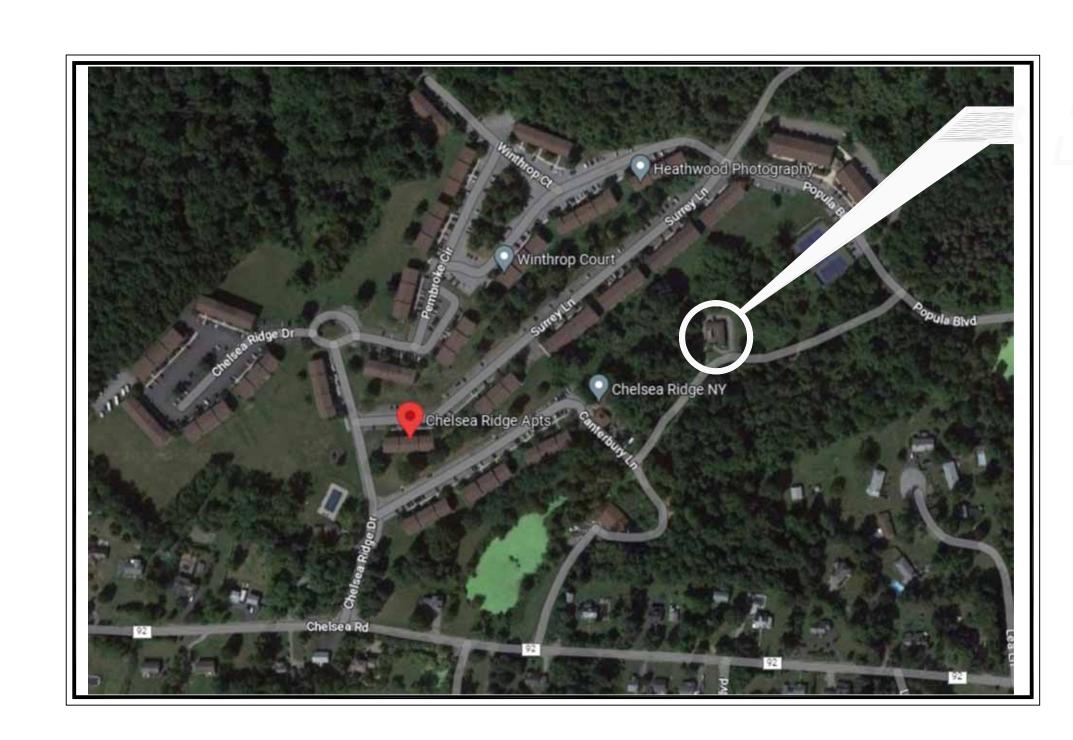
# CHELSEA RIDGE WWTP UPGRADE PROJECT

## 27 CANTERBURY LANE TOWN OF WAPPINGER, NY **MAY 2023** SITE PLAN SUBMISSION



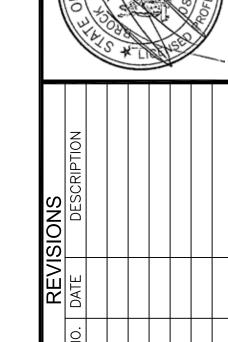
**LOCATION MAP** 

## PREPARED BY:

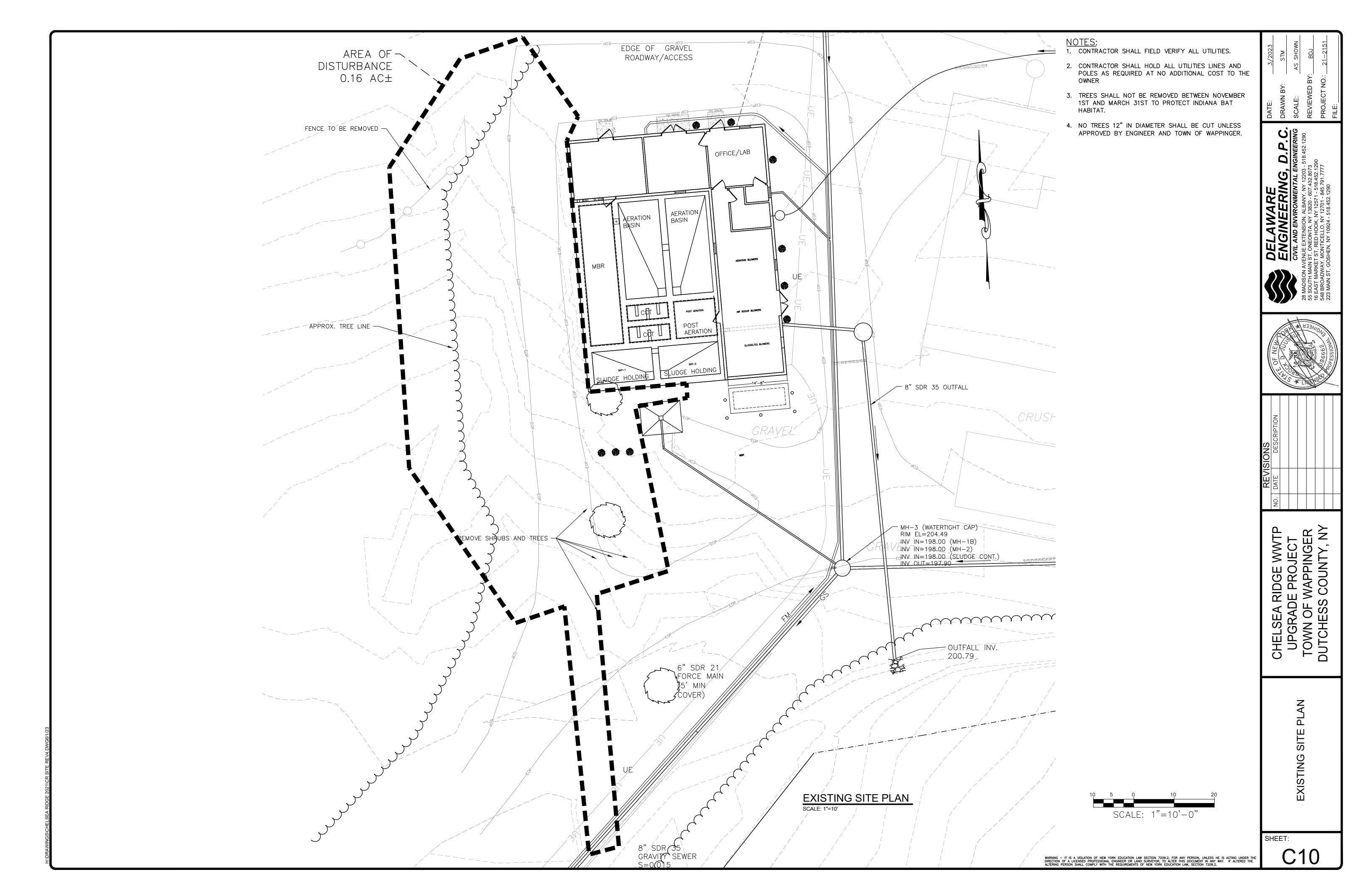


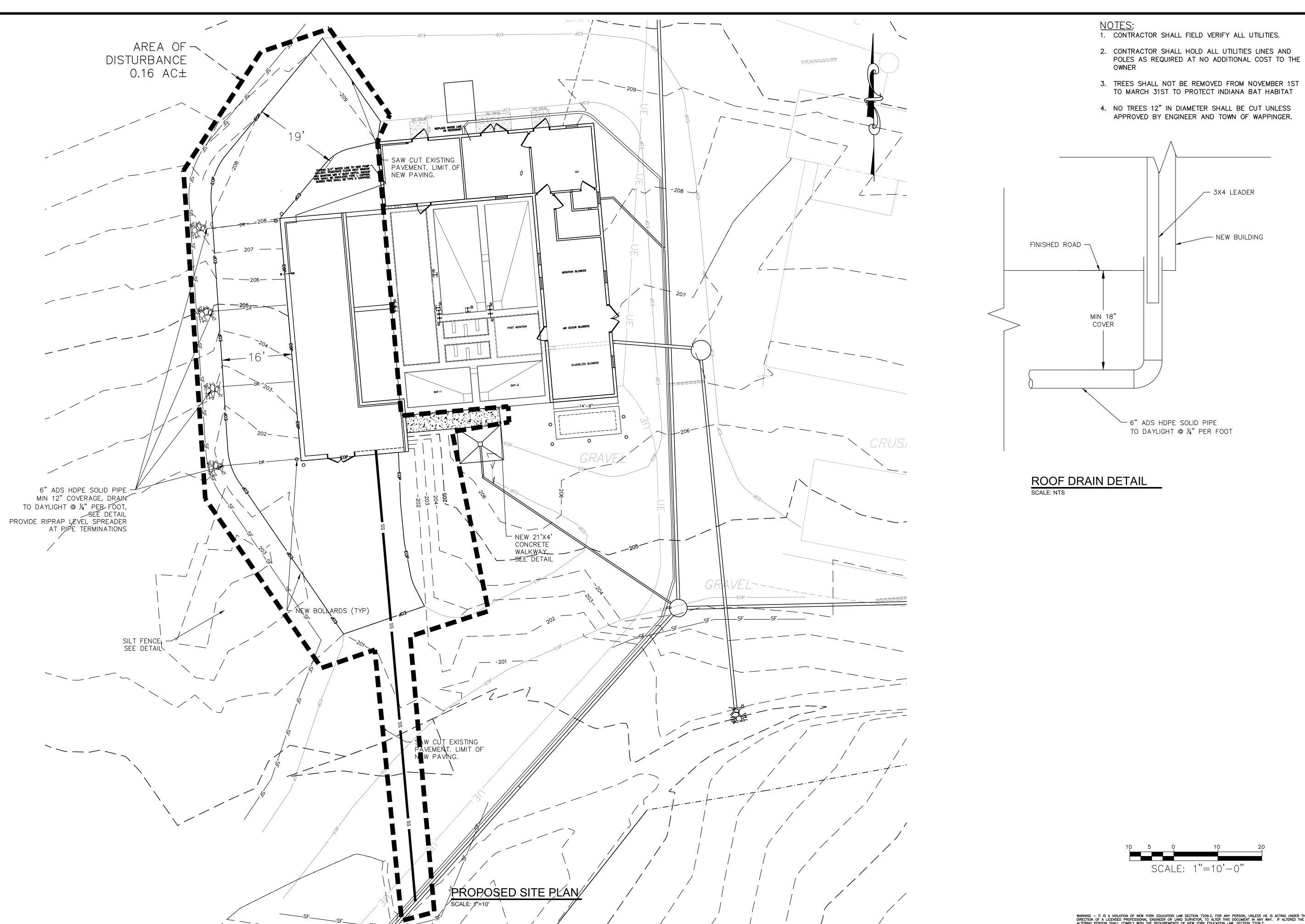
