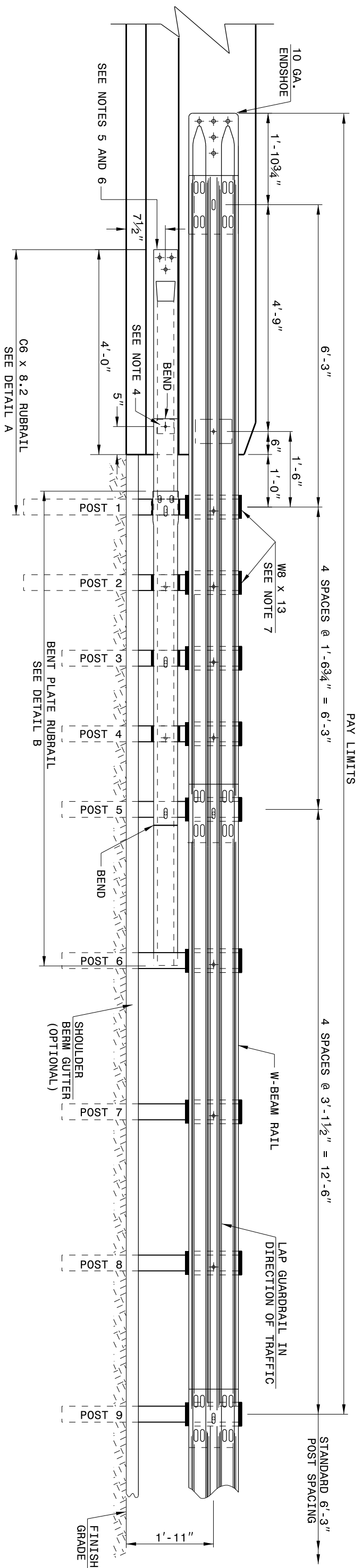
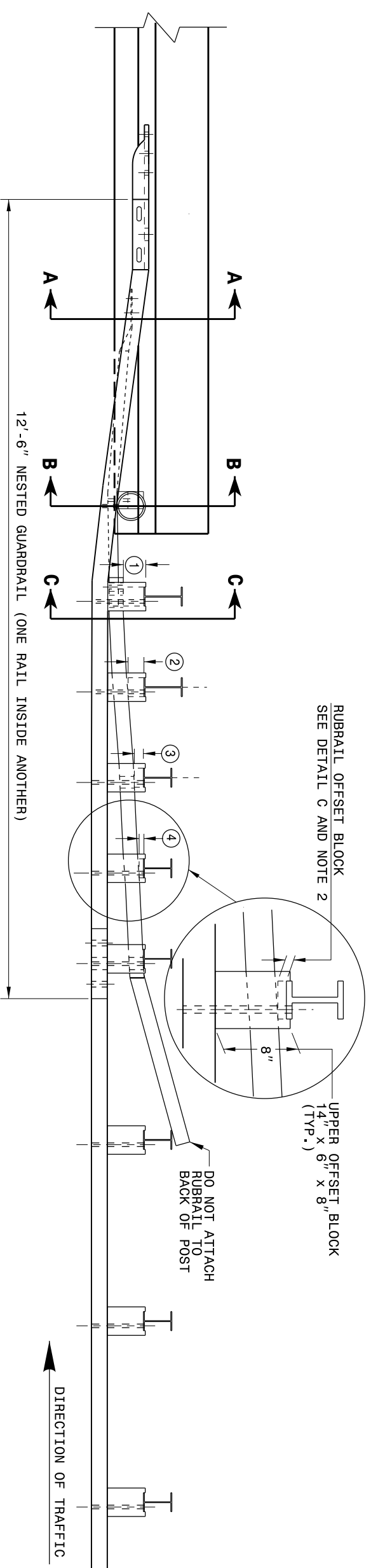


