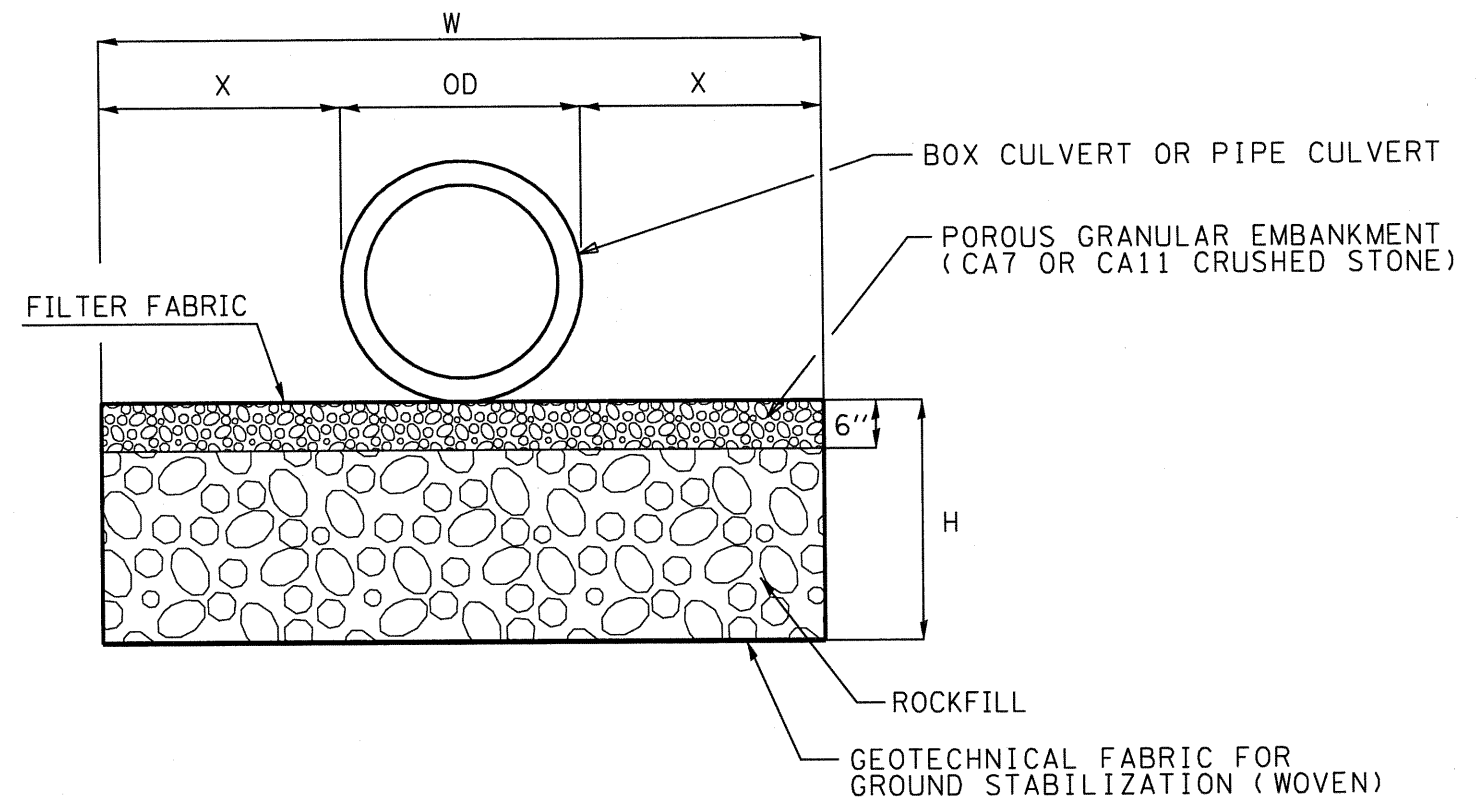


ALTERNATE I: FOR 12" TO 18" UNDERCUT



ALTERNATE II: FOR 18" AND GREATER UNDERCUT

GENERAL NOTES:

- Undercut if the Dynamic Cone Penetrometer tests indicate soil strength is less than 1 ton/sq ft.
- DEFINITIONS:
 OD = Outside Diameter or outside width of box culvert
 h = Depth of undercut (for box culverts, the upper 6" shall be included in the cost of the various box culvert pay items).
 x = 2' for pipe culverts
 x = h or minimum 2 feet, which ever is greater for box culverts.
 W = Width of undercut = 2x + OD
- Wrap porous granular material and rock fill in filter fabric. The fabric shall be according to the requirements of the applicable portions of section 1080 and section 282 with 6 or 8 oz/sy material allowed.

CULVERT UNDERCUT QUANTITIES										
CULVERT LOCATION	UNDERCUT DIMENSIONS					POROUS GRANULAR EMBANKMENT (TON)	ROCK FILL (TON)	GEOTECHNICAL FABRIC (SQ. YDS.)	FILTER FABRIC (SQ. YDS.)	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL (CU. YD.)
	DEPTH 'h' (FT)	Width			Length 'L' (FT)					
		'x' (FT)	'OD' (FT)	'w' (FT)						
PIPES										
41+00*	2	2	6	10	36.0	13.7	41.0	40.0	62.2	26.7
149+80.1*	2	2	3	7	68.0	18.1	54.2	52.9	88.0	35.3
TOTAL						32	95	93	150.2**	62

*QUANTITY CALCULATED FOR LENGTH OF PROPOSED PIPE BEYOND THE EXISTING HEADWALLS ONLY.

**GRAND TOTAL FOUND IN RIP RAP SCHEDULE.

All dimensions are in inches (millimeters) unless otherwise noted.

FILE NAME = miscellaneous.sheet.dgn	USER NAME = horstkj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIPE CLVERT UNDERCUT DETAIL				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						317	15W-2,RS-3,16W-3,RS-5	FULTON	171	94
	PLOT SCALE = 96.8888' / IN.	CHECKED -	REVISED -		CONTRACT NO. 88098								
	PLOT DATE = 8/9/2010	DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								
				SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.				