Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	1	49

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN LOS ANGELES COUNTY AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	LOCATIONS OF CONSTRUCTION
3-8	CONSTRUCTION AREA SIGNS
9-17	TRAFFIC HANDLING DETAILS
18-19	PAVEMENT DELINEATION QUANTITIES
20-31	REVISED STANDARD PLANS

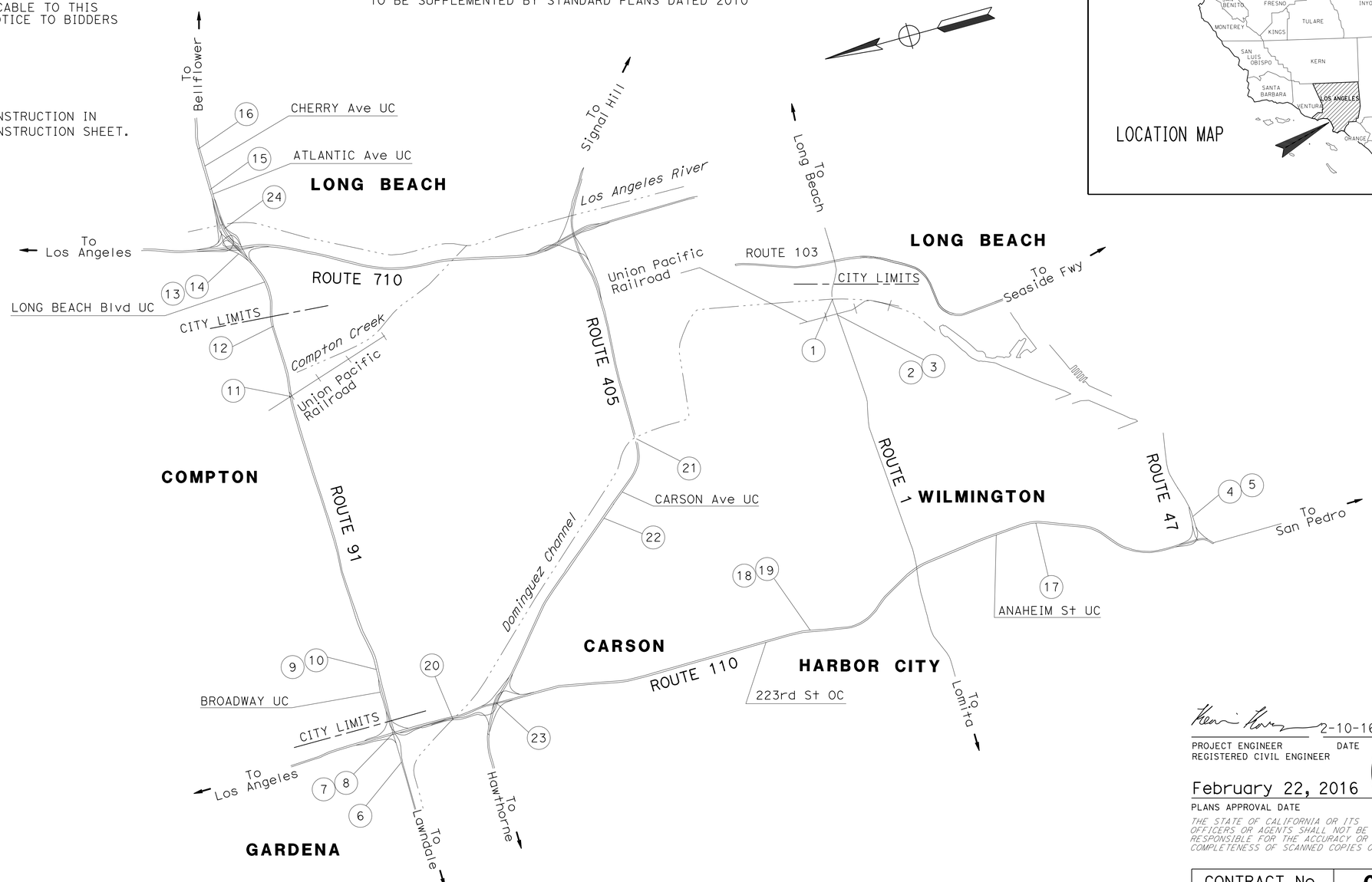
STRUCTURE PLANS

32-49	ROUTE 1, 47, 91, 110, 405, AND 710 BRIDGES

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

NOTE:

THE TABLE OF LOCATIONS OF CONSTRUCTION IN SHOWN ON THE LOCATIONS OF CONSTRUCTION SHEET.



LOCATION MAP

Caltrans

PROJECT MANAGER CHRISTIAN SAM

DESIGN MANAGER HAMID SAADATNEJADI

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

NO SCALE

2-10-16

PROJECT ENGINEER REGISTERED CIVIL ENGINEER — DATE

February 22, 2016

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KEVIN KWAN — No. C68219 — Exp. 9-30-17 — 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.

CONTRACT No.	07-3W0504
PROJECT ID	0715000038

LAST REVISION 02-22-16

DATE PLOTTED => 16-FEB-2016
TIME PLOTTED => 15:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	2	49

REGISTERED CIVIL ENGINEER DATE 2-10-16

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KEVIN KWAN No. C68219 Exp. 9-30-17 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.

LOCATIONS OF CONSTRUCTION

Loc No. (X)	ROUTE	PM	BRIDGE No.	BRIDGE NAME
1	1	8.62	53-0719	DOMINGUEZ CHANNEL
2	1	9.05	53-2901	ALAMEDA St VIADUCT
3	1	9.15	53-2970H	"O" St RAMP
4	47	R0.17	53-2031L/R	PACIFIC Ave UC
5	47	L0.22	53-1945F	GAFFEY OFF-RAMP OC
6	91	6.03	53-2760Y	DOMINGUEZ CHANNEL
7	91	R6.39	53-2666F	W91-N110 CONNECTOR OC
8	91	R6.51	53-2664F	W91-N110 CONNECTOR OC, FIGUEROA
9	91	R6.90	53-2547	MAIN St UC
10	91	R6.90	53-2547K	MAIN St ON-RAMP OC
11	91	R9.97	53-2234	COLLEGE OH
12	91	R10.81	53-2252	SUSANA Rd UC
13	91	R11.43	53-2169	BUTLER-ARTESIA UC
14	91	R11.81	53-2142	LOS ANGELES RIVER
15	91	R12.34	53-2121	MYRTLE Ave UC
16	91	R13.86	53-2128	OBISPO Ave UC
17	110	2.97	53-0975	E St UC
18	110	5.45	53-0966	SEPULVEDA Blvd UC
19	110	6.14	53-0965	228th St OC
20	110	9.15	53-2558K	DOMINGUEZ CHANNEL OFF-RAMP
21	405	9.76	53-1166	DOMINGUEZ CHANNEL
22	405	10.88	53-1263	213th St UC
23	405	12.74	53-1141G	N405-N&S110 CONNECTOR OC
24	710	13.03	53-2142F	LOS ANGELES RIVER (S710-E91)

LOCATIONS OF CONSTRUCTION

LC-1

REVISED BY | DATE REVISED
HOALU NGUYEN | KEVIN KWAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
HAMID SAADATNEJADI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 02-22-16 | DATE PLOTTED => 16-FEB-2016 | TIME PLOTTED => 15:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	3	49

REGISTERED CIVIL ENGINEER 2-10-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KEVIN KWAN No. C68219 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

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

NOTES:

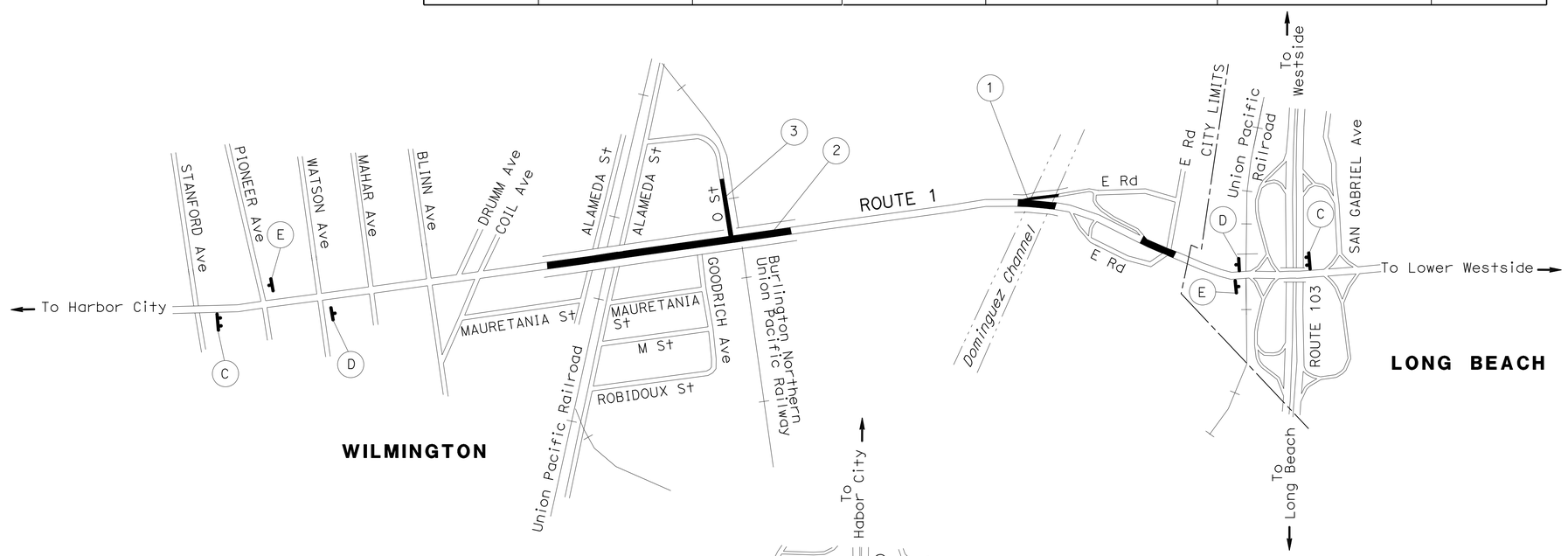
1. EXACT LOCATION AND POSITION OF SIGNS WILL BE DETERMINED BY THE ENGINEER.

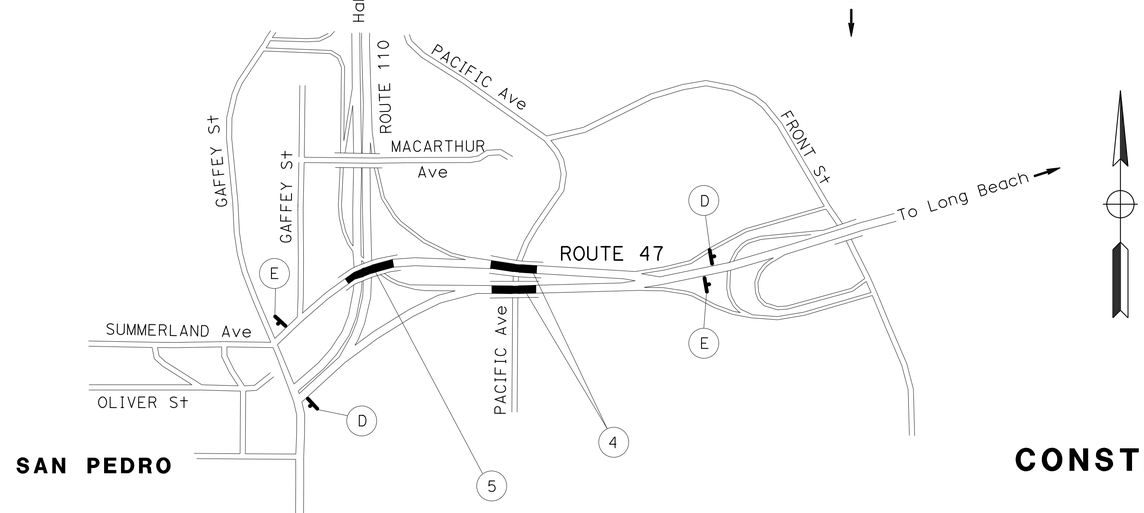
LEGEND:

(#) - LOCATIONS OF CONSTRUCTION

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
A	W201-1		48" X 48"	ROAD WORK AHEAD	1 - 4" X 6"	22
B	G20-2		48" X 24"	END ROAD WORK	1 - 4" X 6"	20
C		C40(CA)	144" X 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" X 6"	4
D	W20-1		36" X 36"	ROAD WORK AHEAD	1 - 4" X 4"	4
E	G20-2		36" X 18"	END ROAD WORK	1 - 4" X 4"	4





CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI
CALCULATED-DESIGNED BY: HOALU NGUYEN
CHECKED BY: KEVIN KWAN
REVISED BY
DATE REVISED

LAST REVISION 02-22-16
DATE PLOTTED => 17-FEB-2016
TIME PLOTTED => 11:14

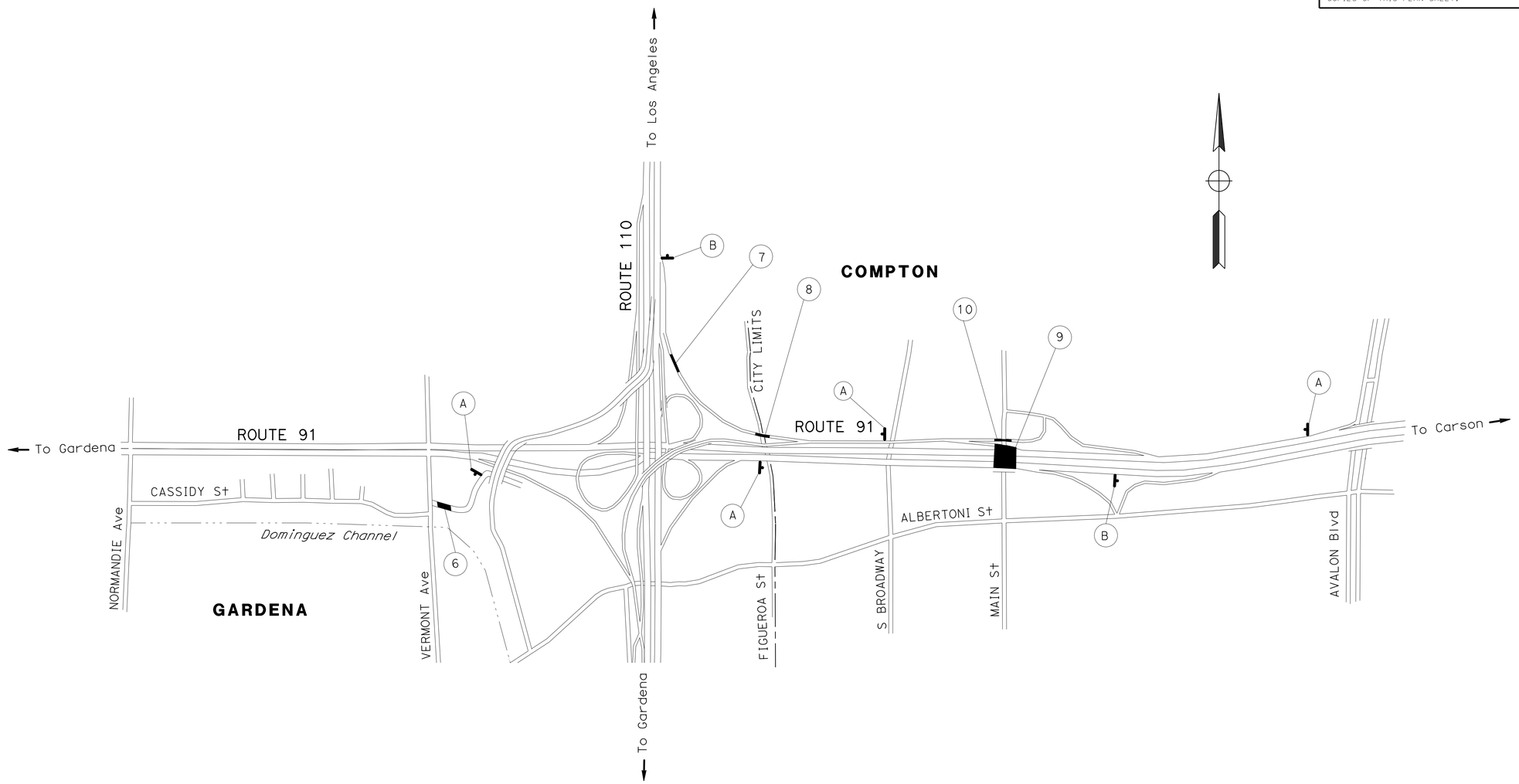
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	4	49

REGISTERED CIVIL ENGINEER 2-10-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KEVIN KWAN No. C68219 Exp. 9-30-17 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.



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI
CALCULATED-DESIGNED BY: HOALU NGUYEN
CHECKED BY: KEVIN KWAN
REVISED BY
DATE REVISED

LAST REVISION 02-22-16
DATE PLOTTED => 17-FEB-2016
TIME PLOTTED => 11:14

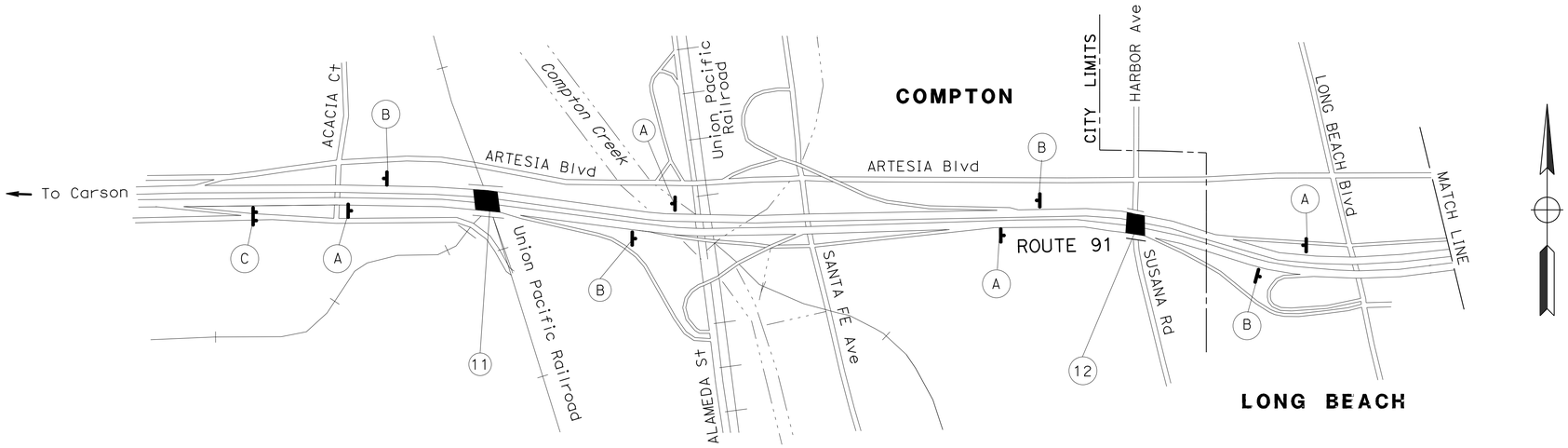
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	5	49

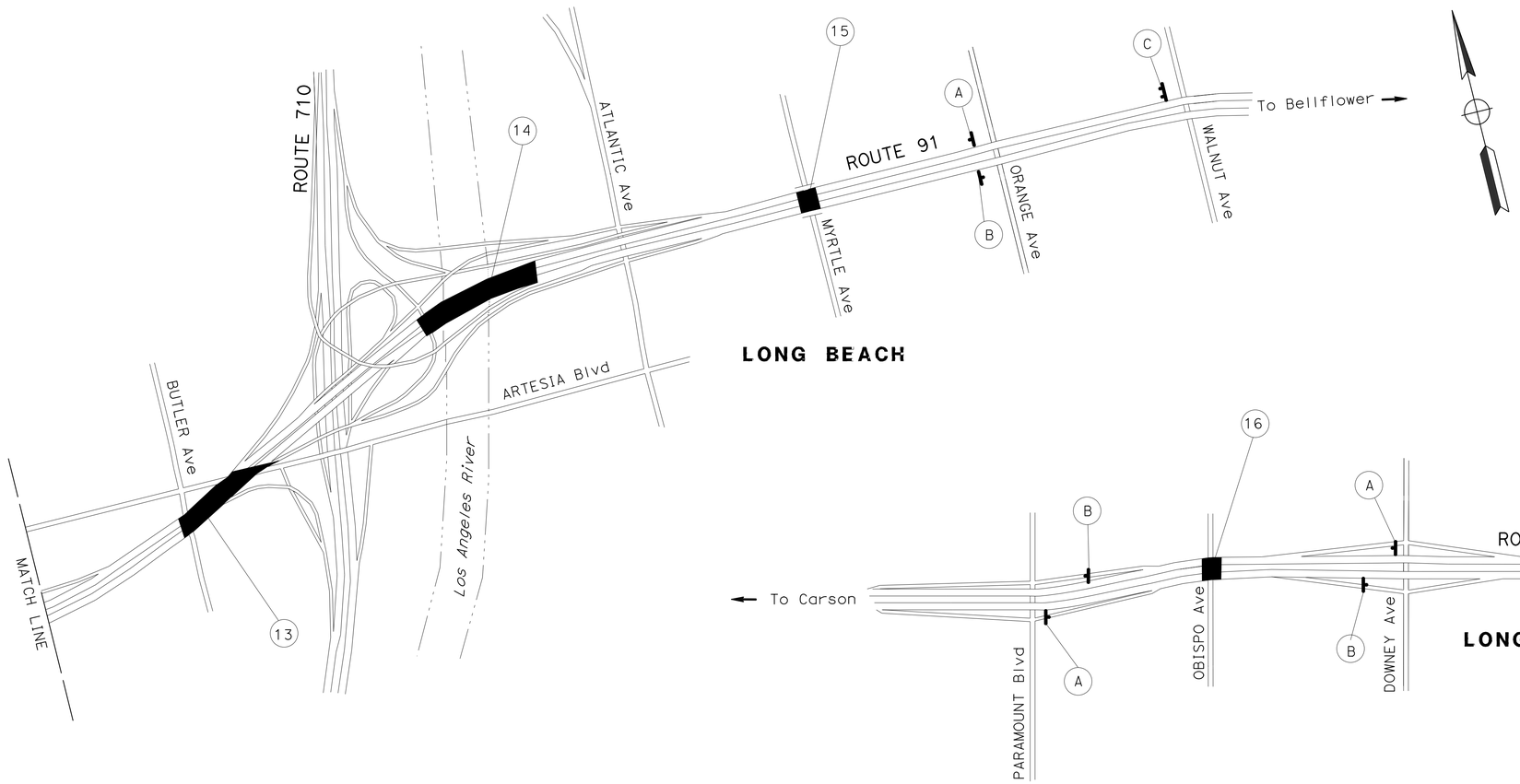
REGISTERED CIVIL ENGINEER 2-10-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KEVIN KWAN No. C68219 Exp. 9-30-17 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.





CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-3

REVISED BY	DATE REVISED
HOALU NGUYEN	KEVIN KWAN
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	HAMID SAADATNEJADI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 02-22-16
DATE PLOTTED => 17-FEB-2016
TIME PLOTTED => 11:14

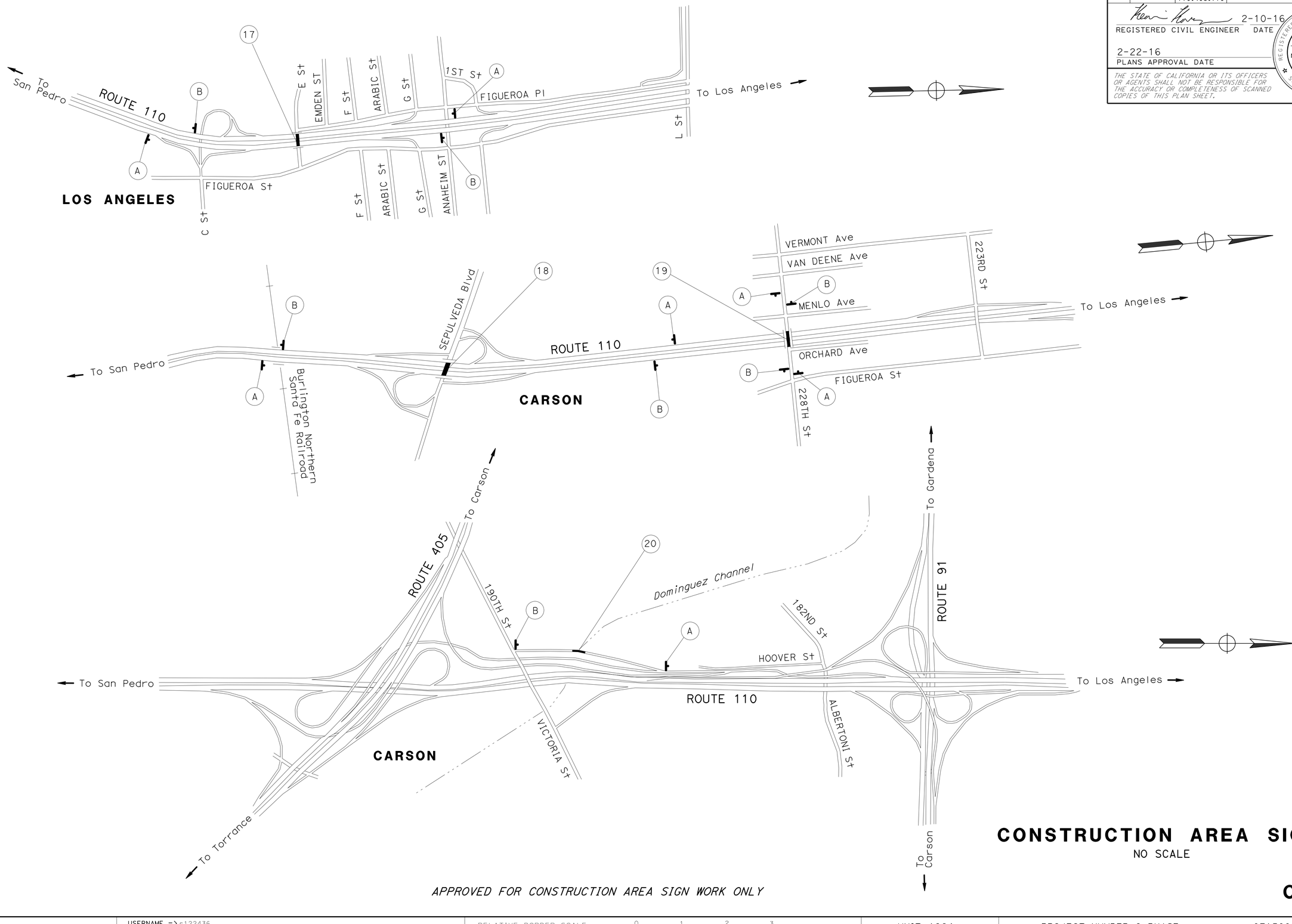
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	6	49

REGISTERED CIVIL ENGINEER 2-10-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KEVIN KWAN No. C68219 Exp. 9-30-17 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.



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI
CALCULATED-DESIGNED BY: HOALU NGUYEN
CHECKED BY: KEVIN KWAN
REVISED BY
DATE REVISED

LAST REVISION 02-22-16
DATE PLOTTED => 17-FEB-2016
TIME PLOTTED => 11:14

BORDER LAST REVISED 7/2/2010
USERNAME => s122436
DGN FILE => 73W0501a004.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1964
PROJECT NUMBER & PHASE 07150000381

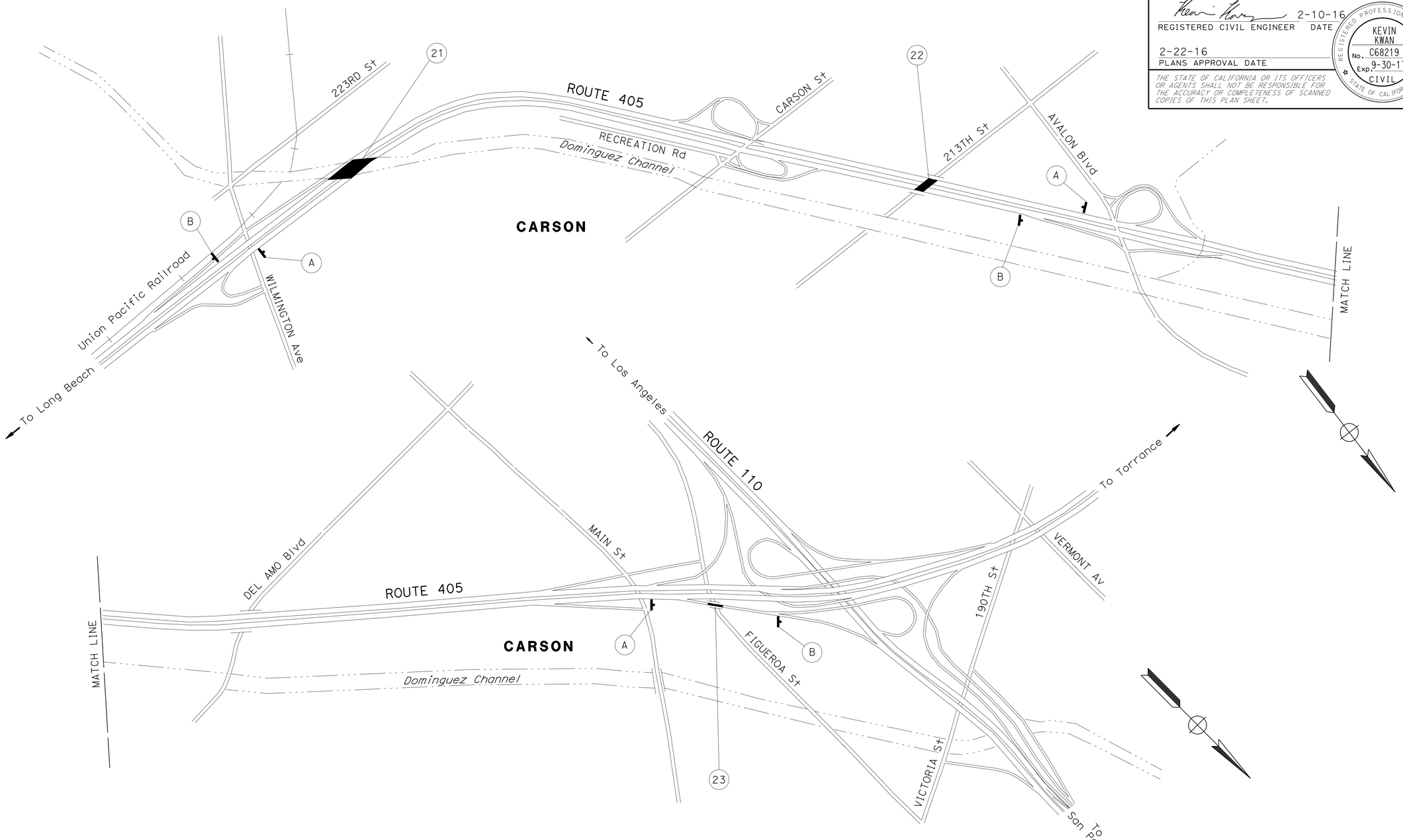
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	7	49

REGISTERED CIVIL ENGINEER 2-10-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KEVIN KWAN No. C68219 Exp. 9-30-17 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.



