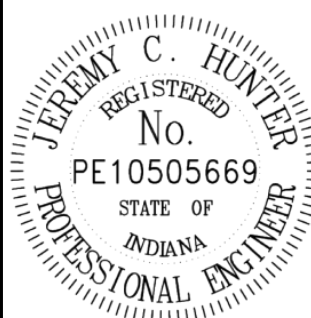


INDEX	
SHEET NO.	SUBJECT
1	Joint Repair Index and General Notes
2	Longitudinal Joint Repair, Partial Depth
3	Transverse Joint Repair, Partial Depth
4	Joint Repair, Bottom-Half

GENERAL NOTES:

1. Tie-bars shall be epoxy coated.
2. Remove top 2 in. of unsound concrete by milling (typical) or by chipping hammer. Any wire mesh exposed during JRCP repairs shall be completely removed.
3. Remove unsound concrete below milling depth by chipping hammer.
4. Chipping hammers shall not be heavier than a nominal 35 lb class.
5. Surfaces of all repairs shall be properly cleaned and prepared prior to placing concrete.

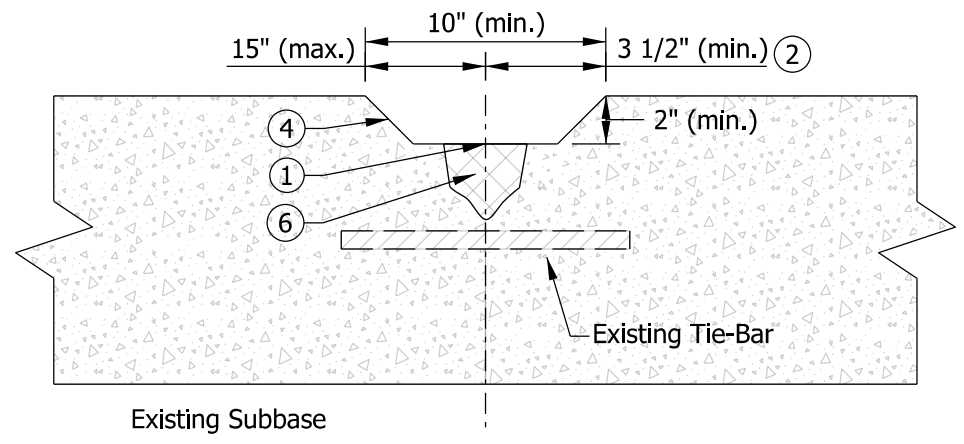
INDIANA DEPARTMENT OF TRANSPORTATION	
JOINT REPAIR INDEX AND GENERAL NOTES SEPTEMBER 2021	
STANDARD DRAWING NO. E 509-CCJR-01	
	<p><i>Jeremy C Hunter</i> 2/11/2021 DESIGN STANDARDS ENGINEER DATE</p> <p><i>[Signature]</i> 2/11/2021 CHIEF ENGINEER DATE</p>

NOTES:

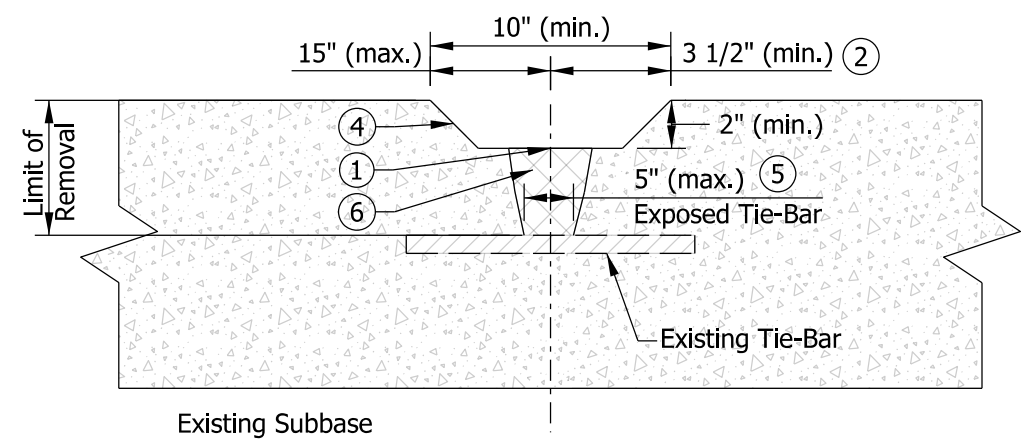
- ① Joint shall be reestablished by either preformed joint filler or saw cut option with tooling.
- ② Repairs that involve both sides of the joint shall have at least 3 1/2 in. of milling width on both sides of the joint. The overall milling width shall be at least 10 in.
- ③ Repairs that only involve one side of the joint shall have at least 10 in. of milling width, as measured from the joint, and shall not disturb the concrete in the adjacent slab.
- ④ Sides of repair shall be tapered 30° - 60° from vertical.
- ⑤ Full depth patching shall be used where the width of unsound concrete at the depth of the tie-bar exceeds 5 in.
- ⑥ 2 in. minimum milling shown, additional hand chipping may be required to remove unsound concrete.
7. Existing tie-bars exposed after removal shall be removed to the face of existing concrete. For tie-bar tolerance, see Standard Drawing Series E 503-CCPJ.
8. Any voids resulting from hand chipping that extend below the tie-bars may be filled with repair concrete. Removal of the unsound concrete below the elevation of the tie-bars is not intended.
9. Repairs shall be terminated 12 in. or more from a transverse joint.
- ⑩ Preformed Joint Filler initially installed to top of repair. A portion shall be sawed out to create reservoir for hot pour sealant.

LEGEND

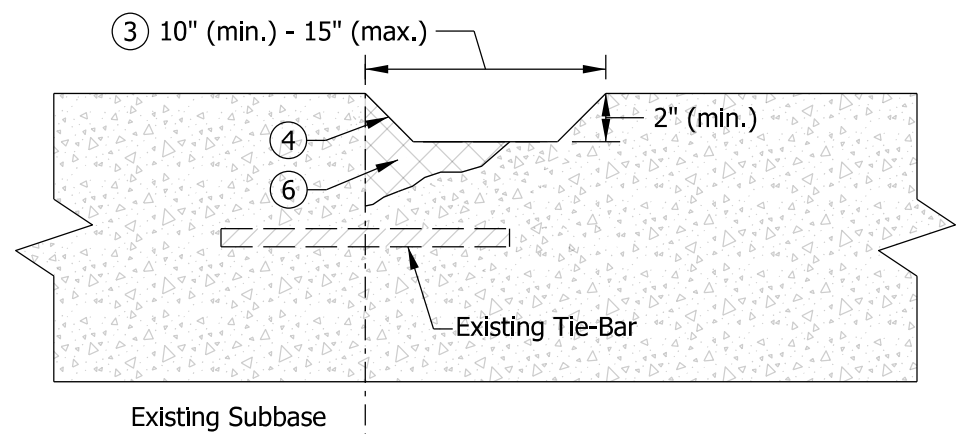
-  New Concrete
-  Unsound Concrete
-  Existing Concrete



