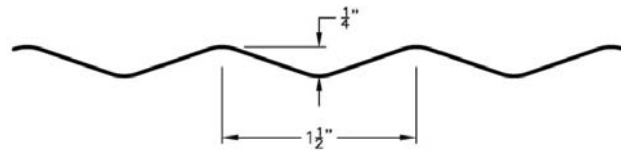


PAVEMENT UNDERDRAIN SYSTEMS

Although underdrain systems can involve pipe of any size, the focus of this guide is the typical 6, 8 and 10-in corrugated metal pipe diameters. Please refer to the CMP Perforation Guide (PG-1) and the CMP Connection Guide (CG-1, CG-2) for information involving the larger sizes. Pipe shall meet the applicable ASTM, AASHTO or AREMA specifications. Refer to the CMP Specification Guide (SG-1, SG-2) for further information.

Corrugations for 6, 8 and 10-in CMP are helically formed with a 1½" x ¼" corrugation with either an 18 or 16 gage thickness with corrugation section properties as shown at right.

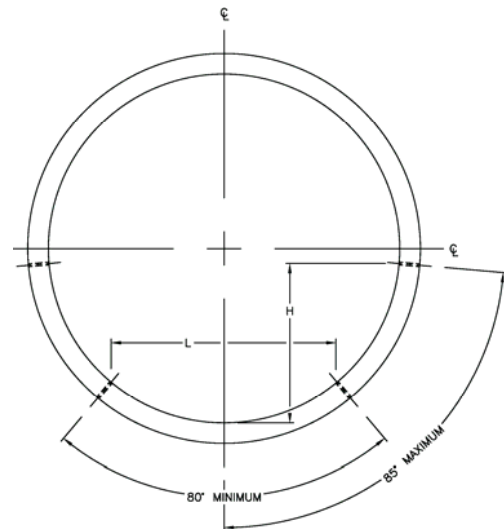


Steel Gage	CSP 1½" x ¼" Corrugation				
	T (in)	A (in ² /ft)	I (in ⁴ /in)	r (in)	FF _{max} (in/kip)
18	0.052	0.608	0.000344	0.0824	43
16	0.064	0.761	0.000439	0.0832	43

Class 1 Perforations for 1½" x ¼" Corrugation

Diameter, D (in)	Total No. of Rows	H _{max} (in)	L _{min} (in)
6	4	2.8	3.8
8	4	3.7	5.1
10	4	4.6	6.4

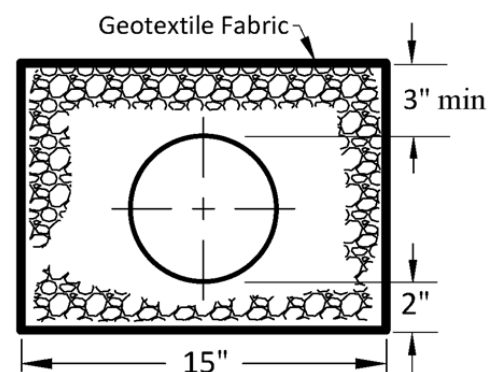
Water inlet area for 6, 8 and 10-in perforated pipe is 3.53 in²/ft.



Class 1 Perforation Layout



CMP underdrain for the 6, 8 and 10-in diameters are connected together with a sleeve coupler, also known as a bell-bell coupler (perforations not shown in sketch).



Typical Trench Detail