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- GENERAL NOTES:
- POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKS AND/OR RUBRAIL.
 - RUBRAIL BLOCKS LOCATED ON POSTS 1 THROUGH 4, SECURE OFFSET BOLTS (SEE CHART FOR BOLT LENGTHS); SECURE BLOCKS ONLY TO POSTS 2 AND 4. SECURE RUBRAIL AND BLOCKS TO POSTS 1 AND 3. RUBRAIL IS SECURED TO POST 5 WITH A 5/8" x 4 1/2" BUTTWEAD BOLT. RUBRAIL IS FLARED TO BACK OF POST 6 AND NOT SECURED.
 - STEEL SPACER TUBE IS A SCHEDULE 40 GALVANIZED PIPE 6" INSIDE DIAMETER x 9' LONG. ATTACH TUBE TO GUARDRAIL ONLY WITH 3/4" DIA. TIGHT FITTING BOLTS AND PRECAST ANCHOR BOLT. TAKE CARE TO ATTACH TUBE TO RAIL ELEMENT ONLY. USE 3/8" x 3" LAG BOLT WITH FLAT WASHER.
 - SEE DETAIL A FOR SLOPED RUBRAIL BLOCKS.
 - SHOP FABRICATE THE C6 X 8.2 RUBRAIL END TO BE CONSISTENT WITH THE SLOPE OF THE F SHAPE AND ATTACH FLUSH WITH THE SLOPED TOE OF THE BARRIER OR BRIDGE RAIL.
 - ANCHORAGE:
 - AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS, ANCHOR RUBRAIL USING THREE 5/8" x 6" CHEMICALLY ANCHORED ANCHOR BOLTS. SEE DETAIL A.
 - AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS, ANCHOR THE W-BEAM END SHOE USING A 4 BOLT HOLD DOWN PLATE (SEE STD. DWG. 862.004).
 - INSTALL THE W-BEAM END SHOE BEHIND THE NESTED W-BEAM ELEMENTS.
 - POSTS 1 AND 2 ARE W8 X 13, 7'-6" LONG. ALL OTHER POSTS IN THE ANCHOR UNIT ARE W8 X 8.5.



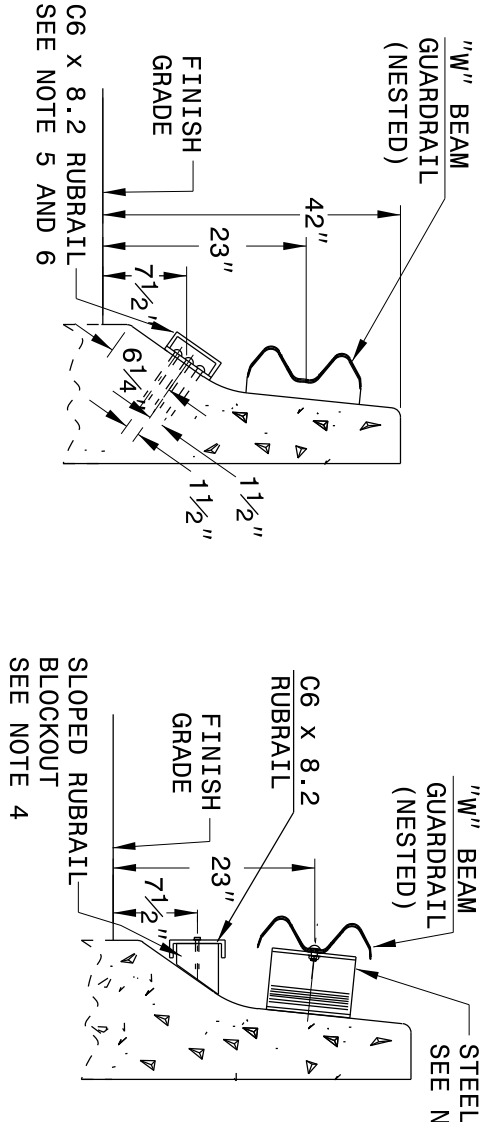
ENGLISH DETAIL DRAWING FOR
GUARDRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

