

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	2	60

REGISTERED CIVIL ENGINEER	DATE	6-11-12
PLANS APPROVAL DATE		7-2-12

REGISTERED PROFESSIONAL ENGINEER	STATE OF CALIFORNIA
MICHAEL DUONG	No. 73425
CIVIL	Exp. 12-31-12

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.

NOTES:

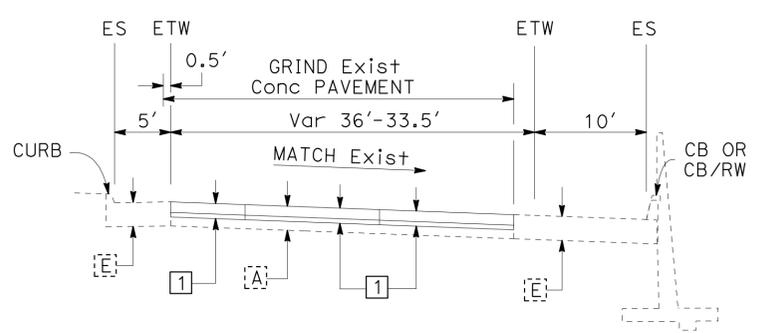
- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATIONS AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- FOR LOCATION AND TYPE OF HMA DIKES, SEE SUMMARY OF QUANTITIES
- EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE

LEGEND:

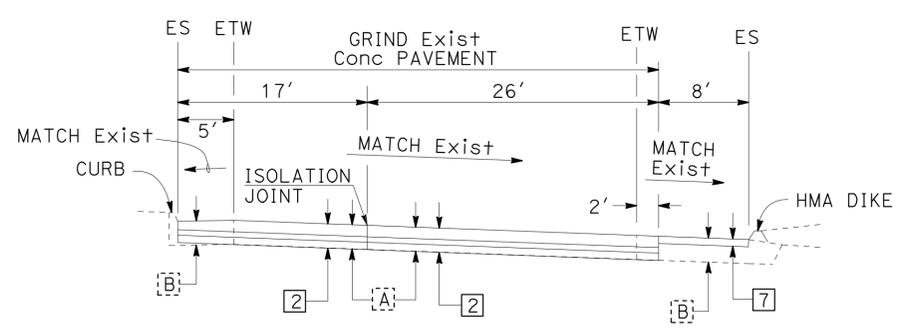
PCP: PRECAST CONCRETE PANEL
 PPCP: PRECAST PRESTRESSED CONCRETE PAVEMENT
 RSC: RAPID STRENGTH CONCRETE
 RHMA-G: RUBBERIZED HOT MIX ASPHALT (GAP GRADED)

TYPICAL PAVEMENT STRUCTURAL SECTIONS

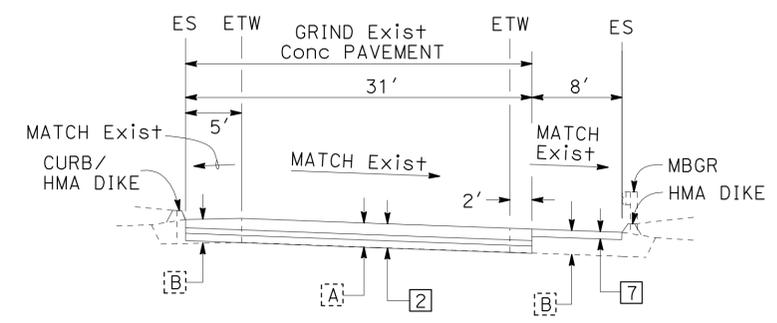
- | | |
|--|---|
| [A] Exist
0.80' PCC
0.40' CTB
0.50' AB | [1] 0.80' INDIVIDUAL SLAB REPLACEMENT (PCP)
---- BOND BREAKER
0.40' REPLACE UNDERLYING BASE |
| [B] Exist
0.40' AC
0.80' AB
Var AS | [2] 0.90' PPCP
---- BOND BREAKER
0.35' LCB RAPID SETTING
0.50' CLASS 3 AB |
| [C] Exist
0.35' AC
0.70' CTB
0.25' AB
0.85' AS | [3] 0.70' PPCP
---- BOND BREAKER
0.35' LCB RAPID SETTING
0.50' CLASS 3 AB |
| [D] Exist
0.25' AC
0.50' AB
Var AS | [4] 0.15' COLD PLANE AC PAVEMENT
0.15' RHMA-G |
| [E] Exist
1.00' PCC
0.50' LCB
0.70' AB | [5] 0.25' COLD PLANE AC PAVEMENT
0.25' HMA (TYPE A) |
| [F] Exist
0.40' AC
0.65' AB
Var AS | [6] 0.15' RHMA-G
0.25' HMA (TYPE A)
0.80' LCB RAPID SETTING |
| | [7] 0.65' JPCP (ROLLER COMPACTED CONCRETE) |
| | [8] 0.15' RHMA-G
0.25' HMA (TYPE A) |



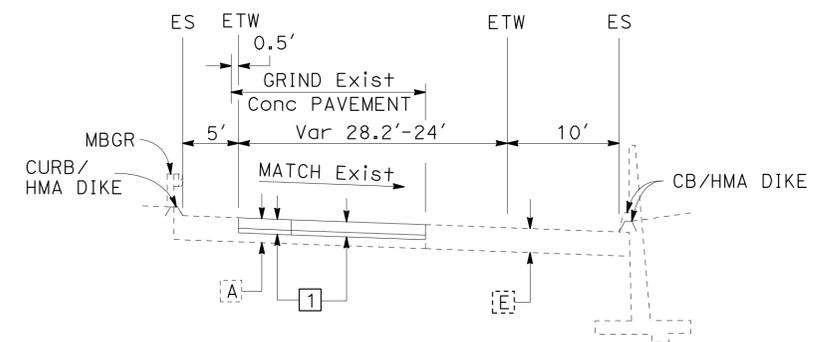
PM C44.45 - C44.51



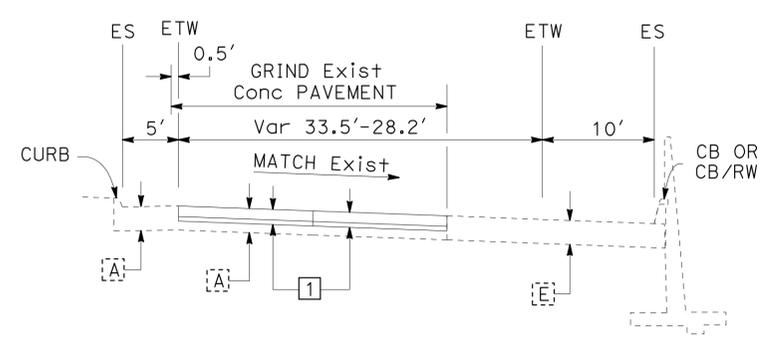
PM C44.34 - C44.45



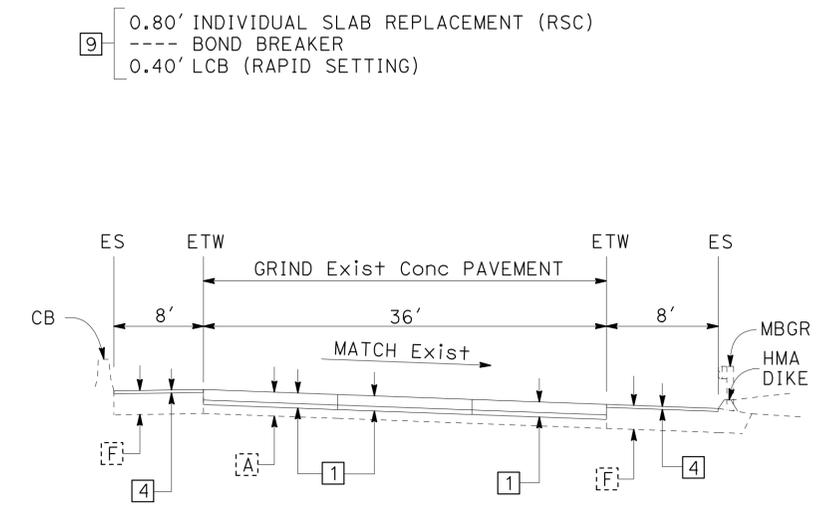
PM C43.90 - C44.34



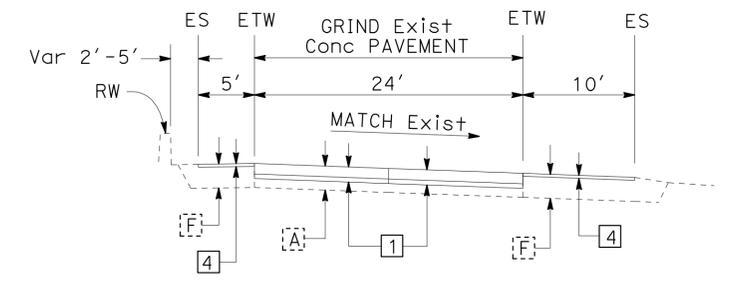
PM C44.69 - C44.91



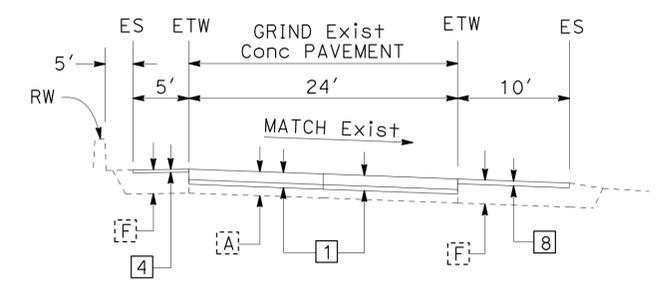
PM C44.51 - C44.69



PM C45.08 - C45.35



PM C44.95 - C45.08



PM C44.91 - C44.95

ROUTE 5 NORTHBOUND TRUCK ROUTE

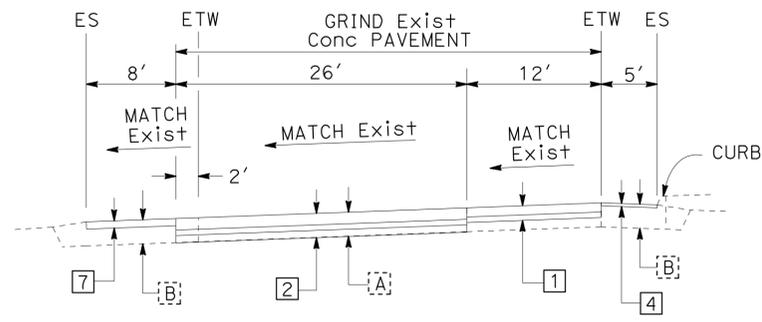
TYPICAL CROSS SECTIONS

NO SCALE

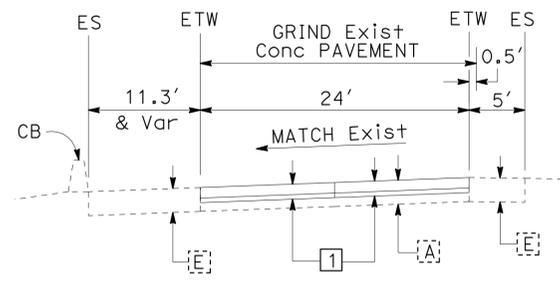
X-1



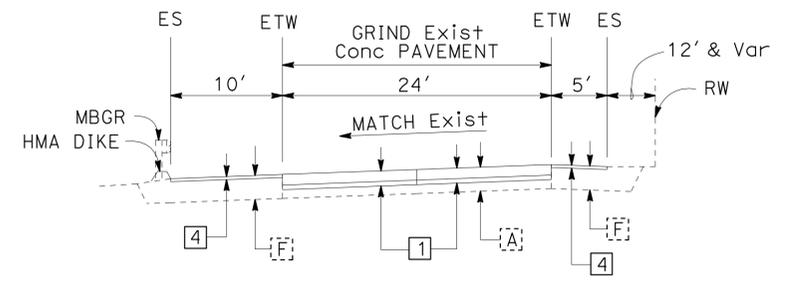
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	3	60
			REGISTERED CIVIL ENGINEER	DATE	
			7-2-12	PLANS APPROVAL DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



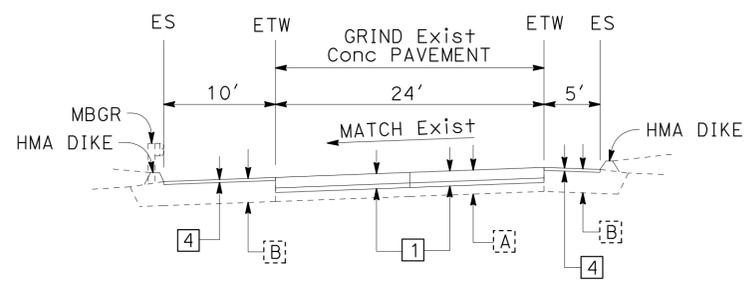
PM C44.25 - C44.38



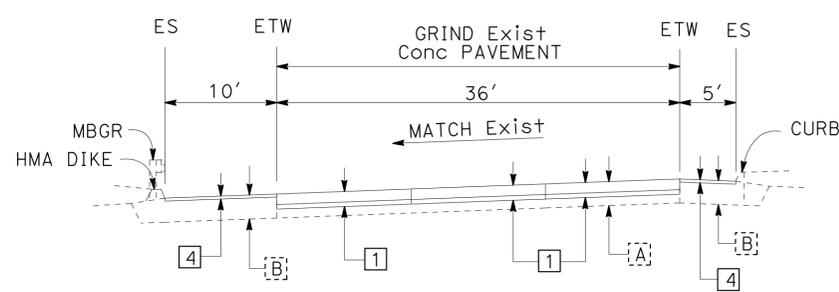
PM C44.57 - C44.72



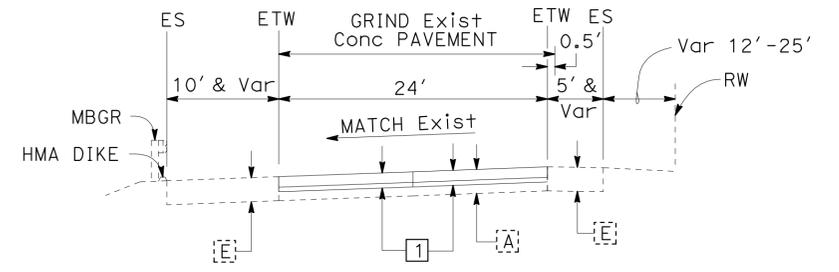
PM C44.91 - C45.08



PM C43.90 - C44.25

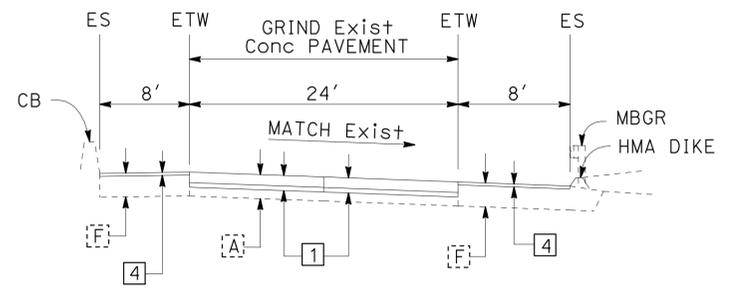


PM C44.38 - C44.47

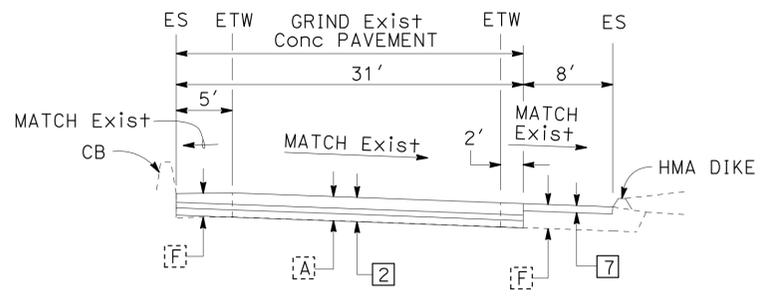


PM C44.84 - C44.91

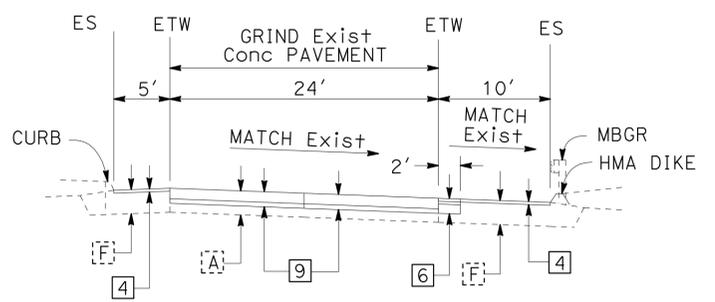
ROUTE 5 SOUTHBOUND TRUCK ROUTE



PM C45.35 - C45.75



PM C45.75 - C45.82



PM C45.82 - C46.41

ROUTE 5 NORTHBOUND TRUCK ROUTE

TYPICAL CROSS SECTIONS

NO SCALE

X-2

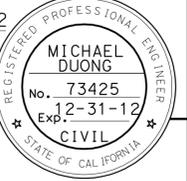
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE ENGINEERING

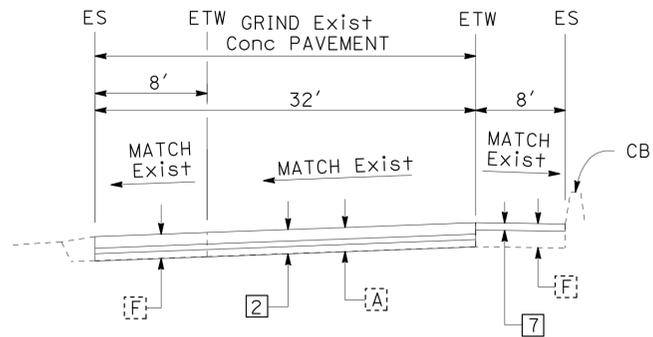
FUNCTIONAL SUPERVISOR
DEBORAH WONG

CALCULATED/DESIGNED BY
CHECKED BY

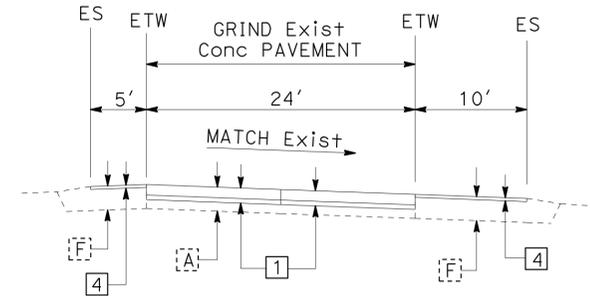
MICHAEL DUONG
DEBORAH WONG

REVISED BY
DATE REVISED

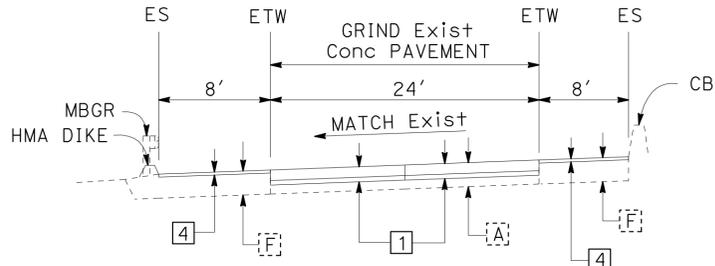
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	4	60
 REGISTERED CIVIL ENGINEER DATE 6-11-12					
PLANS APPROVAL DATE 7-2-12					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



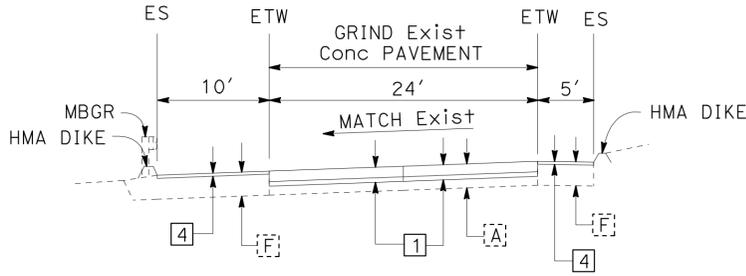
PM C45.73 - C45.82



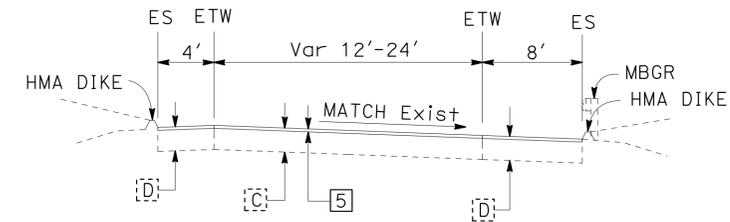
TYPICAL CONNECTOR SECTION



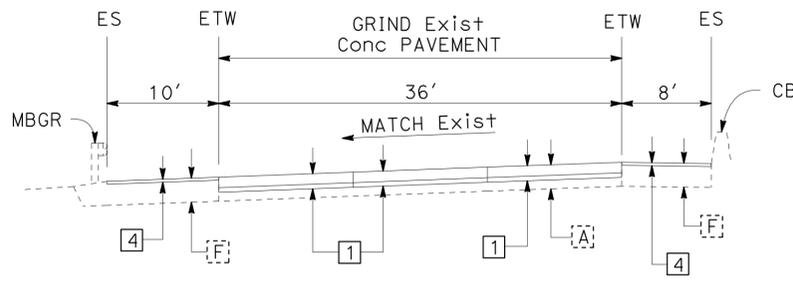
PM C45.29 - C45.73



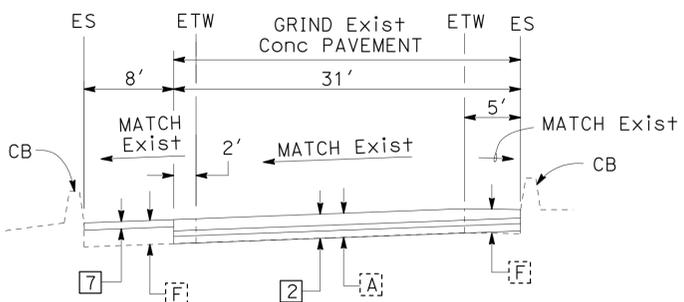
PM C46.05 - C46.39
PM C44.47 - C44.57



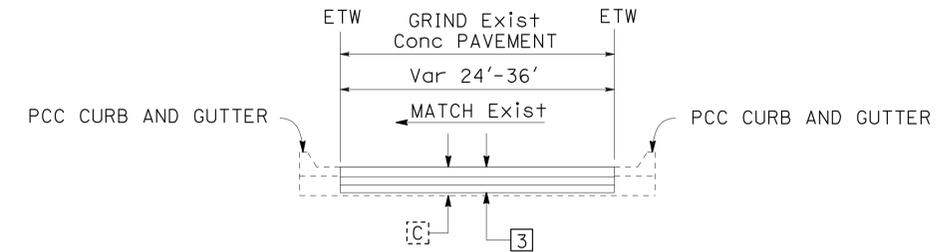
TYPICAL RAMP SECTIONS



PM C45.08 - C45.29



PM C45.82 - C45.9



TYPICAL PPCP RAMP TERMINUS SECTION
(150' LENGTH)

ROUTE 5 SOUTHBOUND TRUCK ROUTE

TYPICAL CROSS SECTIONS
NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR DEBORAH WONG
 CALCULATED/DESIGNED BY CHECKED BY
 MICHAEL DUONG DEBORAH WONG
 REVISED BY DATE REVISIONS

LAST REVISION DATE PLOTTED => 11-SEP-2012
 07-25-12 TIME PLOTTED => 07:36

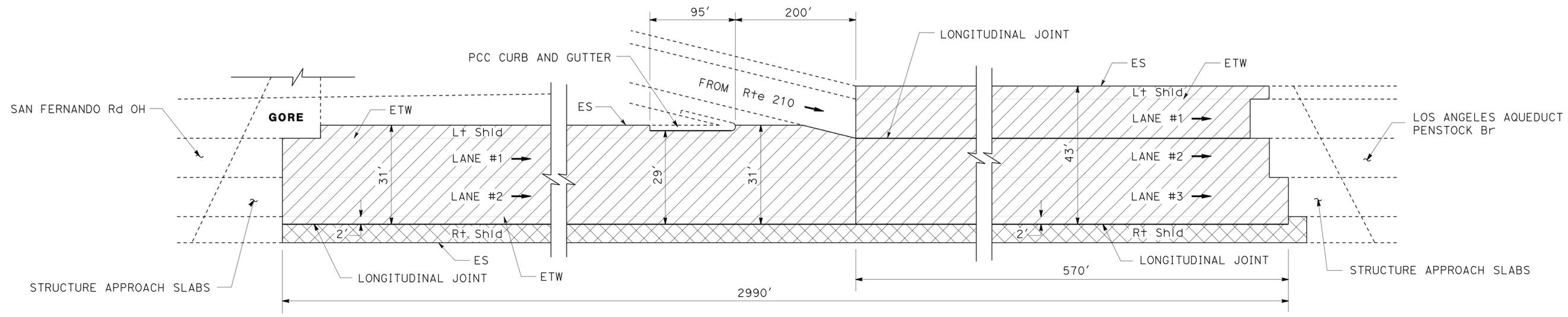
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	5	60
			REGISTERED CIVIL ENGINEER	DATE	
			Michael Duong	6-11-12	
			PLANS APPROVAL DATE		
			7-2-12		
			REGISTERED PROFESSIONAL ENGINEER	No. 73425	Exp. 12-31-12
			MICHAEL DUONG		
			CIVIL		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTE:

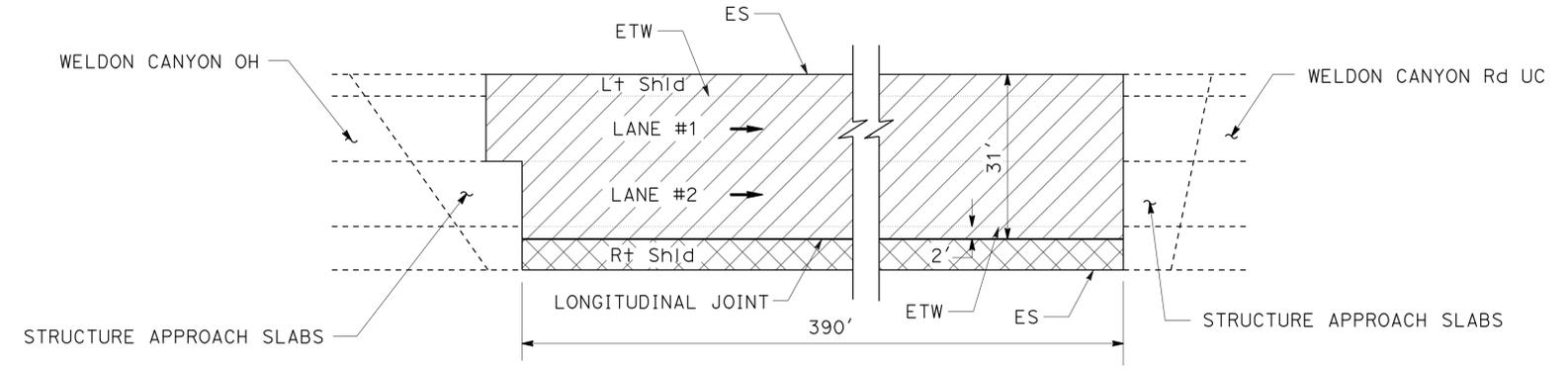
EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LEGEND:

- DIRECTION OF TRAVEL
-  PAVEMENT STRUCTURAL SECTION TYPE 2
-  PAVEMENT STRUCTURAL SECTION TYPE 4
-  PAVEMENT STRUCTURAL SECTION TYPE 5
-  PAVEMENT STRUCTURAL SECTION TYPE 7



**LIMITS OF CONTINUOUS REPLACEMENT
NB TRUCK ROUTE - PM C43.9/C44.45**



**LIMITS OF CONTINUOUS REPLACEMENT
NB TRUCK ROUTE - PM C45.75/C45.82**

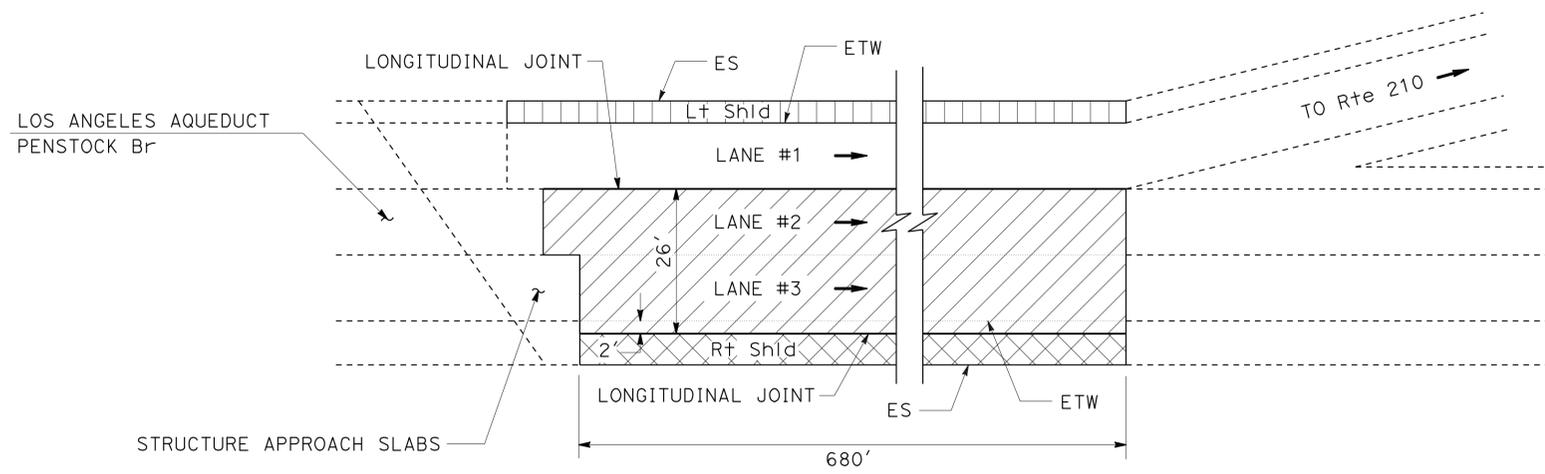
CONSTRUCTION DETAILS

NO SCALE

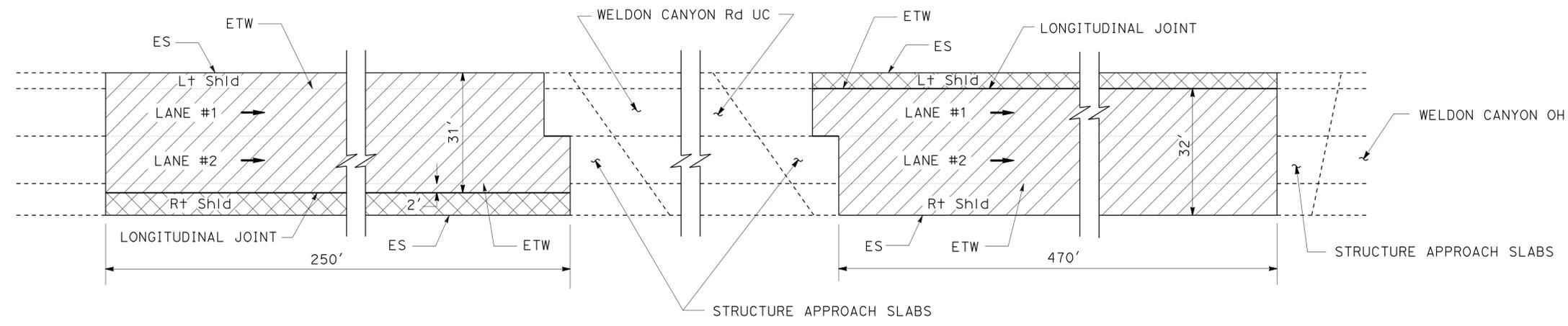
C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: DEBORAH WONG
 CALCULATED/DESIGNED BY: MICHAEL DUONG
 CHECKED BY: DEBORAH WONG
 REVISED BY: DATE
 REVISIONS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	6	60
			REGISTERED CIVIL ENGINEER	DATE	
			7-2-12	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.					



**LIMITS OF CONTINUOUS REPLACEMENT
SB TRUCK ROUTE - PM C44.25/C44.38**



**LIMITS OF CONTINUOUS REPLACEMENT
SB TRUCK ROUTE - PM C45.73/C45.9**

CONSTRUCTION DETAILS
NO SCALE
C-2

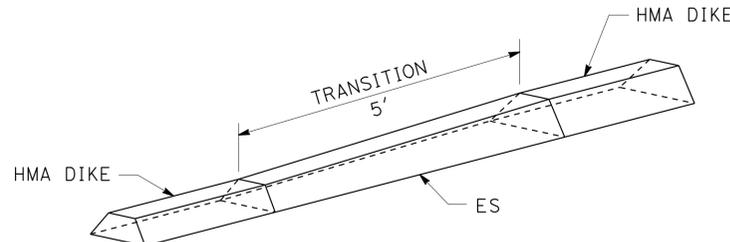
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
Caltrans MAINTENANCE ENGINEERING	DEBORAH WONG	MICHAEL DUONG	MICHAEL DUONG
		DEBORAH WONG	DEBORAH WONG

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	7	60

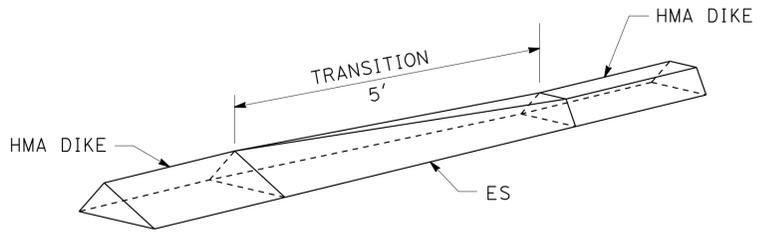
Michael Duong 6-11-12
 REGISTERED CIVIL ENGINEER DATE
 7-2-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MICHAEL DUONG
 No. 73425
 Exp. 12-31-12
 CIVIL
 STATE OF CALIFORNIA

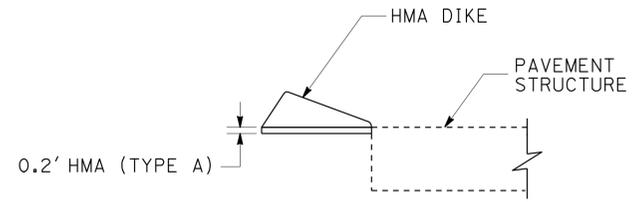
THE STATE OF CALIFORNIA OR ITS OFFICERS
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TYPE A - TYPE F
 TYPE A - TYPE C
 TYPE F - TYPE C

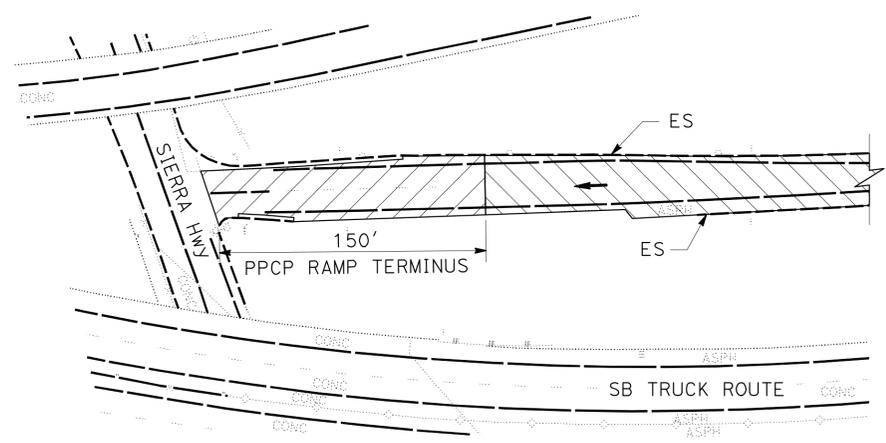


TYPE D - TYPE A
 TYPE D - TYPE C
 TYPE D - TYPE F

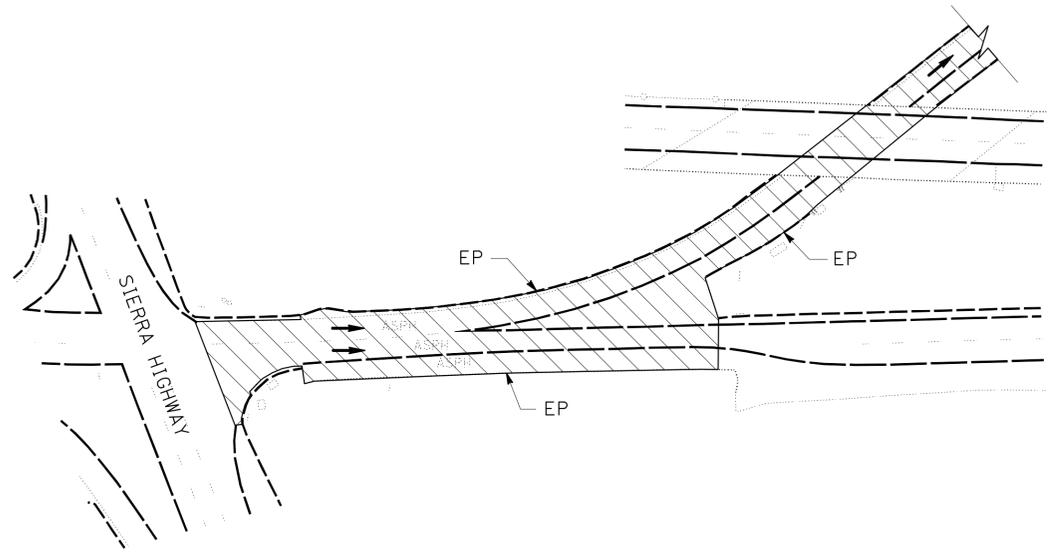


HMA DIKE

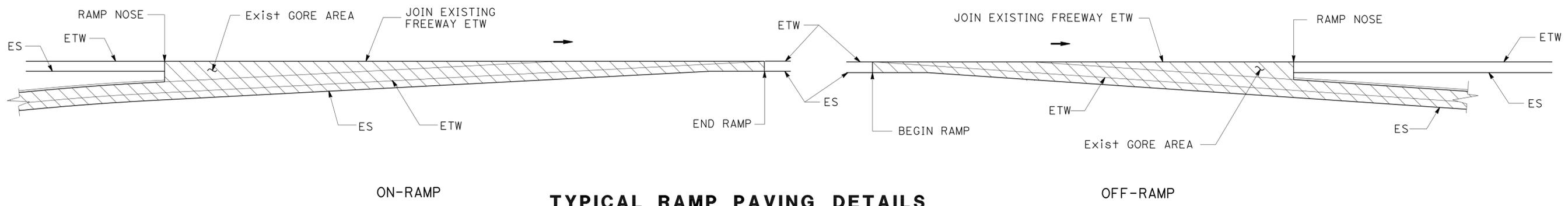
HMA DIKE TRANSITIONS



SB OFF TO SIERRA HIGHWAY



NB ON FROM SIERRA HIGHWAY



TYPICAL RAMP PAVING DETAILS

CONSTRUCTION DETAILS

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: DEBORAH WONG
 CALCULATED/DESIGNED BY: MICHAEL DUONG
 CHECKED BY: DEBORAH WONG
 REVISED BY: MICHAEL DUONG
 DATE REVISED: DEBORAH WONG

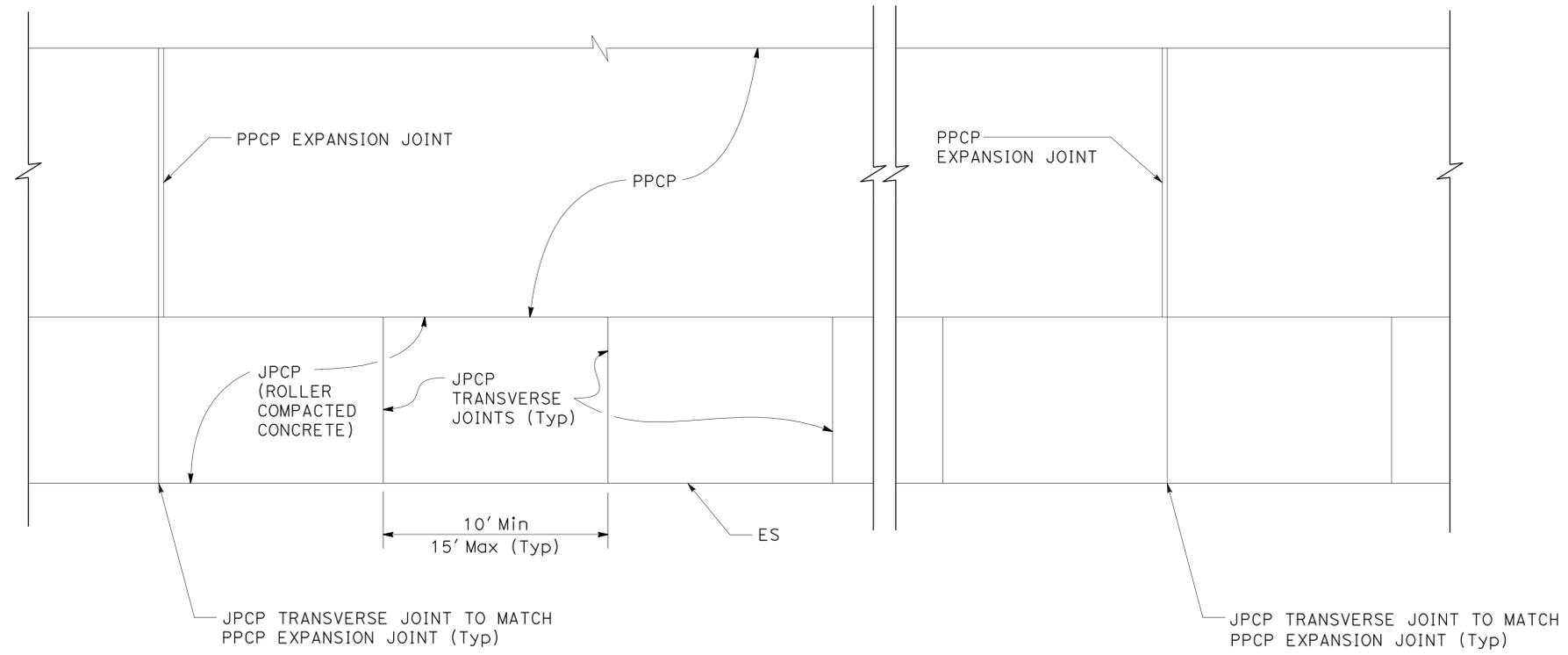
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	8	60

Michael Duong 6-11-12
 REGISTERED CIVIL ENGINEER DATE
 7-2-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MICHAEL DUONG
 No. 73425
 Exp. 12-31-12
 CIVIL
 STATE OF CALIFORNIA

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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGNED BY	REVISOR	DATE
Caltrans MAINTENANCE ENGINEERING	MICHAEL DUONG	DEBORAH WONG	
FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY	DATE
DEBORAH WONG	DEBORAH WONG	MICHAEL DUONG	



JPCP (ROLLER COMPACTED CONCRETE) SHOULDER DETAILS

CONSTRUCTION DETAILS
 NO SCALE
C-4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	9	60
 REGISTERED CIVIL ENGINEER DATE 6-8-12					
7-2-12 PLANS APPROVAL DATE					
<small>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.</small>					

