# **Origination Form**

# Proposed Revisions to a Standard Plans Index

| Originator: | Turley, Joshua                | Index<br>Number:    | 102-201   |
|-------------|-------------------------------|---------------------|---|
| Date:       | 6/17/2025                     | Sheet<br>Number(s): | 1-5   |
| E-mail:     | Joshua.Turley@dot.state.fl.us | Index Title:        | Temporary Acrow 700XS Series Detour<br>Bridge General Notes and Details |

# Summary of the changes:

Sheet 1: Added some clarifying terms to the Notes. Removed errant shear panel and part number from TYPICAL ELEVATION VIEW.

Sheet2: Added some clarifying language to asphalt overlay notes in SECTION A-A.

Sheet 3: Added clarifying notes to TYPICAL DETAIL AT INTERMEDIATE PIER. Corrected table reference in TYPICAL DETAIL AT ABUTMENTS. Added note to EOB AT DECK DETAIL

Sheet 4: Updated BOLSTER DETAIL with new detail provided by ACROW

Sheet 5: Inserted rows corresponding to an additional Transom option (AB1006). Add notes about epoxy aggregate deck.

# Commentary/Background:

All these changes were made after review and recommendation from ACROW. These changes add clarity and correction and include updated inventory options.

| Other Affected Documents/Offices | Person Contacted | Affected (Yes/No) |
|----------------------------------|------------------|-------------------|
| Other Standard Plans             |                  | No                |
| FDOT Design Manual               |                  | No                |
| Standard Specifications          |                  | No                |
| Basis of Estimates Manual        |                  | No                |
| Approved Product List            |                  | No                |
| Construction Office              |                  | No                |
| Maintenance Office               |                  | No                |

# Implementation

["FY-Standard Plans (Next Release)"]

Work this Index with Index 102-210, 102-220 and 102-230.

STRUCTURAL STEEL: Steel Plates shall be ASTM A709 Grade 36. except when deck and curb panels with an epoxy aggregate non-skid driving surface are used,

## **EXPANSION BEARINGS:**

Inspect the PTFE (Teflon) layer and stainless steel plate prior to installation. Do not use bearings that have a severely damaged or unbonded PTFE layer. Clean PTFE of all grit and grime prior to installation.

Clean Stainless steel plate of all grit and grime prior to installation and finish to a

smooth-buffed-suxface......

#### keeper channels DISTRIB<mark>U</mark>TION BEAMS:

Distribution beam stops restraining the distribution beams may be lengthened or shortened to center the distributing beam bearing on the cage beam. The longitudinal stops are to bear on the distributing beam and frame.

#### ends of the keeper channels EXPANSION JOINT SETTINGS:

Install the expansion joint considering the total continuous bridge length, location of fixed bearings and ambient temperature at the time of installation, assume a 2" expansion joint opening at 70 degrees F, (Expansion joint depends on span/bridge length and configuration).

## STORAGE FACILITY:

Contact

FDOT Statewide Aluminum Shop 2590 Camp Rd. Oviedo, Fl. 407-278-2727

For shipping weights and dimensions of Temporary Bridge elements. Contractor to coordinate with Storage Facility and Acrow to obtain required parts list. Shipping weights and dimensions of other bridge components can be referenced in "Acrow Panel Bridging, Series 700XS, Technical Handbook".

## APPROACH TRAFFIC RAILING NOTES:

See Index 536-001 for component details, geometric layouts and associated notes not fully detailed herein.

CONCRETE: Concrete for Transition Blocks shall be Class II (Bridge Deck).

THRIE-BEAM PANEL: Steel Thrie-Beam Elements shall meet the requirements of AASHTO M180, Type II (Zinc coated).

## BOLTS, NUTS AND WASHERS:

DESCRIPTION:

Bolts, nuts and round washers shall be in accordance with AASHTO M180. Plate Washers shall be in accordance with ASTM A36 or ASTM A709 Grade 36. Do not drill Temporary Bridge components to attach Guardrail. Guardrail Bolts shall be placed between Truss members as shown in Index 102-240.

COATINGS: All Nuts, Bolts, Anchors, Washers and Backer Plates shall be hot-dip galvanized in accordance with the Specifications.

WOOD BLOCKS: All wood blocks, including required wedge shaped blocks shall be Pressure Treated Lumber in accordance with Specifications Section 955. Bolt holes in blocks to be centered  $(\pm 1/4")$ .

### PAYMENT:

Temporary Detour Bridge is to be paid for under Contract Unit Price for Special Detour. If a temporary bridge system other than that shown herein is used, the Contractor is responsible for renting or purchasing their own system. Payment for Temporary Guardrail work and Transition Block will be made under Pay Item Temporary Guardrail, LF.

Furnish and install Bridge Thrie-Beam Panels and all associated hardware as shown. Payment will be made with the Temporary Detour Bridge under the Pay Item Special Detour, LS. Turn over Bridge Thrie-Beam Panels and all associated hardware to the Department with the Detour Bridge components per Specifications Section 102-6.

2026-27

FY 2025-26 STANDARD PLANS

INDEX

DECK BOLT

SHEET

REVISION

FDOT

TEMPORARY ACROW 700XS SERIES DETOUR BRIDGE GENERAL NOTE AND DETAILS

REINFORCING CHORD 20'-0" TOP & BOTTOM (TYP.)

