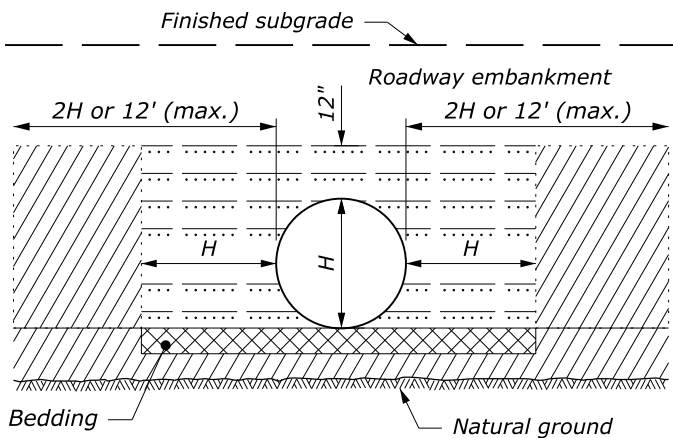
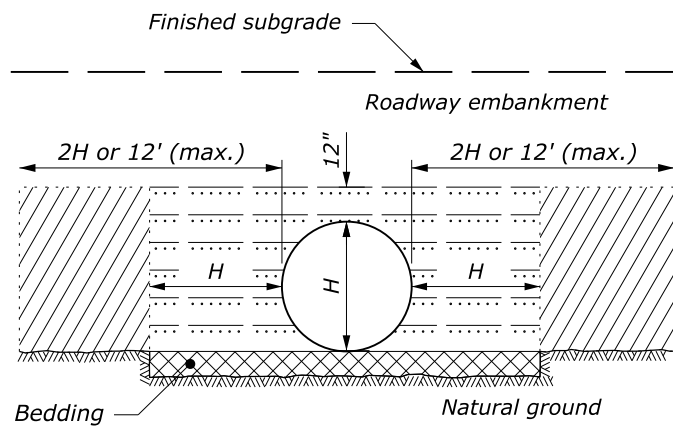