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

SHEET 4 OF 7
862D03

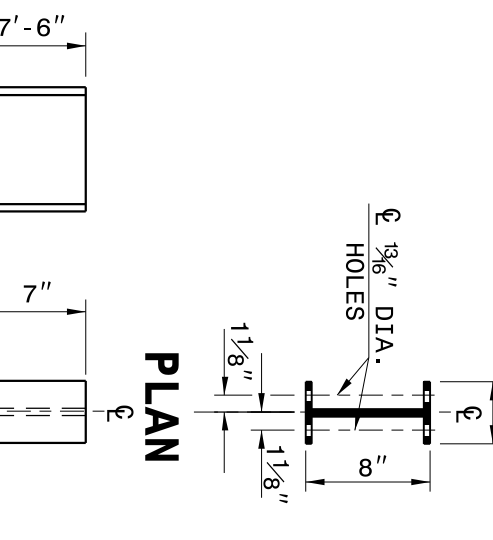
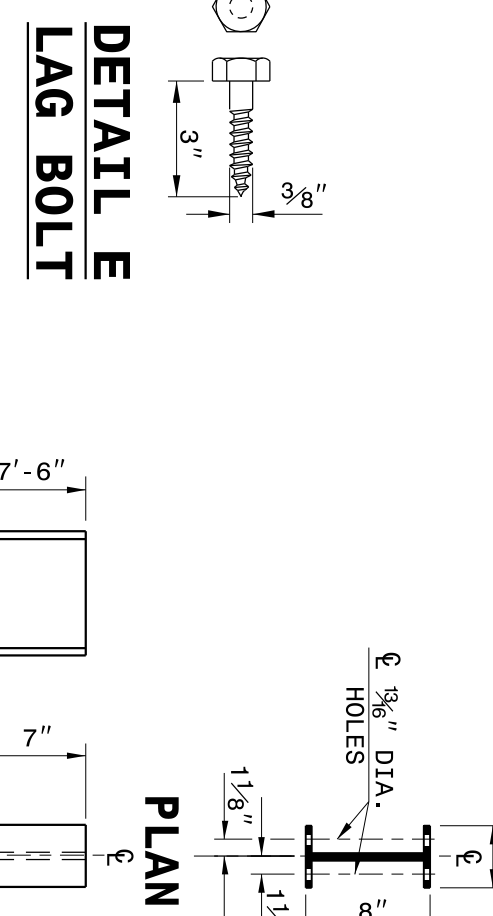
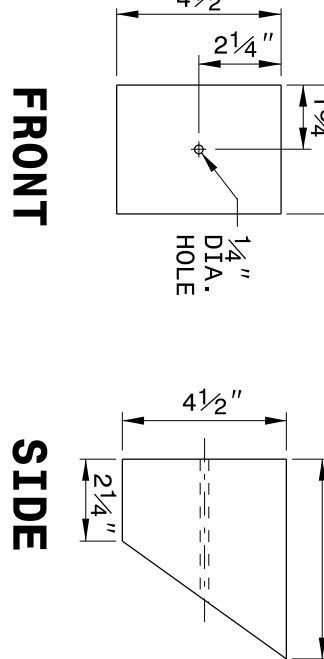
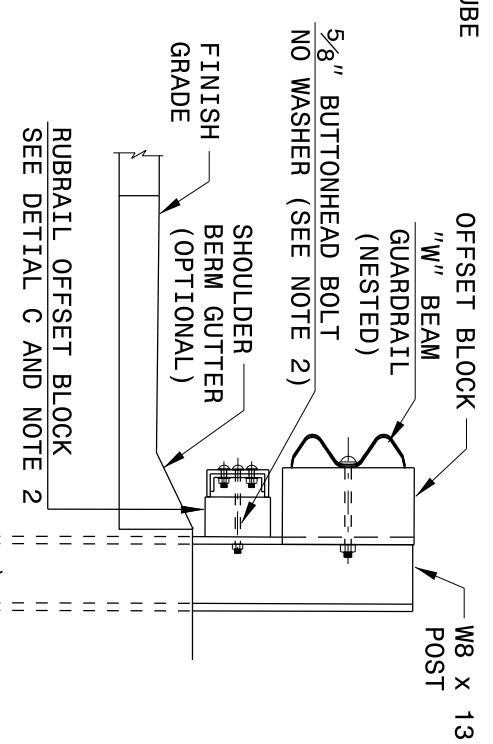
SHEET 4 OF 7
862D03

