

April 5, 2018

Ms. Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Docket No. CSC 461A - Greenwich Substation and Line Project, Development and Management Plan, Vol. 1, Part 1- Cos Cob Substation Modifications

Dear Ms. Bachman:

This letter provides the response to requests for the information listed below.

Response to CSC-01 Interrogatories dated 03/19/2018
CSC-001, 002, 003, 004, 005, 010

Very truly yours,

Kathleen Shanley
Manager
Transmission, Siting
As Agent for CL&P
dba EversourceEnergy

cc: Service List

**CL&P dba Eversource Energy
Docket CSC 461A - Greenwich Substation and Line
Project, Development and Management Plan, Vol. 1,
Part 1- Cos Cob Substation Modifications**

**Data Request CSC-01
Dated: 03/19/2018**

**Q-CSC-001
Page 1 of 1**

**Witness: Witness Panel
Request from: Connecticut Siting Council**

Question:

Referring to Site Plan Sheet 10034, two excavation areas are depicted on the east end and south end of the project site. A reference to "Note 9" is made but "Note 9" is not provided on the sheet. Please provide the following:

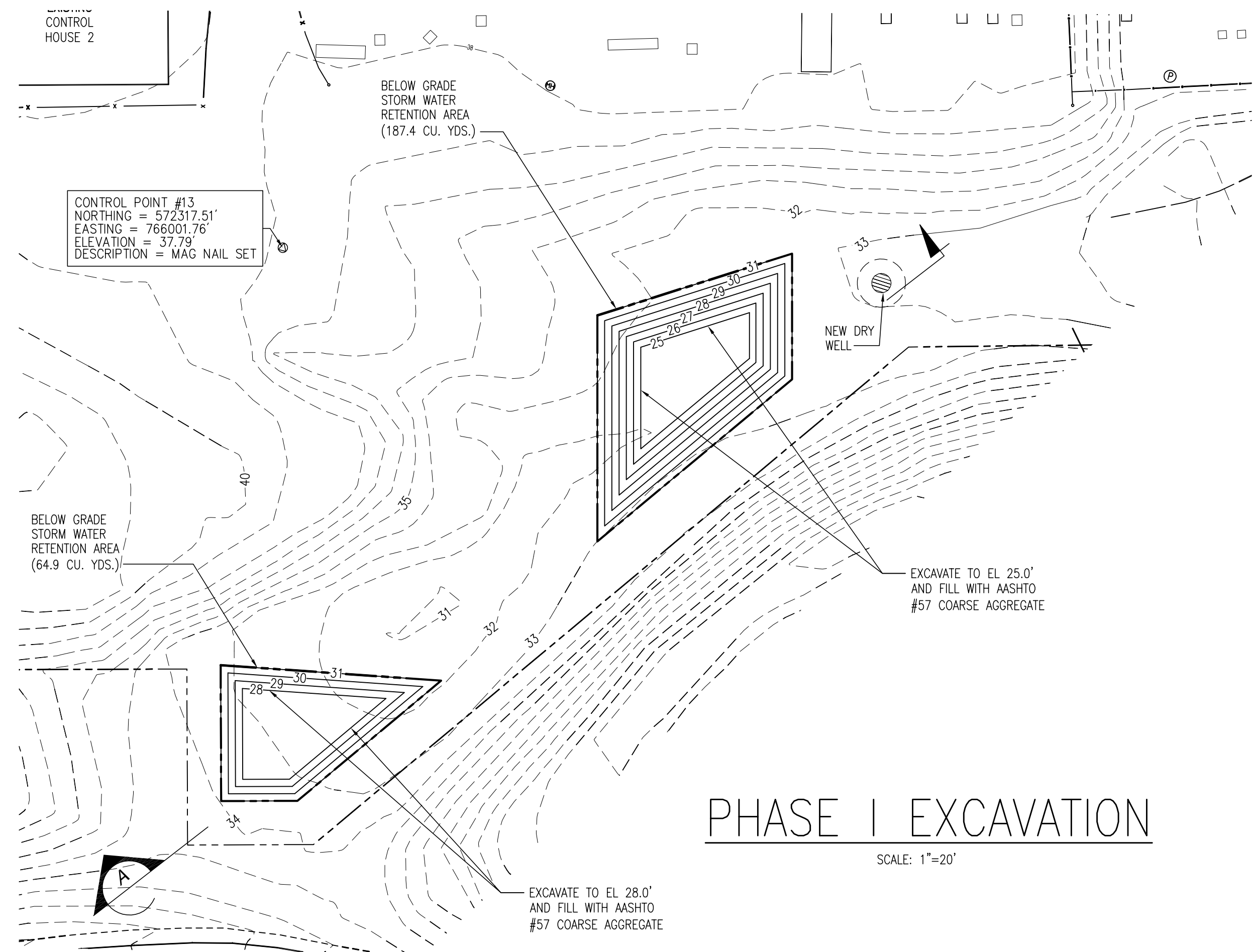
- a. what is the purpose of each area?
- b. provide a cross-section detail of each area that depicts material composition and depth.
- c. what is the depth to bedrock in each area? If depth to bedrock is unknown, what measures would be undertaken to ensure the proposed subsurface features can be constructed as proposed?
- d. what construction/ drainage standard was used to determine appropriate size of each area?
- e. are these are permanent or temporary features? If permanent, what cover material will be used in each area?

Response:

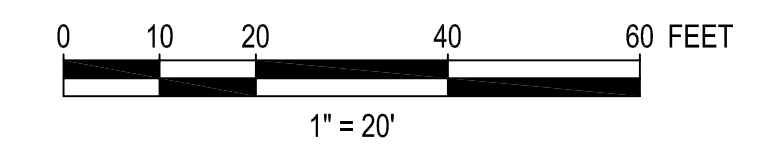
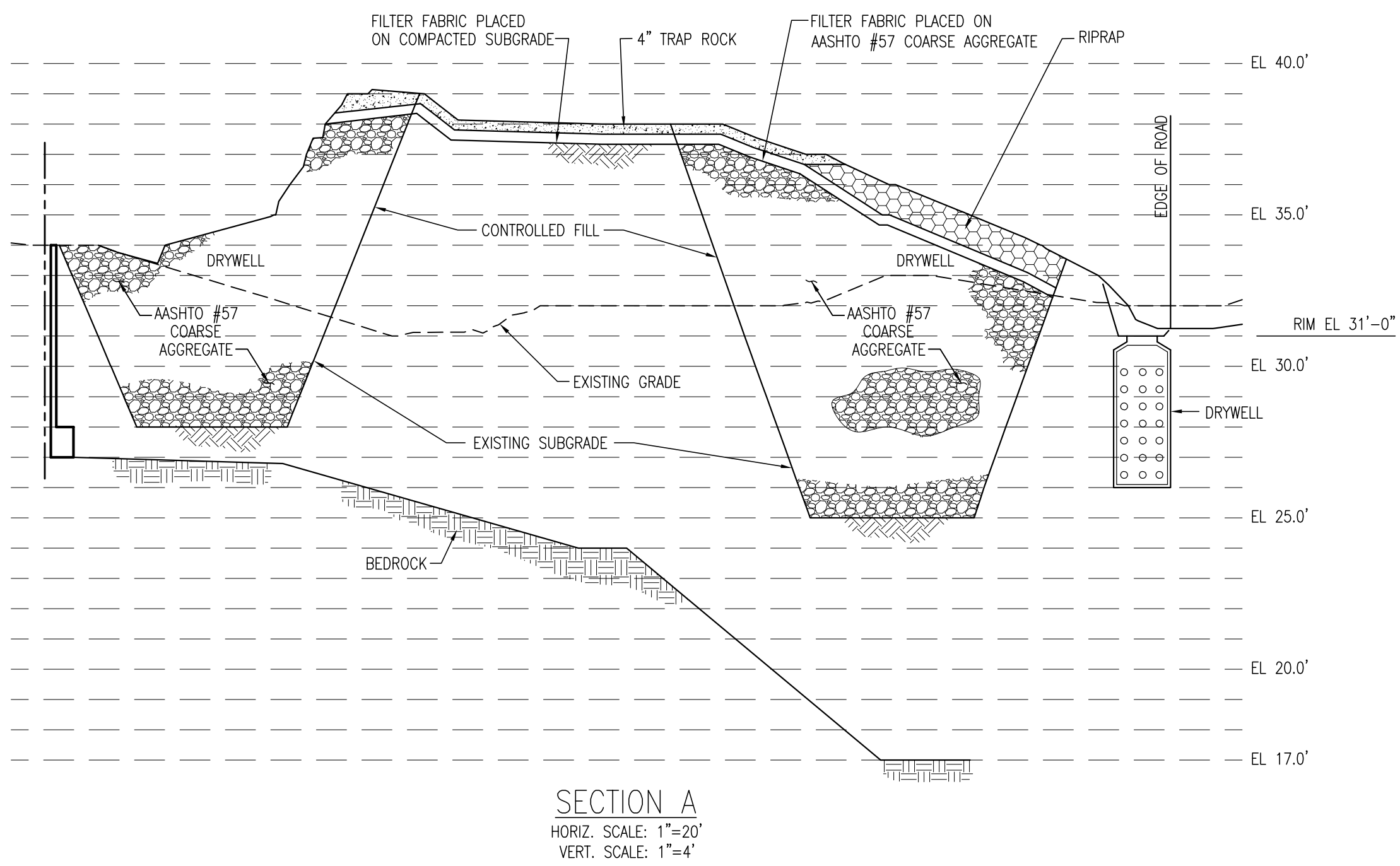
Please see the responses below to each part of the question:

- a. The purpose of these areas is to function as dry wells and allow storm water to infiltrate into the soils below.
- b. Please see attached cross-section Drawing No.15706-10034PG2.
- c. Based on the results of site borings, bedrock varies in these two areas. Please see Section A of the attached cross-section drawing.
- d. The Project utilized the Town of Greenwich Drainage Manual, Revised February 2014, and the Standard Handbook for Civil Engineers, as references to determine runoff and the size of the dry wells.
- e. These areas are proposed to be permanent features. Cover material will be stone, as shown in the cross-section referenced in the response to part b. above.

