfs 2.735 af
Primary=24.9 cfs 2.735 af

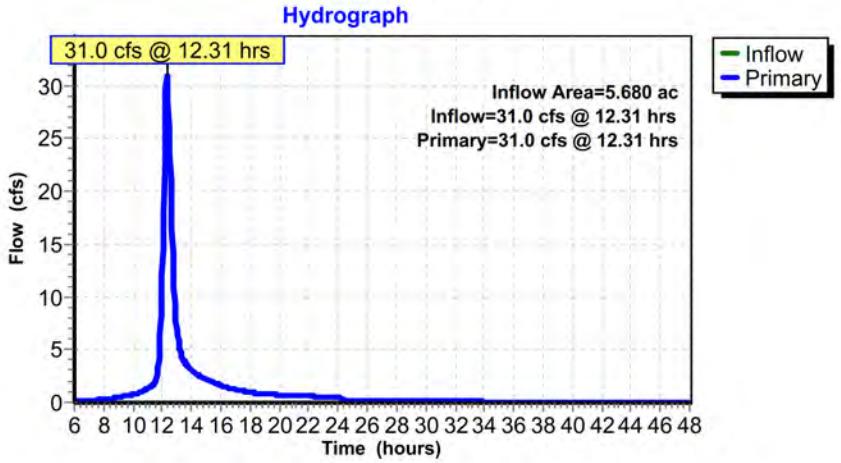
Total Runoff Area = 11.360 ac Runoff Volume = 5.916 af Average Runoff Depth = 6.25"
66.64% Pervious = 7.570 ac 33.36% Impervious = 3.790 ac

Summary for Link FIN: Final

Inflow Area = 5.680 ac, 43.66% Impervious, Inflow Depth > 7.28" for A-100 event
Inflow = 31.0 cfs @ 12.31 hrs, Volume= 3.445 af
Primary = 31.0 cfs @ 12.31 hrs, Volume= 3.445 af, Atten= 0%, Lag= 0.00 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link FIN: Final



Summary for Subcatchment EX: EXISTING

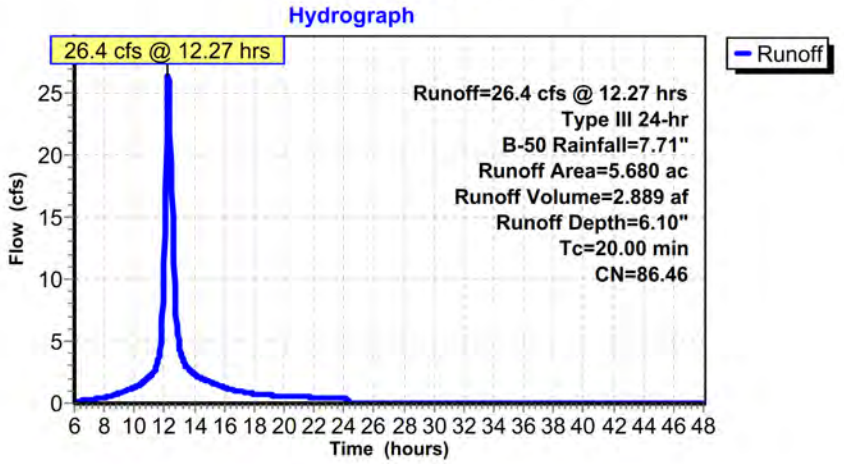
Runoff = 26.4 cfs @ 12.27 hrs, Volume= 2.889 af, Depth= 6.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr B-50 Rainfall=7.71"

	Area (ac)	CN	Description
*	0.150	98.00	Buildings
*	1.160	98.00	Roads / Walks
	4.370	83.00	Woods, Poor, HSG D
	5.680	86.46	Weighted Average
	4.370		76.94% Pervious Area
	1.310		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment EX: EXISTING



Summary for Subcatchment PR: PROPOSED

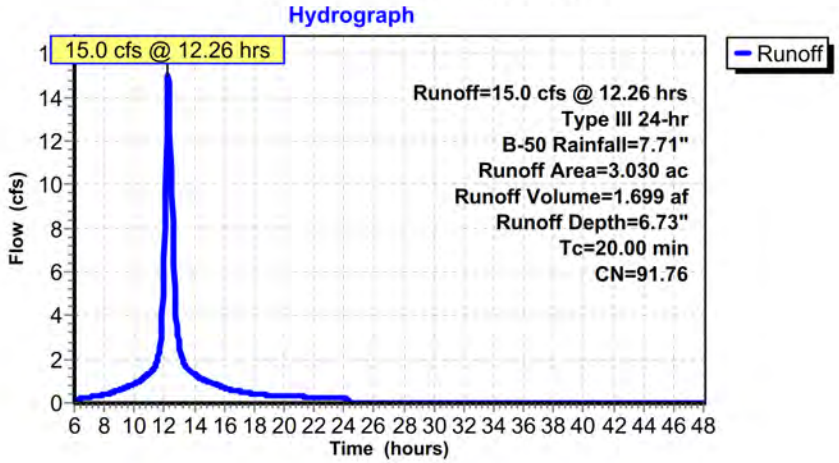
Runoff = 15.0 cfs @ 12.26 hrs, Volume= 1.699 af, Depth= 6.73"
Routed to Pond POND : STORMWATER WETLAND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr B-50 Rainfall=7.71"

	Area (ac)	CN	Description
*	0.570	98.00	Buildings
*	1.410	98.00	Roads - Walkways
	1.050	80.00	>75% Grass cover, Good, HSG D
	3.030	91.76	Weighted Average
	1.050		34.65% Pervious Area
	1.980		65.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment PR: PROPOSED



Summary for Subcatchment Woods: Wooded

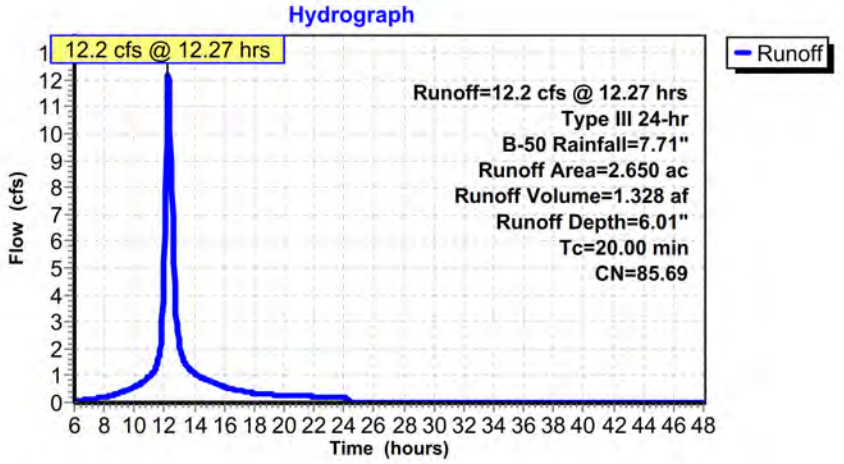
Runoff = 12.2 cfs @ 12.27 hrs, Volume= 1.328 af, Depth= 6.01"
Routed to Link FIN : Final

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr B-50 Rainfall=7.71"

	Area (ac)	CN	Description
	2.030	83.00	Woods, Poor, HSG D
*	0.030	98.00	Buildings
*	0.470	98.00	roads and Walks
	0.120	80.00	>75% Grass cover, Good, HSG D
	2.650	85.69	Weighted Average
	2.150		81.13% Pervious Area
	0.500		18.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment Woods: Wooded



Summary for Pond POND: STORMWATER WETLAND

Inflow Area = 3.030 ac, 65.35% Impervious, Inflow Depth = 6.73" for B-50 event
Inflow = 15.0 cfs @ 12.26 hrs, Volume= 1.699 af
Outflow = 13.4 cfs @ 12.36 hrs, Volume= 1.406 af, Atten= 11%, Lag= 5.95 min
Primary = 13.4 cfs @ 12.36 hrs, Volume= 1.406 af
Routed to Link FIN : Final

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 84.92' @ 12.36 hrs Surf.Area= 18,807 sf Storage= 25,101 cf

Plug-Flow detention time= 248.31 min calculated for 1.405 af (83% of inflow)
Center-of-Mass det. time= 180.87 min (964.80 - 783.92)

Volume	Invert	Avail.Storage	Storage Description
#1	84.00'	31,170 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	80.00'	4,215 cf	**pool 1 (Prismatic)** Listed below (Recalc)
#3	80.00'	3,855 cf	**pool 2 (Prismatic)** Listed below (Recalc)
#4	80.00'	3,267 cf	**Pool 3 (Prismatic)** Listed below (Recalc)
		42,507 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.00	14,514	0	0
86.00	16,656	31,170	31,170

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	534	0	0
82.00	1,227	1,761	1,761
84.00	1,227	2,454	4,215

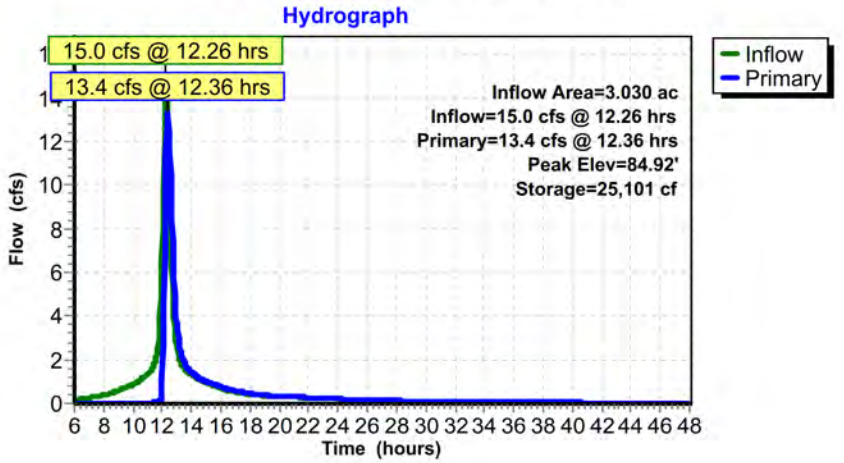
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	495	0	0
82.00	1,120	1,615	1,615
84.00	1,120	2,240	3,855

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	375	0	0
82.00	964	1,339	1,339
84.00	964	1,928	3,267

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	**15.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	84.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=13.3 cfs @ 12.36 hrs HW=84.92' (Free Discharge)
└**1=Sharp-Crested Rectangular Weir** (Weir Controls 13.1 cfs @ 2.11 fps)
└**2=Orifice/Grate** (Orifice Controls 0.2 cfs @ 4.28 fps)

Pond POND: STORMWATER WETLAND

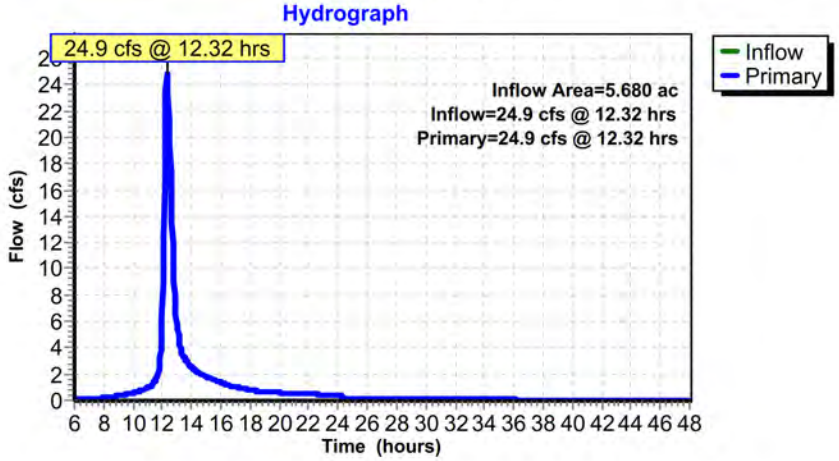


Summary for Link FIN: Final

Inflow Area = 5.680 ac, 43.66% Impervious, Inflow Depth > 5.78" for B-50 event
Inflow = 24.9 cfs @ 12.32 hrs, Volume= 2.735 af
Primary = 24.9 cfs @ 12.32 hrs, Volume= 2.735 af, Atten= 0%, Lag= 0.00 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link FIN: Final



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX: EXISTING Runoff Area=5.680 ac 23.06% Impervious Runoff Depth=4.88"
Tc=20.00 min CN=86.46 Runoff=21.3 cfs 2.310 af

SubcatchmentPR: PROPOSED Runoff Area=3.030 ac 65.35% Impervious Runoff Depth=5.48"
Tc=20.00 min CN=91.76 Runoff=12.4 cfs 1.382 af

SubcatchmentWoods: Wooded Runoff Area=2.650 ac 18.87% Impervious Runoff Depth=4.79"
Tc=20.00 min CN=85.69 Runoff=9.8 cfs 1.059 af

Pond POND: STORMWATERWETLAND Peak Elev=84.84' Storage=23,945 cf Inflow=12.4 cfs 1.382 af
Outflow=10.0 cfs 1.090 af

Link FIN: Final Inflow=18.6 cfs 2.149 af
Primary=18.6 cfs 2.149 af

Total Runoff Area = 11.360 ac Runoff Volume = 4.751 af Average Runoff Depth = 5.02"
66.64% Pervious = 7.570 ac 33.36% Impervious = 3.790 ac

Summary for Subcatchment EX: EXISTING

Runoff = 21.3 cfs @ 12.27 hrs, Volume= 2.310 af, Depth= 4.88"

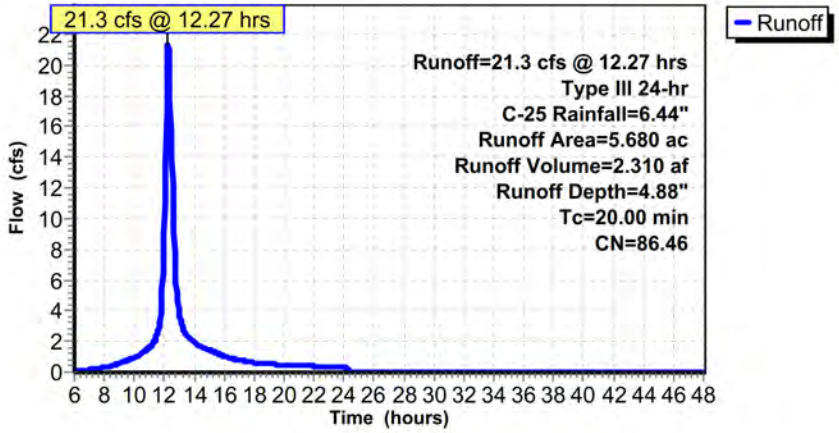
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr C-25 Rainfall=6.44"

	Area (ac)	CN	Description
*	0.150	98.00	Buildings
*	1.160	98.00	Roads / Walks
	4.370	83.00	Woods, Poor, HSG D
	5.680	86.46	Weighted Average
	4.370		76.94% Pervious Area
	1.310		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment EX: EXISTING

Hydrograph



Summary for Subcatchment PR: PROPOSED

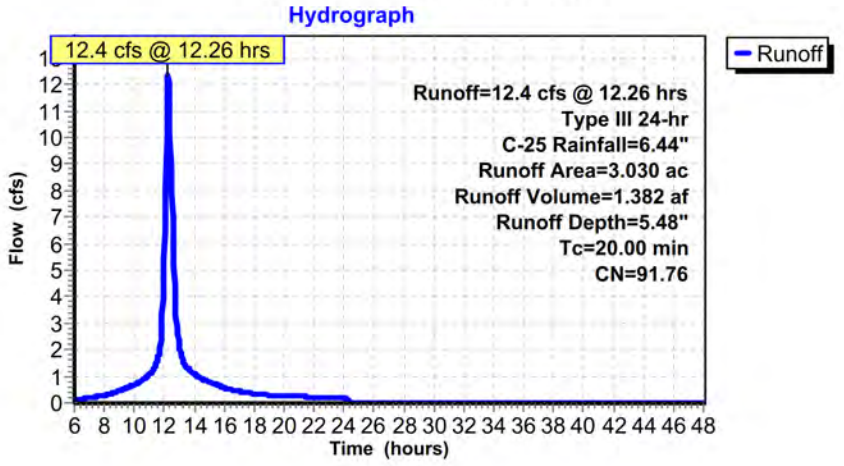
Runoff = 12.4 cfs @ 12.26 hrs, Volume= 1.382 af, Depth= 5.48"
Routed to Pond POND : STORMWATER WETLAND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr C-25 Rainfall=6.44"

	Area (ac)	CN	Description
*	0.570	98.00	Buildings
*	1.410	98.00	Roads - Walkways
	1.050	80.00	>75% Grass cover, Good, HSG D
	3.030	91.76	Weighted Average
	1.050		34.65% Pervious Area
	1.980		65.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment PR: PROPOSED



Summary for Subcatchment Woods: Wooded

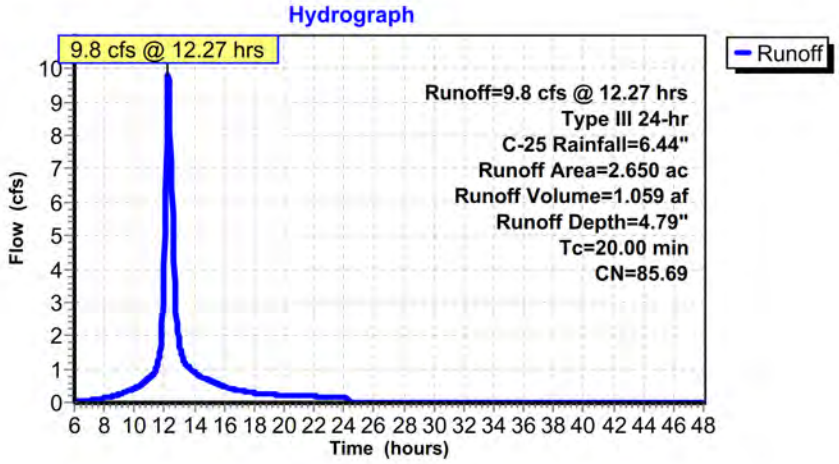
Runoff = 9.8 cfs @ 12.27 hrs, Volume= 1.059 af, Depth= 4.79"
Routed to Link FIN : Final

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr C-25 Rainfall=6.44"

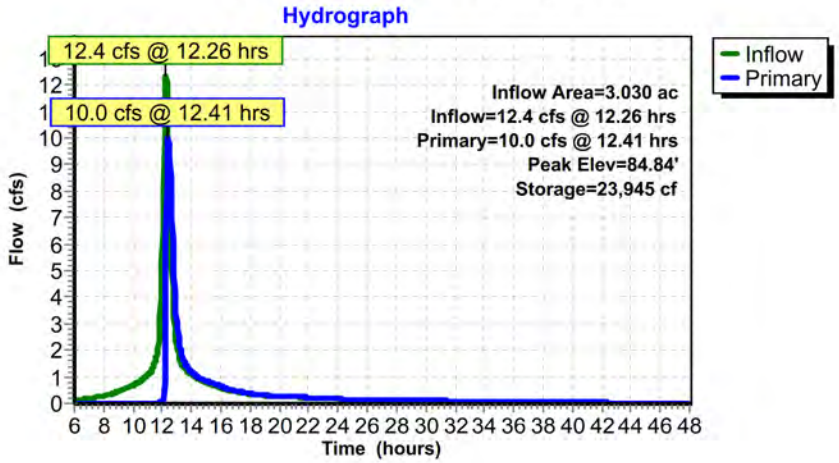
	Area (ac)	CN	Description
	2.030	83.00	Woods, Poor, HSG D
*	0.030	98.00	Buildings
*	0.470	98.00	roads and Walks
	0.120	80.00	>75% Grass cover, Good, HSG D
	2.650	85.69	Weighted Average
	2.150		81.13% Pervious Area
	0.500		18.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment Woods: Wooded



Pond POND: STORMWATER WETLAND



Summary for Pond POND: STORMWATER WETLAND

Inflow Area = 3.030 ac, 65.35% Impervious, Inflow Depth = 5.48" for C-25 event
Inflow = 12.4 cfs @ 12.26 hrs, Volume= 1.382 af
Outflow = 10.0 cfs @ 12.41 hrs, Volume= 1.090 af, Atten= 19%, Lag= 8.64 min
Primary = 10.0 cfs @ 12.41 hrs, Volume= 1.090 af
Routed to Link FIN : Final

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 84.84' @ 12.41 hrs Surf.Area= 18,727 sf Storage= 23,945 cf

Plug-Flow detention time= 295.88 min calculated for 1.090 af (79% of inflow)
Center-of-Mass det. time= 218.37 min (1,007.37 - 789.00)

Volume	Invert	Avail.Storage	Storage Description
#1	84.00'	31,170 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	80.00'	4,215 cf	**pool 1 (Prismatic)** Listed below (Recalc)
#3	80.00'	3,855 cf	**pool 2 (Prismatic)** Listed below (Recalc)
#4	80.00'	3,267 cf	**Pool 3 (Prismatic)** Listed below (Recalc)
		42,507 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.00	14,514	0	0
86.00	16,656	31,170	31,170

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	534	0	0
82.00	1,227	1,761	1,761
84.00	1,227	2,454	4,215

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	495	0	0
82.00	1,120	1,615	1,615
84.00	1,120	2,240	3,855

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	375	0	0
82.00	964	1,339	1,339
84.00	964	1,928	3,267

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	**15.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	84.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

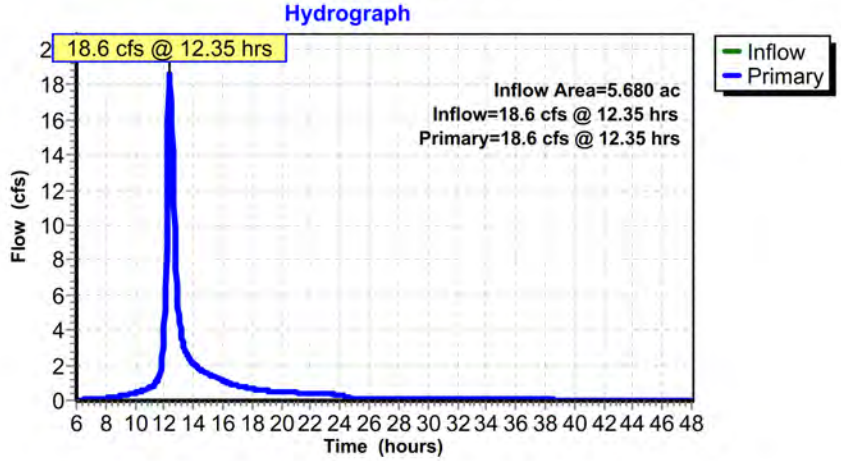
Primary OutFlow Max=9.9 cfs @ 12.41 hrs HW=84.84' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Weir Controls 9.7 cfs @ 1.91 fps)
—**2=Orifice/Grate** (Orifice Controls 0.2 cfs @ 4.08 fps)

Summary for Link FIN: Final

Inflow Area = 5.680 ac, 43.66% Impervious, Inflow Depth > 4.54" for C-25 event
Inflow = 18.6 cfs @ 12.35 hrs, Volume= 2.149 af
Primary = 18.6 cfs @ 12.35 hrs, Volume= 2.149 af, Atten= 0%, Lag= 0.00 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link FIN: Final



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX: EXISTING Runoff Area=5.680 ac 23.06% Impervious Runoff Depth=3.60"
Tc=20.00 min CN=86.46 Runoff=15.9 cfs 1.703 af

SubcatchmentPR: PROPOSED Runoff Area=3.030 ac 65.35% Impervious Runoff Depth=4.15"
Tc=20.00 min CN=91.76 Runoff=9.5 cfs 1.048 af

SubcatchmentWoods: Wooded Runoff Area=2.650 ac 18.87% Impervious Runoff Depth=3.52"
Tc=20.00 min CN=85.69 Runoff=7.3 cfs 0.777 af

Pond POND: STORMWATERWETLAND Peak Elev=84.73' Storage=22,173 cf Inflow=9.5 cfs 1.048 af
Outflow=5.5 cfs 0.756 af

Link FIN: Final Inflow=10.3 cfs 1.533 af
Primary=10.3 cfs 1.533 af

Total Runoff Area = 11.360 ac Runoff Volume = 3.528 af Average Runoff Depth = 3.73"
66.64% Pervious = 7.570 ac 33.36% Impervious = 3.790 ac

Summary for Subcatchment EX: EXISTING

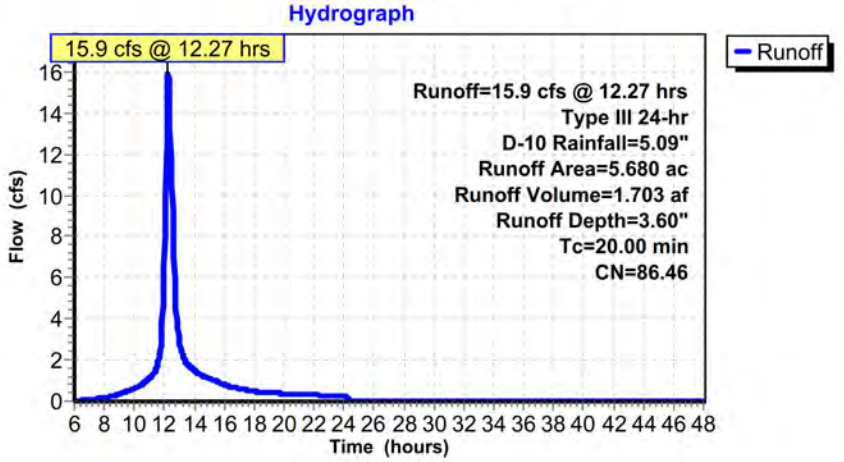
Runoff = 15.9 cfs @ 12.27 hrs, Volume= 1.703 af, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr D-10 Rainfall=5.09"

	Area (ac)	CN	Description
*	0.150	98.00	Buildings
*	1.160	98.00	Roads / Walks
	4.370	83.00	Woods, Poor, HSG D
	5.680	86.46	Weighted Average
	4.370		76.94% Pervious Area
	1.310		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment EX: EXISTING



Summary for Subcatchment PR: PROPOSED

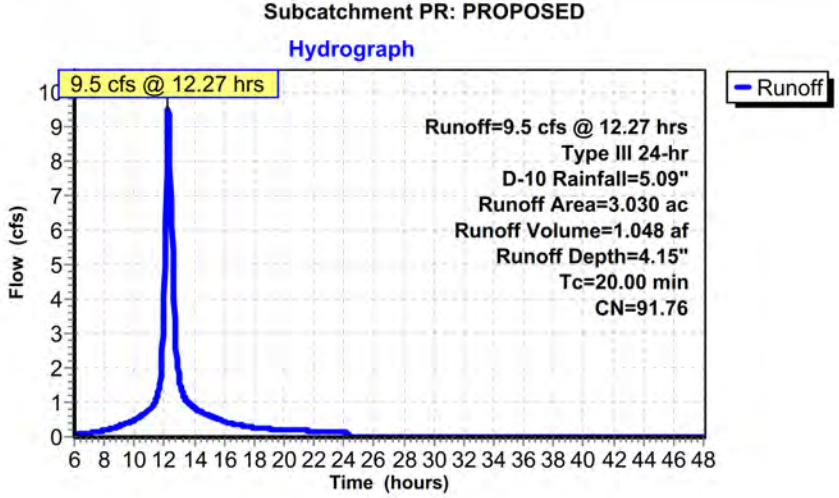
Runoff = 9.5 cfs @ 12.27 hrs, Volume= 1.048 af, Depth= 4.15"
Routed to Pond POND : STORMWATER WETLAND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr D-10 Rainfall=5.09"

	Area (ac)	CN	Description
*	0.570	98.00	Buildings
*	1.410	98.00	Roads - Walkways
	1.050	80.00	>75% Grass cover, Good, HSG D
	3.030	91.76	Weighted Average
	1.050		34.65% Pervious Area
	1.980		65.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment PR: PROPOSED



Summary for Subcatchment Woods: Wooded

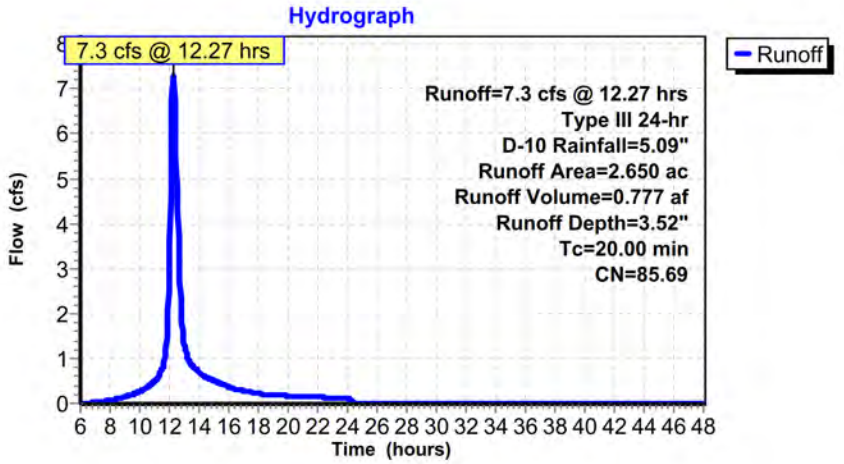
Runoff = 7.3 cfs @ 12.27 hrs, Volume= 0.777 af, Depth= 3.52"
Routed to Link FIN : Final

