Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	1	43

INDEX OF PLANS

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

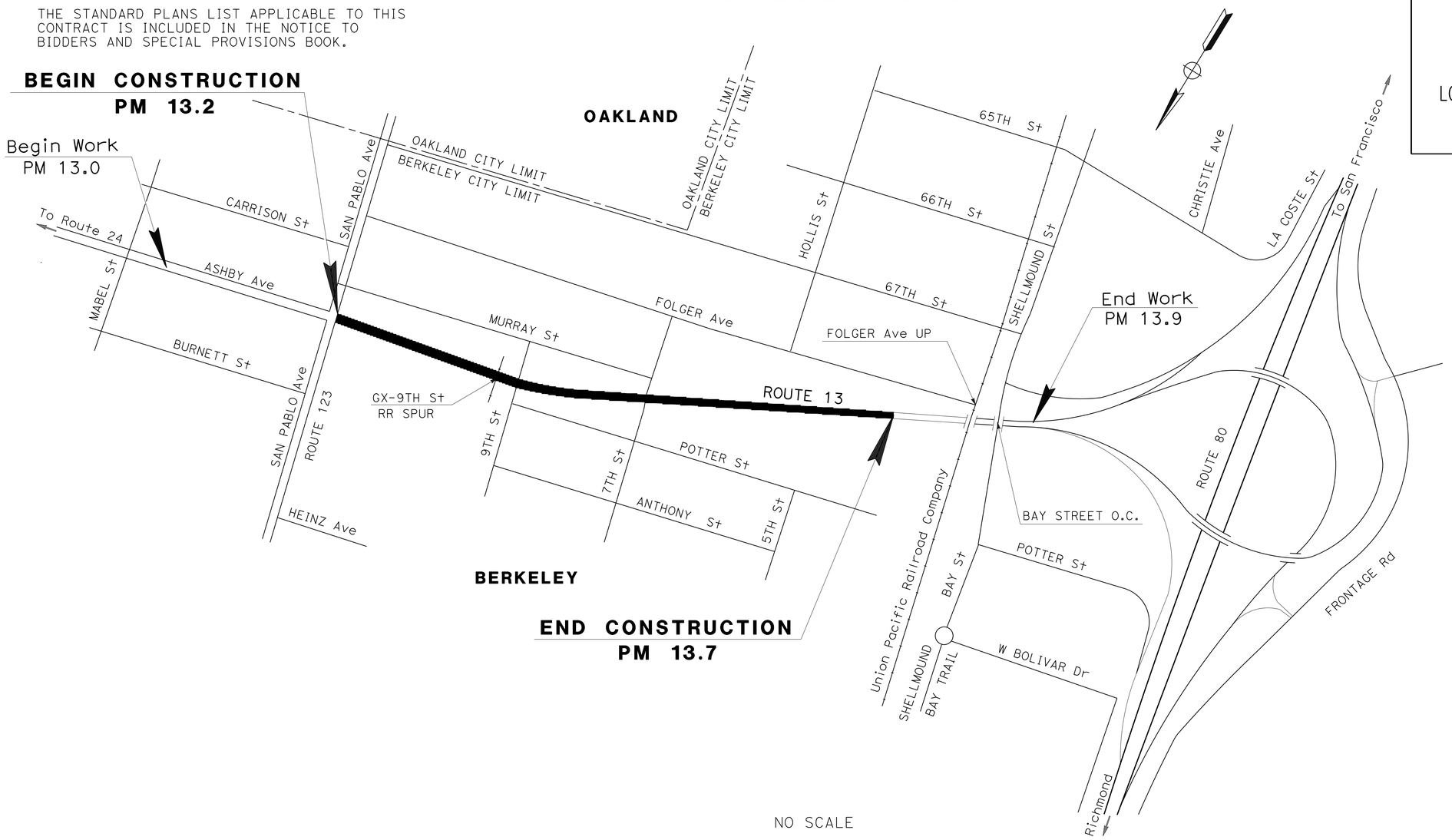
PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN ALAMEDA COUNTY
IN BERKELEY
FROM SAN PABLO AVENUE
TO 0.1 MILE EAST OF BAY STREET OVERCROSSING

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."

PROJECT MANAGER: RAMSES SARGISS

DESIGN MANAGER: RAMSES SARGISS

Robert Camargo 3/10/14
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

March 10, 2014
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Robert Camargo — No. 34402 — Exp. 9-30-15 — CIVIL — STATE OF CALIFORNIA

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

CONTRACT No.	04-4G4004
PROJECT ID	0412000449

LAST REVISION 08-23-13
DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	2	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

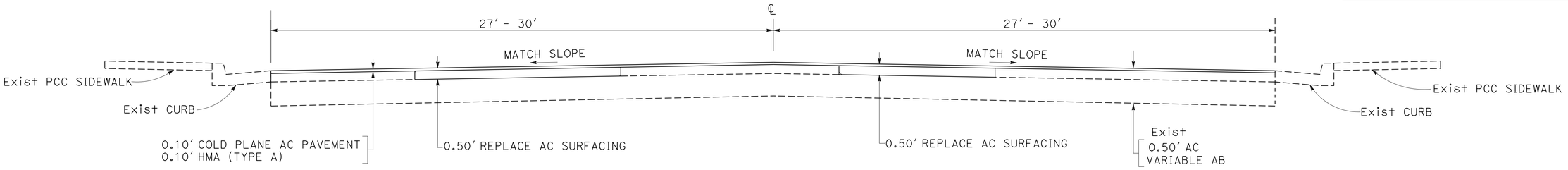
3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Robert Camargo — No. 34402 — Exp 9-30-15 — CIVIL — STATE OF CALIFORNIA

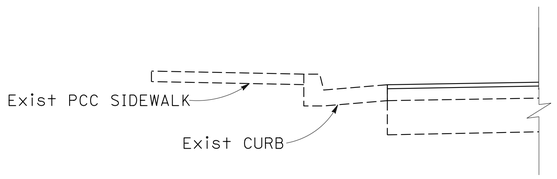
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

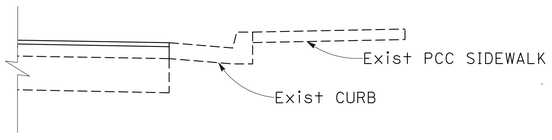
1. FOR LOCATION AND DIMENSION OF REPLACE AC SURFACING, SEE LAYOUT PLANS.
2. BETWEEN GX-9TH STREET RR SPUR AND SAN PABLO AVENUE, PLACE FINAL 0.10' HMA (TYPE A) CONCURRENTLY WITH ADJACENT LOCATION WHERE 0.10' HMA (TYPE A) IS PLACED AFTER 0.10' COLD PLANE AC PAVEMENT.
3. APPLY PRIME COAT ON TOP OF AB BEFORE PLACING HMA.



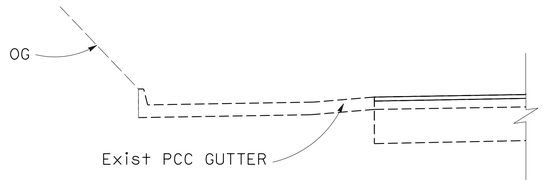
ROUTE 13
7TH St TO GX-9TH St RR SPUR



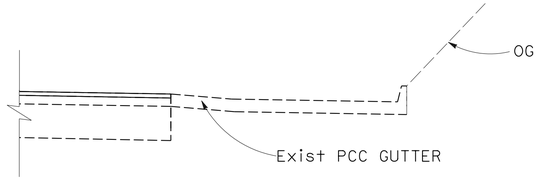
6TH St TO 7TH St



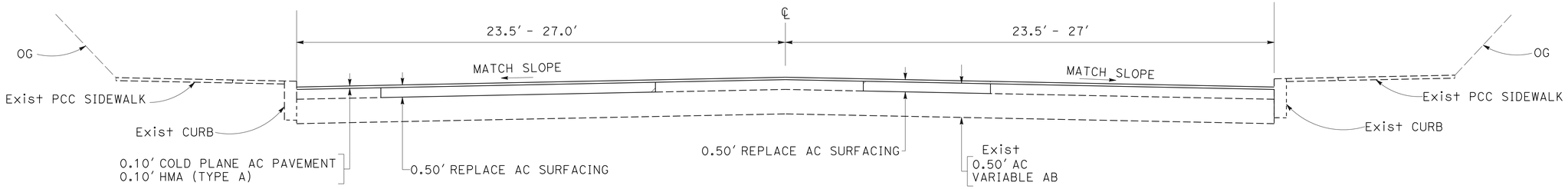
6TH St TO 7TH St



PM 13.7 TO 6TH St



PM 13.7 TO 6TH St



ROUTE 13
PM 13.7 TO 7TH St

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
MAINTENANCE

FUNCTIONAL SUPERVISOR: RAMSES SARGISS

CALCULATED-DESIGNED BY:
CHECKED BY: LITO BASA
ROBERT CAMARGO

REVISED BY	DATE REVISED
LB	3/10/14

LAST REVISION DATE PLOTTED => 21-MAR-2014
03-10-14 TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013

USERNAME => s131681
DGN FILE => 0412000449ca001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0976

PROJECT NUMBER & PHASE 04120004491

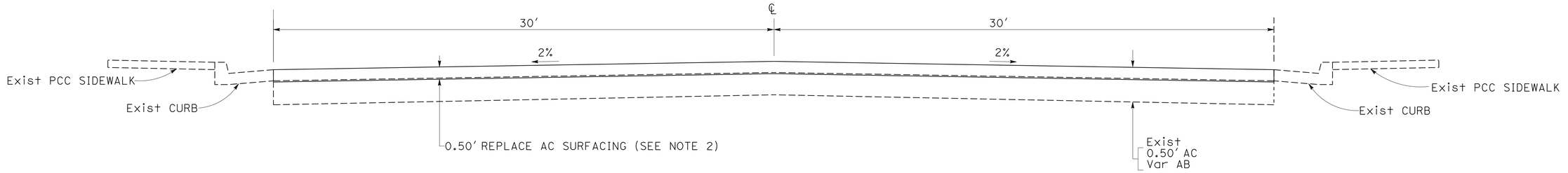
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	3	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

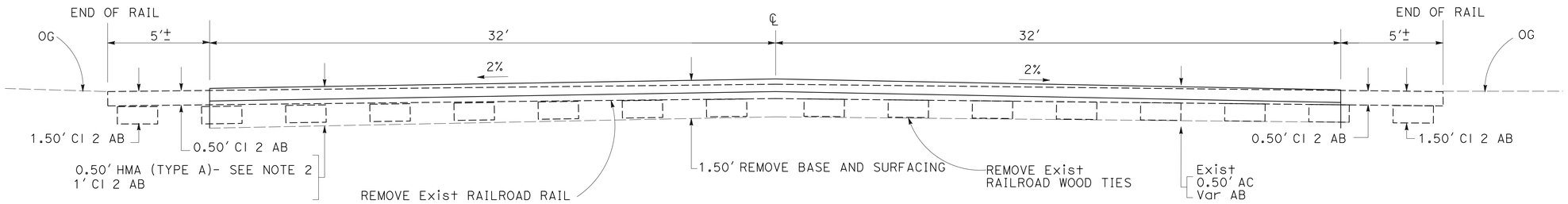
3-10-14
PLANS APPROVAL DATE

Robert Camargo No. 34402 Exp. 9-30-15 CIVIL
REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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



ROUTE 13
GX-9TH St RR SPUR TO SAN PABLO Ave



ROUTE 13
GX-9TH St RR SPUR

TYPICAL CROSS SECTIONS

NO SCALE

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET X-1

X-2

REVISED BY	LB
DATE REVISED	3/10/14
CALCULATED-DESIGNED BY	LITO BASA
CHECKED BY	ROBERT CAMARGO
FUNCTIONAL SUPERVISOR	RAMSES SARGISS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE

LAST REVISION 03-10-14
DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	4	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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

NOTE:

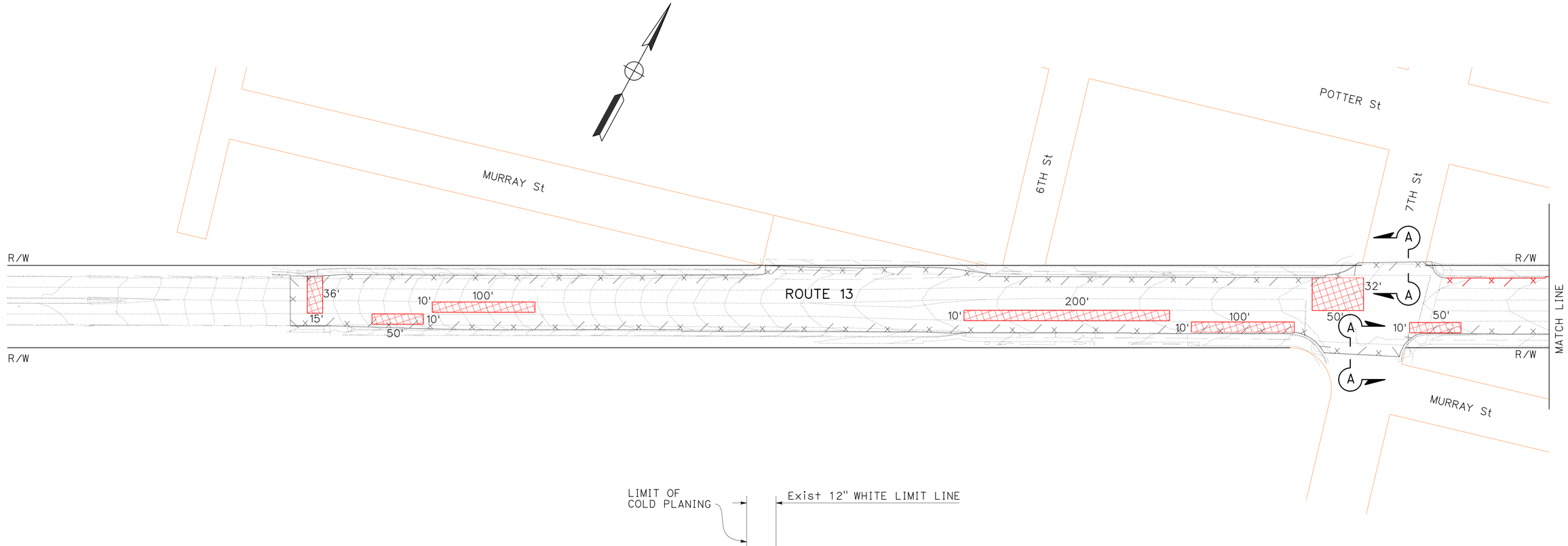
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

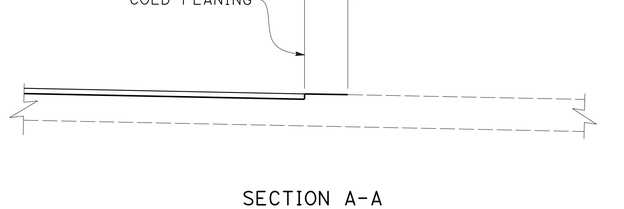
NOTE:

1. EXACT LOCATION AND DIMENSION OF REPLACE AC SURFACING WORK TO TO BE DETERMINED BY THE ENGINEER.

LEGEND:

- 0.10' COLD PLANE AC PAVEMENT
  0.10' HMA (TYPE A)
- 0.50' REPLACE AC SURFACING
- 0.50' HMA (TYPE A)
  1.00' CI 2 AB





SECTION A-A

LIMIT OF COLD PLANING
AT STREET INTERSECTIONS

LAYOUT
SCALE: 1" = 50'

L-1

LAST REVISION DATE PLOTTED => 21-MAR-2014
03-10-14 TIME PLOTTED => 11:14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
MAINTENANCE

FUNCTIONAL SUPERVISOR: RAMSES SARGISS

CALCULATED-DESIGNED BY: LITO BASA
CHECKED BY: ROBERT CAMARGO

REVISED BY: LB
DATE REVISED: 3/10/14

BORDER LAST REVISED 2/1/2013

USERNAME => s131681
DGN FILE => 0412000449ea001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0976

PROJECT NUMBER & PHASE 04120004491

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

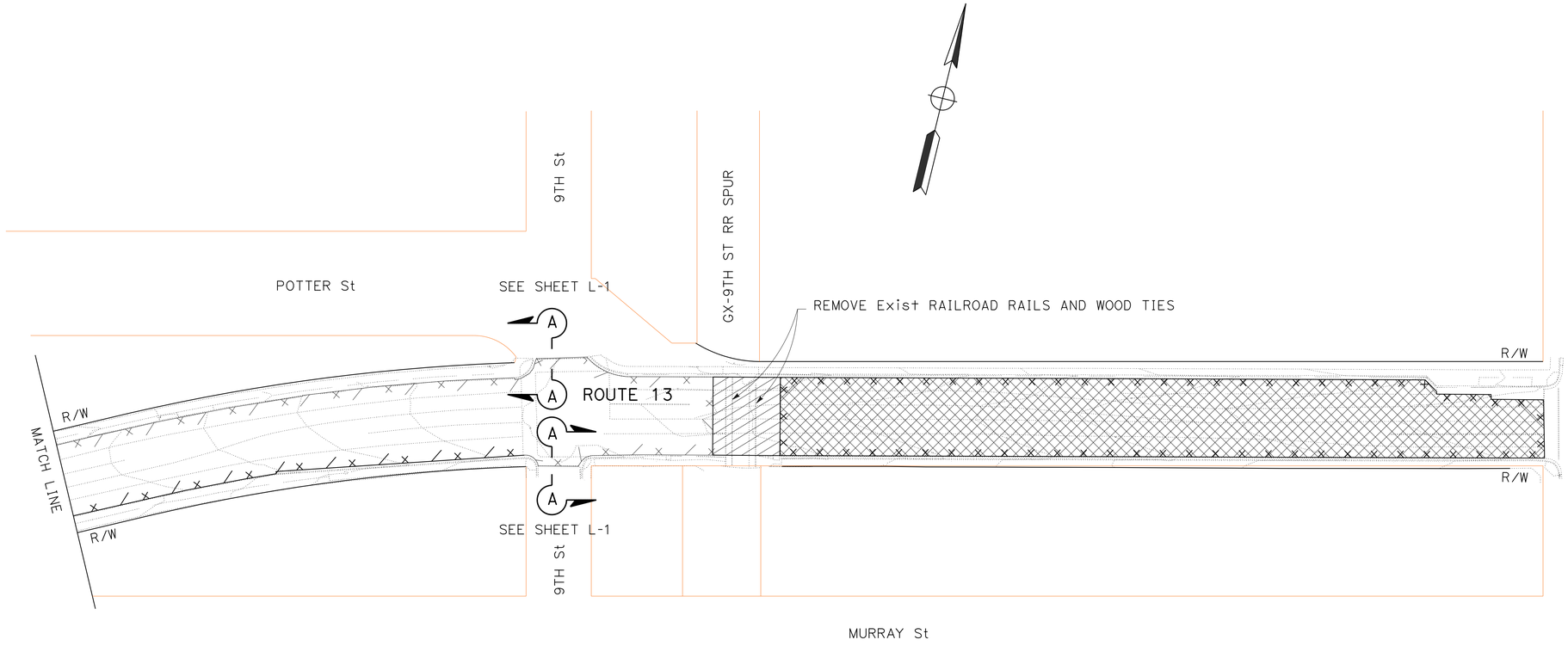
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	5	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET L-1

LAYOUT
SCALE: 1" = 50'

L-2

LAST REVISION | DATE PLOTTED => 21-MAR-2014
03-03-14 | TIME PLOTTED => 11:14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
MAINTENANCE

FUNCTIONAL SUPERVISOR: RAMSES SARGISS

CALCULATED-DESIGNED BY: LITO BASA
CHECKED BY: ROBERT CAMARGO

REVISED BY: LB
DATE REVISED: 3/10/14

BORDER LAST REVISED 2/1/2013

USERNAME => s131681
DGN FILE => 0412000449ea002.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0976

PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	6	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

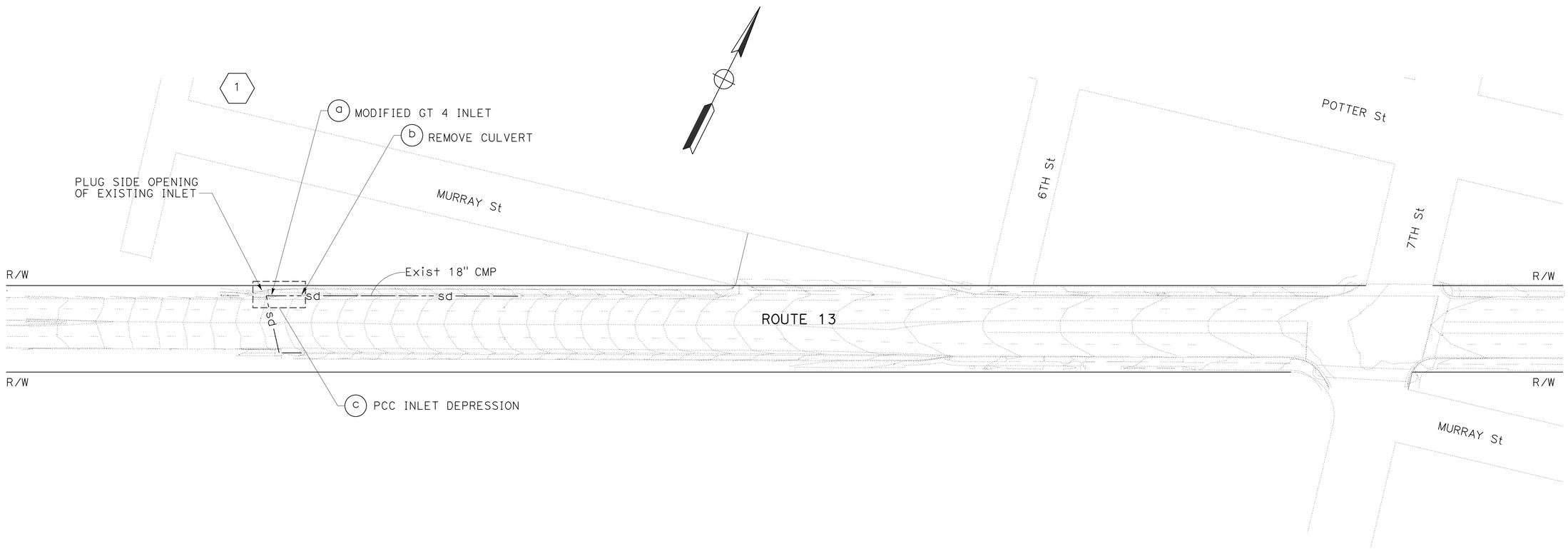
Robert Camargo No. 34402 Exp 9-30-15 CIVIL
REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

3-10-14
PLANS APPROVAL DATE

NOTES:

1- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

2- PROVIDE POSITIVE DRAINAGE FROM ALL ROADWAY AREA AT ALL TIMES.



