

TOWN OF NEWBURGH PLANNING BOARD TECHNICAL REVIEW COMMENTS

PROJECT NAME: AVION VENTURES-WAREHOUSE

PROJECT NO.: 24-16

PROJECT LOCATION: SECTION 86, BLOCK 1, LOT 37.222

REVIEW DATE: 27 MARCH 2025 MEETING DATE: 3 APRIL 2025

PROJECT REPRESENTATIVE: COLLIERS ENGINEERING AND DESIGN – CONNOR MCCORMACK, PE

- Compliance with the Tree Preservation Ordinance, Chapter 172 of the Zoning Code is required. The
 applicants have identified that a tree survey is being conducted. Sample plot locations were reviewed
 previously by this office.
- 2. Applicants have identified that an application for an Article 24 Wetland Permit has been made to the New York State Department of Environmental Conservation in February 2025. A review of the NYSDEC DART system does not yet identify an application for an Article 24 Wetland Permit.
- 3. The SWPPP is under review by this office. A separate comment letter will be issued. All information submitted to the DEC should be shared with the Planning Board as Lead Agency.
- 4. It has been confirmed that the Coldenham Fire District reviewed the site plan and have found the plans acceptable including locations of proposed hydrants.
- 5. This office has submitted to the City of Newburgh for a flow acceptance letter.
- 6. Health Department approval for the watermain extension with hydrants is required. A copy of the design report has been submitted.

Respectfully submitted,

MHE Engineering, D.P.C.

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Patrick J. Hines

Principal PJH/kmm

Michael W. Weeks, P.E.

Muc Waled

Principal



TOWN OF NEWBURGH PLANNING BOARD SWPPP TECHNICAL REVIEW COMMENTS

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- 1. Bioretention basin note should identify both bioretention ponds are designed to treat hot spot run off and will be lined. Bioretention note on Sheet C-401 should be revised.
- The SWPPP identifies the project site as discharging to Orange Lake a 303D impaired water body.
 Review of the area topography identifies the area tributary to the wetland area which discharges
 through the Lakeside Road culvert located east of the site. Remember check the direction of flow
 there.
- 3. SWPPP identifies that soil testing would be performed in order to complete SWPPP and Stormwater Design.
- 4. The re-development .44 acres of impervious area should be specially identified on the plan sheet. The majority of the project site is currently wooded. The existing access road will be re-constructed however, evidence of highly impacted and poorly drained soils are not the majority of the area on the site.
- 5. Green infrastructure planning identifies that clearing limits were minimized using maximum allowable slopes retaining walls to meet grade. Small retaining walls are proposed at the loading dock area however, retaining walls are not identified on the rest of the plan sheet. In addition, roadway widths are identified as being reduced where ever possible. Roadway widths are based on the Fire Code and have not been reduced.
- 6. Show spot elevations for the flow weir from the sediment forebays. Flow weir is identified at 503 while topography stops at 502.
- 7. The SWPPP should be coordinated with the plans. Pond P-1B has the 6-inch vertical orifice grate is located at 502.5 the outlet structure grate is identified at 502.
- 8. Coordinate outlet control structure names with the plans and details. Outlet control structure S-22 is identified as outlet control structure SA2 in the detail. Detail for each outlet control structure should be provided with invert elevations, weir/orifice sizes.

- 9. Bioretention details should specify the impermeable liner. Bioretention details should reference both bioretention facilities being lined.
- 10. A detail for a proprietary hydrodynamic separator is depicted on the plan sheets. This device is not addressed in the SWPPP.
- 11. It appears additional grading will be required for the discharge of the bioretention pipes based on proposed inverts. It is recommended the invert elevation of sections be provided on the plans. (Top of pipe invert vs. bottom pipe invert)

Respectfully submitted,

MHE Engineering, D.P.C.

Patrick J. Hines

Principal PJH/kmm

Michael W. Weeks, P.E.

Muc Wales

Principal



Engineer's Sewer Report

March 2025

For

Pomarico Drive Warehouse

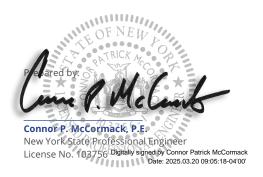
SBL: 86-1-37.222

86-1-37.223

Town of Newburgh, Orange County, New York

Prepared for:

Avion 491 NYS 208 , Suite 112 Monroe, NY 10950



Colliers Engineering & Design

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Project No. 24002169A



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EXECUTIVE SUMMARY

The purpose of this report is to propose a sewer connection to the Town of Newburgh Crossroads Sewer District. This report demonstrates that acceptable engineering solutions were used in the evaluation and design of the proposed grinder pump and force main, and the goal of the report is to provide the permitting agency with sufficient information to make an informed decision.

The proposed project will consist of a 56,000 SF warehouse building, with 3,000 SF of office spaces. The building will have 6 loading docks and 34 employee parking spaces. Other improvements include a driveway, an emergency access, sidewalks, a chamber tank and force main, and associated utilities to service the users. The facility is expected to have 3 shifts per day with a maximum of 17 employees per shift.

The proposed grinder pump and force main is required for the development since the nearest public sewer utility ends in the south end of Pomarico Drive at an elevation higher than the proposed warehouse building.

PROJECT BACKGROUND AND HISTORY

SITE INFORMATION

The project site is located in the Town of Newburgh, Orange County, New York, at Pomarico Drive, along Route 17k. The property is comprised of tax lots 86-1-37.222 and 86-1-37.223 and is located within the Town's Interchange Business (IB) Zoning District and has a total lot area of 576,342 square feet, or 13.23 acres. A small portion of the existing site is developed with the northern edge of a small parking lot. The smaller of the two parcels contains a private road, Pomarico Drive. The majority balance of the site is maintained by woods and wetlands.

New York State DEC regulated wetlands exist on site. Earth disturbance is proposed within the 100 ft. adjacent area of the NYSDEC wetland but is limited to stormwater features only. The proposed development will not impact the site wetlands.

OWNERSHIP AND SERVICE AREA

The proposed grinder pump and force main will be privately owned & maintained, will provide service to only the proposed warehouse facility on the property, and has been designed to convey sewage effluent free of industrial wastes or other waste.

PROJECT DESCRIPTION

SCOPE OF PROPOSED SEWAGE DISPOSAL SYSTEM

The proposed system shall consist of furnishing and installing approx. 8 linear feet of 6" PVC gravity sewer pipe from the building to the proposed pump station with a grinder pump inside a 5 ft. dia. manhole. From the pump station, the sewage effluent will be pumped 1,057 linear feet through a proposed 2" sanitary forcemain to the existing manhole in Pomarico drive.



DETERMINATION OF WASTEWATER FLOWS

Proposed wastewater flows were determined based on the New York State Design Standards for Intermediate Sized Wastewater Treatment Systems [NYSDEC Design Manual], dated March 5, 2014. Calculations are shown below:

As per NYSDEC Design Manual;

TYPE OF USE	NYSDEC LOADING	PROJECT DESIGN	DESIGN
	(GALLONS PER DAY)	UNITS	CALCULATION
WAREHOUSE	12 GPD PER EMPLOYEE*	51 EMPLOYEES	51 * 12 = 612 GPD

^{*12} GPD per employee determined by applying the 20% reduction identified in NYSDEC Design Manual Section B.6.b for establishments equipped with water saving plumbing fixtures. Total Design Flow = 612 GPD

PROPOSED PUMP SYSTEM

To support the development and compensate for the grade change across the site, a Grinder Pump is proposed which will provide sanitary sewer conveyance to the existing sewer in Pomarico Drive through approx. 1,057 linear feet of 2" dia. PVC SCH 80 forcemain pipe.

As this is a commercial operation, a duplex pump arrangement (RGS2012 Series Submersible Grinder Pump) in a lead-lag configuration has been proposed in a 5' diameter precast pump chamber manhole. Pump specifications, calculations and details are enclosed on the plans and in the appendix of this report.

24-hour storage volume has not been provided for the system since the proposed warehouse use would not have employees working without power to the facility, therefore no wastewater flow will be generated without power to the pump and 24-hour storage is not necessary. The system has been designed to provide 24" of storage (roughly 39 CF or 293 Gallons of storage) above the alarm float to the inlet invert to the chamber. An emergency power generator that could be connected to the sewer pump system can be installed by the end user if they desire.

SANITARY SEWER SYSTEM INSTALLATION AND TESTING

All installations shall conform to *Recommended Standards for Wastewater Facilities*, Latest Edition, New York State Sanitary Code Part 5, and the standards of the Town of Newburgh.

All construction and testing will conform to the specifications of the Town of Newburgh as well as County and State Environmental Health Standards and Requirements.

HORIZONTAL AND VERTICAL SEPARATION

Horizontal separation between the proposed water main and storm (structures, piping, swales, etc.) or sanitary sewer (structures, mains, services, etc.) will be ten (10) feet or greater, unless due to constructability and impact to existing utilities warrant otherwise at which time deviation will require approval by the Engineer of Record.



Vertical separation between storm or sanitary sewers and proposed water main crossings will be maintained at 18" minimum unless due to constructability and impact to existing utilities warrant otherwise at which time deviation will require approval by the Engineer of Record.

KAS/cpm

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Appendix A – System Design Information

0.071 cubic feet per second (CFS)

3.27 feet per second (FPS)

10.07 HRS

1.04 HRS

Velocity in Force Main (PVC schedule 80)

1 pump runningPipe inside diameter2.00 inches (IN)Pipe area0.022 square feet (SF)Operating flow rate32.0 gallons per minute (GPM)

Operating velocity

Cycle Time

Pump Chamber DIA

Pump Chamber Area

19.63 SF

Depth of effluent

1.75 feet (FT)

Quantity of effluent

Quantity of effluent

256.89 gallons (GAL)

Time for 1 pump to empty chamber

5.00 FT

19.63 SF

1.75 feet (FT)

24.34 cubic feet (CF)

256.89 gallons (GAL)

8.0 minutes (MIN)

Flow Estimation

Flow rate (gpd) (Average daily flow)

Peaking factor

Peak Daily Flow Rate

Peak Daily Flow Rate

Peak Daily Flow Rate

1.74 GPM

612 gallons per day (GPD)

2509.2 gallons per day (GPD)

1.74 GPM

24 Hour Storage Capacity

24 Hour Volume

24 Hour Volume

82 CF

Pump Chamber Area

Depth Req'd between Alarm Float & Pump

Chamber Inlet Invert (See PROPOSED PUMP SYSTEM on page 4 of report)

Quantity of Effluent in Force Main

Force main diameter 2.00 IN
Force main area 0.022 SF
Force main length 1057.00 FT
Quantity of effluent in force main 23.06 CF
Quantity of effluent in force main 172.49 GAL

Check if Forcemain is Cleared Each Cycle

Average inflow
Average inflow
O.43 GPM
Quantity of effluent
Ave. Time/cycle
Peak time/cycle
Forcemain is cleared each cycle

612.0 GPD
O.43 GPM
256.9 GAL
604.5 MIN
Forcemain is cleared each cycle
YES

Float Switch Height from Wet Well Invert to.....

Pump off	4.25 FT
Pump on	2.50 FT
Alarm on	2.00 FT
Slope of Pipe btwn Bldg & Pump Chamber Length of Pipe btwn Bldg & Pump Chamber	3.13% <mark>8</mark> FT

Summary of Inverts & Elevations

(A) Finish grade at location of sanitary line leaving building	513.00 F7
(B) Invert of sanitary line leaving house	508.00 F1
(C) Septic tank inlet elevation	507.75 F1
(D) Invert out of septic tank	507.75 F1
(E) Pump chamber inlet elevation	507.75 F1
(F) Alarm float elevation	505.75 FT
(G) Pump on elevation	505.25 FT
(H) Pump off elevation	503.50 FT
(I) Elevation at bottom of pump chamber	502.50 FT

Checks

ls 1 day storage (960 gallons) provided between alarm float and pump chamber inlet invert?	YES
Is a minimum velocity of 2 fps provided in the force main?	YES

10.07 HRS 1.04 HRS

Velocity in Force Main (PVC schedule 80)

1 pump running Pipe inside diameter 2.00 inches (IN) Pipe area 0.022 square feet (SF)

Operating flow rate 32.0 gallons per minute (GPM) 0.071 cubic feet per second (CFS) 3.27 feet per second (FPS)

Operating velocity

Cycle Time

Pump Chamber DIA 5.00 FT Pump Chamber Area 19.63 SF Depth of effluent 1.75 feet (FT) Quantity of effluent 34.34 cubic feet (CF) Quantity of effluent 256.89 gallons (GAL) Time for 1 pump to empty chamber 8.0 minutes (MIN)

Flow Estimation

Chamber Inlet Invert

Flow rate (gpd) (Average daily flow) 612 gallons per day (GPD) Peaking factor 4.10 Peak Daily Flow Rate 2509.2 gallons per day (GPD) Peak Daily Flow Rate 1.74 GPM 24 Hour Storage Capacity 24 Hour Volume **612** GAL 24 Hour Volume 82 CF Pump Chamber Area 19.63 SF

4.17 FT

Quantity of Effluent in Force Main

Depth Req'd between Alarm Float & Pump

Force main diameter 2.00 IN Force main area 0.022 SF Force main length 1057.00 FT Quantity of effluent in force main 23.06 CF Quantity of effluent in force main 172.49 GAL

Check if Forcemain is Cleared Each Cycle

Chicon in a chochiani le Chearda Lach Cycle		
Average inflow	612.0 GPD	
Average inflow	0.43 GPM	
Quantity of effluent	256.9 GAL	
Ave. Time/cycle	604.5 MIN	
Peak time/cycle	62.7 MIN	
Forcemain is cleared each cycle	YES	

Float Switch Height from Wet Well Invert to.....

Pum	p off				4.25 FT
Pum	p on				2.50 FT
Alarr	n on				2.00 FT
-		 	 -		0.400/

Slope of Pipe btwn Bldg & Pump Chamber 3.13% Length of Pipe btwn Bldg & Pump Chamber 8 FT

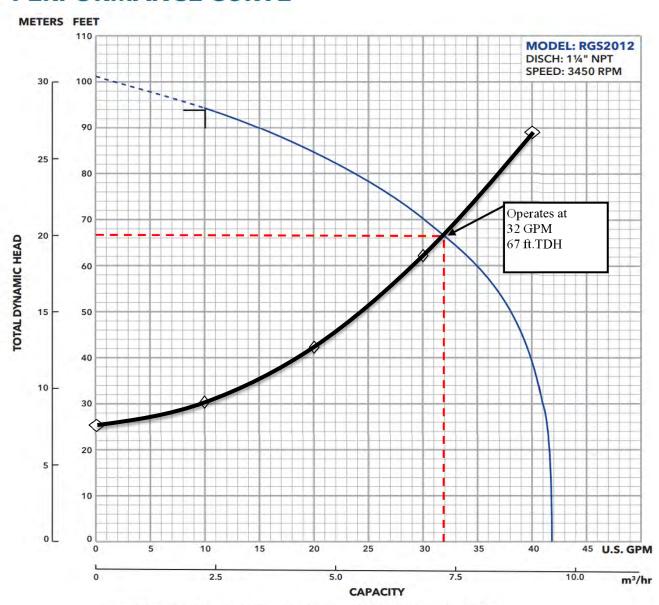
Summary of Inverts & Elevations

(A) Finish grade at location of sanitary line leaving building	513.00 F
(B) Invert of sanitary line leaving house	508.00 F
(C) Septic tank inlet elevation	507.75 F
(D) Invert out of septic tank	507.75 F
(E) Pump chamber inlet elevation	507.75 F
(F) Alarm float elevation	505.75 F
(G) Pump on elevation	505.25 F
(H) Pump off elevation	503.50 F
(I) Elevation at bottom of pump chamber	502.50 F

Checks

ls 1 day storage (960 gallons) provided between alarm float and pump chamber inlet invert?	NO
Is a minimum velocity of 2 fps provided in the force main?	YES

PERFORMANCE CURVE



= A 1¼" minimum discharge pipe requires a minimum flow of 10 gpm to maintain a 2 ft./sec. scouring velocity. Flows less than 10 gpm will allow solids to settle in the pipe.



Appendix B – Specifications and Cut Sheets



RGS2012 Series Residential Grinder Pumps are radial cutter style pumps that can be flipped once in the field, to expose the factory sharpened side of the cutting ring. It does not require external motor components in the panel. It's capable of grinding domestic sewage in individual residential applications. This "Complete. Reliable. Blue." pump is designed for residential, agriculture, and light commercial applications.

APPLICATIONS

Designed for high head sewage applications where a gravity system is not practical. Ideal for pressure sewage systems.

FEATURES

- Capable of grinding domestic sewage in individual residential applications
- Anti-roping design cutter system
- Motor is fully submerged in oil-filled chamber, allowing for more efficient heat dissipation, permanent lubrication of bearings and mechanical seal, and protection against outside environment
- Silicon bronze semi-open impeller with nonoverloading two vane design and pump-out vanes for mechanical seal protection
- Cast iron volute type casing for high efficiency
- 3 year standard warranty (4 year GPDA)

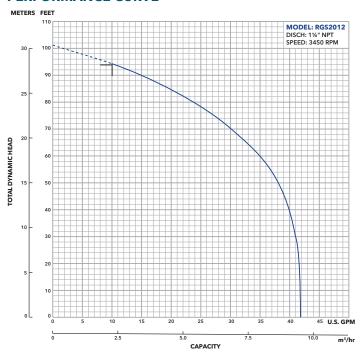


PRODUCT SPECIFICATIONS

Order Number	НР	Volts	Phase	RPM	Operation	Discharge Size	Impeller Diameter (inches)	Maximum Amps	LRA	Power Cord	Weight (lbs.)
RGS2012					Manual					20' with Bare Leads	75
RGS2012P		200/220	4	2450	IVIdTIUdI	41/11	F (OII	4.5	F0	20' with 230 V Plug	75
RGS2012PA	2	208/230		3450	Automatic	11⁄4"	5.69"	15	59	20' with 230 V Plug and Float	7/
RGS2012PS					Manual					30' with 230 V Plug	76

A non-stock pump may be special ordered with optional legs by adding an "L" suffix to the Order Number. Example: RGS2012L, RGS2012SL, RGS2012PSL, etc. See "L" List Adder in price book.

PERFORMANCE CURVE



= A 1½" minimum discharge pipe requires a minimum flow of 10 gpm to maintain a 2 ft./sec. scouring velocity. Flows less than 10 gpm will allow solids to settle in the pipe.

Learn more about our Grinder Solutions:

RGS2012 Pumps

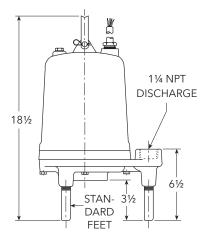


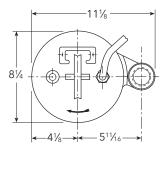
Preconfigured Packages



DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)





* Optional pump legs are recommended for poly or fiberglass basin installations where the pumps contact the basin floor. The order number for a package of (3) three optional pump legs is 4K639.

MATERIALS OF CONSTRUCTION

Part Name	Material
Impeller	Cast Silicon Bronze
Cutter	Type 440C Hardened Stainless Steel
Casing & Motor Dome	Cast Iron
Mechanical Seal	Silicon Carbide/Silicon Carbide
Cord	STOW
Fasteners	Stainless Steel

AGENCY LISTINGS



Tested to UL778 CAN 22.2 by

CSA International (Canadian Standards Association)



Xylem Inc. 2881 East Bayard Street Ext., Suite A Seneca Falls, NY 13148

Phone: (866) 325-4210 • Fax: (888) 322-5877

www.xylem.com/goulds

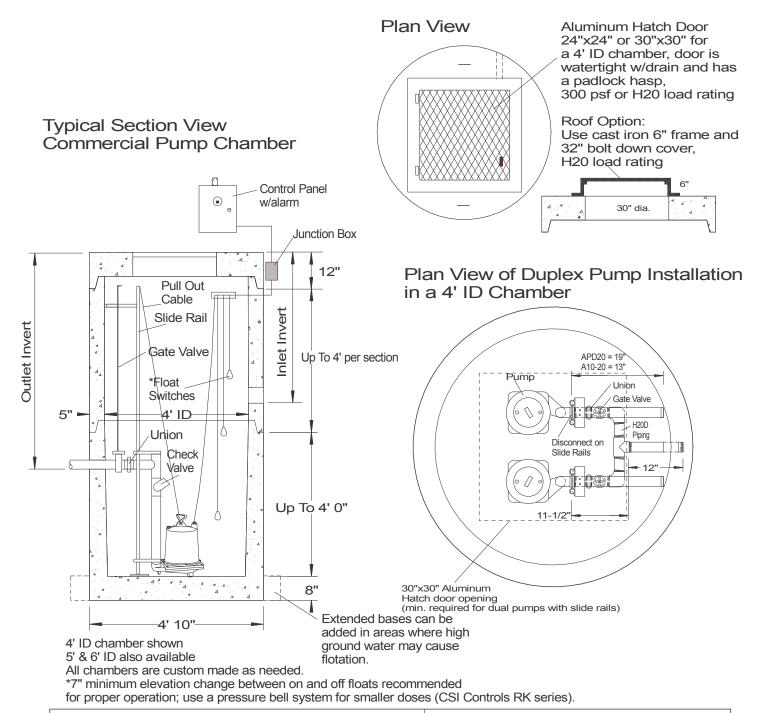
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COMPLETE. RELIABLE. BLUE

Learn more about our complete line of wastewater products.





SPECIFICATIONS

Concrete Min. Strength: 4,000 psi at 28 days Reinforcement: Wire & Rebar / ASTM C478

Air Entrainment: 6%

Pipe Connection: Rubber Pipe Boots Volume: 4' = 94 gal/vf, 5' = 147 gal/vf,

6' = 212 gal/vf

Load Rating: 300 psf or HS20-44

PRECAST PUMP CHAMBERS COMMERCIAL GRADE

Woodard's Concrete Products, Inc.

629 Lybolt Road, Bullville, NY 10915 (845) 361-3471 / Fax 361-1050

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Appendix C – Pump Installation Manual

IM245R01



RGS2012E1 S or E Retrofit Kit

SUBMERSIBLE GRINDER PUMP

INSTALLATION, OPERATION AND TROUBLESHOOTING MANUAL



SAFETY INSTRUCTIONS

TO AVOID SERIOUS OR FATAL PERSONAL INJURY OR MAJOR PROPERTY DAMAGE, READ AND FOLLOW ALL SAFETY INSTRUCTIONS IN MANUAL AND ON EQUIPMENT.

THIS MANUAL IS INTENDED TO ASSIST IN THE INSTALLATION AND OPERATION OF THIS UNIT AND MUST BE KEPT WITH THE UNIT.



This is a **SAFETY ALERT SYMBOL**. When you see this symbol on the pump, the controller or in the manual, look for one of the following signal words and be alert to the potential for personal injury or property damage.

A DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

▲ WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

▲ CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTE:

INDICATES SPECIAL INSTRUCTIONS WHICH ARE VERY IMPORTANT AND

MUST BE FOLLOWED.

THOROUGHLY REVIEW ALL INSTRUCTIONS AND WARNINGS PRIOR TO PERFORMING ANY WORK ON THIS CONTROLLER.

MAINTAIN ALL SAFETY DECALS.

ALL OPERATING INSTRUCTIONS MUST BE READ, UNDERSTOOD, AND FOLLOWED BY THE **OPERATING PERSONNEL. GOULDS WATER TECHNOLOGY ACCEPTS NO LIABILITY FOR** DAMAGES OR OPERATING DISORDERS WHICH ARE THE RESULT OF NON-COMPLIANCE WITH THE OPERATING INSTRUCTIONS.

- 1. This manual is intended to assist in the installation, operation and repair of the system and must be kept with the system.
- 2. Installation and maintenance MUST be performed by properly trained and qualified personnel.
- 3. Review all instructions and warnings prior to performing any work on the system.
- 4. Any safety decals MUST be left on the pump.
- 5. The system MUST be disconnected from the main power supply before attempting any operation or maintenance on the electrical or mechanical part of the system. Failure to disconnect electrical power before attempting any operation or maintenance can result in electrical shock, burns or death.

PUMP INSTALLATION

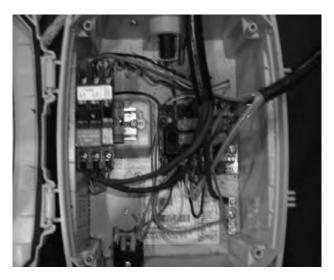
Grinder pumps should be installed in a basin that is vented per the local plumbing code in your area. The pump is not to be installed in locations that are hazardous in accordance with the NEC. All plumbing should be beneath the frost line for the region station is installed in to ensure that pipes do not freeze.

ACAUTION Never lift the pump by the cord. Use the lifting rope provided with the retro-

fit kit for lifting.

OLD PUMP REMOVAL

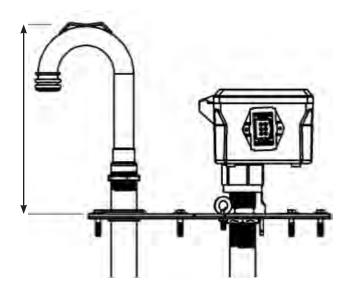
- 1. Supply power must be turned off
- 2. Goulds Water Technology recommendation is to use a 20 amp circuit breaker. Check the existing panel for breaker size and replace if necessary.



- 3. Remove the basin cover from the current station
- 4. If basin is full of water, pump water out with separate pump or vacuum truck. Discard waste in accordance with local, state and national codes.
- 5. Disconnect quick disconnect.

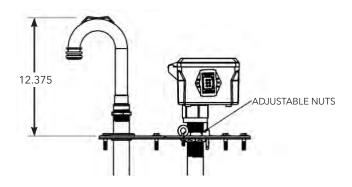


- 6. Check connections to make sure they are clean and dry.
- 7. Inspect connection, there are two styles round connectors- shown above and rectangular connectors. Ensure that the correct Retrofit Kit has been purchased for the style connection being replaced.
- 8. Remove bolts from cover plate of current unit
- 9. Close valve of current unit
- 10. Secure rope to hooks on cover. Lift Unit from basin.
- 11. Measure distance on Candy cane for setting up new retrofit see below.



INSTALLING THE GOULDS WATER TECHNOLOGY RETROFIT KIT

 Adjust the center nut until the candy cane elbow distance measured above matches the old unit. (This is pre-set at factory to 12.38".) Secure adjustable nuts with Loctite so that vibration does not loosen the nut.



2. Check floats so that they have an unobstructed free area in the tank. (These are pre-set at the factory.)

- 3. Retighten all connections, check hardware, and ensure that no wires or any other obstructions are in way of pump cutters.
- 4. Make sure all fittings are tight.
- 5. Apply gasket tape to the bottom of the cover perimeter, poke holes through the tape at the cover bolts entries.
- 6. Lubricate O-rings on the discharge elbow to ease installing into the receiver.
- 7. Using rope lower the grinder assembly in the basin. Align cover tabs to tank slots.
- 8. Align discharge elbow to Receiver. Unit will rest on the tank flange with the elbow fully inserted in receiver.
- Open valve to latch with the discharge elbow.Adjustment to nut may need to be made to alter height at this point.
- 10. Once in place and latched install the 6 bolts back into the cover plate.
- 11. Reconnect the power adapter from the power to the new retrofit kit adapter.
- 12. Check electrical resistance to make sure that the panel is free of shorts and ground faults.
- 13. Check grounding connections is made properly

Licensed electricians should be present for panel or breaker energizing. If faults caused by damage or poor installation have not been detected, serious damage can result when power is applied.

- 14. Turn on power to breakers.
- 15. Fill tank to test if pump and floats operate properly. See troubleshooting chart for problems encountered.
- 16. Once tested and operating properly replace the basin cover.
- 18. Affix nameplate provided to the control panel so the new unit can be identified as a RGS2012E1S or E1E Retrofit Kit by Goulds Water Technology.

Pump specifics can be found under the standard Goulds Water Technology product RGS2012 on the website www.completewatersystems.com, Goulds Water Technology Wastewater tab.

TROUBLESHOOTING CHART

Hazardous voltage

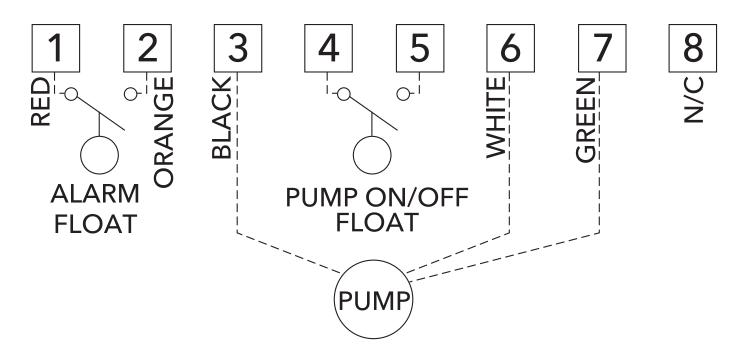
AWARNING FAILURE TO DISCONNECT AND LOCKOUT ELECTRICAL POWER BEFORE ATTEMPTING ANY SERVICE CAN CAUSE SHOCK, BURNS OR DEATH.

SYMPTOM	PROBABLE CAUSE	RECOMMENDED ACTION			
MOTOR NOT RUNNING	Motor thermal protector tripped.	Allow motor to cool. Insure minimum pump submergence. Clear debris from casing and impeller.			
NOTE: If circuit breaker "OPENS" repeatedly, DO NOT reset. Call qualified electrician.	Open circuit breaker or blown fuse.	Determine cause, call a qualified electrician.			
a) Manual operation	Pump impeller binding or jammed. Power cable is damaged. Inadequate electrical connection in control panel.	Check motor amp draw. If two or more times higher than listed on pump nameplate, impeller is locked, motor bearings or shaft is damaged. Clear Inadequate electrical connection debris from cutter, casing and impeller, consult with dealer.			
b) Automatic operation	No neutral wire connected to control panel.	Resistance between power leads and ground should read infinity. If any reading is incorrect, call a qualified electrician.			
	Inadequate electrical connection in control panel.	Inspect control panel wiring. Call a qualified electrician.			
NOTE: Check the pump in manual mode first to confirm operation.	Defective liquid level switch.	With switch disconnected, check continuity while activating liquid level switch. Replace switch, as required.			
If pump operates, the automatic control or wiring is at fault. If pump	Insufficient liquid level to activate controls.	Allow liquid level to rise 3" to 4" (76 mm - 101 mm) above turn-on level.			
does not operate, see above.	Liquid level cords tangled.	Untangle cords and insure free operation.			
PUMP WILL NOT TURN OFF	Liquid level cords tangled.	Untangle cords and insure free operation.			
	Pump is air locked.	Shut off pump for approximately one minute, then restart. Repeat until air lock clears. If air locking persists in a system with a check valve, a $\frac{3}{16}$ " (4.8 mm) hole may be drilled in the discharge pipe approximately 2" (51 mm) above the discharge connection.			
	Influent flow is matching pump's discharge capacity.	Larger pump may be required.			
LITTLE OR NO LIQUID DELIVERED BY PUMP	Check valve installed backwards, plugged or stuck closed.	Check flow arrow on valve and check valve operation.			
	Excessive system head.	Consult with dealer.			
	Pump inlet plugged.	Inspect and clear as required.			
	Improper voltage or wired incorrectly.	Check pump rotation, voltage and wiring. Consult with qualified electrician.			
	Pump is air locked.	See recommended action, above.			
	Impeller is worn or damaged.	Inspect impeller, replace as required.			
	Liquid level controls defective or improperly positioned.	Inspect, readjust or replace as required.			

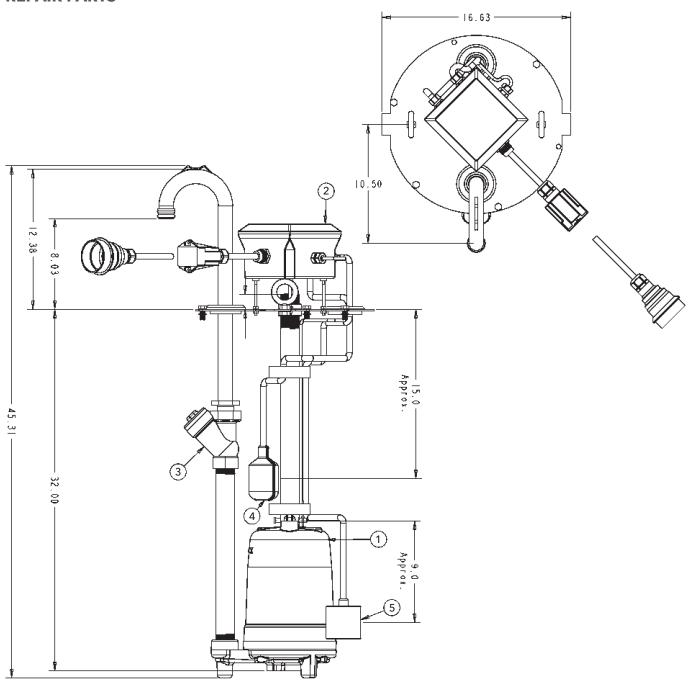
TROUBLESHOOTING CHART

SYMPTOM	PROBABLE CAUSE	RECOMMENDED ACTION
PUMP CYCLES CONSTANTLY	Discharge check valve inoperative.	Inspect, repair or replace as required.
	Sewage containment area too small.	Consult with dealer.
	Liquid level controls defective or improperly positioned.	Inspect, readjust or replace as required.
	Influent excessive for this size pump.	Consult with dealer.

JUNCTION BOX WIRING DIAGRAM



REPAIR PARTS



Item No.	Major Components	Standard	Extreme		
1	RGS2010 Grinder E1	RGS2012E1			
2	Junction Box with Electrical Adaptor	9K600	9K601		
3	Check / Anti-Siphon Valve	A9-12BAS			
4	Signal Master FS	A2N03			
5	Pump Master Plus FS	A2E03			

All dimensions $\pm \frac{1}{8}$ tolerance unless noted.

NOTES

LIMITED CONSUMER WARRANTY

For goods sold for personal, family or household purposes, Seller warrants the goods purchased hereunder (with the exception of membranes, seals, gaskets, elastomer materials, coatings and other "wear parts" or consumables all of which are not warranted except as otherwise provided in the quotation or sales form) will be free from defects in material and workmanship for a period of one (1) year from the date of installation or eighteen (18) months from the product date code, whichever shall occur first, unless a longer period is provided by law or is specified in the product documentation (the "Warranty").

Except as otherwise required by law, Seller shall, at its option and at no cost to Buyer, either repair or replace any product which fails to conform with the Warranty provided Buyer gives written notice to Seller of any defects in material or workmanship within ten (10) days of the date when any defects or non-conformance are first manifest. Under either repair or replacement option, Seller shall not be obligated to remove or pay for the removal of the defective product or install or pay for the installation of the replaced or repaired product and Buyer shall be responsible for all other costs, including, but not limited to, service costs, shipping fees and expenses. Seller shall have sole discretion as to the method or means of repair or replacement. Buyer's failure to comply with Seller's repair or replacement directions shall terminate Seller's obligations under this Warranty and render this Warranty void. Any parts repaired or replaced under the Warranty are warranted only for the balance of the warranty period on the parts that were repaired or replaced. The Warranty is conditioned on Buyer giving written notice to Seller of any defects in material or workmanship of warranted goods within ten (10) days of the date when any defects are first manifest.

Seller shall have no warranty obligations to Buyer with respect to any product or parts of a product that have been: (a) repaired by third parties other than Seller or without Seller's written approval; (b) subject to misuse, misapplication, neglect, alteration, accident, or physical damage; (c) used in a manner contrary to Seller's instructions for installation, operation and maintenance; (d) damaged from ordinary wear and tear, corrosion, or chemical attack; (e) damaged due to abnormal conditions, vibration, failure to properly prime, or operation without flow; (f) damaged due to a defective power supply or improper electrical protection; or (g) damaged resulting from the use of accessory equipment not sold or approved by Seller. In any case of products not manufactured by Seller, there is no warranty from Seller; however, Seller will extend to Buyer any warranty received from Seller's supplier of such products.

Goulds Water Technology Policy Concerning Online Sales to Consumers. Homeowners using the Internet to locate information regarding residential water systems, residential wastewater systems, controls and tanks may discover several sites offering a direct-to-consumer purchasing opportunity. Residential water and wastewater systems are mission critical applications and are designed to be installed by qualified professionals. Goulds Water Technology has an extensive nationwide network of distributors and dealers, including authorized resellers. For a complete view of Goulds Water Technology recognized distributors, dealers and authorized resellers, please refer to our locator at: http://goulds.com/sales-service/

No warranty is offered on Goulds Water Technology equipment purchased over the Internet, including web-based options from unauthorized retailers. This policy is necessary to ensure that Goulds Water Technology equipment is installed properly, in compliance with applicable laws, rules and codes, in a manner that addresses safety concerns and the proper performance of Goulds Water Technology equipment.

THE FOREGOING WARRANTY IS PROVIDED IN PLACE OF ALL OTHER EXPRESS WARRANTIES. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM THE DATE OF INSTALLATION OR EIGHTEEN (18) MONTHS FROM THE PRODUCT DATE CODE, WHICHEVER SHALL OCCUR FIRST. EXCEPT AS OTHERWISE REQUIRED BY LAW, BUYER'S EXCLUSIVE REMEDY AND SELLER'S AGGREGATE LIABILITY FOR BREACH OF ANY OF THE FOREGOING WARRANTIES ARE LIMITED TO REPAIRING OR REPLACING THE PRODUCT AND SHALL IN ALL CASES BE LIMITED TO THE AMOUNT PAID BY THE BUYER FOR THE DEFECTIVE PRODUCT. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY OTHER FORM OF DAMAGES, WHETHER DIRECT, INDIRECT, LIQUIDATED, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY OR SPECIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF PROFIT, LOSS OF ANTICIPATED SAVINGS OR REVENUE, LOSS OF INCOME, LOSS OF BUSINESS, LOSS OF PRODUCTION, LOSS OF OPPORTUNITY OR LOSS OF REPUTATION.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

To make a warranty claim, check first with the dealer from whom you purchased the product or visit www.xyleminc.com for the name and location of the nearest dealer providing warranty service.

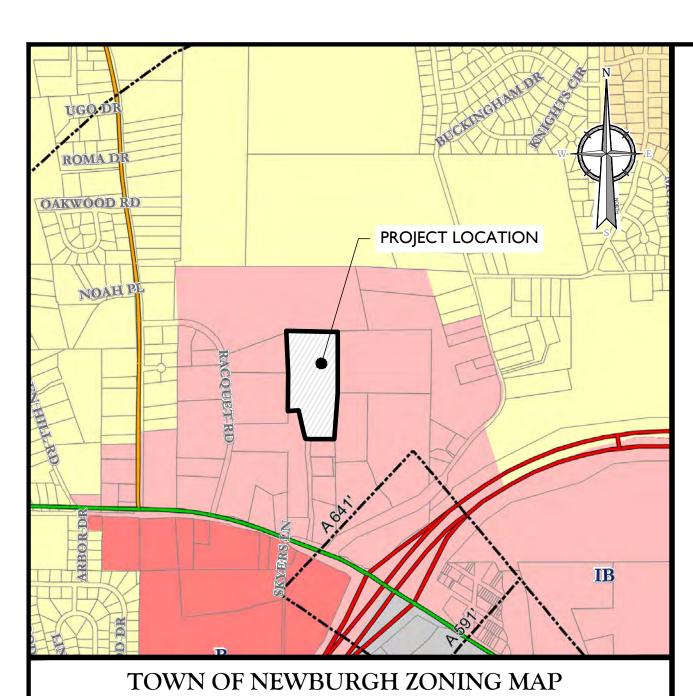


Xylem Inc. 2881 East Bayard Street Ext., Suite A Seneca Falls, NY 13148 Phone: (888) 325-4210 Fax: (888) 322-5877

www.gouldswatertechnology.com

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SCALE: 1" = 1000'

SOURCE: ORANGE COUNTY NY.

NEW YORK STATE

PRELIMINARY SITE PLAN

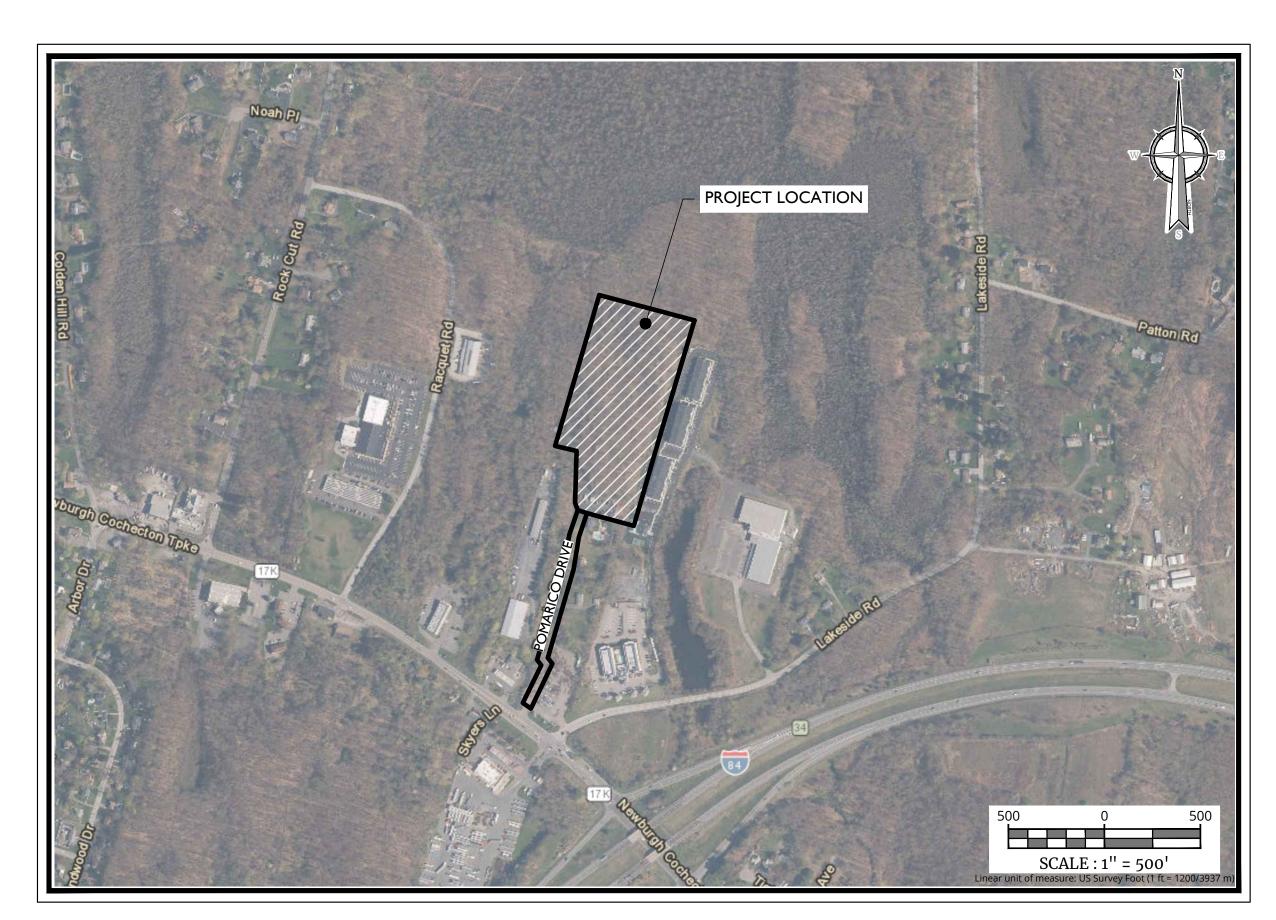
FOR

AVION

POMARICO DRIVE

SECTION 86, BLOCK 1 LOTS 37.222 & 37.223

TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK STATE



LOCATION MAP

SOURCE: NEW YORK STATE CLEARINGHOUSE

		INDEX OF SHEETS
	SHT. No.	DESCRIPTION
	C-100	COVER SHEET
	C-200	SITE DEMOLITION PLAN
By: KYLE.SHALLOW	C-300	OVERALL DIMENSION PLAN
By: KYLE.	C-401	GRADING PLAN
OVER	C-501	UTILITY PLAN
∂A\Engineering\Site Plans\C-CVER.dwg\C-1.0-COVER	C-601	LANDSCAPE PLAN
:-CVER.dw	C-701	LIGHTING PLAN
ite Plans\C	C-801	SOIL EROSION & SEDIMENT CONTROL PLAN
neering\Si	C-802	SOIL EROSION & SEDIMENT CONTROL DETAILS
9A\Engi	C-901-905	CONSTRUCTION DETAILS

GENERAL INFORMATION

THE SUBJECT PROPERTIES ARE KNOWN AS SECTION 86, BLOCK 1, LOT 37.222 AND SECTION 86, BLOCK 1, LOT 37.223 IN THE TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK.
 THE PROPERTY IS LOCATED IN THE IB (INTERCHANGE BUSINESS) ZONING DISTRICT. THE TAX LOTS CONTAINS A TRACT AREA OF ±576,342 SQ. FT., ±13.23 ACRES.

