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<tr>
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</table>
**NOTES**

- Prestressing steel shall be uncoated high-strength, low-relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 5⁄8" and the nominal cross-sectional area shall be 0.153 sq. in. Two 5⁄8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2½" lifting pin shall be used to engage the lifting loops during handling.
- Externally bonded corrosion inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 5000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 6000 psi.

**SECTION B-B**

*Showing dimensions*

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**SECTION A-A**

*Showing reinforcement and permissible strand locations*

**VIEW C-C**

**BILL OF MATERIAL**

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<th>Size</th>
<th>Length</th>
<th>Shape</th>
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<td>S(E)</td>
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<td>B(E)</td>
<td>#4</td>
<td>3'-2''</td>
<td>S(E)</td>
</tr>
<tr>
<td>S(E)</td>
<td>#4</td>
<td>5'-9''</td>
<td>S(E)</td>
</tr>
<tr>
<td>U(E)</td>
<td>#5</td>
<td>6'-3''</td>
<td>S(E)</td>
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</table>

**LIFTING LOOP DETAIL**

- A minimum 2½" lifting pin shall be used to engage the lifting loops during handling.
- Externally bonded corrosion inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 5000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 6000 psi.
**PLAN VIEW**

- #4 B(E) bars 1'-6'' cts., Top
- 9 spaces at 6'' = 9''
- #4 S(E) bars at 9'' cts.
- Cut to fit Fan

**SECTION A-A**

- #4 A(E) bars at 1'-6'' cts., Top
- S(E) bars 4 pairs of #4

**SECTION B-B**

- S(E) bars 1 pair of #4
- Lifting loop detail

**VIEW C-C**

- FABRIC BEARING PAD
- FABRIC BEARING PAD

**BAR LIST**

- ONE BEAM ONLY

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<tbody>
<tr>
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<td>S(E)</td>
<td>#4</td>
<td>3'-2''</td>
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<tr>
<td>S(E)</td>
<td>#4</td>
<td>3'-4''</td>
</tr>
<tr>
<td>U(E)</td>
<td>#5</td>
<td>5'-9''</td>
</tr>
<tr>
<td>S(E)</td>
<td>#4</td>
<td>6'-3''</td>
</tr>
</tbody>
</table>

**NOTES**

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 1/8'' and the nominal cross-sectional area shall be 0.153 sq. in.
- Two 1/8'' lifting pins shall be used to engage the lifting loops during handling.
- A minimum 2/32'' lifting pin shall be used to engage the lifting loops during handling.
- Corrosion inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- The compressive strength of prestressed concrete, f''c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f''ci, shall be 5000 psi.
- Expansion bearing pads shall be bonded to the substructure.
- Two 3/32'' fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- Two 3/32'' fabric adjusting shims of the dimensions of the interior bearing pad shall be provided for each bearing pad location.

**BILL OF MATERIAL**

- Prestressed Conc. Deck Beam, 12'' depth

**DEPARTMENT OF TRANSPORTATION**

**STATE OF ILLINOIS**

**11'' x 48'' PPC DECK BEAM**

**STRUCTURE NO.**

**FILE NAME**

**PLOT SCALE**

**PLOT DATE**

**CHECKED**

**DRAWN**

**CHECKED**

**DESIGNED**

**REVISED**

**REVISED**

**REVISED**

**REVISED**

**DEPARTMENT OF TRANSPORTATION**
5 pairs of #4 S(E) bars

PLAN VIEW

SECTION A-A

SECTION B-B

VIEW C-C

SECTION B-B

BAR LIST

ONE BEAM ONLY

Bar No. | Size | Length | Shape
--- | --- | --- | ---
A(E) | #4 | 3'-2'' | S
B(E) | #5 | 6'-1'' | S
S(E) | #4 | 3'-11'' | S
U(E) | #4 | 6'-7'' | S

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1⁄8" and the nominal cross-sectional area shall be 0.153 sq. in.

Two 5⁄8" lifting pins shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 5000 psi. Compressive strength of prestressed concrete of rebars, f'c, shall be 6000 psi.

LIFTING LOOP DETAIL

LIFTING LOOP DETAIL

FABRIC BEARING PAD

FABRIC BEARING PAD

FIXED

Notes:

A lifting pin shall be 1" thick. Omit holes when using expansion bearings. Expansion bearing pads shall be bonded to the substructure.

Notes:

Expansion bearing pads shall be 1" thick. Expansion bearing pad shall be bonded to the substructure.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 5000 psi. Compressive strength of prestressed concrete of rebars, f'c, shall be 6000 psi.

LIFTING LOOP DETAIL

Compressive strength of prestressed concrete at release, f'c, shall be 5000 psi. Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

The nominal diameter shall be 1⁄8" and the nominal cross-sectional area shall be 0.153 sq. in.

Two 5⁄8" lifting pins shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 5000 psi. Compressive strength of prestressed concrete of rebars, f'c, shall be 6000 psi.
Plan View

9''

3 spaces at 6'' = 9''

-#4 A(E) bars at 1'-6'' cts., Top

6 -#4 U(E) bars cl.

-#5 B(E) bars full length, Top

-#4 S(E) bars at 9'' cts.

Section A-A

Notes:

3'' Radius

6' ' ~ Lifting loop of lift

60° min. angle

VIEW C-C

Fabric BEARING PAD

Fabric BEARING PAD

Fixed

Notes:

All bearing pads shall be 1'' thick.

Omit holes when using expansion bearings.

Expansion bearing pad shall be bonded to the substructure.

Bar List

One Beam Only

(bar information only)

### Table: Bar List

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<thead>
<tr>
<th>Bar</th>
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<th>Size</th>
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<th>Shape</th>
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<td>3'-11''</td>
<td></td>
</tr>
<tr>
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<td></td>
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<td>U(E)</td>
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<td>10''</td>
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</table>

Notes:

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 0.653 in. and the nominal cross-sectional area shall be 0.153 sq. in.

Two 5/8'' fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 25/32'' lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Two 11/16'' fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

Expansion bearing pad shall be bonded to the substructure.

Lifting Loop Detail

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
PLAN VIEW

SECTION A-A

SECTION B-B

VIEW C-C

FACE OF OUTSIDE BEAMS

EXPANSION BEARING PAD

FABRIC BEARING PAD

BAR LIST

LIFTING LOOP DETAIL

NOTES

BILLET OF MATERIAL

PD-1152-R
PLAN VIEW

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragm to miss the block outs for the transverse ties.

MINIMUM BAR LAP
- #4 bar * 1'-6"
- #5 bar * 2'-6"

BAR LIST

ONE BEAM ONLY

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<thead>
<tr>
<th>Bar</th>
<th>#</th>
<th>Size</th>
<th>Length</th>
</tr>
</thead>
</table>
| 4(E) | #4 | #4 | 2'-6"
| 5(E) | #5 | #5 | 2'-6"
| 6(E) | #6 | #6 | 2'-6"

Note: See sheet # for additional details and Bill of Material.
Expansion bearing pad shall be bonded to the substructure. Omit holes when using expansion bearings. All bearing pads shall be 1" thick.

Notes:

- Use 3" fabric adjusting shims of the dimensions of the exterior bearing pad.
- One set of transverse tie assembly shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
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- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
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- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
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- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
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- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
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- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
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- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing concrete at release, $f'_{ci}$, shall be 5000 psi.
- Prestressing concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Three 3" lifting loops shall be provided for each bearing pad location.
- A minimum 0.4" lifting pin shall be used to engage the lifting loops during handling.
**PLAN VIEW**

- #4 S(E) bars, bottom
- #4 S(E) bars, top

**SECTION A-A**

- 1'-6''
- 3 spaces at 6'' = 9''

**SECTION B-B**

- #4 S(E) bars, bottom
- #4 S(E) bars, top

**SECTION B-B**

- #4 A(E) bars at 3'-0'' cts., top
- #4 S(E) and S(E)
- 1-#4 U(E) bar

**BAR LIST**

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<tr>
<th>Bar No.</th>
<th>Size</th>
<th>Length</th>
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<td>A</td>
<td>#4</td>
<td>5'-9''</td>
</tr>
<tr>
<td>B</td>
<td>#5</td>
<td>5''-9''</td>
</tr>
<tr>
<td>C</td>
<td>#4</td>
<td>5'-9''</td>
</tr>
</tbody>
</table>

**MINIMUM BAR LAP**

#4 bar = 1'-11''
#5 bar = 2'-6''

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**SECTION A-A**

- 1'-6''
- 3 spaces at 6'' = 9''

**PLAN VIEW**

- #4 S(E) bars, bottom
- #4 S(E) bars, top

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4'' in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse tas.
TYPICAL TRANSVERSE TIE ASSEMBLY

NOTES:
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 0.625" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" holes in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 5/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- Expansion bearing pads shall be bonded to the substructure.
- Omit holes when using expansion bearings.
- All bearing pads shall be 1" thick.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of precast prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'_ci, shall be 5000 psi.
PLAN VIEW

SECTION A-A

SECTION B-B

VIEW C-C

Bar List

One Beam Only

Bar List

One Beam Only

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to pass the block cuts for the Transverse ties.

Minimum Bar Lap

#4 bar * 1'-11"

#6 bar * 2'-6"

Note: See sheet of for additional details and Bill of Materials.
Notes:

- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

TYPICAL TRANSVERSE TIE ASSEMBLY

- Prestressing sheet shall be uncoated high strength, low relaxation 7-wire strand. Grade 270.
- The nominal diameter shall be 5/8" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be sealed with sealant after transverse tie assembly is in place.
- Two 5/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 1/2" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion inhibitors, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- Compressive strength of precast prestressed concrete deck beams, F_c', shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

FABRIC BEARING PAD

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand. Grade 270.
- The nominal diameter shall be 5/8" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be sealed with sealant after transverse tie assembly is in place.
- Two 5/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 1/2" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion inhibitors, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- Compressive strength of precast prestressed concrete deck beams, F_c', shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
PLAN VIEW

SECTION A-A

5-#5 S(E) bars, Top
3-#4 S(E) bars, Bottom
1' - 3 spaces at 6'' = 9'' ~ 1'-6''

SECTION B-B

MINIMUM BAR LAP

#4 bar = 2' - 6''

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR LIST

ONE BEAM ONLY

(CapITALIZATION AND LAYOUT MAY VARY)
**EXPANSION BEARING PADS**

**FABRIC BEARING PAD (INTERIOR)**

**FABRIC BEARING PAD (EXTERIOR)**

**FIXED**

*Notes:*
- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

**SECTION A-A**

**TYPICAL TRANSVERSE TIE ASSEMBLY**

- 4" Grade 270 Prestressing Strand
- Length each end: 4'
- 1" x 3'-10" Rods for each end
- 3" Transverse Tie Configuration

**NOTES**

- Prestressing strand shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.03 in.
- The 1/2" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Prodents on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 3/4" lifting pins shall be used to engage the lifting loops during handling.
- A minimum 3/4" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.
PLAN VIEW

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie discontinuity to ease the bending of the transverse ties.