PLANT NORTH



- LEGEND:
- ⊙ EXISTING FINISH GRADE SPOT ELEVATION
 - EXISTING CONTOURS UNCHANGED BY NEW GRADING
 - NEW FINISH GRADE ELEVATION
 - - - PROPERTY LINE



D&M PLAN REVISED SUBMITTAL 04/05/2018

REVISIONS DURING CONSTRUCTION					
REV	DATE	DESCRIPTION	DRW	CHK	APP

EVERSOURCE ENERGY

TITLE: **COS COB 11R GRADING AND DRAINAGE PLAN - PHASE I GRADING CIVIL PLAN & DETAILS GREENWICH, CT**

BY: JA (PEI)	DRW: APP	APP: APP	APP: APP
DATE: DATE	DATE: DATE	DATE: DATE	DATE: DATE
H-SCALE: 1"=20'	SIZE: D	FIELD BOOK & PAGES	
V-SCALE: V.S.	R.E. DWG		
R.E. PROJ. NUMBER	DWG NO. 15706-10034 PG 2		

**CL&P dba Eversource Energy
Docket CSC 461A - Greenwich Substation and Line
Project, Development and Management Plan, Vol. 1,
Part 1- Cos Cob Substation Modifications**

**Data Request CSC-01
Dated: 03/19/2018**

**Q-CSC-002
Page 1 of 1**

**Witness: Witness Panel
Request from: Connecticut Siting Council**

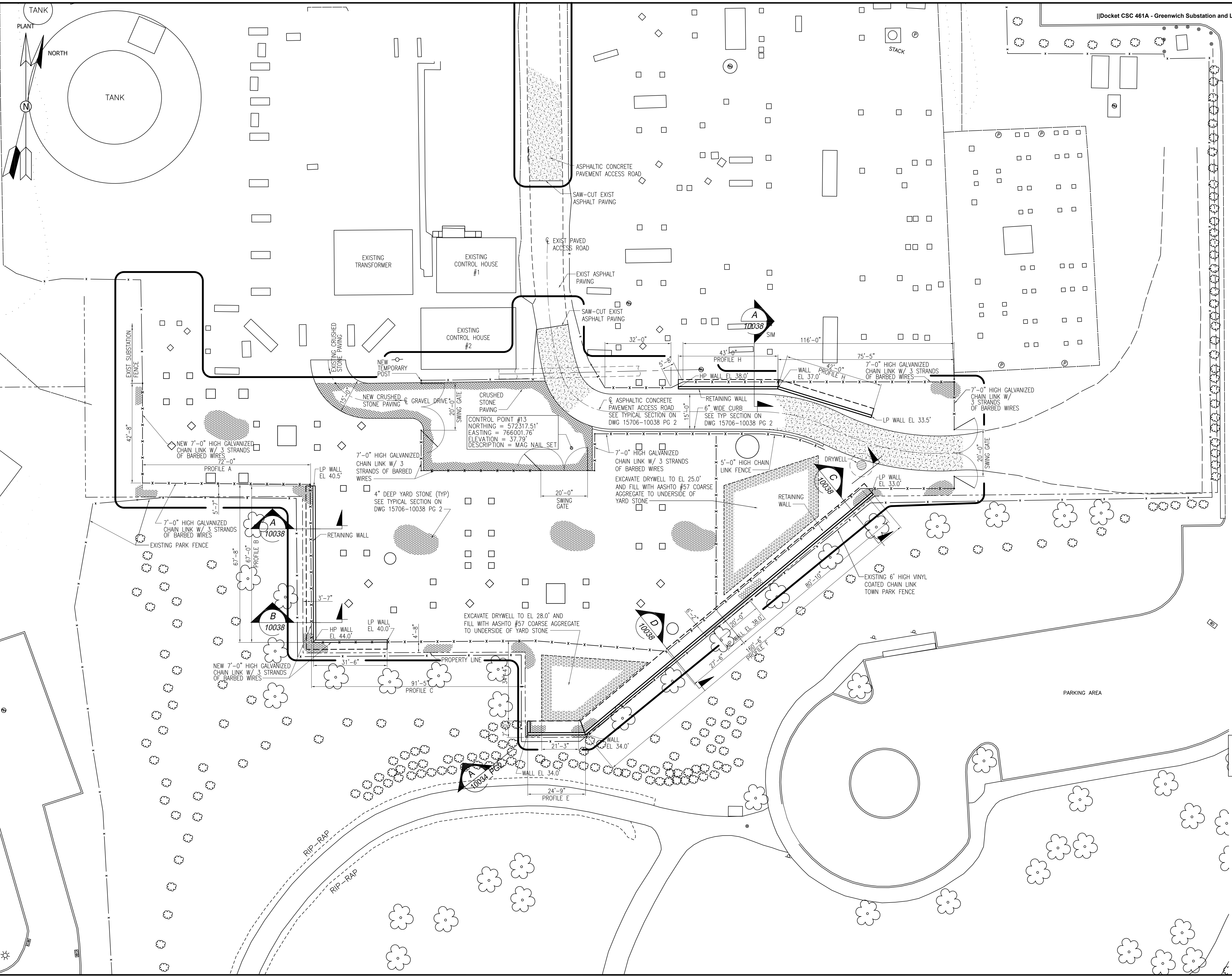
Question:

Referring to Site Plan Sheet 10034, provide a cross section detail of the drainage pipe/ catch basin system on the east side of the site, including proposed ground elevation and depth into any subsurface drainage material. What is the size of the proposed catch basin? What criterion was used to determine that one catch basin is sufficient to capture post-construction stormwater flows?

Response:

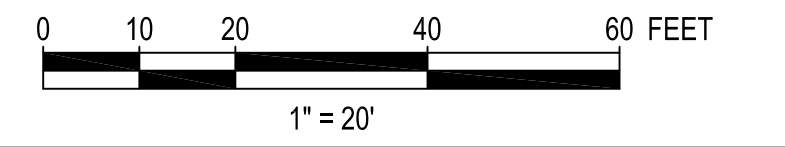
Please see the response to CSC-001.b. for the requested cross section. The catch basin is actually a concrete dry well that is 10 feet in diameter and 5 feet deep, as depicted on attached Drawing 15706-10034 PG1 and Drawing 15706-10034 PG2 (attached as a response to CSC-001 b). The concrete dry well will be utilized to collect stormwater from only the paved roadway and allow it to infiltrate into the soils below. The remaining area of the substation will drain via sheet flow to the two stone-filled dry wells, the locations of which are shown on attached Drawing 15706-10033 and Drawing 15706-10034 PG2. The Project utilized criteria from the Town of Greenwich Drainage Manual, Revised February 2014, and the Standard Handbook for Civil Engineers.

ES VER: 05/2015
 4/3/2018 4:08 PM - jamico - R:\Projects\139586 - Cos Cob SS\DWG\US Phys\Civil\DWG\SUBMITTAL\15706-10033.dwg - REV 04 AE dm submittal



KEY PLAN

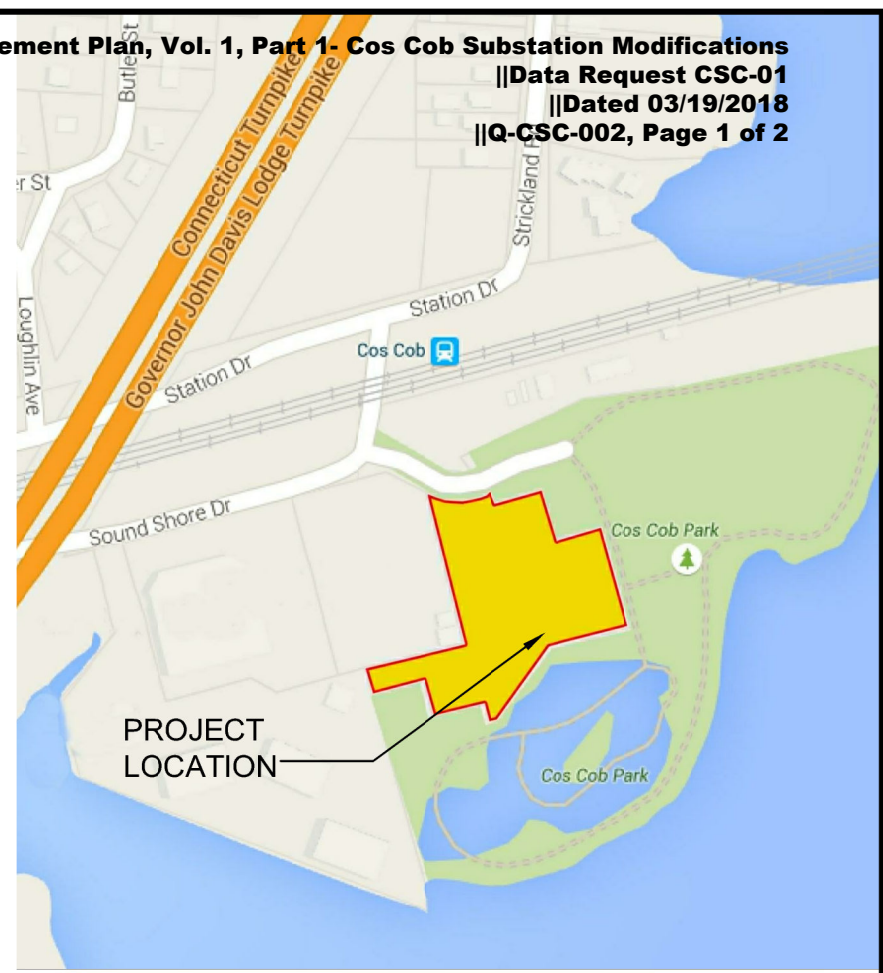
- LEGEND:
- x-x- NEW FENCE
 - X- EXISTING PARK FENCE
 - - - - - PROPERTY LINE
 - LIMIT OF WORK
 - FOUNDATION FOR EQUIPMENT OR BUS SUPPORT
 - FOUNDATION FOR LIGHTNING MAST
 - FOUNDATION FOR MONOPOLE DEAD END
 - YARD STONE
 - DRYWELL STONE FILL
 - ASPHALT PAVING



D&M PLAN REVISED SUBMITTAL 04/05/2018

REVISIONS DURING CONSTRUCTION				
NO.	DATE	DESCRIPTION	BY	APP.

EVERSOURCE ENERGY				
TITLE COS COB 11R SITE DEVELOPMENT PLAN CIVIL PLAN & DETAILS GREENWICH, CT				
BY PS (PEI)	DATE	APP APP	DATE	APP
H-SCALE 1"=20'	SIZE D	FIELD BOOK & PAGES		
V-SCALE	V.S.	R.E. DWG		
R.E. PROJ. NUMBER				DWG NO. 15706-10033

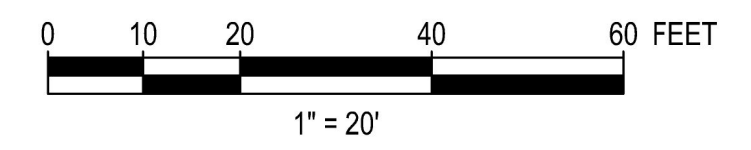


KEY PLAN



LEGEND:

- ⊙ EXISTING FINISH GRADE SPOT ELEVATION
- EXISTING CONTOURS UNCHANGED BY NEW GRADING
- NEW FINISH GRADE ELEVATION
- - - PROPERTY LINE
- LIMIT OF WORK
- FOUNDATION FOR EQUIPMENT OR BUS SUPPORT
- FOUNDATION FOR LIGHTNING MAST
- FOUNDATION FOR MONOPOLE DEAD END



D&M PLAN REVISED SUBMITTAL 04/05/2018

REVISIONS DURING CONSTRUCTION					
REV	DATE	DESCRIPTION	DRW	CHK	APP

EVERSOURCE ENERGY	
TITLE COS COB 11R GRADING AND DRAINAGE PLAN - FINISHED GRADES CIVIL PLAN & DETAILS GREENWICH, CT	
BY AMW (PE)	APP APP
DATE	DATE
H-SCALE 1"=20'	FIELD BOOK & PAGES
V-SCALE	R.E. DWG
R.E. PROJ. NUMBER	DWG NO. 15706-10034 PG 1

CONTROL POINT #13
NORTHING = 572317.51'
EASTING = 766001.76'
ELEVATION = 37.79'
DESCRIPTION = MAG NAIL SET

**Witness: Witness Panel
Request from: Connecticut Siting Council**

Question:

Referring to Site Plan Sheet 10036, please provide the following:

- a. sedimentation barriers along the west edge of the expansion area do not extend to the southwest corner. What is preventing stormwater from potentially flowing downslope to the adjacent property?
- b. partial sedimentation barriers are shown along the south edge of the expansion area. What is preventing stormwater from flowing east from the southwest corner of the retaining wall along an existing drainage area and into a landscape area of Cos Cob Park? Similarly, what is preventing stormwater from flowing south from the dewatering basin area across a generally flat area onto the paved walkway in Cos Cob Park?
- c. hay bales and silt fence are noted in certain areas but there is no indication which one is upgradient from the other, or the installation distance between the two barriers. Please clarify.
- d. provide a drawing that shows potential stormwater flows from the construction area and methods for containing such flows. Please use arrows depicting such flows.
- e. D&M Plan narrative p. 29 states migration of contaminated soils would be controlled by E&S controls; however, the construction site perimeter is only partially enclosed by E&S controls. How would soil migration be prevented in areas where there are no perimeter E&S controls? Please explain.

