INDEX		
SHEET NO.	SUBJECT	
1	Concrete Pavement Patching Index and General Notes	
2	Joint Details	
3	Joint Placement	
4	Patch Length ≥ 6' and ≤ 15'	
5	Patch Length > 15' and ≤ 60'	
6	Patch Length > 60'	
7	Dowel Alignment and Saw Cut Tolerances	

GENERAL NOTES:

- 1. Dowel bars shall be epoxy coated.
- 2. Tie-bars shall be epoxy coated.
- 3. Additional preparation of existing subgrade will be determined by the Engineer.
- 4. See Standard Drawing E 503-CCPJ-02 for sawed joint and joint sealant details.
- 5. See Standard Drawing E 503-CCPJ-03 for D-1 contraction joint details.
- 6. See Standard Drawing E 503-CCPJ-05 for retrofitted tie-bar details.
- 7. The minimum patch length shall be 6 ft.

INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT PATCHING INDEX AND GENERAL NOTES

SEPTEMBER 2020

STANDARD DRAWING NO. E

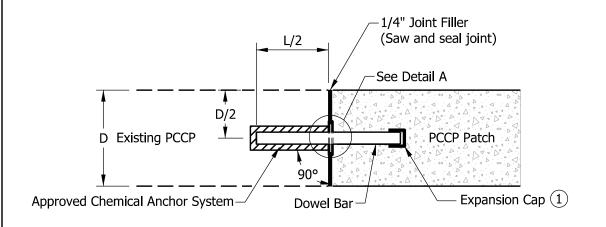
E 506-CCPP-01

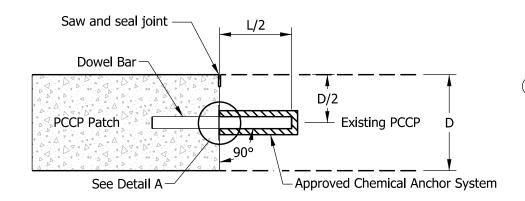


DESIGN STANDARDS ENGINEER DATE

05/01/20

CHIEF ENGINEER DATE





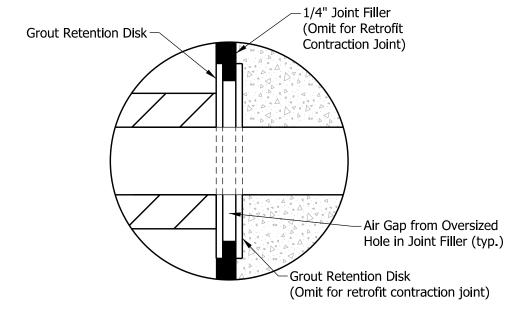
PCCP

PCCP 1/4" Joint Filler (Saw and seal joint) See Detail A Existing Asphalt DEXISTING PCCP PCCP Patch 90° Dowel Bar Expansion Cap 1

Saw and seal joint Dowel Bar Existing Asphalt D/2 PCCP Patch See Detail A Approved Chemical Anchor System

COMPOSITE PAVEMENT RETROFIT PRESSURE RELIEF JOINT

COMPOSITE PAVEMENT RETROFIT CONTRACTION JOINT



DETAIL A

(Retrofit Pressure Relief Joint shown Retrofit Contraction Joint same by opposite hand)

NOTE:

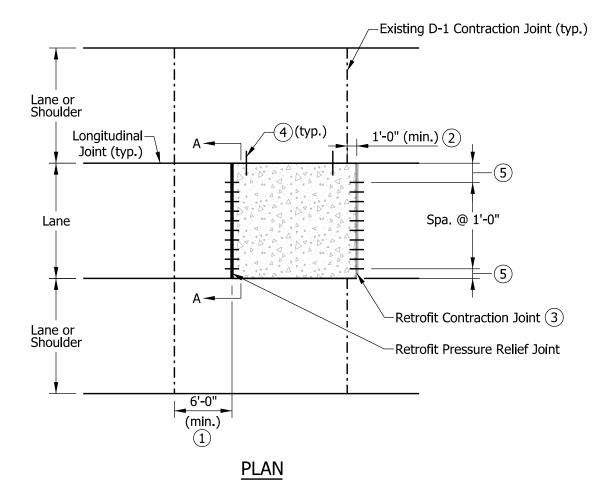
- 1 Expansion cap shall be placed with a gap of 1/4 in. minimum between end of dowel bar and cap.
- 2. Dowel bar diameter shall be as follows:
 - •1 in. for existing PCCP thickness 10 in. or less
 - •1.5 in. for existing PCCP thickness greater than 10 in.
- 3. Dowel bar length shall be 1 ft 2 in. minimum and 1 ft 6 in. maximum, regardless of dowel diameter.
- 4. Sawing and sealing joints shall be omitted where the concrete patch is to be overlaid with asphalt or concrete.

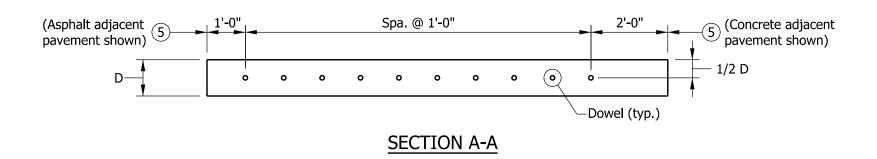
LEGEND

D = Existing PCCP Thickness

L = Dowel Bar Length

INDIANA DEPARTMENT OF TRANSPORTATION JOINT DETAILS SEPTEMBER 2020 STANDARD DRAWING NO. E 506-CCPP-02 No. 10200124 STATE OF DATE O5/01/20 CHIEF ENGINEER DATE





NOTES:

- (1) Retrofit pressure relief joints and retrofit contraction joints shall be placed a minimum of 6 ft from an existing D-1 contraction joint located in the same lane as the patch.
- (2) Retrofit pressure relief joints and retrofit contraction joints shall be placed a minimum of 1 ft from an existing D-1 contraction joint located in a lane adjacent to the patch.
- (3) Where the total patch length exceeds 60 ft, a retrofit pressure relief joint shall be used in lieu of the retrofit contraction joint.
- (4) Retrofitted tie-bars as required for patches greater than 15 ft.
- (5) Distance to first dowel shall be as follows:
 - •1 ft 0 in. where adjacent pavement is asphalt
 - •2 ft 0 in. where adjacent pavement is concrete

LEGEND

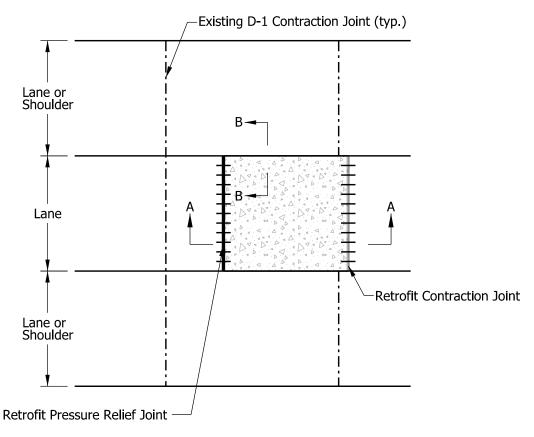
D = Existing PCCP Thickness

INDIANA DEPARTMENT OF TRANSPORTATION JOINT PLACEMENT SEPTEMBER 2020 STANDARD DRAWING NO. E 506-CCPP-03 SETH W. PHIL 03/10/20 No. 10200124 STATE OF WORLD DESIGN STANDARDS ENGINEER DATE