PLAN VIEW

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie discontinuity to ease the bending of the transverse ties.

MINIMUM BAR LAP

#5 bar = 2'-6"

Section B-B

(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP

#5 bar = 2'-6"

Bar List

One Beam Only

Note: See sheet 3 for additional details and Bill of Materials.
FABRIC BEARING PAD

FIXED

Notes:
- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pads shall be bonded to the substructure.

SECTION A-A

TYPICAL TRANSVERSE TIE ASSEMBLY

Notes:
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 1/4" and the nominal cross-sectional area shall be 0.153 sq. in.
- Prestressing steel shall be used in the concrete for precast prestressed concrete deck beams.
- 2" x 4" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 5000 psi.
- Compressive strength of precast prestressed concrete of reasons, f'c, shall be 5000 psi.

PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.
**NOTE:** See sheet of for additional details and Bill of Materials.

**MINIMUM BAR LAP**

- #4 bar * 1'-11"
- #5 bar * 2'-6"

**PLAN VIEW**

- Spacing of #4 and #5 bars may be adjusted up to 4" in the immediate area of the transverse tie displacements to miss the block out for the transverse ties.

**SECTION A-A**

**SECTION B-B**

- Lifting loops of lift 60° min. angle
- 3'-10" spaces at 6" cts., Bottom of Top slab

**VIEW C-C**

- Similar bars are to be placed symmetrically about the centerline of beam in the permissible strand locations shown.

**BAR LIST**

- For information only

**TABLE**

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<td>B (E)</td>
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<td>C (E)</td>
<td>#6</td>
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<td>D (E)</td>
<td>#5</td>
</tr>
<tr>
<td>S (E)</td>
<td>#5</td>
</tr>
<tr>
<td>U (E)</td>
<td>#5</td>
</tr>
</tbody>
</table>

**MINIMUM BAR LAP**

- #4 bar * 1'-11"
- #5 bar * 2'-6"
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

shall be used in the concrete for precast prestressed concrete deck beams.

The 1'' rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two 1/2'' fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 3/8'' lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 3/8'' and the nominal cross-sectional area shall be 0.153 sq. in. 0.153 sq. in.

The 1'' rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two 1/2'' fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 3/8'' lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 3/8'' and the nominal cross-sectional area shall be 0.153 sq. in. 0.153 sq. in.

Notes: Connect beams in pairs with the transverse tie configuration shown.

Note: Connect beams in pairs with the transverse tie configuration shown.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 3/8'' and the nominal cross-sectional area shall be 0.153 sq. in. 0.153 sq. in.

The 1'' rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two 1/2'' fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 3/8'' lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 3/8'' and the nominal cross-sectional area shall be 0.153 sq. in. 0.153 sq. in.

The 1'' rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two 1/2'' fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 3/8'' lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 3/8'' and the nominal cross-sectional area shall be 0.153 sq. in. 0.153 sq. in.

The 1'' rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two 1/2'' fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 3/8'' lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 3/8'' and the nominal cross-sectional area shall be 0.153 sq. in. 0.153 sq. in.

The 1'' rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two 1/2'' fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 3/8'' lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.
PLAN VIEW

Note. Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid interference with the transverse ties.

MINIMUM BAR LAP

#4 bar at 1-0"
#5 bar at 2-0"

SECTION A-A

SECTION B-B

(Showing dimensions)

SECTION B-B

(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST

One Beam Only

(For information only)

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid interference with the transverse ties.

MINIMUM BAR LAP

#4 bar at 1-0"
#5 bar at 2-0"

Note: See sheet for additional details and bill of materials.
Expansion bearing pads shall be bonded to the substructure. Omit holes when using expansion bearings. All bearing pads shall be 1" thick. Notes:

- A minimum 2" lifting pin shall be used to engage the lifting loops during handling.
- Two 5/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 5/16" and the nominal cross-sectional area shall be 0.153 sq. in.
- Prestressing steel shall be used in the concrete for precast prestressed concrete deck beams. A minimum 21' Radius Sill shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of precast prestressed concrete deck beams, f'c, shall be 5000 psi.

EXPANSION BEARING PAD

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 5/16" and the nominal cross-sectional area shall be 0.153 sq. in.
- Prestressing steel shall be used in the concrete for precast prestressed concrete deck beams. A minimum 21' Radius Sill shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of precast prestressed concrete deck beams, f'c, shall be 5000 psi.

PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.
PLAN VIEW

SECTION A-A

SECTION B-B

VIEW C-C

BAR LIST

MINIMUM BAR LAP

Notes:
- Spacing of S(E) and S(E) bars may be adjusted as needed.
- Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.
- Omit key on exterior face of outside beams.
- Beams are bent and cut to fit as needed.
- Fan S(E) bars, top. Cut to fit.
- Fan S(E) bars, bottom. Cut to fit.
- 36'' 
- 21'' 
- 3 6'' 
- 1 21'' 
- 2 3 6'' 
- 3 3 6'' 
- 4 3 6'' 
- 5 3 6'' 
- 6 3 6'' 
- 7 3 6'' 
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- 90 3 6'' 
- 91 3 6'' 
- 92 3 6'' 
- 93 3 6'' 
- 94 3 6'' 
- 95 3 6'' 
- 96 3 6'' 
- 97 3 6'' 
- 98 3 6'' 
- 99 3 6'' 
- 100 3 6''
Pre-stressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

Expansion bearing pad shall be bonded to the substructure.

All bearing pads shall be 1" thick.

Expansion bearing pad shall be bonded to the substructure.

Notes:

- At bearing pads shall be 1" thick.
- Drift holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

Fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be used in the concrete for precast prestressed concrete deck beams.

The nominal diameter shall be 1" and the nominal cross-sectional area shall be 0.153 sq. in.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 1" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be used in the concrete for precast prestressed concrete deck beams.

The nominal diameter shall be 1" and the nominal cross-sectional area shall be 0.153 sq. in.

Notes:

Connect beams in pairs with the transverse tie configuration shown.

Compression Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of pre-stressed concrete, f'pc, shall be 6000 psi.

Compressive strength of pre-stressed concrete, f'pc, shall be 5000 psi.

Precasting strength of pre-stressed concrete, f'pc, shall be 5000 psi.

Expansion bearing pad shall be bonded to the substructure.

Notes:

At bearing pads shall be 1" thick.

Expansion bearing pad shall be bonded to the substructure.

All bearing pads shall be 1" thick.

Expansion bearing pad shall be bonded to the substructure.

Two 1-1/2" lifting pins shall be used to engage the lifting loops during handling.

Compression Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of pre-stressed concrete, f'pc, shall be 6000 psi.

Compressive strength of pre-stressed concrete, f'pc, shall be 5000 psi.

Expansion bearing pad shall be bonded to the substructure.

Notes:

At bearing pads shall be 1" thick.

Expansion bearing pad shall be bonded to the substructure.

All bearing pads shall be 1" thick.

Expansion bearing pad shall be bonded to the substructure.

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Compressive strength of pre-stressed concrete, f'pc, shall be 6000 psi.

Compressive strength of pre-stressed concrete, f'pc, shall be 5000 psi.

Expansion bearing pad shall be bonded to the substructure.

Notes:

At bearing pads shall be 1" thick.

Expansion bearing pad shall be bonded to the substructure.

All bearing pads shall be 1" thick.

Expansion bearing pad shall be bonded to the substructure.

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Compressive strength of pre-stressed concrete, f'pc, shall be 6000 psi.

Compressive strength of pre-stressed concrete, f'pc, shall be 5000 psi.

Expansion bearing pad shall be bonded to the substructure.

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Expansion bearing pad shall be bonded to the substructure.

All bearing pads shall be 1" thick.

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Compressive strength of pre-stressed concrete, f'pc, shall be 5000 psi.

Expansion bearing pad shall be bonded to the substructure.

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Expansion bearing pad shall be bonded to the substructure.

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Compressive strength of pre-stressed concrete, f'pc, shall be 5000 psi.

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Expansion bearing pad shall be bonded to the substructure.

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Expansion bearing pad shall be bonded to the substructure.

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Expansion bearing pad shall be bonded to the substructure.

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Compressive strength of pre-stressed concrete, f'pc, shall be 5000 psi.

Expansion bearing pad shall be bonded to the substructure.

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Compressive strength of pre-stressed concrete, f'pc, shall be 6000 psi.

Compressive strength of pre-stressed concrete, f'pc, shall be 5000 psi.
PLAN VIEW

SECTION A-A

End to end beam

SECTION B-B

Function reinforcement and permissible strand locations shown.

MINIMUM BAR LAP

#5 bar = 2'-6"

Bar List

[Table]

PD-2136-R

05-01-16

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

21" x 36" PPC DECK BEAM

STRUCTURE NO.
Expansion bearing pads shall be 1" thick.

Expansion bearing pad shall be bonded to the substructure.

3" } Hole for transverse tie configuration shown.

All bearing pads shall be 1" thick.

E 3" # holes for transverse tie assemblies

Note: Connect beams in pairs with the transverse tie configuration shown.

Each end

Expansion bearing pad shall be 1" thick.

1" } Rods at fixed ends only

Expansion bearing pad shall be bonded to the substructure.

Not for 1" # Rods - required

Expansion bearing pad shall be bonded to the substructure.

Expansion bearing pad shall be bonded to the substructure.

3" } Opening - required

Expansion bearing pad shall be bonded to the substructure.

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Expansion bearing pad shall be bonded to the substructure.
NOTE: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse ties to pass the block outs for the transverse ties.  

MINIMUM BAR LAP (For information only)  

Bar No. | Size | Length | Description  
--- | --- | --- | ---  
#4 | #4 | 1'-11" | Bar  
#5 | #5 | 2'-6" | Bar  
#4 | #4 | 2'-8" | Bar  
#4 | #4 | 3'-0" | Bar  
#4 | #4 | 3'-2" | Bar  
#4 | #4 | 3'-5" | Bar  
#4 | #4 | 4'-0" | Bar  
#4 | #4 | 4'-4" | Bar  

Notes: See sheet of for additional details and bill of materials.
**NOTES**

Prestressing steel shall be uncoated high-strength, low-relaxation 7-wire strand, Grade 270. The nominal diameter shall be 3/8" and the nominal cross-sectional area shall be 0.153 sq. in.

The 3/8" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridges shall be filled with grout after transverse tie assembly is in place.

Two 3/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

Expansion bearing pads shall be bonded to the substructure. Omit holes when using expansion bearings. All bearing pads shall be 1" thick.

The 1"-6' lifting pin shall be used to engage the lifting loops during handling. Corrosion inhibitors, per Article 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'_c, shall be 5000 psi. Compressive strength of prestressed concrete at release, f'_c', shall be 6000 psi.