CHORD BOLT

TYPICAL ELEVATION VIEW

CURB UNIT;

DECK, UNIT

DECK UNIT

DECK UNIT

DECK UNIT

DECK UNIT

CURB UNIT

10'-0" BAY

(TYP)

TYPICAL PLAN VIEW

REINFORCING

(TOP & BOTTOM)

CHORD END

TRANSOM #

STRUT

(AT TOP)

TOP, BOTTOM (TYP.)

PINS @

REINFORCING CHORDS -

TRANSOM

CURB UNIT /

DECK UNIT

DECK UNIŢ

DECK UNIT

DECK UNIT

DECK UNIT

CURB

DIAGONAL BRACE

`∖CURB UNIT/

DECK UNIT

DECK UNIŢ

STRUT

(AT TOP)

DECK UNIT

DECK UNIT

DECK UNIT

CURB UNIT

USE BOLTS

TOP OF CURB

-TOP OF DECK

PANEL

~PANEL

TRANSOM

TOP CHORD BRACE

BRACE

USE CHORD BOLTS

RAKER BRACE

ONLY AT THE END

BEARING BLOCK

WITH BEARING

RAKER

BRACE

STRUT

`BRACE

OPTIONAL DOUBLE HIGH

(Truss configuration depends

on design Live load, Span, and

RAKER BRACE

-AB703 RAKER

RAKER BRACE TOP OF STEEL DECK

BEARING

BOLT

سسس RAKER BRACE

(ASPHALT NOT INCLUDED)

**ABUTMENT** 

TRANSOM

SHEET 5 FOR TYPES)

TRANSOM BOLSTER

TRANSOM BRACES (TYP.,

BEARING €

NOTE: SEE ACROW TECHNICAL HANDBOOK AND

PARTS LIST FOR ITEM PART DETAILS

*SWAYBRACE* 

(SEE TABLE 1

(BY OTHERS)

BRACES (TYP.)