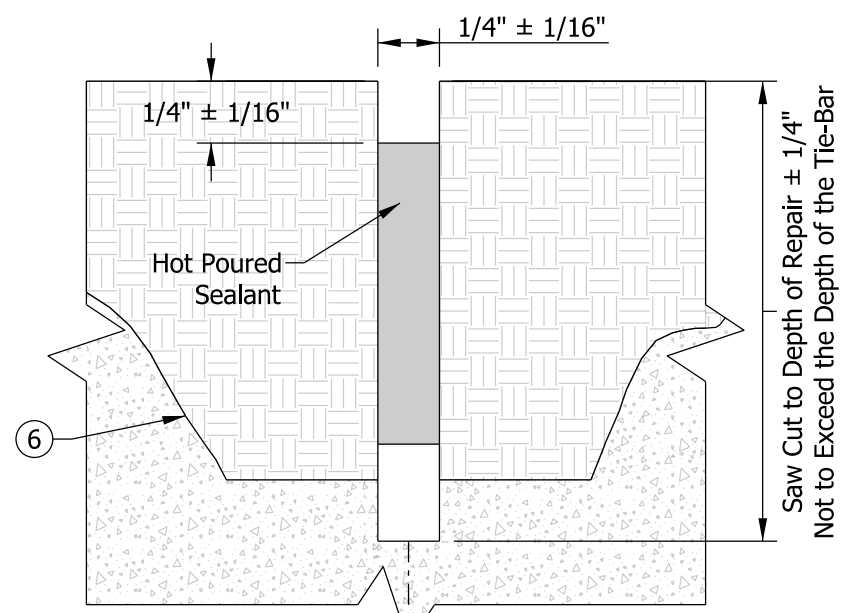
REMOVAL DETAIL STRADDLING JOINT WITHOUT EXPOSED TIE-BAR



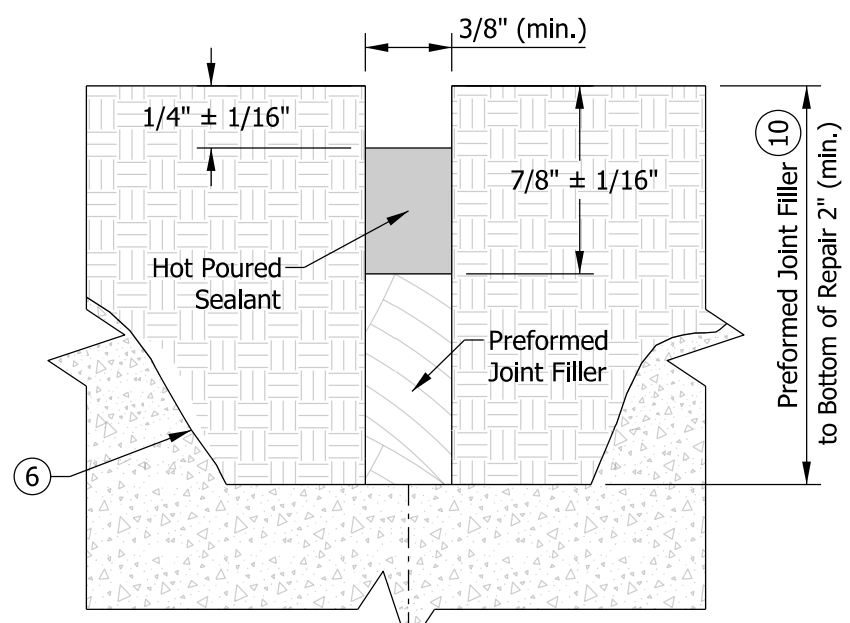
REMOVAL DETAIL STRADDLING JOINT WITH EXPOSED TIE-BAR



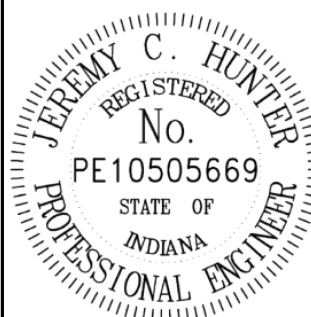
REMOVAL DETAIL ADJACENT TO JOINT WITHOUT EXPOSED TIE-BAR

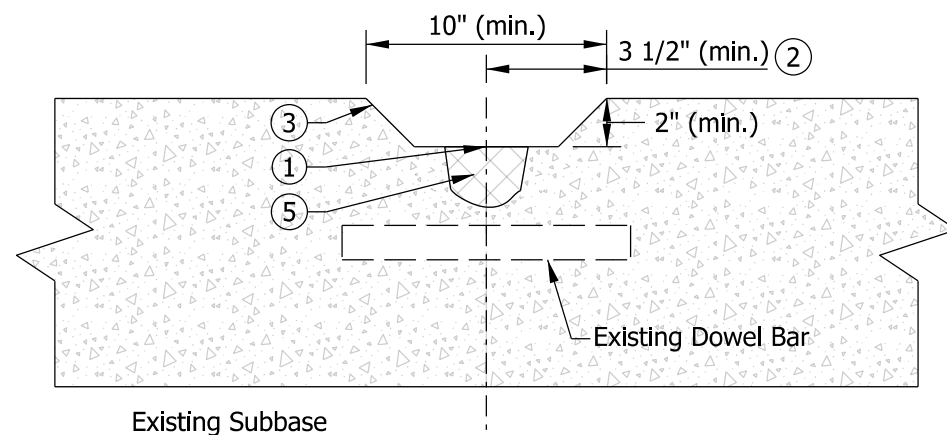


JOINT DETAIL- SAW CUT OPTION

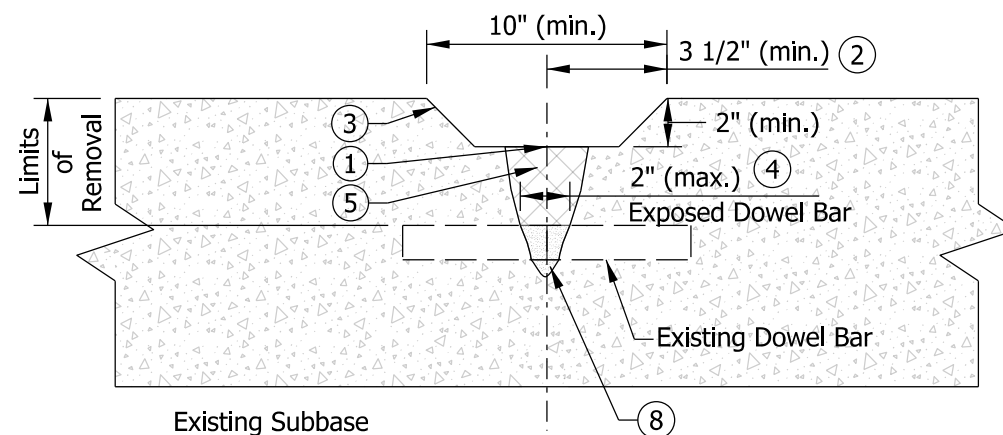


