Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	1	36

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN LOS ANGELES COUNTY AT VARIOUS LOCATIONS FROM HOOVER STREET UNDERCROSSING TO E105-S710/ WRIGHT ROAD OVERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	LOCATIONS OF CONSTRUCTION
3	CONSTRUCTION AREA SIGNS
4-10	TRAFFIC HANDLING DETAILS
11-13	PAVEMENT DELINEATION QUANTITIES
14-22	REVISED STANDARD PLANS

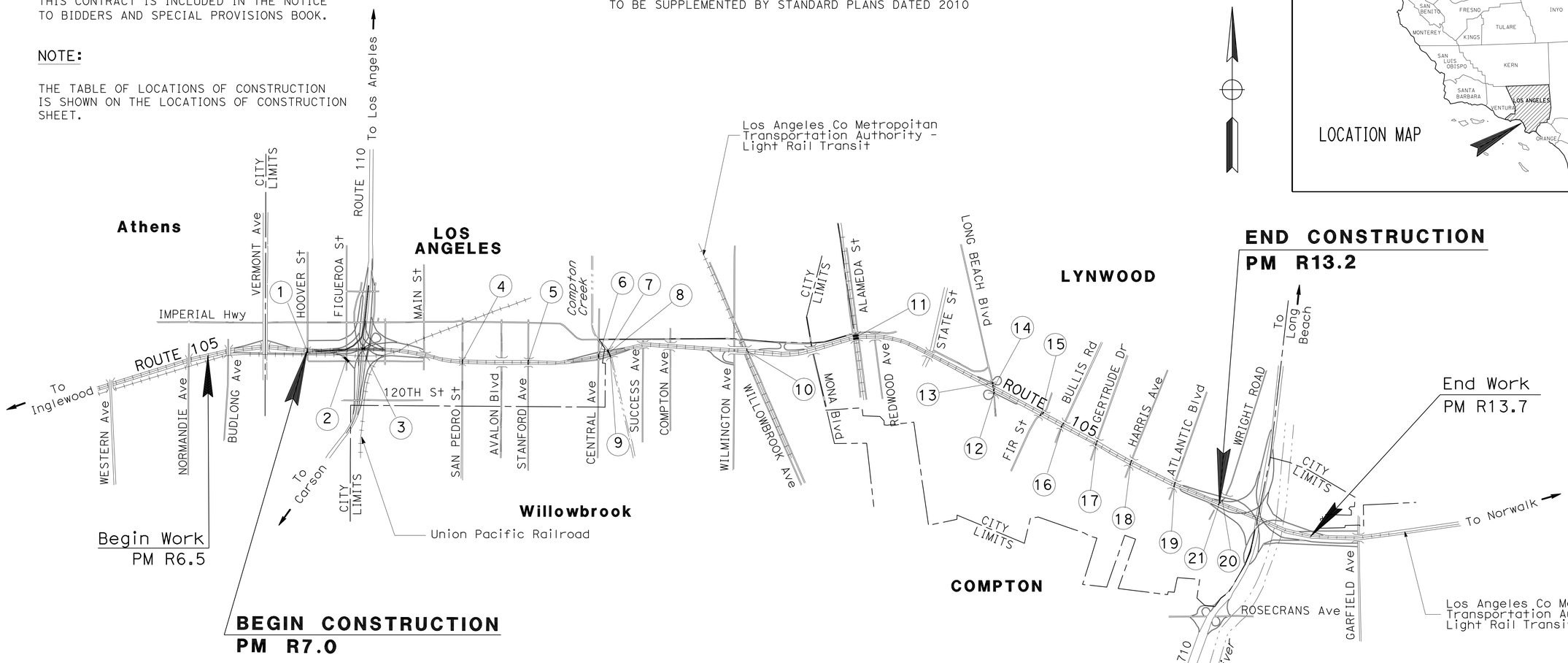
STRUCTURE PLANS

23-36	ROUTE 105 BRIDGES

THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

NOTE:

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



NO SCALE

LOCATION MAP

PROJECT ENGINEER
REGISTERED CIVIL ENGINEER

1-13-14
DATE

January 21, 2014
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHIN ENGILY
No. 50125
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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

PROJECT MANAGER: CHRISTIAN SAM

DESIGN ENGINEER: PAUL CRISPI

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

CONTRACT No.	07-2W0804
PROJECT ID	0713000096

LAST REVISION 01-21-14

DATE PLOTTED => 14-JAN-2014
TIME PLOTTED => 18:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	2	36

REGISTERED CIVIL ENGINEER 1-13-14 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN ENGILY No. 50125 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA

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

LOCATIONS OF CONSTRUCTION

Loc (No.)	POST MILE	BRIDGE No.	DESCRIPTION
1	R7.05	53-2528	HOOVER STREET UNDERCROSSING
2	R7.20	53-2403G	E105-S110 CONNECTOR OVERCROSSING
3	R7.26	53-2405L	ROUTE 105/110 SEPARATION
4	R8.04	53-2476	SAN PEDRO STREET UNDERCROSSING
5	R8.46	53-2478	STANFORD AVENUE UNDERCROSSING
6	R8.94	53-2480	CENTRAL AVENUE UNDERCROSSING
7	R8.97	53-2483K	COMPTON CREEK OFF-RAMP
8	R8.98	53-2483	COMPTON CREEK
9	R8.99	53-2483S	COMPTON CREEK ON-RAMP
10	R9.78	53-2487R	WILLOWBROOK OVERHEAD
11	R10.25	53-2490	ALAMEDA STREET VIADUCT
12	R11.56	53-2493	LONG BEACH BOULEVARD UNDERCROSSING
13	R11.56	53-2493K	LONG BEACH BOULEVARD UNDERCROSSING WB RAMP
14	R11.56	53-2493S	LONG BEACH BOULEVARD UNDERCROSSING EB RAMP
15	R11.91	53-2494	FIR STREET UNDERCROSSING
16	R12.07	53-2495	BULLIS ROAD UNDERCROSSING
17	R12.30	53-2496	GERTRUDE DRIVE UNDERCROSSING
18	R12.58	53-2497	HARRIS AVENUE UNDERCROSSING
19	R12.88	53-2452	ATLANTIC AVENUE UNDERCROSSING
20	R13.14	53-2418G	E105-N710 CONNECTOR OVERCROSSING
21	R13.14	53-2610G	E105-S710/WRIGHT ROAD OVERCROSSING

LOCATIONS OF CONSTRUCTION

LC-1

REVISED BY | DATE REVISED
MARLON SARMIENTO | SHAHIN ENGILY
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: PAUL CRISPI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 01-21-14 | DATE PLOTTED => 14-JAN-2014 | TIME PLOTTED => 18:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	3	36

REGISTERED CIVIL ENGINEER 1-13-14 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN ENGILY No. 50125 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA

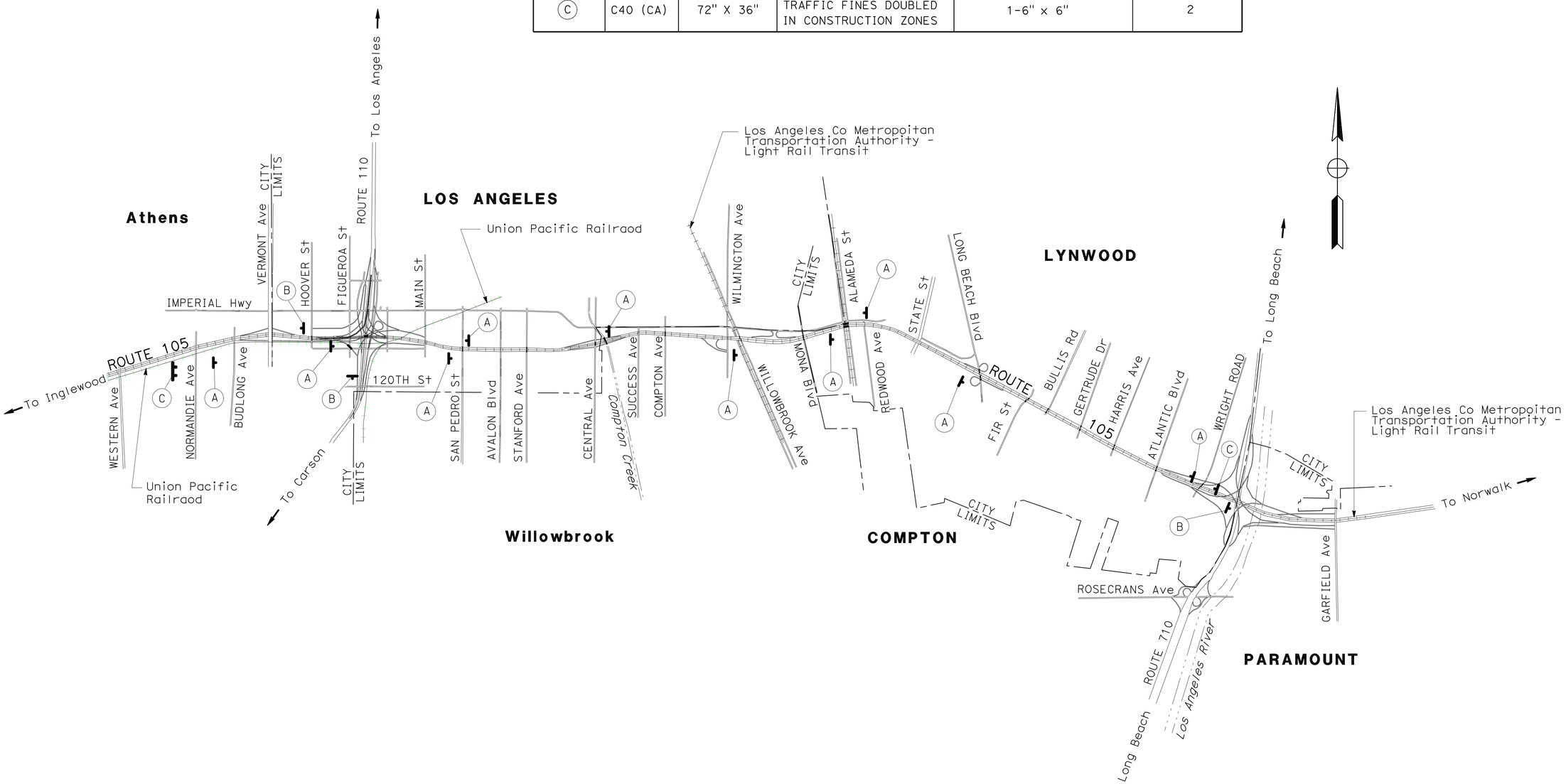
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER
2. C40 SIGNS MUST BE PLACED APPROXIMATELY 500' IN ADVANCE W20-1 SIGNS OR AS DIRECTED BY THE ENGINEER.

CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

SIGN NUMBER	SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
A	W20-1	48" X 48"	ROAD WORK AHEAD	1-6" x 6"	10
B	G20-2	48" X 24"	END ROAD WORK	1-4" x 6"	3
C	C40 (CA)	72" X 36"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	1-6" x 6"	2



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI
CALCULATED-DESIGNED BY: MARLON SARMIENTO
CHECKED BY: SHAHIN ENGILY
REVISED BY
DATE REVISED

LAST REVISION 01-21-14
DATE PLOTTED => 14-JAN-2014
TIME PLOTTED => 18:12

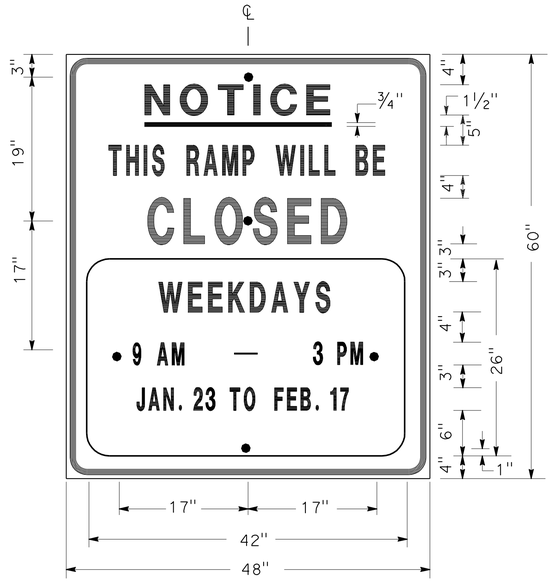
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/13.2	4	36

REGISTERED CIVIL ENGINEER 7-17-13 DATE

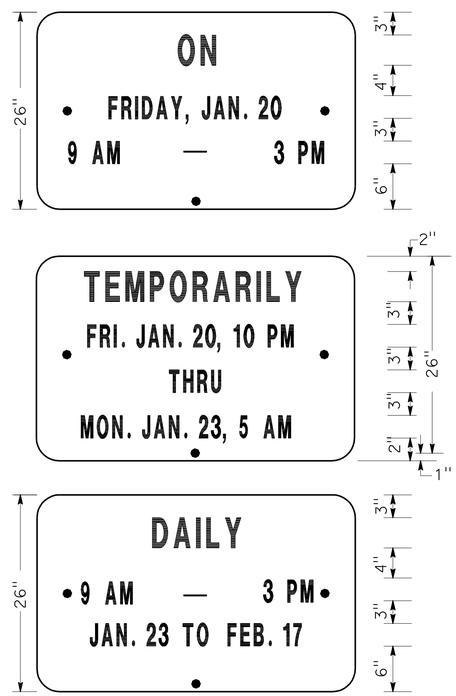
01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHANGJIA HORN No. 51846 Exp. 6-30-14 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.



SIGN SP-1



ALTERNATE OVERLAY PANELS (TYPICAL)

SPECIAL ADVANCE NOTICE PUBLICITY SIGN

NOTES: (SIGN SP-1)

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

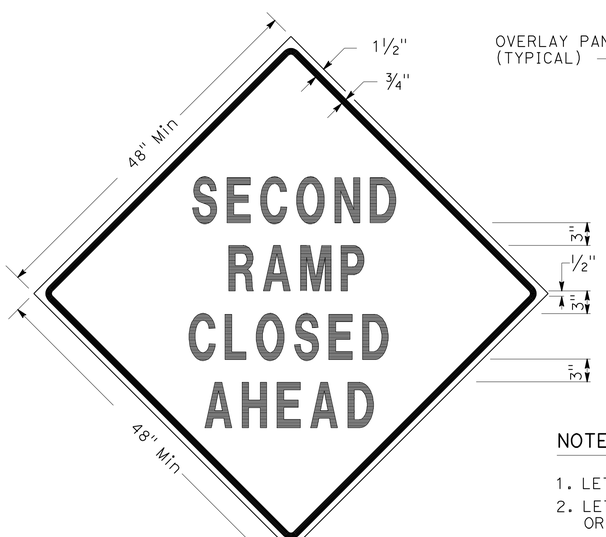
SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5, 6, & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"
* CONDENSED SPACING IF NECESSARY								

SIGN SP-4

NOTES: (SIGN SP-4)

1. LETTERS - 6" SERIES C.
2. LETTERS AND BORDER SHALL BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
3. BOLT HOLES SHALL BE 3/8" DIAMETER.
4. BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
5. SIGNS SHALL 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 SHALL BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
3. BOLT HOLES SHALL BE 3/8" DIAMETER.
4. BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
5. SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.
6. SIGN SP-5 SHALL 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: ALBERT K. YU
CALCULATED-DESIGNED BY: SHANJUGJIA HORN
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 3/12

LAST REVISION 01-21-14
DATE PLOTTED => 14-JAN-2014
TIME PLOTTED => 8:13

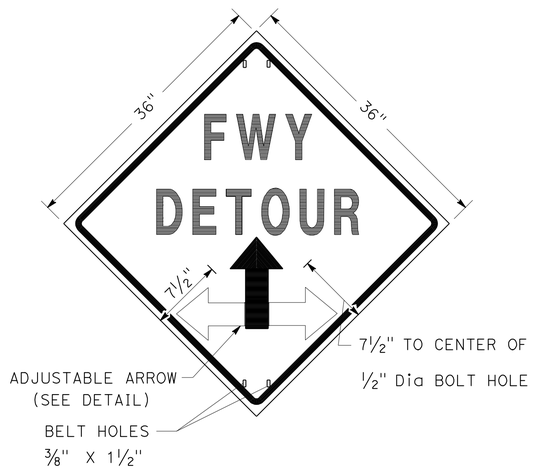
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/13.2	5	36

REGISTERED CIVIL ENGINEER 7-16-13 DATE

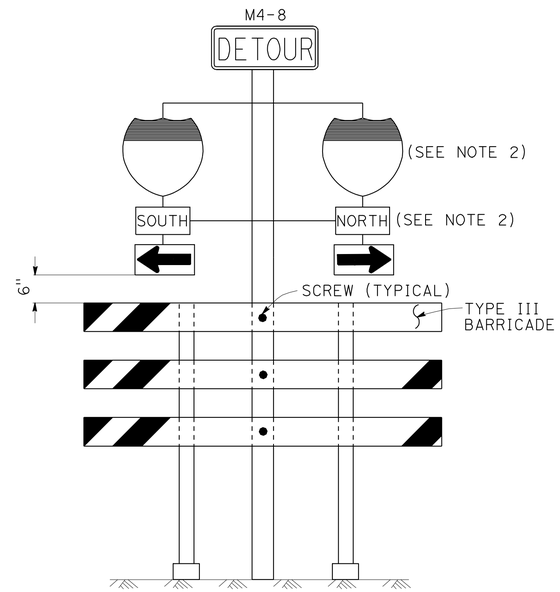
01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHANGJIA HORN No. 51846 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

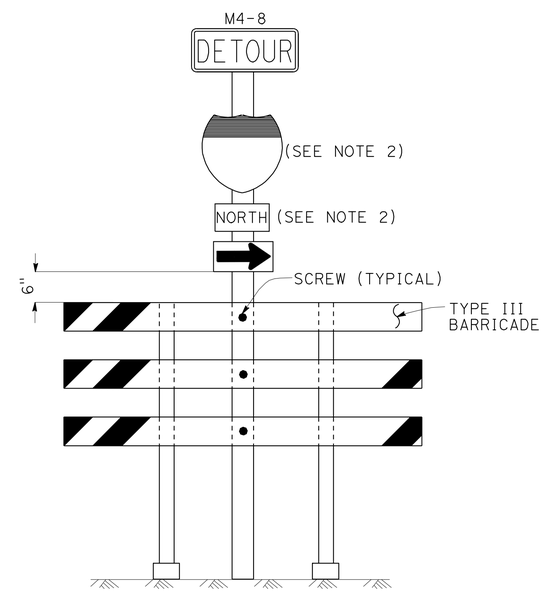
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



SIGN SP-2



SIGN SP-6 (SEE NOTE 1)



SIGN SP-7 (SEE NOTE 1)

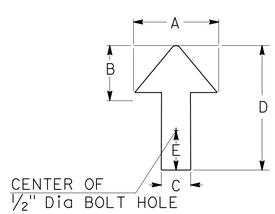
NOTES: SIGN SP-2

1. LETTERS - 6" SERIES E.
2. LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
3. BASE MATERIAL FOR SIGNS AND ARROWS SHALL BE ALUMINUM (MINIMUM 0.06").
4. BELTS (LUGGAGE STRAPS) SHALL BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
5. SIGNS SHALL 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: ALBERT K. YU
CALCULATED-DESIGNED BY: SHANGJIA HORN
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 3/12

LAST REVISION 01-21-14 | DATE PLOTTED => 14-JAN-2014 | TIME PLOTTED => 18:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/13.2	6	36

REGISTERED CIVIL ENGINEER 7-16-13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHANGJIA HORN No. 51846 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

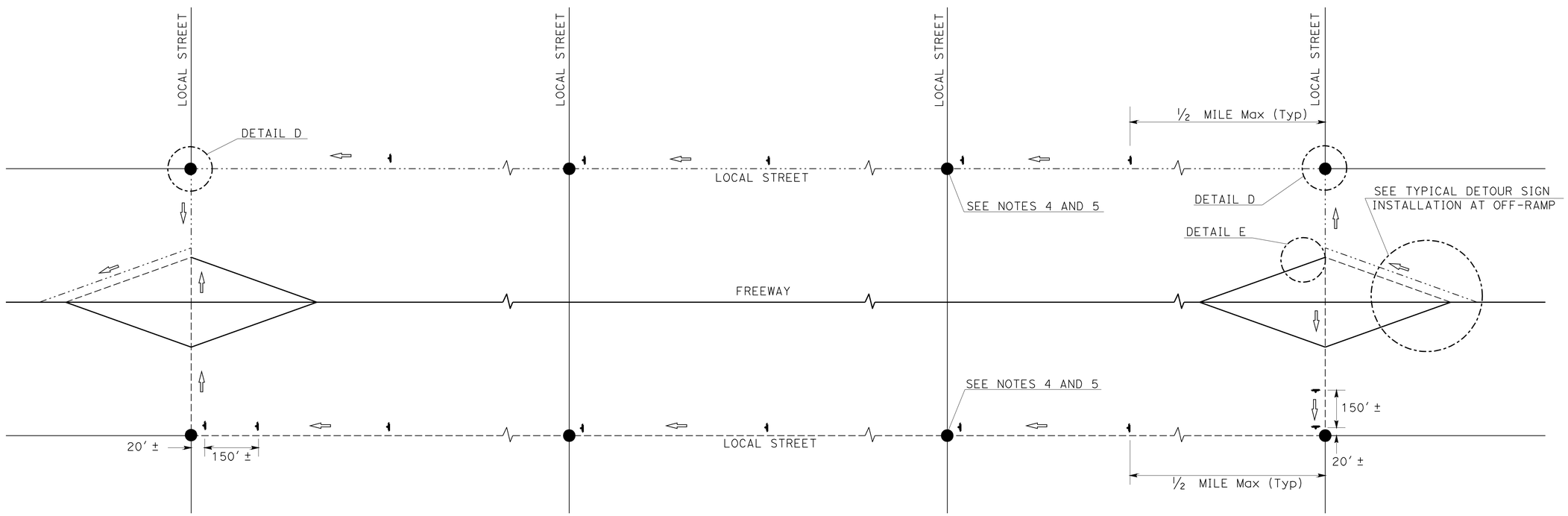
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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 SHALL 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 SHALL 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 SHALL 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: ALBERT K. YU
CALCULATED-DESIGNED BY: SHANGJIA HORN
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 3/12

LAST REVISION 01-21-14
DATE PLOTTED => 14-JAN-2014
TIME PLOTTED => 18:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/13.2	7	36

