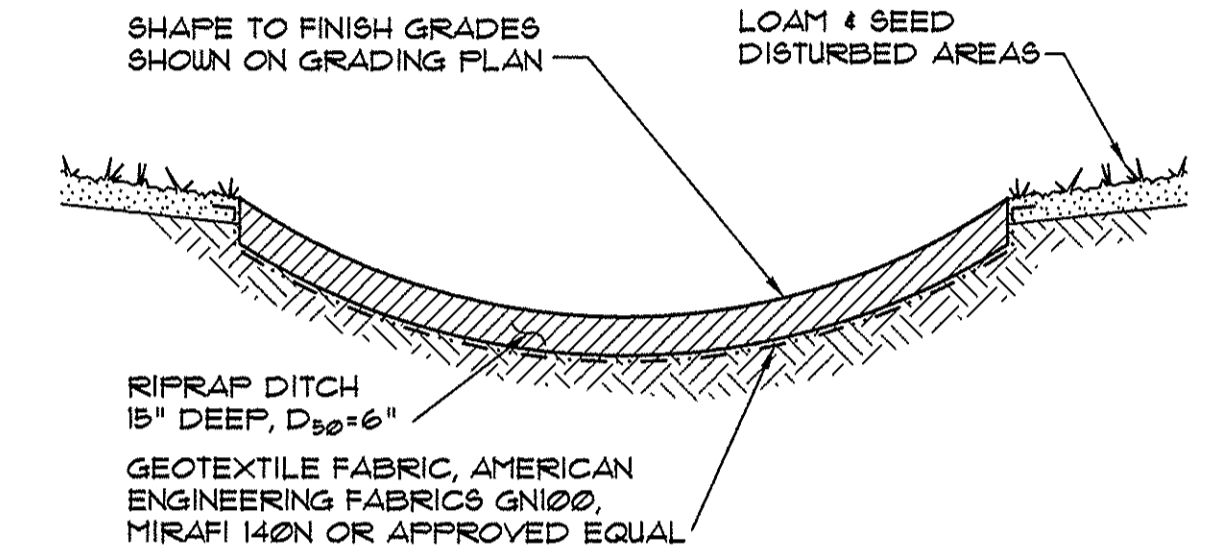
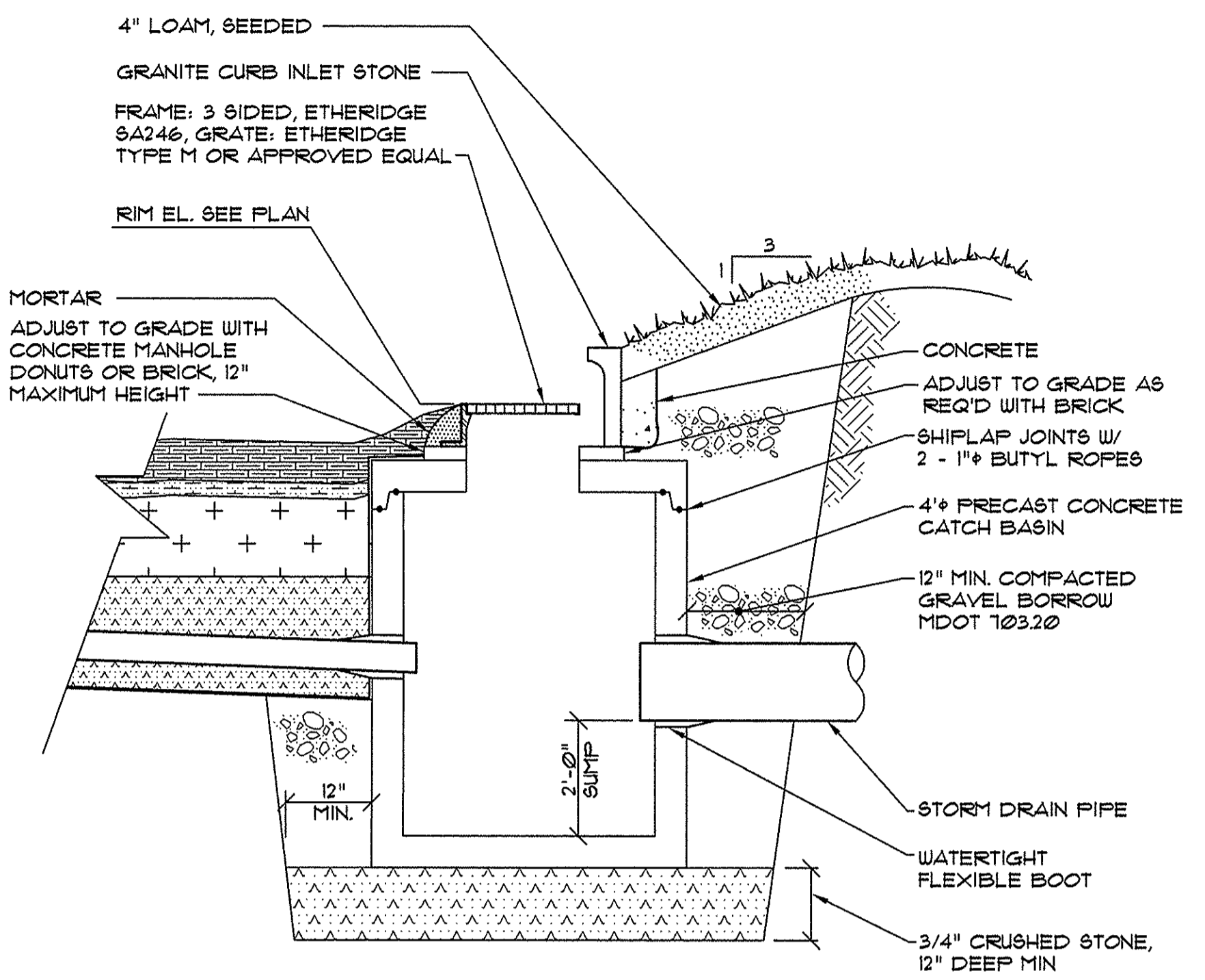