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI

CALCULATED-DESIGNED BY: HOALU NGUYEN
CHECKED BY: KEVIN KWAN

REVISED BY
DATE REVISED

LAST REVISION 02-22-16 | DATE PLOTTED => 17-FEB-2016 | TIME PLOTTED => 11:14

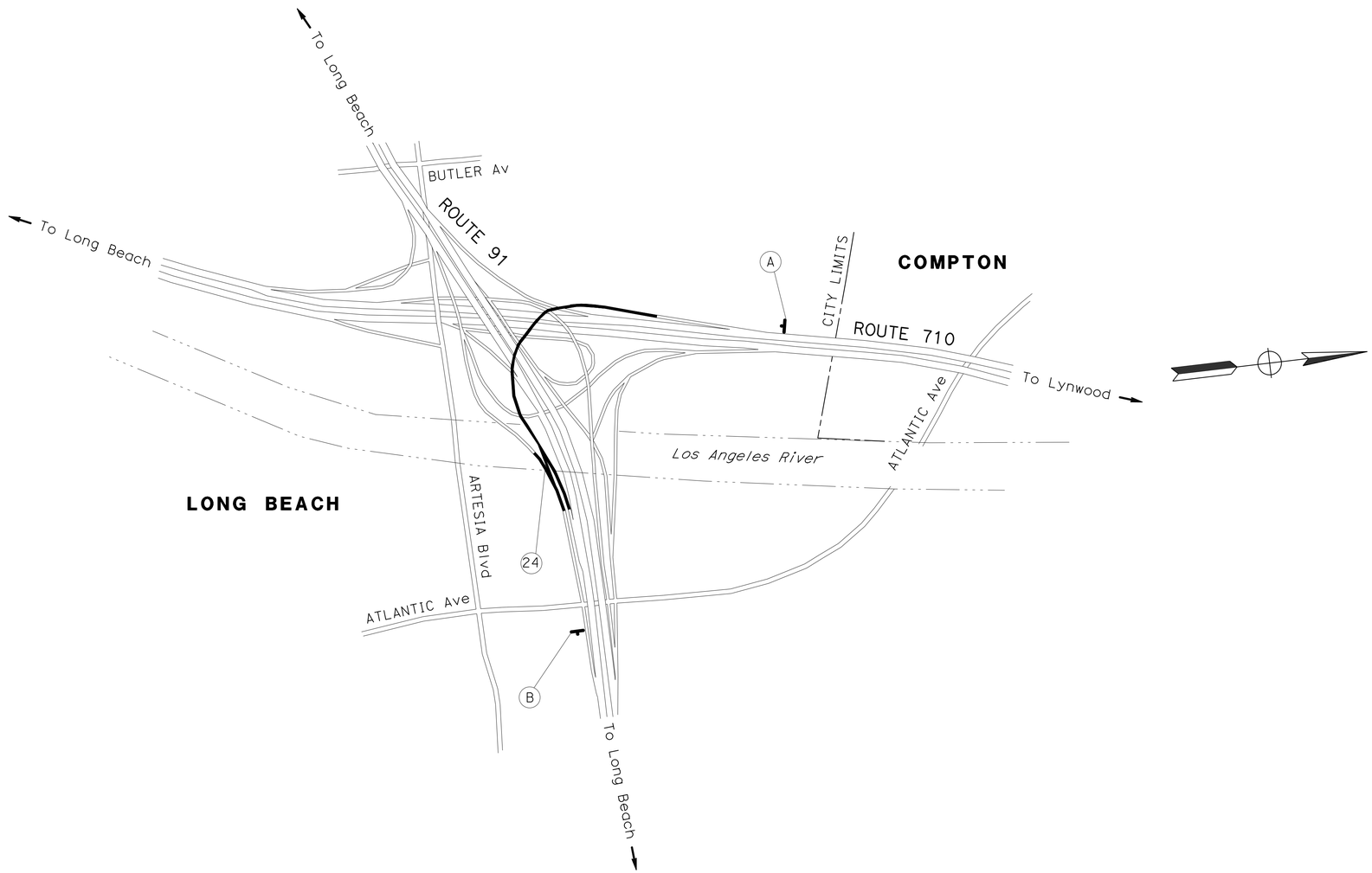
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	8	49

REGISTERED CIVIL ENGINEER 2-10-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KEVIN KWAN
No. C68219
Exp. 9-30-17
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.



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI
CALCULATED-DESIGNED BY: HOALU NGUYEN
CHECKED BY: KEVIN KWAN
REVISED BY
DATE REVISED

LAST REVISION 02-22-16
DATE PLOTTED => 17-FEB-2016
TIME PLOTTED => 11:14

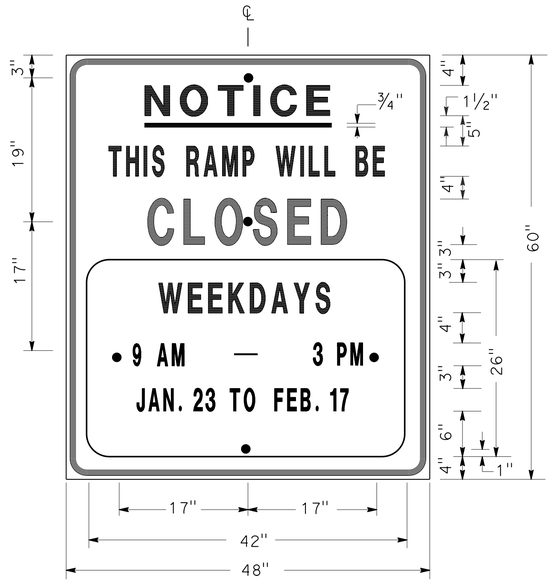
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	9	49

Denis Katayama 2-3-16
REGISTERED CIVIL ENGINEER DATE

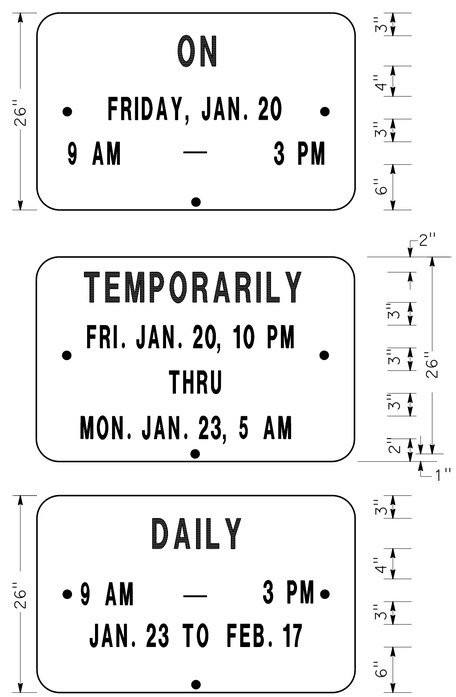
2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER D. S. KATAYAMA No. C50648 Exp. 9-30-17 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.



SIGN SP-1



ALTERNATE OVERLAY PANELS (TYPICAL)

SPECIAL ADVANCE NOTICE PUBLICITY SIGN

NOTES: SIGN SP-1

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

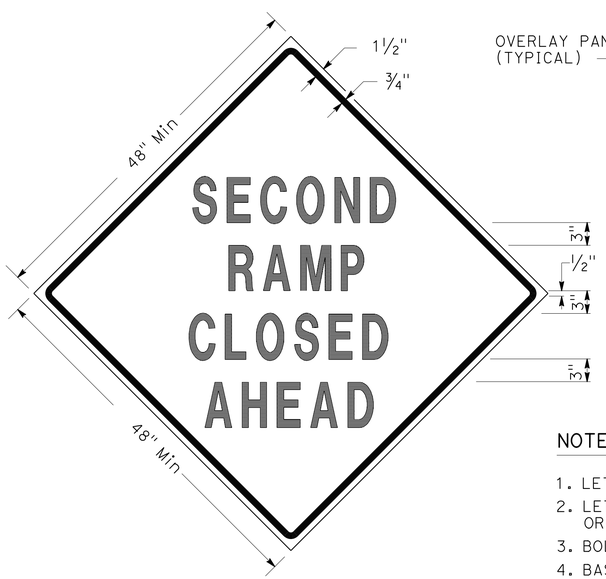
SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5, 6, & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"
* CONDENSED SPACING IF NECESSARY								

SIGN SP-4

NOTES: SIGN SP-4

1. LETTERS - 6" SERIES C.
2. LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
3. BOLT HOLES MUST BE 3/8" DIAMETER.
4. BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
5. 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



SIGN SP-3

SIGN SP-5

NOTES: SIGNS SP-3 & SP-5

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

SPECIAL SIGNS FOR EXIT RAMP CLOSURES

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS
SHEET 1 OF 2

NO SCALE

THD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION DATE PLOTTED => 16-FEB-2016
TIME PLOTTED => 15:01
02-22-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	10	49

Denis Katayama 2-3-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER D. S. KATAYAMA No. C50648 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

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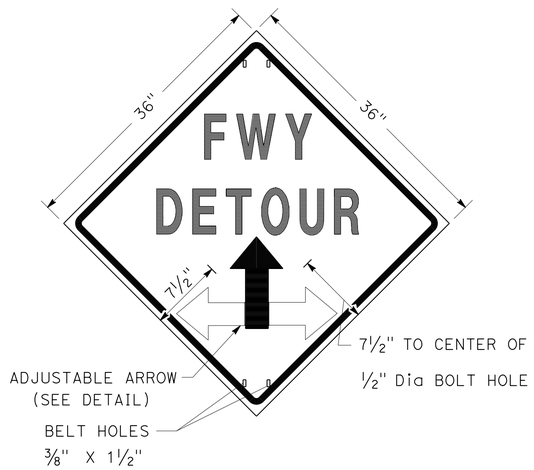
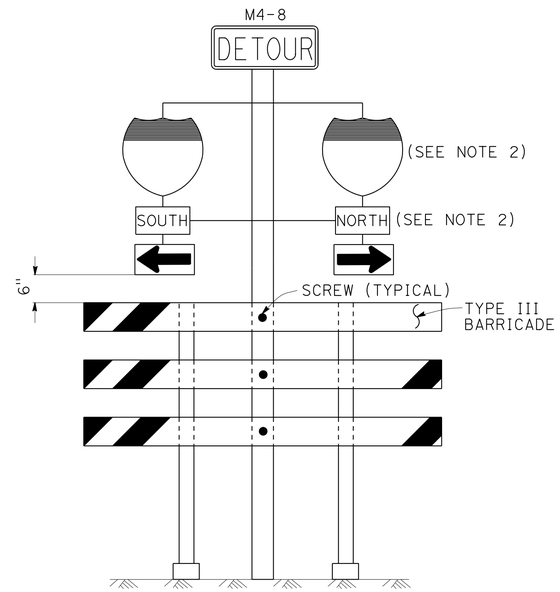
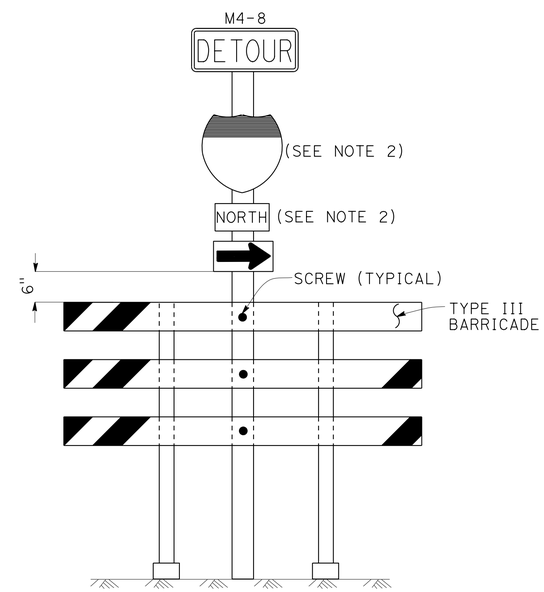


SIGN SP-2



SIGN SP-6 (SEE NOTE 1)



SIGN SP-7 (SEE NOTE 1)

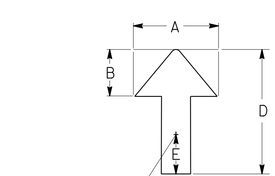
NOTES: SIGN SP-2

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

NOTES: SIGNS SP-6 & SP-7

1. IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
2. 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



DIMENSIONS				
A	B	C	D	E
6"	3"	2"	8"	1"

ADJUSTABLE ARROW DETAIL

ABBREVIATION

(CA) CALIFORNIA CODE

TRAFFIC HANDLING DETAILS

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

SHEET 2 OF 2

NO SCALE

THD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION: DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:01
02-22-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	11	49

Denis Katayama 2-3-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER D. S. KATAYAMA No. C50648 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

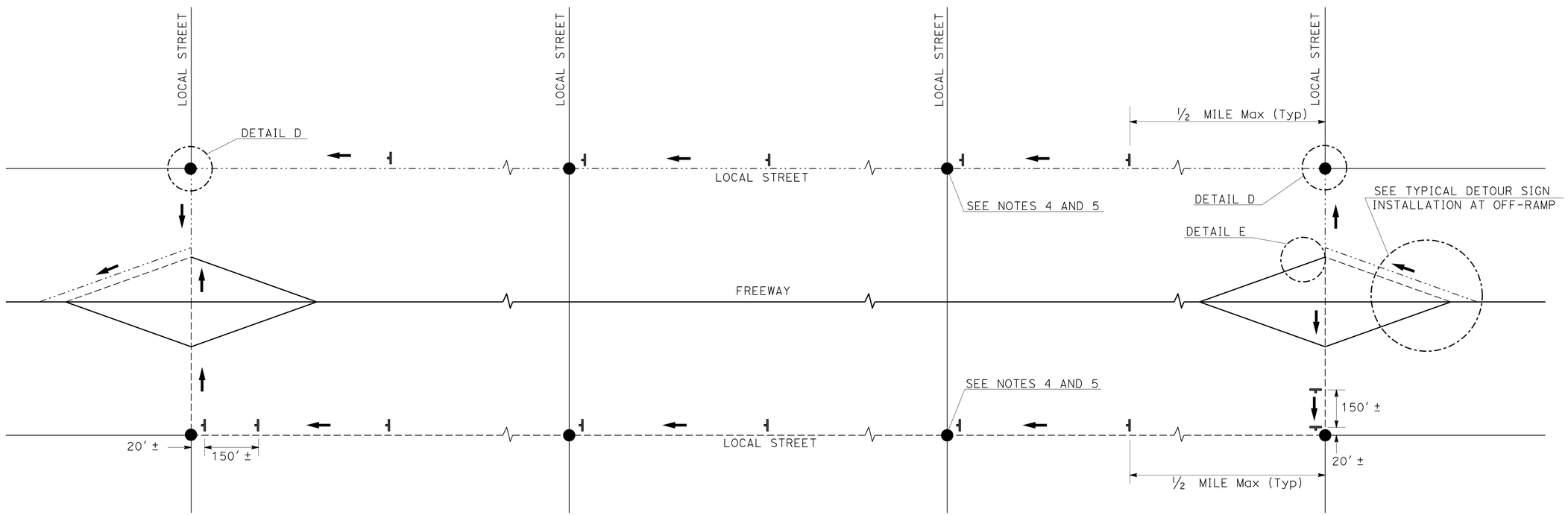
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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 3

NO SCALE

THD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 02-22-16
DATE PLOTTED => 16-FEB-2016
TIME PLOTTED => 15:01

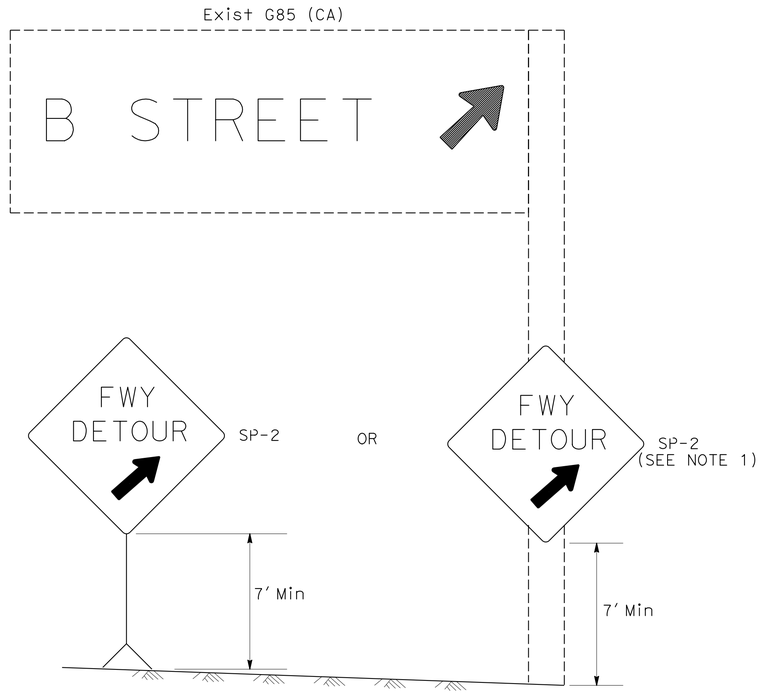
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	12	49

REGISTERED CIVIL ENGINEER Denis Katayama DATE 2-3-16

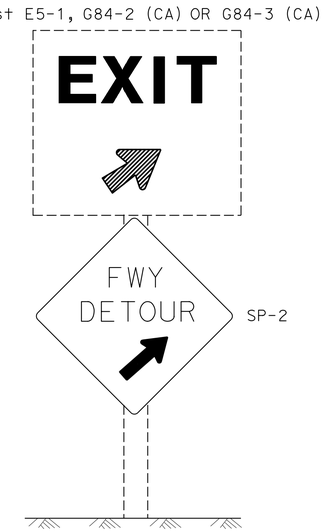
PLANS APPROVAL DATE 2-22-16

REGISTERED PROFESSIONAL ENGINEER D. S. KATAYAMA No. C50648 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

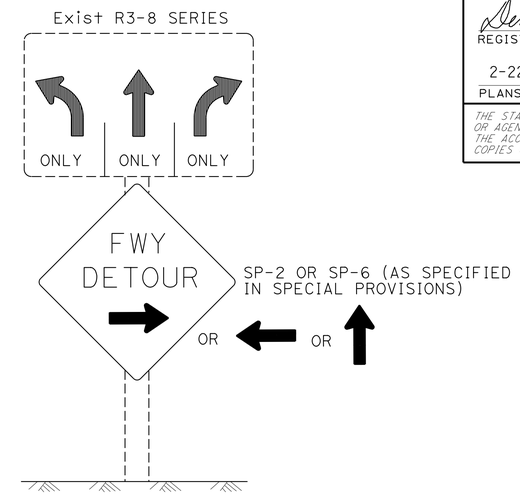
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



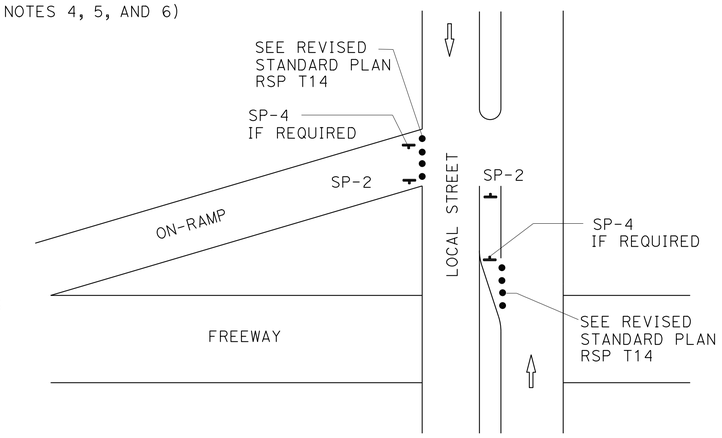
DETAIL A (SEE NOTE 3)



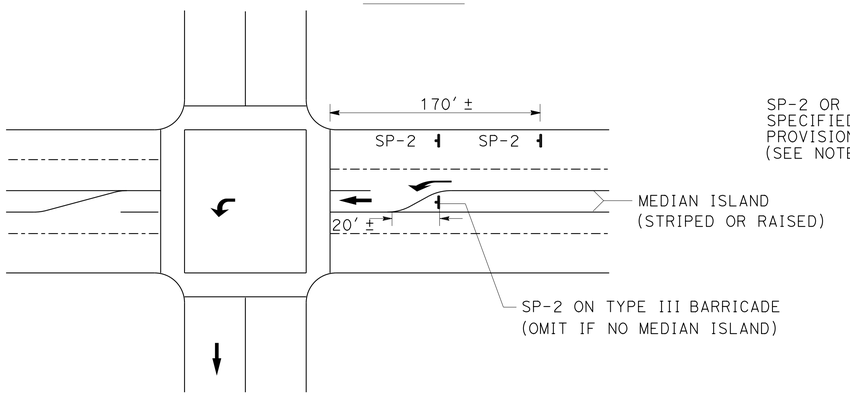
DETAIL B (SEE NOTE 3)



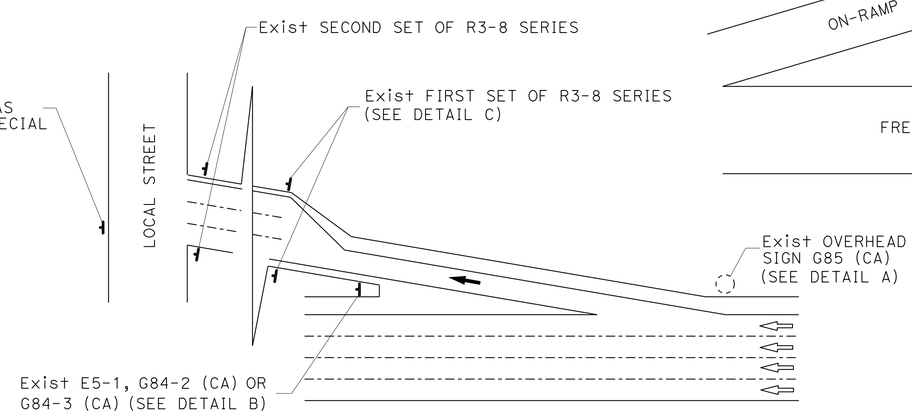
DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL E



DETAIL D



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

LEGEND

- • TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- → DETOUR DIRECTION
- ◌ EXISTING OVERHEAD SIGN

NOTES: SIGN SP-2

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. OMIT DETAILS A AND B FOR FULL FREEWAY CLOSURES.
4. 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.
5. 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.
6. 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 3

NO SCALE

THD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 02-22-16 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	13	49

Denis Katayama 2-3-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER D. S. KATAYAMA No. C50648 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

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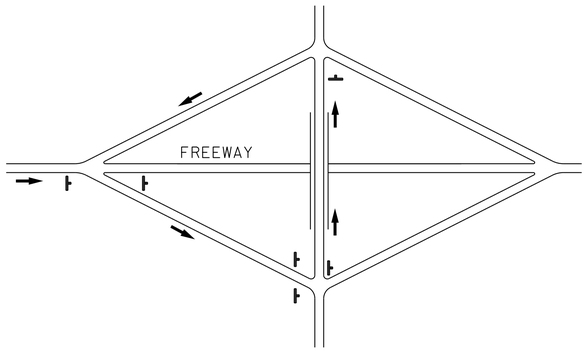
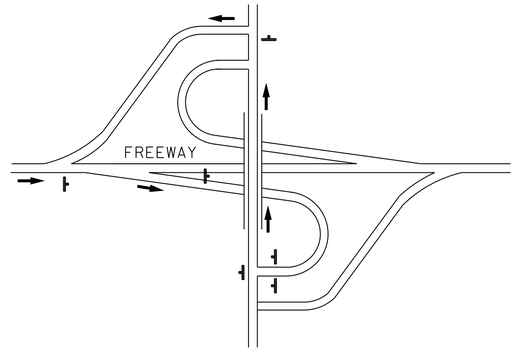
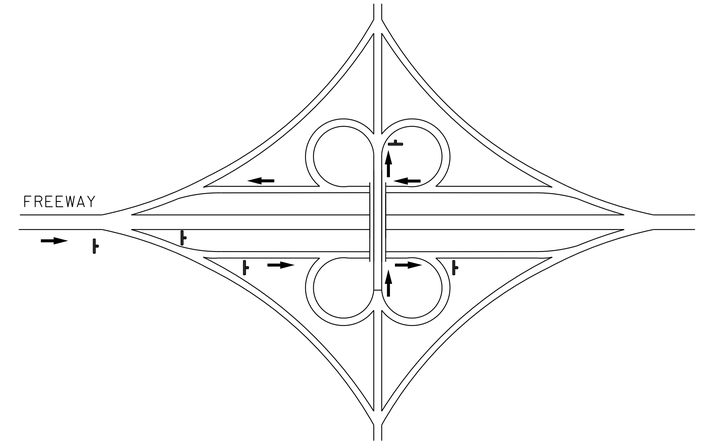


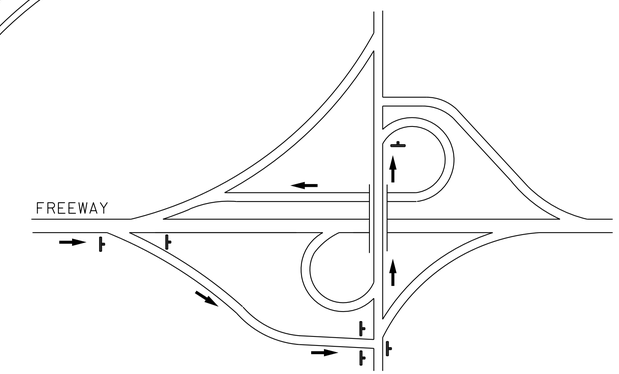
TYPE I



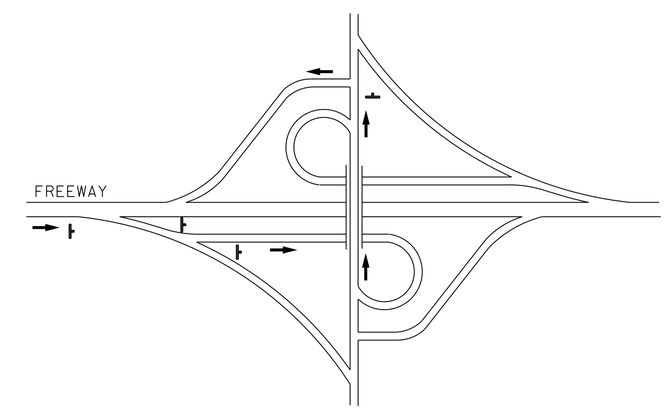
TYPE II



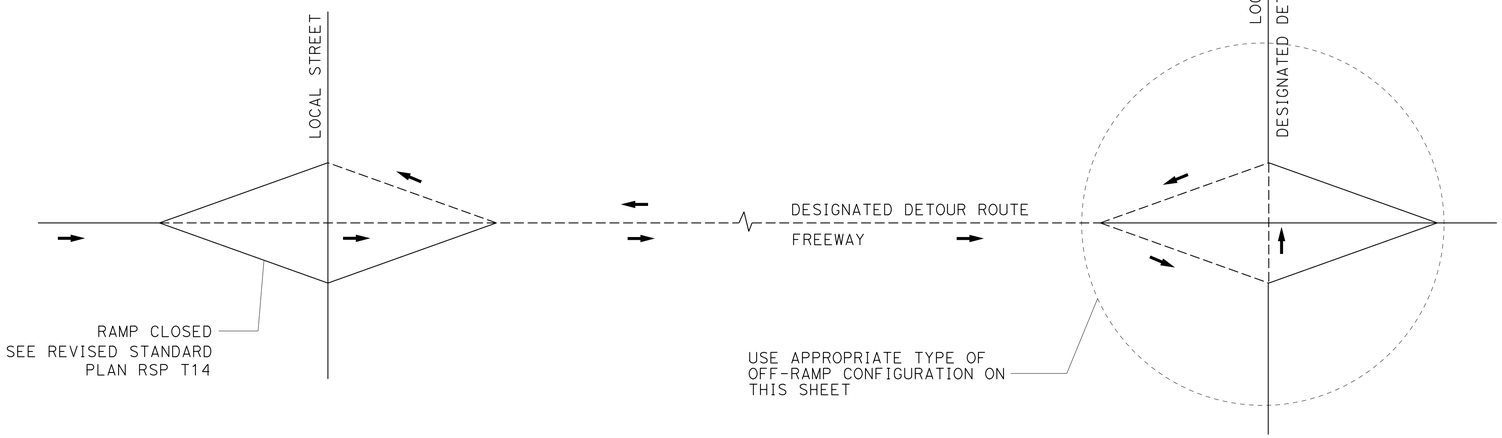
TYPE III



TYPE IV



TYPE V



TYPE OF OFF-RAMP CONFIGURATION	MINIMUM No. OF SP-2
TYPE I	6
TYPE II	6
TYPE III	5
TYPE IV	6
TYPE V	4

TYPICAL DETOUR SIGN INSTALLATION FOR OFF-RAMP CLOSURE

NOTES:

1. FOR RAMP CONFIGURATIONS NOT SHOWN, THE EXACT LOCATIONS AND MINIMUM NUMBER OF SP-2 SIGNS MUST BE DETERMINED BY THE ENGINEER.
2. SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-2 SIGN DETAILS.

