

REV. 9-15-82: CHANGED S-CR-1 TO S-CR-11 AND REDRAWN.

REV. 7-1-84: ADDED ITEM 705-03.11. DELETED M-42-151 AS REFERENCE DWG. ADDED DIMENSION TO W-BEAM RAIL DETAIL.

REV. 9-1-86: CHANGED ITEM DESCRIPTIONS AND ADDED NOTE 7.

REV. 9-5-87: CHANGED ITEM NOS. 705-01.01, 705-01.02 AND 705-01.03 TO 705-01.04, 705-01.05 AND 705-01.06. DELETED ITEM NO. 705-02.05.

REV. 11-4-87: ADDED ITEM NOS. 705-01.07 AND 705-06. CORRECTED REFERENCE FOR 705-01.04.

REV. 3-6-90: ADDED RUB RAIL ALTERNATES. ADDED ITEM NOS. 705-04.08 AND 705-06.01. DELETED ITEM NOS. 705-01.07 AND 705-06.

REV. 10-26-91: REDREW AND REORGANIZED SHEET. UPDATED DRAWING TO 1991 STANDARDS.

REV. 10-26-94: IN GENERAL NOTES (F) CHANGED DRAWING NUMBER.

REV. 1-19-95: IN GENERAL NOTE (F) CHANGED DRAWING NUMBER.

REV. 7-29-95: IN GENERAL NOTE (F) ADDED ITEM NOS. 705-04.20 AND 705-04.21.

REV. 5-27-96: IN GENERAL NOTE (F) ADDED ITEM NO. 705-04.06.

REV. 6-10-96: ADDED DIMENSION FOR WIDTH TO RUB RAIL SPLICE DETAIL.

REV. 7-29-98: MODIFIED GENERAL NOTE (F).

REV. 9-5-98: MODIFIED GENERAL NOTE (F).

REV. 10-26-99: DELETED BACK UP PLATE DETAILS.

REV. 9-5-00: IN GENERAL NOTES CORRECTED NOTE (E).

REV. 5-27-01: IN GENERAL NOTE (F) CHANGED ITEM NUMBERS OF GUARDRAIL TO CONCUR WITH NEW PAY ITEM SYSTEM.

REV. 9-5-01: CORRECTED DESCRIPTION FOR ITEM NO. 705-04.07.

REV. 9-11-02: DELETED ITEM NO. 705-01.02.

REV. 9-5-03: CHANGED GENERAL NOTE (A). DELETED GENERAL NOTE (B). RENUMBERED REMAINING GENERAL NOTES.

REV. 2-22-05: CHANGED GENERAL NOTES (D), (E), AND (F).

REV. 6-30-05: MODIFIED GENERAL NOTE (A).

REV. 11-26-07: REVISED STD. DWG. NUMBERS.

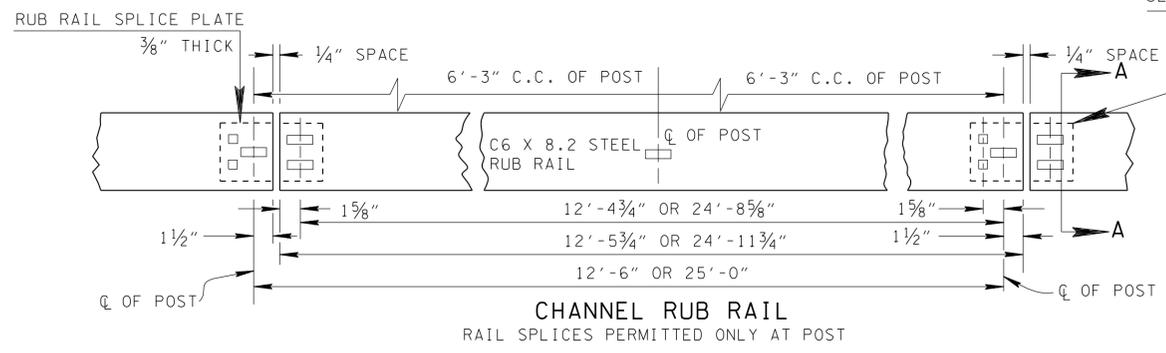
MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

