

12.6.6.2 Embankment Installations

The minimum width of the soil envelope shall be sufficient to ensure lateral restraint for the buried structure. The combined width of the soil envelope and embankment beyond shall be adequate to support all the loads on the culvert and to comply with the movement requirements specified in Article 12.6.2.

C12.6.6.2

As a guide, the minimum width of the soil envelope on each side of the buried structure should not be less than the widths specified in Table C1:

Table C12.6.6.2-1 Minimum Width of Soil Envelope.

Diameter, S (in.)	Minimum Envelope Width (ft.)
<24	$S/12$
24–144	2.0
>144	5.0

12.6.6.3 Minimum Soil Cover

The cover of a well-compacted granular subbase, taken from the top of rigid pavement or the bottom of flexible pavement, shall not be less than that specified in Table 1, where:

S = diameter of pipe (in.)

B_c = outside diameter or width of the structure (ft.)

B'_c = out-to-out vertical rise of pipe (ft.)

ID = inside diameter (in.)

Table 12.6.6.3-1 Minimum Soil Cover.

Type	Condition	Minimum Cover
Corrugated Metal Pipe	—	$S/8 \geq 12.0$ in.
Spiral Rib Metal Pipe	Steel Conduit	$S/4 \geq 12.0$ in.
	Aluminum Conduit where $S \leq 48.0$ in.	$S/2 \geq 12.0$ in.
	Aluminum Conduit where $S > 48.0$ in.	$S/2.75 \geq 24.0$ in.
Structural Plate Pipe Structures	—	$S/8 \geq 12.0$ in.
Long-Span Structural Plate Pipe Structures	—	Refer to Table 12.8.3.1.1-1
Structural Plate Box Structures	—	1.4 ft. as specified in Article 12.9.1
Reinforced Concrete Pipe	Unpaved areas and under flexible pavement	$B_c/8$ or $B'_c/8$, whichever is greater, ≥ 12.0 in.
	Compacted granular fill under rigid pavement	9.0 in.
Thermoplastic Pipe	—	$ID/8 \geq 12.0$ in.
Deep Corrugated Structural Plate Structures	—	See Article 12.8.9.4

If soil cover is not provided, the top of precast or cast-in-place reinforced concrete box structures shall be designed for direct application of vehicular loads.

Additional cover requirements during construction shall be taken as specified in Article 30.5.5 of the *AASHTO LRFD Bridge Construction Specifications*.