VILLAGE OF WAPPINGERS FALLS

Offices of Planning/Zoning 2582 South Avenue Wappingers Falls, NY 12590 (845) 297-5277 Fax: (845) 296-0379

AGENDA OF THE PLANNING BOARD

June 1, 2023

The Planning Board of the Village of Wappingers Falls will hold a meeting at the American Legion Hall, 7 Spring Street, Wappingers Falls, on June 1, 2023, beginning at 7 p.m. There are no public hearings scheduled for this meeting.

The agenda is as follows:

ROLL CALL

APPROVAL OF MAY 4, 2023 MINUTES

CONTINUED APPLICATIONS

DUTCHESS AVENUE

Dutchess Avenue (Grid #6158-17-198119) – Terra Group 201 LLC (Owner and Applicant) – Christopher Lapine, P.E., LEED AP, LaBella Associates (Engineer) - Site Plan.

This property is located in the Village Residential (VR) zoning district. The applicant is proposing to construct a three-story, eight-unit, multi-family development.

BUCKINGHAM

Nelson Avenue (Grid #6158-13-071325) – Dan F. Leary, Esq., Berlandi Nussbaum & Reitzas LLP (Attorney) – Eric M. Schlobohm, PE, Sr. Associate, and Richard D. Williams Jr., PE, Insite Engineering, Surveying & Landscape Architecture, P.C. (Engineers) – Site Plan.

The property is located in the Residential Mixed Use (RMU) zoning district. The applicant is proposing 188-units in a mixed residential housing complex consisting of townhomes and apartment buildings.



May 10, 2023

Chairman Tom Morris Village of Wappingers Falls Planning Board 2582 South Avenue Wappingers Falls, NY 12590

Re: Dutchess Ave and Garden St, 2nd Review Tax ID#: 135601-6158-17-198119

JRFA Job #06120219

Dear Mr. Morris:

The Applicant of the above-referenced project, Terra Group 201, LLC, is in receipt of comments issued for consideration by the following agencies in response to their site plan application originally dated December 7, 2022 and revised on May 10th, 2023. The site plan drawings have been amended in response to these comments. Below is a point-by-point response to each of the comments received.

- Village of Wappingers Falls Four Corners Planning comments dated April 4, 2023
- Village of Wappingers Falls Planning Board J. Robert Folchetti & Associates comments dated March 31, 2023

VILLAGE OF WAPPINGERS FALLS FOUR CORNERS PLANNING COMMENTS, DATED MARCH 1, 2023:

1. Proposed Project. The applicant proposes to construct a three-story, eight (8) unit 10,128 square foot multifamily dwelling on a ± 0.45-acre vacant lot located on Dutchess Avenue in the Village Residential (VR) District. The building will include eight 2-bedroom dwelling units (previously six 2-bedroom units and two 1-bedroom units were proposed). A total of 10 on-site parking spaces are proposed. Access will be provided from an existing access easement and an improved driveway from Dutchess Avenue. The project will connect to municipal water and sewer services. The project requires Site Plan approval from the Planning Board.

Response: This is understood.

2. SEQR. The proposed project is an Unlisted action under SEQR. Involved agencies include the Village of Wappingers Board of Trustees for connection to municipal sewer service and potentially a construction easement; Village Water Board for water service; and Dutchess County Department of Behavioral and Community Health for approval of the water supply and sewer connections. We have prepared a resolution classifying the action as Unlisted for the Planning Board's convenience. As discussed at the Planning Board's March 2, 2023 meeting, the Board should wait to initiate SEQR until the applicant has submitted sufficient information to assess the project's consistency with the Zoning Law, including building elevations and floor plans.



We will provide additional comments on the Environmental Assessment portion of the Full EAF once the applicant has submitted additional material.

Response: As requested, we have included floor plans and elevations for the proposed building. The project meets all zoning requirements and is requesting the planning board adopt the resolution prepared by 4 corners planning.

- 3. Area and bulk requirements.
- (a) The applicant proposes 57 percent lot coverage, where a maximum of 60 percent is permitted. The parking lot and access drive are proposed to be porous asphalt, and are therefore not included in the definition or calculation of "lot coverage." Porous asphalt must be maintained to ensure that it remains porous. The applicant should discuss the type of porous asphalt that is proposed, the maintenance requirements, and the legal means to ensure the pavement is maintained.
- (b) The Bulk Table on Sheet C130 should be revised to indicate the maximum number of stories that are proposed.
- (c) The Uniform Fire and Building Code may require a larger side yard setback than 1'9".

Response:

- a.) The porous asphalt was considered impervious for the lot coverage calculations to match the NYS DEC classification. They were included in the 57 percent lot coverage. The porous asphalt has since been remove and has been replaced with subsurface infiltration chambers beneath the parking lot. The chambers have been set so as to now interfere with the proposed retaining walls or building.
- b.) Building elevations have been included in this submission
- c.) As was stated in the previous comment letter, we have reviewed this and determined that, since the setback is less than 5', the exterior wall material will need to meet fire-resistant standards. This will be reflected in plans prepared by others.
- 4. Construction Easement. The potential need for construction easements should be reviewed by the Village Engineer.
 - Response: Construction will be performed working from the inside working out. A construction sequence has been provided on sheet C150 that illustrates how this will be done. Temporary shoring will be provided by others. No construction easements are planned to be need for this project.
- 5. Dwelling Unit Size and Floor Plans. The definition of "dwelling unit" in § 151-61 of the Zoning Law states that a dwelling unit "shall be not less than 500 square feet of habitable area." The definition of "habitable area" states that "maintenance or utility space, parking garages and similar areas are not considered habitable space." Floor plans must be submitted so the Planning Board can verify that the proposed dwelling units will meet this requirement. Floor plans should



also be provided so the Building Department can determine whether the building is ADA compliant.

Response: Floors plans have been provided by the project architect.

- 6. Landscaping.
- (a) Sections 151-24I(1)and (2) of the Zoning Law require that buffer plantings be installed between the parking lot and adjacent properties, and between the parking lot and the street. Buffer planting is defined as "an area intended to provide an effective year-round visual barrier between different land uses and to protect against noises, odor, dust, flare and unsightly storage." The applicant proposes variety of evergreen plantings. The Planning Board should review the proposed landscaping for compliance with these requirements
- (b) A It should be noted that American Arborvitae is not deer resistant, and White Spruce will require a planting area larger than five feet.
- (c) Section 151-24K(4) requires that shrubs be two to three feet in height at time of planting, and major trees are required to have a 3½ inch caliper.

Response:

- a.) The landscape plan has been revised to incorporate evergreen species along the face of the wall. These will meet the intent of section 151-24(1) and (2)
- b.) These plantings have been replaced with xxx
- c.) The plantings in the parking area have been revised meet the requirements of 151-24K(4). The plantings on the other side of the wall have been sized based on what is appropriated for each species. These are not located within the parking area, so this section does not apply. Screening for the parking area is provided by the extended retaining wall and fencing as required by the code.
- 7. Conduit for future installation of an EVCS is proposed, along with an electric outlet for charging vehicles. Consider re-locating this infrastructure further east so it is available for vehicles that park in the ADA compliant parking space.

Response: We have relocated the location of the charging station further to the east as requested. The location is limited by the size of the window wells.

8. Snow storage. Area(s) proposed for snow storage should be reviewed by the Village Engineer

Response: This is understood.

9. Building Elevations. The applicant should submit building elevations so the Planning Board can determine whether the project is consistent with the character of the VR District.

Response: This has been provided by the project architect.



10. Materials and Colors. Samples of proposed building materials and colors should be provided for review by the Planning Board.

Response: This will be provided by the project architect at a later date.

11. Retaining Walls. The design of all proposed retaining walls should be submitted for review.

Response: This will be provided by the project structural engineer at a later date.

12. ADA Compliance. The Code Enforcement Officer should review the plans to determine whether the project is ADA compliant.

Response: This is understood.

13. Outdoor Lighting. Manufacturers cut sheets of all proposed outdoor lighting fixtures should be provided.

Response: This has been provided in this submission.

14. Easements. Copies of the driveway easement and sewer easement have been submitted and should be discussed by the Planning Board Attorney.

Response: We have submitted documents to the village planning board attorney for review and are awaiting her response. In addition, a letter from the applicants attorney on the easements use for this project has been submitted to the village planning board attorney. We await her response.

15. Recreation Fee. Payment of the recreation fee for eight (8) new dwelling units is required.

Response: This will be provided prior to planning board approval.

16. Public Hearing. A public hearing on the Site Plan, if deemed necessary by the Planning Board, shall be held within 62 days following the receipt of a complete application.

Response: This is understood.



<u>VILLAGE OF WAPPINGERS FALLS J. ROBERT FOLCHETTI & ASSOCIATES COMMENTS, DATED MARCH 1, 2023:</u>

Engineer Review:

1. The entrance driveway is currently depicted at 20 feet wide; it should be revised to reflect 24 foot wide. The 24-foot driveway width should be extended to Dutchess Avenue. Applicant should call out proposed driveway entrance radii at Dutchess Avenue and demonstrate vehicles can safely exit the site and have adequate visibility of traffic on Dutchess Avenue.

Response: We met with the village fire chief on March 6th. From that meeting it was agreed that the driveway would be widened to 24' up to the fire truck turnaround and that the remainder would stay 20'. We have submitted plans to the fire chief for review.

2. The retaining walls along the parking area should be extended a minimum of 42 inches above the finished parking grade.

Response: The plan shows the wall to extend 36" above the parking lot with a 36" privacy fence above. This exceeds the typical height of a guard rail and keeps the fence height under the 6' maximum allowed by the village code. This was discussed with the village engineer on March 9th.

3. Proposed turn-around area for a fire truck will require approval from the Village of Wappingers Falls Fire Department.

Response: Comment noted.

4. Proposed potable water and sewer use flows should be provided on the plans. Calculation should be included. Quantity stated on Sheet C160 (1,560 GPD/DAY) does not match EAF (1,760 GPD).

Response: The plans have been updated to match the EAF

5. Outdoor lighting plans should be provided demonstrating that the proposed lighting meets the requirements of Village Code Section 151-12.

Response: This has been provided in this submission.

6. Construction of the building foundation and retaining walls are proposed close to multiple property lines. Retaining wall and building footings may potentially exceed the property limits. An engineering plan demonstrating how the building foundation and retaining walls will be installed without disturbing the neighboring properties should be provided. Engineering plans should include a discussion of construction easements required from neighboring properties. Proof that the neighboring properties are agreeable to construction easements should be provided.

Applicant has only provided a sequence on construction.

Response: No construction easements are proposed for this project. Site improvements will be construction from the interior to prevent disturbance to adjacent properties. A construction sequence has been provided on sheet C150 that provides the method of construction. The structural engineer is preparing plans for the construction of the building foundation including



temporary excavation stabilization. This will be provided at a later date. The Erosion and Sediment control plan has been revised to indicate methods for the construction of the retaining wall. Prior to construction, the property line will be staked, and construction fencing will be installed to ensure there is no disturbance to the neighboring properties.

7. The Village property adjacent to the proposed building has a NYSDEC Land Fill on it. All measures to ensure that no disturbance to that parcel should be taken. A disturbance bond maybe required for work in close proximity to the adjacent Village property. Applicant states no disturbance will occur and will provide a design measure from their structural engineer.

Response: Prior to construction, the property line will be staked, and construction fencing will be installed to ensure there is no disturbance to the Landfill site. During excavation of the foundation, stabilization measures will be deployed to prevent disturbance. Design of this measure will be provided by the project structural engineer.

8. Provide an estimated project construction schedule.

Response: A construction sequence has been provided on sheet C150 that provides the method of construction.

9. Applicant should provide proposed building architectural plans including elevations and floor plans and additional specifications for materials and colors for review.

Response: This have been provided in this submission.

10. Applicant should provide guide rail along driveway at proposed 1 in 2 fill slope.

Response: This was included in the last submission and is shown on sheet C130.

11. Design plans signed and sealed by a NYS licensed engineer required for retaining walls over four feet in height should be provided.

Response: This will be provided by the project structural engineer at a later date.

12. Soil testing for the proposed stormwater infrastructure should be provided should be provided for proposed porous asphalt parking and drive.

Response: Soil testing was performed at the site on March 29th and 30th, witnessed by the town consulting engineers. Testing revealed no rock or groundwater at the testing locations. From this, it was determined that the most effective method of treating stormwater, would be the utilization of subsurface infiltration chambers. The plans have been revised to include these instead of the originally proposed porous asphalt. Testing results and details for the system are provided on sheet C541.



Please find the attached revised Engineering Plan Set and support documents listed below. If you should have any questions or comments during your review of the submitted documents, feel free to reach out to me directly at (845) 486-1525.

Sincerely,

Thomas Kerrigan, P.E.

Thems Karip

Civil Engineer

Encl: Amended Site Plan Set, last revised 5/10/23 (10 full-size copies)

A copy of the survey prepared by Rowan Land Surveying Dated October 24, 2022 (10 full-size copies) Short Environmental Assessment Form Part 1 with Figures and Attachments dated December 7, 2022, last revised May 10th, 2023; (10 full-size copies)

A letter sent from the Client's Attorney, David A. Pisanelli Esq.

cc: Applicant File

7

River City Abstract of Hudson Valley, Inc. 11 Raymond Avenue, Suite 35 Poughkeepsie, NY 12603 P: (845)463-4797 F: (845) 463-4765

May 4, 2023

VIA E-MAIL

Kevin P. Barry, Esq. 40 Garden Street Poughkeepsie, NY 12601

RE: Access Easement and Right-of-Way Village of Wappingers

Dear Kevin,

I am an attorney licensed to practice in New York since September 1981. For the last 24 years I have served as title counsel to River City Abstract of Hudson Valley, Inc. For the last 9 years I have been the principal and owner of River City Abstract. In my capacity as Title Counsel, I have reviewed titles for thousands of parcels.

You have asked for an opinion regarding access to a parcel located in the Village of Wappinger Falls, known as Lot 3 on Filed Map Number 9802 (Subdivision Plat Prepared for Frank T. & Maria T. Scianna). The parcel is currently owned by Terra Group 2001 LLC by deed recorded in Document Number 02-2022-2261. This parcel was created by the filing of a 3-lot subdivision on November 8, 1993. As shown on the Filed Map, access to lot 3 is by way of a common access easement over a portion of Lot 2. The access easement is shown on the map. The map notes that the access easement is to be a minimum of 15 feet in width. Another note on the map indicates by arrow and notation the extent that the easement can be widened. The clear implication is that the easement could be made wider if necessary within the limits as shown on the map.

The chain of title for the subject parcel contains as together with language the benefit of the access easement as shown on file map 9802. The chain of title for lot 2 contains language of it being subject to the easement rights in favor of lot 3 as shown on the map.

Thank you for affording me the opportunity to assist you in this matter. I stand ready to speak with you at your convenience if necessary.

Respectfully submitted,

David A. Pisanelli, Esq.

Cc: Lisa Cobb, Esq.

Date: Customer:	
Project:	
Type:	Qty:



Notch Bollard LED



Order Code:	NT								-
	Series	NT Notch Bollard LED							
	Height	1.5 1.5 ft. (consult factory)	2 2 ft. (consult factory)	2.5 2.5 ft.	3 3 ft.	3.5 3.5 ft.	4 4 ft.		*For other heights, please consult factory
	Light Engine	LG4500 10W/405lm	LG4700 14W676Im						*Based on 3000K CCT
	ССТ	27* 2700K	30 3000K	35 3500K	40 4000K	50 5000K			*Consult factory.
	Finish	WH White	BK Black	BL Semi-Matte Black	BZ Bronze	SV Silver	SP Specify Premium Co	lor	
	Voltage	120* 120V	208 208V	240 * 240V	277* 277V	347 ¹ 347V	480 ¹ 480V		¹ Equipped with internal stepdown transformer *Specify for HL option
	Options	DM Dimming (0-10V)	HLXX ^{2,3} Hi-Lo Switching	PC Photocell (consult factory)	REC GFCI Receptacle with weather- proof cover	REC2 GFCI Receptacle with padlockable in-use cover		REC4 USB & Duplex Receptacle with weather- proof padlockable in-use cover	² 120V, 240V & 277 only. ³ DM or HL only. Cannot be combined







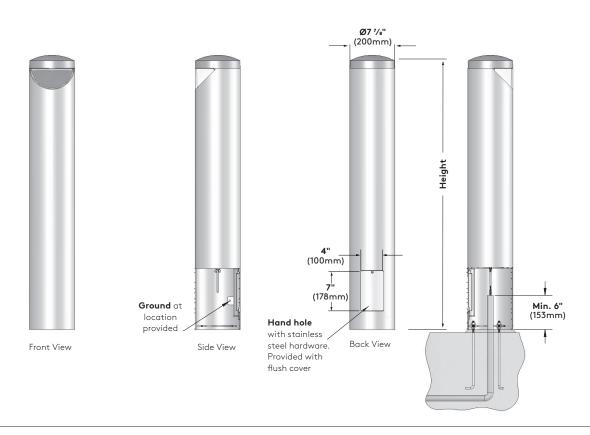






selux

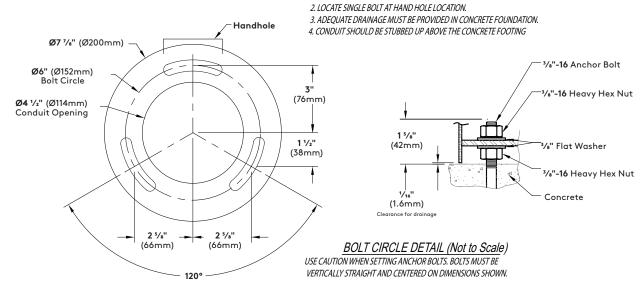
Mounting Details



Anchorage Details

NOTES:

1. BOLLARD ORIENTATION IS CRITICAL, ROD & HAND HOLE LOCATIONS ARE CRITICAL.

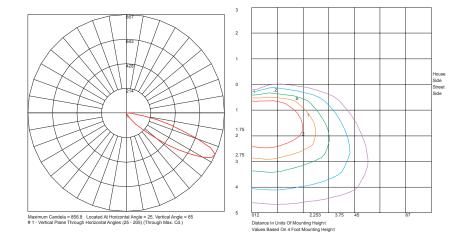


Photometry



14W LED / 3000K CCT

Catalog #: NT-4-LG4700-30 Report #: 830336 Delivered Lumens: 676 Input Watts: 14W Efficacy: 47 CCT: 3000K Maximum candela of 856 at 65° from vertical. Mounting Height: 4' (1.22 M) BUG Rating: B0-U1-G1



ССТМ	ultiplier
3000K	1.00
3500K	1.24
4000K	1.19
5000K	1.39

TM-21 Lifetime Calculation										
Light	Ambient Temp	Lumen Ma	intenance (9	Reported L ₉₀ 1						
Engine	(°C)	25K	50K	60K	Reported L ₉₀					
A112	25°C	96.4%	93.0%	90.4%	L ₉₀ (12K) > 73,000 hours					
ALL²	40°C	96.4%	93.0%	90.4%	L ₉₀ (12K) > 73,000 hours					

 $^{^{1}}$ Calculated in accordance with IESNA TM-21-11, projected values are within six times (6x) the IESNA LM-80-08 test duration

² Thermal measurements based on Order Codes: NT-4-LG4700-30-120

Date: Customer:		selux
Project:		SCION
Type:	Qty:	

Ouray 400





ler Code:	U4									
				Pole Orde	er Code:	-		-		
U4	Series	U4 Ouray 400				Series	Height	Finish	Op	otions
	Optics	R1 Type I	R2 Type II	R3 Type III	R3W Type III (Wide)	R4 Type IV	R5R Type V (Round)	R5S Type V (Square)	R5Q Type V (Rectangular)	PP Plane Projector
	Fixed Mounting	S 60mm Slip Fitter	SA Single Pole Adaptor	S1 Single Short Arm	S2 Double Short Arm	L1 Single Long Arm	L2 Double Long Arm	W Wall Mount	WD Decorative Wall Box	* May be combined with adjustable mounting
	Adjustable Mounting	AT ¹ Adjustable Tilt	AS Adjustable Swivel	XX None						¹ AT mounting not IDA approved
	Light Engine	5G350 19W/2,012Im	5G530 28W/2,935Im	5G700 39W/3,722Im	5G105 58W/5,169Im	5G140 ² 75W/6,120Im				² 347/480V and HLXX options cannot be combined with 5G140 ⁴ Based on RI distributions at 3000K CCT no glass
	ССТ	27¹* 2700K	30 ¹ 3000K	35* 3500K	40 4000K	50* 5000K				¹ 2700K and 3000K IDA Approved * Consult factory for lead time
	Power Cord Length	8 8′	10 10'	12 12'	14 14'	16 16'	18 18'	XX XX'		*Add length of arm and height of pole to determine power cord length
	Finish	WH White	BK Black	BL Semi-Matte Black	BZ Bronze	SV Silver	SP Specify Premium C	olor		
	Voltage	UNV 120-277V	120 ⁴ 120V	240 ⁴ 240V	277 ⁴ 277V	347 347V	480 480V			⁴ Specify for HLXX option
	Options	DM ⁶ Dimming (0-10V)	HS ⁵ House Side Shield (180°)	HL30 ^{6,8} Hi-Lo Switching Low Output 30%	HL50 ^{6,8} Hi-Lo Switching Low Output 50%	CO ⁹ Comfort Optics (Not available with PP	GL⁹ Tempered Glass Lens	TLR ⁶ Twist Lock Receptacle 7-Pin with Shorting Cap		⁵ Type I, II, III, and IV only ⁶ DM, HLXX, TLR, MS or IMS only. Cann be comblined. ⁷ TLRP, IMS or MS only. Cannot be coml ⁸ 120V, 240V or 277V only
		TLRP ⁷ Twist Lock Receptacle 3-Pin with Photocell	IMS ^{6,7} Internal Motion Sensor (See page 11 for order	MS ^{6,7} Pole Motion with Option (See page 9 order code)	al	optics)				°Glass is included with CO and PP options and does not need to be specified separately







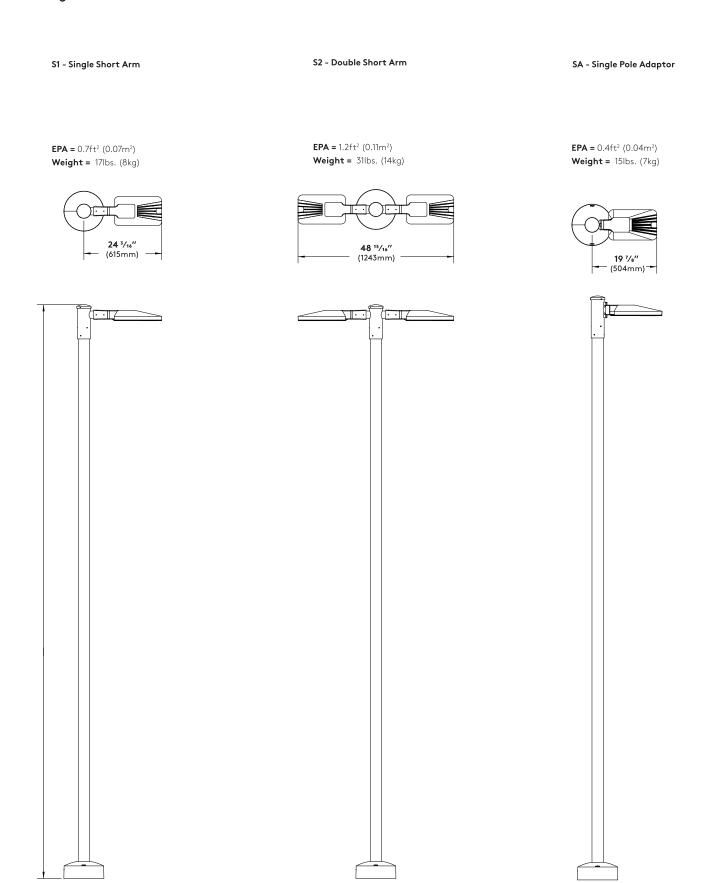




code)

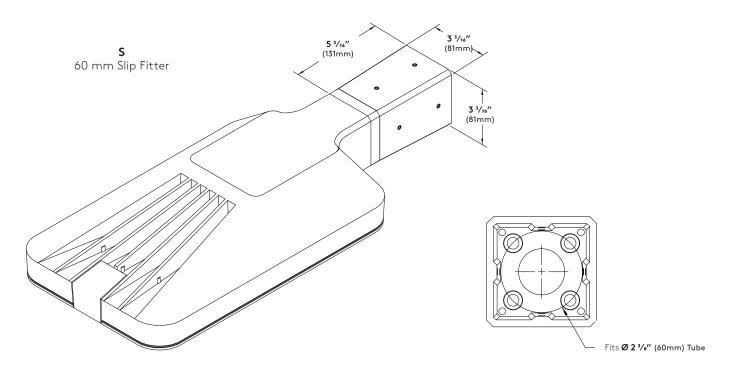
Mounting

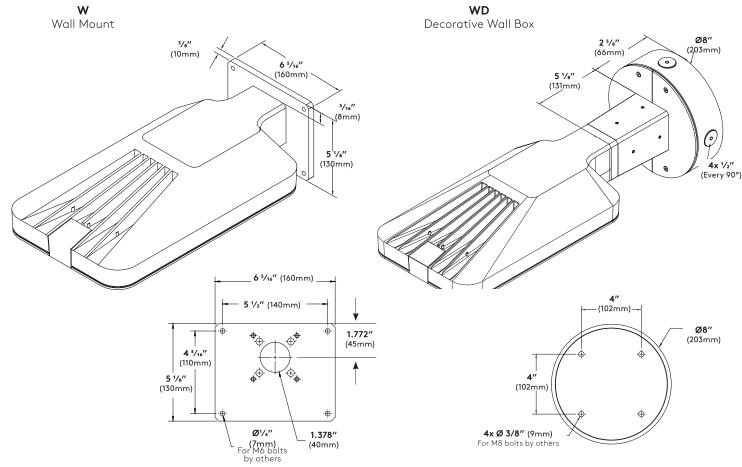




selux

Mounting Details

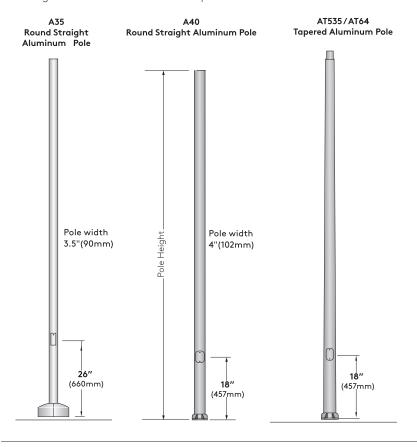






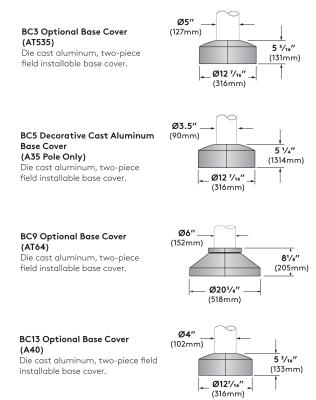
Pole Information

Refer to pole specification sheets for construction details, anchorage information and additional options.



Optional Base Covers for Poles

Die cast aluminum.



Pole Data Chart

Pole Series	Bolt Circle	90	100	110	120	130	30 140		160	170	180	Height	Finish	Options	
	Circle	mph	mph	mph	mph	mph	mph	mph	mph	mph	mph				
A35 3 1/2" Round Straight Aluminium Pole	7 3/4"	8.7	6.8	5.4	4.3	3.5	2.9	2.5	2.1	1.8	1.6	8 8ft	WH White	BC3 Decorative Cast Aluminium Base	
A35 3 1/2" Round Straight Aluminium Pole	7 3/4"	6.4	4.9	3.8	2.9	2.2	1.8	1.5	1.2	1.0	0.9	10 10ft	BK Black	Cover (AT535) BC5 Decorative Cast Aluminium Base	
A35 3 1/2" Round Straight Aluminium Pole	7 3/4"	4.8	3.5	2.6	1.8	1.3	0.9	0.7	0.6	0.4	-	12 12ft	211 314 31	Cover (A35 Pole Only)	
A40 4" Round straight Aluminium Pole	7 1/2"	9.3	7.2	5.6	4.5	3.7	3.1	2.7	2.3	2.0	1.7		BL Semi- Matte	BC9 Decorative Cast Aluminium Base Cover (AT64)	
AT535 5" to 3.5" Round tapered Aluminium Pole	8 5/8"	13.4	10.5	8.4	6.9	5.8	4.9	4.2	3.6	3.2	2.8		Black	BC13 Decorative Cast Aluminium Base	
AT64 6" to 4" Round tapered Aluminium Pole	9 1/2"	20.3	16.1	13.1	10.9	9.2	7.9	6.8	5.9	5.2	4.5		BZ Bronze	Cover (A40)	
A35 3 1/2" Round Straight Aluminium Pole	7 3/4"	3.5	2.4	1.6	1.0	0.5	-	-	-	-	-	14 14ft	BZ DIOTIZE	T35 Supplied with 3½" diameter tenon, 4½" high (use for A40, AT64, AT74	
A40 4" Round straight Aluminium Pole	7 1/2"	10.3	7.9	6.1	4.9	4.0	3.4	2.9	2.5	2.1	1.8]	SV Silver	only)	
AT535 5" to 3.5" Round tapered Aluminium Pole	8 5/8"	11.2	8.7	6.9	5.5	4.6	3.8	3.3	2.8	2.4	2.1		SP Specify	REC GFCI Receptacle with weather- proof cover	
AT64 6" to 4" Round tapered Aluminium Pole	9 1/2"	17.2	13.6	11.0	9.1	7.6	6.5	5.6	4.8	4.2	3.7		Premium	REC2 GFCI Receptacle with	
A35 3 1/2" Round Straight Aluminium Pole	7 3/4"	2.1	1.2	0.6	-	-	-	-	-	-	-	16 16ft	Color 16 16ft	padlockable in-use cover REC3 USB and Duplex Receptacle with	
A40 4" Round sraight Aluminium Pole	7 1/2"	8.3	6.2	4.7	3.6	3.0	2.5	2.1	1.7	1.5	1.2			weather proof cover REC4 USB ∧ Duplex Receptacle	
AT535 5" to 3.5" Round tapered Aluminium Pole	8 5/8"	9.1	6.9	5.4	4.3	3.4	2.9	2.4	2.0	1.7	1.5]		with weatherproof padlockable	
AT64 6" to 4" Round tapered Aluminium Pole	9 1/2"	14.3	11.2	9.0	7.4	6.2	5.2	4.4	3.8	3.3	2.9			in-use cover MS Motion Sensor with Optional Photocell	
														* Weatherproof cover intended for portable tools or other portable equipment connected to the outlet only when attended. For other re- quirements please consult factory.	

Photometry

selux

R1 Optics / 19W LED / 3000K CCT

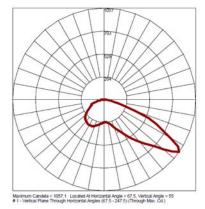
Catalog #: U4-R1-XX-XX-5G350-30-XX-UNV

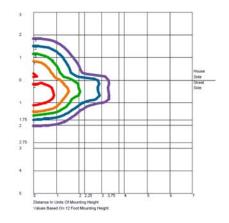
Delivered Lumens: 2012lm Input Watts: 19W Efficacy: 107 lm/W CCT: 3000K CRI (Ra): >80

Maximum candela of 1057 at 55° from vertical.

IES classification: Type II Mounting Height: 12' (3.6 m) BUG Rating: B1-U0-G1 Power Factor: 0.977

Total Harmonic Distortion: 10.5%





R2 Optics / 19W LED / 3000K CCT

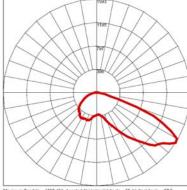
Catalog #: U4-R2-XX-XX-5G350-30-XX-UNV

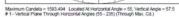
Delivered Lumens: 2031lm Input Watts: 19W Efficacy: 108 lm/W CCT: 3000K CRI (Ra): >80

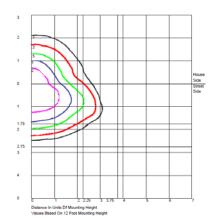
Maximum candela of 1593 at 57.5° from vertical.

IES classification: Type III Mounting Height: 12' (3.6 m) BUG Rating: B1-U0-G1 Power Factor: 0.977

Total Harmonic Distortion: 10.5%







R3 Optics / 19W LED / 3000K CCT

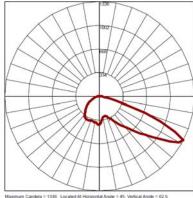
Catalog #: U4-R3-XX-XX-5G350-30-XX-UNV

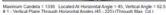
Delivered Lumens: 2002lm Input Watts: 19W Efficacy: 106 lm/W CCT: 3000K CRI (Ra): >80

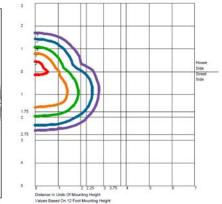
Maximum candela of 1336 at 62.5° from vertical.

IES classification: Type III Mounting Height: 12' (3.6 m) BUG Rating: B1-U0-G1 Power Factor: 0.977

Total Harmonic Distortion: 10.5%







Photometry



R3W Optics / 126W LED / 3000K CCT

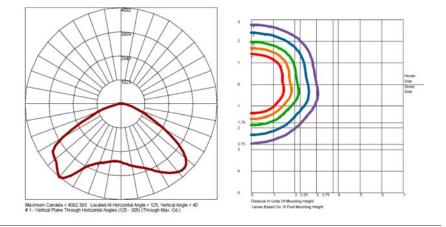
Catalog #: U4-R3W-5G350-30-XX-UNV Delivered Lumens: 12036lm

Input Watts: 126W Efficacy: 96 lm/W CCT: 3000K CRI (Ra): >80

Maximum candela of 4092 at 40° from vertical.

IES classification: Type VS Mounting Height: 16' (4.9 m) BUG Rating: B3-U0-G1 Power Factor: 0.990

Total Harmonic Distortion: 10.5%



R4 Optics / 19W LED / 3000K CCT

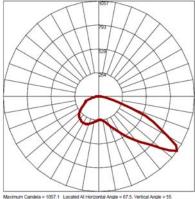
Catalog #: U4-R4-XX-XX-5G350-30-XX-UNV

Delivered Lumens: 1955lm Input Watts: 19W Efficacy: 104 lm/W CCT: 3000K CRI (Ra): >80

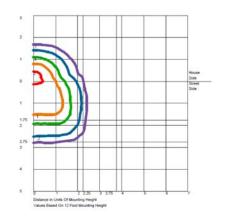
Maximum candela of 1320 at 62.5° from vertical.

IES classification: Type III Mounting Height: 12' (3.6 m) BUG Rating: B1-U0-G0 Power Factor: 0.977

Total Harmonic Distortion: 10.5%







PP Optics / 19W LED / 3000K CCT

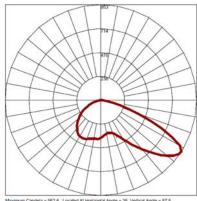
Catalog #: U4-PP-XX-XX-5G350-30-XX-UNV

Delivered Lumens: 1835lm Input Watts: 19W Efficacy: 98 lm/W CCT: 3000K CRI (Ra): >80

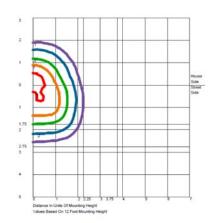
Maximum candela of 952 at 57.5° from vertical.

IES classification: Type III Mounting Height: 12' (3.6 m) BUG Rating: B1-U0-G1 Power Factor: 0.978

Total Harmonic Distortion: 10.5%







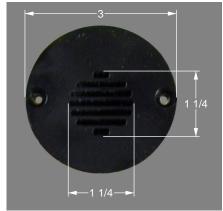
*Complete photometric matrix is available for download from website along with all House Shield photometry.





THE LIGHT CENTER OF THE INDUSTRY SINCE 1955 4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION Values based on 1 foot mounting height.



2

Transverse Distance in Units of Mounting Heights

▼ House Side

Street Side ▲

2

3

REPORT NUMBER: ITL86657
ISSUE DATE: 02/25/16 PAGE: 1 OF 8
PREPARED FOR: B-K LIGHTING, INC.
CATALOG NUMBER: CHL-LED-e69-C-0-DEGREES,

YSL-LED-e69-C-0-DEGREES

LUMINAIRE: MACHINED CYLINDRICAL METAL HOUSING, ONE BLACK CIRCUIT BOARD WITH 3 LEDS, ONE CLEAR PRISMATIC PLASTIC LENS WITH ONE CONICAL OPTIC PER LED, CLEAR FLAT LINEAR PRISMATIC GLASS LENS, MACHINED BLACK PAINTED LOUVERED METAL FACEPLATE, LENS PRISMS OUT AND VERTICAL.

LAMPS: THREE WHITE LIGHT EMITTING DIODES (LEDS), AIMED AT THE HORIZON.
INPUT ELECTRICAL: 12.0 VOLTS, 6.25

WATTS, 0.578 AMPS

LED DRIVER: B-K LIGHTING 524438/400188-L, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST. NOTE: DATA SHOWN IS ABSOLUTE FOR THE

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (12VAC, 60Hz) TO THE DRIVER.

.005

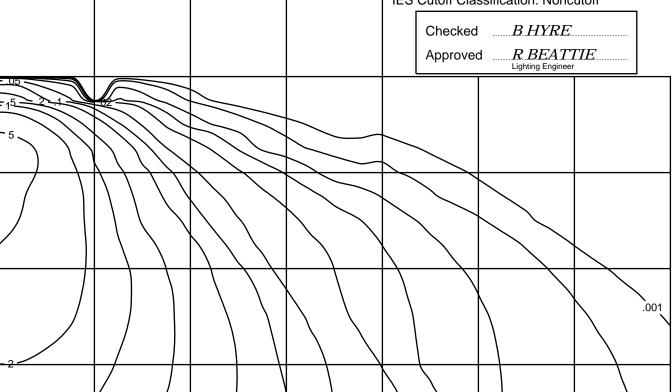
6

.002

7

TEST PROCEDURE: IESNA LM-79-08 TEST DISTANCE = 20.0 FEET

IES Cutoff Classification: Noncutoff



Longitudinal Distance in Units of Mounting Heights

4

3

2





INDEPENDENT TESTING LABORATORIES, INC. 4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255

• FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL86657 ISSUE DATE: 02/25/16

PAGE: 2 OF 8

PREPARED FOR: B-K LIGHTING, INC.

CATALOG NUMBER: CHL-LED-e69-C-0-DEGREES, YSL-LED-e69-C-0-DEGREES

LUMINAIRE: MACHINED CYLINDRICAL METAL HOUSING, ONE BLACK CIRCUIT BOARD WITH 3 LEDS, ONE CLEAR PRISMATIC PLASTIC LENS WITH ONE CONICAL OPTIC PER LED, CLEAR FLAT LINEAR PRISMATIC GLASS LENS, MACHINED BLACK PAINTED LOUVERED METAL FACEPLATE, LENS PRISMS OUT AND VERTICAL.

LAMPS: THREE WHITE LIGHT EMITTING DIODES (LEDS), AIMED AT THE HORIZON.

INPUT ELECTRICAL: 12.0 VOLTS, 6.25 WATTS, 0.578 AMPS

LED DRIVER: B-K LIGHTING 524438/400188-L. DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (12VAC, 60Hz) TO THE DRIVER.

30°

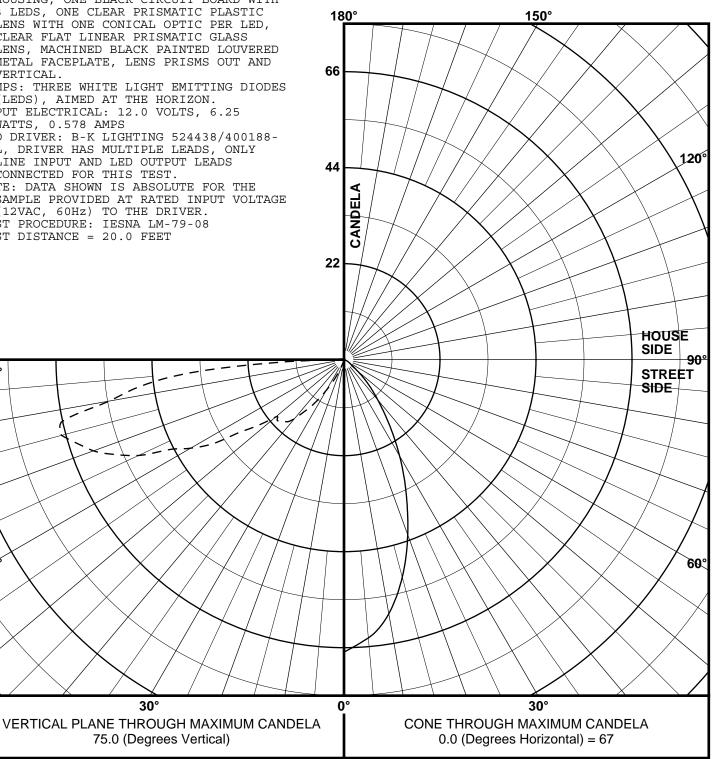
75.0 (Degrees Vertical)

TEST PROCEDURE: IESNA LM-79-08 TEST DISTANCE = 20.0 FEET

90°

60°

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA







PAGE: 3 OF 8

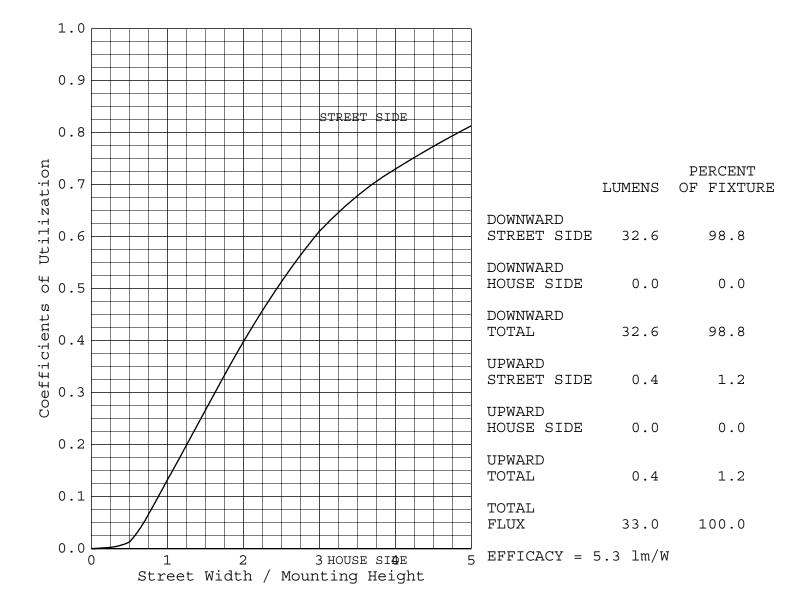
INDEPENDENT TESTING LABORATORIES, INC. 4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL86657 ISSUE DATE: 02/25/16

PREPARED FOR: B-K LIGHTING, INC.

COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



ALL CANDELA AND LUMENS IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS LUMINAIRE SAMPLE.



PAGE: 4 OF 8

INDEPENDENT TESTING LABORATORIES, INC. 4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL86657

ISSUE DATE: 02/25/16

PREPARED FOR: B-K LIGHTING, INC.

FLUX DISTRIBUTION BY SOLID ANGLE

(PER IESNA TM-15-11, LUMINAIRE CLASSIFICATION SYSTEM FOR OUTDOOR LUMINAIRES)

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATING	¦S
FORWARD LIGHT FL (0- 30) FM (30- 60) FH (60- 80) FVH(80- 90)	32.6 0.4 9.1 17.9 5.2	54.1		G0 G0
BACK LIGHT BL (0- 30) BM (30- 60) BH (60- 80) BVH(80- 90)	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	B0 B0 B0	G0 G0
UPLIGHT UL (90-100) UH (100-180)	0.4 0.2 0.1	1.2 0.7 0.4	U1 U1	
TRAPPED LIGHT	0.0	0.0		
TOTAL FLUX	33.0	100.0		

BACKLIGHT, UPLIGHT, AND GLARE (BUG) RATINGS (PER ADDENDUM A FOR IESNA TM-15-11)

BUG RATING: B0 U1 G0



FEATURES & SPECIFICATIONS

INTENDED USE — The 4" Wafer™ LED Downlight with Switchable White provides high-quality light output and efficiency featuring a switch for easy color temperature adjustment - while eliminating the need for recessed housings. The innovative, slim design allows for easy retrofit, remodel or new construction installation from below the ceiling. The Wafer LED downlight is wet location listed – making it ideal for use in a breadth of outdoor residential, hospitality, commercial and multifamily applications. The LED module maintains at least 70% light output for 50,000 hours.

 $\textbf{CONSTRUCTION} — \textbf{Aluminum die cast outer frame. Durable, powder coat paint to prevent rust. FT4 plenum to the prevent rus$ rated cable connector to connect from module to remote driver box. IC rated driver with convenience and value of two remote selectable color temperature options, each with a setting choice to chose either 2700K, 3000K, and 3500K or 3000K, 4000K, and 5000K using the switch. The isolated driver integrated inside steel remote box with four 7/8" knockouts with slots for pryout. Suitable for pulling wires with the 12 cubic-inch wiring compartment to accommodate up to (6) 14 gauge insulated conductors; making the Wafer LED Downlights much easier to wire in 2in/2out (plus ground) daisy-chain applications and contractor friendly.

INSTALLATION — Ideal for shallow ceiling plenum; no housing required. Steel spring clip for easy installation. 4" cut out template is provided to ensure a correct sized hole is cut into ceiling for proper installation of the trim. Size of hole should not exceed 4 1/4 inches for this product. Suitable for installation in t-grid and drop ceiling applications. 3" plenum space required for installation of the remote driver box.

even illumination throughout the space.

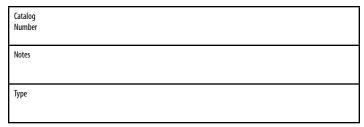
ELECTRICAL — Connect directly to 120V Class-2 (CAN ICES-005 (B) / NMB-005 (B))LED driver. High efficient driver with power factor > 0.9. Ambient operating temperature: $-40^{\circ}F(-40^{\circ}C)$ to $+104^{\circ}F(+40^{\circ}C)$. Dimming down to 10% with most standard incandescent dimers (see list of approved dimmers). Replaces 65W incandescent for 750 lumens..

LISTINGS — CSA certified to US and Canadian safety standards. ENERGY STAR® certified. Wet location. Air Tight certified in accordance with ASTM E283-2004. NOM Certified. Can be used to comply with California Title 24 Part 6 High Efficacy LED light Source Requirements.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:

www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



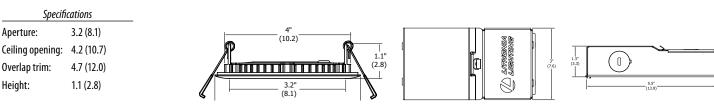
Wafer LED Recessed Downlight

WF4 4" LED Switchable White **Color Temperature**

New Construction/Remodel



Brushed nickel



Matte black

All dimensions are inches (centimeters) unless otherwise indicated

ORDERING INFORMATION

Height:

For shortest lead times, configure product using standard options (shown in bold).

WF4	LED			
Series	Lamp	CCT/W/Lumens ¹	CRI	Finish
WF4 4" wafer-thin LED downlight	LED LED	27K30K35K 2700K/10.5W/730L 3000K/10.5W/800L 3500K/10.5W/780L 30K40K50K 3000K/10.5W/750L 4000K/10.5W/810L 5000K/10.5W/790L	90CRI 90CRI	MW Matte White MB Matte Black BN Brush Nickel ORB Oil-Rubbed Bronze

Accessories: Order as separate catalog number.

WF8643 Pan II Universal new construction pan Remodel joist bar WFIRU WFEXC6 SW3PIN FT4 3-Pin 6ft Cable WFEXC10 SW3PIN FT4 3-Pin 10ft Cable WFEXC20 SW3PIN FT4 3-Pin 20ft Cable WF4GR MW JZ 4" round oversized trim ring



Notes

Oil-rubbed bronze

Example: WF4 LED 30K40K50K 90CRI MW

1 Total system delivered

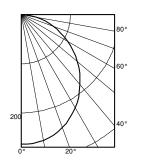
DOWNLIGHTING WF4 LFD - Switchable White

WF4 Switchable White 4" LED Wafer Module

PHOTOMETRICS

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance Data at 30" Above Floor for
				a Single Luminaire

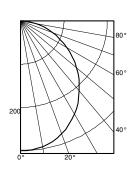
WF4 LED 27K30K35K, 2700 K LEDs, input watts: 11, delivered lumens: 732, LM/W=67, test no. ISF 36826P1



						pf				20	%				
						рс		80%			70%			50%	
	Ave	Lumens	Zone	Lumens	% Lamp	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
0	264		0°-30°	203.9	27.8	0	119	119	119	116	116	116	111	111	111
5	264	25	0°-40°	331.3	45.2	1	104	99	96	101	98	94	97	94	91
5	254	72	0°-60°	575.9	78.7	2	90	84	78	88	82	77	85	80	75
25	233	107	0°-90°	732.2	100.0	3	79	71	65	78	70	64	75	68	63
35	204	127	90° - 120°	0.0	0.0	4	70	62	55	69	61	54	67	59	54
15	168	129	90° - 130°	0.0	0.0	5	63	54	47	62	53	47	60	52	46
55	129	115	90° - 150°	0.0	0.0	6	57	48	41	56	47	41	54	46	41
55	89	88	90° - 180°	0.0	0.0	7	51	43	36	51	42	36	49	42	36
75	50	53	0°-180°	732.2	*100.0	8	47	38	33	46	38	32	45	38	32
35	14	16	*	Efficiency		9	43	35	29	43	35	29	41	34	29
90	0			,		10	40	32	27	39	32	27	38	31	26

			% beam - 10% be 63.5° 108			
	Inital FC					
Mounting	Center					
Height	Beam	Diameter	FC	Diameter	FC	
8.0	8.7	6.8	4.4	15.3	0.9	
10.0	4.7	9.3	2.3	20.8	0.5	
12.0	2.9	11.7	1.5	26.4	0.3	
14.0	2.0	14.2	1.0	31.9	0.2	
16.0	1.4	16.7	0.7	37.5	0.1	

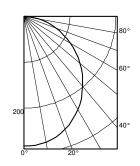
WF4 LED 27K30K35K, 3000 K LEDs, input watts: 10, delivered lumens: 830, LM/W=83, test no. ISF 36826P2



						pf				20	%				
						рс		80%			70%			50%	
	Ave	Lumens	Zone	Lumens	% Lamp	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
)	299		0°-30°	231.3	27.8	0	119	119	119	116	116	116	111	111	111
5	299	28	0°-40°	375.7	45.2	1	104	99	96	101	98	94	97	94	91
5	288	81	0°-60°	653.2	78.7	2	90	84	78	88	82	77	85	80	75
25	264	122	0°-90°	830.4	100.0	3	79	71	65	78	70	64	75	68	63
15	232	144	90° - 120°	0.0	0.0	4	70	62	55	69	61	54	67	59	54
15	190	147	90°-130°	0.0	0.0	5	63	54	47	62	53	47	60	52	46
55	147	131	90°-150°	0.0	0.0	6	57	48	41	56	47	41	54	46	41
55	101	99	90° - 180°	0.0	0.0	7	51	43	36	51	42	36	49	42	36
'5	56	60	0°-180°	830.4	*100.0	8	47	38	33	46	38	32	45	38	32
35	16	18	*	Efficiency		9	43	35	29	43	35	29	41	34	29
0	0			,		10	40	32	27	39	32	27	38	31	26

		50% beam - 63.5°		10% be	
	Inital FC				
Mounting	Center				
Height	Beam	Diameter	FC	Diameter	FC
8.0	9.9	6.8	4.9	15.3	1.0
10.0	5.3	9.3	2.7	20.8	0.5
12.0	3.3	11.7	1.7	26.4	0.3
14.0	2.3	14.2	1.1	31.9	0.2
16.0	1.6	16.7	8.0	37.5	0.2

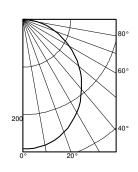
WF4 LED 27K30K35K, 3500 K LEDs, input watts: 10, delivered lumens: 784, LM/W=78, test no. ISF 36826P3



						ы				20	//0				
						pc		80%			70%			50%	
	Ave	Lumens	Zone	Lumens	% Lamp	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
0	282		0°-30°	218.2	27.8	0	119	119	119	116	116	116	111	111	111
5	282	27	0°-40°	354.5	45.2	1	104	99	96	101	98	94	97	94	91
15	272	77	0°-60°	616.4	78.7	2	90	84	78	88	82	77	85	80	75
25	249	115	0°-90°	783.6	100.0	3	79	71	65	78	70	64	75	68	63
35	218	136	90° - 120°	0.0	0.0	4	70	62	55	69	61	54	67	59	54
45	180	139	90° - 130°	0.0	0.0	5	63	54	47	62	53	47	60	52	46
55	138	123	90° - 150°	0.0	0.0	6	57	48	41	56	47	41	54	46	41
65	95	94	90° - 180°	0.0	0.0	7	51	43	36	51	42	36	49	42	36
75	53	56	0° - 180°	783.6	*100.0	8	47	38	33	46	38	32	45	38	32
85	15	17	*	Efficiency		9	43	35	29	43	35	29	41	34	29
90	0			,		10	40	32	27	39	32	27	38	31	26

	Inital FC	50% be 63.5		10% be 108.5	
Mounting	Center				
Height	Beam	Diameter	FC	Diameter	FC
8.0	9.3	6.8	4.7	15.3	0.9
10.0	5.0	9.3	2.5	20.8	0.5
12.0	3.1	11.7	1.6	26.4	0.3
14.0	2.1	14.2	1.1	31.9	0.2
16.0	1.5	16.7	8.0	37.5	0.2

WF4 LED 30K40K50K, 3000 K LEDs, input watts: 11, delivered lumens: 753, LM/W=68, test no. ISF 36826P4



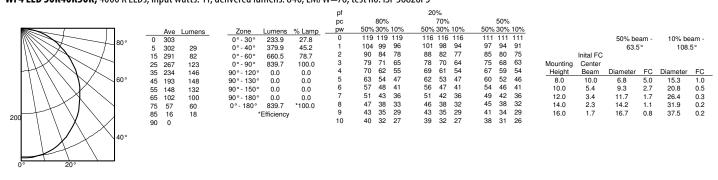
						ρ.				
						pc		80%		
	Ave	Lumens	Zone	Lumens	% Lamp	pw	50%	30%	10%	
0	271		0°-30°	209.7	27.8	0	119	119	119	
5	271	26	0°-40°	340.7	45.2	1	104	99	96	
15	261	74	0°-60°	592.3	78.7	2	90	84	78	
25	240	110	0°-90°	753.0	100.0	3	79	71	65	
35	210	131	90° - 120°	0.0	0.0	4	70	62	55	
45	173	133	90° - 130°	0.0	0.0	5	63	54	47	
55	133	119	90°-150°	0.0	0.0	6	57	48	41	
65	91	90	90° - 180°	0.0	0.0	7	51	43	36	
75	51	54	0°-180°	753.0	*100.0	8	47	38	33	
85	15	17		Efficiency		9	43	35	29	
90	0	••				10	40	32	27	
50	3									

		50% be 63.5		10% be	
	Inital FC				
Mounting	Center				
Height	Beam	Diameter	FC	Diameter	FC
8.0	9.0	6.8	4.5	15.3	0.9
10.0	4.8	9.3	2.4	20.8	0.5
12.0	3.0	11.7	1.5	26.4	0.3
14.0	2.1	14.2	1.0	31.9	0.2
16.0	1.5	16.7	0.7	37.5	0.1

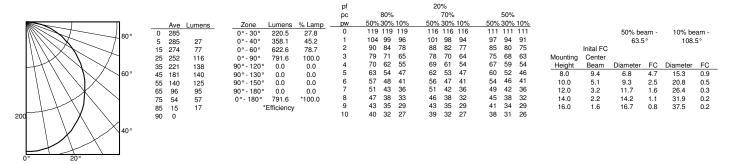
PHOTOMETRICS

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance Data at 30" Above Floor for
				a Single Luminaire

WF4 LED 30K40K50K, 4000 K LEDs, input watts: 11, delivered lumens: 840, LM/W=76, test no. ISF 36826P5



WF4 LED 30K40K50K, 5000 K LEDs, input watts: 10, delivered lumens: 791, LM/W=79, test no. ISF 36826P6



ENERGY DATA

	WF4 LED 27K30K35K									
Color Temperature	2700K	3000K	3500K							
Lumens	730	800	780							
CRI	90	90	90							
Rated wattage	10.7	10.1	10.4							
Lu/Watts	68.2	79.2	75.0							
Min. starting temp	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)							
EMI/RFI	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B							
Sound rating	Class A Standards	Class A Standards	Class A Standards							
Input voltage	120V	120V	120V							
Min. power factor	0.97	0.97	0.97							
Input frequency	50/60 Hz	50/60 Hz	50/60 Hz							
Input power	120V	120V	120V							
Input current	0.09A	0.09A	0.09A							

	WF4 LED 30K40K50K									
Color Temperature	3000K	4000K	5000K							
Lumens	750	810	790							
CRI	90	90	90							
Rated wattage	10.6	10.6	10.1							
Lu/Watts	70.8	76.4	78.2							
Min. starting temp	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)							
EMI/RFI	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B	FCC Title 47 CFR, Part 15, Class B							
Sound rating	Class A Standards	Class A Standards	Class A Standards							
Input voltage	120V	120V	120V							
Min. power factor	0.97	0.97	0.97							
Input frequency	50/60 Hz	50/60 Hz	50/60 Hz							
Input power	120V	120V	120V							
Input current	0.09A	0.09A	0.09A							



ULEE-30011

Leeds 4 Medium Surface Downlight

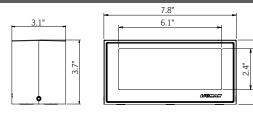


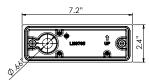






14w LED 1660 Lumens **IP65 • Suitable For Wet Locations** IK07 • Impact Resistant Weight 3.3 lbs



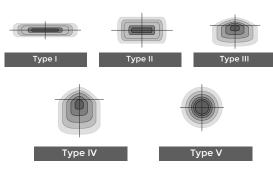


Mounting Detail

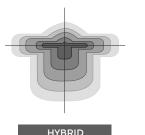
4" junction box cover plate is available as an option



Ligman's micro Variable Optical System provides the ability to interchange, mix & rotate optics to provide specific light distributions for optimized spacing and uniformity.



The variable optic system allows for the designer to create hybrid distributions for precise lighting requirements.



HYBRID TYPE I & TYPE IV

Construction

Aluminum. Less than 0.1% copper content – Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength , clean detailed product lines and excellent heat dissipation.

Pre paint

48 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket

Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management

LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

<u>Surge Suppression</u> Standard 10kv surge suppressor provided with all fixtures.

BUG Rating Contact Factory

Finishing

All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

Inspired by Nature Finishes

The Inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

<u>The Coating Process</u>
After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact and corrosion and acts as the relief base color for the finalized metal

The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Our powder coatings are certified for indoor and outdoor applications and are backed by a comprehensive warranty. These coatings rise to the highest conceivable standard of performance excellence and design innovation.

Added Renefits

- Resistance to salt-acid room, accelerated aging Boiling water, lime and condensed water resistant
- Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch Super durable (UV resistant)
- TGIC free (non-toxic)

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes

Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens

Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED

Precise optic design provides exceptional light control and precise distribution of light. LED CRI > 80

Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

Clean, beautiful, surface wall fixtures with class leading performance. Minimalist form, yet the most powerful and flexible lighiting tool of its type, offering packages up to 4000 lumens and microVos technology.

A range of small, square and rectangular, ADA compliant wall mounted luminaires with options of upward or downward light distributions. Ideally suited to illuminate the wall and surfaces in front of wall and for light accents on vertical surfaces using high efficiency LED's. The Leeds is suitable for indoor and outdoor applications and provides a clean, visually appealing solution for small, unobtrusive wall mounted luminaires.

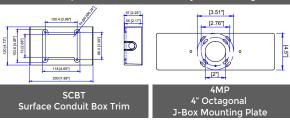
This luminaire is available in 3 different sizes and in combinations of down, up or up/down light distributions.

This fixture utilizes microVos technology, meaning the ability to do Type I,II,III,IV & V distributions as well as hybrid distributions to suit the designer's requirements.

Using the microVos optics allows for very wide spacing to mounting height ratios, while still providing perfect uniformity and code compliant light levels.

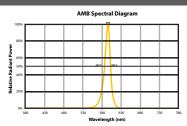
To meet International Dark Sky criteria, 3000k or warmer LEDs must be selected and luminaire fix mounted (+/- 15° allowable to permit leveling).

Additional Options (Consult Factory For Pricing)



NOTE: This trim covers a <u>shallow single gang</u>, surface mount junction box [Provided by contractor] Example: Hubbell: - 5322-0 - 1-Gang Weatherproof Box, Five 1/2" in. Threaded Outlets - or - 5332-0 1-Gang Weatherproof Box, Five 3/4 in. Threaded

CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT



Narrow-Spectrum Amber LEDs

Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers

ULEE-30011

Leeds 4 Medium Surface Downlight





PROJECT					DATE	
QUANTITY		TYPE	NOTE			
ORDERING EXAM	1PLE ULEI	E - 30011 - 14w -	- T2 - W30 - 02	- 120/277v - Optio	ns	
ULEE-30011						
	LAMP	BEAM	LED COLOR	FINISH COLO	R VO	DLTAGE
	14w LED	T1 - Type I Distribution T2 - Type II Distribution	W27 - 2700K 🚇 W30 - 3000K 🚇	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043	120v/2	.77v
	1000 Euriciis	T3 - Type III Distribution	W35 - 3500K	03 - WHITE RAL 9003	Other	- Specify
		T4 - Type IV Distribution	W40 - 4000K	04 - METALLIC SILVER RAL 9006		. ,
		M - Medium 30°		05 - MATTE SILVER RAL 9006		
		W - Wide 56°		06 - LIGMAN BRONZE		
		EW - Extra Wide 110°x103°		07 - CUSTOM RAL		
				INSPIRED BY NATURE FINISHES	1	
				SW01 - OAK FINISH	No.	
				SW02 - WALNUT FINISH		
ADDITIONAL OP	TIONS			SW03- PINE FINISH	-	
ADDITIONAL OP	110113			DF - DOUGLAS FIR FINISH		
NAT - Natatorium Rated	4MP - 4" Oct	agonal J-Box Mounting Plate		CW - CHERRY WOOD FINISH		N ADDITIONAL THESE FINISHES
SCBT - Surface Conduit Box Trim		e Friendly Amber LED		NW - NATIONAL WALNUT FINISH		
F - Frosted Lens	Amb Turtie			SU01 - CONCRETE FINISH		
				SU02 - SOFTSCAPE FINISH		
				SU03 - STONE FINISH		
				SU04 - CORTEN FINISH		

More Custom Finishes Available Upon Request







Leeds Product Family











Leeds 1 - Up/Down

• ULEE-30031-2x5.5w-2x570lm

Leeds 2 - Down
- ULEE-30001-5.5w-570Im

Leeds 3 - Up/Down

• ULEE-30041-2x14w-2x1660lm

Leeds 4 - Down

• ULEE-30011-14w-1660lm

Leeds 5 - Up/Down

• ULD-30051-2x20w-2x2422lm



Leeds 6 - Down

• ULEE-30021-20w-2422lm



Full Environmental Assessment Form

Terra Group 201 LLC Dutchess Ave. & Garden St.

Village of Wappingers Falls Dutchess County, New York



Issued: December 7, 2022 Last Revised: May 10, 2023

Prepared for: Terra Group 201 LLC 395 Route 212 Saugerties, NY 12477

Prepared by: LaBella Associates 21 Fox Street Suite 201 Poughkeepsie, NY 12601 845-486-1541

LaBella Project No. 2230010

This Page Intentionally Left Blank

TABLE OF CONTENTS

1.0	PROJECT DESCRIPTION	1
	1.1 Introduction	
	1.2 Approvals, Consultations and Referrals	1
2.0	ENVIRONMENTAL ASSESSMENT	
	2.1 Land Use, Zoning and Public Policy	1
	2.11 Land Use	1
	2.1.2 Zoning	
	2.1.3 Public Policy	
	2.2 Utilities	
	2.2.1 Water Supply	
	2.2.2 Sanitary Sewage	
	2.3 Soils and Water Resources	
	2.3.1 Soils	
	2.3.2 Surface Water Resources and Floodplains	3
	2.4 Vegetation and Wildlife	
	2.5 Historic and Archaeological Resources	
	2.6 Environmental Contamination	
	2.7 Traffic	
エ . し. 1	A Characteristics of Audioinstant Call Tonson will be Decised City	•
Tabi	e 1: Characteristics of Anticipated Soil Types within Project Site	

FULL ENVIRONMENTAL ASSESSMENT FORM, PART 1

FIGURES

Figure 1: USGS Location Map

Figure 2: Orthophoto Tax Map

Figure 3: Land Use Map

Figure 4: Soils Map

Figure 5: Wetlands and Streams Map

Figure 6: DEC Environmental Resources Map

Figure 7: CRIS Map

Figure 8: Scenic Resources Map

ATTACHMENTS

Attachment A - United States Fish and Wildlife Service (USFWS) Informal Species List Attachment B - SHPO Letter of No Adverse Impact and No Archaeological Concerns

Site Plan Set will be submitted separately

This Page Intentionally Left Blank

1.0 PROJECT DESCRIPTION

1.1 Introduction

Terra Group 201 LLC is seeking site plan approval from the Village of Wappingers Falls Planning Board, to develop a three-story (with full basement below), eight-unit, 9,484 gross square foot (gsf) multifamily development, on a 0.45-acre parcel (Tax Lot 198119), in the Village of Wappingers, Dutchess County, New York (see Figures 1 and 2). The basement will have a footprint of 2,134-sf, and the first, second and third floors will be 2,450-sf each. The proposed multifamily residential units will consist of eight, two-bedroom units. A total of 10 parking spaces are proposed. There is an existing access easement for the driveway on tax lot 197127 and an existing sewer easement on tax lots 197127 and 191142.

The project site is located at the intersection of Dutchess Avenue and Garden Street and municipal water and sewer is available to the site. Access will be provided from the existing access easement and existing driveway off of the Dutchess Avenue and Garden Street intersection. The Applicant seeks to widen the gravel driveway to accommodate fire truck access onto the project site.

The project site is located within the Village Residential (VR) zoning district, where multifamily dwellings are a permitted use in the VR zone pursuant to site plan review. Approximately 0.51 acre of ground disturbance is proposed; of the total 0.51 acres of ground disturbance, 0.35 acres is proposed on site and 0.16 acres is proposed off-site.

1.2 Approvals, Consultations and Referrals

The following approvals are required for the implementation of the proposed project:

- Village of Wappingers Falls Village Board Sewer connection approval
- 2. Dutchess County Department of Behavioral and Community Health Sewer & Water connection approval
- 3. Village of Wappingers Falls Planning Board Site Plan Approval
- 4. Village of Wappingers Falls Water Department and Village Sewer District Water & Sewer Hookups
- 5. NYS Office of Parks, Recreation, and Historic Preservation (OPRHP) SHPO Consult

2.0 ENVIRONMENTAL ASSESSMENT

2.1 Land Use, Zoning and Public Policy

2.1.1 Land Use

The project site is located in the Village Residential (VR) zoning district and is currently undeveloped. The land uses located within 1,000 feet of the project site are characterized by

> Issued: December 7, 2022 Last Revised: May 10, 2023

commercial (office buildings with associated parking), vacant (wooded and undeveloped), and residential areas (see Figure 3).

The proposed use, as an eight-unit, multifamily residential development, is a permitted use within the VR zone, pursuant to site plan review. The proposed use is permitted and will be consistent with the mixed land use character of the area.

2.1.2 Zoning

As stated above, the project site is located within the VR zoning district.

Per Article III, ZS 151-10, Table 4A, multifamily dwellings are classified as permitted uses within the VR District, pursuant to site plan review.

The proposed project will comply with all of the lot, bulk, and design requirements and standards included in ZS 151, Table 2C.

The proposed project will comply with all of the Village's parking criteria included in ZS 151-24(E), (I), and (L).

The proposed project will comply with all of the Village's screening requirements included in ZS 151-24(H), parking lot landscaping requirements included in ZS 151-24(I), and new planting requirements included in ZS 151-24(K).

2.1.3 Public Policy

The 2001 Village of Wappingers Falls Comprehensive Plan Volume states that two of the Village's goals focus on encouraging diversified growth of the Village, including a variety of residential, commercial, and industrial areas, while still preserving its single-family residential character; and, ensuring that public facilities and services are adequate in location, capacity and design to properly serve planned development and growth of the Village. The proposed project meets both goals, as the proposed multi-family development encourages housing diversity and is in an ideal residential location, proximate to diverse amenities within walking and driving distance from the project site.

2.2 Utilities

2.2.1 Water Supply

Municipal water is available at the project site and has the capacity to support the proposed project. The total anticipated water demand per day for the proposed eight apartment units (eight, two-bedroom units) would be approximately 1,760 gallons per day. The Applicant will coordinate with the Village of Wappingers Falls Water Department for water connections.

2.2.2 Sanitary Sewage

Municipal sewer is available at the project site and has the capacity to support the proposed project; therefore, the proposed project will connect to existing municipal sanitary sewer infrastructure. The total anticipated liquid waste generation per day for the proposed eight

LaBella Project No. 2230010 Issued: December 7, 2022

apartment units (eight, two-bedroom units) would be approximately 1,760 gallons per day. The Applicant will coordinate with the Village of Wappingers Falls Sewer District for sanitary sewer connections.

2.3 Soils and Water Resources

2.3.1 Soils

The following table provides the soil characteristics for each soil type expected to be found on the project site, according to the USDA Natural Resources Conservation Service website (see Figure 4).

Table 1: Characteristics of Anticipated Soil Types within Project Site

% of SITE	SOIL SYMBOL	SOIL TYPE	FARMLAND CLASSIFICATION	SLOPES	DRAINAGE	DEPTH TO WATER TABLE	DEPTH TO BEDROCK
89.3	HuB	Hoosic- Urban land complex, undulating	Not prime farmland	1-6%	Somewhat excessively drained	>80 inches	>80 inches
9.8	Ps	Pits, gravel	Not prime farmland				
0.8	HsD	Hoosic gravelly loam, hilly	Not prime farmland	15-30%	Somewhat excessively drained	>80 inches	>80 inches

A majority of the project site is occupied by the HuB soil type. This soil type is considered to be somewhat excessively well drained. The majority of the project site is relatively flat, with only 1-6% slopes.

2.3.2 Surface Water Resources and Floodplains

According to the NYSDEC EAF Mapper, the NYSDEC Environmental Resource Mapper, and available GIS mapping, the project site does not contain nor is contiguous to a State or Federally regulated wetland (see Figure 5). Additionally, there are no floodplains located on or near the project site. However, the proposed project is located on a principal aquifer. The site will be connected to municipal water and sewer services. Thus, the proposed project will not result in any adverse impacts to wetlands or streams.

2.4 Vegetation and Wildlife

According to the NYSDEC Environmental Resource Mapper (see Figure 6), there are known occurrences of the pied-billed grebe and Indiana bat on or in the vicinity of the project site.

According to the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), the project lies within the range of records for Indiana bat

Issued: December 7, 2022 Last Revised: May 10, 2023 (endangered), northern long-eared bat¹ and the monarch butterfly, a candidate species. Candidate species are not regulated by the USFWS (see Attachment A). The IPaC also states that there are no critical habitats at the project location.

The proposed project will require 0.11 acres of tree clearing for construction of the proposed multifamily development. To avoid direct or indirect take of bat species, it is recommended that any forest clearing take place between October 30 and March 31, as during this time, the bats would be in hibernation and not present on the project site.

The pied-billed grebe nests in open water or within stands of tall, emergent vegetation, such as cattails. It breeds on freshwater to brackish seasonal and permanent ponds. Since there are no wetlands or other waterbodies on or near the project site, it is safe to assume that this species will not be present and there will be no adverse impacts.

2.5 Historic and Archaeological Resources

According to the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping (see Figure 7), there are no National or State Historic Register sites on the project site; however, there is a National Register Historic Site, Wappingers Falls Historic District (NR# 90NR00446), located substantially contiguous to the site.