LEGEND

- SIGN SP-2
- DETOUR DIRECTION
- ----- DESIGNATED DETOUR ROUTE

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE
SHEET 3 OF 3

NO SCALE

THD-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION DATE PLOTTED => 16-FEB-2016
02-22-16 TIME PLOTTED => 15:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	14	49

Denis Katayama 2-3-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER D. S. KATAYAMA No. C50648 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

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

NOTES:

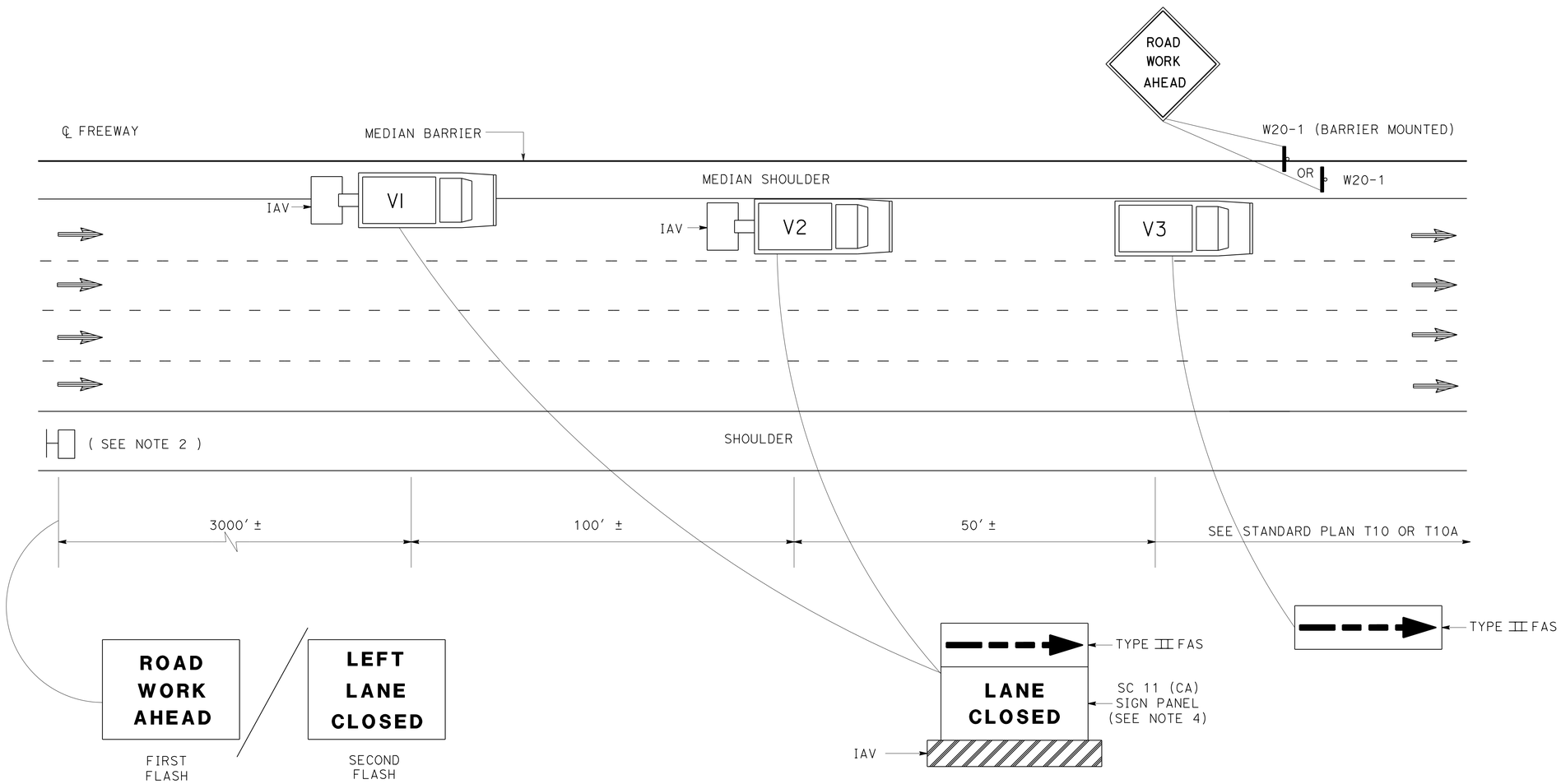
1. LANE CLOSURES SHALL NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
2. PCMS SHALL BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE LANE.
3. A MINIMUM SIGHT DISTANCE OF 1500′ SHALL BE PROVIDED IN ADVANCE OF PCMS.
4. VEHICLE-MOUNTED SIGN PANELS SHALL BE TYPE III OR IV RETROREFLECTORIZED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

LEGEND

V1, V2	SHADOW VEHICLES
V3	WORK/APPLICATION VEHICLE
	PCMS
	DIRECTION OF TRAVEL
	CONSTRUCTION AREA SIGN

ABBREVIATIONS

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



PCMS OR TRUCK MOUNTED CMS MESSAGE

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

NO SCALE

THD-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 3/12

LAST REVISION 02-22-16
DATE PLOTTED => 16-FEB-2016
TIME PLOTTED => 15:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	15	49

Denis Katayama 2-3-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER D. S. KATAYAMA No. C50648 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

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

NOTES:

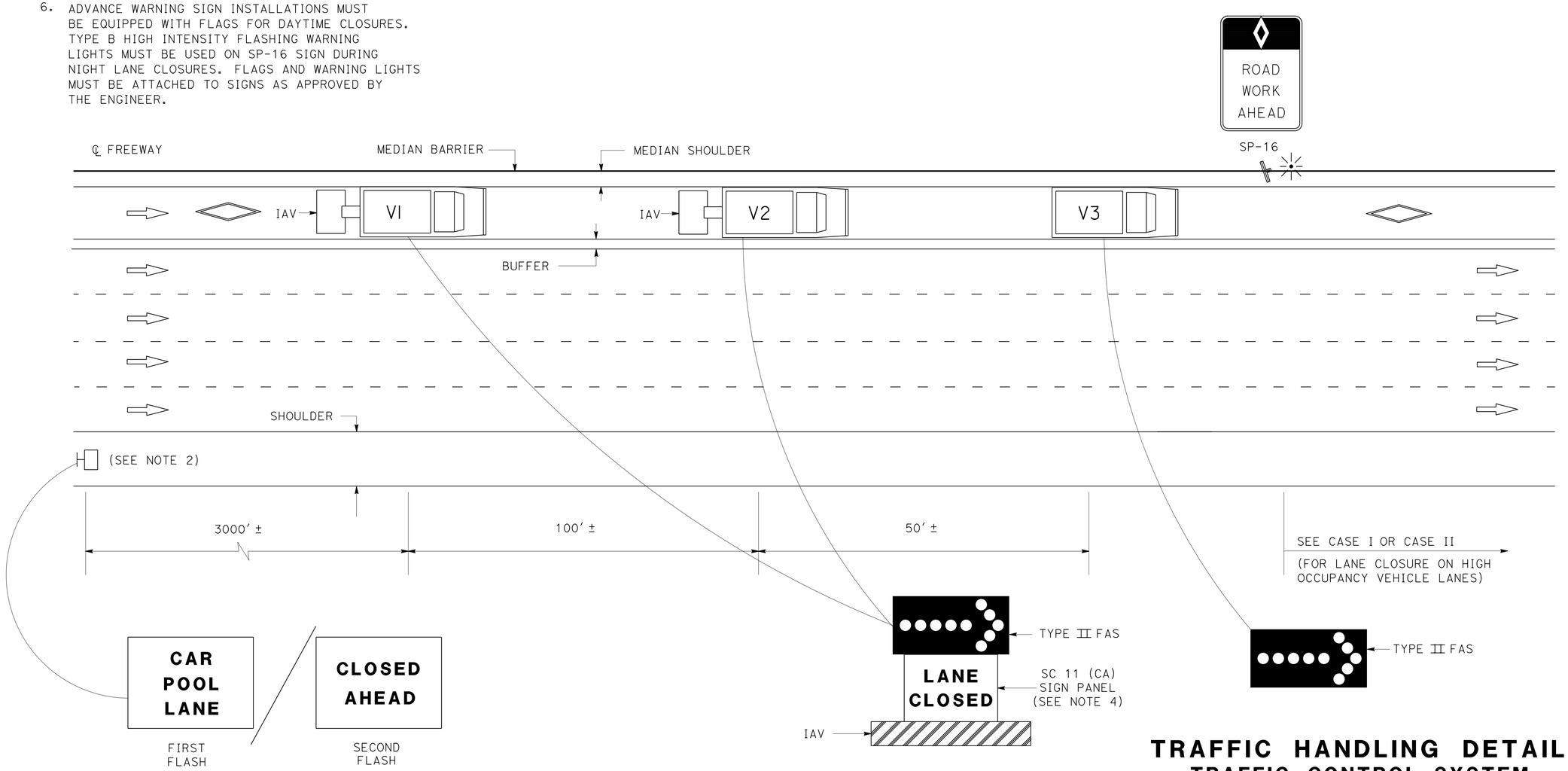
1. LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
2. PCMS MUST BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE HOV LANE.
3. A MINIMUM SIGHT DISTANCE OF 1500′ MUST BE PROVIDED IN ADVANCE OF PCMS.
4. VEHICLE-MOUNTED SIGN PANELS MUST BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.
5. PLACE PCMS ON THE MEDIAN SHOULDER WHERE SUFFICIENT ROOM (SUCH AS CHP ENFORCEMENT AREAS) EXISTS.
6. 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.

LEGEND

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

ABBREVIATIONS

IAV	IMPACT ATTENUATOR VEHICLE
(CA)	CALIFORNIA CODE
CHP	CALIFORNIA HIGHWAY PATROL



PCMS OR TRUCK MOUNTED CMS MESSAGE

(SEE NOTE 5)

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR HIGH OCCUPANCY VEHICLE LANES WITH MEDIAN SHOULDERS LESS THAN 8 FEET

NO SCALE

THD-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 02-22-16 | DATE PLOTTED => 16-FEB-2016 | TIME PLOTTED => 15:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	16	49

Denis Katayama 2-3-16
REGISTERED CIVIL ENGINEER DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER D. S. KATAYAMA No. C50648 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

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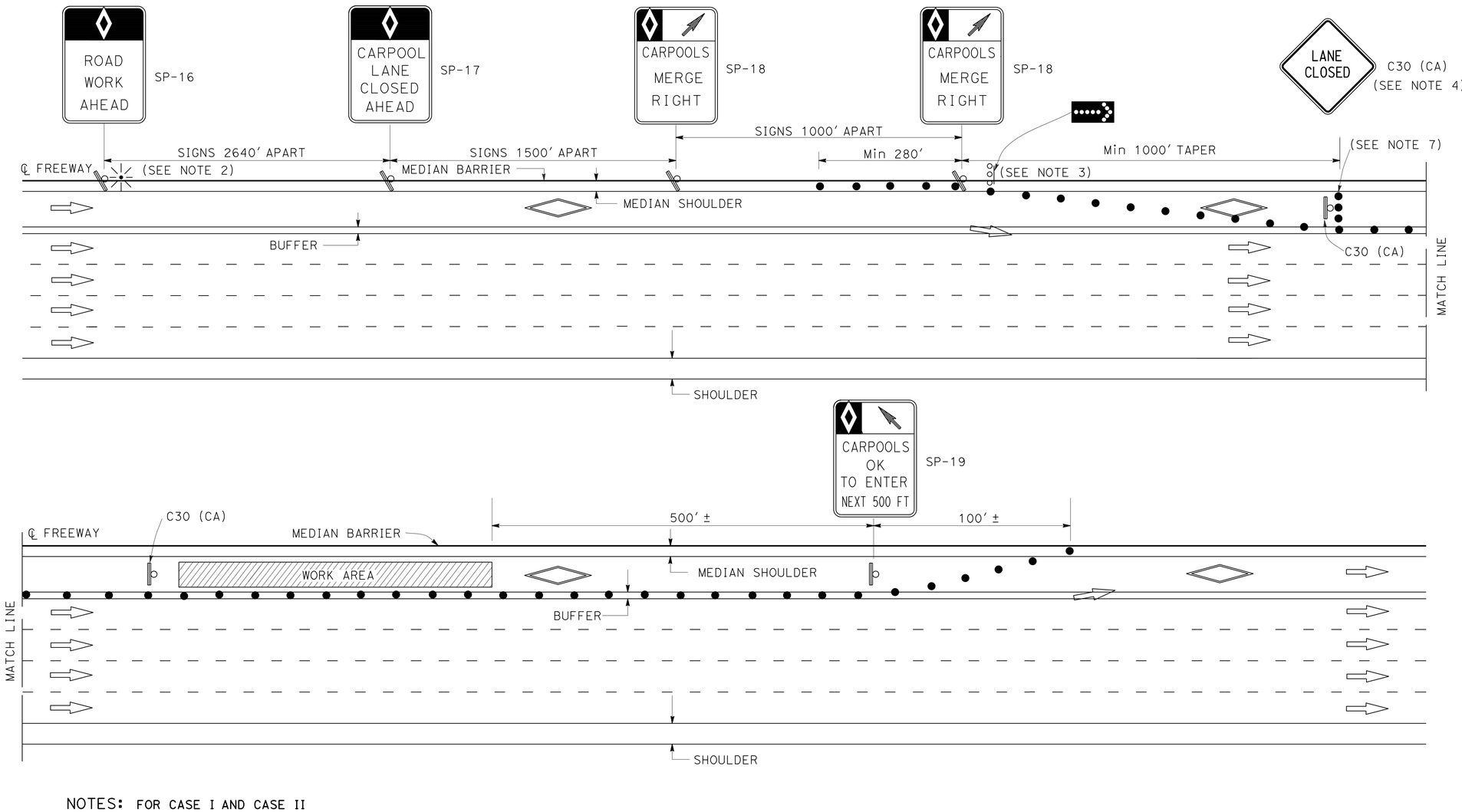

LEGEND

- ● 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-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION 02-00-00
DATE PLOTTED => 16-FEB-2016
TIME PLOTTED => 15:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	17	49

REGISTERED CIVIL ENGINEER 2-3-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER D. S. KATAYAMA No. C50648 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

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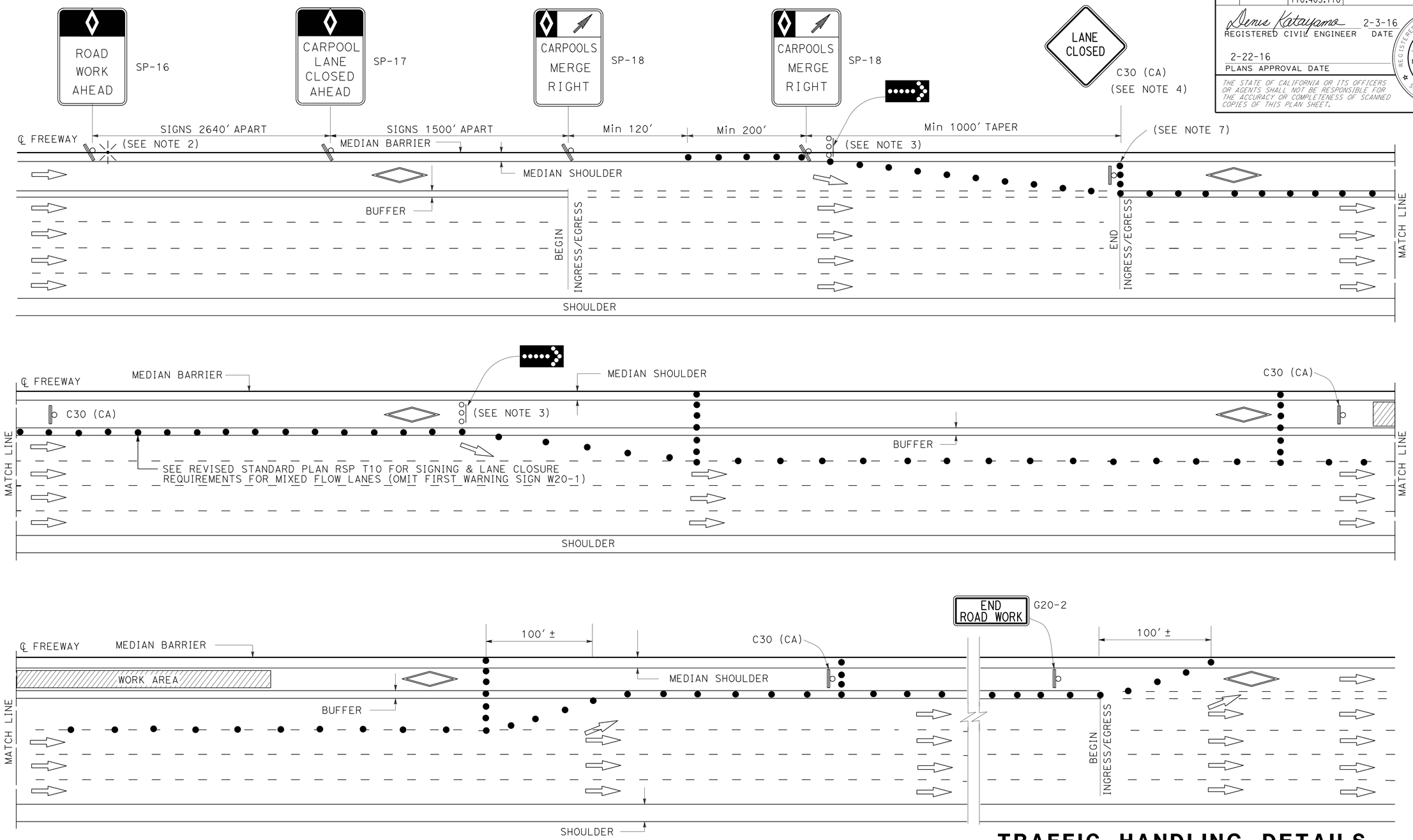

NOTES:

1. SEE CASE I FOR NOTES, LEGEND, SIGN PANEL, AND ABBREVIATIONS FOR THIS SHEET.
2. 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-9

CALCULATED-DESIGNED BY	ALBERT K YU
CHECKED BY	JOCELYN C CHIANG
REVISED BY	JC
DATE REVISED	2/14
FUNCTIONAL SUPERVISOR	SAMUEL ESQUENAZI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DTM

LAST REVISION 02-22-16 | DATE PLOTTED => 16-FEB-2016 | TIME PLOTTED => 15:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	18	49

REGISTERED CIVIL ENGINEER DATE 2-10-16

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KEVIN KWAN No. C68219 Exp. 9-30-17 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.

PAVEMENT DELINEATION QUANTITIES

Loc No. (X)	ROUTE	PM	BRIDGE No.	BRIDGE NAME	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)			REMOVE THERMOPLASTIC TRAFFIC STRIPE							REMOVE YELLOW THERMOPLASTIC PAVEMENT MARKING (HAZARDOUS WASTE)	REMOVE THERMOPLASTIC PAVEMENT MARKING			REMOVE PAVEMENT MARKER
					DETAIL 29	DETAIL 22, HOV	DETAIL 25/25A	DETAIL 27B, HOV	DETAIL 36/36A/36B	DETAIL 38B	DETAIL 37	DETAIL M-10 (HOV)	DETAIL 9	DETAIL 13/14 (MODIFIED)		DIAGONAL, LIMIT LINE	ARROWS	WORDS	
					LF										SQFT				EA
1	1	8.62	53-0719	DOMINGUEZ CHANNEL			720	285					240				84		141
2	1	9.05	53-2901	ALAMEDA STREET VIADUCT	6,432	440		3,304					1,422		792	1,997	15		378
3	1	9.15	53-2970H	"O" STREET RAMP		524		520		400						339	60		40
4	47	R0.17	53-2031L/R	PACIFIC AVENUE UC			289	289	632		24			106		114			70
5	47	L0.22	53-1945F	GAFFEY OFF-RAMP OC			275	282						70		62			114
8	91	R6.51	53-2664F	W91-N110 CONNECTOROC, FIGUEROA			265	263						66			84		40
9	91	R6.90	53-2547	MAIN STREET UC			296	296	664	296		74		296					289
10	91	R6.90	53-2547K	MAIN STREET ON-RAMP OC			148	148										28	7
12	91	R10.81	53-2252	SUSANA ROAD UC		672	336	672			134			336		94			575
15	91	R12.34	53-2121	MYRTLE AVENUE UC		332	332	498		332		83		332					245
16	91	R13.86	53-2128	OBISPO AVENUE UC		700	350	700						350		35			295
17	110	2.97	53-0975	E STREET UC			130	130			52			98					56
18	110	5.45	53-0966	SEPULVEDA Blvd UC			214	269	98				48	161		35			81
22	405	10.88	53-1263	213th Street UC		296	148	296						111					102
23	405	12.74	53-1141G	N405-N&S110 CONNECTOR OC			227	227						57					205
				SUBTOTAL	6,432	2,964	3,730	8,179	1,394	1,028	210	157	1,710	1,983	792	2,676	243	28	2,638
				TOTAL	13,126			14,661							792	2,947			2,638

PAVEMENT DELINEATION QUANTITIES

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI
CALCULATED-DESIGNED BY: HOALU NGUYEN
CHECKED BY: KEVIN KWAN
REVISED BY
DATE REVISED

LAST REVISION 02-22-16 | DATE PLOTTED => 17-FEB-2016 | TIME PLOTTED => 12:38

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110.405.710	Var	19	49

REGISTERED CIVIL ENGINEER 2-10-16 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KEVIN KWAN No. C68219 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA

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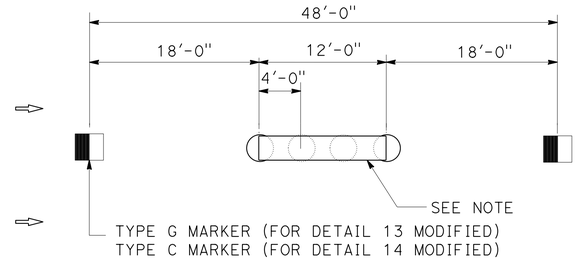
NOTE:

PLACE 4" WIDE THERMOPLASTIC TRAFFIC STRIPE ON TOP OF TYPE A NON-REFLECTIVE MARKERS.



DETAIL 13/14 (MODIFIED)

PAVEMENT DELINEATION QUANTITIES

Loc No. (X)	ROUTE	PM	BRIDGE No.	BRIDGE NAME	THERMOPLASTIC TRAFFIC STRIPE										THERMOPLASTIC PAVEMENT MARKING			PAVEMENT MARKER					
					4" YELLOW			4" WHITE	8" WHITE	BROKEN								RETROREFLECTIVE					NON REFLECTIVE
					DETAIL 29	DETAIL 22, HOV	DETAIL 25/25A	DETAIL 27B, HOV	DETAIL 36/36A/36B	DETAIL 38B	DETAIL 37 8" (BROKEN 12-3)	DETAIL M-10 (HOV) 8" (BROKEN 36-12)	DETAIL 9 4" (BROKEN 17-7)	DETAIL 13/14 (MODIFIED) 4" (BROKEN 36-12)	DIAGONAL, LIMIT LINE	ARROWS	WORDS	TYPE D	TYPE H	TYPE G	TYPE C	TYPE C/G	TYPE A
					LF										SQFT			EA					
1	1	8.62	53-0719	DOMINGUEZ CHANNEL			720	285					822			84			30	17			
2	1	9.05	53-2901	ALAMEDA STREET VIADUCT	6,432	440		3,304					4,875		2,789	15		270		108			
3	1	9.15	53-2970H	"O" STREET RAMP		524		520		200					339	60		23		17			
4	47	R0.17	53-2031L/R	PACIFIC AVENUE UC			289	289	316		60			424	114				13	13		9	35
5	47	L0.22	53-1945F	GAFFEY OFF-RAMP OC			275	282						278	62				12			6	23
8	91	R6.51	53-2664F	W91-N110 CONNECTOR OC, FIGUEROA			265	263						265		84			12			6	22
9	91	R6.9	53-2547	MAIN STREET UC			296	296	332	148		148		1,184					11	32		25	99
10	91	R6.9	53-2547K	MAIN STREET ON-RAMP OC			148	148									28		7				
12	91	R10.81	53-2252	SUSANA ROAD UC		672	336	672			336			1,344	94			29	8		22	28	112
15	91	R12.34	53-2121	MYRTLE AVENUE UC		332	332	498		166		166		1,328				15	7	21		28	111
16	91	R13.86	53-2128	OBISPO AVENUE UC		700	350	700						1,400	35			30	8		11	30	117
17	110	2.97	53-0975	E STREET UC			130	130			130			390					6		9	8	33
18	110	5.45	53-0966	SEPULVEDA Blvd UC			214	269	49				166	642	35				10	4		13	54
22	405	10.88	53-1263	213th STREET UC		296	148	296						444				12	3			9	37
23	405	12.74	53-1141G	N405-N&S110 CONNECTOR OC			227	227						227					10			5	19
				SUBTOTAL	6,432	2,964	3,730	8,179	697	514	526	314	5,863	7,926	3,468	243	28	379	137	212	42	167	662
				TOTAL	21,305				1,211		526	314	5,863	7,926	3,739			937					662

PAVEMENT DELINEATION QUANTITIES

NO SCALE

PDQ-2

HOALU NGUYEN | REVISED BY | DATE REVISED
KEVIN KWAN | CALCULATED-DESIGNED BY | CHECKED BY
HAMID SAADATNEJADI | FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 02-22-16 | DATE PLOTTED => 17-FEB-2016 | TIME PLOTTED => 11:32

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
Mtl	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

Oblr	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 Mtl	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
Tel	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	1,47,91 110,405,710	Var	20	49

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 2-22-16

2010 REVISED STANDARD PLAN RSP A10B

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
ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kip	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.