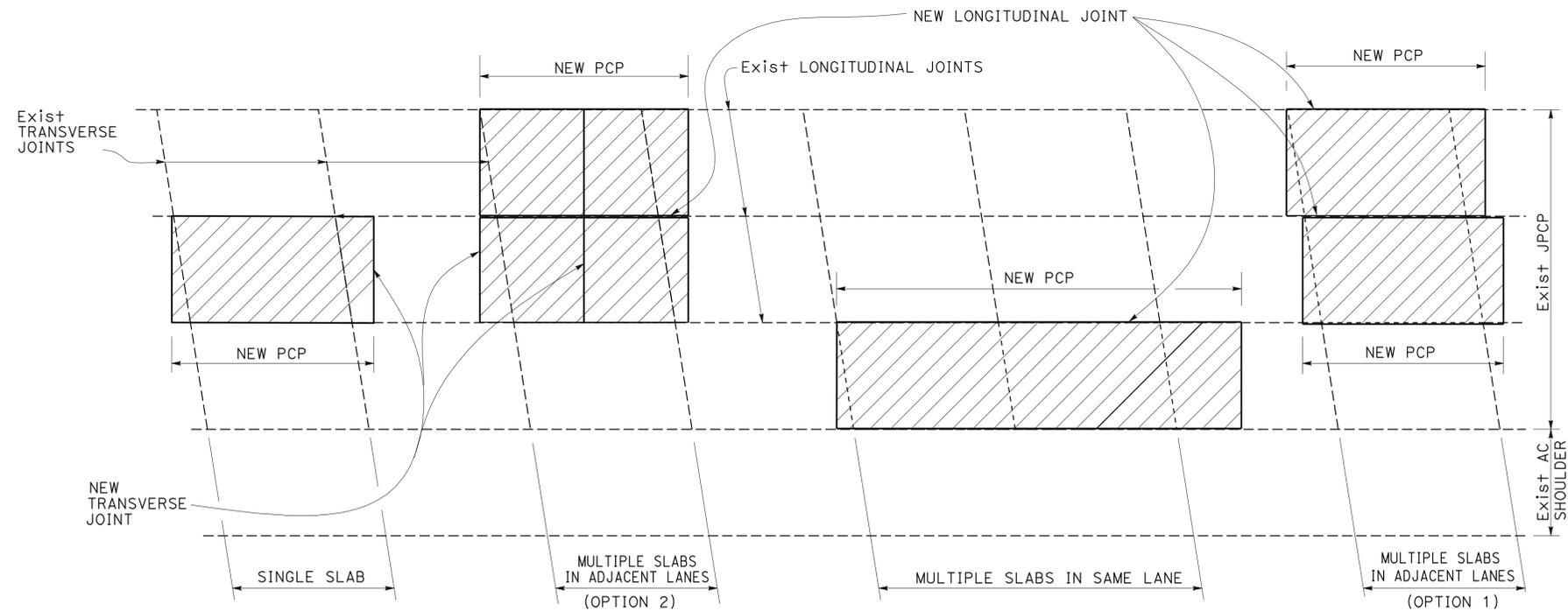
NOTE:

1. FOR DETAILS NOT SHOWN, SEE SHEETS C-6 TO C-9.

ABBREVIATIONS:

JPCP = JOINTED PLAIN CONCRETE PAVEMENT
 LCBRS = LEAN CONCRETE BASE RAPID SETTING
 PCC = PORTLAND CEMENT CONCRETE
 PCP = PRECAST CONCRETE PANEL
 RSC = RAPID STRENGTH CONCRETE

LEGEND:



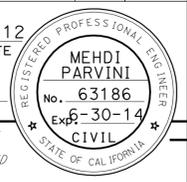
PLAN

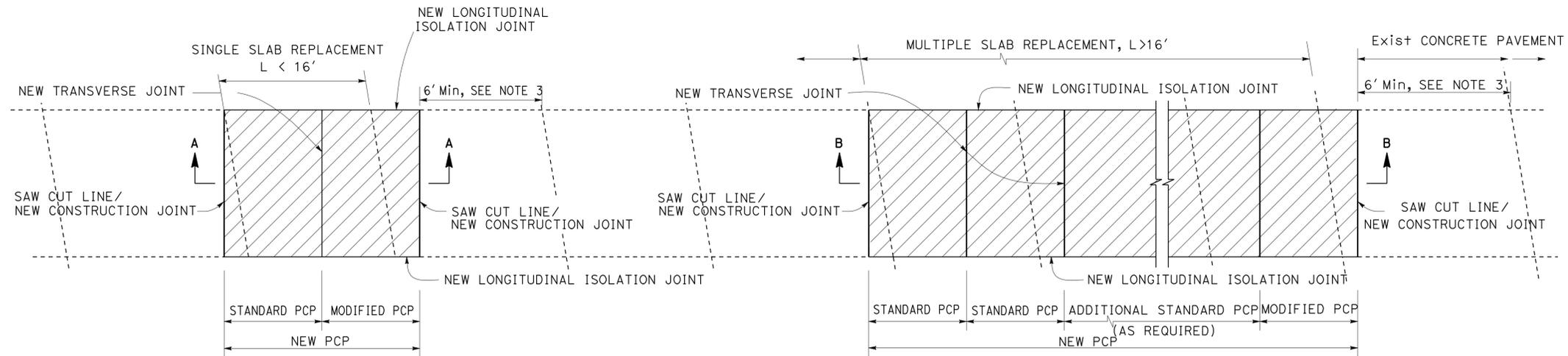
**CONSTRUCTION DETAILS
 INDIVIDUAL SLAB REPLACEMENT
 (PRECAST CONCRETE PANEL)
 LAYOUT
 NO SCALE**

C-5

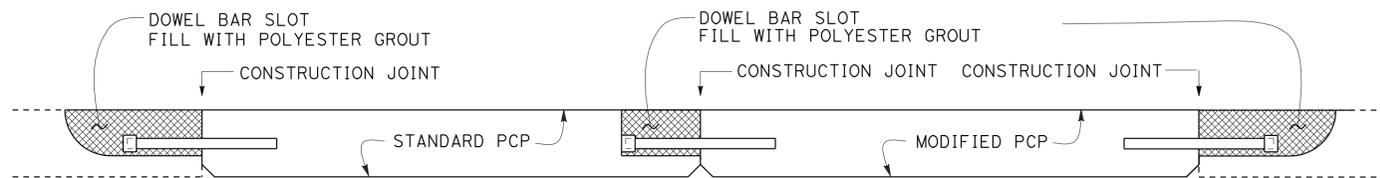
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	MEHDI PARVINI	REVISOR	MP
	WILLIAM FARNBACH	WILLIAM FARNBACH	DATE	6/12/12
DESIGN	CHECKED BY			
	DESIGNED BY			



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	10	60
 REGISTERED CIVIL ENGINEER DATE 6-8-12					
7-2-12 PLANS APPROVAL DATE					
<small>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.</small>					

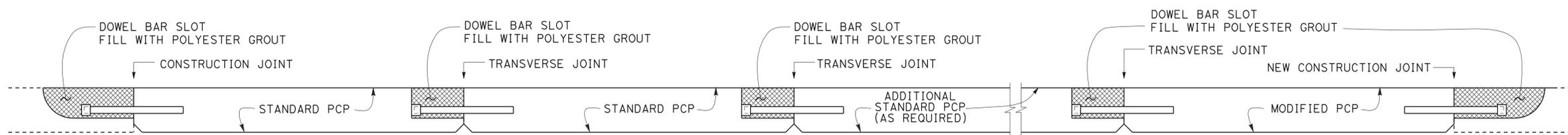


PLAN



SECTION A-A

SINGLE SLAB REPLACEMENT, L < 16'



SECTION B-B

MULTIPLE SLAB REPLACEMENT, L > 16'

NOTES:

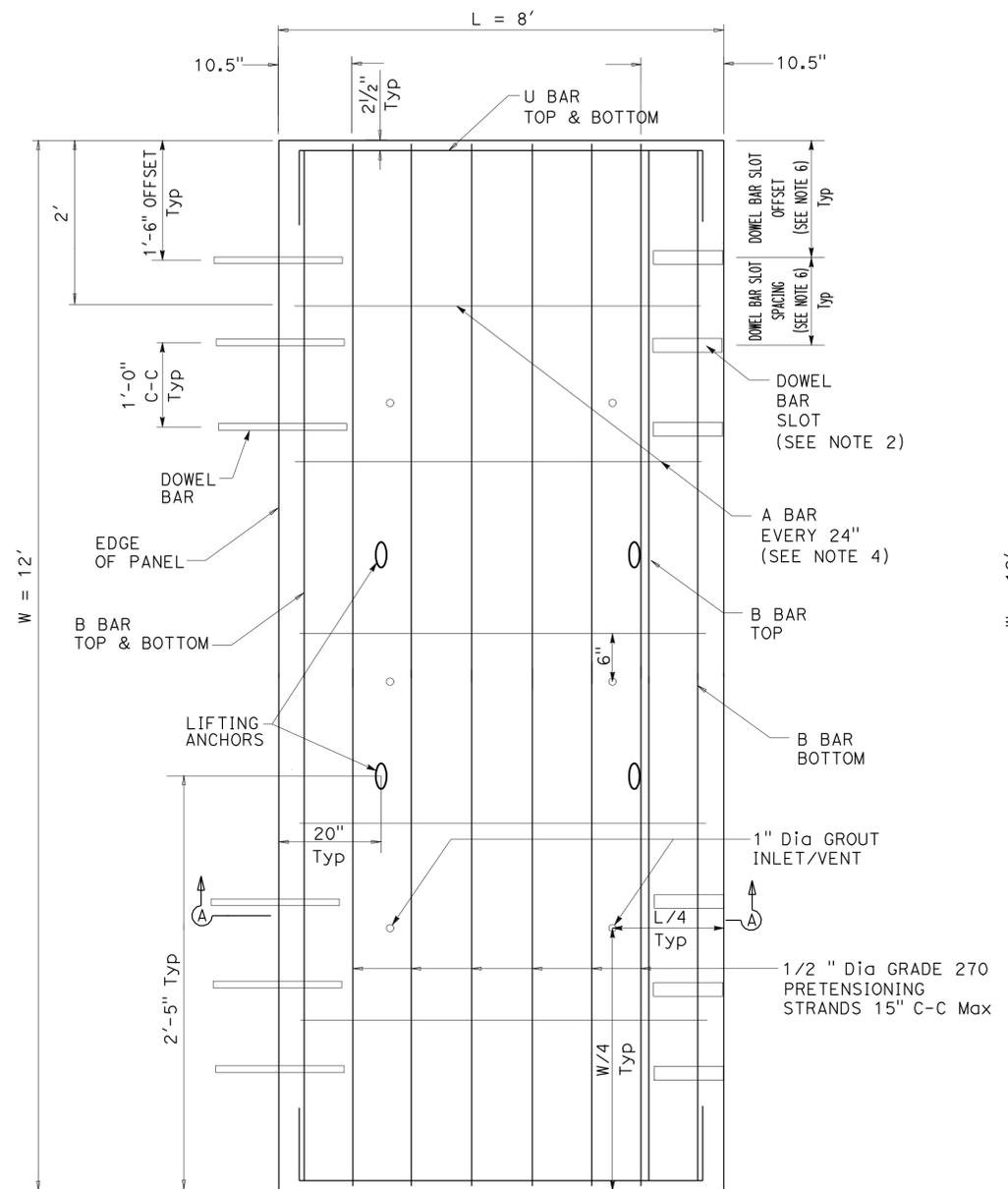
1. FOR PRECAST PANEL DETAILS, SEE SHEET C-7.
2. FOR DOWEL BAR AND JOINT DETAILS, SEE SHEETS C-8 AND C-9.
3. 6' Min LENGTH OF EXISTING SLAB MUST REMAIN, OR, CONSTRUCT A STANDARD PCP.
4. THE LAYOUT IS SHOWN FOR 3 DOWEL BARS PER WHEEL PATH. ADJUST THE NUMBER OF DOWEL BARS AND SLOTS WHEN 4 DOWEL BARS ARE NEEDED.

**CONSTRUCTION DETAILS
INDIVIDUAL SLAB REPLACEMENT
(PRECAST CONCRETE PANEL)
INSTALLATION AND
CONNECTION DETAILS**

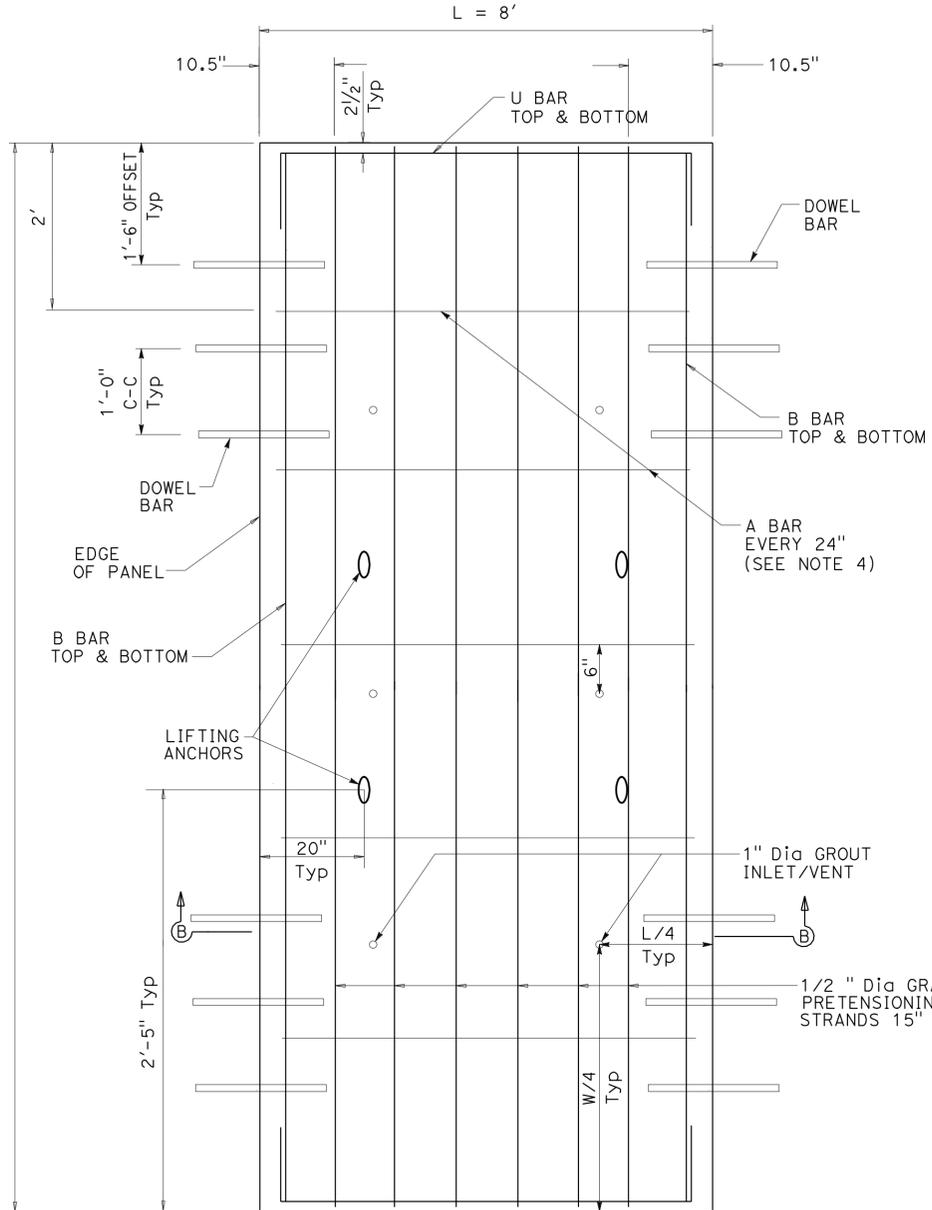
NO SCALE

C-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 FUNCTIONAL SUPERVISOR WILLIAM FARNBACH
 CHECKED BY
 CALCULATED/DESIGNED BY
 MEHDI PARVINI
 WILLIAM FARNBACH
 REVISED BY DATE REVISED
 MP 6/12/2012

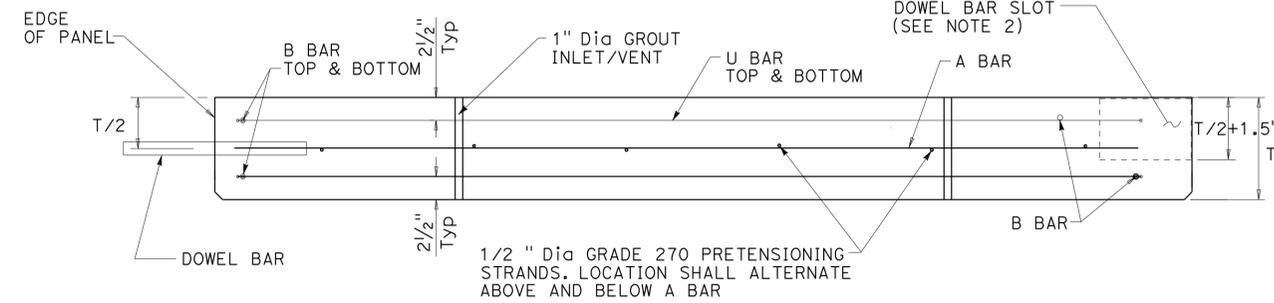
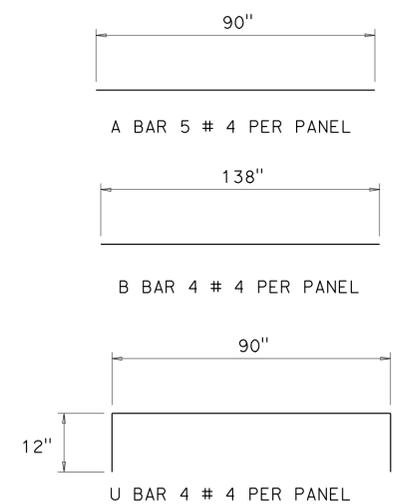


PLAN
STANDARD PCP

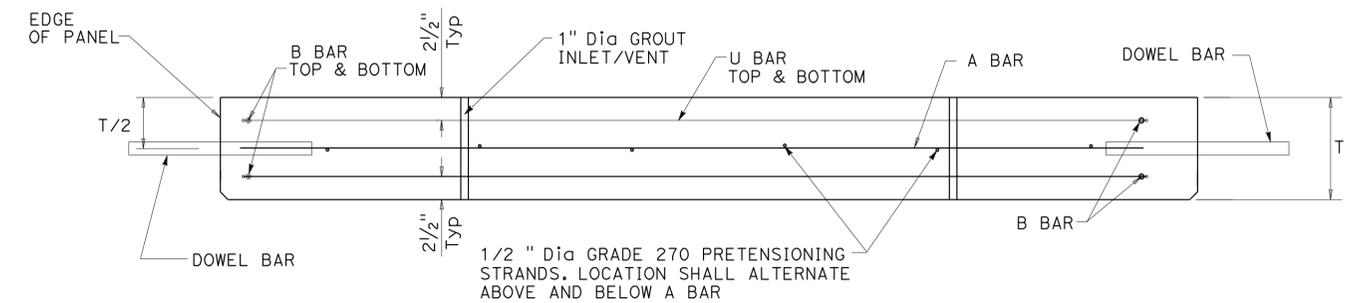


PLAN
MODIFIED PCP

- NOTES:**
- 1 1/2" DIAMETER DOWEL BARS 1'-6" LENGTH SHALL BE USED WHEN THE EXISTING PAVEMENT THICKNESS, "T", IS EQUAL TO OR GREATER THAN 0.70'. FOR A PAVEMENT THICKNESS, "T", LESS THAN 0.70', USE 1 1/4" DIAMETER DOWEL BAR 1'-6" IN LENGTH.
 - FOR DOWEL BAR SLOT DIMENSIONS, BACKFILLING, AND GROUT INLET/VENT DETAILS, SEE SHEET C-8.
 - FOR JOINT DETAILS, SEE SHEET C-9.
 - REINFORCEMENT AND PRETENSIONING STRAND DIMENSIONS SHALL BE VERIFIED BY THE MANUFACTURER BEFORE PANEL FABRICATION.
 - ADJUST LOCATION OF "A" BAR TO ACCOMMODATE DOWEL BARS AND DOWEL BAR SLOTS.
 - DOWEL BAR SLOT OFFSET AND SPACING SHALL MATCH OFFSET AND SPACING OF DOWELS IN ADJACENT PCP.
 - THREADED AND RECESSED LIFTING ANCHORS SHALL BE DESIGNED BY THE CONTRACTOR.
 - PCP THICKNESS, T, SHALL MATCH EXISTING CONCRETE SLAB THICKNESS BUT NOT LESS THAN 0.70'.
 - THE LAYOUT IS SHOWN FOR 3 DOWEL BARS PER WHEEL PATH. ADJUST THE NUMBER OF DOWEL BARS AND SLOTS WHEN 4 DOWEL BARS ARE NEEDED.



SECTION A-A



SECTION B-B

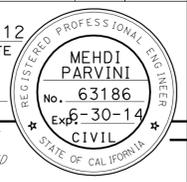
PRECAST CONCRETE PANELS (PCP)
NO SCALE

CONSTRUCTION DETAILS
INDIVIDUAL SLAB REPLACEMENT
(PRECAST CONCRETE PANEL)
PANEL DETAILS
NO SCALE

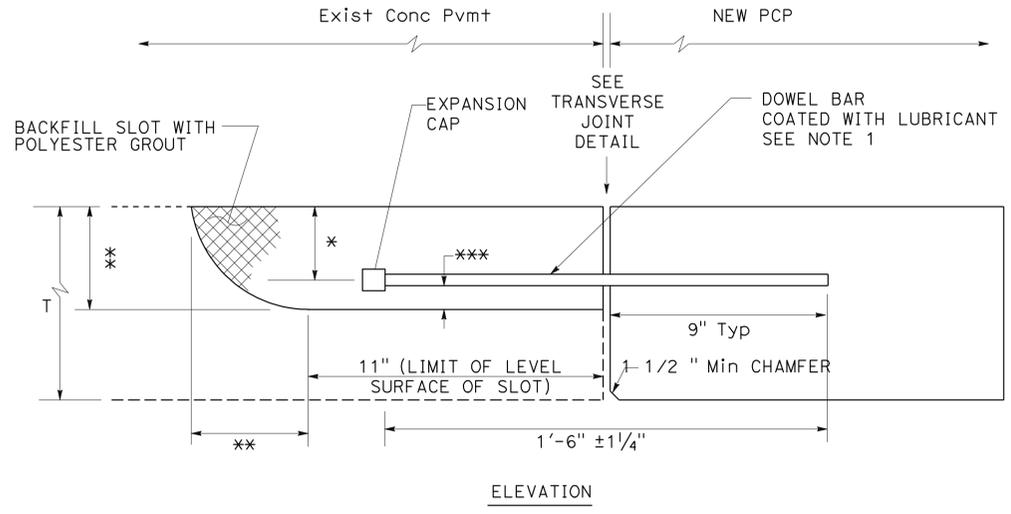
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REVISOR: WILLIAM FARNBACH
DATE: 6/12/2012

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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 REGISTERED CIVIL ENGINEER DATE 6-8-12					
7-2-12 PLANS APPROVAL DATE					
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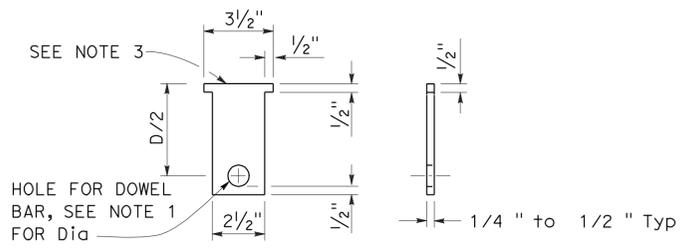
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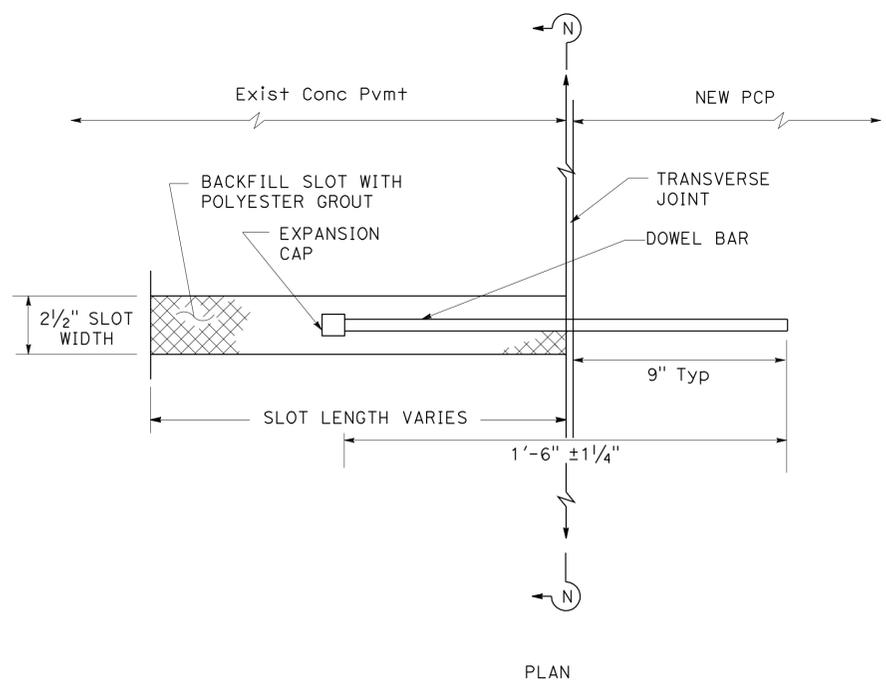
T = EXISTING THICKNESS OF PCC, JPCP, OR RSC
 * T/2 ± 1/4 "
 ** T/2 + 1 1/2 "
 *** Min Cir 1/2" BETWEEN BAR AND BOTTOM OF SLOT

NOTES:

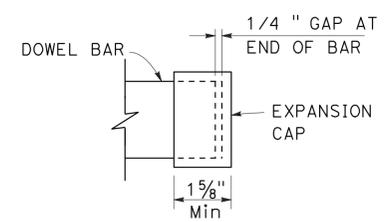
- FOR DIAMETER, SEE SHEET C-7, NOTE No. 1.
- SEAL EXISTING TRANSVERSE JOINT AT BOTTOM AND SIDES OF THE DOWEL BAR SLOT WITH CAULKING FILLER PRIOR TO PLACING DOWEL BAR AND FOAM CORE INSERT.
- THE TOP OF THE FOAM CORE INSERT SHALL INITIALLY MATCH THE TOP OF THE EXISTING PAVEMENT SURFACE INITIALLY. THE FOAM CORE INSERT SHALL BE REMOVED BEFORE PLACING JOINT FILLER MATERIAL.



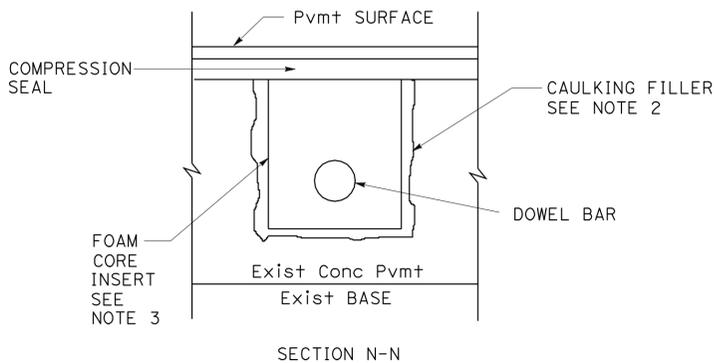
FOAM CORE INSERT DETAIL



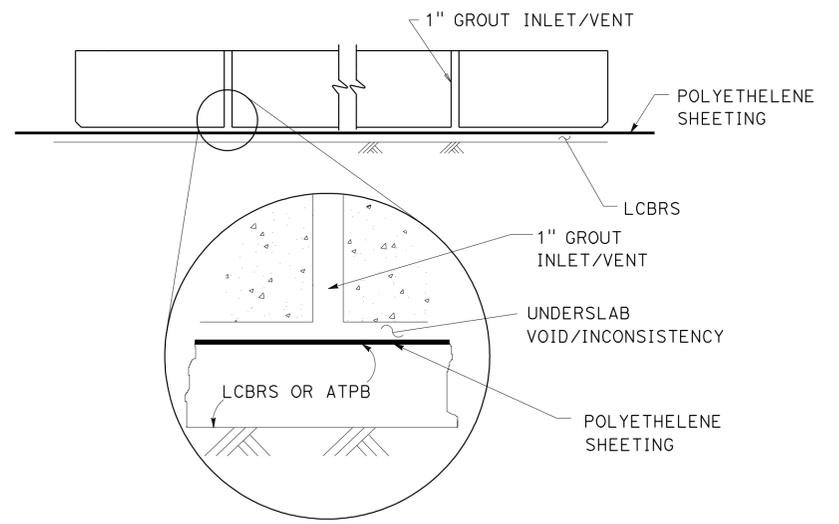
DOWEL BAR SLOT BACKFILLING



EXPANSION CAP DETAIL
(MINIMUM REQUIREMENT)



SECTION N-N



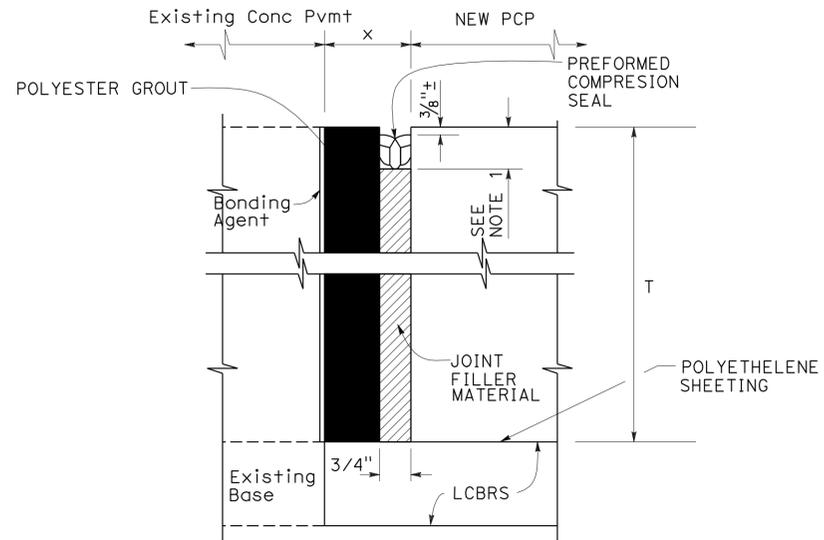
UNDERSLAB GROUT INLET/VENT AND POLYETHELENE SHEETING

CONSTRUCTION DETAILS
INDIVIDUAL SLAB REPLACEMENT
(PRECAST CONCRETE PANEL)
MISCELLANEOUS DETAILS No. 1
 NO SCALE



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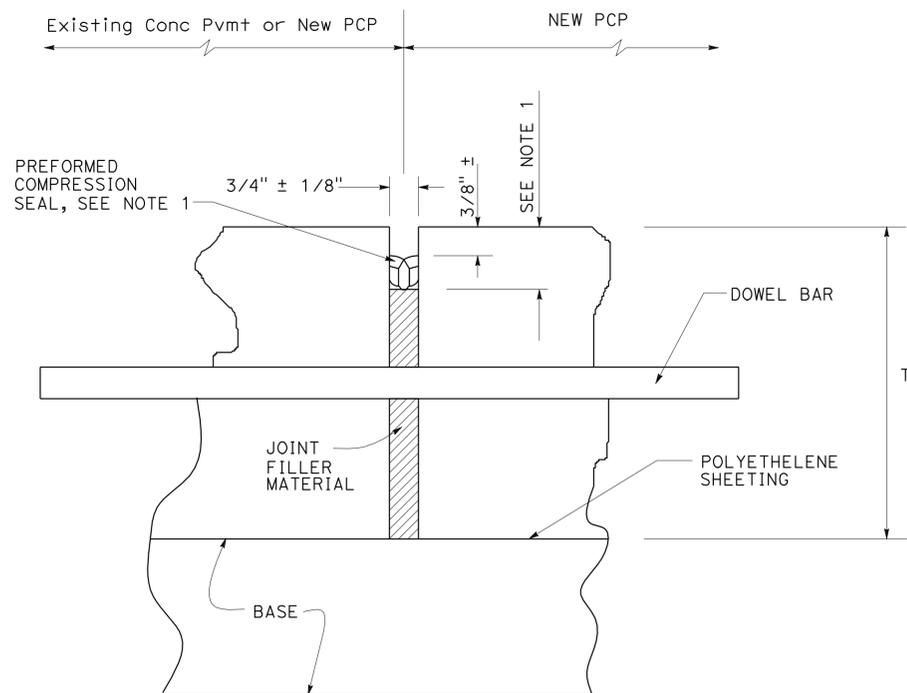
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REGISTERED CIVIL ENGINEER			DATE		
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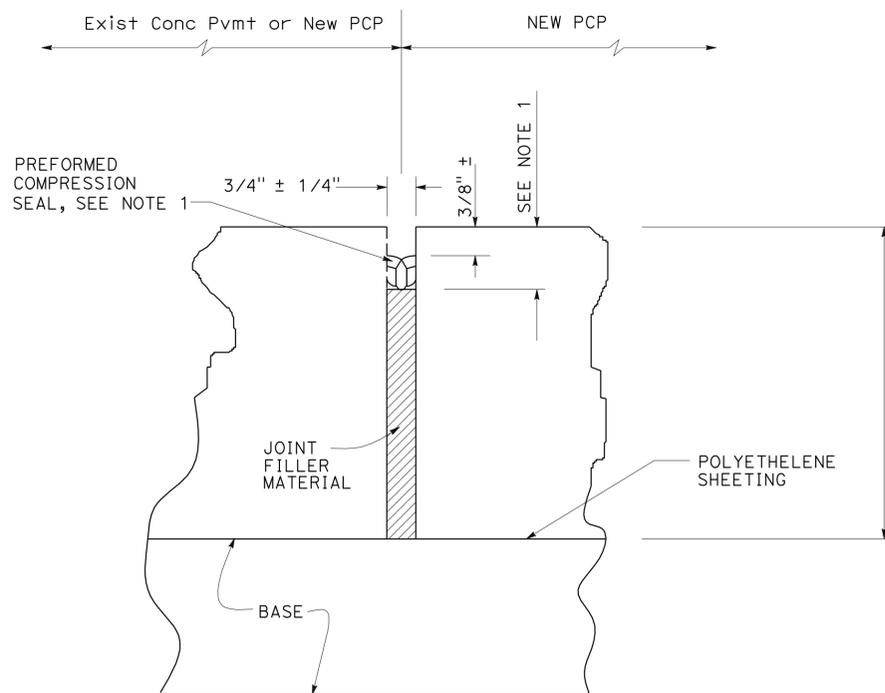
LONGITUDINAL ISOLATION JOINT DETAIL
(FOR WIDER JOINTS, $1'' < x < 1 \frac{1}{2}''$)

NOTE:

1. NOMINAL WIDTH FOR PREFORMED COMPRESSION SEALS SHALL BE SELECTED BASED ON THE ACTUAL JOINT WIDTH SO THE SEALS ARE COMPRESSED 40 TO 50 PERCENT FOR THE JOINT WIDTH AND DEPTH.



CONSTRUCTION AND TRANSVERSE JOINT DETAIL

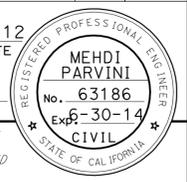


LONGITUDINAL ISOLATION JOINT DETAIL

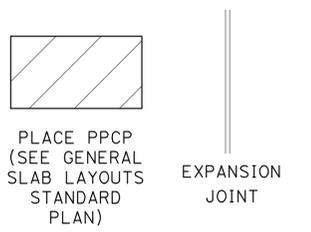
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INDIVIDUAL SLAB REPLACEMENT
(PRECAST CONCRETE PANEL)
MISCELLANEOUS DETAILS No. 2
NO SCALE

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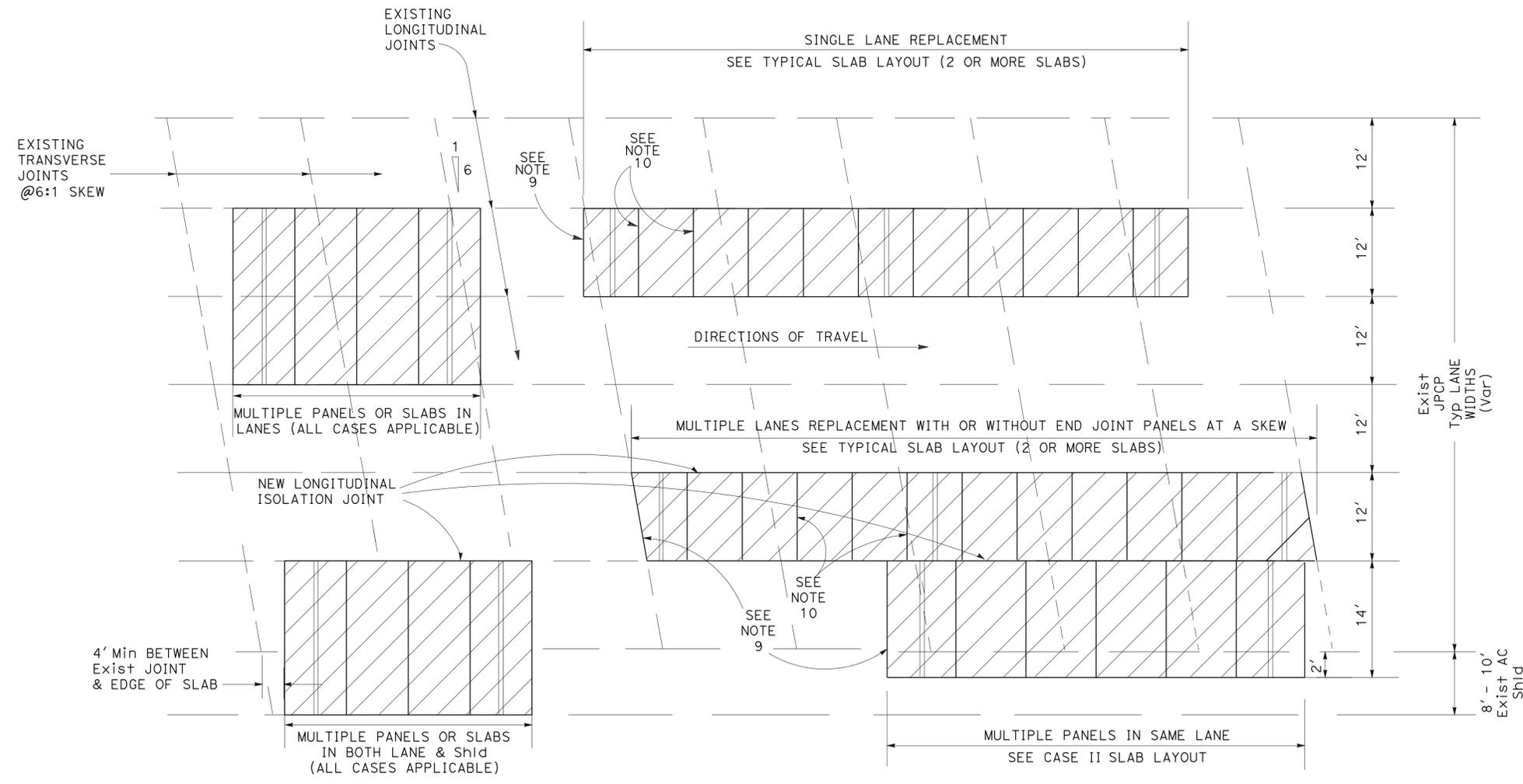
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 REGISTERED CIVIL ENGINEER DATE 6-8-12					
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LEGEND:



ABBREVIATION:

(s) EXISTING JOINT SPACING



NOTES:

1. SKEW PANELS HAVE A MINIMUM LENGTH OF 4' FROM THE EXPANSION JOINT.
2. Exist JOINT SPACING VARIES BASED ON YEAR OF DESIGN AND ARE TYPICALLY AT A SKEW OF 6:1. NEW PANEL JOINTS ARE NOT NECESSARILY REQUIRED TO MATCH THE Exist JOINTS.
3. FOR DETAILS OF BASE PANELS, CENTRAL STRESSING PANELS, TYPE C1 JOINT PANELS, TYPE C2 JOINT PANELS AND TYPE C3 JOINT PANELS, SEE THE INDIVIDUAL PLANS FOR EACH OF THESE PANELS.
4. SKEW JOINT PANELS ARE OPTIONAL & ARE USED TO MATCH Exist.
5. Min Std PANEL LENGTH (L) = 8'.
Min PANEL WIDTH (W) = DIMENSION AS NEEDED.
Max PANEL WIDTH (W) = 60'.
6. IF POSSIBLE, LINE UP THE TRANSVERSE JOINTS WHEN MULTIPLE LANES OF PANELS ARE USED.
7. FOR LONGITUDINAL ISOLATION JOINTS, SEE "ISOLATION JOINT DETAIL" ON SHEET C-22.
8. FOR PPCP NEXT TO Exist PCC PAVEMENT, SEE "DOWEL BAR RETROFIT" SHEET C-23.
9. FOR TRANSVERSE JOINTS OF PPCP PANELS, SEE "KEY & KEYWAY DETAIL" ON SHEET C-22.

TYPICAL VARIABLE LAYOUTS

CONSTRUCTION DETAILS
GENERAL LAYOUTS
PRECAST PRESTRESSED
CONCRETE PAVEMENT (PCP)
 NO SCALE

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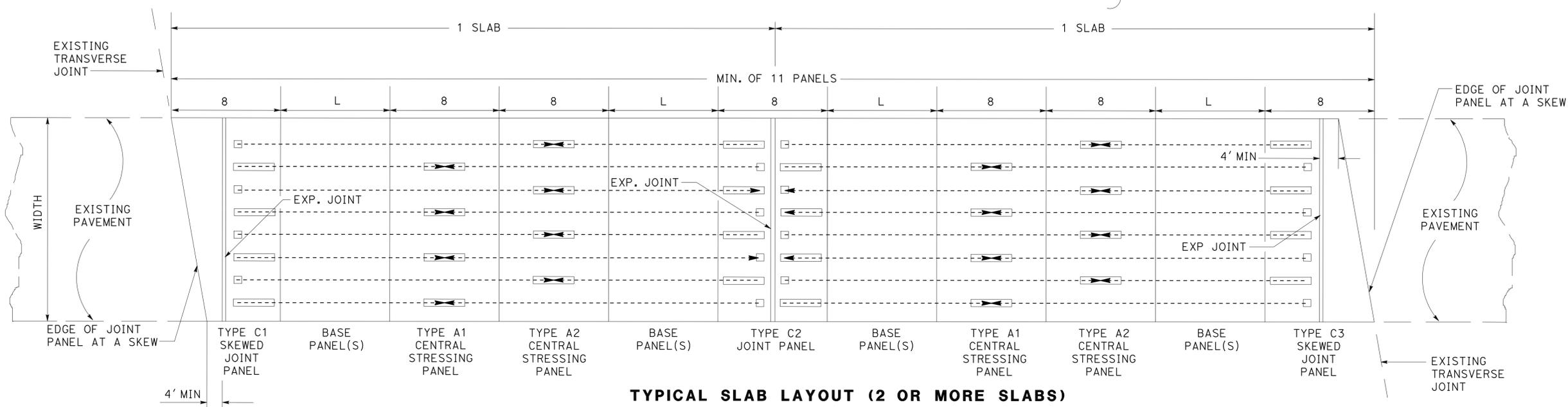
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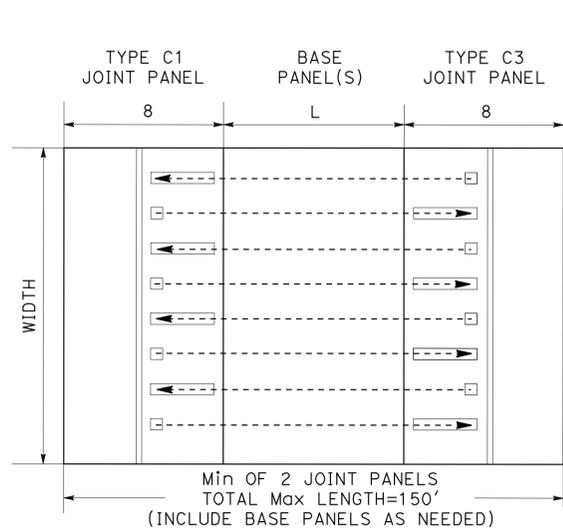
- SEE SHEET C-22 FOR CENTRAL STRESSING BLOCKOUT DETAIL.
- L IS THE LENGTH DIMENSION ALONG THE DIRECTION OF TRAVEL.
- WHEN CENTRAL STRESSING PANELS ARE INCLUDED IN A SLAB, ONLY TWO LONG BLOCKOUTS PLACED APPROXIMATELY AT THIRD POINTS OF JOINT PANELS ARE NEEDED.