SIGNATURE TOWN OF WAPPINGER PLANNING BOARD

PREPARED FOR: CHELSEA DHC, LLC **20 Corporate Woods Blvd Albany, NY 12211** 



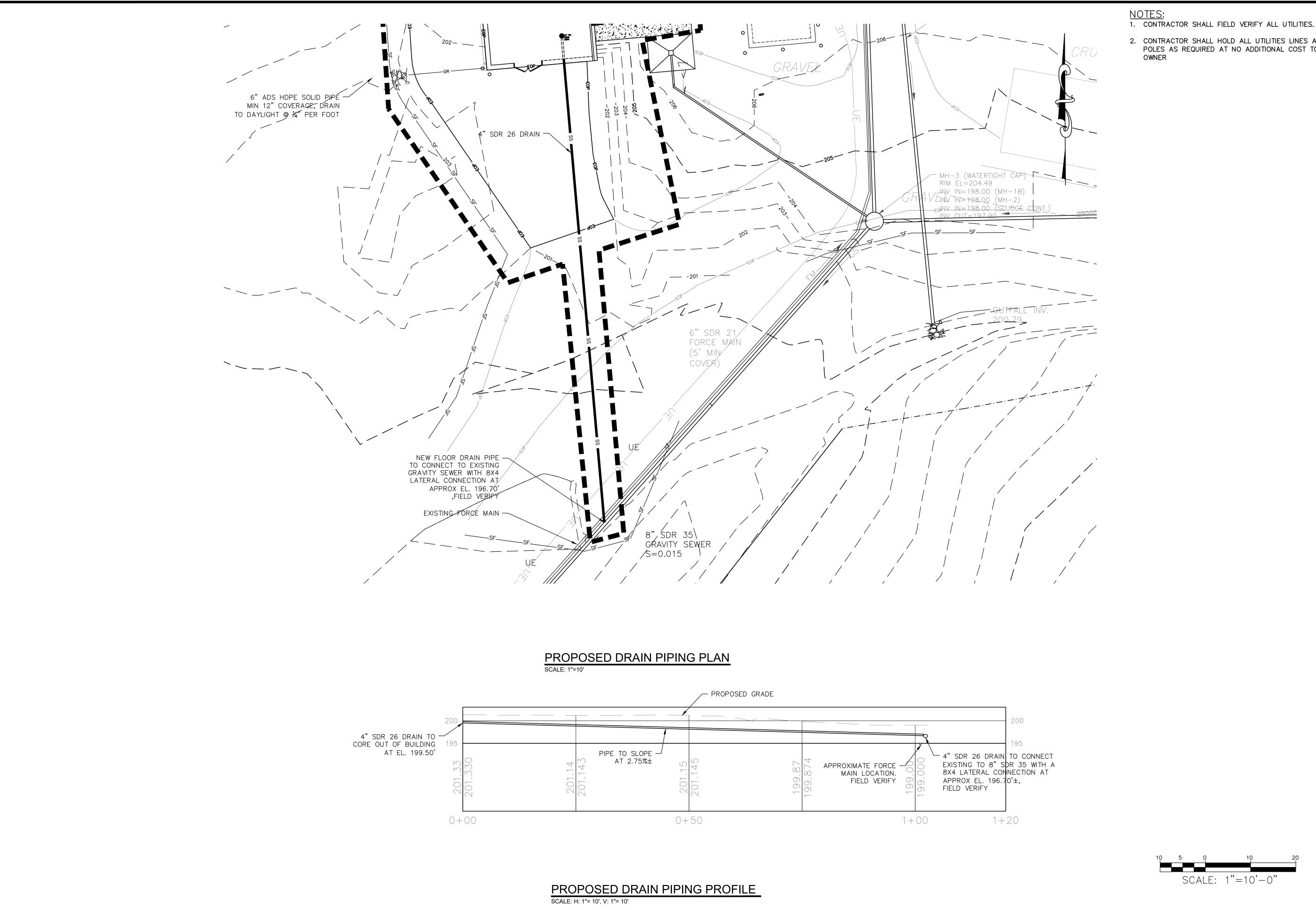
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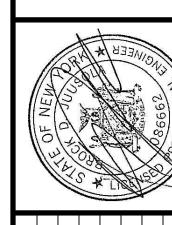
CHELSEA RIDGE WWTP UPGRADE PROJECT TOWN OF WAPPINGER DUTCHESS COUNTY, NY

