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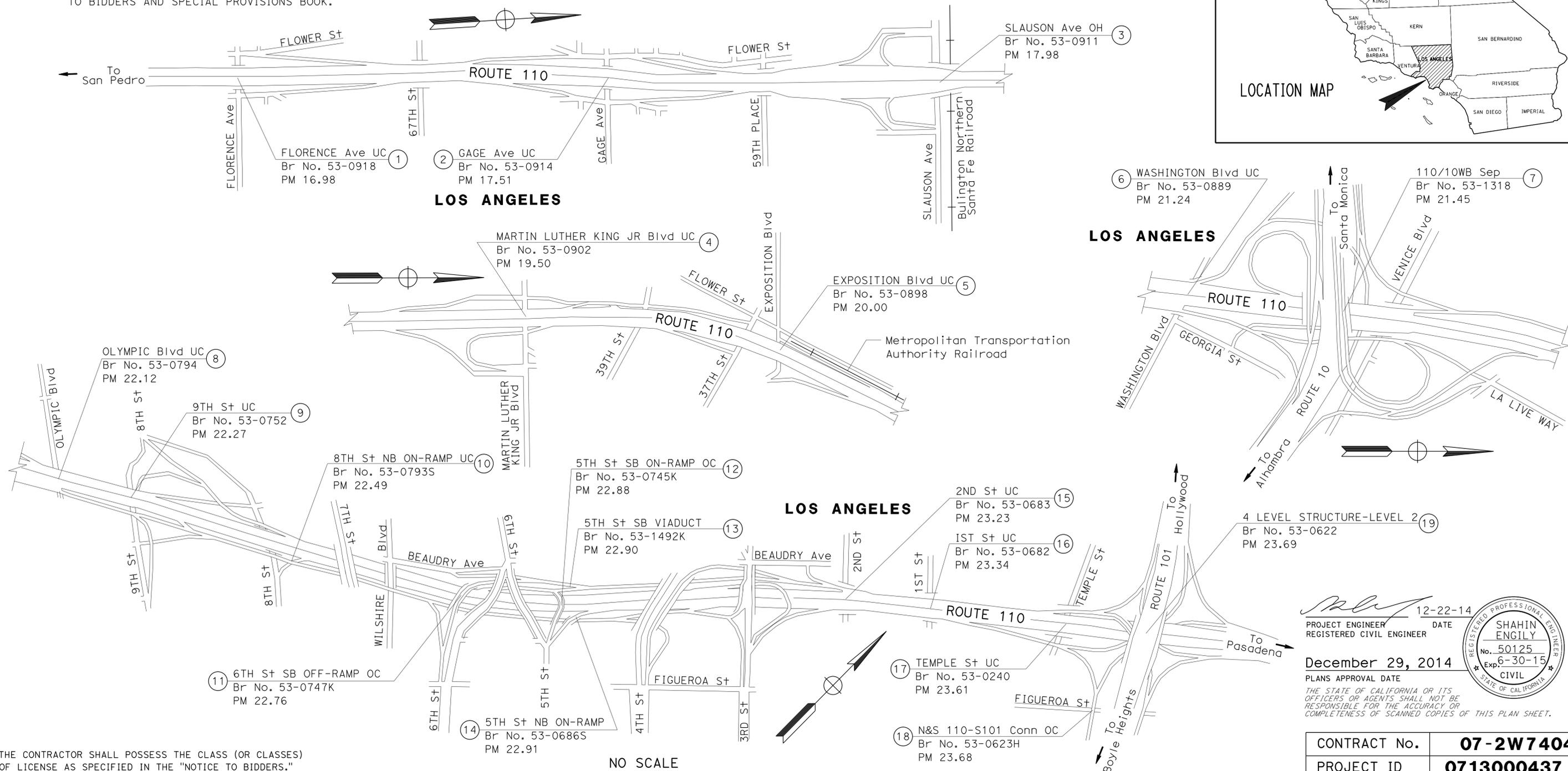
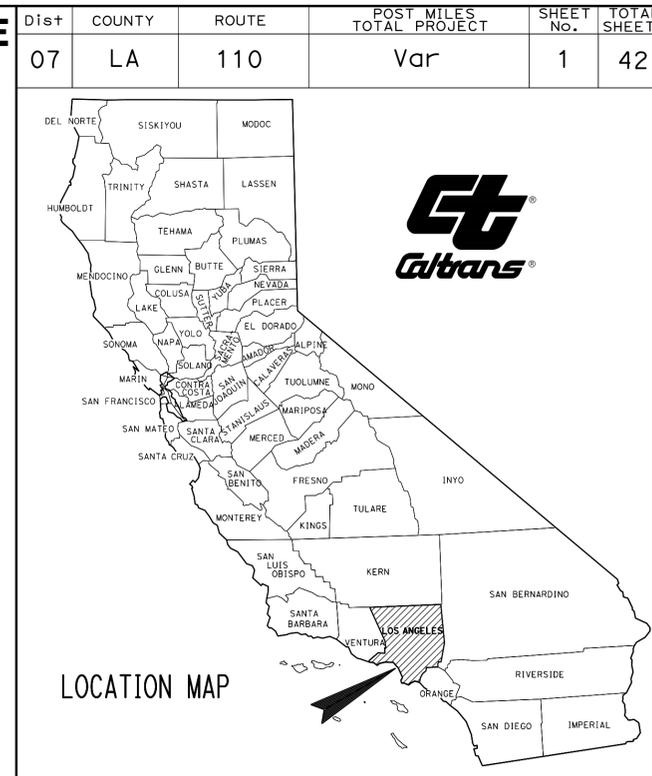
STRUCTURE PLANS

24-42 ROUTE 110

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY
IN LOS ANGELES AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER
DAREK CHMIELEWSKI
 DESIGN MANAGER
PAUL CRISPI

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

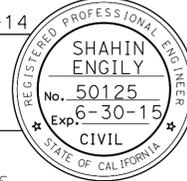
NO SCALE



USERNAME => s122436
 DGN FILE => 72w740ab001.dgn

UNIT 1959 PROJECT NUMBER & PHASE 07130004371

PROJECT ENGINEER
 REGISTERED CIVIL ENGINEER
 DATE 12-22-14
December 29, 2014
 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.



CONTRACT No.	07-2W7404
PROJECT ID	0713000437

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	2	42

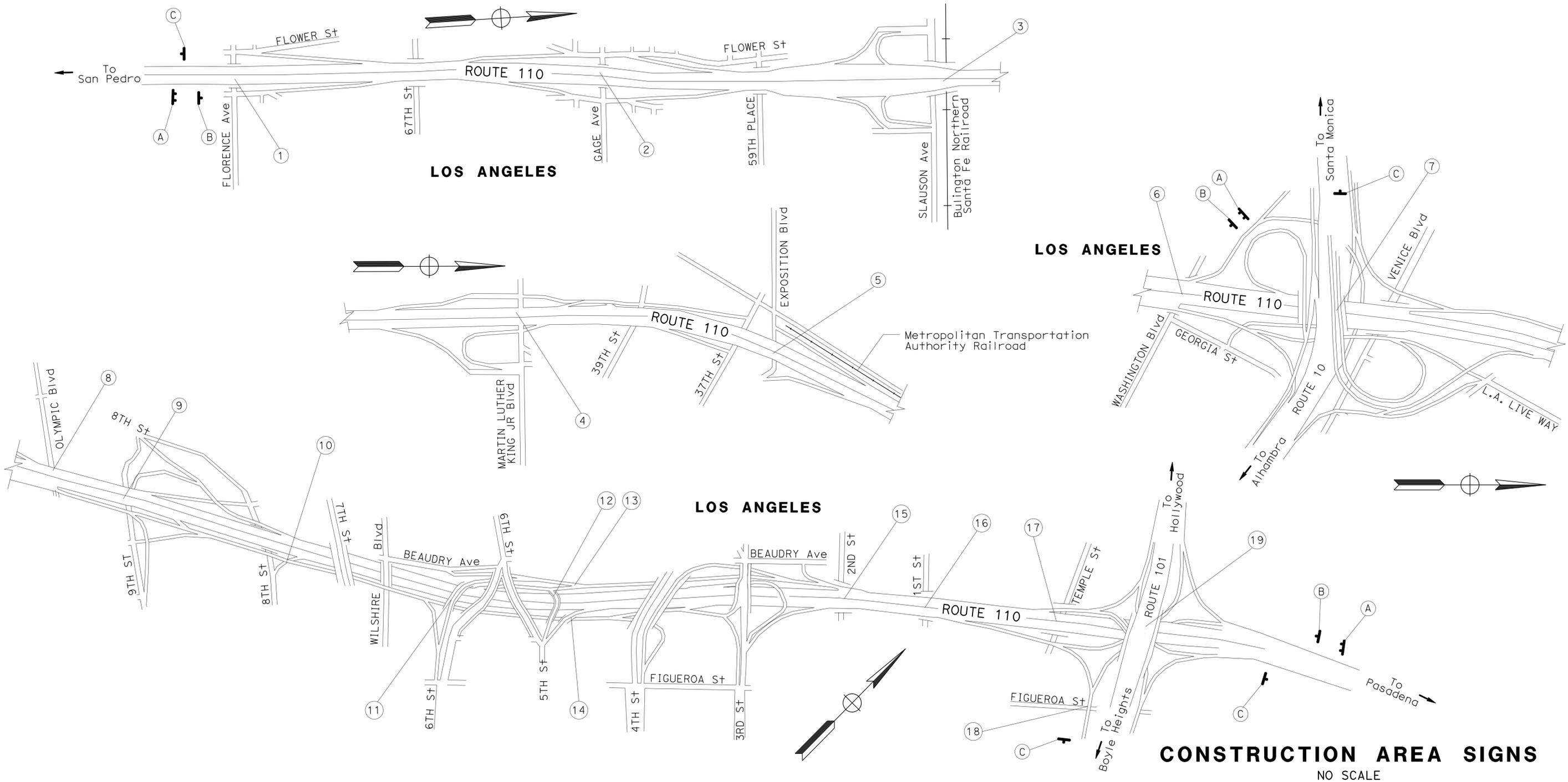
12-22-14
 REGISTERED CIVIL ENGINEER DATE
 12-29-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHIN ENJILI
 No. 50125
 Exp. 6-30-15
 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:
EXACT LOCATION AND POSITION OF SIGNS WILL BE DETERMINED BY THE ENGINEER.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS						
SIGN	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)		C40(CA)	144" x 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" x 6"	3
(B)	W20-1		48" x 48"	ROAD WORK AHEAD	2 - 4" x 6"	3
(C)	G20-2		48" x 24"	END ROAD WORK	1 - 4" x 6"	4



CONSTRUCTION AREA SIGNS
NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: PAUL CRISPI
 CALCULATED/DESIGNED BY: CHECKED BY:
 MARLON SARMIENTO SHAWN ENJILI
 REVISED BY: DATE REVISED:

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

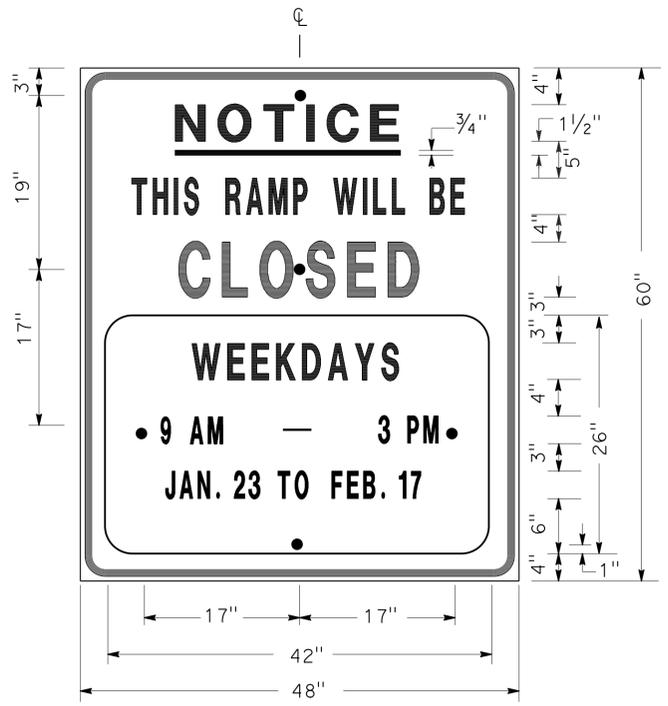
CS-1

LAST REVISION DATE PLOTTED => 14-APR-2015
 12-29-14 TIME PLOTTED => 12:26

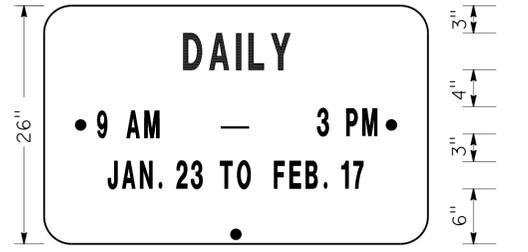
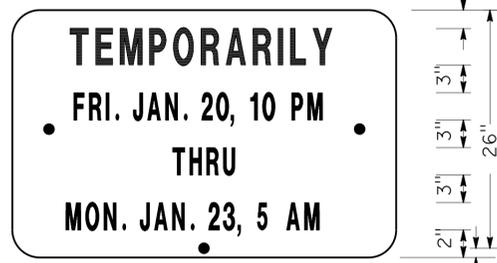
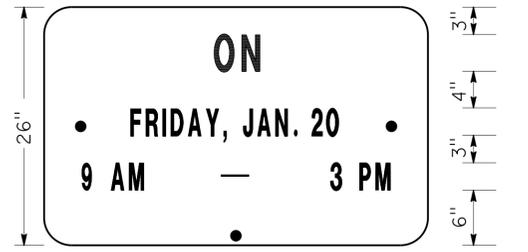
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	3	42

REGISTERED CIVIL ENGINEER: SHANGJIA HORN
 No. 51846
 Exp 6/30/16
 CIVIL
 DATE: 12-18-14
 PLANS APPROVAL DATE: 12-29-14

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SIGN SP-1



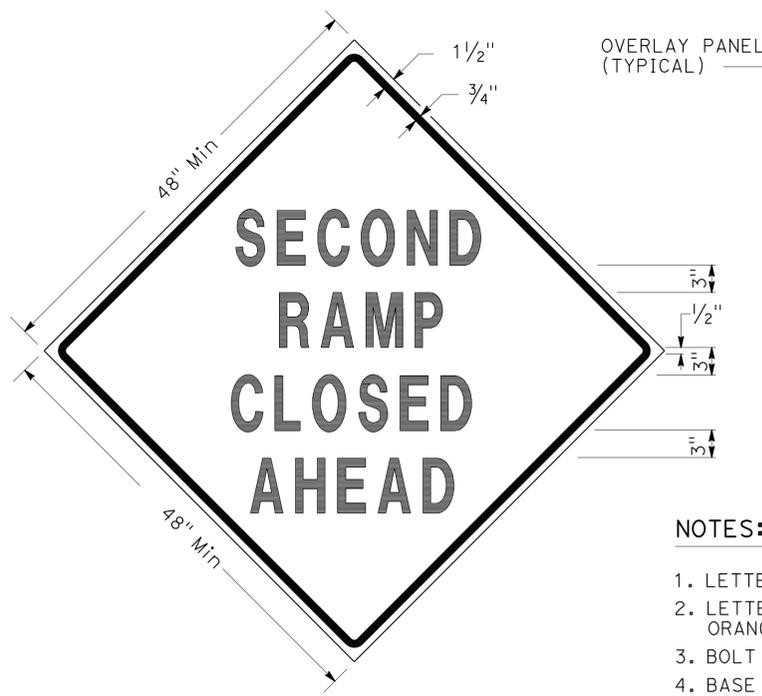
ALTERNATE OVERLAY PANELS (TYPICAL)

- NOTES: SIGN SP-1
- LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
 - BOLT HOLES MUST BE 3/8" DIAMETER.
 - BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
 - SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.

SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			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



SIGN SP-5

- NOTES: SIGNS SP-3 & SP-5
- LETTERS - 6" SERIES D.
 - LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
 - BOLT HOLES MUST BE 3/8" DIAMETER.
 - BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
 - SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.
 - SIGN SP-5 MUST BE USED IF THE OFF-RAMP TO BE CLOSED FOLLOWS A FREEWAY OFF-CONNECTOR.

SPECIAL SIGNS FOR EXIT RAMP CLOSURES



SIGN SP-4

- NOTES: SIGN SP-4
- LETTERS - 6" SERIES C.
 - LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
 - BOLT HOLES MUST BE 3/8" DIAMETER.
 - BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
 - SIGNS MUST BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH REVISED STANDARD PLAN RSP T14.

SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

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

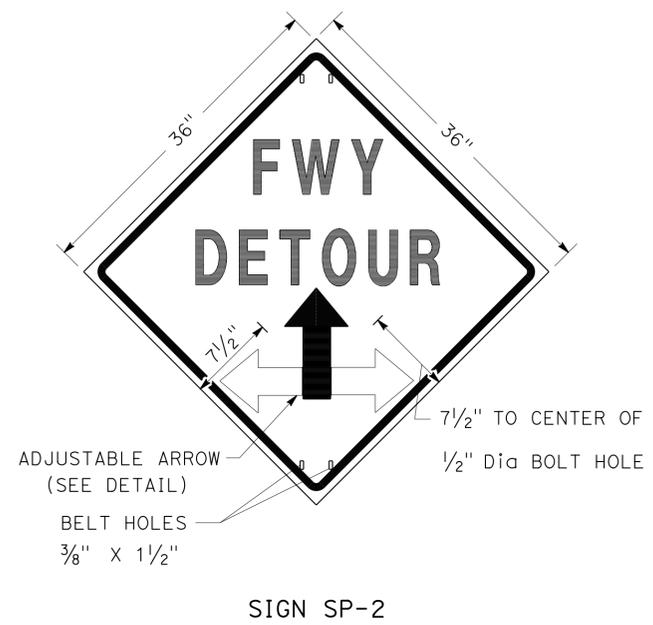
SHEET 1 OF 2
 NO SCALE

THD-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	4	42
			12-18-14	REGISTERED CIVIL ENGINEER DATE	
			12-29-14	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>					

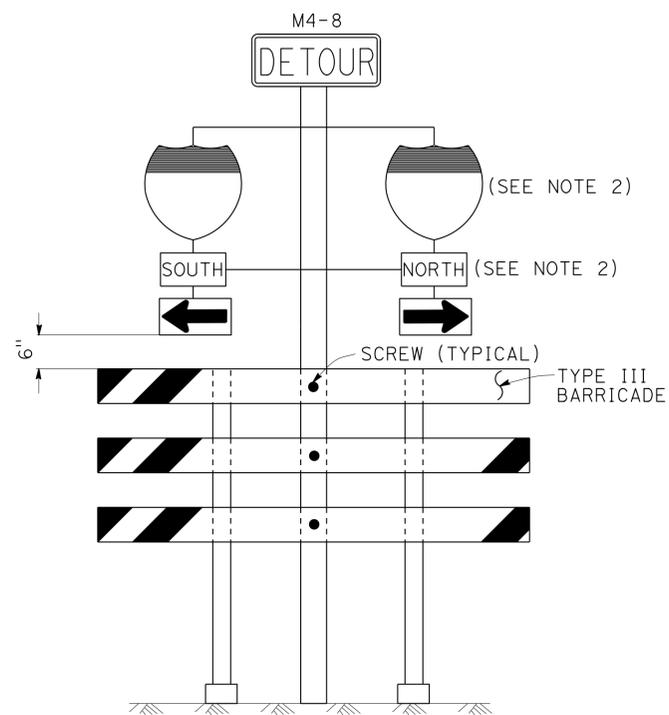
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DTM

FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
 CHECKED BY: JOCELYN C CHIANG
 DESIGNED BY: ALBERT K YU
 REVISIONS: JC 2/14

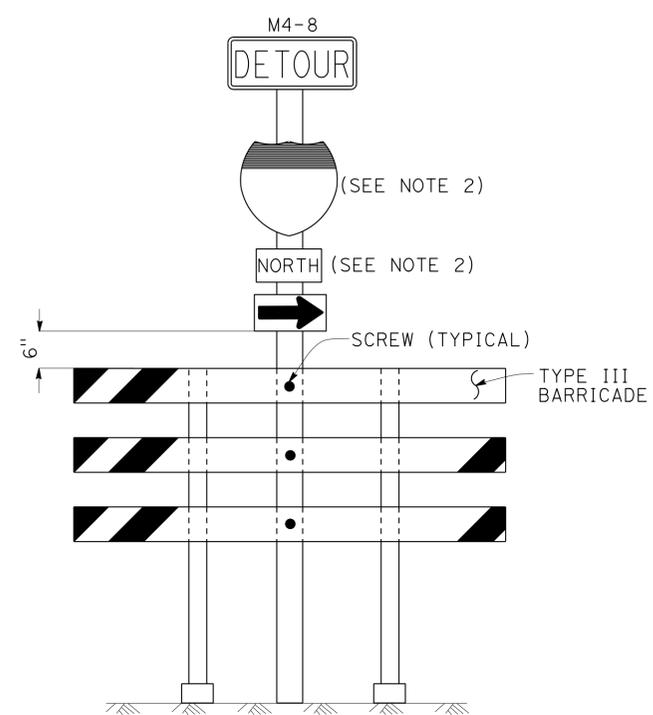


- NOTES:** SIGN SP-2
- LETTERS - 6" SERIES E.
 - LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
 - BASE MATERIAL FOR SIGNS AND ARROWS MUST BE ALUMINUM (MINIMUM 0.06").
 - BELTS (LUGGAGE STRAPS) MUST BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
 - SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND EXCEPT AS OTHERWISE SHOWN ON OTHER TRAFFIC HANDLING DETAILS PLANS.

ABBREVIATION
 (CA) CALIFORNIA CODE



SIGN SP-6 (SEE NOTE 1)

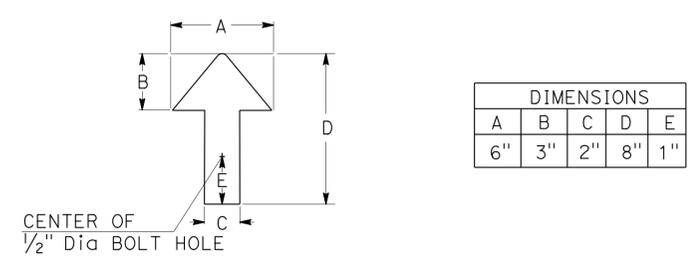


SIGN SP-7 (SEE NOTE 1)

NOTES: SIGNS SP-6 & SP-7

- IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
- USE APPROPRIATE ROUTE MARKER [G26-2(CA), G27-2(CA), G28-2(CA)] AND CARDINAL DIRECTION [NORTH (M3-1), SOUTH (M3-3), EAST (M3-2), WEST (M3-4)].

SPECIAL PORTABLE FREEWAY DETOUR SIGNS



ADJUSTABLE ARROW DETAIL

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR RAMP CLOSURES, DETOUR SIGNS,
AND MISCELLANEOUS DETAILS
SHEET 2 OF 2
 NO SCALE

THD-2

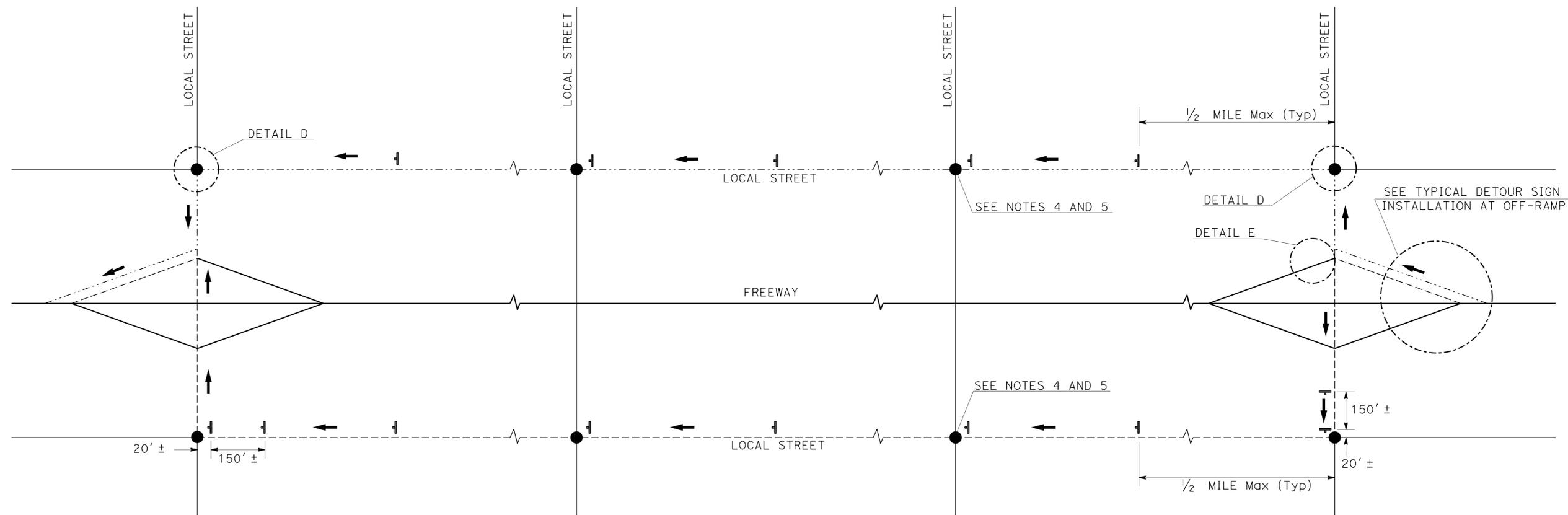
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	5	42
			12-18-14		
			REGISTERED CIVIL ENGINEER	DATE	
			12-29-14	PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

LEGEND

- SIGN SP-2
- AND/OR DESIGNATED DETOUR ROUTE
- DETOUR DIRECTION
- CONTROLLED INTERSECTION

NOTES:

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. SP-2 SIGNS MUST NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
4. SP-2 SIGNS MUST BE POSTED AT EACH CONTROLLED INTERSECTION (EXCEPT AT COMMERCIAL PROPERTY, RESIDENTIAL COMPLEX OR T-INTERSECTION FROM ONE-WAY STREET) ALONG THE DESIGNATED DETOUR ROUTE.
5. UNLESS OTHERWISE SHOWN ON OTHER THD PLANS, WHEN CONTROLLED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE ARE CLOSELY SPACED, PLACE SP-2 SIGNS AT CONTROLLED INTERSECTIONS AT A DISTANCE NOT TO EXCEED 1/4 MILE FROM THE PRECEDING DETOUR SIGN.
6. EXCEPT AS OTHERWISE SHOWN ON OTHER PLANS OR SPECIFIED IN THE SPECIAL PROVISIONS, SP-2 SIGNS MUST BE PLACED AS SHOWN ON THIS PLAN.



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR DETOUR SIGN INSTALLATION
ALONG DESIGNATED DETOUR ROUTE
SHEET 1 OF 2**

NO SCALE

THD-3

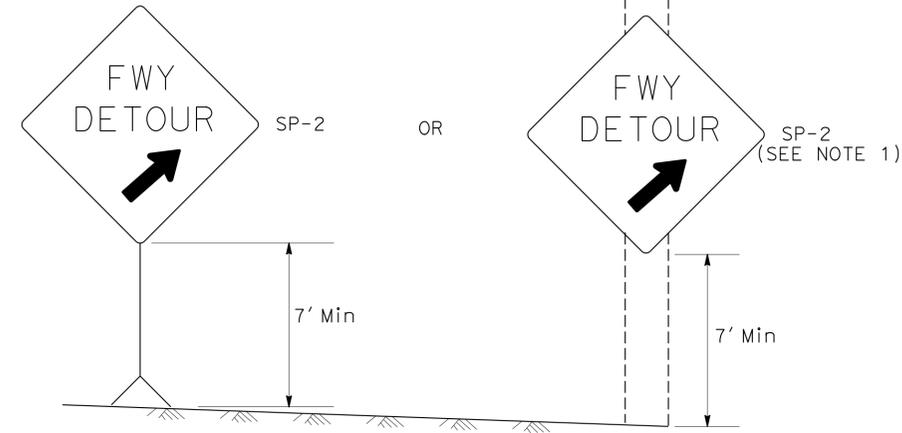
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DT M
 FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
 CALCULATED/DESIGNED BY: ALBERT K YU
 CHECKED BY: JOCELYN C CHIANG
 REVISED BY: JC
 DATE REVISED: 2/14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	6	42

REGISTERED CIVIL ENGINEER	DATE
12-18-14	
PLANS APPROVAL DATE	
12-29-14	

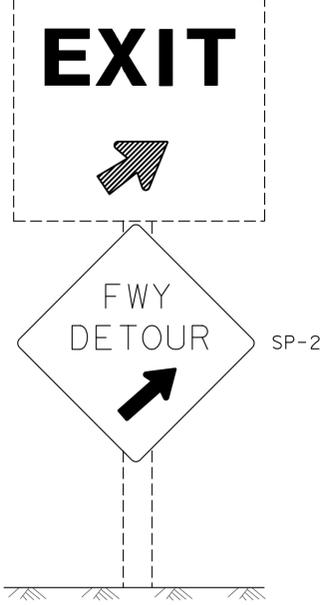
REGISTERED PROFESSIONAL ENGINEER	SHANGJIA HORN
No. 51846	Exp 6/30/16
CIVIL	STATE OF CALIFORNIA

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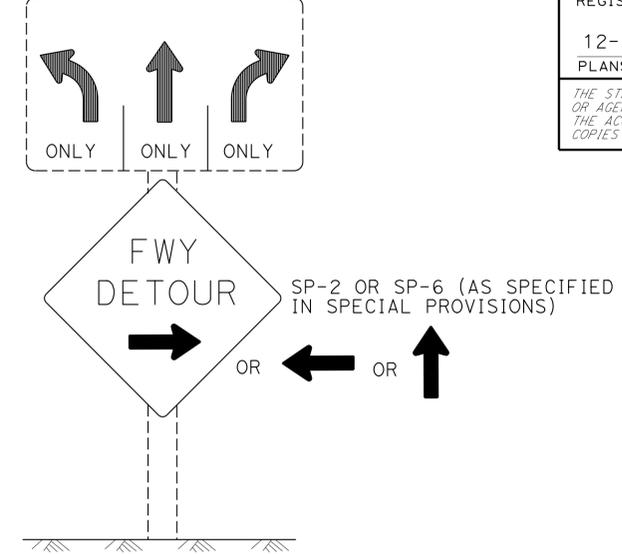
DETAIL A (SEE NOTE 3)

Exist E5-1, G84-2 (CA) OR G84-3 (CA)

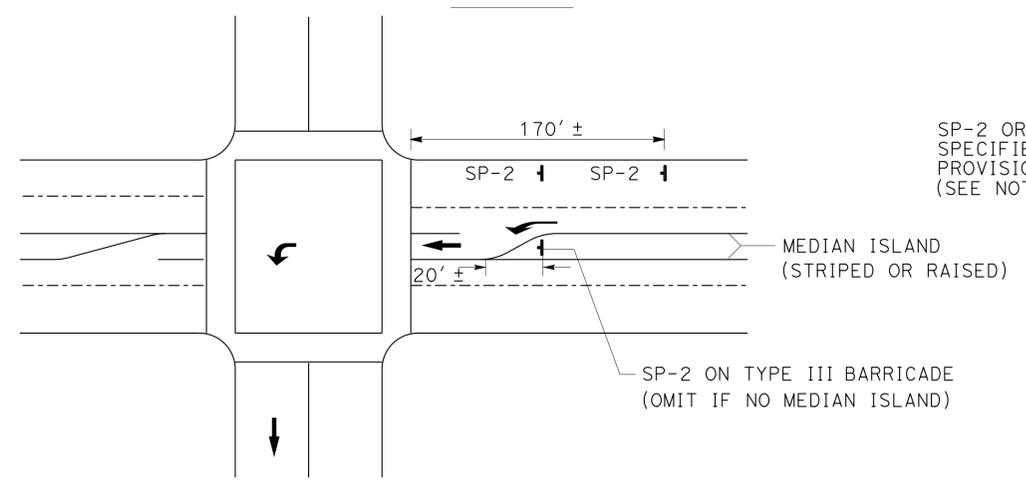


DETAIL B (SEE NOTE 3)

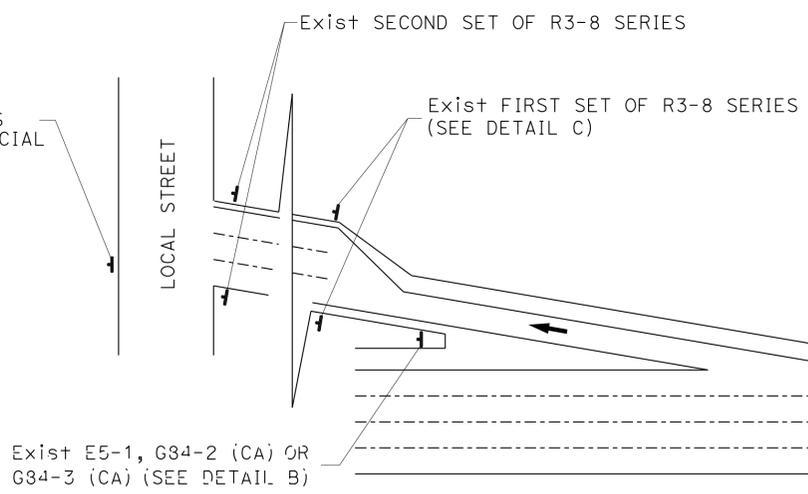
Exist R3-8 SERIES



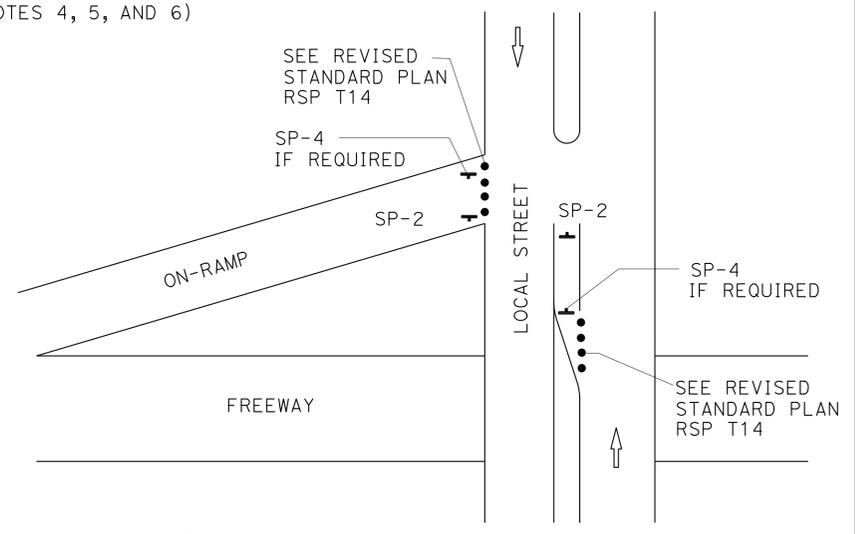
DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL D



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP



DETAIL E

- LEGEND**
- TRAFFIC CONE
 - † TEMPORARY TRAFFIC CONTROL SIGN
 - ➔ DETOUR DIRECTION
 - EXISTING OVERHEAD SIGN

- NOTES:** SIGN SP-2
- SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
 - SP-2 SIGNS MUST NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
 - OMIT DETAILS A AND B FOR FULL FREEWAY CLOSURES.
 - SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-6 SIGN DETAILS.
 - IF R3-8 SERIES SIGNS ARE NOT PRESENT AT THE OFF-RAMP, SP-2 OR SP-6 SIGNS MUST BE FASTENED ONTO EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
 - EXCEPT FOR DETAILS A & B, OMIT SP-2 SIGNS IF RAMP HAS MANDATORY SINGLE MOVE.