c:\pwwork\00471956\Std602-3.dgn [Std 602-3]
24 July 2024 10:00 AM

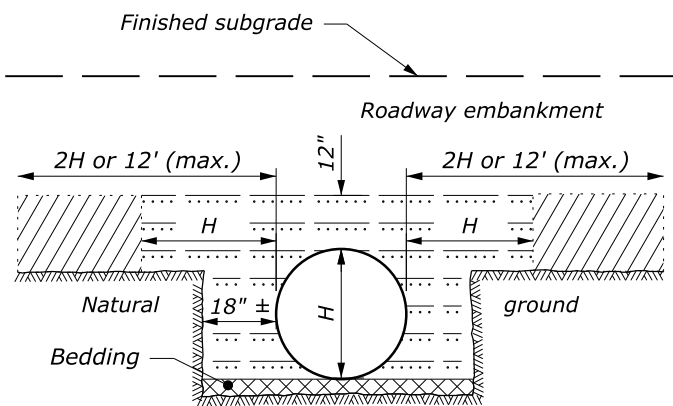
PROJECT	SHEET NUMBER



ABOVE NATURAL GROUND



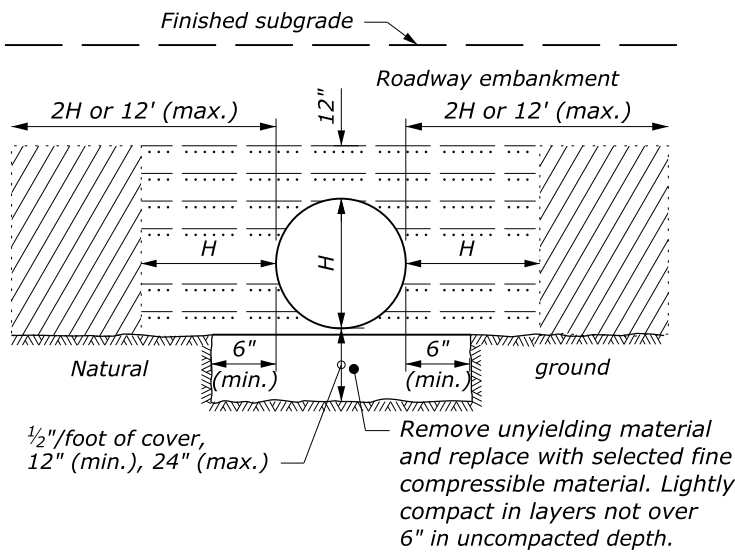
ON NATURAL GROUND



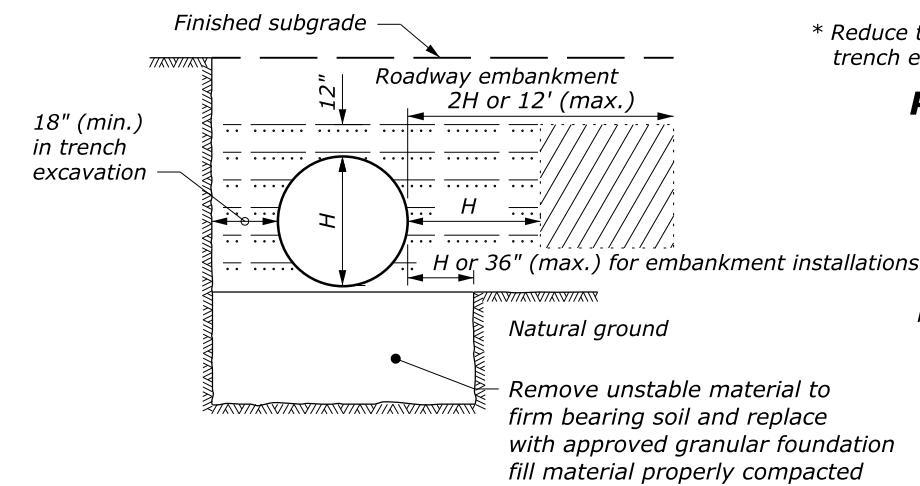
ABOVE AND BELOW NATURAL GROUND

LEGEND:

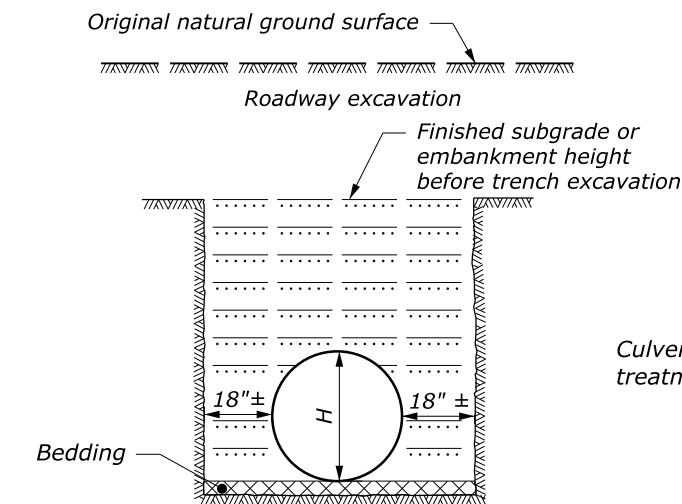
- Bedding material (uncompacted)
- Embankment material placed in layers not exceeding 6" compacted depth.
- Compacted backfill material placed in layers not exceeding 6" compacted depth; or flowable backfill according to Section 614.
- Impermeable backfill material.