LEGEND:

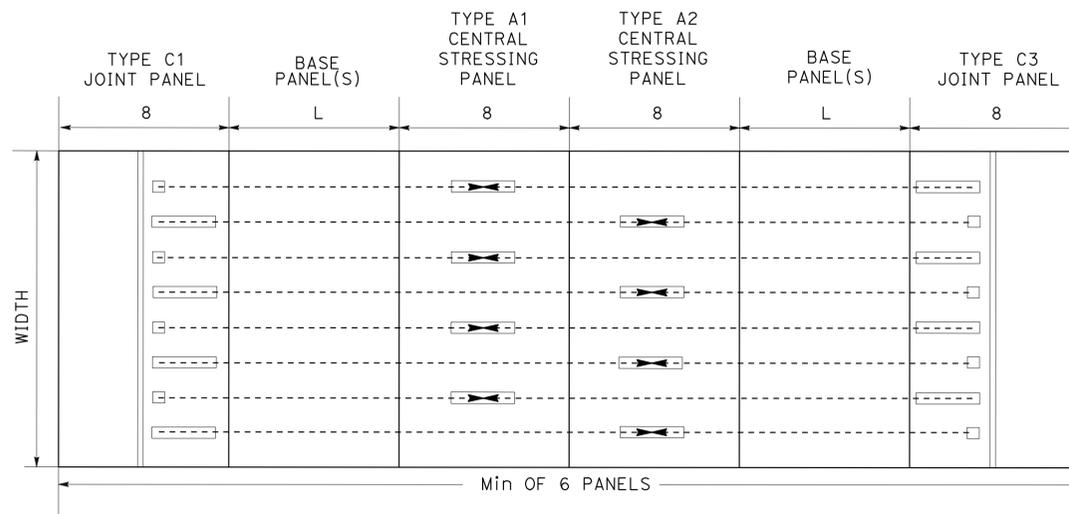
- SMALL BLOCKOUTS FOR END ANCHORS
 - LARGE BLOCKOUTS FOR POST-TENSIONING JACKS
 - TYPICAL DIRECTION OF POST-TENSIONING PULL & LOCATION OF TENSION LOCK.
 - POST-TENSIONING DUCT
-
- TYPICAL BLOCKOUTS FOR END ANCHORS AND POST-TENSIONING JACKS SEE NOTE 4



TYPICAL SLAB LAYOUT (2 OR MORE SLABS)
(FOR SLAB LENGTH > 250', INCLUDE TYPE C2 JOINT PANELS)



CASE I SLAB LAYOUT



CASE II SLAB LAYOUT
(FOR SLAB LENGTH > 150' & < 250')

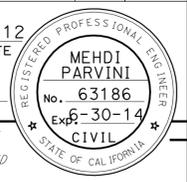
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GENERAL SLAB LAYOUTS
PRECAST PRESTRESSED
CONCRETE PAVEMENT (PPCP)

NO SCALE

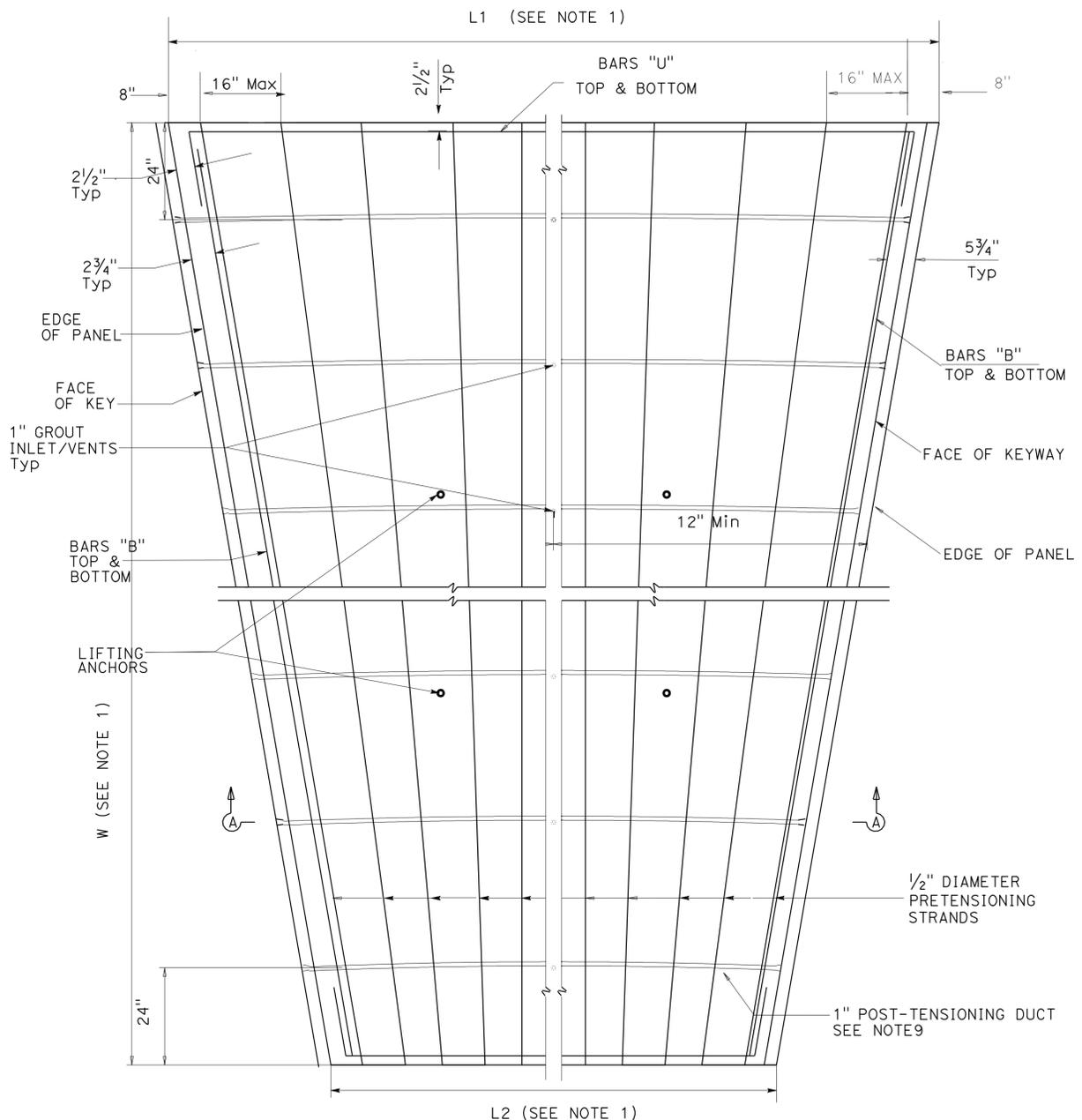
C-11

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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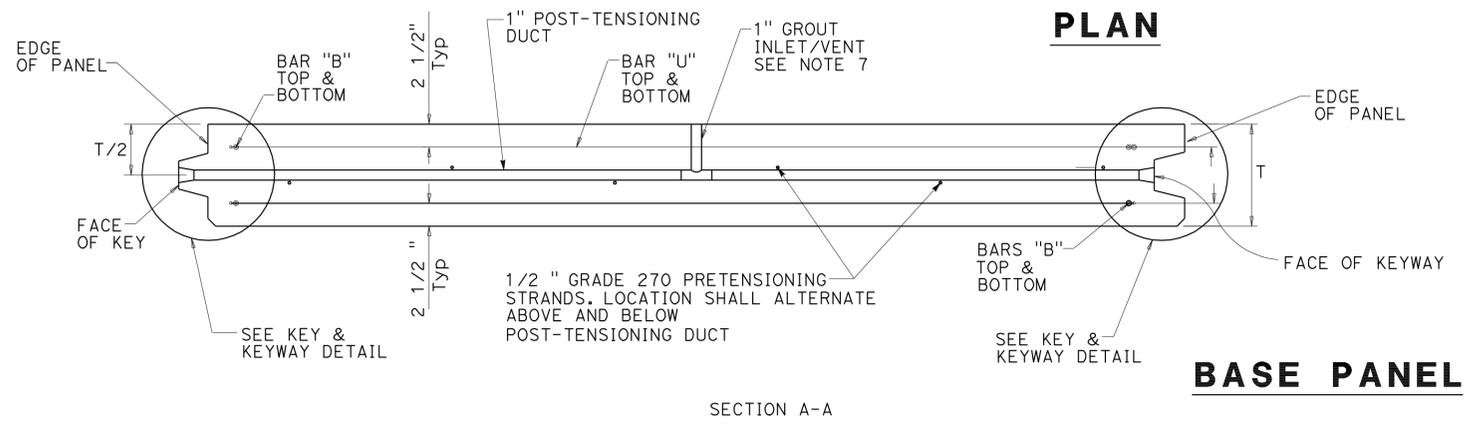
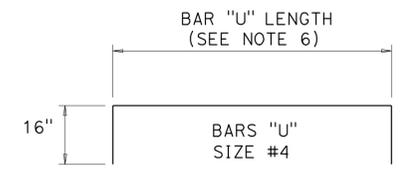

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NOTES:

1. SEE TABLES A AND B FOR LENGTH (L) OR WIDTH (W) FOR BASE PANELS.
2. THE SPACING BETWEEN PRETENSIONING STRANDS SHALL NOT BE MORE THAN 16" C-C.
3. SEE SHEET C-22 FOR KEY & KEYWAY DETAIL.
4. FOR BAR "U" LENGTH, SEE TABLE A FOR BASE PANELS.
5. SEE SHEET C-22 FOR GROUT INLET/VENT.
6. VERIFY REINFORCEMENT DIMENSIONS AND QUANTITIES BEFORE FABRICATION.
7. FOR TIGHT CONES WITH RADIUS LESS THAN 2000', THE DUCT MUST BE PERPENDICULAR TO THE DEGE OF PANEL AND SHALL HAVE AN ANGLE TO MATCH THE RADIUS OF CONE.
8. FOR TIGHT CONES WITH RADIUS LESS THAN 2000', BUILD THE CONE TO MATCH THE ROAD.
9. 1" POST-TENSIONING DUCTS ARE SPACED UNIFORMLY AT MAXIMUM 36" C-C ALONG THE 'W' DIMENSION BETWEEN THE FIRST & LAST POST-TENSIONING DUCT.



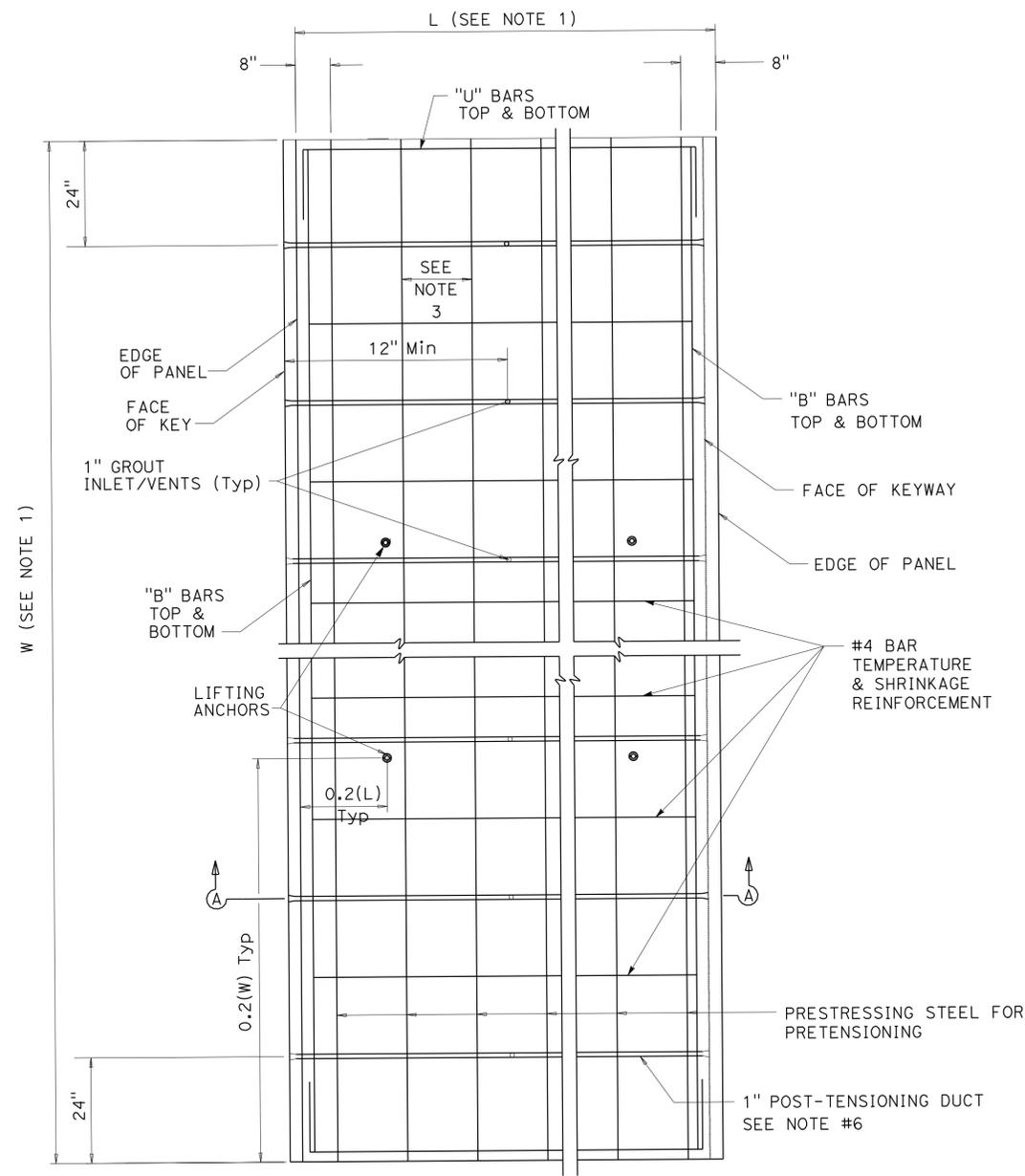
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MEHDI PARVINI	WILLIAM FARNBACH	DESIGN					

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	17	60

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 PLANS APPROVAL DATE

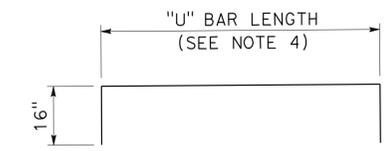
REGISTERED PROFESSIONAL ENGINEER
 MEHDI PARVINI
 No. 63186
 Exp. 3-30-14
 CIVIL
 STATE OF CALIFORNIA

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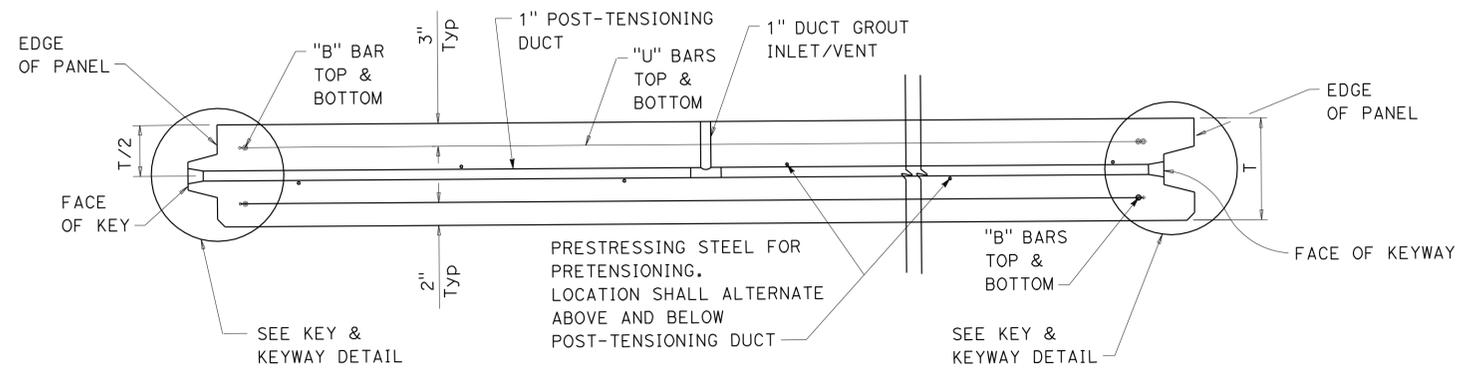


NOTES:

1. SEE TABLES A AND B ON SHEETS C-24 TO C-26 FOR LENGTH (L) OR WIDTH (W) FOR BASE PANELS.
2. THE SPACING BETWEEN PRETENSIONING STRANDS SHALL NOT BE MORE THAN 16" C-C.
3. SEE SHEET C-22 FOR KEY & KEYWAY DETAIL.
4. FOR "U" BAR LENGTH, SEE TABLE A FOR BASE PANELS.
5. VERIFY REINFORCEMENT DIMENSIONS & QUANTITIES BEFORE FABRICATION.
6. 1" POST-TENSIONING DUCTS ARE SPACED UNIFORMLY AT MAXIMUM 36" C-C ALONG THE 'W' DIMENSION BETWEEN THE FIRST & LAST POST-TENSIONING DUCT.



**PLAN
"U" BARS
SIZE #4**

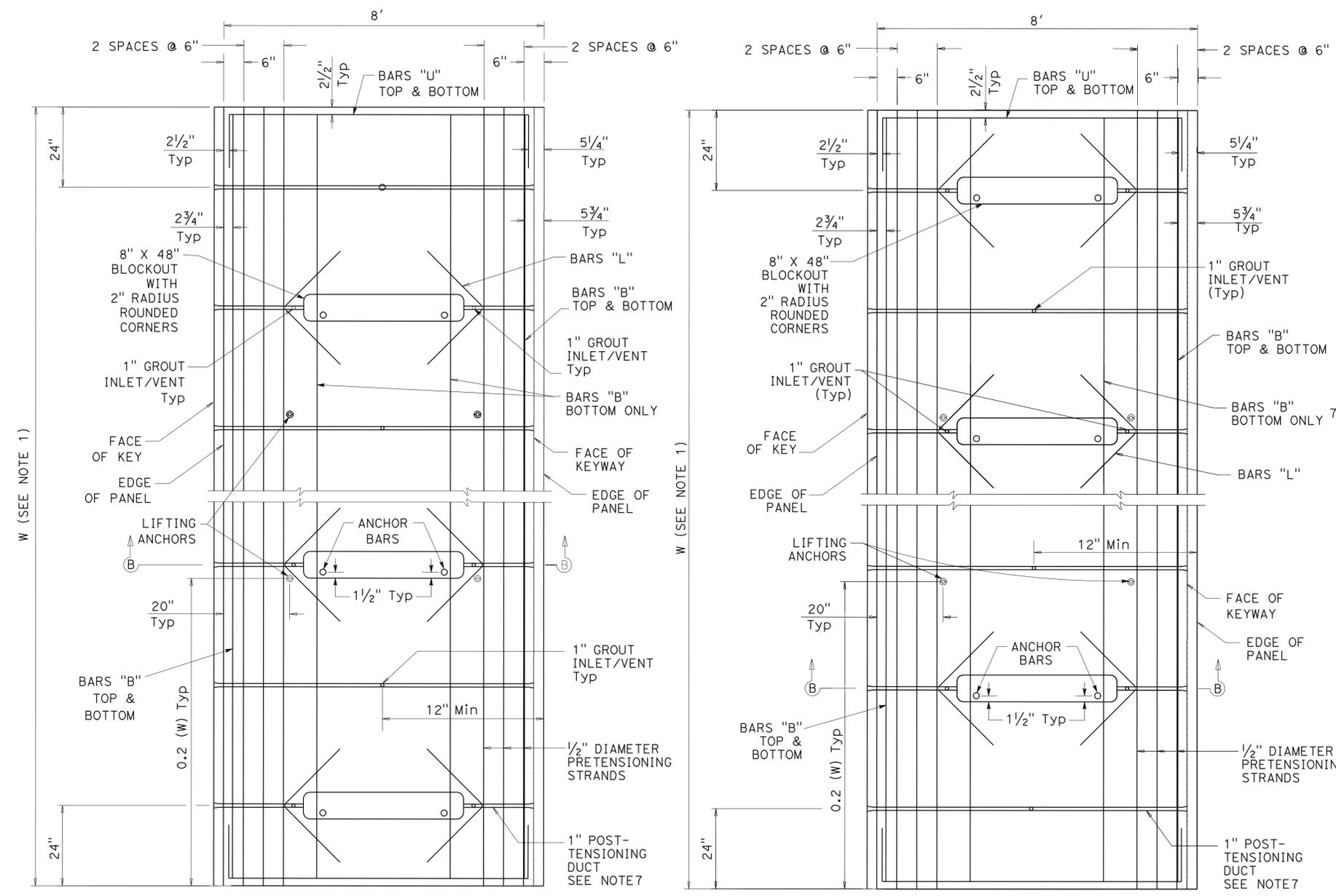


SECTION A-A

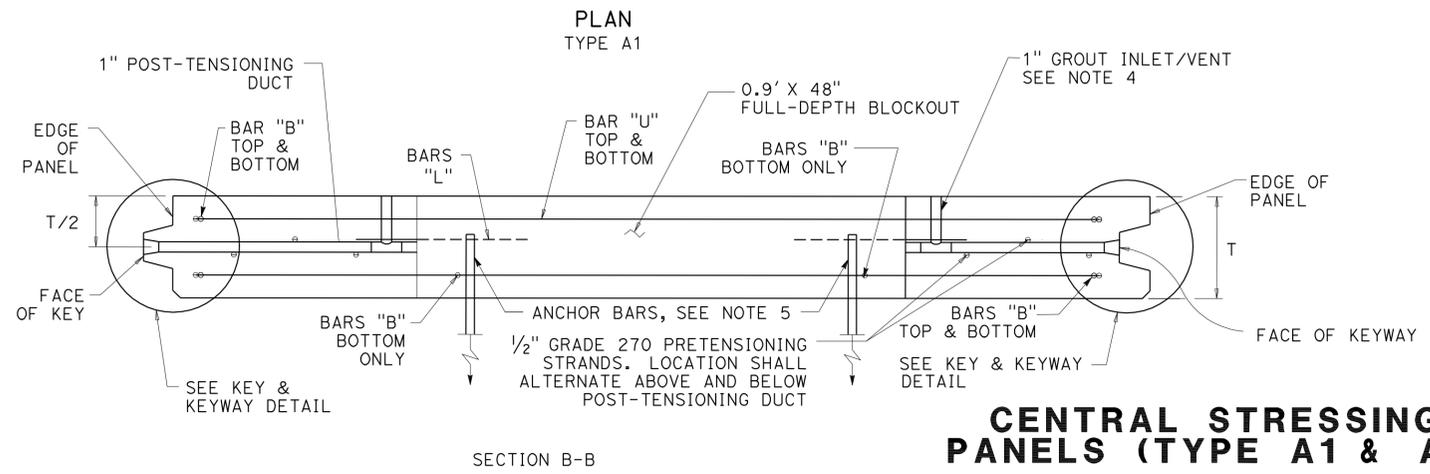
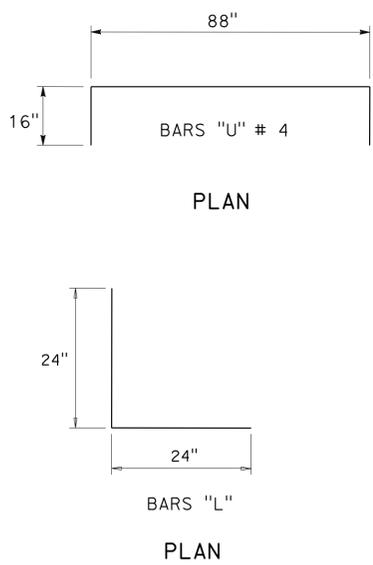
BASE PANEL

**CONSTRUCTION DETAILS
BASE PANEL LAYOUT
PRECAST PRESTRESSED
CONCRETE PAVEMENT (PPCP)
NO SCALE**

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- NOTES:**
1. SEE TABLE B FOR BASE PANELS FOR NUMBER OF POST-TENSIONING DUCTS & LENGTH OF PRETENSIONING STRANDS. NUMBER OF BARS ASSOCIATED WITH EACH TYPE OF BLOCK-OUT IS CALCULATED BASED ON THE NUMBER OF THAT TYPE.
 2. THE SPACING BETWEEN PRETENSIONING STRANDS IS 6" C-C.
 3. SEE SHEET C-22 FOR KEY & KEYWAY DETAIL.
 4. SEE SHEET C-22 FOR GROUT INLET/VENT.
 5. SEE CENTRAL STRESSING BLOCKOUT DETAIL AND ANCHOR BAR DETAIL ON SHEET C-22.
 6. VERIFY REINFORCEMENT DIMENSIONS AND QUANTITIES BEFORE FABRICATION.
 7. 1" POST-TENSIONING DUCTS ARE SPACED UNIFORMLY AT Max 36" C-C ALONG THE 'W' DIMENSION BETWEEN THE FIRST & LAST POST-TENSIONING DUCT.



CENTRAL STRESSING PANELS (TYPE A1 & A2)

**CONSTRUCTION DETAILS
PRECAST PRESTRESSED
CONCRETE PAVEMENT**

NO SCALE

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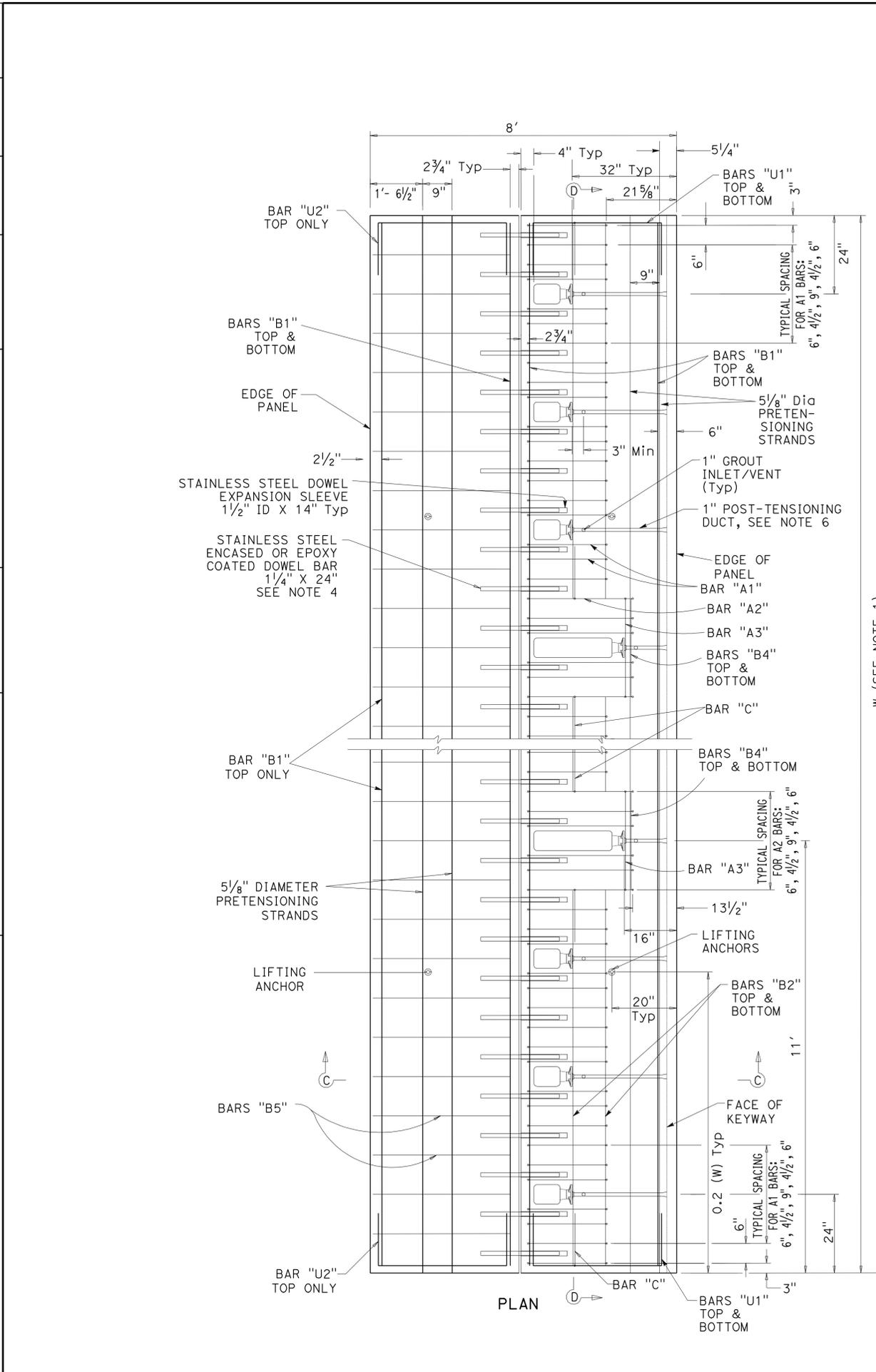
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	19	60

REGISTERED CIVIL ENGINEER
 MEHDI PARVINI
 No. 63186
 Exp. 3-30-14
 CIVIL
 STATE OF CALIFORNIA

6-8-12
 DATE
 7-2-12
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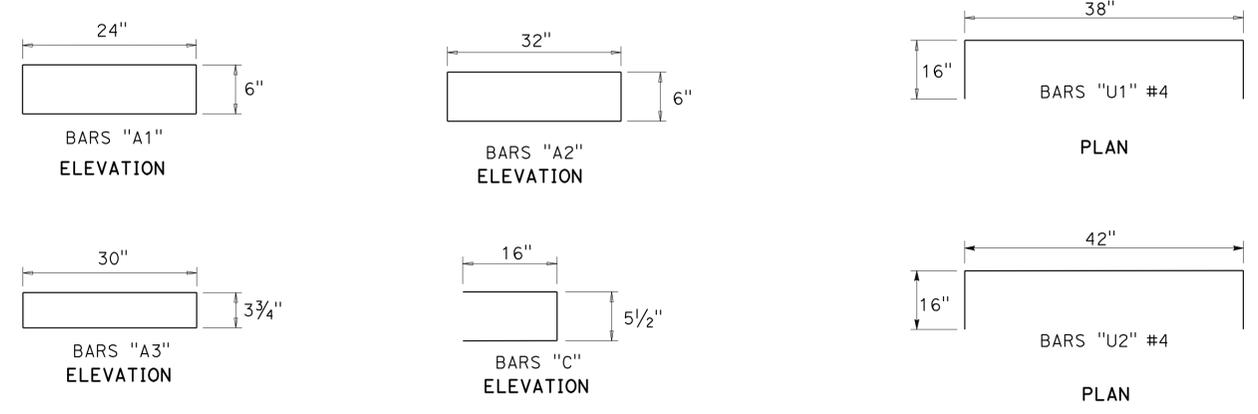
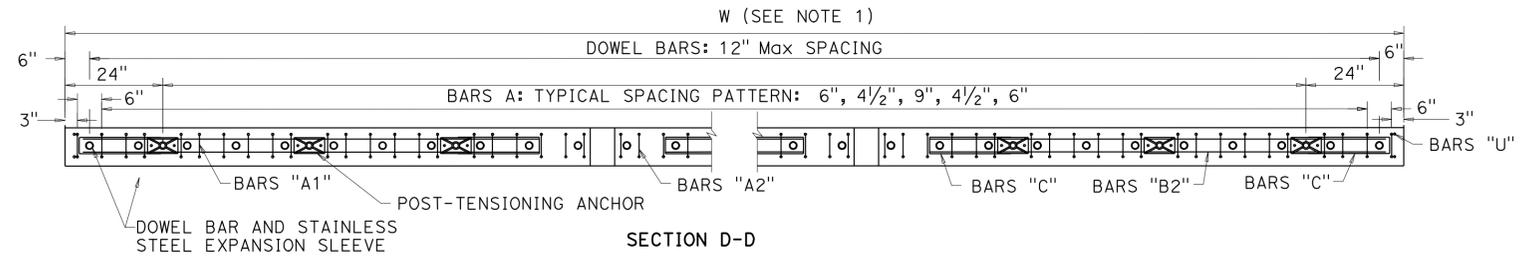
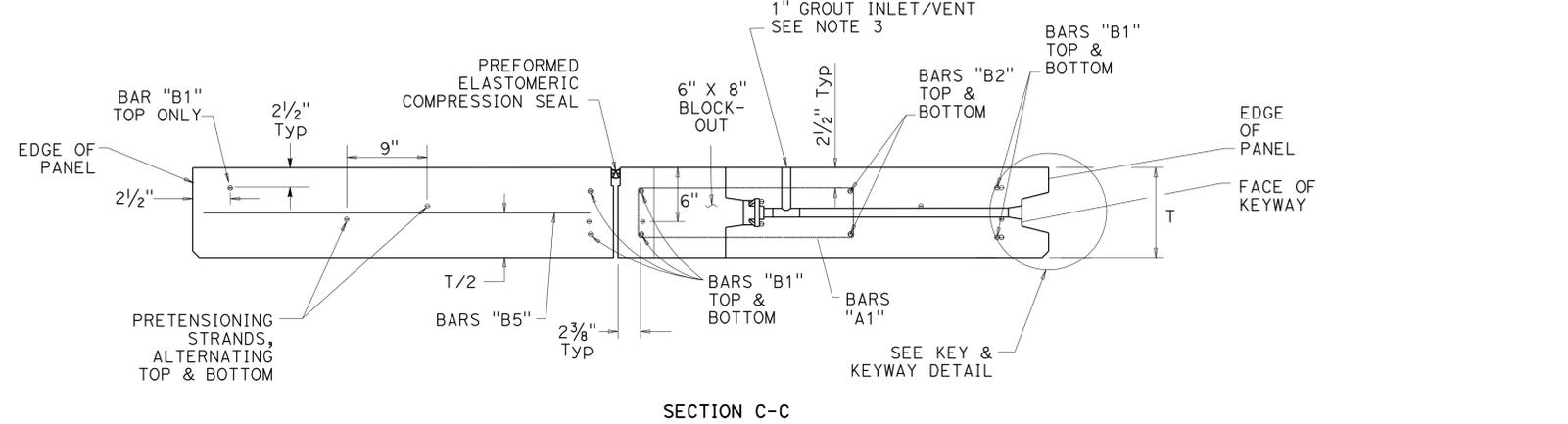
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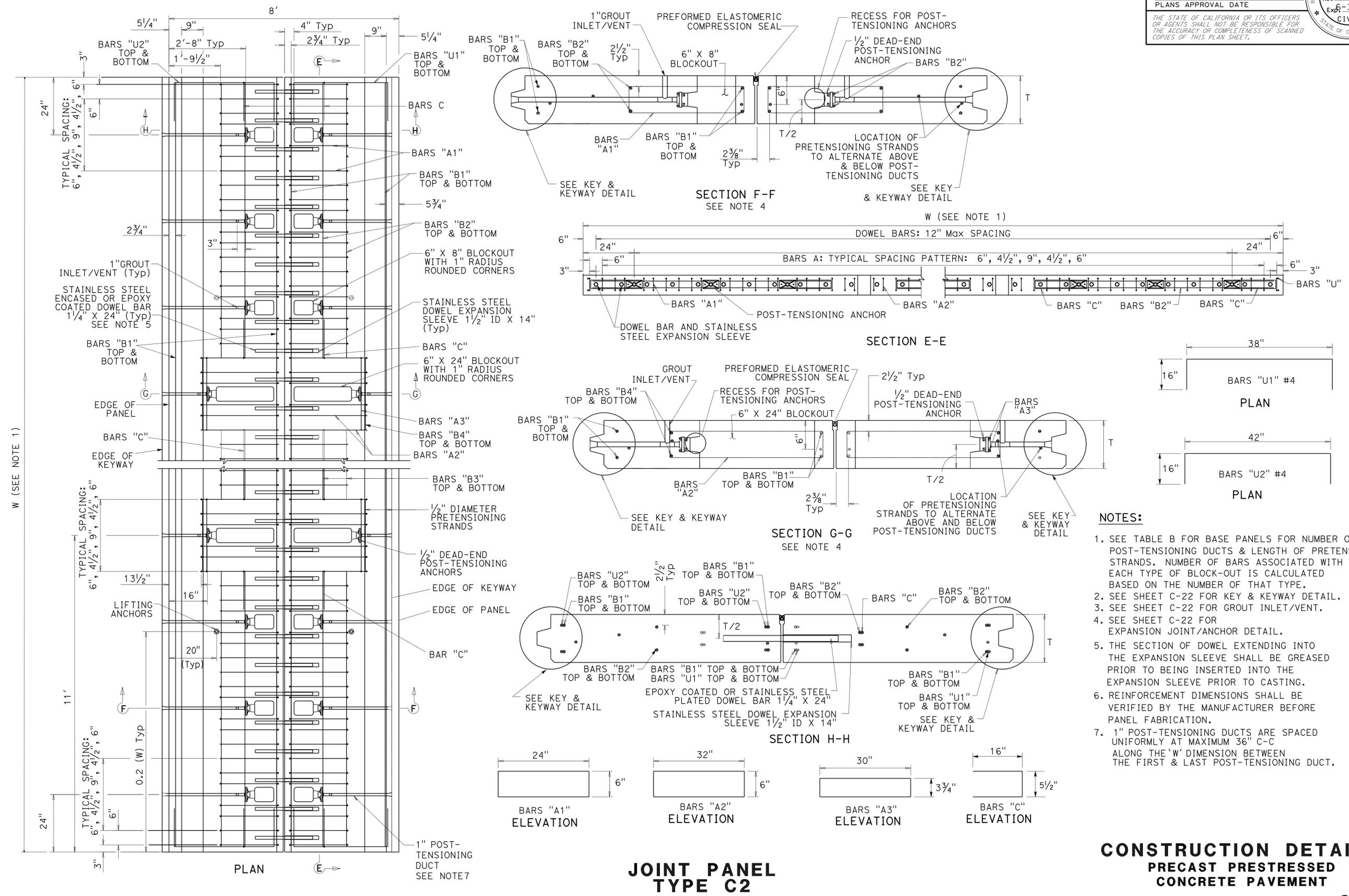
NOTES:

- SEE TABLE B FOR BASE PANELS FOR NUMBER OF POST-TENSIONING DUCTS & LENGTH OF PRETENSIONING STRANDS. NUMBER OF BARS ASSOCIATED WITH EACH TYPE OF BLOCK-OUT IS CALCULATED BASED ON THE NUMBER OF THAT TYPE.
- SEE SHEET C-22 FOR KEY & KEYWAY DETAIL.
- SEE SHEET C-22 FOR GROUT INLET/VENT.
- THE SECTION OF DOWEL EXTENDING INTO THE EXPANSION SLEEVE MUST BE GREASED PRIOR TO BEING INSERTED INTO THE EXPANSION SLEEVE PRIOR TO CASTING.
- VERIFY REINFORCEMENT DIMENSIONS AND QUANTITIES BEFORE FABRICATION.
- 1" POST-TENSIONING DUCTS ARE SPACED UNIFORMLY AT Max 36" C-C ALONG THE 'W' DIMENSION BETWEEN THE FIRST & LAST POST-TENSIONING DUCT.



JOINT PANEL TYPE C1

CONSTRUCTION DETAILS PRECAST PRESTRESSED CONCRETE PAVEMENT NO SCALE C-15



- NOTES:**
- SEE TABLE B FOR BASE PANELS FOR NUMBER OF POST-TENSIONING DUCTS & LENGTH OF PRETENSIONING STRANDS. NUMBER OF BARS ASSOCIATED WITH EACH TYPE OF BLOCK-OUT IS CALCULATED BASED ON THE NUMBER OF THAT TYPE.
 - SEE SHEET C-22 FOR KEY & KEYWAY DETAIL.
 - SEE SHEET C-22 FOR GROUT INLET/VENT.
 - SEE SHEET C-22 FOR EXPANSION JOINT/ANCHOR DETAIL.
 - THE SECTION OF DOWEL EXTENDING INTO THE EXPANSION SLEEVE SHALL BE GREASED PRIOR TO BEING INSERTED INTO THE EXPANSION SLEEVE PRIOR TO CASTING.
 - REINFORCEMENT DIMENSIONS SHALL BE VERIFIED BY THE MANUFACTURER BEFORE PANEL FABRICATION.
 - 1" POST-TENSIONING DUCTS ARE SPACED UNIFORMLY AT MAXIMUM 36" C-C ALONG THE "W" DIMENSION BETWEEN THE FIRST & LAST POST-TENSIONING DUCT.