REVISED STANDARD PLAN RSP A10B

6-7-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	21	49

REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Roberta L. McLaughlin No. C40375 Exp. 3-31-15 CIVIL STATE OF CALIFORNIA

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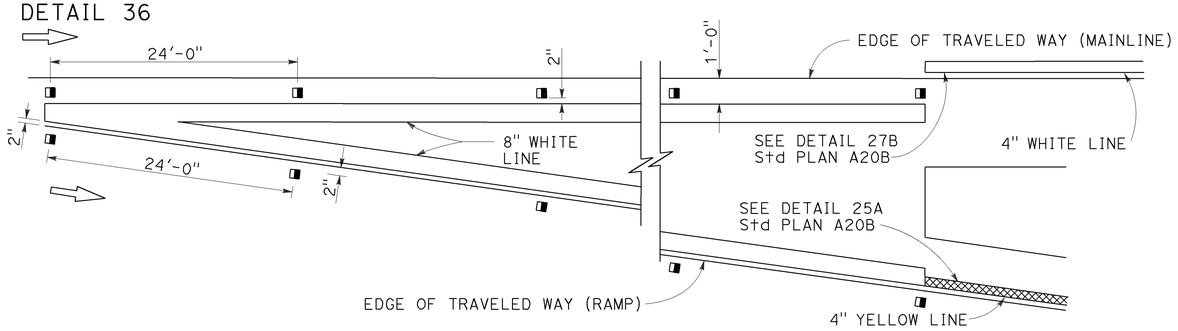
TO ACCOMPANY PLANS DATED 2-22-16

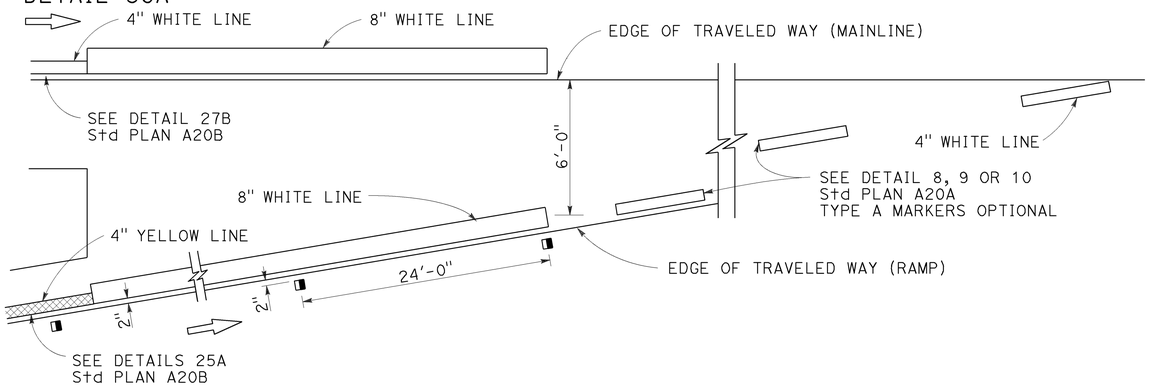
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT

DETAIL 36



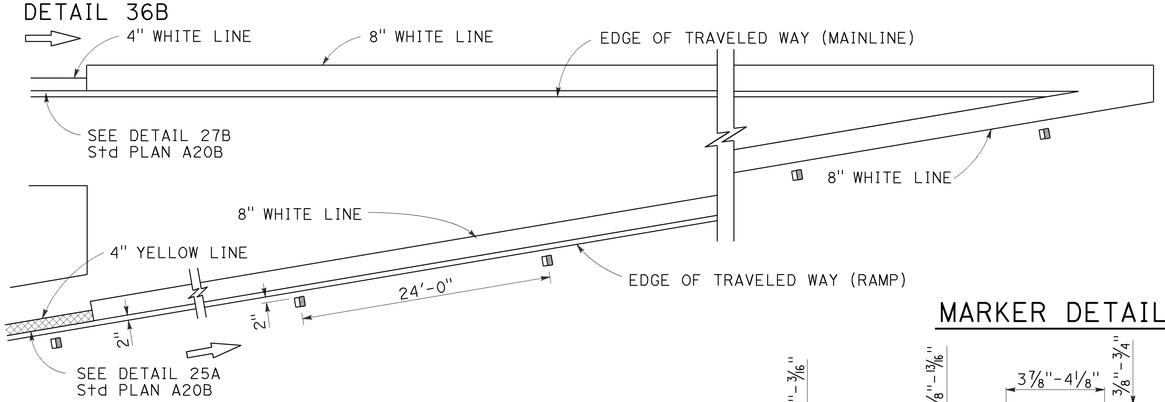
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

DETAIL 36A



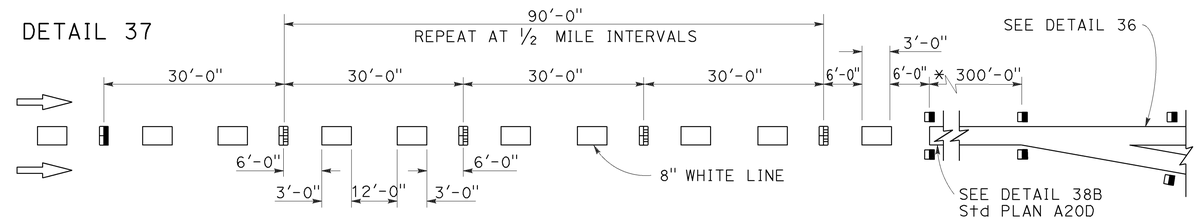
ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

DETAIL 36B

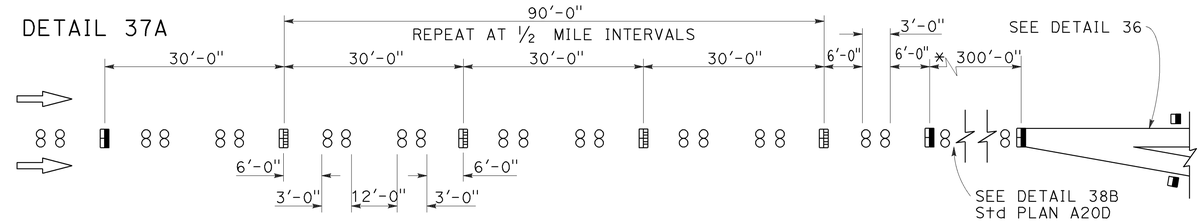


LANE DROP AT EXIT RAMPS

DETAIL 37



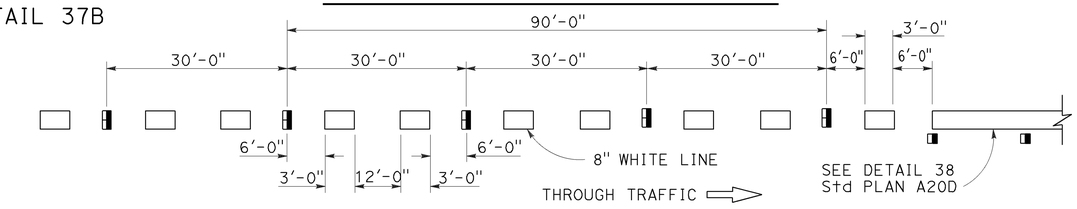
DETAIL 37A



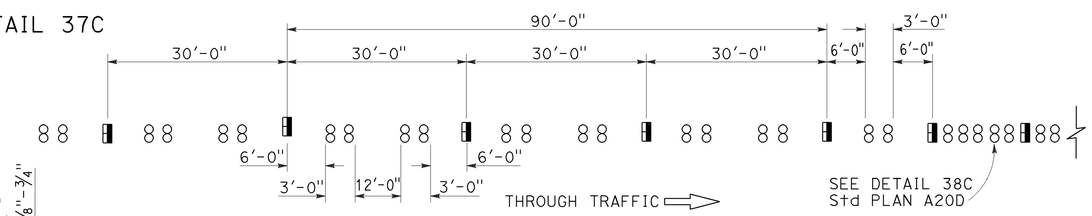
* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS

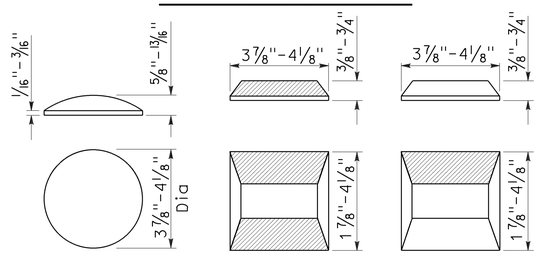
DETAIL 37B



DETAIL 37C



MARKER DETAILS



RETROREFLECTIVE FACE

LEGEND:

MARKERS

- ○ TYPE A WHITE NON-REFLECTIVE
- ⊞ TYPE C RED-CLEAR RETROREFLECTIVE
- ◨ TYPE G ONE-WAY CLEAR RETROREFLECTIVE

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

4-29-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	22	49

Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

April 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

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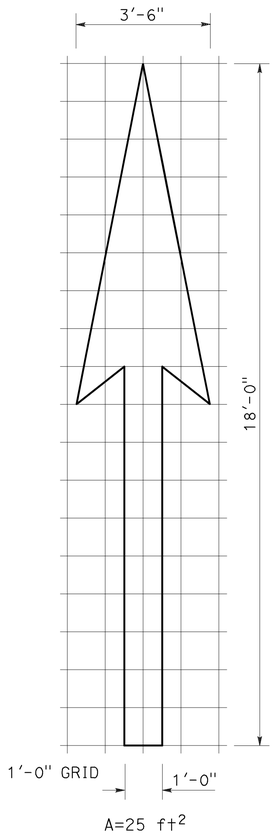
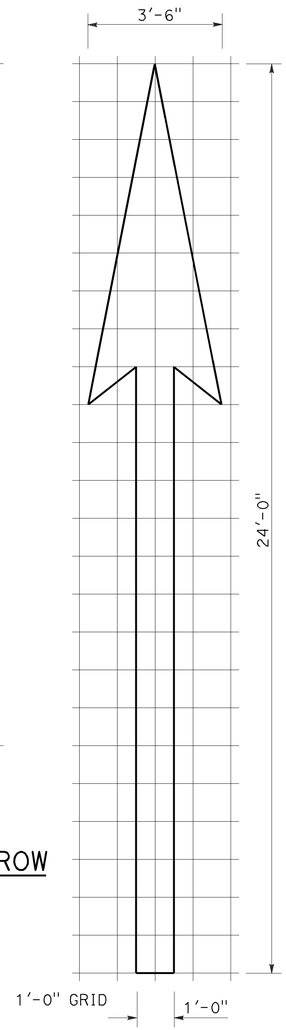
TO ACCOMPANY PLANS DATED 2-22-16

2010 REVISED STANDARD PLAN RSP A24A



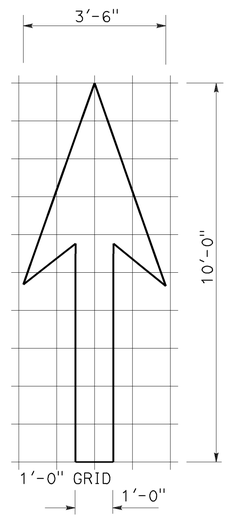
A=25 ft^2

TYPE I 18'-0" ARROW



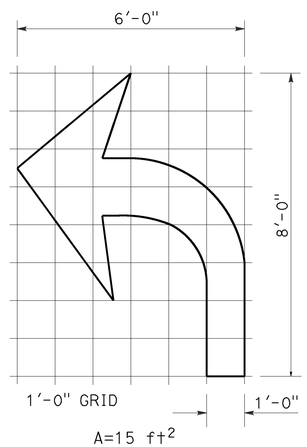
A=31 ft^2

TYPE I 24'-0" ARROW



A=14 ft^2

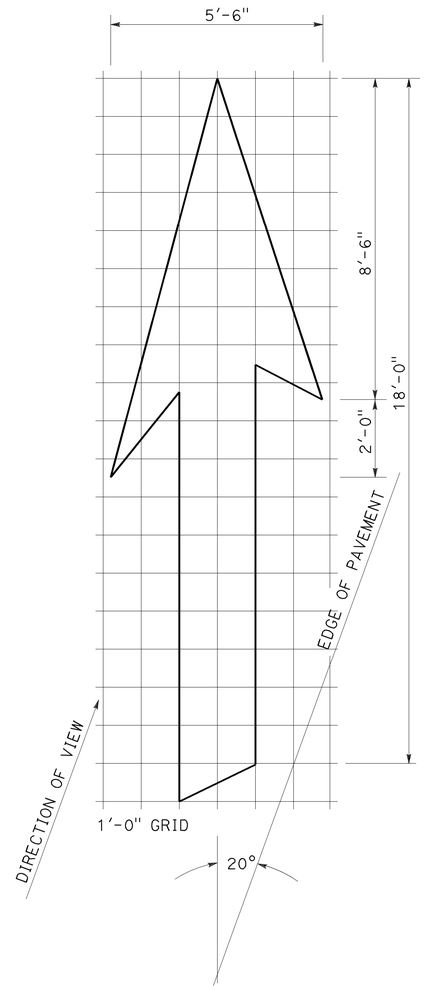
TYPE I 10'-0" ARROW



A=15 ft^2

TYPE IV (L) ARROW

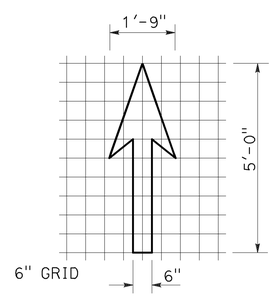
(For Type IV (R) arrow, use mirror image)



A=42 ft^2

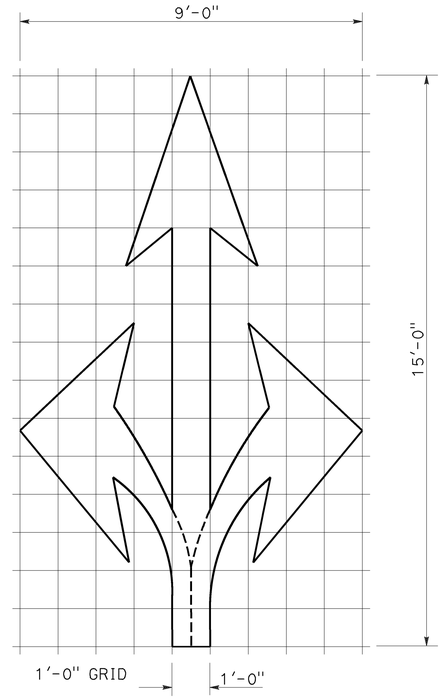
TYPE VI ARROW

Right lane drop arrow
(For left lane, use mirror image)



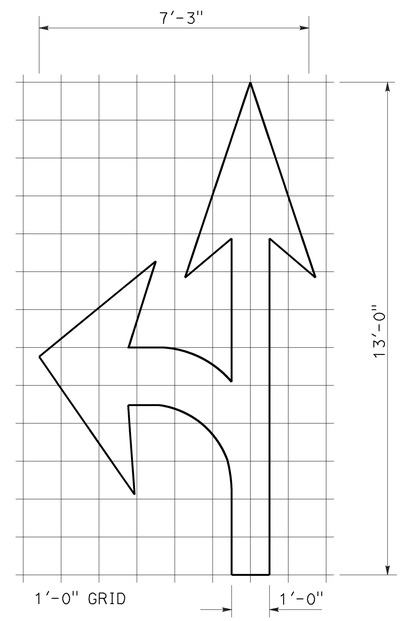
A=3.5 ft^2

BIKE LANE ARROW



A=36 ft^2

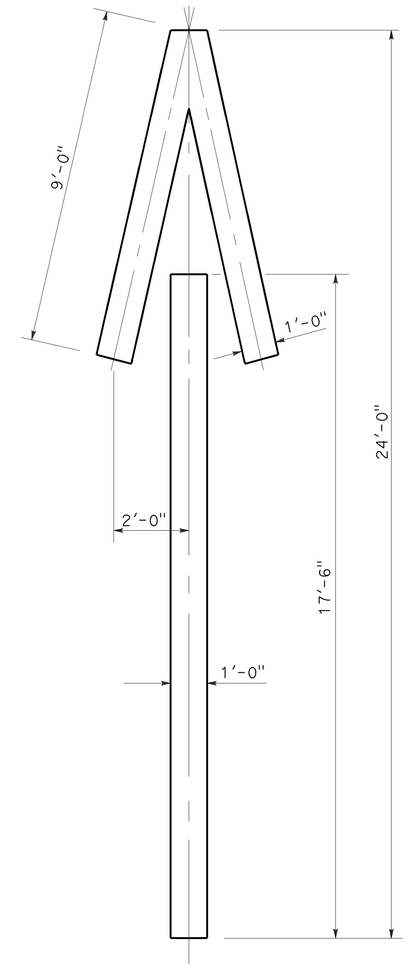
TYPE VIII ARROW



A=27 ft^2

TYPE VII (L) ARROW

(For Type VII (R) arrow, use mirror image)



A=33 ft^2

TYPE V ARROW

NOTE:
Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS

NO SCALE

RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24A

3-14-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	23	49

REGISTERED CIVIL ENGINEER

October 19, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Roberta L. McLaughlin No. C40375 Exp. 3-31-13 CIVIL STATE OF CALIFORNIA

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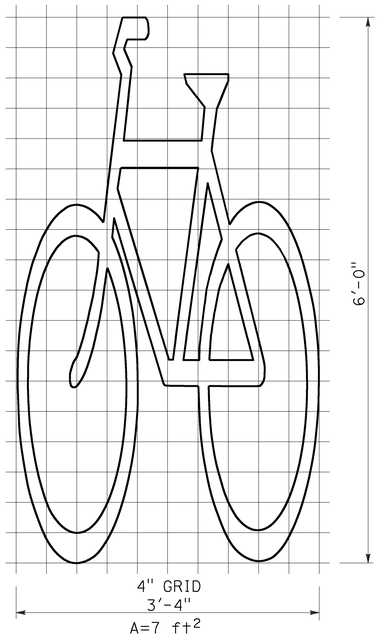
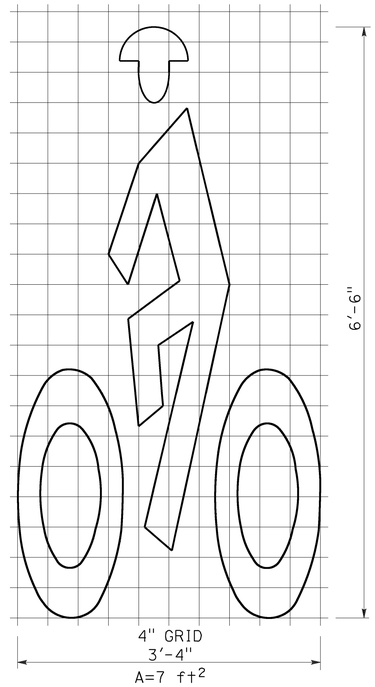
NOTE: TO ACCOMPANY PLANS DATED 2-22-16

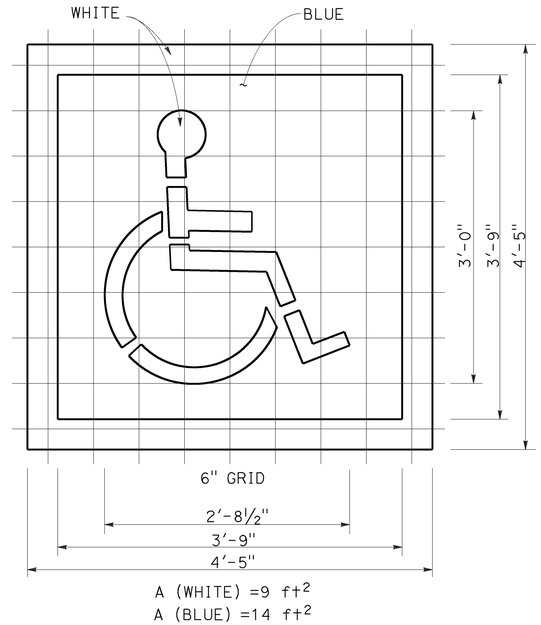
Minor variations in dimensions may be accepted by the Engineer.



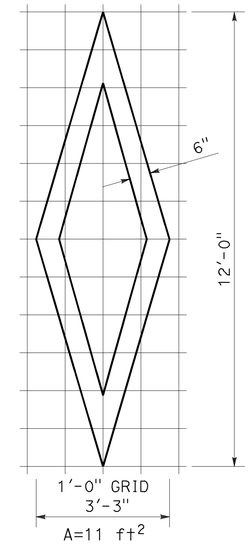
BIKE LANE SYMBOL WITHOUT PERSON



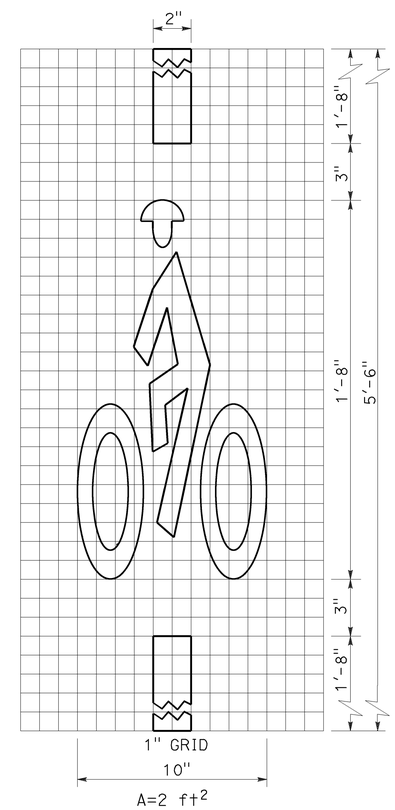
BIKE LANE SYMBOL WITH PERSON



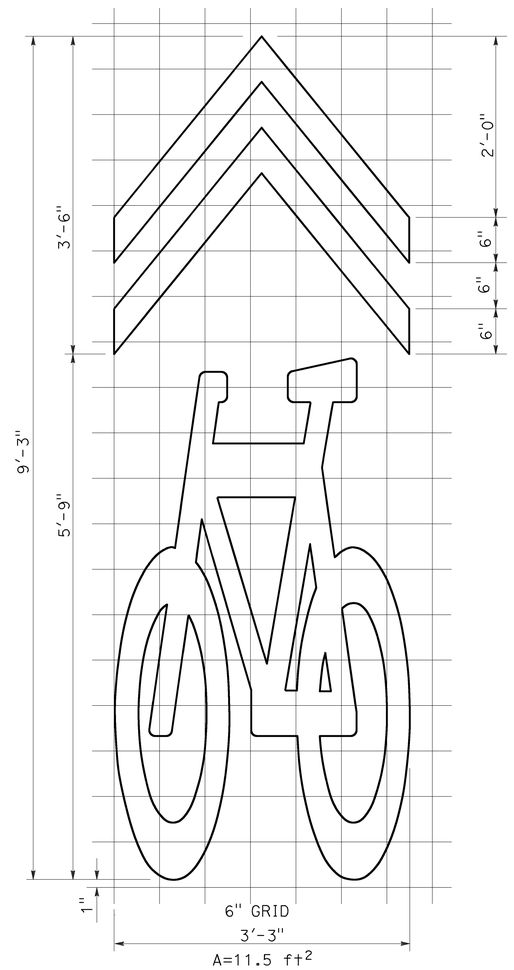
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING



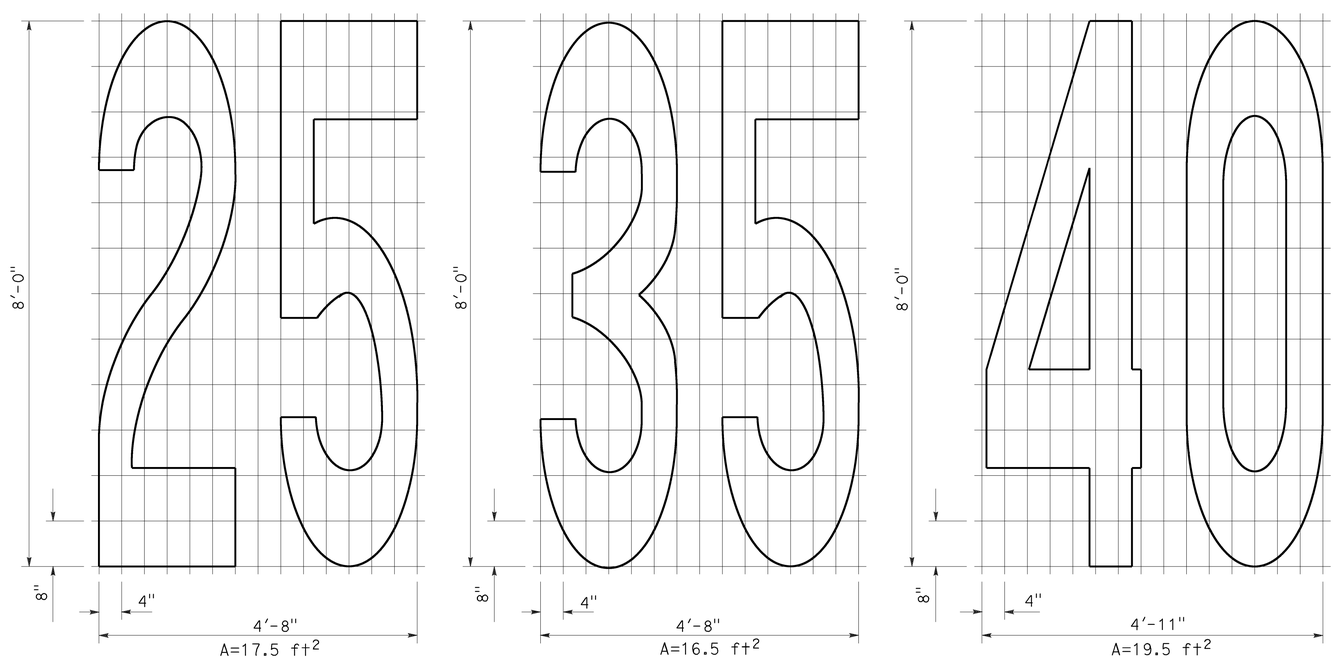
DIAMOND SYMBOL



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

6-28-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	24	49

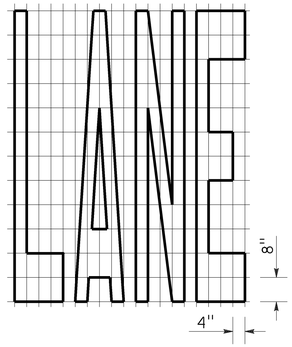
REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

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

TO ACCOMPANY PLANS DATED 2-22-16



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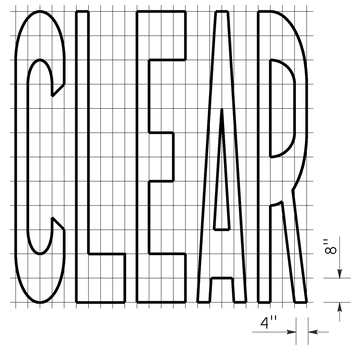

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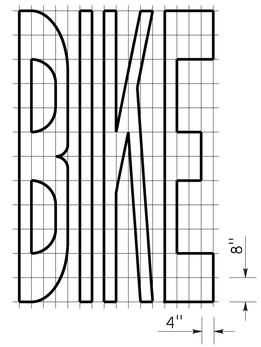

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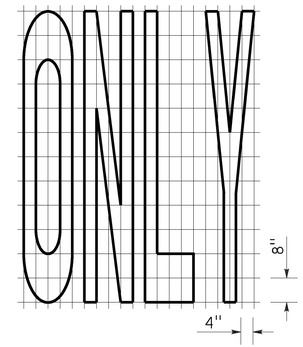

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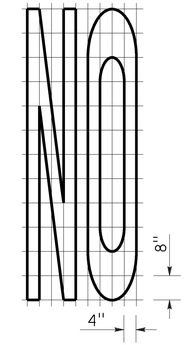

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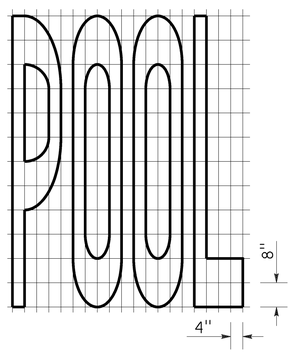

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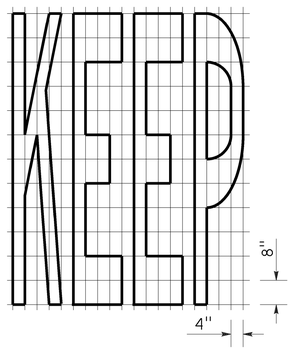

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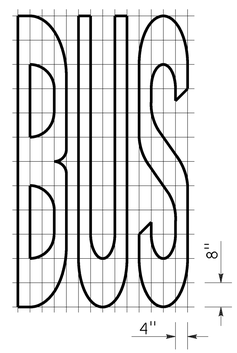
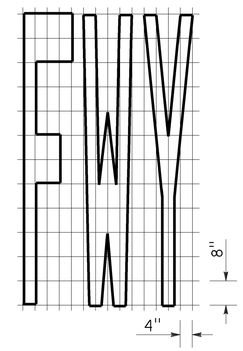
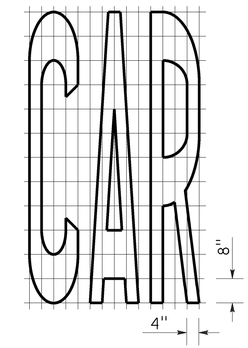


A=20 ft^2

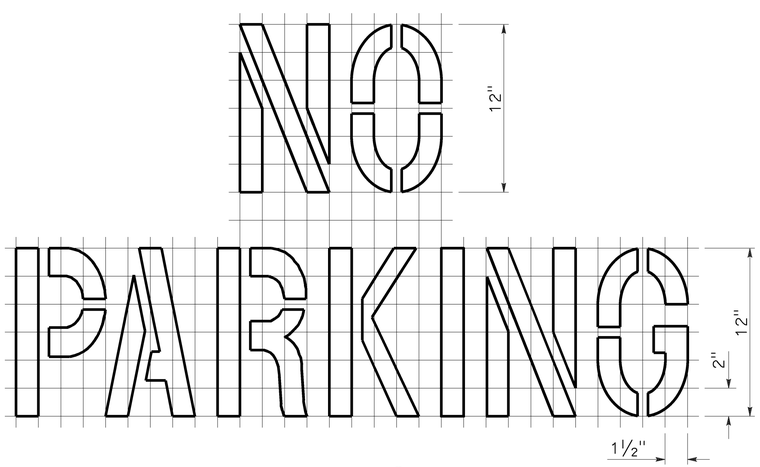


A=16 ft^2

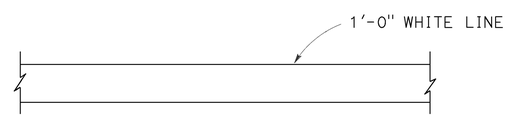


A=17 ft^2

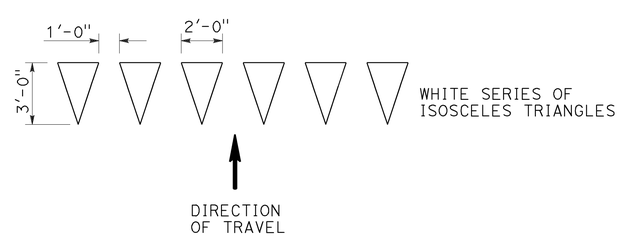
WORD MARKINGS			
ITEM	ft^2	ITEM	ft^2
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft^2
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

2010 REVISED STANDARD PLAN RSP A24E

6-12-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	25	49

REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gurinderpal Bhullar No. C48815 Exp. 9-30-14 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.

TO ACCOMPANY PLANS DATED 2-22-16

2010 REVISED STANDARD PLAN RSP T9

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		
					X	Y	Z **
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	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%
mph	ft	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 recommmended 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.

REVISED STANDARD PLAN RSP T9

4-30-13

TO ACCOMPANY PLANS DATED 2-22-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	26	49

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gurinderpal Bhullar No. C48815 Exp. 9-30-14 CIVIL STATE OF CALIFORNIA

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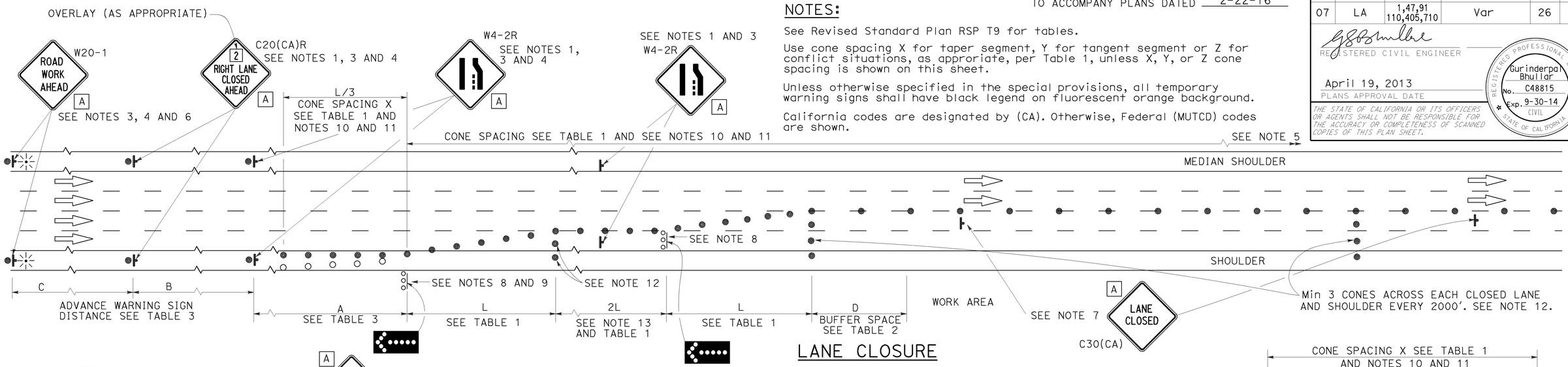
NOTES:

See Revised Standard Plan RSP T9 for tables.