OWNERS (86-1-37.222)
PENTECOSTAL TABERNACLE CHURCH
P.O. BOX 10694
NEWBURGH, NY 12552

ATTN: SUZIE TAUBER 491 NY 208, SUITE 112 MONROE, NY 10950

(86-1-37.223) DIMMICK PROPERTIES, LLC 402 VT 107 SOUTH ROYALTON, VT 05068

- 3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS TAKEN FROM A PLAN ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED FOR "LANDS NOW OR FORMERLY OF ANTONIO R. HIBBERT O/B/O PENUEL PENTECOSTAL TABERNACLE CHURCH". PREPARED BY COLLIERS ENGINEERING & DESIGN; DATED APRIL, 23 2024.
- 4. THE HORIZONTAL DATUM IS RELATIVE TO NAD83. THE VERTICAL DATUM IS RELATIVE TO N.A.V.D. 1988.
- 5. THE LIMITS OF FRESHWATER WETLANDS NB-21 SHOWN HEREON WERE FIELD DELINEATED BY ECOLOGICAL SOLUTIONS, LLC ON 03/20/2024. 1248 SOUTHFORD ROAD, SOUTHBURY, CT 06488 BY MICHAEL NOWICKI.
- 6. NO 100 YEAR FLOOD PLAINS ARE KNOWN TO EXIST ON THE SITE PER THE FLOOD INSURANCE RATE MAPS 36071C0138E DATED 08/03/2009 PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
- 7. THIS SET OF PLANS IS NOT DEPICTING ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. COLLIERS ENGINEERING & DESIGN HAS PERFORMED NO EXPLORATORY OR TESTING SERVICES, INTERPRETATIONS, CONCLUSIONS OR OTHER SITE ENVIRONMENTAL SERVICES RELATED TO THE DETERMINATION OF THE POTENTIAL FOR CHEMICAL, TOXIC, RADIOACTIVE OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY AND THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OF SAME. SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAWS AND
- 8. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HEREON, IS NOT A SURVEY.
- 9. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
- 10. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS REQUIRED HAVE BEEN OBTAINED, ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND THE DRAWINGS HAVE BEEN STAMPED "ISSUED FOR CONSTRUCTION". THIS SHALL INCLUDE APPROVAL OF ALL CATALOG CUTS, SHOP DRAWINGS AND/OR DESIGN CALCULATIONS AS REQUIRED BY THE PROJECT OWNER AND/OR
- II. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY, INCLUDING PROVISION OF ALL APPROPRIATE SAFETY DEVICES AND TRAINING
- 12. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CALL 811 TO REQUEST A UTILITY MARKOUT.
- 13. INFORMATION HEREON INCORPORATES THE CONTENT IN THE FOLLOWING REPORTS:
- A. "TRAFFIC IMPACT STUDY" PREPARED FOR AVION AND PREPARED BY COLLIERS ENGINEERING & DESIGN DATED JANUARY 15, 2025.
 B. "PRELIMINARY STORM WATER POLLUTION PREVENTION PLAN" PREPARED FOR AVION AND PREPARED BY COLLIERS
 ENGINEERING & DESIGN DATED JANUARY 31, 2025.
- I. BUILDING FOOTPRINT DIMENSIONS SHOWN HEREON ARE APPROXIMATE, FINAL BUILDING FOOTPRINT DIMENSIONS FOR THE BUILDING SHALL BE FURNISHED ON THE INDIVIDUAL ARCHITECTURAL PLANS AT THE TIME OF APPLICATION FOR A BUILDING PERMIT. ALL STRUCTURES SHALL CONFORM TO THE APPROVED BULK ZONING REQUIREMENTS.
- 2. CURBS SHALL BE DEPRESSED FLUSH WITH PAVEMENT, AND ADA ACCESSIBLE CURB RAMPS INSTALLED WHERE SIDEWALKS AND CROSSWALKS INTERSECT SAME. DETECTABLE WARNINGS SHALL BE INCLUDED ON ADA ACCESSIBLE CURB RAMPS.
- 3. TRAFFIC SIGNAGE AND STRIPING SHALL CORRESPOND TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTE MATERIALS IN ACCORDANCE WITH GOVERNING REGULATIONS AND AGENCIES.
- 5. REFUSE AND RECYCLABLES SHALL BE STORED WITHIN OUTSIDE SCREENED TRASH ENCLOSURES AS NOTED ON THE PLANS AND PICKED UP BY A PRIVATE WASTE DISPOSAL HAULER.
- 6. THERE SHALL BE NO ON-SITE BURIAL OF CONSTRUCTION MATERIALS, TREE BRANCHES, STUMPS, OR OTHER DELETERIOUS MATERIALS.
- 7. MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
- A. NEW YORK STATE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", 2020; AS SUPPLEMENTED.
 B. CURRENT PREVAILING MUNICIPAL, COUNTY, AND/OR STATE AGENCY SPECIFICATIONS, STANDARDS, CONDITIONS, AND REQUIREMENTS.
 C. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
 D. CURRENT MANUFACTURER SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
- D. CORREINT MAINUFACTURER SPECIFICATIONS, STANDA
- I. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTIONS, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS, AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE UNDER SIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE

REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS HEREON INAPPROPRIATE OR INEFFECTIVE.

- 2. UTILITY RELOCATIONS SHOWN HEREON, IF ANY, ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY
- RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.

 3. STORM SEWERS SHALL BE CLASS III (OR HIGHER IF NOTED) REINFORCED CONCRETE PIPE (RCP) WITH "O" RING GASKETS OR INTERNALLY PRELUBRICATED GASKET (TYLOX SUPERSEAL OR EQUIVALENT, ADS N-12 HIGH DENSITY POLYETHYLENE PIPE (HDPE), AS NOTED ON THE PLAN, OR APPROVED EQUAL. PROPER PIPE COVERAGE SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. PIPE LENGTHS SHOWN HEREON ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- 4. WATER SERVICE TO BE PROVIDED BY A MUNICIPAL WATER CONNECTION WITHIN POMARICO DRIVE. PROPOSED WATER MAIN AND FIRE HYDRANT LOCATIONS ARE SUBJECT TO MUNICIPAL AND ORANGE COUNTY DEPARTMENT OF HEALTH REVIEW AND APPROVAL. PIPE MATERIALS SHALL BE CEMENT LINED DUCTILE IRON PIPE, CLASS 52, WITH ASPHALTIC EPOXY TYPE COATING OR HIGH DENSITY POLYETHYLENE (HDPE) SDR-II PIPE AS NOTED ON THE PLANS. WATER MAINS SHALL BE INSTALLED TO PROVIDE A MINIMUM OF 4.5 FEET OF COVER FROM THE TOP OF PIPE TO THE PROPOSED GRADE.
- 5. SANITARY SEWER SERVICE SHALL BE PROVIDED BY PUMP STATION & FORCEMAIN CONNECTION TO THE EXISTING SYSTEM AT THE INTERSECTION OF POMARICO DRIVE AND NYS ROUTE 17K. ON-SITE GRAVITY PIPE MATERIALS SHALL BE PVC SDR-35, EXCEPT AS NOTED OTHERWISE ON THE PLANS. EXCEPT WHERE SHALLOWER DEPTHS ARE PERMITTED BY THE MUNICIPALITY OR UTILITY AUTHORITY, SEWER LINES, INCLUDING FORCE MAINS AND LATERALS, SHALL BE INSTALLED TO PROVIDE A MINIMUM 4.0 FEET OF COVER FROM THE TOP OF PIPE TO PROPOSED GRADE.
- 6. ALL WATER PIPES SHOULD BE SEPARATED FROM SANITARY SEWER LINES BY A MINIMUM HORIZONTAL DISTANCE OF 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN ENCASED IN CONCRETE OR WITH SUCH SEPARATION EXPRESSLY APPROVED BY THE DEPARTMENT OF HEALTH.
- 7. AT THE CROSSINGS OF ALL SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
- 8. GAS, ELECTRIC, LIGHTING, CABLE TELEVISION, AND ELECTRICAL SERVICE PLANS, IF REQUIRED, SHALL BE PREPARED BY THE RESPECTIVE UTILITY COMPANIES THAT SERVICE THE AREA PRIOR TO SITE CONSTRUCTION AND SHALL BE INSTALLED PER ORDINANCE OR LOCAL UTILITY COMPANIES REQUIREMENTS.
- 9. TELEPHONE, ELECTRIC, AND GAS LINES WILL BE INSTALLED UNDERGROUND. CROSSINGS OF PROPOSED PAVEMENTS WILL BE INSTALLED PRIOR TO THE CONSTRUCTION OF PAVEMENT BASE COLURSE

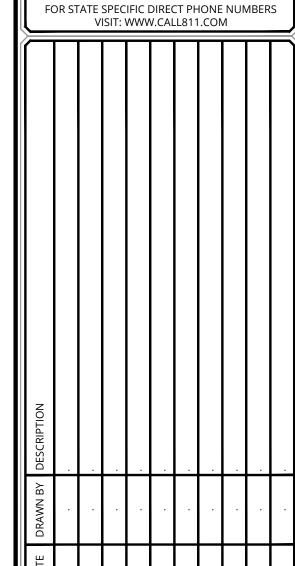
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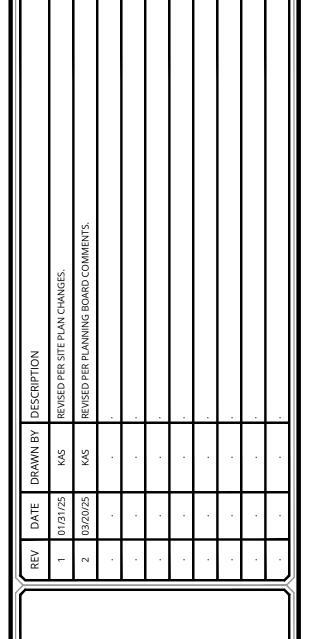
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Connor Patrick McCormack

LICENSE NUMBER: 103756
COLLIERS ENGINEERING & DESIGN CT, P.C.
N.Y. C.O.A #: 0017609

PRELIMINARY SITE PLAN

FOR
AVION
POMARICO DRIVE

SECTION 86 BLOCK 1 LOTS 37.222 & 37.223

TOWN OF NEWBURGH ORANGE COUNTY

		NEWBUI	RGH			
ngineering & Design		555 Hudson Valley Avenu Suite 101 New Windsor, NY 12553				
		Phone: 845.564.4495				
		COLLIERS ENGINEERI ARCHITECTURE, LANDSCA SURVEYING CT, P.C. DOING CONSULTING ENGINEERING	PE ARCHITECTI BUSINESS AS M			
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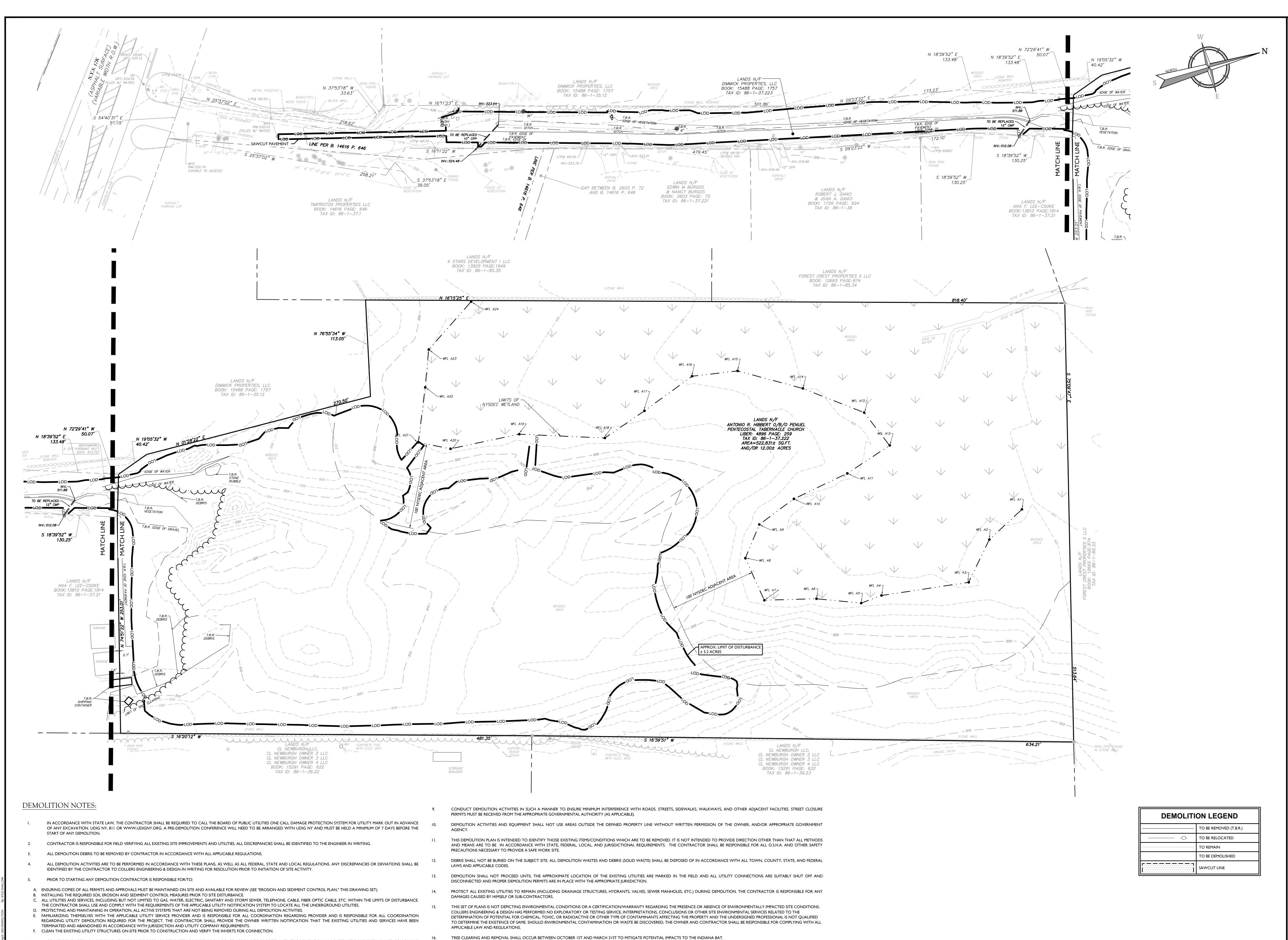
DATE: DRAWN BY: CHECKED BY:
DWN 06/06/2024 KAS CPM

NUMBER: DRAWING NAME:
D02169A C-CVER

COVER SHEET

C-100

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



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FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

 DRAWN BY
 DESCRIPTION

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 REVISED PER PLAN CHANGES.

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Connor Patrick McCormack NEW YORK LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: 103756 COLLIERS ENGINEERING & DESIGN CT, P.C. N.Y. C.O.A #: 0017609

PRELIMINARY SITE PLAN
FOR

AVION POMARICO DRIVE

SECTION 86 BLOCK 1 LOTS 37.222 & 37.223

TOWN OF NEWBURGH ORANGE COUNTY NEW YORK STATE

			NEWBC	IKGH			
Colli	ers	555 Hudson Valley Avenue Suite 101 New Windsor, NY 12553					
Enginee & Des		ARCH SURVE	YING CT, P.C. DOING				
ALE: DATE:			DRAWN BY:	CHECKED BY:			
S SHOWN	06/06/2024		KAS	СРМ			

SCALE: DATE: DRAWN BY: CHECKED BY:
AS SHOWN 06/06/2024 KAS CPM
PROJECT NUMBER: DRAWING NAME:
24002169A C-DEMO

SITE DEMOLITION PLAN

C-200

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

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

6. COLLIERS ENGINEERING & DESIGN IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING

THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES. ALL REPAIRS

CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH: THE "MANUAL ON UNIFORM TRAFFIC CONTROL", AS WELL AS FEDERAL,

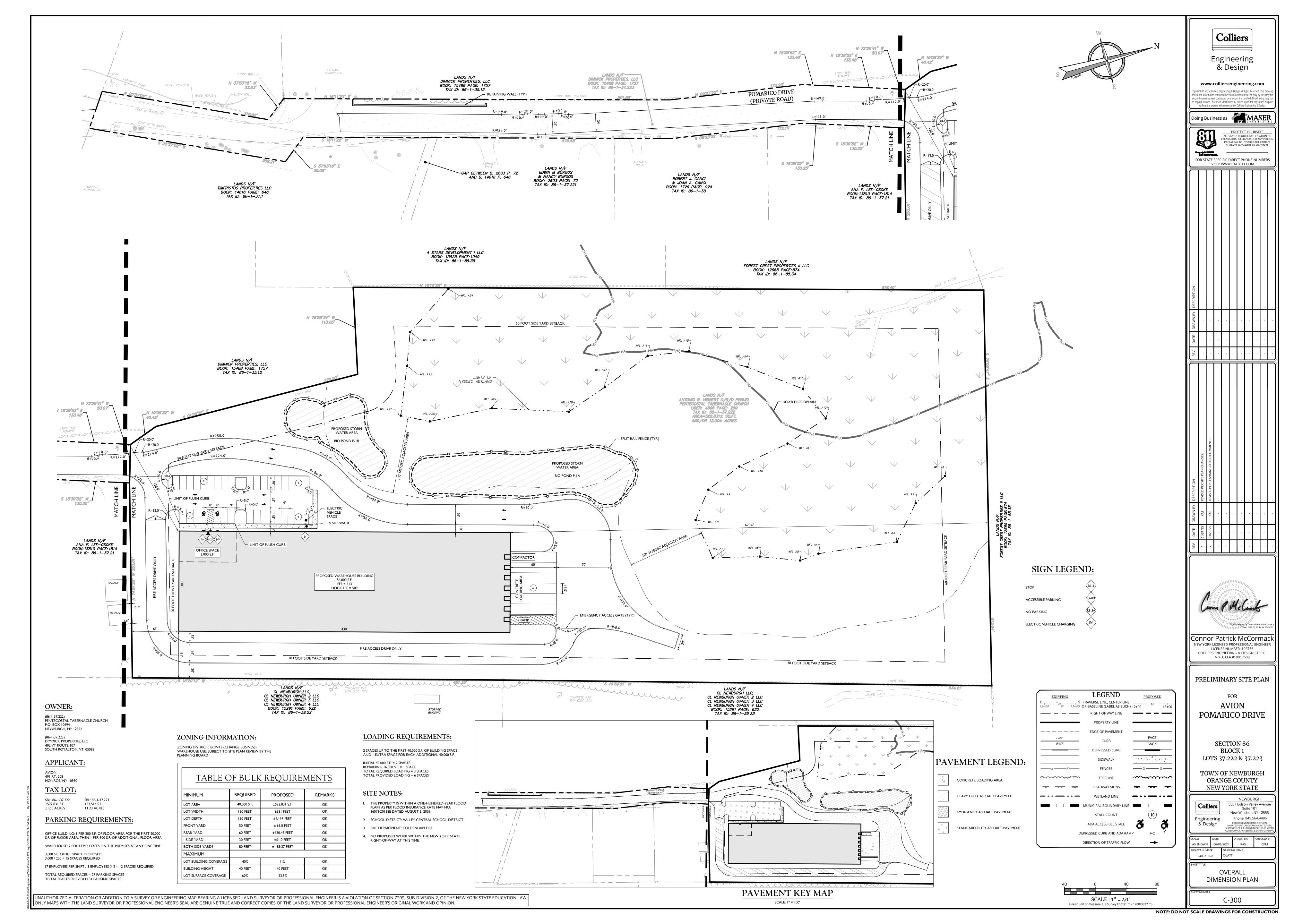
ALL THE O.S.H.A. REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.

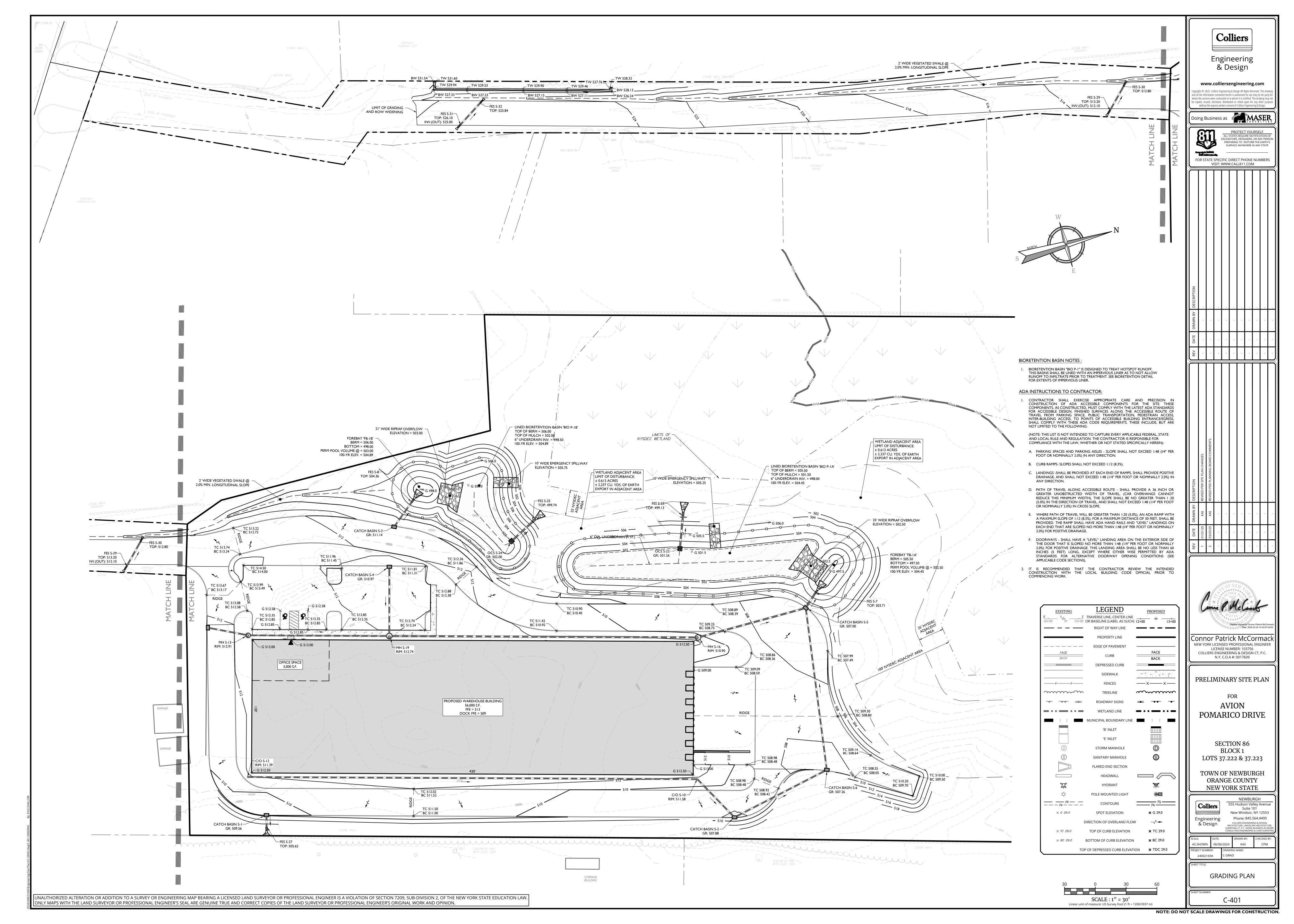
SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION.