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 BORDER LAST REVISED 7/2/2010
 USERNAME => S119140
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 RELATIVE BORDER SCALE IS IN INCHES
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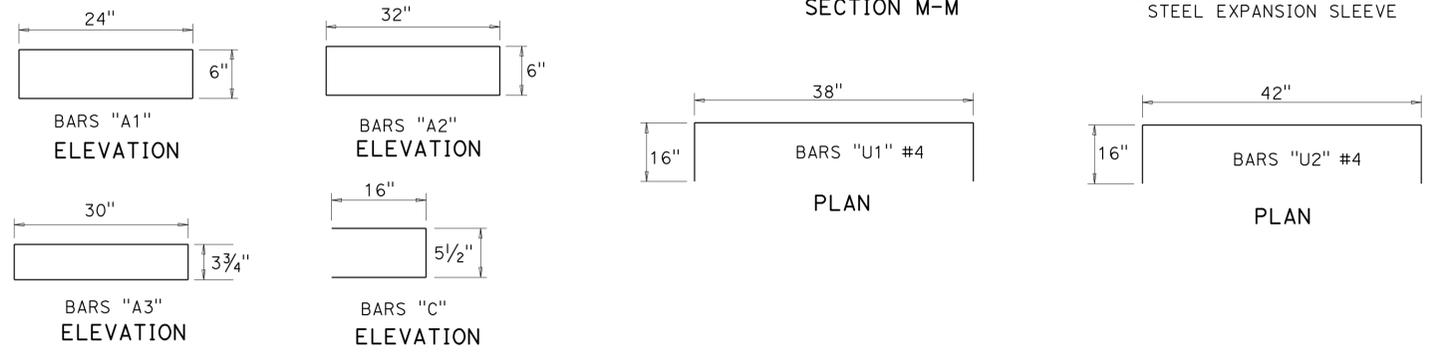
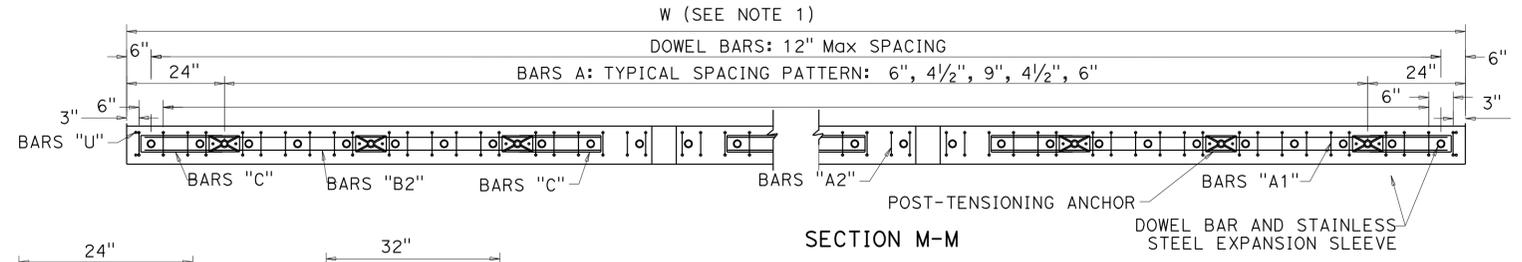
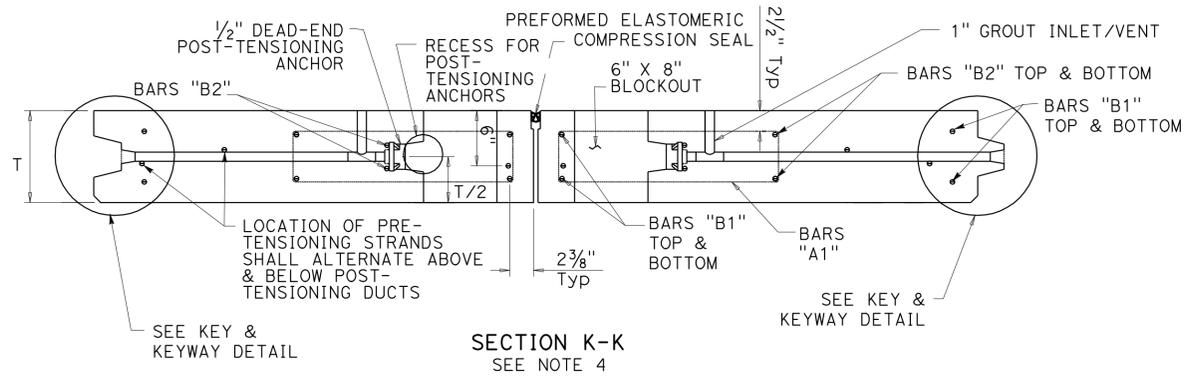
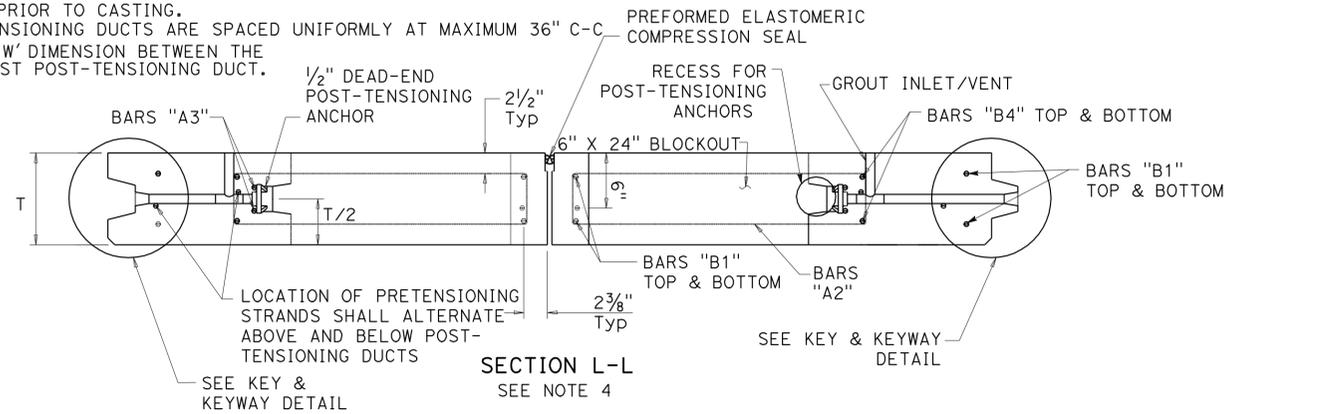
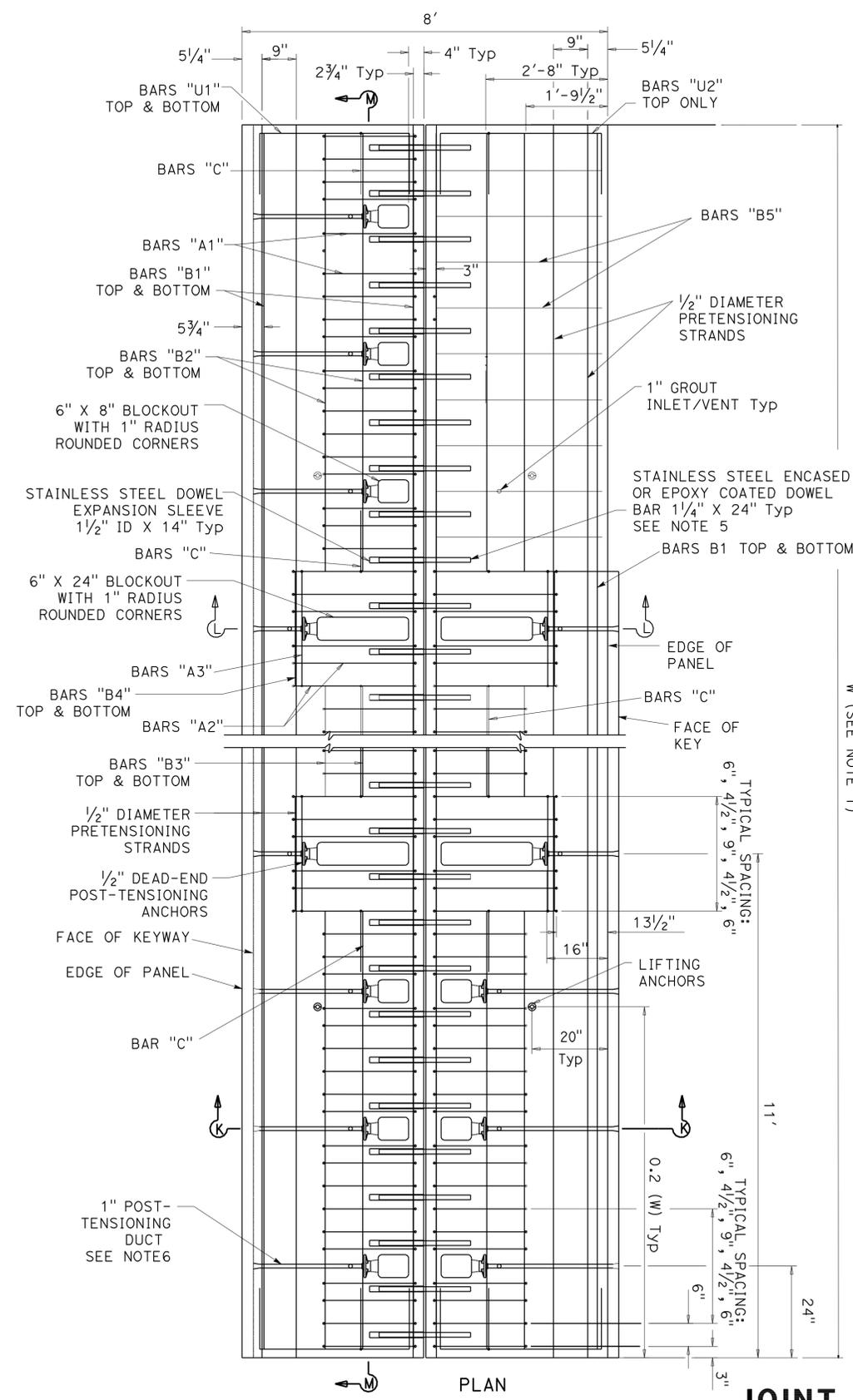
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	22	60

M. Parvini 6-8-12
 REGISTERED CIVIL ENGINEER DATE
 7-2-12
 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.

REGISTERED PROFESSIONAL ENGINEER
 MEHDI PARVINI
 No. 63186
 Exp. 3-30-14
 CIVIL
 STATE OF CALIFORNIA

NOTES:

- SEE TABLE B FOR BASE PANELS FOR NUMBER OF POST-TENSIONING DUCTS & LENGTH OF PRETENSIONING STRANDS. NUMBER OF BARS ASSOCIATED WITH EACH TYPE OF BLOCK-OUT IS CALCULATED BASED ON THE NUMBER OF THAT TYPE.
- SEE SHEET C-22 FOR KEY & KEYWAY DETAIL.
- SEE SHEET C-22 FOR GROUT INLET/VENT.
- SEE SHEET C-22 FOR EXPANSION JOINT/ANCHOR DETAIL.
- THE SECTION OF DOWEL EXTENDING INTO THE EXPANSION SLEEVE SHALL BE GREASED PRIOR TO BEING INSERTED INTO THE EXPANSION SLEEVE PRIOR TO CASTING.
- 1" POST-TENSIONING DUCTS ARE SPACED UNIFORMLY AT MAXIMUM 36" C-C ALONG THE 'W' DIMENSION BETWEEN THE FIRST & LAST POST-TENSIONING DUCT.

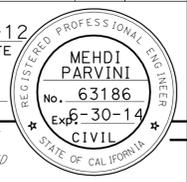


JOINT PANEL (MODIFIED) TYPICAL

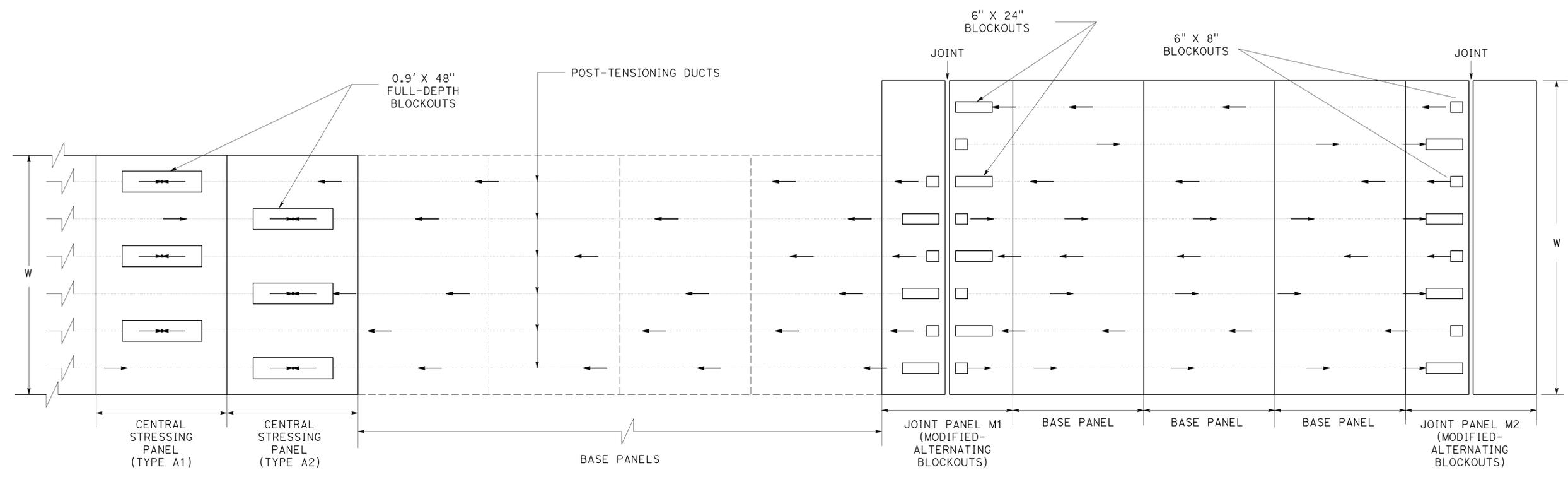
CONSTRUCTION DETAILS
PRECAST PRESTRESSED CONCRETE PAVEMENT
 NO SCALE
C-18

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 MEHDI PARVINI
 WILLIAM FARNBACH
 REVISED BY
 DATE
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 CALCULATED/DESIGNED BY
 CHECKED BY
 FUNCTIONAL SUPERVISOR
 WILLIAM FARNBACH
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
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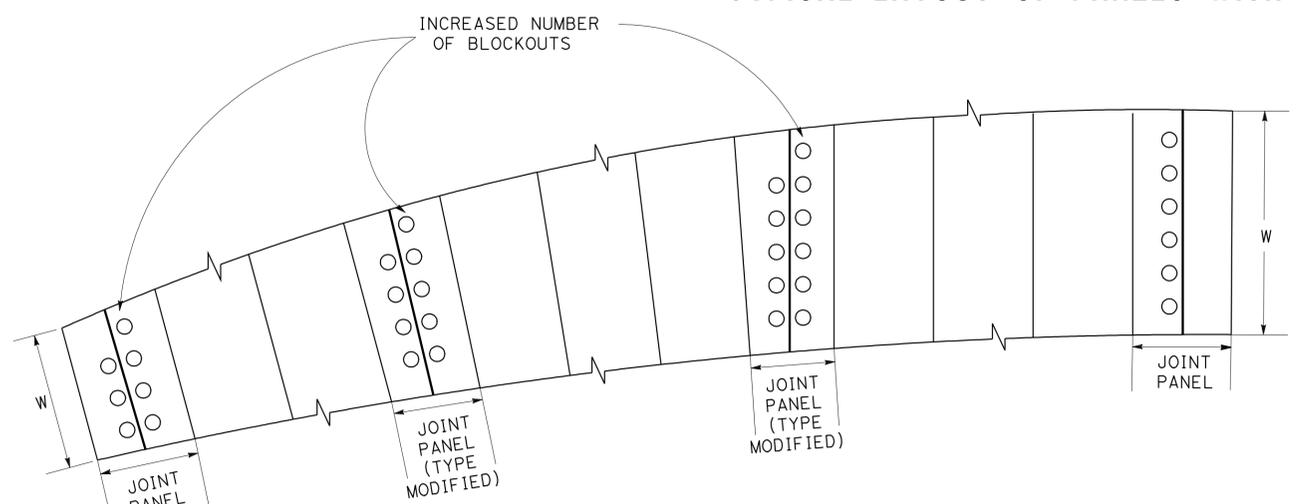
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	23	60

 6-8-12
 REGISTERED CIVIL ENGINEER DATE
 7-2-12
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TYPICAL LAYOUT OF PANELS WITH VARIABLE WIDTHS (W) & ALTERNATING BLOCKOUTS



LOCATIONS WHERE THE PANEL WIDTHS GRADUALLY INCREASE, THE NUMBER OF BLOCKOUTS ON THE LONGER SIDE OF THE JOINT PANEL SHALL HAVE THE SAME NUMBER OF BLOCKOUTS AS THE NEXT LONGER JOINT PANEL.

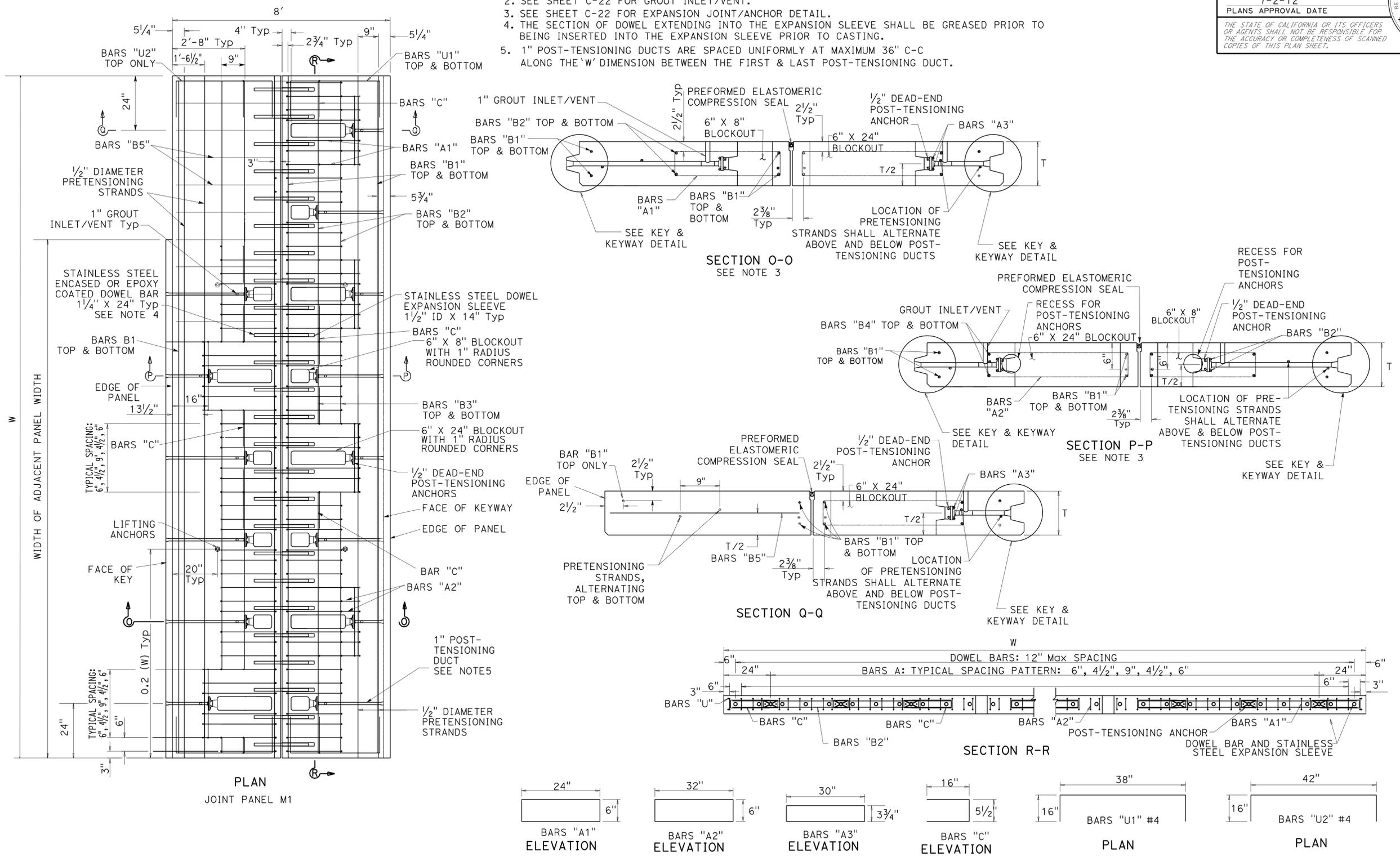
NUMBER OF BLOCKOUTS

- SYMBOLS:**
- ← DIRECTION OF PULL FOR POST-TENSIONING
 - REPRESENTATION OF BLOCKOUTS (SMALL: 6"X8" OR LARGE: 6"X24")

CONSTRUCTION DETAILS
PRECAST PRESTRESSED CONCRETE PAVEMENT
JOINT PANELS M1 & M2 LAYOUT
 NO SCALE

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 FUNCTIONAL SUPERVISOR: WILLIAM FARNBACH
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 MEHDI PARVINI
 REVISOR: WILLIAM FARNBACH
 REVISED BY: DATE REVISED: 06/12/2012
 MP
 06/12/2012

- NOTES:**
- SEE SHEET C-22 FOR KEY & KEYWAY DETAIL.
 - SEE SHEET C-22 FOR GROUT INLET/VENT.
 - SEE SHEET C-22 FOR EXPANSION JOINT/ANCHOR DETAIL.
 - THE SECTION OF DOWEL EXTENDING INTO THE EXPANSION SLEEVE SHALL BE GREASED PRIOR TO BEING INSERTED INTO THE EXPANSION SLEEVE PRIOR TO CASTING.
 - 1" POST-TENSIONING DUCTS ARE SPACED UNIFORMLY AT MAXIMUM 36" C-C ALONG THE 'W' DIMENSION BETWEEN THE FIRST & LAST POST-TENSIONING DUCT.



JOINT PANELS M1 (MODIFIED-ALTERNATING BLOCKOUTS)

CONSTRUCTION DETAILS
PRECAST PRESTRESSED CONCRETE PAVEMENT
 NO SCALE
C-20

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 CHECKED BY: WILLIAM FARNBACH
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 REVISED BY: WILLIAM FARNBACH
 DATE REVISED: 06/12/2012
 MP

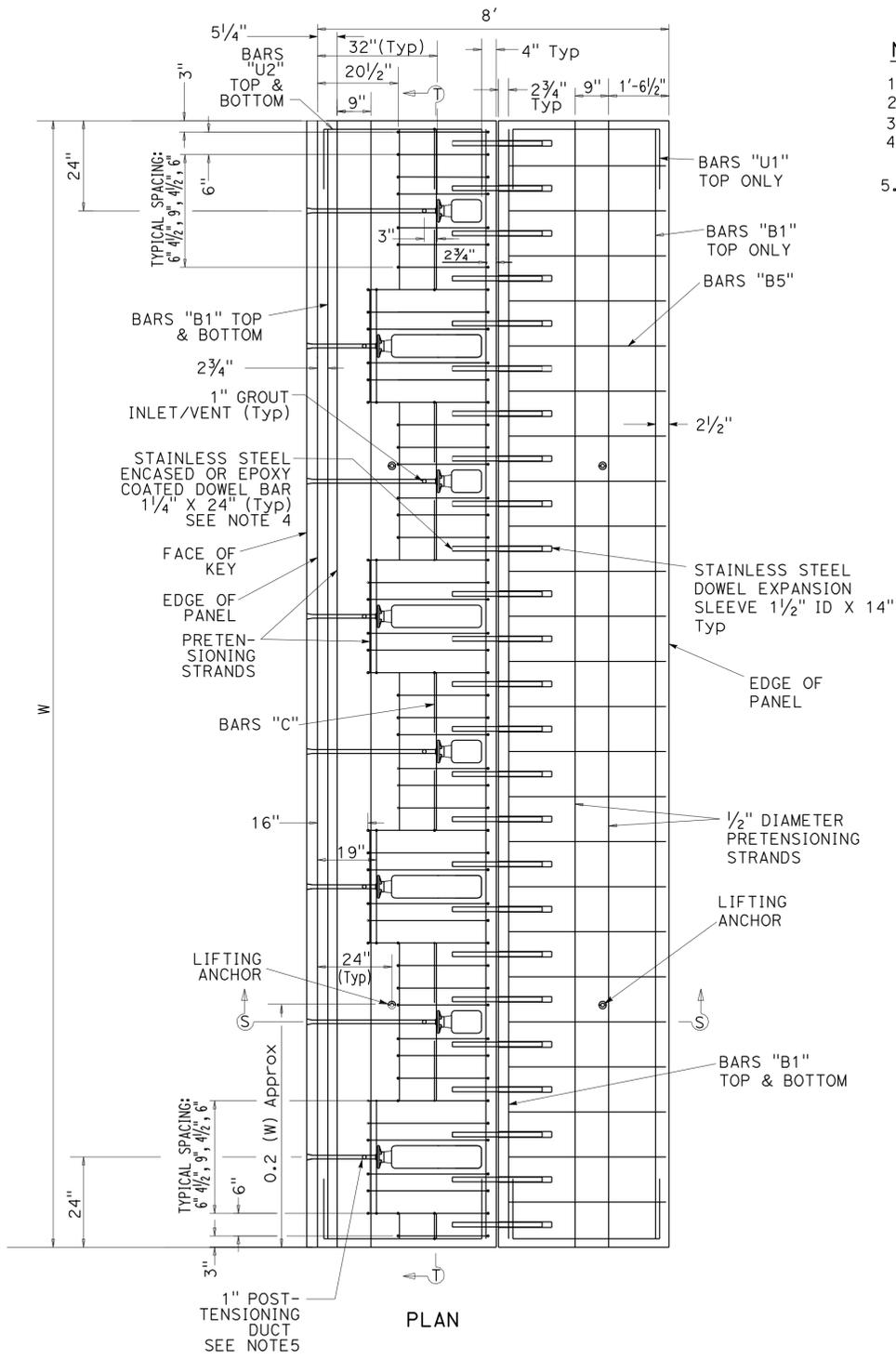
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	25	60

REGISTERED CIVIL ENGINEER DATE 6-8-12

7-2-12 PLANS APPROVAL DATE

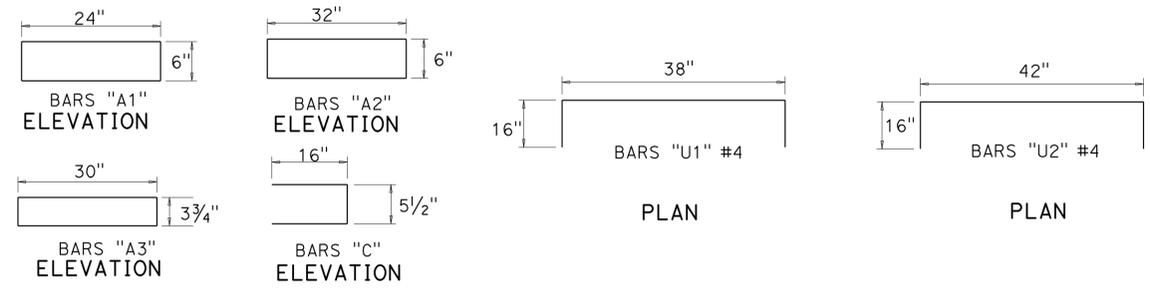
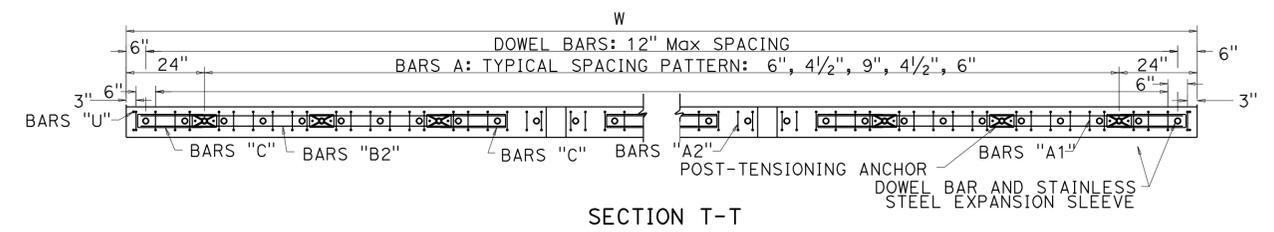
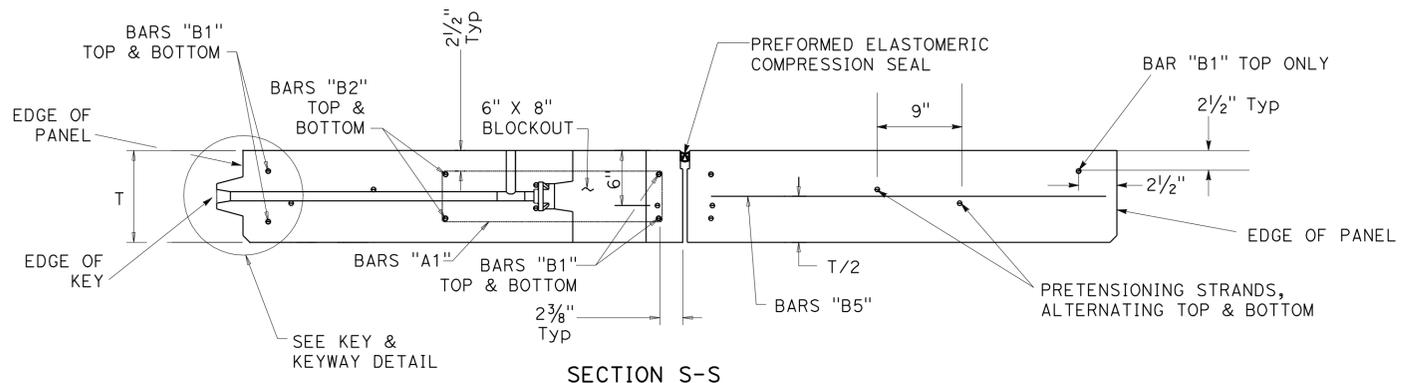
MEHDI PARVINI
No. 63186
Exp. 30-14
CIVIL
STATE OF CALIFORNIA

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NOTES:

1. SEE SHEET C-22 FOR KEY & KEYWAY DETAIL.
2. SEE SHEET C-22 FOR GROUT INLET/VENT.
3. SEE SHEET C-22 FOR EXPANSION JOINT/ANCHOR DETAIL.
4. THE SECTION OF DOWEL EXTENDING INTO THE EXPANSION SLEEVE SHALL BE GREASED PRIOR TO BEING INSERTED INTO THE EXPANSION SLEEVE PRIOR TO CASTING.
5. 1" POST-TENSIONING DUCTS ARE SPACED UNIFORMLY AT MAXIMUM 36" C-C ALONG THE 'W' DIMENSION BETWEEN THE FIRST & LAST POST-TENSIONING DUCT.



JOINT PANEL M2 (MODIFIED-ALTERNATING BLOCKOUTS)

**CONSTRUCTION DETAILS
PRECAST PRESTRESSED CONCRETE PAVEMENT
NO SCALE**

C-21

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN

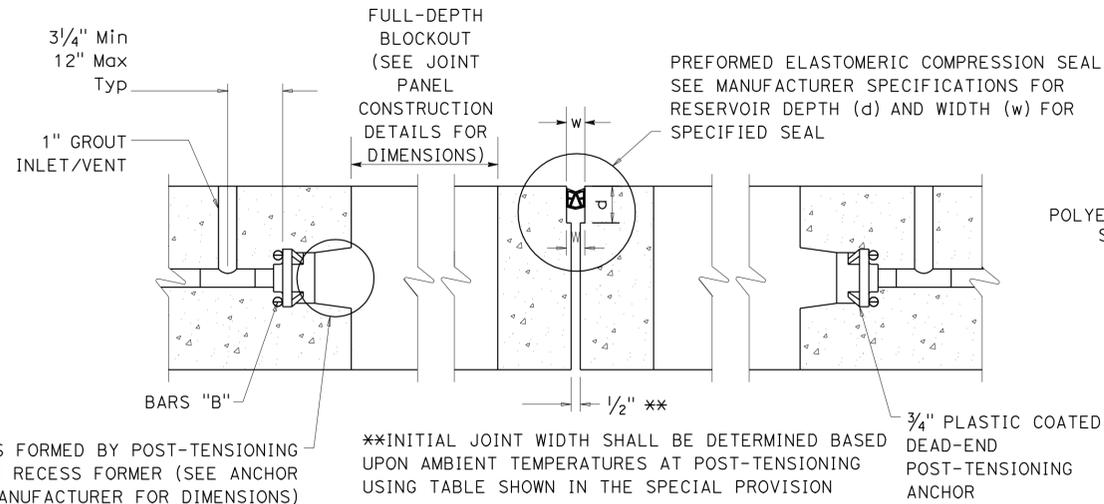
MP 06/12/2012

MEHDI PARVINI WILLIAM FARNBACH

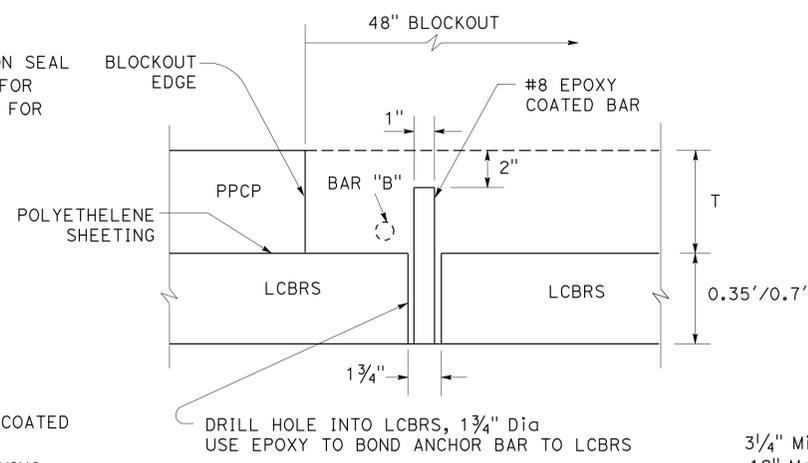
FUNCTIONAL SUPERVISOR WILLIAM FARNBACH

Caltrans

LAST REVISION DATE PLOTTED => 11-SEP-2012 07-25-12 TIME PLOTTED => 07:37



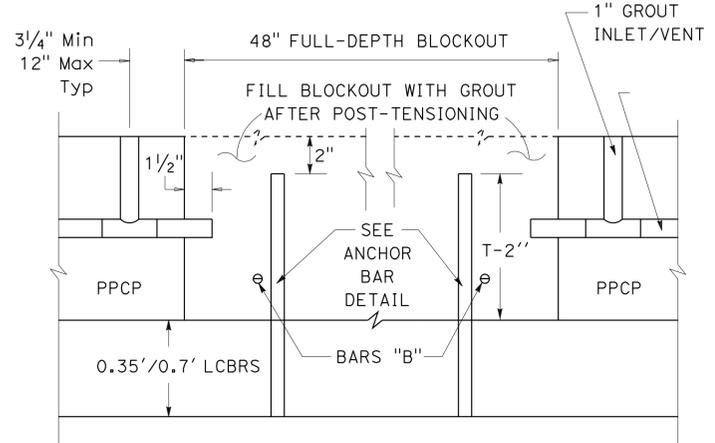
EXPANSION JOINT/ANCHOR DETAIL
FOR TYPE C2 JOINT PANELS AND ALL MODIFIED JOINT PANELS



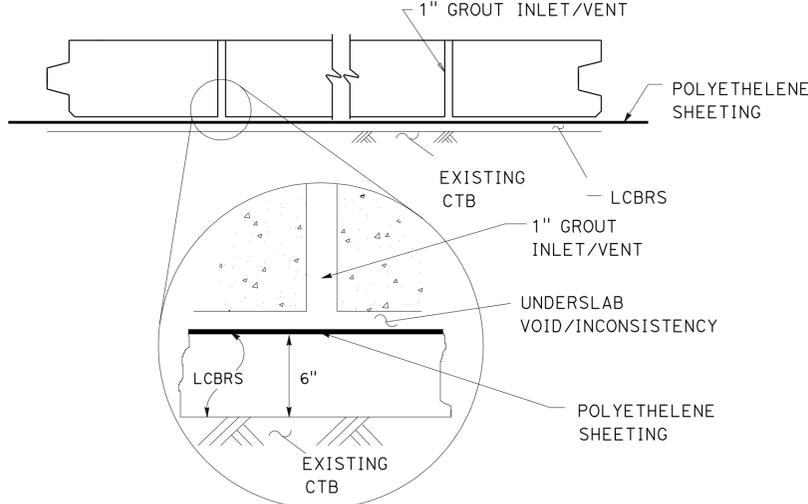
ANCHOR BAR DETAIL AT FULL-DEPTH BLOCKOUTS FOR CENTRAL STRESSING PANELS

ABBREVIATIONS:
 LCBRS = LEAN CONCRETE BASE RAPID SETTING
 PPCP = PRECAST PRESTRESSED CONCRETE PAVEMENT
 P-T = POST TENSIONING

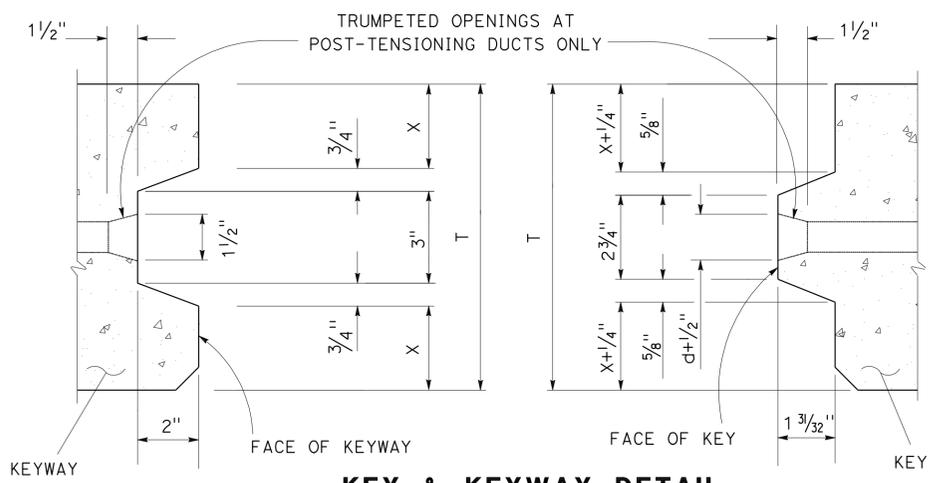
NOTE:
 X = 1" MINIMUM



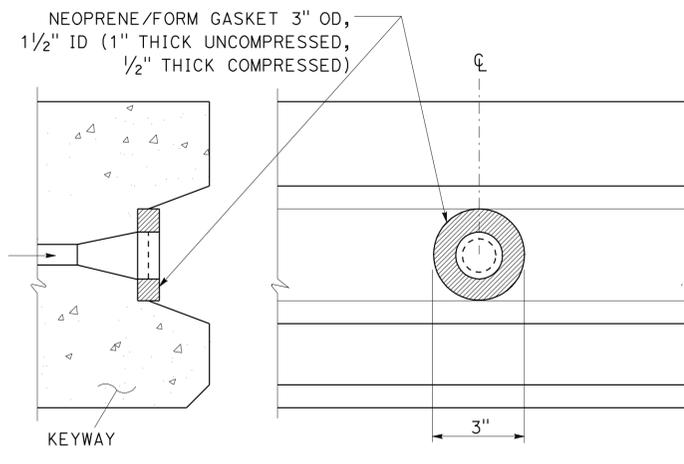
CENTRAL STRESSING BLOCKOUT DETAIL
FOR TYPE A1 AND TYPE A2 CENTRAL STRESSING PANELS



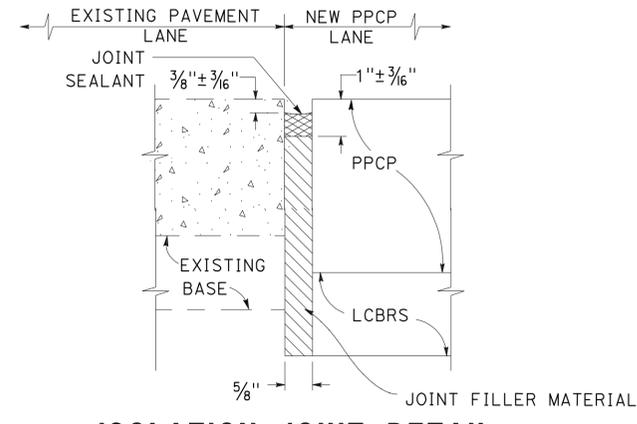
UNDERSLAB GROUT INLET/VENT AND POLYETHELENE SHEETING



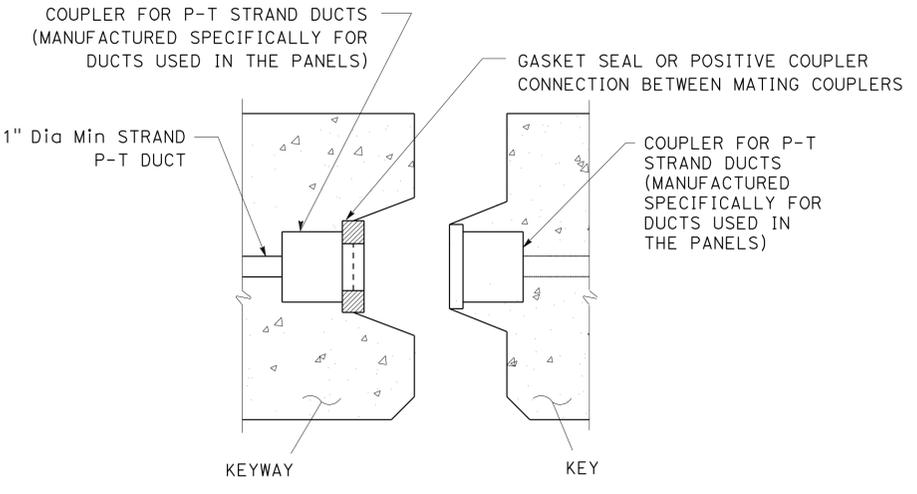
KEY & KEYWAY DETAIL
d = DIAMETER OF THE POST-TENSIONING DUCT = 1"



STRAND POST-TENSIONING DUCT SEAL DETAIL



ISOLATION JOINT DETAIL
FOR LONGITUDINAL JOINTS ADJACENT TO EXISTING PAVEMENT, JPCP, RSC, AND PPCP

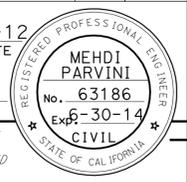


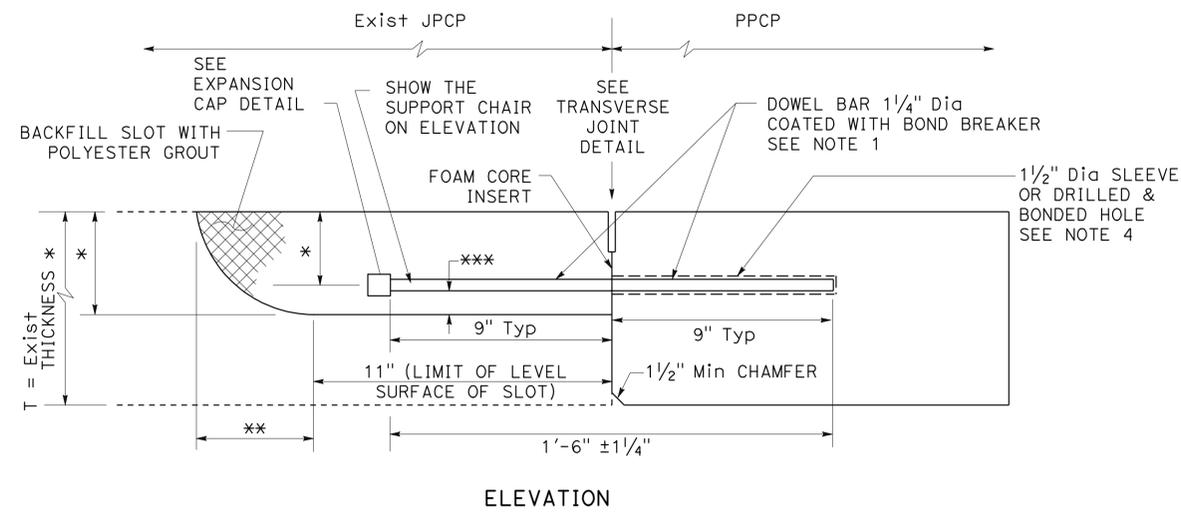
COUPLER ALTERNATIVE FOR STRAND POST-TENSIONING DUCT SEAL

CONSTRUCTION DETAILS
PRECAST PRESTRESSED CONCRETE PAVEMENT
MISCELLANEOUS PANEL DETAILS
 NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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 FUNCTIONAL SUPERVISOR: WILLIAM FARNBACH
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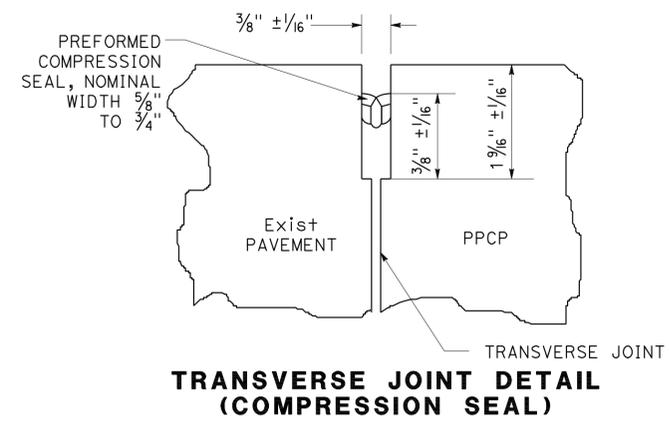
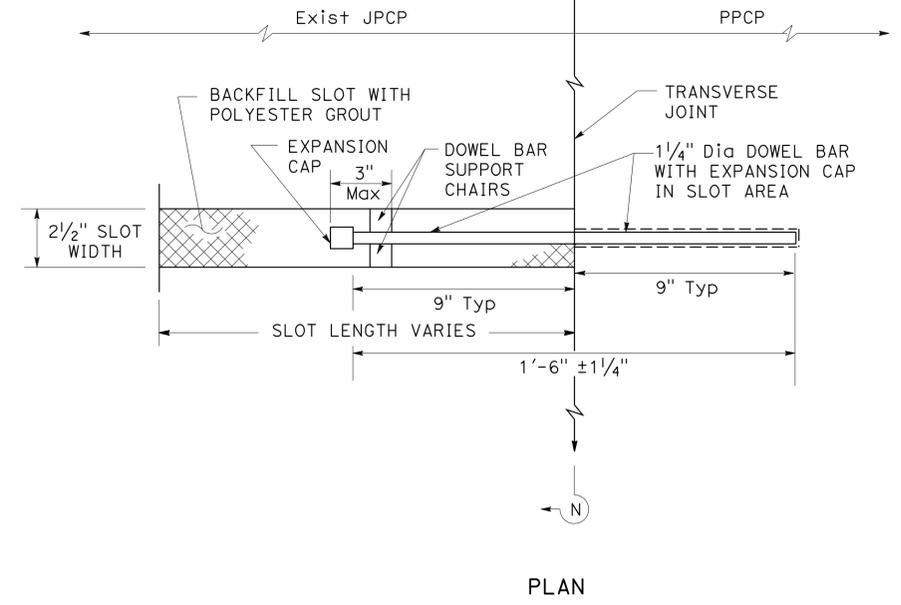
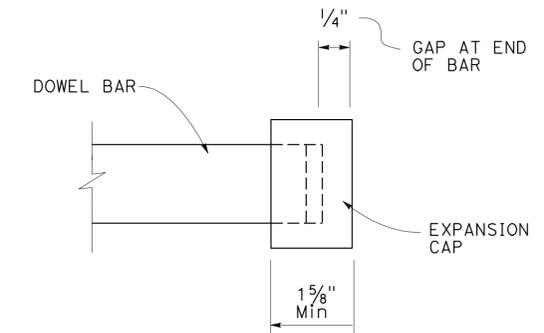
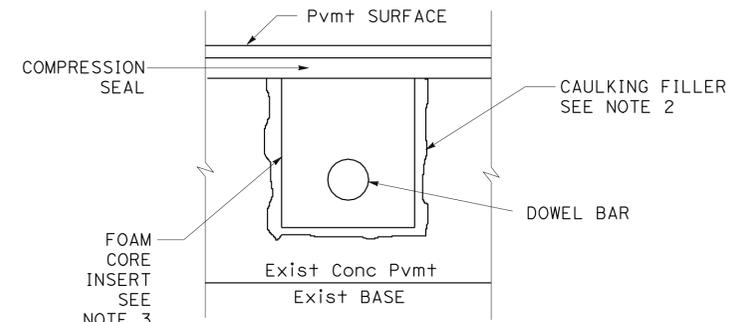
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	27	60
 REGISTERED CIVIL ENGINEER DATE 6-8-12					
7-2-12 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



ABBREVIATIONS:
 LCBRS = LEAN CONCRETE BASE RAPID SETTING
 P-T = POST-TENSIONING
 RSC = RAPID STRENGTH CONCRETE
 PPCP = PRECAST PRESTRESSED CONCRETE PAVEMENT

NOTES:
 1. 1 1/2" DIAMETER DOWEL BARS 1'-6" ± 1/4" LENGTH SHALL BE USED WHEN THE EXISTING PAVEMENT THICKNESS, D, IS EQUAL TO OR GREATER THAN 0.70'. FOR A PAVEMENT THICKNESS, D, LESS THAN 0.70', USE 1 1/4" DIAMETER DOWEL BAR 1'-6" ± 1/4" IN LENGTH.
 2. SEAL EXISTING TRANSVERSE JOINT AT BOTTOM AND SIDES OF THE DOWEL BAR SLOT WITH CAULKING FILLER PRIOR TO PLACING DOWEL BAR AND FOAM CORE INSERT.
 3. SEE STANDARD PLAN P7 FOR FOAM CORE INSERT DETAIL.
 4. CAST SLEEVES EVERY 1' C-C DURING PANEL FABRICATION OR DRILL AND BOND HOLE EVERY 1' C-C. SLEEVES OR DRILLED HOLES ARE 1/8" LARGER THAN THE DOWEL DIAMETER.