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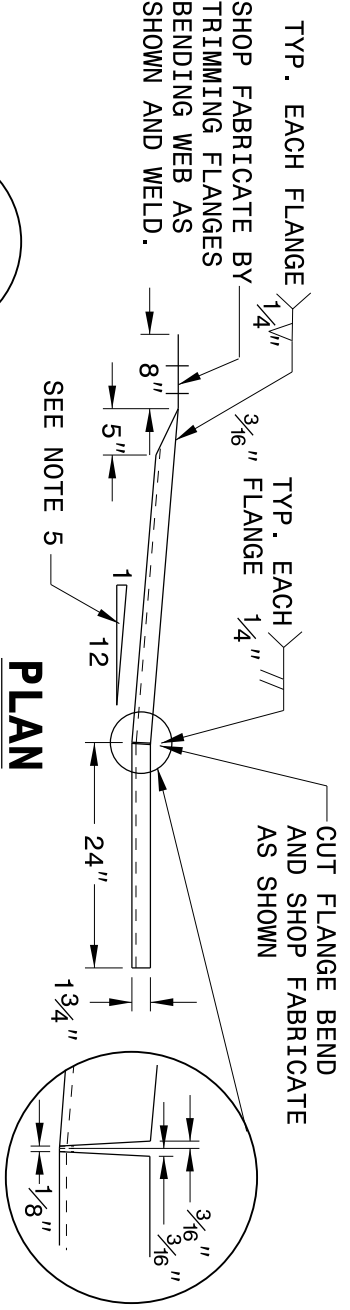


RUBRAIL BLOCKS 7" HIGH X 4" WIDE	POST	THICKNESS	BOLT LENGTH
1	4 1/4"	9"	5"
2	3 1/4"	6"	5"
3	2"	6"	5"
4	1"	3"	5"

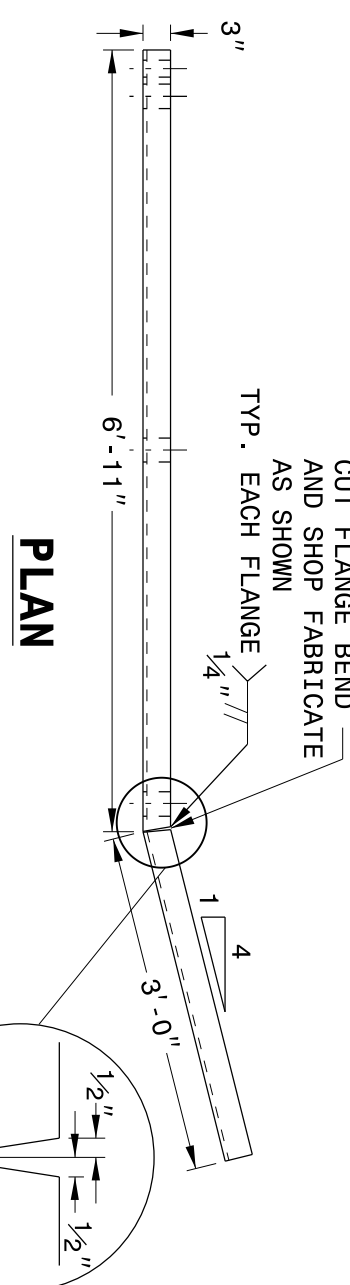
* BOLTS FOR POSTS 2 AND 4 ARE USED TO ATTACH BLOCK TO POST.
* RUBRAIL NOT ATTACHED TO BLOCK.