REGISTERED CIVIL ENGINEER DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHANGJIA HORN No. 51846 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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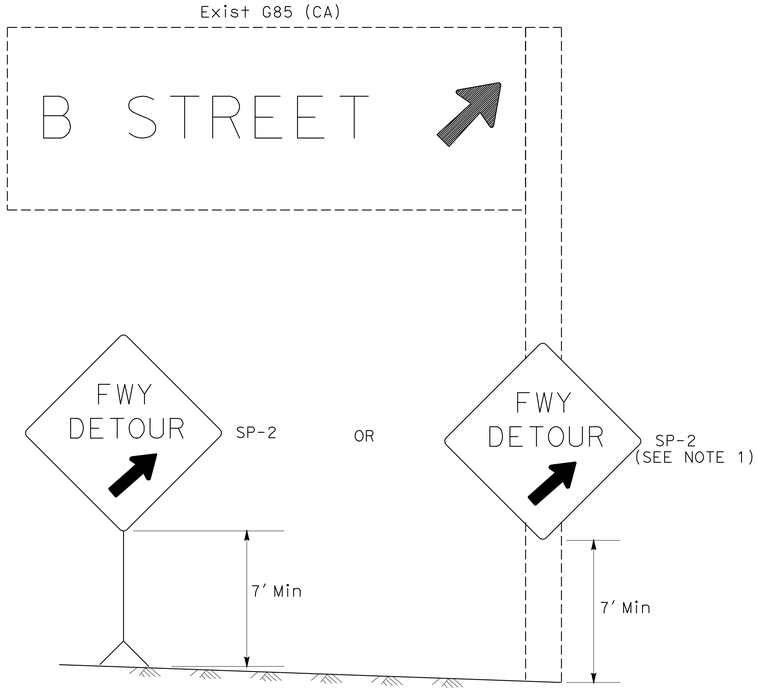
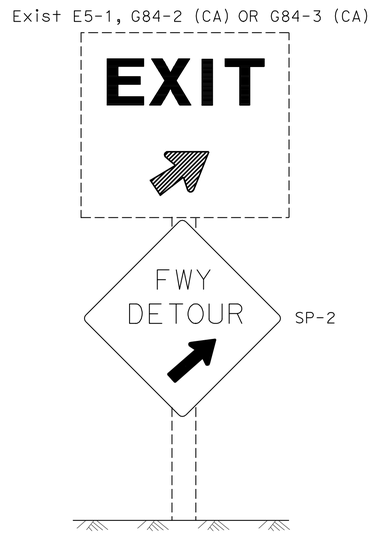
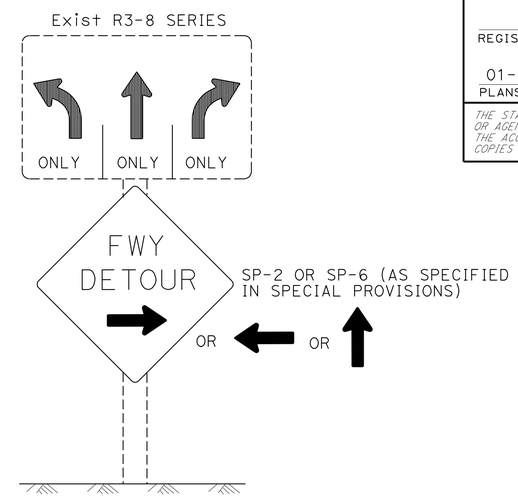


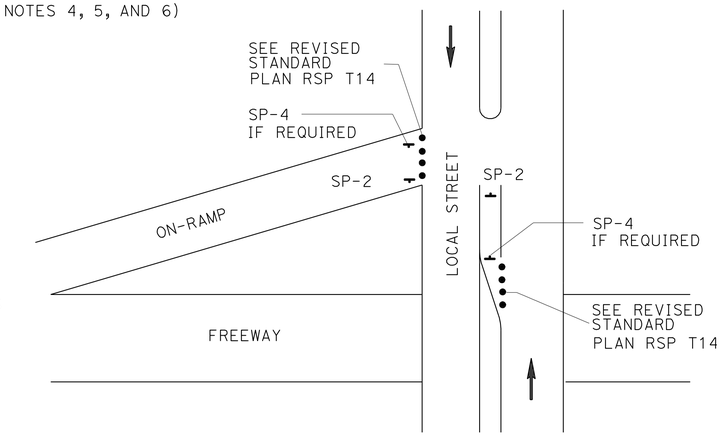
DETAIL A (SEE NOTE 3)



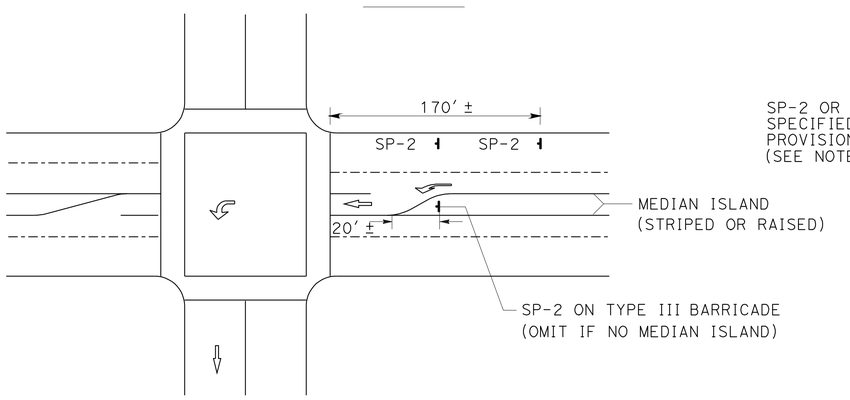
DETAIL B (SEE NOTE 3)



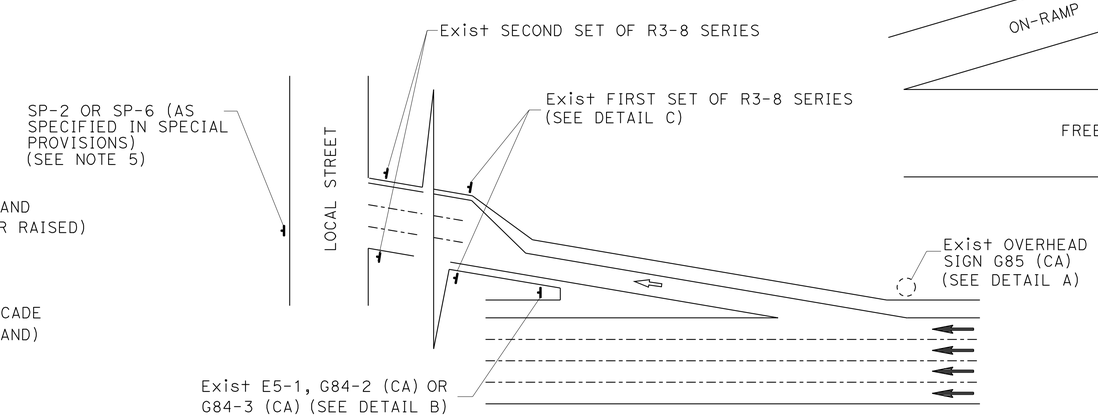
DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL E



DETAIL D



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

LEGEND

- CONE
- PORTABLE SIGN
- DIRECTION OF TRAVEL
- 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 SHALL 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 SHALL 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: ALBERT K. YU

CALCULATED-DESIGNED BY: SHANGJIA HORN
CHECKED BY: JOCELYN C CHIANG

REVISED BY: JC
DATE REVISED: 3/12

LAST REVISION 01-21-14 | DATE PLOTTED => 14-JAN-2014 | TIME PLOTTED => 18:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	8	36

REGISTERED CIVIL ENGINEER 7-16-13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHANGJIA HORN No. 51846 Exp. 6-30-14 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.

NOTES:

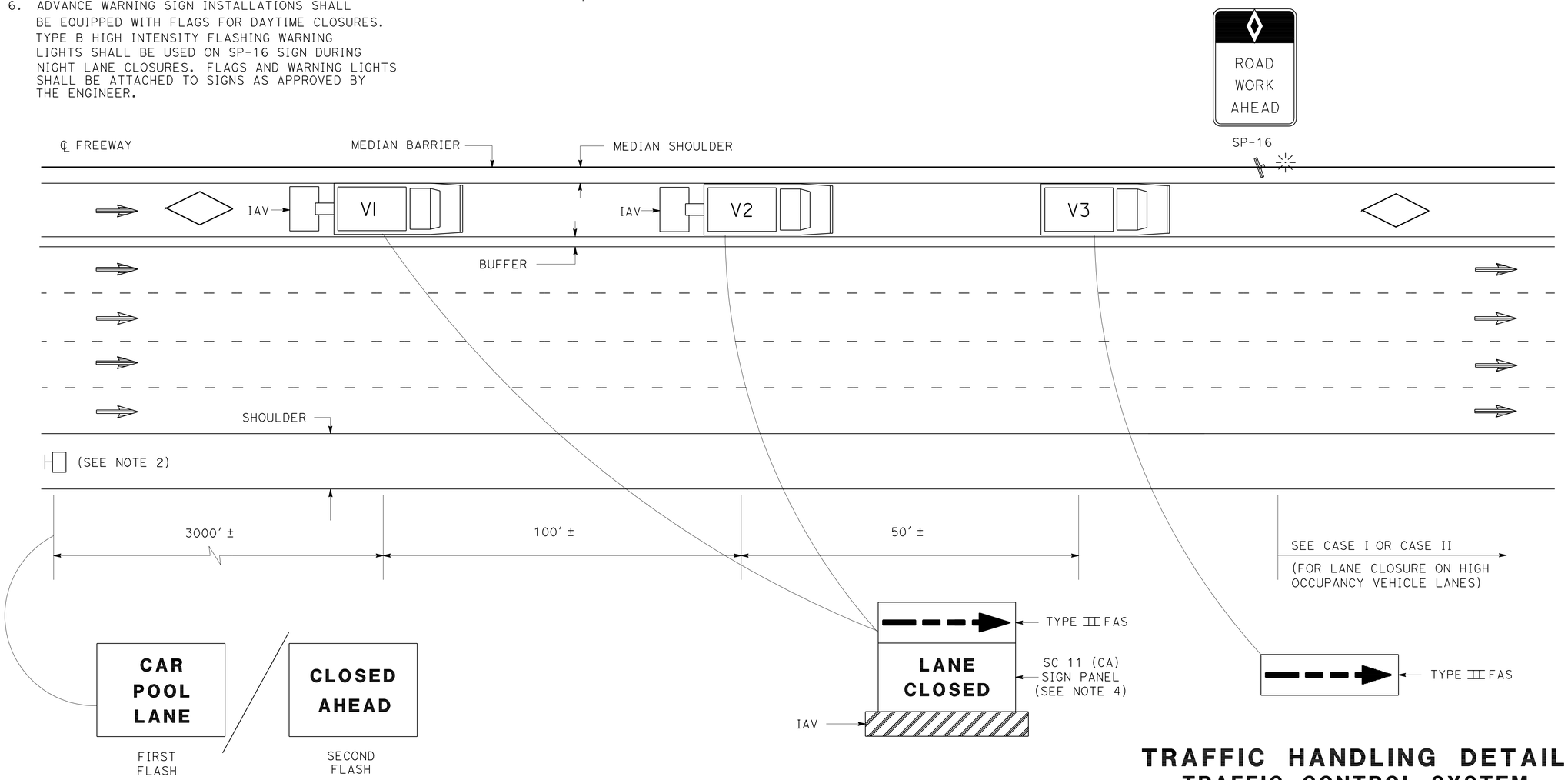
1. LANE CLOSURES SHALL NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
2. PCMS SHALL BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE HOV LANE.
3. A MINIMUM SIGHT DISTANCE OF 1500' SHALL BE PROVIDED IN ADVANCE OF PCMS.
4. VEHICLE-MOUNTED SIGN PANELS SHALL BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.
5. PLACE PCMS ON THE MEDIAN SHOULDER WHERE SUFFICIENT ROOM (SUCH AS CHP ENFORCEMENT AREAS) EXISTS.
6. ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES. TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS SHALL BE USED ON SP-16 SIGN DURING NIGHT LANE CLOSURES. FLAGS AND WARNING LIGHTS SHALL BE ATTACHED TO SIGNS AS APPROVED BY THE ENGINEER.

LEGEND

V1, V2	SHADOW VEHICLES
V3	WORK/APPLICATION VEHICLE
	PCMS
	DIRECTION OF TRAVEL
	HOV LANE
	FLASHING BEACON

ABBREVIATIONS

FAS	FLASHING ARROW SIGN
IAV	IMPACT ATTENUATOR VEHICLE
CMS	CHANGEABLE MESSAGE SIGN
(CA)	CALIFORNIA CODE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
HOV	HIGH OCCUPANCY VEHICLE
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-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

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

LAST REVISION 01-21-14 | DATE PLOTTED => 14-JAN-2014 | TIME PLOTTED => 18:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/13.2	9	36

REGISTERED CIVIL ENGINEER 7-16-13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHANGJIA HORN No. 51846 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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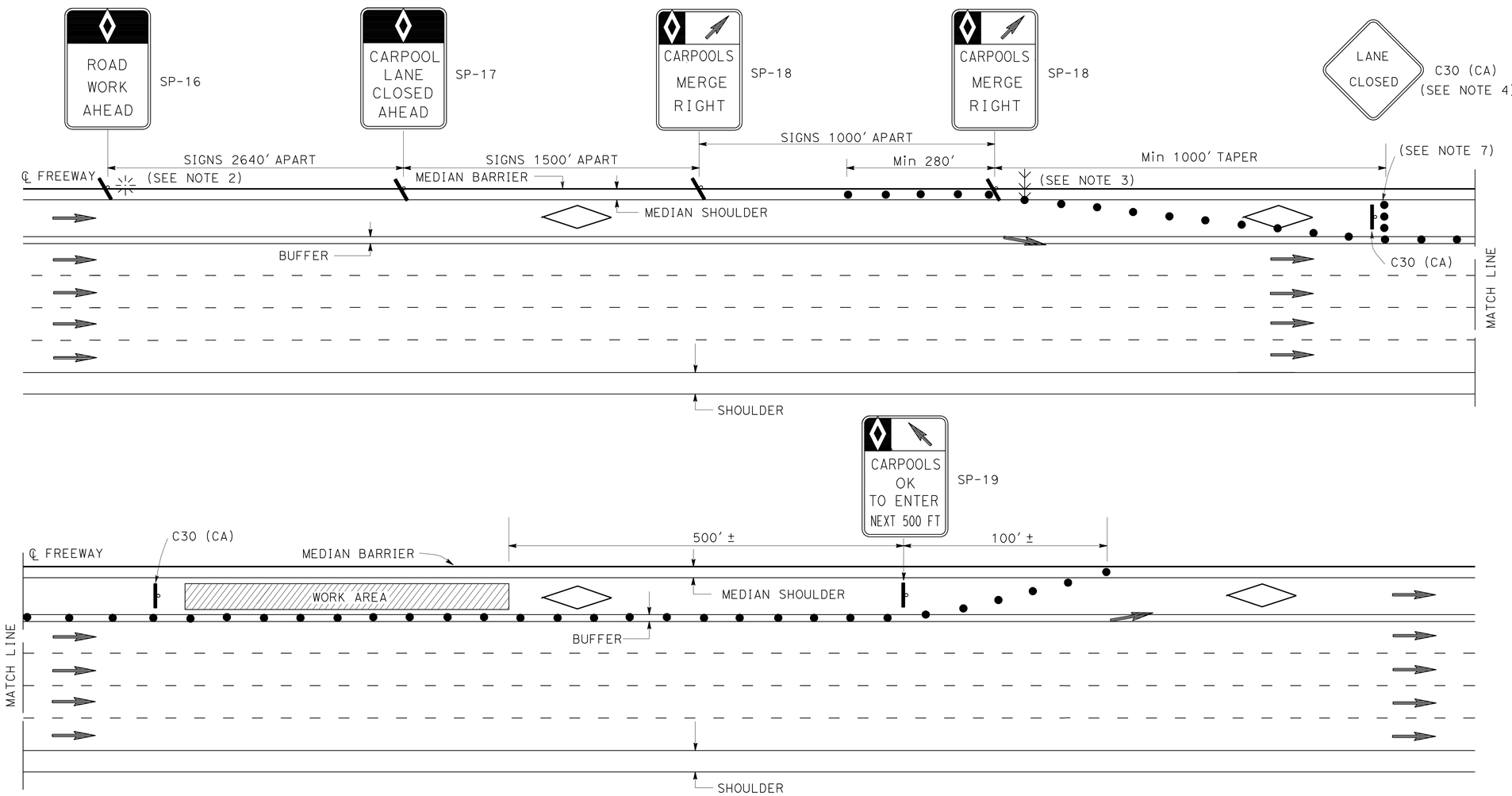

LEGEND

- CONE
- FLASHING BEACON
- HOV LANE
- FLASHING ARROW SIGN
- PORTABLE SIGN
- DIRECTION OF TRAVEL

ABBREVIATIONS

(CA)	CALIFORNIA CODE
HOV	HIGH OCCUPANCY VEHICLE

SIGN PANEL

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

NOTES: (FOR CASE I AND CASE II)

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

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
SHANGJIA HORN	JOCELYN C CHIANG	JC	3/12

FUNCTIONAL SUPERVISOR: ALBERT K YU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

LAST REVISION 01-21-14 | DATE PLOTTED => 14-JAN-2014 | TIME PLOTTED => 18:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/13.2	10	36

REGISTERED CIVIL ENGINEER 7-16-13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHANGJIA HORN No. 51846 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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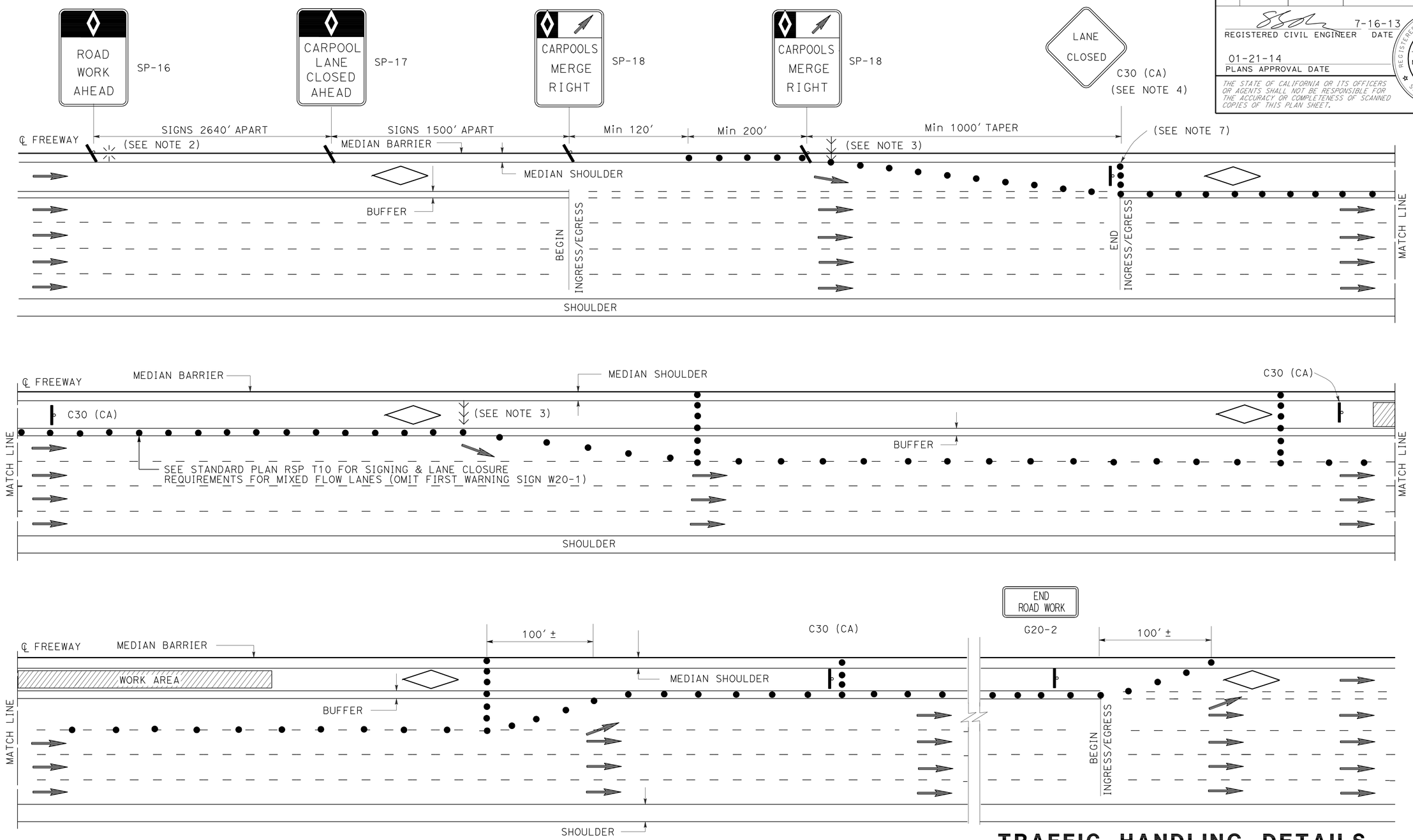

NOTES:

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-7

JC	3/12
REVISED BY	DATE REVISED
SHANGJIA HORN	JOCELYN C CHIANG
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	ALBERT K YU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
Caltrans

LAST REVISION 01-21-14 | DATE PLOTTED => 14-JAN-2014 TIME PLOTTED => 18:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	11	36

REGISTERED CIVIL ENGINEER 1-13-14 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN ENGILY No. 50125 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA

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

LOCATION (No.)	ROUTE	POST MILE	DESCRIPTION	PAVEMENT MARKER											THERMOPLASTIC PAVEMENT MARKING							
					RETROREFLECTIVE																	
					Det 9	Det 13 (Mod)	Det 25	Det 25A	Det 36A	Det 36B	Det 38B	Det 37	HOV STRIPING DETAIL									
				DET 13 (Mod) TYPE A (NON-REFLECTIVE)	TYPE G	TYPE G	TYPE H	TYPE H	TYPE G	TYPE G	TYPE G	TYPE G	4" DOUBLE YELLOW TYPE H	8" (BROKEN 36-12) TYPE G	CAR	POOL	ONLY	LANE	(DIAMOND SYMBOL)	TYPE V ARROW	DIAGONAL	CHEVRON
				EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT
1	105	R7.05	HOOVER STREET UNDERCROSSING	18		6	12				40		84									
2	105	R7.20	E105-S110 CONNECTOR OVERCROSSING					31														
3	105	R7.26	ROUTE 105/110 SEPARATION	64		17		65	45			77										
4	105	R8.04	SAN PEDRO STREET UNDERCROSSING	15		5	8			24		34	54									15
5	105	R8.46	STANFORD AVENUE UNDERCROSSING	10		5	6					13	44									
6	105	R8.94	CENTRAL AVENUE UNDERCROSSING	14		6	8						8	10	17	23			11			
7	105	R8.97	COMPTON CREEK OFF-RAMP		2			5			15									33		
8	105	R8.98	COMPTON CREEK	12		4								10					11			
9	105	R8.99	COMPTON CREEK ON-RAMP		2	1		1											11			
13	105	R11.56	LONG BEACH BOULEVARD UC WB RAMP					23													400	
14	105	R11.56	LONG BEACH BOULEVARD UC EB RAMP					24			95				34	46		24	44			
15	105	R11.91	FIR STREET UNDERCROSSING	10		4		6					46						11			
16	105	R12.07	BULLIS ROAD UNDERCROSSING	10		4		8					50									
17	105	R12.30	GERTRUDE DRIVE UNDERCROSSING	10		4		6					22	4	17	23	22		11			
18	105	R12.58	HARRIS AVENUE UNDERCROSSING	10		5		6					42									
19	105	R12.88	ATLANTIC AVENUE UNDERCROSSING	15		6		8			27		58				22					
20	105	R13.14	E105-N710 CONNECTOR OVERCROSSING				54						428									
21	105	R13.14	E105-S710/WRIGHT ROAD OVERCROSSING	9		3	19															
			SUBTOTAL	197	4	72	107	183	45	24	177	124	836	24	68	92	44	24	99	33	400	15
			TOTAL	197	1,596										775							

PAVEMENT DELINEATION QUANTITIES

PDQ-1

REVISED BY | DATE REVISED

MARLON SARMIENTO | SHAHIN ENGILY

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: PAUL CRISPI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

LAST REVISION 01-21-14 | DATE PLOTTED => 14-JAN-2014 | TIME PLOTTED => 18:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	12	36

REGISTERED CIVIL ENGINEER 1-13-14 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN ENGILY No. 50125 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA

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THERMOPLASTIC TRAFFIC STRIPE

LOCATION (No.)	POST MILE	DESCRIPTION	Det 9	Det 13 (Mod)	Det 25	Det 25A	Det 27B	HOV STRIPING DETAIL		Det 36	Det 36A	Det 36B	Det 38B	Det 37	HOV STRIPING DETAIL	3" PAINT TRAFFIC STRIPE (1 COAT)
			4" (BROKEN 17-7) (WHITE)	4" (BROKEN 36-12) (WHITE)	4" (YELLOW)	4" (YELLOW)	4" (WHITE)	4" (DOUBLE DOUBLE YELLOW)	4" (WHITE)	8" (WHITE)	8" (WHITE)	8" (WHITE)	8" (WHITE)	8" (BROKEN 12-3) (WHITE)	8" (BROKEN 36-12) (WHITE)	
			LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
1	R7.05	HOOVER STREET UNDERCROSSING		900	450		450	1,800	450	900			225			900
2	R7.20	E105-S110 CONNECTOR OVERCROSSING		720		720	720									
3	R7.26	ROUTE 105/110 SEPARATION		3,072		1,536	1,536	6,144	1,536		526			700		3,072
4	R8.04	SAN PEDRO STREET UNDERCROSSING		720	280		280	1,120	280			280		280		560
5	R8.46	STANFORD AVENUE UNDERCROSSING		514	214		214	856	214					107		428
7	R8.94	CENTRAL AVENUE UNDERCROSSING		636	318		318								318	
8	R8.97	COMPTON CREEK OFF-RAMP	186			93	93									
9	R8.98	COMPTON CREEK		528	264		264								264	
10	R8.99	COMPTON CREEK ON-RAMP	75			75	75						75			
13	R11.56	LONG BEACH BOULEVARD UC WB RAMP				536	536									
14	R11.56	LONG BEACH BOULEVARD UC EB RAMP				555	555						555			
15	R11.91	FIR STREET UNDERCROSSING		464	232		232	928	232							464
16	R12.07	BULLIS ROAD UNDERCROSSING		496	248		248	992	248							496
17	R12.30	GERTRUDE DRIVE UNDERCROSSING		440	220		220	440	220						110	440
18	R12.58	HARRIS AVENUE UNDERCROSSING		515	206		206	824	206					103		412
19	R12.88	ATLANTIC AVENUE UNDERCROSSING		755	302		302	1,208	302				151			604
20	R13.14	E105-N710 CONNECTOR OVERCROSSING			2,543		2,543	10,172	2,543							5,086
21	R13.14	E105-S710/WRIGHT ROAD OVERCROSSING		441		441	441									
SUBTOTAL			261	10,181	5,277	3,956	9,233	24,484	6,231	900	526	280	1,006	1,190	692	12,460
TOTAL			261	10,181	49,181					2,712				1,190	692	12,460

PAVEMENT DELINEATION QUANTITIES

PDQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI
CALCULATED-DESIGNED BY: MARLON SARMIENTO
CHECKED BY: SHAHIN ENGILY
REVISED BY
DATE REVISED

LAST REVISION 01-21-14
DATE PLOTTED => 14-JAN-2014
TIME PLOTTED => 18:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	13	36

REGISTERED CIVIL ENGINEER 1-13-14 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN ENGILY No. 50125 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA

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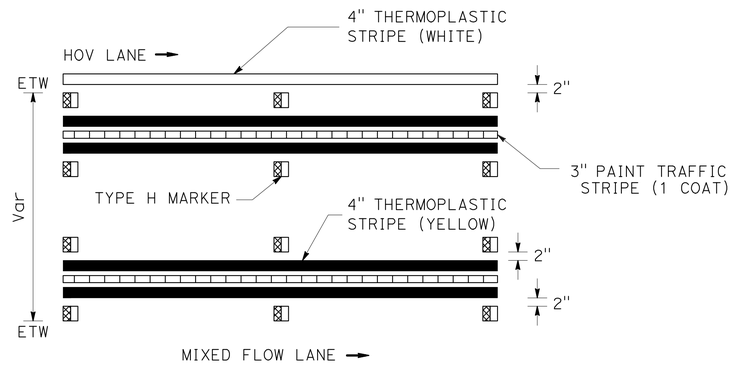
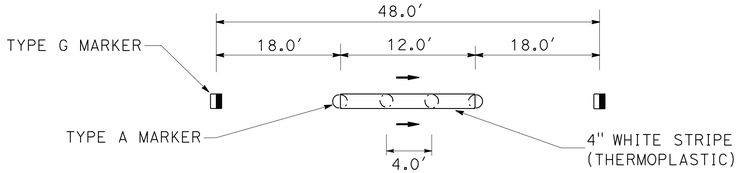
LEGEND:

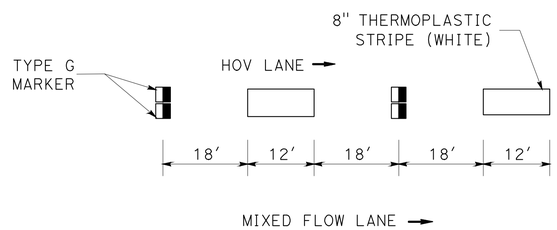
→ DIRECTION OF TRAVEL



HOV STRIPING DETAIL (DOUBLE DOUBLE YELLOW)



DETAIL 13 (Mod)



INGRESS/EGRESS STRIPING DETAIL

THERMOPLASTIC TRAFFIC STRIPE

LOCATION (No.)	ROUTE	POST MILE	DESCRIPTION	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	REMOVE THERMOPLASTIC TRAFFIC STRIPE	REMOVE PAVEMENT MARKER	REMOVE THERMOPLASTIC PAVEMENT MARKING
				LF	LF	EA	SQFT
1	105	R7.05	HOOVER St UC	2,250	3,376	160	
2	105	R7.20	E105-S110 Conn OC	720	900	31	
3	105	R7.26	ROUTE 105/110 Sep	7,680	8,558	268	
4	105	R8.04	SAN PEDRO St UC	1,400	2,023	140	15
5	105	R8.46	STANFORD St UC	1,070	1,156	78	
6	105	R8.94	CENTRAL Ave UC	318	637	46	51
7	105	R8.97	COMPTON CREEK OFF-RAMP	93	146	22	33
8	105	R8.98	COMPTON CREEK	264	528	26	11
9	105	R8.99	COMPTON CREEK ON-RAMP	75	247	4	11
13	105	R11.56	LONG BEACH Blvd UC WB RAMP	536	536	23	400
14	105	R11.56	LONG BEACH Blvd UC EB RAMP	555	1,665	119	148
15	105	R11.91	FIR St UC	1,160	1,044	66	11
16	105	R12.07	BULLIS Rd UC	1,240	1,116	72	
17	105	R12.30	GERTRUDE Dr UC	660	1,045	46	73
18	105	R12.58	HARRIS Ave UC	1,030	1,118	63	
19	105	R12.88	ATLANTIC Ave UC	1,510	1,699	114	22
20	105	R13.14	E105-N710 Conn OC	12,715	10,172	482	
21	105	R13.14	E105-S710/WRIGHT Rd OC	441	551	31	551
			TOTAL	33,276	36,517	1,791	775

PAVEMENT DELINEATION QUANTITIES

NO SCALE

PDQ-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI
CALCULATED-DESIGNED BY: SHAHIN ENGILY
CHECKED BY: MARLON SARMIENTO
REVISED BY / DATE REVISED

LAST REVISION 01-21-14 DATE PLOTTED => 14-JAN-2014 TIME PLOTTED => 18:13

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	105	R7.0/R13.2	14	36

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 01-21-14

UNIT OF MEASUREMENT SYMBOLS:

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

TABLE A

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

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

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft^3, pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
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

2010 REVISED STANDARD PLAN RSP A10B

6-7-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	15	36

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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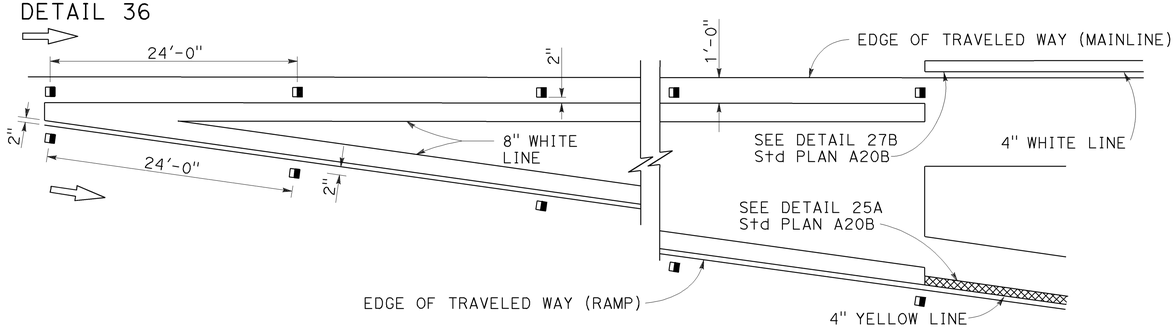
TO ACCOMPANY PLANS DATED 01-21-14

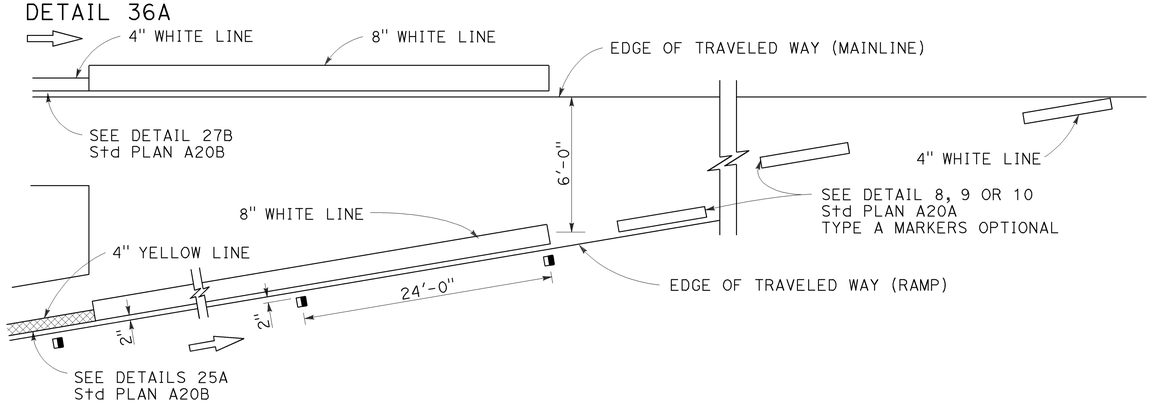
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT

DETAIL 36



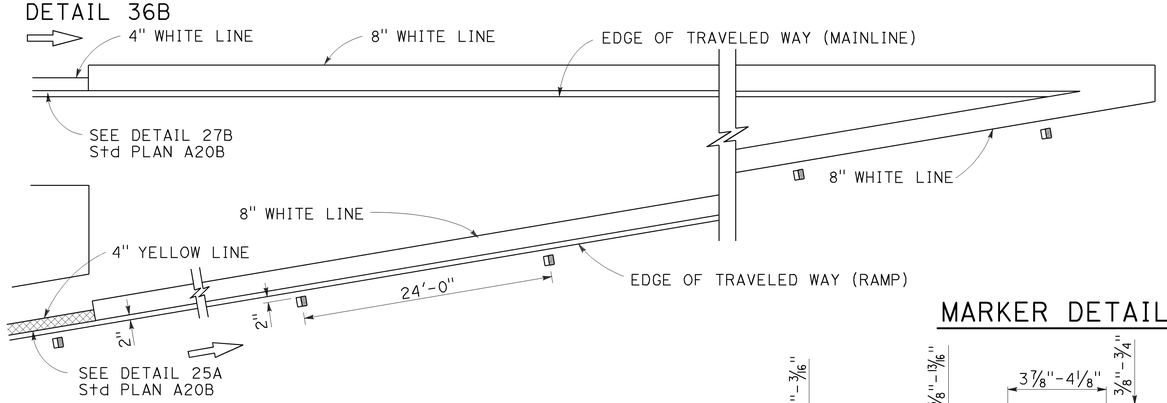
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

DETAIL 36A



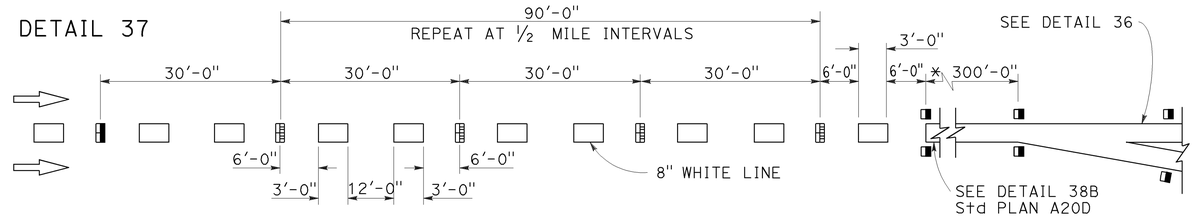
ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

DETAIL 36B

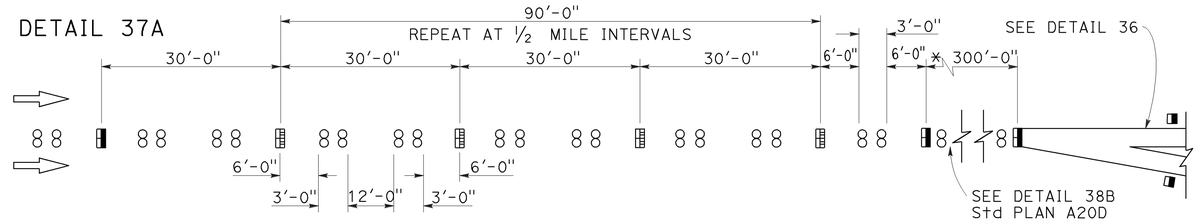


LANE DROP AT EXIT RAMPS

DETAIL 37



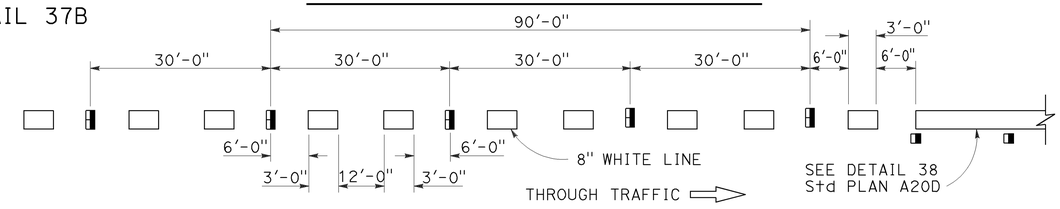
DETAIL 37A



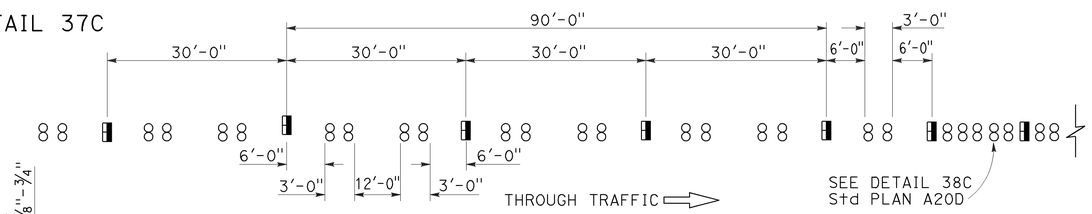
* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS

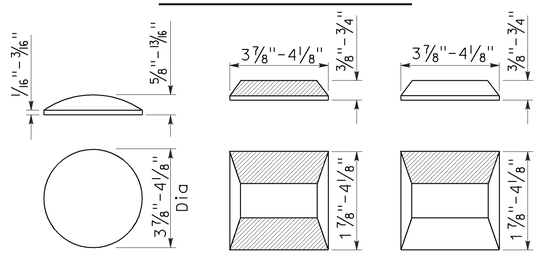
DETAIL 37B



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	105	R7.0/R13.2	16	36

REGISTERED CIVIL ENGINEER

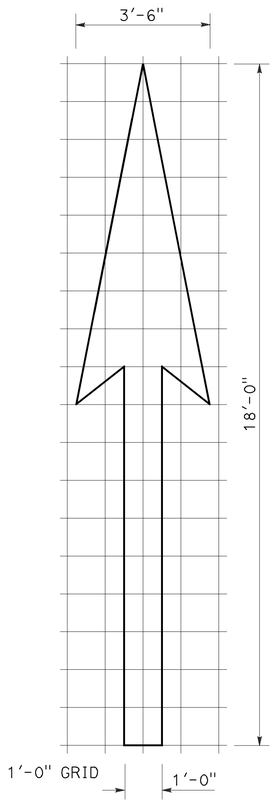
April 20, 2012
PLANS APPROVAL DATE

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

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.

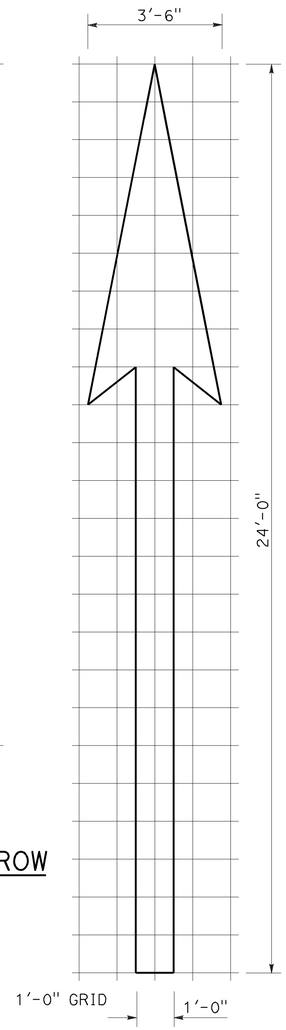
TO ACCOMPANY PLANS DATED 01-21-14

2010 REVISED STANDARD PLAN RSP A24A



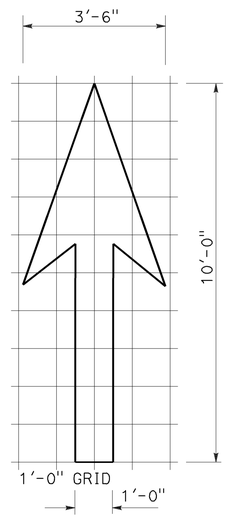
A=25 ft^2

TYPE I 18'-0" ARROW



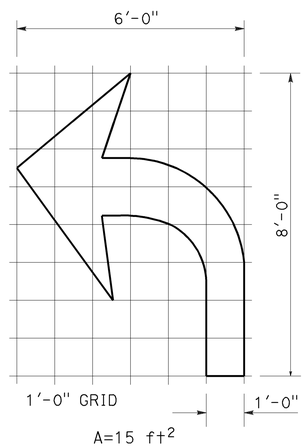
A=31 ft^2

TYPE I 24'-0" ARROW



A=14 ft^2

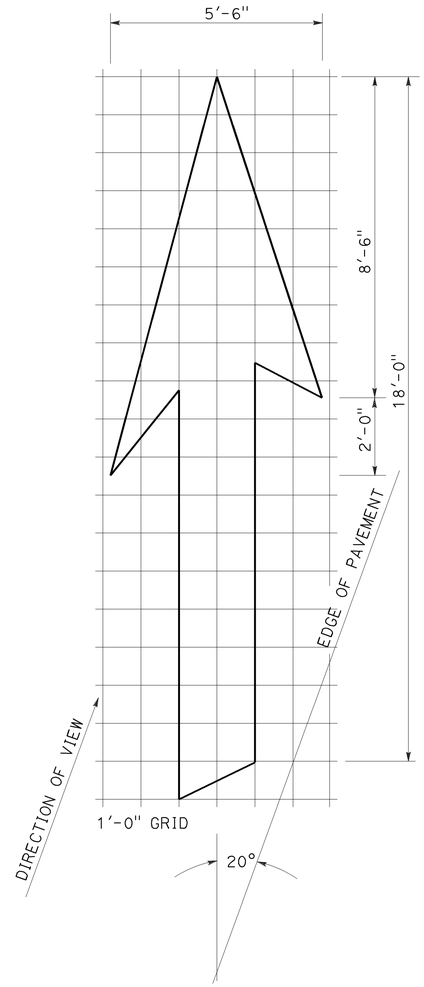
TYPE I 10'-0" ARROW



A=15 ft^2

TYPE IV (L) ARROW

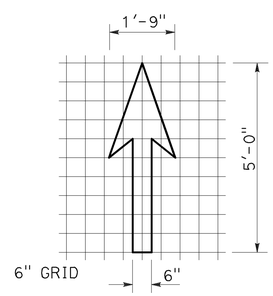
(For Type IV (R) arrow, use mirror image)



