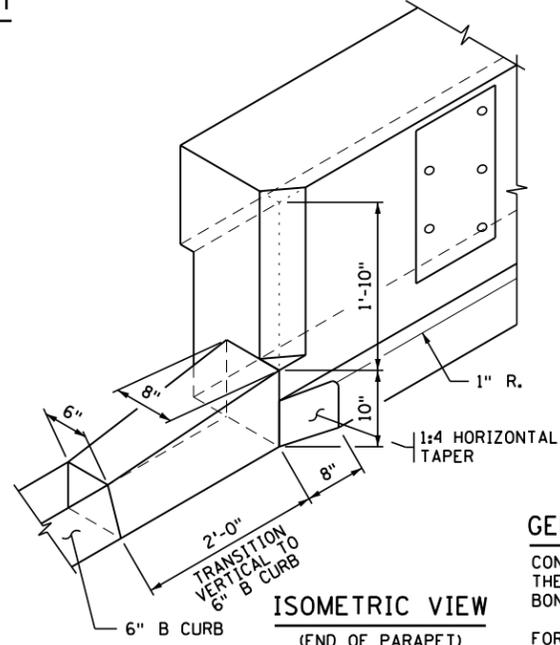


DESIGNER NOTES
 (REMOVE PRIOR TO PRINTING FINAL PLAN)
 ONLY USE THIS PARAPET WHEN THE ROADWAY DESIGN SPEED IS 45 MPH OR LESS UNLESS IT IS PROTECTED BY A TRAFFIC BARRIER.
 OMIT GUARDRAIL CONNECTION IF THE PARAPET IS PROTECTED BY A TRAFFIC BARRIER THAT INCLUDES THE GUARDRAIL ATTACHMENT.
 IF GUARDRAIL CONNECTION IS INCLUDED, METAL RAILING OR FENCE ON TOP OF PARAPET MUST TERMINATE AT LEAST 3'-0" AWAY FROM THE END OF THE PARAPET.
 MINIMUM PARAPET LENGTH ON APPROACH PANEL IS 13'-4" WITH MINIMUM OF 19 R502E & R503E DOWELS WITH ACCOMPANYING APPROPRIATE PARAPET VERTICAL BARS, 12" MAX. SPACING.
 VERIFY THAT UTILITIES OR CONDUITS PLACED WITHIN THE PARAPET DO NOT INTERFERE WITH ANCHORAGE PLACEMENT.
 X-OUT ALL DETAILS NOT BEING USED.