**(3)** 



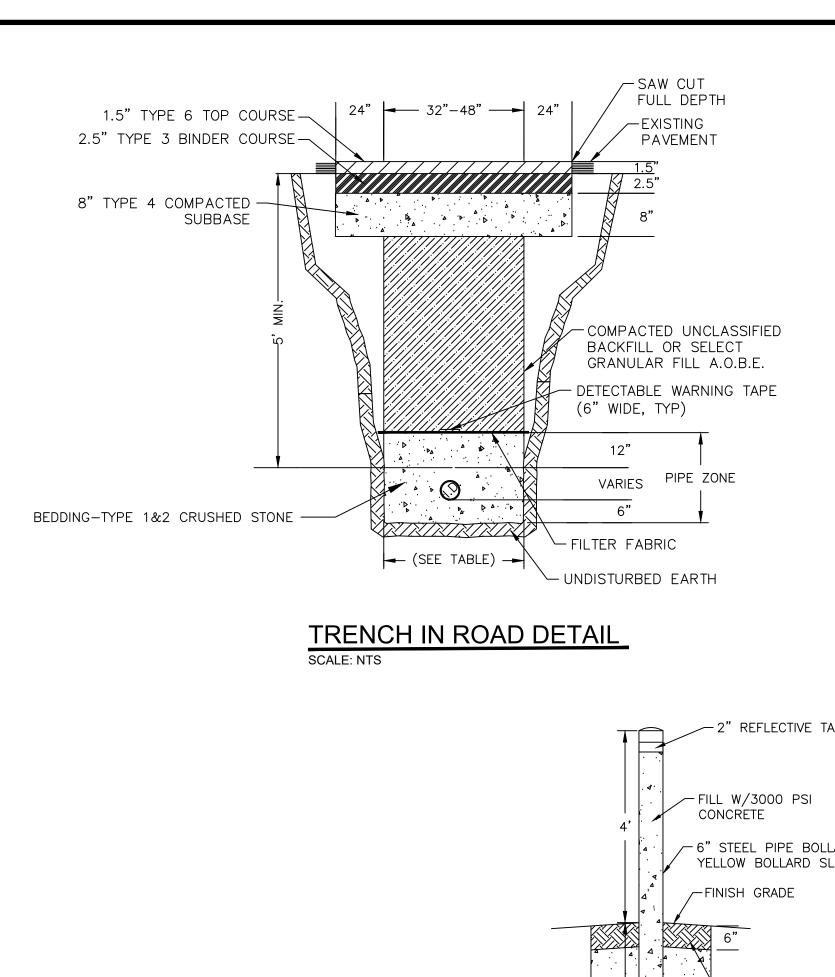
2. CONTRACTOR SHALL HOLD ALL UTILITIES LINES AND POLES AS REQUIRED AT NO ADDITIONAL COST TO THE

