GENERAL NOTES:

This Standard is only applicable to the current FDOT inventory of temporary bridge components which are manufactured in accordance with Acrow Series 300, Double Wide design.

Work this Standard with Index Nos. 21610, 21620, 21630 and 21640.

STRUCTURAL STEEL:
Steel Plates and Rolled Sections shall be ASTM A36 Grade 36.
Pipe piles shall be ASTM A522 Grade 2, Fy = 35 ksi.

BOLTS, LAG SCREWS AND THREADED BOLT STOCK:
Furnish steel washers and nuts compatible with Bolts, Threaded Stock and Lag Screws.

TIMBER AND LAGGING:
Timber and Lagging shall be No. 1 Southern Yellow Pine.

BACKWALL BENT PILES:
Timber Piles:
10. Minimum Embedment into compacted backfill or into soil having a blow count greater than 6 (N>6).
Ultimate Capacity greater than 18 tons.
Splices are not allowed on any timber piles.

H-Piles:
12. Minimum Embedment into compacted backfill or into soil having a blow count greater than 6 (N>6).
Ultimate Capacity greater than 18 tons.
Shims admissible between backwall pile and cap.
Test piles are not required for backwall piles.

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 Stainless steel plate of all grit and grime prior to installation and finish to a smooth buffed surface.

DISTRIBUTING BEAMS:
The longitudinal stops 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 1° expansion joint opening at 70 degrees F.

TRAFFIC RAILING NOTES:
See Index 400 for component details, geometric layouts and associated notes not fully detailed herein.

CONCRETE: Concrete for Expansion Bearings shall be Class II (Bridge Deck).

THREE-BEAM PANEL: Steel Three-Beam Elements shall meet the requirements of AASHTO MB10 Type II (Zinc coated).
BOLTS, NUTS AND WASHERS: 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.

EXPANSION BEARINGS:
Test piles are not required for backwall piles.
Ultimate Capacity greater than 18 tons.
Blow count greater than 6 (N>6).
12' Minimum Embedment into compacted backfill or into soil having a blow count greater than 6 (N>6).

BACKWALL BENT PILES:
Timber and Lagging shall be No. 1 Southern Yellow Pine.

SHIPPING WEIGHTS AND DIMENSIONS:

<table>
<thead>
<tr>
<th>Weight (lbs.)</th>
<th>Width</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>800</td>
<td>6'-9&quot;</td>
<td>20'</td>
</tr>
<tr>
<td>1420</td>
<td>5'-3&quot;</td>
<td>6'-9&quot;</td>
</tr>
<tr>
<td>1600</td>
<td>5'-3&quot;</td>
<td>6'-9&quot;</td>
</tr>
<tr>
<td>2200</td>
<td>5'-3&quot;</td>
<td>6'-9&quot;</td>
</tr>
<tr>
<td>2800</td>
<td>5'-3&quot;</td>
<td>6'-9&quot;</td>
</tr>
</tbody>
</table>

TEMPORARY DETOUR BRIDGE
GENERAL NOTES AND DETAILS

STORAGE FACILITY:
Contact
FDOT Statewide Aluminum Shop
2590 Camp Rd
Orlando, Fl.
407-977-6300
For shipping weights and dimensions of Temporary Bridge elements.

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 Detour Bridge work and Transition Block will be made under Pay Item Temporary Detour, LS.
Furnish and install Bridge Three-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 Three-Beam Panels and all associated hardware to the Department with the Detour Bridge components per Specifications Section 102-6.
GENERAL NOTES AND DETAILS

TEMPORARY DETOUR BRIDGE

DESIGN STANDARDS

TYPICAL PLAN VIEW OF DETOUR BRIDGE

(TIMBER PILES SHOWN, STEEL H PILES AND STEEL PIPE PILES SIMILAR)

(Thrie-Beam Panel not shown for clarity, See Index 21640)

* or Flatter

Grades Beam

1:1½*

Edge of Berm

4" x 10" Timber Lagging with Filter Fabric

End Bent

Backwall Bent

4'-0" Clear Roadway Width

24'-0" Clear Roadway Width

25'-6"

2'-6"

5'-0" Approach Span

5'-0" Ramp Span

Approach Roadway

Retainer Angles (Typ.)

AB5 or AB6 End Post (Typ.)

1:1½*

1:1½*

Shoulder Line (see Plans for width requirements, Typ.)

Index

AB1 Truss Panels (Typ.)

AB3 Bracing Frame (Typ.)

AB8 Bearings

(Expansion Bearing Shown Fixed Bearing Similar) (Typ.)

AB7 & AB8 Bearings

(Typ.)

Grade Beam

Toe of Fill Slope

Approach Span

5'-0" Approach Span

Begin or End Detour Bridge

End Bent

Grade Beam

Shoulder Line (see Plans for width requirements, Typ.)

Index

AB13 Swaybrace Standard (Typ.)

AB306 Transom DW (Typ.)

AB3 Bracing Frame (Typ.)

AB1 Truss Panels (Typ.)