**BILL OF MATERIAL**

Precast Prestressed Concrete Deck Beam, 21" Depth: 585 ft

**STATE OF ILLINOIS**
DEPARTMENT OF TRANSPORTATION
PLAN VIEW

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4' in the immediate area of the transverse tie. The diagrams to miss the block outs for the transverse ties.

MINIMUM BAR LAP

#5 bar • 2'-6''

BAR LIST

<table>
<thead>
<tr>
<th>Code</th>
<th>No.</th>
<th>Size</th>
<th>Length</th>
<th>Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(E)</td>
<td>2</td>
<td>#4</td>
<td>3'-0''</td>
<td></td>
</tr>
<tr>
<td>S(E)</td>
<td>2</td>
<td>#4</td>
<td>3'-0''</td>
<td></td>
</tr>
<tr>
<td>B(E)</td>
<td>3</td>
<td>#5</td>
<td>1'-0''</td>
<td></td>
</tr>
</tbody>
</table>

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

Note: See sheet for additional details and Bill of Materials.

SECTION A-A

SECTION B-B

SECTION C-C

VIEW C-C

ONE BEAM ONLY

DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS

STRUCTURE NO. 21'' x 48'' PPC DECK BEAM

PD-2148-L
1. **NOTES**

   **Fabric Bearing Pad**
   
   Notes:
   - All bearing pads shall be 1" thick.
   - Drill holes when using expansion bearings.
   - Expansion bearing shall be bonded to the substructure.

   **Plan View**
   
   Note: Connect beams in pairs with the transverse tie configuration shown.

   **Fabric Bearing Pad**

   **Fixed**

   **Section A-A**

   **Typical Transverse Tie Assembly**

   **Lifting Loop Detail**

   **Notes**
   
   Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
   
   The nominal diameter shall be 5/8" and the nominal cross-sectional area shall be 0.153 sq. in.
   
   The 1/2" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

   Two 3/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad position.

   A minimum 2½" lifting pin shall be used to engage the lifting loops during handling.

   Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

   Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

   Compressive strength of prestressed concrete of release, f'ci, shall be 5000 psi.
PLAN VIEW

Note: Spacing of S(E) and S(E) bars may be adjusted up to 9" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

MINIMUM BAR LAP

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST

Note: See sheet of Bill of Materials,

For information only

STRUCTURE NO.

MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"

PLAN VIEW
**NOTES**

- **Compressive strength of prestressed concrete at release**, \( f'_{ci} \), **shall be 5000 psi.**
- **Compressive strength of prestressed concrete**, \( f'_{c} \), **shall be 6000 psi.**
- Use **corrosion inhibitor**, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications.
- A minimum 2\(\) lifting pin shall be used to engage the lifting loops during handling.
- The 1\(\) rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be used in the concrete for precast prestressed concrete deck beams.
- The nominal diameter shall be 2\(\) and the nominal cross-sectional area shall be 0.153 sq. in.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The 1\(\) rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be used in the concrete for precast prestressed concrete deck beams.
- The compressive strength of prestressed concrete, \( f'_{c} \), shall be 6000 psi.
- The compressive strength of un prestressed concrete of release, 1\(\), shall be 5000 psi.
- Two 2\(\) fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- Two \(\) fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- Two \(\) fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- Two \(\) fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- Two \(\) fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

**BILL OF MATERIAL**

- **Prestressed Concrete Deck Beams (21\(\) depth)**
- **Precast Prestressed**
- **Concrete, Deck Beams, 21\(\) depth**
- **Sq. Ft.**
PLAN VIEW

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4'' in the immediate area of the transverse tie by decreasing the 3 spaces at 6'' = 9'' to 3 spaces at 6'' = 5''.

MINIMUM BAR LAP

#4 bar - 3'-10''
#5 bar - 2'-6''

SECTION B-B

(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

SHEET NO. 1

BAR LIST

One Beam Only

<table>
<thead>
<tr>
<th>Bar No.</th>
<th>Size</th>
<th>Length</th>
<th>Strand</th>
</tr>
</thead>
<tbody>
<tr>
<td>#4</td>
<td>#4</td>
<td>3'-10''</td>
<td></td>
</tr>
<tr>
<td>#5</td>
<td>#5</td>
<td>2'-6''</td>
<td></td>
</tr>
</tbody>
</table>

Note: See sheet of for additional details and Bill of Materials.
Notes:

- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.

Expansion bearing pads shall be bonded to the substructure. 

**FABRIC BEARING PAD**

**FIXED**

**BAR S(E)**

**BAR U(E)**

**SECTION A-A**

**TYPICAL TRANSVERSE TIE ASSEMBLY**

**PLAN VIEW**

**LIFTING LOOP DETAIL**

**BILL OF MATERIAL**

**NOTES**

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 0.75" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 3" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 0.5" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.
PLAN VIEW

MINIMUM BAR LAP

Notes:
- Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragm to miss the block outs for the transverse ties.
- Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.
- Omit key on exterior face of outside beams.
- Note: See sheed for additional details and bill of materials.

Bar List

<table>
<thead>
<tr>
<th>Bar No.</th>
<th>Size</th>
<th>Length</th>
<th>Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(E)</td>
<td>#4</td>
<td>2'-10''</td>
<td></td>
</tr>
<tr>
<td>B(E)</td>
<td>#4</td>
<td>2'-10''</td>
<td></td>
</tr>
<tr>
<td>S(E)</td>
<td>#4</td>
<td>2'-10''</td>
<td></td>
</tr>
<tr>
<td>S(E)</td>
<td>#4</td>
<td>2'-10''</td>
<td></td>
</tr>
<tr>
<td>U(E)</td>
<td>#5</td>
<td>2'-10''</td>
<td></td>
</tr>
<tr>
<td>U(E)</td>
<td>#5</td>
<td>2'-10''</td>
<td></td>
</tr>
</tbody>
</table>

Notation:
- B(E) = Bottom of Top slab
- S(E) = S (E) bars
- U(E) = U (E) bars

SECTION A-A

SECTION B-B

SECTION C-C

VIEW C-C
Notes:
- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

Notes:
- Connect beams in pairs with the transverse tie configuration shown.

**TYPICAL TRANSVERSE TIE ASSEMBLY**

- The 1" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads set.
- Transverse tie configuration shown.
- The nominal diameter shall be 3/8" and the nominal cross-sectional area shall be 0.153 sq. in.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing steel shall be used in the concrete for precast prestressed concrete deck beams.
- Expansion bearing pad shall be bonded to the substructure.
- All bearing pads shall be 1" thick.

**NOTES**

- Compressive strength of prestressed concrete at release, $f'_{ci}$, shall be 5000 psi.
- Compressive strength of prestressed concrete, $f'_{c}$, shall be 6000 psi.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Steel for expansion bearings shall be 6061-T6.
- The 1" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads set.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Prestressing steel shall be used in the concrete for precast prestressed concrete deck beams.
- Expansion bearing pad shall be bonded to the substructure.
- All bearing pads shall be 1" thick.

**BILL OF MATERIAL**

- Prestressed Concrete Deck, Grade 30, 27" depth, 270 ksi strands.
- Minimum 25' # lifting pin shall be used to engage the lifting loops during handling.

**LIFTING LOOP DETAIL**

- Foot of Beam
- Transverse Tie Assembly
- Lifting Loops
- Expansion Bearing Pad

**PLAN VIEW**

- Lifting Loops
- Expansion Bearing Pad
- Exterior View

**SECTION A-A**

- TYPICAL TRANSVERSE TIE ASSEMBLY
- Transverse Tie Assembly
- Expansion Bearing Pad
- Lifting Loops
A minimum 2" x 2" lifting pin shall be used to engage the lifting loops during handling. Two “3" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

Compressive strength of prestressed concrete, f_c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'_c, shall be 5000 psi.

The nominal diameter shall be 5⁄8" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be flush with the top of the beam.

The 1" rods shall be placed at the top of the beam or at the edge of the beam.

Two "3" rods at fixed ends only.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

Notes:

- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pads shall be bonded to the substructure.

Lifting pin - required

Washer - required

Coupling nut

PD-2736-RD

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

27" x 36" PPC DECK BEAM DETAILS

STRUCTURE NO.

FILE NAME = USER NAME

PLOT SCALE =
PLOT DATE =
CHECKED =
DRAWN =
CHECKED =
REVISED =
DEPARTMENT OF TRANSPORTATION
STATE OF ILLINOIS
F.A.
RTE.
SECTION
COUNTY
CONTRACT NO.
TOTAL SHEETS
SHEET NO.
SHEETS
SHEET

NOTES

Prestressed concrete shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 5⁄8" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" rod in the transverse tie assembly shall be tightened to a snug fit and the threads shall be flush with the top of the beam.

Two "3" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2" x 2" lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of prestressed concrete, f_c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'_c, shall be 5000 psi.

The nominal diameter shall be 5⁄8" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be flush with the top of the beam.

Two "3" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2" x 2" lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of prestressed concrete, f_c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'_c, shall be 5000 psi.

The nominal diameter shall be 5⁄8" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be flush with the top of the beam.

Two "3" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2" x 2" lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of prestressed concrete, f_c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'_c, shall be 5000 psi.
PLAN VIEW

SECTION A-A

SECTION B-B

VIEW C-C

BAR LIST

(Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.)

MINIMUM BAR LAP

Notes:
- Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the back outs for the transverse ties.
- Symmetrical about the centerline of beam in the permissible strand locations shown.

<table>
<thead>
<tr>
<th>Bar No.</th>
<th>Size</th>
<th>Length</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>#4</td>
<td>#4</td>
<td>3'-10&quot;</td>
<td></td>
</tr>
<tr>
<td>#4</td>
<td>#4</td>
<td>3'-45&quot;</td>
<td></td>
</tr>
<tr>
<td>#5</td>
<td>#5</td>
<td>2'-5&quot;</td>
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<tr>
<td>#5</td>
<td>#5</td>
<td>6'-11&quot;</td>
<td></td>
</tr>
<tr>
<td>#5</td>
<td>#5</td>
<td>5'-10&quot;</td>
<td></td>
</tr>
<tr>
<td>#5</td>
<td>#5</td>
<td>4'-5&quot;</td>
<td></td>
</tr>
</tbody>
</table>

(Note: See sheet of for additional details and Bill of Material.)
NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 1/4" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1/4" nuts in the transverse tie assembly shall be tightened to a snug fit and the threads shall be used in the concrete for precast prestressed concrete deck beams.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- A minimum 5/8" lifting pin shall be used to engage the lifting loops during handling.
- The compressive strength of prestressed concrete, f'c, shall be 5000 psi.
- The compressive strength of prestressed concrete at release, f'ci, shall be 6000 psi.
- Expansion bearing pad shall be bonded to the substructure. Omit holes when using expansion bearings.
- 2"-6" # lifting pin shall be used to engage the lifting loops during handling.
- Pocket on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Pocket on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 5/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
PLAN VIEW

Notes:

- Spacing of S(E) and S'(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the beam cuts for the transverse ties.
- Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.
- Omit key on exterior face of outside beams.

