

ORIGINATION FORM

Proposed Revisions to a Standard Plans Index
(Please provide all information – Incomplete forms will be returned)

Contact Information:

Date: July 3, 2018
Originator: **Rhonda Taylor**
Phone: (850) 414-4371
Email: Rhonda.Taylor@dot.state.fl.us

Standard Plans:

Index Number: **350-001**
Sheet Number (s): 1, 3, and 4 of 4
Index Title: Concrete Pavement Joints

Summary of the changes: Sheet 1: Changed Note 5.

Sheet 3: Deleted Keyed Joint detail from Standard Plans.

Sheet 4: Deleted outdated note, and change outside lane standard width to 13 ft. on all illustrations.

Provide notes: "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."

Commentary / Background:

Sheet 1: Some contractors were confusing the two different types of expansion joints, and substituting the 350-001 expansion joint for the 370-001 bridge approach expansion joint because of this note.

Sheet 3: These don't perform well and are problematic to build as well. Any mention of keyed joints in any notes, etc. should also be removed. I'm adding Rich Hewitt as "affected personnel" so he will be aware of this change for t

Sheet 4: Outside slab widths are to be 13-ft regardless of shoulder type. Notes provided for clarity.

Other Affected Offices / Documents: (Provide name of responsible personnel)

- | Yes | No | |
|-------------------------------------|--------------------------|-------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Other Standard Plans – |
| <input type="checkbox"/> | <input type="checkbox"/> | FDOT Design Manual – |
| <input type="checkbox"/> | <input type="checkbox"/> | Basis of Estimates Manual – |
| <input type="checkbox"/> | <input type="checkbox"/> | Standard Specifications – |
| <input type="checkbox"/> | <input type="checkbox"/> | Approved Product List – |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Construction – Richard Hewitt |
| <input type="checkbox"/> | <input type="checkbox"/> | Maintenance – |

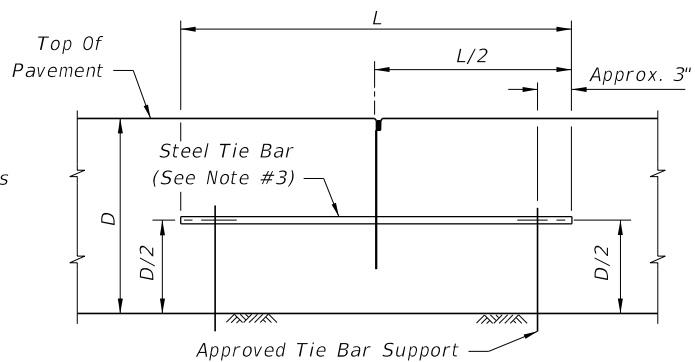
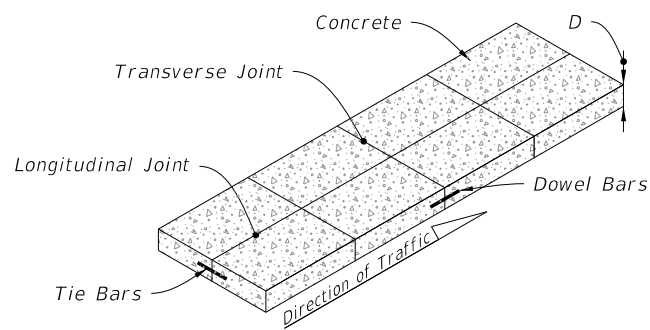
Origination Package Includes: (Email or hand deliver package to Derwood Sheppard)

- | Yes | N/A | |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups |
| <input type="checkbox"/> | <input type="checkbox"/> | Proposed Standard Plan Instructions (SPI) |
| <input type="checkbox"/> | <input type="checkbox"/> | Revised SPI |
| <input type="checkbox"/> | <input type="checkbox"/> | Other Support Documents |

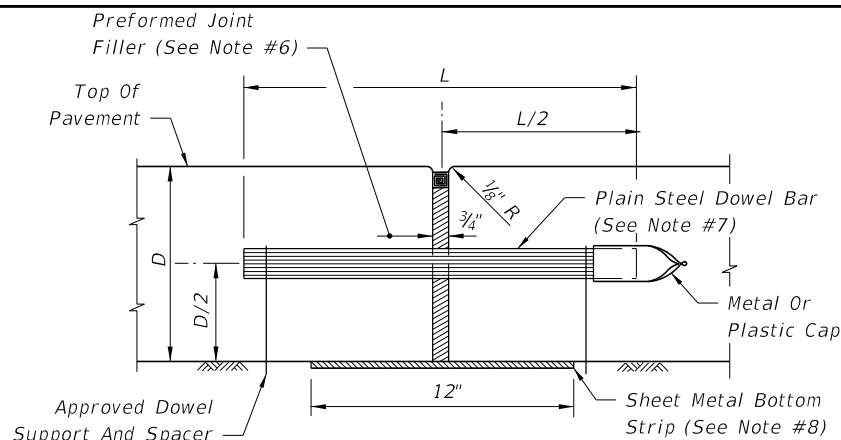
Implementation:

- | | | | |
|--|-----------------------------------|---|--|
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|--|-----------------------------------|---|--|

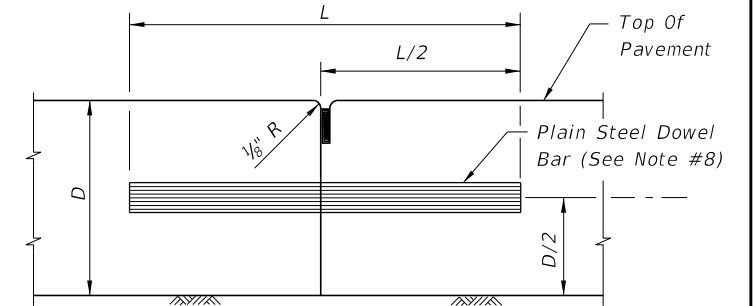
Contact the Roadway Design Office for assistance in completing this form



