ACNHP-X037(176)E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	1	41

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-5	CONSTRUCTION AREA SIGNS
6-11	TRAFFIC HANDLING DETAILS
12-14	PAVEMENT DELINEATION QUANTITIES
15-25	REVISED STANDARD PLANS

STRUCTURE PLANS

26-41	ROUTES 1, 10, 405 BRIDGES

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

STATE OF CALIFORNIA

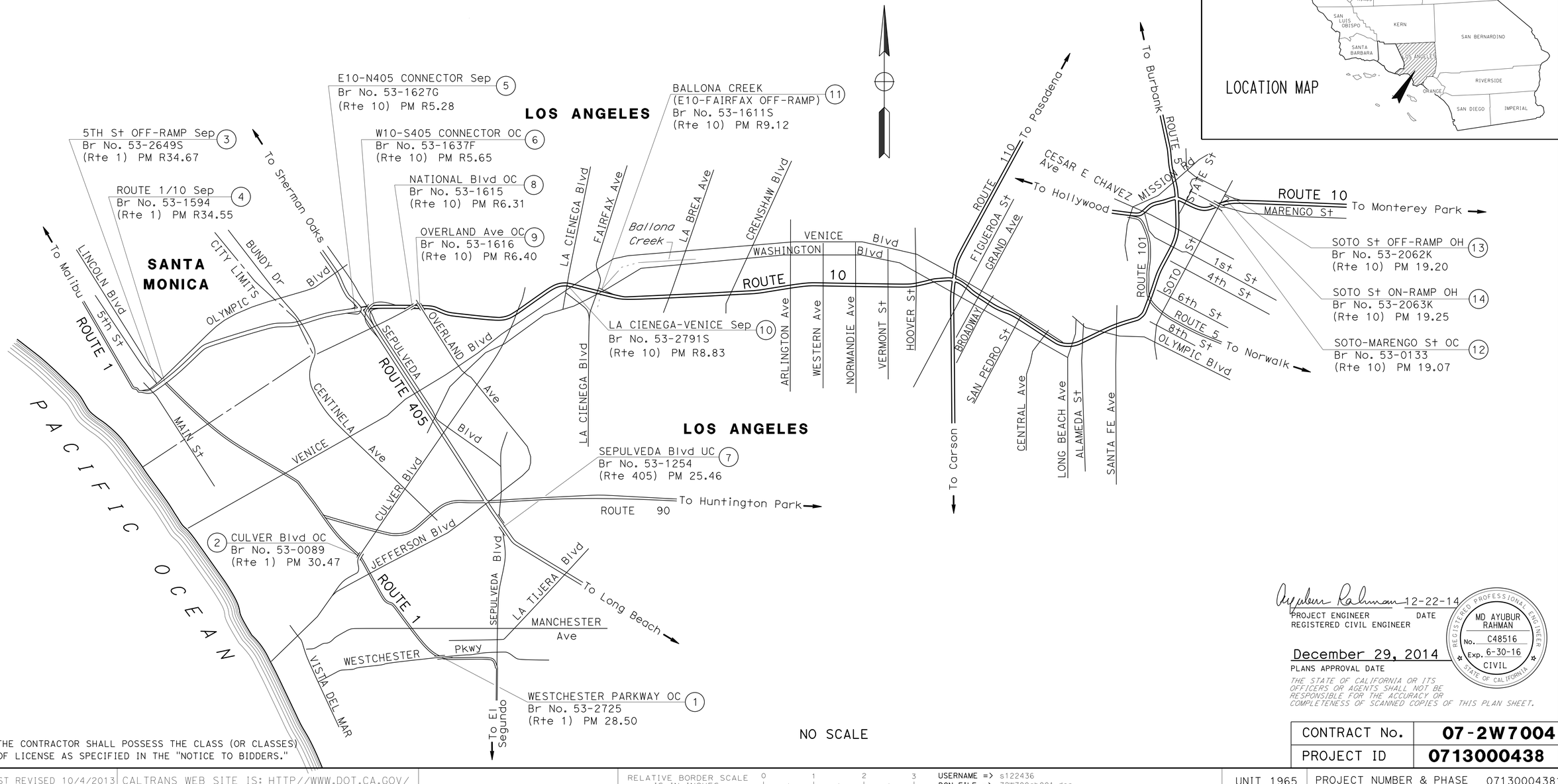
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

IN LOS ANGELES COUNTY AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

LOCATION MAP



NO SCALE

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

Ayubur Rahman 12-22-14
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
MD AYUBUR RAHMAN
No. C48516
Exp. 6-30-16
CIVIL
STATE OF CALIFORNIA

December 29, 2014
PLANS APPROVAL DATE

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

PROJECT MANAGER: DAREK A. CHMIELEWSKI
DESIGN MANAGER: PAUL CRISPI

CONTRACT No.	07-2W7004
PROJECT ID	0713000438

LAST REVISION: DATE PLOTTED => 14-MAY-2015 TIME PLOTTED => 09:56
12-29-14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	2	41

Ayubur Rahman 12-22-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MD AYUBUR RAHMAN
No. C48516
Exp. 6-30-16
CIVIL
STATE OF CALIFORNIA

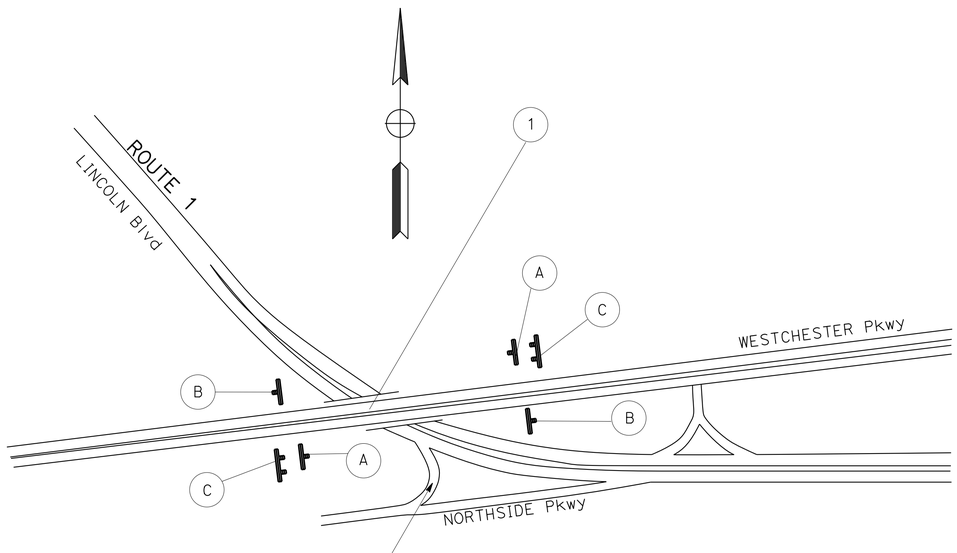
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

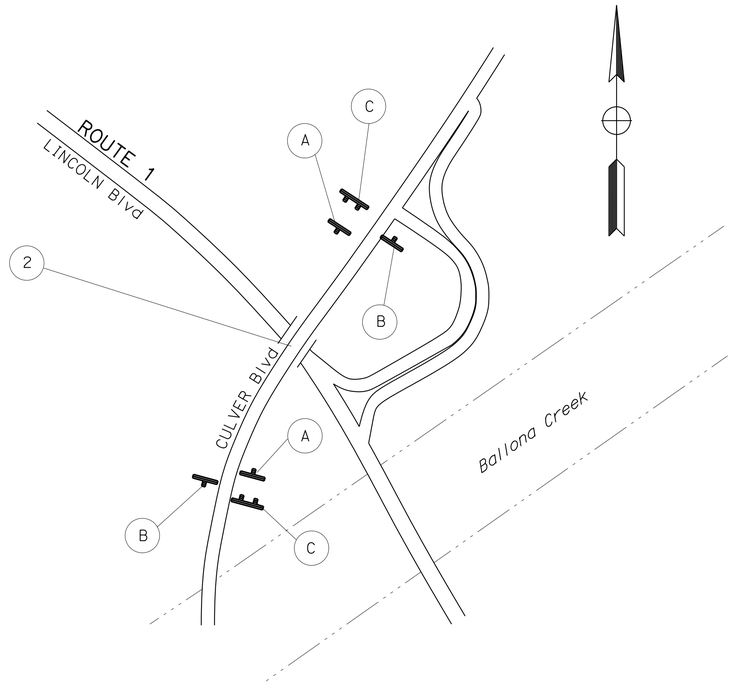
NOTES:

1. EXACT LOCATION AND POSITION OF SIGNS WILL BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE SHEETS CS-2 THROUGH CS-4.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
A	W20-1		48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	21
B	G20-2		48" x 24"	END ROAD WORK	1 - 4" x 6"	22
C		C40(CA)	144" x 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" x 8"	23





CONSTRUCTION AREA SIGNS
NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: BEN SAFYARI
CHECKED BY: AYUBUR RAHMAN
FUNCTIONAL SUPERVISOR: PAUL CRISPI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 12-29-14 | DATE PLOTTED => 12-APR-2015 | TIME PLOTTED => 12:31

BORDER LAST REVISED 7/2/2010 | USERNAME => s122436 | DGN FILE => 72W7001a001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1965 | PROJECT NUMBER & PHASE 07130004381

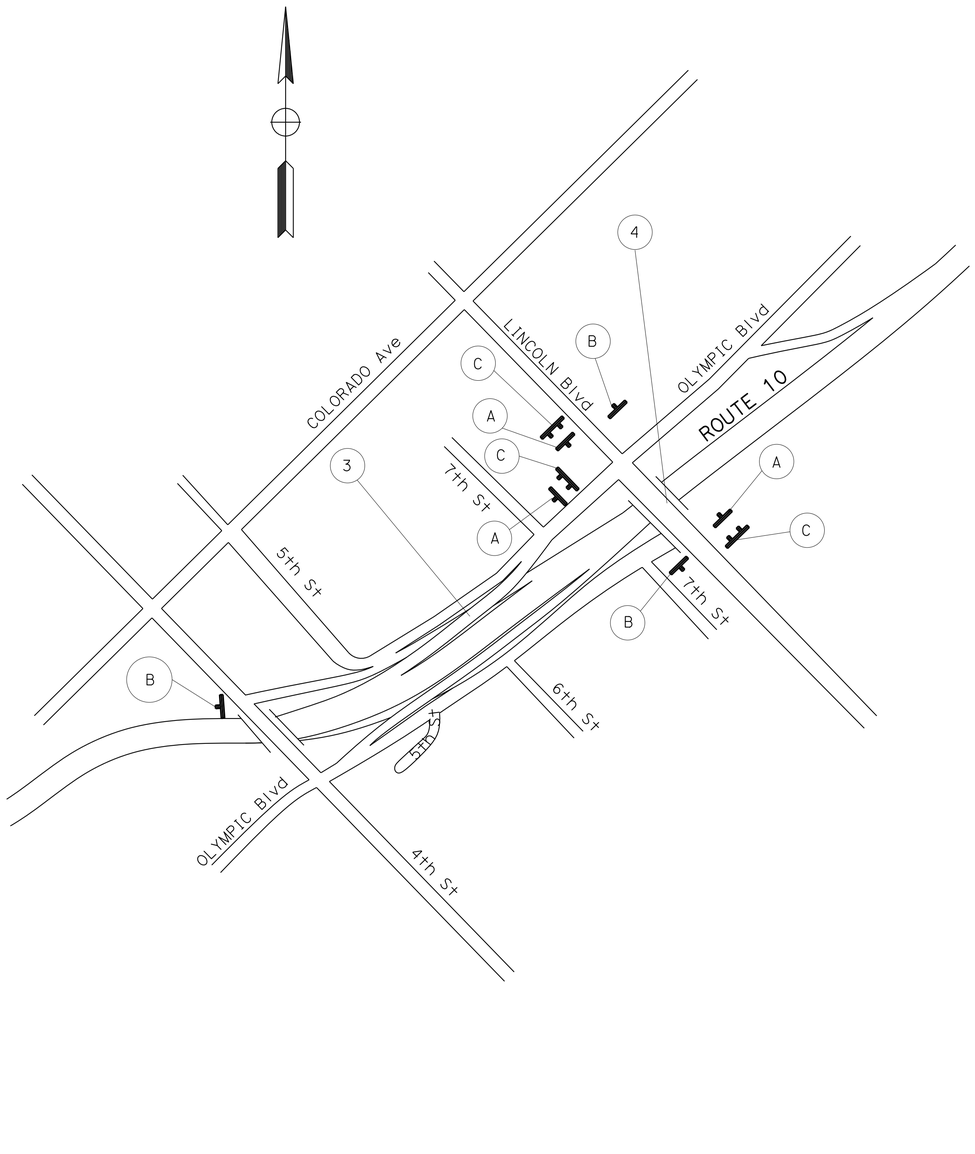
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	3	41

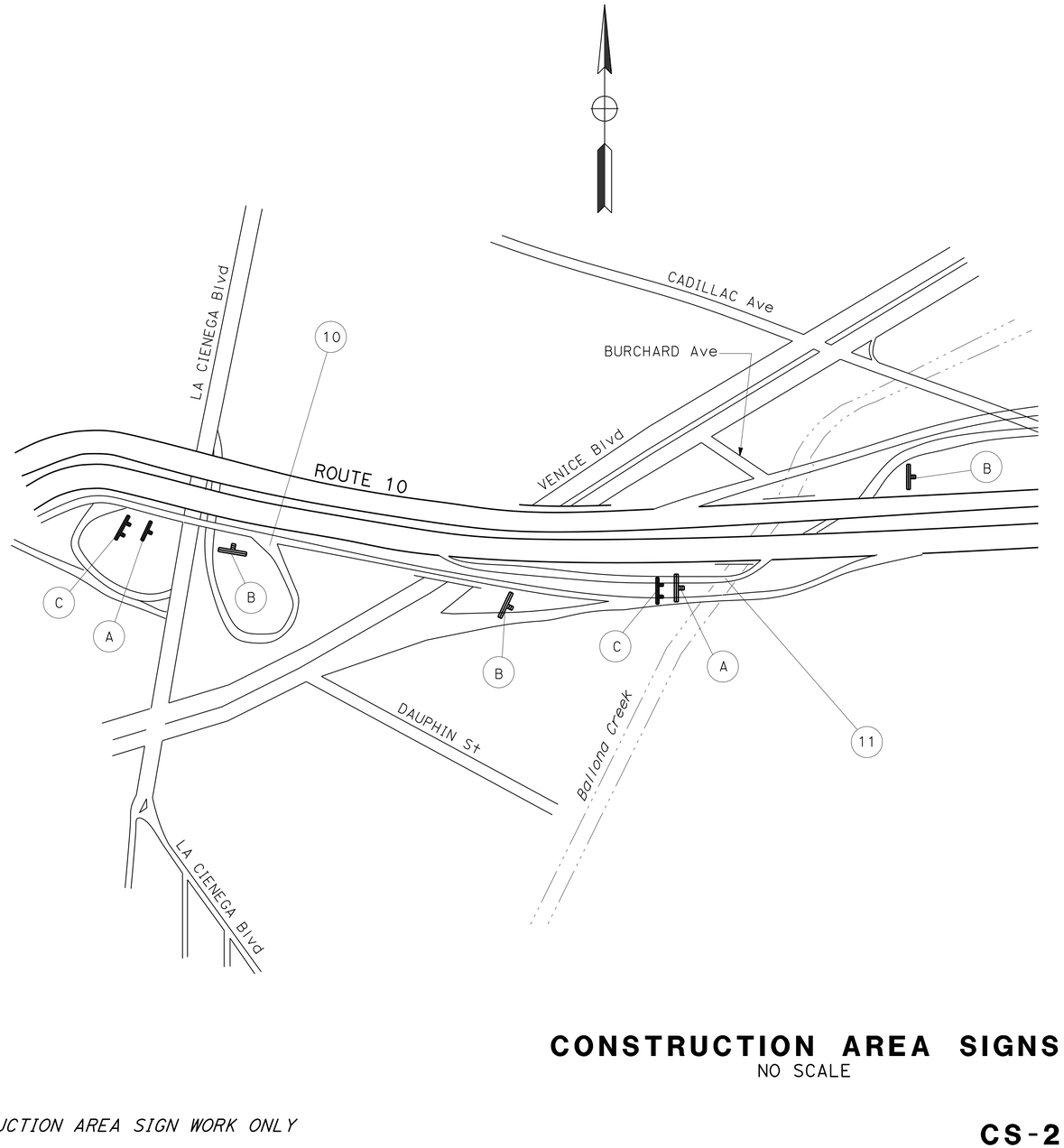
Ayubur Rahman 12-22-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MD AYUBUR RAHMAN
No. C48516
Exp. 6-30-16
CIVIL
STATE OF CALIFORNIA

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





CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI

CALCULATED-DESIGNED BY: BEN SAFYARI
CHECKED BY: AYUBUR RAHMAN

REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 12-APR-2015
12-29-14 | TIME PLOTTED => 12:31

BORDER LAST REVISED 7/2/2010

USERNAME => s122436
DGN FILE => 72W7001a002.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1965

PROJECT NUMBER & PHASE 07130004381

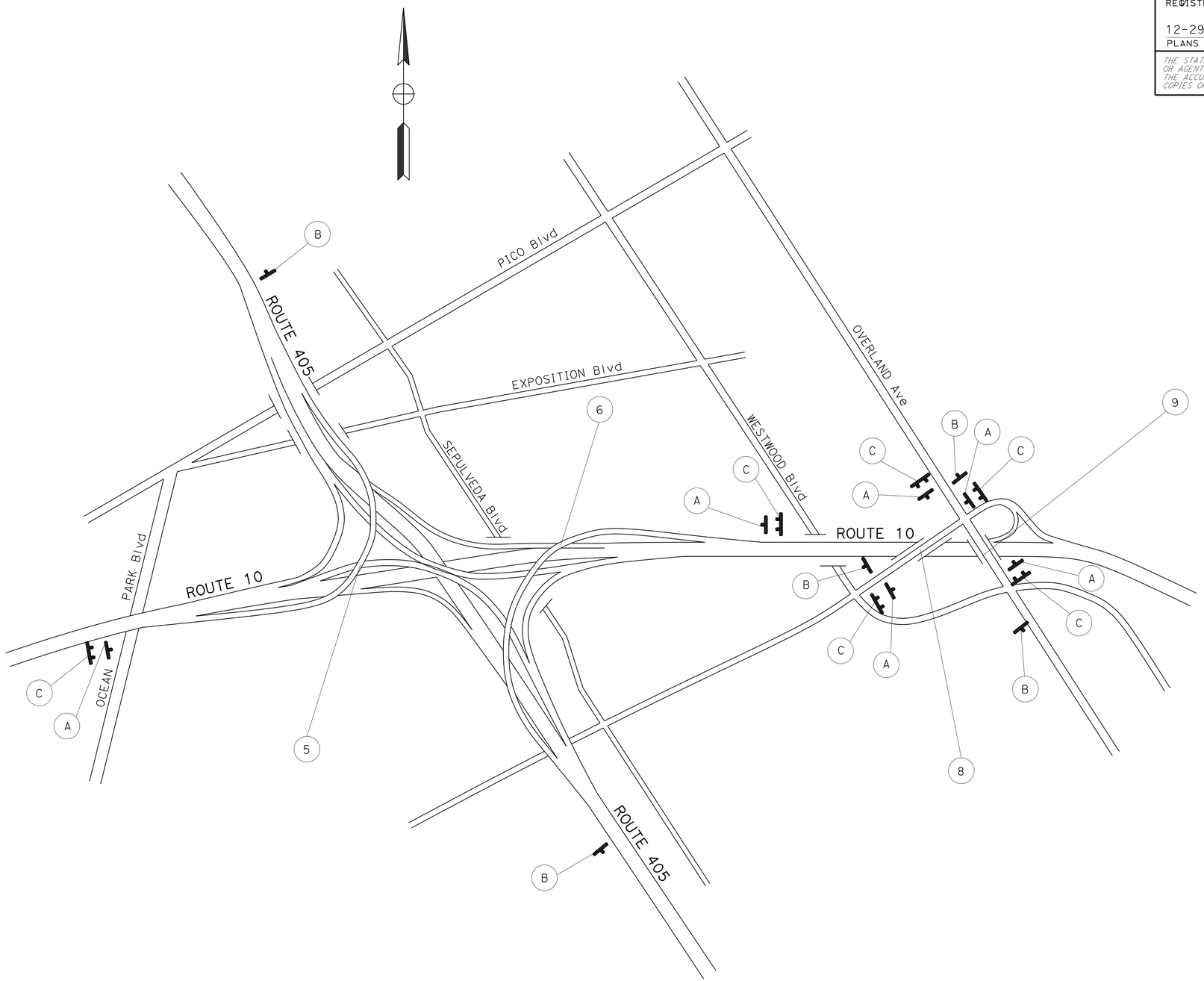
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	4	41

Ayubur Rahman 12-22-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MD AYUBUR RAHMAN
No. C48516
Exp. 6-30-16
CIVIL
STATE OF CALIFORNIA

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



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI

CALCULATED-DESIGNED BY: BEN SAFYARI
CHECKED BY: AYUBUR RAHMAN

REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 12-APR-2015
12-29-14 TIME PLOTTED => 12:31

BORDER LAST REVISED 7/2/2010

USERNAME => s122436
DGN FILE => 72W7001a003.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1965

PROJECT NUMBER & PHASE 07130004381

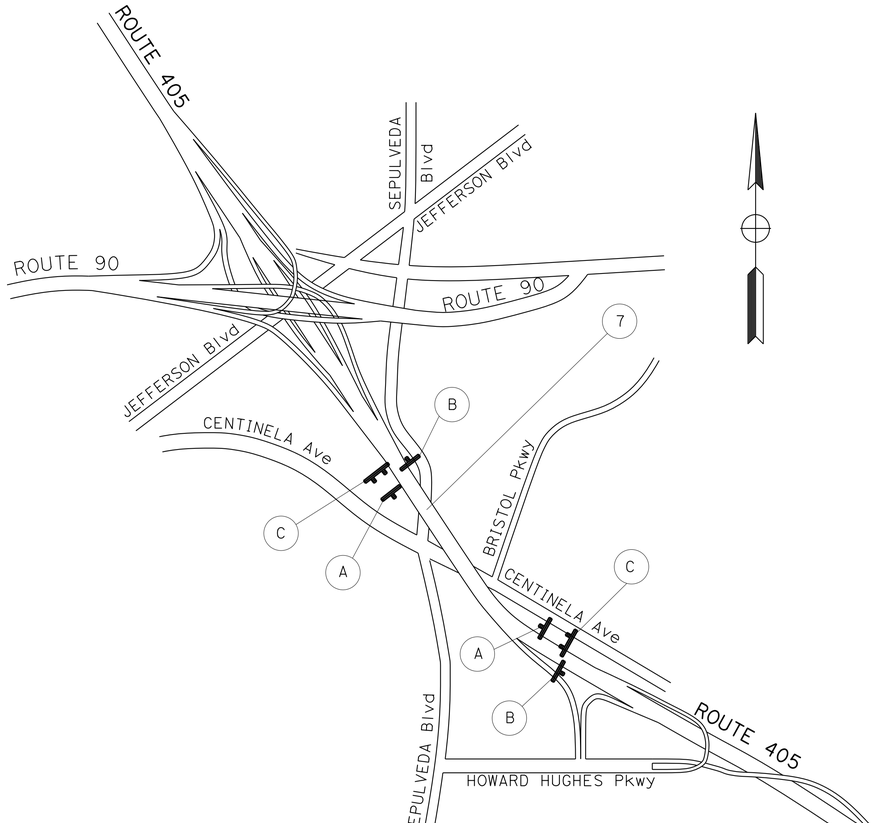
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	5	41

