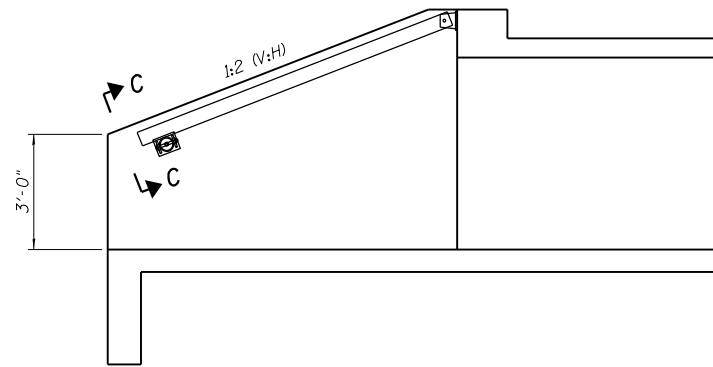
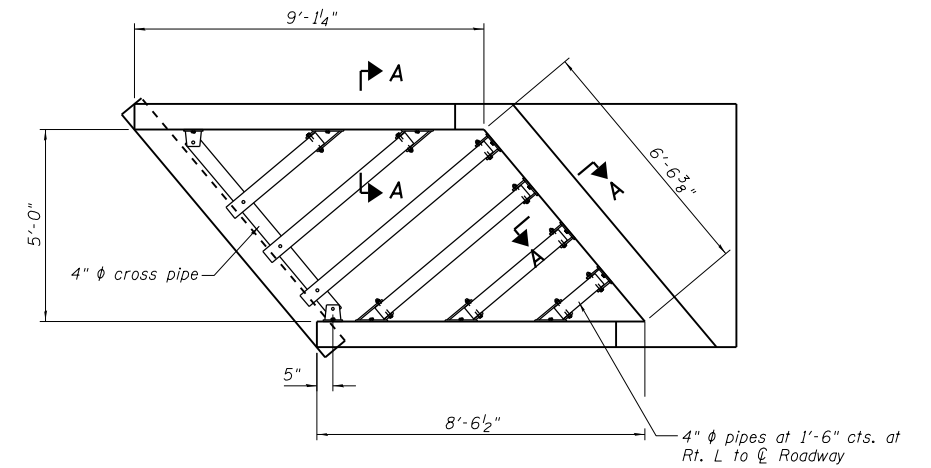