ON UNYIELDING MATERIAL

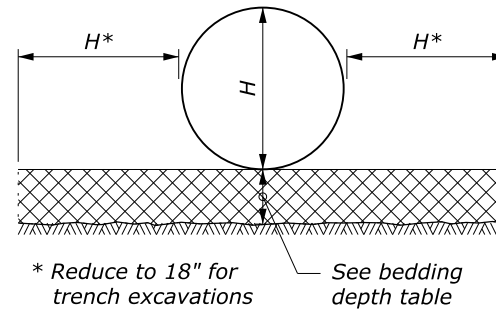


ON UNSTABLE MATERIAL



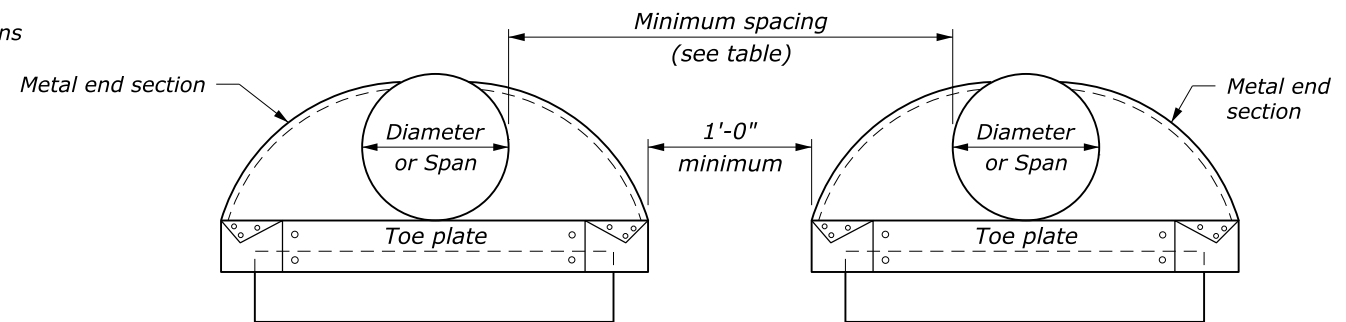
BELOW NATURAL GROUND OR TRENCH EXCAVATION IN EMBANKMENT

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



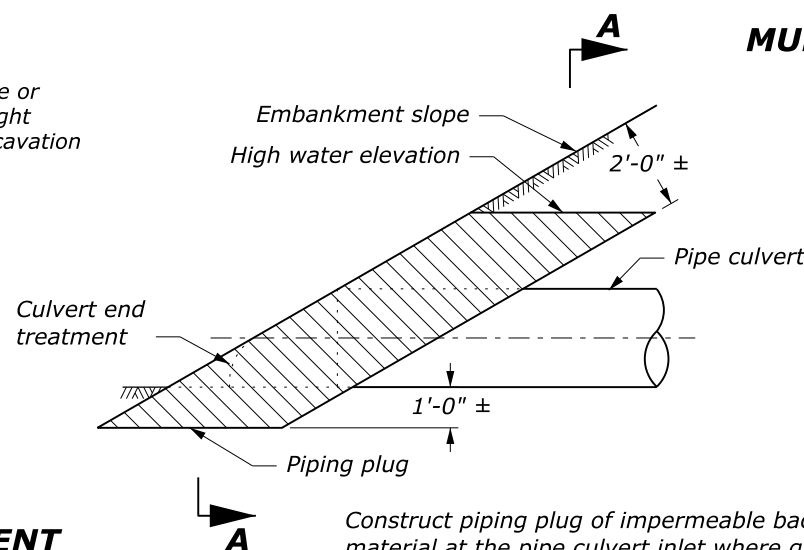
PIPE BEDDING

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



PIPING PLUG

NO SCALE

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.