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr D-10 Rainfall=5.09"

	Area (ac)	CN	Description
	2.030	83.00	Woods, Poor, HSG D
*	0.030	98.00	Buildings
*	0.470	98.00	roads and Walks
	0.120	80.00	>75% Grass cover, Good, HSG D
	2.650	85.69	Weighted Average
	2.150		81.13% Pervious Area
	0.500		18.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment Woods: Wooded



Summary for Pond POND: STORMWATER WETLAND

Inflow Area = 3.030 ac, 65.35% Impervious, Inflow Depth = 4.15" for D-10 event
Inflow = 9.5 cfs @ 12.27 hrs, Volume= 1.048 af
Outflow = 5.5 cfs @ 12.55 hrs, Volume= 0.756 af, Atten= 42%, Lag= 16.81 min
Primary = 5.5 cfs @ 12.55 hrs, Volume= 0.756 af
Routed to Link FIN : Final

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 84.73' @ 12.55 hrs Surf.Area= 18,604 sf Storage= 22,173 cf

Plug-Flow detention time= 381.05 min calculated for 0.756 af (72% of inflow)
Center-of-Mass det. time= 292.20 min (1,088.34 - 796.15)

Volume	Invert	Avail.Storage	Storage Description
#1	84.00'	31,170 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	80.00'	4,215 cf	**pool 1 (Prismatic)** Listed below (Recalc)
#3	80.00'	3,855 cf	**pool 2 (Prismatic)** Listed below (Recalc)
#4	80.00'	3,267 cf	**Pool 3 (Prismatic)** Listed below (Recalc)
		42,507 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.00	14,514	0	0
86.00	16,656	31,170	31,170

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	534	0	0
82.00	1,227	1,761	1,761
84.00	1,227	2,454	4,215

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	495	0	0
82.00	1,120	1,615	1,615
84.00	1,120	2,240	3,855

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	375	0	0
82.00	964	1,339	1,339
84.00	964	1,928	3,267

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	**15.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	84.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

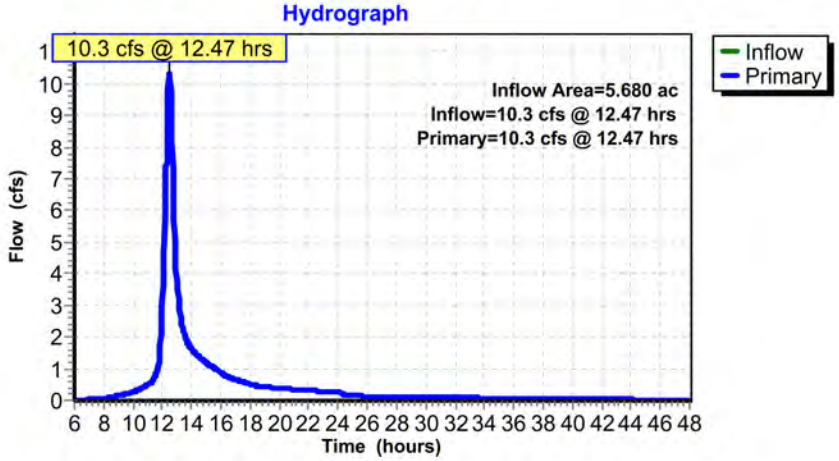
Primary OutFlow Max=5.5 cfs @ 12.55 hrs HW=84.73' (Free Discharge)
└**1=Sharp-Crested Rectangular Weir** (Weir Controls 5.3 cfs @ 1.56 fps)
└**2=Orifice/Grate** (Orifice Controls 0.2 cfs @ 3.73 fps)

Summary for Link FIN: Final

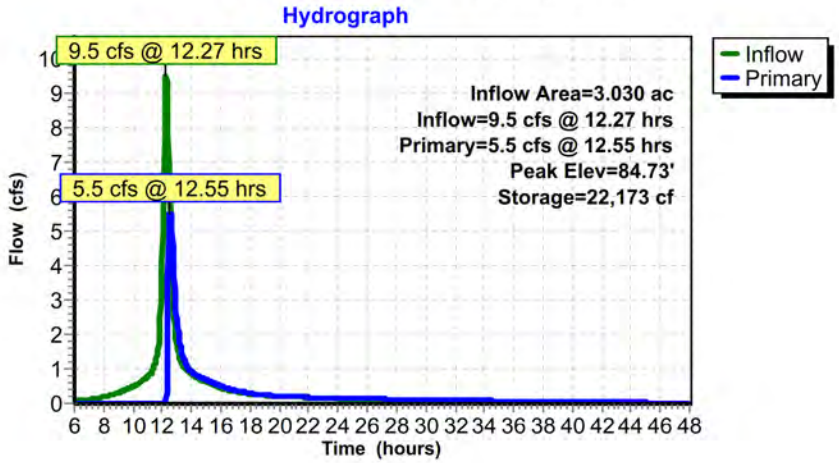
Inflow Area = 5.680 ac, 43.66% Impervious, Inflow Depth > 3.24" for D-10 event
Inflow = 10.3 cfs @ 12.47 hrs, Volume= 1.533 af
Primary = 10.3 cfs @ 12.47 hrs, Volume= 1.533 af, Atten= 0%, Lag= 0.00 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link FIN: Final



Pond POND: STORMWATER WETLAND



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX: EXISTING Runoff Area=5.680 ac 23.06% Impervious Runoff Depth=2.83"
Tc=20.00 min CN=86.46 Runoff=12.6 cfs 1.337 af

SubcatchmentPR: PROPOSED Runoff Area=3.030 ac 65.35% Impervious Runoff Depth=3.34"
Tc=20.00 min CN=91.76 Runoff=7.7 cfs 0.844 af

SubcatchmentWoods: Wooded Runoff Area=2.650 ac 18.87% Impervious Runoff Depth=2.75"
Tc=20.00 min CN=85.69 Runoff=5.7 cfs 0.608 af

Pond POND: STORMWATERWETLAND Peak Elev=84.63' Storage=20,744 cf Inflow=7.7 cfs 0.844 af
Outflow=2.6 cfs 0.553 af

Link FIN: Final Inflow=5.8 cfs 1.161 af
Primary=5.8 cfs 1.161 af

Total Runoff Area = 11.360 ac Runoff Volume = 2.790 af Average Runoff Depth = 2.95"
66.64% Pervious = 7.570 ac 33.36% Impervious = 3.790 ac

Summary for Subcatchment EX: EXISTING

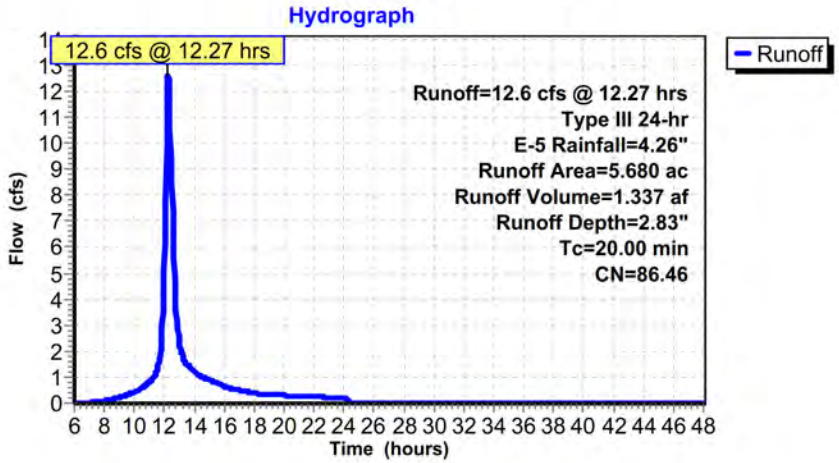
Runoff = 12.6 cfs @ 12.27 hrs, Volume= 1.337 af, Depth= 2.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr E-5 Rainfall=4.26"

	Area (ac)	CN	Description
*	0.150	98.00	Buildings
*	1.160	98.00	Roads / Walks
	4.370	83.00	Woods, Poor, HSG D
	5.680	86.46	Weighted Average
	4.370		76.94% Pervious Area
	1.310		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment EX: EXISTING



Summary for Subcatchment PR: PROPOSED

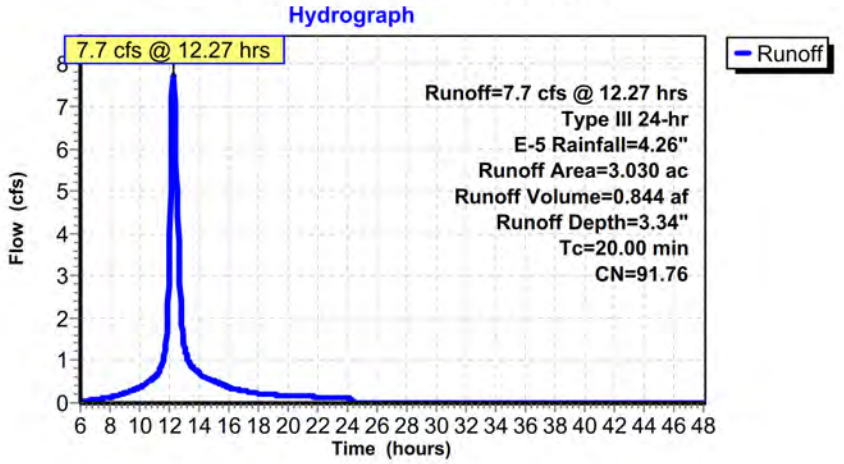
Runoff = 7.7 cfs @ 12.27 hrs, Volume= 0.844 af, Depth= 3.34"
Routed to Pond POND : STORMWATER WETLAND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr E-5 Rainfall=4.26"

	Area (ac)	CN	Description
*	0.570	98.00	Buildings
*	1.410	98.00	Roads - Walkways
	1.050	80.00	>75% Grass cover, Good, HSG D
	3.030	91.76	Weighted Average
	1.050		34.65% Pervious Area
	1.980		65.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment PR: PROPOSED



Summary for Subcatchment Woods: Wooded

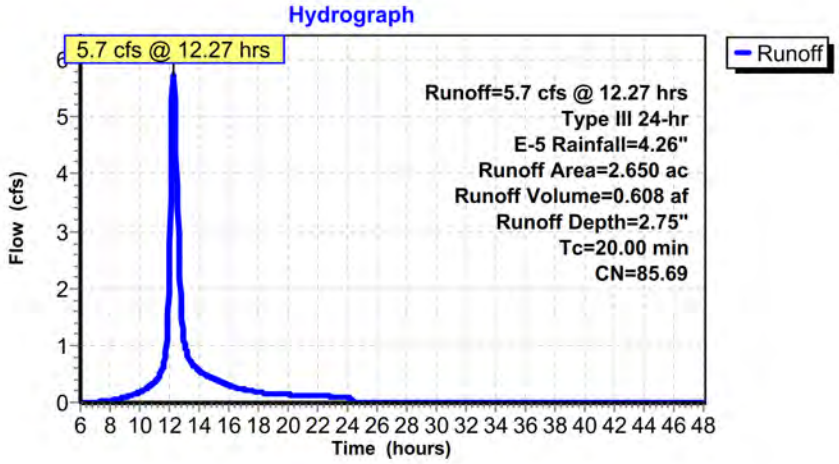
Runoff = 5.7 cfs @ 12.27 hrs, Volume= 0.608 af, Depth= 2.75"
Routed to Link FIN : Final

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr E-5 Rainfall=4.26"

	Area (ac)	CN	Description
	2.030	83.00	Woods, Poor, HSG D
*	0.030	98.00	Buildings
*	0.470	98.00	roads and Walks
	0.120	80.00	>75% Grass cover, Good, HSG D
	2.650	85.69	Weighted Average
	2.150		81.13% Pervious Area
	0.500		18.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment Woods: Wooded



Summary for Pond POND: STORMWATER WETLAND

Inflow Area = 3.030 ac, 65.35% Impervious, Inflow Depth = 3.34" for E-5 event
Inflow = 7.7 cfs @ 12.27 hrs, Volume= 0.844 af
Outflow = 2.6 cfs @ 12.73 hrs, Volume= 0.553 af, Atten= 67%, Lag= 27.77 min
Primary = 2.6 cfs @ 12.73 hrs, Volume= 0.553 af
Routed to Link FIN : Final

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 84.63' @ 12.73 hrs Surf.Area= 18,503 sf Storage= 20,744 cf

Plug-Flow detention time= 474.16 min calculated for 0.552 af (65% of inflow)
Center-of-Mass det. time= 378.43 min (1,180.36 - 801.93)

Volume	Invert	Avail.Storage	Storage Description
#1	84.00'	31,170 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	80.00'	4,215 cf	**pool 1 (Prismatic)** Listed below (Recalc)
#3	80.00'	3,855 cf	**pool 2 (Prismatic)** Listed below (Recalc)
#4	80.00'	3,267 cf	**Pool 3 (Prismatic)** Listed below (Recalc)
		42,507 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.00	14,514	0	0
86.00	16,656	31,170	31,170

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	534	0	0
82.00	1,227	1,761	1,761
84.00	1,227	2,454	4,215

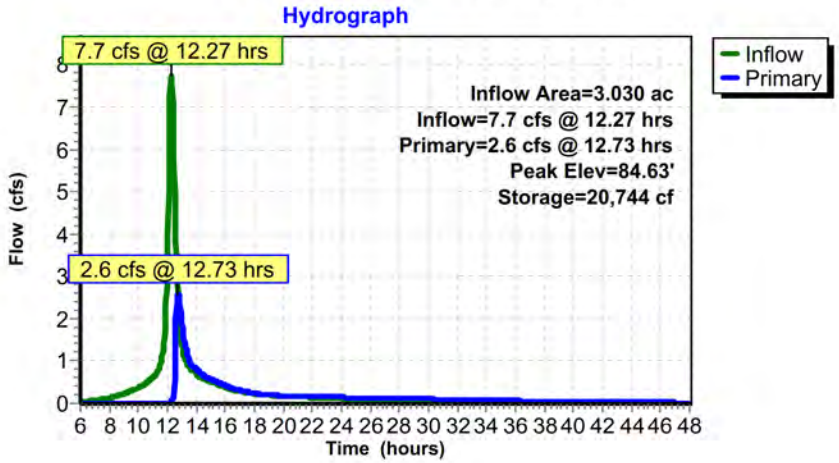
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	495	0	0
82.00	1,120	1,615	1,615
84.00	1,120	2,240	3,855

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	375	0	0
82.00	964	1,339	1,339
84.00	964	1,928	3,267

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	**15.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	84.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.5 cfs @ 12.73 hrs HW=84.63' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Weir Controls 2.4 cfs @ 1.19 fps)
└—**2=Orifice/Grate** (Orifice Controls 0.2 cfs @ 3.43 fps)

Pond POND: STORMWATER WETLAND



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX: EXISTING	Runoff Area=5.680 ac 23.06% Impervious Runoff Depth=2.02" Tc=20.00 min CN=86.46 Runoff=9.1 cfs 0.957 af
SubcatchmentPR: PROPOSED	Runoff Area=3.030 ac 65.35% Impervious Runoff Depth=2.49" Tc=20.00 min CN=91.76 Runoff=5.8 cfs 0.629 af
SubcatchmentWoods: Wooded	Runoff Area=2.650 ac 18.87% Impervious Runoff Depth=1.96" Tc=20.00 min CN=85.69 Runoff=4.1 cfs 0.433 af
Pond POND: STORMWATERWETLAND	Peak Elev=84.53' Storage=19,157 cf Inflow=5.8 cfs 0.629 af Outflow=0.5 cfs 0.338 af
Link FIN: Final	Inflow=4.1 cfs 0.771 af Primary=4.1 cfs 0.771 af

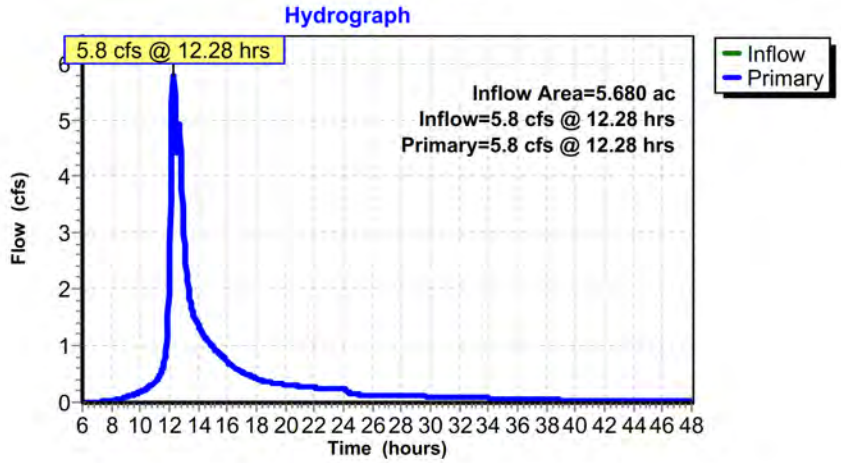
Total Runoff Area = 11.360 ac Runoff Volume = 2.018 af Average Runoff Depth = 2.13"
66.64% Pervious = 7.570 ac 33.36% Impervious = 3.790 ac

Summary for Link FIN: Final

Inflow Area = 5.680 ac, 43.66% Impervious, Inflow Depth > 2.45" for E-5 event
Inflow = 5.8 cfs @ 12.28 hrs, Volume= 1.161 af
Primary = 5.8 cfs @ 12.28 hrs, Volume= 1.161 af, Atten= 0%, Lag= 0.00 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link FIN: Final



Summary for Subcatchment EX: EXISTING

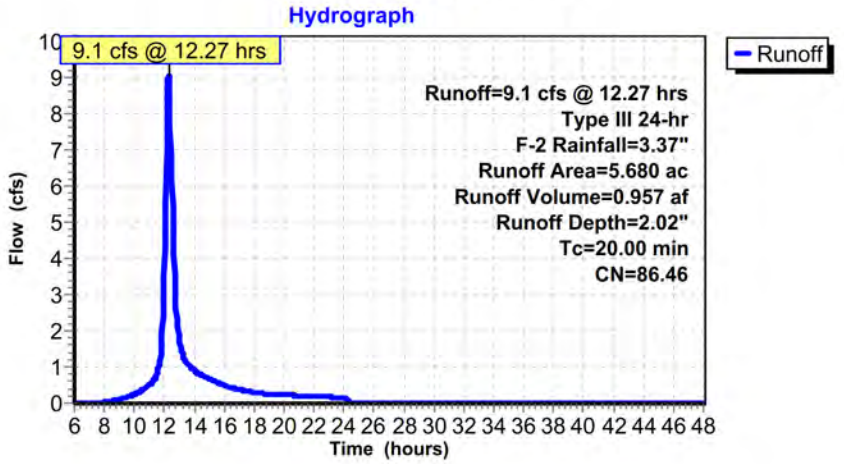
Runoff = 9.1 cfs @ 12.27 hrs, Volume= 0.957 af, Depth= 2.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr F-2 Rainfall=3.37"

	Area (ac)	CN	Description
*	0.150	98.00	Buildings
*	1.160	98.00	Roads / Walks
	4.370	83.00	Woods, Poor, HSG D
	5.680	86.46	Weighted Average
	4.370		76.94% Pervious Area
	1.310		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment EX: EXISTING



Summary for Subcatchment PR: PROPOSED

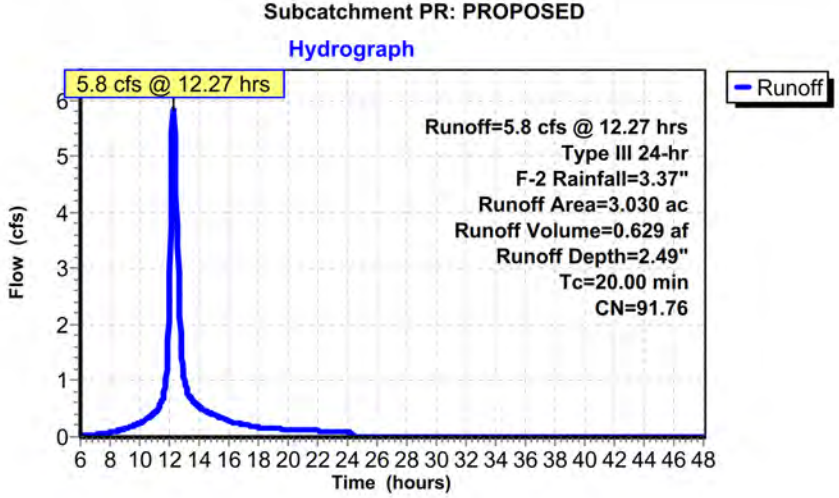
Runoff = 5.8 cfs @ 12.27 hrs, Volume= 0.629 af, Depth= 2.49"
Routed to Pond POND : STORMWATER WETLAND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr F-2 Rainfall=3.37"

	Area (ac)	CN	Description
*	0.570	98.00	Buildings
*	1.410	98.00	Roads - Walkways
	1.050	80.00	>75% Grass cover, Good, HSG D
	3.030	91.76	Weighted Average
	1.050		34.65% Pervious Area
	1.980		65.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment PR: PROPOSED



Summary for Subcatchment Woods: Wooded

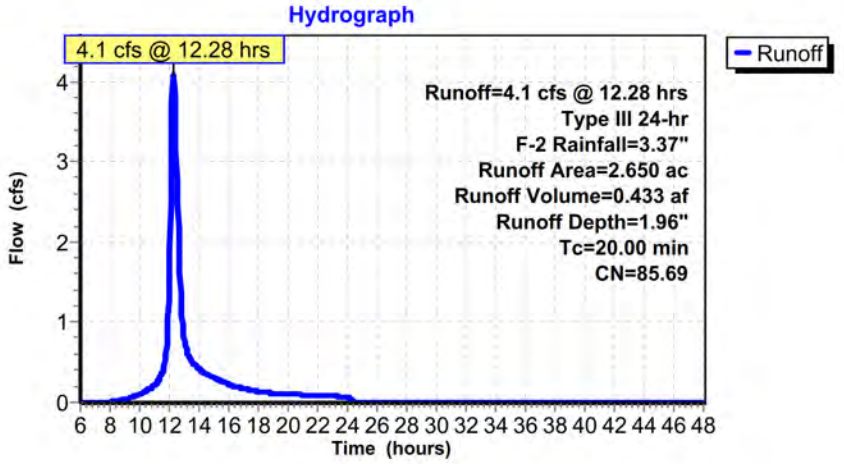
Runoff = 4.1 cfs @ 12.28 hrs, Volume= 0.433 af, Depth= 1.96"
Routed to Link FIN : Final

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr F-2 Rainfall=3.37"

	Area (ac)	CN	Description
	2.030	83.00	Woods, Poor, HSG D
*	0.030	98.00	Buildings
*	0.470	98.00	roads and Walks
	0.120	80.00	>75% Grass cover, Good, HSG D
	2.650	85.69	Weighted Average
	2.150		81.13% Pervious Area
	0.500		18.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment Woods: Wooded



Summary for Pond POND: STORMWATER WETLAND

Inflow Area = 3.030 ac, 65.35% Impervious, Inflow Depth = 2.49" for F-2 event
Inflow = 5.8 cfs @ 12.27 hrs, Volume= 0.629 af
Outflow = 0.5 cfs @ 14.22 hrs, Volume= 0.338 af, Atten= 92%, Lag= 117.31 min
Primary = 0.5 cfs @ 14.22 hrs, Volume= 0.338 af
Routed to Link FIN : Final

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 84.53' @ 14.22 hrs Surf.Area= 18,391 sf Storage= 19,157 cf

Plug-Flow detention time= 674.45 min calculated for 0.338 af (54% of inflow)
Center-of-Mass det. time= 566.43 min (1,376.46 - 810.03)

Volume	Invert	Avail.Storage	Storage Description
#1	84.00'	31,170 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	80.00'	4,215 cf	**pool 1 (Prismatic)** Listed below (Recalc)
#3	80.00'	3,855 cf	**pool 2 (Prismatic)** Listed below (Recalc)
#4	80.00'	3,267 cf	**Pool 3 (Prismatic)** Listed below (Recalc)
		42,507 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.00	14,514	0	0
86.00	16,656	31,170	31,170

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	534	0	0
82.00	1,227	1,761	1,761
84.00	1,227	2,454	4,215

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	495	0	0
82.00	1,120	1,615	1,615
84.00	1,120	2,240	3,855

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	375	0	0
82.00	964	1,339	1,339
84.00	964	1,928	3,267

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	**15.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	84.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

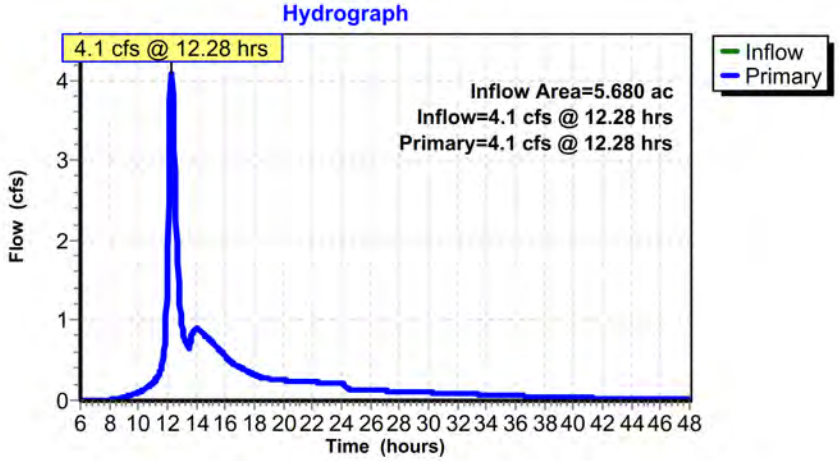
Primary OutFlow Max=0.4 cfs @ 14.22 hrs HW=84.53' (Free Discharge)
└**1=Sharp-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.55 fps)
└**2=Orifice/Grate** (Orifice Controls 0.2 cfs @ 3.06 fps)

Summary for Link FIN: Final

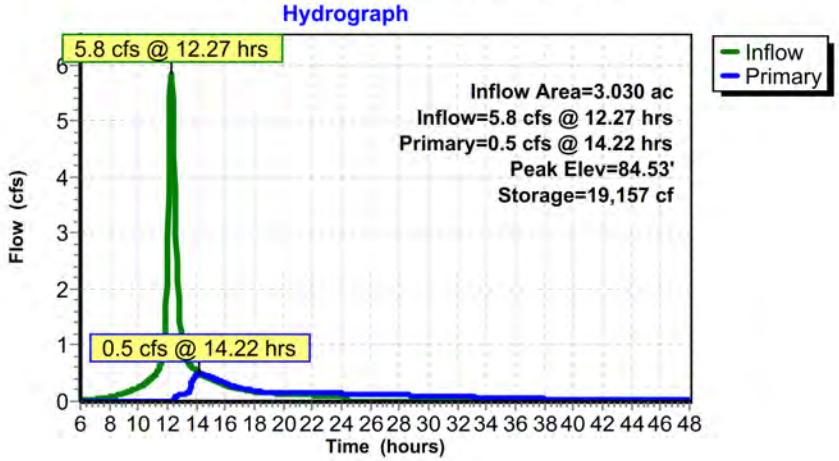
Inflow Area = 5.680 ac, 43.66% Impervious, Inflow Depth > 1.63" for F-2 event
Inflow = 4.1 cfs @ 12.28 hrs, Volume= 0.771 af
Primary = 4.1 cfs @ 12.28 hrs, Volume= 0.771 af, Atten= 0%, Lag= 0.00 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link FIN: Final



Pond POND: STORMWATER WETLAND



Summary for Subcatchment EX: EXISTING

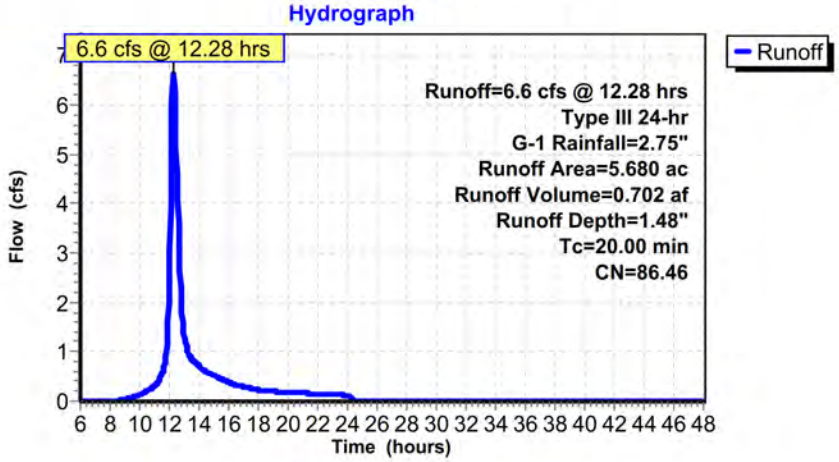
Runoff = 6.6 cfs @ 12.28 hrs, Volume= 0.702 af, Depth= 1.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr G-1 Rainfall=2.75"

