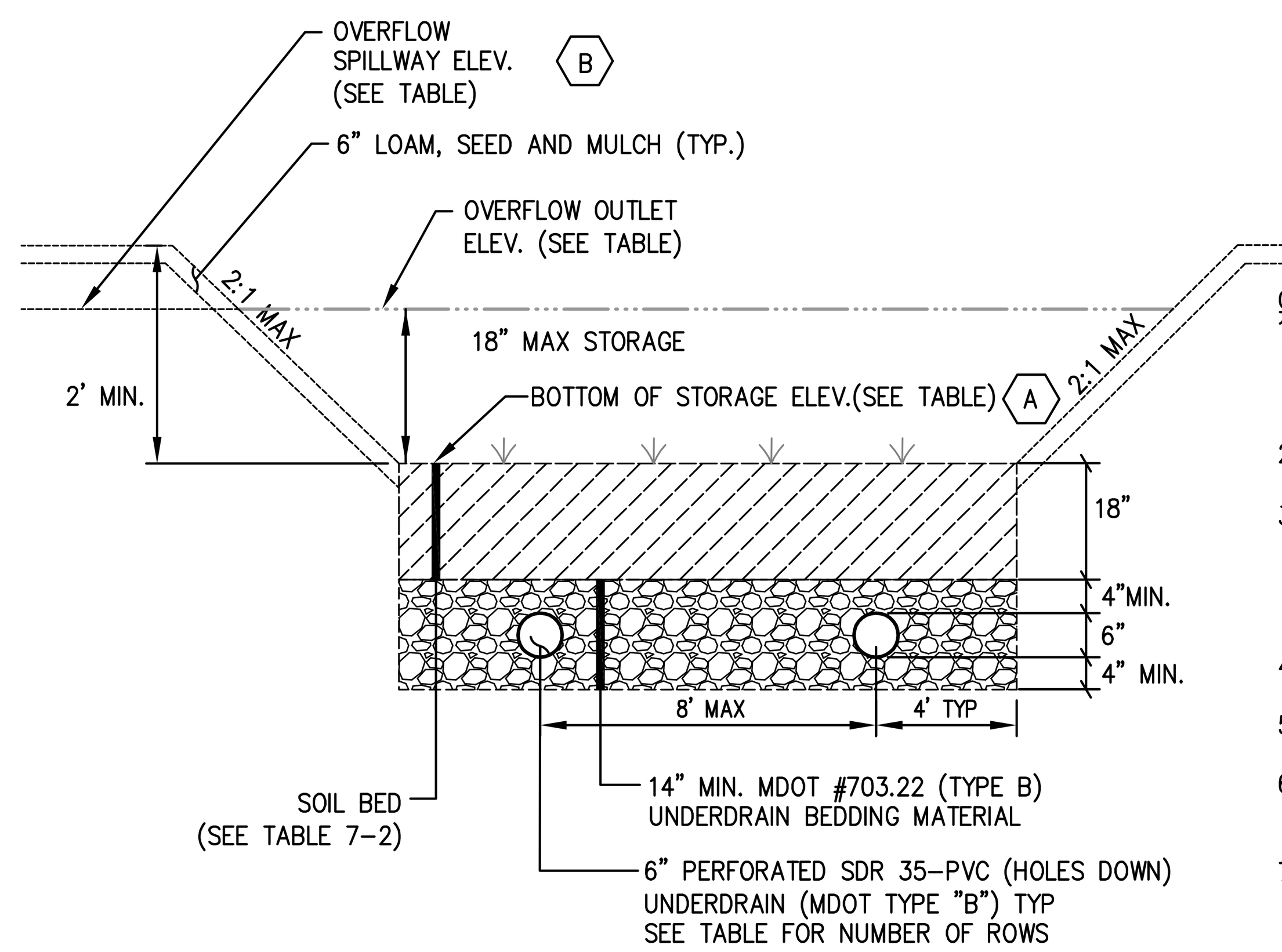


GRASSED UNDERDRAINED SOIL FILTER NOTES:
1. THE SOIL BED SHALL CONSIST OF THE FOLLOWING:
   18" SOIL FILTER BED (SEE TABLE 7-2)
   14" MDOT #703.22 (TYPE B) (SEE TABLE 7-1)
2. THE SOIL BED SHALL BE 18 INCHES IN DEPTH.
3. THE SOIL BED MATERIAL SHALL BE LIGHTLY COMPACTED (90% TO 92% STANDARD PROCTOR) USING WATER. IF HEAVY COMPACTION OCCURS, ROTOTILL AGAIN PRIOR TO SEEDING OR SODDING.
4. SEE LANDSCAPE PLAN FOR SEEDING INFORMATION.
5. REFER TO GRADING PLANS FOR UNDERDRAIN LAYOUT.
6. THE MAXIMUM DISTANCE BETWEEN UNDERDRAIN PIPES SHALL BE 8 FEET.
7. GRASSED UNDERDRAINED SOIL FILTER MEDIA SHALL NOT BE INSTALLED UNTIL THE TRIBUTARY AREA HAS BEEN PERMANENTLY STABILIZED.