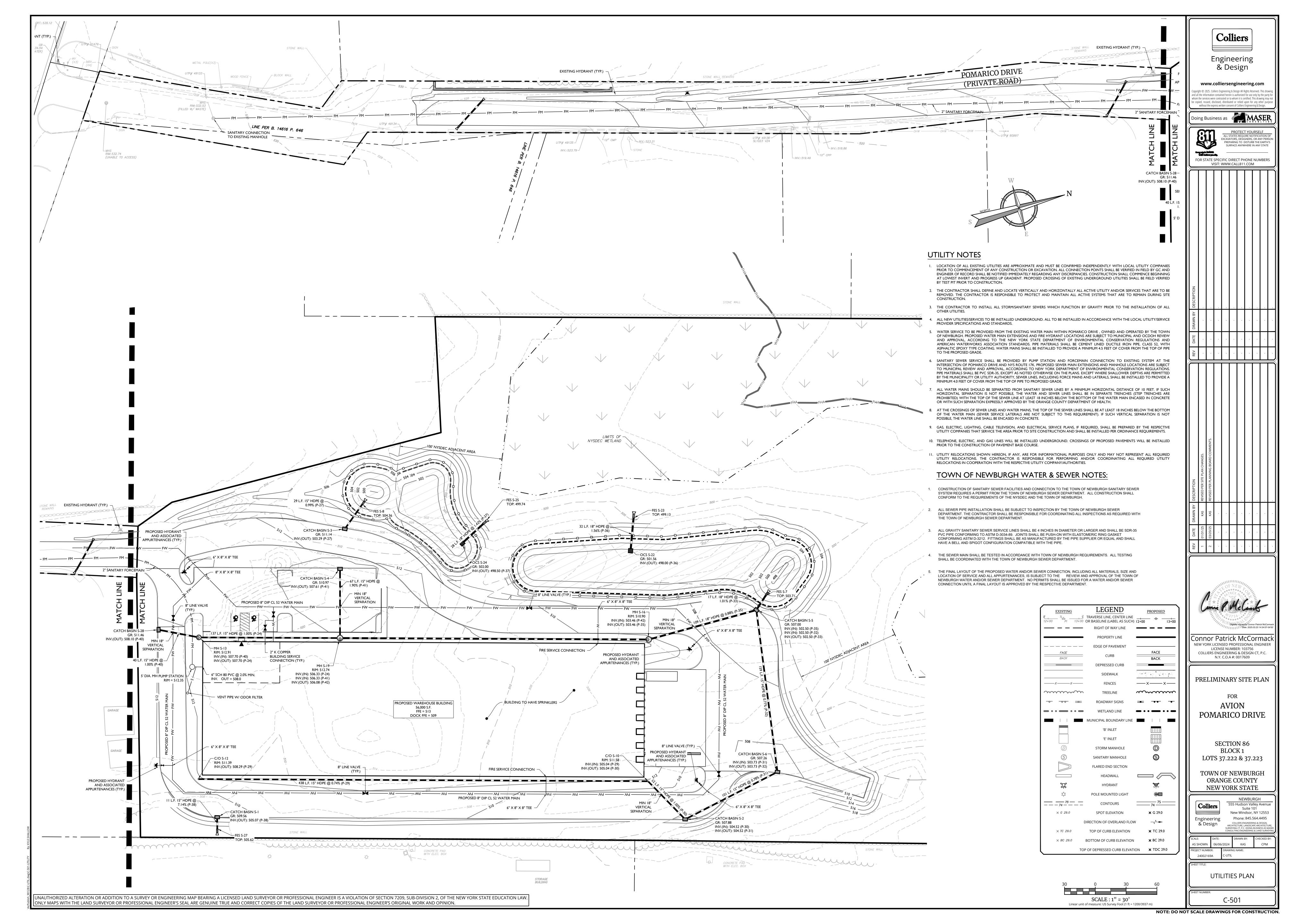
STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS-OF-WAY.

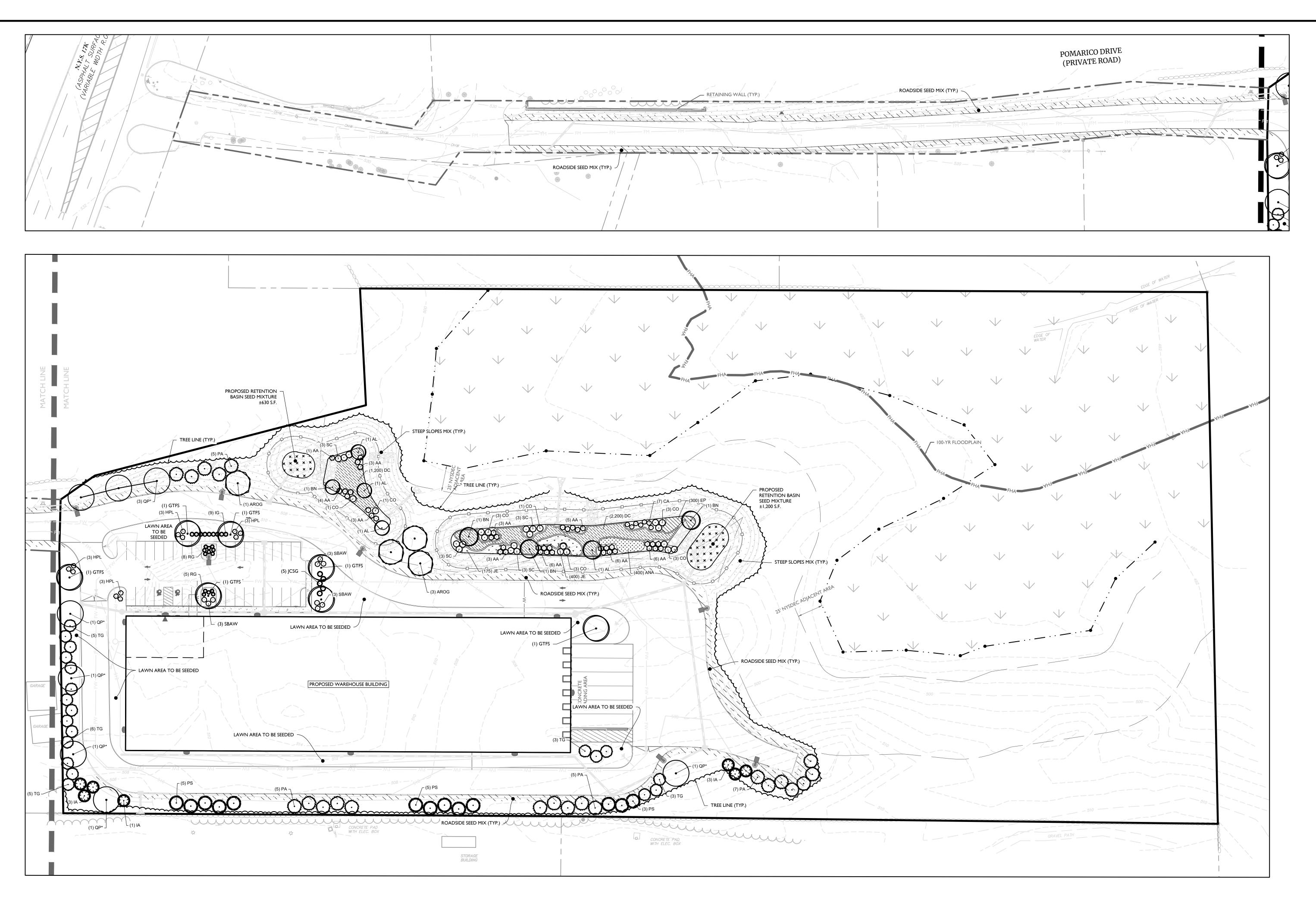
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Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m



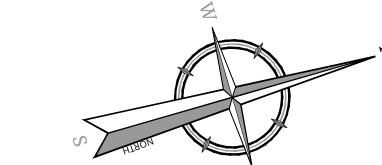






SITE PLANTNG SCHEDULE							
DECIDUOUS TREES AROG	QTY 4	BOTANICAL NAME Acer rubrum 'October Glory'	COMMON NAME October Glory Red Maple	ROOT B & B	<u>SIZE</u> 2-2 1/2"	REMARKS STRAIGHT LEADER/SYM. BRANCHING	
GTFS	6	Gleditsia tricanthos 'Skyline'	Skyline Honey Locust	B & B	2-2 1/2"	STRAIGHT LEADER/SYM. BRANCHING	
QP*	8	Quercus palustris	Pin Oak	B & B	2-2 1/2"	STRAIGHT LEADER/SYM. BRANCHING	
EVERGREEN TREES	QTY 7	BOTANICAL NAME llex opaca	COMMON NAME American Holly	ROOT B & B	SIZE 6-8` Ht.	REMARKS DENSE / TYP. SPECIES HABIT	
PA	22	Picea abies	Norway Spruce	B & B	6-8' Ht.	DENSE / TYP. SPECIES HABIT	
PS	13	Pinus strobus	White Pine	B & B	6-8` Ht.	DENSE / TYP. SPECIES HABIT	
TG	22	Thuja occidentalis `Green Giant`	Green Giant Arborvitae	B & B	6-8` Ht.	DENSE / TYP. SPECIES HABIT	
SHRUBS HPL	<u>QTY</u> 12	BOTANICAL NAME Hydrangea paniculata 'Limelight'	COMMON NAME Limelight Panicle Hydrangea	ROOT CONT.	SIZE 24"-30"	REMARKS TYPICAL SPECIES HABIT	
IG	9	llex glabra `Shamrock`	Inkberry	CONT.	24"-30"	TYPICAL SPECIES HABIT	
RG	13	Rhus aromatica `Gro-Low`	Gro-Low Fragrant Sumac	CONT.	18" - 24"	TYPICAL SPECIES HABIT	
SBAW	9	Spiraea x bumalda 'Anthony Waterer'	Anthony Waterer Bumald Spiraea	CONT.	30" - 36"	TYPICAL SPECIES HABIT	
* FALL DIGGING HAZARD							

REES AL	QTY 4	BOTANICAL NAME Amelanchier laevis	COMMON NAME Allegheny Serviceberry	ROOT CONT.	<u>SIZE</u> 6` - 8`	REMARKS MULTISTEM / TYP. SPECIES HABIT
BN	4	Betula nigra	River birch	CONT.	6` - 8`	MULTISTEM / TYP. SPECIES HABIT
SHRUBS AA	40	Aronia arbutifolira	Red Chokeberry	CONT.	<u>SIZE</u> 24"-30"	REMARKS TYPICAL SPECIES HABIT
CA	7	Clethra Alnifolia	Summersweet	CONT.	18"-24"	TYPICAL SPECIES HABIT
СО	15	Cephalanthus occidentalis	Button Bush	CONT.	18"-24"	TYPICAL SPECIES HABIT
sc	12	Sambucus canadensis	Elderberry	CONT.	18"-24"	TYPICAL SPECIES HABIT
PERENNIALS	<u>3</u>				REMARKS	
ANA	400	Aster novae angliae	New England Aster	1 GAL. CONT.	CLUMPS, 2	4" O.C.
DC	3,400	Deschampsia cespitosa	Tufted Hair Grass	#SP3 CONT.	CLUMPS, 1	2" O.C.
EP	300	Echinacea purpurea	Coneflower	1 GAL. CONT.	CLUMPS, 2	4" O.C.
JE	575	Juncus effusus	Common Rush	#SP3 CONT.	CLUMPS, 1	2" O.C.



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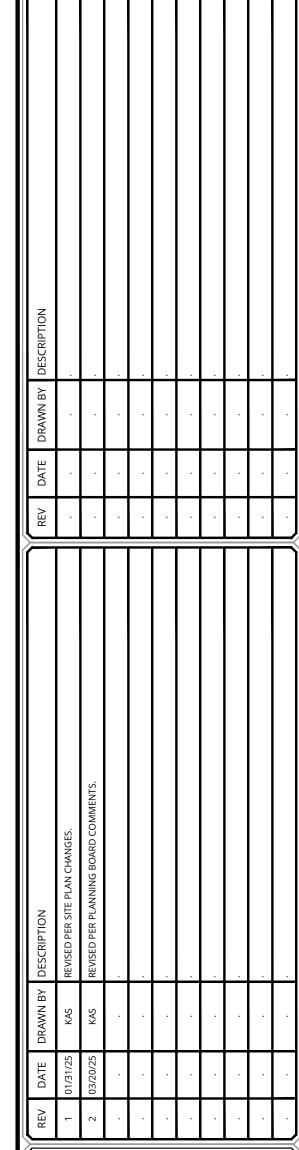
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NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR
AVION
POMARICO DRIVE

SECTION 86 BLOCK 1 LOTS 37.222 & 37.223

TOWN OF NEWBURGH ORANGE COUNTY NEW YORK STATE

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SSHOWN 06/06/2024 KAS CPM

COJECT NUMBER: DRAWING NAME:

24002169A C-LAND

LANDSCAPE PLAN

ANDSCAFE FEAN

40 0 40 80

SCALE: 1" = 40'

SELECT LINEAR UNIT OF MEASURE

LANDSCAPE LEGEND

— DECIDUOUS TREE

- EVERGREEN TREE

— ORNAMENTAL GRASS

— PERENNIAL PLANTING

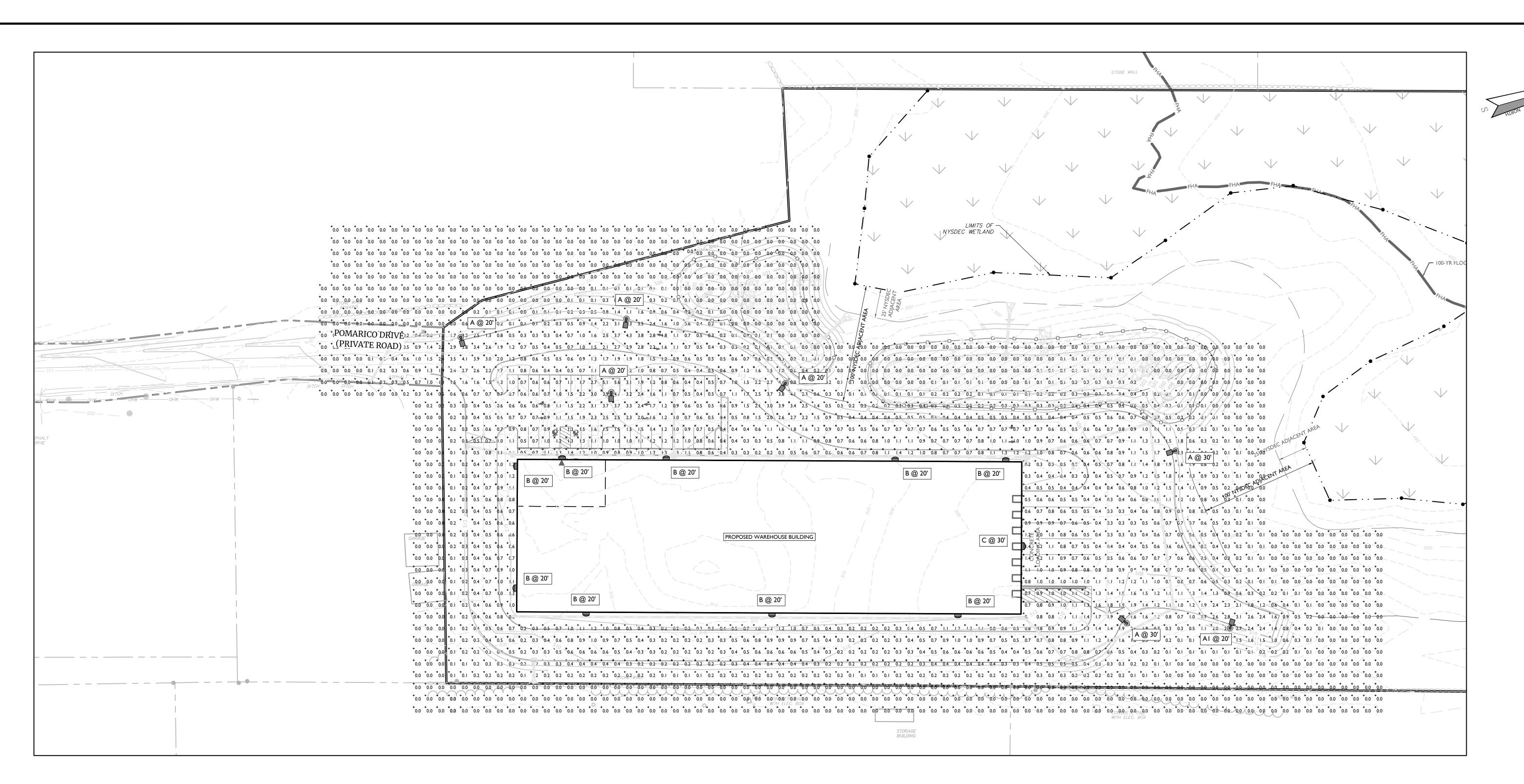
— NATIVE STEEP SLOPE SEED MIXTURE

— ROADSIDE SEED MIXTURE

— LAWN AREA

— RETENTION BASIN SEED MIXTURE

— MULCH BED LINE



	LUMINAIRE SCHEDULE								
KEY	QTY.	DESCRIPTION	ARRANGEMENT	MTG. HT.	LUMENS/LAMP	LLF	CATALOG #		
Α	6 AMERICAN ELECTRIC LIGHTING - ACM SERIES LED		SINGLE	20' / 30'	11,920	0.9	ACM-P609-MVOLT*-R4-3K-HS-BK-P7		
AI	I	AMERICAN ELECTRIC LIGHTING - ACM SERIES LED	SINGLE	20'	7,677	0.9	ACM-P604-MVOLT*-R3-3K-HS-BK-P7		
В	9	HOLOPHANE WALL PACK FULL CUTOFF LED	SINGLE WALL PACK	20'	5,219	0.9	HLWPC2-P20-30K-MVOLT*-T4M-BKSDP-P7		
С	I	HOLOPHANE WALL PACK FULL CUTOFF LED	SINGLE WALL PACK	30'	10,582	0.9	HLWPC2-P50-30K-MVOLT*-T3M-BKSDP-P7		

* VOLTAGE TO BE CONFIRMED BY ELECTRICAL CONTRACTOR

CALCULATION SUMMARY							
DESCRIPTION	UNITS	AVG.	MAX.	MIN.	AVG. / MIN.		
PARKING AREA	ILLUMINANCE	FC	1.4	5.1	0.4	3.5 : I	
LOADING DOCK AREA	ILLUMINANCE	FC	0.9	1.4	0.4	2.3 : I	

LIGHTING NOTES:

- I. THIS PLAN IS TO BE USED FOR LIGHTING PURPOSES ONLY.
- POLES AND FIXTURES AS SUPPLIED BY: POLES & WALL FIXTURES - HOLOPHANE
- LAMPS ARE TO BE LEDs. A LIGHT LOSS FACTOR (LLF) WAS USED AS SHOWN IN THE LUMINARIES SCHEDULE.

POLE FIXTURES - AMERICAN ELECTRIC LIGHTING

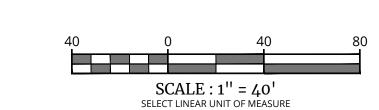
- 4. FIXTURES AND POLES ARE TO BE BLACK.
- 5. POLE MOUNTED FIXTURES SHALL BE PLACED A MINIMUM OF TWO (2) FEET BEHIND CURBS, EDGE OF PAVEMENT OR RETAINING WALLS IN CAR PARKING AREAS.
- 6. PROPOSED LIGHT FIXTURE LOCATIONS ARE CRITICAL TO PROVIDE THE LIGHTING LEVELS DEPICTED ON THIS PLAN. THE LIGHTING CONTRACTOR SHALL FIELD VERIFY FIXTURE LOCATIONS PRIOR TO INSTALLATION. IF ADJUSTMENT TO ANY LIGHT FIXTURE LOCATION IS REQUIRED DUE TO FINAL CONSTRUCTION OF UTILITIES AND SITE IMPROVEMENTS, THE LIGHTING CONTRACTOR SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
- 7. LIGHTING SHOWN ON PLAN DEPICTS AVERAGE MAINTAINED FOOTCANDLE LEVELS AT GRADE.
- CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
- 9. ELECTRICAL PLANS FOR WIRING LAYOUT BY OTHERS.
- POLE BASE INSTALLATION SHALL INCLUDE A SUPPLEMENTARY GROUND ROD AND WIRE LEAD TO BASE FOR POWER CONNECTION. DETAILS PER PROJECT ELECTRICAL ENGINEER.
- II. ALL LIGHTING FIXTURES WILL BE DARK SKY COMPLIANT.

LIGHTING LEGEND:

SINGLE FIXTURE POLE LIGHT

■ WALLPACK

[†]0.0 LIGHT LEVEL AT GRADE (IN FOOTCANDLES)



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 REVISED PER SITE PLAN CHANGES.

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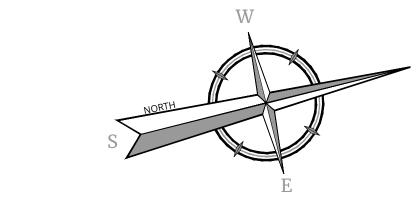
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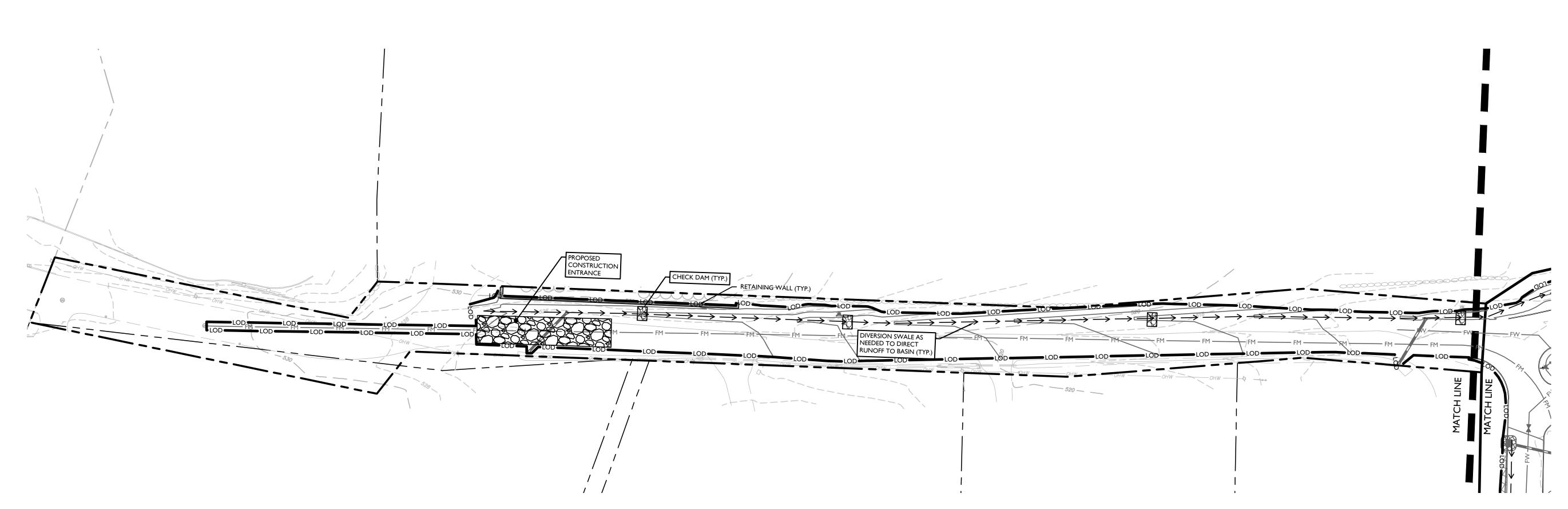
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C-LGHT

TITILE:

LIGHTING PLAN





GENERAL SOIL EROSION AND SEDIMENT CONTROL NOTES

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS
- 2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SEVEN (7) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.