	Area (ac)	CN	Description
*	0.150	98.00	Buildings
*	1.160	98.00	Roads / Walks
	4.370	83.00	Woods, Poor, HSG D
	5.680	86.46	Weighted Average
	4.370		76.94% Pervious Area
	1.310		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment EX: EXISTING



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX: EXISTING Runoff Area=5.680 ac 23.06% Impervious Runoff Depth=1.48"
Tc=20.00 min CN=86.46 Runoff=6.6 cfs 0.702 af

SubcatchmentPR: PROPOSED Runoff Area=3.030 ac 65.35% Impervious Runoff Depth=1.90"
Tc=20.00 min CN=91.76 Runoff=4.5 cfs 0.481 af

SubcatchmentWoods: Wooded Runoff Area=2.650 ac 18.87% Impervious Runoff Depth=1.43"
Tc=20.00 min CN=85.69 Runoff=3.0 cfs 0.315 af

Pond POND: STORMWATERWETLAND Peak Elev=84.38' Storage=16,982 cf Inflow=4.5 cfs 0.481 af
Outflow=0.1 cfs 0.195 af

Link FIN: Final Inflow=3.0 cfs 0.510 af
Primary=3.0 cfs 0.510 af

Total Runoff Area = 11.360 ac Runoff Volume = 1.499 af Average Runoff Depth = 1.58"
66.64% Pervious = 7.570 ac 33.36% Impervious = 3.790 ac

Summary for Subcatchment PR: PROPOSED

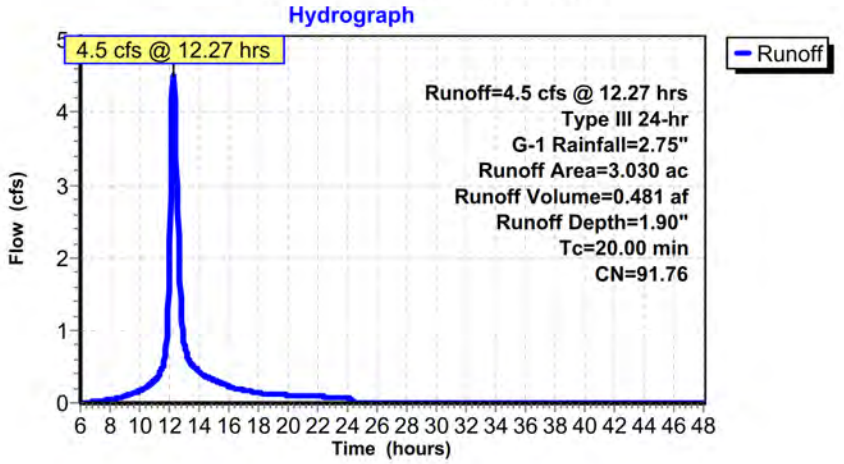
Runoff = 4.5 cfs @ 12.27 hrs, Volume= 0.481 af, Depth= 1.90"
Routed to Pond POND : STORMWATER WETLAND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr G-1 Rainfall=2.75"

	Area (ac)	CN	Description
*	0.570	98.00	Buildings
*	1.410	98.00	Roads - Walkways
	1.050	80.00	>75% Grass cover, Good, HSG D
	3.030	91.76	Weighted Average
	1.050		34.65% Pervious Area
	1.980		65.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment PR: PROPOSED



Summary for Subcatchment Woods: Wooded

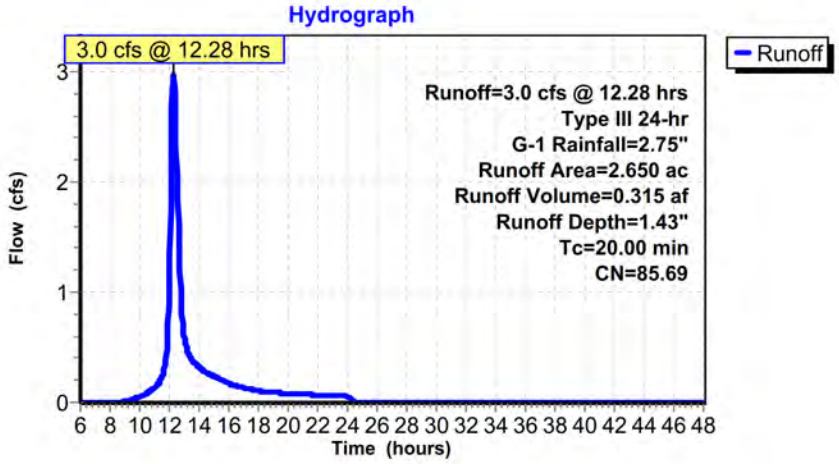
Runoff = 3.0 cfs @ 12.28 hrs, Volume= 0.315 af, Depth= 1.43"
Routed to Link FIN : Final

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr G-1 Rainfall=2.75"

	Area (ac)	CN	Description
	2.030	83.00	Woods, Poor, HSG D
*	0.030	98.00	Buildings
*	0.470	98.00	roads and Walks
	0.120	80.00	>75% Grass cover, Good, HSG D
	2.650	85.69	Weighted Average
	2.150		81.13% Pervious Area
	0.500		18.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment Woods: Wooded



Summary for Pond POND: STORMWATER WETLAND

Inflow Area = 3.030 ac, 65.35% Impervious, Inflow Depth = 1.90" for G-1 event
Inflow = 4.5 cfs @ 12.27 hrs, Volume= 0.481 af
Outflow = 0.1 cfs @ 18.68 hrs, Volume= 0.195 af, Atten= 97%, Lag= 384.74 min
Primary = 0.1 cfs @ 18.68 hrs, Volume= 0.195 af
Routed to Link FIN : Final

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 84.38' @ 18.68 hrs Surf.Area= 18,236 sf Storage= 16,982 cf

Plug-Flow detention time= 810.59 min calculated for 0.195 af (41% of inflow)
Center-of-Mass det. time= 687.62 min (1,505.15 - 817.53)

Volume	Invert	Avail.Storage	Storage Description
#1	84.00'	31,170 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	80.00'	4,215 cf	**pool 1 (Prismatic)** Listed below (Recalc)
#3	80.00'	3,855 cf	**pool 2 (Prismatic)** Listed below (Recalc)
#4	80.00'	3,267 cf	**Pool 3 (Prismatic)** Listed below (Recalc)
		42,507 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.00	14,514	0	0
86.00	16,656	31,170	31,170

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	534	0	0
82.00	1,227	1,761	1,761
84.00	1,227	2,454	4,215

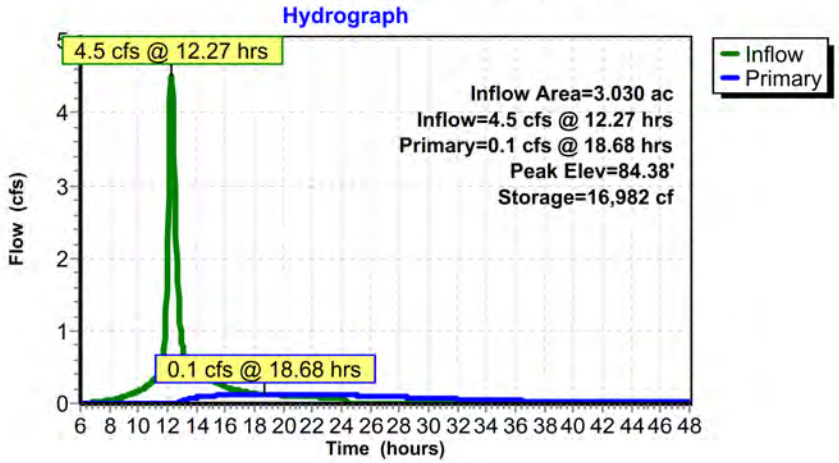
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	495	0	0
82.00	1,120	1,615	1,615
84.00	1,120	2,240	3,855

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	375	0	0
82.00	964	1,339	1,339
84.00	964	1,928	3,267

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	**15.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	84.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.1 cfs @ 18.68 hrs HW=84.38' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Controls 0.0 cfs)
└—**2=Orifice/Grate** (Orifice Controls 0.1 cfs @ 2.45 fps)

Pond POND: STORMWATER WETLAND



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX: EXISTING	Runoff Area=5.680 ac 23.06% Impervious Runoff Depth=0.51"	Tc=20.00 min CN=86.46 Runoff=2.2 cfs 0.242 af
SubcatchmentPR: PROPOSED	Runoff Area=3.030 ac 65.35% Impervious Runoff Depth=0.79"	Tc=20.00 min CN=91.76 Runoff=1.9 cfs 0.198 af
SubcatchmentWoods: Wooded	Runoff Area=2.650 ac 18.87% Impervious Runoff Depth=0.48"	Tc=20.00 min CN=85.69 Runoff=0.9 cfs 0.106 af
Pond POND: STORMWATERWETLAND	Peak Elev=83.19' Storage=8,644 cf Inflow=1.9 cfs 0.198 af	Outflow=0.0 cfs 0.000 af
Link FIN: Final	Inflow=0.9 cfs 0.106 af	Primary=0.9 cfs 0.106 af

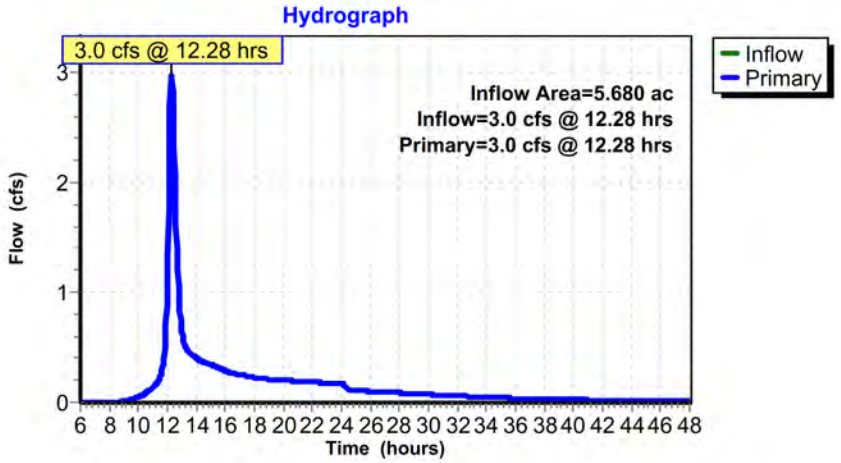
Total Runoff Area = 11.360 ac Runoff Volume = 0.546 af Average Runoff Depth = 0.58"
66.64% Pervious = 7.570 ac 33.36% Impervious = 3.790 ac

Summary for Link FIN: Final

Inflow Area = 5.680 ac, 43.66% Impervious, Inflow Depth > 1.08" for G-1 event
Inflow = 3.0 cfs @ 12.28 hrs, Volume= 0.510 af
Primary = 3.0 cfs @ 12.28 hrs, Volume= 0.510 af, Atten= 0%, Lag= 0.00 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link FIN: Final



Summary for Subcatchment EX: EXISTING

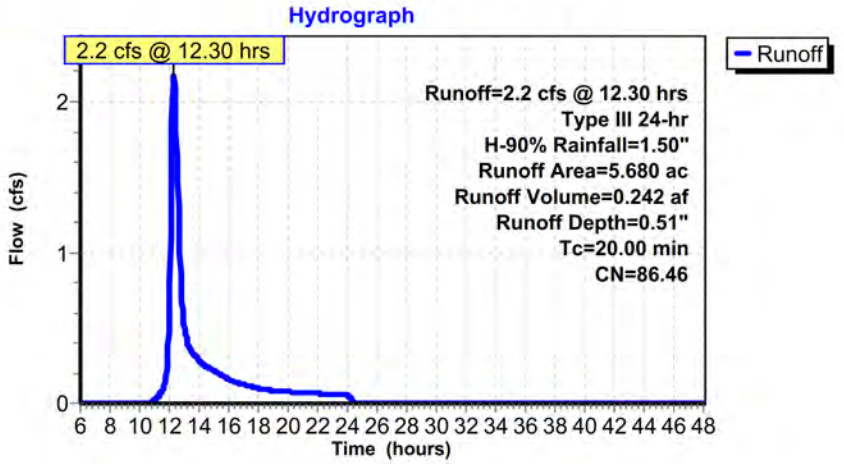
Runoff = 2.2 cfs @ 12.30 hrs, Volume= 0.242 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr H-90% Rainfall=1.50"

	Area (ac)	CN	Description
*	0.150	98.00	Buildings
*	1.160	98.00	Roads / Walks
	4.370	83.00	Woods, Poor, HSG D
	5.680	86.46	Weighted Average
	4.370		76.94% Pervious Area
	1.310		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment EX: EXISTING



Summary for Subcatchment PR: PROPOSED

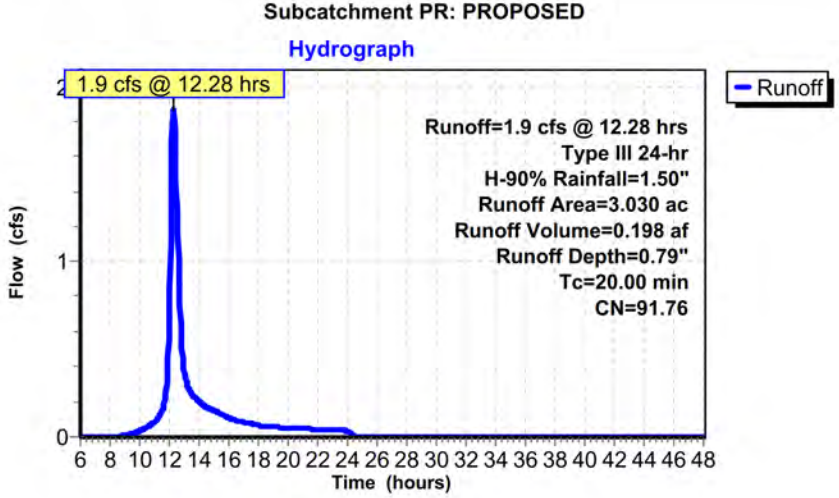
Runoff = 1.9 cfs @ 12.28 hrs, Volume= 0.198 af, Depth= 0.79"
Routed to Pond POND : STORMWATER WETLAND

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr H-90% Rainfall=1.50"

	Area (ac)	CN	Description
*	0.570	98.00	Buildings
*	1.410	98.00	Roads - Walkways
	1.050	80.00	>75% Grass cover, Good, HSG D
	3.030	91.76	Weighted Average
	1.050		34.65% Pervious Area
	1.980		65.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					Direct Entry,

Subcatchment PR: PROPOSED



Summary for Subcatchment Woods: Wooded

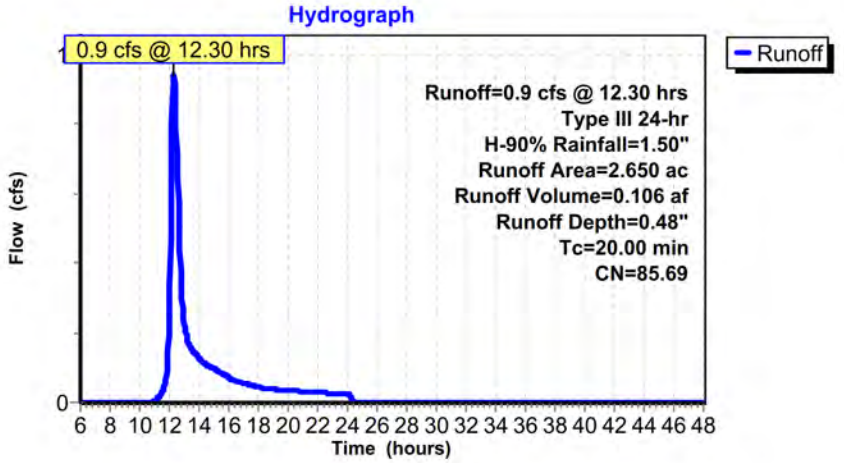
Runoff = 0.9 cfs @ 12.30 hrs, Volume= 0.106 af, Depth= 0.48"
Routed to Link FIN : Final

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr H-90% Rainfall=1.50"

	Area (ac)	CN	Description
	2.030	83.00	Woods, Poor, HSG D
*	0.030	98.00	Buildings
*	0.470	98.00	roads and Walks
	0.120	80.00	>75% Grass cover, Good, HSG D
	2.650	85.69	Weighted Average
	2.150		81.13% Pervious Area
	0.500		18.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.00					**Direct Entry,**

Subcatchment Woods: Wooded



Summary for Pond POND: STORMWATER WETLAND

Inflow Area = 3.030 ac, 65.35% Impervious, Inflow Depth = 0.79" for H-90% event
Inflow = 1.9 cfs @ 12.28 hrs, Volume= 0.198 af
Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.00 min
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link FIN : Final

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 83.19' @ 25.15 hrs Surf.Area= 3,311 sf Storage= 8,644 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	84.00'	31,170 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	80.00'	4,215 cf	**pool 1 (Prismatic)** Listed below (Recalc)
#3	80.00'	3,855 cf	**pool 2 (Prismatic)** Listed below (Recalc)
#4	80.00'	3,267 cf	**Pool 3 (Prismatic)** Listed below (Recalc)
		42,507 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.00	14,514	0	0
86.00	16,656	31,170	31,170

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	534	0	0
82.00	1,227	1,761	1,761
84.00	1,227	2,454	4,215

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	495	0	0
82.00	1,120	1,615	1,615
84.00	1,120	2,240	3,855

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	375	0	0
82.00	964	1,339	1,339
84.00	964	1,928	3,267

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	**15.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	84.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

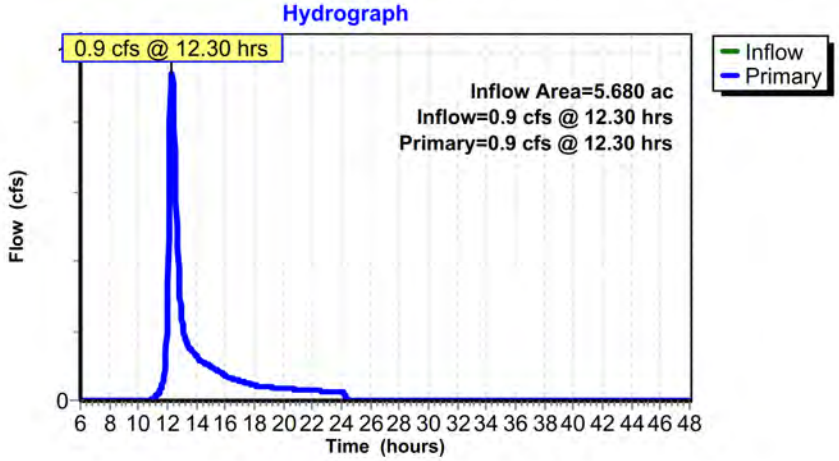
Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=80.00' (Free Discharge)
└**1=Sharp-Crested Rectangular Weir** (Controls 0.0 cfs)
└**2=Orifice/Grate** (Controls 0.0 cfs)

Summary for Link FIN: Final

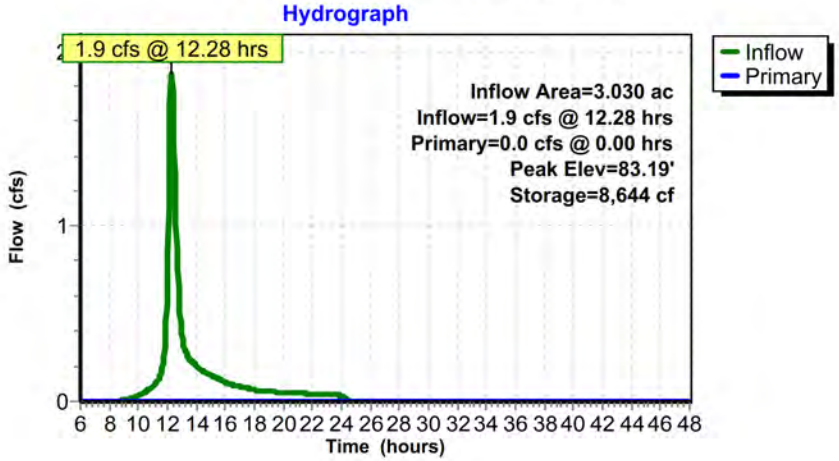
Inflow Area = 5.680 ac, 43.66% Impervious, Inflow Depth = 0.22" for H-90% event
Inflow = 0.9 cfs @ 12.30 hrs, Volume= 0.106 af
Primary = 0.9 cfs @ 12.30 hrs, Volume= 0.106 af, Atten= 0%, Lag= 0.00 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link FIN: Final



Pond POND: STORMWATER WETLAND



Events for Subcatchment EX: EXISTING

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
A-100	**9.24**	**32.5**	**3.595**	**7.59**
B-50	7.71	26.4	2.889	6.10
C-25	6.44	21.3	2.310	4.88
D-10	5.09	15.9	1.703	3.60
E-5	4.26	12.6	1.337	2.83
F-2	3.37	9.1	0.957	2.02
G-1	2.75	6.6	0.702	1.48
H-90%	1.50	2.2	0.242	0.51

Events for Subcatchment PR: PROPOSED

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
A-100	**9.24**	**18.2**	**2.081**	**8.24**
B-50	7.71	15.0	1.699	6.73
C-25	6.44	12.4	1.382	5.48
D-10	5.09	9.5	1.048	4.15
E-5	4.26	7.7	0.844	3.34
F-2	3.37	5.8	0.629	2.49
G-1	2.75	4.5	0.481	1.90
H-90%	1.50	1.9	0.198	0.79

Events for Subcatchment Woods: Wooded

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
A-100	**9.24**	**15.0**	**1.656**	**7.50**
B-50	7.71	12.2	1.328	6.01
C-25	6.44	9.8	1.059	4.79
D-10	5.09	7.3	0.777	3.52
E-5	4.26	5.7	0.608	2.75
F-2	3.37	4.1	0.433	1.96
G-1	2.75	3.0	0.315	1.43
H-90%	1.50	0.9	0.106	0.48

Events for Subcatchment PR: PROPOSED

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
A-100	**9.24**	**18.2**	**2.081**	**8.24**
B-50	7.71	15.0	1.699	6.73
C-25	6.44	12.4	1.382	5.48
D-10	5.09	9.5	1.048	4.15
E-5	4.26	7.7	0.844	3.34
F-2	3.37	5.8	0.629	2.49
G-1	2.75	4.5	0.481	1.90
H-90%	1.50	1.9	0.198	0.79

Events for Pond POND: STORMWATER WETLAND

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (cubic-feet)
A-100	**18.2**	**16.6**	**84.98**	**26,125**
B-50	15.0	13.4	84.92	25,101
C-25	12.4	10.0	84.84	23,945
D-10	9.5	5.5	84.73	22,173
E-5	7.7	2.6	84.63	20,744
F-2	5.8	0.5	84.53	19,157
G-1	4.5	0.1	84.38	16,982
H-90%	1.9	0.0	83.19	8,644

Events for Link FIN: Final

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
A-100	**31.0**	**31.0**	**0.00**
B-50	24.9	24.9	0.00
C-25	18.6	18.6	0.00
D-10	10.3	10.3	0.00
E-5	5.8	5.8	0.00
F-2	4.1	4.1	0.00
G-1	3.0	3.0	0.00
H-90%	0.9	0.9	0.00

SLOPE LEGEND

GREATER THAN 30%
TOTAL AREA: 0.294 AC.
TOTAL DISTURBED: 0.176 AC.

15% to 30%
TOTAL AREA: 0.500 AC.
TOTAL DISTURBED: 0.234 AC.

0 30 60
SCALE IN FEET

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

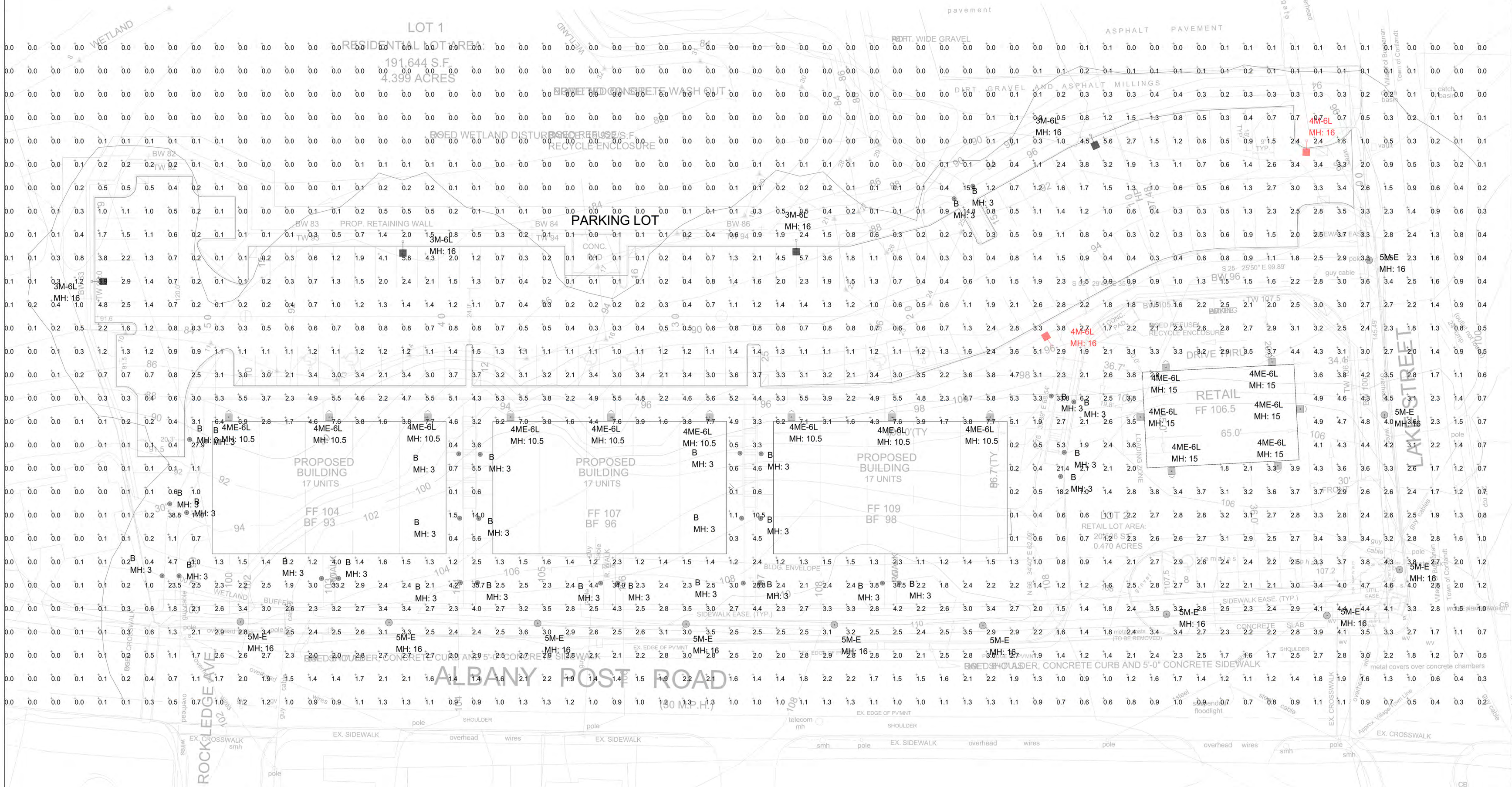
SLOPE MAP
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
AUGUST 2, 2023

Luminaire Schedule

Symbol	Qty	Label	Arrangement	LMF	Lum. Lumens	Lum. Watts	Part Number
○	4	3M-6L	SINGLE	1.000	6650	48	OSQM-B-6L-30K7-3M-UL-NM-__ w/OSQ-ML-B-DA-__
○	2	4M-6L	SINGLE	1.000	6650	48	OSQM-B-6L-30K7-4M-__-NM-__ + OSQ-ML-B-DA__
◇	15	4ME-6L	Single	1.000	6100	47	XSPW-B-WM-4ME-6L-30K-UL-__
○	11	5M-E	Single	1.000	10831	134	PT-AB50SRLED
○	30	B	Single	1.000	1613	22	PWY-EDG-2M-P3-02-E-_-_-_-350-30K

Calculation Summary (Footcandles calculated using initial lumen values @ 25°C)

Label	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts	Fc	1.61	38.8	0.0	N.A.	N.A.
PARKING LOT	Fc	1.32	5.9	0.1	13.20	59.00



1 L1.01 **Site Lighting Plan**

Scale: 1" = 20'-0"

JTA
JOSEPH THOMPSON ARCHITECT

Joseph G. Thompson Architect, PLLC
108 N Division Street, Suite 100
Peekskill, New York 10566

PH: (845) 532-8156
EM: joe@jthompsonarch.com

NOTES:

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT OR ENGINEER, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT OR ENGINEER IS ALTERED, THE ALTERING ARCHITECT OR ENGINEER SHALL AFFIX TO HIS ITEM THE SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN.

