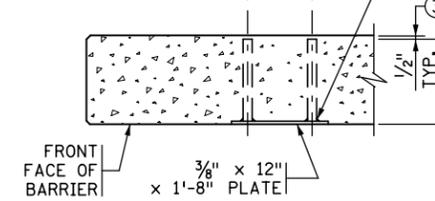


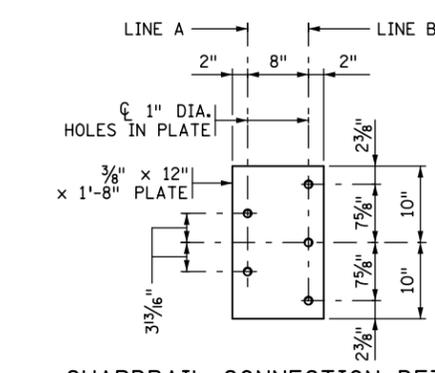
END VIEW

** DIMENSION SHOWN IS TO THE TOP OF THE WEARING COURSE AT GUTTERLINE.



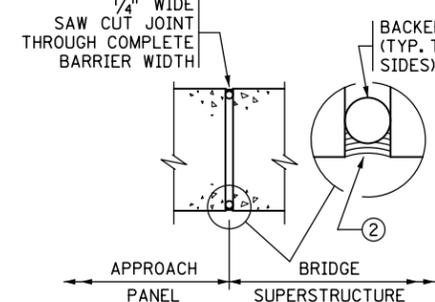
SECTION A-A

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

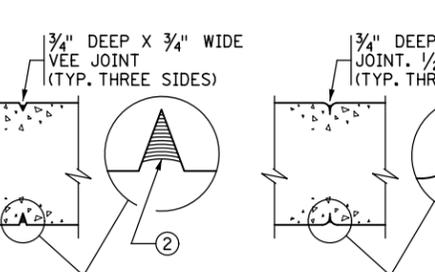


GUARDRAIL CONNECTION DETAIL
GALVANIZE AFTER FABRICATION PER SPEC. 3394
ESTIMATED WEIGHT = 35 LBS.

DESIGNER NOTE
(REMOVE PRIOR TO PLOTTING FINAL PLAN):
MINIMUM BARRIER LENGTH ON APPROACH PANEL IS 16'-8" WITH MINIMUM OF 22 R502E AND R503E DOWELS WITH ACCOMPANYING APPROPRIATE BARRIER VERTICAL BARS, 12" MAX. SPACING. VERIFY APPROACH BARRIER LENGTH, NEED FOR A GUARDRAIL CONNECTION, AND VERTICAL TAPER WITH ROADWAY DESIGNER. REFER TO MEMO TO DESIGNERS (2016-01) FOR ADDITIONAL REQUIREMENTS REGARDING BARRIER PLACEMENT.



SECTION D-D

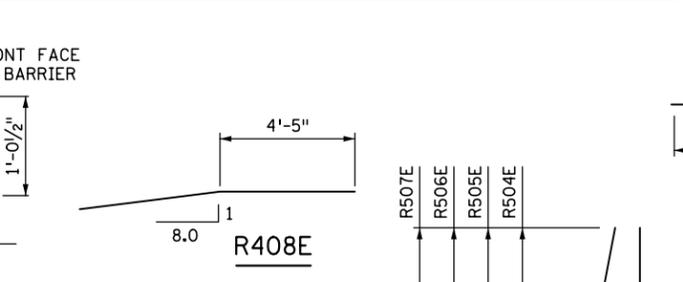


SECTION C-C
CONTRACTOR OPTION 1
CONTRACTOR OPTION 2

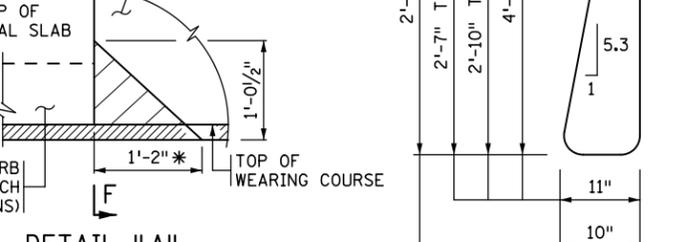
CONTROL JOINT DETAILS

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).

BARRIER MEETS NCHRP 350 TL-4 REQUIREMENTS ON BRIDGE DECK AND TL-3 ON APPROACH PANEL.