The Wappingers Falls Historic District is located just north of the project site, opposite Garden Street. The Wappingers Falls Historic District is considered state and nationally significant due to its historic industry/processing/extraction uses & late Victorian architecture. The project site is also located within a known archaeologically sensitive area. Thus, a SHPO consultation was submitted to NYSOPRHP on February 20, 2023.

On March 23, 2023, a letter from NYSOPRHP stated that the project will have No Adverse Impact on historic resources (see Attachment B). Additionally, there are no archaeological concerns on the project site and no archaeological survey is warranted.

2.6 Environmental Contamination

The project site is within 2,000 feet of four sites (DEC IDs 314045, 314058, 314127, 31404, and 546031). located in the NYSDEC Environmental Site Remediation database. These four sites are located off-site from the project site.

DEC Site ID 314045 is identified as Wappingers Falls Village Landfill, which was in the State Superfund Program and classified as a Class N remediation site. This site was a municipal landfill site which received municipal wastes including Village STP dried sludge. Closure of site includes a final soil cover, leachate control and drainage control. No record of hazardous waste disposal at the site exists. The site is currently used for disposal of leaves and brush. A Phase I investigation has been completed. The site does not qualify for addition to the Registry of Inactive Hazardous Waste Disposal Sites.

Issued: December 7, 2022 Last Revised: May 10, 2023

¹ Recently the USFWS published a final rule uplisting the northern long-eared bat from threatened to endangered. That rule will go into effect January 30, 2023. This uplisting would likely cause the northern long-eared bat to be regulated in a similar fashion as the Indiana bat.

DEC Site ID 314058 is identified as Three Star Anodizing, which was in the State Superfund Program and classified as a Class 2 remediation site. Three Star Anodizing was an industrial site that discharged contaminants to the Wappinger Creek. Currently, site remediation is complete and residual contaminants in the soil, groundwater, and sediment are being managed under a site management plan (SMP). Site access is unrestricted so trespassers and on-site employees could be exposed to surface wastes and contaminated surface soil. However, exposure via drinking water is not expected as the site is served by public water. Potential for volatile organic compounds (VOCs) found in soil and groundwater to migrate via soil vapor intrusion will be investigated and mitigation will be provided as necessary.

DEC Site ID 314127 is identified as Wappinger Creek, which was in the State Superfund Program and classified as a Class 2 remediation site. Previous industrial uses have resulted in contaminants in the stream bed. The primary contaminants of concern in the creek sediments are mercury, lead, zinc and chromium. As information for this site becomes available, it will be reviewed by the NYSDOH to determine if site contamination presents public health exposure concerns.

DEC Site ID 546031 is identified as Hudson River PCB Sediments, which was in the State Superfund Program and classified as a Class 2 remediation site. The sediments were a result of discharge (1946-present) from two GE plants in Hudson Falls and Fort Edward. This site has been included in the Federal National Priorities List (NPL). Remedial investigation to address floodplain soils in the Upper Hudson River Floodplain under USEPA and State oversight is now underway.

2.7 Traffic

According to the Institute of Transportation Engineers (ITE) Traffic Generation Manual, 11th Edition, low-rise multifamily housing with eight apartment units, (Land Use Code 220) is expected to generate 3 vehicle trip ends (vtes) per weekday a.m. peak hour of adjacent street traffic (1 entry/2 exit) and 4 vtes per weekday p.m. peak hour of adjacent street traffic (3 entry/1 exit). The total of 3 a.m. peak hour vtes and total of 4 p.m. peak hour vtes, are each below the ITE guideline of 100 peak hour trips for warranting a detailed traffic analysis.

Therefore, it is safe to assume that the proposed project will not adversely affect the traffic operations on the surrounding roadway network.

FULL ENVIRONMENTAL ASSESSMENT FORM PART 1

Full Environmental Assessment Form Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

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

A. Project and Applicant/Sponsor Information.

Name of Action or Project:		
Project Location (describe, and attach a general location map):		
Brief Description of Proposed Action (include purpose or need):		
Name of Applicant/Sponsor:	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Project Contact (if not same as sponsor; give name and title/role):	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponassistance.)	nsorship. ("Funding" includes grants, loans, tax	relief, and any other	forms of financial
Government Entity	If Yes: Identify Agency and Approval(s) Required	Application (Actual or p	
a. City Counsel, Town Board, ☐ Yes ☐ No or Village Board of Trustees			
b. City, Town or Village ☐ Yes ☐ No Planning Board or Commission			
c. City, Town or ☐ Yes ☐ No Village Zoning Board of Appeals			
d. Other local agencies □ Yes □ No			
e. County agencies □ Yes □ No			
f. Regional agencies □ Yes □ No			
g. State agencies □ Yes □ No			
h. Federal agencies □ Yes □ No			
i. Coastal Resources.i. Is the project site within a Coastal Area, or	or the waterfront area of a Designated Inland Wa	terway?	□ Yes □ No
ii. Is the project site located in a communityiii. Is the project site within a Coastal Erosion	with an approved Local Waterfront Revitalizati Hazard Area?	on Program?	□ Yes □ No □ Yes □ No
C. Planning and Zoning			
C.1. Planning and zoning actions.			
only approval(s) which must be granted to enal • If Yes, complete sections C, F and G.	mendment of a plan, local law, ordinance, rule of the proposed action to proceed? In plete all remaining sections and questions in Page 1.	-	□ Yes □ No
C.2. Adopted land use plans.	· · · · · · · · · · · · · · · · · · ·		
a. Do any municipally- adopted (city, town, vil where the proposed action would be located?		include the site	□ Yes □ No
If Yes, does the comprehensive plan include spewould be located?		oposed action	□ Yes □ No
b. Is the site of the proposed action within any l Brownfield Opportunity Area (BOA); design or other?) If Yes, identify the plan(s):	ocal or regional special planning district (for ex ated State or Federal heritage area; watershed m		□ Yes □ No
c. Is the proposed action located wholly or part	ially within an area listed in an adopted municip	al open space plan,	□ Yes □ No
or an adopted municipal farmland protection If Yes, identify the plan(s):			

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district?	□ Yes □ No
b. Is the use permitted or allowed by a special or conditional use permit?	□ Yes □ No
c. Is a zoning change requested as part of the proposed action? If Yes, i. What is the proposed new zoning for the site?	□ Yes □ No
C.4. Existing community services.	
a. In what school district is the project site located?	
b. What police or other public protection forces serve the project site?	
c. Which fire protection and emergency medical services serve the project site?	
d. What parks serve the project site?	
D. Project Details	
D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, components)?	include all
	of property bounds. imit of disturbance. Of the nd disturbance, 0.35 acres
c. Is the proposed action an expansion of an existing project or use? i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, square feet)? % Units:	☐ Yes ☐ No housing units,
square feet)? % Units: d. Is the proposed action a subdivision, or does it include a subdivision? If Yes, i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)	□ Yes □ No
ii. Is a cluster/conservation layout proposed?iii. Number of lots proposed?iv. Minimum and maximum proposed lot sizes? Minimum Maximum	□ Yes □ No
e. Will the proposed action be constructed in multiple phases? i. If No, anticipated period of construction: months ii. If Yes: • Total number of phases anticipated • Anticipated commencement date of phase 1 (including demolition) month year	□ Yes □ No
 Anticipated completion date of final phase Generally describe connections or relationships among phases, including any contingencies where progres determine timing or duration of future phases: 	

	t include new resid				□ Yes □ No
If Yes, show num	bers of units propo				
	One Family	Two Family	Three Family	Multiple Family (four or more)	
Initial Phase					
At completion					
of all phases					
D 4	1 1 1	• • • • •	1	1	- 77 - 77
	osed action include	new non-residentia	al construction (inclu	iding expansions)?	□ Yes □ No
If Yes,	of structures				
ii Dimensions (in feet) of largest p	ronosed structure:	height:	width; andlength	
iii. Approximate	extent of building s	space to be heated	or cooled:	square feet	
				I result in the impoundment of any	□ Yes □ No
				result in the impoundment of any agoon or other storage?	⊔ res ⊔ No
If Yes,	s creation of a water	suppry, reservoir,	, pond, lake, waste ia	igoon of other storage:	
	impoundment:				
ii. If a water imp	impoundment:oundment, the prince	cipal source of the	water:	☐ Ground water ☐ Surface water stream	s □ Other specify:
iii. If other than w	vater, identify the ty	pe of impounded/o	contained liquids and	d their source.	
iv. Approximate	size of the proposed	d impoundment.	Volume:	million gallons; surface area:	acres
v. Dimensions o	f the proposed dam	or impounding str	ucture:	height; length	
				ructure (e.g., earth fill, rock, wood, conc	rete):
D.2. Project Op	erations				
			ning on Anadaina da	i	D Van D Na
				uring construction, operations, or both? or foundations where all excavated	□ Yes □ No
materials will r		mon, grading or in	stanation of utilities	or foundations where all excavated	
If Yes:	cmam onsite)				
	rnose of the excava	tion or dredging?			
				be removed from the site?	·
	at duration of time?				
				ged, and plans to use, manage or dispose	of them.
iv. Will there be	onsite dewatering of	or processing of ex	cavated materials?		□ Yes □ No
v What is the to	ital area to be dredge	ed or excavated?		_acres	
vi What is the m	avimum area to be	worked at any one	time?	acres	
		•		feet	
	vation require blast		n dreaging.	icct	□ Yes □ No
				crease in size of, or encroachment	□ Yes □ No
•	ng wetland, waterbo	ody, shoreline, bea	ch or adjacent area?		
If Yes:	.1 1 . 1 . 1	1.1	CC 4 1 /1		
				vater index number, wetland map number	
description):					

<i>ii.</i> Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square	
iii. Will the proposed action cause or result in disturbance to bottom sediments? If Yes, describe:	Yes □ No
<i>iv</i> . Will the proposed action cause or result in the destruction or removal of aquatic vegetation? If Yes:	□ Yes □ No
acres of aquatic vegetation proposed to be removed:	
expected acreage of aquatic vegetation remaining after project completion:	
purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):	
proposed method of plant removal:	
• if chemical/herbicide treatment will be used, specify product(s):	
. Describe any proposed reciamation/initigation following disturbance:	
Will the proposed action use, or create a new demand for water? Yes: The apartments would require 110 gpd/bedroom. Assuming eight, 2-BR units: (8 x 220 gpd) = 1,760 gpd/day	□ Yes □ No
<i>i</i> . Total anticipated water usage/demand per day: gallons/day	
i. Will the proposed action obtain water from an existing public water supply?	□ Yes □ No
Yes:	= 1cs = 140
Name of district or service area:	
Does the existing public water supply have capacity to serve the proposal?	□ Yes □ No
• Is the project site in the existing district?	□ Yes □ No
Is expansion of the district needed?	□ Yes □ No
• Do existing lines serve the project site?	□ Yes □ No
i. Will line extension within an existing district be necessary to supply the project? Yes:	□ Yes □ No
Describe extensions or capacity expansions proposed to serve this project:	
Source(s) of supply for the district:	
v. Is a new water supply district or service area proposed to be formed to serve the project site? Yes:	□ Yes □ No
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
Proposed source(s) of supply for new district:	
v. If a public water supply will not be used, describe plans to provide water supply for the project:	
i. If water supply will be from wells (public or private), what is the maximum pumping capacity: gall	ons/minute.
Will the proposed action generate liquid wastes?	□ Yes □ No
Yes: The apartments would require 110 gpd/bedroom. Assuming eight, 2-BR units: (8 x 220 gpd) = 1,760 gpd/day	
. Total anticipated liquid waste generation per day: gallons/day	
i. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all comparison of each):	
Will the proposed action use any existing public wastewater treatment facilities? If Yes:	□ Yes □ No
Name of wastewater treatment plant to be used:	
Name of district:	
Does the existing wastewater treatment plant have capacity to serve the project? Let the project it is the printing like in the project of the project is the project in the project	□ Yes □ No
• Is the project site in the existing district?	□ Yes □ No
• Is expansion of the district needed?	□ Yes □ No

Do existing sewer lines serve the project site?	□ Yes □ No
• Will a line extension within an existing district be necessary to serve the project?	□ Yes □ No
If Yes:	
Describe extensions or capacity expansions proposed to serve this project:	
iv. Will a new wastewater (sewage) treatment district be formed to serve the project site?	□ Yes □ No
If Yes:	
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
What is the receiving water for the wastewater discharge?	
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including speci	fying proposed
receiving water (name and classification if surface discharge or describe subsurface disposal plans):	
vi. Describe any plans or designs to capture, recycle or reuse liquid waste:	
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point	□ Yes □ No
sources (i.e. thenes, pipes, swales, curbs, guiters of other concentrated flows of stormwater) of non-point source (i.e. sheet flow) during construction or post construction?	
If Yes:	
i. How much impervious surface will the project create in relation to total size of project parcel?	
Square feet or acres (impervious surface)	
Square feet or acres (parcel size)	
ii. Describe types of new point sources.	
iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent pr groundwater, on-site surface water or off-site surface waters)?	
If to surface waters, identify receiving water bodies or wetlands:	
Will stormwater runoff flow to adjacent properties?	□ Yes □ No
<i>iv.</i> Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?	□ Yes □ No
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel	□ Yes □ No
combustion, waste incineration, or other processes or operations?	
If Yes, identify: i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)	
i. Woone sources during project operations (e.g., neavy equipment, freet of derivery vehicles)	
ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)	
iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)	
g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit,	□ Yes □ No
or Federal Clean Air Act Title IV or Title V Permit?	
If Yes:	
i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet	\square Yes \square No
ambient air quality standards for all or some parts of the year)	
ii. In addition to emissions as calculated in the application, the project will generate:	
•Tons/year (short tons) of Carbon Dioxide (CO ₂)	
•Tons/year (short tons) of Nitrous Oxide (N ₂ O)	
•Tons/year (short tons) of Perfluorocarbons (PFCs)	
•Tons/year (short tons) of Sulfur Hexafluoride (SF ₆)	
•Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)	
 Tons/year (short tons) of Hazardous Air Pollutants (HAPs) 	

h. Will the proposed action generate or emit methane (included landfills, composting facilities)? If Yes:		□ Yes □ No
i. Estimate methane generation in tons/year (metric):ii. Describe any methane capture, control or elimination me electricity, flaring):	easures included in project design (e.g., combustion to go	enerate heat or
i. Will the proposed action result in the release of air polluta quarry or landfill operations? If Yes: Describe operations and nature of emissions (e.g., die action).		□ Yes □ No
 j. Will the proposed action result in a substantial increase in new demand for transportation facilities or services? If Yes: i. When is the peak traffic expected (Check all that apply): □ Randomly between hours of	: □ Morning □ Evening □ Weekend	□ Yes □ No
 iii. Parking spaces: Existing	g? sting roads, creation of new roads or change in existing available within ½ mile of the proposed site? ortation or accommodations for use of hybrid, electric	Yes No
 k. Will the proposed action (for commercial or industrial profor energy? If Yes: i. Estimate annual electricity demand during operation of the project other): iii. Anticipated sources/suppliers of electricity for the project other): iiii. Will the proposed action require a new, or an upgrade, to 	he proposed action: et (e.g., on-site combustion, on-site renewable, via grid/l	□ Yes □ No ocal utility, or □ Yes □ No
Hours of operation. Answer all items which apply. i. During Construction: Monday - Friday: Saturday: Sunday: Holidays:	 ii. During Operations: Monday - Friday:	

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction,	□ Yes □ No
operation, or both? If yes:	
i. Provide details including sources, time of day and duration:	
	
<i>ii.</i> Will the proposed action remove existing natural barriers that could act as a noise barrier or screen?	□ Yes □ No
Describe:	
n. Will the proposed action have outdoor lighting? If yes:	□ Yes □ No
i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:	
<i>ii.</i> Will proposed action remove existing natural barriers that could act as a light barrier or screen?	□ Yes □ No
Describe:	
o. Does the proposed action have the potential to produce odors for more than one hour per day?	□ Yes □ No
If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest	
occupied structures:	
p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons)	□ Yes □ No
or chemical products 185 gallons in above ground storage or any amount in underground storage?	
If Yes:	
i. Product(s) to be stored	
iii. Generally, describe the proposed storage facilities:	
q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides,	□ Yes □ No
insecticides) during construction or operation?	
If Yes:i. Describe proposed treatment(s):	
ii. Will the proposed action use Integrated Pest Management Practices?	□ Yes □ No
r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal	□ Yes □ No
of solid waste (excluding hazardous materials)? If Yes:	
<i>i.</i> Describe any solid waste(s) to be generated during construction or operation of the facility:	
• Construction: tons per (unit of time)	
• Operation : tons per (unit of time)	
ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:Construction:	
Construction.	
• Operation:	
iii. Proposed disposal methods/facilities for solid waste generated on-site:	
Construction:	
Operation:	

	nanagement facility?	□ Yes □ No	
other disposal activities): ii. Anticipated rate of disposal/processing:			
ombustion/thermal treatm	ent. or		
reatment	ioni, or		
cial generation, treatment	, storage, or disposal of hazard	ous □ Yes □ No	
generated, handled or ma	naged at facility:		
azardous wastes or constit	tuents:		
	us constituents:		
		□ Yes □ No	
wastes which will not be so	ent to a hazardous waste facilit	y:	
a. Existing land uses. i. Check all uses that occur on, adjoining and near the project site. □ Urban □ Industrial □ Commercial □ Residential (suburban) □ Rural (non-farm) □ Forest □ Agriculture □ Aquatic □ Other (specify):			
Current	Acrossa After	Changa	
Current Acreage	Acreage After Project Completion	Change (Acres +/-)	
		_	
		_	
		_	
		_	
		_	
		_	
		_	
		_	
	ombustion/thermal treatment		

c. Is the project site presently used by members of the community for public recreation? i. If Yes: explain:	□ Yes □ No
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? If Yes, i. Identify Facilities:	□ Yes □ No
e. Does the project site contain an existing dam?	□ Yes □ No
If Yes: i. Dimensions of the dam and impoundment:	
•	
• Dam height: feet	
• Dam length: feet	
• Surface area: acres	
• Volume impounded: gallons OR acre-feet	
ii. Dam's existing hazard classification:iii. Provide date and summarize results of last inspection:	
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility. If Yes: Note: Site code 314045, Wappingers Falls Village Landfill, abuts the project site on its eastern edge.	
 i. Has the facility been formally closed? The DEC ER Record states that the landfill was closed, however a formal If yes, cite sources/documentation: 	□ Yes □ No
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:	
iii. Describe any development constraints due to the prior solid waste activities:	
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes. Note: The Wappingers Falls Village Landfill abuts the project site on its eastern edge. The DEC ER Database states that no compared the project site exists; however, the site does not qualify for addition to the Registry of Inactive Hazardous via Describe waste(s) handled and waste management activities, including approximate time when activities occurred:	□ Yes □ No fficial record of hazard Vaste Disposal Sites.
h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?	□ Yes □ No
If Yes: Note: The four sites in the NYSDEC Environmental Site Remediation database are located off-site. i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:	□ Yes □ No
 □ Yes – Spills Incidents database □ Yes – Environmental Site Remediation database □ Neither database Provide DEC ID number(s):	
ii. If site has been subject of RCRA corrective activities, describe control measures:	
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?If yes, provide DEC ID number(s):	□ Yes □ No
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):	
sometic and residual conteminants in the sail groundwater and cadiment are being managed under a CMD. Site access is unrestra	

is complete and residual contaminants in the soil, groundwater, and sediment are being managed under a SMP. Site access is unrestricted so trespassers and on-site employees could be exposed to surface wastes and contaminated surface soil. However, exposure via drinking water is not expected as the site is served by public water. Potential for VOCs found in soil and groundwater to migrate via soil vapor intrusion will be investigated and mitigation will be provided as necessary.

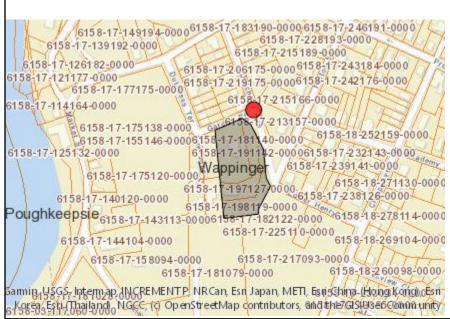
314045: Wappingers Falls Village Landfill: State Superfund Program Class N - A municipal landfill site which received municipal wastes including Village STP dried sludge. Closure of site includes a final soil cover, leachate control and drainage control. No record of hazardous waste disposal at site exists. Phase I was completed. The site does not qualify for addition to the Regional Hazardous Waste Disposal Sites.

546031: Hudson River PCB Sediments: State Superfund Program Class 2 - Result of discharge (1946-present) from two GE plants in Hudson Falls and Fort Edward. This site has been included in the Federal National Priorities List (NPL). Remedial investigation to address floodplain soils in the Upper Hudson River Floodplain under USEPA and State oversight is now underway.

v. Is the project site subject to an institutional control limiting property uses?	□ Yes □ No
 If yes, DEC site ID number: Describe the type of institutional control (e.g., deed restriction or easement): 	
 Describe the type of institutional control (e.g., deed restriction or easement): Describe any use limitations: 	
Describe any engineering controls:	
 Will the project affect the institutional or engineering controls in place? 	□ Yes □ No
Explain:	
E.2. Natural Resources On or Near Project Site	
a. What is the average depth to bedrock on the project site? feet	
b. Are there bedrock outcroppings on the project site?	□ Yes □ No
If Yes, what proportion of the site is comprised of bedrock outcroppings?%	
c. Predominant soil type(s) present on project site:	%
	% %
	%
d. What is the average depth to the water table on the project site? Average: feet	
e. Drainage status of project site soils: Well Drained: % of site	
□ Moderately Well Drained:% of site	
□ Poorly Drained% of site	
f. Approximate proportion of proposed action site with slopes: 0-10%: % of site	
□ 10-15%:% of site □ 15% or greater:% of site	
	D.V. D.N.
g. Are there any unique geologic features on the project site? If Yes, describe:	□ Yes □ No
1 200, 400011001	
h. Surface water features.	
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers,	□ Yes □ No
ponds or lakes)?	
ii. Do any wetlands or other waterbodies adjoin the project site?	\square Yes \square No
If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i.	
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal,	□ Yes □ No
state or local agency? iv. For each identified regulated wetland and waterbody on the project site, provide the following information	on.
• Streams: Name Classification	
 Lakes or Ponds: Name Classification 	
Wetlands: Name Approximate Size Wetland No. (if regulated by DEC)	e
• Wetland No. (if regulated by DEC) v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired	□ Yes □ No
waterbodies?	- 1 c s - 110
If yes, name of impaired water body/bodies and basis for listing as impaired:	
i. Is the project site in a designated Floodway?	□ Yes □ No
j. Is the project site in the 100-year Floodplain?	□ Yes □ No
k. Is the project site in the 500-year Floodplain?	□ Yes □ No
1. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?	□ Yes □ No
If Yes: i. Name of aquifer:	
6. I raine of aquiter.	

m. Identify the predominant wildlife species that occupy or use the project site:	
n. Does the project site contain a designated significant natural community? If Yes: i. Describe the habitat/community (composition, function, and basis for designation):	□ Yes □ No
ii. Source(s) of description or evaluation:	
iii. Extent of community/habitat:	
• Currently: acres	
Following completion of project as proposed: acres	
• Gain or loss (indicate + or -): acres	
 o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened specific species and listing (endangered or threatened): i. Species and listing (endangered or threatened): 	
p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern?	□ Yes □ No
If Yes: i. Species and listing:	
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? If yes, give a brief description of how the proposed action may affect that use:	□ Yes □ No
E.3. Designated Public Resources On or Near Project Site	
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? If Yes, provide county plus district name/number:	□ Yes □ No
b. Are agricultural lands consisting of highly productive soils present? i. If Yes: acreage(s) on project site? ii. Source(s) of soil rating(s):	□ Yes □ No
The second secon	
 c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? If Yes: i. Nature of the natural landmark: □ Biological Community □ Geological Feature 	□ Yes □ No
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:	
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? If Yes: i. CEA name:	□ Yes □ No
ii. Basis for designation:	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commission Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places. The project site does not contain any historic buildings or sites; however, it is substantially contiguous to a National Register it. Nature of historic/archaeological resource: Archaeological Site Historic Building or District ii. Name: iii. Brief description of attributes on which listing is based:	oner of the NVS	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	□ Yes □ No	
g. Have additional archaeological or historic site(s) or resources been identified on the project site? If Yes: i. Describe possible resource(s): ii. Basis for identification:	□ Yes □ No	
 h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? If Yes: i. Identify resource: ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or 	□ Yes □ No	
	scenic byway,	
etc.): miles.		
 i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? If Yes: i. Identify the name of the river and its designation: 	□ Yes □ No	
ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	□ Yes □ No	
F. Additional InformationAttach any additional information which may be needed to clarify your project.If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.		
G. Verification I certify that the information provided is true to the best of my knowledge.		
Applicant/Sponsor Name Date		
Signature Knithika Prabhakaran Title	·	

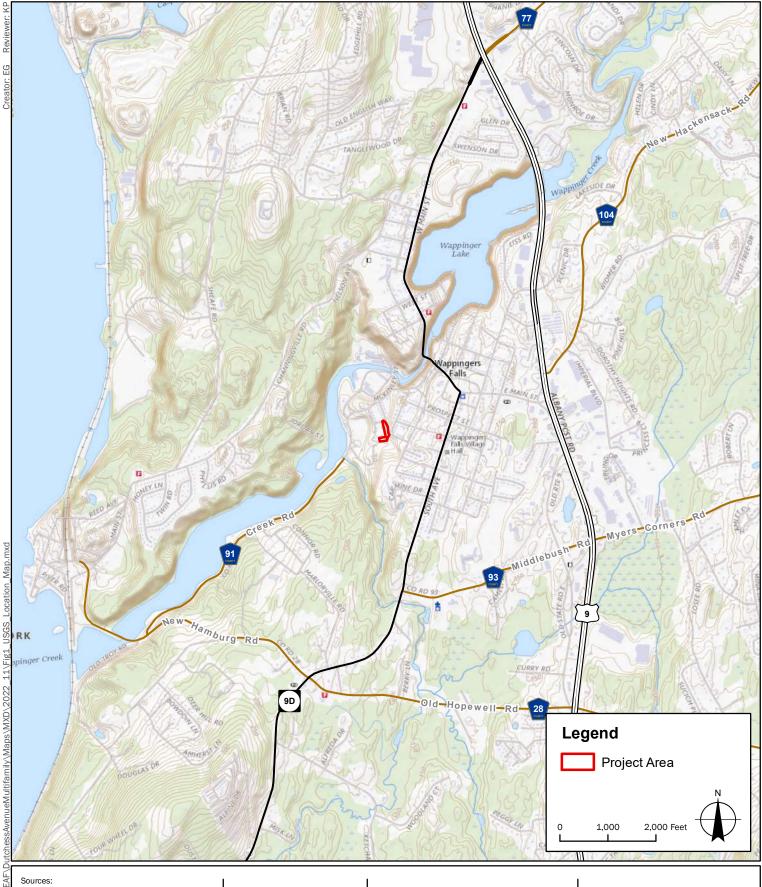


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the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



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	314127, 314058, 546031
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.I. [Aquifers]	Yes
E.2.I. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No

E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Pied-billed Grebe, Indiana Bat
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Duchess Company Superintendent's House, Wappingers Falls Historic District
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No



2. Project Area: LaBella 2022; Regrid 2021 2. Streets: NYS GIS Program Office 2022 3. Basemap: USGS Topo Map



Dutchess Avenue, Village of Wappinger Falls, Dutchess Co., New York **Dutchess Avenue** Multifamily

LaBella Project No: 2230010 Date: 2/7/2023

USGS Location Map



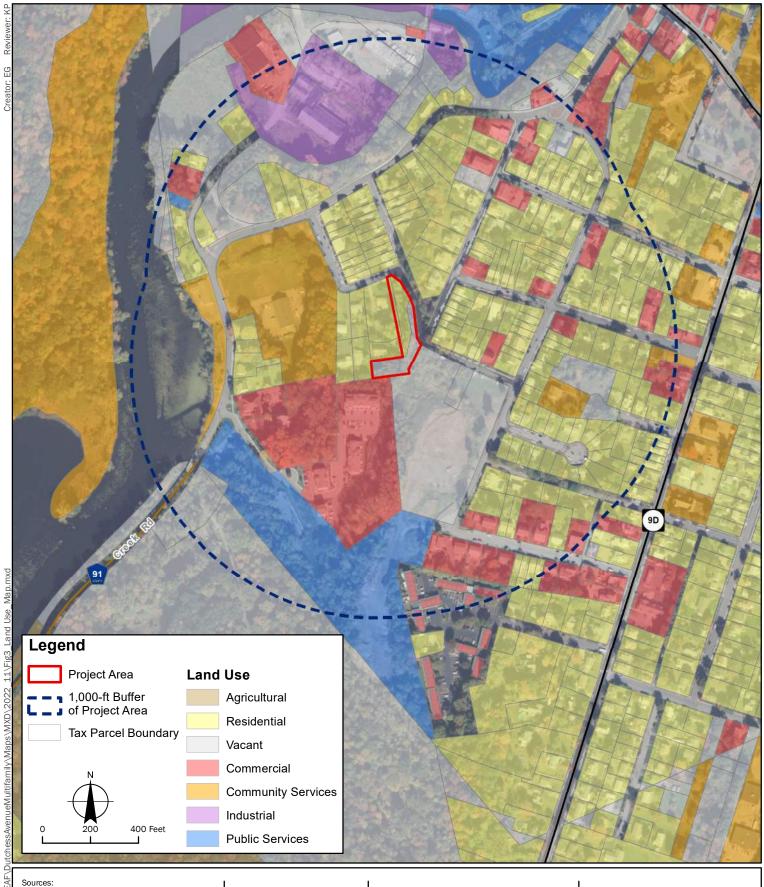
- 1. Project Area: LaBella 2022 2. Tax Parcels: Regrid 2021 3. Streets: NYS GIS Program Office 2022 4. Basemap: Bing Maps



Dutchess Avenue Multifamily

LaBella Project No: 2230010 Date: 2/7/2023

Orthophoto Tax Map



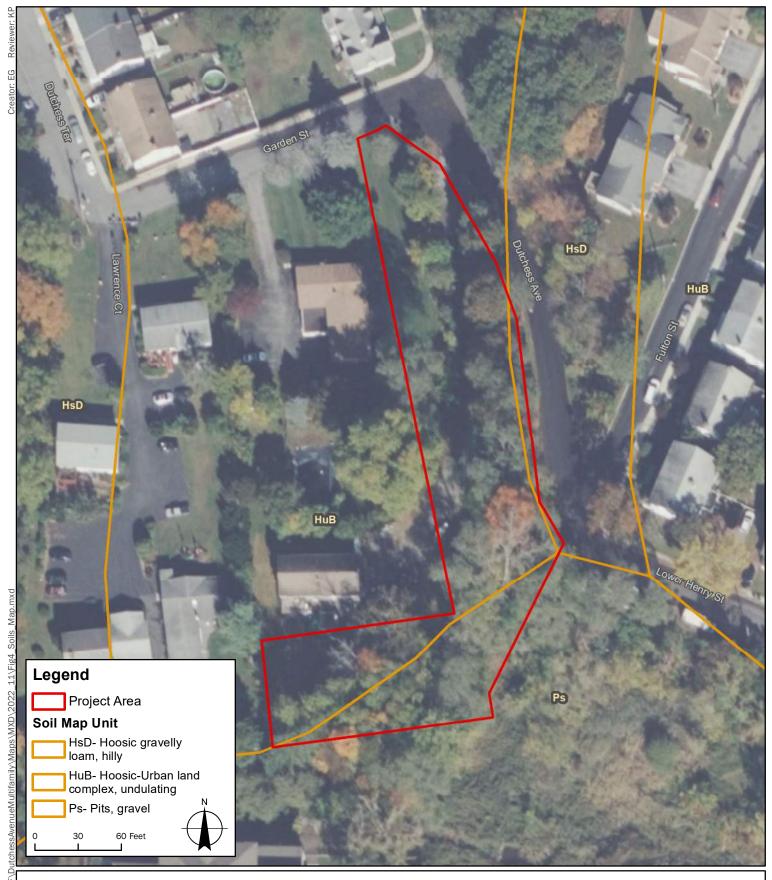
- 3. Project Area: LaBella, 2022
 2. Tax Parcels: Regrid, 2021
 3. Land Use: Regrid, 2021
 4. Streets: NYS GIS Program Office, 2022
 5. Basemap: Bing Maps



Dutchess Avenue Multifamily

LaBella Project No: 2230010 Date: 2/7/2023

Land Use Мар FIGURE 3



- Sources: 1. Project Area: LaBella 2022 2. Soil Map Unit: USDA/NRCS 2021 3. Streets: NYS GIS Program Office 2022 4. Basemap: Bing Maps



Dutchess Avenue Multifamily

LaBella Project No: 2230010 Date: 2/7/2023

Soils Мар FIGURE 4



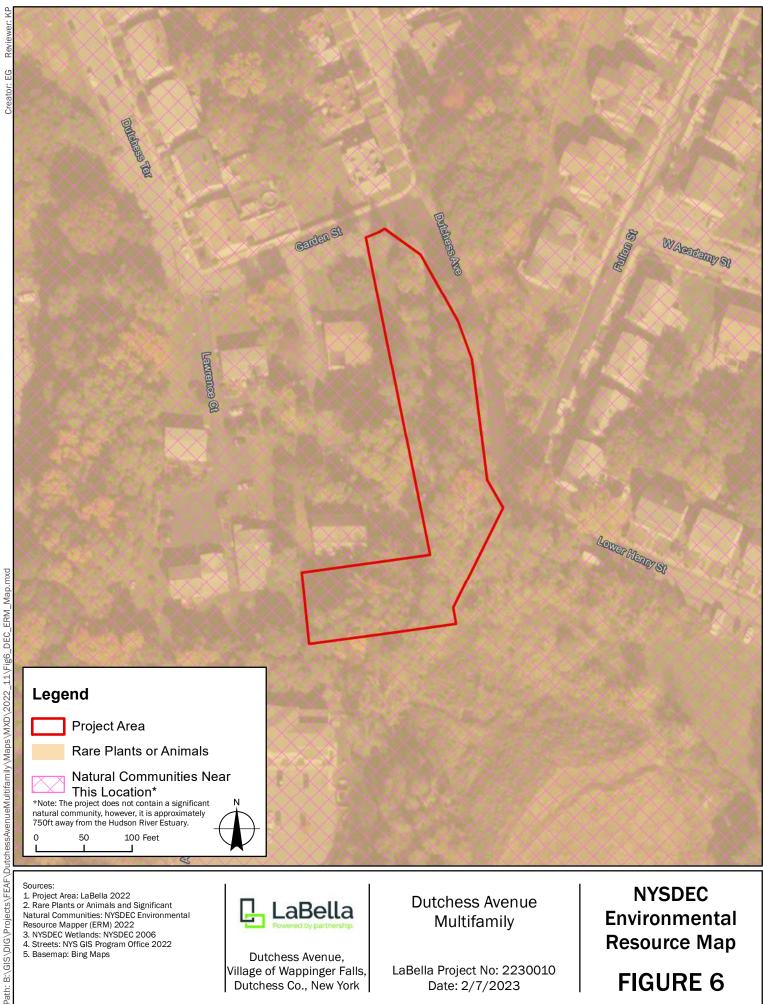
- Project Area: LaBella 2022; Regrid 2021
 NYSDEC Streams: NYSDEC 2021
- 3. NYSDEC Wetlands: NYSDEC 2006 4. NWI Wetlands: USFWS 2022
- 5. Flood Zones: FEMA 20216. Streets: NYS GIS Program Office 2022
- 7. Basemap: Bing Maps



Dutchess Avenue Multifamily

LaBella Project No: 2230010 Date: 2/7/2023

Wetland, Stream, and Floodplain Map



 Project Area: LaBella 2022
 Rare Plants or Animals and Significant Natural Communities: NYSDEC Environmental Resource Mapper (ERM) 2022

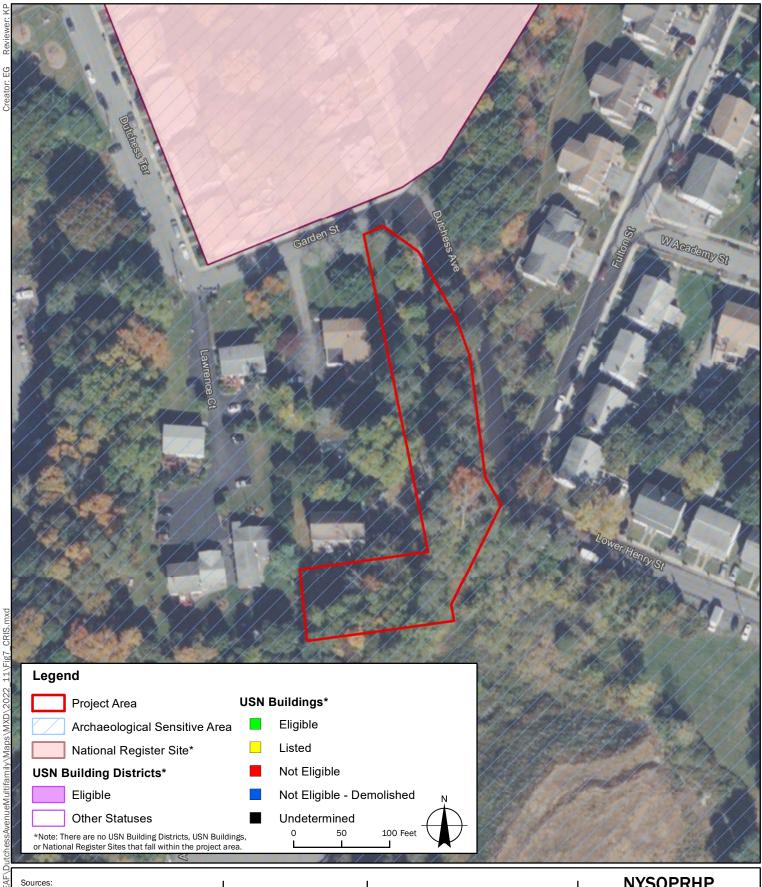
- 3. NYSDEC Wetlands: NYSDEC 2006 4. Streets: NYS GIS Program Office 2022 5. Basemap: Bing Maps



Dutchess Avenue, Village of Wappinger Falls, Dutchess Co., New York **Dutchess Avenue** Multifamily

LaBella Project No: 2230010 Date: 2/7/2023

NYSDEC Environmental Resource Map



 Project Area: LaBella, 2022
 Archaeologically Sensitive Areas/National Register Sites: NYSOPRHP Cultural Resource Information System (CRIS), 2022

3. Streets: NYS GIS Program Office, 2022

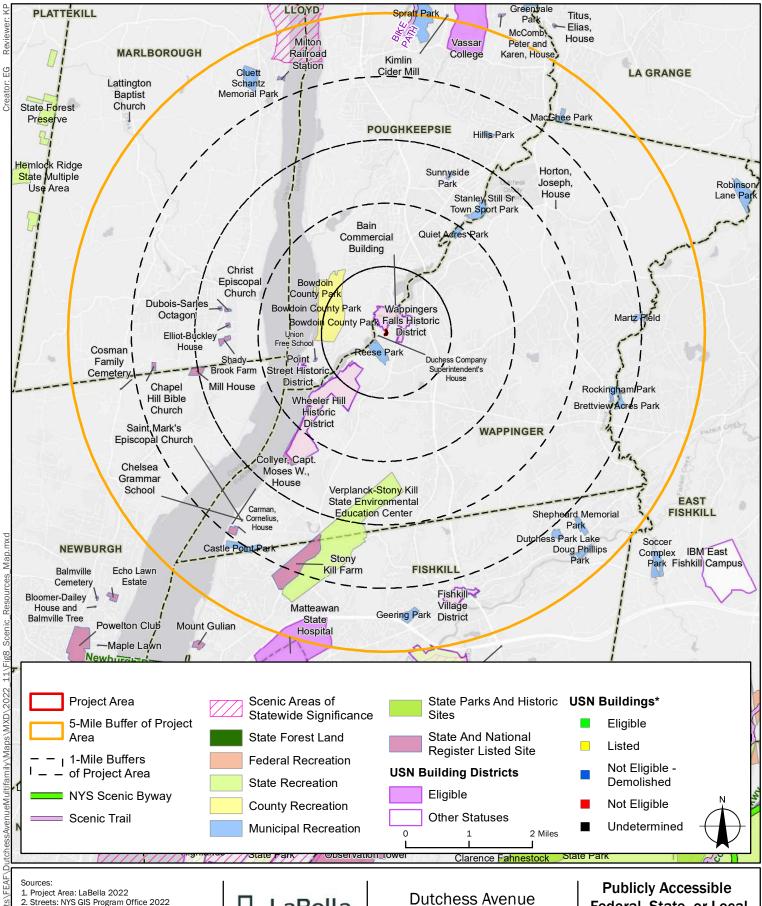
4. Basemap: Bing Maps



Dutchess Avenue, Village of Wappinger Falls, Dutchess Co., New York **Dutchess Avenue** Multifamily

LaBella Project No: 2230010 Date: 2/7/2023

NYSOPRHP Cultural Resource Information System (CRIS) Map



- 3. Scenic Resources: NYS GIS Program Office;
- NYSDEC; NYSDOT; NYSOPRHP; CRIS 2022
- 4. Basemap: Bing

Note: National and State building districts shown. However, isolated listed and eligible buildings are too many to show at this scale.



Dutchess Avenue. Village of Wappinger Falls, Dutchess Co., New York

Dutchess Avenue Multifamily

LaBella Project No: 2230010 Date: 2/7/2023

Federal, State, or Local Scenic or Aesthetic **Resources Map**

Attachment A United States Fish and Wildlife Service (USFWS) Informal Species List

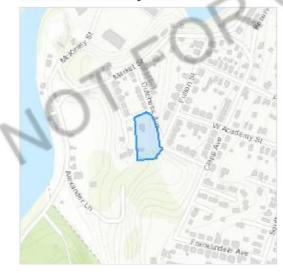
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Dutchess County, New York



Local office

New York Ecological Services Field Office

(607) 753-9334

(607) 753-9699

<u> fw5es_nyfo@fws.gov</u>



Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status</u> <u>page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME STATUS

Indiana Bat Myotis sodalis

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5949

Northern Long-eared Bat Myotis septentrionalis

Endangered

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/9045

Insects

NAME STATUS

Monarch Butterfly Danaus plexippus

Candidate

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/9743

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds
 https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds
 https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME BREEDING SEASON

Bald Eagle Haliaeetus leucocephalus

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Belted Kingfisher Megaceryle alcyon This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 15 to Jul 25
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Blue-winged Warbler Vermivora pinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler Dendroica cerulea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 20 to Jul 20
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (=)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

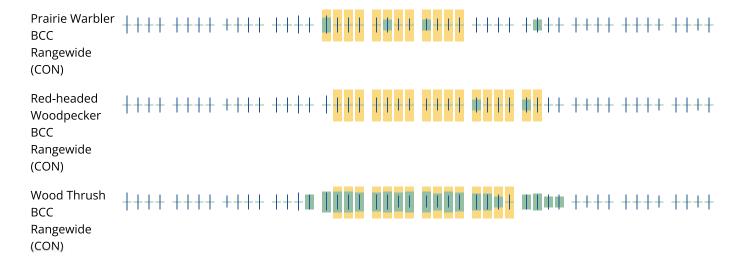
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. <u>Additional measures</u> or <u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey, banding, and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>Rapid Avian Information Locator (RAIL) Tool</u>.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey, banding, and citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.</u>

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the <u>official CBRS maps</u>. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of Engineers District</u>.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

This Page Intentionally Left Blank

Attachment B SHPO Letter of No Adverse Impact and No Archaeological Concerns

This Page Intentionally Left Blank



KATHY HOCHUL Governor ERIK KULLESEID
Commissioner

March 23, 2023

Brittany Micheline LaBella Associates 21 Fox Street Poughkeepsie, NY 12480

Re: DEC

Dutchess Avenue Multi-Family

Village of Wappingers Falls, Dutchess County, NY

23PR01396

Dear Brittany Micheline:

Thank you for continuing to consult with the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law).

The project is contiguous to the National Register listed Wappingers Falls Historic District. Because of this, we have reviewed the project.

It is the opinion of OPRHP that the project will have No Adverse Impact on historic resources.

If you have any questions, I can be reached at sloane.bullough@parks.ny.gov or 518-268-2158.

Sincerely,

Sloane Bullough

Historic Sites Restoration Coordinator

boane Bullough

via email only

From: Schreyer, Jessica (PARKS) < <u>Jessica.Schreyer@parks.ny.gov</u>>

Sent: Thursday, April 27, 2023 2:09 PM

To: LoBrutto, Caren <<u>clobrutto@LaBellaPC.com</u>>

Cc: Kerrigan, Thomas < tkerrigan@LaBellaPC.com >; Micheline, Brittany

<<u>bmicheline@LaBellaPC.com</u>>; Prabhakaran, Krithika <<u>kprabhakaran@LaBellaPC.com</u>> Subject: [Ext] RE: Dutchess Avenue Multi-Family project - Consultation: 23PR01396

Hi Caren,

I have no archaeological concerns for this project.

In our first correspondence, I included my note of *no archaeology concerns*:

https://cris.parks.ny.gov/?type=CR&id=EJTLX1PUDVRX

Also, an effect finding letter cannot go out from our office until both archaeology and the buildings/structures units have commented on effects to historic properties.

Jessica

From: LoBrutto, Caren <<u>clobrutto@LaBellaPC.com</u>>

Sent: Thursday, April 27, 2023 1:48 PM

To: Schreyer, Jessica (PARKS) < <u>Jessica.Schreyer@parks.ny.gov</u>>

Cc: Kerrigan, Thomas < tkerrigan@LaBellaPC.com >; Micheline, Brittany

<<u>bmicheline@LaBellaPC.com</u>>; Prabhakaran, Krithika <<u>kprabhakaran@LaBellaPC.com</u>>

Subject: Dutchess Avenue Multi-Family project - Consultation: 23PR01396

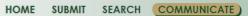
Hi Jessica,

You recently competed an archaeology review for the Dutchess Avenue Multi-Family project. The Village of Wappingers Falls is requesting a sign off regarding archaeology in addition to the no effect letter that we received, see attached. Please confirm your findings relative to archaeology.

Thanks. Caren

Caren LoBrutto

LaBella Associates | Senior Planner



View and/or Address a Response

Project 23PR01396: Dutchess Avenue Multi-Family (EJTLX1PUDVRX)

Q View Project

X Close

Please accept the following information below as the consolidated response from NYS SHPO for the above referenced submission.

Review	Responses
--------	-----------

Reviewer	Review Type	Response		
Jessica Schreyer	Archaeology	No archaeological concerns. No archaeological survey is warranted.		
Sloane Bullough	Technical Services	In order for SHPO to complete our evaluation of the historic significance of all buildings/structures/districts within or adjacent to your project area, we need further information. Please review the specific information request(s) below and click the Process button to respond to each request.		

Information Requests

Process	Status	Reviewer	Review Type	Request Type	Request Entity	Request Item	Request Description
	Rejected	Sloane Bullough		Request a New Attachment, Photo, or Survey for this Consultation Project		Attachment	see letter

Attachment	S				
Attachment	Reviewer	Review Type	Туре	Name	Description
2	Sloane Bullough	Technical Services	Document	OPRHP response to submission 1	null









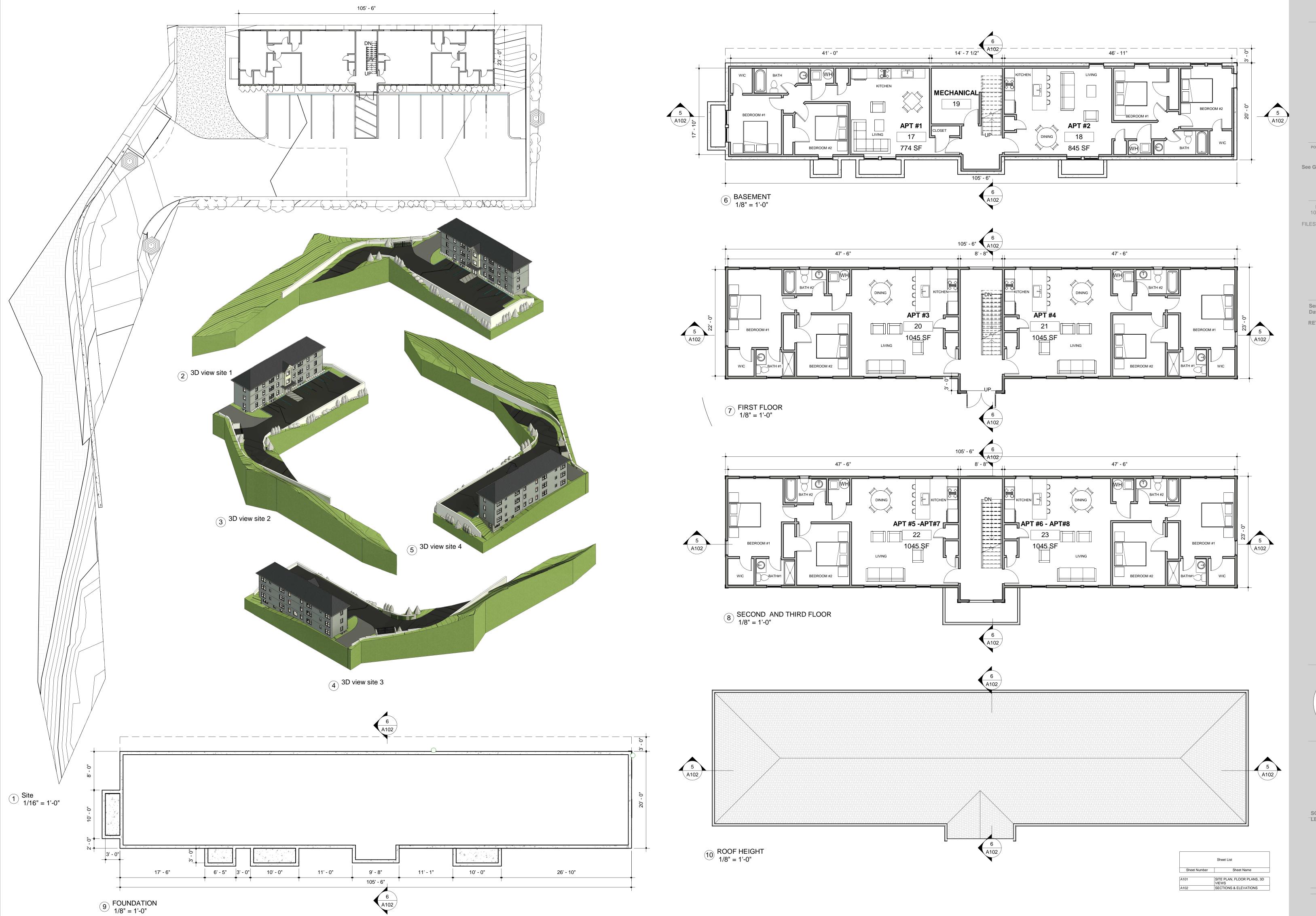








This Page Intentionally Left Blank



SOLANGELO ASSOCIATES ARCHITECTS

PO Box 911 1273 East Putnam Avenue Riverside, CT 06878 203-253-5503

See General Notes on Sheet A200 Included in set

Preliminary

H:\My Drive\Link Station
10\Varrone\Wappingers falls
village\REVIT
FILES\wappingersfallsvillage-MULTI
FAMILY 5-9-23 .rvt

Dutch Ter-Fulton Wappingers Falls

Sent 5/10/2023
Date: 10:54:56 AM

REVISION DAT

SITE PLAN, FLOOR PLANS, 3D VIEWS

SCA As indicated

A101



PO Box 911 1273 East Putnam Avenue Riverside, CT 06878 203-253-5503

See General Notes on Sheet A200 Included in set Preliminary

H:\My Drive\Link Station 10\Varrone\Wappingers falls
village\REVIT
FILES\wappingersfallsvillage-MULTI
FAMILY 5-9-23 .rvt

> Dutch Ter-Fulton Wappingers Falls

Sent 5/10/2023 Date: 10:55:02 AM

REVISION

SECTIONS & ELEVATIONS

SCA 1/8" = 1'-0"

A102

Sheet Name

SITE PLAN, FLOOR PLANS, 3D VIEWS
SECTIONS & ELEVATIONS

2230010 TERRA GROUP 201, LLC

DUTCHESS AVE VILLAGE OF WAPPINGERS FALLS, NY 12590

INDEX OF DRAWINGS				
PAGE NO.	REV	SHEET NO.	DATE	DESCRIPTION
1	3	G001	5/10/23	COVER SHEET
2	3	G002	5/10/23	NOTES & LEGENDS
3	3	C120	5/10/23	DEMOLITION PLAN
4	3	C130	5/10/23	SITE PLAN
5	3	C140	5/10/23	GRADING & DRAINAGE PLAN
6	3	C150	5/10/23	EROSION & SEDIMENT CONTROL PLAN
7	3	C160	5/10/23	UTILITY PLAN
8	3	C170	5/10/23	PLAN & PROFILE
9	3	C171	5/10/23	UTILITY PROFILES
10	3	C180	5/10/23	LANDSCAPE PLAN
11	3	C190	5/10/23	PHOTOMETRIC LIGHTING PLAN
12	3	C530	5/10/23	SITE DETAILS
13	3	C531	5/10/23	SITE DETAILS 2
14	3	C540	5/10/23	STORM SEWER DETAILS
15	3	C541	5/10/23	STORMTECH CHAMBER DETAILS
16	3	C550	5/10/23	EROSION & SEDIMENT CONTROL DETAILS
17	3	C560	5/10/23	WATER SYSTEM DETAILS
18	3	C570	5/10/23	SANITARY SEWER SYSTEM DETAILS
19	3	C580	5/10/23	LANDSCAPE DETAILS

BOWDOIN COUNTY PARK PROJECT SITE SITE SITE SCHOOL S

LOCATION MAP N.T.S.

OWNER / APPLICANT SIGNATURE

THE UNDERSIGNED APPLICANT FOR THE PROPERTY AND THE UNDERSIGNED OWNER OF THE PROPERTY SHOWN HEREON, STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS NOTES AND ITS CONTENTS, AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS AS

THE APPLICANT AND OWNER UNDERSTAND THEIR OBLIGATION TO THE TOWN TO KEEP THIS SITE AS PER SITE PLAN APPROVAL BY THE TOWN PLANNING BOARD UNTIL A NEW OR REVISED SITE PLAN IS APPROVED FOR THE SITE. THE APPLICANT AND OWNER UNDERSTAND THEIR OBLIGATION TO THE TOWN NOT TO OCCUPY THE PREMISES BEFORE A CO IS ISSUED BY THE TOWN BUILDING DEPARTMENT.

APPLICANT	DATE
OWNER	DATE

VILLAGE OF WAPPINGERS FALLS
<u>PLANNING BOARD</u>
FINAL APPROVAL DATE:
PB CHAIR: DATE:
WITNESS:

DUTCHESS COUNTY DEPARTMENT OF	
ENVIRONMENTAL HEALTH APPROVAL	

FOR SHEETS G001, G002, C120, C140, AND C560

TERRA GROUP 201, LLC.

395 ROUTE 212
SAUGERTIES, NY 12477
PROJECT NO: 2230010
DECEMBER 7TH, 2022
LAST REVISED MAY 5TH, 2023





21 Fox Street, Suite 201 Poughkeepsie, NY 12601 845-454-3980 Iabellapc.com ACCORDANCE WITH STATE AND FEDERAL REGULATIONS GOVERNING THE DISPOSAL OF SOLID WASTE.

THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS BY THE AUTHORITY HAVING JURISDICTION. 3. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF

- 4. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES. 5. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
- 6. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER. 7. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND
- 8. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED. 9. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
- 10. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED. 11. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES
- 12. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT PERMITS. COORDINATE W/ AUTHORITY HAVING JURISDICTION. 13. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY
- AUTHORITY HAVING JURISDICTION. 14. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND
- 15. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED. 16. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH
- SELECTIVE DEMOLITION OPERATIONS. 17. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT
- BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA 18. USE WATER MIST, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT
- USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS CAUSING ICING, FLOODING, AND TRANSPORTING POLLUTANTS. 19. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT
- SURFACES AND AREAS. 20. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE
- START OF SELECTIVE DEMOLITION. 21. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.

SITE PLAN NOTES:

GENERAL CONSTRUCTION NOTES:

THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE ENGINEER OR OWNER, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED LAND SURVEYOR.

- ALL PAVEMENT RESTORATION SHALL MEET AND MATCH EXISTING GRADES. . ALL SAWCUT LINES SHALL BE PARALLEL AND CURVILINEAR TO EXISTING OR PROPOSED CURBING
- AND SHALL BE A CONSTANT DISTANCE OF 18" MIN AWAY 4. ALL ARCHITECTURE IS SUBJECT TO PLANNING BOARD REVIEW.
- . NOTIFY ENGINEER 48 HOURS PRIOR TO INITIALIZATION OF ANY WORK ON SITE. 6. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE
- SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR REVIEW FROM THE ENGINEER.
- 7. CONTRACTOR IS RESPONSIBLE FOR EMPLOYING AND MAINTAINING ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING CONSTRUCTION.
- 8. CONTRACTOR IS RESPONSIBLE FOR PROPERLY & SAFELY MAINTAINING AREA BETWEEN ALL ADJOINING PROPERTIES.
- 9. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE SITE PROPERTY LINES OR PUBLIC RIGHT-OF-WAY.
- 10. ALL EXISTING LAWN AREA, CURBING, PAVING, SIDEWALKS, CULVERTS OR OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED BY TRENCHING OR EXCAVATION OPERATIONS SHALL BE REPLACED OR REPAIRED TO A CONDITION EQUAL TO EXISTING. AS DESCRIBED IN CONTRACT DOCUMENTS OR AS ORDERED BY ENGINEER (AOBE). MAILBOXES, SIGN POSTS, ETC SHALL BE PROTECTED OR REMOVED AND REPLACED EXACTLY AS THEY WERE BEFORE BEING DISTURBED. REMOVE AND REPLACE AFFECTED CURBING AND SIDEWALK TO NEAREST JOINT. REMOVE PAVEMENT AND REPLACE TO SAW CUT LINE, SAW CUT IN STRAIGHT LINE TO POINT NEEDED TO BLEND GRADE, REMOVE LAWN AND
- REPLACE TO MINIMUM LIMIT OF EXCAVATION. DISCOVERED IN THE COURSE OF CONSTRUCTION OF THIS PROJECT. THE PROJECT SPONSORS SHALL SUSPEND CONSTRUCTION OPERATIONS IN THE PERTINENT AREA AND SHALL NOTIFY THE PROJECT ENGINEER. CONSTRUCTION IN THAT AREA SHALL RESUME ONLY AFTER COMPLETION OF FEDERAL. TRIBAL, AND STATE COORDINATION TO DETERMINE WHETHER PROTECTION OR RECOVERY OF THE REMAINS IS WARRANTED, OR WHETHER THE SITE IS ELIGIBLE FOR LISTING IN THE NATIONAL
- REGISTER OF HISTORIC PLACES 12. BUILDING TO BE EQUIPPED WITH SUB SLAB DEPRESSURIZATION SYSTEM.

. BUILDING DIMENSIONS TO BE TAKEN FROM ARCHITECTURAL BUILDING PLANS. NOTIFY THE ENGINEER

OF ANY DEVIATION FROM CONDITIONS SHOWN ON THIS PLAN. 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FIELD LAYOUT. CONTRACTOR SHALL TAKE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS BUILT PLANS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS-BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND THE ENGINEER AND THE CONTRACTOR SHALL PROVIDE ANY CORRECTION OR ADDITIONS TO THE SATISFACTION OF THE OWNER AND THE ENGINEER BEFORE UTILITIES WILL BE ACCEPTED.

PAVING NOTES:

- COURSE MATERIAL ONCE IT HAS BEEN FINE GRADED, COMPACTED, AND IS READY FOR PAVING. SUBBASE MATERIAL SO PREPARED FOR PAVING SHALL BE PAVED WITHIN THREE DAYS OF
- 2. SUBBASE MATERIAL AND THE VARIOUS ASPHALT CONCRETE MATERIALS CALLED FOR IN THESE DRAWINGS SHALL CONFORM WITH THE REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED "LATEST EDITIONS". CONSTRUCTION SHALL BE AS FURTHER SET FORTH IN THOSE
- SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS. 3. PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF USING A SELF-PROPELLED PAVING MACHINE, WITH VIBRATING SCREED. PLACEMENT IN INACCESSIBLE AND SMALL AREAS MAY BE BY HAND
- 4. PROVIDE JOINTS BETWEEN OLD AND NEW PAVEMENTS OR BETWEEN SUCCESSIVE DAY'S WORK. 5. TACK COAT WHEN SPECIFIED OR CALLED OUT ON THE DRAWINGS OR REQUIRED BY THE
- REFERENCED SPECIFICATION SHALL CONFORM WITH THE FOLLOWING: A. TACK COAT SHALL MEET THE MATERIAL REQUIREMENTS OF 702-90 ASPHALT EMULSION FOR TACK COAT OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS. DATED "LATEST EDITION". SHALL BE APPLIED IN ACCORDANCE WITH SECTION 407 - TACK COAT SHALL BE IN ACCORDANCE WITH
- THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS. B. REMOVE LOOSE AND FOREIGN MATERIAL FROM ASPHALT SURFACE BEFORE PAVING NEXT COURSE. USE POWER BROOMS, BLOWERS OR HAND BROOM.
- C. APPLY TACK COAT TO ASPHALT PAVEMENT SURFACES & AND SURFACES OF CURBS, GUTTERS, MANHOLES, AND OTHER STRUCTURES PROJECTING INTO OR ABUTTING PAVEMENT. DRY TO A "TACKY" CONSISTENCY BEFORE PAVING.
- D. TACK COAT ENTIRE VERTICAL SURFACE OF ABUTTING EXISTING PAVEMENT.
- 6. AFTER COMPLETION OF PAVING AND SURFACING OPERATIONS, CLEAN SURFACES OF EXCESS OR SPILLED ASPHALT, GRAVEL OR STONE MATERIALS TO THE SATISFACTION OF THE ENGINEER.

VILLAGE OF WAPPINGERS FALLS PLANNING BOARD FINAL APPROVAL DATE: PB CHAIR: WITNESS

GRADING NOTES

RULE 753.

- PRIOR TO SITE DISTURBANCE, CONTRACTOR TO INSTALL EROSION & SEDIMENT CONTROL MEASURES.
- 2. IF ROCK IS ENCOUNTERED DURING CONSTRUCTION & REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. ALL BLASTING OPERATIONS WILL ADHERE TO NEW YORK STATE AND LOCAL AUTHORITY ORDINANCES GOVERNING

THE USE OF EXPLOSIVES. THE STATE REGULATIONS ARE CONTAINED IN 12 NYCRR 39 AND INDUSTRIAL CODE

- 4. STRIP ALL TOPSOIL PRIOR TO COMMENCING EARTHWORK OPERATIONS. TOPSOIL MAY BE STORED AND REUSED IN LAWN AND PLANTING AREAS ONLY. TOPSOIL AND SEED ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE TO REMAIN GREEN. . BOX ALL TREES AND HOUSE ALL SHRUBS AND HEDGES BEFORE PLACING EARTH AGAINST OR NEAR THEM.
- ORNAMENTAL TREES, SHRUBS AND HEDGES WHICH MUST BE REMOVED DURING CONSTRUCTION SHALL BE HEALED IN AND RE-PLANTED IN AS GOOD A CONDITION AS THEY WERE BEFORE THEIR REMOVAL. ANY DAMAGED TREES, SHRUBS, AND/OR HEDGES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. 6. ALL EARTHWORK SHALL BE SMOOTHLY AND EVENLY BLENDED INTO EXISTING CONDITIONS. NO WORK, STORAGE
- TRESPASS SHALL BE PERMITTED BEYOND THE BOUNDARIES OF ANY EASEMENT OR PROPERTY LINE. REMOVE ALL VEGETATION, TREES, STUMPS, GRASSES, ORGANIC SOILS, DEBRIS AND DELETERIOUS MATERIALS WITHIN THE AREAS SLATED FOR CONSTRUCTION.
- 8. IF PREVIOUSLY UNKNOWN CULTURAL, ARCHEOLOGICAL, OR HISTORIC REMAINS OR ARTIFACTS ARE DISCOVERED IN THE COURSE OF CONSTRUCTION OF THIS PROJECT, THE PROJECT SPONSORS SHALL SUSPEND CONSTRUCTION OPERATIONS IN THE PERTINENT AREA AND SHALL NOTIFY THE PROJECT ENGINEER. CONSTRUCTION IN THAT AREA SHALL RESUME ONLY AFTER COMPLETION OF FEDERAL. TRIBAL, AND STATE COORDINATION TO DETERMINE WHETHER PROTECTION OR RECOVERY OF THE REMAINS IS WARRANTED, OR WHETHER THE SITE IS ELIGIBLE FOR
- LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES. 9. IT IS THE INTENT OF THIS PLAN FOR ALL SITE GRADING TO DRAIN & NO PONDING OCCURS. MINIMUM SLOPE OF AT LEAST ONE PERCENT ALONG THE FLOW LINE AND 2% CROSS SLOPE ON ALL PAVED OR CONCRETE SURFACES UNLESS OTHER WISE NOTED. CONTRACTOR SHALL COORDINATE WITH ENGINEER FOR ANY DEVIATIONS OR AREA ON THE PLAN WHERE THE SITE DOES NOT MEET THESE REQUIREMENT.

UTILITY PLAN NOTES:

GENERAL CONSTRUCTION NOTES:

- ALL UNDERGROUND UTILITIES ARE SHOWN IN THEIR RELATIVE POSITION AND ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY THEIR ACTUAL LOCATION IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION
- ANY CONDITION ENCOUNTERED IN THE FIELD DIFFERING FROM THOSE SHOWN HEREON, SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE CONSTRUCTION IS TO PROCEED. SEWER MAINS IN RELATION TO WATER MAINS: WHERE POSSIBLE, SEWERS SHALL BE LAID AT LEAST 10 (TEN) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. VERTICAL SEPARATION SHALL BÉ MAINTAINED TO PROVIDE 18 (EIGHTEEN) INCHES BETWEEN TOP OF SEWER AND BOTTOM OF THE WATER MAIN AT UTILITY CROSSINGS. WHEN NOT POSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION, SEWER PIPE SHALL

BE PRESSURE RATED AND TESTED @ 150psi, 10 (TEN) FEET ON EACH SIDE OF THE WATER MAIN BEING

- CROSSED. ALL PROPOSED UTILITIES SHALL TERMINATE 5 FEET FROM ANY PROPOSED BUILDING FACE. CONTRACTOR TO COORDINATE WITH BUILDING PLANS FOR ANY CONNECTIONS.
- ALL STORM SEWER SHALL BE SMOOTH INTERIOR HDPE UNLESS OTHERWISE SPECIFIED. ALL GRAVITY SANITARY SEWER SHALL BE SDR 35 PVC UNLESS OTHERWISE SPECIFIED. ALL WATER PIPE SHALL BE CL52 DUCTILE IRON PIPE UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR TO VERIFY STATUS OF ALL UTILITY SERVICES PRIOR TO INTERRUPTION. EXPLORATORY EXCAVATIONS SHALL BE PERFORMED BY THE CONTRACTOR AT ALL UTILITY CONNECTION LOCATIONS AND AS NEEDED TO VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. BEFORE CONSTRUCTING LINES TO CONNECT TO EXISTING UTILITIES, VERIFY EXISTING UTILITY INVERTS AND NOTIFY
- THE ENGINEER IF ANY VARIATION FROM THE PLAN IS REQUIRED. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE FOR THE DURATION OF THE WORK. 12. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS AND ASSOCIATED CONDITIONS.
- 13. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING UTILITY TRENCHES AND EXCAVATIONS AND FOR THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF THE WORK.
- 14. IF ROCK REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE VILLAGE OF WAPPINGERS

ROCK BLASTING NOTES:

- BLASTING OF BEDROCK IS NOT ANTICIPATED AT THIS SITE IN ORDER TO COMPLETE THE PROPOSED DEVELOPMENT HOWEVER, THESE NOTES ARE INCLUDED SHOULD UNFORESEEN CONDITIONS REQUIRE THE NEED FOR BLASTING TO EXCAVATE BEDROCK. 1. ALL RECOMMENDED SAFETY REQUIREMENTS AND STANDARDS REFERENCED AND ANY LOCAL RESTRICTIONS SHALL BE APPLIED AS REQUIRED FOR SAFETY, SECURITY, AND SPECIFICALLY RELATED DETAILS FOR BLASTING PROCEDURES. AT ALL TIMES, FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE FOLLOWED CONCERNING THE TRANSPORTATION AND STORAGE OF EXPLOSIVES.
- 2. A MINIMUM OF FOUR (4) WEEKS PRIOR TO COMMENCEMENT OF THE INITIAL BLASTING OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AS APPROPRIATE: POLICE AGENCIES, GAS AND ELECTRIC SERVICE COMPANIES, TELEPHONE AND CABLE OPERATING COMPANIES, TOWN WATER AND SEWER DEPARTMENTS, NYSDOT, AND LOCAL FIRE, RESCUE, AND AMBULANCE SERVICES. 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE RESULTING FROM THE USE OF EXPLOSIVES. EXPLOSIVES
- SHALL BE STORED IN A SECURE MANNER IN COMPLIANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES. 4. THE CONTRACTOR SHALL NOTIFY EACH PROPERTY AND UTILITY OWNER HAVING A BUILDING, STRUCTURE, OR OTHER INSTALLATION ABOVE OR BELOW GROUND IN PROXIMITY TO THE SITE OF THE WORK OF HIS INTENTION TO USE EXPLOSIVES. NOTICE SHALL BE GIVEN SUFFICIENTLY IN ADVANCE TO ENABLE THE OWNERS TO TAKE STEPS TO PROTECT THEIR PROPERTY. NOTICE SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR DAMAGE
- RESULTING FROM HIS BLASTING OPERATIONS. . THE CONTRACTOR SHALL SCHEDULE AND CONDUCT PRE-BLAST SURVEYS WITH PROPERTY OWNERS LOCATED IN THE AREA POTENTIALLY AFFECTED BY AIRBLAST OVERPRESSURE AND GROUND VIBRATION OR AS REQUIRED. 6. THE CONTRACTOR SHALL IMPLEMENT ENGINEERING MEASURES IN ORDER TO MINIMIZE THE POTENTIAL IMPACTS OF
- DUST, NOISE AND GROUND VIBRATION. BLAST VIBRATION CONTROL WILL BE ACHIEVED BY LIMITING THE CHARGE PER DELAY SO THAT THE PEAK PARTICLE VELOVILLAGE REMAINS BELOW THE SPECIFIED LEVELS. 7. A APPROPRIATELY QUALIFIED, LICENSED BLASTING SPECIALIST, WITH EXPERIENCE SHALL BE ONSITE AND SUPERVISE
- BLASTING OPERATIONS. AT ALL TIMES, THE BLASTING AREA SHALL BE RESTRICTED TO BLASTING OPERATIONS AND AUTHORIZED PERSONNEL ONLY 8. PROTECTIVE MEASURES INCLUDING INSTALLATION OF SIGNAGE, NOTIFICATION OF NEARBY RESIDENTS, TRAFFIC CONTROL AS NECESSARY ALONG NEARBY ROADS, AUDIBLE PRE-BLAST WARNINGS, AND USE OF BLAST MATS
- SHALL BE IMPLEMENTED. 9. DELIVERY AND TRANSPORT OF EXPLOSIVES FROM THE POWDER MAGAZINES TO THE BLAST AREA WILL BE BY VEHICLES SPECIFICALLY DESIGNED FOR THIS USE BY THE CRITERIA OUTLINED IN THE SAFETY REQUIREMENTS. ONLY AUTHORIZED PERSONS WILL TRANSPORT AND HANDLE THE EXPLOSIVES AS DESIGNATED BY THE ISSUING AUTHORITY OF THOSE LICENSES FOR THIS PURPOSE.
- 10.MONITORING OF PEAK PARTICLE VELOVILLAGE (INCHES/SECOND) AND PEAK AIRBLAST OVERPRESSURE (PSI) SHALL BE PERFORMED DURING ALL BLASTS.