MINIMUM BAR LAP

#4 bars = 1'-11"
#5 bars = 2'-6"

VIEW C-C

MINIMUM BAR LAP

#4 bars = 1'-11"
#5 bars = 2'-6"

SECTION A-A

SECTION B-B

(SHOWING DIMENSIONS)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST

FOR INFORMATION ONLY

Note: Omit key on exterior face of outside beams.

Note: See sheet  for additional details and Bill of Material.
Bar S (E) 2'-0"

Bar S (E) 3'-7"

Bar S (E) 10"'

Bar S (E) 1'-5"

Bar S (E) 3'

Bar S (E) 1'

Bar S (E) 1'-3"

Bar U (E) 3'-6"

Bar U (E) 1'-3"

Bar U (E) 1'-1"

Bar U (E) 10"

Bar S (E) 1'-8"

Bar S (E) 1'-3"

Bar S (E) 2'

Bar U (E) 1'-3"

Notes:

- All bearing pads shall be 1" thick.
- Grid holes when using expansion bearings. Expansion bearing pad shall be bonded to the substructure.

SECTION A-A

TYPICAL TRANSVERSE TIE ASSEMBLY

Notes:

- Prestressing steel shall be uncoated high-strength, low-relaxation 7-wire strand, Grade 270.
- The nominal cross-sectional area shall be 0.55 sq. in., 0.55 sq. in.
- The 1" rod in the transverse tie assembly shall be tightened to a snug fit and the threads shall be filled with grout after transverse tie assembly is in place.
- Two 1/2" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f_c', shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f_c', shall be 5000 psi.

Bar S (E) 3'

Bar S (E) 1'

Bar S (E) 1'-8"

Bar S (E) 1'-3"

Bar S (E) 2'

Bar U (E) 1'-3"

Bill of Material

Precast Prestressed

Concrete Beam: 27" x 48" PRECAST CONCRETE BEAM DETAILS

Structure No.

DEPARTMENT OF TRANSPORTATION

FILE NAME = USER NAME

PLOT SCALE

PLOT DATE

CHECKED

DRAWN

CHECKED

DESIGNED

REVISED

REVISED

REVISED

DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS

TOTAL SHEETS

SHEET NO.

CONTRACT NO.

COUNTY

TOTAL SHEETS

SHEET NO.

CONTRACT NO.

COUNTY

27" x 48" PPC DECK BEAM DETAILS

LENGTH

WIDTH

HEIGHT

WIDTH

HEIGHT

LENGTH

8" x 8" x 27"

8" x 8" x 48"

8" x 8" x 27"

8" x 8" x 48"

8" x 8" x 27"

8" x 8" x 48"

8" x 8" x 27"

8" x 8" x 48"

8" x 8" x 27"

8" x 8" x 48"

8" x 8" x 27"

8" x 8" x 48"

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8" x 8" x 48"

8" x 8" x 27"

8" x 8" x 48"

8" x 8" x 27"

8" x 8" x 48"

8" x 8" x 27"

8" x 8" x 48"
PLAN VIEW

Note: Spacing of SEI and S(EI) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse tie.

MINIMUM BAR LAP

#5 bar • 8'-6"

SECTION A-A

SECTION B-B

Sectional View (Showing dimensions)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST

For information only

One Beam Only

Note: See sheet for additional details and BIM of Materials.

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

27" x 48" PPC DECK BEAM

STRUCTURE NO.

FILE NAME

PD-2748-R

06-01-16

REVISED

DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS

F. A. R. T. E.

SECTION

CONTRACT NO.

TOTAL

SHEETS

SHEET

PLOT SCALE

PLOT DATE

CHECKED

DRAWN

CHECKED

DESIGNED

REVISED

REVISED

REVISED

REVISED

DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS

F. A. R. T. E.

SECTION

CONTRACT NO.

TOTAL

SHEETS

SHEET

PLOT SCALE

PLOT DATE

CHECKED

DRAWN

CHECKED

DESIGNED

REVISED

REVISED

REVISED

REVISED
Expansion bearing pad shall be bonded to the substructure.

Omit holes when using expansion bearings.

All bearing pads shall be 1" thick.

Notes:
- All bearing pads shall be 1" thick.
- Drift holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

**Notes:**
- Compressive strength of prestressed concrete at release, $f_{ci}$, shall be 5000 psi.
- Compressive strength of prestressed concrete, $f_{c}$, shall be 6000 psi.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{3}{16}$" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be used in the concrete for precast prestressed concrete deck beams.
- Two $\frac{3}{16}$" lifting pins shall be used to engage the lifting loops during handling.
- A minimum $\frac{3}{16}$" # lifting pin shall be used to engage the lifting loops during handling.
- Drift holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

**Notes:**
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- A minimum $\frac{3}{16}$" lifting pin shall be used to engage the lifting loops during handling.
- Drift holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

**Notes:**
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{3}{16}$" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads shall be used in the concrete for precast prestressed concrete deck beams.
- Two $\frac{3}{16}$" lifting pins shall be used to engage the lifting loops during handling.
- A minimum $\frac{3}{16}$" # lifting pin shall be used to engage the lifting loops during handling.
- Drift holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.
**PLAN VIEW**

**SECTION A-A**

- Symmetrical about the centerline of beam in the immediate area of the transverse ties, to miss the block outs for the transverse ties.
- Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse ties to miss the block outs for the transverse ties.

- #4 A(E) bars at 1'-6" cts., bottom of top slab
- #4 S(E) bars at 3'-0" cts., top
- #4 S(E) bars at 9" cts., top
- #4 A(E) bars at 9" cts., bottom

**SECTION B-B**

- (Showing reinforcement and permissible strand locations)
- Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.
- #5 bar = 2'-6"
- #4 bar = 1'-11"

**MINIMUM BAR LAP**

- *5 bar = 2'-6"

**BAR LIST**

<table>
<thead>
<tr>
<th>Bar</th>
<th>No.</th>
<th>Size</th>
<th>Length</th>
<th>Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(E)</td>
<td>#4</td>
<td>#6</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>B(E)</td>
<td>#5</td>
<td>#6</td>
<td>10'-0&quot;</td>
<td></td>
</tr>
<tr>
<td>B(E)</td>
<td>#6</td>
<td>#6</td>
<td>9'-0&quot;</td>
<td></td>
</tr>
<tr>
<td>S(E)</td>
<td>#6</td>
<td>#6</td>
<td>8'-0&quot;</td>
<td></td>
</tr>
<tr>
<td>S(E)</td>
<td>#6</td>
<td>#6</td>
<td>6'-0&quot;</td>
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<tr>
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<td>#6</td>
<td>#6</td>
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<td>#6</td>
<td>6'-0&quot;</td>
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<td>6'-0&quot;</td>
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<td>S(E)</td>
<td>#6</td>
<td>#6</td>
<td>6'-0&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Note: See sheet of for additional details and Bill of Materials.

**VIEW C-C**

**SECTION B-B**

- (Showing dimensions)
- Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse ties, to miss the block outs for the transverse ties.

- #4 A(E) bars at 1'-6" cts., bottom of top slab
- #4 S(E) bars at 3'-0" cts., top
- #4 S(E) bars at 9" cts., top
- #4 A(E) bars at 9" cts., bottom of top slab
Notes:
- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

Plan View

Not connected beams in pairs with the 3" Holes exterior transverse tie configuration shown.

Section A-A

Typical Transverse Tie Assembly

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 3/8" and the nominal cross-sectional area shall be 0.153 sq. in. The 3/8" rods in the transverse tie assembly shall be tightened to snug fit and the threads cut. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two 1" Fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2 1/2" x 4" lifting pin shall be used to engage the lifting loops during handling.

Compression will be used in the concrete for prestressed concrete deck beams. Compression strength of prestressed concrete, f', shall be 6000 psi. Compressive strength of precast prestressed concrete deck beams shall be 5000 psi.
Plan View

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragm to miss the blockouts for the transverse ties. Symmetrically about the centerline of beam in the transverse tie diaphragms to miss the blockouts for the transverse ties.

Section A-A

Section B-B

Section C-C

Bar List

One Beam Only

For information only

Note: See sheet of for additional details and SIs of material.

Minimum Bar Lap

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

Beg - End beam

Bar List

For information only

Note: See sheet of for additional details and SIs of material.
Notes:

1. All bearing pads shall be 1" thick.
2. Omit holes when using expansion bearings.
3. Expansion bearing pad shall be bonded to the substructure.

**NOTES**

**SECTION A-A**

**PLAN VIEW**

**FABRIC BEARING PAD** (Interior)

**FABRIC BEARING PAD** (Exterior)

**TYPICAL TRANSVERSE TIE ASSEMBLY**

**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 6-m and the nominal cross-sectional area shall be 0.315 sq. in. The 6-m rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two 1" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2" lifting pin shall be used to engage the lifting loops during handling.

Corrosion inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

**BILL OF MATERIAL**

**COMPRESSIVE STRENGTH OF Prestressed Concrete**

270 ksi strands

**CONCRETE**

**33" x 36" PPC DECK BEAM DETAILS**

**STATE OF ILLINOIS**

**DEPARTMENT OF TRANSPORTATION**

**COMMENTS:**

PCD-3336-LD

**FILE NAME**

**USER NAME**

**PLOT SCALE**

**PLOT DATE**

**CHECKED**

**DRAWN**

**REVISED**

**DESIGNED**

DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS

F.A.

RTE.

SECTION

COUNTY

CONTRACT NO.

TOTAL SHEETS

SHEET NO.

ILLINOIS FED. AID PROJECT
PLAN VIEW

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diagonal rebar to miss the blocks out for the transverse ties.

SECTION A-A

SECTION B-B

MINIMUM BAR LAP

#4 bar = 1'-11''

ONE BEAM ONLY

BAR LIST

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FILE NAME: USER NAME:

REVISED:

SHEETS:

SHEET:

CONTRACT NO.

REVISED:

DEPARTMENT OF TRANSPORTATION
STATE OF ILLINOIS
F.A.
RTE.
SECTION
COUNTY
TOTAL
SHEETS
SHEET

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

Note: See sheet 2 of 4 for additional details and BOR of Waterfall.