Response:

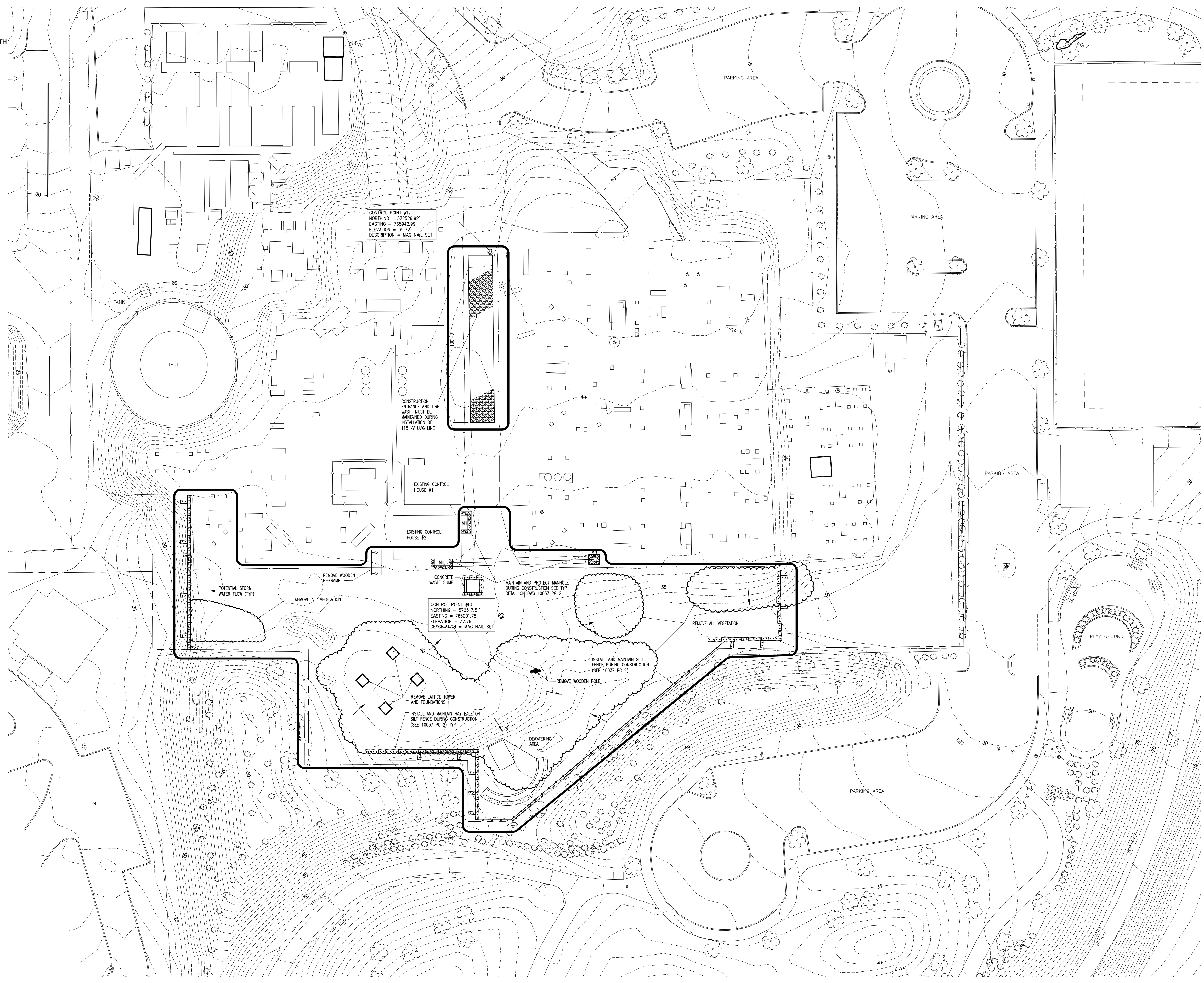
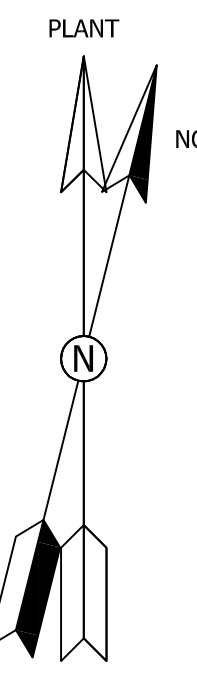
Please see the responses below:

- a., b., and c: The stormwater flows during construction are not expected to change from current conditions. E&S controls will prevent stormwater and sedimentation from flowing onto adjacent property that is at a lower elevation than the construction site. The E&S controls depicted on attached Drawing No.15706-10036 have been extended to all areas where the elevations of the adjacent property is less than or equal to that of the proposed construction area for the expanded substation. The silt fence has been extended across the southern property line, to protect against the flow of stormwater onto the Cos Cob walkway.
- d. Please attached Drawing No. 15076-10036 depicting the current direction of stormwater flows on site. The existing stormwater flows are not expected to change during construction and they are anticipated to improve somewhat (i.e., reduced flow toward adjacent property) due to the number and size of foundation excavations and grading.

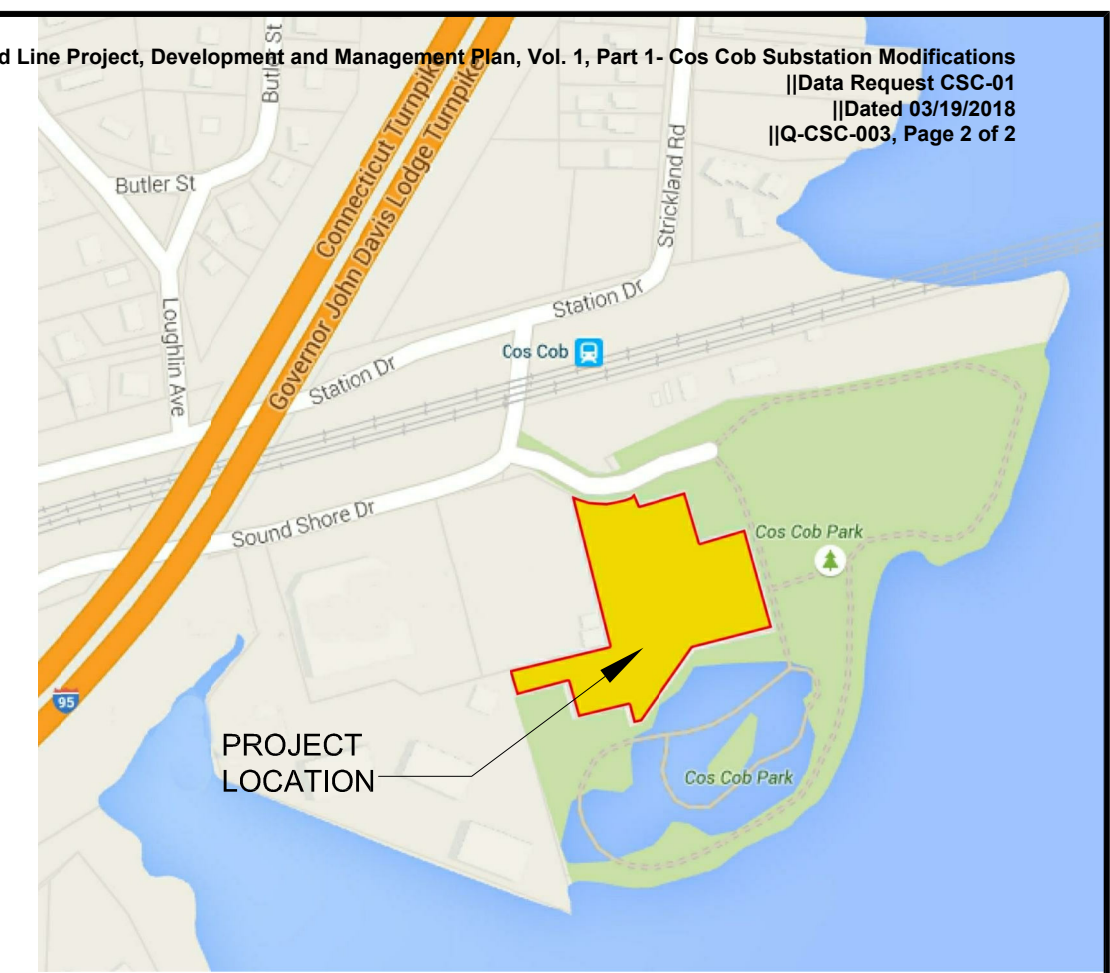
e. E&S controls will be deployed in all areas where the adjacent property is at an elevation that is less than or equal to the proposed construction area. See Note 4.1 on attached Drawing No.15076-10037 PG1 for detail on inspection and maintenance practices.