JOINT DETAIL- PREFORMED JOINT FILLER OPTION (Final Configuration)

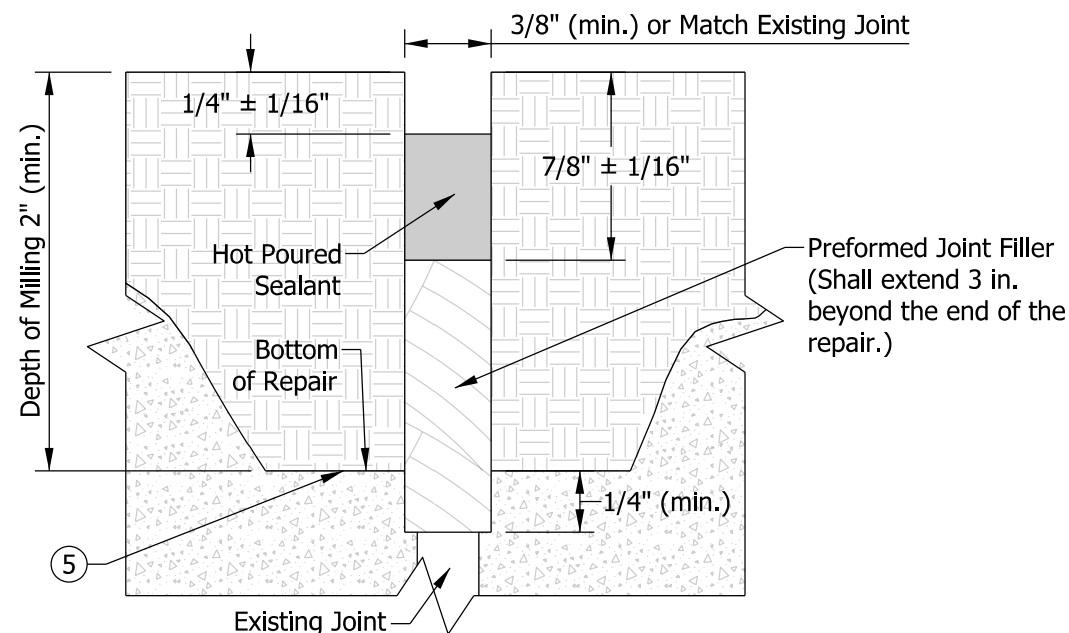
INDIANA DEPARTMENT OF TRANSPORTATION	
LONGITUDINAL JOINT REPAIR, PARTIAL DEPTH	
SEPTEMBER 2021	
STANDARD DRAWING NO.	E 509-CCJR-02
	<p><i>Jeremy C Hunter</i> 2/11/2021 DESIGN STANDARDS ENGINEER DATE</p> <p><i>[Signature]</i> 2/11/2021 CHIEF ENGINEER DATE</p>



