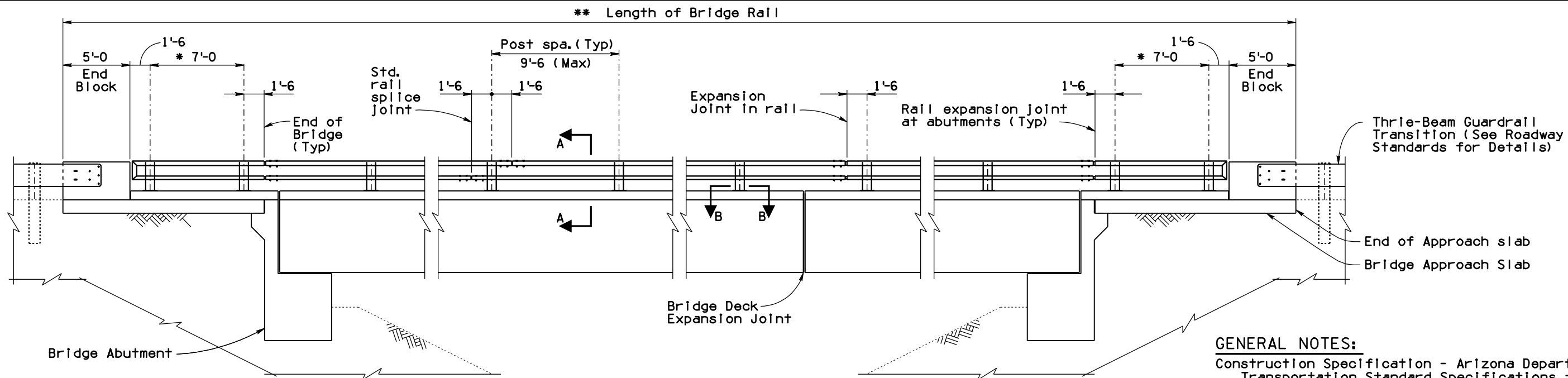


Note to Designer: The information presented in this Standard Drawing has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

PRIOR DISTRIBUTION DATE 06/12



NOTE:
 For Sections A-A and B-B see SD1.06 (2 of 4)

TWO TUBE BRIDGE RAIL ELEVATION

GENERAL NOTES:
 Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest Edition.
 Design Specifications - AASHTO LRFD Bridge Design Specifications, 7th Edition 2014.

This barrier has been successfully crash tested and is structurally evaluated as meeting the requirements of NCHRP Report 350 Test Level 4.

All Concrete shall be Class "S" (f'c = 4500 psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60. All reinforcing shall be epoxy coated at locations above EL. 4000 ft.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 1/2 inch clear cover unless noted otherwise.

Structural tubing (TS) shall be ASTM A500 Grade B. Anchor plates, posts and other structural steel shall conform to ASTM A36 unless noted otherwise.

All anchor bolts, studs, nuts and washers shall be ASTM A325 and shall be galvanized in accordance with the requirements of ASTM A153.

Labor and materials for steel railing assembly, curb, end block, anchorage bars and hardware are included in the pay item (Item No. 6011134).

Dimensions shall not be scaled from drawings.

Item No. 6011134 TWO TUBE BRIDGE RAIL
 Measure: Linear Foot

* Dimension shown is for a typical 15'-0 long approach slab. Spacing may be adjusted up to a maximum of 9'-6 as needed. Additional posts shall be added for dimensions greater than 9'-6.