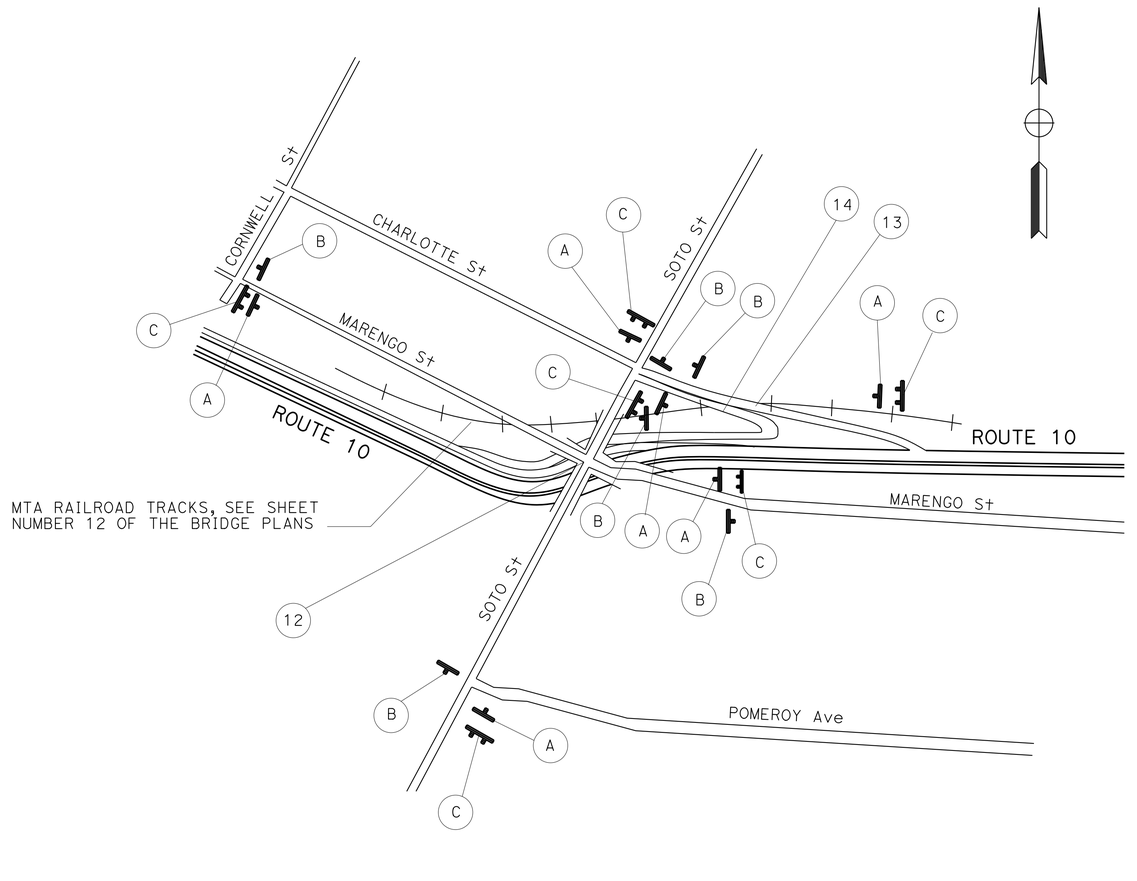
Ayubur Rahman 12-22-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MD AYUBUR RAHMAN
No. C48516
Exp. 6-30-16
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.





APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI

CALCULATED-DESIGNED BY: BEN SAFYARI
CHECKED BY: AYUBUR RAHMAN

REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 12-APR-2015
12-29-14 | TIME PLOTTED => 12:31

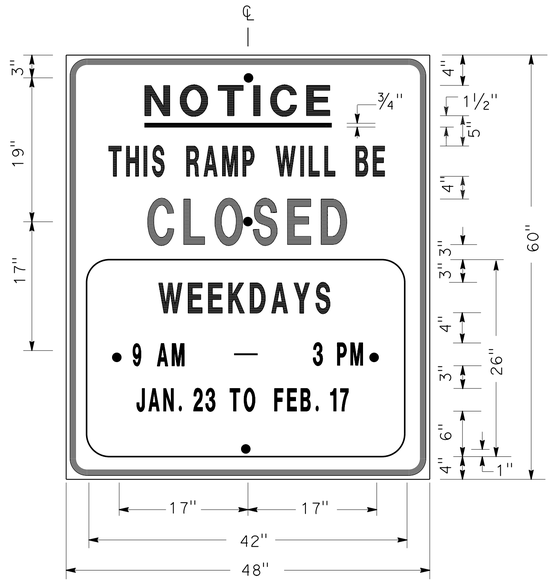
BORDER LAST REVISED 7/2/2010

USERNAME => s122436
DGN FILE => 72W7001a004.dgn

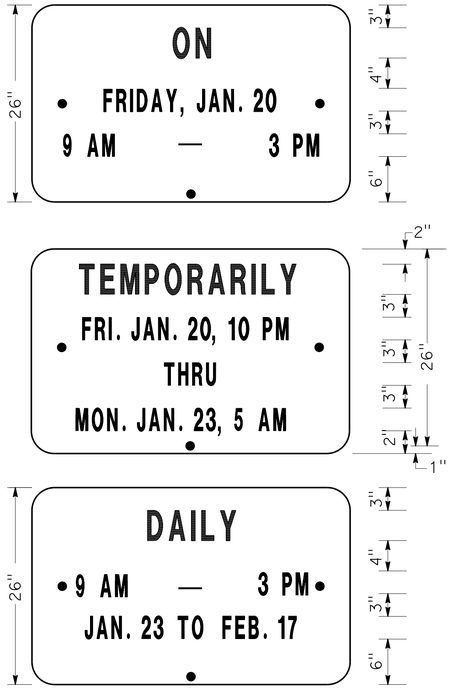
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1965

PROJECT NUMBER & PHASE 07130004381



SIGN SP-1



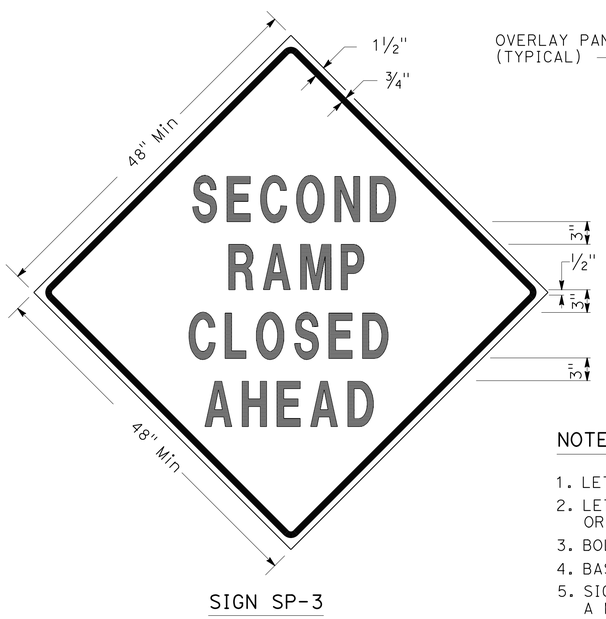
ALTERNATE OVERLAY PANELS (TYPICAL)

NOTES: SIGN SP-1

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

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

SPECIAL ADVANCE NOTICE PUBLICITY SIGN



SIGN SP-3

SIGN SP-5

NOTES: SIGNS SP-3 & SP-5

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

SPECIAL SIGNS FOR EXIT RAMP CLOSURES

SIGN SP-4

NOTES: SIGN SP-4

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

SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

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

NO SCALE

THD-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	6	41

12-20-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

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

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.

REVISED BY	DATE REVISED
JC	2/14

CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
FUNCTIONAL SUPERVISOR: SAM ESQUENAZI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

LAST REVISION DATE PLOTTED => 12-APR-2015
TIME PLOTTED => 12:31
12-29-14

BORDER LAST REVISED 7/2/2010
USERNAME => s122436
DGN FILE => 72W700me001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1863
PROJECT NUMBER & PHASE 07130004381

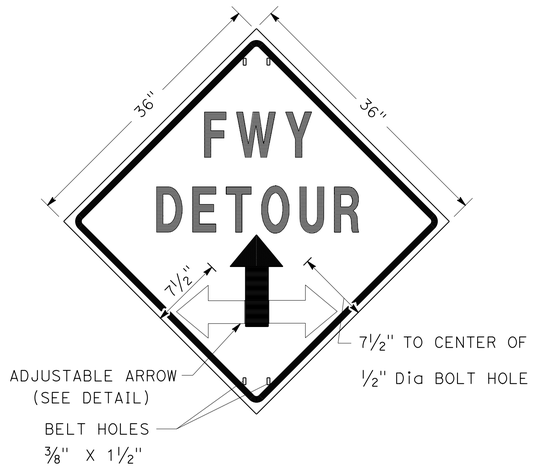
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	7	41

12-20-14
REGISTERED CIVIL ENGINEER DATE

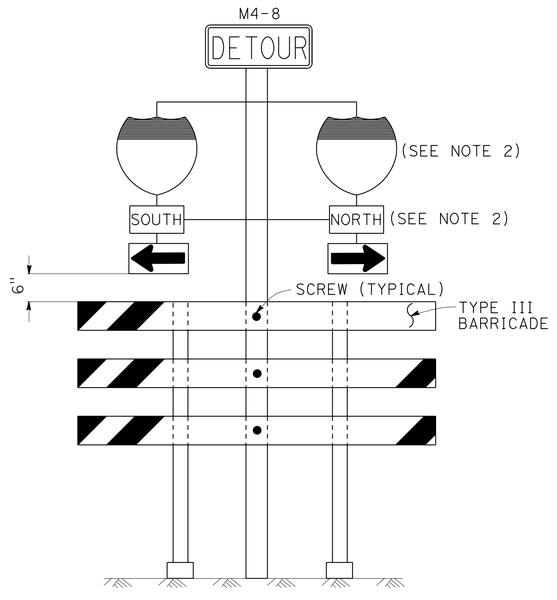
SHANGJIA HORN
No. 51846
Exp 6/30/16
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

12-29-14
PLANS APPROVAL DATE

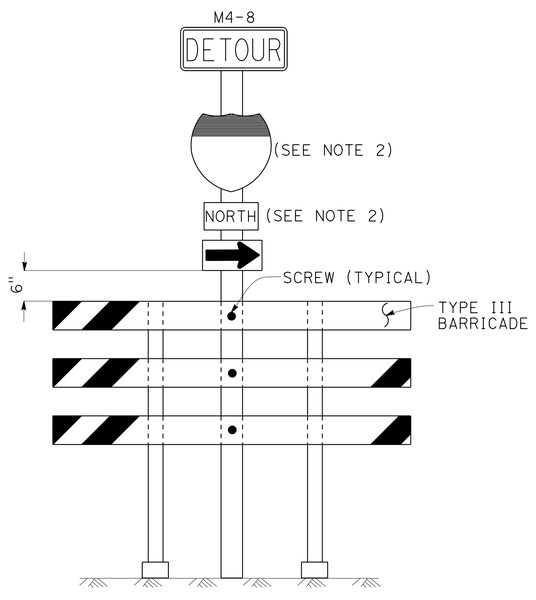
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



SIGN SP-2



SIGN SP-6 (SEE NOTE 1)



SIGN SP-7 (SEE NOTE 1)

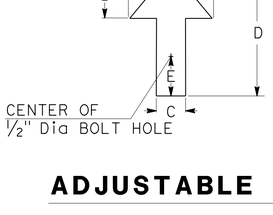
NOTES: SIGN SP-2

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

NOTES: SIGNS SP-6 & SP-7

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

SPECIAL PORTABLE FREEWAY DETOUR SIGNS



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

ADJUSTABLE ARROW DETAIL

ABBREVIATION

(CA) CALIFORNIA CODE

TRAFFIC HANDLING DETAILS

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

SHEET 2 OF 2

NO SCALE

THD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
Caltrans®

FUNCTIONAL SUPERVISOR: SAM ESQUENAZI

CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG

REVISED BY: JC
DATE REVISED: 2/14

LAST REVISION: DATE PLOTTED => 12-APR-2015
TIME PLOTTED => 12:31
12-29-14

BORDER LAST REVISED 7/2/2010

USERNAME => s122436
DGN FILE => 72W700me002.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1863

PROJECT NUMBER & PHASE 07130004381

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	8	41

12-20-14
REGISTERED CIVIL ENGINEER DATE

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

12-29-14
PLANS APPROVAL DATE

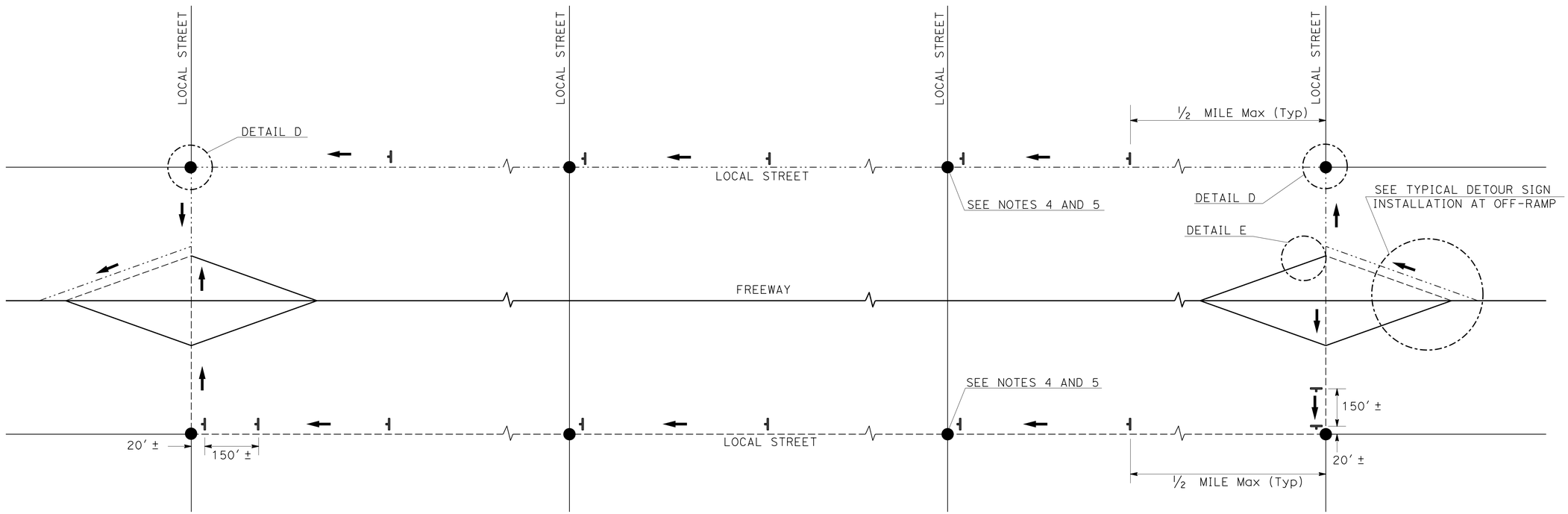
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

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

NOTES:

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



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

TRAFFIC HANDLING DETAILS

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

NO SCALE

THD-3

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

LAST REVISION DATE PLOTTED => 12-APR-2015
LAST REVISION TIME PLOTTED => 12:31
12-29-14

BORDER LAST REVISED 7/2/2010
USERNAME => s122436
DGN FILE => 72W700me003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1863
PROJECT NUMBER & PHASE 07130004381

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	9	41

12-20-14
REGISTERED CIVIL ENGINEER DATE

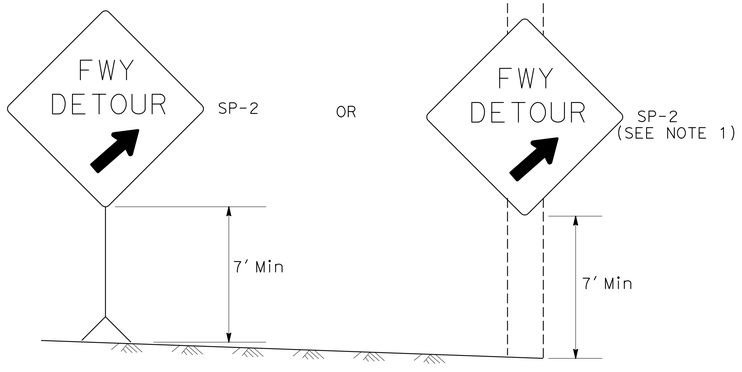
SHANGJIA HORN
No. 51846
Exp 6/30/16
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

12-29-14
PLANS APPROVAL DATE

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

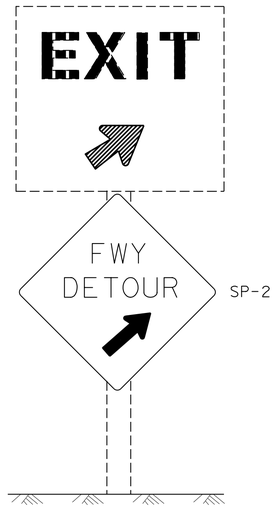
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 2/14
FUNCTIONAL SUPERVISOR: SAM ESQUENAZI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DTM

Exist G85 (CA)



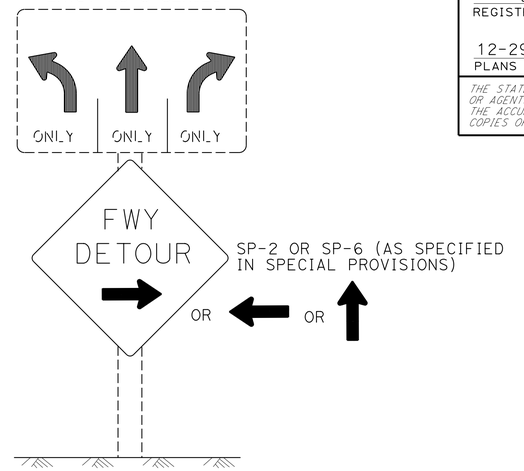
DETAIL A (SEE NOTE 3)

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

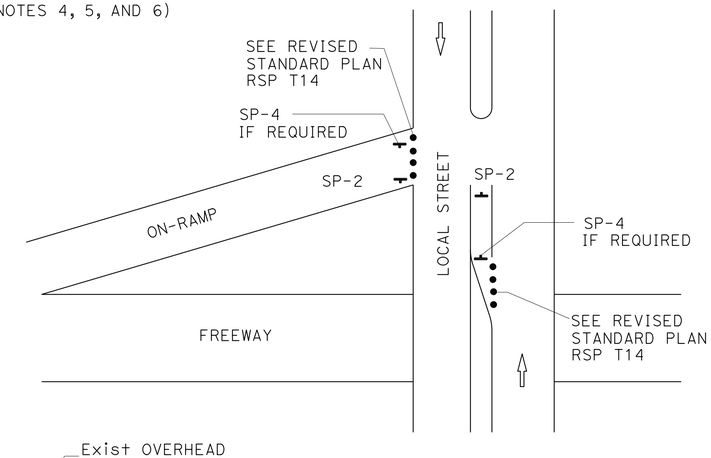


DETAIL B (SEE NOTE 3)

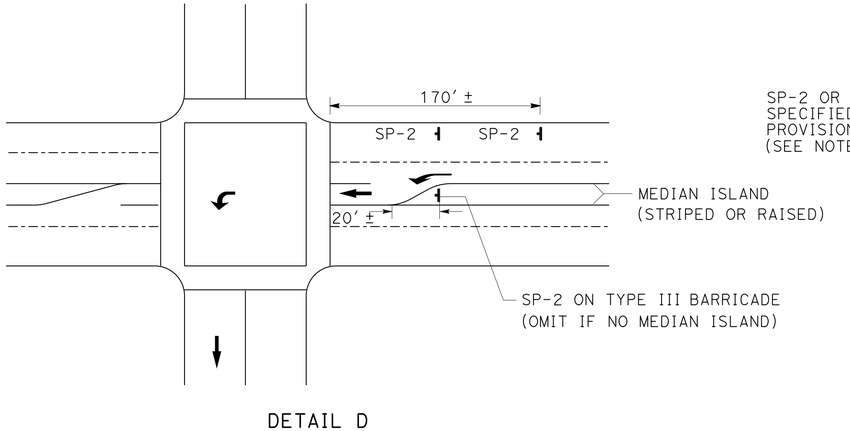
Exist R3-8 SERIES



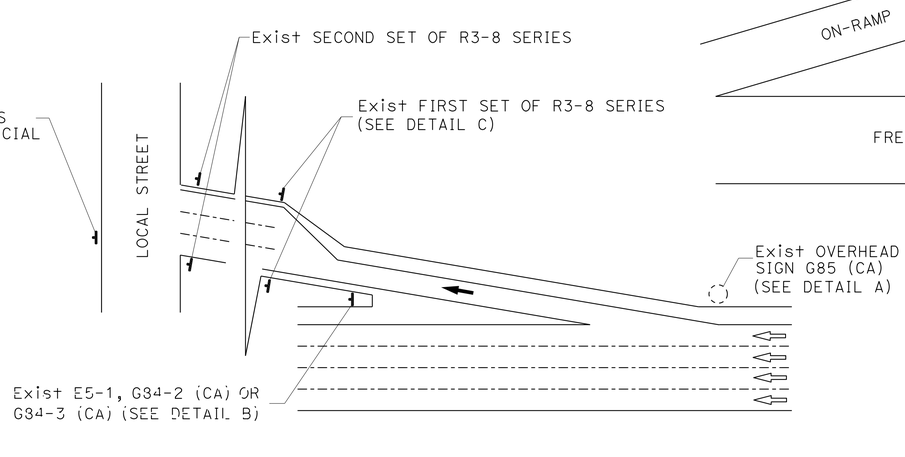
DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL E



DETAIL D



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

NOTES: SIGN SP-2

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

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- DETOUR DIRECTION
- EXISTING OVERHEAD SIGN

SIGN CODE LEGEND

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

XXYY-Y (CA): CALIFORNIA SIGN CODE PER CALIFORNIA MUTCD

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

NO SCALE **THD-4**

LAST REVISION: DATE PLOTTED => 12-APR-2015
12-29-14 TIME PLOTTED => 12:31

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	10	41

12-20-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

SHANGJIA HORN No. 51846 Exp 6/30/16 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 SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