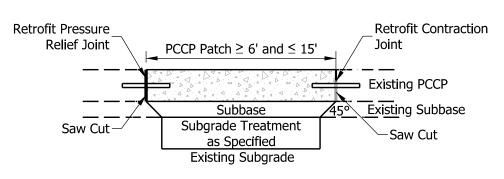
CHIEF ENGINEER

05/01/20

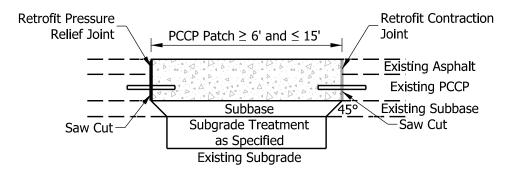
DATE



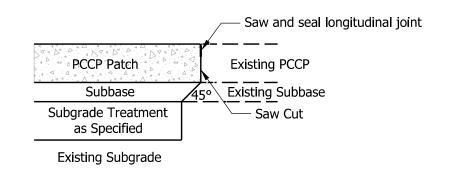
PLAN



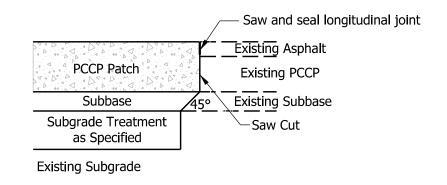
PCCP SECTION A-A



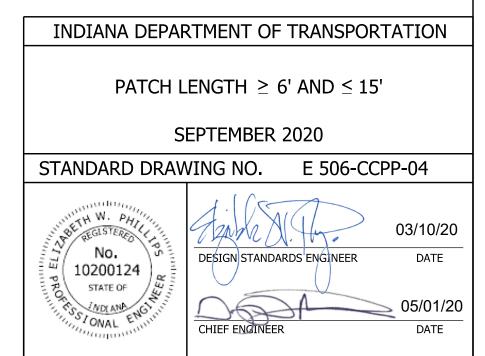
COMPOSITE PAVEMENT SECTION A-A

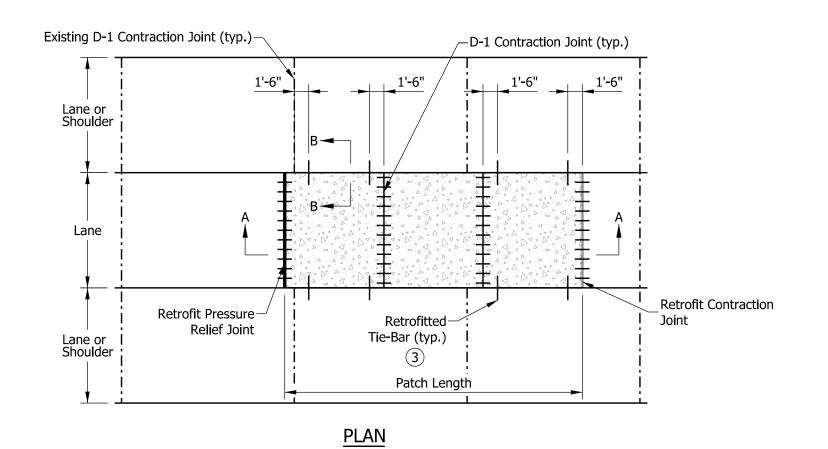


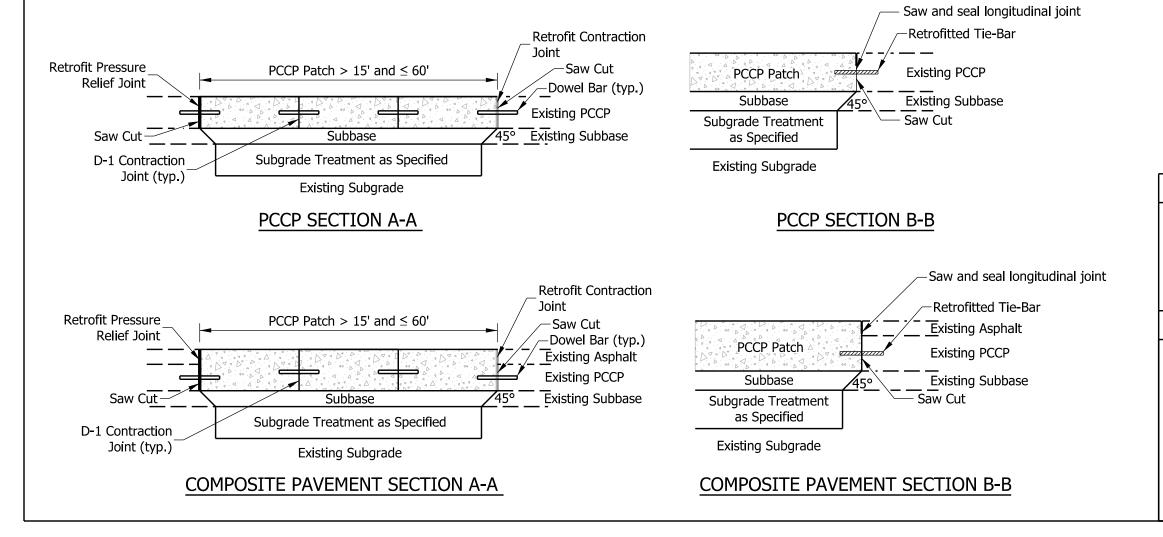
PCCP SECTION B-B



COMPOSITE PAVEMENT SECTION B-B



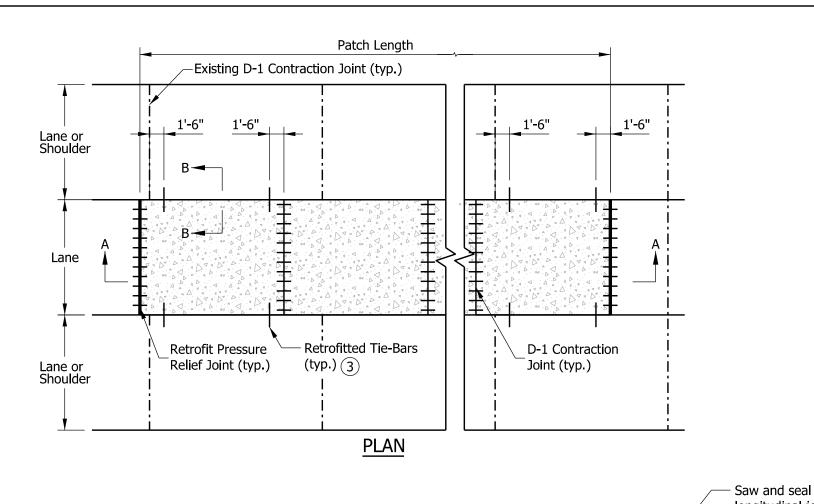




NOTES:

- 1. D-1 contraction joints shall be spaced at 15 ft. Where 15 ft spacing results in the last panel being less than 6 ft in length, the last D-1 spacing shall be adjusted to create two equal panel lengths greater than 6 ft.
