

**AUGUST 21, 2018  
(REVISED JUNE 8, 2021)**

**CEDAR LAKE DAM (#16603)  
COMMUNITY CONNECTIVITY GRANT  
PROJECT # 0170-3513  
DAM & ROADWAY IMPROVEMENTS**

**NORTH STREET  
WOLCOTT, CONNECTICUT**

**HRP PROJECT NO. WOL2026.CE**

**Prepared By:**



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**Prepared For:**

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**GENERAL NOTES**

- HORIZONTAL AND VERTICAL CONTROLS AND EXISTING CONDITIONS ARE BASED ON INFORMATION OBTAINED FROM "EXISTING CONDITIONS PLAN, NORTH STREET DAM" 1"=10' PREPARED BY MILONE AND MACBROOM, CHESHIRE, CT DATED MAY 2011 AND SUPPLEMENTED WITH FIELD SURVEY BY HRP ASSOCIATES, DATED JULY 2012. THE NORTH ARROW AND BEARINGS ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1983/1987 (NAD 83/87). THE ELEVATIONS ARE BASED UPON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD 29).
- ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES DISCOVERED DURING THE COURSE OF CONSTRUCTION SHALL BE PROMPTLY REPORTED TO THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING, PRIOR TO BIDDING, THE LOCATIONS OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR ALL DAMAGE TO SAID UTILITIES. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (1-800-922-4455), AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ACTIVITIES WITH INDIVIDUAL UTILITY COMPANIES.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT PROPER STORM DRAINAGE IS MAINTAINED THROUGHOUT CONSTRUCTION.
- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AS OUTLINED HEREIN. INSPECTION AND MAINTENANCE SHALL BE CARRIED OUT THROUGHOUT THE CONSTRUCTION PERIOD UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH VEGETATION OR PAVING. THE MINIMUM INSPECTION PERIOD SHALL BE WEEKLY AND AFTER MAJOR STORMS.
- CONSTRUCTION ACTIVITIES SHALL CONFORM TO APPLICABLE SECTIONS OF THE TOWN OF WOLCOTT STANDARDS AND APPLICABLE SECTIONS OF THE CONNECTICUT DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION," FORM 818, AS AMENDED.
- ALL CONSTRUCTION ACTIVITIES SHALL BE IN CONFORMANCE WITH THE DEEP DAM SAFETY PERMIT FOR THE PROJECT, PERMIT NO. DS-201810624, DATED APRIL 28, 2020, INCLUDING CHANGES TO THE AUTHORIZED WORK SPECIFIED IN THE DE MINIMIS DETERMINATION LETTER, DATED MARCH 1, 2021. THE PERMIT PROHIBITS CERTAIN STORAGE IN THE FLOODPLAIN INCLUDING EQUIPMENT FUEL STORAGE.
- CEDAR LAKE WATER LEVEL SHALL BE DROPPED PRIOR TO START OF CONSTRUCTION ACTIVITIES INVOLVING WORK ON THE EXISTING OUTLETS AND PROPOSED NEW OUTLETS INCLUDING THE BOX CULVERT AND 36 INCH PIPE. THE WATER LEVEL IN THE LAKE WILL BE THE RESPONSIBILITY OF THE TOWN AND THE LAKE ASSOCIATION. THE CONTRACTOR ONLY NEEDS TO COORDINATE THEIR SCHEDULE WITH THEM SO WATER LEVEL IS AT APPROPRIATE LEVEL.
- THE CONTRACTOR SHALL REVIEW THE FLOOD CONTINGENCY PLAN SUBMITTED WITH DAM PERMIT APPLICATION. IF ANY REVISIONS ARE ANTICIPATED OR ARE MADE, THE CONTRACTOR SHOULD IMMEDIATELY NOTIFY THE ENGINEER.

**CONSTRUCTION SEQUENCE AND WATER HANDLING PLAN**

CONTRACTOR NOTE: ANY REVISIONS TO THE SEQUENCE MADE BY THE CONTRACTOR CONSTRUCTING THE DAM REHABILITATION MUST BE SUBMITTED TO THE DAM SAFETY PROGRAM AT ITS EMAIL ADDRESS: DEEP.DAMSAFETY@CT.GOV BEFORE BEGINNING CONSTRUCTION OR WITHIN 48 HOURS OF ITS REVISION AFTER CONSTRUCTION HAS STARTED.

NOTIFY THE ENGINEERING DEPARTMENTS OF THE TOWNS OF WOLCOTT AND BRISTOL BY WRITING (INCLUDES EMAIL) WITHIN 10 DAYS OF STARTING WORK ON THE PROJECT. THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL WRITTEN NOTIFICATION WITHIN 10 DAYS OF LOWERING THE WATER LEVEL OF THE LAKE.

- CALL CBYD AT LEAST 3 DAYS PRIOR TO COMMENCEMENT OF WORK.
- MOBILIZE TO SITE.
- INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES, INCLUDING TURBIDITY CURTAIN. SEE SHEETS C3.1 AND C3.2.
- SEE SESC SHEETS FOR STOCKPILE STORAGE AREA. THE SITE HAS LIMITED ONSITE AREA AVAILABLE FOR STOCKPILING OF MATERIALS. THE CONTRACTOR SHALL COORDINATE WITH TOWN OF WOLCOTT FOR OFF SITE STOCKPILE STORAGE AREAS AVAILABLE FOR POSSIBLE USE.
- REMOVE RIPRAP IN SELECT AREAS ON EMBANKMENT AS PART OF SITE REMOVAL ACTIVITIES AS SHOWN ON C1.1 AND STOCKPILE FOR REUSE.
- INSTALL UNDERDRAINS WITH ENDWALLS IN EMBANKMENT AND BEGIN ROUGH GRADING OF EMBANKMENT AS SHOWN ON C2.1.
- INSTALL ARTICULATED CONCRETE CHUTE AND ASSOCIATED SCOUR HOLE.
- PERFORM REMAINDER OF SITE REMOVAL ACTIVITIES AS SHOWN ON C1.1.
- LOWER WATER LEVEL IN LAKE (AFTER PROPER NOTIFICATIONS HAVE BEEN MADE) TO ALLOW WORK ON DAM STRUCTURE TO BE PERFORMED. IT IS ANTICIPATED THAT WATER MAY NEED TO BE LOWERED TO APPROXIMATELY 885.0 FEET ELEVATION. COORDINATE WITH TOWN OF WOLCOTT THE CLOSING OF LOW LEVEL OUTLET AT GATE VALVE IN GATE HOUSE.
- INSTALL PRECAST CONCRETE BOX CULVERT. CARE SHALL BE TAKEN TO PREVENT EXCESSIVE DISTURBANCE OF THE EXISTING DAM AND EMBANKMENT TO REMAIN IN PLACE.
- INSTALL OUTLET PROTECTION FOR 12 INCH PIPE THEN INSTALL 12 INCH PIPE EXTENSION.
- INSTALL 36 INCH DIP PIPE ALONG WITH OUTLET PROTECTION.
- FINALIZE GRADES ON EMBANKMENT AND ALONG ROADWAY.
- INSTALL PERMANENT TRENCH REPAIR WITH PAVEMENT MARKINGS PER SHEET C1.2.
- INSTALL EROSION CONTROL MATTING ALONG WITH SEEDING.
- INSTALL NEW SIDEWALK, RAMPS, AND FENCE.
- RESTORE SITE PER SHEET C1.2.
- CONDUCT FINAL WALK THROUGH INSPECTION WITH TOWN AND ENGINEER.
- ONCE SITE IS STABILIZED, REMOVE SESC MEASURES.

**SPECIFICATIONS:** CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 818 (2020), SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 2021, AND SPECIAL PROVISIONS.

**DESIGN SPECIFICATIONS:** AASHTO LRFD SPECIFICATIONS FOR HIGHWAY BRIDGES, 7TH EDITION (2013) AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL (2003) EDITION WITH REVISIONS UP TO AND INCLUDING 2011.

**ALLOWABLE DESIGN STRESSES:**

CLASS "A" CONCRETE:	fc = 3,300 psi
CLASS "F" CONCRETE:	fc = 4,400 psi
CLASS "50" CONCRETE:	fc = 5,000 psi
REINFORCEMENT (ASTM 615 GRADE 60)	fy = 60,000 psi

**SALVAGE:** NONE

**DIMENSIONS AND ELEVATIONS:** WHEN DECIMAL DIMENSIONS AND ELEVATIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZERO. ALL ELEVATIONS ARE GIVEN IN DECIMAL FEET AND ARE BASED ON NAVD 88.

**EXISTING DIMENSIONS:** DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

**UTILITIES:** THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES LOCATED WITHIN THE VICINITY OF THE SITE DURING CONSTRUCTION. THE METHOD OF SUPPORTING AND PROTECTING UTILITIES SELECTED BY THE CONTRACTOR MUST BE APPROVED BY THE UTILITY COMPANY. UTILITY MODIFICATIONS SHALL BE MADE BY THE RESPECTIVE UTILITY COMPANIES EXCEPT WHERE NOTED OTHERWISE.

**CONCRETE NOTES**

**CLASS "A" CONCRETE:** CLASS "A" CONCRETE SHALL BE USED FOR THE CUT-OFF WALLS, RETURN WALLS, HEADWALLS, ENDWALLS AND WINGWALL FOOTINGS.

**CLASS "F" CONCRETE:** CLASS "F" CONCRETE SHALL BE USED FOR THE SLAB ABOVE 36 INCH PIPE, ARTICULATED CONCRETE MAT, AND SIDEWALK.

**5,000 PSI TYPE III SCC CONCRETE:** 5,000 PSI TYPE III SCC CONCRETE SHALL BE USED FOR THE PRECAST CONCRETE BOX CULVERT.

**REINFORCEMENT:** ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60.

**EXPOSED EDGES:** EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" X 1", UNLESS DIMENSIONED OTHERWISE.

**EPOXY COATED REINFORCEMENT BARS:** ALL REINFORCEMENT IN THE PRECAST CONCRETE BOX CULVERT SHALL BE EPOXY COATED AND INCLUDED IN THE PAY ITEM "PRECAST CONCRETE BOX CULVERT". ALL REINFORCEMENT IN THE CUT-OFF WALLS, AND RETURN WALLS SHALL BE PAID FOR IN THE PAY ITEM "DEFORMED STEEL BARS". ALL REINFORCEMENT IN THE HEADWALLS SHALL BE EPOXY COATED AND PAID FOR UNDER THE ITEM "DEFORMED STEEL BARS (EPOXY COATED)".

**CONCRETE COVER:** ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.

**PREFORMED EXPANSION JOINT FILLER:** THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLERS SHALL BE INCLUDED IN THE ITEM "CLASS 'A' CONCRETE".

**AGGREGATES - CONFORM TO DOT FORM 818 M.08.03-AGGREGATES**

- BEDDING MATERIAL:** MATERIAL FOR PIPE BEDDING SHALL BE SAND OR SANDY SOIL, ALL OF WHICH PASSES A 3/8-IN SIEVE, AND NOT MORE THAN 10% PASSES A NO. 200 SIEVE. WHEN GROUND WATER IS ENCOUNTERED, THE ENGINEER MAY ALLOW NO. 6 STONE CONFORMING TO ARTICLE M.01.01 TO BE USED INSTEAD OF SAND OR SANDY SOIL.
- AGGREGATES FOR UNDERDRAINS:** MATERIALS FOR FILLING THE TRENCH SHALL CONSIST OF WELL-GRADED, CLEAN, NON-PLASTIC ANDS OR WELL-GRADED, CLEAN, DURABLE BROKEN STONE OR SCREENED GRAVEL. UNLESS OTHERWISE NOTED, THE TYPE OF MATERIAL TO BE USED SHALL BE SAND.

**SAND:** THIS MATERIAL SHALL MEET THE REQUIREMENTS OF SUBARTICLE M.03.01-2. BROKEN STONE OR SCREENED GRAVEL: THIS MATERIAL SHALL CONFORM TO THE GRADATION REQUIREMENTS FOR SIZE NO. 8 UNDER ARTICLE M.01.01.

**DRAINAGE**

**POLYVINYL CHLORIDE PLASTIC PIPE (PVC PIPE):** IT SHALL CONFORM TO THE REQUIREMENTS OF ASTM D 1785. COUPLINGS AND ELBOWS SHALL CONFORM TO THE REQUIREMENTS OF ASTM D 2466 OR D 2467. PERFORATED PIPE SHALL BE SCHEDULE 40 STANDARD PATTERN AND CONFORM TO THE REQUIREMENTS OF ASTM D 2729.

**ENDWALLS**

THEY SHALL BE BUILT IN THE LOCATION AND TO THE DIMENSIONS AND DETAILS SHOWN ON THE PLANS, OR AS ORDERED, AND THEY SHALL BE NEATLY AND ACCURATELY FINISHED. TRUE TO THE LINES AND GRADES GIVEN, PIPES SHALL BE OF SUFFICIENT LENGTH TO EXTEND TO THE EXPOSED FACE OF THE ENDWALL, AND THE END SHALL BE FINISHED TO PROVIDE NEAT, WATERTIGHT JOINTS. THE ENDS OF PIPE CULVERTS WHICH ENTER ENDWALLS ON A SKEW SHALL BE CUT TO THE ANGLE OF THE SKEW; OR THE SHORT SIDE OF THE PIPE MAY BE BUILT OUT WITH ADEQUATE FORMS, IF THIS METHOD IS APPROVED BY THE ENGINEER.

**SPECIFICATIONS**

**FILL MATERIALS**

ALL OFF-SITE MATERIAL BROUGHT TO THE SITE SHALL BE FREE OF CONTAMINANTS. THE CONTRACTOR SHALL IDENTIFY THE SOURCE OF THE MATERIAL AND PROVIDE RESULTS OF ENVIRONMENTAL TESTING PERFORMED ON COMMON FILL AND LOW PERMEABILITY FILL.

RECYCLED AGGREGATE PRODUCT (RAP) CONTAINING ASPHALT SHALL NOT BE USED AS FILL MATERIAL, NOR SHALL ANY FILL CONTAIN CONCRETE OR FORMER BUILDING MATERIALS.

**1. COMMON FILL MATERIAL**

COMMON FILL FROM ON-SITE SOURCES USED AS BACKFILL OF EXCAVATIONS/ROOT BALL VOIDS AND TO REGRADE WORK AREAS AS APPLICABLE SHALL CONSIST OF MATERIAL PREVIOUSLY EXCAVATED BY THE CONTRACTOR FROM THE PROJECT SITE. EXCAVATED MATERIAL WILL BE EXAMINED BY THE ENGINEER TO JUDGE ITS SUITABILITY FOR RE-USE ON THE PROJECT SITE AS BACKFILL MATERIAL. EXCAVATED MATERIAL SHALL BE JUDGED SUITABLE IF IT GENERALLY MEETS THE STANDARDS FOR COMMON FILL, BEING A NON-FRIABLE, NON-SOLUBLE, WELL GRADED SOIL, FREE OF RUBBISH, ICE, SNOW, TREE STUMPS, ROOTS AND ORGANIC MATTER, WITH NO LESS THAN FIFTEEN PERCENT (15%) AND NO MORE THAN THIRTY PERCENT (30%) PASSING THE NO. 200 SIEVE. THERE SHALL BE NO STONES GREATER THAN 3 INCHES IN SIZE. THERE SHALL ALSO BE NO OBSERVABLE INDICATIONS OF CONTAMINATION.

THE ENGINEER SHALL BE THE SOLE JUDGE OF THE SUITABILITY OF EXCAVATED MATERIAL FOR USE AS ON-SITE BACKFILL. PEAT OR OTHER ORGANICS ARE NOT ACCEPTABLE FOR COMMON FILL. EXCAVATED BOULDERS OR BEDROCK ARE NOT ACCEPTABLE FOR USE OF COMMON FILL. THE CONTRACTOR MAY, AT HIS OWN EXPENSE, CHOOSE TO MODIFY THE EXCAVATED MATERIAL (BY SCREENING, MIXING, ETC.) TO ATTEMPT TO MAKE THE MATERIAL MORE SUITABLE FOR RE-USE. MIXING OF PEAT WITH OTHER MATERIAL WILL NOT BE PERMITTED TO PRODUCE COMMON FILL MATERIAL. SOME ADDITIONAL HANDLING OF SUITABLE MATERIAL (DRYING, MIXING, CULLING OF OVERSIZED STONES) MAY BE NECESSARY AND SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.

MATERIAL JUDGED TO BE UNSUITABLE OR EXTRA MATERIAL SHALL BE SEPARATED FROM THE REST. MATERIAL UNSUITABLE FOR USE IN THE PRIMARY WORK AREAS MAY BE USED ELSEWHERE ON SITE IN LESS CRITICAL AREAS, AT THE JUDGMENT OF THE ENGINEER OR MAY BE REMOVED FROM THE SITE BY THE CONTRACTOR.

SIEVE SIZE	PERCENT PASSING BY WEIGHT
3-INCH	100
NO. 10	70 - 95
NO. 40	40 - 65
NO. 200	15 - 30

**2. LOW PERMEABILITY FILL**

LOW PERMEABILITY FILL SHALL BE A WELL GRADED MATERIAL, FREE OF RUBBISH, ICE, SNOW, TREE STUMPS, ROOTS, ORGANIC MATERIAL, OR OTHER DELETERIOUS MATERIALS. THERE SHALL BE NO STONES GREATER THAN THREE INCHES IN DIAMETER. MATERIALS SHALL HAVE A PERMEABILITY OF NO MORE THAN 1x10-5 CENTIMETERS PER SECOND AT 95% OF THE STANDARD PROCTOR DENSITY, AS DETERMINED BY A COMPACTED PERMEABILITY TEST (ASTM D5084). MATERIAL SHALL BE PLACED WITHIN ±2% OF ITS OPTIMUM MOISTURE CONTENT.