3'-0" Clear Roadway Width

1:2½ *

1:2½ *

1:2½ *

AB7 & AB8 Bearings

(Expansion Bearing Shown Fixed Bearing Similar) (Typ.)

AB5 or AB6 End Post (Typ.)

1:2½ *

1:2½ *

1:2½ *

AB7 & AB8 Bearings

(Expansion Bearing Shown Fixed Bearing Similar) (Typ.)

AB5 or AB6 End Post (Typ.)

1:2½ *

1:2½ *

1:2½ *

AB7 & AB8 Bearings

(Expansion Bearing Shown Fixed Bearing Similar) (Typ.)

AB5 or AB6 End Post (Typ.)

1:2½ *

1:2½ *

1:2½ *

AB7 & AB8 Bearings

(Expansion Bearing Shown Fixed Bearing Similar) (Typ.)

AB5 or AB6 End Post (Typ.)

1:2½ *

1:2½ *

1:2½ *
ELEVATION VIEW
(TIMBER PILES SHOWN, STEEL H PILES AND STEEL PIPE PILES SIMILAR)
(Thrie-Beam Panel not shown for clarity. See Index 21640)
Timber Bent shown for illustration purposes, See Plans for actual Bent Designs, including Pile sizes and spacing, bent cap and bracing requirements.

AB22 Distributing Beams with AB23 Distributing Beam End Frame (Typ.)

AB306 Transom DW (Typ.)

AB13 Swaybrace Standard (Typ.)

AB505C Distributing Beam Stop (Typ.)

Trusses & Bearings

Steel Grid Deck & Curb

AB51 Panel Pins (Top & Bottom Typ.)

AB3 Bracing Frame (Typ.)

Offset Block

Thrie-Beam Panel See Index 21640.

AB1 Truss Panels (Typ.)

AB7 & AB8 Bearings (Expansion Bearing shown, Fixed Bearing similar) (Typ.)

AB12 Distributing Beams with AB23 Distributing Beam End Frame (Typ.)

TYPICAL SECTION THRU DETOUR BRIDGE AT INTERIOR BENTS (TYPICAL SECTION AT END BENTS SIMILAR WITHOUT DISTRIBUTING BEAMS) (TIMBER PILES SHOWN, STEEL H PILES AND STEEL PIPE PILES SIMILAR)
**REVISION NO.**

**SHEET NO.**

**INDEX**

**DESCRIPTION:**

**REVISION LAST of DESIGN STANDARDS**

**FY 2017-18**

**TEMPORARY DETOUR BRIDGE**

**GENERAL NOTES AND DETAILS**

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**GRADE BEAM DETAILS**

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**PLAN VIEW**

**ELEVATION VIEW**

**SECTION A-A**

**ANCHOR PLATE DETAIL**

**OPTIONAL THROUGH BOLT DETAIL**

(MAY BE USED IN LIEU OF STRAPS)
**DESCRIPTION:**

- **Temporay Detour Bridge Details**
- **Timber Pile Foundations**

**FY 2017-18 Design Standards**

**Revision:**
- Last revision: 07/01/06
- Index No.: 21610
- Sheet No.: 2 of 3

**Backwall Bent Details**

**Elevation View**
- 12" Ø Timber Piles (Typ.)
- 4" x 10" Timber Lagging
- 12" Ø Timber Cap
- Deck Hold Down Strap (Typ.)

**Plan View**
- 1/2" x 1'-2" x 14'-0" Bottom Cap ℅
- 1/2" x 1'-2" x 12'-9" Top Cap ℅
- 12" Ø Timber Cap
- Filter Fabric

**End View**
- 12" Ø Timber Piles (Typ.)
- 4" x 10" Timber Lagging
- Top of Berm or Existing Ground

**Details:**
- Limits of Filter Fabric shown shaded
- 1/2" x 1'-2" x 12'-9" Top Cap ℅
- 1/2" x 1'-2" x 14'-0" Bottom Cap ℅
- Deck Hold Down Strap (Typ.)
- 1/2" x 1'-2" x 10" Top Cap ℅

**Filter Fabric Details:**
- 11'-2" 19'-2"
- 19'-2" 10'-0" 11'-2" 12'-2"
- 12" Ø Timber Cap
- Cap But Splice Spacing

**Spacing:**
- Deck Hold Down Strap Spacing = 5 sp. @ 5'-4" ± (Center Strap on Bottom Pile)
- Field verify pile locations and adjust straps before welding to Bottom Cap ℅

**Design Standards:**
- FY 2017-18
- Customary Measure (Feet and Inches)
**Fixed Bearing Details**

**Temporary Detour Bridge Details**

**Steel Pipe Pile Foundations**

**FY 2017-18**

*Design Standards*

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**PARTIAL PLAN VIEW**

- 3'-6" x 3'-6" Fixed Bearing Keeper Bar (Typ.)
- (to bear on face of Bearing Plates)

**PARTIAL ELEVATION VIEW**

- 3'-6" x 3'-6" Fixed Bearing Keeper Bar (Typ.)