W-BEAM & THRIE BEAM
BARRIER RAIL
AND RUB RAIL
ALTERNATES

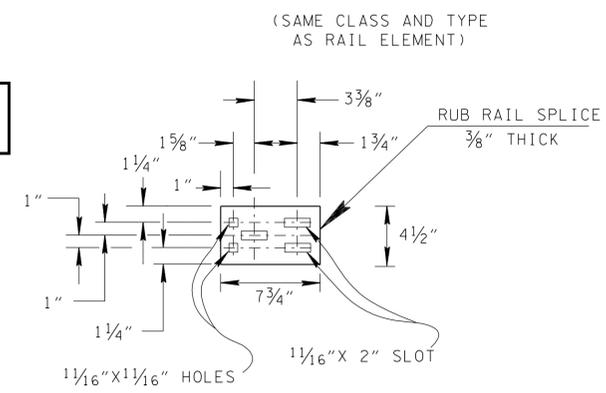
S-CR-11

SEE RUB RAIL SPLICE DETAIL



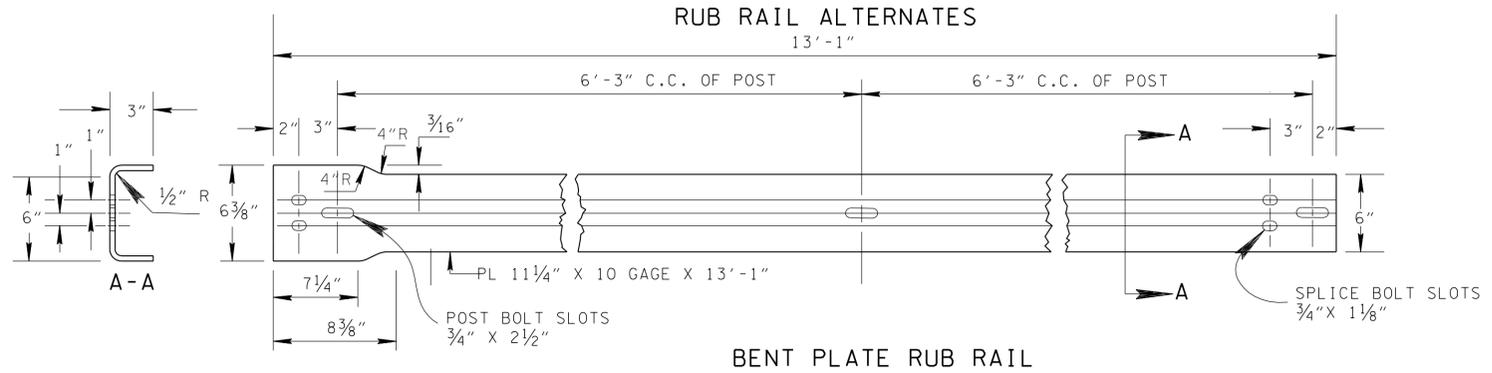
SECTION A-A

NOTE: HOLES IN RUB-RAIL SAME AS IN SPLICE PLATE

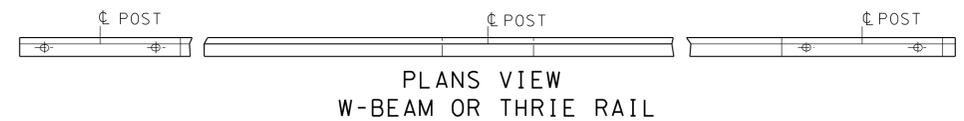


NOTE: HOLES IN RUB-RAIL SAME AS IN SPLICE PLATE

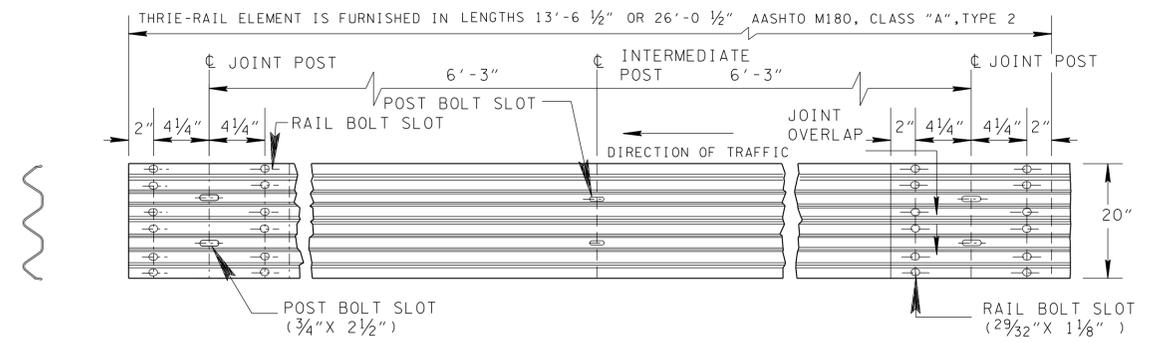
RUB RAIL SPLICE DETAIL



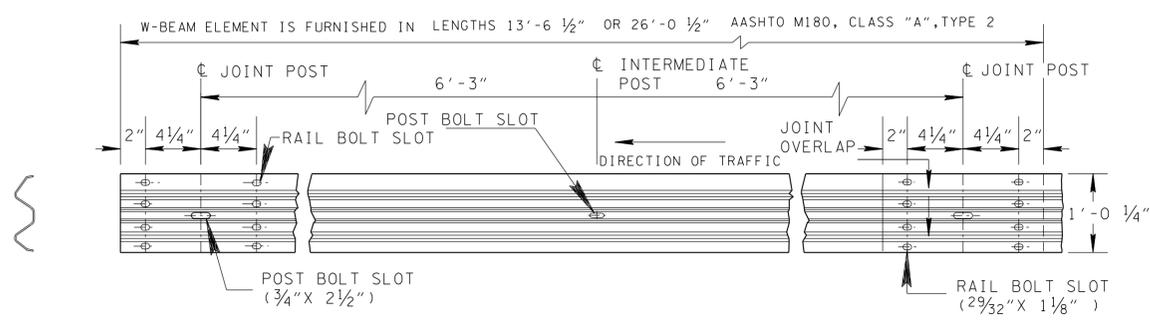
BENT PLATE RUB RAIL



PLANS VIEW
W-BEAM OR THRIE RAIL



FRONT ELEVATION "THRIE" RAIL



FRONT ELEVATION "W"-BEAM

GENERAL NOTES

- (A) CORRUGATED SHEET STEEL BEAMS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF AASHTO M180, CLASS A, TYPE 2. RAIL MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KIPS PER SQUARE INCH AND A TENSILE STRENGTH OF 70 KIPS PER SQUARE INCH.
- (B) RUB RAILS AND RUB RAIL SPLICE PLATES SHALL CONFORM TO ASTM A36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
- (C) WHERE GUARDRAIL IS TO BE PLACED ON A CURVE WITH A RADIUS LESS THAN 150 FEET, THE RAIL SECTION SHALL BE SHOP-FORMED TO THE REQUIRED RADIUS.
- (D) SEE THE "RD01-TS" STANDARD SERIES FOR GUARDRAIL PLACEMENT.
- (E) ITEM NUMBERS FOR PAYMENT AS DETAILED ON THESE "S-CR" SERIES OF DRAWINGS ARE AS FOLLOWS:

ITEM NO.	DESCRIPTION	ON DWG NO.
705-01.01	GUARDRAIL AT BRIDGE ENDS	S-CR-17 & S-CR-23
705-01.04	METAL BEAM GUARD FENCE	S-CR-22 & STD-15-6
705-02.01	SINGLE GUARDRAIL WITH RUB-RAIL (TYPE 2)	S-CR-13 & S-CR-18
705-02.02	SINGLE GUARDRAIL (TYPE 2)	S-CR-13 & S-CR-18
705-03.01	MEDIAN DIVIDER GUARDRAIL W/RUB-RAIL (TYPE 2)	S-CR-13 & S-CR-18
705-03.02	MEDIAN DIVIDER GUARDRAIL (TYPE 2)	S-CR-13 & S-CR-18
705-03.03	MEDIAN DIVIDER GUARDRAIL (TYPE 2) (27" MT. HT.)	S-CR-13 & S-CR-18
705-03.04	MEDIAN DIVIDER GUARDRAIL AT CONCRETE BARRIER	S-CR-20
705-04.02	GUARDRAIL TERMINAL (TYPE 12)	S-CR-19 & S-CR-19B
705-04.03	GUARDRAIL TERMINAL (TYPE 13)	S-CR-19 & S-CR-19C
705-04.04	GUARDRAIL TERMINAL (TYPE 21)	S-CR-26
705-04.05	GUARDRAIL TERMINAL (TYPE IN-LINE)	S-CR-18
705-04.07	TANGENT ENERGY ABSORBING TERMINAL (NCHRP 350 - TL3)	S-CR-43, S-CR-44

- (F) TYPE 1: 3'-1 1/2" SPACING
- TYPE 2: 6'-3" SPACING