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diagonal rebar to miss the blocks out for the transverse ties.
Fabric Bearing Pad

Fixed

Notes:
- All bearing pads shall be 1" thick.
- Gasket used when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

Plan View

Typical Transverse Tie Assembly

Notes:
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 5/8" and the minimum cross-sectional area shall be 3.853 sq. in.
- The 5/8" rods in the transverse tie assembly shall be tightened to a snug fit and the threads cut. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 1/2" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 1 1/4" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- The nominal diameter shall be 5/8" and the nominal cross-sectional area shall be 0.153 sq. in.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Prestressed concrete shall be used in the concrete for precast prestressed concrete deck beams.
- Expansion bearing pad shall be bonded to the substructure.
- Polymer strip shall be used between the expansion bearings and the substructure when the expansion bearings are used.
- Omit holes when using expansion bearings.
- All bearing pads shall be 1" thick.
- Lifting loop details shall be used in the concrete for prestressed concrete deck beams.
PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

SECTION A-A

TYPICAL TRANSVERSE TIE ASSEMBLY

NOTES

Precast Prestressed
Compressive strength of prestressed concrete, f'p, shall be 5000 psi.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Expansion bearing pad shall be bonded to the substructure.
Omit holes when using expansion bearings.
All bearing pads shall be 1" thick.

The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
The 2" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads set.
Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Two 2½" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2½" lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed prestressed concrete deck beams.

Notes:

PD-3348-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
33' x 48" PPC DECK BEAM DETAILS
STRUCTURE NO.

FILE NAME = USER NAME

PLOT DATE = CHECKED = DRAWN = CHECKED = DESIGNED = REVISED =

DEPARTMENT OF TRANSPORTATION
F.A.
RTE.
SECTION
COUNTY
CONTRACT NO.
TOTAL SHEETS
SHEET NO.

BILL OF MATERIAL
**PLAN VIEW**

- 3-#4 U(E) bars
- 9'' spacing at 6'' centers
- 60° minimum angle lifting loop
- U (E) bars

**SECTION A-A**

- 5-#4 S(E) bars, bottom
- 5-#4 S(E) bars, top
- 4 spaces of 3'' centers
- #4 A(E) bars at 1'-6'' centers, bottom of top slab
- #4 A(E) bars at 3'-0'' centers, top

**SECTION B-B**

(Specifying dimensions)

- 5-#4 S(E) bars, bottom
- 5-#4 S(E) bars, top
- 10'-0'' minimum bar lap
- #5 bar = 2'-6''
- #4 bar = 1'-11''

**MINIMUM BAR LAP**

- #5 bar = 2'-6''
- #4 bar = 1'-11''

**BAR LIST**

- (For information only)

**VIEW C-C**

- U(E) bars
- S(E) bars
- Note: See sheet of for additional details and Bill of Material.

**NOTE:**

- Strap bars may be adjusted up to 4'' in the immediate area of the transverse fan to fit within the block outs for transverse fans.
FABRIC BEARING PAD

Noted
All bearing pads shall be 2" thick.
Note: when using expansion bearing, - 3" radius shall be glued to the substructure.

SECTION A-A

TYPICAL TRANSVERSE TIE ASSEMBLY

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
The nominal diameter shall be 5/8" and the nominal cross-sectional area shall be 0.153 sq. in.
The 7/8" hole in the transverse tie assembly shall be tightened to a snug fit and the threads set.

Two "1" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2 3/8" lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications,
shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

compressive strength of prestressed concrete, f'c, shall be 5000 psi.
**BAR LIST**

*For information only*

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**MINIMUM BAR LAP**

*For information only*

- #4 bar = 1'-11''
- #5 bar = 2'-6''

**PLAN VIEW**

- End to end beam
- 3 - #4 S(E) bars, top
- 2 - #4 S(E) bars, bottom
- 1 - #5 B(E) bars, full length, top
- 1 - #5 B(E) bars, full length, bottom
- 4 - #4 S(E) bars at 6'' cts., top
- 8 bars, top
- 2 - #4 A(E) bars at 3'-0'' cts., top
- 2 - #4 S(E) bars at 9'' cts., top
- 2 - #4 S(E) bars at 9'' cts., bottom

**SECTION A-A**

- Beam lap on exterior face of outside beams
- #4 A(E) bars at 3'-0'' cts., top
- #4 S(E) bars at 9'' cts., bottom of top slab
- #5 B(E) bars, to top slab
- 2 - #5 B(E) bars, full length, top
- 4 - #4 B(E) bars, full length, bottom of top slab
- 33'' x 48'' PPC DECK BEAM

**SECTION B-B**

- Showing reinforcement and permissible strand locations
- Symmetrically about the centerline of beam
- Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**SECTION B-B**

- Showing dimensions
- #4 S(E) bars, bottom
- Cut to fit
- #4 S(E) bars, top
- Cut to fit
- 2 - #4 S(E) bars, bottom
- 2 - #4 S(E) bars, top
- 2 - #4 S(E) bars, bottom
- 2 - #4 S(E) bars, top
- 1 - #5 B(E) bars, to top slab
- 2 - #5 B(E) bars, full length, top
- 33'' x 48'' PPC DECK BEAM
**FABRIC BEARING PAD**

*Notes:*
- All bearing pads shall be 1" thick.
- Drill holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

**SECTION A-A**

**TYPICAL TRANSVERSE TIE ASSEMBLY**

**NOTES**

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 5/8" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 3" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 1" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

**BILL OF MATERIAL**

**PD-3348-RD**

**STATE OF ILLINOIS**

**DEPARTMENT OF TRANSPORTATION**

**33" x 48" PPC DECK BEAM DETAILS**

**STRUCTURE NO.**

**CONTRACT NO.:**

**FILE NAME:**

**FILE NAME:**
PLAN VIEW

Note: Spacing at S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to miss the block outs for the transverse ties.

SECTION B-B

Showing dimensions

MINIMUM BAR LAP

Notes: Place the number of strands specified in each row symmetrically about the centerline of each beam in the permissible strand locations shown.

BAR LIST

Note: See sheet for additional details and Bill of Material.
**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
The rebar used shall be 5/8" and the nominal cross-sectional area shall be 0.253 sq. in.
The 1" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pocket on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

A minimum 2-1/2" lifting pin shall be used to engage the lifting loops during handling. A minimum 2-1/2" # lifting pin shall be used to engage the lifting loops during handling.

**Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.**

**Compressive strength of prestressed concrete, f'c, shall be 6000 psi.**

**Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.**

**Fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.**

**PD-4236-0D**

**STATE OF ILLINOIS**

**DEPARTMENT OF TRANSPORTATION**

**42" x 36" PPC DECK BEAM DETAILS**

**STRUCTURE NO.**

**BILL OF MATERIAL**

**Precast Prestressed**

**Concrete Deck Beam, 662" depth**

**Sq. Ft.**

**FILE NAME**

**USER NAME**

**PLOT SCALE**

**PLOT DATE**

**CHECKED**

**DRAWN**

**CHECKED**

**DESIGNED**

**REVISED**

**REVISED**

**REVISED**

**REVISED**

**DEPARTMENT OF TRANSPORTATION**

**STATE OF ILLINOIS**

**F.A. RTE. SECTION**

**CONTRACT NO.**

**TOTAL SHEETS**

**SHEET NO.**

**ILLINOIS FED. AID PROJECT**
**PLAN VIEW**

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**MINIMUM BAR LAP**

Notes: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**BAR LIST**

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Notes: See sheet of for additional details and Bill of Material.

**VIEW C-C**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW B-B**

Notes: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**VIEW A-A**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW D-D**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW E-E**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW F-F**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW G-G**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW H-H**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW I-I**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW J-J**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW K-K**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW L-L**

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**VIEW M-M**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW N-N**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW O-O**

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**VIEW P-P**

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**VIEW Q-Q**

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**VIEW R-R**

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**VIEW S-S**

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**VIEW U-U**

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**VIEW V-V**

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**VIEW W-W**

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**VIEW X-X**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW Y-Y**

Notes: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie to avoid conflict with the transverse ties.

**VIEW Z-Z**

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PLAN VIEW

End to end beam

SEC10N A-A

60° min. angle of slit
4-#4 S(E) bars
4-#4 S(E) bars, top
Cut to fit
4-#4 S(E) bars, bottom
Cut to fit

PLAN VIEW

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse slab.

MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"
#6 bar = 3'-0"

SEC10N B-B

(Viewing dimensions)

VIEW C-C

BAR LIST

ONE BEAM ONLY

For information only

Note: See sheet of for additional details and in of Material.

BAR LIST

<table>
<thead>
<tr>
<th>Bar</th>
<th>Size</th>
<th>Length</th>
<th>Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>#4 S(E)</td>
<td></td>
<td>2'-7''</td>
<td></td>
</tr>
<tr>
<td>#4 S(E)</td>
<td></td>
<td>5'-9''</td>
<td></td>
</tr>
<tr>
<td>#5 S(E)</td>
<td></td>
<td>6'-5''</td>
<td></td>
</tr>
<tr>
<td>#5 S(E)</td>
<td></td>
<td>6'-8''</td>
<td></td>
</tr>
<tr>
<td>#6 S(E)</td>
<td></td>
<td>9''</td>
<td></td>
</tr>
<tr>
<td>#6 S(E)</td>
<td></td>
<td>9''</td>
<td></td>
</tr>
</tbody>
</table>
FABRIC BEARING PAD

**NOTES**

- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

**SQUARE FOOTAGE**

- Conc. Deck Bms. (42" depth)
- Precast Prestressed

**PLAN VIEW**

- 1'-0" & 1'-3"
- 2'-7"

**SECTION A-A**

- 4" x 4" x 3/4" Rod - Required
- 5" Ring - Required
- Not for 1" Rod - Required
- 5/8" x 1 1/2" Nut - Required

**TYPICAL TRANSVERSE TIE ASSEMBLY**

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 3/8" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads set.
- Pocket on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 2 1/2" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" # lifting pin shall be used to engage the lifting loops during handling.
- Compression halo is per Article 2020.05 and 2021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f', shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'y, shall be 5000 psi.

**BILL OF MATERIAL**

- **State of Illinois**
- **Department of Transportation**
- **F.A. Rte.**
- **Section**
- **County**
- **Total Sheets**
- **Sheet No.**

**FILE NAME**

- User Name

**PD-4236-RD**

- 1-28-16

**REVISED**

- DRAWN
- CHECKED
- DESIGNED
- REVISED

**STATE OF ILLINOIS**

- DEPARTMENT OF TRANSPORTATION

**BILL OF MATERIAL**

- Prestressed Concrete
- Raw Data Only (42") depth

**NOTES**

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 3/8" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads set.
- Pocket on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 2 1/2" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
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- Compression halo is per Article 2020.05 and 2021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f', shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'y, shall be 5000 psi.
PLAN VIEW

SECTION A-A

1. #4 S(E) bars, top
2. #4 S(E) bars at 9" cts., top
3. #4 S(E) bars at 9" cts., bottom of top slab
4. #4 A(E) bars at 9" cts., bottom

NOTE: Place the number of strands specified in each row symmetrically about the centerline of beam where the transverse ties are located.