REGISTERED ARCHITECT
JOSEPH G. THOMPSON
036057
STATE OF NEW YORK

SEAL

Joseph G. Thompson, RA
New York State License #036057

Village Square - SITE LIGHTING PLAN

Carbone Brothers 3095, LLC (Owner)
3095 Albany Post Road
Buchanan, New York 10511
S.B.L: 43.20-2-6
Village of Buchanan - Westchester County

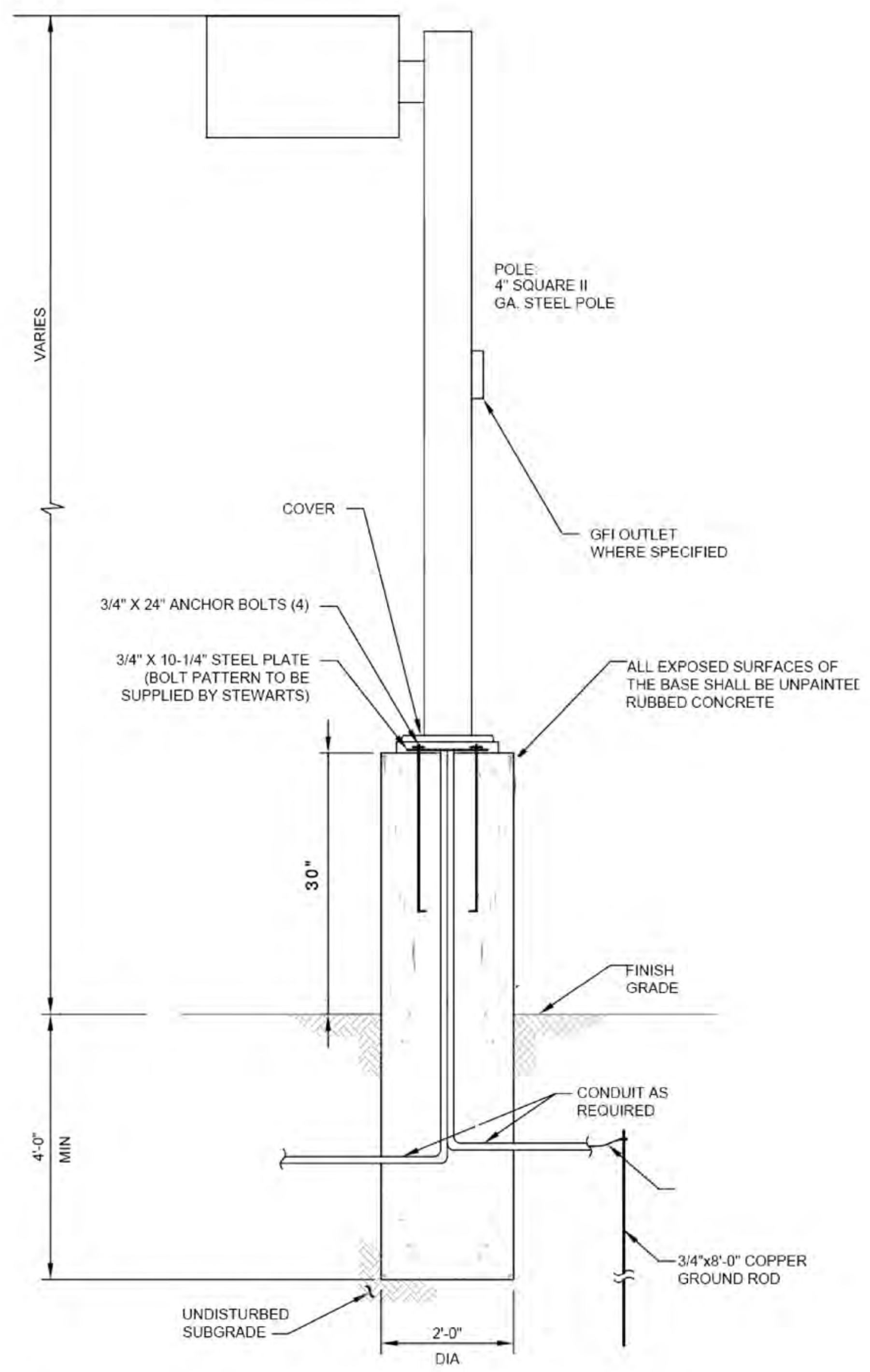
FOR PLANNING BOARD REVIEW AND APPROVAL

Date: November 22, 2022

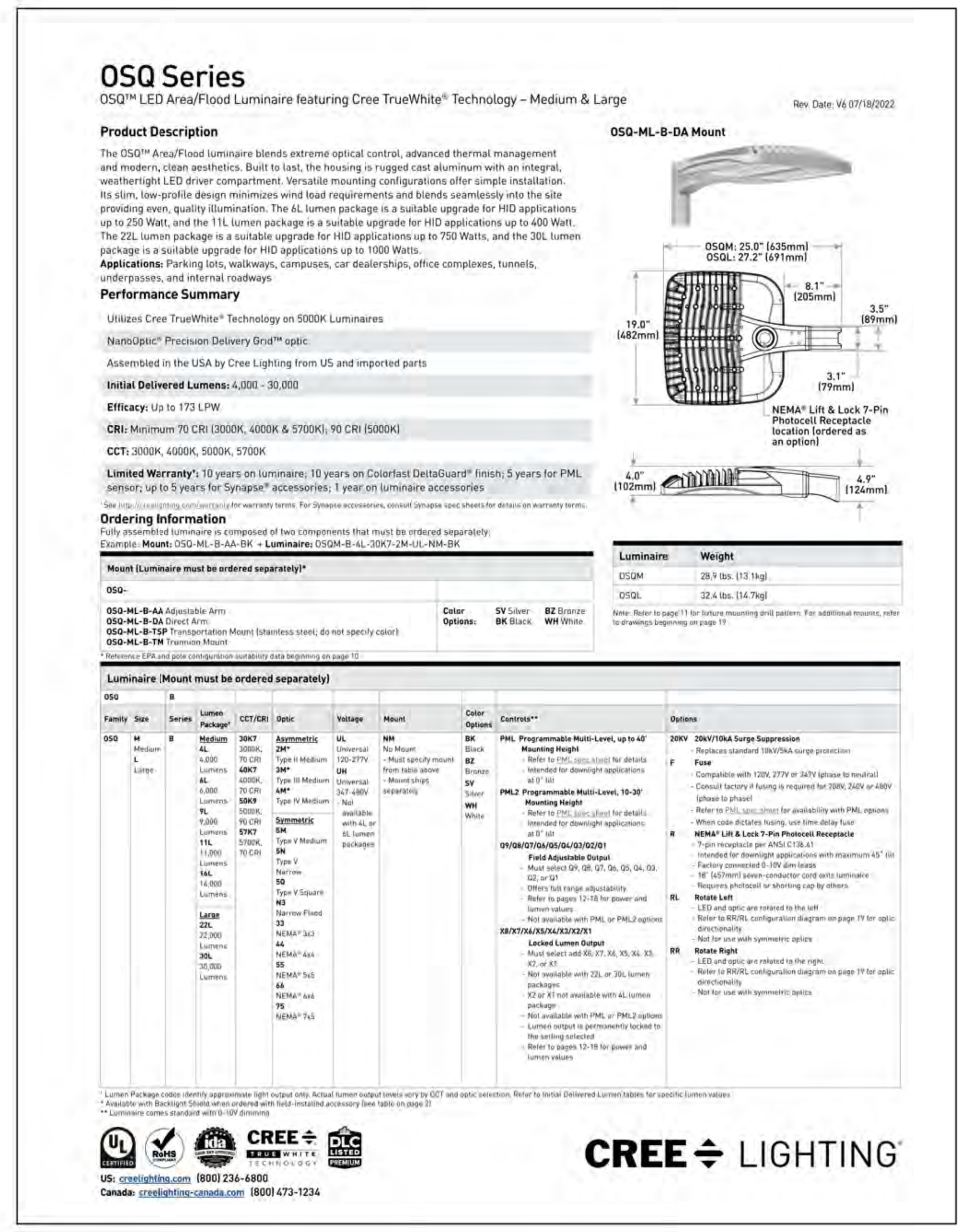
Revisions:

1	August 10, 2023
2	
3	
4	
5	

L1.01



1 L1.02 **New Typical Pole Light Fixture Detail**
Scale: N.T.S.



OSQ Series
OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Rev. Date: V6 07/18/2022

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 4L lumen package is a suitable upgrade for HID applications up to 250 Watt, and the 11L lumen package is a suitable upgrade for HID applications up to 400 Watt. The 22L lumen package is a suitable upgrade for HID applications up to 750 Watts, and the 30L lumen package is a suitable upgrade for HID applications up to 1000 Watts.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: 4,000 - 30,000

Efficacy: Up to 173 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty: 10 years on luminaire; 10 years on Colorfast DeltaGuard® finish; 5 years for PML sensor; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

OSQ-ML-B-DA Mount

Luminaire	Weight
OSQM	28.9 lbs. (13.1kg)
OSQL	32.4 lbs. (14.7kg)

CREE ⇕ LIGHTING

2 L1.02 **Pole Fixture Specification**
Scale: N.T.S.

SSS Series
Crown-Weld® Straight Square Steel Poles

Rev. Date: V8 07/11/2022

Product Description

Cree Lighting's proprietary Crown-Weld® pole base crown weld configuration was designed to minimize stress in areas most vulnerable to failure, provide superior strength and higher wind load ratings, than poles of similar height and cross-section. Both premium pole design and extended life finish combine for a 7-year limited warranty for a reduced lifetime cost of ownership.

Non-tapered square steel poles are supplied with a painted galvanized steel 2-piece base cover, four partially galvanized anchor bolts, Masonite mounting template and pole cap (except open top mount). Steel pole base has slotted holes to accommodate installation. A standard 3" x 5" hand hole is located 14" above the bottom of pole base on 4-6" poles. 3" poles have a 2-5/8" x 4-1/2" hand hole located 14" above the bottom of the base plate. A 1/2" stainless-steel weld stud with grounding lug is located inside the pole, opposite the hand hole.

Cree Lighting poles are steel shot cleaned to remove any rust, mill scale, oxides, or other unwanted particles from the pole resulting in a surface preparation that exceeds the specifications published by the SSPC-SP10. Iron phosphate is then applied, creating an iron oxide base with a flat or amorphous metal phosphate topcoat. This coating significantly adds to the performance of the finished coating by improving bonding and minimizing the spread of oxidation if the coating is scratched, improving corrosion resistance. Polyester powder coating is applied to a 6-mil thickness.

CONSTRUCTION & MATERIALS
- Square, non tapered pole of structural steel tubing (ASTM A 500 Grade B) with a minimum yield strength of 50,000 p.s.i. (4-6" poles) or 46,000 p.s.i. (3" poles) welded to a formed carbon steel base plate (ASTM A-36 HR5) with a minimum yield strength of 36,000 p.s.i.
- Anchor bolts (F1554 Grade 55) are "L" bent bars having a minimum yield strength of 55,000 p.s.i. The bolts are at least partially galvanized per ASTM A153 specifications and furnished complete with two (2) hex nuts and 2 flat washers
- Base cover is 2 pc.16 ga. painted galvannealed steel which connects with two 410 stainless steel screws included
- Pole cap is painted PVC
- Optional GFI receptacle available. Refer to page 3 for details

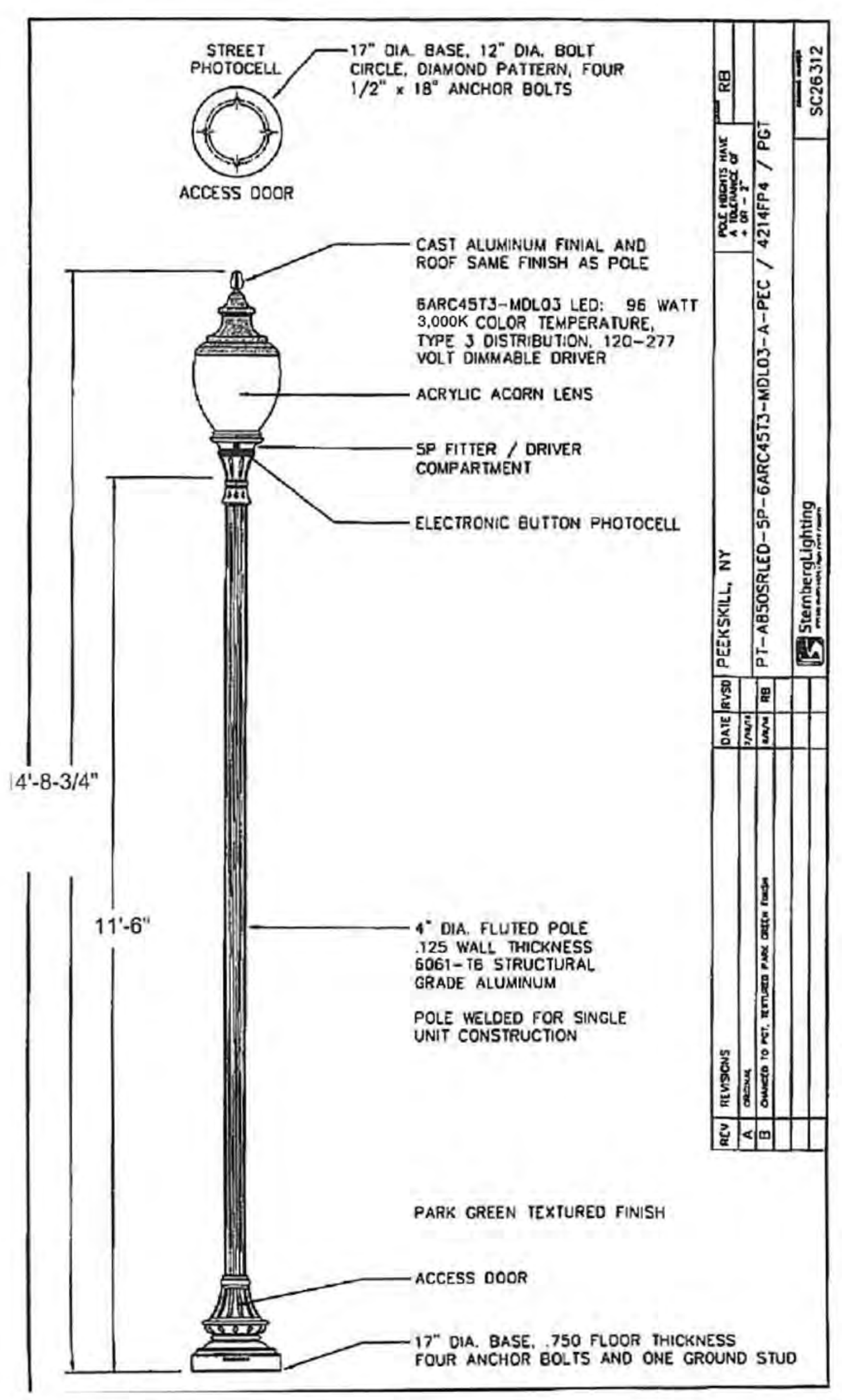
REGULATORY & VOLUNTARY QUALIFICATIONS
- National Electrical Code Requirements
- UL Listed in US for electrical ground bonding
- CSA Certified in Canada for ground bonding and structural strength
- RoHS Compliant (consult factory for details)

LIMITED WARRANTY*
- 7 years on pole and tenons/7 years on finish /1 year on GFI receptacle

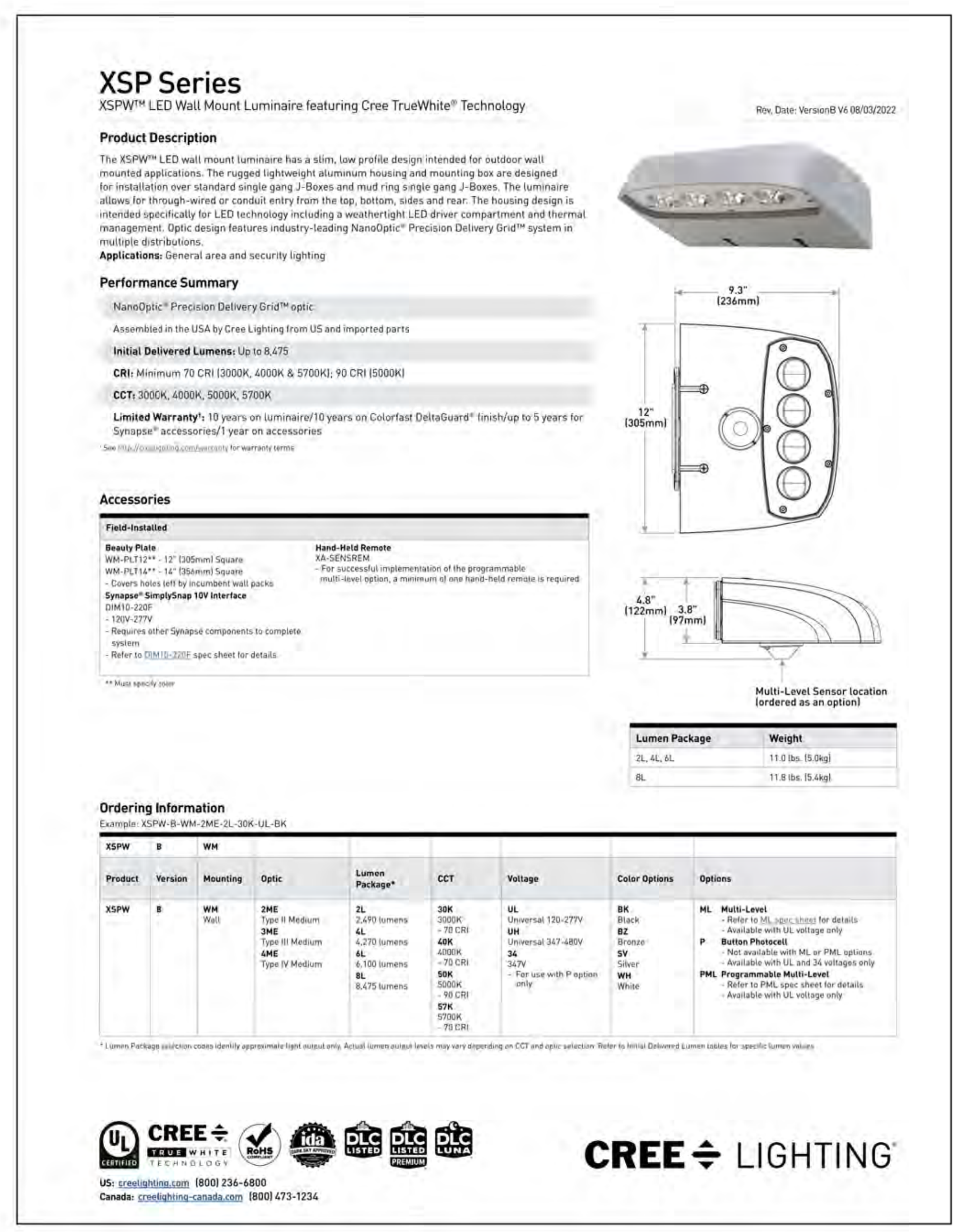
Crown-Weld Base
(shown on 3" square pole)

CREE ⇕ LIGHTING

3 L1.02 **Pole Specification**
Scale: N.T.S.



4 L1.02 **New Typical Street Lamp Detail**
Scale: N.T.S.



XSP Series
XSPW™ LED Wall Mount Luminaire featuring Cree TrueWhite® Technology

Rev. Date: VersionB V6 08/03/2022

Product Description

The XSPW™ LED wall mount luminaire has a slim, low profile design intended for outdoor wall mounted applications. The rugged lightweight aluminum housing and mounting box are designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes. The luminaire allows for through-wired or conduit entry from the top, bottom, sides and rear. The housing design is intended specifically for LED technology including a weathertight LED driver compartment and thermal management. Optic design features industry-leading NanoOptic® Precision Delivery Grid™ system in multiple distributions.
Applications: General area and security lighting

Performance Summary

NanoOptic® Precision Delivery Grid™ optic

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 8,475

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

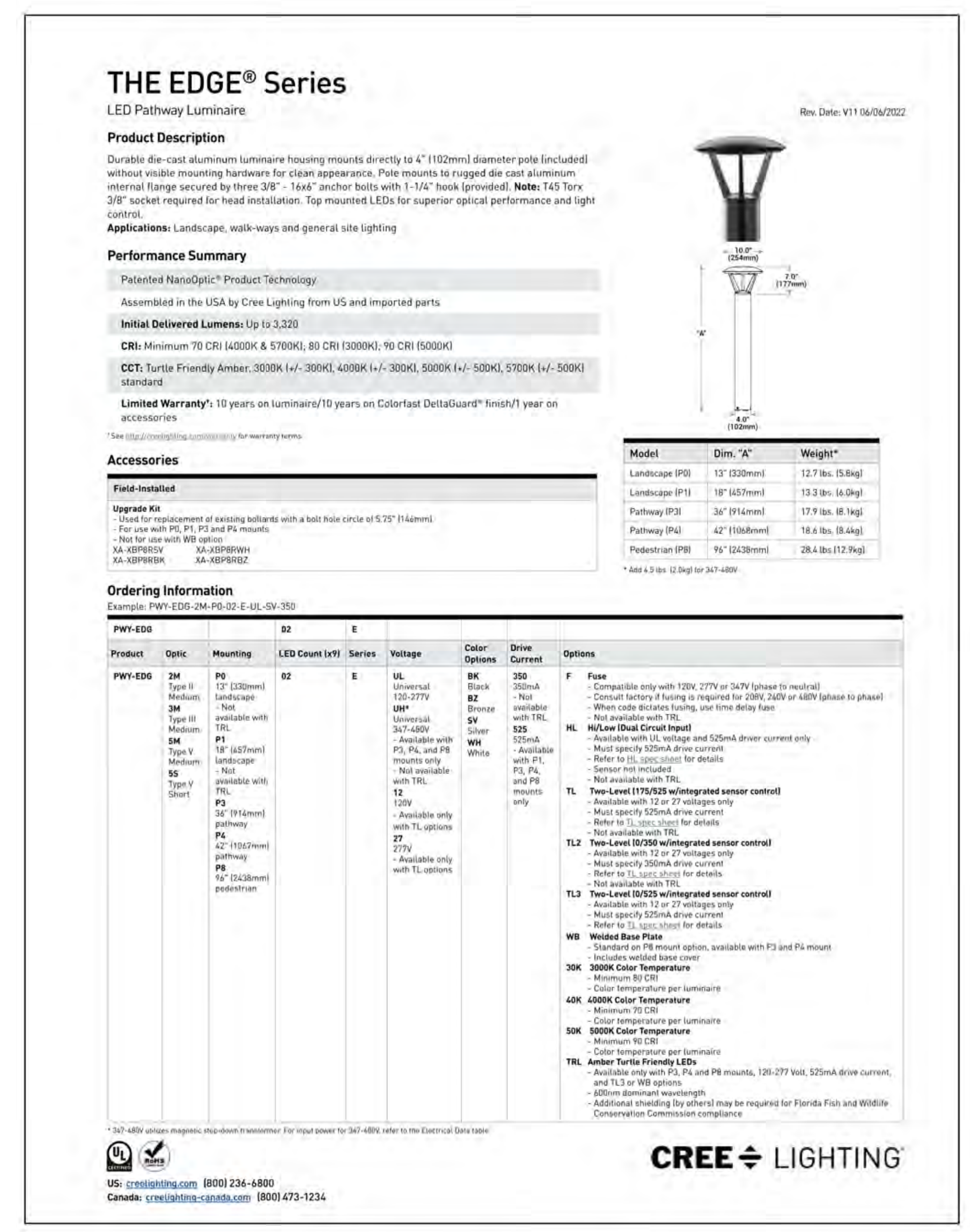
Limited Warranty: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/up to 5 years for Synapse® accessories/1 year on accessories

Multi-Level Sensor location (ordered as an option)

Lumen Package	Weight
2L, 4L, 6L	11.0 lbs. (5.0kg)
8L	11.8 lbs. (5.4kg)

CREE ⇕ LIGHTING

5 L1.02 **Wall Mounted Fixture Specification**
Scale: N.T.S.



THE EDGE® Series
LED Pathway Luminaire

Rev. Date: V11 06/06/2022

Product Description

Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance. Pole mounts to rugged die cast aluminum internal flange secured by three 3/8" - 16x6" anchor bolts with 1-1/4" hook (provided). **Note:** T45 Torx 3/8" socket required for head installation. Top mounted LEDs for superior optical performance and light control.
Applications: Landscape, walk-ways and general site lighting

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 3,320

CRI: Minimum 70 CRI (4000K & 5700K); 80 CRI (3000K); 90 CRI (5000K)

CCT: Turtle Friendly Amber, 3000K (+/- 300K), 4000K (+/- 300K), 5000K (+/- 500K), 5700K (+/- 500K) standard

Limited Warranty: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/1 year on accessories

Model	Dim. "A"	Weight*
Landscape (P0)	13" (330mm)	12.7 lbs. (5.8kg)
Landscape (P1)	18" (457mm)	13.3 lbs. (6.0kg)
Pathway (P3)	36" (914mm)	17.9 lbs. (8.1kg)
Pathway (P4)	42" (1068mm)	18.6 lbs. (8.4kg)
Pedestrian (P8)	96" (2438mm)	28.4 lbs. (12.9kg)

CREE ⇕ LIGHTING

6 L1.02 **Bollard Fixture Specification**
Scale: N.T.S.

JTA
JOSEPH THOMPSON
ARCHITECT

Joseph G. Thompson Architect, PLLC
108 N Division Street, Suite 100
Peekskill, New York 10566
PH: (845) 532-8156
EM: joe@jthompsonarch.com

NOTES:

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT OR ENGINEER, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT OR ENGINEER IS ALTERED, THE ALTERING ARCHITECT OR ENGINEER SHALL AFFIX TO HIS ITEM THE SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN.

REGISTERED ARCHITECT · JOSEPH G. THOMPSON · 036057 · STATE OF NEW YORK

SEAL
Joseph G. Thompson, RA
New York State License #036057

Village Square - SITE LIGHTING DETAILS

Carbone Brothers 3095, LLC (Owner)
3095 Albany Post Road
Buchanan, New York 10511
S-B-L: 43.20-2-6
Village of Buchanan - Westchester County

FOR PLANNING BOARD REVIEW AND APPROVAL

Date: November 22, 2022

Revisions:
1. August 10, 2023
2.
3.
4.
5.