- SIGN CODE LEGEND**
- XXYY-Y: FEDERAL SIGN CODE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
 - XXYY-Y (CA): CALIFORNIA SIGN CODE PER CALIFORNIA MUTCD

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR DETOUR SIGN INSTALLATION
ALONG DESIGNATED DETOUR ROUTE
SHEET 2 OF 2**

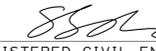
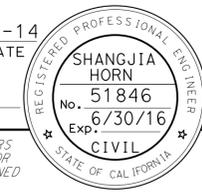
NO SCALE
THD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
Caltrans

ALBERT K YU
JOCELYN C CHIANG
REVISOR
DATE
JC
2/14

SAM ESOUENAZI
FUNCTIONAL SUPERVISOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	7	42

 12-18-14 REGISTERED CIVIL ENGINEER DATE		
12-29-14 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>		

NOTES:

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

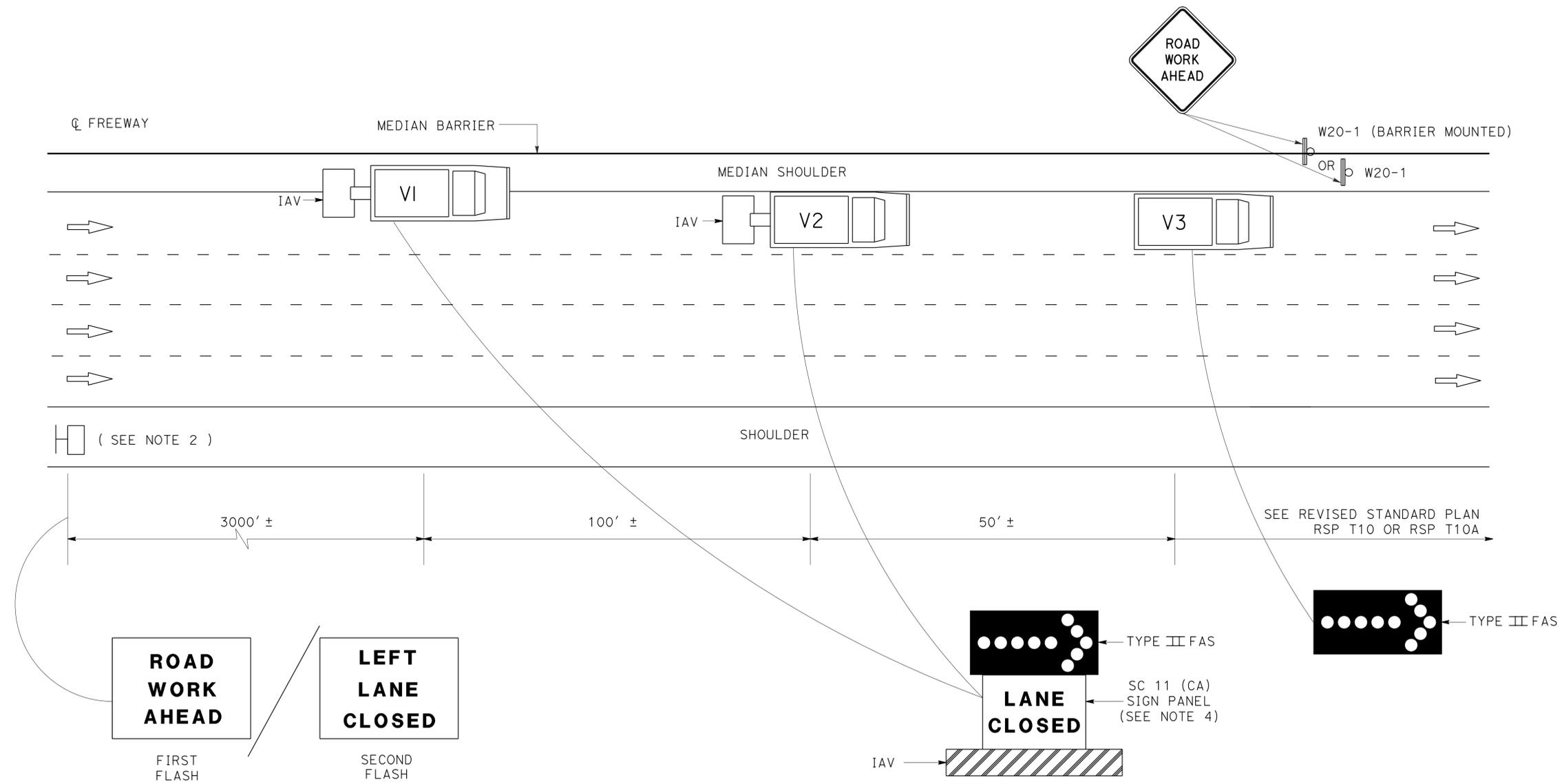
LEGEND

- V1, V2 SHADOW VEHICLES
- V3 WORK/APPLICATION VEHICLE
-  PCMS
-  TEMPORARY TRAFFIC CONTROL SIGN
-  FLASHING ARROW SIGN (FAS)

ABBREVIATIONS

- IAV IMPACT ATTENUATOR VEHICLE
- (CA) CALIFORNIA CODE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DTMM
 FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
 CHECKED BY: JOCELYN C CHIANG
 DESIGNED BY: ALBERT K YU
 REVISIONS: JC 2/14



PCMS OR TRUCK MOUNTED CMS MESSAGE

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR MEDIAN SHOULDERS LESS THAN 8 FEET**

NO SCALE

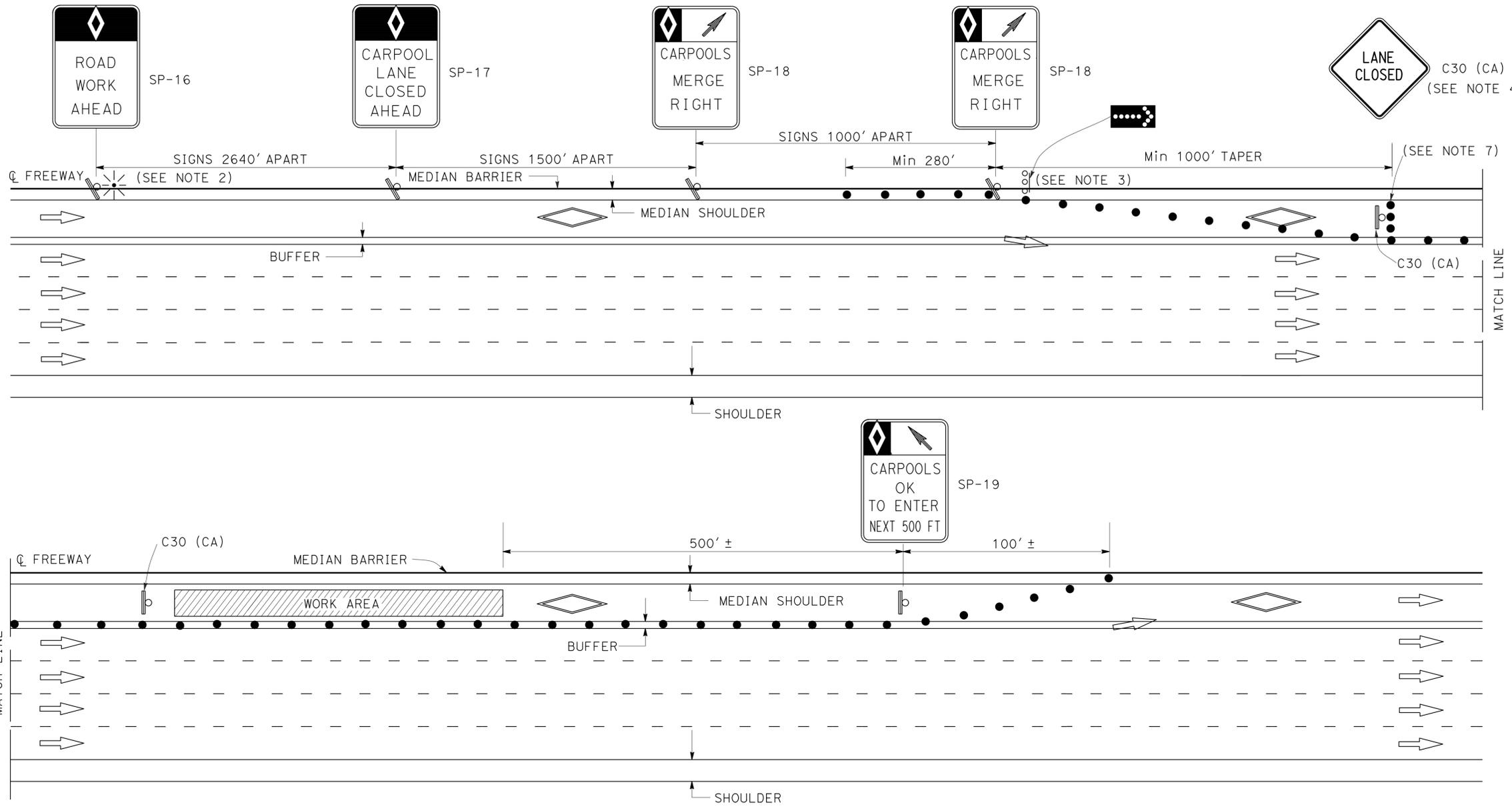
THD-5

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	9	42

REGISTERED CIVIL ENGINEER	DATE
12-18-14	
PLANS APPROVAL DATE	
12-29-14	

REGISTERED PROFESSIONAL ENGINEER	No.	Exp.
SHANGJIA HORN	51846	6/30/16
CIVIL		

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- LEGEND**
- TRAFFIC CONE
 - ☼ PORTABLE FLASHING BEACON
 - ⏏ TEMPORARY TRAFFIC CONTROL SIGN
 - ⦿ FLASHING ARROW SIGN (FAS)
 - ⦿ FAS SUPPORT OR TRAILER

ABBREVIATIONS

(CA) CALIFORNIA CODE

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"

NOTES: FOR CASE I AND CASE II

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

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR HIGH OCCUPANCY VEHICLE LANES
AT NON-INGRESS/EGRESS AREAS
CASE I
NO SCALE**

THD-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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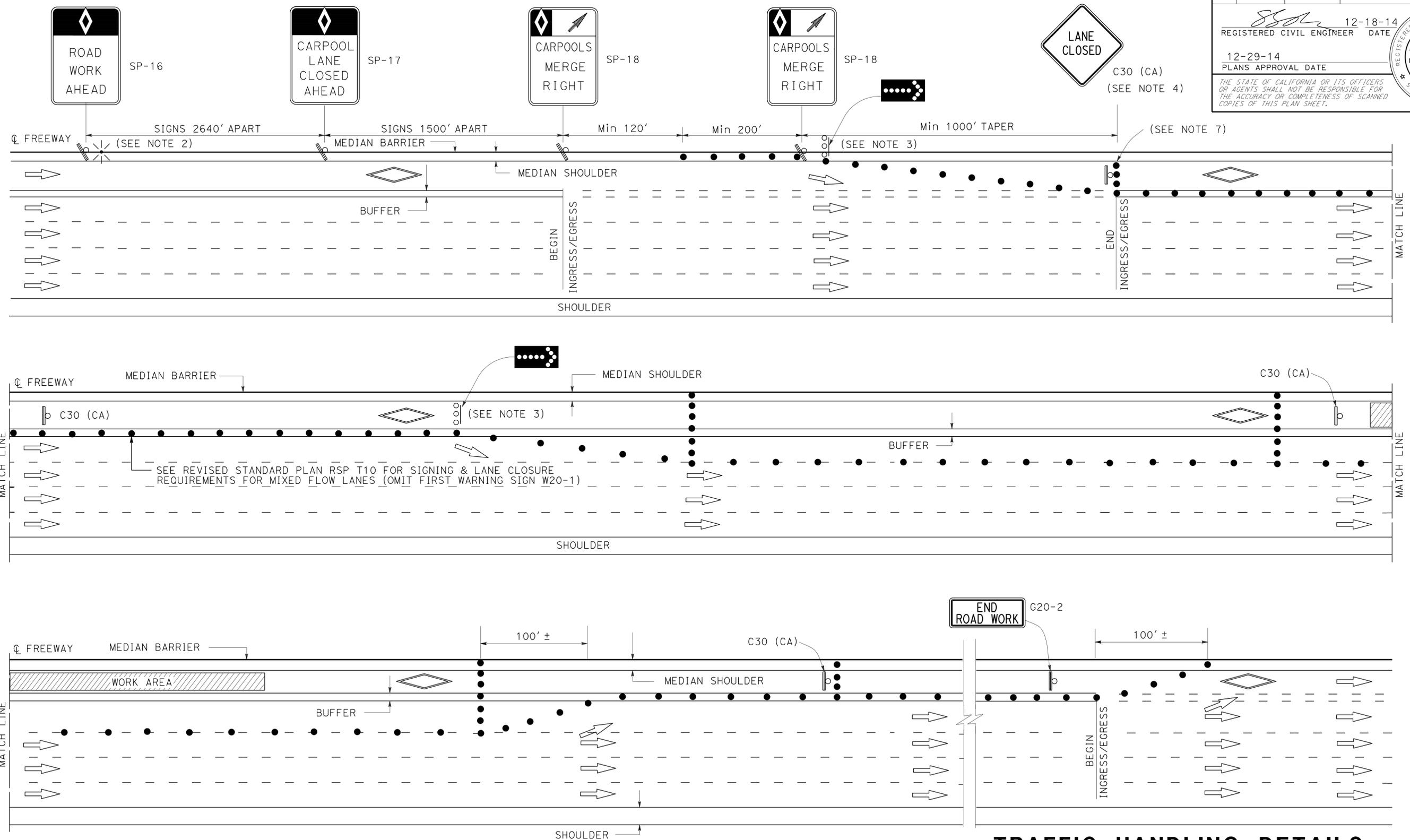
ALBERT K YU
JOCELYN C CHIANG
SAM ESOUENAZI

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	10	42

12-18-14
 REGISTERED CIVIL ENGINEER DATE
 12-29-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 SHANGJIA HORN
 No. 51846
 Exp. 6/30/16
 CIVIL
 STATE OF CALIFORNIA

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- NOTES:**
- SEE CASE I FOR NOTES, LEGEND, SIGN PANEL, AND ABBREVIATIONS FOR THIS SHEET.
 - CLOSURES OF ONE MIXED FLOW TRAFFIC LANE ADJACENT TO HOV LANE SHOWN ON THIS SHEET. MULTIPLE MIXED FLOW LANE CLOSURES ARE SIMILAR.

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR HIGH OCCUPANCY
VEHICLE LANES AND ADJACENT FREEWAY LANES
BETWEEN INGRESS/EGRESS AREAS
CASE II
 NO SCALE

THD-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DT M
 FUNCTIONAL SUPERVISOR
 SAM ESOUENAZI
 CHECKED BY
 JOCELYN C CHIANG
 REVISOR BY
 ALBERT K YU
 DATE REVISOR
 2/14
 JC

LAST REVISION DATE PLOTTED => 14-APR-2015
 12-29-14 TIME PLOTTED => 12:26

NOTES:

- EXACT LOCATION OF PCMS WILL BE DETERMINED BY THE ENGINEER TO PROVIDE ADEQUATE VISIBILITY.
- PCMS MESSAGE DISPLAYED WILL BE APPROVED BY THE ENGINEER.
- PCMS MESSAGE MUST BE CHANGED AT THE BEGINNING OF CURE PERIOD TO REFLECT NUMBER OF CLOSED LANES.

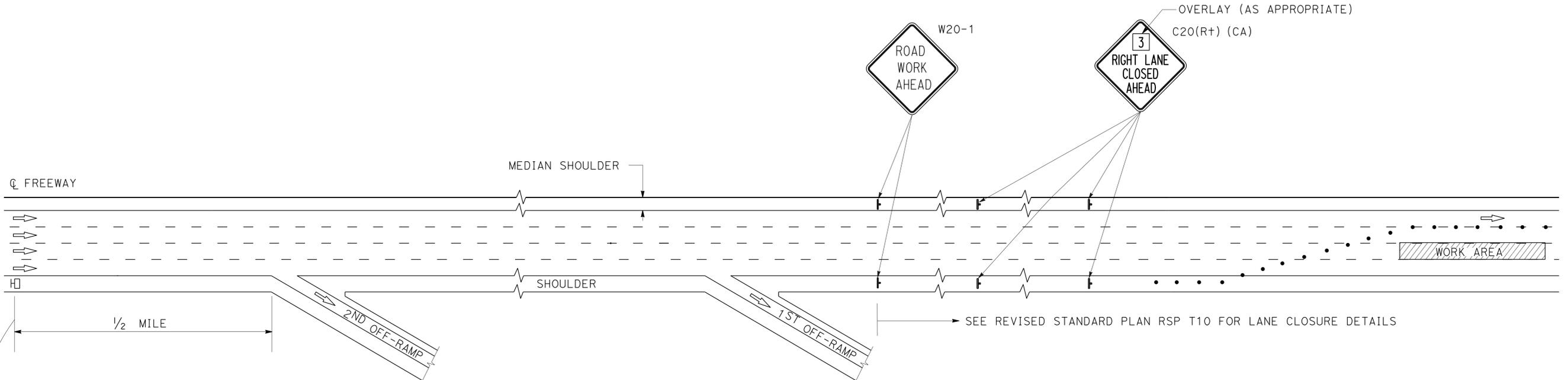
ABBREVIATIONS

(CA) CALIFORNIA CODE

LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- PCMS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans®
 DTM
 FUNCTIONAL SUPERVISOR: SAM ESOUENAZI
 CHECKED BY: JOCELYN C CHIANG
 REVISIONS: JC 2/14



FIRST FLASH	X (NO OF LANES) RIGHT / LEFT	← 1ST LINE (TYPICAL)
	LANES	← 2ND LINE (TYPICAL)
	CLOSED	← 3RD LINE (TYPICAL)
SECOND FLASH	A ST	← LIMIT OF CLOSURE (TYPICAL)
	TO B DR	← LIMIT OF CLOSURE (TYPICAL)

WORDING FORMAT FOR PCMS MESSAGE

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR CONCRETE PAVEMENT AND
APPROACH SLAB REPLACEMENT**

NO SCALE

THD-9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	13	42

12-22-14
 REGISTERED CIVIL ENGINEER DATE

12-29-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 SHAHIN ENGLY
 No. 50125
 Exp. 6-30-15
 CIVIL

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Loc No. #	DESCRIPTION	REMOVAL QUANTITIES				PAVEMENT MARKINGS				
		REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	REMOVE THERMOPLASTIC TRAFFIC STRIPE	REMOVE THERMOPLASTIC PAVEMENT MARKING	REMOVE PAVEMENT MARKER	DIAMOND	DIAGONALS SYMBOL	LANE	CAR	POOL
		LF	LF	SQFT	EA	SQFT	SQFT	SQFT	SQFT	SQFT
1	FLORENCE Ave UC	220	880	72	235			72		
2	GAGE Ave UC	720	630	46	354					46
5	EXPOSITION UC	1,050	1,610	73	243	11	45		17	
6	WASHINGTON Blvd UC	230	345	75	56		75			
7	110/10WB Sep	225	375	100	46		100			
8	OLYMPIC Blvd UC	375	843		114					
10	8TH St NB ON-RAMP UC	115	181		27					
11	6TH St SB OFF-RAMP OC	240	240	70	11		70			
12	5TH St SB ON-RAMP OC	280	280	105	13		105			
13	5TH St SB VIADUCT		830		36					
15	2ND St UC	200	620	115	109		115			
16	1ST St UC	220	750		143					
17	TEMPLE St UC	190	285	22	47					
18	N&S 110 - S 101 Conn OC	255	474		54	22				
19	4 LEVEL STRUCTURE - LEVEL 2	840	1,260		196					
	SUB - TOTAL	5,160	9,602	678	1,682	33	510	72	17	46
	TOTAL	5,160	9,602	678	1,682			678		

PAVEMENT DELINEATION QUANTITIES
PDQ-2

	M	
Maint	MAINTENANCE	
Max	MAXIMUM	
MB	METAL BEAM	
MBB	METAL BEAM BARRIER	
MBGR	METAL BEAM GUARD RAILING	
Med	MEDIAN	
MGS	MIDWEST GUARDRAIL SYSTEM	
MH	MANHOLE	
Min	MINIMUM	
Misc	MISCELLANEOUS	
Misc I & S	MISCELLANEOUS IRON AND STEEL	
Mkr	MARKER	
Mod	MODIFIED, MODIFY	
Mon	MONUMENT	
MP	METAL PLATE	
MPGR	METAL PLATE GUARD RAILING	
MR	MOVEMENT RATING	
MSE	MECHANICALLY STABILIZED EMBANKMENT	
Mt	MOUNTAIN, MOUNT	
MtI	MATERIAL	
MVP	MAINTENANCE VEHICLE PULLOUT	
	N	
N	NORTH	
NB	NORTHBOUND	
No.	NUMBER (MUST HAVE PERIOD)	
Nos.	NUMBERS (MUST HAVE PERIOD)	
NPS	NOMINAL PIPE SIZE	
NS	NEAR SIDE	
NSP	NEW STANDARD PLAN	
NTS	NOT TO SCALE	
	O	
Obir	OBLITERATE	
OC	OVERCROSSING	
OD	OUTSIDE DIAMETER	
OF	OUTSIDE FACE	
OG	ORIGINAL GROUND	
OGAC	OPEN GRADED ASPHALT CONCRETE	
OGFC	OPEN GRADED FRICTION COURSE	
OH	OVERHEAD	
OHWM	ORDINARY HIGH WATER MARK	
O-O	OUT TO OUT	
Opp	OPPOSITE	
OSD	OVERSIDE DRAIN	
	P	
p	PAGE	
PAP	PERFORATED ALUMINUM PIPE	
PB	PULL BOX	
PC	POINT OF CURVATURE, PRECAST	
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE	
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN	
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE	
PCVC	POINT OF COMPOUND VERTICAL CURVE	
PEC	PERMIT TO ENTER AND CONSTRUCT	
Ped	PEDESTRIAN	
Ped OC	PEDESTRIAN OVERCROSSING	
Ped UC	PEDESTRIAN UNDERCROSSING	
Perm MtI	PERMEABLE MATERIAL	

	P continued	
PG	PROFILE GRADE	
PI	POINT OF INTERSECTION	
PJP	PARTIAL JOINT PENETRATION	
Pkwy	PARKWAY	
P, PL	PLATE	
P/L	PROPERTY LINE	
PM	POST MILE, TIME FROM NOON TO MIDNIGHT	
PN	PAVING NOTCH	
POC	POINT OF HORIZONTAL CURVE	
POT	POINT OF TANGENT	
POVC	POINT OF VERTICAL CURVE	
PP	PIPE PILE, PLASTIC PIPE, POWER POLE	
PPL	PREFORMED PERMEABLE LINER	
PPP	PERFORATED PLASTIC PIPE	
PRC	POINT OF REVERSE CURVE	
PRF	PAVEMENT REINFORCING FABRIC	
PRVC	POINT OF REVERSE VERTICAL CURVE	
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES	
PS, P/S	PRESTRESSED	
PSP	PERFORATED STEEL PIPE	
PT	POINT OF TANGENCY	
PVC	POLYVINYL CHLORIDE	
Pvmt	PAVEMENT	
	Q	
Qty	QUANTITY	
	R	
R	RADIUS	
R & D	REMOVE AND DISPOSE	
R & S	REMOVE AND SALVAGE	
R/C	RATE OF CHANGE	
RCA	REINFORCED CONCRETE ARCH	
RCB	REINFORCED CONCRETE BOX	
RCP	REINFORCED CONCRETE PIPE	
RCPA	REINFORCED CONCRETE PIPE ARCH	
Rd	ROAD	
Reinf	REINFORCED, REINFORCEMENT, REINFORCING	
Rel	RELOCATE	
Repl	REPLACEMENT	
Ret	RETAINING	
Rev	REVISED, REVISION	
Rdwy	ROADWAY	
RHMA	RUBBERIZED HOT MIX ASPHALT	
Riv	RIVER	
RM	ROAD-MIXED	
RP	RADIUS POINT, REFERENCE POINT	
RR	RAILROAD	
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN	
Rt	RIGHT	
Rte	ROUTE	
RW	REDWOOD, RETAINING WALL	
R/W	RIGHT OF WAY	
Rwy	RAILWAY	

	S	
S	SOUTH, SUPPLEMENT	
SAE	STRUCTURE APPROACH EMBANKMENT	
Salv	SALVAGE	
SAPP	STRUCTURAL ALUMINUM PLATE PIPE	
SB	SOUTHBOUND	
SC	SAND CUSHION	
SCSP	SLOTTED CORRUGATED STEEL PIPE	
SD	STORM DRAIN	
Sec	SECOND, SECTION	
Sep	SEPARATION	
SG	SUBGRADE	
Shld	SHOULDER	
Sht	SHEET	
Sim	SIMILAR	
±	STATION LINE	
SM	SELECTED MATERIAL	
Spec	SPECIAL, SPECIFICATIONS	
SPP	SLOTTED PLASTIC PIPE	
SS	SLOPE STAKE	
SSBM	STRAP AND SADDLE BRACKET METHOD	
SSD	STRUCTURAL SECTION DRAIN	
SSPA	STRUCTURAL STEEL PLATE ARCH	
SSPP	STRUCTURAL STEEL PLATE PIPE	
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	
SSRP	STEEL SPIRAL RIB PIPE	
St	STREET	
Sta	STATION	
STBB	SINGLE THRIE BEAM BARRIER	
Std	STANDARD	
Str	STRUCTURE	
Surf	SURFACING	
SW	SIDEWALK, SOUND WALL	
Swr	SEWER	
Sym	SYMMETRICAL	
S4S	SURFACE 4 SIDES	
	T	
T	SEMI-TANGENT	
Tan	TANGENT	
TBB	THRIE BEAM BARRIER	
Tbr	TIMBER	
TC	TOP OF CURB	
TCB	TRAFFIC CONTROL BOX	
TCE	TEMPORARY CONSTRUCTION EASEMENT	
TeI	TELEPHONE	
Temp	TEMPORARY	
TG	TOP OF GRADE	
Tot	TOTAL	
TP	TELEPHONE POLE	
TPB	TREATED PERMEABLE BASE	
TPM	TREATED PERMEABLE MATERIAL	
Trans	TRANSITION	

	T continued	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	U
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	
	V	
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	W
W	WEST, WIDTH	
WB	WESTBOUND	
WH	WEEP HOLE	
WM	WIRE MESH	
WS	WATER SURFACE	
WSP	WELDED STEEL PIPE	
Wt	WEIGHT	
WV	WATER VALVE	
WW	WINGWALL	
WWLOL	WINGWALL LAYOUT LINE	X
X Sec	CROSS SECTION	
Xing	CROSSING	Y
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	14	42

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Grace M. Tsushima
 No. C49814
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 12-29-14

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

TABLE A

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
∅	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