SANITARY & SEWER NOTES:

SEWER DEPARTMENT.

- 1. FLOOR DRAINS, IF CONSTRUCTED, SHALL BE CONNECTED TO THE SANITARY SEWER. FLOOR DRAINS DO NOT INCLUDE FOUNDATION/FOOTER DRAIN: ALL DISCHARGES TO THE SANITARY SEWER SHALL COMPLY WITH THE EFFLUENT LIMITS OF THE LOCAL AND/OR DUTCHESS COUNTY SANITARY CODE.
- 1. NO VEHICULAR TRAFFIC OF ANY SORT SHALL BE PERMITTED ON THE SURFACE OF SUBBASE 2. SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE VILLAGE. ALL SANITARY SEWER SYSTEM COMPONENTS SHALL BE INSTALLED BY OR UNDER THE SUPERVISION OF A VILLAGE LICENSED PLUMBER IN ACCORDANCE WITH THE VILLAGE PLUMBING CODE.
 - 3. MAJOR EARTHWORK SHALL BE COMPLETED PRIOR TO INSTALLATION OF ANY SANITARY SEWER MAINS AND APPURTENANCES. ALL CONNECTING SEWER LINES SHALL BE FLUSHED BEFORE TESTED.
 - 4. VILLAGE SANITARY SEWER MAINS ARE TO BE POLYVINYL CHLORIDE (PVC) SDR-21. PROJECT SANITARY LATERALS SHALL BE PVC, SDR-35, UNLESS OTHERWISE NOTED. 5. FINAL SEWER COLLECTION SYSTEM LAYOUT IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE MUNICIPAL
 - SEWER DEPARTMENT. ALL SANITARY PIPE AND/OR MANHOLES SHALL BE A MINIMUM OF TEN (10) HORIZONTAL FEET FROM THE WATER MAIN. SANITARY PIPE SHALL HAVE A MINIMUM 18" SEPARATION FROM ANY WATER MAIN OR WATER SERVICE LINE. IF FOR SOME REASON THIS SEPARATION CANNOT BE ACHIEVED, SANITARY SEWER PIPE IN THE AREA SHALL BE SDR-21 PRESSURE RATED PIPE. AND ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED UNDER
 - 7. ALL SANITARY TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER, AND, CERTIFICATES OF COMPLIANCE WITH THE INSTALLATION SPECIFICATIONS. TEST STANDARDS. APPROVED PLANS OR APPROVED AMENDMENTS SHALL BE PROVIDED TO THE APPROPRIATE SEWER AUTHORITY AS A CONDITION OF APPROVAL FOR OPERATION.

OR OVER THE SEWER. ALL SANITARY SEWER CONSTRUCTION SHALL BE TO SPECIFICATIONS OF THE MUNICIPAL

- 8. ALL SANITARY SEWER CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE MUNICIPAL SEWER SUPERINTENDENT PRIOR TO BACKFILLING. PIPE BEDDING AND PIPE ZONE MATERIAL SHALL BE IN ACCORDANCE WITH THIS SHEET, DETAIL 1
- 9. ALL NEW SANITARY SEWER MANHOLE COVERS SHALL BE MINIMUM NOMINAL 24" DIAMETER CAST IRON AND SHALL READ "SANITARY SEWER". FRAMES SHALL BE 8-INCHES IN HEIGHT.
- 10. INDICATOR TAPE SHALL BE PLACED 12" BELOW FINISHED GRADE DIRECTLY ABOVE ALL SANITARY LINES.
- 11. LOCATION OF SEWER LATERAL CLEAN OUTS ARE TO BE PLACED AS SHOWN ON THE APPROVED SITE PLAN AND NOT TO EXCEED EVERY 75' MEASURED FROM THE SEWER MAIN CONNECTION OR AS DETERMINED BY THE MUNICIPAL SUPERINTENDENT OF SEWERS WHERE LOCATIONS ARE NOT SPECIFICALLY SHOWN.
- 12. EXTERNAL DROP MANHOLES SHALL BE USED FOR SEWERS ENTERING AT AN ELEVATION OF 24 INCHES OR HIGHER AT THE INLET OF A SEWER MANHOLE.

TESTING GRAVITY SEWER SYSTEM:

- CONTRACTOR SHALL INSPECT AND TEST THE INSTALLATIONS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION WHEN WORK IS READY FOR TESTING. AFTER ALL TESTS HAVE BEEN PERFORMED, EVIDENCE OF COMPLIANCE SHALL BE FORWARDED TO OWNER/ENGINEER AND THE AUTHORITY HAVING JURISDICTION PRIOR TO ACCEPTANCE.
- 2. THE CONTRACTOR SHALL TEST AND INSPECT FOR ALIGNMENT OF ALL SANITARY SEWERS.
- 3. EACH MANHOLE-TO-MANHOLE SECTION SHALL BE REJECTED OR ACCEPTED BASED ONLY ON RESULTS OF ITS OWN INDEPENDENT SECTION TEST AND NOT ON RESULTS OF ANY ONE TEST RUN SIMULTANEOUSLY OVER MORE THAN ONE CONSECUTIVE MANHOLE-TO-MANHOLE SECTION. THE ONLY EXCEPTION ALLOWED: ACCEPTING SEVERAL CONSECUTIVE MANHOLE-TO-MANHOLE SECTIONS BASED ON ONE COMBINED INFILTRATION TEST INDICATING ZERO INFILTRATION.
- 4. LOW PRESSURE AIR TESTING SHALL BE PERFORMED UNDER DIRECTION OF ENGINEER ACCORDING TO ASTM F1417. LOW PRESSURE AIR TEST IS A COMPARISON OF THE MEASURED TIME NECESSARY FOR ONE (1) PSIG PRESSURE DROP TO OCCUR, IF AT ALL, WITH MINIMUM ALLOWABLE TIME FOR THAT PRESSURE DROP TO OCCUR DETERMINED BY METHODS INDICATED IN ASTM F1417. IF THE ONE (1) PSIG PRESSURE DROP OCCURS FASTER THAN ALLOWABLE TIME, SECTION IS UNACCEPTABLE.
- AN AIR TEST SHALL NOT BE RUN UNTIL SECTION OF LINE TO BE TESTED HAS BEEN CLEANED OF ALL FOREIGN MATERIAL BY FLUSHING AND HAS BEEN VISUALLY INSPECTED AND APPROVED BY THE ENGINEER. CERTAIN PIPE MATERIALS PRODUCE MORE CONSISTENT RESULTS WHEN INTERIOR OF PIPE IS WETTED PRIOR TO TESTING.
- 6. WHERE FLEXIBLE PIPE IS USED, CONTRACTOR SHALL TEST ALL MAINLINE PIPE FOR MAXIMUM ALLOWABLE DEFLECTION OF 5% OF OUTSIDE DIAMETER. DEFLECTION TESTS SHALL BE PERFORMED USING A CIRCULAR STEEL BALL ON SLED 1/16-INCH IN DIAMETER SMALLER THAN ALLOWABLE INSIDE DIAMETER OF FLEXIBLE PIPE WHEN DEFLECTED A MAXIMUM OF 5% OF OUTSIDE DIAMETER. DEFLECTION TESTING OF ANY PIPE SHALL BE DONE NO SOONER THAN 30 DAYS AFTER DATE OF INSTALLATION OF PIPE SECTION UNLESS WRITTEN EXCEPTION.
- 7. SEWERS SHALL BE LAID WITH STRAIGHT ALIGNMENT BETWEEN MANHOLES. STRAIGHT ALIGNMENT SHALL BE CHECKED EITHER USING A LASER BEAM OR LAMPING. TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- MANHOLES, WHICH CANNOT BE PROPERLY AIR TESTED, SHOULD BE VISUALLY INSPECTED AND LEAKAGE-TESTED USING INTERNAL OR EXTERNAL HYDROSTATIC PRESSURE. LEAKAGE TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- IN AREAS WHERE CONVENTIONAL TESTING IS IMPRACTICAL (I.E. AREAS DESIGNATED BY ENGINEER WHERE EXISTING SERVICES ARE TIED INTO NEW LINE IMMEDIATELY AND ANY BLOCKAGE COULD RESULT IN HEALTH PROBLEMS) NO LINES SHALL BE BACKFILLED UNTIL EACH PIPE SECTION AND CONNECTION IS INSPECTED AND
- 10. WHERE SEWERS ARE CONSTRUCTED OF PRESSURE-RATED PIPE AND INSTALLED WITH LESS THAN 18 INCHES VERTICAL SEPARATION FROM EXISTING OR PROPOSED WATER MAINS, SEWERS SHALL BE HYDROSTATICALLY TESTED AT 150 PSI TO ASSURE WATER TIGHTNESS. HYDROSTATIC ACCEPTANCE TESTS SHALL BE CONDUCTED AS SPECIFIED FOR TESTING WATER MAINS, EXCEPT THAT TESTING MAY BE PERFORMED WITH THE PIPE SECTION PARTIALLY BACK-FILLED.
- 11. IF THE ALLOWABLE RATE OF AIR LEAKAGE IS EXCEEDED, THE CONTRACTOR SHALL LOCATE POINTS OF EXCESSIVE LEAKAGE AND SHALL PROMPTLY CORRECT, REPAIR, AND BRING SYSTEM UP TO THE STANDARD. COSTS OF ALL SUCH REPAIRS AND CORRECTIVE MEASURES, INCLUDING COSTS OF REPEATED TESTS, SHALL BE BORN BY CONTRACTOR, THE SEWER LINE SECTION (INCLUDING MANHOLES AND BUILDING SERVICES) UNDER TEST SHALL NOT BE ACCEPTED UNTIL THESE TEST CRITERIA ARE MET.
- 12. SANITARY MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C1244. A VACUUM OF 10 INCHES OF Hg SHOULD BE DRAWN ON THE MANHOLE AFTER ALL HOLES ARE PLUGGED, AND INLETS/OUTLETS ARE TEMPORARILY PLUGGED AND SECURED. THE TIME IS MEASURED FOR THE VACUUM TO DROP TO 9 INCHES Hg. THE MANHOLE IS ACCEPTED IF THE MEASURED TIME MEETS OR EXCEEDS THE VALVES PRESENTED IN TABLE 1 OF ASTM C1244. IF THE MANHOLE FAILS THE INITIAL TEST, IT SHALL BE REPAIRED BY AN APPROVED METHOD UNTIL A SATISFACTORY TEST IS OBTAINED. MANHOLES, WHICH CANNOT BE PROPERLY AIR TESTED, SHOULD BE VISUALLY INSPECTED AND LEAKAGE-TESTED USING INTERNAL OR EXTERNAL HYDROSTATIC PRESSURE. LEAKAGE TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

WATER MAIN DISINFECTION NOTES:

- APPROVED AND TESTED WATER MAIN SHALL BE DISINFECTED PER A.W.W.A. SECTION C651, LATEST EDITION. TABLET OR POWDERED METHOD IS NOT ALLOWED.
- 2. THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY AND THE PROJECT ENGINEER 48 HOURS PRIOR TO DISINFECTING THE SERVICE LINES.
- 3. DISINFECTED WATER MUST REMAIN IN THE WATER MAINS FOR A MINIMUM OF 24 HOURS BEFORE BEING THOROUGHLY FLUSHED OUT.

B. CHLORINE RESIDUAL SHALL BE NO LESS THAN 10 MG/L AT END OF TEST.

- 4. WATER SERVICE LINES SHALL BE DISINFECTED AS PER AWWA SECTION C651 WHERE: A. CHLORINE CONCENTRATION IN WATER LINES SHALL BE NO LESS THAN 50 MG/L AT START OF 24-HOUR TEST.
- 5. PRIOR TO RECEIVING CERTIFICATE OF OCCUPANCY, MICROBIOLOGICAL SAMPLES SHALL BE COLLECTED FROM BOTH ENDS AND THE MIDDLE OF EACH NEW LINE. ALL LINES SHALL NOT BE USED UNTIL MICROBIOLOGICAL SAMPLES ARE ACCEPTED BY THE VILLAGE. RESULTS OF ALL MICROBIOLOGICAL TESTING SHALL BE SUBMITTED TO THE VILLAGE ALONG WITH ENGINEER'S CERTIFICATE OF COMPLETION.

TESTING WATER MAINS:

- 1. AFTER TRENCH HAS BEEN BACKFILLED, HYDROSTATIC ACCEPTANCE TESTS, CONSISTING OF A PRESSURE TEST AND A LEAKAGE TEST, SHALL BE PERFORMED ON ALL SECTIONS OF WATER MAINS INSTALLED. LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH PRESSURE TEST. TEST SECTION SHALL BE LIMITED TO 1,500 FT (MAX.). TESTS SHOULD BE CONDUCTED TO FIRST VALVE IN BUILDING.
- 2. AFTER ALL TESTS AND INSPECTIONS HAVE BEEN PERFORMED EVIDENCE OF COMPLIANCE SHALL BE FORWARDED TO
- OWNER/ENGINEER AND THE VILLAGE PRIOR TO ACCEPTANCE. 3. ALL WATER FOR TESTS SHALL BE FURNISHED AND DISPOSED OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. SOURCE AND/OR QUALITY OF WATER WHICH THE CONTRACTOR PROPOSES TO USE IN TESTING LINES SHALL BE ACCEPTABLE TO THE ENGINEER.
- 4. HYDROSTATIC PRESUMPTIVE TESTS MAY BE PERFORMED WHEN SYSTEM IS PARTIALLY BACKFILLED TO SIMPLY CHECK WORK, BUT ACCEPTANCE OF SYSTEM SHALL BE BASED ON HYDROSTATIC TESTS RUN ON FINISHED SYSTEM AFTER IT HAS BEEN COMPLETELY BACKFILLED. ALL HYDROSTATIC TESTS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 4 OF AWWA STANDARD C 600 OR LATER ADDITION. AS MODIFIED HEREIN.
- 5. FOR THE PRESSURE TEST, SYSTEM SHALL BE PRESSURIZED AND MAINTAINED AT A MINIMUM OF 150 POUNDS PER SQUARE INCH, OR 1.5 TIMES THE WORKING PRESSURE, WHICHEVER IS GREATER, BASED ON THE ELEVATION OF THE LOWEST POINT IN THE SECTION BEING TESTED AND CORRECTED TO THE ELEVATION OF THE GAUGE. PROVISIONS SHALL BE MADE TO RELIEVE AIR TRAPPED AT HIGH POINTS IN THE SYSTEM THROUGH ADJACENT HYDRANTS OR THROUGH TAPS AND CORPORATION STOPS INSTALLED FOR THIS PURPOSE BY THE CONTRACTOR. AFTER SAID PRESSURE HAS BEEN MAINTAINED SUCCESSFULLY. WITH FURTHER PUMPING AS REQUIRED, FOR A PERIOD OF AT LEAST TWO HOURS, THE SECTION UNDER TEST SHALL BE CONSIDERED TO HAVE PASSED THE PRESSURE TEST.
- 6. LEAKAGE TEST SHALL BE PERFORMED CONCURRENTLY USING A MINIMUM TEST PRESSURE OF 150 LBS/SQUARE INCH, OR 1.5 TIMES THE WORKING PRESSURE, WHICHEVER IS GREATER, BASED ON THE ELEVATION OF THE LOWEST POINT IN THE SECTION UNDER TEST AND CORRECTED TO ELEVATION OF THE GAUGE. LEAKAGE TEST DURATION SHALL BE A MINIMUM OF 2 HOURS AFTER LEAKAGE RATE HAS STABILIZED.
- 7. MAXIMUM ALLOWABLE LEAKAGE SHALL BE AS SHOWN IN THE FOLLOWING TABLE:
- ALLOWABLE LEAKAGE PER 1000 FT (305M) OF PIPELINE (GPH)

G.	TEST	PRESSURE	NOMINA	L PIPE DI	AMETER-IN.			
	PSI	4	6	8	10	12	14	16
	450	0.57	0.86	1.15	1.43	1.72	2.01	2.29
	400	0.54	0.81	1.08	1.35	1.62	1.89	2.16
	350	0.51	0.76	1.01	1.26	1.52	1.77	2.02
	300	0.47	0.70	0.94	1.17	1.40	1.64	1.87
	275	0.45	0.67	0.90	1.12	1.34	1.57	1.79
	250	0.43	0.64	0.85	1.07	1.28	1.50	1.71
	225	0.41	0.61	0.81	1.01	1.22	1.42	1.62
	200	0.38	0.57	0.76	0.96	1.15	1.34	1.53
	175	0.36	0.54	0.72	0.89	1.07	1.25	1.43
	150	0.33	0.50	0.66	0.83	0.99	1.16	1.32
	125	0.30	0.45	0.60	0.76	0.91	1.06	1.21
	100	0.27	0.41	0.54	0.68	0.81	0.95	1.08

8. IF LEAKAGE IN SYSTEM EXCEEDS THE SPECIFIED AMOUNT, THE CONTRACTOR SHALL, AT NO ADDED COST TO THE OWNER, LOCATE, REPAIR, AND/OR REPLACE DEFECT(S) AND RE-TEST PIPING SYSTEM.

COMPACTION REQUIREMENTS

LOCATION	COMPACTION	TESTING FREQUENCY
PIPE TRENCH BACKFILL (IN PAVED AREAS)	95% ASTM D1557	1 SERIES OF TESTS FOR EACH 150 FT OR LESS OF TRENCH LENGTH. SERIES INCLUDE 3 COMPACTION TESTS SPREAD EVENLY ALONG TRENCH PROFILE.
PIPE TRENCH BACKFILL (IN UNPAVED AREAS)	90% ASTM D1557	1 SERIES OF TESTS FOR EACH 150 LF OR LESS OF TRENCH LENGTH. SERIES INCLUDE 3 COMPACTION TESTS SPREAD EVENLY ALONG TRENCH PROFILE.
PIPE BEDDING AND PIPE ZONE BACKFILL	95% ASTM D1557	1 TEST FOR EACH 150 FT OR LESS OF TRENCH LENGTH.
PAVEMENT SUBBASE AND LAST LIFT OF SELECT GRANULAR FILL (FILL BETWEEN SHEET PILES)	95% ASTM D1557	1 TEST FOR EVERY 2,000 SQ FT, OF LIF AREA BUT NO FEWER THAN TWO TESTS PER LIFT

WATER MAIN NOTES:

- 1. ALL WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON PIPE, CLASS 52 PUSH-ON JOINT, UNLESS OTHERWISE SPECIFIED BY OR APPROVED BY THE VILLAGE WATER DEPARTMENT. JOINING SHALL EMPLOY MECHANICAL JOINT RESTRAINT CONNECTIONS SUCH AS CLOW F-1058, MEGALUG, STAR PIPE SERIES 600 "MEGALUG" CONNECTIONS, FIELD LOK GASKET, OR AS ALTERNATIVELY SPECIFIED BY THE VILLAGE WATER DEPARTMENT. ALL WATER PIPING CONSTRUCTION SHALL BE TO THE SPECIFICATIONS OF THE VILLAGE WATER DEPARTMENT. WET TAP OF PUBLIC WATER SYSTEM SHALL BE APPROVED AND SUPERVISED BY THE VILLAGE WATER DEPARTMENT. TAPPING SLEEVE SHALL BE STAINLESS STEEL OR APPROVED EQUAL. ALL MAINLINE VALVES SHALL BE RESILIENT WEDGE OR APPROVED EQUAL.
- 2. THE WATER LINE MAY BE FLEXED WITHIN PIPE SPECIFICATIONS OR LAID DEEPER IN AREAS WHERE A CROSSING WITH A SANITARY LINE OCCURS, TO ACHIEVE THE REQUIRED 1.5' VERTICAL SEPARATION DISTANCE. IF THIS DISTANCE CANNOT BE REASONABLY ACHIEVED, THE CONTRACTOR SHALL USE PRESSURE RATED SANITARY SEWER PIPE OF EQUAL OR GREATER RATEING THAT THE PRESSURE CLASS FOR THE WATER LINE.
- 3. MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER PIPE SHALL BE 18 INCHES MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. ONE FULL STANDARD LAYING LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER LINE AS POSSIBLE. IN ADDITION, WHEN THE WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECT FILL) SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING OF THE SEWER PIPE ON THE WATER MAIN. MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL WATER MAINS AND SEWER PIPES (INCLUDING MANHOLES AND VAULTS) SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES, MANHOLES OR VAULTS.
- 4. ALL WATER MAINS SHALL HAVE A MINIMUM OF (5) FIVE FEET OF COVER FROM THE TOP OF THE MAIN TO FINISHED GRADE. THE CONTRACTOR SHALL CHECK ALL FINISHED GRADE STAKES BEFORE TRENCHING TO ENSURE THAT ALL INSTALLED WATERMAINS WILL HAVE THE REQUIRED COVER.
- 5. THE SUPPLIER OF WATER MUST RECEIVE AT LEAST 48-HOUR ADVANCE NOTIFICATION REQUESTING SAMPLING SERVICES. SAMPLING WILL NOT BE PERFORMED PRIOR TO RECEIPT FROM A NEW YORK STATE LICENSED OR REGISTERED DESIGN PROFESSIONAL (ENGINEER, ARCHITECT, OR LAND SURVEYOR WITH A SPECIAL EXEMPTION UNDER SECTION 7208(N) OF THE EDUCATION LAW) CERTIFYING THAT THE WATER SUPPLY IMPROVEMENTS, TESTING AND DISINFECTION PROCEDURES WERE COMPLETED IN ACCORDANCE WITH THE APPROVAL PLANS. REPORTS, SPECIFICATIONS AND ANY APPROVED AMENDMENTS. A NYSDOH CERTIFIED LABORATORY WILL COLLECT SAMPLES FOR FREE CHLORINE RESIDUAL, TOTAL AND FECAL COLIFORM AND 24-HOUR BACTERIAL PLATE COUNT. THE CERTIFICATE OF COMPLIANCE SHALL BE PROVIDED TO THE WATER MAINTENANCE SUPERVISOR AS A CONDITION OF APPROVAL FOR OPERATION.
- 6. THE CONTRACTOR SHALL COORDINATE THE TESTING WITH THE WATER DEPARTMENT SO AS TO MAINTAIN THE AMOUNT OF SERVICE INTERRUPTION TO EXISTING USERS TO THE LEAST EXTENT PRACTICABLE. WATER MAIN INSTALLATION AND TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER OR HIS DESIGNEE AS NECESSARY TO MEET CONDITIONS IN NOTE 5 ABOVE.
- 7. THE WATER MAIN SHALL BE DISINFECTED EQUAL TO AWWA STANDARD FOR DISINFECTING WATER MAINS DESIGNATION C651 (LATEST REVISION). FOLLOWING DISINFECTION, THE WATER MAIN SHALL BE FLUSHED UNTIL THE CHLORINE CONCENTRATION IN THE WATER LEAVING THE MAIN IS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. THE PROJECT ENGINEER OR HIS DESIGNEE SHALL ALSO WITNESS DISINFECTION
- 8. ALL WATER MAIN FITTINGS NOT RECEIVING 24-HOUR CHLORINE DISINFECTION TIME MUST BE SWAB-DISINFECTED 30 MINUTES PRIOR TO INSTALLATION.
- 9. THE SAMPLING POINT(S) MUST BE DECONTAMINATED BY FLAMING.
- 10. FIRE HYDRANTS ARE NOT ACCEPTABLE SAMPLING POINTS.
- 11. FIRE HYDRANTS WEEP HOLES (DRAINS) SHALL BE PLUGGED WHEN GROUND WATER IS ENCOUNTERED WITHIN SEVEN FEET OF THE FINISHED GRADE. WHEN DRAINS ARE PLUGGED. THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. SUCH HYDRANTS SHALL BE IDENTIFIED BY MARKINGS APPROVED BY THE VILLAGE WATER DEPARTMENT.
- 12. PROPOSED WATER METERS LOCATED WITHIN THE METER PIT OR BUILDING SHALL BE A COMPATIBLE REMOTE STYLE TYPE (SENSUS OR APPROVED EQUAL), AND SHALL BE APPROVED BY THE VILLAGE WATER DEPARTMENT PRIOR TO INSTALLATION. WATER METERS SHALL BE EQUIPPED WITH (RADIO TYPE) TRANSCEIVER PROVIDED BY THE VILLAGE WATER DEPARTMENT.
- 13. THE WATER LINE SHALL BE INSTALLED AT A CONTINUOUS GRADE WITH NO ABRUPT HIGH POINTS OR LOW
- 14. FINAL WATER DISTRIBUTION SYSTEM IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE VILLAGE WATER DEPARTMENT.

PROPOSED BUILDING CONNECTION POINT (I.E. INSIDE THE BUILDING). THIS INCLUDES THE TESTING AND

CERTIFICATION OF ALL WATER SERVICE WORK FROM THE VILLAGE WATER CONNECTION POINT TO THE

- 15. ALL WATER MAINS AND RELATED APPURTENANCES SHALL BE CONSTRUCTED TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE VILLAGE. 16. THE WATER MAIN SHALL NOT BE PLACED INTO SERVICE UNTIL SO AUTHORIZED BY THE VILLAGE.
- 17. ALL WATER SERVICE CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE VILLAGE WATER DEPARTMENT PRIOR TO BACKFILLING. 18. THE SITE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BURIED PIPING TO THE LOCATION OF THE
- PROPOSED BUILDINGS INTERIOR CONNECTION POINT. 19. ALL WATER SERVICE PIPING INSTALLATION, BACKFILL AND TESTING SHALL BE REVIEWED, AND APPROVED
- BY THE VILLAGE WATER MAINTENANCE SUPERVISOR OR HIS DESIGNEE. 20. PIPE BEND FITTINGS SHOWN ON THE DRAWINGS ARE INDICATIVE OF PROBABLE DIRECTIONAL CHANGES IN THE PROPOSED WATER MAIN ALIGNMENT. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL FITTINGS, EITHER SHOWN OR FIELD REQUIRED, AS PART OF THE CONTRACTOR'S CONTRACT AT NO ADDITIONAL COST TO THE
- 21. THE CONTRACTOR SHALL PROVIDE AND INSTALL BRASS WEDGES ACROSS ALL PIPE JOINTS TO ENSURE ELECTRICAL CONDUCTIVITY. THE LOCATION AND THE NUMBER OF WEDGES TO BE PROVIDED SHALL BE
- ACCORDING TO THE PIPE MANUFACTURER'S RECOMMENDATIONS AND THE SPECIFICATIONS. 22. SHEETING AND EXCAVATION BRACING FOR THE WATERMAIN INSTALLATION SHALL BE PROVIDED IN ACCORDANCE WITH OSHA REQUIREMENTS TO SUIT EXISTING SOIL CONDITIONS. SHEETING, IF REQUIRED, SHALL BE TIGHT WOOD SHEETING AND SHALL BE LEFT IN PLACE, AND AFTER BACKFILLING SHALL BE CUT AT GROUND LEVEL OR AS ORDERED BY THE OWNER'S REPRESENTATIVE.

DUTCHESS COUNTY STANDARD NOTES FOR SEWER/WATER SYSTEMS:

- THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY
- ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE: "NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS", NYSDEC
- "RECOMMENDED STANDARDS FOR WATER WORKS, (TEN STATES)." • "NEW YORK STATE DEPARTMENT OF HEATH AND DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES
- DIVISION POLICIES, PROCEDURES AND STANDARDS." • "DUTCHESS COUNTY AND NEW YORK STATE SANITARY CODES."

"RECOMMENDED STANDARDS FOR SEWAGE TREATMENT WORKS, (TEN STATES)."

- "DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION CERTIFICATE OF APPROVAL LETTER." THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND WATER SUPPLY FACILITIES.
- COMPLETE TO THE DC EHSD BY THE NEW YORK STATE LICENSED PROFESSIONAL ENGINEER SUPERVISING CONSTRUCTION. NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE DC EHSD. APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED

UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED

- SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION. NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE SEWAGE COLLECTION SYSTEM.
- ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY &
- THE DC EHSD SHALL BE NOTIFIED SIXTY DAYS PRIOR TO ANY CHANGE IN USE; USE CHANGES MAY REQUIRE RE-APPROVAL BY THE DC EHSD. NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WATER SYSTEM SHALL NOT BE PLACED INTO SERVICE, UNTIL A

QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

19 OF THE DUTCHESS COUNTY SANITARY CODE

SANITARY CODE (10NYCRR5) NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WASTEWATER COLLECTION SYSTEM SHALL NOT BE PLACED INTO SERVICE UNTIL, A "CERTIFICATE OF CONSTRUCTION COMPLIANCE" IS ISSUED UNDER SECTION 19.7 OF ARTICLE

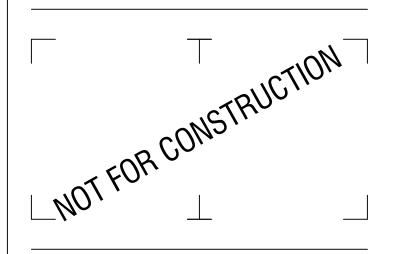
"COMPLETED WORKS APPROVAL" IS USED UNDER SECTION 5-1.22(D) OF PART 5 OF THE NEW YORK STATE

ALL SERVICE LINES ARE THE RESPONSIBILITY OF THE OWNER UP TO THE PROPERTY LINE. THE WATER AND SEWER COMPANIES SHALL BE RESPONSIBLE FOR ALL VALVES AND PIPES WHICH ARE NOT ON THE OWNER'S PROPERTY. THE UNDERSIGNED OWNERS OF THE PROPERTY HEREON STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS STATES HEREON.



21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC. 395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC

Dutchess Ave and Garden Street Village o Wappingers, NY

3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:

2230010 DRAWN BY: REVIEWED BY CPL

DRAWING NAME:

PLANNING BOARD APPROVAL

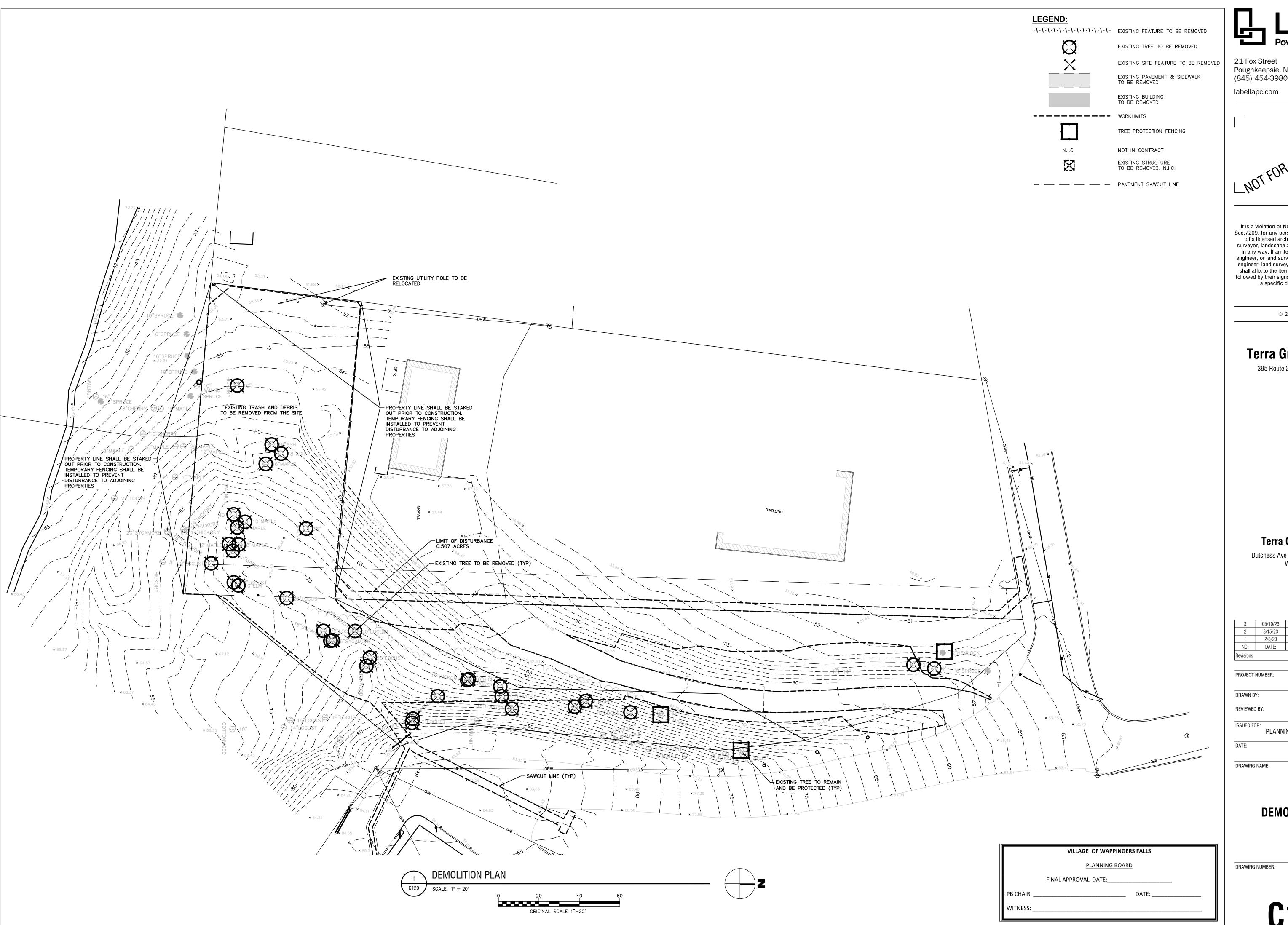
NOTES & LEGENDS

DRAWING NUMBER:

PROJECT NUMBER:

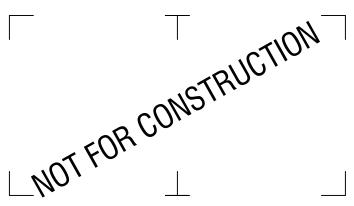
ISSUED FOR:

DATE:





21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980 labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

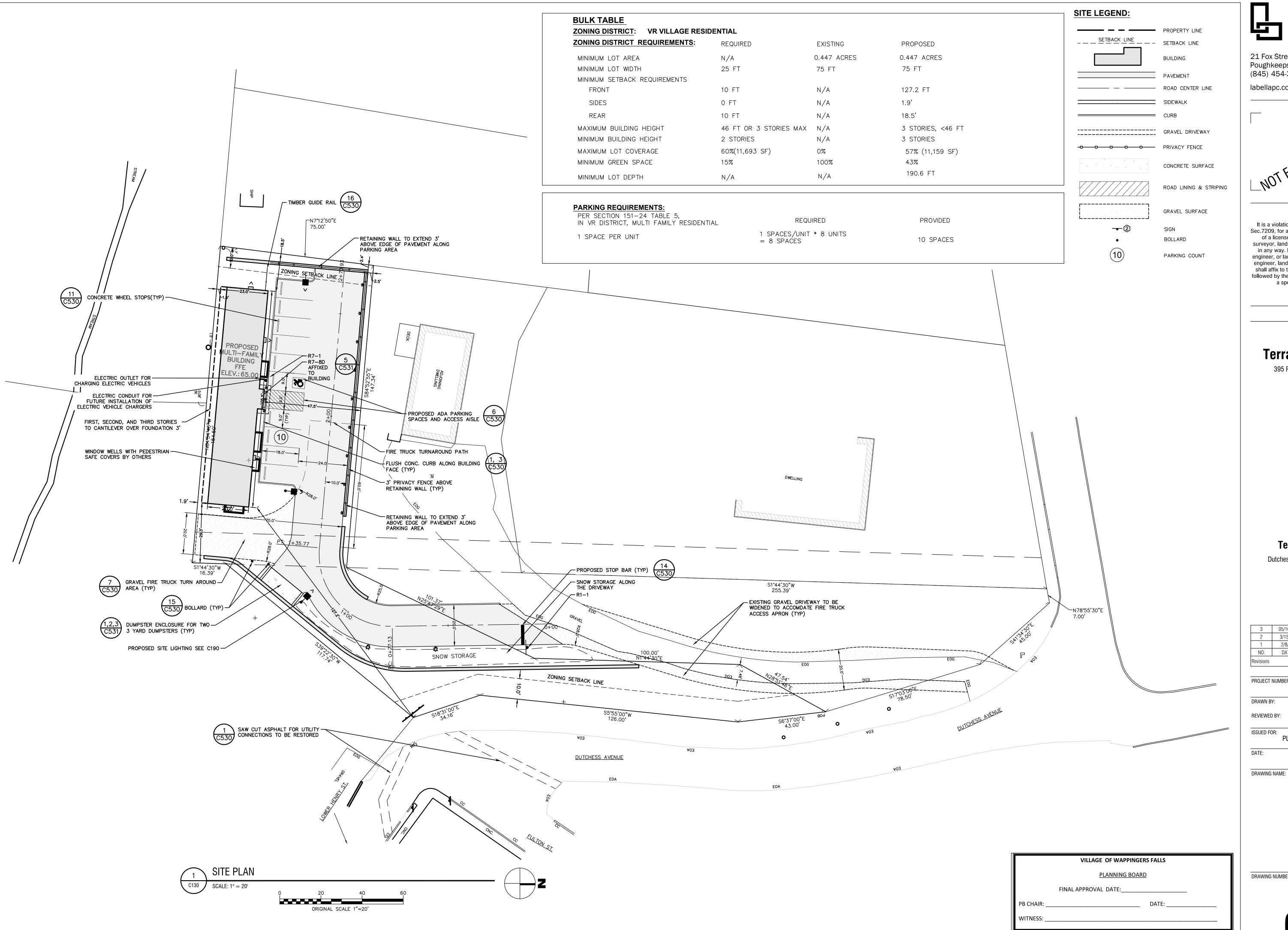
Dutchess Ave and Garden Street Village of Wappingers, NY

VILLAGE COMMENTS

2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:
Revisions		
PROJECT I	NUMBER:	2230010
DRAWN BY	Υ :	TK
REVIEWED	BY:	CPL
ISSUED FO		NG BOARD APPROVAL

DRAWING NAME:

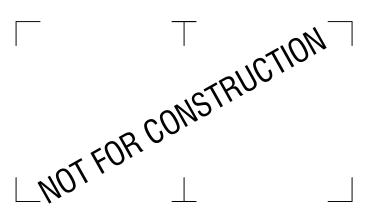
DEMOLITION PLAN





21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

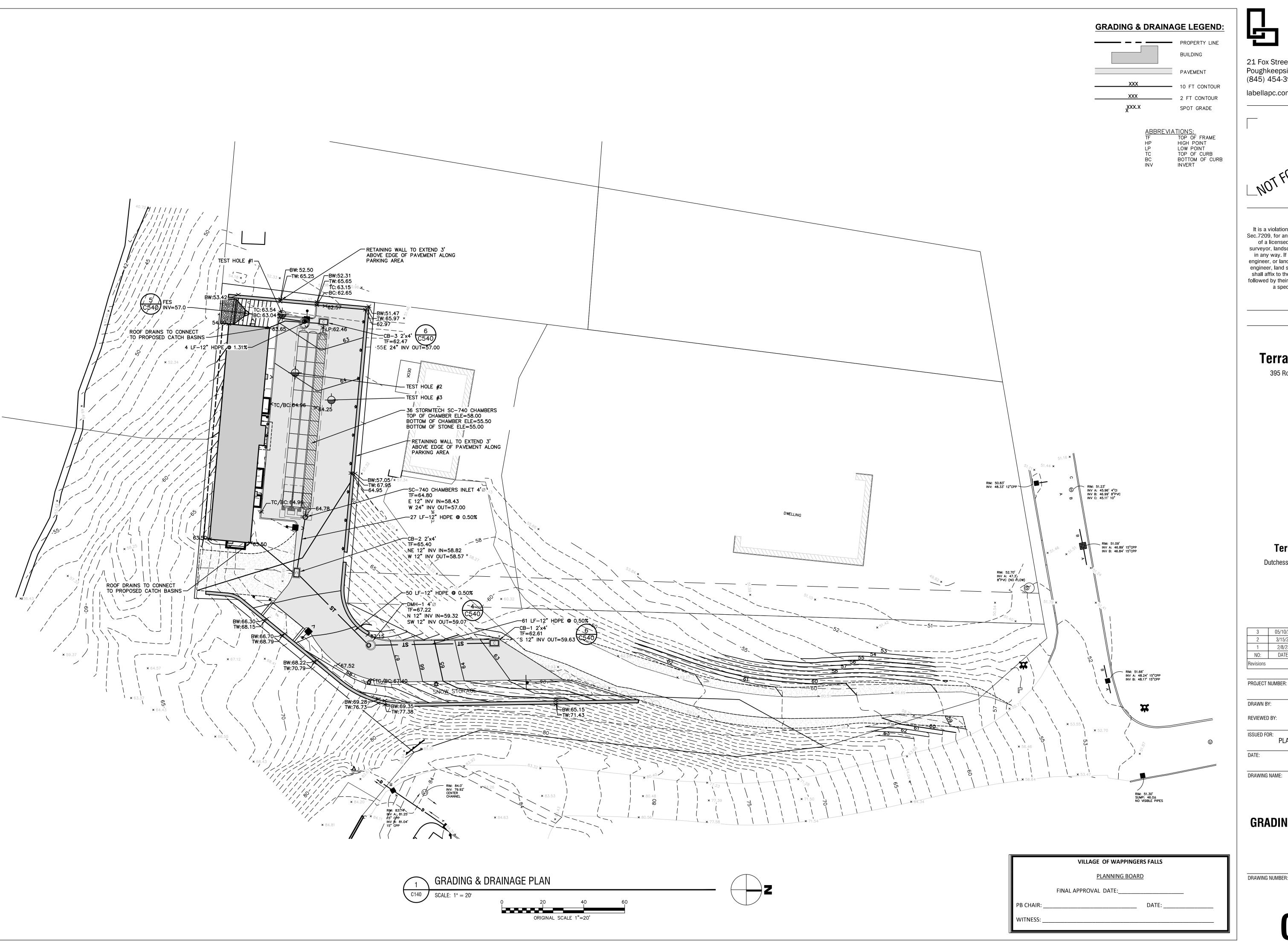
3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230010 DRAWN BY: REVIEWED BY:

PLANNING BOARD APPROVAL

12/7/22

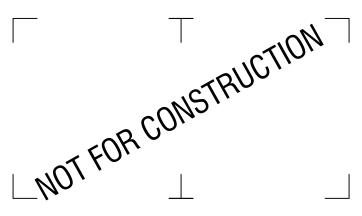
SITE PLAN





21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:
Revisions		
	NILIMDED.	

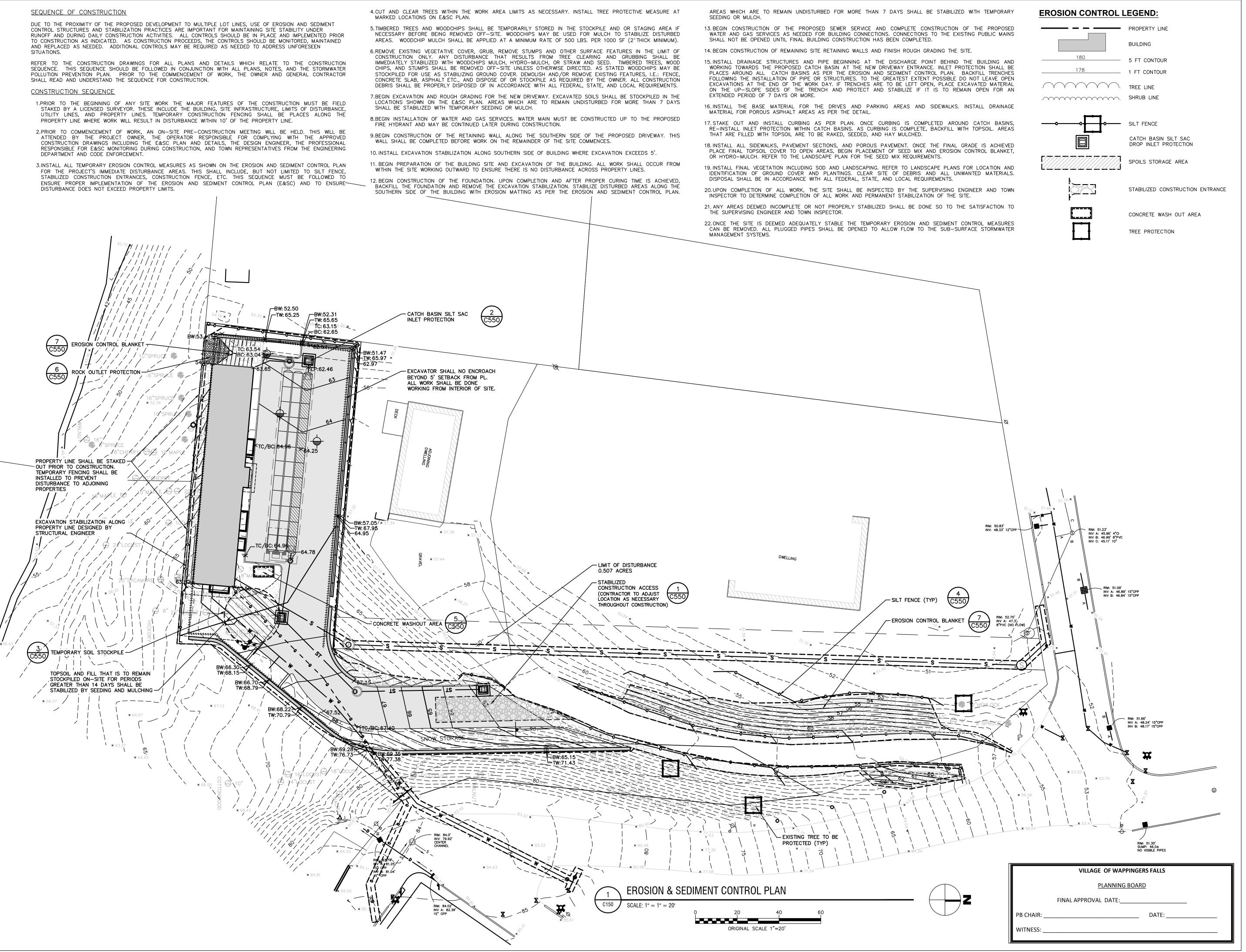
2230010 DRAWN BY: REVIEWED BY:

ISSUED FOR: PLANNING BOARD APPROVAL

12/7/22

DRAWING NAME:

GRADING & DRAINAGE PLAN



LaBella
Powered by partnership

21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com

NOT FOR CONSTRUCTION

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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.Dutchess Ave and Garden Street Village of

Wappingers, NY

 3
 05/10/23
 VILLAGE COMMENTS

 2
 3/15/23
 Village Comments

 1
 2/8/23
 Village Comments

 NO:
 DATE:
 DESCRIPTION:

PROJECT NUMBER:

2230010

DRAWN BY: TK

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD APPROVAL

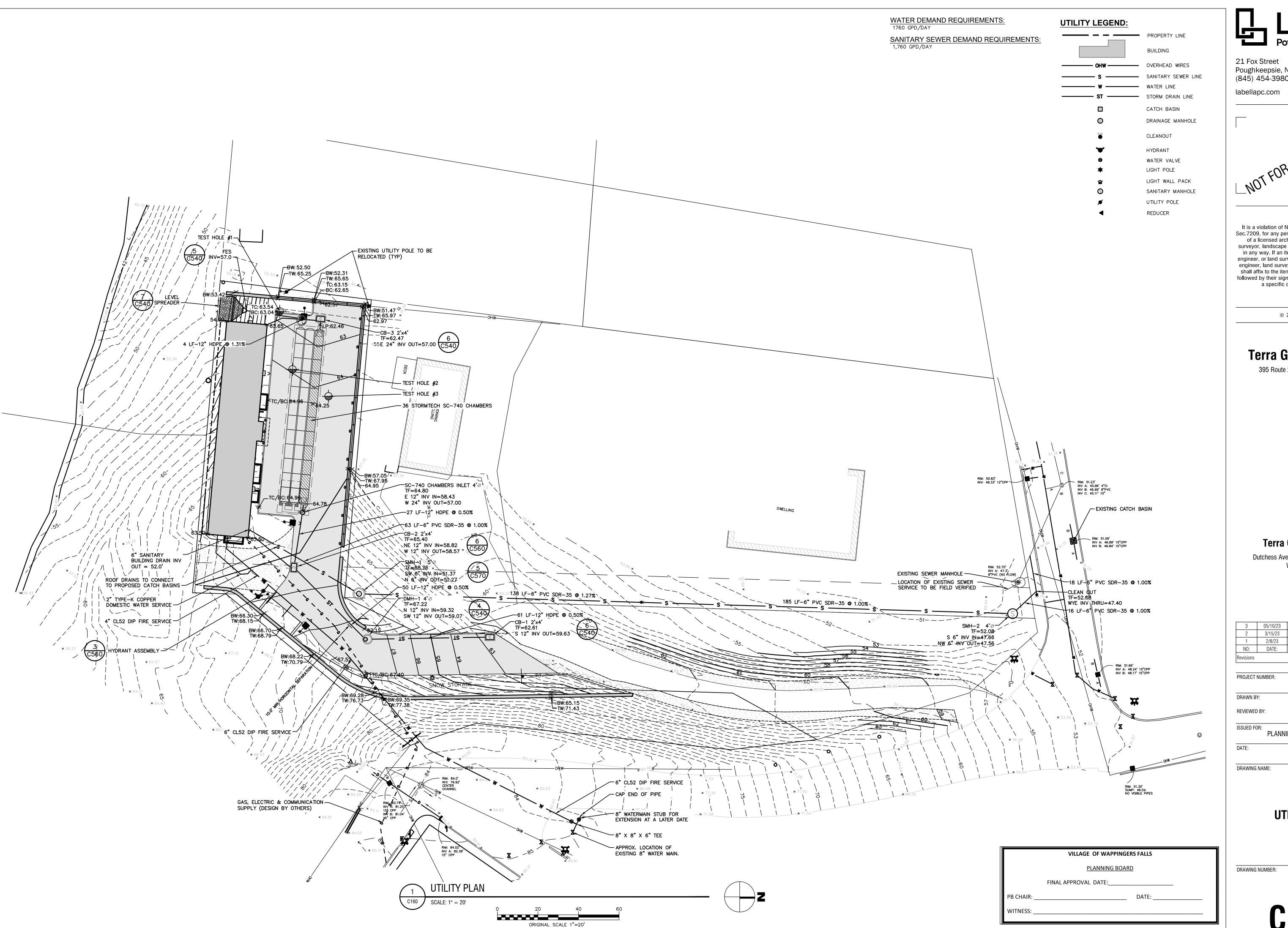
12/7/22

DRAWING NAME:

EROSION & SEDIMENT CONTROL PLAN

DRAWING NUMBER:

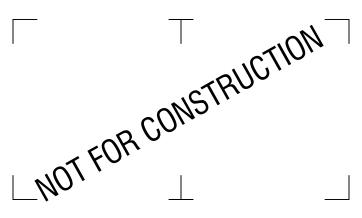
C150





21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

VILLAGE COMMENTS

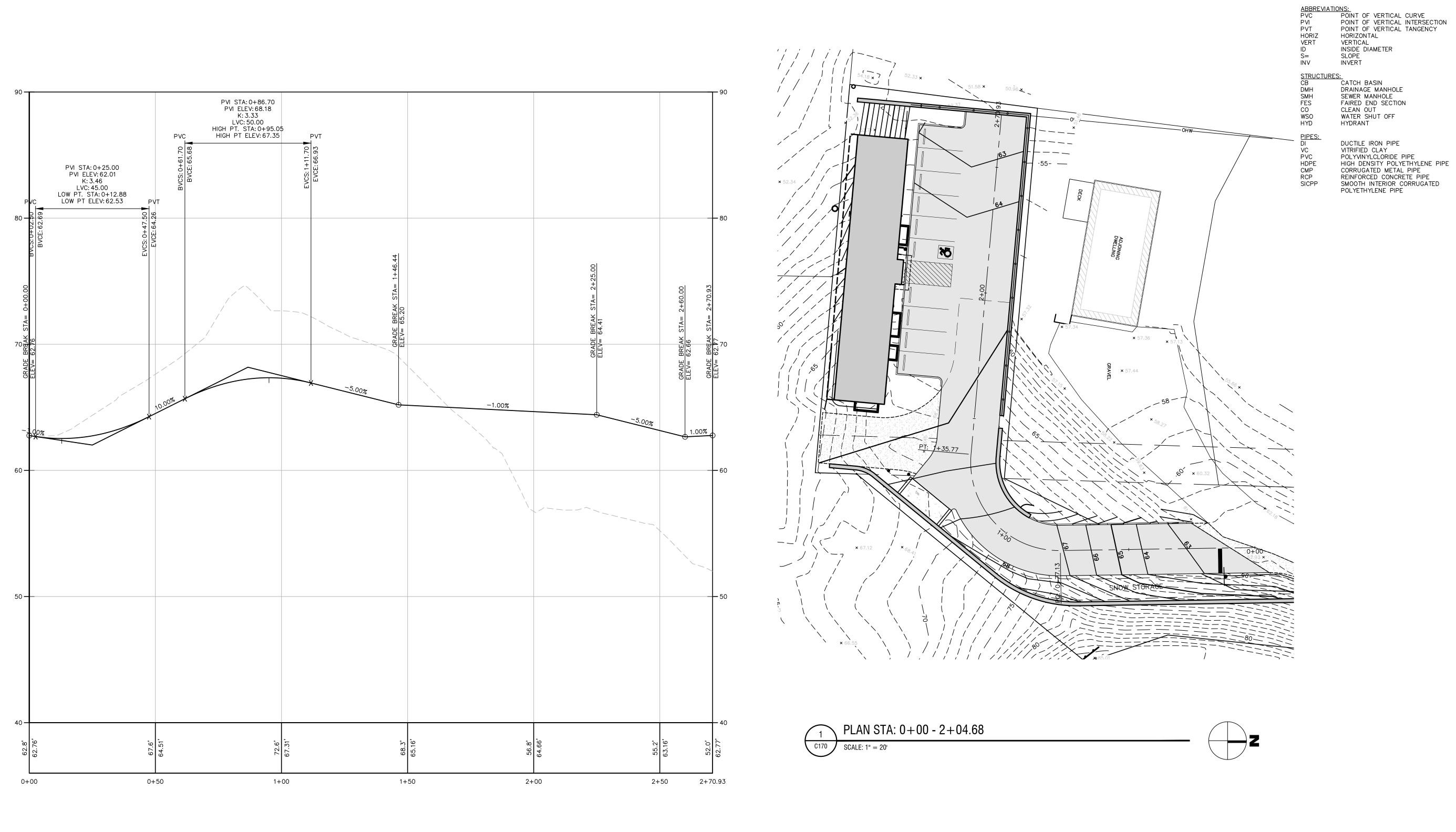
2	3/15/23	Village Comments	
1	2/8/23	Village Comments	
NO:	DATE:	DESCRIPTION:	
Revisions			
PROJECT	NUMBER:	0000010	
		2230010	
DRAWN B	Y:	TK	
DE: #514/50	. 51/	0.01	
REVIEWED) BY:	CPL	

PLANNING BOARD APPROVAL

12/7/22

DRAWING NAME:

UTILITY PLAN



DRIVEWAY PROFILE STA: 0+00 - 2+70.66

HORIZONTAL SCALE: 1" = 2'
VERTICAL SCALE: 1" = 20'

NOTE: 1. STATIONING SHOWN ON PROFILE IS CENTERLINE OF ROADWAY STATIONING.

NOTE:

UTILITIES ARE NOT SHOWN ON THE PROFILE VIEW OF THIS ROADWAY AT THIS TIME. THEY WILL BE ADDED AND SUBMITTED TO THE BUILDING DEPARTMENT IN CONJUNCTION WITH THE BUILDING PERMIT APPLICATION.

	VILLAGE OF WAPPINGERS FALLS
	PLANNING BOARD
	FINAL APPROVAL DATE:
PB CHAIR:	DATE:
WITNESS:	
WITNESS:	

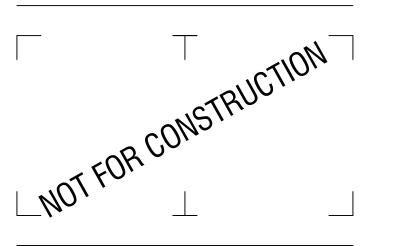
LaBella Powered by partnership

21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com

PROFILE LEGEND:

---- EXISTING GRADE



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

2	05/10/23 3/15/23	VILLAGE COMMENTS Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:

PROJECT NUMBER:

2230010

DRAWN BY: TK

REVIEWED BY: CPL

PLANNING BOARD APPROVAL

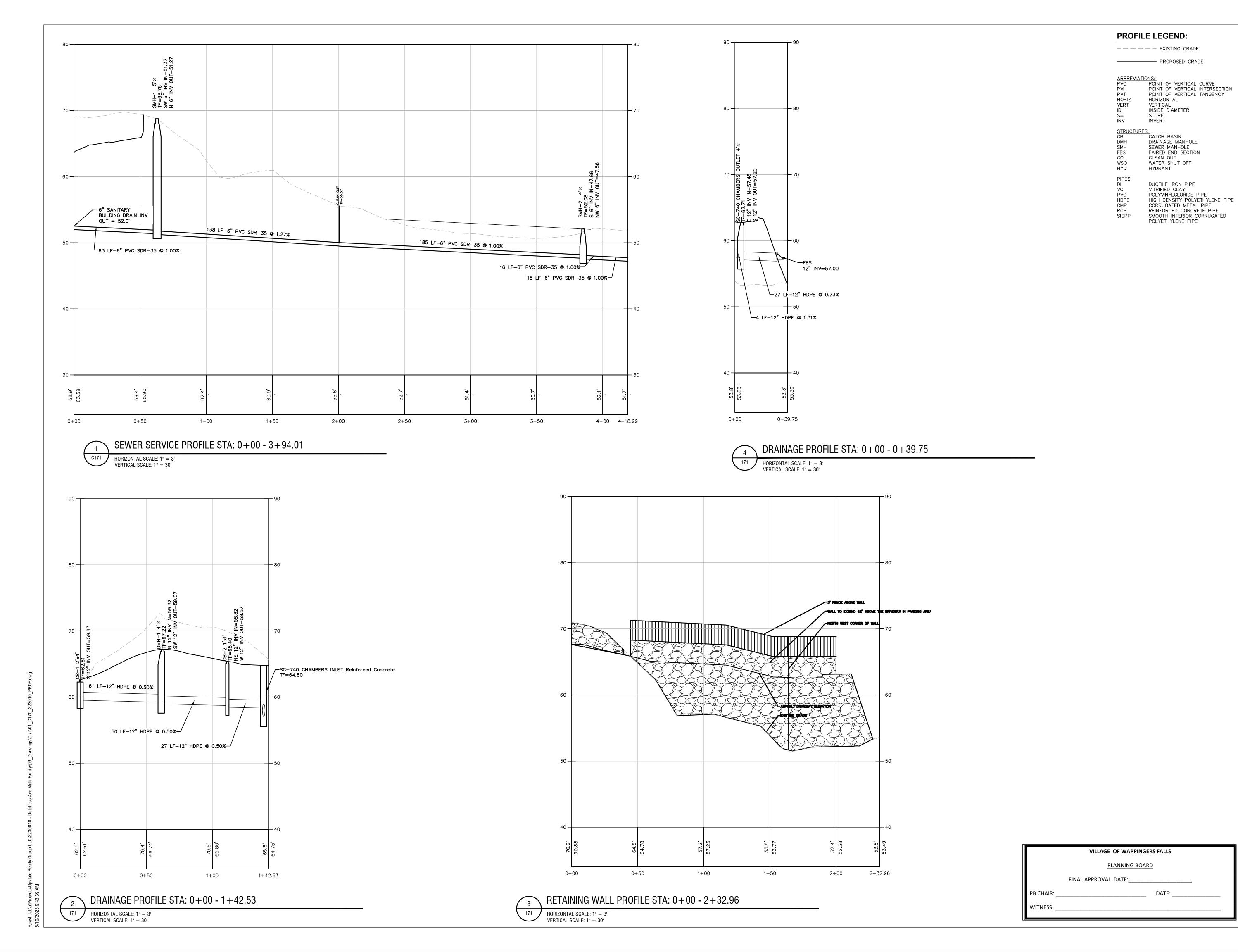
DATE:

DRAWING NAME:

PLAN & PROFILE

DRAWING NUMBER:

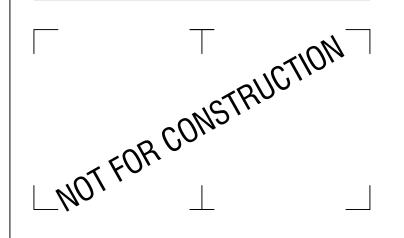
C170



LaBella
Powered by partnership

21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:

PROJECT NUMBER:

2230010

DRAWN BY: TK

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD APPROVAL

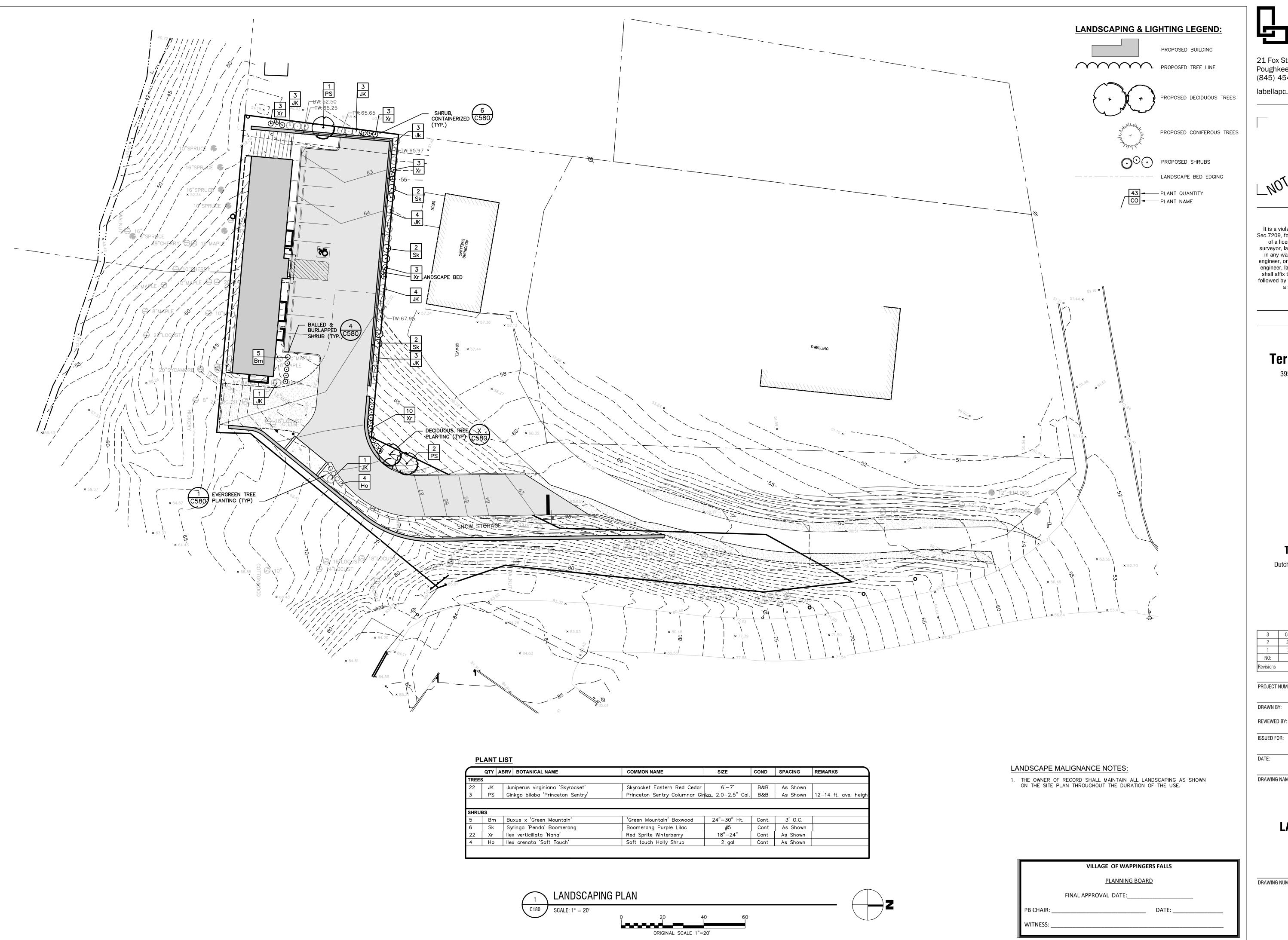
DATE: 12/7/22

DRAWING NAME:

PROFILES

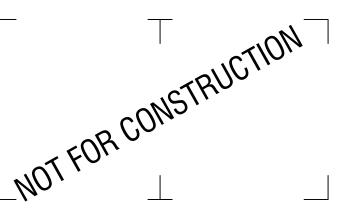
DRAWING NUMBER:

C171



21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:

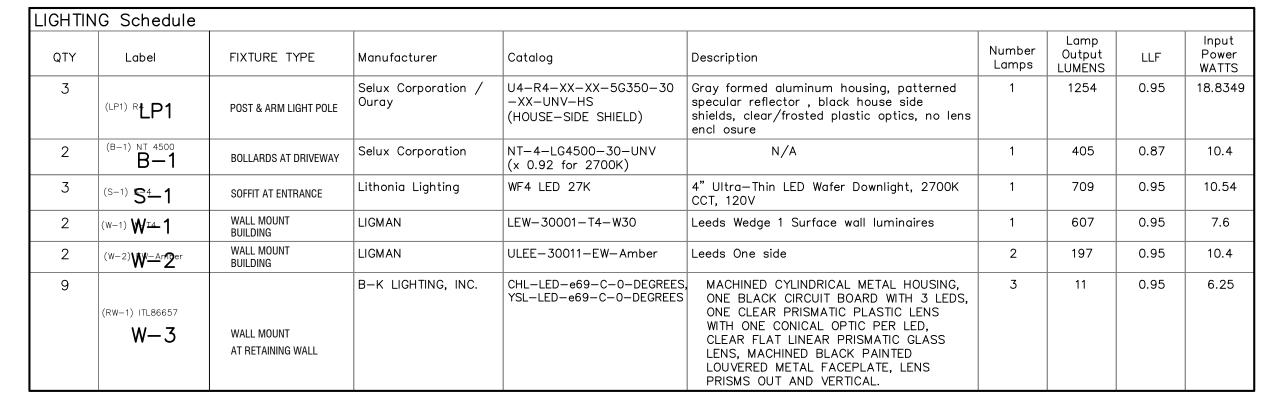
PROJECT NUMBER: 2230010 DRAWN BY:

ISSUED FOR:

PLANNING BOARD APPROVAL

DRAWING NAME:

LANDSCAPING PLAN

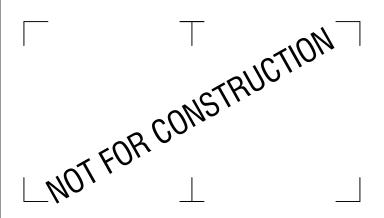


PHOTOMETRIC LEGEND:

LaBella Powered by partnership.

