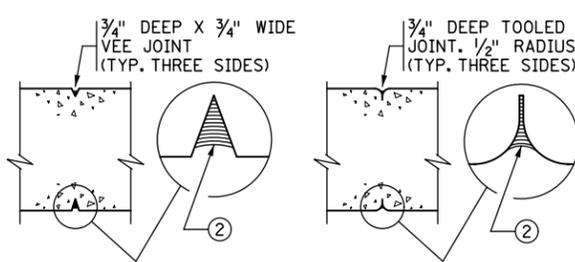
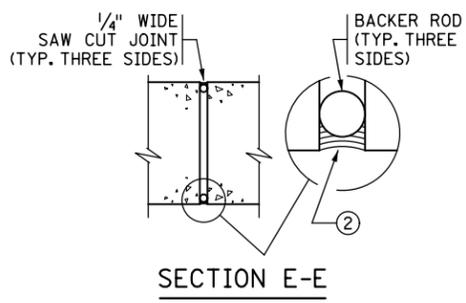
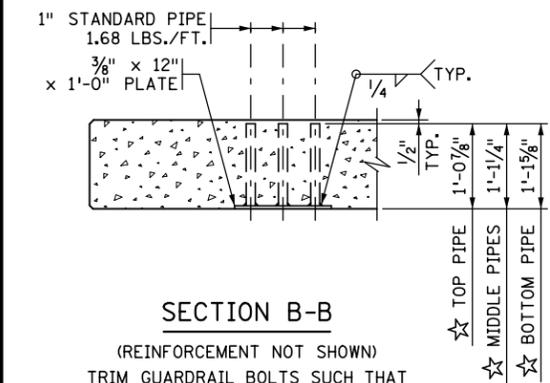


BILL OF REINFORCEMENT FOR BARRIER

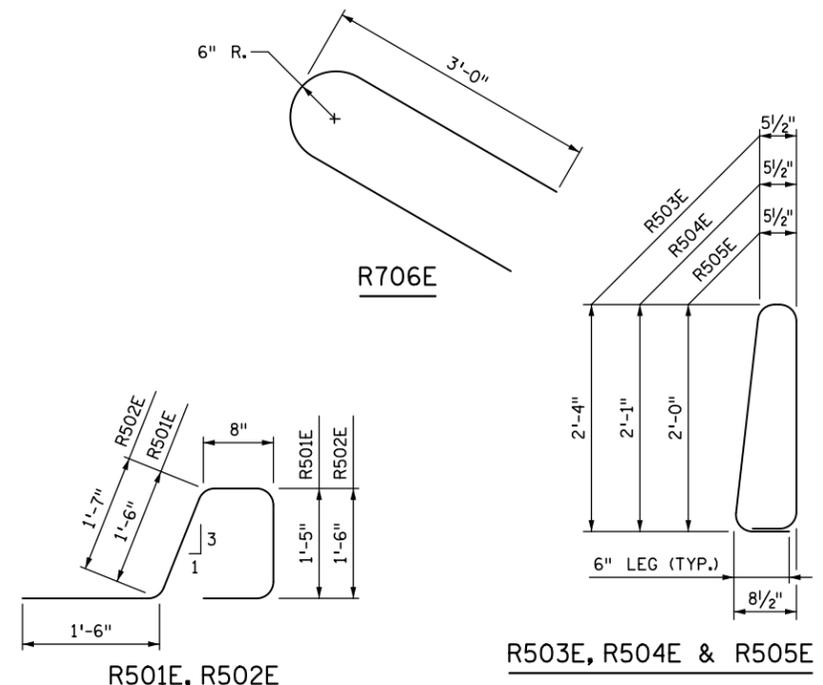
| BAR NO. | LENGTH | SHAPE | LOCATION |
|---------|--------|-------|------------------|
| R501E | 5'-7" | | BARRIER DOWEL |
| R502E | 5'-9" | | BARRIER DOWEL |
| R503E | 6'-2" | | BARRIER VERTICAL |
| R504E | 5'-8" | | BARRIER VERTICAL |
| R505E | 5'-6" | | BARRIER VERTICAL |
| R706E | 6'-6" | | BARRIER 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

BARRIER MEETS TEST LEVEL 4 REQUIREMENTS OF NCHRP REPORT 350



CONTROL JOINT DETAILS
 CONTRACTOR OPTION 1 CONTRACTOR OPTION 2
 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)**
 INTEGRAL OR SEMI-INTEGRAL ABUTMENT WITH INTEGRAL END POST (WITHOUT CONCRETE WEARING COURSE)

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

FIG. 5-397.115(A)