The use of this standard is governed by the "Texas Engineering Practice Act." No warranty of any kind is made by TXDOT for any purpose whatsoever. TXDOT assumes no responsibility for the conversion of

## TYPES OF END CLOSURES

- **Preclosed**
  - NOTE: This type is to be used for sheared ends only.

### PMDF (PERMANENT METAL DECK FORMS)

**TYPICAL TRANSVERSE SECTIONS**

- **Preclosed**
- **Angle Header**
  - NOTE: This type is to be used for sheared ends only.

**SIDE LAP DETAILS**

1. Slab thickness minus 3/8" if corrugations match reinforcing bars.
2. Bonding of form supports to tension flanges will not be permitted more than 3' from the face of the forms, in accordance with Item 448, "Concrete Superstructures.
3. The direction of concrete placement must be such that the upper layer of the form overlap is maximized.
4. See Section for cover requirements.

**GENERAL NOTES**

- Steel for Permanent Metal Deck Forms (PMDF) and support angles shall conform to AWS A5.53, Structural Steel (SS), with coating designation G165. Steel must have a minimum yield strength of 33 ksi. Minimum thickness of PMDF is 0.25" and that of support angles is 0.28". Minimum design load for PMDF is 20 psi and minimum design load for support angles is 1.5 psi.

**SECTION THRU CONSTRUCTION JOINT**

- For PRESTR Conc U-Beams and Steel Girder Bridges:
  - See Standard Drawings, Precast Concrete Girder Bridges (Horns) standard sheet for PMDF form reinforcement.

- For PRESTC Conc TX-Girder Bridges:
  - See Precast Concrete Girder Bridges (Horns) standard sheet for PMDF form reinforcement.

**CONSTRUCTION NOTES:**

- Form sheets must be permitted to rest directly on the top of beam flanges. Form sheets must be securely fastened to form supports and must have a minimum bearing area of 1" x 1" at each point. Form supports must be made of metal or wood with sufficient bearing area to prevent slab concrete from being placed directly on the top of beam flanges.

- All attachments must be made by permissible means, screws, bolts, strips or other means shown on the forming plans. All sheet metal assembly screws must be installed with torque-limiting devices to prevent stripping. These plans must show all essential details of proposed form designs, sizes and locations of welds. These plans must be designed, signed, and approved by the Contractor prior to construction.

- Slab thickness minus 3/8" if corrugations match reinforcing bars.

- The direction of concrete placement must be such that the upper layer of the form overlap is maximized.

- See Section for cover requirements.

**ANGLE HEADER**

- **Preclosed**
  - NOTE: This type is to be used for sheared ends only.

**TYPES OF END CLOSURES**

- **Preclosed**
- **Angle Header**
  - NOTE: This type is to be used for sheared ends only.

**TYPICAL TRANSVERSE SECTIONS**

- **Preclosed**
- **Angle Header**
  - NOTE: This type is to be used for sheared ends only.

**SIDE LAP DETAILS**

1. Slab thickness minus 3/8" if corrugations match reinforcing bars.
2. Bonding of form supports to tension flanges will not be permitted more than 3' from the face of the forms, in accordance with Item 448, "Concrete Superstructures.
3. The direction of concrete placement must be such that the upper layer of the form overlap is maximized.
4. See Section for cover requirements.

**GENERAL NOTES**

- Steel for Permanent Metal Deck Forms (PMDF) and support angles shall conform to AWS A5.53, Structural Steel (SS), with coating designation G165. Steel must have a minimum yield strength of 33 ksi. Minimum thickness of PMDF is 0.25" and that of support angles is 0.28". Minimum design load for PMDF is 20 psi and minimum design load for support angles is 1.5 psi.

- All permanently exposed form metal, where the galvanized coating has been damaged, must be thoroughly cleaned and repaired in accordance with Item 448. "Galvanizing." Minor heat discoloration in areas of welds need not be touched up.

- Forms must lie flat uniformly across the entire width of the structure where main reinforcing shearing is located in the flutes. The location of reinforcing details for any construction joint shall be shown on the forming plans. The location of and forming details for any construction joint shall be shown on the forming plans. Forms above a construction joint must be removed after curing of the slab.

- A sequence for uniform spread of concrete must be established, and all concrete deposited in the flutes must be compacted and vibrated to ensure proper vibration to prevent voids or honeycomb in the flutes. Adequate provision must be made to prevent trimming or field trim of beam angle if necessary.

- The Contractor is responsible for the adequacy of these plans. The details and notes shown on this standard are to be used as a guide in preparation of the forming plans. All material, labor, tools, and equipment necessary to form a bridge deck with Permanent Metal Deck Forms is considered subsidiary to Item 402, "Concrete Superstructures."
**Details at Ends of Beams**

**FOR PRESTRESSED I-BEAMS, I-GIRDERS AND STEEL BEAMS without Thickened Slab End**

1. Slab thickness minus W', if corrugations match reinforcing bars.
2. Minimum yield stress of 62 gage bars shall be 40 ksi.

**Showing Prestressed Concrete, I-Beams, I-Girders and U-Beams**

**SECTION A-A**

- Slab thickness: See Span Details
- Top of beam: See Detail "A"
- Top of cap: Perpendicular to joint

**DETAIL "A"**

- Slab thickness: See Span Details
- Top of beam: See Detail "A"
- Top of cap: Perpendicular to joint

**DETAIL "B"**

- Slab thickness: See Span Details
- Top of beam: See Detail "A"
- Top of cap: Perpendicular to joint

**Widening Details**

- Slab thickness: See Span Details
- Top of beam: See Detail "A"
- Top of cap: Perpendicular to joint