4/3/2018 2:45 PM - psju - R:\Projects\139586 - Cos Cob SS\DD\DWG\05 Phys\Civil\DWG\SUBMITTAL\15706-10036.dwg - REV AA AE DM SUBMITTAL

ES VER: 05/2015



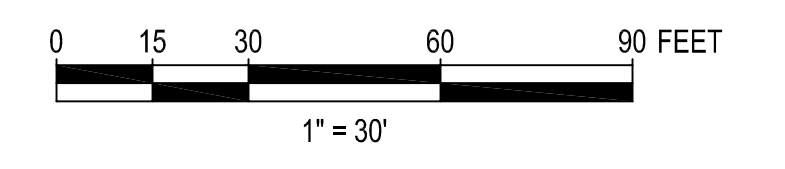
||Docket CSC 461A - Greenwich Substation and Line Project, Development and Management Plan, Vol. 1, Part 1- Cos Cob Substation Modifications
 ||Data Request CSC-01
 ||Dated 03/19/2018
 ||Q-CSC-003, Page 2 of 2



KEY PLAN

LEGEND:

- HAY BALES
- SILT FENCE
- EXISTING PARK FENCE
- PROPERTY LINE
- EXISTING CONTOURS
- NEW CONTOURS
- VEGETATION
- POTENTIAL STORM WATER FLOW
- WORK LIMIT
- FOUNDATION FOR EQUIPMENT OR BUS SUPPORT



D&M PLAN REVISED SUBMITTAL 04/05/2018

REVISIONS DURING CONSTRUCTION			
NO.	DATE	DESCRIPTION	BY

EVERSOURCE ENERGY

TITLE: **COS COB 11R**
SOIL EROSION AND SEDIMENT CONTROL PLAN
CIVIL PLAN & DETAILS
GREENWICH, CT

BY: PS (PEI)	CHKD: APP	APP: APP
DATE: DATE	DATE: DATE	DATE: DATE
H-SCALE: 1"=30'	SIZE: D	FIELD BOOK & PAGES:
V-SCALE: 1"=30'	V.S.:	R.E. DWG:
R.E. PROJ. NUMBER:	DWG NO.:	15706-10036

PROJECT DESCRIPTION

- 1.1 COS COB 11R & 35K ARE EXISTING SUBSTATIONS IN THE GREENWICH AREA. THEY ARE LOCATED ADJACENT TO EACH OTHER ON SOUND SHORE DRIVE. IN ORDER TO SUPPORT TWO (2) NEW U/G TRANSMISSION CONNECTIONS TO THE NEW GREENWICH 28F SUBSTATION COS COB 11R WILL BE EXPANDED TO THE SOUTH AND TO THE EAST. THE EXPANSION INCLUDES: (2) CIRCUIT BREAKERS AND ASSOCIATED FOUNDATIONS; (5) MANUALLY OPERATED DISCONNECT SWITCHES AND ASSOCIATED STRUCTURES AND FOUNDATIONS; (2) MOTOR OPERATED DISCONNECT SWITCHES AND ASSOCIATED STRUCTURES AND FOUNDATIONS; (6) INSTRUMENTATION POTENTIAL TRANSFORMERS (PT) AND ASSOCIATED STRUCTURES AND FOUNDATIONS; (2) CABLE TERMINATION STRUCTURES WITH ASSOCIATED FOUNDATIONS; (12) BUS SUPPORT STRUCTURES AND FOUNDATIONS; (1) H-FRAME LINE STRUCTURE AND FOUNDATIONS; (1) MONOPOLE AND FOUNDATION; AND UNDERGROUND CONDUITS AND DUCT BANKS.
- 1.2 THE FOLLOWING EQUIPMENT WILL BE REMOVED: (2) A-FRAME STRUCTURES; (1) H-FRAME STRUCTURE; (1) STEEL FRAMED LATTICE TRANSMISSION/COMMUNICATION TOWER; AND (1) CABLE GUYED WOOD POLE.
- 1.3 THE EXISTING GRADING, DRAINAGE AND STORM WATER MANAGEMENT DEPENDS ON RECHARGING THE SITE; THE SYSTEM FOR THE NEW EXPANSION AREA WILL BE THE SAME. ON THE SOUTHERN AND WESTERN SIDES OF THE EXISTING LATTICE TOWER (TO BE DEMOLISHED) AND ALONG THE SOUTHEASTERN BORDER IT WILL BE NECESSARY TO BUILD RETAINING WALLS.
- 1.4 THE EXISTING COS COB SUBSTATION PROPERTY CONSISTS PRIMARILY OF PREVIOUSLY DISTURBED AND DEVELOPED LAND, WHERE BOTH EVERSOURCE AND THE METRO NORTH RAILROAD (MNR) MAINTAIN EXTENSIVE SUBSTATION AND OTHER ELECTRICAL INFRASTRUCTURE. THE MNR, ASSOCIATED PARKING LOTS AND THE TRAIN STATION ARE ALL LOCATED NORTH OF THE SUBSTATION. THE TOWN CREATED A PARK EAST AND SOUTH OF THE SUBSTATIONS. THE SUBSTATION PROPERTY IS SITUATED ON A 1.5 ACRE TAX LOT AND AN ADJACENT 1.65 ACRE PERMANENT EASEMENT. THE PROPOSED EXPANSION TO THE SOUTH WILL BE ON THE AFOREMENTIONED PERMANENT EASEMENT AND WILL DISTURB APPROXIMATELY 0.8 ACRES.
- 1.5 THE SITE OF THE PROPOSED SUBSTATION EXPANSION IS LOCATED AT A GRADE ELEVATION OF APPROXIMATELY 39 FEET ABOVE MEAN SEA LEVEL (MSL). THE SITE IS GENERALLY FLAT HOWEVER IS DOES SLOPE OFF TO THE SOUTH EAST TO APPROXIMATELY 33 FEET ABOVE MSL WITHIN THE PLANNED EXPANSION AREA. THE NORTHERN PORTION OF THE SITE SLOPES TO THE NORTH AND TO THE WEST. MOST OF THE AREA IS PAVED WITH GRAVEL; HOWEVER THERE IS ASPHALT PAVED ROAD THAT IS APPROXIMATELY 20' WIDE X 400' LONG. THERE IS ONE KNOLL THAT SUPPORTS AN EXISTING STEEL LATTICE TRANSMISSION/COMMUNICATIONS TOWER. THE KNOLL IS APPROXIMATELY 42 FEET ABOVE MEAN SEA LEVEL (MSL) AND BASED ON EXISTING FOUNDATION DRAWINGS, APPEARS TO BE SOLID ROCK.
- 1.6 THE SITE IS LOCATED WITHIN THE SOUTHWEST COAST MAJOR DRAINAGE BASIN AND COASTAL BOUNDARY. NO TIDAL OR FRESH WATER WETLANDS/WATERCOURSES OR COASTAL RESOURCES ARE LOCATED ON THE SITE. THE SITE IS LOCATED OUTSIDE THE 100-YEAR AND 500-YEAR FLOOD BOUNDARIES ASSOCIATED WITH COS COB HARBOR. THE NORTHWEST CORNER OF THE SUBSTATION IS LOCATED WITHIN CATEGORY 1, 2, 3, AND 4 HURRICANE SURGE INUNDATION AREAS. THERE ARE NO WETLANDS OR WATER COURSES LOCATED AT THE SUBSTATION.

DEWATERING NOTES

- 2.1 OPEN EXCAVATIONS SHALL BE DEWATERED AND KEPT FREE OF STANDING WATER AND MUDDY CONDITIONS AS NECESSARY FOR THE PROPER EXECUTION OF THE WORK. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL DRAINS, SUMPS AND ALL OTHER EQUIPMENT REQUIRED TO PROPERLY DEWATER THE SITE. DEWATERING SYSTEMS THAT CAUSE A LOSS OF SOIL FINES FROM THE FOUNDATION AREAS SHALL NOT BE PERMITTED.
- 2.2 INSTALL DIVERSION DITCHES OR BERMS IF NECESSARY TO MINIMIZE THE AMOUNT OF CLEAN STORM WATER RUN-ON ALLOWED INTO THE EXCAVATED AREA.
- 2.3 REMOVAL OF WATER FROM THE CONSTRUCTION SITE SHALL BE ACCOMPLISHED SO THAT EROSION AND THE TRANSPORTING OF SEDIMENT AND OTHER POLLUTANTS ARE MINIMIZED.
- 2.4 NOT USED.
- 2.5 DEWATERING IN PERIODS OF INTENSE, HEAVY RAIN, WHEN THE INFILTRATIVE CAPACITY OF THE SOIL IS EXCEEDED, SHALL BE AVOIDED.
- 2.6 DEWATERING WASTEWATERS SHALL BE PUMPED DIRECTLY INTO A CONTAINMENT TRUCK AND REMOVED FROM THE SITE.

ADJACENT PROPERTY

- 3.1 THE PROJECT PROPERTY IS IRREGULARLY SHAPED. THE SITE HAS FRONTAGE ON SOUND SHORE DRIVE TO THE NORTH. THE SITE BORDERS COMMERCIAL PROPERTIES TO THE WEST AND COS COB PARK TO THE SOUTH AND EAST.

GENERAL REQUIREMENTS

- 4.1 THE GENERAL CONTRACTOR IS A RESPONSIBLE PARTY FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL PLAN. THE RESPONSIBILITY INCLUDES THE MAINTENANCE AND INSTALLATION OF CONTROL MEASURES AND INFORMING ALL PARTIES OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN. EROSION CONTROL MEASURES SHALL BE CHECKED WEEKLY AND AFTER EVERY STORM BY THE ON-SITE CONSTRUCTION MANAGER. ALL ITEMS IDENTIFIED REQUIRING MAINTENANCE/REPLACEMENT SHALL BE COMPLETED IMMEDIATELY.
- 4.2 CONSTRUCTION SHALL BE PHASED TO MINIMIZE LAND DISTURBANCE AT ANY GIVEN TIME TO REDUCE EROSION HAZARDS. SOIL STABILIZATION MUST BE IMPLEMENTED WITHIN THREE DAYS AFTER CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR HAVE BEEN TEMPORARILY SUSPENDED FOR SEVEN DAYS.
- 4.3 AREAS WHICH REMAIN INACTIVE FOR AT LEAST THIRTY DAYS SHALL RECEIVE TEMPORARY SEEDING IN ACCORDANCE WITH THE GUIDELINES.
- 4.4 CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO DEBRIS, LITTER, OR OTHER MATERIALS ARE DISCHARGED IN THE WATERS OF THE STATE OF CONNECTICUT AND TO ADJACENT PROPERTIES.