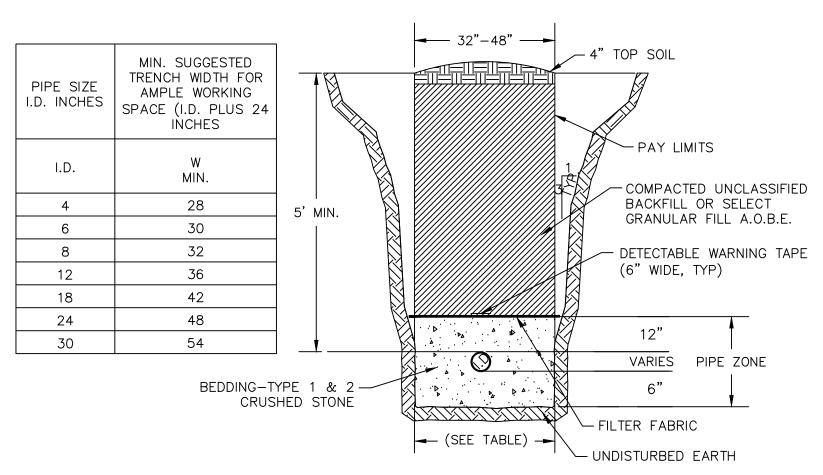




CHELSEA RIDGE WWTP UPGRADE PROJECT TOWN OF WAPPINGER DUTCHESS COUNTY, NY

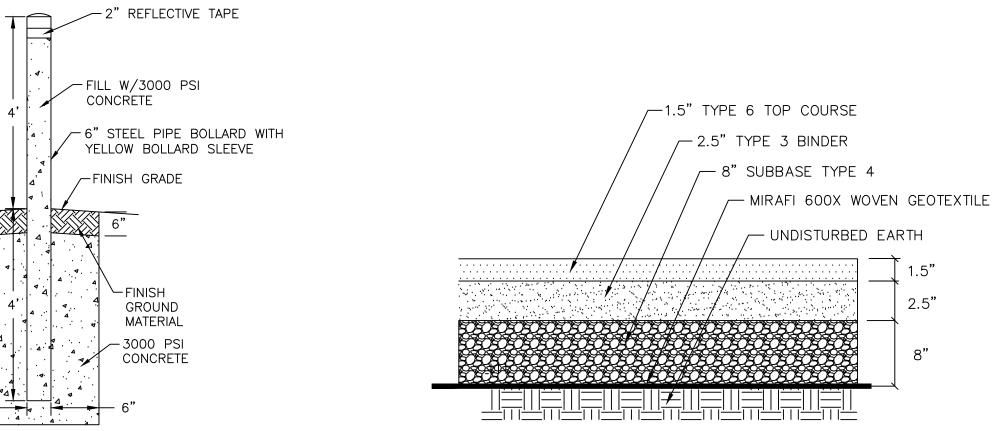
PROPOSED YARD PIPING PLAN AND PROFILE





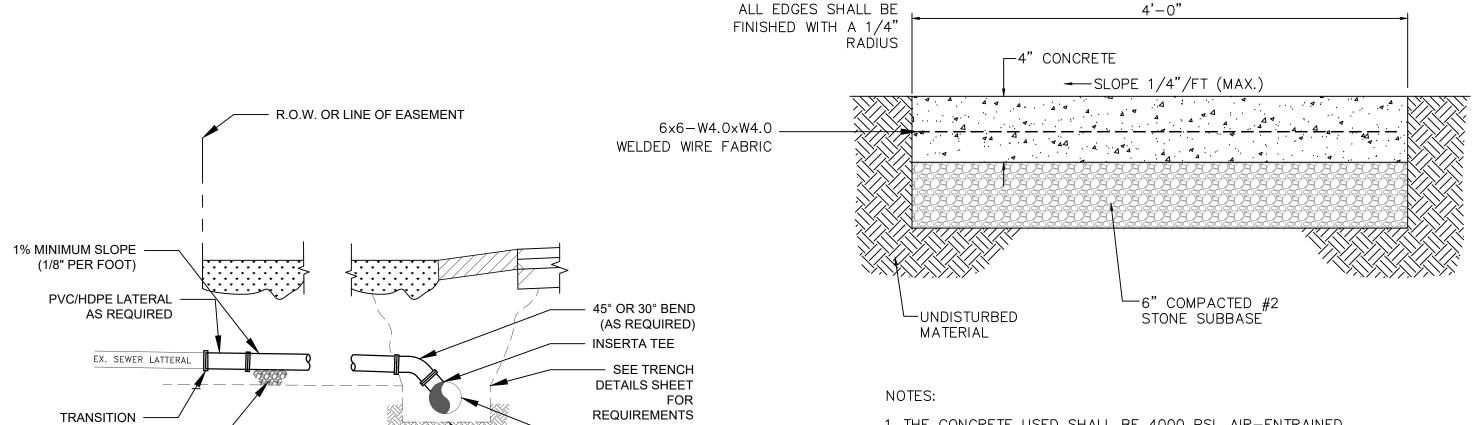
### TRENCH IN EARTH DETAIL

SCALE: NTS



## TYPICAL BOLLARD DETAIL

## FULL DEPTH PAVING DETAIL



SEWER MAIN

TRENCH DEPTH

AND LOCATION

**VARIES** 

## TYPICAL LATERAL CONNECTION

COUPLING AS

AS REQUIRED (TYP)

REQUIRED

PIPE BEDDING

1. THE CONCRETE USED SHALL BE 4000 PSI, AIR-ENTRAINED, PER SPEC.

2. ALL NEW CONCRETE SIDEWALKS SHALL BE TRANSVERSELY SCORED TO ONE (1) INCH DEPTHS 5' INTERVALS. FULL—DEPTH CONSTRUCTION JOINTS SHALL BE PROVIDED AT ALL DRIVEWAY CROSSINGS OR AT 20' INTERVALS, MAX.

3. PROVIDE EXPANSION JOINTS WHERE SIDEWALK ABUTS STRUCTURES.

TYPICAL CONCRETE SIDEWALK DETAIL
SCALE: NTS

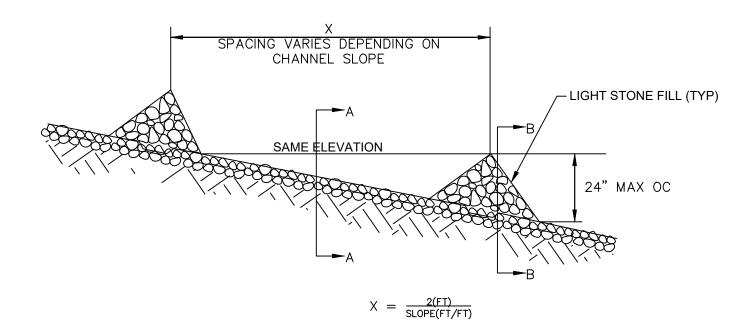
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TYPICAL SITE DETAILS

CHELSEA RIDGE WWTP UPGRADE PROJECT TOWN OF WAPPINGER DUTCHESS COUNTY, NY

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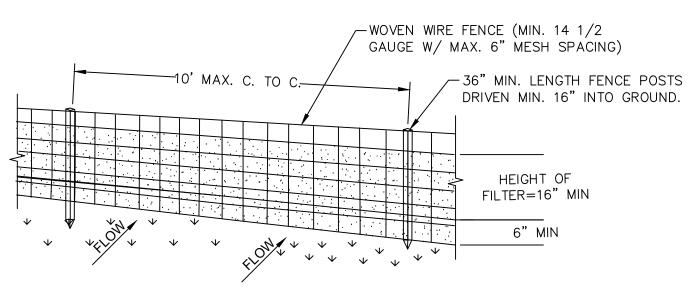


#### CONSTRUCTION SPECIFICATIONS

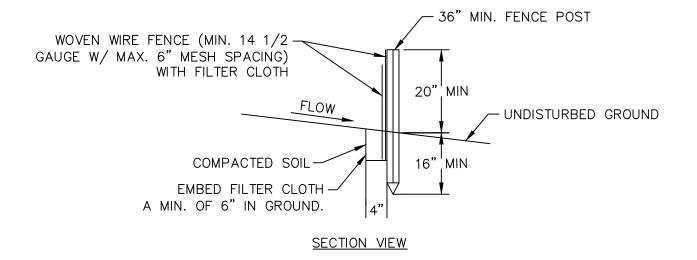
- 1. LIGHT STONE FILL PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
- 2. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
- 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
- 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- 5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO BLOCKAGE FROM DISPLACED STONES.

\*MAXIMUM DRAINAGE AREA 2 ACRES\*

## TYPICAL CHECK DAM DETAIL

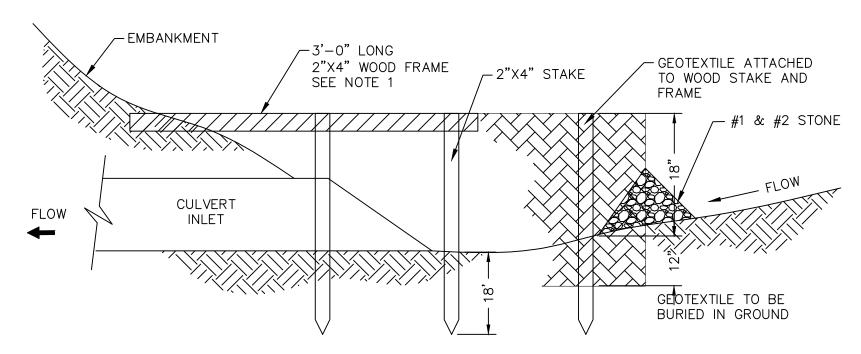


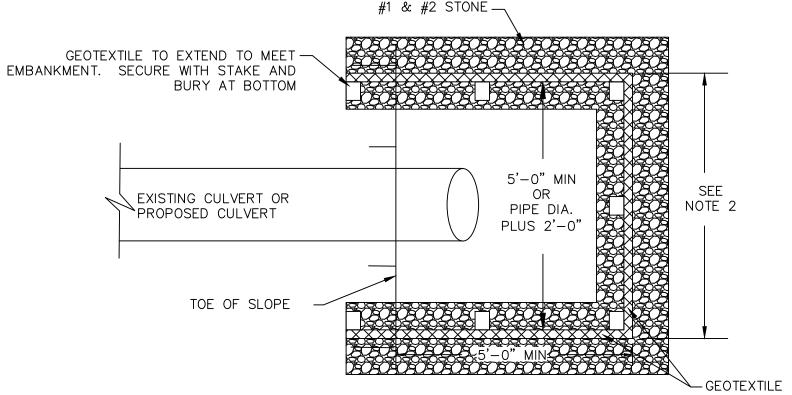
### PERSPECTIVE VIEW



- 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
- 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
- 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
- 4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
- 5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