SIEVE SIZE	PERCENT PASSING BY WEIGHT
3-INCH	100
NO. 10	30 - 90
NO. 40	10 - 70
NO. 200	20 - 40

**3. GRANULAR FILL - CONFORM TO DOT FORM 818 SECTION 2.13**

IT SHALL CONSIST OF GRAVEL OR RECLAIMED MISCELLANEOUS AGGREGATE CONTAINING NO MORE THAN 2% BY WEIGHT (MASS) OF ASPHALT CEMENT CONFORMING TO THE REQUIREMENTS OF THESE SPECIFICATIONS GRANULAR FILL SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE M.02.01 WHEN GRANULAR FILL IS USED FOR FOUNDATION FOR STRUCTURES OR TO REPLACE ROCK OR UNSUITABLE MATERIAL IN TRENCHES, IT SHALL BE DEPOSITED IN LAYERS NOT OVER 6 INCHES IN DEPTH, WITH EACH LAYER THOROUGHLY COMPACTED BEFORE THE ADDITION OF OTHER LAYERS.

**RIPRAP SHALL BE CONSTRUCTED ACCORDING TO FORM 818 SECTION 7.03** CONSTRUCTION METHODS: THE AREA TO BE PROTECTED BY RIPRAP SHALL BE ACCURATELY SHAPED PRIOR TO PLACING OF ANY BEDDING MATERIAL OR RIPRAP. WHERE BEDDING MATERIAL IS CALLED FOR, IT SHALL BE PLACED ON THE PREPARED AREA AND COMPACTED TO THE DEPTH, LINES AND GRADES INDICATED ON THE PLANS. THE RIPRAP SHALL BE PLACED TO ITS FULL COURSE THICKNESS IN ONE OPERATION IN SUCH A MANNER AS TO PRODUCE A REASONABLY WELL-GRADED MASS OF ROCK WITHOUT CAUSING DISPLACEMENT OF THE UNDERLYING MATERIAL. THE FINISHED SURFACE SHALL BE FREE FROM POCKETS OF SMALL STONES AND CLUSTERS OF LARGER STONES. PLACING THIS MATERIAL BY METHODS LIKELY TO CAUSE SEGREGATION OF THE VARIOUS SIZES OF STONE WILL NOT BE PERMITTED. REARRANGING OF INDIVIDUAL STONES BY MECHANICAL OR HAND METHODS WILL BE REQUIRED TO THE EXTENT NECESSARY TO OBTAIN A REASONABLY WELL-GRADED DISTRIBUTION OF THE SPECIFIED STONE SIZES. THE COMPLETED COURSE SHALL BE OF THE SPECIFIED THICKNESS AND TO THE LINES AND GRADES AS SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER.

RIPRAP SHALL BE CONFORM TO CT DOT FORM 818 SECTION M.12.02-RIPRAP: MATERIALS FOR THIS ITEM SHALL CONSIST OF SOUND, TOUGH, DURABLE AND ANGULAR ROCK, FREE FROM DECOMPOSED STONES OR OTHER DEFECTS IMPAIRING ITS DURABILITY. THE SIZE OF A STONE AS HEREINAFTER SPECIFIED SHALL BE ITS LEAST DIMENSION. BROKEN CONCRETE OR ROUNDED STONES ARE NOT ACCEPTABLE. THE TYPE OF MATERIAL TO BE USED SHALL BE AS NOTED ON THE PLANS, IN THE SPECIAL PROVISIONS OR AS MAY BE ORDERED BY THE ENGINEER.

- STANDARD RIPRAP: THIS MATERIAL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
  - NOT MORE THAN 15% OF THE RIPRAP SHALL BE SCATTERED SPALLS AND STONES LESS THAN 6 INCHES IN SIZE.
  - NO STONE SHALL BE LARGER THAN 30 INCHES IN SIZE, AND AT LEAST 75% OF THE WEIGHT (MASS) SHALL BE STONES AT LEAST 15 INCHES IN SIZE.
- INTERMEDIATE RIPRAP: THIS MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION:

STONE SIZE	% OF THE WEIGHT (MASS)
18 IN. (460 MM OR OVER)	0
10 IN. TO 18 IN. (255 MM TO 460 MM)	30 - 50
6 IN. TO 10 IN. (150 MM TO 255 MM)	30 - 50
4 IN. TO 6 IN. (100 MM to 150 MM)	20 - 30
2 IN. TO 4 IN. (50 MM to 100 MM)	10 - 20
LESS THAN 2 IN. (LESS THAN 50 MM)	0 - 10

**3. MODIFIED RIPRAP: THIS MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION:**

STONE SIZE	% OF THE WEIGHT (MASS)
18 IN. (460 MM OR OVER)	0
10 IN. TO 18 IN. (255 MM TO 460 MM)	20 - 50
6 IN. TO 10 IN. (150 MM TO 255 MM)	30 - 60
4 IN. TO 6 IN. (100 MM to 150 MM)	30 - 40
2 IN. TO 4 IN. (50 MM to 100 MM)	10 - 20
LESS THAN 2 IN. (LESS THAN 50 MM)	0 - 10

**ARTICULATED CONCRETE BLOCK (ACB) CHUTE**

ALL ACB MATS SHALL BE PREFABRICATED AS AN ASSEMBLY OF CONCRETE BLOCKS HAVING SPECIFIC HYDRAULIC CAPACITIES, AND LACED WITH REVETMENT CABLES. THE ACB SYSTEM MAY ALSO BE ASSEMBLED ON-SITE BY HAND-PLACING THE INDIVIDUAL UNITS EITHER WITH OR WITHOUT SUBSEQUENT INSERTION OF CABLES. INDIVIDUAL UNITS IN THE SYSTEM SHALL BE STAGGERED AND INTERLOCKED FOR ENHANCED STABILITY. THE MATS SHALL BE CONSTRUCTED OF AS SHOWN ON THE CONTRACT DRAWINGS.

CASTING: THE ACB UNITS SHALL BE PRODUCED USING A DRY CAST METHOD. DRY CAST UNITS OBTAIN STRENGTH MORE QUICKLY THAN WET CAST BLOCKS, AND WILL ALSO ACHIEVE A GREATER UNIFORMITY OF QUALITY AND GREATER DURABILITY.

PHYSICAL REQUIREMENTS: AT THE TIME OF DELIVERY TO THE WORK SITE, THE ACB UNITS SHALL CONFORM TO THE PHYSICAL REQUIREMENTS PRESCRIBED IN TABLE LISTED BELOW.

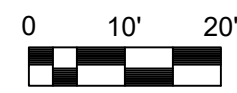
COMPRESSIVE STRENGTH NET AREA MIN. psi		WATER ABSORPTION MAX. lb/ft <sup>3</sup>	
AVG. OF 3 UNITS	INDIVIDUAL UNIT	AVG. OF 3 UNITS	INDIVIDUAL UNIT
4,000	3,500	9.1	11.7

ARTICULATING CONCRETE BLOCKS (ACB'S) SHALL BE ARMORFLEX BLOCK AND A HALF AS MANUFACTURED AND SOLD BY:

ARMORTEC, A CONTECH COMPANY  
9025 CENTRE POINTE DR., SUITE 400, WEST CHESTER, OH 45269  
PHONE: 1-800-645-7000, FAX: 1-513-645-7993

THE SELECTED ARMORFLEX BLOCKS (OR APPROVED EQUAL) SHALL HAVE THE FOLLOWING NOMINAL CHARACTERISTICS:

CLASS	TYPE	MIN. WEIGHT (LBS)	BLOCK SIZE			OPEN AREA %
			LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	
85 BAAH	CLOSED	135	17.4	15.5	8.5	10



DESIGNED: JAS/VEJ/D	SCALE: NO SCALE	DATE: 12/18/2020	DESCRIPTION: REVISED PER TOWN COMMENTS	NO.	
				1	2
ISSUE DATE: 06/14/2019	NO. 1	12/18/2020	DESCRIPTION: REVISED PER TOWN COMMENTS	NO. 2	06/08/2021
PROJECT NUMBER: WOL2026CE	NO. 3			NO. 4	
DRAWN: JAS/VEJ/D	NO. 5			NO. 6	
REVIEWED: DML	NO. 7			NO. 8	
SHEET NUMBER: WOL2026CE	NO. 9			NO. 10	
APPROVED: TRB	NO. 11			NO. 12	
SHEET SIZE: 24"x36"	NO. 13			NO. 14	

**CEDAR LAKE DAM (#16603)**  
**DAM & ROADWAY IMPROVEMENTS**  
**TOWN OF WOLCOTT**  
**10 KENEA AVENUE**  
**WOLCOTT, CONNECTICUT**

**GENERAL NOTES**

SHEET NO.

**GN-1**

SHEET 02 OF 12

DRAWING NAME: J:\WORK\CT - TOWN OF WOLCOTT\VECTOR LAYOUT\GN1.GENL.NOTE.DWG; USER: JAS; DATE: 12/18/2020 10:58:32 AM; PLOT DATE: 12/18/2020 10:58:32 AM; PLOT BY: JAS

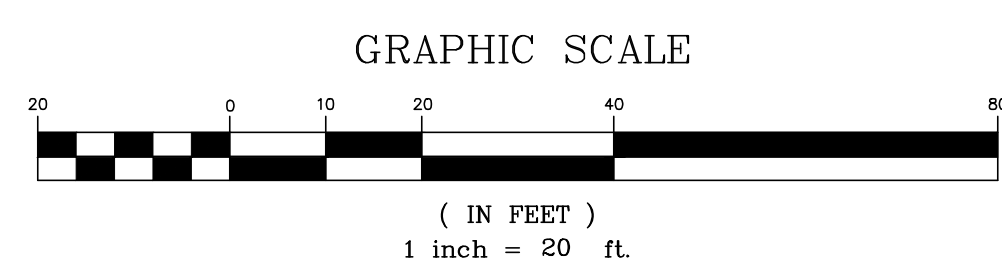
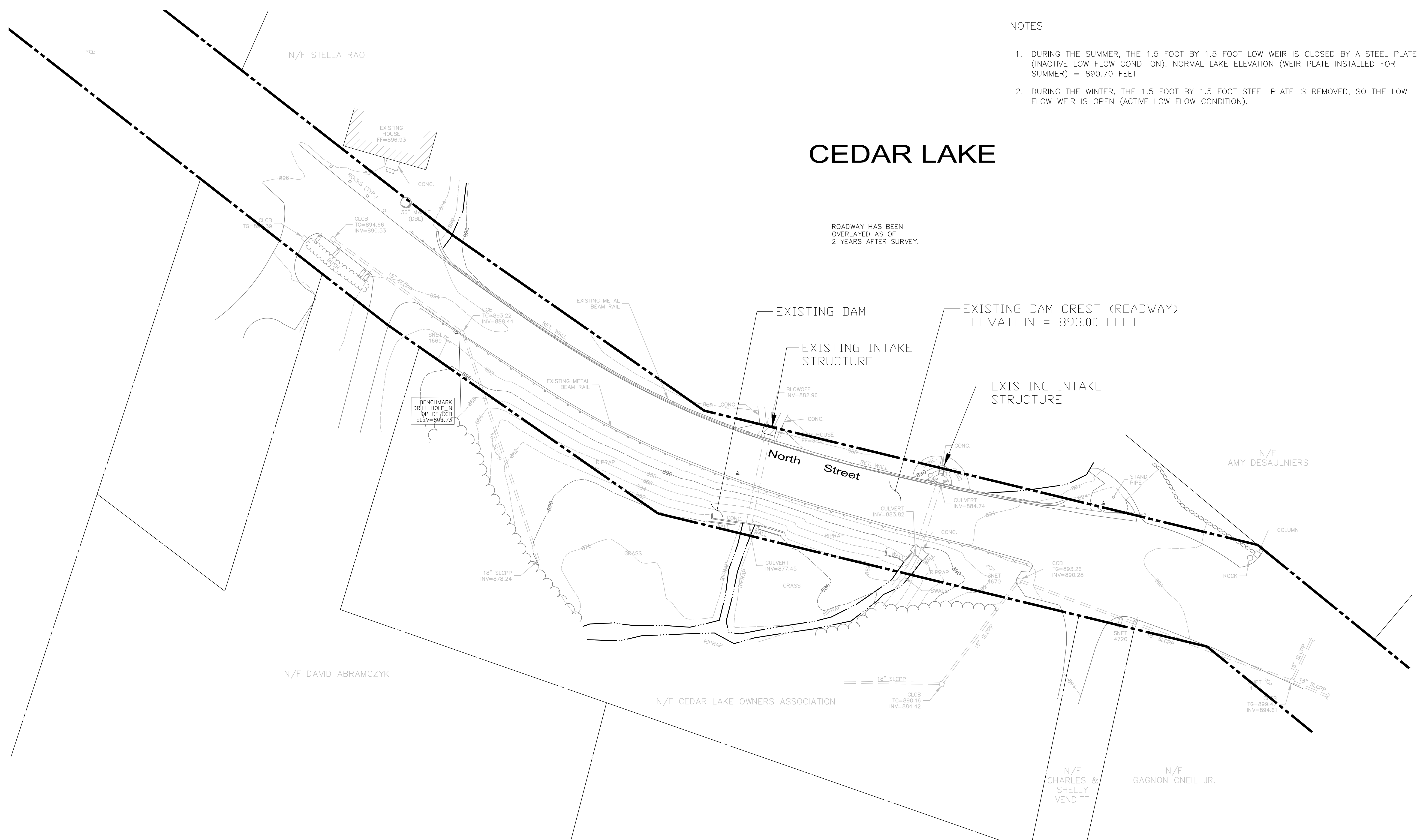
NOTES

1. DURING THE SUMMER, THE 1.5 FOOT BY 1.5 FOOT LOW WEIR IS CLOSED BY A STEEL PLATE (INACTIVE LOW FLOW CONDITION). NORMAL LAKE ELEVATION (WEIR PLATE INSTALLED FOR SUMMER) = 890.70 FEET
2. DURING THE WINTER, THE 1.5 FOOT BY 1.5 FOOT STEEL PLATE IS REMOVED, SO THE LOW FLOW WEIR IS OPEN (ACTIVE LOW FLOW CONDITION).



# CEDAR LAKE

ROADWAY HAS BEEN OVERLAYED AS OF 2 YEARS AFTER SURVEY.



REVISIONS		
NO.	DATE	DESCRIPTION

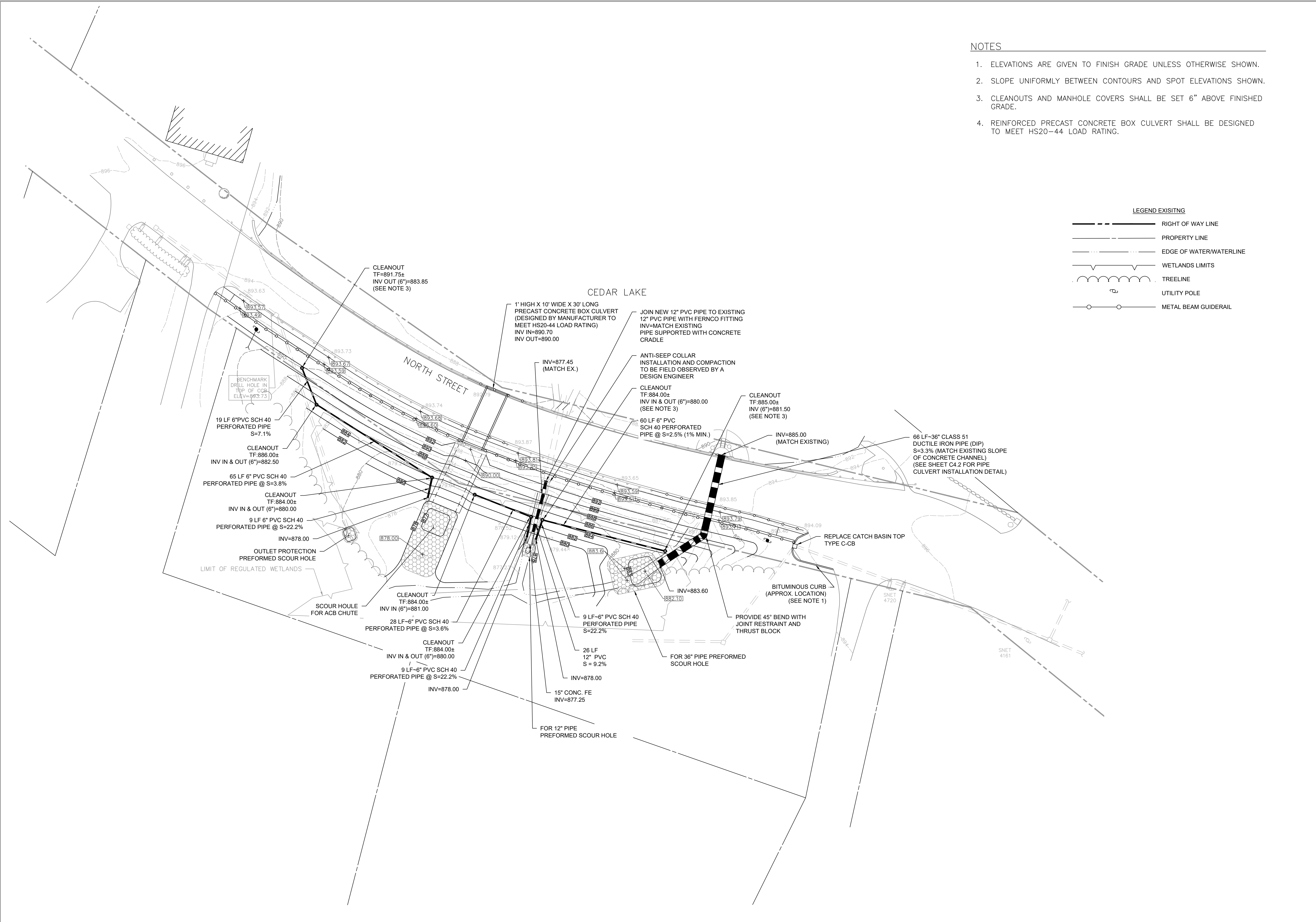
EXISTING CONDITIONS SURVEY			
NORTH STREET AT CEDAR LAKE DAM WOLCOTT, CONNECTICUT			
<b>HRP Associates, Inc.</b> <small>Environmental Civil Engineering &amp; Hydrogeology</small> <i>Creating the Right Solutions Together</i> Connecticut, New York, Pennsylvania, South Carolina 197 Scott Swamp Road Farmington, Connecticut 06032 Ph: (860)674-9570 Fax: (860)674-9824 www.hrpassociates.com	FMS/DFH SURVEYED	FMS APPROVED	1" = 20' SCALE
	FMS DRAWN	DATE	JULY 13, 2012
FMS CHECKED	PROJECT NO.	WOL2008.CE	1 of 1 SHEET NO.



