

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

REVISED BY
 DATE

GERRY CRUZ
 MARVIN-ADOLFO A CANTON

CALCULATED-DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR
 KAZIM MAMDANI

- NOTES:**
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
 2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
 3. SEE LAYOUT SHEET FOR LOCATION AND TYPE OF HMA DIKE, CURB AND OVERSIDE DRAIN.
 4. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
 5. FOR JOINT SEAL, SEE RSP P31B AND SP B6-21.

DESIGN DESIGNATION (ROUTE 7)

2011 ADT = 7300 D = 58.0%
 2035 ADT = 25300 T = 24.7%
 DHV = 3650 V = 50 MPH

PAVEMENT CLIMATE REGION

DESERT

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	Imp	7	0.0/1.2	2	137

04-01-14
 REGISTERED CIVIL ENGINEER DATE

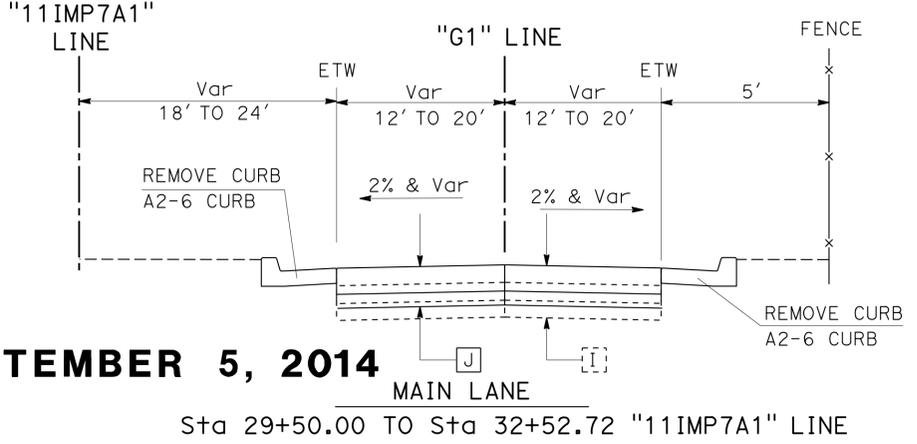
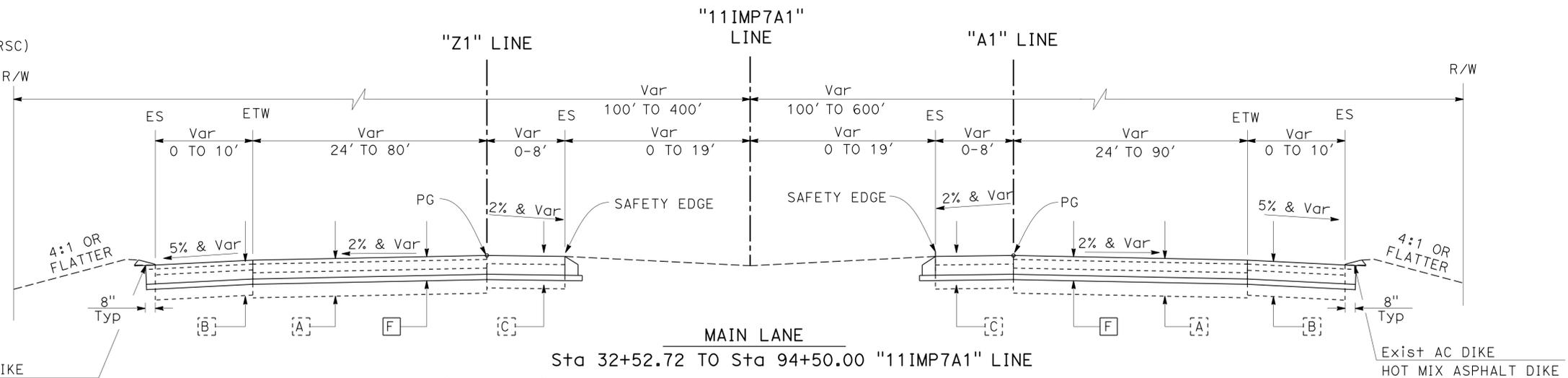
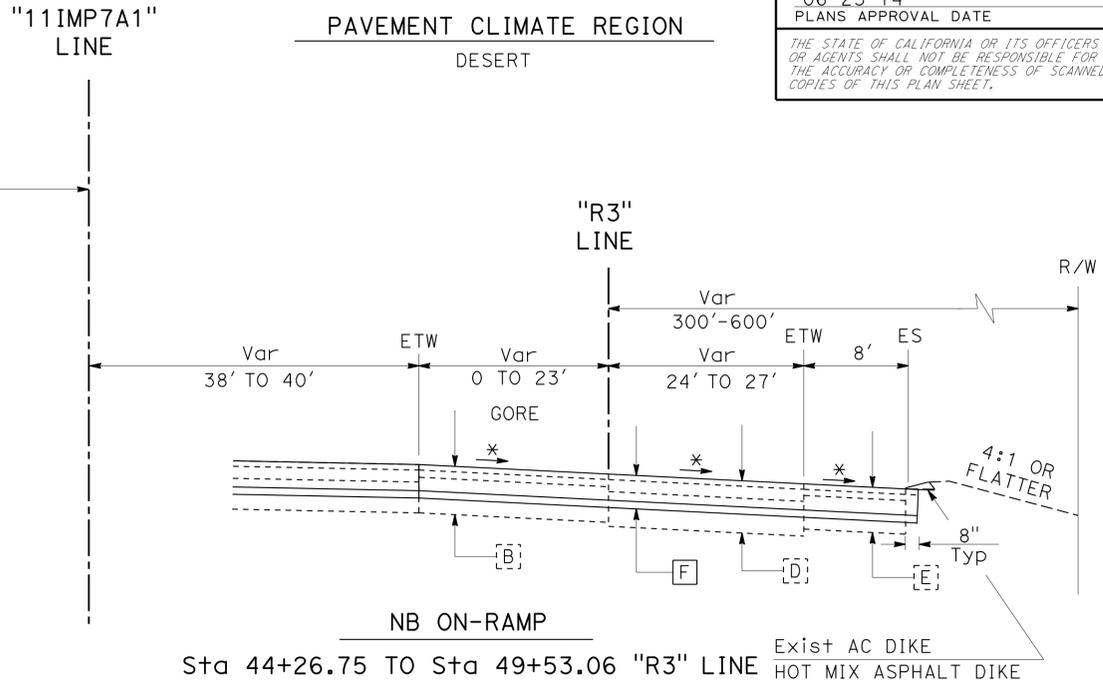
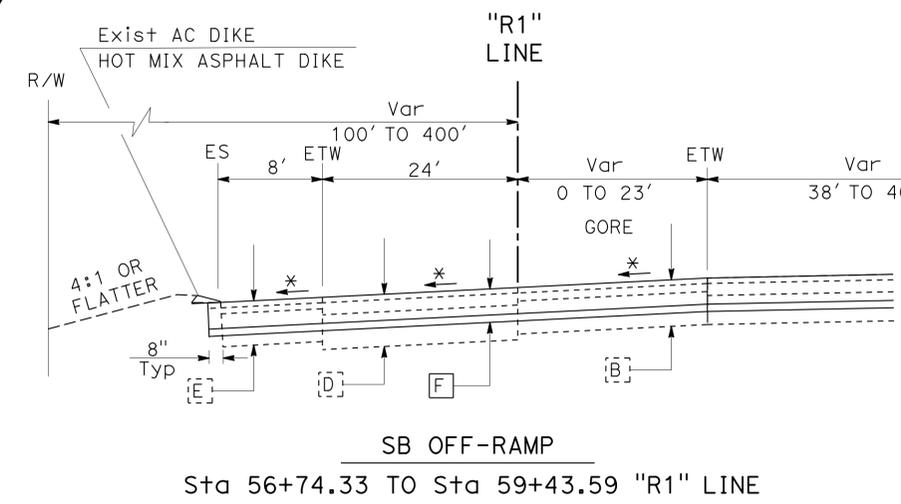
06-23-14
 PLANS APPROVAL DATE

GERRY E. CRUZ
 No. C79550
 Exp. 09-30-14
 CIVIL

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TYPICAL STRUCTURAL SECTIONS

- [A] Exist
 0.20' ASPHALT CONCRETE (TYPE B)
 0.55' ASPHALT CONCRETE BASE (TYPE B)
 1.55' AGGREGATE SUB-BASE CLASS 4
- [B] Exist
 0.20' ASPHALT CONCRETE (TYPE B)
 0.30' ASPHALT CONCRETE BASE (TYPE B)
 1.50' AGGREGATE SUB-BASE CLASS 4
- [C] Exist
 0.35' ASPHALT CONCRETE (TYPE B)
 1.60' AGGREGATE SUB-BASE CLASS 4
- [D] Exist
 0.20' ASPHALT CONCRETE (TYPE B)
 0.45' ASPHALT CONCRETE BASE (TYPE B)
 1.45' AGGREGATE SUB-BASE CLASS 4
- [E] Exist
 0.20' ASPHALT CONCRETE (TYPE B)
 0.20' ASPHALT CONCRETE BASE (TYPE B)
 1.45' AGGREGATE SUB-BASE CLASS 4
- [F] 0.90' CONTINUOUSLY REINFORCED CONCRETE PAVEMENT (CRCP)
 0.25' HMA (TYPE A)
- [H] 1.00' HMA (TYPE A)
- [I] Exist
 0.67' PORTLAND CEMENT CONCRETE PAVEMENT
 0.75' CRUSHED AGGREGATE BASE
 1.00' COMPACTED SUBGRADE
- [J] 1.00' JOINTED PLAIN CONCRETE PAVEMENT (RSC)
 0.50' RAPID STRENGTH CONCRETE BASE