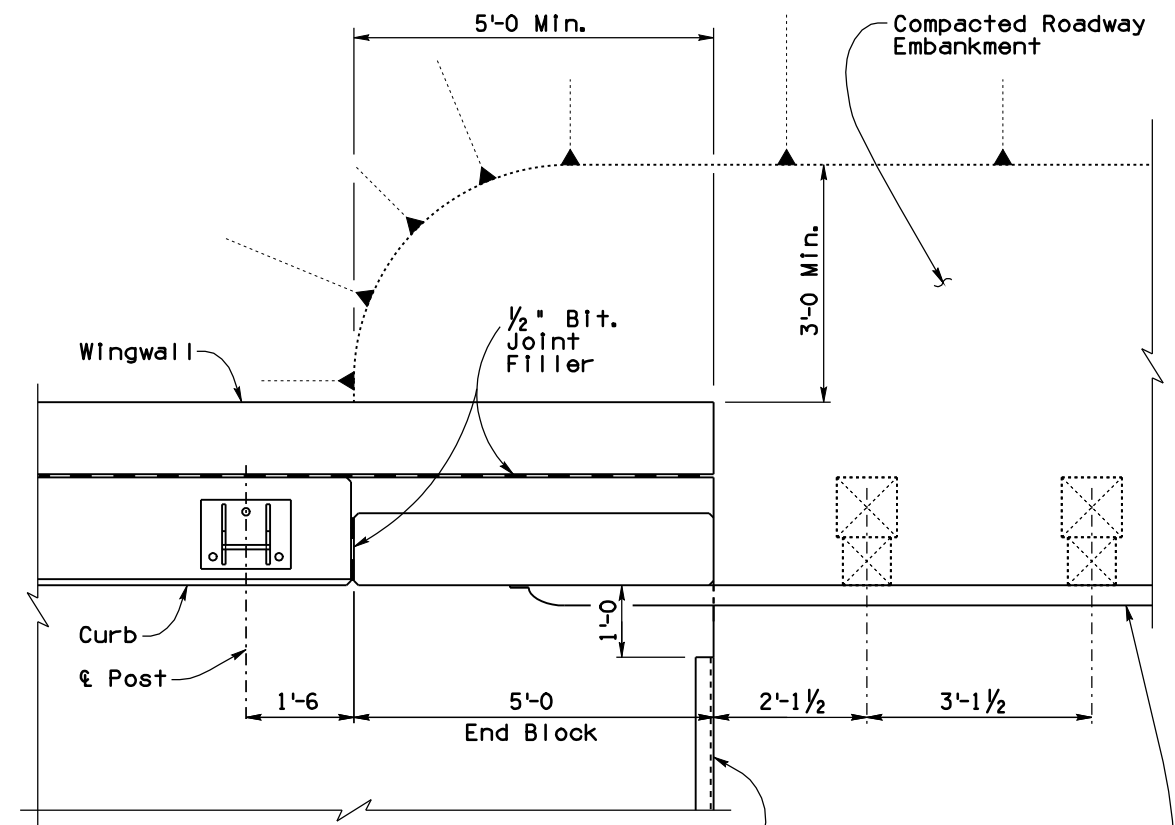
** Project bridge plans shall show the length of bridge rail and the layout of posts, rails, joint locations, approach slabs, guard rail transitions and elevations.

RAILING NOTES:

All posts shall be vertical. Panel lengths of rail shall be continuous and attached to a minimum of two posts. Rail splices shall be located at expansion joints and shall be constructed as detailed.

All exposed steel edges shall be ground smooth. All structural steel rail assembly components shall be galvanized after fabrication in accordance with ASTM A123. All galvanizing that has been damaged in handling, transportation or welding shall be repaired by the application of a paste compound of an approved zinc powder and flux.

All welding shall conform to the requirements of the American Welding Society, ANSI/AASHTO/AWS D1.5 Bridge Welding Code, latest Edition.



NOTE:
 Bridge rails not shown for clarity.

PLAN
 (End Block At Guardrail Transition)

Thrie-Beam Guardrail Transition (See Roadway Standards for Details)

STANDARDS ENGINEER	A. M. ALZUBI
RECOMMENDED FOR APPROVAL	
GROUP MANAGER	D. L. EBERHART
APPROVED	
STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION	12/17 DATE

ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STANDARD DRAWING	
TWO TUBE BRIDGE RAIL	DRAWING NO. SD 1.06
	Sheet 1 of 4