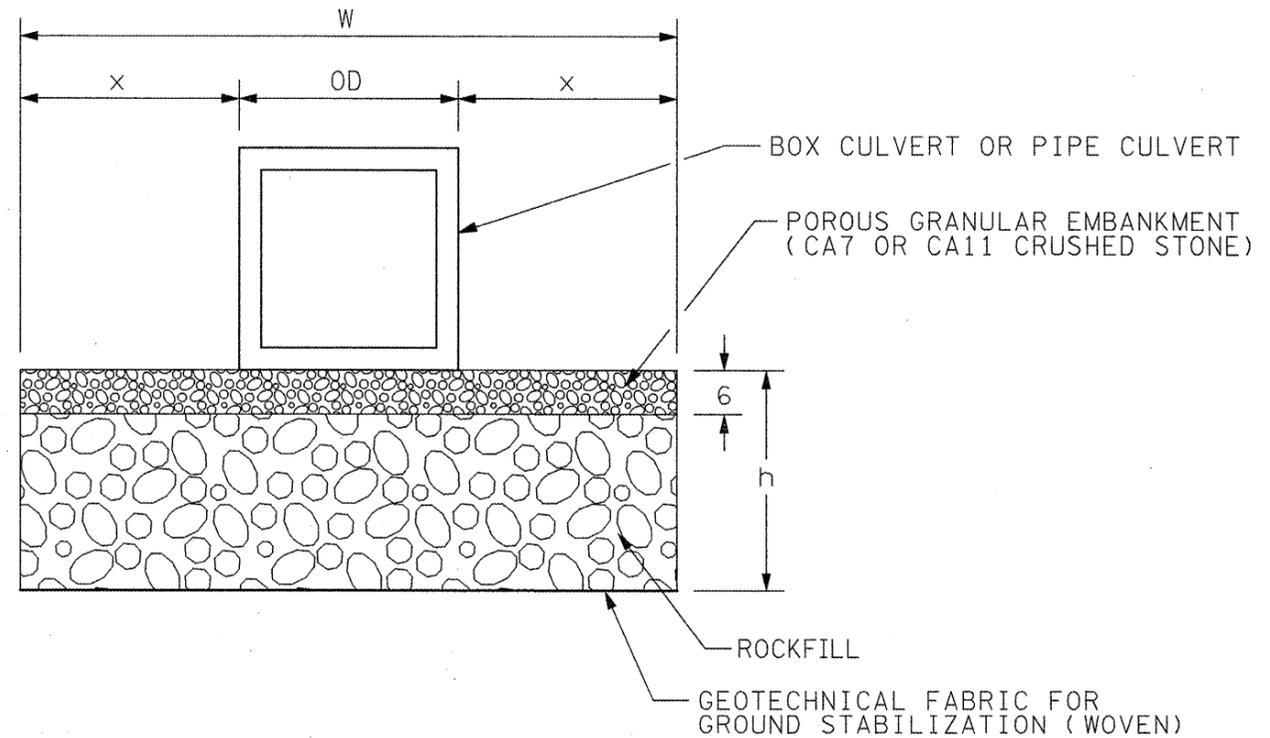


ALTERNATE I: FOR 12" TO 18" UNDERCUT



ALTERNATE II: FOR 18" TO 36" UNDERCUT

CULVERT LOCATION	UNDERCUT			
	DEPTH	WIDTH		
	h	x	OD	W
EXTENSION ON BOX @ 574+65.49, UPSTREAM & DOWNSTREAM	30"	2'-6"	5'-6"	10'-6"

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 precast box culverts, the upper 6" is included in the cost of culvert).
 x = h or min. width specified in Sec. 542.04, which ever is greater for pipe culverts.
 x = h or minimum 2 feet, which ever is greater for box culverts.
 W = Width of undercut = 2x + OD
- For undercuts greater than 36", use Alternate II with undercut treatments as directed by the District Geotechnical Engineer.

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