A=42 ft^2

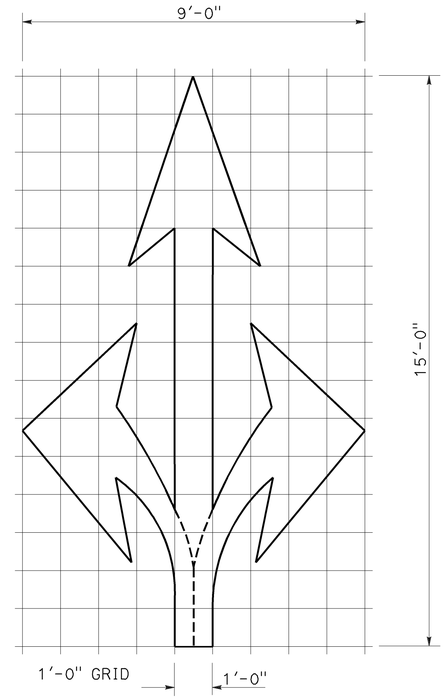
TYPE VI ARROW

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



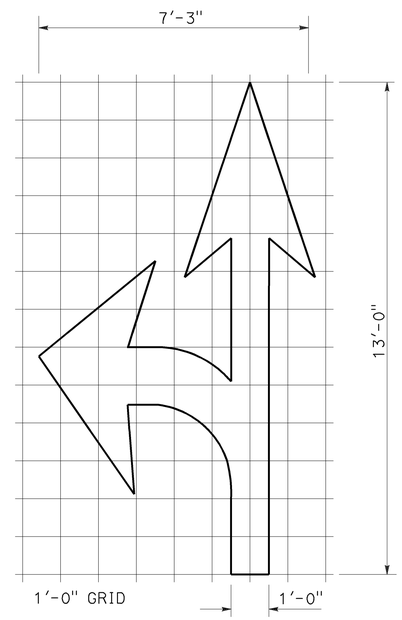
A=3.5 ft^2

BIKE LANE ARROW



A=36 ft^2

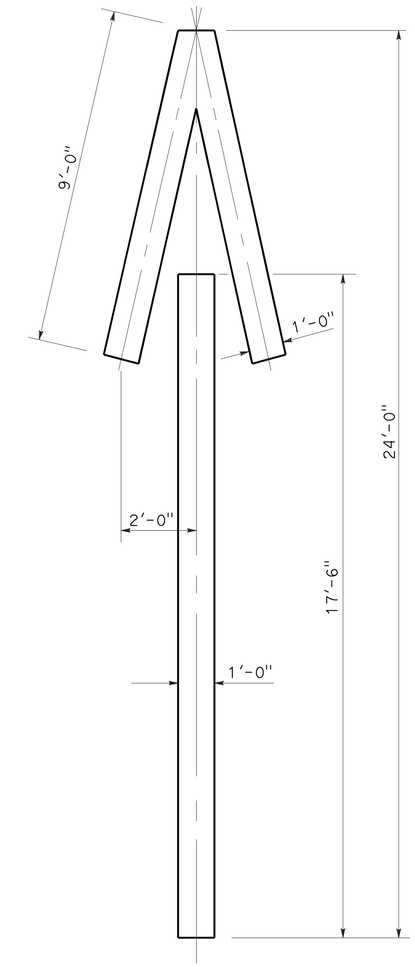
TYPE VIII ARROW



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	105	R7.0/R13.2	17	36

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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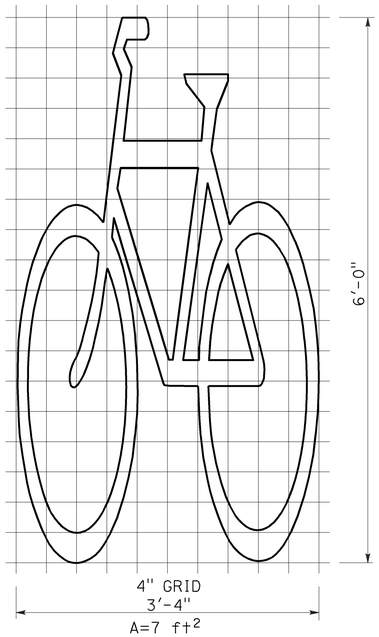
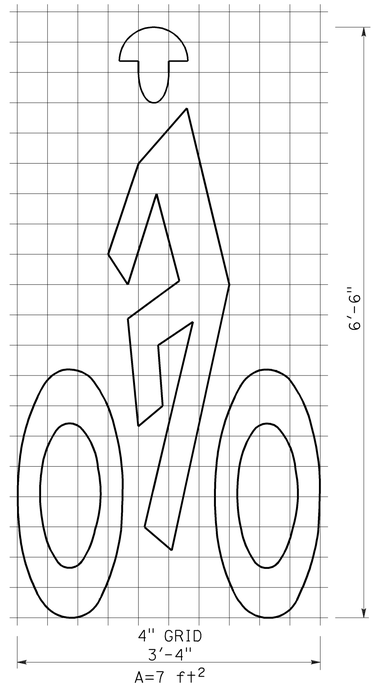
NOTE: TO ACCOMPANY PLANS DATED 01-21-14

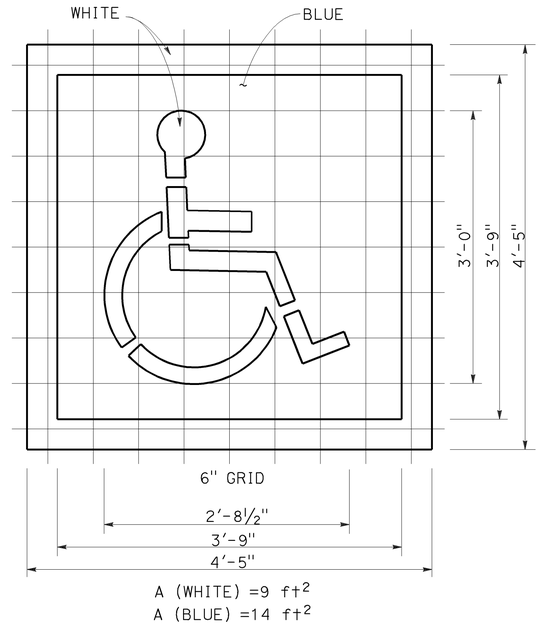
Minor variations in dimensions may be accepted by the Engineer.



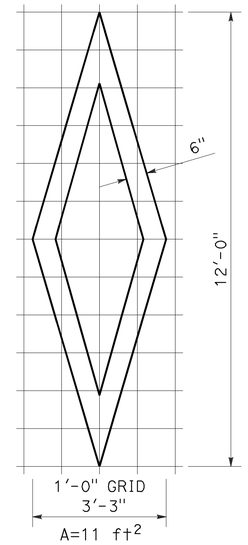
BIKE LANE SYMBOL WITHOUT PERSON



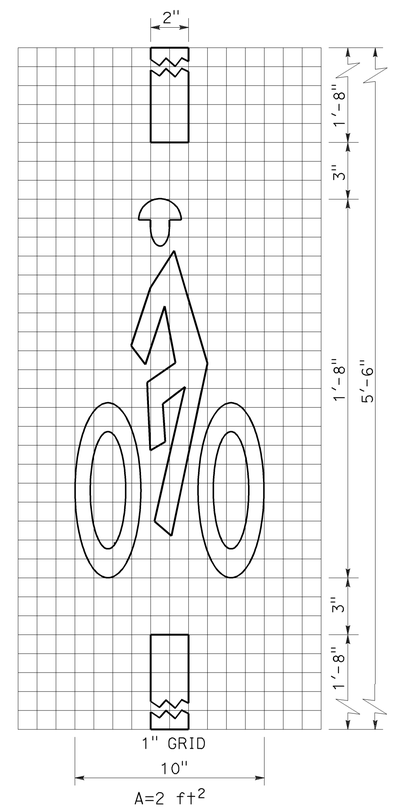
BIKE LANE SYMBOL WITH PERSON



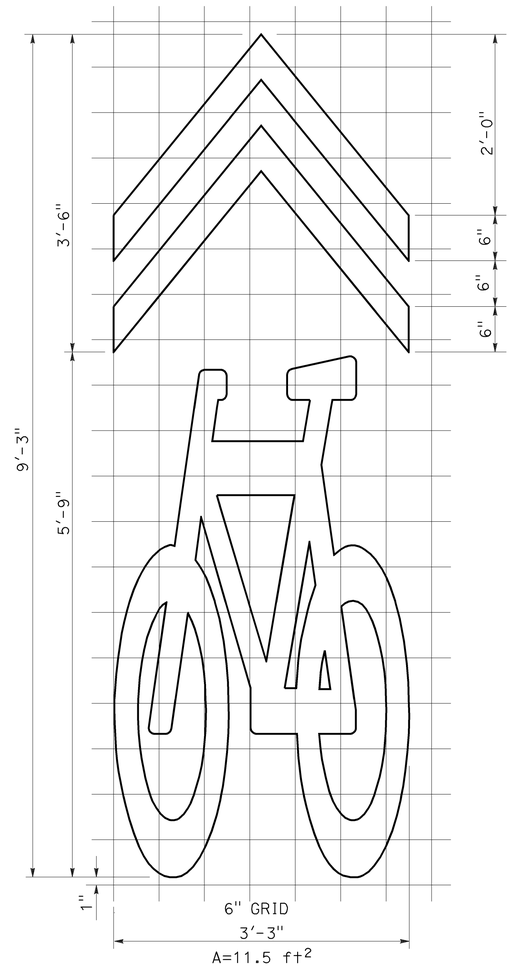
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING



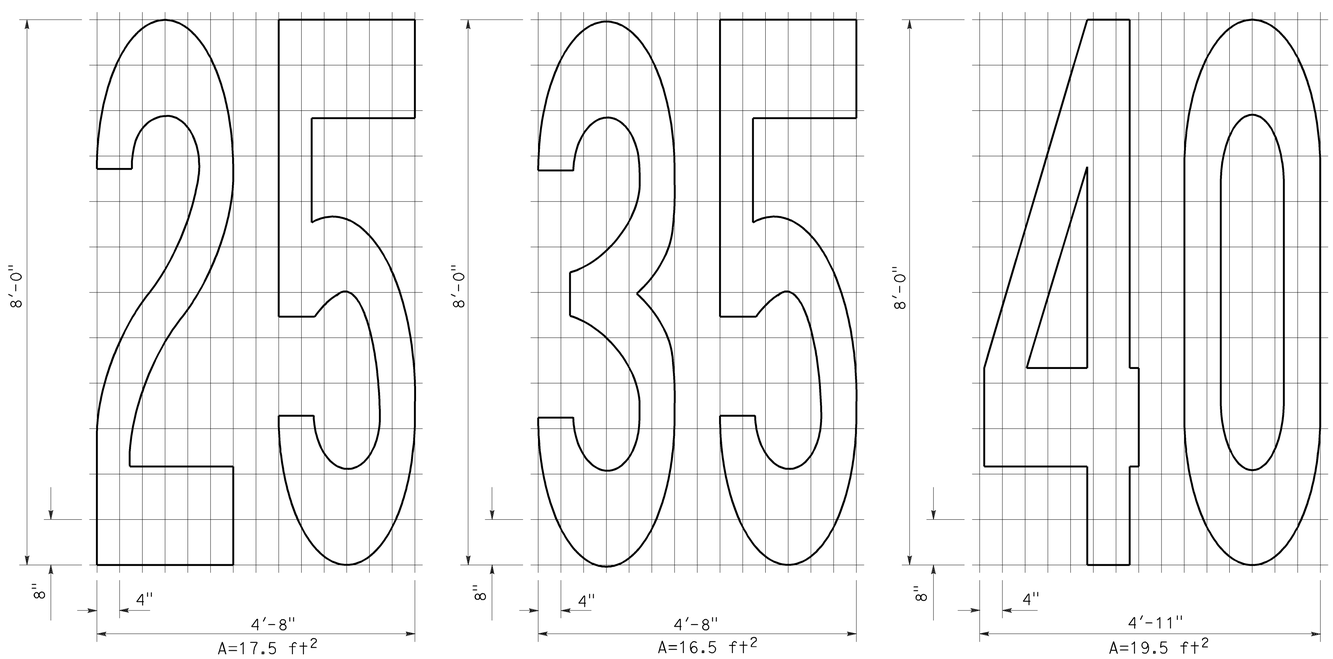
DIAMOND SYMBOL



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	105	R7.0/R13.2	18	36

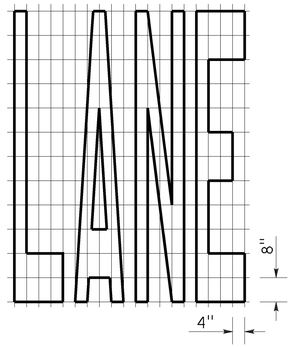
REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

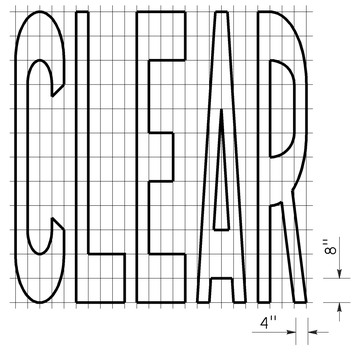
REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

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.

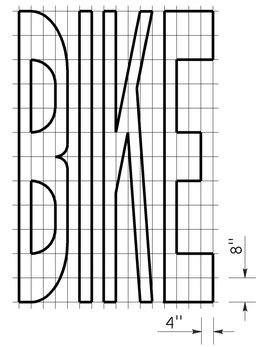
TO ACCOMPANY PLANS DATED 01-21-14



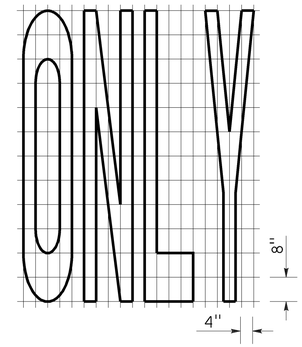
A=24 ft²



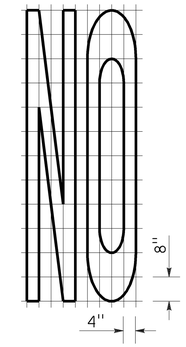
A=27 ft²



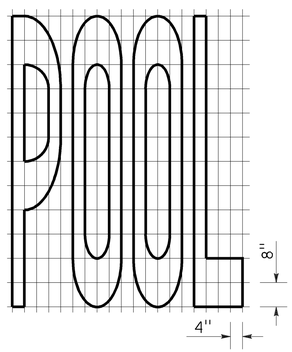
A=21 ft²



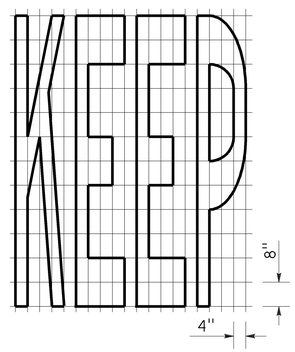
A=22 ft²



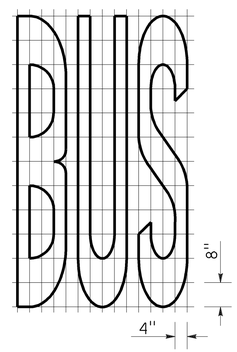
A=14 ft²



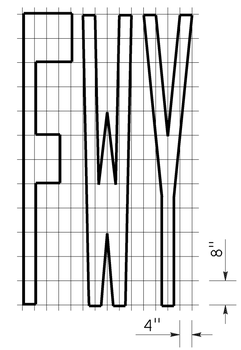
A=23 ft²



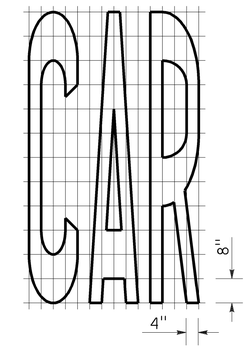
A=24 ft²



A=20 ft²

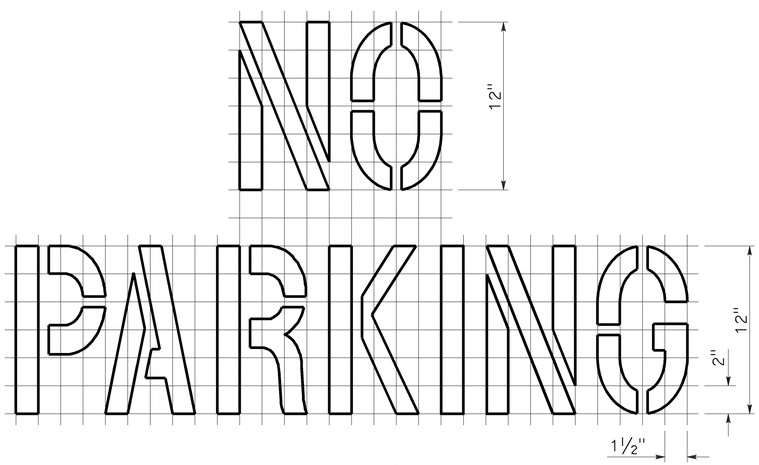


A=16 ft²



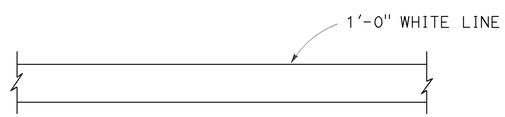
A=17 ft²

WORD MARKINGS			
ITEM	ft²	ITEM	ft²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16

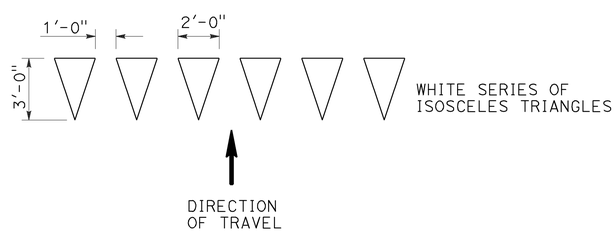


A=2 ft²

See Notes 6 and 7



LIMIT LINE (STOP LINE)



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	105	R7.0/R13.2	19	36

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 01-21-14

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

TO ACCOMPANY PLANS DATED 01-21-14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	20	36

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.

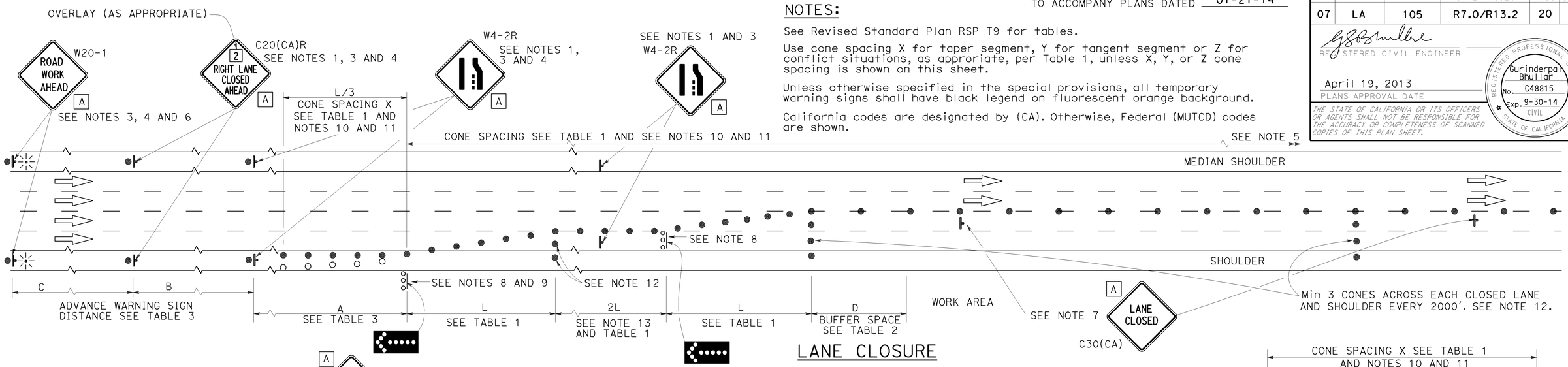
NOTES:

See Revised Standard Plan RSP T9 for tables.