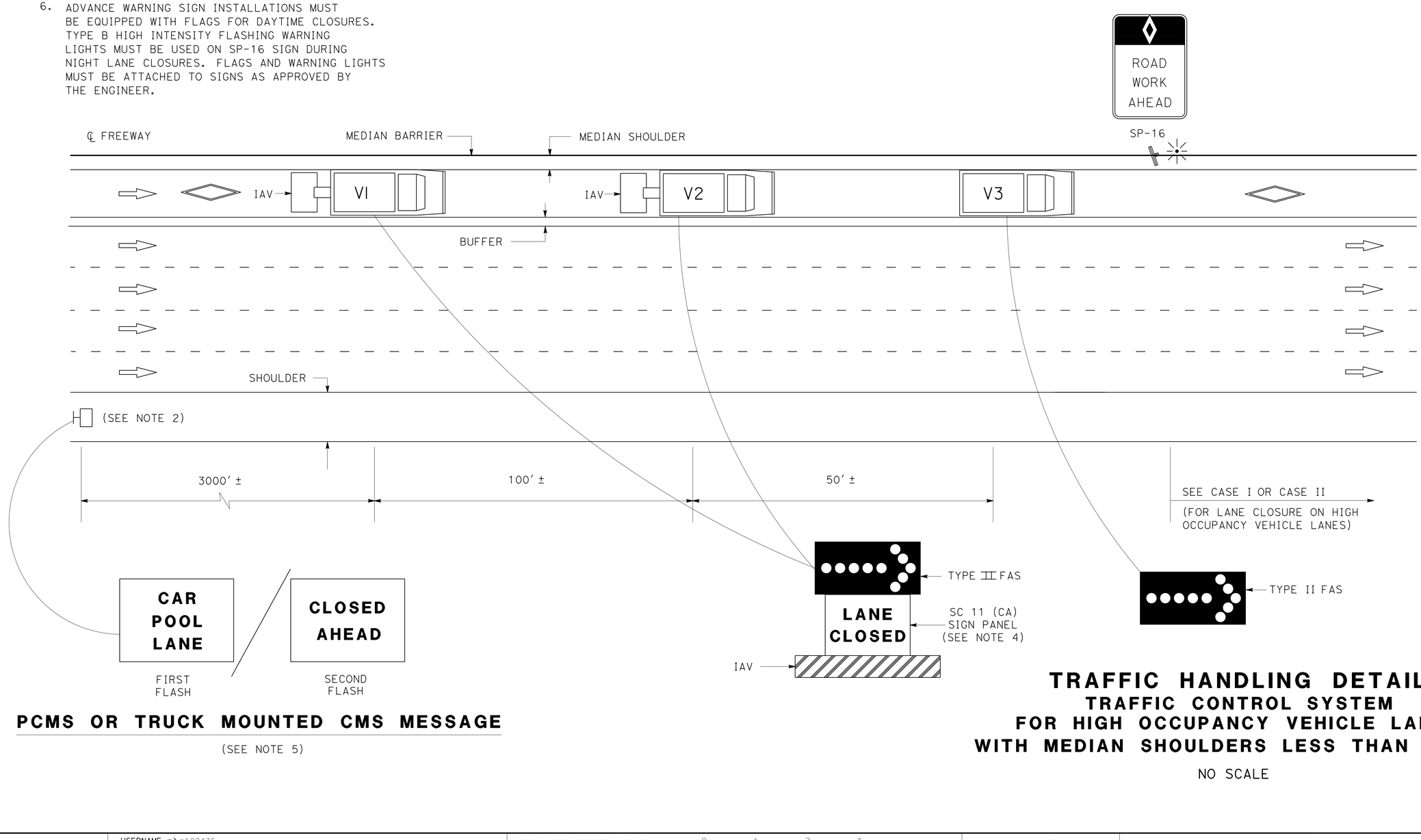
1. LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
2. PCMS MUST BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE HOV LANE.
3. A MINIMUM SIGHT DISTANCE OF 1500′ MUST BE PROVIDED IN ADVANCE OF PCMS.
4. VEHICLE-MOUNTED SIGN PANELS MUST BE TYPE III OR IV RETROREFLECTORIZED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

LEGEND

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

ABBREVIATIONS

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



PCMS OR TRUCK MOUNTED CMS MESSAGE

(SEE NOTE 5)

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

NO SCALE

THD-5

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

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

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DGN FILE => 72W700me005.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1863
PROJECT NUMBER & PHASE 07130004381

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	11	41

12-20-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

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

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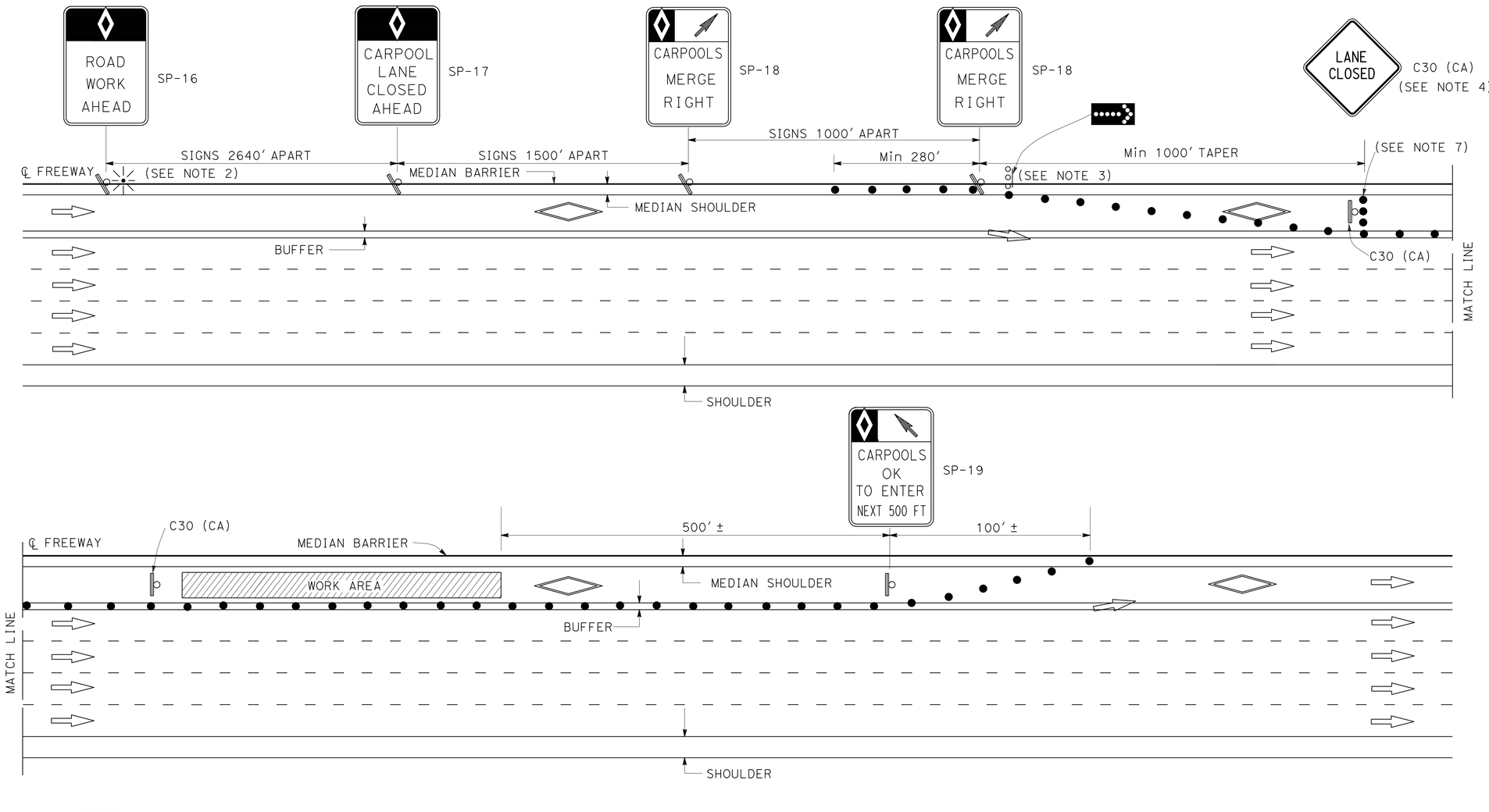

LEGEND

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

ABBREVIATIONS

(CA) CALIFORNIA CODE

SIGN PANEL

SIZE (MIN)

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

NOTES: FOR CASE I AND CASE II

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

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

NO SCALE

THD-6

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

FUNCTIONAL SUPERVISOR: SAM ESQUENAZI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1863
PROJECT NUMBER & PHASE 07130004381

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	12	41

Ayubur Rahman 12-22-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MD AYUBUR RAHMAN
No. C48516
Exp. 6-30-16
CIVIL
STATE OF CALIFORNIA

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PAVEMENT DELINEATION QUANTITIES

Loc No. (#)	ROUTE	POST MILE	BRIDGE No.	BRIDGE NAME	PAVEMENT MARKER										THERMOPLASTIC PAVEMENT MARKING												
						RETROREFLECTIVE																					
					DET 13 (Mod), TYPE A (NON-REFLECTIVE)	Det 9	Det 13 (Mod)	Det 22	Det 25	Det 25A	Det 36	Det 36A	Det 29	HOV STRIPING DETAIL	AHEAD	SIGNAL	ONLY	CLEAR	DIAGONAL	CHEVRON	TYPE I, 24'-0" ARROW	TYPE II, (L) ARROW	TYPE III, (L) , (R) ARROW	TYPE IV (L) ARROW	TYPE V ARROW	TYPE VI ARROW	TYPE VII ARROW
					TYPE G	TYPE G	TYPE D	TYPE H	TYPE H	TYPE G	TYPE G	TYPE D	TYPE H														
					EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT
1	1	28.50	53-2725	WESTCHESTER PARKWAY OC		39			21																	84	
2	1	30.47	53-0089	CULVER BLVD OC				22																			
3	1	34.67	53-2649S	5TH STREET OFF-RAMP SEPARATION		14				36									80	80							
4	1	34.55	53-1594	ROUTE 1/10 SEPARATION		16											132				248			60			
5	10	R5.28	53-1627G	E10-N405 CONNECTOR SEPARATION	328	164				246	44							81		306						42	
6	10	R5.65	53-1637F	W10-S405 CONNECTOR OC	280		140			261										133						126	
7	405	25.46	53-1254	SEPULVEDA BLVD UC	280		140							98													
8	10	R6.31	53-1615	NATIONAL BLVD OC	44		20		22																		
9	10	R6.40	53-1616	OVERLAND AVENUE OC																							
10	10	R8.83	53-2791S	LA CIENEGA-VENICE SEPARATION																80							
11	10	R9.12	53-1611S	BALLONA CREEK (E10-FAIRFAX AVE OFF-RAMP)	14		10			36		24													33		
12	10	19.07	53-0133	SOTO-MARENGO STREET OC						12			170											195		210	54
13	10	19.20	53-2062K	SOTO STREET ON-RAMP OH		14				20																	
14	10	19.25	53-2063K	SOTO STREET OFF-RAMP OH	38		20			20					62	64						135	336		66		
SUBTOTAL					984	247	330	22	43	631	44	24	170	98	62	64	132	81	80	599	248	135	336	255	99	462	54
TOTAL					984	1,609									2,607												

PAVEMENT DELINEATION QUANTITIES

PDQ-1

CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
BEN SAFYARI
AYUBUR RAHMAN
FUNCTIONAL SUPERVISOR
PAUL CRISPI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1965
PROJECT NUMBER & PHASE 07130004381

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	13	41

Ayubur Rahman 12-22-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MD AYUBUR RAHMAN
No. C48516
Exp. 6-30-16
CIVIL
STATE OF CALIFORNIA

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PAVEMENT DELINEATION QUANTITIES

Loc No. (#)	ROUTE	POST MILE	BRIDGE No.	BRIDGE NAME	THERMOPLASTIC TRAFFIC STRIPE										
					Det 9	Det 13 (Mod)	Det 25	Det 25A	Det 27B	Det 29	HOV STRIPING DETAIL		Det 36	Det 36A	Det 38A
					4" (BROKEN 17-7) (WHITE)	4" (BROKEN 36-12) (WHITE)	4" (YELLOW)	4" (YELLOW)	4" (WHITE)	4" (DOUBLE YELLOW)	4" (DOUBLE DOUBLE YELLOW)	4" (WHITE)	8" (WHITE)	8" (WHITE)	8" (WHITE)
					LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
1	1	28.50	53-2725	WESTCHESTER PARKWAY OC	1,820		900		900						
2	1	30.47	53-0089	CULVER BLVD OC					294	294					
3	1	34.67	53-2649S	5TH STREET OFF-RAMP SEPARATION				530	530						
4	1	34.55	53-1594	ROUTE 1/10 SEPARATION	210			460	658						400
5	10	R5.28	53-1627G	E10-N405 CONNECTOR SEPARATION		984		3,903	3,903				500		
6	10	R5.65	53-1637F	W10-S405 CONNECTOR OC		840		4,132	4,332				268	600	30
7	405	25.46	53-1254	SEPULVEDA BLVD UC		960			654		1,308	654			
8	10	R6.31	53-1615	NATIONAL BLVD OC		124	500								
9	10	R6.40	53-1616	OVERLAND AVENUE OC											
10	10	R8.83	53-2791S	LA CIENEGA-VENICE SEPARATION				529	880				290		
11	10	R9.12	53-1611S	BALLONA CREEK (E10-FAIRFAX AVE OFF-RAMP)		30		166	166					271	
12	10	19.07	53-0133	SOTO-MARENGO STREET OC		1,025			450						1,970
13	10	19.20	53-2062K	SOTO STREET ON-RAMP OH				277	277	3,440					
14	10	19.25	53-2063K	SOTO STREET OFF-RAMP OH	75	140		277	150						503
SUBTOTAL					2,105	4,103	1,400	10,274	13,194	3,734	1,308	654	1,058	871	2,903
TOTAL					2,105	4,103	30,564						4,832		

PAVEMENT DELINEATION QUANTITIES

PDQ-2

CALCULATED-DESIGNED BY: BEN SAFYARI
CHECKED BY: AYUBUR RAHMAN
FUNCTIONAL SUPERVISOR: PAUL CRISPI
REVISED BY
DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

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DGN FILE => 72W700nc002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1965
PROJECT NUMBER & PHASE 07130004381

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	14	41

Ayubur Rahman 12-22-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

MD AYUBUR RAHMAN No. C48516 Exp. 6-30-16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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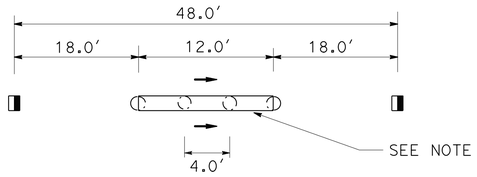
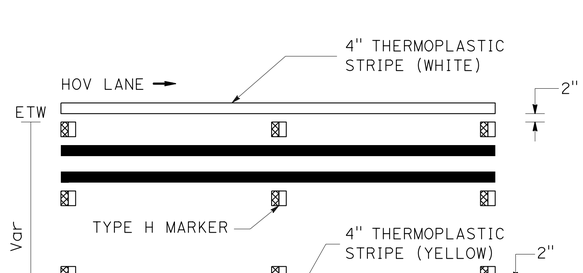
NOTE:

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



DETAIL 13 (Mod)



HOV STRIPING DETAIL

PAVEMENT DELINEATION QUANTITIES

Loc No. (#)	ROUTE	POST MILE	BRIDGE No.	BRIDGE NAME	REMOVE: YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE) LF	REMOVE: THERMOPLASTIC TRAFFIC STRIPE LF	REMOVE: PAVEMENT MARKER EA	REMOVE: THERMOPLASTIC PAVEMENT MARKING SQFT
1	1	28.50	53-2725	WESTCHESTER PARKWAY OC	900	2,720	60	84
2	1	30.47	53-0089	CULVER BLVD OC	294	294	22	
3	1	34.67	53-2649S	5TH STREET OFF-RAMP SEPARATION	530	530	50	160
4	1	34.55	53-1594	ROUTE 1/10 SEPARATION	460	868	16	440
5	10	R5.28	53-1627G	E10-N405 CONNECTOR SEPARATION	3,903	5,387	782	429
6	10	R5.65	53-1637F	W10-S405 CONNECTOR OC	4,132	6,070	681	259
7	405	25.46	53-1254	SEPULVEDA BLVD UC	1,308	2,268	518	
8	10	R6.31	53-1615	NATIONAL BLVD OC	500	124	86	
9	10	R6.40	53-1616	OVERLAND AVENUE OC				
10	10	R8.83	53-2791S	LA CIENEGA-VENICE SEPARATION	529	1,170	80	
11	10	R9.12	53-1611S	BALLONA CREEK (E10-FAIRFAX AVE OFF-RAMP)	166	467	84	33
12	10	19.07	53-0133	SOTO-MARENGO STREET OC		3,445	182	459
13	10	19.20	53-2062K	SOTO STREET ON-RAMP OH	3,717	277	34	
14	10	19.25	53-2063K	SOTO STREET OFF-RAMP OH	277	868	78	597
				TOTAL	16,716	24,488	2,673	2,461

PAVEMENT DELINEATION QUANTITIES

NO SCALE

PDQ-3

REVISED BY | DATE REVISED
BEN SAFYARI | AYUBUR RAHMAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: PAUL CRISPI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1965
PROJECT NUMBER & PHASE 07130004381

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
℄,PL	PLATE
P/L	PROPERTY LINE
PM	POST MILE, TIME FROM NOON TO MIDNIGHT
PN	PAVING NOTCH
POC	POINT OF HORIZONTAL CURVE
POT	POINT OF TANGENT
POVC	POINT OF VERTICAL CURVE
PP	PIPE PILE, PLASTIC PIPE, POWER POLE
PPL	PREFORMED PERMEABLE LINER
PPP	PERFORATED PLASTIC PIPE
PRC	POINT OF REVERSE CURVE
PRF	PAVEMENT REINFORCING FABRIC
PRVC	POINT OF REVERSE VERTICAL CURVE
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES
PS, P/S	PRESTRESSED
PSP	PERFORATED STEEL PIPE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
Pvmt	PAVEMENT

Q

Qty	QUANTITY

R

R	RADIUS
R & D	REMOVE AND DISPOSE
R & S	REMOVE AND SALVAGE
R/C	RATE OF CHANGE
RCA	REINFORCED CONCRETE ARCH
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
Rd	ROAD
Reinf	REINFORCED, REINFORCEMENT, REINFORCING
Rel	RELOCATE
Repl	REPLACEMENT
Ret	RETAINING
Rev	REVISED, REVISION
Rdwy	ROADWAY
RHMA	RUBBERIZED HOT MIX ASPHALT
Riv	RIVER
RM	ROAD-MIXED
RP	RADIUS POINT, REFERENCE POINT
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN
Rt	RIGHT
Rte	ROUTE
RW	REDWOOD, RETAINING WALL
R/W	RIGHT OF WAY
Rwy	RAILWAY

S

S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
Salv	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SAND CUSHION
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
Sec	SECOND, SECTION
Sep	SEPARATION
SG	SUBGRADE
Shld	SHOULDER
Sht	SHEET
Sim	SIMILAR
℄	STATION LINE
SM	SELECTED MATERIAL
Spec	SPECIAL, SPECIFICATIONS
SPP	SLOTTED PLASTIC PIPE
SS	SLOPE STAKE
SSBM	STRAP AND SADDLE BRACKET METHOD
SSD	STRUCTURAL SECTION DRAIN
SSPA	STRUCTURAL STEEL PLATE ARCH
SSPP	STRUCTURAL STEEL PLATE PIPE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SSRP	STEEL SPIRAL RIB PIPE
St	STREET
Sta	STATION
STBB	SINGLE THRIE BEAM BARRIER
Std	STANDARD
Str	STRUCTURE
Surf	SURFACING
SW	SIDEWALK, SOUND WALL
Swr	SEWER
Sym	SYMMETRICAL
S4S	SURFACE 4 SIDES

T

T	SEMI-TANGENT
Tan	TANGENT
TBB	THRIE BEAM BARRIER
Tbr	TIMBER
TC	TOP OF CURB
TCB	TRAFFIC CONTROL BOX
TCE	TEMPORARY CONSTRUCTION EASEMENT
Tel	TELEPHONE
Temp	TEMPORARY
TG	TOP OF GRADE
Tot	TOTAL
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
Trans	TRANSITION

T continued

TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL
Typ	TYPICAL

U

UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS

V

V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME

W

W	WEST, WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
Wt	WEIGHT
WV	WATER VALVE
WW	WINGWALL
WWLOL	WINGWALL LAYOUT LINE

X

X Sec	CROSS SECTION
Xing	CROSSING

Y

Yr	YEAR
Yrs	YEARS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	15	41

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

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

TO ACCOMPANY PLANS DATED 12-29-14

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	1,10,405	Var	16	41

Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

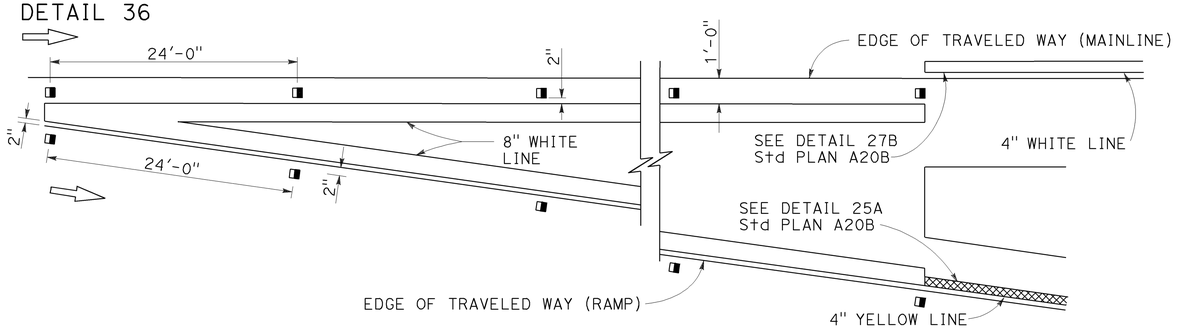
REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-15
CIVIL
STATE OF CALIFORNIA

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

TO ACCOMPANY PLANS DATED 12-29-14

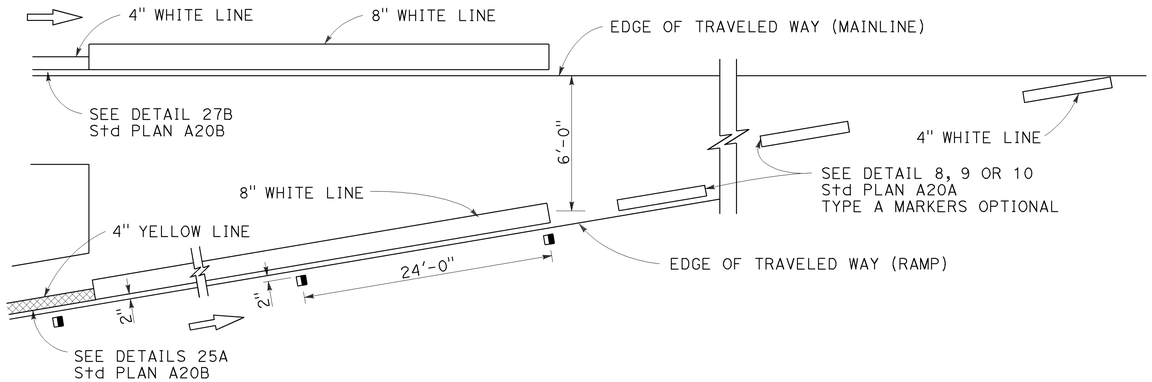
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT

DETAIL 36



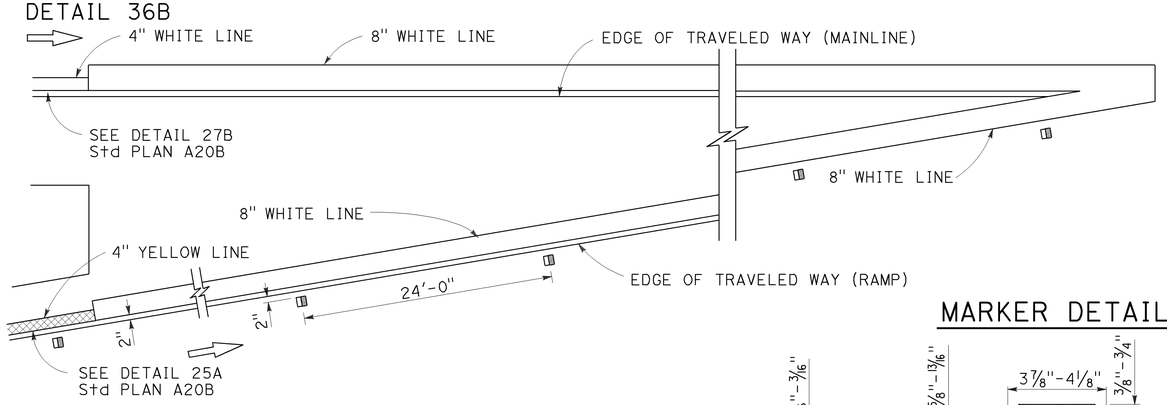
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

DETAIL 36A



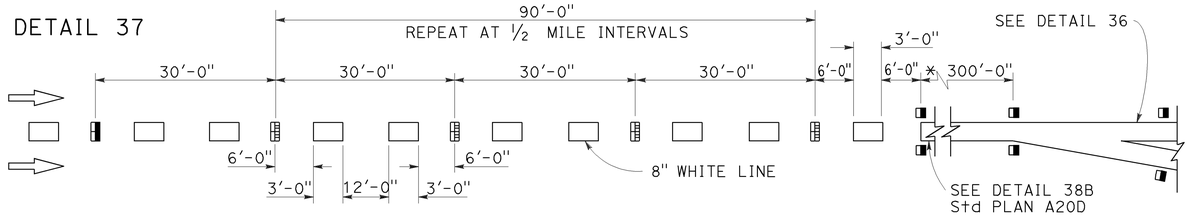
ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

DETAIL 36B

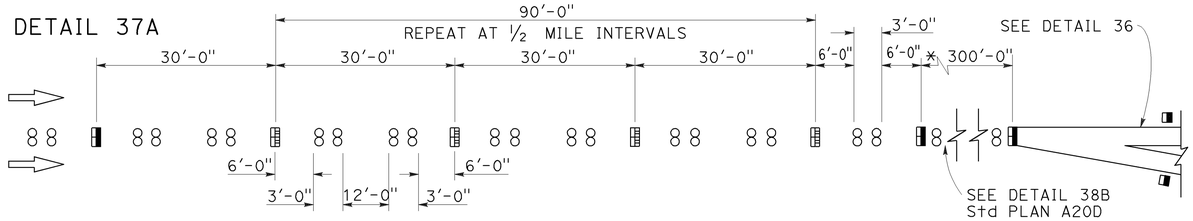


LANE DROP AT EXIT RAMPS

DETAIL 37



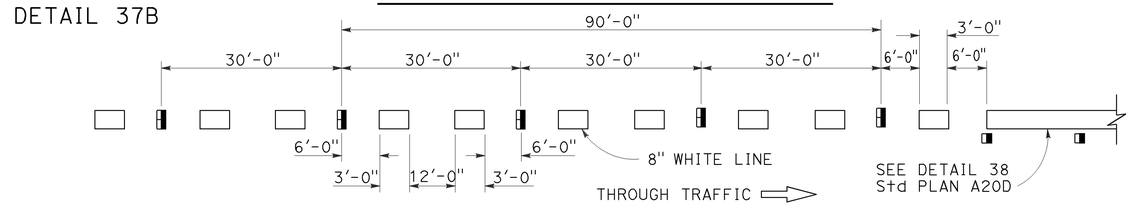
DETAIL 37A



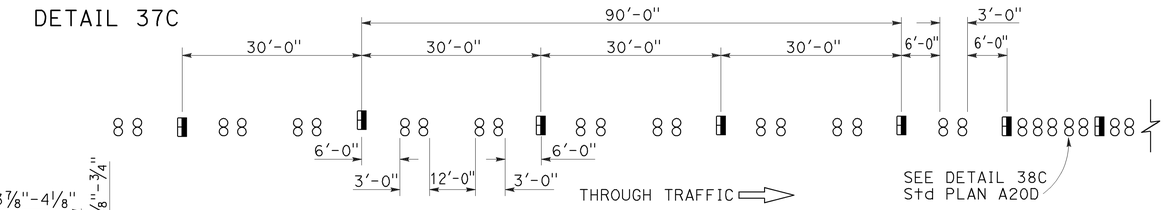
* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS

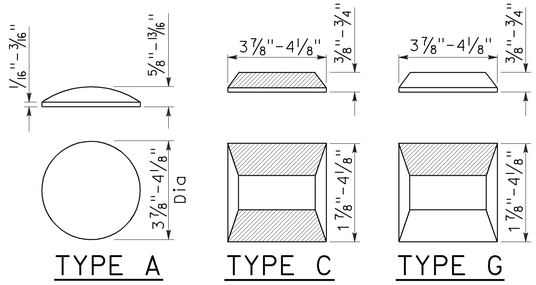
DETAIL 37B



DETAIL 37C



MARKER DETAILS



LEGEND:

MARKERS

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

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

REVISED STANDARD PLAN RSP A20C

2010 REVISED STANDARD PLAN RSP A20C

4-29-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	17	41

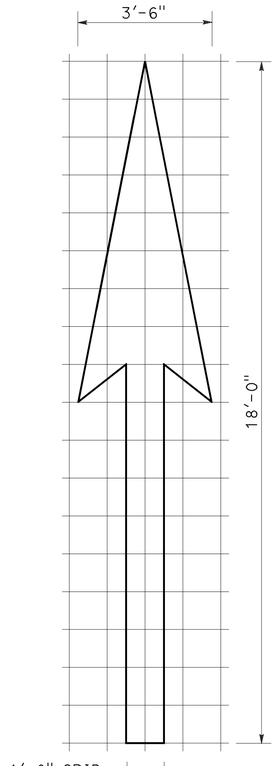
REGISTERED CIVIL ENGINEER

April 20, 2012
PLANS APPROVAL DATE

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

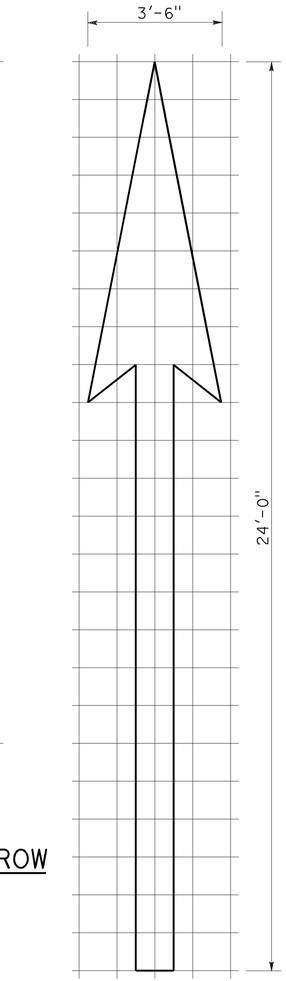
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 12-29-14



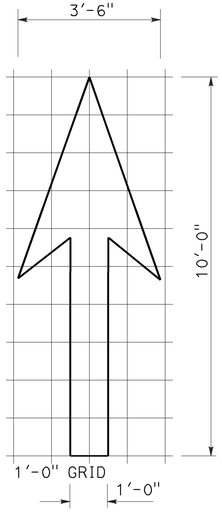
A=25 ft²

TYPE I 18'-0" ARROW



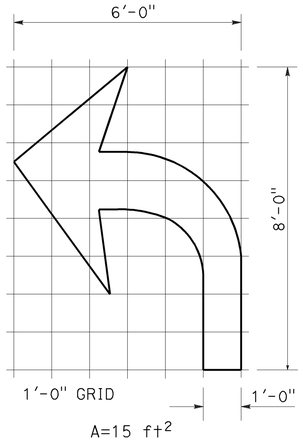
A=31 ft²

TYPE I 24'-0" ARROW



A=14 ft²

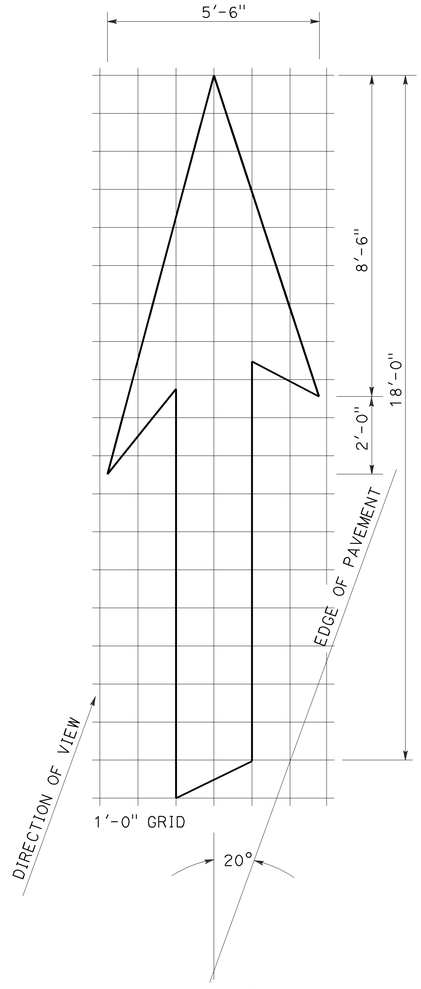
TYPE I 10'-0" ARROW



A=15 ft²

TYPE IV (L) ARROW

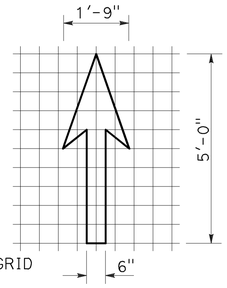
(For Type IV (R) arrow, use mirror image)



A=42 ft²

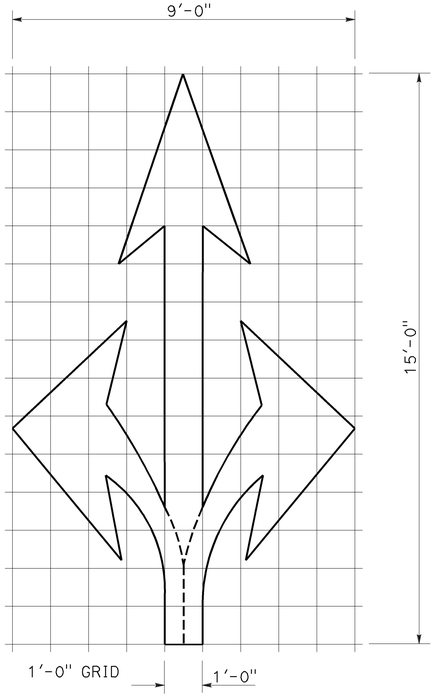
TYPE VI ARROW

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



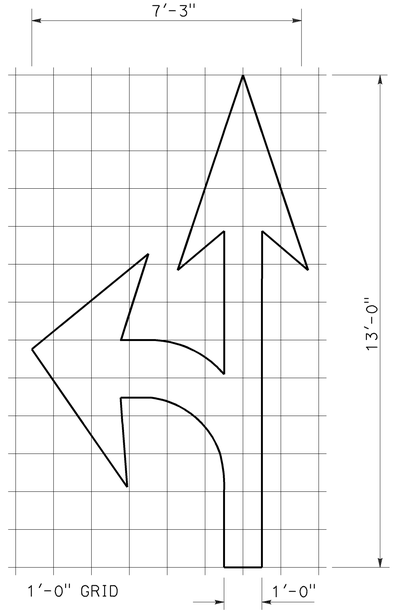
A=3.5 ft²

BIKE LANE ARROW



A=36 ft²

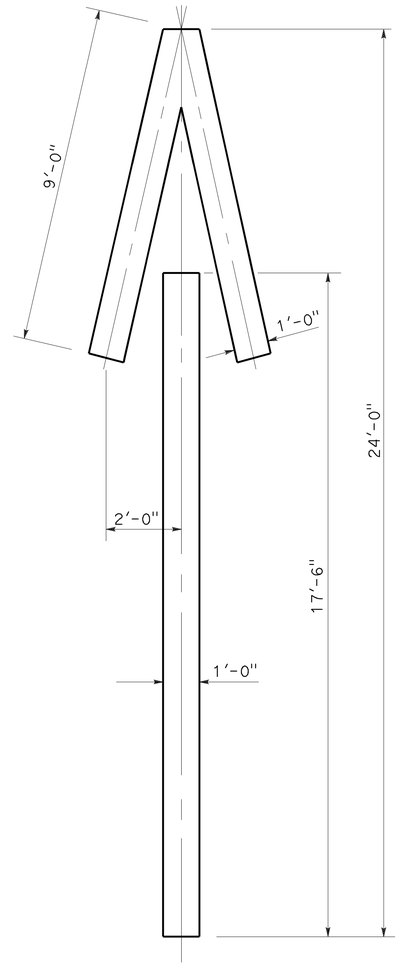
TYPE VIII ARROW



A=27 ft²

TYPE VII (L) ARROW

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



A=33 ft²

TYPE V ARROW

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS

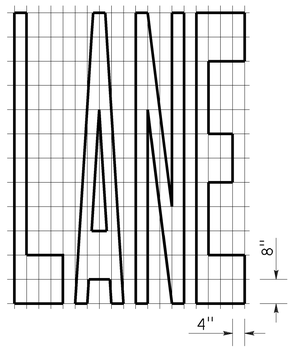
NO SCALE

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

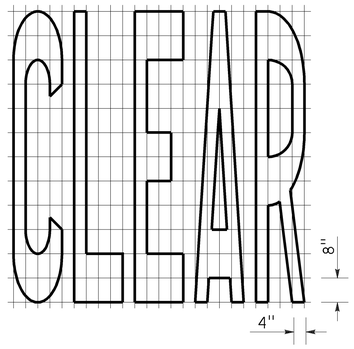
REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

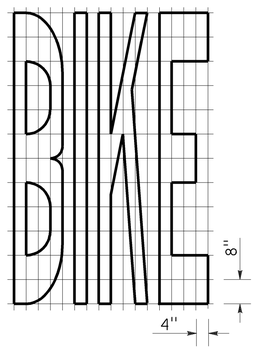
3-14-12



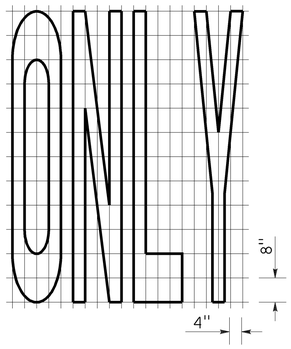
A=24 ft²



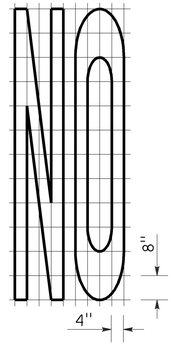
A=27 ft²



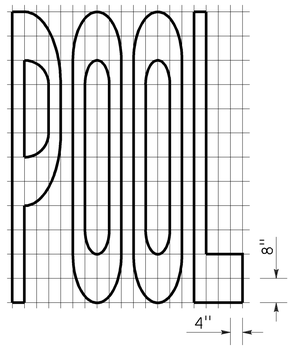
A=21 ft²



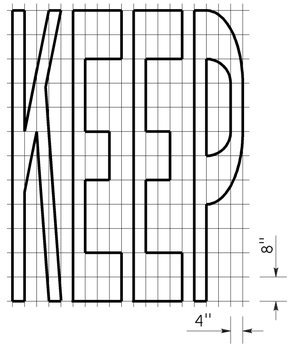
A=22 ft²



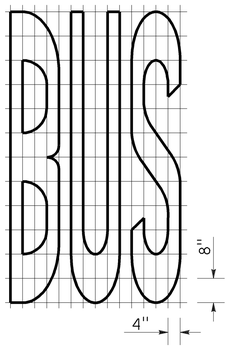
A=14 ft²



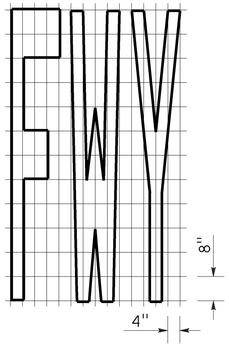
A=23 ft²



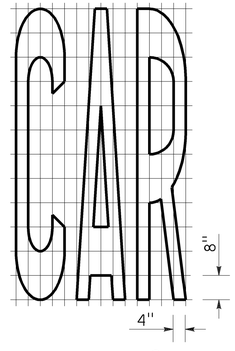
A=24 ft²



A=20 ft²



A=16 ft²



A=17 ft²

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	18	41

Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

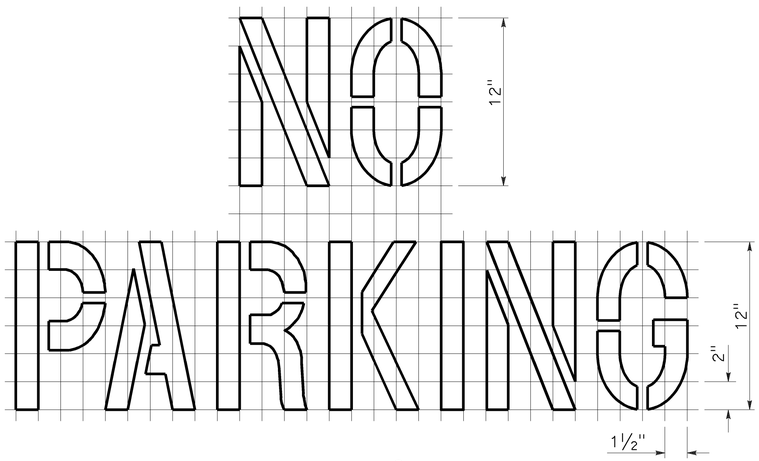
July 20, 2012
PLANS APPROVAL DATE

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

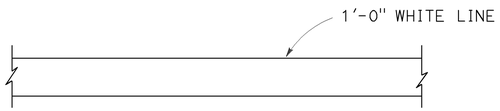
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 12-29-14

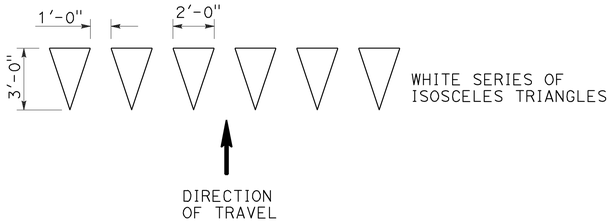
WORD MARKINGS			
ITEM	ft²	ITEM	ft²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



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	1,10,405	Var	19	41

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 12-29-14

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING

SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
					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.

2010 REVISED STANDARD PLAN RSP T9

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

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

REVISED STANDARD PLAN RSP T9

4-30-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	20	41

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 12-29-14

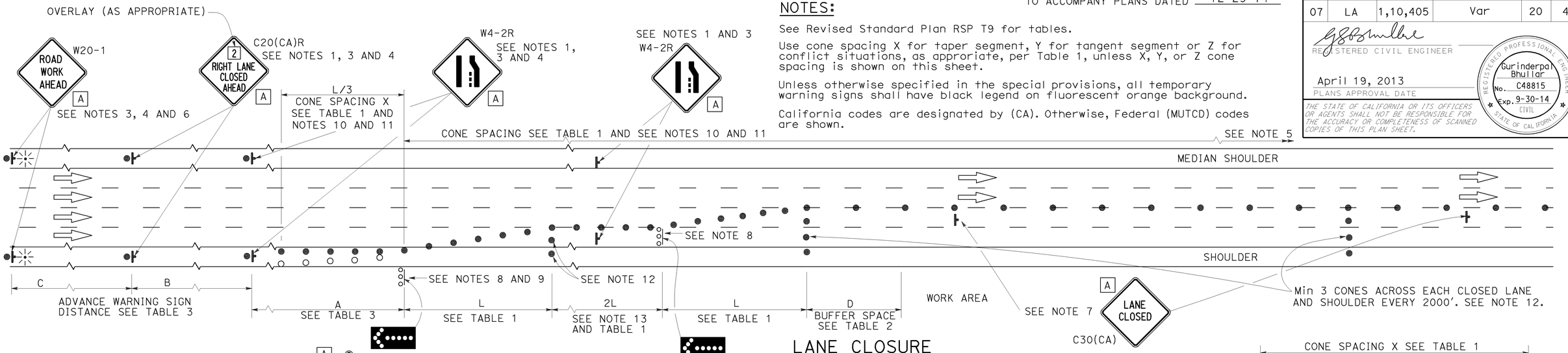
NOTES:

See Revised Standard Plan RSP T9 for tables.

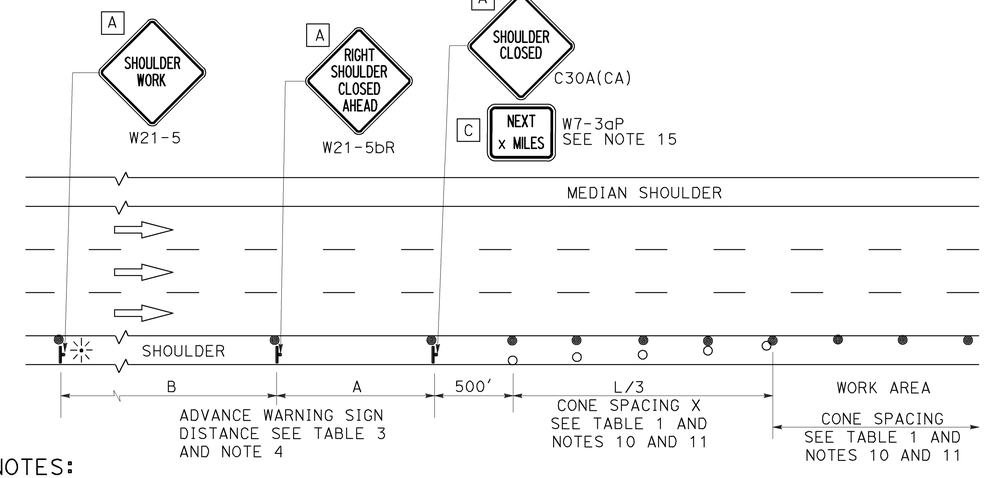
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

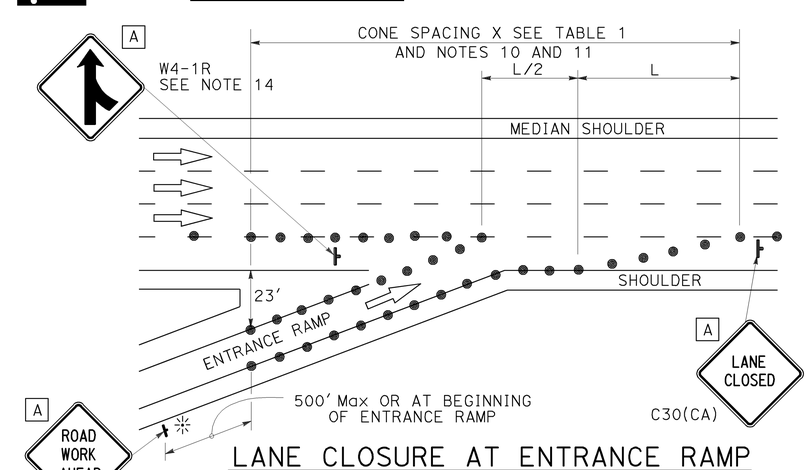
Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

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

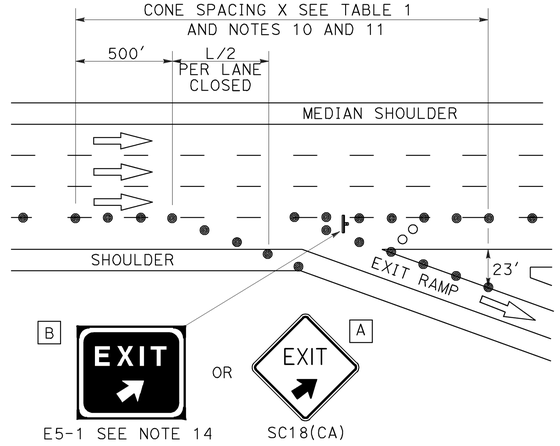


LANE CLOSURE





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.

