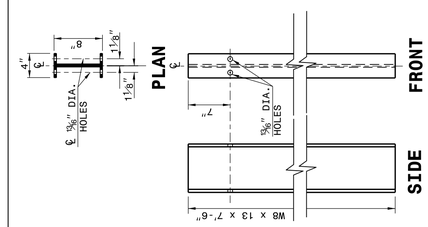
PROJECT REFERENCE NO.	SHEET NO.
B-4978	2C-13

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARDRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

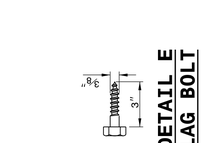
SHEET 5 OF 7
862D03



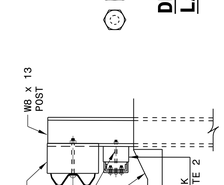
PLAN

SIDE FRONT

DETAIL F STEEL POST
"W8 X 13 X 7'-6"



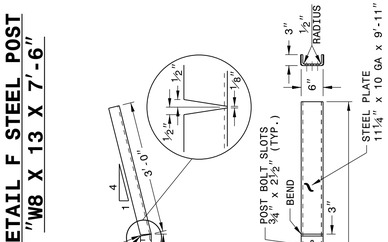
DETAIL E
LAG BOLT



FRONT SIDE

DETAIL D
SLOPED RUBRAIL BLOCKOUT

SECTION C-C



PLAN

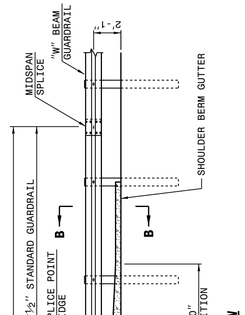
ELEVATION
DETAIL B
BENT PLATE RUBRAIL

GUARDRAIL ANCHOR UNIT TYPE B-77

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNITS
GUARDRAIL ANCHOR UNIT TYPE B-83

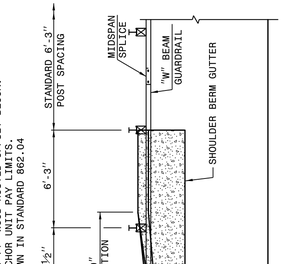
SHEET 6 OF 7
862D03



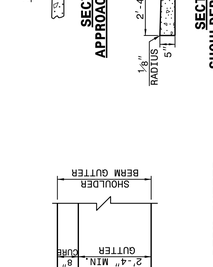
ELEVATION VIEW

NOTE:
**ELIMINATE POST 3 AND SHIFT POSTS 1 & 2 ON SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
-REMOVE AND REPLACE ALL POSTS WHICH ARE DAMAGED OR SHOW SIGNS OF ROT.
-MEASURE GUARDRAIL HEIGHT FROM THE TOP OF ADJACENT SURFACE. (SHOULDER, BERM, OR GUTTER).
-USE NO WOOD POSTS WITHIN THE GUARDRAIL ANCHOR UNIT LIMITS.
-LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.
-POSTS 1 AND 2 TO BE W8 X 21 X 8'-0" LONG STEEL POST AND 8" X 8" X 14" WOOD ROUTED OFFSET BLOCK.
-SHOULDER BERM GUTTER IS REQUIRED IF NO CURBING EXISTS THROUGH ANCHOR UNIT LIMITS.
-ANCHOR THE W-BEAM END SHOE USING A 4 BOLT HOLD DOWN PLATE AS SHOWN IN STANDARD 862.04

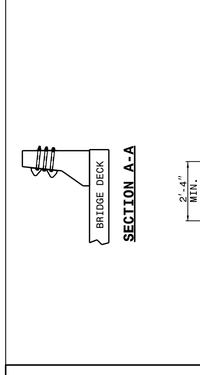
PLAN VIEW



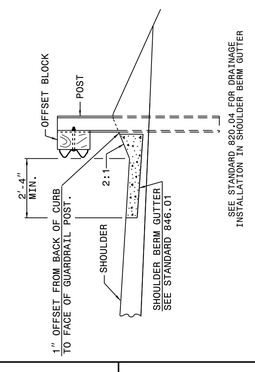
TRANSITION APPROACH SLAB CURB TO SHOULDER BERM GUTTER



GUARDRAIL ANCHOR UNIT TYPE B-83

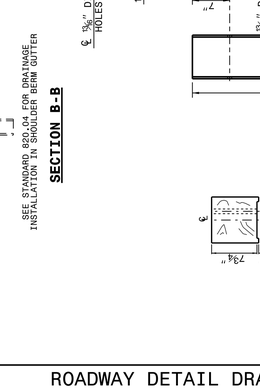


SECTION A-A

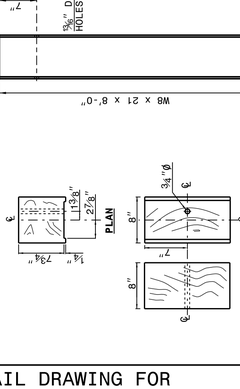


SECTION B-B

SEE STANDARD 820.04 FOR DRAINAGE INSTALLATION IN SHOULDER BERM GUTTER



"W8 X 21 X 8'-0" STEEL POST

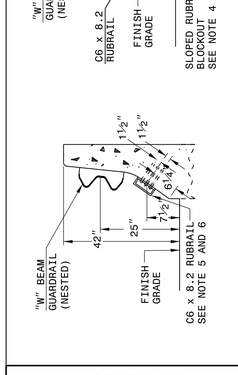


8"X 8"X 14" ROUTED WOOD OFFSET BLOCK

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNITS
GUARDRAIL ANCHOR UNIT TYPE B-83

SHEET 6 OF 7
862D03

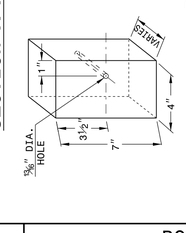


SECTION B-B

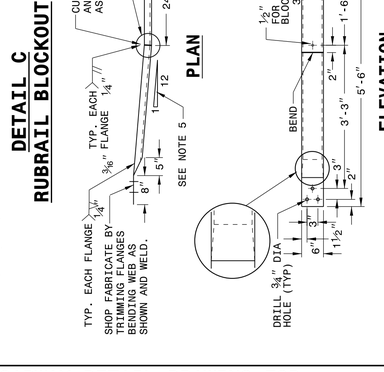
RUBRAIL BLOCKS 7" HIGH x 4" WIDE			
POST	THICKNESS	BOLT LENGTH	
①	4¼"	9"	
②	3¼"	5" *	
③	2"	6" *	
④	2"	8" *	

* BOLTS FOR POSTS 2 AND 4 ARE USED TO ATTACH BLOCK TO POST. RUBRAIL NOT ATTACHED TO BLOCK.

SECTION A-A



DETAIL C
RUBRAIL BLOCKOUT



ELEVATION
DETAIL A
C6 x 8.2 RUBRAIL

GUARDRAIL ANCHOR UNIT TYPE B-83

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARDRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

SHEET 5 OF 7
862D03

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

DocuSigned by: Joel S. Howerton 9/25/2017
873F3D17DCDC45F...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

ORIGINAL BY: J HOWERTON DATE: 06-22-12
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

03-AUG-2017 15:53
S:\Contracts\Contracts\Special Details\jhowerton\Standard Drawings\2012 Standard Drawings\Details in Lieu of Standards\Division 8\862d01 862d03 862d03\862d03.dgn
jhowerton AT CSD-242595