LEGEND:
 * = 2% & Var

ROUTE 7



REPLACED PER ADDENDUM No. 3 DATED SEPTEMBER 5, 2014

TYPICAL CROSS SECTIONS

NO SCALE

X-1

LAST REVISION DATE PLOTTED => 03-SEP-2014 04-24-14 TIME PLOTTED => 15:13

3 REPLACED PER ADDENDUM No. 3 DATED SEPTEMBER 5, 2014

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	Imp	7	0.0/1.2	78	137

04-01-14
REGISTERED CIVIL ENGINEER DATE

06-23-14
PLANS APPROVAL DATE

GERRY E. CRUZ
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DELINEATOR (CLASS 1)

LINE	SHEET	TYPE			REMARKS
		E	F	G	
		EA	EA	EA	
"11IMP7A1"	L-1		15	6	
	L-2		22	14	
	L-3		18	9	
	L-4		17	14	
	L-5	3	7	10	
	L-6	4	26	20	
SUBTOTAL		7	105	73	
TOTAL			185		

DOWNDRAIN

LINE	STATION	REMOVE	12" SLIP JOINT	12" CORRUGATED STEEL PIPE	12" ENTRANCE TAPER	PLACE HOT MIX ASPHALT (Misc AREA)	MINOR HOT MIX ASPHALT	REMARKS (N)
		EA	EA	LF	EA	SQYD	TON	
"11IMP7A1"	Sta 51+58.96	1	1	6.5	1	1.7	1.1	PAVED GUTTER FLARE = 15'
"11IMP7A1"	Sta 89+26.69	1	1	6.5	1	1.7	1.1	PAVED GUTTER FLARE = 15'
"11IMP7A1"	Sta 93+96.91	1	1	6.5	1	1.7	1.1	PAVED GUTTER FLARE = 20'
TOTAL		3	3	19.5	3	5.1	3.3 *	

MINOR CONCRETE (CURB, SIDEWALK AND CURB RAMP)

LINE	STATION	CURB AND GUTTER (CY)	CURB RAMP AND SIDEWALK (CY)	DETECTABLE WARNING SURFACE (SQFT)
"11IMP7A1"	Sta 29+50.00 TO Sta 32+52.72	35.7		
	Sta 66+45.60 TO Sta 68+90.01	17.1	54.4	91.0
	Sta 94+26.82 TO Sta 96+22.16	9.0	3.6	117.0
SUBTOTAL		61.8	58.0	
TOTAL		119.8		208.0

CRCP (TERMINAL JOINT) (N)

LOCATION	LINE	DIRECTION	TYPE		
			LENGTH (LF)		
			A	D	E
32+52.72	11IMP7A1	NB			28.0
32+52.72	11IMP7A1	SB		28.0	
68+00.00	11IMP7A1	NB	100		
68+00.00	11IMP7A1	SB	109		
83+00.00	11IMP7A1	NB	42		
83+00.00	11IMP7A1	SB	40		
94+50.00	11IMP7A1	NB			74.0
94+50.00	11IMP7A1	SB			42.0
TOTAL			463		

CRCP (EXPANSION JOINT) (N)

LOCATION	LINE	DIRECTION	TYPE
			LENGTH (LF)
			NB/SB
32+87.72	11IMP7A1	NB	28.0
32+87.72	11IMP7A1	SB	28.0
94+15.00	11IMP7A1	NB	74.0
94+15.00	11IMP7A1	SB	42.0
TOTAL			172

JOINT SEAL (MR 2")

LINE	STATION	LENGTH (LF)
"11IMP7A1"	SEE CRCP (EXPANSION JOINT) TABLE	172
TOTAL		172

HOT MIX ASPHALT OVERSIDE DRAIN

LINE	STATION	LENGTH (N)	WIDTH (N)	PLACE HOT MIX ASPHALT (Misc AREA)	MINOR HOT MIX ASPHALT	REMARKS (N)
		LF	LF	SQYD	TON	
"11IMP7A1"	Sta 38+23.85	20	3	6.7	1.4	PAVED GUTTER FLARE = 10'
"11IMP7A1"	Sta 49+34.60	10	3	3.3	0.7	PAVED GUTTER FLARE = 10'
"11IMP7A1"	Sta 71+91.65	20	3	6.7	1.4	PAVED GUTTER FLARE = 10'
"11IMP7A1"	Sta 93+78.95	10	3	3.3	0.7	PAVED GUTTER FLARE = 20'
DOWNDRAIN				5.1		
TOTAL				25.1	4.2 *	

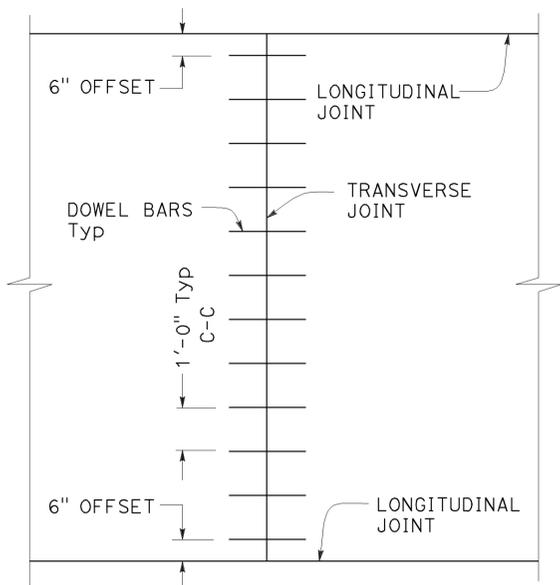
TEMPORARY DETOUR ROAD

LINE	STATION	ROADWAY EXCAVATION	HMA (TYPE A)	CLASS 2 AGGREGATE BASE	TACK COAT
		(CY)	(TON)	(CY)	(TON)
"11IMP7A1"	Sta 29+80.00 TO Sta 40+00.00	736.1	477.0	490.7	0.8
"11IMP7A1"	Sta 88+50.00 TO Sta 91+65.50	316.7	203.8	211.0	0.3
"11IMP7A1"	Sta 99+48.73 TO Sta 103+07.58	331.7	214.9	221.1	0.3
TOTAL		1,384.5 *	895.7 *	922.8	1.4 *

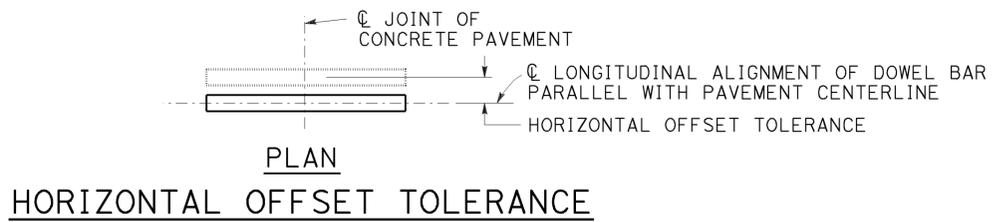
* = QUANTITIES ADDED TO EARTHWORK, PAVEMENT STRUCTURE AND DIKE TABLE
(N) = NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

**SUMMARY OF QUANTITIES
Q-3**

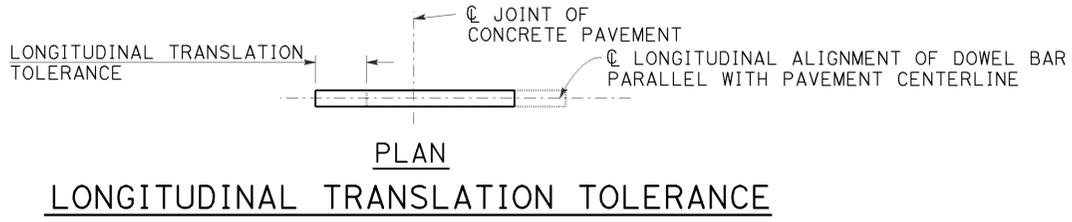
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN
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 FUNCTIONAL SUPERVISOR
 CALCULATED/DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED



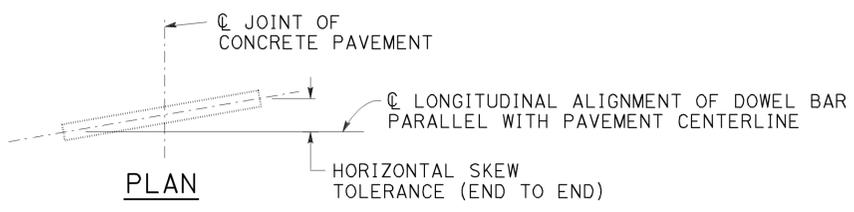
**TRANSVERSE JOINT
DOWEL BAR LAYOUT**



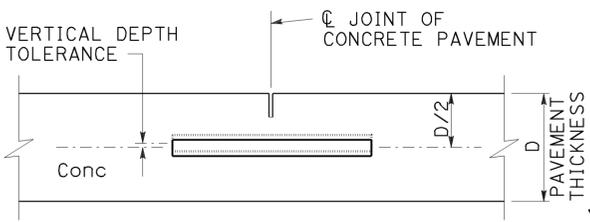
**PLAN
HORIZONTAL OFFSET TOLERANCE**



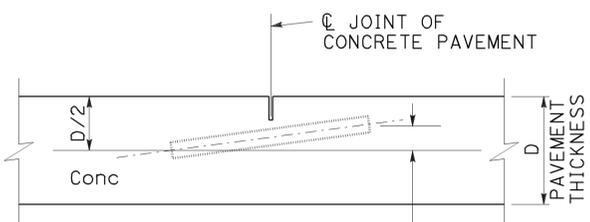
**PLAN
LONGITUDINAL TRANSLATION TOLERANCE**



**PLAN
HORIZONTAL SKEW TOLERANCE**



**ELEVATION
VERTICAL DEPTH TOLERANCE**

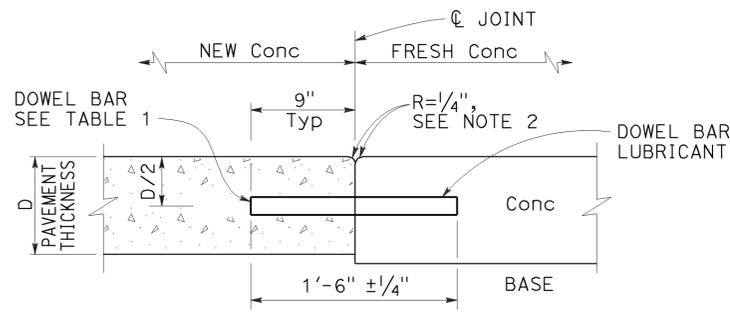


**ELEVATION
VERTICAL SKEW TOLERANCE**

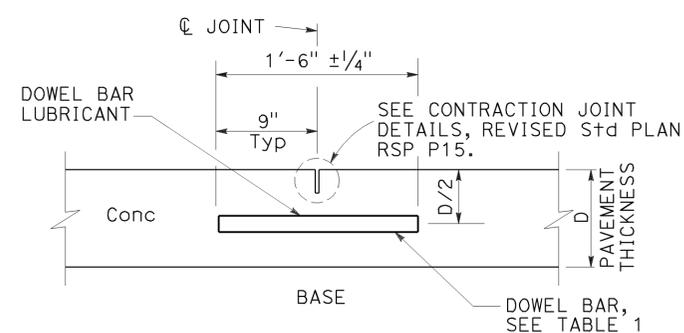
3

TO ACCOMPANY PLANS DATED 06-23-14

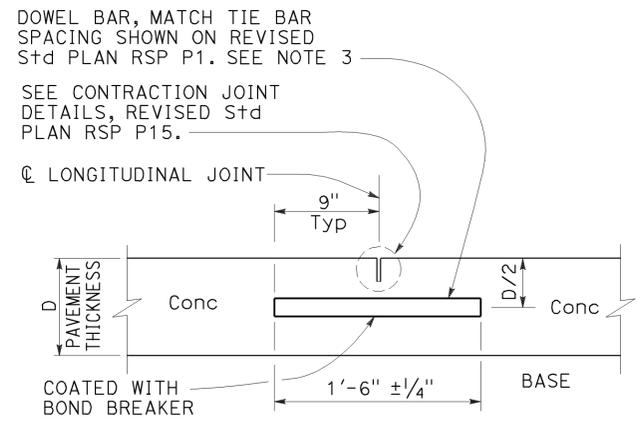
- NOTES:**
1. See Revised Standard Plan RSP P1 for typical dowel bar placement and locations.
 2. Where fresh concrete pavement is placed against new concrete or existing concrete pavement, rounding the corner of the existing concrete pavement is not required.
 3. May also use 3/4" Dia dowel bars 2'-4" ± 1/4" in length. Center the length of dowel bars at the centerline of longitudinal joint.



**TRANSVERSE
CONSTRUCTION JOINT DETAIL**



TRANSVERSE CONTRACTION JOINT

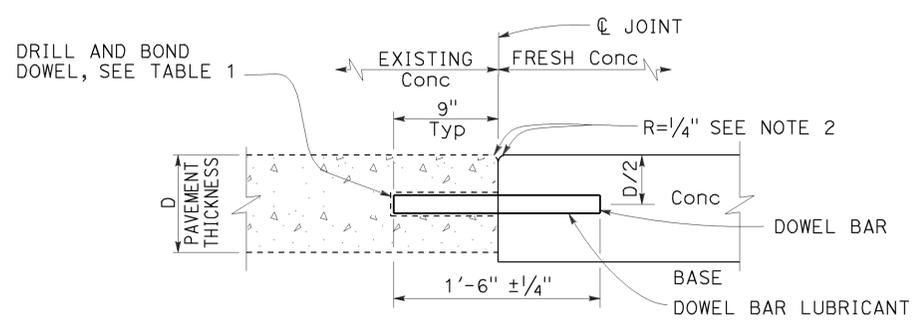


**LONGITUDINAL CONTRACTION
JOINT WITH DOWEL BARS**
See Revised Std Plan RSP P18

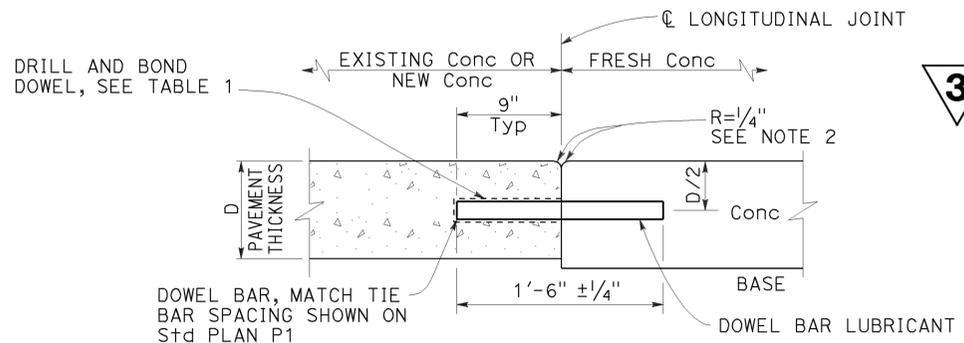
**TABLE 1
DOWEL BAR DIAMETER TABLE**

PAVEMENT THICKNESS	0.65'	> 0.65' - 0.85'	> 0.85'
MINIMUM DOWEL * BAR DIAMETER	1"	1 1/4"	1 1/2"

* The drilled hole diameter must be 1/8" to 3/16" larger than the bar diameter.



**TRANSVERSE CONSTRUCTION JOINT
FOR EXISTING CONCRETE PAVEMENT**



**LONGITUDINAL CONSTRUCTION JOINT
WITH DOWEL BARS**
See Revised Std Plan RSP P18

3

**ADDED PER ADDENDUM No. 3
DATED SEPTEMBER 5, 2014**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT
DOWEL BAR
DETAILS**

NO SCALE

RSP P10 DATED JULY 19, 2013 SUPERSEDES RSP P10 DATED APRIL 20, 2012 AND STANDARD PLAN P10 DATED MAY 20, 2011 - PAGE 131 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P10

2010 REVISED STANDARD PLAN RSP P10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	Imp	7	0.0/1.2	114B	137

William K. Farnbach
 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE

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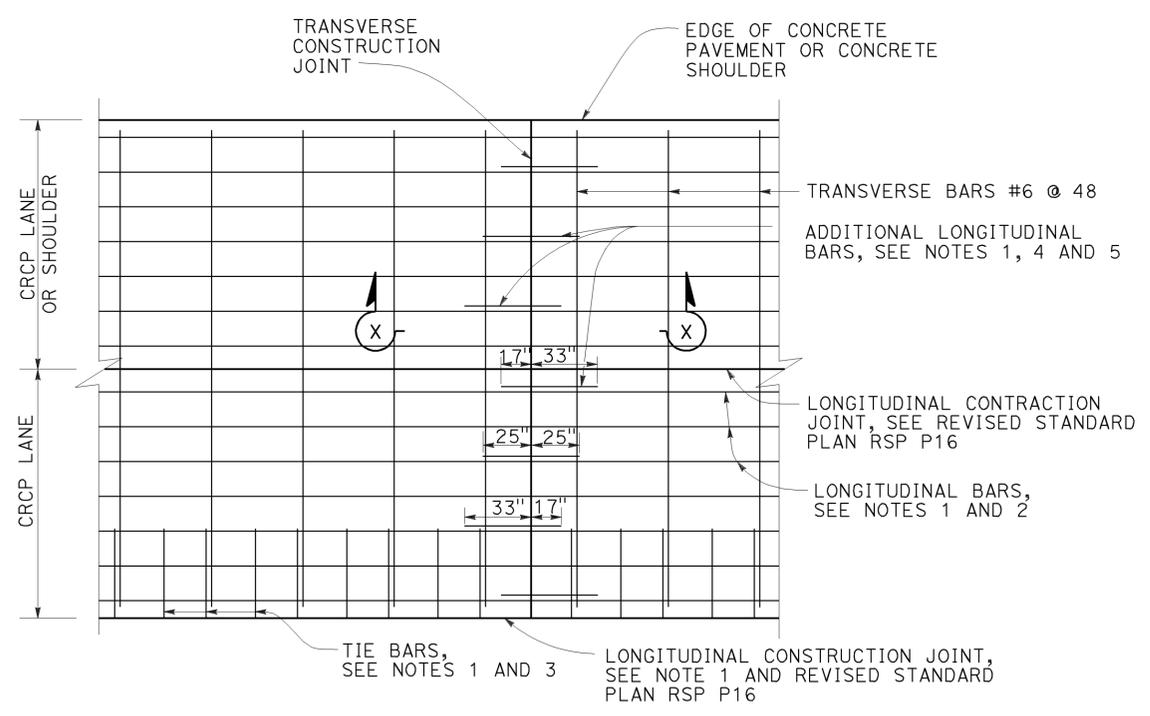
TO ACCOMPANY PLANS DATED 06-23-14