SHOULDER CLOSURE

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

12-18-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	21	41

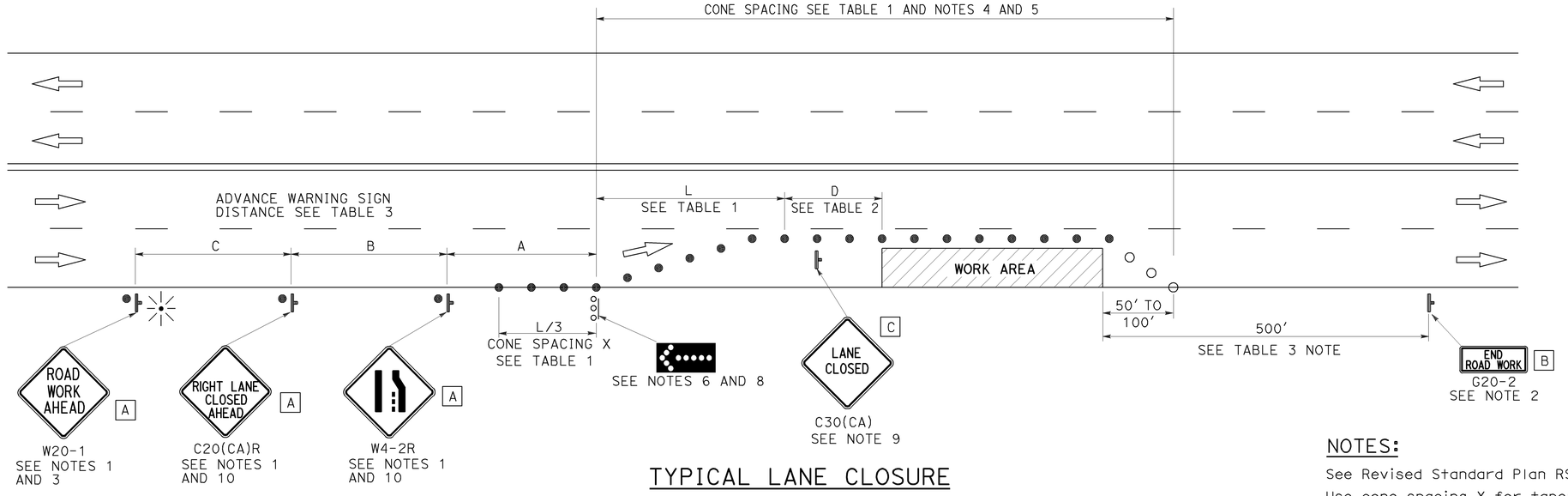
REGISTERED CIVIL ENGINEER

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 12-29-14



TYPICAL LANE CLOSURE

NOTES:

1. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
3. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Flashing arrow sign shall be either Type I or Type II.
7. For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
8. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
9. Place a C30(CA) sign every 2000' throughout length of lane closure.
10. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
11. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

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.

LEGEND

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

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 36" x 18"
- C 30" x 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

4-2-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	22	41

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 12-29-14

LEGEND

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

SIGN PANEL SIZE (Min)

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

NOTES:

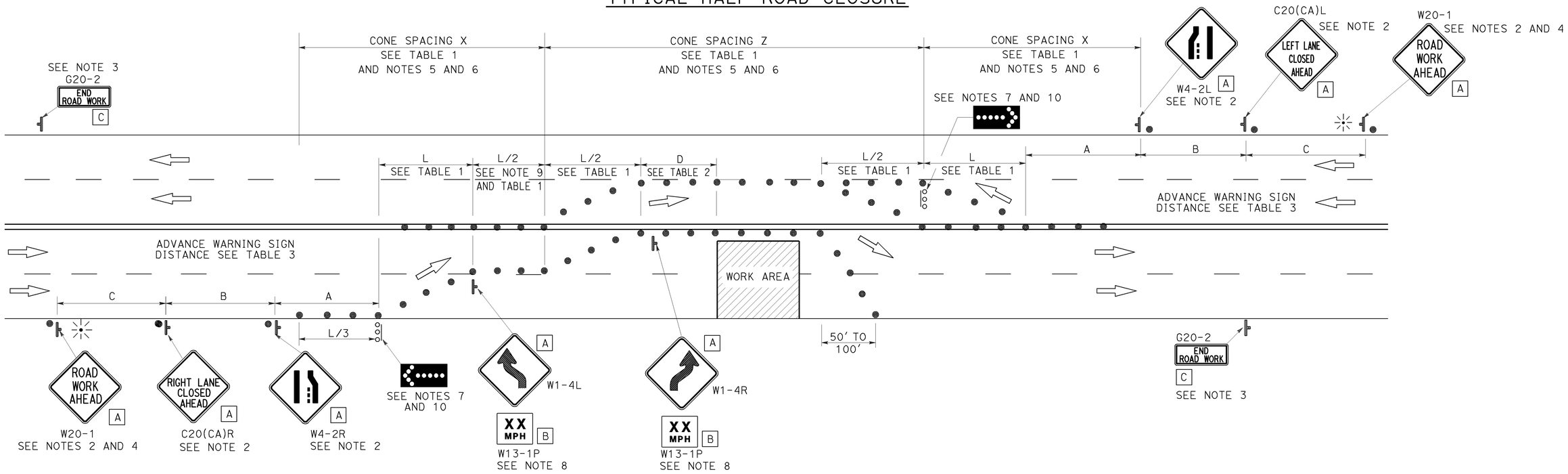
See Revised Standard Plan RSP T9 for tables.

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

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

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

TYPICAL HALF ROAD CLOSURE



NOTES:

1. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.
2. Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
4. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
5. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
6. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
7. Flashing arrow signs shall be either Type I or Type II.
8. Advisory speed will be determined by the Engineer. The W13-1P Plaque will not be required when advisory speed is more than the posted or maximum speed limit.
9. Unless otherwise specified in the special provisions, the tangent (L/2) shall be used.
10. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

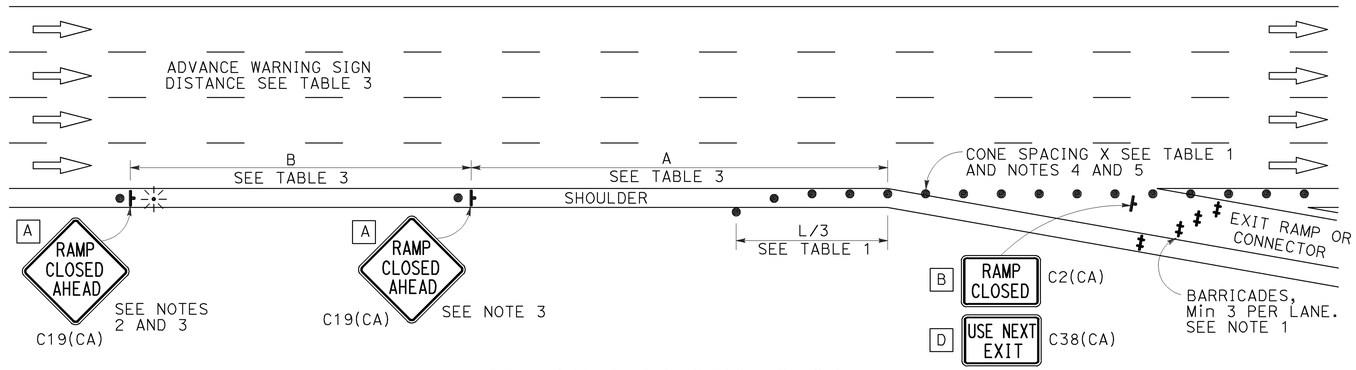
RSP T12 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T12
DATED MAY 20, 2011 - PAGE 240 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T12

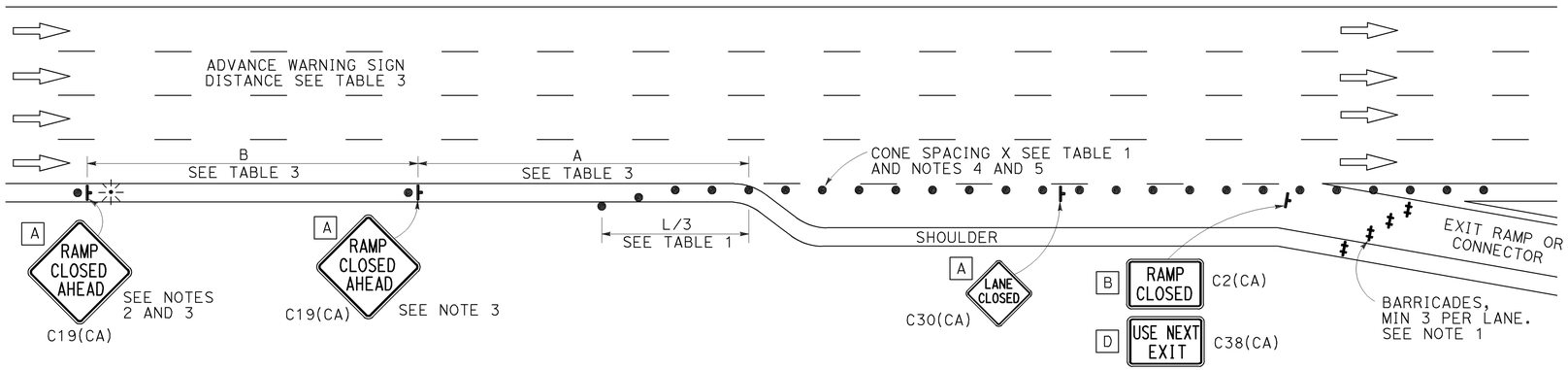
2010 REVISED STANDARD PLAN RSP T12

4-2-13

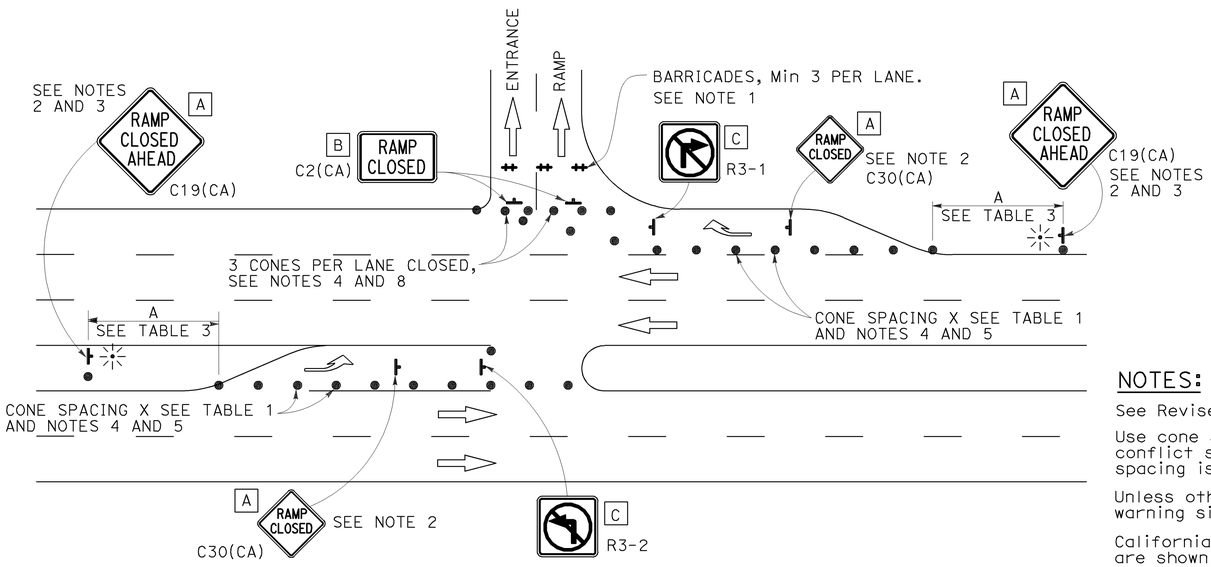
TYPICAL RAMP CLOSURES



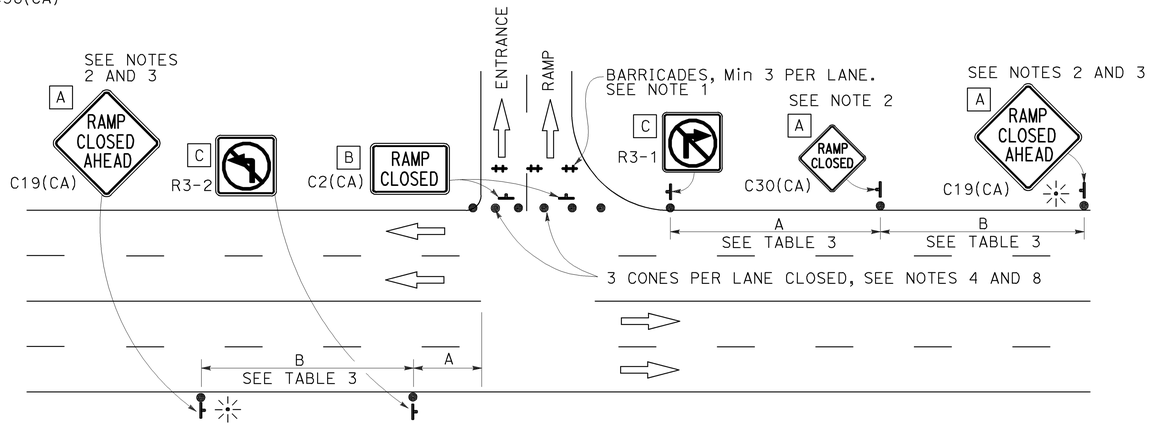
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

SIGN PANEL SIZE (Min)

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

LEGEND

- ● TRAFFIC CONE
- ⊢ TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ⁘ PORTABLE FLASHING BEACON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	23	41

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 12-29-14

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.

NOTES:

See Revised Standard Plan RSP T9 for tables.

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

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

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

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

REVISED STANDARD PLAN RSP T14

2010 REVISED STANDARD PLAN RSP T14

12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	24	41

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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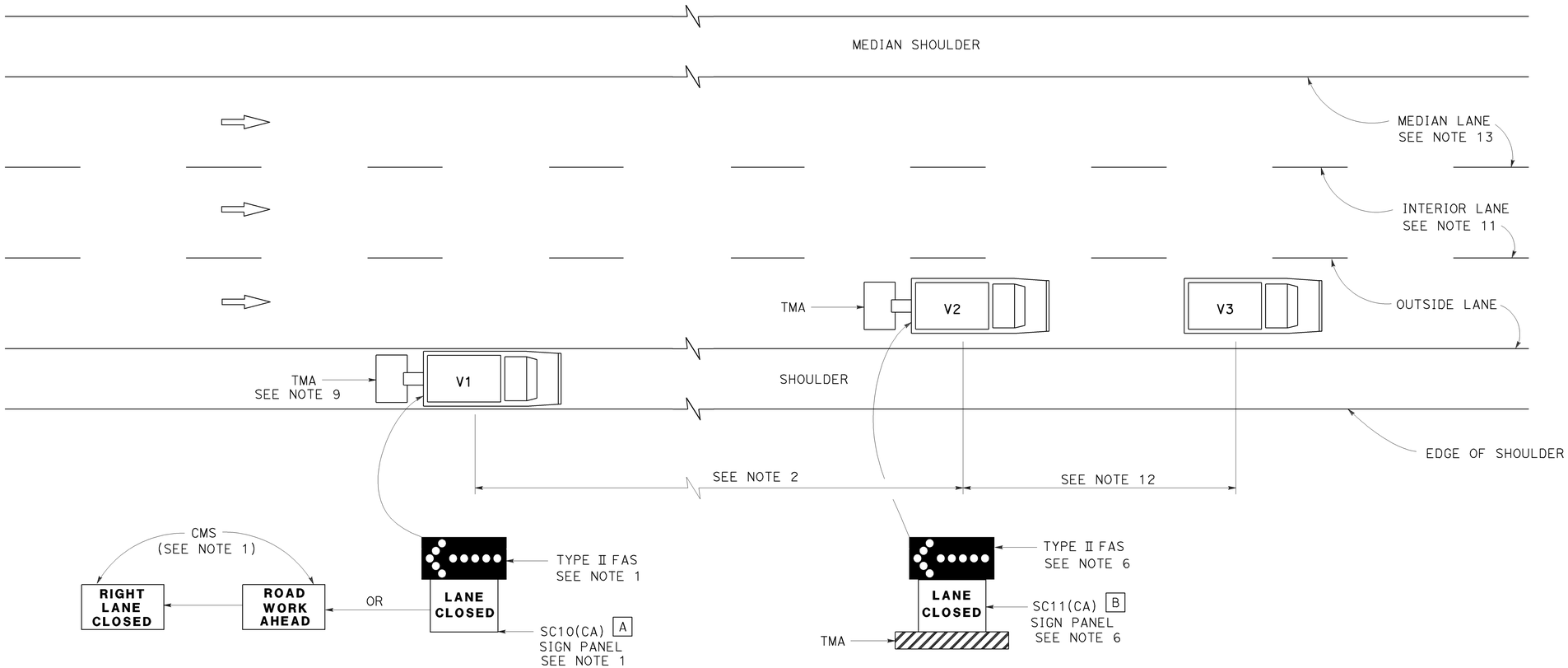
TO ACCOMPANY PLANS DATED 12-29-14



SIGN PANEL SIZE (Min)

A 66" x 36"

B 54" x 42"

LEGEND

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

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T15

2010 REVISED STANDARD PLAN RSP T15

12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	25	41

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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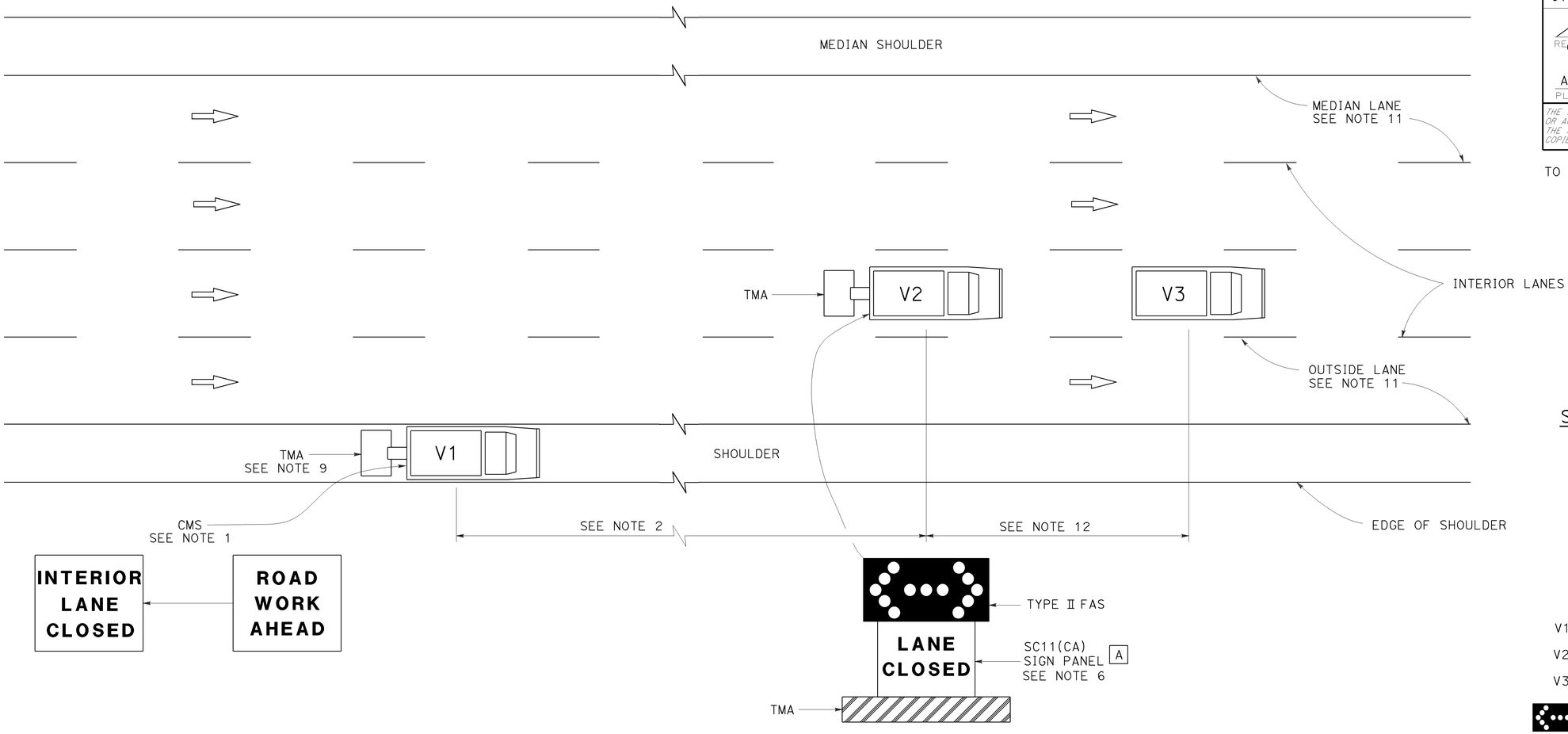
TO ACCOMPANY PLANS DATED 12-29-14



MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

SIGN PANEL SIZE (Min)

A 54" x 42"

LEGEND

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T16

2010 REVISED STANDARD PLAN RSP T16

12-18-13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	26	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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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
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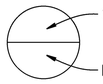
10	GENERAL PLAN NO. 10
11	GENERAL PLAN NO. 11
12	GENERAL PLAN NO. 12
13	GENERAL PLAN NO. 13
14	MISCELLANEOUS DETAILS NO. 1
15	MISCELLANEOUS DETAILS NO. 2
16	MISCELLANEOUS DETAILS NO. 3

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")

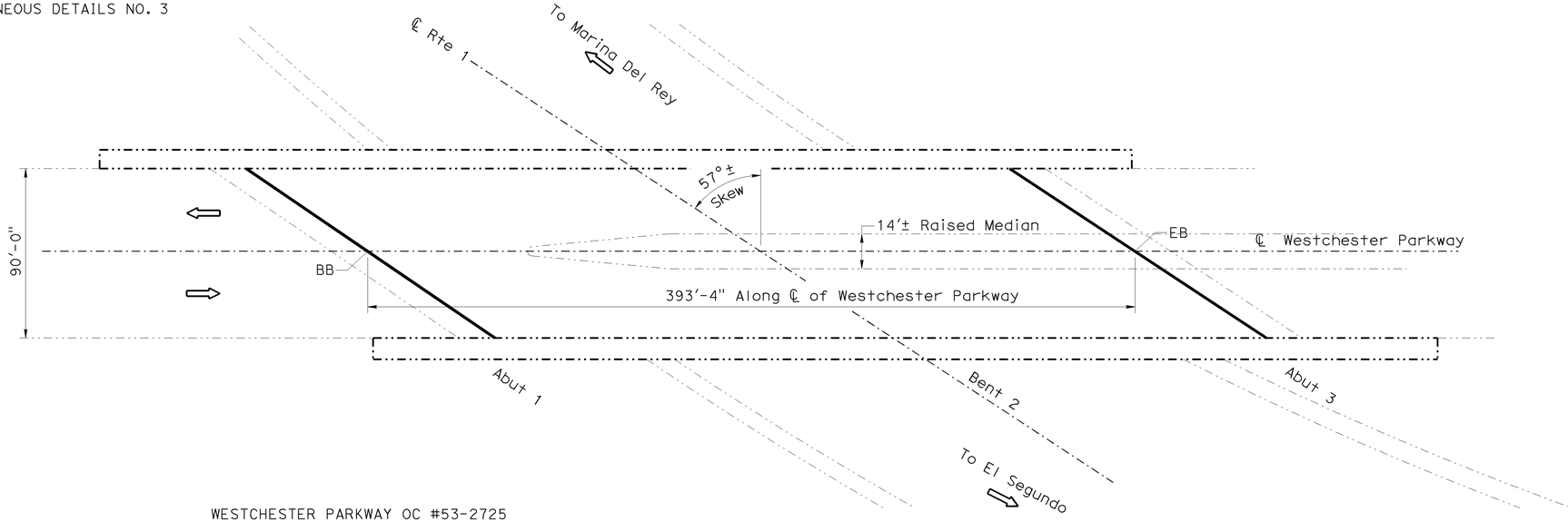


LEGEND:

Indicates existing.

Indicates direction of traffic.

Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.



WESTCHESTER PARKWAY OC #53-2725

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	1 CF
REMOVE UNSOUND CONCRETE	1 CF
CLEAN EXPANSION JOINT	332 LF
JOINT SEAL (MR 1½")	332 LF

WESTCHESTER PARKWAY OC

Br No. 53-2725, Rte 1, PM 28.50
Scale 1"=40'

NOTES:

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

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	BY Clayton Tom	CHECKED Edward Nahm	LAYOUT	BY Clayton Tom	CHECKED Edward Nahm
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwich

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-05-14	09-11-14	01	16

FILE => 07-2w7001-g-gp01.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	27	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

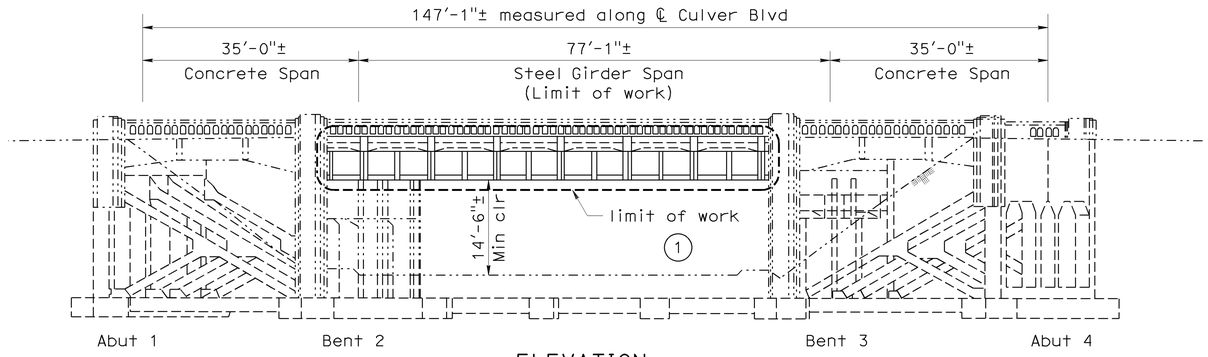
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

LEGEND:

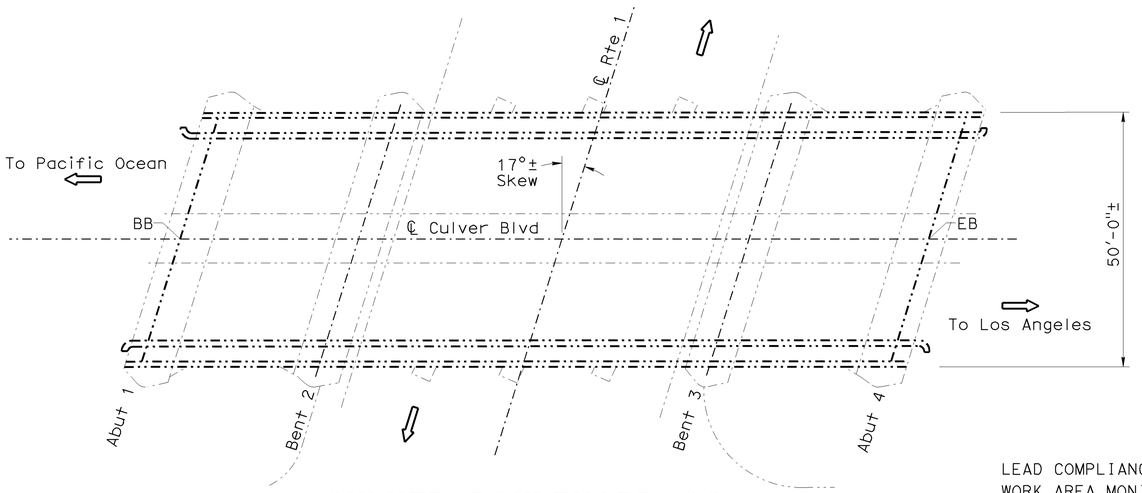
Indicates existing.

Indicates direction of traffic.

(1) Indicates limits of clean, spot blast clean and paint undercoat, application of the specified paint system to steel members.



ELEVATION
No Scale

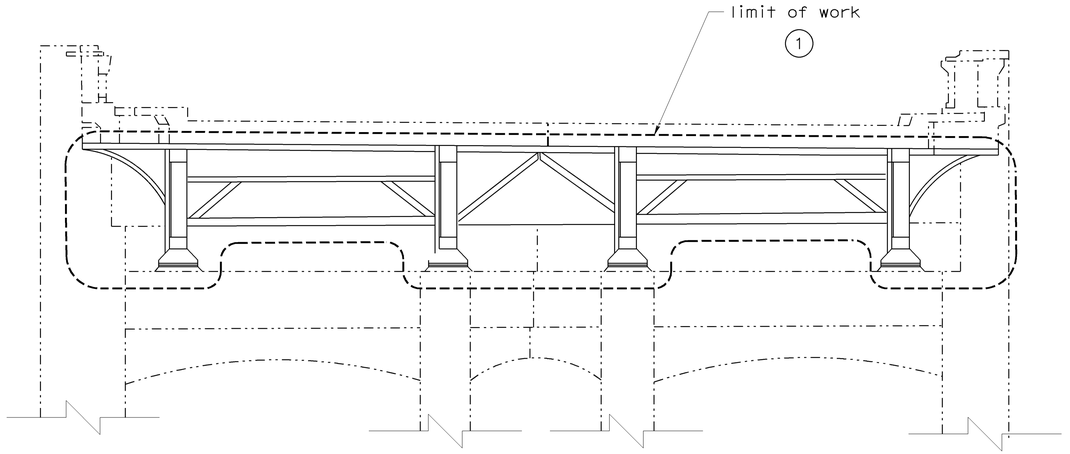


CULVER BOULEVARD OC
Br No. 53-0089, Rte 1, PM 30.47
No Scale

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

PAINT TABLE

ITEM	APPROX AREA (SQFT)
Spot Blast Clean and Paint Undercoat	1120



TYPICAL SECTION
No Scale

CULVER BOULEVARD OC #53-0089
QUANTITIES

LEAD COMPLIANCE PLAN	LUMP SUM
WORK AREA MONITORING (BRIDGE)	LUMP SUM
CLEAN STRUCTURAL STEEL (EXISTING BRIDGE)	LUMP SUM
PAINT STRUCTURAL STEEL (EXISTING BRIDGE)	LUMP SUM
SPOT BLAST CLEAN AND PAINT UNDERCOAT	1,120 SQFT

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
DETAILS	BY Clayton Tom	CHECKED Edward Nahm	LAYOUT	BY Clayton Tom	CHECKED Edward Nahm	
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-05-14	09-11-14	02	16

FILE => 07-2w7001-a-gp02.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	28	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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LEGEND:

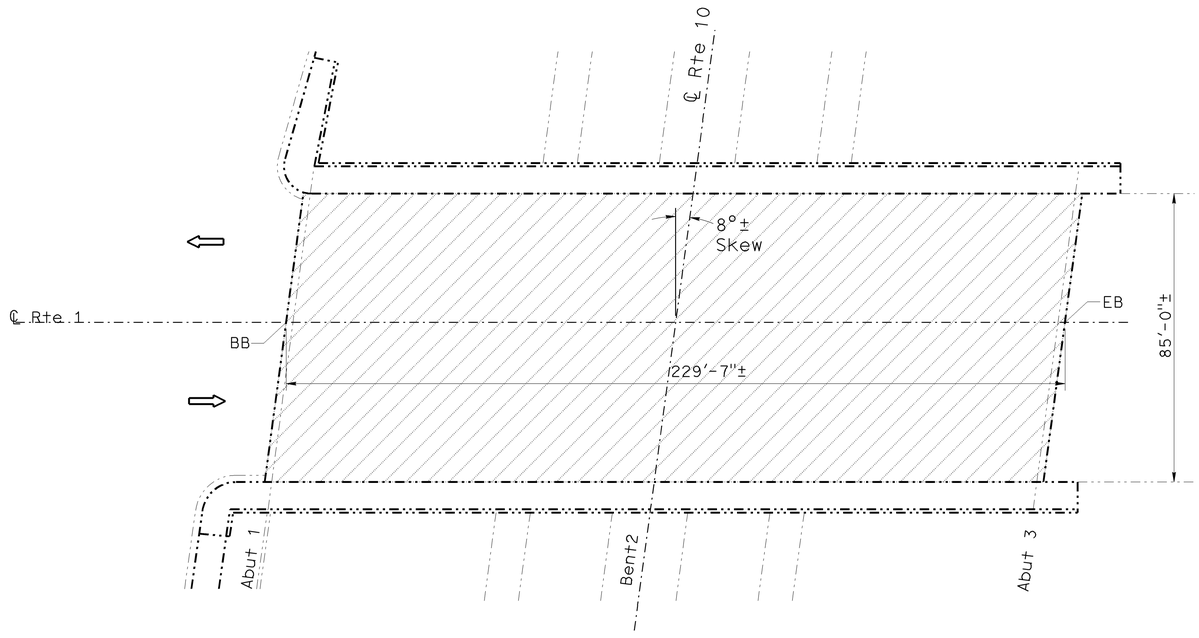
Indicates existing.

Indicates direction of traffic.

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

NOTE:

1. For deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3" sheet.



ROUTE 1 / 10 SEPARATION

Br No. 53-1594, Rte 1, PM 34.55
Scale 1"=20'

ROUTE 1/10 SEPARATION #53-1594
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	49 CF
REMOVE UNSOUND CONCRETE	49 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	19,515 SQFT
TREAT BRIDGE DECK	19,515 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	245 GAL

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

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD			
DETAILS	BY Clayton Tom	CHECKED Edward Nahm	LAYOUT	BY Clayton Tom	CHECKED Edward Nahm		
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick		

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-05-14	09-11-14	03	16

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:07
FILE => 07-2w7001-a-gp03.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	29	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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LEGEND:

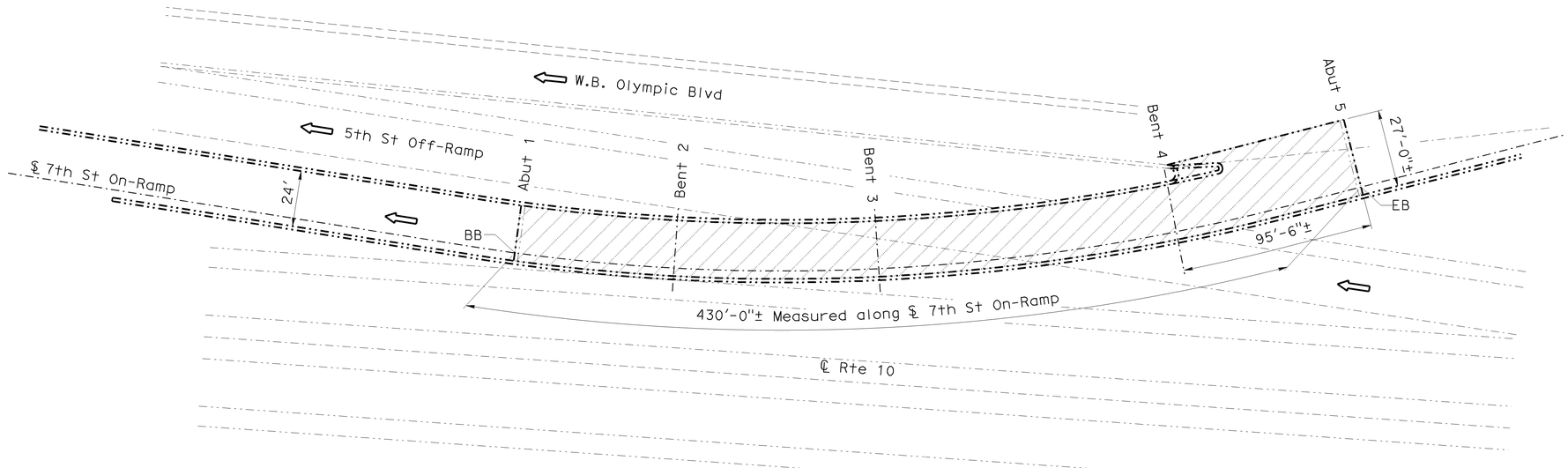
Indicates existing.

Indicates direction of traffic.

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

NOTE:

1. For deck damage repair details, see "MISCELLANEOUS DETAILS NO. 3" sheet.



5TH STREET OFF-RAMP SEPARATION

Br No. 53-2649S, Rte 1, PM 34.67
Scale 1"=30'

5TH STREET OFF-RAMP SEPARATION #53-2649S
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	27 CF
REMOVE UNSOUND CONCRETE	27 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	10,610 SQFT
TREAT BRIDGE DECK	10,610 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	135 GAL

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

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD			
DETAILS	BY Clayton Tom	CHECKED Edward Nahm	LAYOUT	BY Clayton Tom	CHECKED Edward Nahm		
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick		

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-05-14	09-11-14	04	16

FILE => 07-2w7001-a-gp04.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	30	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/16 — CIVIL — STATE OF CALIFORNIA

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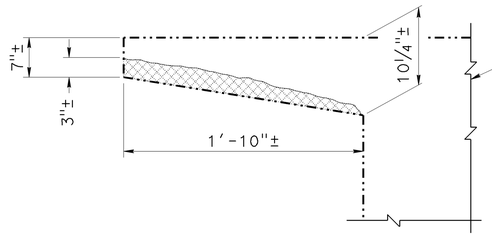
LEGEND:

Indicates existing.

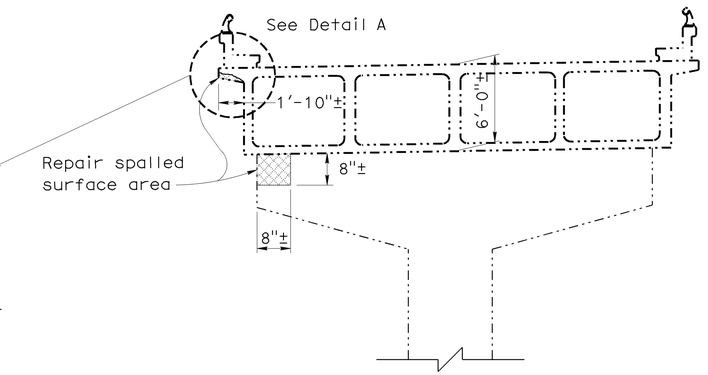
Indicates direction of traffic.

Indicates repair spalled surface area.

Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.



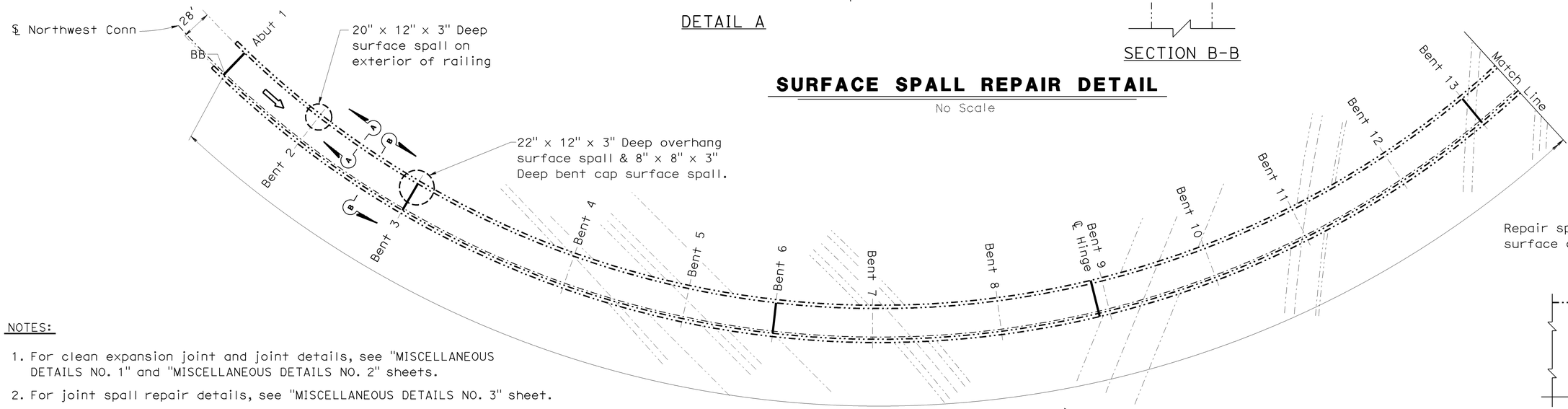
DETAIL A

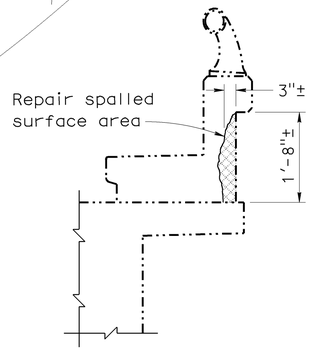


SECTION B-B

SURFACE SPALL REPAIR DETAIL

No Scale

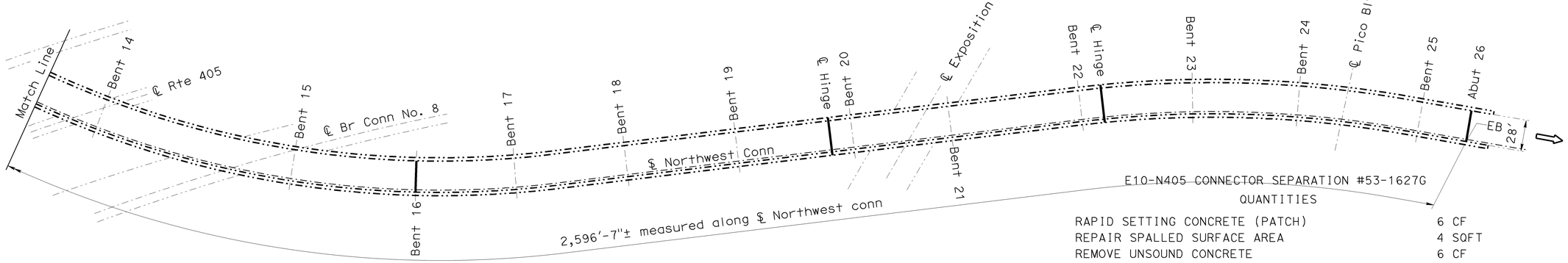




SECTION A-A

NOTES:

1. For clean expansion joint and joint details, see "MISCELLANEOUS DETAILS NO. 1" and "MISCELLANEOUS DETAILS NO. 2" sheets.
2. For joint spall repair details, see "MISCELLANEOUS DETAILS NO. 3" sheet.



E10-N405 CONNECTOR SEPARATION

Br No. 53-1627G, Rte 10, PM R5.28
1" = 50'

E10-N405 CONNECTOR SEPARATION #53-1627G

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	6 CF
REPAIR SPALLED SURFACE AREA	4 SQFT
REMOVE UNSOUND CONCRETE	6 CF
CLEAN EXPANSION JOINT	280 LF
JOINT SEAL (MR ½")	56 LF
JOINT SEAL (MR 2")	224 LF

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DESIGN	Edward Nahm	Tony Brake			
DETAILS	Clayton Tom	Edward Nahm	LAYOUT	Clayton Tom	Edward Nahm
QUANTITIES	Edward Nahm	Tony Brake	SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 04-17-14 | 06-19-14 | 08-05-14 | 09-11-14

SHEET 05 OF 16

FILE => 07-2w7001-a-gp05.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	31	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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LEGEND:

Indicates existing.

Indicates direction of traffic.

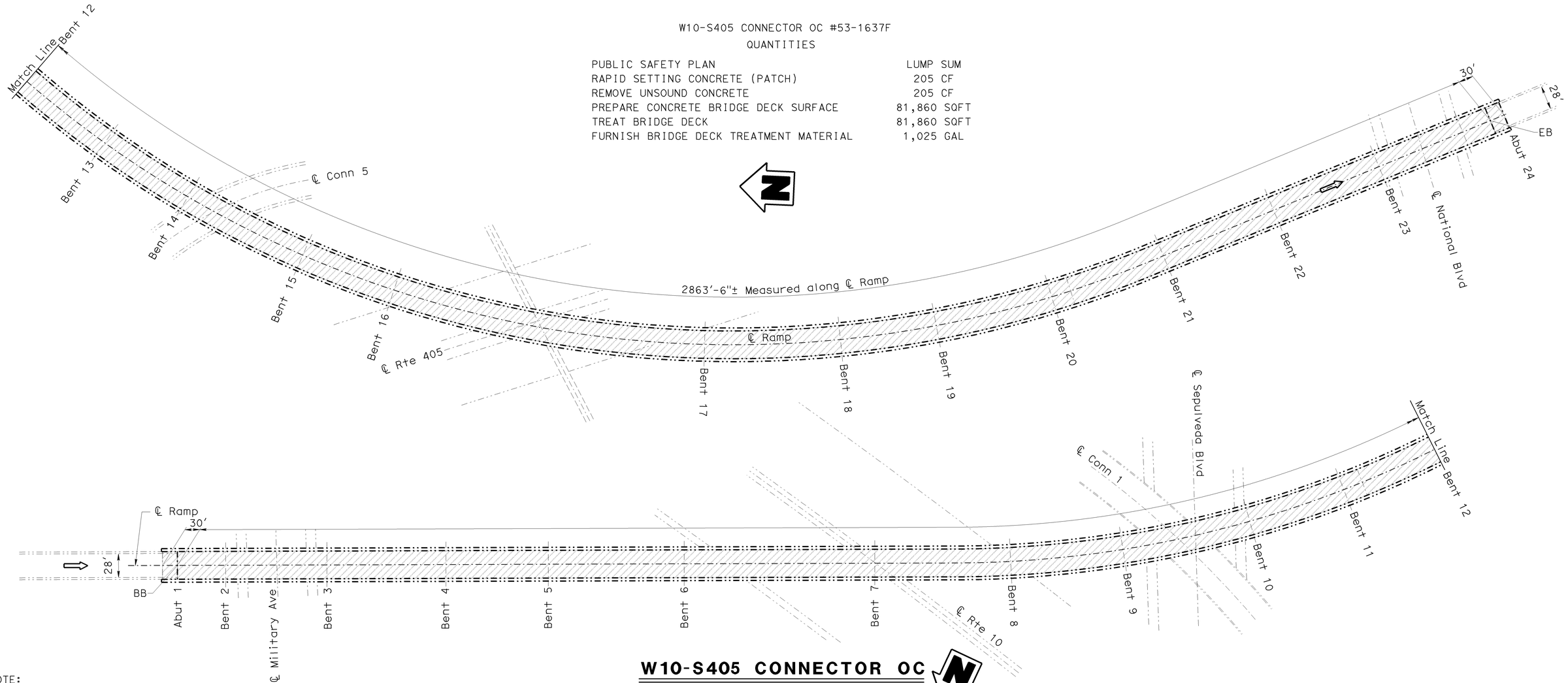
Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.