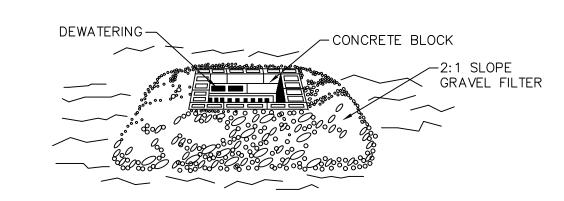
## TYPICAL SILT FENCE DETAIL



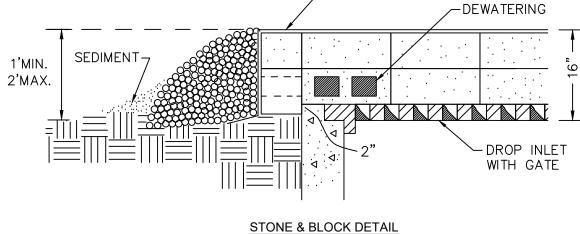


- 1. A 2"X4" WOOD FRAME SHALL BE COMPLETELY AROUND THE TOP OF THE STAKES OVER THE
- ATTACHED FABRIC FOR OVERFLOW STABILITY. 2. SPACE STAKES EVENLY AROUND INLET TO A
- MAXIMUM OF 3'-0" APART.

#### TYPICAL SILT FENCE/CHECK DAM CULVERT PROTECTION DETAIL SCALE: NTS



-DEWATERING



STONE & BLOCK PLAN VIEW

- I. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
- 2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
- 3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
- 4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

\*\*MAXIMUM DRAINAGE AREA 1 ACRE

#### NOTES FOR TEMPORARY EROSION AND SEDIMENT CONTROL

- 1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT THROUGHOUT THE DURATION OF THE CONTRACT IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL WATER COURSES FROM WATER BORNE SEDIMENT OR POLLUTANTS ORIGINATING FROM ANY WORK DONE ON, OR IN SUPPORT OF THIS PROJECT.
- 2. PROVIDE AND MAINTAIN SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES THROUGHOUT THIS PROJECT TO EFFECTIVELY CONTAIN ALL SOIL MATERIAL WITHIN THE SITE CONSTRUCTION AREA
- 3. THE CONTRACTOR SHALL IDENTIFY STAGING, STOCKPILE, SPOIL DISPOSAL, AND CONCRETE WASHOUT AREAS FOR THE ENGINEERS REVIEW AND APPROVAL PRIOR TO THE START OF CONSTRUCTION.
- 4. THE CONTRACTOR SHALL OBSERVE ALL RULES AND REGULATIONS OF THE STATE OF NEW YORK AND AGENCIES OF THE FEDERAL GOVERNMENT THAT APPLY TO THIS PROJECT.
- 5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE BEFORE COMMENCING WORK WITHIN AN AREA.
- 6. DISTURBED AREAS THAT ARE NOT UNDER ACTIVE EXCAVATION WILL BE MULCHED AND SEEDED WITHIN ONE DAY FOLLOWING CESSATION OF ACTIVITY IN THE AREA. ALL UTILITY LINE TRENCHES WILL BE BACKFILLED AT THE END OF EACH WORKDAY AND WILL BE MULCHED AND SEEDED. SILT FENCE WILL BE PLACED AROUND SOIL AND STONE STOCKPILES THAT WILL REMAIN IN PLACE FOR MORE THAN 7 DAYS. SOIL STOCKPILES THAT WILL REMAIN IN PLACE FOR MORE THAN 14 DAYS WILL BE MULCHED AND SEEDED.
- 7. CHECK DAMS WILL BE USED WITHIN DRAINAGE DITCHES TO CONTROL SEDIMENTATION IN AREAS WHERE THERE IS A POTENTIAL FOR SOIL TO BE TRANSPORTED TO THE DITCH. CHECK DAMS WILL BE USED TO CONTAIN SEDIMENT AT LOCATIONS AOBE, WHERE EXISTING DRAINAGE PATTERNS DIRECT ROAD RUNOFF TO A WATERBODY.
- 8. ANY TURBID DISCHARGES FROM DEWATERING AREAS WILL BE DIRECTED TO EITHER A SETTLING TANK OR A STABLE, LEVEL, GRASSED AREA, AT LEAST 100 FEET FROM WATERCOURSES AND WETLANDS. IF THE DISCHARGE IS DIRECTED TO A STABLE, LEVEL VEGETATED AREA, THE DISCHARGE AND ANY RELATED DEWATERING FILTER AREA WILL BE SURROUNDED BY A SILT CURTAIN SEDIMENT BARRIER. SETTLING TANKS AND DEWATERING FILTER DEVICES SHALL BE OF SUFFICIENT CAPACITY TO HANDLE THE DISCHARGE OF THE PUMPS SUCH THAT THE WATER RETURNED TO A STREAM IS CLEAR. NO DISCHARGES SHALL CAUSE A SUBSTANTIAL VISIBLE CONTRAST TO NATURAL CONDITIONS. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR WILL IDENTIFY DISCHARGE LOCATIONS AND METHODS FOR TRENCH DEWATERING OPERATIONS TO ENSURE TURBIDITY FREE DISCHARGE TO ANY RECEIVING WATER BODY.
- 9. IN PAVEMENT AREAS ALL UTILITY LINE TRENCHES WILL BE BACKFILLED AT THE END OF EACH WORKDAY. ALSO, THE TRENCH AREA WILL BE TEMPORARILY COVERED WITH THE REQUIRED AMOUNT OF ROAD SUBBASE PLUS THE ADDITIONAL AMOUNT NEEDED TO MEET THE EXISTING ROAD GRADE TO MINIMIZE EROSION. THE CONTRACTOR WILL BE REQUIRED TO INSTALL A MINIMUM OF 2" COLD PATCH OVER THE REQUIRED SUBBASE IN ALL DISTURBED AREAS ON A DAILY BASIS ONCE THE ASPHALT PLANTS HAVE SHUT DOWN FOR THE WINTER. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE SURFACE IN GOOD CONDITION TO THE SATISFACTION OF THE OWNER AND THE ENGINEER. THE COLD PATCH SHALL BE REMOVED AND REPLACED WITH THE SPECIFIED AMOUNT OF TYPE 3 BINDER ASPHALT AS SOON AS THE ASPHALT PLANTS REOPEN IN THE SPRING.
- 10. THE SEDIMENT AND EROSION CONTROLS WILL BE MAINTAINED DURING ALL CONSTRUCTION ACTIVITIES AND UNTIL AREAS WITH THE POTENTIAL FOR EROSION HAVE BEEN STABILIZED. DISTURBED AREAS ARE CONSIDERED PERMANENTLY STABILIZED WHEN 80 PERCENT OF THE AREA HAS ATTAINED PERENNIAL VEGETATIVE COVER.
- 11. TOPSOIL REQUIRED TO ESTABLISH VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISH GRADING OF ALL EXPOSED AREAS. ANY EXCESS TOPSOIL SHALL BE STOCKPILED AT A LOCATION ON SITE DESIGNATED BY THE OWNER.
- 12. THE CONTRACTOR SHALL HAVE A HYDROSEEDER AND/OR A MULCHING MACHINE AVAILABLE ON THE PROJECT UNTIL THE PERMANENT SEEDING IS COMPLETED.
- 13. UNLESS DIRECTED BY OWNER, REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIALS NOT USED ELSEWHERE
- 14. UNSUITABLE EXCAVATED MATERIAL SHALL NOT BE UTILIZED IN FILL SLOPES, STRUCTURAL FILL, OR OTHER AREAS OF BACKFILL. UNSUITABLE MATERIAL IS DEFINED AS: HIGHLY ORGANIC SOIL, TOPSOIL, HIGHLY COMPRESSIBLE SOIL, FROZEN MATERIAL, ROOTS, TRASH,
- 15. STRAW BALES AND/OR HAY BALES CAN ONLY BE USED AS SUPPORT FOR SILT FENCING OR OTHER EROSION CONTROL MEASURE.
- 16. AT LOCATIONS WHERE THERE IS SIGNIFICANT FLOW IN ROADSIDE DRAINAGE DITCHES/SWALES, IT MAY BE NECESSARY FOR THE CONTRACTOR TO CONTAIN WATER AS NEAR AS POSSIBLE TO THE SOURCE, AND PUMP WATER AWAY FROM EXCAVATION AREAS TO PREVENT SOILS FROM BECOMING ENTRAINED IN THE WATER.
- 17. ALL ROADS SOILED BY THIS PROJECT TO BE CLEANED BY RESPONSIBLE CONTRACTOR.

