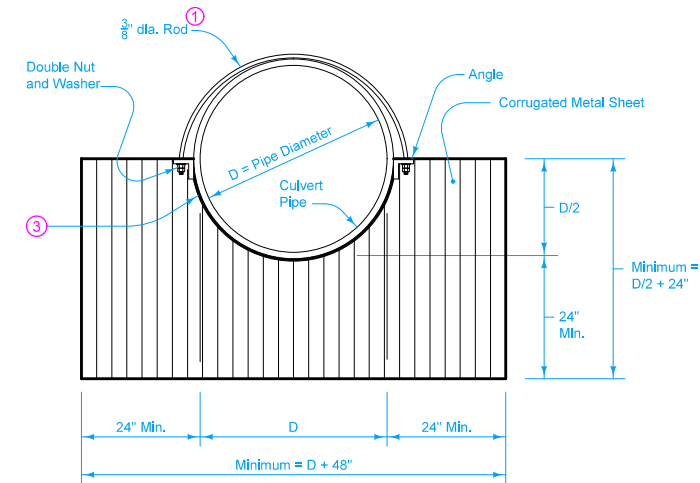
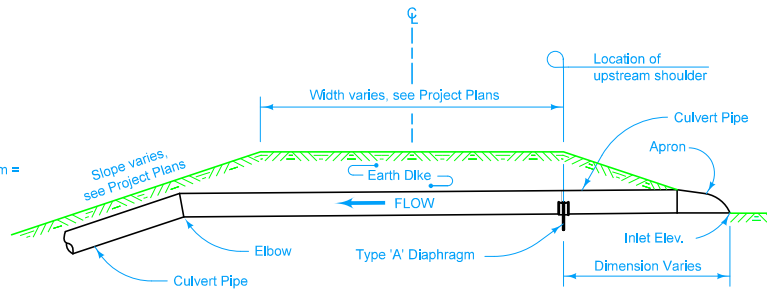


PLAN VIEW

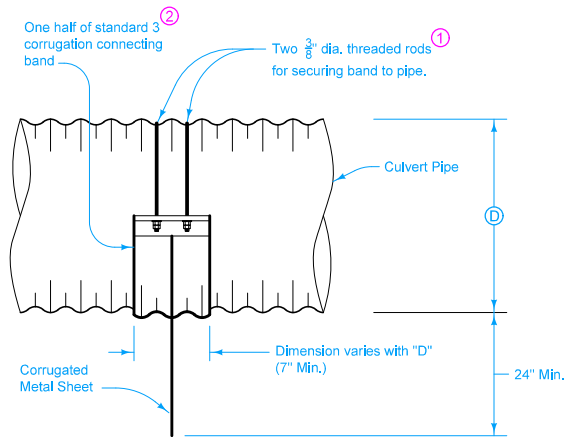


END VIEW



DIAPHRAGM INSTALLATION

Place diaphragm below upstream shoulder of dike unless otherwise specified on Project Plans.



SIDE VIEW

Install the Type "A" Diaphragm (anti-seep device for use on letdown structures) directly below the upstream shoulder of the dike.

Type "A" Diaphragm consists of a sheet of corrugated metal of the dimensions indicated hereon and of the same thickness as the pipe used for culvert pipe. Fabricate this sheet from one or more sheets of corrugated metal. Lap a minimum of one corrugation and weld or rivet at a minimum of 3 inch centers along the seam if two or more sheets are used. Weld the sheet on both sides to a standard half connecting band of dimensions indicated hereon. Securely attach this assembly to the pipe by means of two 3/8 inch diameter rods of appropriate length placed in two adjacent valleys of the corrugated pipe and threaded with double nut and washer.

Details are shown using corrugated metal culvert pipe. Make appropriate modifications as indicated, subject to the approval of the Engineer, as necessary where concrete culvert pipe is used. Use plastic diaphragms when connecting to plastic pipe.

- ① Normal half of connecting band may be used in lieu of rods when approved by the Engineer.
- ② Use flat steel band of equivalent dimensions where Type "A" Diaphragm is to be installed on Concrete Culvert pipe.
- ③ Weld corrugated metal sheet to the connecting band using a continuous weld. Shape to fit outside pipe diameter.

IOWA DOT	REVISION
	New 04-21-15
STANDARD ROAD PLAN	DR-501
SHEET 1 of 1	

REVISIONS: New. Replaces RF-7.

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

**CORRUGATED METAL
TYPE "A" DIAPHRAGM**