

**POLYETHYLENE CORRUGATED PIPE (PE)**

DIAMETER INCHES	AREA SQ. FT.	MAXIMUM HEIGHT OF COVER FEET	
		TYPE C	TYPE S
12	0.8	23	20
15	1.2	23	19
18	1.8	19	19
24	3.1	16	15
30	4.9	—	13
36	7.1	—	12
42	9.6	—	10
48	12.6	—	10
54	15.9	—	10
60	19.6	—	10

**NOTES:**

- COVER HEIGHTS INDICATED IN TABLES ARE FOR FINISHED CONSTRUCTION, USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- TO PROTECT PIPE DURING CONSTRUCTION, MINIMUM HEIGHT OF COVER TO BE IN ACCORDANCE WITH TABLE A PRIOR TO ALLOWING CONSTRUCTION TRAFFIC TO CROSS INSTALLATION. THE COVER SHALL EXTEND THE FULL LENGTH OF THE PIPE. THE APPROACH FILL IS TO EXTEND A MINIMUM OF 10(DIAMETER + 1/2 DIAMETER) ON EACH SIDE OF THE PIPE OR TO THE INTERSECTION WITH A CUT.
- STANDARD MINIMUM FINISHED HEIGHT OF COVER FOR ALL PIPES, EXCEPT THOSE UNDER ENTRANCES, SHALL BE 2.0' OR 1/2 DIAMETER WHICHEVER IS GREATER. FOR 12" THROUGH 48" DIAMETER PIPE INSTALLATIONS WHERE THE COVER HEIGHTS CANNOT BE ACHIEVED, AN ABSOLUTE MINIMUM FINISHED COVER HEIGHT OF 1.0' WILL BE ALLOWED ONLY IF ALL POSSIBLE MEANS TO OBTAIN THE STANDARD VALUE HAVE BEEN EXHAUSTED. THE MINIMUM FINISHED HEIGHT OF COVER FOR PIPES UNDER ENTRANCES IS 9" FOR PIPE DIAMETERS LESS THAN OR EQUAL TO 24", AND 12" FOR PIPE DIAMETERS GREATER THAN 24". WHERE THE SURFACE OVER THE TOP OF THE PIPE WILL BE ASPHALT, A MINIMUM OF 6" OF CLASS 1 BACKFILL MATERIAL IS TO BE PLACED BETWEEN THE TOP OF THE PIPE AND THE BOTTOM OF THE ASPHALT.
- SEE STANDARD PB-1 FOR PIPE BEDDING AND BACKFILL REQUIREMENTS.
- LARGE CULVERTS SHALL BE DESIGNED BY AN ENGINEER, REGISTERED IN THE COMMONWEALTH OF VIRGINIA, AND SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF VOLUME V, PART 2 OF THE MANUAL OF THE STRUCTURE AND BRIDGE DIVISION. A LARGE CULVERT IS ANY CULVERT THAT WILL BECOME PART OF THE STRUCTURE AND BRIDGE INVENTORY. THE GEOMETRIC DEFINITION OF THESE STRUCTURES IS PROVIDED IN THE CURRENT VERSION OF VDOT'S IIM-S&B-27.

**POLYVINYLCHLORIDE PROFILE WALL PIPE (PVC)**

DIAMETER INCHES	AREA SQ. FT.	MAXIMUM HEIGHT OF COVER FEET
18	1.7	41
21	2.3	40
24	3.0	37
30	4.7	34
36	6.9	34

PIPE TYPE DEFINITIONS:

TYPE C - SINGLE WALL PIPE (CORRUGATED WALL ONLY)

TYPE S - DOUBLE WALL PIPE (CORRUGATED WALL WITH SMOOTH INNER WALL)

TYPE D - TRIPLE WALL PIPE (CORRUGATED WALL BETWEEN SMOOTH INNER AND OUTER WALL)

**POLYPROPYLENE PIPE (PP)**

DIAMETER INCHES	AREA SQ. FT.	MAXIMUM HEIGHT OF COVER FEET	
		TYPE S	TYPE D
12	0.8	25	—
15	1.2	24	—
18	1.8	24	—
24	3.1	20	—
30	4.9	16	—
36	7.1	14	16
42	9.6	14	16
48	12.6	13	16
60	19.6	12	15

TABLE A

PIPE DIAMETER	MINIMUM COVER HEIGHT DURING CONSTRUCTION (SEE NOTE 2)
12" TO 30"	18"
36" AND ABOVE	1/2 DIAMETER

A COPY OF THE ORIGINAL SEALED AND SIGNED STANDARD DRAWING IS ON FILE IN THE CENTRAL OFFICE

**PLASTIC PIPE  
HEIGHT OF COVER TABLES FOR HL-93 LIVE LOAD**  
VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION  
REFERENCE

232  
302



ROAD AND BRIDGE STANDARDS

SHEET 15 OF 18

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