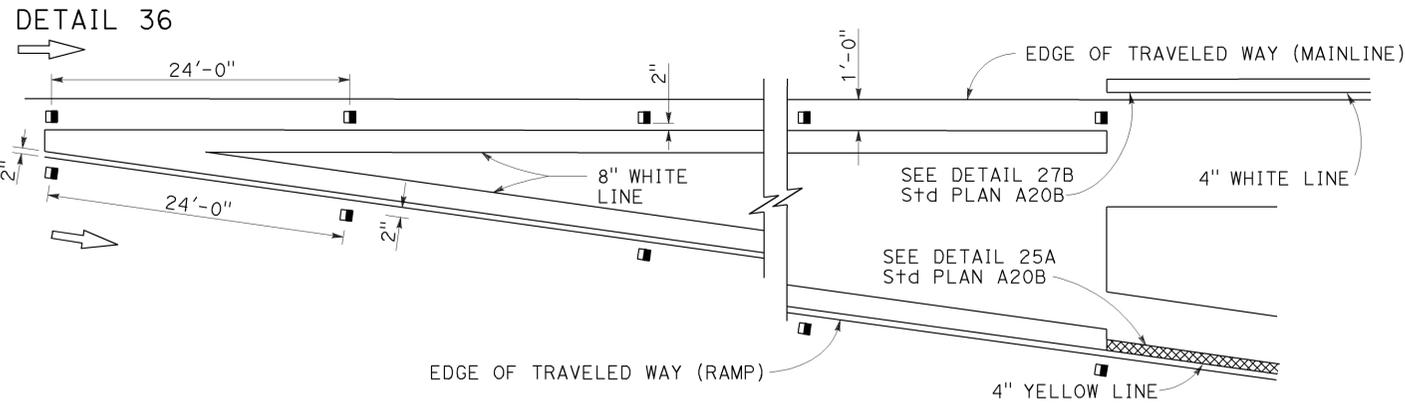
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

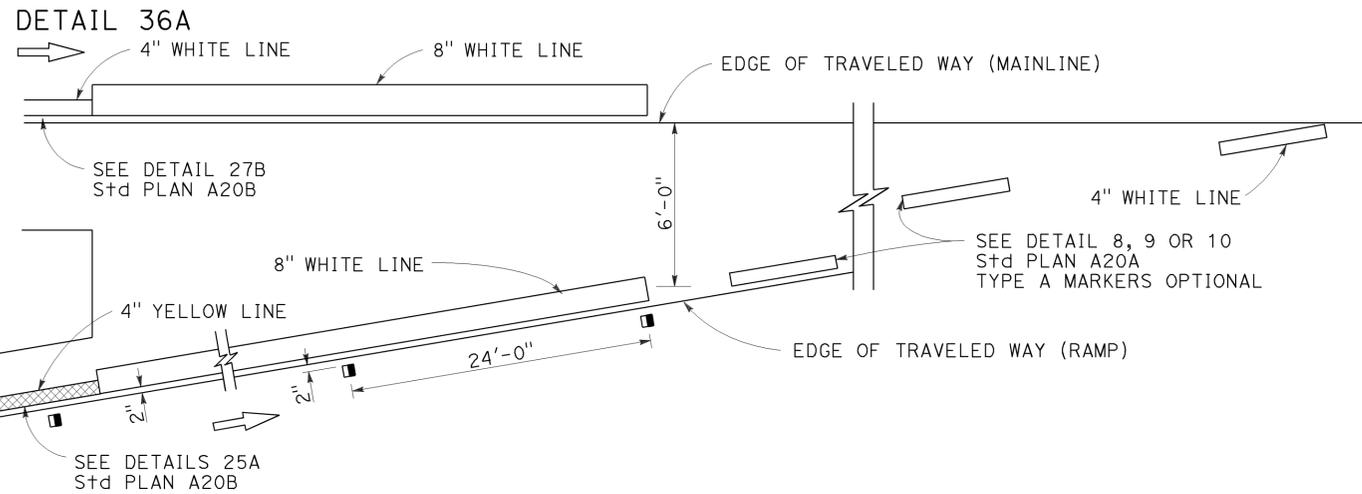
NO SCALE

RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

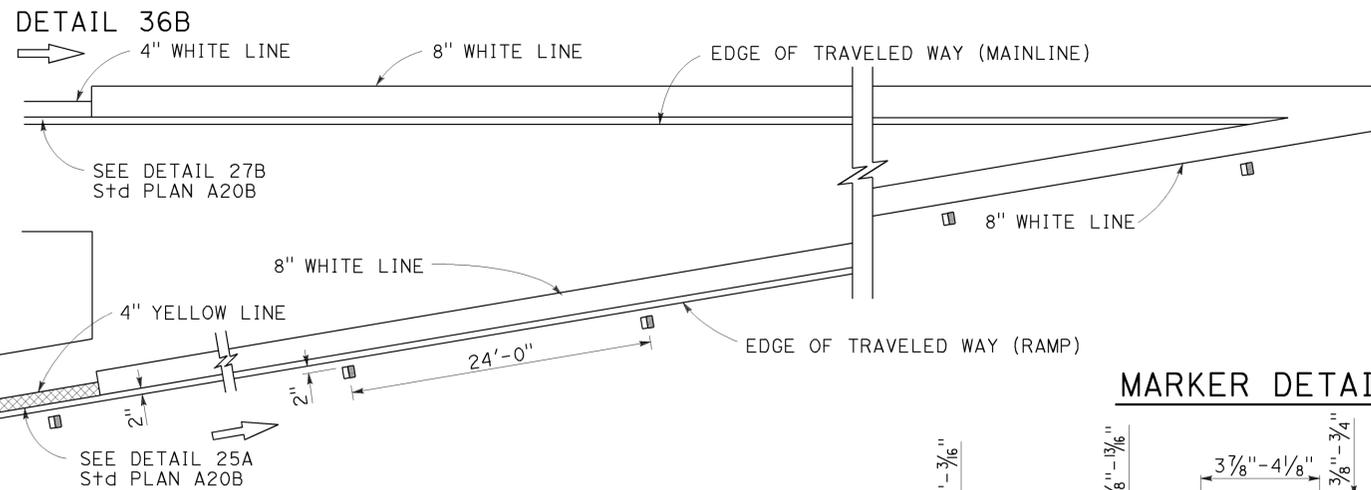
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

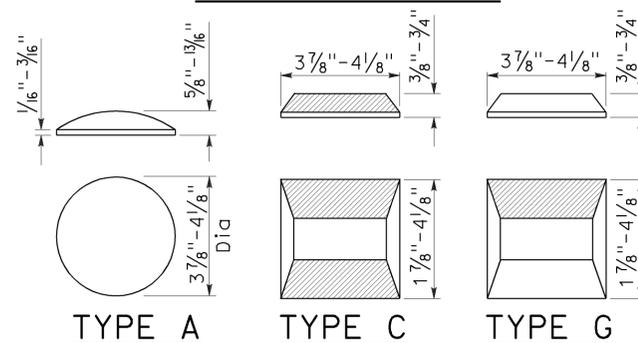


MARKER DETAILS

LEGEND:

MARKERS

- TYPE A WHITE NON-REFLECTIVE
- ◻ TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE



RETROREFLECTIVE FACE

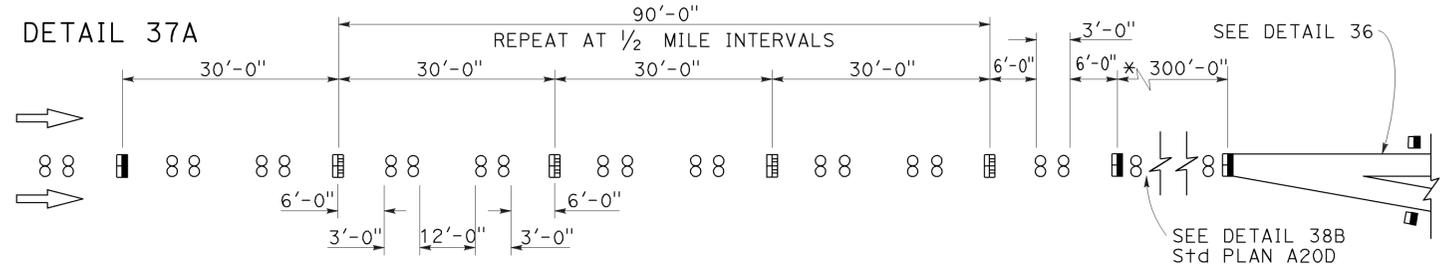
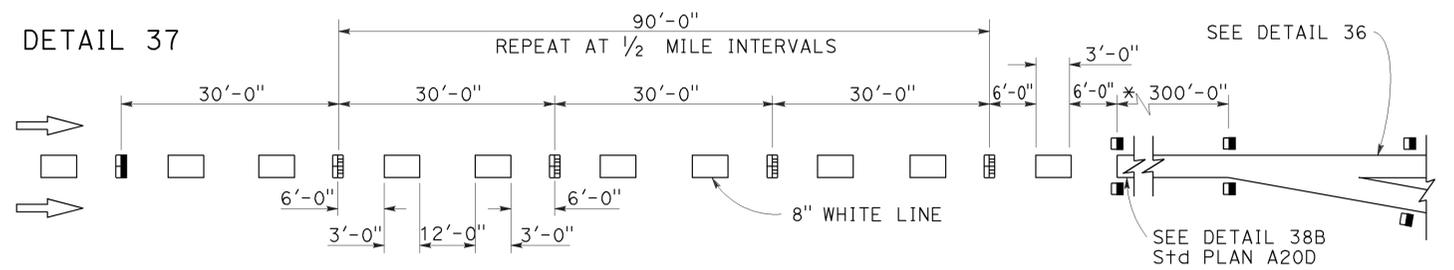
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	15	42

Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
 No. C40375
 Exp. 3-31-15
 CIVIL
 STATE OF CALIFORNIA

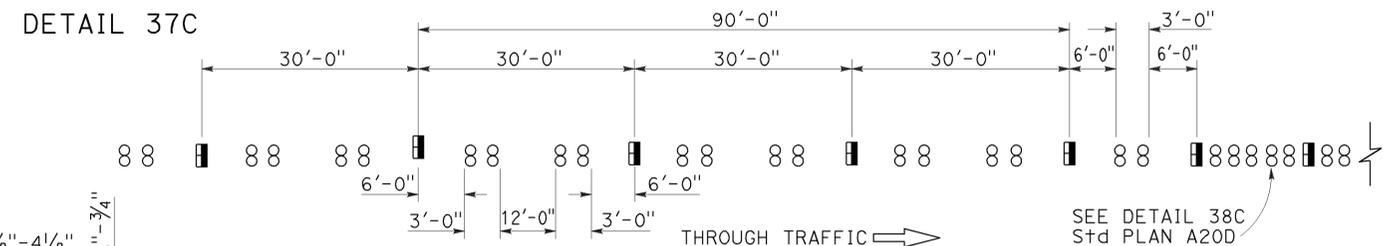
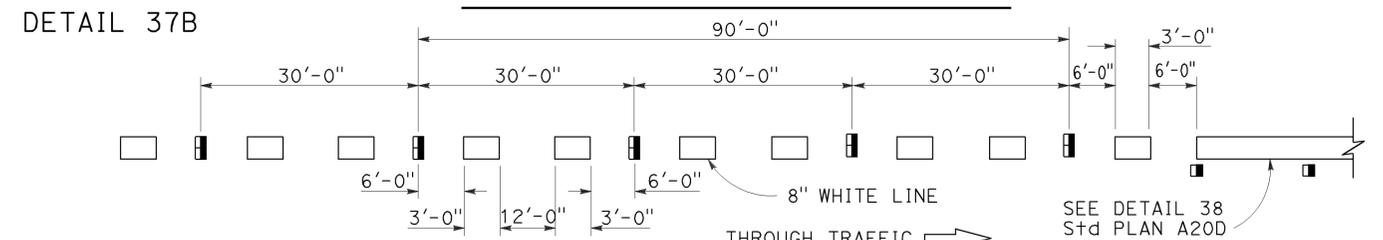
TO ACCOMPANY PLANS DATED 12-29-14

LANE DROP AT EXIT RAMP



* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

RSP A20C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A20C DATED MAY 20, 2011 - PAGE 11 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A20C

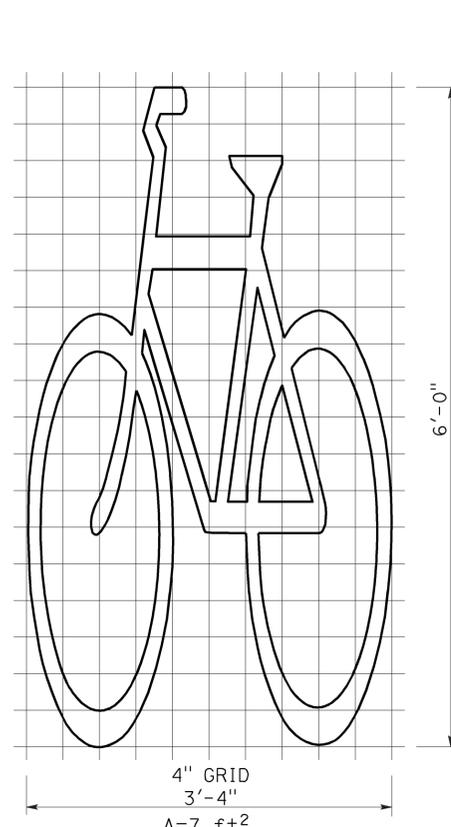
2010 REVISED STANDARD PLAN RSP A20C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	16	42

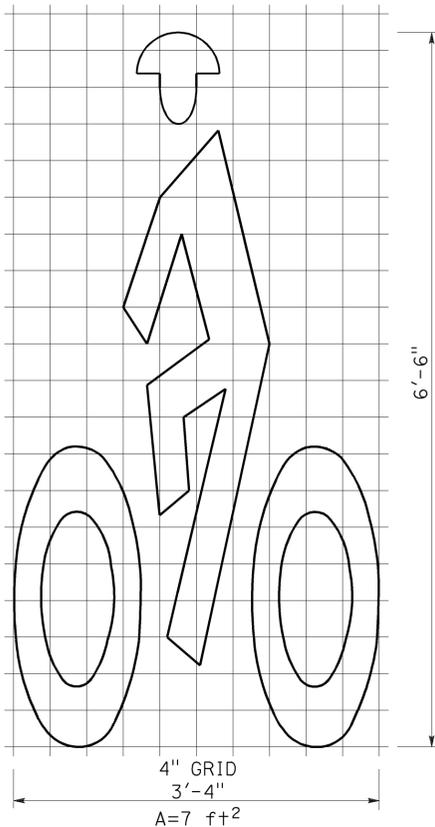
Registered Professional Engineer
 Roberto L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

October 19, 2012
 PLANS APPROVAL DATE

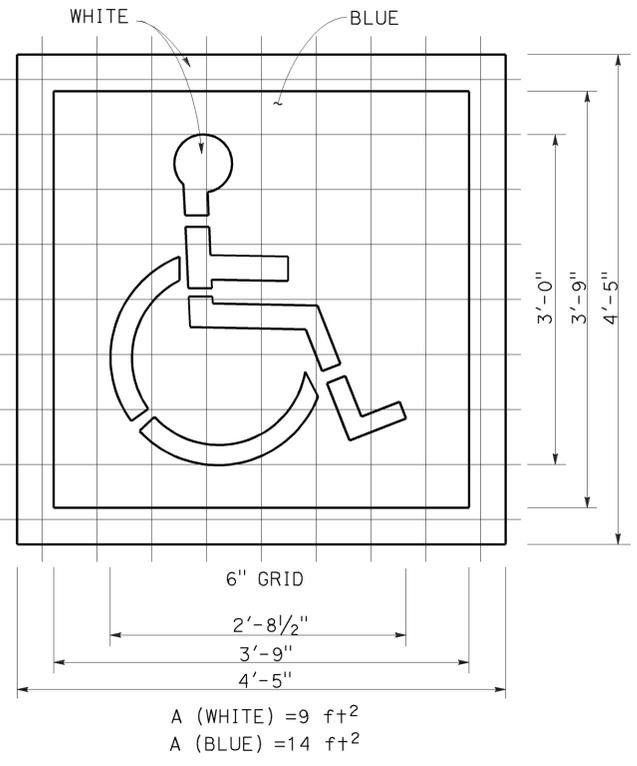
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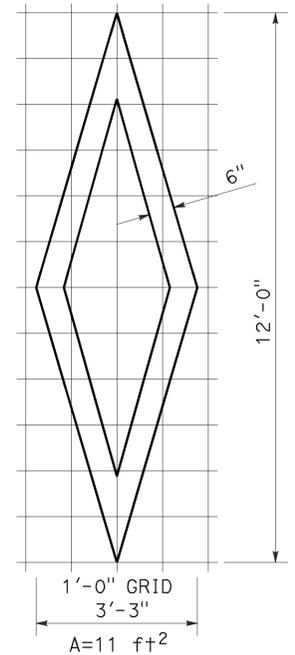
BIKE LANE SYMBOL WITHOUT PERSON



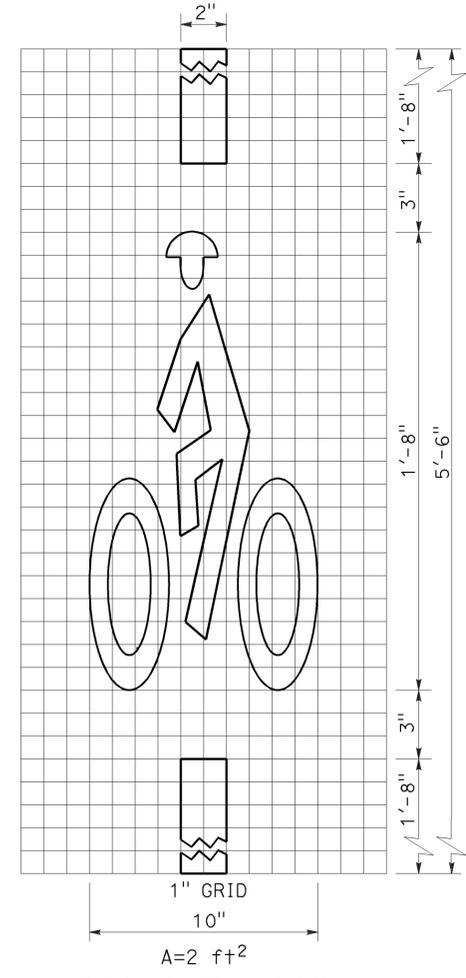
BIKE LANE SYMBOL WITH PERSON



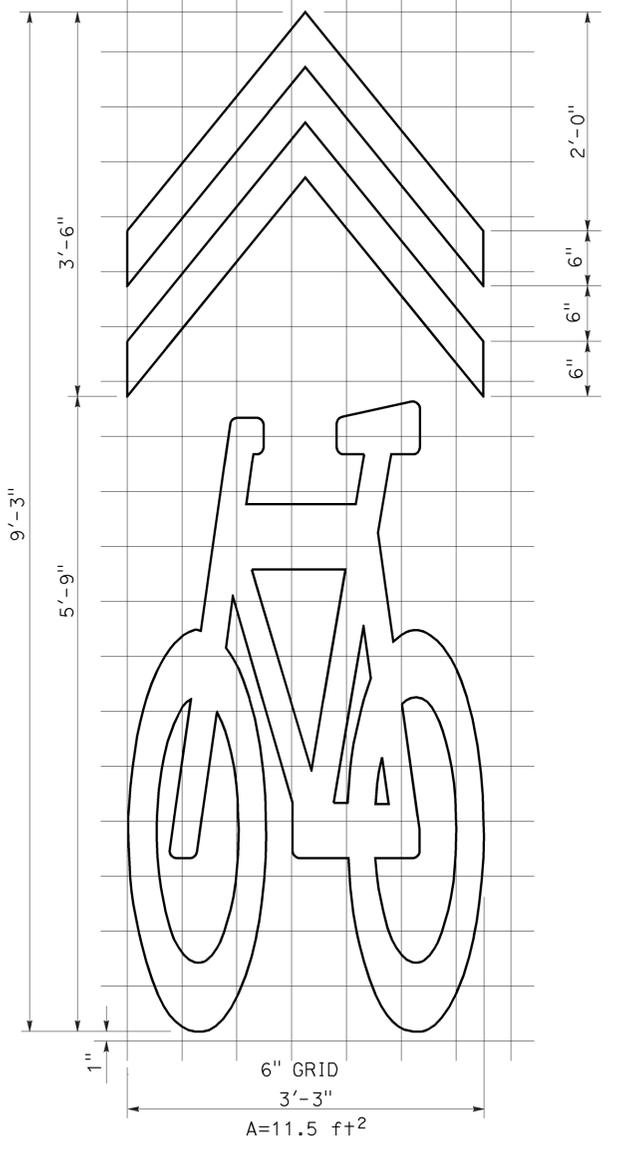
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING



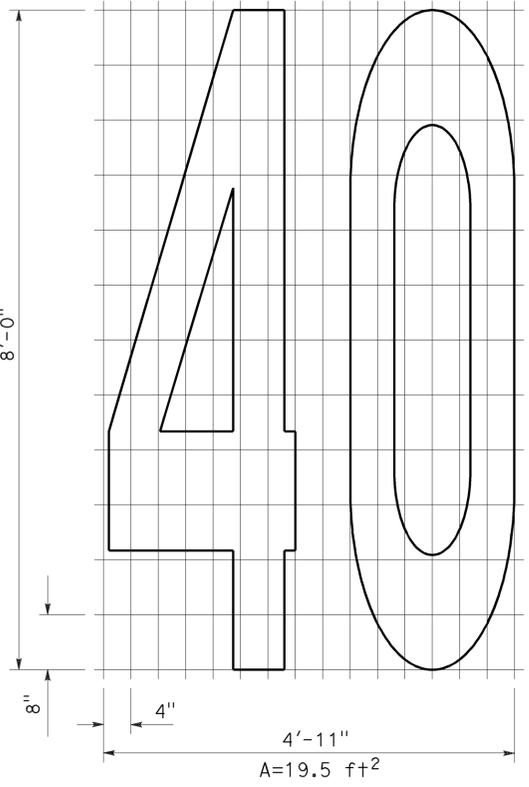
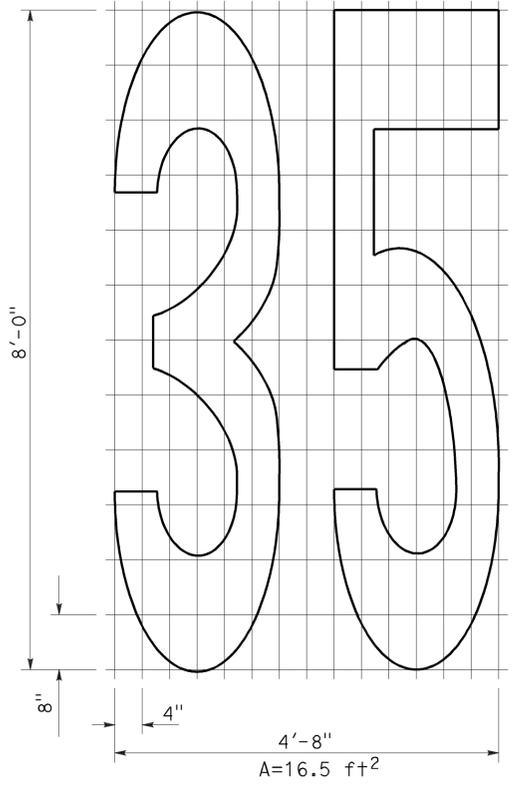
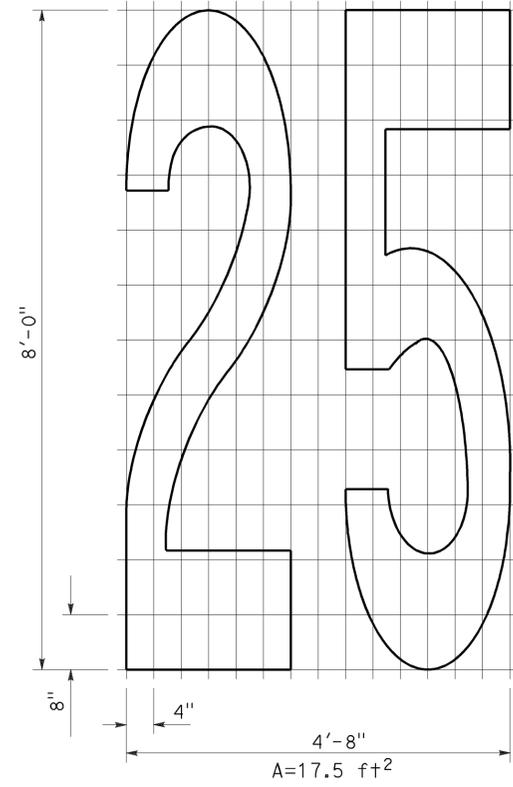
DIAMOND SYMBOL



BICYCLE LOOP DETECTOR SYMBOL



SHARED ROADWAY BICYCLE MARKING



NUMERALS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS SYMBOLS AND NUMERALS
 NO SCALE

RSP A24C DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN A24C DATED MAY 20, 2011 - PAGE 15 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24C

2010 REVISED STANDARD PLAN RSP A24C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	17	42

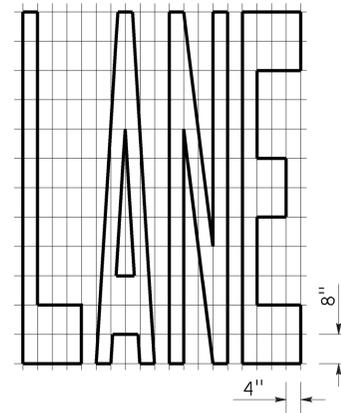
Registered Professional Engineer
 Roberta L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

July 20, 2012
 PLANS APPROVAL DATE

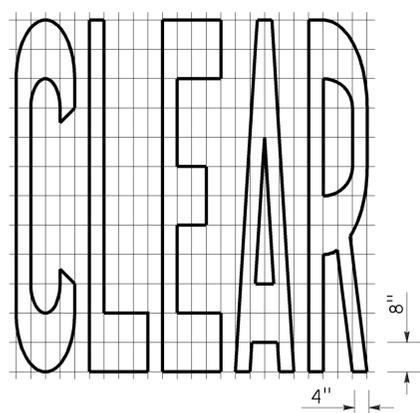
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TO ACCOMPANY PLANS DATED 12-29-14

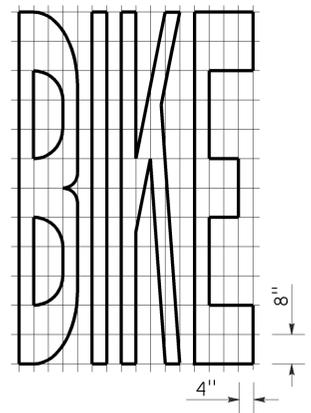
2010 REVISED STANDARD PLAN RSP A24E



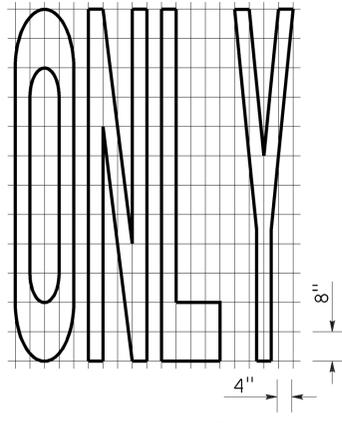
A=24 ft²



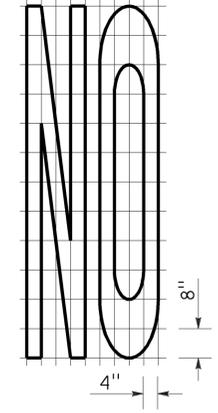
A=27 ft²



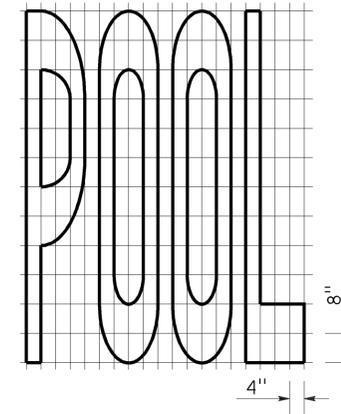
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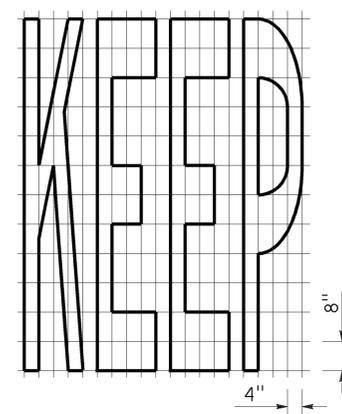
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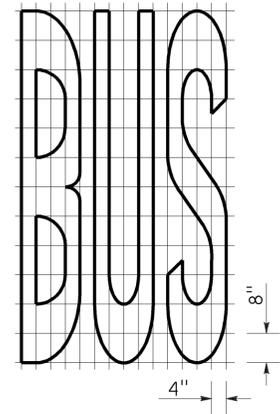
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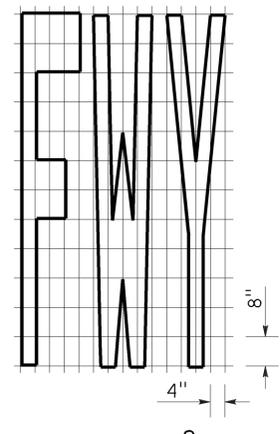
A=23 ft²



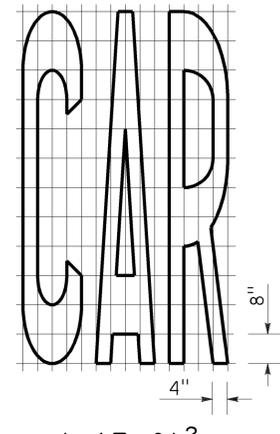
A=24 ft²



A=20 ft²

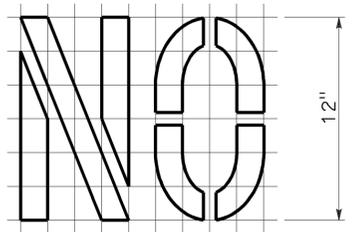


A=16 ft²



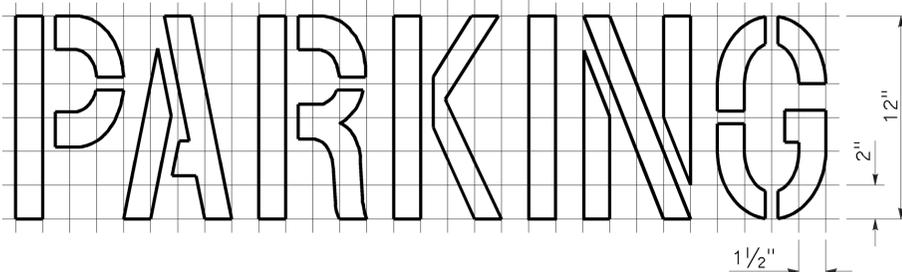
A=17 ft²

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



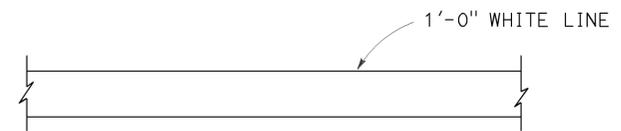
A=2 ft²

See Notes 6 and 7



A=2 ft²

See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

NOTES:

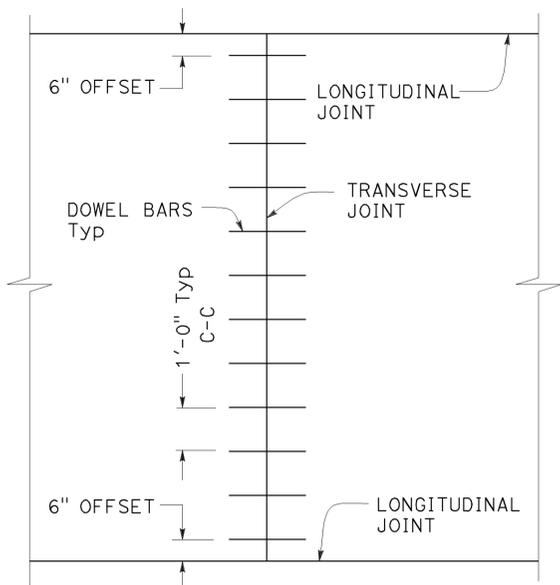
1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be 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**