DRAINAGE PLAN

SCALE: 1" = 50'

D-1

APPROVED FOR DRAINAGE WORK ONLY

CALCULATED-DESIGNED BY	LB	3/10/14
CHECKED BY	REVISED BY	DATE REVISED
FUNCTIONAL SUPERVISOR: RAMSES SARGISS	LITO BASA	
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION: MAINTENANCE	ROBERT CAMARGO	

LAST REVISION: DATE PLOTTED => 21-MAR-2014 TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013 | USERNAME => s131681 DGN FILE => 0412000449ia001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04120004491

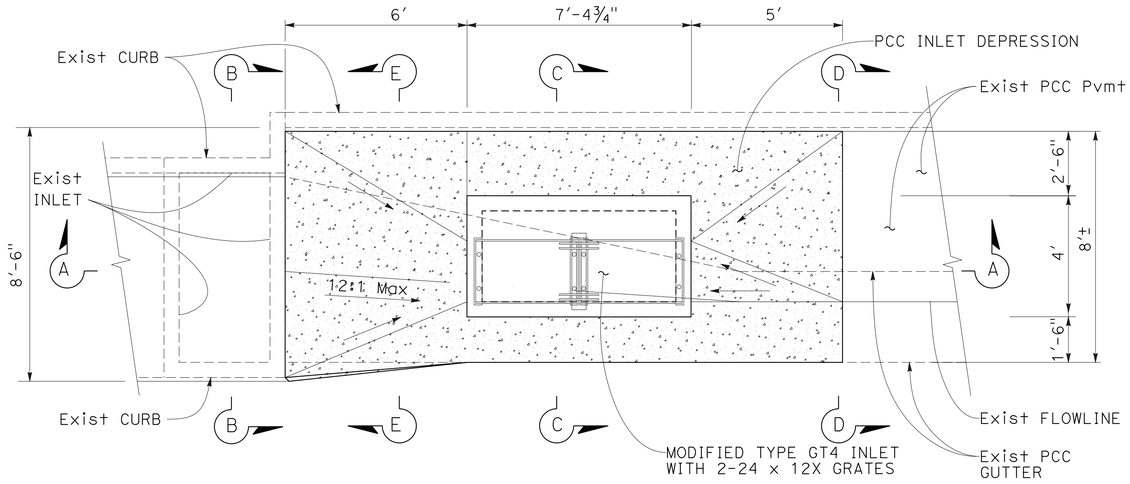
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	7	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

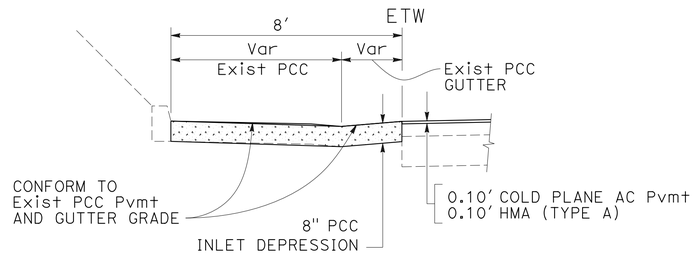
3-10-14
PLANS APPROVAL DATE

Robert Camargo No. 34402 Exp 9-30-15 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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



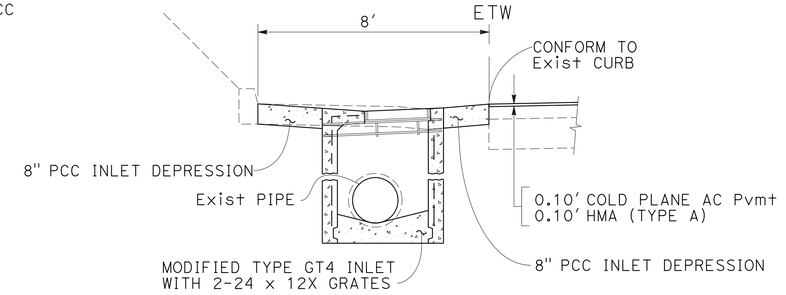
PLAN



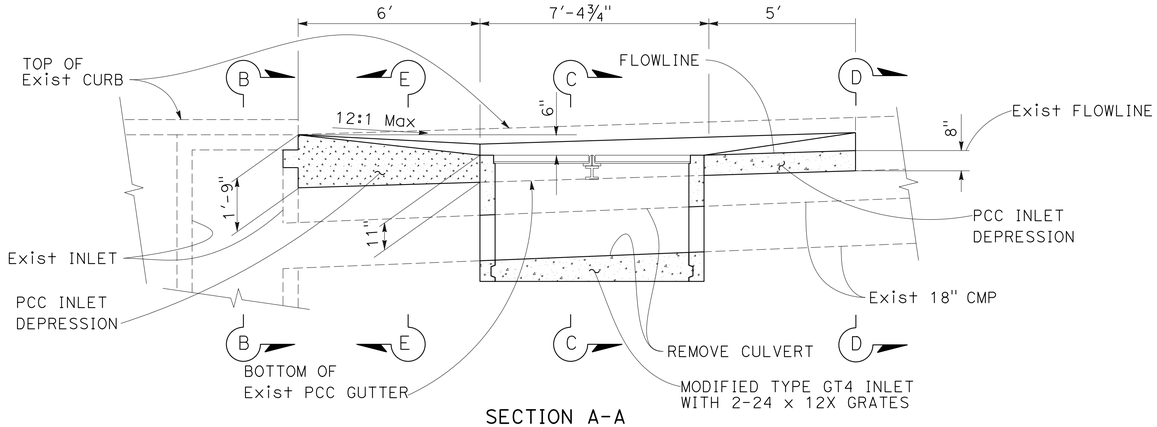
SECTION D-D

NOTE:

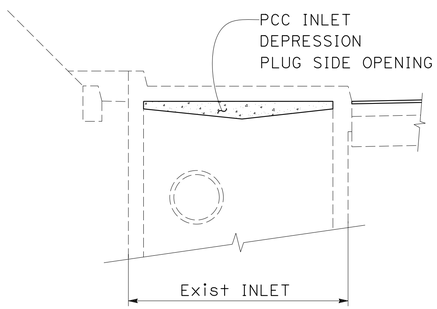
SEE STANDARD PLAN D73A AND D78B
FOR DETAILS NOT SHOWN



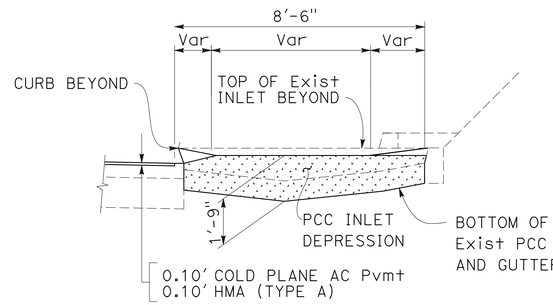
SECTION C-C



SECTION A-A



SECTION B-B



SECTION E-E

DRAINAGE DETAILS

NO SCALE

DD-1

CALCULATED-DESIGNED BY	LB	REVISED BY	LITO BASA
CHECKED BY	3/10/14	DATE REVISED	ROBERT CAMARGO

FUNCTIONAL SUPERVISOR: RAMSES SARGISS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE

LAST REVISION 03-04-14 | DATE PLOTTED => 21-MAR-2014 | TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013 | USERNAME => s131681 | DGN FILE => 04120000449ic001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	8	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬠	DRAINAGE UNIT ○	REMOVE CONCRETE	REMOVE CULVERT	MINOR CONCRETE (Misc Const)	FRAME AND GRATE (N)	Misc IRON AND STEEL	MINOR CONCRETE MINOR STRUCTURE)	HEIGHT OF INLET "H" (N)	DESCRIPTION	DRAINAGE SYSTEM No. ⬠	DRAINAGE UNIT ○
			CY	LF	CY	EA	LB	CY	FT			
D-1	1	a	3.5			2	478	3.4	6	REMOVE PCC Pvmt AND GUTTER; MODIFIED GT 4 INLET	1	a
		b		6.5						REMOVE CULVERT		b
		c			3.2					PCC INLET DEPRESSION		c
SHEET TOTAL			3.5	6.5	3.2	2	478	3.4				

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

		CALCULATED-DESIGNED BY	LITO BASA
		CHECKED BY	ROBERT CAMARGO
		REVISED BY	LB
		DATE REVISED	3/10/14

FUNCTIONAL SUPERVISOR: RAMSES SARGISS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE

DRAINAGE QUANTITIES
DQ-1

LAST REVISION 03-06-14 | DATE PLOTTED => 21-MAR-2014 | TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013 | USERNAME => s131681 | DGN FILE => 04120004491id001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	9	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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

NOTES:

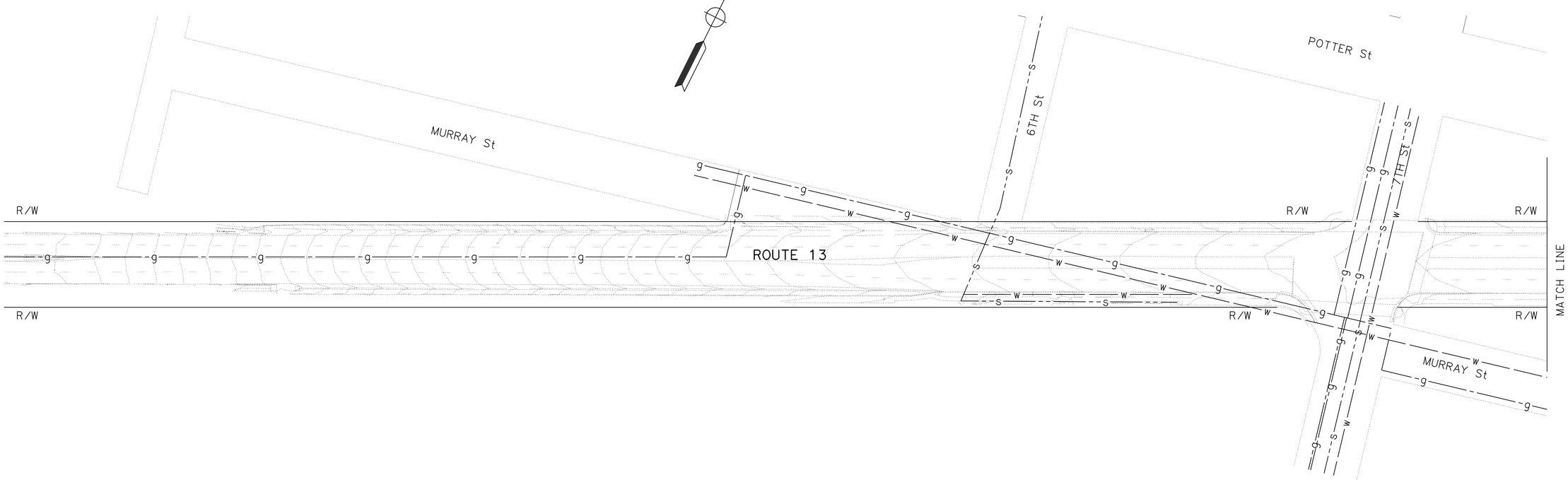
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. UTILITY FACILITIES SHOWN ARE APPROXIMATE, CONTRACTOR TO VERIFY LOCATION BEFORE CONSTRUCTION.

LEGEND:

UTILITIES	EXISTING UTILITIES	OWNERSHIP
GAS	——g——-——	PG&E
TELEPHONE	——--t————	AT&T
WATER	—— ——w——— ——-	EBMUD
SEWER	——--s——--——·	EBMUD

ABBREVIATIONS:

AT&T	AMERICAN TELEPHONE & TELEGRAPH
PG&E	PACIFIC GAS & ELECTRIC
EBMUD	EAST BAY MUNICIPAL UTILITY DISTRICT



UTILITY PLAN
SCALE: 1" = 50'

U-1

APPROVED FOR UTILITY INFORMATION ONLY

CALCULATED-DESIGNED BY					
CHECKED BY					
LB	3/10/14				
REVISED BY	DATE REVISED				
LITO BASA					
ROBERT CAMARGO					
FUNCTIONAL SUPERVISOR					
RAMSES SARGISS					
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION					
Caltrans® MAINTENANCE					

LAST REVISION | DATE PLOTTED => 21-MAR-2014
03-05-14 | TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013 | USERNAME => s131681 | DGN FILE => 0412000449ka001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04120004491

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

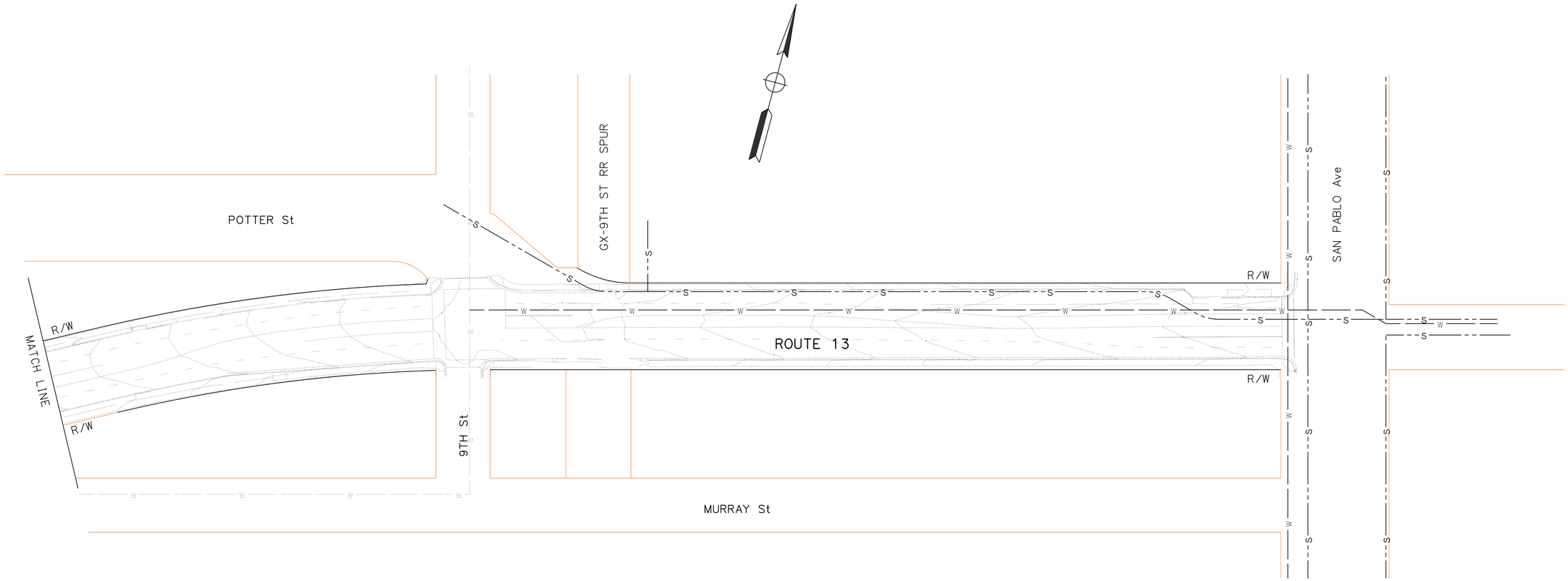
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	10	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp 9-30-15
CIVIL
STATE OF CALIFORNIA

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



APPROVED FOR UTILITY INFORMATION ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

UTILITY PLAN

SCALE: 1" = 50'

U-2

CALCULATED-DESIGNED BY		REVISED BY	LB
CHECKED BY	ROBERT CAMARGO	DATE REVISED	3/10/14
FUNCTIONAL SUPERVISOR	RAMSES SARGISS		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	MAINTENANCE		

LAST REVISION DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14 03-05-14

BORDER LAST REVISED 2/1/2013

USERNAME => s131681
DGN FILE => 0412000449ka002.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0976

PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	11	43

Claudia K. Fang 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Claudia K. Fang
No. 80493
Exp. 3-31-15
CIVIL
STATE OF CALIFORNIA

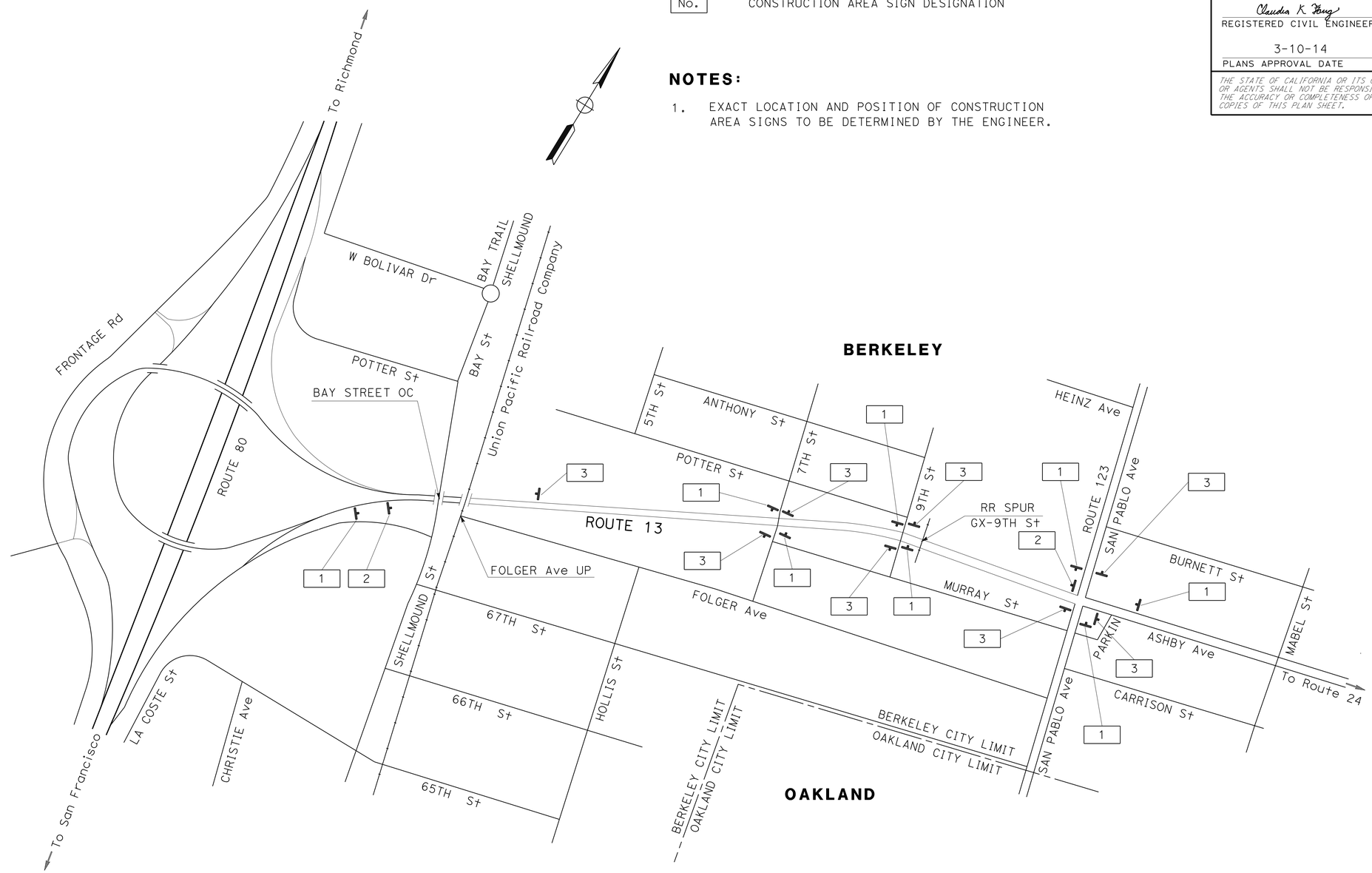
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

[No.] CONSTRUCTION AREA SIGN DESIGNATION

NOTES:

1. EXACT LOCATION AND POSITION OF CONSTRUCTION AREA SIGNS TO BE DETERMINED BY THE ENGINEER.



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

REVISED BY	JF		
DATE REVISED	3/10/14		
JERI-PAUL FABIAN	CLAUDIA FANG	CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	LOURDES DAVID		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

LAST REVISION 02-21-14
DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 04120004491a001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

DETOUR PLAN No. 1

NB/SB ROUTE 13 BETWEEN SAN PABLO Ave AND 7TH St CLOSED

NB ASHBY Ave TRAFFIC:

TURN RIGHT ON NB SAN PABLO Ave;
TURN LEFT ONTO HEINZ Ave;
TURN LEFT ONTO 7TH St;
TURN RIGHT ON TO ASHBY Ave

SB SAN PABLO Ave TRAFFIC:

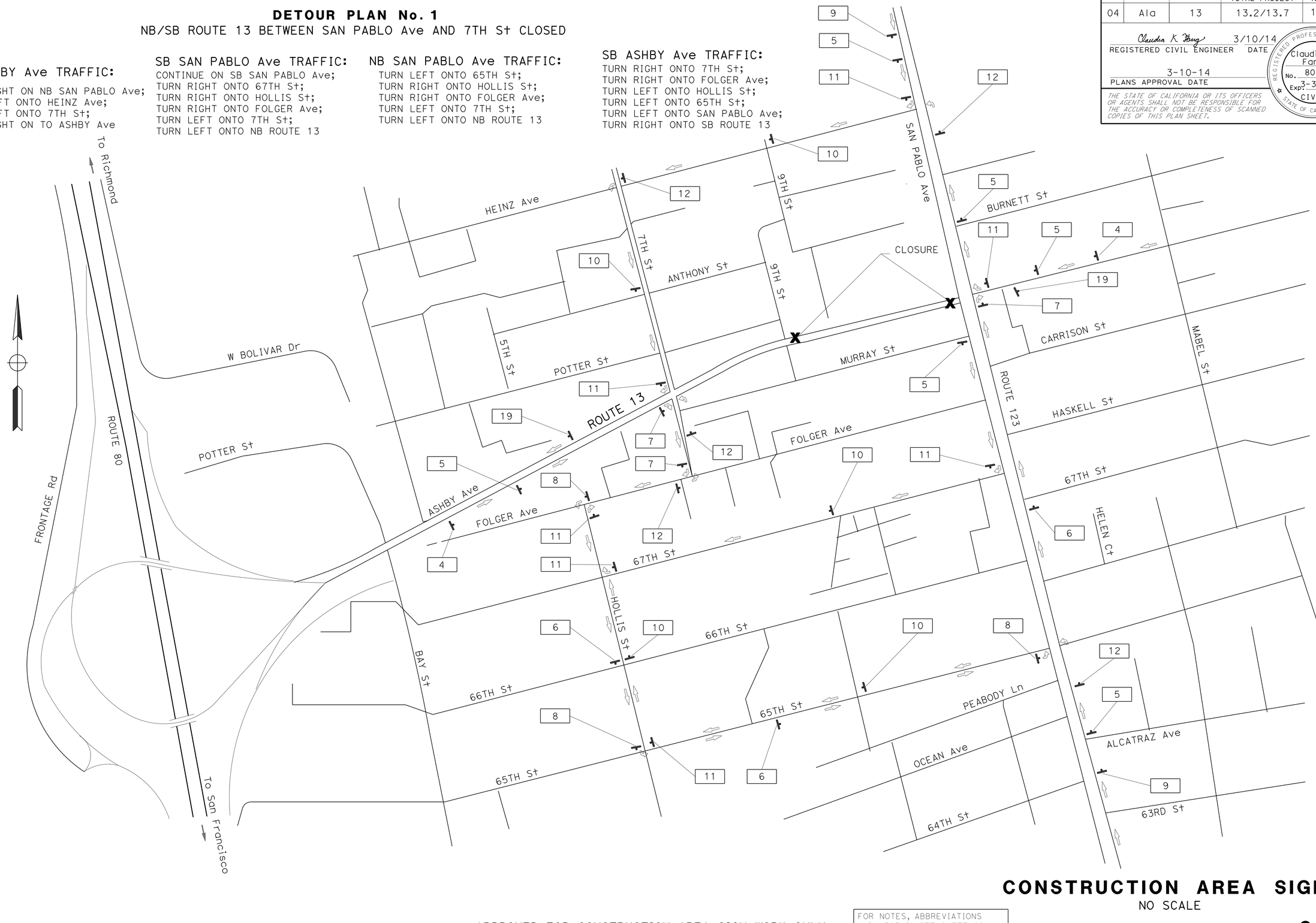
CONTINUE ON SB SAN PABLO Ave;
TURN RIGHT ONTO 67TH St;
TURN RIGHT ONTO HOLLIS St;
TURN RIGHT ONTO FOLGER Ave;
TURN LEFT ONTO 7TH St;
TURN LEFT ONTO NB ROUTE 13

NB SAN PABLO Ave TRAFFIC:

TURN LEFT ONTO 65TH St;
TURN RIGHT ONTO HOLLIS St;
TURN RIGHT ONTO FOLGER Ave;
TURN LEFT ONTO 7TH St;
TURN LEFT ONTO NB ROUTE 13

SB ASHBY Ave TRAFFIC:

TURN RIGHT ONTO 7TH St;
TURN RIGHT ONTO FOLGER Ave;
TURN LEFT ONTO HOLLIS St;
TURN LEFT ONTO 65TH St;
TURN LEFT ONTO SAN PABLO Ave;
TURN RIGHT ONTO SB ROUTE 13



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	12	43

Claudia K. Fang 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Claudia K. Fang
No. 80493
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.

CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

CS-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CALCULATED-DESIGNED BY	JERI-PAUL FABIAN	REVISED BY JF
Caltrans® TRAFFIC	CHECKED BY	CLAUDIA FANG	DATE REVISED 3/10/14
FUNCTIONAL SUPERVISOR			
LOURDES DAVID			

LAST REVISION | DATE PLOTTED => 21-MAR-2014
03-05-14 | TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013 | USERNAME => s131681 | DGN FILE => 04120004491a002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	13	43

Claudia K. Fang 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Claudia K. Fang
No. 80493
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.

DETOUR PLAN No. 2

SEVENTH STREET CLOSED (NORTH SIDE)

SB 7TH St TRAFFIC:

CONTINUE TO SB 7TH St;
TURN LEFT ONTO HEINZ Ave;

OR
CONTINUE NB 7TH St;
TURN RIGHT ONTO HEINZ Ave;

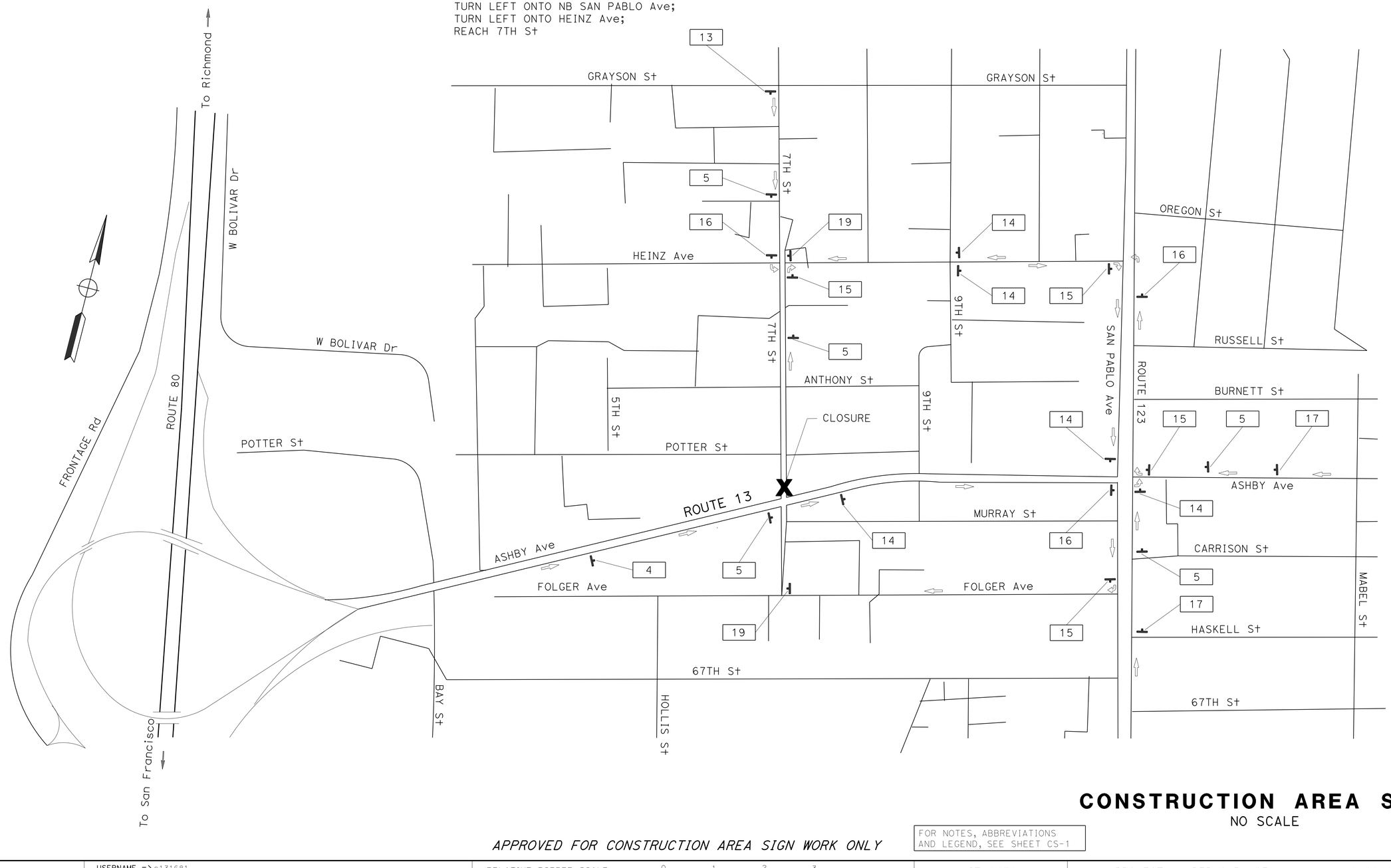
THEN
TURN RIGHT ONTO SAN PABLO Ave;
CONTINUE SB SAN PABLO Ave;
TURN RIGHT ONTO FOLGER Ave;
REACH 7TH St

NB 7TH St TRAFFIC:

CONTINUE NB SAN PABLO Ave;
TURN LEFT ONTO HEINZ Ave;
REACH 7TH St

OR
CONTINUE SB ROUTE 13;
TURN LEFT ONTO NB SAN PABLO Ave;
TURN LEFT ONTO HEINZ Ave;
REACH 7TH St

OR
CONTINUE NB ASHBY Ave;
TURN RIGHT ONTO NB SAN PABLO Ave;
TURN LEFT ONTO HEINZ Ave;
REACH 7TH St



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

CS-3

REVISED BY	DATE REVISED
JF	3/10/14

CALCULATED-DESIGNED BY: JERI-PAUL FABIAN
CHECKED BY: CLAUDIA FANG
FUNCTIONAL SUPERVISOR: LOURDES DAVID

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

LAST REVISION DATE PLOTTED => 21-MAR-2014
03-05-14 TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 04120004491a003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	14	43

Claudia K. Fang 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Claudia K. Fang
No. 80493
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.

DETOUR PLAN No. 3

SEVENTH STREET CLOSED (SOUTH SIDE)

NB 7TH St TRAFFIC:

CONTINUE TO SB 7TH St;
TURN LEFT ONTO FOLGER Ave;
TURN LEFT ONTO SAN PABLO Ave;
TURN LEFT ONTO ASHBY Ave;
REACH 7TH St

OR

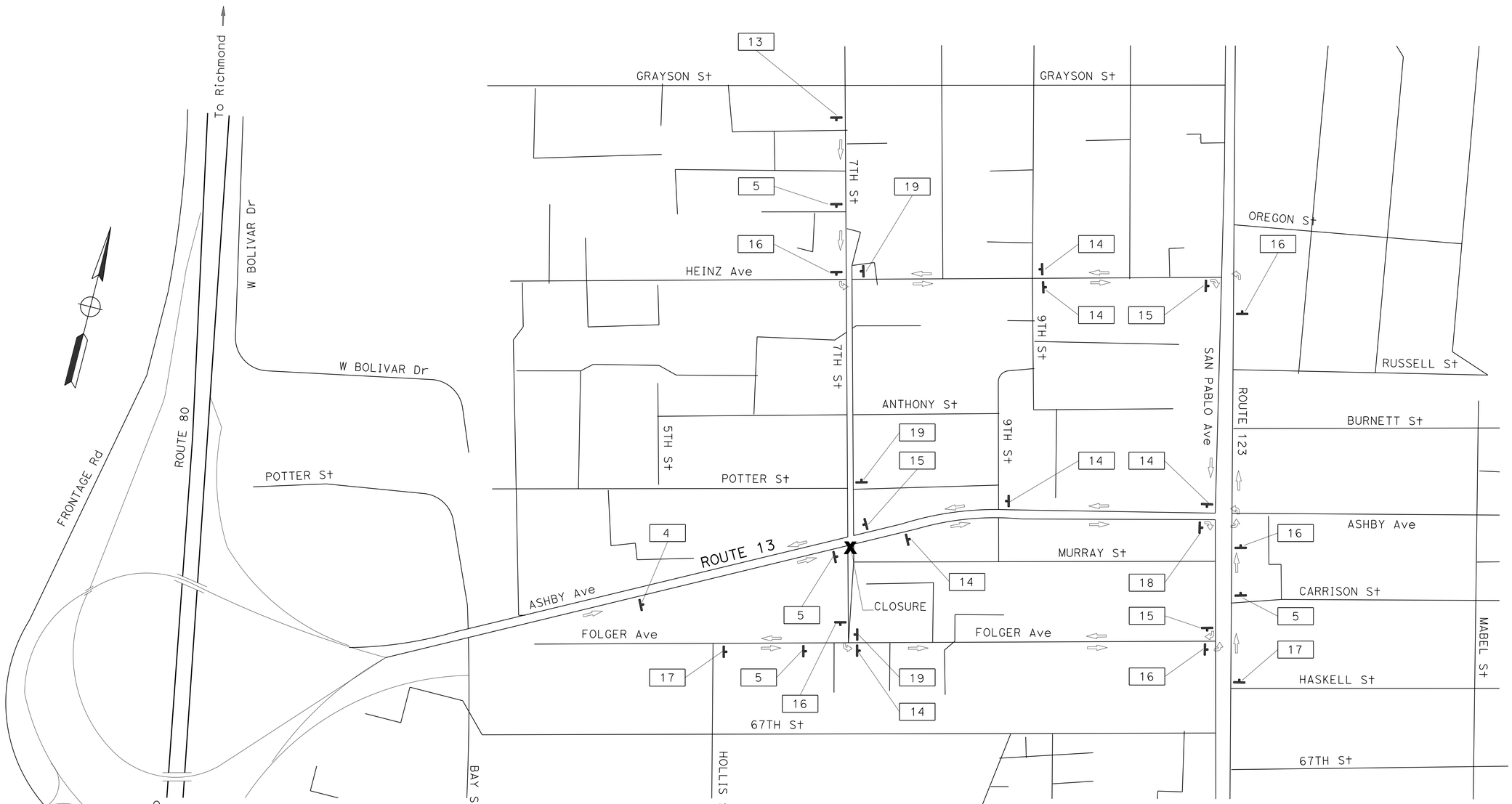
CONTINUE ON SB ASHBY Ave;
TURN LEFT ONTO NB SAN PABLO Ave;
TURN LEFT ONTO HEINZ Ave;
REACH 7TH St

SB 7TH St TRAFFIC:

CONTINUE SB ASHBY Ave;
TURN RIGHT ONTO SB SAN PABLO Ave;
TURN RIGHT ONTO FOLGER Ave;
REACH 7TH St

OR

CONTINUE SB 7TH St;
TURN LEFT ONTO HEINZ Ave;
TURN RIGHT ONTO SAN PABLO Ave;
TURN RIGHT ONTO FOLGER Ave;
REACH 7TH St



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

CS-4

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JERI-PAUL FABIAN	CLAUDIA FANG	JF	3/10/14

FUNCTIONAL SUPERVISOR: LOURDES DAVID

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC

LAST REVISION | DATE PLOTTED => 21-MAR-2014
03-05-14 | TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013 | USERNAME => s131681 | DGN FILE => 04120004491a004.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	15	43

Claudia K. Fang 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

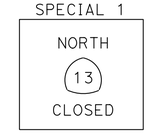
REGISTERED PROFESSIONAL ENGINEER — Claudia K. Fang — No. 80493 — Exp. 3-31-15 — CIVIL — STATE OF CALIFORNIA

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.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE FEDERAL	SIGN CODE CALIFORNIA	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS	REMARKS
1	W20-1		36" x 36"	ROAD WORK AHEAD	(ONE) 4" x 6"	8	
2		C40A (CA)	36" x 36"	TRAFFIC FINES DOUBLED IN WORK ZONES	(ONE) 4" x 6"	2	
3	G20-2		36" x 18"	END ROAD WORK	(ONE) 4" x 4"	8	
4		C19 (CA)	36" x 36"	ROAD CLOSED AHEAD	(ONE) 4" x 6"	4	
5	W20-2		36" x 36"	DETOUR AHEAD	(ONE) 4" x 6"	15	
6		SC3 (↑)(CA)	36" x 12"	DETOUR (STRAIGHT AHEAD ARROW)	(ONE) 4" x 6"	3	
	M3-3		24" x 12"	SOUTH			
		G28-2(13)(CA)	24" x 25"	ROUTE SHIELD 13			
7		SC3 (→)(CA)	36" x 12"	DETOUR (RIGHT ARROW)	(ONE) 4" x 6"	3	
	M3-3		24" x 12"	SOUTH			
		G28-2(13)(CA)	24" x 25"	ROUTE SHIELD 13			
8		SC3 (←)(CA)	36" x 12"	DETOUR (LEFT ARROW)	(ONE) 4" x 6"	3	
	M3-3		24" x 12"	SOUTH			
		G28-2(13)(CA)	24" x 25"	ROUTE SHIELD 13			
9		SPECIAL 1	30" x 30"	NORTH 13 CLOSED	(ONE) 4" x 4"	2	
10		SC3 (↑)(CA)	36" x 12"	DETOUR (STRAIGHT AHEAD ARROW)	(ONE) 4" x 6"	5	
		SPECIAL 2	24" x 42"	NORTH 13 / TO 80			
11		SC3 (→)(CA)	36" x 12"	DETOUR (RIGHT ARROW)	(ONE) 4" x 6"	7	
		SPECIAL 2	24" x 42"	NORTH 13 / TO 80			
12		SC3 (←)(CA)	36" x 12"	DETOUR (LEFT ARROW)	(ONE) 4" x 6"	5	
		SPECIAL 2	24" x 42"	NORTH 13 / TO 80			
13		SPECIAL 3	36" x 24"	SEVENTH St CLOSED AHEAD	(ONE) 4" x 4"	2	
14		SC3 (↑)(CA)	36" x 12"	DETOUR (STRAIGHT AHEAD ARROW)	(ONE) 4" x 4"	11	
		SPECIAL 4	36" x 12"	SEVENTH St			
15		SC3 (→)(CA)	36" x 12"	DETOUR (RIGHT ARROW)	(ONE) 4" x 4"	7	
		SPECIAL 4	36" x 12"	SEVENTH St			
16		SC3 (←)(CA)	36" x 12"	DETOUR (LEFT ARROW)	(ONE) 4" x 4"	8	
		SPECIAL 4	36" x 12"	SEVENTH St			
17		SPECIAL 5	36" x 18"	SEVENTH St CLOSED	(ONE) 4" x 4"	4	
18	M4-8		24" x 12"	DETOUR	(ONE) 4" x 6"	1	
		SPECIAL 4	36" x 12"	SEVENTH St			
	M6-4		21" x 15"	LEFT - RIGHT ARROW			
19	M4-8a		24" x 18"	END DETOUR	(ONE) 4" x 4"	7	
20	R3-2		30" x 30"	NO LEFT TURN	(ONE) 4" x 4"	3	SEE SC SHEETS
A		SPECIAL 6	42" x 30"	DRIVEWAY CLOSED USE 9TH St ENTRANCE	(ONE) 4" x 6"	1	SEE SHEET SC-2

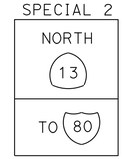
SPECIAL 1



30" x 30"

4" D CAPS
BLACK/ORANGE

SPECIAL 2



24" x 42"

4" D CAPS
BLACK/ORANGE

SPECIAL 3

36" x 24"

4" D CAPS
BLACK/ORANGE

SPECIAL 4

36" x 12"

4" D CAPS
BLACK/ORANGE

SPECIAL 5

36" x 18"

4" D CAPS
BLACK/ORANGE

SPECIAL 6

42" x 30"

4" D CAPS
BLACK/ORANGE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

CONSTRUCTION AREA SIGNS
CS-5

LAST REVISION DATE PLOTTED => 21-MAR-2014
03-05-14 TIME PLOTTED => 11:14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

FUNCTIONAL SUPERVISOR: LOURDES DAVID
CALCULATED-DESIGNED BY: JERI-PAUL FABIAN
CHECKED BY: CLAUDIA FANG
REVISED BY: JF
DATE REVISED: 3/10/14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 04120004491a005.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

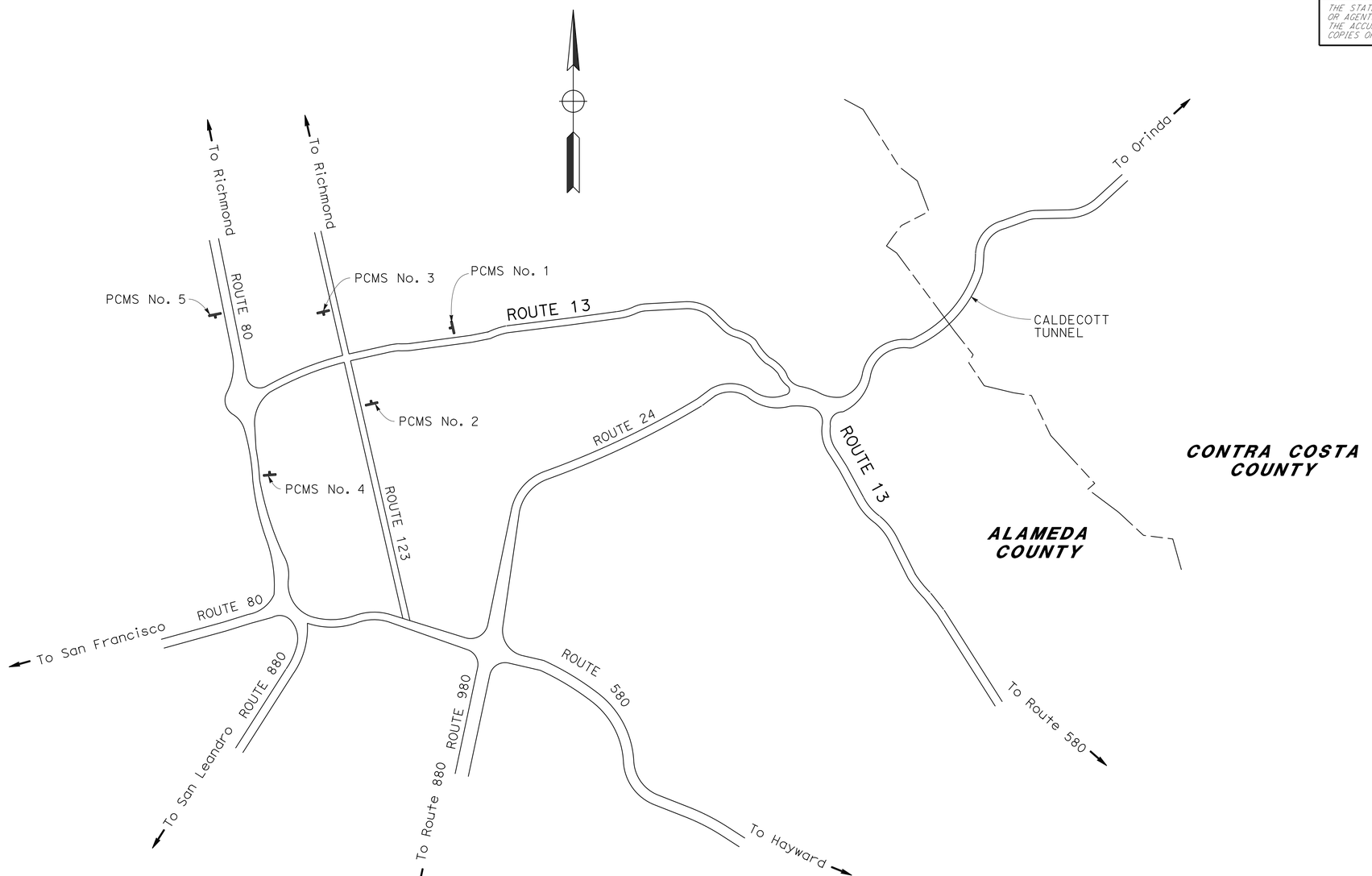
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	16	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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



MOTORIST INFORMATION PLAN
(PORTABLE CHANGEABLE MESSAGE SIGN LOCATIONS)

NO SCALE

APPROVED FOR MOTORIST INFORMATION WORK ONLY

MI-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE

FUNCTIONAL SUPERVISOR: RAMSES SARGISS
CALCULATED-DESIGNED BY:
CHECKED BY: ROBERT CAMARGO
REVISED BY: LB
DATE REVISED: 3/10/14
LITO BASA