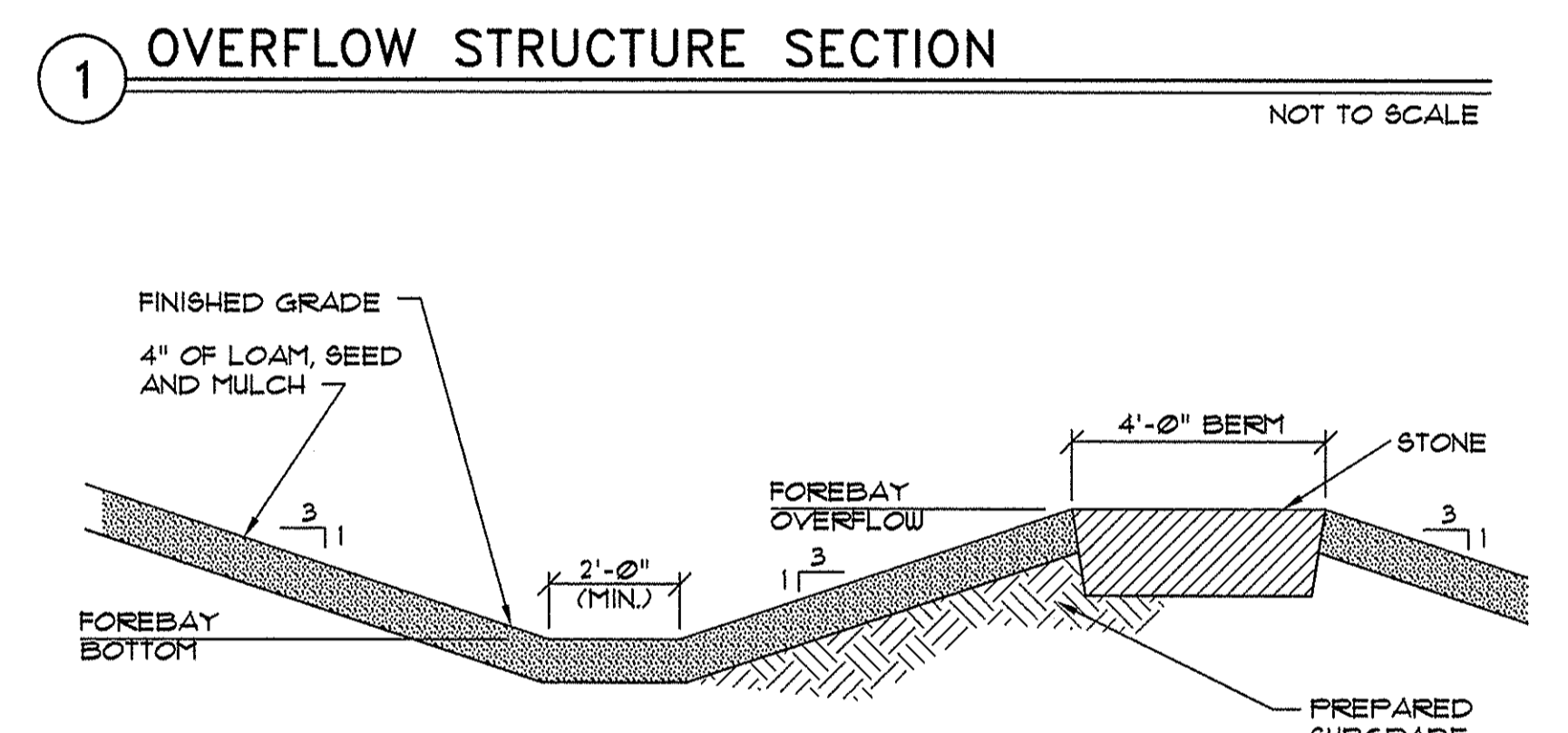
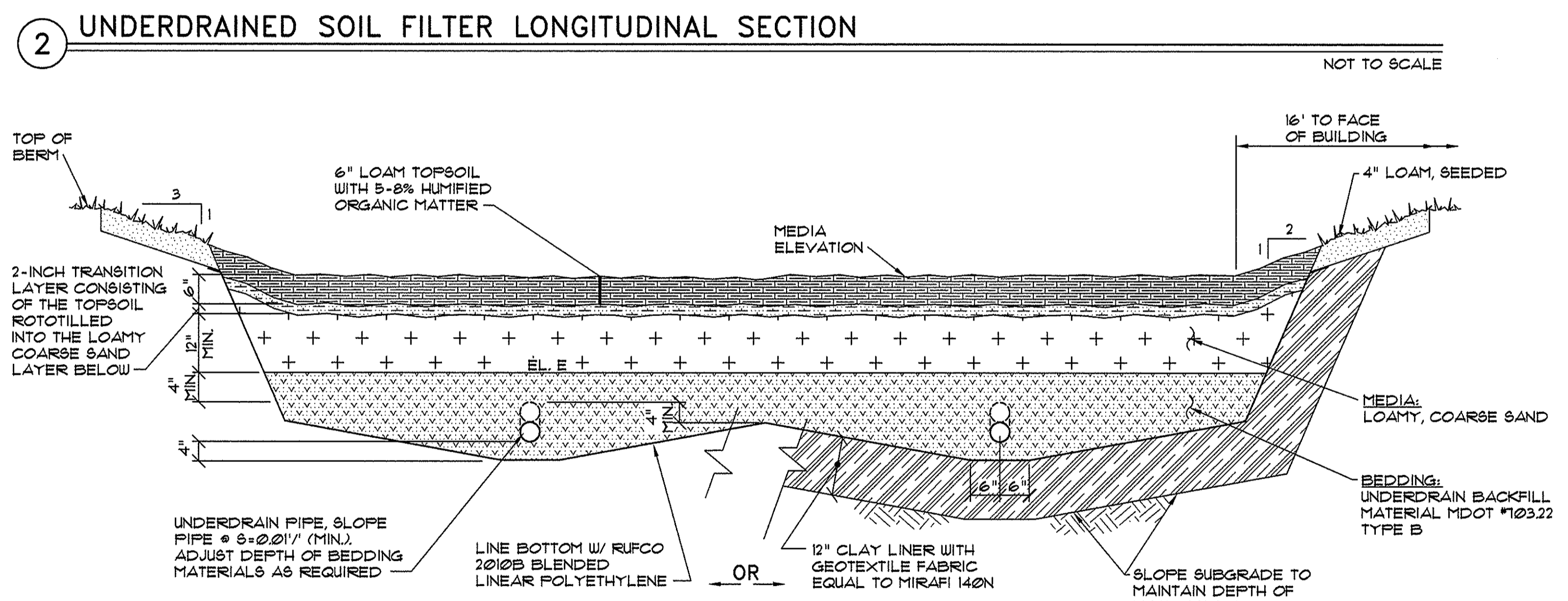