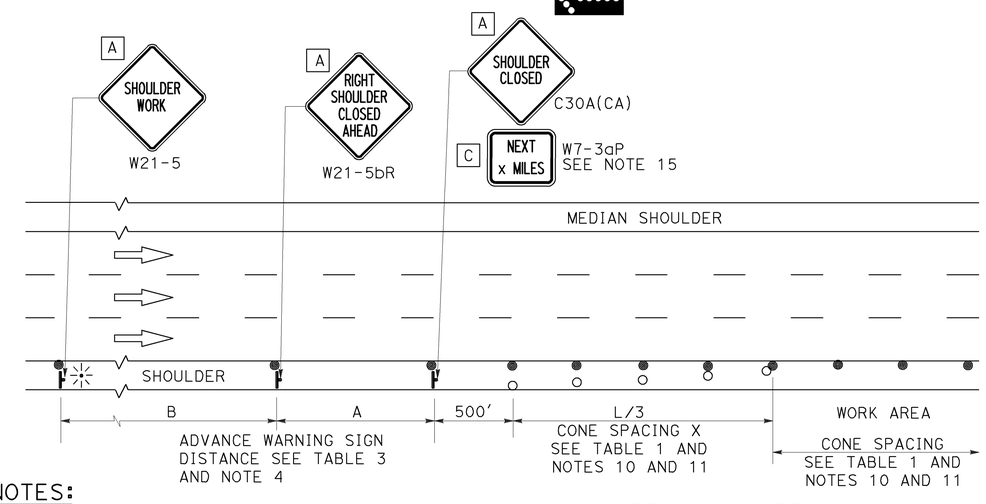
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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

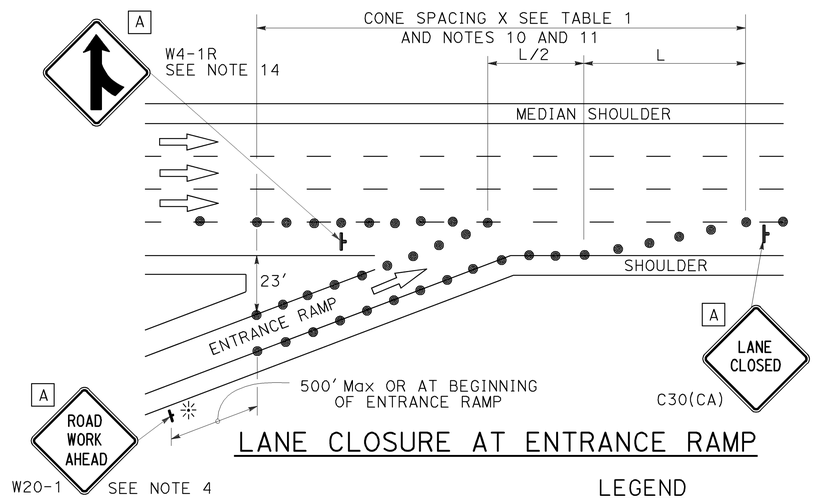
California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



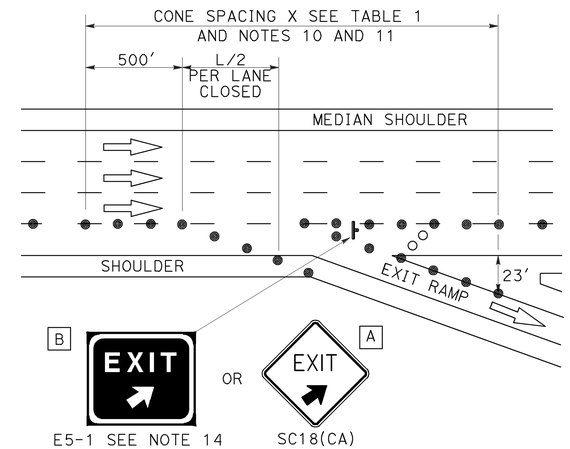
LANE CLOSURE



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

TO ACCOMPANY PLANS DATED 01-21-14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	21	36

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

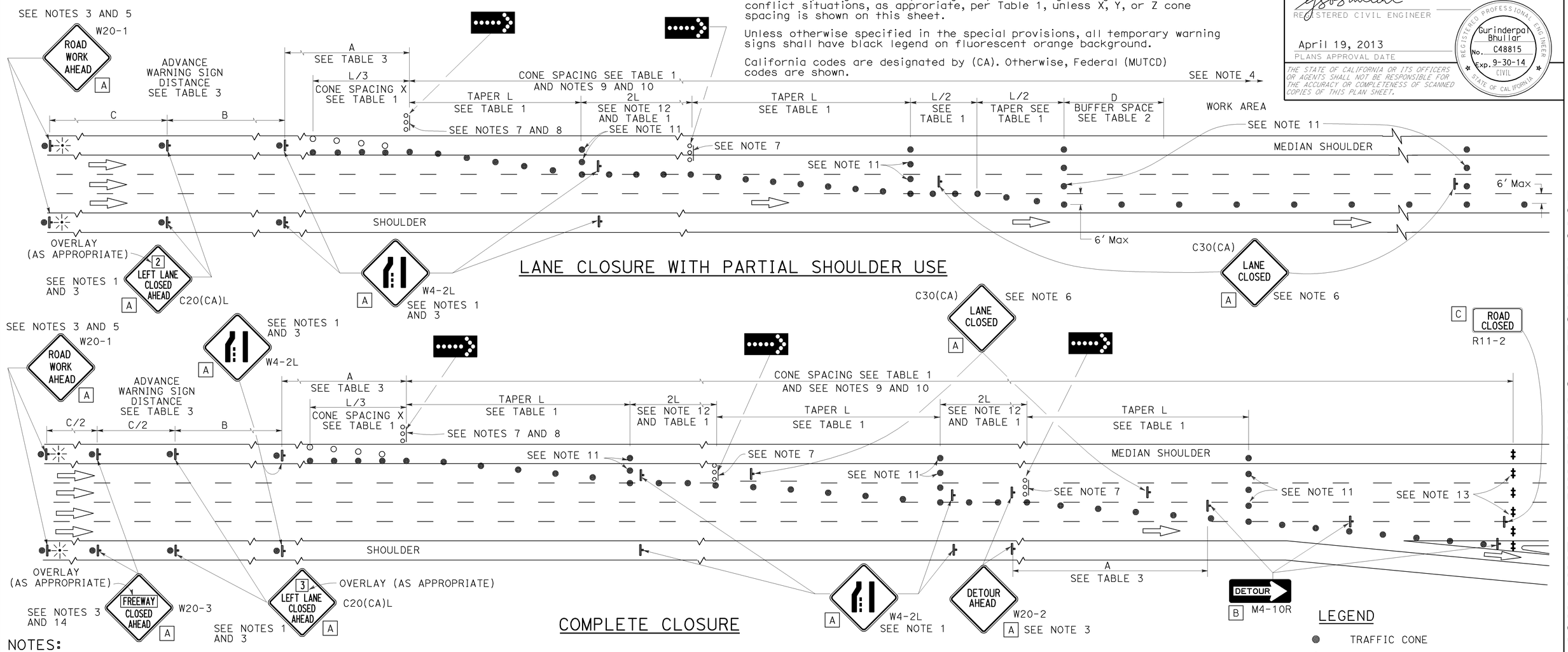
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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 WITH PARTIAL SHOULDER USE

COMPLETE CLOSURE

NOTES:

1. Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R 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. 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.
4. 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.
5. 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.
6. Place a C30(CA) sign every 2000' throughout length of lane closure.
7. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
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. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
10. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
11. 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 With Partial Shoulder Use" 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.
12. 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.
13. A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
14. When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

SIGN PANEL SIZE (Min)

A	48" x 48"
B	48" x 18"
C	48" x 30"

LEGEND

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURES ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10A DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10A DATED MAY 20, 2011 - PAGE 238 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10A

2010 REVISED STANDARD PLAN RSP T10A

12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	22	36

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 01-21-14

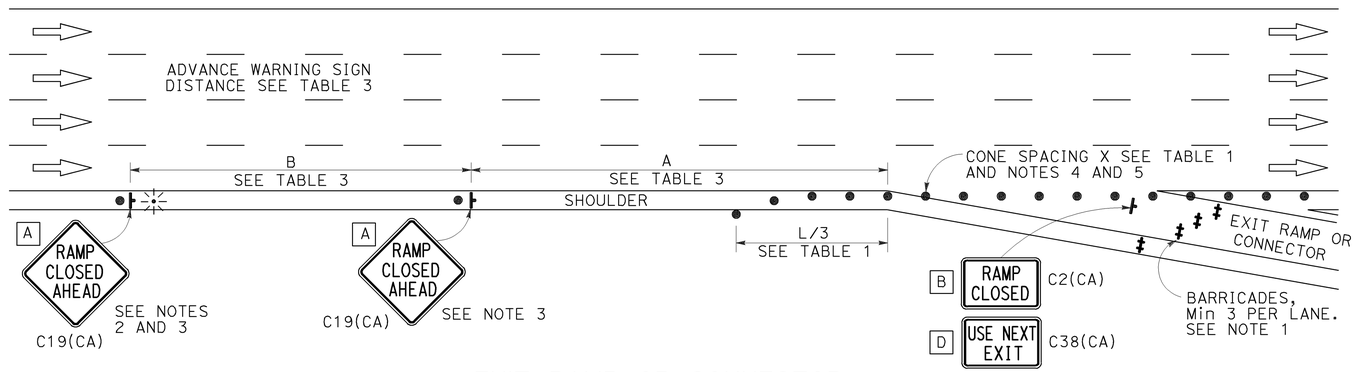
TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

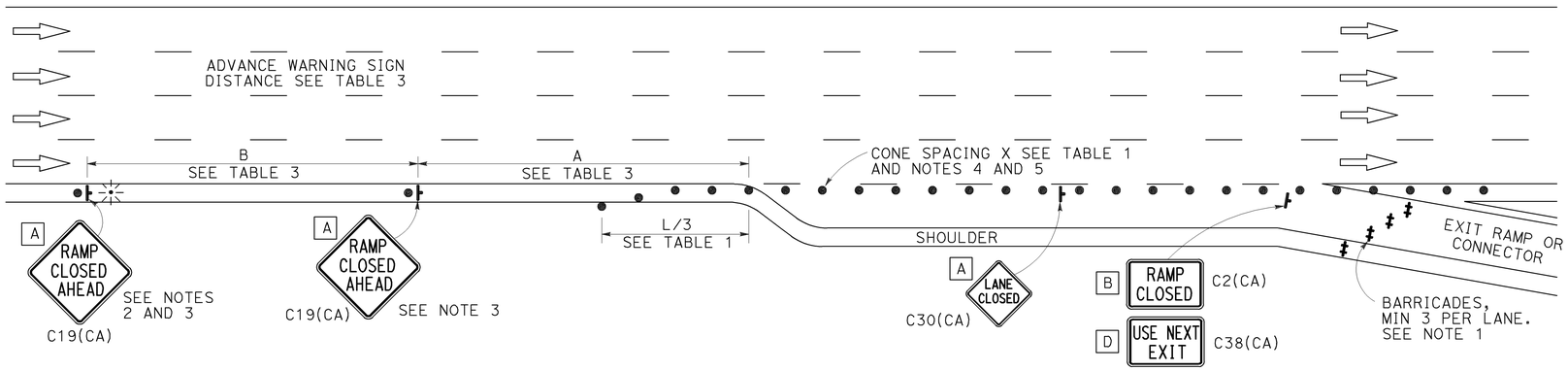
- A 48" × 48"
- B 48" × 30"
- C 36" × 36"
- D 48" × 36"

LEGEND

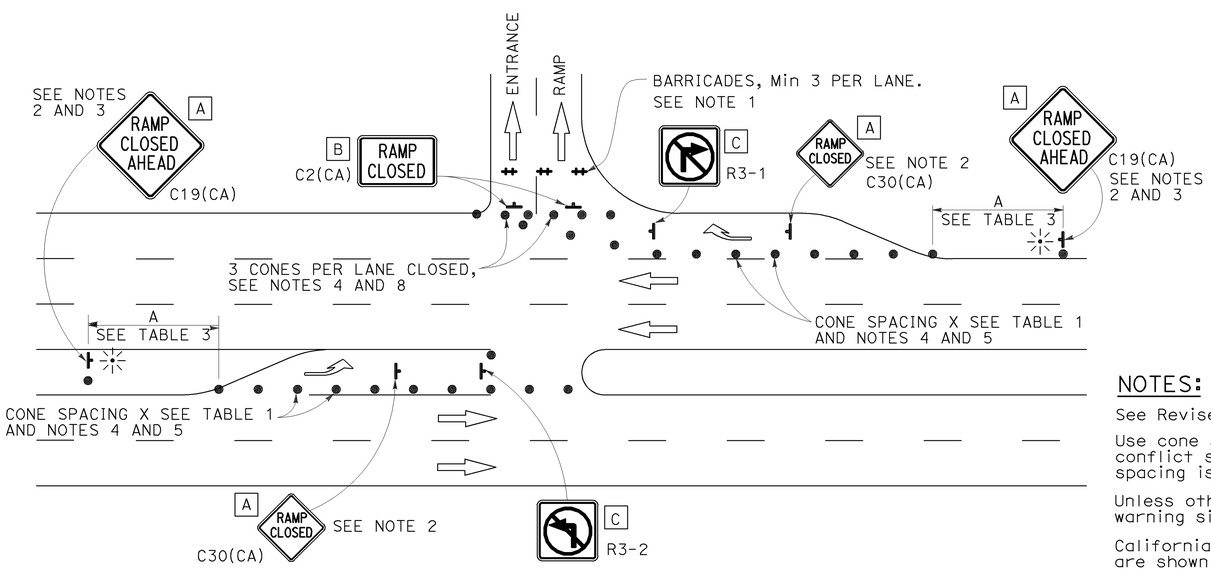
- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- BARRICADES
- PORTABLE FLASHING BEACON



EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS

NOTES:

See Revised Standard Plan RSP T9 for tables.

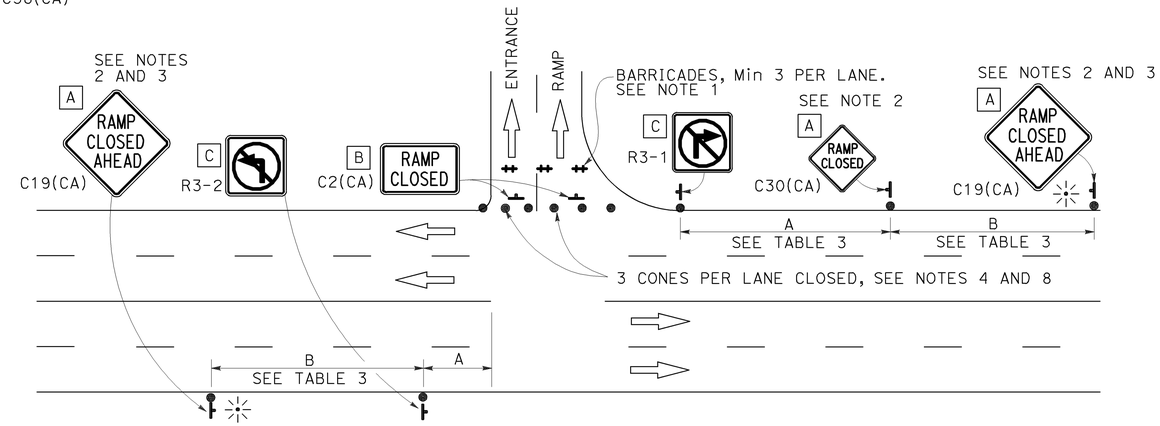
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.

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

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	105	R7.0/R13.2	23	36

REGISTERED CIVIL ENGINEER — DATE 10/16/13

01-21-14
PLANS APPROVAL DATE

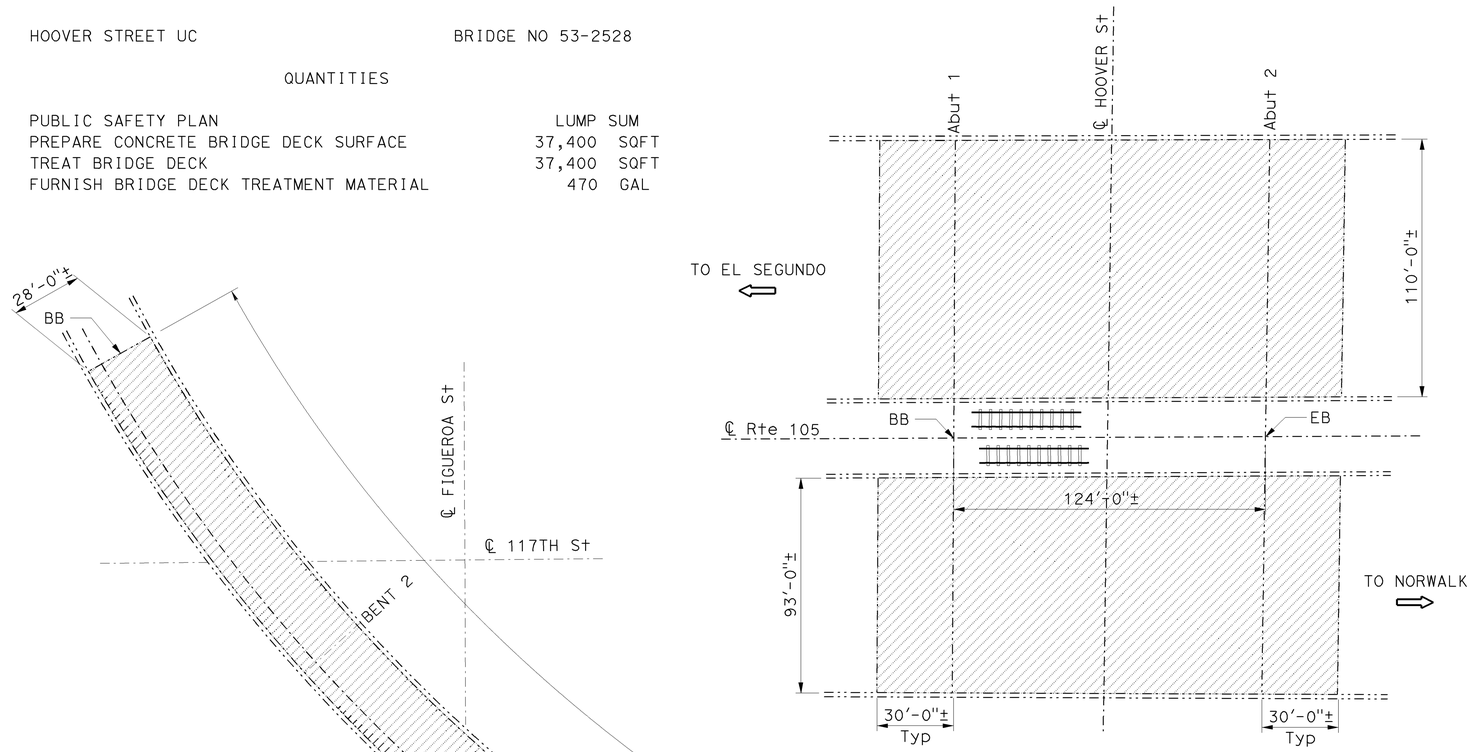
REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

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

HOOVER STREET UC — BRIDGE NO 53-2528

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	37,400	SQFT
TREAT BRIDGE DECK	37,400	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	470	GAL



HOOVER STREET UC

Br No. 53-2528, Rte 105, PM R7.05
1" = 30'

E105-S110 CONNECTOR OC

Br No. 53-2403G, Rte 105, PM 7.20
1" = 30'

E105-S110 CONNECTOR OC — BRIDGE NO 53-2403G

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	20,200	SQFT
TREAT BRIDGE DECK	20,200	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	255	GAL

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

NOTE:

1. For deck damage repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.

STANDARD PLANS DATED 2010

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

STANDARD PLAN SHEET No.

DETAIL No.

LEGEND:

Indicates existing.

Indicates direction of traffic.

Indicates limits of prepare concrete bridge deck surface and approach slab surface where shown and treat existing bridge deck and approach slabs where shown with high molecular weight methacrylate.

Los Angeles Metropolitan Transportation Authority

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	JOINT SEAL ASSEMBLY DETAILS
13	MISCELLANEOUS DETAILS NO. 1
14	MISCELLANEOUS DETAILS NO. 2

TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED		BY	CHECKED
DESIGN	G. Joo	R. Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	T. Dang	G. Joo	LAYOUT	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel	SPECIFICATIONS	Karen Doll	PLANS AND SPECS COMPARED Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 105 BRIDGES
GENERAL PLAN NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1
CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES 05-01-13 08-07-13

SHEET 01 OF 14

FILE => 07-2w0801-a-gp01.dgn

USERNAME => s129239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	24	36

REGISTERED CIVIL ENGINEER 10/16/13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

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ROUTE 105/110 SEPARATION BRIDGE NO 53-2405L

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
RAPID SETTING CONCRETE (PATCH)	1	CF
REMOVE UNSOUND CONCRETE	1	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	167,600	SQFT
TREAT BRIDGE DECK	167,600	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	2,095	GAL

LEGEND:

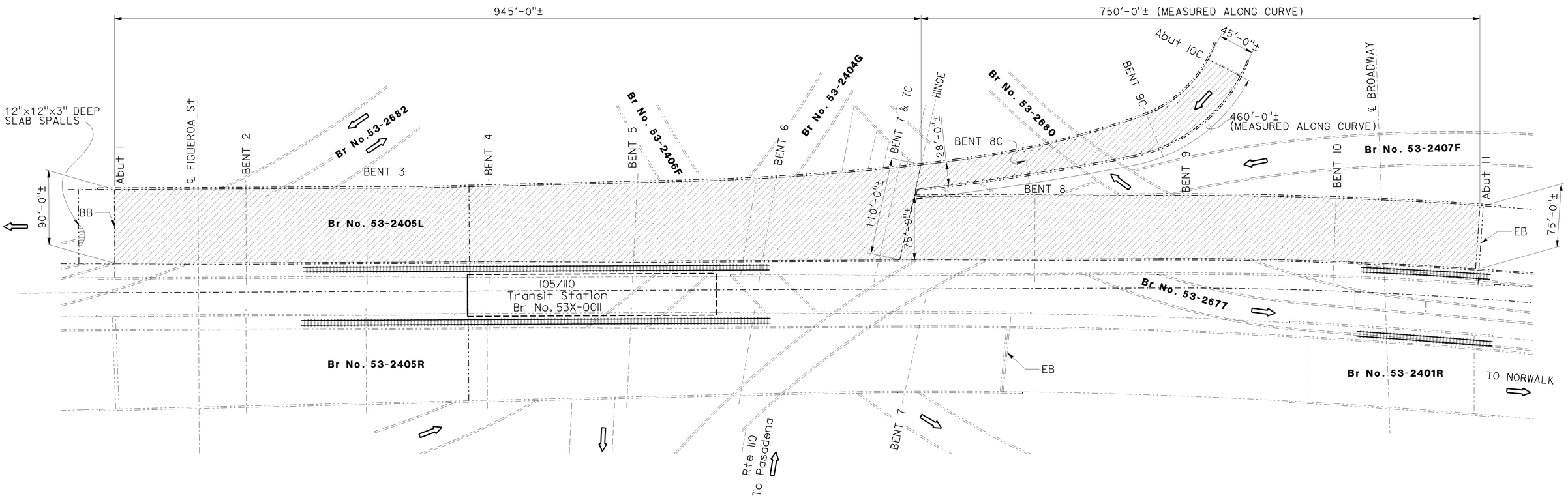
Indicates existing.

Indicates direction of traffic.

Indicates limits of prepare concrete bridge deck surface and approach slab surface where shown and treat existing bridge deck and approach slabs where shown with high molecular weight methacrylate.

Indicates removal of unsound concrete and place rapid setting concrete (patch).