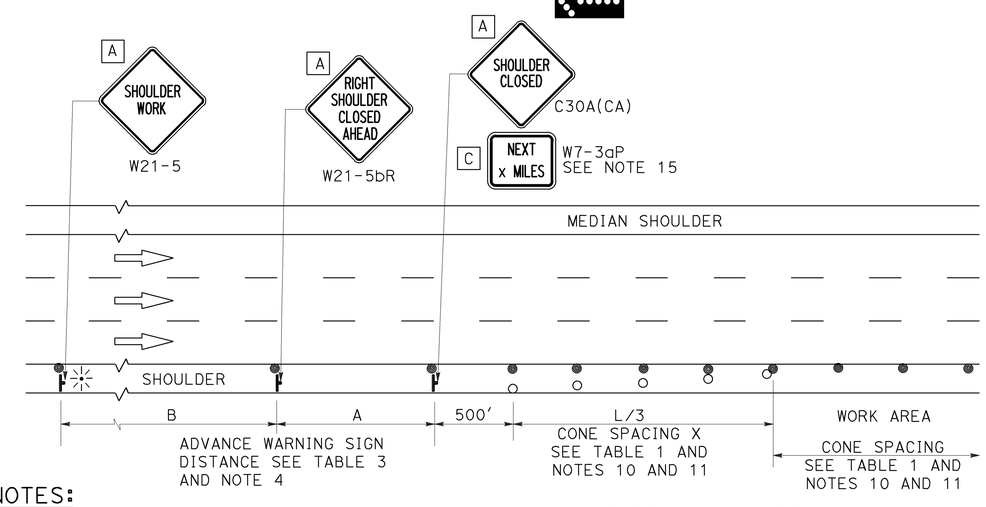
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

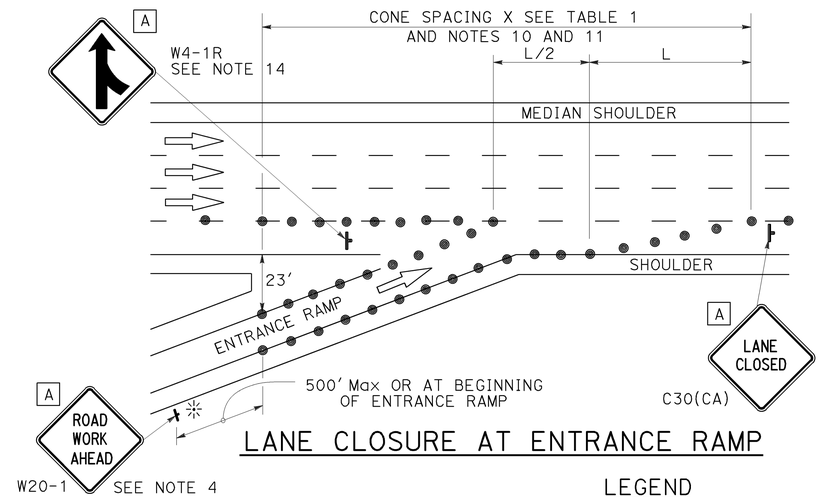
California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



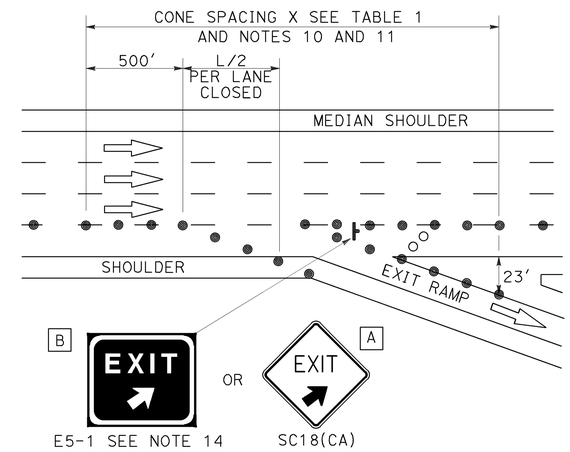
LANE CLOSURE



SHOULDER CLOSURE



LANE CLOSURE AT ENTRANCE RAMP



LANE CLOSURE AT EXIT RAMP

NOTES:

1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Duplicate sign installations are not required:
   a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
   b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
4. 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.
5. 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.
6. 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) sign for the first advance warning sign.
7. Place a C30(CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
9. 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.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
12. 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.
13. 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.
14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
15. A W7-3aP "NEXT____ MILES" plaque must be used if theshoulder 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

12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	27	49

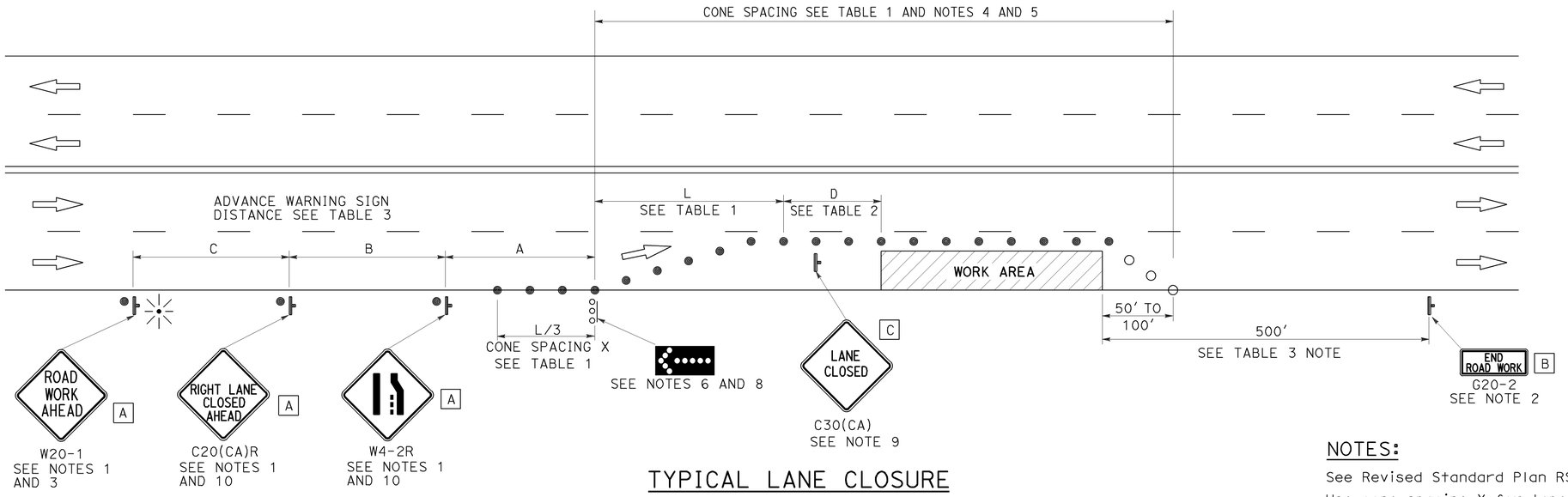
REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gurinderpal Bhullar No. C48815 Exp. 9-30-14 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.

TO ACCOMPANY PLANS DATED 2-22-16



TYPICAL LANE CLOSURE

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 approriate, 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.

NOTES:

1. Each advance warning 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. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, 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.
3. 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) sign for the first advance warning sign.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Flashing arrow sign shall be either Type I or Type II.
7. For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
8. 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 the top of crest vertical curve or on a horizontal curve.
9. Place a C30(CA) sign every 2000' throughout length of lane closure.
10. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
11. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

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	36" x 18"
C	30" x 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T11 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T11 DATED MAY 20, 2011 - PAGE 239 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

4-2-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	28	49

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gurinderpal Bhullar No. C48815 Exp. 9-30-14 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.

TO ACCOMPANY PLANS DATED 2-22-16

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

A	48" x 48"
B	24" x 24"
C	36" x 18"

NOTES:

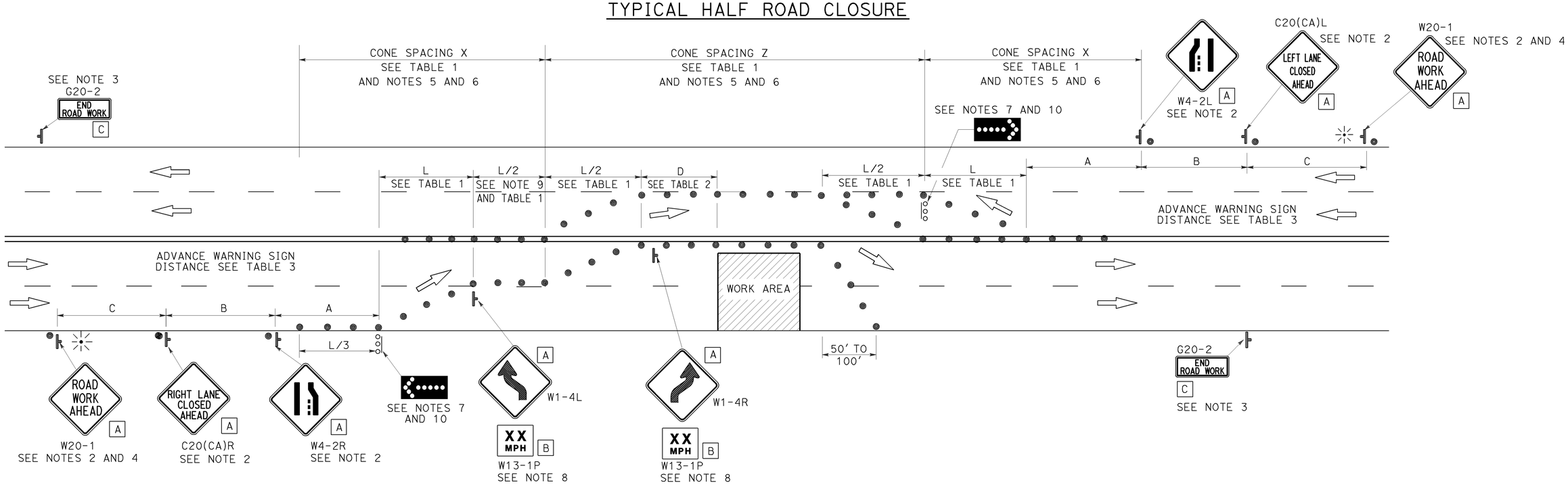
See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, 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.

TYPICAL HALF ROAD CLOSURE



NOTES:

1. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.
2. Each advance warning sign in each direction of travel 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.
3. A G20-2 "END ROAD WORK" sign, 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.
4. 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) sign for the first advance warning sign.
5. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
6. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
7. Flashing arrow signs shall be either Type I or Type II.
8. Advisory speed will be determined by the Engineer. The W13-1P Plaque will not be required when advisory speed is more than the posted or maximum speed limit.
9. Unless otherwise specified in the special provisions, the tangent (L/2) shall be used.
10. 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 the top of crest vertical curve or on a horizontal curve.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR HALF ROAD CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS AND EXPRESSWAYS

NO SCALE

RSP T12 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T12
DATED MAY 20, 2011 - PAGE 240 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T12

2010 REVISED STANDARD PLAN RSP T12

4-2-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	29	49

Devinder Singh
REGISTERED CIVIL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Devinder Singh
No. C50470
Exp. 6-30-17
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.

TO ACCOMPANY PLANS DATED 2-22-16

2010 REVISED STANDARD PLAN RSP T13

NOTES:

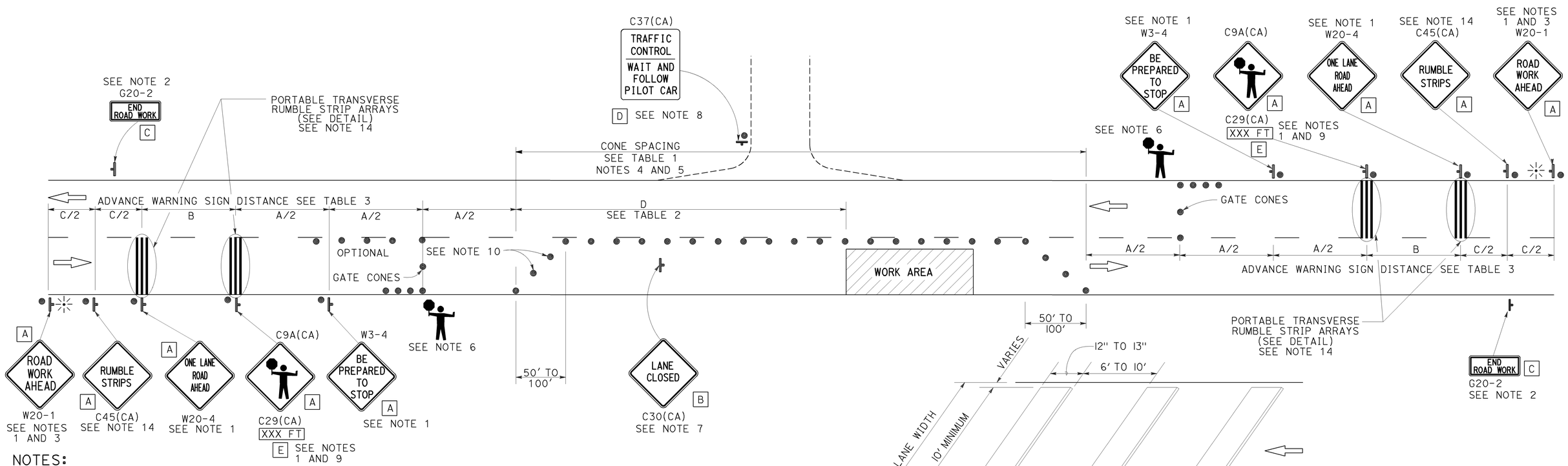
See Revised Standard Plan RSP T9 for tables.

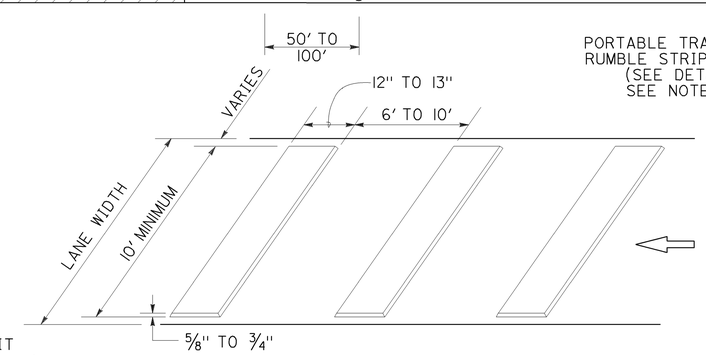
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL





PORTABLE TRANSVERSE RUMBLE STRIP ARRAY DETAIL

NOTES:

1. Each advance warning sign in each direction of travel 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.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
3. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
7. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
8. When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
9. An optional C29(CA) sign may be placed below the C9A(CA) sign.
10. Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
11. The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
12. Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
13. If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
14. Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
    A. Work duration occupies a location for four hours or less
    B. Posted speed limit is below 45 MPH
    C. Work is of emergency nature
    D. Work zone is in snow or icy weather conditions

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- PORTABLE FLASHING BEACON
- FLAGGER

SIGN PANEL SIZE (Min)

A	48" x 48"
B	30" x 30"
C	36" x 18"
D	36" x 42"
E	20" x 7"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T13 DATED OCTOBER 30, 2015 SUPERSEDES RSP T13 DATED OCTOBER 17, 2014, RSP T13 DATED JULY 18, 2014 AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

10-13-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	30	49

REGISTERED CIVIL ENGINEER

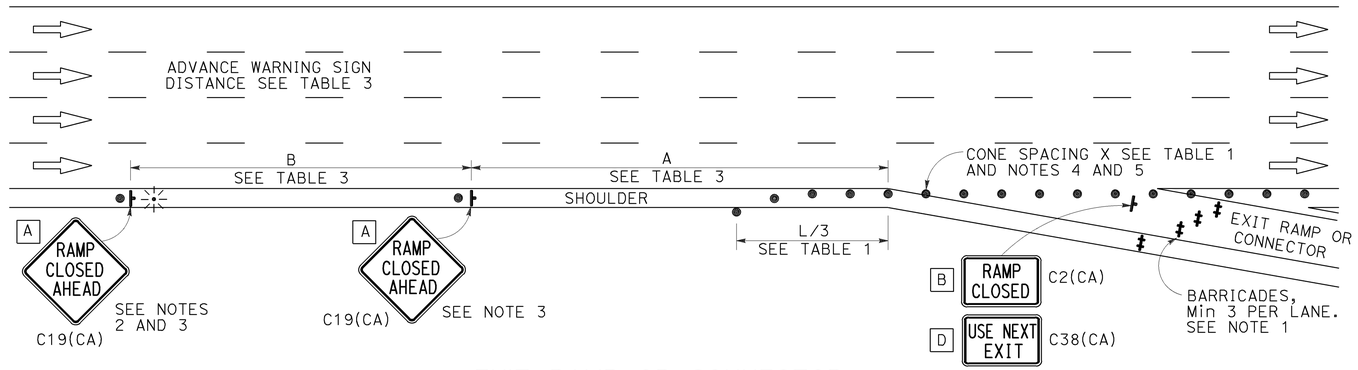
April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gurinderpal Bhullar No. C48815 Exp. 9-30-14 CIVIL STATE OF CALIFORNIA

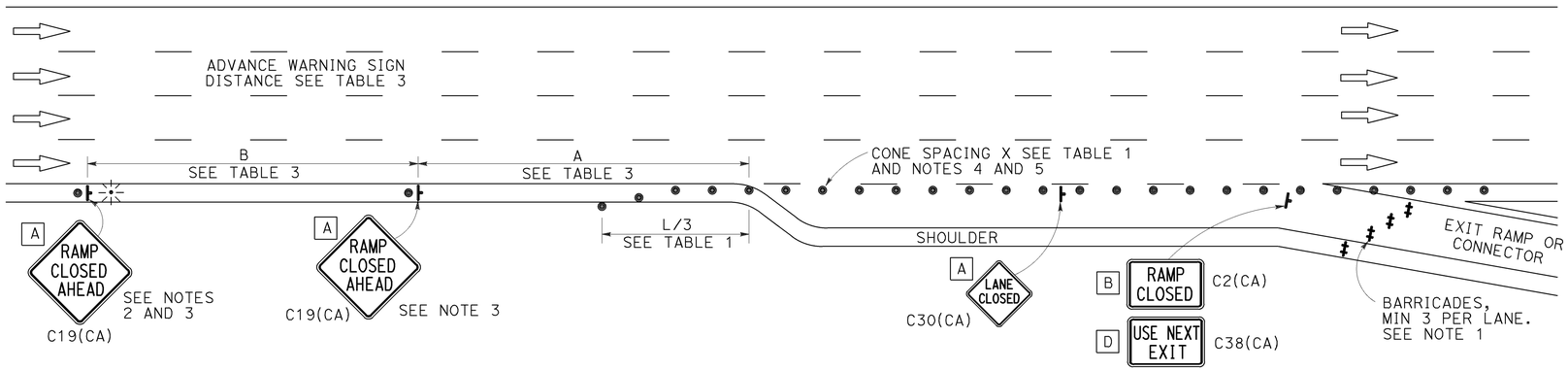
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 2-22-16

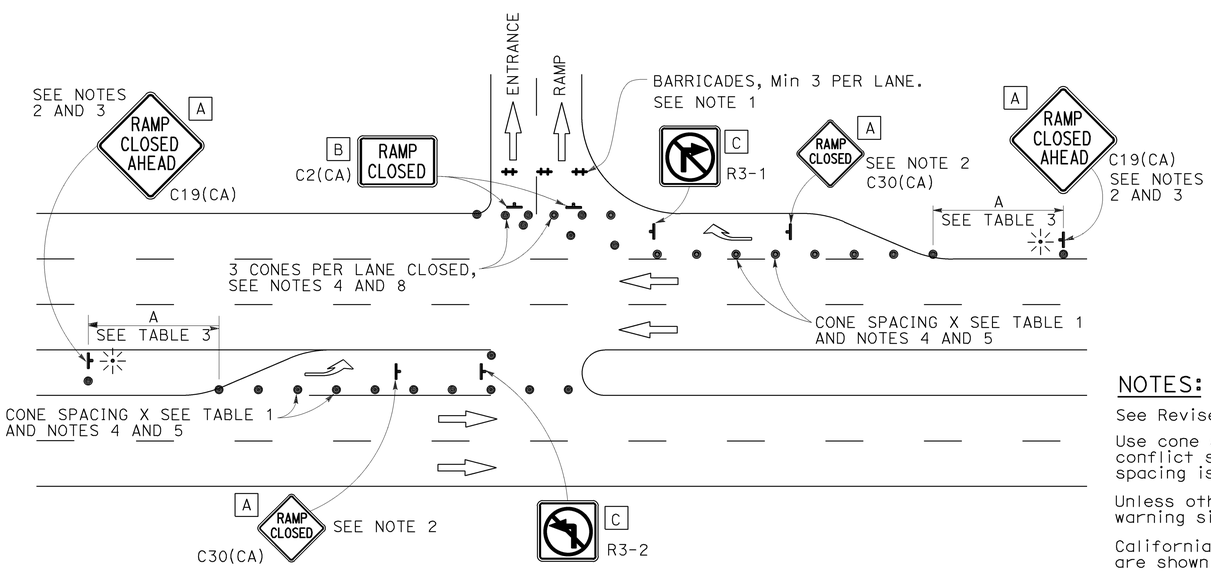
TYPICAL RAMP CLOSURES



EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS

SIGN PANEL SIZE (Min)

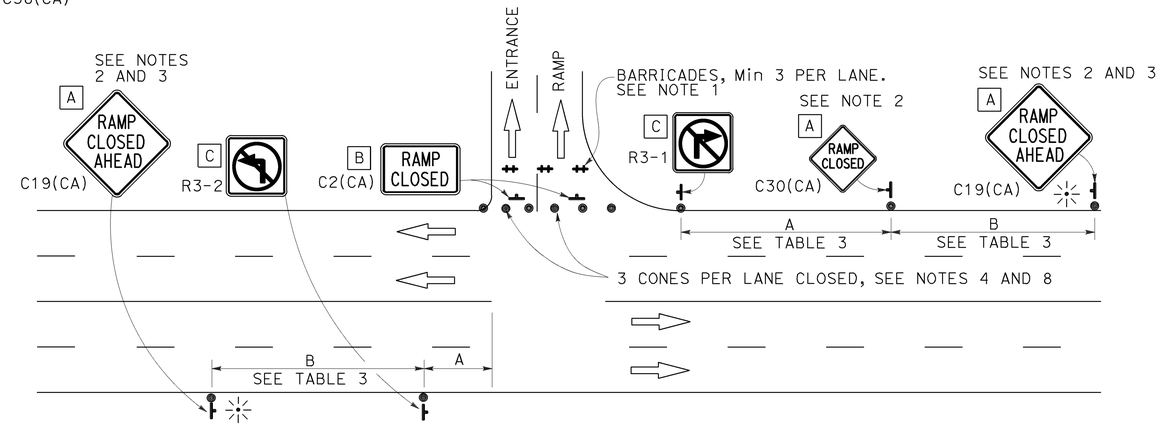
- A 48" × 48"
- B 48" × 30"
- C 36" × 36"
- D 48" × 36"

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- BARRICADES
- PORTABLE FLASHING BEACON

NOTES:

1. 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.
2. 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.
3. 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" × 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.
4. All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
6. At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
7. The existing "EXIT" signs shall be covered during ramp closures.
8. A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.



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 approriate, 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

12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91 110,405,710	Var	31	49

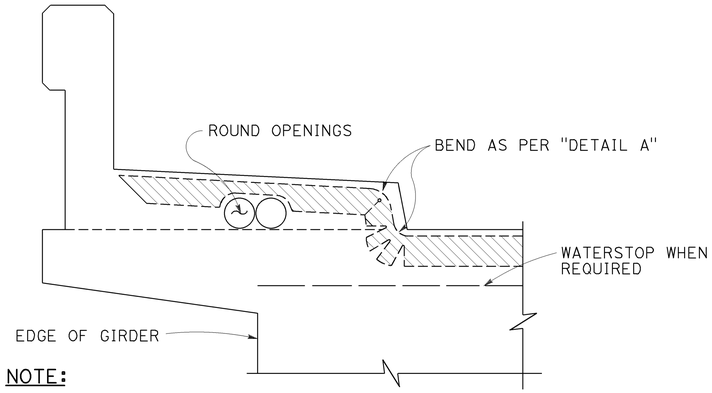
REGISTERED CIVIL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Efthymios Delis No. C51434 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

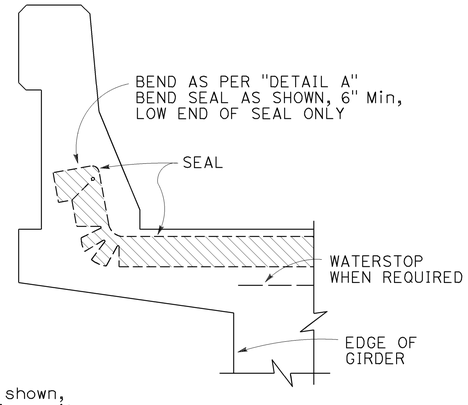
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 2-22-16



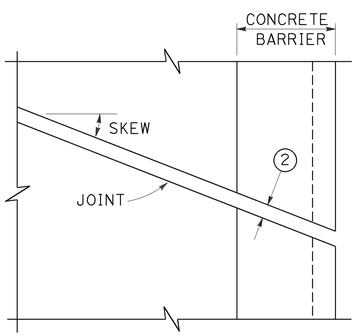
NOTE:
Type "B" seal shown. Type "A" seals to comform to the general path of seal shown, cuts for bending not required. Bend type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK

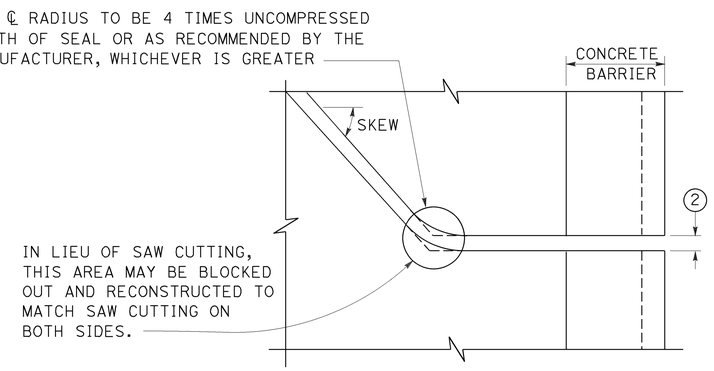


CONCRETE BARRIER

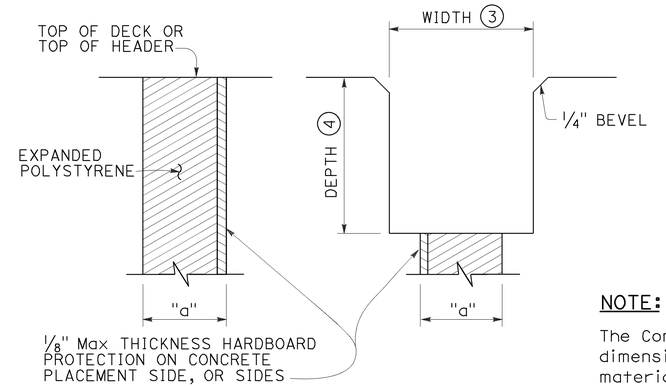
JOINT SEALS DETAILS



PLAN OF JOINT (SKEW ≤ 20°)

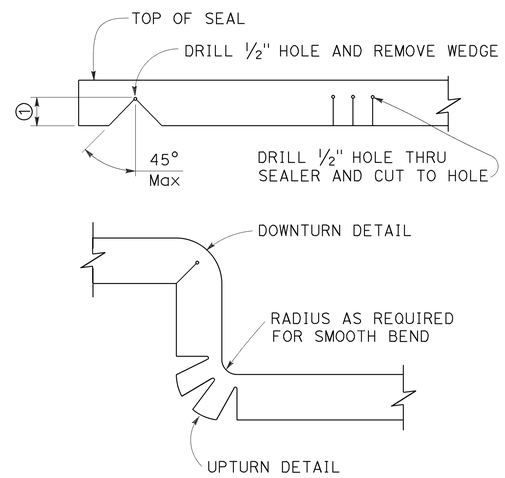


PLAN OF JOINT (SKEW > 20°)



FORMING DETAIL SAWCUT DETAIL

NOTE:
The Contractor shall verify all controlling field dimensions before ordering or fabricatiing any material.



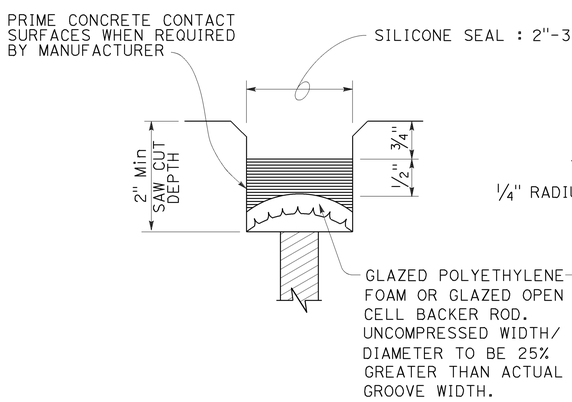
DETAIL A

NOTES:

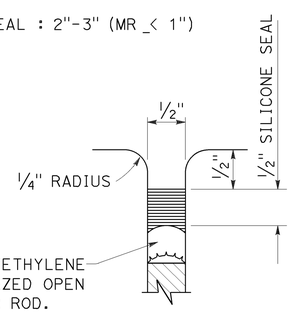
1. Make smooth cuts from the bottom of seal to 1½" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
2. Opening in barrier to match width of sawn deck joint.
3. Sawcut groove widths shall be as ordered by the Engineer.
4. Depth of sawcut: Type A - Depth to be 2" minimum.
   Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W_2) plus dimensions shown.
5. MR (movement rating) as shown on other plan sheets.
6. Other depths must be approved by the Engineer.
7. A sidewalk joint shall be covered by an expansion joint armor.

