FULL DEPTH DECK PANEL GUIDELINES

These guidelines and guide details have been developed for the purpose of promoting a greater degree of uniformity among owners, engineers and industry of the Northeast, with respect to planning, designing, fabricating and constructing Full-Depth Deck Panels (FDDP) for bridge deck replacements or new construction.

In response to needs determined by Northeast Transportation Agencies, and Prestressed Concrete Producers, the PCI Northeast Bridge Technical Committee prepared these guidelines and guide details to promote uniformity of design and details throughout the region.

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DESIGN AND IMPLEMENTATION GUIDELINES:

The design of precast full depth deck panels (FDDP) should conform to the requirements of the AASHTO LRFD bridge design specifications and the AASHTO LRFD guide specifications for accelerated bridge construction.

Precast FDDP may be used for new construction or for replacement of existing decks.

Precast FDDP can be used on virtually any structure that can be designed with a cast-in-place concrete deck. Typical structures include:

- Prestressed concrete girder systems
- Steel girder/floor beam systems
- Steel truss systems
- Long-span suspension and cable stayed systems

The minimum panel thickness should be based on the strength requirements and the details selected. See notes on sheets FDDP 5 and 8.

It is the designer's responsibility to:

- Design the deck panels according to AASHTO LRFD bridge design specifications and the requirements of the owner, including:
  - Deck reinforcing in the panels and closure joints (use the same methods as cast-in-place decks)
  - Size and layout of shear connectors or shear reinforcement
  - Deck overhang and barrier reinforcing
- Create and design special details as needed, such as skewed end panels or special geometry

Detail deck ends and expansion joints according to owner's standards.

Specify the required concrete strengths:

- Final strength of FDDP
- Strength of concrete in closure joints
- Required time for concrete strength gain for closure joints

The recommended maximum length of panel reinforced without prestressing is 30 feet. The recommended maximum length of panel with prestressing for handling is 45 feet. The contractor/fabricator shall be responsible for the design of prestressing for handling. The designer should specify the allowable tensile stress for handling. The recommended stress limit for "no discernible cracking" is the modulus of rupture of the concrete as specified in the AASHTO LRFD bridge design specifications divided by a safety factor of 1.5. The fabricator should determine the release strength of the concrete based on the lifting methods chosen.

The recommended maximum width of panel should be based on shipping requirements. In general, the maximum width should be less than 12 feet including projecting reinforcing.

Asphaltic deck overlays combined with waterproofing membranes are preferred by most northeast states for the following reasons:

- Eliminates the need for deck grinding
- Accounts for panel erection tolerances
- Provides additional deck protection
- Other surface treatments can be used (bare deck, concrete overlays, etc.)

Follow owner's requirements.

Refer to owner's standards for other treatments.

Use owner standards for deck overhangs and barriers. Adjust reinforcing bar spacing to accommodate shear connector pockets. Redesign may be required if the panel thickness is different than the owner's standards.

CONSTRUCTION AND MATERIAL GUIDELINES:

Construction specifications for precast FDDP should conform to the requirements of the AASHTO LRFD guide specifications for accelerated bridge construction.

It is recommended that state approved plant produced concrete mixes be used for FDDP. A minimum concrete design strength of 5 ksi is recommended.

Grout, high early strength concrete, and ultra-high performance concrete (UHPC) should be specified in accordance with the AASHTO LRFD guide specifications for accelerated bridge construction.

Reinforcing steel as per owner standards.

Post-tensioning strand: Low relaxation strand, 0.6" diameter, AASHTO M 203 Grade 270

Post-tensioning duct: Round duct is recommended over oval duct. A minimum 2" diameter duct is recommended.

Post-tensioning anchorage devices: Use anchorage designed for thin deck applications. Select anchorage devices that can provide the required concrete cover.

The plans should include the elevations of each panel (generally at the corners of each panel) based on the required elevation of the panels after all panels are placed on the span. The following equation can be used to determine the deck elevations:

\[ A = B + W + C \]

where:

- A = deck elevation shown on plans
- B = finished elevation of the deck
- W = thickness of wearing surface and membrane
- C = deflection due to composite loads

Leveling devices or other grade adjustment methods should be used to set the final grades and to provide equal panel load distribution to the supporting girders. These devices should be designed by the contractor (in method and size). If leveling bolts are used, the torque of each bolt should be adjusted to approximately the same value.