LAST REVISION
DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14
12-04-13

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 04120004491b001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	17	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

Robert Camargo No. 34402 Exp. 9-30-15 CIVIL
REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

3-10-14
PLANS APPROVAL DATE

NOTE:

ACTUAL LOCATION OF PCMS TO BE DETERMINED BY THE ENGINEER

PCMS	LOCATION	MESSAGES	
		PRIOR TO CONSTRUCTION	DURING CONSTRUCTION
1	NB Ala 13 NORTH OF SACRAMENTO St	PHASE 1 RDWK ASHBY AV PHASE 2 (DATE) TO (DATE)	PHASE 1 RDWK ASHBY AV 11PM - 6AM PHASE 2 EXPECT DELAYS
2	EB Ala 123 1000 FEET SOUTH OF ASHBY Ave	PHASE 1 RDWK ASHBY AV PHASE 2 (DATE) TO (DATE)	PHASE 1 RDWK ASHBY AV 11PM - 6AM PHASE 2 EXPECT DELAYS
3	WB Ala 123 1000 FEET NORTH OF ASHBY Ave	PHASE 1 RDWK ASHBY AV PHASE 2 (DATE) TO (DATE)	PHASE 1 RDWK ASHBY AV 11PM - 6AM PHASE 2 EXPECT DELAYS
4	EB Ala 80 EAST OF POWELL St ON-RAMP	PHASE 1 RDWK ASHBY AV PHASE 2 (DATE) TO (DATE)	PHASE 1 RDWK ASHBY AV 11PM - 6AM PHASE 2 EXPECT DELAYS
5	WB Ala 80 WEST OF UNIVERSITY Ave ON-RAMP	PHASE 1 RDWK ASHBY AV PHASE 2 (DATE) TO (DATE)	PHASE 1 RDWK ASHBY AV 11PM - 6AM PHASE 2 EXPECT DELAYS

MOTORIST INFORMATION QUANTITIES

MIQ-1

REVISED BY: LB — DATE REVISED: 3/10/14
CALCULATED-DESIGNED BY: LITO BASA
CHECKED BY: ROBERT CAMARGO
FUNCTIONAL SUPERVISOR: RAMSES SARGISS
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE

LAST REVISION DATE PLOTTED => 21-MAR-2014
03-05-14 TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 04120004491d001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	18	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

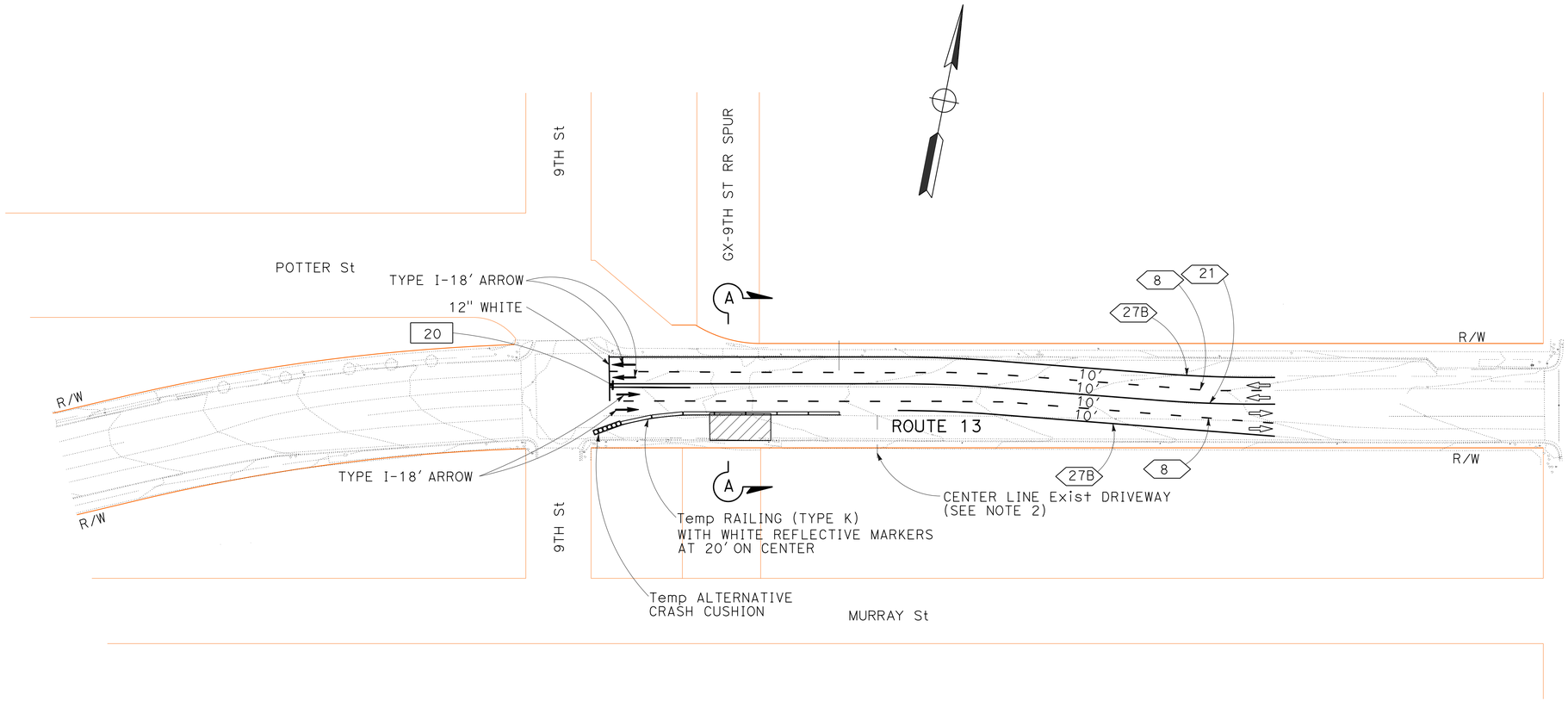
REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

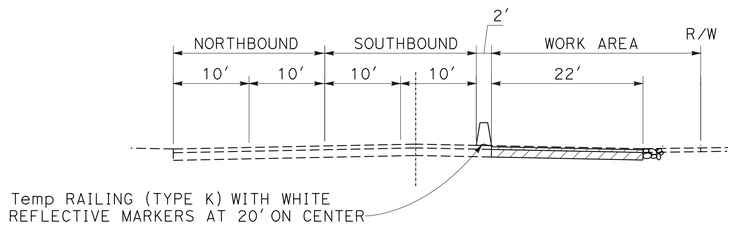
NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. EXISTING DRIVEWAY MUST BE ACCESSIBLE AT ALL TIMES DURING CONSTRUCTION
3. FOR CONSTRUCTION AREA SIGN DETAIL, SEE SHEET CS-5

LEGEND:

- CONSTRUCT THIS STAGE
- CHANNELIZER
- CONSTRUCTION AREA SIGN DESIGNATION





SECTION A-A
ROUTE 13
9TH St RR SPUR

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE
Caltrans
FUNCTIONAL SUPERVISOR: RAMSES SARGISS
CALCULATED-DESIGNED BY: LITO BASA
CHECKED BY: ROBERT CAMARGO
REVISED BY: LB
DATE REVISED: 3/10/14

LAST REVISION | DATE PLOTTED => 21-MAR-2014
02-20-14 | TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 0412000449ma001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	19	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

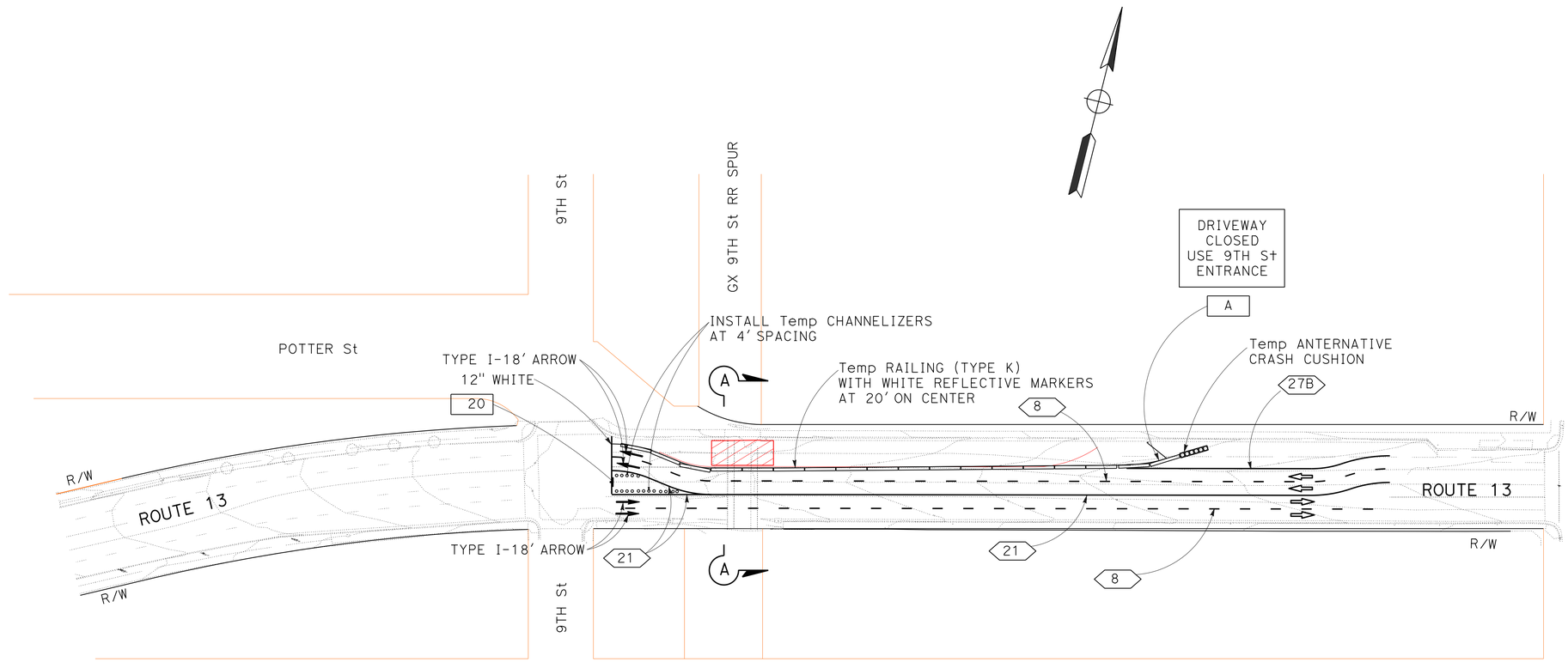
3-10-14
PLANS APPROVAL DATE

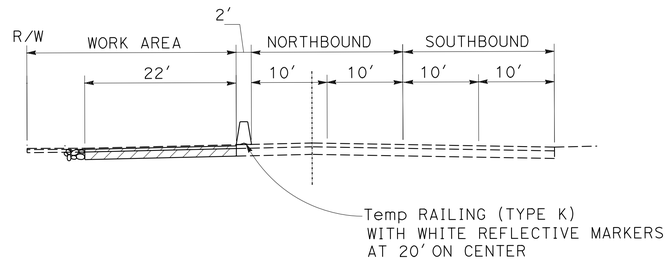
REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.





SECTION A-A
ROUTE 13
9TH St RR SPUR

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 2

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

SC-2

LITO BASA	ROBERT CAMARGO	LB	3/10/14
CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED

FUNCTIONAL SUPERVISOR: RAMSES SARGISS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
MAINTENANCE

LAST REVISION | DATE PLOTTED => 21-MAR-2014
03-05-14 | TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013 | USERNAME => s131681 | DGN FILE => 0412000449ma002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	20	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

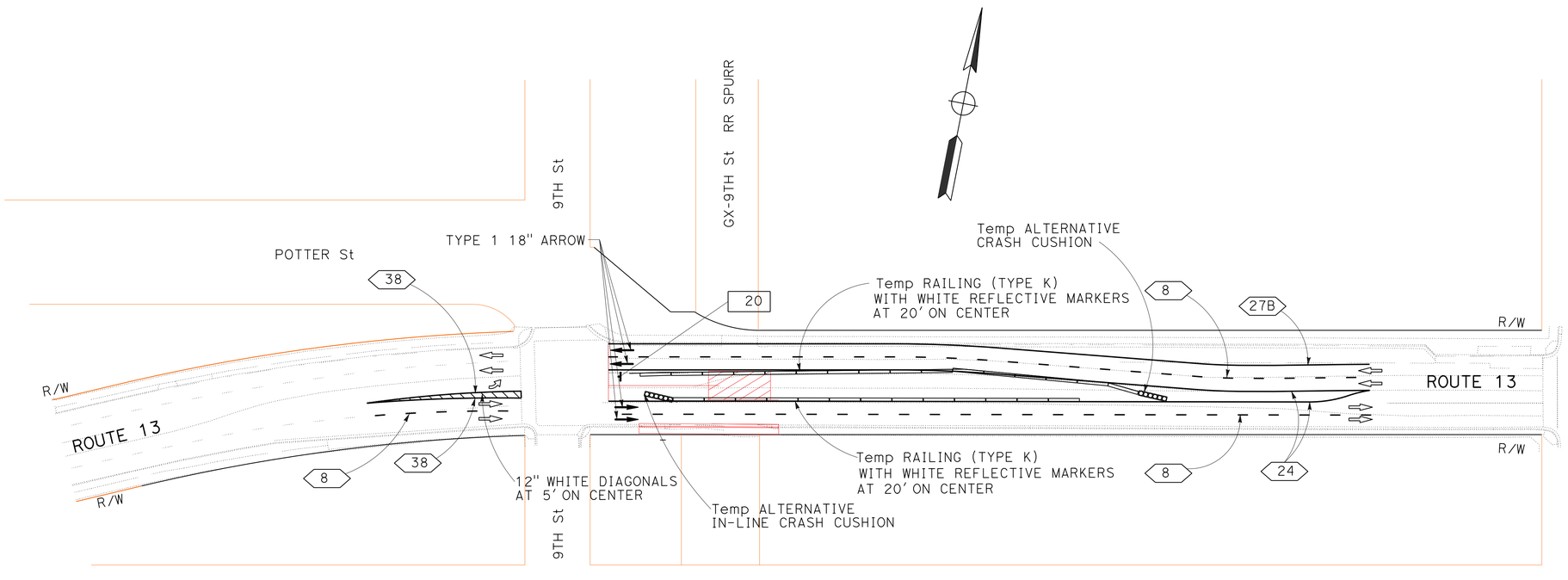
3-10-14
PLANS APPROVAL DATE

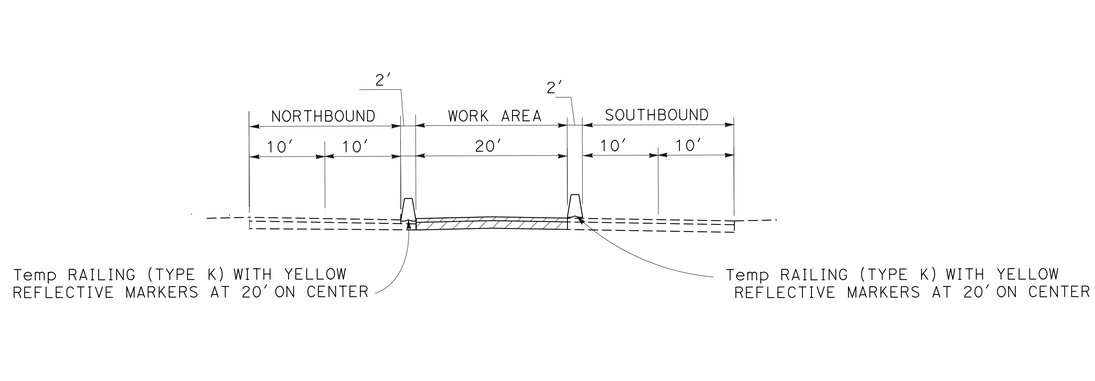
REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.





ROUTE 13
9TH St RR SPUR

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 3

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

SC-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE
Caltrans

FUNCTIONAL SUPERVISOR: RAMSES SARGISS
CALCULATED-DESIGNED BY:
CHECKED BY:
REVISED BY: LB
DATE REVISED: 3/10/14
LITO BASA
ROBERT CAMARGO

LAST REVISION
DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14
03-05-14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 04120000449ma003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	21	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

Robert Camargo No. 34402 Exp. 9-30-15 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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

TEMPORARY ALTERNATIVE CRASH CUSHION

SHEET No.	LOCATION	EA
SC-1	SOUTHBOUND	1
SC-2	NORTHBOUND	1
SC-3	SOUTHBOUND	1
	NORTHBOUND	1
TOTAL		4

TEMPORARY RAILING (TYPE K)

SHEET No.	LOCATION	LF
SC-1	SOUTHBOUND	200
SC-2	NORTHBOUND	340
SC-3	SOUTHBOUND	300
	NORTHBOUND	360
TOTAL		1200

CHANNELIZERS (SUFACE MOUNTED)

SHEET No.	LOCATION	EA
SC-2	SOUTHBOUND	20
	NORTHBOUND	19
TOTAL		39

TEMPORARY TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS

LOCATION	DETAIL No. OR PAVEMENT MARKING	PAINT TRAFFIC STRIPE				PAINT PAVEMENT MARKING	REMOVE THERMOPLASTIC TRAFFIC STRIPE		REMOVED PAINTED TRAFFIC STRIPE	REMOVED PAINTED PAVEMENT MARKING	REMOVE PAVEMENT MARKER
		4" WHITE SOLID	4" YELLOW SOLID	4" WHITE BROKEN (36-17)	8" WHITE SOLID	WHITE	YELLOW (HAZARDOUS WASTE)	WHITE			
		LF				SQFT	LF			SQFT	EA
STAGE 1	8			1000							
	9							960			21
	21		1040								
	24										
	27B	840									
	29						1000				
	38							75			5
	TYPE 1 18' ARROW					200					
	12" LIMIT LINE					22					
STAGE 2	8			1200					1000		
	21		1200						1040		
	24										
	27B	610							840		
	38										
	TYPE 1 18' ARROW					200				200	
	12" LIMIT LINE					45				22	
STAGE 3	8			1430					1200		
	21								1200		
	24		1410								
	27B	585							610		
	38				240						
	TYPE 1 18' ARROW					200				200	
	12" LIMIT LINE					45				45	
	12" DIAGONAL					15					
TOTAL		2035	3650	3630	240	727	1000	1035	5890	467	26

STAGE CONSTRUCTION QUANTITIES

SCQ-1

REVISED BY	DATE REVISED
LB	3/10/14

CALCULATED-DESIGNED BY	CHECKED BY
LITO BASA	ROBERT CAMARGO

FUNCTIONAL SUPERVISOR: RAMSES SARGISS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE

LAST REVISION: DATE PLOTTED => 21-MAR-2014, TIME PLOTTED => 11:14
03-10-14

BORDER LAST REVISED 2/1/2013

USERNAME => s131681
DGN FILE => 0412000449mc001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0976

PROJECT NUMBER & PHASE 0412000449

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. FOR TYPICAL CROSSWALK MARKING AT CURB RAMPS, SEE STANDARD PLAN A88A.
3. EXISTING PAVEMENT DELINEATION TO BE REPLACED IN KIND AS DIRECTED BY THE ENGINEER.

LEGEND:

CHANGE OF PAVEMENT DELINEATION DETAIL

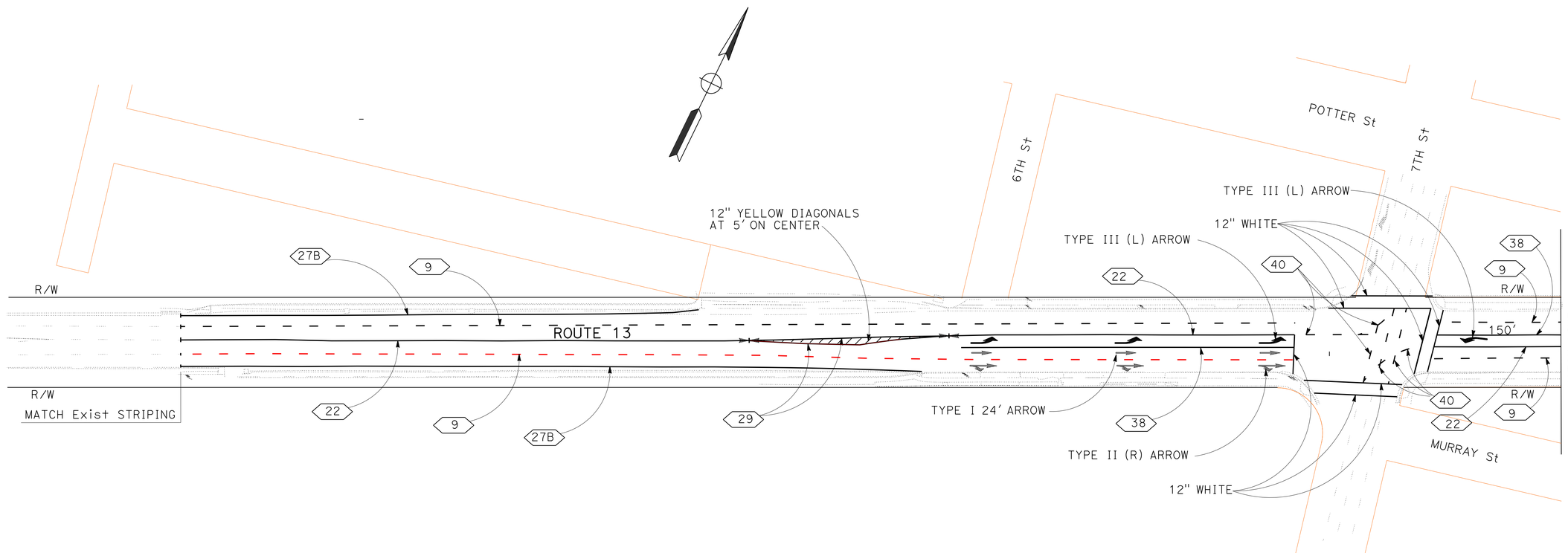
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	22	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PD-1

LB	3/10/14		
REVISED BY	DATE REVISED		
LITO BASA	ROBERT CAMARGO		
CALCULATED-DESIGNED BY	CHECKED BY		
FUNCTIONAL SUPERVISOR	RAMSES SARGISS		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	MAINTENANCE		

LAST REVISION | DATE PLOTTED => 21-MAR-2014
03-05-14 | TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013 | USERNAME => s131681 | DGN FILE => 0412000449na001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0976 | PROJECT NUMBER & PHASE 04120004491