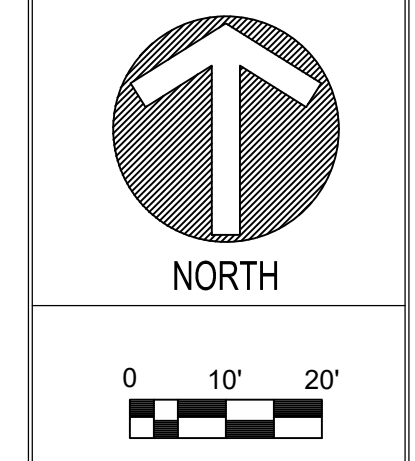
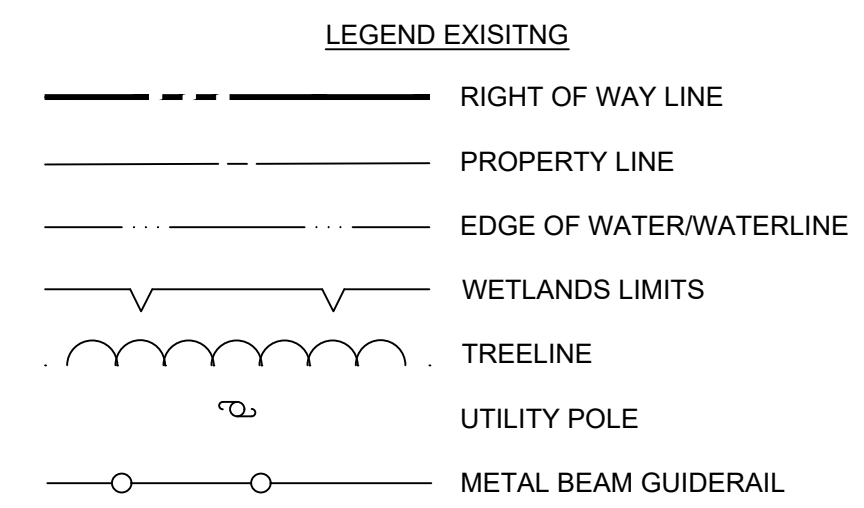




P:\WORKSPACE\11\WOLCOTT\TOWN OF WOLCOTT\CEAR LAKE DAM\DWG\2024\01\CEAR LAKE DAM\ROADWAY IMPROVEMENTS\PLAN\12024\12024-01-12\12024-01-12.dwg LAYOUT: C:\PROGRAMS\AUTOCAD\2024\2024.LSP PLOT DATE: June 2024 10:50am OPERATOR: JER



- NOTES**
- ELEVATIONS ARE GIVEN TO FINISH GRADE UNLESS OTHERWISE SHOWN.
  - SLOPE UNIFORMLY BETWEEN CONTOURS AND SPOT ELEVATIONS SHOWN.
  - CLEANOUTS AND MANHOLE COVERS SHALL BE SET 6" ABOVE FINISHED GRADE.
  - REINFORCED PRECAST CONCRETE BOX CULVERT SHALL BE DESIGNED TO MEET HS20-44 LOAD RATING.



**REVISIONS**

NO.	DATE	DESCRIPTION
1	12/08/2020	REVISED PER TOWN COMMENTS

DESIGNED:	JAS/EJD	SCALE:	1" = 20'
DRAWN:	JAS/EJD	ISSUE DATE:	08/21/2018
REVIEWED:	DWL	PROJECT NUMBER:	WOL2026 CE
APPROVED:	TRB	SHEET SIZE:	24" X 36"

**CEAR LAKE DAM (#16603)**  
**DAM & ROADWAY IMPROVEMENTS**  
 TOWN OF WOLCOTT  
 10 KENEA AVENUE  
 WOLCOTT, CONNECTICUT