BUTT CONSTRUCTION JOINT



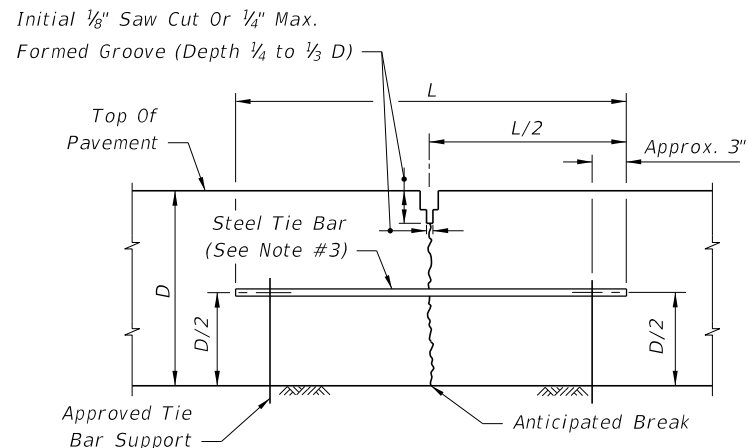
EXPANSION JOINT
(See Note #6)



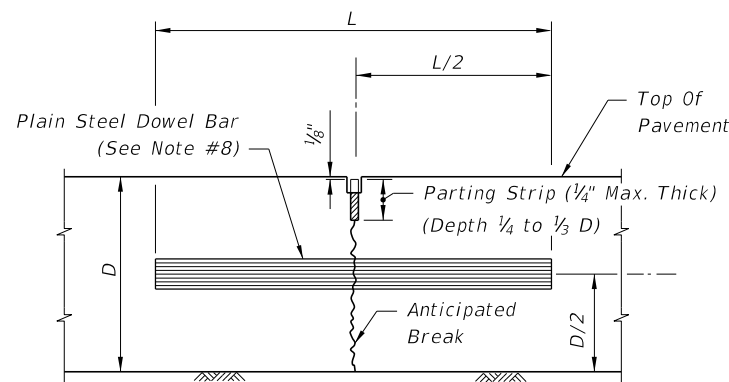
BUTT CONSTRUCTION JOINT
(Used At Discountance Of Work)

NOTES:

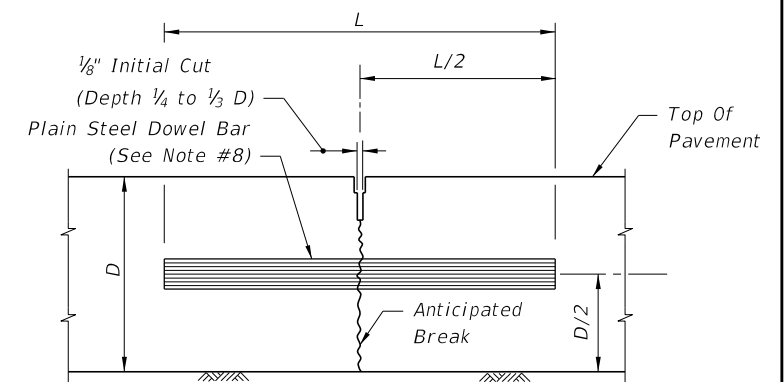
1. For joint seal dimensions see Sheet 2.
2. For slabs poured simultaneously, tie bars may be inserted in the plastic concrete by means approved by the Engineer.
3. For Longitudinal Joints:
 - A. Tie bars are deformed #4 or #5 reinforcing steel bars meeting the requirements of Specifications, Section 931.
 - B. Provide a standard load transfer tied joint with #4 bars 25" in length at 24" spacing or #5 bars 30" in length at 38" 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 on approaches to bridges, at street intersections and other locations 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 Specifications, Section 350.
8. Sheet metal bottom strips in accordance with Specifications, Section 931.



LANE-TIE JOINT
(See Note #2)



CONTRACTION JOINT
(Vibro Case Method)



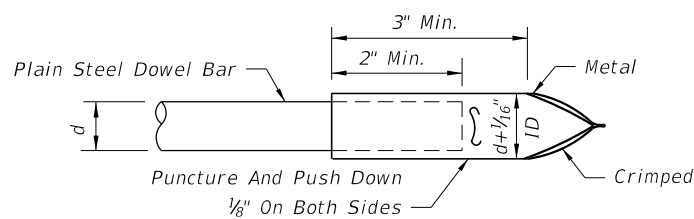
CONTRACTION JOINT
(Sawed Method)

LONGITUDINAL JOINTS

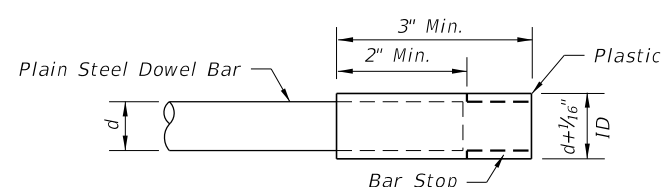
TRANSVERSE JOINTS

Changed Note 5

DOWELS (LENGTH 18")	
Pavement Thickness "D"	Diameter
6"-6 1/2"	3/4"
7"-8"	1"
8 1/2"-10 1/2"	1 1/4"
≥11"	1 1/2"