L1.02

1 / C1.01 **Landscaping Plan**

Scale: 1" = 20'-0"

Planting Table - Village Square, Buchanan, NY - Zone 4						
Genius Specie	Common Name	Size	Key	Quantity	Notes	Zone
Hosta Liliaceae	Purple Heart Hosta	18"	PH	36	Blue Purple Flowers	4-9
Rhododendron spp.	Azalea	48"	AZ	79	Pinkish Purple Flowers	4-8
Phlox subulata	Creeping Phlox	24"	CP	5	Pink Flower Groundcover	3-10
Buxus Sinica var insularis	Wintergreen Boxwood	36"	WB	105	Potted and trimmed for spiral topiary	4-9
Thuja occidentalis	Emerald green arborvitae	5'-6' Planting Size	AB	42	Evergreen, moderate growth rate	2-7
Cornus florida f. rubra	Pink Dogwood	8'-10' Planting Size	PD	15	Flowering Deciduous Tree	5-9

JTA
JOSEPH THOMPSON ARCHITECT

Joseph G. Thompson Architect, PLLC
108 N Division Street, Suite 100
Peekskill, New York 10566

PH: (845) 532-8156
EM: joe@jthompsonarch.com

REGISTERED ARCHITECT JOSEPH G. THOMPSON 036057 STATE OF NEW YORK

SEAL

Joseph G. Thompson, RA
New York State License #036057

Village Square - LANDSCAPING PLAN

Carbone Brothers 3095, LLC (Owner)
3095 Albany Post Road
Buchanan, New York 10511
S/B/L: 43.20-2-6
Village of Buchanan - Westchester County

FOR PLANNING BOARD REVIEW AND APPROVAL

Date: November 22, 2022

Revisions:

1 August 10, 2023
2
3
4
5

C1.01

1 / C1.02 Enlarged Typical Residential Unit and Commercial Space Site Landscaping Plan

Scale: 1" = 10'-0"

Planting Table - Village Square, Buchanan, NY - Zone 4						
Genius Specie	Common Name	Size	Key	Quantity	Notes	Zone
Hosta Liliaceae	Purple Heart Hosta	18"	PH	36	Blue Purple Flowers	4-9
Rhododendron spp.	Azalea	48"	AZ	79	Pinkish Purple Flowers	4-8
Phlox subulata	Creeping Phlox	24"	CP	5	Pink Flower Groundcover	3-10
Buxus Sinica var insularis	Wintergreen Boxwood	36"	WB	105	Potted and trimmed for spiral topiary	4-9
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Cornus florida f. rubra	Pink Dogwood	8'-10' Planting Size	PD	15	Flowering Deciduous Tree	5-9

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JOSEPH THOMPSON ARCHITECT

Joseph G. Thompson Architect, PLLC
108 N Division Street, Suite 100
Peekskill, New York 10566

PH: (845)532-8156
EM: joe@jthompsonarch.com

REGISTERED ARCHITECT
JOSEPH G. THOMPSON
036057
STATE OF NEW YORK

SEAL
Joseph G. Thompson, RA
New York State License #036057

Village Square - ENLARGED LANDSCAPING PLAN

Carbone Brothers 3095, LLC (Owner)
3095 Albany Post Road
Buchanan, New York 10511
S-B-L: 43.20-2-6
Village of Buchanan - Westchester County

FOR PLANNING BOARD REVIEW AND APPROVAL

Date: November 22, 2022

Revisions:
1 August 10, 2023
2
3
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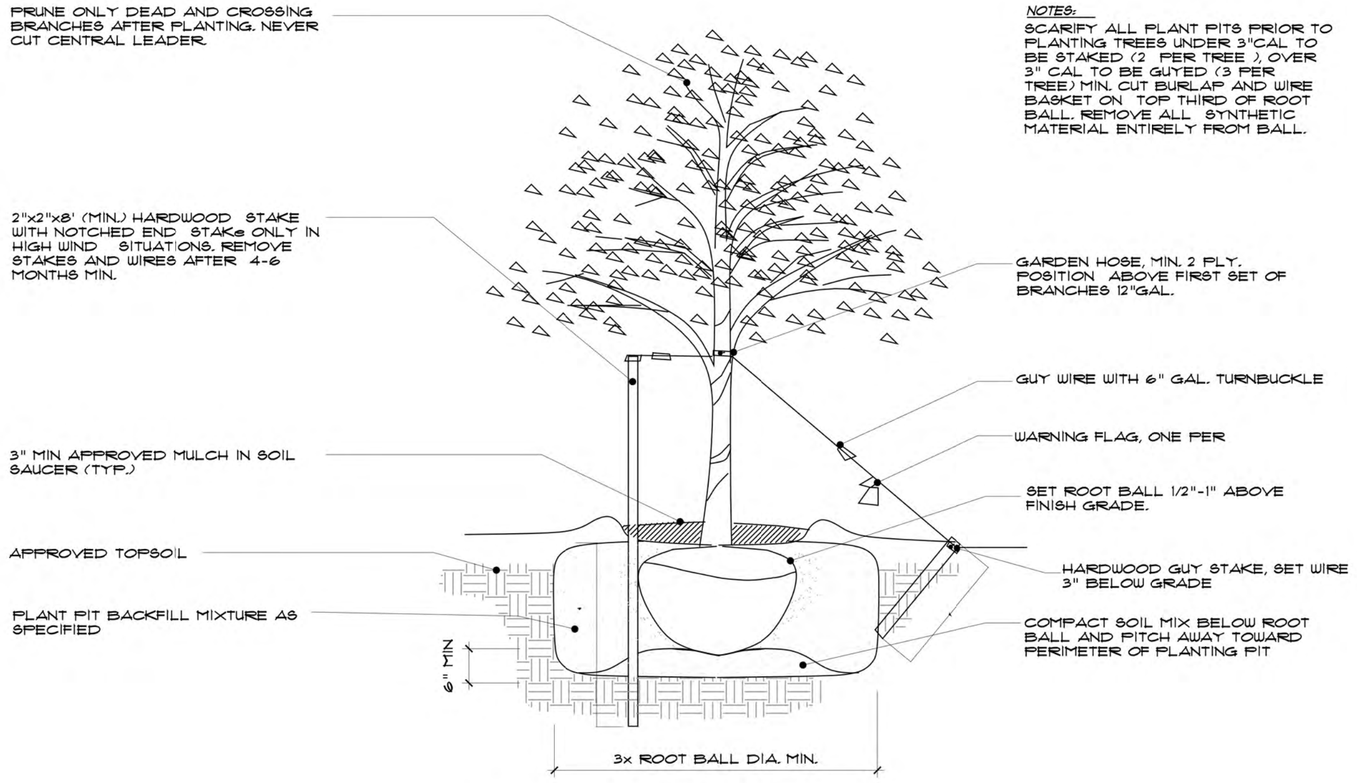
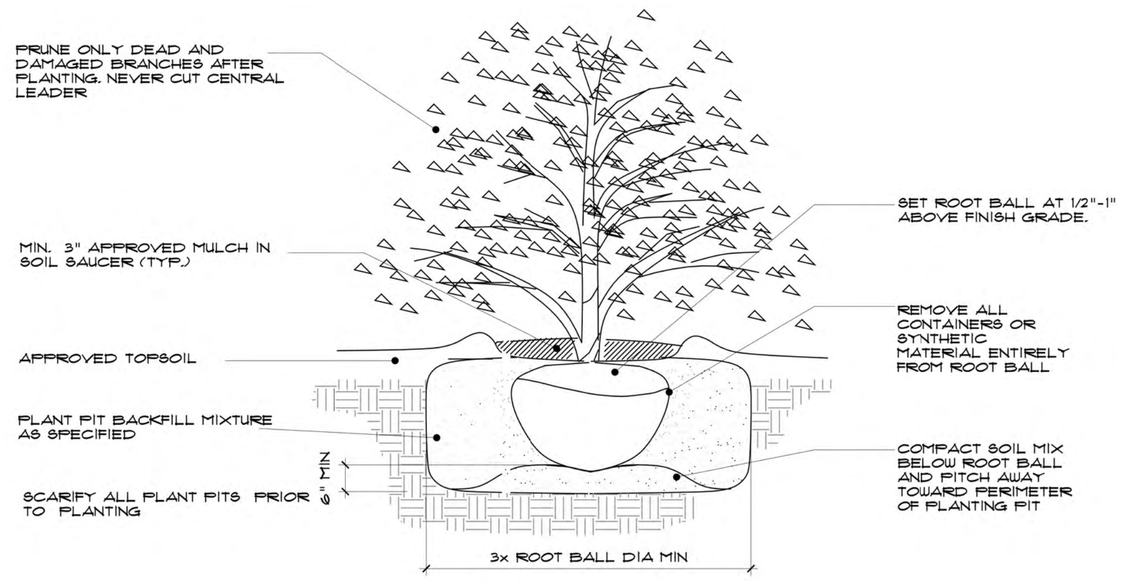
5
6

C1.02



1 C1.03 TREE PLANTING DETAIL

SCALE: N.T.S.

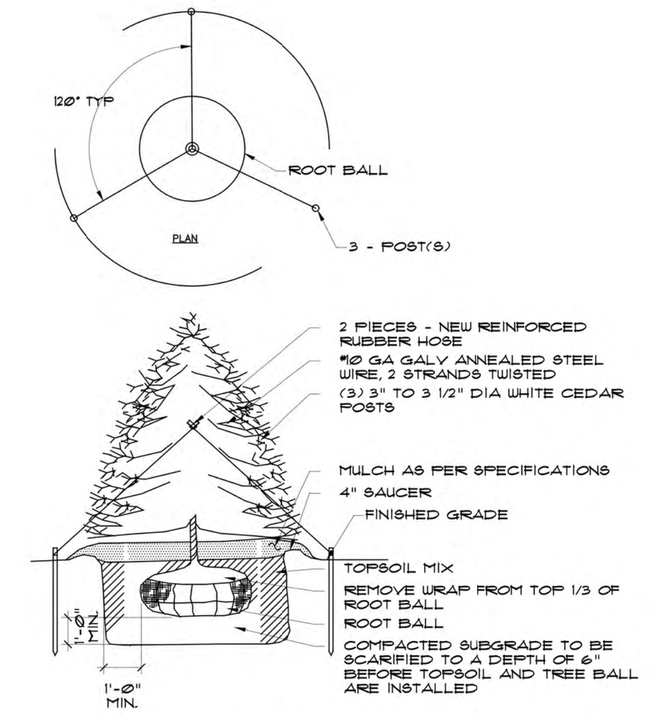


2 C1.03 SHRUB PLANTING DETAIL

SCALE: N.T.S.

PLANTING NOTES

1. TOP SOIL DEPTHS FOR BEDS: 4"± FOR LAWN AND GROUND COVER AREAS: 2" MIN.
2. CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO WORK.
3. PRIOR TO PLANTING, CONTRACTOR SHALL FIELD MODIFY LANDSCAPING SO THAT NO TREE IS WITHIN 10 FEET OF A WATER LINE, SANITARY SEWER LINE, OR A STORM DRAINAGE LINE.
4. CONTRACTOR SHALL FIELD MODIFY LANDSCAPING SO AS TO NOT CONFLICT WITH SITE LIGHTING.
5. ALL PLANTS MUST BE BALL & BURLAPPED OR POTTED.
6. ALL PLANTS MUST MEET AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARDS.
7. ALL SEEDED AREAS SHALL BE COVERED WITH STRAW AND WATERED FOR A MINIMUM OF TWO WEEKS.
8. ALL PLANT BEDS SHALL BE SLIGHTLY MOUNDED.



3 C1.03 CONIFER PLANTING DETAIL

SCALE: N.T.S.

1 C1.01 Landscaping Renderings

Scale: 1" = 20'-0"

JTA
JOSEPH THOMPSON ARCHITECT

Joseph G. Thompson Architect, PLLC
108 N Division Street, Suite 100
Peekskill, New York 10566

PH: (845)532-8156
EM: joe@jthompsonarch.com

REGISTERED ARCHITECT JOSEPH G. THOMPSON 036057 STATE OF NEW YORK

SEAL

Joseph G. Thompson, RA
New York State License #036057

Village Square - LANDSCAPING DETAILS

Carbone Brothers 3095, LLC (Owner)
3095 Albany Post Road
Buchanan, New York 10511
S-B-L: 43.20-2-6
Village of Buchanan - Westchester County

FOR PLANNING BOARD REVIEW AND APPROVAL

Date: November 22, 2022

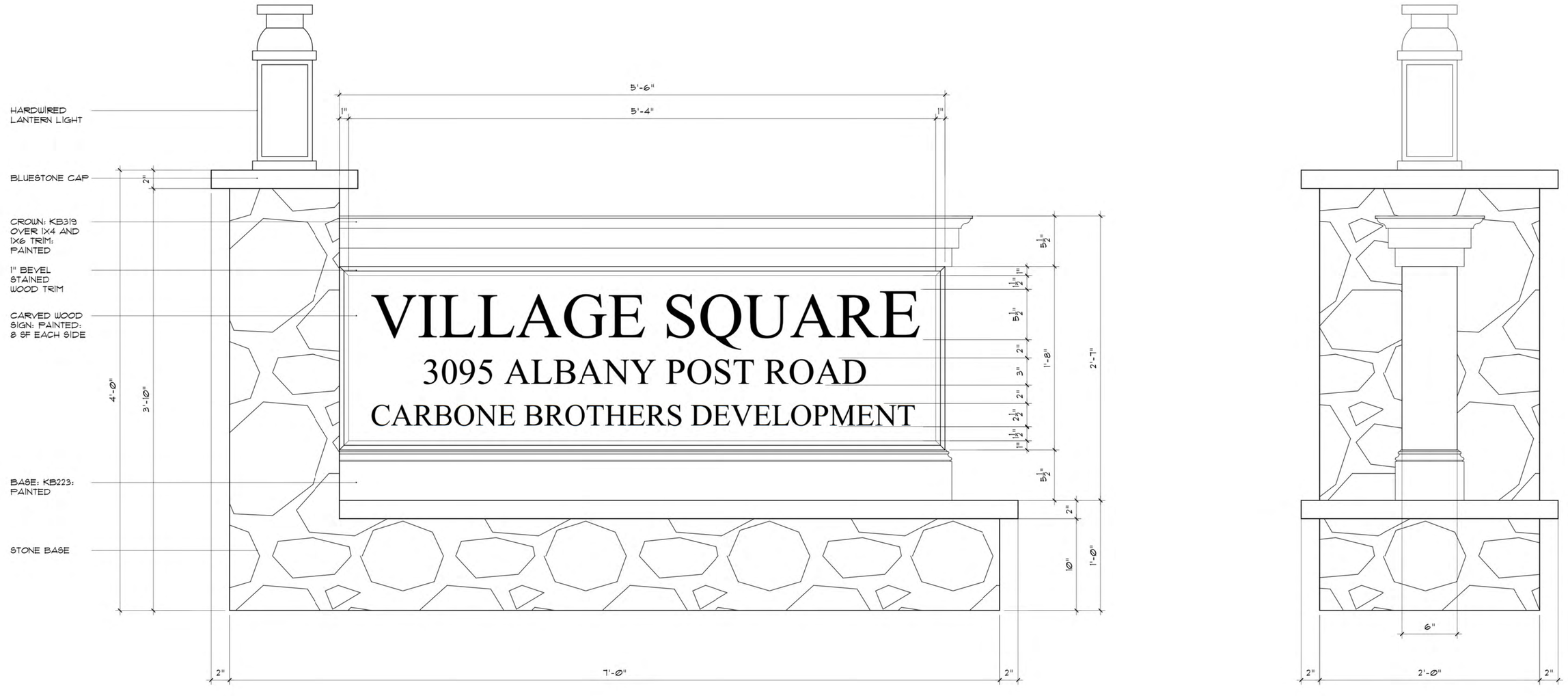
Revisions:

1	August 10, 2023
2	
3	
4	
5	

C1.03

1 / A5.01 Monument Sign Renderings

Scale: NTS



2 / A5.01 Monument Sign Detail Elevations (8 SF Each Side)

Scale: 1-1/2" = 1'-0"

JTA
JOSEPH THOMPSON ARCHITECT

Joseph G. Thompsn Architect, PLLC
108 N Division Street, Suite 100
Peekskill, New York 10566

PH: (845) 532-8156
EM: joe@jthompsonarch.com

NOTES:

REGISTERED ARCHITECT
JOSEPH G. THOMPSON
036057
STATE OF NEW YORK

SEAL

Joseph G. Thompson, RA
New York State License #036057

Village Square - MONUMENT SIGN

Carbone Brothers 3095, LLC (Owner)
3095 Albany Post Road
Buchanan, New York 10511
S.B.L: 43.20-2-6
Village of Buchanan - Westchester County

FOR PLANNING BOARD REVIEW AND APPROVAL

Date: November 22, 2022

Revisions:
1 August 10, 2023
2
3
4
5

A5.01

Plant Species Choices for Mitigation Area

Map Symbol	Quantity	Scientific Name	Common Name	Size
Trees				
Aru	10	Acer rubrum	Red Maple	5' - 6' (15 gal)
LS	2	Liquidambar styraciflua	Sweetgum	5' - 6' (15 gal)
NS	5	Nyssa sylvatica	Tupelo	5' - 6' (15 gal)
PG	8	Picea glauca	White spruce	8' - 10'
Shrubs				
CSe	20	Cornus sericea	Redosier dogwood	3' - 4' (5 gal)
SD	21	Clethra alnifolia	Summersweet	3' - 4' (5 gal)
VD	15	Viburnum dentatum	Arrowwood	4' - 5' (5 gal)
IV	7	Ilex verticillata	Winterberry holly	3' - 4' (5 gal)
AA	10	Aronia arbutifolia	Red chokeberry	3' - 4' (5 gal)
Seed Mix				
SWM	5 pounds	Special Wetland Mix (ERNMX-137 or equiv.)	species list attached	

Wetland and Buffer Enhancement Notes
Carbone, Route 9A and Lake Street
Buchanan, NY
November 2, 2022

Notes:

1. Nuisance and non-native vegetation will be removed, including phragmites, multi-floral rose, Japanese knotweed, porcelainberry and wisteria.
2. Transitional area seed mix will be used as specified to supplement plantings at a rate of 4 pounds per acre. Four pounds of seed will be used for this site.
3. The area chosen for the wetland expansion and buffer enhancement is the former paved parking lot in the eastern end of the site. NRCS mapping shows Leicester soils (a hydric soil type) in this area beneath the asphalt, which is appropriate for wetland construction. The existing asphalt will be removed and either used as fill in the proposed development area or removed off site. The use of seed, shrubs and trees is intended to add additional filtering of overland runoff, diversity of native vegetation and create a vegetated boundary between the wetland and human activity.
4. A total of 83 shrubs and 25 trees will be planted as per the plant list attached. Evergreens will be used along the southeastern property line to buffer between the existing school bus garage and the new wetland area.
5. Stormwater infiltration practices will be installed to capture and retreat roof runoff from the proposed dwelling.

Planting Details

Plant choices for the wetland expansion were made according to existing site conditions and locally common species.

All planting will proceed by hand. Materials will be brought to the site in good condition (see below) and then placed in central drop locations. The materials will then be hand-carried to their planting locations and in turn, planted by hand. Only rounded, shallow planting shovels will be used in this effort. All plant materials will be in containers.

Criteria for selecting plant material will include (1) the plant's ability to withstand the expected light and saturation conditions; (2) its demonstrated survival on this site and other nearby sites; (3) the plant must be native and non-invasive; and (4) whether the plant material is available at nurseries in the same region as the site. See the planting plan for complete plant species list. Seed mix was chosen based on the species' ability to survive in moist areas adjacent to the road with some sun.

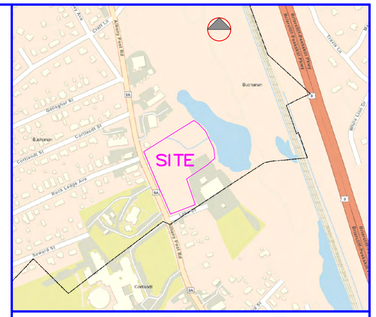
Planting will be done in spring or early summer (between April 1 and July 1). Shrubs may also be planted in the late summer to early fall (September 1 to October 30). In all cases, a hole will be dug twice as deep as the root ball. The only shovels allowed are rounded, shallow spades. The hole will then be backfilled with a thin layer of rich, organic topsoil, the plant placed inside, the hole backfield to the top and then gently tamped down.

Container-grown plant material delivered to the job site will be inspected to assure moist soil/root masses. Any dry and light weight plants will not be accepted. If not planted immediately the container will be stored out of the sun and wind and kept moist (i.e., a means of watering will be provided and watering will occur daily). When removed from the containers, the plants will be the size of the specified container. If in leaf, the plants will appear healthy with no spots, leaf damage, discoloration, insects or fungus. If not in leaf, the buds will be firm and free of damage, discoloration, insects or fungus. Containers will be a minimum of quart size for shrubs and gallon size for trees.

Bare roots plants will be shipped from the nursery immediately after lifting from the field and will be planted immediately upon arrival at the site. If they cannot be planted as soon as arriving at the site, they will be stored in the shade, protected from sun and wind, and kept moist by the use of straw, peat moss, compost, or other suitable materials. Plants not having an abundance of well developed terminal buds on the leaders and branches will be rejected. The stems and branches of all plants will be turgid and the cambium healthy or the plants rejected. Any bare root plants that are in leaf or have leaflets will be rejected.

Monitoring and Maintenance

At least one pre-construction meeting will occur between the chosen grading and/or planting contractor/subcontractor and the site environmental monitor prior to beginning construction on site. Monitoring and maintenance efforts for the mitigation plantings will take place over a three year period following construction. This will include bi-weekly visits for the first growing season, and then twice a year for the next two years, with additional inspections as required depending on conditions. The applicant's environmental monitor will conduct a survey of the site and site conditions will be noted and adjusted as necessary. An annual report will be provided to the regulating agencies at the end of the growing season for each of the three years.



LOCATION MAP
N.T.S.

0 20 40 80
SCALE IN FEET

Wetland Restoration/Enhancement Plan

PLANNING • ENVIRONMENTAL • WETLANDS
TMA WMI

October 28, 2022

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

Sketch Plan
Townhomes/Retail
Albany Post Road
Village of Buchanan
Westchester County, NY
September 8, 2022

LAKE

43.20-2-4
N/F CON EDISON CO OF NY

S 52°41'30" E 19.16'
S 49°00'30" E 140.50'
S 20°11'30" E 71.75'
S 44°11'30" E 66.00'
S 9°26'30" E 73.50'
S 32°23'30" W 118.90'
S 57°25'50" W 129.04'
S 25°25'50" E 180.00'
N 48°01'00" E 95.44'
N 49°09'00" E 117.20'
S 17°59'00" E 102.83'
N 17°59'00" W
N 55°34'00" E 83.71'
N10°08'20"W 3.00'
N23°25'20"W 143.09'
N 21°22'30" W 146.20'
N 64°40'30" E 84.29'
N 6°54'40" E 43.00'
S 63°14'10" W 159.00'
N 25°19'10" W 239.92'
N 25°25'50" W 77.74'
S 25°25'50" E 99.89'
S 52°29'45" E 35.31'
S 9°45'30" W
N 9°45'30" E 382.50'
S 17°59'00" E 396.54'

50 FT. LAKE BUFFER LINE
100 FT. WETLAND BUFFER LINE
100 FT.

OUTLET CONTROL STRUCTURE
PROPOSED STORMWATER WETLAND
MICRO-POOL
HIGH MARSH
LOW MARSH
EXTENDED DETENTION SHALLOW WETLAND
WET EXTENDED DETENTION POND
PRE-TREATMENT FOREBAY
AQUATIC BENCH
WETLAND BUFFER LINE

STORAGE CONTAINER
EX. STORAGE CONTAINER TO BE RELOCATED WHOLLY ON BOARD OF EDUCATION PROPERTY
DIRT, GRAVEL AND ASPHALT MILLINGS

DRAINAGE EASEMENT

43.20-2-5
N/F BOARD OF EDUCATION
SCHOOL DISTRICT 3

43.20-4-5
N/F HENDRICK
HUDSON SCHOOL DIST

43.20-2-6
TOTAL LOT AREA:
212150 S.F.
4.870 ACRES

LOT 1
RESIDENTIAL LOT AREA:
191,644 S.F.
4.399 ACRES

WETLAND LINE (FIELD LOCATED)
WETLAND LINE

The limits of the regulated freshwater wetlands shown hereon is as delineated by Steven Marino of Tim Miller Associates on May 9, 2022, and as located by field survey by Baxter Land Surveying, P.C. on May 20, 2022.

43.20-2-8
N/F FOREST HILL PROPERTIES LLC

43.20-2-7
N/F
CHACON-PAUL PAOLA

20 FT. PERMANENT UTILITY EASEMENT
GRANTED TO THE VILLAGE OF BUCHANAN IN LIBER 6558, PAGE 42
Ex. Sewer Easement

EX. SAN. SEWER
EX. 8" DIP SAN. SEWER
EX. SMH RIM 85.0 INV. 79.0 PROP. RIM 92.20

NOTE: LOT 1 IS SUBJECT TO A BLANKET EASEMENT TO THE BENEFIT OF LOT 2 FOR DRAINAGE, ACCESS AND UTILITIES AS FILED IN THE WESTCHESTER COUNTY DIVISION OF LAND RECORDS AS LIBER _____ FILED ON _____.

PROPOSED SEWER EASEMENT
PR. 113.76 L.F. 8" PVC SDR35 3.41%
PR. 22.51 L.F. 8" PVC SDR35 2.00%
EX. SMH RIM 93.4 INV. 87.4 PR. RIM 97.00
EX. SMH RIM 99.7 INV. 89.5 F.M. (IN) 95.7 TO BE ABANDONED
EX. SMH RIM 99.6 INV. 87.6
PORTION OF EXISTING SAN. SEWER AND EASEMENT TO BE ABANDONED

LOT 2
RETAIL LOT AREA:
20,506 S.F.
0.470 ACRES

PR. SMH-1 RIM 97.00 INV. 91.28
PR. SMH-2 RIM 97.00 INV. 92.83 RELOCATED F.M. (IN) 94.0

APPROX. LOCATION EXISTING W.M.

43.20-4-1
N/F MATAILO LIDUVINA E Z/
AREVALO JOSE VINICIO J

LAKE STREET

ASPHALT PAVEMENT
DIRT, GRAVEL AND ASPHALT MILLINGS
asphalt pavement
remains of asphalt
gravel
concrete slab
wood planter w/sign (TO BE REMOVED)
metal posts (TO BE REMOVED)
metal covers over concrete chambers
suspended floodlight
EX. CROSSWALK
PROPOSED CROSSWALK
SHOULDER
EX. SIDEWALK
EX. EDGE OF PVMNT
PR. EDGE OF PVMNT
EX. HYD/WV
APPROX. LOCATION EXISTING W.M.
Approx. Village/Town Line
Approx. Village of Buchanan/Town of Cortlandt

ALBANY POST ROAD
(30 M.P.H.)

ROCK LEDGE AVE.

43.20-1-22
N/F 3106 ALBANY POST INC

43.20-1-37
N/F AL DAR LLC

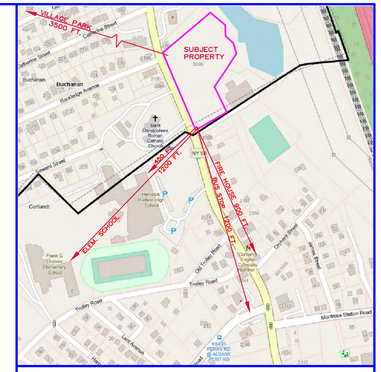
43.20-1-38
N/F
ORDONEZ EDGAR R
CHUQUIMARCA

43.20-1-39
N/F SALEH KAID M/
ALKABLANI SAMAR M.H

43.20-1-40
N/F ROMAN CATHOLIC CHURCH OF ST CHRISTOPHER AND ST PATRICK

43.20-5-10
N/F CENTRAL SCHOOL DIST NO 3

Unauthorized alterations or additions to this drawing is a violation of Section 7209 (2) of the New York State Education Law.



VICINITY MAP
N.T.S.

0 15 30 60
SCALE IN FEET

Applicant:
CARBONE BROTHERS 3095 LLC
2043 Albany Post Road
Croton, NY 10520

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

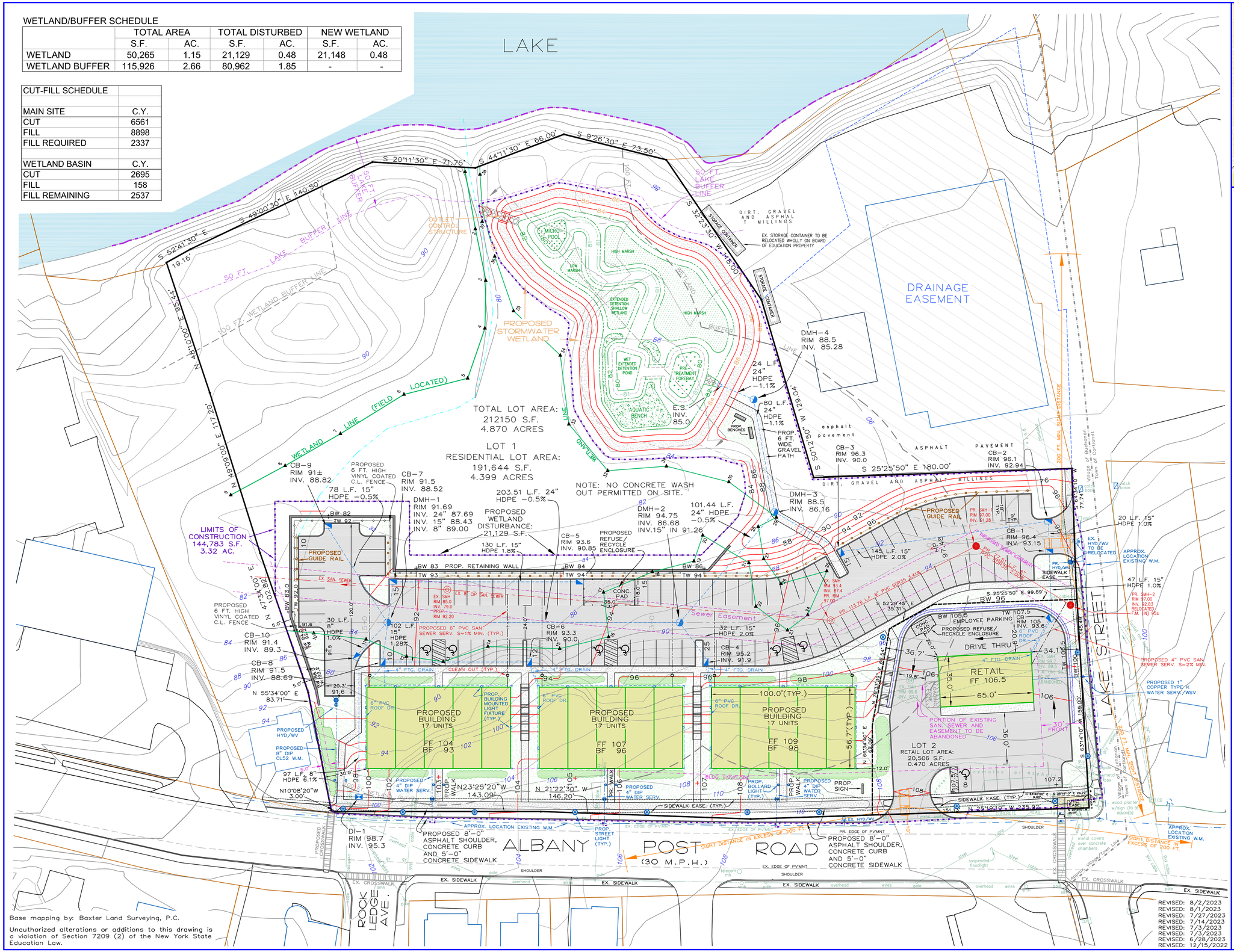
STATE OF NEW YORK RALPH GEORGE MASTROMONACO No. 054408 PROFESSIONAL ENGINEER

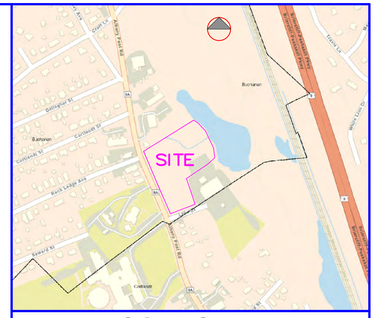
PRELIMINARY PLAT
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
AUGUST 10, 2023
SHEET 1 OF 1 SHEETS

WETLAND/BUFFER SCHEDULE

	TOTAL AREA		TOTAL DISTURBED		NEW WETLAND	
	S.F.	AC.	S.F.	AC.	S.F.	AC.
WETLAND	50,265	1.15	21,129	0.48	21,148	0.48
WETLAND BUFFER	115,926	2.66	80,962	1.85	-	-

CUT-FILL SCHEDULE	
MAIN SITE	C.Y.
CUT	6561
FILL	8898
FILL REQUIRED	2337
WETLAND BASIN	C.Y.
CUT	2695
FILL	158
FILL REMAINING	2537





LOCATION MAP
N.T.S.