#### NOTES FOR FUEL AND EQUIPMENT STORAGE

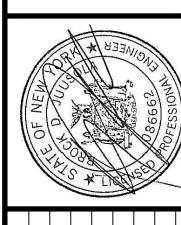
- 1. ALL CONSTRUCTION MATERIALS AND EQUIPMENT SHALL BE STORED IN THE DESIGNATED STAGING AREAS. SUBSTITUTE LOCATIONS MAY BE USED SUBJECT TO APPROVAL.
- 2. FUEL STORAGE SHALL BE CONDUCTED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
- 3. ON SITE VEHICLES AND EQUIPMENT FUELING SHOULD ONLY OCCUR IN THE DESIGNATED FUEL STORAGE AREAS. SUBSTITUTE LOCATIONS MAY BE USED SUBJECT TO APPROVAL.
- 4. VEHICLE AND EQUIPMENT FUELING (INCLUDING FUELING OF HANDHELD EQUIPMENT) SHALL BE CONDUCTED IN ACCORDANCE WITH THE FOLLOWING
  - -AWAY FROM STORM DRAIN INLETS, DRAINAGE FACILITIES, OR WATERCOURSES. -WITHIN A BERMED AREA TO PREVENT RUN-ON, RUN-OFF, AND TO CONTAIN SPILLS
  - -STORE PORTABLE FUEL CONTAINERS FOR HANDHELD EQUIPMENT IN A TUB OR EQUIVALENT DEVICE TO AVOID SPILLS AND LEAKS.
  - -USE SECONDARY CONTAINMENT TECHNIQUES FOR FUELING OF HANDHELD OR PORTABLE EQUIPMENT, SUCH AS DRAIN PANS OR DROP CLOTHS TO CATCH SPILLS OR LEAKS
  - -SIGNAGE THAT FUEL TANKS SHOULD NOT BE "TOPPED OFF." AN ADEQUATE SUPPLY OF SPILL CLEAN UP MATERIALS SHALL BE READILY ACCESSIBLE TO ALL FUELING ACTIVITIES.

#### NOTES FOR CONCRETE MANAGEMENT

- 1. STORE CONCRETE, GROUT, AND MORTOR UNDER COVER AND AWAY FROM DRAINAGE AREAS.
- 2. CONCRETE TRUCKS AND TRANSFER CHUTES SHALL BE WASHED-OUT ON-SITE IN THE DESIGNATED AREA UTILIZING A CONCRETE WASHOUT TO COLLECT ALL WASH WATER AND CONCRETE WASTE. A SUBSTITUTE LOCATION MAY BE USED SUBJECT TO APPROVAL
- 3. THE WASHOUT AREA SHALL BE LOCATED AWAY FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES.
- 4. SIGNS SHALL BE POSTED THROUGHOUT THE JOBSITE, DIRECTING CREWS AND CONCRETE TRUCKS TO CONCRETE WASHOUTS.
- 5. UPON COMPLETION OF THE CONCRETE WORK, THE CONTRACTOR SHALL BREAK UP, REMOVE, AND HAUL AWAY SOLID CONCRETE THAT HAS ACCUMULATED IN THE WASHOUT.

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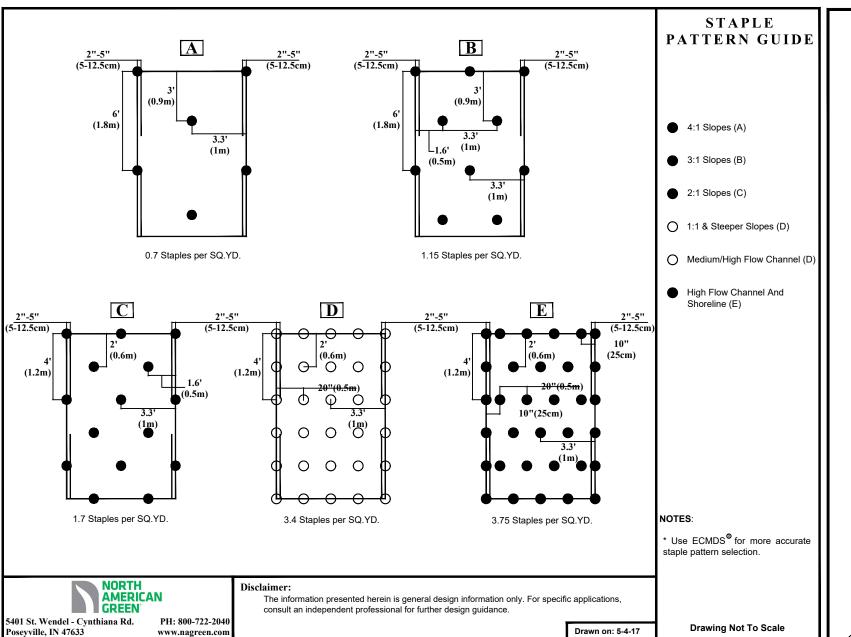
YPICAL EROSION A SEDIMENTATION CONTROL DETAIL