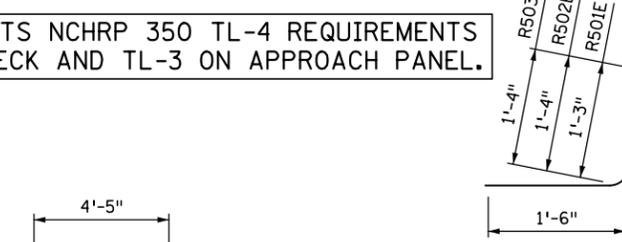


VIEW F-F
AT BARRIER END

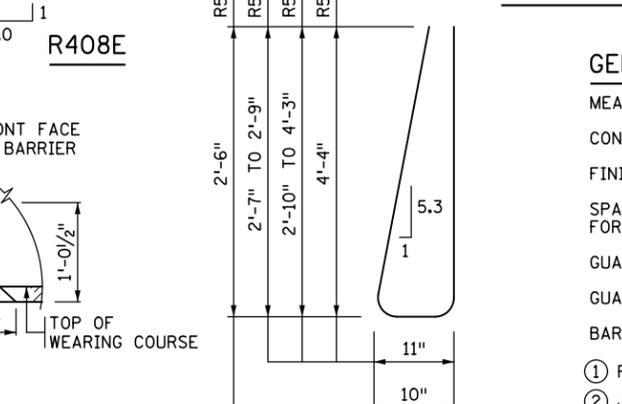


DETAIL "A"
ELEVATION VIEW
(WEARING COURSE SHOWN)

JOINT AT ABUTMENT
(INTEGRAL OR SEMI-INTEGRAL ABUTMENT)
INSIDE ELEVATION OF BARRIER
CONCRETE WEARING COURSE NOT SHOWN



R501E, R502E & R503E



R504E, R505E, R506E, R507E

BILL OF REINFORCEMENT FOR BARRIER

BAR NO.	LENGTH	SHAPE	LOCATION
R501E	5'-4"	[Symbol]	BARRIER DOWEL
R502E	5'-6"	[Symbol]	BARRIER DOWEL
R503E	5'-5"	[Symbol]	BARRIER DOWEL
R504E	9'-6"	[Symbol]	BARRIER VERTICAL
R505E	-- SER. OF 12 6'-7" TO 9'-5"	[Symbol]	BARRIER VERTICAL
R506E	-- SER. OF 4 6'-1" TO 6'-5"	[Symbol]	BARRIER VERTICAL
R507E	5'-6"	[Symbol]	BARRIER VERTICAL
R408E	11'-8"	[Symbol]	BARRIER LONGIT.
R409E	7'-7"	[Symbol]	BARRIER LONGIT.
R4_E		[Symbol]	BARRIER LONGIT.
R4_E		[Symbol]	BARRIER LONGIT.
R4_E		[Symbol]	BARRIER LONGIT.
R4_E		[Symbol]	BARRIER LONGIT.

GENERAL NOTES

- MEASURE PAYMENT LENGTH BETWEEN THE OUTSIDE ENDS OF THE BARRIER.
- CONCRETE BARRIER = 673 LBS./FT. (0.166 CU. YDS./FT.)
- FINISH ALL EDGES OF BARRIER WITH 1/2" CHAMFER, EXCEPT WHERE OTHERWISE NOTED.
- SPACE CONTROL JOINTS AT 10 FT. MAXIMUM. REFER TO SUPERSTRUCTURE SHEET FOR SPECIFIC SPACING INFORMATION.
- 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 IN DECK.
- ② JOINT SEALANT PER MDOT APPROVED/QUALIFIED PRODUCTS LIST - CRACK AND JOINT MATERIALS - SILICONE JOINT SEALERS.
- ③ REMOVE CONCRETE FROM PIPE ENDS AFTER SLIPFORMING OR FORM REMOVAL.

REVISION:
APPROVED: AUGUST 24, 2016
Kevin Weston
STATE BRIDGE ENGINEER

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

TITLE: SINGLE SLOPE CONCRETE BARRIER 54" (TYPE S, TL-4)
INTEGRAL OR SEMI-INTEGRAL ABUTMENT WITH GUARDRAIL CONNECTION (WITH 2" CONCRETE WEARING COURSE)

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

FIG. 5-397.142(B)