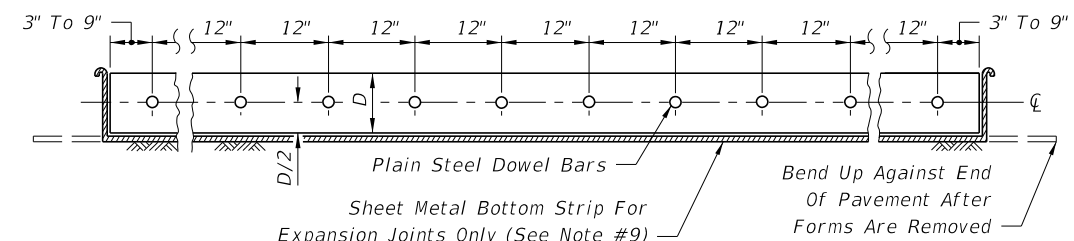


METAL



PLASTIC

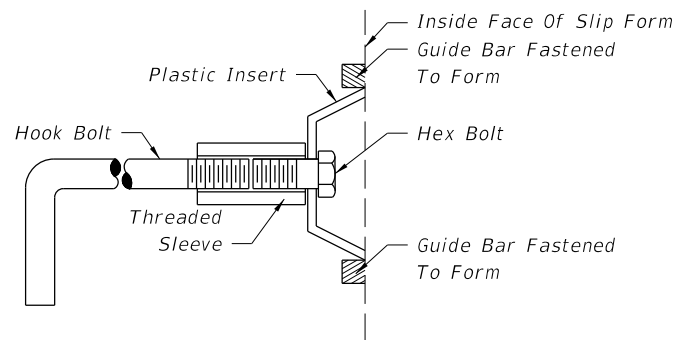
DOWEL BARS CAPS



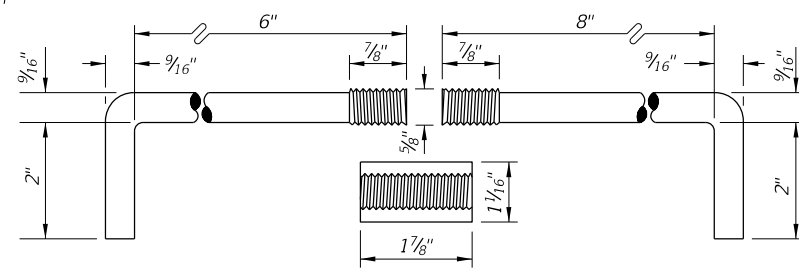
DOWEL BAR LAYOUT

10/16/2017 8:31:37 AM

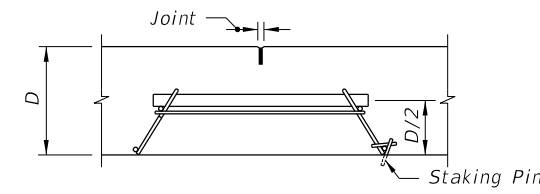
LAST REVISION	DESCRIPTION:
11/01/17	



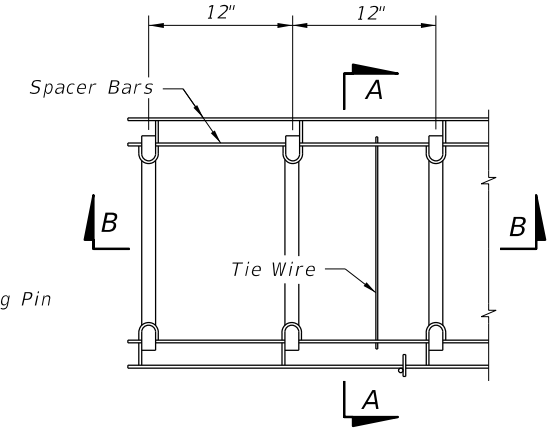
Note: After the concrete has set to the extent that the keyway will retain its shape, the hex bolt and plastic insert shall be removed. The remaining portion of the hook bolt assembly shall be installed immediately prior to placing of concrete in the adjacent lane.



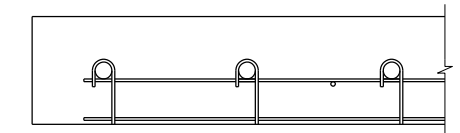
Anchor bolts shall be Grade C in accordance with ASTM A 307.
Threaded sleeves shall develop the full strength of the bolt and meet the material and thread requirements of ASTM A 563.



SECTION AA

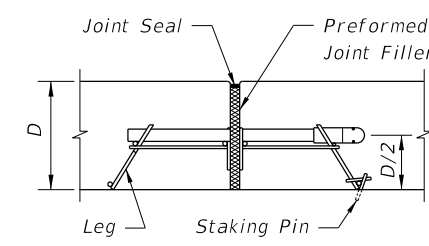


TOP VIEW

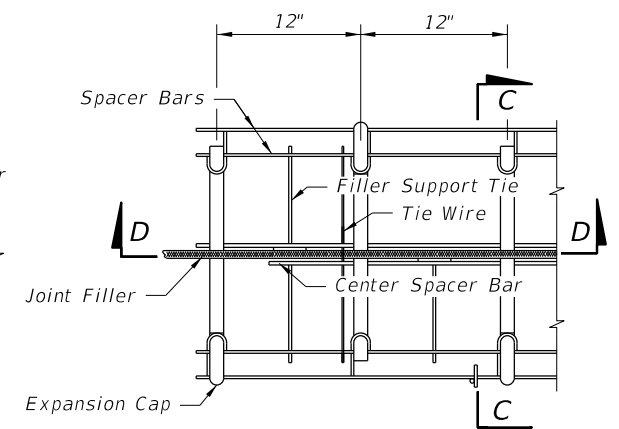


SECTION BB

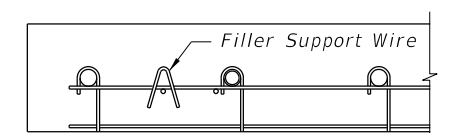
CONTRACTION ASSEMBLY



SECTION CC



TOP VIEW



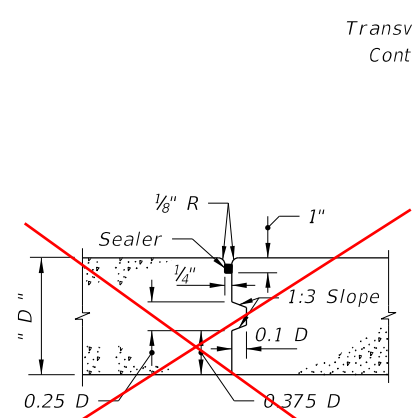
SECTION DD

EXPANSION ASSEMBLY

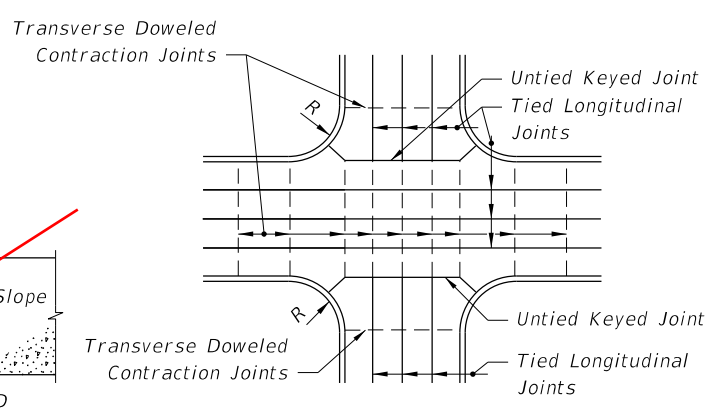
Note: Proprietary contraction and expansion assemblies may be used. Products shall be introduced to the State Construction Office in accordance with section (C) of the Product Evaluation Procedure.