SECTION B-B

1. #4 S(E) bars, bottom
2. #4 S(E) bars at 3'-0" cts., top
3. #4 A(E) bars at 3'-0" cts., top
4. #4 A(E) bars at 3'-0" cts., bottom

BAR LIST

<table>
<thead>
<tr>
<th>Bar</th>
<th>A (E)</th>
<th>B (E)</th>
<th>B (E)</th>
<th>S (E)</th>
<th>S (E)</th>
<th>U (E)</th>
<th>U (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>#4</td>
<td>#5</td>
<td>#4</td>
<td>#5</td>
<td>#5</td>
<td>#4</td>
<td>#4</td>
</tr>
<tr>
<td>Length</td>
<td>3'-7''</td>
<td>6'-0''</td>
<td>5'-9''</td>
<td>7'-5''</td>
<td>10'-2''</td>
<td>3'-0''</td>
<td>2'-7''</td>
</tr>
</tbody>
</table>

MINIMUM BAR LAP

Note: Place the number of strands specified in each row symmetrically about the centerline of beam where the transverse ties are located.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

48" x 48" PPC DECK BEAM
STRUCTURE NO.

PD-4248-0
6-28-15

DEPARTMENT OF TRANSPORTATION
STATE OF ILLINOIS
F.A. RTE. SECTION
COUNTY CONTRACT NO.
TOTAL SHEETS
SHEET NO.
FILE NAME = USER NAME = PLOT SCALE = PLOT DATE = CHECKED = DRAWN = CHECKED = CHECKED = REVISED = REVISED = REVISED = REVISED = - - - -

Note: See sheet  for additional details and Bill of Material.

MINIMUM BAR LAP

Note: Place the number of strands specified in each row symmetrically about the centerline of beam where the transverse ties are located.
Expansion bearing pad shall be bonded to the substructure. Omit holes when using expansion bearings. Expansion bearing pad shall be bonded to the substructure.

Notes:
- All bearing pads shall be 1" thick.
- Use flange washers when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.

**Fabric Bearing Pad**

- **Fixed**
- **Fabric Bearing Pad**
  - **Interior**
  - **Exterior**

**SECTION A-A**

**Typical Transverse Tie Assembly**

- Use for 1" rod - required
- 5" x 5" Rods - required
- 5" x 4" Tie - required
- Use for 1" Rod - required

**Notes**

- Prestressing steel shall be uncoated high strength, low relaxation, 7-wire strand, Grade 270.
- The nominal diameter shall be 3/8" and the nominal cross-sectional area shall be 0.360 sq. in.

**Fabric Adjusting Shims**

- Two 0.5"-thick fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

**Pocket on Exterior Faces**

- Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

**Transverse Tie Configuration**

- Prestressing steel shall be 270 ksi strands.
- Two 0.5"-thick fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2.5"-long lifting pin shall be used to engage the lifting loops during handling.

**Transverse Tie Configuration Shown.**

**Conduit**

- The conduit shall be as shown.

**Reinforcing Bars**

- Rods at fixed ends only
- Use for 1" Rod - required

**Notes for Transverse Tie Configuration**

- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, Fc, shall be 6000 psi.

**Transverse Tie Configuration Shown.**

**Lifting Loop Detail**

- 5"-long lifting pin shall be used to engage the lifting loops during handling.

**Coplanar Transverse Tie Configuration**

- A minimum 2.5"-long lifting pin shall be used to engage the lifting loops during handling.

**Concrete**

- Compressive strength of prestressed concrete, Fc, shall be 6000 psi.

**Corrosion Inhibitor**

- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

**Structural Details**

- Prestressing steel shall be uncoated high strength, low relaxation, 7-wire strand, Grade 270.
- The nominal diameter shall be 3/8" and the nominal cross-sectional area shall be 0.360 sq. in.

**Thread each end 4"**

- For each bearing pad location.

**Fabric Adjusting Shims**

- A minimum 2.5"-long lifting pin shall be used to engage the lifting loops during handling.

**Concrete for Transverse Tie Assembly**

- Compressive strength of prestressed concrete, Fc, shall be 6000 psi.
PLAN VIEW

SECTION A-A

SECTION B-B

VIEW C-C

BAR LIST

ONE BEAM ONLY

MINIMUM BAR LAP

Note: Spacing of $S(E)$ and $S(E)$ bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragm to miss the block outs for the transverse ties.

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

Note: See sheet of for additional details and Bill of Material.
Expansion bearing pads shall be bonded to the substructure.

Notes:
- Use bearing pads only on exterior bearing pad shall be provided for each bearing pad location.
- The 1" lifting pin shall be used to engage the lifting loops during handling.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strands, Grade 270.
- For each precast prestressed concrete deck beams, a minimum 2 3/4" lifting pin shall be used to engage the lifting loops during handling.
- The nominal diameter shall be 7/8" and the nominal cross-sectional area shall be 0.159 in. sq.
- The lifting loop detail shall be used in the concrete for precast prestressed concrete deck beams.
- Installation of both lifting loops shall be done simultaneously.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strands, Grade 270.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

SECTION A-A

Typical Transverse Tie Assembly

Notes:
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 7/8" and the nominal cross-sectional area shall be 0.159 in. sq.
- The lifting loop detail shall be used in the concrete for precast prestressed concrete deck beams.
- Installation of both lifting loops shall be done simultaneously.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

Notes:
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 7/8" and the nominal cross-sectional area shall be 0.159 in. sq.
- The lifting loop detail shall be used in the concrete for precast prestressed concrete deck beams.
- Installation of both lifting loops shall be done simultaneously.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

Notes:
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 7/8" and the nominal cross-sectional area shall be 0.159 in. sq.
- The lifting loop detail shall be used in the concrete for precast prestressed concrete deck beams.
- Installation of both lifting loops shall be done simultaneously.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
PLAN VIEW

Note: Spacing of S(E) and S(E) bars may be adjusted up to 4" in the immediate area of the transverse face to miss the block out for the transverse tie.

MINIMUM BAR LAP

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST

For information only:

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**VIEW C-C**

**PLAN VIEW**

**MINIMUM BAR LAP**

# Bar # Size # Length # Single

Note: See sheet of for additional details and Bill of Materials.

**DEPARTMENT OF TRANSPORTATION**

STATE OF ILLINOIS

62" x 48" PPC DECK BEAM

STRUCTURE NO.
**NOTES**

Pre-stressing steel shall be uncoated high-strength, low-relaxation, 7-wire strand, Grade 270 ksi.

The nominal diameter shall be 5/8" and the nominal cross-sectional area shall be 0.153 sq. in.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

Concrete Deck Slope: 4/12 (approx.)

Expansion bearing pad shall be bonded to the substructure. Omit holes when using expansion bearings.

All bearing pads shall be 1" thick. Expansion bearing pad shall be bonded to the substructure.

A minimum 2½" lifting pin shall be used to engage the lifting loops during handling.

† 2½" # lifting pin shall be used to engage the lifting loops during handling.

A minimum 2½" lifting pin shall be used to engage the lifting loops during handling.

**BIL Y OF MATERIAL**

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Foam</td>
<td>2½&quot; lifting pin</td>
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</tbody>
</table>

**BILL OF MATERIAL**

Transverse tie configuration shown.

Notes: Connect beams to piers with the transverse tie configuration shown.

**PLAN VIEW**

The 1" # rods in the transverse tie assembly shall be tightened to a snug fit and the threads cut. Holes on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

In piers, two 1½" lifting loops shall be provided for each bearing pad location.

Two "½" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2½" lifting pin shall be used to engage the lifting loops during handling.

Corrosion inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of pre-stressed concrete, f', shall be 6000 psi.

Compressive strength of pre-stressed concrete at release, f', shall be 5000 psi.

**SECTION A-A**

Pocket on exterior face of bridge shall be filled with grout after transverse tie assembly is in place.

The 1½" rods in the transverse tie assembly shall be tightened to a snug fit and the threads cut. Holes on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

A minimum 2½" lifting pin shall be used to engage the lifting loops during handling.

Corrosion inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.

Compressive strength of pre-stressed concrete, f', shall be 6000 psi.

Compressive strength of pre-stressed concrete at release, f', shall be 5000 psi.
**SECTION A-A**

- 20 lines of bars with 2 lengths per line.
- Bars indicated thus 20 x 2-#4 etc.
- Bill of Material.
- See sheet of for Superstructure Details.
- Notes:
  - PLAN A
  - Abut. Back of
  - MINIMUM BAR LAP face to face parapets
  - 1'-7''
  - 1'-2''
  - 5''
  - 1'-2''
  - 2'-10''
  - Total drop =
  - Slope '' per foot

**SECTION B-B**

- Surface Concrete Wearing
- Slope '' per foot
- 1'' x 2'' P.J.F.
- 12''
- 1''
- (full width)
- 1'' x 6'' PJF

**CROSS SECTION**

- Note: All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
- See sheet of for fabric bearing pad details. 1'' Jt. shall be filled with non-shrink grout. 1'' Jt. shall be placed prior to casting a backwall and/or approach slab. See sheet of for fabric bearing pad details.
- Bridge Relief Joint Sealer (See Special Provisions) without the backer rod (full width)
- **MINIMUM BAR LAP**

---

**FILE NAME**

- USER NAME
- PLOT SCALE
- PLOT DATE
- CHECKED
- DRAWN
- CHECKED
- DESIGNED
- REVISED
- REVISED
- REVISED
- REVISED

**DEPARTMENT OF TRANSPORTATION**

- STATE OF ILLINOIS
- F.A. RTE.
- SECTION
- ILLINOIS FED. AID PROJECT
- CONTRACT NO.
- TOTAL SHEETS
- SHEET NO.
PLAN

out to out deck

face to face parapets

CROSS SECTION

(looking)

Notes:
- See sheet of for Superstructure Details and Bill of Material.
- Bars indicated thus 20 x -#4 w/c.indicate 20 lines of bars with 2 lengths per line.
- Spacing of #4 and 2#4 bars shall be measured along the # of structure.

MINIMUM BAR LAP

#4 bars at 12'' cts.

SECTION A-A

(Dimensions are at RC-L construction)

Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
- See sheet of for fabric bearing pad details.

SECTION B-B

(Dimensions are at RT.'s)

Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
- See sheet of for fabric bearing pad details.
- #4 a (E) bars at 12" cts.

- #4 b(E) bars

x 2 -#4 a(E) bars at 12" cts.

end to end deck

out to out deck

- #4 d(E) bars at 11" cts.

SECTION A-A

20 lines of bars with 2 lengths per line.

Bars indicated thus 20 x 2-#4 etc. indicates and Bill of Material.

See sheet for Superstructure Details

Notes:

- 1'-7 1/2" parapets

- 1'-7 1/2" face to face parapets

- 1 1/2" Surface Concrete Wearing

MINIMUM BAR LAP

## PDS-11-S-F-0

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE STRUCTURE NO.