**END VIEW**

- 2'-3" Ø x 5'-0" Steel Pipe Pile
- Steel Pipe Pile Cap

---

*Note:*

Use Shim Plates as required to provide equal bearing seat elevations across the bent. Vary thickness of Shim Plate across the pile cap plate to provide a level bearing area in the transverse direction.
Note: Use Shim Plates as required to provide equal bearing seat elevations across the bent. Vary thickness of Shim Plate across the pile cap plate to provide a level bearing area in the transverse direction.

PARTIAL PLAN VIEW

PARTIAL ELEVATION VIEW

EXPANSION BEARING KEEPER BAR DETAIL

ABUTMENT AND INTERMEDIATE EXPANSION BEARING DETAILS
TEMPORARY DETOUR BRIDGE
THREE-BEAM GUARDRAIL

DESCRIPTION:

- **Revised** of Design Standards FY 2017-18

**Temporary Detour Bridge**

**Thrie-Beam Guardrail**

**PARTIAL PLAN - APPROACH TRANSITION**

- *Limits of Payment for Thrie-Beam Panels on Bridge*
  - **End Span**: 2'-6" ±
  - **Approach Span**: 5'-0" ±

- *Limits of Payment for Temporary Guardrail*
  - **End Span**: 2'-6" ±
  - **Approach Span**: 5'-0" ±

- **Traffic Railing** - Class B (10 Gauge)
  - **Three-Beam Panels**
    - **Begin or End Detour Bridge**
    - **Grade Beam**: 6'-3" Post Spacing
    - **W-Beam Guardrail**
      - **6'-3" Class A (12 Gauge)**

- **W-Beam Guardrail**
  - **See Index No. 400**

**PARTIAL ELEVATION - APPROACH TRANSITION**

- **Steel Grid Deck**
- **Approach Roadway**
- **Shoulder Line** (See Plans for width requirements)
- **Backwall Bent**
- **Transition Block**
LIMITS OF PAYMENT FOR TEMPORARY GUARDRAIL

- Approach Span
- Begin or End Detour Bridge
- Steel Grid Deck
- Backwall Bent
- Backer Plate 02

LIMITS OF PAYMENT FOR THRIE-BEAM PANELS ON BRIDGE

- Approach Span
- Traffic Railing - Class B (10 Gauge)
- W-Beam Guardrail See Index 400
- 6'-3" Class A
- Begin or End Detour Bridge
- " Bearing

THREE-BEAM GUARDRAIL TRAILING END TRANSITION

- Approach End
- Bridge
- Approach End

TWO-WAY TRAFFIC

- Approach End
- Bridge
- Approach End

ONE-WAY TRAFFIC

- Approach End
- Bridge
- Approach End

THREE-BEAM GUARDRAIL TRAILING END TRANSITION

- Approach End
- Bridge
- Approach End
PARTIAL PLAN - APPROACH TRANSITION SHOWN
(TRAILING END SIMILAR)

Limits of Payment for

Three-Beam Panels on Bridge
End Span
Approach Span

Traffic Railing - Class B
Two 12'-6" - Class A (12 Gauge)

(10 Gauge) Three-Beam Panels
Three-Beam Guardrail Panels (Nested)

2'-6"±

Limits of Payment for Temporary Barrier Wall

Approach Transition using Staked Type K Barrier Units

Freestanding Type K Barrier Units
See Index 414

PARTIAL ELEVATION - APPROACH TRANSITION SHOWN
(TRAILING END SIMILAR)

Terminal Connector (Typ.)
Type K Barrier Unit

Stakes (Typ.)
(See Index 414 for details)
**Temporary Detour Bridge Thrie-Beam Guardrail**

**Description:**

- **Sections and Details:**
  - Section A-A
  - Section B-B
  - Section C-C
  - Section D-D
  - Section E-E
  - Section F-F
  - Section H-H

- **Steel Post Plate Details:**
  - **Backer Plate 001 Detail**
  - **Backer Plate 002 Detail**

- **Design Standards:**
  - FY 2017-18

- **As directed by the Engineer in order to limit vibration induced vertical displacement of the Thrie-Beam Panels, provide Contractor supplied, one time use, commercially available 3/16" (Min.) Galvanized Wire Rope w/ Ferrules or other approved wire type positioned and tensioned as required to secure the Panels.
PLAN VIEW OF TRANSITION BLOCK
(GUARDRAIL NOT SHOWN FOR CLARITY)

ELEVATION OF TRANSITION BLOCK
(GUARDRAIL AND POSTS NOT SHOWN FOR CLARITY)

ESTIMATED QUANTITIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
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<tbody>
<tr>
<td>Concrete Class NS</td>
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<tr>
<td>Reinforcing Steel</td>
<td>LB</td>
<td>61</td>
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<tr>
<td>Guardrail (Reset)</td>
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<td>12.5</td>
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NOTES:

REINFORCING STEEL: Reinforcing steel shall be ASTM A615, Grade 60.

ANCHOR RODS: Steel Anchor Rods shall be ASTM A36, ASTM A709 Grade 36 or ASTM A615 Grade 60 hot-dip galvanized in accordance with Specification Section 962.