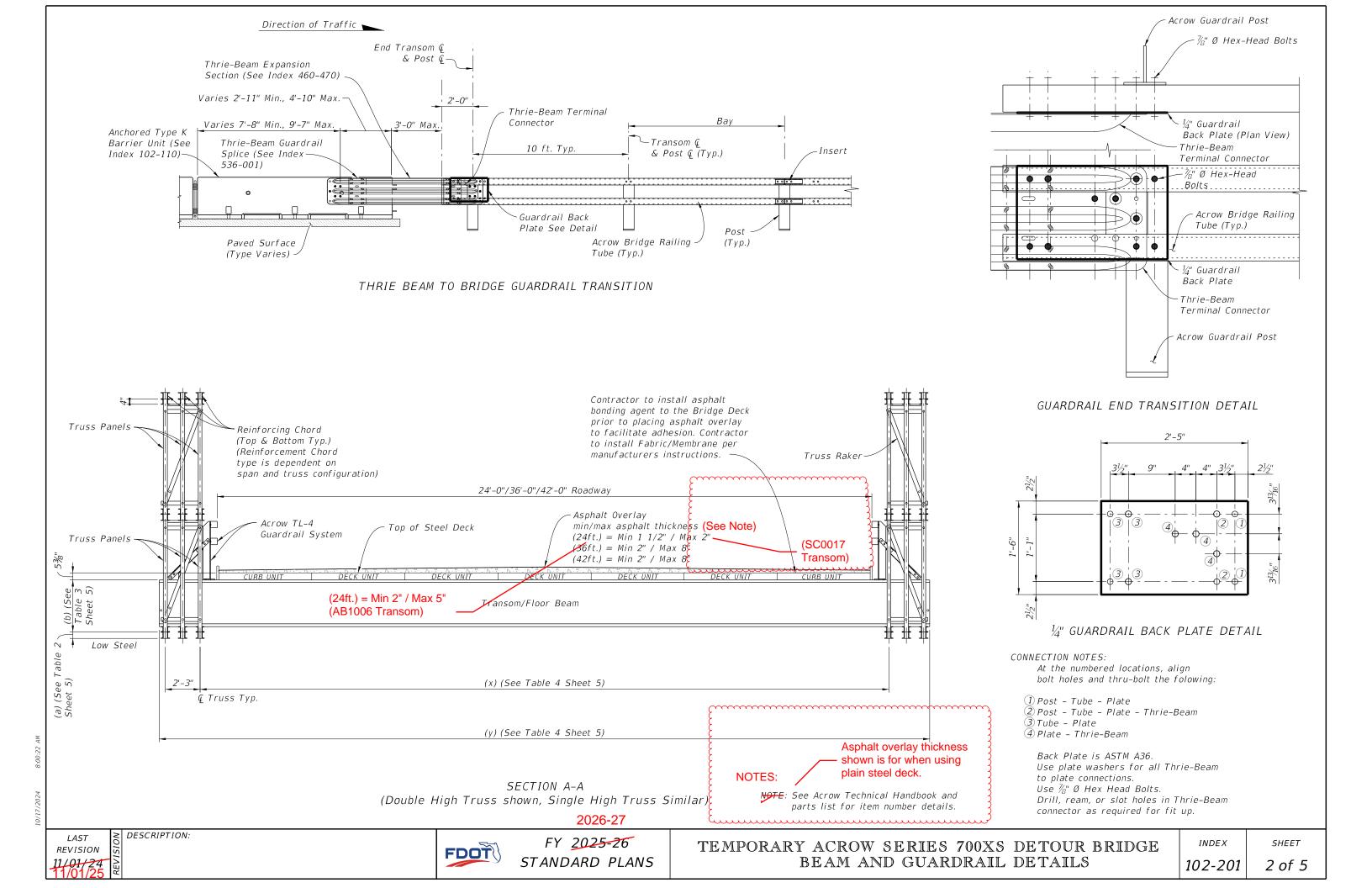
TRUSS CONFIGURATION

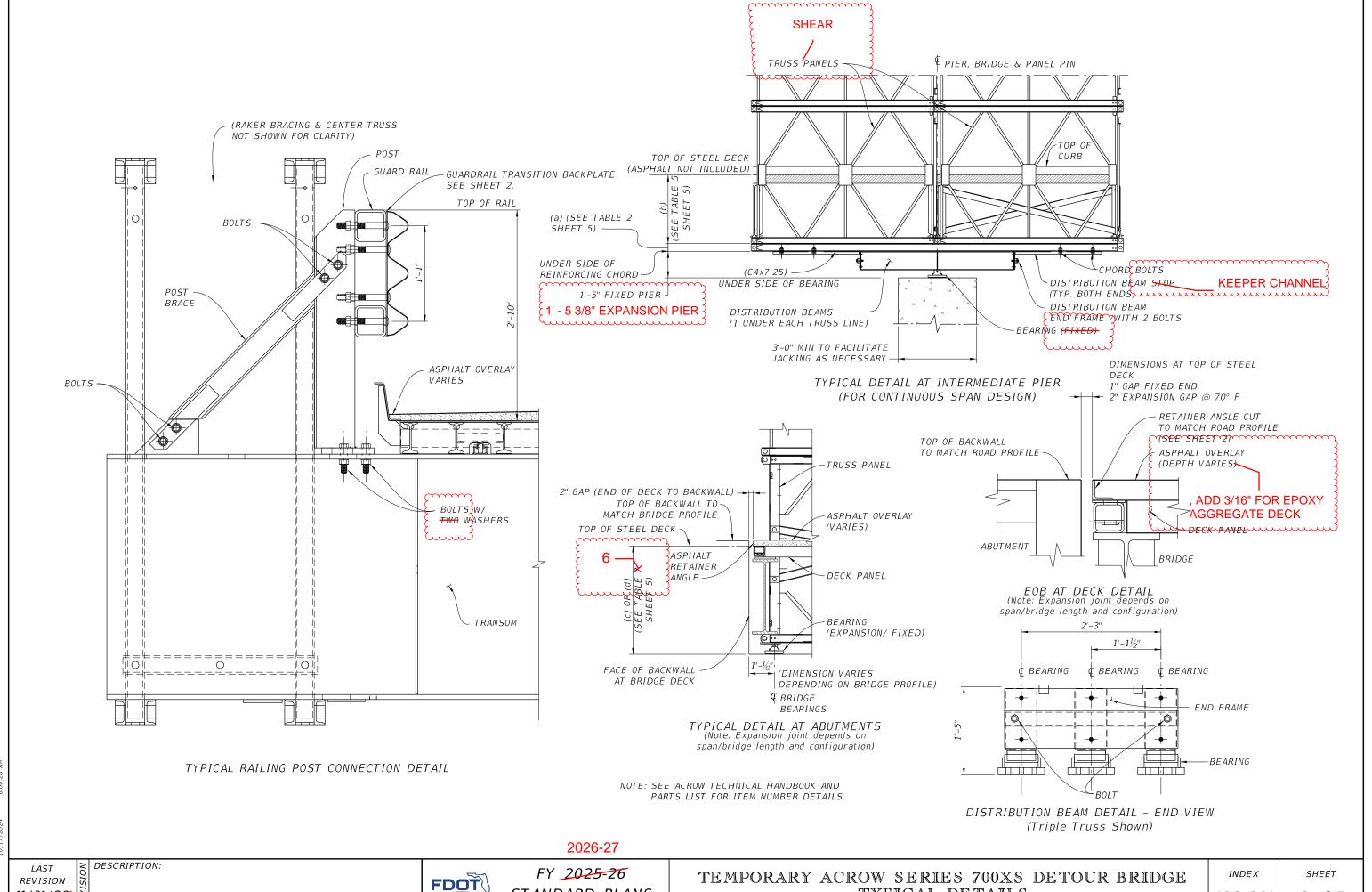
width of bridge)