DIMENSIONS "a" OF JOINT REQUIRED

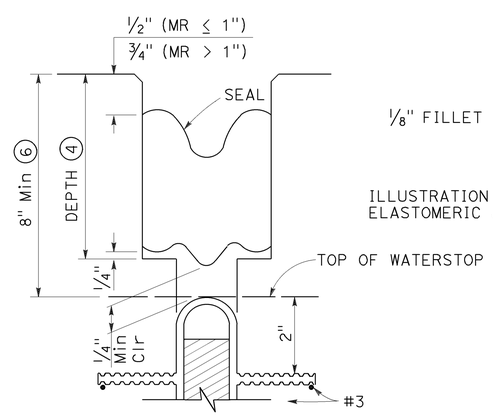
MOVEMENT RATING (MR) 5	BRIDGE TYPE	"a" DIMENSION DECK CONCRETE PLACED		
		WINTER	FALL-SPRING	SUMMER
2"	ALL EXCEPT CIP/PS	1½"	1¼"	¾"
	CIP/PS	1¼"	1"	½"
1½"	ALL EXCEPT CIP/PS	1¼"	1"	½"
	CIP/PS	1"	¾"	½"
1"	ALL EXCEPT CIP/PS	1"	¾"	½"
	CIP/PS	¾"	½"	½"
½"	ALL EXCEPT CIP/PS	¾"	¾"	½"
	CIP/PS	½"	½"	½"



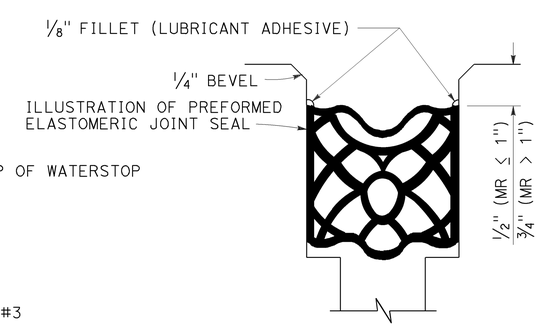
TYPE A SEAL
Movement rating : Silicone = 1" Max



TYPE AL SEAL
Longitudinal joints only



TYPE B JOINT SEAL
IN MINIMUM WIDTH POSITION (W_2)



TYPE B SEAL
Movement Rating ≤ 2"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

NO SCALE

RSP B6-21 DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN B6-21 DATED MAY 20, 2011 - PAGE 283 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP B6-21

2010 REVISED STANDARD PLAN RSP B6-21

8-18-15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	32	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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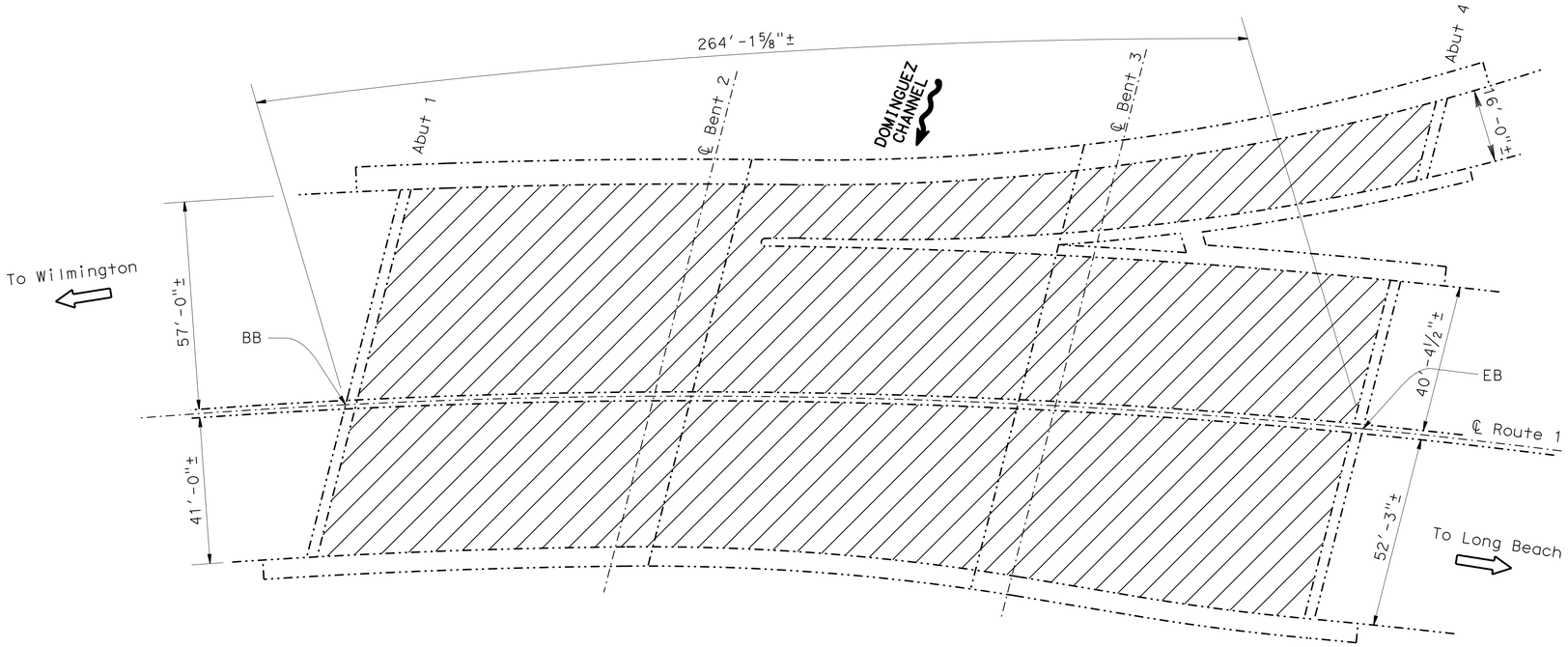

DOMINGUEZ CHANNEL

BR NO. 53-0719, RTE 1, PM 8.62
1"=20'

Notes:

Indicates existing structure

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.

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	GENERAL PLAN NO. 14
15	GENERAL PLAN NO. 15
16	GENERAL PLAN NO. 16
17	JOINT SEAL DETAILS
18	SPALL REPAIR DETAILS

DOMINGUEZ CHANNEL BRIDGE NO. 53-0719

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	27,022	SQFT
TREAT BRIDGE DECK	27,022	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	300	GAL

STANDARD PLANS DATED MAY 2010

SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ABBREVIATIONS (SHEET 2 OF 2)
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

STANDARD PLAN SHEET No.

DETAIL No.

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell
LAYOUT	Trung Lam	Timothy Powell
SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED: Khanh Truong

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 1

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1
CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-28-15 1-20-16

SHEET 1 OF 18

FILE => 07-3w0501_01_gp1.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	33	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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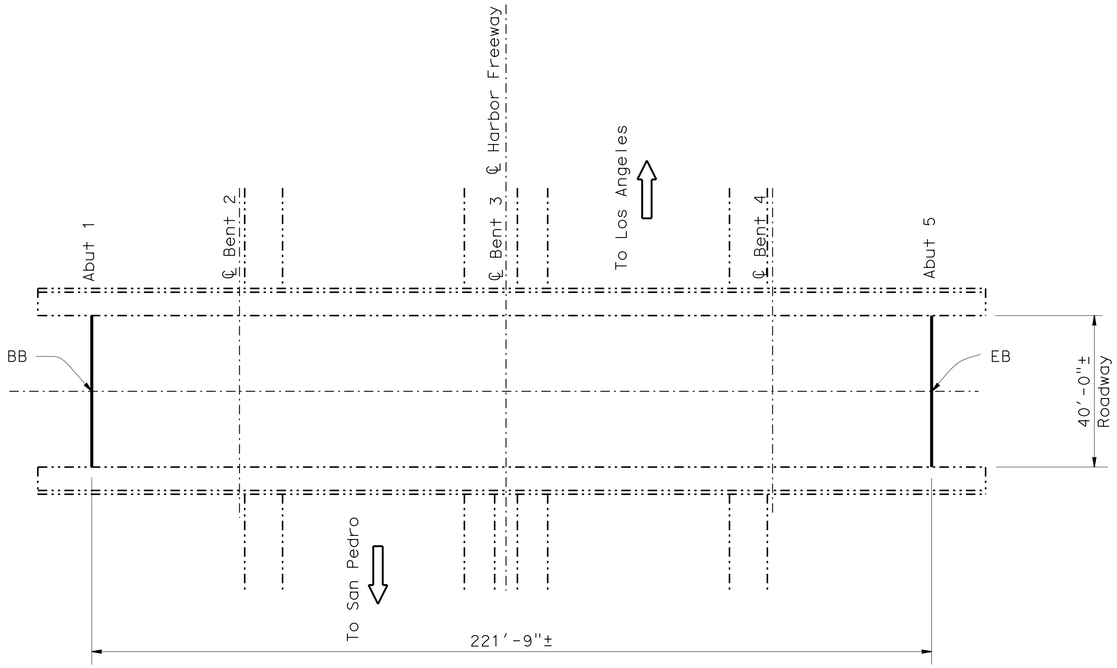


228th STREET OC

BR NO. 53-0965, RTE 110, PM 6.14
1"=20'

Notes:

Indicates existing structure

Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.

228TH STREET OC BRIDGE NO. 53-0965

QUANTITIES

CLEAN EXPANSION JOINT	81	LF
JOINT SEAL (MR 1")	81	LF

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell
LAYOUT	Trung Lam	Timothy Powell
SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED: Khanh Truong

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 2

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1
CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 10-28-15 1-20-16

SHEET 2 OF 18

FILE => 07-3w0501_02_gp2.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	34	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

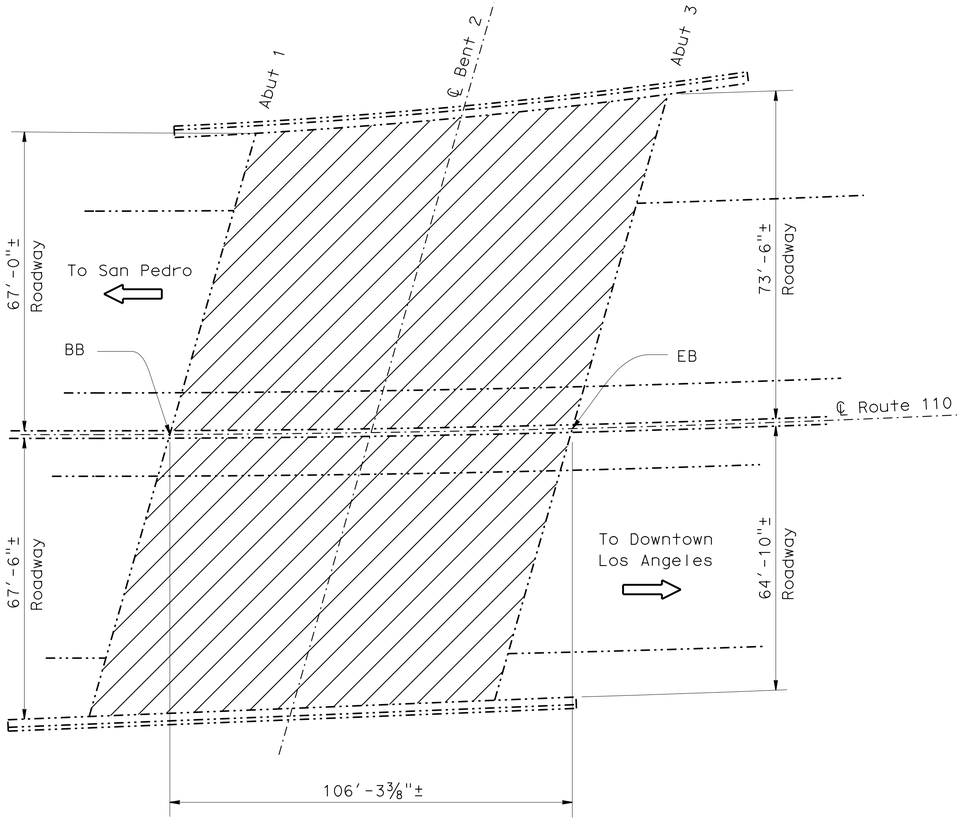
REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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.

Notes:

Indicates existing structure

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.



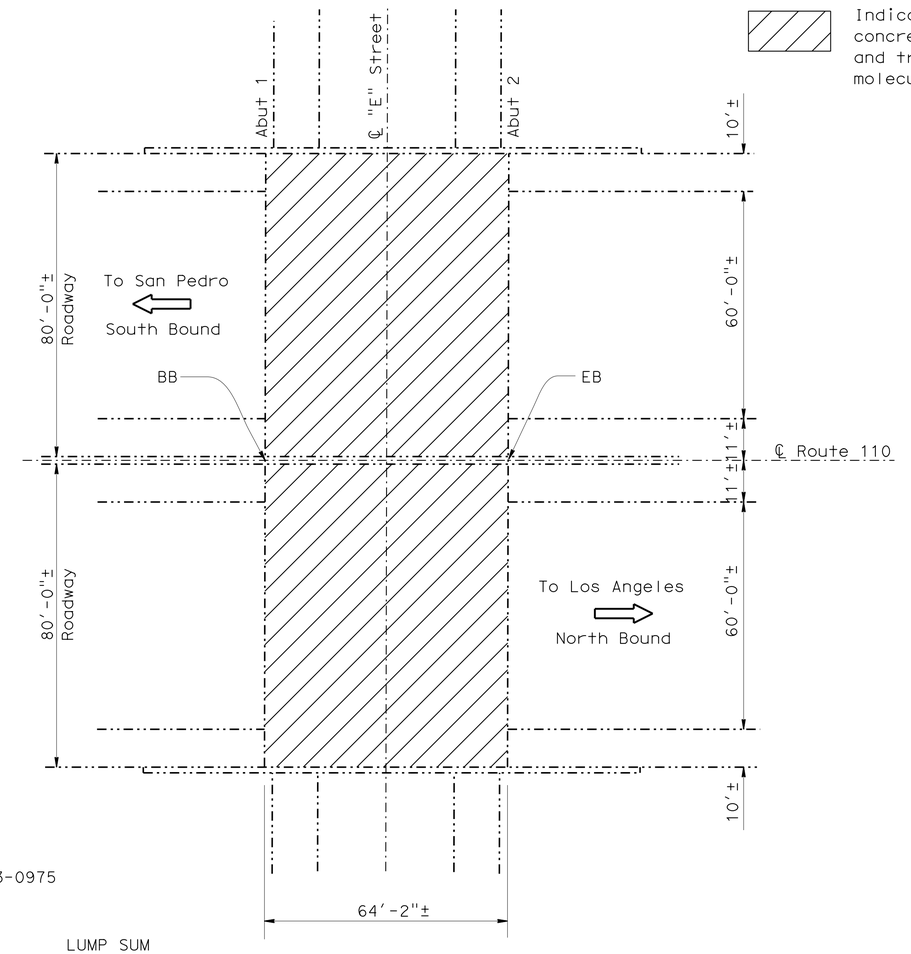
SEPULVEDA BOULEVARD UC

BR NO. 53-0966, RTE 110, PM 5.45
1"=20'

SEPULVEDA BOULEVARD UC BRIDGE NO. 53-0966

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	14,499	SQFT
TREAT BRIDGE DECK	14,499	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	161	GAL



"E" STREET UC BRIDGE NO. 53-0975

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	10,267	SQFT
TREAT BRIDGE DECK	10,267	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	114	GAL

"E" STREET UC

BR NO. 53-0975, RTE 110, PM 2.97
1"=20'

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell
LAYOUT	Trung Lam	Timothy Powell
SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED: Khanh Truong

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 3

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-28-15

REVISION DATES

SHEET 3 OF 18

FILE => 07-3w0501_03_gp3.dgn

USERNAME => s122236 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	35	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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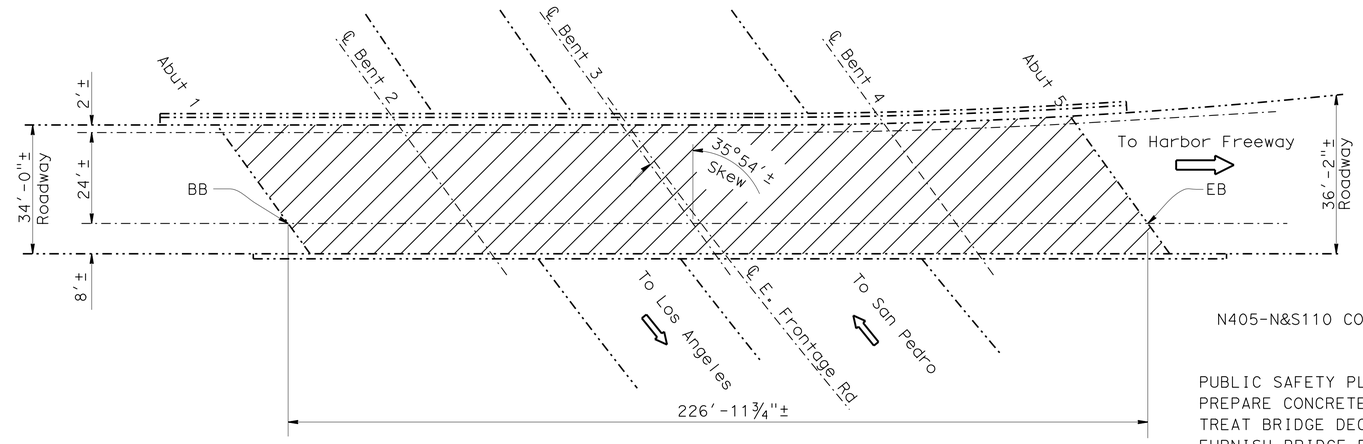


N405-N&S110 CONNECTOR OC

BR NO. 53-1141G, RTE 405, PM 12.74
1"=20'

N405-N&S110 CONNECTOR OC BRIDGE NO. 53-1141G

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	7,963	SQFT
TREAT BRIDGE DECK	7,963	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	89	GAL

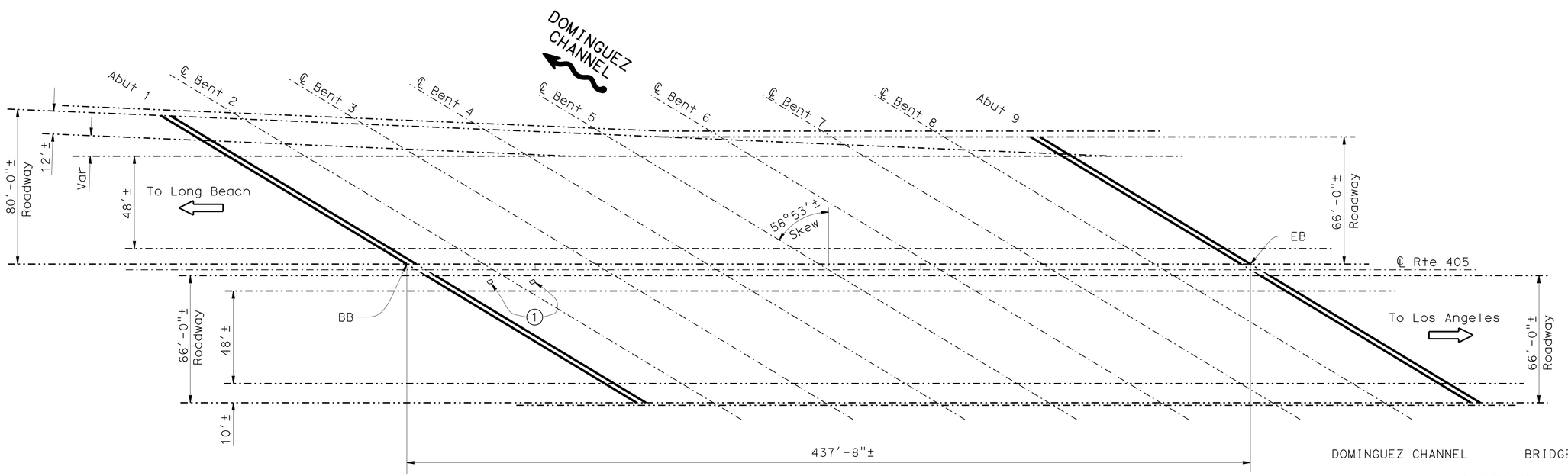
Notes:

Indicates existing structure

Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.

(1) Indicates approximate location of spall repair. For details, see "SPALL REPAIR TABLE" and "DECK REPAIR DETAIL" on "SPALL REPAIR DETAILS" sheet.



DOMINGUEZ CHANNEL

BR NO. 53-1166, RTE 405, PM 9.76
1"=30'

DOMINGUEZ CHANNEL BRIDGE NO. 53-1166

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	0.3	CF
REMOVE UNSOUND CONCRETE	0.3	CF
CLEAN EXPANSION JOINT	1,086	LF
JOINT SEAL (MR ½")	542	LF
BONDED JOINT SEAL (MR 1½")	544	LF

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

Michael J. Lee 10-8-15 DESIGN ENGINEER	DESIGN	BY Khanh Truong	CHECKED Timothy Powell	LAYOUT	BY Trung Lam	CHECKED Timothy Powell	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN
	DETAILS	BY Trung Lam	CHECKED Timothy Powell	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED Khanh Truong		
	QUANTITIES	BY Khanh Truong	CHECKED Timothy Powell					

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 4

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 10-28-15

SHEET 4 OF 18

FILE => 07-3w0501_04_gp4.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	36	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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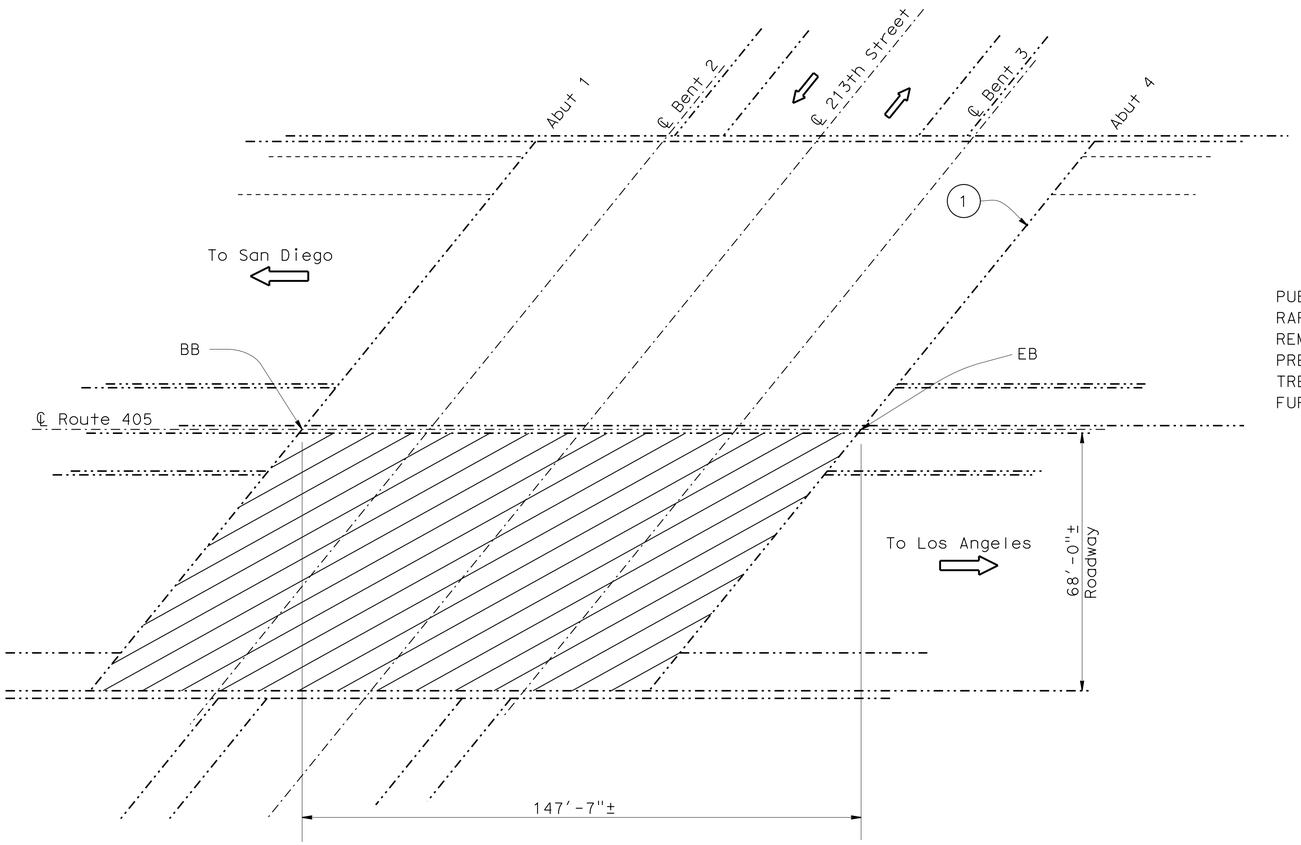


213th STREET UC

BR NO. 53-1263, RTE 405, PM 10.88
1"=20'

213TH STREET UC BRIDGE NO. 53-1263

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
RAPID SETTING CONCRETE (PATCH)	0.3	CF
REMOVE UNSOUND CONCRETE	0.3	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	10,035	SQFT
TREAT BRIDGE DECK	10,035	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	112	GAL

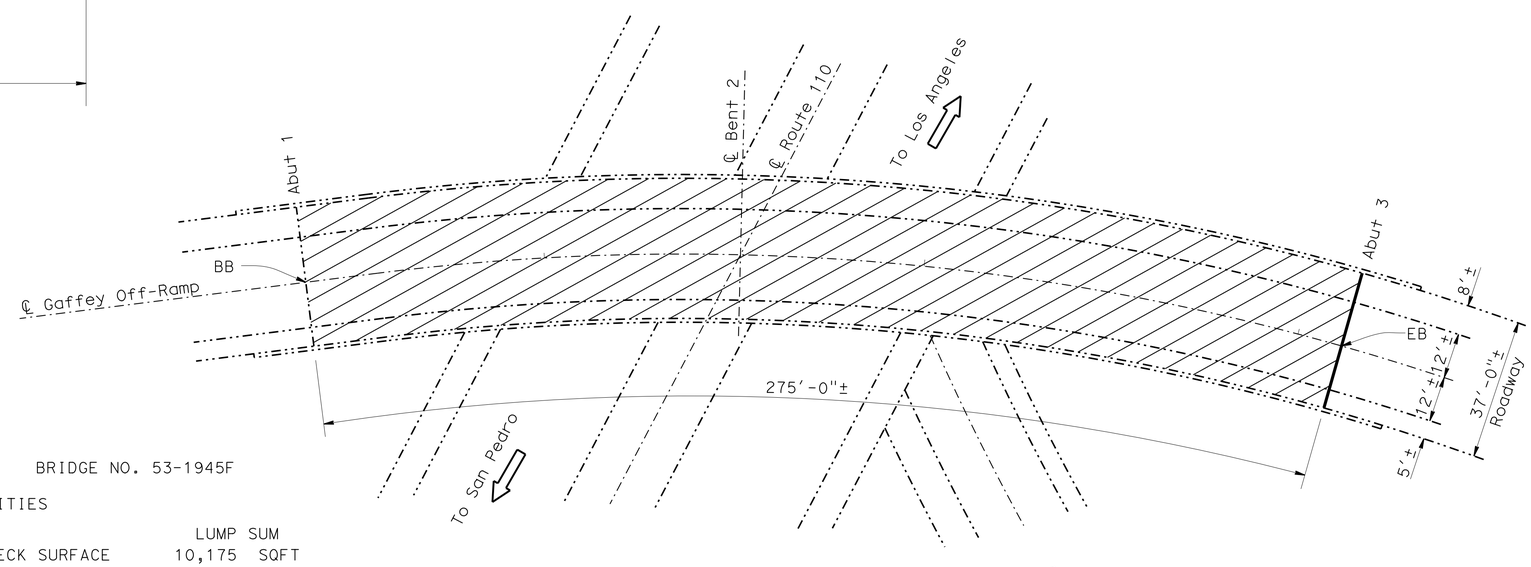
Notes:

Indicates existing structure

Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.

(1) Indicates approximate location of spall repair. For details, see "SPALL REPAIR TABLE" and "DECK REPAIR DETAIL" on "SPALL REPAIR DETAILS" sheet.