ALTERNATE KEYWAY AND HOOK BOLT

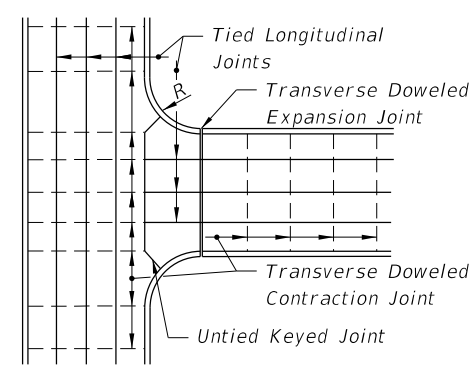
STEEL HOOK BOLT ASSEMBLY



~~KEYED JOINT
DELETE~~



JOINT LAYOUT
AT THRU INTERSECTION



JOINT LAYOUT
AT 'T' INTERSECTIONS

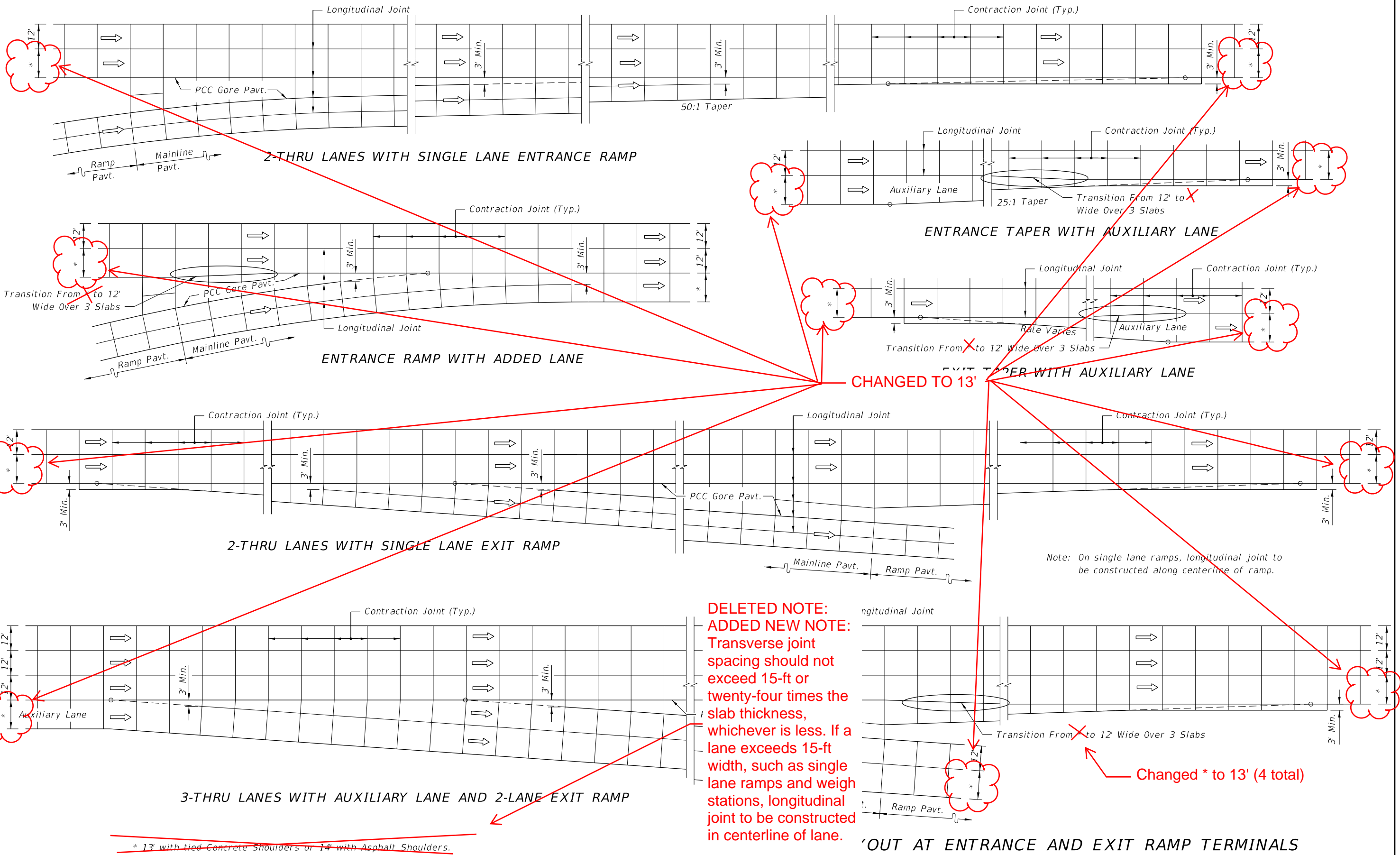
JOINT ARRANGEMENT

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 1/2" preformed expansion joint material.

10/16/2017 8:31:38 AM

LAST REVISION 11/01/17	DESCRIPTION: 11/01/18	 FY 2018-19 STANDARD PLANS	CONCRETE PAVEMENT JOINTS	INDEX 350-001	SHEET 3 of 4
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DELETED NOTE:
ADDED NEW 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.

CHANGED TO 13'

Changed * to 13' (4 total)

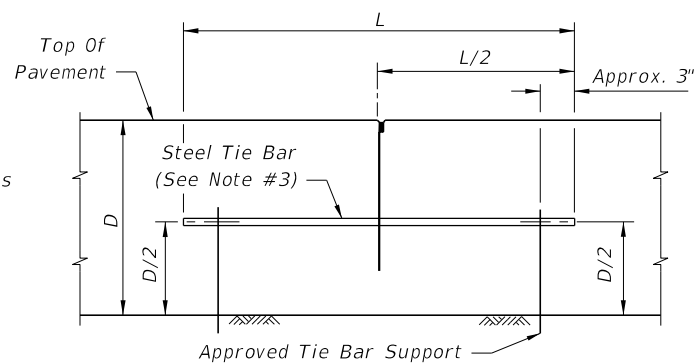
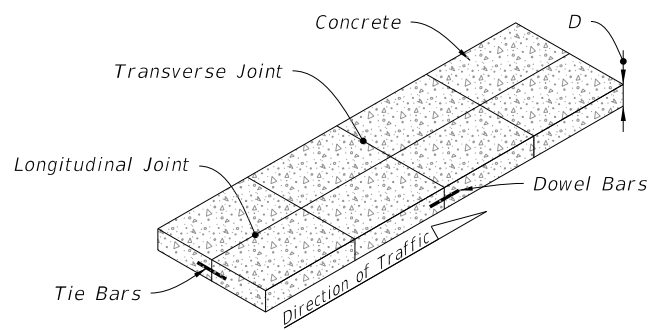
~~* 13' with tied Concrete Shoulders or 14' with Asphalt Shoulders.~~

Note: On single lane ramps, longitudinal joint to be constructed along centerline of ramp.