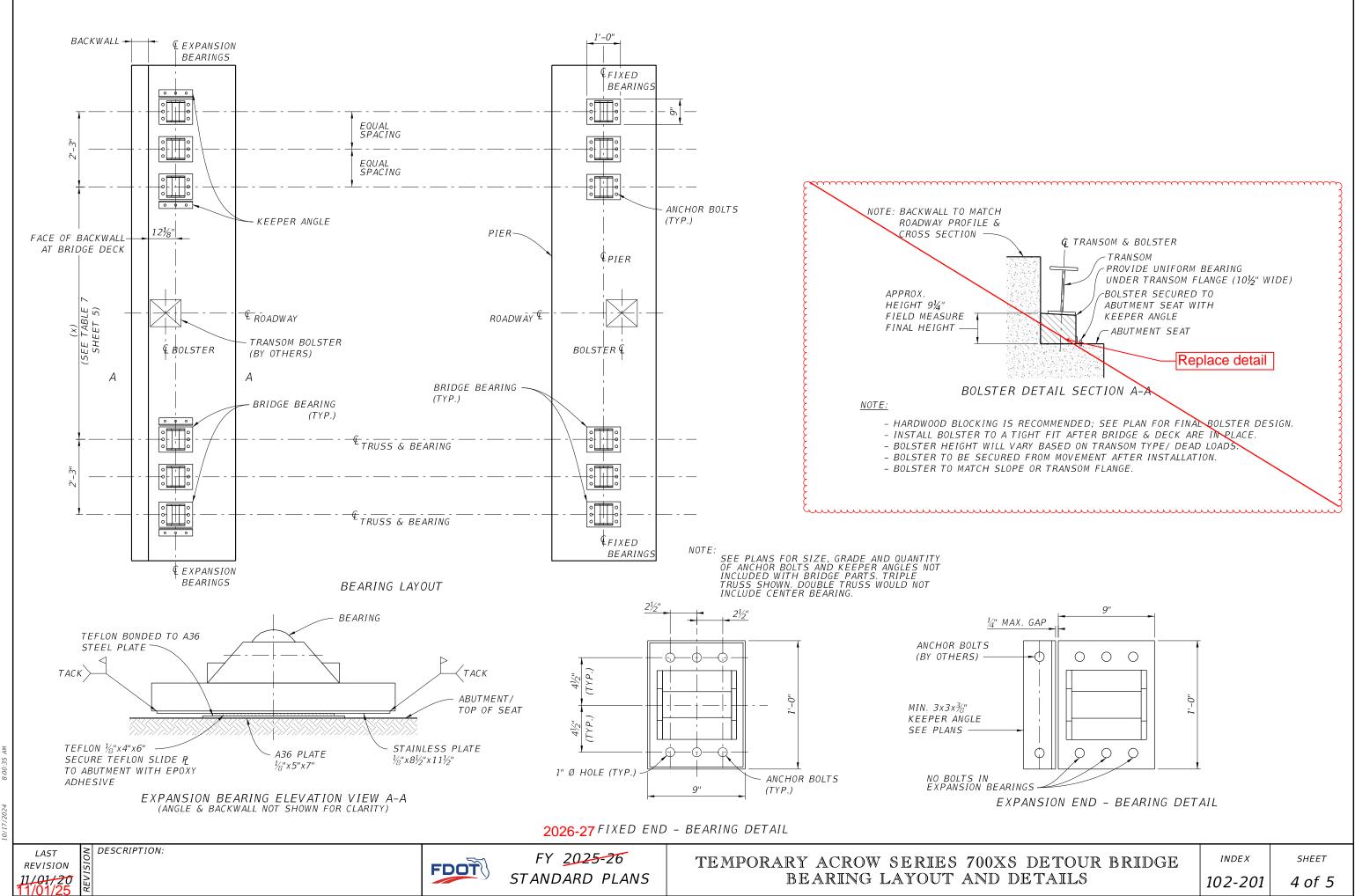
T-BOLT (4 PER DECK UNIT)

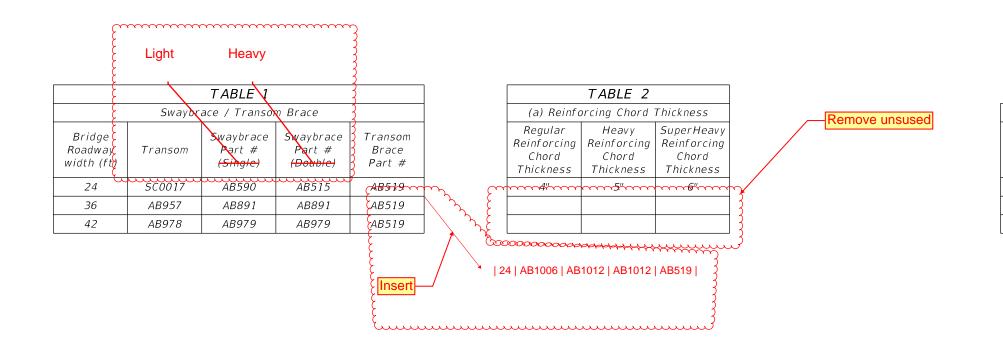
- STRUT

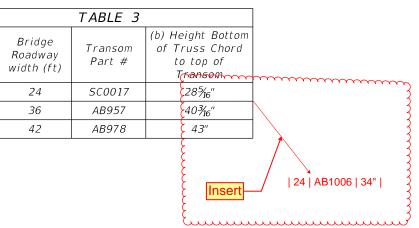
(AT TOP)



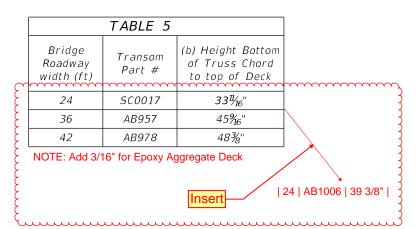








|                                 | TAB               | LE 4   |                                       |                           |
|---------------------------------|-------------------|--|---------------------------------------|---------------------------|
| Bridge<br>Roadway<br>width (ft) | Transom<br>Part # | (x)<br>• to inner<br>truss to •<br>inner truss | (y)<br>Transom<br>Beam<br>Length      |                           |
| 24                              | SC0017 C          | Marallan                                       | <u> </u>                              | mmmmy                     |
| 36                              | AB957 E           | 38'-4 <sup>13</sup> / <sub>16</sub> "          | 43'-7 <sup>13</sup> / <sub>16</sub> " | 3                         |
| 42                              | AB978             | 44'-43/8"                                      | 49'-7 <i>%</i> "                      | ] \                       |
|                                 |                   | Insert   | 24   AB10                             | 006   26' - 1"   31' - 4" |