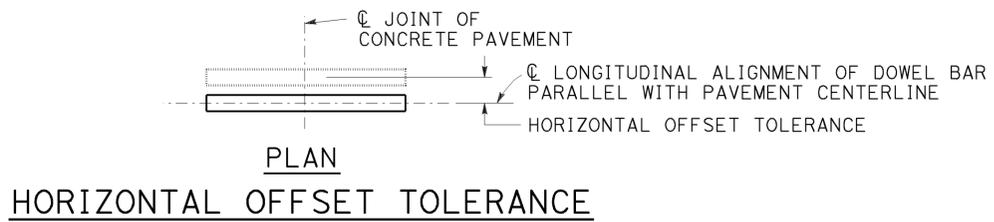
NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

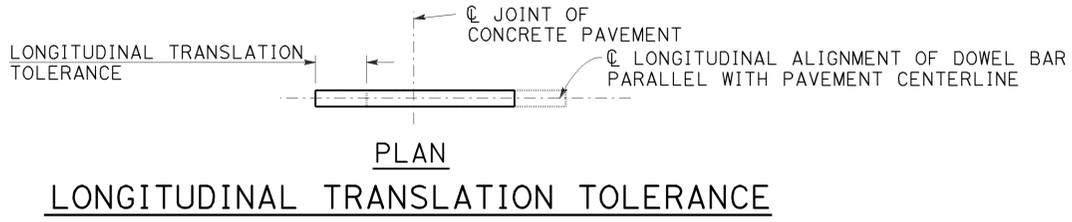
REVISED STANDARD PLAN RSP A24E



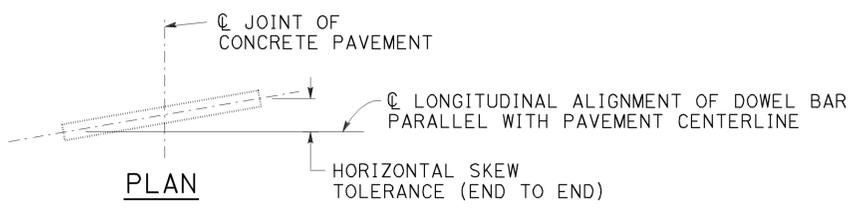
**TRANSVERSE JOINT
DOWEL BAR LAYOUT**



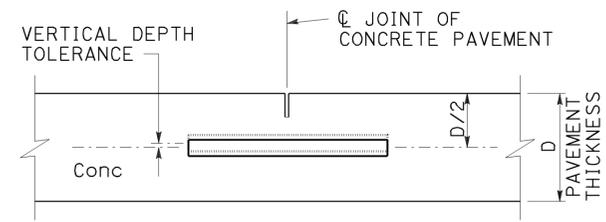
HORIZONTAL OFFSET TOLERANCE



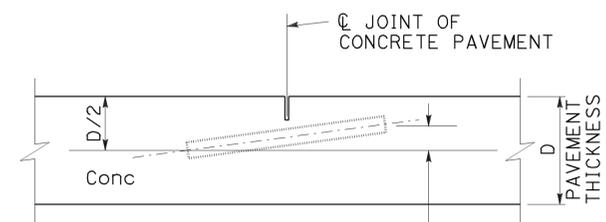
LONGITUDINAL TRANSLATION TOLERANCE



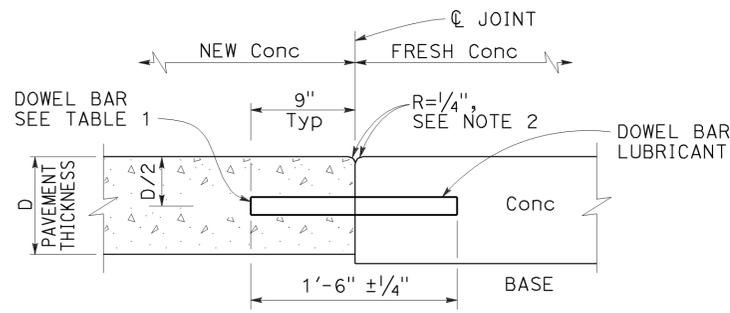
HORIZONTAL SKEW TOLERANCE



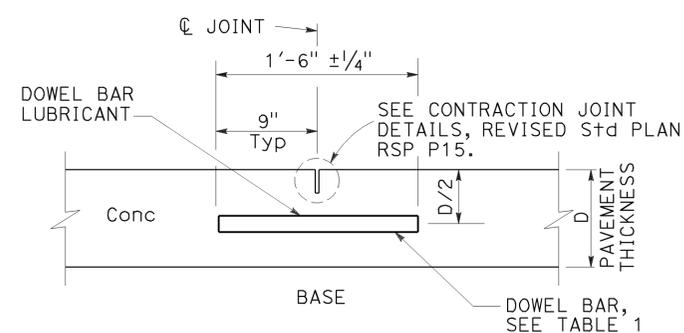
**ELEVATION
VERTICAL DEPTH TOLERANCE**



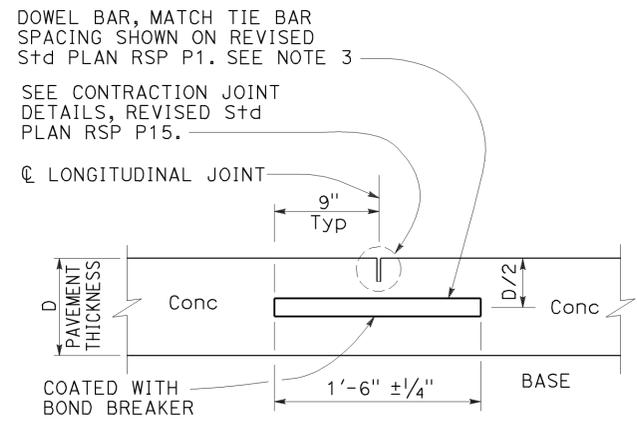
**ELEVATION
VERTICAL SKEW TOLERANCE**



**TRANSVERSE
CONSTRUCTION JOINT DETAIL**



TRANSVERSE CONTRACTION JOINT

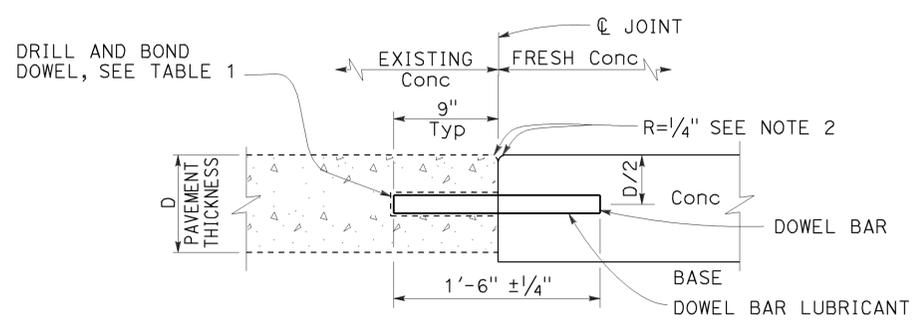


**LONGITUDINAL CONTRACTION
JOINT WITH DOWEL BARS**
See Revised Std Plan RSP P18

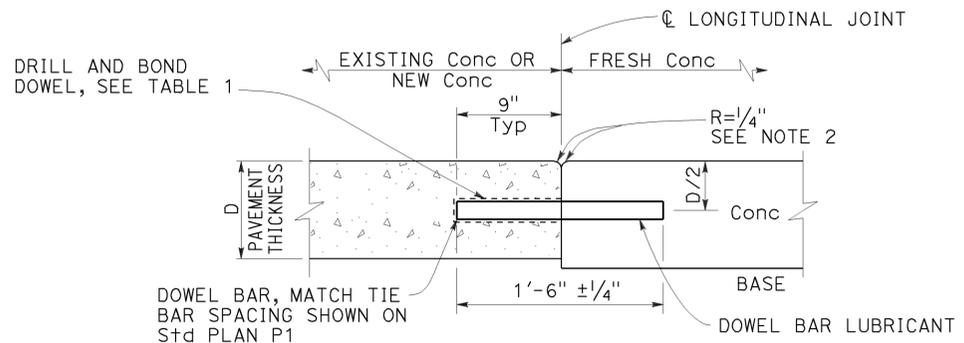
**TABLE 1
DOWEL BAR DIAMETER TABLE**

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

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



**TRANSVERSE CONSTRUCTION JOINT
FOR EXISTING CONCRETE PAVEMENT**



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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT
DOWEL BAR
DETAILS**
 NO SCALE

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

2010 REVISED STANDARD PLAN RSP P10

TO ACCOMPANY PLANS DATED 12-29-14

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z **
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

* - For other offsets, use the following merging taper length formula for L:
 For speed of 40 mph or less, $L = WS^2/60$
 For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
 W = Width of offset in feet
 S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph
 ** - Longitudinal buffer space or flagger station spacing
 *** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING			
ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

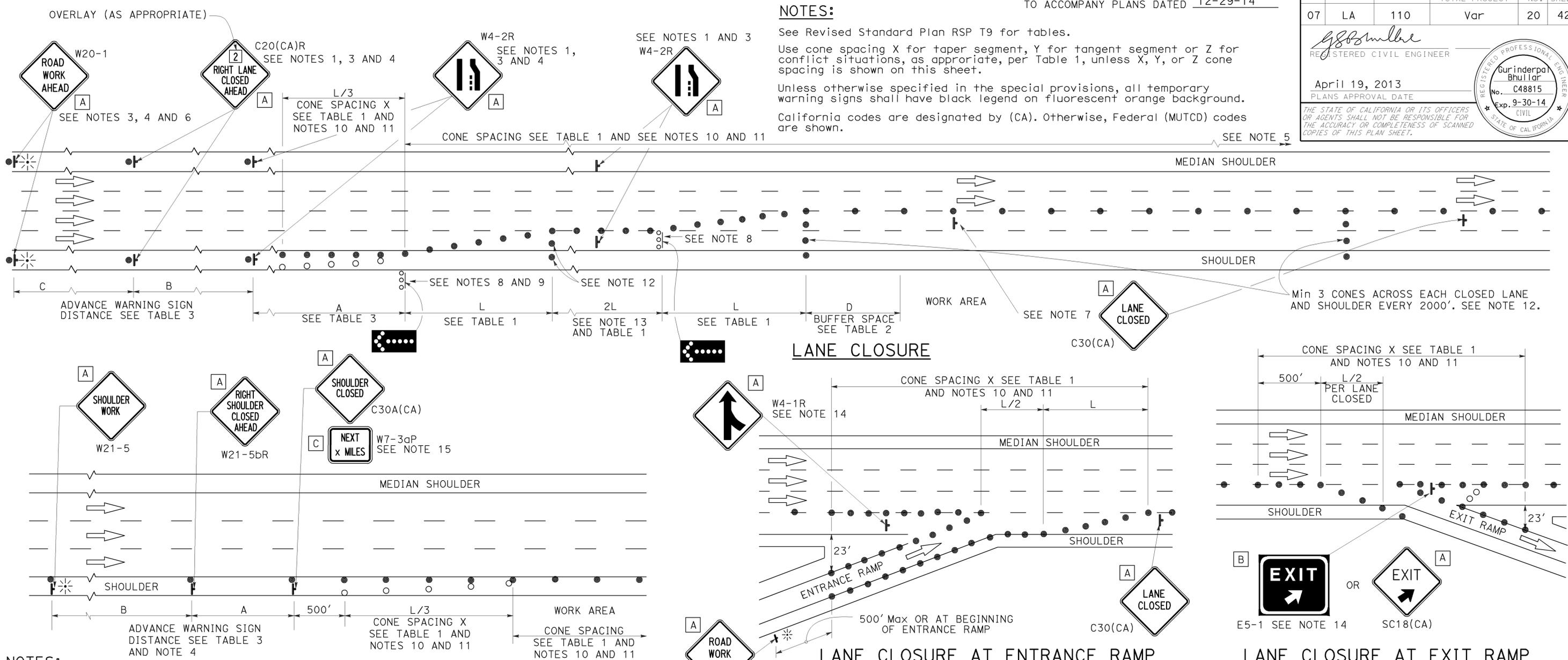
RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	20	42

REGISTERED CIVIL ENGINEER
 April 19, 2013
 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
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA



- NOTES:**
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
 - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
 - Duplicate sign installations are not required:
 - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
 - Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

- SHOULDER CLOSURE**
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA)N sign for the first advance warning sign.
 - Place a C30(CA) sign every 2000' throughout length of lane closure.
 - One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
 - A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
 - All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
 - Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
- A W7-3aP "NEXT _____ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- ⬢ FAS SUPPORT OR TRAILER
- ☼ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

A	48" x 48"
B	72" x 60"
C	36" x 30"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 FREEWAYS AND EXPRESSWAYS**

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

LEGEND

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ⚡ PORTABLE FLASHING BEACON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	21	42

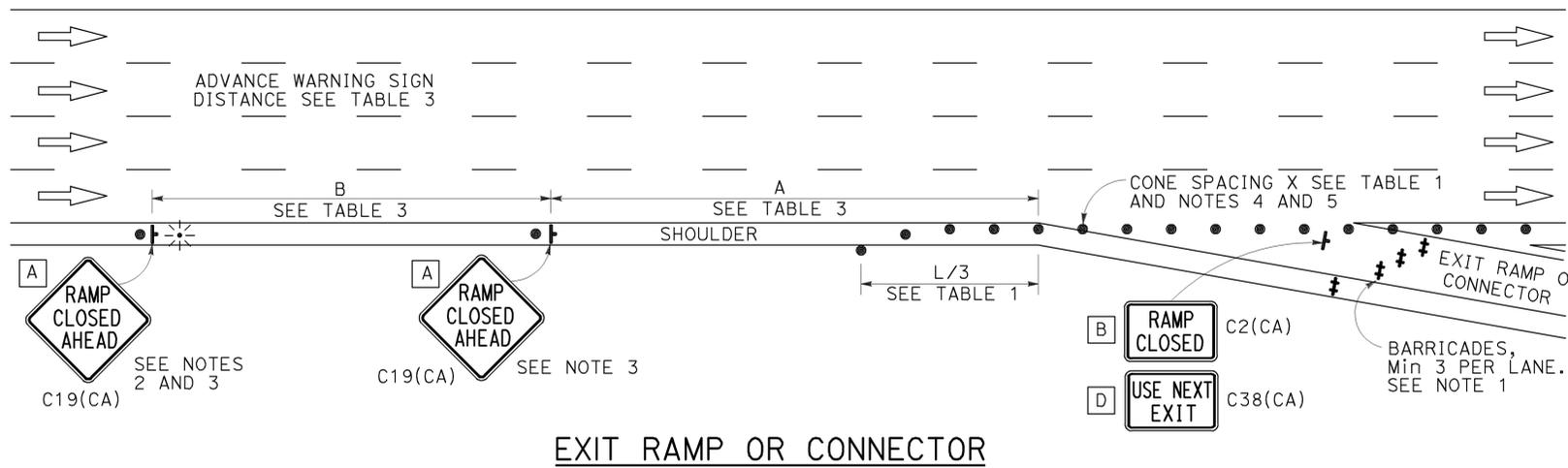
Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

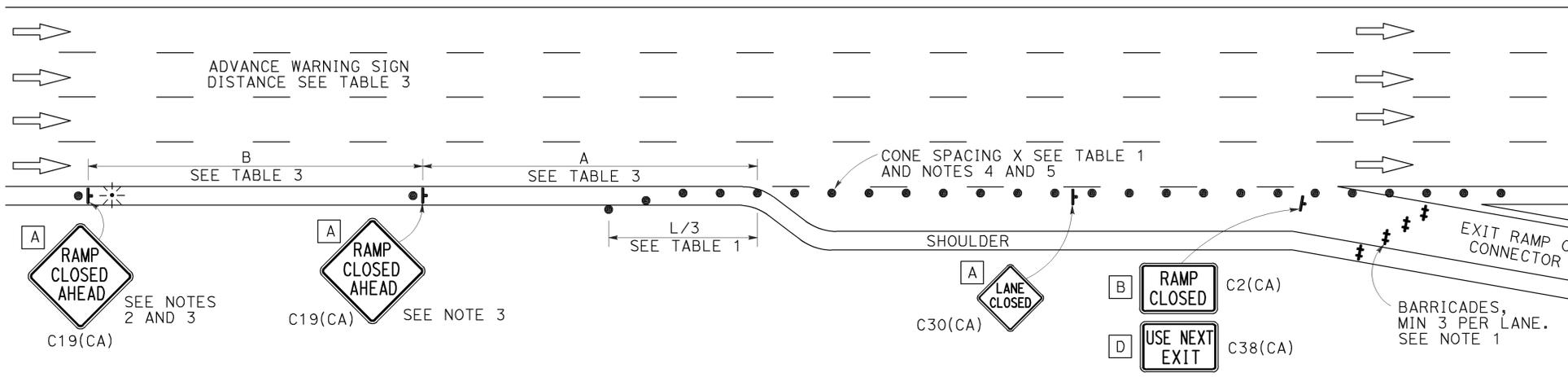
TO ACCOMPANY PLANS DATED 12-29-14

NOTES:

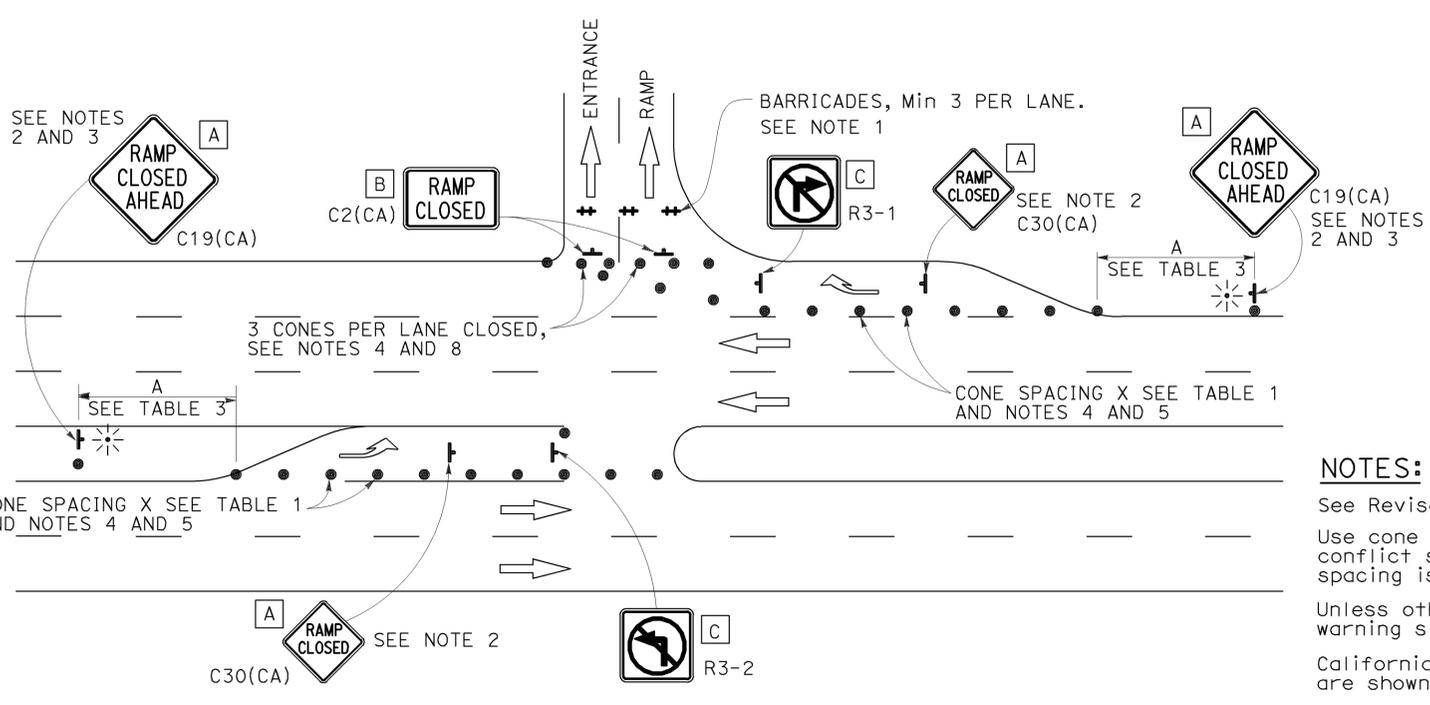
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
- Each advance C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
- All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
- At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
- The existing "EXIT" signs shall be covered during ramp closures.
- A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.



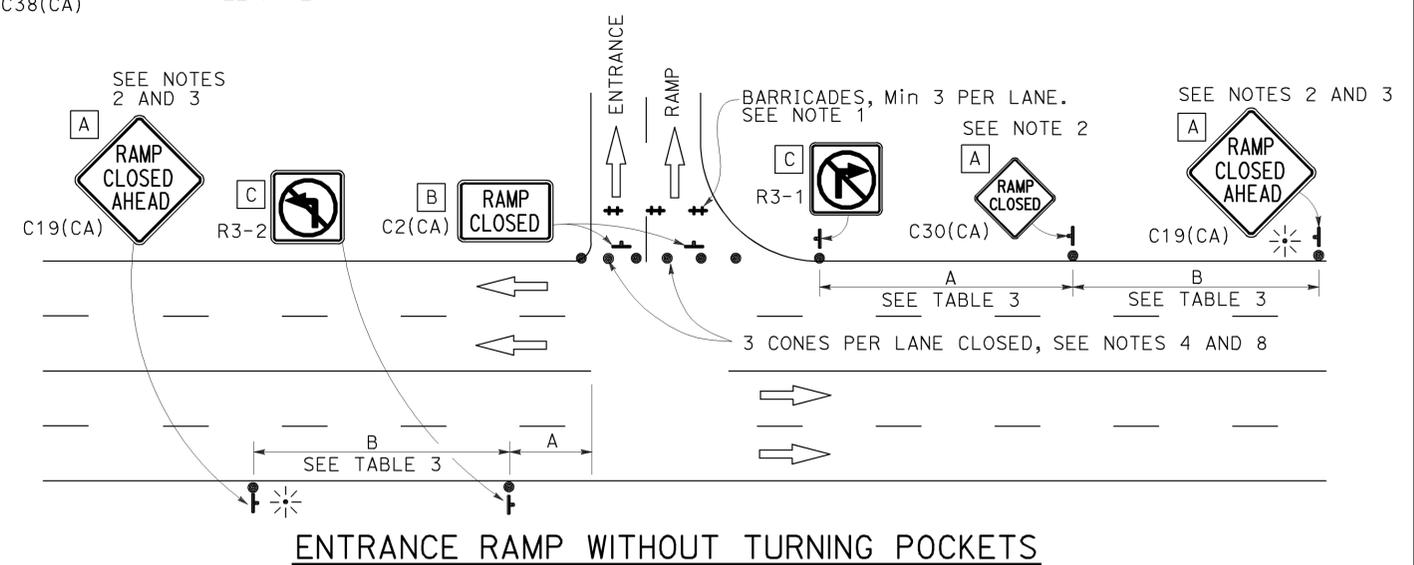
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

- See Revised Standard Plan RSP T9 for tables.
- Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
- Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
- California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

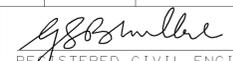
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURE**
 NO SCALE

RSP T14 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T14
 DATED MAY 20, 2011 - PAGE 242 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T14

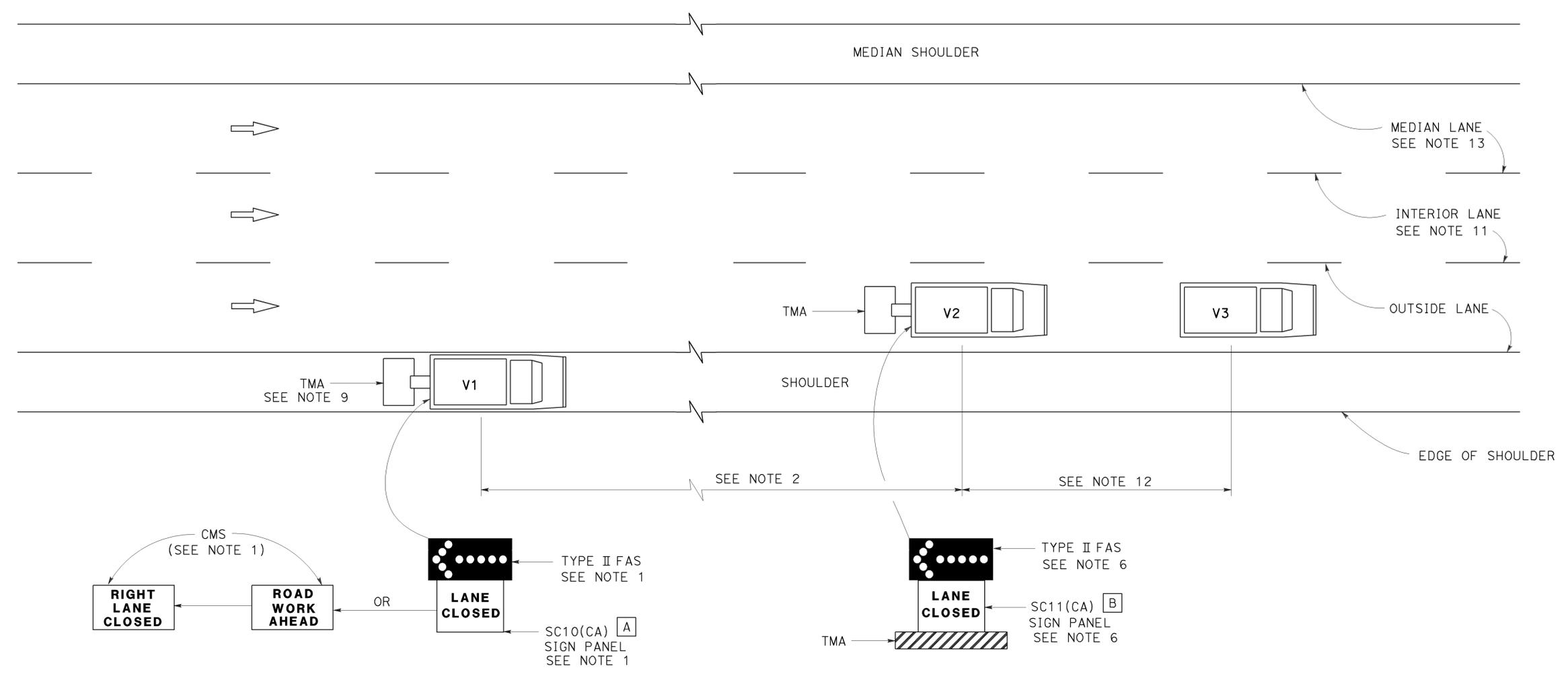
2010 REVISED STANDARD PLAN RSP T14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	22	42


 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



TO ACCOMPANY PLANS DATED 12-29-14



SIGN PANEL SIZE (Min)

- A 66" x 36"
- B 54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
-  FLASHING ARROW SIGN (FAS)
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

MOVING LANE CLOSURE ON MEDIAN LANE OR OUTSIDE LANE OF MULTILANE HIGHWAYS

NOTES:

- Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
- If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
- A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
- Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
- Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
- Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
- All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
- All vehicles shall be equipped with flashing or rotating amber lights.
- If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
- Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
- For moving lane closure on interior lane of multilane highways, use Revised Standard Plan T16.
- The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
- When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS
NO SCALE

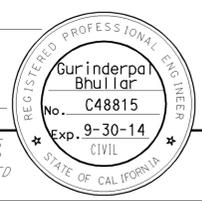
RSP T15 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T15 DATED MAY 20, 2011 - PAGE 243 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T15

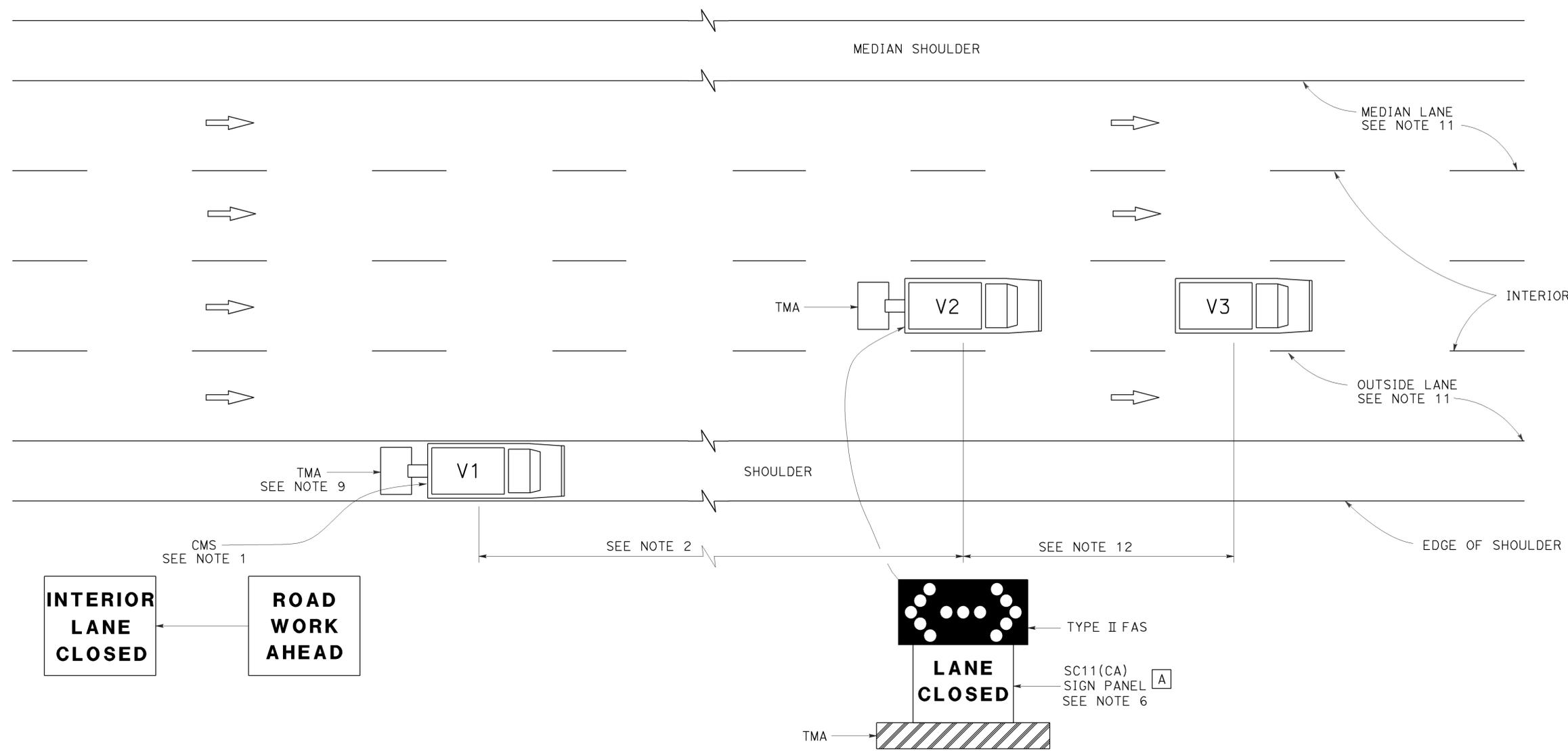
2010 REVISED STANDARD PLAN RSP T15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	23	42

Registered Civil Engineer
 April 19, 2013
 PLANS APPROVAL DATE
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TO ACCOMPANY PLANS DATED 12-29-14



SIGN PANEL SIZE (Min)

A 54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- FLASHING ARROW SIGN (FAS) IN FLASHING DOUBLE ARROW MODE
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

NOTES:

1. A changeable message sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11 etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on median lane or outside lane of multilane highways, use Revised Standard Plan T15.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR MOVING LANE CLOSURE
 ON MULTILANE HIGHWAYS**
 NO SCALE

RSP T16 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T16 DATED MAY 20, 2011 - PAGE 244 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T16

2010 REVISED STANDARD PLAN RSP T16

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	24	42

Edward Li 10-20-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

No. C56706
Exp. 06/30/15
CIVIL

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.