(1) GRASSED UNDERDRAINED SOIL FILTER – TYP. CROSS SECTION
SCALE: N.T.S.

GRASSED UNDERDRAINED SOIL FILTER SCHEDULE

GRASSED UNDERDRAINED SOIL FILTER FILTER #	BOTTOM ELEV. (A)	FILTER LENGTH	OVERFLOW OUTLET (B)	ROWS OF PIPE PER FILTER	UNDERDRAIN INVERT	UNDERDRAIN OUTLET INVERT	PEAK WATER ELEVATION			
							2 YEAR STORM	10 YEAR STORM	25 YEAR STORM	50 YEAR STORM
T1	65.5	110'	67.0	2	63.2	63.1	67.1	67.3	67.3	67.3
T2	76.0	106'	77.5	2	73.7	73.5	77.3	77.7	77.7	77.8

Table 7-1
MDOT Specifications for Underdrains (MDOT #703.22)

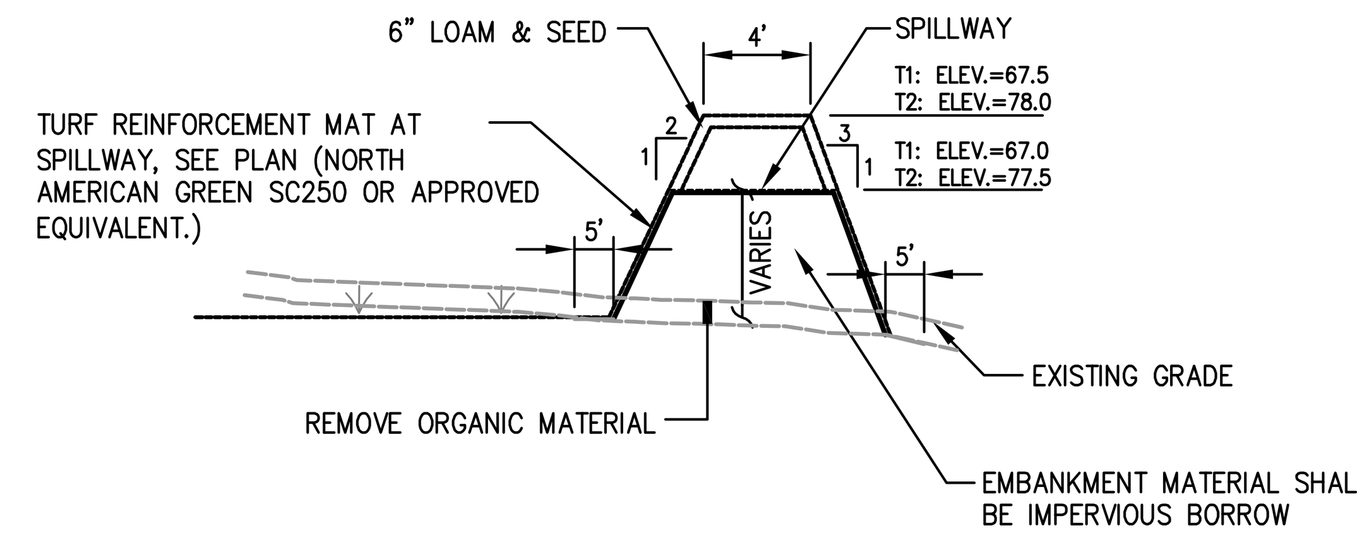
Sieve Size	% by Weight
Underdrain Type B	
1"	90-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5