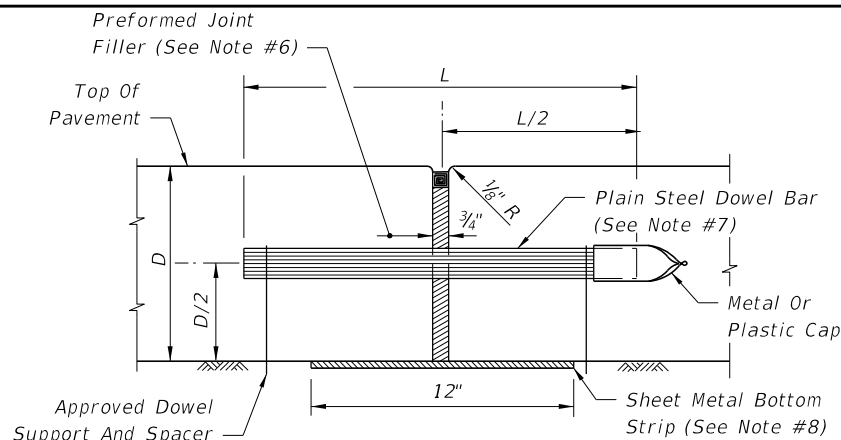
'OUT AT ENTRANCE AND EXIT RAMP TERMINALS

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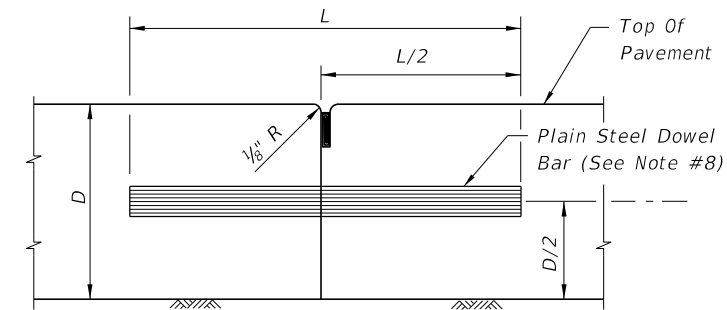
LAST REVISION 11/01/17	DESCRIPTION 11/01/18	FDOT FY 2018-19 STANDARD PLANS	CONCRETE PAVEMENT JOINTS	INDEX 350-001	SHEET 4 of 4
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BUTT CONSTRUCTION JOINT



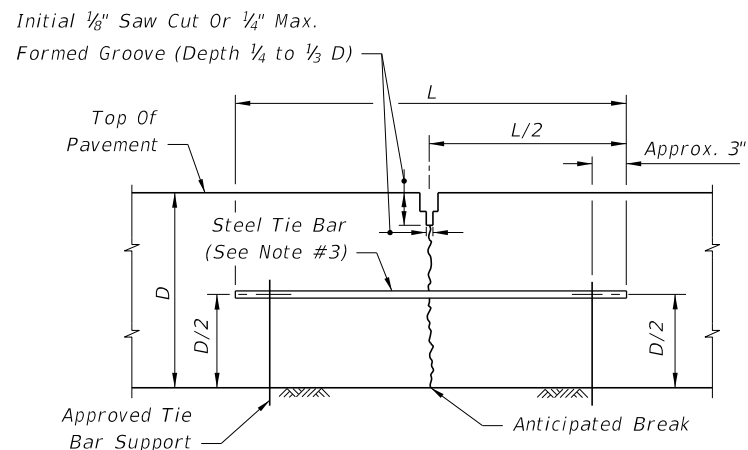
EXPANSION JOINT
(See Note #6)



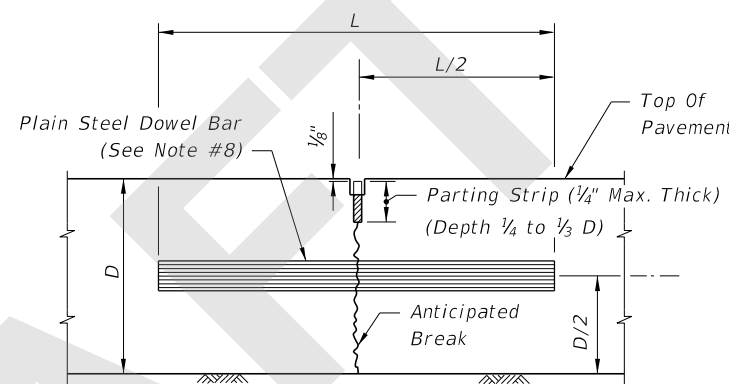
BUTT CONSTRUCTION JOINT
(Used At Discountuance Of Work)

NOTES:

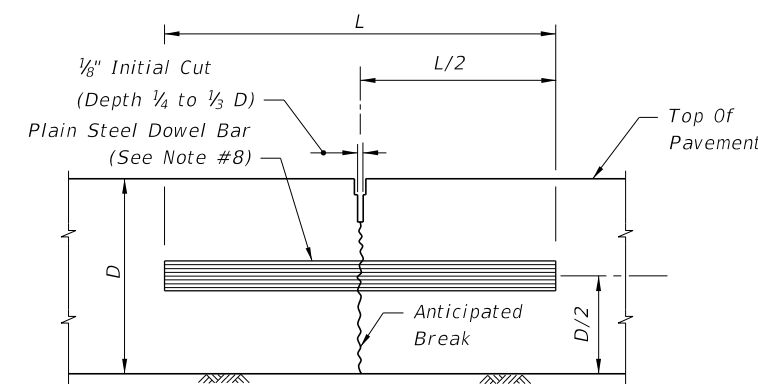
1. For joint seal dimensions see Sheet 2.
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 - A. Tie bars are deformed #4 or #5 reinforcing steel bars meeting the requirements of Specification 931.
 - B. Provide a standard load transfer tied joint with #4 bars 25" in length at 24" spacing or #5 bars 30" in length at 38" 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. For bridge expansion joints, see Index 370-001.
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.
8. Sheet metal bottom strips in accordance with Specification 931.