NOTE:

1. For deck damaage repair details, see "MISCELLANEOUS DETAILS NO. 3" sheet.

W10-S405 CONNECTOR OC #53-1637F
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	205 CF
REMOVE UNSOUND CONCRETE	205 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	81,860 SQFT
TREAT BRIDGE DECK	81,860 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	1,025 GAL



W10-S405 CONNECTOR OC

Br No. 53-1637F, Rte 10, PM R5.65
1" = 50′

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DESIGN	Edward Nahm	Tony Brake			
DETAILS	Clayton Tom	Edward Nahm	LAYOUT	Clayton Tom	Edward Nahm
QUANTITIES	Edward Nahm	Tony Brake	SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000438 1 CONTRACT NO.: 07-2W7004

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 BRIDGES
GENERAL PLAN NO. 6

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-18-14	08-05-14	09-11-14	06	16

FILE => 07-2w7001-a-gp06.dgn

USERNAME = s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	32	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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LEGEND:

Indicates existing.

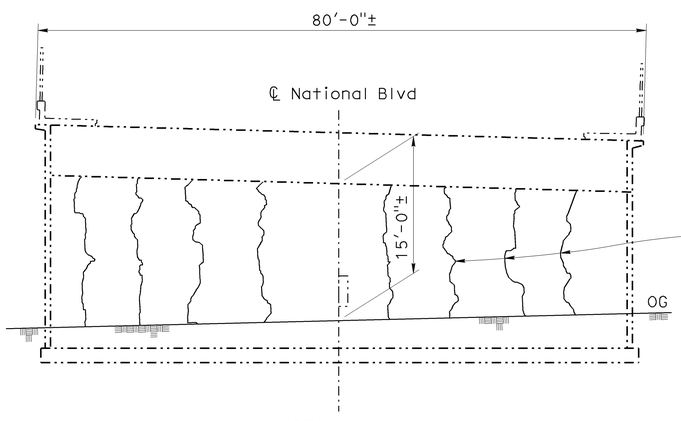
Indicates direction of traffic.

(IC) Indicates limits of epoxy crack injection.

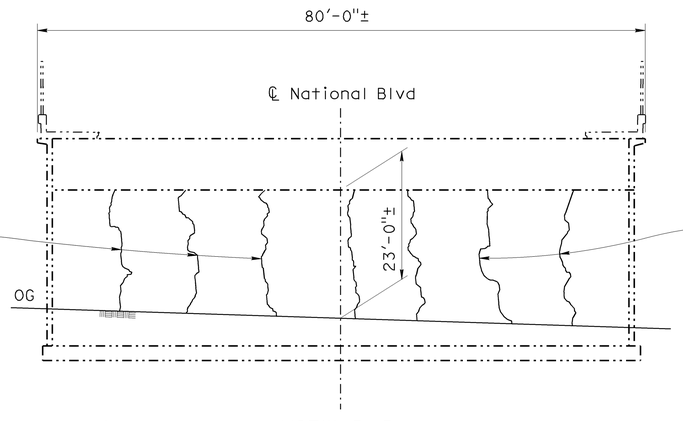
Indicates repair spalled surface area.

NATIONAL BOULEVARD OC #53-1615
QUANTITIES

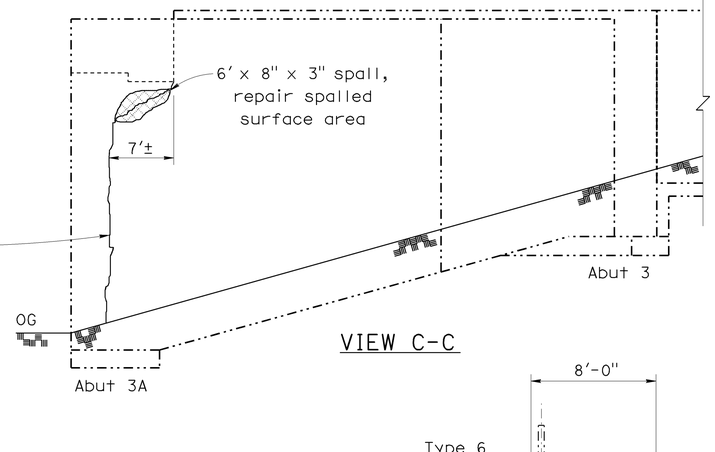
INJECT CRACK (EPOXY)	345 LF
REPAIR SPALLED SURFACE AREA	5 SQFT



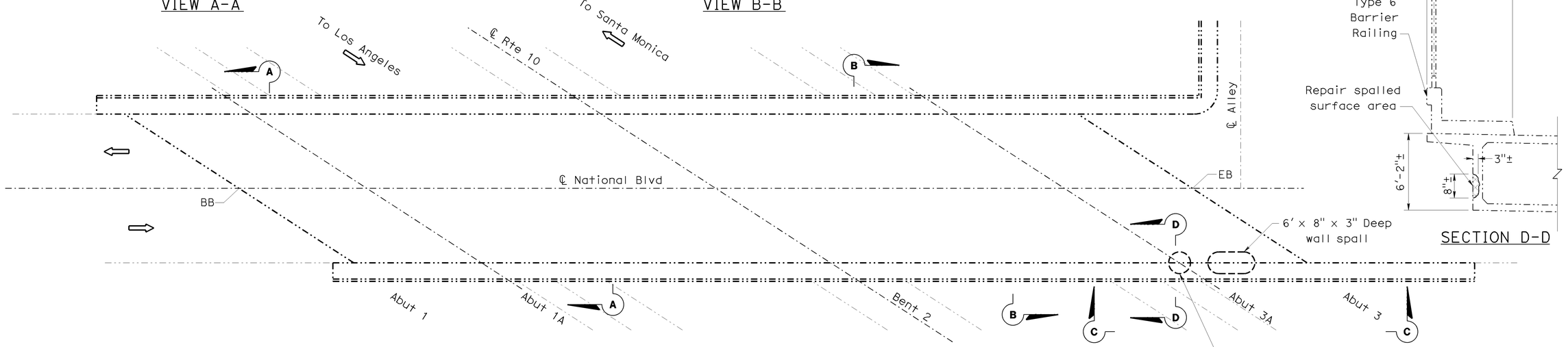
VIEW A-A

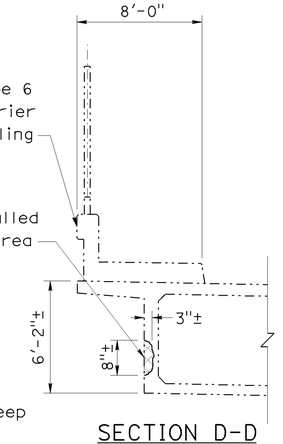


VIEW B-B



VIEW C-C





SECTION D-D

6' x 8" x 3" Deep wall spall

8" X 8" X 3" Deep girder spall

NATIONAL BOULEVARD OC

Br No. 53-1615, Rte 10, PM R6.31
Scale 1"=20'

NOTE:
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TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DESIGN	Edward Nahm	Tony Brake			
DETAILS	Clayton Tom	Edward Nahm	LAYOUT	BY Clayton Tom	CHECKED Edward Nahm
QUANTITIES	Edward Nahm	Tony Brake	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	ROUTES 1,10,405 BRIDGES
Various	GENERAL PLAN NO. 7
POST MILE	
Varies	

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
06-17-14	06-19-14	08-28-14	09-11-14	07	16

FILE => 07-2w7001-a-gp07.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	33	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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LEGEND:

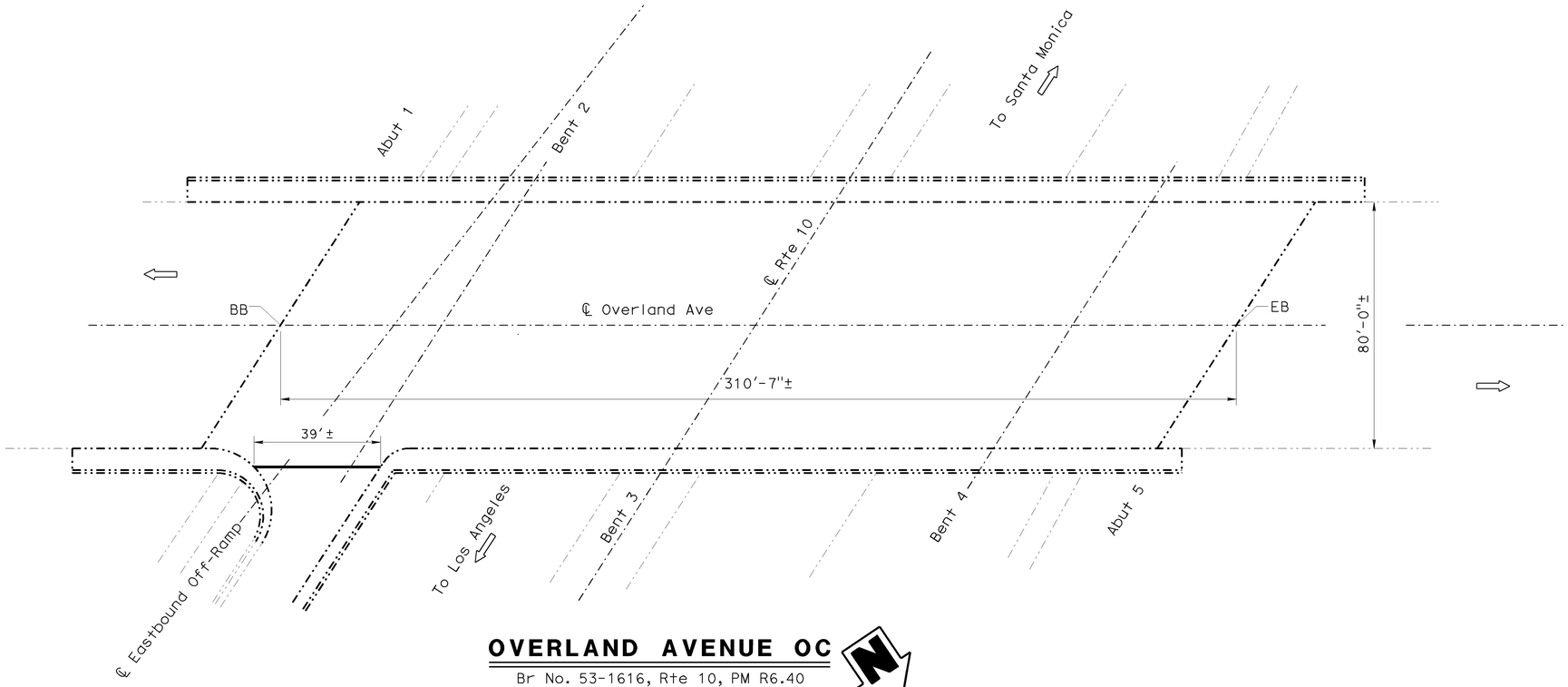
Indicates existing.

Indicates direction of traffic.

Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.

NOTES:

1. For clean expansion joint and joint details, see "MISCELLANEOUS DETAILS NO. 1" and "MISCELLANEOUS DETAILS NO. 2" sheets.
2. For joint spall repair details, see "MISCELLANEOUS DETAILS NO. 3" sheet.



OVERLAND AVENUE OC

Br No. 53-1616, Rte 10, PM R6.40
Scale 1"=20'

OVERLAND AVENUE OC #53-1616

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	1 CF
REMOVE UNSOUND CONCRETE	1 CF
CLEAN EXPANSION JOINT	39 LF
JOINT SEAL (MR 1")	39 LF

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

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
DETAILS	BY Clayton Tom	CHECKED Edward Nahm	LAYOUT	BY Clayton Tom	CHECKED Edward Nahm	
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-05-14	09-11-14	08	16

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:09
FILE => 07-2w7001-a-gp08.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	34	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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LEGEND:

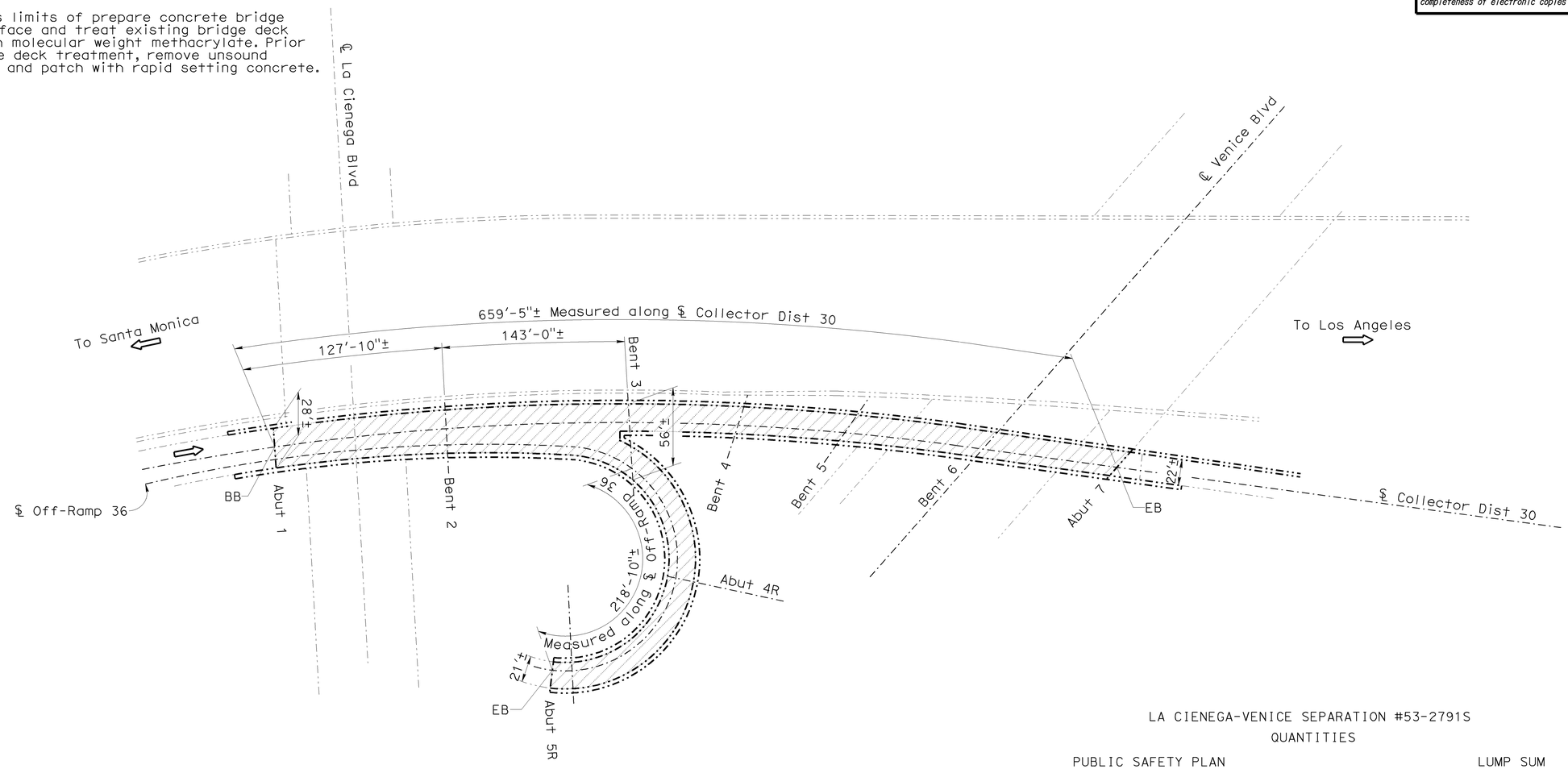
Indicates existing.

Indicates direction of traffic.

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

NOTE:

1. For deck damaage repair details, see "MISCELLANEOUS DETAILS NO. 3" sheet.



LA CIENEGA-VENICE SEPARATION

Br No. 53-2791S, Rte 10, PM R8.83
No Scale

LA CIENEGA-VENICE SEPARATION #53-2791S
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	61 CF
REMOVE UNSOUND CONCRETE	61 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	24,520 SQFT
TREAT BRIDGE DECK	24,520 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	310 GAL

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

TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Edward Nahm	Tony Brake
DETAILS	Clayton Tom	Edward Nahm
QUANTITIES	Edward Nahm	Tony Brake

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

	BY	CHECKED
LAYOUT	Clayton Tom	Edward Nahm
SPECIFICATIONS	Theresa Nedwick	Theresa Nedwick

PLANS AND SPECS COMPARED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-05-14	09-11-14	09	16

FILE => 07-2w7001-a-gp09.dgn

USERNAME = s117263 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	35	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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LEGEND:

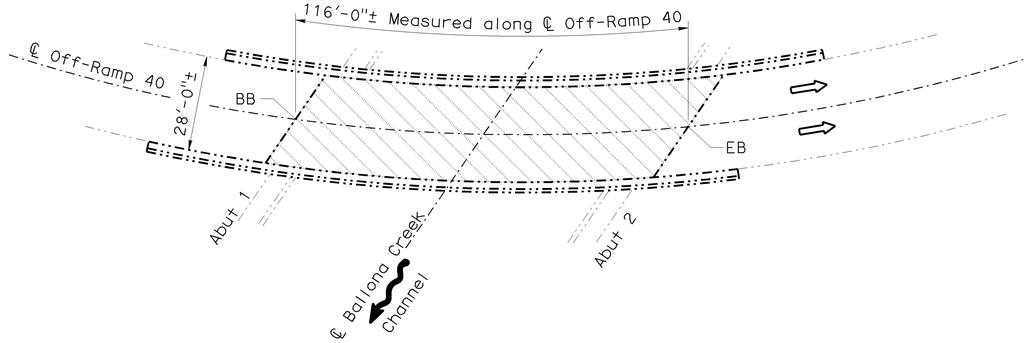
Indicates existing.

Indicates direction of traffic.

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

NOTE:

1. For deck damaage repair details, see "MISCELLANEOUS DETAILS NO. 3" sheet.



BALLONA CREEK (FAIRFAX OFF-RAMP)

Br No. 53-1611S, Rte 10, PM R9.02
Scale 1"=20'

BALLONA CREEK (FAIRFAX OFF-RAMP) #53-1611S
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	8 CF
REMOVE UNSOUND CONCRETE	8 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	3,250 SQFT
TREAT BRIDGE DECK	3,250 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	40 GAL

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

TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DESIGN	Edward Nahm	Tony Brake			
DETAILS	Clayton Tom	Edward Nahm	LAYOUT	Clayton Tom	Edward Nahm
QUANTITIES	Edward Nahm	Tony Brake	SPECIFICATIONS	Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-05-14	09-11-14	10	16

FILE => 07-2w7001-a-gp10.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	36	41

REGISTERED CIVIL ENGINEER — DATE 09-11-14

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/16 — CIVIL — STATE OF CALIFORNIA

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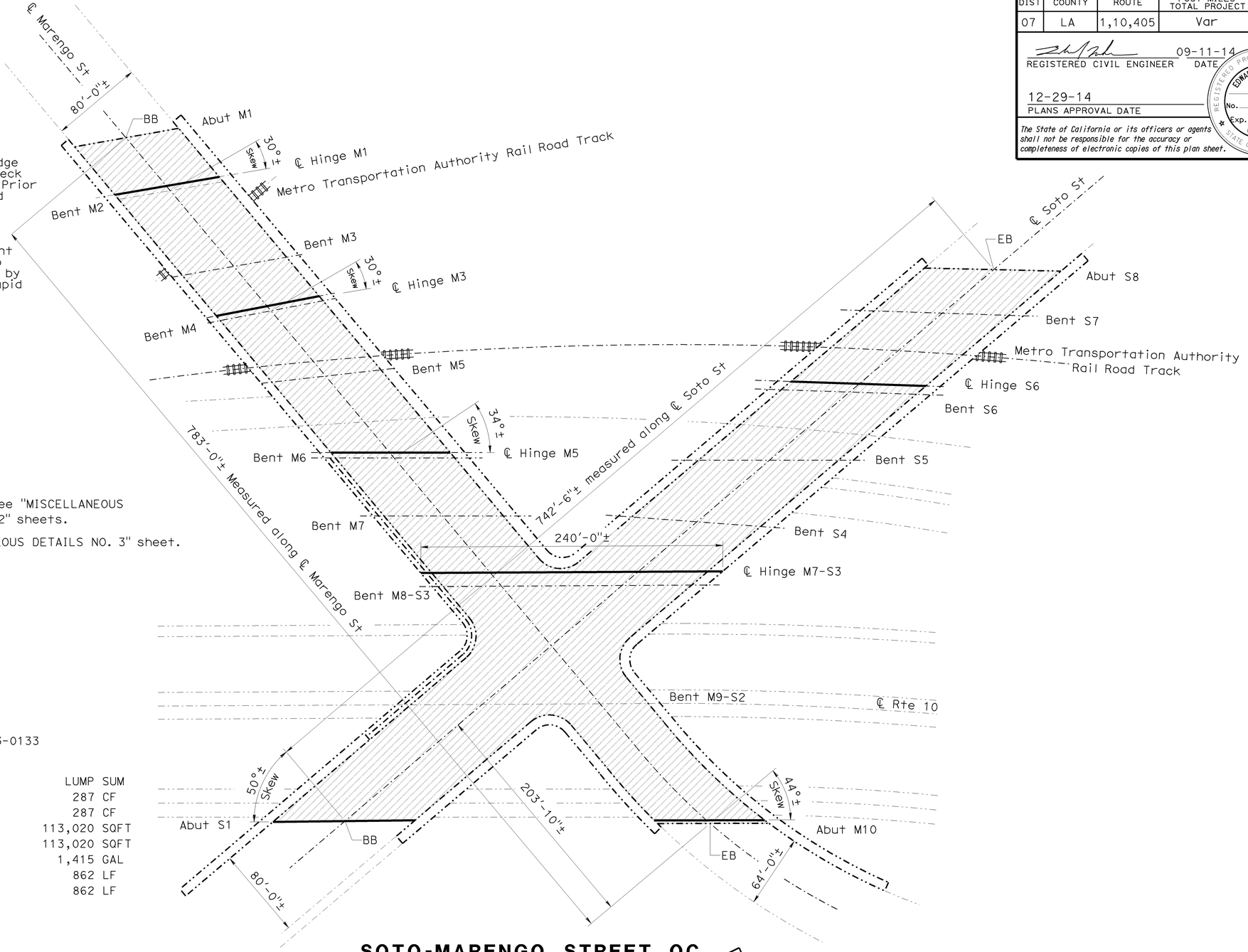
LEGEND:

Indicates existing.