Table 7-2
Soil Filter Media, 18" Deep (Option 2)

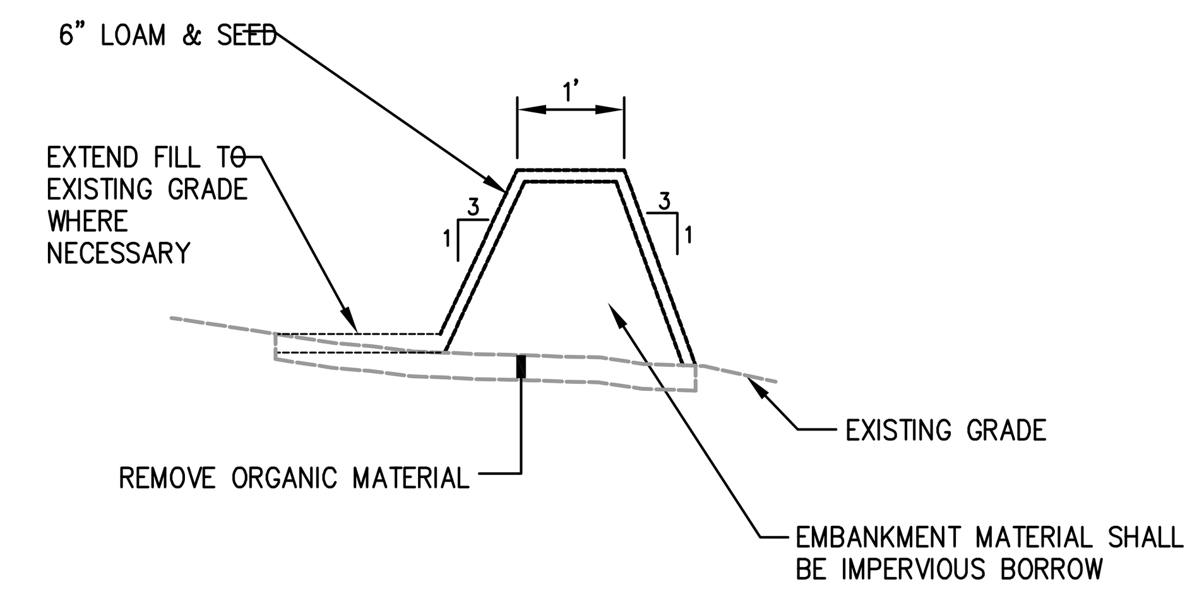
Filter Media	Mixture by Volume	Specification
Sand	50%-55%	MDOT Specification #703.01 Fine Aggregate for Concrete (see Table 7-3)
Topsoil	20%-30%	Loamy sand topsoil with minimal clay content and between 15 to 25% fines passing the #200 sieve
Mulch	20%-30%	Moderately fine, shredded bark or wood fiber mulch(organic material – well composed with no manure or stump grindings) with less than 5% passing the 200 sieve

Table 7-3
MDOT Specifications for Aggregate (MDOT #703.01)

Sieve Size	% by Weight
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#60	10-30
#100	2-10
#200	0-5