Los Angeles Metropolitan Transportation Authority



ROUTE 105/110 SEPARATION

Br No. 53-2405L, Rte 105, PM R7.26
NO SCALE

NOTE:

1. For deck damage repair details and spall repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	G. Joo	R. Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	T. Dang	G. Joo	LAYOUT	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel	SPECIFICATIONS	Karen Doll	PLANS AND SPECS COMPARED Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 53-2405L
POST MILE R7.26

ROUTE 105 BRIDGES
GENERAL PLAN NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1 CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 05-01-13 08-07-13

SHEET 02 OF 14

FILE => 07-2w0801-a-gp02.dgn

USERNAME => s129239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	25	36

REGISTERED CIVIL ENGINEER — DATE 10/16/13

01-21-14
PLANS APPROVAL DATE

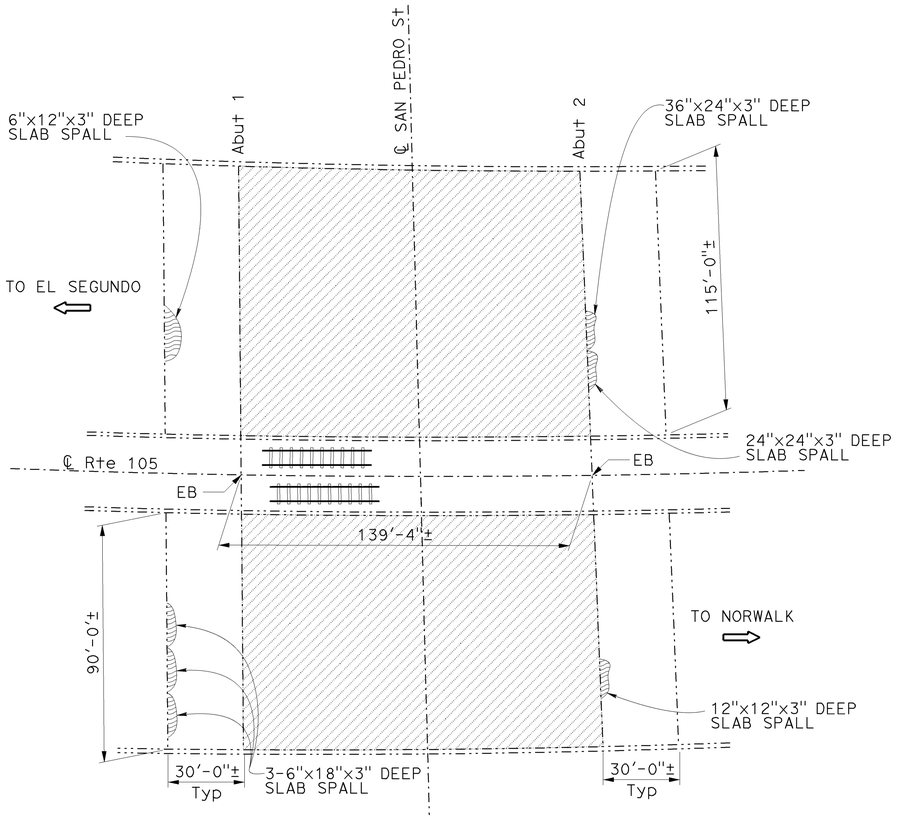
GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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.

SAN PEDRO STREET UC — BRIDGE NO 53-2476

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
RAPID SETTING CONCRETE (PATCH)	5	CF
REMOVE UNSOUND CONCRETE	5	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	28,600	SQFT
TREAT BRIDGE DECK	28,600	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	360	GAL



SAN PEDRO STREET UC

Br No. 53-2476, Rte 105, PM R8.04
1" = 30'

LEGEND:

Indicates existing.

Indicates direction of traffic.

Indicates limits of prepare concrete bridge deck surface and approach slab surface where shown and treat existing bridge deck and approach slabs where shown with high molecular weight methacrylate.

Indicates location of clean expansion joint and placement of new joint seal.

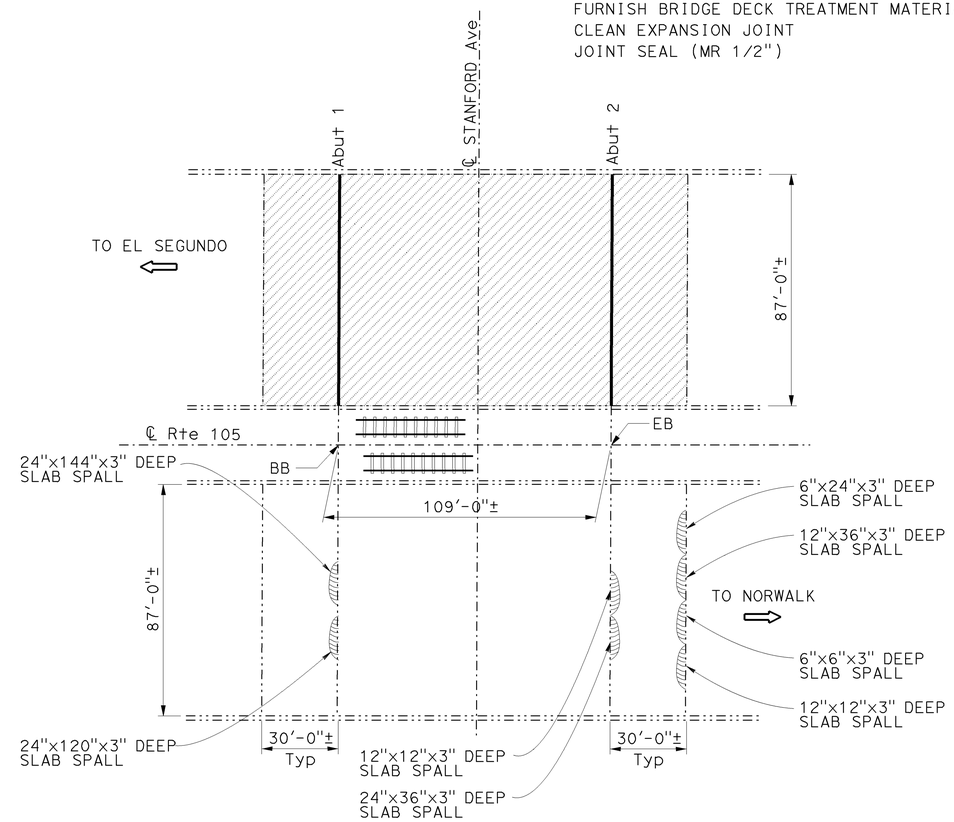
Indicates removal of unsound concrete and place rapid setting concrete patch.

Los Angeles Metropolitan Transportation Authority

STANFORD AVENUE UC — BRIDGE NO 53-2478

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
RAPID SETTING CONCRETE (PATCH)	15	CF
REMOVE UNSOUND CONCRETE	15	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	14,700	SQFT
TREAT BRIDGE DECK	14,700	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	185	GAL
CLEAN EXPANSION JOINT	174	LF
JOINT SEAL (MR 1/2")	174	LF



STANFORD AVENUE UC

Br No. 53-2478, Rte 105, PM R8.46
1" = 30'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

NOTE:

1. For deck damage repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.

TONY D. BRAKE — DESIGN ENGINEER	DESIGN	BY G. Joo	CHECKED R. Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY T. Dang	CHECKED G. Joo	LAYOUT	BY T. Dang — CHECKED G. Joo
	QUANTITIES	BY G. Joo	CHECKED R. Patel	SPECIFICATIONS	BY Karen Doll — PLANS AND SPECS COMPARED Karen Doll

STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE — STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.: Various — POST MILE: Varies

ROUTE 105 BRIDGES
GENERAL PLAN NO. 3

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1
CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 05-01-13 08-07-13

SHEET 03 OF 14

FILE => 07-2w0801-a-gp03.dgn

USERNAME => s13239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	26	36

REGISTERED CIVIL ENGINEER — DATE 10/16/13

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GERALD D. JOO — No. C65380 — Exp. 09/30/15 — CIVIL — STATE OF CALIFORNIA

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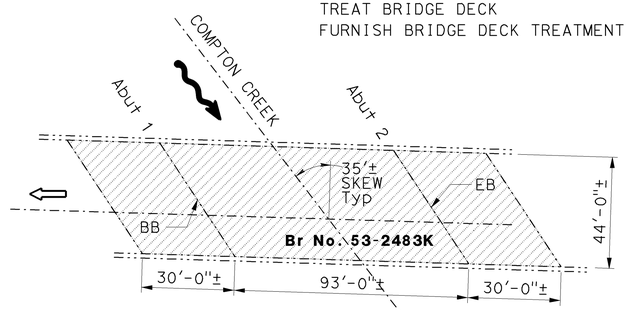
LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and approach slab surface where shown and treat existing bridge deck and approach slabs where shown with high molecular weight methacrylate.
- Indicates location of clean expansion joint and placement of new joint seal.
- Los Angeles Metropolitan Transportation Authority

COMPTON CREEK OFF-RAMP — BRIDGE NO 53-2483K

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	6,800	SQFT
TREAT BRIDGE DECK	6,800	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	85	GAL



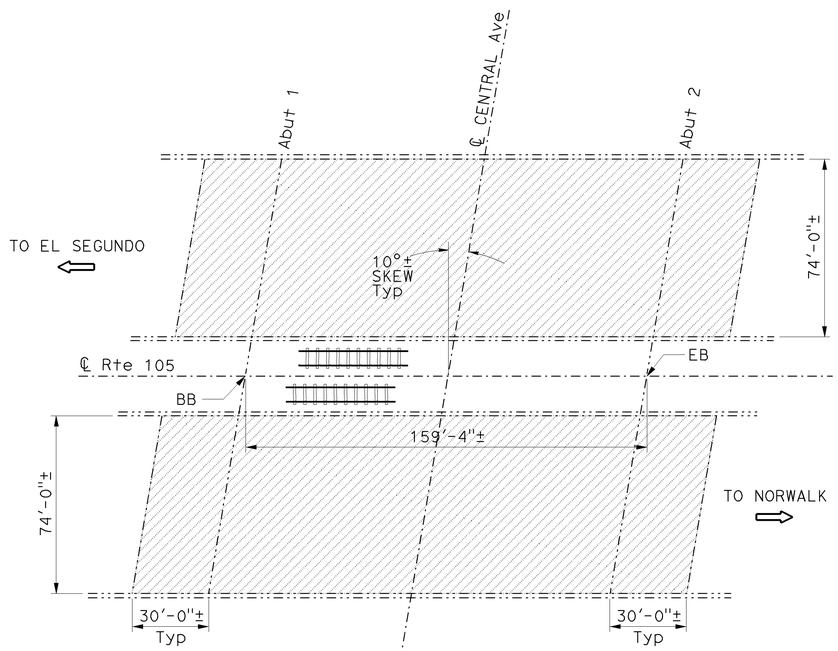
COMPTON CREEK OFF-RAMP

Br No. 53-2483K, Rte 105, PM R8.97
1" = 30'

CENTRAL AVENUE UC — BRIDGE NO 53-2480

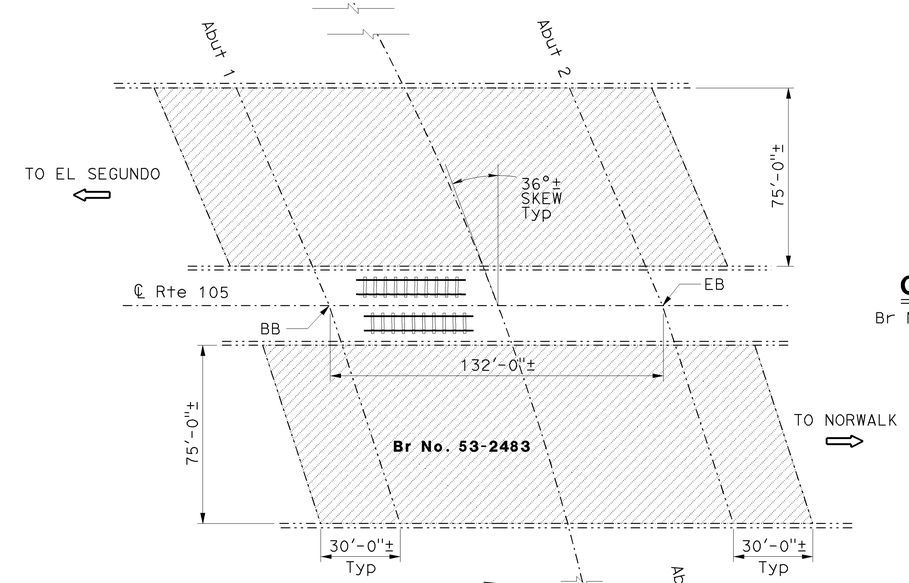
QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	32,500	SQFT
TREAT BRIDGE DECK	32,500	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	410	GAL



CENTRAL AVENUE UC

Br No. 53-2480, Rte 105, PM R8.94
1" = 30'



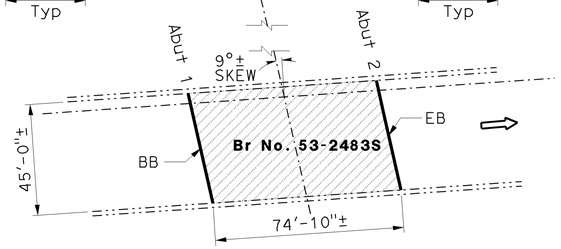
COMPTON CREEK — BRIDGE NO 53-2483

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	28,800	SQFT
TREAT BRIDGE DECK	28,800	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	360	GAL

COMPTON CREEK

Br No. 53-2483, Rte 105, PM R8.98
1" = 30'



COMPTON CREEK ON-RAMP

Br No. 53-2483S, Rte 105, PM R8.99
1" = 30'

COMPTON CREEK ON-RAMP — BRIDGE NO 53-2483S

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	3,400	SQFT
TREAT BRIDGE DECK	3,400	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	45	GAL
CLEAN EXPANSION JOINT	90	LF
JOINT SEAL (MR 1/2")	90	LF

NOTE:
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NOTE:

1. For deck damage repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.

TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED
DESIGN	G. Joo	R. Patel
DETAILS	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel

LOAD FACTOR DESIGN — LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD

	BY	CHECKED
LAYOUT	T. Dang	G. Joo
SPECIFICATIONS	Karen Doll	PLANS AND SPECS COMPARED Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 105 BRIDGES
GENERAL PLAN NO. 4

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1
CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 05-01-13 08-01-13 08-12-13

SHEET 04 OF 14

FILE => 07-2w0801-a-gp04.dgn

USERNAME => s13293239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	27	36

REGISTERED CIVIL ENGINEER — DATE 10/16/13

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

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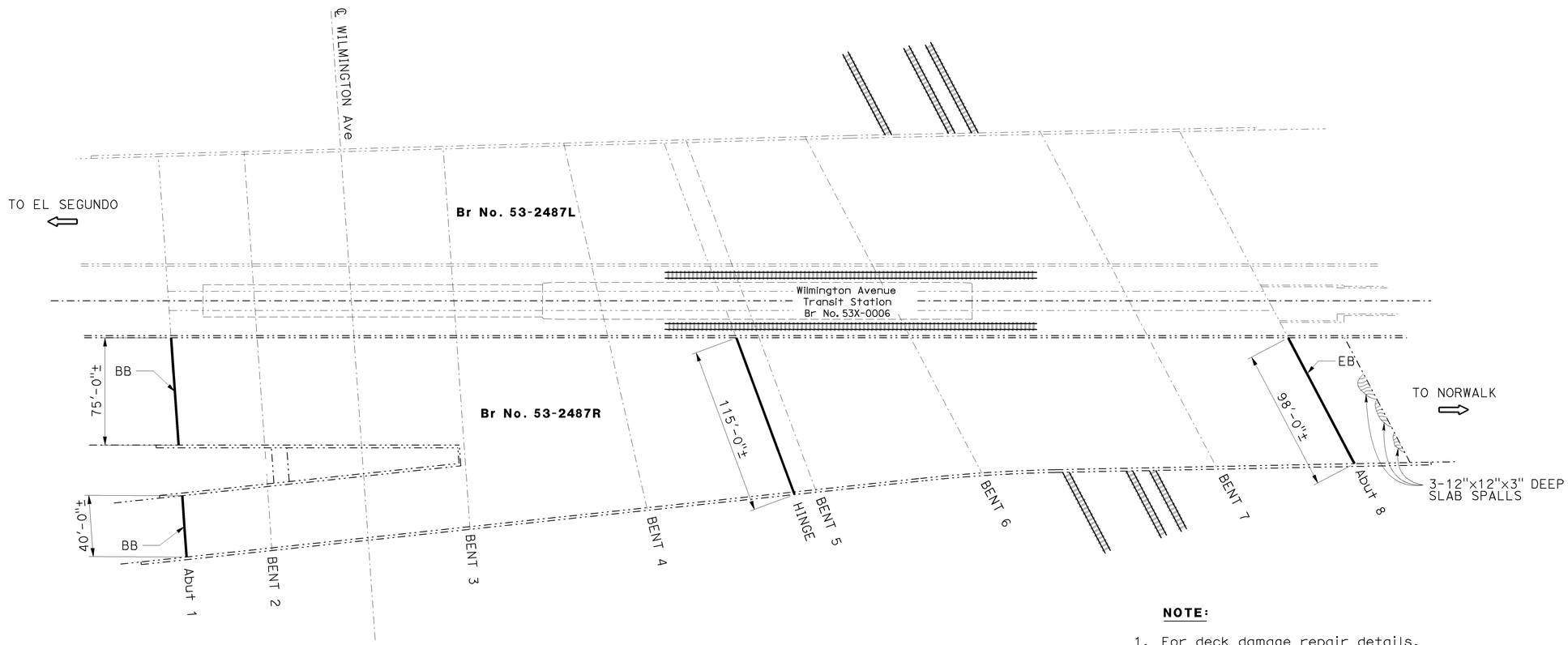
WILLOWBROOK OH — BRIDGE NO 53-2487R

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	1	CF
REMOVE UNSOUND CONCRETE	1	CF
CLEAN EXPANSION JOINT	328	LF
JOINT SEAL (MR 1 1/2")	328	LF

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates location of clean expansion joint and placement of new joint seal.
- Indicates removal of unsound concrete and place rapid setting concrete (patch).
- Los Angeles Metropolitan Transportation Authority



NOTE:

1. For deck damage repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.

WILLOWBROOK OH

Br No. 53-2487R, Rte 105, PM R9.78
NO SCALE

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED		BY	CHECKED
DESIGN	G. Joo	R. Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	T. Dang	G. Joo	LAYOUT	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel	SPECIFICATIONS	Karen Doll	PLANS AND SPECS COMPARED Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 53-2487R
POST MILE R9.78

ROUTE 105 BRIDGES
GENERAL PLAN NO. 5

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1 CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 05-01-13 08-07-13

SHEET 05 OF 14

FILE => 07-2w0801-a-gp05.dgn

USERNAME => s129239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	28	36

REGISTERED CIVIL ENGINEER 10/16/13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

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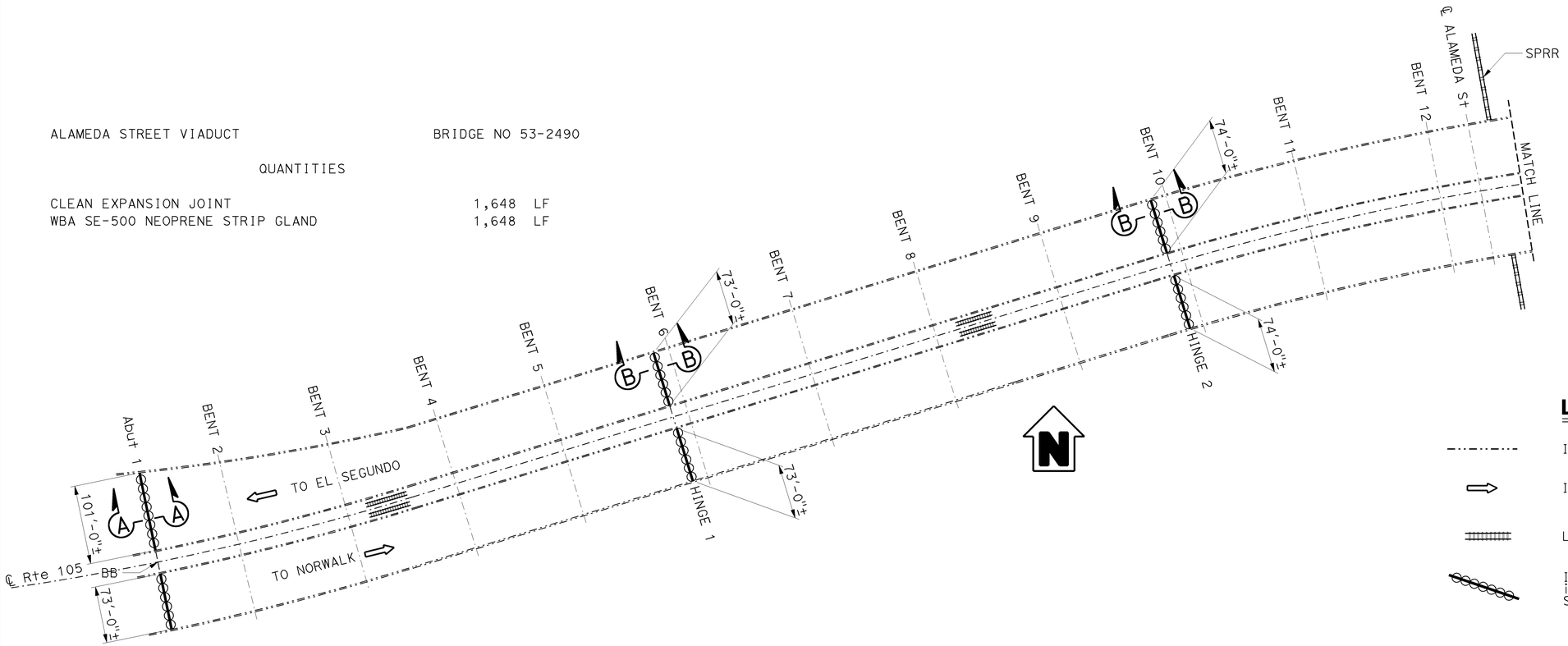
ALAMEDA STREET VIADUCT BRIDGE NO 53-2490

QUANTITIES

CLEAN EXPANSION JOINT	1,648	LF
WBA SE-500 NEOPRENE STRIP GLAND	1,648	LF



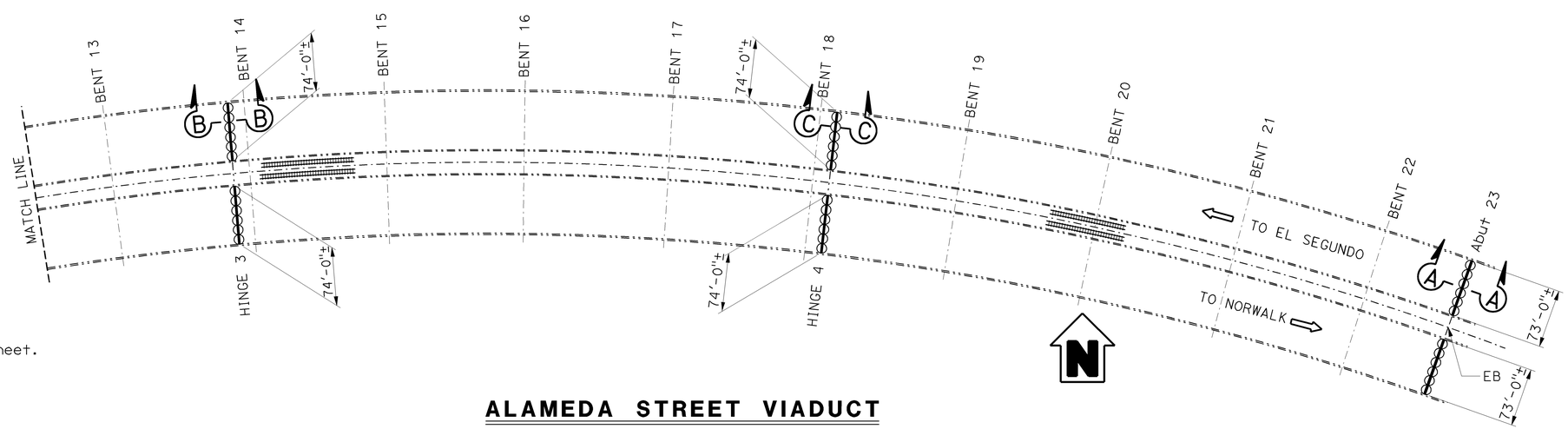
LEGEND:

Indicates existing.

Indicates direction of traffic.

Los Angeles Metropolitan Transportation Authority

Indicates removal and replacement of neoprene gland in existing Watson Bowman Expansion Joint. See "JOINT SEAL ASSEMBLY DETAILS" sheet.



NOTE:

1. For joint seal assembly details, see "JOINT SEAL ASSEMBLY DETAILS NO. 1" sheet.

ALAMEDA STREET VIADUCT

Br No. 53-2490, Rte 105, PM R10.25
1" = 80'

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	G. Joo	R. Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	T. Dang	G. Joo	LAYOUT	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel	SPECIFICATIONS	Karen Doll	PLANS AND SPECS COMPARED Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 53-2490
POST MILE R10.25

ROUTE 105 BRIDGES
GENERAL PLAN NO. 6

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1
CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES 05-01-13 08-07-13

SHEET 06 OF 14

FILE => 07-2w0801-a-gp06.dgn

USERNAME => s13239239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	29	36

REGISTERED CIVIL ENGINEER — DATE 10/16/13

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GERALD D. JOO — No. C65380 — Exp. 09/30/15 — CIVIL — STATE OF CALIFORNIA

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LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
- Indicates location of clean expansion joint and placement of new joint seal.
- Indicates removal of unsound concrete and place rapid setting concrete (patch).
- Indicates limits of prepare concrete bridge deck surface furnish and place new ¾" thick min polyester concrete overlay. Prior to placing new polyester concrete overlay, remove unsound concrete and patch with rapid setting concrete. Polyester concrete shall be placed in one lift. Survey grades of the existing bridge deck surface shall be provided prior to placing the polyester overlay.
- Los Angeles Metropolitan Transportation Authority

LONG BEACH BLVD UC WB RAMP — BRIDGE NO 53-2493K

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
RAPID SETTING CONCRETE (PATCH)	50	CF
REMOVE CONCRETE DECK SURFACE	2,220	SQFT
REMOVE UNSOUND CONCRETE	50	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	19,900	SQFT
FURNISH POLYESTER CONCRETE OVERLAY	1,245	CF
PLACE POLYESTER CONCRETE OVERLAY	19,900	SQFT
CLEAN EXPANSION JOINT	111	LF
JOINT SEAL (MR 1")	74	LF
JOINT SEAL (MR 1 1/2")	37	LF

LONG BEACH BLVD UC — BRIDGE NO 53-2493

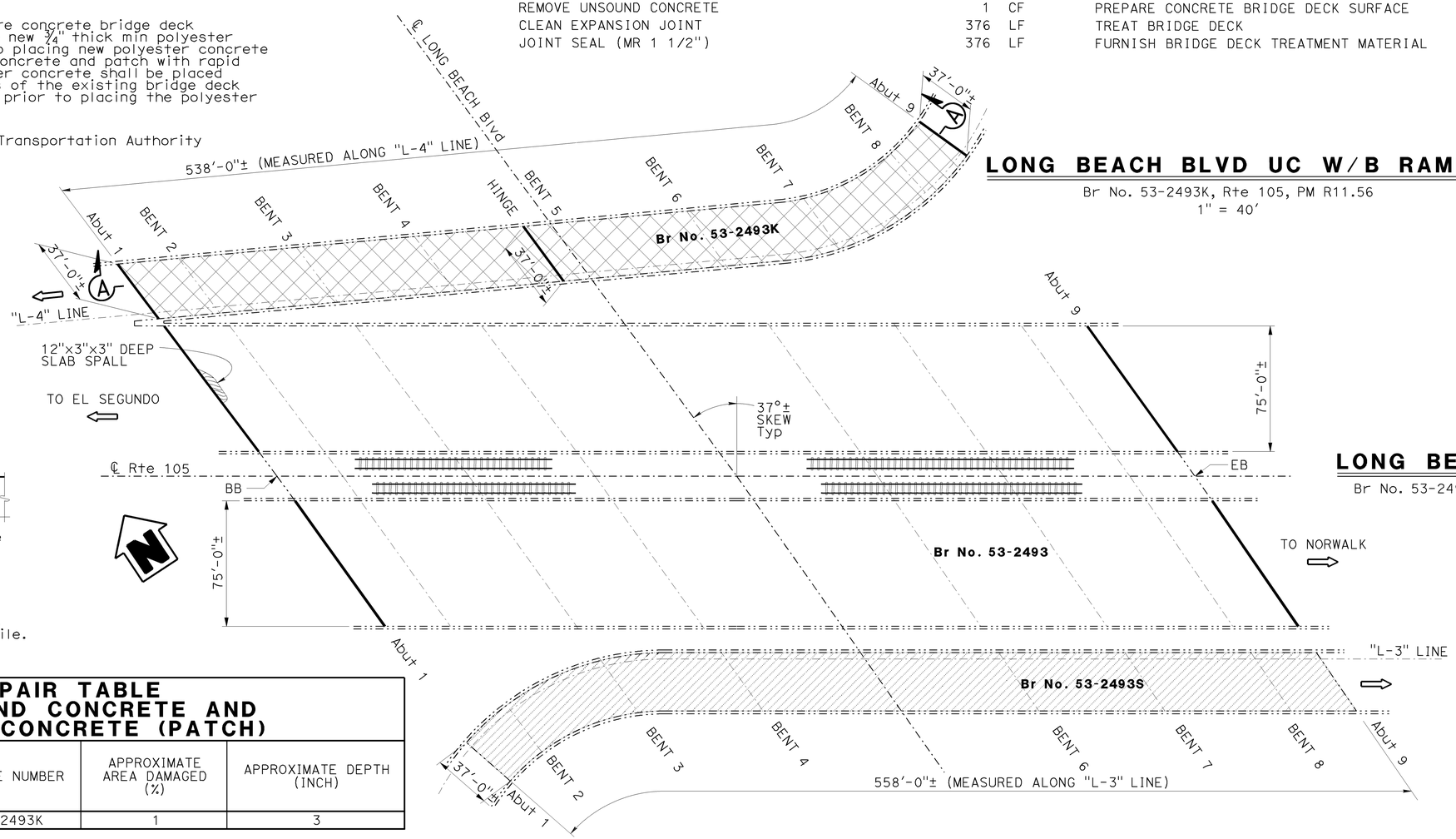
QUANTITIES

RAPID SETTING CONCRETE (PATCH)	1	CF
REMOVE UNSOUND CONCRETE	1	CF
CLEAN EXPANSION JOINT	376	LF
JOINT SEAL (MR 1 1/2")	376	LF

LONG BEACH BLVD UC EB RAMP — BRIDGE NO 53-2493S

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	20,700	SQFT
TREAT BRIDGE DECK	20,700	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	260	GAL



LONG BEACH BLVD UC W/B RAMP

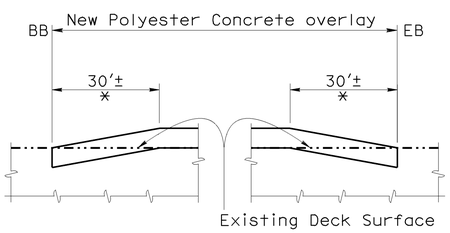
Br No. 53-2493K, Rte 105, PM R11.56
1" = 40'

LONG BEACH BLVD UC

Br No. 53-2493, Rte 105, PM R11.56
1" = 40'

LONG BEACH BLVD UC E/B RAMP

Br No. 53-2493S, Rte 105, PM R11.56
1" = 40'



SECTION A-A

NO SCALE

* Limits of remove concrete deck surface 0 inch min to ¾ inch maximum full width. Grind flush to conform with existing profile.

DECK REPAIR TABLE
REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE (PATCH)

BRIDGE NAME	BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (%)	APPROXIMATE DEPTH (INCH)
LONG BEACH BLVD UC W/B RAMP	53-2493K	1	3

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	G. Joo	R. Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	T. Dang	G. Joo	LAYOUT	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel	SPECIFICATIONS	Karen Doll	PLANS AND SPECS COMPARED Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 105 BRIDGES
GENERAL PLAN NO. 7

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1
CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 05-01-13 08-07-13

SHEET 07 OF 14

FILE => 07-2w0801-a-gp07.dgn

USERNAME => s129239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	30	36

REGISTERED CIVIL ENGINEER 10/16/13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

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LEGEND:

Indicates existing.

Indicates direction of traffic.

Indicates limits of prepare concrete bridge deck surface and approach slab surface where shown and treat existing bridge deck and approach slabs where shown with high molecular weight methacrylate.

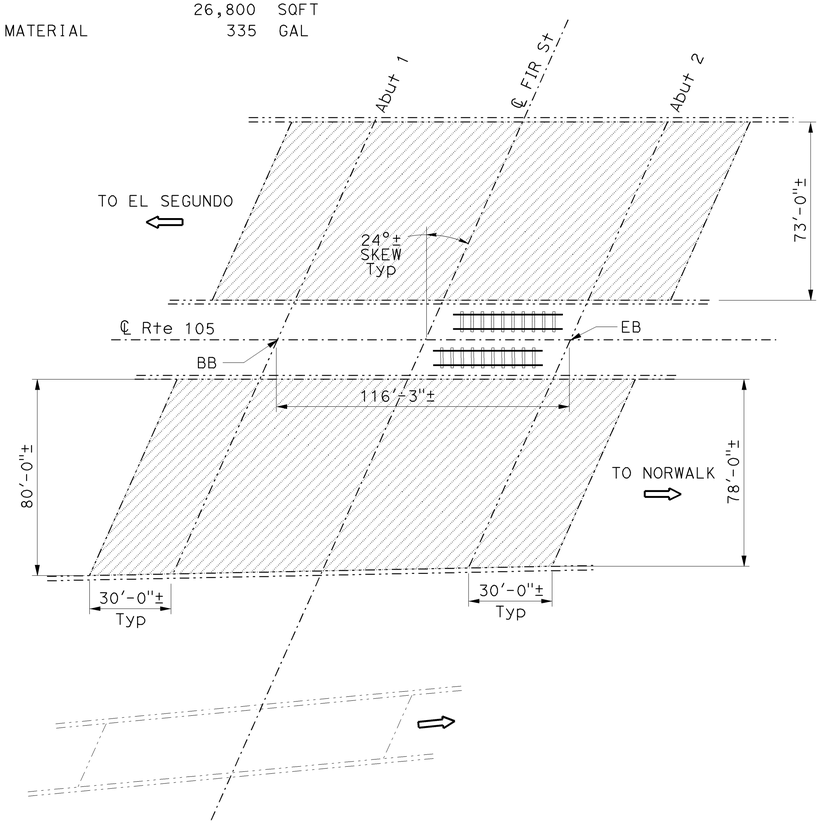
Indicates location of clean expansion joint and placement of new joint seal.

Los Angeles Metropolitan Transportation Authority

FIR STREET UC BRIDGE NO 53-2494

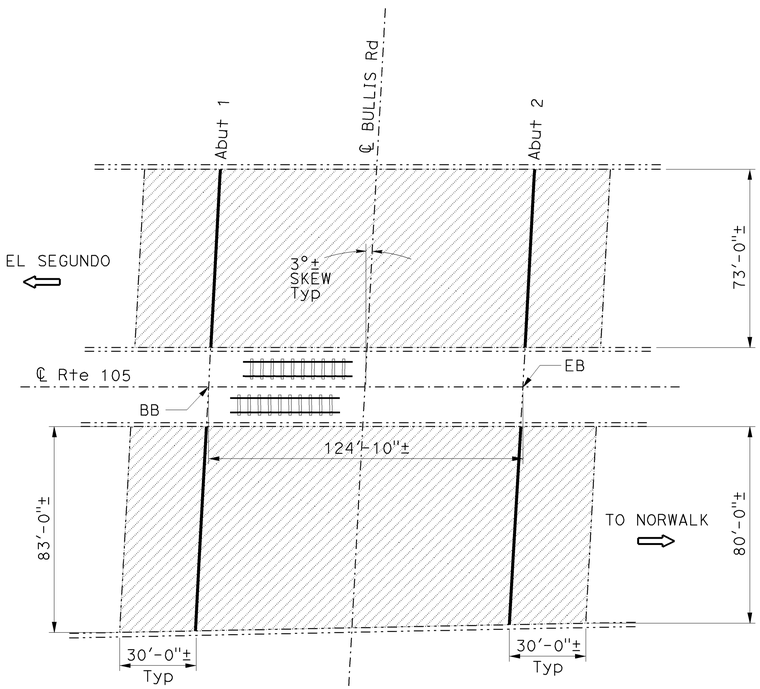
QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	26,800	SQFT
TREAT BRIDGE DECK	26,800	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	335	GAL



FIR STREET UC

Br No. 53-2494, Rte 105, PM R11.91
1" = 30'



BULLIS ROAD UC

Br No. 53-2495, Rte 105, PM R12.07
1" = 30'

NOTE:

1. For deck damage repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.

BULLIS ROAD UC BRIDGE NO 53-2495

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	28,600	SQFT
TREAT BRIDGE DECK	28,600	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	360	GAL
CLEAN EXPANSION JOINT	309	LF
JOINT SEAL (MR 1")	309	LF

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED
DESIGN	G. Joo	R. Patel
DETAILS	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel

LOAD FACTOR DESIGN — LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
LAYOUT — BY T. Dang — CHECKED G. Joo
SPECIFICATIONS — BY Karen Doll — PLANS AND SPECS COMPARED Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 105 BRIDGES
GENERAL PLAN NO. 8

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1 CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES 05-01-13 08-07-13

SHEET 08 OF 14

FILE => 07-2w0801-a-gp08.dgn

USERNAME => s129239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	31	36

REGISTERED CIVIL ENGINEER — DATE 10/16/13

01-21-14
PLANS APPROVAL DATE

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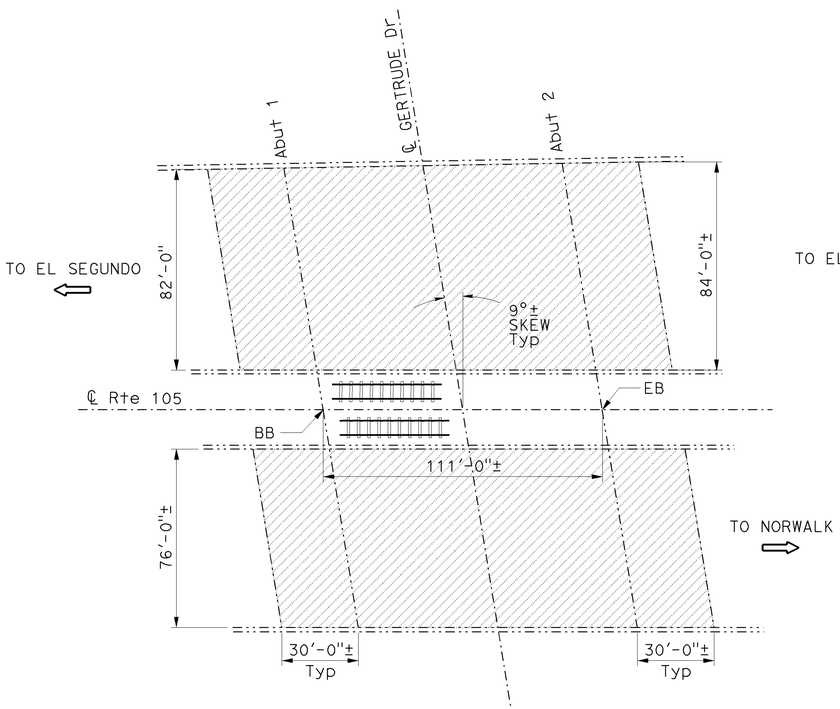
REGISTERED PROFESSIONAL ENGINEER — GERALD D. JOO — No. C65380 — Exp. 09/30/15 — CIVIL — STATE OF CALIFORNIA

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and approach slab surface where shown and treat existing bridge deck and approach slabs where shown with high molecular weight methacrylate.
- Los Angeles Metropolitan Transportation Authority

NOTE:

1. For deck damage repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.



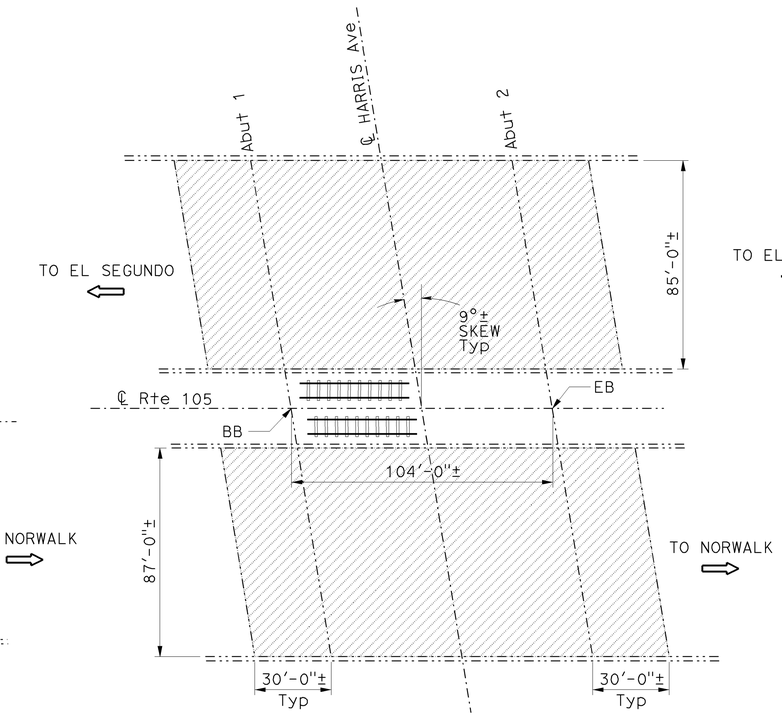
GERTRUDE DRIVE UC

Br No. 53-2496, Rte 105, PM R12.30
1" = 30'

GERTRUDE DRIVE UC — BRIDGE NO 53-2496

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	27,200	SQFT
TREAT BRIDGE DECK	27,200	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	340	GAL



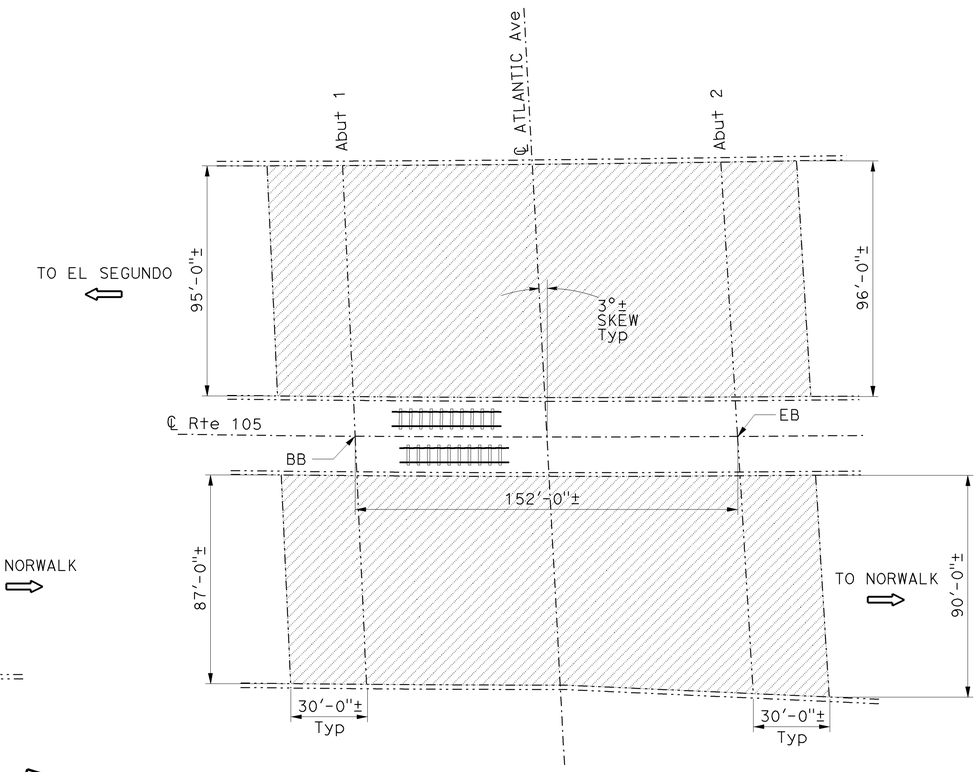
HARRIS AVENUE UC

Br No. 53-2497, Rte 105, PM R12.58
1" = 30'

HARRIS AVENUE UC — BRIDGE NO 53-2497

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	28,200	SQFT
TREAT BRIDGE DECK	28,200	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	355	GAL



ATLANTIC AVENUE UC

Br No. 53-2452, Rte 105, PM R12.88
1" = 30'

ATLANTIC AVENUE UC — BRIDGE NO 53-2452

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	39,000	SQFT
TREAT BRIDGE DECK	39,000	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	490	GAL

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	G. Joo	R. Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	T. Dang	G. Joo	LAYOUT	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel	SPECIFICATIONS	Karen Doll	PLANS AND SPECS COMPARED Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 105 BRIDGES
GENERAL PLAN NO. 9

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1
CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES 05-01-13 08-07-13

SHEET 09 OF 14

FILE => 07-2w0801-a-gp09.dgn

USERNAME => s129239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	32	36

REGISTERED CIVIL ENGINEER 10/16/13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

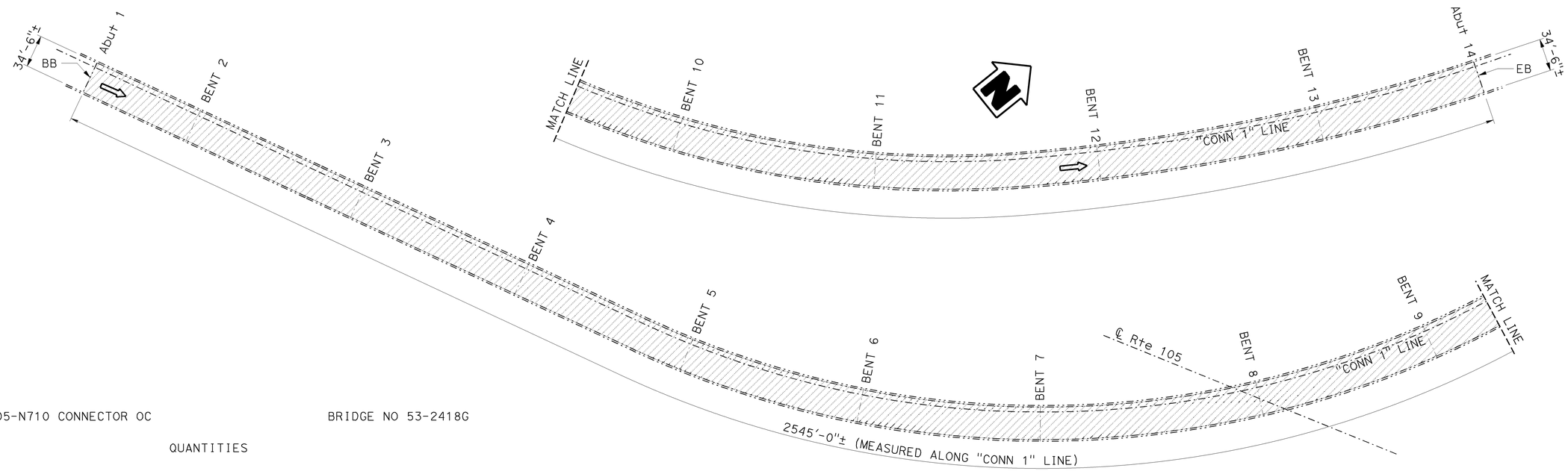
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

LEGEND:

Indicates existing.

