

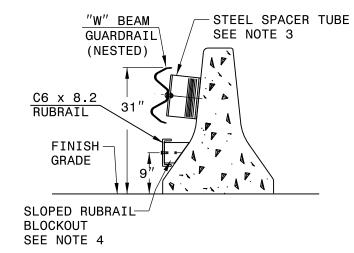
C6 x 8.2 RUBRAIL

SEE DETAIL A

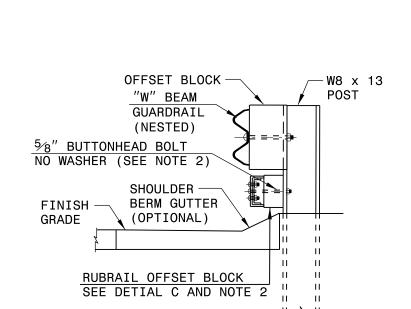
2) RUBRAIL BLOCKOUTS LOCATED ON POSTS 1 THROUGH 4 ARE OFFSET DRILLED AND SECURED WITH $rac{5}8''$ BUTTONHEAD BOLTS (SEE CHART FOR BOLT

3) STEEL SPACER TUBE IS A SCHEDULE 40 GALVANIZED PIPE 6" INSIDE DIAMETER x 9" LONG. ATTACH TUBE TO GUARDRAIL ONLY WITH

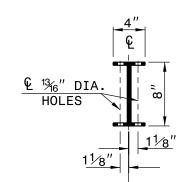
LENGTHS). SECURE BLOCKS ONLY TO POSTS 2 AND 4. SECURE RUBRAIL AND BLOCKOUTS TO POSTS 1 AND 3. RUBRAIL IS SECURED TO POST 5



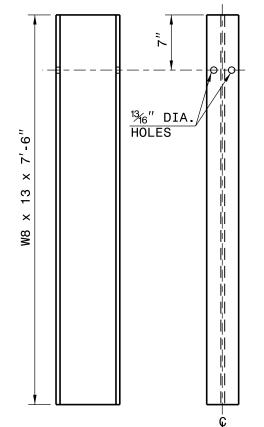
SECTION B-B



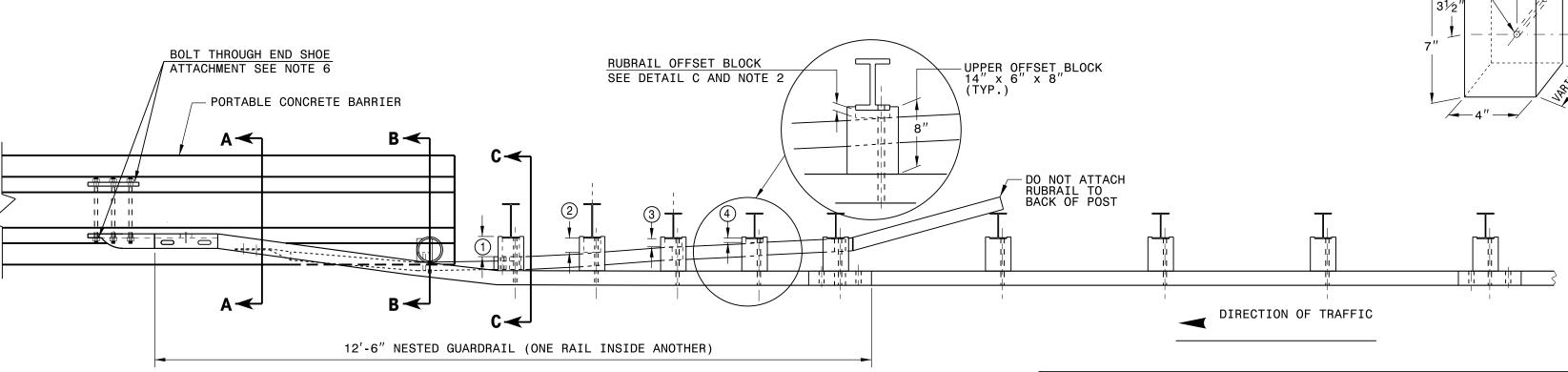
SECTION C-C



PLAN



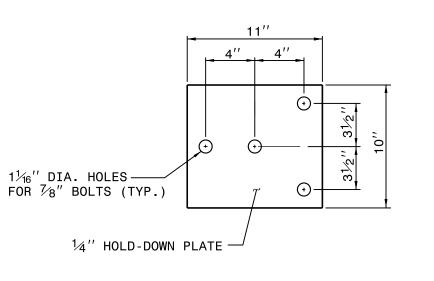
SIDE **FRONT DETAIL F** "W8 X 13 X 7'-6". STEEL POST