GAFFEY OFF-RAMP OC BRIDGE NO. 53-1945F

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	10,175	SQFT
TREAT BRIDGE DECK	10,175	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	113	GAL
CLEAN EXPANSION JOINT	38	LF
JOINT SEAL (MR 1")	38	LF

GAFFEY OFF-RAMP OC

BR NO. 53-1945F, RTE 47, PM L00.22
1"=20'

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell
LAYOUT	Trung Lam	Timothy Powell
SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED: Khanh Truong

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES
GENERAL PLAN NO. 5

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1
CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-28-15

REVISION DATES

SHEET 5 OF 18

FILE => 07-3w0501_05_gp5.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	37	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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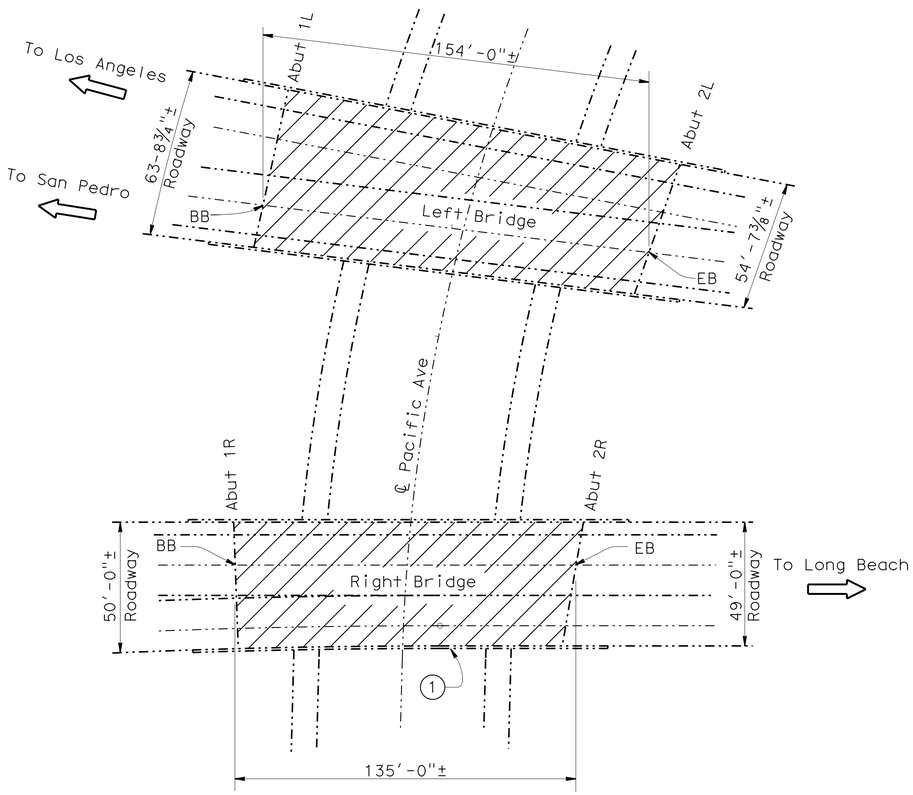


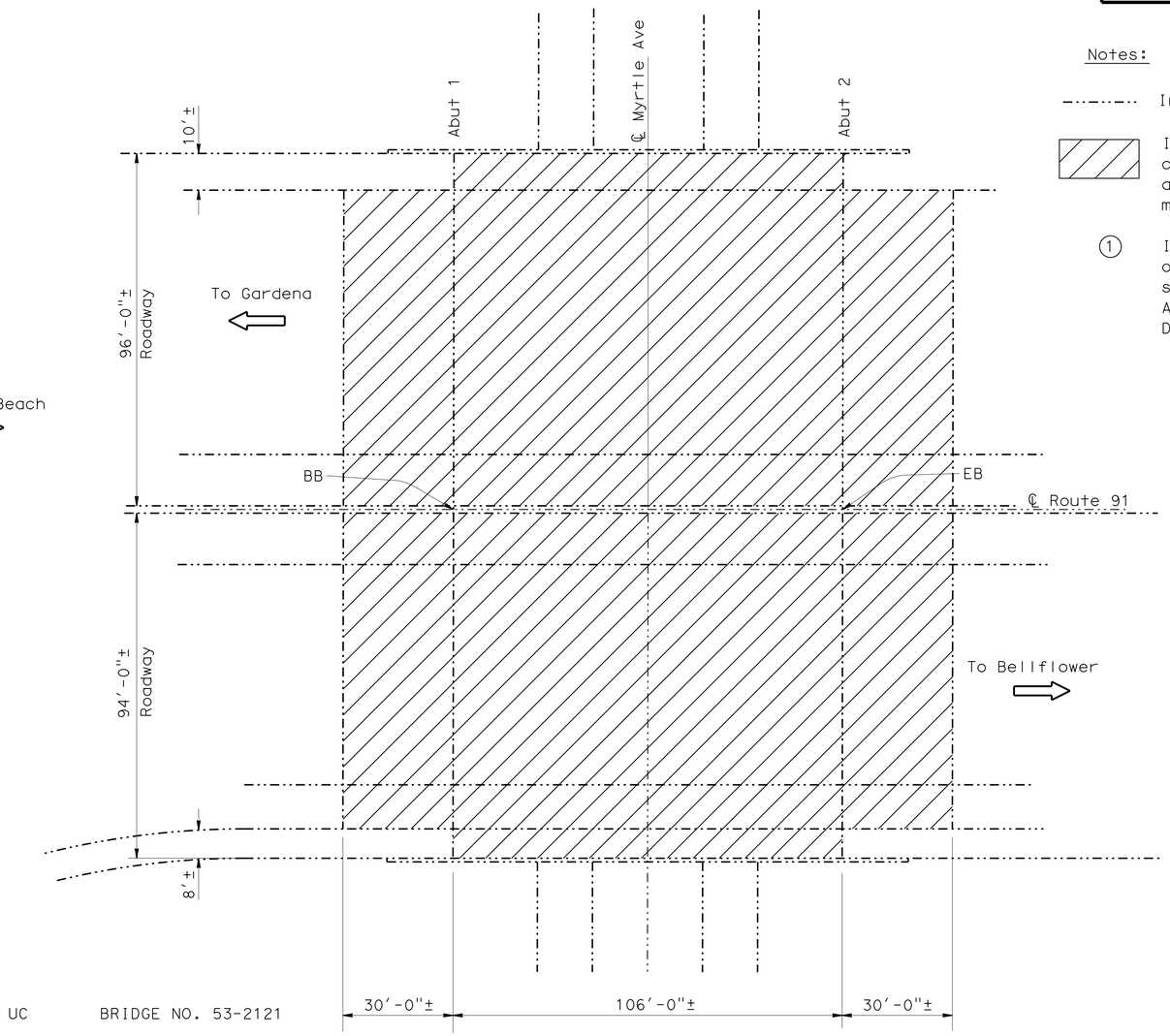
PACIFIC AVENUE UC

BR NO. 53-2031L/R, RTE 47, PM R00.17
1"=30'

PACIFIC AVENUE BRIDGE NO. 53-2031L/R

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
REPAIR SPALLED SURFACE AREA	0.5	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	15,795	SQFT
TREAT BRIDGE DECK	15,795	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	175	GAL



MYRTLE AVENUE UC BRIDGE NO. 53-2121

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	30,460	SQFT
TREAT BRIDGE DECK	30,460	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	338	GAL

MYRTLE AVENUE UC

BR NO. 53-2121, RTE 91, PM R12.34
1"=20'

Notes:

Indicates existing structure

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.

(1) Indicates approximate location of spall repair. For details, see "REPAIR SPALLED SURFACE AREA TABLE" on "SPALL REPAIR DETAILS" sheet.

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

Michael J. Lee 10-8-15 DESIGN ENGINEER	DESIGN	BY Khanh Truong	CHECKED Timothy Powell	LAYOUT	BY Trung Lam	CHECKED Timothy Powell	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO. VARIOUS
	DETAILS	BY Trung Lam	CHECKED Timothy Powell	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED Khanh Truong			POST MILE VARIES
	QUANTITIES	BY Khanh Truong	CHECKED Timothy Powell						

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 6

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 10-28-15

SHEET 6 OF 18

FILE => 07-3w0501_06_gp6.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	38	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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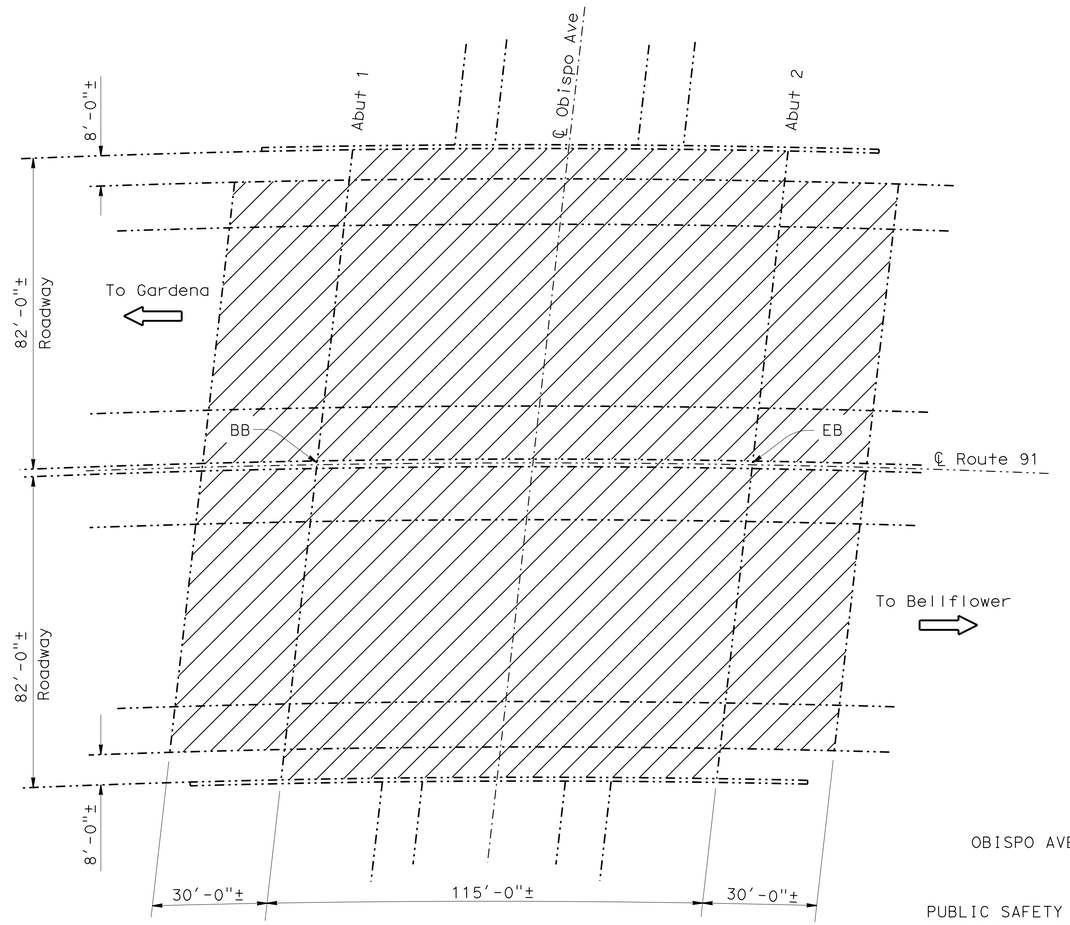


OBISPO AVENUE UC

BR NO. 53-2128, RTE 91, PM R13.86
1"=20'

Notes:

Indicates existing structure

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.

OBISPO AVENUE UC BRIDGE NO. 53-2128

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	27,740	SQFT
TREAT BRIDGE DECK	27,740	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	308	GAL

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell

	BY	CHECKED
LAYOUT	Trung Lam	Timothy Powell
SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED Khanh Truong

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 7

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 10-28-15

SHEET 7 OF 18

FILE => 07-3w0501_07_gp7.dgn

USERNAME => s122236 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	39	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

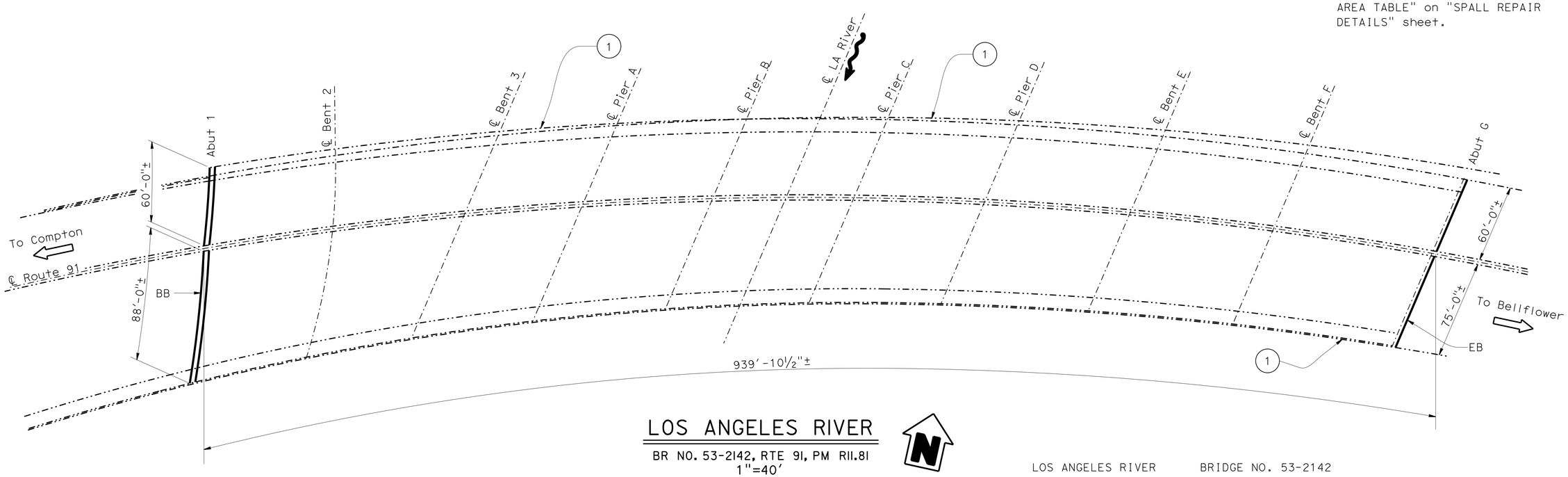
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

Notes:

Indicates existing structure

Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.

(1) Indicates approximate location of spall repair. For details, see "REPAIR SPALLED SURFACE AREA TABLE" on "SPALL REPAIR DETAILS" sheet.



LOS ANGELES RIVER

BR NO. 53-2142, RTE 91, PM R11.81
1"=40'

LOS ANGELES RIVER BRIDGE NO. 53-2142

QUANTITIES

REPAIR SPALLED SURFACE AREA	2.5	SQFT
CLEAN EXPANSION JOINT	433	LF
JOINT SEAL (MR ½")	284	LF
JOINT SEAL (MR 1")	149	LF

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED		BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell	LAYOUT	Trung Lam	Timothy Powell
DETAILS	Trung Lam	Timothy Powell	SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED Khanh Truong
QUANTITIES	Khanh Truong	Timothy Powell			

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 8

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 10-28-15

SHEET 8 OF 18

FILE => 07-3w0501_08_gp8.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	40	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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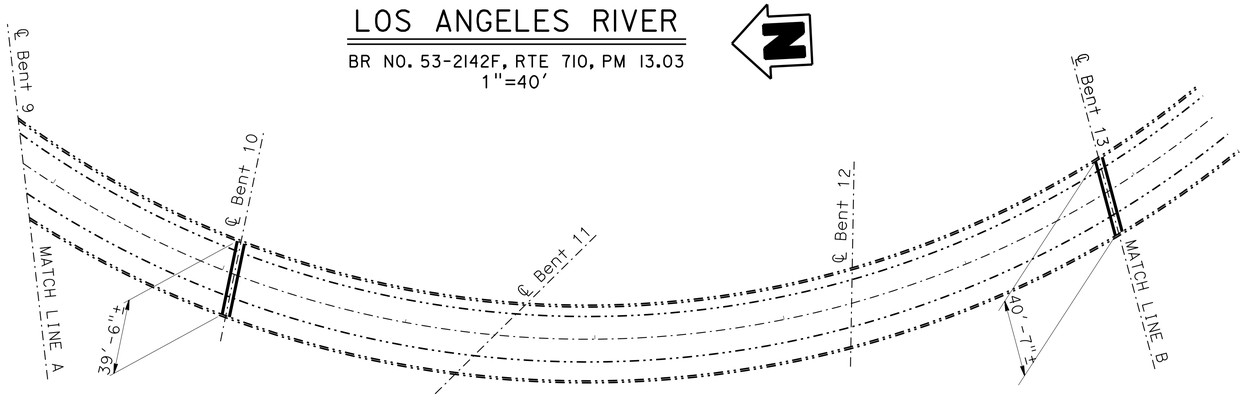
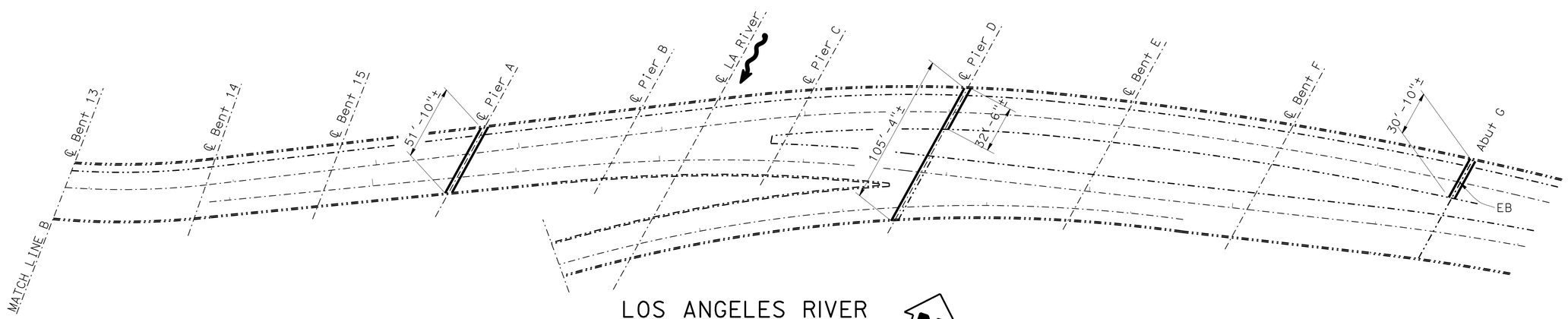
LOS ANGELES RIVER

BR NO. 53-2142F, RTE 710, PM 13.03
1"=40'



LOS ANGELES RIVER

BR NO. 53-2142F, RTE 710, PM 13.03
1"=40'



LOS ANGELES RIVER

BR NO. 53-2142F, RTE 710, PM 13.03
1"=40'

Notes:

Indicates existing structure

Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.

LOS ANGELES RIVER BRIDGE NO. 53-2142F

QUANTITIES

CLEAN EXPANSION JOINT	666	LF
JOINT SEAL (MR 1/2")	31	LF
JOINT SEAL (MR 1")	316	LF
JOINT SEAL (MR 1 1/2")	319	LF

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED		BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell	LAYOUT	Trung Lam	Timothy Powell
DETAILS	Trung Lam	Timothy Powell	SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED Khanh Truong
QUANTITIES	Khanh Truong	Timothy Powell			

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 9

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1
CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 10-28-15

REVISION DATES | SHEET 9 | OF 18

FILE => 07-3w0501_09_gp9.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	41	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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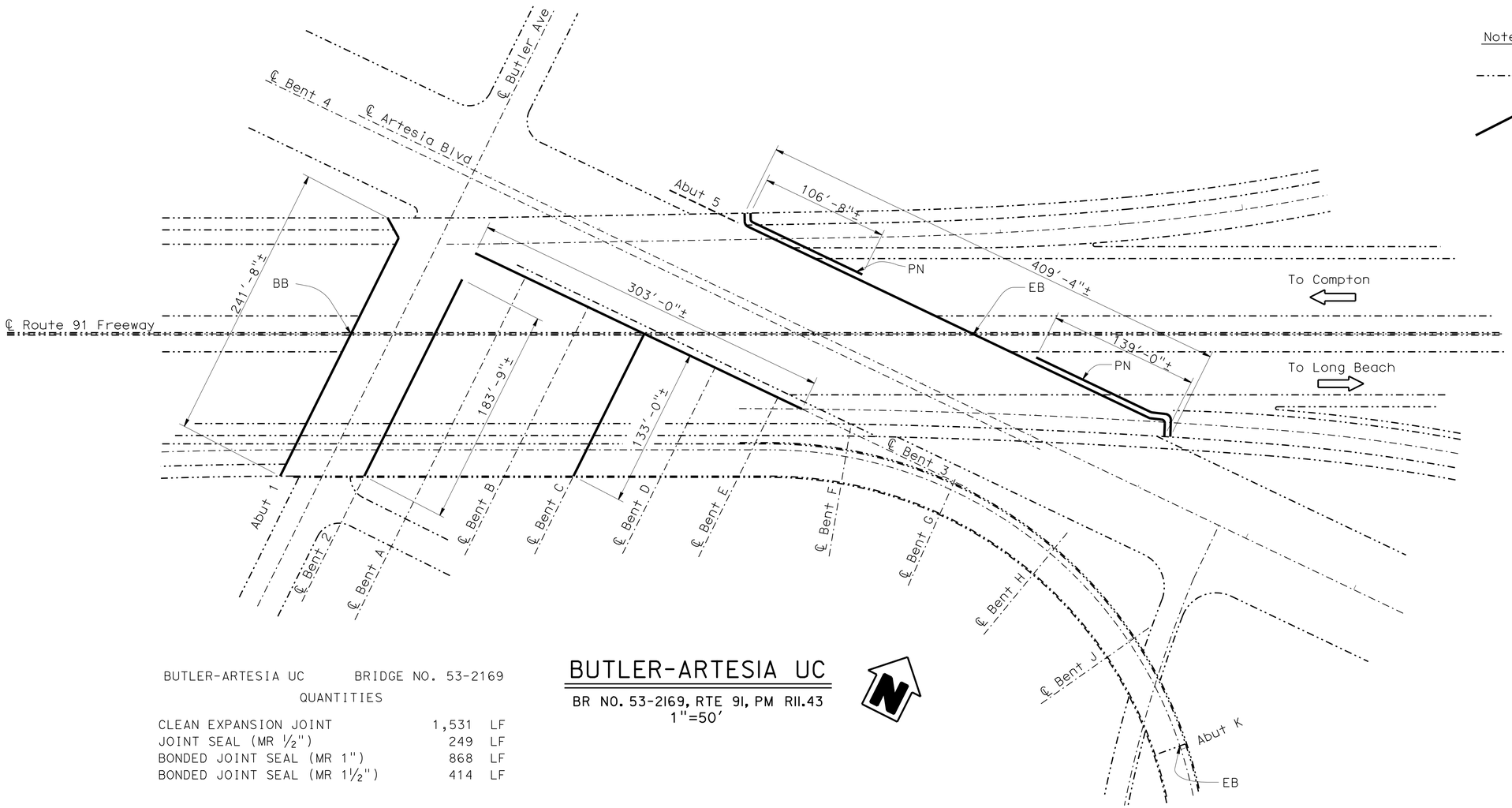
Notes:

Indicates existing structure

Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.



BUTLER-ARTESIA UC BRIDGE NO. 53-2169

QUANTITIES

CLEAN EXPANSION JOINT	1,531	LF
JOINT SEAL (MR ½")	249	LF
BONDED JOINT SEAL (MR 1")	868	LF
BONDED JOINT SEAL (MR 1½")	414	LF

BUTLER-ARTESIA UC

BR NO. 53-2169, RTE 91, PM R11.43
1"=50'

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

DESIGN ENGINEER 10-8-15

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell
LAYOUT	Trung Lam	Timothy Powell
SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED: Khanh Truong

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES
GENERAL PLAN NO. 10

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1
CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 10-28-15

REVISION DATES

SHEET 10 OF 18

FILE => 07-3w0501_10_gp10.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	42	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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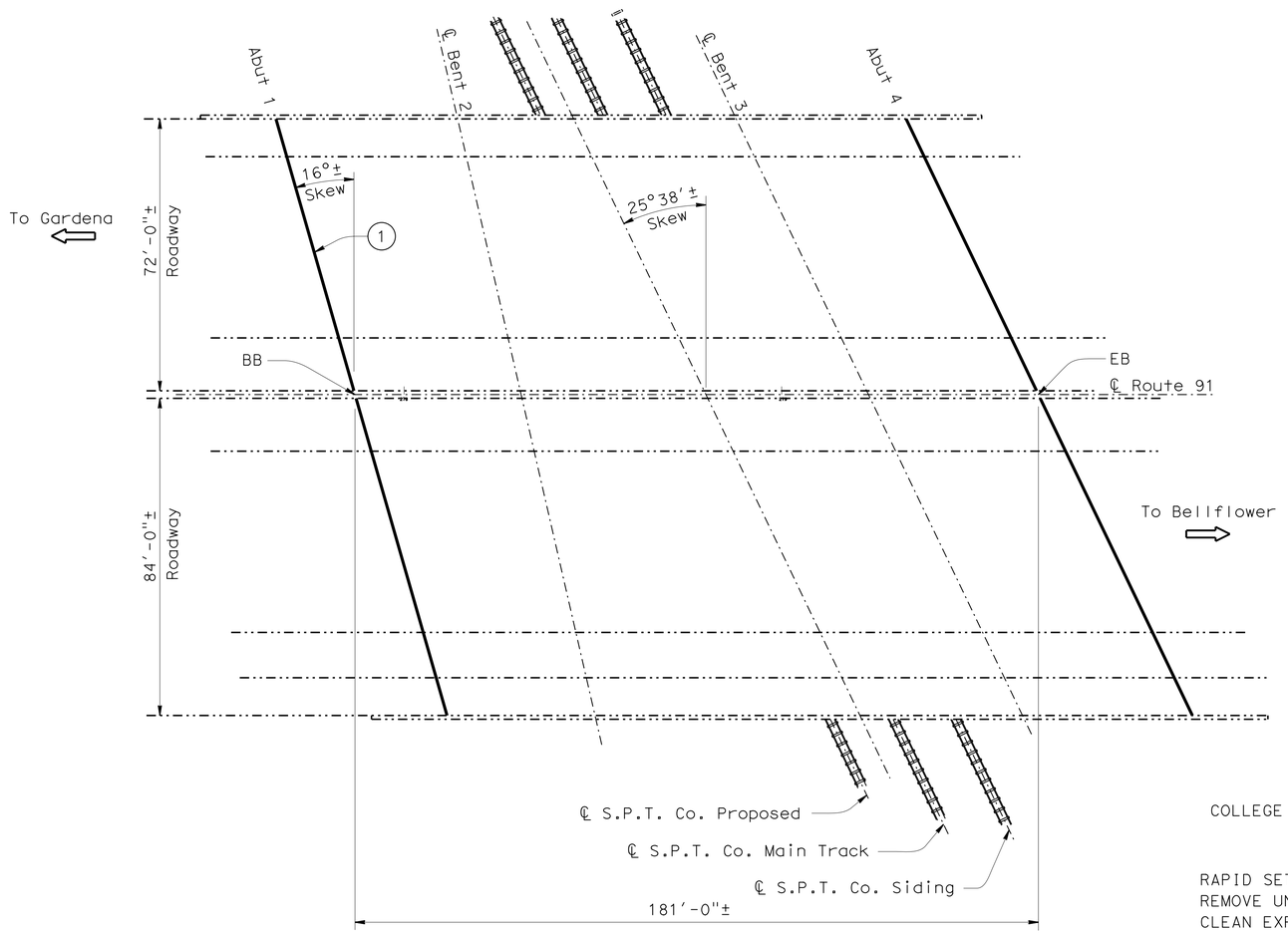


COLLEGE OVERHEAD

BR NO. 53-2234, RTE 91, PM R9.97
1"=20'

Notes:

-·-·-·- Indicates existing structure

/ Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.

(1) Indicates approximate location of spall repair. For details, see "SPALL REPAIR TABLE" and "DECK REPAIR DETAIL" on "SPALL REPAIR DETAILS" sheet.

COLLEGE OVERHEAD BRIDGE NO. 53-2234

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	0.2	CF
REMOVE UNSOUND CONCRETE	0.2	CF
CLEAN EXPANSION JOINT	338	LF
JOINT SEAL (MR 1")	338	LF

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell
LAYOUT	Trung Lam	Timothy Powell
SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED: Khanh Truong

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES
GENERAL PLAN NO. 11

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1
CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-28-15

REVISION DATES

SHEET 11 OF 18

FILE => 07-3w0501_11_gp11.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	43	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

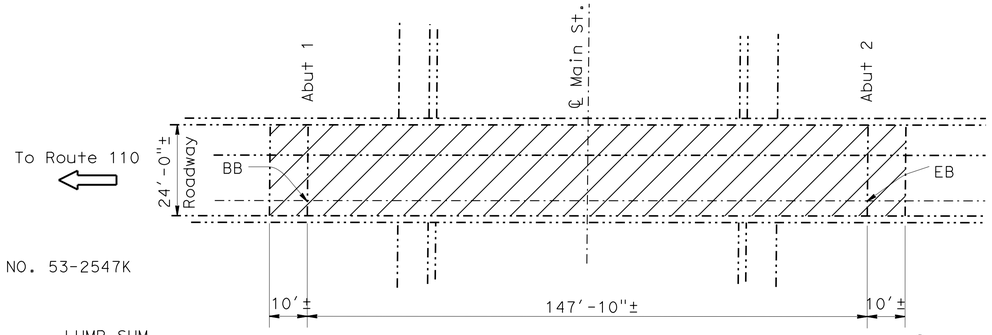
REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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.

Notes:

Indicates existing structure

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.



