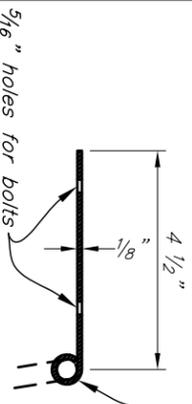


Bend must allow animal guard to swing freely.

SECTION ON CENTERLINE



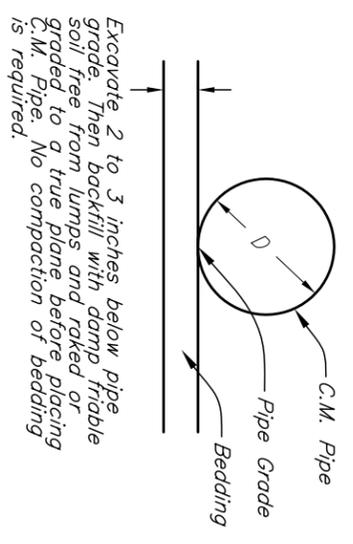
DETAIL OF HINGE

BAR REQUIREMENTS	
Pipe Diam.	No. of Bars
6"	2 Bars
8" - 12"	4 Bars
14" - 18"	6 Bars
20"	8 Bars*

* Use two hinges.

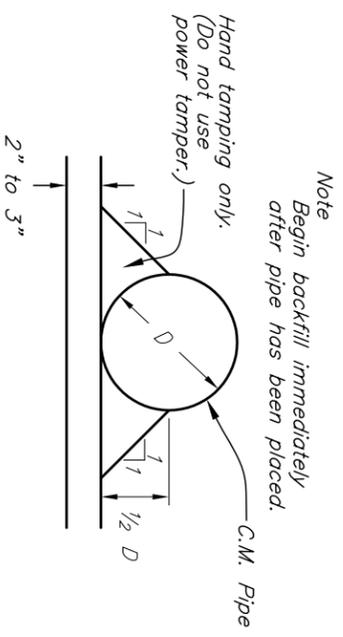
Note:
At contractor's option, a commercial animal guard acceptable to the Engineer may be installed in lieu of the animal guard shown.

DETAILS OF ANIMAL GUARD - FORK TYPE



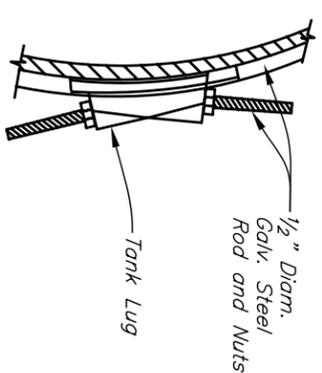
CORRUGATED OR SMOOTH METAL PIPE
PRINCIPAL SPILLWAY
BEDDING DETAIL

Excavate 2 to 3 inches below pipe grade. Then backfill with damp friable soil free from lumps and raked or graded to a true plane before placing C.M. Pipe. No compaction of bedding is required.

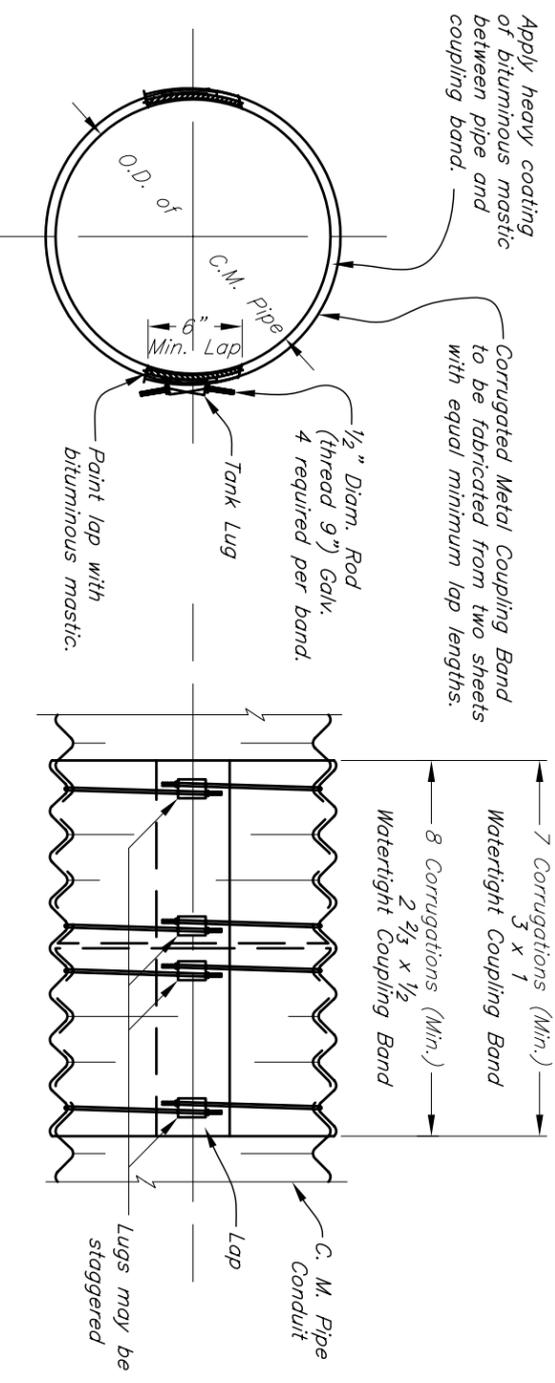


CORRUGATED OR SMOOTH METAL PIPE
PRINCIPAL SPILLWAY
BACKFILL DETAIL

Note
Begin backfill immediately after pipe has been placed.



DETAIL OF TANK LUG



NOTES:

1. See spillway general layout drawing for location of watertight bands.
2. Metal treatment, thickness, and coating of watertight coupling bands shall be as specified for the pipe.
3. Rivets in longitudinal seams of C.M. Pipe under watertight coupling band shall be flat head or omitted and seams welded inside and outside with a continuous 1/8 inch fillet weld.
4. All welded areas shall be treated as specified for "Repair of Damaged Coatings." Refer to Construction Specification 51A or IA-51.
5. Rods and lugs on coupling bands shall be installed according to the drawing; the nuts on the rods shall be tightened equally on either side of the lug and shall be retightened at least twice after initial installation. Striking each rod sharply with a hammer at several locations around the circumference of the rod will help to draw the band tighter.

DETAILS OF WATERTIGHT COUPLING BAND

DETAILS OF WATERTIGHT COUPLING BAND, TANK LUG, FORK TYPE ANIMAL GUARD, BEDDING AND BACKFILL

Date _____
 Designed _____
 Drawn _____
 Checked _____
 Approved _____