|        |                                 |                   | TABLE 6   |   |                                 |
|--------|---------------------------------|-------------------|---|---|---------------------------------|
| $\sim$ | Bridge<br>Roadway<br>width (ft) | Transom<br>Part # | (c) Height Bottom<br>of fixed<br>bearing to<br>wtopver Deck | (d) Height Bottom<br>of expansion<br>bearing to<br><b>top of Deck</b> |                                 |
| ځ      | 24                              | SC0017            | 391/16"   | 397/6"  | 3                               |
| ع      | 36                              | AB957             | 50 <sup>15</sup> / <sub>16</sub> "                          | 51 <sup>5</sup> / <sub>16</sub> "                                     | }                               |
| ٤      | 42                              | AB978             | 53¾"  | 54½"  | 3                               |
|        | NOTE: Add 3/1                   | 6" for Epoxy Ag   | gregate Deck  | Insert   2  | 24   AB1006   44 3/4"   45 1/8" |

|                                 | TABLE 7           |   |                        |
|---------------------------------|-------------------|---|------------------------|
| Bridge<br>Roadway<br>width (ft) | Transom<br>Part # | (x) <b>Q</b> to inner truss to <b>Q</b> inner truss |                        |
| 24                              | SC0017            | 26'-1"  | ]                      |
| 36                              | AB <b>9</b> 57    | 38'-4 <sup>13</sup> / <sub>16</sub> "               | }                      |
| 42                              | AB <b>9</b> 78    | 44'-4 <del>%</del> "                                | ] \                    |
|                                 | Inse              | ert 12  | 24   AB1006   26' - 1" |

2026-27

REVISION 11/01/20 11/01/25 DESCRIPTION:

FDOT

This Index is only applicable to the current FDOT inventory of temporary bridge components which are manufactured in accordance with Acrow Series 700XS three Lane 24',36', and 42' widths. Asphalt Overlay is required on the Bridge deck except when deck and curb panels with an epoxy aggregate non-skid driving surface are used, see Sheet 2 for details.

Work this Index with Index 102-210, 102-220 and 102-230.

#### STRUCTURAL STEEL:

Steel Plates shall be ASTM A709 Grade 36.

## **EXPANSION BEARINGS:**

Inspect the PTFE (Teflon) layer and stainless steel plate prior to installation. Do not use bearings that have a severely damaged or unbonded PTFE layer. Clean PTFE of all grit and grime prior to installation. Clean Stainless steel plate of all grit and grime prior to installation and finish to a smooth buffed surface.

#### DISTRIBUTION BEAMS:

Distribution beam keeper channels restraining the distribution beams may be lengthened or shortened to center the distributing beam bearing on the cap beam. The ends of the keeper channels are to bear on the distributing beam end frame.

#### **EXPANSION JOINT SETTINGS:**

Install the expansion joint considering the total continuous bridge length, location of fixed bearings and ambient temperature at the time of installation, assume a 2" expansion joint opening at 70 degrees F, (Expansion joint depends on span/bridge length and configuration).

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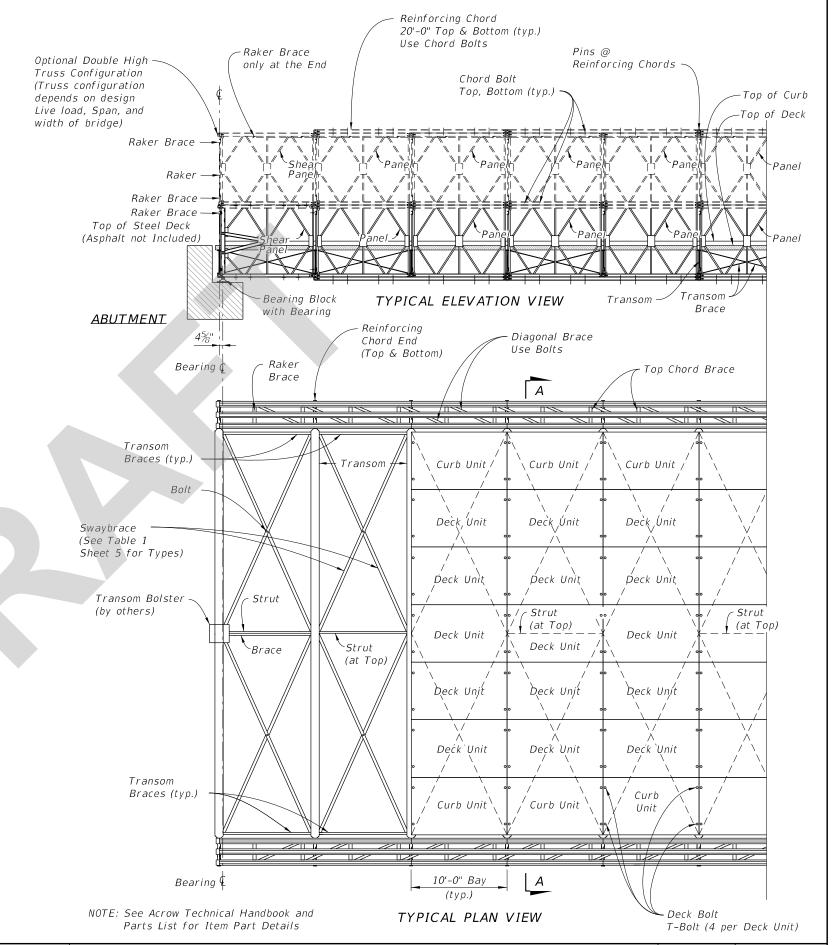
DESCRIPTION:

FY 2026-27 STANDARD PLANS

TEMPORARY ACROW 700XS SERIES DETOUR BRIDGE GENERAL NOTE AND DETAILS

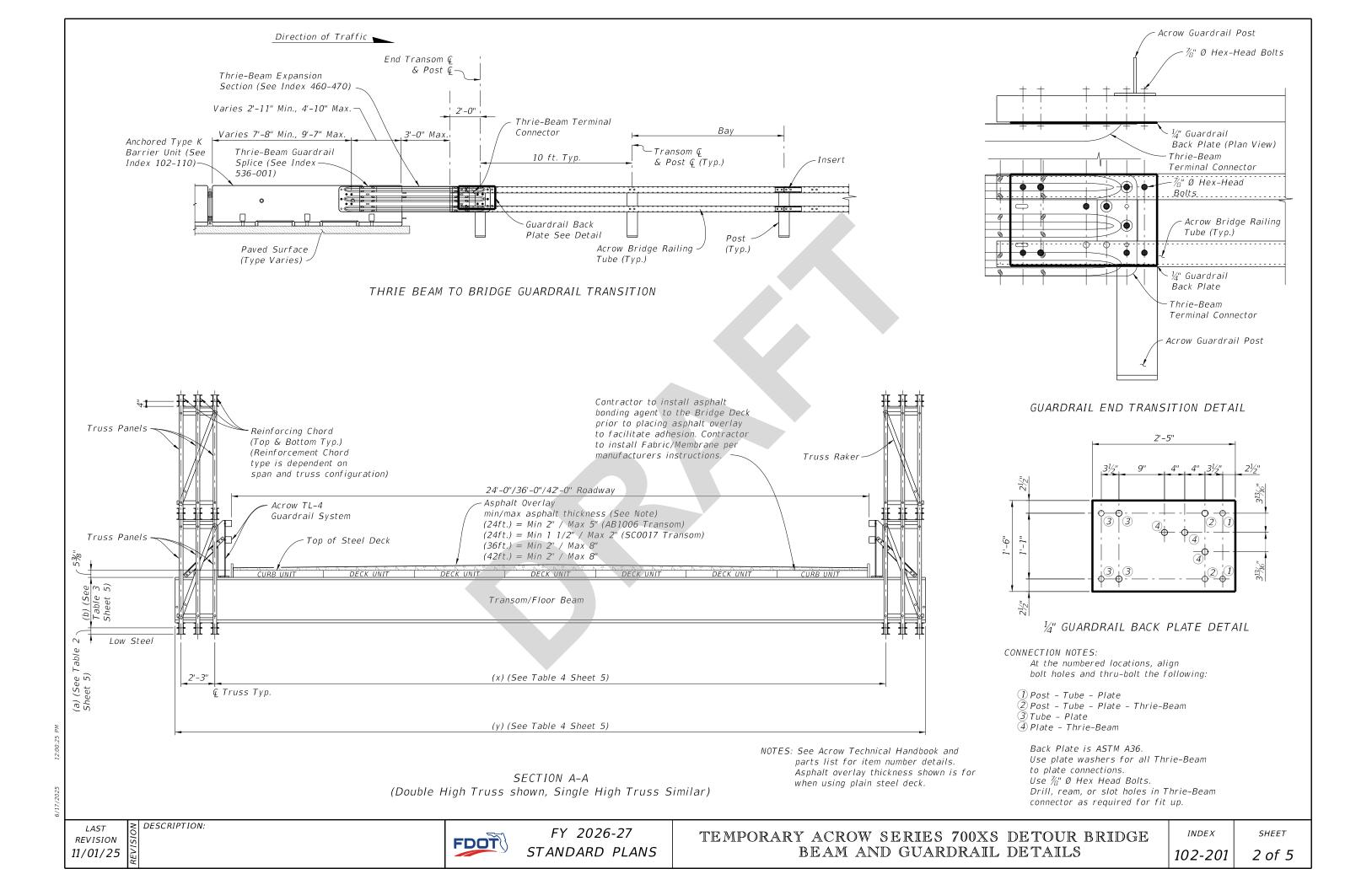
INDEX 102-201

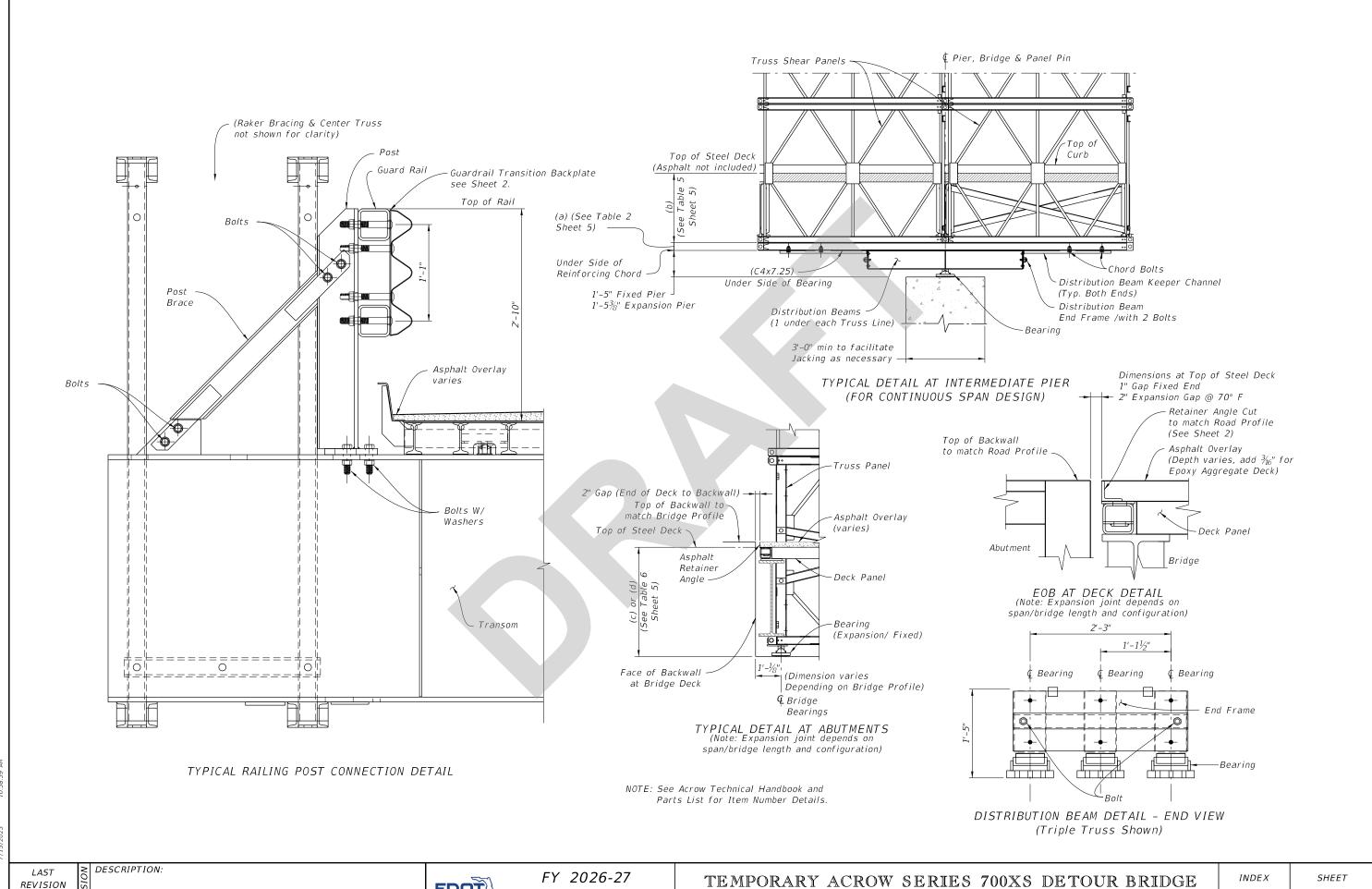
SHEET 1 of 5



LAST REVISION 11/01/25

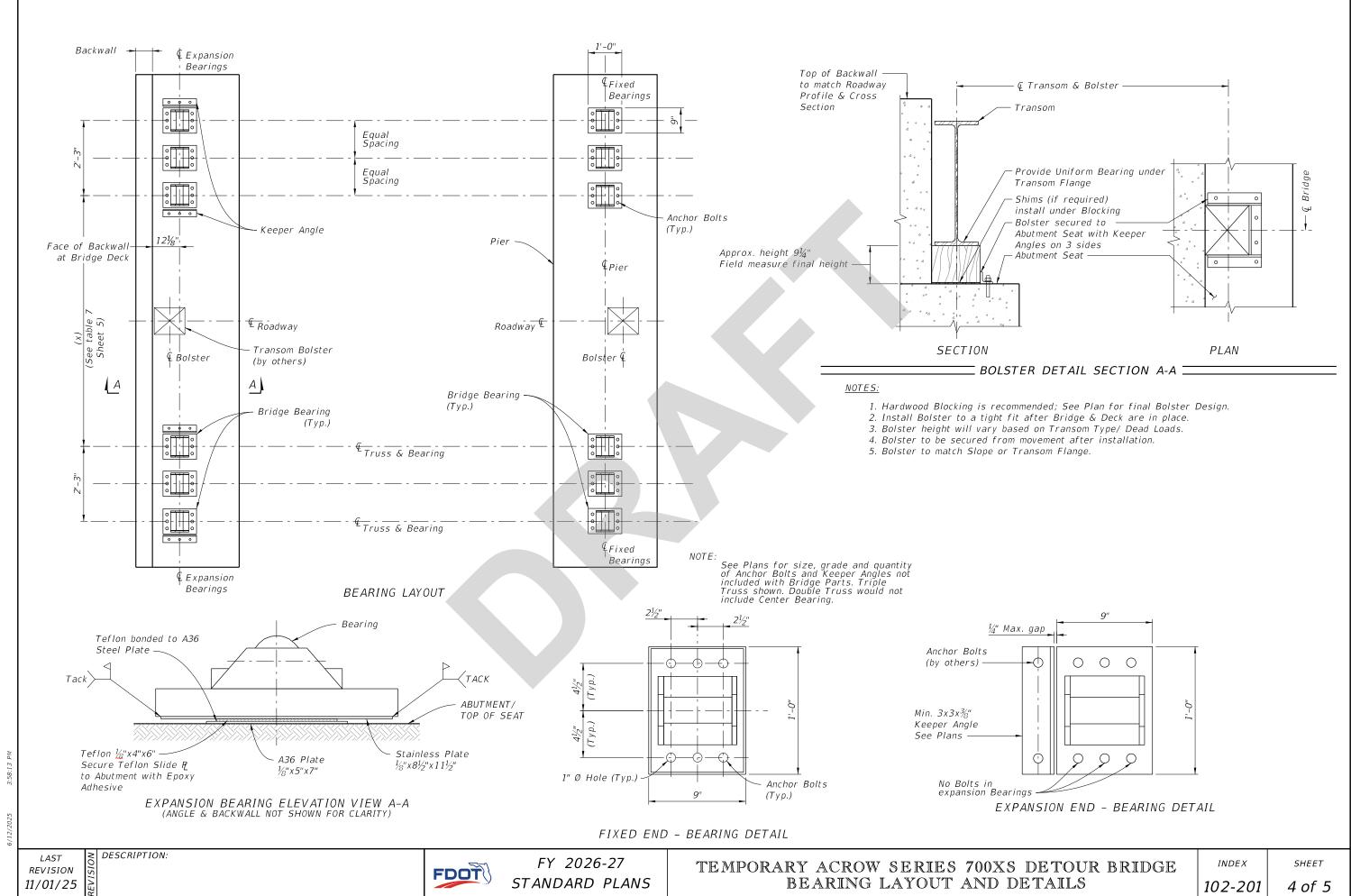
FDOT





11/01/25

FDOT



| TABLE 1                         |         |                                |                                |                            |
|---------------------------------|---------|--------------------------------|--------------------------------|----------------------------|
|                                 | Swaybr  | ace / Transoi                  | m <i>Brace</i>                 |                            |
| Bridge<br>Roadway<br>width (ft) | Transom | Swaybrace<br>Part #<br>(Light) | Swaybrace<br>Part #<br>(Heavy) | Transom<br>Brace<br>Part # |
| 24                              | SC0017  | AB590                          | AB515                          | AB519                      |
| 24                              | AB1006  | AB1012                         | AB1012                         | AB519                      |
| 36                              | AB957   | AB891                          | AB891                          | AB519                      |
| 42                              | AB978   | AB979                          | AB979                          | AB519                      |

| TABLE 2                                      |  |  |  |  |
|--|--|--|--|--|
| (a) Reinfo                                   | (a) Reinforcing Chord Thickness            |  |  |  |
| Regular<br>Reinforcing<br>Chord<br>Thickness | Heavy<br>Reinforcing<br>Chord<br>Thickness | Super Heavy<br>Reinforcing<br>Chord<br>Thickness |  |  |
| 4"   | 5"   | 6"   |  |  |