0 15 30 60
SCALE IN FEET

ZONING SCHEDULE

C-1/C-2 OVERLAY DISTRICT (211-10)		
LOT 1 – RESIDENTIAL LOT AREA: 191,644 S.F. (4.39 AC.)		
MINIMUM REQUIREMENTS:		
	REQUIRED	PROVIDED
LOT AREA (S.F.)	20,000	191,615
LOT WIDTH (FT.)	100	382
LOT FRONTAGE AT STREET LINE (FT.)	100	377
LOT DEPTH (FT.)	100	464
FRONT YARD (FT.)	30	30
SIDE YARD (ONE/BOTH) (FT.)	5/15	12/42
REAR YARD (FT.)	10	120
PARKING (2/DU)	102	102
MAXIMUM REQUIREMENTS:		
BUILDING HEIGHT (STORIES/FT.) *	3/40	3/40
LOT COVERAGE (%)	50	10
DWELLING UNIT COUNT (COUNT/S.F.) *	12/40,000	9/40,000
DWELLING UNITS *	60	51

*-AS PER 211-10 C-1/C-2 OVERLAY DIST. (SPECIAL PERMIT)

C-1/C-2 OVERLAY DISTRICT (211-10)		
LOT 2 – RETAIL LOT AREA: 20,506 S.F. (0.47 AC.)		
MINIMUM REQUIREMENTS:		
	REQUIRED	PROVIDED
LOT AREA (S.F.)	20,000	20,535
LOT WIDTH (FT.)	100	149
LOT FRONTAGE AT STREET LINE (FT.)	100	151
LOT DEPTH (FT.)	100	145
FRONT YARD (FT.)	30	77
SIDE YARD (ONE/BOTH) (FT.)	5/15	34/69
REAR YARD (FT.)	10	30
PARKING (1/250 S.F.)	10	10
MAXIMUM REQUIREMENTS:		
BUILDING HEIGHT (STORIES/FT.) *	3/40	1/12
LOT COVERAGE (%)	50	11

Applicant:
CARBONE BROTHERS 3095 LLC
2043 Albany Post Road
Croton, NY 10520

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

STATE OF NEW YORK RALPH GEORGE MASTROMONACO LIC. NO. 054409 PROFESSIONAL ENGINEER

SITE PLAN/ PRELIMINARY PLAT VILLAGE SQUARE RESIDENTIAL/COMMERCIAL

CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
NOVEMBER 23, 2022

SHEET 1 OF 7 SHEETS

REVISED: 8/2/2023
REVISED: 8/1/2023
REVISED: 7/27/2023
REVISED: 7/14/2023
REVISED: 7/3/2023
REVISED: 7/3/2023
REVISED: 6/28/2023
REVISED: 12/15/2022

Base mapping by: Baxter Land Surveying, P.C.

LAKE

S 52°41'30" E 19.16'

S 49°00'30" E 140.50'

S 20°11'30" E 71.75'

S 44°11'30" E 66.00'

S 9°26'30" E 73.50'

S 32°23'30" W 145.00'

N 49°09'00" E 117.20'

N 8°10'00" E 69.44'

50 FT. LAKE BUFFER

100 FT. WETLAND BUFFER LINE

OUTLET CONTROL STRUCTURE

PROPOSED STORMWATER WETLAND

MICRO POOL

HIGH MARSH

LOW MARSH

EXTENDED DETENTION SHALLOW WETLAND

WET EXTENDED DETENTION POND

PRE-TREATMENT FOREBAY

AQUATIC BENCH

E.S. INV. 85.0

PROP. BENCHES

TOTAL LOT AREA:
212150 S.F.
4.870 ACRES

LOT 1
RESIDENTIAL LOT AREA:
191,644 S.F.
4.399 ACRES

NOTE: NO CONCRETE WASH OUT PERMITTED ON SITE.

DIRT, GRAVEL AND ASPHALT MILLINGS

STORAGE CONTAINER

EX. STORAGE CONTAINER TO BE RELOCATED WHOLLY ON BOARD OF EDUCATION PROPERTY

DRAINAGE EASEMENT

DMH-4
RIM 88.5
INV. 85.28

24 L.F. 24" HDPE -1.1%

80 L.F. 24" HDPE -1.1%

PROP. 6 FT. WIDE GRAVEL PATH

S 59°12'50" W 129.04'

S 25°25'50" E 180.00'

asphalt pavement

ASPHALT PAVEMENT

CB-3
RIM 96.3
INV. 90.0

CB-2
RIM 96.1
INV. 92.94

DIRT, GRAVEL AND ASPHALT MILLINGS

PROPOSED GUIDE RAIL

PR. SMH-1
RIM 97.00
INV. 91.28

18"

9" TYP.

CB-9
RIM 91±
INV. 88.82

PROPOSED 6 FT. HIGH VINYL COATED C.L. FENCE

78 L.F. 15" HDPE -0.5%

CB-7
RIM 91.5
INV. 88.52

DMH-1
RIM 91.69
INV. 24" 87.69
INV. 15" 88.43
INV. 8" 89.00

203.51 L.F. 24" HDPE -0.5%

PROPOSED WETLAND DISTURBANCE:
21,129 S.F.

CB-5
RIM 93.6
INV. 90.85

PROPOSED REFUSE/ RECYCLE ENCLOSURE

DMH-2
RIM 94.75
INV. 86.68
INV.15" IN 91.26

101.44 L.F. 24" HDPE -0.5%

DMH-3
RIM 88.5
INV. 86.16

LIMITS OF CONSTRUCTION
144,783 S.F.
3.32 AC.

PROPOSED GUIDE RAIL

EX. SAN. SEWER

EX. SMH
RIM 85.0
INV. 79.0
PROP. RIM 92.20

EX. 8" DIP SAN. SEWER

CONC. PAD

130 L.F. 15" HDPE 1.8%

145 L.F. 15" HDPE 2.0%

CB-1
RIM 96.4
INV. 93.15

EX. SMH
INV. 93.4
INV. 87.4
PR. RIM 97.00

PR. 133.76 L.F. 8" PVC SDR35 0.41%

EX. HYD/WV TO BE RELOCATED

APPROX. LOCATION EXISTING W.M.

PR. HYD/WV SIDEWALK EASE.

20 L.F. 15" HDPE 1.0%

47 L.F. 15" HDPE 1.0%

PR. SMH-2
RIM 97.00
INV. 92.83
RELOCATED
F.M. (IN) 95±

PROPOSED 6 FT. HIGH VINYL COATED C.L. FENCE

CB-10
RIM 91.4
INV. 89.3

CB-8
RIM 91.5
INV. 88.69

N 55°34'00" E 83.71'

102 L.F. 15" HDPE 1.28%

PROPOSED 6" PVC SAN. SEWER SERV. S=1% MIN. (TYP.)

30 L.F. 8" HDPE 1.0%

CB-6
RIM 93.3
INV. 90.0

32 L.F. 15" HDPE 2.0%

CB-4
RIM 95.2
INV. 91.9

Sewer Easement

S 25°25'50" E 99.89'

EMPLOYEE PARKING

CB-11
RIM 105
INV. 93.6

6" PVC ROOF DR.

PROPOSED REFUSE/ RECYCLE ENCLOSURE

DRIVE THRU

4" FTG. DRAIN

CLEAN OUT (TYP.)

4" FTG. DRAIN

4" FTG. DRAIN

PROPOSED BUILDING
17 UNITS
FF 104
BF 93

PROPOSED BUILDING
17 UNITS
FF 107
BF 96

PROPOSED BUILDING
17 UNITS
FF 109
BF 98

6" PVC ROOF DR.

PROP. BUILDING MOUNTED LIGHT FIXTURE (TYP.)

100.0'(TYP.)

56.7'(TYP.)

RETAIL
FF 106.5
65.0'

4" FTG. DRAIN

36.7'

34.1'

19.8'

35.0'

36.0'

30' FRONT

EX. SMH
RIM 99.6
INV. 87.6

PORTION OF EXISTING SAN. SEWER AND EASEMENT TO BE ABANDONED

LOT 2
RETAIL LOT AREA:
20,506 S.F.
0.470 ACRES

remains of asphalt

PROPOSED HYD/WV

PROPOSED 8" DIP CL52 W.M.

97 L.F. 8" HDPE 6.1%

N10°08'20"W 3.00'

100 FT. WETLAND BUFFER LINE

PROPOSED 4" DIP WATER SERV.

PROP. WALK

N23°25'20"W 143.09'

N 21°22'30" W 146.20'

PROPOSED 4" DIP WATER SERV.

PR. WALK

BLDG. ENVELOPE

PROP. BOLLARD LIGHT (TYP.)

PROP. WALK

PROPOSED 4" DIP WATER SERV.

PROP. SIGN

SIDEWALK EASE. (TYP.)

N 25°10'10" W 235.92'

EX. HYD/WV

PROPOSED 4" PVC SAN. SEWER SERV. S=2% MIN.

PROPOSED 1" COPPER TYPE K WATER SERV./WSV

LAKE STREET

DI-1
RIM 98.7
INV. 95.3

PROPOSED 8'-0" ASPHALT SHOULDER, CONCRETE CURB AND 5'-0" CONCRETE SIDEWALK

APPROX. LOCATION EXISTING W.M.

PROP. STREET LIGHT (TYP.)

EX. EDGE OF PVMNT

PR. EDGE OF PVMNT

SHOULDER

EX. SIDEWALK

EX. CROSSWALK

ALBANY POST ROAD
(30 M.P.H.)

SIGHT DISTANCE IN EXCESS OF 200 FT.

ROCK LEDGE AVE.

Unauthorized alterations or additions to this drawing is a violation of Section 7209 (2) of the New York State Education Law.

REVISED: 8/2/2023
REVISED: 7/14/2023
REVISED: 6/28/2023
REVISED: 12/15/2022

0 15 30 60
SCALE IN FEET

LEGEND

EXISTING	PROPOSED	
▨	◪	CATCH BASIN
⊖	◒	DRAIN MANHOLE
◎	●	SAN. SEWER MANHOLE
♂	♂	HYDRANT
⊠	◘	DRAIN INLET
⊗	⊗	WATER VALVE
◡	◡	HEADWALL
	▽	END SECTION
294	294	CONTOUR LINE

Applicant:
CARBONE BROTHERS 3095 LLC
2043 Albany Post Road
Croton, NY 10520

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

STATE OF NEW YORK
RALPH GEORGE MASTROMONACO
NO. 054409
PROFESSIONAL ENGINEER

UTILITY PLAN
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
NOVEMBER 23, 2022

Construction Plan
Village Square
Buchanan, NY
August 1, 2023

The following is the generalized, proposed sequence of construction for this project:

1. Stake out limits of disturbance throughout the site
2. Construct access road to the proposed Stormwater Wetland
3. Install Silt Fence surrounding the proposed Stormwater Wetland
4. Remove trees and brush at the Stormwater Wetland
5. Excavate the temporary sediment control basin within the limits of the Basin
6. Construct temporary diversion, berms, swales and silt fences along the proposed driveway for the portion of the site that is downslope from the commercial pad and first building to the south
7. Construct temporary chain link security fence along road borders
8. Remove Trees and brush surrounding Building 1 along driveway and at the slope towards Albany Post Road
9. Direct overland flow to newly constructed sediment basin
10. Grade commercial pad for construction staging area.
11. Excavate slope for Residential Building No. 1
12. Move excavated material to the roadway and compact. Install gravel tracking pads throughout to stabilize the fill area
13. Commence construction of Building 1 in the first Section
14. Upon substantial completion of Building 1 the Developer would clear trees and brush for the remaining portion of the driveway and parking area to the terminus
15. Diversion swales, berms and silt fences would be in place to carry runoff to the sediment basin
16. Excavation would continue for the two remaining buildings and the spoil would be placed and compacted in the parking area and compacted. The sewer manholes are to be raised to meet the finished subbase roadway elevation. The modifications to the sanitary sewer would be made and the old sewer abandoned and removed
17. Work on the two remaining buildings will continue including the four water main taps in Albany Post Road
18. Upon substantial completion of the two remaining buildings the roadway would be prepped for binder paving
19. The stormwater wetland would be cleared of sediment and work would begin to complete the final grading of the stormwater wetland
20. The drainage system would then be installed to direct flow to the stormwater wetland
21. Work to install amenities, such as sidewalks, lighting, and landscaping would then commence.
22. Final paving, curbs and refuse stations would commence upon substantial completion of the three residential buildings.

EROSION CONTROL MAINTENANCE SCHEDULE

NOTE: CONTRACTOR SHALL MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES ON THE FOLLOWING SCHEDULE:	WEEKLY	MONTHLY	AFTER RAINFALL	AS NECESSARY TO MAINTAIN FUNCTION	AS PROGRESS ELIMINATES NEED
HAYBALE/SILT FENCE SEDIMENT BARRIER		IN	IN	REPL	REM
INLET PROTECTION	IN		IN	CLN	
HAYBALE CHECKS		IN	IN	CLN REPL	REM
SEDIMENT TRAPS		IN	IN	CLN	REM

IN=INSPECT REPL=REPLACE CLN=CLEAN OUT REM=REMOVE

Note:
The owner of the site is responsible for the maintenance of the Stormwater Wetland, as such, an easement is not required. The Site Plans refer to the NYS DEC "Maintenance Guidance" for "Stormwater Management Practices dated March 31, 2017" which would be followed by the sponsor.

This is available at:
https://www.dec.ny.gov/docs/water_pdf/smpmaintguidance.pdf

0 15 30 60
SCALE IN FEET

LEGEND

EXISTING	PROPOSED	
▨	◪	CATCH BASIN
⊖	◒	DRAIN MANHOLE
◎	●	SAN. SEWER MANHOLE
♂	♂	HYDRANT
⊠	⊠	DRAIN INLET
⊗	⊗	WATER VALVE
◡	◡	HEADWALL
	▽	END SECTION
294	294	CONTOUR LINE

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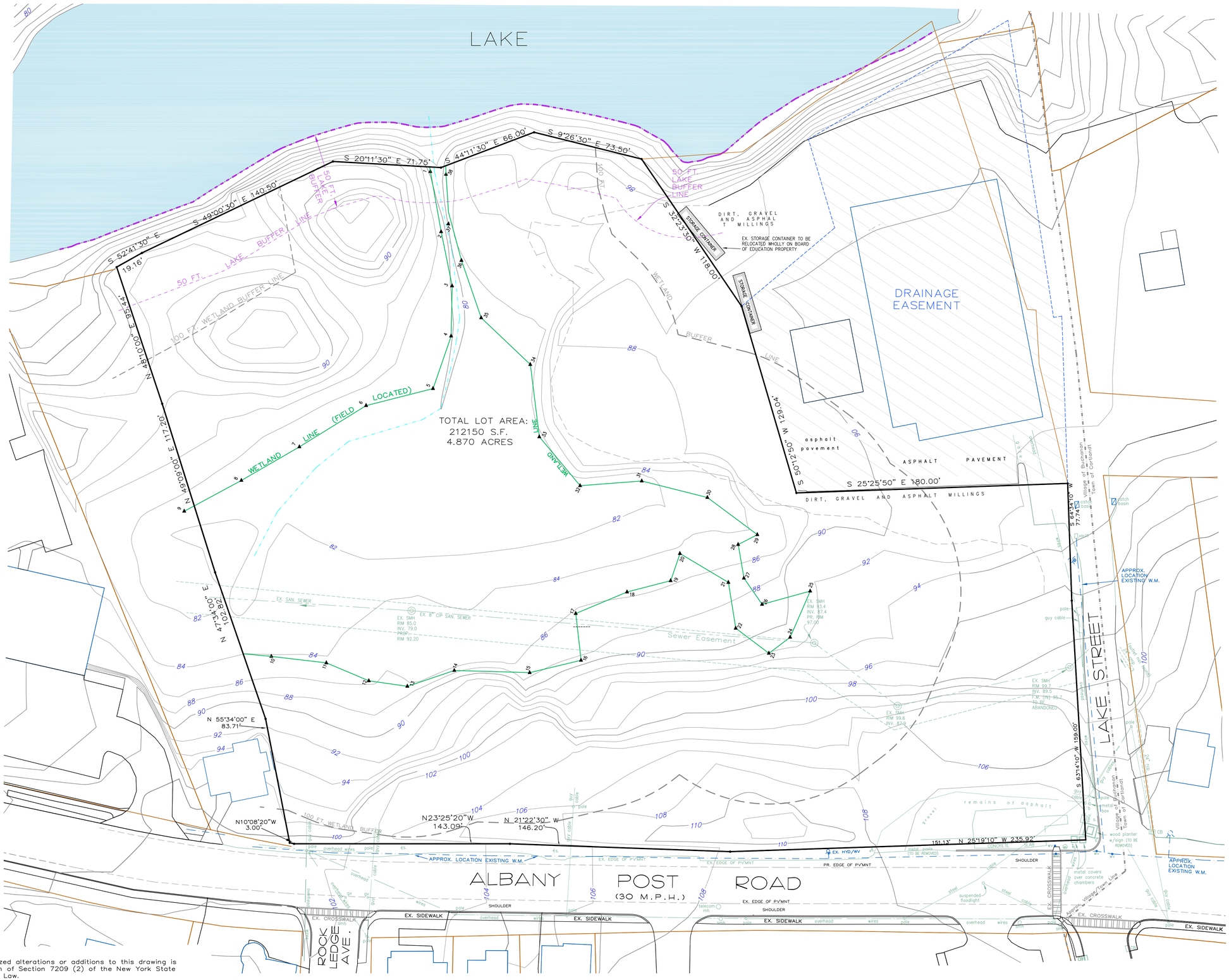
(914) 271-4762 (914) 271-2820 Fax

STATE OF NEW YORK — RALPH GEORGE MASTROMONACO — No. 054498 — LICENSED PROFESSIONAL ENGINEER

EROSION CONTROL PLAN
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
NOVEMBER 23, 2022

SHEET 3 OF 7 SHEETS

REVISED: 8/7/2023
REVISED: 8/2/2023
REVISED: 7/14/2023
REVISED: 6/28/2023
REVISED: 12/15/2022



0 15 30 60
SCALE IN FEET

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2043 Albany Post Road
Croton, NY 10520

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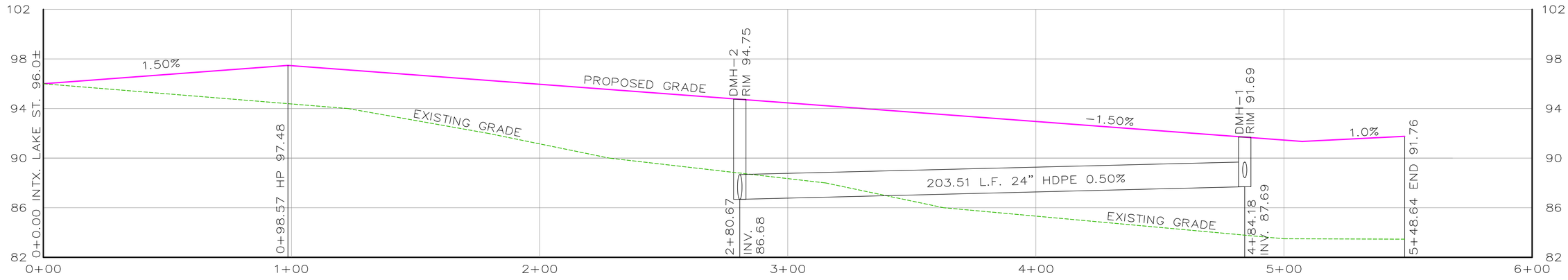
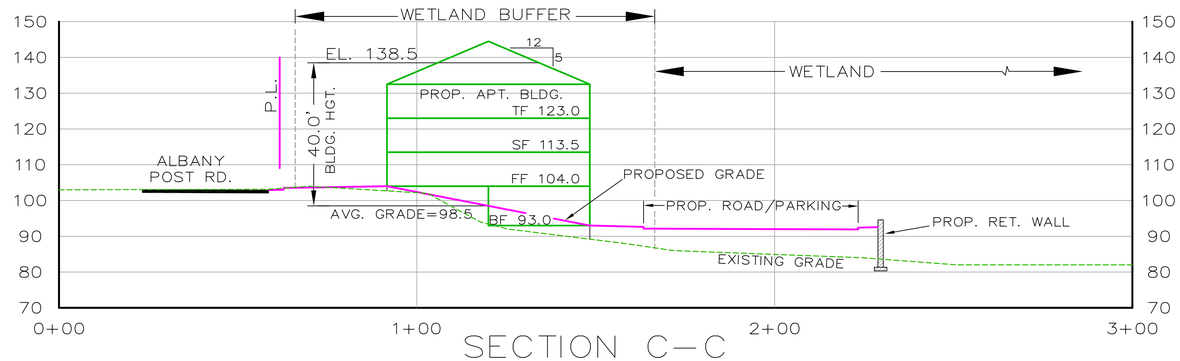
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

STATE OF NEW YORK
RALPH GEORGE MASTROMONACO
NO. 054496
LICENSED PROFESSIONAL ENGINEER

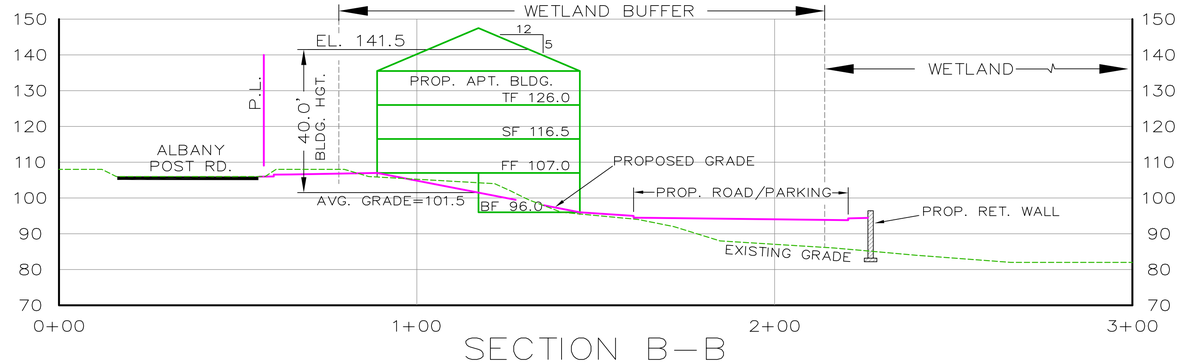
EXISTING CONDITIONS
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
JUNE 12, 2023



ROAD/DRAIN PROFILE
SCALE: HOR. 1"=20'
VER. 1"=4'



SECTION C-C



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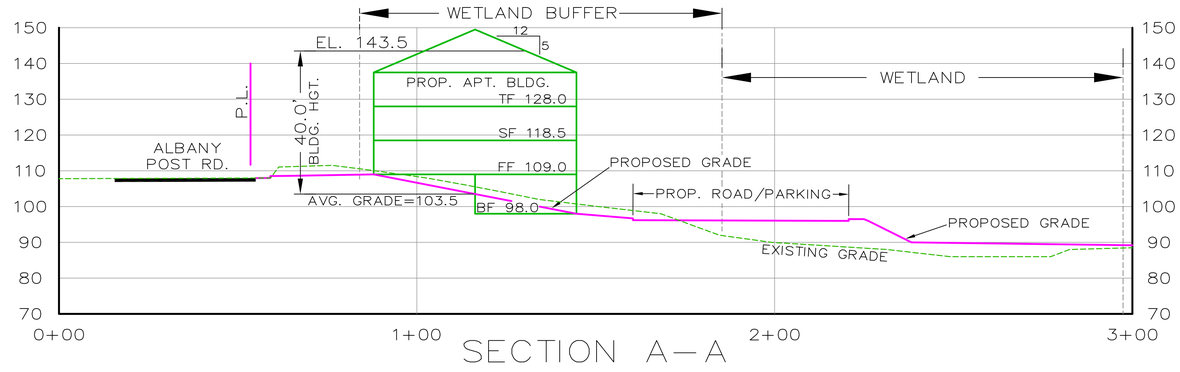


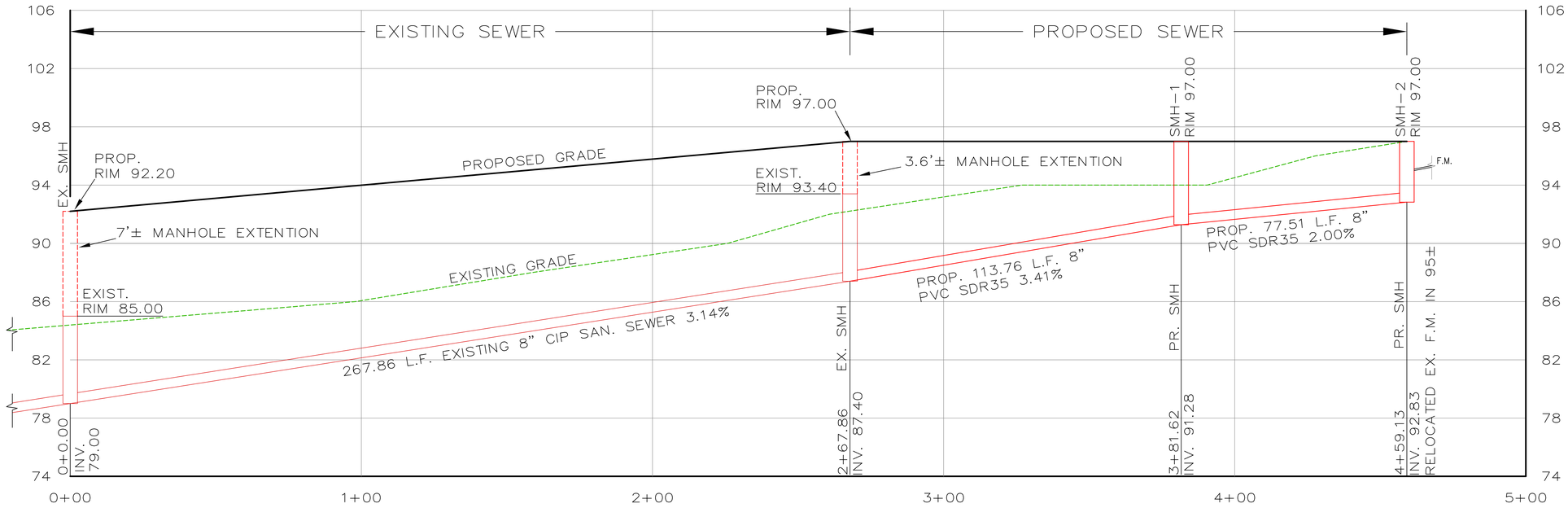
SECTION A-A

SECTIONS
SCALE: HOR. 1"=20'
VER. 1"=20'

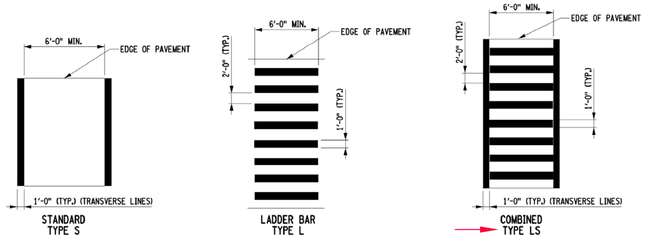
RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

STATE OF NEW YORK RALPH GEORGE MASTROMONACO No. 054498 LICENSED PROFESSIONAL ENGINEER

ROAD PROFILE/SECTIONS
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
NOVEMBER 23, 2022



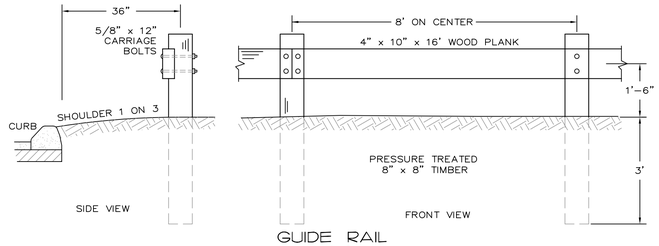
SEWER PROFILE
SCALE: HOR. 1"=20'
VER. 1"=4'



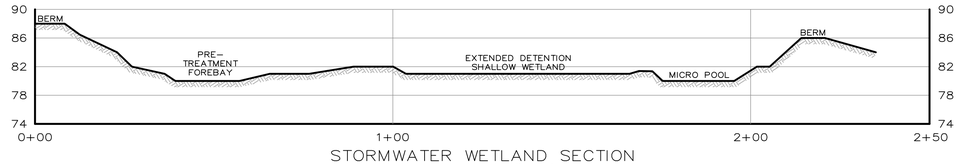
TYPICAL CROSSWALK DETAILS

NOTES:

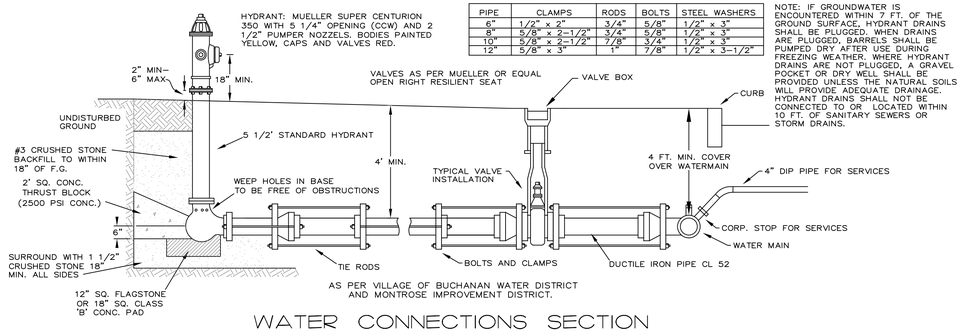
1. ALL CROSSWALK MARKINGS SHALL BE WHITE.
2. TYPE "L" AND TYPE "LS" CROSSWALKS SHALL HAVE THE LONGITUDINAL LINES PARALLEL TO THE LANE LINES.