Indicates direction of traffic.

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



E105-N710 CONNECTOR OC BRIDGE NO 53-2418G

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	87,900	SQFT
TREAT BRIDGE DECK	87,900	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	1,100	GAL

E105-N710 CONNECTOR OC

Br No. 53-2418G, Rte 105, PM R13.14
1" = 60'

NOTE:

1. For deck damage repair details and spall repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	G. Joo	R. Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	T. Dang	G. Joo	LAYOUT	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel	SPECIFICATIONS	Karen Doll	Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 53-2418G
POST MILE R13.14

ROUTE 105 BRIDGES
GENERAL PLAN NO. 10

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1 CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES 05-01-13 08-07-13

SHEET 10 OF 14

FILE => 07-2w0801-a-gp10.dgn

USERNAME => s129239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	33	36

REGISTERED CIVIL ENGINEER 10/16/13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

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LEGEND:

Indicates existing.

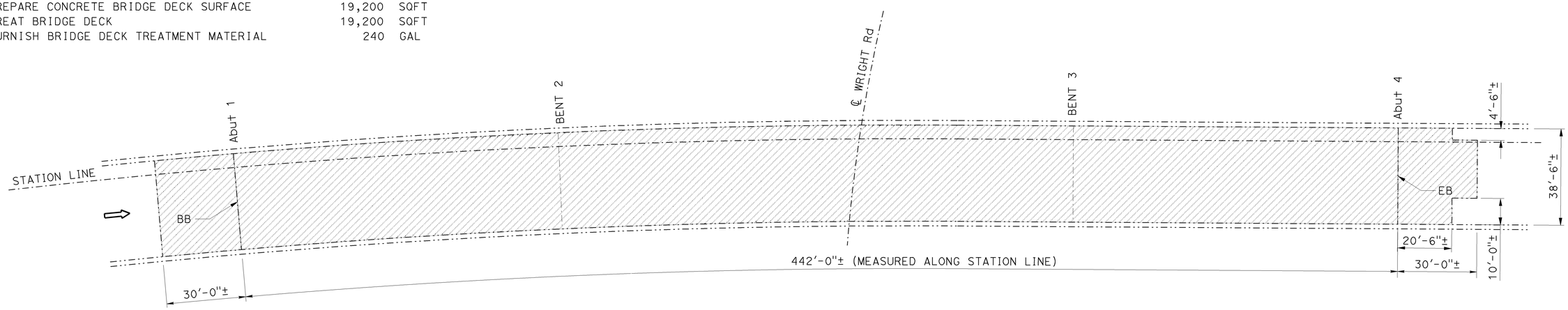
Indicates direction of traffic.

Indicates limits of prepare concrete bridge deck surface and approach slab surface where shown and treat existing bridge deck and approach slabs where shown with high molecular weight methacrylate.

E105-S710/ WRIGHT RD OC BRIDGE NO 53-2610G

QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	19,200	SQFT
TREAT BRIDGE DECK	19,200	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	240	GAL



E105-S710/ WRIGHT ROAD OC

Br No. 53-2610G, Rte 105, PM R13.14
1" = 20'

NOTE:

1. For deck damage repair details, see "MISCELLANEOUS DETAILS NO. 2" sheet.

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED			
DESIGN	G. Joo	R. Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	T. Dang	G. Joo	LAYOUT	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel	SPECIFICATIONS	Karen Doll	Karen Doll

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 53-2610G
POST MILE R13.14

ROUTE 105 BRIDGES
GENERAL PLAN NO. 11

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1 CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES 05-01-13 08-07-13

SHEET 11 OF 14

FILE => 07-2w0801-a-gp11.dgn

USERNAME => s123239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	34	36

REGISTERED CIVIL ENGINEER 10/16/13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

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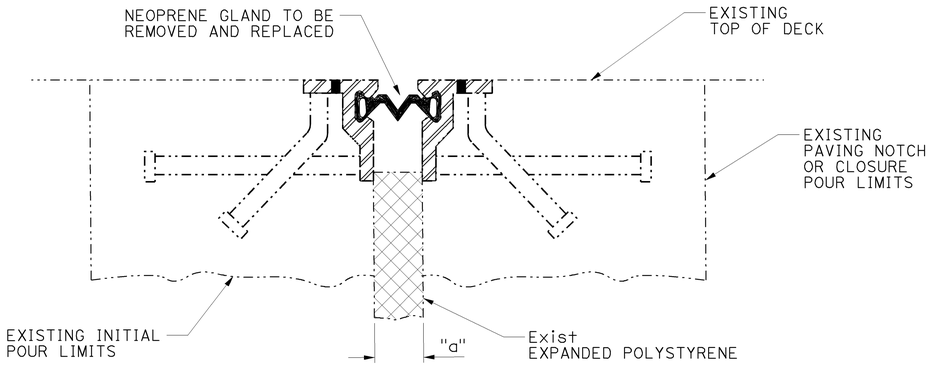
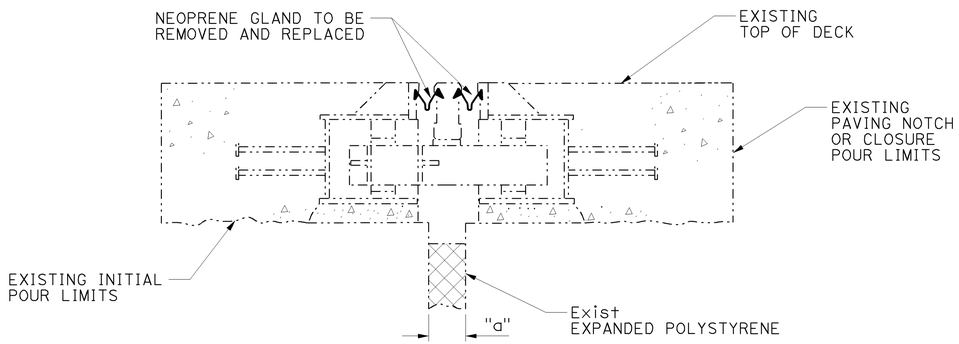


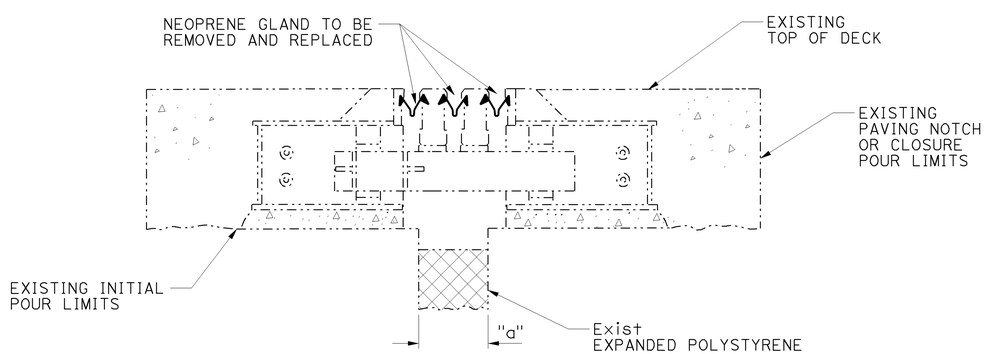
SECTION A-A

NO SCALE
(Abut 1 & Abut 23 - WEST BOUND & EAST BOUND)
WATSON BOWMAN STRIP SEAL ASSEMBLY WITH
MODEL SE-500 NEOPRENE GLAND.



SECTION B-B

NO SCALE
(HINGE 1 & HINGE 2 & HINGE 3 - WEST BOUND & EAST BOUND)
WATSON BOWMAN STM-600 MODULAR EXPANSION JOINT ASSEMBLY
WITH MODEL SE-500 NEOPRENE GLANDS.



SECTION C-C

NO SCALE
(HINGE 4 - WEST BOUND & EAST BOUND)
WATSON BOWMAN STM-900 MODULAR EXPANSION JOINT ASSEMBLY
WITH MODEL SE-500 NEOPRENE GLANDS.

JOINT SEAL ASSEMBLY DIMENSIONS

LOCATION	MINIMUM "MR" (INCHES)	SKEW	"a" Dimension		
			Winter	Spring/Fall	Summer
ABUT 1	3	0	1½"	¾"	1¼"
HINGE 1	6	0	3"	1½"	2"
HINGE 2	6	0	3"	1½"	2"
HINGE 3	6	0	3½"	2"	2½"
HINGE 4	7	0	3"	1½"	2½"
ABUT 23	3	0	1½"	¾"	1¼"

NOTE:
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	BY	CHECKED
DESIGN	G. Joo	R. Patel
DETAILS	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 53-2490
POST MILE R10.25

ROUTE 105 BRIDGES
JOINT SEAL ASSEMBLY DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1
CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 05-01-13 08-07-13

SHEET 12 OF 14

FILE => 07-2w0801-b-jtsa.dgn

USERNAME => s129239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	35	36

REGISTERED CIVIL ENGINEER — DATE 10/16/13

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

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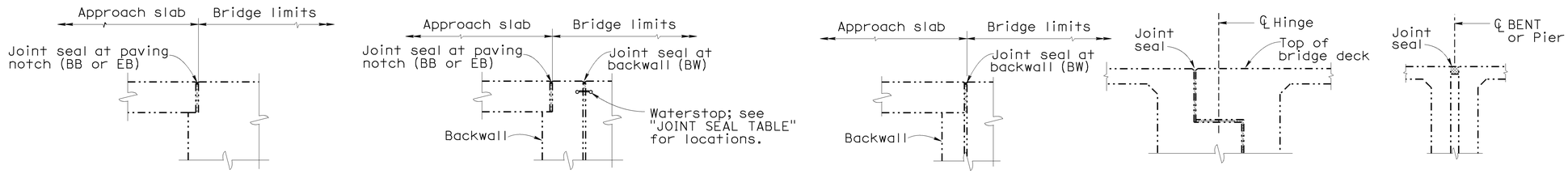


DIAPHRAGM ABUTMENT — ABUTMENT WITH BACKWALL AND PAVING NOTCH — ABUTMENT WITH BACKWALL — HINGE — BENT OR PIER

JOINT SEAL LOCATION

NO SCALE

JOINT SEAL TABLE

BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (INCHES)	APPROX JOINT LENGTH (LF)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCHES)
STANFORD AVENUE UC	53-2478	ABUT 1	PN	1/2	87	NO	12
		ABUT 2	PN	1/2	87	NO	12
COMPTON CREEK ON-RAMP	53-2483S	ABUT 1	PN	1/2	45	NO	12
		ABUT 2	PN	1/2	45	NO	12
WILLOWBROOK OH	53-2487R	ABUT 1	PN	1 1/2	115	NO	12
		HINGE	DJ	1 1/2	115	NO	12
		ABUT 8	PN	1 1/2	98	NO	12
ALAMEDA STREET VIADUCT	53-2490	ABUT 1	--	3*	174	NO	12
		HINGE 1	--	6*	146	NO	12
		HINGE 2	--	6*	148	NO	12
		HINGE 3	--	6*	148	NO	12
		HINGE 4	--	7*	148	NO	12
		ABUT 23	--	3*	146	NO	12
LONG BEACH BLVD UC	53-2493	ABUT 1	BW	1 1/2	188	NO	12
		ABUT 9	BW	1 1/2	188	NO	12
LONG BEACH BLVD UC W/B RAMP	53-2493K	ABUT 1	BW	1	37	NO	12
		HINGE	DJ	1 1/2	37	YES	12
		ABUT 9	BW	1	37	NO	12
BULLIS ROAD UC	53-2495	ABUT 1	PN	1	156	NO	12
		ABUT 2	PN	1	153	NO	12

NOTES:
THE CONTRACTOR MUST MATCH THE EXISTING JOINT SEAL TYPE CORRECTLY UNLESS DIRECTED TO DO SO OTHERWISE BY THE ENGINEER OR AS INDICATED ELSEWHERE IN THESE PLANS.

PN = PAVING NOTCH
DJ = DECK JOINT
BW = BACKWALL
* = REPLACE NEOPRENE GLAND IN EXISTING JOINT SEAL ASSEMBLY.

NOTES:

The following notes apply to JOINT SEAL TYPE A:

Install Joint Seal (MR = 1/2") or Silicone Joint Seal 3" up into curb or barrier rail on the low side of the deck where deck joint aligns with curb or barrier rail joint.

For details not shown see Standard Plans B6-21 sheet.

The following notes apply to JOINT SEAL TYPE B:

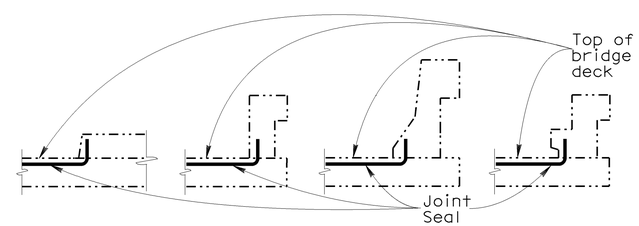
1) Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.

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 recalculated by the Engineer.

3) W1 shall 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 3.0 PSI.

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

For details not shown see Standard Plans B6-21 sheet.



BARRIER RAIL

JOINT SEAL AT LOW SIDE OF DECK

Note: Details shown for illustration purposes only.

For use only where deck joint matches the sidewalk, curb or barrier rail joint.

NOTE:
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	BY	CHECKED
DESIGN	G. Joo	R. Patel
DETAILS	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.: Various
POST MILE: Varies

ROUTE 105 BRIDGES
MISCELLANEOUS DETAILS NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1
CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 05-01-13 08-07-13

SHEET 13 OF 14

FILE => 07-2w0801-c-miscdts01.dgn

USERNAME => s129239 DATE PLOTTED => 06-NOV-2013 TIME PLOTTED => 11:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R7.0/R13.2	36	36

REGISTERED CIVIL ENGINEER 10/16/13 DATE

01-21-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GERALD D. JOO No. C65380 Exp. 09/30/15 CIVIL STATE OF CALIFORNIA

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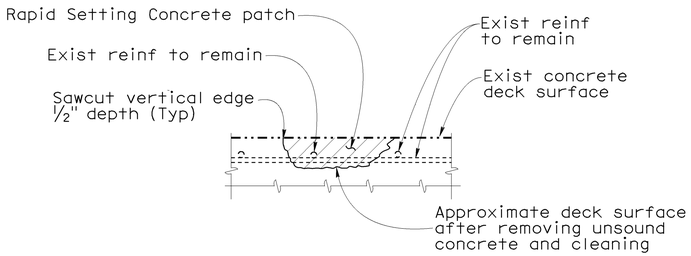
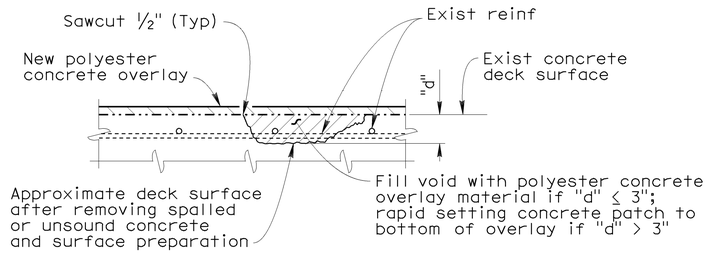


DECK DAMAGE REPAIR DETAIL

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

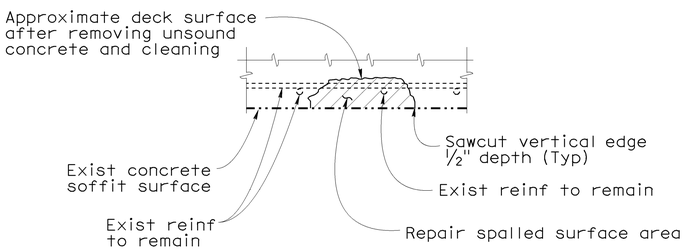


DECK REPAIR DETAIL - OVERLAY

Reinforcement may be encountered during deck concrete removal.

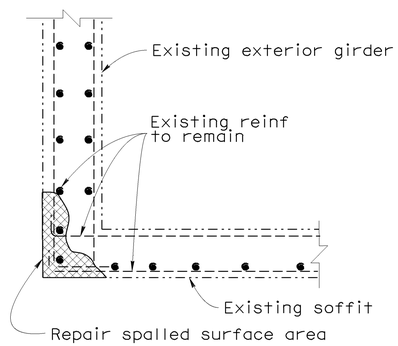
DECK AND SPALL REPAIR NOTES:

1. Existing reinforcement shall be protected in place during unsound concrete removal and patching operations.
2. It is responsibility of the Contractor to repair any reinforcement that is accidently cut by saw cutting operations.
3. When existing transverse reinforcement is exposed in the deck surface, saw cutting may be waived with the approval of the Engineer.
4. The saw cut depth shall not exceed ½ inch or the concrete cover over the top steel reinforcing bars, whichever is less.
5. Remove unsound Portland Cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original deck surface with rapid setting concrete patch.



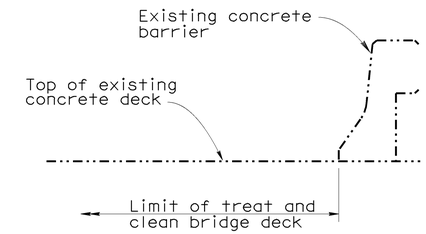
SOFFIT REPAIR DETAIL

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

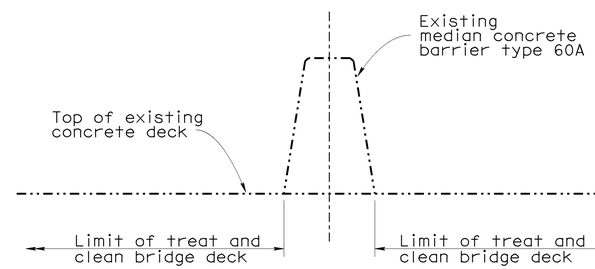


SPALLED SURFACE AREA DETAIL

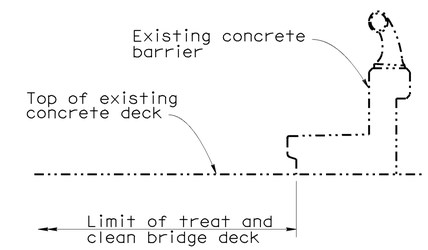
Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.



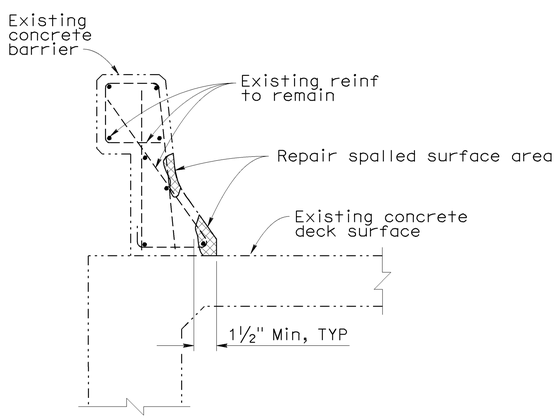
EOD BARRIER



MEDIAN BARRIER

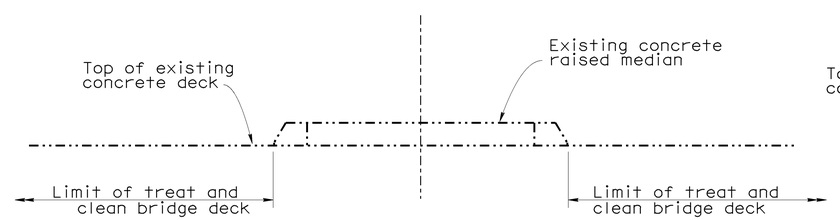


SIDEWALK BARRIER TYPE 2

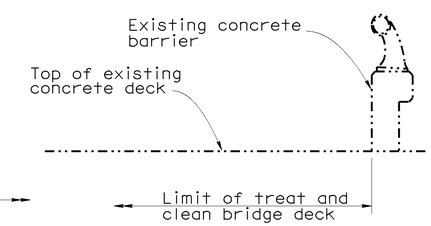


CONCRETE BARRIER SPALL REPAIR DETAIL

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



RAISED MEDIAN



SIDEWALK BARRIER TYPE 1

TYPICAL LIMITS OF DECK WORK

NO SCALE

NOTE:
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	BY	CHECKED
DESIGN	G. Joo	R. Patel
DETAILS	T. Dang	G. Joo
QUANTITIES	G. Joo	R. Patel

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 105 BRIDGES
MISCELLANEOUS DETAILS NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000096 1
CONTRACT NO.: 07-2W0804

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES 05-01-13 08-07-13

SHEET 14 OF 14

FILE => 07-2w0801-c-miscdts02.dgn

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