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
-  Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.

NOTE:

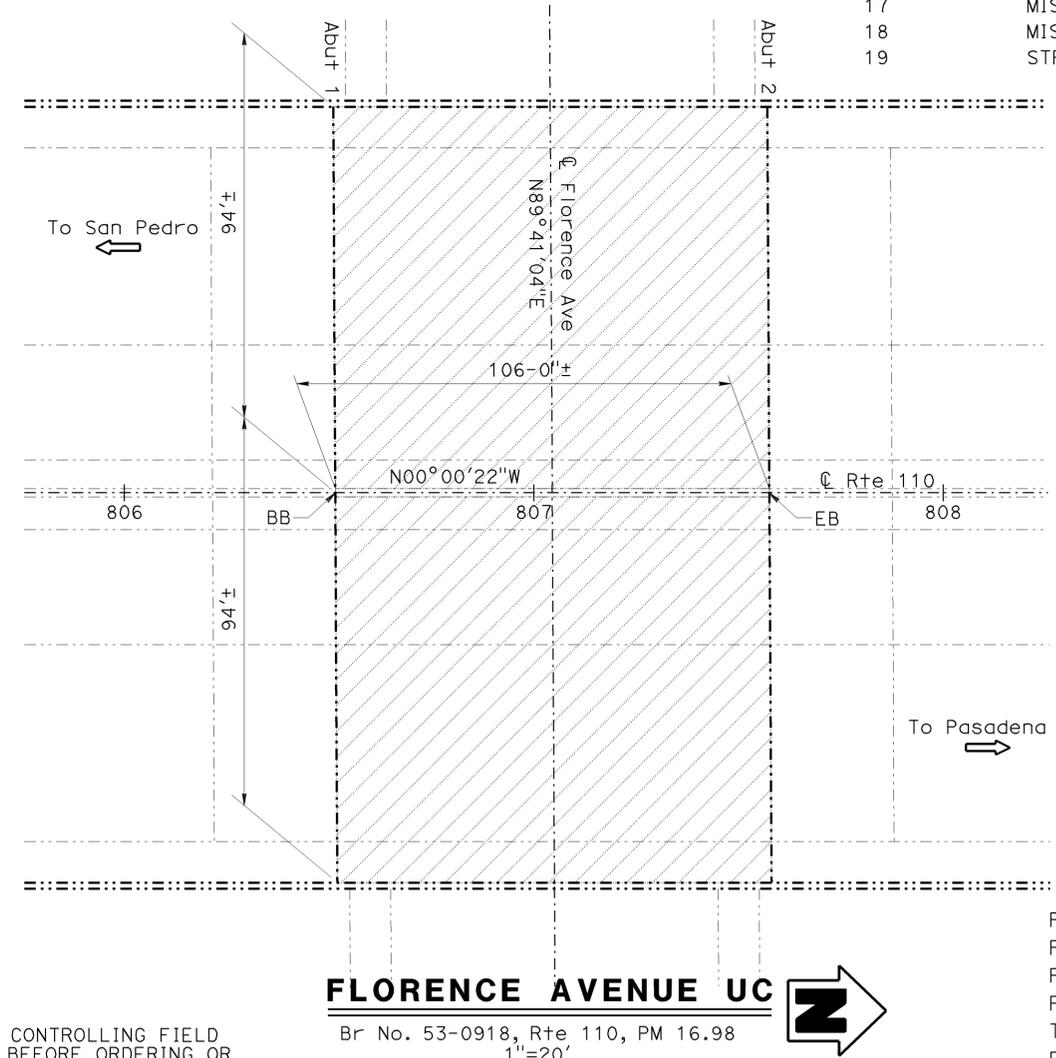
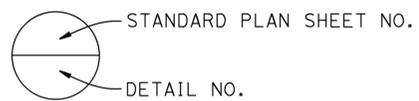
1. For DECK DAMAGE REPAIR DETAIL, see "MISCELLANEOUS DETAILS NO. 4" sheet.

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	GENERAL PLAN NO. 3
4	GENERAL PLAN NO. 4
5	GENERAL PLAN NO. 5
6	GENERAL PLAN NO. 6
7	GENERAL PLAN NO. 7
8	GENERAL PLAN NO. 8
9	GENERAL PLAN NO. 9
10	GENERAL PLAN NO. 10
11	GENERAL PLAN NO. 11
12	GENERAL PLAN NO. 12
13	GENERAL PLAN NO. 13
14	BACKWALL REPAIR DETAIL
15	MISCELLANEOUS DETAILS NO. 1
16	MISCELLANEOUS DETAILS NO. 2
17	MISCELLANEOUS DETAILS NO. 3
18	MISCELLANEOUS DETAILS NO. 4
19	STRUCTURE APPROACH TYPE R(30D)

STANDARD PLANS DATED 2010

SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
RSP P10	REVISED STANDARD PLAN



GAGE AVENUE UC #53-0914
QUANTITIES

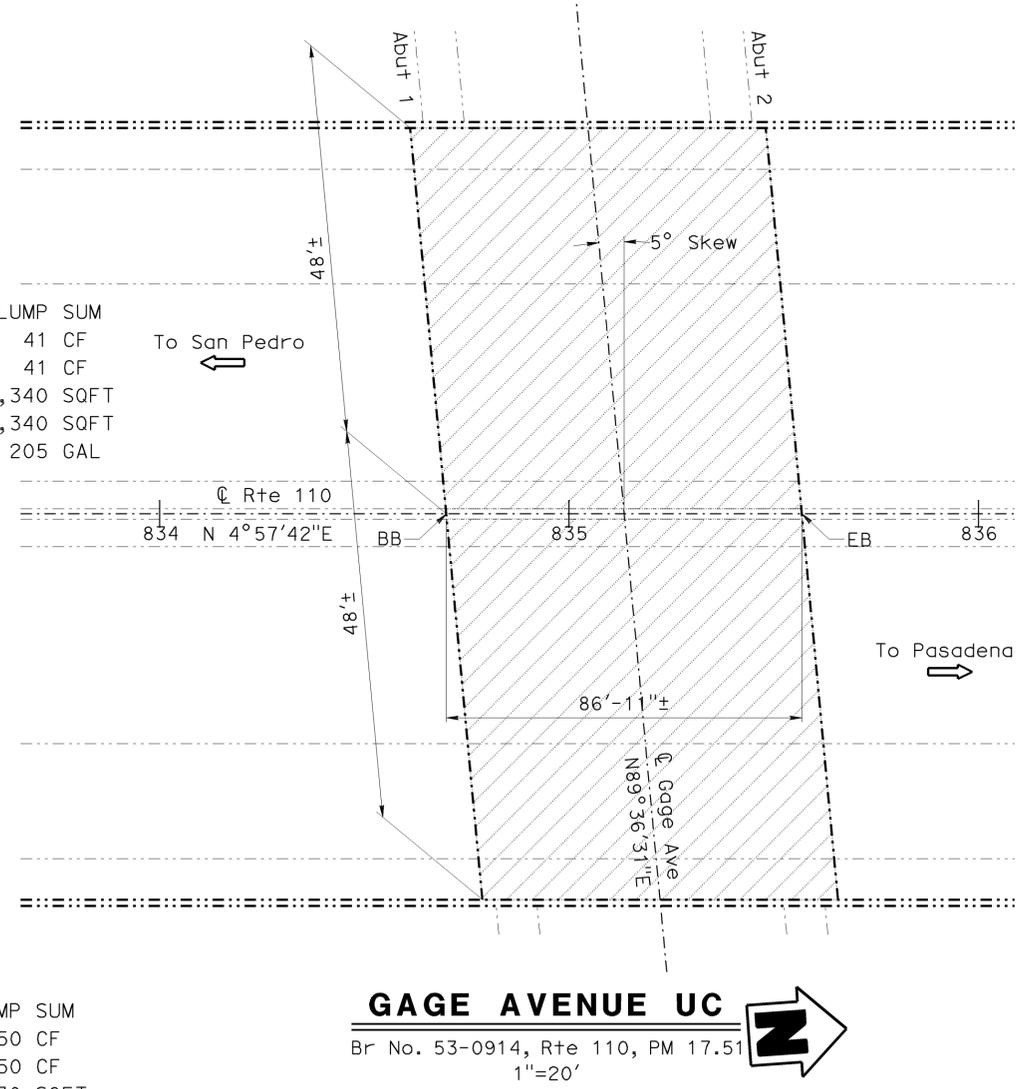
PUBLIC SAFETY PLAN
RAPID SETTING CONCRETE (PATCH)
REMOVE UNSOUND CONCRETE
PREPARE CONCRETE BRIDGE DECK SURFACE
TREAT BRIDGE DECK
FURNISH BRIDGE DECK TREATMENT MATERIAL

LUMP SUM
41 CF
41 CF
16,340 SQFT
16,340 SQFT
205 GAL

FLORENCE AVENUE UC #53-0918
QUANTITIES

PUBLIC SAFETY PLAN
RAPID SETTING CONCRETE (PATCH)
REMOVE UNSOUND CONCRETE
PREPARE CONCRETE BRIDGE DECK SURFACE
TREAT BRIDGE DECK
FURNISH BRIDGE DECK TREATMENT MATERIAL

LUMP SUM
50 CF
50 CF
19,930 SQFT
19,930 SQFT
250 GAL



GAGE AVENUE UC
Br No. 53-0914, Rte 110, PM 17.51
1"=20'

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

FLORENCE AVENUE UC →
Br No. 53-0918, Rte 110, PM 16.98
1"=20'

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom
	QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 110 BRIDGES
GENERAL PLAN NO. 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	25	42

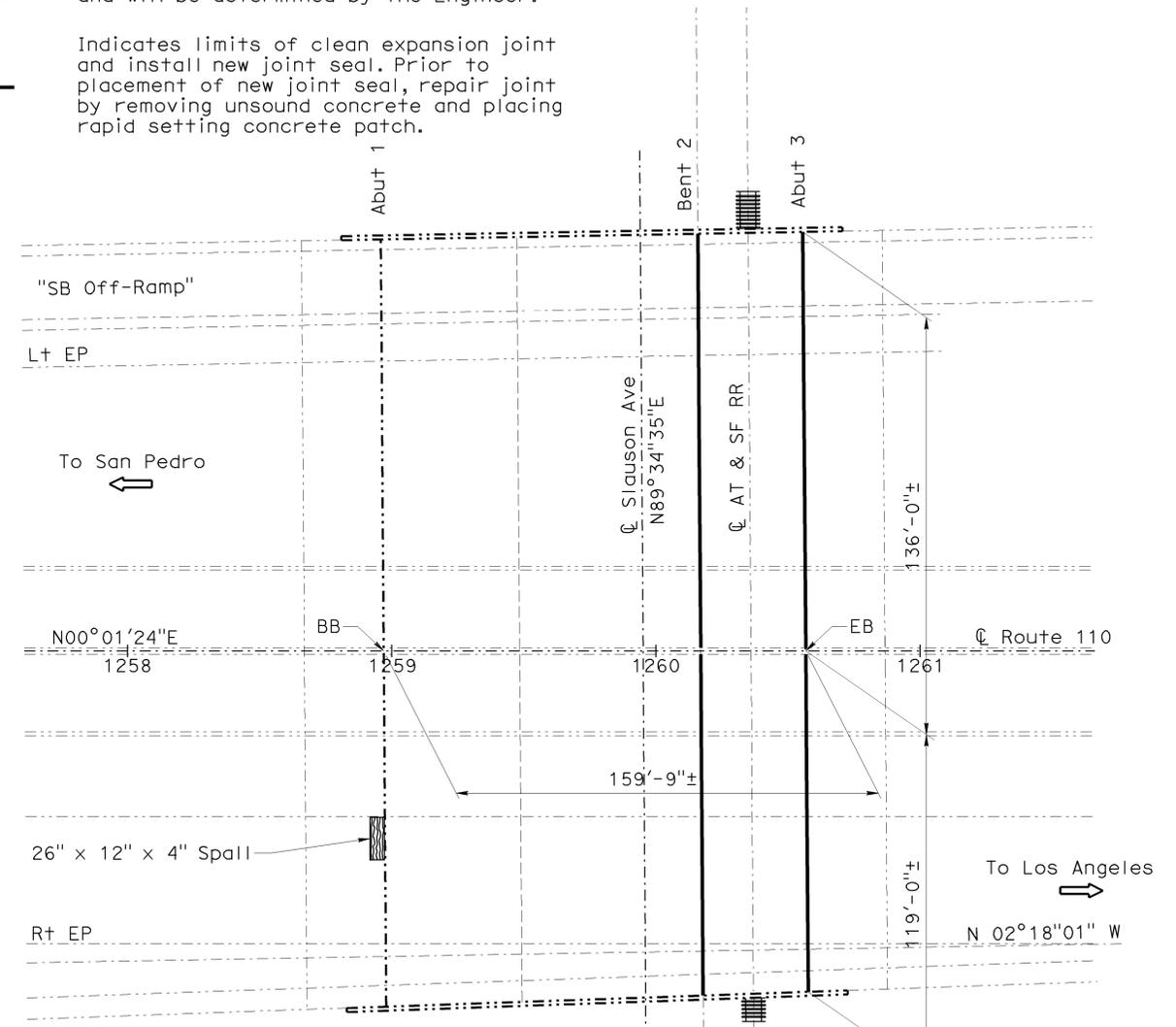
Edward Li 10-20-14
 REGISTERED CIVIL ENGINEER DATE
 12-29-14
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/15
 CIVIL
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
-  Indicates remove unsound concrete and rapid setting concrete patch. Actual area may vary and will be determined by the Engineer.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.

NOTES:

1. For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.
2. For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.



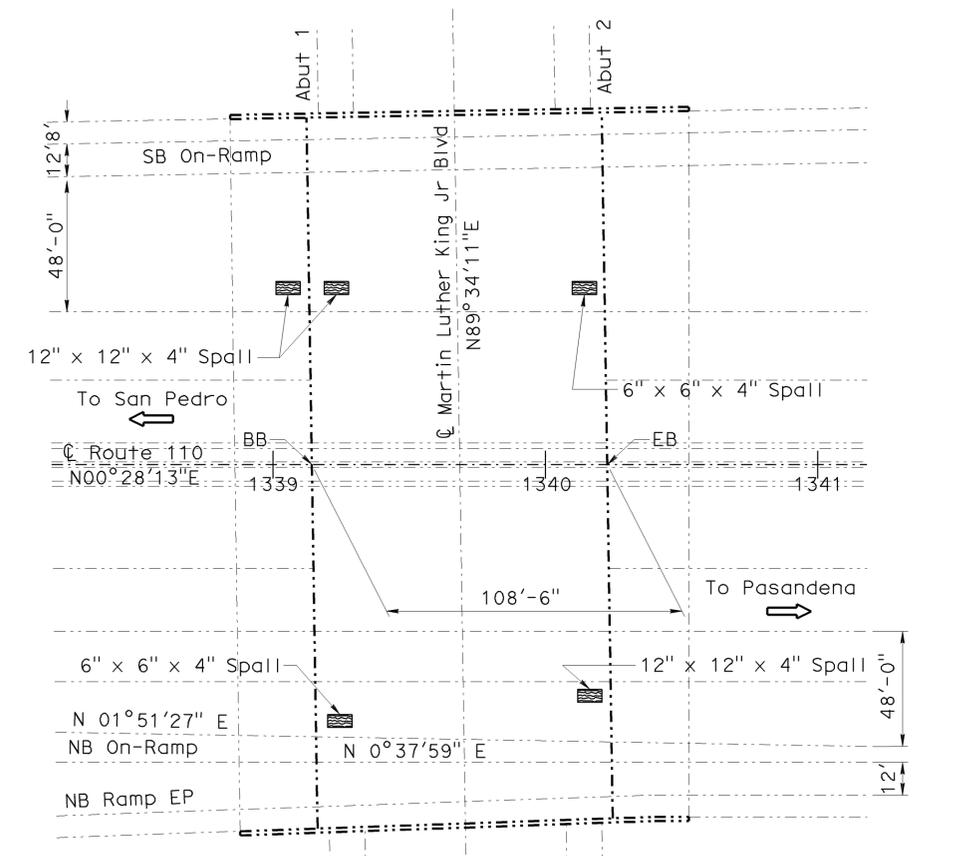
SLAUSON AVENUE OH

Br No. 53-0911, Rte 110, PM 17.98
1"=30'

SLAUSON AVENUE OH #53-0911
QUANTITIES

RAPID SETTING CONCRETE (PATCH)	3 CF
REMOVE UNSOUND CONCRETE	3 CF
CLEAN EXPANSION JOINT	510 LF
JOINT SEAL (MR 1/2")	510 LF

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.



MARTIN LUTHER KING JR BOULEVARD UC

Br No. 53-0902, Rte 110, PM 19.50
1"=30'

MARTIN LUTHER KING JR BOULEVARD UC #53-0902
QUANTITIES

RAPID SETTING CONCRETE (PATCH)	2 CF
REMOVE UNSOUND CONCRETE	2 CF

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom
QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

**ROUTE 110 BRIDGES
GENERAL PLAN NO. 2**

USERNAME => s117283 DATE PLOTTED => 29-OCT-2014 TIME PLOTTED => 10:13

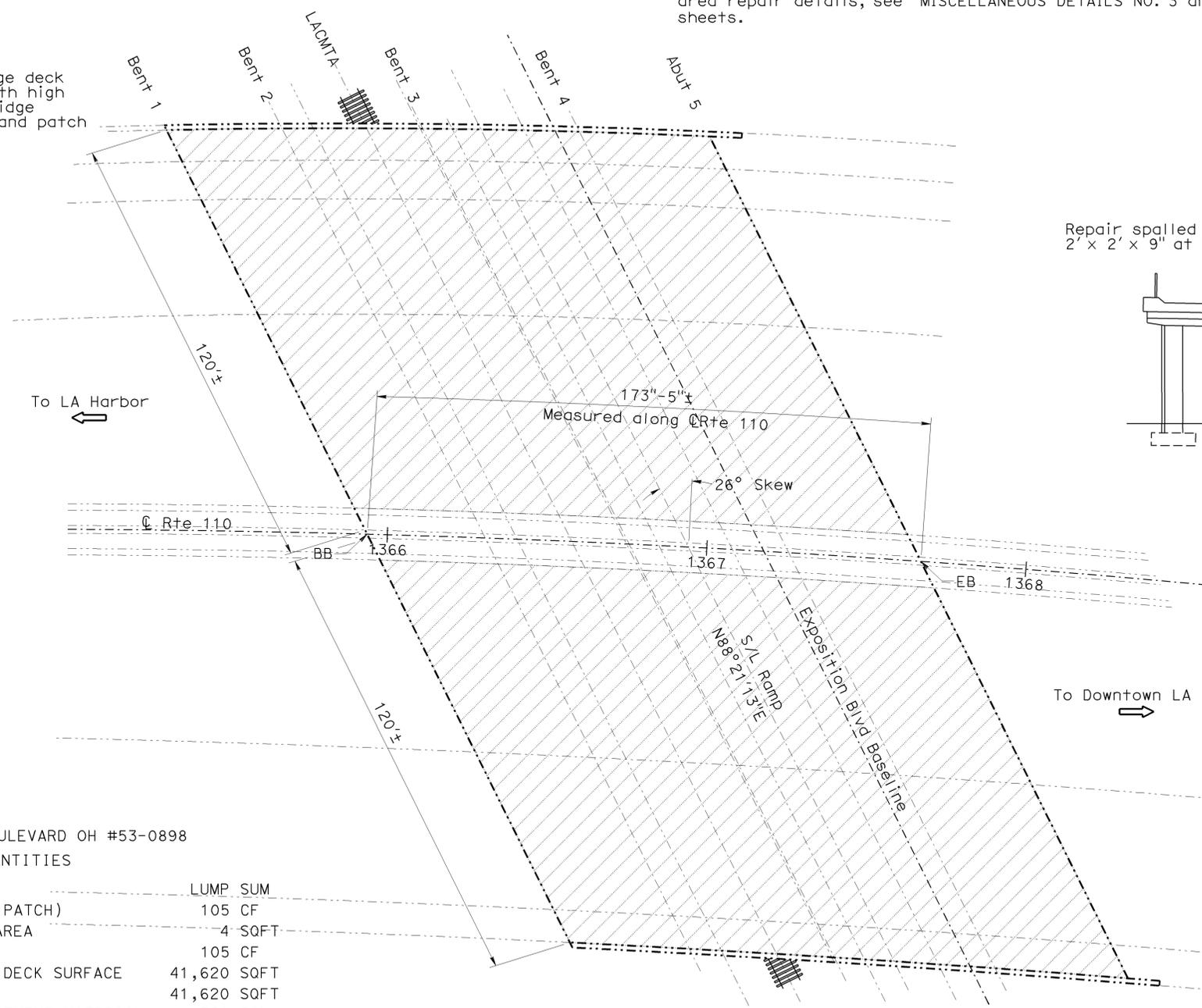
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	26	42
Edward Li			10-20-14	REGISTERED CIVIL ENGINEER DATE	
12-29-14			PLANS APPROVAL DATE		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

LEGEND:

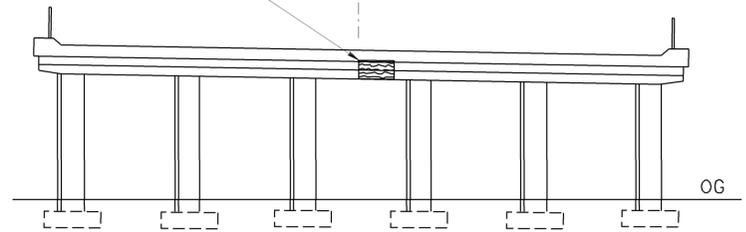
- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.
- Indicates repair spalled surface area. Actual area may vary and will be determined by the Engineer.

NOTE:

For joint spall repair, deck damage repair and spalled surface area repair details, see "MISCELLANEOUS DETAILS NO. 3 and No. 4" sheets.



Repair spalled surface area 2' x 2' x 9" at bentcap.



EXPOSITION BOULEVARD OH #53-0898
QUANTITIES

	LUMP	SUM
PUBLIC SAFETY PLAN		
RAPID SETTING CONCRETE (PATCH)	105	CF
REPAIR SPALLED SURFACE AREA	4	SQFT
REMOVE UNSOUND CONCRETE	105	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	41,620	SQFT
TREAT BRIDGE DECK	41,620	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	521	GAL

EXPOSITION BOULEVARD OH
Br No. 53-0898, Rte 110, PM 20.00
1"=20'

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom
	QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 110 BRIDGES
GENERAL PLAN NO. 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000437 1 CONTRACT NO.: 07-2W7404

DISREGARD PRINTS BEARING EARLIER REVISION DATES

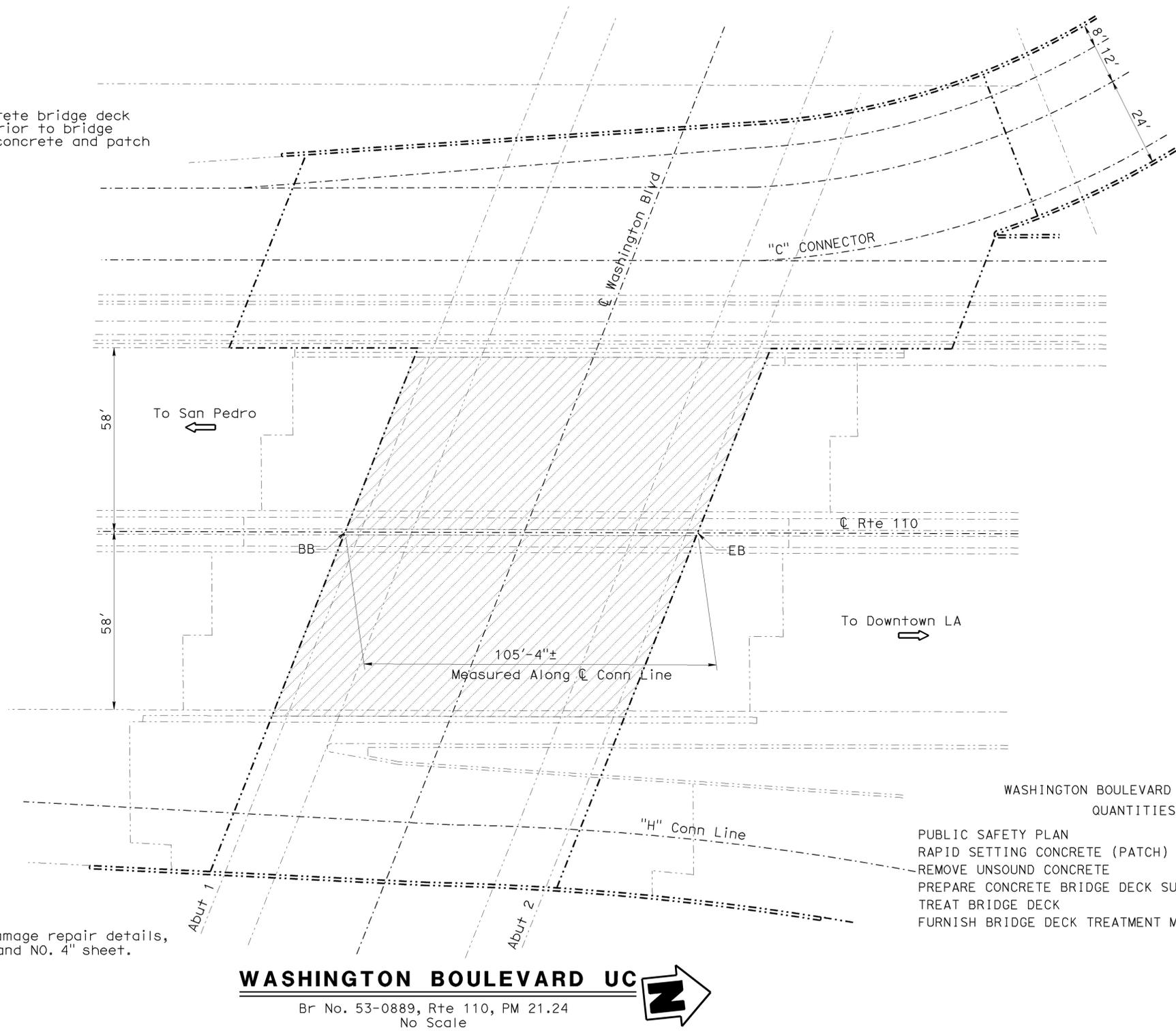
REVISION DATES	SHEET	OF
05-08-14 07-29-14 10-16-14 10-20-14	03	19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	27	42

Edward Li 10-20-14
 REGISTERED CIVIL ENGINEER DATE
 12-29-14
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/15
 CIVIL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER
 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.

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat bridge deck. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.



NOTE:

1. For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.

WASHINGTON BOULEVARD UC #53-0889
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	31 CF
REMOVE UNSOUND CONCRETE	31 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	12,215 SQFT
TREAT BRIDGE DECK	12,215 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	153 GAL

WASHINGTON BOULEVARD UC
 Br No. 53-0889, Rte 110, PM 21.24
 No Scale

NOTE:
 VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 110 BRIDGES GENERAL PLAN NO. 4	
	DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom			CHECKED Edward Li		POST MILE
	QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson			PLANS AND SPECS COMPARED Kevin Ellingson		Varies

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT: 3489 PROJECT NUMBER & PHASE: 0713000437 1 CONTRACT NO.: 07-2W7404 DISREGARD PRINTS BEARING EARLIER REVISION DATES 05-08-14 07-27-14 10-11-14 10-20-14 SHEET 04 OF 19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	28	42

Edward Li 10-20-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

EDWARD GUOJUN LI
REGISTERED PROFESSIONAL ENGINEER
No. C56706
Exp. 06/30/15
CIVIL
STATE OF CALIFORNIA

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.

LEGEND:

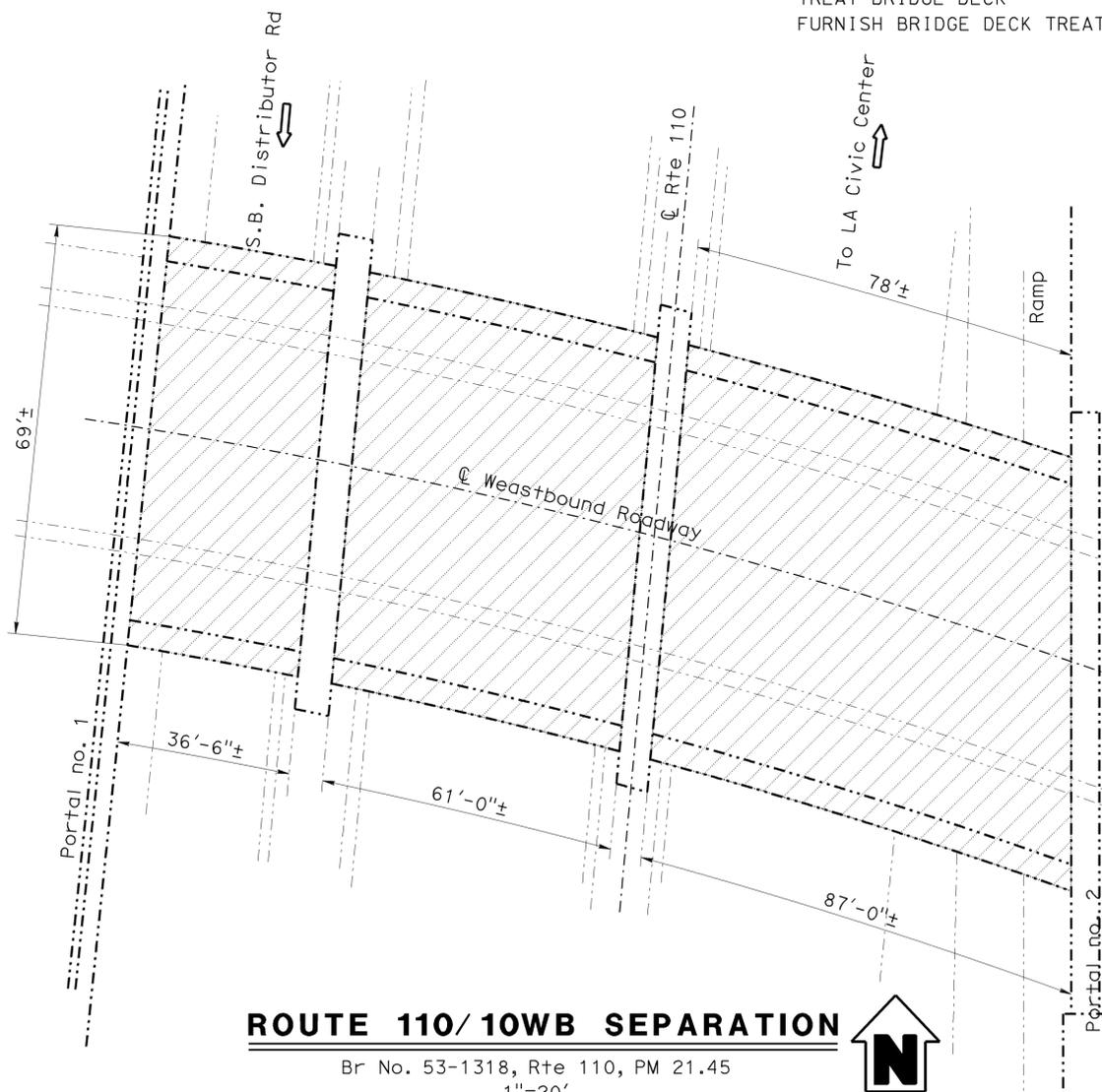
- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.

