GENERAL AND SPECIFICATIONS:

1. Furnish Strip Seal Expansion Joint Systems in accordance with ASTM D9577 and the AASHTO (LRD) Bridge Design Specifications and those listed on the Qualified Products List. Furnish joint systems consisting of watertight steel Edge Ralls, Elastomeric Seal, Side Cover Plates (as required) and associated miscellaneous components.

2. Furnish认真 that all Edge Ralls are fabricated to the required specifications and that they are properly installed to ensure watertightness and durability. All Edge Ralls shall be of the same type and size as specified in the design documents and shall be fabricated in accordance with the manufacturer's instructions.

3. Furnish Anchor Studs in accordance with ASTM A193. Steel arc one-end Anchor Studs equipped with complete fusion, Anchor Studs may be piggybacked to achieve required lengths.

4. Furnish continuous flyway duty bridge deck Expansion Joint Sealant sized to perform satisfactorily for the opening range shown in accordance with the manufacturer's recommendations. Minimum movement classification is 4". Sealant supplied by the manufacturer of the Expansion Joint Sealant is not permitted. Sealant vulcanization is permitted only on horizontal turns on skewed bridges at apertures where the horizontal turn angle is greater than 35°.

5. Furnish 3/4" thick slip resistant Steel Side Cover Plates in accordance with ASTM A795, Grade 36 or 50, with a minimum coefficient of friction on the top surface of 0.6 in a dry condition as determined by ASTM F2177 or F2178 (respectively) and that incorporate an anti-slip steel surface consisting of a random, machined or other suitable pattern that are listed as slip-resistant by Underwriters Laboratories. Do not use diamond plate or applied slip resistant tapes, films, nonmetallic coatings or other similar materials. Furnish flat head Stainless Steel Sleeve Anchors in accordance with ASTM A533 Group 1, Alloy 304 for attaching Side Cover Plates. Install Sleeve Anchors in accordance with manufacturer's recommendations.

6. Furnish temporary or sacrificial support brackets, bolts, clamps, etc. that are capable of resisting shipping, handling, and construction forces without damage to the Edge Ralls or Expansion Joint Sealant and are adjustable to account for variable temperature settings. Do not use temporary or sacrificial support brackets, bolts, clamps, etc. between the faces of the Edge Ralls.

7. Perform all shop welding in accordance with the Bridge Welding Code ANSI/AASHTO AWS D1.5 (current edition). Do not weld to surfaces in contact with the Expansion Joint Seal or the top surface of the side cover surface except as shown. Do not weld inside seal cavity. See Shop Splice Details for these steels.

8. Fabricate Edge Rall assemblies in one piece in the shop, except where length or configuration prohibits shipping or proper installation or where phase production requires separate assemblies. Shop splice sections of Edge Ralls to obtain required length by partial penetration double V-groove welds on prepared beveled edges and seal edges as shown in the Shop Detail. Do not use short pieces of Edge Ralls less than 6'-0" long unless required by curbs, sidewalks or phase construction locations. See also Installation Notes.

9. Include Zag-Plate Expansion Joint Seals and Side Cover Plate after shop fabrication in accordance with section 596 of the Specifications and manufacturer's recommendations.

10. Cleanly match mark corresponding Edge Rall assemblies with joint location and direction of stationing.

11. Submit shop drawings showing expansion joint materials and project specific details and dimensions. Include name of manufacturer, seal model number, seal movement range and the assigned Qualified Products List Number.

12. Include the cost of installation and materials for fabrication of the Expansion Joint Seals and Side Cover Plates in the Contract Unit Price for Expansion Joint Seal (Strip Joint).

13. Manufacturers seeking approval of Strip Seal Expansion Joint Systems for inclusion on the Qualified Products List must submit a design documentation showing the expansion joint meets the specification, general and material requirements specified herein. Include installation details consisting of temporary or sacrificial support brackets, bolts, clamps, etc. that are compatible with deck construction with or without blockouts.

INSTALLATION NOTES:

1. Install the Edge Rall assemblies at proper grade and alignment before or after deck placing following the manufacturer's instructions. When installed after deck placing, install Edge Rall assemblies in the blockouts on a precast cantilever between the ends of the deck and/or approach slab to within 1'-0" and 1'-6" variation. When installed before deck placing, install the Edge Rall assemblies 3'-6" plus or minus 1'-6" below the top surface of the deck or approach slab to compensate for concrete removal during placing.

2. Bolt, weld or clamp Edge Rall assemblies in position using temporary or sacrificial brackets as required. For shaped construction, install Edge Rall assemblies in a given subsequent phase so as to align with those installed in an adjacent prior phase after placing and at the time of expansion joint setup to either of the expansion joint limits.

3. For installations other than those in the Joint Design Guide, 4'-6" by the amount of the adjustment per 1'-0" of span in Structures Plans. Expansion Joint Data Table. For temperatures above 70°F, reduce the opening per 1'-0" of span in Structures Plans. Expansion Joint Data Table. For temperatures below 70°F, increase the opening.

4. Do not wet to, or within 1'-0" of Edge Rall surfaces that will be exposed in the completed structure. Do not wet expansion joint cutouts or edges to or electrically grounding to remove steel or other materials. Sealant butt joints and empty shipping and erection holes with caulk before placing deck concrete.

5. Protect prefabricated Edge Rall assemblies during shipping operations per manufacturer's recommendations. Provide temporary blocking material in the Edge Rall assemblies to prevent concrete intrusion during expansion joint setup and holding.

6. Lassen any temporary or sacrificial support brackets, bolts, clamps, etc. that span the joint at the initial set of concrete, but do not break or damage the expansion joint during expansion joint setup and holding.

7. Install the Expansion Joint Seal prior to expansion joint setup. Remove all joint form material and blocking material prior to installing the Expansion Joint Seal. Field Install Expansion Joint Seals in accordance with manufacturer's recommendations. Thoroughly clean all contact surfaces between the Expansion Joint Seal and the Expansion Joint Seal cavities with an adhesive lubricant before setting Expansion Joint Seal in place.

INSTRUCTIONS TO DESIGNER:

Complete the Expansion Joint Data Table in Structures Plans with project specific information.

SHOP SPlice DETAIL

2008 FDOT Design Standards
Sheet No. 1 of 3

TYPICAL SECTION THROUGH STRIP SEAL EXPANSION JOINT

(Either End Concrete Girder Bridge shown, Intermediate Supports and Steel Girder Bridge similar. Reinforcing Steel and Girder details not shown for clarity.)