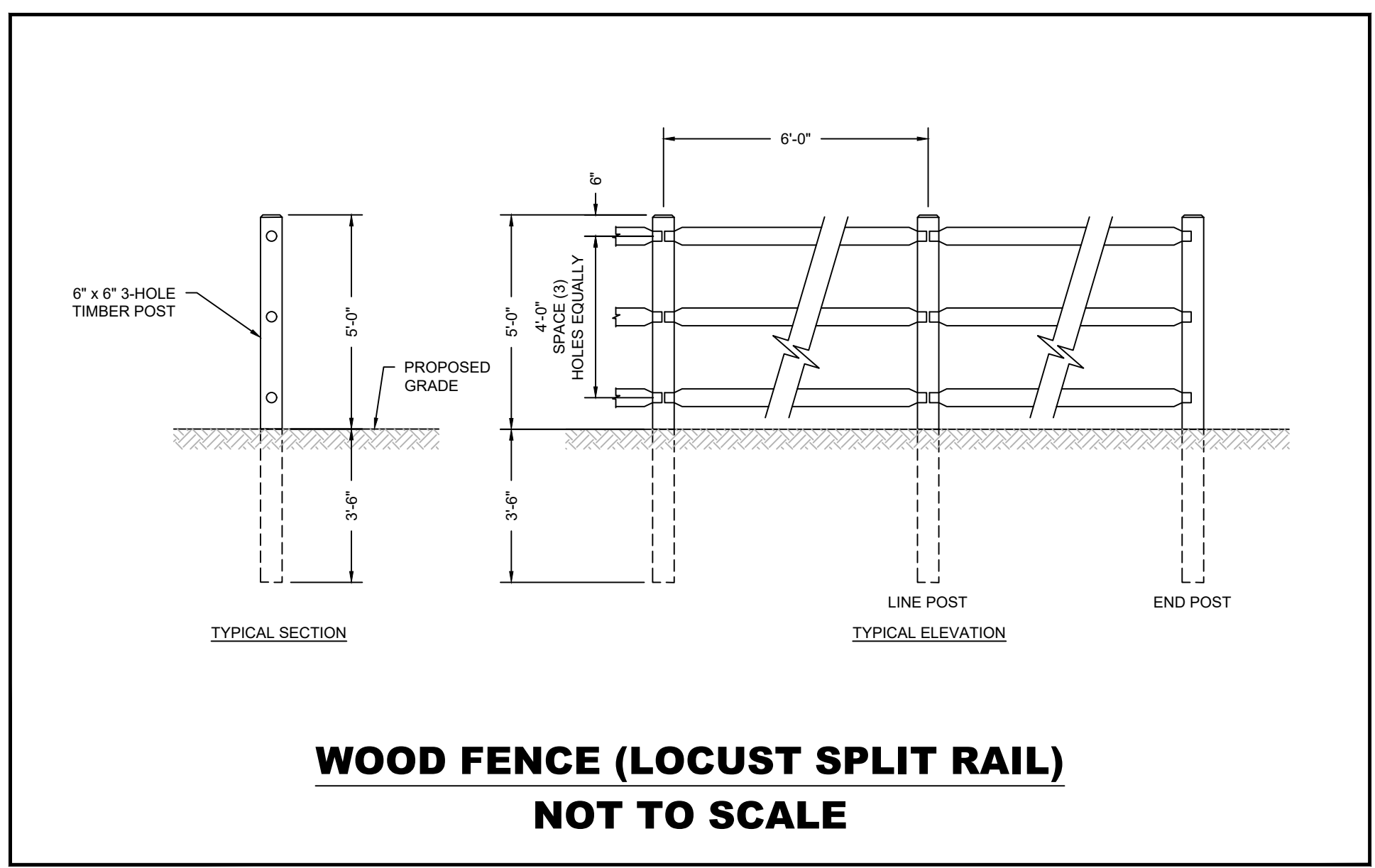
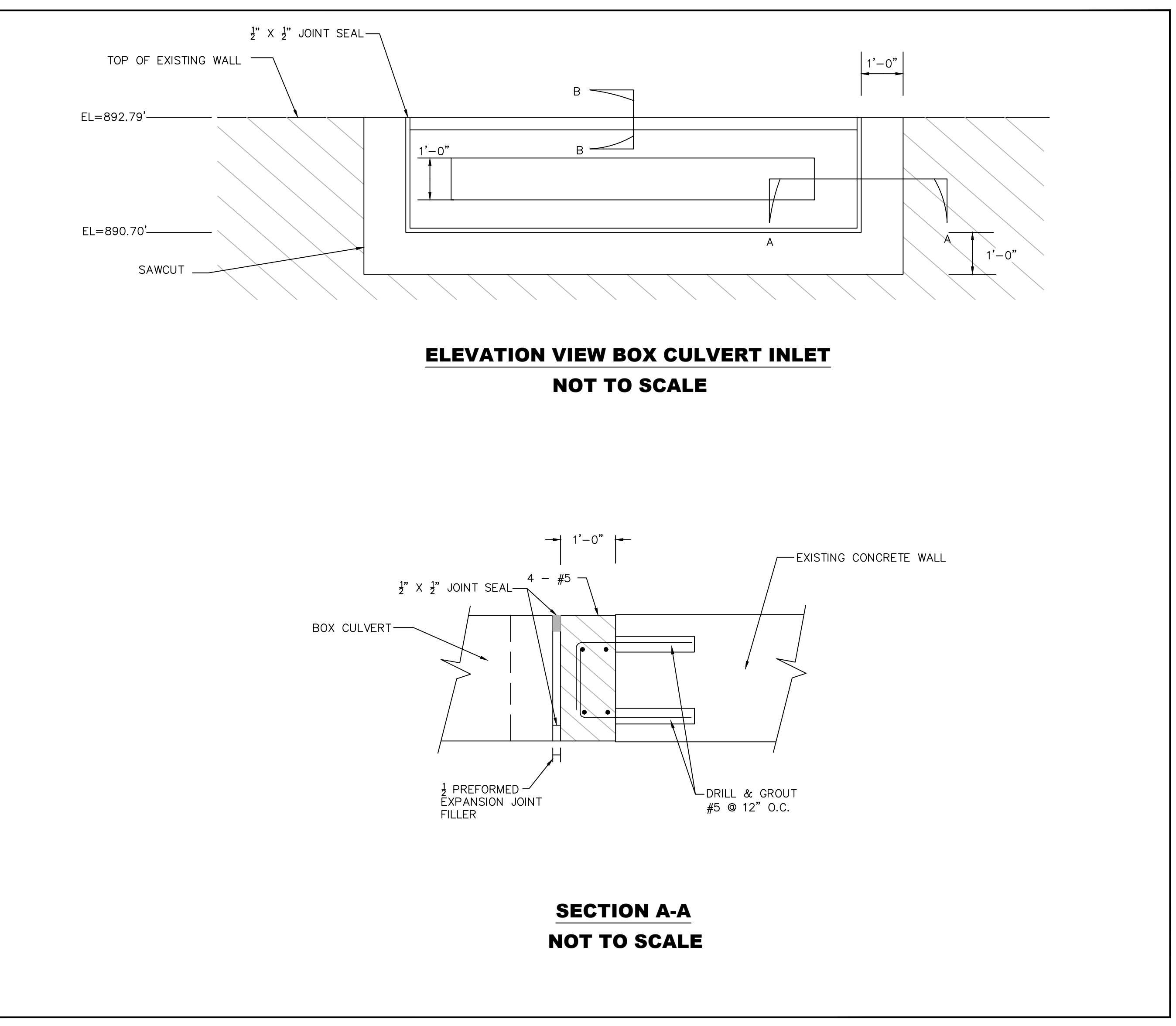
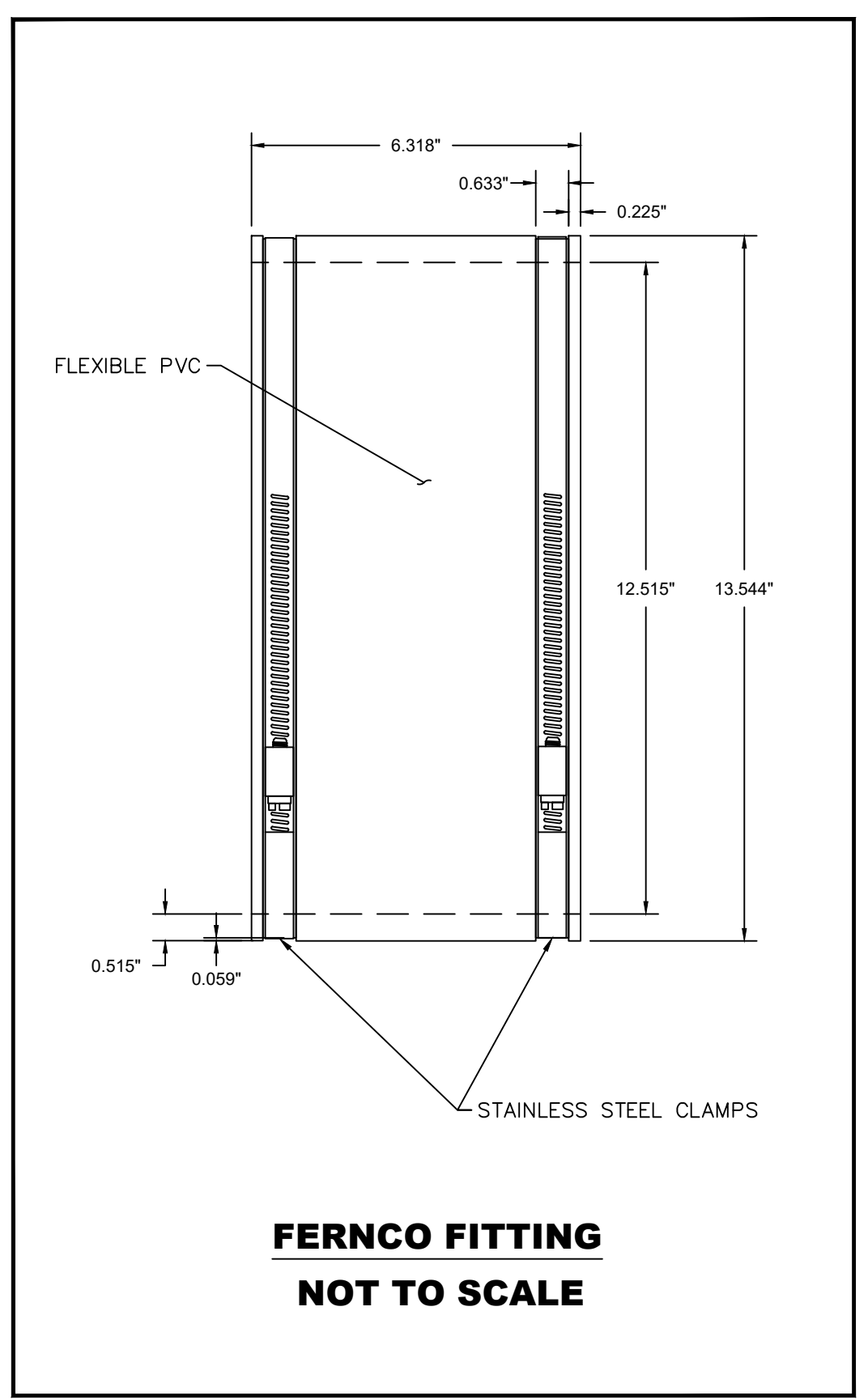
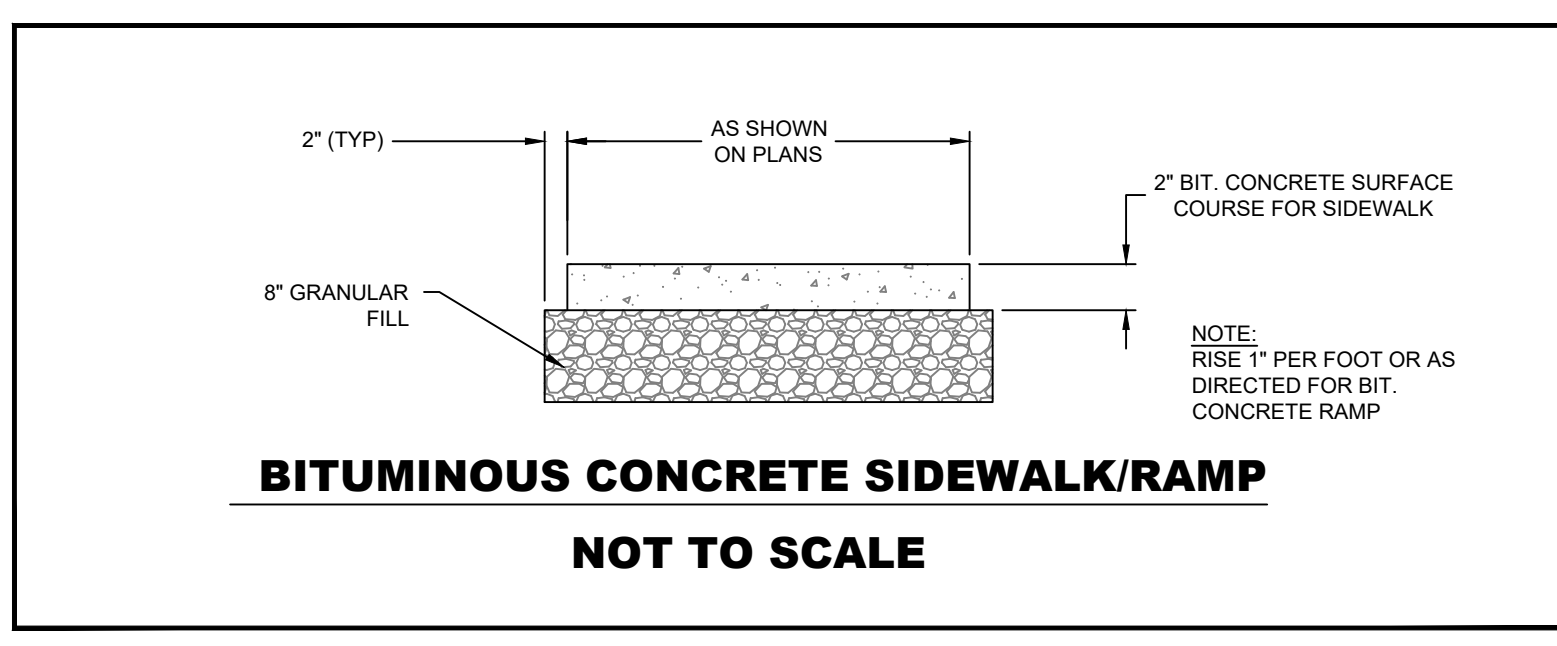
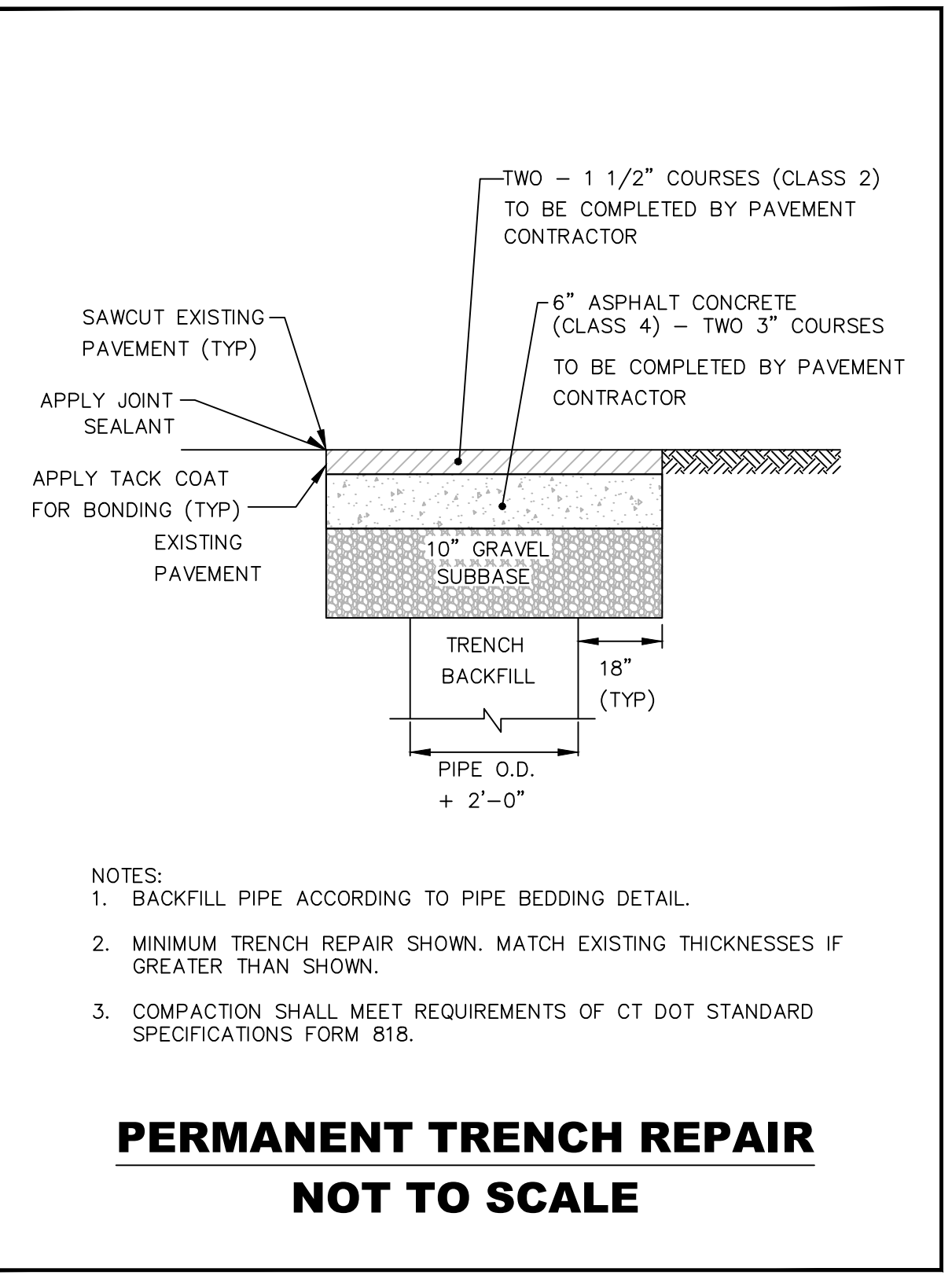
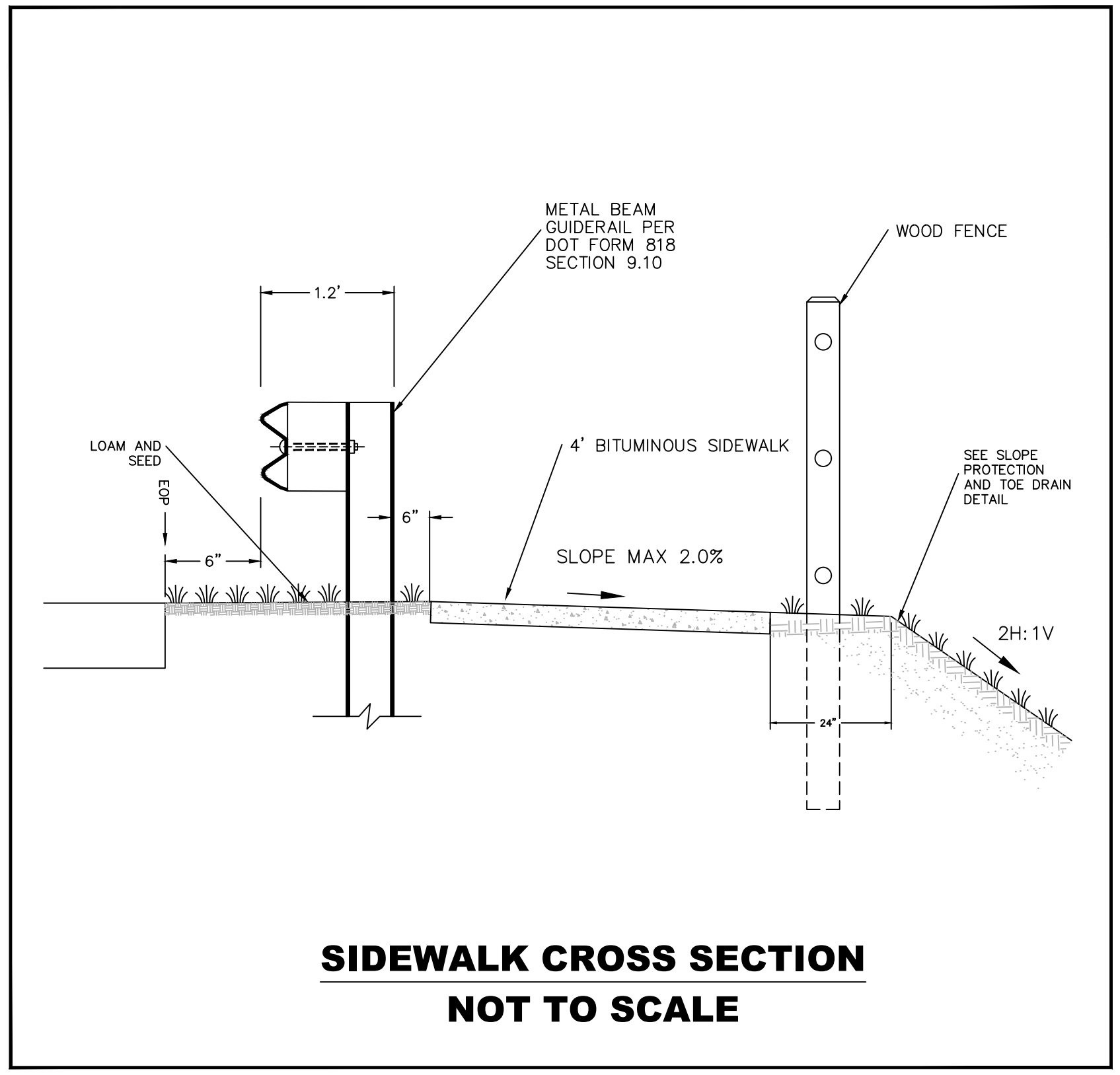
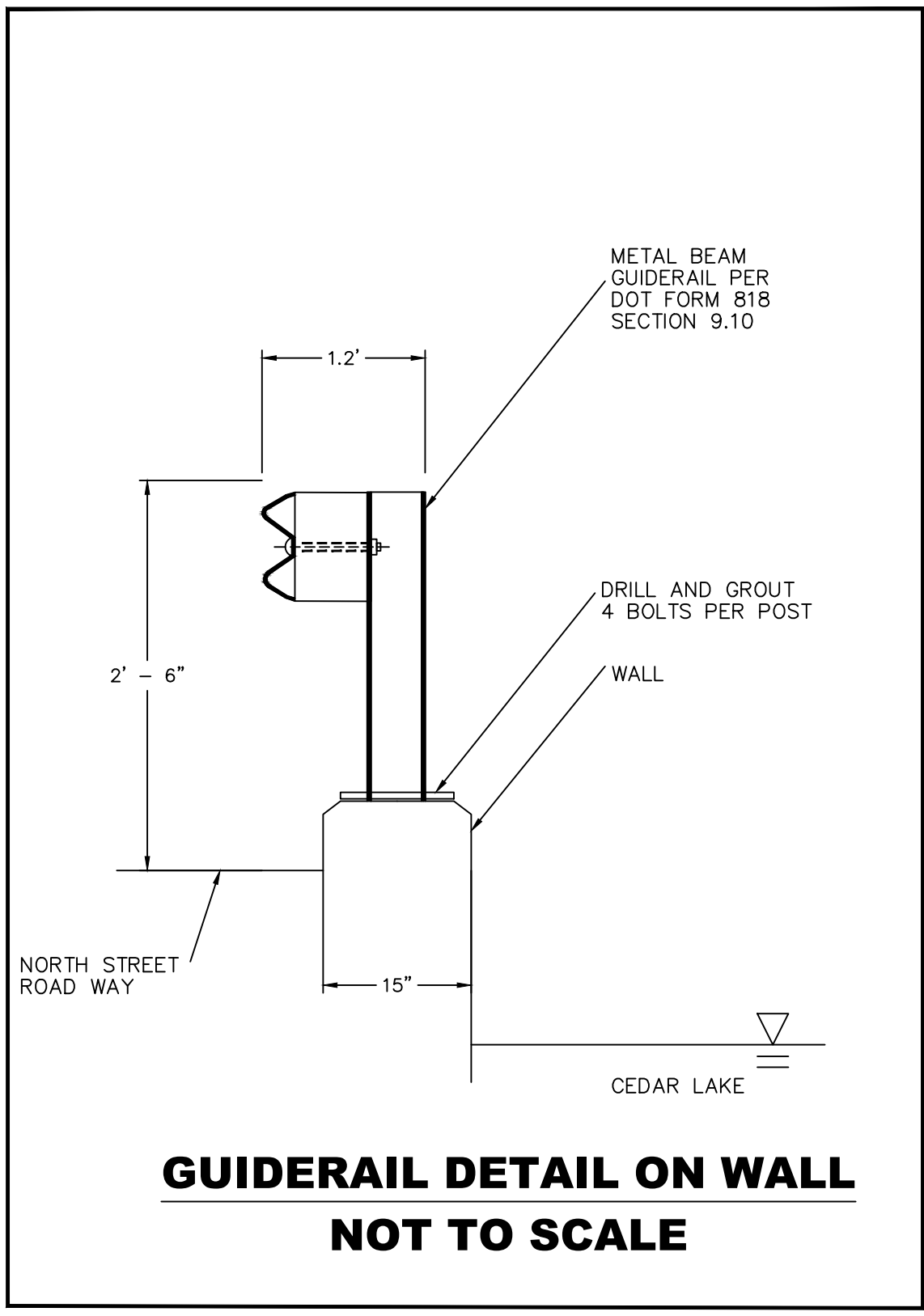