| TABLE 3                         |                   |   |  |
|---------------------------------|-------------------|---|--|
| Bridge<br>Roadway<br>width (ft) | Transom<br>Part # | (b) Height Bottom<br>of Truss Chord<br>to top of<br>Transom |  |
| 24                              | SC0017            | 28 <sup>5</sup> ⁄ <sub>16</sub> "                           |  |
| 24                              | AB1006            | 34"   |  |
| 36                              | AB957             | 40¾ <sub>6</sub> "  |  |
| 42                              | AB978             | 43"   |  |

| TABLE 4                         |                   |  |                                       |  |
|---------------------------------|-------------------|--|---------------------------------------|--|
| Bridge<br>Roadway<br>width (ft) | Transom<br>Part # | (x)<br>• to inner<br>truss to •<br>inner truss | (y)<br>Transom<br>Beam<br>Length      |  |
| 24                              | SC0017            | 26'-1"   | 31'-4"                                |  |
| 24                              | AB1006            | 26'-1"   | 31'-4"                                |  |
| 36                              | AB957             | 38'-4 <sup>13</sup> / <sub>16</sub> "          | 43'-7 <sup>13</sup> / <sub>16</sub> " |  |
| 42                              | AB978             | 44'-43%''                                      | 49'-7 <i>%</i> "                      |  |

|   |                                 | TABLE 5           |   |
|---|---------------------------------|-------------------|---|
|   | Bridge<br>Roadway<br>width (ft) | Transom<br>Part # | (b) Height Bottom<br>of Truss Chord<br>to top of Deck |
|   | 24                              | SC0017            | 33 <sup>11</sup> / <sub>16</sub> "                    |
