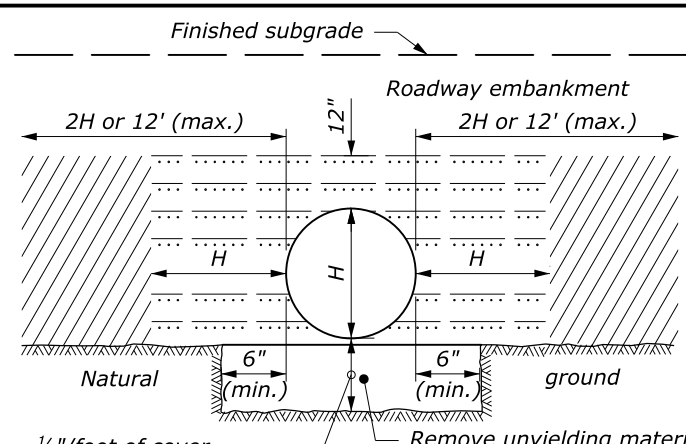
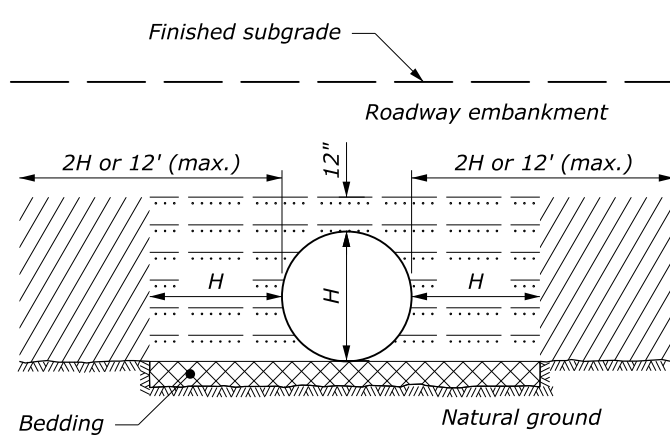