3. PERMANENT VEGETATION TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN FIVE (5) DAYS AFTER

5. A SUBBASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF

- FINAL GRADING. MULCHING IS REQUIRED ON ALL SEEDING. WHEN HYDROSEEDING, MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED.
- 4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUBBASE SHALL BE INSTALLED WITHIN FIVE (5) DAYS OF THE PRELIMINARY GRADING.
- 6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
- 7. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION CONTINUES (I.E. SLOPES GREATER THAN 3:1).
- 8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A STONE PAD, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
- 9. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF TWENTY-FOUR (24) INCHES OF SOIL HAVING A PH OF 5 OR MORE.
- 10. AT THE TIME THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- 11. UNFILTERED DEWATERING IS NOT PERMITTED. TAKE ALL NECESSARY PRECAUTIONS DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STATE STANDARDS.
- 12. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN
- ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.

 13. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC
- RIGHT-OF-WAY WILL BE REMOVED IMMEDIATELY.

 14. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION AND SEDIMENTATION THAT MAY OCCUR
- BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

 15. STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE FIELD, SHALL BE PLACED WITHIN THE LIMITS OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN.
- 16. CONCRETE WASHOUT, DUMPSTER, & STAGING AREA LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED AT THE PRE-CONSTRUCITON MEETING. THEY SHALL BE PLACED IN THE PROXIMITY OF THE CONSTRUCTION ENTRANCE AND STAGING AREAS AND SHALL BE USED PRIOR TO EXITING THE PROJECT SITE. THE LOCATION SHALL BE IN A PRACTICAL, CLEARLY DELINEATED, AREA AND BE
- 17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

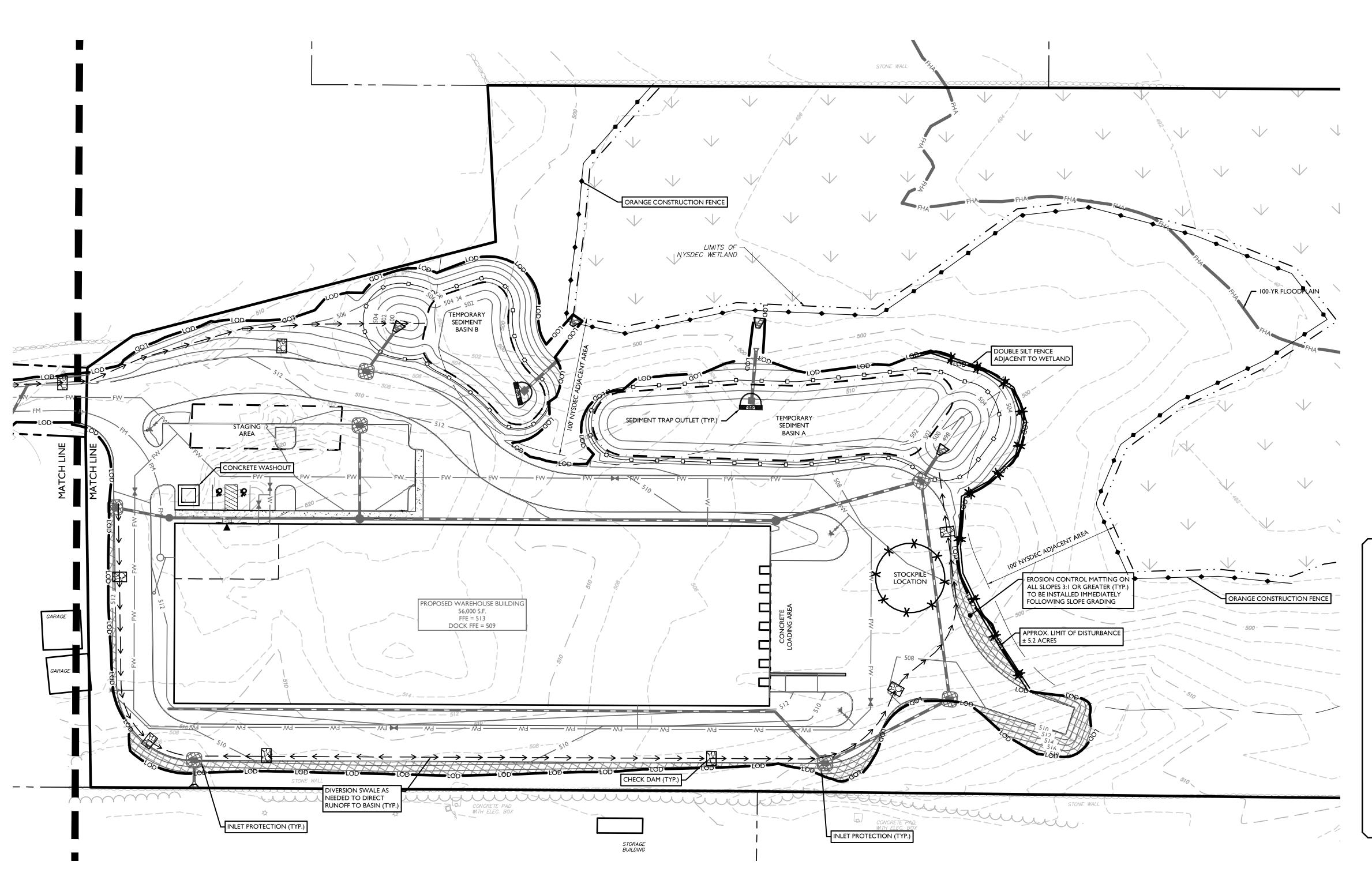
 18. ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED BY THE
- PROPERTY OWNER, AND SHALL BECOME THEIR RESPONSIBILITY.

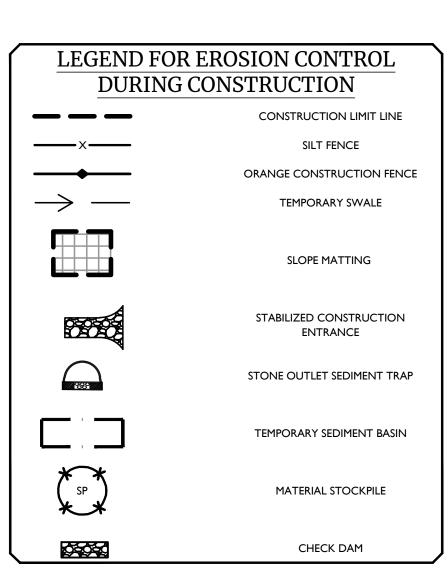
 19. PAVEMENT AREAS ARE TO BE KEPT CLEAN AT ALL TIMES.

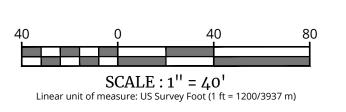
MAINTAINED THROUGHOUT CONSTRUCTION.

- 20. DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR CONTROL SEDIMENT BEYOND THOSE MEASURES SHOWN ON THE APPROVED PLAN SHALL BE INSTALLED OR EMPLOYED AT THE DIRECTION OF THE MUNICIPAL ENGINEER.
- 21. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES.
- FINAL STABILIZATION MEANS THAT ALL SOIL DISTURBANCE ACTIVITIES HAVE CEASED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY (80) PERCENT OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ESTABLISHED; OR OTHER EQUIVALENT STABILIZATION MEASURES, SUCH AS PERMANENT LANDSCAPE MULCHES, ROCK RIP-RAP OR WASHED/CRUSHED STONE HAVE BEEN APPLIED ON ALL DISTURBED AREAS THAT ARE NOT COVERED BY PERMANENT STRUCTURES, CONCRETE OR PAVEMENT.

 MAINTENANCE PLAN DURING CONSTRUCTION:
- INSPECTION AND MAINTENANCE SHALL BE PERFORMED IN CONFORMANCE WITH GP-0-20-001. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED AND INSTALLED FOR THE PROJECT. THE SEDIMENT TRAPS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 25% OF ITS' CAPACITY. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES APPROXIMATELY 6" DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE LANDSCAPE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
- NOTE: DURING THE CONSTRUCTION OF A PHASE, EACH SUBSEQUENT PHASE WILL HAVE BEEN CAPPED AND STABILIZED WITH DENSE GRASS COVER.







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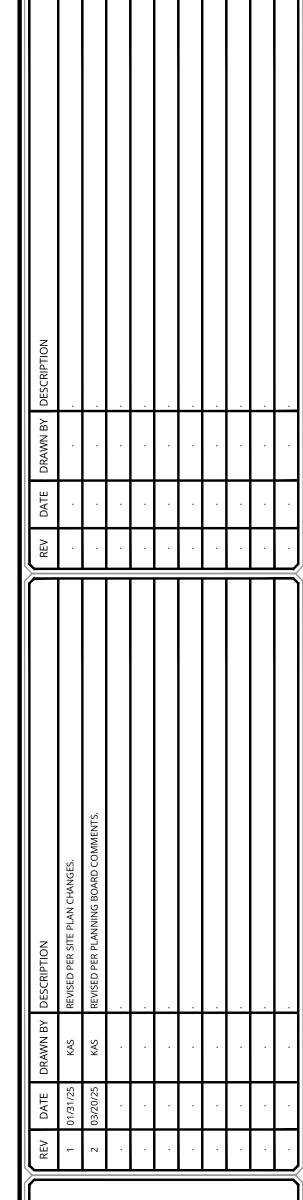
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Connor Patrick McCormack
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PRELIMINARY SITE PLAN

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SECTION 86 BLOCK 1 LOTS 37.222 & 37.223

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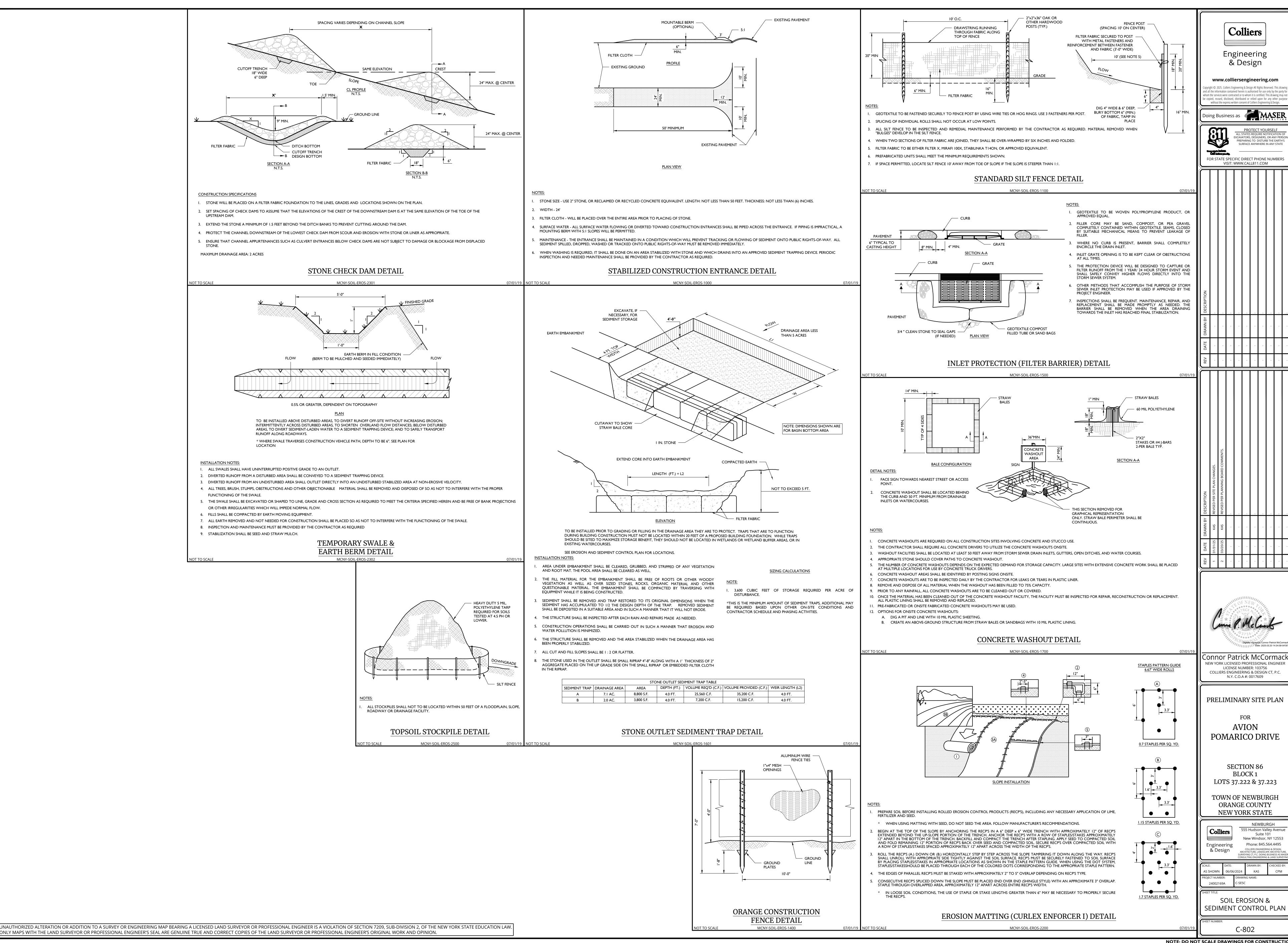
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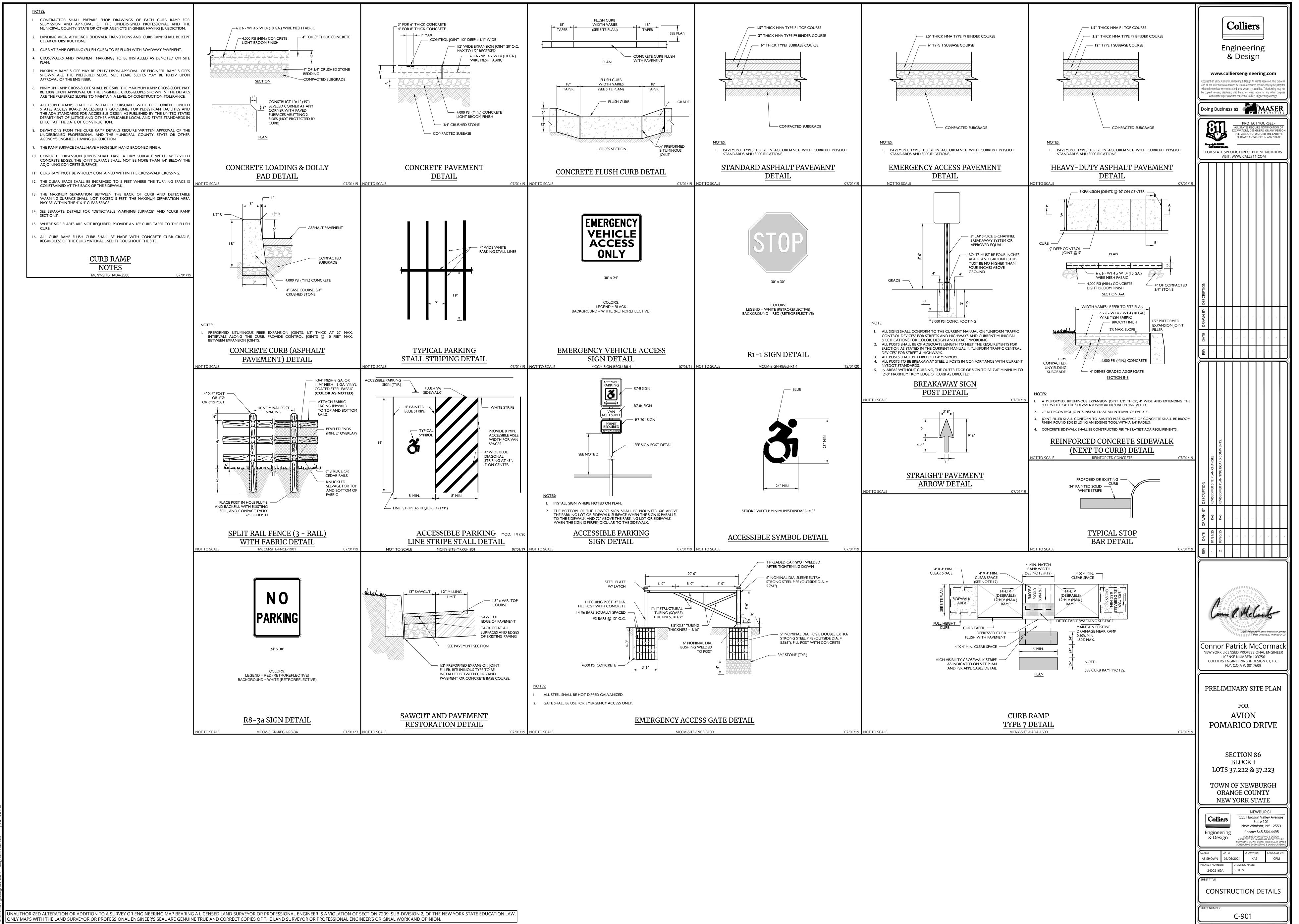
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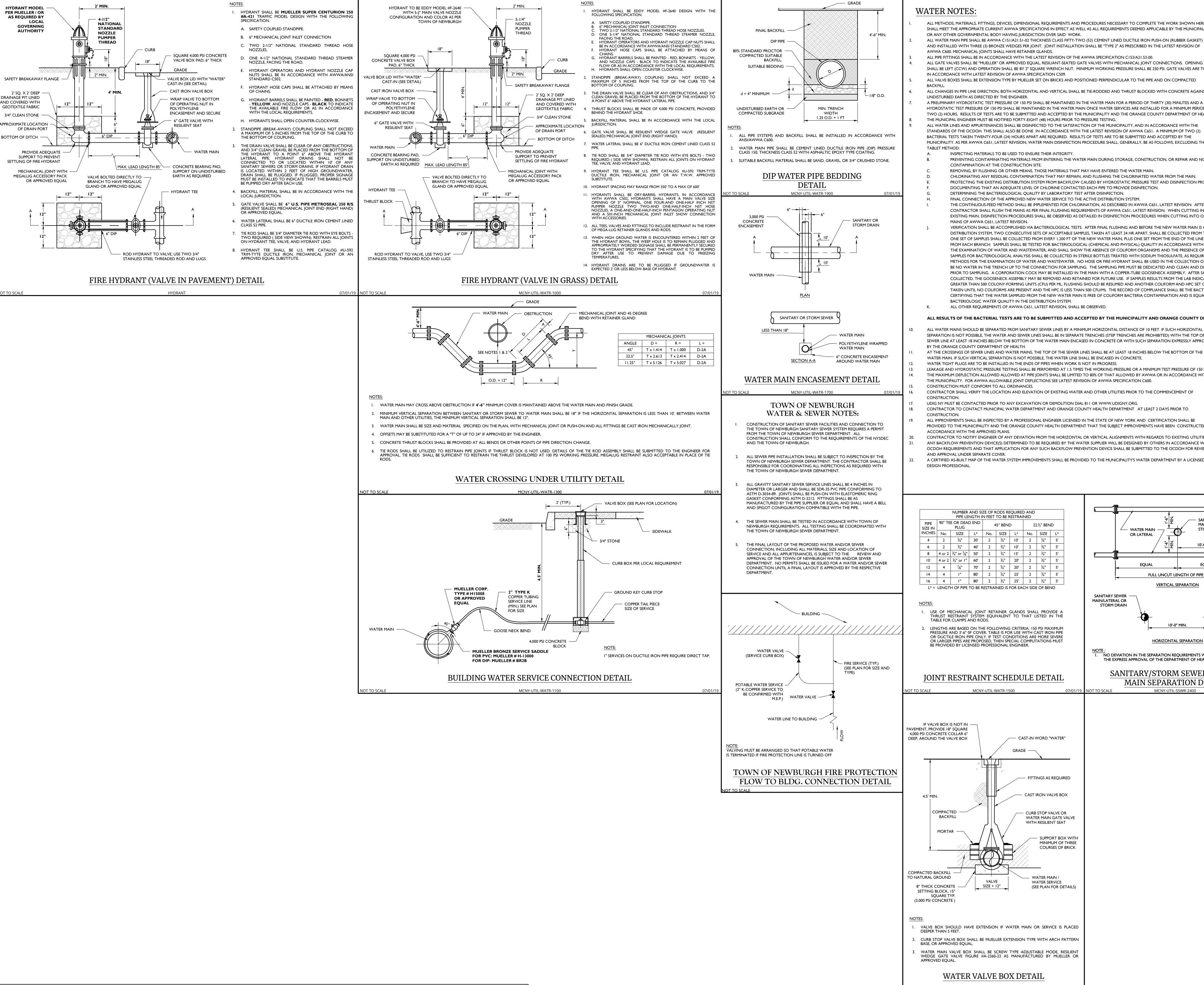
SOIL EROSION &
SEDIMENT CONTROL PLAN

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ALL METHODS, MATERIALS, FITTINGS, DEVICES, DIMENSIONAL REQUIREMENTS AND PROCEDURES NECESSARY TO COMPLETE THE WORK SHOWN HEREON SHALL MEET THE APPROPRIATE CURRENT AWWA SPECIFICATIONS IN EFFECT AS WELL AS ALL REQUIREMENTS DEEMED APPLICABLE BY THE MUNICIPALITY OR ANY OTHER GOVERNMENTAL BODY HAVING JURISDICTION OVER SAID WORK

ALL WATER MAIN PIPE SHALL BE AWWA C151/A21.51-02 THICKNESS CLASS FIFTY-TWO (52) CEMENT LINED DUCTILE IRON PUSH-ON (RUBBER GASKET) TYPE;

AND INSTALLED WITH THREE (3) BRONZE WEDGES PER JOINT. JOINT INSTALLATION SHALL BE "TYPE 2" AS PRESCRIBED IN THE LATEST REVISION OF AWWA C600. MECHANICAL JOINTS SHALL HAVE RETAINER GLANDS.

ALL PIPE FITTINGS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE AWWA SPECIFICATION C153/A21.53-00. ALL GATE VALVES SHALL BE "MUELLER" OR APPROVED EQUAL, RESILIANT-SEATED GATE VALVES WITH MECHANICAL JOINT CONNECTIONS. OPENING

SHALL BE LEFT (CCW) AND OPERATION SHALL BE BY 2" SQUARE WRENCH NUT. MINIMUM WORKING PRESSURE SHALL BE 250 PSI. GATE VALVES ARE TO BE IN ACCORDANCE WITH LATEST REVISION OF AWWA SPECIFICATION C509. ALL VALVE BOXES SHALL BE EXTENSION TYPE BY MUELLER SET ON BRICKS AND POSITIONED PERPENDICULAR TO THE PIPE AND ON COMPACTED

ALL CHANGES IN PIPE LINE DIRECTION, BOTH HORIZONTAL AND VERTICAL SHALL BE TIE-RODDED AND THRUST BLOCKED WITH CONCRETE AGAINST UNDISTURBED EARTH AS DIRECTED BY THE ENGINEER. A PRELIMINARY HYDROSTATIC TEST PRESSURE OF 150 PSI SHALL BE MAINTAINED IN THE WATER MAIN FOR A PERIOD OF THIRTY (30) MINUTES AND A FINAL

HYDROSTATIC TEST PRESSURE OF 150 PSI SHALL BE MAINTAINED IN THE WATER MAIN ONCE WATER SERVICES ARE INSTALLED FOR A MINIMUM PERIOD OF TWO (2) HOURS. RESULTS OF TESTS ARE TO BE SUBMITTED AND ACCEPTED BY THE MUNICIPALITY AND THE ORANGE COUNTY DEPARTMENT OF HEALTH. THE MUNICIPAL ENGINEER MUST BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO PRESSURE TESTING.

ALL WATER LINES AND APPURTENANCES SHALL BE DISINFECTED TO THE SATISFACTION OF THE MUNICIPALITY, AND IN ACCORDANCE WITH THE STANDARDS OF THE OCDOH. THIS SHALL ALSO BE DONE IN ACCORDANCE WITH THE LATEST REVISION OF AWWA C651. A MINIMUM OF TWO (2) BACTERIAL TESTS TAKEN TWENTY-FOUR (24) HOURS APART ARE REQUIRED. RESULTS OF TESTS ARE TO BE SUBMITTED AND ACCEPTED BY THE MUNICIPALITY. AS PER AWWA C651, LATEST REVISION, WATER MAIN DISINFECTION PROCEDURE SHALL, GENERALLY, BE AS FOLLOWS, EXCLUDING THE

INSPECTING MATERIALS TO BE USED TO ENSURE THEIR INTEGRITY. PREVENTING CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR AND NOTING POTENTIAL

CONTAMINATION AT THE CONSTRUCTION SITE. REMOVING, BY FLUSHING OR OTHER MEANS, THOSE MATERIALS THAT MAY HAVE ENTERED THE WATER MAIN.

CHLORINATING ANY RESIDUAL CONTAMINATION THAT MAY REMAIN, AND FLUSHING THE CHLORINATED WATER FROM THE MAIN. PROTECTING THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW CAUSED BY HYDROSTATIC PRESSURE TEST AND DISINFECTION PROCEDURES.

DOCUMENTING THAT AN ADEQUATE LEVEL OF CHLORINE CONTACTED EACH PIPE TO PROVIDE DISINFECTION.

DETERMINING THE BACTERIOLOGICAL QUALITY BY LABORATORY TEST AFTER DISINFECTION. FINAL CONNECTION OF THE APPROVED NEW WATER SERVICE TO THE ACTIVE DISTRIBUTION SYSTEM.

THE CONTINUOUS-FEED METHOD SHALL BE IMPLEMENTED FOR CHLORINATION, AS DESCRIBED IN AWWA C651, LATEST REVISION. AFTER CHLORINATION, THE CONTRACTOR SHALL FLUSH THE MAINS AS PER FINAL FLUSHING REQUIREMENTS OF AWWA C651, LATEST REVISION. WHEN CUTTING INTO OR REPAIRING AN EXISTING MAIN, DISINFECTION PROCEDURES SHALL BE OBSERVED AS DETAILED IN DISINFECTION PROCEDURES WHEN CUTTING INTO OR REPAIRING EXISTING

VERIFICATION SHALL BE ACCOMPLISHED VIA BACTERIOLOGICAL TESTS. AFTER FINAL FLUSHING AND BEFORE THE NEW WATER MAIN IS CONNECTED TO THE DISTRIBUTION SYSTEM, TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES, TAKEN AT LEAST 24 HR APART, SHALL BE COLLECTED FROM THE NEW MAIN. AT LEAST ONE SET OF SAMPLES SHALL BE COLLECTED FROM EVERY 1,200 FT OF THE NEW WATER MAIN, PLUS ONE SET FROM THE END OF THE LINE AND AT LEAST ONE SET FROM EACH BRANCH. SAMPLES SHALL BE TESTED FOR BACTERIOLOGICAL (CHEMICAL AND PHYSICAL) QUALITY IN ACCORDANCE WITH STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, AND SHALL SHOW THE ABSENCE OF COLIFORM ORGANISMS AND THE PRESENCE OF A CHLORINE RESIDUAL. SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED IN STERILE BOTTLES TREATED WITH SODIUM THIOSULFATE, AS REQUIRED BY STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER. NO HOSE OR FIRE HYDRANT SHALL BE USED IN THE COLLECTION OF SAMPLES. THERE SHOULD BE NO WATER IN THE TRENCH UP TO THE CONNECTION FOR SAMPLING. THE SAMPLING PIPE MUST BE DEDICATED AND CLEAN AND DISINFECTED AND FLUSHED PRIOR TO SAMPLING. A CORPORATION COCK MAY BE INSTALLED IN THE MAIN WITH A COPPER-TUBE GOOSENECK ASSEMBLY. AFTER SAMPLES HAVE BEEN COLLECTED, THE GOOSENECK ASSEMBLY MAY BE REMOVED AND RETAINED FOR FUTURE USE. IF SAMPLES RESULTS FROM THE LAB INDICATE A MEASURED HPC GREATER THAN 500 COLONY-FORMING UNITS (CFU) PER ML, FLUSHING SHOULD BE RESUMED AND ANOTHER COLIFORM AND HPC SET OF SAMPLES SHOULD BE TAKEN UNTIL NO COLIFORMS ARE PRESENT AND THE HPC IS LESS THAN 500 CFU/ML THE RECORD OF COMPLIANCE SHALL BE THE BACTERIOLOGICAL TEST RESULTS CERTIFYING THAT THE WATER SAMPLED FROM THE NEW WATER MAIN IS FREE OF COLIFORM BACTERIA CONTAMINATION AND IS EQUAL TO OR BETTER THAN THE

ALL OTHER REQUIREMENTS OF AWWA C651, LATEST REVISION, SHALL BE OBSERVED.

ALL RESULTS OF THE BACTERIAL TESTS ARE TO BE SUBMITTED AND ACCEPTED BY THE MUNICIPALITY AND ORANGE COUNTY DEPARTMENT OF HEALTH.

ALL WATER MAINS SHOULD BE SEPARATED FROM SANITARY SEWER LINES BY A MINIMUM HORIZONTAL DISTANCE OF 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN ENCASED IN CONCRETE OR WITH SUCH SEPARATION EXPRESSLY APPROVED

WATER MAIN. IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE. WATER TIGHT PLUGS ARE TO BE INSTALLED IN THE ENDS OF PIPES WHEN WORK IS NOT IN PROGRESS LEAKAGE AND HYDROSTATIC PRESSURE TESTING SHALL BE PERFORMED AT 1.5 TIMES THE WORKING PRESSURE OR A MINIMUM TEST PRESSURE OF 150 PSI.

THE MAXIMUM DEFLECTION ALLOWED ALLOWED AT PIPE JOINTS SHALL BE LIMITED TO 80% OF THAT ALLOWED BY AWWA OR IN ACCORDANCE WITH THE MUNICIPALITY. FOR AWWA ALLOWABLE JOINT DEFLECTIONS SEE LATEST REVISION OF AWWA SPECIFICATION C600. CONSTRUCTION MUST CONFORM TO ALL ORDINANCES.

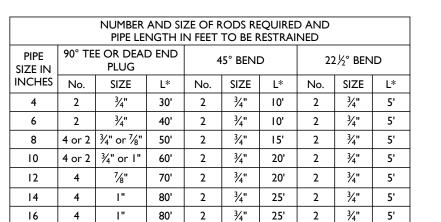
CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING WATER AND OTHER UTILITIES PRIOR TO THE COMMENCEMENT OF

UDIG NY MUST BE CONTACTED PRIOR TO ANY EXCAVATION OR DEMOLITION DIAL 811 OR WWW.UDIGNY.ORG. CONTRACTOR TO CONTACT MUNICIPAL WATER DEPARTMENT AND ORANGE COUNTY HEALTH DEPARTMENT. AT LEAST 2 DAYS PRIOR TO

ALL IMPROVEMENTS SHALL BE INSPECTED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK AND CERTIFICATION SHALL BE PROVIDED TO THE MUNICIPALITY AND THE ORANGE COUNTY HEALTH DEPARTMENT THAT THE SUBJECT IMPROVEMENTS HAVE BEEN CONSTRUCTED IN

CONTRACTOR TO NOTIFY ENGINEER OF ANY DEVIATION FROM THE HORIZONTAL OR VERTICAL ALIGNMENTS WITH REGARDS TO EXISTING UTILITIES. ANY BACKFLOW PREVENTION DEVICE(S) DETERMINED TO BE REQUIRED BY THE WATER SUPPLIER WILL BE DESIGNED BY OTHERS IN ACCORDANCE WITH

OCDOH REQUIREMENTS AND THAT APPLICATION FOR ANY SUCH BACKFLOW PREVENTION DEVICE SHALL BE SUBMITTED TO THE OCDOH FOR REVIEW A CERTIFIED AS-BUILT MAP OF THE WATER SYSTEM IMPROVEMENTS SHALL BE PROVIDED TO THE MUNICIPALITY'S WATER DEPARTMENT BY A LICENSED



USE OF MECHANICAL JOINT RETAINER GLANDS SHALL PROVIDE A THRUST RESTRAINT SYSTEM EQUIVALENT TO THAT LISTED IN THE LENGTHS ARE BASED ON THE FOLLOWING CRITERIA: 150 PSI MAXIMUM

PRESSURE AND 3'-6" OF COVER. TABLE IS FOR USE WITH CAST IRON PIPE OR DUCTILE IRON PIPE ONLY. IF TEST CONDITIONS ARE MORE SEVERE OR LARGER PIPES ARE PROPOSED. THEN SPECIAL COMPUTATIONS MUS $^{ ext{T}}$ BE PROVIDED BY LICENSED PROFESSIONAL ENGINEER.

FITTINGS AS REQUIRED

- CAST IRON VALVE BOX

CURB STOP VALVE OR

WITH RESILIENT SEAT

WATER MAIN /

WATER SERVICE

(SEE PLAN FOR DETAILS)

WATER MAIN GATE VALVE

- SUPPORT BOX WITH MINIMUM OF THREE COURSES OF BRICK

MAIN/LATERAL OR STORM DRAIN

WATER MAIN

EOUAL

OR LATERAL

SANITARY SEWER -

07/01/19 NOT TO SCALE

NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT

FULL UNCUT LENGTH OF PIPE

VERTICAL SEPARATION

SANITARY/STORM SEWER-WATER MAIN SEPARATION DETAIL

HORIZONTAL SEPARATION THE EXPRESS APPROVAL OF THE DEPARTMENT OF HEALTH

WATER MAIN/LATE

SANITARY SEWER

STORM DRAIN

EQUAL

MAIN/LATERAL OR

Connor Patrick McCormack NEW YORK LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: 103756 COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

SECTION 86 BLOCK 1 LOTS 37.222 & 37.223

TOWN OF NEWBURGH **ORANGE COUNTY**

Colliers Engineering & Design

CONSTRUCTION DETAILS

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

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WATER VALVE BOX DETAIL

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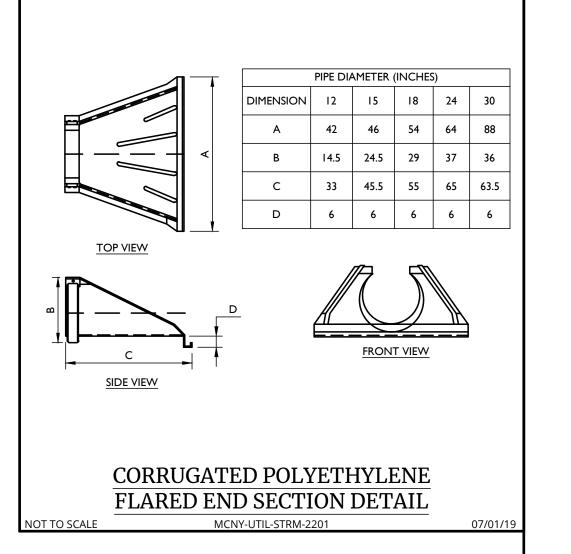
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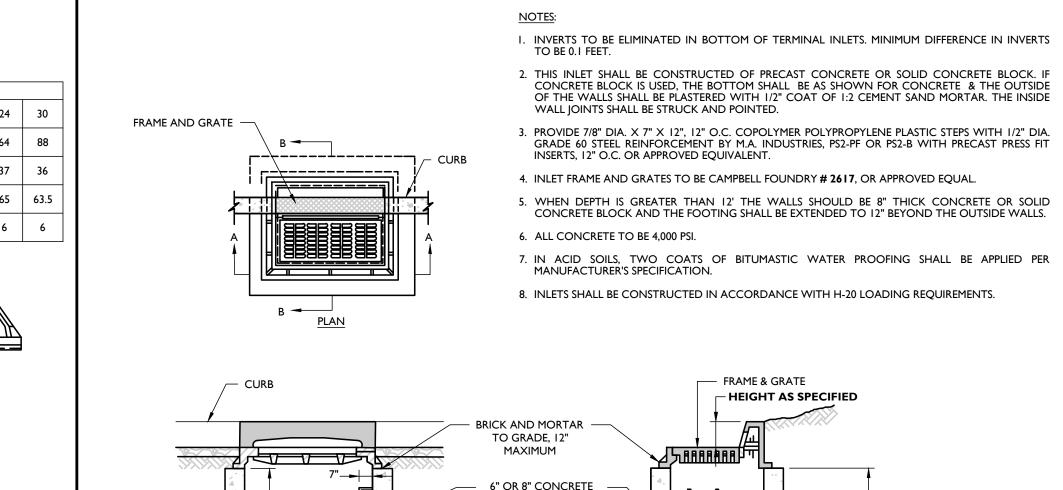
POMARICO DRIVE

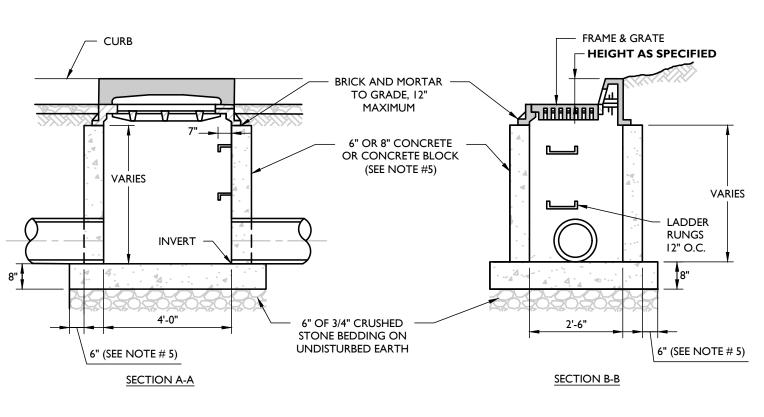
NEW YORK STATE NEWBURGH

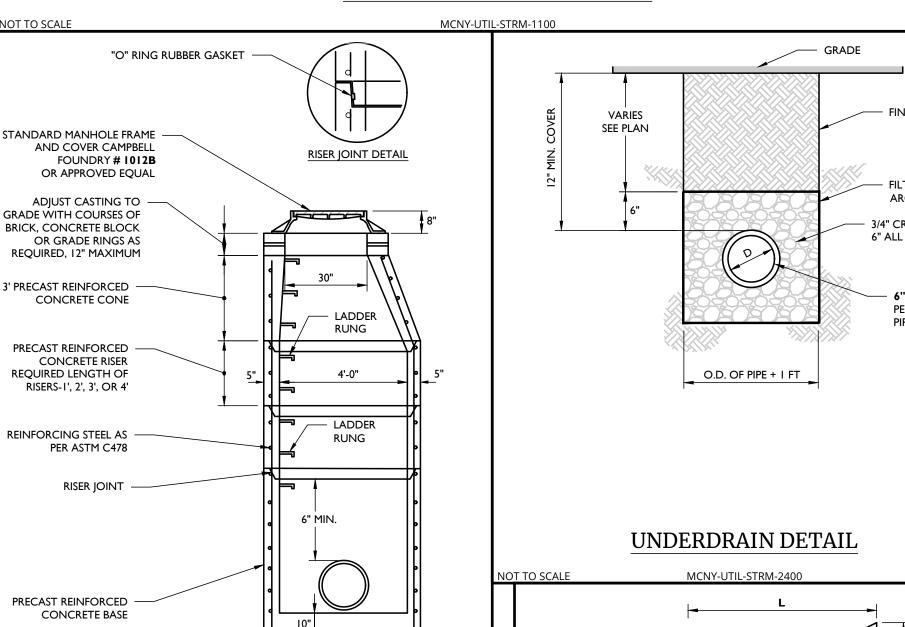
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24002169A









- 3/4" CRUSHED STONE BEDDING

ON UNDISTURBED EARTH

IN ACID SOILS, TWO COATS OF BITUMASTIC WATER PROOFING SHALL BE APPLIED PER

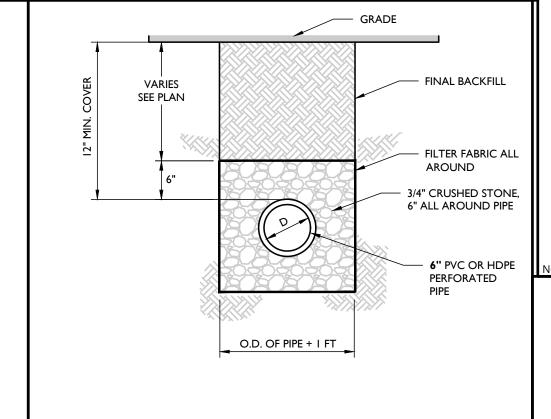
PRECAST CONCRETE STORM

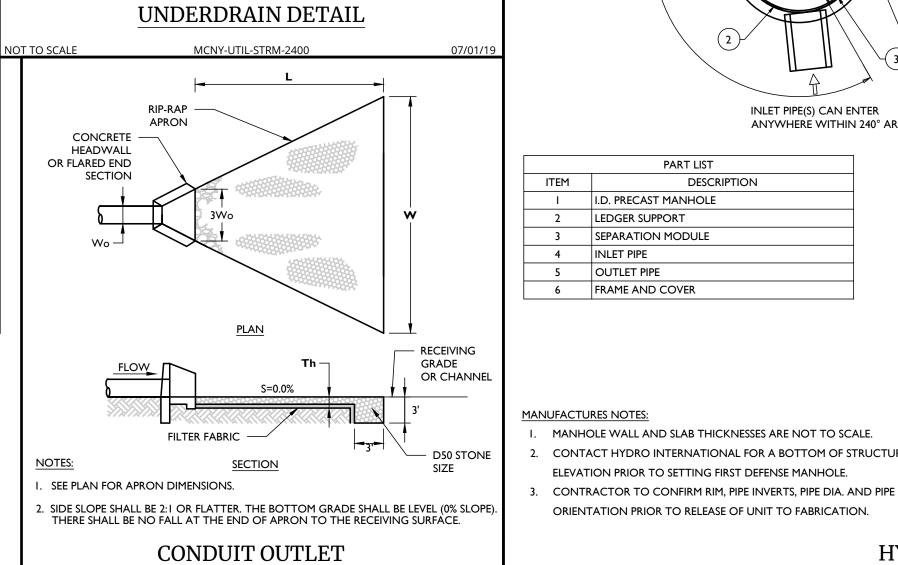
MANHOLE 4' DIA. DETAIL

MANUFACTURER'S SPECIFICATION.

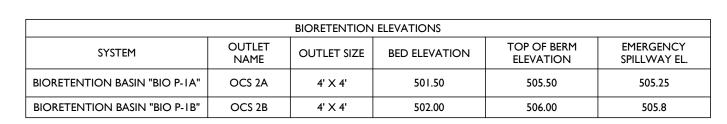
ALL CONCRETE TO BE 4,000 PSI.

SINGLE CATCH BASIN DETAIL





PROTECTION DETAIL

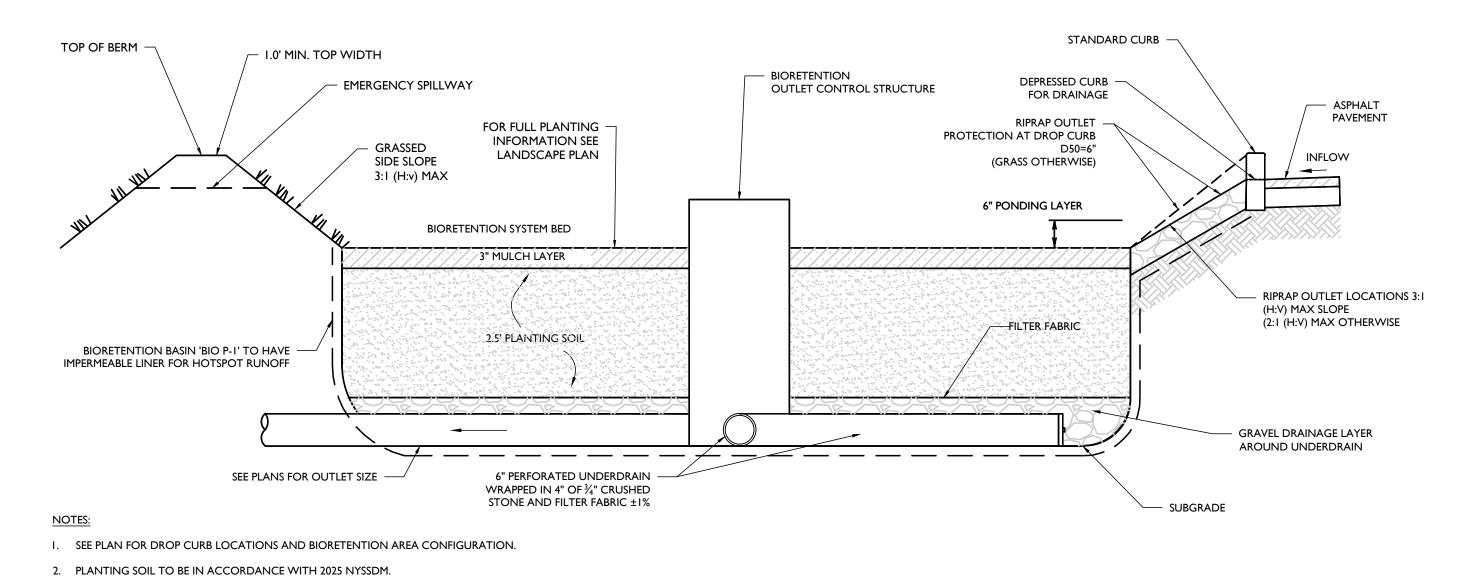


3. CONTRACTOR MUST PROVIDE SUBMITTAL OF PROPOSED BIORETENTION SOIL FOR APPROVAL

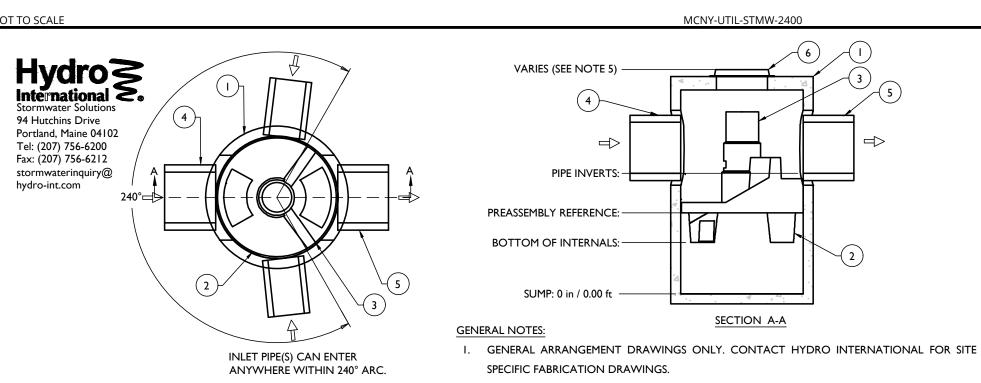
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ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.

ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.



BIORETENTION SYSTEM CROSS SECTION DETAIL



2. THE DIAMETER OF THE INLET & OUTLET PIPES MAY BE NO MORE THAN 30". 3. MULTIPLE INLET PIPES POSSIBLE (REFER TO PROJECT PLANS). PART LIST DESCRIPTION 4. INLET/OUTLET PIPE ANGLE CAN VARY TO ALIGN WITH DRAINAGE NETWORK (REFER TO I.D. PRECAST MANHOLE PROJECT PLANS). 2 LEDGER SUPPORT 5. PEAK FLOW RATE AND MINIMUM HEIGHT LIMITED BY AVAILABLE COVER AND PIPE DIAMETER. 3 SEPARATION MODULE 6. LARGER SEDIMENT STORAGE CAPACITY MAY BE PROVIDED WITH A DEEPER SUMP DEPTH. 4 INLET PIPE PRODUCT SPECIFICATIONS: 5 OUTLET PIPE A. THE TREATMENT SYSTEM SHALL USE AN INDUCED VORTEX TO SEPARATE POLLUTANTS FROM 6 FRAME AND COVER

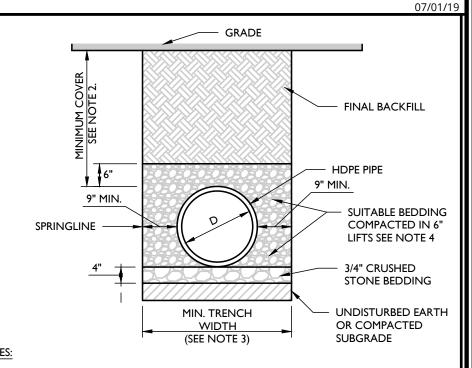
B. THE TREATMENT SYSTEM SHALL FIT WITHIN THE LIMITS OF EXCAVATION (AREA AND DEPTH) AS SHOWN IN THE PROJECT PLANS AND WILL NOT EXCEED THE DIMENSIONS FOR THE DESIGN FLOW RATES SPECIFIED HEREIN. C. THE TREATMENT SYSTEM SHALL REMOVE GREATER THAN OR EQUAL TO 90% OF TSS BASED ON THE TARGET PARTICLE SIZE (TPS) OF 106 MICRONS AND/OR 80% OF TSS BASED ON THE TPS OF 230 MICRONS

6' FIRST DEFENSE DETAIL

AT 2.2 CFS AND 3.8 CFS, RESPECTIVELY. D. THE TREATMENT SYSTEM SHALL CONVEY THE PEAK ON-LINE FLOW RATES OF UP TO 32 CFS WITHOUT CAUSING UPSTREAM SURCHARGE CONDITIONS. FULL-SCALE INDEPENDENT LABORATORY SCOUR 2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE TESTING SHALL DEMONSTRATE EFFLUENT CONTROL OF LESS THAN OR EQUAL TO 5 MG/L FOR ALL FLOWS UP TO 200% OF MTFR-106. E. THE TREATMENT SYSTEM SHALL BE CAPABLE OF CAPTURING AND RETAINING FINE SILT AND SAND SIZE

PARTICLES. ANALYSIS OF CAPTURED SEDIMENT FROM FULL-SCALE FIELD INSTALLATIONS SHALL DEMONSTRATE PARTICLE SIZES PREDOMINATELY IN THE 20-MICRON RANGE HYDRO INTERNATIONAL

18" \times 18" \times 6" THICK CONCRETE -COLLAR REQUIRED IN CONCRETE / PAVED SURFACES REQUIRED — 4" HDPE RISER SLOPE I/4"/FT. MIN. ---



ALL PIPE SYSTEMS AND BACKFILL SHALL BE INSTALLED IN ACCORDANCE WITH ASTM MINIMUM COVER FOR HDPE PIPES IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR UP TO 60" DIAMETER PIPE. PIPE COVER IS MEASURED FROM TOP OF PIPE TO THE BOTTOM OF FLEXIBLE PAVEMENT, OR TO THE TOP OF RIGID PAVEMENT, OR TO THE

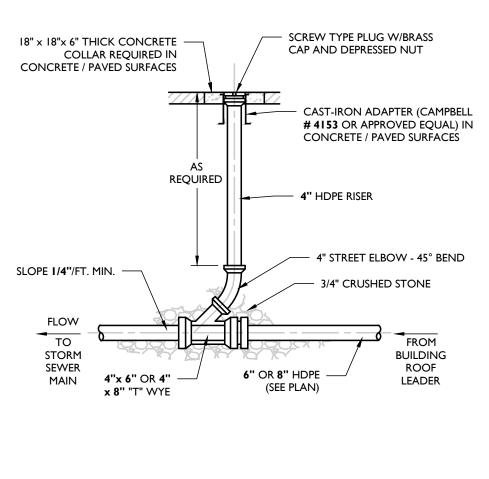
MINIMUM TRENCH WIDTH PER MANUFACTURER'S RECOMMENDATIONS. 4. SUITABLE BEDDING MATERIAL SHALL BE SAND, WELL GRADED GRAVEL < 2", OR 3/4

SUITABLE FINAL BACKFILL MATERIAL SHALL BE SITE SOILS, CLEAN FILL, OR ITEM 4 STONE COMPACTED IN MAX. 9" LIFTS.

STONES LARGER THAN 2" FOUND IN THE TRENCH SHALL BE REMOVED FOR A DEPTH OF AT LEAST 4" BELOW THE PIPE.

FOR INSTALLATION IN PAVEMENT, REFER TO THE APPLICABLE PAVEMENT DETAIL TO ESTABLISH FINAL GRADE. BACKFILL REQUIREMENTS BEYOND THE DEPTH OF THE PAVEMENT DETAIL SHALL BE IN ACCORDANCE WITH THIS DETAIL.

HDPE STORM PIPE **BEDDING DETAIL**



SECTION 86 **ROOF LEADER** LOTS 37.222 & 37.223 CLEANOUT DETAIL

> TOWN OF NEWBURGH ORANGE COUNTY NEW YORK STATE

Connor Patrick McCormack

NEW YORK LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: 103756

COLLIERS ENGINEERING & DESIGN CT, P.C.

N.Y. C.O.A #: 0017609

PRELIMINARY SITE PLAN

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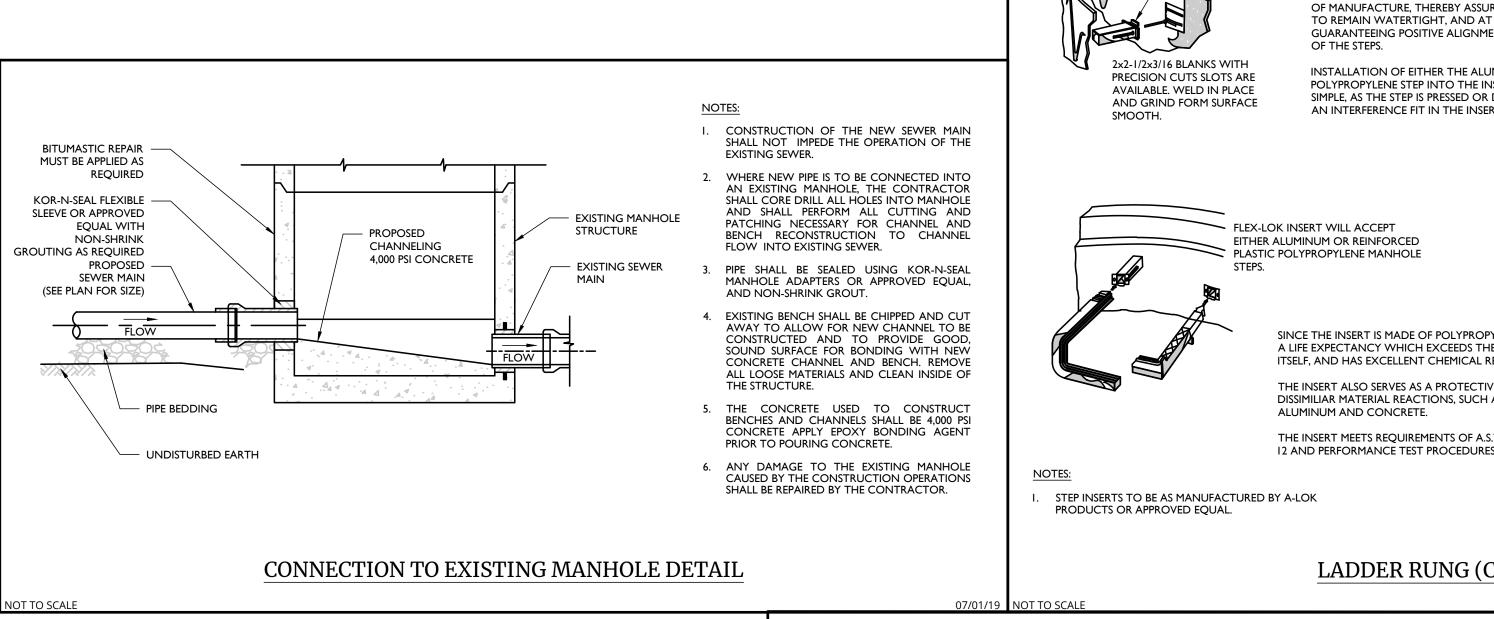
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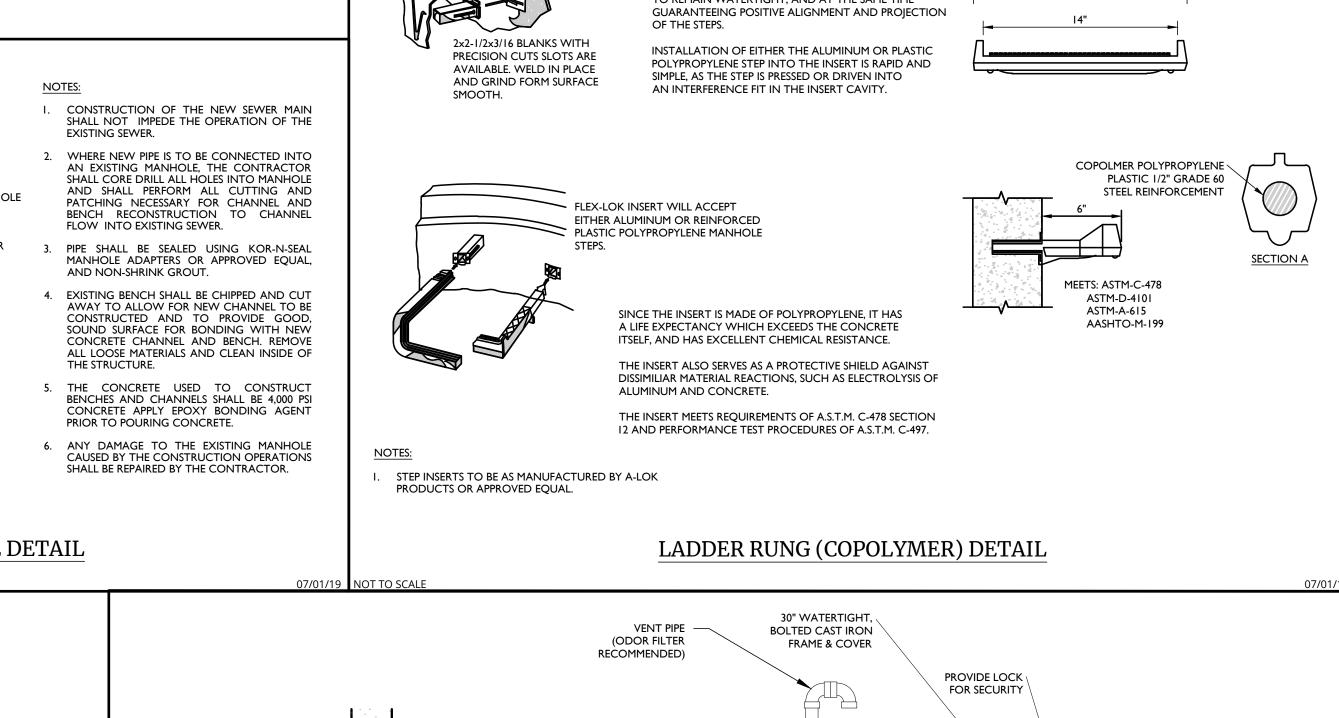
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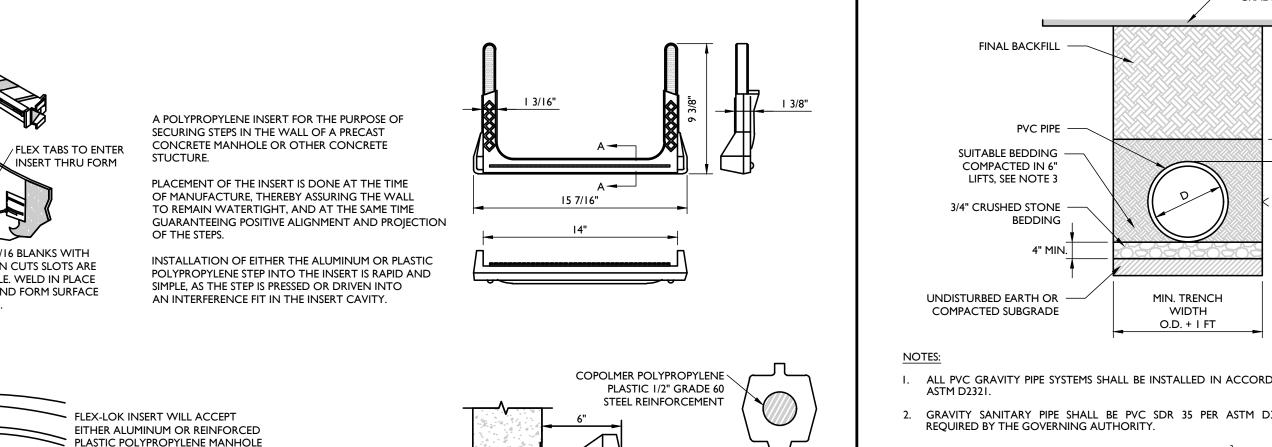
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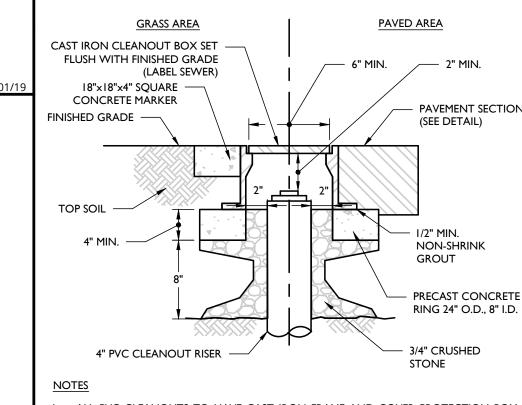




. ALL PVC GRAVITY PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH

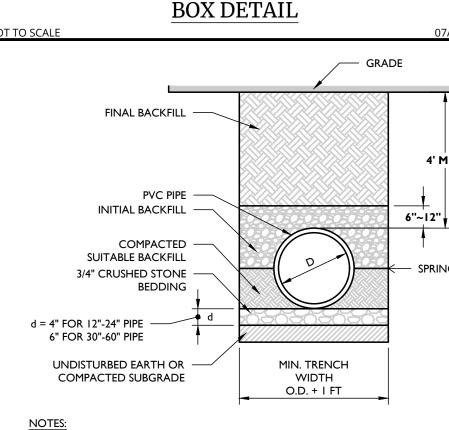
- . GRAVITY SANITARY PIPE SHALL BE PVC SDR 35 PER ASTM D3034 OR AS
- 3. SUITABLE BEDDING MATERIAL SHALL BE COARSE SAND OR $\frac{3}{4}$ " CRUSHED STONE. 4. SUITABLE FINAL BACKFILL MATERIAL SHALL BE SITE SOILS, CLEAN FILL, OR ITEM 4 STONE COMPACTED IN MAX. 9" LIFTS. BACKFILL MATERIAL WITHIN 2' OF THE
- PIPE MUST BE FREE AND CLEAR OF DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER, OR OTHER UNSUITABLE MATERIALS. 5. STONES LARGER THAN 2" FOUND IN THE TRENCH SHALL BE REMOVED FOR A DEPTH OF AT LEAST 4" BELOW THE PIPE. 6. FOR INSTALLATION IN PAVEMENT, REFER TO THE APPLICABLE PAVEMENT DETAIL TO ESTABLISH FINAL GRADE, BACKFILL REQUIREMENTS BEYOND THE DEPTH OF THE PAVEMENT DETAIL SHALL BE IN ACCORDANCE WITH THIS

PVC SANITARY PIPE BEDDING (GRAVITY) DETAIL NOT TO SCALE



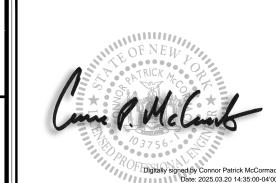
ALL PVC CLEANOUTS TO HAVE CAST IRON FRAME AND COVER PROTECTION BOX DESIGN FOR H20 LOADING.

CLEANOUT PROTECTION BOX DETAIL



I. ALL PVC FORCE MAIN SHALL BE INSTALLED PER AWWA C605. 2. FORCE MAIN PVC PIPE SHALL BE **CLASS 165 DR25 PER ASTM C009-16** OR AS REQUIRED BY THE GOVERNING AUTHORITY.

> PVC SANITARY PIPE BEDDING (FORCE MAIN) DETAIL MCNY-UTIL-SSWR-2804



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PRELIMINARY SITE PLAN

SECTION 86 BLOCK 1

POMARICO DRIVE

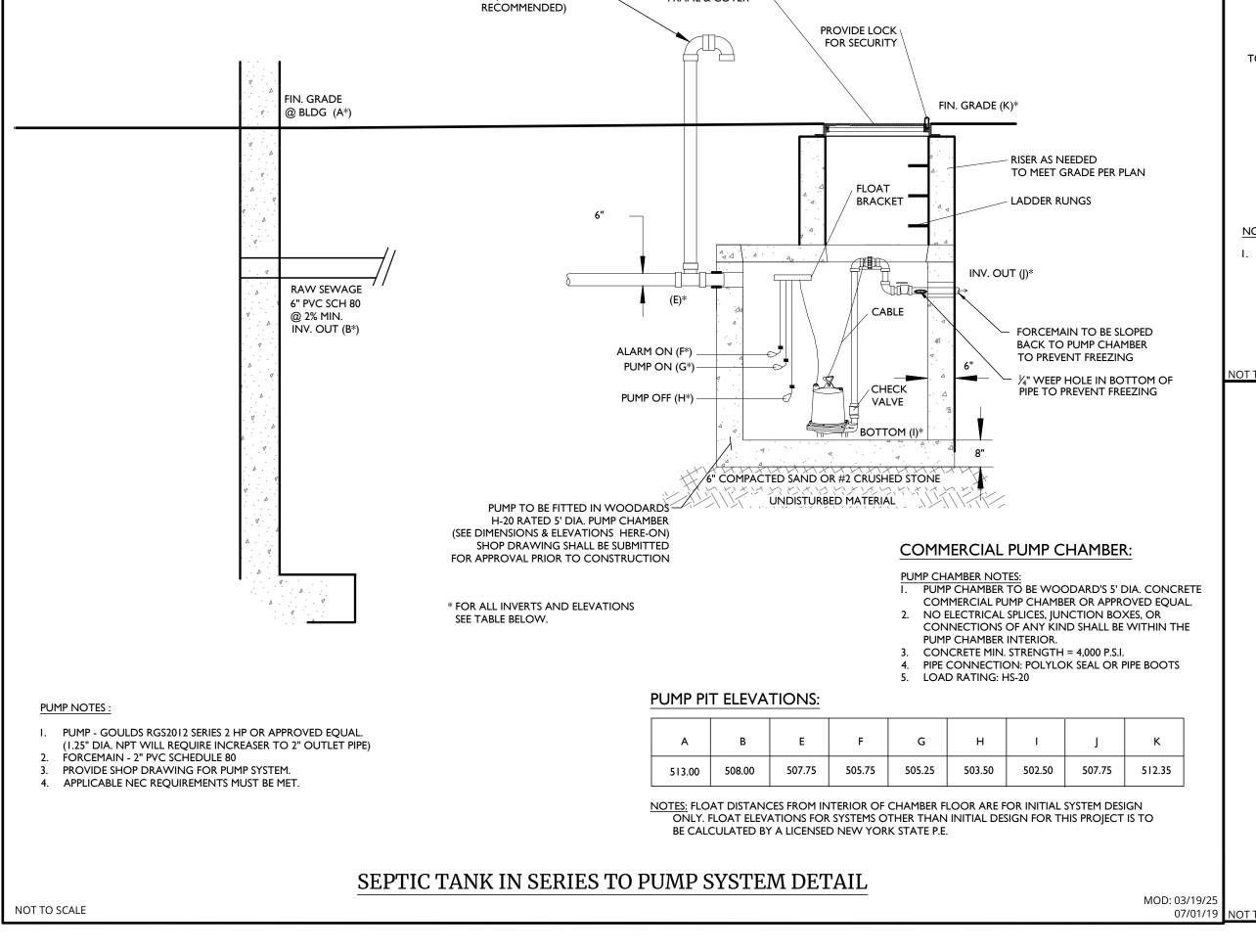
LOTS 37.222 & 37.223 TOWN OF NEWBURGH

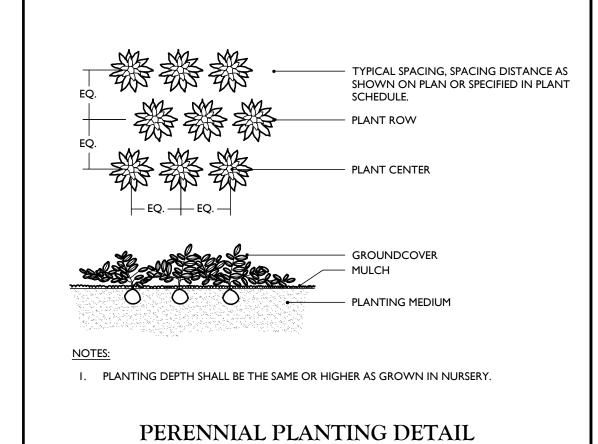
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CONSTRUCTION DETAILS

C-904





PRUNE FOR VIGOR, MAINTAIN NATURAL GROWTH HABIT: NEVER CUT CENTRAL LEADER OR TRUNK. REMOVE ALL ROPE FROM TRUNK AND TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM TOP OF ROOT BALL. - 3" SHREDDED HARDWOOD BARK 6" SAUCER RIM TOPSOIL WIRE BASKET TO BE REMOVED. PREPARED BACKFILL MIX: SEE GENERAL PLANTING NOTE CI. SOAK BACKFILL AFTER PLANTING. PLACE ROOT BALL ON UNEXCAVATED OR TAMPED SOIL. NOTES: I. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.