|   | 24                              | AB1006            | 39¾"  |
| 4 | 36                              | AB957             | 45%"  |
|   | 42                              | AB978             | 48%"  |

NOTE: Add  $\frac{3}{16}$ " for Epoxy Aggregate Deck

|                                 | TABLE 6           |  |  |  |  |
|---------------------------------|-------------------|--|--|--|--|
| Bridge<br>Roadway<br>width (ft) | Transom<br>Part # | (c) Height Bottom<br>of fixed<br>bearing to<br>top of Deck | (d) Height Bottom<br>of expansion<br>bearing to<br>top of Deck |  |  |
| 24                              | SC0017            | 39½ <sub>16"</sub>   | 39½"   |  |  |
| 24                              | AB1006            | 44 <sup>3</sup> / <sub>4</sub> "                           | 45½"   |  |  |
| 36                              | AB957             | 50 <sup>15</sup> / <sub>16</sub> "                         | 51 <sup>5</sup> ⁄ <sub>16</sub> "                              |  |  |
| 42                              | AB978             | 53¾"   | 54½"   |  |  |

NOTE: Add  $rac{3}{16}$ " for Epoxy Aggregate Deck

| TABLE 7                         |                   |   |  |  |
|---------------------------------|-------------------|---|--|--|
| Bridge<br>Roadway<br>width (ft) | Transom<br>Part # | (x) <b>Q</b> to inner truss to <b>Q</b> inner truss |  |  |
| 24                              | SC0017            | 26'-1"  |  |  |
| 24                              | AB1006            | 26'-1"  |  |  |
| 36                              | AB957             | 38'-4 <sup>13</sup> / <sub>16</sub> "               |  |  |
| 42                              | AB978             | 44'-43/,"   |  |  |

≥ DESCRIPTION: