

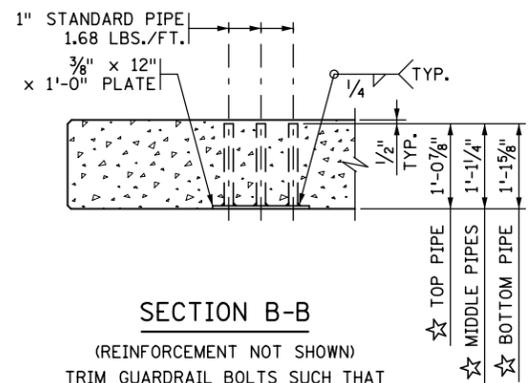
BILL OF REINFORCEMENT FOR BARRIER

BAR NO.	LENGTH	SHAPE	LOCATION
R501E	5'-7"		BARRIER DOWEL
R502E	5'-9"		BARRIER DOWEL
R503E	6'-2"		BARRIER VERTICAL
R504E	4'-4"		BARRIER VERTICAL
R505E	5'-8"		BARRIER VERTICAL
R506E	5'-6"		BARRIER VERTICAL
R707E	6'-6"		BARRIER VERTICAL
R4_E			BARRIER LONGIT.

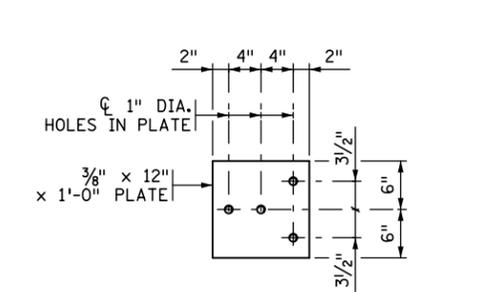
DESIGNER NOTE
 (REMOVE PRIOR TO PLOTTING FINAL PLANS):
 FOR BRIDGES WITH SUPERELEVATION EXCEEDING 2%, SHOW THE BARRIER FRONT FACE DIMENSIONS AS INDICATED ON THIS SHEET, AND ALSO CALCULATE AND SHOW THE BARRIER BACK FACE DIMENSIONS. ALSO VERIFY THAT BAR R501E HAS 10" MIN. PROJECTION WHEN CROSS SLOPE VARIES FROM NORMAL 0.02 FT/FT

EXPANSION JOINT
 EXPANSION JOINT NOT SHOWN
INSIDE ELEVATION OF BARRIER
 CONCRETE WEARING COURSE NOT SHOWN
 (7'-0" BARRIER ON APPROACH SHOWN)

