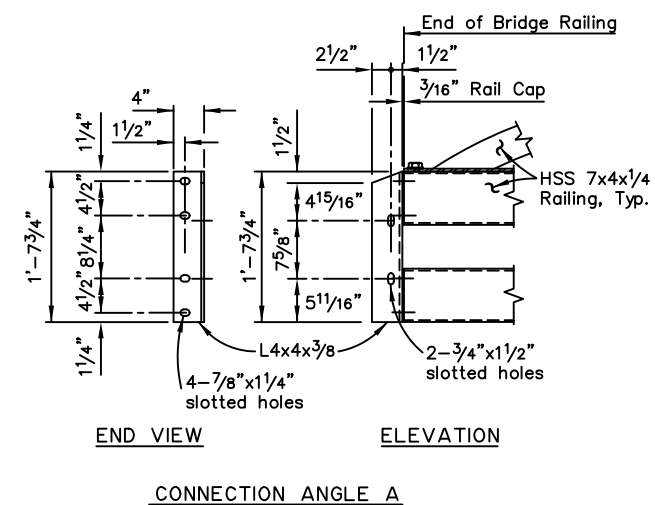
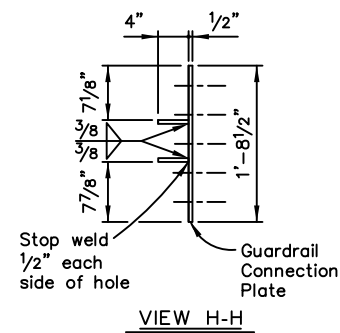
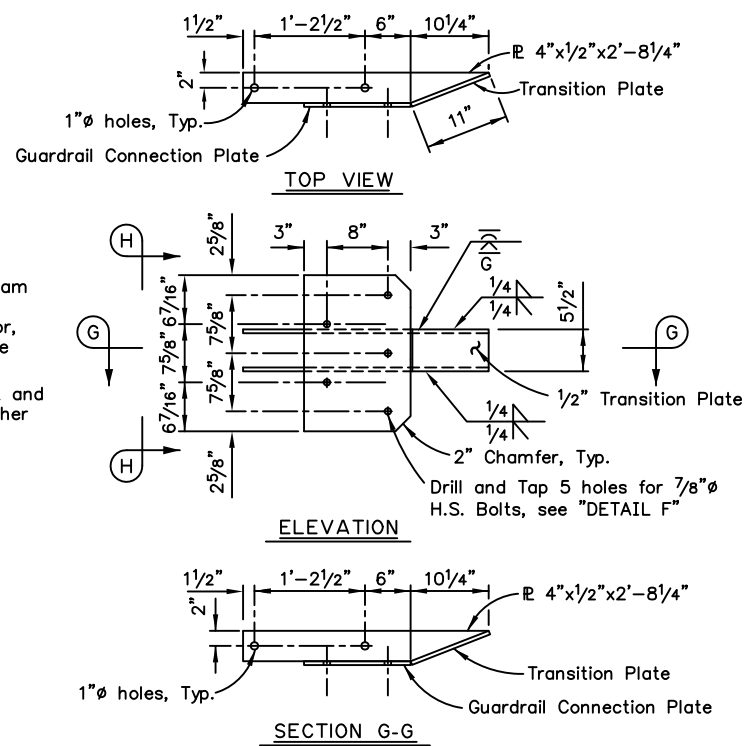
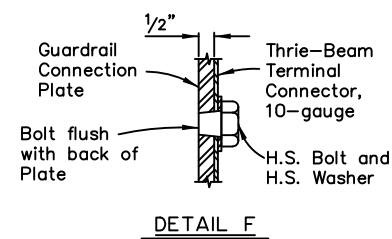
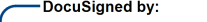


- NOTES:**
1. Conform to G-00, G-05 and G-10 of the Standard Plans for all Thrie Beam Transition details not shown.
 2. Thrie Beam Transition part numbers are listed in parentheses and referenced in the "Task Force 13 Guide to Standardize Roadside Hardware."
 3. Contractor to select the Thrie-Beam Terminal Connector Original, Alternate 1 (Shown), or Alternate 2 that fits over and under the Nested Thrie-Beam Guardrail components without field modifications.
 4. Recessed Guardrail Nuts on all 5/8" Bolts unless otherwise indicated.



No Scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN
MASH 3-TUBE BRIDGE RAIL
THREE BEAM TRANSITION

DocuSigned by:

 Adopted as an Alaska
 Standard Plan by:
 0B7718E00C647E...
 Lauren Little, P.E.
 Chief Engineer

Adoption Date: 04/04/2025

Last Code and Stds. Review
By: SEM Date: 04/04/2025

Next Code and Standards Review Date: 04/04/2035	0
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STANDARD PLAN DEVELOPMENT REPORT (SPDR)

Standard Plan No.: G-33.01

Title: 3-Tube Bridge Rail Thrie Beam Transition

Prepared by: Sara Manning, P.E. and TTI

Date: March 26, 2025

Use: This Standard Plan provides details for connecting W-beam guardrail to the Oregon 3-Tube Curb Mount Bridge Rail. This plan provides a variable stiffness transition between the semi-rigid guardrail and the more rigid bridge rail.

Design and Application Considerations: Use this Standard Plan on projects that require a MASH tested transition between W31 guardrail and Oregon 3-Tube Curb Mount Bridge Rail.

History: G-33.01 is the 2nd version of the Alaska Standard Plan and contains corrections to G-33.00 that ensured the Alaska Standard Plan matched the MASH 3-Tube Bridge Rail Thrie Beam Transition configuration and materials that are being used in construction, including a change to the “Task Force 13 Guide to Standardize Roadside Hardware” Thrie-Beam Terminal Connector and post size.

The corrections include:

- “W6x9 Post” callouts were changed to “W6x8.5 Post” for all posts.
- “2 – 1’-2” Guardrail Bolts” was added to the Thrie Beam Steel Blockout – Long detail for clarity.
- “1 – 5/8 x 1 ½” Hex Bolt on top and 1 – 1’-2” Guardrail Bolt on bottom” was added to the Thrie Beam Steel Blockout – Short detail, and lines indicating such bolts were added, for clarity.
- The callout for the “Transition Plate” was changed to “1/2” Transition Plate” on the Elevation detail of the Guardrail Connection Plate Details.
- “Alternate 2” was deleted from all the Thrie-Beam Terminal Connector callouts and details were changed to show the Thrie-Beam Terminal Connector drawn as Alternate 1.
- Note 3 was added and the callout for the Elevation above was moved and added as Note 4.
- “Rail Cap, see “Rail Cap Detail” on “Steel Bridge Railing, 3-Tube” Dwg.” callout on the Connection Angle A Elevation detail was deleted.
- “See “Plate D” Detail on “Steel Bridge Railing, 3-Tube” Dwg.” callout was deleted from Section E-E.
- The dimensions for the vertical holes in the bridge rail tube, in the Transition Connection – Elevation and Section E-E were deleted.

- The 3/16" Rail Cap dimension was moved to the Connection Angle A Elevation view.
- A clarification was added to the callouts for the post View A-A and post View C-C, for hole placement.
- Post details were rearranged to match placement in the Plan view.
- The "No Backup Plate required, Typ." callout was moved to an appropriate post.
- The bolt callout note on Section E-E was changed to match capitalization of the same note on the Alaska Standard Plan G-32.04 and the Plate D callout note was deleted.
- The 'Limits of Bridge Railing for Payment' was added, and the arrows were revised.
- Guardrail Bolt specifications were added to the callout on the Transition Connection – Elevation detail.
- "self locking Nut" was removed and "Hex Nut" was added to the callout on the Section E-E detail.
- Section H-H was corrected to View H-H.
- Drafting cleanup of some lines was done to the Elevation view, along with other minor drafting corrections, including double dimensioning throughout.
- The dimensions were updated in the Plan view for the "End of Bridge Rail" to the first Transition Rail post and the "End Rail Post" post spacing to the "End of Bridge Rail" dimension was deleted.

G-33.00 was originally published September 15, 2022.

Applicable Design Standards, Codes and Specifications: The transition was tested to AASHTO MASH standards in December 2019. All tests passed the MASH TL-4 crash test requirements.

Tests or Backup Data: The Texas Transportation Institute (TTI) performed the crash testing of the transition rail. The crash test report and FHWA eligibility letter are available at <http://www.dot.state.ak.us/stwddes/desbridge/>

Design Backup: Refer to the crash test report located on the web site above.

Construction Considerations: Contact Bridge Section for questions regarding the fabrication and installation of the 3-Tube Bridge Rail Thrie Beam Transition.

M&O Considerations: None