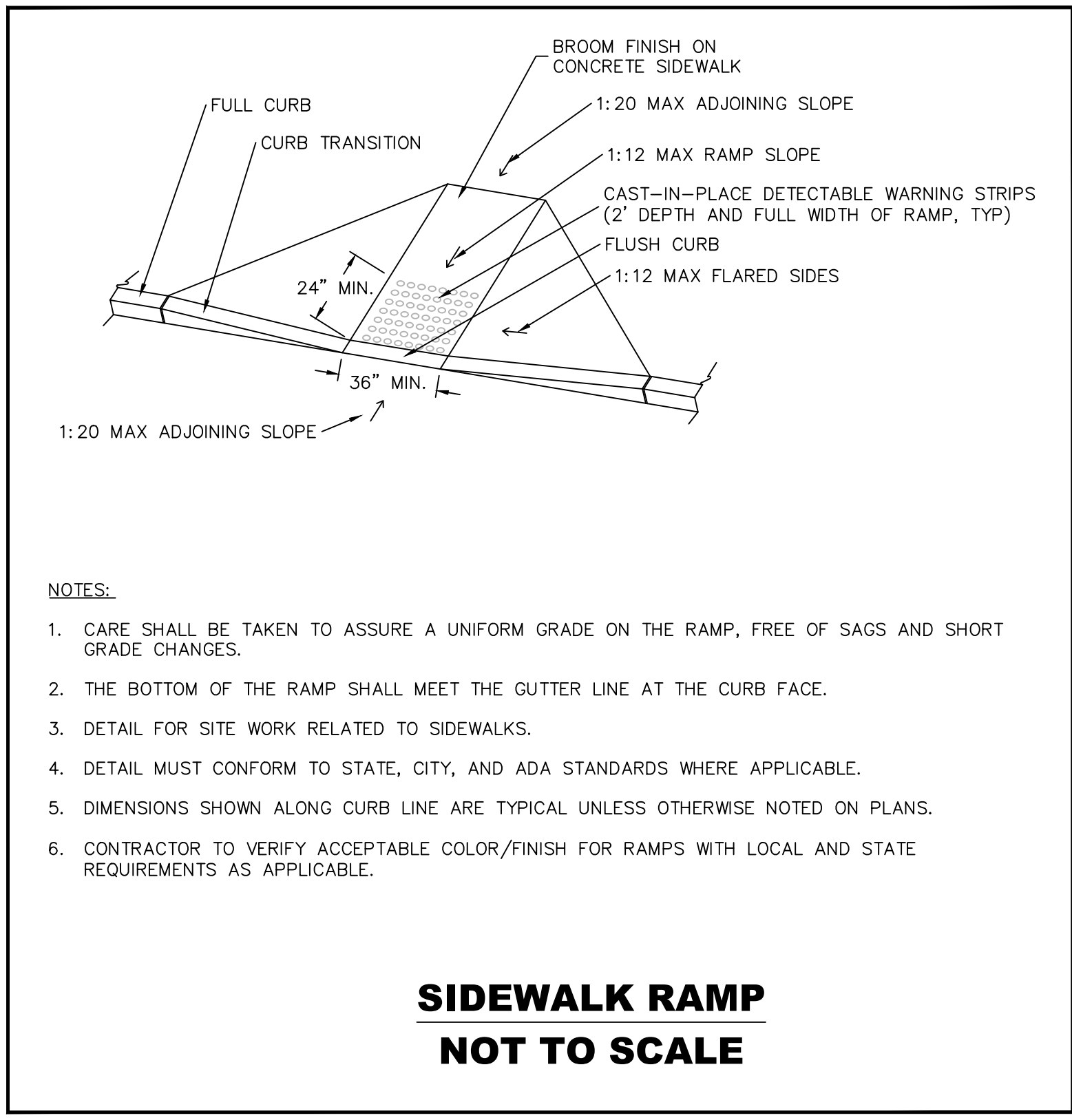
**GRADING & DRAINAGE PLAN**











DESIGNED: SCALE:		AS NOTED	
JAS/EJD	JAS/EJD	JAS/EJD	JAS/EJD
DRAWN: JAS/EJD		ISSUE DATE: 08/21/2018	
REVIEWED: DML		PROJECT NUMBER: WOL2026/CE	
APPROVED: TRB		SHEET SIZE: 24"x36"	