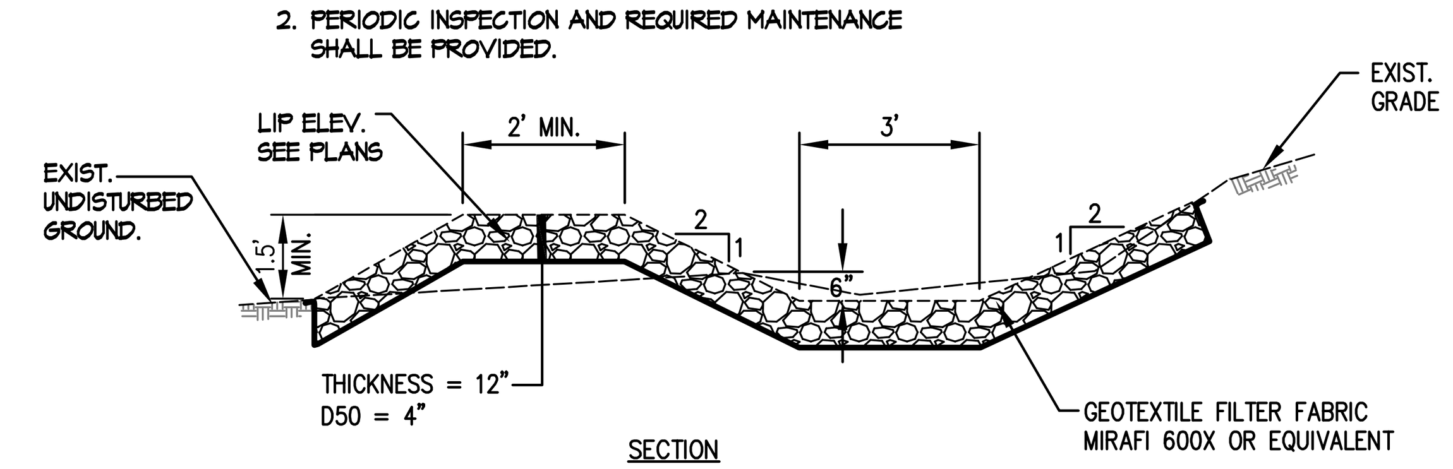


(2) TYPICAL EMBANKMENT/SPILLWAY DETAIL
SCALE: N.T.S.

