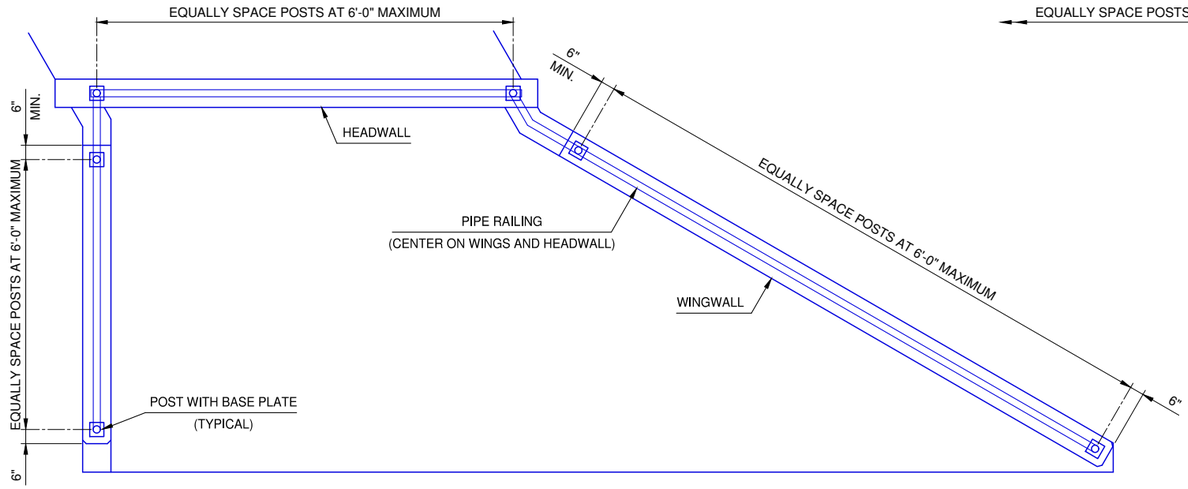
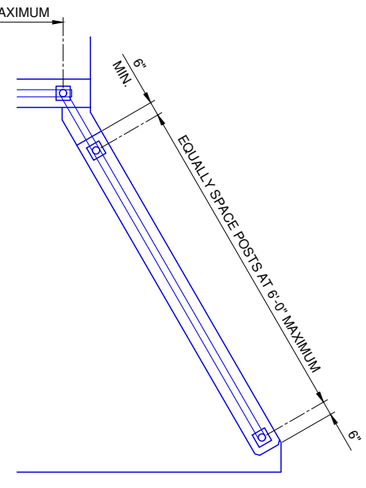
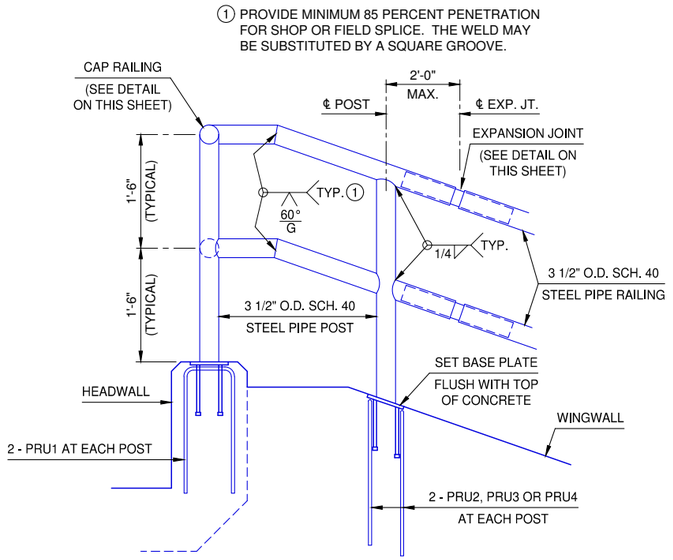


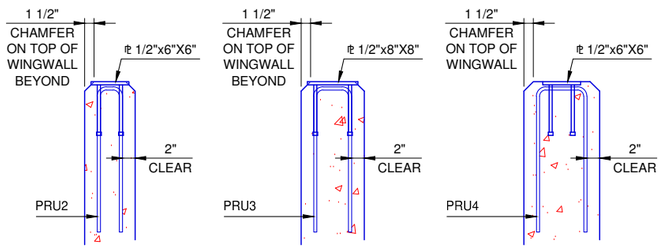
PLAN OF 30° SKEW APRON



PARTIAL PLAN OF 0° SKEW APRON



PARTIAL ELEVATION OF PIPE RAILING



SECTIONS THROUGH WINGWALLS OF PIPE RAILING BASE PLATES

(WINGWALL REINFORCING NOT SHOWN FOR CLARITY)

PIPE RAILING GENERAL NOTES

PROVIDE STEEL PIPE IN ACCORDANCE WITH ASTM A53 GRADE B AND STEEL PLATE IN ACCORDANCE WITH ASTM A36. USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018 OR 1020.