21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

Village Comments
\/!!!
Village Comments
DESCRIPTION:

PROJECT NUMBER:

2230010

DRAWN BY: TK

REVIEWED BY: CPL

ISSUED FOR:

PLANNING BOARD APPROVAL

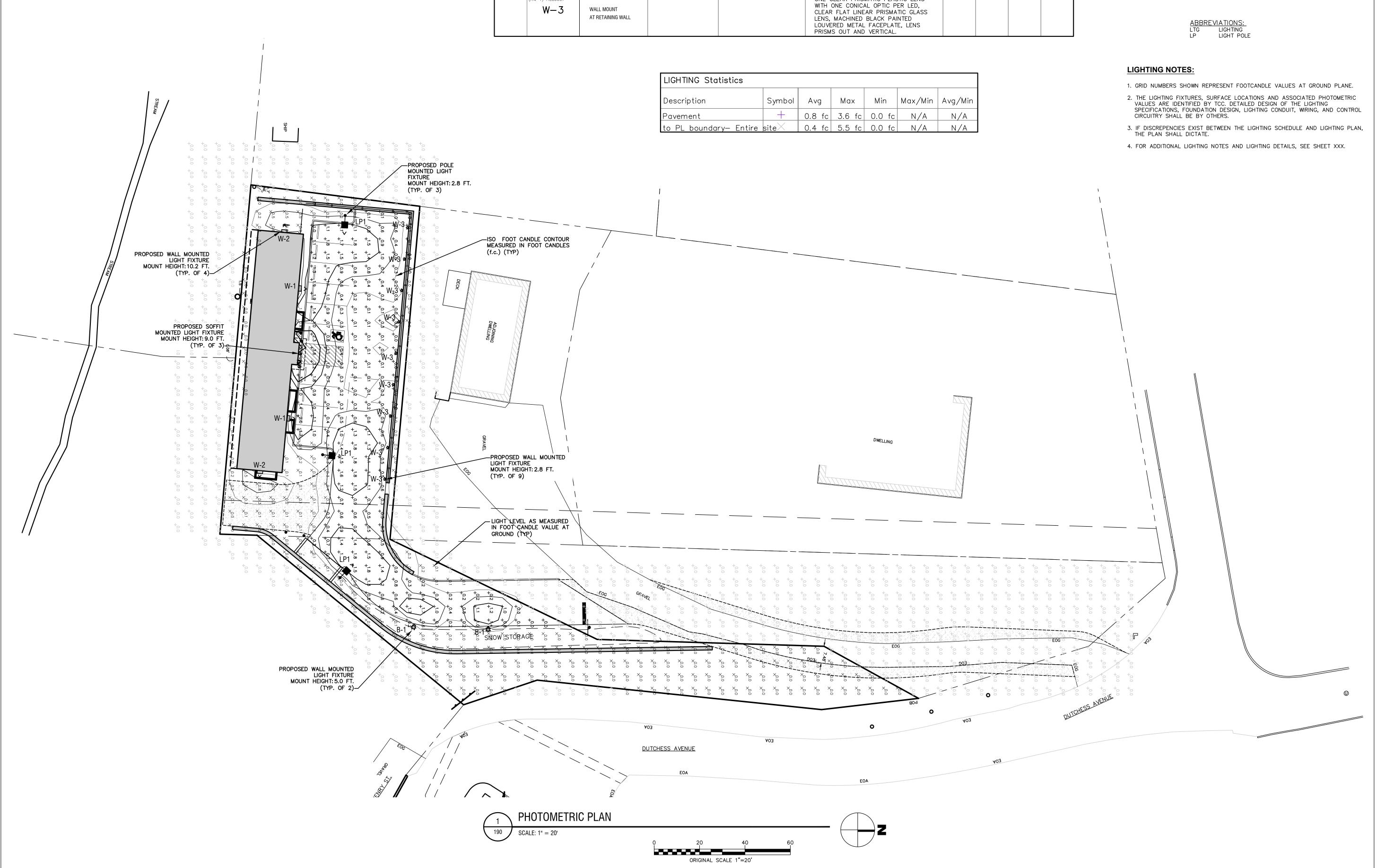
DRAWING NAME:

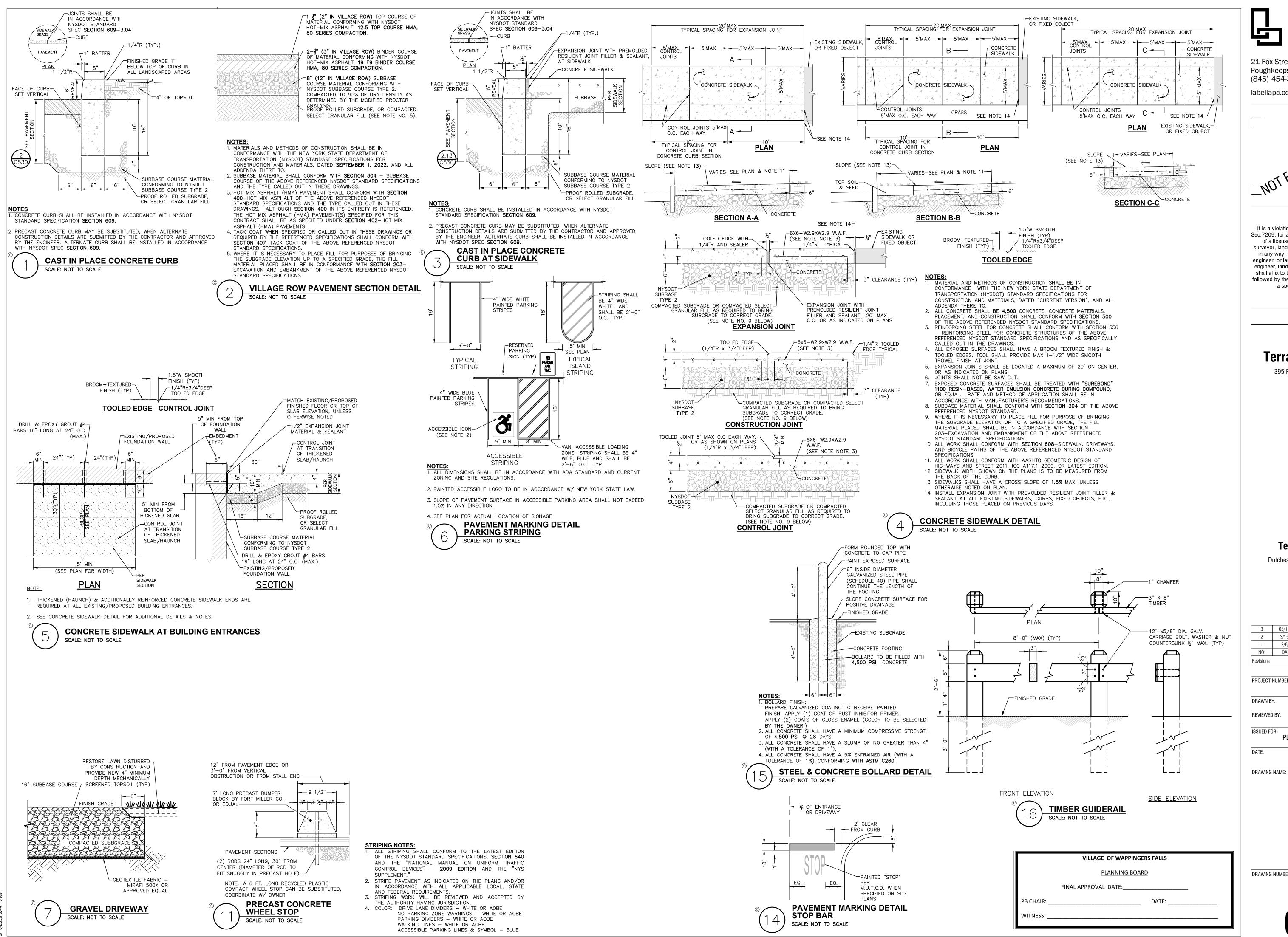
PHOTOMETRIC LIGHTING

PLAN

DRAWING NUMBER:

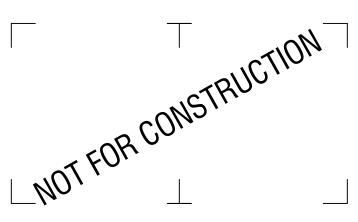
C190





21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

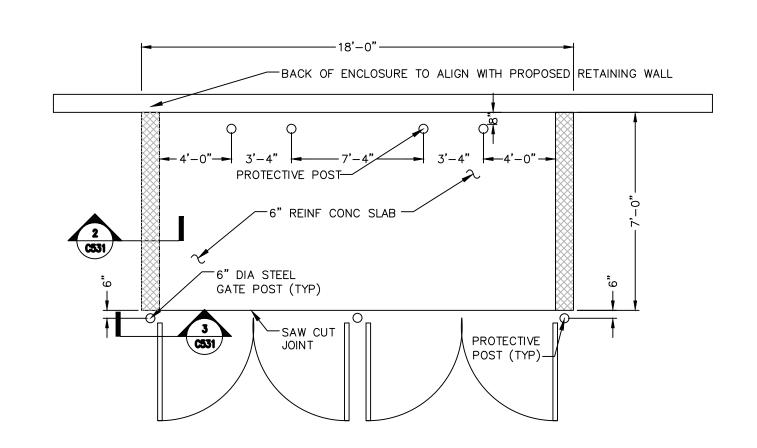
395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

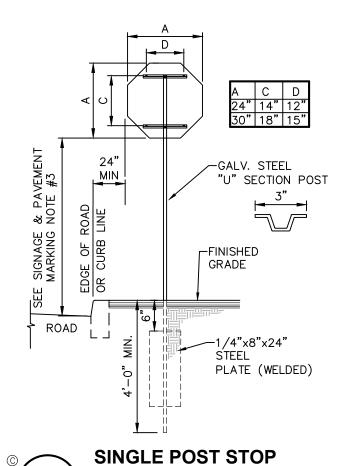
Dutchess Ave and Garden Street Village of Wappingers, NY

3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:
Revisions		
DDO IFOT	NUMBED.	
PROJECT	NUMBER:	2230010
		2230010
DRAWN B	Y:	TK
REVIEWED	D BY:	CPL
ISSUED FO		
	PLANNI	ING BOARD APPROVAL
DATE:		12/7/22
		14/1/44

SITE DETAILS

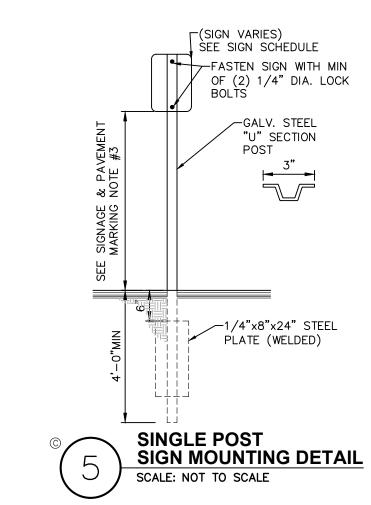


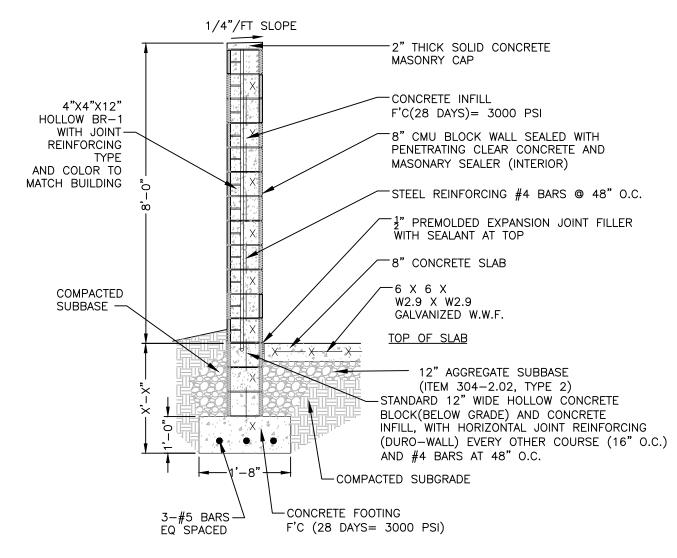
NOTE: SEE SITE PLAN FOR CONTINUATION OF CURBS AND FOR ADDITIONAL INFORMATION. **DUMPSTER PAD & ENCLOSURE DETAIL** SCALE: NOT TO SCALE



SIGN MOUNTING DETAIL

SCALE: NOT TO SCALE



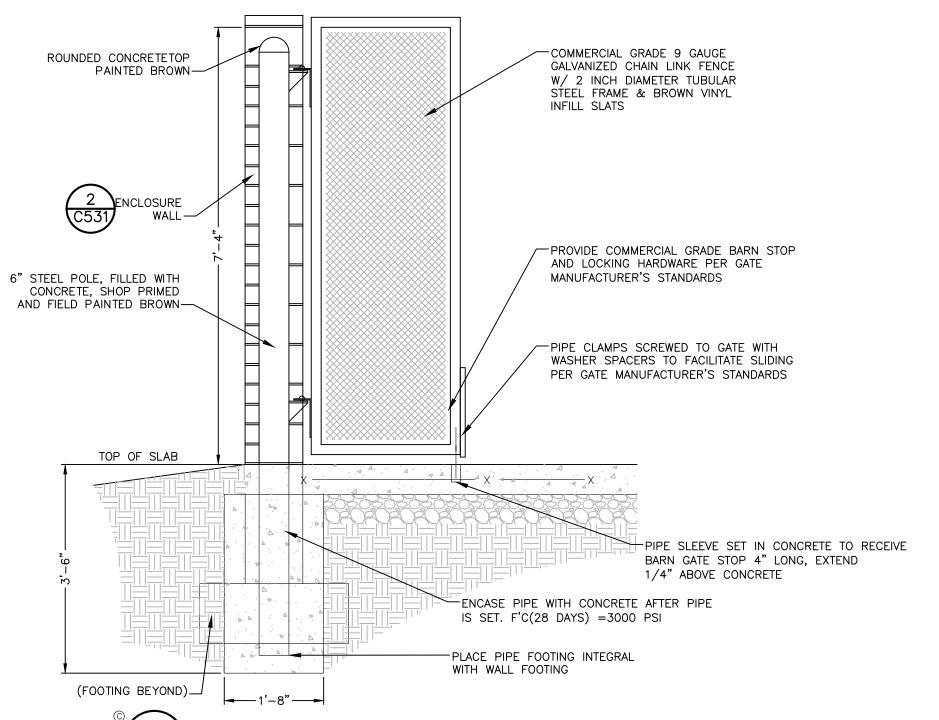


1. ITEM NUMBERS, REFER TO NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. 2. ALL CONCRETE FOR DUMPSTER PADS SHALL BE 4000 PSI @ 28 DAYS WITH BROOM FINISH



SIGN	SIGN	MUTCD	MIN	COLO)RS	MOUNTING
NO.	FACE	NUMBER	SIZE	BCK GRND	LEGEND	MOONTING
1	STOP	R1-1	30"x30"	RED	WHITE	4 C531
2	RESERVED PARKING	R7-8D	12"x18"	WHITE/ BLUE	GREEN/ WHITE	5 C531
3	NO PARKING ANY TIME	R7-1	12"×18"	WHITE	RED	5 C531

MUTCD SIGN SCHEDULE SCALE: NOT TO SCALE



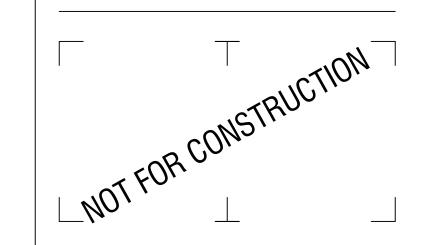
DUMPSTER PAD & ENCLOSURE DETAIL SCALE: NOT TO SCALE

- ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE NYSDOT STANDARD SPECIFICATIONS, SECTION 645 AND THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" - 2009 EDITION AND THE "NYS SUPPLEMENT."
- 2. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 7'. MINIMUM MOUNTING HEIGHT MAY BE ADJUSTED ONLY IN ACCORDANCE WITH PROVISIONS OUTLINED IN THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" - 2009 EDITION AND THE "NYS SUPPLEMENT." 3. SIGN POST SHALL BE IN ACCORDANCE W/ NYSDOT

STANDARD SPECS SECTION 730.

21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

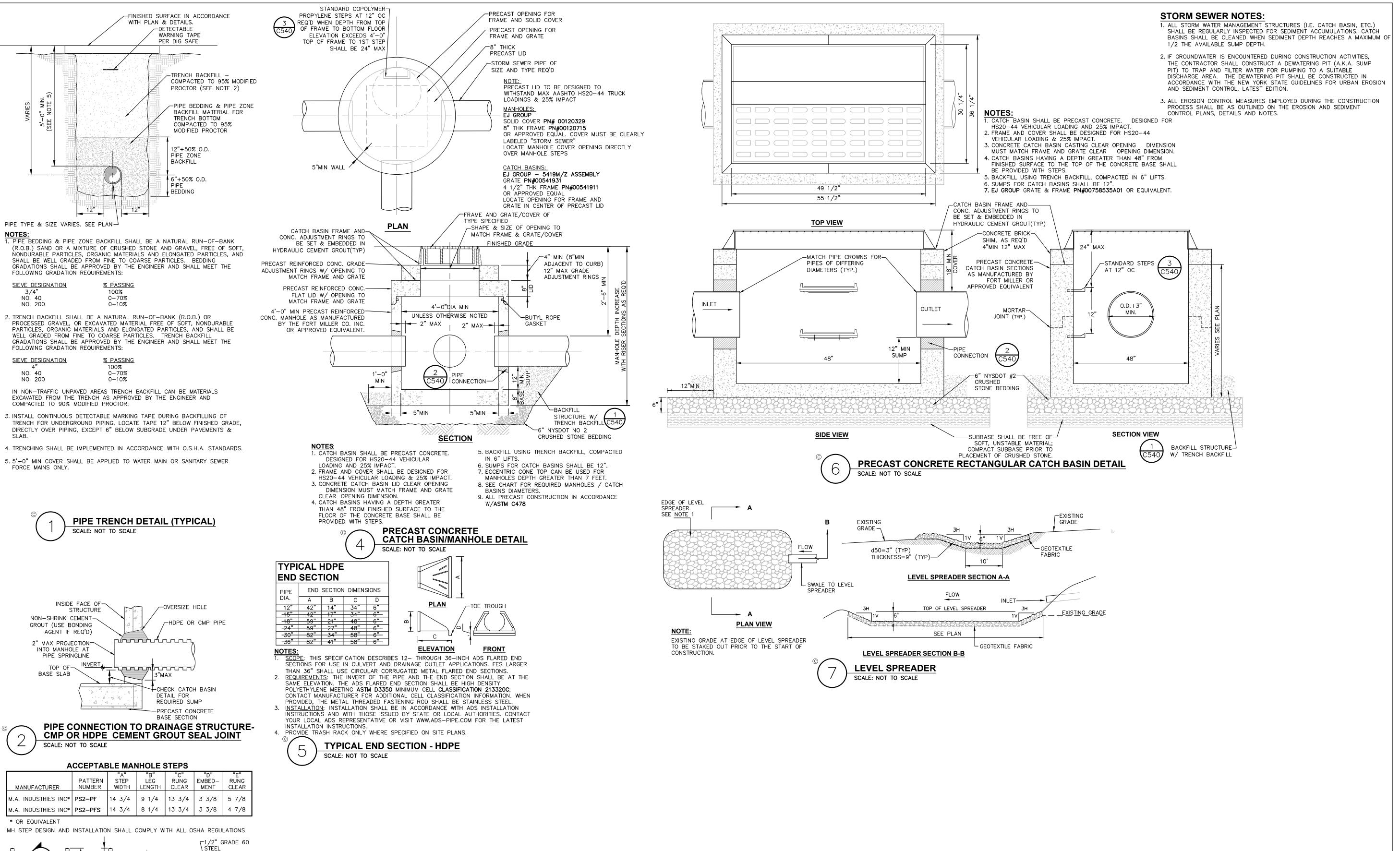
3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230010 DRAWN BY: REVIEWED BY: ISSUED FOR: PLANNING BOARD APPROVAL DATE:

SITE DETAILS 2

DRAWING NAME:

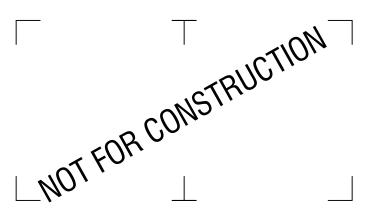
	VILLAGE OF WAPPINGERS FALLS
	PLANNING BOARD
	FINAL APPROVAL DATE:
PB CHAIR:	DATE:
WITNESS:	



VILLAGE OF WAPPINGERS FALLS PLANNING BOARD FINAL APPROVAL DATE:

21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:
evisions	1	

PROJECT NUMBER: 2230010 DRAWN BY: REVIEWED BY CPL ISSUED FOR: PLANNING BOARD APPROVAL

DATE: 12/7/22

DRAWING NAME:

STORM SEWER DETAILS

DRAWING NUMBER:

REINFORCEMENT

SECTION

NOTE: CAST IN PLACE

SCALE: NOT TO SCALE

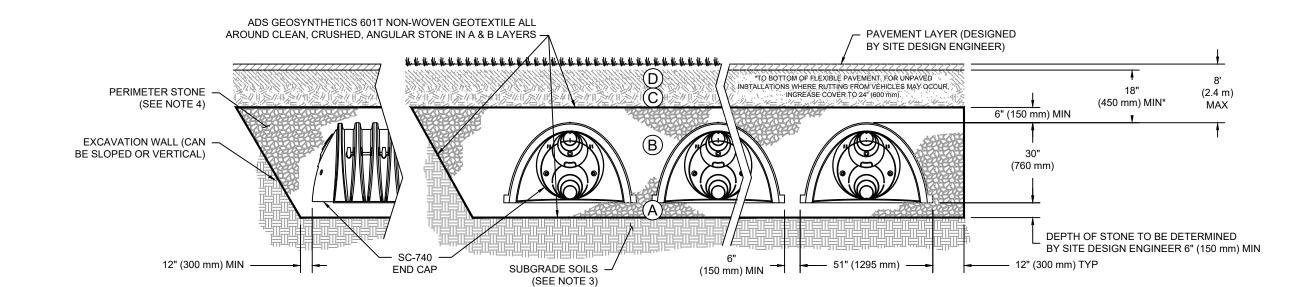
OR PRESS FIT ACCEPTABLE

COPOLYMER POLYPROPYLENE MH STEP

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

- PLEASE NOTE: THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGNS, CONTACT STORMTECH FOR
- 4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



- 1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". 3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH
- CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- 4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
- TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR

- INSTALL FLAMP ON 24" (600 mm) ACCESS PIPE PART#: SC74024RAMP OPTIONAL INSPECTION PORT SC-740 CHAMBER STORMTECH HIGHLY RECOMMENDS -FLEXSTORM INSERTS IN ANY UPSTREAM STRUCTURES WITH OPEN GRATES ELEVATED BYPASS MANIFOLD -12" HDPE INLET PIPE SUMP DEPTH TBD BY NYLOPLAS^{*} SITE DESIGN ENGINEER (24" [600 mm] MIN RECOMMENDED) 24" (600 mm) HDPE ACCESS PIPE REQUIRED - ONE LAYER OF ADSPLUS125 WOVEN GEOTEXTILE BETWEEN USE EZ END CAP PART #: SC740ECEZ FOUNDATION STONE AND CHAMBERS 5' (1.5 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS

SC-740 ISOLATOR ROW PLUS DETAIL

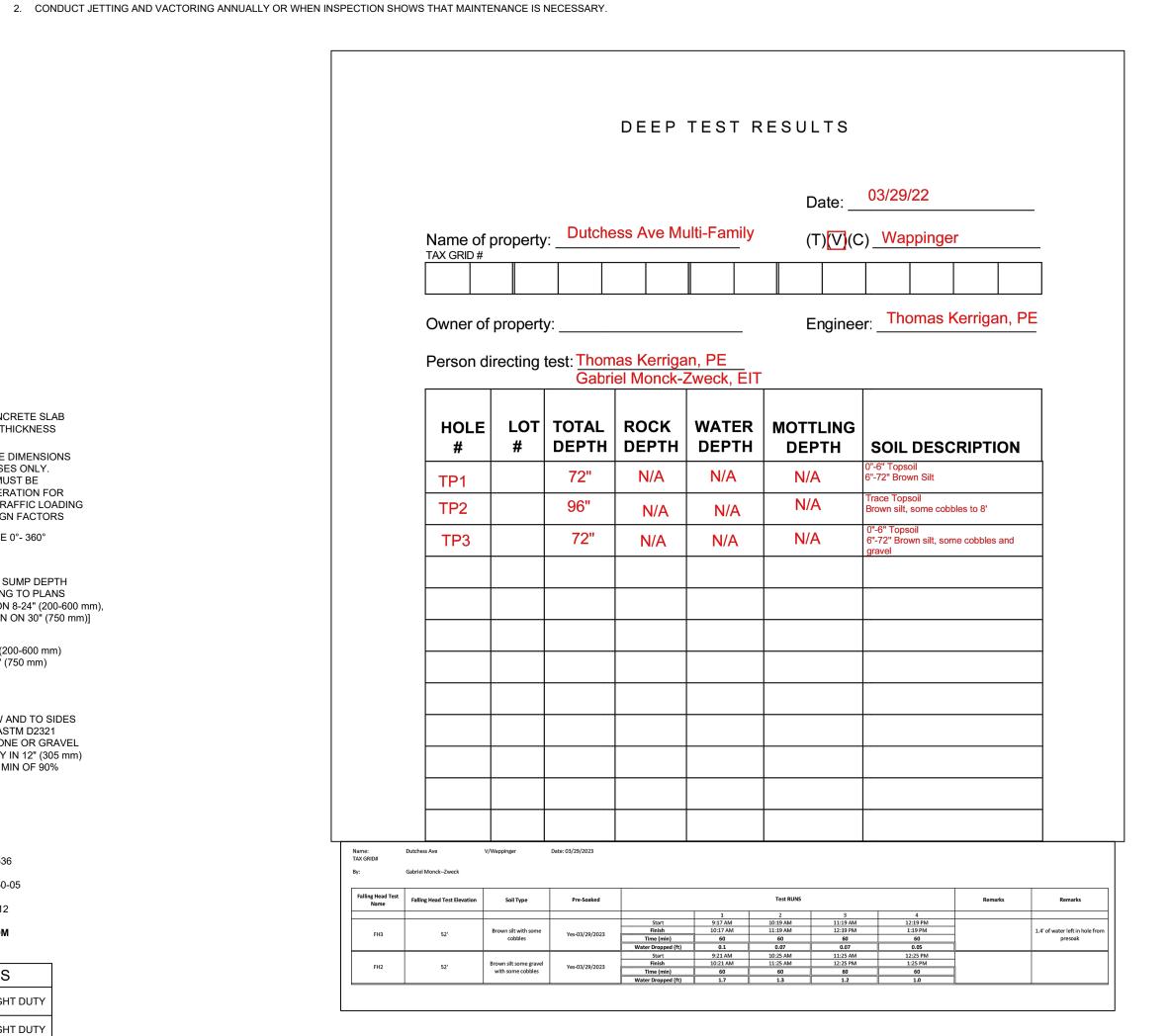
INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
 - A. INSPECTION PORTS (IF PRESENT)
 - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL) A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY i) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

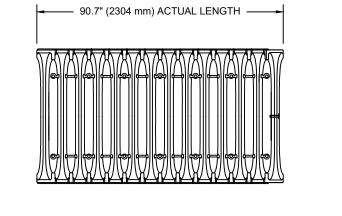
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS

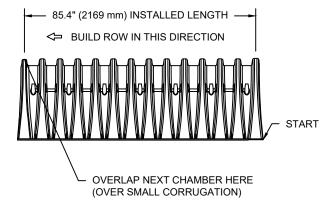
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

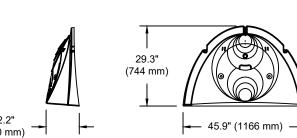
- 1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

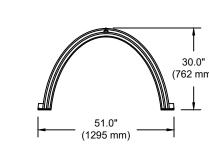












CHAMBER STORAGE

MINIMUM INSTALLED STORAGE*

51.0" X 30.0" X 85.4" (1295 mm X 762 mm X 2169 mm) 45.9 CUBIC FEET 74.9 CUBIC FEET (2.12 m³)

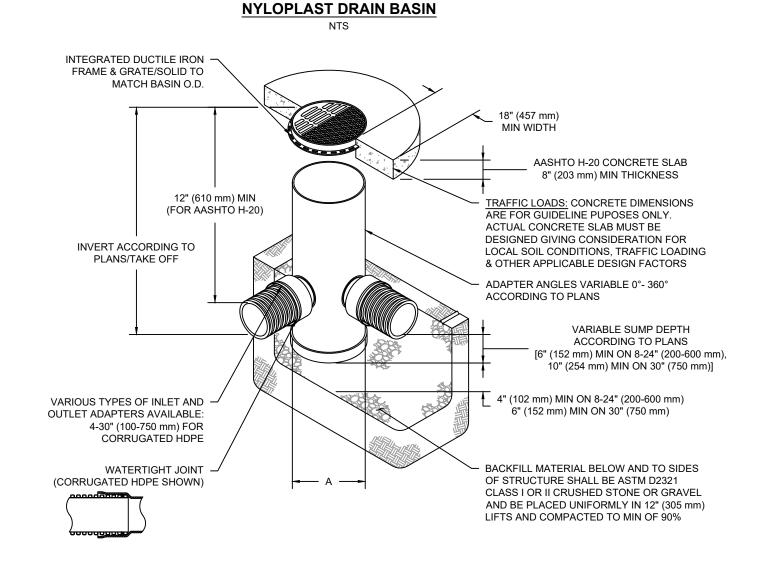
*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BR" PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART#	STUB	Α	В	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	
SC740EPE06B / SC740EPE06BPC	0 (130 11111)	10.9 (211 11111)		0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	
SC740EPE08B / SC740EPE08BPC	0 (200 11111)	12.2 (31011111)		0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	
SC740EPE10B / SC740EPE10BPC	10 (230 11111)	13.4 (340 11111)		0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	
SC740EPE12B / SC740EPE12BPC	12 (300 11111)	14.7 (373 11111)		1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	
SC740EPE15B / SC740EPE15BPC	15 (575 11111)	10.4 (407 11111)		1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	
SC740EPE18B / SC740EPE18BPC	10 (43011111)	19.7 (300 11111)		1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	18.5" (470 mm)		0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT

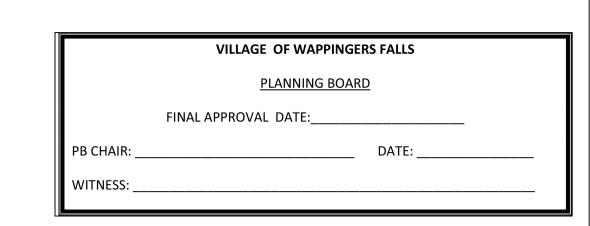
* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL. NOTE: ALL DIMENSIONS ARE NOMINAL



1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05

- 2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05 DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
- 4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- 5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: WWW.NYLOPLAST-US.COM
- 6. TO ORDER CALL: **800-821-6710**

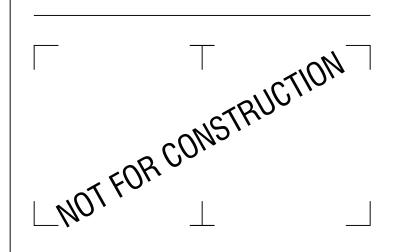
Α	PART#	GRATE/S	SOLID COVER (OPTIONS
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12"	2812AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(300 mm)		AASHTO H-10	H-20	AASHTO H-20
15"	2815AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(375 mm)		AASHTO H-10	H-20	AASHTO H-20
18"	2818AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(450 mm)		AASHTO H-10	H-20	AASHTO H-20
24"	2824AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(600 mm)		AASHTO H-10	H-20	AASHTO H-20
30"	2830AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(750 mm)		AASHTO H-20	H-20	AASHTO H-20





21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:
Revisions		
PROJECT	NUMBER:	
		2230010
DRAWN B	SY:	TK

VILLAGE COMMENTS

REVIEWED BY: ISSUED FOR: PLANNING BOARD APPROVAL

DATE:

DRAWING NAME:

3 05/10/23

STORMTECH CHAMBER **DETAILS**

1. THE TOTAL AREA OF DISTURBANCE PLANNED FOR THIS PROJECT IS LESS THAN 1 ACRE THEREFORE A SPDES GENERAL PERMIT (GP-0-20-001) IS NOT

CONSTRUCTION SEQUENCING NOTES:

STONE APRON SIZING REQUIREMENT - TABLE "A"

d50

MEDIUM 9"-12" 14"-18"

LIGHT 6" 9" MEDIUM 9" 12" 14"-18"

HEAVY 15"-18" 22"-27"

MEDIUM 9"-12" 14"-18"

HEAVY 15"-18" 22"-27"

✓ 1 MEDIUM 9"-12" 14"-18" 24

2=3 HEAVY 15"-18" 22"-27" 36

1-2 HEAVY 15"-18" 22"-27" 36

1-2 HEAVY 15"-18" 22"-27" 36

2=3 HEAVY 15"-18" 22"-27" 36

PLAN

-STONE FILLING MEETING

SPECIFICATIONS SECTION

NYSDOT STANDARD

620 (SEE TABLE A)

STANDARD

APRON

MATERIA

LIGHT

LIGHT

HEAVY

HEAVY

STONE FILLING MEETING

STORM SEWER

END SECTION WITH

SCALE: NOT TO SCALE

"BOTTOM OF SLOPE TERMINATION"

SIDE SEAM OVERLAP

STONE LINED APRON DETAIL

-STAPLE 12" O.C.

CHANGE.

overlap

SEE NOTE 4

FOR PLACEMENT REQUIREMENTS (TYP)

-BOTTOM OF SLOPE, SEE

TERMINATION DETAIL.

1. PREPARE THE TOPSOIL (SEEDBED) FIRST BY RAKING, SHAPING, FINE GRADING,

3. KEEP EROSION CONTROL BLANKET IN SOLID CONTACT WITH THE TOPSOIL.

CONTROL BLANKET TO THE SLOPE. IN LOOSÉ SOIL CONDITIONS, THE USE OF

2. USE THE TRENCHING & ANCHORING PROCEDURES DETAILED HEREIN TO SECURE ANY

EXPOSED MATERIAL ENDS. SECURE ALL PRODUCT OVERLAPS. OVERLAP IN THE DIRECTION

4. USE THE REQUIRED NUMBER OF STAPLES/STAKES TO SECURELY FASTEN THE EROSION

STAPLES/STAKES LENGTHS GREATER THAN 6" MAYBE NECESSARY FOR PROPER SECURING

REQUIREMENTS. CONTRACTOR SHALL CONSULT WITH MANUFACTURER FOR ACTUAL SITE

STAPLE PATTERNS & OVERLAPS ARE DEPENDENT ON SITE CONDITIONS & MANUFACTURER'S

SIDE SEAM OVERLAP: THE EDGES OF PARALLEL BLANKETS SHALL BE STAPLED WITH A 5" OVERLAP.

CONTROL BLANKET IN A 6"D x 6"W TRENCH WITH A 12" OVERLAP EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR WITH A ROW OF STAPLES/STAKES 12" O.C. IN THE BOTTOM OF THE TRENCH. BACKFILL & COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL & FOLD THE REMAINING 12" PORTION OF THE

TOP OF SLOPE TRENCH: BEGIN AT THE TOP OF SLOPE BY ANCHORING THE EROSION

EROSION CONTROL BLANKET BACK OVER THE SEED & COMPACTED SOIL. SECURE THE EROSION CONTROL BLANKET OVER THE COMPACTED SOIL WITH A ROW OF STAPLES/STAKES

END ROLL OVERLAP: CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE SHALL BE

PLACED END OVER END (SHINGLE-STYLE) WITH A 3" OVERLAP. STAPLE THRU OVERLAPPED

EROSION CONTROL BLANKET INSTALLATION DETAIL

-EROSION CONTROL BLANKET, SEE PLANS & SPECIFICATIONS

ACROSS THE ENTIRE

WIDTH AT THE SLOPE

24" OVERLAP

SECTION 620 (SEE TABLE A)

-STANDARD

FLARED

SECTION |

NYSDOT STANDARD SPECIFICATIONS

3 MAX.

SEWER

3' MIN. EXTENSION

STAPLE 12" O.C. ACROSS

THE ENTIRE WIDTH.

SEE TRENCHING & ANCHORING-

-COMPACTED & FINE GRADED

OVER 1" IN SIZE, & FOREIGN

SPECIFIC REQUIREMENTS.

TOPSOIL SLOPE, TYP. FREE OF

RILLS, OBSTRUCTIONS, STONES

COMPACTING, SEEDING & FERTILIZING THE SLOPES.

OF WATER FLOW, PERPENDICULAR TO THE SLOPE.

TRENCHING & ANCHORING PROCEDURE NOTES:

SPACED 12" O.C. ACROSS THE ENTIRE WIDTH.

AREAS, 12" APART ACROSS THE ENTIRE WIDTH.

SCALE: NTS

PROCEDURE NOTES (TYP)

CULVERT | CULVERT | STONE FILLING |

< 8

-8-10 |

-4-8

DIA. (D) SLOPE, %

" MIN FENCE

POSTS, DRIVEN

MIN 16" INTO

GROUND

-UNDISTURBED

GROUND

MINIMUM

OUTLET

(La)

APRON

(IN)

18----

dMAX

MEDIUM 9"-12" 14"-18" 24 10-

15"-18" 22"-27"

15"-18" 22"-27"

HEAVY 15"-18" 22"-27" 36

HEAVY 15"-18" 22"-27" 36

MEDIUM 9"-12" 14"-18" 24

HEAVY 15"-18" 22"-27" 36

HEAVY 15"=18" 22"-27" 36

THICKNESS LENGTH(FT

GEOTEXTILE MIRAFI 140N

-BEDDING MATERIAL MEETING

SPECIFICATION SECTION 620

TOP OF SLOPE TRENCH

END ROLL OVERLAP

NYSDOT STANDARD

OR APPROVED EQUIVALENT

PRIOR TO COMMENCING ANY CLEARING, GRUBBING, EARTHWORK ACTIVITIES. ETC.AT THE SITE, THE CONTRACTOR SHALL FLAG THE WORK LIMITS AND SHALL INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, TREE PROTECTION/BARRIER FENCES, STABILIZED CONSTRUCTION ENTRANCES, STORM DRAIN SEDIMENT FILTERS, DRAINAGE DITCH SEDIMENT FILTERS. ETC.) INDICATED ON THE PROJECT DRAWINGS. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS.

2. PRIOR TO COMMENCING CLEARING, GRUBBING AND/OR EARTHWORK ACTIVITIES IN ANY OTHER AREA OF THE SITE, THE CONTRACTOR SHALL INSTALL INLET AND

OUTLET PROTECTION MEASURES. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ASSURE THAT THE AREA TRIBUTARY TO EACH DIVERSION DOES NOT EXCEED FIVE (5) ACRES. THESE TEMPORARY DIVERSION MEASURES SHALL BE INSPECTED DAILY AND REPAIRED/STABILIZED AS NECESSARY TO MINIMIZE EROSION. 4. THE CONTRACTOR SHALL COMMENCE SITE CONSTRUCTION ACTIVITIES INCLUDING

CLEARING & GRADING OF THE PROPOSED AREA OF DISTURBANCE AS REQUIRED. 5. INSTALL PROTECTIVE MEASURES AT THE LOCATIONS OF ALL GRATE INLETS,

CURB INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES. 6. CONSTRUCT ALL UTILITIES, CURB AND GUTTER, GUTTER INLETS, AREA INLETS, AND STORM SEWER MANHOLES, AS SHOWN ON THE PLANS. INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. PLACE REQUIRED

FINALIZE PAVEMENT SUB-GRADE PREPARATION. REMOVE PROTECTIVE MEASURES AROUND INLETS AND MANHOLES NO MORE THAN 24 HOURS PRIOR TO PLACING STABILIZED BASE COURSE

RIP-RAP AT LOCATIONS SHOWN ON THE PLANS.

THE AREAS DISTURBED DURING THEIR REMOVAL.

INSTALL SUB-BASE MATERIAL AS REQUIRED FOR PAVEMENT. 10. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND IMMEDIATELY ESTABLISH PERMANENT VEGETATION ON

EROSION AND SEDIMENT CONTROL MEASURES: DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION

SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES. 2. AS MUCH AS IS PRACTICAL, EXISTING VEGETATION SHALL BE PRESERVED. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL

EXPOSED SOILS. 3. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION.

4. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES: PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE: INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. CHECK FOR MUD, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE

SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY, REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR HAY BALE) AND VEGETATION
PER ALL BERAIRS FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT, MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO COMPOSE, OR IN ANYWAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCK PILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

<u>DUST CONTROL:</u>
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

EROSION CONTROL BLANKET:
INSPECT THE BLANKET EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. REPLACE WIRE STAPLES AS REQUIRED. REPAIR AND RESEED WHERE CRACKS AND DAMAGED VEGETATION IS EVIDENT. WHEN DAMAGED BEYOND REPAIR OR NO LONGER FUNCTIONING, THE BLANKET SHALL BE REPLACED.

STORM DRAIN INLET PROTECTION: INSPECT ALL STORM DRAIN INLET PROTECTION DEVICES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE REPAIRS AS NEEDED, REMOVE SEDIMENT FROM THE POOL

AREA AS NECESSARY.

SNOW AND ICE CONTROL:
PARKING LOTS, ROADWAYS, AND DRIVEWAYS ADJACENT TO WATER QUALITY FILTERS SHALL NOT BE SANDED DURING SNOW EVENTS DUE TO HIGH POTENTIAL FOR CLOGGING FROM SAND IN SURFACE WATER RUNOFF. USE SALT ONLY FOR SNOW AND ICE

GENERAL EROSION AND SEDIMENT CONTROL NOTES

ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", NOVEMBER 2016.

2. EXCESS SOIL TO BE STOCKPILED WITHIN THE LIMITS OF SITE DISTURBANCE IF NOT USED IMMEDIATELY FOR GRADING PURPOSES. INSTALL SILT FENCE AROUND SOIL

3. APPLY SURFACE STABILIZATION AND RESTORATION MEASURES. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS DELAYED, SUSPENDED, OR INCOMPLETE AND WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED. (SEE SPECIFICATIONS FOR TEMPORARY VEGETATIVE COVER). AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS COMPLETE AND WILL NOT BE REDISTURBED SHALL BE STABILIZED AND RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE. (SEE SPECIFICATIONS FOR PERMANENT VEGETATIVE COVER). SEEDING FOR PERMANENT VEGETATIVE COVER SHALL BE WITHIN THE SEASONAL LIMITATIONS. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE

PERMITTED SEEDING PERIODS. 4. SEEDED AREAS TO BE MULCHED WITH STRAW OR HAY MULCH IN ACCORDANCE WITH VEGETATIVE COVER SPECIFICATIONS.

5. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF

6. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR IS TO

SUPPLY ALL EQUIPMENT AND WATER. '. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

TOPSOIL SPECIFICATIONS

EXISTING EXCESS TOPSOIL SHALL BE REMOVED AND STORED IN TOPSOIL STOCKPILES SUFFICIENTLY REMOVED FROM OTHER EXCAVATION OR DISTURBANCE TO AVOID MIXING. SILT FENCE SHALL BE INSTALLED AROUND TOPSOIL STOCKPILE AREAS.

COMPLETE ROUGH GRADING AND FINAL GRADE, ALLOWING FOR DEPTH OF TOPSOIL TO BE ADDED. 2. SCARIFY ALL COMPACT, SLOWLY PERMEABLE, MEDIUM AND FINE TEXTURED SUBSOIL AREAS. SCARIFY AT APPROXIMATELY RIGHT ANGLES TO THE SLOPE DIRECTION IN SOIL AREAS THAT ARE

3. REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER 3 INCHES IN DIAMETER, AND OTHER

TOPSOIL MATERIALS:

1. NEW TOPSOIL SHALL BE BETTER THAN OR EQUAL TO THE QUALITY OF THE EXISTING ADJACENT TOPSOIL. IT SHALL MEET THE FOLLOWING CRITERIA: A. ORIGINAL LOAM TOPSOIL, WELL DRAINED HOMOGENEOUS TEXTURE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DENSE MATERIAL, HARDPAN, CLAY, STONES, SOD OR OTHER OBJECTIONABLE MATERIAL.

B. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105°C.

C. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT PORTION OF THE SAMPLE WHICH PASSES A 1/4" SIEVE. D. CONTAINING THE FOLLOWING WASHED GRADATIONS:

SIEVE DESIGNATION % PASSING

97-100 20-60

APPLICATION AND GRADING

TOPSOIL SHALL BE DISTRIBUTED TO A UNIFORM DEPTH OF 4" OVER THE AREA. IT SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, OR ON FROZEN SLOPES OR OVER ICE, SNOW,

2. TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5% SHALL BE PROMPTLY FERTILIZED, SEEDED, MULCHED AND STABILIZED BY "TRACKING" WITH SUITABLE EQUIPMENT.

VEGETATIVE COVER SPECIFICATIONS

TEMPORARY VEGETATIVE COVER (DURING CONSTRUCTION): 1. SITE PREPARATION (SAME AS PERMANENT VEGETATIVE COVER) 2. SEED MIX: (APPLY AT RATE OF 3 TO 4 LBS PER 1000 SF)

MINIMUM % SPECIES OR VARIETY PURITY GERMINATION ANNUAL RYEGRASS SEEDING

(SAME AS PERMANENT VEGETATIVE COVER)

PERMANENT VEGETATIVE COVER (AFTER CONSTRUCTION)

1. SITE PREPARATION A. BRING AREA TO BE SEEDED TO REQUIRED GRADE. A MINIMUM OF 4" OF TOPSOIL IS

B. PREPARE SEEDBED BY LOOSENING SOIL TO A DEPTH OF 4 INCHES. REMOVE ALL STONES OVER 1 INCH IN DIAMETER, STICKS AND FOREIGN MATTER FROM THE SURFACE.

LIME TO PH OF 6.5. FERTILIZER: USE 5-10-5 (NPK) OR EQUIVALENT. APPLY AT RATE OF 4 LBS/1000 SF. INCORPORATE LIME AND FERTILIZER IN THE TOP 4 INCHES OF TOPSOIL. G. SMOOTH AND FIRM THE SEEDBED.

2. SEED MIXTURE FOR USE ON LAWN AREAS: PROVIDE FRESH, CLEAN, NEW-CROP SEED MIXED IN THE PROPORTIONS SPECIFIED FOR SPECIES

AND VARIETY, AND CONFORMING TO FEDERAL AND STATE STANDARDS

LAWN SEED MIX: (APPLY AT RATE OF 5 TO 6 LBS PER 1000 SF)

SUN AND PARTIAL SHADE: MINIMUM % WEIGHT SPECIES OR VARIET PURITY GERMINATION KENTUCKY BLUE GRASS* 95% 80% 20% PERENNIAL RYE 90% 98% CREEPING RED FESCUE 97% 85%

*MINIMUM 2 (EQUAL PROPORTIONS) VARIETIES AS LISTED IN CORNELL RECOMMENDATIONS FOR TURFGRASS

SHADE: AMOUNT BY: MINIMUM % PURITY <u>GERMINATION</u> WEIGHT SPECIES OR VARIETY KENTUCKY BLUE GRASS** 80% 20% PERENNIAL RYE 98% 90% CREEPING RED FESCUE 97% 85% CHEWINGS RED FESCUE

**SHADE TOLERANT VARIETY

A. APPLY SEED UNIFORMLY BY CYCLONE SEEDER CULTI-PACKER OR HYDRO-SEEDER AT RATE

B. ALL SEEDED AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING i. A UNIFORM BLANKET OF STRAW APPLIED AT A RATE OF 2 TONS /ACRE MIN., TO BE APPLIED ONCE SEEDING IS COMPLETE. WOOD FIBER CELLULOSE APPLIED WITH SEED MIX BY HYDROSEEDER AT RATE OF 2,000

C. ALL SEÉDED SLOPES 3:1 OR GREATER SHALL BE PROTECTED FROM EROSION WITH JUTE

MESH OR APPROVED EQUAL IRRIGATE TO FULLY SATURATE SOIL LAYER, BUT NOT TO DISLODGE PLANTING SOIL.

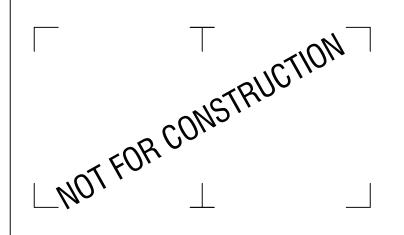
UNLESS OTHERWISE DIRECTED IN WRITING, SEED FROM MARCH 15TH TO JUNE 15TH, AND FROM AUGUST 15TH TO OCTOBER 15TH.

COMPACTION REQUIREMENTS

LOCATION	COMPACTION	TESTING FREQUENCY
PIPE TRENCH BACKFILL (IN PAVED AREAS)	95% ASTM D1557	1 SERIES OF TESTS FOR EACH 150 FT OR LESS OF TRENCH LENGTH. SERIES INCLUDE 3 COMPACTION TESTS SPREAD EVENLY ALONG TRENCH PROFILE.
PIPE TRENCH BACKFILL (IN UNPAVED AREAS)	90% ASTM D1557	1 SERIES OF TESTS FOR EACH 150 LF OR LESS OF TRENCH LENGTH. SERIES INCLUDE 3 COMPACTION TESTS SPREAD EVENLY ALONG TRENCH PROFILE.
PIPE BEDDING AND PIPE ZONE BACKFILL	95% ASTM D1557	1 TEST FOR EACH 150 FT OR LESS OF TRENCH LENGTH.
PAVEMENT SUBBASE AND LAST LIFT OF SELECT GRANULAR FILL (FILL BETWEEN SHEET PILES)	95% ASTM D1557	1 TEST FOR EVERY 2,000 SQ FT, OF LIFT AREA BUT NO FEWER THAN TWO TESTS PER LIFT

21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:

PROJECT NUMBER: 2230010 DRAWN BY:

REVIEWED BY CPL ISSUED FOR:

PLANNING BOARD APPROVAL DATE:

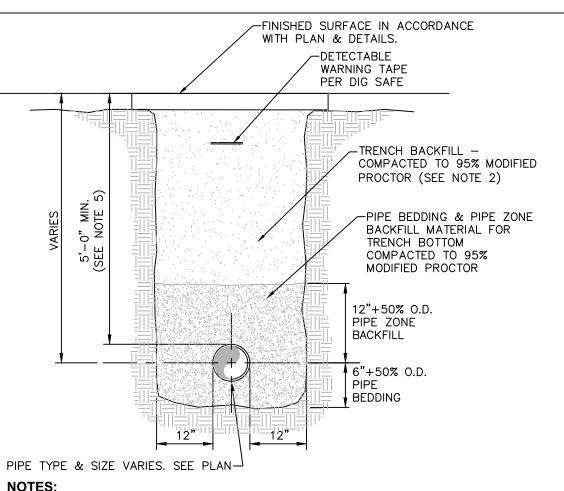
12/7/22

DRAWING NAME:

EROSION & SEDIMENT CONTROL DETAILS

DRAWING NUMBER:

VILLAGE OF WAPPINGERS FALLS FINAL APPROVAL DATE:



NOTES:

1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE AN IMPORTED NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATIO % PASSING NO. 40 0-70% NO. 200 0-10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION % PASSING 100% NO. 40 0-70% NO. 200 0-10%

IN NON-TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.

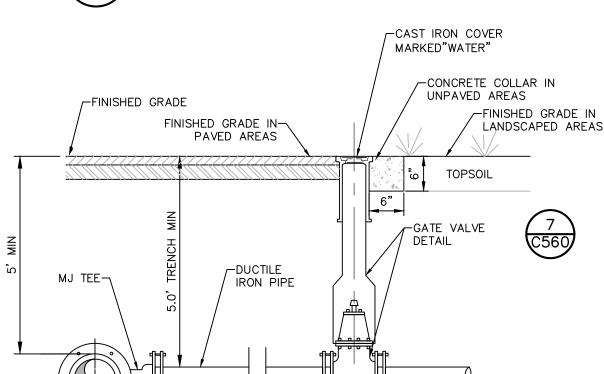
3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS &

4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

5. 5'-0" MIN COVER SHALL BE APPLIED TO WATER MAIN OR SANITARY SEWER FORCE MAINS ONLY.

SCALE: NOT TO SCALE

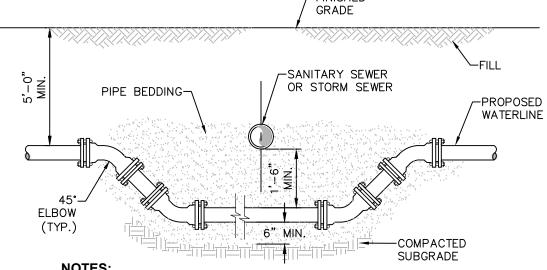
PIPE TRENCH DETAIL (TYPICAL)



1. GATE VALVE & VALVE BOX SHALL BE IN ACCORDANCE WITH MUNICIPAL STANDARDS & AS MANUFACTURED BY MUELLER OR APPROVED EQUIVALENT.

BY OTHERS

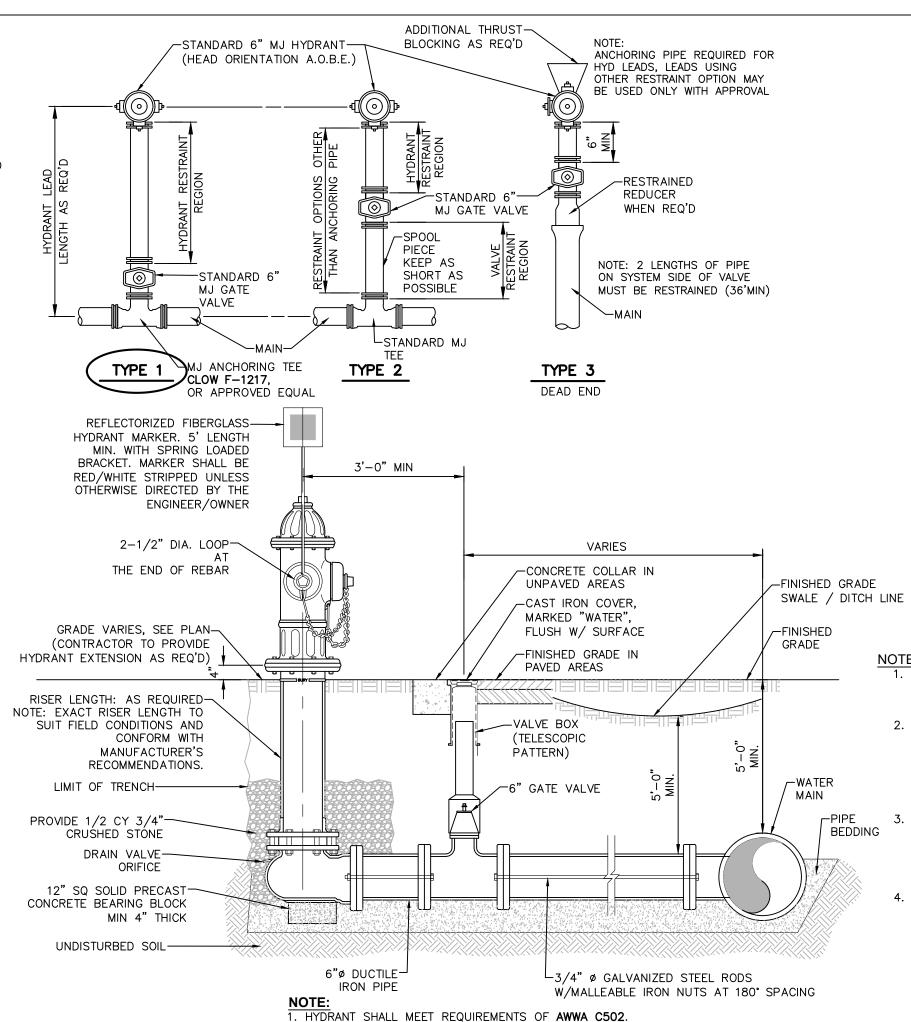




1. WHEN THE ELEVATION OF THE SEWER CAN NOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS REQUIRED SEPARATION.

2. WHEN IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS INDICATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT DUCTILE IRON PIPE OR PVC WATER WORKS GRADE PRESSURE PIPE FOR 10' EACH SIDE OF CROSSING AND SHALL BE PRESSURE TESTED TO 150psi TO ASSURE WATER TIGHTNESS.





HYDRANT ASSEMBLY DETAIL SCALE: NOT TO SCALE RESTRAINED LENGTH LENGTH **REDUCERS**

ALL JOINTS WITHIN LENGTH "L"

T=THRUST FORCE

=THRUST FORCE

↑ T=THRUST FORCE

(Lr)FULL PIPE

SHALL BE RESTRAINED

HORIZONTAL BENDS

ALL JOINTS WITHIN LENGTH '

RESTRAINED

DEAD ENDS

(Lr)FULL PIPE

TEE BRANCH -

WENGTH 1

SHALL BE RESTRAINED

ALL JOINTS WITHIN LENGTH "L"

LENGTH (10ft MIN.RUN) LENGTH (10ft MIN.RUN)

ALL JOINTS WITHIN LENGTH "L"

RESTRAINED

SCALE: NOT TO SCALE

SHALL BE RESTRAINED ON THE TEE

JOINT PIPE DIAGRAMS

SHALL BE RESTRAINED

SCHEDULE OF JOINT RESTRAINT— (PVC OR POLYWRAPPED DIP LENGTH OF PIPE EACH SIDE OF FITTING TO BE RESTRAINED IN FEET LANDSCAPED AREAS PIPE SIZE | 111 TEE VALVE | DEAD | 24" 196 82 39 20 163 166 166 72 91 108 123 136 26 49 68 85 99 12" 102 43 21 11 82 85 85 4" 38 16 8 4 28 31 31

1. THE LENGTH OF PIPE REQUIRING RESTRAINT IS BASED UPON THE FOLLOWING

A. BEDDING TYPE 2 - FLAT BOTTOM TRENCH, BACKFILL LIGHTLY CONSOLIDATED TO CENTER LINE OF PIPE.

B. SOIL TYPE CLAY 1 - CLAY OF MEDIUM TO LOW PLASTICITY, LL<50, <25% COURSE PARTICLES [CL & CL-ML] :

CL - INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY GRAVELY CLAYS, SANDY CLAYS, SILTY CLAYS. LEAN CLAYS

ML - INORGANIC SILTS, VERY FINE SAND, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS.

C. PIPE TABLE CALCULATION IS BASED ON PVC OR POLYWRAPPED DIP

D. DEPTH TO TOP OF PIPE 5'-0" MINIMUM

E. MAXIMUM OPERATING PRESSURE OF 150 PSI

F. FACTOR OF SAFETY OF 1.5

2. FOR END PLUGS, USE RESTRAIN PIPE LENGTH GIVEN FOR DEAD END FITTING.

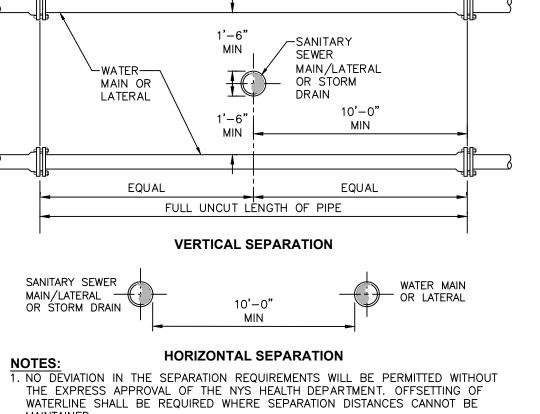
3. THE LENGTH ("L") OF NEW PIPE TO BE RESTRAINED IS THE LENGTH FOR EACH SIDE OF THE FITTING.

4. THE ABOVE INFORMATION WAS PROVIDED USING THE THRUST RESTRAINT PROGRAM ISSUED BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) AND IS BASED ON THE ASSUMPTIONS LISTED IN NOTE 1. RESTRAINED LENGTH REQUIREMENTS FOR FIELD CONDITIONS AND PIPE SIZES DIFFERING FROM THOSE LISTED ABOVE SHOULD BE EVALUATED SEPARATELY.

5. RESTRAINED JOINT PIPE AND FITTINGS SHALL BE USED ONLY AS ALLOWED BY THE PROJECT PLANS AND/OR SPECIFICATION. (IF THRUST BLOCKS ARE USED SEE

6. TEE FITTINGS: PIPE SIZE SHOWN FOR THE TEE IS THE SIZE OF THE RUN. THE RESTRAINED LENGTH SHOWN IS FOR THE BRANCH. THE VALUE OF THE RESTRAINED LENGTH ASSUMES THAT THE SIZE OF THE BRANCH IS EQUAL TO OR LESS THAN THE RUN. THE VALUE OF THE Lr=USED IN THE TABLE IS 10 FEET. (Lr= TOTAL LENGTH BETWEEN FIRST JOINTS ON EITHER SIDE OF THE TEE ON THE RUN.)

JOINT RESTRAINT SCHEDULE AND NOTES SCALE: NOT TO SCALE



MAINTAINED. 2. WHEN IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS INDICATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT, DUCTILE IRON PIPE OR PVC WATER WORKS GRADE PRESSURE PIPE FOR 10' EACH SIDE OF CROSSING AND SHALL BE PRESSURE TESTED TO 150psi TO ASSURE WATER TIGHTNESS. SANITARY/STORM SEWER AND

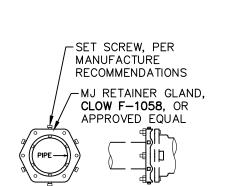
WATERMAIN SEPARATION DETAIL

SCALE: NOT TO SCALE

1. HYDRANTS SHALL BE MUELLER SUPER CENTURION 250 OR APPROVED EQUIVALENT BY THE AUTHORITY HAVING JURISDICTION. HYDRANTS SHALL MEET REQUIREMENTS OF AWWA STANDARD C-502.

2. HYDRANTS SHALL BE CAST IRON BODY, DRY BARREL DESIGN, COMPRESSION-TYPE VALVE, OPENING AGAINST PRESSURE AND CLOSING WITH PRESSURE, 6-INCH MECHANICAL JOINT INLET FOOT PIECE, 5 1/4 INCH MAIN VALVE OPENING, O-RING TYPE PACKING, RATED FOR 250-PSI WORKING PRESSURE, TWO (2) 2 1/2 INCH HOSE NOZZLES AND ONE (1) 4 1/2 INCH PUMPER NOZZLE. 3. NOZZLE OUTLET THRÈADS SHALL MEET LOCAL FIRE DEPARTMENT REQUIREMENTS AND HAVE CAST IRON CAPS WITH NON-KINKING STEEL CHAINS. OPERATING AND CAP NUTS: PENTAGON 1 1/2 INCH POINT TO FLAT. HYDRANT VALVES SHALL BE OPENED BY TURNING OPERATING NUT

TO THE LEFT, OR COUNTERCLOCKWISE. 4. HYDRANTS SHALL BE TRAFFIC TYPE WITH BREAKABLE SAFETY FLANGE WITH RED EXTERIOR ALKYD GLOSS ENAMEL PAINT. HYDRANTS SHALL BE TOUCHED UP TO REMOVE ANY MARKS OR SCRAPED PAINT CAUSED BY INSTALLATION OR

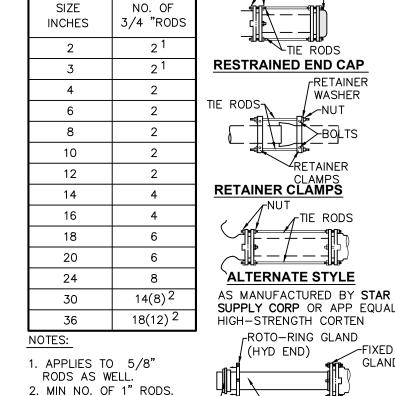


END CAP

WASHER

[∠]RETAINER

RESTRAINED JOINT THRUST RESTRAINT DETAIL SCALE: NOT TO SCALE



NO. OF TIE RODS REQUIRED

SUPPLY CORP OR APP EQUAL, HIGH-STRENGTH CORTEN ROTO-RING GLAND (HYD END) GLAND 2. MIN NO. OF 1" RODS. MJ ANCHORING PIPE CLOW F-1216 OR APPROVED EQUAL RESTRAINT-**ANCHORING PIPE** JOINT RESTRAINT OPTIONS

SCALE: NOT TO SCALE

WATER MAIN NOTES:

1. ALL WATER LINES SHALL BE CEMENT LINED DUCTILE IRON PIPE, CLASS 52, OR PVC C900 UNLESS OTHERWISE SPECIFIED BY OR APPROVED BY THE ENGINEER.

2. THE WATER LINE MAY BE DEFLECTED WITHIN PIPE SPECIFICATIONS OR LAID DEEPER IN AREAS WHERE CROSSINGS WITH THE SANITARY LINE OCCUR, TO ACHIEVE THE REQUIRED 1.5' VERTICAL SEPARATION DISTANCE. (SEE WATERLINE OFFSET DETAIL FOR FURTHER INFORMATION).

3. WATER MAINS SHALL BE TESTED PER AWWA SECTION C 600 OR C605. (SEE WATER MAIN TESTING NOTES)

4. THE WATER MAIN IS TO BE INSTALLED AT A CONTINUOUS GRADE WITH NO ABRUPT HIGH OR LOW POINTS.

5. THRUST RESTRAINT: A. THE WATER MAIN THRUST RESTRAINT METHOD USED FOR THIS PROJECT SHALL BE RESTRAINED JOINT PIPE AND FITTINGS.

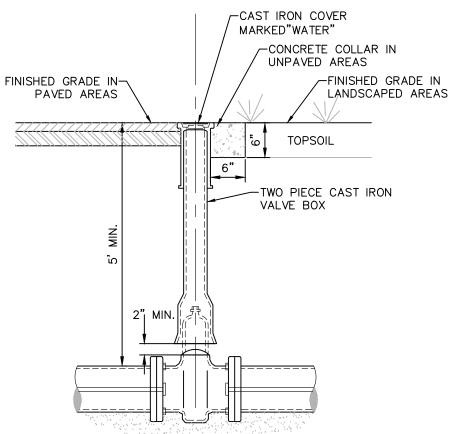
B. IN ADDITION TO THE RESTRAINED JOINT PIPE AND FITTINGS, CONCRETE THRUST BLOCKS ARE REQUIRED ON ALL FITTINGS AT CONNECTIONS TO EXISTING WATER MAINS. IF THE CONNECTION TO AN EXISTING MAIN IS MADE WITH A STRAIGHT RUN OF PIPE AND THE CONNECTION TO THE EXISTING MAIN FALLS WITHIN THE RESTRAINED LENGTH REQUIRED FOR THE FIRST PROPOSED FITTING BEYOND THE CONNECTION THEN A CONCRETE THRUST

BLOCK SHALL BE INSTALLED AT THAT FITTING. C. IN GENERAL CONCRETE THRUST BLOCKS MAY BE USED TO SUPPLEMENT, BUT NOT REPLACE, THE RESTRAINED JOINT PIPE AND FITTINGS WHERE

6. DISINFECTION OF PORTABLE WATER MAINS: D. DISINFECTION WILL BE ACCOMPLISHED AFTER PIPE HAS PASSED ANY

E. THE MUNICIPALITY AND THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE START OF PRESSURE TESTING, LEAKAGE TESTING,

F. DISINFECTION WILL BE PERFORMED IN ACCORDANCE WITH AWWA STANDARD C 651-05 OR LATEST EDITION. (EXCLUDING SECTION 4.4.2 COVERING THE TABLET METHOD). (SEE WATER MAIN DISINFECTION NOTES)

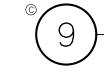


AND DISINFFCTION.

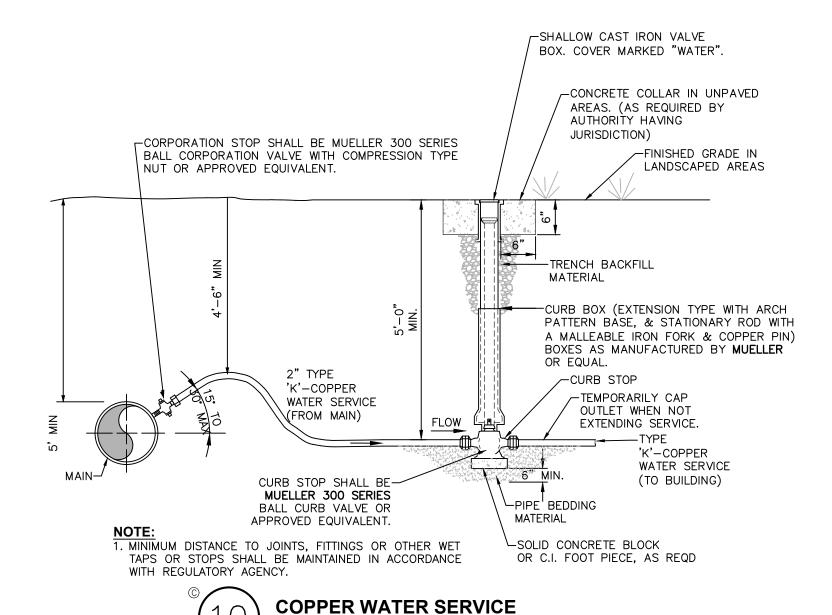
. NON-RISING STEM GATE VALVE, OPERATING DIRECTION SHALL BE COUNTERCLOCKWISE TO OPEN. 2. MINIMUM DISTANCE TO JOINTS, FITTINGS, OR OTHER WET TAPS OR STOPS

3. IF VALVE IS TO BE RODDED, PROVIDE VALVE WITH RODDING FLANGES OR EYEBOLTS. TWO (2) 3/4"ø GALVANIZED STEEL RODS WITH MALLEABLE IRON NUTS AT 180° SPACING SHALL BE USED FOR RODDING VALVES. FOR 12" DIA PIPE OR LESS FOR LARGER PIPE SIZES SEE TABLE FOR

NUMBER OF TIE RODS REQUIRED-"JOINT RESTRAINT OPTION DETAILS.) 4. GATE VALVE & VALVE BOX SHALL BE IN ACCORDANCE WITH MUNICIPÁL STANDARDS & AS MANUFACTURED BY MUELLER OR APPROVED



TYPICAL GATE VALVE DETAIL SCALE: NOT TO SCALE



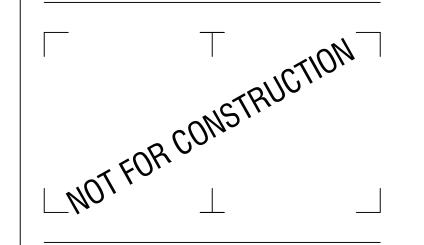
SCALE: NOT TO SCALE

VILLAGE OF WAPPINGERS FALLS PLANNING BOARD FINAL APPROVAL DATE: WITNESS:



21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

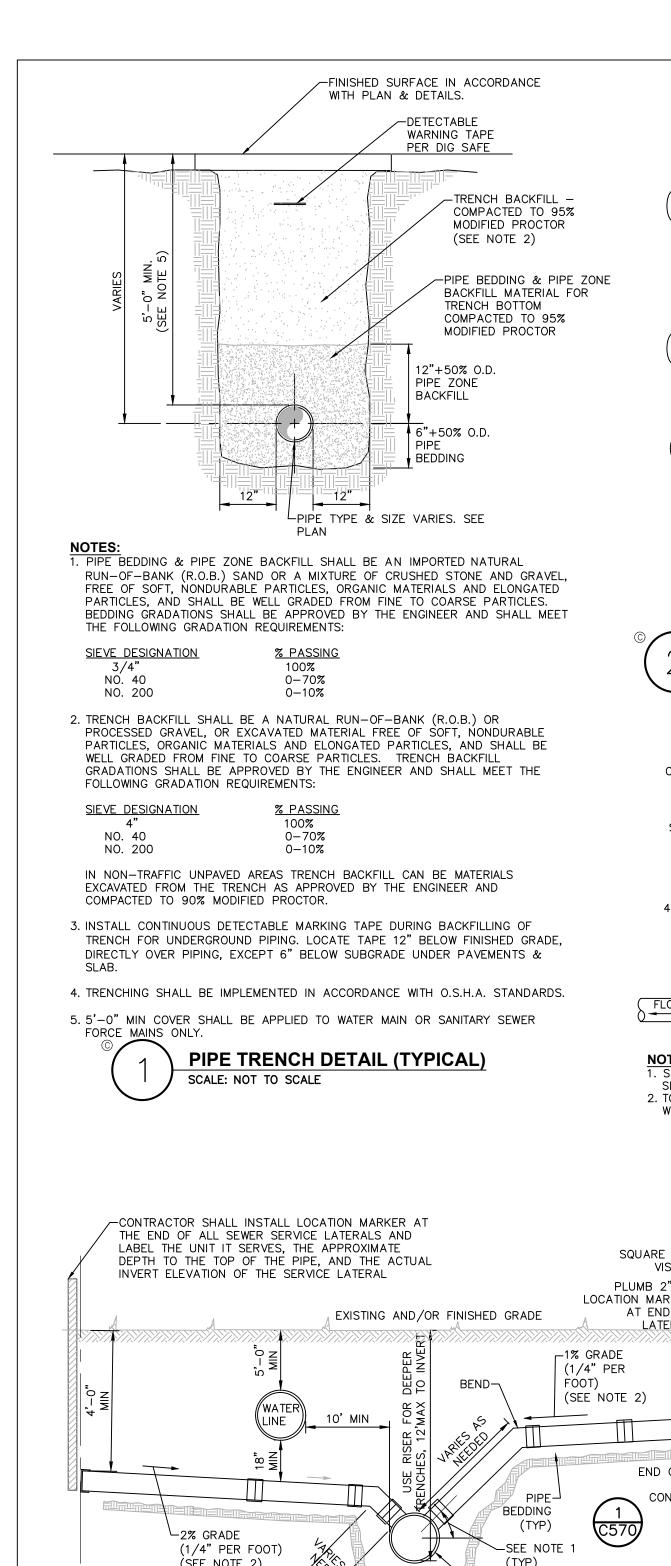
2	05/40/00	VILLA OF COMMENTS
3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:
Revisions		
PROJECT.	NI IMRER:	

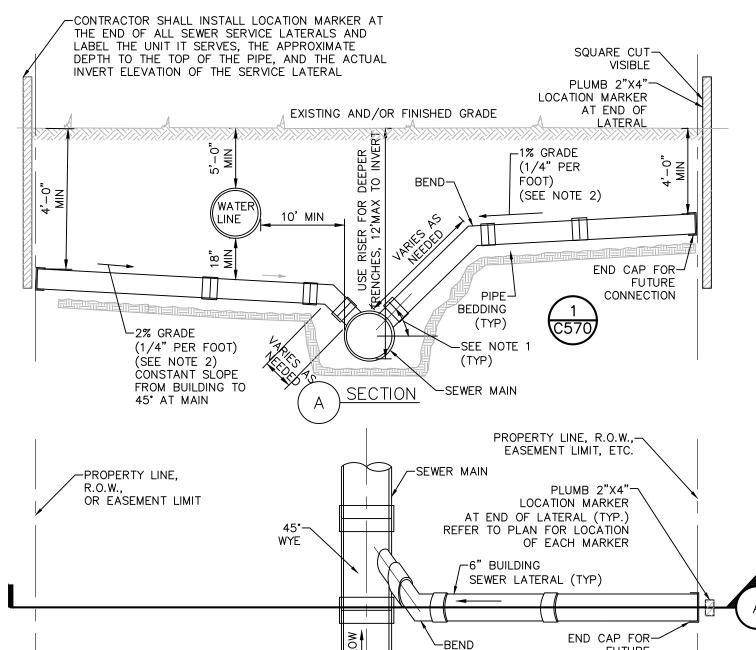
PROJECT NUMBER: 2230010 DRAWN BY: REVIEWED BY: CPL ISSUED FOR:

PLANNING BOARD APPROVAL DATE: 12/7/22

DRAWING NAME:

WATER SYSTEM DETAILS





NOTES:

1. OPTIMUM ANGLE IS 45°. THE ENGINEER MAY CALL FOR OTHER ANGLES TO SUIT JOB CONDITIONS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE SEWER LATERAL AS CONFIGURED AT THE SLOPE SPECIFIED, AND FOR ESTABLISHING THE ELEVATION AT THE TERMINATION POINT OF THE LATERAL, IF EXISTING UTILITIES OR OTHER FEATURES PREVENT INSTALLATION IN THAT MANNER. THE ENGINEER SHALL BE CONSULTED PRIOR TO INSTALLATION.

<u>PLAN</u>

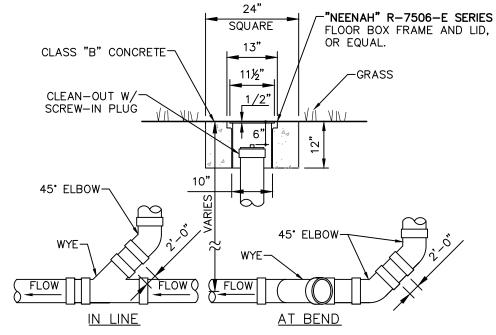
FUTURE

CONNECTION

STANDARD SEWER SERVICE CONNECTION PLAN

ANITARY OR STORM SEWER IF 18" VERTICAL SEPARATION CAN NOT BE ACHIEVED AT LOCATIONS OF WATER MAIN $\stackrel{\leftarrow}{\&}$ SEWER CROSSINGS, CONTRACTOR SHALL CONSTRUCT EITHER OF THE FOLLOWING OPTIONS: 1. CONSTRUCT SEWER OF PVC WATERWORKS GRADE PRESSURE PIPE MATERIAL 10' ON EACH SIDE OF THE WATER MAIN AND TEST TO 150PSI TO ASSURE TIGHTNESS. 2.EITHER THE WATER MAIN OR THE SEWER LINE MAY BE ENCASED IN A WATER TIGHT CARRIER PIPE WHICH EXTENDS 10 FEET ON BOTH SIDES OF THE CROSSING. THE CARRIER PIPE SHALL BE OF MATERIAL APPROVED FOR THE USE IN WATER MAIN CONSTRUCTION.