INDEX OF DETAIL SHEETS

- GENERAL INFORMATION
- PANELS WITH REINFORCED CONCRETE CLOSURE JOINTS
- PANELS WITH POST-TENSIONED CLOSURE JOINTS
- MISCELLANEOUS DETAILS

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The designer should locate longitudinal closure joints as necessary for construction staging. Longitudinal closure joints may also be used to create deck crowns, as fabrication of crowned panels may increase costs. Longitudinal joints also provide added adjustability for deck geometry. Joint shown between beams. The joint may also be located at a beam line. See sheet FDDP 05 for details.

Support panels on a minimum of two girders. Refer to owner standards for reinforcing in acute corners.

Please note that the specifications provided are guidelines and may not be suitable for all projects. It is important to consult with a professional for specific requirements and local regulations.
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NOTE B: CAST-IN-PLACE CLOSURE JOINTS SHALL BE USED TO PROVIDE ATTACHMENT TO END DIAPHRAGMS, CURTAIN WALLS, INTEGRAL ABUTMENTS, ETC. SEE SHEET FDDP 10 FOR DETAILS.

NOTE C: THIS LAYOUT IS CONCEPTUAL AND SHOWN FOR INFORMATION ONLY. THE LAYOUT WILL VARY WITH DIFFERENT SKEWS, PANEL WIDTHS, JOINT WIDTHS, AND BEAM SPACINGS.

NOTE D: THE SPECIFIED LENGTH OF INTERIOR PANELS SHOULD NORMALLY NOT EXCEED 30 FEET. FOR BRIDGES WITH VERTICAL CURVES, USE SHORTER PANELS OR CONSIDER PROFILE GRINDING AFTER INSTALLATION.

NOTE E: THE LOCATION OF THE TRANSVERSE JOINTS BETWEEN THE INTERIOR PANELS DO NOT NEED TO ALIGN.

NOTE F: NARROW TRANSVERSE UHPC JOINTS ARE SHOWN. WIDER JOINTS WILL BE REQUIRED FOR JOINTS WITH NORMAL CONCRETE. IN ORDER TO CONTROL THE MAXIMUM SPACING OF SHEAR CONNECTORS, PLACE SHEAR CONNECTORS WITHIN THE CLOSURE JOINT.

NOTE G: OPTION 1 SHOULD BE USED WHERE THE WIDTH OF THE LONGITUDINAL PANEL IS WITHIN ALLOWABLE SHIPMENT DIMENSIONS. IF THE PANEL WIDTH IS EXCESSIVE, OPTION 2 CAN BE USED. THE SPACING OF THE TRANSVERSE JOINTS SHOULD BE SET TO ACCOMMODATE SHIPMENT REQUIREMENTS.

NOTE H: PROJECTING REINFORCING BARS ARE REQUIRED AT CLOSURE JOINTS AND AT DECK ENDS. NOT SHOWN FOR CLARITY.

TYPICAL LAYOUT PLAN
SKEW BETWEEN 0 AND 25 DEGREES

TYPICAL LAYOUT PLAN
SKEW GREATER THAN 25 DEGREES
If such services are required, please seek a professional.

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SHEET FDDP 4

NOTE A: THE MAXIMUM WIDTH INCLUDING PROJECTING REINFORCEMENT SHOULD BE 12 FEET IN ORDER TO FACILITATE SHIPPING.

NOTE B: BLOCKOUTS FOR SHEAR CONNECTORS SHALL GENERALLY BE SPACED AT TWO FEET ON CENTER. FOR SPECIAL DESIGNS, THIS DIMENSION MAY BE CHANGED. BLOCKOUTS MAY BE PLACED FARTHER FROM THE PANEL EDGE IF SHEAR CONNECTORS ARE PLACED IN THE REINFORCED CLOSURE JOINT.

NOTE C: LEVELING DEVICES OR OTHER GRADE ADJUSTING METHODS SHOULD BE USED AT EACH GIRDER TO PRODUCE TRIBUTARY DEAD LOAD DISTRIBUTION SIMILAR TO CAST-IN-PLACE CONCRETE. SEE SHEET FDDP 10 FOR DETAILS.

NOTE D: THE WIDTH OF THE STANDARD BLOCKOUTS AND OTHER DEVICES SHOULD BE KEPT TO A MINIMUM TO FACILITATE THE LAYOUT OF PANEL REINFORCING STEEL.