Indicates direction of traffic.

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

Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint by removing unsound concrete and placing rapid setting concrete patch.



NOTES:

1. For clean expansion joint and joint details, see "MISCELLANEOUS DETAILS NO. 1" and "MISCELLANEOUS DETAILS NO. 2" sheets.
2. For joint spall repair details, see "MISCELLANEOUS DETAILS NO. 3" sheet.

SOTO-MARENGO STREET OC #53-0133
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	287 CF
REMOVE UNSOUND CONCRETE	287 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	113,020 SQFT
TREAT BRIDGE DECK	113,020 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	1,415 GAL
CLEAN EXPANSION JOINT	862 LF
JOINT SEAL (MR 1½")	862 LF

NOTE:
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SOTO-MARENGO STREET OC

Br No. 53-0133, Rte 10, PM 19.07
No Scale

N

TONY D. BRAKE
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Edward Nahm	Tony Brake
DETAILS	Clayton Tom	Edward Nahm
QUANTITIES	Edward Nahm	Tony Brake

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

	BY	CHECKED
LAYOUT	Clayton Tom	Edward Nahm
SPECIFICATIONS	Theresa Nedwick	Theresa Nedwick

PLANS AND SPECS COMPARED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-18-14	08-08-14	09-11-14	11	16

FILE => 07-2w7001-a-gp11.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	37	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/16 — CIVIL — STATE OF CALIFORNIA

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NOTE:

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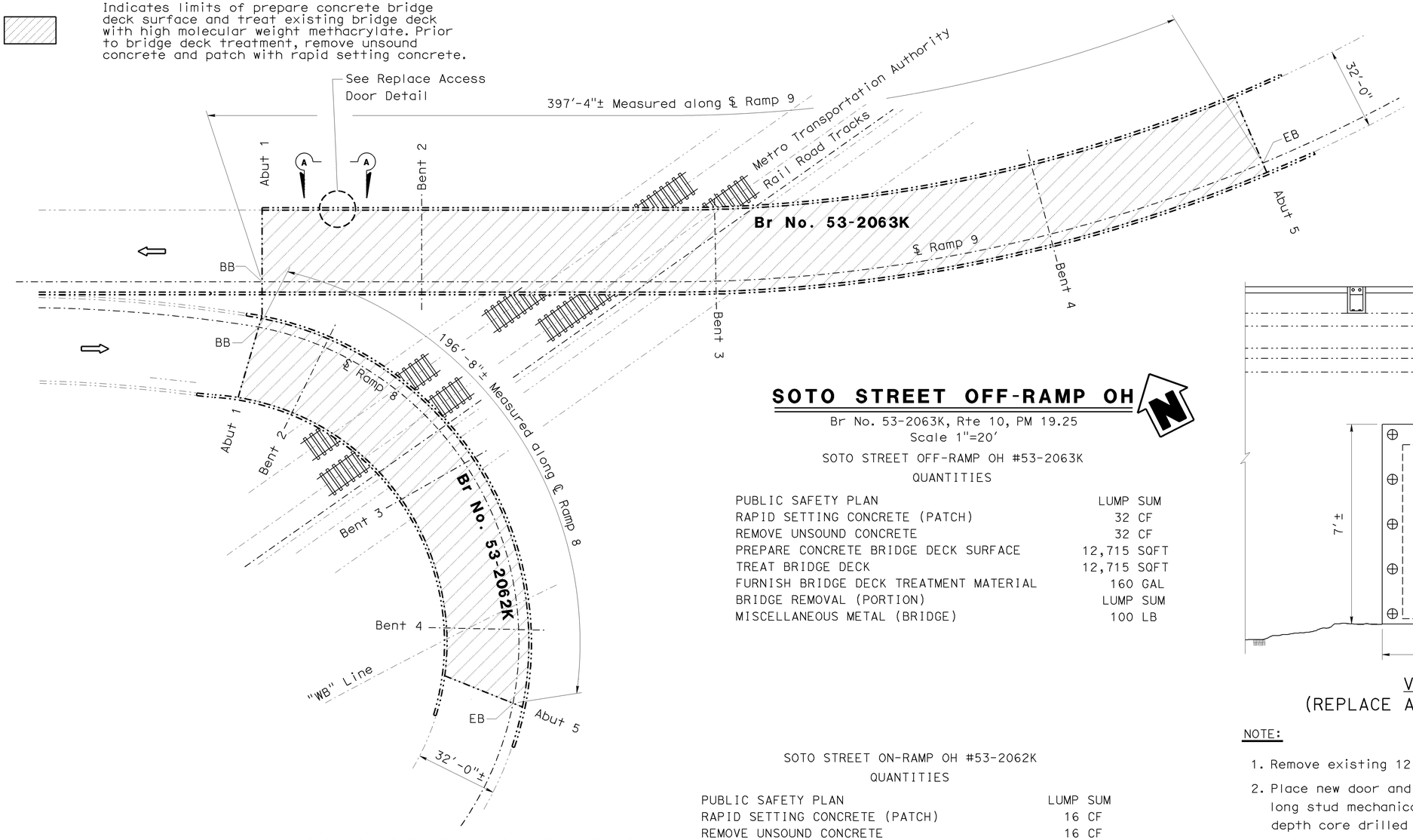


SOTO STREET OFF-RAMP OH

Br No. 53-2063K, Rte 10, PM 19.25
Scale 1"=20'

SOTO STREET OFF-RAMP OH #53-2063K
QUANTITIES

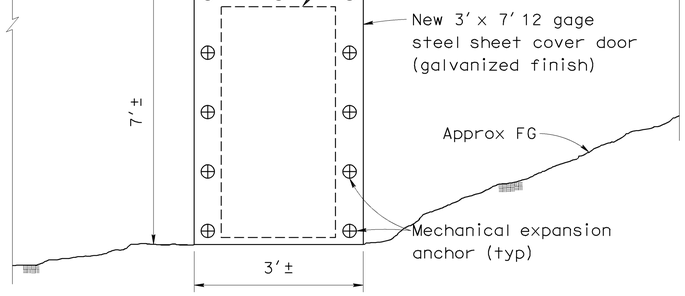
PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	32 CF
REMOVE UNSOUND CONCRETE	32 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	12,715 SQFT
TREAT BRIDGE DECK	12,715 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	160 GAL
BRIDGE REMOVAL (PORTION)	LUMP SUM
MISCELLANEOUS METAL (BRIDGE)	100 LB

SOTO STREET ON-RAMP OH

Br No. 53-2062K, Rte 10, PM 19.25

SOTO STREET ON-RAMP OH #53-2062K
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	16 CF
REMOVE UNSOUND CONCRETE	16 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	6,295 SQFT
TREAT BRIDGE DECK	6,295 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	80 GAL



VIEW A-A
(REPLACE ACCESS DOOR DETAIL)

NOTE:

1. Remove existing 12 gage steel sheet cover door.
2. Place new door and attach with ⅜ inch diameter x 5" long stud mechanical expansion anchors (12 total) in 3" depth core drilled holes.
3. Homeless transients, raw human sewage, used hypodermic needles, and various assorted items must be removed prior to starting work (See Road Plans).

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TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD			
DETAILS	BY Clayton Tom	CHECKED Edward Nahm	LAYOUT	BY Clayton Tom	CHECKED Edward Nahm		
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick		

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 BRIDGES
GENERAL PLAN NO. 12

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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
09-11-14	06-19-14	05-05-14	09-11-13	12	16

FILE => 07-2w7001-a-gp12.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	38	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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NOTES:

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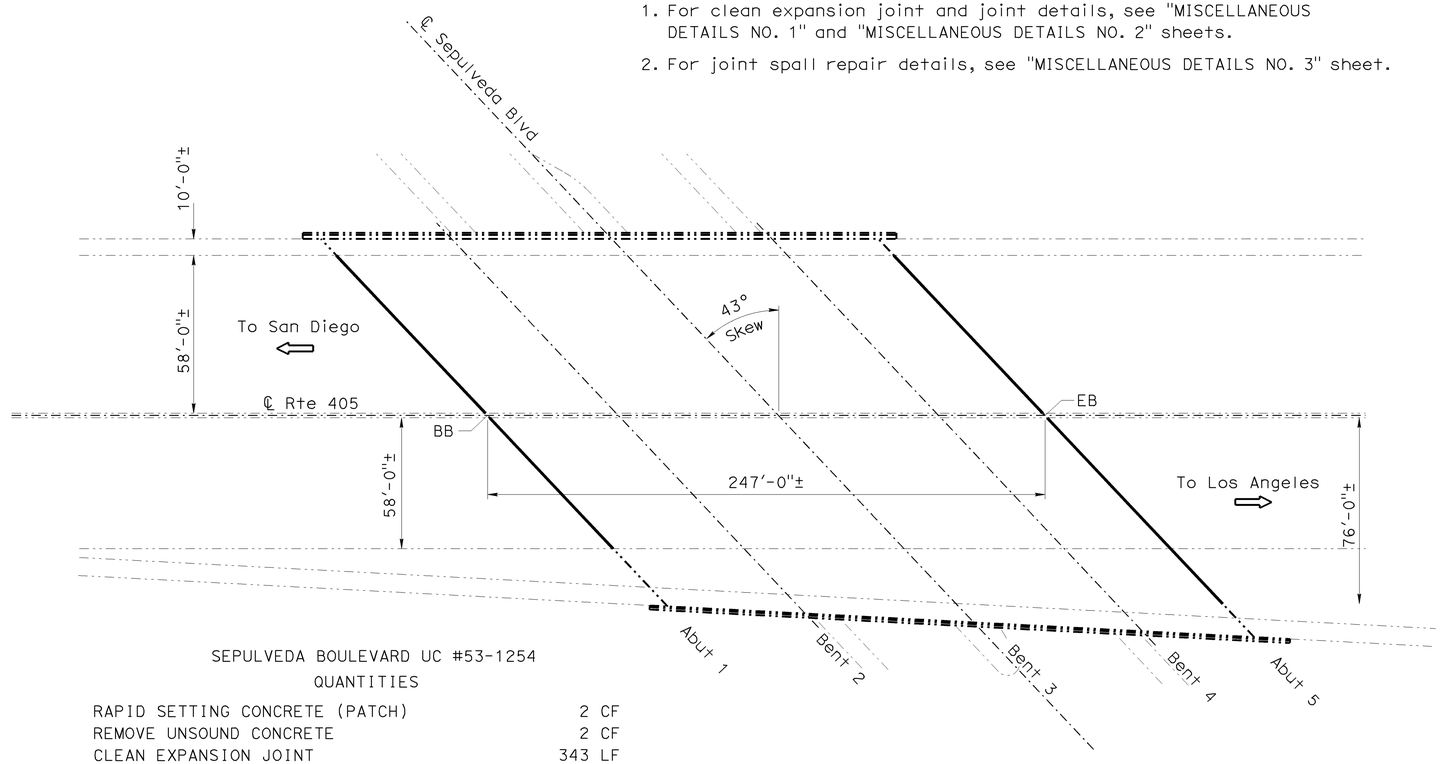

SEPULVEDA BOULEVARD UC #53-1254

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	2 CF
REMOVE UNSOUND CONCRETE	2 CF
CLEAN EXPANSION JOINT	343 LF
JOINT SEAL (MR 1")	343 LF

SEPULVEDA BOULEVARD UC

Br No. 53-1254, Rte 405, PM 25.46
Scale 1"=30'

NOTE:
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TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Clayton Tom	CHECKED Edward Nahm	LAYOUT	BY Clayton Tom	CHECKED Edward Nahm	
	QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Theresa Nedwick	PLANS AND SPECS COMPARED Theresa Nedwick	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	ROUTES 1,10,405 BRIDGES
Various	GENERAL PLAN NO. 13
POST MILE	
Varies	

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3489
PROJECT NUMBER & PHASE: 0713000438 1 CONTRACT NO.: 07-2W7001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-05-14	09-11-14	13	16

FILE => 07-2w7001-a-gp13.dgn

USERNAME = s117283 DATE PLOTTED => 27-OCT-2014 TIME PLOTTED => 09:42

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	39	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
EDWARD J. NAHM
No. C66900
Exp. 09/30/16
CIVIL
STATE OF CALIFORNIA

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JOINT SEAL TABLE

BRIDGE NAME	BRIDGE NUMBER	JOINT SEAL LOCATION		MINIMUM "MR" (INCHES)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCHES)	APPROX JOINT LENGTH (ft)	LENGTH TO CLEAN EXP JOINT (ft)	APPROX DEPTH OF JOINT SPALLS (INCHES)	APPROX WIDTH OF JOINT SPALLS (INCHES)	APPROX LENGTH OF JOINT SPALLS (FT)
Westchester Parkway OC	53-2725	Abut 1	BW	1½	Yes	8	166	166	3	6	5
		Abut 3	BW	1½	Yes	8	166	166	3	6	5
E10-N405 Connector Separation	53-1627G	Abut 1	PN	½	No	12	28	28	3	6	5
		Bent 3	DJ	2	Yes	8	28	28	3	6	5
		Bent 6	DJ	2	Yes	8	28	28	3	6	5
		Hinge	Span 8	2	Yes	8	28	28	3	6	5
		Bent 13	DJ	2	Yes	8	28	28	3	6	5
		Bent 16	DJ	2	Yes	8	28	28	3	6	5
		Hinge	Span 19	2	Yes	8	28	28	3	6	5
		Hinge	Span 22	2	Yes	8	28	28	3	6	5
		Abut 26	BW	2	Yes	8	28	28	3	6	5
		Abut 26	PN	½	No	12	28	28	3	6	5
Overland Avenue OC	53-1616	Hinge	DJ	1	Yes	8	39	39	3	6	5
Soto-Marengo Street OC	53-0133	Hinge M1	DJ	1½	Yes	8	93	93	3	6	5
		Hinge M3	DJ	1½	Yes	8	93	93	3	6	5
		Hinge M5	DJ	1½	Yes	8	97	97	3	6	5
		Hinge M7-S3	DJ	1½	Yes	8	240	240	3	6	5
		Abut M10	BW	1½	Yes	8	89	89	3	6	5
		Abut S1	BW	1½	Yes	8	125	125	3	6	5
		Hinge S6	DJ	1½	Yes	8	125	125	3	6	5
Sepulveda Blvd UC	53-1254	Abut 1	PN	1	No	12	159	159	3	6	5
		Abut 5	PN	1	No	12	184	184	3	6	5

PN = Paving Notch
BW = Backwall
DJ = Deck Joint

NOTE:
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	BY	CHECKED
DESIGN	Edward Nahm	Tony Brake
DETAILS	Clayton Tom	Edward Nahm
QUANTITIES	Edward Nahm	Tony Brake

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-06-14	09-11-14	14	16

FILE => 07-2w7001-u-miscdt01.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	40	41

09-11-14
REGISTERED CIVIL ENGINEER DATE

12-29-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/16 — CIVIL — STATE OF CALIFORNIA

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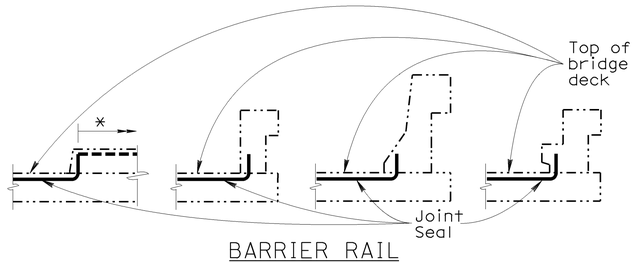


BARRIER RAIL

JOINT SEAL AT LOW SIDE OF DECK

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

NOTES:

The following notes apply to JOINT SEAL TYPE A:

Install Joint Seal (MR = ½") or Silicone Joint Seal 3" up into curb or barrier rail on the low side of the deck where deck joint aligns with curb or barrier rail joint.

For details not shown see Standard Plan B6-21.

The following notes apply to JOINT SEAL TYPE B:

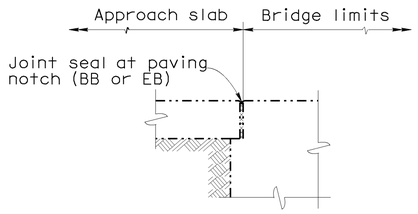
1) Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.

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.

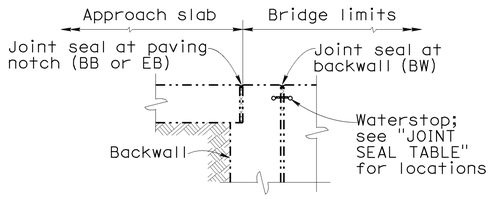
3) W1 shall be the smaller of the values determined as follows:
   A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
   B) The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3.0 PSI.

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.

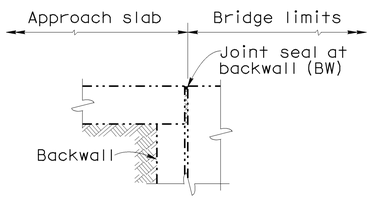
For details not shown see Standard Plan B6-21.



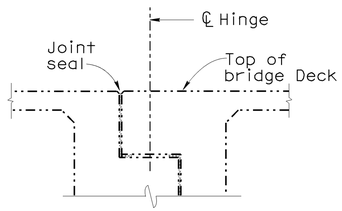
DIAPHRAGM ABUTMENT



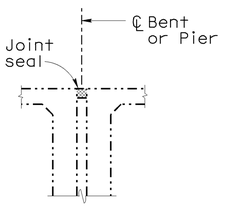
ABUTMENT WITH BACKWALL AND PAVING NOTCH



ABUTMENT WITH BACKWALL



HINGE



BENT OR PIER

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

JOINT SEAL LOCATION

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

DESIGN	BY Edward Nahm	CHECKED Tony Brake	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO. Various
DETAILS	BY Clayton Tom	CHECKED Edward Nahm			POST MILE Varies
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake			

ROUTES 1,10,405 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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-19-14	08-05-14	09-11-14	15	16

FILE => 07-2w7001-u-miscdt02.dgn

USERNAME => s117263 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,10,405	Var	41	41

REGISTERED CIVIL ENGINEER — 09-11-14 DATE

12-29-14
PLANS APPROVAL DATE

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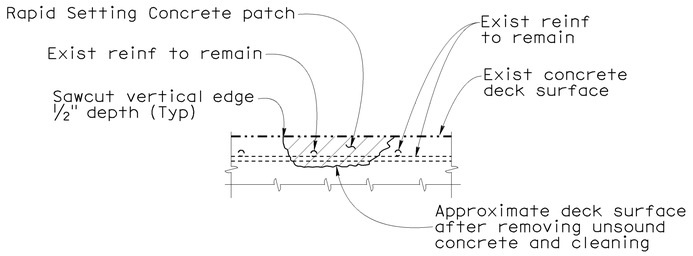
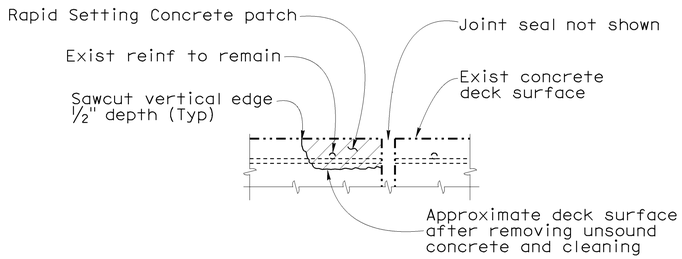
REGISTERED PROFESSIONAL ENGINEER — EDWARD J. NAHM — No. C66900 — Exp. 09/30/16 — CIVIL — STATE OF CALIFORNIA



DECK DAMAGE REPAIR DETAIL

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

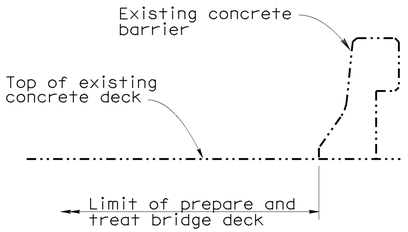


JOINT REPAIR DETAIL

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

DECK 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 ¾ 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.



EOD BARRIER

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

BRIDGE NAME	BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (%)	APPROXIMATE DEPTH (INCH)
Route 1/10 Separation	53-1594	1	3
5th Street Off-Ramp Separation	53-2649S	1	3
W10-S405 Connector OC	53-1637F	1	3
LA Cienega-Venice Separation	53-2791S	1	3
Ballona Creek (Fairfax Off-Ramp)	53-1611S	1	3
Soto-Marengo Street OC	53-0133	1	3
Soto Street On-Ramp OH	53-2062K	1	3
Soto Street Off-Ramp OH	53-2063K	1	3

NOTE:
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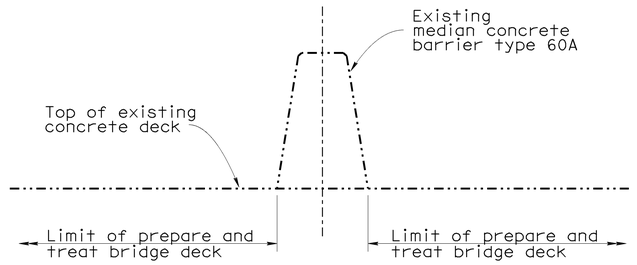
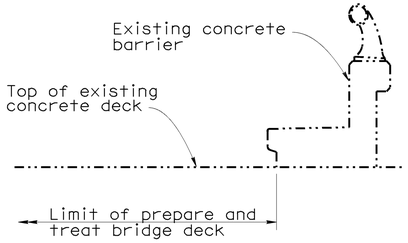
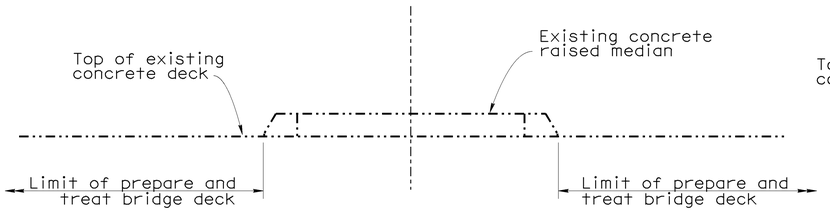


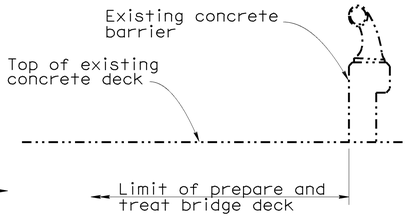
MEDIAN BARRIER



SIDEWALK BARRIER TYPE 2



RAISED MEDIAN



SIDEWALK BARRIER TYPE 1

TYPICAL LIMITS OF DECK WORK

NO SCALE

DESIGN	BY Edward Nahm	CHECKED Tony Brake	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO. Various
DETAILS	BY Clayton Tom	CHECKED Edward Nahm			POST MILE Varies
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake			

ROUTES 1,10,405 BRIDGES
MISCELLANEOUS DETAILS NO. 3

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: 0713000438 1 CONTRACT NO.: 07-2W7004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
04-17-14	06-18-14	08-05-14	09-11-14	16	16

FILE => 07-2w7001-u-miscdt03.dgn

USERNAME => s117283 DATE PLOTTED => 20-OCT-2014 TIME PLOTTED => 10:13