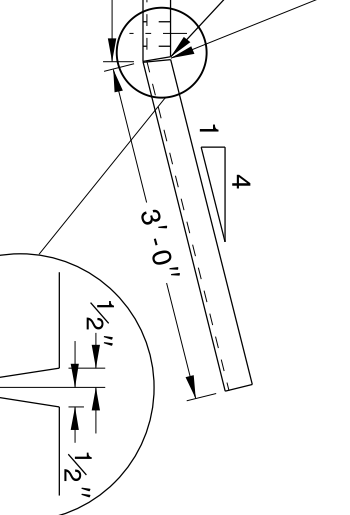
DETAIL C
RUBRAIL BLOCKOUT



DETAIL D
SLOPED RUBRAIL BLOCKOUT



DETAIL F
STEEL POST



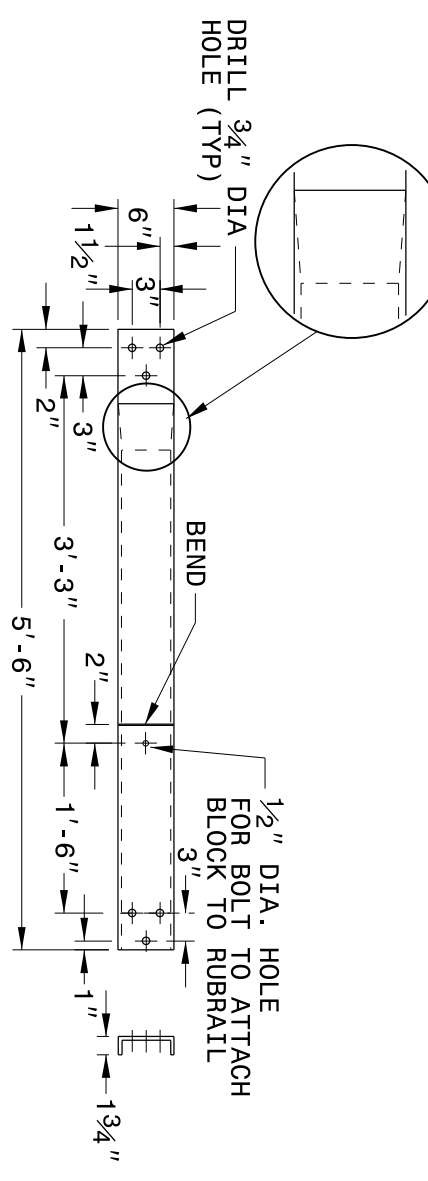
ENGLISH DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
FOR F-SHAPE BARRIER

SHEET 5 OF 7
862D03

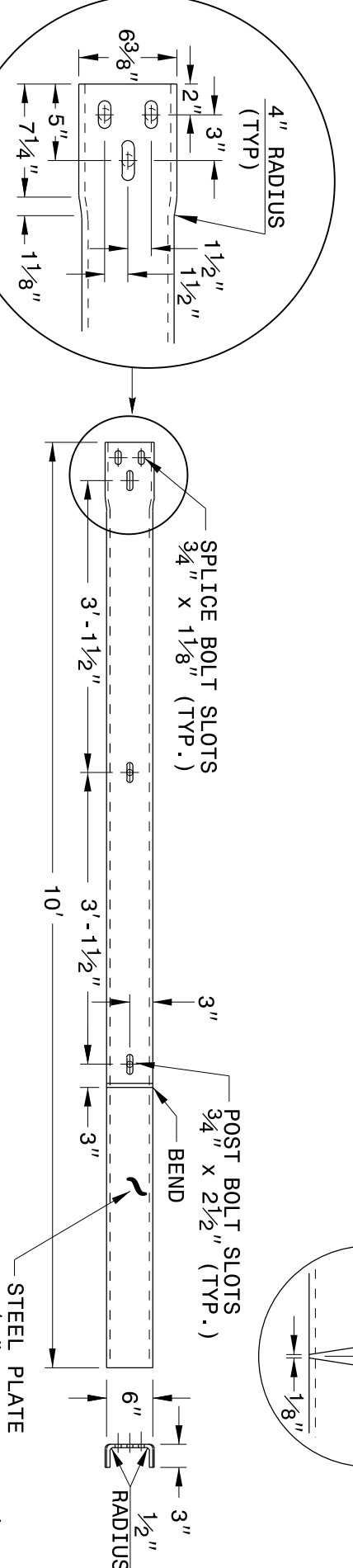
ENGLISH DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARDRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

SHEET 5 OF 7
862D03

DETAIL A
C6 X 8.2 RUBRAIL



DETAIL B
BENT PLATE RUBRAIL



SHEET 5 OF 7
862D03

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.:	