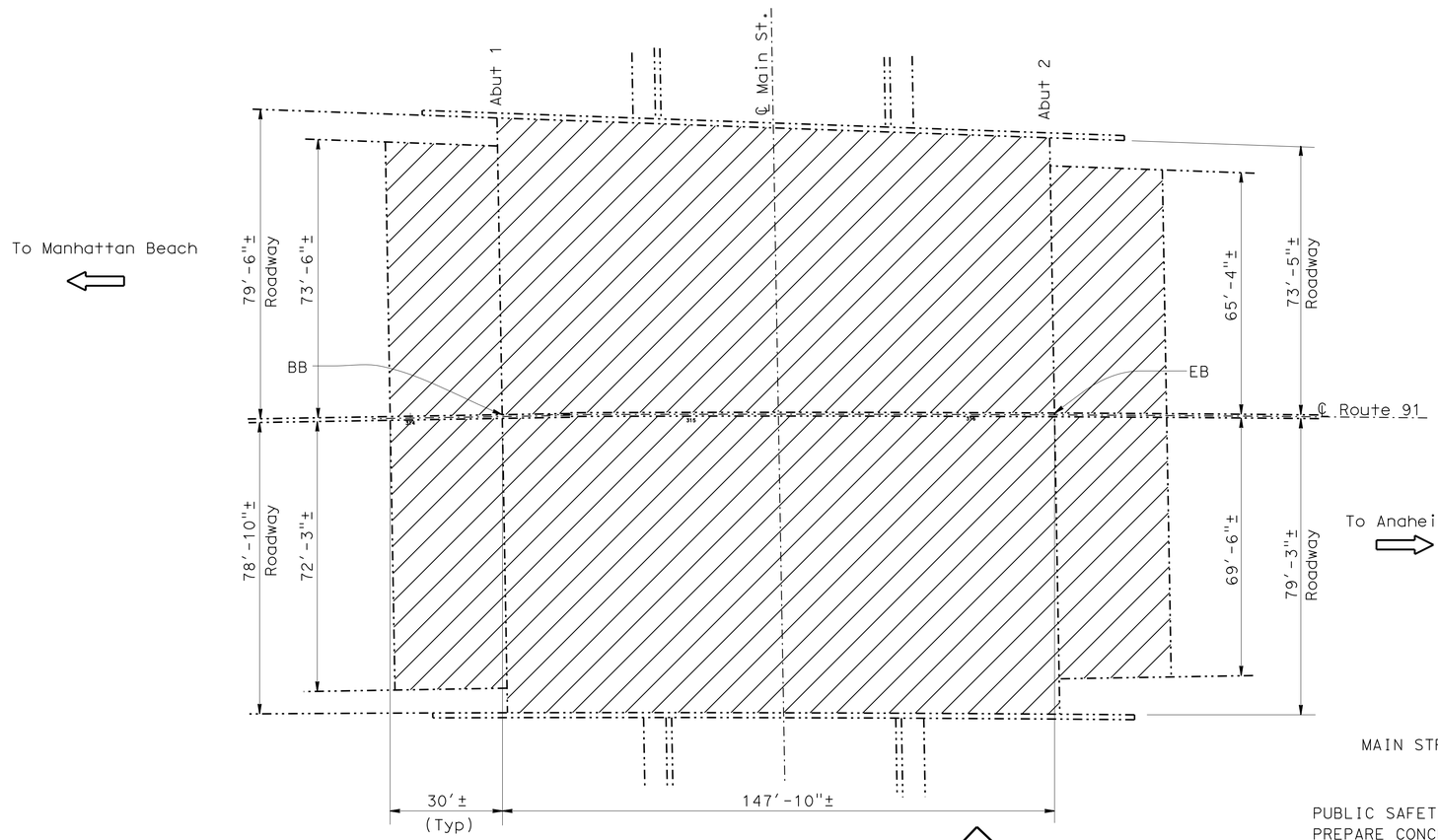
MAIN STREET ON-RAMP OC BRIDGE NO. 53-2547K

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	4,028	SQFT
TREAT BRIDGE DECK	4,028	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	45	GAL

MAIN STREET ON-RAMP OC

BR NO. 53-2547K, RTE 91, PM R6.90
1"=20'



MAIN STREET UC

BR NO. 53-2547, RTE 91, PM R6.90
1"=40'

MAIN STREET UC BRIDGE NO. 53-2547

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	31,406	SQFT
TREAT BRIDGE DECK	31,406	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	349	GAL

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell
LAYOUT	Trung Lam	Timothy Powell
SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED: Khanh Truong

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES
GENERAL PLAN NO. 12

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1
CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-28-15
REVISION DATES

SHEET 12 OF 18

FILE => 07-3w0501_12_gp12.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	44	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 CIVIL STATE OF CALIFORNIA

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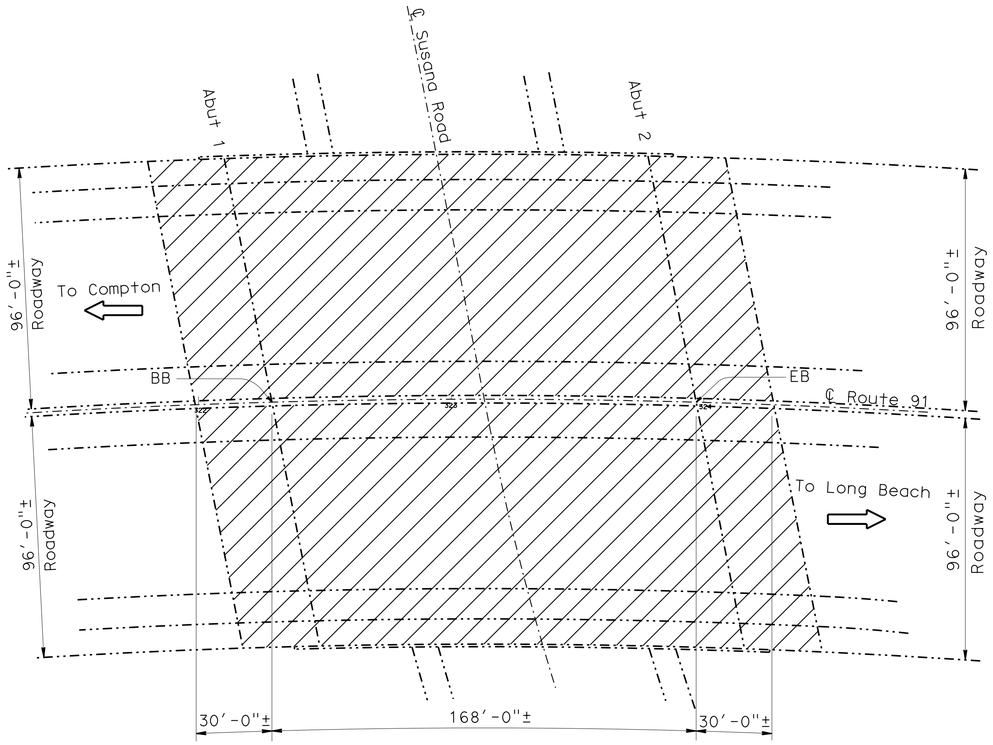


SUSANA ROAD UC

BR NO. 53-2252, RTE 91, PM R10.81
1"=30'

Notes:

Indicates existing structure

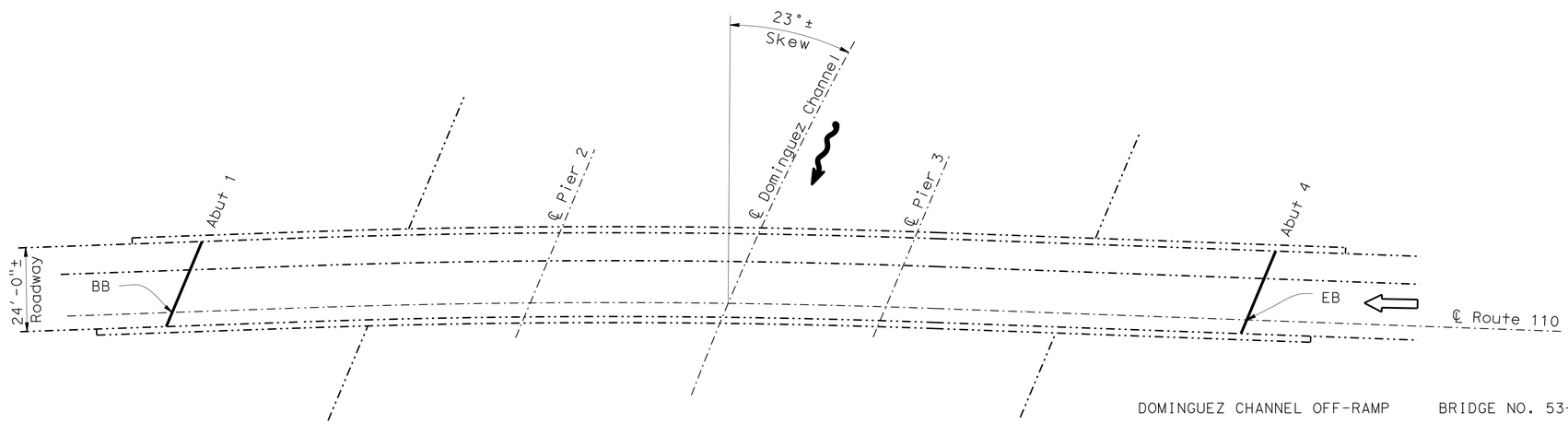
Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.

SUSANA ROAD UC BRIDGE NO. 53-2252

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	43,776	SQFT
TREAT BRIDGE DECK	43,776	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	486	GAL



DOMINGUEZ CHANNEL OFF-RAMP

BR NO. 53-2558K, RTE 110, PM 9.15
1"=20'

DOMINGUEZ CHANNEL OFF-RAMP BRIDGE NO. 53-2558K

QUANTITIES

CLEAN EXPANSION JOINT	53	LF
JOINT SEAL (MR 1")	53	LF

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell
LAYOUT	Trung Lam	Timothy Powell
SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED: Khanh Truong

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 13

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-28-15

REVISION DATES

SHEET 13 OF 18

FILE => 07-3w0501_13_gp13.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY		POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	45	49

REGISTERED CIVIL ENGINEER — DATE 10-8-15

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TIMOTHY J. POWELL — No. C 61037 — Exp. 12-31-16 — CIVIL — STATE OF CALIFORNIA

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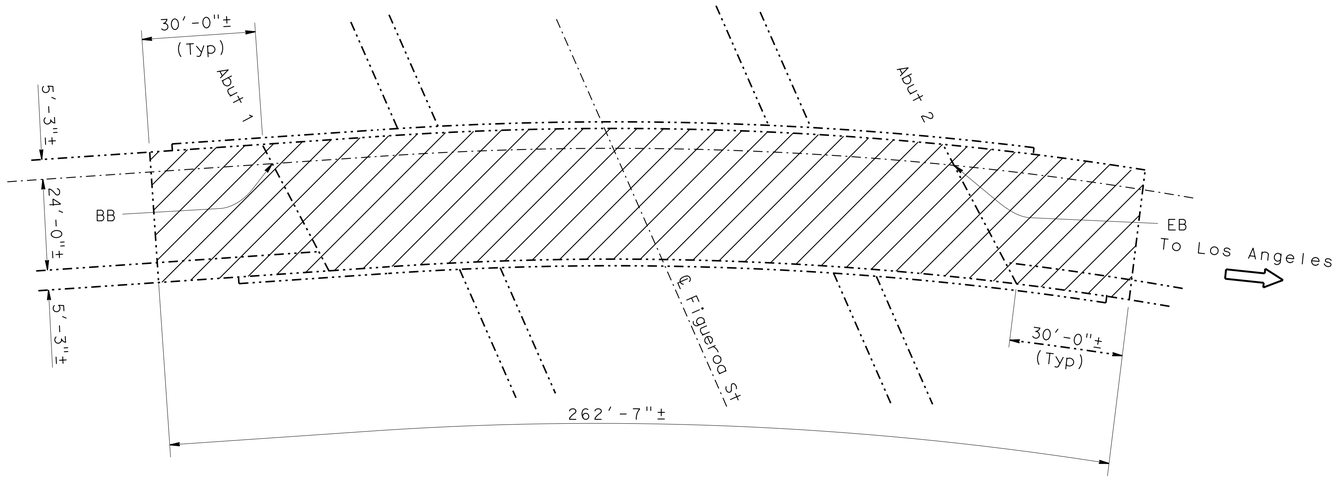


W91-N110 CONNECTOR OC, FIGUEROA

BR NO. 53-2664F, RTE 91, PM R6.51
1"=20'

W91-N110 CONNECTOR OC, FIGUEROA — BRIDGE NO. 53-2664F

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	9,059	SQFT
TREAT BRIDGE DECK	9,059	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	101	GAL

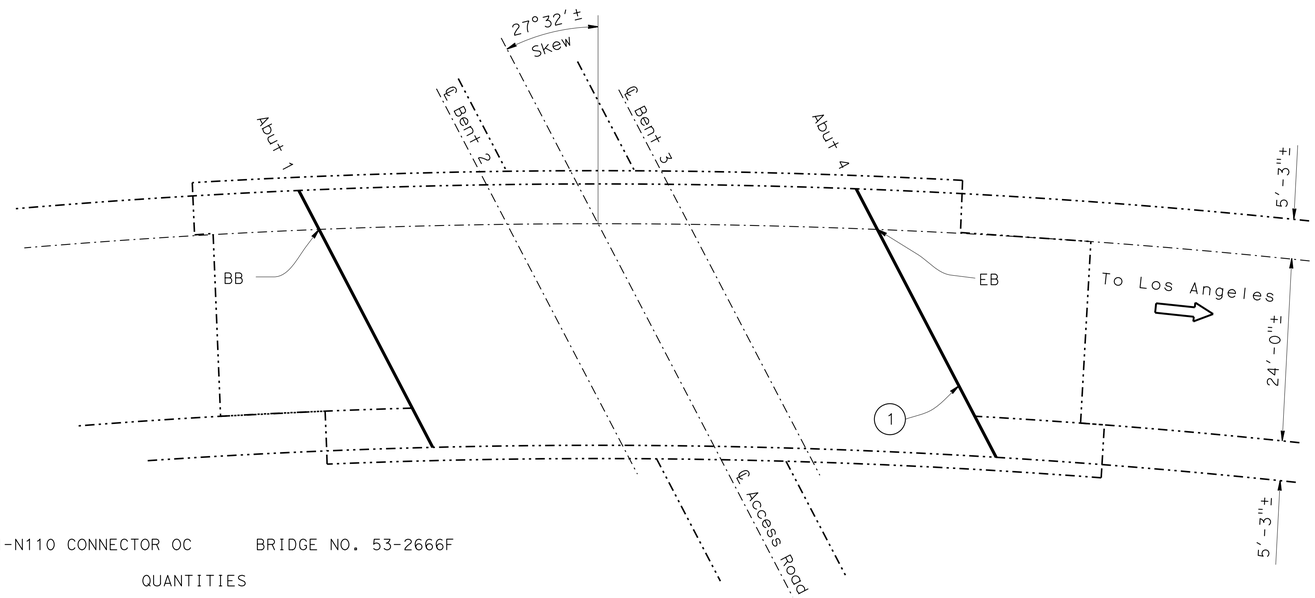
Notes:

Indicates existing structure

Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.

(1) Indicates approximate location of spall repair. For details, see "SPALL REPAIR TABLE" and "DECK REPAIR DETAIL" on "SPALL REPAIR DETAILS" sheet.



W91-N110 CONNECTOR OC — BRIDGE NO. 53-2666F

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	0.2	CF
REMOVE UNSOUND CONCRETE	0.2	CF
CLEAN EXPANSION JOINT	78	LF
JOINT SEAL (MR 1/2")	78	LF

W91-N110 CONNECTOR OC

BR NO. 53-2666F, RTE 91, PM R6.39
1"=10'

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

Michael J. Lee 10-8-15
DESIGN ENGINEER

	BY	CHECKED		BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell	LAYOUT	Trung Lam	Timothy Powell
DETAILS	Trung Lam	Timothy Powell	SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED: Khanh Truong
QUANTITIES	Khanh Truong	Timothy Powell			

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.: VARIOUS
POST MILE: VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES
GENERAL PLAN NO. 14

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1
CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 10-28-15

REVISION DATES | SHEET 14 OF 18

FILE => 07-3w0501_14_gp14.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	46	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 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.

Notes:

Indicates existing structure

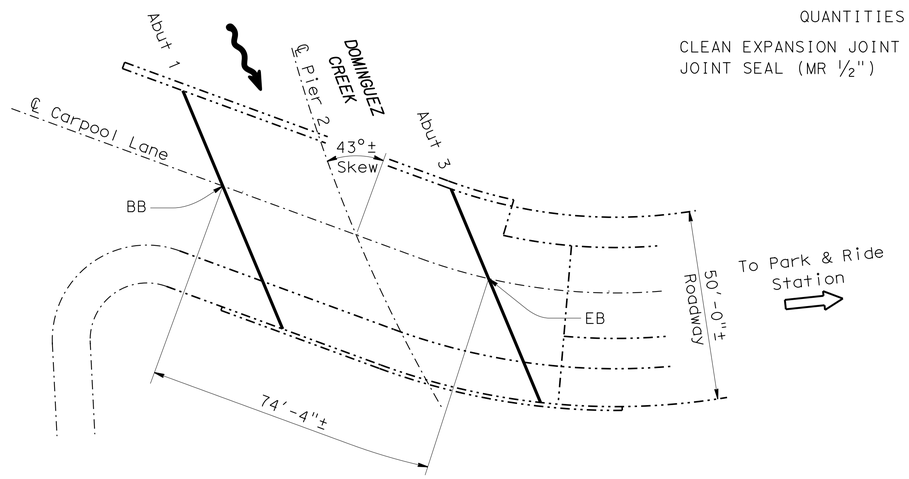
Indicates limits of clean expansion joint and replace joint seal. For details, see "JOINT SEAL DETAILS" sheet.

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.

DOMINGUEZ CHANNEL BRIDGE NO. 53-2760Y

QUANTITIES

CLEAN EXPANSION JOINT	137	LF
JOINT SEAL (MR ½")	137	LF



DOMINGUEZ CHANNEL

BR NO. 53-2760Y, RTE 91, PM 6.03
1"=20'

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

Michael J. Lee 10-8-15 DESIGN ENGINEER	DESIGN	BY Khanh Truong	CHECKED Timothy Powell	LAYOUT	BY Trung Lam	CHECKED Timothy Powell	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
	DETAILS	BY Trung Lam	CHECKED Timothy Powell	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECIFICATIONS COMPARED Khanh Truong	
	QUANTITIES	BY Khanh Truong	CHECKED Timothy Powell				

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 15

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 10-28-15

SHEET 15 OF 18

FILE => 07-3w0501_15_gp15.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	47	49

REGISTERED CIVIL ENGINEER 10-8-15 DATE

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY J. POWELL No. C 61037 Exp.12-31-16 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.

"O" STREET RAMP BRIDGE NO. 53-2970H

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	13,314	SQFT
TREAT BRIDGE DECK	13,314	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	148	GAL

Notes:

Indicates existing structure

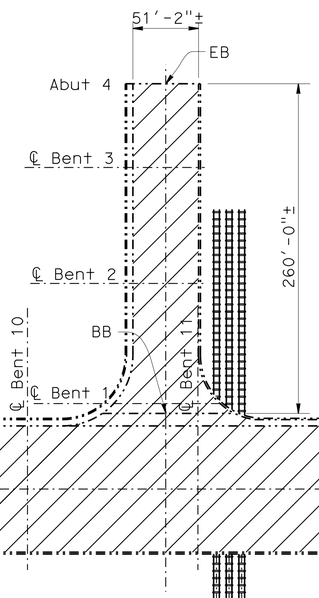
Indicates location of clean joint seal.

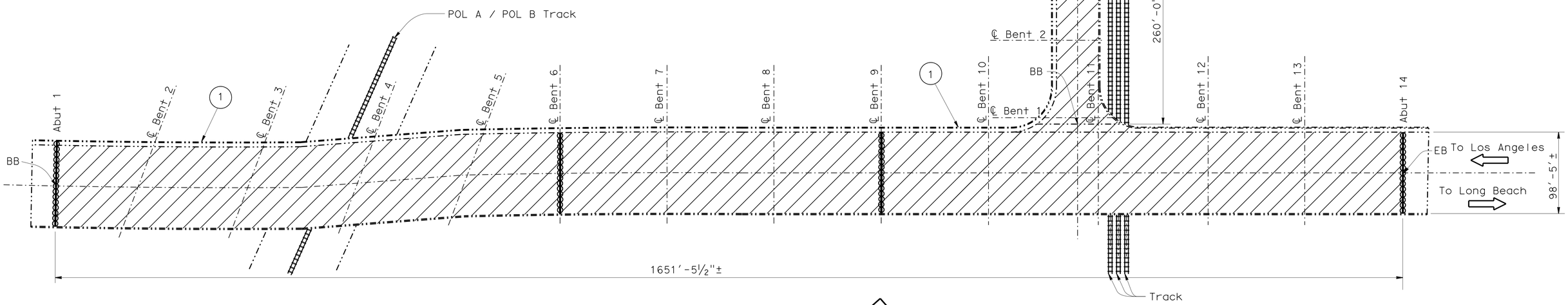
Indicates limits of prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate.

(1) Indicates approximate location of spall repair. For details, see "REPAIR SPALLED SURFACE AREA TABLE" on "SPALL REPAIR DETAILS" sheet.

"O" STREET RAMP

BR NO. 53-2970H, RTE 1, PM 9.15
1"=60'





ALAMEDA STREET VIADUCT

BR NO. 53-2901, RTE 1, PM 9.05
1"=60'

ALAMEDA STREET VIADUCT BRIDGE NO. 53-2901

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
REPAIR SPALLED SURFACE AREA	3	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	162,553	SQFT
TREAT BRIDGE DECK	162,553	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	1,806	GAL
CLEAN JOINT SEAL	398	LF

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

Michael J. Lee 10-8-15 DESIGN ENGINEER	DESIGN	BY Khanh Truong	CHECKED Timothy Powell	LAYOUT	BY Trung Lam
	DETAILS	BY Trung Lam	CHECKED Timothy Powell	SPECIFICATIONS	BY Theresa Nedwick
	QUANTITIES	BY Khanh Truong	CHECKED Timothy Powell		

CHECKED Timothy Powell
PLANS AND SPECIFICATIONS COMPARED Khanh Truong

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES

GENERAL PLAN NO. 16

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NUMBER: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 10-28-15

REVISION DATES | SHEET 16 | OF 18

FILE => 07-3w0501_16_gp16.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	48	49

REGISTERED CIVIL ENGINEER — DATE 10-8-15

2-22-16
PLANS APPROVAL DATE

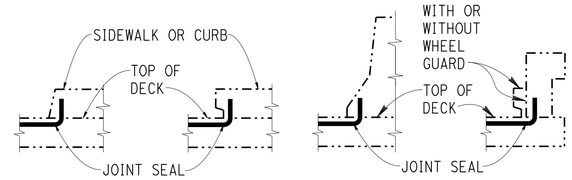
REGISTERED PROFESSIONAL ENGINEER — TIMOTHY J. POWELL — No. C 61037 — Exp. 12-31-16 — CIVIL — STATE OF CALIFORNIA

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.

JOINT SEAL TABLE

BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (inches)	APPROXIMATE LENGTH (feet)	EXISTING WATERSTOP	APPROXIMATE DEPTH TO CLEAN EXPANSION JOINT (inches)
228TH STREET OC	53-0965	Abut 1	BB	1 *	40.5	Yes	12
		Abut 5	EB	1 *	40.5	Yes	12
DOMINGUEZ CHANNEL	53-1166	Abut 1	PN	½ *	284.4	No	12
		Abut 1	BW	1½ ***	285.4	Yes	11
		Abut 9	BW	1½ ***	258.3	Yes	11
		Abut 9	PN	½ *	257.3	No	12
GAFFEY OFF-RAMP OC	53-1945F	Abut 3	EB	1 *	37.5	No	11½
LOS ANGELES RIVER	53-2142	Abut 1	PN	½ *	148.5	No	12
		Abut 1	BB	1 *	149.0	No	12
		Abut G	PN	½ *	135.5	No	11½
LOS ANGELES RIVER (S710-E91)	53-2142F	Abut 1	BB	1 *	39.3	No	11½
		Bent 4	H	1 **	39.5	Yes	12
		Bent 4	H	1 **	39.5	Yes	12
		Bent 7	H	1 **	39.5	Yes	12
		Bent 7	H	1½ **	39.5	Yes	12
		Bent 10	H	1½ **	40.0	Yes	12
		Bent 10	H	1½ **	40.0	Yes	12
		Bent 13	H	1½ **	41.1	Yes	12
		Bent 13	H	1 **	41.1	Yes	12
		Pier A	H	1 **	52.3	Yes	12
		Pier A	H	1½ **	52.3	Yes	12
		Pier D	H	1½ **	105.8	Yes	12
		Pier D	H	1 **	33.0	Yes	12
		Abut G	EB	1 *	31.5	No	11½
		Abut G	PN	½ *	31.5	No	11½
BUTLER-ARTESIA UC	53-2169	Abut 1	BB	1 ***	246.7	Yes	12
		Bent 2	℄ Bt	1 ***	184.3	Yes	12
		Bent C	℄ Bt	1 ***	133.5	Yes	12
		Bent 3	℄ Bt	1 ***	303.5	Yes	12
		Abut 5	EB	1½ ***	413.8	Yes	12
		Abut 5	PN	½ *	249.2	No	12
COLLEGE OH	53-2234	Abut 1	BB	1 *	163.3	No	12
		Abut 4	EB	1 *	174.7	No	12
DOMINGUEZ CHANNEL OFF-RAMP	53-2558K	Abut 1	BB	1 **	26.6	No	12
		Abut 4	EB	1 **	26.6	No	12
W91-N110 CONNECTOR OC	53-2666F	Abut 1	BB	½ *	39.2	No	12
		Abut 4	EB	½ *	39.2	No	12
DOMINGUEZ CHANNEL	53-2760Y	Abut 1	BB	½ *	68.7	No	12
		Abut 3	EB	½ *	68.7	No	12

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



SIDEWALK OR CURB — BARRIER RAIL

JOINT SEAL AT LOW SIDE OF DECK

DETAILS SHOWN FOR ILLUSTRATION PURPOSES ONLY. FOR USE ONLY WHERE DECK JOINT MATCHES THE BARRIER RAIL JOINT.
NO SCALE

LEGEND:

BB = Paving notch at beginning of bridge
EB = Paving notch at end of bridge
PN = Paving Notch
BW = Abutment Backwall
H = Hinge Joint
Bent = ℄ Bent Joint
* = Pourable Joint Seal
** = Type B Compression Joint
*** = Bonded Joint Seal

The following note applies to JOINT SEAL TYPE A:

Install Type A joint seal 3" up into curb or rail on the low side of the deck where joint matches curb or rail joint. For details not shown see B6-21

The following notes apply to JOINT SEAL TYPE B:

1) Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.

2) 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 calculated by the Engineer.

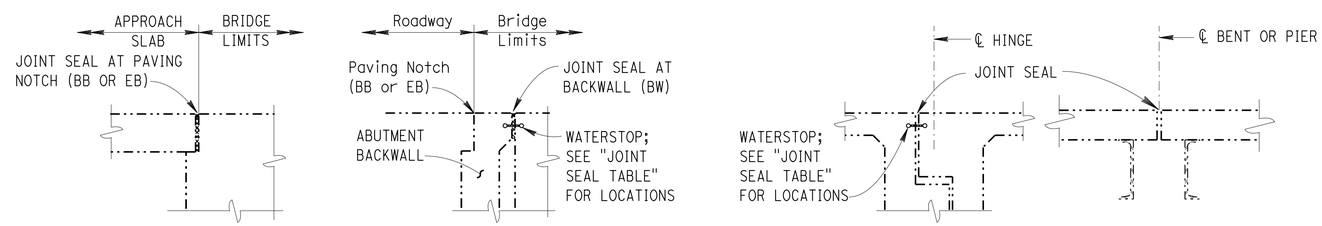
3) W1 must be the smaller of the values determined as follows:

   A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.

   B) The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3 psi.

4) Bend Type B joint seal 6" up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.

5) For details not shown see B6-21



DIAPHRAGM ABUTMENT — ABUTMENT WITH BACKWALL — HINGE — BENT OR PIER

JOINT SEAL LOCATION

NO SCALE

DESIGN	BY Khanh Truong	CHECKED Timothy Powell	
DETAILS	BY Trung Lam	CHECKED Timothy Powell	
QUANTITIES	BY Khanh Truong	CHECKED Timothy Powell	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES
JOINT SEAL DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NO.: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 10-28-15 1-20-16 — SHEET 17 OF 18

FILE => 07-3w0501_17_joint_seal_dets.dgn

USERNAME => s122436 DATE PLOTTED => 16-FEB-2016 TIME PLOTTED => 15:02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,47,91, 110,405,710	Var	49	49

REGISTERED CIVIL ENGINEER — DATE 10-8-15

2-22-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TIMOTHY J. POWELL — No. C 61037 — Exp. 12-31-16 — 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.

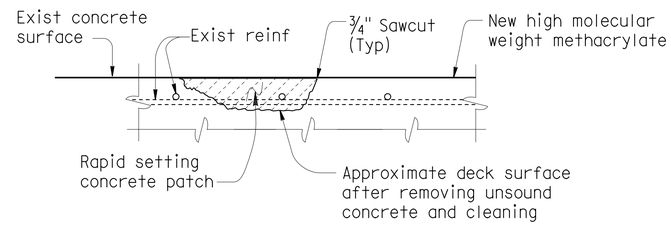
SPALL REPAIR TABLE

REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE (PATCH)

BRIDGE NAME	BRIDGE NUMBER	LOCATION OF DAMAGE	LENGTH (INCHES)	WIDTH (INCHES)	DEPTH (INCHES)	NUMBER (EA)
DOMINGUEZ CHANNEL	53-1166	Along longitudinal joint adjacent to median barrier	4	2	1	4
213th STREET UNDERCROSSING	53-1263	Over the northerly abutment at the southbound lane #5	6	6	1	1
COLLEGE OVERHEAD	53-2234	WB departure joint, lane 1	3	3	2	1
W91-N110 CONNECTOR OC	53-2666F	Abut 4 joint next to right edge of travel way	2	4	2	1

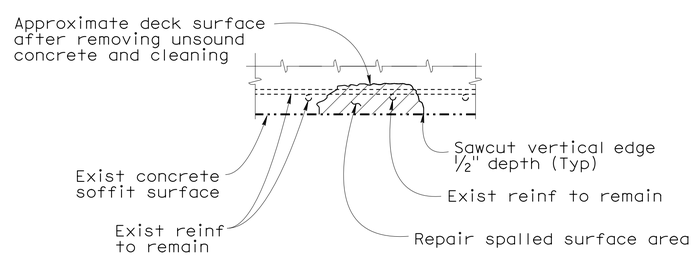
REPAIR SPALLED SURFACE AREA TABLE

BRIDGE NAME	BRIDGE NUMBER	LOCATION OF DAMAGE	LENGTH (INCHES)	WIDTH (INCHES)	DEPTH (INCHES)	NUMBER (EA)
PACIFIC AVENUE	53-2031R	At soffit above NB lanes	6	4	2	2
LOS ANGELES RIVER	53-2142	EB right rail, 3rd post from departure	24	8	4	1
		WB right rail, at electrical box, mid deck	24	4	4	1
		WB right rail, after 6th deck joint	8	4	2	1
ALAMEDA STREET VIADUCT	53-2901	At exterior barrier of westerly corner	10	12	4	1
		High load hit at Bent 2, north side	24	12	4	1



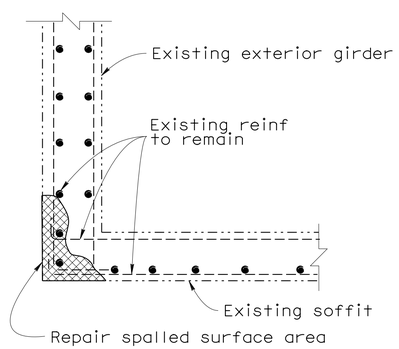
DECK REPAIR DETAIL

REINFORCEMENT MAY BE ENCOUNTERED DURING DECK CONCRETE REMOVAL.
NO SCALE



SOFFIT SPALL REPAIR DETAIL

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



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:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

	BY	CHECKED
DESIGN	Khanh Truong	Timothy Powell
DETAILS	Trung Lam	Timothy Powell
QUANTITIES	Khanh Truong	Timothy Powell

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BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTES 1, 47, 91, 110, 405 & 710 BRIDGES
SPALL REPAIR DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3488
PROJECT NUMBER & PHASE: 0715000038 1 CONTRACT NO.: 07-3W0504

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-28-15

REVISION DATES | SHEET 18 OF 18

FILE => 07-3w0501_18_spall_repair_dets.dgn

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