- SOIL FILTER MEDIA NOTES**
1. THE TOP 6" OF SOIL FILTER MEDIA SHALL CONSIST OF LOAM TOPSOIL WITH 5-8% HUMIFIED ORGANIC MATTER. SCREENED TOPSOIL FROM THE DEVELOPMENT MAY BE APPROPRIATE BUT SHOULD BE TESTED FOR ORGANIC CONTENT. THE MEDIA SHOULD HAVE SUFFICIENT NUTRIENT CONTENT TO SUPPORT A GOOD STAND OF GRASS TYPE VEGETATION, OR ORGANIC MATTER (SUCH AS SUPERHUMUS OR EQUIVALENT) CAN BE ADDED IF NECESSARY AND PROVIDED THAT THE TEXTURE IS SUITABLE.
 2. THE TOTAL DEPTH OF SOIL FILTER MUST BE AT LEAST 22 INCHES DEEP AND MUST EXTEND ACROSS THE BOTTOM OF THE ENTIRE FILTER AREA. THIS SOIL MIXTURE SHALL BE A UNIFORM MIX FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES IN GREATEST DIMENSION. NO OTHER MATERIALS OR SUBSTANCES THAT MAY BE HARMFUL TO PLANT GROWTH, OR FROYE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS CAN BE MIXED WITHIN THE FILTER DURING CONSTRUCTION. CARE SHOULD BE TAKEN TO AVOID COMPACTION OF BOTH THE GRAVEL AND SOIL FILTER. COMPACTION SHOULD BE BY SATURATION ONLY, UNLESS SPECIAL LOW COMPACTION EQUIPMENT IS AVAILABLE.
 3. IF 20 MIL GEOMEMBRANE IS USED: THE CONTRACTOR SHALL PROVIDE DETAILS FOR THE PROPOSED RUF/CO 2010B BLENDED LINEAR POLYETHYLENE LINER SYSTEM TO BE INSTALLED WITHIN THE SOIL FILTER BASIN. INFORMATION SHALL INCLUDE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION PROCEDURES THAT ADDRESS:
 - SEAMING OF LINER PANELS
 - BOOT INSTALLATION FOR PIPE PENETRATIONS
 - SEAM TESTING PROCEDURES
 - METHOD OF SUBGRADE PREPARATION
 - PLACEMENT AND COMPACTION OF STONE (TO MINIMIZE RISK OF PUNCTURING OF INSTALLED LINER)
 4. SOIL FILTER SEED MIX: APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL OR HYDROSEEDER (USING A SLURRY INCLUDING SEED AND FERTILIZER).
 - CREEPING RED FESCUE (PENNSYLVANIA, ENSYLVIA OR WINTERGREEN) 0.46 LBS/1000 SF
 - RED TOP 0.05 LBS/1000 SF
 - TALL FESCUE (KENTUCKY 31) 0.46 LBS/1000 SF
 - TOTAL 0.97 LBS/1000 SF