FILE NAME =

USER NAME =

PLOT SCALE =

PLOT DATE =

CHECKED =

DRAWN =

CHECKED =

DESIGNED =

REVISED =

REVISED =

REVISED =

REVISED =

DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS

F.A.

RTE.

SECTION

COUNTY

CONTRACT NO.

TOTAL SHEETS

SHEET NO.

CONTRACT

PAPERS

STATE OF ILLINOIS

F.A.

RTE.

SECTION

COUNTY

CONTRACT NO.

TOTAL SHEETS

SHEET NO.

CONTACT
INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP

PARAPET JOINT DETAILS

ANTICIPATED CONCRETE WEARING SURFACE PROFILE

(For information only)

Note:
All drain tubes and accessories shall be galvanized according to AASHTO M111 or M232, (as applicable).

The cost of the drain tube assemblies and everything necessary for their installation is included with Concrete Superstructure.

** D(E) bars at 8'' cts. in fascia beam. D(E) bar included in cost of beam.
PLAN

out to out deck

end to end deck

CROSS SECTION

Looking 

Notes:
See sheet of for Superstructure Details

Concrete Wearing Surfaces

MINIMUM BAR LAP

See Special Provisions (without the backer rod full width)

Notes:
All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
See sheet of for fabric bearing pad details.

MINIMUM BAR LAP

(Bar indicated thus 20 x 2-#4 etc. indicates 20 lines of bars with 2 lengths per line. Spacing of #4 and #6 bars shall be measured along the E of structure.)
PLAN

- Sections at "-" dia. at "-

CROSS SECTION (looking )

- 1'-0" spaced joint with
- Bridge Relief Joint Sealer (See Special Provisional Full Width)

- 1'-0" Grouted shear
- Special Provisional Full Width

Notes:
- 1'-0" spaced joint with
- Bridge Relief Joint Sealer (See Special Provisional Full Width)

*1" Jt. shall be filled with non-shrink grout. 1"

*1" } x 2'-0" Dowel rods
- 1" } x 2'-0" Dowel rods

SECTION A-A

See sheet  of for 
fabric bearing pad details.

SECTION B-B

See sheet  of for 
bridge bearing pad details.

"If x, shall be filled with non-shrink grout. 1"

dimension may vary to accommodate tolerance
in beam lengths.

Surface

Fabric

Fabric

Total drop •

HMA wearing surface

HMA wearing surface

- 1'-0" x 6" PJF

- 1'-3" x 2'-0" Dowel rods in cap (2 each beam)

Notes:
- See sheet  of for Superstructure Details and BOL at Materials.
**Inside Elevation of Curb**

- Drain tube
- Bent ` for } bolts.
- Loop Ferrule inserts for } bolts.
- Place #5 (DEI) bars at beam depth.
- Place #5 (DEI) bars in fascia beam for railing curb. DEI bar included in cost of beam.
- Inside drain
- Slope HMA 1:2 (V:H) at drains
- Construct parallel to grade

**Minimum Bar Lap**

- #6 bar 3'-7''

**Section Thru Curb**

Curb shall be poured in the field.

**Anticipated HMA Wearing Surface Profile**

*For information only*

---

**Notes:**

All drain tubes and accessories shall be galvanized according to AASHTO M111 or M232, as applicable.

The cost of the drain tube assemblies and everything necessary for their installation is included with Concrete Superstructure.

---

**Concrete Superstructure**

**Bill of Material**

<table>
<thead>
<tr>
<th>Surface</th>
<th>Cu. Yd.</th>
<th>Pound</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMA Wearing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**PLAN**

1'-0'' x 6'' Precast Prestressed Concrete Deck Beams

**CROSS SECTION**

1'-0'' x 6'' Precast Prestressed Concrete Deck Beams

Notes:
- See sheet of for Superstructure Details and Div of Materials.
**PLAN**

- End to end deck
- Out to out deck
- Face to face curb

**CROSS SECTION** (Looking)

- 11'' x 11'' Precast Prestressed Concrete Deck Beams

**Notes:**
- See sheet of for Superstructure Details and Bill of Material.
Inside Elevation of Curb

Inspection

VIEW A-A

Section Thru Curb

Anticipated HMA Wearing Surface Profile

Bill of Material

Superstructure Details

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PDS-HMA-II-S-T1-D

B7-8-35
SECTION A-A

CROSS SECTION

(Skew °)

Notes:
- See sheet of for Superstructure Details and Div of Materials.
- Fabric bearing post details.

1'-0''

6 ''

FACE TO FACE CURB

1'-0''

FACE TO FACE CURB

PDS-HMA-11-S-TI-L
PLAN

MINIMUM BAR LAP

CROSS SECTION

Notes:
- See sheet of for Superstructure Details and Bill of Materials.
- 11" x 11" Precast Prestressed Concrete Deck Beams

SECTION A-A
(Dimensions are at Rt. L's)
See sheet of for Fabric Bearing post details.
### Notes:
- See sheet of for Superstructure Details and Bill of Materials.

### BILL OF MATERIAL

<table>
<thead>
<tr>
<th>UNIT</th>
<th>ITEM</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HMA Wearing Surface</td>
<td>Tons</td>
</tr>
</tbody>
</table>

### CROSS SECTION

- **SECTION A-A**
  - Dimensions are at Rt. 's
  - See sheet of for fabric bearing pad details.
  - 1'' Jt. shall be filled with non-shrink grout.
- **SECTION B-B**
  - Dimensions are at Rt. 's
  - Fabric bearing pad details.
  - Total drop = \( \frac{\text{Slope} \times \text{per foot}}{\text{Slope} \times \text{per foot}} \)

### ANTICIPATED HMA WEARING SURFACE PROFILE

- For information only

---

**PDS-HMA-M-R34-L**

**STATE OF ILLINOIS**

**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE STRUCTURE NO.**

**FED. AID PROJECT**

**CONTRACT NO.**

**SHEETS**

**TOTAL SHEETS**

---

**FILE NAME**

**USER NAME**

**PLOT SCALE**

**PLOT DATE**

**CHECKED**

**DRAWN**

**DESIGNED**

**REVISED**

**DEPARTMENT OF TRANSPORTATION**

**STATE OF ILLINOIS**

---

**RTE.**

**SECTION**

---

**COUNTY**

---

**TOP OF BEAM**

---

**HMA Wearing Surface**

---

**UNIT QUANTITY**

---

**UNIT QUANTITY**
PLAN

SECTION A-A

Notes:

- 40 lines of bars with 2 lengths per line.
- Bars indicated thus 40 x 2-#4 etc., indicates 20 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

#4 bar = 2'-7"

SPACINGS

- Spaces at ‘a’ of \"c\"'s, \"b\"'s

Total drop = \"x\" per foot

HMA wearing surface

CROSS SECTION (looking \")

Graded shear key, typ.

UNIT WEARING SURFACE

BILL OF MATERIAL

See sheet of for Superstructure Details

Fabric tensioning and details.
PLAN

SECTION A-A
(Dimensions are at Ft., L. M.)
See sheet of for Superstructure Details.

Notes:
The sheet of for Superstructure Details and Bill of Material.
Bars indicated thus 20 x 3-#4 etc., indicates
20 bars of same with 2 lengths per line.
Spacing of 2 bars shall be measured along the
full length of the structure.

CROSS SECTION
(looking )

HMA wearing
surface

MINIMUM BAR LAP
#4 bar = 2'-7"

BILL OF MATERIAL

UNIT

ITEM

QUANTITY

HMA Wearing Surface

TONS

PDS-HMA-S-R34-L

DEPARTMENT OF TRANSPORTATION
STATE OF ILLINOIS

SUPERSTRUCTURE NO.

FILE NAME =

PLOT SCALE =

PLOT DATE =

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REVISED =

DEPARTMENT OF TRANSPORTATION
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SECTION
COUNTY
CONTRACT NO.
TOTAL SHEETS
SHEET NO.

0
0
PLAN

end to end deck

PLAN
out to out deck

CROSS SECTION

HMA wearing surface
Precast Prestressed Concrete Deck Beams

BILL OF MATERIAL

UNIT QUANTITY

HMA Wearing Surface Tons

MINIMUM BAR LAP
#4 bar x 2'-7''

ANTICIPATED HMA WEARING SURFACE PROFILE

TOTAL DROP = '' x ''
Precast Prestressed Concrete Deck Beams

Notes:
- See sheet of for Superstructure Details and Bill of Materials.
- Bars indicated thus 20 x 2-#4 etc., indicates 20 lines of bars with 2 lengths per line.
- Spacing of #4 bars shall be measured along the E of structure.
- Spaces at '-  '-' cts. = '-  '' spacing

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SUPERSTRUCTURE STRUCTURE NO.

PDS-HMA-S-R34-R

FILE NAME = USER NAME =
PLOT SCALE = PLOT DATE =
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REVISED = REVISED = REVISED =
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STATE OF ILLINOIS
F.A. RTE. SECTION
COUNTY
CONTRACT NO.
TOTAL SHEETS
SHEET NO.

"Spaces of "'- "' cts. = "'- ""
SECTION A-A

Notes:
- All concrete wearing surfaces shall be placed prior to casting a bridge and/or approach slab.
- See sheet of for fabric bearing pad details.

Notes:
- See sheet of for Superstructure Details
- "x" PCC Precast Prefabricated Concrete Deck Beams
- 20 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

"3" Joint shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

PLAN

SECTION B-B

Notes:
- All concrete wearing surfaces shall be placed prior to casting a bridge and/or approach slab.
- See sheet of for fabric bearing pad details.

PLAN

SECTION A-A

Notes:
- All concrete wearing surfaces shall be placed prior to casting a bridge and/or approach slab.
- See sheet of for fabric bearing pad details.

PLAN

SECTION B-B

Notes:
- All concrete wearing surfaces shall be placed prior to casting a bridge and/or approach slab.
- See sheet of for fabric bearing pad details.