**REMOVAL DETAIL WITHOUT EXPOSED DOWEL BAR
STRADDLING JOINT**



**REMOVAL DETAIL WITH EXPOSED DOWEL BAR
STRADDLING JOINT**



**JOINT REPAIR DETAILS
(showing repair straddling joint)**

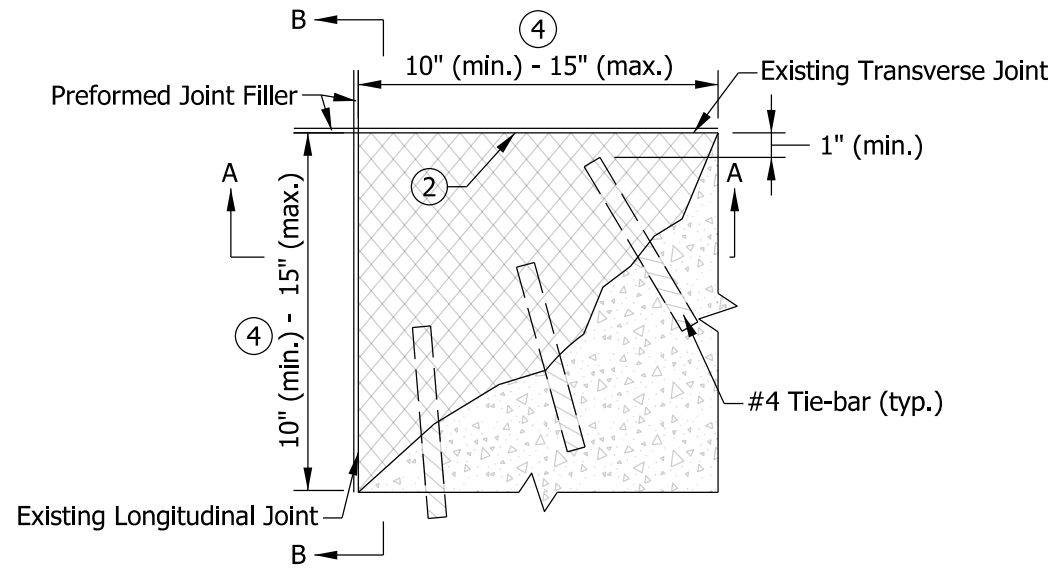
NOTES:

- ① Joints shall be reestablished by installing 3/8 in. preformed joint filler prior to concrete placement.
- ② Repairs that involve both sides of the joint shall have at least 3 1/2 in. of milling width on both sides of the joint. The overall milling width shall be at least 10 in.
- ③ Sides of repair shall be tapered 30° - 60° from vertical.
- ④ Full depth patching shall be used where the width of unsound concrete at the depth of the tie-bar exceeds 2 in.
- ⑤ 2 in. minimum milling shown, additional hand chipping may be required to remove unsound concrete.
6. Existing dowel bars exposed after removal that are either misaligned or severely corroded shall be removed to the face of existing concrete. For dowel bar tolerance, see Standard Drawing Series E 503-CCPJ.
7. Exposed areas of dowel bars shall be covered with duct tape as a bond breaker.
- ⑧ Any voids resulting from hand chipping that extend below the elevation of the top of the dowel bars shall be filled with dry clean sand. Removal of the unsound concrete below the elevation of the top of the dowel bars is not intended.
9. Joint repairs shall not terminate within a wheel path. Where existing deterioration exists within a wheel path, the limits of the repair should extend to the edge or center of the lane.

