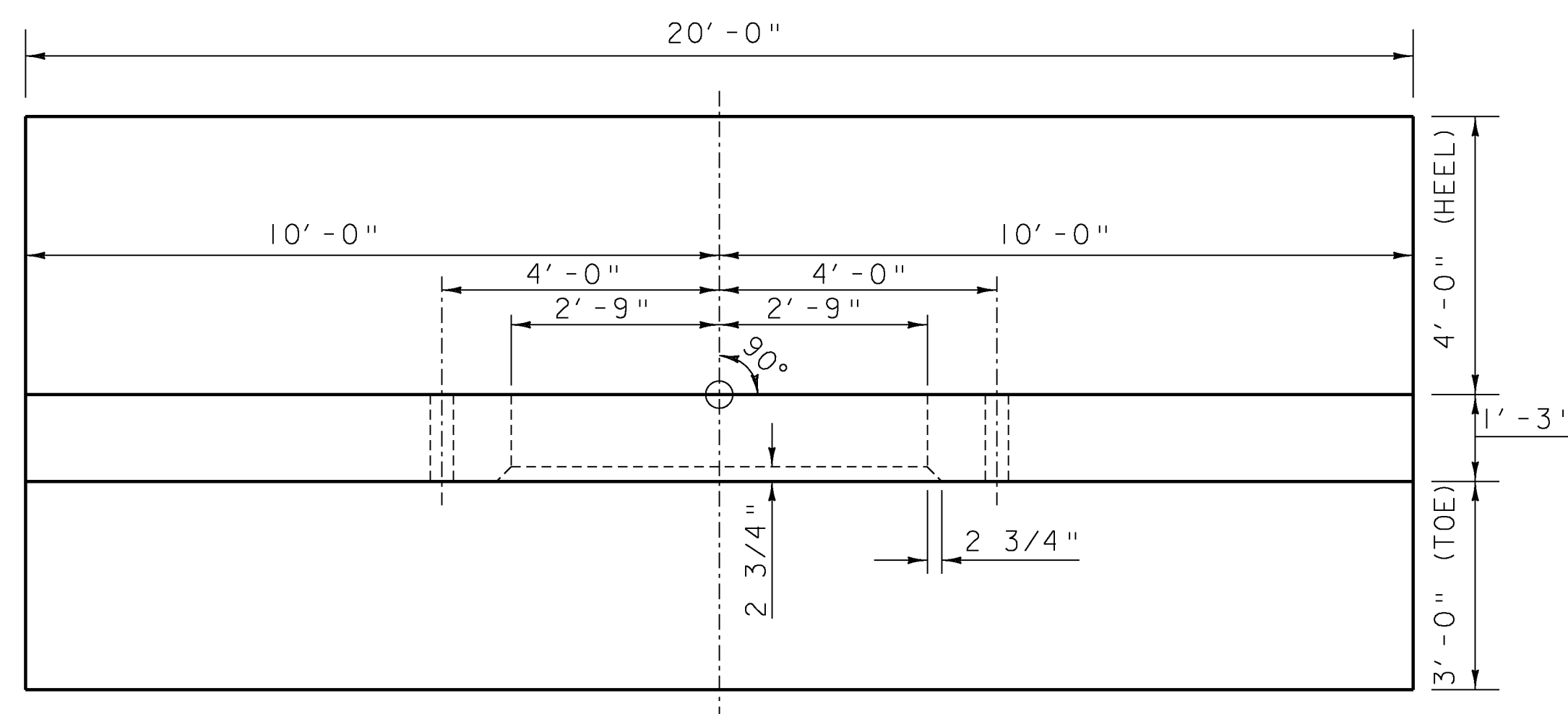


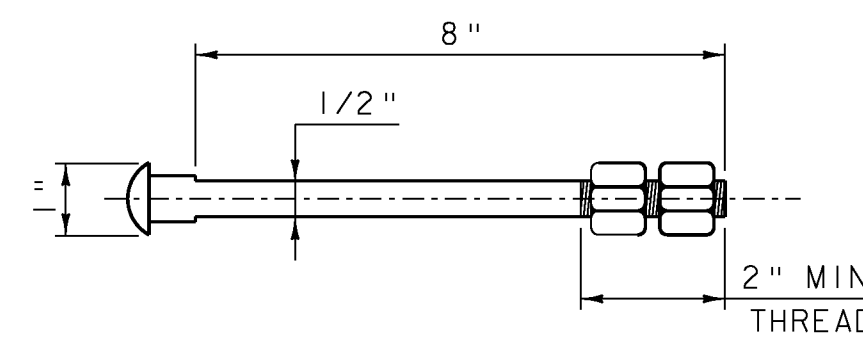
HEADWALL ELEVATION

NTS



HEADWALL PLAN

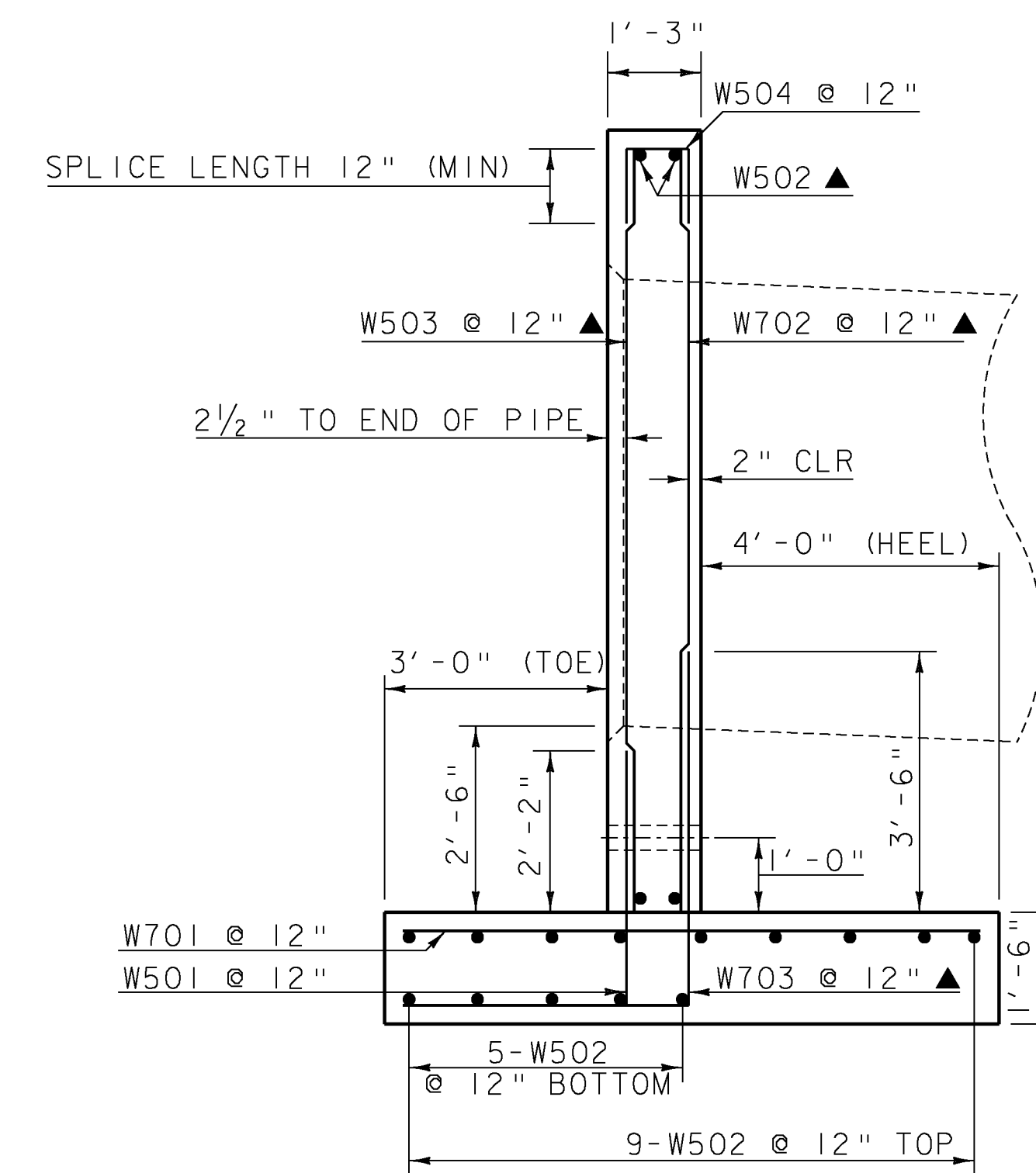
NTS



GALVANIZED ANCHOR BOLT
NTS

NOTES:

1. ANCHOR BOLTS WILL BE PAID FOR UNDER ITEM 900.640, SPECIAL PROVISION (ALUMINUM PIPE LINER) (66") (EXISTING 84" PIPE).
2. ANCHOR BOLTS SHALL BE 1/2" DIA. x 8" WITH TWO 3/4" HEXAGONAL NUTS, MATERIALS SHALL MEET THE REQUIREMENTS OF SUBSECTION 714.04 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. 9/16" HOLES IN PIPE TO BE DRILLED OR PUNCHED PRIOR TO COATING OF PIPE.



HEADWALL SECTION

NTS

GENERAL NOTES:

1. ASSUMED ALLOWABLE BEARING PRESSURE IS 3 KSF
2. REINFORCING STEEL GRADE: 60 KSI
3. CONCRETE HIGH PERFORMANCE CLASS B: 3500 PSI
4. SOIL UNIT WEIGHT: 140 PSF
5. ASSUMED FOOTING FRICTION COEFFICIENT: 0.45
6. SOIL FRICTION ANGLE: 28°
7. ALL EXPOSED EDGES SHALL BE CHAMFERED ONE INCH.
8. MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
ALONG BACK FACES OF WALLS AGAINST EARTH: 2"
ELSEWHERE UNLESS OTHERWISE INDICATED: 3"
9. CONSTRUCTION JOINT SURFACE SHALL BE ROUGH.

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD



PROJECT NAME:	RICHMOND - WILLISTON
PROJECT NUMBER:	IM CULV(16)
FILE NAME: ...14-headwall detail sheet.dgn	PLOT DATE: 2/25/2010
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: M. CHENETTE	CHECKED BY: G. BOGUE
HEADWALL DETAIL SHEET	SHEET 14 OF 18