**JOINT AT ABUTMENT
 INSIDE ELEVATION OF PARAPET**

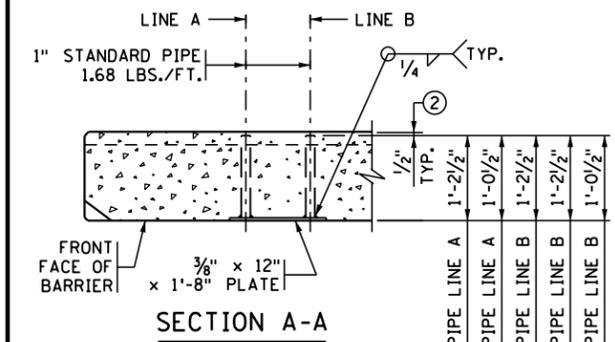
PARAPET MEETS MASH TL-2 REQUIREMENTS

CONTROL JOINT

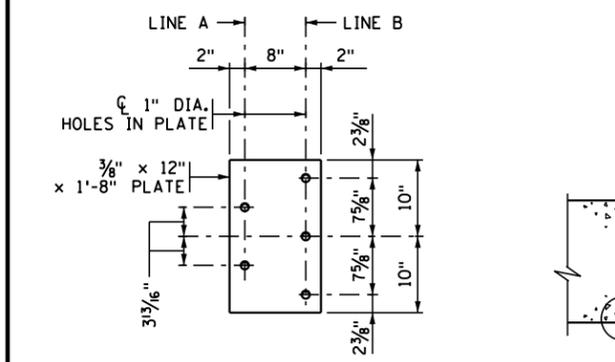


BILL OF REINFORCEMENT FOR PARAPET

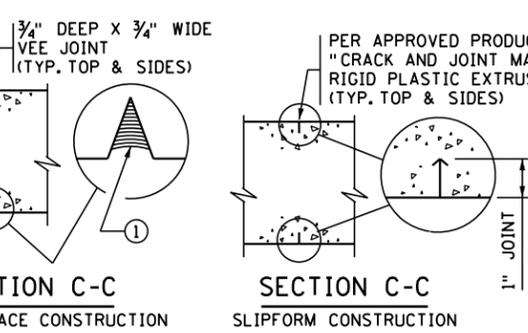
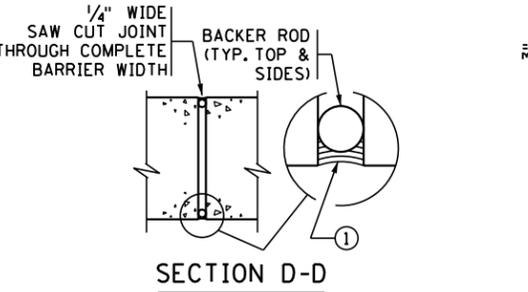
BAR	NO.	LENGTH	SHAPE	LOCATION
F501E		5'-1"	U	PARAPET DOWEL
F502E		5'-3"	U	PARAPET DOWEL
F503E		5'-3"	U	PARAPET DOWEL
F504E		7'-1"	U	PARAPET VERTICAL
F505E		6'-11"	U	PARAPET VERTICAL
F4..E			—	PARAPET LONGIT.
F4..E			—	PARAPET LONGIT.
F4..E			—	PARAPET LONGIT.
F4..E			—	PARAPET LONGIT.
F4..E			—	PARAPET LONGIT.



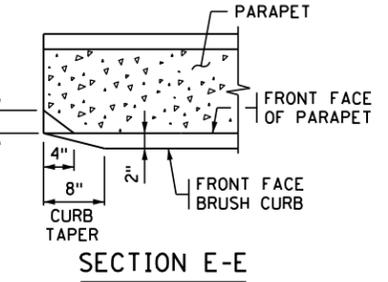
SECTION A-A
 (REINFORCEMENT NOT SHOWN)
 TRIM GUARDRAIL BOLTS SUCH THAT NO MORE THAN 1/2" PROTRUDES FROM BACK FACE OF BARRIER.
 ☆ DIMENSIONS INCLUDE 3/8" PLATE



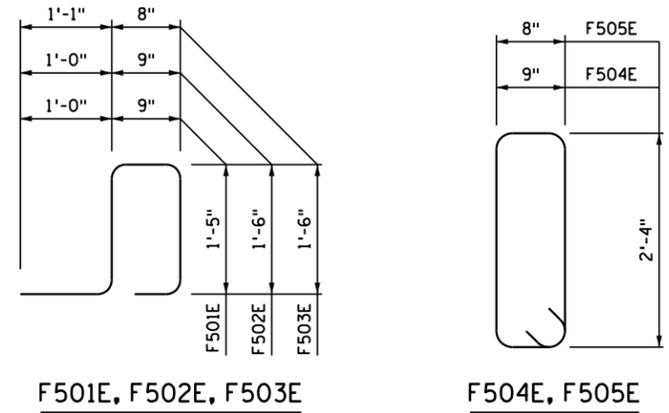
GUARDRAIL CONNECTION DETAIL
 GALVANIZE AFTER FABRICATION PER SPEC. 3394
 ESTIMATED WEIGHT = 34 LBS.



CONTROL JOINT DETAILS



SECTION E-E



- GENERAL NOTES**
- CONTINUOUSLY GROUND ALL METAL RAILINGS; SEE THE SPECIAL PROVISIONS. REFER TO THE ELECTRICAL PLANS AND ELECTRICAL SPECIAL PROVISIONS FOR DETAILS REGARDING BONDING MULTIPLE ELECTRICAL GROUNDING SYSTEMS.
 - FOR SLIPFORM CONSTRUCTION, TIE 100% OF THE REINFORCEMENT BAR INTERSECTIONS IN THE PARAPET.
 - MEASURE PAYMENT LENGTH BETWEEN THE OUTSIDE ENDS OF THE PARAPET.
 - CONCRETE PARAPET = 473 LBS./FT. (0.117 CU. YDS./FT.)
 - FINISH ALL EDGES OF PARAPET 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 IN ACCORDANCE WITH SPEC. 3306.
 - GUARDRAIL CONNECTION AND NAMEPLATE TO BE CONSIDERED INCIDENTAL.
 - PARAPET QUANTITIES ARE LISTED IN SUMMARY OF QUANTITIES FOR SUPERSTRUCTURE.
 - ① JOINT SEALANT PER MDOT APPROVED/QUALIFIED PRODUCTS LIST - CRACK AND JOINT MATERIALS - SILICONE JOINT SEALERS.
 - ② REMOVE CONCRETE FROM PIPE ENDS AFTER SLIPFORMING OR FORM REMOVAL.
 - ③ 4 1/2" MIN. FROM FRONT FACE OF PARAPET TO VERTICAL METAL RAILING POST IF NOT PROTECTED BY A TRAFFIC BARRIER.

REVISION:
 APPROVED: APRIL 09, 2020
 Kevin Westrom
 STATE BRIDGE ENGINEER

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.

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

TITLE: **CONCRETE PARAPET (TYPE P-1, TL-2)**
 INTEGRAL OR SEMI-INTEGRAL ABUTMENT
 (WITHOUT CONCRETE WEARING COURSE)

DESIGNED BY: _____ DRAWN BY: _____
 CHECKED BY: _____
 APPROVED: _____
 SHEET NO. OF SHEETS
 BRIDGE NO. _____