- ▨ Indicates limits of remove existing PCC and AC approach and place new Structure Approach Type R(30D). For details, see "STRUCTURE APPROACH TYPE R(30D)" sheet.
- ⊗ Indicates limit of placement of new joint seal.
- * Indicates limits of paving notch extension.

ROUTE 110/10WB SEPARATION #53-1318

QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM	
RAPID SETTING CONCRETE (PATCH)	32 CF	
REMOVE UNSOUND CONCRETE	32 CF	
PREPARE CONCRETE BRIDGE DECK SURFACE	12,731 SQFT	
TREAT BRIDGE DECK	12,731 SQFT	
FURNISH BRIDGE DECK TREATMENT MATERIAL	160 GAL	



ROUTE 110/ 10WB SEPARATION

Br No. 53-1318, Rte 110, PM 21.45
1"=20'

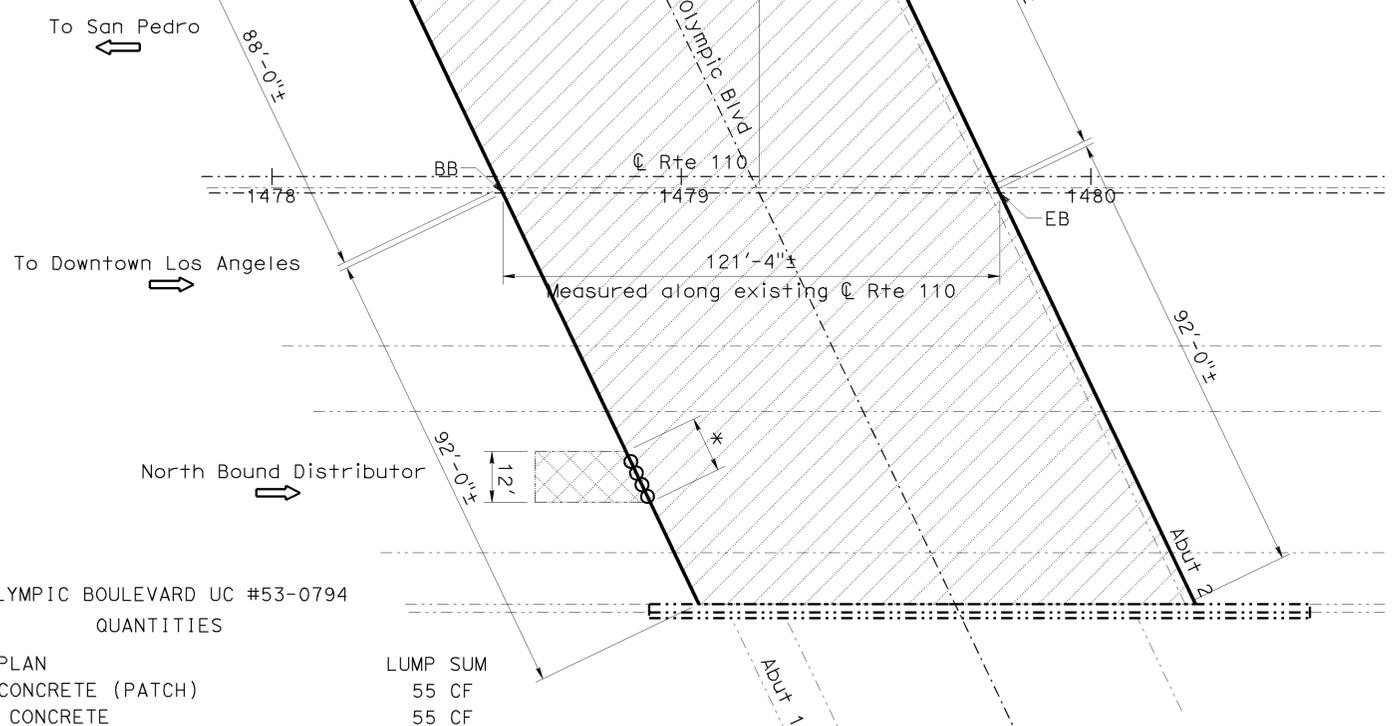


NOTE:
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OLYMPIC BOULEVARD UC #53-0794

QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM	
RAPID SETTING CONCRETE (PATCH)	55 CF	
REMOVE UNSOUND CONCRETE	55 CF	
PREPARE CONCRETE BRIDGE DECK SURFACE	21,140 SQFT	
TREAT BRIDGE DECK	21,140 SQFT	
FURNISH BRIDGE DECK TREATMENT MATERIAL	265 GAL	
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	18 CY	
PAVING NOTCH EXTENSION	9 CF	
CLEAN EXPANSION JOINT	372 LF	
JOINT SEAL (MR 1")	385 LF	



OLYMPIC BOULEVARD UC

Br No. 53-0794, Rte 110, PM 22.12
No Scale



NOTES:

1. For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.
2. For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Li	CHECKED Hong Tien Tran
DETAILS	BY Clayton Tom	CHECKED Edward Li
QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran

LOAD FACTOR DESIGN	BY	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
LAYOUT	BY Clayton Tom	CHECKED Edward Li
SPECIFICATIONS	BY Kevin Ellingson	PLANS AND SPECS COMPARED Kevin Ellingson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

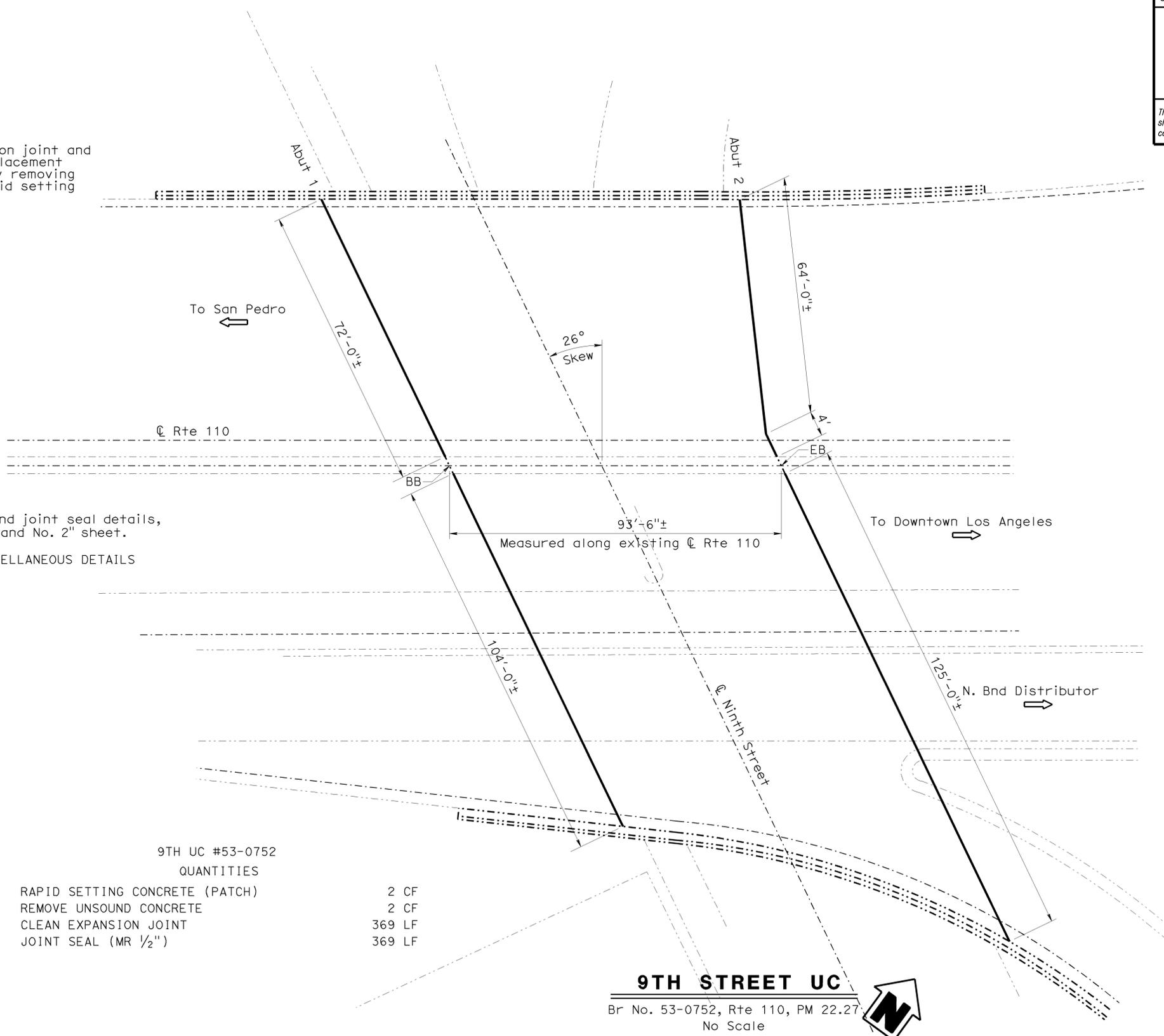
BRIDGE NO.	Various
POST MILE	Varies

**ROUTE 110 BRIDGES
GENERAL PLAN NO. 5**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	29	42
Edward Li REGISTERED CIVIL ENGINEER			10-20-14 DATE		
12-29-14 PLANS APPROVAL DATE					
<small>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.</small>					

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.



NOTES:

1. For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and No. 2" sheet.
2. For joint repair detail, see "MISCELLANEOUS DETAILS NO. 3" sheet.

9TH UC #53-0752
QUANTITIES

RAPID SETTING CONCRETE (PATCH)	2 CF
REMOVE UNSOUND CONCRETE	2 CF
CLEAN EXPANSION JOINT	369 LF
JOINT SEAL (MR 1/2")	369 LF

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

9TH STREET UC
Br No. 53-0752, Rte 110, PM 22.27
No Scale

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	ROUTE 110 BRIDGES GENERAL PLAN NO. 6					
	DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom		CHECKED Edward Li		POST MILE				
	QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson		CHECKED Kevin Ellingson		PLANS AND SPECS COMPARED	Varies			
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489	PROJECT NUMBER & PHASE: 0713000437 1	CONTRACT NO.: 07-2W7404	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 06	OF 19

USERNAME => s117283 DATE PLOTTED => 29-OCT-2014 TIME PLOTTED => 09:55

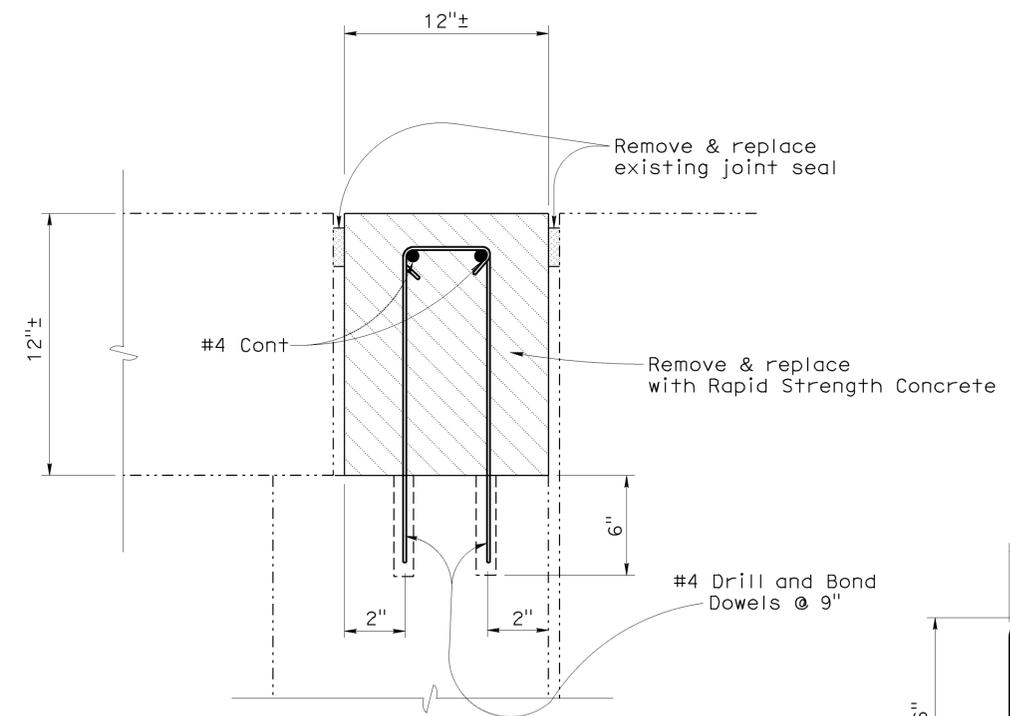
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	30	42
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			10-20-14 DATE		
12-29-14 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

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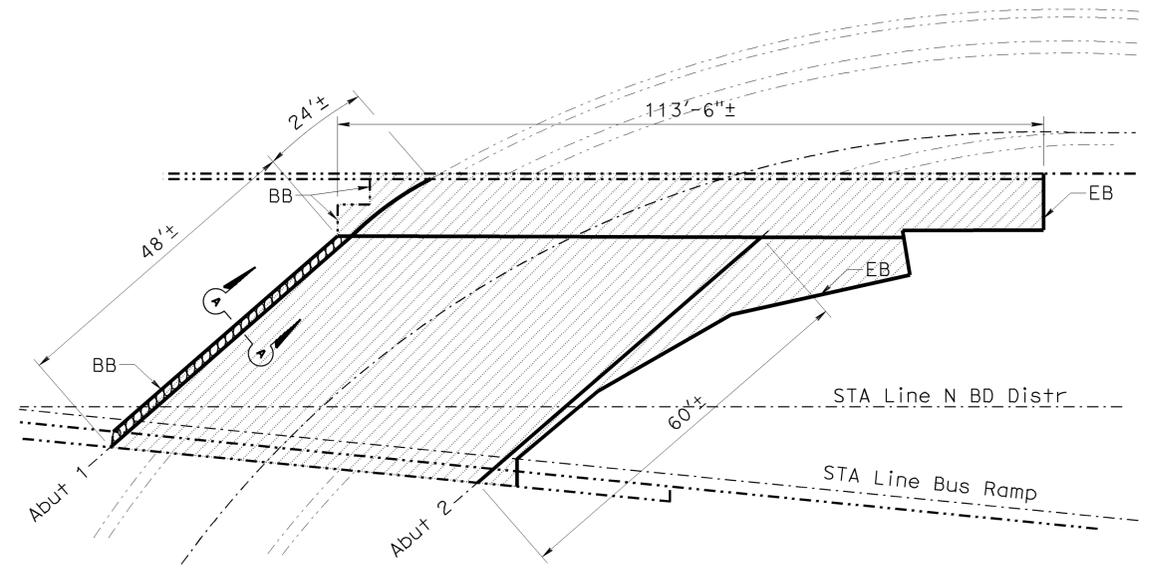
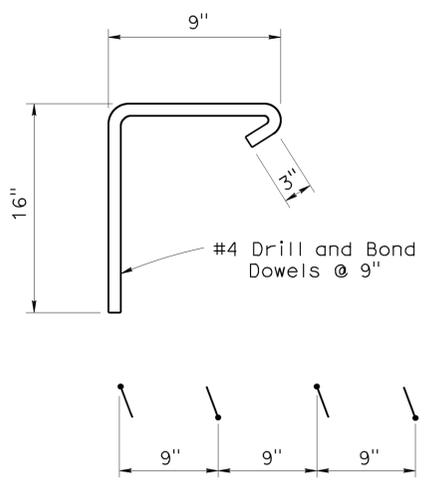
- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.
- Repair backwall per detail on this sheet.
- Limits of bridge removal (portion) and structural concrete bridge.

NOTES:

- For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.
- For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.



SECTION A-A
No Scale



8TH STREET NB ON-RAMP UC

Br No. 53-0793S, Rte 110, PM 22.49
No Scale

8TH STREET NB ON-RAMP UC #53-0793S

QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	15 CF
REMOVE UNSOUND CONCRETE	15 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	4,012 SQFT
TREAT BRIDGE DECK	4,012 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	51 GAL
BRIDGE REMOVAL (PORTION), LOCATION A	LUMP SUM
STRUCTURAL CONCRETE, BRIDGE	2 CY
DRILL AND BOND DOWEL	134 LF
CLEAN EXPANSION JOINT	384 LF
JOINT SEAL (MR 1/2")	270 LF
JOINT SEAL (TYPE AL)	114 LF
BAR REINFORCING STEEL (BRIDGE)	65 LB

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	ROUTE 110 BRIDGES GENERAL PLAN NO. 7	
	DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom		CHECKED Edward Li		POST MILE
	QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson		CHECKED Kevin Ellingson		PLANS AND SPECS COMPARED
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489	REVISION DATES	SHEET 07 OF 19
						0 1 2 3	PROJECT NUMBER & PHASE: 0713000437 1	CONTRACT NO.: 07-2W7404	DISREGARD PRINTS BEARING EARLIER REVISION DATES

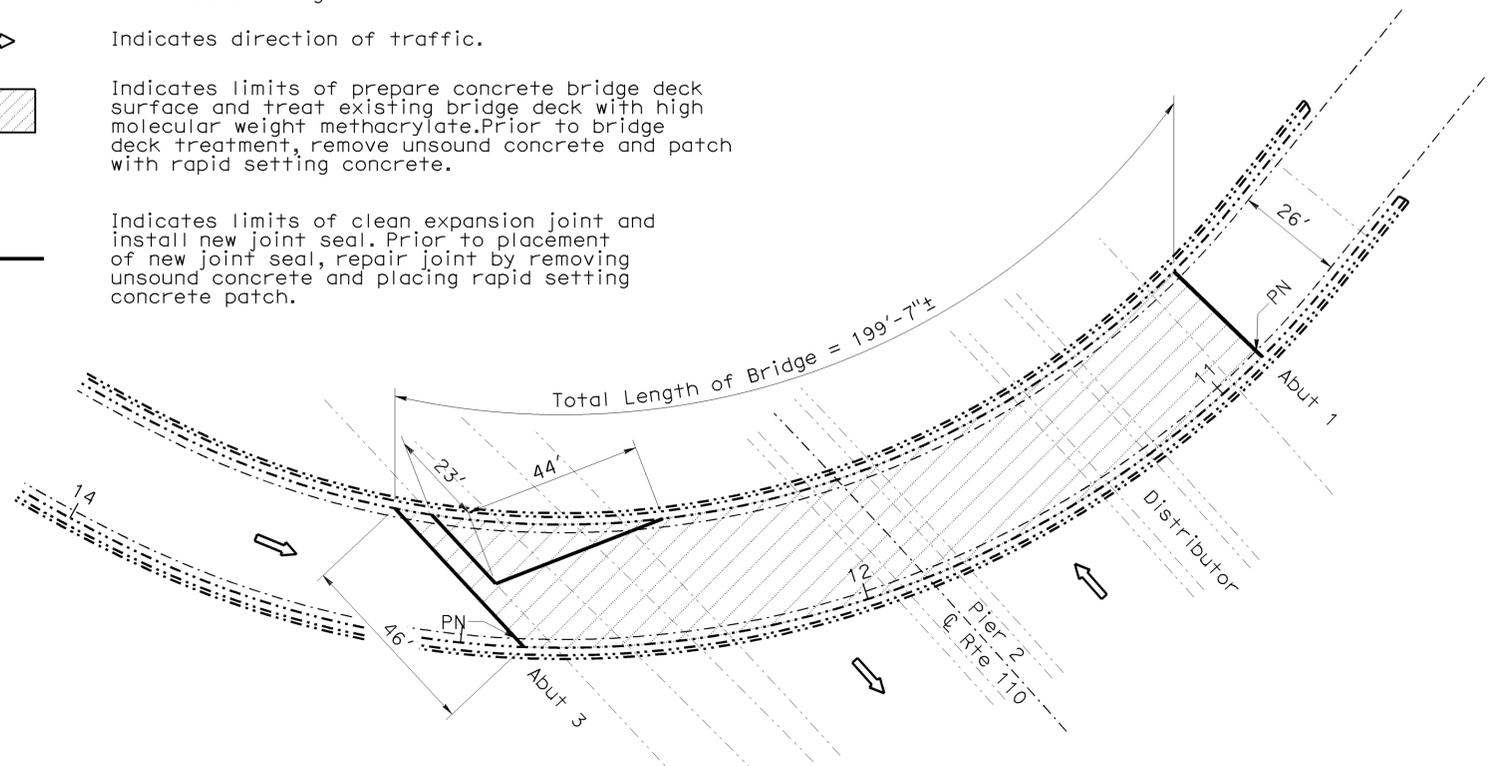
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	31	42
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			10-20-14	DATE	
12-29-14 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.

NOTES:

1. For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.
2. For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.



6TH STREET SB OFF-RAMP OC

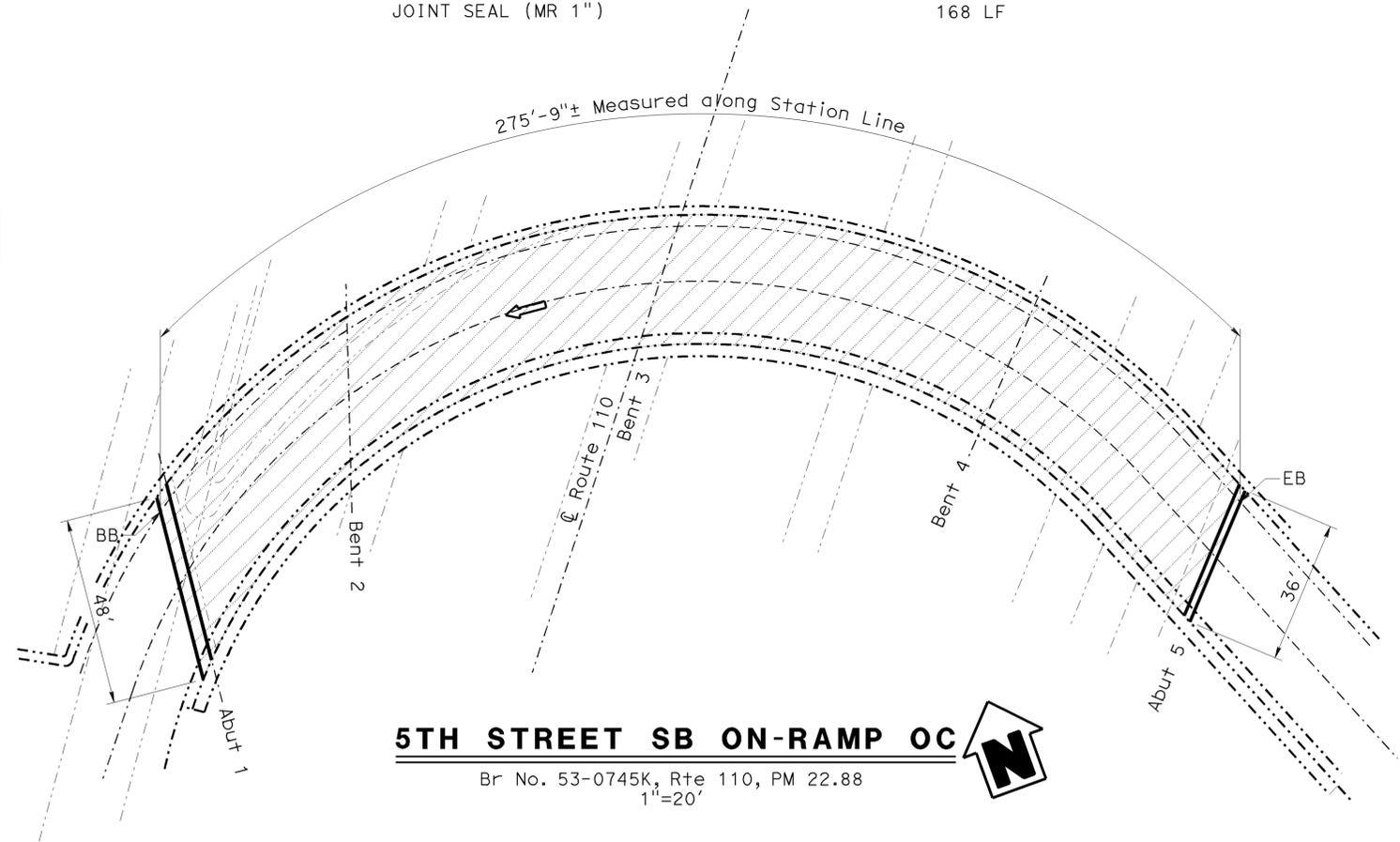
Br No. 53-0747K, Rte 110, PM 22.76
1"=20'

6TH STREET SB OFF-RAMP OC #53-0747K
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	17 CF
REMOVE UNSOUND CONCRETE	17 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	5,200 SQFT
TREAT BRIDGE DECK	5,200 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	65 GAL
CLEAN EXPANSION JOINT	139 LF
JOINT SEAL (MR 1 1/2")	95 LF
JOINT SEAL (TYPE AL)	44 LF

5TH STREET SB ON-RAMP OC #53-0745K
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	29 CF
REMOVE UNSOUND CONCRETE	29 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	9,930 SQFT
TREAT BRIDGE DECK	9,930 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	125 GAL
CLEAN EXPANSION JOINT	168 LF
JOINT SEAL (MR 1")	168 LF



5TH STREET SB ON-RAMP OC

Br No. 53-0745K, Rte 110, PM 22.88
1"=20'

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom
	QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 110 BRIDGES
GENERAL PLAN NO. 8

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000437 1 CONTRACT NO.: 07-2W7404

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
05-08-14 07-27-14 10-17-14 10-20-14	08	19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	32	42

Edward Li 10-20-14
REGISTERED CIVIL ENGINEER DATE

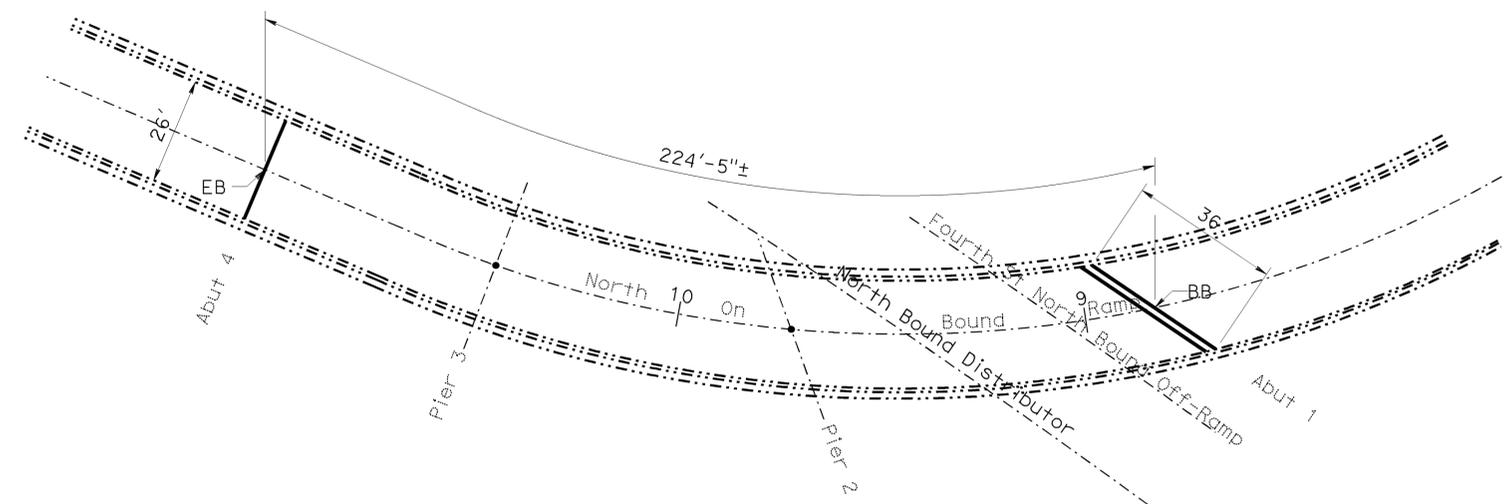
12-29-14
PLANS APPROVAL DATE

EDWARD GUOJUN LI
No. C56706
Exp. 06/30/15
CIVIL
STATE OF CALIFORNIA

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.

LEGEND:

- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.



NOTES:

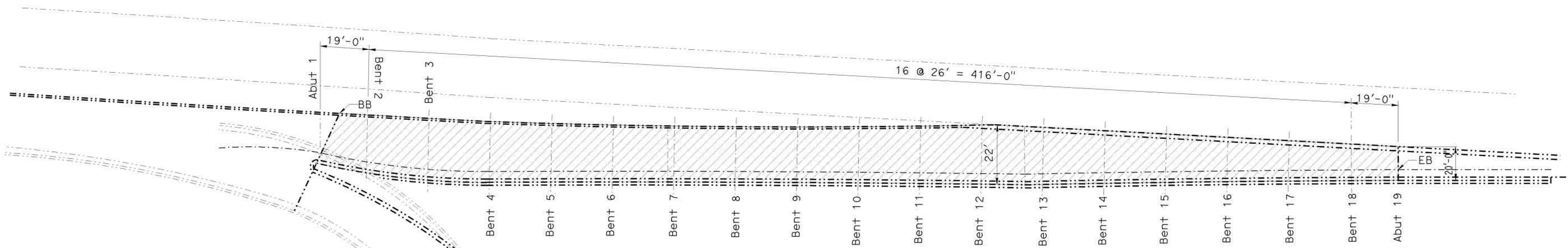
- For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.
- For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.