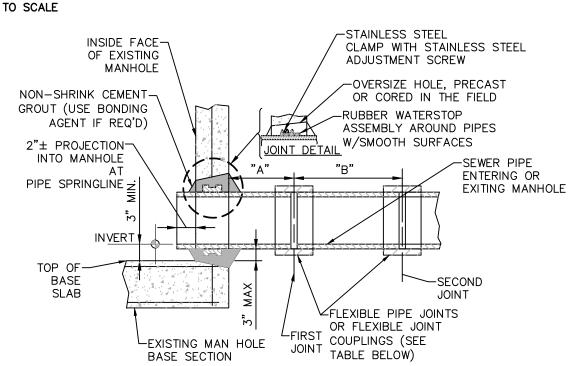
SECTION WATER/SEWER SEPARATION REQUIREMENTS SCALE: NOT TO SCALE



SEWER PIPE FITTINGS TO BE ASTM D-3033 OR D-3034

2. TO BE USED FOR GRAVITY PORTION OF SANITARY SYSTEM AS

WELL AS THE STORM ROOF DRAINAGE SYSTEM. **CLEAN OUT - NON TRAFFIC AREAS** SCALE: NOT TO SCALE



FLEXIBLE JOINT & WATERSTOP REQUIREMENTS

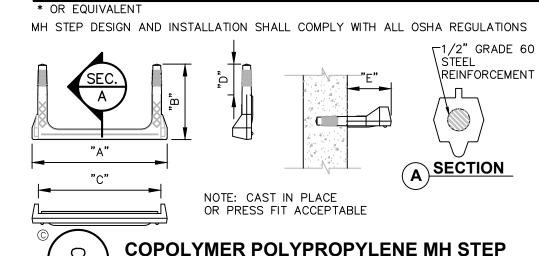
SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A"DISTANCE (FEET)	"B"DISTANCE (FEET)	MH WATER STOP REQD
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10'MAX	NO LIMIT	YES
PVC	SPECIAL FLEXIBLE JOINT COUPLING	1'MAX	3'MAX	YES

THIS DETAIL SHALL BE USED AT NO EXTRA COST IN PLACE OF EITHER OF THE PIPE-TO-MANHOLE CONNECTION DETAILS ONLY WHEN CONNECTING TO EXISTING MANHOLES THAT HAVE NO FLEXIBLE RUBBER BOOT PROVIDED.

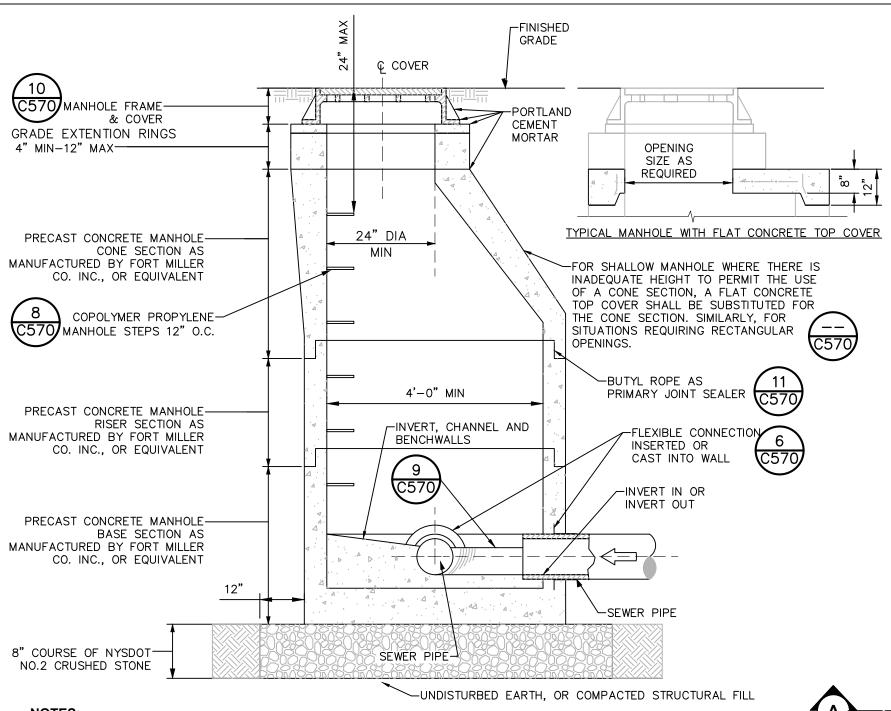
2. REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION. PIPE CONNECTION TO EXISTING MANHOLE-**CEMENT GROUT SEAL WITH WATER STOP** SCALE: NOT TO SCALE

ACCEPTABLE MANHOLE STEPS

MANUFACTURER	PATTERN NUMBER	"A" STEP WIDTH	"B" LEG LENGTH	"C" RUNG CLEAR	"D" EMBED- MENT	"E" RUNG CLEAR	
M.A. INDUSTRIES INC*	PS2-PF	14 3/4	9 1/4	13 3/4	3 3/8	5 7/8	
M.A. INDUSTRIES INC*	PS2-PFS	14 3/4	8 1/4	13 3/4	3 3/8	4 7/8	



SCALE: NOT TO SCALE



USE ONLY WET-CAST UNITS. DRY-CAST NOT ACCEPTABLE

CONE DIMENSIONS DIAM. OPENING HEIGHT 24" OR 42" 24" 34" 2. INVERT SHALL BE FILLETED.

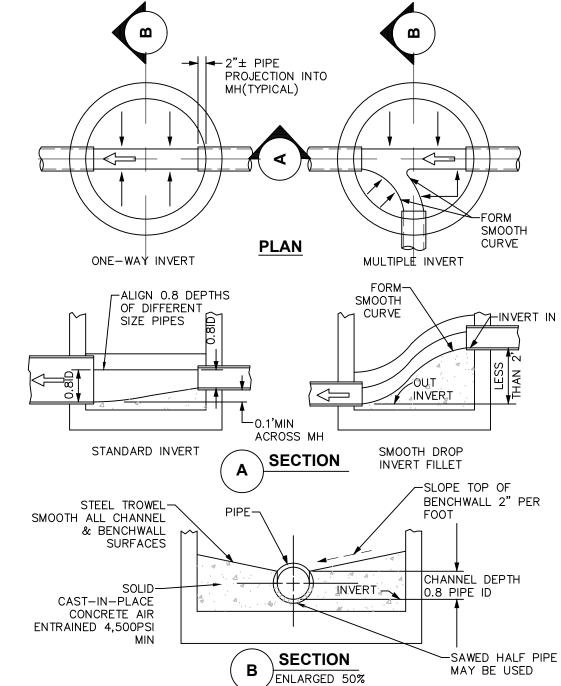
3. REINFORCEMENT FOR MANHOLE COMPONENTS SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR HS20-44 VEHICULAR LOADING PLUS 25% IMPACT.

4. CONCRETE TO TEST 4,500 PSI AT 28 DAYS IN CONFORMANCE WITH A.S.T.M. C-478.

5. BENCH SHALL BE BUILT FOR FLOW BETWEEN INLET AND OUTLET.

6. EACH MANHOLE EXTERIOR SHALL RECEIVE TWO BITUMINOUS COATS.





INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO UTILITY PLAN FOR NLET_AND OUTLET DIRECTIONS.

INVERT, CHANNEL AND BENCHWALLS SCALE: NOT TO SCALE



21 Fox Street Poughkeepsie, NY 12601 (845) 454-3980

labellapc.com

-FLEXIBLE RUBBER BOOT SEAL ASSEMBLY IN

-SERIES 304 STAINLESS STEEL BAND

FLEXIBLE PIPE

10' MAX

INSIDE DIAMETER JOINT SEALER

5'-0" & LARGER 1 1/2"

3' MAX

OR JOINT COUPLING

(SEE TABLE BELOW)

PRECAST CONCRETE

MANHOLE SECTION

-BUTYL ROPE AS

(SEE TABLE BELOW)

-EXTEND WALL STEEL

JOINT SEALER

REINFORCEMENT

SIZE OF BUTYL ROPE

MANHOLE JOINT

SCALE: NOT TO SCALE

INTO JOINT LIPS

PRIMARY

CLAMP & SERIES 305 STAINLESS

STEEL ADJUSTMENT SCREW.

CORED HOLE (ASTM

C923)

ALUMINUM ALLOY

FLEXIBLE JOINT REQUIREMENTS

STD RUBBER GASKET PIPE JOINT ONLY

STD RUBBER GASKET PIPE JOINT ONLY

REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

COVER PN#00120321

-NON-SKID COVER DESIGN,

CIRCULAR RAISED RIB

OR EQUAL.

PATTERN

-MACHINED

SEATS

~RÉINFORCING

BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO WITHSTAND LOADS IMPOSED BY STRUCTURE

WEIGHT, EARTH COVER, LATERAL PRESSURE FROM EARTH AND GROUND WATER, AND LIVE LOADS SUCH AS PEDESTRIAN

BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO ALSO WITHSTAND TRAFFIC LOADS CREATED BY

AN HS20-44 TRUCK PLUS 25% IMPACT AS DEFINED IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF STATE

3. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER

ASTM A 48, CLASS 30B AND DUCTILE IRON SHALL CONFORM WITH ASTM A 536 AND BE OF A GRADE APPROPRIATE TO

4. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER

BELOW GRADE STRUCTURES SHALL BE DESIGNED TO WITHSTAND ÁASHTO HS 20-44 HIGHWAY LOADING PLUS 25% IMPACT.

BELOW GRADE STRUCTURES SHALL BE MANUFACTURED FROM GRAY IRON OR DUCTILE IRON. GRAY IRON SHALL CONFORM WITH

NON-ROCKING

PIPE CONNECTION TO MANHOLE-

FLEXIBLE JOINT TYPE IN & OUT

KORBAND HOLDING

ENTERING OR

EXITING MANHOLE

"A"DISTANCE PER TABLE

PRECAST OR CORED HOLE W/ INSERTED FLEXIBLE BOOT

INSIDE FACE-

MANHOLE

PRECAST CONCRETE

BASE SECTION

SCALE: NOT TO SCALE

CORED OPENING SHALL BE-

WATER PROOF GROUT

FILLED WITH NON-SHRINK

AFTER PIPE IS INSTALLED

2"± PROJECTION-

INTO MH AT PIPE

BASE

SEWER PIPE TYPE

PLAN

"24"

(A) SECTION

MANHOLES AND OTHER BELOW GRADE STRUCTURES:

HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) DESIGN STANDARDS.

VEHICLE LOADING AND 25% IMPACT.

HEAVY DUTY

SCALE: NOT TO SCALE

TRAFFIC OR MACHINERY ON OR ABOVE THE STRUCTURE; AND

CEMENT: ASTM C-150, TYPES I,II,III,VI SAND: NYSDOT STD. SPEC. **SECTION NO. 703-0** CONCRETE SAND

ENTRAINED AIR: 5% MIN.

STONE: NYSDOT STD. SPEC. SECTION NO. 703-02 COARSE AGGREGATE

CONCRETE STRENGTH (28 DAY): 4,500 PSI (F'C)

5. ALL ASTM REFERENCES SHALL BE FOR THE LATEST ACTIVE STANDARD.

WIRE MESH REINFORCEMENT: ASTM A185 PLAIN

STEEL BAR REINFORCEMENT: ASTM A615, GRADE 60

1. FRAME AND COVER SHALL BE DESIGNED FOR HS20-44

STANDARD CAST IRON MH COVER

1. STRUCTURAL DESIGN FOR MANHOLES AND OTHER BELOW-GRADE PRECAST CONCRETE STRUCTURES:

2. MATERIAL WHICH SHALL BE UTILIZED IN THE CONSTRUCTION OF PRECAST CONCRETE STRUCTURES:

EJ GROUP

ÖR EQUAL.

FRAME PN#00120715 /

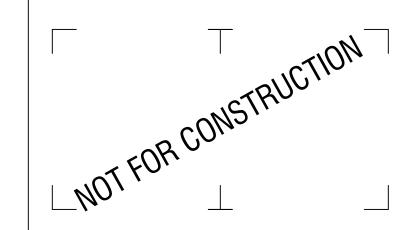
FLANGE-

BRACING

WEB (6 REQ'D)

B. TRAFFIC LOADS:

SPRINGLINE



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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:

2230010 DRAWN BY: REVIEWED BY: CPL ISSUED FOR: PLANNING BOARD APPROVAL

DATE: 12/7/22

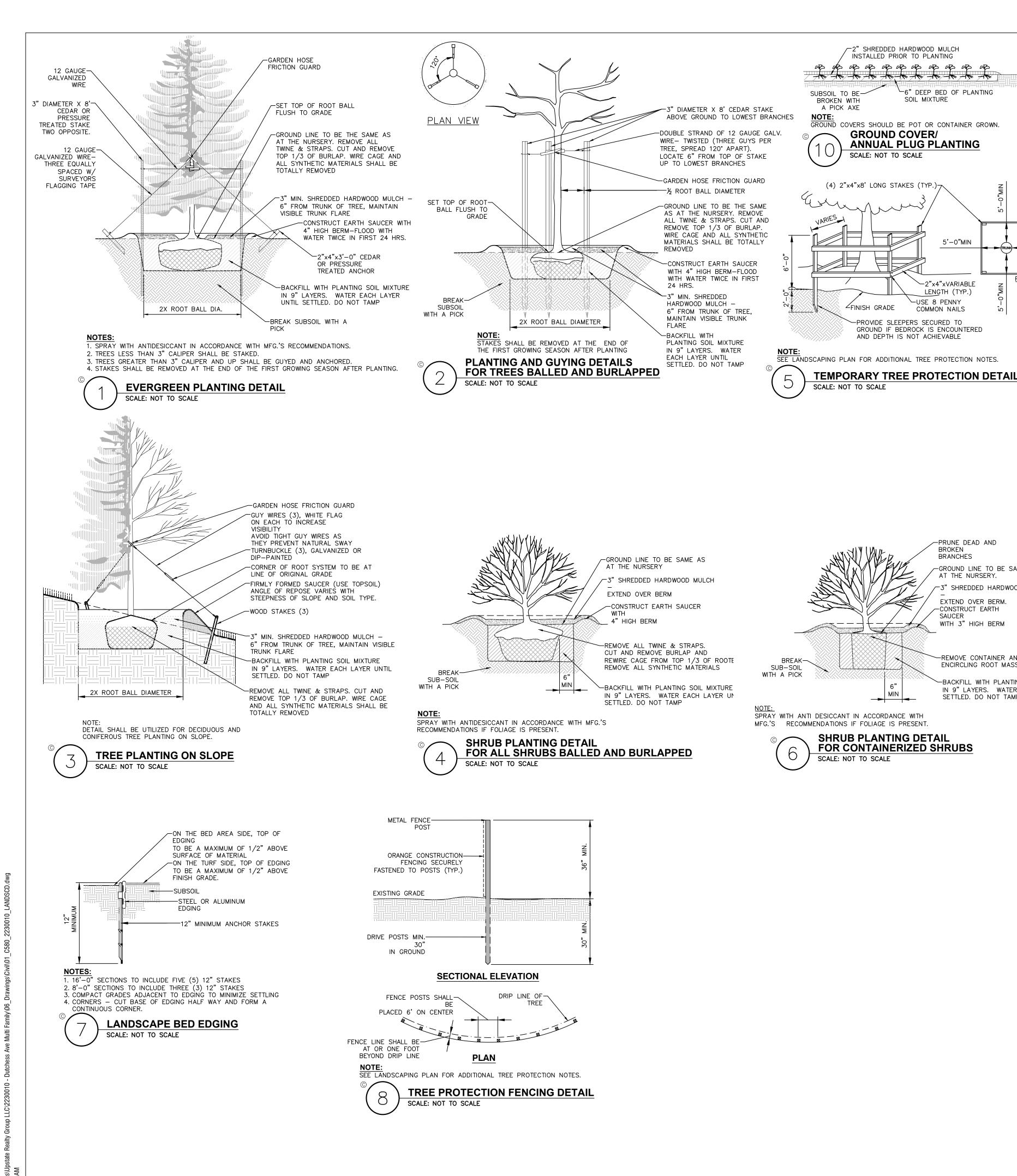
DRAWING NAME:

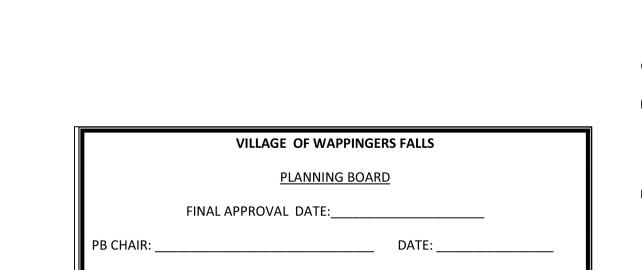
PROJECT NUMBER:

SANITARY SEWER SYSTEM DETAIL

DRAWING NUMBER:

VILLAGE OF WAPPINGERS FALLS PLANNING BOARD FINAL APPROVAL DATE: WITNESS:





WITNESS:

LANDSCAPING NOTES:

∠2" SHREDDED HARDWOOD MULCH

INSTALLED PRIOR TO PLANTING

GROUND COVER/

SCALE: NOT TO SCALE

FINISH GRADE

└6" DEEP BED OF PLANTING

5'-0"MIN

-PRUNE DEAD AND

AT THE NURSERY.

EXTEND OVER BERM.

-CONSTRUCT EARTH

WITH 3" HIGH BERM

-GROUND LINE TO BE SAME AS

-3" SHREDDED HARDWOOD MULCH

-REMOVE CONTAINER AND BREAK AF

-BACKFILL WITH PLANTING SOIL MIXT

IN 9" LAYERS. WATER EACH LAYE

ENCIRCLING ROOT MASSES

SETTLED. DO NOT TAMP

BRANCHES

SAUCER

`-2"x4"xVARIABLE

LENGTH (TYP.)

USE 8 PENNY

-PROVIDE SLEEPERS SECURED TO

AND DEPTH IS NOT ACHIEVABLE

GROUND IF BEDROCK IS ENCOUNTERED

COMMON NAILS

<u>PLAN VIEW</u>

SOIL MIXTURE

ANNUAL PLUG PLANTING

- 1. THE LANDSCAPE CONTRACTOR SHALL CAREFULLY COORDINATE CONSTRUCTION ACTIVITIES WITH THAT OF THE EARTHWORK CONTRACTOR AND OTHER SITE DEVELOPMENT.
- 2. THE CONTRACTOR SHALL VERIFY DRAWING DIMENSIONS WITH ACTUAL FIELD CONDITIONS AND INSPECT RELATED WORK AND ADJACENT SURFACES. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF ALL FINISH GRADES WITHIN THE WORK AREA. THE CONTRACTOR SHALL REPORT TO THE LANDSCAPE ARCHITECT/ENGINEER AND OWNER ALL CONDITIONS WHICH PREVENT PROPER EXECUTION OF THIS WORK.
- 3. THE EXACT LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND UNDERGROUND UTILITIES, WHICH MAY NOT BE INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE CONTRACTOR. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES AND UTILITY SERVICES AND IS RESPONSIBLE FOR THEIR REPLACEMENT IF DAMAGED.
- 4. THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM RUBBISH AND ALL DEBRIS AT ALL TIMES AND SHALL ARRANGE MATERIAL STORAGE SO AS NOT TO INTERFERE WITH THE OPERATION OF THE PROJECT. ALL UNUSED MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED FROM THE
- 5. NO TREES OR SHRUBS SHALL BE PLANTED ON EXISTING OR PROPOSED UTILITY LINES.
- A. NOMENCLATURE: PLANT NAMES SHALL CONFORM TO THE LATEST EDITION OF "STANDARDIZED PLANT NAMES" AS ADOPTED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE.
- B. SIZE AND GRADING: PLANT SIZES AND GRADING SHALL CONFORM TO THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC (AAN), UNLESS OTHERWISE SPECIFIED.
- C. NURSERY SOURCE: OBTAIN FRESHLY DUG, HEALTHY, VIGOROUS PLANTS NURSERY GROWN UNDER CLIMACTIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR A MINIMUM OF 2 YEARS. PLANTS SHALL HAVE BEEN LINED OUT IN ROWS, ANNUALLY CULTIVATED, SPRAYED, PRUNED AND FERTILIZED IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. ALL PLANTS SHALL HAVE BEEN TRANSPLANTED OR ROOT PRUNED AT LEAST ONCE IN THE PAST 3 YEARS. BALLED AND BURLAPPED PLANTS MUST COME FROM SOIL WHICH WILL HOLD A FIRM ROOT BALL. HEELED IN PLANTS AND PLANTS FROM COLD STORAGE ARE NOT ACCEPTABLE.
- D. SUBSTITUTIONS: DO NOT MAKE SUBSTITUTIONS OF TREES AND/OR SHRUB MATERIALS. IF REQUIRED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY AND PROPOSAL FOR USE OF EQUIVALENT MATERIAL. WHEN AUTHORIZED, ADJUSTMENTS OF CONTRACT AMOUNT (IF ANY) WILL BE MADE BY CHANGE ORDER.
- 7. SEEDING & PLANTING SEASONS AND TIMING CONDITIONS: A. UNLESS OTHERWISE DIRECTED IN WRITING, SEED LAWNS FROM MARCH 15 TO JUNE 15, AND FROM AUGUST 15 TO OCTOBER 15.
- B. UNLESS OTHERWISE DIRECTED IN WRITING PLANT TREES AND SHRUBS FROM MARCH 15 TO JUNE 1, AND FROM AUGUST 15 TO OCTOBER 30.
- C. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE LAWNS OR PLANTINGS ARE TO BE ESTABLISHED AND WORK IS COMPLETE, SHALL BE RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE; WORK SHALL BE WITHIN THE SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER (TOPSOIL AND TEMPORARY COVER SEED MIX) WITHIN 14 DAYS AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.

- 8. PRODUCTS: A. IMPORTED TOPSOIL: PROVIDE TOPSOIL CONFORMING TO THE
 - FOLLOWING: i. LOAM TOPSOIL, WELL DRAINED HOMOGENEOUS TEXTURE AND OF UNIFORM GRADE. WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DENSE MATERIAL, HARDPAN, CLAY, STONES, SOD OR
- ii. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A
- SAMPLE DRIED AT 105°C. iii. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON

97-100

*MINIMUM 2 (EQUAL PROPORTIONS) VARIETIES AS LISTED IN

MINIMUM %

MINIMUM %

MINIMUM %

95%

97%

95%

97%

97%

SPECIES OR VARIETY PURITY GERMINATION

LIME: NATURAL LIMESTONE CONTAINING AT LEAST 85% OF TOTAL

CARBONATES, GROUND TO SUCH FINENESS THAT AT LEAST 90%

PASSES A 10-MESH SIEVE AND AT LEAST 50% PASSES A 100-MESH

FOR STARTER FERTILIZING: COMMERCIAL STARTER FERTILIZER.

GRANULAR, NONBURNING PRODUCT CONTAINING 5% NITROGEN, 10%

AVAILABLE PHOSPHOROUS, AND 5% WATER SOLUABLE POTASH

A SLOW RELEASE COMMERCIAL FERTILIZER, GRANULAR, WITH

3-1-2 NPK. IF APPLIED IN FALL SEASON, SHALL BE AS

PLANTING SOIL MIXTURE: SHALL BE PREMIXED IN BULK, AND

ii. PEAT: BROWN TO BLACK IN COLOR, WEED AND SEED FREE. DRIED

iii. BONE MEAL: FINELY GROUND, RAW, MINIMUM 4% NITROGEN AND

SHOWING THE MANUFACTURER'S GUARANTEED ANALYSIS.

G. HOSE: NEW, 2-PLY GARDEN HOSE NOT LESS THAN 1/2 INCH IN

H. WEED CONTROL FABRIC: SOIL CHECK AS MANUFACTURED BY BRIGHTON

BYPRODUCTS CO. INC. NEW BRIGHTON. PA: MIRASCAPE OR MIRAFI

<u>LAWN AREAS</u>
OAT OR WHEAT STRAW, FREE OF WEEDS. AN ALTERNATIVE IS

PIECES OVER 2 INCHES GREATEST DIMENSION. FREE FROM

GEOSYNTHETIC PRODUCTS, NORCROSS, PA, OR APPROVED EQUIVALENT.

ii. <u>PLANT BED AREAS</u> GROUND OR SHREDDED HARDWOOD BARK, UNCOLORED. NO

A. LANDSCAPE WORK SHALL BE UNDERTAKEN AS SOON AS SITE AREAS

B. TOPSOIL SHALL BE SPREAD NO LESS THAN 4" OVER SUB-GRADE

C. PERFORM FINE GRADING TO FINISHED ELEVATION ONLY IMMEDIATELY

PRIOR TO PLANTING. PLANTING AREAS SHALL BE GRADED TO A

SMOOTH. EVEN SURFACE, FREE OF DEPRESSIONS OR RIDGES WITH A

THE SOIL SHALL BE TESTED FOR PH AND LIME ADDED AS

ii. APPLY FERTILIZER AT RATE OF 4 LBS/1000 SF FOR LAWN AREAS.

LAWN SEED MIX: SEED AT THE RATE OF 5 TO 6 LBS PER 1,000

ii. TEMPORARY COVER SEED MIX: SEED AT THE RATE OF 3 TO 4 LBS

iii. TEMPORARY COVER SEED MIX TO BE APPLIED ONLY FOR LATE

FALL OR SUMMER SOIL STABILIZATION OUTSIDE ALLOWED SEEDING

NECESSARY. ALL AMENDMENTS SHALL BE CHECKED AND APPROVED BY LANDSCAPE ARCHITECT BEFORE AMENDMENTS ARE

MATERIAL. SOIL AMENDMENTS SHALL BE THOROUGHLY MIXED INTO THE TOP 4" OF TOPSOIL, FOLLOWING THE SPECIFICATIONS STATED BELOW.

F. STAKES: 8 FEET LONG, 3 INCH DIA. CEDAR OR P.T. WOOD STAKES.

WOOD FIBER CELLULOSE IF HYDROSEEDING IS USED.

SPHAGNUM PEAT, CONTAINING NOT MORE THAN 9% MINERAL ON A

20% PHOSPHORIC ACID. IT SHALL BE DELIVERED IN SEALED BAGS

ii. FOR FINAL FERTILIZING: IF APPLIED IN SPRING SEASON, SHALL BE

PURITY GERMINATION

PURITY GERMINATION

80%

85%

20-60

THAT PORTION OF THE SAMPLE WHICH PASSES A 1/4" SIEVE.

iv. CONTAINING THE FOLLOWING WASHED GRADATIONS:

OTHER OBJECTIONABLE MATERIAL.

B. SEED MIXTURE:

20%

i. <u>LAWN SEED MIX</u>

SHADE: AMOUNT BY:

AMOUNT BY:

(5-10-5).

ARE AVAILABLE.

D. FERTILIZING:

UNIFORM LOOSE, FINE TEXTURE.

D. FERTILIZER:

SUN AND PARTIAL SHADE:

WEIGHT SPECIES OR VARIETY

PFRFNNIAI RYF

PERENNIAL RYE

**SHADE TOLERANT VARIETY

SPECIFIED IN (8.D.i) ABOVE.

30 PARTS TOPSOIL

1 PART BONE MEAL

10 PARTS PEAT

ii <u>TEMPORARY COVER SEED MIX</u>

KENTUCKY BLUE GRASS*

CREEPING RED FESCUE

CORNELL RECOMMENDATIONS FOR TURFGRASS.

KENTUCKY BLUE GRASS**

CREEPING RED FESCUE

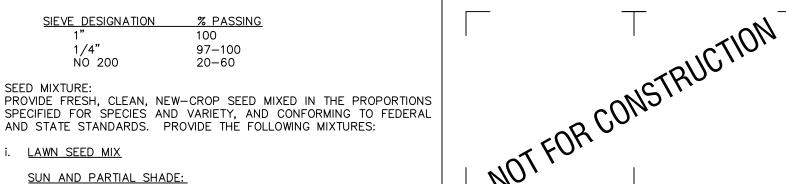
CHEWINGS RED FESCUE

ANNUAL RYEGRASS

E. TREES, SHRUBS, GROUND COVERS, PERENNIALS, ANNUALS:

DRY BASIS AND CONFORMING TO NYSDOT 713-15.

CONTAIN THE FOLLOWING BY VOLUME:



Poughkeepsie, NY 12601

21 Fox Street

labellapc.com

(845) 454-3980

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

© 2022 LaBella Associates

Terra Group 201, LLC.

395 Route 212 Saugerties, NY 12477

Terra Group 201, LLC.

Dutchess Ave and Garden Street Village of Wappingers, NY

3	05/10/23	VILLAGE COMMENTS
2	3/15/23	Village Comments
1	2/8/23	Village Comments
NO:	DATE:	DESCRIPTION:
Revisions		

F. ALL SEEDED AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS: i. A UNIFORM BLANKET OF STRAW APPLIED AT A RATE OF 2 TONS/ACRE MIN, TO BE APPLIED ONCE SEEDING IS COMPLETE.

- ii. WOOD FIBER CELLULOSE APPLIED WITH SEED MIX BY A HYDROSEEDER AT A RATE OF 2,000 LBS/ACRE.
- G. ALL SEEDED SLOPES 3:1 OR GREATER SHALL BE PROTECTED FROM EROSION WITH JUTE MESH OR APPROVED EQUAL.
- H. ALL NEWLY PLANTED AREAS SHALL BE KEPT MOIST BY WATERING UNTIL GRASSES AND GROUND COVERS ARE WELL ESTABLISHED. THE LANDSCAPE CONTRACTOR MUST WATER PLANT MATERIAL WHEN NECESSARY FOR 90 DAYS AFTER INSTALLATION. THE SELECTED CONTRACTOR IS RESPONSIBLE FOR BRINING A WATER TRUCK TO THE SITE FOR ALL 90 DAYS.
- I. LAWNS ARE TO BE WARRANTED UNTIL THEY BECOME ESTABLISHED, UNTIL FINAL ACCEPTANCE, AND NOT LESS THAN 90 DAYS AFTER COMPLETION OF ALL WORK. TREES, SHRUBS, GROUND COVERS, AND PERENNIALS SHALL BE WARRANTED AGAINST DEFECTS INCLUDING POOR GROWTH AND DEATH, EXCEPT WHEN RESULTING FROM OWNER NEGLECT, INCIDENTS THAT ARE BEYOND THE CONTROL OF THE LANDSCAPE INSTALLER AND DAMAGE OR ABUSE BY OTHERS, FOR AT LEAST TWO FULL YEARS AFTER PROJECT COMPLETION.

	2230010	
DRAWN BY:	TK	_
REVIEWED BY:	CPL	
ISSUED FOR:	PLANNING BOARD APPROVAL	
DATE.		

LANDSCAPE DETAILS

DRAWING NUMBER:

PROJECT NUMBER:

DRAWING NAME:



May 10, 2023

Chairman Thomas Morris Village of Wappingers Falls Planning Board 2582 South Avenue Wappingers Falls, New York 12590

RE: Buckingham Properties Nelson Avenue

Dear Chairman Morris and Members of the Board:

Attachments

- Project Plans (14 sheets), last revised May 10, 2023.
- Threatened and Endangered Species Habitat Suitability Assessment Report prepared by Ecological Solutions, LLC dated April 29, 2023.
- Preliminary Water Engineers Report, dated May 10, 2023.

With respect to the March 2, 2023, comment letter from Michelle R. Greig AICP, we offer the following:

- 1. It is understood that site plan approval from the Planning Board is required.
- 2. It is understood that the project will be recirculated under SEQR.
- 3. As discussed at the April 6, 2023, Planning Board meeting, the "Concept 1" layout has been incorporated into the project plans.
- 4. The architectural plans are being updated and will be provided under separate cover. Enhanced visuals from select locations are being developed and will be provided under separate cover.
- 5. It is understood that the project is being evaluated based on Section 151-26F of the zoning law. As discussed above, architectural elevations and enhanced visuals will be provided under separate cover.
- 6. It is acknowledged that the adjacent Greenway trails will serve as a resource to the residents of the proposed project. As such a pedestrian connection from the development to Channingville Road (adjacent to the trail head) has been incorporated into the project drawings. In addition, the location of the Greenway trail in the vicinity of the proposed project has been shown on the project drawings.
- 7. The applicant is evaluating the cost associated with the requested sidewalk extension along Nelson Ave and is hopeful this community benefit can be considered towards the project's recreation fee.

8. Parking:

- a. Parking has been adjusted so that parking is no longer proposed in the front yard. Per discussions with the Planning Board and Staff, the total number of spaces has been reduced as requested. This will provide additional green space for the project. The plan also includes areas of landbanked parking which could be built, should it be required in the future.
- The ADA parking spaces have been revised to 9 feet wide as required by Village Zoning Law.
- c. The applicant has committed to installing the electric lines for future electric vehicle charging stations and will provide conduits so they can be installed in the future. If requested by the Board the future spaces can be illustrated on the project drawings.
- d. It is anticipated that storage space will be provided in the basement of Building A which could serve as sheltered bicycle parking.

9. Landscaping:

- Additional tree islands and perimeter trees have been added as required by Village Code.
 A total of 206 parking spaces are proposed with 22 trees within traffic islands and 22 perimeter trees to meet the code requirement.
- b. The new plantings will conform to Section 151-24K of the Village Code.
- 10. The parking lot fixtures will be full cut off at a maximum color temperature of 2700K. The bollard lights are not available at less than 3000K. Cut sheets for the lighting fixtures are provided on drawing LP-1.
- 11. Elevations of the clubhouse are enclosed herewith.
- 12. Building materials and colors for the proposed buildings have been provided as requested.
- 13. Proposed project sign details will be provided in a future submission.
- 14. The bus shelter information will be provided in a future submission.
- 15. The project has been designed so that it will meet ADA requirements. Further detail will be provided as the project is advanced to demonstrate compliance. The applicant will work with Code Enforcement Officer to confirm ADA accessibility as the project progresses through the process.
- 16. Based on the architect's understanding of the code it is believed all proposed units all meet the minimum 500 square foot of habitable area as required by code.
- 17. The project proposes green space within the layout of the project. Amenities will include a clubhouse and a gazebo as shown on the plan.
- 18. It is understood that a yard variance will be required for the project. Any additional variances determined by the Code Enforcement Officer will be included in the variances sought from the Zoning Board of Appeals.

19. Emergency access:

- a. Insite has met with Fire Chief Enson onsite to review the entrance to Oak Tree Gardens. The project proposes widening the Oak Tree Gardens entrance and widening of the proposed emergency access between the two projects to 20 feet. Based on our conversations with Chief Enson, with these changes, he will accept this connection as emergency access. A schematic layout has been shown to memorialize the response to the comments. Subsequent submissions will show more detail and verify fire truck turning maneuvers once more detailed survey information is obtained.
- b. It is understood that an amended site plan for the Oak Tree Gardens property would be required for these improvements.
- 20. Our project team is currently in the process of confirming the previous archeological report encompasses the current limits of disturbance.
- 21. The Ecological Study enclosed herewith has been expanded to discuss non-threatened and non-endangered species.
- 22. It is understood that the project will be referred to Dutchess County Department of Planning and Development by the Planning Board.
- 23. It is acknowledged that a public hearing is not required. We look forward to discussing this matter with the Board.
- 24. If a public hearing is held, it is understood that the Town of Poughkeepsie Clerk must receive notice under General Municipal Law.

In regards to the February 28, 2023 comment memo from Todd Atkinson, PE, we offer the following:

- 1. The requested language regarding the Village water upgrades and the schedule for the project connection have been included in the Water Engineer's Report.
- 2. Additional information regarding the sizing of the proposed fire suppression water storage tanks will be provided in a future submission.
- 3. A profile of the proposed potable water main will be provided in a future submission.
- 4. Additional detail has been added to the proposed potable water schematic design as requested.
- 5. A double check valve backflow prevention device has been added to the proposed water schematic as requested.
- 6. Sizing information regarding the storage tank and piping has been provided in the Water Engineer's Report.
- 7. A potable water storage tank has been added to the plan per discussions with the Village Engineer and Water Board. The tank is sized to provide a max day storage as is typical for a development of this size. Providing three days storage is not practical as this may lead to stagnant water concerns in the tank. A tank providing maximum day storage is adequate.
- 8. Per our meeting with the Water Board, the Water Board prefers a connection to the Village water system over connection to the Town of Poughkeepsie.

- 9. It is understood that further coordination with Tri-Municipal Sewer Commission will be required for the connection in Channingville Road. Insite has had initial discussions with Tri-Municipal to the feasibility of this connection.
- 10. A profile of the proposed sewer main will be provided in a future submission.
- 11. It is understood that the connection to the Tri-Municipal Sewer in Channingville Road is the preferred connection. It is understood that additional work would be required to connect to the Village sewer main in Nelson Ave.
- 12. New traffic counts were collected on January 11 and 12, 2023. They were also compared with the old counts from 2017 and other available counts along NYS Route 9D. The traffic study dated January 2023 used the higher of the counts in the evaluation.
- 13. No credit on the reduction of trips generated by the project was taken for the proximity of the train station which typically can reduce overall traffic generation by up to 25%. The study analyzed full traffic volumes with no mass transit credit. The traffic assignment distributions do account for trips to the train station as a destination.
- 14. Per discussions with the Board at the April 6, 2023 Planning Board meeting, the number of parking spaces has been reduced as requested. The project now proposes to construct 206 parking spaces which will be the requirements per the parking study prepared by Colliers Engineering. Per initial request of the Board for one parking space per bedroom, areas for future parking (landbanked parking) have been shown to provide 247 (matching the bedroom count) total spaces if additional parking is needed in the future.
- 15. The applicant has committed to installing the electric lines for future electric vehicle charging stations and will provide conduits so they can be installed in the future. If requested by the Board the future spaces can be illustrated on the project drawings.
- 16. Enhanced visuals from selected locations throughout the Village, including the Bleachery are being prepared and will be provided in a future submission. It is understood that it is the Board's desire to have the architecture of the buildings facing the Bleachery to be of similar style to the Bleachery. Updated architectural drawings will be provided under separate cover.
- 17. With the reduction of parking, the townhomes have been shifted away from the Scenic Hudson property. This will allow for additional landscaping and screening in this area.
- 18. As shown on the Aerial on Drawing OP-1 the site is almost entirely wooded. Areas not forested are shown by the existing tree line on Drawing EX-1. Where trees will be removed are demonstrated by the proposed tree line on Drawing SP-1.
- 19. The proposed water, sewer, stormwater and fire sprinkler systems are shown on Drawing SP-3. Electric, gas and communication utilities are typically coordinated with the utility provider and will be provided at a later date.
- 20. Information regarding the mailbox location and mailbox details will be provided at a later date, however it is envisioned it can be sited close to the club house which has been relocated centrally in the project.
- 21. The applicant is evaluating the cost associated with the requested sidewalk extension along Nelson Ave and is hopeful this community benefit can be considered towards the project's recreation fee.
- 22. Cut and fill calculations will be provided at a later date. One of the project design goals is to balance the earthwork as much as practical. Additional testing would be required to accurately differentiate between rock excavation and soil excavation.

- 23. It is not believed blasting is prohibited within the Village. Based on the anticipated rock removal for this project it is envisioned blasting will be more efficient and less impactful to the surrounding community when compared to a longer duration operation such as rock hammering.
- 24. Notice will be provided to J. Robert Folchetti & Associates for final stormwater infiltration practice testing.
- 25. Floor plans have been provided and are enclosed herewith. The fire sprinkler layout is anticipated to be provided as part of the building permit process.
- 26. The location of the proposed project sign near Nelson Avenue has been shown on Drawing SP-1. Additional detail will be provided at a later date.
- 27. Insite has met with Fire Chief Enson onsite to review the entrance to Oak Tree Gardens. The project proposes widening the Oak Tree Gardens entrance and widening of the proposed emergency access between the two projects to 20 feet. Based on our conversations with Chief Enson, with these changes, he will accept this connection as emergency access. A schematic layout has been shown to memorialize the response to the comments. Subsequent submissions will show more detail and verify fire truck turning maneuvers once more detailed survey information is obtained.
- 28. It is understood that an amended site plan for Oak Tree Gardens may be required.
- 29. We anticipate that combining the project entrance with the common driveway serving the existing three single-family homes would not be desired by the existing single-family homes.
- 30. An updated Stormwater Pollution Prevention Plan will be provided once soil testing is completed. Impervious cover was reduced for removal of parking spaces, so proposed practices may be able to be reduced in size.
- 31. It is anticipated that the project will have an 18-month construction schedule.

Should you have any questions or comments regarding this information, please feel free to contact our office.

Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By:

Richard D. Williams Jr., PE Senior Principal Engineer

RDW/ems/kff Enclosures

Insite File No. 22194.100

Full Environmental Assessment Form Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

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

A. Project and Applicant/Sponsor Information.

Name of Action or Project:			
Buckingham Property Management			
Project Location (describe, and attach a general location map):			
Located in the Village of Wappingers Falls, Dutchess County, New York, along Char	nningville Road & Nelson Avenue		
Brief Description of Proposed Action (include purpose or need):			
The project is located on a 13.4 Acre parcel located in the RMU (residential mixed undevelopment proposes 188 units in mixed residential housing complex consisting of 12 3-bedroom units. Three apartment buildings are proposed with 176 total units counits. 206 parking spaces and 41 landbanked spaces provided with access from Ne neighboring property allowing both properties to have emergency egress (no emergency earlier wooded areas along Channingville Road. Project SWPPP has Wappingers code including green infrastructure practices to the maximum extent praconnections to existing Village and Tri-Municipal systems.	townhomes and apartment buildings insisting of 6 studio units, 135 (1)-bed Ison Avenue and an emergency acce ency access currently exists). Propos is been provided in conformance with	Three townhome buildings with froom units and 35 (2)-bedroom ss is proposed through ed layout designed with central NYSDEC & Village of	
Name of Applicant/Sponsor:	Telephone: 914-666-770	0	
Mr. Edward Cohen	E-Mail: ecohen@buckin	E-Mail: ecohen@buckinghamre.com	
Address: 657 East Main Street	<u>'</u>		
City/PO: Mount Kisco	State: New York	Zip Code: 10549	
Project Contact (if not same as sponsor; give name and title/role):	Telephone: 845-225-969	0	
Richard D. Williams, Jr., PE		E-Mail: rwilliams@insite-eng.com	
Address: 3 Garrett Place			
City/PO:	State:	Zip Code:	
Carmel	New York	10512	
Property Owner (if not same as sponsor):	Telephone:	1	
	E-Mail:		
Address:	1		
City/PO:	State:	Zip Code:	

B. Government Approvals

B. Government Approvals, Funding, or Sponassistance.)	nsorship. ("Funding" includes grants, loans, ta	ax relief, and any othe	r forms of financial
Government Entity	If Yes: Identify Agency and Approval(s) Required	Applicati (Actual or)	
a. City Counsel, Town Board, ☐ Yes ✓ No or Village Board of Trustees			
b. City, Town or Village ✓ Yes No Planning Board or Commission	Planning Board (Site Plan), Building Dept. (Building Permit), Water Board (service connection)	TBD	
c. City, Town or ✓Yes□No Village Zoning Board of Appeals	Zoning Board of Appeals (variances for associated theoretical subdivision)	TBD	
d. Other local agencies ✓Yes□No	Town of Poughkeepsie (Highway Work Permit)	TBD	
e. County agencies ✓ Yes□No	DCDOH (Water, sewer connection)	TBD	
f. Regional agencies ✓Yes□No	Tri-Municipal Sewer Commission (sewer connection)	TBD	
g. State agencies ✓Yes□No	NYSDEC (SPDES, GP-0-20-001)	TBD	
h. Federal agencies ☐Yes ☑No			
i. Coastal Resources.i. Is the project site within a Coastal Area, or	or the waterfront area of a Designated Inland W	aterway?	∠ Yes □ No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?iii. Is the project site within a Coastal Erosion Hazard Area?			✓ Yes□No □ Yes✓No
C. Planning and Zoning			
C.1. Planning and zoning actions.			
 Will administrative or legislative adoption, or a only approval(s) which must be granted to enall If Yes, complete sections C, F and G. If No, proceed to question C.2 and continuous 		•	□Yes ☑ No
C.2. Adopted land use plans.			
a. Do any municipally- adopted (city, town, vil where the proposed action would be located?) include the site	✓Yes□No
If Yes, does the comprehensive plan include spewould be located? Project was adjusted to reflect re	ecific recommendations for the site where the p		∠ Yes□No
			∠ Yes□No
c. Is the proposed action located wholly or part or an adopted municipal farmland protection If Yes, identify the plan(s):		pal open space plan,	□Yes Z No

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district? RMU Zone	✓ Yes□No
b. Is the use permitted or allowed by a special or conditional use permit?	∠ Yes N o
c. Is a zoning change requested as part of the proposed action? If Yes, i. What is the proposed new zoning for the site?	□Yes ☑ No
C.4. Existing community services.	
a. In what school district is the project site located? Wappingers CSD	
b. What police or other public protection forces serve the project site? _Wappingers Falls Police Department	
c. Which fire protection and emergency medical services serve the project site? New Hamburg Fire Department, Station #1	
d. What parks serve the project site? _Bowdoin Park	
D. Project Details	
D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed components)? Residential	, include all
b. a. Total acreage of the site of the proposed action? b. Total acreage to be physically disturbed? c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 13.4 acres 13.4 acres	
c. Is the proposed action an expansion of an existing project or use? i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, square feet)? % Units:	☐ Yes No housing units,
d. Is the proposed action a subdivision, or does it include a subdivision? If Yes, i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)	□Yes ☑ No
ii. Is a cluster/conservation layout proposed?iii. Number of lots proposed?	□Yes ☑ No
e. Will the proposed action be constructed in multiple phases? i. If No, anticipated period of construction: months ii. If Yes: • Total number of phases anticipated • Anticipated commencement date of phase 1 (including demolition) month year • Anticipated completion date of final phase month year • Generally describe connections or relationships among phases, including any contingencies where progress determine timing or duration of future phases:	

f. Does the project include new resi				✓Yes□No
If Yes, show numbers of units prop		m r u	Maria E 11 (C	
One Family	Two Family	Three Family	Multiple Family (four or more)	
Initial Phase			188	
At completion			188	
of all phases				
g. Does the proposed action include	e new non-residentia	l construction (inclu	iding expansions)?	□Yes ✓ No
If Yes,				_
<i>i</i> . Total number of structures				
ii. Dimensions (in feet) of largest	proposed structure: _	height;	width; andlength	
iii. Approximate extent of building	· <u> </u>		•	
h. Does the proposed action include				∠ Yes N o
liquids, such as creation of a wat If Yes,	er supply, reservoir,	pond, lake, waste la	agoon or other storage?	
<i>i.</i> Purpose of the impoundment: St	ormwater impoundmen	nt		
<i>ii.</i> If a water impoundment, the pri		water:	Ground water Surface water stre	ams Other specify:
Stormwater	<u> </u>			
iii. If other than water, identify the	type of impounded/o	contained liquids and	d their source.	
in Approximate size of the propos	ad impoundment	Volume	0.4 million gallance surface areas	0.F. naras
v. Dimensions of the proposed day			0.4 million gallons; surface area:	<u>0.5</u> acres
			ructure (e.g., earth fill, rock, wood, co	ncrete):
Earth fill				
D.2. Project Operations				
a. Does the proposed action include	e any excavation, mi	ning, or dredging, d	uring construction, operations, or both	? Yes ✓ No
	ration, grading or in	stallation of utilities	or foundations where all excavated	
materials will remain onsite)				
If Yes:				
<i>i</i> . What is the purpose of the excavii. How much material (including re	valion of dredging?	e etc.) is proposed to	he removed from the site?	
			b be removed from the site:	
 Over what duration of tim 				
			ged, and plans to use, manage or dispo	se of them.
-				
		. 1		
iv. Will there be onsite dewatering If yes, describe.				☐Yes ☐No
ii yes, describe.				
v. What is the total area to be dred	ged or excavated?			
vi. What is the maximum area to b	e worked at any one	time?	acres	
vii. What would be the maximum d				
viii. Will the excavation require bla				☐Yes ☐No
ix. Summarize site reclamation goa	ls and plan:			
1 377 11.1	4.1.			
b. Would the proposed action cause			crease in size of, or encroachment	☐ Yes ✓ No
into any existing wetland, water If Yes:	oody, shorenne, bea	ch of adjacent area?		
11 1 00.				
i. Identify the wetland or waterbo	dy which would be	affected (by name. v	vater index number, wetland map num	ber or geographic
i. Identify the wetland or waterbo description):			vater index number, wetland map num	ber or geographic

<i>ii.</i> Describe how the proposed action would affect that waterbody or wetland, e.g. excalleration of channels, banks and shorelines. Indicate extent of activities, alterations	
<i>iii.</i> Will the proposed action cause or result in disturbance to bottom sediments? If Yes, describe:	□Yes□No
<i>iv</i> . Will the proposed action cause or result in the destruction or removal of aquatic veg If Yes:	etation?
acres of aquatic vegetation proposed to be removed:	
 expected acreage of aquatic vegetation remaining after project completion: purpose of proposed removal (e.g. beach clearing, invasive species control, box 	
purpose of proposed femoval (e.g. beach clearing, invasive species control, box	it access).
proposed method of plant removal:	
if chemical/herbicide treatment will be used, specify product(s):	
v. Describe any proposed reclamation/mitigation following disturbance:	
c. Will the proposed action use, or create a new demand for water?	∠ Yes No
If Yes: 16,200 average day	
i. Total anticipated water usage/demand per day: 27,620 maximum day ii. Will the proposed action obtain water from an existing public water supply?	•
If Yes:	∠ Yes N o
 Name of district or service area: Village of Wappingers Falls Municipal Water Syster 	n
• Does the existing public water supply have capacity to serve the proposal?	∠ Yes No
• Is the project site in the existing district?	∠ Yes No
 Is expansion of the district needed? 	☐ Yes ✓ No
 Do existing lines serve the project site? 	☐ Yes ✓ No
<i>iii.</i> Will line extension within an existing district be necessary to supply the project?	□Yes ∠ No
If Yes: • Describe extensions or capacity expansions proposed to serve this project: Water service connection	
Source(s) of supply for the district:	
<i>iv</i> . Is a new water supply district or service area proposed to be formed to serve the proof If, Yes:	ject site? ☐ Yes ✔No
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
Proposed source(s) of supply for new district:	
v. If a public water supply will not be used, describe plans to provide water supply for	the project:
vi. If water supply will be from wells (public or private), what is the maximum pumping	g capacity: gallons/minute.
d. Will the proposed action generate liquid wastes?	∠ Yes N o
If Yes: 16,200 average day	
<i>i.</i> Total anticipated liquid waste generation per day: 27,620 maximum day gallons/day <i>ii.</i> Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if com	singtion describe all someonests and
approximate volumes or proportions of each):	
Residential wastewater	
iii. Will the proposed action use any existing public wastewater treatment facilities?	∠ Yes N o
If Yes:	
 Name of wastewater treatment plant to be used: <u>Tri-Municipal Sewer Commission</u> Name of district: Tri-Municipal Sewer 	
 Name of district: https://dream.org/linear.com/ Does the existing wastewater treatment plant have capacity to serve the project 	?
 Is the project site in the existing district? 	Yes □No
 Is expansion of the district needed? 	☐ Yes ☑ No
-	- -

Do existing sewer lines serve the project site?	□Yes No
• Will a line extension within an existing district be necessary to serve the project?	∠ Yes □ No
If Yes:	
Describe extensions or capacity expansions proposed to serve this project:	
Sewer service connection	
<i>iv.</i> Will a new wastewater (sewage) treatment district be formed to serve the project site?	☐Yes ✓ No
If Yes:	103 2110
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
What is the receiving water for the wastewater discharge?	
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including speci	fying proposed
receiving water (name and classification if surface discharge or describe subsurface disposal plans):	
vi. Describe any plans or designs to capture, recycle or reuse liquid waste:	
- The second and plants of acceptance, receptance in the second in the s	
a Will the proposed ection disturb more than one some and exects stamped to the first and the first	Z Vac□N=
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point	∠ Yes N o
source (i.e. sheet flow) during construction or post construction?	
If Yes:	
<i>i.</i> How much impervious surface will the project create in relation to total size of project parcel?	
209,088 Square feet or 4.8 acres (impervious surface)	
584,600 Square feet or 13.4 acres (parcel size)	
ii. Describe types of new point sources. Sheet flow, gutters	
::: When will the stammater most be directed (i.e. on site stammater most facility (stamptons of directed and stamptons)	
<i>iii.</i> Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent progroundwater, on-site surface water or off-site surface waters)?	roperues,
Drainage structures, stormwater management basins	
Drainage structures, stormwater management basins	
If to surface waters, identify receiving water bodies or wetlands:	
	
TYVIII	
Will stormwater runoff flow to adjacent properties? Describe properties and the principle in the properties of	☑Yes□No ☑Yes□No
iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?	
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel	□Yes ☑ No
combustion, waste incineration, or other processes or operations? If Yes, identify:	
<i>i.</i> Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)	
i. Moone sources during project operations (e.g., nearly equipment, neet of derivery venicles)	
ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)	
iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)	
Will the state of	
g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?	□Yes□No
If Yes:	
<i>i.</i> Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet	□Yes□No
ambient air quality standards for all or some parts of the year)	
ii. In addition to emissions as calculated in the application, the project will generate:	
•Tons/year (short tons) of Carbon Dioxide (CO ₂)	
•Tons/year (short tons) of Nitrous Oxide (N ₂ O)	
Tons/year (short tons) of Perfluorocarbons (PFCs)	
•Tons/year (short tons) of Sulfur Hexafluoride (SF ₆)	
Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)	
•Tons/year (short tons) of Hazardous Air Pollutants (HAPs)	

h. Will the proposed action generate or emit methane (included landfills, composting facilities)? If Yes: i. Estimate methane generation in tons/year (metric): ii. Describe any methane capture, control or elimination methane.		∐Yes ✓ No
u. Describe any methane capture, control or elimination me electricity, flaring):		enerate heat or
i. Will the proposed action result in the release of air pollute quarry or landfill operations? If Yes: Describe operations and nature of emissions (e.g., d.		∏Yes ✓ No
 j. Will the proposed action result in a substantial increase in new demand for transportation facilities or services? If Yes: i. When is the peak traffic expected (Check all that apply) □ Randomly between hours of): ☑ Morning ☑ Evening ☐Weekend ☐ uck trips/day and type (e.g., semi trailers and dump truck	
v. If the proposed action includes any modification of exi	isting roads, creation of new roads or change in existing regency access servicing subject parcel and adjoining apartment available within ½ mile of the proposed site? portation or accommodations for use of hybrid, electric	access, describe:
 k. Will the proposed action (for commercial or industrial proposed for energy? If Yes: i. Estimate annual electricity demand during operation of the industrial proposed in the industr	the proposed action:	☐Yes ☑ No ocal utility, or
iii. Will the proposed action require a new, or an upgrade, to	o an existing substation?	□Yes□No
None Hours of operation. Answer all items which apply. i. During Construction: Monday - Friday: 7 AM to 5 PM Saturday: 7 AM to 5 PM Sunday: None Holidays: None	 ii. During Operations: N/A, Residential Use Monday - Friday:	

 m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? If yes: i. Provide details including sources, time of day and duration: General construction operations Monday to Saturday 7 AM to 5 PM 	☑ Yes □No
ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? Describe: <u>Tree removal due to construction operations</u> . <u>Natural vegetative barriers will be retained to the fullest extent practical plantings will be installed</u> .	✓ Yes ☐ No ble and proposed
 n. Will the proposed action have outdoor lighting? If yes: i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: Parking lot, building, sidewalk lighting not to exceed 20 feet in height per village code, will be directed interior to the site, and wildownward facing. ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? Describe: Tree removal due to construction operations. Natural vegetative barriers will be retained to the fullest extent practicable plantings will be installed. 	∠ Yes □ No
o. Does the proposed action have the potential to produce odors for more than one hour per day? If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:	☐ Yes ☑ No
p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? If Yes: i. Product(s) to be stored ii. Volume(s) per unit time (e.g., month, year) iii. Generally, describe the proposed storage facilities:	☐ Yes ☑ No
 q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? If Yes: i. Describe proposed treatment(s): 	☐ Yes ☑No
 ii. Will the proposed action use Integrated Pest Management Practices? r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? If Yes: i. Describe any solid waste(s) to be generated during construction or operation of the facility: Construction:	
 Operation:	

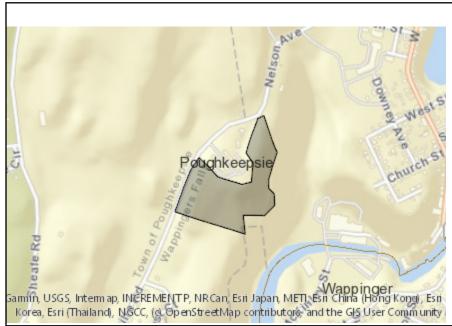
s. Does the proposed action include construction or modi	fication of a solid waste m	anagement facility?	☐ Yes 🖊 No	
If Yes: i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities):				
ii. Anticipated rate of disposal/processing:				
• Tons/month, if transfer or other non-		ent, or		
• Tons/hour, if combustion or thermal	treatment			
iii. If landfill, anticipated site life:	years			
t. Will the proposed action at the site involve the commer waste?	rcial generation, treatment,	, storage, or disposal of hazard	ous ∐Yes ∠ No	
If Yes:				
<i>i.</i> Name(s) of all hazardous wastes or constituents to be	generated, handled or mar	naged at facility:		
ii. Generally describe processes or activities involving h	nazardous wastes or constit	ruents:		
	<u>-</u>			
<i>iii.</i> Specify amount to be handled or generated to <i>iv.</i> Describe any proposals for on-site minimization, rec		ue constituents:		
	yening of rease of nazardot	us constituents.		
v. Will any hazardous wastes be disposed at an existing If Yes: provide name and location of facility:			□Yes□No	
in res. provide name and location of facility.				
If No: describe proposed management of any hazardous	wastes which will not be se	ent to a hazardous waste facilit	y:	
E. Site and Setting of Proposed Action				
E.1. Land uses on and surrounding the project site				
a. Existing land uses.				
i. Check all uses that occur on, adjoining and near the ☐ Urban ☑ Industrial ☐ Commercial ☑ Resid		ıral (non-farm)		
ii. If mix of uses, generally describe:	(-F			
Forested site located in a rural and residential zone with industr	rial use down stream.			
b. Land uses and covertypes on the project site.				
Land use or	Current	Acreage After	Change	
Covertype • Roads, buildings, and other paved or impervious	Acreage	Project Completion	(Acres +/-)	
Roads, buildings, and other paved or impervious surfaces	0.2 AC	5.0 AC	+4.8 AC	
Forested	13.1 AC	3.6 AC	-9.5 AC	
Meadows, grasslands or brushlands (non-	0 AC	0 AC		
agricultural, including abandoned agricultural)	0 10	U AC		
Agricultural (include a section of the sec	0 AC	0 AC		
(includes active orchards, field, greenhouse etc.)Surface water features				
(lakes, ponds, streams, rivers, etc.)	0 AC	0 AC		
Wetlands (freshwater or tidal)				
· · · · · · · · · · · · · · · · · · ·	0 AC	0 AC		
 Non-vegetated (bare rock, earth or fill) 		0 AC		
Tion ingention (out of 1001)	0 AC 0.1 AC	0 AC 0.1 AC		
Non-vegetated (bare rock, earth or fill) Other Describe: Lawn, landscaped area			+4.7 AC	

c. Is the project site presently used by members of the community for public recreation? i. If Yes: explain:	□Yes☑No
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed	∠ Yes No
day care centers, or group homes) within 1500 feet of the project site?	
If Yes,	
i. Identify Facilities:	
	ol Sheafe Road
Astor Early Childhood Center, Mt. Alvernia Retreat Center, Wappingers Junior High School, James S Evans Elementary School Elementary School, The Randolph School, Sapphire Nursing, Roy C Ketcham High School	
e. Does the project site contain an existing dam?	☐ Yes ✓ No
If Yes:	
i. Dimensions of the dam and impoundment:	
• Surface area: acres	
Volume impounded: gallons OR acre-feet	
ii. Dam's existing hazard classification:	
iii. Provide date and summarize results of last inspection:	
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility,	☐ Yes ✓ No
or does the project site adjoin property which is now, or was at one time, used as a solid waste management facili	
If Yes:	•
i. Has the facility been formally closed?	☐Yes☐ No
If yes, cite sources/documentation:	
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:	
u. Describe the location of the project site relative to the boundaries of the solid waste management facility.	
iii. Describe any development constraints due to the prior solid waste activities:	
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin	☐ Yes ✓ No
property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?	
If Yes:	
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurre	d:
h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any	☐Yes ✓ No
remedial actions been conducted at or adjacent to the proposed site?	
If Yes:	
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site	□Yes□No
Remediation database? Check all that apply:	
Yes – Spills Incidents database Provide DEC ID number(s):	
Yes – Environmental Site Remediation database Provide DEC ID number(s): Provide DEC ID number(s):	
Neither database	
-	
ii. If site has been subject of RCRA corrective activities, describe control measures:	
<i>iii.</i> Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? If yes, provide DEC ID number(s): 314127, 314058, 546031	✓Yes□No
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):	
DEC ID #314127: Zinc, chromium, lead, mercury deposited at industrial site down stream, not on site.	
DEC ID #314058: remediation completed at industrial site down stream, not on site. DEC ID #546031: Located 140 miles away from site, PCB contaminants deposited in Hudson River, not on site.	

v. Is the project site subject to an institutional control limiting property uses?		□Yes□No	
 If yes, DEC site ID number: Describe the type of institutional control (e.g., deed restriction or easement): 			·
Describe any use limitations:Describe any engineering controls:			
Will the project affect the institutional or eng			□Yes□No
Explain:			
E.2. Natural Resources On or Near Project Site			
a. What is the average depth to bedrock on the project	site? 1.25 to 2	2. <u>5</u> feet	
b. Are there bedrock outcroppings on the project site?			∠ Yes No
If Yes, what proportion of the site is comprised of bed	rock outcroppings?	<u><1</u> %	
c. Predominant soil type(s) present on project site:	Farmington-Rock outcrop complex	3 %	
e. Fredominant son type(s) present on project site.	Galway-Farmington complex	97 %	
		%	
d. What is the average depth to the water table on the p	project site? Average:>6.5 f	eet	
e. Drainage status of project site soils: Well Drained	d:% of site		
Moderately V	Well Drained:% of site		
	<u></u>		
f. Approximate proportion of proposed action site with	slopes: • 0-10%:	46_% of site	
	10-15%:		
	☑ 15% or greater:	38_% of site	
g. Are there any unique geologic features on the project If Yes, describe:			☐ Yes ✓ No
-			
h. Surface water features.			
i. Does any portion of the project site contain wetland	ls or other waterbodies (including st	reams, rivers,	☐Yes ✓ No
ponds or lakes)?			
ii. Do any wetlands or other waterbodies adjoin the project site?		∠ Yes No	
If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i.			
<i>iii.</i> Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?			∠ Yes □No
<i>iv.</i> For each identified regulated wetland and waterboo	ly on the project site, provide the fo	llowing information:	
	djacent to project site)		
 Lakes or Ponds: Name N/A 		Classification	
• Wetlands: Name N/A		Approximate Size	
• Wetland No. (if regulated by DEC) N/A			
v. Are any of the above water bodies listed in the mos waterbodies?	t recent compilation of NYS water c	quality-impaired	☐Yes ☑ No
If yes, name of impaired water body/bodies and basis in	for listing as impaired:		
if yes, name of imparred water body/bodies and basis in	or fisting as imparied.		
i. Is the project site in a designated Floodway?			□Yes ☑ No
j. Is the project site in the 100-year Floodplain?			□Yes ☑ No
k. Is the project site in the 500-year Floodplain?			□Yes ☑ No
l. Is the project site located over, or immediately adjoin	ning, a primary, principal or sole sou	urce aquifer?	✓ Yes N o
If Yes: i. Name of aquifer: Principal Aquifer			
i. Ivame of aquitor.			

m. Identify the predominant wildlife species deer mouse, gray squirrel, chipmunk,	that occupy or use the project site:Refe morning dove, hummingbird, northern	r to report by Ecological Solutions for more information. eastern phoebe, downy woodpecker,
raccoon, red fox, white-tailed deer,	flicker, american crow, house wren,	northern cardinal, northern grackle,
red backed salamander, turkey, blue jay,	american robin, gray catbird, mockingbird	house finch, brown thrasher
n. Does the project site contain a designated	significant natural community?	☐Yes ∠ No
If Yes:		
<i>i.</i> Describe the habitat/community (compos	sition, function, and basis for designation	n):
·· G (a) . G. 1		
ii. Source(s) of description or evaluation: _iii. Extent of community/habitat:		
• Currently:		acras
· ·	proposed:	acres
 Gain or loss (indicate + or -): 	proposed:	acres
, , ,	-	
o. Does project site contain any species of pl		
endangered or threatened, or does it contain	n any areas identified as habitat for an e	endangered or threatened species?
If Yes:		
<i>i.</i> Species and listing (endangered or threatened	d):	
Bald Eagle, Pied-billed Grebe, Indiana Bat - Refer t	o report by Ecological Solutions for more infor	mation.
p. Does the project site contain any species of	of plant or animal that is listed by NYS	as rare, or as a species of ☐Yes ✓No
special concern?		
If Yes:		
i. Species and listing:		
q. Is the project site or adjoining area current		
If yes, give a brief description of how the pro	posed action may affect that use:	
E.3. Designated Public Resources On or N	Joan Project Site	
-		· · · · · · · · · · · · · · · · · · ·
a. Is the project site, or any portion of it, loca Agriculture and Markets Law, Article 25-		certified pursuant to ☐Yes ✓No
If Yes, provide county plus district name/nu		
b. Are agricultural lands consisting of highly		<u></u> Yes ∠ No
i. If Yes: acreage(s) on project site?		
ii. Source(s) of soil rating(s):		
c. Does the project site contain all or part of	or is it substantially contiguous to, a re	egistered National Yes No
Natural Landmark?		
If Yes:		
		ological Feature
ii. Provide brief description of landmark, in	cluding values behind designation and	approximate size/extent:
d. Is the project site located in or does it adjo	in a state listed Critical Environmental	Area? ☐Yes ☑ No
If Yes:		
i. CEA name:		
ii. Basis for designation:		
iii. Designating agency and date:		

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS			
Office of Parks, Recreation and Historic Preservation to be eligible for	or listing on the State Register of Historic Plant	aces?	
If Yes:	Ziliotania Duildin a an Diatoiat		
<i>i.</i> Nature of historic/archaeological resource: ☐Archaeological Site <i>ii.</i> Name: Wappingers Falls Historic District	☑ Historic Building or District		
iii. Brief description of attributes on which listing is based:			
90 acre area centered along South Ave, West Main St., NY 9D, and Wappin	ger Creek		
f. Is the project site, or any portion of it, located in or adjacent to an are archaeological sites on the NY State Historic Preservation Office (SH		✓ Yes □No	
g. Have additional archaeological or historic site(s) or resources been id If Yes:		□Yes ☑ No	
i. Describe possible resource(s):			
ii. Basis for identification:			
h. Is the project site within fives miles of any officially designated and pascenic or aesthetic resource? If Yes:	publicly accessible federal, state, or local	✓ Yes □No	
 i. Identify resource: NYS Route 9 ii. Nature of, or basis for, designation (e.g., established highway overleetc.): Designated scenic road 	ook, state or local park, state historic trail or	scenic byway,	
iii. Distance between project and resource:1 m	iles.		
i. Is the project site located within a designated river corridor under the Program 6 NYCRR 666?	e Wild, Scenic and Recreational Rivers	☐ Yes ✓ No	
If Yes:			
i. Identify the name of the river and its designation:	CANCER D. 1666		
ii. Is the activity consistent with development restrictions contained in	6N YCRR Part 666?	□Yes □No	
F. Additional Information Attach any additional information which may be needed to clarify you If you have identified any adverse impacts which could be associated measures which you propose to avoid or minimize them.		npacts plus any	
G. Verification I certify that the information provided is true to the best of my knowled Applicant/Sponsor Name Richard D. Williams, Jr., P.E.	Date_May 10, 2023		
Insite Engineering, Surveying & Landscape Archit	ecture, P.C.		
Signature PWIII	Title_Senior Principal Engineer		



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



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	314127, 314058, 546031
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.I. [Aquifers]	Yes
E.2.I. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No

E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Bald Eagle, Pied-billed Grebe, Indiana Bat
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Wappingers Falls Historic District
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Threatened and Endangered Species Habitat Suitability Assessment Report

Buckingham Property Management Site Channingville Road Village of Wappingers Falls Dutchess County, New York

April 29, 2023

Prepared by:

Michael Nowicki Ecological Solutions, LLC 121 Leon Stocker Drive Stratton, VT 05360 (203) 910-4716

1.0 INTRODUCTION	3
TABLE 1 COVER TYPES IDENTIFIED ON THE SITE	4
2.0 HABITAT SUITABILITY ASSESSMENT/CONCLUSION	5
2.1 Indiana bat and Northern long-eared bat	5
<u></u>	•
2.2 Bald eagle	6
2.3 Pied-billed Grebe	6
Figure 1 Location Map	
Attachment 1 - EAF	9
Attachment 2 - USFWS List	

1.0 INTRODUCTION

Ecological Solutions, LLC completed a threatened and endangered species habitat assessment on a wooded site totaling 13.42 acres located on Channingville Road in the Village of Wappingers Falls, Dutchess County, New York (*Figure 1*). The proposed development of the site consists of 186 units in mixed residential housing complex consisting of townhomes and apartment buildings. Previous site visits occurred on December 7, 2016, April 13, 2017, May 5, 2020, and a current site visit occurred today January 25, 2023. General wildlife species and habitats are described below.

The New York State Department of Environmental Conservation (NYSDEC) Environmental Assessment Form identifies the Indiana bat (*Myotis sodalis*), bald eagle (*Haliaeetus leucocephalus*), and pied-billed grebe (*Podilymbus podiceps*) as species that are potentially located on or in the vicinity of the site (*Attachment 1*). A review of the US Fish and Wildlife Service USFWS) list of federal threatened and endangered species for the site indicates that there is the potential for Indiana bat (*Myotis sodalis*) and Northern long-eared bat (*Myotis septentrionalis*) to be located on or in the vicinity of the site (*Attachment 2*).

The purpose of the assessment was to determine if potential habitat exists for the listed species on the site. In addition, field surveys were conducted for general wildlife species including mammals, birds, and herpetiles (reptiles and amphibians).

A. Mammals. The following survey methods were utilized during the field survey:

- 1. Sign search, in which the observer records any recognizable signs (tracks, droppings, hair, bones, etc.) of mammal species.
- 2. Opportunistic mammal sightings, in which the observer identifies mammals encountered in the field at random.

Mammals were identified based on visual encounters, vocalizations, tracks, fur, bones, rubs, scrapes, droppings, and other recognizable signs in habitats throughout the site.

The following is a list mammals identified on the site during the field work. The list of observed species includes: deer mouse (*Peromyscus maniculatus*), gray squirrel (*Sciurus carolinensis*), eastern chipmunk (*Tamias striatus*), raccoon (*Procyon lotor*), red fox (*vulpes vulpes*), and white-tailed deer (*Odocoileus virginiana*).

B. Birds. Field methods used to survey for avian species included:

- Walking transects where the observer records all species encountered (seen/heard) along a trail.
- 2. Opportunistic bird sighting, where the observer records birds encountered randomly.

3. Sign search, where the observer records signs (feathers, nests, droppings, tracks, etc.) of birds encountered in the field.

Birds were detected and identified by visual encounter with individuals, vocalizations, tracks, feathers, bones, droppings, castings, nests, drillings, or other recognizable signs.