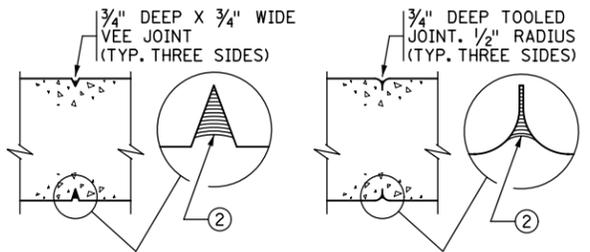
BARRIER MEETS TEST LEVEL 4 REQUIREMENTS OF NCHRP REPORT 350



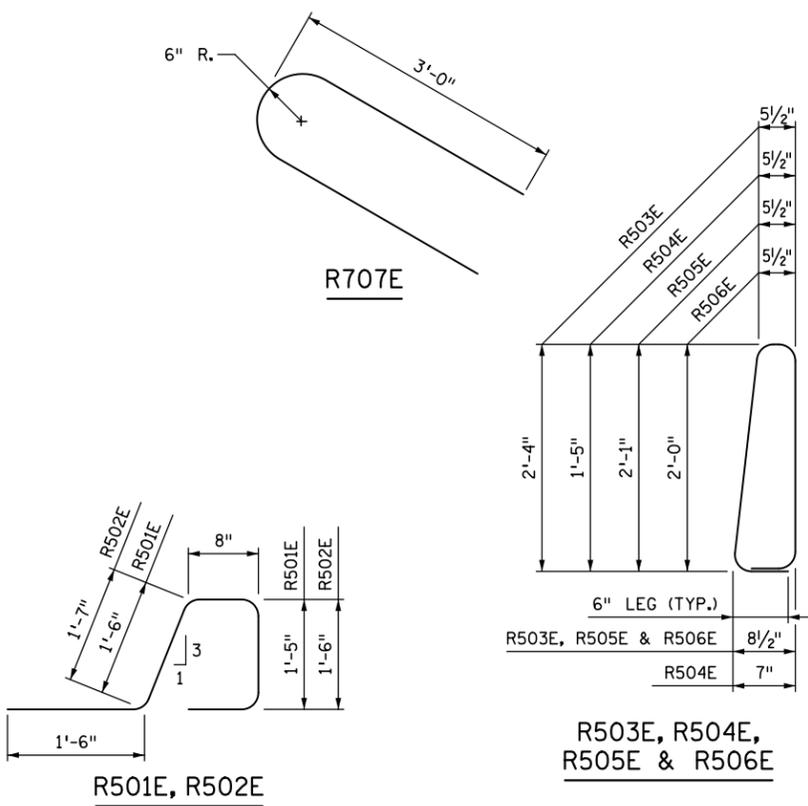
SECTION B-B
 (REINFORCEMENT NOT SHOWN)
 TRIM GUARDRAIL BOLTS SUCH THAT NO MORE THAN 1/2" PROTRUDES FROM BACK FACE OF BARRIER.
 ☆ DIMENSIONS INCLUDE 3/8" PLATE



GUARDRAIL CONNECTION DETAIL
 GALVANIZE AFTER FABRICATION PER SPEC. 3394
 ESTIMATED WEIGHT = 23 LBS



SECTION D-D
 CONTRACTOR OPTION 1
SECTION D-D
 CONTRACTOR OPTION 2
CONTROL JOINT DETAILS
 WHEN USING SLIP FORM METHOD TO PLACE THE CONCRETE, CUT JOINT 3 INCHES DEEP USING MARGIN TROWEL OR SIMILAR MEANS IMMEDIATELY AFTER CONCRETE PLACEMENT (TYP. THREE SIDES)



GENERAL NOTES

MEASURE PAYMENT LENGTH BETWEEN THE OUTSIDE FACES OF THE BARRIER.

CONCRETE BARRIER = 464 LBS./FT. (0.115 CU. YDS./FT.)

FINISH ALL EDGES OF BARRIER WITH 1/2" CHAMFER, EXCEPT WHERE OTHERWISE NOTED.

SPACE CONTROL JOINTS AT 10 FT. MAXIMUM. SEE SUPERSTRUCTURE SHEET FOR JOINT SPACING.

GUARDRAIL CONNECTION TO BE STRUCTURAL STEEL, SPEC. 3306.

GUARDRAIL CONNECTION AND NAME PLATE TO BE CONSIDERED INCIDENTAL TO BARRIER.

BARRIER QUANTITIES ARE LISTED IN SUMMARY OF QUANTITIES FOR SUPERSTRUCTURE.

① PLACE BAR ON TOP OF BOTTOM REINFORCEMENT MAT.
 ② JOINT SEALANT PER MNDOT APPROVED/QUALIFIED PRODUCTS LIST - CRACK AND JOINT MATERIALS - SILICONE JOINT SEALERS.

REVISION:
 APPROVED: JANUARY 13, 2015
Nancy Subenberger
 STATE BRIDGE ENGINEER

CERTIFIED BY _____ DATE _____
 LICENSED PROFESSIONAL ENGINEER
 NAME: _____ LIC. NO. _____

TITLE: **CONCRETE BARRIER (TYPE F, TL-4)**
 PARAPET ABUTMENT WITH INTEGRAL END POST (WITHOUT CONCRETE WEARING COURSE)

DES: _____ DR: _____
 CHK: _____ CHK: _____
 APPROVED: _____
 SHEET NO. OF SHEETS
 BRIDGE NO. _____

FIG. 5-397.115(B)