5TH STREET NB ON-RAMP OC
Br No. 53-0686S, Rte 110, PM 22.91
1"=20'

5TH STREET NB ON-RAMP OC #53-0686S

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	3 CF
REMOVE UNSOUND CONCRETE	3 CF
CLEAN EXPANSION JOINT	98 LF
JOINT SEAL (MR 1")	98 LF



5TH STREET SB VIADUCT
Br No. 53-1492K, Rte 110, PM 22.90
No Scale

5TH STREET SB VIADUCT #53-1492K

QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	25 CF
REMOVE UNSOUND CONCRETE	25 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	9,930 SQFT
TREAT BRIDGE DECK	9,930 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	125 GAL

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom
QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	Various
POST MILE	Varies

**ROUTE 110 BRIDGES
GENERAL PLAN NO. 9**

TIME PLOTTED => 09:56
DATE PLOTTED => 29-OCT-2014
USER NAME => s117283

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	33	42

Edward Li 10-20-14
 REGISTERED CIVIL ENGINEER DATE

12-29-14
 PLANS APPROVAL DATE

EDWARD GUOJUN LI
 No. C56706
 Exp. 06/30/15
 CIVIL
 STATE OF CALIFORNIA

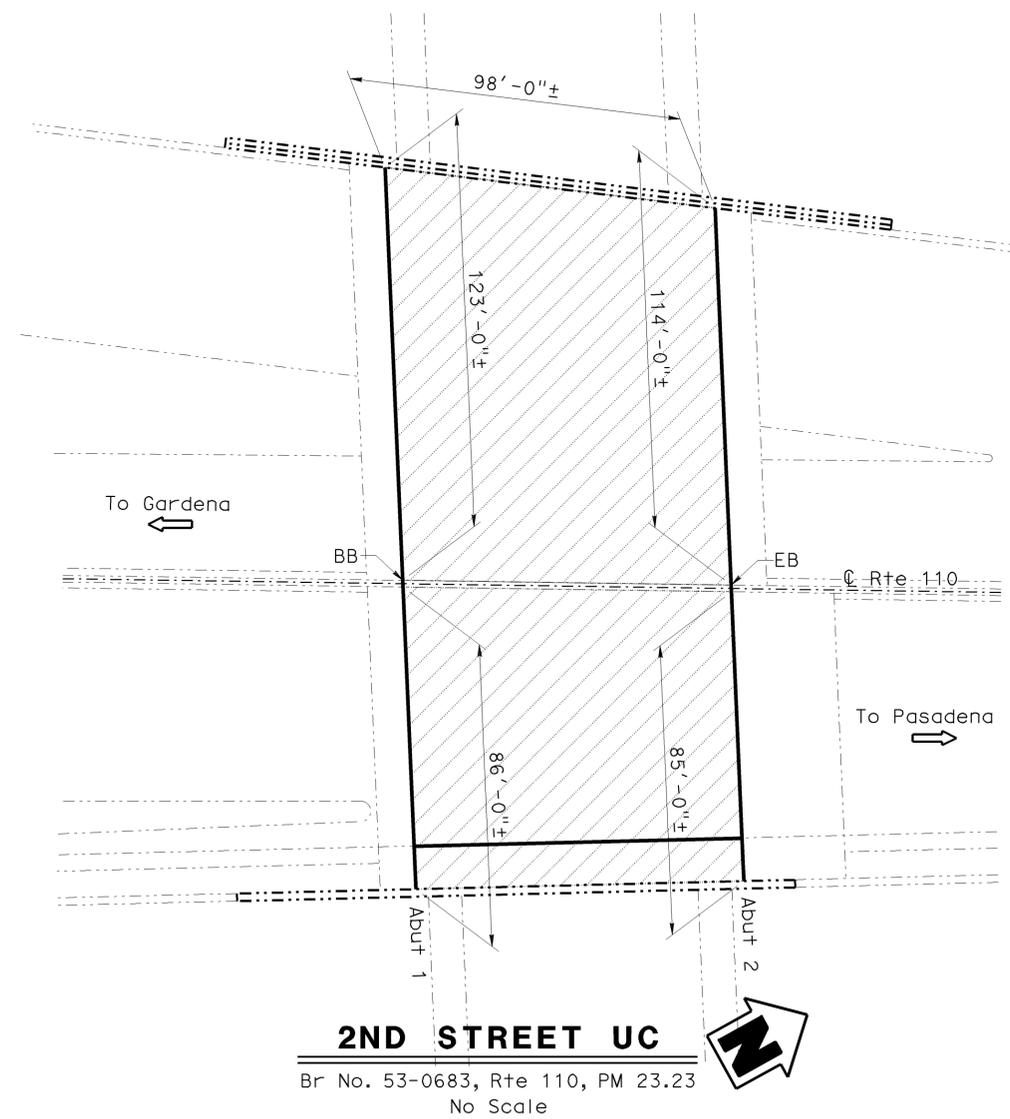
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.

NOTES:

1. For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.
2. For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.



2ND STREET UC #53-0683
 QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	53 CF
REMOVE UNSOUND CONCRETE	53 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	19,992 SQFT
TREAT BRIDGE DECK	19,992 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	250 GAL
CLEAN EXPANSION JOINT	506 LF
JOINT SEAL (MR 1/2")	408 LF
JOINT SEAL (TYPE AL)	98 LF

NOTE:
 VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 110 BRIDGES GENERAL PLAN NO. 10
	DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom			CHECKED Edward Li	
	QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson	PLANS AND SPECS COMPARED Kevin Ellingson		Varies	

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3489
 PROJECT NUMBER & PHASE: 0713000437 1 CONTRACT NO.: 07-2W7404

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
05-08-14 07-31-14 10-17-14 10-20-14	10	19

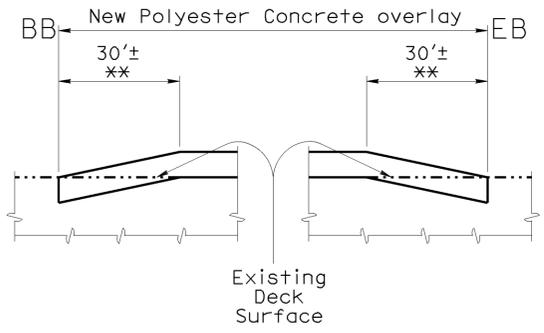
FILE => 07-2w7401-a-gp10.dgn

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.
- ▩ Indicates limits of remove existing and place new Structure Approach Type R(30D). For details, see SPECIAL DETAILS, STRUCTURE APPROACH TYPE R(30D).
- ▨ Indicates limits of prepare concrete bridge deck surface, and place 3/4" min depth polyester concrete overlay. Prior to placing new polyester concrete overlay, remove unsound concrete and patch with rapid setting concrete.
- ⊖ Indicates limit of placement of new joint seal.
- * Indicates limits of paving notch extension.

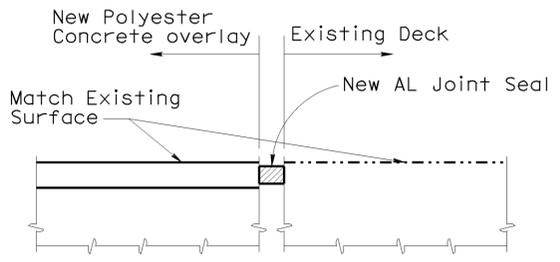
NOTES:

1. For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.
2. For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.



SECTION A-A
No Scale

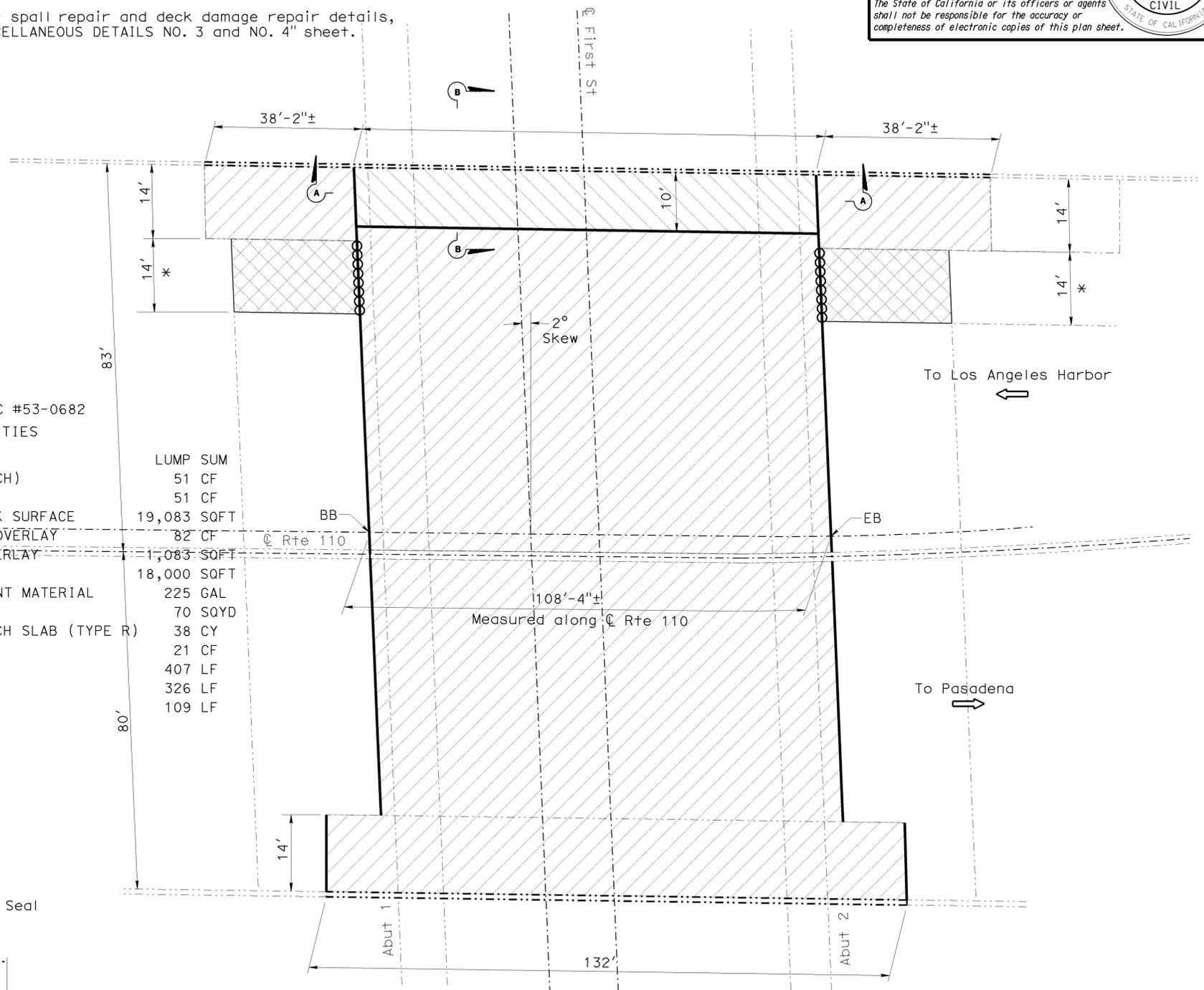
* Limits of grind existing bridge deck 0 inch min to 3/4 inch maximum full width. Grind flush to conform with existing profile.



SECTION B-B
No Scale

QUANTITIES

	LUMP SUM
PUBLIC SAFETY PLAN	
RAPID SETTING CONCRETE (PATCH)	51 CF
REMOVE UNSOUND CONCRETE	51 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	19,083 SQFT
FURNISH POLYESTER CONCRETE OVERLAY	82 CF
PLACE POLYESTER CONCRETE OVERLAY	1,083 SQFT
TREAT BRIDGE DECK	18,000 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	225 GAL
GRIND EXISTING BRIDGE DECK	70 SQYD
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	38 CY
PAVING NOTCH EXTENSION	21 CF
CLEAN EXPANSION JOINT	407 LF
JOINT SEAL (MR 1 1/2")	326 LF
JOINT SEAL (TYPE AL)	109 LF



1ST STREET UC
Br No. 53-0682, Rte 110, PM 23.34
No Scale

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	35	42

Edward Li 10-20-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

EDWARD GUOJUN LI
REGISTERED PROFESSIONAL ENGINEER
No. C56706
Exp. 06/30/15
CIVIL
STATE OF CALIFORNIA

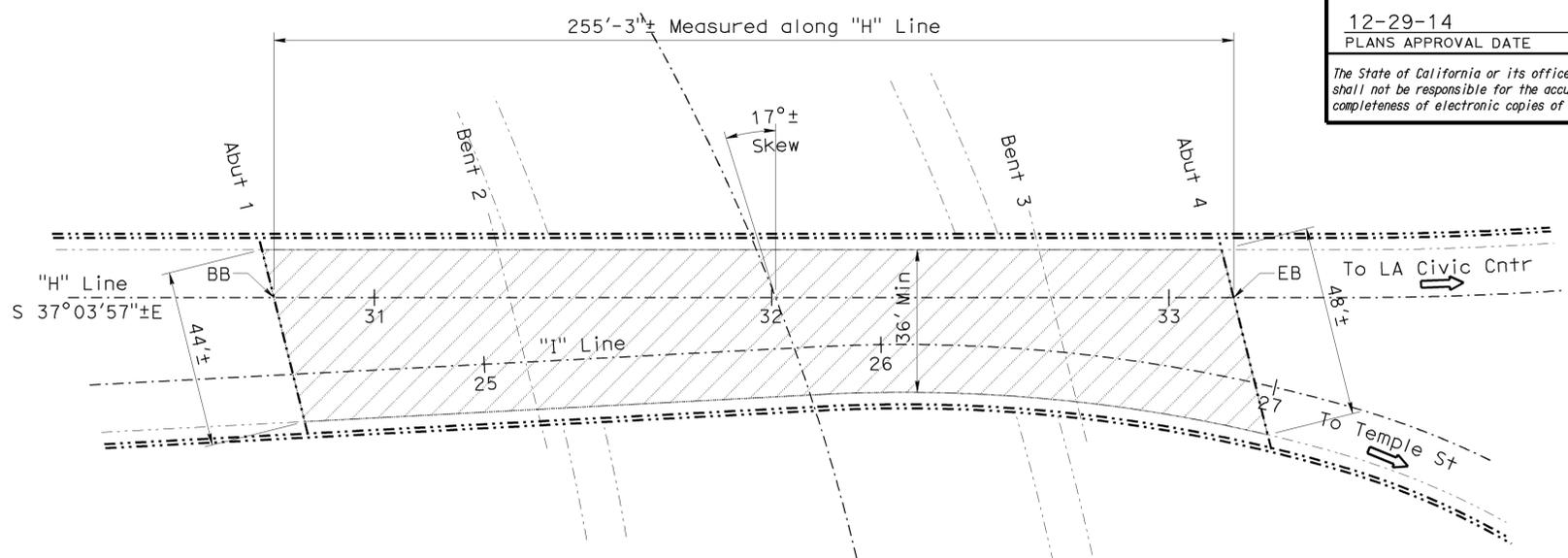
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.

NOTES:

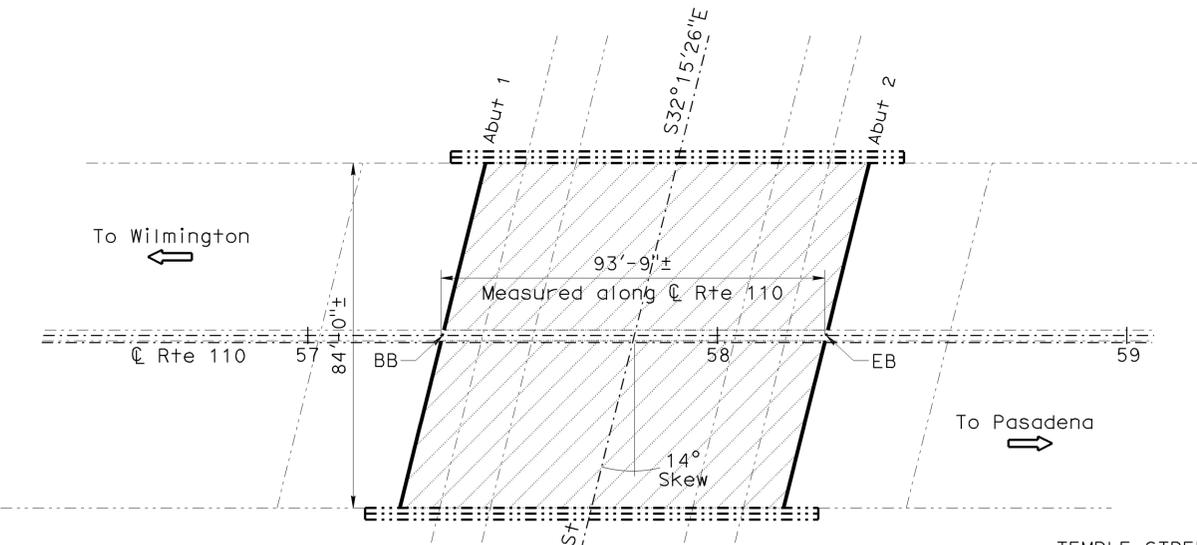
1. For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.
2. For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.



N&S 110-S101 CONNECTOR OC
Br No. 53-0623H, Rte 110, PM 23.68
1"=20'

N&S 110-S101 CONNECTOR OC #53-0623H
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	27 CF
REMOVE UNSOUND CONCRETE	27 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	10,470 SQFT
TREAT BRIDGE DECK	10,470 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	131 GAL



TEMPLE STREET UC
Br No. 53-0240, Rte 110, PM 23.61
1"=20'

TEMPLE STREET UC #53-0240
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	23 CF
REMOVE UNSOUND CONCRETE	23 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	7,880 SQFT
TREAT BRIDGE DECK	7,880 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	99 GAL
CLEAN EXPANSION JOINT	174 LF
JOINT SEAL (MR 1/2")	174 LF

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom
QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.
Various
POST MILE
Varies

**ROUTE 110 BRIDGES
GENERAL PLAN NO. 12**

USERNAME => s117283 DATE PLOTTED => 29-OCT-2014 TIME PLOTTED => 09:58

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	36	42

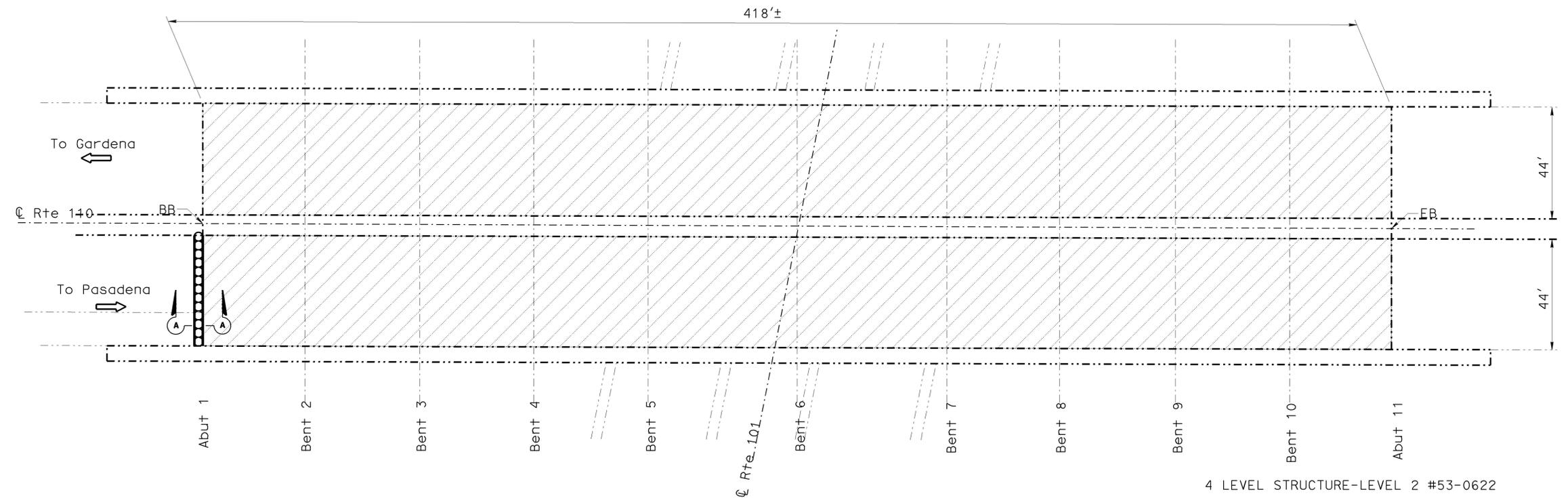
Edward Li 10-20-14
 REGISTERED CIVIL ENGINEER DATE
 12-29-14
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/15
 CIVIL
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
-  Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.
- Indicates limits of clean expansion joint and install new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.
- Repair backwall see "BACKWALL REPAIR DETAIL" sheet for Section A-A.

NOTES:

1. For joint clean expansion joint and joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.
2. For joint spall repair and deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3 and NO. 4" sheet.



4 LEVEL STRUCTURE-LEVEL 2

Br No. 53-0622, Rte 110, PM 23.69
No Scale



4 LEVEL STRUCTURE-LEVEL 2 #53-0622 QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	94 CF
REMOVE UNSOUND CONCRETE	94 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	36,784 SQFT
TREAT BRIDGE DECK	36,784 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	460 GAL
BRIDGE REMOVAL (PORTION), LOCATION B	LUMP SUM
STRUCTURAL CONCRETE, BRIDGE	3 CY
DRILL AND BOND DOWEL	216 LF
CLEAN EXPANSION JOINT	88 LF
JOINT SEAL (MR 1/2")	44 LF
JOINT SEAL (MR 1 1/2")	44 LF
BAR REINFORCING STEEL (BRIDGE)	89 LB

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Hong Tien Tran	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY Clayton Tom	CHECKED Edward Li	LAYOUT	BY Clayton Tom
	QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran	SPECIFICATIONS	BY Kevin Ellingson

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
 POST MILE Varies
ROUTE 110 BRIDGES
GENERAL PLAN NO. 13

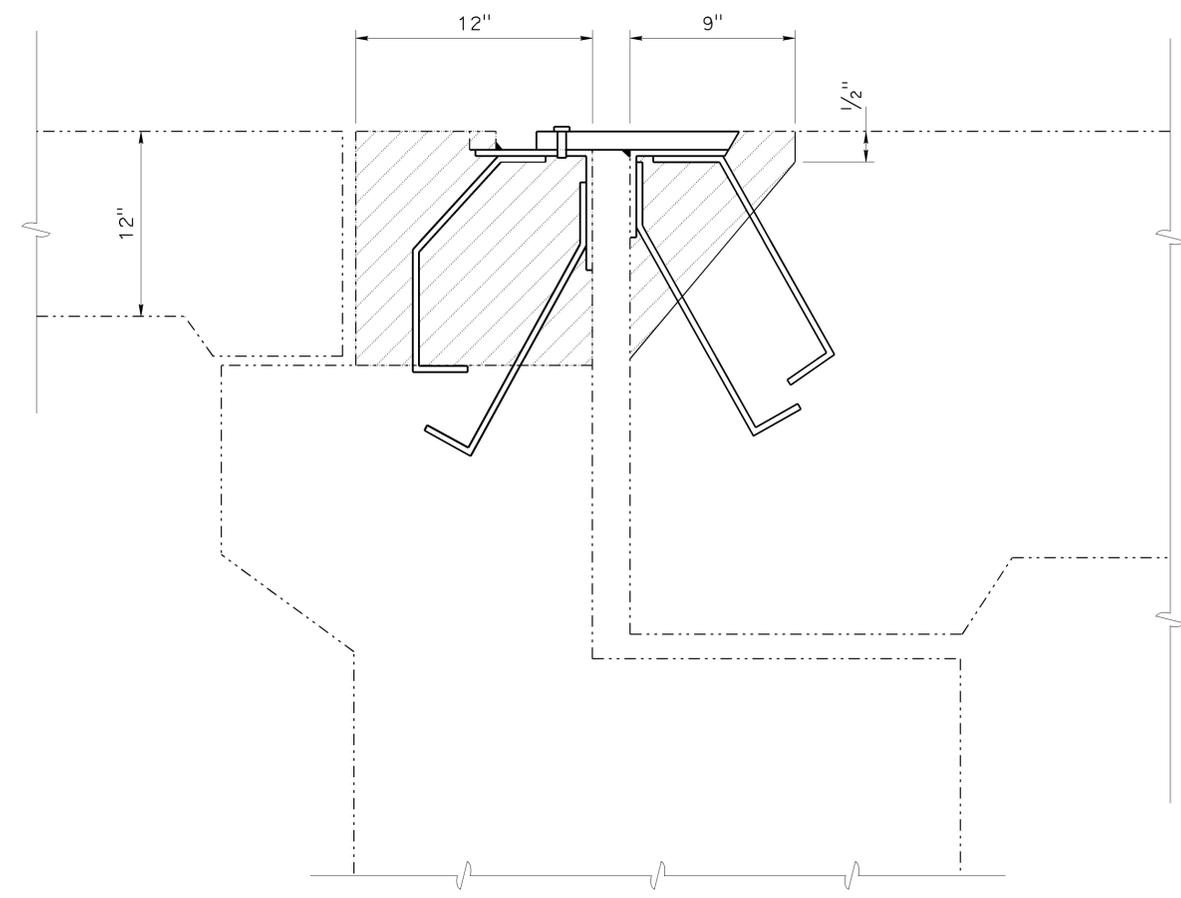
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	37	42
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			10-20-14 DATE		
12-29-14 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

LEGEND:

- Indicates existing.
- Indicates new structure.
- Indicates limits of bridge removal (portion). Preserve existing reinforcement.
- Indicates limits of place rapid strength concrete.

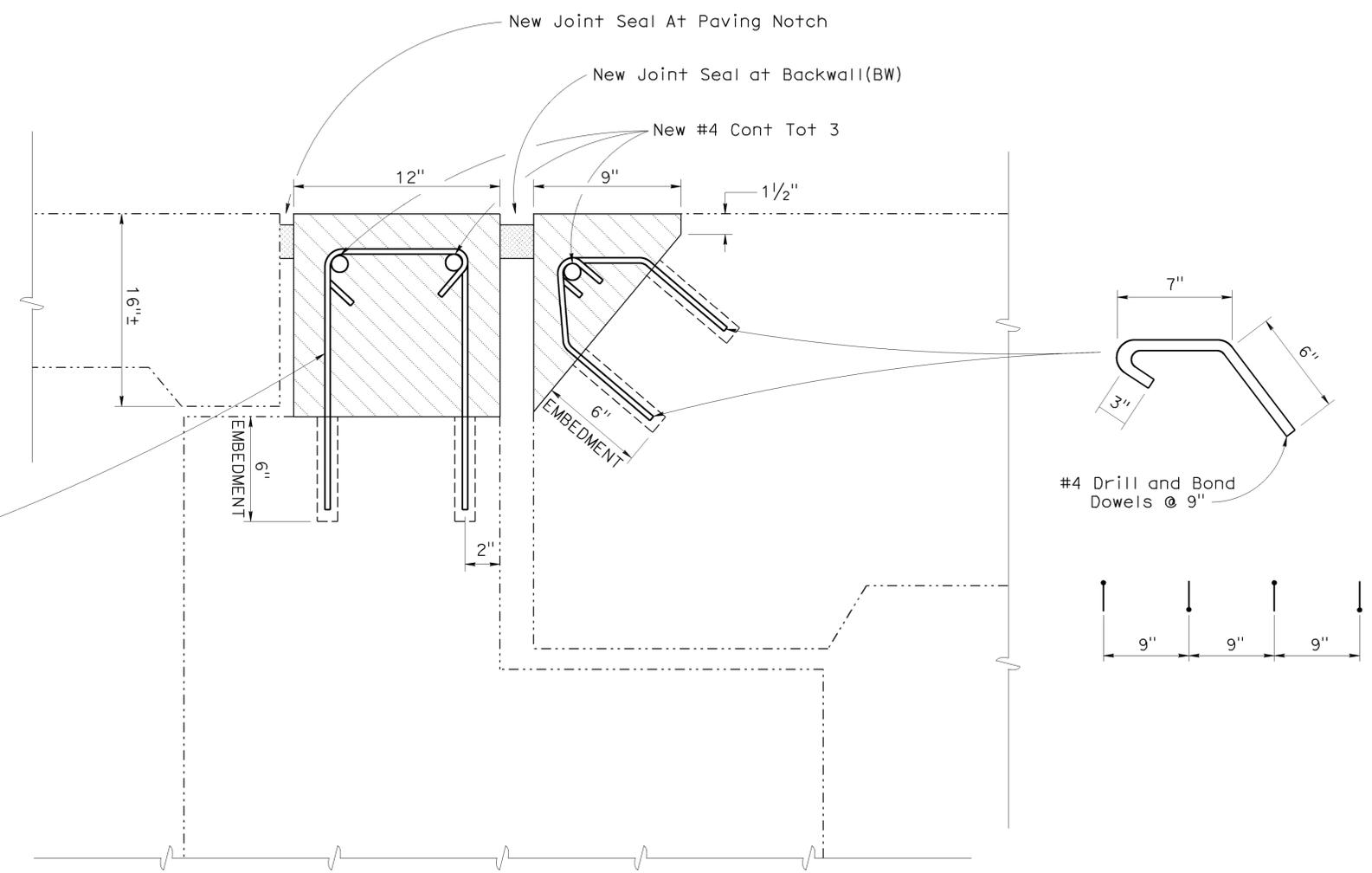
NOTES:

- For joint seal details, see "MISCELLANEOUS DETAILS NO. 1 and NO. 2" sheet.

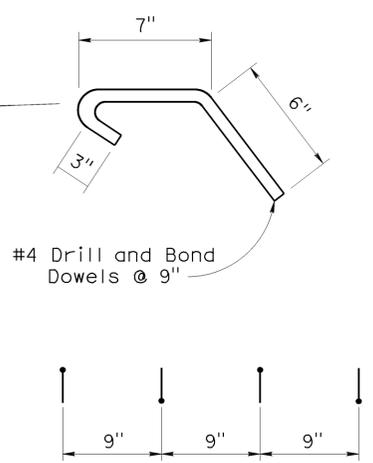
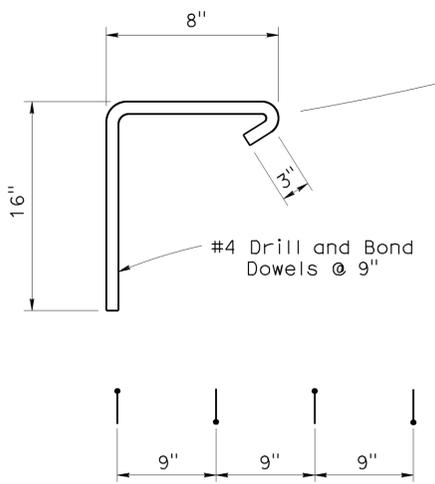


SECTION A-A EXISTING

(For Clarity, Existing Rebars Not Shown)



SECTION A-A RECONSTRUCTION



NOTE:
 VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN BY Edward Li CHECKED BY Hong Tien Tran DETAILS BY Clayton Tom CHECKED BY Edward Li QUANTITIES BY Edward Li CHECKED BY Hong Tien Tran	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO. 53-0622	ROUTE 110 BRIDGES BACKWALL REPAIR DETAIL
			POST MILE 23.69	
			UNIT: 3489 PROJECT NUMBER & PHASE: 0713000437 1 CONTRACT NO.: 07-2W7404	
STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3				DISREGARD PRINTS BEARING EARLIER REVISION DATES
				REVISION DATES SHEET OF 07-31-14 10-17-14 10-20-14 14 19

USERNAME => 8117263 DATE PLOTTED => 29-OCT-2014 TIME PLOTTED => 09:59

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	38	42

Edward Li 10-20-14
 REGISTERED CIVIL ENGINEER DATE

12-29-14
 PLANS APPROVAL DATE

No. C56706
 Exp. 06/30/15
 CIVIL

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JOINT SEAL TABLE											
BRIDGE NAME	BRIDGE NUMBER	JOINT SEAL LOCATION		MINIMUM "MR" (INCHES)	APPROX LENGTH (FEET)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCHES)	APPROX DEPTH OF JOINT SPALLS (INCHES)	APPROX WIDTH OF JOINT SPALLS (INCHES)	APPROX LENGTH OF JOINT SPALLS (FEET)	LENGTH TO CLEAN EXP JOINT (FEET)
Slauson Ave OH	53-0911	Bent 2		1/2	255	No	12	3	6	5	255
		Abut 3	PN	1/2	255	No	12	3	6	5	255
Olympic Blvd UC	53-0794	Abut 1	PN	1	199	No	12	3	6	5	186
		Abut 2	PN	1	186	No	12	3	6	5	186
9TH St UC	53-0752	Abut 1	PN	1/2	176	No	12	3	6	5	176
		Abut 2	PN	1/2	193	No	12	3	6	5	193
8TH St NB On-Ramp UC	53-0793S	Abut 1	PN	1/2	48	No	12	3	6	5	48
			BW	1/2	72	No	12	3	6	5	72
		Abut 2	BW	1/2	60	No	12	3	6	5	60
			PN	1/2	90	No	12	3	6	5	90
6TH St SB Off-Ramp OC	53-0747K	Abut 1	PN	1 1/2	26	No	12	3	6	5	26
		Abut 3	BW	1 1/2	23	No	12	3	6	5	23
			PN	1 1/2	46	No	12	3	6	5	46
		AL			44	No	12	3	6	5	44
5TH St SB On-Ramp OC	53-0745K	Abut 1	PN	1	48	No	12	3	6	5	48
			BW	1	48	No	12	3	6	5	48
		Abut 5	BW	1	36	No	12	3	6	5	36
			PN	1	36	No	12	3	6	5	36
5TH St NB On-Ramp OC	53-0686S	Abut 1	PN	1	36	No	12	3	6	5	36
			BW	1	36	No	12	3	6	5	36
		Abut 4	BW	1	26	No	12	3	6	5	26
2ND St UC	53-0683	Abut 1	PN	1/2	209	No	12	3	6	5	209
		Abut 2	PN	1/2	199	No	12	3	6	5	199
		AL			98	No	12	3	6	5	98
1ST St UC	53-0682	Abut 1	PN	1 1/2	160	No	12	3	6	5	146
		Abut 2	PN	1 1/2	166	No	12	3	6	5	152
		AL			109	No	12	3	6	5	109
Temple St UC	53-0240	Abut 1	PN	1/2	87	No	12	3	6	5	87
		Abut 2	PN	1/2	87	No	12	3	6	5	87
4 Level Structure-Level 2	53-0622	Abut 1	PN	1/2	44	No	12	3	6	5	44
			BW	1 1/2	44	No	12	3	6	5	44

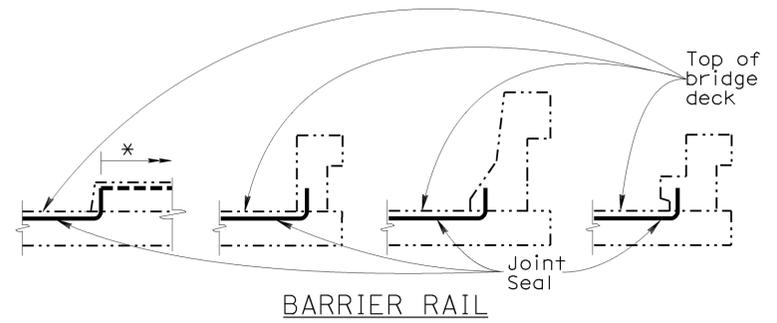
PN = Paving Notch
BW = Backwall

NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN	BY	Edward Li	CHECKED	Hong Tien Tran	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 110 BRIDGES	
	DETAILS	BY	Clayton Tom	CHECKED			Edward Li		Various
	QUANTITIES	BY	Edward Li	CHECKED			Hong Tien Tran		POST MILE
						BRIDGE NO. Varies			
						POST MILE Varies			
STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		UNIT: 3489 PROJECT NUMBER & PHASE: 0713000437 1 CONTRACT NO.: 07-2W7404		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
						REVISION DATES		SHEET 15 OF 19	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	39	42

Edward Li 10-20-14
 REGISTERED CIVIL ENGINEER DATE
 12-29-14
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/15
 CIVIL
 STATE OF CALIFORNIA
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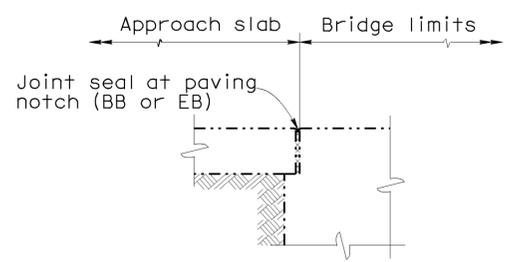


JOINT SEAL AT LOW SIDE OF DECK

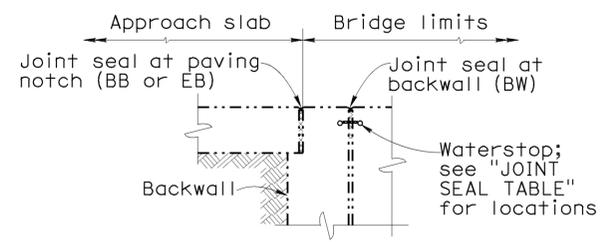
Details shown for illustration purposes only.
 For use only where deck joint matches the sidewalk, curb or barrier rail joint.
 * Extension of joint will be determined by the Engineer if necessary.