SHRUB PLANTING DETAIL

GENERAL PLANTING NOTES

- I. THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES AND STRUCTURES AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.
- 2. THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND VERIFY LOCATION OF ALL UTILITIES ON SITE PRIOR TO CONSTRUCTION.
- 3. ALL PLANT MATERIAL SHALL CONFORM TO GUIDELINES AS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK OR THE PLANT MATERIAL WILL BE UNACCEPTABLE. ALL PLANT MATERIAL SHALL BE TRUE TO SPECIES, VARIETY, SIZE AND BE CERTIFIED DISEASE AND INSECT FREE. THE OWNER AND/OR THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO APPROVE ALL PLANT MATERIAL ON SITE PRIOR TO INSTALLATION.
- 4. NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARD TO SIZE, SPECIES, OR VARIETY WITHOUT WRITTEN PERMISSION OF THE LANDSCAPE CONSULTANT. WRITTEN PROOF OF PLANT MATERIAL UNAVAILABILITY MUST BE DOCUMENTED.
- 5. THE LOCATION OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED LINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE
- 6. ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. ALL PLANT MATERIAL LOCATED WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES PLANTED IN SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED TO NOT HAVE BRANCHES BELOW 10'-0".
- 7. THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
- 8. ALL PLANT MATERIAL SHALL BE PROPERLY INSTALLED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. CUT AND REMOVE IUTE BURLAP FROM TOP ONE-THIRD OF THE ROOT BALL. WIRE BASKETS AND NOT JUTE BURLAP SHALL BE COMPLETELY REMOVED PRIOR TO BACKFILLING THE PLANT PIT.
- 9. BRANCHES OF DECIDUOUS TREES SHALL BE PRUNED BACK BY NO MORE THAN ONE OUARTER (1/4) TO BALANCE THE TOP GROWTH WITH ROOTS AND TO PRESERVE THEIR CHARACTER AND SHAPE. THE CENTRAL LEADER OF TREE SHALL NOT BE
- 10. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL, IF WET SOIL CONDITIONS EXIST THEN PLANTING PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND FILLED WITH CRUSHED STONE OR UNTIL FREE DRAINING.
- II. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT NURSERY.
- 12. OPTIMUM PLANTING TIME: DECIDUOUS APRIL I TO JUNE I & OCTOBER 15 TO NOVEMBER 30. CONIFEROUS - APRIL I TO JUNE I & SÉPTEMBER I TO NOVEMBER I PLANTING OUTSIDE OF THE OPTIMUM DATES SHALL NOT BE CONDUCTED WITH OUT PRIOR APPROVAL FROM THE LANDSCAPE CONSULTANT.
- 13. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS, WATERING AMOUNTS SHOULD BE ADJUSTED AS RAIN EVENTS OCCUR. WATERING AFTER THE INITIAL 4 WEEKS SHALL BE ADJUSTED BASED ON SEASONAL CONDITIONS. WATERING SHALL NOT TAKE PLACE DURING THE HOTTEST POINT OF THE DAY.
- 14. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR TWO YEARS AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT DIES WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING THE STUMP, AND REPLACED BY A TREE OF SIMILAR SIZE AND SPECIES AT NO EXPENSE TO THE OWNER.
- 15. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM 4" LAYER OF TOPSOIL IN ALL LAWN AREAS AND A MINIMUM OF 12" OF TOPSOIL IN ALL PLANTING AREAS. A FULL SOIL ANALYSIS IS RECOMMENDED AFTER CONSTRUCTION AND PRIOR TO PLANTING TO DETERMINE THE EXTENT OF SOIL AMENDMENT REQUIRED. SOIL PH SHOULD BE 5.5-6.5.
- 16. ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH SEED AS INDICATED ON THE LANDSCAPE PLANS. TEMPORARY SEEDING SHALL BE IN ACCORDANCE WITH THE GENERAL SEEDING NOTES ON THIS SHEET, ALL DISTURBED LAWN AREAS SHALL BE TOPSOILED, LIMED, FERTILIZED AND FINE GRADED PRIOR TO LAWN INSTALLATION.
- 17. ALL PLANTING BEDS SHALL RECEIVE 3" OF SHREDDED HARDWOOD BARK MULCH. 18. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.
- 19. ALL PLANTING DEBRIS (WIRE, TWINE, RUBBER HOSE, BACKFILL ETC.) SHALL BE REMOVED FROM THE SITE AFTER PLANTING IS COMPLETE. PROPERTY IS TO BE LEFT IN A NEAT ORDERLY CONDITION IN ACCORDANCE WITH ACCEPTED PLANTING

GENERAL SEEDING NOTES

I. TEMPORARY SEEDING: REFER TO SOIL EROSION AND SEDIMENT CONTROL PLANS. 2. PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL. OPTIMUM SEEDING DATES ARE BETWEEN APRIL I AND MAY 31: AND AUGUST 16 AND OCTOBER 15.

SEEDING OUTSIDE OF THE OPTIMUM DATES SHALL NOT BE CONDUCTED WITH OUT PRIOR APPROVAL.

LAWN AREA SEED MIXTURE
PT 769 R&R ECO-TURF MIX W/ MICROCLOVER

SEEDING RATE: 300 LBS/ACRE

SEEDING RATE: 20-40 LBS PER ACRE, OR 0.5 LB/I,000 SQ. FT. WITH A COVER CROP. FOR A COVER CROP USE ONE OF THE FOLLOWING :GRAIN RYE (I SEP TO 30 APR; 30 LBS/ACRE), JAPANESE MILLET (I MAY TO 31 AUG; 10 LBS/ACRE), OR BARNYARD GRASS (1 MAY TO 31 AUG; 10 LBS/ACRE).

- 20% DEERTONGUE (PANICUM CLANDESTINUM, TIOGA) 20% ALKALIGRASS, FULTS (PUCCINELLIA DISTANS, FULTS) 18% VIRGINIA WILDRYE, MADISON-NY ECOTYPE (ELYMUS VIRGINICUS) 15% CREEPING BENTGRASS, 'PENNCROSS' (AGROSTIS STOLONIFERA)
- 15% FOWL BLUEGRASS (POA PALUSTRIS) 10% FOX SEDGE, PA ECÔTYPE (CAREX VULPINOIDEA) 1% BLUNT BROOM SEDGE, PA ECOTYPE (CAREX SCOPARIA)

PARTIALLY SHADED AREA ROADSIDE MIX (ERNMX# ERNMX-140 BY ERNST SEEDS OR APPROVED EQUAL)

1% SOFT RUSH (JUNCUS EFFUSUS)

- LITTLE BLUESTEM, (SCHIZACHYRIUM SCOPARIUM) VIRGINIA WILDRYÈ (ELYMUS VIRGINICUS) PURPLE CONEFLOWER (ECHINACEA PURPUREA) BOTTLEBRUSH GRASS (ELYMUS HYSTRIX) PARTRIDGE PEA (CHAMAECRISTA FASCICULATA) BLACKEYED SUSAN (RUDBECKIA HIRTA) OXEYE SUNFLOWER (HELIOPSIS HELIANTHOIDES) GOLDEN ALEXANDERS (ZIZIA AURE) WILD BERGAMOT (MONARDA FISTÚLOSA) MARSH BLAZING STAR (LIATRIS SPICATA) TALL WHITE BEARDTONGUE (PENSTEMON DIGITALIS) BLUE FALSE INDIGO (BAPTISIA AUSTRALIS) THIMBLEWEED (ANEMONE VIRGINIANA) 0.5% **BIENNIAL BEEBLOSSOM (GAURA BIENNIS)** BROWNEYED SUSAN (RUDBECKIA TRILOBA) BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA) BIGLEAF ASTER (ASTER MACROPHYLLUS) HEATH ASTER (ASTER PILOSUS) HOARY MOUNTAINMINT (PYĆNANTHEMUM INCANUM) COMMON MILKWEED (ASCLEPIAS SYRIACA) WHITE GOLDENROD (SOLIDAGO BICOLOR) 0.3%
- EASTERN COLUMBINE (ASTER NOVAE-ANGLIAE) NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE) ZIGZAG ASTER (ASTER PRENANTHOIDES) APPALACHIAN BEARDTONGUE (PENSTEMON LAEVIGATUS) GRAY GOLDENROD (SOLIDAGO NEMORALIS) HAIRY BEARDTONGUE (PENSTEMON HIRSUTUS) EARLY GOLDENROD (SOLIDAGO JUNCEA) LICORICE SCENTED GOLDENROD (SOLIDAGO ODORA)

SEEDING RATE: 20 LBS PER ACRE WITH 30 LBS PER ACRE OF A COVER CROP, FOR A COVER CROP USE EITHER GRAIN OATS (I JAN TO 31 JUL) OR A GRAIN RYE (I AUG TO 31 DEC). PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL: OPTIMUM SEEDING DATES ARE IN THE SPRING AND SUMMER (UNTIL SEPTEMBER 1ST).

NATIVE STEEP SLOPE MIX WITH GRAIN OATS (ERNMX# ERNMX-181-1 BY ERNST SEEDS OR APPROVED EQUAL)

SEEDING RATE: 75 LBS PER ACRE. SPECIES LIST:

- 40.0% OATS, (AVENA SATIVA) 20.8% INDIANGRASS, PA ECOTYPE (SORGHASTRUM NUTANS, PA ECOTYPE) 11.2% BIG BLUESTEM, 'NIAGARA' (ANDROPOGON GERARDII, 'NIAGRA) 8.0% CANADA WILDRYE (ELYMUS CANADENSIS)
- 5.6% VIRGINIA WILDRYE, MADISON-NY ECOTYPE (ELYMUS VIRGINICUS) 3.2% AUTUMN BENTGRASS (AGROSTIS PERENNANS) 3.1% SWITCHGRASS (PANICUM VIRGATUM) 2.4% DEERTONGUE (OANICUM CLANDESTINUM)
- 1.2% PURPLE CONFFLOWER (ECHINACEA PURPUREA) 1.1% PARTRIDGE PEA (CHAMAECRISTA FASCICULATA) 0.9% OXEYE SUNFLOWER (HELIOPSIS HELIANTHOIDES) 0.8% LANCELEAF COREOPSIS (COREOPSIS) 0.8% BLACKEYED SUSAN (RUDBECKIA HIRTA)
- 0.3% WILD BERGAMOT (MONARDA FISTULOSA 0.2% COMMON MILKWEED (ASCLEPIAS SYRIACA) 0.2% WRINKLELEAF GOLDENROD (SOLIDAGO RUGOSA) 0.1% CALICA ASTER (ASTER LATERIFLORUS) 0.1% HEATH ASTER (ASTER PILLOSUS)

MUST BE RE-TILLED AND FIRMED AS ABOVE.

3. PERMANENT SEEDING TO BE APPLIED BY RAKING OR DRILLING INTO THE SOILS AT THE RATE

- 4. FERTILIZER FOR THE ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE IN COMPLIANCE WITH THE LATEST NYSDEC REGULATIONS. THIS INCLUDES, BUT LIMITED TO: NO FERTILIZER SHALL BE APPLIED BETWEEN DEC. I AND APRIL I IN ANY YEAR. . SHALL NOT BE APPLIED WITHIN 20 FEET OF A WATER BODY. 3. ONLY LAWN FERTILIZER WITH LESS THAN 0.67% BY WEIGHT PHOSPHATE CONTENT MAY BE (A SOIL TEST PRIOR TO FERTILIZER APPLICATION IS RECOMMENDED.)
- 5. IF SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY OR PERMANENT SEEDING, EXPOSED AREA TO BE STABILIZED WITH MULCH AS INDICATED IN NOTE 6.
- 6. MULCH TO CONSIST OF SMALL GRAIN STRAW OR SALT HAY ANCHORED WITH A WOOD AND FIBER MULCH BINDER OR AN APPROVED EQUAL. MULCH WILL BE SPREAD AT RATES PER NYSDEC STANDARDS AND ANCHORED WITH A MULCH ANCHORING TOOL OR LIQUID MULCH BINDER, AND SHALL BE PROVIDED ON ALL SEEDLINGS. HYDROMULCH SHALL ONLY BE USED DURING OPTIMUM GROWING SEASONS.
- AS NEEDED, WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
- 8. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR
- OTHER UNSUITABLE MATERIAL. 9. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA

NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

EVERGREEN TREE PLANTING DETAIL

PRUNE FOR VIGOR, MAINTAIN

RUBBER GUARD TO PREVENT

2" DIA. HARDWOOD STAKES ²/₇ TREE HEIGHT. 2 PER TREE LOCATED

OUTSIDE OF PLANTING PIT. BOTH TREE

STAKES TO BE REMOVED AFTER ONE

REMOVE ALL ROPE FROM TRUNK AND

4" SHREDDED HARDWOOD BARK MULCH. MULCH NOT TO CONTACT ROOT FLARE

TOP OF ROOT BALL. FOLD BURLAP

BACK $\frac{1}{3}$ FROM TOP OF ROOT BALL.

WIRE BASKET TO BE REMOVED.

PREPARED BACKFILL MIX; SEE GENERAL PLANTING NOTE CI. SOAK BACKFILL

- PLACE ROOT BALL ON UNEXCAVATED

BARK DAMAGE

PLASTIC CHAIN

- 6" SAUCER RIM

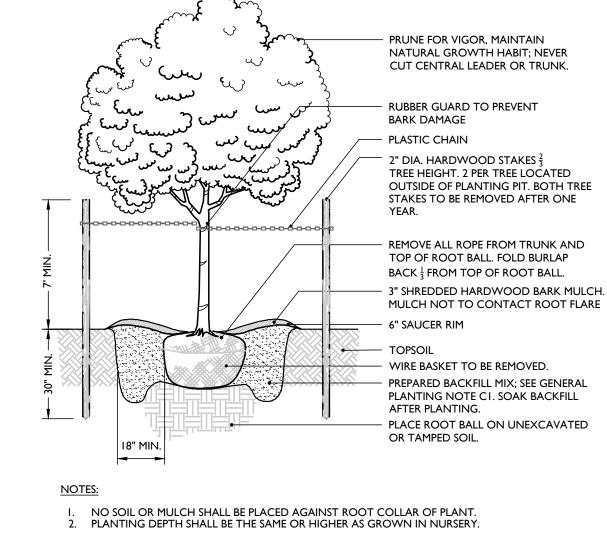
AFTER PLANTING.

OR TAMPED SOIL.

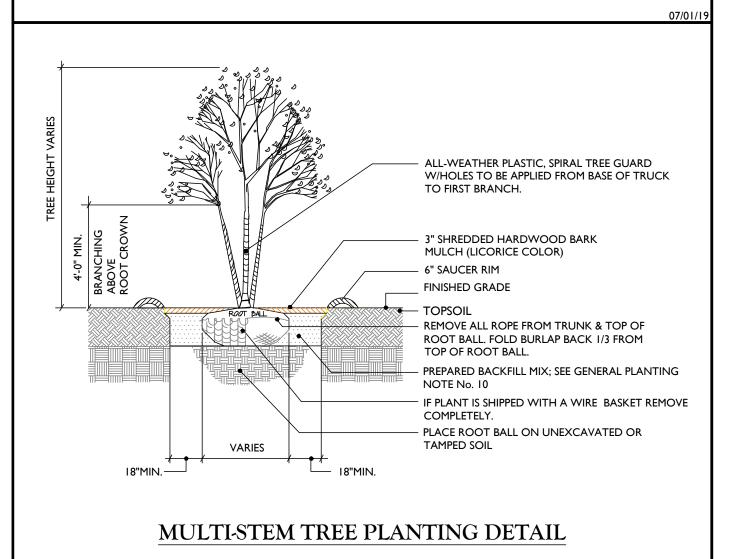
TOPSOIL

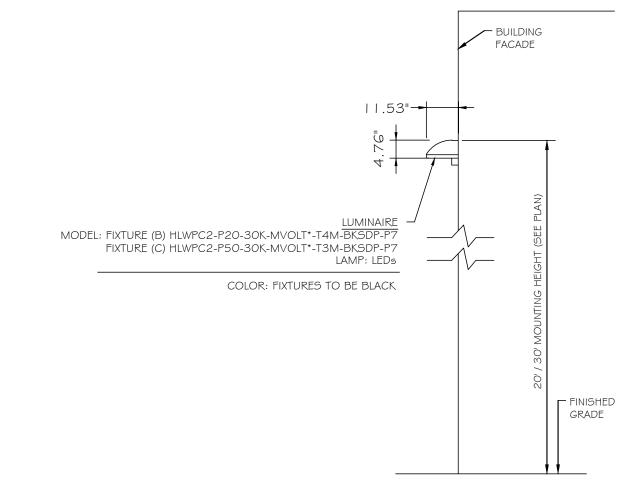
NATURAL GROWTH HABIT: NEVER

CUT CENTRAL LEADER OR TRUNK.



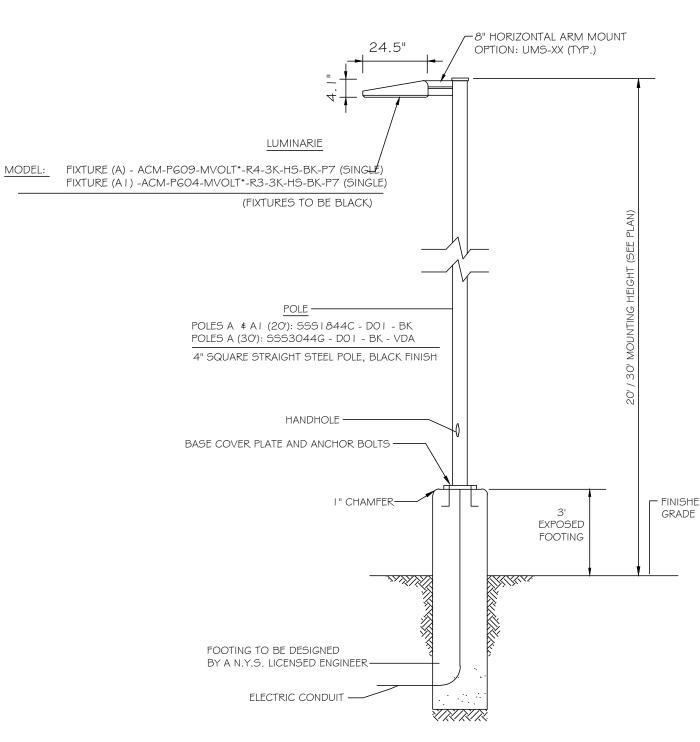
TREE PLANTING DETAIL





WALL MOUNTED FIXTURE DETAIL

- I. LUMINAIRES TO BE MANUFACTURED BY HOLOPHANE LIGHTING OR APPROVED EQUAL. 2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
- 3. *VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.



POLE MOUNTED FIXTURE DETAIL

NOT TO SCALE

I. LUMINAIRES TO BE MANUFACTURED BY AMERICAN ELECTRIC LIGHTING AND HOLOPHANE. POLES BY HOLOPHANE (MANUFACTURER TO CONFIRM POLE SIZE) OR APPROVED EQUAL. 2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES AND POLES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.

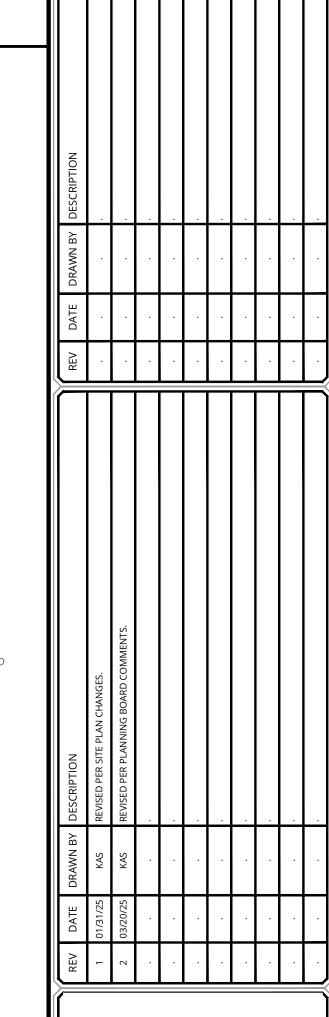
4. *VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.

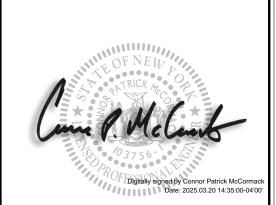
3. FOOTING TO BE DESIGNED, SIGNED, AND SEALED BY A N.Y.S. LICENSED ENGINEER.

5. PROPOSED POLES HEIGHT TO BE MODIFIED (AS NEEDED) IN FIELD TO MEET DESIGN.



Colliers





Justin Eric Dates NEW YORK REGISTERED LANDSCAPE ARCHITECT LICENSE NUMBER: 001964-01 COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

POMARICO DRIVE

SECTION 86 BLOCK 1 LOTS 37.222 & 37.223

TOWN OF NEWBURGH ORANGE COUNTY NEW YORK STATE



CONSTRUCTION DETAILS

C-905