- NOTES:**
1. SUBGRADE PREPARATION: SHAPE THE SUBGRADE TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS AND AS SHOWN ON THE DETAILS. REMOVE ALL ORGANIC MATTER, DEBRIS AND SOIL THAT IS TOO WET TO SUPPORT RIPRAP. IF FILL IS REQUIRED PROVIDE SUITABLE SOIL FROM ON SITE OR COMMON BORROW (MDOT 103.18) COMPACTED TO A DENSITY APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED SOIL BUT NOT LESS THAN 92% (ASTM D1557).
 2. GEOTEXTILE FABRIC: PLACE AND ANCHOR GEOTEXTILE (FILTER FABRIC) IMMEDIATELY AFTER SUBGRADE PREPARATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 3. STONE PLACEMENT: PLACE RIPRAP IMMEDIATELY AFTER PLACING GEOTEXTILE FABRIC. PLACE RIPRAP SO THAT IT PRODUCES A DENSE, WELL-GRADED MASS OF STONE WITH A MINIMUM OF VOIDS.
 4. MAINTENANCE: INSPECT RIPRAP FOLLOWING SIGNIFICANT RAINFALL EVENTS (3 INCHES OR MORE IN 24 HOURS) AND AFTER THE SPRING THAW. REPAIR DAMAGED AREAS IMMEDIATELY.
 5. RIPRAP: SOUND DURABLE ROCK WHICH WILL NOT DISINTEGRATE BY EXPOSURE TO WATER OR WEATHER. EITHER FIELD STONE OR ROUGH, UNEVEN QUARRY STONE MAY BE USED. STONES SHALL BE ANGULAR AND AS NEARLY RECTANGULAR IN CROSS-SECTION AS PRACTICABLE. DO NOT USE ROUNDED BOULDERS OR COBBLES. USE A WELL-GRADED MIXTURE OF STONE SIZES WITH 50 PERCENT OF THE MIXTURE BY WEIGHT BEING LARGER THAN THE D SIZE SPECIFIED AND 50 PERCENT SMALLER.

