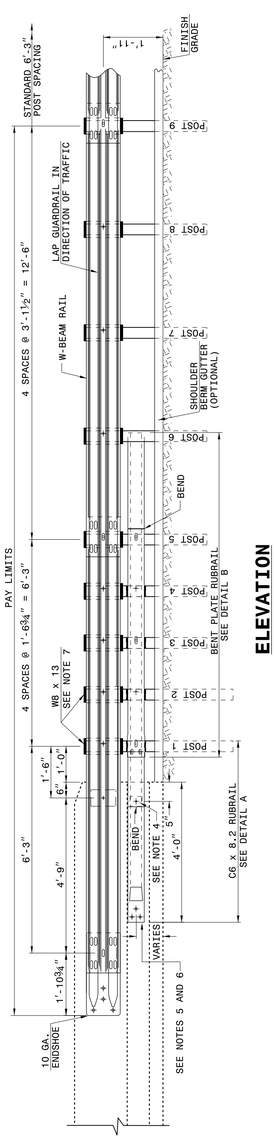
PROJECT REFERENCE NO.	SHEET NO.
B-5123	2C-6



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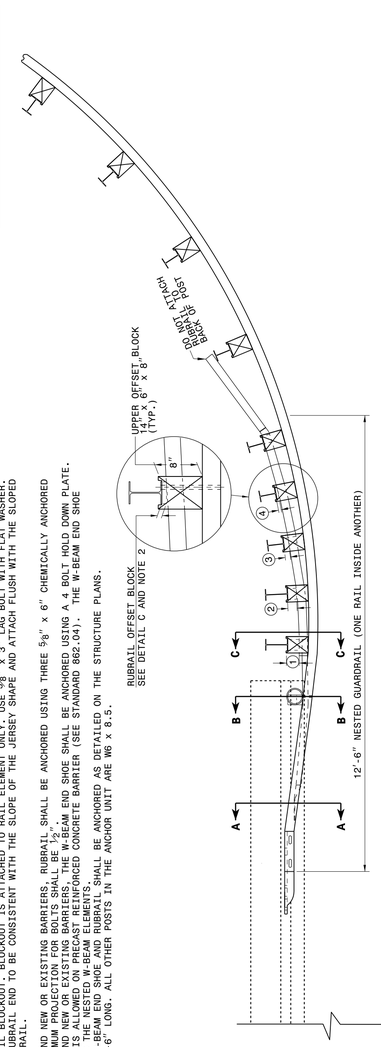