The following is a list of breeding birds identified on the site during the field work. The list of observed species includes: turkey (*Meleagris gallopavo*), mourning dove (*Zenaida macroura*), ruby throated hummingbird (*Archilochus colubris*), northern flicker (*Colaptes auratus*), blue jay (*Cyanocitta cristata*), American crow (*Corvus brachyrhynchos*), house wren (*Troglodytes aedon*), American robin (*Turdus migratorius*), gray catbird (*Dumetella carolinensis*), northern mockingbird (*Mimus polyglottos*), Eastern phoebe (*Sayornis phoebe*), downy woodpecker (*Picoides pubescens*), northern cardinal (*Cardinalis cardinalis*), common grackle (*Quiscalus quiscula*), house finch (*Carpodacus mexicanus*), and brown thrasher (*Toxostoma rufum*).

C. Herptiles (Reptiles and Amphibians). Field methods used to survey for herptile species included:

- 1. Log rolling (overturning logs, large stones, and other debris to reveal herptiles underneath).
- 2. Aural surveys were conducted for vocal herptiles. Herptiles were detected and identified by visual encounter, vocalizations, spermatophores, egg masses, and remains.

There were no reptiles identified on the site during the field work and only the red backed salamander (*Plethodon cinerea*) was observed.

The proposed project should have no significant impact on populations of these species since birds are migratory and the mammal species are well adapted to human presence. Open space does exist across Channingville Road for all species identified on the site.

TABLE 1 COVER TYPES IDENTIFIED ON THE SITE

COVER TYPE NAME	
Mixed Upland Forest	

1. Mixed Upland Forest

The site is forested and contains include oaks, maples, cherry birch, black cherry, ash, hickory, and other species. Many of the trees are large in the 12+ inch dbh range with the bulk in the 6-8 inch dbh range.

2.0 HABITAT SUITABILITY ASSESSMENT/CONCLUSION

2.1 Indiana bat and Northern long-eared bat

The Indiana bat and Northern long-eared bat typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. Suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive) or snags with exfoliating or defoliating bark, or containing cracks or crevices that could potentially be used by Indiana bats as a roost. The minimum diameter of roost trees observed to date is 2.5 inches for males and 4.3 inches for females. However, maternity colonies generally use trees greater than or equal to 9 inches dbh. Overall, roost tree structure appears to be more important to Indiana bats than a particular tree species or habitat type. Females appear to be more habitat specific than males presumably because of the warmer temperature requirements associated with gestation and rearing of young. As a result, they are generally found at lower elevations than males may be found. Roosts are warmed by direct exposure to solar radiation, thus trees exposed to extended periods of direct sunlight are preferred over those in shaded areas. However, shaded roosts may be preferred in very hot conditions. As larger trees afford a greater thermal mass for heat retention, they appear to be preferred over smaller trees.

Streams associated with floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for Indiana bats, some of which may fly up to 2-5 miles from upland roosts on a regular basis. These bats also forage within the canopy of upland forests, over clearings with early successional vegetation (*e.g.*, old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures. While these bats appear to forage in a wide variety of habitats, they seem to tend to stay fairly close to tree cover.

Conclusion - The proposed project will require approximately 8.5 acres of the 13.42 acre site to be cleared of trees. The site has the potential to support foraging activities by this species because of the wooded canopy, size and condition of the trees. To avoid direct and indirect impacts to this specie the Applicant will include the following conservation measures:

- Implementing tree clearing activities for site construction between October 1 to March 31 timeframe when bats are not resident on the site;
- Street lighting on the site will use light fixtures that have tops that direct light down to minimize light pollution and not interfere with potential bat foraging activities;
- Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti tracking pads to prevent erosion and sedimentation in surface waters on the site;
- Stormwater pond/s will not be maintained with any chemicals that might adversely affect bats or insect populations on which they may feed.

These measures will result in avoiding adverse effects to Indiana and Northern long-eared bats since about 5 acres of wooded habitat will remain on the site.

2.2 Bald eagle

Bald eagles generally nest near coastlines, rivers, large lakes or streams that support an adequate food supply. They often nest in mature or old-growth trees; snags (dead trees); cliffs; rock promontories; rarely on the ground; and with increasing frequency on man-made structures such as power poles and communication towers. In forested areas, bald eagles often select the tallest trees with limbs strong enough to support a nest that can weigh more than 1,000 pounds. Nest sites typically include at least one perch with a clear view of the water where the eagles usually forage. Shoreline trees or snags located in reservoirs provide the visibility and accessibility needed to locate aquatic prey. Eagle nests are constructed with large sticks, and may be lined with moss, grass, plant stalks, lichens, seaweed, or sod. Nests are usually about 4-6 feet in diameter and 3 feet deep, although larger nests exist.

Conclusion - The NYSDEC defines the bald eagle breeding season as January 1 to September 30. During this period activities occurring within certain distances of an eagle nest are subject to regulation. There was no eagle activity or nests observed on the site during the field walk today. The location of the nest according to the NYSDEC mapper is most likely about 2,400 feet east of the site on the Wappinger Creek. The area surrounding the site is not secluded with an extensive road network and activity along the Wappinger Creek such that the nesting bald eagles are most likely acclimated to human activity. It appears that the proposed project will be at least 660 feet from the bald eagle nest. Construction is a temporary impact and construction equipment anticipated to be used at the site will consist of typical equipment such as backhoes, graders, etc. Given that the bald eagle noted in the mapper is most likely along the Wappinger Creek and that there is a 2,400 linear feet between the proposed project and potential nest location it is unlikely that any work will impact bald eagle activity. The proposed project will incorporate the following avoidance measures:

- Maintain a distance buffer of at least 660 feet (200 meters) between all project activities and the potential nest.
- Do not perform disruptive project activities within 660 feet (200 meters) of the nest during the breeding season. Disruptive activities include, but are not limited to external construction, excavation, use of heavy equipment, use of loud equipment or machinery, vegetation clearing, earth disturbance, planting, and landscaping.
- Maintain existing landscape forested buffers that visually screen the activity from the nest.

2.3 Pied-billed Grebe

The pied-billed grebe is found in and around ponds and marshes where it breeds and advertises its presence with loud, barking calls. It eats small fish, crustaceans, and aquatic insects but is especially fond of crayfish, which it crushes easily with its stout bill. When alarmed, this grebe often sinks slowly into the water, resurfacing out of sight among the reeds. It can also dive with amazing speed, a habit that has earned it the nickname "Hell-diver." It is also called the "Dabchick" in some areas. It is the most common nesting grebe in the East. The pied-billed grebe is 12-15" (30-38 cm) or pigeon-sized. It is a stocky, uniformly brownish water bird, with stout whitish bill that has black ring around it during breeding season.

Conclusion - There is no appropriate habitat that will be impacted on the site. Suitable habitat is most likely on the Wappinger Creek including the Cove about 1,200 feet south of the site and no impacts will occur to this species.



Figure 1 Location Map

Attachment 1 - EAF

Full Environmental Assessment Form Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

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

A. Project and Applicant/Sponsor Information.

Name of Action or Project:				
Buckingham Property Management				
Project Location (describe, and attach a general location map):				
Located in the Village of Wappingers Falls, Dutchess County, New York, along Char	nningville Road & Nelson Avenue			
Brief Description of Proposed Action (include purpose or need):				
The project is located on a 13.4 Acre parcel located in the RMU (residential mixed undevelopment proposes 188 units in mixed residential housing complex consisting of 12 3-bedroom units. Three apartment buildings are proposed with 176 total units counits. 206 parking spaces and 41 landbanked spaces provided with access from Ne neighboring property allowing both properties to have emergency egress (no emergency earlier wooded areas along Channingville Road. Project SWPPP has Wappingers code including green infrastructure practices to the maximum extent praconnections to existing Village and Tri-Municipal systems.	townhomes and apartment buildings insisting of 6 studio units, 135 (1)-bed Ison Avenue and an emergency acce ency access currently exists). Propos is been provided in conformance with	Three townhome buildings with froom units and 35 (2)-bedroom ss is proposed through ed layout designed with central NYSDEC & Village of		
Name of Applicant/Sponsor:	Telephone: 914-666-770	Telephone: 914-666-7700		
Mr. Edward Cohen	E-Mail: ecohen@buckin	E-Mail: ecohen@buckinghamre.com		
Address: 657 East Main Street	<u>'</u>			
City/PO: Mount Kisco	State: New York	Zip Code: 10549		
Project Contact (if not same as sponsor; give name and title/role):	Telephone: 845-225-969	0		
Richard D. Williams, Jr., PE		E-Mail: rwilliams@insite-eng.com		
Address: 3 Garrett Place				
City/PO:	State:	Zip Code:		
Carmel	New York	10512		
Property Owner (if not same as sponsor):	Telephone:	1		
	E-Mail:			
Address:	1			
City/PO:	State:	Zip Code:		

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)				
Government En	tity	If Yes: Identify Agency and Approval(s) Required	Applicati (Actual or	
a. City Counsel, Town Board, or Village Board of Trustee.				
b. City, Town or Village Planning Board or Commiss	∠ Yes□No sion	Planning Board (Site Plan), Building Dept. (Building Permit), Water Board (service connection)	TBD	
c. City, Town or Village Zoning Board of Ap	✓Yes□No opeals	Zoning Board of Appeals (variances for associated theoretical subdivision)	TBD	
d. Other local agencies	✓Yes□No	Town of Poughkeepsie (Highway Work Permit)	TBD	
e. County agencies	∠ Yes□No	DCDOH (Water, sewer connection)	TBD	
f. Regional agencies	✓Yes□No	Tri-Municipal Sewer Commission (sewer connection)	TBD	
g. State agencies	✓Yes□No	NYSDEC (SPDES, GP-0-20-001)	TBD	
h. Federal agencies	□Yes☑No			
 i. Coastal Resources. i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? 			✓ Yes□No	
iii. Is the project site within a Coastal Erosion Hazard Area? ☐ Yes ✓ No				
C. Planning and Zoning				
C.1. Planning and zoning act				
Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ■ If Yes, complete sections C, F and G. ■ If No, proceed to question C.2 and complete all remaining sections and questions in Part 1			□Yes ☑ No	
C.2. Adopted land use plans.				
a. Do any municipally- adopted where the proposed action w		lage or county) comprehensive land use plan(s)) include the site	✓Yes□No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? Project was adjusted to reflect recommendation along Channingville per draft master plan.			∠ Yes□No	
b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) If Yes, identify the plan(s): Hudson River Valley National Heritage Area, Local Waterfront Revitalization Strategy			∠ Yes□No	
c. Is the proposed action locate or an adopted municipal far If Yes, identify the plan(s):		ially within an area listed in an adopted munici n plan?	pal open space plan,	□Yes P No

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district? RMU Zone	✓ Yes □ No
b. Is the use permitted or allowed by a special or conditional use permit?	∠ Yes□No
c. Is a zoning change requested as part of the proposed action? If Yes, i. What is the proposed new zoning for the site?	□ Yes ☑ No
C.4. Existing community services.	
a. In what school district is the project site located? Wappingers CSD	
b. What police or other public protection forces serve the project site? _Wappingers Falls Police Department	
c. Which fire protection and emergency medical services serve the project site? New Hamburg Fire Department, Station #1	
d. What parks serve the project site? Bowdoin Park	
D. Project Details	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixe components)? Residential	d, include all
b. a. Total acreage of the site of the proposed action? b. Total acreage to be physically disturbed? c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 13.4 acres 13.4 acres 13.4 acres	
c. Is the proposed action an expansion of an existing project or use? i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles square feet)? % Units:	☐ Yes ☑ No s, housing units,
d. Is the proposed action a subdivision, or does it include a subdivision? If Yes, i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)	□Yes ☑ No
ii. Is a cluster/conservation layout proposed?iii. Number of lots proposed?	□Yes ☑ No
e. Will the proposed action be constructed in multiple phases? i. If No, anticipated period of construction: months ii. If Yes: • Total number of phases anticipated • Anticipated commencement date of phase 1 (including demolition) month year • Anticipated completion date of final phase month year • Generally describe connections or relationships among phases, including any contingencies where progred determine timing or duration of future phases:	

f. Does the project include new resi				✓Yes□No
If Yes, show numbers of units prop		m r u	Maria E 11 (C	
One Family	Two Family	Three Family	Multiple Family (four or more)	
Initial Phase			188	
At completion			188	
of all phases				
g. Does the proposed action include	e new non-residentia	l construction (inclu	iding expansions)?	□Yes ✓ No
If Yes,				_
<i>i</i> . Total number of structures				
ii. Dimensions (in feet) of largest	proposed structure: _	height;	width; andlength	
iii. Approximate extent of building	· <u> </u>		•	
h. Does the proposed action include				∠ Yes N o
liquids, such as creation of a wat If Yes,	er supply, reservoir,	pond, lake, waste la	agoon or other storage?	
<i>i.</i> Purpose of the impoundment: St	ormwater impoundmen	nt		
<i>ii.</i> If a water impoundment, the pri		water:	Ground water Surface water stre	ams Other specify:
Stormwater	<u> </u>			
iii. If other than water, identify the	type of impounded/o	contained liquids and	d their source.	
in Approximate size of the propos	ad impoundment	Volume	0.4 million gallance surface areas	0.F. naras
v. Dimensions of the proposed day			0.4 million gallons; surface area:	<u>0.5</u> acres
			ructure (e.g., earth fill, rock, wood, co	ncrete):
Earth fill				
D.2. Project Operations				
a. Does the proposed action include	e any excavation, mi	ning, or dredging, d	uring construction, operations, or both	? Yes ✓ No
	ration, grading or in	stallation of utilities	or foundations where all excavated	
materials will remain onsite)				
If Yes:				
<i>i</i> . What is the purpose of the excavii. How much material (including re	valion of dredging?	e etc.) is proposed to	he removed from the site?	
			b be removed from the site:	
 Over what duration of tim 				
iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.				
-				
		. 1		
iv. Will there be onsite dewatering If yes, describe.				☐Yes ☐No
ii yes, describe.				
v. What is the total area to be dred	ged or excavated?			
vi. What is the maximum area to b	e worked at any one	time?	acres	
vii. What would be the maximum d				
viii. Will the excavation require bla				☐Yes ☐No
ix. Summarize site reclamation goa	ls and plan:			
1 377 11.1	4.1.			
b. Would the proposed action cause			crease in size of, or encroachment	☐ Yes ✓ No
into any existing wetland, water If Yes:	oody, shorenne, bea	ch of adjacent area?		
11 1 00.				
i. Identify the wetland or waterbo	dy which would be	affected (by name. v	vater index number, wetland map num	ber or geographic
i. Identify the wetland or waterbo description):			vater index number, wetland map num	ber or geographic

<i>ii.</i> Describe how the proposed action would affect that waterbody or wetland, e.g. excalleration of channels, banks and shorelines. Indicate extent of activities, alterations	
<i>iii.</i> Will the proposed action cause or result in disturbance to bottom sediments? If Yes, describe:	□Yes□No
<i>iv</i> . Will the proposed action cause or result in the destruction or removal of aquatic veg If Yes:	etation?
acres of aquatic vegetation proposed to be removed:	
 expected acreage of aquatic vegetation remaining after project completion: purpose of proposed removal (e.g. beach clearing, invasive species control, box 	
purpose of proposed femoval (e.g. beach clearing, invasive species control, box	it access).
proposed method of plant removal:	
if chemical/herbicide treatment will be used, specify product(s):	
v. Describe any proposed reclamation/mitigation following disturbance:	
c. Will the proposed action use, or create a new demand for water?	∠ Yes No
If Yes: 16,200 average day	
i. Total anticipated water usage/demand per day: 27,620 maximum day ii. Will the proposed action obtain water from an existing public water supply?	•
If Yes:	∠ Yes N o
 Name of district or service area: Village of Wappingers Falls Municipal Water Syster 	n
• Does the existing public water supply have capacity to serve the proposal?	∠ Yes No
• Is the project site in the existing district?	∠ Yes No
 Is expansion of the district needed? 	☐ Yes ✓ No
 Do existing lines serve the project site? 	☐ Yes ✓ No
<i>iii.</i> Will line extension within an existing district be necessary to supply the project?	□Yes ∠ No
If Yes: • Describe extensions or capacity expansions proposed to serve this project: Water service connection	
Source(s) of supply for the district:	
<i>iv</i> . Is a new water supply district or service area proposed to be formed to serve the proof If, Yes:	ject site? ☐ Yes ✔No
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
Proposed source(s) of supply for new district:	
v. If a public water supply will not be used, describe plans to provide water supply for	the project:
vi. If water supply will be from wells (public or private), what is the maximum pumping	g capacity: gallons/minute.
d. Will the proposed action generate liquid wastes?	∠ Yes N o
If Yes: 16,200 average day	
<i>i.</i> Total anticipated liquid waste generation per day: 27,620 maximum day gallons/day <i>ii.</i> Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if com	singtion describe all someonests and
approximate volumes or proportions of each):	
Residential wastewater	
iii. Will the proposed action use any existing public wastewater treatment facilities?	∠ Yes N o
If Yes:	
 Name of wastewater treatment plant to be used: <u>Tri-Municipal Sewer Commission</u> Name of district: Tri-Municipal Sewer 	
 Name of district: https://dream.org/linear.com/ Does the existing wastewater treatment plant have capacity to serve the project 	?
 Is the project site in the existing district? 	Yes □No
 Is expansion of the district needed? 	☐ Yes ☑ No
-	- -

Do existing sewer lines serve the project site?	☐Yes ✓ No
• Will a line extension within an existing district be necessary to serve the project?	∠ Yes □ No
If Yes:	
Describe extensions or capacity expansions proposed to serve this project:	
Sewer service connection	
<i>iv.</i> Will a new wastewater (sewage) treatment district be formed to serve the project site?	☐Yes ✓ No
If Yes:	103 2110
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
What is the receiving water for the wastewater discharge?	
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including spec	ifying proposed
receiving water (name and classification if surface discharge or describe subsurface disposal plans):	
vi. Describe any plans or designs to capture, recycle or reuse liquid waste:	
- The second control of the second control o	
Will the grouped action disturb around the group and around attended to the group and around the group around the group and around the group a	
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point	∠ Yes □No
source (i.e. sheet flow) during construction or post construction?	
If Yes:	
<i>i.</i> How much impervious surface will the project create in relation to total size of project parcel?	
2 <u>09,088</u> Square feet or <u>4.8</u> acres (impervious surface)	
584,600 Square feet or 13.4 acres (parcel size)	
ii. Describe types of new point sources. Sheet flow, gutters	
::: Will an arith the atomic of the direct of the arith atomic of the arithmeter of	
<i>iii.</i> Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent progroundwater, on-site surface water or off-site surface waters)?	roperues,
Drainage structures, stormwater management basins	
Brainage Structures, Stoffiwater management basins	
If to surface waters, identify receiving water bodies or wetlands:	
- 	
Will a control of the	
Will stormwater runoff flow to adjacent properties? Describe properties:	☑Yes□No ☑Yes□No
iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?	
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel	□Yes ☑ No
combustion, waste incineration, or other processes or operations? If Yes, identify:	
<i>i.</i> Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)	
in resolute sources during project operations (e.g., nearly equipment, rect of derivery venicles)	
ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)	
iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)	
Will an invitation and the DOC(AL) and invitation A' Doc'd at the Doc'd	
g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?	□Yes□No
If Yes:	
<i>i.</i> Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet	□Yes□No
ambient air quality standards for all or some parts of the year)	
ii. In addition to emissions as calculated in the application, the project will generate:	
•Tons/year (short tons) of Carbon Dioxide (CO ₂)	
•Tons/year (short tons) of Nitrous Oxide (N ₂ O)	
Tons/year (short tons) of Perfluorocarbons (PFCs)	
•Tons/year (short tons) of Sulfur Hexafluoride (SF ₆)	
Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)	
•Tons/year (short tons) of Hazardous Air Pollutants (HAPs)	

h. Will the proposed action generate or emit methane (including, but not limited to landfills, composting facilities)? If Yes:	o, sewage treatment plants, ☐Yes ✓ No
 i. Estimate methane generation in tons/year (metric): ii. Describe any methane capture, control or elimination measures included in projectoricity, flaring): 	ject design (e.g., combustion to generate heat or
Will the proposed action result in the release of air pollutants from open-air oper quarry or landfill operations? If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock part	
 j. Will the proposed action result in a substantial increase in traffic above present leanew demand for transportation facilities or services? If Yes: i. When is the peak traffic expected (Check all that apply): ☐ Randomly between hours of	✓ Evening ☐Weekend
 iii. Parking spaces: Existing 0 Proposed	e of the proposed site? Yes No ntions for use of hybrid, electric Yes No
 k. Will the proposed action (for commercial or industrial projects only) generate not for energy? If Yes: i. Estimate annual electricity demand during operation of the proposed action: ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combus other): 	
iii. Will the proposed action require a new, or an upgrade, to an existing substation	?
 Monday - Friday: 7 AM to 5 PM	ons: N/A, Residential Use - Friday:

 m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? If yes: i. Provide details including sources, time of day and duration: General construction operations Monday to Saturday 7 AM to 5 PM 	☑ Yes □No
ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? Describe: <u>Tree removal due to construction operations</u> . <u>Natural vegetative barriers will be retained to the fullest extent practical plantings will be installed</u> .	✓ Yes ☐ No ble and proposed
 n. Will the proposed action have outdoor lighting? If yes: i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: Parking lot, building, sidewalk lighting not to exceed 20 feet in height per village code, will be directed interior to the site, and wildownward facing. ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? Describe: Tree removal due to construction operations. Natural vegetative barriers will be retained to the fullest extent practicable plantings will be installed. 	∠ Yes □ No
o. Does the proposed action have the potential to produce odors for more than one hour per day? If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:	☐ Yes ☑ No
p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? If Yes: i. Product(s) to be stored ii. Volume(s) per unit time (e.g., month, year) iii. Generally, describe the proposed storage facilities:	☐ Yes ☑ No
 q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? If Yes: i. Describe proposed treatment(s): 	☐ Yes ☑No
 ii. Will the proposed action use Integrated Pest Management Practices? r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? If Yes: i. Describe any solid waste(s) to be generated during construction or operation of the facility: Construction:	
 Operation:	

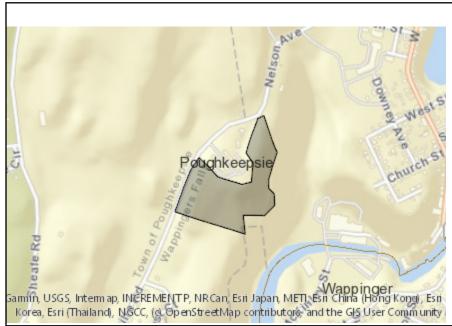
s. Does the proposed action include construction or modification of a solid waste management facility?				
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): 				
ii. Anticipated rate of disposal/processing:				
Tons/month, if transfer or other non-combustion/thermal treatment, or				
• Tons/hour, if combustion or thermal treatment				
iii. If landfill, anticipated site life:	years			
t. Will the proposed action at the site involve the commer waste?	rcial generation, treatment,	, storage, or disposal of hazard	ous ∐Yes ∠ No	
If Yes:				
<i>i.</i> Name(s) of all hazardous wastes or constituents to be	generated, handled or mar	naged at facility:		
ii. Generally describe processes or activities involving h	nazardous wastes or constit	ruents:		
	<u>-</u>			
<i>iii.</i> Specify amount to be handled or generated to <i>iv.</i> Describe any proposals for on-site minimization, rec		ue constituents:		
	yening of rease of nazardot	us constituents.		
v. Will any hazardous wastes be disposed at an existing If Yes: provide name and location of facility:			□Yes□No	
in res. provide name and location of facility.				
If No: describe proposed management of any hazardous	wastes which will not be se	ent to a hazardous waste facilit	y:	
E. Site and Setting of Proposed Action				
E.1. Land uses on and surrounding the project site				
a. Existing land uses.				
i. Check all uses that occur on, adjoining and near the ☐ Urban ☑ Industrial ☐ Commercial ☑ Resid		ıral (non-farm)		
✓ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify):				
Forested site located in a rural and residential zone with industrial use down stream.				
b. Land uses and covertypes on the project site.				
Land use or	Current	Acreage After	Change	
Covertype • Roads, buildings, and other paved or impervious	Acreage	Project Completion	(Acres +/-)	
Roads, buildings, and other paved or impervious surfaces	0.2 AC	5.0 AC	+4.8 AC	
Forested	13.1 AC	3.6 AC	-9.5 AC	
Meadows, grasslands or brushlands (non-	0 AC	0 AC		
agricultural, including abandoned agricultural)	0 10	U AC		
Agricultural (include a section of the sec	0 AC	0 AC		
(includes active orchards, field, greenhouse etc.)Surface water features				
(lakes, ponds, streams, rivers, etc.)	0 AC	0 AC		
Wetlands (freshwater or tidal)				
· · · · · · · · · · · · · · · · · · ·	0 AC	0 AC		
 Non-vegetated (bare rock, earth or fill) 		0 AC		
Tion ingention (care room, carrier or ma)	0 AC 0.1 AC	0 AC 0.1 AC		
Non-vegetated (bare rock, earth or fill) Other Describe: Lawn, landscaped area			+4.7 AC	

c. Is the project site presently used by members of the community for public recreation? i. If Yes: explain:	□Yes☑No
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed	∠ Yes No
day care centers, or group homes) within 1500 feet of the project site?	
If Yes,	
i. Identify Facilities:	
	ol Sheafe Road
Astor Early Childhood Center, Mt. Alvernia Retreat Center, Wappingers Junior High School, James S Evans Elementary School Elementary School, The Randolph School, Sapphire Nursing, Roy C Ketcham High School	
e. Does the project site contain an existing dam?	☐ Yes ✓ No
If Yes:	
i. Dimensions of the dam and impoundment:	
• Surface area: acres	
Volume impounded: gallons OR acre-feet	
ii. Dam's existing hazard classification:	
iii. Provide date and summarize results of last inspection:	
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility,	☐ Yes ✓ No
or does the project site adjoin property which is now, or was at one time, used as a solid waste management facili	
If Yes:	•
i. Has the facility been formally closed?	☐Yes☐ No
If yes, cite sources/documentation:	
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:	
u. Describe the location of the project site relative to the boundaries of the solid waste management facility.	
iii. Describe any development constraints due to the prior solid waste activities:	
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin	☐ Yes ✓ No
property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?	
If Yes:	
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurre	d:
h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any	☐Yes ✓ No
remedial actions been conducted at or adjacent to the proposed site?	
If Yes:	
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site	□Yes□No
Remediation database? Check all that apply:	
Yes – Spills Incidents database Provide DEC ID number(s):	
Yes – Environmental Site Remediation database Provide DEC ID number(s): Provide DEC ID number(s):	
Neither database	
-	
ii. If site has been subject of RCRA corrective activities, describe control measures:	
<i>iii.</i> Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? If yes, provide DEC ID number(s): 314127, 314058, 546031	✓Yes□No
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):	
DEC ID #314127: Zinc, chromium, lead, mercury deposited at industrial site down stream, not on site.	
DEC ID #314058: remediation completed at industrial site down stream, not on site. DEC ID #546031: Located 140 miles away from site, PCB contaminants deposited in Hudson River, not on site.	

v. Is the project site subject to an institutional control			□Yes□No
If yes, DEC site ID number:			·
 Describe the type of institutional control (e.g., deed restriction or easement): Describe any use limitations: 			
Describe any use limitations: Describe any engineering controls:			
Will the project affect the institutional or eng			□Yes□No
Explain:			
E.2. Natural Resources On or Near Project Site			
a. What is the average depth to bedrock on the project	site? 1.25 to 2	2. <u>5</u> feet	
b. Are there bedrock outcroppings on the project site?			∠ Yes No
If Yes, what proportion of the site is comprised of bed	rock outcroppings?	<u><1</u> %	
c. Predominant soil type(s) present on project site:	Farmington-Rock outcrop complex	3 %	
e. Fredominant son type(s) present on project site.	Galway-Farmington complex	97 %	
		%	
d. What is the average depth to the water table on the p	project site? Average:>6.5 f	eet	
e. Drainage status of project site soils: Well Drained	d:% of site		
Moderately V	Well Drained:% of site		
	<u></u>		
f. Approximate proportion of proposed action site with	slopes: • 0-10%:	46_% of site	
	10-15%:		
	✓ 15% or greater:	38_% of site	
g. Are there any unique geologic features on the project If Yes, describe:			☐ Yes ✓ No
-			
h. Surface water features.			
i. Does any portion of the project site contain wetland	ls or other waterbodies (including st	reams, rivers,	☐Yes ✓ No
ponds or lakes)?			
ii. Do any wetlands or other waterbodies adjoin the pr	oject site?		∠ Yes No
If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i.	Attaches the control of the control of the		
<i>iii.</i> Are any of the wetlands or waterbodies within or a state or local agency?	ajoining the project site regulated b	y any federal,	∠ Yes □No
<i>iv.</i> For each identified regulated wetland and waterboo	ly on the project site, provide the fo	llowing information:	
	djacent to project site)		
 Lakes or Ponds: Name N/A 		Classification	
• Wetlands: Name N/A		Approximate Size	
• Wetland No. (if regulated by DEC) N/A			
v. Are any of the above water bodies listed in the mos waterbodies?	t recent compilation of NYS water c	quality-impaired	☐Yes ☑ No
If yes, name of impaired water body/bodies and basis in	for listing as impaired:		
if yes, name of imparred water body/bodies and basis in	or fisting as imparied.		
i. Is the project site in a designated Floodway?			□Yes ☑ No
j. Is the project site in the 100-year Floodplain?			□Yes ☑ No
k. Is the project site in the 500-year Floodplain?			□Yes ☑ No
l. Is the project site located over, or immediately adjoin	ning, a primary, principal or sole sou	urce aquifer?	✓ Yes N o
If Yes: i. Name of aquifer: Principal Aquifer			
i. Ivame of aquitor.			

m. Identify the predominant wildlife species deer mouse, gray squirrel, chipmunk,	that occupy or use the project site:Refe morning dove, hummingbird, northern	r to report by Ecological Solutions for more information. eastern phoebe, downy woodpecker,
raccoon, red fox, white-tailed deer,	flicker, american crow, house wren,	northern cardinal, northern grackle,
red backed salamander, turkey, blue jay,	american robin, gray catbird, mockingbird	house finch, brown thrasher
n. Does the project site contain a designated	significant natural community?	☐ Yes ☑ No
If Yes:		
<i>i.</i> Describe the habitat/community (compos	sition, function, and basis for designation	n):
·· G (a) . G. 1		
ii. Source(s) of description or evaluation: _iii. Extent of community/habitat:		
• Currently:		acras
¥	proposed:	acres
 Gain or loss (indicate + or -): 	proposed:	acres
, , ,	-	
o. Does project site contain any species of pl		
endangered or threatened, or does it contain	n any areas identified as habitat for an e	endangered or threatened species?
If Yes:		
<i>i.</i> Species and listing (endangered or threatened	d):	
Bald Eagle, Pied-billed Grebe, Indiana Bat - Refer t	o report by Ecological Solutions for more infor	mation.
p. Does the project site contain any species of	of plant or animal that is listed by NYS	as rare, or as a species of ☐Yes ✓No
special concern?		
If Yes:		
i. Species and listing:		
q. Is the project site or adjoining area current		
If yes, give a brief description of how the pro	posed action may affect that use:	
E.3. Designated Public Resources On or N	Joan Project Site	
-		· · · · · · · · · · · · · · · · · · ·
a. Is the project site, or any portion of it, loca Agriculture and Markets Law, Article 25-		certified pursuant to ☐Yes ✓No
If Yes, provide county plus district name/nu		
b. Are agricultural lands consisting of highly		<u></u> Yes ∠ No
i. If Yes: acreage(s) on project site?		
ii. Source(s) of soil rating(s):		
c. Does the project site contain all or part of	or is it substantially contiguous to, a re	egistered National Yes No
Natural Landmark?		
If Yes:		
		ological Feature
ii. Provide brief description of landmark, in	cluding values behind designation and	approximate size/extent:
d. Is the project site located in or does it adjo	in a state listed Critical Environmental	Area? ☐Yes ☑ No
If Yes:		
i. CEA name:		
ii. Basis for designation:		
iii. Designating agency and date:		

e. Does the project site contain, or is it substantially contiguous to, a bur which is listed on the National or State Register of Historic Places, or	that has been determined by the Commission	
Office of Parks, Recreation and Historic Preservation to be eligible for	or listing on the State Register of Historic Plant	aces?
If Yes:	Ziliotania Duildin a an Diatoiat	
<i>i.</i> Nature of historic/archaeological resource: ☐Archaeological Site <i>ii.</i> Name: Wappingers Falls Historic District	☑ Historic Building or District	
iii. Brief description of attributes on which listing is based:		
90 acre area centered along South Ave, West Main St., NY 9D, and Wappin	ger Creek	
f. Is the project site, or any portion of it, located in or adjacent to an are archaeological sites on the NY State Historic Preservation Office (SH		✓ Yes □No
g. Have additional archaeological or historic site(s) or resources been id If Yes:		□Yes ☑ No
i. Describe possible resource(s):		
ii. Basis for identification:		
h. Is the project site within fives miles of any officially designated and pascenic or aesthetic resource? If Yes:	publicly accessible federal, state, or local	✓ Yes □No
 i. Identify resource: NYS Route 9 ii. Nature of, or basis for, designation (e.g., established highway overleetc.): Designated scenic road 	ook, state or local park, state historic trail or	scenic byway,
iii. Distance between project and resource:1 m	iles.	
i. Is the project site located within a designated river corridor under the Program 6 NYCRR 666?	e Wild, Scenic and Recreational Rivers	☐ Yes ✓ No
If Yes:		
i. Identify the name of the river and its designation:	CANCER D. 1666	
ii. Is the activity consistent with development restrictions contained in	6N YCRR Part 666?	□Yes □No
F. Additional Information Attach any additional information which may be needed to clarify you If you have identified any adverse impacts which could be associated measures which you propose to avoid or minimize them.		npacts plus any
G. Verification I certify that the information provided is true to the best of my knowled Applicant/Sponsor Name Richard D. Williams, Jr., P.E.	Date_May 10, 2023	
Insite Engineering, Surveying & Landscape Archit	ecture, P.C.	
Signature PWIII	Title_Senior Principal Engineer	



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



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	314127, 314058, 546031
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.I. [Aquifers]	Yes
E.2.I. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No

E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Bald Eagle, Pied-billed Grebe, Indiana Bat
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Wappingers Falls Historic District
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Attachment 2 - USFWS List



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New York Ecological Services Field Office 3817 Luker Road Cortland, NY 13045-9385 Phone: (607) 753-9334 Fax: (607) 753-9699

Phone: (607) 753-9334 Fax: (607) 753-96
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: January 25, 2023

Project Code: 2023-0038146

Project Name: Buckingham Property Management

Subject: List of threatened and endangered species that may occur in your proposed project

location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

A 1	/ \	
Attachment	C	١.
<i>i</i> ittaciiiiiciit	UO,	,,

Official Species List

01/25/2023

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office 3817 Luker Road Cortland, NY 13045-9385 (607) 753-9334

Project Summary

Project Code: 2023-0038146

Project Name: Buckingham Property Management

Project Type: Residential Construction Project Description: Residential Development

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.60109099219231,-73.92715690016558,14z



Counties: Dutchess County, New York

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME STATUS

Indiana Bat Myotis sodalis

Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/5949

Northern Long-eared Bat Myotis septentrionalis

Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045

Insects

NAME STATUS

Monarch Butterfly Danaus plexippus

Candidate

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Ecological Solutions, LLC

Name: Michael Nowicki

Address: 121 Leon Stocker Drive

City: Stratton State: VT Zip: 05360

Email ecolsol@aol.com Phone: 2039104716



PRELIMINARY WATER ENGINEERING REPORT

For

Buckingham Property Management Village of Wappingers Falls, New York

May 10, 2023



Prepared By
Insite Engineering, Surveying & Landscape Architecture, P.C.
3 Garrett Place
Carmel, New York 10512

CONTENTS

		PAGE
1.0	INTRODUCTION	1
2.0	DESIGN FLOW	1
3.0	PROPOSED WATER SYSTEM IMPROVEMENTS	3
	System Characteristics Existing Water Storage Tanks	3
	3.2.1 Residual Pressure – Peak Hourly Flow	3
	3.3 Distribution System	4
	3.4 Storage Tank	4
	3.5 Booster Pump Station	

1.0 INTRODUCTION

The subject project is located on a 13.4-acre parcel in the RMU (residential mixed use) zone along Channingville Road and Nelson Avenue in the Village of Wappingers. The proposed residential development consists of 188 units in a mixed residential housing complex consisting of townhomes and apartment buildings. The townhome portion consists of three buildings with twelve 3-bedroom units. Three apartment buildings are proposed with 176 total units consisting of 6 studio units, 135 one-bedroom units and 35 two-bedroom units. Access to the site will be provided by a paved driveway from Nelson Avenue and an emergency access road is proposed to connect to the neighboring property. The Tax Map Number is 134601-6158-13-071325.

The project is in the Village of Wappingers Water District. Water supply will be provided by a watermain extension through the project site from the existing Village watermain along Nelson Avenue. The project is higher in elevation than the water main and is located at one of the higher points in the water system in close proximity in elevation to the system's water storage tanks. Previous hydrant flow testing was performed for the project which indicated a variability in the flows and pressures based on the level of the water storage tanks in the Village system. Based on the results of the previous testing, 35 psi of pressure will not be available at the proposed building elevations. A domestic booster pump system is proposed onsite to provide the necessary pressures to the proposed buildings to meet the regulatory requirements. Additionally, due to the Village's concerns with the existing flows and pressure in the project local, a potable water storage tank is proposed for the project to provide the peak domestic demand for the subject project without causing any adverse impacts to the Village water system. The potable water storage tank has been sized to provide a storage capacity greater than the maximum daily design flow for the project. The storage tank will be filled by a tank supply line connected to the existing Village water main along Nelson Avenue and the proposed booster pumps will draw from the vented storage tank to provide water supply for the proposed development.

A separate fire protection system with additional tank storage and booster pumps is proposed onsite. The fire protection system will be designed separate from the domestic system, and while ultimately fed from the municipal system will contain sufficient onsite storage so as not to impact the municipal system.

The project is located in the Tri-Municipal Sewer District. Sewer will be provided by an 8" diameter gravity main through the site that will collect service connections from each apartment building and townhome.

The Village of Wappingers Falls is proceeding with upgrades to their water supply and treatment system to restore capacity in the system. These improvements include installation of a manganese filter, rehab of wells 7 and 7A, rehab of the water softener, rehab and upgrade of pump for well 3. It is understood that the subject project will not be able to connect to the Village water system until upgrades have been completed by the Village of Wappingers Falls to restore the capacity of the Village's water supply and treatment system. Based on discussions with Village Engineer, Todd Atkinson, PE, the schedule of these upgrades is anticipated to be done in a similar time frame of the project's water connection.

2.0 DESIGN FLOW

The proposed water demand for the project is assumed to be the same as the wastewater demand. Design maximum daily water flows for the proposed project are based on the hydraulic loading rates given in the New York State Department of Environmental Conservation (NYSDEC) publication *Design Standards for Intermediate Sized Wastewater Treatment Works* – 2014 (Dec 14). The following table calculates the hydraulic loading rates, and the design flow rates (gallons per day or gpd) for the proposed project. Note that while no additional flow is expected for the clubhouse because it is proposed to serve residents and their guests, 450 gpd has been included for potential visitors.

Table 1: Design Maximum Daily Flow Rate

Dyon and Han	Hydraulic	Average Daily Design Flow
Proposed Use	Loading Rate	(gpd)
6 - Studio Apartments	110 gpd/dwelling	660
135 - One Bedroom Apartments	110 gpd/dwelling	14,850
35 – Two Bedroom Apartments	220 gpd/dwelling	7,700
12 - Three-Bedroom Townhomes	330 gpd/dwelling	3,960
1 - Club House	-	450
Total		27,620

The anticipated design average daily flows for the project is expected to be significantly less than the design maximum daily design flow. The design maximum daily flows represent conservative flows to ensure that the proposed water and sewer works are designed with an ample factor of safety. The anticipated actual flows are based on occupancy rates and measured data for water use. Statistical data (obtained from *Rutgers University, Center for Urban Policy Research, Residential Demographic Multipliers*, June 2006) for the average number of occupants in rental units (based on number of bedrooms and housing type) was used to calculate the expected number of residents anticipated for the project as shown in the table below. Data from the American Water Works Association (AWWA) shows that the average in home water use is 69 gpd per person. This number is reduced to 45 gpd per person when water saving fixtures are used, which is the case for this project.

Table 2: Design Average Daily Flow

Proposed Use	Occupancy Rate	Total Anticipated Residents	Water Use Per Resident (gpd)	Water Use (gpd)
141 – One Bedroom / Studio Apartments	1.66 people/unit	235	45	10,575
35 –Two Bedroom Apartments	2.51 people/unit	88	45	3,960
12 –Three Bedroom Townhomes	3.08 people/unit	37	45	1,665
	Total	Anticipated W	ater Use (gpd)	16,200

As demonstrated above, through the use of water saving fixtures as required by current building code, a design maximum flow of 27,620 gpd is proposed for the project, while the actual anticipated flows are 16,200 gpd.

The peak hourly flow for the domestic is calculated using a peaking factor that is based on the population of the subject project. A peaking factor of ten is used to calculate the peak hourly flow for the water system.

Peak Hourly Flow

27,620 gpd \div (24 hr/day) \div (60 min/hr) = 19.2 gallons per minute (gpm) Peak Hourly Flow = 19.2 gpm x 10 = 192 gpm

Although the anticipated flows (design average daily flow) for the project is significantly lower than the design maximum daily flows, the Peak Hourly Flow based on the design maximum daily flows are used for the design of the system. This provides a factor of safety in the proposed design.

As previously noted, the project proposes a separate fire protection system that includes storage tanks, booster pump system and distribution. Therefore, the fire sprinkler demand for the proposed buildings was not included in the calculations for the peak hourly flow.

3.0 PROPOSED WATER SYSTEM IMPROVEMENTS

3.1 System Characteristics

Based on review of the existing municipal water system in the vicinity of the subject project, there is an existing watermain along Nelson Avenue. It is proposed to connect to the existing watermain with a 6" diameter water service line onto the subject project site extending into a proposed water control building. The line will be reduced to 2" diameter within the water building. The proposed water line will be metered, and a double check valve is proposed within the building. A watts LF007 check valve is proposed. The LF007 has a maximum system flow rate of over 75 gpm exceeding the max day flow rate of 38 gpm. The flow will be controlled by an automatic valve and floats within the proposed potable water storage tank. From the proposed storage tank, a booster pump system within the water control building will provide the required flow and pressure for the potable water distribution system to the proposed buildings. As previously stated, a separate system designed by others, including a backflow prevention device, storage tanks, booster pumps and distribution piping is proposed to provide the fire protection demand for the project site.

3.2 Existing Water Storage Tanks

Based on the 2021 Annual Drinking Water Quality Report from the Village, the municipal water district utilizes two water storage tanks consisting of The Wenliss Tank (1.4 million gallon capacity) and The DeLavergne Tank (545,000 gallon capacity). A third tank, the Hillside Tank (170,000 gallon capacity) is inactive. As shown in the calculations below, based on the provided hydrant flow test data, the peak hourly flow for the project of 192 gpm has a negligible effect (less than 1 psi) on the system pressure in the municipal water main along Nelson Avenue.

3.2.1 Residual Pressure – Peak Hourly Flow

Flow testing on the existing watermain along Nelson Avenue was performed on May 16, 2017 and June 17, 2020. Static pressures of 41 psi and 30.5 psi were recorded. Based on discussions with Ken Cruise, this range could occur based on the tank water elevations. The hydrant along Nelson Avenue next to the driveway entrance on the project site was flowed and the residual was measured at the next upstream hydrant on the Oak Tree Garden Apartments development. A static pressure of 30.5 psi was measured at the residual hydrant and during the flow test a residual pressure of 20 psi was recorded with a flow of 700 gpm.

The most recent flow testing on the existing watermain along Nelson Avenue was performed on March 29, 2023. The hydrant on the Oak Tree Garden Apartments development was flowed and the residual was measured at the hydrant along Nelson Avenue next to the driveway entrance on the project site. A static pressure of 29 psi was measured at the residual hydrant and during the flow test a residual pressure of 26 psi was recorded with a flow of 380 gpm. Data from the water treatment plant was used to confirm the tanks were at the low end of the normal operating range.

The equation below is taken from AWWA M17. The equation is used to calculate flow available at different pressures or differences in the residual pressure that would result from different flow rates. Here the equation is used to calculate the residual pressure at the observation hydrant for the peak hourly flow, using the pressures and flow rates measured during the flow test based on the most recent flow test data. As shown above, the peak hourly flow for the project is 192 gpm.

 $Q_R = Q_F^* h_r^{0.54} / h_f^{0.54}$

Where:

 $Q_R = peak hourly flow (192 gpm)$

 $Q_F = flow from hydrant during test (380 gpm)$

h_r = the difference in pressure between the static pressure measured at the

observation hydrant and the residual pressure at the total combined flow h_f = the difference between the static pressure and residual pressure measured at the observation hydrant during the flow test, (3 psi)

 $192 \text{ gpm} = 380 \text{ gpm} * h_r^{0.54} / 3 \text{ psi}^{0.54}$

 $h_r < 1 psi$

As a storage tank is provided, the Village system would not need to meet the 192 gpm peak demand, so this loss would not be experienced by the system. A 1 psi pressure drop would be imperceivable under normal conditions to users without a gage measurement.

The results in a residual pressure of 28 psi at the residual pressure hydrant.

Based on the calculations above, a storage tank is not needed but due to concerns from the Village Water Department, the project agrees to install a storage tank sized for the maximum daily design flow for the proposed development. As the tank is provided, no impacts are anticipated for the Village system pressures.

3.3 Distribution System

The proposed domestic water distribution system improvements for this project include a 30,000 gallon potable water storage tank, booster pump system and approximately 1,530 l.f. of 6" diameter PVC watermain. Domestic water service lines connections are proposed to each proposed building. A flushing hydrant is proposed at the end of the domestic water distribution system. It should be noted, although the fire water protection system is considered to be separate from the domestic potable water system, a domestic water service line connection is proposed to the fire water storage tank in order to provide makeup water due to loss from evaporation and maintain the water elevation in the tank.

Thrust blocks will be provided at all pipe bends and fittings. Upon completion of the water line installation, pressure testing, disinfection, and flushing will be performed in accordance with AWWA standards. Hydrostatic testing shall be performed in accordance with the revision of AWWA C600, Section 5.2, "Hydrostatic Testing." Disinfection testing shall be performed prior to placing the water main into service. The new pipe shall be cleaned and disinfected in accordance with the latest revision of AWWA C651, Section 4.4.2, "The Continuous Feed Method". The "Tablet Method" will not be accepted.

3.4 Storage Tank

A 30,000 gallon vented storage tank is proposed for the subject project due to concerns from the Village Water Department aforementioned above. The storage tank will allow the project water supply to not be impacted if short duration events such as fire fighting activities or water main breaks lower the pressure in the Village system. The volume of the storage tank shall be greater than the maximum daily design flow for the proposed development. The proposed domestic booster pump system will draw from the vented storage tank to provide the required flow and pressure for the proposed development.

The tank is proposed to be a single wall fiberglass potable water tank that conforms to NSF Standard 61. The storage tank shall be watertight and equipped with lockable access covers.

A 2" diameter tank supply line is proposed from the water control building to fill the tank. The tank levels will be controlled by floats in the tank and an automatic valve. Three (3) float valves are proposed in the storage tank, two to open/close the automatic valve on the tank supply line, and one for a low level alarm/booster pump off. When the water level in the tank drops below the valve

open level, the automatic valve will open to fill the tank from the Village system until the water level reaches the valve closed float level in the tank.

3.5 Booster Pump Station

The booster pump system is designed to provide water supply and pressure to the proposed development. The booster pumps will be housed in the proposed water control building. Recommended Standards for Water Works (RSWW) recommends that the normal working pressure not be below 35 psi. Three booster pumps sized for half the peak hourly flow (96 gpm) are proposed, therefore the system can meet the peak hourly flow with one pump out of service. A design static pressure of 65 psi was chosen to provide the recommended pressure range of 60-80 psi under normal flows per RSWW. Variable frequency drives will be utilized to maintain a constant discharge pressure from the pump station. An emergency generator is proposed to provide backup power. The design parameters for the system are provided below.

Static Head Loss

Elevation of Water Control Building	=	174 ft
Pressure Head to be maintained at water building (81 psi * 2.31 ft/psi)	=	187 ft
Elevation of Highest Building	=	212 ft
Static Head at highest Building	=	149 ft (65 psi)
Elevation of Lowest Building	=	202 ft
Static Head at Lowest Building	=	159 ft (69 psi)

Friction Head Loss

Head loss ft/100ft in 6" PVC DR 14 at Peak Hourly Flow (192 gpm) = 0.33 ft/100 ftLength of 6" main to flushing hydrant (Includes 20% for fittings) = 1,650 ftMax headloss Peak Hourly Flow (0.33*1,650/100) = 5 ft (2 psi)

The control system will be designed to maintain 81 psi at the pump station. With a domestic pressure loss of 2 psi the lowest system pressure under peak hourly domestic flow will be 63 psi. As shown above this allows the system to meet RSWW minimum pressure at service connection of 35 psi.

The system will consist of three pumps. Two pumps running in parallel will handle the domestic flow (one pump out of service). These pumps will maintain 81 psi at the booster pump station and supply the peak domestic demand of 192 gpm (each pump 96 gpm). With the redundant pump, all service will be maintained even with the best pump out of service. The pumps will be run on variable frequency drives (VFD) so the flow rate can be adjusted to flow conditions. With the VFD, only a small hydro-pneumatic tank is needed in the system to maintain proper pump cycling.

A backup generator capable of powering the domestic pumps will be provided.

Engineering Specification

Job Name	Contractor
Job Location	Approval
Engineer	Contractor's P.O. No.
- Approval	Representative

LEAD FREE*

Series LF007

Double Check Valve Assemblies

1/2" - 3"

Series LF007 Double Check Valve assemblies are installed at referenced cross-connections to prevent the backflow of polluted water into the potable water supply. Only those cross-connections identified by local inspection authorities as non-health hazard are allowed the use of an approved double check valve assembly. The valve body is fused with ArmorTekTM technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate.** The series features Lead Free* construction to comply with Lead Free* installation requirements. Check with local authority having jurisdiction regarding vertical orientation, frequency of testing, or other installation requirements.

Features

- Modular, compact design concept to facilitate maintenance and assembly by retaining the spring load
- Advanced ArmorTek™ coating technology to resist corrosion of internals**
- ullet Lead Free* cast copper silicon alloy body construction -1/2" to 2"
- Fused epoxy coated cast iron body − 2½" to 3"
- Top-mounted Lead Free* ball valve test cocks
- Replaceable seats and seat discs
- Easier maintenance through a single, top-entry cover
- No special tools required for servicing
- \bullet Tee handles -1/2" to 1"
- Low pressure drop

Specification

A Double Check Valve Assembly shall be installed at each noted location. The assembly shall consist of two positive seating check modules with captured springs and rubber seat discs. The check module seats and seat discs shall be replaceable. Service of all internal components shall be through a single access cover secured with stainless steel bolts. The Double Check Valve Assemblies shall be constructed using Lead Free* cast copper silicon alloy. Lead Free* Double Check Valve Assemblies shall comply with state codes and standards, where applicable, requiring reduced lead content. The assembly shall also include two resilient seated isolation valves; four top mounted, resilient seated test cocks. The assembly shall meet the requirements of ASSE Standard 1015 and AWWA Standard C510. The valve body shall utilize a coating system with built in electrochemical corrosion inhibitor and microbial inhibitor.** Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. Assembly shall be a Watts Series LF007.





NOTICE

For IOT models, an add-on monitoring connection kit is required to collect psi measurements from the integrated pressure sensors. Without the connection kit, the pressure sensors are passive components and will not communicate with any other device. For BMS only. (The connection kit and pressure sensors are also available for existing installations. For more information, download RP-IS-007.)

NOTICE

Use of integrated pressure sensors on and monitoring connection kit with IOT models does not remove the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of the backflow preventer.

Watts® is not responsible for data transmission failures due to power issues.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Inquire with governing authorities for local installation requirements.



^{*} The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

^{**} Armortek coating applies to the 21/2" and 3" models only.

Model/Option

Prefix:

U - Union connections

Suffix:

½" **- 2**"

S – Copper silicon alloy strainer

LF – Without shutoff valves

W/Press* – Press inlet x press outlet

21/2" - 3"

NRS – Non-rising stem resilient seated gate valves
OSY – UL Classified and FM Approved outside stem and

yoke resilient seated gate valves

LF - Without shutoff valves

IOT - With pressure-sensing IoT test cocks and NRS gate valves

Materials

Check Valve Body: Lead Free* cast copper silicon alloy

(1/2" to 2"); cast iron (21/2" to 3")

Check Module: Captured spring and rubber seat disc

Access cover bolts: Stainless steel

Coating technology: Armortek (21/2" and 3" only)

Pressure - Temperature

1/2" - 2"

Temperature Range: 33°F – 180°F (0.5°C – 82°C) Maximum Working Pressure: 175 psi (12.1 bar)

21/2" - 31

Temperature Range: 33°F - 110°F (0.5°C - 43°C) continuous,

140°F (60°C) intermittent

Maximum Working Pressure: 175 psi (12.1 bar)

Standards

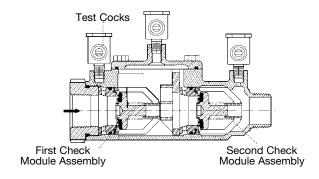
ASSE Standard 1015, AWWA Standard C510 IAPMO PS31, CSA B64.5

Approvals



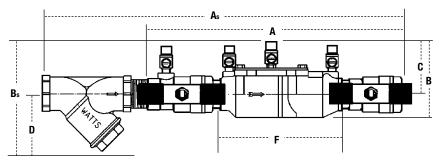
- † ASSE, AWWA, IAPMO, CSA, UPC
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- Models with suffix LF and suffix S not listed UL Classified without shutoff valves only (¾" to 2", except 007M3LF)
- ◆ UL Classified with OSY gate valves (2½" and 3" horizontal only)
- ▼ Lead Free* ½" to 2" models with strainers

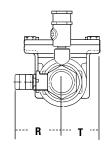
 Horizontal and vertical "flow up" approval on all sizes



Dimensions - Weights

1/2" - 2"



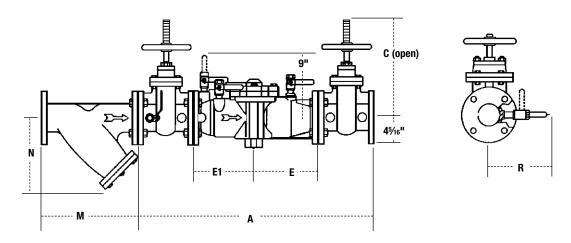


Subscript 'S' = strainer model

MODEL	SIZE	DIMENSIONS							WEI	GHT									
		А		Е	3	([)	F		0	ì	R	l	Т			
	in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	Ιb	kg
†▲▼ LF007QT	1/2	10	254	45/8	117	27/16	62	_	_	5	127	3%	85	25/16	59	21/16	52	4.5	2
†▲▼ LF007M3QT	3/4	111//	282	4	102	31//8	79	_	_	63/16	157	37/16	87	21/8	54	¹⁵ / ₁₆	33	5	2.3
†▲▼ LF007M1QT	1	131/4	337	51//8	130	4	102	_	_	71/2	191	3%	85	1 ¹¹ / ₁₆	43	111/16	43	12	5.4
†▲▼ LF007M2QT	11⁄4	16%	416	5	127	35/16	84	_	_	9½	241	5	127	3	76	2	50	15	6.8
†▲▼ LF007M2QT	1½	16¾	425	47/8	124	3½	89	_	_	93/4	248	5 ¹³ / ₁₆	148	31//8	79	211/16	68	15.9	7.2
†▲▼ LF007M1QT	2	19½	495	61/4	159	4	102	_	_	13%	340	61//8	156	37/16	87	211/16	68	25.7	11.7
•▼ LF007QT-S	1/2	13	330	6	152	27/16	62	3	76	5	127	3%	85	2 ⁵ / ₁₆	59	21/16	52	5.5	2.5
•▼ LF007M3QT-S	3/4	141/2	368	61//8	156	31/8	79	3	76	6 ³ ⁄ ₁₆	157	37/16	87	21//8	54	¹⁵ / ₁₆	33	6.7	3.1
•▼ LF007M1QT-S	1	17 ¹⁵ ⁄ ₁₆	456	73/4	197	4	102	31/4	83	71/2	191	3%	85	1 ¹¹ / ₁₆	43	111/16	43	14	6.4
•▼ LF007M2QT-S	11⁄4	21½	546	71/16	179	35/16	84	3½	83	9½	241	5	127	3	76	2	50	19	8.6
•▼ LF007M2QT-S	1½	21¾	552	71/16	179	3½	89	33/4	95	93/4	248	5 ¹³ / ₁₆	148	31//8	79	211/16	68	19.6	8.9
•▼ LF007M1QT-S	2	25¾	654	8¾	222	4	102	4	102	13%	340	61//8	156	37/16	87	211/16	68	33.5	15.2

^{*} Viega ProPress® connections are optional factory-installed fitting on each end of the approved/certified assembly.

Dimensions – Weights 2½" – 3"



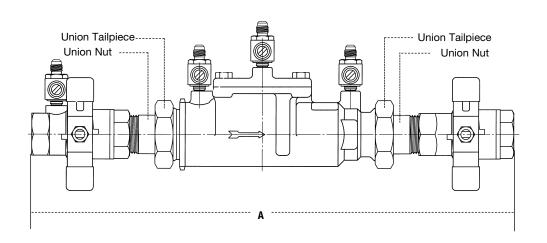
MODEL	SIZE	DIMENSIONS						WEI	GHT		
		A	A	E	3	E,	E1		R		
	in.	in.	mm	in.	mm	in.	mm	in.	mm	lb	kg
▲ LF007-NRS	21/2	331/8	841	93/8	238	91/16	230	83/4	222	155	70
▲◆ LF007-0SY	21/2	331/8	841	16 ³ / ₈	416	91/16	230	83/4	222	158	72
▲ LF007-NRS	3	341/4	870	10 ¹ / ₄	260	91/16	230	83/4	222	185	84
▲◆ LF007-0SY	3	341/4	870	181//8	479	91/16	230	83/4	222	185	84

Strainer Dimensions

SIZE					WEI	GHT
	l N	Л	ı	V		
in.	in.	mm	in.	mm	lb	kg
21/2	10	254	61/2	165	28	13
3	101//8	267	7	178	34	15

LFU007

1/2" - 2"

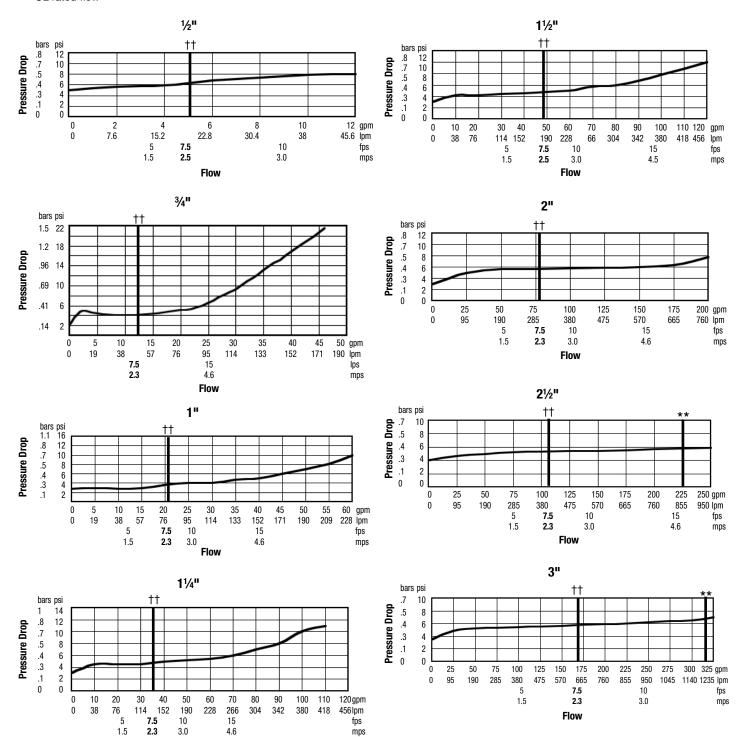


MODEL	SIZE	DIMENS	SIONS
		A	
	in.	in.	mm
LFU007QT	1/2	12 ¹³ / ₁₆	326
LFU007M2QT	3/4	13 ¹³ / ₁₆	350
LFU007M2QT	1	16%	422
LFU007M2QT	11/4	20¾	527
LFU007M2QT	1½	21½	546
LFU007M1QT	2	241/2	622

Capacity

As compiled from documented Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California lab tests.

†† Typical maximum system flow rate (7.5 ft/sec, 2.3 m/sec) ** UL rated flow





1.5

2.3

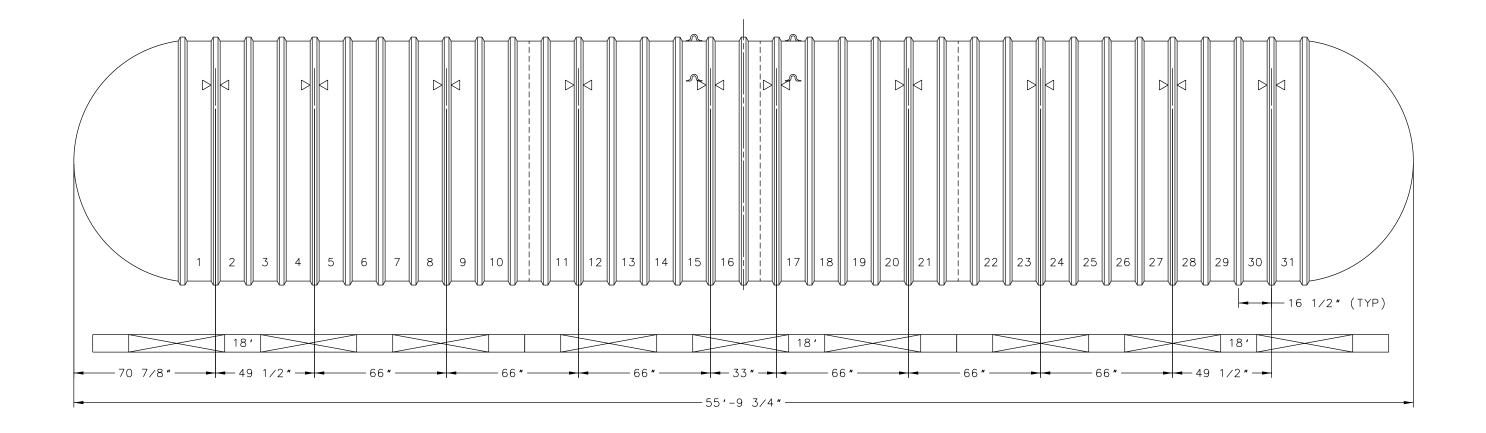
4.6

Flow

USA: T: (978) 689-6066 • Watts.com Canada: T: (888) 208-8927 • Watts.ca Latin America: T: (52) 55-4122-0138 • Watts.com

ES-LF007 2304 © 2023 Watts

mps

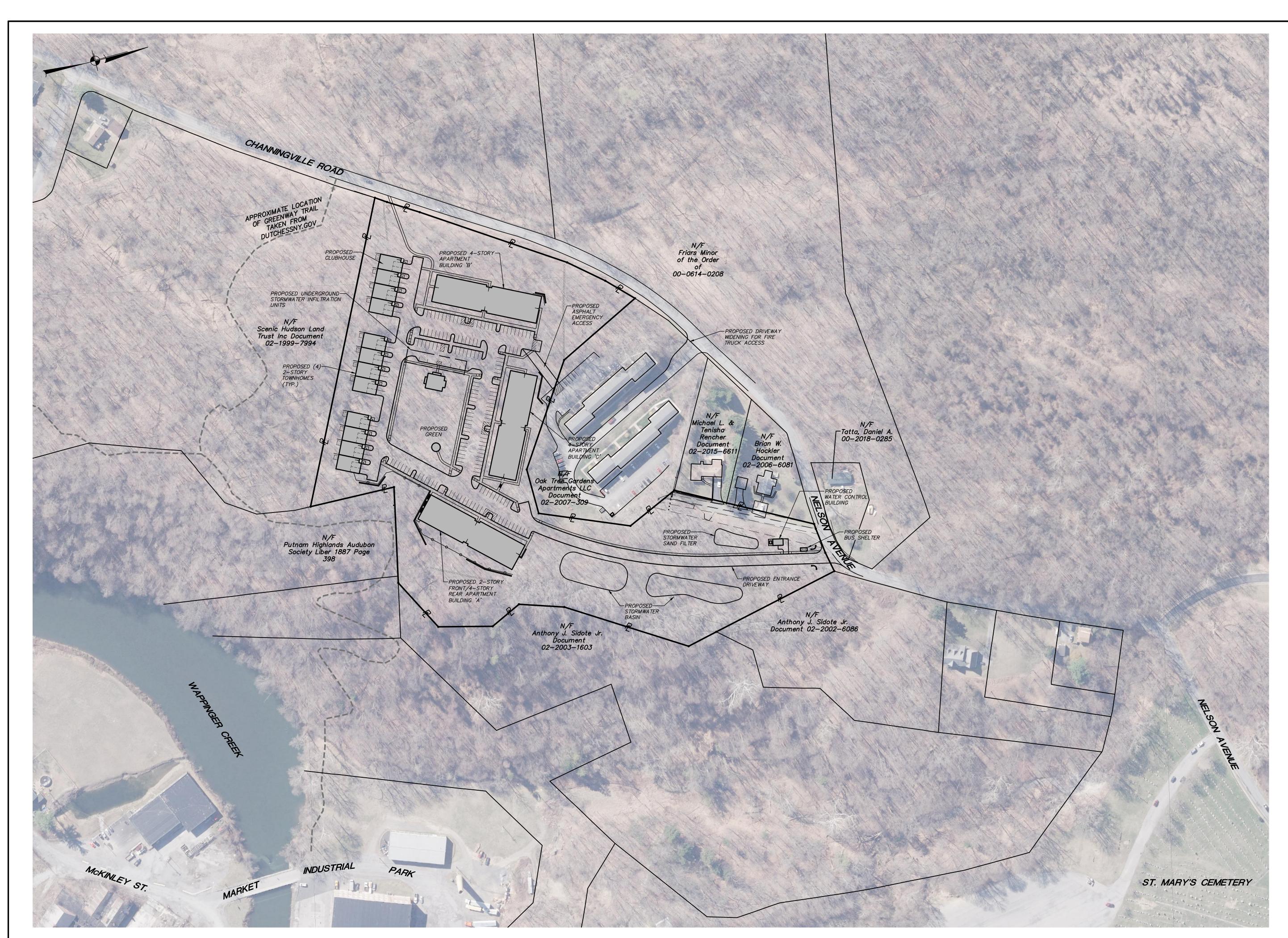


Optional prefabricated engineered concrete deadmen shown



10' DIA. SINGLE-WALL CAP. 30,000 GALLONS

DATE 1-12 DR. NO.S10-892.05



		<u>REQUIRED</u>	<u>PROVIDED</u>
Lot Width:		50' Min.	586'±
Lot Coverage:		40% Max.	35.1%
Greenspace:		25% Min.	64.9%
Principal Building Heigh	!:	65' Max., 5 Stories Max., 2 Stories Min.	Less than 65', 4 Stories
Accessory Building Heig	ht:	2 Stories Max.	Less than 2 Stories
Setbacks-Principal Build	ding		
Prim	ary Frontage:	15' Min.	94 ' ±
Seco	ondary Frontage:	12' Min.	N/A
Side	Setback:	0' Min. / 12' Max.	28' Min. / 83'± Max. *
Real	Setback:	10' Min.	49'±
Setbacks—Accessory Bu	ilding		
Prim	ary Frontage:	35' Min.	35'
Seco	ondary Frontage:	5' Min.	N/A
Side	Setback:	5' Min.	50'±

* Based on perimeter property line, variance required.

	PARKING REQUIREMENTS	
	<u>REQUIRED</u>	<u>PROVIDED</u>
188 Units	1 per Unit x 188 Units = 188 Spaces Required	* 206 Spaces
Handicap Parking	7 Spaces	7 Spaces
Land Banked Parking	N/A	41 Spaces
	Total:	247 Spaces

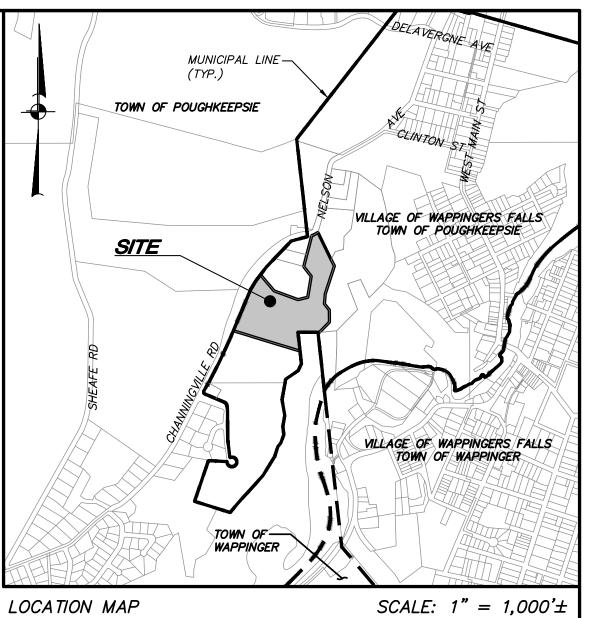
^{*} Total provided parking spaces includes 7 handicap spaces and 2 spaces per Townhome Garage. NOTE: Although not required per code, there are 247 bedrooms in the project and 247 parking spaces with land banked parking.

	1		11			
50' Min.		586'±		1	OP-1	OVERALL PLAN
40% Max.		35.1%		2	EX-1	EXISTING CONDITIONS PLAN
25% Min.		64.9%		_	05.4	
ax., 5 Stories Max., 2	? Stories Min.	Less than 65', 4 Stories		3	SP-1	LAYOUT & LANDSCAPE PLAN
2 Stories Max.		Less than 2 Stories		4	SP-2	GRADING & DRAINAGE PLAN
		•.	-	5	SP-3	UTILITIES PLAN
15' Min.		94 ' ±		6	SP-4	EROSION & SEDIMENT CONTROL PLAN
12' Min.		N/A		_		
0' Min. / 12' Ma	ıx.	28' Min. / 83'± Max. *]	7	LP-1	LIGHTING PLAN
10' Min.		49'±		8	PR-1	ENTRANCE DRIVEWAY PROFILE
75' 11'		75'	-	9	D-1	DETAILS
35' Min. 5' Min.		35'		10	D-2	DETAILS
		N/A		44	0.7	DETAILO
5' Min.		50'±		11	D-3	DETAILS
				12	D-4	DETAILS
				13	D-5	DETAILS
<u>MENTS</u>				14	D-6	DETAILS
	<u>PROVIDED</u>		L		ı	1

<u>DRAWING LIST</u>

SHEET NO. DRAWING NO. DRAWING NAME:

<u>APARTMENTS</u>					
6 UNITS	STUDIO APARTMENT				
135 UNITS	1 BEDROOM EACH				
35 UNITS	2 BEDROOMS EACH				



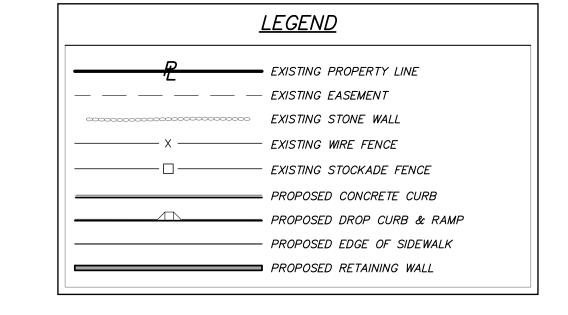
LOCATION MAP

OWNER/APPLICANT: SITE DATA:

Mr. Edward Cohen Buckingham Properties 657 E. Main Street, Mt. Kisco, NY Tel: 914–666–7700 RMU—Residential Mixed Use Multi Family Dwelling Total Acreage 13.42 AC.± (584,575.2 S.F.) Tax Map No.: 134601–6158–13–071325

GENERAL NOTES:

- For Drawing OP-1, subject property boundary line shown hereon taken from "Map prepared for Buckingham Properties" prepared by Bly and Houston LLP Land Surveyors, dated January 16, 2017.
- 2. Adjoining property boundary lines shown hereon taken from Dutchess County
- For site plans, Boundary & Topographic information shown taken from "Map prepared for Buckingham Properties" prepared by Bly and Houston LLP Land Surveyors, dated January 16, 2017. Topographic datum is approximate USGS, contour interval is 2'.
- 4. Orthoimagery shown hereon taken from Wappingers GIS database. Dated





LANDSCAPE ARCHITECTURE, P.C.

