NOTES:
1. For joint seal dimensions see Sheet 2.
2. For slabs poured simultaneously, tie bars may be inserted in the plastic concrete by means approved by the Engineer.
3. For Longitudinal Joints:
   A. Tie bars are deformed #4 or #5 reinforcing steel bars meeting the requirements of Specification 931.
   B. Provide a standard load transfer tied joint with #4 bars 29" in length at 22" spacing or #3 bars 30" in length at 30" spacing.
4. Transverse joints are to be spaced at a maximum of 15'. Dowels are required at all transverse joints unless otherwise noted in the plans.
5. Expansion joints to be placed at street intersections and other locations as indicated in the Plans.
6. Punch clean holes in preformed joint filler greater than bar diameter.
7. Coat and lubricate plain steel dowel bars in accordance with Specification 350.

For bridge expansion joints, see Index 370-001.

DOWELS (LENGTH 18")

<table>
<thead>
<tr>
<th>Pavement Thickness</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>5&quot; to 6&quot;</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>7&quot; to 9&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>(W0-109)</td>
<td>7/8&quot;</td>
</tr>
</tbody>
</table>

B. Provide a standard load transfer tied joint with #4 bars 30" in length at 25" spacing or #3 bars 36" in length at 36" spacing.

METAL

PLASTIC

Dowel Bars Caps

Dowel Bar Layout
### Joint Dimensions (INCHES)

<table>
<thead>
<tr>
<th>Joint Width</th>
<th>Sealant Bead Thickness</th>
<th>Backer Rod Dia.</th>
<th>Minimum Joint Depth</th>
<th>Backer Rod Placement Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼</td>
<td>⅛</td>
<td>⅛</td>
<td>⅛</td>
<td>⅛</td>
</tr>
<tr>
<td>½</td>
<td>⅛</td>
<td>⅜</td>
<td>⅛</td>
<td>½</td>
</tr>
<tr>
<td>¾</td>
<td>¾+</td>
<td>⅜</td>
<td>⅛</td>
<td>¾</td>
</tr>
<tr>
<td>1</td>
<td>1⅛</td>
<td>⅜</td>
<td>⅛</td>
<td>1⅛</td>
</tr>
<tr>
<td>&gt;1</td>
<td>1⅛</td>
<td>⅝</td>
<td>⅛</td>
<td>1⅛</td>
</tr>
</tbody>
</table>

Unless otherwise indicated on the plans the joint width for new construction will be ⅛ for construction joints, ¾ for all other joints.

For rehabilitation projects the joint width will be shown on the plans or established by the Engineer based on field conditions.

### Concrete-Asphalt Shoulder Joints

**Joint Seal Dimensions**

- **Concrete-Pavement Joints**
  - Saw Cut Or Formed Joint
  - Joint Sealant Material To Be As Specified In The Plans
  - Tape Bond Breaker
  - Concrete Pavement

- **Concrete-Asphalt Shoulder Joints**
  - Saw Cut Or Formed Joint
  - Joint Sealant Material To Be As Specified In The Plans
  - Tape Bond Breaker
  - Concrete Pavement
  - Asphalt Shoulder Pavement

**Note:** Dimension w will be shown in the plans or established by the Engineer based on field conditions. Dimension d will be constructed so that the shape factor w/t has a maximum value of 2.0 and a minimum value of 1.6.

### Joint Width

- Saw Cut Or Paring Strip
- Tape Bond Breaker
- Existing Joint Or Crack

### Joint Sealant Dimensions

- Joint Sealant Material To Be As Specified In The Plans
- Joint Sealant Material To Be As Specified In The Plans
- Tape Bond Breaker

### Backer Rod Bond Breaker

- Backer Rod Placement Depth
- Joint Width
- Joint Sealant Material To Be As Specified In The Plans
- Concrete Pavement

### For New Projects

**Preformed Elastomeric Compression Seal**

- For New and Rehabilitation Projects

**Backer Rod Bond Breaker**

### Concrete-Concrete Joints

- Saw Cut Or Formed Joint
- Joint Sealant Material To Be As Specified In The Plans
- Tape Bond Breaker
- Concrete Pavement

### Concrete-Asphalt Shoulder Joints

- Saw Cut Or Formed Joint
- Joint Sealant Material To Be As Specified In The Plans
- Tape Bond Breaker
- Concrete Pavement
**ALTERNATE KEYWAY AND HOOK BOLT**

**STEEL HOOK BOLT ASSEMBLY**

**CONTRACTION ASSEMBLY**

**EXPANSION ASSEMBLY**

**JOINT ARRANGEMENT**

**NOTES**

1. Longitudinal joints will not be required for single lane pavement 14' or less in width. For entrance and exit ramp joint details, see Sheet 4.

2. Arrangement of longitudinal joints are to be as directed by the Engineer.

3. All manholes, meter boxes and other projections into the pavement shall be boxed-in with ½" preformed expansion joint material.
2-THRU LANES WITH SINGLE LANE ENTRANCE RAMP

2-THRU LANES WITH SINGLE LANE EXIT RAMP

3-THRU LANES WITH AUXILIARY LANE AND 2-LANE EXIT RAMP

JOINT LAYOUT AT ENTRANCE AND EXIT RAMP TERMINALS

Note: Transverse joint spacing should not exceed 15-ft or twenty-four times the slab thickness, whichever is less. If a lane exceeds 15-ft width, such as single lane ramps and weigh stations, longitudinal joint to be constructed in centerline of lane.