PLAN
**FACE TO FACE PARAPETS**

- **1'-7''**
- **1'-7''**
- **d(E)**
- **d(E)**
- **1**
- **a(E)**
- **a(E)** or **D(E)**
- **b(E)**
- **b(E)**
- **2''**
- **c l.**
- **1'-2''**
- **5''**
- **1'-2''**

**MINIMUM BAR LAP**

- **3 x -#4 b(E) bars**
- **-#5 d(E) bars at 12'' cts.**
- **x**

**TOTAL DROP**

- **Surface Concrete Wearing Key.**
- **Typ. Grouted shear**
- **Precast Prestressed Concrete Deck Beams**
- **1'' x 3-#4 b(E) bars equally spaced at 12'' cts.**

**PLAN**

- **Out to Out Deck**
- **Face to Face Parapets**

**CROSS SECTION**

- **(Looking )**
- **Total drop =**
- **Concrete Wearing Surface**
- **Concrete Pad Details.**
- **See sheet of for fabric bearing and/or approach slab.**
- **All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.**

**MINIMUM BAR LAP**

- **#4 bar = 2'-2''**

**NOTES:**

- **20 lines of bars with 2 lengths per line.**
- **Spacing of a(E) and a(E) bars shall be measured along the E of structure.**
- **#5 d(E) bars at 12'' cts.**
- **1'' Jt. shall be filled with non-shrink grout.**
- **1'' dimension may vary to accommodate tolerance in beam lengths.**

**SECTION A-A**

- **Dimensions are at Rt. {'s)**
- **Aluminum sheeted construction**
- **end to end deck**
- **All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.**
- **See sheet of for Superstructure Details**

**SECTION B-B**

- **Dimensions are at Rt. {'s)**
- **#5 d(E) bars at 12'' cts.**
- **Spacing of a(E) and a(E) bars shall be measured along the E of structure.**
- **Notes:**
- **1'' x -#4 b(E) bars equally spaced at 12'' cts.**
- **20 lines of bars with 2 lengths per line.**
Aluminum sheeted construction
Notes to base of parapet

SECTION A-A
(Dimensions are at Rt. {'s)

Notes:
All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
See sheet of for fabric bearing pad details.

MINIMUM BAR LAP
#4 bar = 2'-2''

Notes:
See sheet of for Superstructure Details and Bill of Materials.
Bars indicated thus 20 x #4 etc. Indications 20 lines of bars with 2 lengths per line.
Spacing of #4 and #6 bars shall be measured along the E of structure.

STATE OF ILLINOIS
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SUPERSTRUCTURE STRUCTURE NO.

FILE NAME =
USER NAME =
PLOT SCALE =
PLOT DATE =
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DRAWN =
CHECKED =
DESIGNED =
REVISED =
REVISED =
REVISED =
REVISED =

DEPARTMENT OF TRANSPORTATION
STATE OF ILLINOIS
F.A.
RTE.
SECTION
COUNTY
CONTRACT NO.
TOTAL SHEETS
SHEET NO.
SHEETS
FED. AID PROJECT
SECTION A-A

Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
- See sheet  for fabric bearing pad details.

SECTION B-B

Notes:
- See sheet  for Supercstructure Details and dimensions may vary to accommodate tolerances in beam lengths.

MINIMUM BAR LAP

Note:
- See sheet  for Supercstructure Details
- Bars indicated thus 20 x 2-#4 etc. indicates 20 lines of bars with 2 lengths per line.
BAR D(E)  
* Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam.

Notes:
- Formwork necessary for the wearing surface may be secured utilizing the button rail anchorage inserts and/or additional inserts cast into the beam.
Plan

- Bars indicated thus 20 x #4 etc. indicates 20 lines of bars with 2 lengths per line.
- Bars shall be measured along the E of structure.
- Precast Prestressed Concrete Deck Beams

Notes:
- See sheet of for fabric bearing pad details.
- Section A-A
- Section B-B

CROSS SECTION

- Slope " per foot
- Slope " per foot

Minimum Bar Lap

- #4 bar = 2'-2"

Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
- See sheet of for fabric bearing pad details.
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
- See sheet of for fabric bearing pad details.
**SECTION A-A**

(Dimensions are at RT. L L)

Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
- See sheet _ of bill of materials and/or approach slab.

**MINIMUM BAR LAP**

(20 bars at 12'' cts.)

Spacing of #4 bars shall be measured along the 20 lines of bars with 2 lengths per line. Bars indicated thus 20 x #4 etc. indicates and Bill of Material.

See sheet _ of Superstructure Details

Notes:
- A-3 bars at 12'' cts. = 2'' x 12''
- Precast Prestressed Concrete Deck Beams

**PLAN**

(looking )

**SECTION B-B**

(Dimensions are at RT. L L)

Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.

Notes:
- #4 bar = 2'-2''
- Rail post - Spaces at 1'-12'' cts. = 1'-12''
- Concrete wearing surface = 4'-0'' x 12''
- Precast Prestressed Concrete Deck Beams

**CROSS SECTION**

(looking )

Notes:
- See sheet _ for Superstructure Details and Bill of Materials.
- Bars indicated thus 20 x #4 etc. indicates 20 bars of #4 with 2 lengths per line.
- Spacing of #4 bars shall be measured along the E of structure.
PLAN

out to out deck

Face to Face Parapets

CROSS SECTION

Looking 1

Concrete Wearing Surface

MINIMUM BAR LAP

#4 bar = 2'-2''

Notes:
- 20 lines of bars with 2 lengths per line.
- #4 bar = 2'-2''
- See sheet 0 for Superstructure Details

STATE OF ILLINOIS
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SUPERSTRUCTURE
STRUCTURE NO.

FILE NAME =
USER NAME =
PLOT SCALE =
PLOT DATE =
CHECKED =
DRAWN =
CHECKED =
REVISED =
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STATE OF ILLINOIS
F.A. RTE. SECTION
ILLINOIS FED. AID PROJECT
CONTRACT NO.
TOTAL SHEETS
SHEET NO.

Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall or barrier approach wall.
- See sheet of for fabric bearing pad details.
**INSIDE ELEVATION OF PARAPET**

**MINIMUM BAR LAP**

- **Bar 4(E)**
  - 2'-0'' x 7''
  - **2'-2''** Notch @ 6''
  - #8 @ 5'-7''
  - #5 @ 5'-11''

- **Bar 8(E)**
  - 1'-8'' x 7''
  - **1'-10''** Notch @ 6''
  - #4 @ 2'-8''
  - #4 @ 8''

**SECTION THRU PARAPET**

- **Parapet joint**
  - with a 3'' backer rod.
  - Place at 1/2 of beam depth.
  - Place #4 #83 bars of 9'' cts. In fascia beam. #83 bar included in cost of beam.

- **Concrete Wearing Surface**
  - **MINIMUM BAR LAP**
    - #4 @ 5'-11''
    - #5 @ 6'-0''
  - **Sections**
    - **Type A**
      - 2'-0'' x 7''
      - **2'-2''** Notch @ 6''
      - #8 @ 5'-7''
      - #5 @ 5'-11''
    - **Type B**
      - 1'-8'' x 7''
      - **1'-10''** Notch @ 6''
      - #4 @ 2'-8''
      - #4 @ 8''

**SECTION B-B**

- **Drain Tube**
  - HSS 8 x 4 x 8''
  - Drain Tube
  - 3''
  - 2''
  - 1'-2''

**SUPERSTRUCTURE DETAILS**

**BILL OF MATERIAL**

- **Concrete Wearing Surface**
  - **Cu. Yd.**
    - 7''
    - 6''
  - **Rad.**
    - 7'
  - **Spacing**
    - 2'-2''
  - **Min. Bar Lap**
    - 6''
  - **1'-9''**
  - **1'-10''**
  - **1'-2''**

**PDS-S-F-D 6-8-15**

**STATE OF ILLINOIS**

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**SUPERSTRUCTURE DETAILS**

**STRUCTURE NO.**

**BILL OF MATERIAL**

- **Cu. Yd.**
  - 7''
  - 6''
  - **Rad.**
    - 7'
  - **Spacing**
    - 2'-2''
  - **Min. Bar Lap**
    - 6''
  - **1'-9''**
  - **1'-10''**
  - **1'-2''**

**ANTICIPATED CONCRETE WEARING SURFACE PROFILE**

(Parapet joint details)

**Drain Tube**

- 3''
- 2''
- 1'-2''

**Parapet Joint Details**

**Inside Elevation of Parapet**

- All drain tubes and accessories shall be galvanized according to AASHTO M111 or M232, (as applicable).
- The cost of the drain tube assemblies and everything necessary for their installation is included with Concrete Superstructure.

**Note:**

- Bars indicated thus: 1 x -#4 etc. indicates 1'-2''
- Leave end open for clean out.
- Bars indicated thus: 1 x -#4 etc. indicates 1'-2''
- Leave end open for clean out.

**Parapet Joint Details**

- All drain tubes and accessories shall be galvanized according to AASHTO M111 or M232, (as applicable).
- The cost of the drain tube assemblies and everything necessary for their installation is included with Concrete Superstructure.

**Inside Elevation of Parapet**

- All drain tubes and accessories shall be galvanized according to AASHTO M111 or M232, (as applicable).
- The cost of the drain tube assemblies and everything necessary for their installation is included with Concrete Superstructure.
SECTION A-A
(Dimensions are at M.L.A.)

Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
- See sheet for fabric bearing pad details.

PLAN
out to out deck

CROSS SECTION
(Looking 1)

MINIMUM BAR LAP
#4 bar = 2'-2''
3 x -#4 b(E) bars at 12'' cts.

x 2 -#4 a(E) bars at 12'' cts.

-#4 a(E) bars at 12'' cts.

Replaced between #3 bars

5 x -#4 a(E) bars

ABUT.

Back of Rdwy.

PLAN

out to out deck

front to front parapets

CROSS SECTION

0-looking 1

Notes:

- See sheet of for Superstructure Details and Bill of Materials.
- #3 bars indicated thus #3 x 2-#4 etc., indicates 20 lines of bars with 2 lengths per line.
- Error: 6-8-15

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE

STRUCTURE NO.

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STATE OF ILLINOIS

F.A.

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SECTION

ILLINOIS

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TOTAL

SHEETS

SHEET

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REVISED

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SECTION

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TOTAL

SHEETS

SHEET

CONTRACT NO.
SECTION A-A

PLAN

OUT TO OUT DECK

0.2-#4 bars at 12'' cts.

PLAN

OUT TO OUT DECK

SECTION A-A

Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
- See sheet of for fabric bearing pad details.

CROSS SECTION

(Looking )

Concrete Wearing Surface

Total drop =

Concrete Wearing Surface

- 0.2-#4 bars equally spaced at 12'' cts.

Notes:
- See sheet of for Superstructure Details and/or approach slab.
- Bars indicated thus 20 x 0.2-#4 etc. indicates 20 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

#4 bars 2 2'2''

- Spaces at 0.2'-2' of retreat.

Notes:
- See sheet of for Superstructure Details and/or approach slab.
- Bars indicated thus 20 x 0.2-#4 etc. indicates 20 lines of bars with 2 lengths per line.
**Notes:**

Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.

* Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam.
PLAN

out to out deck

CROSS SECTION

Notes:

All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slabs.

See sheet for fabric bearing pad details.

MINIMUM BAR LAP

Notes:

See sheet for Superstructure Details and Bill of Materials.

20' bars indicated thus 20 x #4 etc. indicates 20' bars of #4. 2 lengths per line.

Spacing of #4 bars shall be measured along the C of structure.
Notes:
- All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach area.
- See sheet of for fabric bearing pad details.

MINIMUM BAR LAP
#4 bar = 2'-2''

Notes:
- Spaces at 12'' cts. = 12''
- 20 lines of bars with 2 lengths per line.
- Spacing of all bars shall be measured along the % of structure.