BUCKINGHAM PROPERTY <u>MANAGEMENT</u> CHANNINGVILLE RD & NELSON AVE, VILLAGE OF WAPPINGERS FALLS, DUTCHESS CO., NY

<u>OVERALL PLAN</u>

PROJECT NUMBER 22194.100 PROJECT MANAGER R.D.W. 12-15-22 DRAWN BY M.E.U. 1" = 100' CHECKED
BY D.L.M.

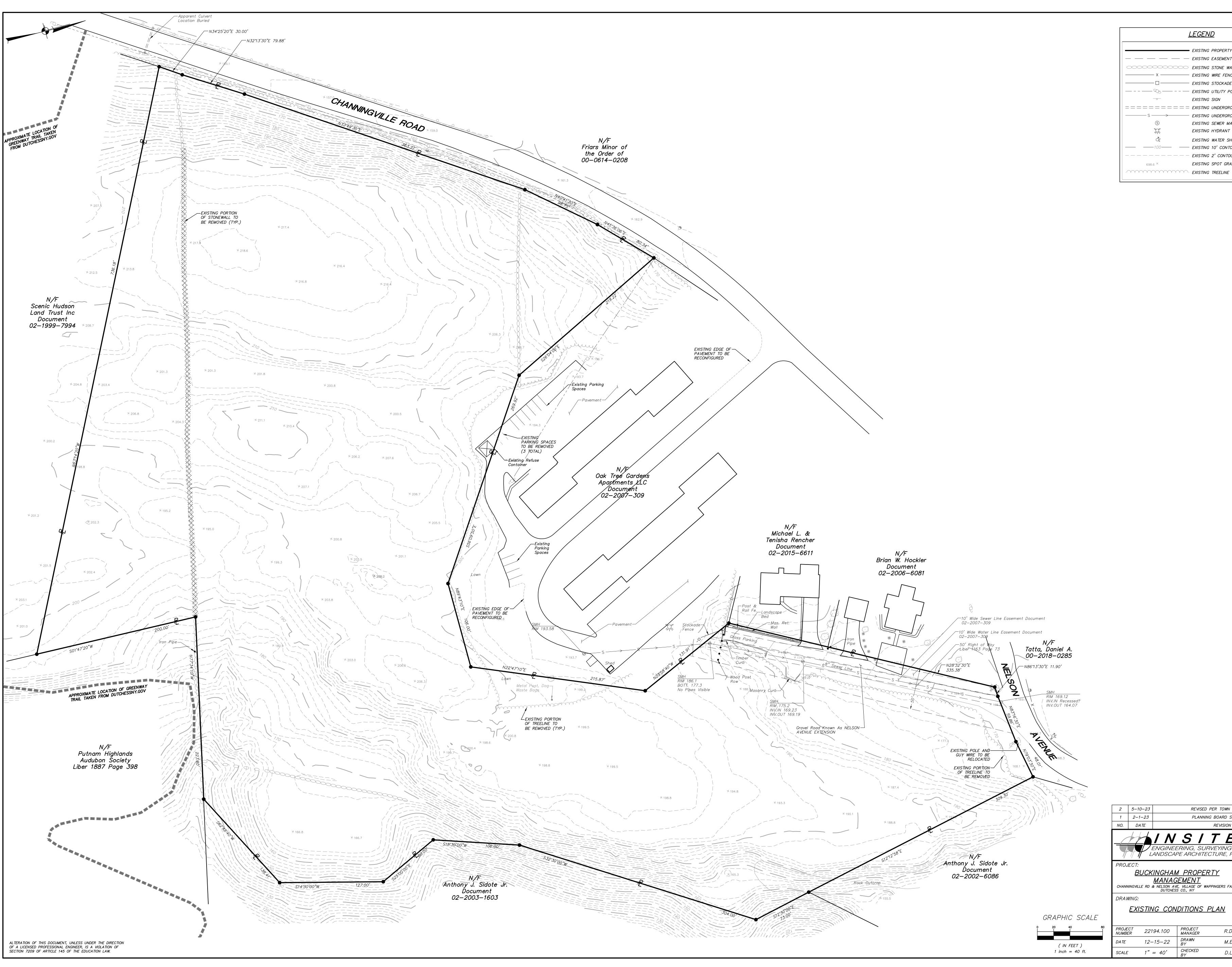
GRAPHIC SCALE (IN FEET)

1 inch = 100 ft.

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

DRAWING NO.

www.insite-eng.com

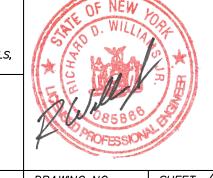


<u>LEGEND</u> - EXISTING PROPERTY LINE — — EXISTING EASEMENT EXISTING STONE WALL EXISTING WIRE FENCE — - - — EXISTING UTILITY POLE w/ guy & overhead wires EXISTING SIGN S ----- EXISTING UNDERGROUND SEWER MAIN EXISTING SEWER MANHOLE EXISTING HYDRANT EXISTING WATER SHUTOFF VALVE ---- EXISTING 2' CONTOUR EXISTING SPOT GRADE

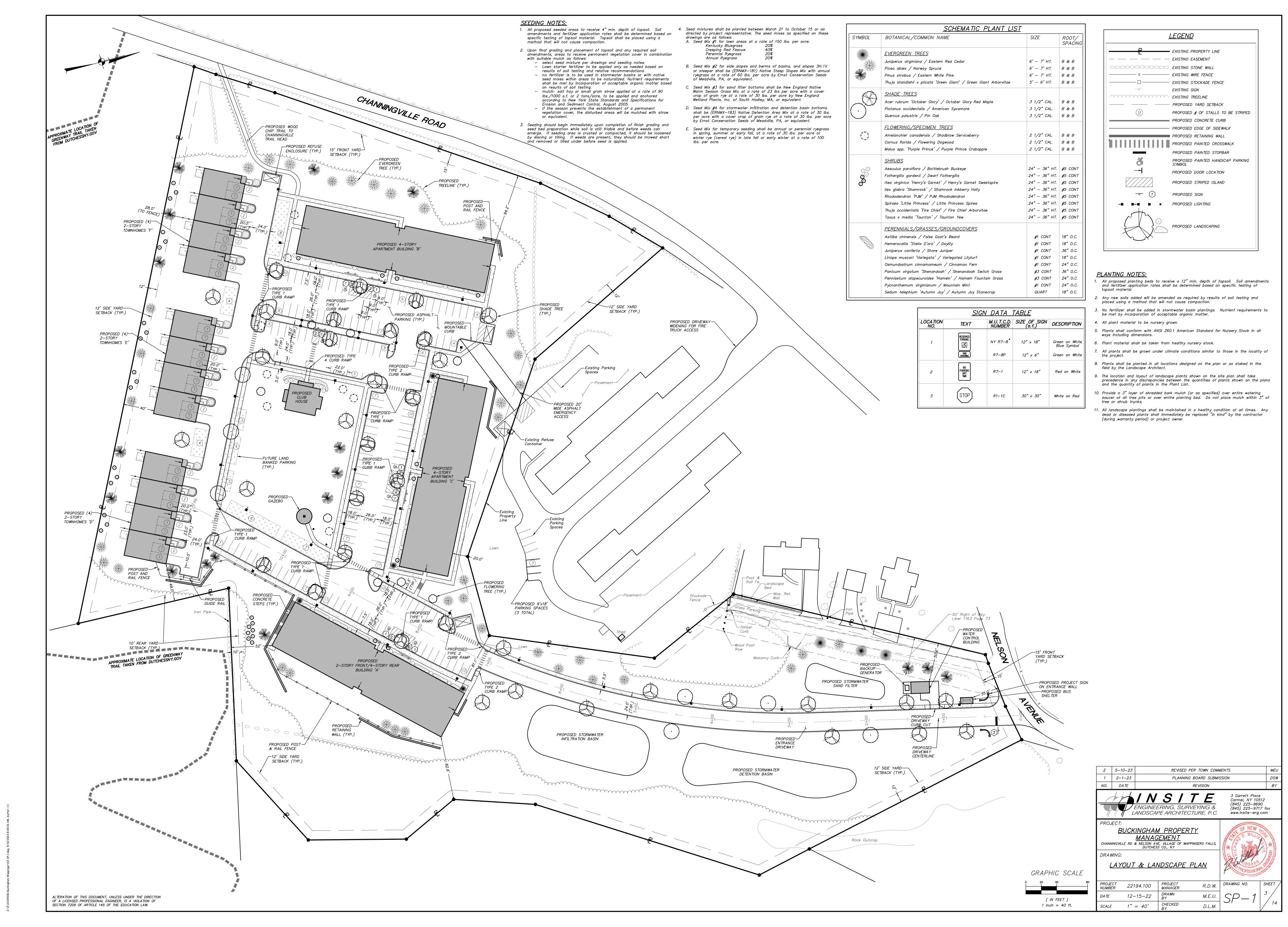
2 5-10-23 REVISED PER TOWN COMMENTS PLANNING BOARD SUBMISSION 1 2-1-23 3 Garrett Place Carmel, NY 10512 (845) 225–9690 (845) 225–9717 fax www.insite-eng.com

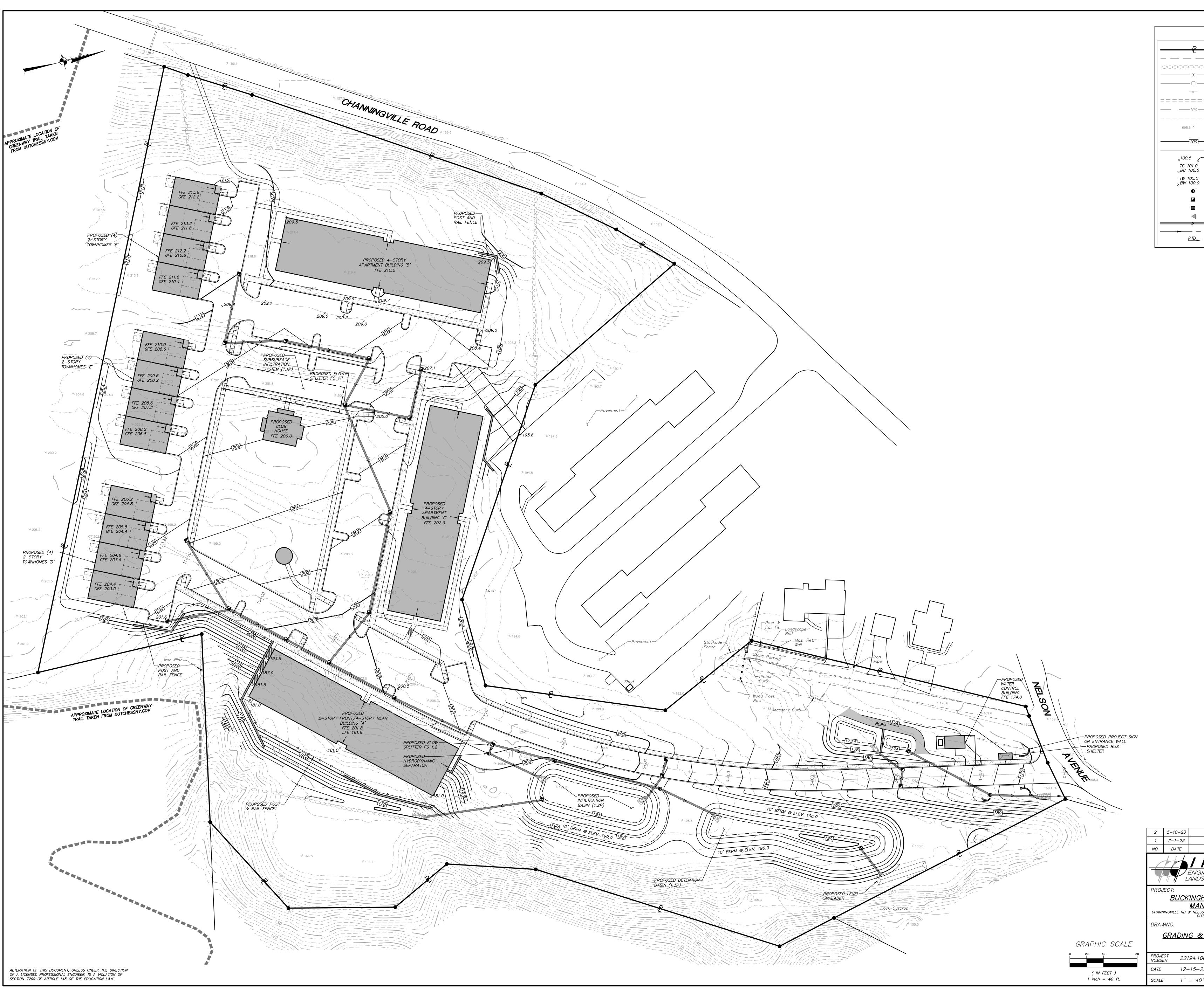
BUCKINGHAM PROPERTY MANAGEMENT

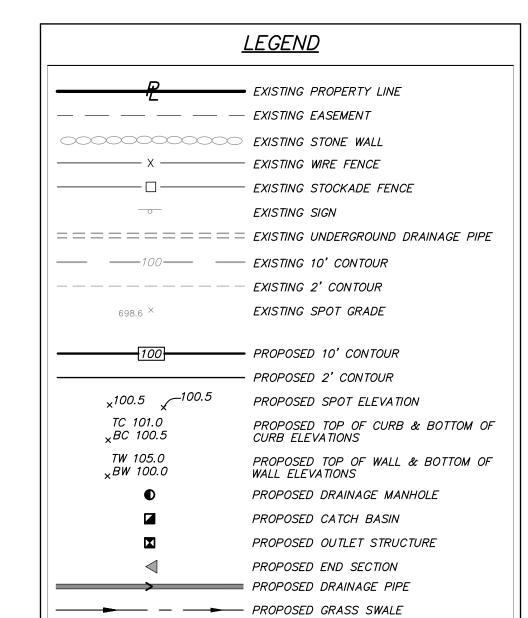
CHANNINGVILLE RD & NELSON AVE, VILLAGE OF WAPPINGERS FALLS,
DUTCHESS CO., NY



JECT IBER	22194.100	PROJECT MANAGER	R.D.W.	DRAWING N
E	12-15-22	DRAWN BY	M.E.U.	FX-
LE	1" = 40'	CHECKED BY	D.L.M.	







PITCH TO DRAIN

2 5-10-23 REVISED PER TOWN COMMENTS MEU
1 2-1-23 PLANNING BOARD SUBMISSION DSW
NO. DATE REVISION BY

S T E

ENGINEERING, SURVEYING & (845) 225-9690 (845) 225-9717 fax www.insite-eng.com

PROJECT:
BUCKINGHAM PROPERTY

BUCKINGHAM PROPERTY

MANAGEMENT

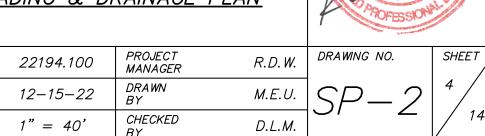
CHANNINGVILLE RD & NELSON AVE, VILLAGE OF WAPPINGERS FALLS,

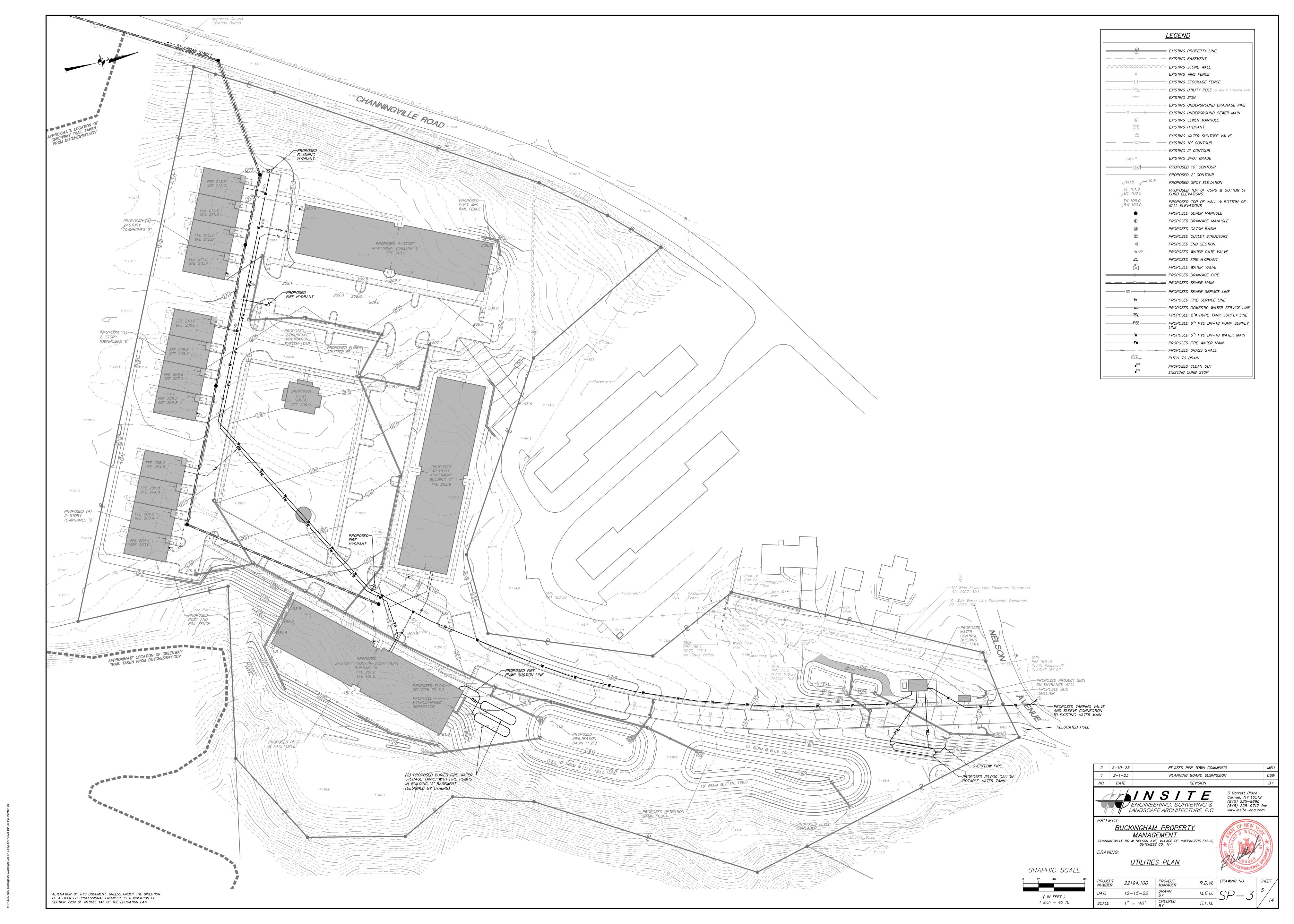
DUTCHESS CO., NY

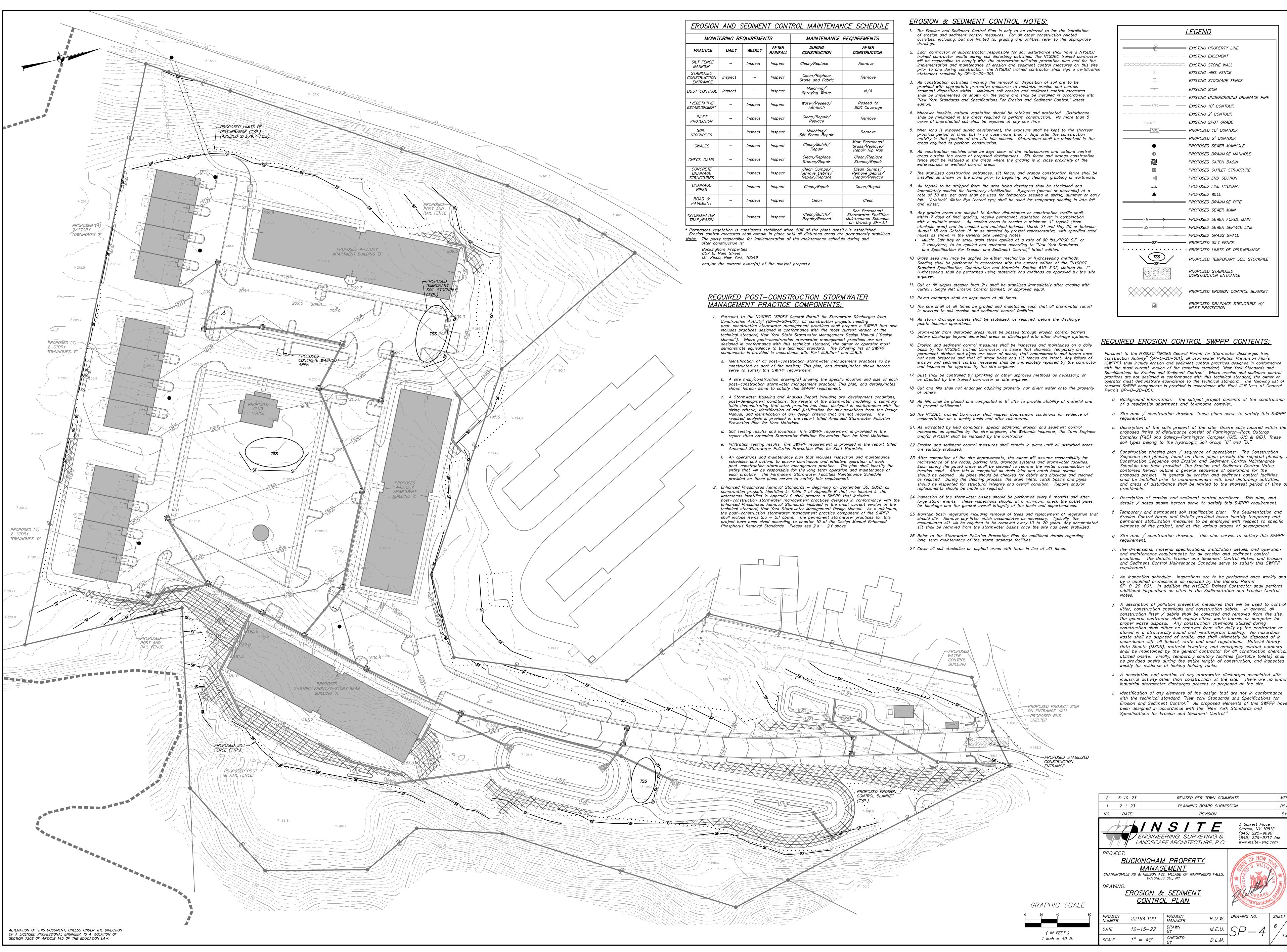
DRAWING:

AWING:

GRADING & DRAINAGE PLAN







- EXISTING PROPERTY LINE EXISTING EASEMENT EXISTING STONE WALL EXISTING WIRE FENCE EXISTING STOCKADE FENCE EXISTING SIGN ============= EXISTING UNDERGROUND DRAINAGE PIPE - EXISTING 10' CONTOUR - EXISTING 2' CONTOUR EXISTING SPOT GRADE - PROPOSED 10' CONTOUR PROPOSED 2' CONTOUR PROPOSED SEWER MANHOLE PROPOSED DRAINAGE MANHOLE PROPOSED CATCH BASIN PROPOSED OUTLET STRUCTURE PROPOSED END SECTION PROPOSED FIRE HYDRANT PROPOSED WELL PROPOSED DRAINAGE PIPE PROPOSED SEWER MAIN FM PROPOSED SEWER FORCE MAIN PROPOSED GRASS SWALE PROPOSED SILT FENCE

· · · · · · · · · · · · · · · · PROPOSED LIMITS OF DISTURBANCE

PROPOSED TEMPORARY SOIL STOCKPILE

PROPOSED EROSION CONTROL BLANKET

PROPOSED DRAINAGE STRUCTURE W/

PROPOSED STABILIZED

CONSTRUCTION ENTRANCE

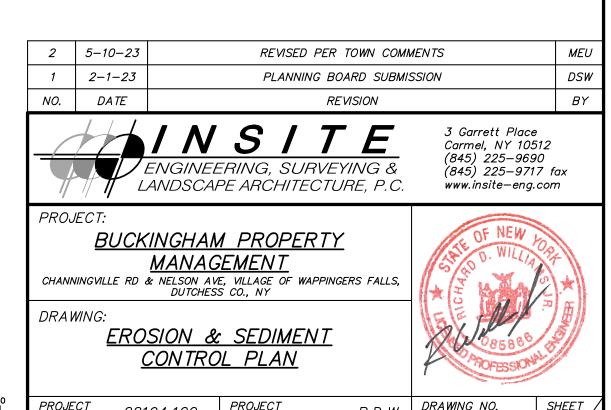
(TSS)

<u>LEGEND</u>

REQUIRED EROSION CONTROL SWPPP CONTENTS:

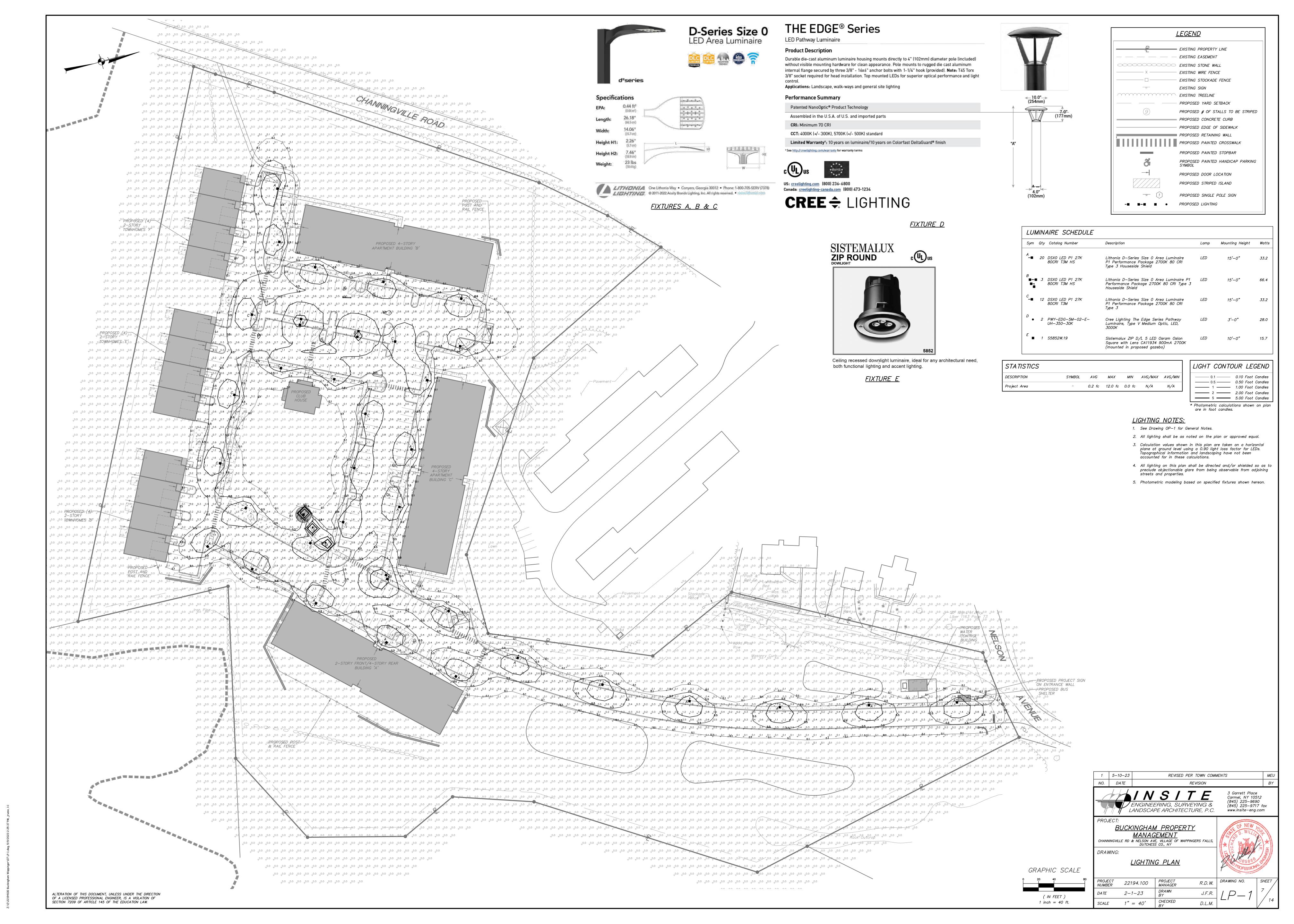
Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all Stormwater Pollution Prevention Plan's (SWPPP) shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." Where erosion and sediment control practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of required SWPPP components is provided in accordance with Part III.B.1a-I of Ğeneral Permit GP-0-20-001:

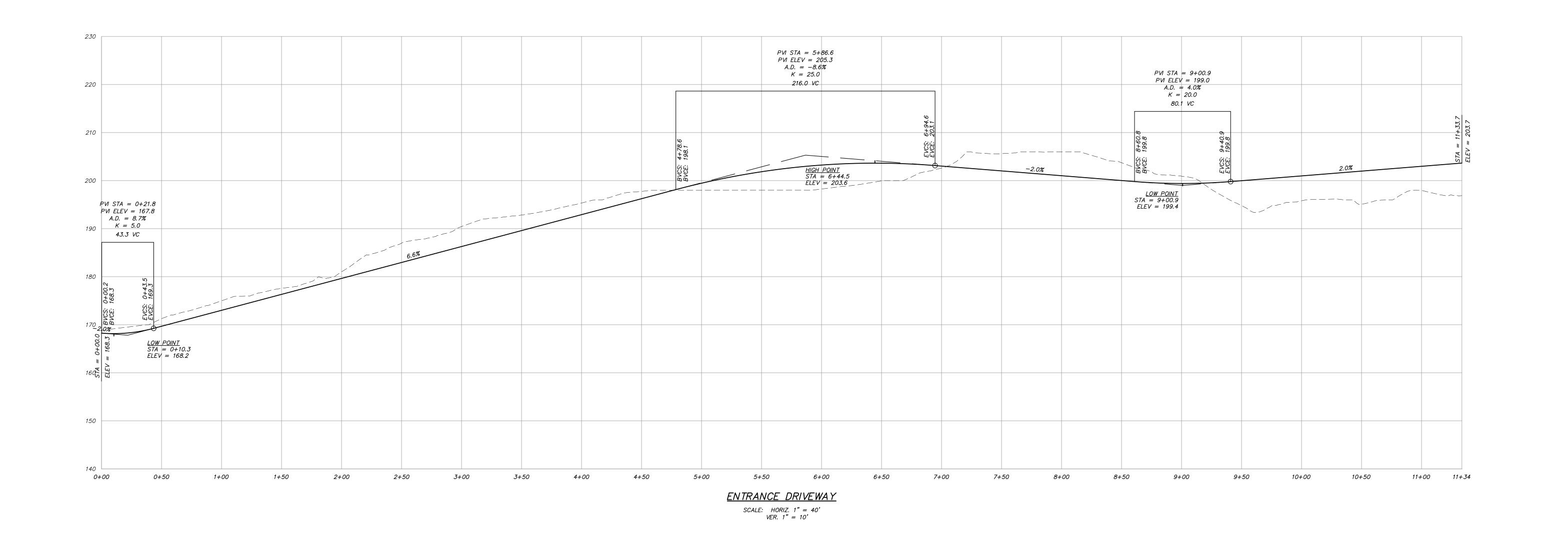
- of a residential apartment and townhome complex.
- b. Site map / construction drawing: These plans serve to satisfy this SWPPP
- c. Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Farmington-Rock Outcrop Complex (FeE) and Galway-Farmington Complex (GfB, GfC & GfD). These soil types belong to the Hydrologic Soil Group "C" and "D."
- d. Construction phasing plan / sequence of operations: The Construction Sequence and phasing found on these plans provide the required phasing. Construction Sequence and Erosion and Sediment Control Maintenance Schedule has been provided. The Erosion and Sediment Control Notes contained hereon outline a general sequence of operations for the proposed project. In general all erosion and sediment control facilities shall be installed prior to commencement with land disturbing activities, and areas of disturbance shall be limited to the shortest period of time as
- e. Description of erosion and sediment control practices: This plan, and details / notes shown hereon serve to satisfy this SWPPP requirement.
- Temporary and permanent soil stabilization plan: The Sedimentation and Erosion Control Notes and Details provided heron identify temporary and permanent stabilization measures to be employed with respect to specific elements of the project, and at the various stages of development.
- g. Site map / construction drawing: This plan serves to satisfy this SWPPP requirement.
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The details, Erosion and Sediment Control Notes, and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.
- i. An inspection schedule: Inspections are to be performed once weekly and by a qualified professional as required by the General Permit GP-0-20-001. In addition the NYSDEC Trained Contractor shall perform additional inspections as cited in the Sedimentation and Erosion Control
- litter, construction chemicals and construction debris: In general, all construction litter / debris shall be collected and removed from the site. The general contractor shall supply either waste barrels or dumpster for proper waste disposal. Any construction chemicals utilized during construction shall either be removed from site daily by the contractor or stored in a structurally sound and weatherproof building. No hazardous waste shall be disposed of onsite, and shall ultimately be disposed of in accordance with all federal, state and local regulations. Material Safety Data Sheets (MSDS), material inventory, and emergency contact numbers shall be maintained by the general contractor for all construction chemicals utilized onsite. Finally, temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction, and inspected weekly for evidence of leaking holding tanks.
- k. A description and location of any stormwater discharges associated with industrial activity other than construction at the site: There are no known industrial stormwater discharges present or proposed at the site.
- I. Identification of any elements of the design that are not in conformance with the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." All proposed elements of this SWPPP have been designed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control."

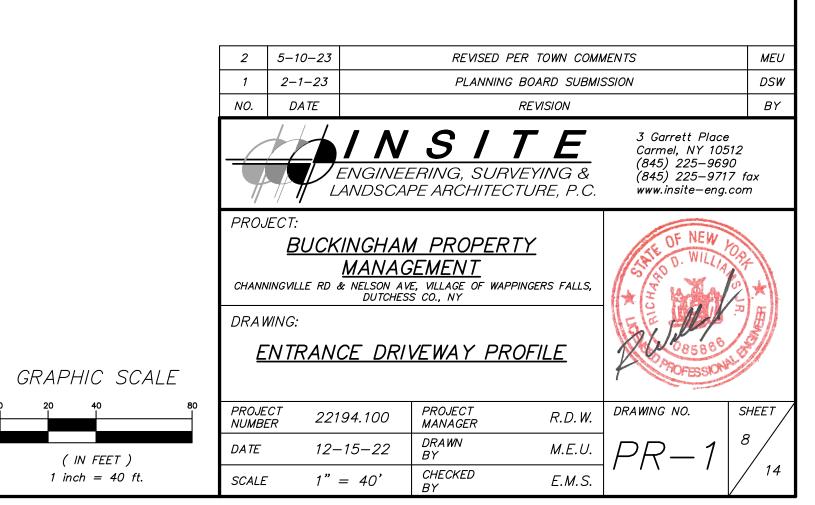


1" = 40'

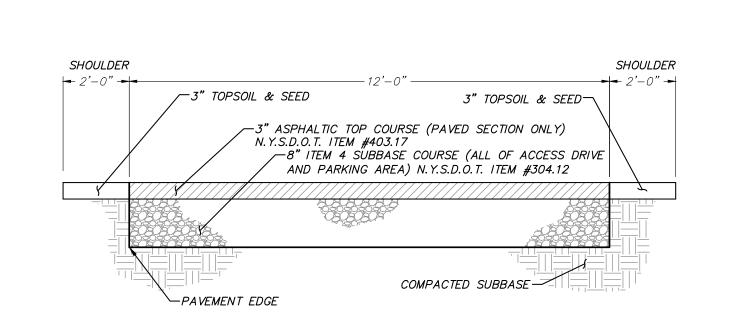
M.E.U.



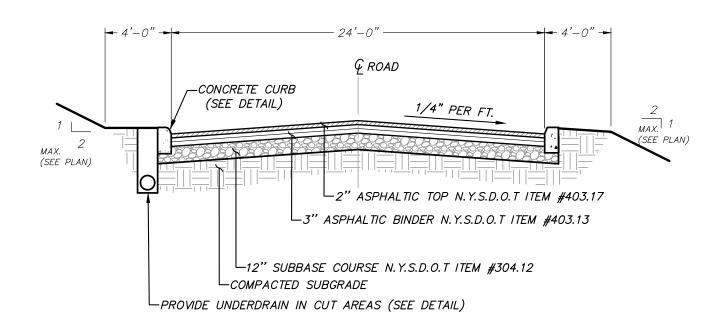




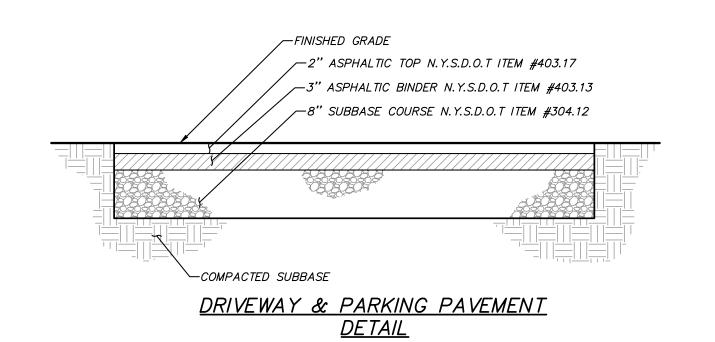
ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.



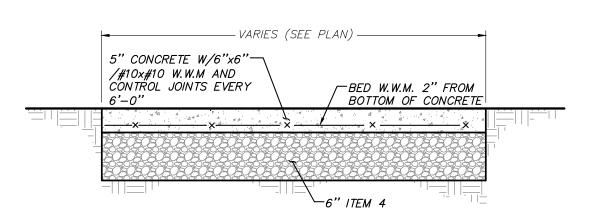
EMERGENCY ACCESS PAVEMENT DETAIL (N. T. S.)



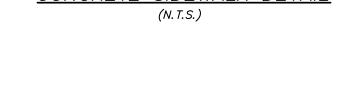
ENTRANCE DRIVEWAY PAVEMENT DETAIL (N. T. S.)

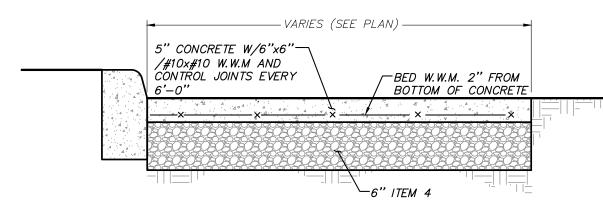


(N.T.S.)



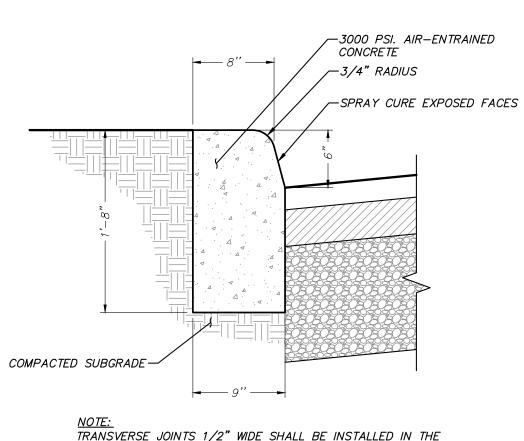
<u>NOTE:</u> 4,000 psi CONCRETE 28 DAYS CONCRETE SIDEWALK DETAIL





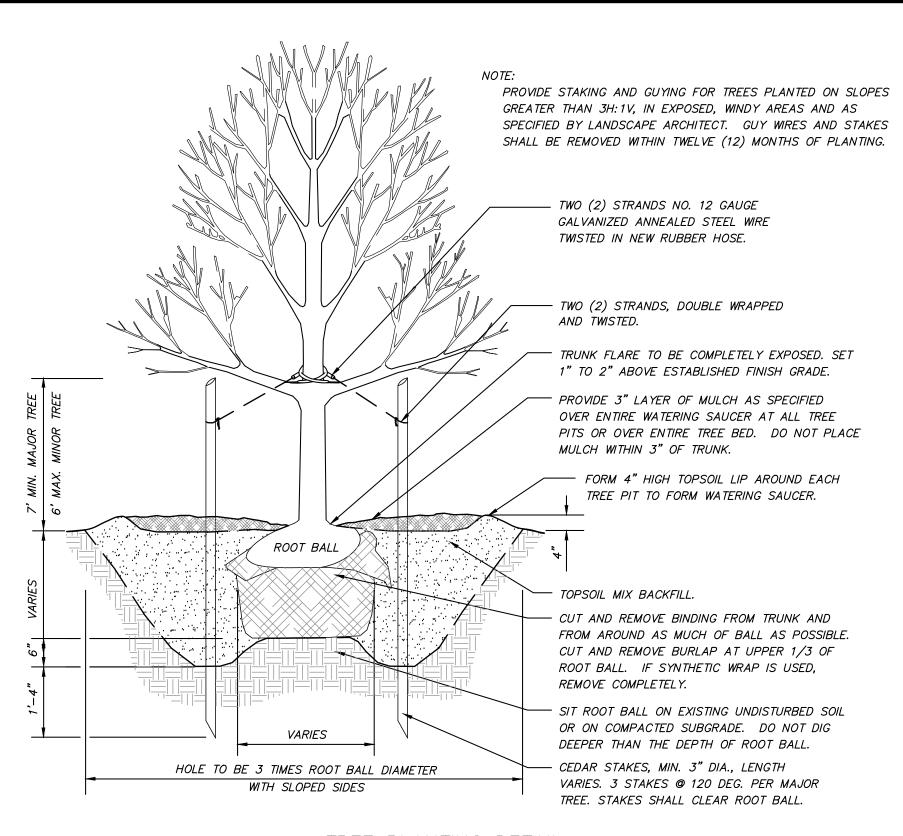
<u>NOTE:</u> 4,000 psi CONCRETE 28 DAYS

CONCRETE CURB & SIDEWALK DETAIL

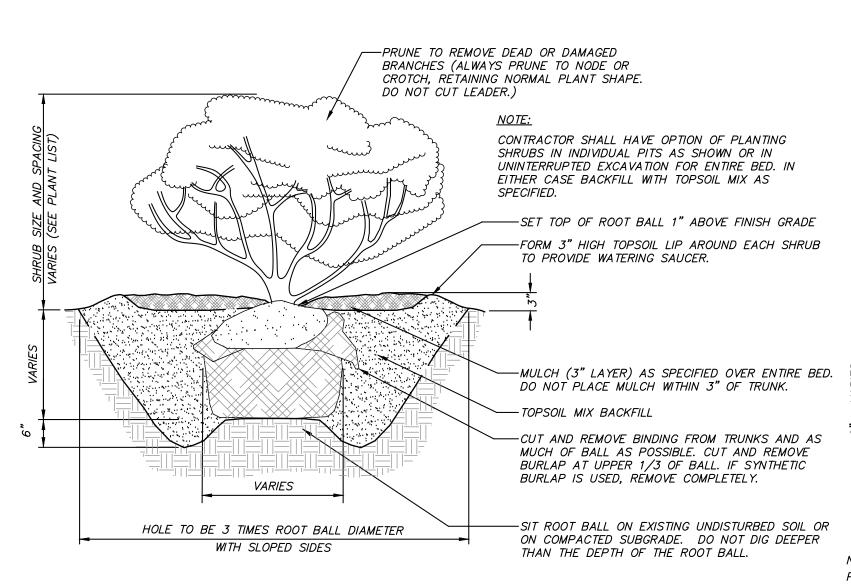


TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 10'-0" APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIALS AS SPECIFIED, RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

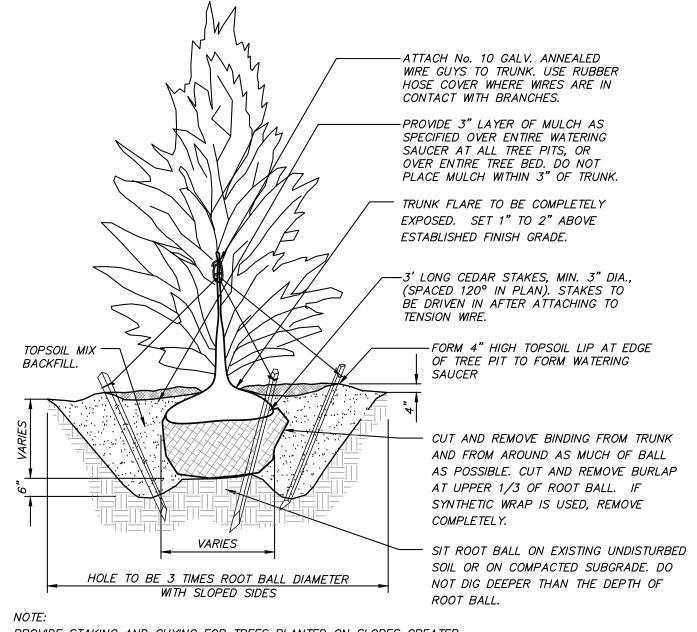
CONCRETE CURB DETAIL (N. T. S.)



TREE PLANTING DETAIL (N. T. S.)

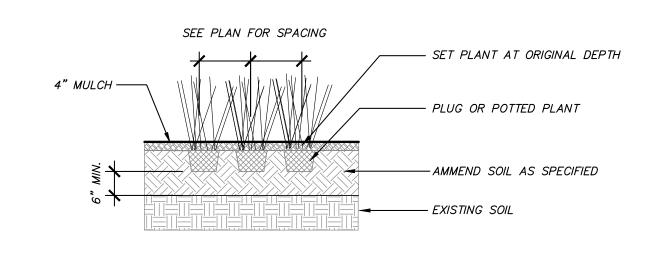


SHRUB PLANTING DETAIL

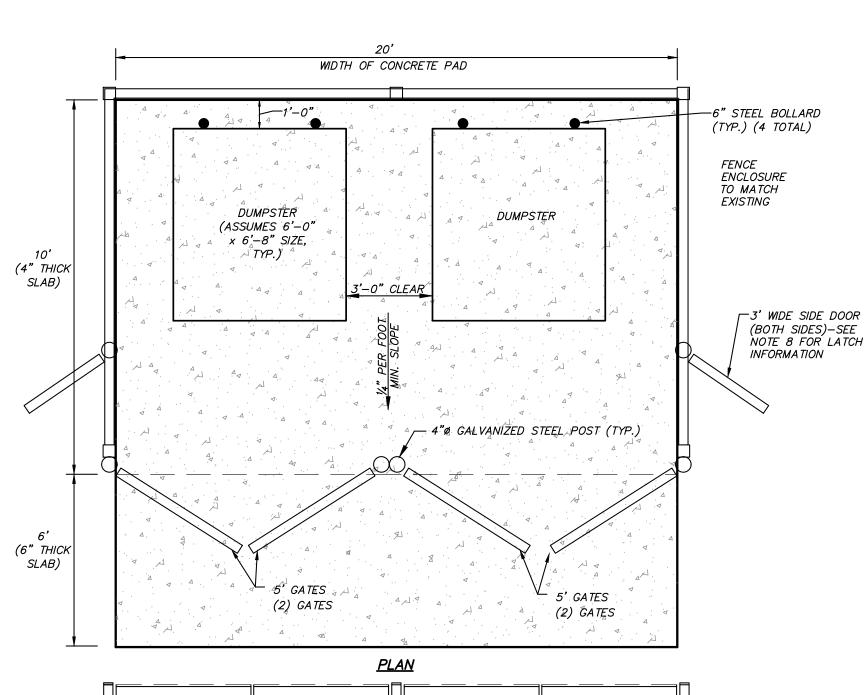


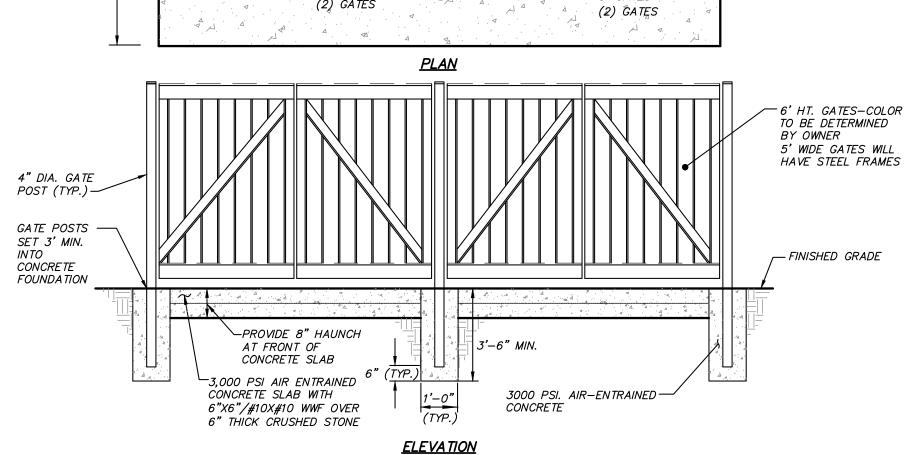
PROVIDE STAKING AND GUYING FOR TREES PLANTED ON SLOPES GREATER THAN 3H:1V, IN EXPOSED, WINDY AREAS AND AS SPECIFIED BY LANDSCAPE ARCHITECT. GUY WIRES AND STAKES SHALL BE REMOVED WITHIN TWELVE MONTHS OF PLANTING.

EVERGREEN TREE PLANTING DETAIL (N. T. S.)



PERENNIAL / ORNAMENTAL GRASS PLANTING DETAIL



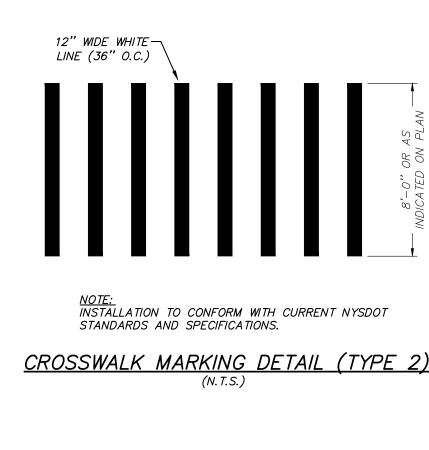


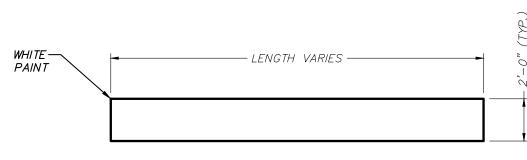
GENERAL NOTES:

ACCESSIBILITY NOTES:

- 1. CHECK WITH REFUSE HAULER PRIOR TO INSTALLATION OF REFUSE ENCLOSURE FOR FINAL DIMENSIONS.
- 1. VERTICAL CHANGE IN LEVEL BETWEEN FINISHED GRADE OF CONCRETE PAD FOR DUMPSTER ENCLOSURE AND ADJACENT PAVEMENT AT GATE OPENINGS SHALL NOT EXCEED 1/4"; 1/4" TO 1/2" VERTICAL CHANGE SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN
- 4. GATE(S) DESIGNATED FOR ACCESSIBLE ENTRY INTO DUMPSTER ENCLOSURE SHALL BE MAINTAINED TO BE RELATIVELY FREE SWINGING AND EÁSY TO OPEN AND CLOSE.
- 5. SHOULD INDIVIDUAL GATE BE DESIGNATED FOR ACCESSIBLE ENTRY, IT SHALL BE LABELED AS SUCH.
- 6. A 36" MINIMUM CLEAR DISTANCE SHALL BE MAINTAINED BETWEEN DUMPSTERS AND IN FRONT OF DUMPSTER AS NECESSARY TO PROVIDE ACCESSIBLE ROUTE WITHIN DUMPSTER ENCLOSURE TO SIDE ACCESS DOORS TO DUMPSTERS AND / OR REFUSE CARTS. 7. ACCESSIBLE REFUSE CONTAINERS SHALL BE PROVIDED — TRASH CAN(S), REFUSE CARTS, AND/OR DUMPSTERS WITH ACCESSIBLE SIDE
- 8. GATE LATCH HARDWARE FOR ACCESSIBLE ENTRY GATES SHALL BE EASY TO OPERATE, U-SHAPED HANDLE OR LEVER-OPERATED MECHANISM AND COMPLY IN ALL WAYS WITH ADA REQUIREMENTS. MOUNTED HEIGHT OF OPERABLE PARTS SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE GROUND.

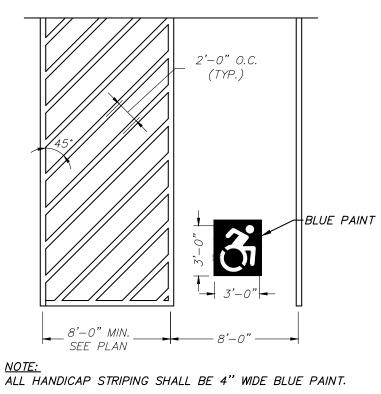
REFUSE ENCLOSURE DETAIL



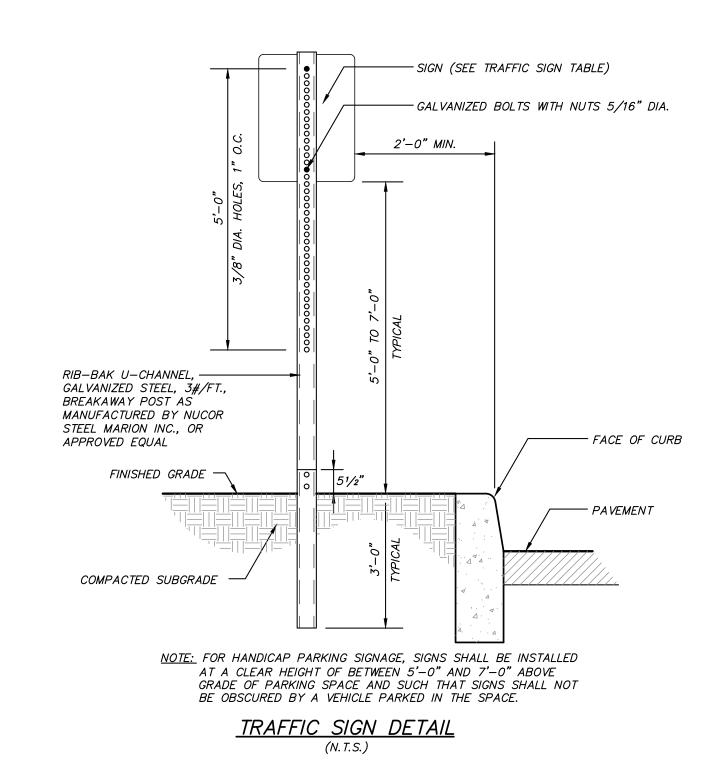


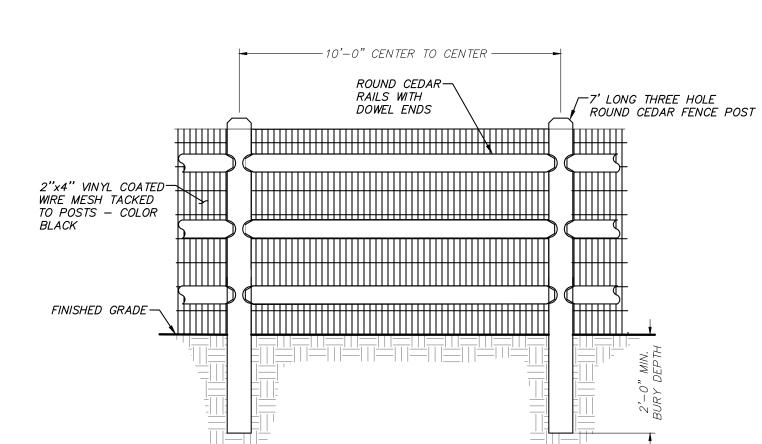
NOTES: INSTALLATION TO CONFORM WITH CURRENT NYSDOT STANDARDS AND SPECIFICATIONS.

PAINTED STOP BAR DETAIL (N. T. S.)

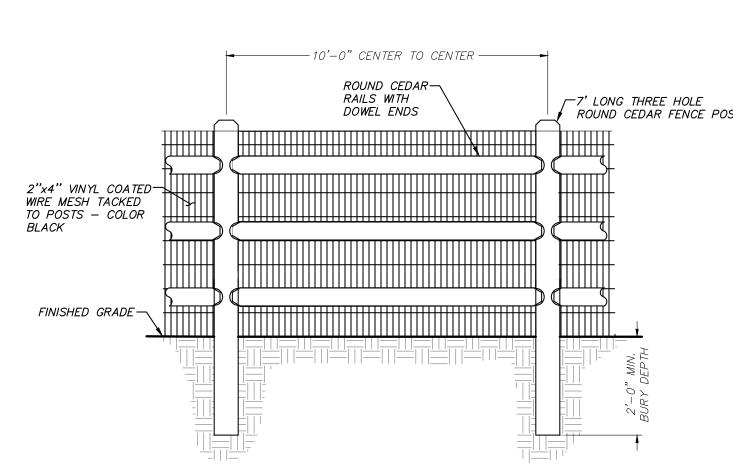


PAINTED NYS ACCESSIBLE PARKING DETAIL



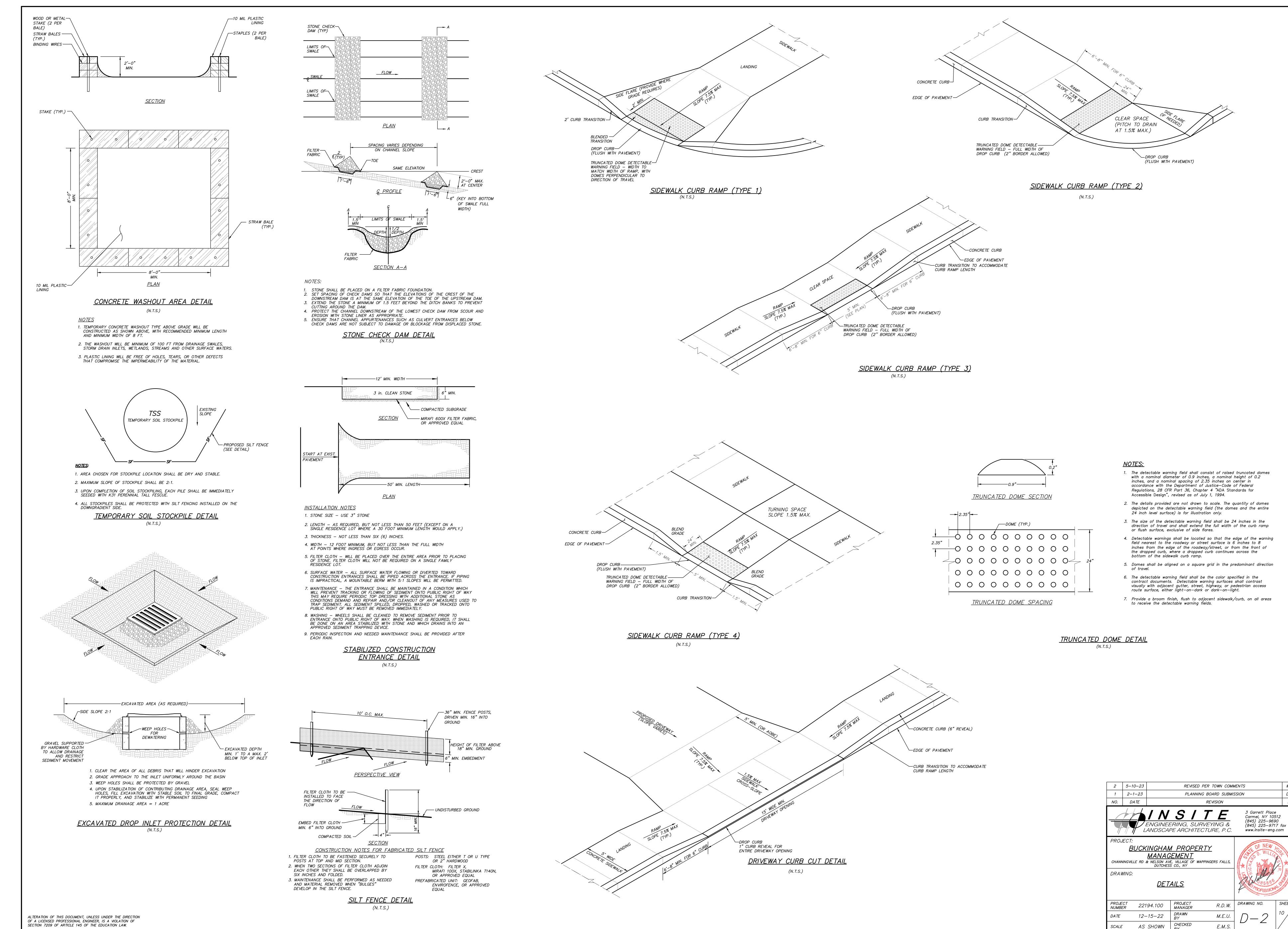


POST AND RAIL FENCE DETAIL (N.T.S.)



2 5-10-23 REVISED PER TOWN COMMENTS 1 2-1-23 PLANNING BOARD SUBMISSION DATE 3 Garrett Place Carmel, NY 10512 (845) 225-9690 / ENGINEERING, SURVEYING & (845) 225-9717 fax LANDSCAPE ARCHITECTURE, P.C. www.insite-eng.com <u>BUCKINGHAM PROPERTY</u> <u>MANAGEMENT</u> CHANNINGVILLE RD & NELSON AVE, VILLAGE OF WAPPINGERS FALLS, DUTCHESS CO., NY DRAWING:

DRAWING NO. 22194.100 | MANAGER R.D.W. NUMBER M.E.U. 12-15-22 CHECKED E.M.S. AS SHOWN



SEWER TESTING PROCEDURES

TESTS FOR NON-PRESSURE PIPELINES FOR TRANSPORT OF SEWAGE The leakage shall be determined by exfiltration, infiltration or low pressure air.

A. Exfiltration Testina

of the aroundwater.

- 1. Exfiltration tests shall be made by filling a section of pipeline with water and measuring the quantity of leakage.
- 2. The head of water at the beginning of the test shall be at least 2 feet above the highest pipe within the section being tested. a. Should aroundwater be present within the section being tested, the head of water for the test shall be 2 feet above the hydraulic gradient
- b. Should the requirement of 2 feet of water above the highest pipe subject any joint at the lower end of the test section to a differential head of greater than 11.5 feet, another method of testing shall be
- B. Infiltration Testing
- 1. Infiltration tests will be allowed only when the water table gauges determine the groundwater level to be 2 feet or more above the highest pipe of the section being tested.
- 2. Infiltration test shall be made by measuring the quantity of water leaking into a section of pipeline. 3. Measurement of the infiltration shall be by means of a calibrated weir constructed at the outlet of the section being tested.
- C. Allowable Leakage for Non-Pressure Pipelines 1. The allowable leakage (exfiltration or infiltration) for non-pressure pipelines
 - shall not exceed the following in gallons per 24 hours per inch of diameter per mile of pipe: <u>Type of Pipe</u> Ductile iron — mechanical or push—on joints
- Polyvinyl chloride, thermal plastic or fiberglass with rubber joints Cast iron soil pipe
- 2. Regardless of the above allowable leakage, any spurting leaks detected shall be permanently stopped.
- D. Low Pressure Air Testing 1. Air testing for acceptance shall not be performed until the backfilling has
- been completed. Low pressure air tests shall conform to or ASTM F1417-92, Section 8.2.2, Time—Pressure Drop Method for a 0.5 psi drop, except as
- specified herein and shall not be limited to type or size of pipe. 3. All sections of pipelines shall be cleaned and flushed prior to testing.
- 4. The air test shall be based on the starting pressure of 3.5 to 4.0 psi gauge. The time allowed for the 0.5 psi drop in pressure, measured in seconds, will be computed based on the size and length of the test section by the
- a. When groundwater is present, the average test pressure of 3 psig shall be above any back pressure due to the groundwater level.
- b. The maximum pressure allowed under any condition in air testing shall be 10 psig. The maximum groundwater level for air testing is 13 feet above the top of the pipe.
- 5. The equipment required for air testing shall be furnished by the Contractor and shall include the necessary compressor, valves, gauges and plugs to allow for the monitoring of the pressure, release of pressure and a separable
- a. The test gauge shall be sized to allow for the measuring of the 0.5 psig loss allowed during the test period and shall be on a separate line to the test section.
- E. Deflection Testing
- 1. Deflection testing shall be performed 30 days after backfilling. The test shall be made by passing a ball or cylinder no less then 95% of the pipe diameter through the pipe. The test shall be performed without mechanical pulling devices. Pipes that fail to pass required ball or cylinder shall be corrected. The pipe shall be re-tested after correction until satisfactory deflection test results confirm deflection less than 5%.

F. Manhole Testing 1. General

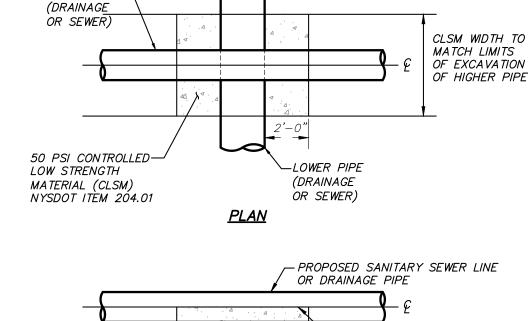
- a. Each manhole shall be tested by either exfiltration, infiltration or vacuum testing.
- b. A manhole will be acceptable if the leakage does not exceed an allowance of one gallon per vertical foot of depth for 24 hours. Regardless of the allowable leakage, any leaks detected shall be permanently stopped.
- 2. Exfiltration tests shall be performed after backfilling. The test shall be made by filling the manhole with water and observing the level for a minimum of eight hours.
- 3. Infiltration tests shall be performed after backfilling when the groundwater level is above the joint of the top section of a precast manhole.
- 4. Vacuum testing shall be performed after backfilling in accordance with the latest revision of ASTM C1244-02 as follows:
- a. The test head shall be placed at the top of the manhole in accordance with the manufacturer's recommendations.
- b. A vacuum of 10 in. of mercury shall be drawn on the manhole, the valve on the vacuum line of the test head closed, and the vacuum pump shut off. The time shall be measured for the vacuum to drop to 9 in. of mercury.
- c. The manhole shall pass if the time for the vacuum reading to drop from 10 in. of mercury to 9 in. of mercury meets or exceeds the values indicated below:

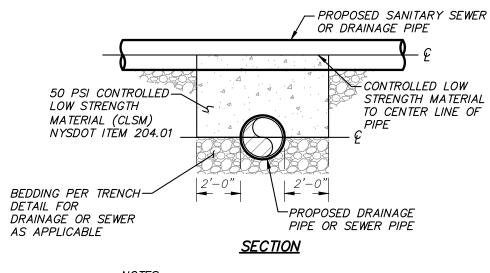
Minimum Test Times for Various Manhole Diameters in Seconds:

Depth (ft)	Diameter (inches)	48	60
	Tin	ne (sec	conds)
8 or less		20	26
10		25	33
12		30	39
14		<i>35</i>	46
16		40	52
18		45	59
20		50	65

d. If the manhole fails the initial test, necessary repairs shall be made by an approved method. The manhole shall then be retested until a satisfactory test is obtained.

HIGHER PIPE-





1. DETAIL TO BE USED ONLY WHEN THERE IS LESS THAN 18" SEPARATION BETWEEN DRAINAGE PIPE AND SANITARY 2. PIPE AT LOWER ELEVATION TO BE INSTALLED PRIOR TO PIPE AT HIGHER FLEVATION. 3. WIDTH OF CLSM BEDDING TO MATCH TRENCH WIDTH.

SEWER PIPE TO DRAINAGE PIPE CROSSING DETAIL (N. T. S.)

SEWER MAIN NOTES

service connections.

- 1. All sewer mains & sewer services shown on these plans shall be polyvinyl chloride (PVC) SDR 35 with factory installed push on gaskets.
- 2. Sanitary Sewers and manholes shall be laid at least 10 feet horizontally from any existing or proposed water main or drainage pipe and drainage manholes. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot horizontal separation, the Design Engineer and Dutchess County Department of Health may allow deviation with prior approval on a case—by—case basis, if supported by data from the Design Engineer prior to sewer line installation. The horizontal separation also applies to service connections.
- 3. Sewers crossing water mains or drainage pipes shall be laid to provide a minimum vertical separation of 18 inches between the outside of the sewer main and the water main or drainage pipe. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main or drainage pipe crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. In cases where it is not practical to maintain a 18" vertical separation, the Design Engineer and Dutchess County Department of Health may allow deviation with prior approval on a case—by—case basis, if supported by data from the Design Engineer prior to the sewer line installation. The vertical separation also applies to
- 4. Sanitary sewer service lines shall be tested in conjunction with the sewer mains to cleanout or the property line or easement line, and in accordance with the latest Dutchess County Department of Health Rules &
- 5. Testing of the manholes with the pipeline shall not be permitted. Manholes & sanitary sewer lines shall be tested independently of each other.
- 6. The owner/applicant shall be responsible for acquiring supervision of the construction of the sanitary sewer main system by a person or firm

qualified to practice professional engineering in the state of New York.

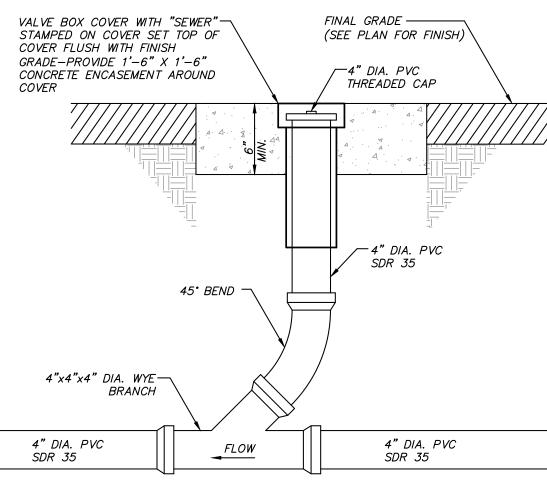
- 7. The owner/applicant shall be responsible for providing Three (3) copies of as-built drawings signed and sealed by a licensed and registered New York State Professional Engineer to the Dutchess County Department of Health at the completion of the construction.
- 8. The Design Engineer and Dutchess County Department of Health shall be notified forty eight (48) hours before construction is started.
- 9. The sanitary sewer mains shall not be placed into service until a certificate of construction compliance has been submitted to and accepted
- by the Dutchess County Department of Health. 10. The Dutchess County Department of Health must be notified forty eight (48) hours prior to pressure testing the sewer main improvements.
- 11. Manhole frames & covers to be Campbell pattern #1007 with 24"ø gravel opening or approved equal. M.H. covers to be marked "SEWER". (use solid covers where necessary.)
- 12. The exterior of all manholes shall be covered with an approved asphalt
- 13. Concrete base slabs shall be air entrained concrete with a minimum design strength of 3,000 psi.
- 15. The contractor shall submit shop drawings of the precast manholes to the Design Engineer for review and acceptance. 16. Precast manholes shall have minimum reinforcement of 0.12 sq.. in. per

lin. ft. for 48" barrel & be designed in accordance with A.S.T.M. C-478,

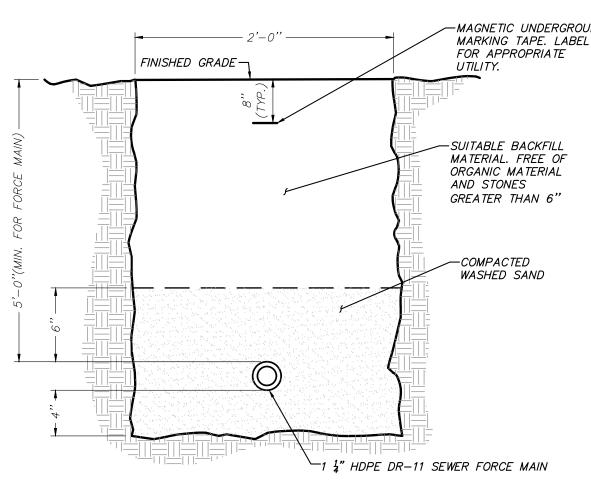
17. Precast base sections to have the required number of gaskets and openings as shown and specified.

and withstand an H-20 design loading.

