

**DESIGNER NOTES**  
 (REMOVE PRIOR TO PRINTING FINAL PLAN):  
 MINIMUM PARAPET LENGTH ON APPROACH PANEL IS 13'-4" WITH MINIMUM OF 19 F502E DOWELS WITH ACCOMPANYING APPROPRIATE PARAPET VERTICAL BARS, 12" MAX. SPACING. COORDINATE WITH ROADWAY DESIGNER TO SEE IF GUARDRAIL CONNECTION IS NEEDED. ADD DETAILS FROM STANDARD FIGURE 5-397.166(D) IF GUARDRAIL CONNECTION IS NEEDED.  
 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 RAISED SIDEWALK WIDTH IS 6'-0".  
 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**      **CONTROL JOINT**

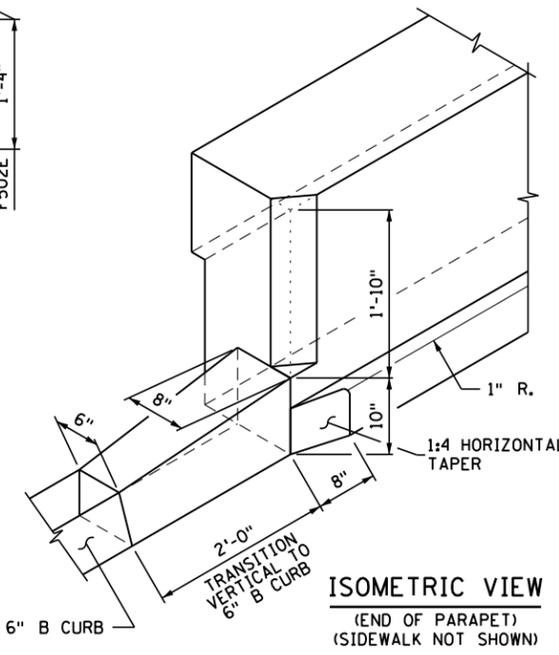
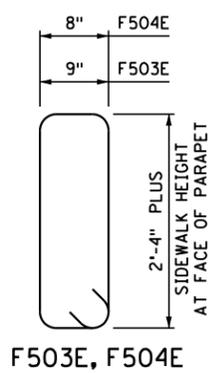
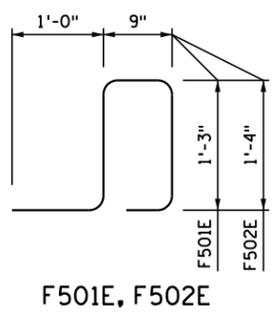
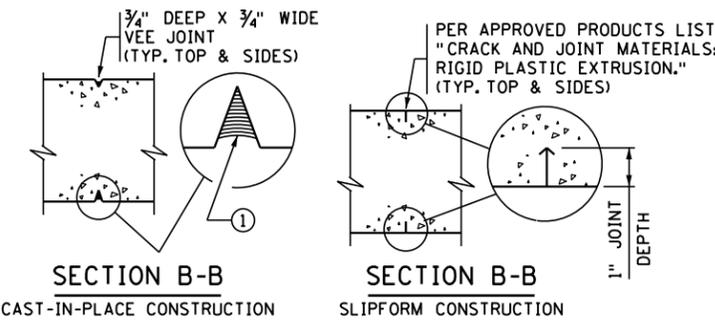
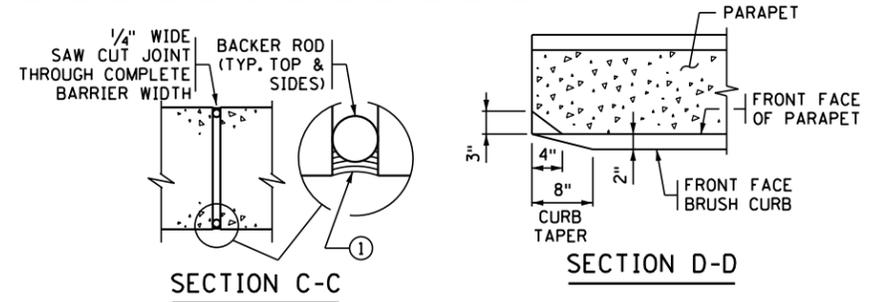
**INSIDE ELEVATION OF PARAPET**

PARAPET MEETS MASH TL-2 REQUIREMENTS

**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.

**BILL OF REINFORCEMENT FOR PARAPET**

BAR	NO.	LENGTH	SHAPE	LOCATION
F501E		4'-9"		PARAPET DOWEL
F502E		4'-11"		PARAPET DOWEL
F503E				PARAPET VERTICAL
F504E				PARAPET VERTICAL
F4..E				PARAPET LONGIT.
F4..E				PARAPET LONGIT.
F4..E				PARAPET LONGIT.
F4..E				PARAPET LONGIT.



**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 W/ADJACENT SIDEWALK (BASED ON A ... SIDEWALK HEIGHT) = ... LBS./FT. (... 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.
- NAMEPLATE TO BE CONSIDERED INCIDENTAL.
- PARAPET QUANTITIES ARE LISTED IN SUMMARY OF QUANTITIES FOR SUPERSTRUCTURE.
- ① JOINT SEALANT PER MNDOT APPROVED/QUALIFIED PRODUCTS LIST - CRACK AND JOINT MATERIALS - SILICONE JOINT SEALERS.
- ② 4 1/2" MIN. FROM FRONT FACE OF PARAPET TO VERTICAL METAL RAILING POST IF NOT PROTECTED BY A TRAFFIC BARRIER.
- ③ MATCH GUTTERLINE ELEVATION.

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  
 (WITH 2" CONCRETE WEARING COURSE)  
 WITH RAISED SIDEWALK

DES: \_\_\_\_\_ DR: \_\_\_\_\_  
 CHK: \_\_\_\_\_ CHK: \_\_\_\_\_  
 SHEET NO. OF SHEETS  
 APPROVED: \_\_\_\_\_ BRIDGE NO. \_\_\_\_\_

FIG. 5-397.166(C)

CODE 69