NOTE E: MINOR CRACKING PROJECTING FROM THE CORNERS OF THE BLOCKOUTS MAY OCCUR. IT IS RECOMMENDED TO USE ROUND CORNERS TO MINIMIZE THE POTENTIAL FOR CRACKING.

NOTE F: LARGE POCKETS MAY REQUIRE SPECIAL HANDLING RIGGING (I.E. 8 POINT PICK WITH SLINGS OR SPREADER BEAMS) IN ORDER TO CONTROL CRACKING DURING HANDLING. SEE NOTES ON SHEET FDDP 01.

NOTE G: ADJUST THE SPACING OF REINFORCING TO AVOID INTERFERENCE WITH BLOCKOUTS. THE EXCEPTION TO THIS IS THE MAIN REINFORCING FOR OVERSIZED BLOCKOUTS, WHICH CAN PASS THROUGH THE BLOCKOUT.

NOTE H: TRANSVERSE PANELS SHOWN, LONGITUDINAL PANELS SIMILAR, BUT WITH THE FOLLOWING DIFFERENCES:

- Transverse panels similar to transverse panels.
- Interior panels similar but without blockouts.

SPECIFIED PANEL LENGTH

REINFORCEMENT (TYP.)

LEVELING DEVICE (TYP.)

SHEET FDDP 09 FOR DETAILS

OVERSIZED BLOCKOUT (TYP.)

SKEWED PANEL

TYPICAL PRECAST CONCRETE DECK PANEL

SQUARE PANEL

TYPICAL PRECAST CONCRETE DECK PANEL

TYPICAL PANEL PLAN - STANDARD BLOCKOUTS

TYPICAL PANEL PLAN - OVERSIZED BLOCKOUTS

TO MINIMIZE THE POTENTIAL FOR CRACKING.

BLOCKOUTS MAY OCCUR. IT IS RECOMMENDED TO USE ROUND CORNERS

MINOR CRACKING PROJECTING FROM THE CORNERS OF THE

LEVELING DEVICES OR OTHER GRADE ADJUSTING METHODS

SHOULD BE USED AT EACH GIRDER TO PRODUCE TRIBUTARY DEAD

LOAD DISTRIBUTION SIMILAR TO CAST-IN-PLACE CONCRETE. SEE

SHEET FDDP 10 FOR DETAILS.

THE WIDTH OF THE STANDARD BLOCKOUTS AND OTHER

DEVICES SHOULD BE KEPT TO A MINIMUM TO FACILITATE THE

LAYOUT OF PANEL REINFORCING STEEL.

MINOR CRACKING PROJECTING FROM THE CORNERS OF THE

BLOCKOUTS MAY OCCUR. IT IS RECOMMENDED TO USE ROUND CORNERS

TO MINIMIZE THE POTENTIAL FOR CRACKING.
OPTIONS FOR LONGITUDINAL JOINTS OVER BEAMS

1. NORMAL STRENGTH CONCRETE JOINT SHOWN. UHPC JOINT SIMILAR.
2. INSTALL SHEAR CONNECTORS AFTER PANEL PLACEMENT.
3. THIS DETAIL MAY BE USED AT A ROADWAY CROWN.
4. USE BULB TEE SHOWN. SIMILAR DETAILS CAN BE USED WITH A VOIDED SLAB OR BOX BEAM.
5. THE CONTRACTOR TO DETERMINE SYSTEM FOR PANEL SUPPORT ALONG GIRDER.

NOTES:
1. HOOKED BAR DETAILS SHOWN. UHPC DETAILS SIMILAR.
2. INSTALL SHEAR CONNECTORS AFTER PANEL PLACEMENT.
3. THIS DETAIL MAY BE USED AT A ROADWAY CROWN.
4. THE CONTRACTOR TO DETERMINE SYSTEM FOR PANEL SUPPORT ALONG GIRDER.

REINFORCED CONCRETE CLOSURE JOINT DETAILS

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**NOTE A:** Panel layout should be dimensioned between a common working line and an edge or centerline of each panel. Centerline method shown for longitudinal direction, edge method shown for transverse direction. The dimensions should be based on the specified panel width/length, the specified joint width, and the skew of the panel. The transverse width of the joint will vary based on the fabrication and erection tolerances specified. See sheet FDDP 11 for recommended fabrication and erection tolerances. See sheet FDDP 08 for joint details.