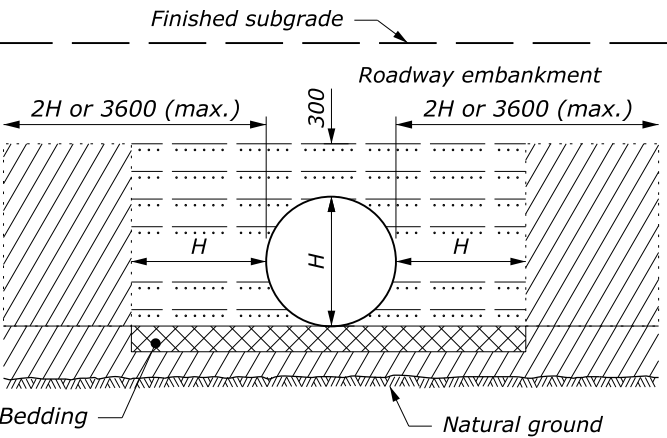
U.S. DEPARTMENT OF TRANSPORTATION, FHWA
OFFICE OF FEDERAL LANDS HIGHWAY

METAL AND PLASTIC PIPE CULVERT BEDDING

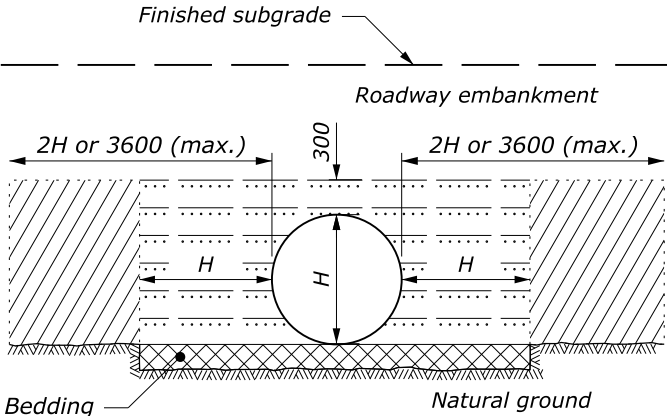
FLH STANDARD
602-3

SPECIFICATION
FP-24

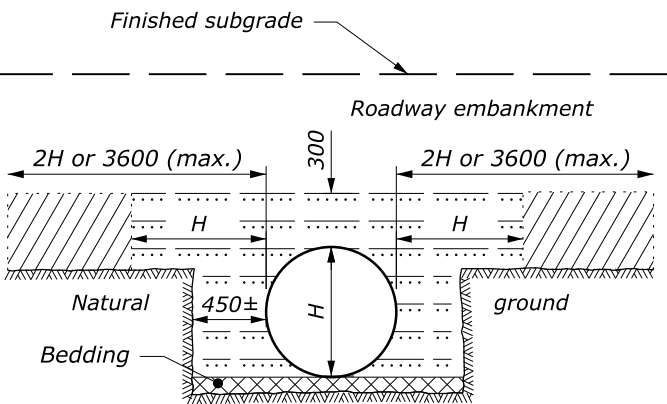
APPROVED FOR USE
1/2024



ABOVE NATURAL GROUND



ON NATURAL GROUND



ABOVE AND BELOW NATURAL GROUND

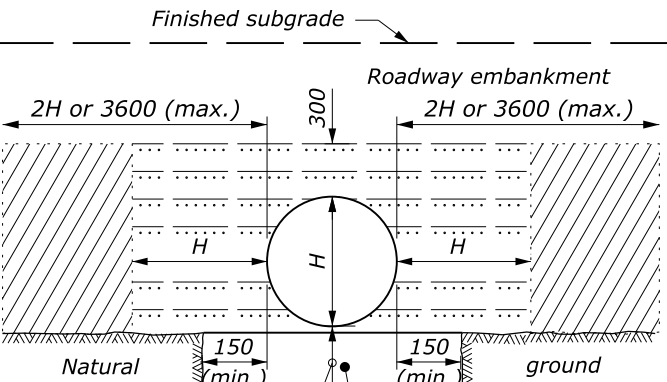
LEGEND:

Bedding material (uncompacted)

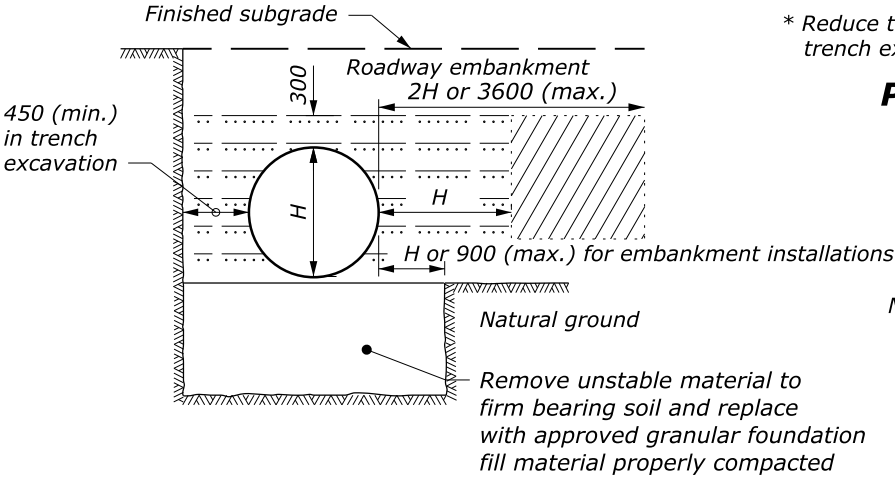
Embankment material placed in layers not exceeding 150 mm compacted depth.

Compacted backfill material placed in layers not exceeding 150 mm compacted depth; or lean concrete backfill according to Section 614.

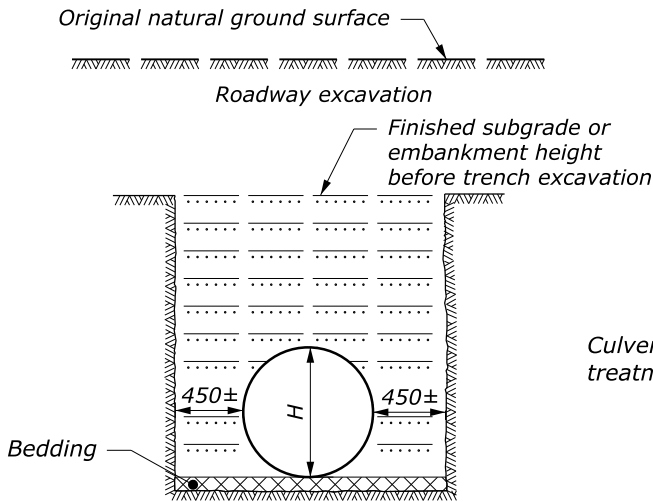
Impermeable backfill material.



