Figure 5-397.166(A)
Concrete Parapet (Type P-1, TL-2) Integral or Semi-Integral Abutment (Without Concrete Wearing Course) With Raised Sidewalk

Re-approved, and signed, April 9, 2020.

Re-Approved 04-09-2020

General

- The primary changes in this re-approval include developing separate standards for the P-1 parapet for when it is mounted on a sidewalk and when it is mounted directly to the deck, and updating the end post geometry and reinforcement to connect to a Type 31 guardrail.
- The standard was also updated to remove the guardrail connection plate and a designer note was added stating that if a guardrail connection is needed it can be added back but the details needed to be coordinated with the roadway designer.
- Added “With raised sidewalk” to the title block.

Under GENERAL NOTES:
- Added new 2nd note “For slipform construction, tie 100% of the reinforcement bar intersections in the parapet.”
- Eliminated the note with the parapet weight and concrete volume.
- Deleted circled note ② regarding the guardrail connection since those details have been removed.
- Changed circled note ③ to circled note ②.
- Minor changes in the notes to update to active voice.

At INSIDE ELEVATION OF PARAPET:
- Added a designer note stating the minimum parapet length on an approach panel is 13’-4”.
- Removed the guardrail connection plate – but added a designer note regarding this (see below).
- Updated the amount and spacing of reinforcement in the portion of the parapet on the approach panel.
- Updated the end post geometry to include a chamfer and tapered brush curb and a sidewalk off the end of the bridge.

Added SECTION D-D:
- Added a plan view showing the geometry & chamfers and the brush curb transition geometry at the end of the parapet.

At END VIEW:
- Updated the reinforcement and geometry to match the elevation view.
- Removed the guardrail connection plate (see new designer note).

At SECTION A-A:
- Updated the reinforcement and geometry to match the elevation view.
- Added a roughened surface under the sidewalk.
- Removed old section B-B showing the parapet mounted directly to the deck.
- Increased the maximum parapet height from 3’-8” to 3’-10” in the designer note to the right of the section.
- Changed circled note ③ to note ②.

At Designer Notes:
- Updated the designer note on the left to include the new 13’-4” minimum length and new dowel requirements and to coordinate with roadway designer to determine if guardrail connection is needed. Add details from standard figure 5-397.166(b) if guardrail connection is needed and 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”.
• Updated the designer note on the right stating to only use this parapet when the roadway design speed is 45 mph or less unless it is protected by a traffic barrier.

Added ISOMETRIC VIEW:
• Added an isometric view showing the new tapered end post and guardrail connection geometry & chamfers and the concrete curb and brush curb transition geometry.

At CONTROL JOINT DETAILS:
• Changed notes from “Typ. three sides” to “Typ. Top & sides”.

At GUARDRAIL CONNECTION DETAIL:
• Eliminated the guardrail connection details per the note above.

Reinforcement Bend Details:
• Updated all of the reinforcement details and bends to match the updated design.

Bill of Reinforcement:
• Updated all of the reinforcement details and bends to match the updated design.

Re-approved, and signed, September 20, 2017.

Re-Approved, September 20, 2017
The standard plan sheet was completely revised and updated based on the CalTrans Type 732SW Bridge Rail, which was successfully crash tested to meet MASH TL-2. Many changes were made to the MnDOT standard including adding 4” to the height, revising the reinforcement, addition of the Type 31 guardrail connection, changing the sidewalk height from 8” to 6”, tapering the brush curb at the end of the parapet, and the addition of a 166(B) standard plan sheet for parapet abutment types.

Approved, and signed, November 06, 2013
NEW STANDARD