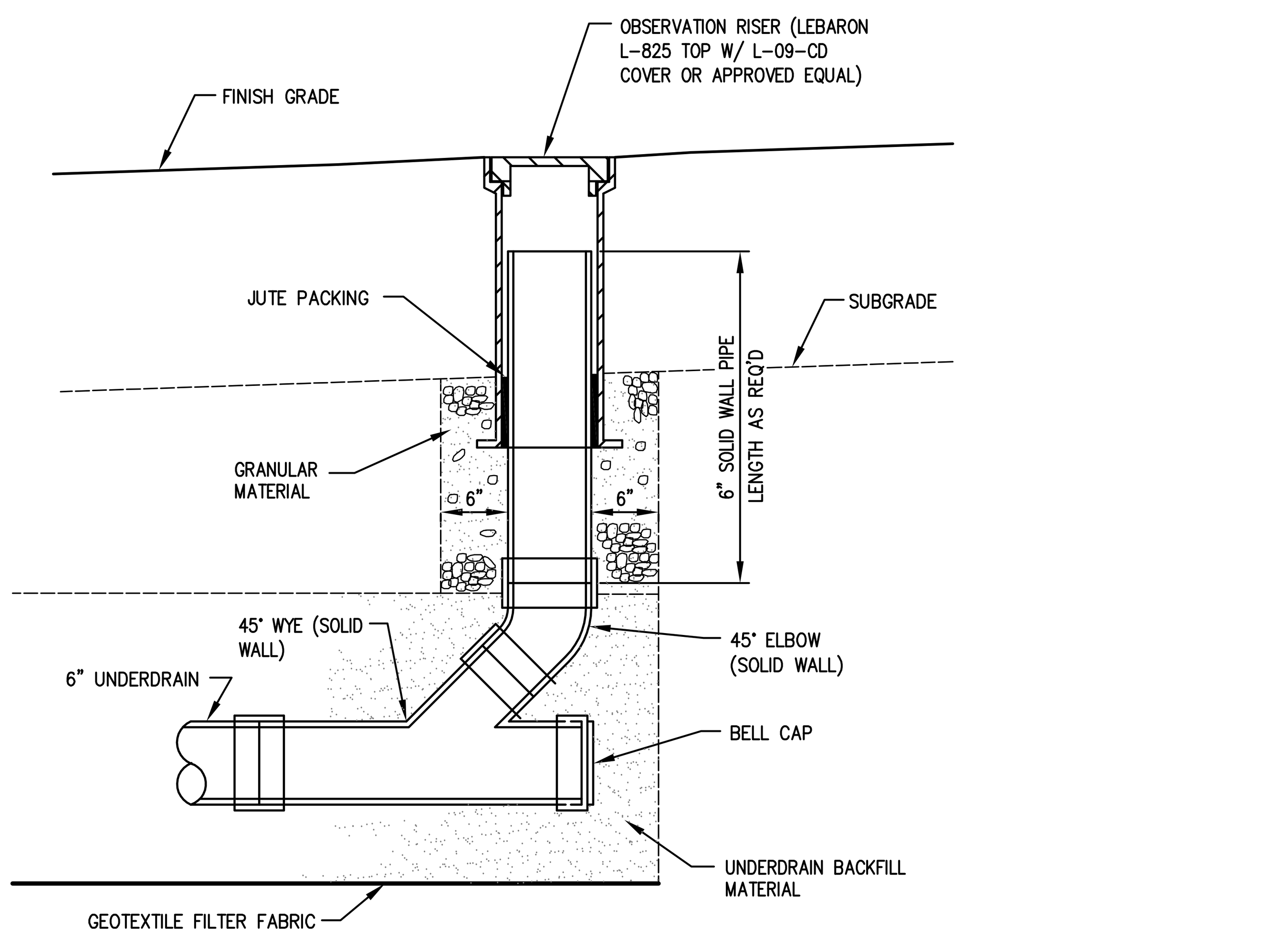


(3) INTERCEPTOR SWALE DETAIL
SCALE: N.T.S.

NOTES:
1. CONSTRUCT LEVEL LIP ON ZERO PERCENT GRADE TO INSURE UNIFORM SPREADING OF SEDIMENT - FREE RUNOFF (CONVERTING CHANNEL FLOW TO SHEET FLOW).
2. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED.