LANE-TIE JOINT
(See Note #2)



CONTRACTION JOINT
(Vibro Case Method)

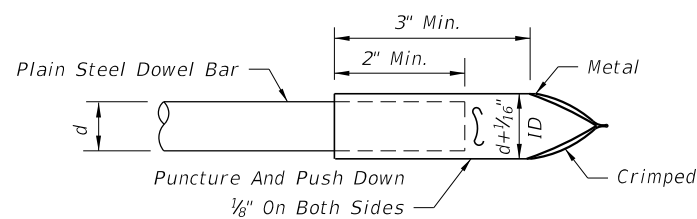


CONTRACTION JOINT
(Sawed Method)

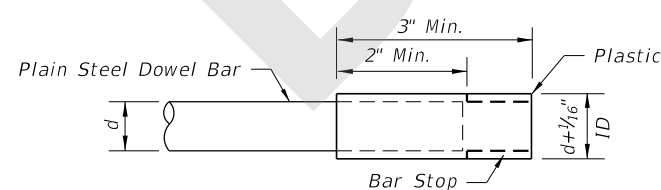
LONGITUDINAL JOINTS

TRANSVERSE JOINTS

DOWELS (LENGTH 18")	
Pavement Thickness "D"	Diameter
6"-6 1/2"	3/4"
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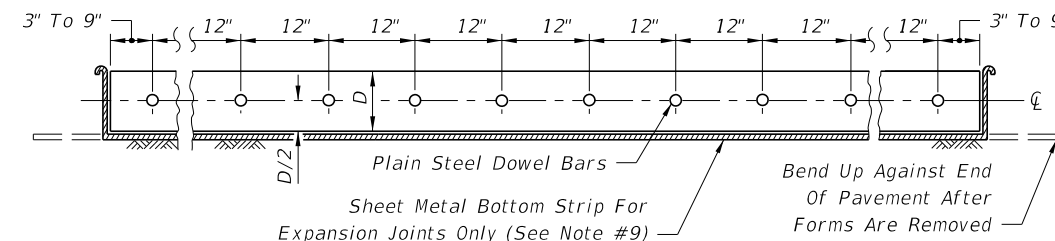


METAL



PLASTIC

DOWEL BARS CAPS



DOWEL BAR LAYOUT

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LAST REVISION 11/01/18	DESCRIPTION:
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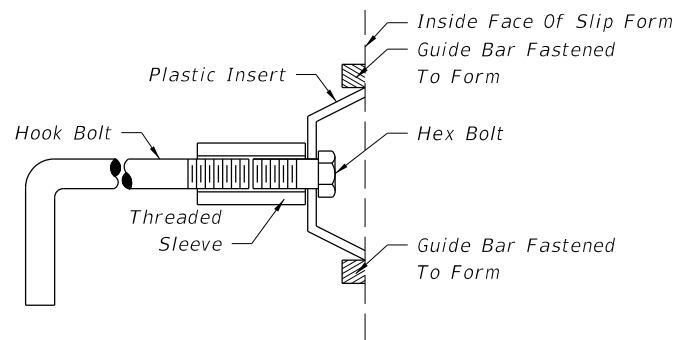


FY 2019-20
STANDARD PLANS

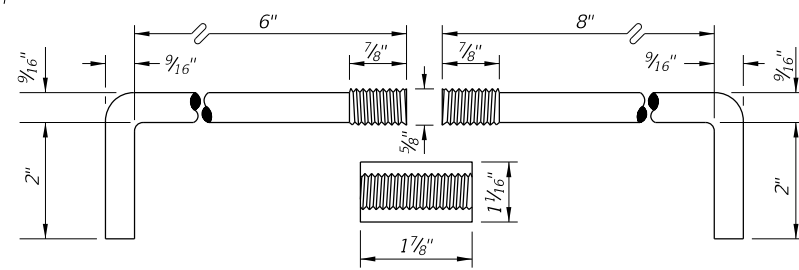
CONCRETE PAVEMENT JOINTS

INDEX
350-001

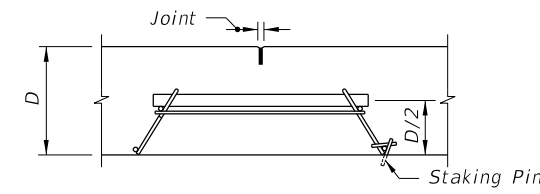
SHEET
1 of 4



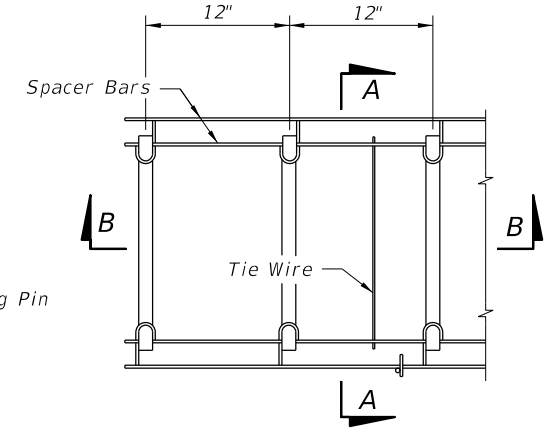
Note: After the concrete has set to the extent that the keyway will retain its shape, the hex bolt and plastic insert shall be removed. The remaining portion of the hook bolt assembly shall be installed immediately prior to placing of concrete in the adjacent lane.



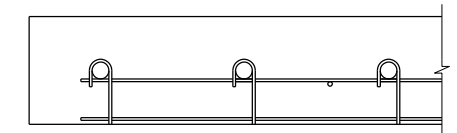
Anchor bolts shall be Grade C in accordance with ASTM A 307.
Threaded sleeves shall develop the full strength of the bolt and meet the material and thread requirements of ASTM A 563.