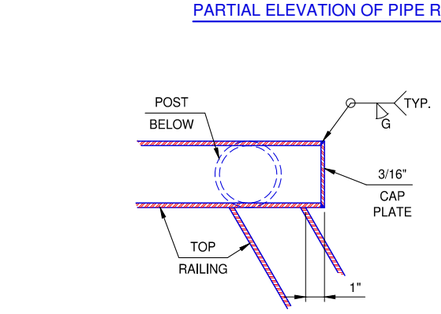
COMPLETE ALL WELDING AND FABRICATION IN ACCORDANCE WITH SECTION 408 OF THE SPECIFICATIONS AND THE LATEST EDITION OF ANSI/AASHTO/AWMS D1.1 WELDING CODE. USE E70XX ELECTRODES, CLEAN ALL WELDED CONNECTIONS OF LOOSE SCALE, AND ROUND OR CHAMFER ALL EXPOSED EDGES TO +1/16" BY GRINDING.

GALVANIZE ALL COMPONENTS EXCEPT BASE PLATES IN ACCORDANCE WITH AASHTO M111. PROVIDE HOLES IN PIPE RAILING OR BASE PLATES AS NEEDED FOR DRAINAGE AND VENTING. REPAIR ANY GALVANIZED AREAS AFTER FIELD INSTALLATION IN ACCORDANCE WITH ASTM A780. PAINT BASE PLATES WITH AT LEAST TWO (2) COATS OF ZINC-RICH (90% ZINC) PAINT.

INCLUDE ALL COSTS FOR REINFORCING, POSTS, RAILINGS, BASE PLATES, EXPANSION JOINTS, HEADED STUDS, WELDING, CLEANING, PAINTING, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, SHALL BE INCLUDED IN THE PRICE PER LINEAR FOOT OF "PIPE RAILING".

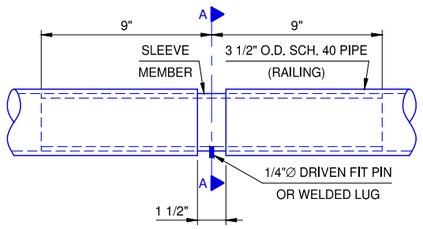
BASIS OF PAYMENT

CODE	DESCRIPTION	UNIT
982	PIPE RAILING	L.F.

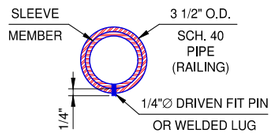


PLAN VIEW OF RAILING CAP PLATE

(SECTION CUT AT CENTERLINE OF TOP RAILING)



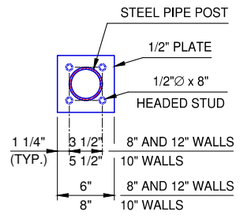
ELEVATION



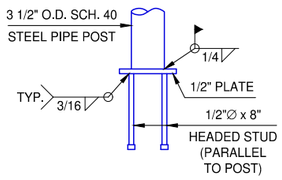
SECTION A-A

PIPE RAILING EXPANSION JOINT DETAILS

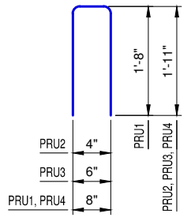
(EXPANSION JOINT SHALL BE AT 30'-0" MAXIMUM SPACING)



PLAN



ELEVATION



PRU1 #4 X 4'-0"
PRU2 #4 X 4'-2"
PRU3 #4 X 4'-4"
PRU4 #4 X 4'-6"

DETAIL OF PIPE RAILING BASE PLATES

NOTE:
USE SAME BASE PLATE REQUIRED FOR WINGWALLS IN HEADWALL. USE PRU1 BARS IN HEADWALLS AND PRU2 BARS IN 8" WINGWALLS, PRU3 BARS IN 10" WINGWALLS AND PRU4 BARS IN 12" WINGWALLS.

REVISION NO.

DATE

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WENGER, P.E. CITY ENGINEER

DATE: 6/22/2023

THESE STANDARD DRAWINGS, AND ASSOCIATED CALCULATIONS, HAVE BEEN PREPARED BY CEC CORPORATION UNDER CONTRACT WITH THE CITY OF OKLAHOMA CITY

R.C.B. CULVERTS
PIPE RAILING DETAILS

Drawing Number

RCB-015