Dowel Bar Sizes

<table>
<thead>
<tr>
<th>Pavement Thickness, D</th>
<th>Dowel Bar Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>9&quot; through 12&quot;</td>
<td>1 1/4&quot;</td>
</tr>
<tr>
<td>Greater than 12&quot;</td>
<td>1 1/2&quot;</td>
</tr>
</tbody>
</table>

Notes:
1. For Type D-1 contraction joint assembly options, see Standard Drawing E 503-CCPI-01.

LONGITUDINAL SECTION THROUGH PCPI

Epoxy-coated dowel bars at 1"-6" o.c., at 6" min. from edge of PCPI (See table for dowel bar diameter).
**TIE-BAR SIZES FOR LONGITUDINAL JOINT**

<table>
<thead>
<tr>
<th>Pavement Thickness, D</th>
<th>Tie-Bar Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than or equal to 9”</td>
<td>#5</td>
</tr>
<tr>
<td>Greater than 9”</td>
<td>#6</td>
</tr>
</tbody>
</table>

**TRANSVERSE SECTION THROUGH PCCP**

- Single pass saw cut (Depth = D/3)
- Epoxy coated tie bar at 3'-0" c/c (See table for tie-bar size)
SAWED LONGITUDINAL JOINT SEALANT OPTIONS

HOT Poured JOINT SEALANT

SILICONE JOINT SEALANT

Top of pavement

INDIANA DEPARTMENT OF TRANSPORTATION
LONGITUDINAL JOINT

MARCH 2004
STANDARD DRAWING NO. E 003-CCP1-03

[Signature]

[Stamp]
NOTES

1. See Standard Drawings E 503-CCPJ-01, -02, and -03 for sawed construction joint sealant options.
**NOTES**

1. Diameter of drilled hole \( d \) shall be in accordance with the chemical anchor system manufacturer's instructions.

**TIE-BAR SIZES FOR TRANSVERSE CONSTRUCTION JOINT**

<table>
<thead>
<tr>
<th>Pavement Thickness, ( D )</th>
<th>Tie Bar Size</th>
<th>Min. le</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9'</td>
<td>#5</td>
<td>1'-0''</td>
</tr>
<tr>
<td>9' through 12'</td>
<td>#8</td>
<td>1'-0''</td>
</tr>
<tr>
<td>Greater than 12'</td>
<td>#10</td>
<td>2'-0''</td>
</tr>
</tbody>
</table>

\( W = \) lane width

**RETOFIT CONSTRUCTION TIE-BAR EMBEDMENT DETAIL**
NOTES
1. Transverse joints shall be constructed perpendicular to the centerline with a maximum spacing of 18'-0" unless otherwise specified.
2. The configuration of the preformed elastomeric joint seal shall be a 9/16" to 5/8" wide seal with at least a five cell internal design. The seal height shall be 3/16" to 13/16" in uncompressed stage.
3. For transverse construction joints, the initial saw cut may be eliminated.

PREFORMED ELASTOMERIC SEAL

1/4" to 3/8" final cut

1 1/8" to 1 3/4"

3/8" (±1/64)

(4-1/4"

64 (±1/64)

1/8" (±1/64)

3/8"

SILICONE JOINT SEALANT

1/4" ± 1/16" final cut

1 1/4" ± 1/16" final cut

3/8" ± 1/16" final cut

3/8" ± 1/16" final cut

(4-1/4"

1/8" Initial cut

Backer rod 3/8" dia. or greater

TYPE D-1 SAWED CONTRACTION JOINT SEALANT OPTIONS
TIE-BAR SIZES FOR LONGITUDINAL CONSTRUCTION JOINT

<table>
<thead>
<tr>
<th>Pavement Thickness, D</th>
<th>Tie-Bar Size</th>
<th>Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9&quot;</td>
<td>#5</td>
<td>3'-0&quot; c/c</td>
</tr>
<tr>
<td>9&quot; through 12&quot;</td>
<td>#6</td>
<td>3'-0&quot; c/c</td>
</tr>
<tr>
<td>Greater than 12&quot;</td>
<td>#6 or #7</td>
<td>2'-0&quot; c/c</td>
</tr>
</tbody>
</table>

SECTION A-A

PLAN VIEW

METHOD OF PLACING TIE-BAR FOR LONGITUDINAL CONSTRUCTION JOINT
NOTES:
1. Diameter of drilled hole (d) shall be in accordance with the chemical anchor system manufacturer's instructions.

<table>
<thead>
<tr>
<th>PAVEMENT THICKNESS, D</th>
<th>LONGITUDINAL CONSTRUCTION JOINT</th>
<th>Retrofit Tie-bars at 3'-0&quot; c/c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TIE-BAR SIZE</td>
<td>MIN. LENGTH OF EMBEDMENT, le</td>
</tr>
<tr>
<td>less than or equal to 9&quot;</td>
<td>#5</td>
<td>1'-0&quot;</td>
</tr>
<tr>
<td>greater than 9&quot;</td>
<td>#6</td>
<td>1'-0&quot;</td>
</tr>
</tbody>
</table>

INDIANA DEPARTMENT OF TRANSPORTATION
LONGITUDINAL CONSTRUCTION JOINT
SEPTEMBER 2011
STANDARD DRAWING NO. E 503-CCPJ-08

/s/ Richard L. VanCleave 09/01/11
DESIGN STANDARDS ENGINEER DATE

/s/ Mark A. Miller 09/01/11
CHIEF HIGHWAY ENGINEER DATE

Existing PCCP

D

D

le

1

Epoxy coated tie-bar

Approved chemical anchor system

RETROFIT CONSTRUCTION TIE-BAR EMBEDMENT DETAIL