SECTION AA

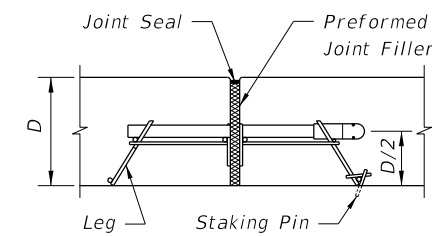


TOP VIEW

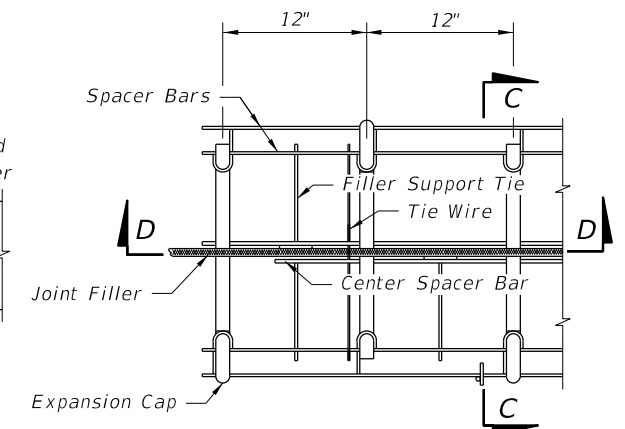


SECTION BB

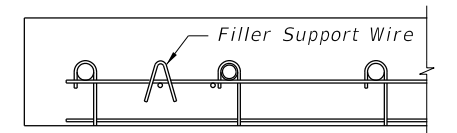
CONTRACTION ASSEMBLY



SECTION CC



TOP VIEW



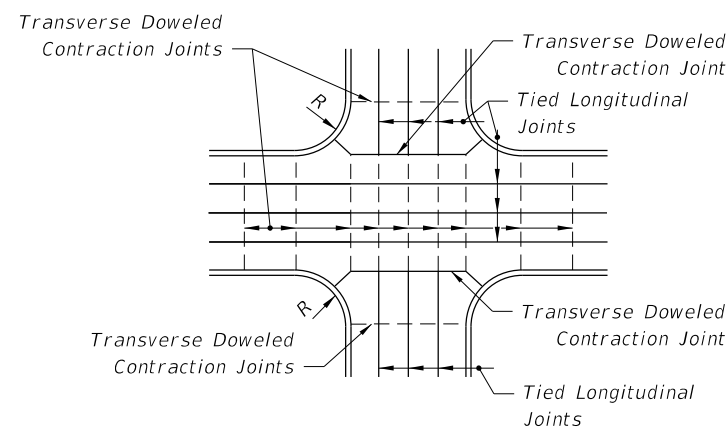
SECTION DD

EXPANSION ASSEMBLY

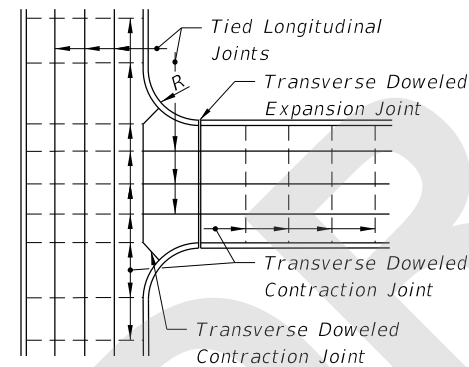
Note: Proprietary contraction and expansion assemblies may be used. Products shall be introduced to the State Construction Office in accordance with section (C) of the Product Evaluation Procedure.

ALTERNATE KEYWAY AND HOOK BOLT

STEEL HOOK BOLT ASSEMBLY



JOINT LAYOUT AT THRU INTERSECTIONS



JOINT LAYOUT AT 'T' INTERSECTIONS

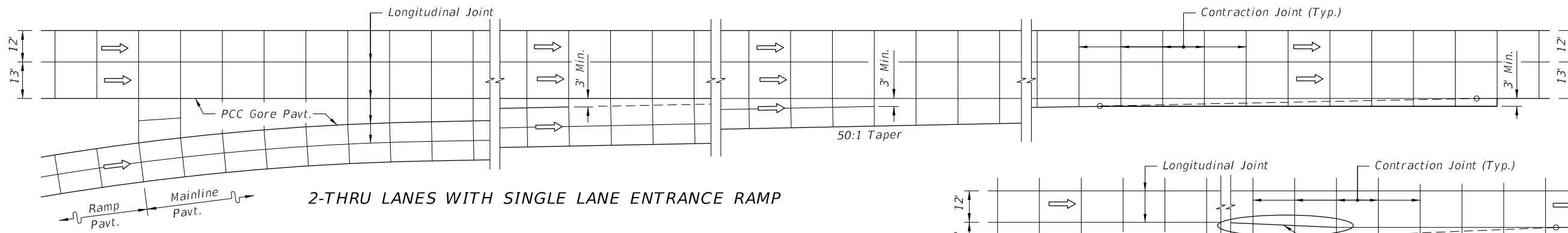
JOINT ARRANGEMENT

NOTES

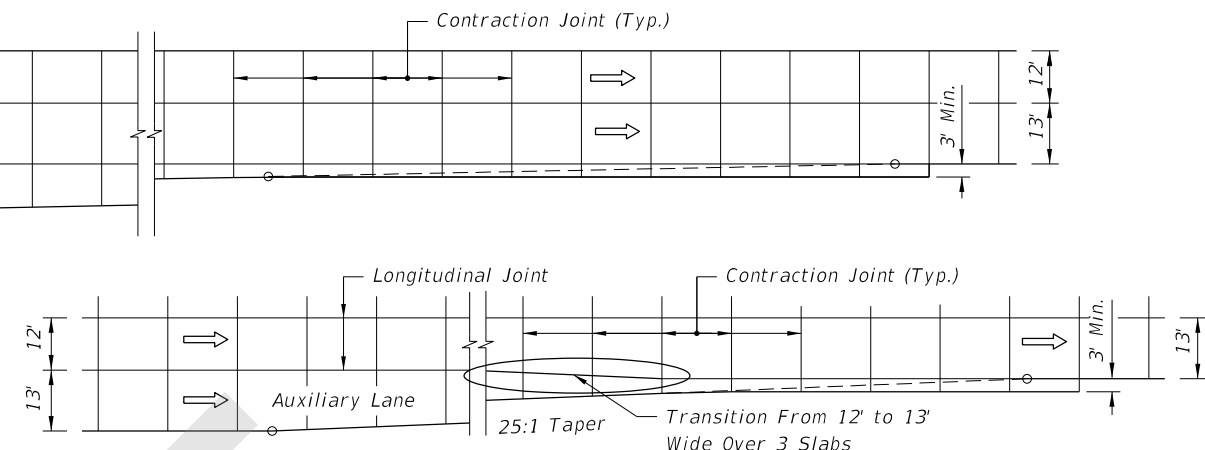
1. Longitudinal joints will not be required for single lane pavement 14' or less in width. For entrance and exit ramp joint details, see Sheet 4.
2. Arrangement of longitudinal joints are to be as directed by the Engineer.
3. All manholes, meter boxes and other projections into the pavement shall be boxed-in with 1/2" preformed expansion joint material.