T = EXISTING THICKNESS OF JPCP OR NEW PPCP
 * T/2 ± 1/4"
 ** T/2 + 1/2"
 *** Min Ctr 1/2" BETWEEN BAR AND BOTTOM OF SLOT



DOWEL SLOT & DOWEL BAR PLACEMENT AT THE TRANSVERSE CONTACT JOINT WITH PCC, JPCP, OR RSC

**CONSTRUCTION DETAILS
 PRECAST PRESTRESSED CONCRETE PAVEMENT
 DOWEL BAR RETROFIT
 NO SCALE**

C-23

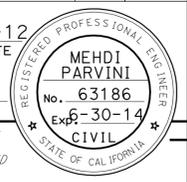
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 07-25-12 TIME PLOTTED => 07:37

Dist#	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	28	60

 6-8-12
 REGISTERED CIVIL ENGINEER DATE

7-2-12
 PLANS APPROVAL DATE



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NOTES:

- FOR PANELS WITH A RADIUS (WEDGE PANELS), THE DIMENSIONS AND QUANTITIES OF THE REINFORCEMENT ARE CONSIDERED THE SAME AND VARY MINIMALLY WITH RESPECT TO THE LENGTH (L) AND IN WIDTH (W).
- FOR TABLE A, REINFORCEMENT IS PLACED OR MEASURED IN THE LONGITUDINAL DIRECTION, UNLESS INDICATED OTHERWISE.
- FOR TABLE B, REINFORCEMENT IS PLACED OR MEASURED IN THE TRANSVERSE DIRECTION, UNLESS INDICATED OTHERWISE.
- REINFORCEMENT DIMENSIONS SHALL BE VERIFIED BY THE MANUFACTURER BEFORE PANEL FABRICATION.

ABBREVIATION:

P-T POST-TENSIONING

TABLE A

L	COUNT OF PRETENSIONING STRANDS (7-WIRE 1/2") ⁽¹⁾ PLACED TRANSVERSELY	LENGTH OF EACH P-T DUCT ⁽²⁾	COUNT OF BAR "U"	LENGTH OF EACH BAR "U"	COUNT OF LIFTING ANCHORS
FT	EA	FT	EA	FT-IN	EA
7	6	7	4	9'-0"	4
8	6	8	4	10'-0"	4
9	8	9	4	11'-0"	4
10	8	10	4	12'-0"	4

(1) SEE TABLE B FOR LENGTH OF EACH PRETENSIONING STRAND.
 (2) SEE TABLE B FOR COUNT OF P-T DUCTS.

TABLE B

W	COUNT OF P-T DUCTS PLACED ⁽¹⁾ LONGITUDINALLY	COUNT OF BAR "B"	LENGTH OF EACH BAR "B"	LENGTH OF EACH PRETENSIONING STRAND ⁽²⁾ (7-WIRE 1/2")
FT	EA		FT-IN	FT
12	4	4	11'-7"	12
12.5	4	4	12'-1"	12.5
13	4	4	12'-7"	13
13.5	5	4	13'-1"	13.5
14	5	4	13'-7"	14
14.5	5	4	14'-1"	14.5
15	5	4	14'-7"	15
15.5	5	4	15'-1"	15.5
16	5	4	15'-7"	16
16.5	6	4	16'-1"	16.5

(1) SEE TABLE A FOR LENGTH OF EACH P-T DUCT.
 (2) SEE TABLE A FOR COUNT OF PRETENSIONING STRANDS.

FOR BASE PANELS

**CONSTRUCTION DETAILS
 PRECAST PRESTRESSED CONCRETE PAVEMENT
 REINFORCEMENT DIMENSIONS AND QUANTITIES**

NO SCALE

C-24

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	29	60

 6-8-12
 REGISTERED CIVIL ENGINEER DATE

7-2-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MEHDI PARVINI
 No. 63186
 Exp. 3-30-14
 CIVIL
 STATE OF CALIFORNIA

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NOTES:

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- FOR TABLE B, REINFORCEMENT IS PLACED OR MEASURED IN THE TRANSVERSE DIRECTION, UNLESS INDICATED OTHERWISE.
- REINFORCEMENT DIMENSIONS SHALL BE VERIFIED BY THE MANUFACTURER BEFORE PANEL FABRICATION.

ABBREVIATION:

P-T POST-TENSIONING

TABLE B

W	COUNT OF P-T DUCTS PLACED LONGITUDINALLY ⁽¹⁾	COUNT OF BAR "B"	LENGTH OF EACH BAR "B"	LENGTH OF EACH PRETENSIONING STRAND (7-WIRE 1/2") ⁽²⁾
FT	EA		FT-IN	FT
17	6	4	16'-7"	17
17.5	6	4	17'-1"	17.5
18	6	4	17'-7"	18
18.5	6	4	18'-1"	18.5
19	6	4	18'-7"	19
19.5	7	4	19'-1"	19.5
20	7	4	19'-7"	20
20.5	7	4	20'-1"	20.5
21	7	4	20'-7"	21
21.5	7	4	21'-1"	21.5
22	7	4	21'-7"	22
22.5	8	4	22'-1"	22.5
23	8	4	22'-7"	23
23.5	8	4	23'-1"	23.5
24	8	4	23'-7"	24
24.5	8	4	24'-1"	24.5
25	8	4	24'-7"	25
25.5	9	4	25'-1"	25.5
26	9	4	25'-7"	26
26.5	9	4	26'-1"	26.5

(1) SEE TABLE A FOR LENGTH OF EACH P-T DUCT.
 (2) SEE TABLE A FOR COUNT OF PRETENSIONING STRANDS.

TABLE B

W	COUNT OF P-T DUCTS PLACED LONGITUDINALLY ⁽¹⁾	COUNT OF BAR "B"	LENGTH OF EACH BAR "B"	LENGTH OF EACH PRETENSIONING STRAND (7-WIRE 1/2") ⁽²⁾
FT	EA		FT-IN	FT
27	9	4	26'-7"	27
27.5	9	4	27'-1"	27.5
28	9	4	27'-7"	28
28.5	10	4	28'-1"	28.5
29	10	4	28'-7"	29
29.5	10	4	29'-1"	29.5
30	10	4	29'-7"	30
30.5	10	4	30'-1"	30.5
31	10	4	30'-7"	31
31.5	11	4	31'-1"	31.5
32	11	4	31'-7"	32
32.5	11	4	32'-1"	32.5
33	11	4	32'-7"	33
33.5	11	4	33'-1"	33.5
34	11	4	33'-7"	34
34.5	12	4	34'-1"	34.5
35	12	4	34'-7"	35
35.5	12	4	35'-1"	35.5
36	12	4	35'-7"	36
36.5	12	4	36'-1"	36.5

(1) SEE TABLE A FOR LENGTH OF EACH P-T DUCT.
 (2) SEE TABLE A FOR COUNT OF PRETENSIONING STRANDS.

FOR BASE PANELS

**CONSTRUCTION DETAILS
 PRECAST PRESTRESSED CONCRETE PAVEMENT
 REINFORCEMENT DIMENSIONS AND QUANTITIES**

NO SCALE

C-25

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
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 FUNCTIONAL SUPERVISOR
 WILLIAM FARNBACH
 CALCULATED/DESIGNED BY
 CHECKED BY
 MEHDI PARVINI
 WILLIAM FARNBACH
 REVISED BY
 DATE REVISED
 MP
 06/12/2012

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	30	60

 6-8-12
 REGISTERED CIVIL ENGINEER DATE
 7-2-12
 PLANS APPROVAL DATE



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NOTES:

- FOR PANELS WITH A RADIUS (WEDGE PANELS), THE DIMENSIONS AND QUANTITIES OF THE REINFORCEMENT ARE CONSIDERED THE SAME AND VARY MINIMALLY WITH RESPECT TO THE LENGTH (L) AND IN WIDTH (W).
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- FOR TABLE B, REINFORCEMENT IS PLACED OR MEASURED IN THE TRANSVERSE DIRECTION, UNLESS INDICATED OTHERWISE.
- REINFORCEMENT DIMENSIONS SHALL BE VERIFIED BY THE MANUFACTURER BEFORE PANEL FABRICATION.

ABBREVIATION:

P-T POST-TENSIONING

TABLE B

W	COUNT OF P-T DUCTS PLACED LONGITUDINALLY ⁽¹⁾	COUNT OF BAR "B"	LENGTH OF EACH BAR "B"	LENGTH OF EACH PRETENSIONING STRAND ⁽²⁾
			FT-IN	FT
FT	EA		FT-IN	FT
37	12	4	36'-7"	37
37.5	13	4	37'-1"	37.5
38	13	4	37'-7"	38
38.5	13	4	38'-1"	38.5
39	13	4	38'-7"	39
39.5	13	4	39'-1"	39.5
40	13	4	39'-7"	40
40.5	14	4	40'-1"	40.5
41	14	4	40'-7"	41
41.5	14	4	41'-1"	41.5
42	14	4	41'-7"	42
42.5	14	4	42'-1"	42.5
43	14	4	42'-7"	43
43.5	15	4	43'-1"	43.5
44	15	4	43'-7"	44
44.5	15	4	44'-1"	44.5
45	15	4	44'-7"	45
45.5	15	4	45'-1"	45.5
46	15	4	45'-7"	46
46.5	16	4	46'-1"	46.5

(1) SEE TABLE A FOR LENGTH OF EACH P-T DUCT.
 (2) SEE TABLE A FOR COUNT OF PRETENSIONING STRANDS.

TABLE B

W	COUNT OF P-T DUCTS PLACED LONGITUDINALLY ⁽¹⁾	COUNT OF BAR "B"	LENGTH OF EACH BAR "B"	LENGTH OF EACH PRETENSIONING STRAND ⁽²⁾
			FT-IN	FT
FT	EA		FT-IN	FT
47	16	4	46'-7"	47
47.5	16	4	47'-1"	47.5
48	16	4	47'-7"	48
48.5	16	4	48'-1"	48.5
49	16	4	48'-7"	49
49.5	17	4	49'-1"	49.5
50	17	4	49'-7"	50

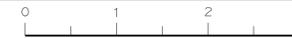
(1) SEE TABLE A FOR LENGTH OF EACH P-T DUCT.
 (2) SEE TABLE A FOR COUNT OF PRETENSIONING STRANDS.

FOR BASE PANELS

CONSTRUCTION DETAILS
REINFORCEMENT DIMENSIONS AND QUANTITIES
PRECAST PRESTRESSED CONCRETE PAVEMENT
 NO SCALE

C-26

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: WILLIAM FARNBACH
 CALCULATED/DESIGNED BY: CHECKED BY:
 MEHDI PARVINI
 WILLIAM FARNBACH
 REVISED BY: DATE REVISED: 06/12/2012
 MP

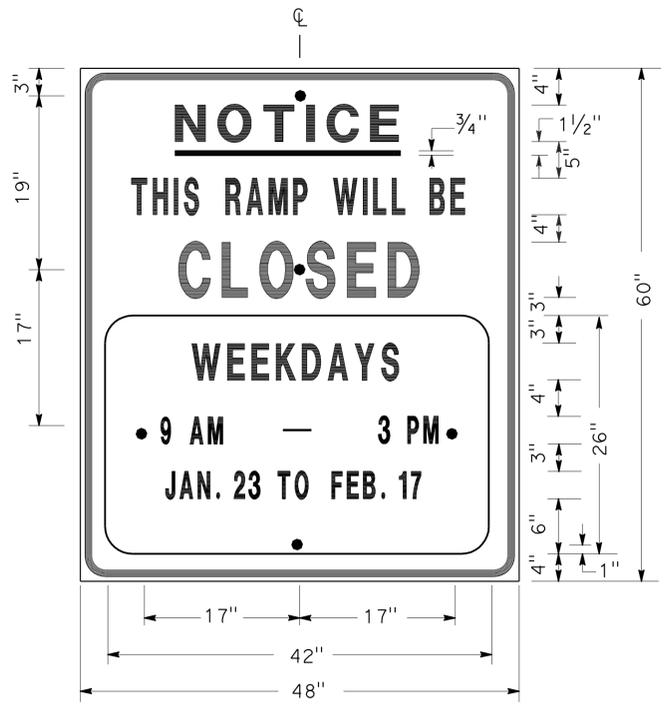


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	32	60

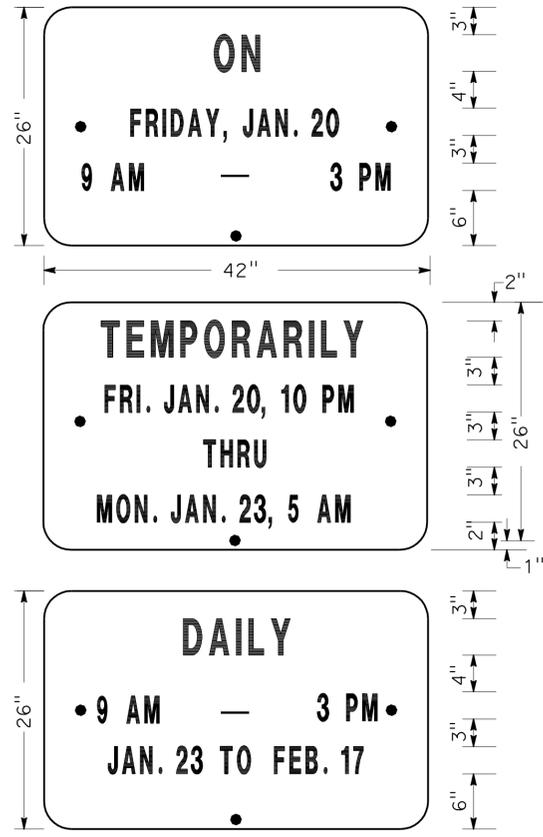
REGISTERED CIVIL ENGINEER DATE: 12-16-11
 7-2-12
 PLANS APPROVAL DATE

MARTIN OREGEL
 No. C56816
 Exp. 6-30-13
 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.



SIGN SP-1



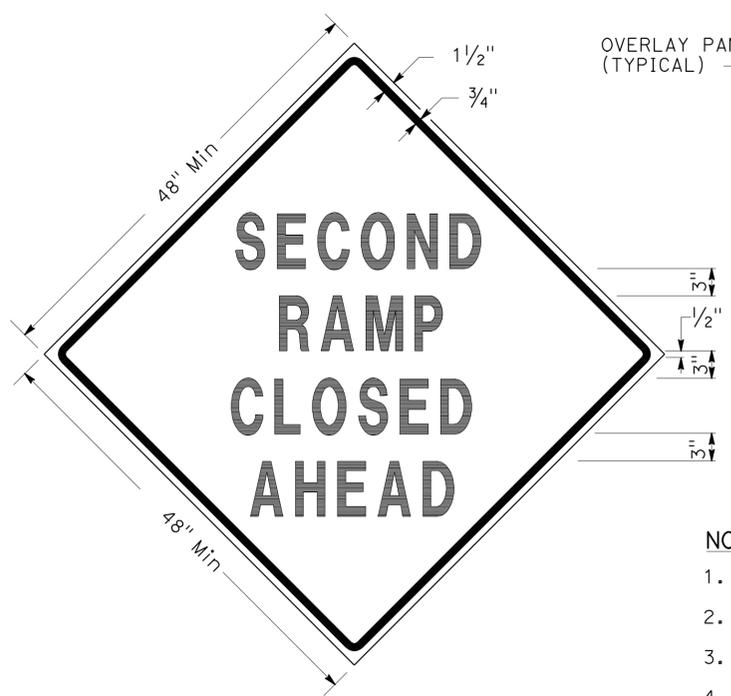
ALTERNATE OVERLAY PANELS (TYPICAL)

- NOTES: (SIGN SP-1)
- SIGNS SHALL HAVE ORANGE RETROREFLECTORIZED BACKGROUND WITH BLACK BORDER AND LETTERS.
 - BOLT HOLES SHALL BE 3/8" DIAMETER.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND.

SIZE	BORDER	MARGIN	LETTER SIZE					CORNER RADIUS
	WIDTH	WIDTH	LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5,6 & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"

* CONDENSED SPACING IF NECESSARY

SPECIAL ADVANCE NOTICE PUBLICITY SIGN



SIGN SP-3

SPECIAL SIGN FOR EXIT RAMP CLOSURES

- NOTES: (SIGNS SP-3 & SP-5)
- LETTERS - 6" SERIES D.
 - LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND.



SIGN SP-5



SIGN SP-4

- NOTES: (SIGN SP-4)
- LETTERS - 6" SERIES C.
 - LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED WHITE BACKGROUND.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH STANDARD PLAN T14.

SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

**TRAFFIC HANDLING DETAILS
 TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURES, DETOUR SIGNS
 AND MISCELLANEOUS DETAILS**

SHEET 1 OF 2

NO SCALE

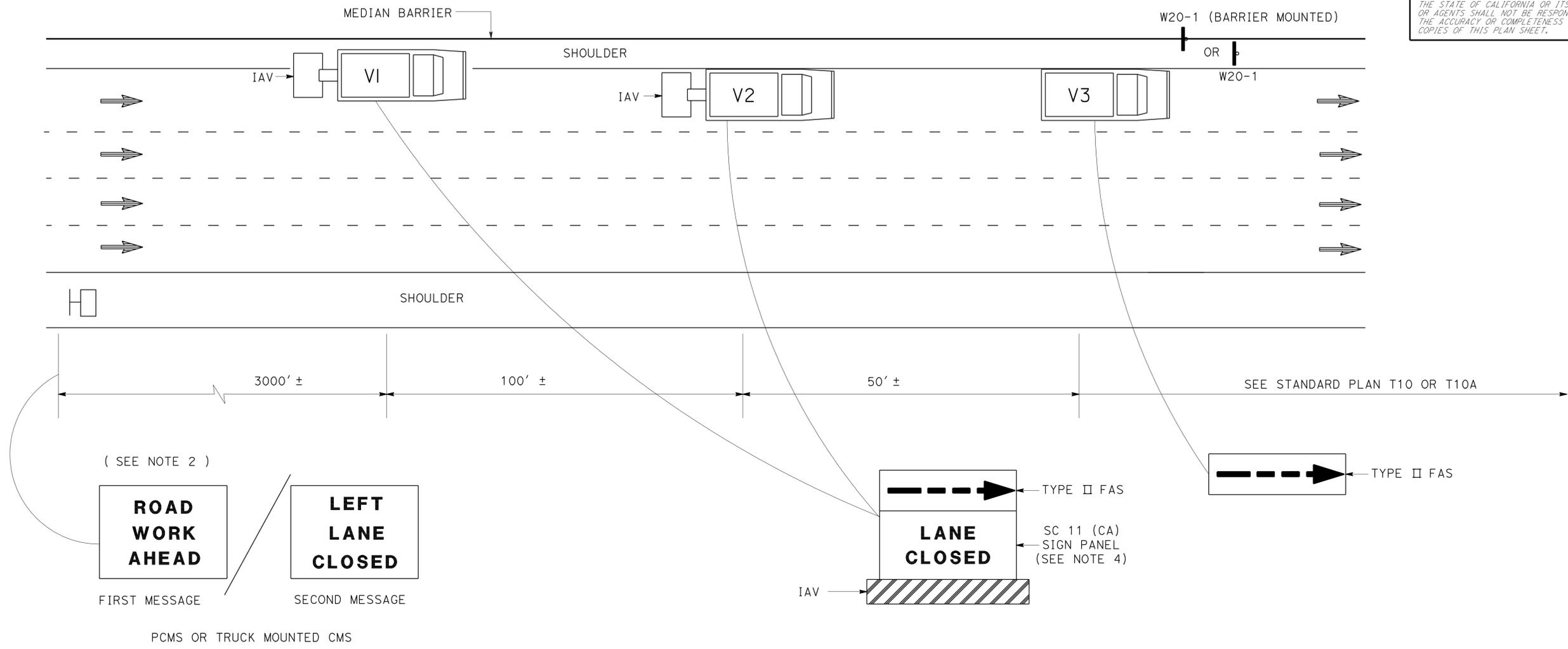
THD-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	34	60

Martin Oregel 12-16-11
 REGISTERED CIVIL ENGINEER DATE
 7-2-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MARTIN OREGEL
 No. C56816
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA

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.



NOTES:

1. LANE CLOSURES SHALL NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
2. PCMS SHALL BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE LANE.
3. A MINIMUM SIGHT DISTANCE OF 1500' SHALL BE PROVIDED IN ADVANCE OF PCMS.
4. VEHICLE-MOUNTED SIGN PANELS SHALL BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.

LEGEND

- V1, V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- DIRECTION OF TRAVEL
- ▬ CONSTRUCTION AREA SIGN

ABBREVIATIONS

- FAS FLASHING ARROW SIGN
- IAV IMPACT ATTENUATOR VEHICLE
- CMS CHANGEABLE MESSAGE SIGN
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- (CA) CALIFORNIA CODE

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR MEDIAN SHOULDERS LESS THAN 8 FEET
 NO SCALE

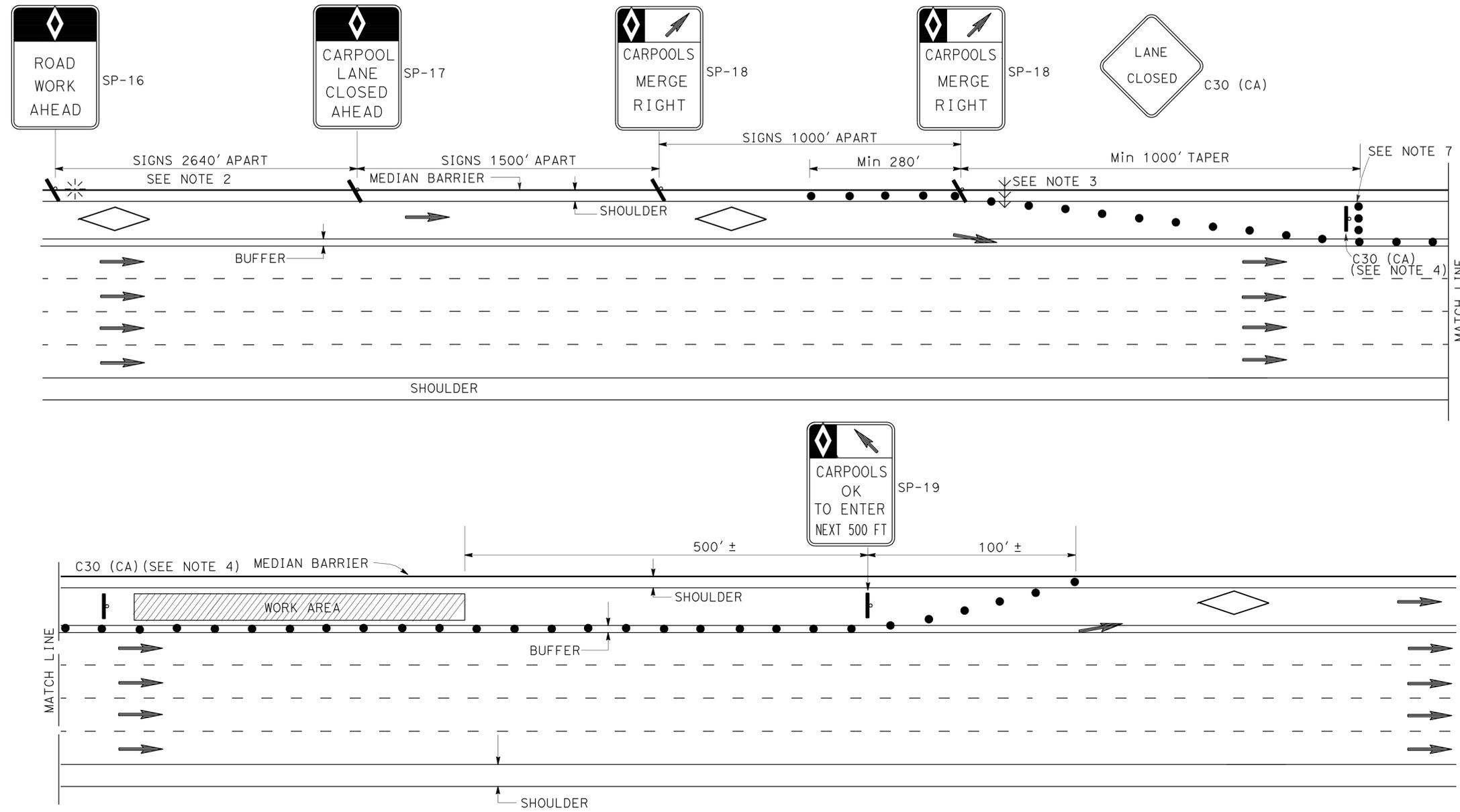
THD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DTM
 FUNCTIONAL SUPERVISOR
 MARTIN OREGEL
 CHECKED BY
 JOCELYN C CHIANG
 REVISIONS BY
 DATE
 7/10
 JC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	36	60

REGISTERED CIVIL ENGINEER DATE 7-2-12
 PLANS APPROVAL DATE 7-2-12
 No. C56816
 Exp. 6-30-13
 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.



NOTES: FOR CASE I AND CASE II

- AT LEAST ONE PERSON SHALL BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON NIGHT LANE CLOSURES OR DAY-TIME CLOSURES EXCEEDING 1 MILE LENGTH, INCLUDING TAPERS.
- ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES. TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS SHALL BE USED ON SP-16 SIGNS DURING NIGHT LANE CLOSURES. FLAGS AND WARNING LIGHTS SHALL BE ATTACHED TO SIGNS AS APPROVED BY THE ENGINEER.
- THE FLASHING ARROW SIGN SHALL BE TYPE I.
- PLACE C30 (CA) SIGNS EVERY 2000' THROUGHOUT THE LENGTH OF LANE CLOSURE.
- A MINIMUM 1500' OF SIGHT DISTANCE SHALL BE PROVIDED WHERE POSSIBLE FOR VEHICLES APPROACHING THE FLASHING ARROW SIGN. LANE CLOSURES SHALL NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
- PORTABLE DELINEATORS PLACED AT ONE-HALF THE SPACING INDICATED FOR TRAFFIC CONES MAY BE USED INSTEAD OF CONES FOR DAYTIME CLOSURES.
- A MINIMUM OF 3 CONES SHALL BE PLACED TRANSVERSELY ACROSS CLOSED LANES WHERE TAPERS END AND EVERY 2000'. TWO TYPE II BARRICADES MAY BE USED INSTEAD OF 3 CONES. THE ALIGNMENT OF CONES OR BARRICADES MAY BE SHIFTED FROM THE TRANSVERSE ALIGNMENT TO PROVIDE ACCESS TO WORK.
- IF AN INGRESS/EGRESS AREA IS WITHIN 5250' UPSTREAM OR DOWNSTREAM OF THE WORK AREA, LANE CLOSURES SHALL BE EXTENDED TO THAT AREA AS SHOWN IN CASE II.
- SIGNS SP-16, 17, 18, AND 19 MAY BE OVERLAID ON EXISTING CARPOOL SIGNS IN MEDIANS AS APPROVED BY THE ENGINEER.
- SIGNS SP-16, 17, 18, AND C30 (CA) SHALL BE BLACK ON ORANGE BACKGROUND. SIGN SP-19 SHALL BE BLACK ON WHITE BACKGROUND. DIAMONDS ON SIGNS SHALL BE WHITE.
- FOR CLOSURE OF LANE(S) ADJACENT TO HOV LANES, SEE CASE II.
- THE MAXIMUM SPACING BETWEEN CONES SHALL BE APPROXIMATELY 50' IN TAPERS AND 100' ON TANGENTS.

LEGEND

- CONE
- ⚡ FLASHING BEACON
- ◇ HOV LANE
- ←←← FLASHING ARROW SIGN
- ↑ PORTABLE SIGN
- DIRECTION OF TRAVEL

ABBREVIATIONS

- (CA) CALIFORNIA CODE
- HOV HIGH OCCUPANCY VEHICLE

SIGN PANEL SIZE (MIN)

- SP-16 36" X 54"
- SP-17 36" X 54"
- SP-18 36" X 48"
- SP-19 36" X 60"
- C30 (CA) 30" X 30"
- G20-2 48" X 24"

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR HIGH OCCUPANCY VEHICLE LANES
AT NON-INGRESS/EGRESS AREAS**

**CASE I
NO SCALE**

THD-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DTM
 FUNCTIONAL SUPERVISOR MARTIN OREGEL
 CHECKED BY JOCELYN C CHIANG
 REVISIONS BY ALBERT K YU
 DATE REVISED 7/10
 DESIGNED BY JC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	37	60

<i>Michael Duong</i>	6-11-12
REGISTERED CIVIL ENGINEER	DATE
7-2-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
MICHAEL DUONG
No. 73425
Exp. 12-31-12
CIVIL
STATE OF CALIFORNIA

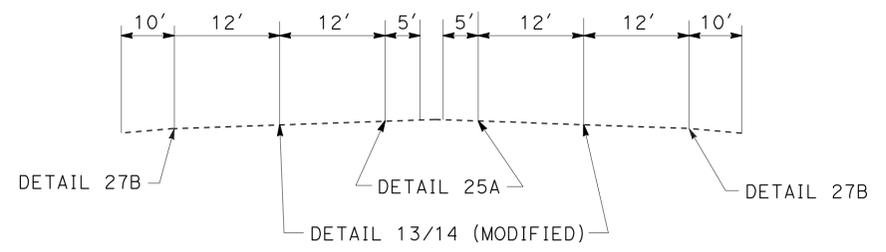
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

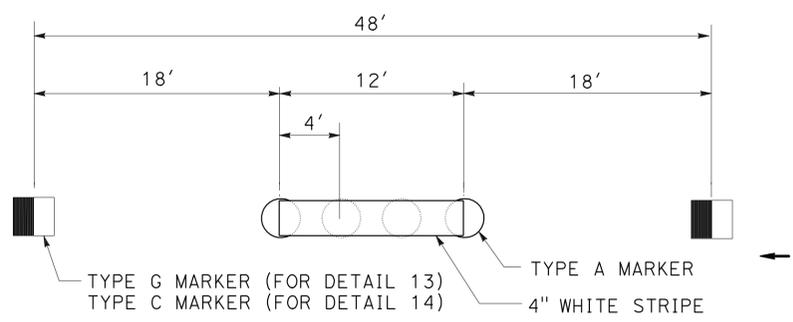
1. SEE PAVEMENT DELINEATION QUANTITIES FOR LOCATIONS AND TYPES OF TRAFFIC STRIPES AND PAVEMENT MARKINGS.

LEGEND:

→ DIRECTION OF TRAVEL



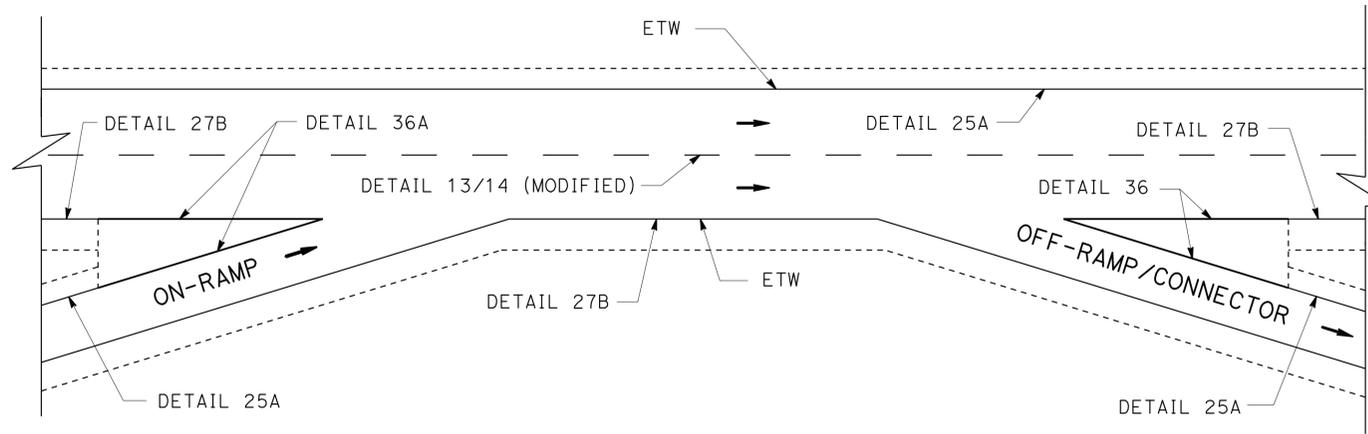
TYPICAL FREEWAY SEGMENT



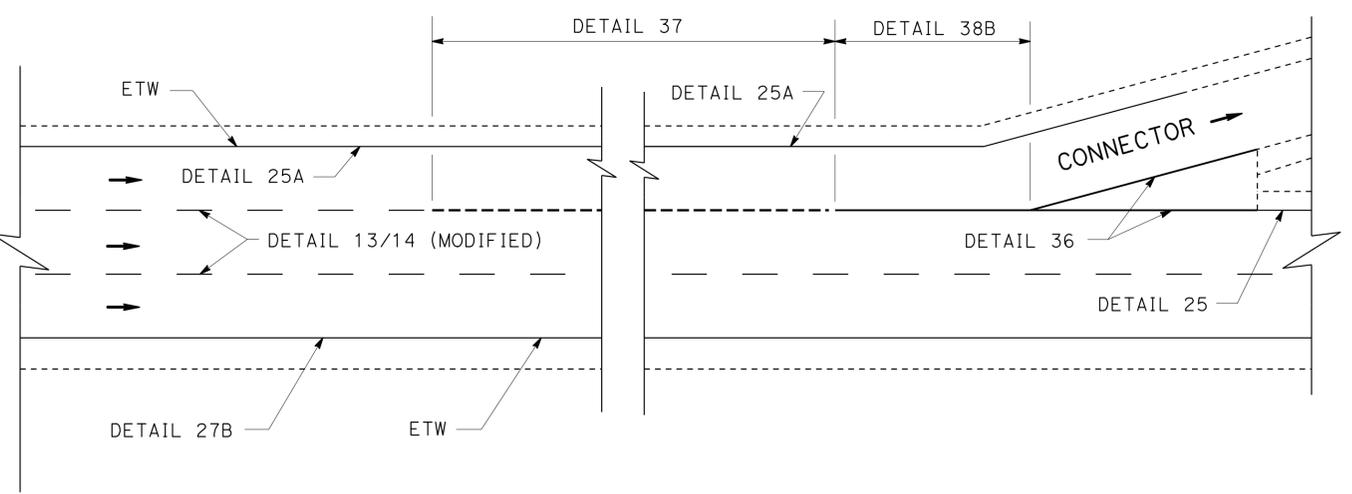
NOTES:

1. REMOVE TYPE G AND C PAVEMENT MARKERS. REPLACE WITH TYPE G AND C RETROREFLECTIVE MARKERS.
2. REPLACE MISSING TYPE A MARKERS IN EACH GROUP WITH TYPE A NON-REFLECTIVE MARKERS.
3. PLACE 4" WIDE THERMOPLASTIC TRAFFIC STRIPE ON TOP OF TYPE A NON-REFLECTIVE MARKERS.

DETAIL 13/14 (MODIFIED)



RAMPS



LANE DROP TO ONE LANE EXIT

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: DEBORAH WONG
 CALCULATED/DESIGNED BY: MICHAEL DUONG
 CHECKED BY: DEBORAH WONG
 REVISED BY: [] DATE: []
 REVISIONS: []

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	38	60

Michael Duong 6-11-12
 REGISTERED CIVIL ENGINEER DATE

7-2-12
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
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PAVEMENT DELINEATION QUANTITIES

POST MILE	DIRECTION AND FACILITY	THERMOPLASTIC TRAFFIC STRIPE					THERMOPLASTIC PAVEMENT MARKING		PAVEMENT MARKER			REMOVE
		DETAIL 25A 4" SOLID YELLOW	DETAIL 27B 4" SOLID WHITE	DETAIL 13/14 MODIFIED 4" WHITE	DETAIL 36/36A 8" WHITE	DETAIL 38B 8" WHITE	ARROW/ WORD	DIAGONAL	WHITE NON-REFLECTIVE TYPE A	RETROREFLECTIVE		PAVEMENT MARKER
										SPECIAL TYPE C/G	SPECIAL TYPE H	
LF	LF	LF	LF	LF	SQFT	SQFT	EA	EA	EA	EA		
C43.90 - C44.34	NB TRUCK ROUTE	2,323	2,323	2,323	820			194	85	98	376	
C44.34 - C44.45	NB TRUCK ROUTE	581	581	1,162	715	126		97	56	25	178	
C44.45 - C44.51	NB TRUCK ROUTE	317	317	634				53	15	14	82	
C44.51 - C44.69	NB TRUCK ROUTE	950	950	950				79	22	41	142	
C44.69 - C44.91	NB TRUCK ROUTE	1,162	1,162	1,162				97	26	49	172	
C44.91 - C44.95	NB TRUCK ROUTE	211	211	211				18	6	10	34	
C44.95 - C45.08	NB TRUCK ROUTE	686	686	686				57	16	30	103	
C45.08 - C45.35	NB TRUCK ROUTE	1,426	1,426	2,851				238	61	60	359	
C45.35 - C45.75	NB TRUCK ROUTE	2,112	2,112	2,112	1,010			176	88	89	353	
C45.75 - C45.82	NB TRUCK ROUTE	370	370	370				31	10	16	57	
C45.82 - C46.41	NB TRUCK ROUTE	3,115	3,115	3,115	2,394		683	260	167	131	557	
C43.90 - C44.25	SB TRUCK ROUTE	1,848	1,848	1,848				154	41	78	273	
C44.25 - C44.38	SB TRUCK ROUTE	686	686	686				57	16	30	103	
C44.38 - C44.47	SB TRUCK ROUTE	475	475	950				79	22	21	122	
C44.47 - C44.57	SB TRUCK ROUTE	528	528	1,056			273	88	24	23	135	
C44.57 - C44.72	SB TRUCK ROUTE	792	792	1,584				132	35	34	201	
C44.84 - C44.91	SB TRUCK ROUTE	370	370	739			255	62	17	16	95	
C44.91 - C45.08	SB TRUCK ROUTE	898	898	898				75	21	38	134	
C45.08 - C45.29	SB TRUCK ROUTE	1,109	1,109	1,109				92	25	47	165	
C45.29 - C45.73	SB TRUCK ROUTE	2,323	2,323	2,323				194	50	98	342	
C45.73 - C45.82	SB TRUCK ROUTE	475	475	475				40	12	21	72	
C45.82 - C45.90	SB TRUCK ROUTE	422	422	422				35	11	19	65	
C46.05 - C46.39	SB TRUCK ROUTE	7,075	7,075	7,075	1,604	750	129	590	216	296	1,102	
C45.47	NB TRUCK TO NB R+e 14 Conn	2,798	4,151	4,157	1,988	190	336	346	171	118	635	
C45.67	NB TRUCK ON FROM SIERRA Hwy	650	280	100	607	50	50	227	8	29	28	
C45.78	SB TRUCK OFF TO SIERRA Hwy	1,500	1,500	140	300	115	260	121	12	17	64	
SUBTOTAL		35,202	36,185	39,138	9,438	1,105	436	2,024	3,264	1,259	1,494	5,857
TOTAL		110,525			10,543		2,460		3,264	2,753		5,857

PAVEMENT DELINEATION QUANTITIES PDQ-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	39	60

Michael Duong 6-11-12
 REGISTERED CIVIL ENGINEER DATE
 7-2-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MICHAEL DUONG
 No. 73425
 Exp. 12-31-12
 CIVIL
 STATE OF CALIFORNIA

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.

NOTE:

- SEE CONSTRUCTION DETAILS SHEETS FOR LIMITS OF PPCP

ROADWAY QUANTITIES

LOC	POSTMILE		ROADWAY EXCAVATION	REMOVE CONCRETE PAVEMENT	INDIVIDUAL SLAB REPLACEMENT (RAPID STRENGTH CONCRETE)	INDIVIDUAL SLAB REPLACEMENT (PRECAST CONCRETE PANEL)	PRECAST PRESTRESSED CONCRETE PAVEMENT	JPCP (ROLLER COMPACTED CONCRETE)	LEAN CONCRETE BASE (RAPID SETTING)	REPLACE UNDERLYING BASE	CLASS 3 AGGREGATE BASE	COLD PLANE AC PAVEMENT	HMA (TYPE A)	RHMA (TYPE G)	TACK COAT	GRIND EXISTING CONCRETE PAVEMENT	DOWEL BAR (DRILL AND BOND)	SEAL ISOLATION JOINT	SEAL PAVEMENT JOINT	REPAIR SPALLED JOINTS (POLYESTER GROUT)
	FROM	TO	CY	CY	CY	CY	CY	CY	CY	CY	CY	SQYD	TON	TON	TON	SQYD	EA	LF	LF	SQYD
NB TRUCK	C43.9	C44.34	5,324.1	1,719.5			2,498.6	465.7	971.7		1,388.1				8,002		2,418	5,268		
NB TRUCK	C44.34	C44.45	1,708.9	611.7			822.0	110.5	319.7		456.7				2,775		1,147	1,571		
NB TRUCK	C44.45	C44.51	32.2	21.5		21.5				10.7					1,074		60	164	0.2	
NB TRUCK	C44.51	C44.69	122.4	81.6		81.6				40.8					2,587		229	622	0.7	
NB TRUCK	C44.69	C44.91	32.2	21.5		21.5				10.7					2,388		60	164	0.2	
NB TRUCK	C44.91	C44.95	31.3									117	39.6	35.7	0.1	563				
NB TRUCK	C44.95	C45.08	29.7	19.8		19.8			9.9			1,144		115.8	0.5	1,830		56	151	0.2
NB TRUCK	C45.08	C45.35	89.3	59.5		59.5			29.8			2,376		240.6	1.1	5,702		335	454	0.5
NB TRUCK	C45.35	C45.75	201.7	134.5		134.5			67.2			3,520		356.4	1.6	5,632		378	1,025	1.2
NB TRUCK	C45.75	C45.82	853.2	275.6			400.4	74.6	155.7		222.5				1,273		388	868		
NB TRUCK	C45.82	C46.41	276.9	392.4	392.4				184.6	196.2		4,500	116.8	525.7	2.6	8,307	400	552	1,709	3.6
SB TRUCK	C43.9	C44.25	278.6	185.7		185.7			92.9			3,080		311.9	1.4	4,928		522	1,415	1.7
SB TRUCK	C44.25	C44.38	1,302.2	499.3		14.3	591.1	131.3	229.9	7.2	328.4	381		38.6	0.2	2,898		1,364	1,482	0.1
SB TRUCK	C44.38	C44.47	21.5	14.3		14.3			7.2			792		80.2	0.4	1,901		81	109	0.1
SB TRUCK	C44.47	C44.57	152.1	101.4		101.4			50.7			880		89.1	0.4	1,408		285	773	0.9
SB TRUCK	C44.57	C44.72	40.5	27.0		27			13.5							2,112		76	206	0.2
SB TRUCK	C44.84	C44.91	21.5	14.3		14.3			7.2							986		40	109	0.1
SB TRUCK	C44.91	C45.08	21.5	14.3		14.3			7.2			1,496		151.5	0.7	2,394		40	109	0.1
SB TRUCK	C45.08	C45.29	125.7	83.8		83.8			41.9			1,848		187.1	0.8	4,435		471	638	0.8
SB TRUCK	C45.29	C45.73	286.8	191.2		191.2			95.6			3,872		392.0	1.8	6,195		538	1,457	1.7
SB TRUCK	C45.73	C45.82	1089.0	341.7			512.5	92.5	199.3		284.7				1,690		481	1,076		
SB TRUCK	C45.82	C45.9	546.2	176.4			256.3	47.8	99.7		142.4				1,455		248	531		
SB TRUCK	C46.05	C46.39	339.8	226.5		226.5				113.3		2,992		302.9	1.4	4,787		637	1,726	2.1
NB TRUCK TO NB Rte 14 Conn	C45.47		165.3	110.2		110.2				55.1		6,952		703.9	3.2	11,123		310	840	1.0
NB TRUCK ON FROM SIERRA Hwy	C45.67											3,795	640.4		1.7					
SB TRUCK OFF TO SIERRA Hwy	C45.78		261.3				118.0		59.0		84.3	3,638	613.9		1.7	515			90	
TOTAL			13,353.9	5,323.7	392.4	1,321.4	5,198.9	922.4	2,219.6	857.1	2,907.1	41,383	1,410.7	3,531.4	19.6	86,960	400	10,716	22,557	15.4

SUMMARY OF QUANTITIES
Q-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	40	60

Michael Duong 6-11-12
 REGISTERED CIVIL ENGINEER DATE
 7-2-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MICHAEL DUONG
 No. 73425
 Exp. 12-31-12
 CIVIL
 STATE OF CALIFORNIA

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.

