

Figure 5-397.163

Ornamental Metal Railing (Design T-4 Curb Mount)

Approved, and signed, November 06, 2013. Last date revised: October 22, 2019.

Revised 10-22-2019

At GENERAL NOTES:

- Changed the 3rd and 4th notes and numbered note④: Changed the term “per spec.” to “in accordance with spec.” in all instances.

At the BASE PLATE Detail:

- Added ½” radius to the corners of the 3” x 3” vent hole with accompanying note.
- Changed the vent hole note to read: “3” x 3” square vent hole centered under post”.

At DETAIL “C”:

- Added a slotted hole making the ½” x 1½” x 3” plates identical on each side of the post.

At SECTION A-A:

- Added a slotted hole making the ½” x 1½” x 3” plates identical on each side of the post.
- Added ½” radius to the corners of the ½” x 1½” x 3” plates with accompanying note.
- Changed the hole in tube note to: “ Φ 5/8” dia. hole in tube. 5/8” dia. x 1” slotted hole in plates on both sides of post. (Typ. top and bottom rails)”

At DETAL “A”:

- Added a post to the detail to and added a weld symbol with accompanying note at the cantilever.

At INSIDE ELEVATION of RAILING:

- Removed the weld symbol and note “Typ. at Cantilevers Only”.
- Added a larger referenced area to the Detail “A” (Typ.) due to the changes at that detail.

Revised 02-27-2019

At GENERAL NOTES:

- Changed 5th from “See special provisions for paint to be applied to metal railing” to “See special provisions for coating to be applied to metal railing.”
- Changed the Designer Note pointing to the 6th general note from “Designer shall consult with Bridge Office Architectural Specialist. Change note accordingly.” to “Designer shall consult with Bridge Office Architectural Specialist to choose one option (normal or plumb) and delete the other.”
- At end of 6th general note added italics and bold font to “[Normal to grade or plumb]”.

THROUGHOUT the STANDARD:

- Updated the weld symbols at multiple locations.

Revised 02-22-2018

At the INSIDE ELEVATION of RAILING:

- Removed the two 6 3/8” Max. dimensions from the ends of the spindle spacing dimension.
- Added “Max. 4” to the end of the Designer Note pertaining to the joint opening.
- Removed the parenthesis at the “Typ. at cantilever only” note.
- At the expansion joint, changed the note to read: “See concrete curb plan sheet for joint details”.
- Changed note from “See Detail “A” (Typ.)” to “Detail “A” (Typ.)”

At DESIGNER NOTE (directly under Railing Height Table):

- Changed note to read: “Choose one height from railing height table and cross out other heights. Rail heights greater than shown require special design.”

At the BASE PLATE:

- Changed the 2” diameter vent hole to a 3” x 3” square vent hole centered on the rail post.

At ANCHOR DETAIL:

- Changed the note pointing to the centerline of the post to: Φ Rail, Curb & Base Plate.

At DETAIL “C”:

- Changed the length of the horizontal slot in the bottom of the horizontal railing tube from 2" x 3¼" to 2" x 3". This ¼" reduction allows for a minimum clear distance of 3¾" between the rail post face and the first spindle, if needed.
- Added dimension 3¾" clear distance between the rail post face and the first spindle on each side of the post.
- Changed note from "See Detail "B" this sheet" to "Detail "B" this sheet".

At DETAIL "A":

- Updated the detail with the appropriate weld symbols.

Under GENERAL NOTES:

- Changed numbered note ② to read: See concrete curb plan sheet for control joint spacing and details.

Revised 05-25-2016

Throughout the standard:

- Changed the curb height from 10" to 6".
- Adjusted dimensions in the "Railing Height Table" columns A and B to reflect the curb height change.

At INSIDE ELEVATION OF RAILING:

- Modified the detail to require railing cantilevers at both posts adjacent to an expansion joint. This allows adequate room to install a cover plate over the joint in the curb.
- Changed the railing post dimensions to 2'-6" max., 2'-0" min. at the expansion joint location.

At Detail "A": changed the look of the detail to clarify the cantilever ends at the expansion joint location.

At the Anchorage Detail:

- Changed the curb height and removed one row of reinforcement.
- Added note: To maximize clearances for anchorages, place top of outside longitudinal bars 2" from deck surface (Typ.).

Under GENERAL NOTES:

- Changed the first word in the 3rd note from "USE" to "PROVIDE".
- Removed from 3rd note: "Finial Caps shall be spec. 3322."
- Changed numbered note ③: The "Proof Load" portion of the note was changed from 9.6 kips to 8.8 kips.

Revised 11-20-2014

REMOVED: the RAILPOST CAP MACHINE BOLT DETAIL and DETAIL "D" from the standard.

At SECTION B-B:

- Removed the cap screw note at the top of the railpost.
- Added the note: "Vent hole. See railpost cap detail" to the top of the post.
- Removed the "TYP." From the weld symbol at the railpost / base plate location.

ADDED: RAILPOST CAP DETAIL to the standard.

Under GENERAL NOTES: (sequence of notes has been adjusted, present sequence is listed below)

- Changed the 2nd note to read: Payment length shall be measured as the out to out length along the centerline of the railing between the outside ends, with deductions for the length of concrete posts, if present.
- Changed the 5th note to read: Coat the galvanized railing, base plates, and protruding portions of bolts, nuts, anchors, and washers.
- Changed the 8th note to read: See special provisions for requirements not included on this sheet.
- Changed the 9th note to read: Drill ½" dia. max. vent holes on the underside of rail tubes as necessary to facilitate galvanizing.
- Moved "Adhesive Anchorage" numbered note ① to numbered note ④ and also made the numbered note change at the Anchor Detail.
- New numbered note ① reads: Drill vent hole in the rail post within 2" of the underside of the cap, on the non-traffic side of the post as necessary to facilitate galvanizing. Maximum hole size is ½" dia.
- Changed numbered note ③ to read: Provide a pyramid top style steel cap welded to top of post with a surface finish of 1000 micro-inch, or smoother, prior to galvanizing.

CHANGED: the Designer Note which refers to the Railing Height Table to read: Choose one height from railing height table above and cross out other heights. Rail heights greater than shown require redesign.

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NEW STANDARD