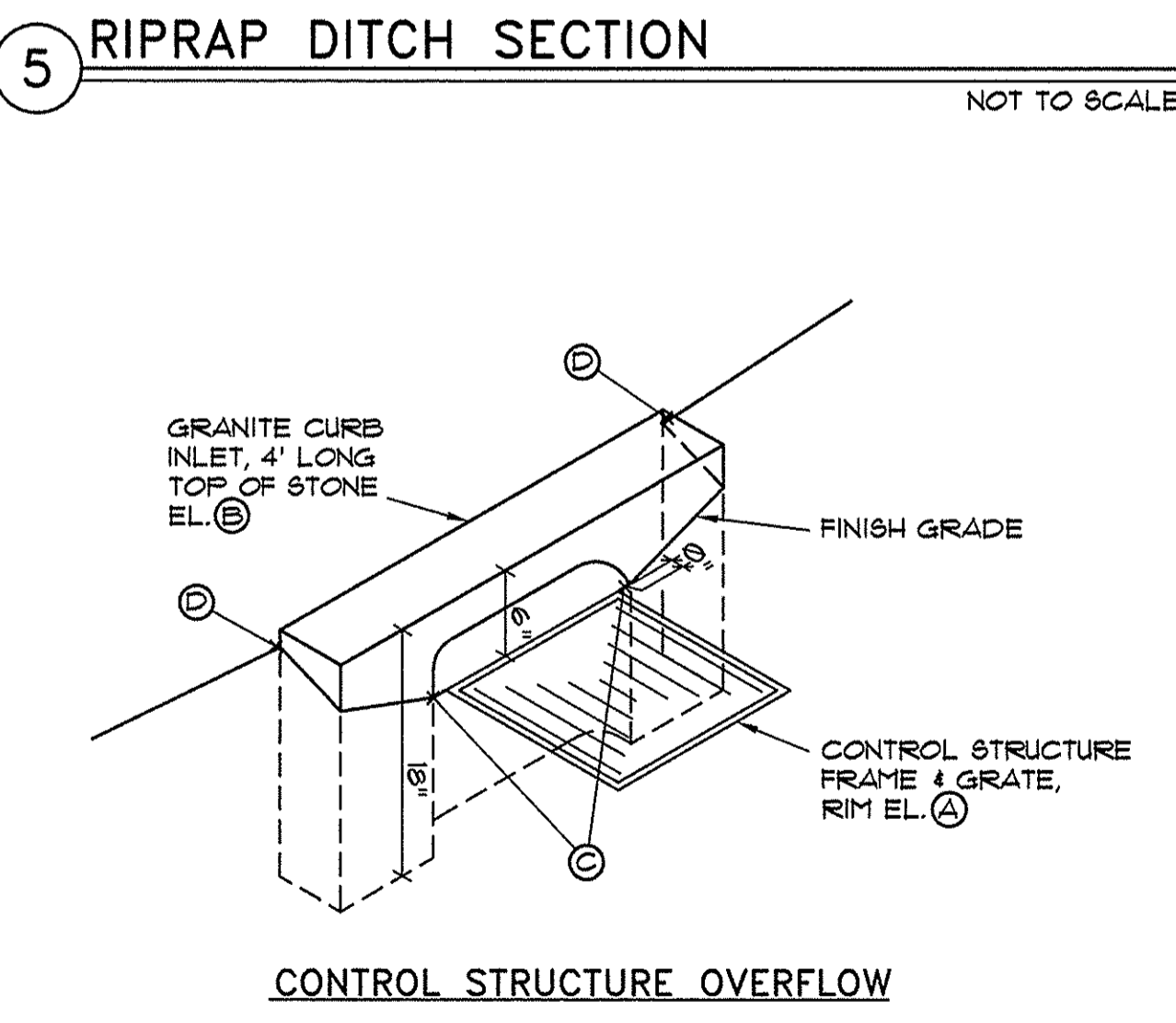


BERM STONE SIZE

SIEVE	% BY WEIGHT PASSING SIEVE
12 in	100
6 in	84-100
3 in	68-83
1 in	42-55
No. 4	8-12