**NOTE B:** Cast-in-place closure joints shall be used to provide attachment to end diaphragms, curtain walls, integral abutments, etc. See sheet FDDP 10 for details.

**NOTE C:** The layout shown is conceptual and for information only. The layout will vary with different skew, panel widths, and beam spacings.

**NOTE D:** Projecting reinforcing bars are required at closure joints and at deck ends, not shown for clarity.

**NOTE E:** The designer should locate longitudinal closure joints as necessary for construction staging. Longitudinal closure joints may also be used to create deck crowns. Joint shown between beams. The joint may also be located at a beam line. See sheet FDDP 09 for details.

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NOTE A: Blockouts for shear connectors shall generally be spaced at two feet on center. For special designs, this dimension may be changed.

NOTE B: At least two leveling devices or other grade adjusting methods shall be used at each girder to produce truss/multi-level load distribution similar to cast-in-place concrete. See sheet FDDP 10 for details.

NOTE C: Post-tensioning may be placed in large overhang regions (in excess of 3.6 feet). Verify that duct and anchorages can fit within the overhang along with the required reinforcing.

NOTE D: The width of the standard blockouts should be kept to a minimum to facilitate the layout of panel reinforcing steel.

NOTE E: Minor cracking projecting from the corners of the blockouts may occur. Use round corners to minimize the potential.

NOTE F: Oversized pockets may require special handling. Riggering (i.e., 8 point pick with slings or spreader beams) in order to control cracking during handling.

NOTE G: Projecting reinforcing bars required at closure joints and at deck ends. Not shown for clarity.

NOTE H: Interior panels shown, end panels similar, which will include anchorage devices and projecting reinforcing bars.
NOTE A: THE VARIATION INDICATED IS DUE TO FABRICATION AND ERECTION TOLERANCES. THE DESIGNER SHOULD ADD THE FOLLOWING NOTE TO THE PLANS: "THE PANEL SHALL BE PLACED AT THE NOMINAL SPACING SHOWN ON THE PLANS. THE WIDTH OF THIS GAP CAN VARY DUE TO FABRICATION AND ERECTION TOLERANCES OF THE PANELS." SEE SHEET FDDP 11 FOR DETAILS.

NOTE B: THE DESIGNER SHOULD ADD THE FOLLOWING NOTE TO THE PLANS: "GROUT FOR SHEAR KEYS SHALL BE RODDED OR VIBRATED TO ENSURE THAT ALL VOIDS IN THE SHEAR KEYS ARE FILLED."  SEE NOTE A

NOTE C: THE MINIMUM RECOMMENDED POST-TENSIONED PANEL THICKNESS IS 8.75". DIFFERENT PANEL THICKNESSES ARE PERMITTED. THICKNESS SHOWN IS BASED ON PROVIDING TYPICAL CONCRETE COVER AROUND A TYPICAL 4 STRAND TENDON FLAT ANCHORAGE. COORDINATE VERTICAL LOCATION OF PT DUCTS WITH SLAB REINFORCING TO AVOID CONFLICTS. THICKER PANELS CAN BE USED TO ACCOMODATE INCREASED REINFORCING COVER AROUND ANCHORAGES, LARGER ANCHORAGES, AND THE REQUIRED DESIGN STRENGTH (LARGE BEAM SPACING OR LARGE OVERHANGS).

NOTE D: THE FACE OF THE SHEAR KEYS SHOULD BE FABRICATED WITH AN EXPOSED AGGREGATE FINISH. NO SPECIFIC AMPLITUDE OF SURFACE PROFILE IS REQUIRED.

NOTE E: FILL HAND HOLE WITH NON-SHRINK GROUT SIMULTANEOUSLY WITH THE TRANSVERSE SHEAR KEYS.

NOTE F: ADD THE FOLLOWING NOTE TO THE PLANS: "IT IS OF EXTREME IMPORTANCE TO MAKE THESE CONNECTIONS 100% WATERPROOF IN ORDER TO PREVENT MORTAR ENTERING INTO THE DUCTS WHEN IT IS PLACED IN THE TRANSVERSE JOINTS AS WELL AS TO PREVENT POST-TENSIONING GROUT FROM ESCAPING THE DUCTS DURING THEIR SUBSEQUENT DUCT GROUTING."
PANEL HAUNCH

**NOTE:** Flange not shown

**DATE:**

**HAUNCH**

**DESCRIPTION:** For shear connectors

**UNDERSIDE OF PANEL**

1/4" corrugations cast into
typical section - existing aashto beams

**SECTION B-B**

**NOTE:** Flange not shown

**FULL THICKNESS BLOCKOUT NOTES:**

1. Standard shear connector blockouts are intended to accommodate a single row of shear connectors. The shape may have squared or rounded corners.