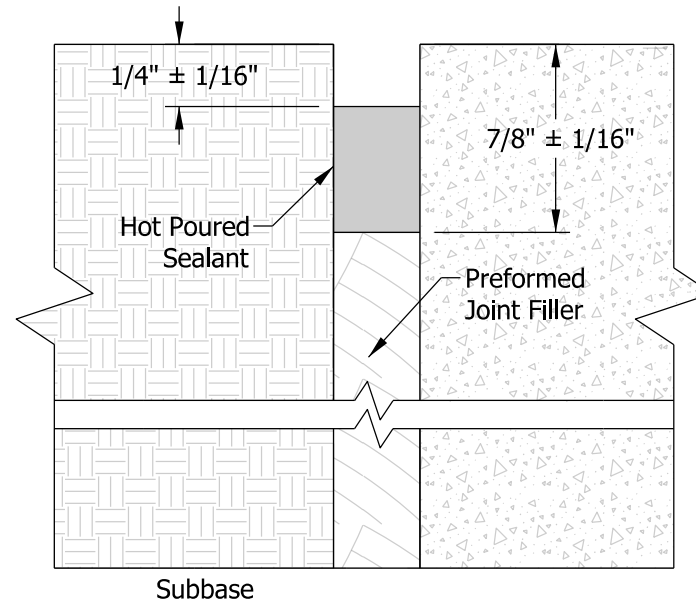
LEGEND

- Sand
- New Concrete
- Unsound Concrete
- Existing Concrete

INDIANA DEPARTMENT OF TRANSPORTATION					
TRANSVERSE JOINT REPAIR, PARTIAL DEPTH					
SEPTEMBER 2021					
STANDARD DRAWING NO.	E 509-CCJR-03				
	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center; vertical-align: bottom;"> DESIGN STANDARDS ENGINEER </td> <td style="text-align: right; vertical-align: bottom;"> 2/11/2021 DATE </td> </tr> <tr> <td style="text-align: center; vertical-align: bottom;"> CHIEF ENGINEER </td> <td style="text-align: right; vertical-align: bottom;"> 2/11/2021 DATE </td> </tr> </table>	 DESIGN STANDARDS ENGINEER	2/11/2021 DATE	 CHIEF ENGINEER	2/11/2021 DATE
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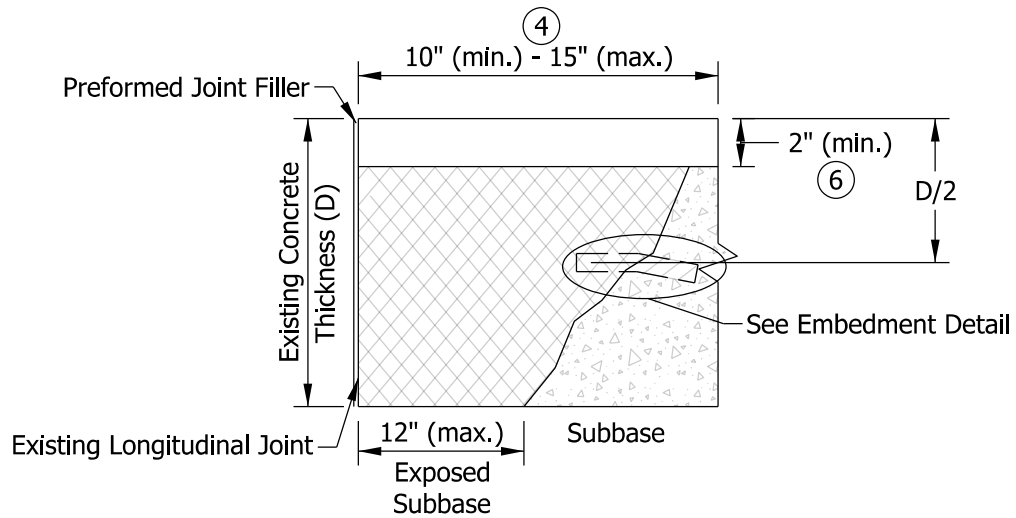