SOIL EROSION AND SEDIMENT CONTROL DEVICES & MEASURES

- 5.1 THE SOIL EROSION AND SEDIMENT CONTROL DEVICES TO BE IMPLEMENTED AS PART OF THE SITE DEVELOPMENT SHALL BE INSTALLED WHERE INDICATED ON THE DRAWING 10036 AND DETAILED ON 10037 PG2 AND 10037 PG3 OR DESCRIBED BELOW. FOR FURTHER REFERENCE SEE THE STATE OF CONNECTICUT 2002 GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL (THE "GUIDELINES").
- 5.2 ORGANIC MULCHES (STRAW), AND/OR NETTING AND MATS ARE TO BE USED DURING CONSTRUCTION TO PREVENT EROSION BY PROTECTING THE EXPOSED SOIL AND TO PROMOTE THE GROWTH OF VEGETATION. ORGANIC MULCH MATERIALS AND APPLICATION RATES SHALL BE IN ACCORDANCE WITH FIGURE 7-1 OF THE "GUIDELINES".
- 5.3 STRAW MUST BE ANCHORED IMMEDIATELY AFTER SPREADING USING APPROPRIATE MULCH ANCHORING TOOL. LIQUID MULCH BINDERS, NETTING OR OTHER MEANS OF ANCHORING ALLOWED BY THE "GUIDELINES." CONTROL MEASURES MUST BE INSPECTED PERIODICALLY AND, IN PARTICULAR, AFTER RAINSTORMS, AND RE-APPLIED IMMEDIATELY IF EROSION IS OBSERVED.
- 5.4 RIPRAP APRONS SHALL BE USED WHERE REQUIRED TO REDUCE RUNOFF VELOCITIES AND PROTECT EXPOSED SURFACES DURING CONSTRUCTION FROM CONCENTRATED FLOWS.
- 5.5 TEMPORARY AND PERMANENT VEGETATIVE COVERS SHALL BE INSTALLED TO STABILIZE SOIL AND REDUCE DAMAGE FROM SEDIMENT DEPOSITS, WIND AND/OR RUNOFF EROSION. VEGETATIVE COVERS SHALL BE INSTALLED ON ALL DISTURBED AREAS NOT PROTECTED BY OTHER EROSION CONTROL MEASURES AND ARE NOT INTENDED FOR PRIMARY CONSTRUCTION.
- 5.6 A CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE SITE ACCESS ONTO SOUND SHORE DRIVE.
- 5.7 FILTER FABRIC SILT FENCE SHALL BE INSTALLED ALONG THE DOWN GRADIENT SIDE OF ALL FILL SECTIONS. SILT FENCE WILL BE MAINTAINED IN PLACE UNTIL THE TRIBUTARY AREA PROTECTED BY THE FENCE IS RE-VEGETATED OR STABILIZED BY PERMANENT MEASURES. SYNTHETIC FILTER FABRIC, POST MATERIAL, SPACING AND EMBEDMENT, AND TRENCH DETAILS, SHALL BE AS SHOWN ON THE DRAWINGS. FILTER BARRIER SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL GREATER THAN 0.1 INCH AND AT LEAST DAILY DURING PROLONGED RAINFALL. REFER TO THE CHAPTER 7 OF THE "GUIDELINES" FOR ADDITIONAL MAINTENANCE REQUIREMENTS.
- 5.8 DUST CONTROL MEASURES SHALL BE USED TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND REDUCE THE PRESENCE OF DUST WHICH HAS THE POTENTIAL TO MIGRATE OFF-SITE. THE NEED FOR DUST CONTROL WILL BE MINIMIZED BY REDUCING AREA OF LAND DISTURBANCE AT ANY ONE TIME, MAINTAINING AS MUCH VEGETATION AS PRACTICABLE AND TEMPORARY USE OF MULCHING AND TEMPORARY VEGETATIVE COVER. THE CONTRACTOR SHALL USE VACUUM SWEEPERS ON PAVED AREAS AND UTILIZE FINE WATER SPRAYS NEAR SOURCES OF DUST. THE EXPOSED SOIL AREAS SHALL BE PERIODICALLY MOISTENED. SPRAY-ON ADHESIVES DILUTED IN WATER MAY BE USED.
- 5.9 EXCAVATED SOILS WILL BE LIVE-LOADED, COVERED AND TRANSPORTED TO A LICENSED THIRD-PARTY LOCATION OUTSIDE OF GREENWICH FOR TEMPORARY STAGING AND DISPOSAL CHARACTERIZATION.
- 5.10 TEMPORARY VEGETATIVE COVERS SHALL BE INSTALLED ON ALL DISTURBED AREAS NOT INTENDED FOR PRIMARY CONSTRUCTION AND HAVING THE POTENTIAL TO PRODUCE SEDIMENT AND CAUSE ON-SITE AND OFF-SITE DAMAGES. SUCH AREAS BASED ON RECOMMENDATIONS SHALL BE COVERED WITH TOPSOIL AND SEEDED PER FIGURE 8-1 OF THE "GUIDELINES." FOR ADDITIONAL SEEDING REQUIREMENTS REFER TO CHAPTER 6 OF THE "GUIDELINES."
- 5.11 STONE CHECK DAMS SHALL BE INSTALLED AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS.
- 5.12 STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF FILTER FABRIC FENCE OR OTHER SUITABLE BARRIERS AROUND THE CATCH BASINS AS INDICATED ON THE SEDIMENT AND EROSION CONTROL DRAWINGS. THE BARRIERS SHALL ONLY BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA HAS BEEN STABILIZED.
- 5.13 THE CONTRACTOR MUST INSTALL ANY ADDITIONAL TEMPORARY OR PERMANENT MEASURES NECESSARY TO CONTROL EROSION/SEDIMENTATION ON-SITE AND OFF-SITE DEPENDING ON WEATHER CONDITIONS AND WORK SEQUENCING.
- 5.14 SEQUENCE OF INSTALLATION
 - A. FIELD STAKEOUT THE LIMITS OF ALL CONSTRUCTION ACTIVITIES.
 - B. INSTALL TEMPORARY CONSTRUCTION FENCE AS REQUIRED TO MAINTAIN SAFETY AND SECURITY AT ALL PHASES OF CONSTRUCTION.
 - C. INSTALL ANTI-TRACKING PAD AT CONSTRUCTION ENTRANCE AS SHOWN ON THE PLAN.
 - D. INSTALL BARRIERS AS NECESSARY TO CONTROL DRAINAGE ALONG THE ENTRY DRIVE. AT THE END OF EACH WORKING DAY, ANY ACCUMULATED SILT SHALL BE SWEEPED FROM THE EXISTING TOWN ROADS.
 - E. INSTALL HAYBALES AND/OR SILT FENCE AROUND BOUNDARY OF THE CONSTRUCTION AREA.
 - F. CLEAR ALL VEGETATION FROM THE CONSTRUCTION AREA.

STORM DRAINAGE SYSTEM MAINTENANCE

- 7.1 STORM DRAINAGE FEATURES SHALL BE INSPECTED ON A WEEKLY BASIS AND AS PREVIOUSLY STATED DURING CONSTRUCTION BY THE CONTRACTOR. ANY FLOATABLES, TRASH, DEBRIS OR SEDIMENT BUILD-UP SHALL BE REMOVED BY A LICENSED CONTRACTOR. GRASS-LINED SWALES IF CONSTRUCTED WILL BE MOWED.
- 7.2 THE ON-SITE STORM DRAINAGE FEATURES MUST BE MAINTAINED IN GOOD WORKING CONDITION IN ACCORDANCE WITH THE INTENT OF THESE PLANS.

D&M PLAN REVISED SUBMITTAL 04/05/2018

REVISIONS DURING CONSTRUCTION				
NO.	DATE	DESCRIPTION	BY	APP.

EVERSOURCE ENERGY

TITLE: **COS COB 11R
SOIL EROSION CONTROL NOTES AND NARRATIVE
CIVIL PLAN & DETAILS
GREENWICH, CT**

BY: PS (PEI)	DWG: APP	APP: APP
DATE: DATE	DATE: DATE	DATE: DATE
H-SCALE: N.T.S.	SIZE: D	FIELD BOOK & PAGES:
V-SCALE: N.T.S.	V.S.	R.E. DWG:
R.E. PROJ. NUMBER:	DWG NO. 15706-10037 PG 1	

**CL&P dba Eversource Energy
Docket CSC 461A - Greenwich Substation and Line
Project, Development and Management Plan, Vol. 1,
Part 1- Cos Cob Substation Modifications**

**Data Request CSC-01
Dated: 03/19/2018**

**Q-CSC-004
Page 1 of 1**

**Witness: Witness Panel
Request from: Connecticut Siting Council**

Question:

Referring to Site Plan Sheet 10034, exposed bedrock is shown. Indicate the method of removal of bedrock at the project site.

Response:

Eversource has determined that no blasting will be required. Although the method of removal will be determined by the contractor, typically the contractor will employ a mechanical process where blasting is not required.

**CL&P dba Eversource Energy
Docket CSC 461A - Greenwich Substation and Line
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Part 1- Cos Cob Substation Modifications**

**Data Request CSC-01
Dated: 03/19/2018**

**Q-CSC-005
Page 1 of 1**

**Witness: Witness Panel
Request from: Connecticut Siting Council**

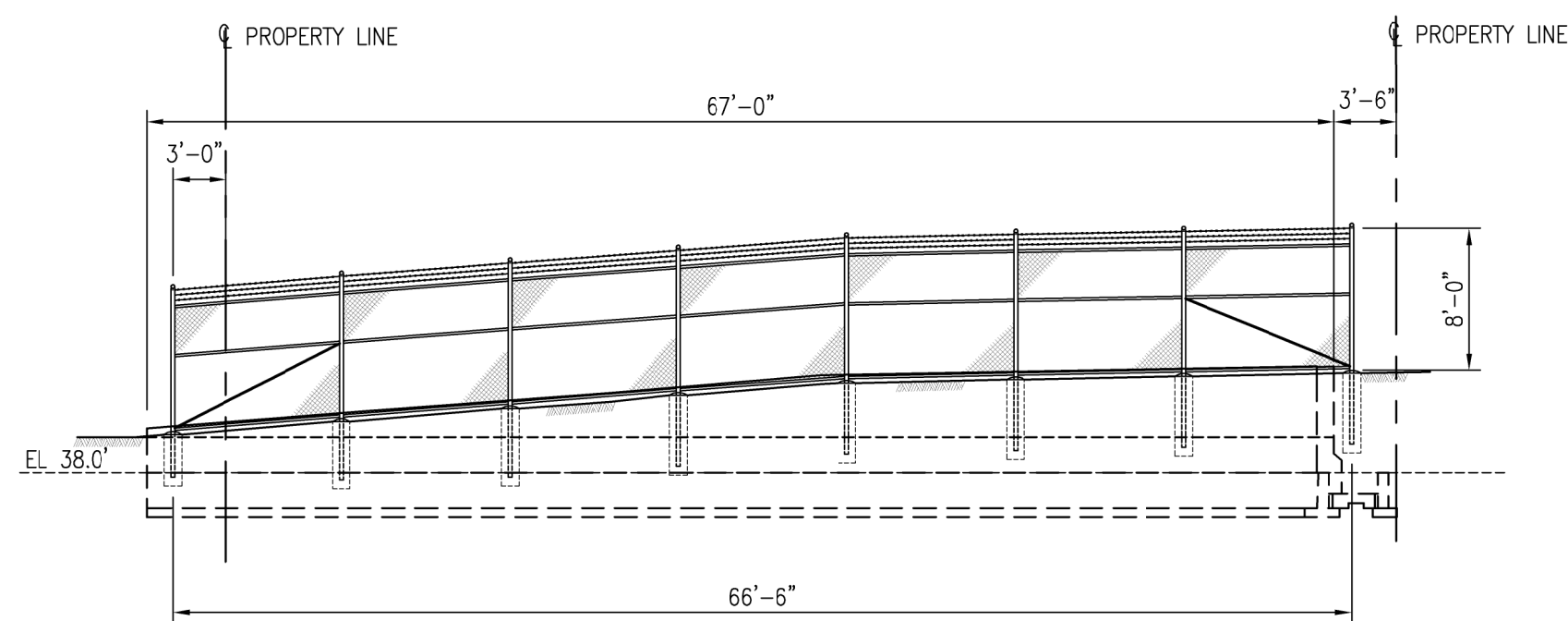
Question:

Referring to Site Plan Sheet 10033, two access points are shown to the substation expansion area, a north entrance and an east entrance. Are one or both entrances being used during construction?

