

Figure 5-397.173(D)

Concrete Parapet (Type P-4, TL-4) Parapet Abutment (With 2” Concrete Wearing Course)

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

Re-Approved 04-09-2020

General

- The primary changes in this re-approval include changing the barrier height from 32” to 36”, changing the crash test approval from NCHRP 350 TL-4 to MASH TL-4 and updating the end post geometry and reinforcement to connect to a Type 31 guardrail.
- Changed the crash testing note from “Parapet meets test level 4 requirements of NCHRP report 350” to “Parapet meets MASH TL-4 requirements on bridge deck and TL-3 on approach panel.”
- Changed the barrier code (bottom right corner, just above the standard figure number) from 68 to 70.
- Changed last sentence in title block from “(With Concrete Wearing Course)” to “(With Concrete 2” Wearing Course)”.

Under GENERAL NOTES:

- Added new 2nd note “For slipform construction, tie 100% of the reinforcement bar intersections in the parapet.”
- In the 3rd note, changed the weight per foot from 591 lbs. to 658 lbs. and changed the cubic yards per foot from 0.146 to 0.162.
- Minor changes in the notes to update to active voice.

At INSIDE ELEVATION OF PARAPET:

- Changed the height of the parapet from 32” to 36” and added a 1:6 vertical taper at the end.
- Added a designer note stating the minimum parapet length on an approach panel is 13’-4”.
- Changed the dimension to the first row of bolts in the guardrail connection from 1’-8” from the end of the parapet to 1’-10¾”.
- Updated the amount and spacing of reinforcement to meet MASH TL-4.
- Updated the end post geometry to include a chamfer and tapered brush curb for use with a Type 31 guardrail.
- Added curb off the end of the parapet (dashed line) and added note “Approach curb required (see approach panel plans).”

At SECTION B-B:

- Updated the parapet height, increased the clear cover on the back face bars from 2” to 2¾”, and updated the shape of bar R501E.

At END VIEW:

- Updated the reinforcement to match the elevation view and updated the shape of bar R503E.

Added SECTION E-E (Plan view):

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

At Designer Notes:

- Updated the designer note on the left to include the new 13’-4” minimum length and new dowel reinforcement requirements. Also added reference to Memo to Designers #2020-1.
- Updated the dowel bar designations in the designer note on the right.

Added ISOMETRIC VIEW:

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- 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 GUARDRAIL CONNECTION DETAIL – SECTION A-A:

- Updated the plan view to show the chamfer on the end post.

At CONTROL JOINT DETAILS:

- Changed notes from “Typ. three sides” to “Typ. Top & sides”.

Reinforcement Bend Details:

- Updated all of the reinforcement details and bends to match the updated MASH design.

Bill of Reinforcement:

- Updated all of the reinforcement details and bends to match the updated MASH design.

Approved, and signed, February 22, 2018.

Re-Approved 02-22-2018

The standard plan sheet (5-397.173) was completely revised and updated. Many changes were made to the standard including adding a 2” coping to the back of the parapet, revising the reinforcement, addition of the Type 31 guardrail connection, tapering the brush curb at the end of the parapet and the addition of 5-397.173(C) Concrete Parapet (Type P-4, TL-4) Parapet Abutment (Without Concrete Wearing Course).

Also added 5-397.173(A) and (B) for Integral or Semi-Integral Abutments.

Approved, and signed, February 22, 2018

NEW STANDARD