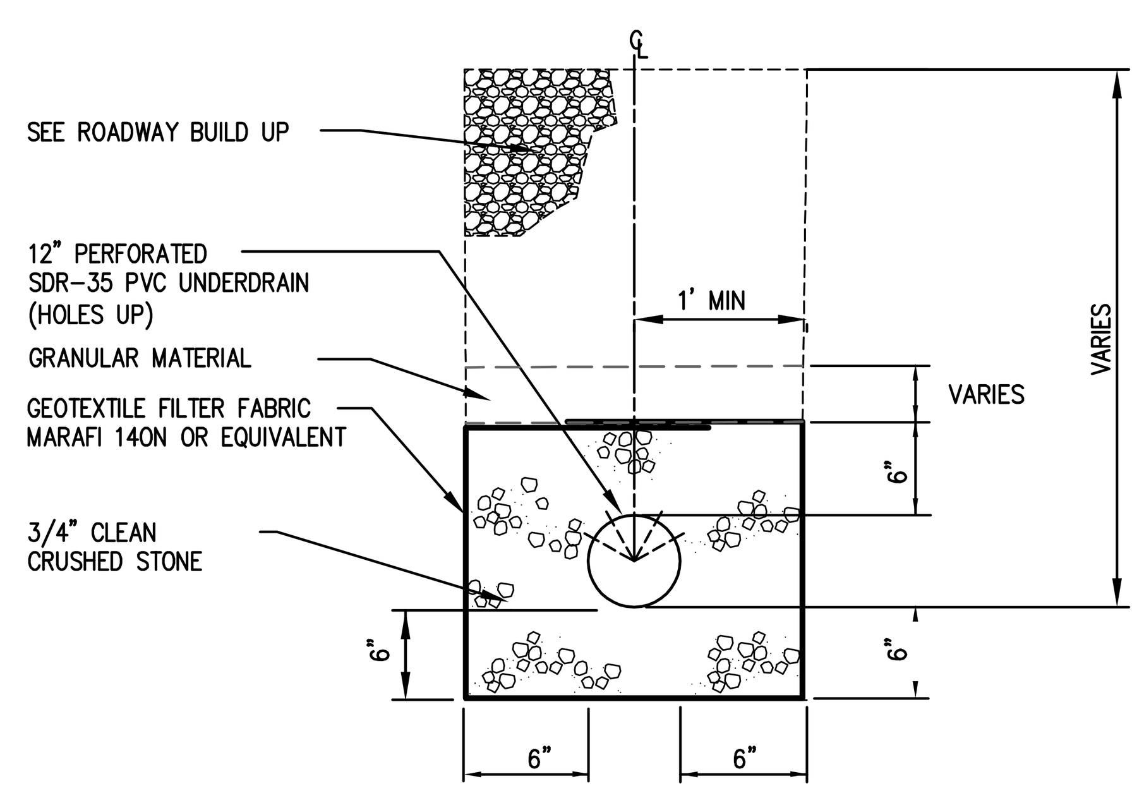


(4) STONE BERM LEVEL SPREADER

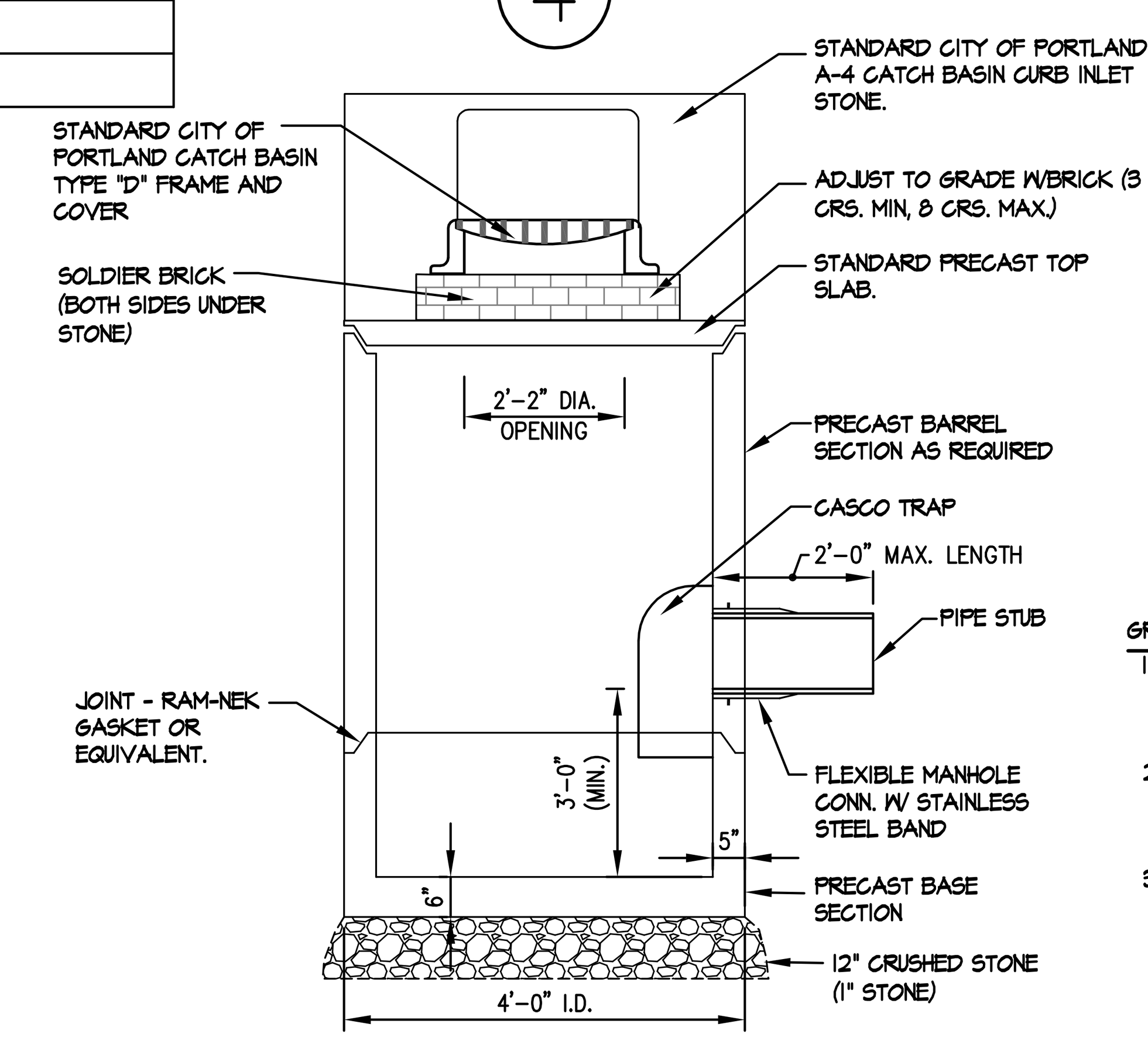


(5) UNDERDRAIN CLEANOUT
SCALE: N.T.S.

NOTES:
1. DIMENSION "B" SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMP-CTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES THE DIMENSION SHALL BE AT LEAST 4".
2. PIPE TRENCH INSTALLATION SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-12.

