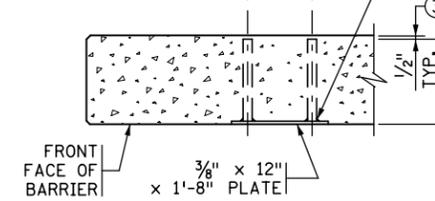
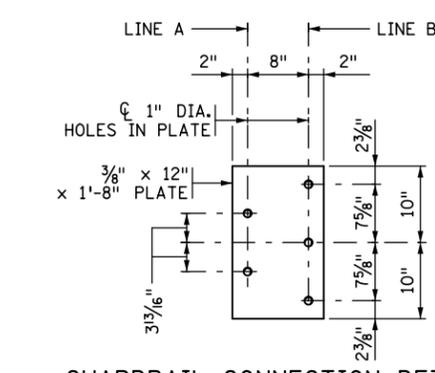


END VIEW

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

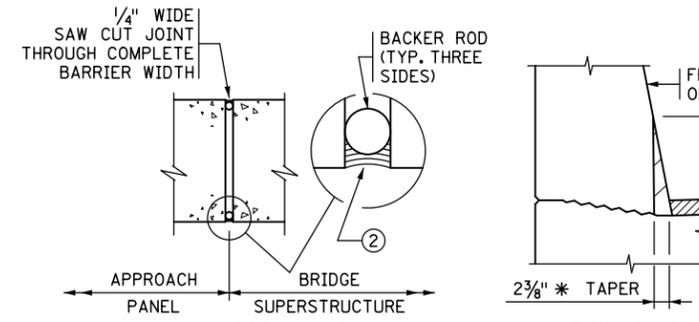


SECTION A-A
(REINFORCEMENT NOT SHOWN)
TRIM GUARDRAIL BOLTS SUCH THAT NO MORE THAN 1/2" PROTRUDES FROM BACK FACE OF BARRIER.
☆ DIMENSIONS INCLUDE 3/8" PLATE

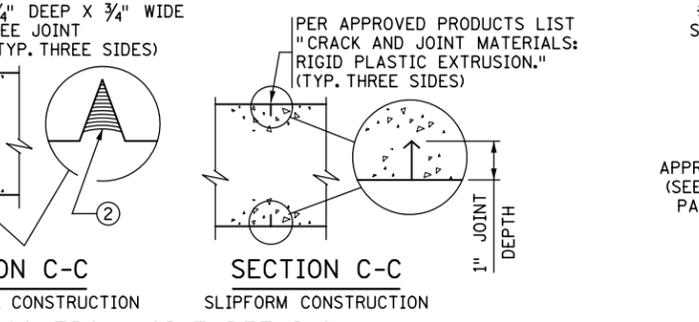


GUARDRAIL CONNECTION DETAIL
GALVANIZE AFTER FABRICATION PER SPEC. 3394
ESTIMATED WEIGHT = 35 LBS.

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.

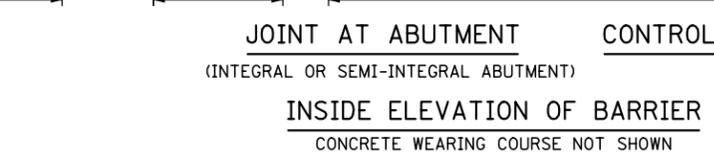


SECTION D-D
APPROACH PANEL SUPERSTRUCTURE



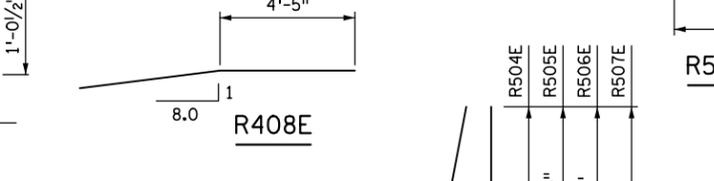
SECTION C-C
CONTROL JOINT DETAILS

FOR SLIPFORM CONSTRUCTION: IMMEDIATELY AFTER CONCRETE IS PLACED AND WHILE IT IS STILL WET, CREATE A ONE INCH STRAIGHT GROOVE USING A TROWEL. INSERT RIGID PLASTIC EXTRUSION INTO GROOVE TO A DEPTH 1/8" BELOW THE SURFACE; FINISH OVER GROOVE COMPLETELY HIDING THE EXTRUSION.

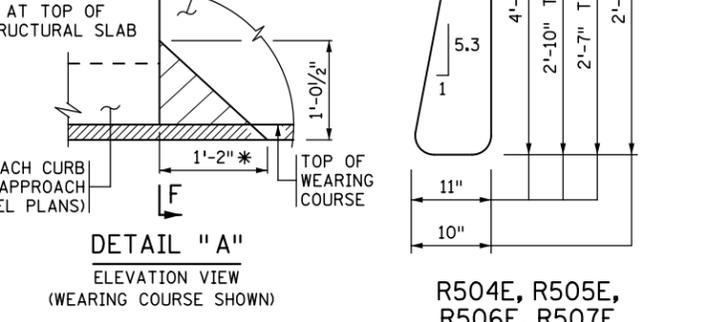


JOINT AT ABUTMENT CONTROL JOINT
INSIDE ELEVATION OF BARRIER
CONCRETE WEARING COURSE NOT SHOWN

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)

BILL OF REINFORCEMENT FOR BARRIER

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

GENERAL NOTES

MEASURE PAYMENT LENGTH BETWEEN THE OUTSIDE ENDS OF THE BARRIER.
CONCRETE BARRIER = 656 LBS./FT. (0.162 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.
④ MATCH GUTTERLINE ELEVATION.

REVISION: MAY 10, 2017
APPROVED: AUGUST 24, 2016
Kevin Weston
STATE BRIDGE ENGINEER

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

TITLE: 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)