2. Larger blockouts should be used to accommodate multiple rows of shear connectors.

**SHEAR CONNECTOR BLOCKOUT DETAILS**

1/4" corrugations cast into

- **Dowel with 180° hook**
  - Place non-shrink pourable grout in blockout and panel haunch

- **Place non-shrink pourable grout in blockout and panel haunch**
  - 1/4" corrugations cast into underside of panel

**NEW CONSTRUCTION WITH PROJECTING REINFORCING**

**TYPICAL SECTION**

- **Standard top flange reinforcement**
  - 3/4" corrugations cast into underside of panel

**TYPICAL SECTION - BULB TEE BEAM**

- **Welded shear studs installed in the field after placement of panels**
  - Individual uncoated steel plate at each blockout with welded shear studs emplaced in the top of the girder

- **Ne bulb tee girder shown, other bulb tee beams similar**

**TYPICAL SECTION - NEW CONSTRUCTION WITH WELDED STUD REINFORCEMENT**

**WELDED STUD SHEAR CONNECTOR (TYP.)**

**REINFORCEMENT PASSING THROUGH BLOCKOUT (TYP.)**

- **Exposed aggregate on inside of void**

**PRECAST/PRESTRESSED CONCRETE INSTITUTE NORTHWEST**

**Sheet FDDP 09**

**PRECAST FULL-DEPTH DECK PANEL GUIDE DETAILS**

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**PRESTRESSED CONCRETE BEAM ATTACHMENT OPTIONS**

- **Issue Date:** 5/16/2020

**SHEAR CONNECTOR BLOCKOUTS**
TYPICAL SECTION - PARAPET DETAILS WITH COVERED EDGE

NOTES:
1. CONCRETE PARAPET SHOWN, REINFORCED CURBS FOR RAILINGS SIMILAR.
2. CAST PARAPET OR CURB OVER AND BEYOND THE END OF THE PRECAST DECK PANEL IN ORDER TO PROVIDE A SMOOTH EDGE, AND TO PROTECT END CUT-OFF OF PRESTRESSING STRAND IF PANELS ARE PRETENSIONED.
3. REFER TO STATE STANDARD FOR ACTUAL PARAPET REINFORCING AND LAYOUT.

TYPICAL SECTION - PARAPET DETAILS WITH EXPOSED EDGE

NOTES:
1. CONCRETE PARAPET SHOWN, REINFORCED CURBS FOR RAILINGS SIMILAR.
2. REFER TO STATE STANDARD FOR ACTUAL PARAPET OR CURB REINFORCING AND LAYOUT.
3. USE EDGE OF PANEL TOLERANCE LAYOUT FOR TRANSVERSE DIRECTION OF FASCIA PANELS TO PROVIDE A SMOOTH EXPOSED EDGE. SEE SHEET FDDP 11 FOR DETAILS.

CONCRETE PARAPET SHOWN, REINFORCED CURBS FOR RAILINGS SIMILAR.

REFERENCES:
- LEVELING DEVICE OPTIONS

NOTE: THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE LEVELING DEVICE. ALTERNATIVE DEVICES MAY BE SUBSTITUTED WITH APPROVAL FROM THE ENGINEER PROVIDED THAT THEY ARE ADJUSTABLE AND CAN PROVIDE EQUAL LOAD DISTRIBUTION TO THE BEAMS.

EFFECTIVE WIDTH FOR PARAPET DESIGN
- 5\(\pm\)"

EXPANSION JOINT SYSTEM
- BRIDGE GIRDER
- END DIAPHRAGM
- JOINT AT DECK ENDS
- TYPICAL SECTION - CLOSURE

HOLES HAVE BEEN GROUTED
- REMOVE BOLT AFTER HAUNCHES TO PLATE (IF REQUIRED)
- PIPE SLEEVE

LEVELING DEVICES OPTIONS
- OPTION 1: CAST-IN DEVICE
- OPTION 2: SIP FORM SUPPORT ANGLES
- FINAL GRADES

REINFORCEMENT FOR CLOSURE JOINT SHALL BE DESIGNED BY THE ENGINEER.
- CLOSURE JOINT DETAILS MAY VARY BASED ON DESIGN OF BRIDGE JOINT.
- CLOSURE JOINT SHOWN AT A PIER, CLOSURE JOINTS AT ABUTMENTS SIMILAR.