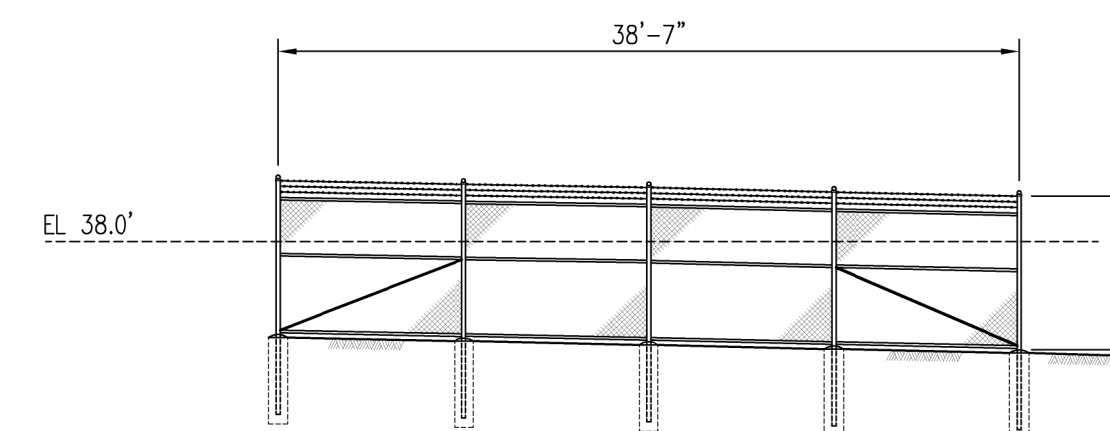
Response:

The north entrance is the only entrance to the site. The east gate/access depicted on the D&M Plan is an access utilized by Metro-North Railroad. There is no access to a public right-of-way from this gate and the Project personnel will not be utilizing this access for the Project work.

Also, please see the minor modifications to the permanent fence location depicted on the revised Drawing No. 15706-10033 (attachment to response CSC-002) and the addition of a curb along the driveway. See also attached revised Drawing 15706-10038 PG1 regarding fencing and retaining wall plans and sections.

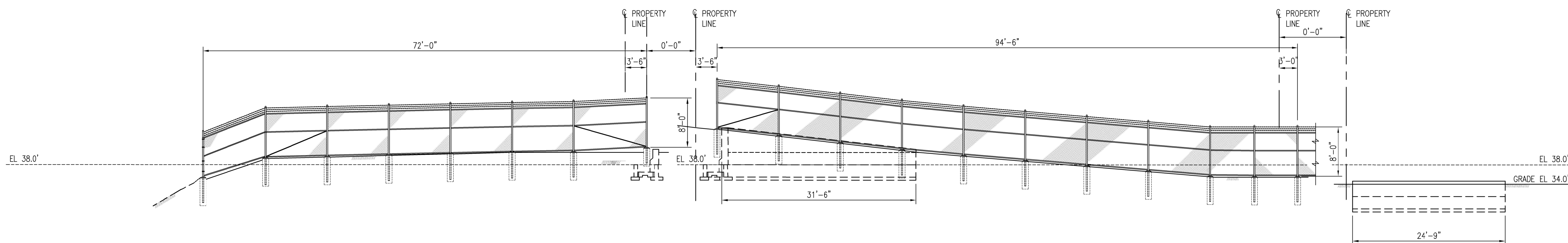


PROFILE B (LOOKING WEST)
(10033 & 10034)
SCALE: 1"=10'
NOTE: SEE DWG 10039 PG1 FOR FENCE DETAILS.



PROFILE G (LOOKING NORTH)
(10033 & 10034)
SCALE: 1"=10'
NOTE: SEE DWG 10039 PG1 FOR FENCE DETAILS.

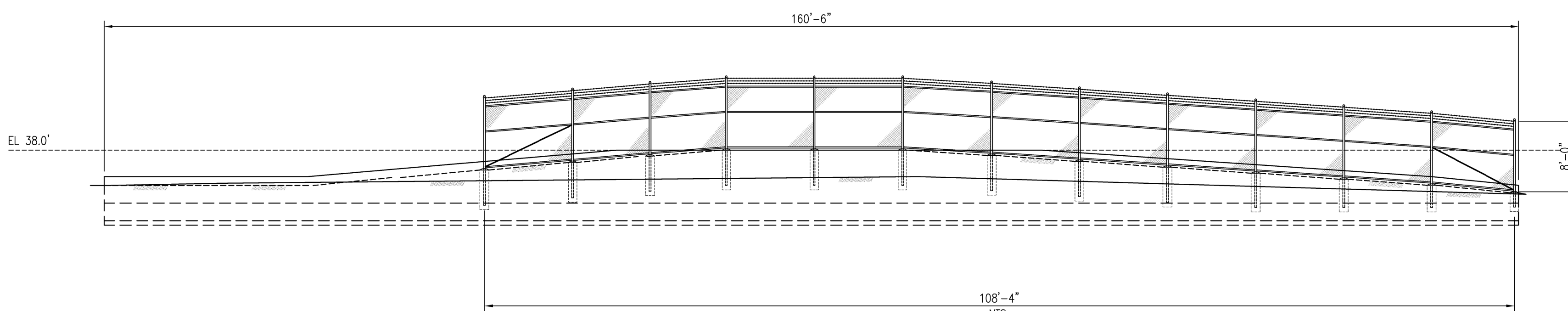
PROFILE D
(NOT USED)



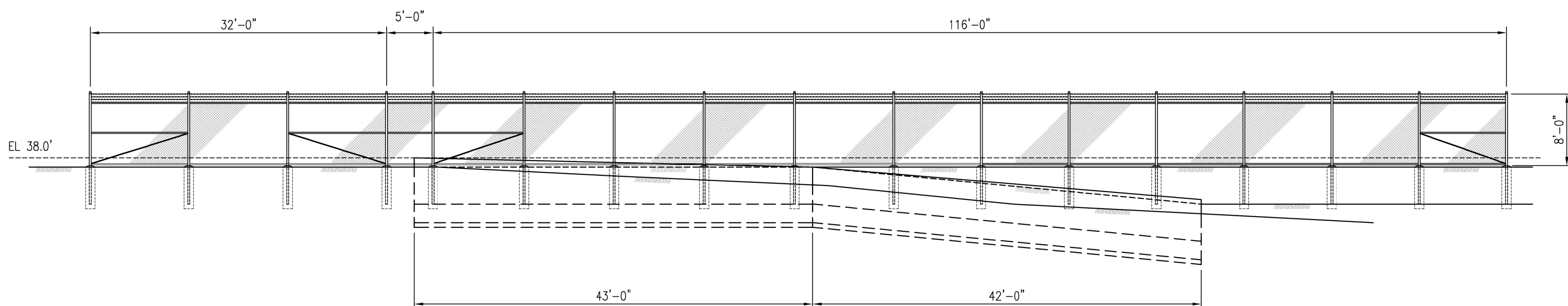
PROFILE A (LOOKING NORTH)
(10033 & 10034)
SCALE: 1"=10'
NOTE: SEE DWG 10039 PG1 FOR FENCE DETAILS.

PROFILE C (LOOKING NORTH)
(10033 & 10034)
SCALE: 1"=10'
NOTE: SEE DWG 10039 PG1 FOR FENCE DETAILS.

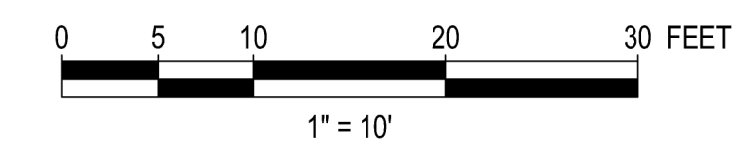
PROFILE E (LOOKING NORTH)
(10033 & 10034)
SCALE: 1"=10'



PROFILE F (LOOKING NORTHWEST)
(10033 & 10034)
SCALE: 1"=10'
NOTE: SEE DWG 10039 PG1 FOR FENCE DETAILS.



PROFILE H (LOOKING NORTH)
(10033 & 10034)
SCALE: 1"=10'
NOTE: SEE DWG 10039 PG1 FOR FENCE DETAILS.



D&M PLAN REVISED SUBMITTAL 04/05/2018

REVISIONS DURING CONSTRUCTION			
NO.	DESCRIPTION	DATE	BY

EVERSOURCE ENERGY

TITLE: **COS COB 11R
FENCE & RETAINING WALL PROFILES & SECTIONS
ELEVATIONS & SECTIONS
GREENWICH, CT**

BY: AMW (PE)	DRW:	APP:	APP:
DATE:	DATE:	DATE:	DATE:
H-SCALE: 1"=10'	SIZE: D	FIELD BOOK & PAGES:	
V-SCALE: 1"=10'	V.S.:	R.E. DWG:	
R.E. PROJ. NUMBER:	DWG NO. 15706-10038 PG 1		

**CL&P dba Eversource Energy
Docket CSC 461A - Greenwich Substation and Line
Project, Development and Management Plan, Vol. 1,
Part 1- Cos Cob Substation Modifications**