CORNER SLAB REPAIR - PLAN VIEW



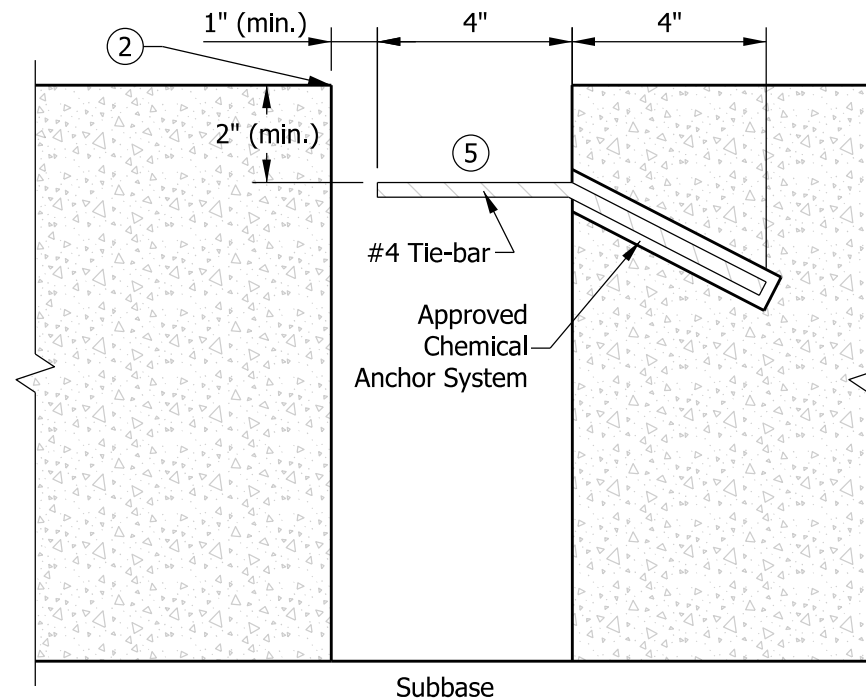
SECTION B-B

(showing repaired concrete)



SECTION A-A

(showing concrete removal)



EMBEDMENT DETAIL

NOTES:

1. #4 tie-bars shall be installed at 6 in. spacing, center to center while maintaining a minimum 2 in. of cover and 1 in. of clearance from the vertical sides of the joint.
2. Joints shall be reestablished by installing full depth preformed expansion joint filler to match the existing transverse joint prior to concrete placement.
3. Area for joint repair, bottom-half will be measured at D/2.
4. 15 in. maximum or as approved by the Engineer.
5. #4 tie-bars may be installed at an angle to clear the adjacent existing concrete, but shall be field bent horizontal prior to installation.
6. Pay limits for partial depth joint repair.

LEGEND

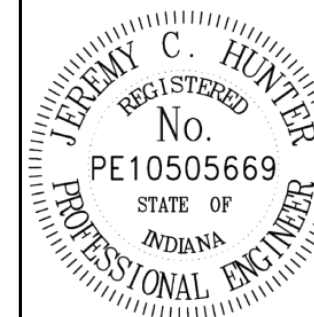
- New Concrete
- Unsound Concrete
- Existing Concrete

INDIANA DEPARTMENT OF TRANSPORTATION

JOINT REPAIR,
BOTTOM-HALF

SEPTEMBER 2021

STANDARD DRAWING NO. E 509-CCJR-04



Jeremy C Hunter 2/11/2021
DESIGN STANDARDS ENGINEER DATE

[Signature] 2/11/2021
CHIEF ENGINEER DATE