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

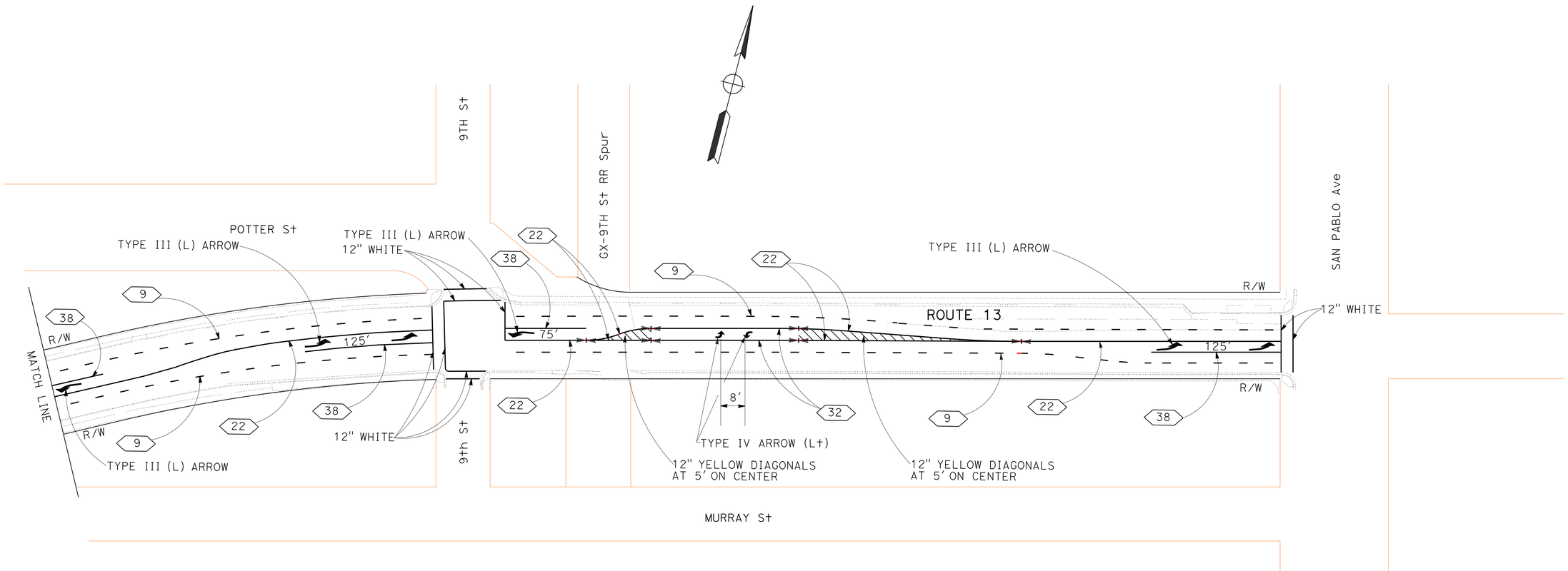
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	23	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-2

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET PD-1

LITO BASA — CALCULATED-DESIGNED BY
ROBERT CAMARGO — CHECKED BY
REVISED BY — LB
DATE REVISED — 3/10/14
FUNCTIONAL SUPERVISOR — RAMSES SARGISS
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE

LAST REVISION DATE PLOTTED => 21-MAR-2014
LAST REVISION TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 0412000449na002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

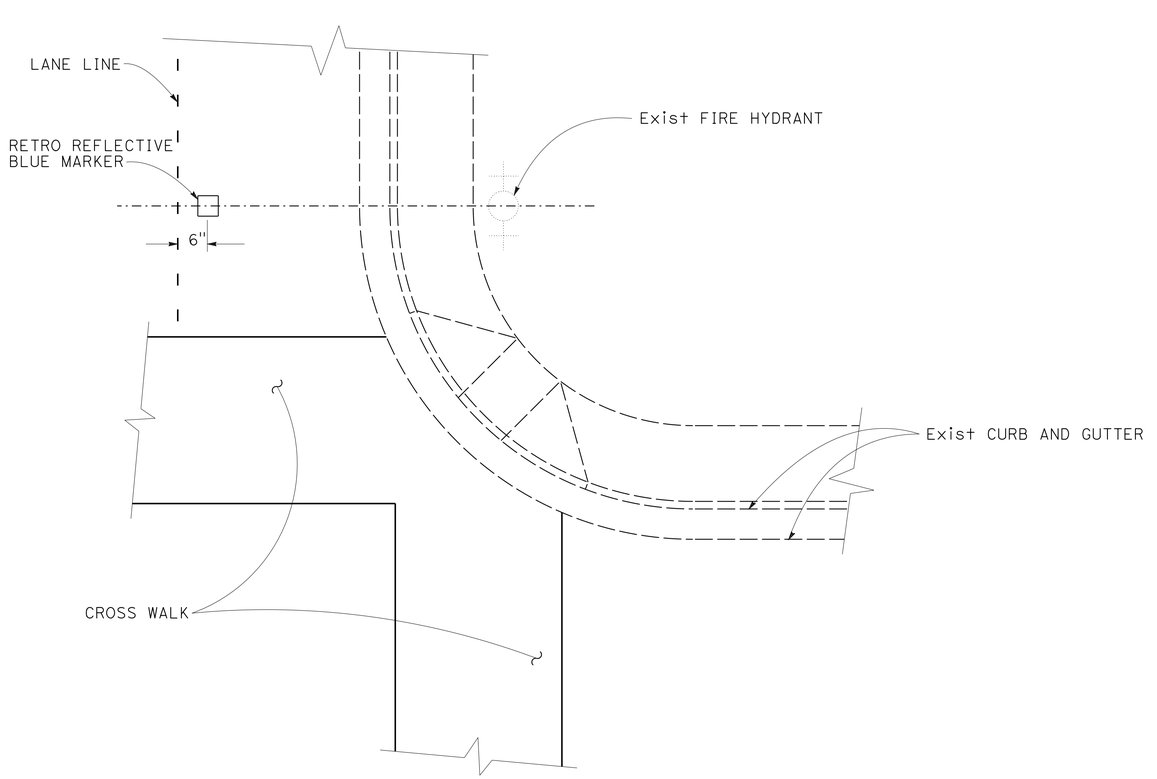
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	24	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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



DETAIL

TYPICAL FIRE HYDRANT MARKER LOCATION

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

LAST REVISION | DATE PLOTTED => 21-MAR-2014
03-05-14 | TIME PLOTTED => 11:14

REVISED BY	DATE REVISED
LB	3/10/14

CALCULATED-DESIGNED BY: LITO BASA
CHECKED BY: ROBERT CAMARGO
FUNCTIONAL SUPERVISOR: RAMSES SARGISS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
MAINTENANCE

BORDER LAST REVISED 2/1/2013

USERNAME => s131681
DGN FILE => 0412000449nb001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0976

PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	25	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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

TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS

LOCATION	DETAIL No. OR Pvmt MARKING	THERMOPLASTIC TRAFFIC STRIPE					THERMOPLASTIC PAVEMENT MARKING	PAVEMENT MARKER (RETROREFLECTIVE)			REMOVE PAVEMENT MARKERS
		4"WHITE SOLID	4"YELLOW SOLID	4"WHITE BROKEN (6-1)	4"WHITE BROKEN (17-7)	8"WHITE SOLID	WHITE	TYPE D	TYPE G	BLUE	
		LF					SQFT	EA			EA
PM 13.681 TO 7TH St	9				2000				43	2	45
	22		760					66			66
	27B	1150									
	29		480					21			21
	38					300			14		14
	40			170							
	TYPE I 24' ARROW						93				
	TYPE II ARROW (R)						135				
	TYPE III ARROW (L)						126				
	12" LIMIT LINE						40				
	12" CROSSWALK						80				
7TH St TO 9TH St	9				1000				22	2	24
	22		60					8			8
	38					275			12		12
	40			210							
	TYPE III ARROW (L)						168				
	12" LIMIT LINE										
	12" CROSSWALK						240				
9TH St TO SAN PABLO Ave	9				1460				32		32
	22		300					28		2	30
	32		240					11			11
	38					200			11		11
	TYPE III ARROW (L)						126				
	TYPE IV ARROW (L)						30				
	12" LIMIT LINE										
	12" CROSSWALK						110				
TOTAL		1150	1840	380	4460	775	1148	134	134	6	274

PAVEMENT DELINEATION QUANTITIES

PDQ-1

CALCULATED-DESIGNED BY
CHECKED BY
LB
REVISED BY
3/10/14
DATE REVISED
LITO BASA
ROBERT CAMARGO
FUNCTIONAL SUPERVISOR
RAMSES SARGISS
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE
Caltrans

LAST REVISION 03-05-14
DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 0412000449nc001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	26	43

Robert Camargo 3/10/14
REGISTERED CIVIL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-13
CIVIL
STATE OF CALIFORNIA

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

ROADWAY QUANTITY SUMMARY

LOCATION	REMOVE BASE AND SURFACING	CLASS 2 AGGREGATE BASE	COLD PLANE AC PAVEMENT (0.10' Max)	HMA (TYPE A)	TACK COAT	LIQUID ASPHALT SC-70 (PRIME COAT)
	CY		SQYD	TON		
PM 13.681 TO GX-9TH St RR SPUR			11,220	750	4.7	
GX-9TH St RR SPUR	180	134		130	0.3	1
GX-9TH St TO SAN PABLO Ave				270	0.9	
TOTAL	180	134	11,220	1,150	5.9	1

REPLACE ASPHALT CONCRETE SURFACING

LOCATION	WIDTH	LENGTH	CY
	FT(N)		
PM 13.681 TO 7TH St	36.0	15.0	10.0
	10.0	50.0	9.3
	10.0	100.0	18.5
	10.0	200.0	37.0
	10.0	100.0	18.5
	32.0	50.0	29.6
7TH St TO 9TH St	10.0	50.0	9.3
9TH St TO SAN PABLO Ave	60.0	587.0	521.8
TOTAL			654.0

TREATED WOOD WASTE

LOCATION	REMOVE RAILROAD RAILS	TREATED WOOD WASTE	
		RAILROAD TIES	
	LF	EA (N)	LB
NORTHBOUND	60.0	38	8,377
SOUTHBOUND	90.0	57	12,566
TOTAL	150.0	95	20,943

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

SUMMARY OF QUANTITIES

Q-1

CALCULATED-DESIGNED BY: LB
CHECKED BY: 3/10/14
REVISED BY: LITO BASA
DATE REVISED: ROBERT CAMARGO
FUNCTIONAL SUPERVISOR: RAMSES SARGISS
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE

LAST REVISION 03-05-14
DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 0412000449pa001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	27	43

3/10/14
REGISTERED ELECTRICAL ENGINEER DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Mahmood Noii
No. 13717
Exp. 6-30-15
ELECT
STATE OF CALIFORNIA

GENERAL NOTES:

1. WHERE ONE OR MORE TRAFFIC SIGNAL DETECTOR(S) CONSIST OF A SEQUENCE OF 4 LOOPS IN A SINGLE LANE, THE FRONT LOOP CLOSEST TO THE LIMIT LINE OR CROSSWALK MUST BE LOCATED 1 FOOT FROM THE LINE. THE SET OF 3 LOOPS OR 4 LOOPS ASSIGNED TO THE SAME LOOP DETECTOR LEAD-IN CABLE (DLC) MUST BE CONNECTED IN SERIES FOR TRAFFIC SIGNAL SYSTEM ONLY AND NOT FOR RAMP METERING SYSTEM.
2. AT LEAST THREE WORKING DAYS PRIOR TO PERFORMING ANY WORK ON EACH EXISTING SYSTEM, NOTIFY THE DEPARTMENT OF TRANSPORTATION, ELECTRICAL AND SIGNAL MAINTENANCE SUPERINTENDENT, PHONE (415) 330-6500.
3. VERIFY THE LOCATION OF THE LOOP DETECTORS TO BE REPLACED PRIOR TO REPAVING.
4. ALL LOOP DETECTORS AT EACH LOCATION MUST BE REPLACED AND TESTED WITHIN THE TIME ALLOTTED FOR TRAFFIC SIGNAL SYSTEM SHUTDOWN AT THAT LOCATION.
5. PROVIDE TWO REPORTS PER LOCATION ON THE STATUS OF EACH DETECTOR REPLACEMENT SHOWING CONTINUITY AND INSTALLATION RESISTANCE READING. SUBMIT TO THE ENGINEER, ONE BEFORE STARTING WORK AND THE OTHER AFTER WORK HAS BEEN COMPLETED AT EACH LOCATION.

ELECTRICAL INDEX

COUNTY - ROUTE - PM		SAN PABLO AVENUE & ASHBY AVENUE: ALA 13 13.19 (LOCATION 1)					ASHBY AVENUE & 9TH STREET: ALA 13 13.36 (LOCATION 2)										ASHBY AVENUE & 7TH STREET: ALA 13 13.41 (LOCATION 3)										TOTAL
		INTERSECTION DETECTOR EB					ADVANCE DETECTOR EB		ADVANCE DETECTOR WB		INTERSECTION DETECTOR EB						ADVANCE EB		ADVANCE WB		INTERSECTION DETECTOR EB			INTERSECTION DETECTOR WB			
LANE NUMBER	(FROM LEFT WITH RESPECT TO DIRECTION OF TRAFFIC. SEE E-2 FOR LANE DESCRIPTION)	1L	2T	3T	-	-	1T	2T	1T	2T	1L	2T	3T	1T	2T	-	1T	2T	1T	2T	1L	2T	3T	1L	2T	3T	
DISTANCE FROM LIMIT LINE (FEET)		–	–	–	_	–	174	174	174	174		–	–	–	–	–	174	174	174	174	–	–	_	–	–	–	
DETECTORS	A. FRONT DETECTOR B. BICYCLE DETECTOR C. ADVANCE DETECTOR D. INTERMEDIATE DETECTOR	A	A	A	–	–	C	C	C	C	A	A	A	A	A	–	C	C	C	C	A	A	A	A	A	A	
PULL BOX LOCATION:	A. RIGHT SHOULDER B. RIGHT SIDEWALK C. MEDIAN D. LEFT SHOULDER E. ISLAND	B			-		B		B		B			B		-	B		B		B			D	B		
HANDHOLE LOCATION:	A. RIGHT SHOULDER/(RIGHT ETW) B. LEFT SHOULDER/(LEFT ETW) C. MEDIAN D. PAINTED MEDIAN	D	A		-		A		A		D	A		A		-	A		A		D	A		D	A		
TYPE & DETECTOR QUANTITY	TYPE A LOOP DETECTOR	3	3	3	–	–	1	1	1	1	3	3	3	3	3	–	1	1	1	1	3	3	3	3	3	3	
	TYPE B LOOP DETECTOR				–	–																					
	TYPE C LOOP DETECTOR				_	–																					
	TYPE D LOOP DETECTOR	1	1	1	–	–					1	1	1	1	1	–	1	1	1	1	1	1	1	1	1	1	
DETECTOR CONFIGURATION	(SEE DETAIL ON E-2) a...f	b	c				a		a		b	c		c		-	a		a		b	c		b	c		
PULL BOX REPLACEMENT	(Y=YES N=NO)		N		-		N		N			N		N		-	N		N		N			N	N		
HANDHOLE REPLACEMENT	(Y=YES N=NO)	Y	Y		-		Y		Y		Y	Y		Y		-	Y		Y		Y			Y	Y		
LOOP DETECTOR TOTAL		4	4	4	–	–	1	1	1	1	4	4	4	4	4	–	1	1	1	1	4	4	4	4	4	4	
COMMENTS																											

TOTAL
13
64

DETECTOR LOOP REPLACEMENT

E-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL
FUNCTIONAL SUPERVISOR: BEHZAD GOLEMOHAMMADI
CALCULATED-DESIGNED BY: HAWA GARDIZI
CHECKED BY: MAHMOOD NOII
REVISED BY: HG
DATE REVISED: 3/10/14

LAST REVISION DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14
03-05-14

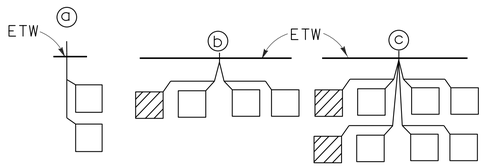
BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 0412000449ua001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	28	43

REGISTERED ELECTRICAL ENGINEER — 3/10/14 DATE

3-10-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Mahmood Noii — No. 13717 — Exp. 6-30-15 — ELECT — STATE OF CALIFORNIA

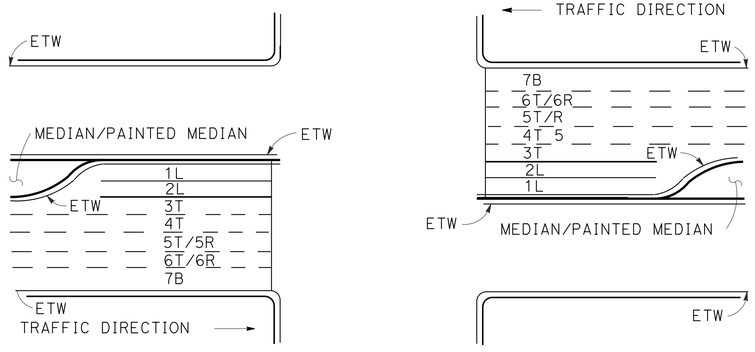


TYPICAL DETECTOR CONFIGURATIONS

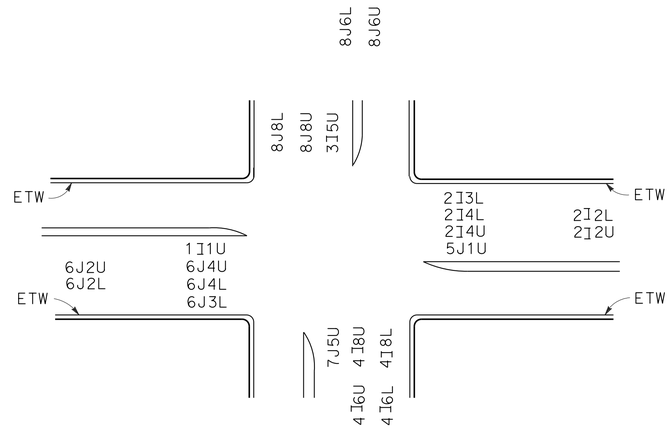
LANE DESCRIPTION

NUMBER OF LANE FROM LEFT WITH RESPECT TO TRAFFIC DIRECTION

1= FIRST LANE FROM LEFT
2= SECOND LANE FROM LEFT
3= THIRD LANE FROM LEFT
4= FOURTH LANE FROM LEFT
5= FIFTH LANE FROM LEFT
T=THROUGH TRAFFIC MOVEMENT
L=LEFT TURN TRAFFIC MOVEMENT
R=RIGHT TURN TRAFFIC MOVEMENT
B= BICYCLE LANE



LANE CONFIGURATION (TYPICAL)
TRAFFIC SIGNAL



DETECTOR IDENTIFICATION (TYPICAL)

ELECTRICAL DETAILS

NO SCALE

E-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL
FUNCTIONAL SUPERVISOR: BEHZAD GOLEMOHAMMADI
CALCULATED-DESIGNED BY: HAWA GARDIZI
CHECKED BY: MAHMOOD NOII
REVISED BY: HG
DATE REVISED: 3/10/14

LAST REVISION
DATE PLOTTED => 21-MAR-2014
TIME PLOTTED => 11:14
01-17-14

BORDER LAST REVISED 2/1/2013
USERNAME => s131681
DGN FILE => 0412000449ua002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0976
PROJECT NUMBER & PHASE 04120004491

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
04	Ala	13	13.2/13.7	29	43

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Grace M. Tsushima No. C49814 Exp. 9-30-14 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 3-10-14

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
04	Ala	13	13.2/13.7	30	43

Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

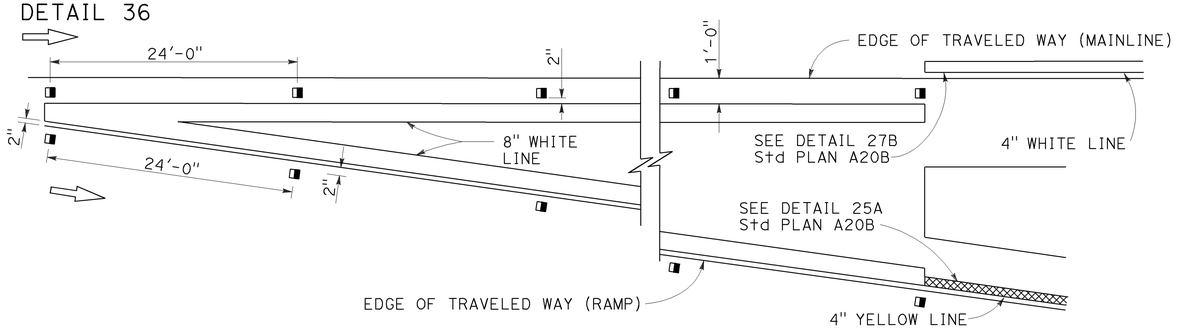
REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-15
CIVIL
STATE OF CALIFORNIA

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 3-10-14

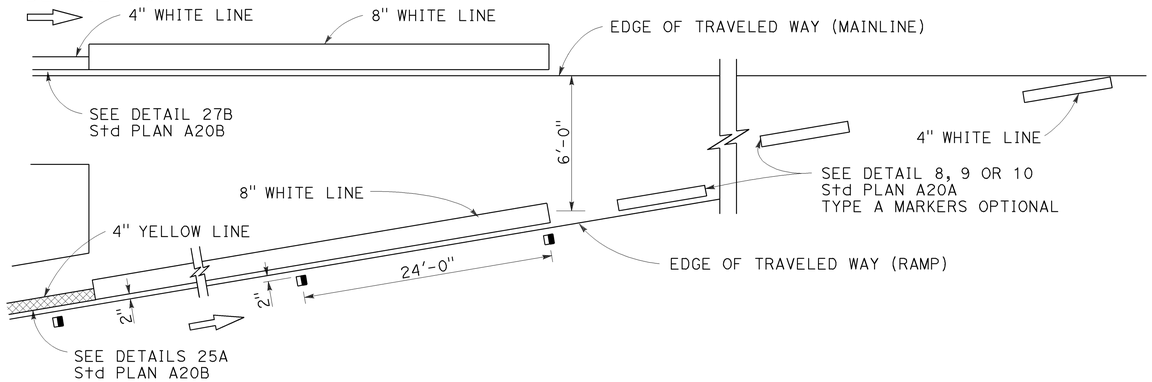
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT

DETAIL 36



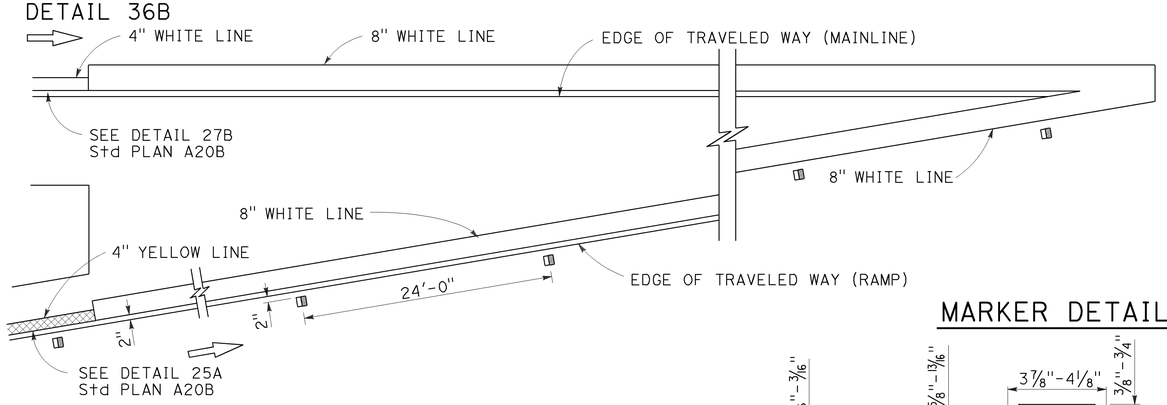
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

DETAIL 36A



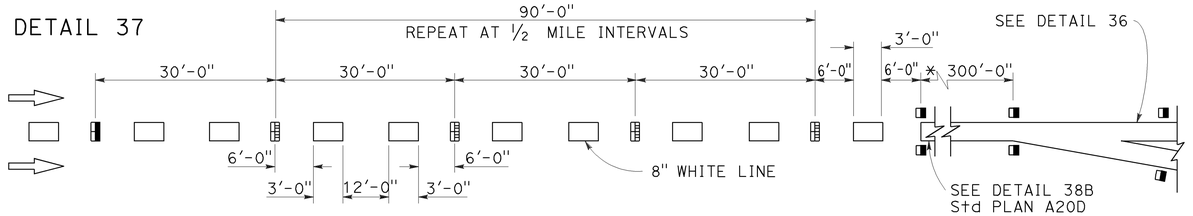
ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

DETAIL 36B

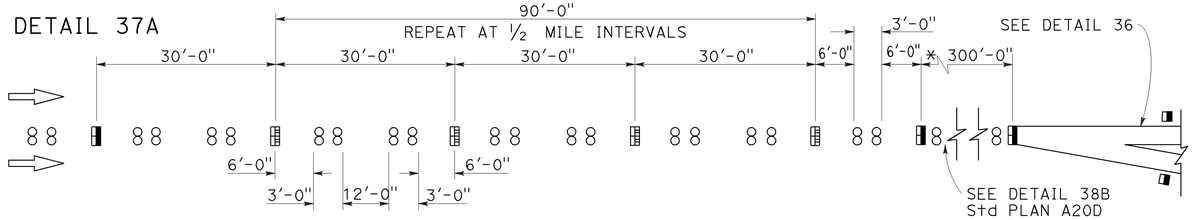


LANE DROP AT EXIT RAMPS

DETAIL 37



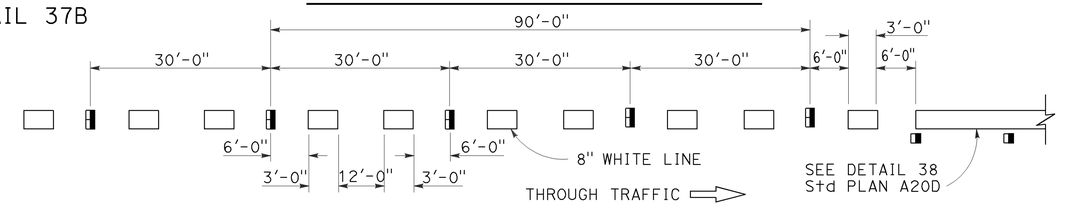
DETAIL 37A



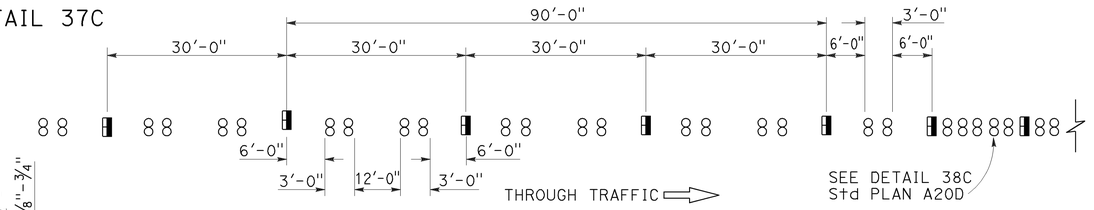
* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS

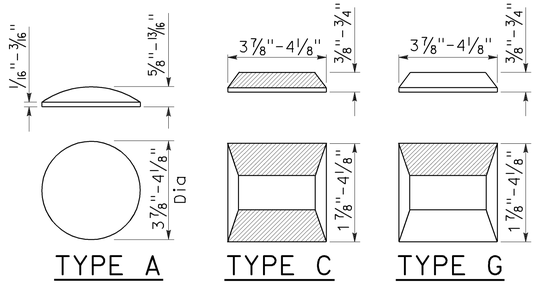
DETAIL 37B



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
04	Ala	13	13.2/13.7	31	43

Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

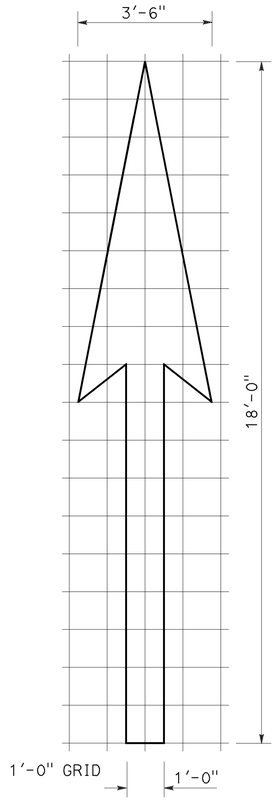
April 20, 2012
PLANS APPROVAL DATE

Registered Professional Engineer — Roberta L. McLaughlin — No. C40375 — Exp. 3-31-13 — CIVIL — State of California

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.

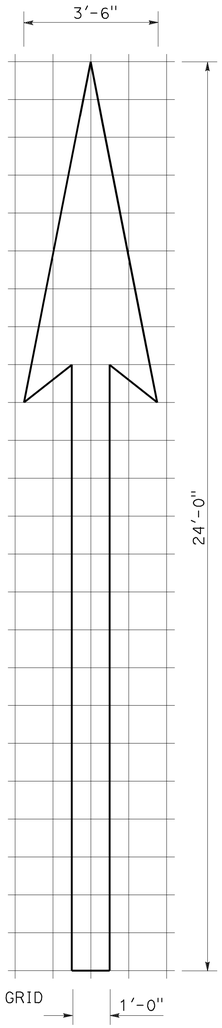
TO ACCOMPANY PLANS DATED 3-10-14

2010 REVISED STANDARD PLAN RSP A24A



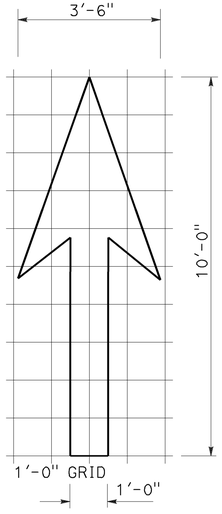
A=25 ft²

TYPE I 18'-0" ARROW



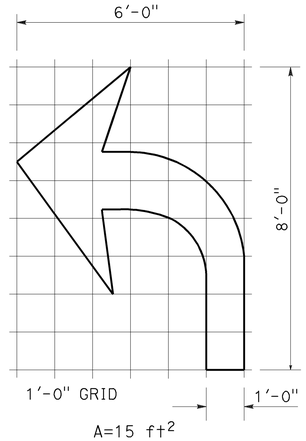
A=31 ft²

TYPE I 24'-0" ARROW



A=14 ft²

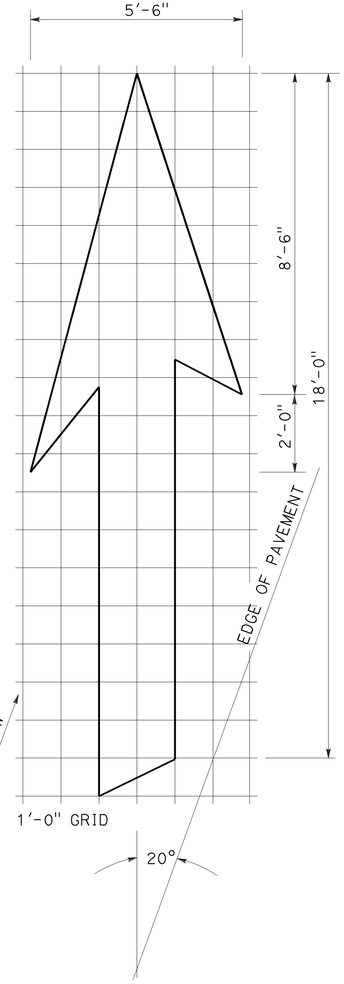
TYPE I 10'-0" ARROW



A=15 ft²

TYPE IV (L) ARROW

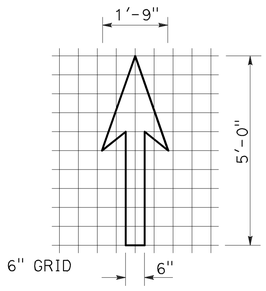
(For Type IV (R) arrow, use mirror image)



A=42 ft²

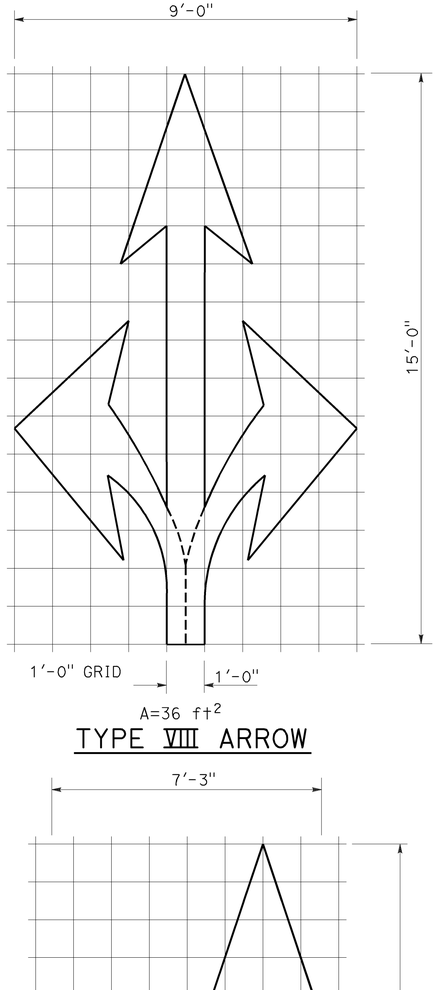
TYPE VI ARROW

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



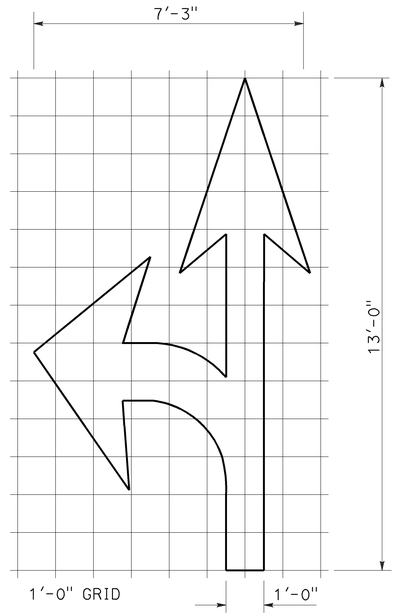
A=3.5 ft²

BIKE LANE ARROW



A=36 ft²

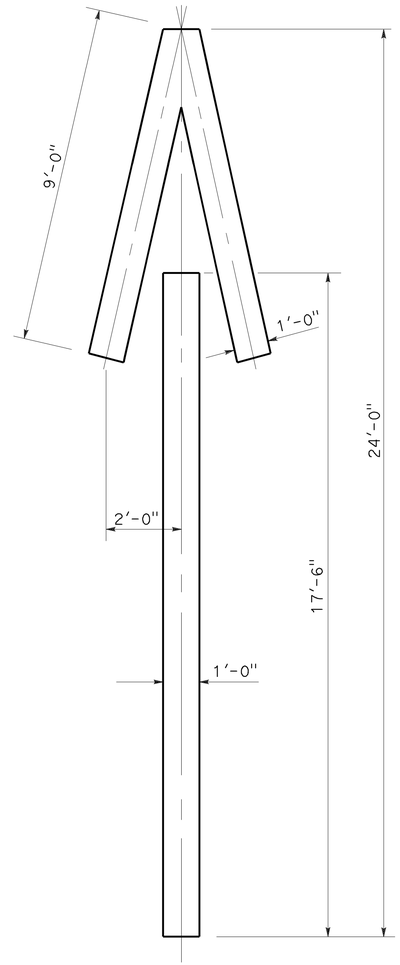
TYPE VIII ARROW



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

3-14-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	32	43

REGISTERED CIVIL ENGINEER

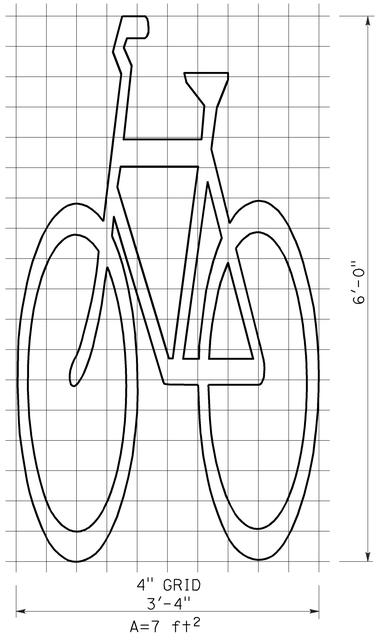
October 19, 2012
PLANS APPROVAL DATE

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

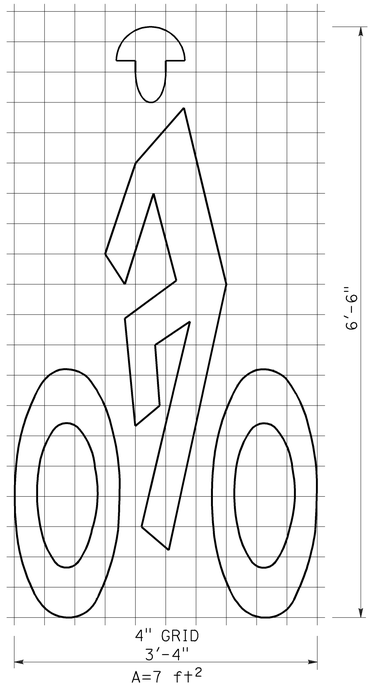
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE: TO ACCOMPANY PLANS DATED 3-10-14

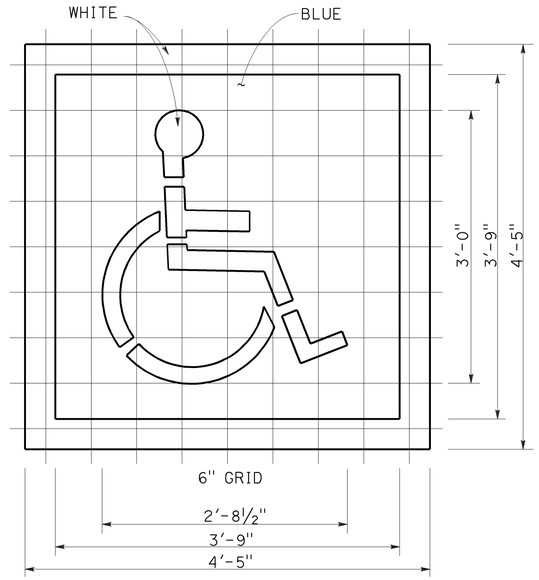
Minor variations in dimensions may be accepted by the Engineer.



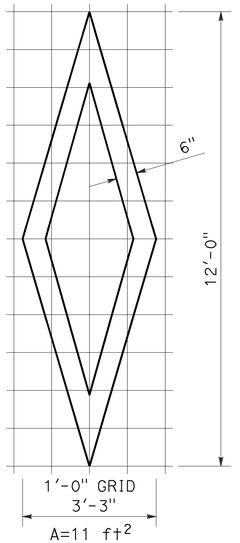
BIKE LANE SYMBOL WITHOUT PERSON



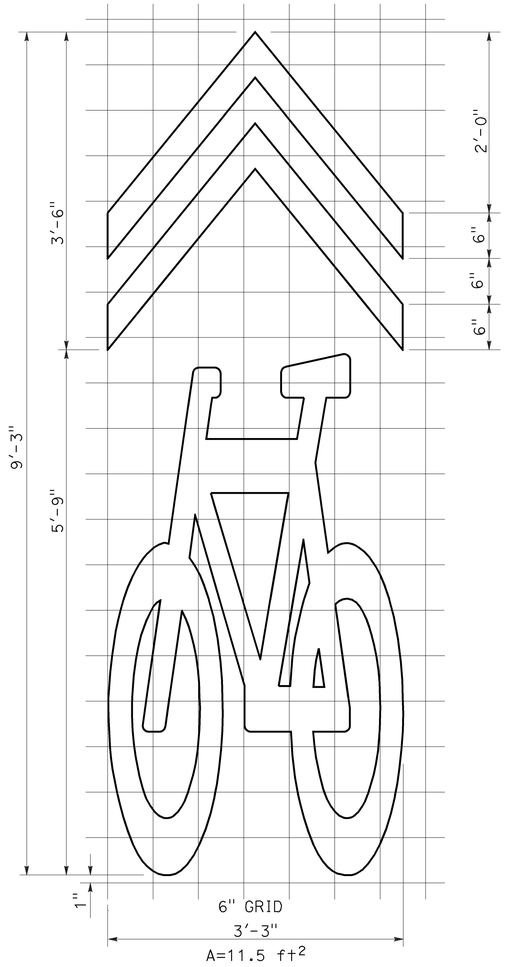
BIKE LANE SYMBOL WITH PERSON



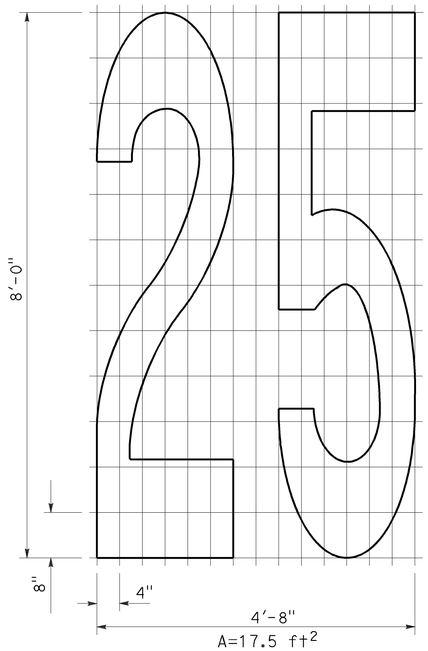
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING

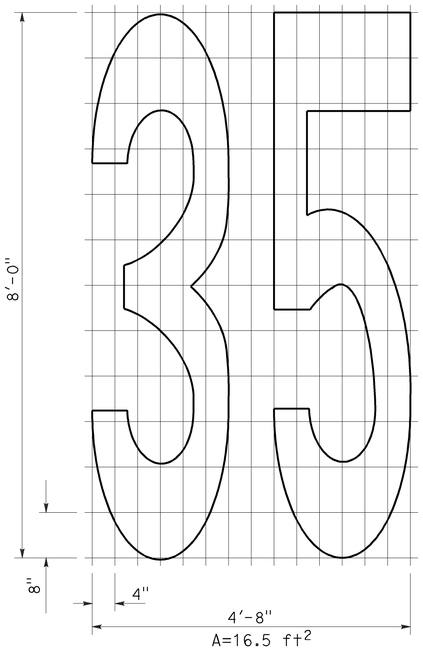


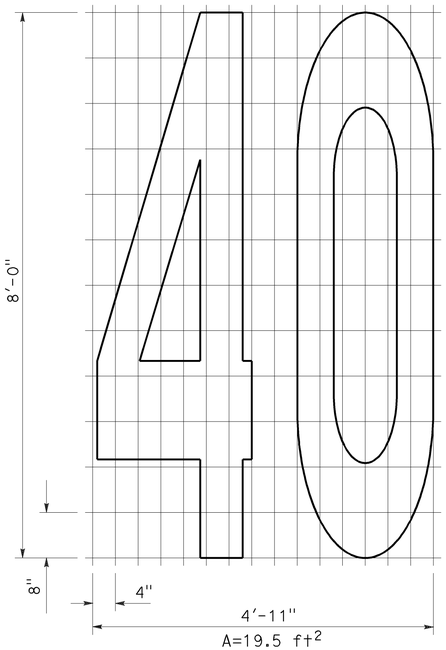
DIAMOND SYMBOL



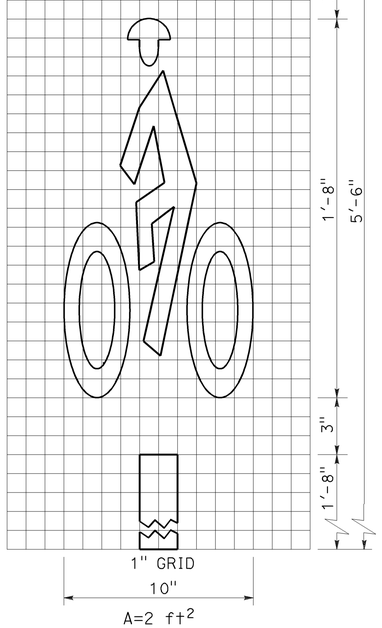
SHARED ROADWAY BICYCLE MARKING







NUMERALS



BICYCLE LOOP DETECTOR SYMBOL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS SYMBOLS AND NUMERALS

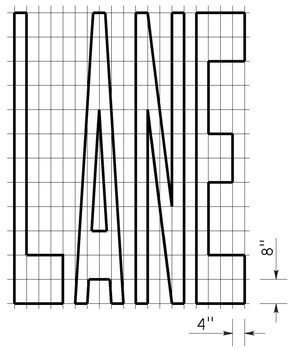
NO SCALE

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

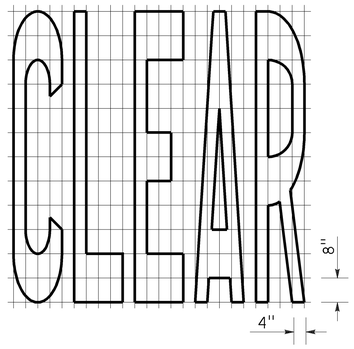
REVISED STANDARD PLAN RSP A24C

2010 REVISED STANDARD PLAN RSP A24C

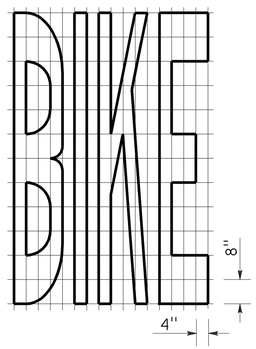
6-28-12



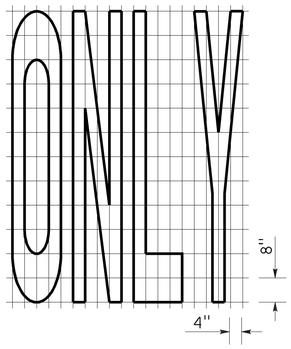
A=24 ft²



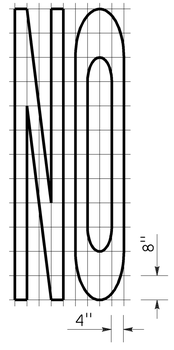
A=27 ft²



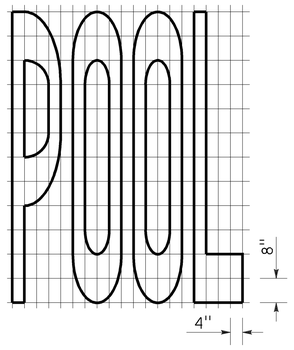
A=21 ft²



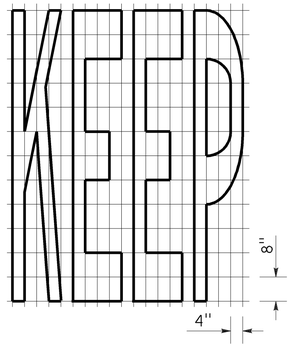
A=22 ft²



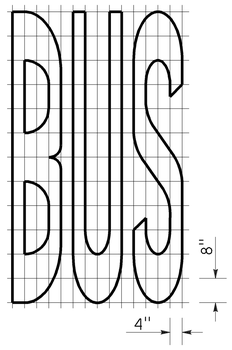
A=14 ft²



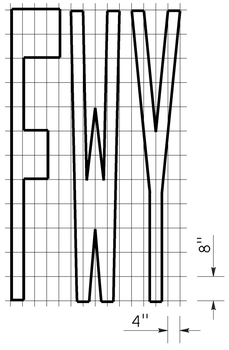
A=23 ft²



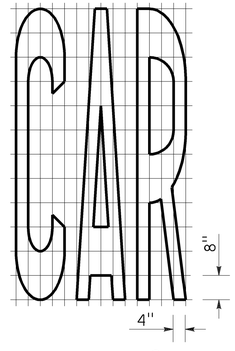
A=24 ft²



A=20 ft²



A=16 ft²



A=17 ft²

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	33	43

Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

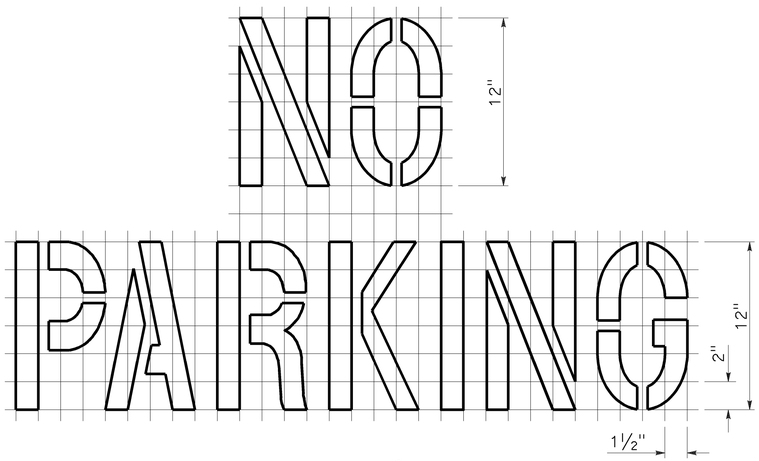
July 20, 2012
PLANS APPROVAL DATE

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

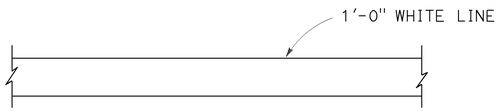
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 3-10-14

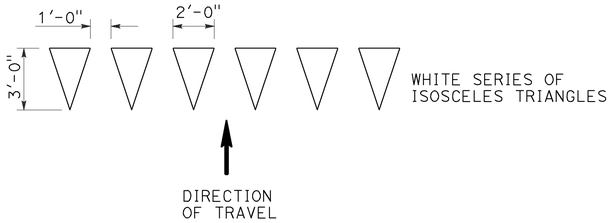
WORD MARKINGS			
ITEM	ft²	ITEM	ft²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



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
04	Ala	13	13.2/13.7	34	43

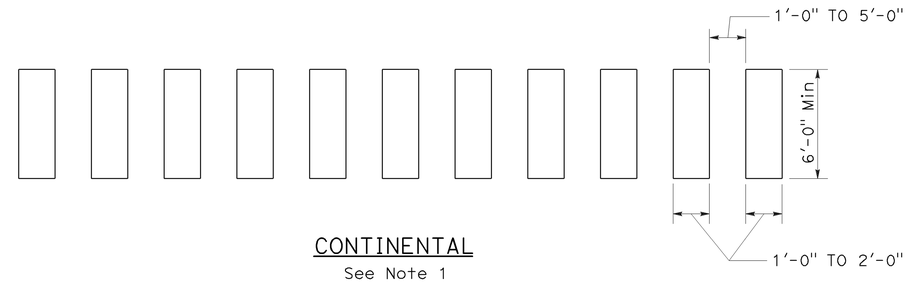
Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

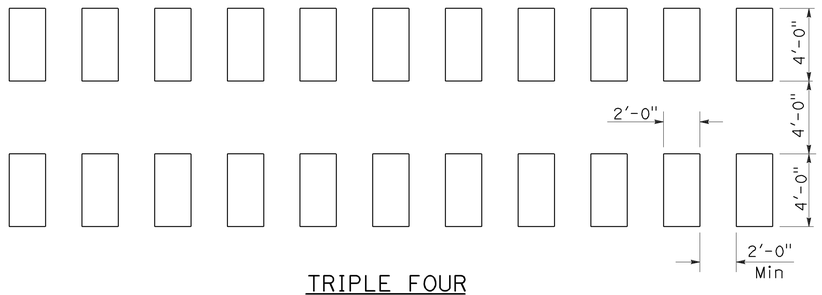
REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

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.

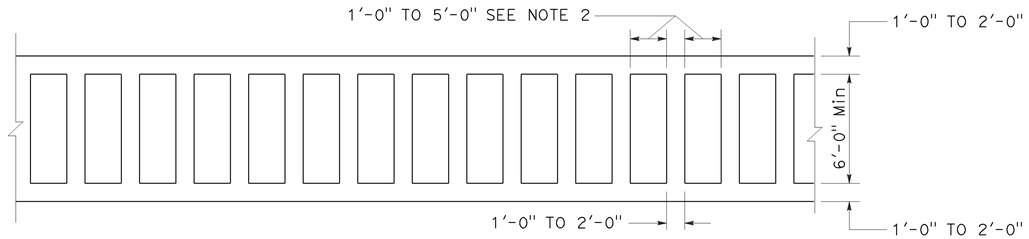
TO ACCOMPANY PLANS DATED 3-10-14



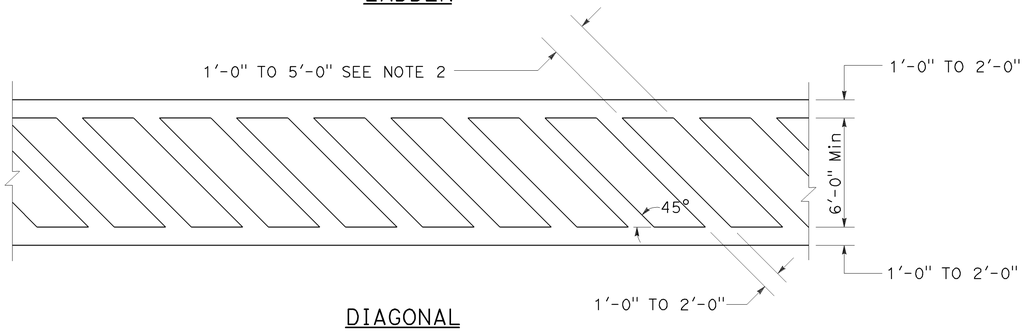
CONTINENTAL
See Note 1



TRIPLE FOUR
See Note 1



LADDER

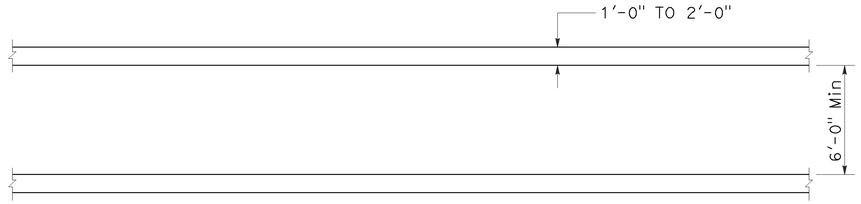


DIAGONAL

HIGHER VISIBILITY CROSSWALKS

NOTES:

1. Spaces between markings should be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 times width of longitudinal line.
3. All crosswalk markings must be white except for those near schools must be yellow.



BASIC

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS CROSSWALKS

NO SCALE

RSP A24F DATED JULY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24F

2010 REVISED STANDARD PLAN RSP A24F

6-28-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	35	43

Raymond Don Tsztoo
REGISTERED CIVIL ENGINEER

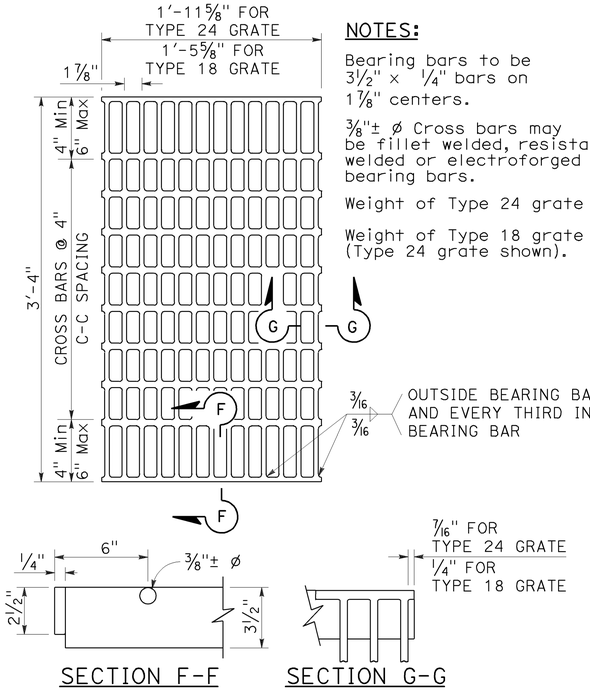
April 19, 2013
PLANS APPROVAL DATE

Raymond Don Tsztoo No. C37332 Exp. 6-30-14 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 3-10-14

2010 REVISED STANDARD PLAN RSP D77B



NOTES:

Bearing bars to be 3½" × ¼" bars on 1⅞" centers.

⅜"± ø Cross bars may be fillet welded, resistance welded or electroforged to bearing bars.

Weight of Type 24 grate = 141 LBS.

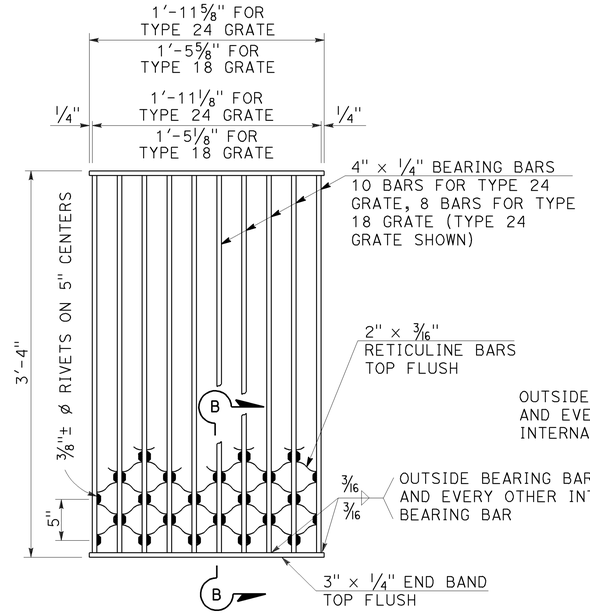
Weight of Type 18 grate = 107 LBS. (Type 24 grate shown).

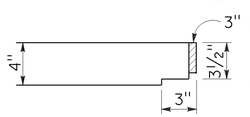
SECTION F-F

SECTION G-G

TYPE 18-10 AND 24-13 GRATE

(Welded Steel)





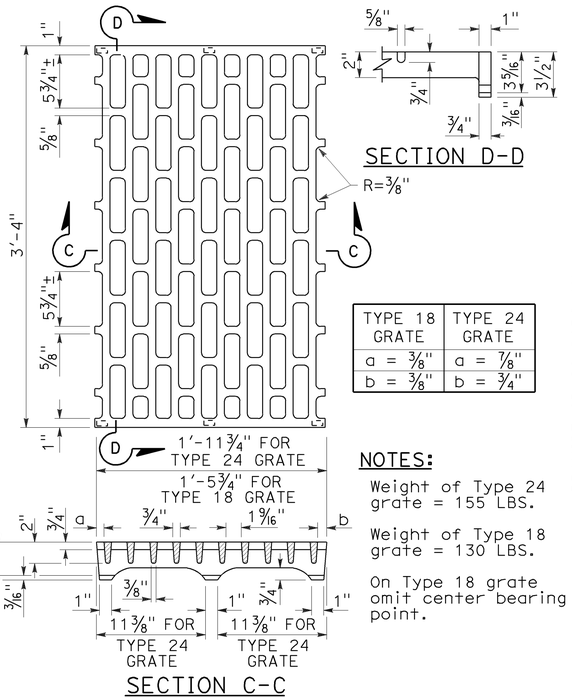
SECTION B-B

NOTES:

Weight of Type 24 grate = 182 LBS.
Weight of Type 18 grate = 145 LBS.

TYPE 18-10 AND 24-13 GRATE

(Welded Steel) Reticuline type



SECTION C-C

SECTION D-D

TYPE 18 GRATE	TYPE 24 GRATE
a = ⅜"	a = ⅞"
b = ⅜"	b = ¾"

NOTES:

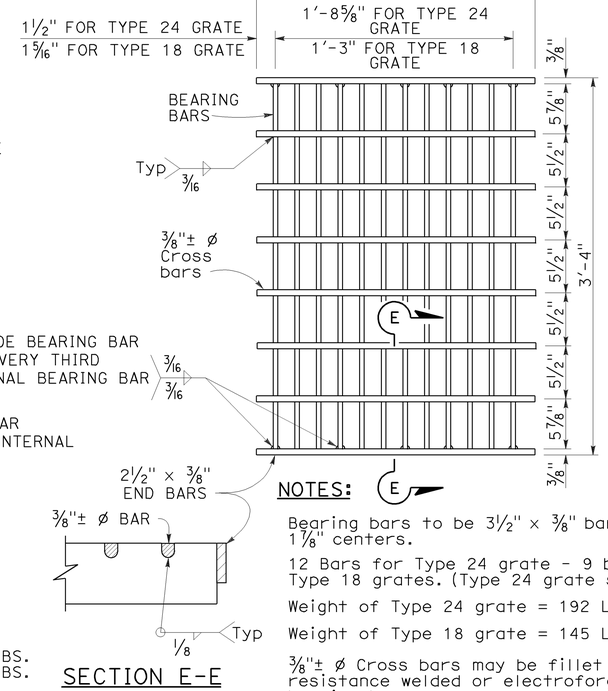
Weight of Type 24 grate = 155 LBS.

Weight of Type 18 grate = 130 LBS.

On Type 18 grate omit center bearing point.

TYPE 18-8C AND 24-10C GRATE

(Cast ductile iron)



SECTION E-E

NOTES:

Bearing bars to be 3½" × ⅜" bars on 1⅛" centers.

12 Bars for Type 24 grate - 9 bars for Type 18 grates. (Type 24 grate shown).

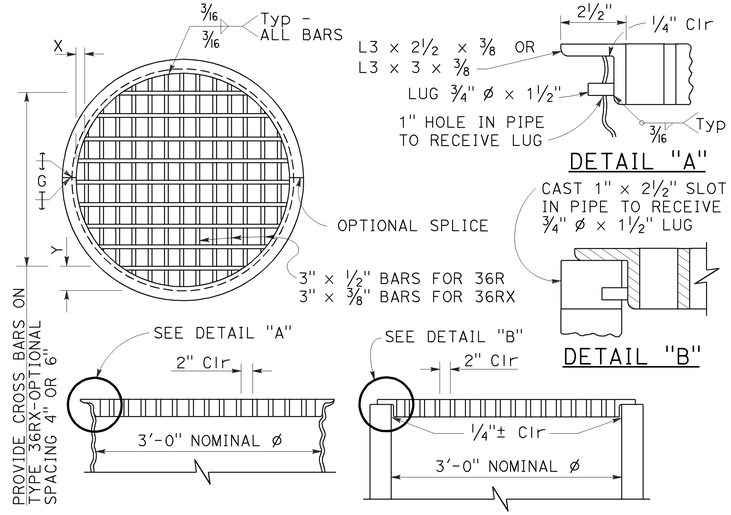
Weight of Type 24 grate = 192 LBS.

Weight of Type 18 grate = 145 LBS.

⅜"± ø Cross bars may be fillet welded, resistance welded or electroforged to bearing bars.

TYPE 18-9X AND 24-12X GRATE

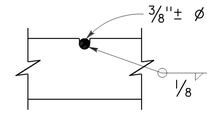
(Welded Steel)



DETAIL "A"

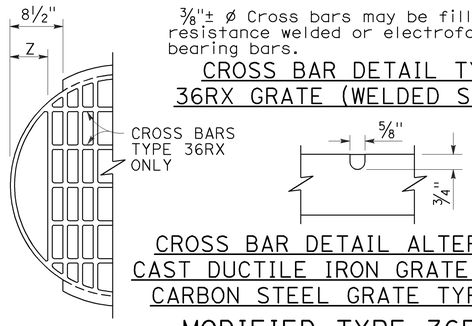
DETAIL "B"

TYPE 36R AND 36RX GRATE DETAILS



⅜"± ø Cross bars may be fillet welded, resistance welded or electroforged to bearing bars.

CROSS BAR DETAIL TYPE 36RX GRATE (WELDED STEEL)



CROSS BAR DETAIL ALTERNATIVE CAST DUCTILE IRON GRATE OR CAST CARBON STEEL GRATE TYPE 36RX

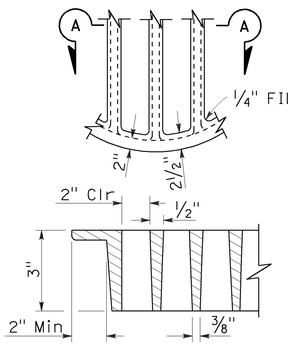
MODIFIED TYPE 36R AND 36RX GRATE FOR ODI INLET

NOTES:

1. When alternative grates are allowed - Final pay based on alternative with the lesser weight.
2. Use frame shown on Standard Plan D74A, D74B or RSP D77A as appropriate.
3. When Type 24-10S, 24-12X or 24-13 grates are used with GDO Inlets, a ¼" × 3½" × 3'-4⅞" steel bar shall be welded across the center of inlet frame to separate the individual grates.
4. See Revised Standard Plan RSP D77A for connecting chain to welded grate and frame. When chain is required, do not use cast ductile iron grate.