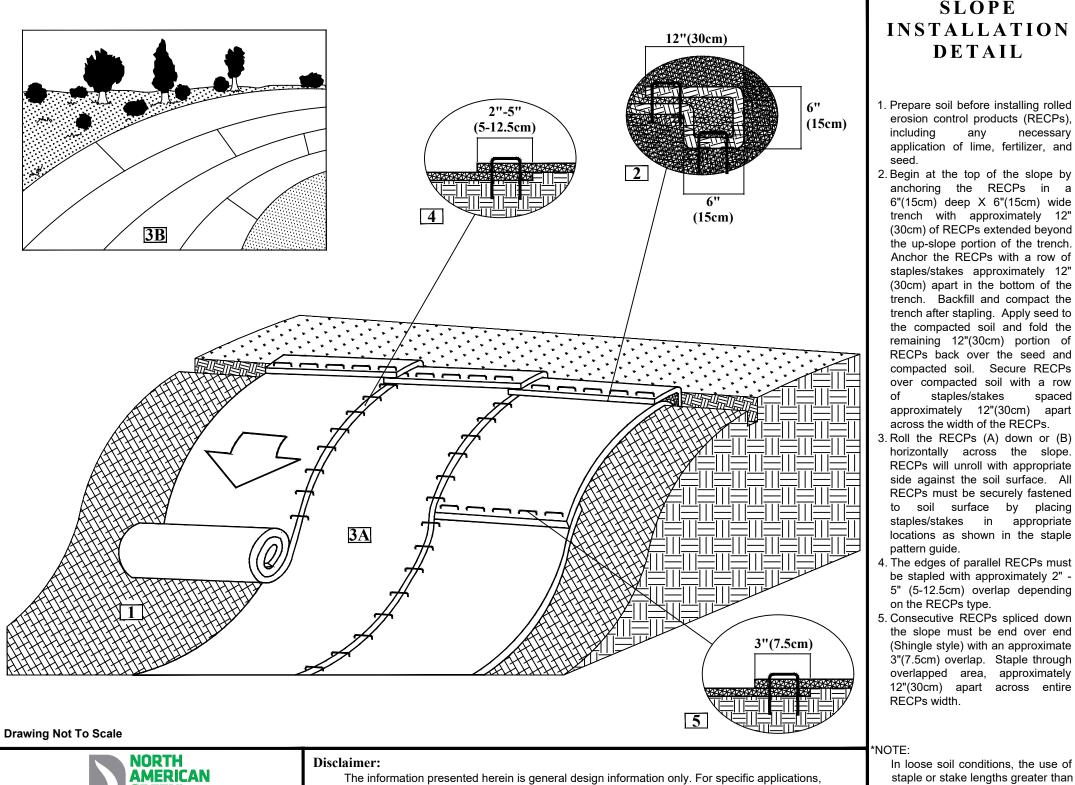
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#### NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL MATTING FOR ALL SLOPES EXCEEDING 25%.

Drawn on: 5-4-17





consult an independent professional for further design guidance.

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Poseyville, IN 47633

#### SLOPE INSTALLATION DETAIL

. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and

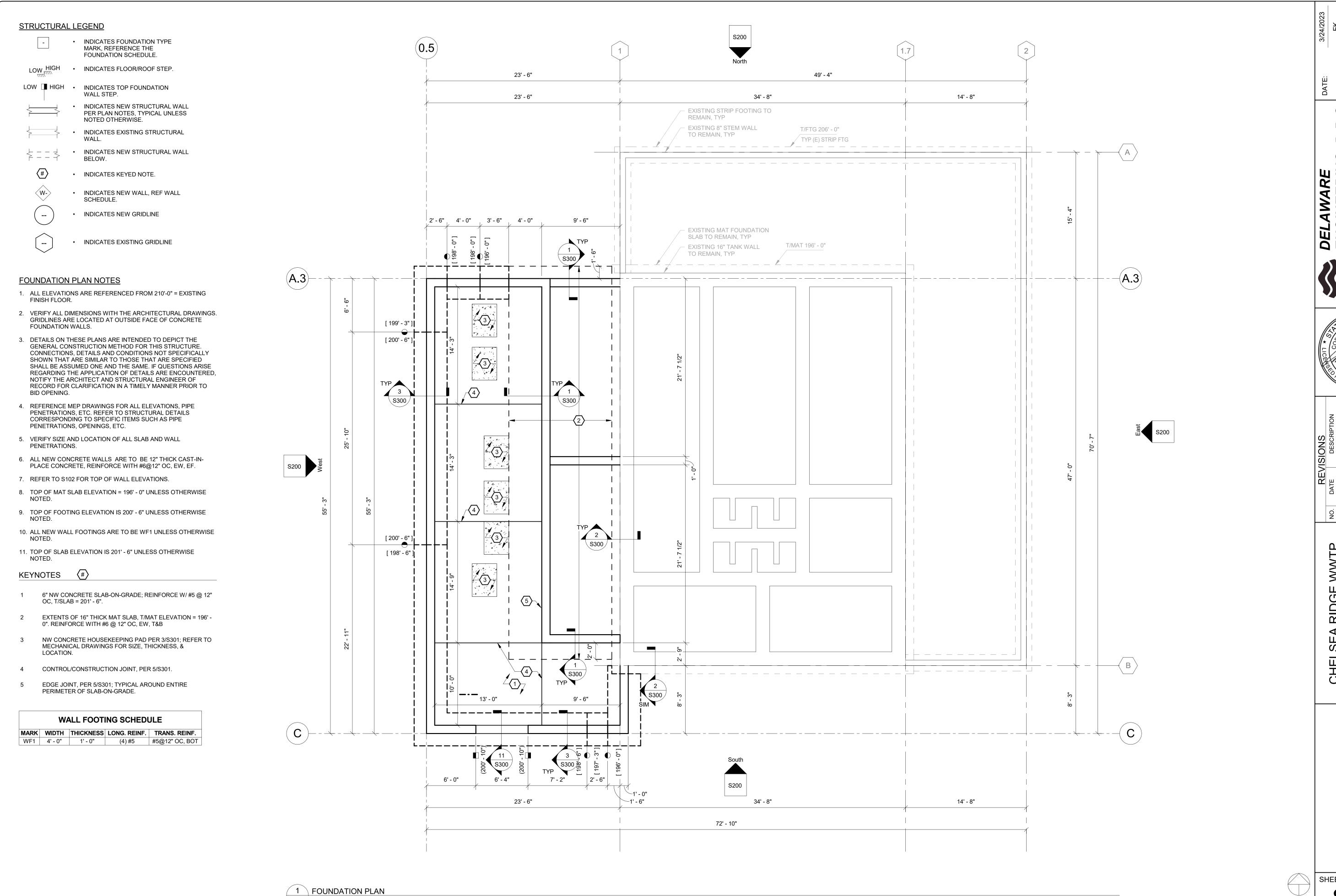
2. Begin at the top of the slope by anchoring the RECPs in a 6"(15cm) deep X 6"(15cm) wide trench with approximately 12" (30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12" (30cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12"(30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12"(30cm) apart across the width of the RECPs. B. Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple . The edges of parallel RECPs must be stapled with approximately 2"

the slope must be end over end (Shingle style) with an approximate 3"(7.5cm) overlap. Staple through overlapped area, approximately 12"(30cm) apart across entire

In loose soil conditions, the use of staple or stake lengths greater than 6"(15cm) may be necessary to properly secure the RECP's.