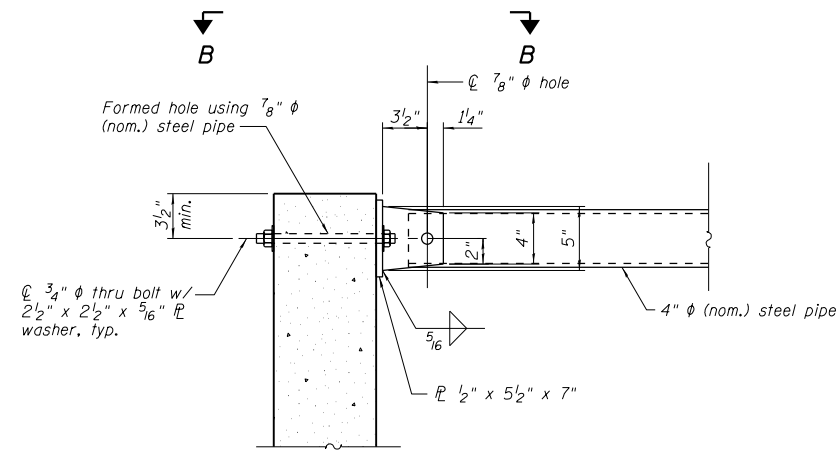
UPSTREAM END LONGITUDINAL SECTION



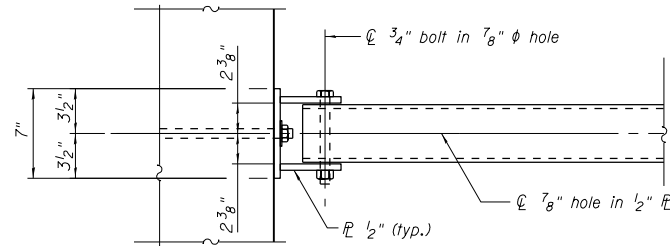
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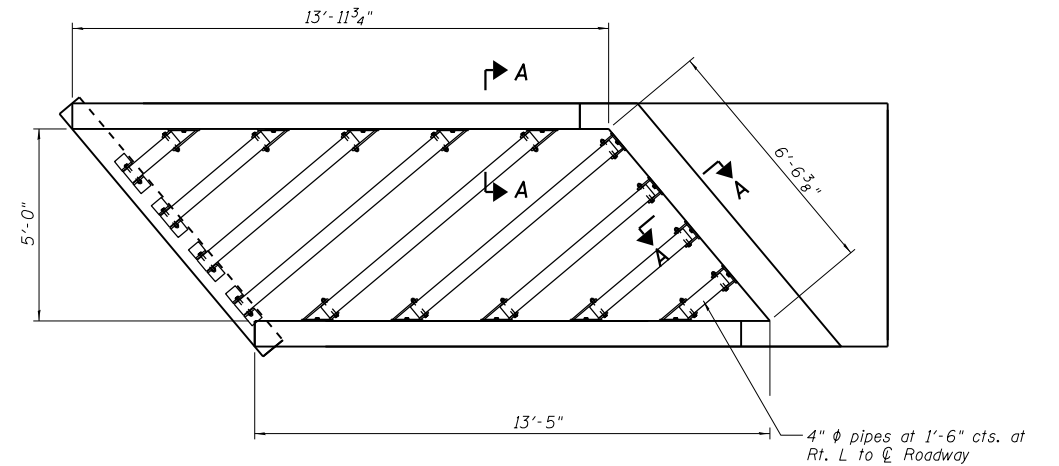
DOWNSTREAM END PLAN VIEW



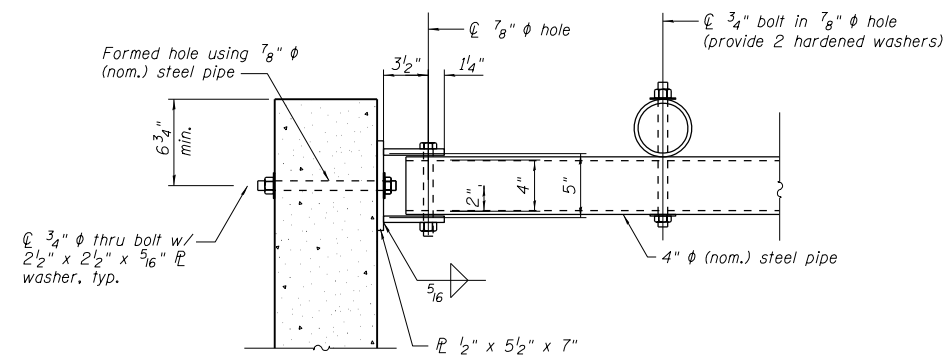
SECTION A-A



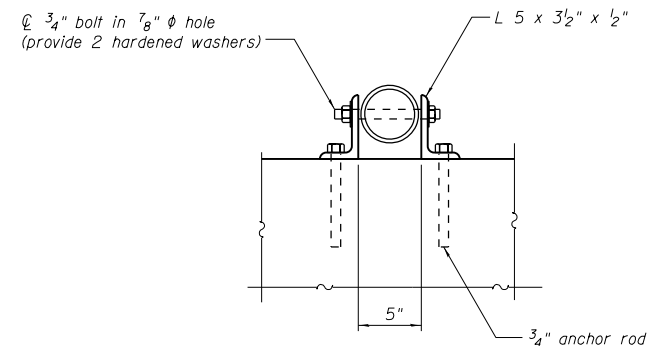
VIEW B-B



UPSTREAM END PLAN VIEW



SECTION C-C



SECTION D-D

GENERAL NOTES

Length and number of steel pipes shall be determined by the contractor. All steel pipe shall be standard weight (Sch. 40) unless otherwise noted.

All components of the steel pipe grate system shall be galvanized according to the requirements of AASHTO M11 OR M232 as applicable.

Fabrication of the steel pipe grate system shall conform to the requirements of section 505 of the Standard Specifications unless otherwise noted.

Structural steel shapes and plates shall conform to the requirements of Article 1006.04 of the Standard Specifications. Steel pipes shall conform to the requirements of ASTM A 53 (type E or S), Grade B.

Anchor rods shall conform to the requirements of ASTM F1544, Grade 105. Anchor rods shall be drilled and epoxy grouted according to the requirements of section 584 of the Standard Specifications. The chemical adhesive system shall be capable of achieving a minimum proof load of 5000 pounds and an ultimate shear capacity of 8000 pounds.

Bolts shall conform to the requirements of Article 1006.08 of the Standard Specifications.

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.

Bolts and anchor rods shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench.

All cost associated with fabricating, furnishing, and installing the steel pipe grate system shall be included in the contract unit price for Traversable Pipe Grates.

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USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL PIPE GRATE SYSTEM
STA. 734 + 80.00 CULVERT REPLACEMENT - S.N. 060-2490

SHEET NO. 5 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	(133,134,135)RS-4	MADISON	28	25
CONTRACT NO. 76C58				
ILLINOIS FED. AID PROJECT				