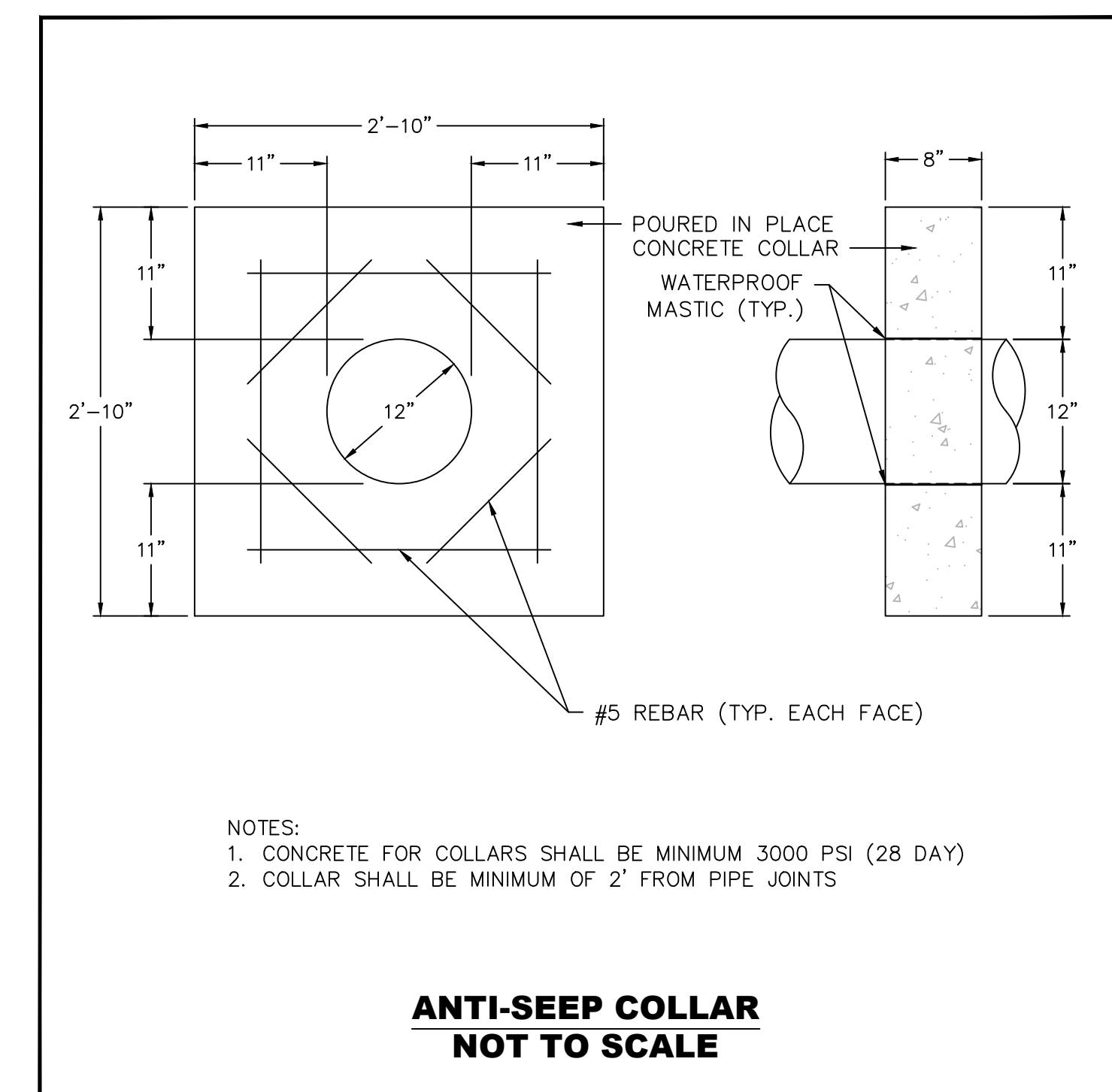
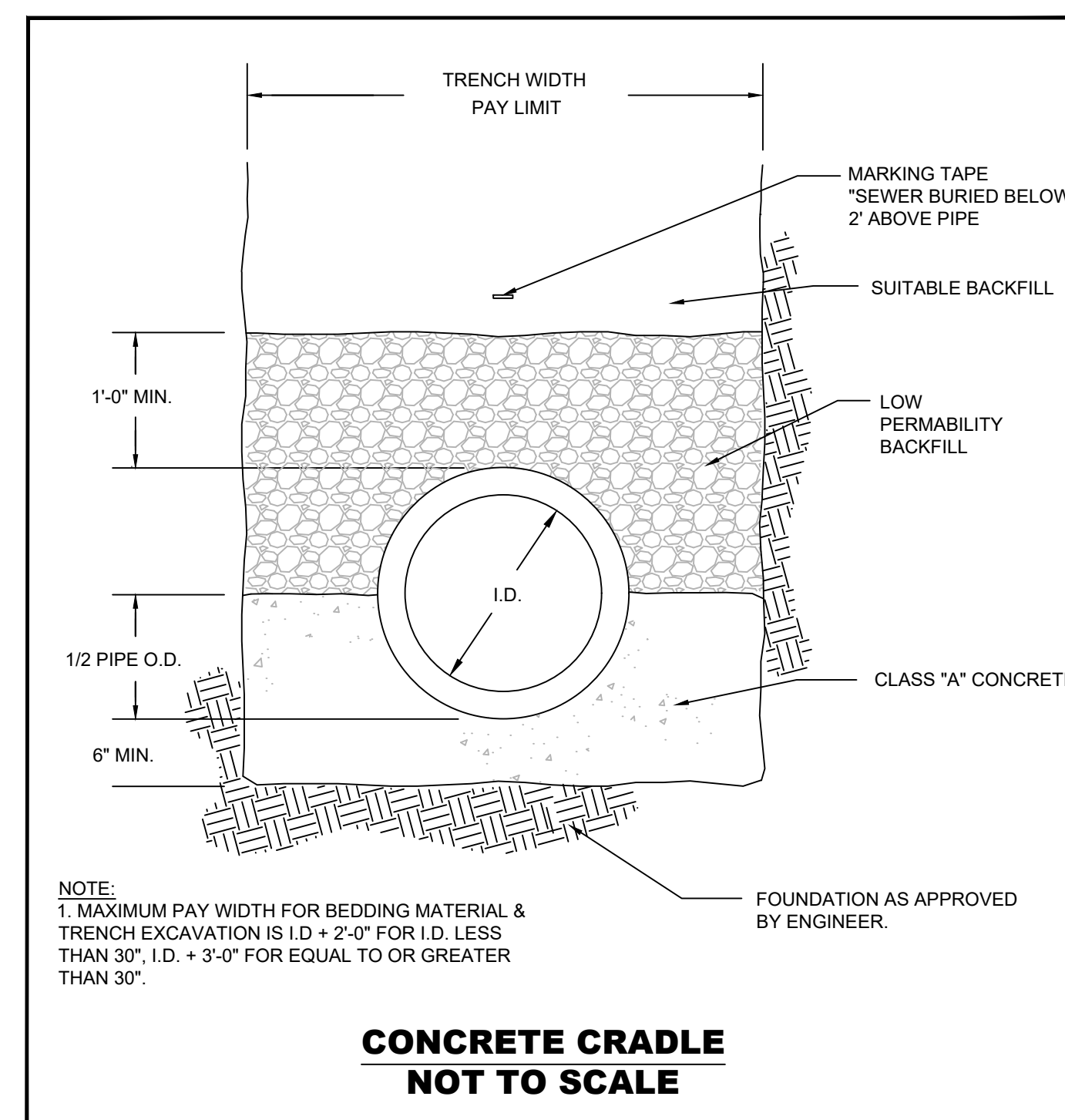
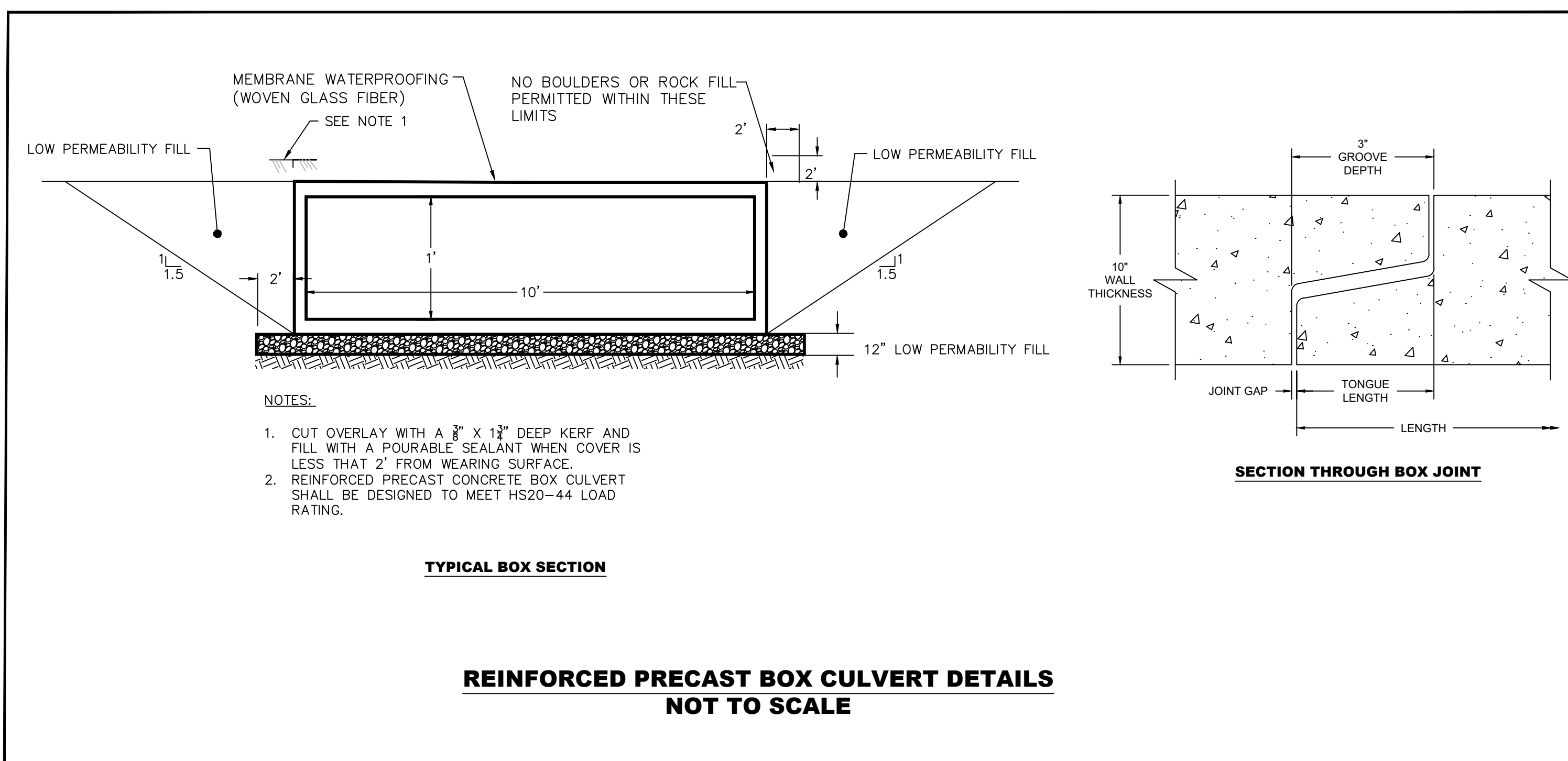
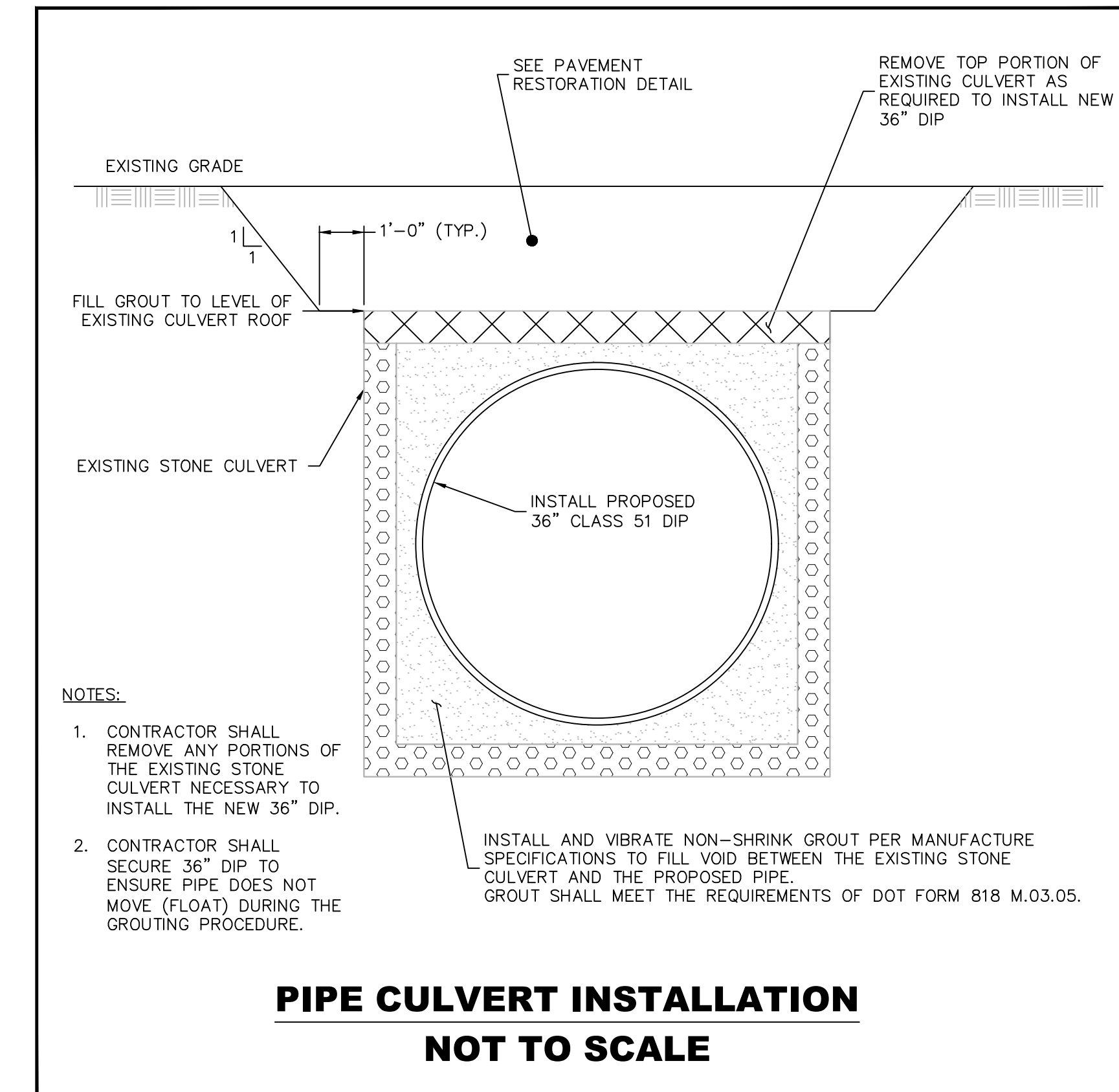
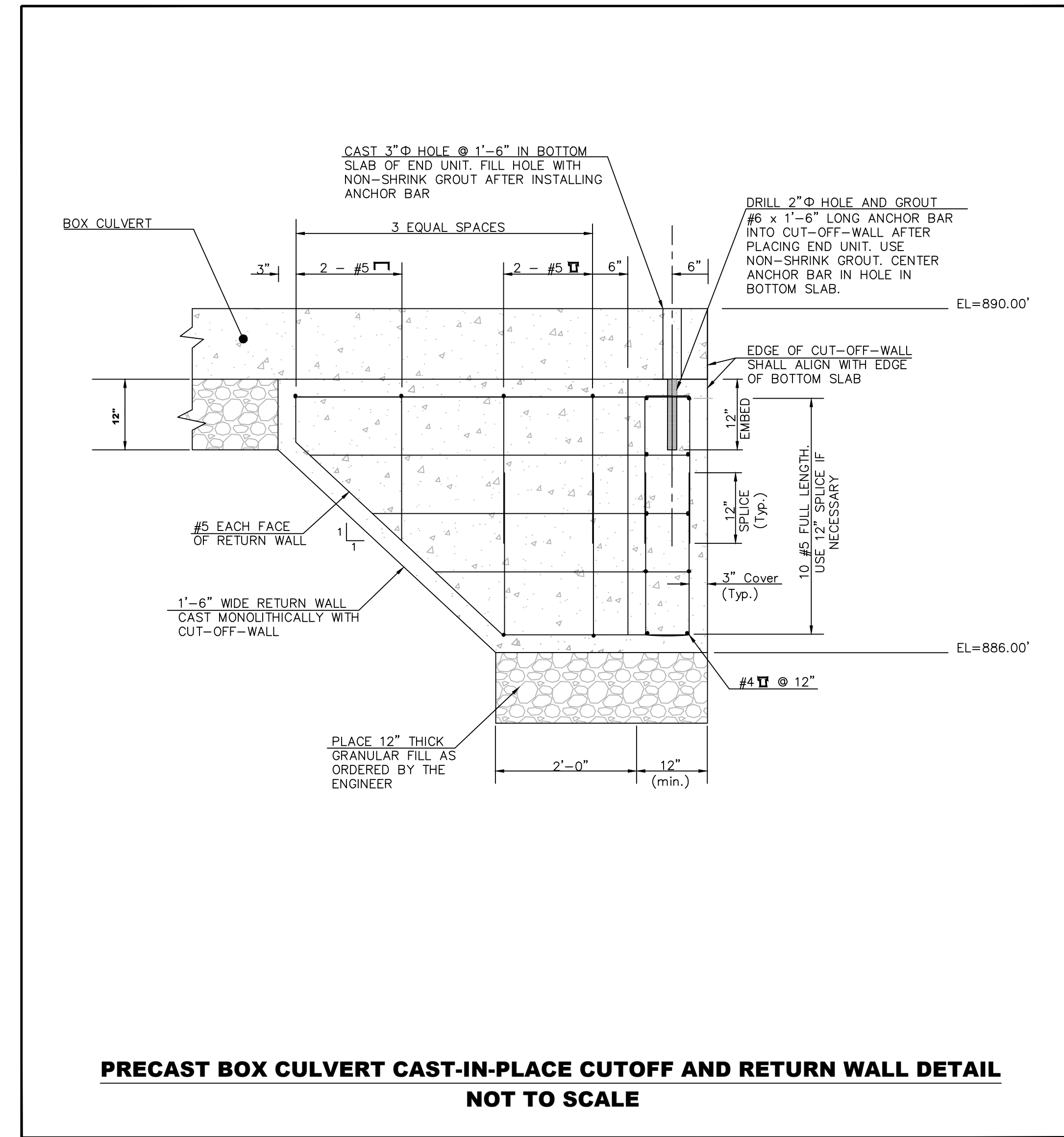
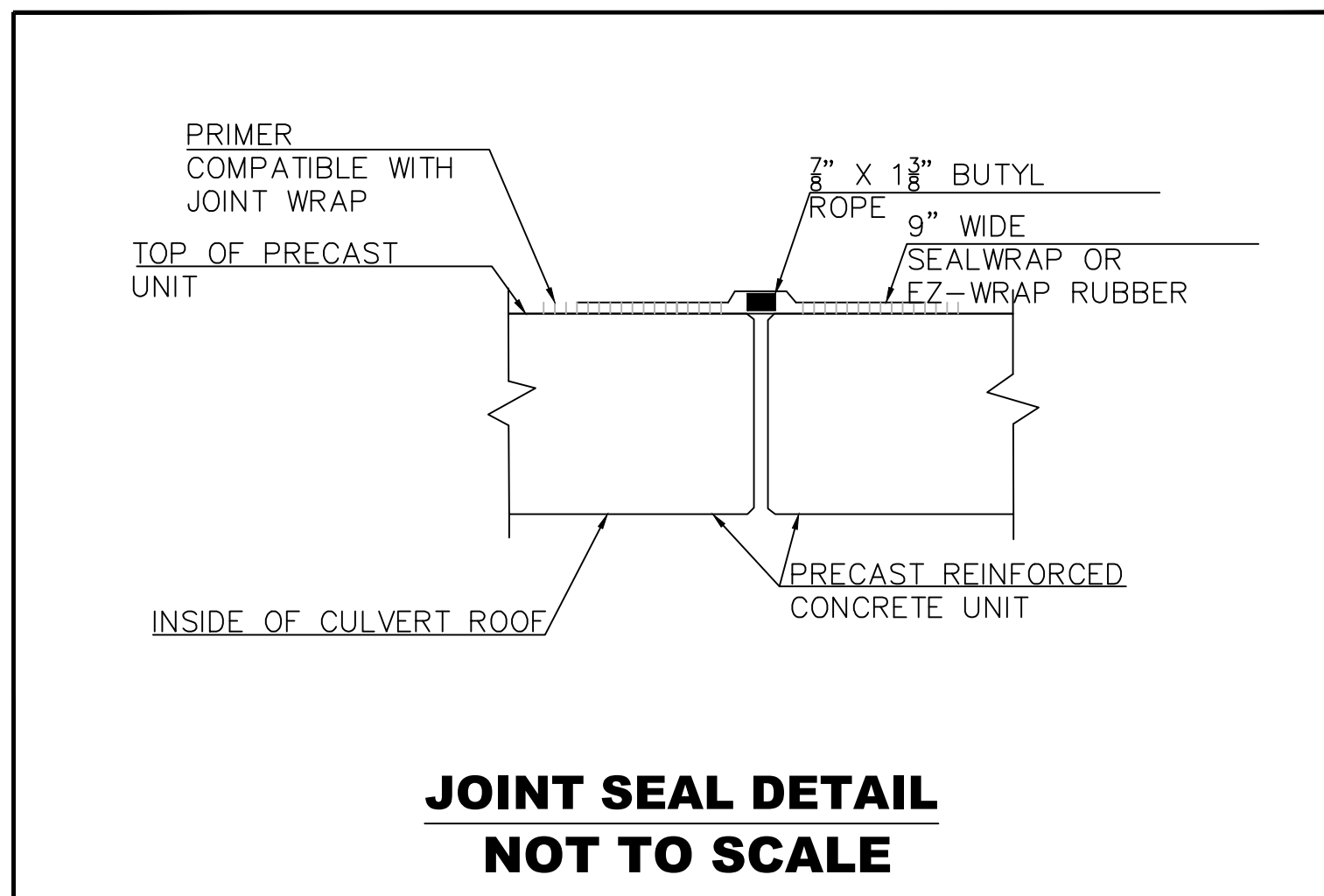
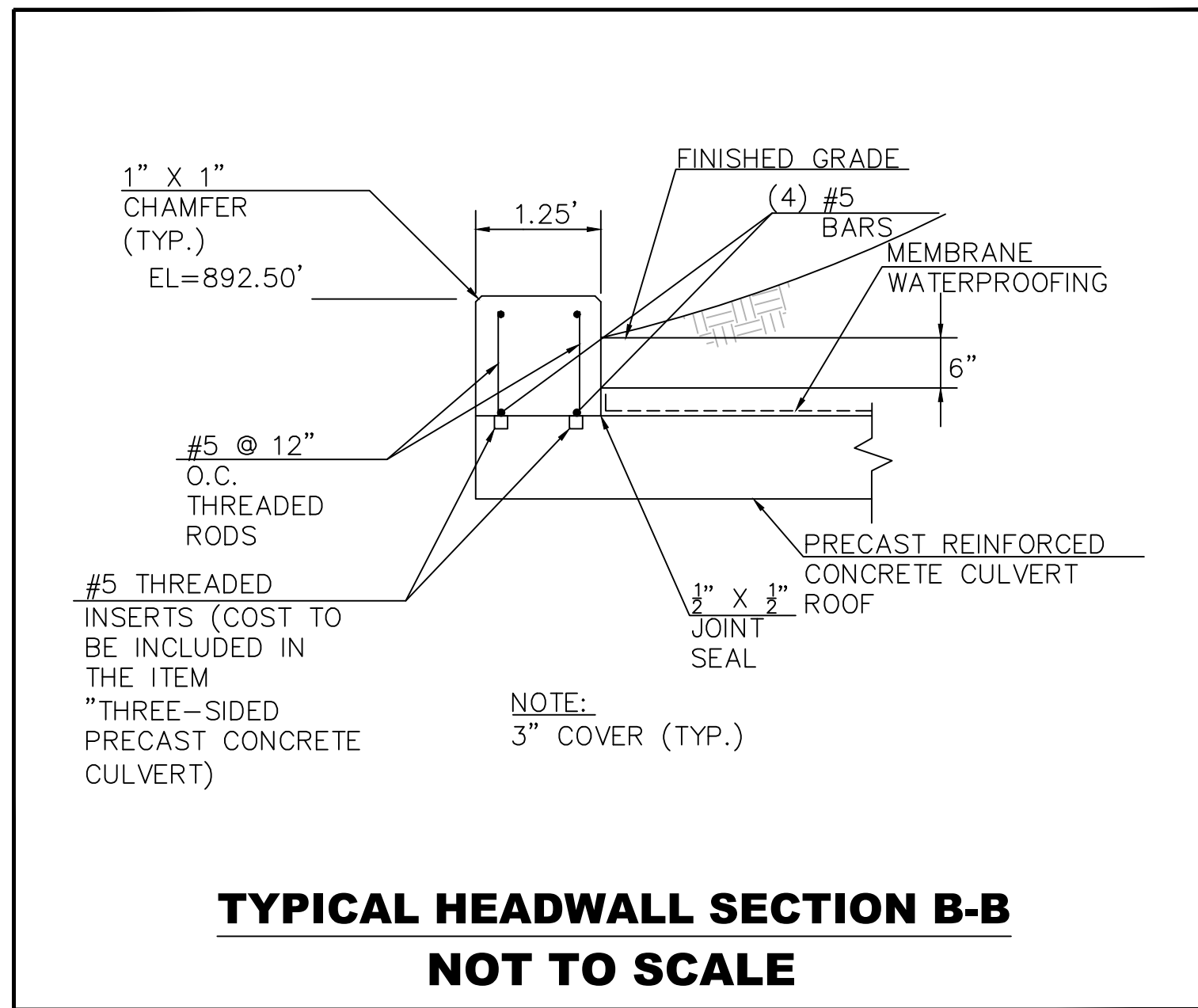
REVISIONS	
NO.	DESCRIPTION
1	12/18/2020 REVISED PER TOWN COMMENTS
2	06/08/2021 UPDATED FOR 2021 SUBMISSION