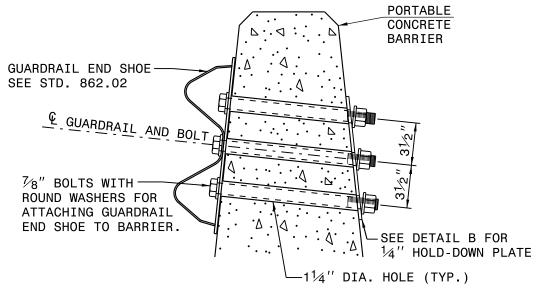
ELEVATION

NOTES FOR 4 BOLT HOLD DOWN PLATE

- 1) THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A $\frac{1}{4}$ " HOLD DOWN PLATE AND 4 $\frac{7}{8}$ " DIA. BOLTS WITH NUTS AND WASHERS. 2) THE HOLD-DOWN PLATE SHALL CONFORM TO AASHTO M270 GRADE 36. AFTER FABRICATION, THE HOLD-DOWN PLATE SHALL BE HOT-DIP
- GALVANIZED IN ACCORDANCE WITH AASHTO M111. 3) AFTER INSTALLATION, THE EXPOSED THREAD OF THE BOLT SHALL BE BURRED WITH A SHARP POINTED TOOL. THE 11/4" DIA. HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.



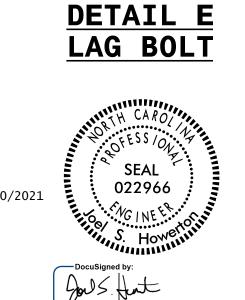




PART SECTION OF BARRIER OR RAIL

THRU END SHOE SECTION AND 4 BOLT HOLD DOWN PLATE

HOLE



SIDE **FRONT DETAIL D** SLOPED RUBRAIL BLOCKOUT

CONTRACT STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250 FAX 919-250-4119

TEMPORARY GUARDRAIL **ANCHOR UNIT TYPE B-77**

ORIGINAL BY: E.E. WARD _DATE: <u>04-07-04</u> MODIFIED BY: J.S. Howerton DATE: 10-02-18 CHECKED BY: FILE SPEC.: DATE: _

6) ANCHORAGE: (a) AT PORTABLE CONCRETE BARRIER, ANCHOR RUBRAIL USING THREE $5/8^{\prime\prime}$ x $6^{\prime\prime}$ CHEMICALLY ANCHORED BOLTS WITH WASHERS. (b) AT PORTABLE CONCRETE BARRIER, ANCHOR THE W-BEAM END SHOE USING A 4 BOLT HOLD-DOWN PLATE AS SHOWN. INSTALL THE W-BEAM END SHOE BEHIND THE NESTED W-BEAM ELEMENTS. 7) POSTS 1 AND 2 ARE W8 x 13, 7'-6" LONG. ALL OTHER POSTS IN THE ANCHOR UNIT ARE W6 x 8.5.

GENERAL NOTES:

CUT FLANGE BEND AND SHOP FABRICATE/ AS SHOWN TYP. EACH FLANGE TYP. EACH " FLANGE 1/4" SHOP FABRICATE BY-TRIMMING FLANGES BENDING WEB AS SHOWN AND WELD. SEE NOTE 5-**PLAN** ½" DIA. HOLE DRILL 34" DIA -HOLE (TYP) | | FOR BOLT TO ATTACH BLOCK TO RUBRAIL 3" / 1½" **⊕**− ⊕ + 2"---**→** 5″**→** 71/4" - 11/ **ELEVATION**

1) POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR RUBRAIL

5/8" x 11/4" LONG BUTTONHEAD BOLT AND RECTANGULAR PLATE WASHER.

TOE OF THE BARRIER OR BRIDGE RAIL.

WITH A $\frac{5}{8}$ " x $4\frac{1}{2}$ " BUTTONHEAD BOLT. RUBRAIL IS FLARED TO BACK OF POST 6 AND NOT SECURED.

DETAIL A C6 x 8.2 RUBRAIL

CUT FLANGE BEND -AND SHOP FABRICATE AS SHOWN TYP. EACH FLANGE **PLAN** POST BOLT SLOTS $34" \times 21/2"$ (TYP.) SPLICE BOLT SLOTS $\frac{3}{4}$ " x $\frac{1}{8}$ " (TYP.) -STEEL PLATE 11¹⁄₄" x 10 GA x 9'-11" **ELEVATION**

> DETAIL B **BENT PLATE RUBRAIL**

9/20/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RUBRAIL BLOCKS 7" HIGH x 4" WIDE THICKNESS | BOLT LENGTH 3½″ 5″* BOLTS FOR POSTS 2 AND 4 ARE USED TO ATTACH BLOCK TO POST. RUBRAIL NOT ATTACHED TO BLOCK.

DETAIL C RUBRAIL BLOCKOUT

PLAN