REMOVABLE BOLT
- PIPE SLEEVE

REINFORCEMENT FROM CAST PARAPET OR CURB OVER AND BEYOND THE END OF THE PRECAST DECK PANEL IN ORDER TO PROVIDE A SMOOTH EDGE, AND TO PROTECT END CUT-OFF OF PRESTRESSING STRAND IF PANELS ARE PRETENSIONED.

REFER TO STATE STANDARD FOR ACTUAL PARAPET OR CURB REINFORCING AND LAYOUT.

STOP SHEAR KEY SHORT OF END
- SEE NOTES 1 & 2

SHEAR KEY BEYOND
- SHEAR KEY BEYOND

TAPERED BLOCKOUT
- REMOVABLE BOLT

LEVELING DEVICE OPTIONS
- OPTION 1: CAST-IN DEVICE
- OPTION 2: SIP FORM SUPPORT ANGLES

REINFORCEMENT BAR WELDED TO PLATE (IF REQUIRED)
- INSTALL ANGLES TO PROPER HEIGHT ACCOUNTING DEFLECTIONS AND FINAL GRADES

NOTE:
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE LEVELING DEVICE. ALTERNATIVE DEVICES MAY BE SUBSTITUTED WITH APPROVAL FROM THE ENGINEER PROVIDED THAT THEY ARE ADJUSTABLE AND CAN PROVIDE EQUAL LOAD DISTRIBUTION TO THE BEAMS.
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PRECAST FULL-DEPTH DECK PANEL GUIDE DETAILS

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ERECTION TOLERANCES
LONGITUDINAL PANEL CROSS SECTION

ERECTION TOLERANCES
TRANSVERSE PANEL CROSS SECTION

ERECTION TOLERANCES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>RECOMMENDED TOLERANCES</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Horizontal Setting Tolerance Measured from a Common Reference Point to Edge of Panel</td>
<td>±3/16</td>
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<tr>
<td>B</td>
<td>Horizontal Setting Tolerance Measured from a Common Reference Point to Centerline of Panel</td>
<td>±3/16</td>
</tr>
<tr>
<td>C</td>
<td>Erection Elevation Tolerance</td>
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FABRICATION TOLERANCES

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<th>ITEM</th>
<th>DESCRIPTION</th>
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<td>B</td>
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<td>±1/8</td>
</tr>
<tr>
<td>C</td>
<td>Depth</td>
<td>±1/8</td>
</tr>
<tr>
<td>D</td>
<td>Variation from Specified Plan End Squareness or Skew</td>
<td>±1/8</td>
</tr>
<tr>
<td>E</td>
<td>Location of Leveling Device</td>
<td>±1&quot;</td>
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<tr>
<td>F</td>
<td>Sweep</td>
<td>±1/8</td>
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<tr>
<td>G</td>
<td>Distance from Common Working Point to CL of any PT Duct</td>
<td>±1/8</td>
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<tr>
<td>H</td>
<td>Local Smoothness of Any Surface</td>
<td>1/4&quot; in 10 feet</td>
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<td>J</td>
<td>Camber Variation from Design Camber See Note 2</td>
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<tr>
<td>K</td>
<td>CL of PT Duct from Edge of Slab</td>
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<tr>
<td>P</td>
<td>Location of Shear Connector Pocket or Blockout</td>
<td>±3/8</td>
</tr>
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NOTES:

1. Owners may allow contractors to deviate from the recommended tolerances provided that the contractor can properly install the panels within the overall bridge limits.

2. Camber tolerance only applies to panels with eccentric prestressing.

NOTE: The Working Line used for fabrication should match the panel layout dimensioning lines (Edge of Panel or Centerline of Panel).

LONGITUDINAL PANEL CROSS SECTION

TRANSVERSE PANEL CROSS SECTION

POST TENSIONING DUCTS

SHEAR CONNECTOR POCKET OR BLOCKOUT

LEVELING DEVICE

WORKING LINE

PLAN

ELEVATION

NOTE: The Working Line used for fabrication should match the panel layout dimensioning lines (Edge of Panel or Centerline of Panel).