- 2. Retrofitted tie-bars shall be placed in every other panel as shown.
- (3) Retrofitted tie-bars shall be used where adjacent lane or shoulder is PCCP or composite pavement.





Retrofit Pressure

Existing Asphalt

Existing Subbase

Existing PCCP

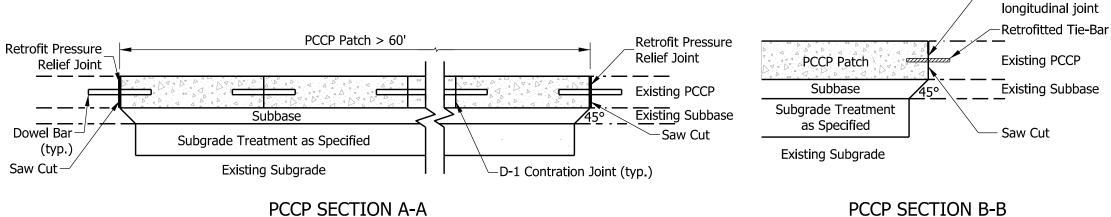
-Saw Cut

D-1 Contraction Joint (typ.)

Relief Joint

NOTES:

- 1. D-1 contraction joints shall be spaced at 15 ft. Where 15 ft spacing results in the last panel being less than 6 ft in length, the last D-1 spacing shall be adjusted to create two equal panel lengths greater than 6 ft.
- 2. Retrofitted tie-bars shall be placed in every other panel as shown.
- (3) Retrofitted tie-bars shall be used where adjacent lane or shoulder is PCCP or composite pavement.