8/13/2018 4:06:57 PM

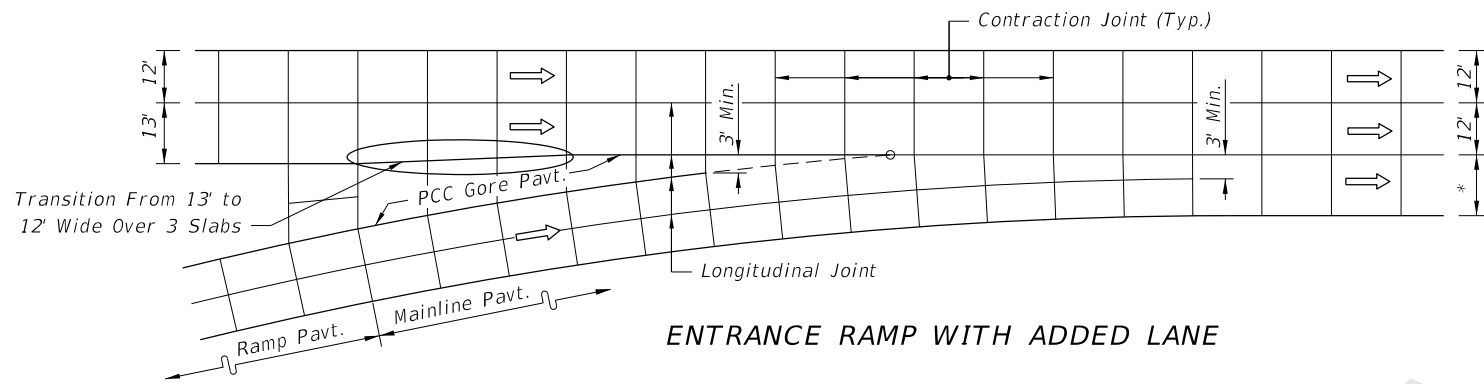
LAST REVISION 11/01/18	REVISION	DESCRIPTION:		FY 2019-20 STANDARD PLANS	CONCRETE PAVEMENT JOINTS	INDEX 350-001	SHEET 3 of 4
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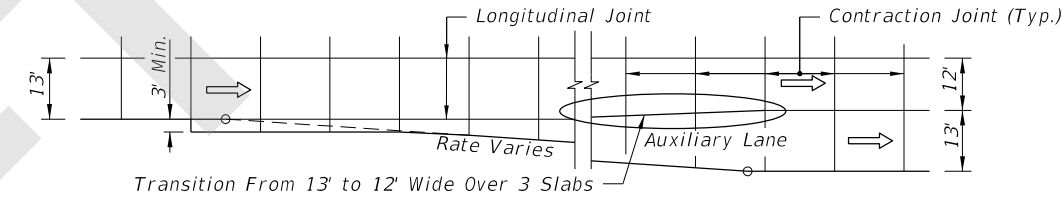
2-THRU LANES WITH SINGLE LANE ENTRANCE RAMP



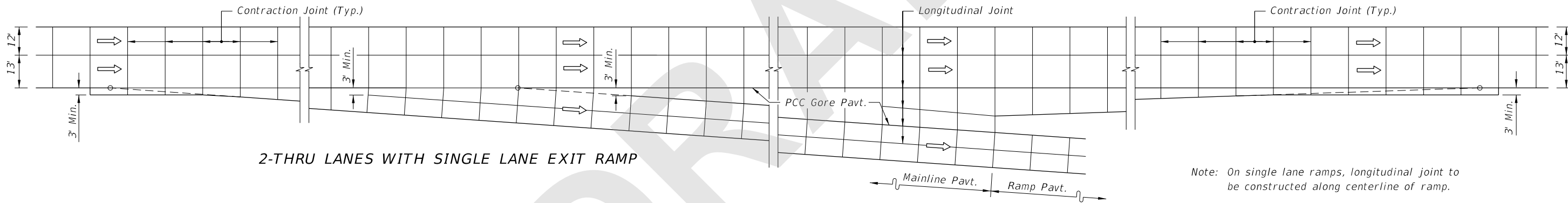
ENTRANCE TAPER WITH AUXILIARY LANE



ENTRANCE RAMP WITH ADDED LANE

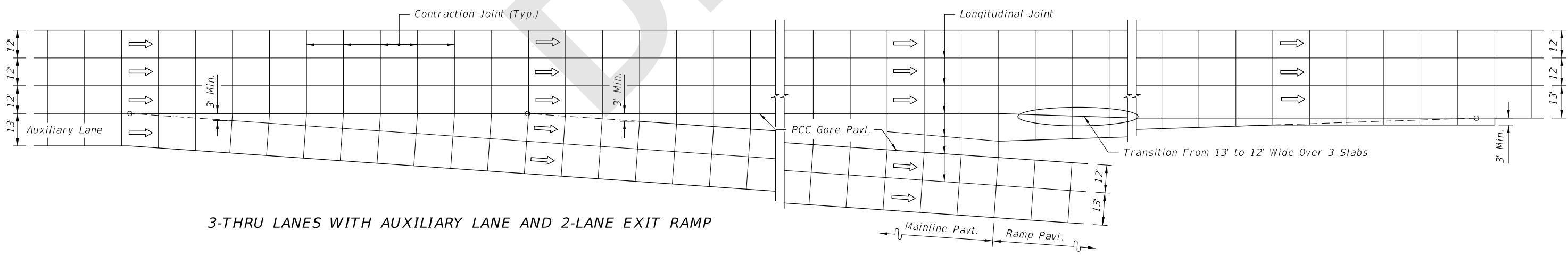


EXIT TAPER WITH AUXILIARY LANE



2-THRU LANES WITH SINGLE LANE EXIT RAMP

Note: On single lane ramps, longitudinal joint to be constructed along centerline of ramp.



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

JOINT LAYOUT AT ENTRANCE AND EXIT RAMP TERMINALS

8/13/2018 4:06:57 PM

LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	CONCRETE PAVEMENT JOINTS	INDEX 350-001	SHEET 4 of 4
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