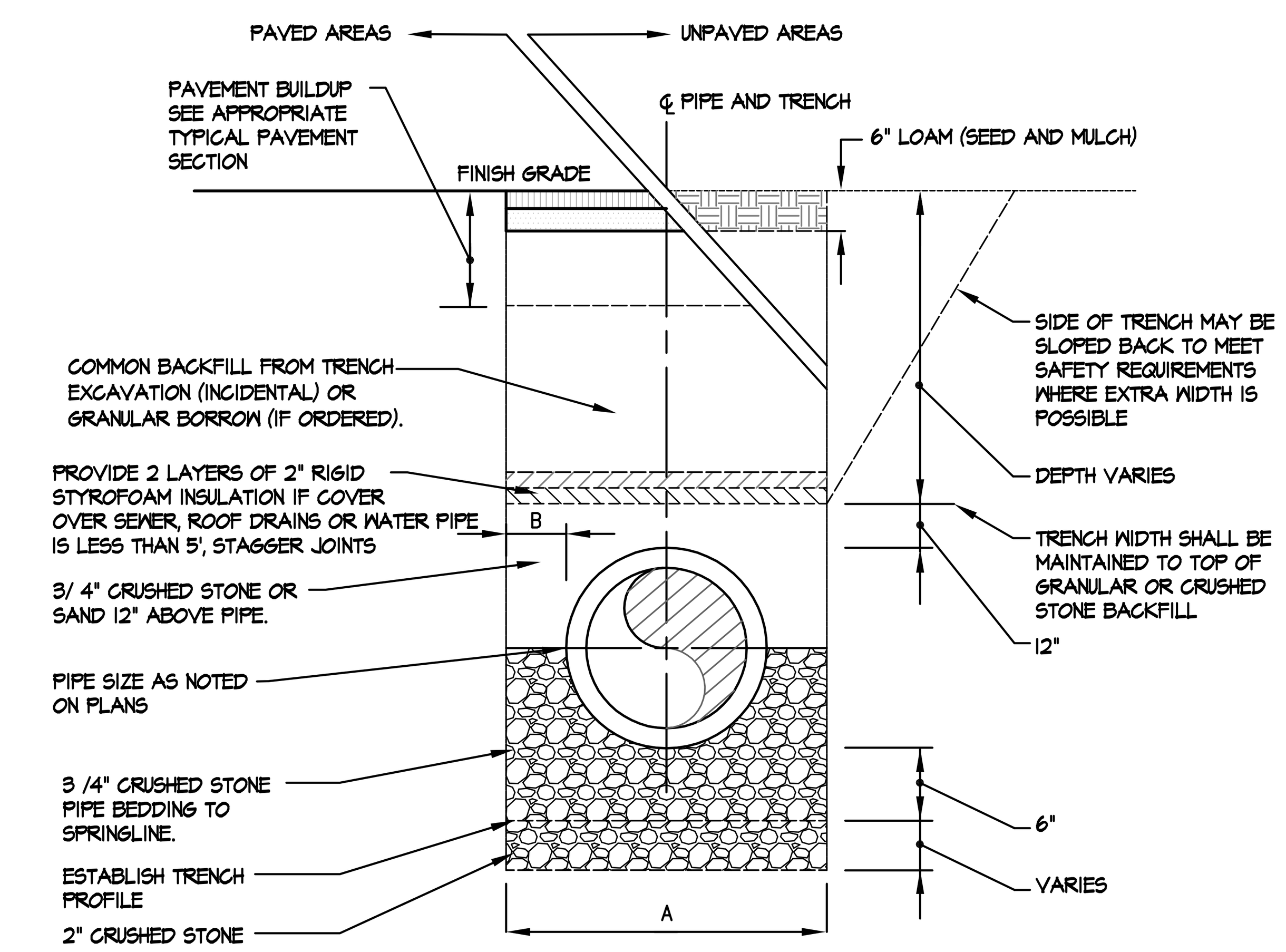


(6) TYPE C UNDERDRAIN TRENCH
SCALE: N.T.S.



GRATED COVERS:
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
2. CATCH BASIN AND GRATE SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARD FIGURE II-4, II-2 AND II-7.
3. GRANITE CURB INLET STONE SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-10 AND II-11.

(7) CATCH BASIN
SCALE: N.T.S.



TRENCH BACKFILL SCHEDULE

PIPE MATERIAL	PIPE BEDDING	INITIAL BACKFILL	BACKFILL
	3/4" CRUSHED STONE	3/4" CRUSHED STONE	***EXCAVATED MATERIAL OR GRANULAR BORROW
	3/4" CRUSHED STONE	3/4" CRUSHED STONE	***EXCAVATED MATERIAL OR GRANULAR BORROW
HDPE	GRANULAR MATERIAL	GRANULAR MATERIAL	***EXCAVATED MATERIAL OR GRANULAR BORROW
PVC COPPER	SAND	SAND	***EXCAVATED MATERIAL OR GRANULAR BORROW

DUCTILE IRON
*** EXCAVATED MATERIAL MUST BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

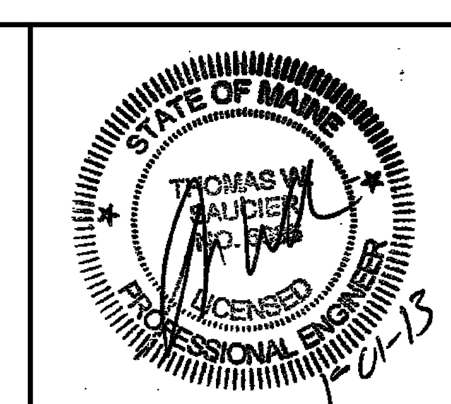
GRANULAR MATERIAL TO BE SAND OR GRAVEL.

PIPE DIAMETER "D" (INCHES)	MAX TRENCH WIDTH "A" (FEET)
4	4.0
6	4.0
8	4.0
10	4.0
12	5.0
15	5.0
18	5.0
21	5.0
24	6.0

(8) TYPICAL TRENCH SECTION
SCALE: N.T.S.

REV.	DATE	STATUS	BY	CHKD.	APPD.
A	1/01/13	SUBMITTED TO CITY OF PORTLAND FOR WORKSHOP	DEPT.	PBB	TWS

REV.	DATE	STATUS	BY	CHKD.	APPD.



LAND DESIGN SOLUTIONS
LAND PLANNING, SITE PLANNING & LANDSCAPE ARCHITECTURE
P.O. Box 316, 160 Longwoods Road, Cumberland, ME 04081 tel:(207) 939-1717

CLIENT:
TPO PROPERTIES, LLC
30 LEDGEWOOD DRIVE, FALMOUTH, MAINE 04104

DESIGN: PBB
DRAWN: DEPT.
CHKD: PBB
DATE: MAY 2012
SCALE: AS NOTED

OLD BARN ESTATES
1062 OCEAN AVENUE, PORTLAND, MAINE

SITE DETAILS

PROJ. NO. –
DWG. NO. C-302
REV. A

Drawing Name: K:\0 Donovan\Dwgs\Details | Plot Date / Time: Jan. 1, 13 / 3:43 PM