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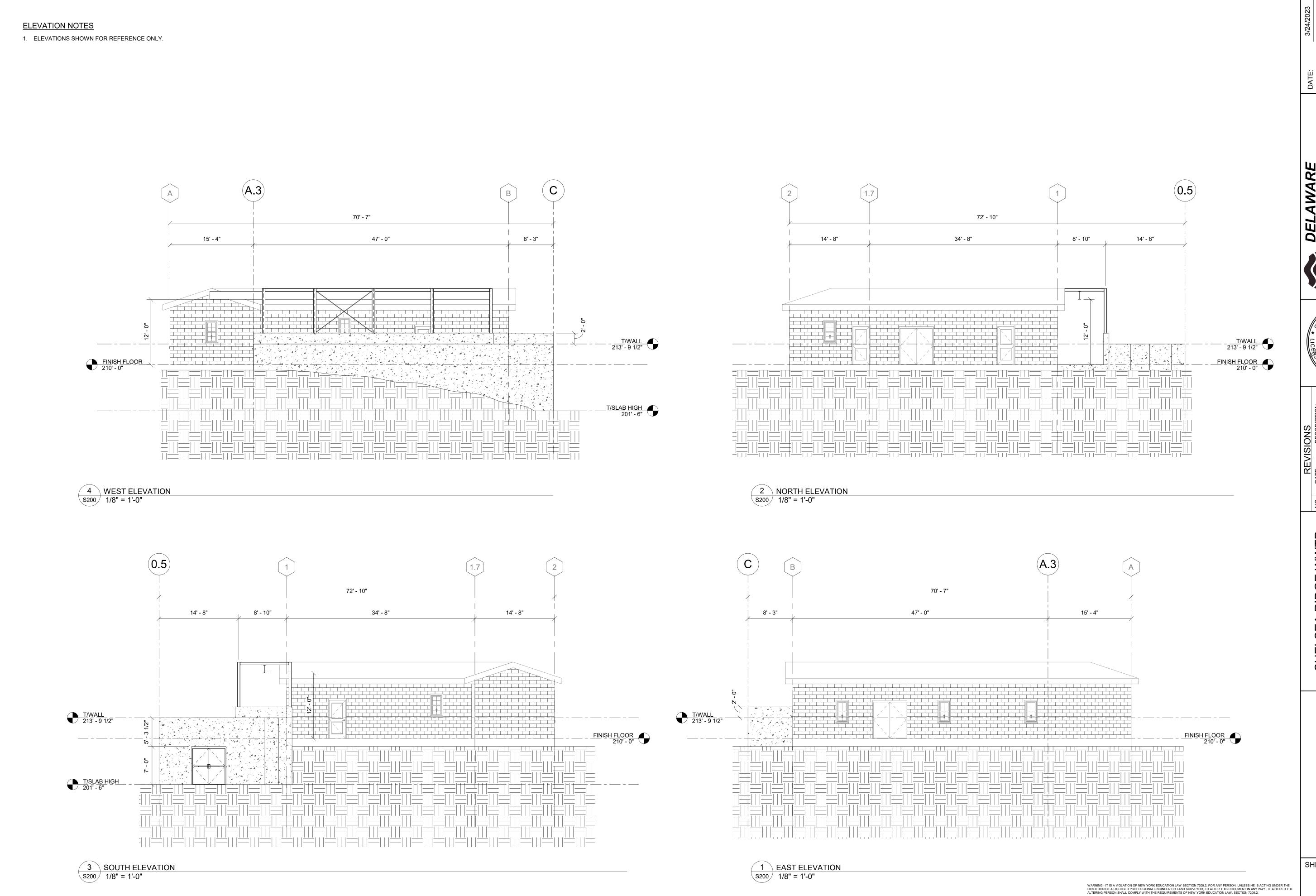
TYPICAL EROSION AND SEDIMENTATION CONTROL DETAILS

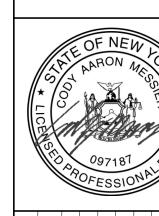


S100 3/16" = 1'-0"

SHEET:

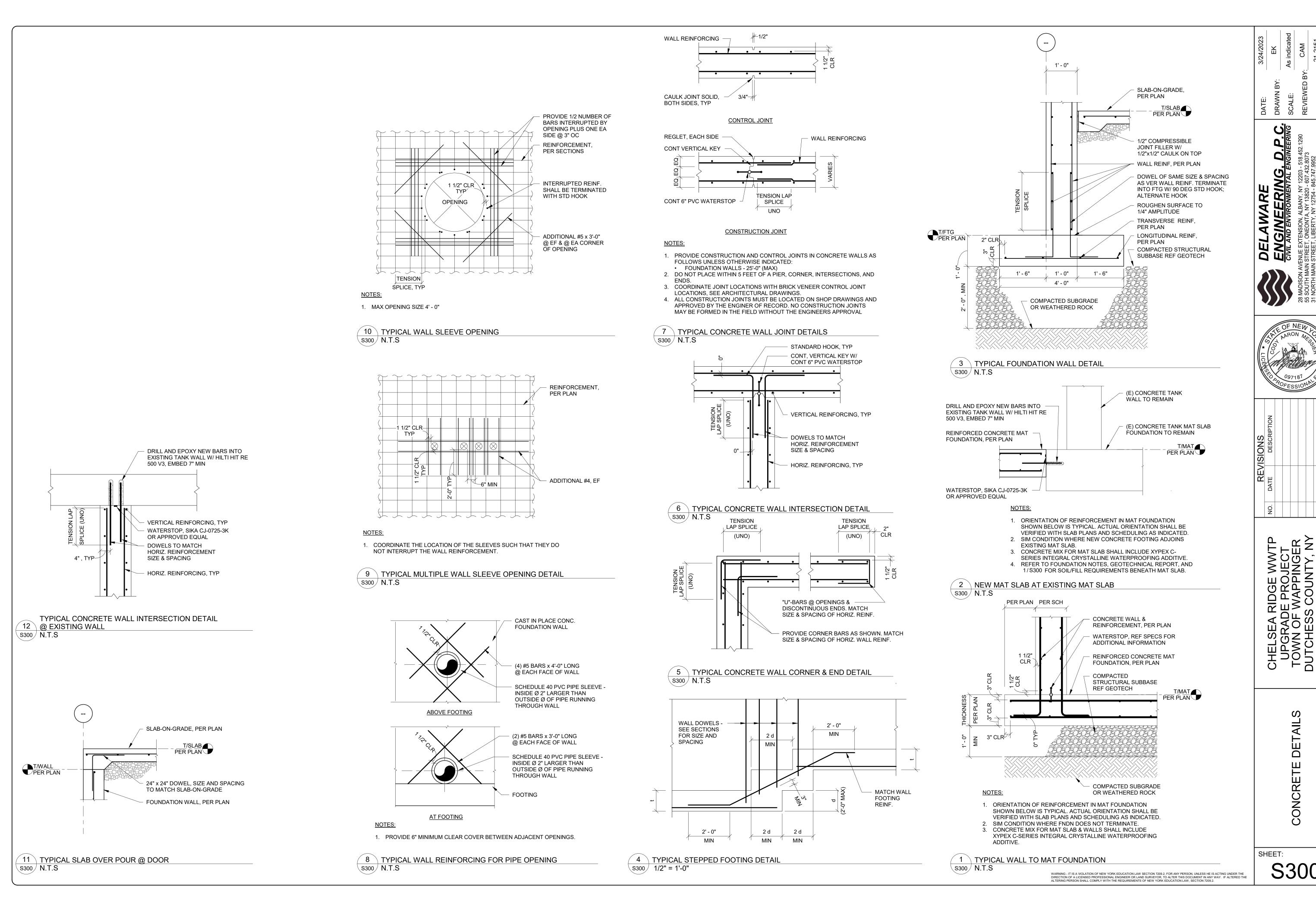
WARNING - IT IS A VIOLATION OF NEW YORK EDUCATION LAW SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.





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ELEVATIONS



ONCRE