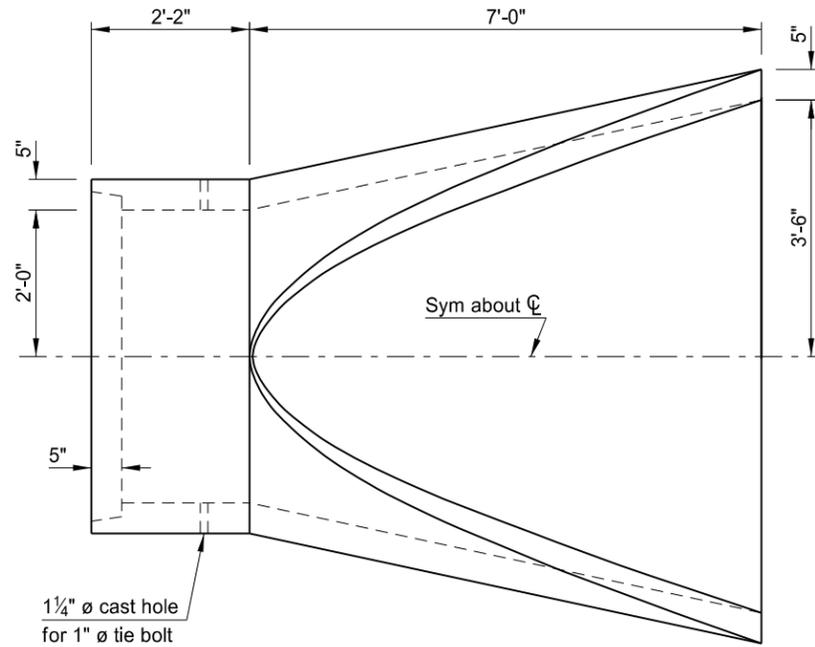
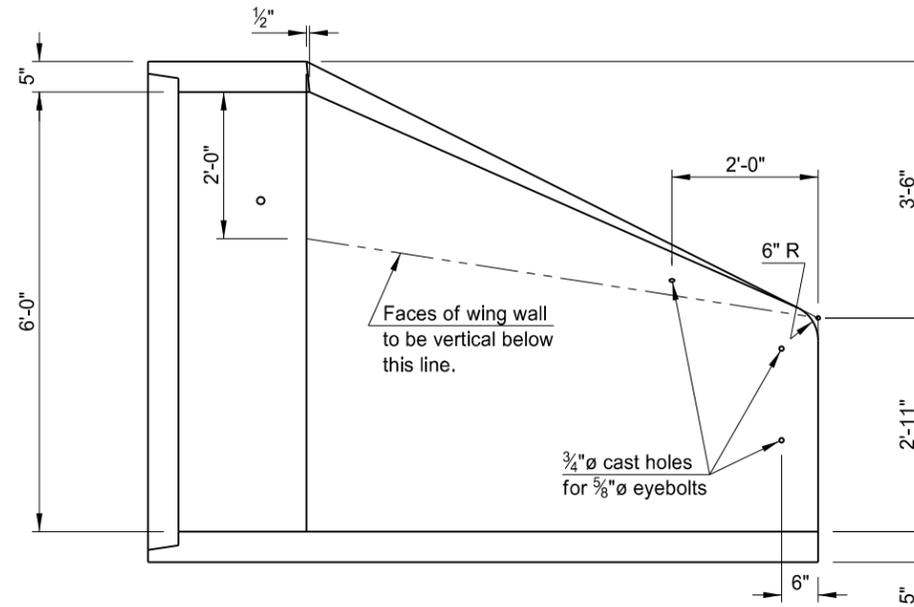


4' X 6' PRECAST CONCRETE CATTLE PASS

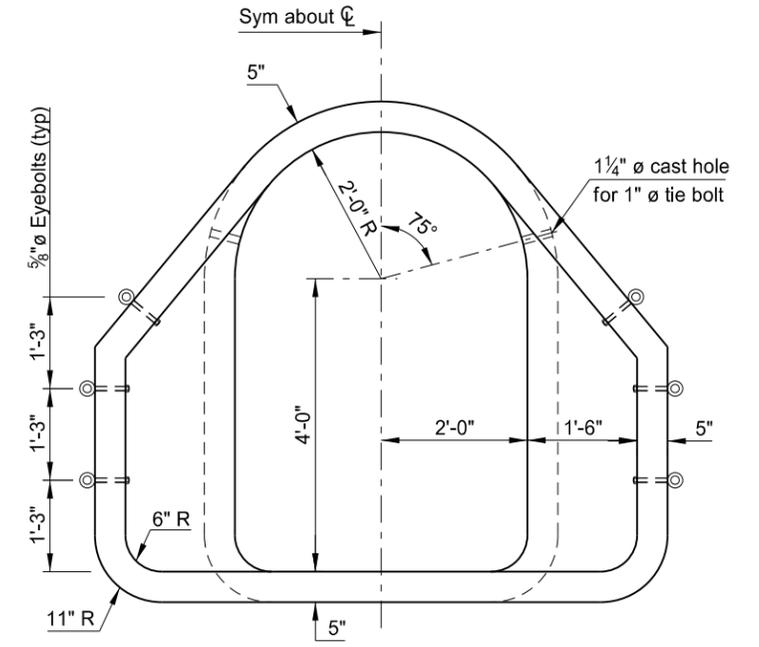


TOP VIEW



LONGITUDINAL SECTION ON CL

(REINFORCING NOT SHOWN)  
DETAILS OF FLARED END SECTION



END VIEW

NOTES:

Fill over top of cattle pass; 2' min, 15' max.

