### Joint Type for Moveable Abutment Bridges

<table>
<thead>
<tr>
<th>Joint</th>
<th>Concrete Beam or Slab</th>
<th>Steel Girder</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF-1</td>
<td>300'</td>
<td>250'</td>
</tr>
<tr>
<td>CF-2</td>
<td>460'</td>
<td>320'</td>
</tr>
<tr>
<td>CF-3</td>
<td>575'</td>
<td>400'</td>
</tr>
</tbody>
</table>

For joint details, see PV-101.

For curb details, see Detail 'G'.

All Transverse Bars are #5.

See BR-211 or BR-212 for shoulders.

1. 2" to 2 1/2" clear to bent bar.
2. Minimum lap length: #5 bars - 18 inches  #6 bars - 27 inches  #8 bars - 48 inches
3. If bridge is skewed, place additional #5 bar parallel to skewed face.

Possible Contract Item:
Bridge Approach, BR-204

Possible Tabulation:
112.6

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**DETAIL 'A'**

- Double Reinforced Section
- Single Reinforced Section
- Non-Reinforced Section

**DETAIL 'B'**

- See Table for Joint Type
- See Detail 'B'

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**Moveable Abutment**
The diagram illustrates a standard road plan with a double reinforced 12" approach with a variable depth paving notch. The plan includes details for fixed abutments and fixed abutment details 'A' and 'B'.

- **Fixed Abutment**: The plan shows a fixed abutment with various dimensions and detailing, including steel rod, resilient joint filler, modified subbase, polymer grid, and approach pavement.

- **Double Reinforced Section**: The double reinforced section includes #4 bars at 12" centers, steel rod, resilient joint filler, and a 2" to 2 1/2" clear to bent bar.

- **Single Reinforced Section**: The single reinforced section has #5 bars at 12" max. centers, #5 bars at 12" centers, and a 6" lap length of paving notch.

- **Non-Reinforced Section**: The non-reinforced section includes #6 bars at 12" centers, #8 bars at 12" centers, and a 2 1/2" to 2 1/2" clear to bent bar.

- **Additional Details**: The plan includes details for minimum lap length, additional #5 bars parallel to skewed face, and drilled holes to place 3/4" dia. x 24" steel rod at 32" of paving notch through drilled holes.

- **Revisions**: The plan was revised on 10-19-21, and the revisions include added shoulders to single and non-reinforced sections.
SECTION THRU CENTERLINE
(Abutting PCC or HMA Pavement)

DETAIL 'C'
(Dowelled PCC Pavement)

SECTION THRU CENTERLINE
(Abutting HMA Pavement)

PAY LIMITS FOR CONTRACT ITEM

DOUBLE REINFORCED SECTION
as required by skew angle
20'-0" min.

SINGLE REINFORCED SECTION
20'-0"

NON-REINFORCED SECTION
20'-0"

'CD' Joint

Pay Limits for Contract Item

4" PERFORATED SUBDRAIN LOCATION

4" SUBDRAIN LOCATION

REVISION 10-19-21

SHEET 3 of 4

REVISIONS:
Added shoulders to single and non-reinforced sections.

APPROVED BY DESIGN METHODS ENGINEER

STANDARD ROAD PLAN
BR-204
WITH VARIABLE DEPTH PAVING NOTCH

IOWA DOT
SECTION A-A

SECTION B-B

BENT BAR SHAPES

APPROACH PAVEMENT LAYOUT AT A SKEW

DETAIL 'D' (Joint Placement)

DETAIL 'E'

(Back of Curb Placement)

DETAIL 'G'

(Back of Curb Placement)

Reinforced bridge approach section.

Expansion joint at end of Bridge Rail End Section: Place joint filler the full depth of the bridge approach pavement. In areas with curb, place full depth of pavement plus curb and shape material to fit the shape of the curb per Section B-B or PV-101. Seal joint per Detail 'F' of PV-101.

- Fixed Abutment Bridges: Type 'E' Joint.
- Moveable Abutment Bridges: Flexible Foam Expansion Joint Filler complying with Section 4136 of the Standard Specifications. Minimum filler width is the abutment "G" joint width. Joint length as required to completely fill from back side of curb to front face of bridge wing.

- Refer to BR-211, BR-212, or BR-231.
- Design shoulder width.
- Refer to Earth Polymeric Grid.
- Refer to Excavation Limits.
- Refer to Normal Pavement Slope.
- Refer to Modified Subbase.
- Refer to Polymer Grid.
- Refer to Pavement.
- Refer to Bridge Deck.
- Refer to Bridge Floor.
- Refer to Bridge Rail End Section.