GUIDE RAIL
N.T.S.



STORMWATER WETLAND SECTION
SCALE: HOR. 1"=20'
VER. 1"=4'



PIPE	CLAMPS	RODS	BOLTS	STEEL WASHERS
6"	1/2" x 2"	3/4"	5/8"	1/2" x 3"
8"	5/8" x 2-1/2"	3/4"	5/8"	1/2" x 3"
10"	5/8" x 2-1/2"	7/8"	3/4"	1/2" x 3"
12"	5/8" x 3"	1"	7/8"	1/2" x 3-1/2"

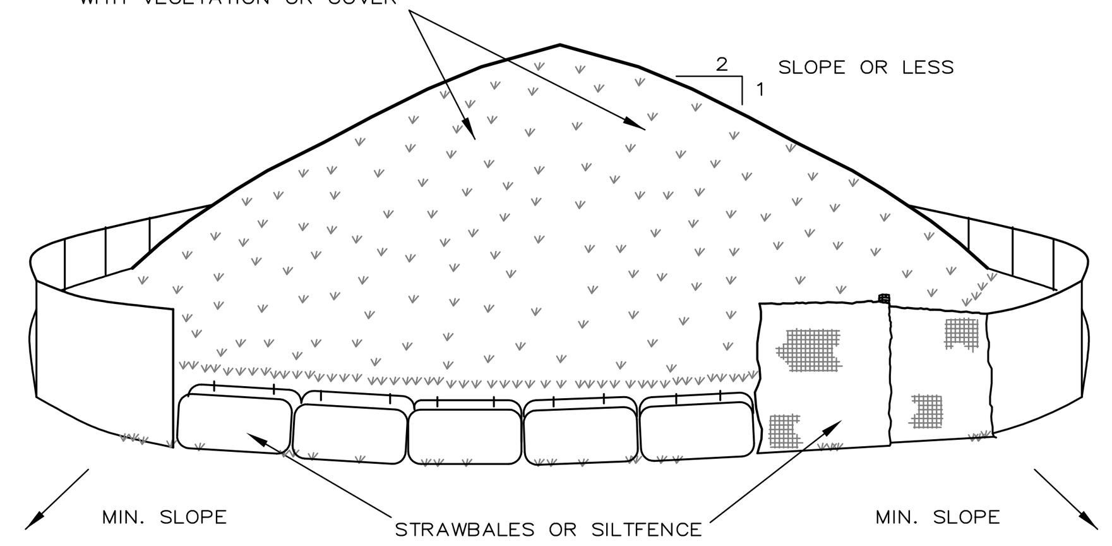
NOTE: IF GROUNDWATER IS ENCOUNTERED WITHIN 7 FT. OF THE GROUND SURFACE, HYDRANT DRAINS SHALL BE PLUGGED. WHEN DRAINS ARE PLUGGED, BARRELS SHALL BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED UNLESS THE NATURAL SOILS WILL PROVIDE ADEQUATE DRAINAGE. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FT. OF SANITARY SEWERS OR STORM DRAINS.

WATER CONNECTIONS SECTION
N.T.S.

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

STATE OF NEW YORK
RALPH GEORGE MASTROMONACO
NO. 054408
PROFESSIONAL ENGINEER

SEWER PROFILE/ DETAILS
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
AUGUST 2, 2023



TO BE USED WHERE TOPSOIL PRESERVATION IS NECESSARY FOR REGRADING AND VEGETATING DISTURBED AREAS. TOPSOIL IS APPLIED TO SUBSOILS THAT ARE DROUGHTY (HAVING LOW AVAILABLE MOISTURE FOR PLANTS), STONY, SALTY, HAVE LOW PERMEABILITY, OR ARE EXTREMELY ACID. IT IS ALSO USED TO BACKFILL AROUND SHRUB AND TREE TRANSPLANTS. PRESERVATION OF EXISTING TOPSOIL IS BENEFICIAL FOR ALL TYPES OF LAWN OR ORNAMENTAL PLANTINGS.

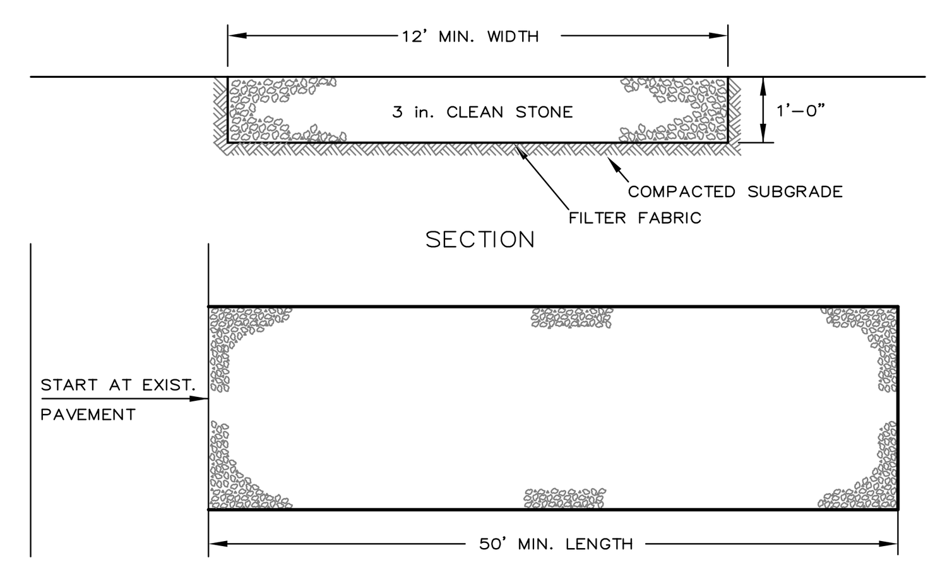
TEMPORARY STOCKPILE STABILIZATION MEASURES INCLUDE VEGETATIVE COVER, MULCH, NON-VEGETATIVE COVER, AND PERIPHERAL SEDIMENT TRAPPING BARRIERS. THE STABILIZATION MEASURE(S) SELECTED SHOULD BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND REQUIRED DURATION OF USE.

SEE EROSION CONTROL PLAN FOR LOCATIONS.

INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

TEMPORARY SOIL STOCKPILING
N.T.S.



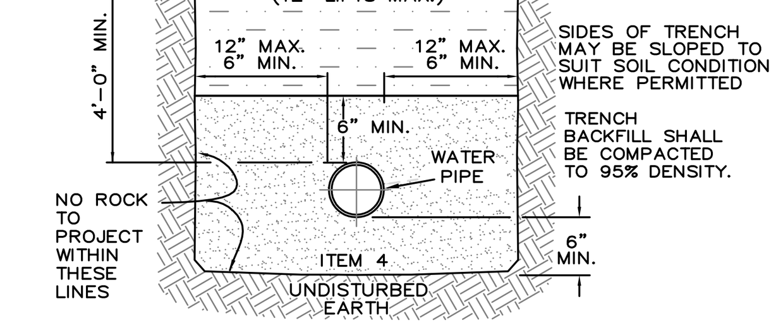
TO BE PROVIDED AT ALL POINTS OF EQUIPMENT INGRESS OR EGRESS ONTO PUBLIC RIGHTS-OF-WAY.

SEE EROSION CONTROL PLAN FOR LOCATIONS.

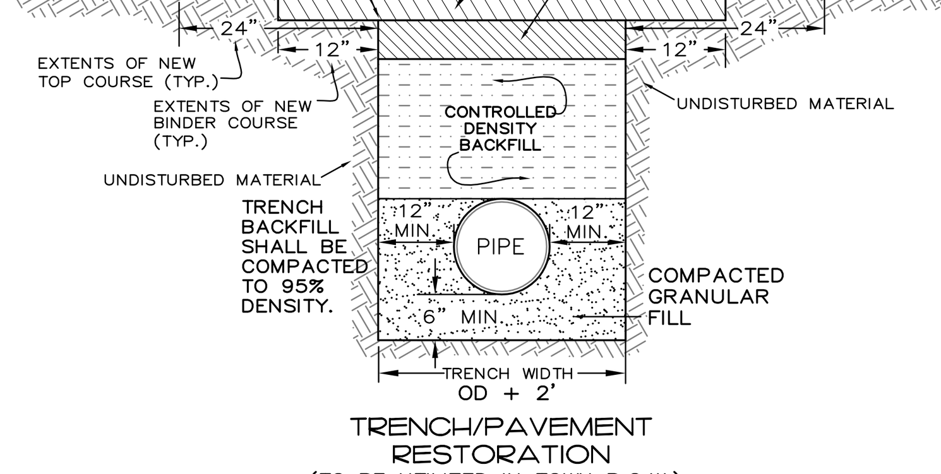
INSTALLATION NOTES

1. STONE SIZE – USE 3" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 30 FEET
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
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 RIGHT OF WAY THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. 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.

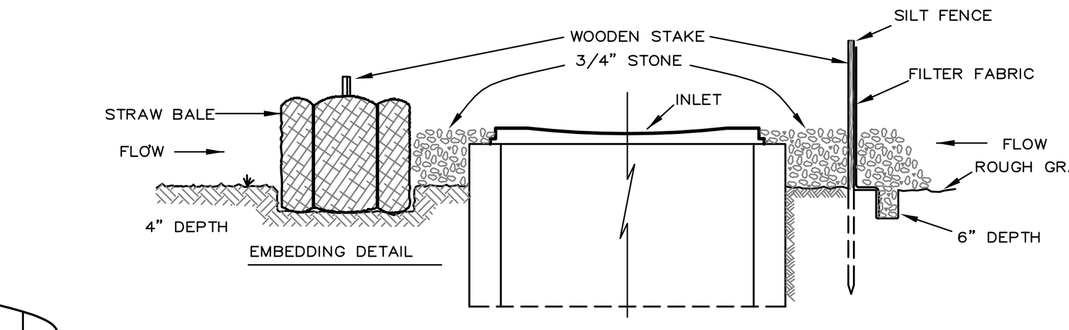
ANTI-TRACK PAD
N.T.S.



WATER PIPE BEDDING
N.T.S.



TRENCH/PAVEMENT RESTORATION
(TO BE UTILIZED IN TOWN R.O.W.)
N.T.S.



INLET PROTECTION

INLET PROTECTION IS RECOMMENDED FOR SITES UNDERGOING ACTIVE CONSTRUCTION, TO PROTECT EXISTING OR RECENTLY INSTALLED CULVERTS, STORM DRAINS, OR OTHER WATER MANAGEMENT STRUCTURES. THIS STANDARD CAN NOT BE USED WHERE INLETS ARE ON SLOPES ≥ 5%. FILTER INLETS ARE INTENDED TO REMOVE COARSE SEDIMENTS FROM STORM RUNOFF. THEY ARE NOT A SUBSTITUTE FOR MORE EFFECTIVE SEDIMENT REMOVAL MEASURES, SUCH AS SEDIMENT BASINS OR SILT TRAPS, BUT THEY MAY BE APPLIED IN CONJUNCTION WITH THESE MEASURES.

SEVERAL TYPES OF FILTER INLETS ARE AVAILABLE AND HAVE DIFFERENT APPLICATIONS BASED ON SITE CONDITIONS AND THE TYPE OF INLET. RUNOFF ORIGINATING FROM LARGE DISTURBED WATERSHEDS (> 1 ACRE) SHOULD BE DIRECTED TO A TEMPORARY SEDIMENT TRAP BEFORE ENTERING THE FILTER INLET. FILTER INLETS CANNOT PROTECT AGAINST SEDIMENTATION DURING EXTREME STORM EVENTS OR IF THE WATERSHED IS NOT PROPERLY STABILIZED DURING AND AFTER CONSTRUCTION.

SEE EROSION AND SEDIMENT CONTROL PLAN FOR LOCATIONS.

INSTALLATION NOTES

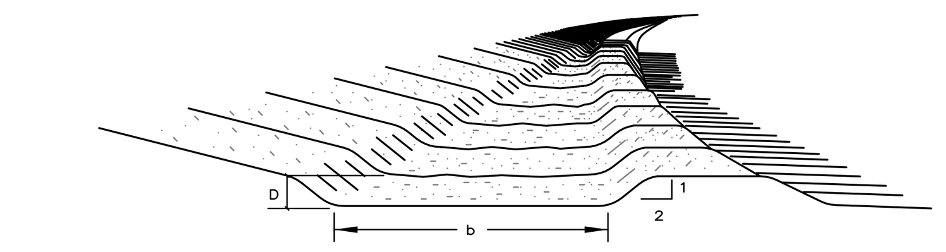
SILT FENCE

1. EXCAVATE A 6 INCH x 6 INCH TRENCH, OFFSET APPROXIMATELY 2 FEET FROM THE INLET PERIMETER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT TRENCH.
5. JOIN SECTIONS AS SHOWN ABOVE. SUPPLEMENT WITH GRAVEL, PILED AGAINST THE FENCE.

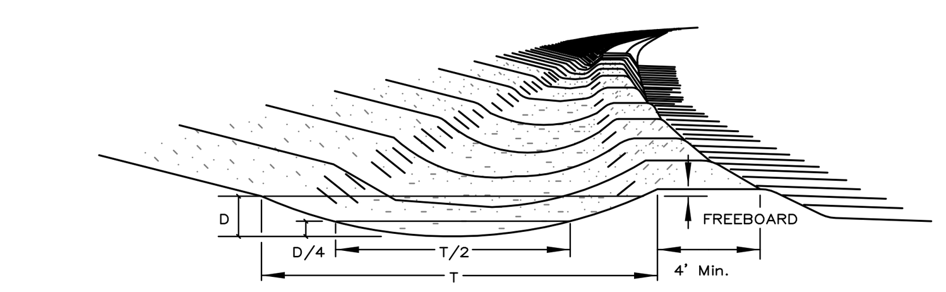
STRAW BALES

1. PLACE BALES OF STRAW WITH ENDS TIGHTLY ABUTTING OTHER BALES TO SURROUND THE INLET. WHERE SLOPE AND SPACE PERMIT, ESTABLISH THE LINE OF BALES 2 TO 10 FEET AWAY FROM THE INLET. ANCHOR BALES IN PLACE BY DRIVING REBARS OR 2" x 2" STAKES THROUGH THE BALES. SUPPLEMENT WITH GRAVEL, PILED AGAINST THE BALES.
2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
3. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

INLET PROTECTION
N.T.S.



TRAPEZOIDAL CROSS – SECTION



PARABOLIC CROSS – SECTION

TO BE INSTALLED ABOVE DISTURBED AREAS (SUCH AS CUT OR FILL SLOPES ON STEEPLY SLOPING LAND, CRITICAL SEDIMENT SOURCE AREAS WITHIN CONSTRUCTION SITES, BUILDING, RESIDENCE, AND STREET LOCATIONS, AND ACTIVE GULLIES OR OTHER ERODIBLE AREAS), OR ABOVE LOW-LYING AREAS SUSCEPTIBLE TO DAMAGE FROM THE ALTERED RUNOFF RESULTING FROM DEVELOPMENT.

SEE EROSIOn CONTROL PLAN FOR LOCATIONS.

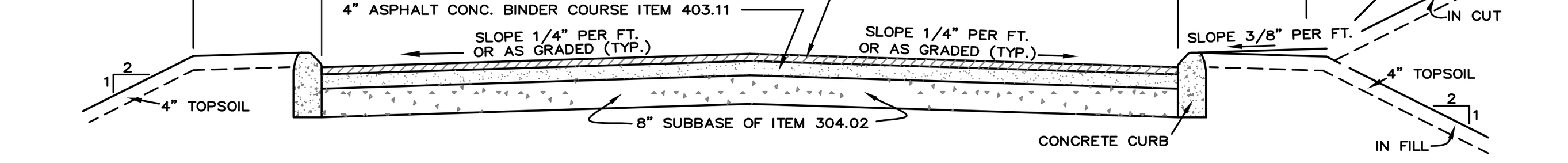
INSTALLATION NOTES

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.
2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETE WATERWAY.
4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
5. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARD AND SPECIFICATIONS FOR VEGETATIVE PRACTICES.

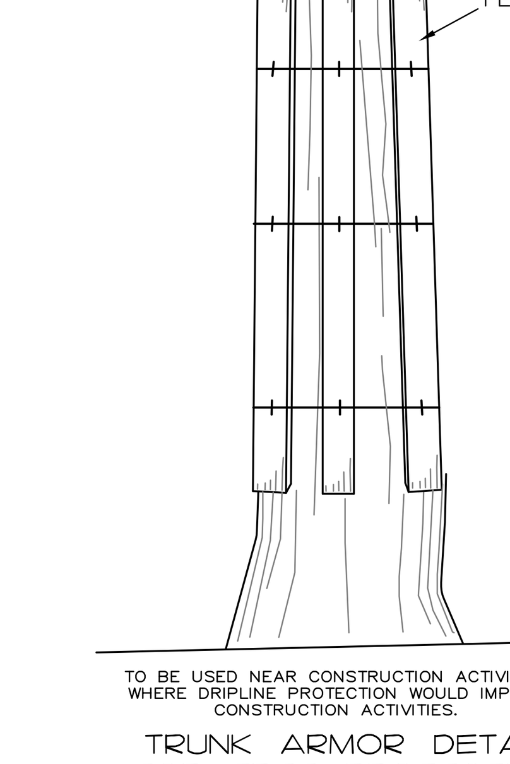
A. FOR DESIGN VELOCITIES OF LESS THAN 3.5 FT. PER SEC., SEEDING AND MULCHING MAY BE USED FOR THE ESTABLISHMENT OF THE VEGETATION. IT IS RECOMMENDED THAT, WHEN CONDITIONS PERMIT, TEMPORARY DIVERSIONS OR OTHERS MEANS SHOULD BE USED TO PREVENT WATER FROM ENTERING THE WATERWAY DURING THE ESTABLISHMENT OF THE VEGETATION.

B. FOR DESIGN VELOCITIES OF MORE THAN 3.5 FT. PER SEC., THE WATERWAY SHALL BE STABILIZED WITH SOD, WITH SEEDING PROTECTED BY JUTE MESH OR MULCHING, AND TEMPORARY DIVERSION OF THE WATER UNTIL THE VEGETATION IS ESTABLISHED.

DIVERSION SWALE
N.T.S.

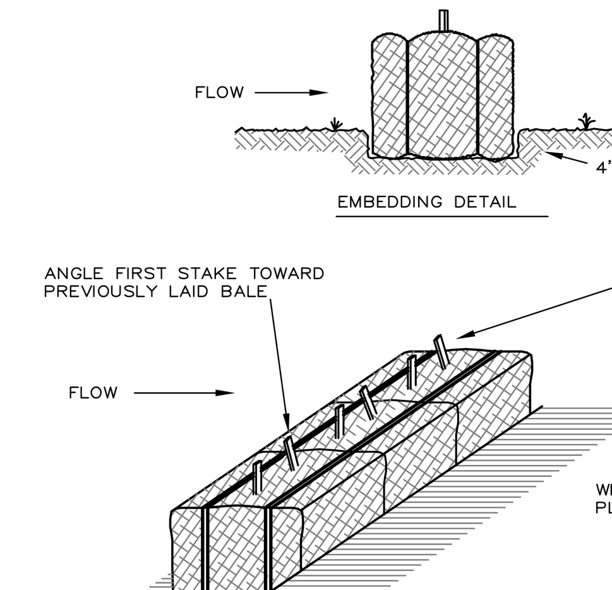


DRIVEWAY/PARKING AREA PAVEMENT
N.T.S.



TO BE USED NEAR CONSTRUCTION ACTIVITIES WHERE DRIPLINE PROTECTION WOULD IMPEDE CONSTRUCTION ACTIVITIES.

TRUNK ARMOR DETAIL FOR TREE PROTECTION
N.T.S.



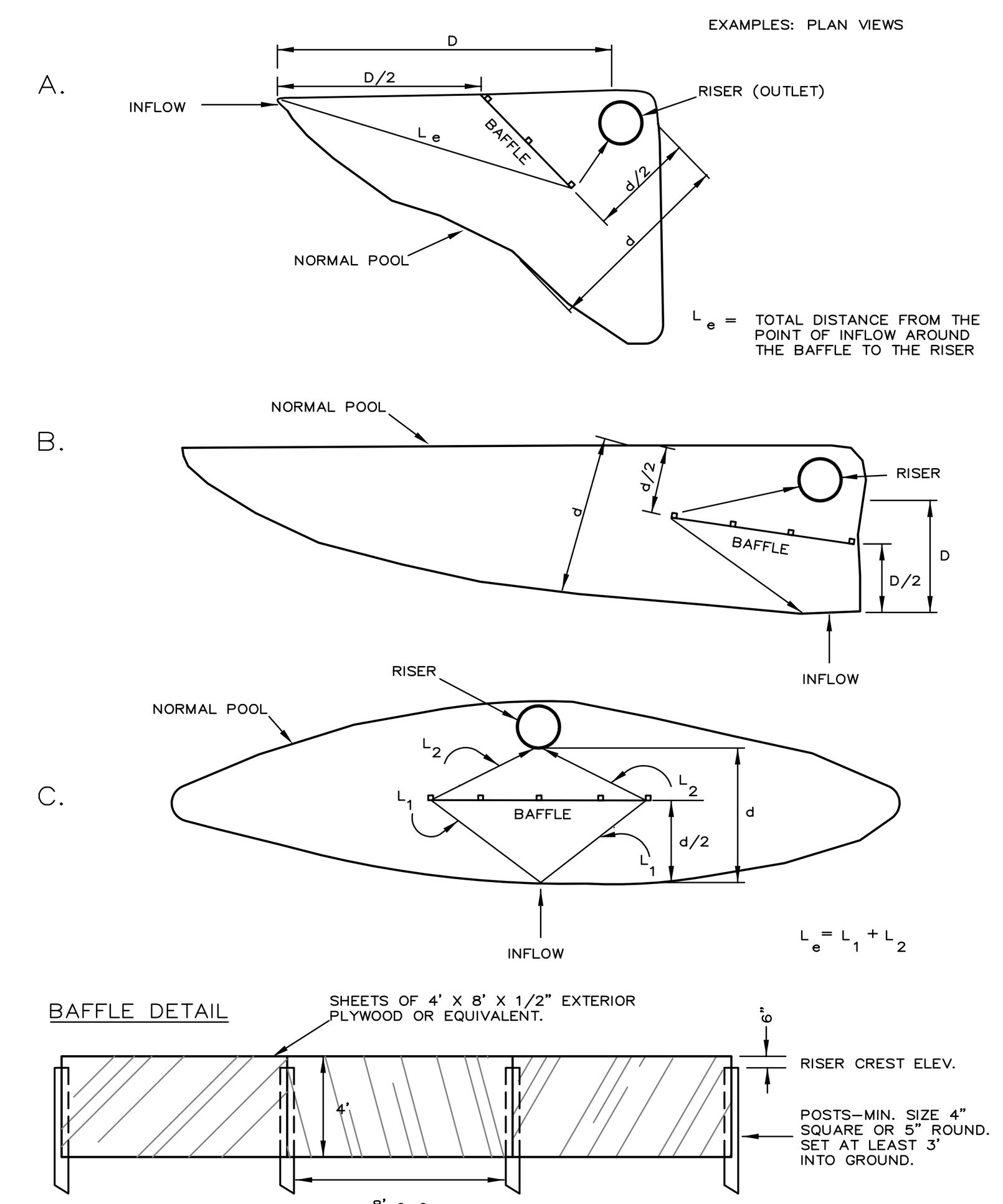
TO BE USED TO CONTROL SEDIMENT. THEY CAN BE EFFECTIVE IN PROTECTING SENSITIVE DOWNSLOPE AREAS SUCH AS STREAMS, WETLANDS, AND ADJACENT PROPERTIES THAT WOULD BE DAMAGED BY SEDIMENTS FROM UPLAND SITE DISTURBANCES. STRAWBALE SEDIMENT BARRIERS SHOULD BE USED IN CONJUNCTION WITH EROSION CONTROL MEASURES UNLESS THE SITE OR DISTURBED AREA IS VERY SMALL AND/OR NEARLY LEVEL.

SEE EROSION CONTROL PLAN FOR LOCATIONS.

INSTALLATION NOTES

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BAR DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULLNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAYBALE SEDIMENT BARRIERS
N.T.S.



ELEVATION

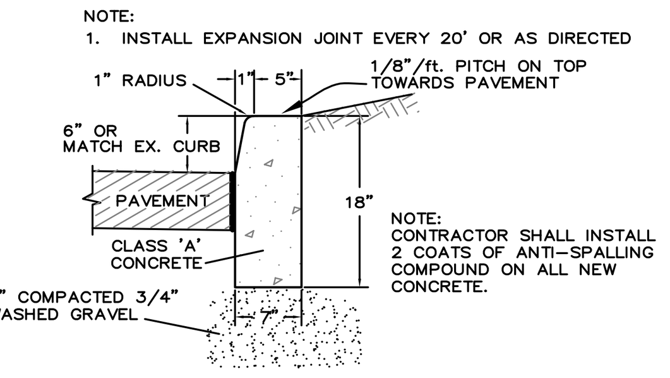
TO BE USED WHERE PHYSICAL SITE CONDITIONS PRECLUDE SOIL STABILIZATION THROUGH THE INSTALLATION OF EROSION CONTROL MEASURES SUCH AS CRITICAL AREA SEEDING, MULCHING, AND NETTING. MOST SEDIMENT BASIN DESIGNS SETTLE OUT PARTICLES LARGER THAN A No. 200 SIEVE, AND ARE ONLY PARTIALLY EFFECTIVE WHERE SILTY SOILS PREDOMINATE.

SEDIMENT BASINS ALSO MAY BE USED IN CONJUNCTION WITH EROSION CONTROL MEASURES TO RETAIN SEDIMENT ON-SITE. ON SITES WITH FINE-TEXTURED SOILS, EROSION CONTROL STANDARDS SUCH AS CRITICAL AREA SEEDING, MULCHING, AND NETTING SHOULD BE THE PRIMARY METHODS OF EROSION AND SEDIMENT CONTROL, WITH SEDIMENT BASINS RETAINING SEDIMENT THAT WAS NOT HELD IN PLACE BY THESE PRIMARY CONTROL PRACTICES, BUT WAS CAPTURED BY SECONDARY SEDIMENT CONTROL PRACTICES SUCH AS VEGETATED CHANNELS AND TEMPORARY SWALES.

SEE EROSION AND SEDIMENT CONTROL PLAN FOR LOCATIONS.

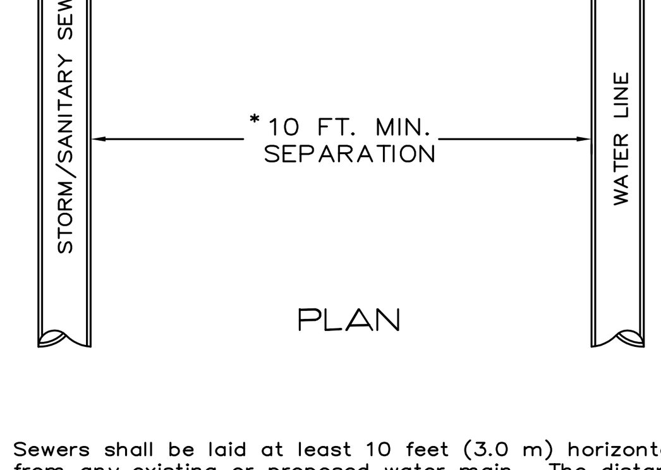
SEDIMENT BASIN DESIGN
N.T.S.