Design of flared end section shall conform to the intermediate section. Rounded edge permitted on sloped end.

Four foot lengths shall be used only to secure the required length of the cattle pass. Short sections shall be installed near ends. Not more than two 4' sections permitted in the structure.

All joints, including the end sections, shall be tied with 1" diameter tie bolts as shown on Standard Drawing D-714-22. Ties shall be inserted from the inside with the nuts on the outside. The joints should fit as tightly as possible, with a maximum of 3/4" between sections.

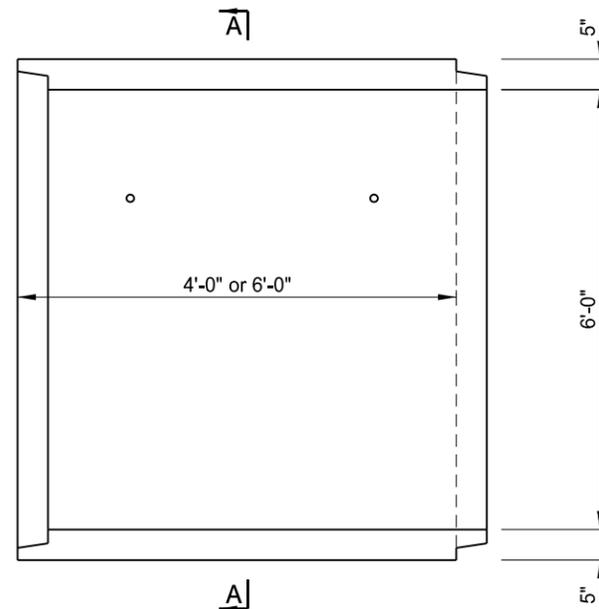
Longitudinal reinforcement denoted as As3 and As4 must be placed in all slabs and walls and must be 0.11 sq. in./ft. min.

Welded steel wire fabric shall conform to AASHTO M 55.

If the splices are not electrically welded, the reinforcement shall be lapped not less than 40 diameters. If the splices are electrically welded, the members at either a welded splice or intersection shall develop a tensile strength across the weld not less than the minimum required strength of the fabric. Welders shall be properly certified.

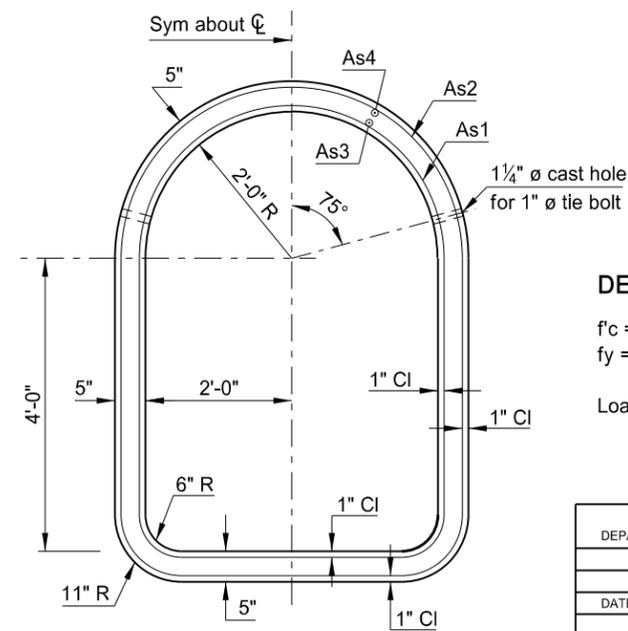
Cost of furnishing and installing eyebolts shall be included the unit price bid for "End Section Conc Cattle Pass". Eyebolts shall be galvanized according to AASHTO M 232.

All hardware embedded in the intermediate sections and end sections and all hardware used to fasten the intermediate sections and end sections together shall be included in the bid item "Cattle Pass Conc Intermed Section".

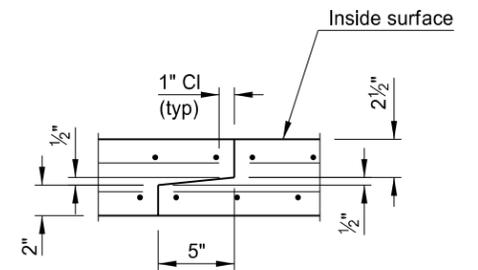


LONGITUDINAL SECTION ON CL

DETAILS OF INTERMEDIATE SECTION



A-A



TONGUE AND GROOVE JOINT DETAIL

DESIGN STRENGTHS:

f'c = 5,000 psi ~ Precast Concrete  
fy = 65,000 psi ~ Welded Wire Fabric Reinforcement

Load & Resistance Factor Design

STEEL AREA (SQ IN PER LIN FT)			
As1	As2	As3	As4
0.26	0.27	0.11	0.11

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
06-30-14	
REVISIONS	
DATE	CHANGE

This document was originally issued and sealed by Terrence R. Udland Registration Number PE-2674, on 07/07/14 and the original document is stored at the North Dakota Department of Transportation