ON UNYIELDING MATERIAL

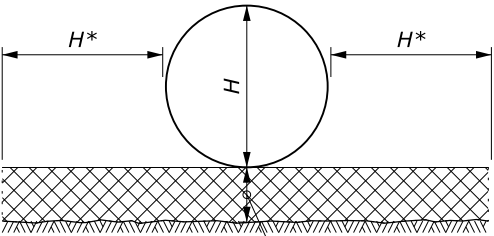


ON UNSTABLE MATERIAL



BELOW NATURAL GROUND OR TRENCH EXCAVATION IN EMBANKMENT

BEDDING DEPTH	
PIPE SIZE (H)	DEPTH
300 to 1350	100
> 1350	150



* Reduce to 450 for trench excavations

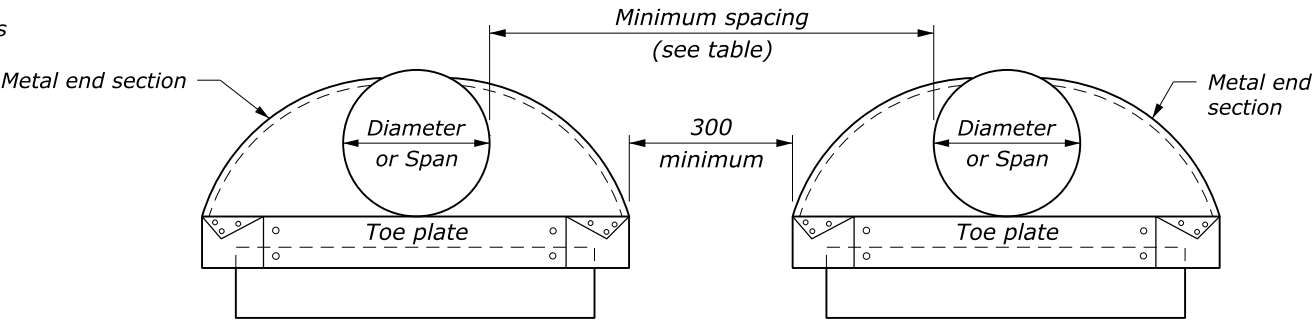
See bedding depth table

PIPE BEDDING

MINIMUM SPACING	
DIAMETER or SPAN	SPACING
UP to 1200	610
1200 and UP	Half diameter or span or 900, whichever is less

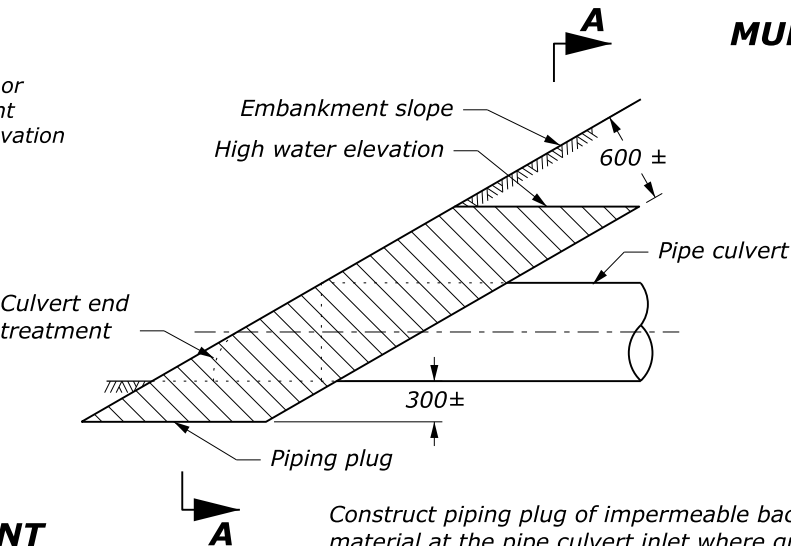
NOTE:

- 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.



ELEVATION

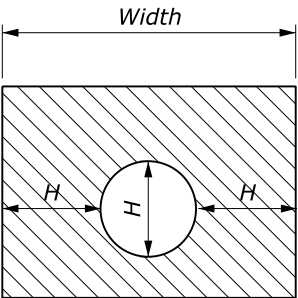
MULTIPLE PIPE INSTALLATION



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



SECTION A-A

This drawing contains **Metric** units of measure. Dimensions without units are millimeters.

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	FLH STANDARD M602-3
	SPECIFICATION FP-24
	APPROVED FOR USE 1/2024

METAL AND PLASTIC PIPE CULVERT BEDDING