NOTES:

1. For longitudinal bar size, spacing and clearances, see Table 1 on Revised Standard Plan RSP P4.
2. The length of lap splices for bar reinforcement must be at least 25".
3. For tie bars in longitudinal construction joint, see Revised Standard Plan RSP P16.
4. Place additional longitudinal bars parallel to and in the same plane as the longitudinal bars.
5. Place additional longitudinal bars symmetrically about longitudinal construction joint.

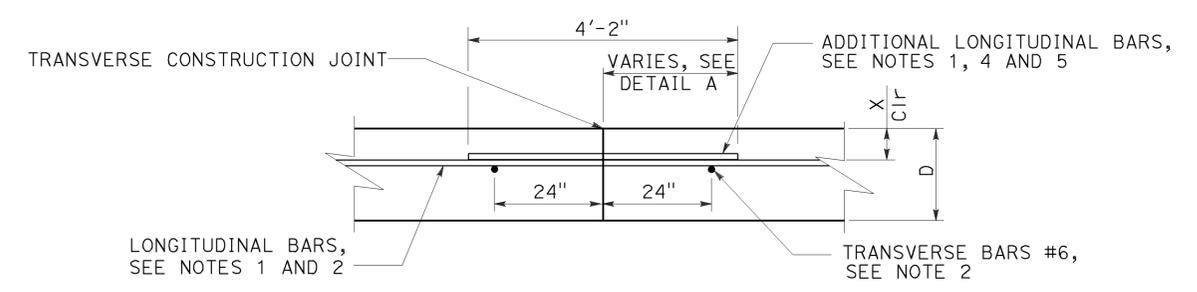
ABBREVIATION

D = Thickness of CRCP



DETAIL A

Additional longitudinal bars at transverse construction joint



SECTION X-X
TRANSVERSE CONSTRUCTION JOINT



ADDED PER ADDENDUM No. 3 DATED SEPTEMBER 5, 2014

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CONTINUOUSLY REINFORCED
CONCRETE PAVEMENT
TRANSVERSE CONSTRUCTION JOINT**

NO SCALE

RSP P14 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P14

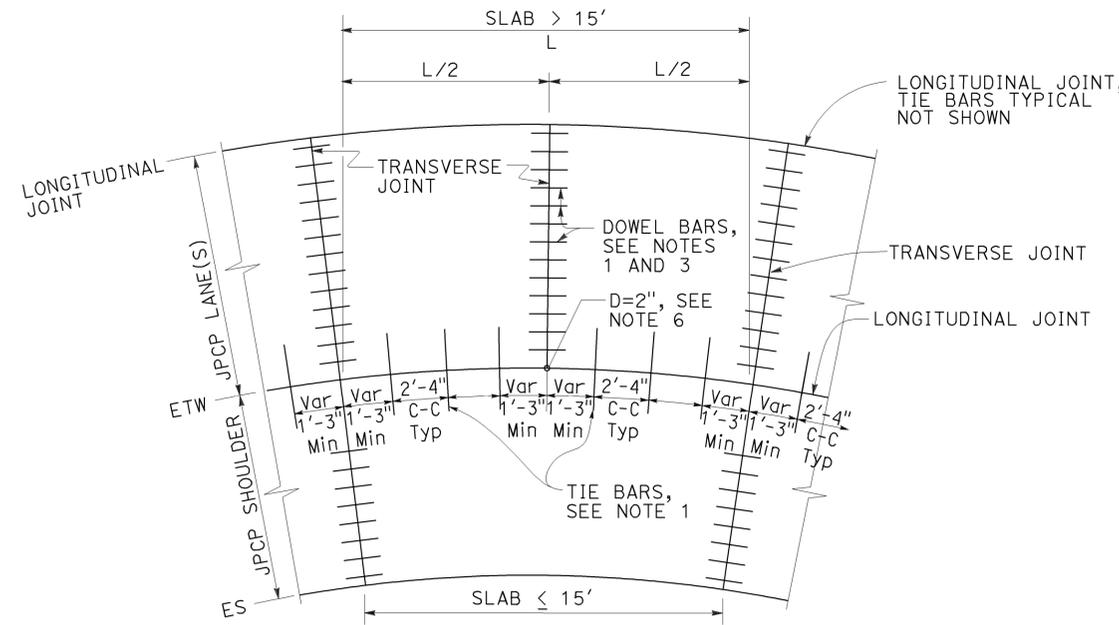
2010 REVISED STANDARD PLAN RSP P14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	Imp	7	0.0/1.2	114C	137

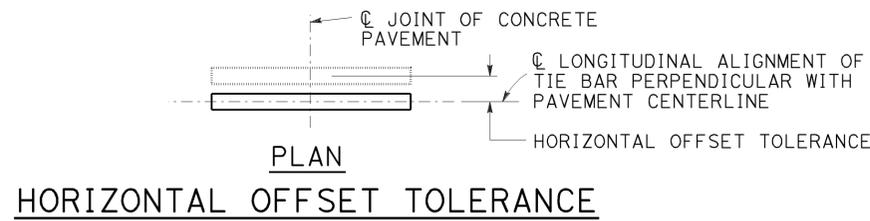
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 July 19, 2013
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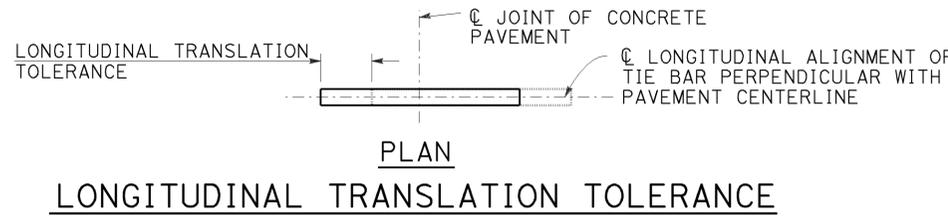
REGISTERED PROFESSIONAL ENGINEER
 William K. Farnbach
 No. C49042
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA



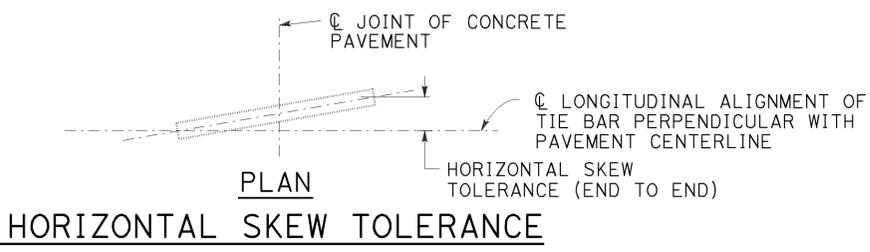
TIE BAR LAYOUT IN CURVED LANES



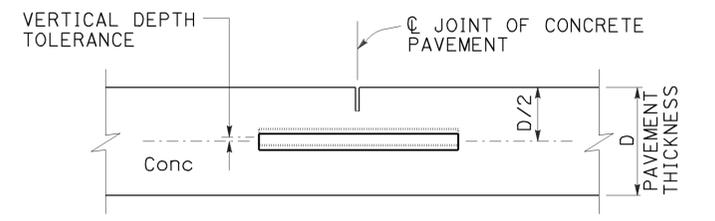
HORIZONTAL OFFSET TOLERANCE



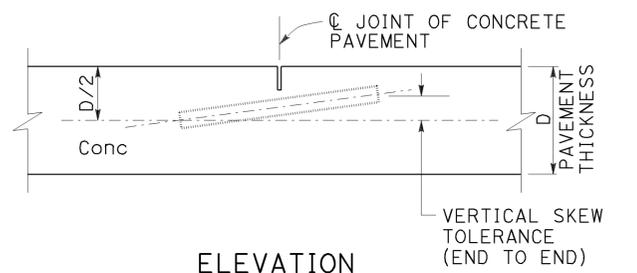
LONGITUDINAL TRANSLATION TOLERANCE



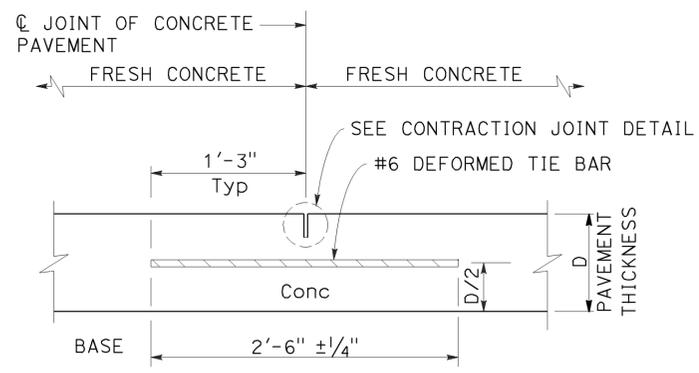
HORIZONTAL SKEW TOLERANCE



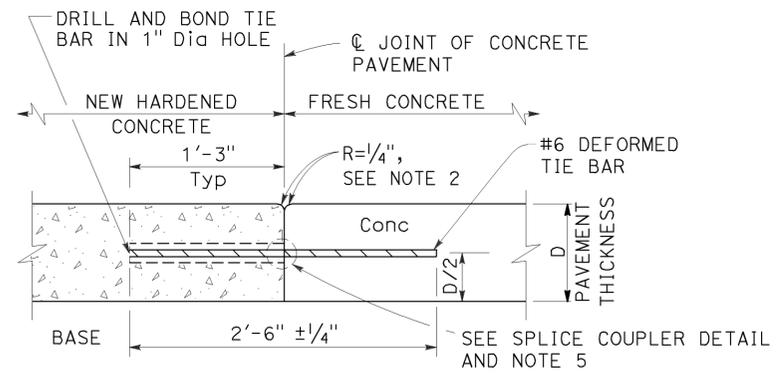
VERTICAL DEPTH TOLERANCE



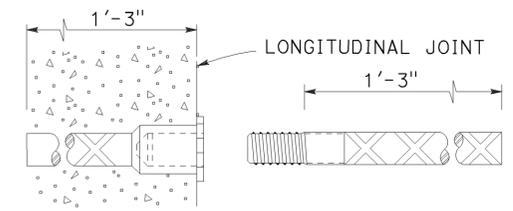
VERTICAL SKEW TOLERANCE



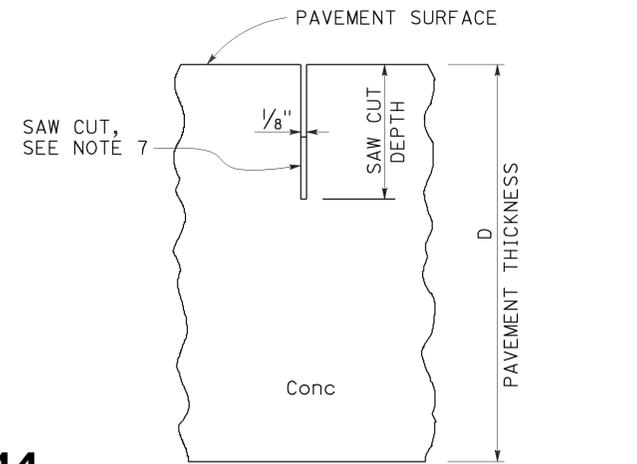
LONGITUDINAL CONTRACTION JOINT



LONGITUDINAL CONSTRUCTION JOINT



ALTERNATIVE SPLICE COUPLER



CONTRACTION JOINT DETAIL

- NOTES:**
1. See Revised Standard Plan RSP P1 for typical dowel bar and tie bar placement and locations.
 2. Where new pavement is placed against existing concrete pavement, rounding the corner is not required.
 3. For dowel bar sizes, See Revised Standard Plan RSP P10.
 4. Tie bar details apply to inside widenings.
 5. Use either drill and bond or splice couplers.
 6. Full depth drilled hole. Fill hole with filler material.
 7. The bottom of the saw cut must be at least 0.5" clear of any dowel bar, tie bar and bar reinforcement.

3 ADDED PER ADDENDUM No. 3 DATED SEPTEMBER 5, 2014

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
CONCRETE PAVEMENT-TIE BAR DETAILS
 NO SCALE

RSP P15 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P15

2010 REVISED STANDARD PLAN RSP P15

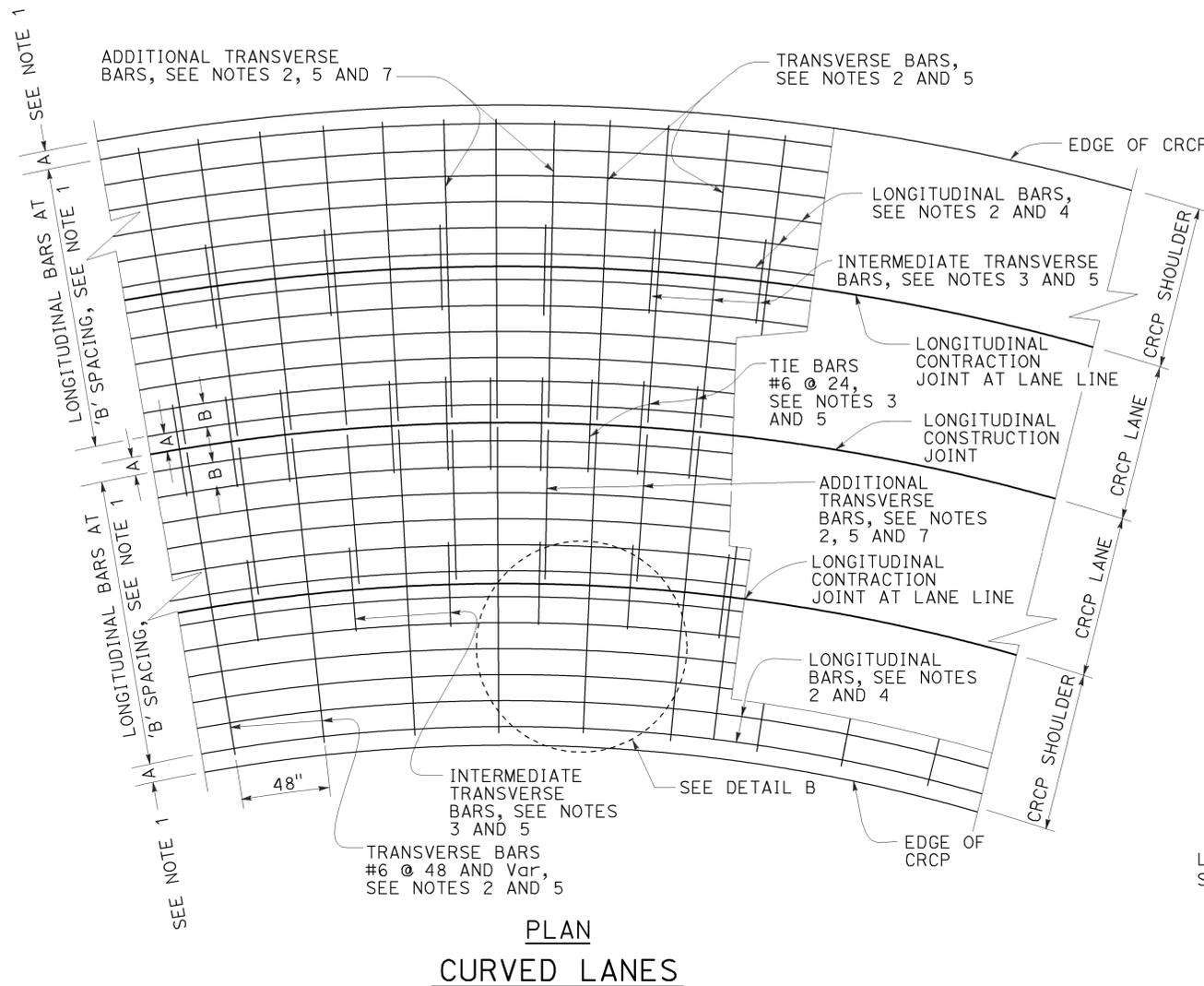
3 ADDED PER ADDENDUM No. 3 DATED SEPTEMBER 5, 2014