NOTE:
1. INSTALL EXPANSION JOINT EVERY 20' OR AS DIRECTED



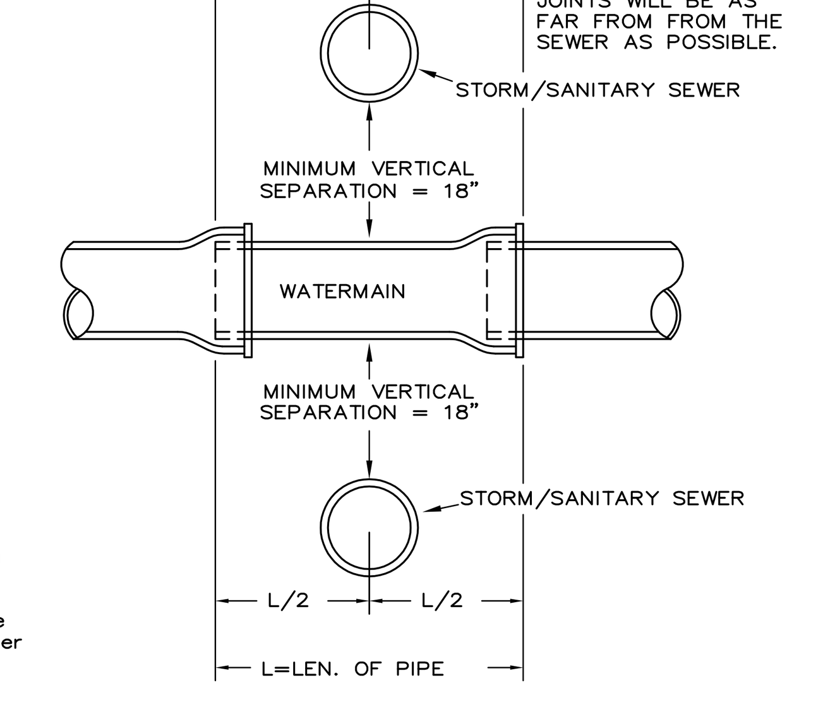
NOTE:
CONTRACTOR SHALL INSTALL 2 COATS OF ANTI-SPALLING COMPOUND ON ALL NEW CONCRETE.

CONCRETE CURB
N.T.S.



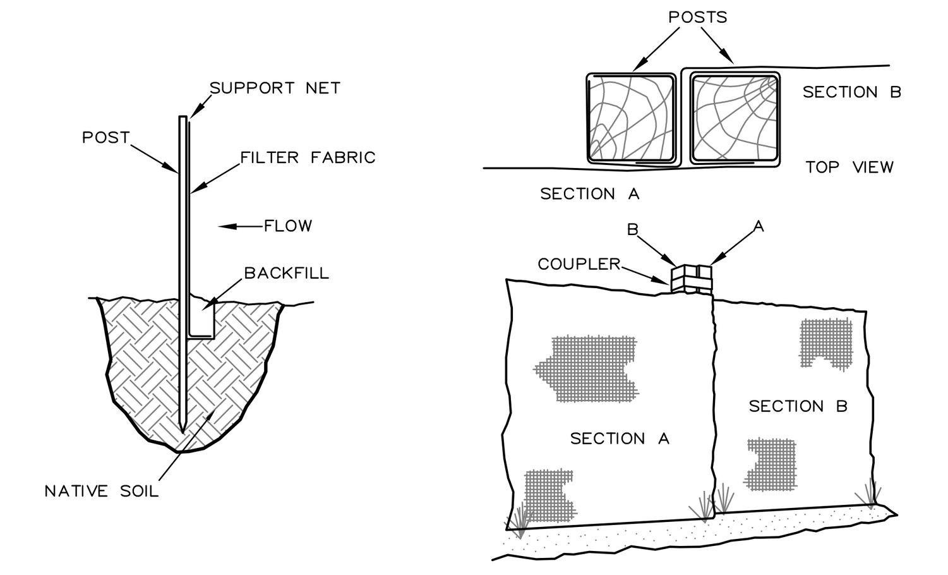
Sewers shall be laid at least 10 feet (3.0 m) horizontally from any existing or proposed water main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a ten foot separation, the appropriate reviewing agency may allow deviation on a case-by-case basis, if supported by data from the design engineer. Such deviation may allow installation of the sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on one side of the sewer and at an elevation so the bottom of the water main is at least 18 inches (46 cm) above the top of the sewer.

DRAIN/SEWER/WATER SEPARATION
N.T.S.



NOTE: AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM FROM THE SEWER AS POSSIBLE.

DRAIN/SEWER WATER MAIN CROSSING
N.T.S.



TOE-IN METHOD — JOINING SECTIONS OF FENCING

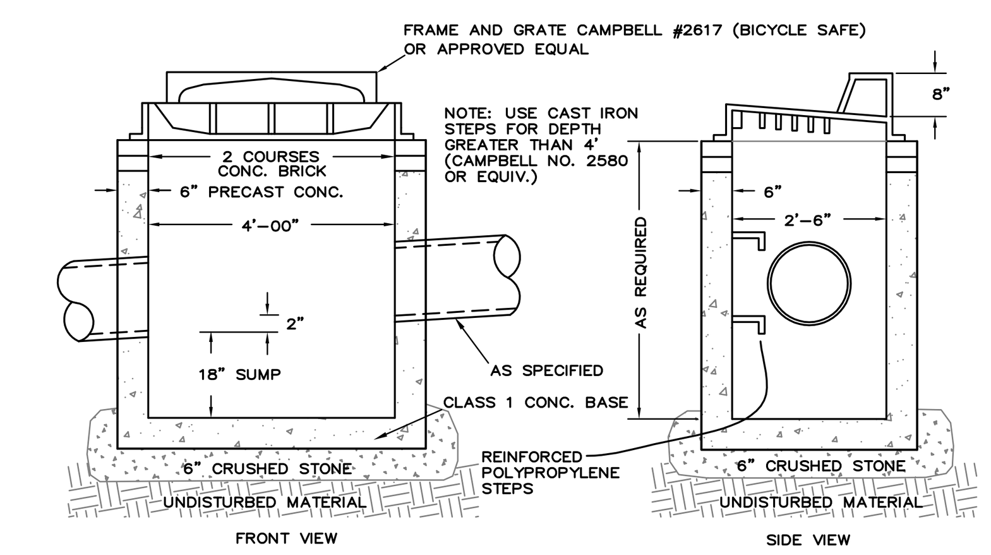
TO BE INSTALLED IMMEDIATELY BELOW DISTURBED AREAS THAT ARE SUSCEPTIBLE TO SHEET OR RILL EROSION; AND WHERE SENSITIVE WATER BODIES, SUCH AS DRINKING WATER SUPPLIES OR WETLANDS, ARE LOCATED DOWNSLOPE OF AN AREA TO BE DISTURBED.

SEE EROSION CONTROL PLAN FOR LOCATIONS.

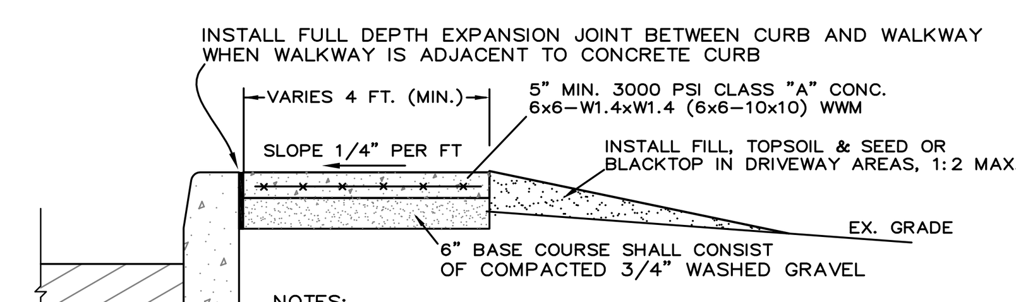
INSTALLATION NOTES

1. EXCAVATE A 4 INCH X 4 INCH TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT TRENCH.
5. JOIN SECTIONS AS SHOWN ABOVE.

SILT FENCE
N.T.S.

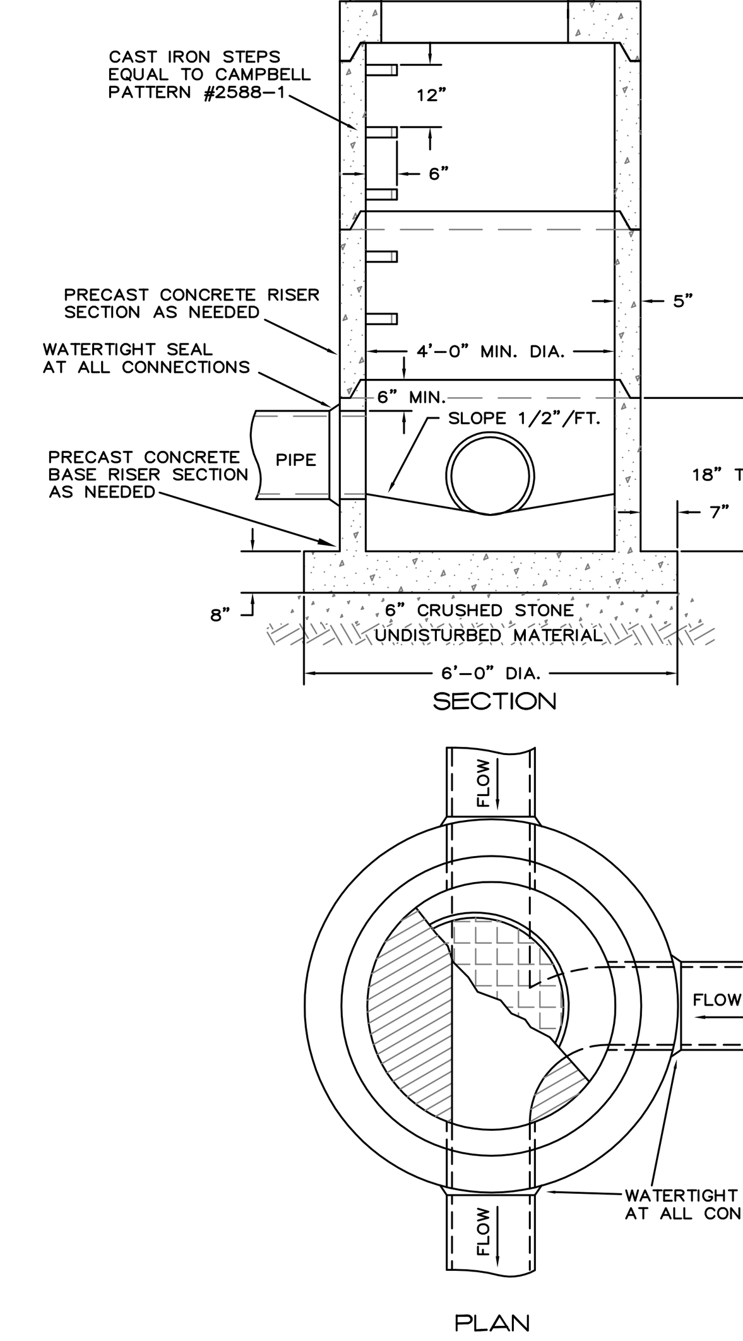


CATCH BASIN
N.T.S.



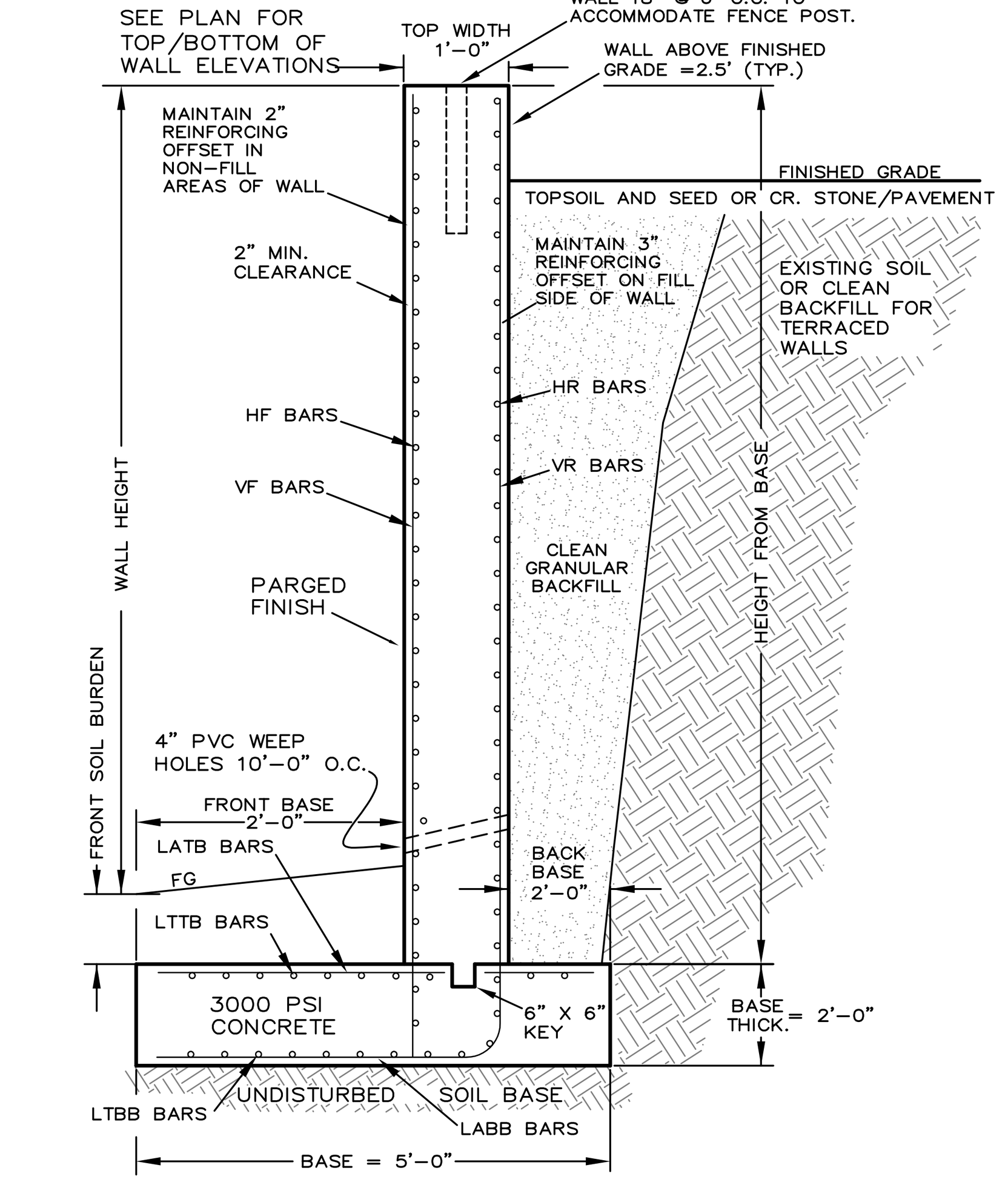
NOTES:
1. TRANSVERSE EXPANSION JOINT WHERE EXISTING CONCRETE MEETS NEW CONCRETE AND EVERY 20'-0" OR AS DIRECTED.
2. CONTROL JOINTS 1/4" DEPTH EVERY 5 FT. MIN.
3. CONTRACTOR SHALL INSTALL 2 COATS OF ANTI-SPALLING COMPOUND ON ALL NEW CONCRETE. SEE SPECIFICATIONS

CONCRETE SIDEWALK
N.T.S.



SEWER/DRAIN MANHOLE
N.T.S.

NOTE: THE WALLS HEREIN ARE SHOWN SCHEMATICALLY ONLY. THE DEVELOPER SHALL PROVIDE FINAL DESIGNS FOR ALL WALLS. SHOP DRAWINGS MUST BE APPROVED BY THE VILLAGE PRIOR TO CONSTRUCTION.



FOR VARIOUS WALL HEIGHTS
RETAINING WALL DIMENSIONS

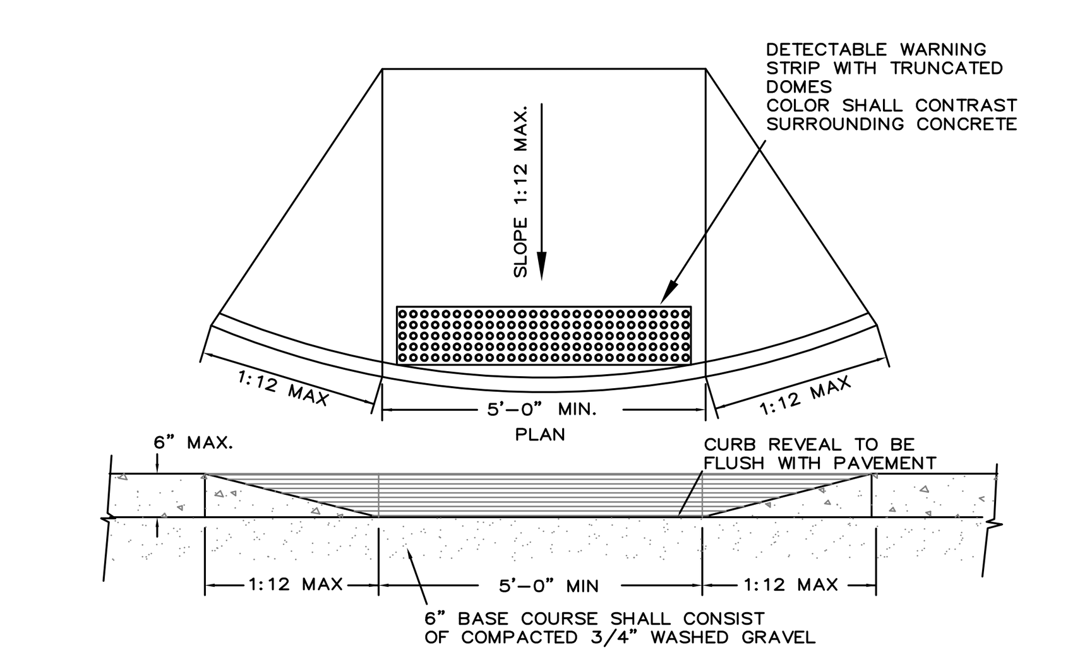
WALL FACE HEIGHT (FT)	HEIGHT FROM TOP OF BASE (FT)	TOP WIDTH (FT)	BASE THICKNESS (FT)	BACK BASE LENGTH (FT)	FRONT BASE LENGTH (FT)	BASE LENGTH (FT)
7.5	10.0	1.0	2.0	2.0	2.0	5.0
4.0	7.0	1.0	2.0	2.0	2.0	5.0

REINFORCEMENT BAR SCHEDULE
FOR VARIOUS WALL HEIGHTS

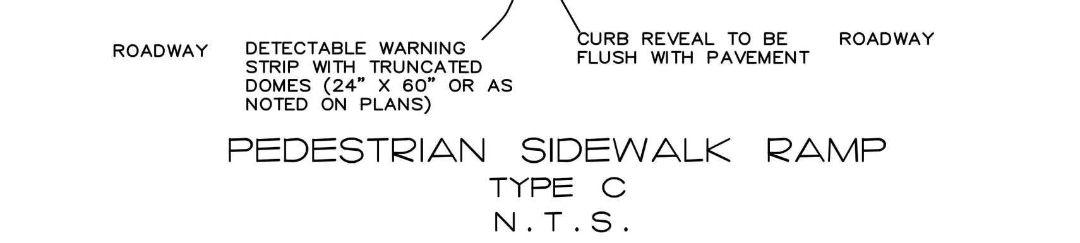
FRONT WALL HEIGHT	HF	VF	HR	VR	LATB	LTTB	LTBB	LABB
7.5'	#6-12"	#4-8"	#4-8"	#7-6"	#4-10"	#6-12"	#6-12"	#4-10"
4.0'	#6-12"	#4-8"	#4-8"	#7-6"	#4-10"	#6-12"	#6-12"	#4-10"

NOTES:
1. ALTERNATE VR BARS MAY BE CUT AT 1/2 HEIGHT OF WALL
2. ALL REINFORCING STEEL TO BE COMMON GRADE 40.

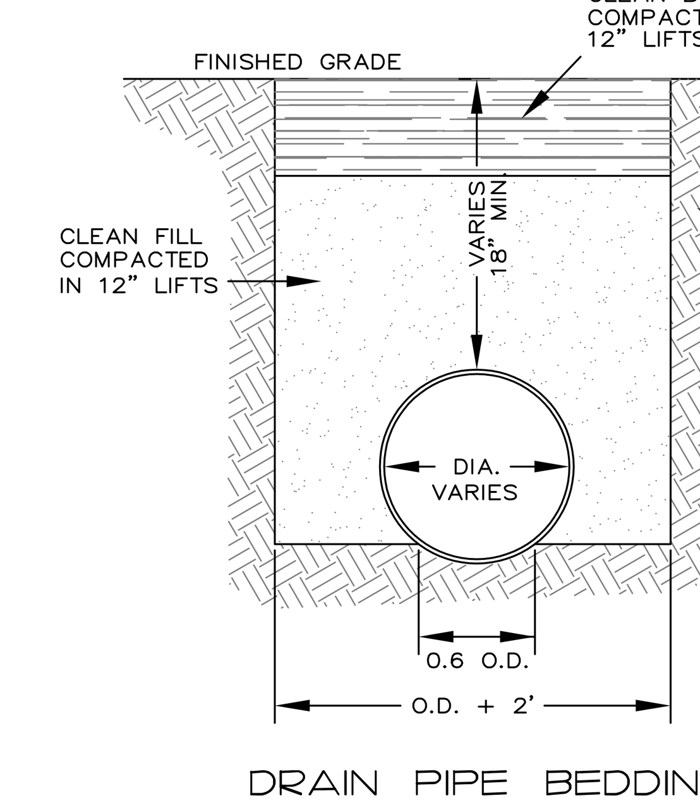
RETAINING WALL STRUCTURAL DETAILS
N.T.S.



SIDEWALK RAMP
N.T.S.



PEDESTRIAN SIDEWALK RAMP
TYPE C
N.T.S.



DRAIN PIPE BEDDING
N.T.S.

REVISED: 8/10/2023
REVISED: 8/2/2023
REVISED: 7/14/2023
REVISED: 6/28/2023

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL LOCATE AND VERIFY IN THE FIELD ALL UTILITIES – GAS, WATER, ELECTRICAL BEFORE THE START OF CONSTRUCTION. CONTRACTOR SHALL CALL CODE 753 (FORMERLY CODE 53)
2. EROSION CONTROL MEASURES, INCLUDING SILT FENCE, SHALL BE REQUIRED AS DIRECTED BY THE TOWN.
3. ALL PROPERTY DISTURBED IN THE R.O.W. OR ON PRIVATE LANDS, SHALL BE RESTORED TO NEW CONDITIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL APPLICATIONS AND PERMITS REQUIRED FOR CONSTRUCTION.
5. UNDERGROUND GAS AND ELECTRIC SHALL BE AS REQUIRED BY THE TOWN AND CON EDISON.
6. THE BUILDING INSPECTOR OR VILLAGE ENGINEER MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES IF DEEMED APPROPRIATE TO MITIGATE UNFORESEEN SILTATION AND EROSION OF DISTURBED SOILS.
7. AS-BUILT DRAWINGS OF THE SITE IMPROVEMENTS SHALL BE SUBMITTED TO THE VILLAGE ENGINEER FOR REVIEW PRIOR TO OBTAINING CERTIFICATE OF OCCUPANCY.
8. PROPOSED SOIL SLOPES EXCEEDING 1:2 (V:H) SHALL BE RIP-RAPPED AND SHALL NOT EXCEED 1:1 (V:H).
9. IMPORTED FILL MUST BE CERTIFIED AND APPROVED BY THE VILLAGE BUILDING INSPECTOR OR ENGINEER.
10. THE RESTORATION WORK FOR THE ROADWAY AND SHOULDER CONSTRUCTION WITHIN THE VILLAGE RIGHT-OF WAY SHALL BE PERFORMED TO THE SATISFACTION OF THE VILLAGE ENGINEER AND NYSDOT.
11. ALL DRAINAGE STRUCTURES WITHIN PAVED AREAS MUST BE ABLE TO WITHSTAND H-20 LOADING.

EROSION AND SEDIMENT CONTROL NOTES:

1. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
2. ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND PROCEDURES SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE TOWN OF CORTLANDT.
3. PRIOR TO ANY EXCAVATION, SILT FENCE SHALL BE INSTALLED AT THE APPROPRIATE LOCATIONS NOTED ON EROSION CONTROL PLAN. SILT FENCING SHALL BE INSTALLED AS DIRECTED BY THE OWNER'S REPRESENTATIVE IN THE FIELD AND INSTALLED AS PER THE INSTRUCTIONS OF THE MANUFACTURER. ADDITIONAL SILT FENCE MAY BE PLACED BY THE OWNER'S REPRESENTATIVE IN THE FIELD. SILT FENCING SHALL BE MAINTAINED IN OPERABLE CONDITION AND SHALL NOT BE REMOVED UNTIL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
4. ALL FINISHED SLOPES AND ALL ROUGH CUT SLOPES TO REMAIN OPEN FOR EXTENDED PERIODS IMMEDIATELY TOPSOIL, SEED WITH A MIXTURE OF PERENNIAL RYE GRASS, ANNUAL RYE GRASS AND WINTER RYE AND MULCH WITH 6" OF HAY.
5. ALL SLOPES CONSTRUCTED WITH FILL MATERIAL AND ALL SLOPES WITH GRADE 3:1 OR STEEPER SHALL BE TOPSOILED, SEEDED, MULCHED AND STABILIZED WITH STAKED JUTE NETTING, UNLESS OTHERWISE NOTED.
6. ALL AREAS OF DISTURBED SOIL SHALL BE STABILIZED. IN ADDITION TO ALL SPECIFIED AND LOCATED EROSION CONTROL DEVICES, THE CONTRACTOR SHALL TAKE ALL STEPS PRUDENT AND NECESSARY TO STABILIZE THE SITE AT ALL TIMES.
7. DO NOT STOCKPILE MATERIALS ON STEEP SLOPES, IN DRAINAGE SWALES OR IN WETLAND AREAS. SURROUND ALL STOCKPILE AREAS WITH SILT SCREEN AND SEED THEM WITH THE ANNUAL RYE GRASS.
8. ALL CATCH BASINS ARE TO BE PROTECTED WITH HAYBALE FILTERS THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
9. HAYBALES SHALL BE USED AT THE TOPS AND TOES OF SLOPES, AS NECESSARY, TO COLLECT SILT AND DIVERT FLOWS. SILT SCREENS WILL BE USED IN AREAS OF UNCONCENTRATED FLOWS TO COLLECT SILT. HAYBALES AND SILT SCREEN ON PLANS MAY BE AUGMENTED IN THE FIELD AS NECESSARY.
10. UTILITY LINE EXCAVATED MATERIAL SHALL BE TEMPORARILY STOCKPILED ON HIGH SIDE OF EXCAVATION SO RUNOFF IS DIRECTED AWAY FROM TRENCH, AFTER BACK-FILLING, AREA IS TO BE TOPSOILED, SEEDED, AND MULCHED.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
12. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. SEDIMENT SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT RESULT IN ADDITIONAL EROSION OR POLLUTION.
13. INSTALL GRAVEL BED AT CONSTRUCTION ENTRANCE TO SERVE AS ANTI-TRACKING PAD. GRAVEL BED TO BE 2" DIAMETER CRUSHED STONE 6" DEEP, OVER GEOTEXTILE SUPPORT FABRIC. ANTI-TRACKING PADS TO MEASURE 30' (MIN.) LENGTH BY THE ROADWAY WIDTH.
14. BLASTING AREAS – ROCK, RIPPING WILL BE USED WHEREVER POSSIBLE. BLASTING WILL OCCUR IN ACCORDANCE WITH REGULATIONS AND STANDARDS PRESCRIBED BY THE TOWN OF CORTLANDT.

THE APPLICANT SHALL NOTIFY THE VILLAGE OF BUCHANAN BUILDING INSPECTOR AT LEAST 48 HOURS BEFORE ANY OF THE FOLLOWING AS REQUIRED BY THE STORMWATER MANAGEMENT OFFICER:

- START OF CONSTRUCTION
- INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES
- COMPLETION OF SITE CLEARING
- COMPLETION OF ROUGH GRADING
- INSTALLATION OF STORMWATER MANAGEMENT FACILITIES
- COMPLETION OF FINAL GRADING
- CLOSE OF THE CONSTRUCTION SEASON
- COMPLETION OF FINAL LANDSCAPING
- SUCCESSFUL ESTABLISHMENT OF LANDSCAPING IN PUBLIC AREAS.

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

DETAILS/NOTES
VILLAGE SQUARE
RESIDENTIAL/COMMERCIAL
CARBONE BROTHERS 3095 LLC
VILLAGE OF BUCHANAN
WESTCHESTER COUNTY, NY
NOVEMBER 23, 2022

SHEET 7 OF 7 SHEETS