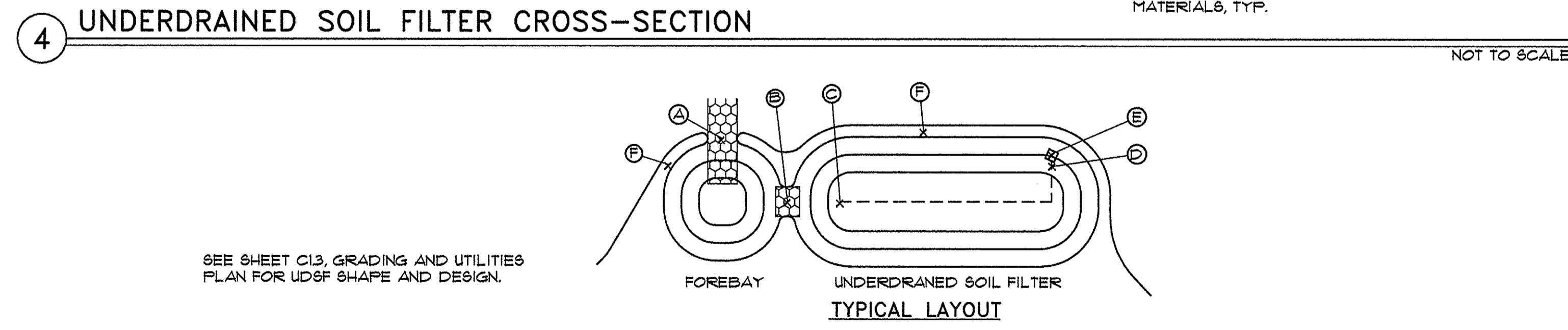
NOTES:

1. LOAM ALL SIDE SLOPES WITH 4" OF LOAM. SEED AS SOON AS POSSIBLE. PROTECT SIDE SLOPES FROM EROSION AS NEEDED.
2. BACKSLOPES TO BE 3:1 TO MATCH EXISTING GRADES IN BOTH CUTS AND FILLS UNLESS OTHERWISE INDICATED.



CURB INLET GRADING TABLE

FILTER NUMBER	FRAME EL. (A)	T.O. STONE EL. (B)	SPOT GRADE (C)	SPOT GRADE (D)
UDSF #1	55.20	56.3	55.20	56.1
UDSF #2	54.20	55.3	54.20	55.1



UNDERDRAINED SOIL FILTER LAYOUT TABLE

FILTER NUMBER	SIZE * BASE	FOREBAY			SOIL FILTER				OVERFLOW		
		ENTRY EL. (A)	BOTTOM EL.	OVERFLOW EL. (B)	SIZE * TOP OF MEDIA sq. ft.	TOP OF MEDIA EL.	6" UD EL. (C)	PIPE FROM TO (D)	EL. * UD HIGH POINT (E)	CONTROL STRUCT. EL. (F)	TOP OF BERM EL. (G)
UDSF #1	10'x10'	57.0	54.20	56.20	1,311 SF.	54.30	50.26	94 L.F.	51.20	55.20	57.5
UDSF #2	4'x10'	56.25	53.20	55.20	1,370 SF.	53.30	49.30	90 L.F.	50.20	54.20	56.5

3 TYPICAL FOREBAY SECTION

NOT TO SCALE

REV.	DATE	DESCRIPTION
2	5/17/11	REV'D PER REVIEW COMMENTS & FOR CONSTRUCTION
1	5/3/11	REV'D PER CITY OF PORTLAND REVIEW COMMENTS

J.B. BROWN & SONS
36 DANFORTH SREET, PORTLAND MAINE

MARTIN'S POINT HEALTHCARE
901 WASHINGTON AVEUNE, PORTLAND

PINKHAM & GREER
CONSULTING ENGINEERS
FALMOUTH, MAINE

DETAILS

SCALE: AS SHOWN DRN BY: JDC
DATE: APRIL 4, 2011 DESG BY: TSG
PROJECT: 10181 CHK BY: TSG

3/17/11

7 GRADING AT CONTROL STRUCTURES

NOT TO SCALE

6 UNDERDRAINED SOIL FILTER LAYOUT

NOT TO SCALE

C2.3