**CEDAR LAKE DAM (#16603)**  
**DAM & ROADWAY IMPROVEMENTS**  
 TOWN OF WOLCOTT  
 10 KENEA AVENUE  
 WOLCOTT, CONNECTICUT

**DETAILS**

SHEET NO.  
**C4.1**  
 SHEET 09 OF 12

DRAWING NAME: WOLCOTT - TOWN OF WOLCOTT - ROADWAY IMPROVEMENTS - LAYOUT - C4.1 - DETAILING LAYOUT - C4.1 - DATE: 08/21/2018 - 10:45 AM - 10/12/2021 - 10:45 AM - 10/12/2021 - 10:45 AM



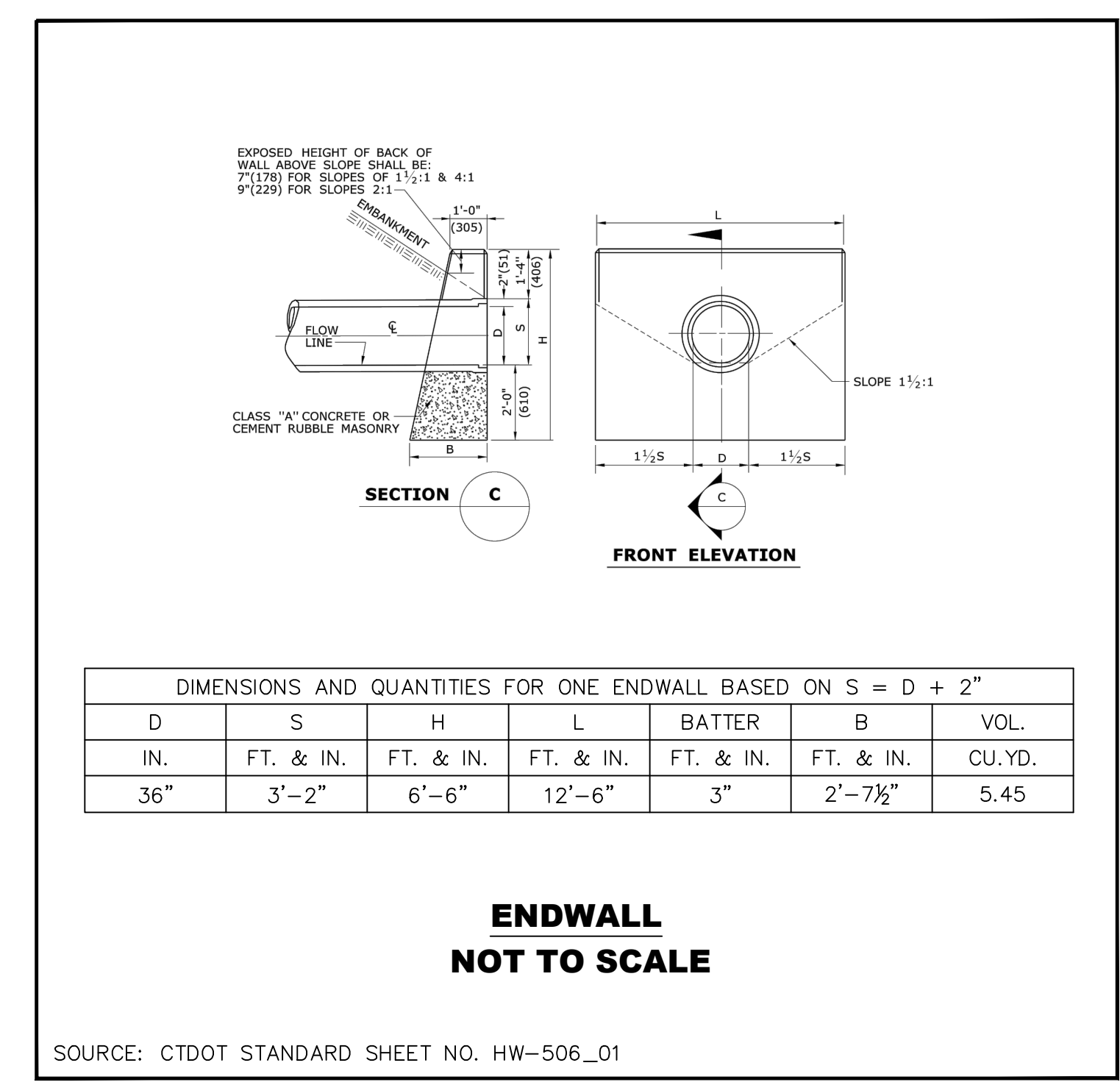
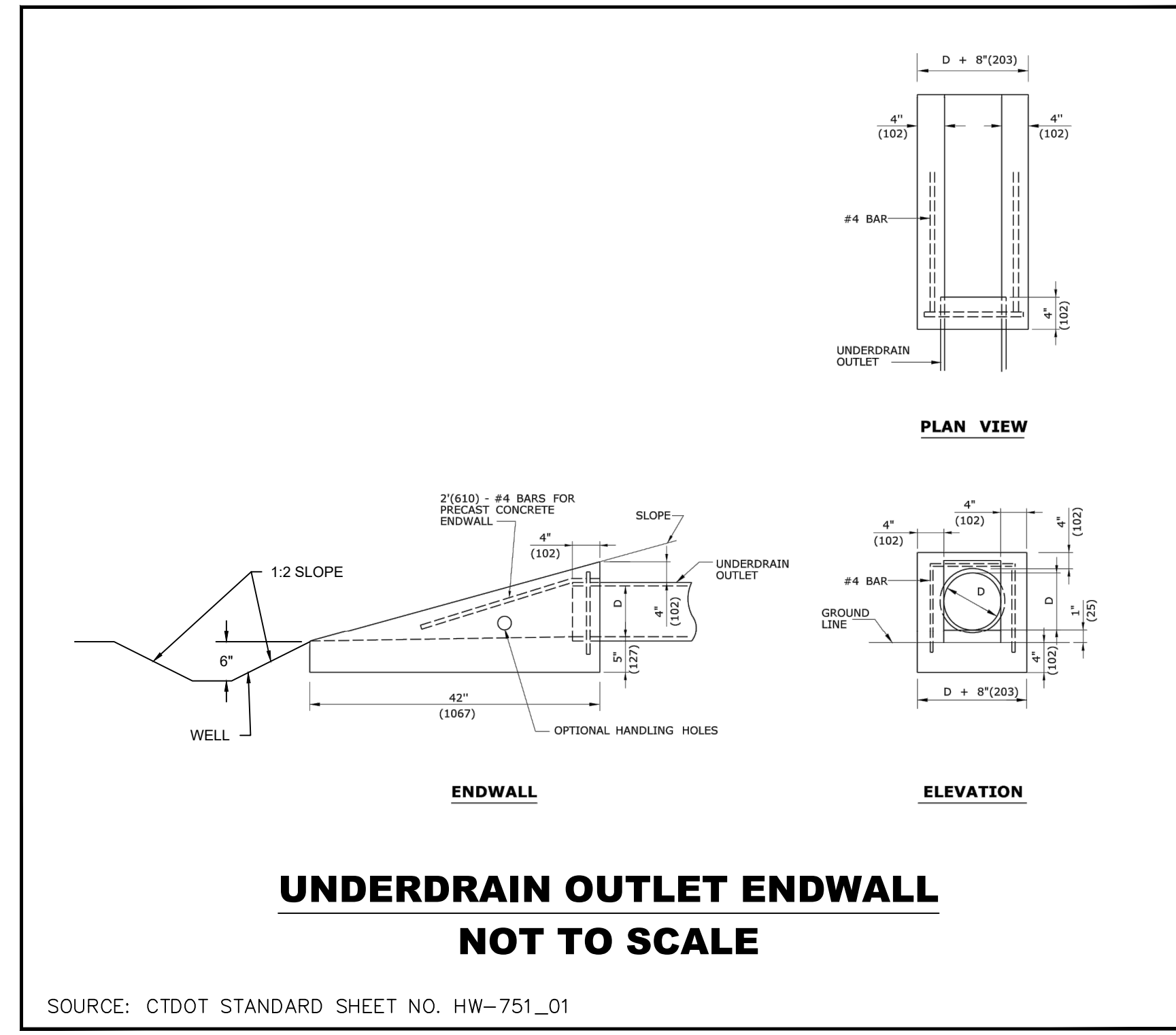
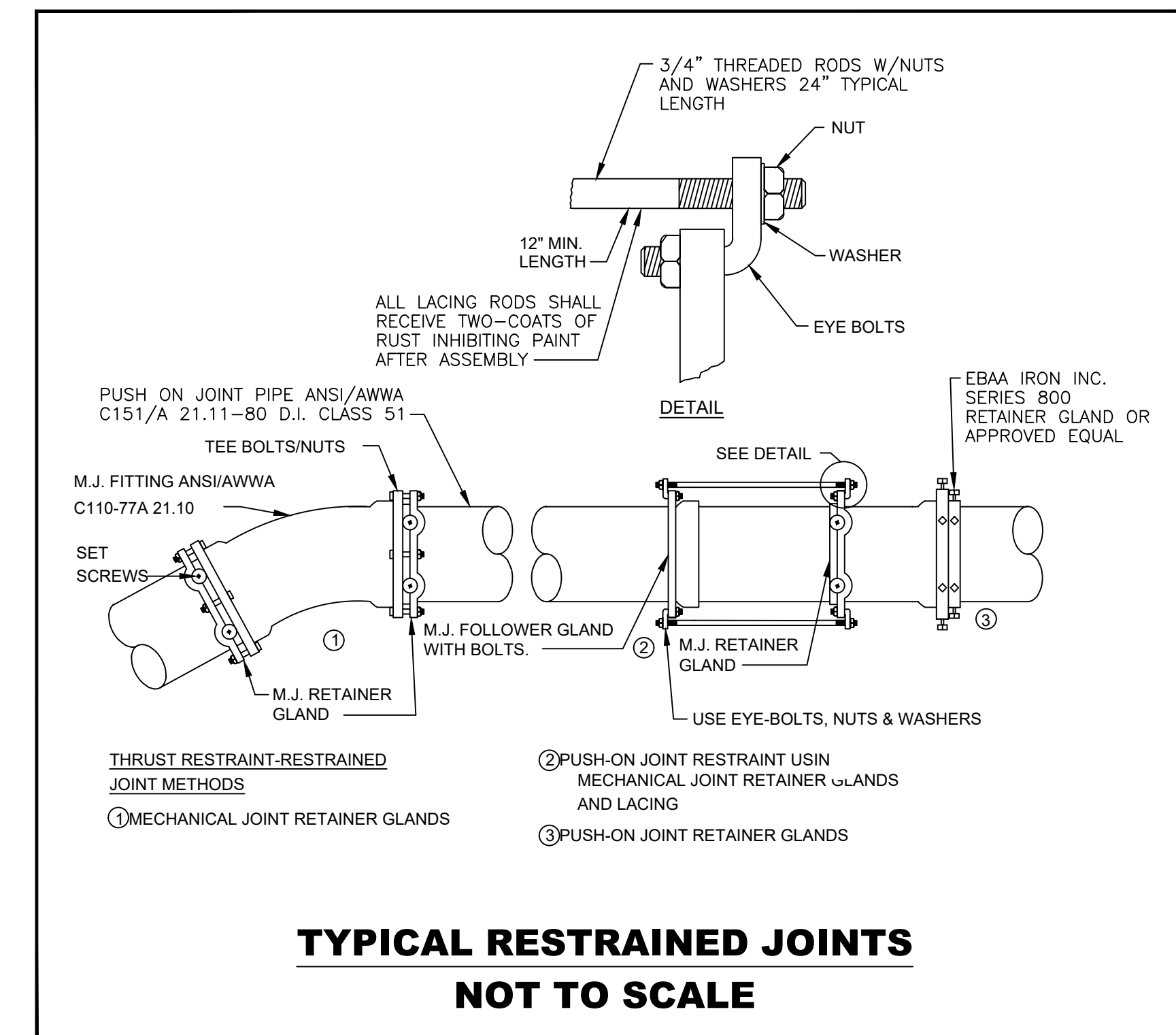
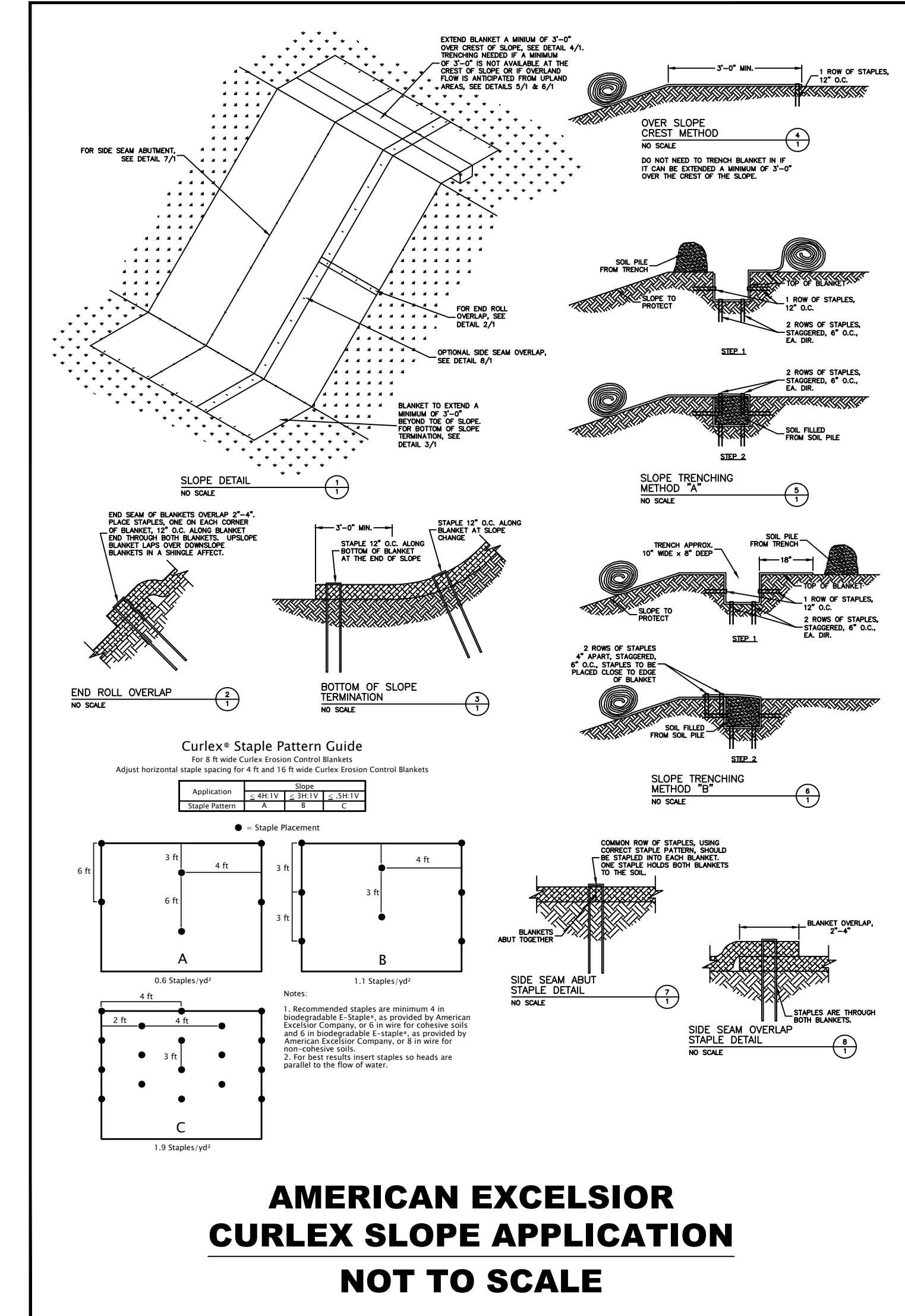
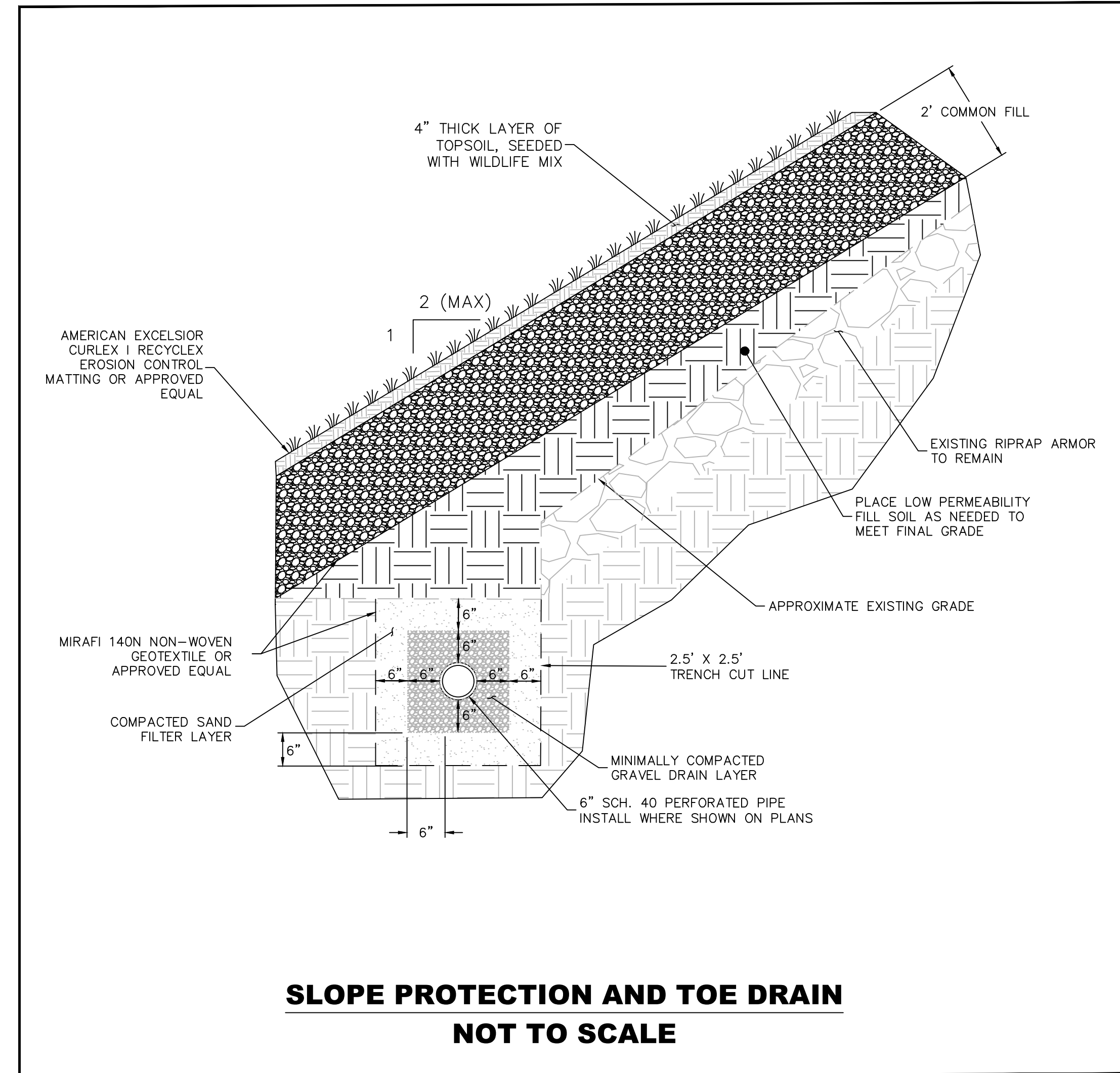
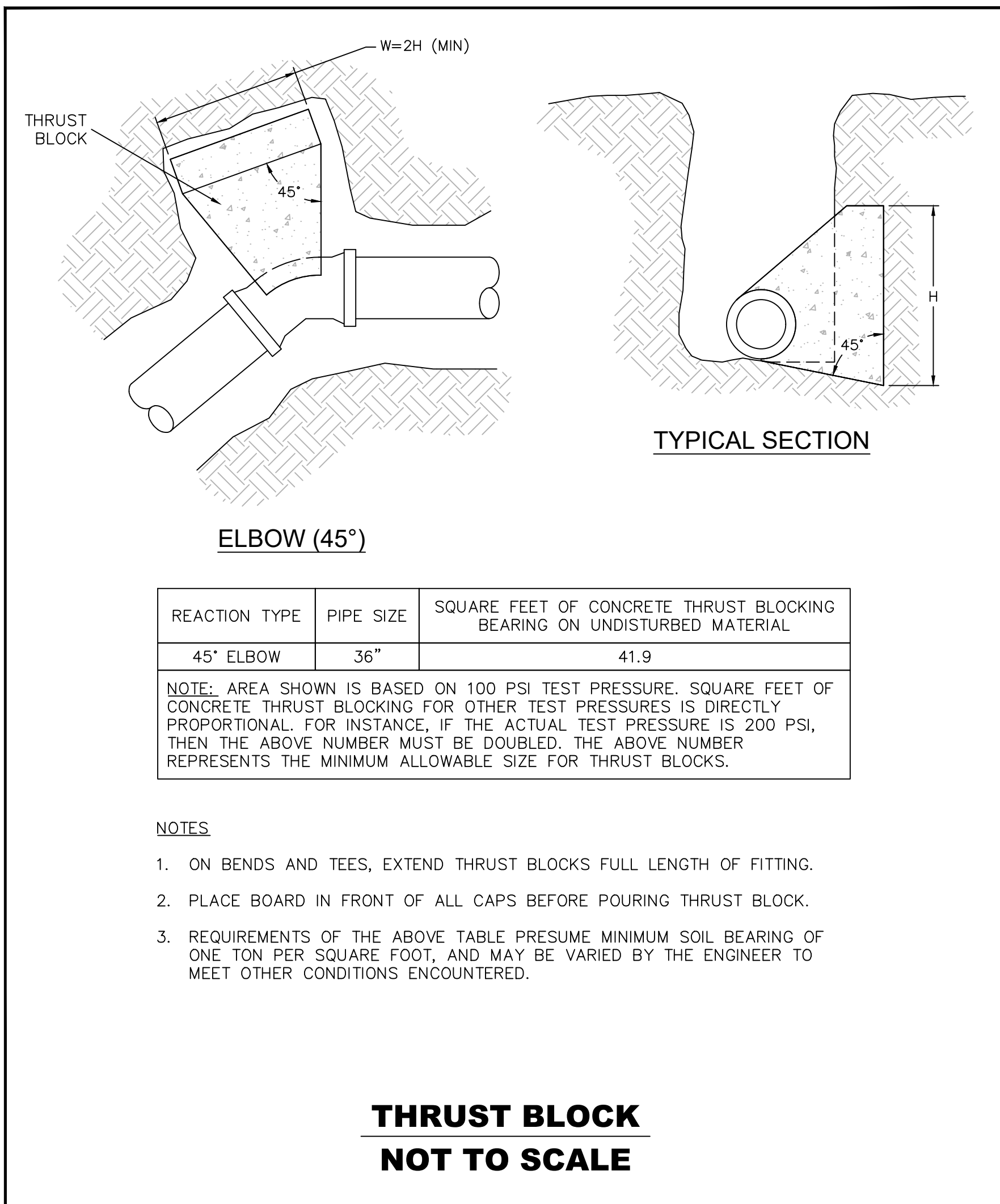
DESIGNED:		SCALE:	
JAS/EJD	AS NOTED	JAS/EJD	AS NOTED
DRAWN:		ISSUE DATE:	
JAS/EJD	08/21/2018	JAS/EJD	08/21/2018
REVIEWED:		PROJECT NUMBER:	
DML	WOL2026 CE	DML	WOL2026 CE
APPROVED:		SHEET SIZE:	
TRB	24"x36"	TRB	24"x36"