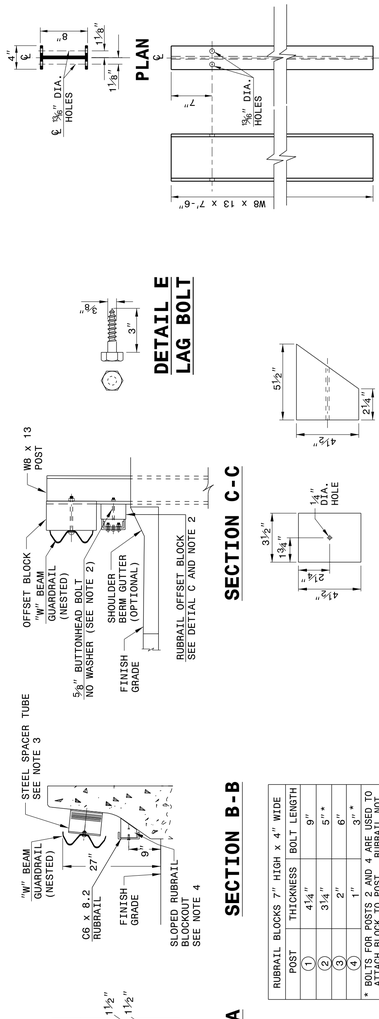
PLAN

GUARDRAIL ANCHOR UNIT TYPE B-77

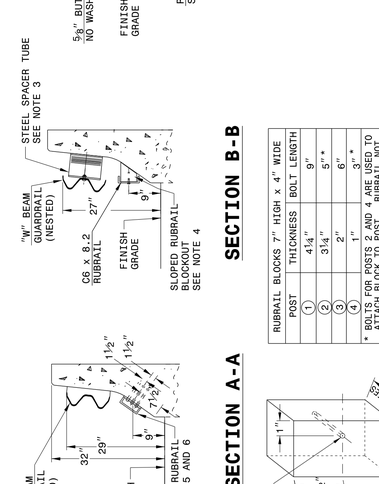
GENERAL NOTES:

1) POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR RUBRAIL.
2) POSTS 1 THROUGH 4 ARE OFFSET DRILLED AND SECURED WITH ⅝" BUTTONHEAD BOLTS (SEE CHART FOR BOLT LENGTHS); RUBRAIL IS SECURED TO POSTS 1 AND 3. RUBRAIL AND BLOCKOUTS TO POSTS 1 AND 3. SECURE BLOCKS ONLY TO POSTS 2 AND 4. SECURE RUBRAIL AND BLOCKOUTS TO POSTS 1 AND 3. RUBRAIL IS FLARED TO BACK OF POST 6 AND NOT SECURED.
3) STEEL SPACER TUBE IS A SCHEDULE 40 GALVANIZED PIPE 6" LONG. ATTACH TUBE TO GUARDRAIL ONLY WITH A ⅝" x 4½" BUTTONHEAD BOLT, WASHER, AND HEX NUT.
4) SEE DETAIL D FOR SLOPED RUBRAIL BLOCKOUT. BLOCKOUT IS ATTACHED TO RAIL ELEMENT ONLY. USE ⅜" x 3" LAG BOLT WITH FLAT WASHER.
5) SHOP FABRICATE THE C6 x 8.2 RUBRAIL END TO BE CONSISTENT WITH THE SLOPE OF THE JERSEY SHAPE AND SHOULDER BERM GUTTER OR BRIDGE RAIL.
6) ANCHORAGE:
   (a) AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS, RUBRAIL SHALL BE ANCHORED USING THREE ⅝" x 6" CHEMICALLY ANCHORED BOLTS WITH WASHERS. MAXIMUM PROJECTION FOR BOLTS SHALL BE 1½".
   (b) AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS, THE W-BEAM END SHOE SHALL BE ANCHORED USING A 4 BOLT INSERT SLEEVE, AS A MINIMUM, INTO REINFORCED CONCRETE BARRIER (SEE STANDARD 862.041). THE W-BEAM END SHOE SHALL BE INSTALLED BEHIND THE NESTED W-BEAM ELEMENTS.
   (c) AT NEW BRIDGE RAIL, THE W-BEAM END SHOE AND RUBRAIL SHALL BE ANCHORED AS DETAILED ON THE STANDARD PLANS FOR BRIDGE RAIL.
7) POSTS 1 AND 2 ARE W8 x 13, 7'-6" LONG. ALL OTHER POSTS IN THE ANCHOR UNIT ARE W6 x 8.5.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.	ENGLISH DETAIL DRAWING FOR **GUARDRAIL ANCHOR UNIT TYPE B-77 SHOP CURVED**	SHEET 1 OF 2 **B-77SC**



GUARDRAIL ANCHOR UNIT TYPE B-77



GUARDRAIL ANCHOR UNIT TYPE B-77

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.	ENGLISH DETAIL DRAWING FOR **GUARDRAIL ANCHOR UNIT TYPE B-77 SHOP CURVED**	SHEET 2 OF 2 **B-77SC**

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton
2/24/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT SERVICES UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

SEE PLATE FOR TITLE

ORIGINAL BY: E.E. WARD DATE: 06-04-04
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: miscguardrail/NCHRP350approved/B-77.dgn

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