NOTE:

1. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

HOT MIX ASPHALT DIKE

DIRECTION	PM	SIDE	REMOVE AC DIKE	PLACE HMA DIKE (TYPE A)	PLACE HMA DIKE (TYPE C)	PLACE HMA DIKE (TYPE D)	PLACE HMA DIKE (TYPE F)	HMA (TYPE A)
			LF	LF	LF	LF	LF	TON
NB TRUCK	C43.90/C44.48	R+	3,045.0		200.0	2,570.0	275.0	246
NB TRUCK	C43.94/C44.30	L+	1,895.0		75.0	1,420.0	400.0	141.1
NB TRUCK	C44.80/C44.92	R+	620.0			620.0		56.9
NB TRUCK	C45.08/C45.36	R+	1,470.0		75.0	1,320.0	75.0	124.3
NB TRUCK	C45.53/C45.63	R+	530.0			530.0		48.7
NB TRUCK	C45.75/C45.82	R+	330.0		62.5	242.5	25.0	24
NB TRUCK	C45.95/C46.38	L+	1,750.0			1,750.0		160.7
NB TRUCK	C45.96/C46.44	R+	2,060.0			2,060.0		189.2
SB TRUCK	C44.04/C44.16	L+	600.0	200.0		400.0		45
SB TRUCK	C44.17/C44.37	R+	1,010.0		75.0	847.5	87.5	81.2
SB TRUCK	C44.38/C44.42	L+	200.0			200.0		18.4
SB TRUCK	C44.40/C44.54	R+	710.0		75.0	622.5	12.5	58.8
SB TRUCK	C44.86/C45.06	R+	1,040.0		75.0	575.0	390.0	63.2
SB TRUCK	C45.42/C45.45	R+	180.0			180.0		16.5
SB TRUCK	C45.54/C45.62	R+	400.0	400.0				16.4
SB TRUCK	C45.62/C45.75	R+	612.5			400.0	212.5	41.7
SB TRUCK	C45.99/C46.22	L+	1,200.0	1,075.0	75.0		50.0	46.7
NB TRUCK TO NB Rte 14 Conn	C45.47	L+	2,100.0	1,570.0	240.0		290.0	75.5
		R+	2,580.0			2,080.0	500.0	202.7
NB TRUCK ON FROM SIERRA Hwy	C45.67	L+	600.0	600.0				24.7
		R+	930.0	755.0	62.5		112.5	34.8
SB TRUCK OFF TO SIERRA Hwy	C45.78	R+	1,380.0	860.0			520.0	47.5
TOTAL			25,242.5	5,460.0	1,015.0	15,817.5	2,950.0	1,764.0

TEMPORARY DRAINAGE INLET PROTECTION

LOCATION	POSTMILE	TEMPORARY DRAINAGE INLET PROTECTION
		EA
SB TRUCK OFF TO SIERRA Hwy	C45.78	1
TOTAL		1

SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: DEBORAH WONG
 CALCULATED/DESIGNED BY: MICHAEL DUONG
 CHECKED BY: DEBORAH WONG
 REVISED BY: DATE REVISOR

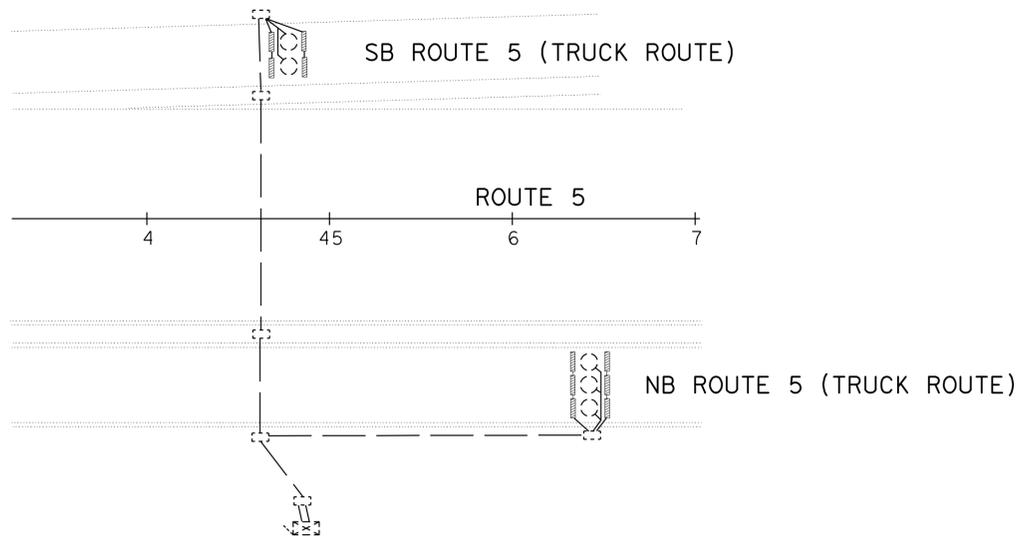
MODIFY TRAFFIC MONITORING STATION

PM	LOCATION	SEE DETAIL A THIS SHEET FOR TYPICAL LOCATION OF LOOP DETECTORS					No. OF STUBOUT (REPLACE)
		1	2	3	4	5	
44.21	SB ROUTE 5 TRUCK ROUTE S OF BALBOA Blvd	X	X				1
44.32	NB ROUTE 5 TRUCK ROUTE S OF BALBOA Blvd				X	X	1
45.29	SB ROUTE 5 TRUCK ROUTE N OF BALBOA Blvd	X	X	X			1

X - INSTALL TYPE E INDUCTIVE LOOP DETECTOR. ABANDON EXISTING INDUCTIVE LOOP DETECTOR AT THE SAME LOCATION.

GENERAL NOTES: (THIS SHEET ONLY)

1. NEW STUBOUTS SHALL BE 2". ABANDON EXISTING STUBOUTS.
2. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE EXISTING INDUCTIVE LOOP DETECTORS.
3. SPLICE NEW INDUCTIVE LOOP DETECTOR TO EXISTING DLC IN ADJACENT PULL BOX.
4. TAG EXISTING DLC IN ADJACENT PULL BOX AND AT CONTROLLER CABINET.



AUTOMATIC VEHICLE CLASSIFICATION STATION
PM C44.65

LEGEND: (THIS SHEET ONLY)

EXISTING PIEZO-ELECTRIC AXLE SENSOR

1
 2
 3 SB ROUTE 5 (TRUCK ROUTE)

ROUTE 5

4
 5 NB ROUTE 5 (TRUCK ROUTE)

DETAIL A

TYPICAL INDUCTIVE LOOP DETECTOR CONFIGURATION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	41	60

C. Burciaga
REGISTERED ELECTRICAL ENGINEER DATE

7-2-12
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.

REGISTERED PROFESSIONAL ENGINEER

C. BURCIAGA

No. E015302

Exp. 3-31-13

ELECTRICAL

STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: YI TSAU
 CALCULATED/DESIGNED BY: CECILIO BURCIAGA
 CHECKED BY:
 REVISOR: FARIDA WAHMOOD
 DATE REVISOR: CECILIO BURCIAGA

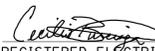
APPROVED FOR ELECTRICAL WORK ONLY

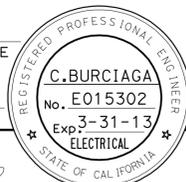
MODIFY TRAFFIC MONITORING STATION

NO SCALE

E-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	42	60


 REGISTERED ELECTRICAL ENGINEER DATE _____
 7-2-12
 PLANS APPROVAL DATE

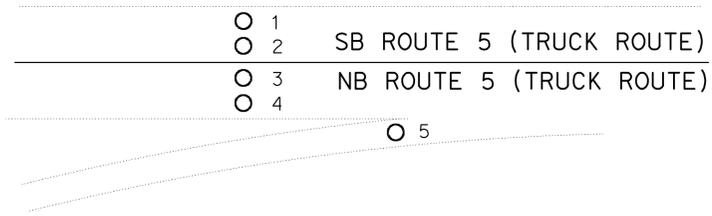


THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MODIFY RAMP METERING SYSTEM

PM	LOCATION	SEE DETAIL B THIS SHEET FOR TYPICAL LOCATION OF LOOP DETECTORS					No. OF STUBOUT (REPLACE)
		1	2	3	4	5	
45.6	SB ROUTE 5 (TRUCK ROUTE) N OF SIERRA Hwy	X	M				2
45.6	NB ROUTE 5 (TRUCK ROUTE) N OF SIERRA Hwy			M	X		2
45.7	FROM SIERRA Hwy TO NB ROUTE 5 (TRUCK ROUTE)					X	1

- X - INSTALL TYPE E INDUCTIVE LOOP DETECTOR. ABANDON EXISTING INDUCTIVE LOOP DETECTOR AT THE SAME LOCATION.
 M - INSTALL TYPE E INDUCTIVE LOOP DETECTOR. INDUCTIVE LOOP DETECTOR HOME RUN SHALL BE CUT UP TO THE MEDIAN PULL BOX. ABANDON EXISTING INDUCTIVE LOOP DETECTOR AT THE SAME LOCATION.



DETAIL B

TYPICAL INDUCTIVE LOOP DETECTOR CONFIGURATION

GENERAL NOTES: (THIS SHEET ONLY)

- NEW STUBOUTS SHALL BE 2". ABANDON EXISTING STUBOUTS.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE EXISTING INDUCTIVE LOOP DETECTORS.
- SPLICE INDUCTIVE LOOP DETECTOR TO EXISTING DLC IN ADJACENT PULL BOX.
- TAG EXISTING DLC IN ADJACENT PULL BOX AND AT CONTROLLER CABINET.
- FOR INDUCTIVE LOOP DETECTOR HOME RUN THAT HAS TO CUT UP TO THE MEDIAN PULL BOX, MAKE SURE THE PULL BOX LID IS SECURELY BOLTED, AFTER THE WORK IS COMPLETED.

MODIFY RAMP METERING SYSTEM

NO SCALE

E-2

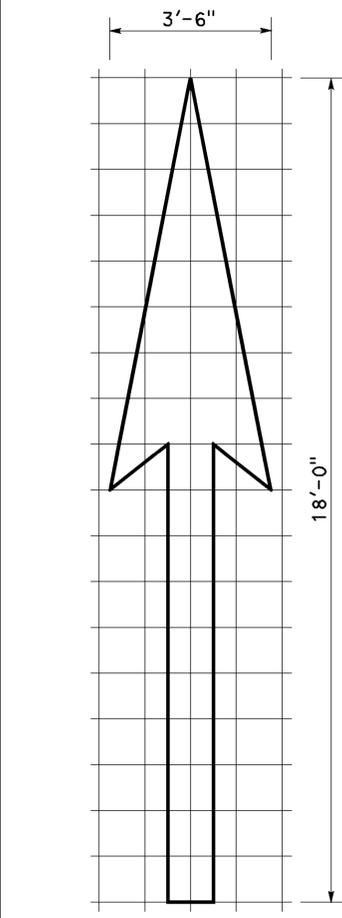
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR YI TSAU
 CALCULATED/DESIGNED BY CHECKED BY
 FARIDA WAHMOOD CECILIO BURCIAGA
 REVISED BY DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	43	60

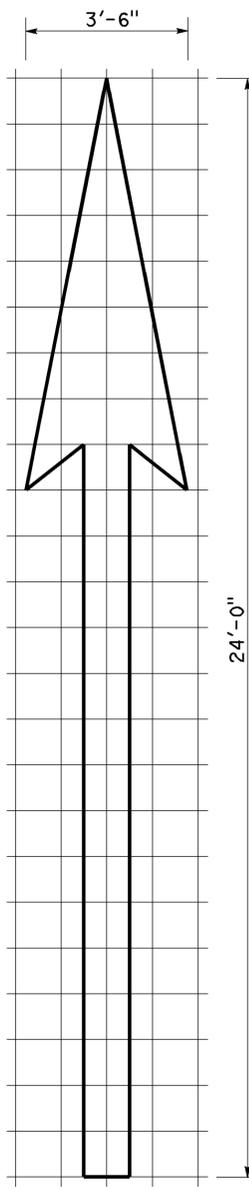
Registered Professional Engineer
Roberta L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

April 20, 2012
 PLANS APPROVAL DATE

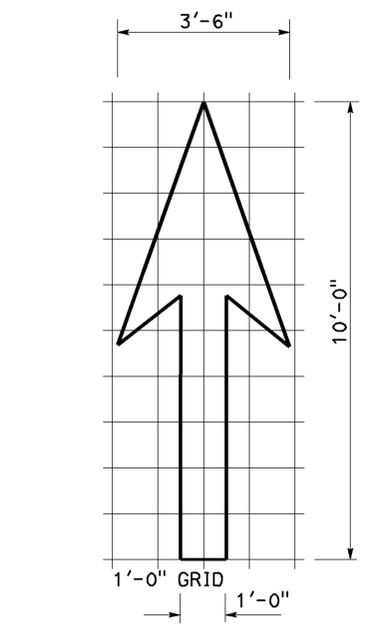
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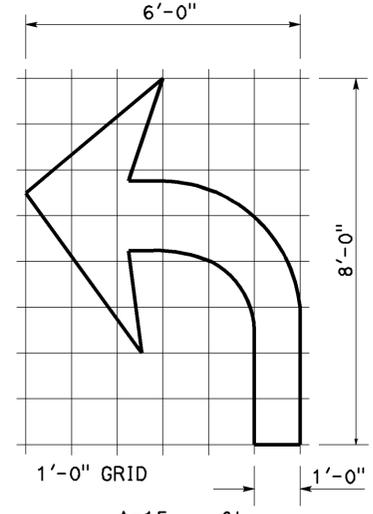
1'-0" GRID
 1'-0"
 A=25 sq ft
TYPE I 18'-0" ARROW



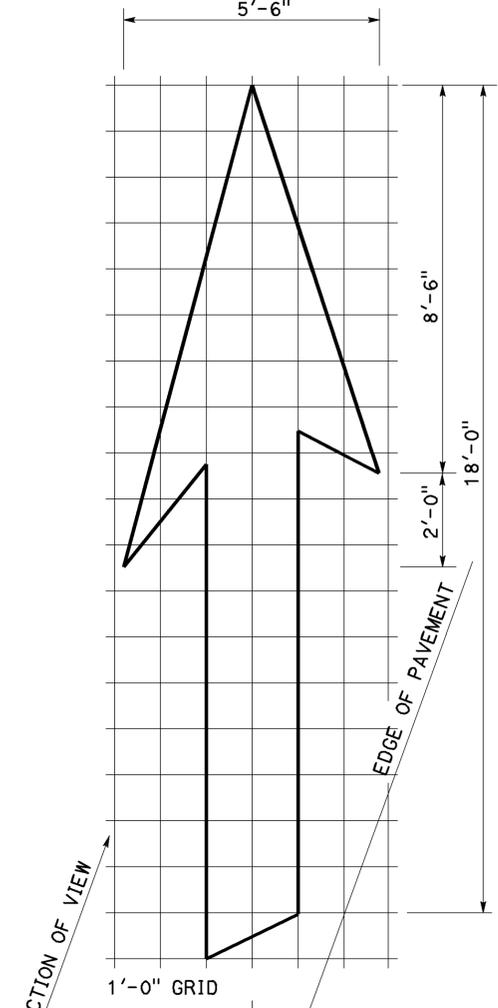
1'-0" GRID
 1'-0"
 A=31 sq ft
TYPE I 24'-0" ARROW



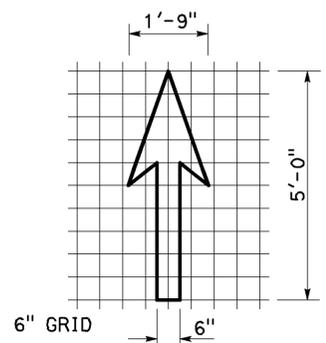
1'-0" GRID
 1'-0"
 A=14 sq ft
TYPE I 10'-0" ARROW



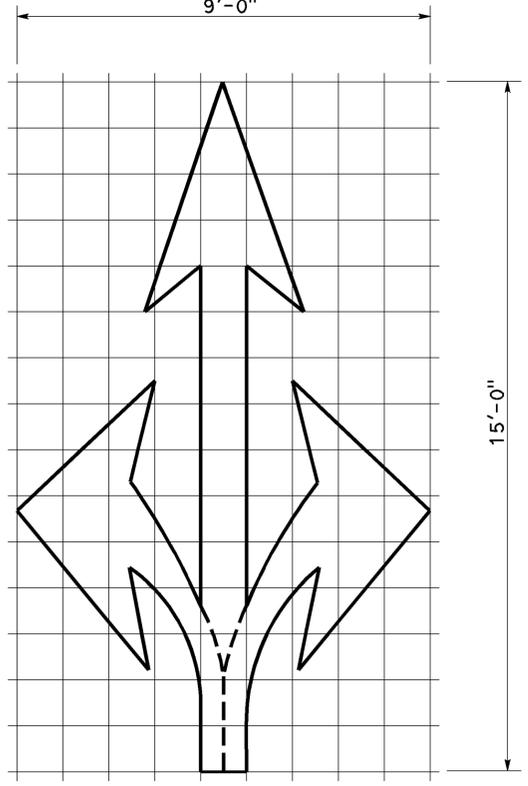
1'-0" GRID
 1'-0"
 A=15 sq ft
TYPE IV (L) ARROW
 (FOR TYPE IV (R) ARROW, USE MIRROR IMAGE)



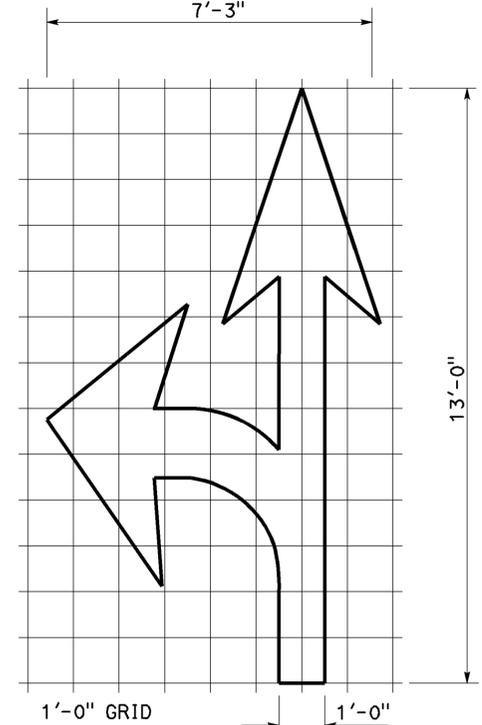
1'-0" GRID
 20°
 A=42 sq ft
TYPE VI ARROW
 RIGHT LANE DROP ARROW
 (FOR LEFT LANE, USE MIRROR IMAGE)



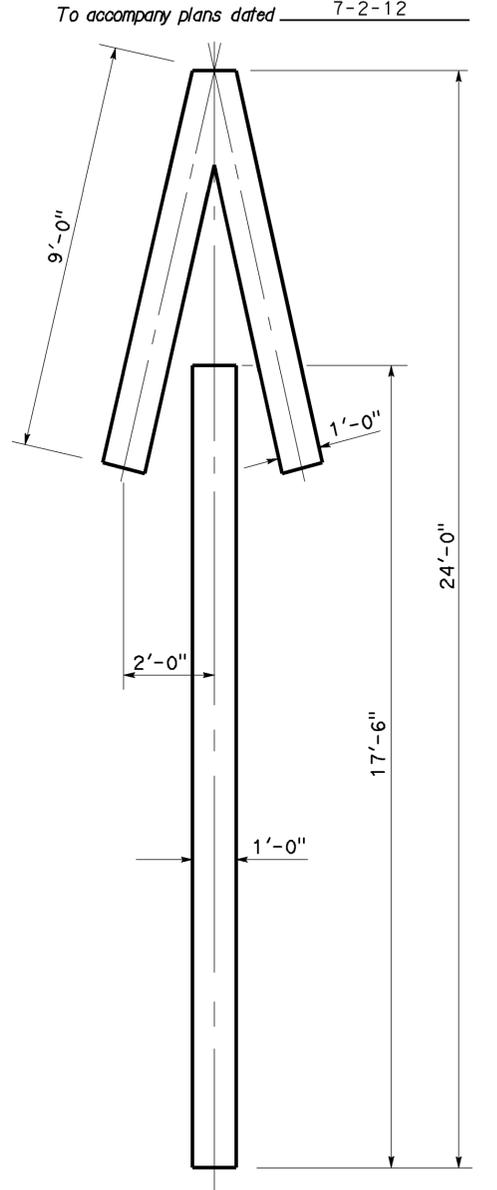
6" GRID
 6"
 A=3.5 sq ft
BIKE LANE ARROW



1'-0" GRID
 1'-0"
 A=36 sq ft
TYPE VIII ARROW



1'-0" GRID
 1'-0"
 A=27 sq ft
TYPE VII (L) ARROW
 (FOR TYPE VII (R) ARROW, USE MIRROR IMAGE)



A=33 sq ft
TYPE V ARROW

NOTE:
 MINOR VARIATIONS IN DIMENSIONS
 MAY BE ACCEPTED BY THE ENGINEER.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
 ARROWS**
 NO SCALE

RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A
 DATED MAY 1, 2006 - PAGE 9 OF THE STANDARD PLANS BOOK DATED MAY 2006.

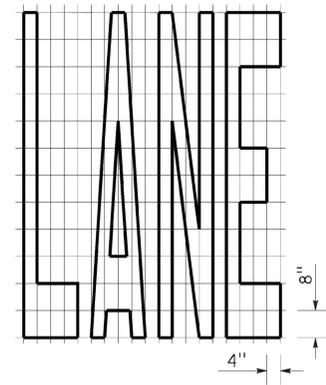
2006 REVISED STANDARD PLAN RSP A24A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	44	60

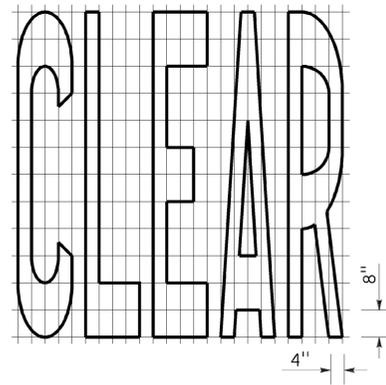
Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 July 20, 2012
 PLANS APPROVAL DATE

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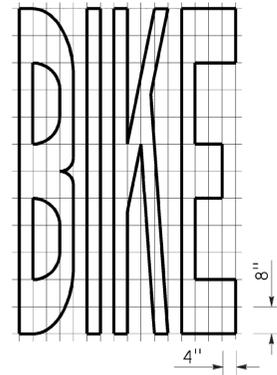
To accompany plans dated 7-2-12



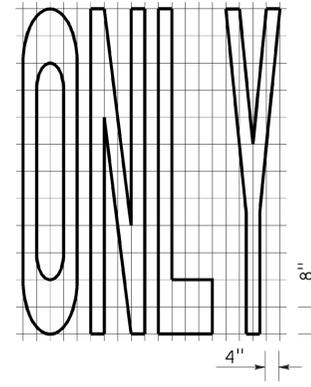
A=24 ft²



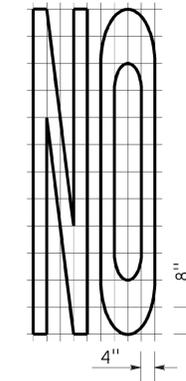
A=27 ft²



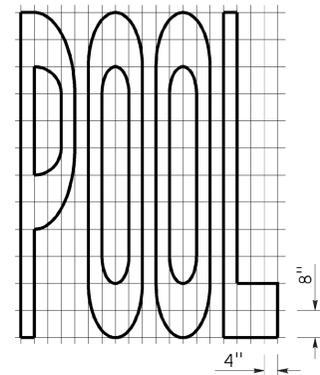
A=21 ft²



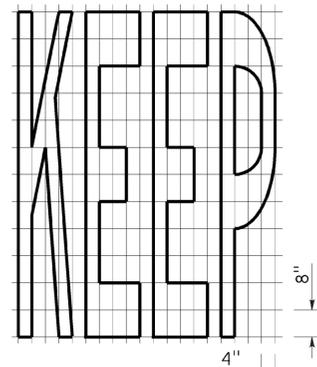
A=22 ft²



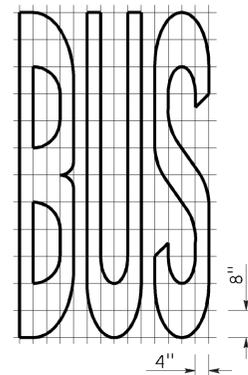
A=14 ft²



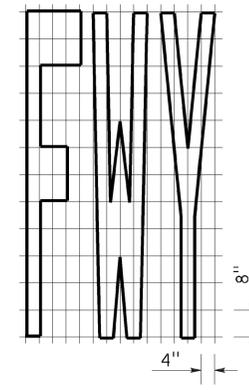
A=23 ft²



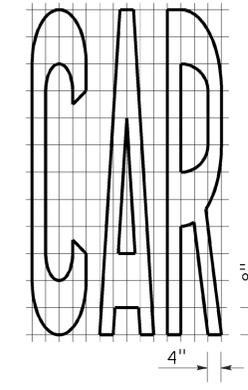
A=24 ft²



A=20 ft²



A=16 ft²



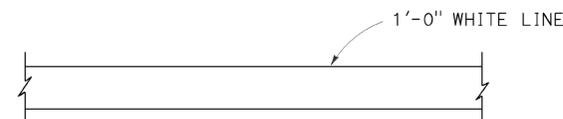
A=17 ft²

WORD MARKINGS			
ITEM	ft ²	ITEM	ft ²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²

See Notes 6 and 7



LIMIT LINE (STOP LINE)



DIRECTION OF TRAVEL

YIELD LINE

1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES**

NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E
DATED MAY 1, 2006 - PAGE 13 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A24E

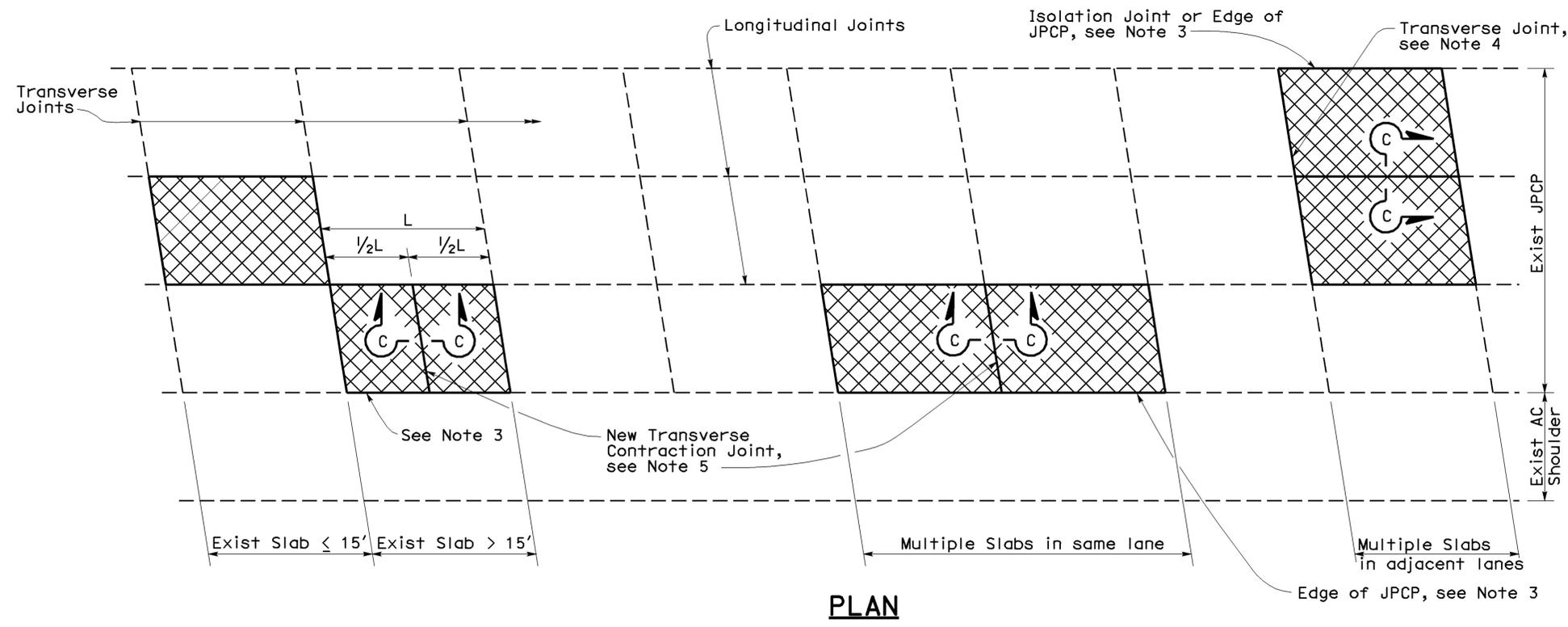
2006 REVISED STANDARD PLAN RSP A24E

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	45	60

William K. Farnbach
 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 electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
 William K. Farnbach
 No. C49042
 Exp. 9-30-12
 CIVIL
 STATE OF CALIFORNIA

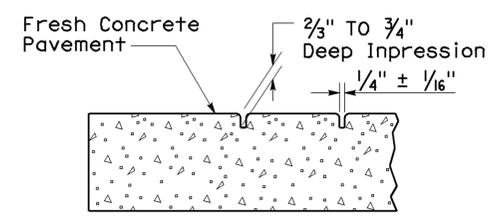
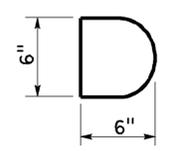
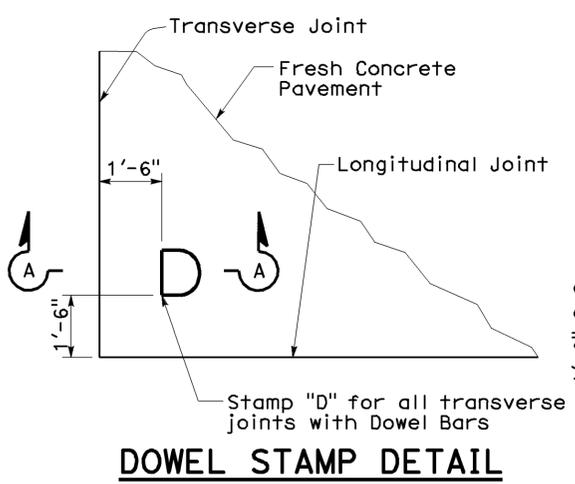
To accompany plans dated 7-2-12



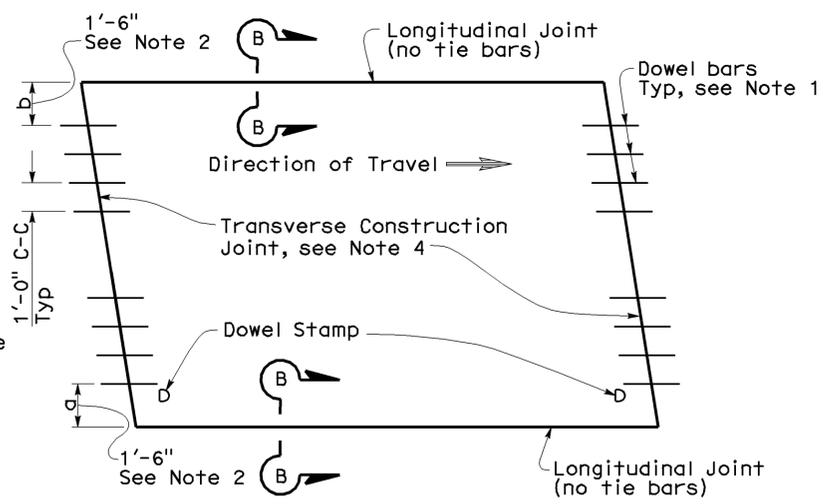
NOTES:

1. For details not shown, see Revised Standard Plan RSP P10.
2. Where the existing outer shoulder pavement is asphalt concrete pavement, the "a" dimension shall be 1'-0" and the "b" dimension shall be 2'-0".
3. Side forms shall be used where edge of pavement is adjacent to asphalt concrete.
4. For detail, see Transverse Construction Joint for existing concrete pavement detail on Revised Standard Plan RSP P10.
5. Transverse joint to match skew of existing joint. Omit dowel bars.

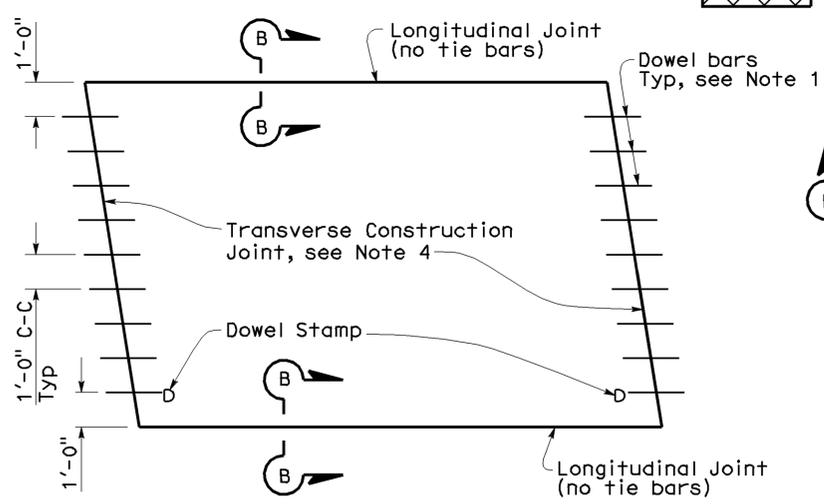
LEGEND



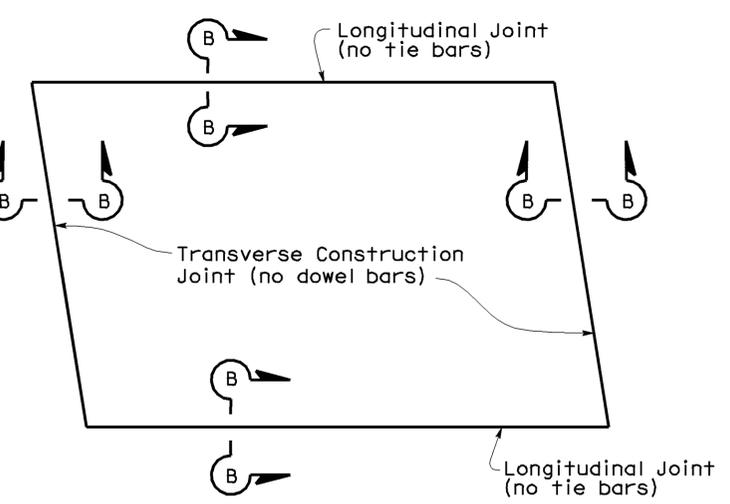
SECTION A-A



TYPE I
Traffic lane lines match longitudinal joints

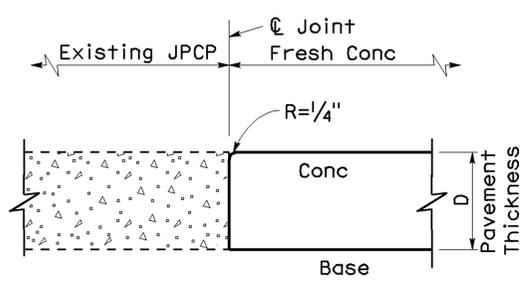


TYPE II
Traffic lane lines do not match longitudinal joints

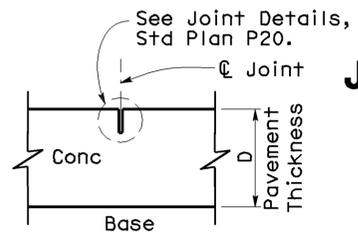


TYPE III
For short term repairs < 5 yrs design life or for slab replacements with a cracking and seating operation

SLAB LAYOUT



SECTION B-B



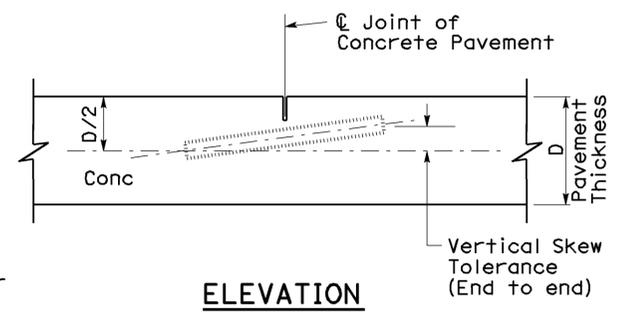
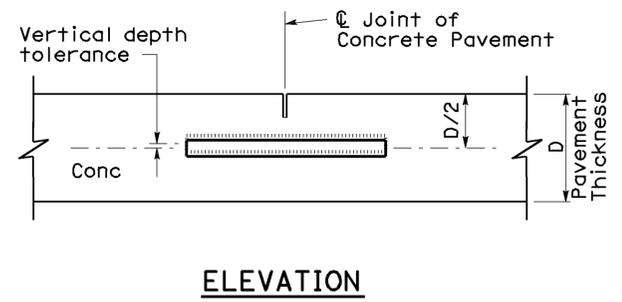
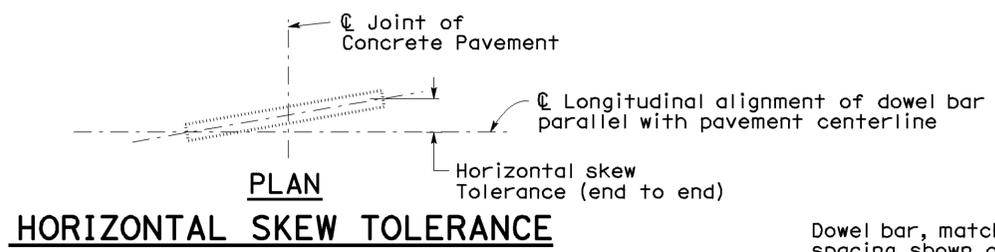
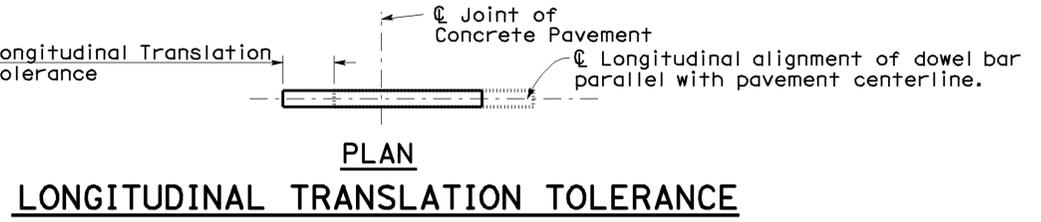
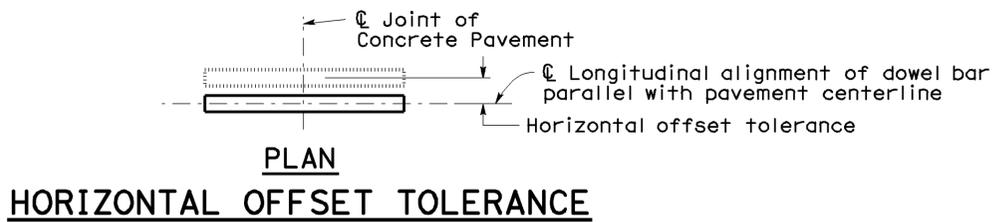
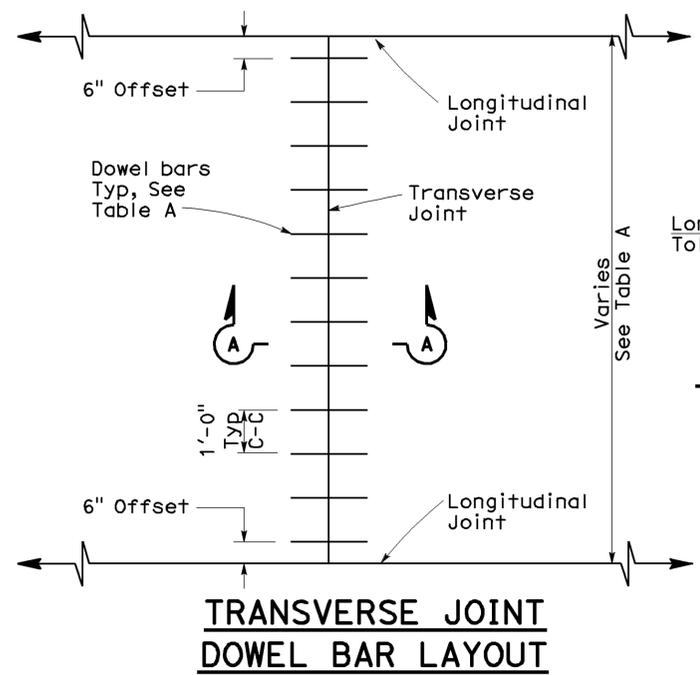
SECTION C-C

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
JOINED PLAIN CONCRETE PAVEMENT - INDIVIDUAL SLAB REPLACEMENT
 NO SCALE

RSP P8 DATED APRIL 20, 2012 SUPERSEDES RSP P8 DATED MAY 15, 2009, RSP P8 DATED SEPTEMBER 1, 2006 AND STANDARD PLAN P8 DATED MAY 1, 2006 - PAGE 123 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P8

2006 REVISED STANDARD PLAN RSP P8



To accompany plans dated 7-2-12

- NOTES:**
- See Revised Standard Plan RSP P1 for typical dowel bar placement and locations.
 - 1/2" Dia dowel bars are to be used with a pavement thickness, D, equal to or greater than 0.70 feet. For pavement thickness, D, less than 0.70 feet, use 1/4" Dia dowel bars.
 - For widths not shown, see Project Plans.
 - If fresh concrete pavement is placed adjacent to existing concrete pavement, the top corner of the existing concrete pavement does not need to be rounded to the 1/4" radius, as shown.
 - 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.