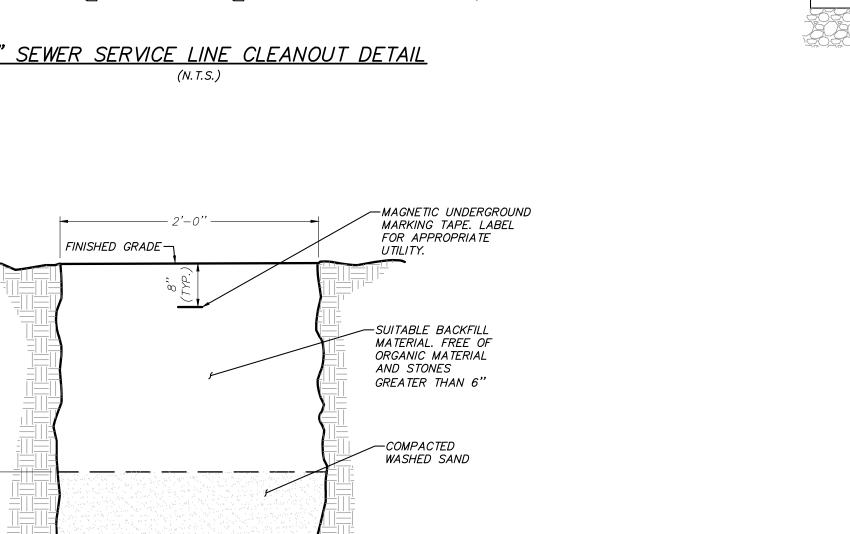
- 18. Precast manhole sections shall employ a watertight gasket arrangement between each section approved by the Design Engineer.
- 19. Openings for pipes shall be precast or machine cored. Gaskets or collars for pipe connections to manholes shall be resilient and watertight and
- compatible with the type of pipe being used. 20. The length of pipes entering or leaving any manhole shall be greater than
- 21. Precast manholes under 6'-0" deep shall have a "Flat Top" slab roof. 22. Gaskets or collars for pipe connections to manhole shall provide a minimum of 0.1' drop across the manhole.
- 23. The contractor shall notify the Design Engineer every day that sewer main installation shall occur.

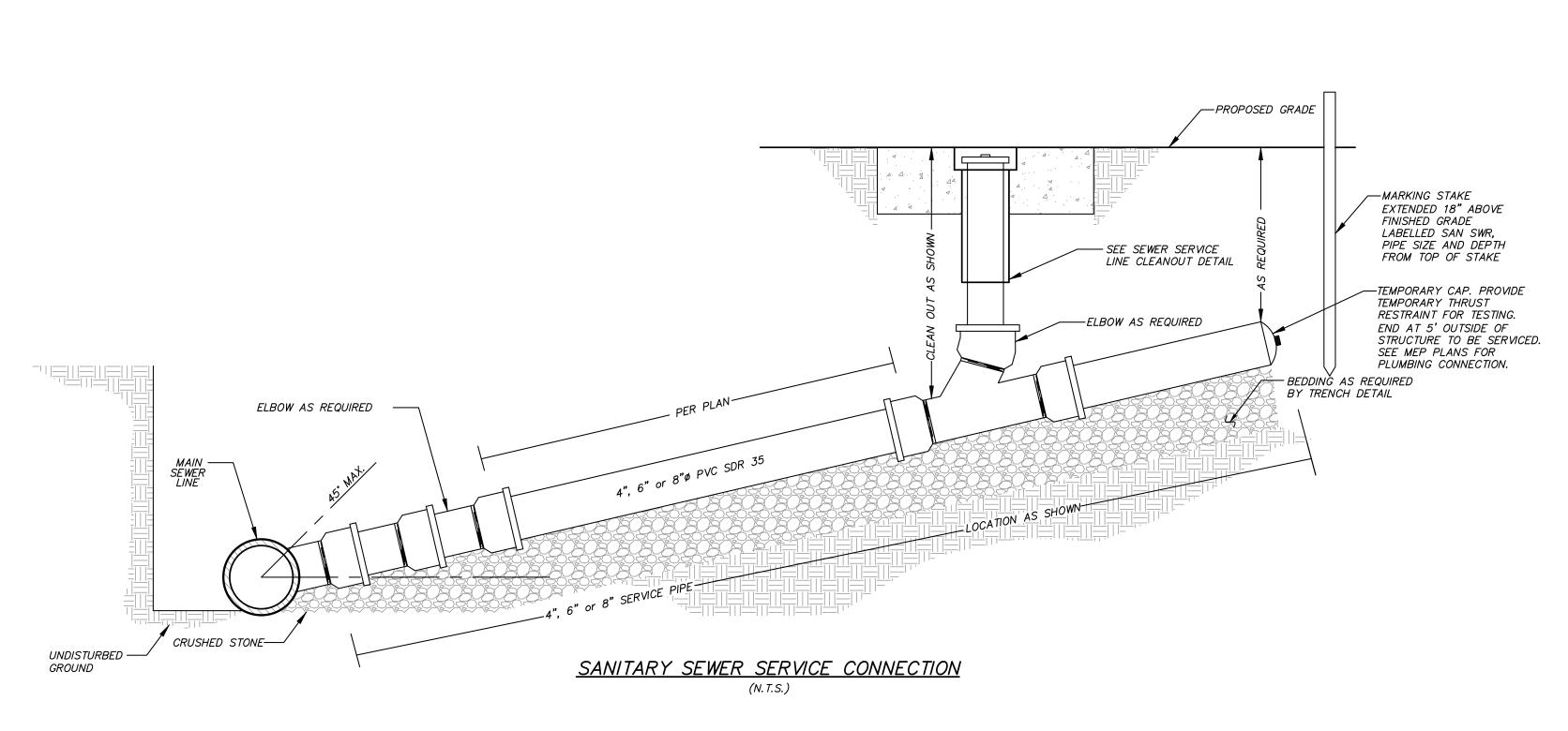


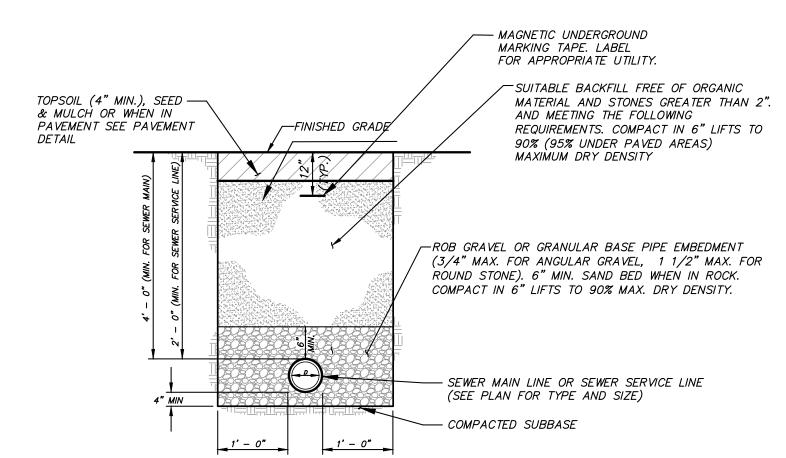
<u>4" SEWER SERVICE LINE CLEANOUT DETAIL</u>



HDPE SEWER FORCE MAIN TRENCH DETAIL







SEWER MAIN/SEWER SERVICE LINE TRENCH DETAIL

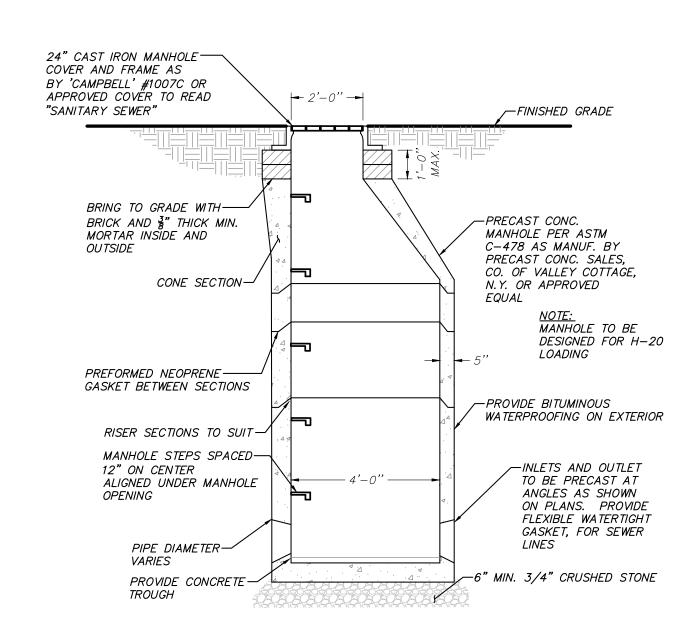
(N.T.S.)

-45° WYE BRANCH PROVIDE FLEXIBLE O SPRINGLINE -INCOMING SEWER MAIN WATERTIGHT GASKET, FOR SEWER LINES (TYP.) SEE SEWER -MANHOLE DETAIL -SELECT FILL COMPACT IN 12" LIFTS INSIDE MANHOLE **←**CONCRETE **ENCASEMEN**7 6" MIN. ALL AROUND INSTALL TROUGH -SEE DETAIL (TYP.) -EXTEND CRUSHED STONE BASE - 6" MIN. CRUSHED STONE 4" BEYOND CONCRETE

EXTERNAL DROP MANHOLE DETAIL

EXTERNAL DROP MANHOLE NOTES: 1. TO BE USED WHEN INCOMING SEWER IS MORE THAN 2'-0" HIGHER THAN THE OUTGOING SEWER.

- 2. PIPE SIZE AND TYPE OF DROP CONNECTION TO BE SAME AS MAIN OR LATERAL.
- 3. ALL JOINTS SHOULD BE SEALED INSIDE AND OUT WITH CEMENT GROUT CONTAINING 2 PARTS CEMENT AND 1 PART SAND AND ANTI-HYDRO OR OTHER APPROVED ADDITIVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO INSURE WATER TIGHTNESS.



SEWER MANHOLE DETAIL (N. T. S.)

procedures and standards.

collection system.

12. All concrete tanks shall be 4,000 psi concrete.

DCDOH Standard Notes for Central Sewer Projects:

- 1. The design, construction and installation shall be in accordance with this plan and generally accepted standards in effect at the time of construction which include: • "New York State design Standards for Intermediate Sized Wastewater Treatment Systems",
- "Appendix 75—A Waste Treatment Individual Household Systems, New York State Sanitary
- "Recommended Standards for Sewage Treatment Works and Water Works, (Ten States)." • "New York State Department of Health and Dutchess County Department of Health policies,
- "Dutchess County Department of Health Sanitary Code, Article XI and Article XIX." • "Dutchess County Environmental Health Services Division Certificate of Approval letter."
- 3. Upon completion of the facilities, the finished works shall be inspected, tested, and certified complete to the DC EHSD by the New York State licensed Professional Engineer supervising

2. This plan is approved as meeting the appropriate and applied technical standards, guidelines,

policies and procedures for arrangement of sewage disposal and treatment and water supply

construction. No part of the facilities shall be placed into service until accepted by the DC

- 4. Approval of any plan(s) or amendment thereto shall be valid for a period of 5 years from the date of approval. Following the expiration of said approval, the plan(s) shall be re—submitted to the Commissioner of Health for consideration for re-approval. Re-submission or revised submission of plans and/or associated documents shall be subject to compliance with the
- re-submission. 5. The DC EHSD shall be notified sixty days prior to any change in use; use changes may require re—approval by the DC EHSD.

technical standards, guidelines, polices and procedures in effect at the time of the

- 6. All required Erosion & Sediment Control and Stormwater Pollution Prevention Water Quality & Quality Control structures, permanent and temporary, are shown on the plans. 7. No buildings are to be occupied and the new wastewater collection system shall not be placed
- into service, until a "Certificate of Construction Compliance" is issued under section 19.7 of Artical 19 of the Dutchess County Sanitary Code. 8. No cellar, footing, floor, garage, cooler, or roof drains shall be discharged into the sewage
- 9. All buildings shall be constructed at an elevation high enough to ensure gravity flow to the sewage collection system. 10. The undersigned owners of the property hereon state that they are familiar with this map, its contents
- and its legends and hereby consent to all said terms and conditions as stated hereon. 11. Pump stations and dosing systems must be installed under the supervision of a New York State registered design professional who shall certify in writing that the system is installed in accordance with the approved plan and that the system operates as intended.
- 2 5-10-23 REVISED PER TOWN COMMENTS 1 2-1-23 PLANNING BOARD SUBMISSION DATE Carmel, NY 10512 (845) 225-9690 (845) 225-9717 fax LANDSCAPE ARCHITECTURE, P.C. www.insite-eng.com BUCKINGHAM PROPERTY <u>MANAGEMENT</u> CHANNINGVILLE RD & NELSON AVE, VILLAGE OF WAPPINGERS FALLS, DUTCHESS CO., NY <u>DETAILS</u> DRAWING NO. 22194.100 R.D. W. | MANAGER NUMBER 12-15-22 M.E.U.

CHECKED

AS SHOWN

SLOPE BENCHES TOWARD TROUGH -

CONCRETE TROUGH TO

BE POURED IN PLACE

BY CONTRACTOR AND

MANHOLE TROUGH DETAIL

(N. T. S.)

TROWEL FINISHED.

 $\binom{1}{2}$ "/FT. MIN SLOPE)

-- MANUFACTURE INLET AND OUTLET

ANGLE AS SHOWN ON PLANS

PRECAST INLET AND

OUTLET HOLES. SIZE

AND ANGLE AS

REQUIRED.

PVC PIPE WATER MAIN NOTES:

- All water mains shall be PVC Class 200 DR 18 pipe with factory installed push—on gaskets. All pipe shall be in conformance with the latest edition AWWA C900.
 All water main fittings shall be Class 350 ductile iron mechanical joints in accordance with the latest edition of AWWA/ANSI Standards C111/A21.11. "GRIP
- 3. Thrust blocks shall be installed at all changes in horizontal or vertical alignment.

4. All water mains and appurtenances shall be installed in accordance with the latest

RING" restrained joint connections shall be provided at every fitting (as

manufactured by ROMAC Industries, Inc. or approved equal).

- edition of AWWA C605.

 5. Gate valves shall be "Mueller" or approved equal, iron body, non—rising stem conventional packing, resilient seated, mechanical joint with restrained joint
- gaskets, pressure class 350, opening shall be left (CCW) and operation shall be by 2" square wrench nut.

 6. All water mains and appurtenances (including water service lines up to the curb

stop) shall be pressure tested and leakage tested to the satisfaction of the

- Design Engineer, and the Dutchess County Department of Health. This shall be done in accordance with the latest edition of AWWA Standard C605.

 7. All water mains and appurtenances shall be flushed, disinfected, and tested to the satisfaction of the Design Engineer, and the Dutchess County Department of Health. This shall be done in accordance with the latest edition of AWWA Standard
- C651, section 4.4.3, the "Continuous Feed Method". The "tablet method" will not be allowed.

 8. Water mains shall be laid at least 10 feet horizontally from any existing or proposed sanitary or storm sewer main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot separation, the Design Engineer and Dutchess County Department of Health may allow deviation with prior approval on a case—by—case basis, if supported by data from the
- 9. Water mains crossing sanitary or storm sewer mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. In cases where it is not practical to maintain the 18 inch vertical separation, the Design Engineer and Dutchess County Department of Health may allow deviation with prior approval on a case—by—case basis, if supported by data from the Design Engineer prior to the installation of the water lines. The vertical separation also applies to water

Design Engineer prior to the installation of the water lines. The horizontal

separation shall also apply to service connections.

- 9. The Design Engineer, Dutchess County Department of Health, and Town's Authorized Representative shall be notified forty eight (48) hours before construction is started.
- 10. The water mains shall not be placed into service until a certificate of construction compliance has been submitted to and accepted by the Dutchess County Department of Health.
- 11. The Dutchess County Department of Health must be notified forty eight (48) hours prior to pressure testing the water main improvements.
- 12. The contractor shall notify the Design Engineer every day that water main construction shall occur.

PVC PIPE WATER TESTING PROCEDURES TESTS ON PRESSURE PIPING FOR TRANSPORT OF WATER

- A. Hydrostatic Pressure Test
 Hydrostatic testing shall be performed in accordance with the revision of AWWA
 C605, Section 7.3, "Hydrostatic Testing".
- C605, Section 7.3, "Hydrostatic Testing".

 1. Test pressure shall be as scheduled or, where no pressure is scheduled, shall
- be 150% of the maximum working pressure or 150 psi, whichever is higher.

 2. Test pressure shall be held on the piping for a period of at least 2 hours, unless a longer period is requested by the Engineer.
- 3. The test medium shall be water.
- B. Hydrostatic Leakage Test

service connections.

- 1. The leakage test shall be conducted concurrently with the pressure test.
- The rate of leakage shall be determined at 15-minute intervals by means of volumetric measurement of the makeup water added to maintain the test pressure. The test shall proceed until the rate of leakage has stabilized or is decreasing below an allowable value, for three consecutive 15-minute intervals. After this, the test pressure shall be maintained for at least another 15 minutes.
 a. At the completion of the test, the pressure shall be released at the
- furthermost point from the point of application.

 3. All exposed piping shall be examined during the test and all leaks, defective
- material or joints shall be repaired or replaced before repeating the tests.
- 4. The allowable leakage will be determined by the following formula.

$Q = \overline{148,000}$

- e:

 Q = quantity of makeup water, in gallons per hour

 L = length of pipe tested, in feet

 D = nominal diameter of the pipe, in inches

 P = average test pressure during the hydrostatic test, in pounds per
- 5. Regardless of the above allowables, any visible leaks shall be permanently

square inch (gauge)

- 6. The test medium shall be water.
- C. Disinfection
 Prior to placing the water main into service, the new pipe shall be cleaned and disinfected in accordance with the latest revision of AWWA C651, Section 4.4.3, "The Continuous Feed Method". The "Tablet Method" will not be accepted.
- All work under this section shall be performed in the presence of the Design Engineer, and a representative of the public health authority having jurisdiction, as required.
 Chlorination shall be scheduled such that sampling and flushing will be performed
- during normal daylight working hours. The contractor shall provide acceptable backflow prevention on all supply water to prevent any potential backflow contamination or cross connection.

 3. Chlorination shall be by the use of a solution of water and liquid chlorine, calcium
- hypochlorite or sodium hypochlorite and the solution shall be contained in the pipe or structure as specified.
 4. Prior to chlorination, all dirt and foreign matter shall be removed by a thorough
- cleaning and flushing of the pipeline or structure.

 5. The chlorine solution shall be introduced to pipelines through corporation stops placed in the horizontal axis of the pipe, to structures by means of tubing extending directly into the structure, or other approved methods.
- 6. The application of the chlorine solution shall be by means of a controlled solution feed device. The rate of chlorine solution flow shall be in such proportion to the rate of water entering the pipe or structure that the resulting free chlorine residual shall be between 25 and 50 parts per million (PPM) or milligrams per liter (mg/l).

7. The chlorine treated water shall be retained in the pipe or structure at least 24

- hours, unless otherwise directed. During the retention period, all valves and hydrants within the treated sections shall be operated.
- The chlorine residual shall be not less than 10 PPM (or mg/l) at any point in the pipe or structure at the end of the 24—hour retention period.
- 9. When making repairs to, or when specified, structures and portions of pipelines shall be chlorinated by a concentrated chlorine solution containing not less than 200 PPM (mg/l) of free chlorine. The solution shall be applied with a brush or sprayed on the entire inner surface of the empty pipes or structures. The structures disinfected shall remain in contact with the strong chlorine solution for at least 30 minutes.
- 10. After the required retention of chlorinated water in the pipe or structures, they shall be thoroughly flushed until the replacement water shall, upon test, both chemically and bacteriological, be proven equal to water quality served by the public from the existing water supply system.
- 11. The disposal of chlorinated water from any pipe or structure shall be such that it will not cause damage to any vegetation, fish, or animal life.
- 12. The Contractor shall make all arrangements for the testing of water quality by an approved independent laboratory. Two acceptable bacteriological test, taken at least 24 hours apart, shall be collected from the new water main. At least 1 set of samples must be collected from every 1,000 LF of the new water main, plus one set from the end of the line and at least one set from each branch. The results for all tests shall be forwarded to the Design Engineer and the public health authority having jurisdiction.
- 13. All water quality requirements shall be fulfilled prior to the passage of any water through the new system to a public supply or the use of the new system.

<u>DCDOH Standard Notes for Public Water Systems with</u> Distribution Improvements:

- 1. The design, construction and installation shall be in accordance with this plan and generally accepted standards in effect at the time of construction which include:
- "New York State design Standards for Intermediate Sized Wastewater Treatment Systems", NYSDEC
 "Appendix 75—A Waste Treatment Individual Household Systems, New York State Sanitary Code."
 "Recommended Standards for Sewage Treatment Works and Water Works, (Ten States)."
- "New York State Department of Health and Dutchess County Department of Health policies, procedures and standards."
- "New York State and Dutchess County Department of Health Sanitary Code."
 "Dutchess County Environmental Health Services Division Certificate of Approval letter."
- This plan is approved as meeting the appropriate and applied technical standards, guidelines, policies and procedures for arrangement of sewage disposal and treatment and water supply facilities, and, as a condition of this approval, a construction inspection by a representative of the Dutchess County Health Department shall be done to determine that construction at the time of inspection was completed in general conformance with the approved plans and any amendment thereof.
 Upon completion of the facilities, the finished works shall be inspected, tested, and certified complete to
- the DC EHSD by the New York State licensed Professional Engineer supervising construction. No part of the facilities shall be placed into service until accepted by the DC EHSD.

 4. Approval of any plan(s) or amendment thereto shall be valid for a period of 5 years from the date of approval. Following the expiration of said approval, the plan(s) shall be re-submitted to the Commissioner of Health for consideration for re-approval. Re-submission or revised submission of plans and/or associated documents shall be subject to compliance with the technical standards, guidelines,
- ana/or associated documents shall be subject to compilance with the technical standards, guidelines, polices and procedures in effect at the time of the re—submission.

 5. All onsite wastewater treatment system existing or approved within 300 feet of the proposed wells are shown on this plan along with any other environmental hazards in the area that may affect the design and functional ability
- 6. All proposed wells and service lines on this plan are accessible for installation and placement.
 7. No cellar, footing, floor, garage, cooler or roof drains shall be discharged within 50 feet of any well.

-UNDISTURBED

CLASS A—— CONCRETE (TYP.)

<u>ELEVATION — VERTICAL BEND</u>

- 8. All required Erosion & Sediment Control and Stormwater Pollution Prevention Water Quality & Quantity Control structures, permanent and temporary, are shown on the plans.
- 9. No buildings are to be occupied and the new water system shall not be placed into service, until a "Completed Works Approval" is issued under section 5—1.22(d) of Part 5 of the New York State Sanitary Code (10NYCRR5).
- Works Approval" is issued under section 5—1.22(d) of Part 5 of the New York State Sanitary Code (10NYCRR5).

 10. The undersigned owners of the property hereon state that they are familiar with this map, its contents and its legends and hereby consent to all said terms and conditions as stated hereon.

PLAN - 90° BEND

<u>ELEVATION — VERTICAL BEND</u>

THRUST BLOCK SCHEDULE

4" | 2' | 1.5' | 2' | 1.5' | 2' | 1.5' | 2' | 1.5' | 1.5'

THRUST BLOCK DETAILS

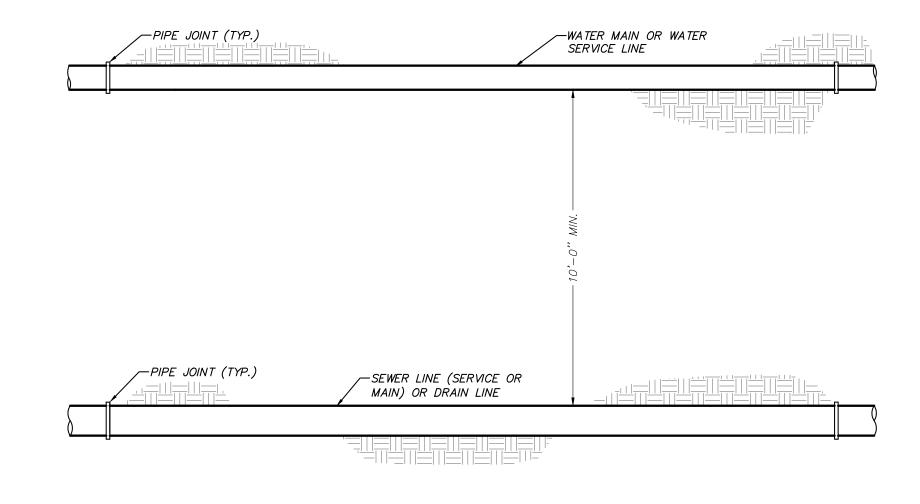
(N.T.S.)

ELEVATION AT FITTINGS

<u>ELEVATION — CAPPED END</u>

HEAVY TAR— PAPER

MECHANICAL−

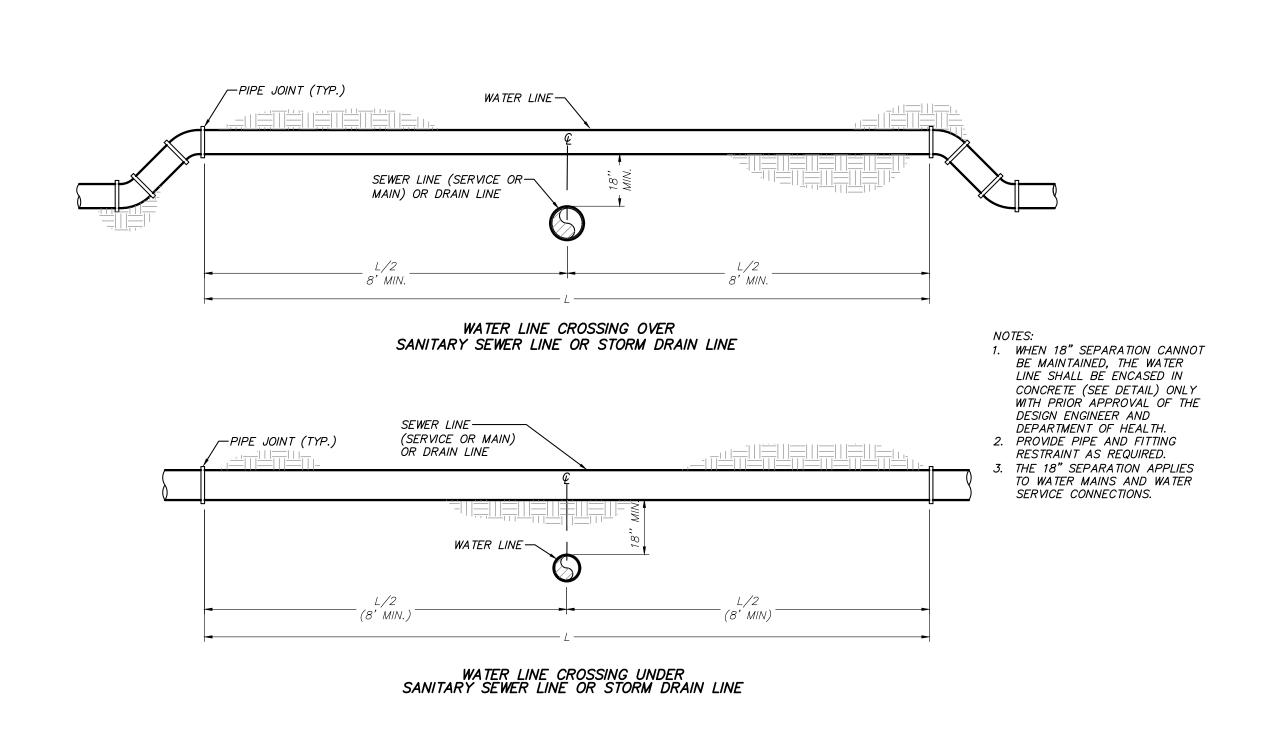


NOTES:

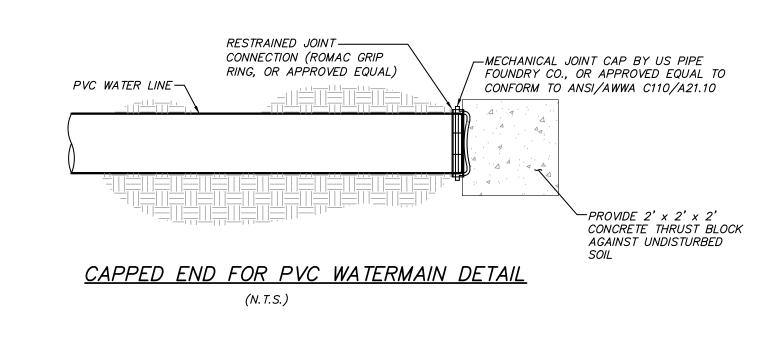
1. WHEN THE 10' SEPARATION CANNOT BE MAINTAINED, THE WATER LINE SHALL BE ENCASED IN CONCRETE (SEE DETAIL) ONLY WITH PRIOR APPROVAL OF THE DESIGN ENGINEER AND DEPARTMENT OF HEALTH.

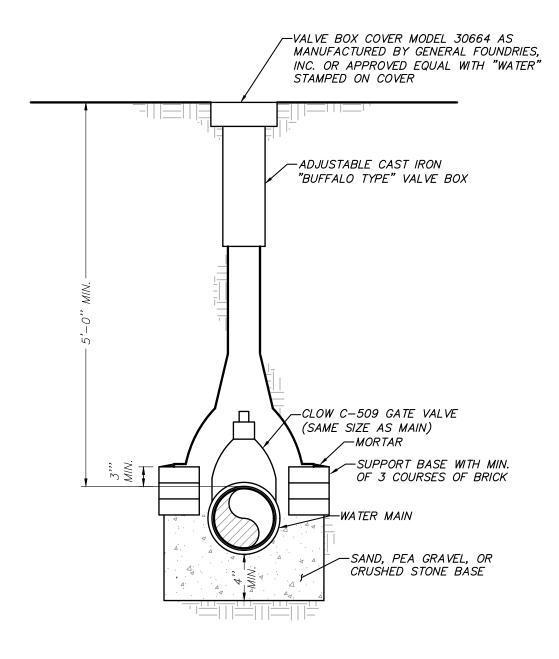
2. THE 10' SEPARATION APPLIES TO WATER MAINS AND WATER SERVICE CONNECTIONS.

WATER LINE HORIZONTAL SEPARATION DETAIL

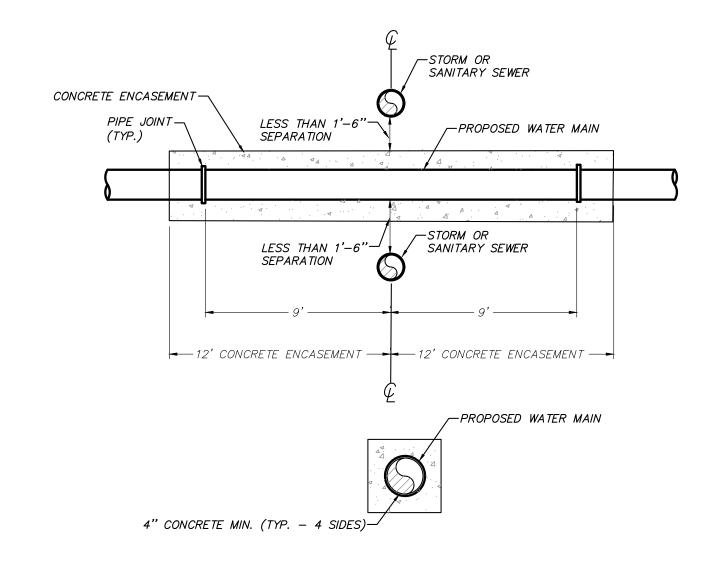


WATER LINE CROSSING DETAIL



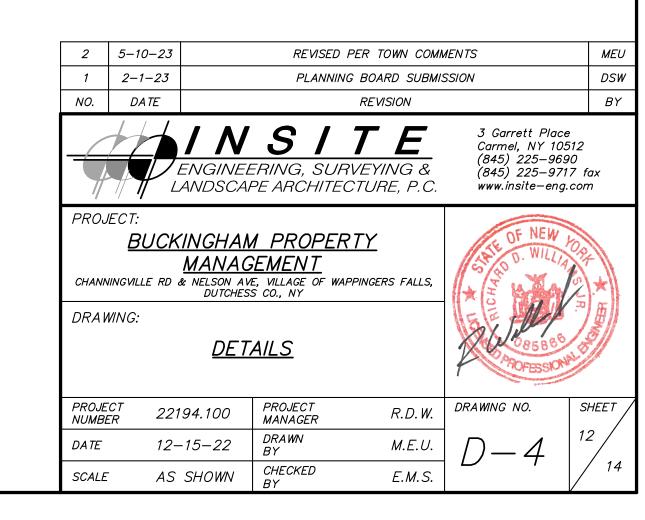


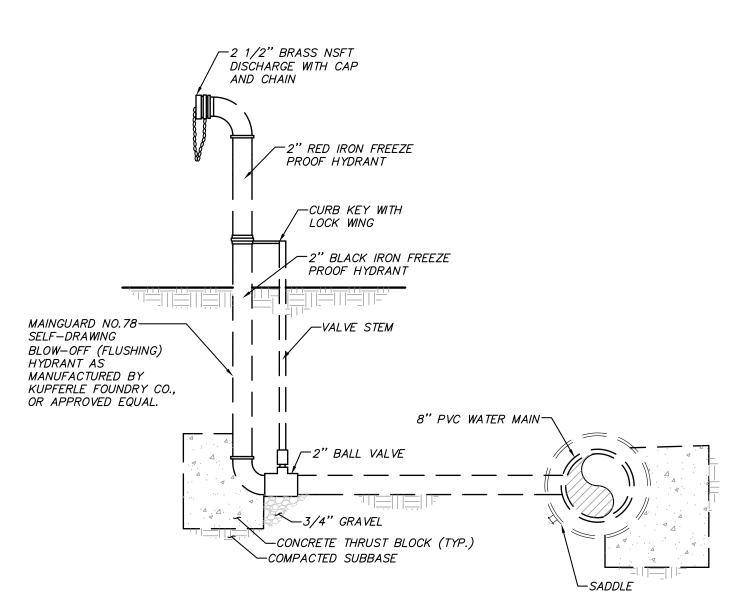
WATER MAIN GATE VALVE DETAIL



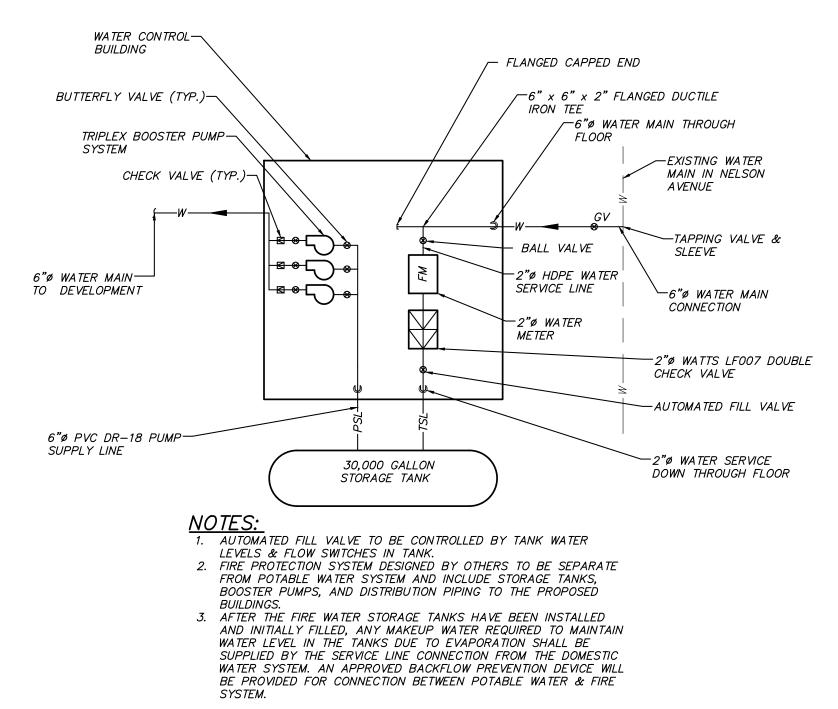
WATER MAIN CONCRETE ENCASEMENT DETAIL

NOTE: CONCRETE ENCASEMENT IS ONLY TO BE USED WHEN 18" MINIMUM SEPARATION IS NOT POSSIBLE. CONCRETE ENCASEMENT REQUIRES PRIOR APPROVAL BY THE DESIGN ENGINEER &

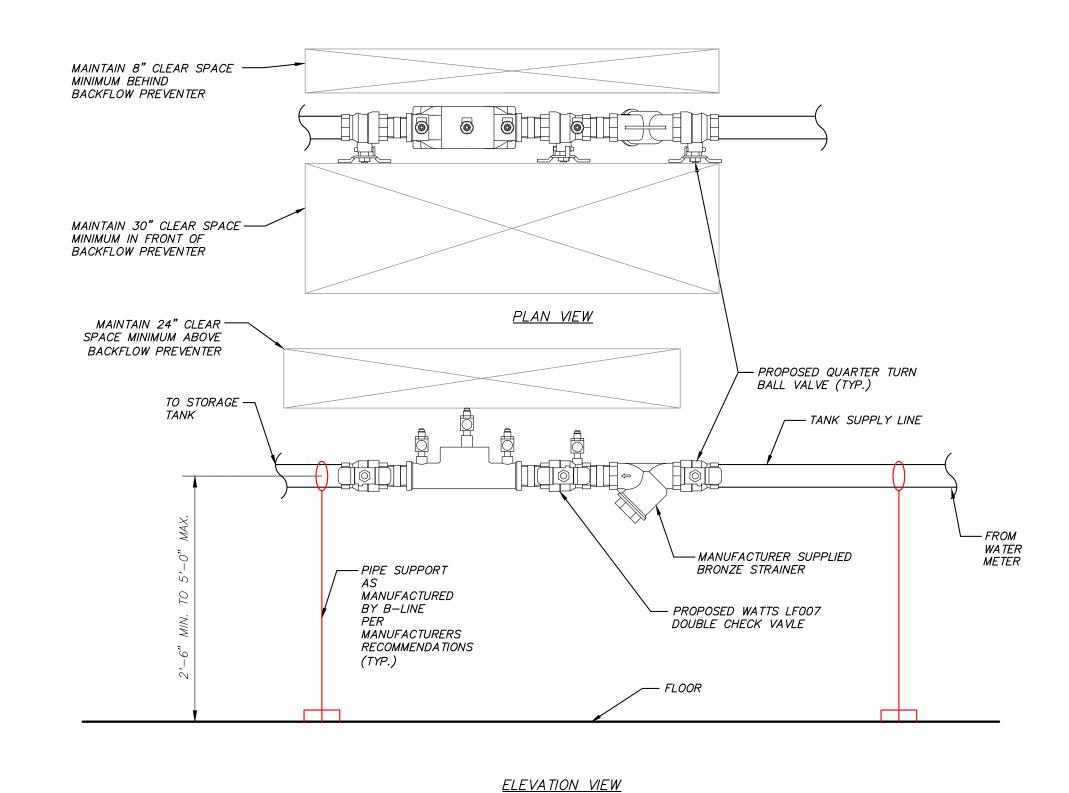




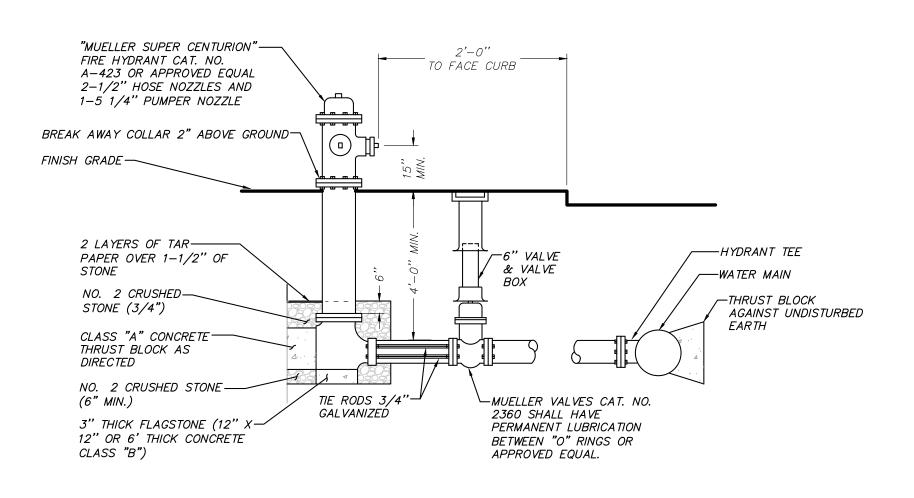
FLUSHING HYDRANT DETAIL



POTABLE WATER SYSTEM FLOW SCHEMATIC



DOUBLE CHECK VALVE DEVICE DETAIL
(N.T.S.)



HYDRANT NOTES:

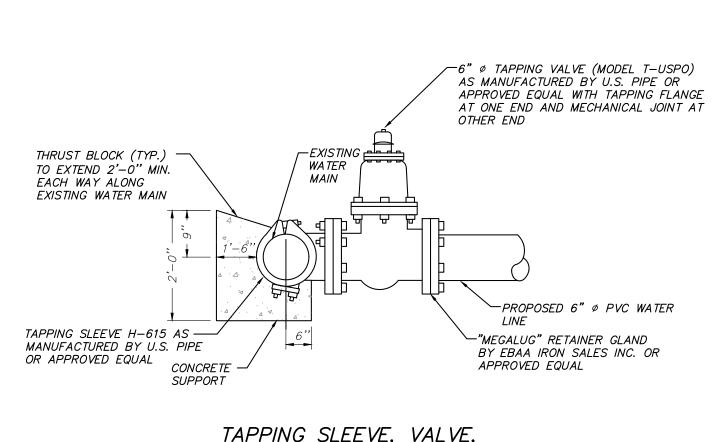
1. PUMPER OUTLET SHALL FACE STREET.

2. HOSE OUTLETS SHALL BE PARALLEL TO STREET.

3. 1-1/12" STONE SHALL BE PLACED AROUND THE HYDRANT FROM THE BOTTOM OF THE TRENCH, BUT AT LEAST 6" BELOW THE BASE OF THE HYDRANT TO 6" ABOVE THE WASTE OPENING AND TO A DISTANCE OF 12" AROUND THE ELBOW.

4. IF GROUND WATER IS ENCOUNTERED WITHIN 7' OF SURFACE, THEN HYDRANT DRAINS SHOULD BE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED UNLESS THE NATURAL SOILS WILL PROVIDE ADEQUATE DRAINAGE. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FEET OF SANITARY SEWERS OR STORM

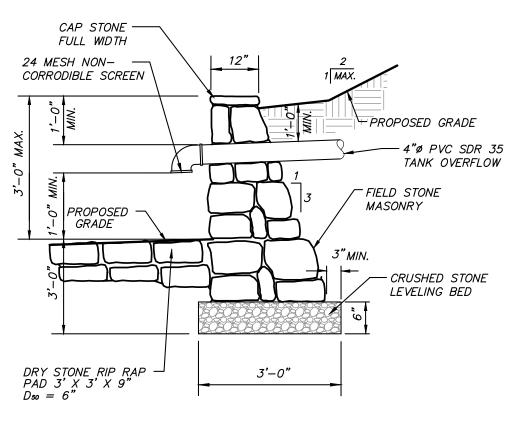
HYDRANT DETAIL (N.T.S.)



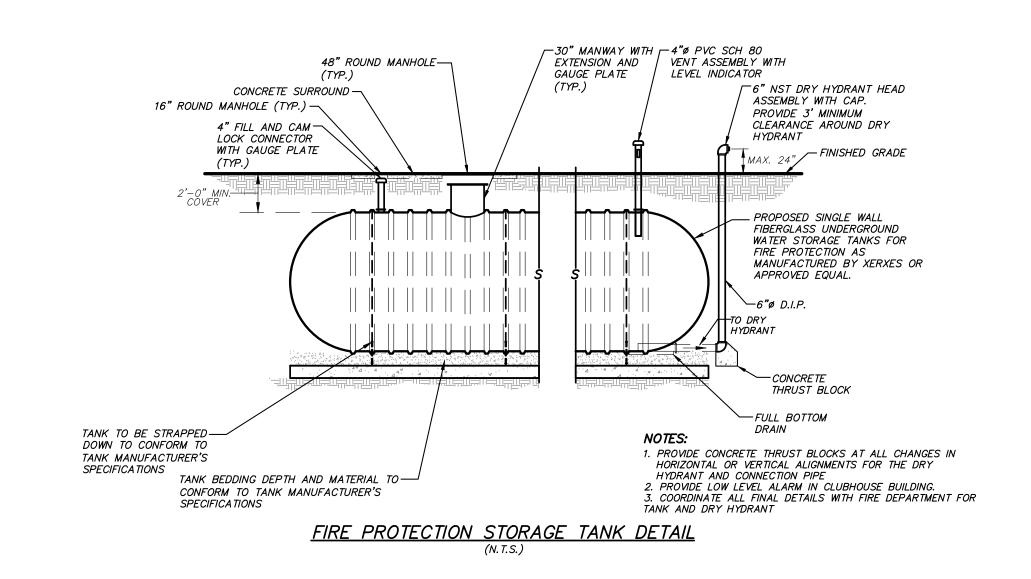
TAPPING SLEEVE, VALVE,

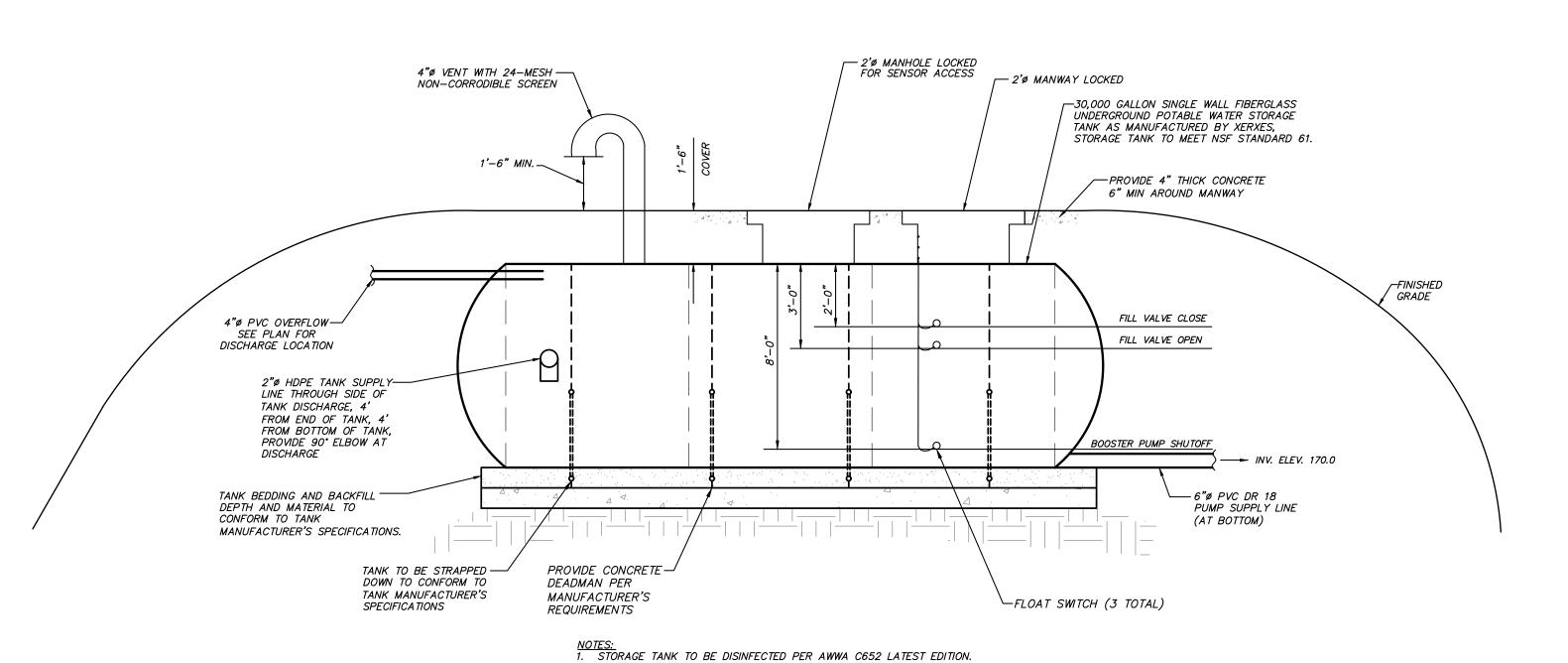
AND THRUST BLOCK DETAIL

(N.T.S.)



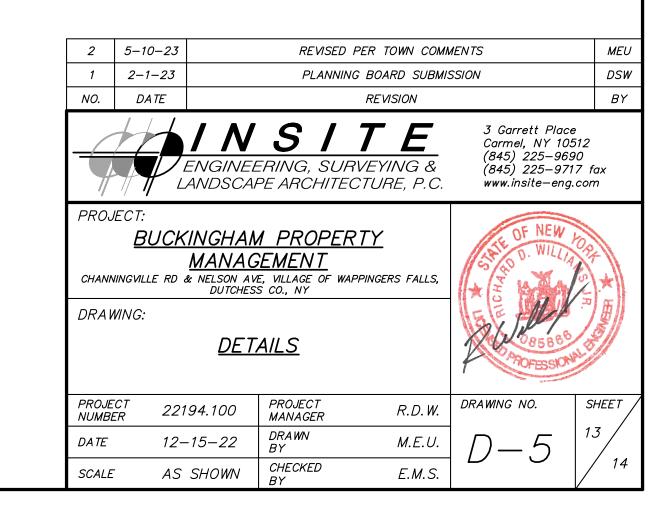
WATER STORAGE TANK OVERFLOW
SPLASH PAD DETAIL
(N.T.S.)

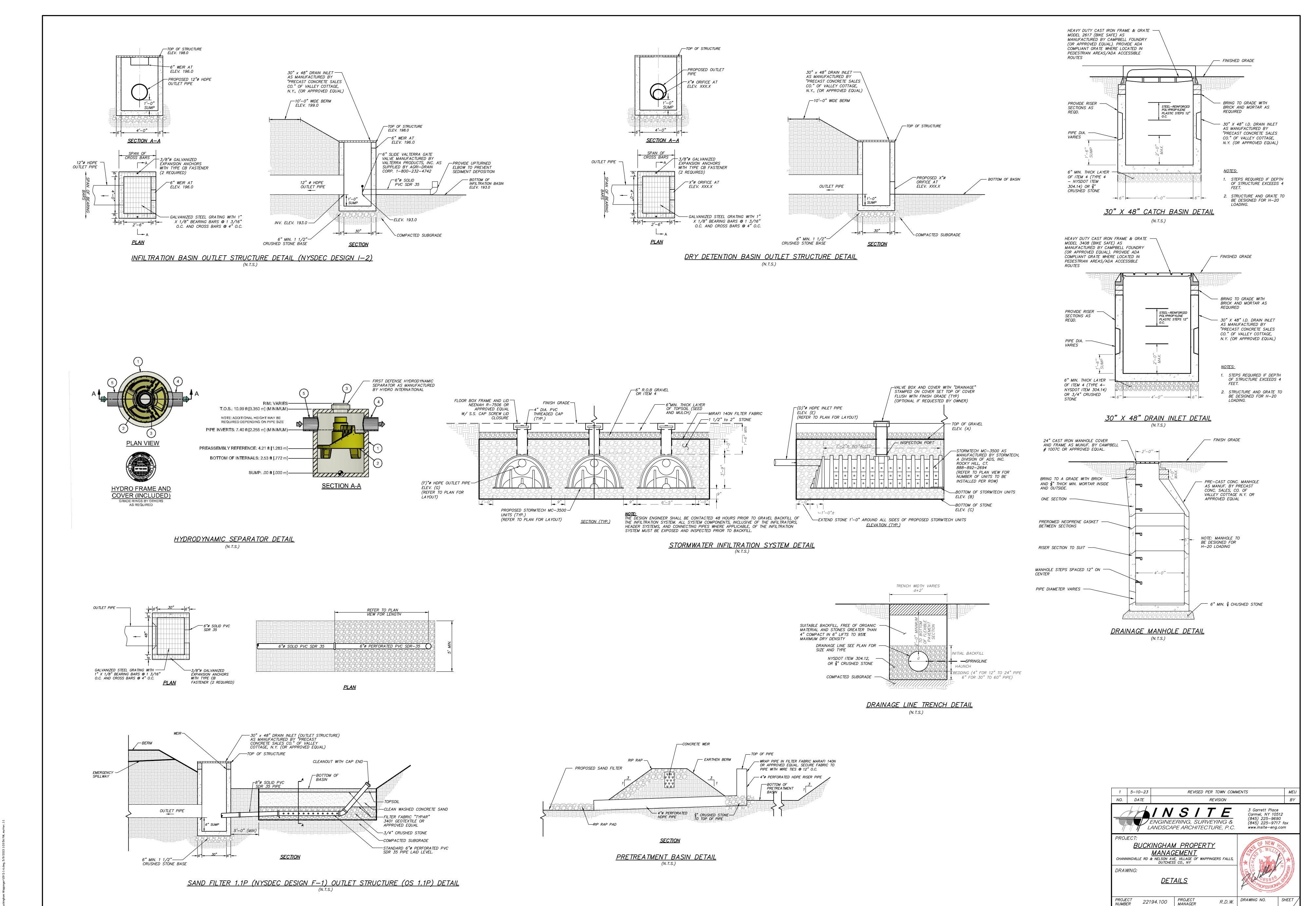




2. PROVIDE FLEXIBLE CONNECTION AT ALL PIPE CONNECTIONS PER MANUFACTURER'S REQUIREMENTS.

POTABLE WATER STORAGE TANK DETAIL
(NTS)





ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.



BUCKINGHAM PROPERTIES

Nelson Avenue VILLAGE OF WAPPINGERS FALLS, NEW YORK 12590

FIRE DISTRICT: NEW HAMBURG FIRE DISTRICT

15 CHANNINGVILLE ROAD

WAPPINGERS FALLS, NEW YORK 12590

WAPPINGERS CENTRAL SCHOOL DISTRICT SCHOOL DISTRICT:

167 MYERS CORNERS ROAD

WAPPINGERS FALLS, NEW YORK 12590

MR. EDWARD COHEN OWNER:

BUCKINGHAM PROPERTIES

657 E MAIN STREET, MT. KISCO, NY

TEL: 914-666-7700

SITE DATA INFORMATION

TAX IDENTIFICATION NUMBER: 134601-6158-13-071325-0000

RMU - RESIDENTIAL MIXED USE ZONE:

USE: MULTI FAMILY DWELLING

13.42 AC. ACREAGE:

DESCRIPTION OF MULTI UNITS:

135 (1) BEDROOM APARTMENTS 35 (2) BEDROOM APARTMENTS 6 STUDIO APARTMENTS

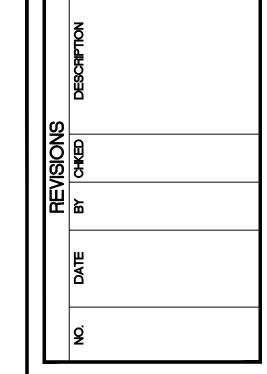
(12) TOWNHOUSES (3) BEDROOMS

(1) CLUBHOUSE 188 UNITS

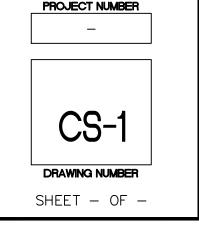
SCHEDULE OF DRAWINGS

SHEET NO.	DRAWING NO.	<u>TITLE</u>
1	CS-1	COVER SHEET
2	A-1	TOWN HOUSE PLANS & ELEVATIONS
3	A-2	BUILDING A ELEVATIONS
4	A-3	BUILDING A PLANS
5	A-4	BUILDING B&C PLANS & ELEVATIONS
6	A-5	CLUBHOUSE PLANS
7	A-6	CLUBHOUSE ELEVATIONS
8	A-7	APARTMENT RENDERING
9	A-8	CLUBHOUSE RENDERING

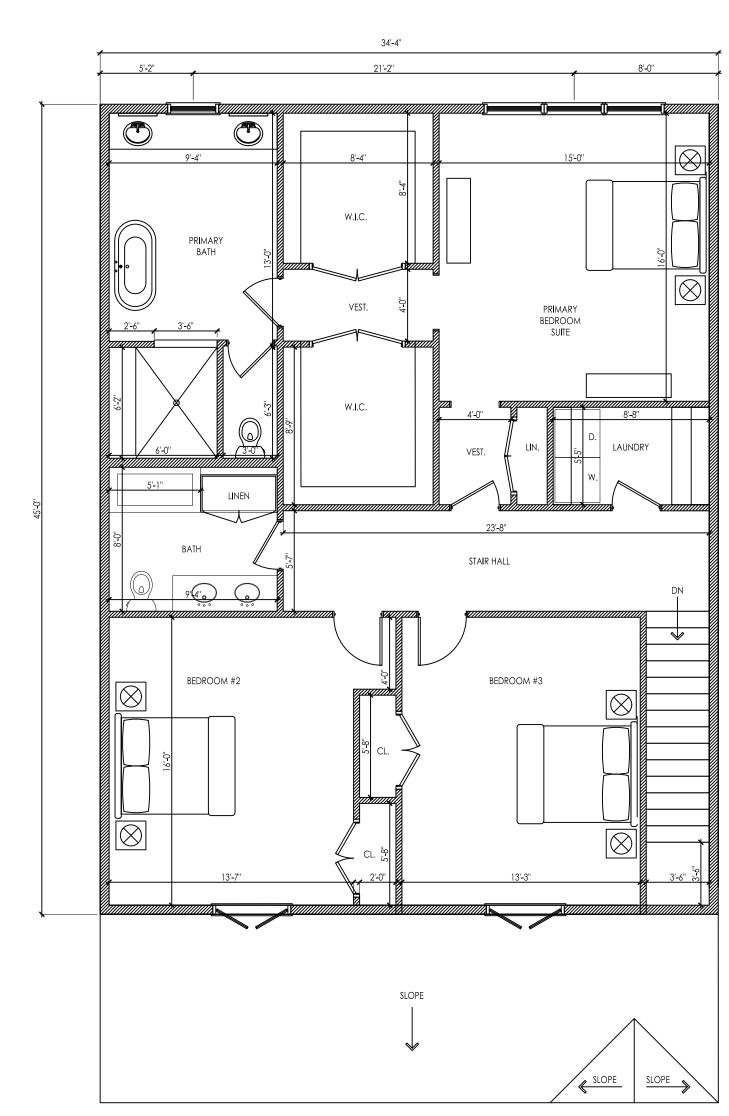
STATE LAW PROHIBITS ANY PERSON FROM ALTERING ANYTHING ON THIS DRAWING AND/OR THE ACCOMPANYING SPECIFICATION. UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL. WHERE SUCH ALTERATIONS ARE MADE THE LICENSED PROFESSIONAL MUST SIGN, SEAL, DATE, AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWING AND/OR IN THE SPECIFICATION.



SCALE: AS NOTED







PROPOSED FIRST FLOOR PLAN

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

KITCHEN

2 CAR GARAGE

ENTRY HALL

PROPOSED SECOND FLOOR PLAN

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

STATE LAW PROHIBITS ANY PERSON FROM ALTERING ANYTHING ON THIS DRAWING AND/OR THE ACCOMPANYING SPECIFICATION. UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL. WHERE SUCH ALTERATIONS ARE MADE THE LICENSED PROFESSIONAL MUST SIGN, SEAL, DATE, AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWING AND/OR IN THE SPECIFICATION.

BUCKINGHAM PROPERTIES

NELSON AVENUE
VILLAGE OF WAPPINGERS FALLS

DUTCHESS COUNTY, NEW YORK

AAP ID. NO. 134601-6158-13-071

DATE DRAWN CHECKED
05-08-2023 CPM

SCALE: AS NOTED

SHEET TITLE

TOWNHOUSE

PROJECT NUMBER

A-1

PLANS & ELEV

SHEET - OF PRE-DESIGN DWG.

DRAWING NUMBER



PROPOSED BUILDING A: ELEVATION

SCALE: 3/32" = 1'-0"

HARLES P. MAY & ASSOCIATES, P.C.

BUCKINGHAM PROPERTIES

NELSON AVENUE

VILLAGE OF WAPPINGERS FALLS

NELSON AVENUE VILLAGE OF WAPPINGERS FALLS DUTCHESS COUNTY, NEW YORK TAX MAP ID. NO. 134601—6158—13—07

DATE DRAWN CHECKED
05-08-2023 CPM

SCALE: AS NOTED

SHEET TITLE

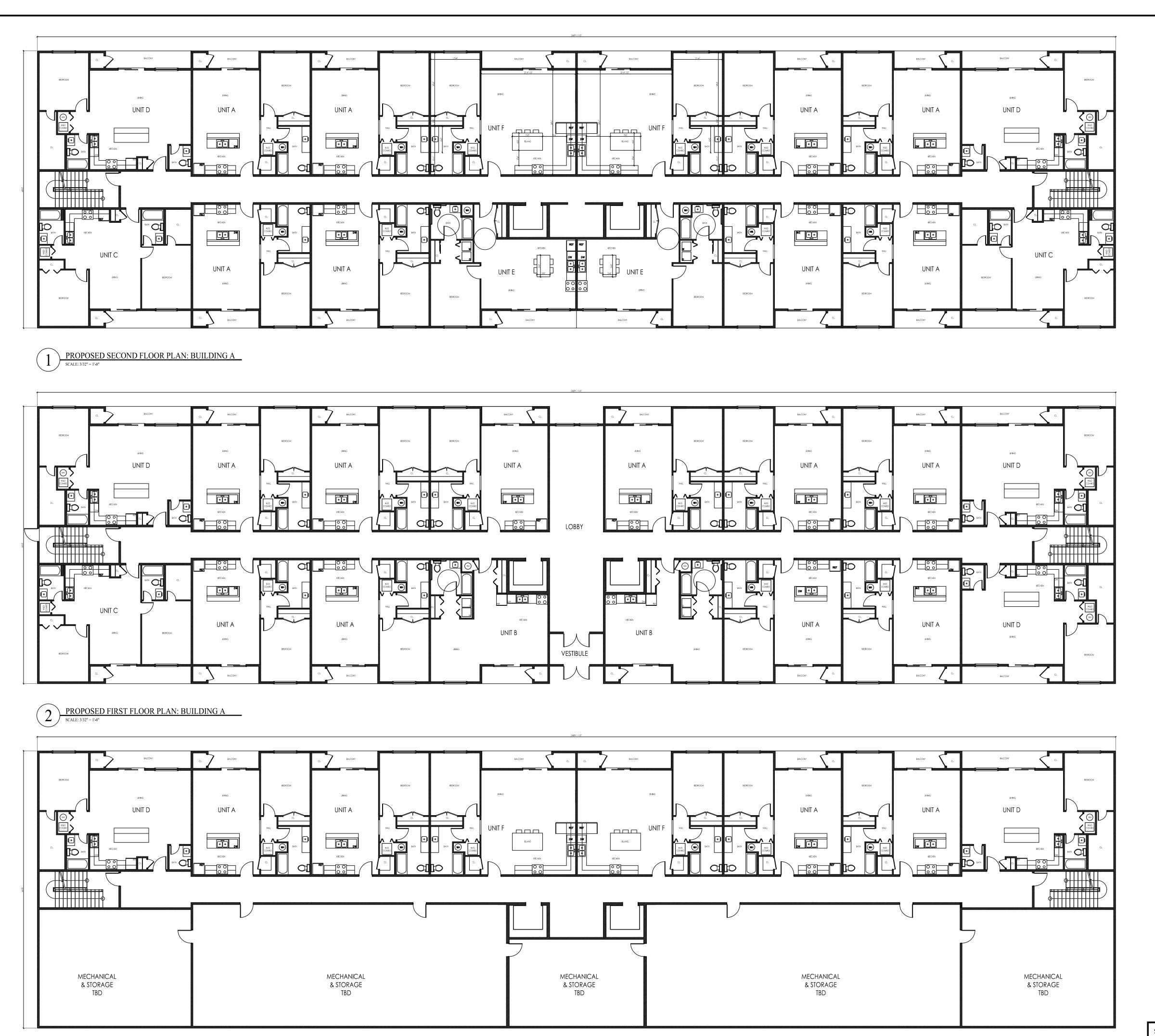
BUILDING A FRONT ELEVATION

PROJECT NUMBER

A-2

DRAWING NUMBER

SHEET - OF -



PROPOSED LOWER LEVELS 1 & 2 FLOOR PLAN: BUILDING A

SCALE: 3/32" = 1'-0"

NELSON AVENUE VILLAGE OF WAPPINGERS FALLS DUTCHESS COUNTY, NEW YORK MAP ID. NO. 134601-6158-13-07 PROPERTIE

BUCKINGHAM

SCALE: AS NOTED

SHEET TITLE

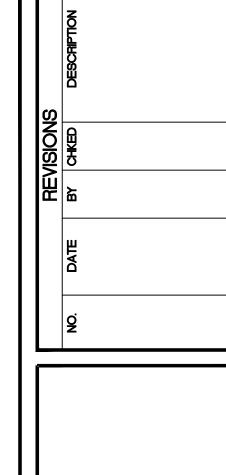
PLANS

STATE LAW PROHIBITS ANY PERSON FROM ALTERING ANYTHING ON THIS DRAWING AND/OR THE ACCOMPANYING SPECIFICATION. UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL. WHERE SUCH ALTERATIONS ARE MADE THE LICENSED PROFESSIONAL MUST SIGN, SEAL, DATE, AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWING AND/OR IN THE SPECIFICATION.

SHEET - OF -PRE-DESIGN DWG.

DRAWING NUMBER





CHARLES P. MAY & ASSOCIATES,

BUCKINGHAM PROPERTIES

NELSON AVENUE

VILLAGE OF WAPPINGERS FALLS

DUTCHESS COUNTY, NEW YORK

AX MAP ID. NO. 134601-6158-13-0713

DATE DRAWN CHECKED
05-08-2023 CPM

SCALE: AS NOTED

SHEET TITLE

BUILDING B & C PLANS & ELEV

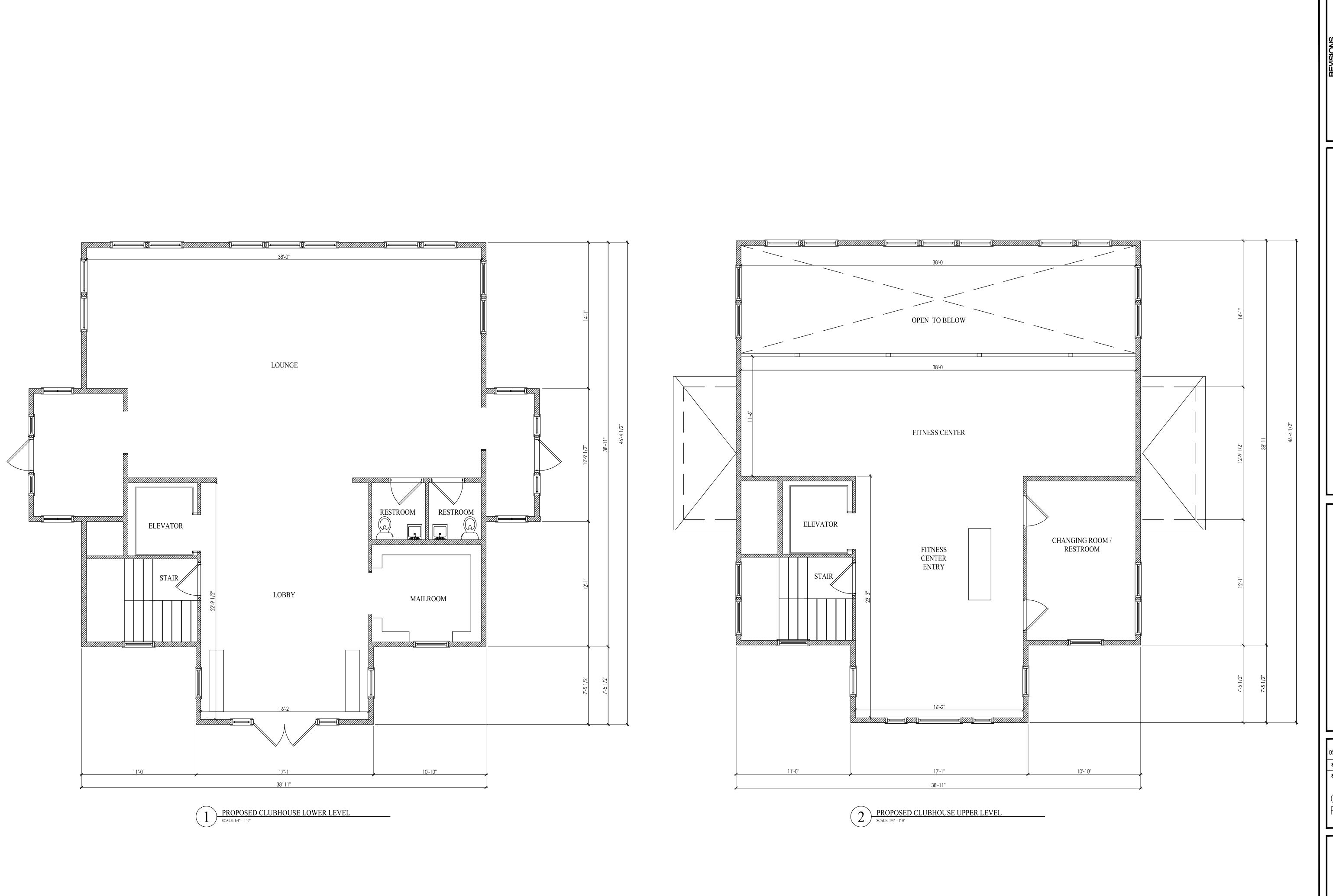
PROJECT NUMBER

A-4

DRAWING NUMBER

SHEET - OF -

PRE-DESIGN DWG.



HARLES P. MAY & ASSOCIATES, P.C.

DESIGN

PROFESSIONALS

- 367 Windsor Highway - 1073 Main Street, Suite 203

BUCKINGHAM PROPERTIES

NELSON AVENUE

VILLAGE OF WAPPINGERS FALLS

DUTCHESS COUNTY, NEW YORK

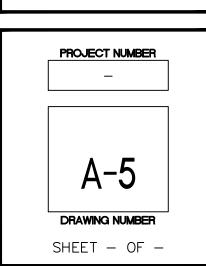
TAX MAP ID. NO. 134601-6158-13-071325

DATE DRAWN CHECKED
05-08-2023 CPM

SCALE: AS NOTED

SHEET TITLE

CLUBHOUSE
PLANS & ELEV





BUCKINGHAM PROPERTIES

DRAWN	CHECKED			
JP	CPM			
SCALE: AS NOTED				
SHEET TITLE				
VIOT				
	JP			

CTORHOO2E ELEVATIONS

A-6 DRAWING NUMBER

SHEET - OF -



PROPOSED APARTMENT: RENDERING
SCALE: NTS

CHARLES P. MAY & ASSOCIATES,

292 -

IES ILLS

NELSON AVENUE
VILLAGE OF WAPPINGERS FALLS
DUTCHESS COUNTY, NEW YORK
X MAP ID. NO. 134601-6158-13-071

DATE DRAWN CHECK
05-08-2023 JP CPM
SCALE: AS NOTED
SHEET TITLE

APARTMENT RENDERING

PROJECT NUMBE

A-7

DRAWING NUMBER



PROPOSED CLUBHOUSE: RENDERING
SCALE: NTS

CHARLES P. MAY & ASSOCIATES, P.

SHAM PROPERIIES

ELSON AVENUE

OF WAPPINGERS FALLS

S. COLINTY NFW YORK

VILLAGE
DUTCHES
TAX MAP ID. N

DATE DRAWN CHE
05-08-2023 JP CF
SCALE: AS NOTED
SHEET TITLE

CLUBHOUSE RENDERING

PROJECT NUMBE

A-8

DRAWING NUMBER

SHEET - OF -