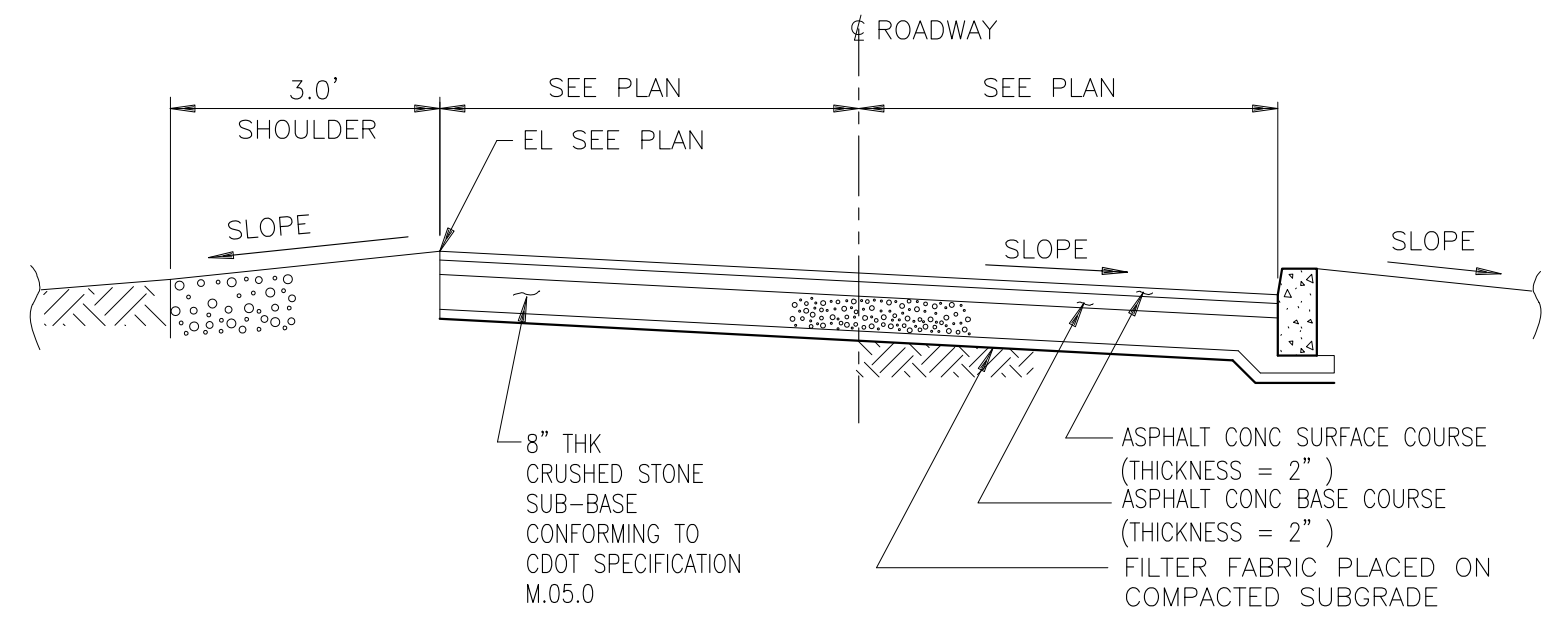
**Data Request CSC-01
Dated: 03/19/2018**

**Q-CSC-010
Page 1 of 1**

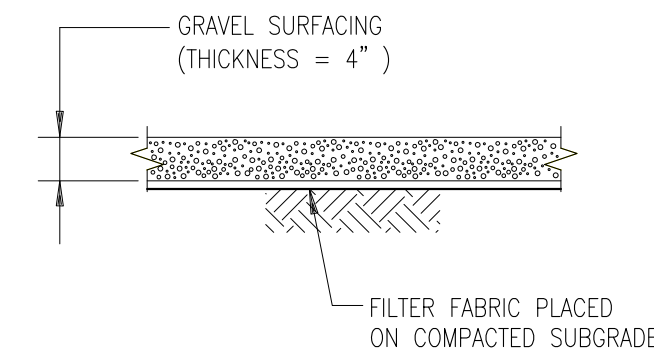
**Witness: Witness Panel
Request from: Connecticut Siting Council**

Question:
Provide a cross-section detail for the new paved substation access road.

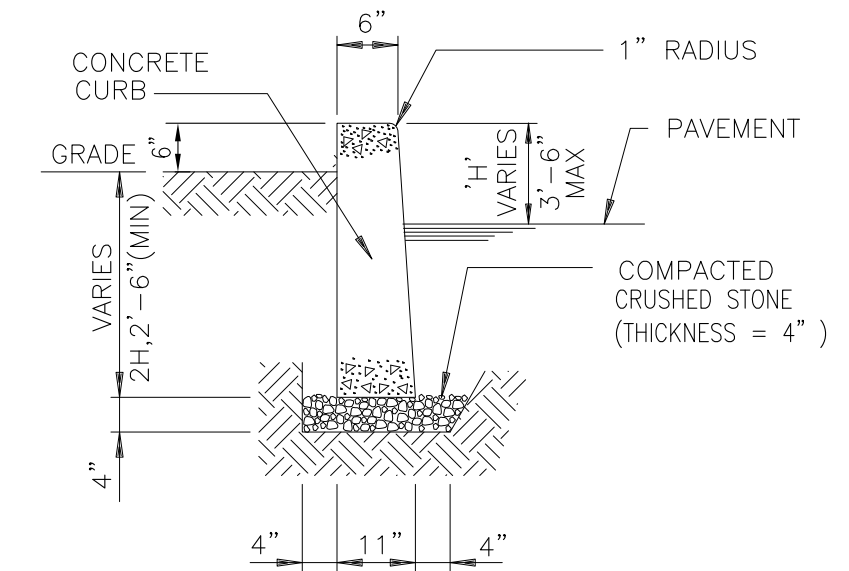
Response:
Please see attached Drawing No. 15706-10038 PG2.



**PAVED ROAD WITH CURB ONE SIDE
CROSS SECTION**



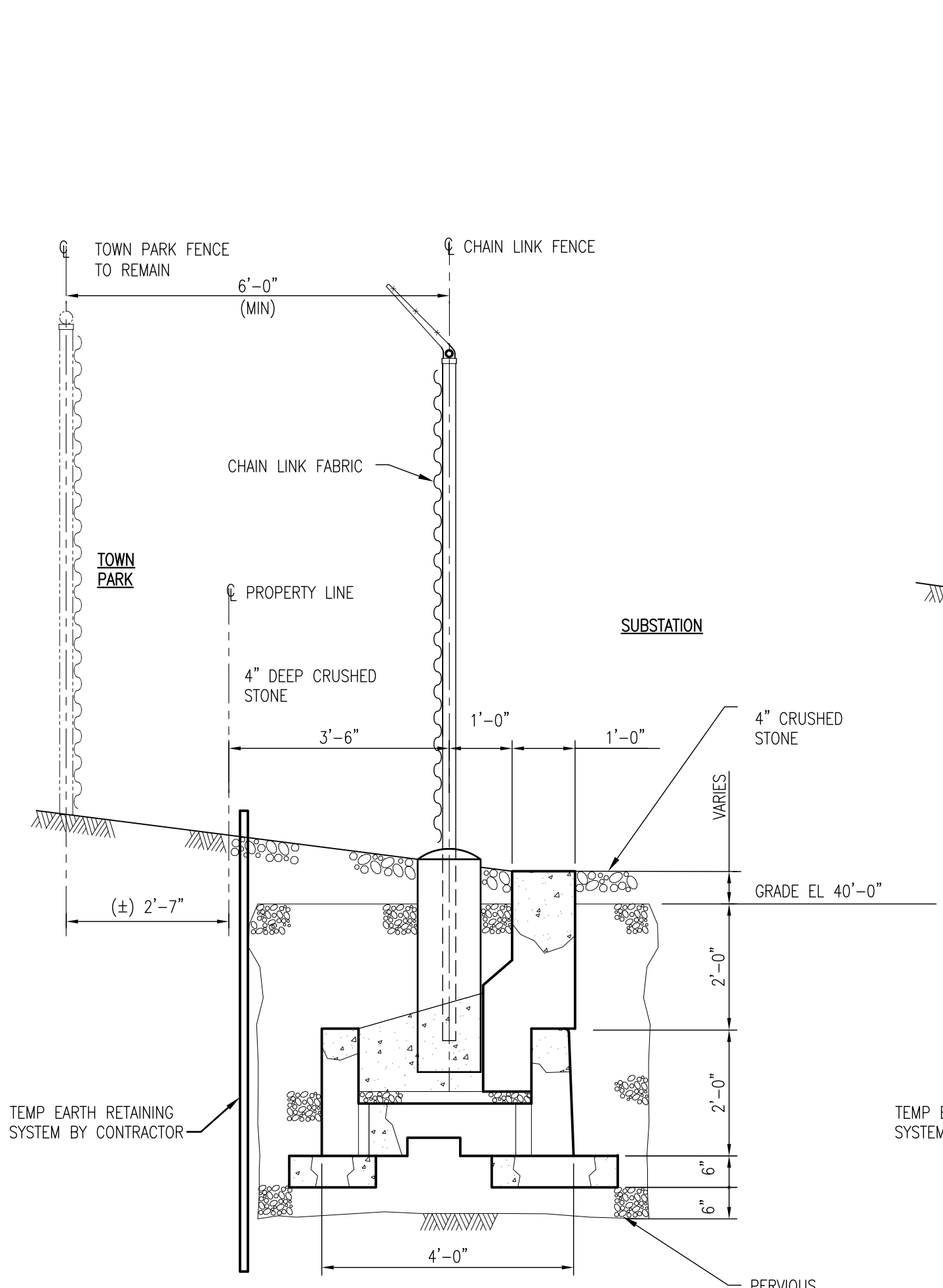
**GRAVEL SURFACING
CROSS SECTION**



CONCRETE CURB DETAILS

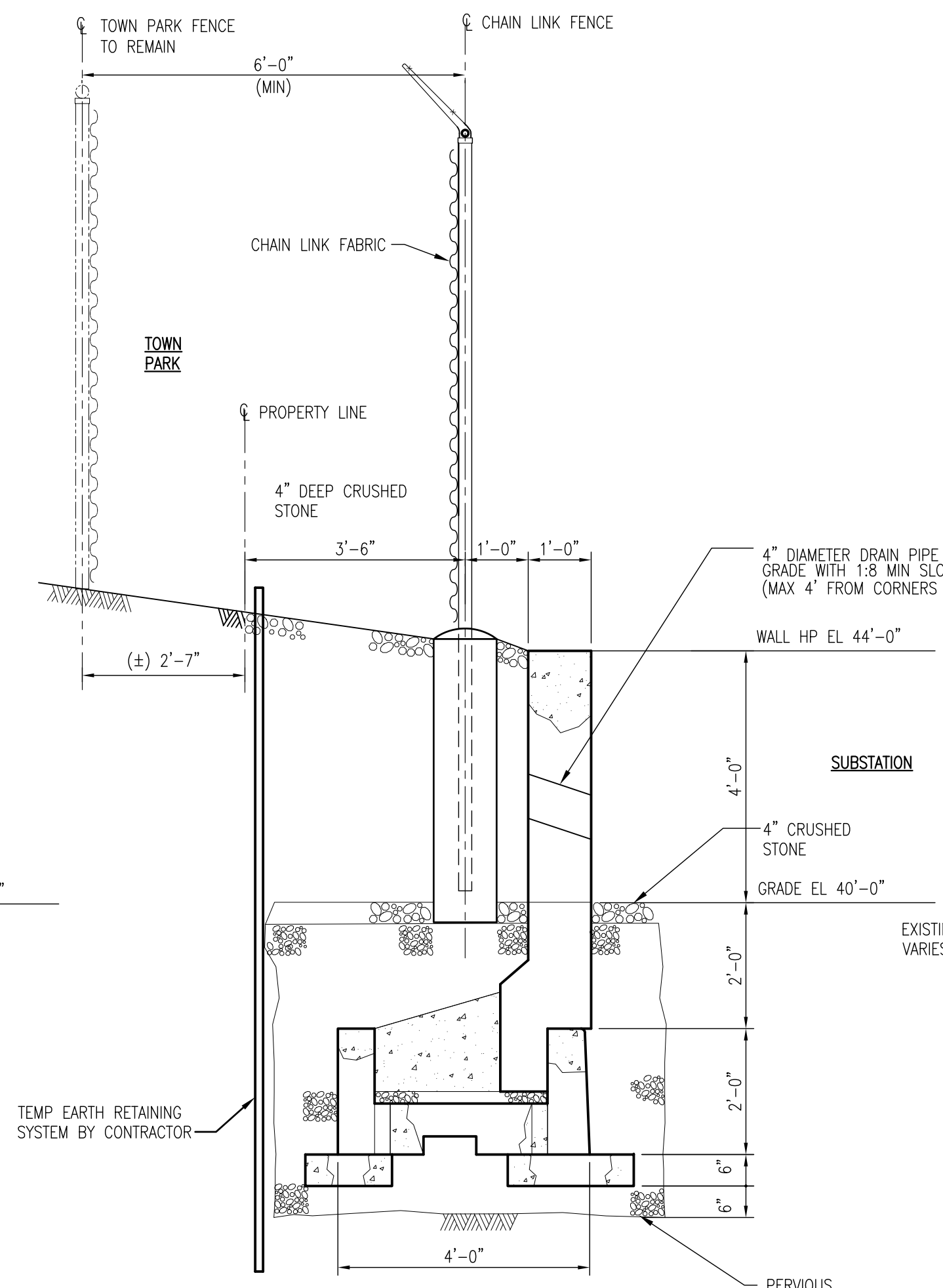
RETAINING WALL NOTES:

1. CONTRACTOR SHALL PROVIDE ENGINEERING AND DESIGN BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CONNECTICUT FOR THE REQUIRED RETAINING WALLS.
2. DESIGN SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.
3. CONTRACTOR SHALL PROVIDE ALL MATERIAL, EQUIPMENT AND LABOR TO PROCURE AND INSTALL WALLS.
4. RETAINING WALL SECTIONS ARE CONCEPTUAL BASED ON USING DOUBLEWAL INTERLOCKING PRECAST MODULAR WALL SYSTEM AS MANUFACTURED BY UNITED CONCRETE PRODUCTS, INC. IN YALESVILLE, CONNECTICUT.
5. CONTRACTOR MAY PROVIDE AN ALTERNATE PROVIDED IT IS REVIEWED AND APPROVED BY THE OWNER'S ENGINEER.



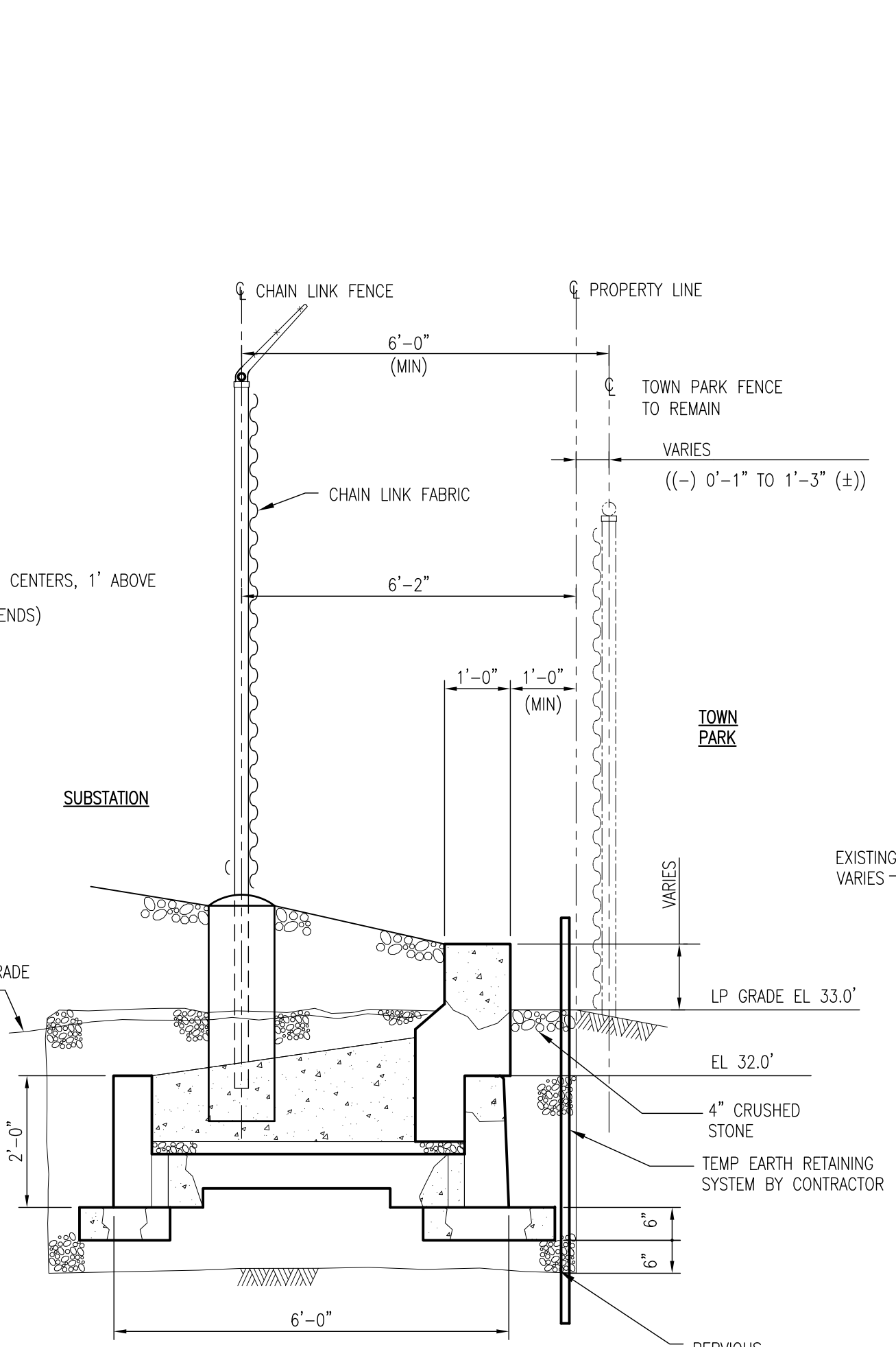
**LP WALL SECTION A-A
@ PROFILE B & C**

NTS



**HP WALL SECTION B-B
@ PROFILE B & C**

NTS

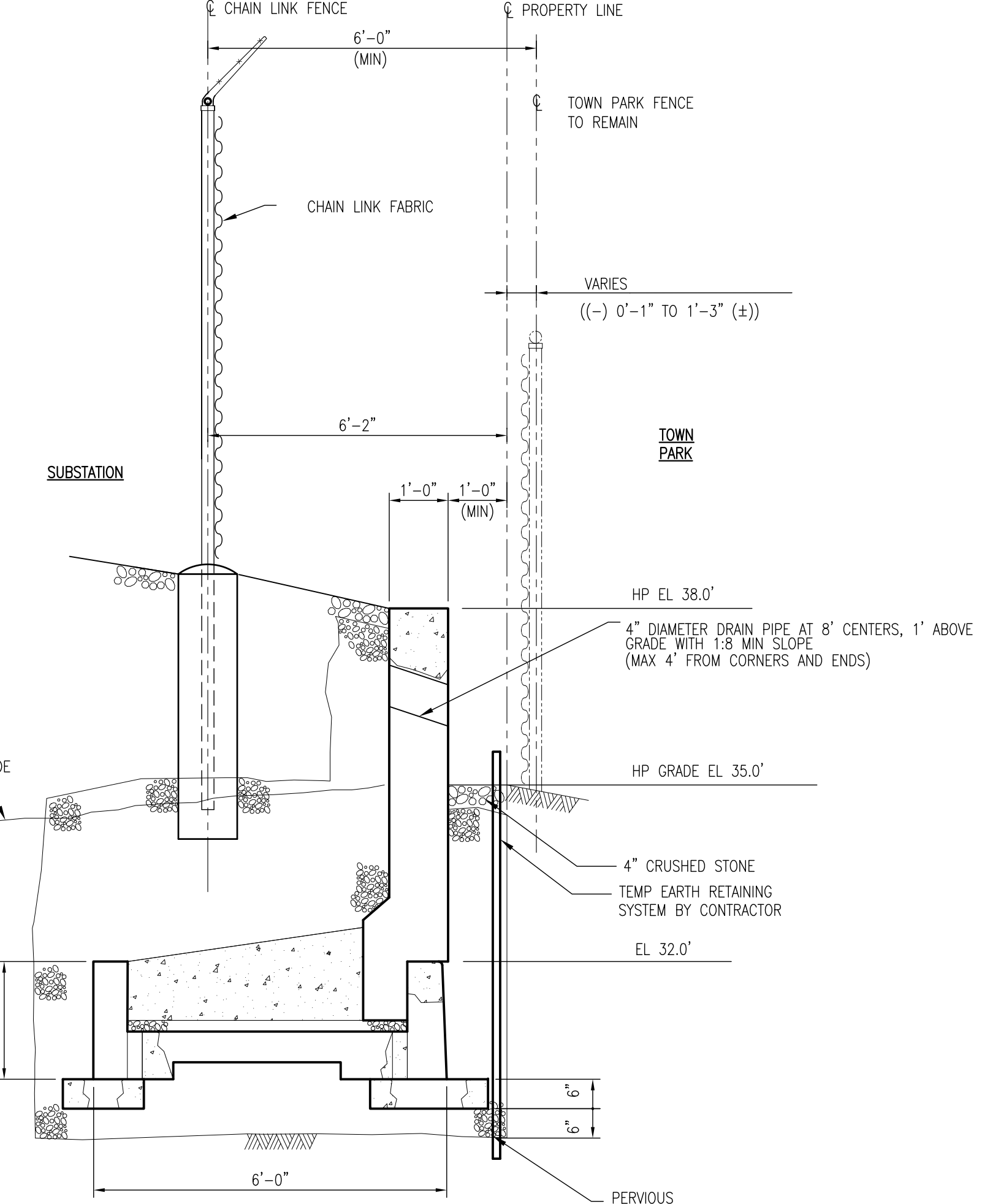


**LP WALL SECTION C-C
@ PROFILE F**

NTS

NOTES:

INSTALL NEW RETAINING WALL PRIOR TO FILLING TO FINAL GRADE



**HP WALL SECTION D-D
@ PROFILE F (B)**

NTS

NOTES:

INSTALL NEW RETAINING WALL PRIOR TO FILLING TO FINAL GRADE

D&M PLAN REVISED SUBMITTAL 04/05/2018

REVISIONS DURING CONSTRUCTION			
NO.	DATE	DESCRIPTION	BY

EVERSOURCE ENERGY

TITLE: **COS COB 11R
FENCE, RETAINING WALL AND TYPICAL SITE DETAILS
DETAILS AND SECTIONS
GREENWICH, CT**

BY: AMW (PE)	CHKD:	APP:	APP:
DATE:	DATE:	DATE:	DATE:
H-SCALE: AS NOTED	SIZE: D	FIELD BOOK & PAGES:	
V-SCALE: AS NOTED	V.S.:	R.E. DWG:	
R.E. PROJ. NUMBER:	DWG NO. 15706-10038 PG 2		