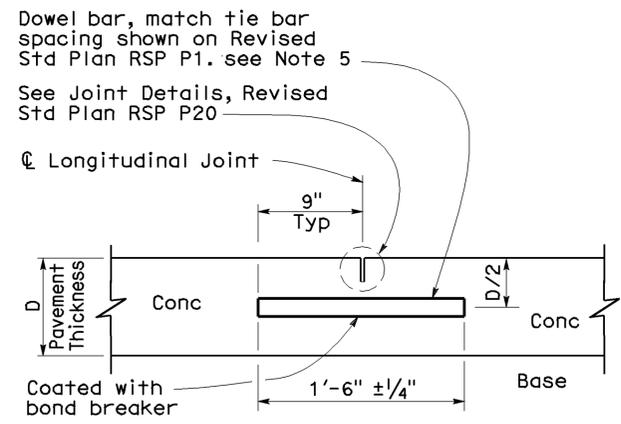
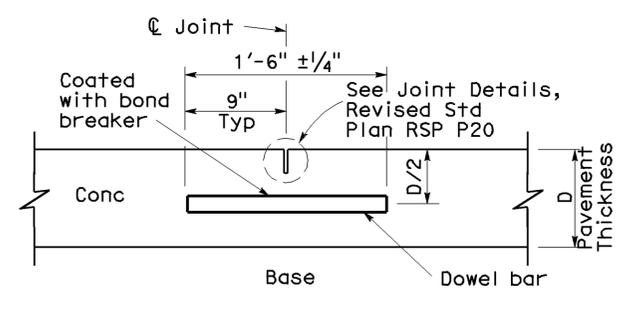
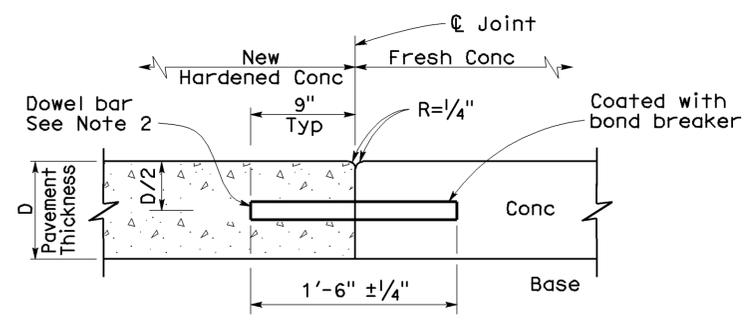


TABLE A (See Note 3)

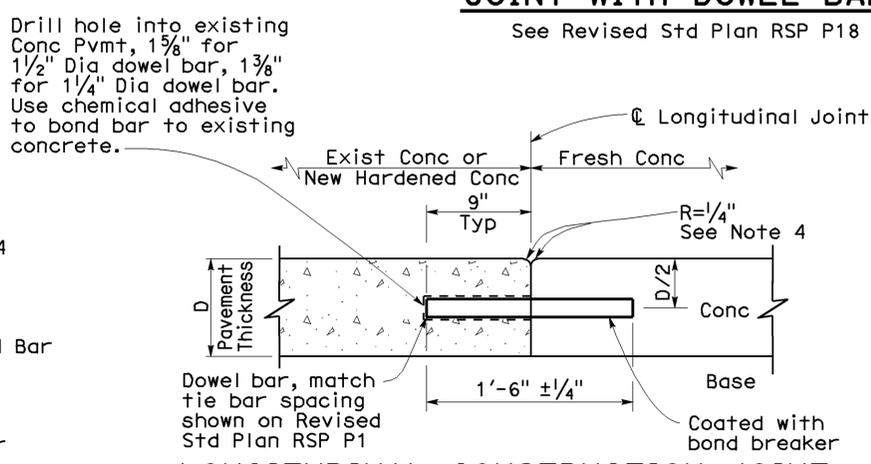
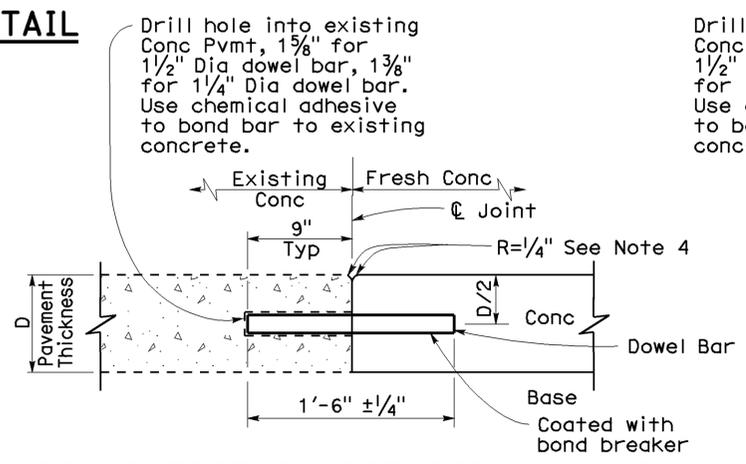
Dowel Bar Transverse Spacing Table

Width between Longitudinal Joints	Number of Dowels between Longitudinal Joints
14'-0"	14
13'-0"	13
12'-0"	12
11'-0"	11
10'-0"	10
8'-0"	8
5'-0"	5
4'-0"	4

SECTION A-A TRANSVERSE CONSTRUCTION JOINT DETAIL

TRANSVERSE CONTRACTION JOINT

LONGITUDINAL CONTRACTION JOINT WITH DOWEL BARS



TRANSVERSE CONSTRUCTION JOINT FOR EXISTING CONCRETE PAVEMENT

LONGITUDINAL CONSTRUCTION JOINT WITH DOWEL BARS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT - DOWEL BAR DETAILS

NO SCALE

RSP P10 DATED APRIL 20, 2012 SUPERSEDES RSP P10 DATED MAY 15, 2009 AND STANDARD PLAN P10 DATED MAY 1, 2006 - PAGE 124 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP P10

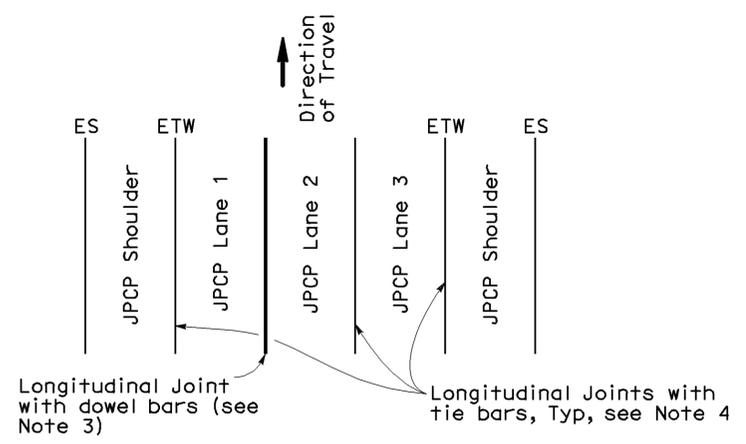
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	47	60

William K. Farnbach
 REGISTERED CIVIL ENGINEER
 April 20, 2012
 PLANS APPROVAL DATE
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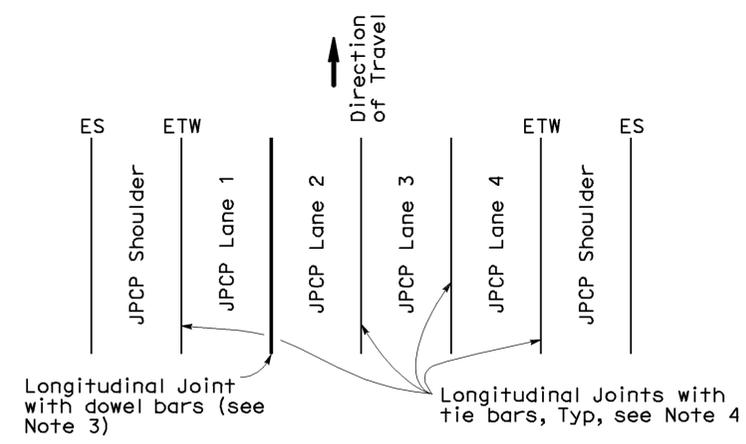
To accompany plans dated 7-2-12

NOTES:

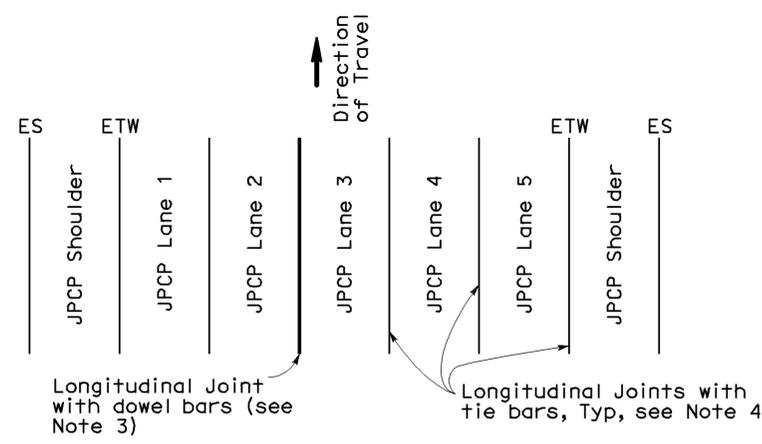
- Where Lean Concrete Base is not used as base material, the joint filler material used for the longitudinal isolation joint shall only extend to the bottom of the new concrete slab. See Detail A.
- Use $\frac{5}{8}'' \pm \frac{1}{16}''$ dimension for silicone sealant.
- See Revised Standard Plan RSP P10 for longitudinal joint with dowel bars.
- See Revised Standard Plan RSP P1.
- See Revised Standard Plan RSP P2.



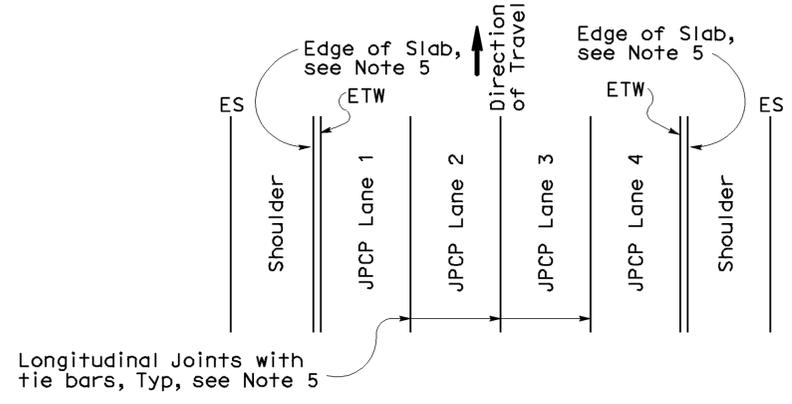
3 LANES WITH TIED CONCRETE SHOULDERS
PLAN



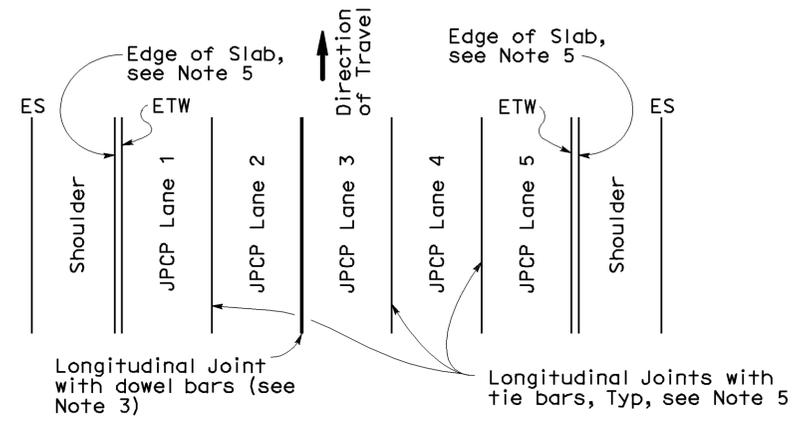
4 LANES WITH TIED CONCRETE SHOULDERS
PLAN



5 LANES WITH TIED CONCRETE SHOULDERS
PLAN



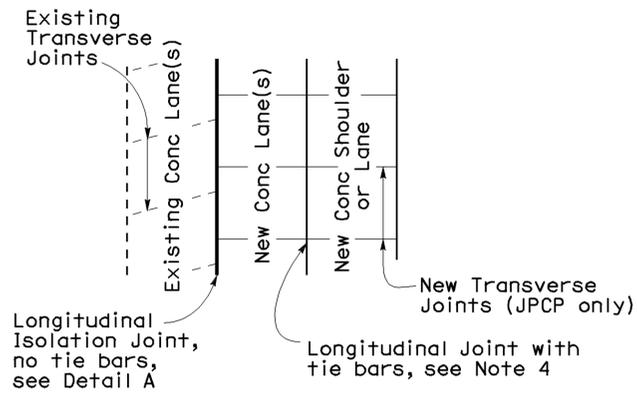
4 LANES OR LESS WITH WIDENED SLAB
PLAN



5 LANES WITH WIDENED SLAB
PLAN

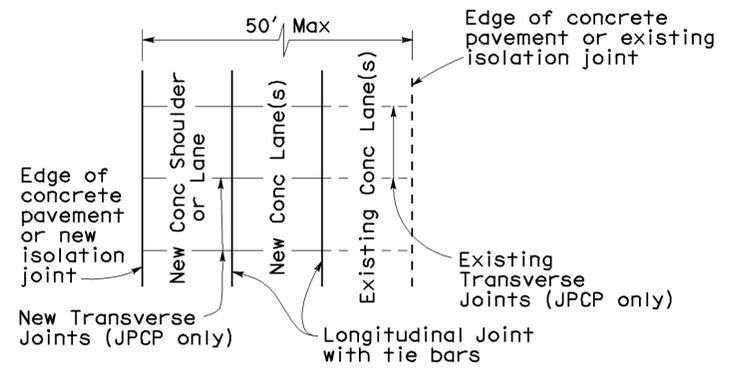
NEW CONSTRUCTION

Location of Longitudinal Joints For JPCP



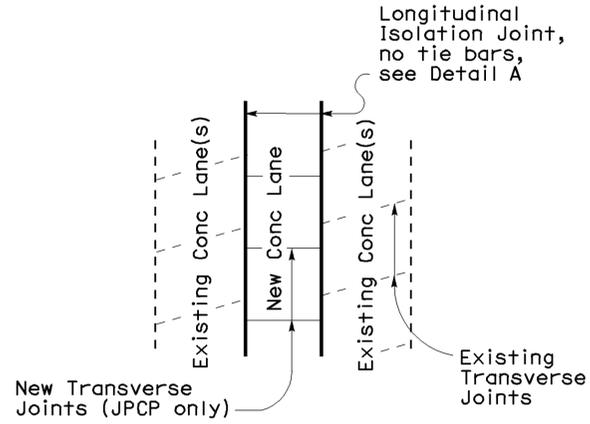
CASE 1
PLAN

Transverse Joints do not align between new and existing



CASE 2
PLAN

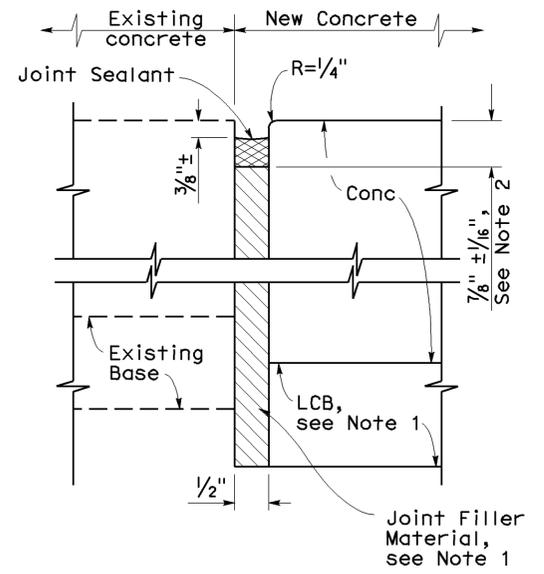
Transverse Joints align between new and existing



CASE 3 (INTERIOR LANE REPLACEMENT)
PLAN

Transverse Joints do not align between new and existing

LANE/SHOULDER ADDITION OR RECONSTRUCTION
For JPCP and CRCP



DETAIL A
ISOLATION JOINT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT-
LANE SCHEMATICS
AND ISOLATION JOINT DETAIL**
NO SCALE

RSP P18 DATED APRIL 20, 2012 SUPERSEDES RSP P18 DATED JUNE 5, 2009, RSP P18 DATED MAY 15, 2009, RSP P18 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P18 DATED MAY 1, 2006 - PAGE 127 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P18

2006 REVISED STANDARD PLAN RSP P18

NOTE:

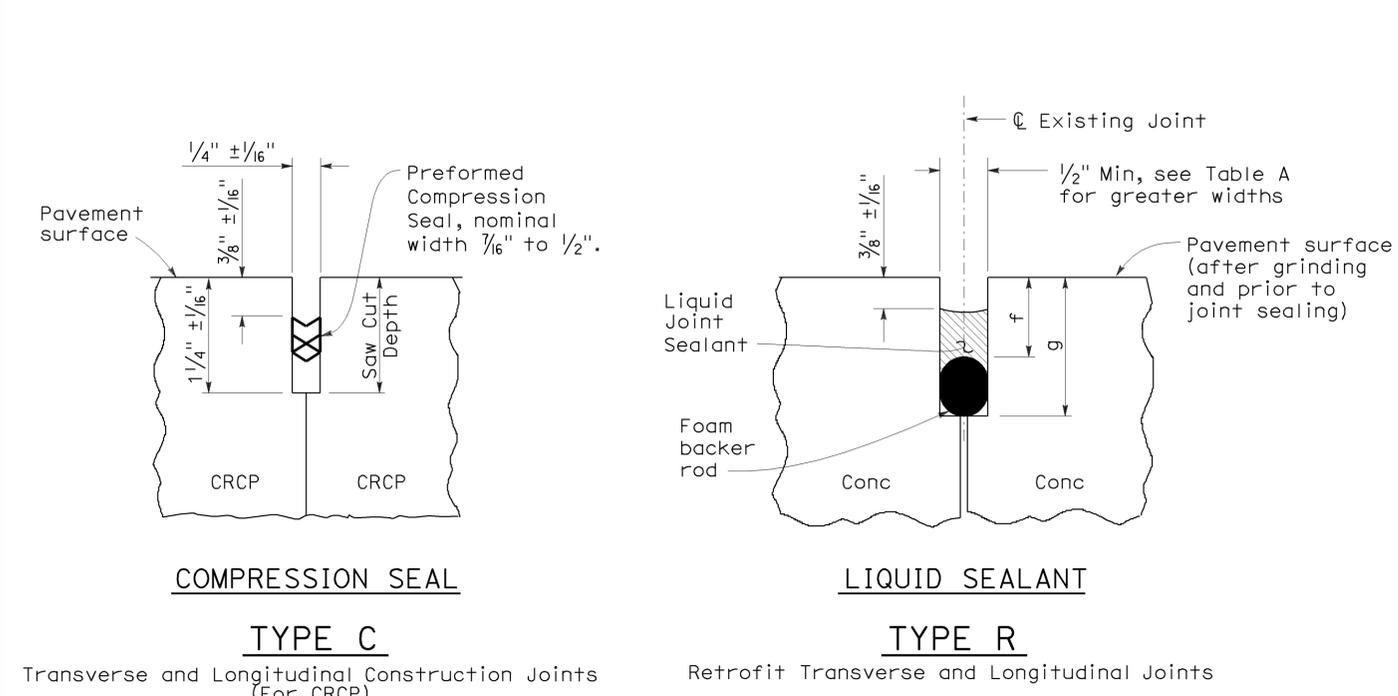
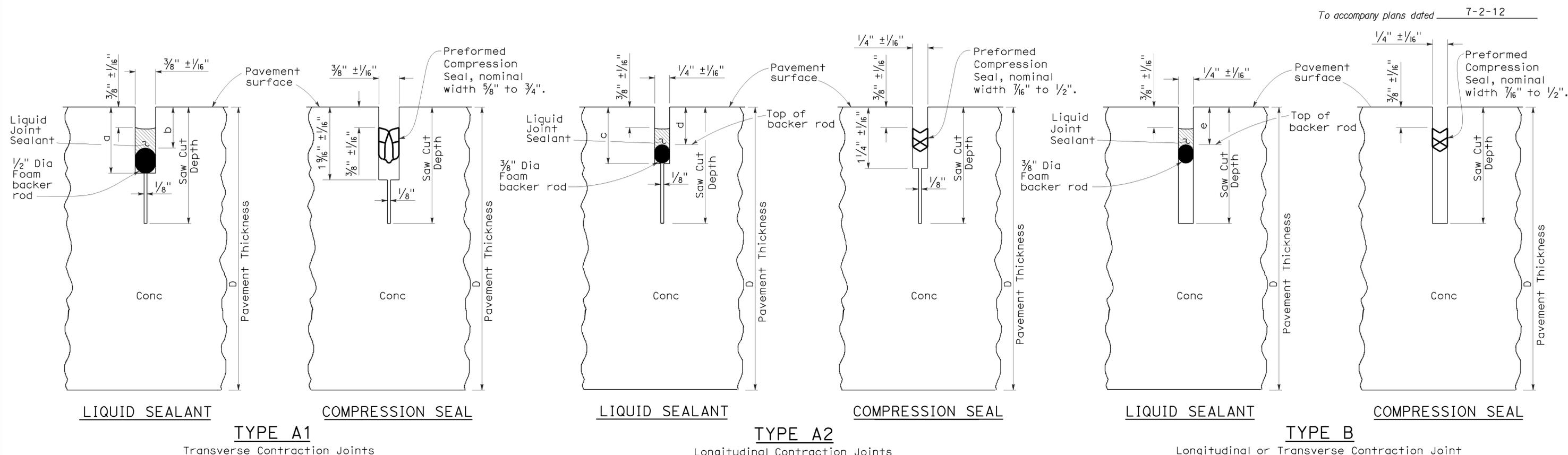
1. Tie bars, dowel bars, and reinforcement are not shown in joint seal details, see Revised Standard Plans RSP P1, RSP P3, RSP P10, RSP P35, RSP P45, or RSP P46 as applicable.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	48	60

William K. Farnbach
 REGISTERED CIVIL ENGINEER
 No. C49042
 Exp. 9-30-10
 CIVIL
 STATE OF CALIFORNIA

May 15, 2009
 PLANS APPROVAL DATE

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LIQUID SEALANT RESERVOIR DEPTH

LIQUID SEALANT MATERIAL	3/8" Joint Width Type A1		1/4" Joint Width Type A2		1/4" Joint Width Type B
	DIMENSION		DIMENSION		DIMENSION
	a	b	c	d	e
SILICONE	1" ± 1/16"	5/8" ± 1/16"	15/16" ± 1/16"	9/16" ± 1/16"	9/16" ± 1/16"
ASPHALT RUBBER	1 3/16" ± 1/16"	3/4" ± 1/16"	1 1/16" ± 1/16"	11/16" ± 1/16"	11/16" ± 1/16"

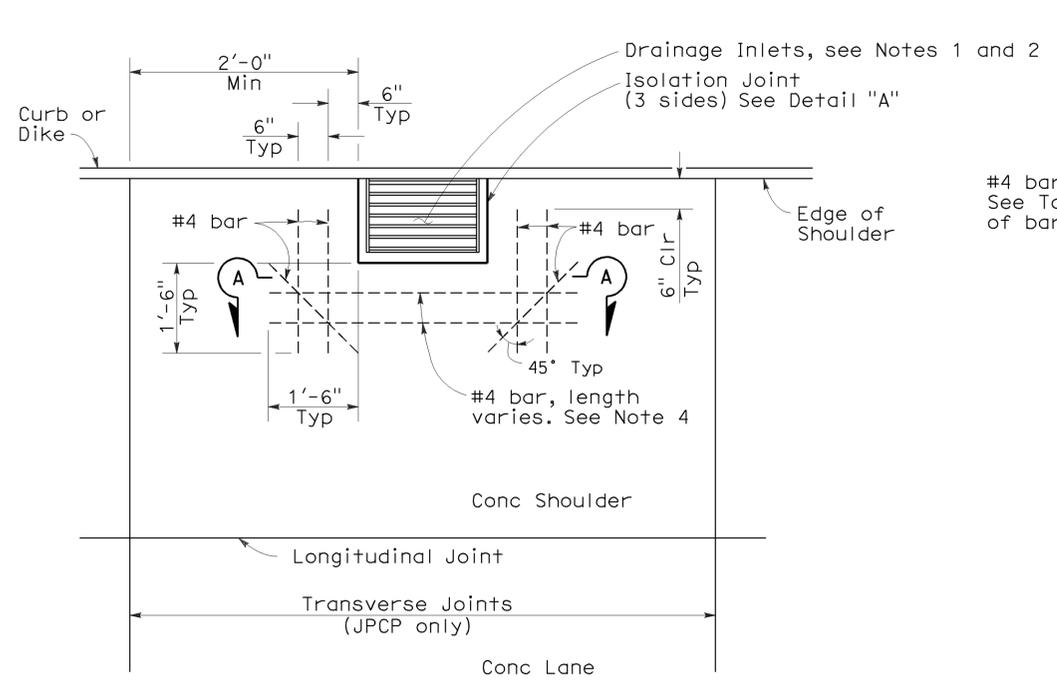
TABLE A (TYPE R JOINT)

Sawn Joint Width	Backer Rod Diameter ± 1/16"	DIMENSION "f"	DIMENSION "g"
1"	1 5/16"	7/8"	2 1/4"
7/8"	1 3/16"	13/16"	2"
3/4"	1"	3/4"	1 3/4"
5/8"	7/8"	11/16"	1 1/2"
1/2"	11/16"	5/8"	1 1/4"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT-
 JOINT DETAILS**
 NO SCALE

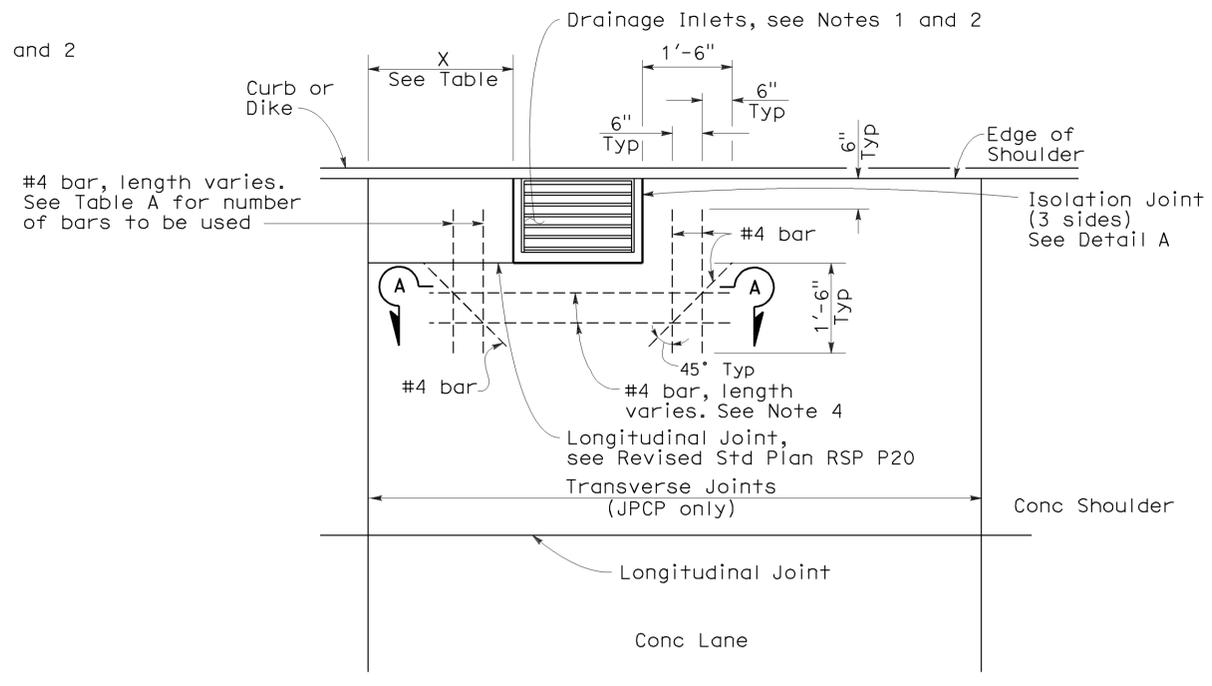
RSP P20 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P20
 DATED MAY 1, 2006 - PAGE 128 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P20



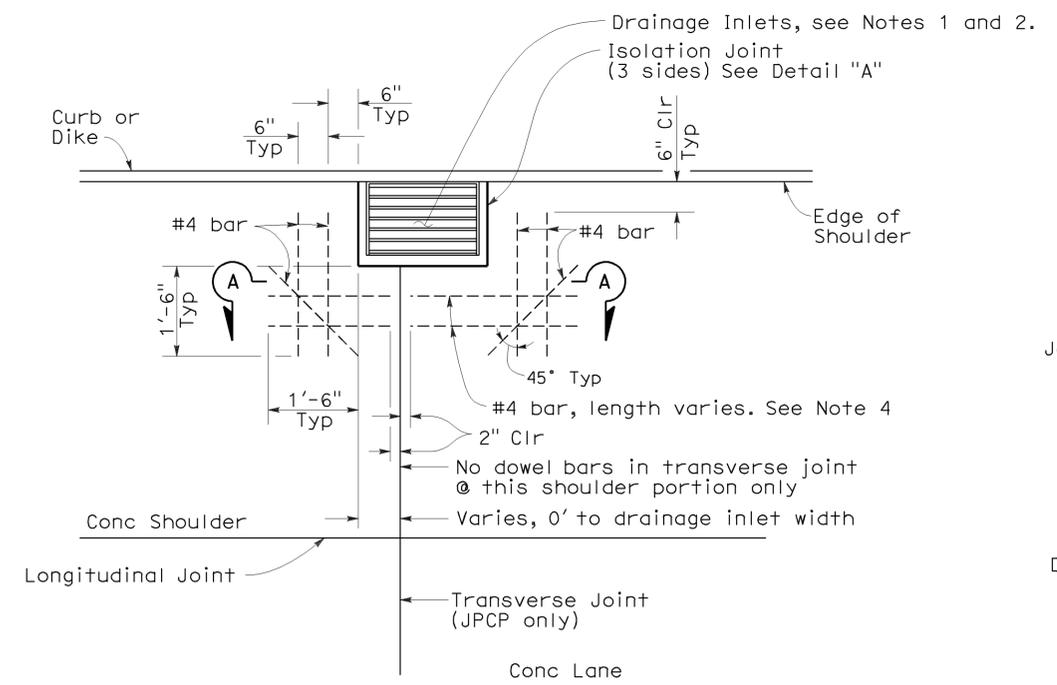
CASE 1

Transverse joint more than 2'-0" clear of drainage inlet wall or no transverse joint



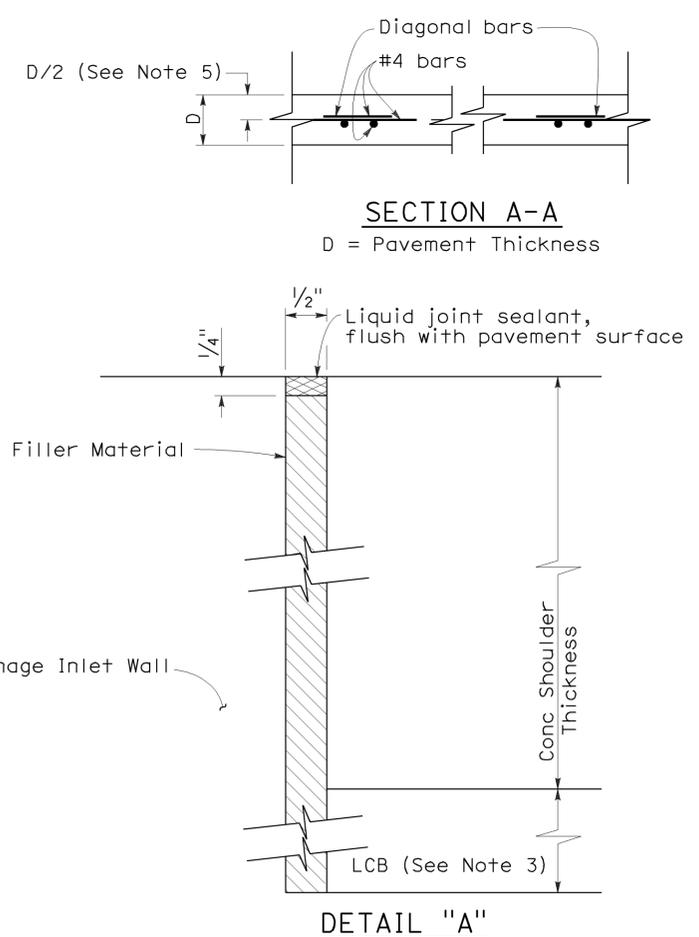
CASE 3

Transverse joint within 2'-0" of drainage inlet wall, or matches drainage inlet wall.



CASE 2

Transverse joint intersects drainage inlet, or matches drainage inlet wall.



DETAIL "A"

ISOLATION JOINT AROUND DRAINAGE INLET

NOTES:

1. Refer to Project Plans for location and Type of drainage inlets.
2. Top of inlet shall be flush with shoulder surface.
3. Extend joint filler material to bottom of Lean Concrete Base. Where Lean Concrete Base is not used as base material, the joint filler material shall only extend to the bottom of the new concrete pavement.
4. For Jointed Plain Concrete Pavement only. For Continuously Reinforced Concrete Pavement, terminate pavement steel reinforcement 2" clear from all outside edges of isolation joint.
5. For Jointed Plain Concrete Pavement only. For Continuously Reinforced Concrete Pavement, see New Standard Plan NSP P4.
6. Dowel and tie bars not shown, see Revised Standard Plan RSP P1.

TABLE A

DISTANCE X	BARS REQUIRED
2'-0" to 1'-6"	2
1'-6" to 9"	1 @ X/2
9" or less	None

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT-
 DRAINAGE INLET
 DETAILS No. 1**
 NO SCALE

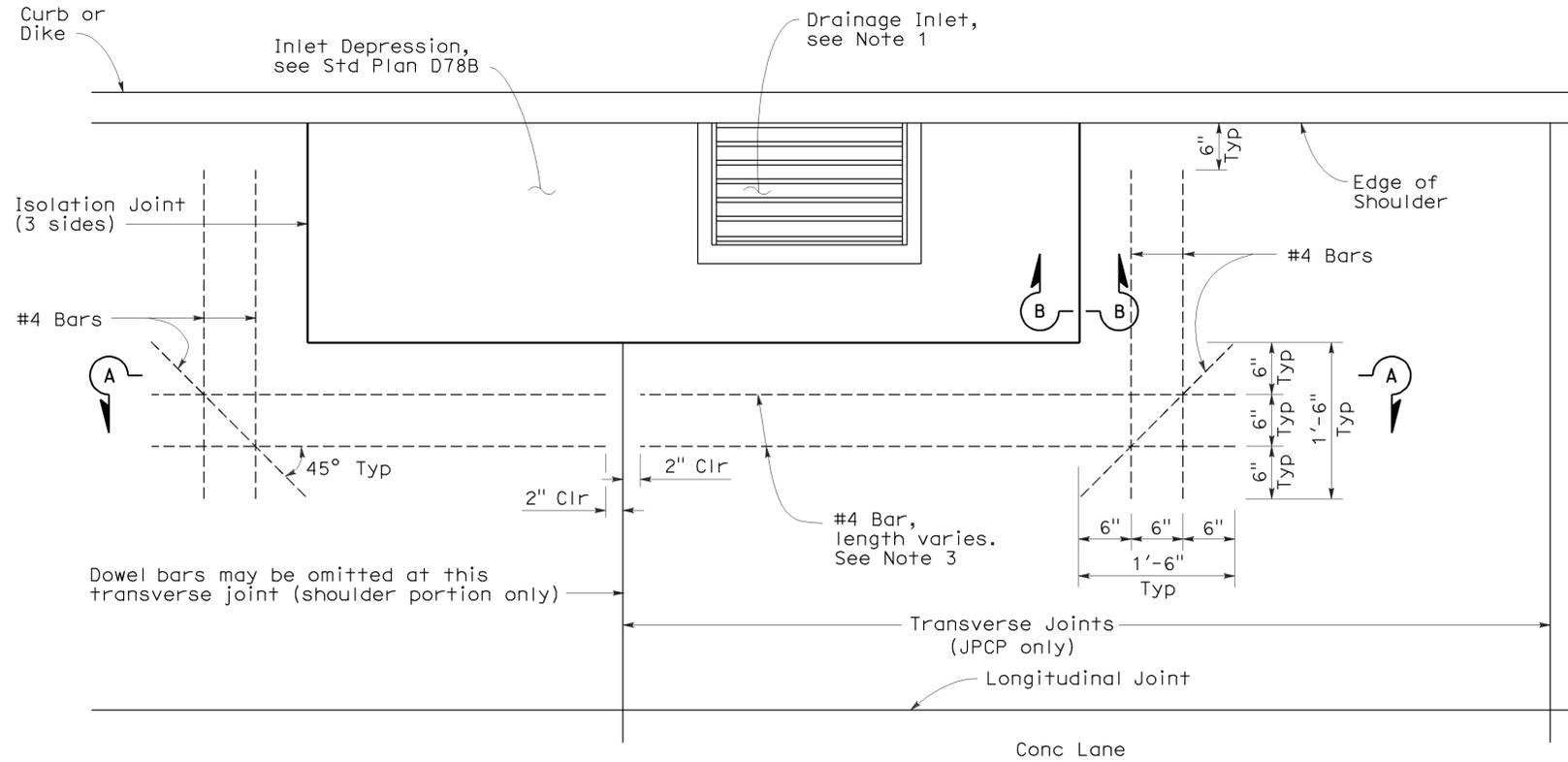
RSP P45 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P45
 DATED MAY 1, 2006 - PAGE 132 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P45

2006 REVISED STANDARD PLAN RSP P45

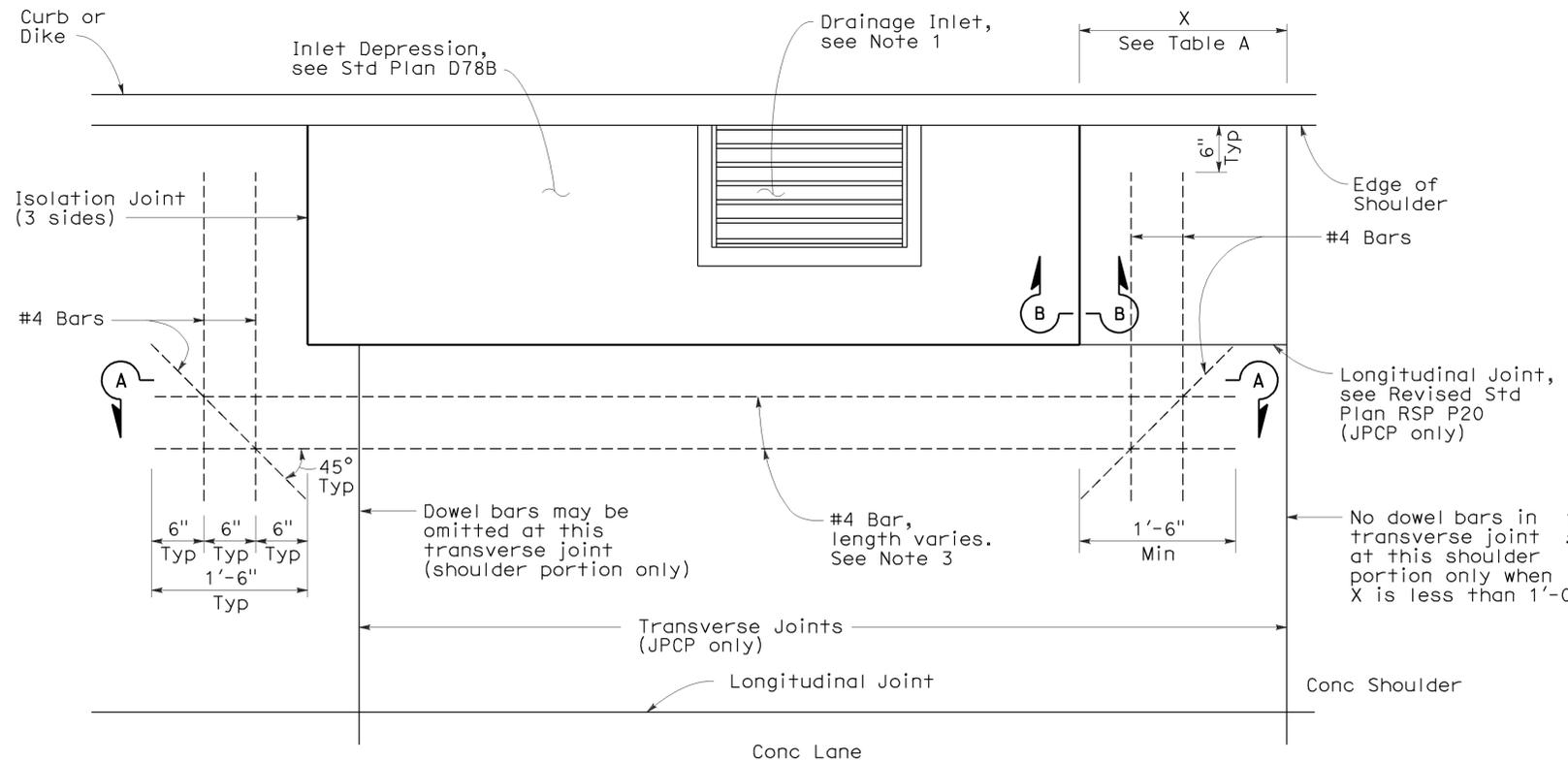


To accompany plans dated 7-2-12



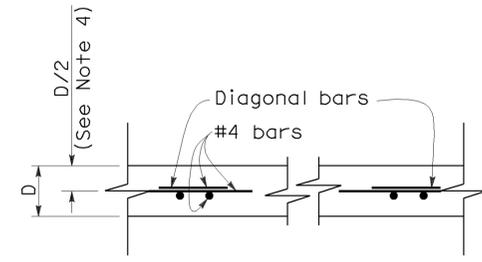
CASE A

Transverse Joint intersects inlet depression or no transverse joints.



CASE B

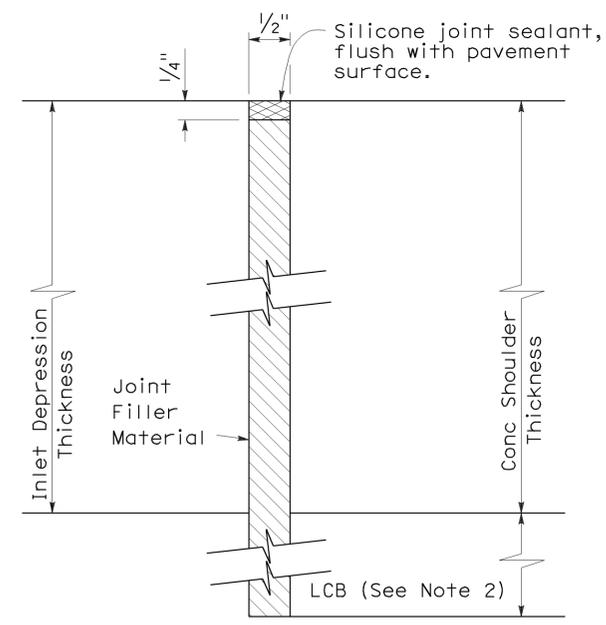
Transverse Joint within 2'-0" of edge of inlet depression.



SECTION A-A
D = Pavement Thickness

TABLE A

DISTANCE X	BARS REQUIRED
2'-0" to 1'-6"	2
1'-6" to 1'-0"	1
1'-0" or less	None



SECTION B-B

NOTES:

1. Refer to Project Plans for location and type of drainage inlets.
2. Extend joint filler material to bottom of Lean Concrete Base. Where Lean Concrete Base is not used as base material, the joint filler material shall only extend to the bottom of the new concrete pavement.
3. For Jointed Plain Concrete Pavement only. For Continuously Reinforced Concrete Pavement, terminate pavement steel reinforcement 2" clear from all outside edges of isolation joint.
4. For Jointed Plain Concrete Pavement only. For Continuously Reinforced Concrete Pavement, see New Standard Plan NSP P4.