P.E. SEAL

**CEDAR LAKE DAM (#16603)  
DAM & ROADWAY IMPROVEMENTS  
TOWN OF WOLCOTT  
10 KENEA AVENUE  
WOLCOTT, CONNECTICUT**

**DETAILS**

SHEET NO.  
**C4.2**  
SHEET 10 OF 12

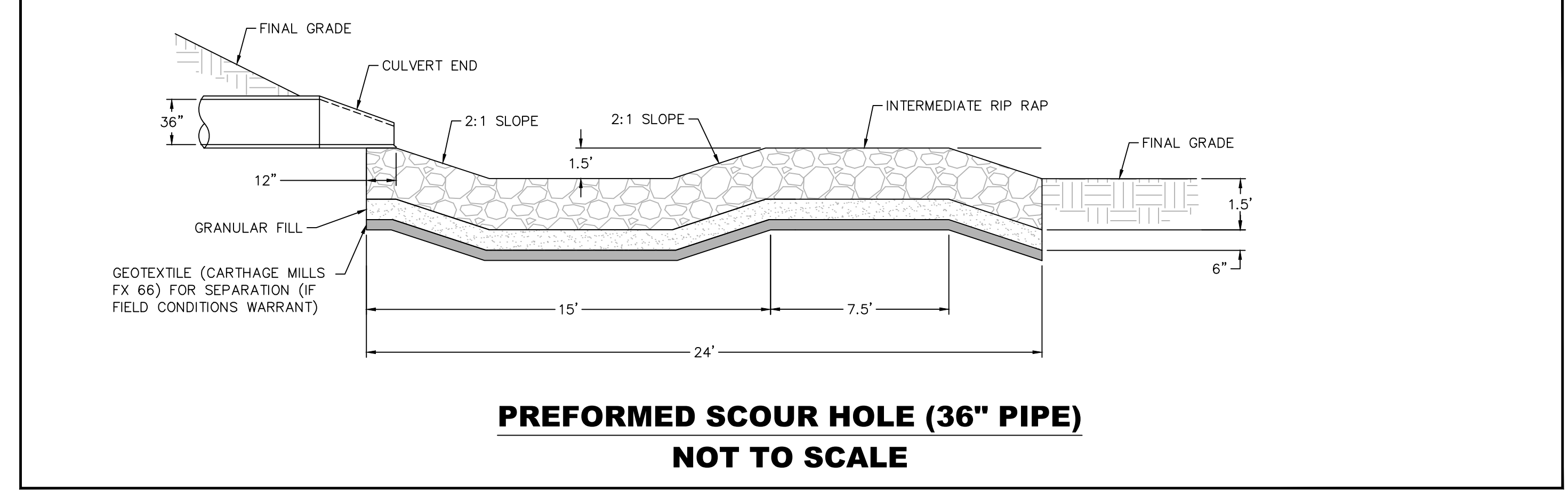
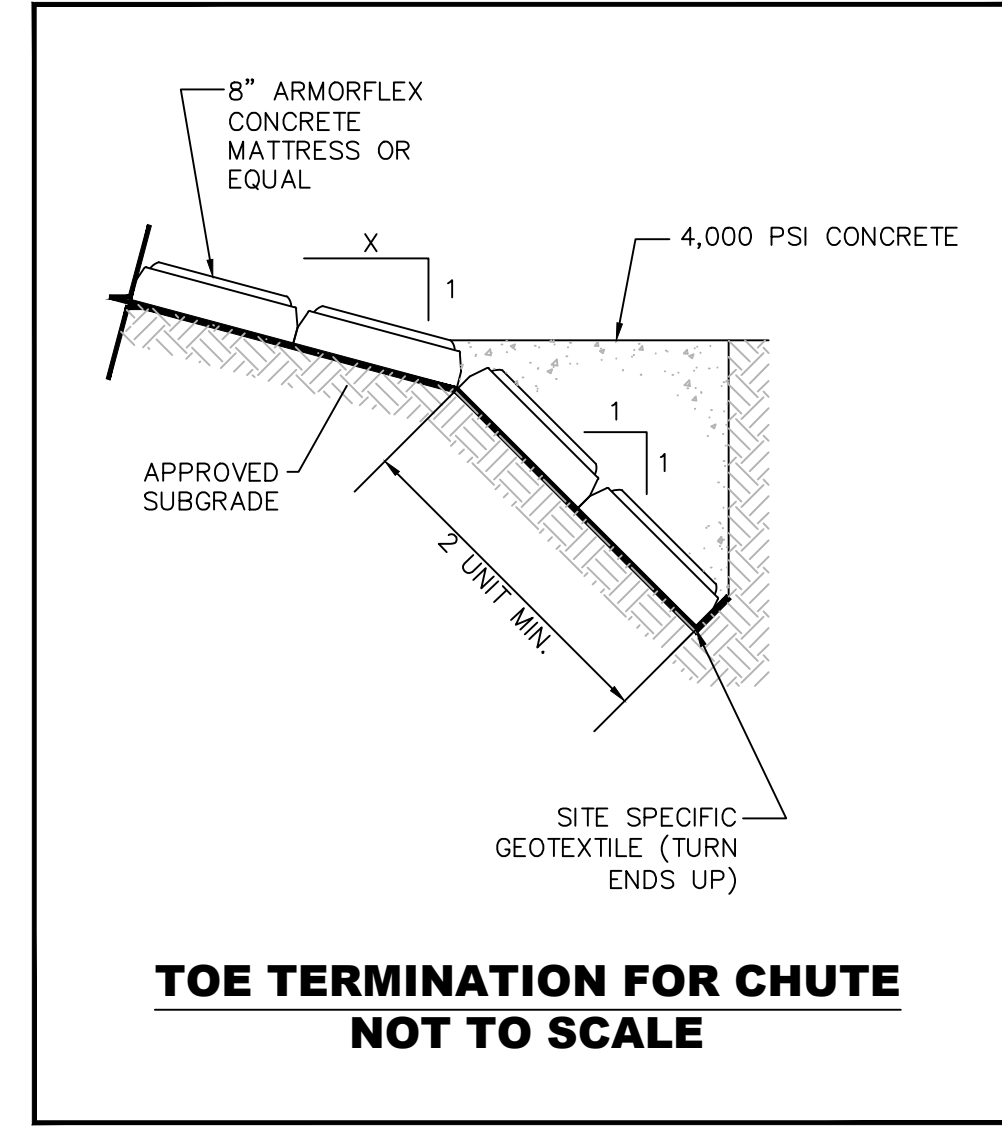
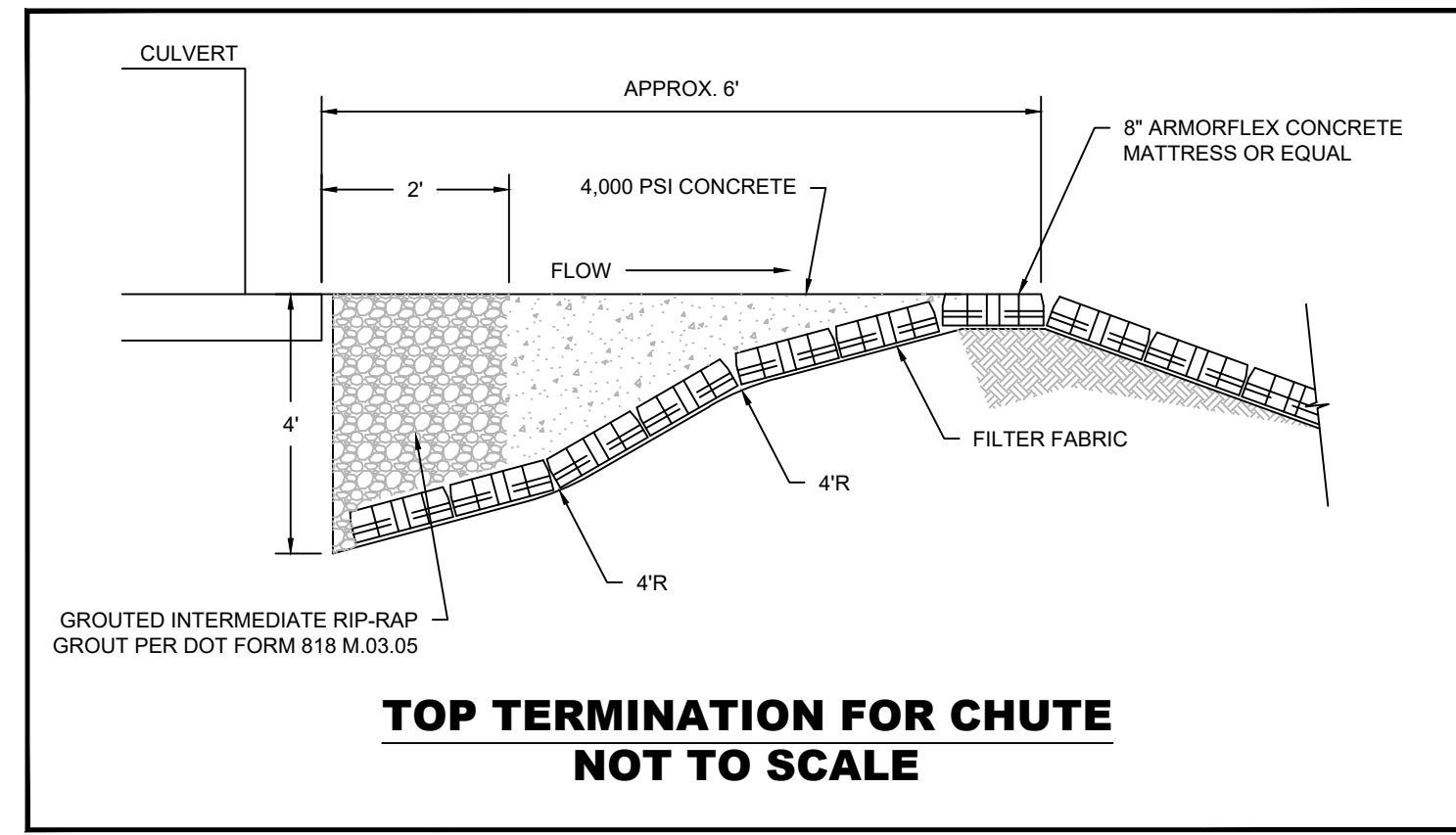
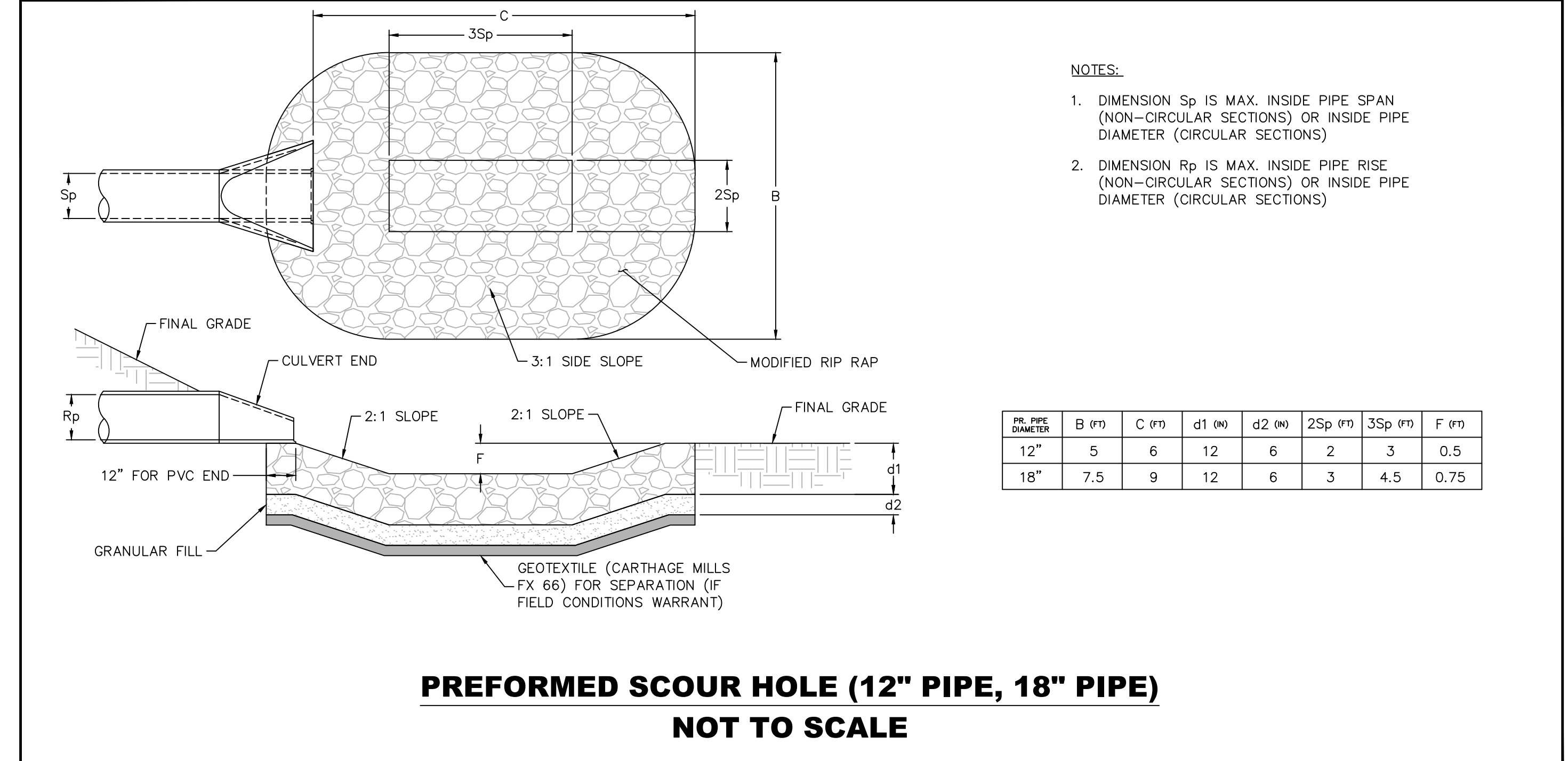
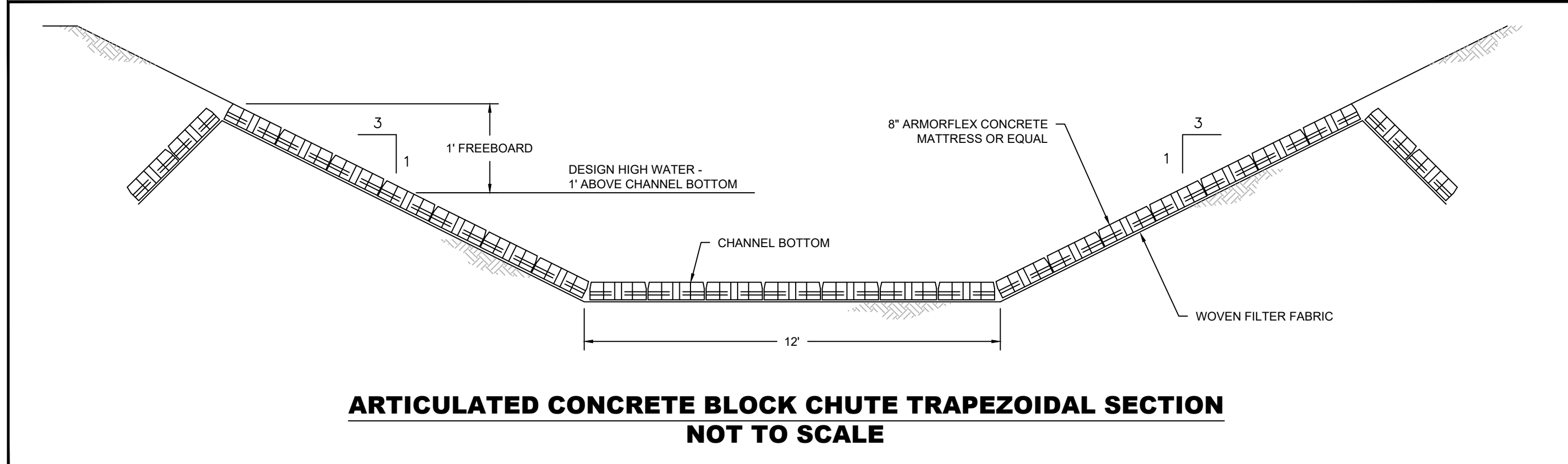
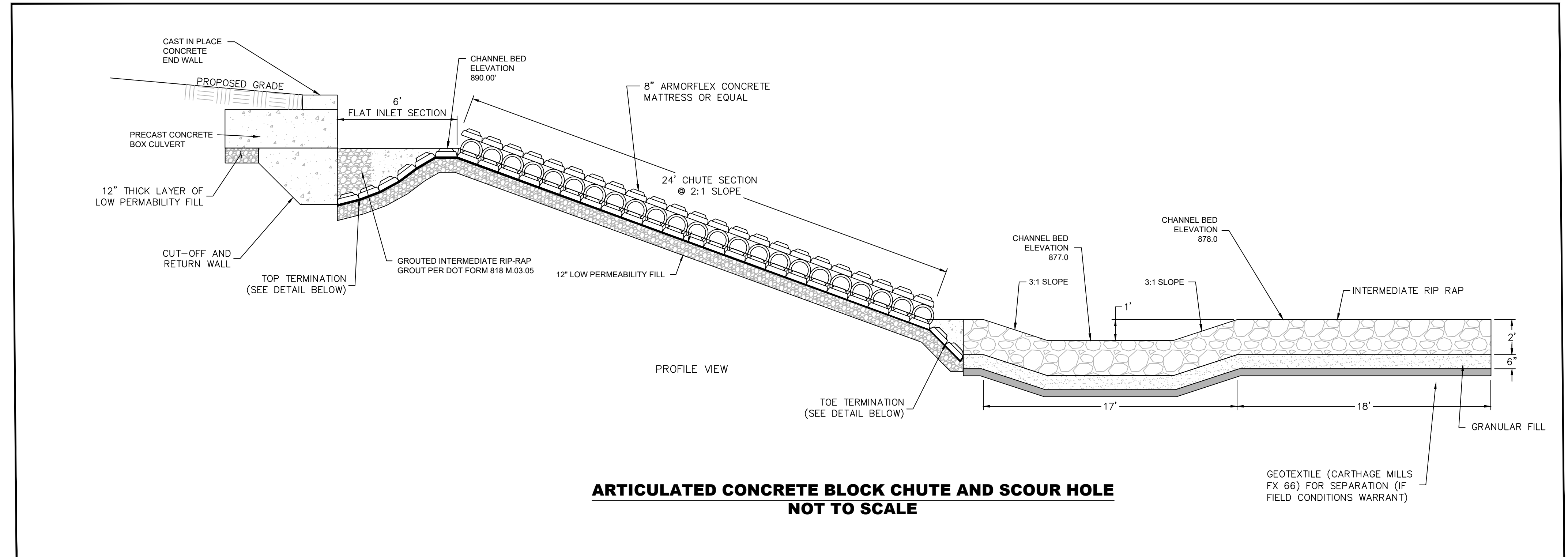
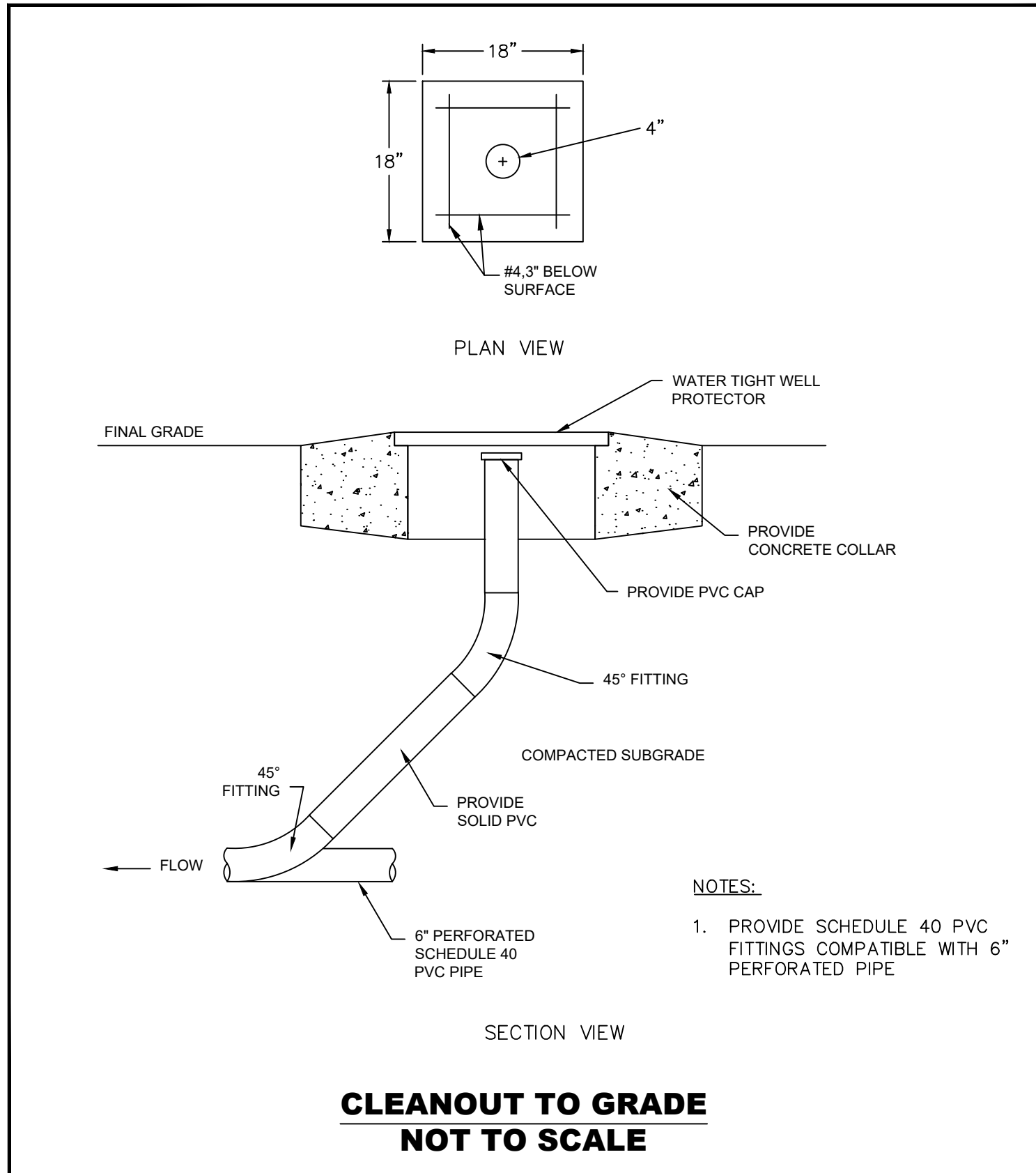


**REVISIONS**

NO.	DATE	DESCRIPTION
1	12/18/2020	REVISED PER TOWN COMMENTS
2	06/08/2021	UPDATED FOR 2021 SUBMISSION

DESIGNED: SCALE: AS NOTED  
DRAWN: JAS/EJD  
ISSUE DATE: 08/21/2018  
PROJECT NUMBER: WOL2026/CE  
REVIEWED: DML  
APPROVED: TRB  
SHEET SIZE: 24"x36"





**REVISIONS**

NO.	DATE	DESCRIPTION
1	12/18/2020	REVISED PER TOWN COMMENTS
2	06/08/2021	UPDATED FOR 2021 SUBMISSION

DESIGNED:	SCALE:	AS NOTED
JAS/EJD		

DRAWN:	ISSUE DATE:	PROJECT NUMBER:
JAS/EJD	08/21/2018	WOL2026.CE

REVIEWED:	SHEET NUMBER:	SHEET SIZE:
DML	WOL2026.CE	24" x 36"

APPROVED: TRB

**CEDAR LAKE DAM (#16603)  
 DAM & ROADWAY IMPROVEMENTS  
 TOWN OF WOLCOTT  
 10 KENEA AVENUE  
 WOLCOTT, CONNECTICUT**

**DETAILS**

SHEET NO.  
**C4.4**  
 SHEET 12 OF 12

DRAWING NAME: [WOLCOTT - TOWN OF WOLCOTT ROADWAY IMPROVEMENTS] DRAWING NUMBER: C4.4 - DETAILS DATE: 08/21/2018 10:00 AM 10/12/2021 10:00 AM