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July 19, 2013
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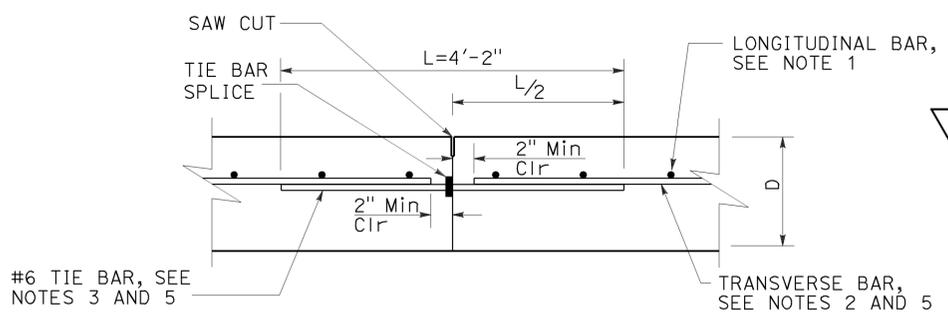
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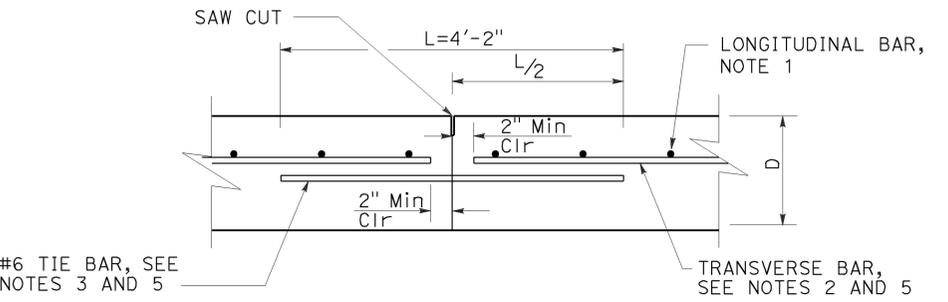
PLAN CURVED LANES

- NOTES:**
1. For longitudinal bar spacing and clearances, see Table 1 on Revised Standard Plan RSP P4.
 2. The length of lap splices for bar reinforcement must be at least 25".
 3. Place tie bars and intermediate transverse bars parallel to and in the same plane as the transverse bars.
 4. Place longitudinal bars parallel to roadway curvature.
 5. Place transverse bars, additional transverse bars, tie bars and intermediate transverse bars perpendicular to the pavement curvature.
 6. For additional longitudinal bars detail, see Detail A on Revised Standard Plans RSP P14.
 7. Place additional transverse bars where required, see Detail B.
 8. The bottom of the saw cut must be at least 0.5" clear of any dowel bar, tie bar and bar reinforcement.

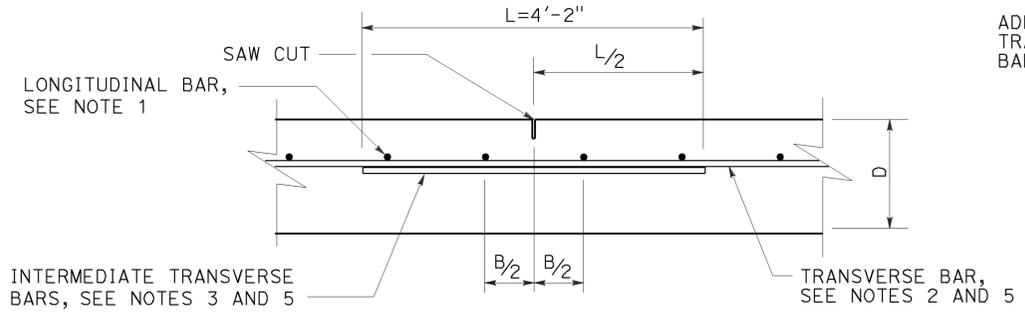
ABBREVIATION:
 D = Thickness of CRCP



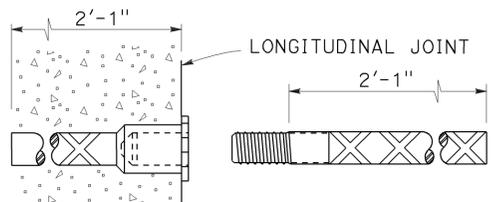
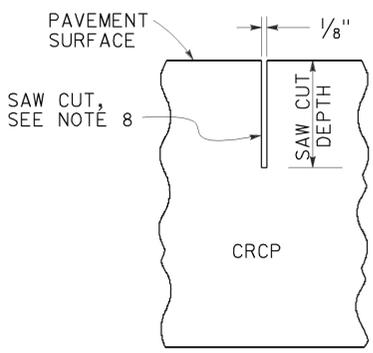
LONGITUDINAL CONSTRUCTION JOINT



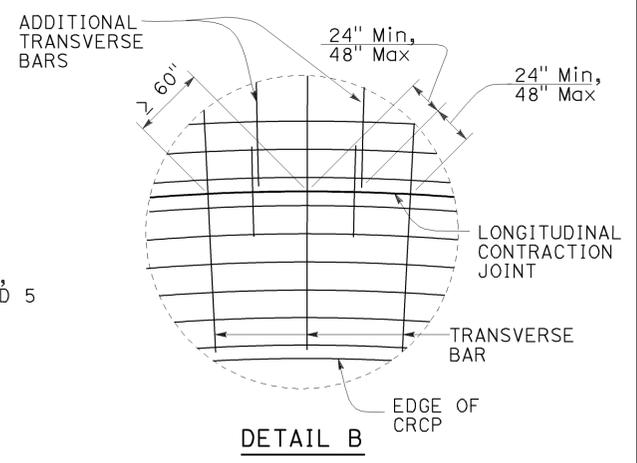
LONGITUDINAL CONTRACTION JOINT



CONTRACTION JOINT SAW CUT DETAIL



TIE BAR SPLICE COUPLER DETAIL



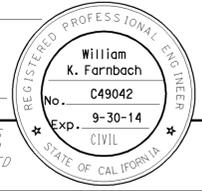
DETAIL B

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**CONTINUOUSLY REINFORCED
 CONCRETE PAVEMENT
 TIE BARS AND JOINT DETAILS**
 NO SCALE

2010 REVISED STANDARD PLAN RSP P16

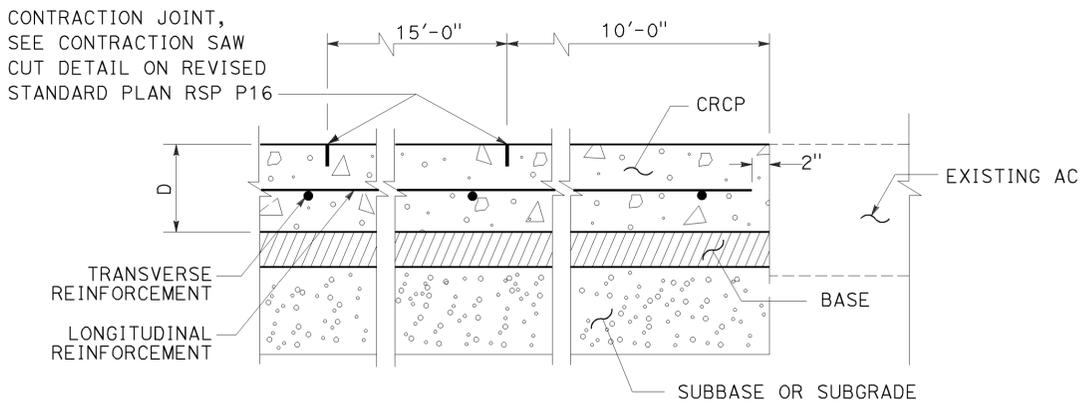
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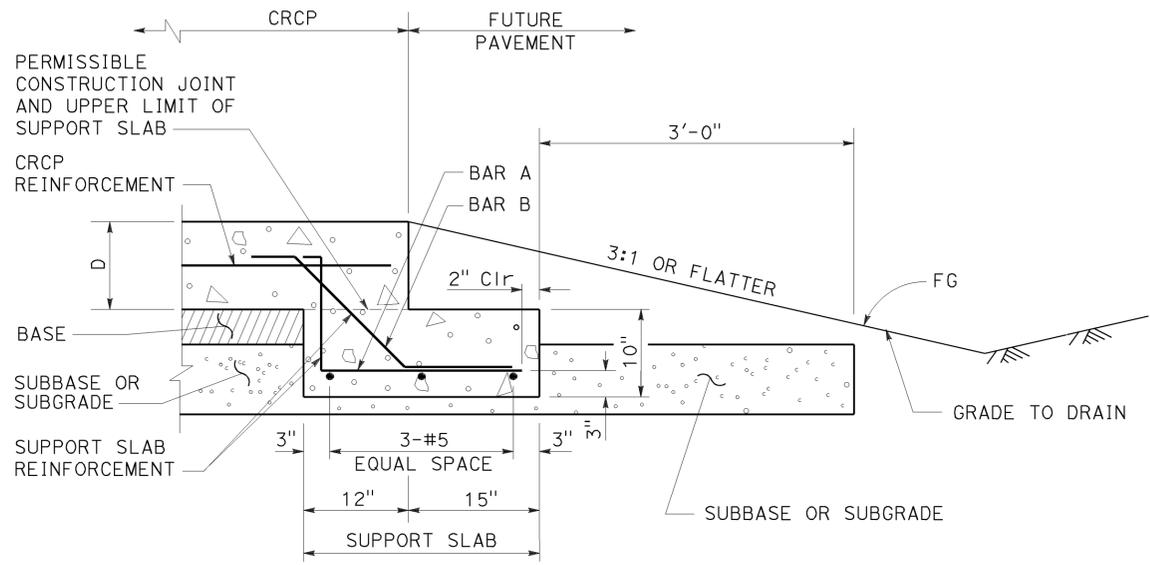