ISOLATION JOINT AROUND INLET DEPRESSION

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT-
DRAINAGE INLET
DETAILS No. 2**
NO SCALE

RSP P46 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P46
DATED MAY 1, 2006 - PAGE 133 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P46

2006 REVISED STANDARD PLAN RSP P46

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	51	60

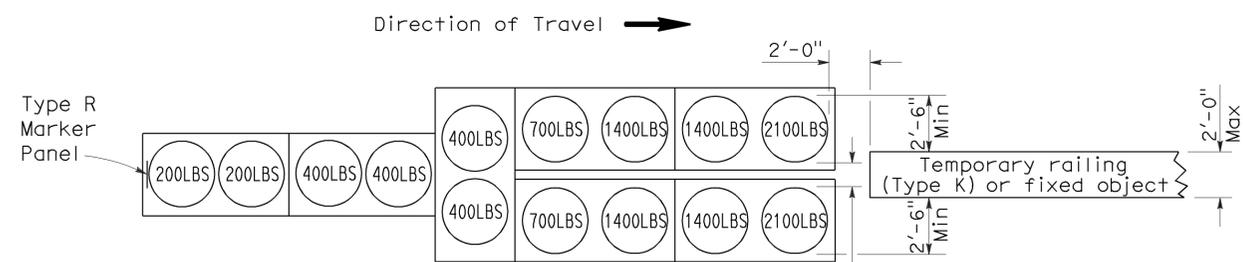
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

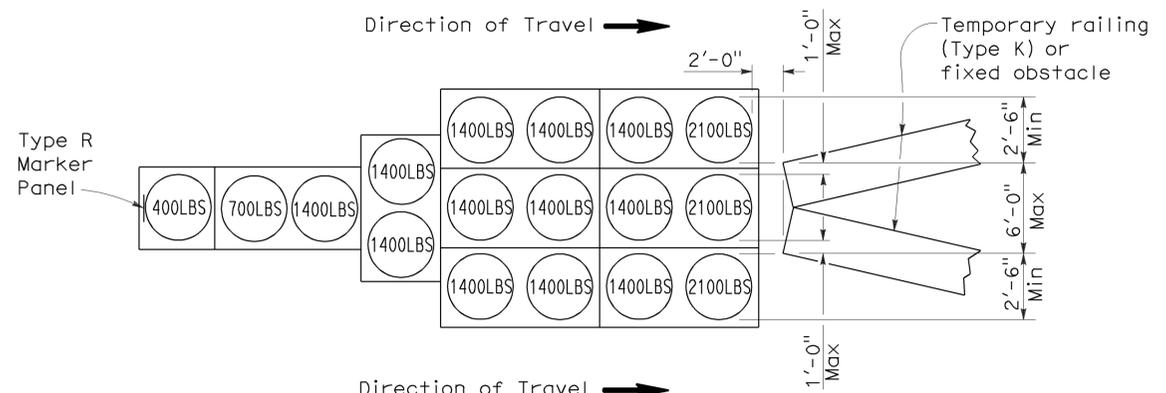
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To accompany plans dated 7-2-12



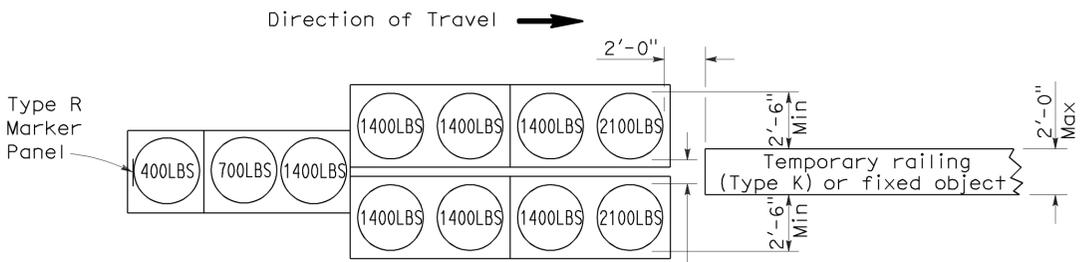
ARRAY 'TU14'

Approach speed 45 mph or more



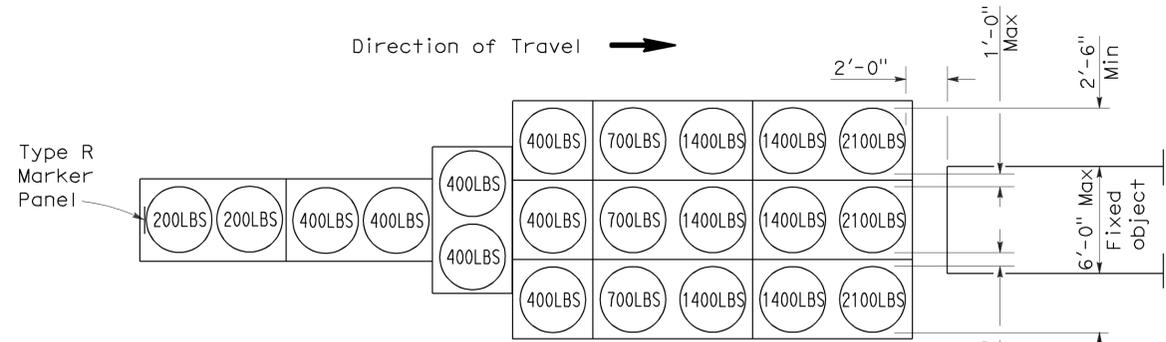
ARRAY 'TU17'

Approach speed less than 45 mph



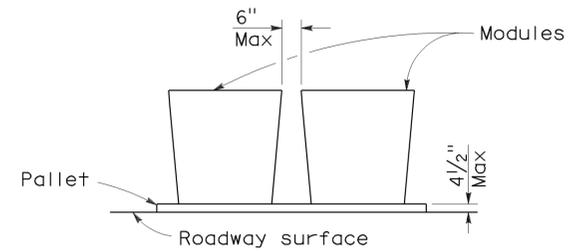
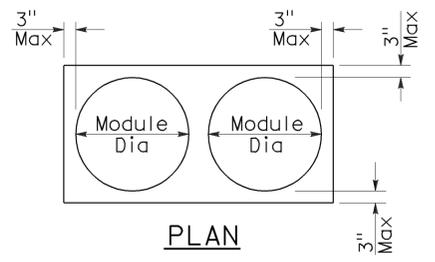
ARRAY 'TU11'

Approach speed less than 45 mph



ARRAY 'TU21'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	52	60

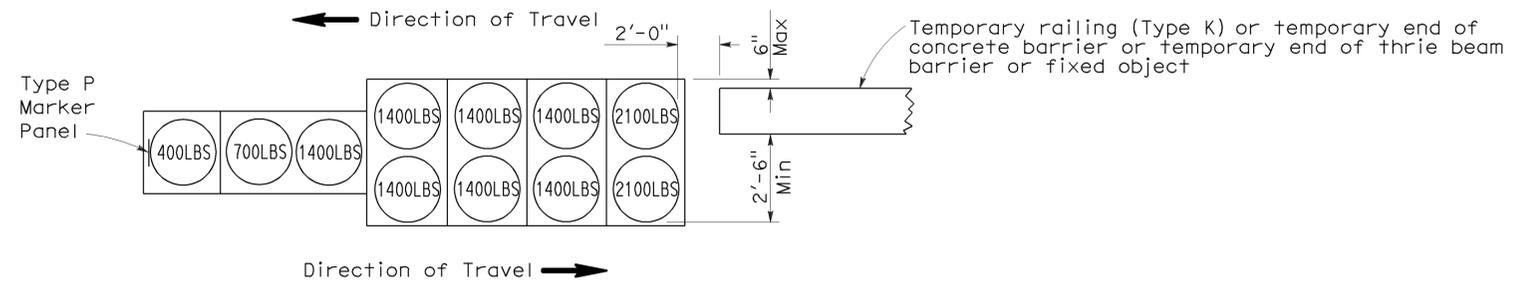
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

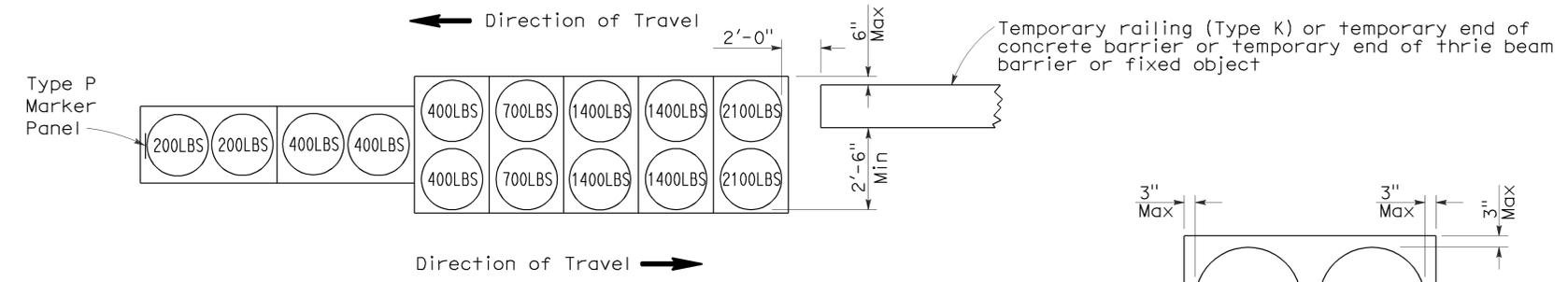
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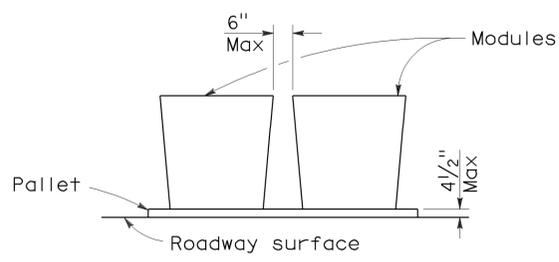
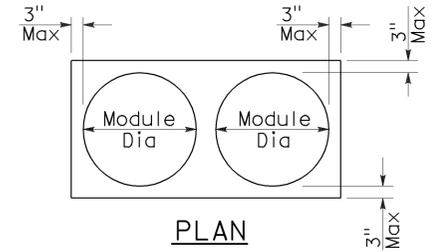
To accompany plans dated 7-2-12



ARRAY 'TB11'
Approach speed less than 45 mph



ARRAY 'TB14'
Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**
NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

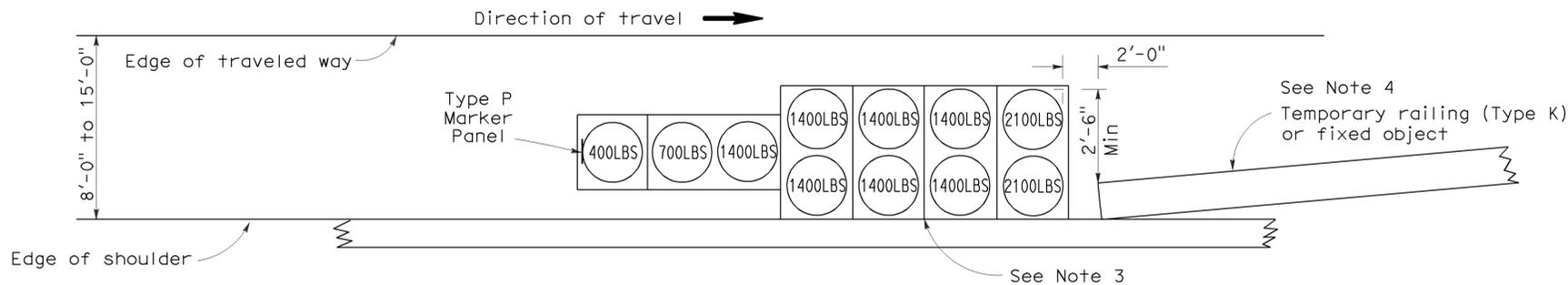
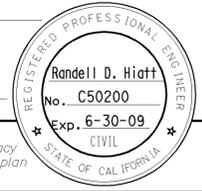
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	53	60

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

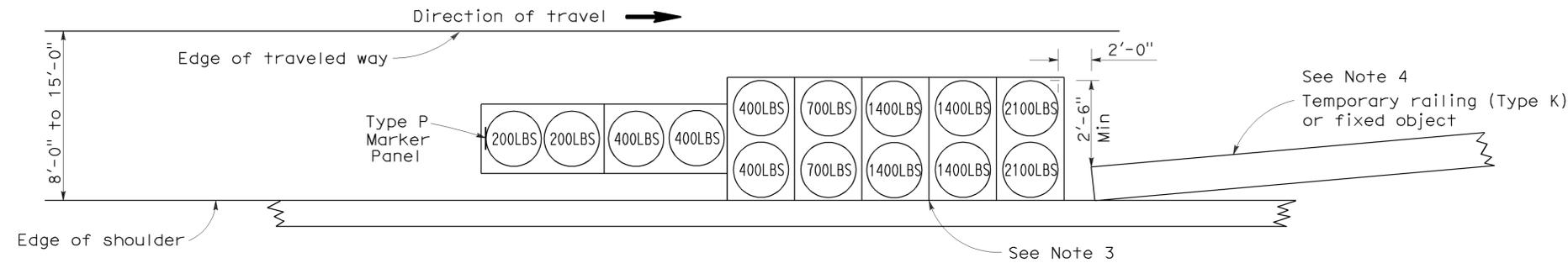
June 6, 2008
PLANS APPROVAL DATE

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To accompany plans dated 7-2-12



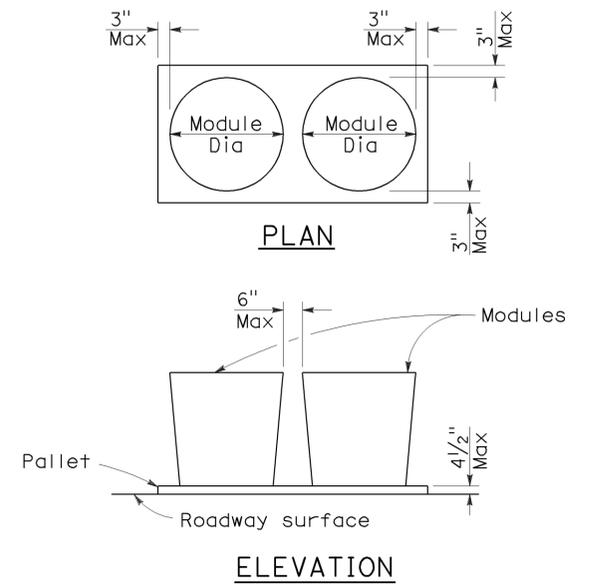
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



ARRAY 'TS14'
Approach speed 45 mph or more
See Note 9

NOTES:

- (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.



CRASH CUSHION PALLET DETAIL
See Note 11

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**
NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

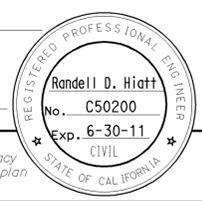
2006 REVISED STANDARD PLAN RSP T2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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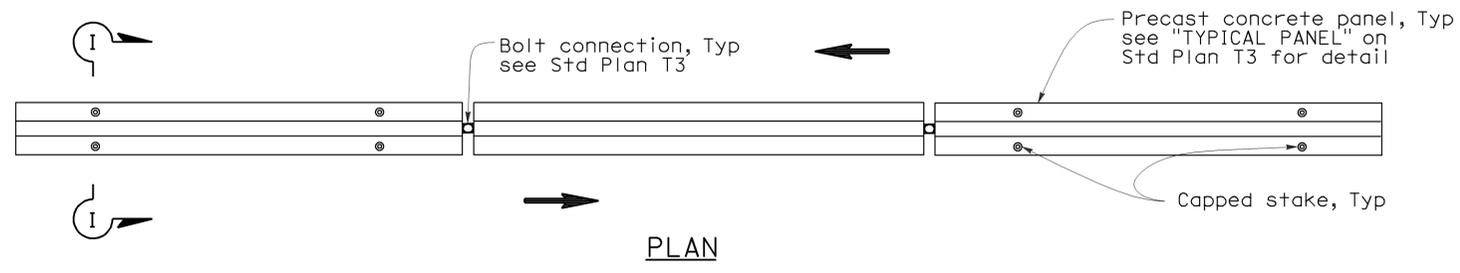
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

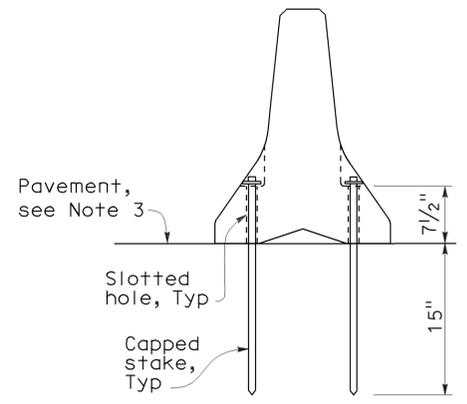
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To accompany plans dated 7-2-12

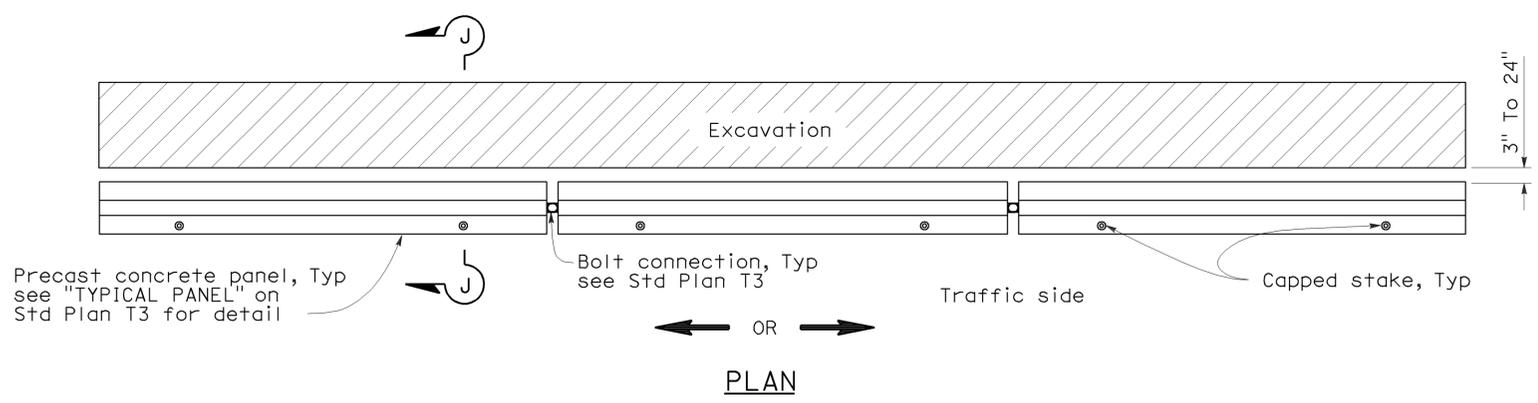


RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1

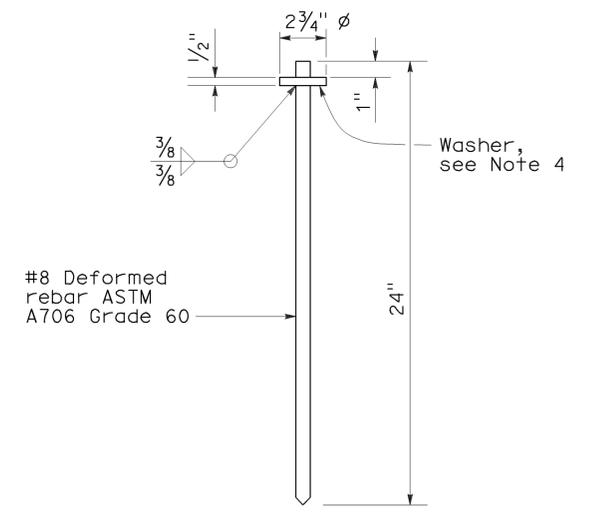
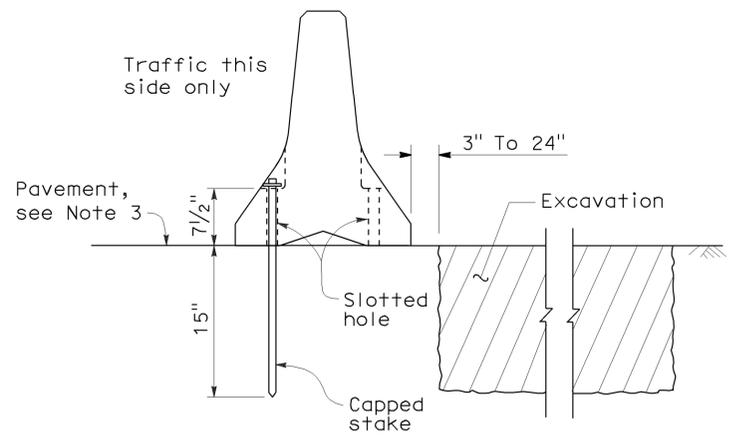


NOTES:

1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by \Rightarrow .



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



CAPPED STAKE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY RAILING
(TYPE K)**

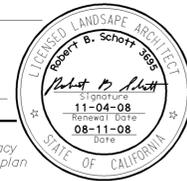
NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

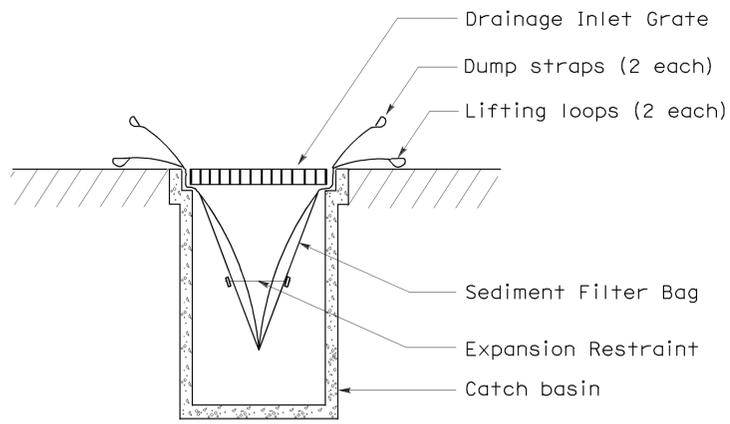
2006 NEW STANDARD PLAN NSP T3A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	56	60

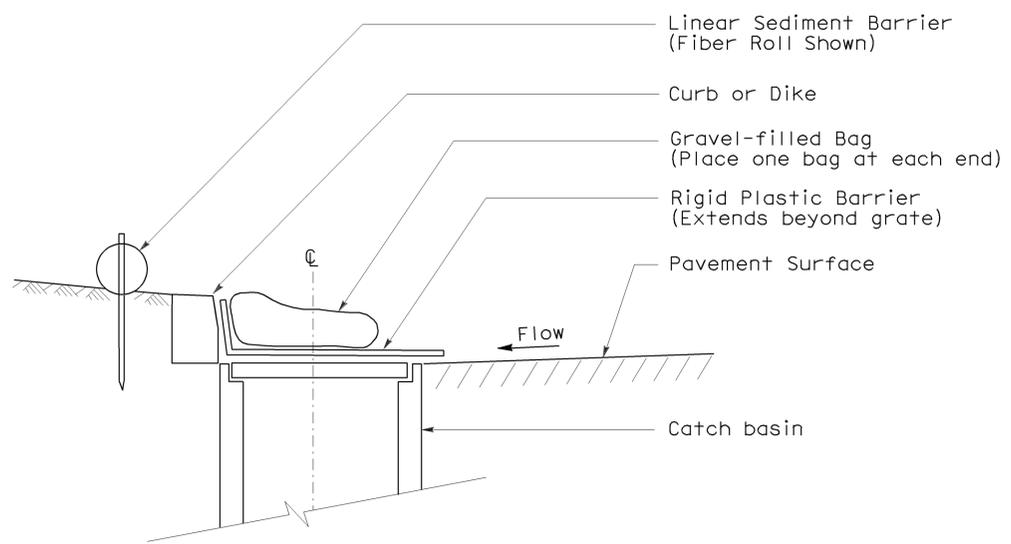
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



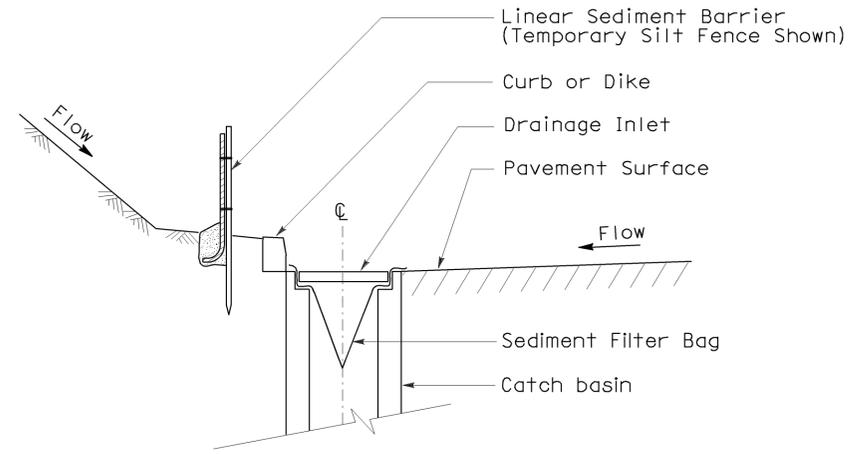
To accompany plans dated 7-2-12



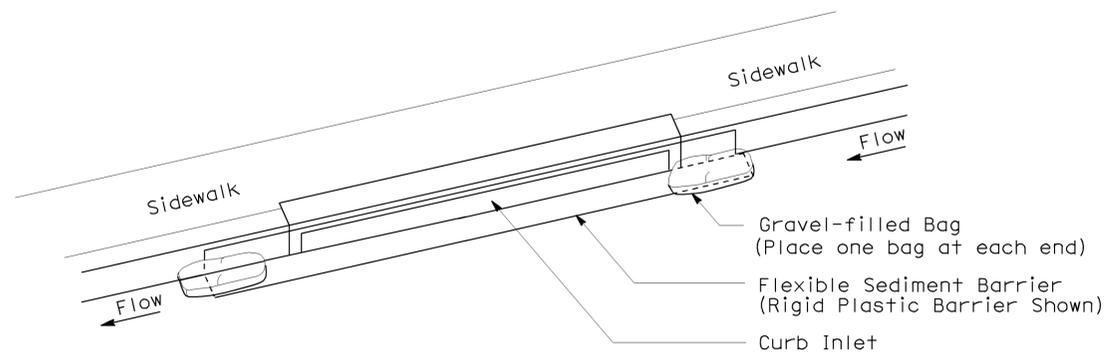
SECTION B-B
SEDIMENT FILTER BAG DETAIL



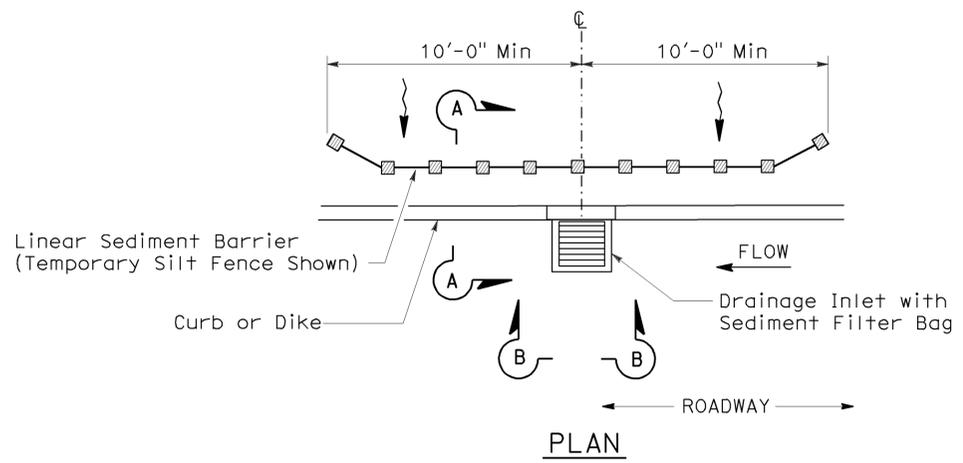
SECTION
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



PERSPECTIVE
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)



PLAN
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T64

ELECTROLIERS

STANDARD TYPES	Symbol	Description
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		NOTES: 1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified. 2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified. 3. Variations noted adjacent to symbol on project plans.
32		
35		
36-20A		

- Electrolier (see project notes or project plans)
- Luminaire on wood pole

STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

PROPOSED	EXISTING	Description
BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4C	mas-4C	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
N	N	Mercury vapor lighting fixture
NC	NC	Neutral (Grounded Conductor)
NO	NO	Normally closed
PB	pb	Normally open
PEC	pec	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL	rl	Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	57	60

REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE

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To accompany plans dated 7-2-12

SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SYMBOLS AND ABBREVIATIONS)**

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A
 DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	58	60

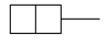
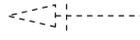
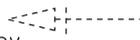
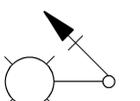
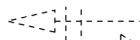
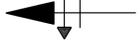
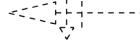
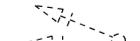
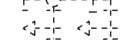
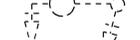
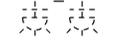
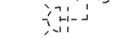
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

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CONDUIT

PROPOSED	EXISTING	
---	---	Lighting Conduit, unless otherwise indicated or noted
---	---	Traffic signal conduit
-C-	-c-	Communication conduit
-T-	-t-	Telephone conduit
-F-	-f-	Fire alarm conduit
-FO-	-fo-	Fiber optic conduit
---	---	Conduit termination 
		Conduit riser in/on structure or service pole

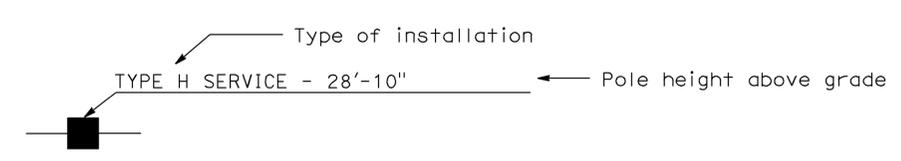
SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" Indicates all non-arrow sections louvered "LG" Indicates louvered green section only "PV" Indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon, Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

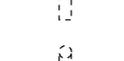
SERVICE EQUIPMENT

PROPOSED	EXISTING	
---OH---	---oh---	Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

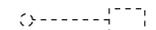
POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SYMBOLS AND ABBREVIATIONS)**
 NO SCALE

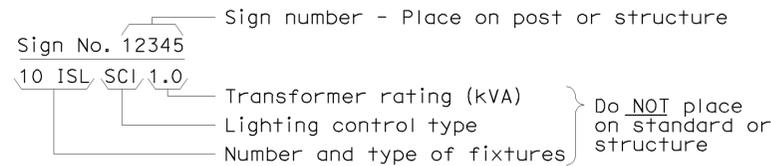
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

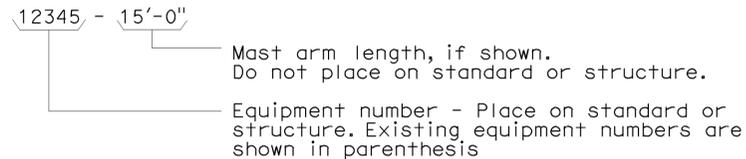
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

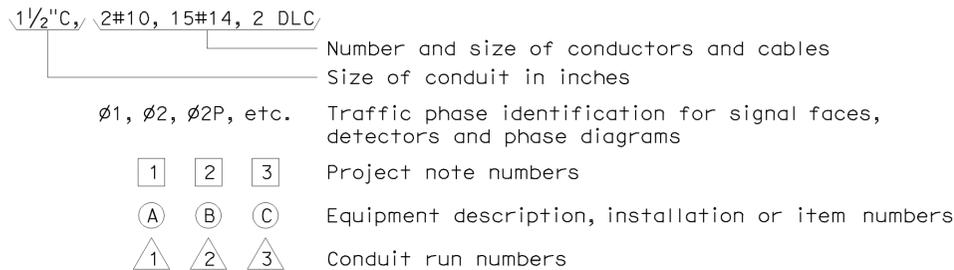
ILLUMINATED SIGN IDENTIFICATION NUMBER:



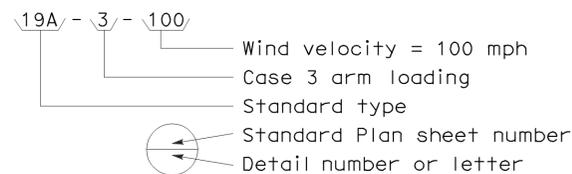
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



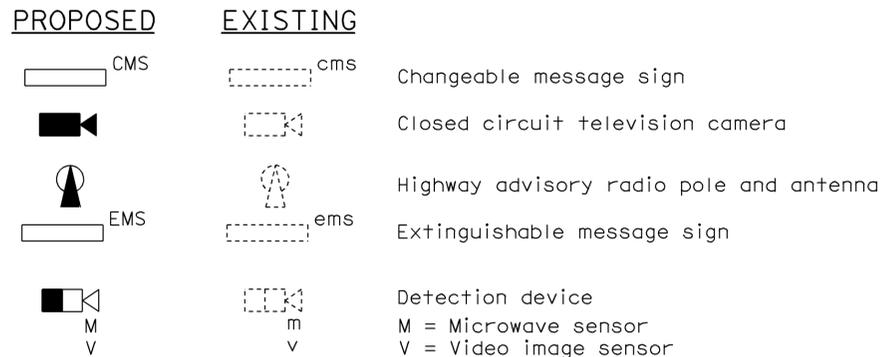
CONDUIT AND CONDUCTOR IDENTIFICATION:



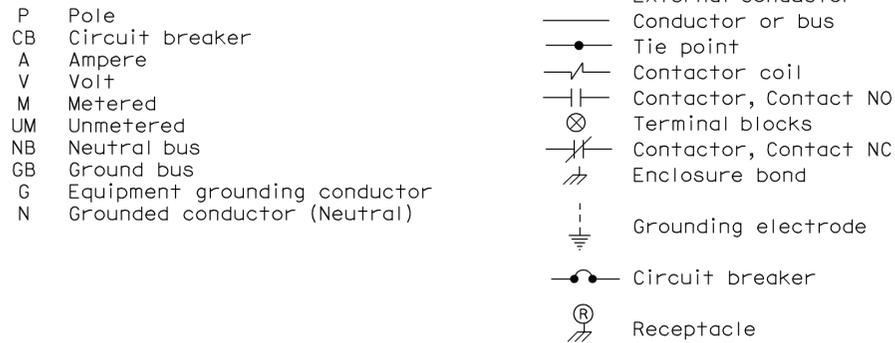
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



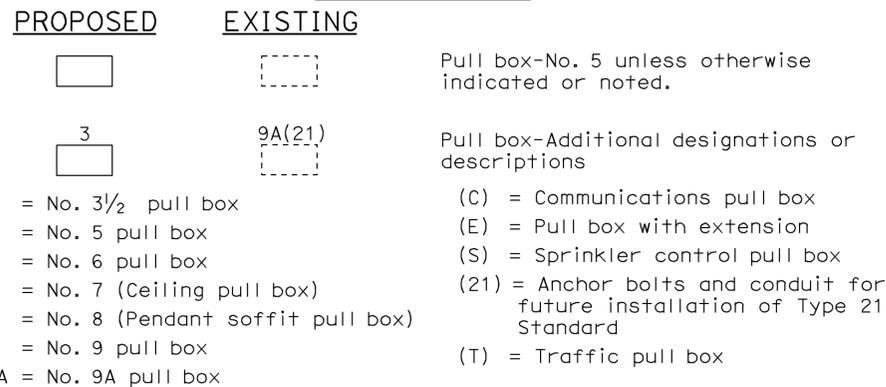
MISCELLANEOUS EQUIPMENT



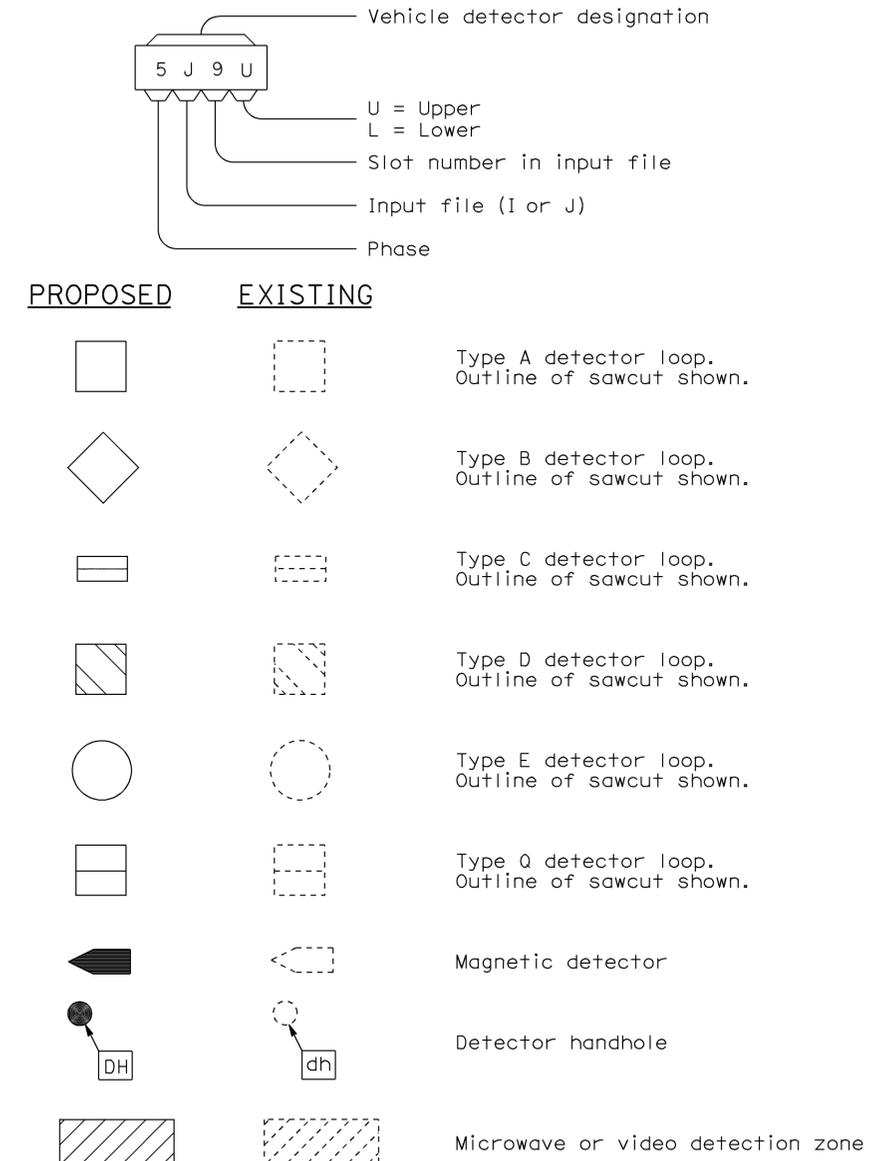
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
 DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	C43.9/C46.4	60	60

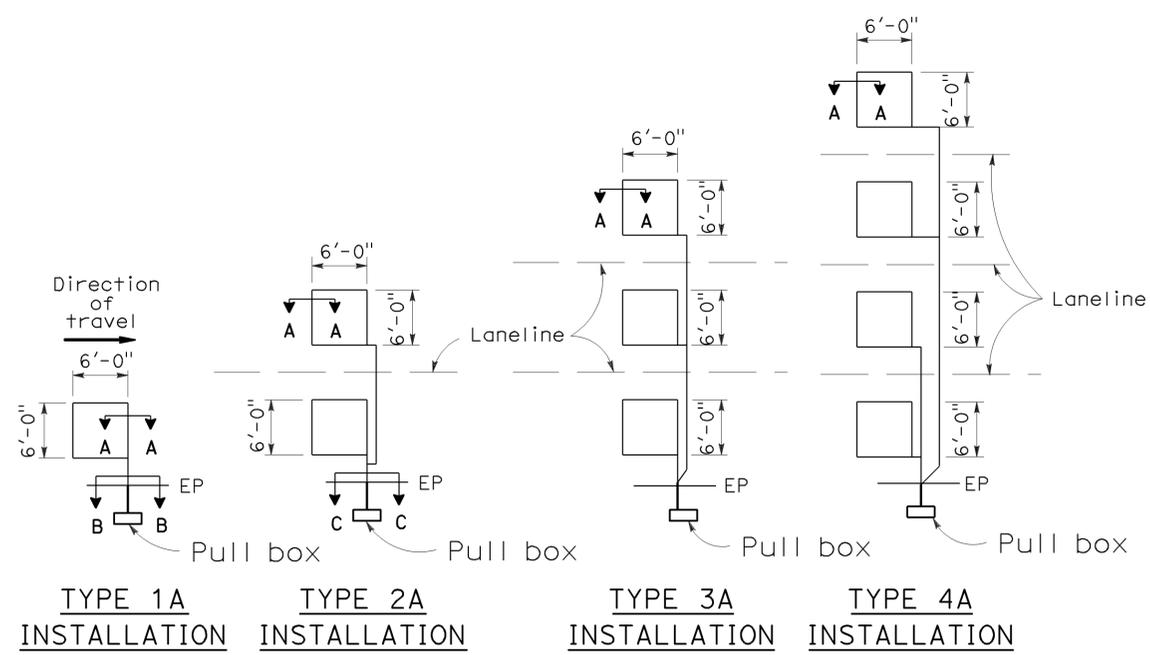
Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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To accompany plans dated 7-2-12

2006 REVISED STANDARD PLAN RSP ES-5A

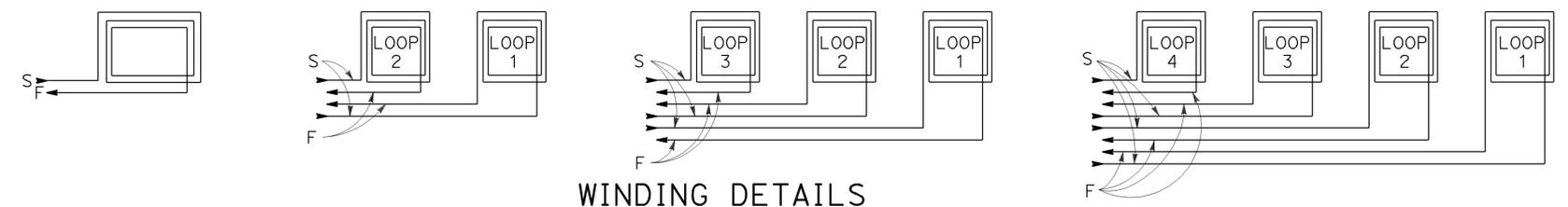
LOOP INSTALLATION PROCEDURE

- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
- Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.



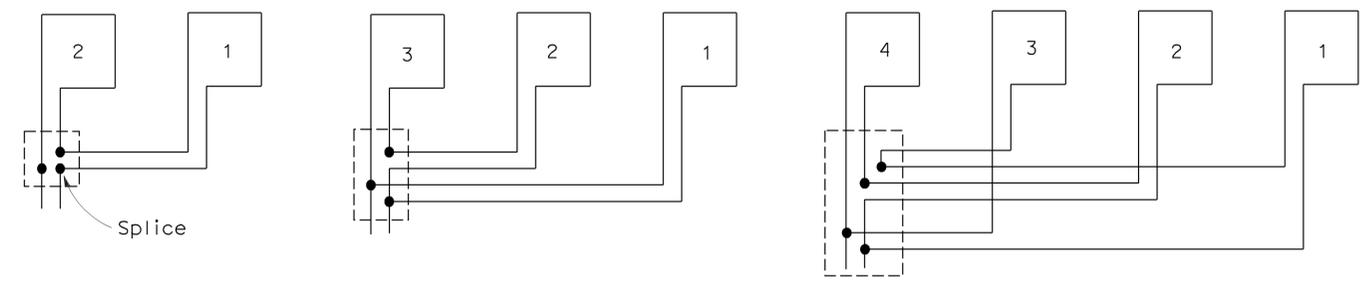
TYPE 1A INSTALLATION TYPE 2A INSTALLATION TYPE 3A INSTALLATION TYPE 4A INSTALLATION
SAWCUT DETAILS

- (Type A loop detector configurations illustrated)
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



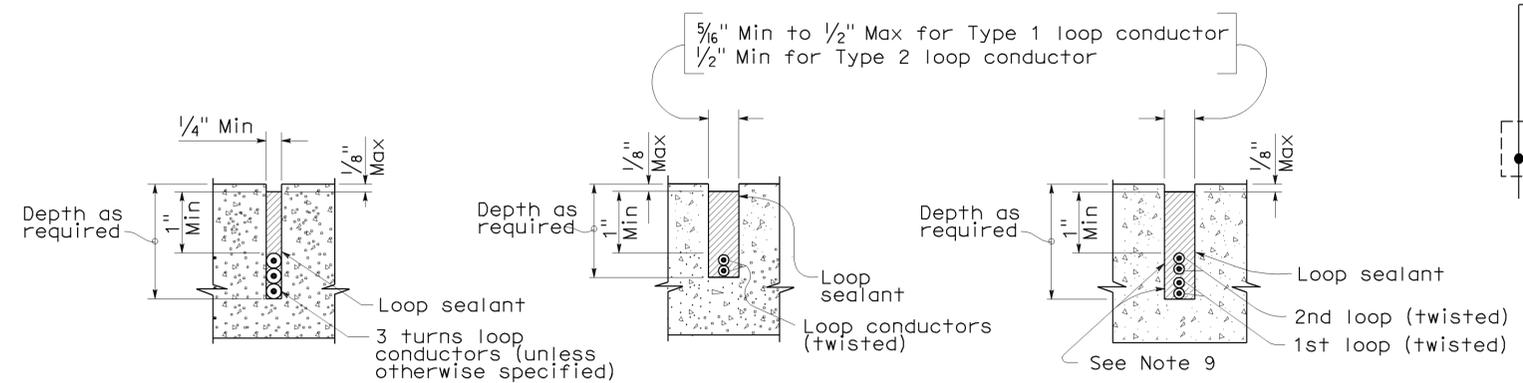
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A SECTION B-B SECTION C-C
SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-5A