PCCP Patch > 60'

COMPOSITE PAVEMENT SECTION A-A

Subbase

Subgrade Treatment as Specified

Existing Subgrade

Retrofit Pressure

Dowel Bar

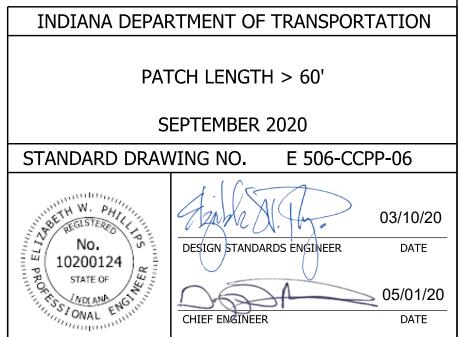
Saw Cut

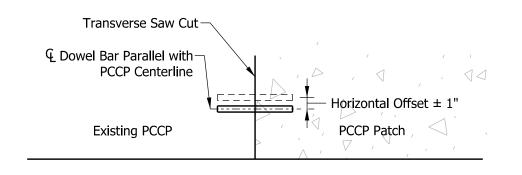
(typ.)

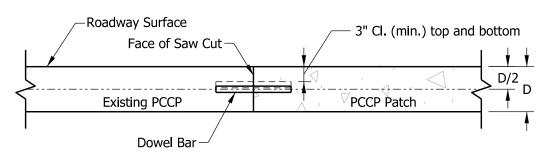
Relief Joint

Saw and seal longitudinal joint Retrofitted Tie-Bar Existing Asphalt Existing PCCP Subbase Subgrade Treatment as Specified Existing Subbase Saw Cut

COMPOSITE PAVEMENT SECTION B-B

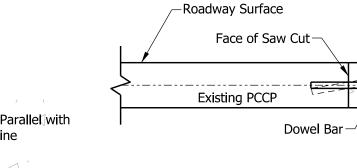


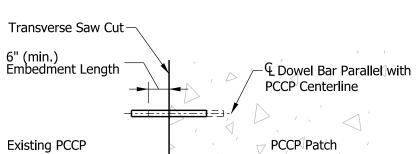




ELEVATION VERTICAL TRANSLATION

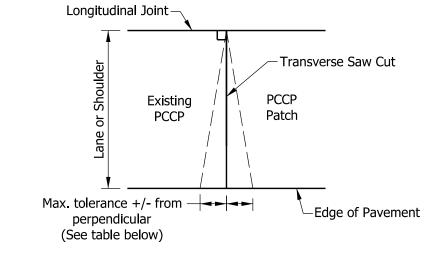
PLAN HORIZONTAL TRANSLATION





PLAN LONGTITUDINAL TRANSLATION

ELEVATION VERTICAL TILT



Transverse Saw Cut	t
♠ Dowel Bar Parallel with- PCCP Centerline	Horizontal Skew ± 1/4"
Existing PCCP	PCCP Ratch

PLAN HORIZONTAL SKEW

WIDTH OF LANE OR SHOULDER MAX. TOLERANCE 10' 1 5/8" 12' 2" 14' 2 5/16"

PLAN SAW CUT

LEGEND

Vertical Tilt Tolerance ± 1/4"

PCCP Patch

D = Existing PCCP Thickness

Mis-Aligned Dowel Bar

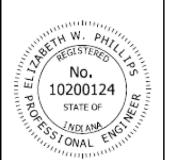
Properly Aligned Dowel Bar

INDIANA DEPARTMENT OF TRANSPORTATION

DOWEL ALIGNMENT AND SAWCUT TOLERANCES

SEPTEMBER 2020

STANDARD DRAWING NO. E 506-CCPP-07



03/10/20
TANDARDS ENGINEER DATE

DESIGN STANDARDS ENGINEER

05/01/20

DATE

NGINEER