GRATE BAR SPACING TABLE

TYPE	No. OF BARS	CLEAR BAR SPACING	X	Y		Z
				4" SPACING	6" SPACING	
36R	13	2"	2⅛"	-	-	-
36RX (STEEL)	15	2"	9/16"	3¾"	5¾"	-
36RX (CAST)	13	2"	2⅛"	3¾"	5¾"	-
36R Mod	12	2"	2⅛"	-	-	5"
36RX Mod (STEEL)	13	2"	9/16"	3¾"	5¾"	5 11/16"
36RX Mod (CAST)	12	2"	2⅛"	3¾"	5¾"	5"



SECTION A-A

ALTERNATIVE CAST DUCTILE IRON GRATE OR CAST CARBON STEEL GRATE TYPE 36R AND 36RX

BASIS FOR Misc IRON AND STEEL FINAL PAY WEIGHTS FOR DRAINAGE INLETS

INLET TYPE	GRATE TYPE	No. OF GRATES	WEIGHT LB
GDO (SEE NOTE 4)	24-10C	2	391
	24-10S	2	456
	24-12X	2	473
	24-13	2	374
G0,G0L,G1,G2, G3,G4 (TYPE 24)	24-10C	1	202
	24-10S	1	229
	24-12X	1	239
	24-13	1	188
G4 (TYPE 18) G5,G6	18-8S	1	187
	18-9X	1	187
	18-10	1	149
GT1,GT2	18-8S	2	374
	18-9X	2	374
	18-10	2	298
GT3,GT4	24-10C	2	404
	24-10S	2	458
	24-12X	2	478
	24-13	2	376
ODI	36RX (Mod)	1	196
GMP,GCP,GCPI	36RX	1	215
ODI	36R (Mod)	1	220
GMP,GCP,GCPI	36R	1	236
TRASH RACK			22
GRATE CHAIN			3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

GRATE DETAILS No. 2

NO SCALE

RSP D77B DATED APRIL 19, 2013 SUPERSEDES RSP D77B DATED JULY 20, 2012 AND STANDARD PLAN D77B DATED MAY 20, 2011 - PAGE 165 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP D77B

4-4-13

LEGEND:

AB	ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS
BC	INSTALL PULL BOX IN EXISTING CONDUIT RUN
BP	PEDESTRIAN BARRICADE, TYPE AS INDICATED ON PLAN
CB	INSTALL CONDUIT INTO EXISTING PULL BOX
CC	CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED
CF	CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS. INSTALL PULL TAPE
DH	DETECTOR HANDHOLE
FA	FOUNDATION TO BE ABANDONED
IS	INSTALL SIGN ON SIGNAL MAST ARM
NS	NO SLIP BASE ON STANDARD
PEC	PHOTOELECTRIC CONTROL
PEU	PHOTOELECTRIC UNIT
RC	EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
RE	REMOVE ELECTROLIER, FUSES AND BALLAST. TAPE ENDS OF CONDUCTORS
RL	RELOCATE EQUIPMENT
RR	REMOVE AND REUSE EQUIPMENT
RS	REMOVE AND SALVAGE EQUIPMENT
SC	SPLICE NEW TO EXISTING CONDUCTORS
SD	SERVICE DISCONNECT
TSP	TELEPHONE SERVICE POINT

ABBREVIATIONS

APS	ACCESSIBLE PEDESTRIAN SIGNAL
BBS	BATTERY BACKUP SYSTEM
BC	BOLT CIRCLE
BPB	BICYCLE PUSH BUTTON
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
Ckt	CIRCUIT
CMS	CHANGEABLE MESSAGE SIGN
Ctid	CALTRANS IDENTIFICATION
Comm	COMMUNICATION
DLC	LOOP DETECTOR LEAD-IN CABLE
EMS	EXTINGUISHABLE MESSAGE SIGN
EVUC	EMERGENCY VEHICLE UNIT CABLE
EVUD	EMERGENCY VEHICLE UNIT DETECTOR
FB	FLASHING BEACON
FBCA	FLASHING BEACON CONTROL ASSEMBLY
FBS	FLASHING BEACON WITH SLIP BASE
FO	FIBER OPTIC
G	EQUIPMENT GROUNDING CONDUCTOR
GB	GROUND BUS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HAR	HIGHWAY ADVISORY RADIO
Hex	HEXAGONAL
HPS	HIGH PRESSURE SODIUM
IISNS	INTERNALLY ILLUMINATED STREET NAME SIGN
ISL	INDUCTION SIGN LIGHTING
LED	LIGHT EMITTING DIODE
LMA	LUMINAIRE MAST ARM
LPS	LOW PRESSURE SODIUM
Ltg	LIGHTING
Lum	LUMINAIRE
M	METERED
MAT	MAST ARM MOUNTING TOP ATTACHMENT
MAS	MAST ARM MOUNTING SIDE ATTACHMENT
M/M	MULTIPLE TO MULTIPLE TRANSFORMER
Mtg	MOUNTING
MV	MERCURY VAPOR LIGHTING FIXTURE
MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
N	NEUTRAL (GROUNDED CONDUCTOR)
NB	NEUTRAL BUS
NC	NORMALLY CLOSE
NO	NORMALLY OPEN
P	CIRCUIT BREAKER'S POLE
PB	PULL BOX
PBA	PUSH BUTTON ASSEMBLY
PEC	PHOTOELECTRIC CONTROL
Ped	PEDESTRIAN
PEU	PHOTOELECTRIC UNIT
PT	CONDUIT WITH PULL TAPE
RE	RELOCATED EQUIPMENT
RM	RAMP METERING
RWIS	ROADSIDE WEATHER INFORMATION SYSTEM
SB	SLIP BASE
SIC	SIGNAL INTERCONNECT CABLE
Sig	SIGNAL
SMA	SIGNAL MAST ARM
SNS	STREET NAME SIGN
SP	SERVICE POINT
TDC	TELEPHONE DEMARCATION CABINET
TMS	TRAFFIC MONITORING STATION
TOS	TRAFFIC OPERATIONS SYSTEM
Veh	VEHICLE
VIVDS	VIDEO IMAGE VEHICLE DETECTION SYSTEM
WIM	WEIGH-IN-MOTION
Xfmr	TRANSFORMER

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	36	43

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

Theresa Aziz Gabriel No. E15129 Exp. 6-30-14 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

July 19, 2013
PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 3-10-14

SOFFIT AND WALL MOUNTED LUMINAIRES

- PENDANT, 70 W HPS UNLESS OTHERWISE SPECIFIED
- FLUSH, 70 W HPS UNLESS OTHERWISE SPECIFIED
- WALL SURFACE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO REMAIN UNMODIFIED
- (M) EXISTING SOFFIT OR WALL LUMINAIRE TO BE MODIFIED AS SPECIFIED

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL USED	DEFINITIONS
Ω	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
$V_{(dc)}$	VOLT (DIRECT CURRENT)
$V_{(ac)}$	VOLT (ALTERNATING CURRENT)
FC	FOOT - CANDLE
W	WATTS
VA	VOLT-AMPERE
M	MEGA
k	KILO
m	MILLI
μ	MICRO
P	PICO
Hz	HERTZ

MISCELLANEOUS ELECTROLIERS

NEW	EXISTING	
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT NOTES OR PROJECT PLANS)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

NOTES:

1. HPS luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. HPS luminaires shall be 200 W when installed on other type standards or poles, unless otherwise specified.
2. LED luminaires shall be 235 W when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. LED luminaires shall be 165 W when installed on other type standards or poles, unless otherwise specified.
3. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.

STANDARD ELECTROLIER

NEW	EXISTING	STANDARD TYPE
		15
		15D
S	S	15 STRUCTURE
S	S	15D STRUCTURE
		21
		21D
		21 STRUCTURE
		21D STRUCTURE
		30
		31
		32

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

7-15-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	37	43

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

Theresa Aziz Gabriel No. E15129 Exp. 6-30-14 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

July 19, 2013
PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 3-10-14

CONDUIT

NEW	EXISTING	
— — — —	— — — —	LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
— — — - — — -	— — — - — — -	TRAFFIC SIGNAL CONDUIT
— — C — —	— — c — —	COMMUNICATION CONDUIT
— — T — —	— — t — —	TELEPHONE CONDUIT
— — F — —	— — f — —	FIRE ALARM CONDUIT
— — FO — —	— — fo — —	FIBER OPTIC CONDUIT
— — — ⊣	— — — ⊣	CONDUIT TERMINATION
R	r	CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

SERVICE EQUIPMENT

NEW	EXISTING	
OH	oh	OVERHEAD LINES
U	U	WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
III	III	SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
T	t	TELEPHONE DEMARCATION CABINET

POLE-MOUNTED SERVICE DESIGNATION

TYPE H SERVICE, 28'-10" — TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE

FLASHING BEACON

NEW	EXISTING	
R	R	FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
Y Y	Y Y	FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
R R	R R	FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

SIGNAL EQUIPMENT

NEW	EXISTING	
C	C	PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
PV	PV	MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)
		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

SIGNAL EQUIPMENT Cont

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

NOTES:

1. All signal sections shall be 12" unless shown otherwise.
2. Signal heads shall be provided with backplates unless shown otherwise.

ILLUMINATED OVERHEAD SIGN

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

2010 REVISED STANDARD PLAN RSP ES-1B

7-15-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	38	43

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

Theresa Aziz Gabriel No. E15129 Exp. 6-30-14 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

July 19, 2013
PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 3-10-14

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

SIGN No. 12345

10 ISL SCI 1.0

- SIGN NUMBER - PLACE ON POST OR STRUCTURE
- TRANSFORMER RATING (kVA)
- LIGHTING CONTROL TYPE
- NUMBER AND TYPE OF FIXTURES

} DO NOT PLACE ON STANDARD OR STRUCTURE

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"

- MAST ARM LENGTH, IF SHOWN. DO NOT PLACE ON STANDARD OR STRUCTURE
- EQUIPMENT NUMBER - PLACE ON STANDARD OR STRUCTURE. EXISTING EQUIPMENT NUMBERS ARE SHOWN IN PARENTHESIS

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC, 12P#18

- PAIR
- NUMBER AND SIZE OF CONDUCTORS AND CABLES
- SIZE OF CONDUIT IN INCHES

ø1, ø2, ø2P, etc.	TRAFFIC PHASE IDENTIFICATION FOR SIGNAL FACES, DETECTORS AND PHASE DIAGRAMS
1 2 3	LEGEND NUMBERS
A B C	EQUIPMENT, SIGNAL POLES, INSTALLATION OR ITEMS
1 2 3	CONDUIT RUN NUMBERS

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100

- WIND VELOCITY = 100 mph
- CASE 3 ARM LOADING
- STANDARD TYPE
- STANDARD PLAN SHEET NUMBER
- DETAIL, NUMBER, SECTION, TYPE OR ELEVATION

MISCELLANEOUS EQUIPMENT

NEW	EXISTING	
CMS	cms	CHANGEABLE MESSAGE SIGN
		CLOSED CIRCUIT TELEVISION CAMERA
		HIGHWAY ADVISORY RADIO POLE AND ANTENNA
EMS	ems	EXTINGUISHABLE MESSAGE SIGN
M V	m v	DETECTION DEVICE M = MICROWAVE SENSOR V = VIDEO IMAGE SENSOR

WIRING DIAGRAM LEGEND

----	EXTERNAL CONDUCTOR
——	CONDUCTOR OR BUS
	TIE POINT
	CONTACTOR COIL
	CONTACTOR, NO CONTACT
	TERMINAL BLOCKS
	CONTACTOR, NC CONTACT
	ENCLOSURE BOND
	GROUNDING ELECTRODE
	CIRCUIT BREAKER
	RECEPTACLE

PULL BOXES

NEW	EXISTING	
		PULL BOX, No. 5 UNLESS OTHERWISE INDICATED OR NOTED
3	9A(21)	PULL BOX, ADDITIONAL DESIGNATIONS OR DESCRIPTIONS

3 No. 3½ PULL BOX
5 No. 5 PULL BOX
6 No. 6 PULL BOX
7 No. 7 (CEILING PULL BOX)
8 No. 8 (PENDANT SOFFIT PULL BOX)
9 No. 9 PULL BOX
9A No. 9A PULL BOX

(C) COMMUNICATIONS PULL BOX
(E) PULL BOX WITH EXTENSION
(S) SPRINKLER CONTROL PULL BOX
(21) ANCHOR BOLTS AND CONDUIT FOR FUTURE INSTALLATION OF TYPE 21 STANDARD
(T) TRAFFIC PULL BOX

VEHICLE DETECTORS

5 J 9 U

- VEHICLE DETECTOR DESIGNATION
- U = UPPER, L = LOWER
- SLOT NUMBER IN INPUT FILE
- INPUT FILE (I OR J)
- PHASE

NEW	EXISTING	
		TYPE A DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
		TYPE B DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
		TYPE C DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
		TYPE D DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
		TYPE E DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
		TYPE Q DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
		MAGNETIC DETECTOR
DH	dh	DETECTOR HANDHOLE
		MICROWAVE OR VIDEO DETECTION ZONE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1C DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1C

2010 REVISED STANDARD PLAN RSP ES-1C

7-11-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	39	43

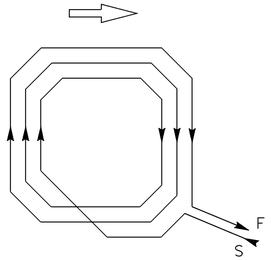
Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

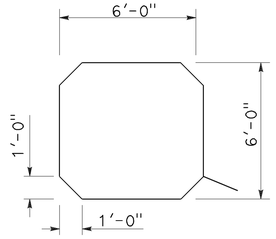
Theresa Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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 3-10-14

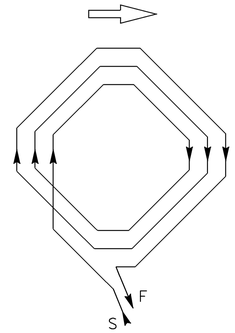


WINDING DETAIL

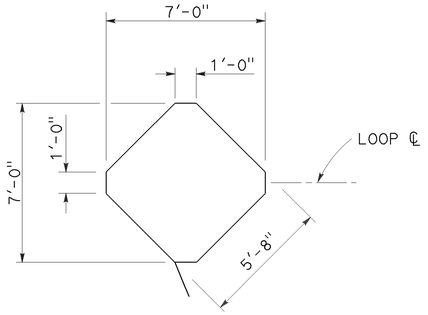


SAWCUT DETAIL

TYPE A LOOP DETECTOR CONFIGURATION

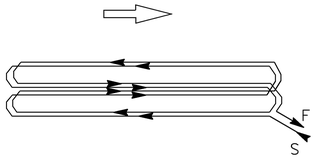


WINDING DETAIL

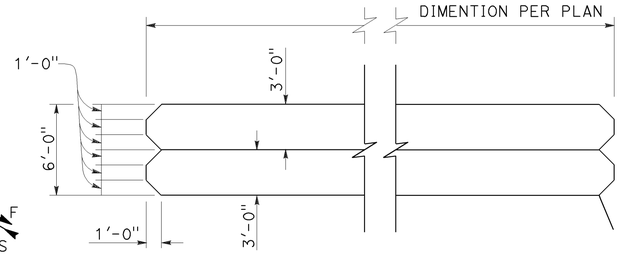


SAWCUT DETAIL

TYPE B LOOP DETECTOR CONFIGURATION

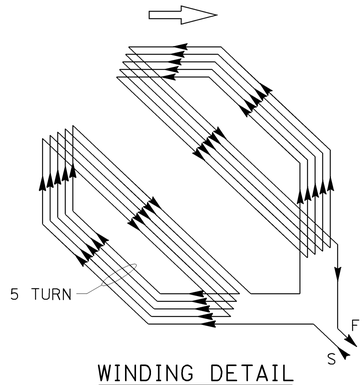


WINDING DETAIL

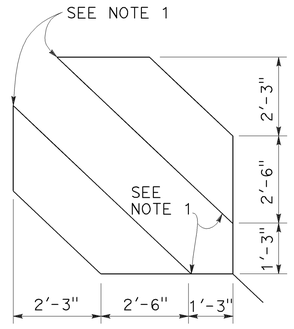


SAWCUT DETAIL

TYPE C LOOP DETECTOR CONFIGURATION

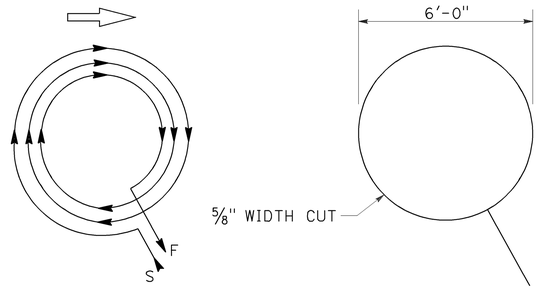


WINDING DETAIL



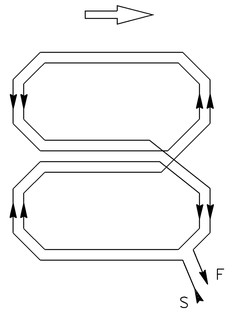
SAWCUT DETAIL

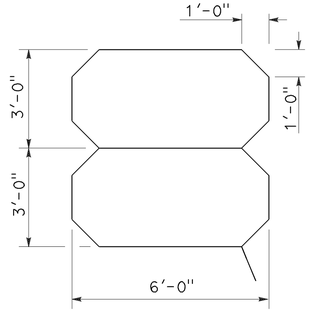
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL SAWCUT DETAIL

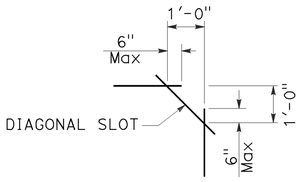
TYPE E LOOP DETECTOR CONFIGURATION





WINDING DETAIL SAWCUT DETAIL

TYPE Q LOOP DETECTOR CONFIGURATION



PLAN VIEW OF DIAGONAL SLOT AT CORNERS

NOTES:

1. Round corners of acute angle sawcuts to prevent damage to conductors.
2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

RSP ES-5B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5B
DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5B

2010 REVISED STANDARD PLAN RSP ES-5B

7-9-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	40	43

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 3-10-14

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
04	Ala	13	13.2/13.7	41	43

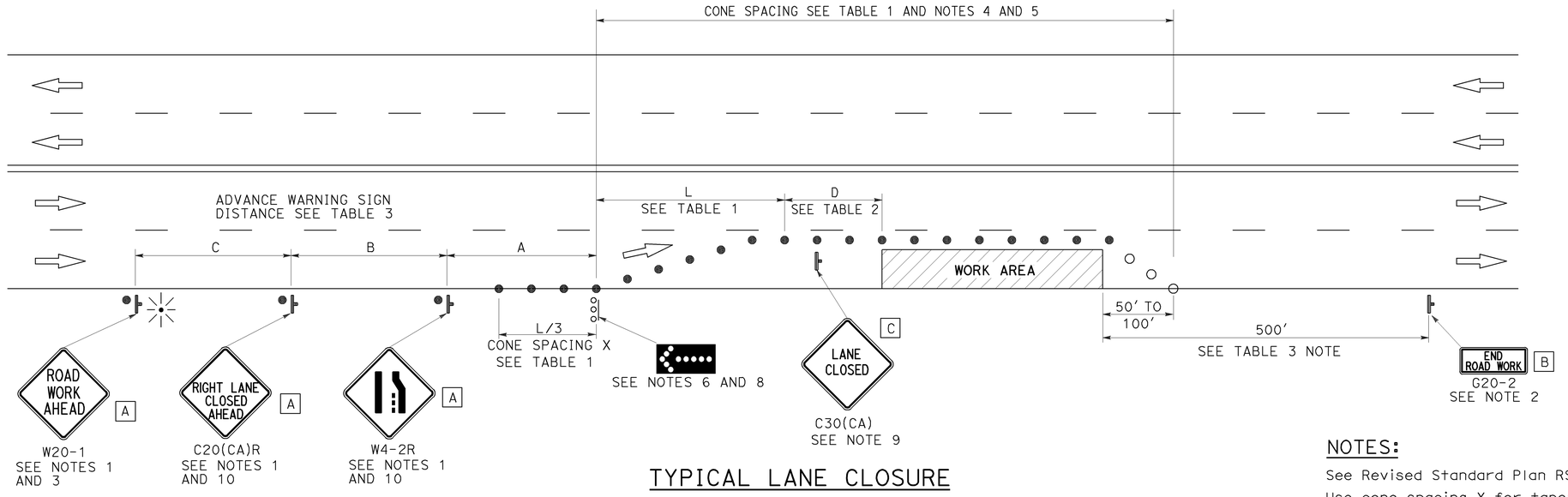
REGISTERED CIVIL ENGINEER

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 3-10-14



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
04	Ala	13	13.2/13.7	42	43

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 3-10-14

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:

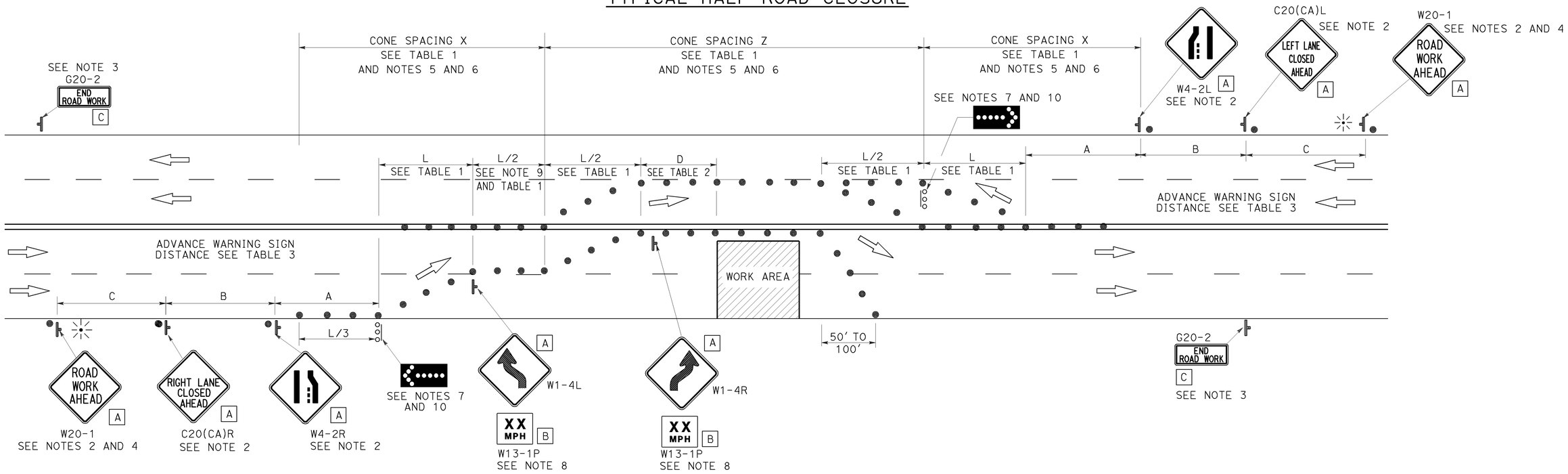
See Revised Standard Plan RSP T9 for tables.

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	13.2/13.7	43	43

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 3-10-14

NOTES:

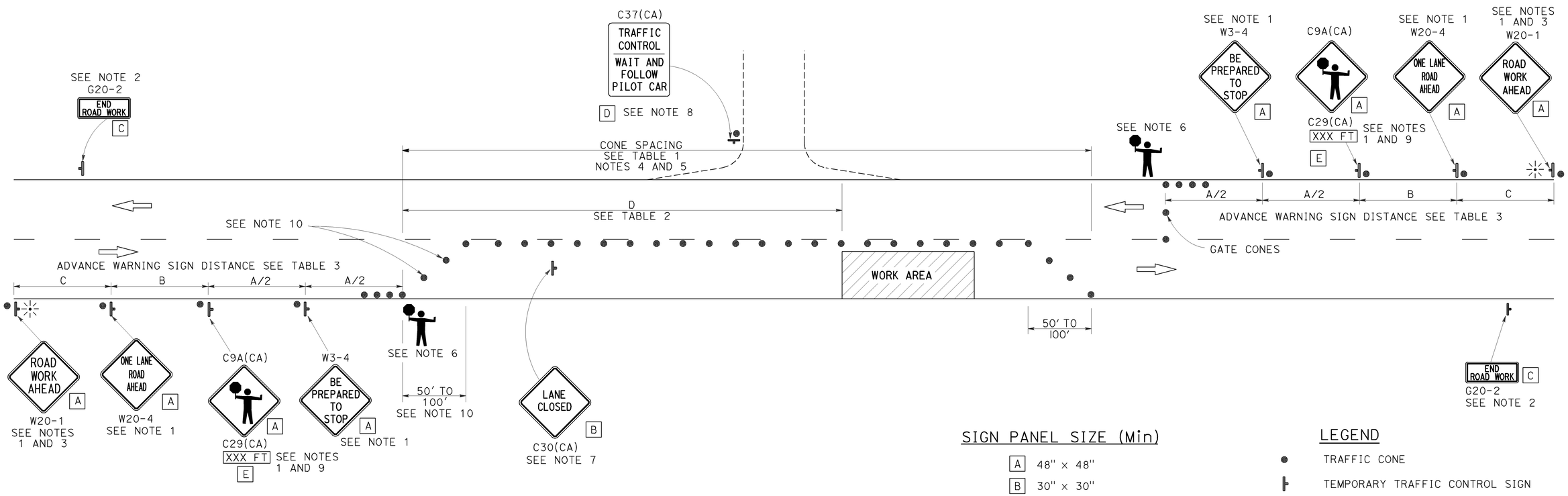
See Revised Standard Plan RSP T9 for tables.

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.

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



NOTES:

1. Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
3. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
7. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
8. When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
9. An optional C29(CA) sign may be placed below the C9A(CA) sign.
10. Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.

SIGN PANEL SIZE (Min)

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

LEGEND

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T13 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

2010 REVISED STANDARD PLAN RSP T13

4-2-13