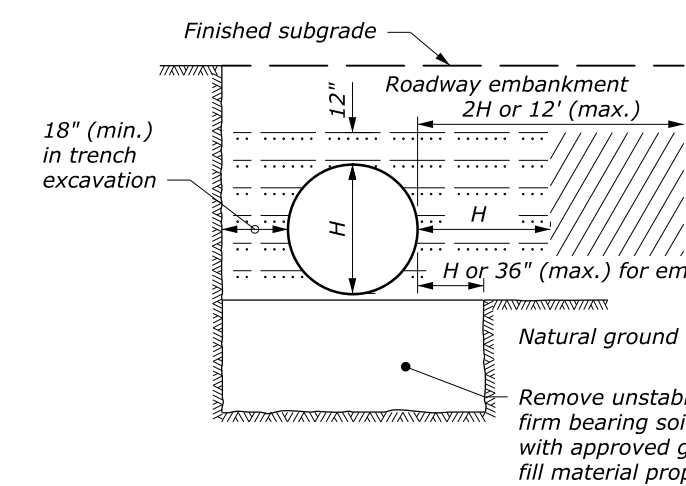
**ABOVE NATURAL GROUND**



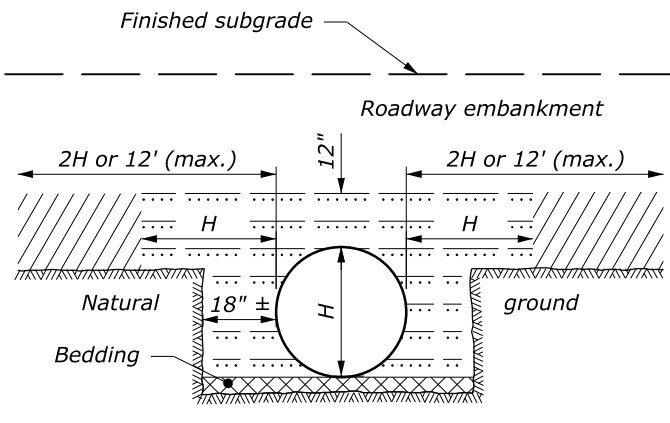
**ON UNYIELDING MATERIAL**



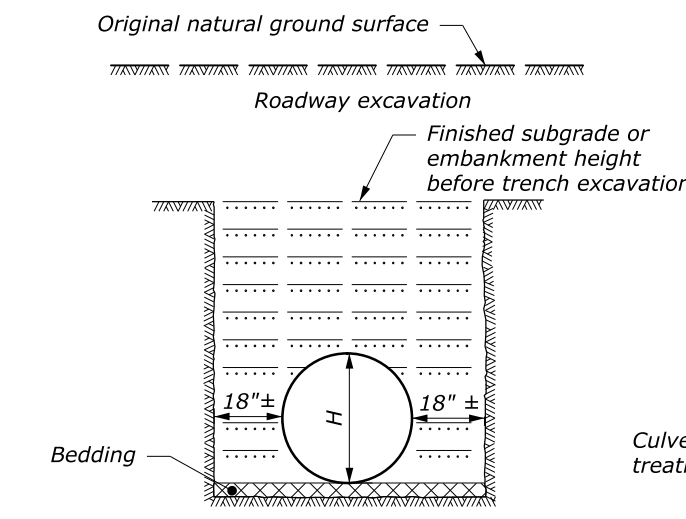
**ON NATURAL GROUND**



**ON UNSTABLE MATERIAL**



**ABOVE AND BELOW NATURAL GROUND**



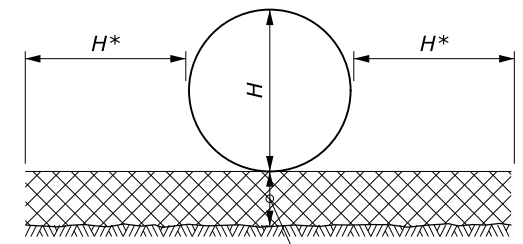
**BELOW NATURAL GROUND OR TRENCH EXCAVATION IN EMBANKMENT**

- LEGEND:**
- Bedding material (uncompacted)
  - Embankment material placed in layers not exceeding 6" compacted depth.
  - Compacted backfill material placed in layers not exceeding 6" compacted depth. Or lean concrete backfill in accordance with Section 614.
  - Impermeable backfill material.

BEDDING DEPTH	
PIPE SIZE (H)	DEPTH
12" to 54"	4"
> 54"	6"

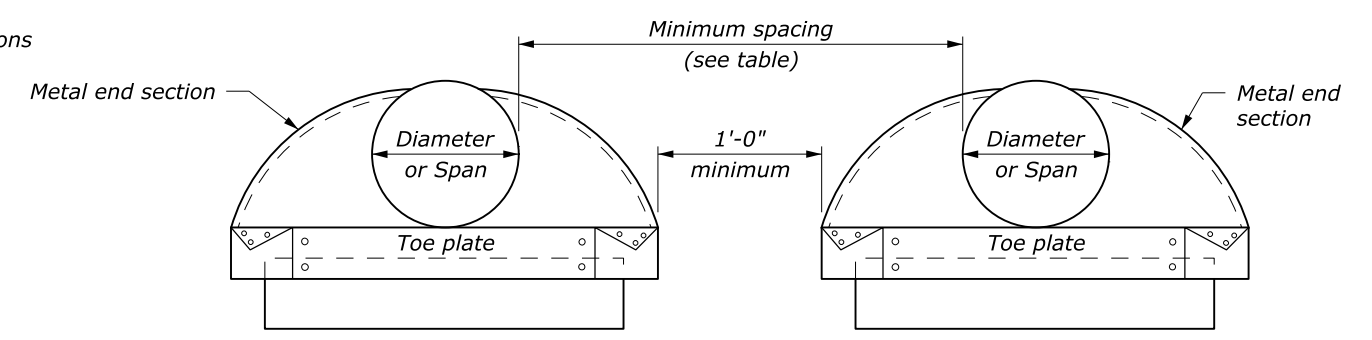
**NOTE:**

- When directed, camber pipe culverts upward from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
- H equals the diameter of all round pipe culverts or the rise dimension of all pipe arch culverts.
- See Section 704 for bedding and backfill requirements.



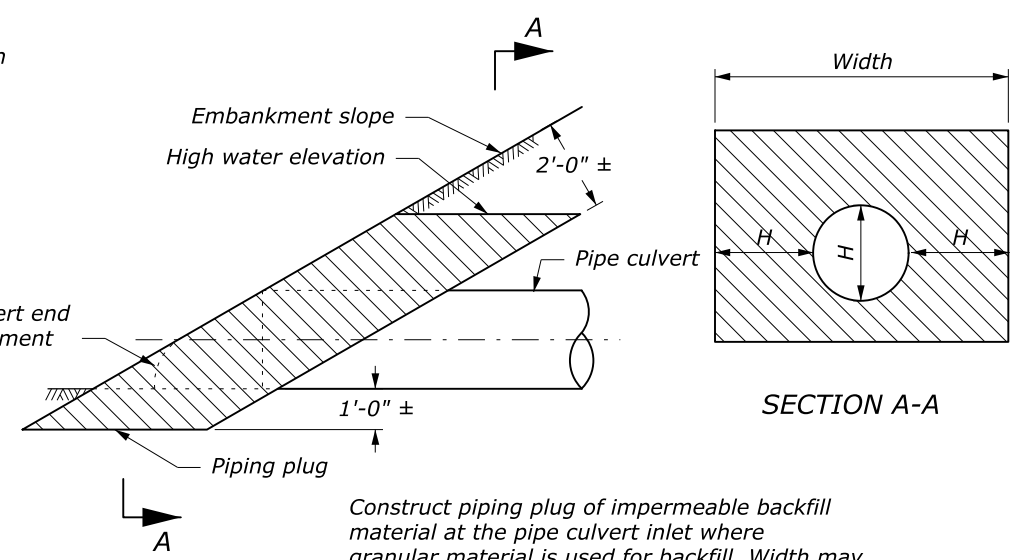
**PIPE BEDDING**

MINIMUM SPACING	
DIAMETER or SPAN	SPACING
UP to 48"	24"
48" and UP	Half diameter or span or 36", whichever is less



**ELEVATION**

**MULTIPLE PIPE INSTALLATION**



**SECTION A-A**

Construct piping plug of impermeable backfill material at the pipe culvert inlet where granular material is used for backfill. Width may be adjusted to tie into impervious material.

**PIPING PLUG**

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

**METAL AND PLASTIC  
PIPE CULVERT BEDDING**

STANDARD APPROVED FOR USE 12/1993  
REVISED: 4/1994 6/2005  
DRAFT: 10/2014

STANDARD  
602-3