NOTES:

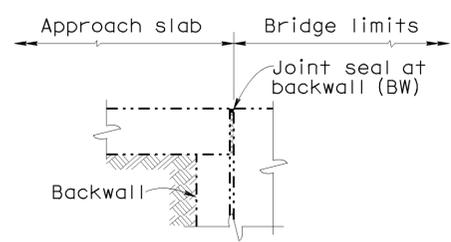
- The following notes apply to JOINT SEAL TYPE A:
- Install Joint Seal (MR = 1/2") or Silicone Joint Seal 3" up into curb or barrier rail on the low side of the deck where deck joint aligns with curb or barrier rail joint.
 - For details not shown see Standard Plan B6-21.
- The following notes apply to JOINT SEAL TYPE B:
- Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
 - Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be recalculated by the Engineer.
 - W1 shall be the smaller of the values determined as follows:
 - 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
 - The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3.0 PSI.
 - Bend Type B joint seal 6 inches up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.
- For details not shown see Standard Plan B6-21.



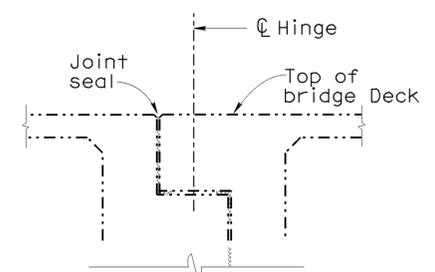
DIAPHRAGM ABUTMENT



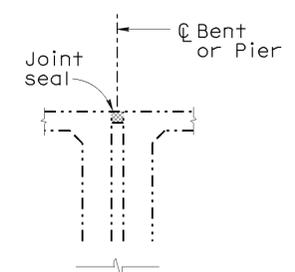
ABUTMENT WITH BACKWALL AND PAVING NOTCH



ABUTMENT WITH BACKWALL



HINGE



BENT OR PIER

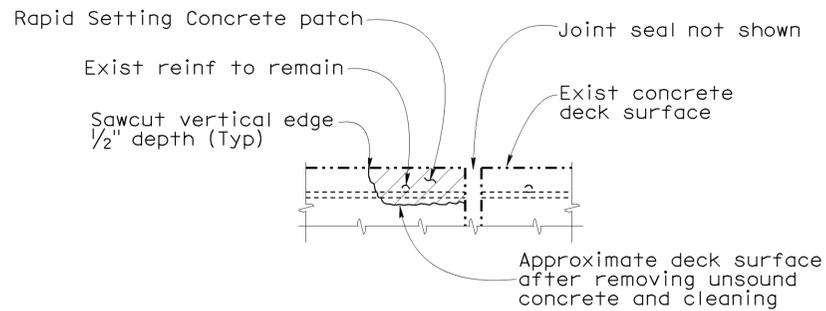
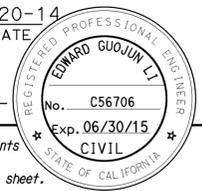
JOINT SEAL LOCATION

Abutment joint is not required with AC roadway pavement transverse contact joint.

NOTE:
 VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN BY Edward Li CHECKED Hong Tien Tran DETAILS BY Clayton Tom CHECKED Edward Li QUANTITIES BY Edward Li CHECKED Hong Tien Tran	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO. Various POST MILE Varies	ROUTE 110 BRIDGES MISCELLANEOUS DETAILS NO. 2
	UNIT: 3489 PROJECT NUMBER & PHASE: 0713000437 1 CONTRACT NO.: 07-2W7404	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 05-05-14 07-14-14 09-12-14 10-20-14	SHEET 16 OF 19
	STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	FILE => 07-2w7401-u-miscd02.dgn	10-20-14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	40	42
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			10-20-14	DATE	
12-29-14 PLANS APPROVAL DATE					
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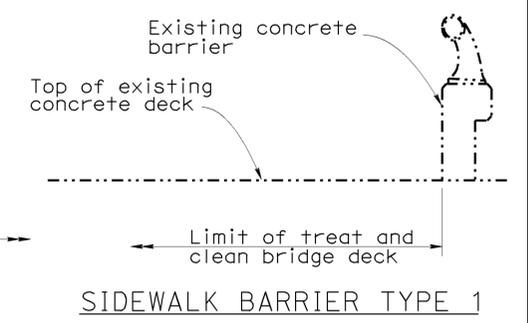
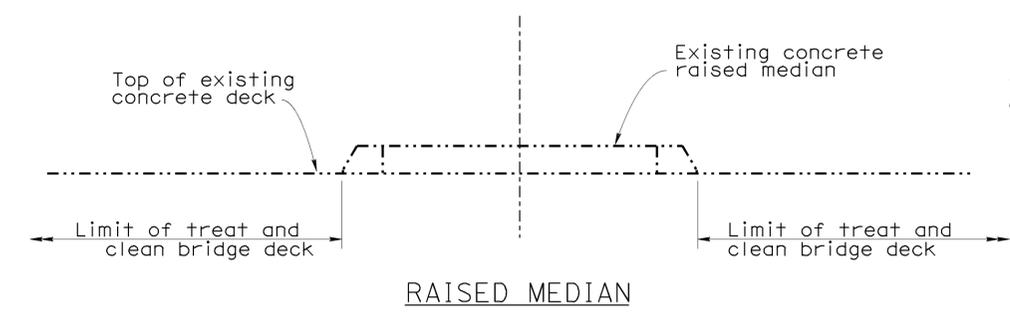
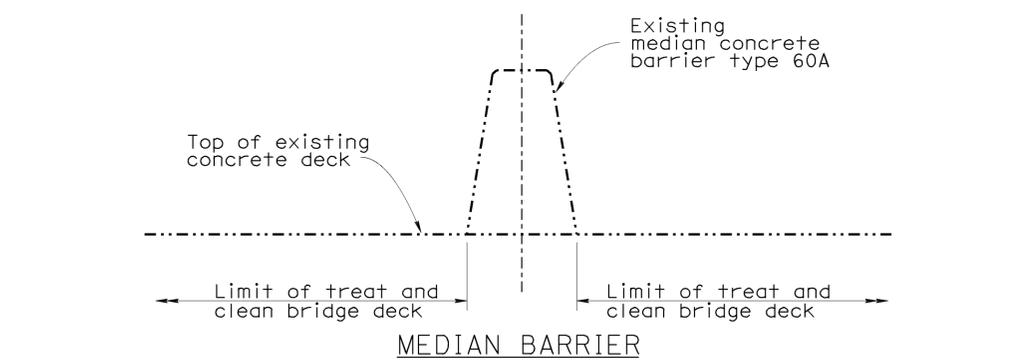
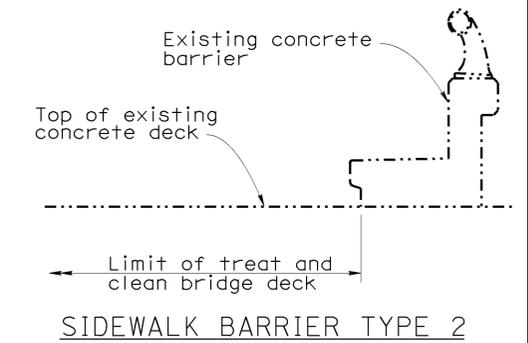
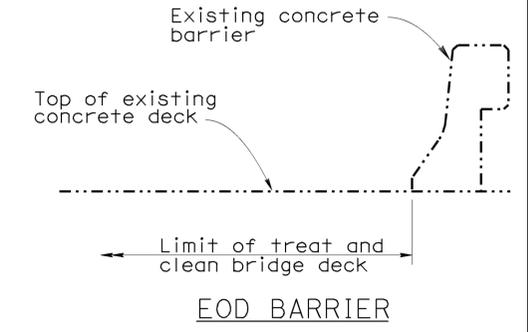


JOINT REPAIR DETAIL

Reinforcement may be encountered during deck concrete removal and is to remain undamaged.

DECK REPAIR NOTES:

- Existing reinforcement shall be protected in place during unsound concrete removal and patching operations.
- It is responsibility of the Contractor to repair any reinforcement that is accidentally cut by saw cutting operations.
- When existing transverse reinforcement is exposed in the deck surface, saw cutting may be waived with the approval of the Engineer.
- The saw cut depth shall not exceed 3/4 inch or the concrete cover over the top steel reinforcing bars, whichever is less.
- Remove unsound Portland Cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original deck surface with rapid setting concrete patch.



TYPICAL LIMITS OF DECK WORK

NO SCALE

DECK REPAIR TABLE REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE (PATCH)			
BRIDGE NAME	BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (%)	APPROXIMATE DEPTH (INCH)
Florence Avenue UC	53-0918	1	3
Gage Avenue UC	53-0914	1	3
Exposition Boulevard OH	53-0898	1	3
Washington Boulevard UC	53-0898	1	3
Route 110/10 WB Separation	53-1318	1	3
Olympic Boulevard UC	53-0794	1	3
Eight Street On-Ramp UC	53-0793S	1	3
Sixth Street OC	53-0747K	1	3
Fifth Street South Bound On-Ramp	53-0745K	1	3
Fifth Street South Bound Viaduct	53-1492K	1	3
Second Street UC	53-0683	1	3
First Street UC	53-0682	1	3
Temple Street UC	53-0240	1	3
North & South 110-S101 Connector OC	53-0623H	1	3
Four Level Structure-Level 2	53-0622	1	3

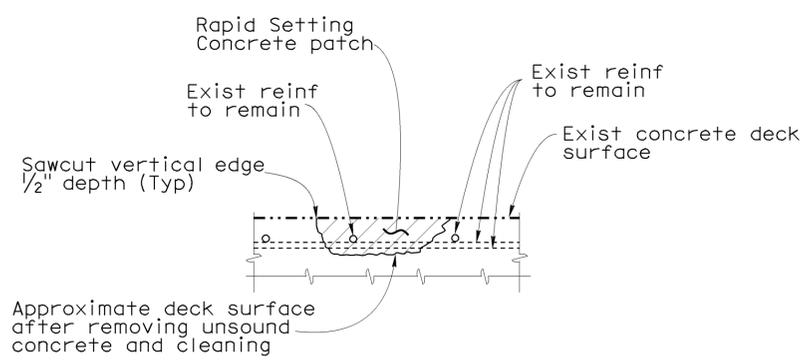
NOTE:
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN	BY	Edward Li	CHECKED	Hong Tien Tran	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	Various	ROUTE 110 BRIDGES MISCELLANEOUS DETAILS NO. 3	
	DETAILS	BY	Clayton Tom	CHECKED			Edward Li	POST MILE		Varies
	QUANTITIES	BY	Edward Li	CHECKED			Hong Tien Tran			
STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489 PROJECT NUMBER & PHASE: 0713000437 1	CONTRACT NO.: 07-2W7404	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 17 OF 19

TIME PLOTTED => 10:00 DATE PLOTTED => 29-OCT-2014 USERNAME => s117263

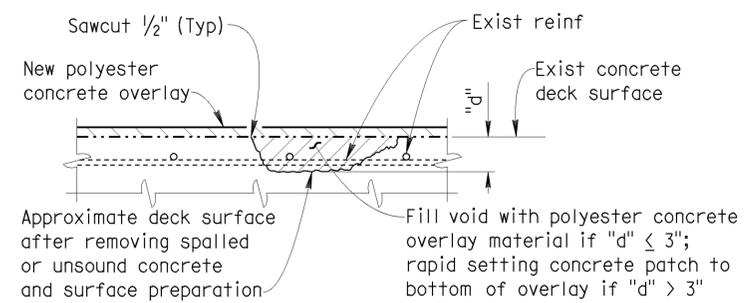
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	41	42

Edward Li 10-20-14
 REGISTERED CIVIL ENGINEER DATE
 12-29-14
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/15
 CIVIL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER



DECK DAMAGE REPAIR DETAIL

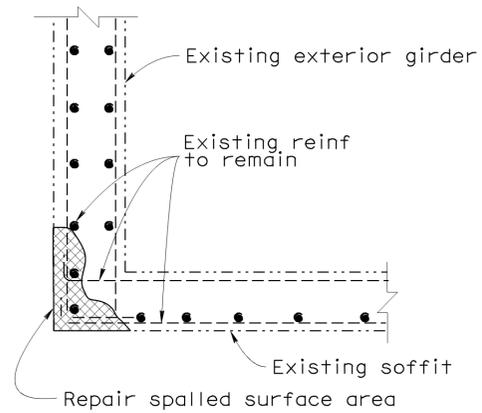
Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.



DECK REPAIR DETAIL - OVERLAY

Reinforcement may be encountered during deck concrete removal.

- DECK REPAIR NOTES:**
- Existing reinforcement shall be protected in place during unsound concrete removal and patching operations.
 - It is responsibility of the Contractor to repair any reinforcement that is accidentally cut by saw cutting operations.
 - When existing transverse reinforcement is exposed in the deck surface, saw cutting may be waived with the approval of the Engineer.
 - The saw cut depth shall not exceed 3/4 inch or the concrete cover over the top steel reinforcing bars, whichever is less.
 - Remove unsound Portland Cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original deck surface with rapid setting concrete patch.



SPALLED SURFACE AREA DETAIL

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.

NOTE:
 VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN	BY Edward Li	CHECKED Hong Tien Tran
DETAILS	BY Clayton Tom	CHECKED Edward Li
QUANTITIES	BY Edward Li	CHECKED Hong Tien Tran

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	Various
POST MILE	Varies

ROUTE 110 BRIDGES
 MISCELLANEOUS DETAILS NO. 4

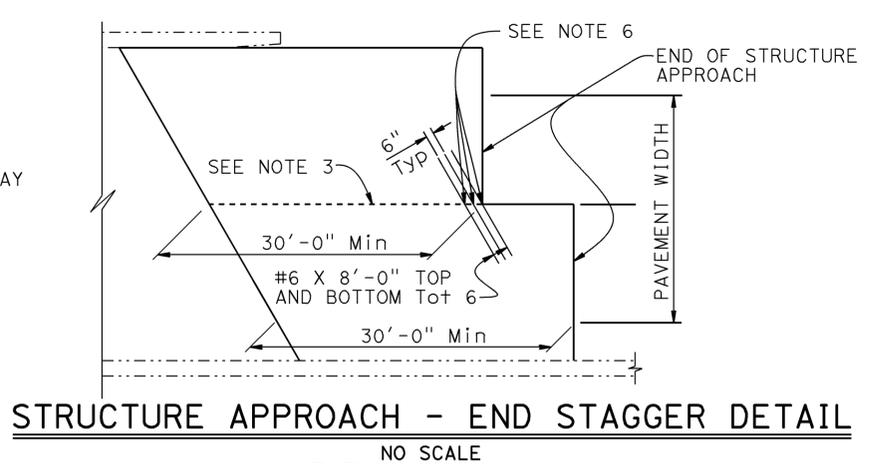
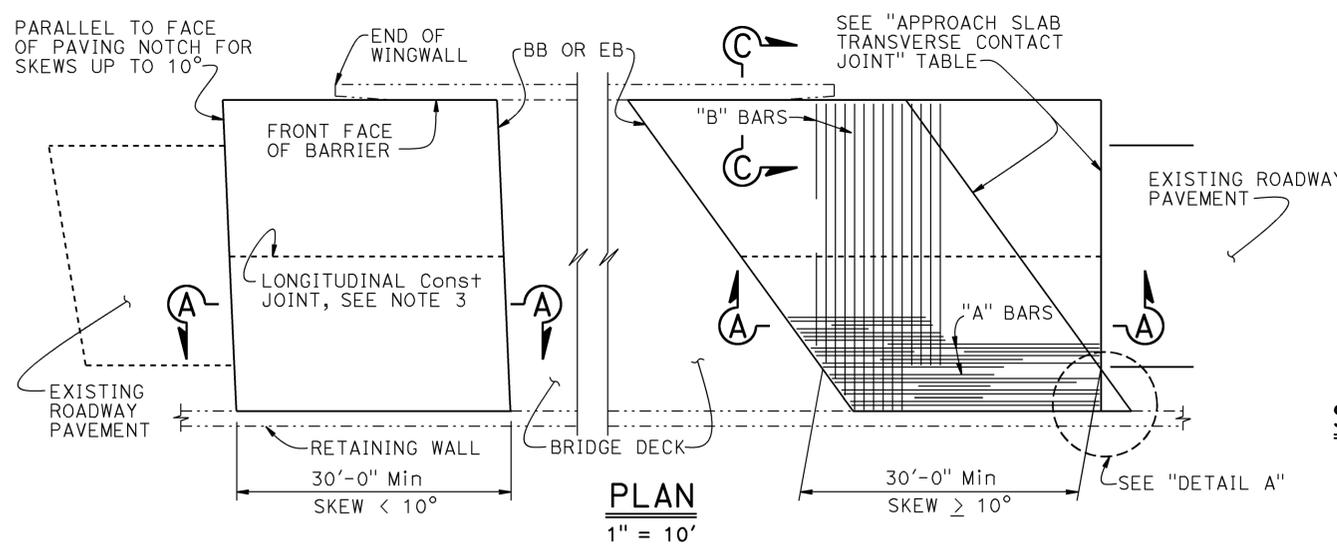
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	Var	42	42

Edward Li
REGISTERED CIVIL ENGINEER
10-20-14
DATE

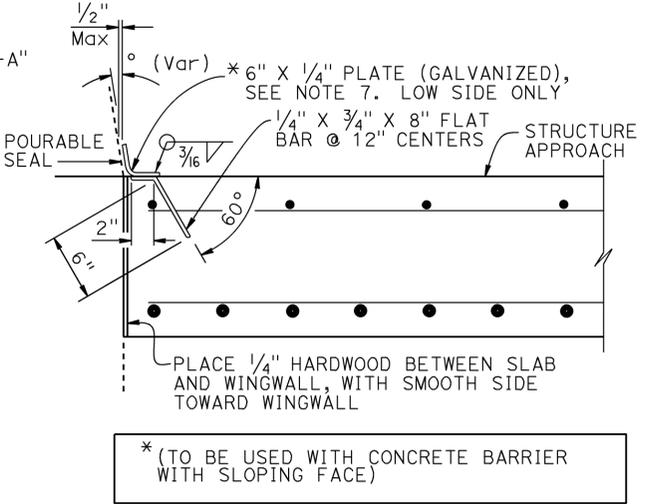
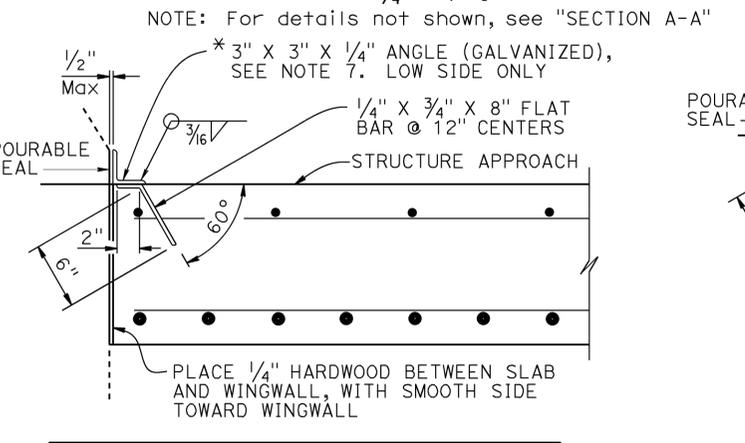
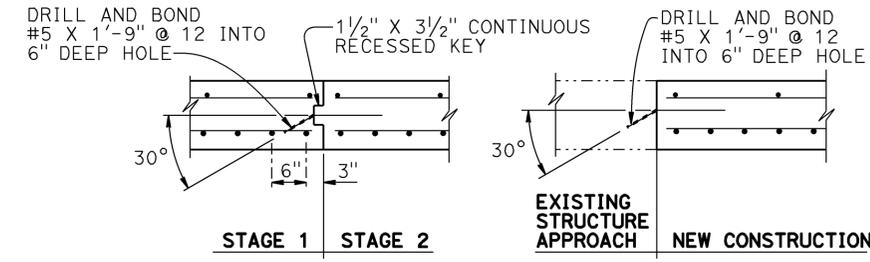
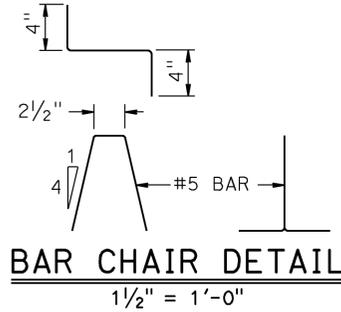
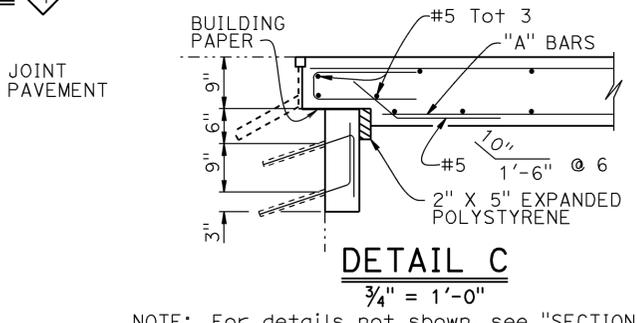
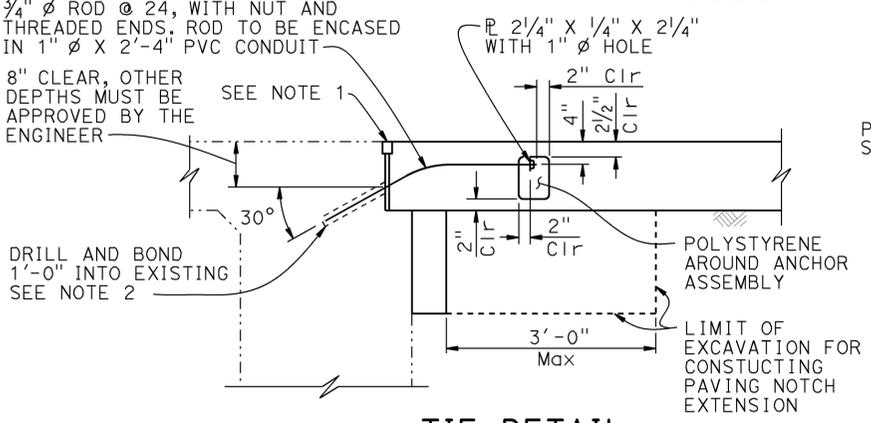
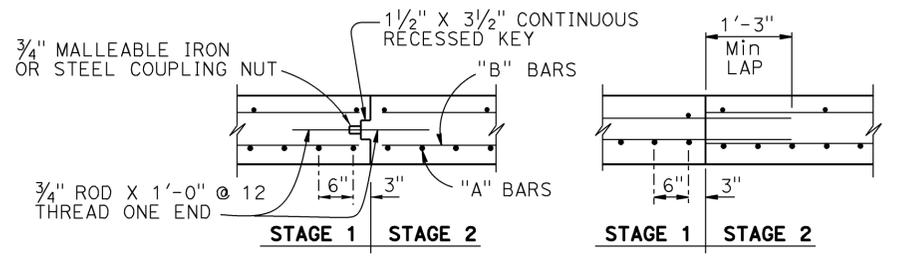
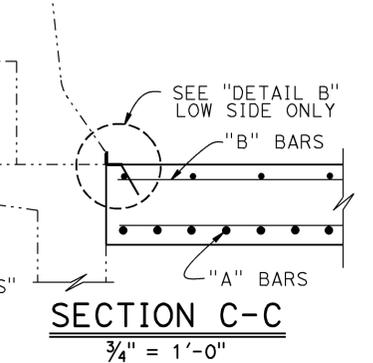
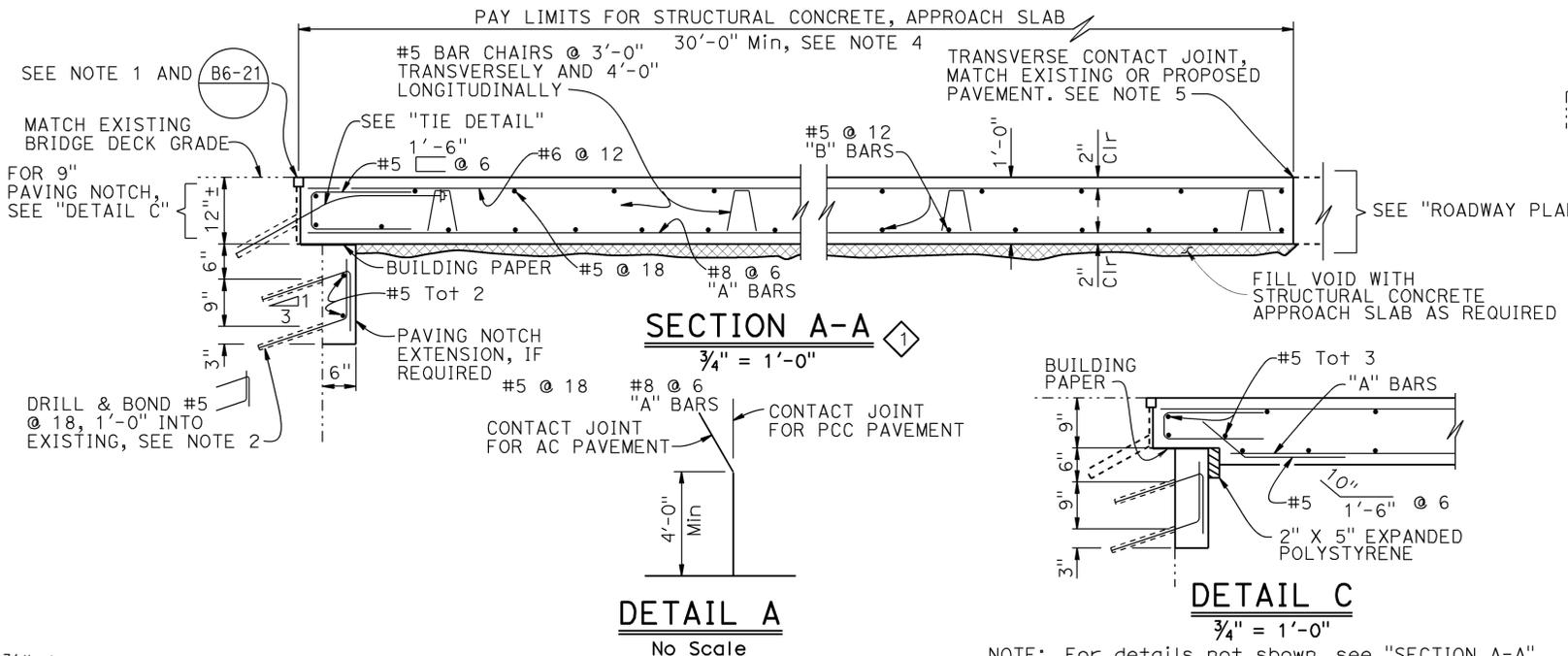
12-29-14
PLANS APPROVAL DATE

No. C56706
Exp. 06/30/15
CIVIL

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APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	PARALLEL TO FACE OF PN	PARALLEL TO FACE OF PAVING NOTCH
10° - 45°	PARALLEL TO FACE OF PN USE "DETAIL A"	STAGGER LINES 24' TO 36' APART
> 45°	PARALLEL TO FACE OF PN USE "DETAIL A"	STAGGER AT EACH LANE LINE



- LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES**
3/4" = 1'-0"
- NOTES:
- For details not shown or noted, see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required
 - Space to avoid existing prestress anchorages and main reinforcement
 - Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines
 - Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint
 - For transverse contact joint with new PCC paving, refer to Revised Standard Plan RSP P10.
 - Couplers are required for stage construction
 - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable

NOTE: VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

REVISED STANDARD DRAWING

FILE NO. **xs3-150**

APPROVAL DATE July 2011

REVISED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. Various

POST MILE Varies

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000437 1
CONTRACT NO.: 07-2W7401

SPECIAL DETAILS

ROUTE 110 BRIDGES

STRUCTURE APPROACH TYPE R(30D)

REVISION DATES

19 19