3

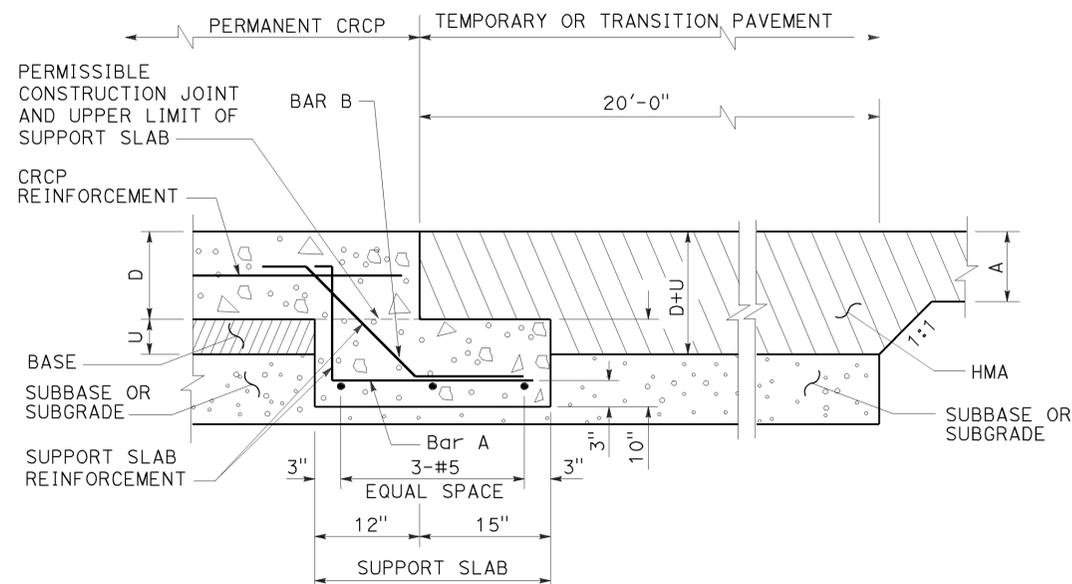
TO ACCOMPANY PLANS DATED 06-23-14



TERMINAL JOINT TYPE A
(For Existing AC)



TERMINAL JOINT TYPE B
(For Future Pavement)

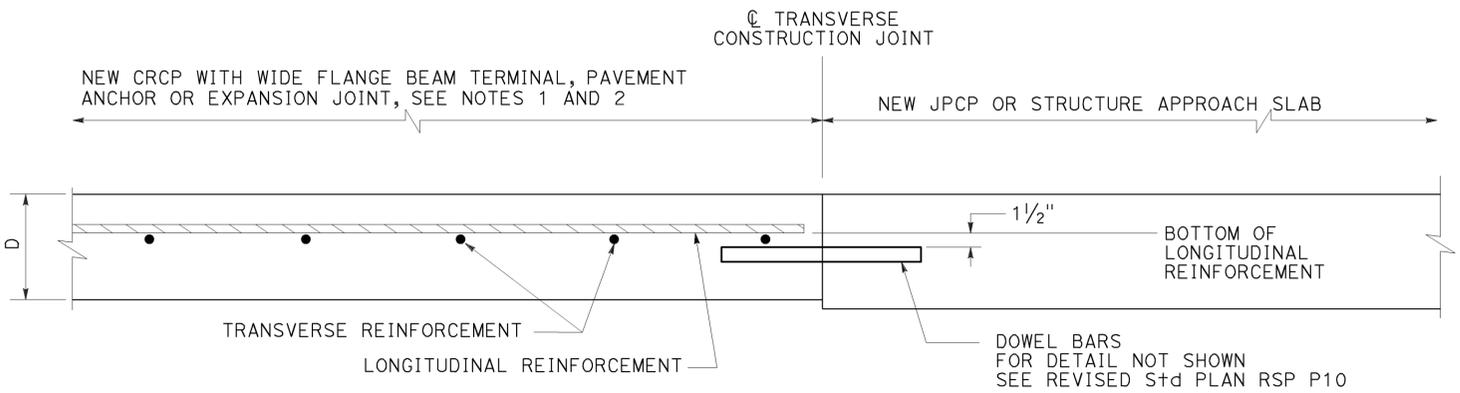


TERMINAL JOINT TYPE C
(For Temporary HMA Pavement)

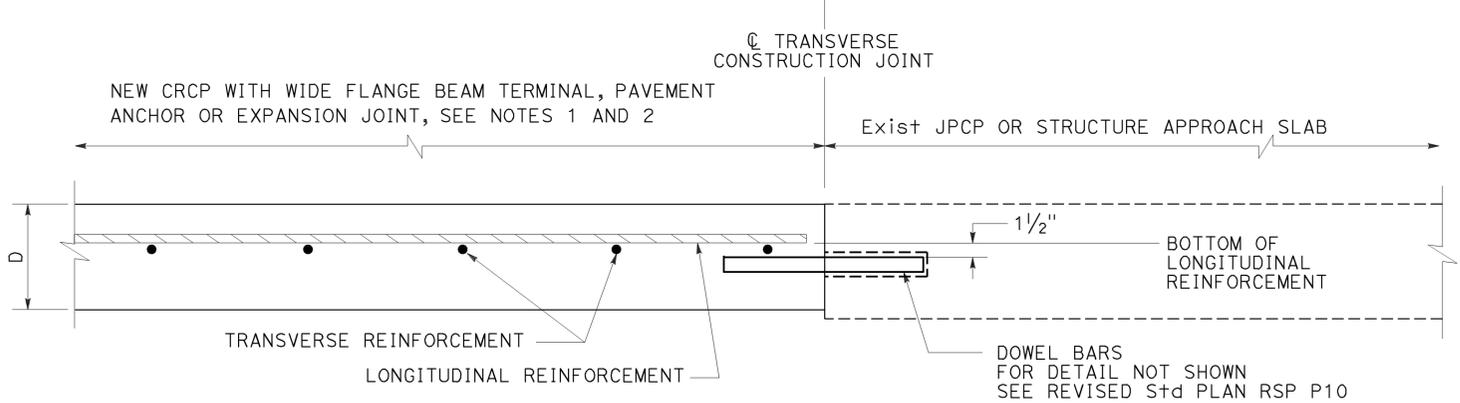
- NOTES:**
- For the locations of wide flange beam terminal, pavement anchors and expansion joints, see Projects Plans.
 - See Revised Standard Plans RSP P31B and RSP P32A.

ABBREVIATIONS

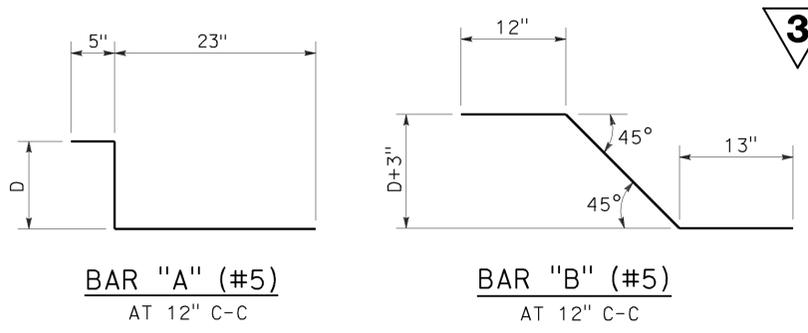
- D = Thickness of CRCP
 A = Depth of HMA as shown on Project Plans
 U = Thickness of Base



TERMINAL JOINT TYPE E
(For New JPCP or Structure Approach Slabs)



TERMINAL JOINT TYPE D
(For Existing JPCP or Structure Approach Slabs)



3

**ADDED PER ADDENDUM No. 3
DATED SEPTEMBER 5, 2014**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**CONTINUOUSLY REINFORCED
CONCRETE PAVEMENT
TERMINAL JOINT DETAILS**

NO SCALE

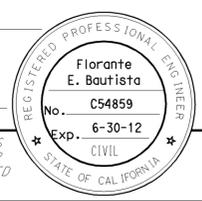
RSP P31A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN P31A
DATED MAY 20, 2011 - PAGE 138 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P31A

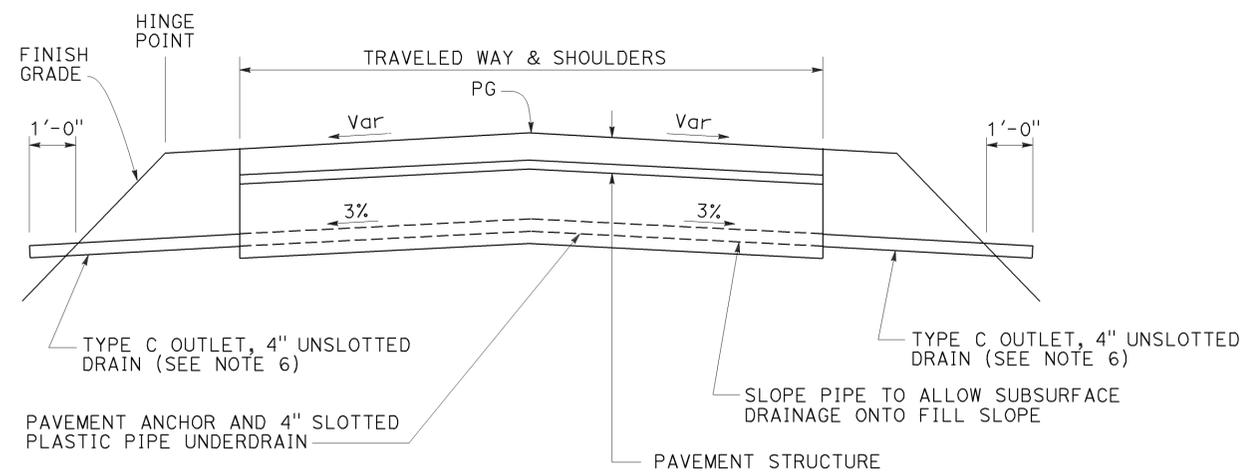
2010 REVISED STANDARD PLAN RSP P31A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	Imp	7	0.0/1.2	114F	137

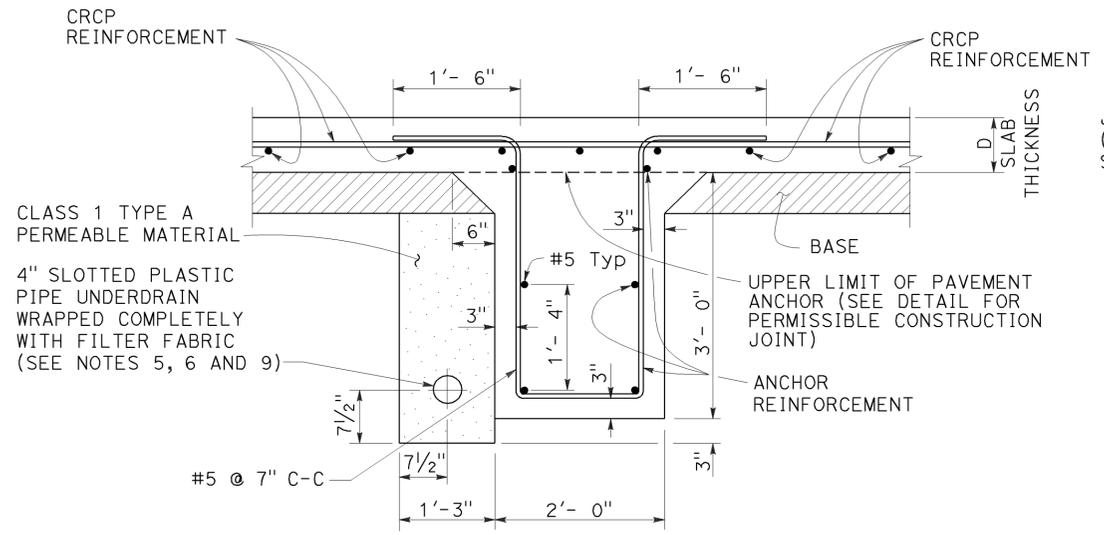
Florante E. Bautista
 REGISTERED CIVIL ENGINEER
 April 20, 2012
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



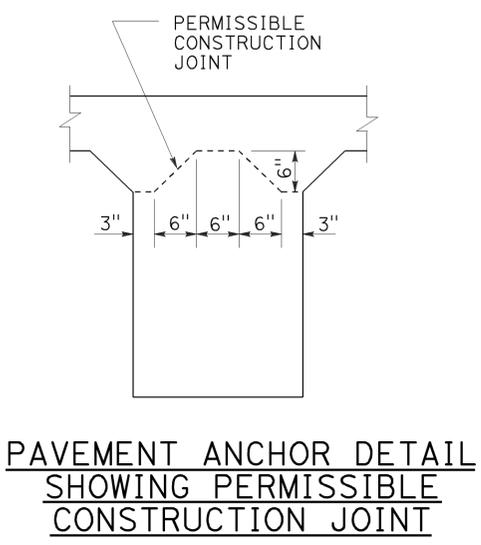
TO ACCOMPANY PLANS DATED 06-23-14



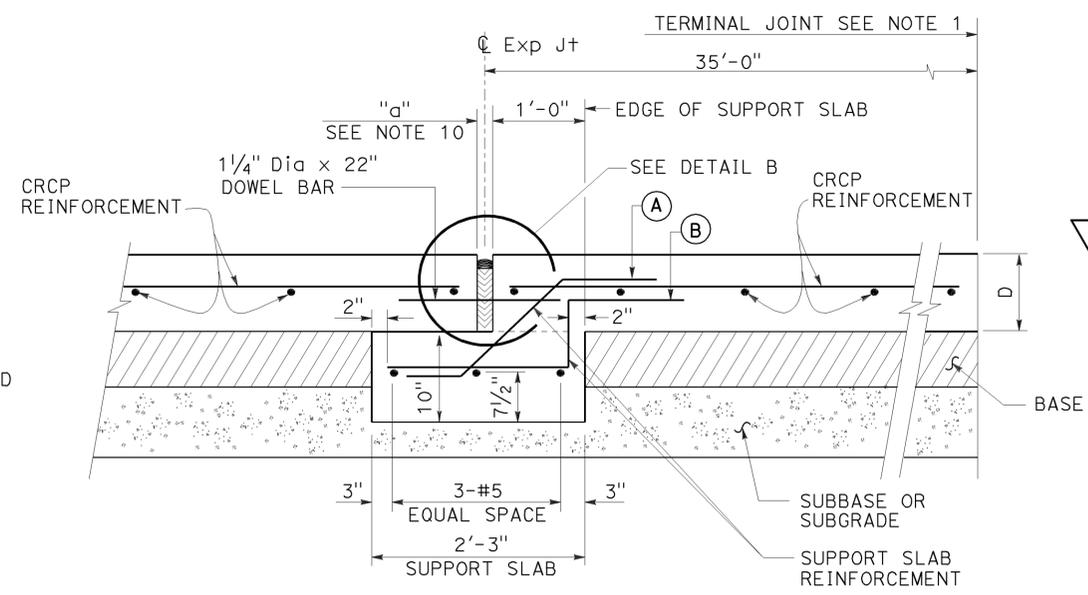
PAVEMENT ANCHOR PROFILE



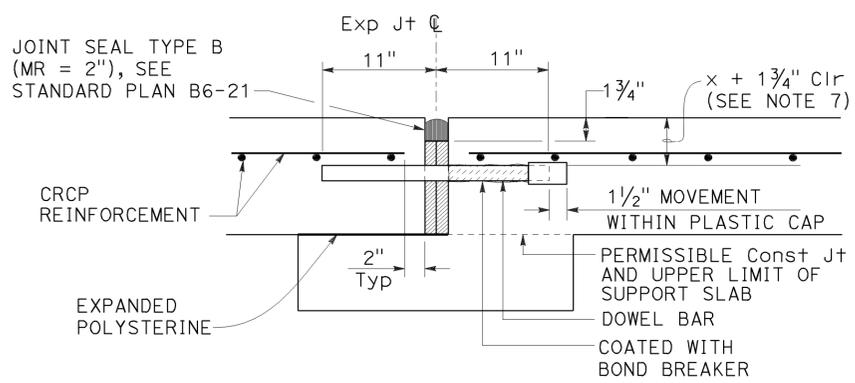
PAVEMENT ANCHOR



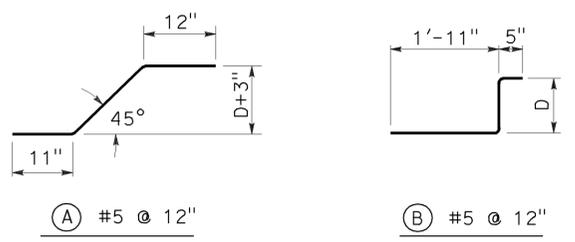
PAVEMENT ANCHOR DETAIL SHOWING PERMISSIBLE CONSTRUCTION JOINT



EXPANSION JOINT TYPE AN



DETAIL B
(For layout, tolerances, and other details not shown, see Revised Standard Plan RSP P10.)



REINFORCEMENT DETAIL

NOTES:

1. For the locations of the terminal joints, expansion joints and pavement anchors, see project plans.
2. The CRCP shall continue across the pavement anchor and expansion joints as shown.
3. Details of reinforcement, tie bars, and longitudinal joints (and if necessary, transverse construction joints) are shown on Revised Standard Plan RSP P4.
4. Transverse construction joints are not allowed within 20'-0" of the pavement anchor.
5. When placing pipe through concrete barrier, use 4" unslotted plastic pipe wrapped completely with 3/8" polystyrene.
6. See Standard Plan D99B for details not shown.
7. See Revised Standard Plan RSP P4 for "x".
8. D = thickness of CRCP
9. Place the 4" Slotted Plastic Pipe on the high side of the longitudinal grade.
10. See Standard Plan B6-21 for "a".



ADDED PER ADDENDUM No. 3 DATED SEPTEMBER 5, 2014

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CONTINUOUSLY REINFORCED CONCRETE PAVEMENT- EXPANSION JOINT AND ANCHOR DETAILS
NO SCALE

RSP P31B DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN P31B DATED MAY 20, 2011 - PAGE 139 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P31B

2010 REVISED STANDARD PLAN RSP P31B