

INDEX OF PLANS

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

STATE OF CALIFORNIA **ACSTP-P082(020)E**
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SANTA CLARA COUNTY IN SANTA CLARA,
SUNNYVALE AND MOUNTAIN VIEW
FROM LAWRENCE EXPRESSWAY
TO 0.4 MILE WEST OF ROUTE 82/85 SEPARATION

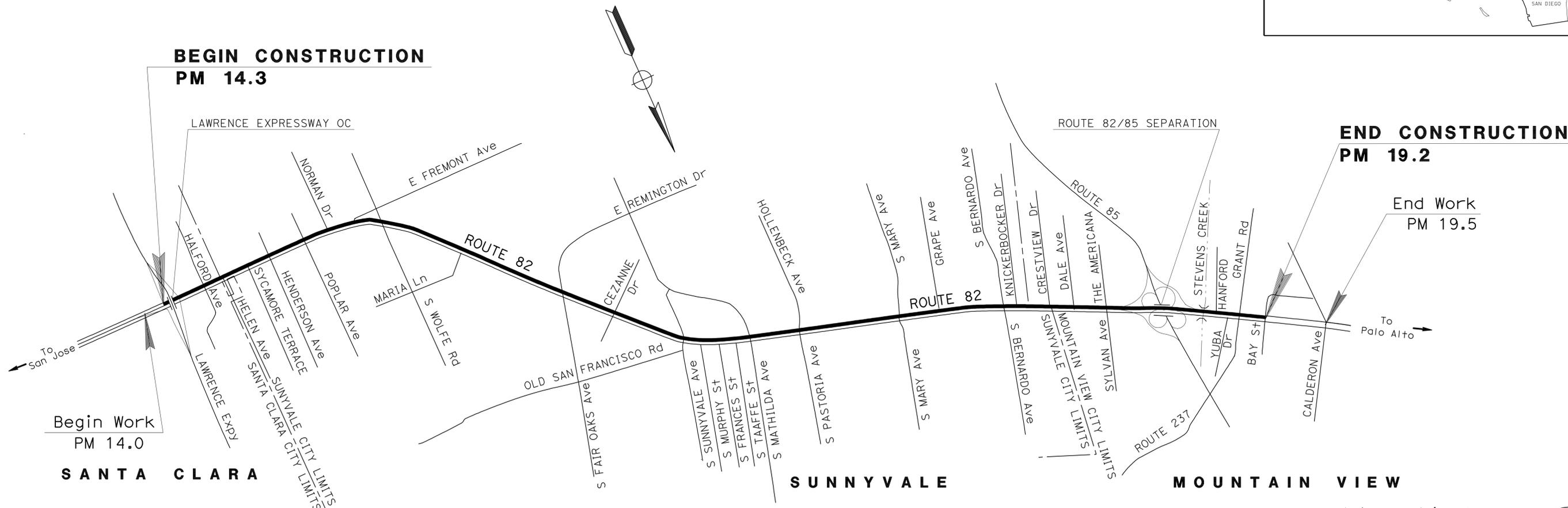
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	1	42





LOCATION MAP



PROJECT MANAGER RAMSES SARGISS	DESIGN ENGINEER VIJITH THILAKARATNE
--	---

Begin Work
PM 14.0

BEGIN CONSTRUCTION
PM 14.3

END CONSTRUCTION
PM 19.2

End Work
PM 19.5

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

NO SCALE

Vijith Thilakarathne 12/17/10
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
 V. Thilakarathne
 No. 51278
 Exp. 9-30-13
 CIVIL
 STATE OF CALIFORNIA

January 30, 2012
 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.

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

NOTES:

1. DIMENSIONS OF PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. THE EXISTING PAVEMENT DELINEATION WILL BE REPLACED AT THE SAME LOCATION IN KIND.
4. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
5. FOR LOCATION AND DIMENSIONS OF COLD PLANE AC PAVEMENT, SEE SHEET C-1 TO C-10, AND AS DIRECTED BY THE ENGINEER.
6. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

ABBREVIATIONS:

- AB(2) CLASS 2 AGGREGATE BASE
- AS(4) CLASS 4 AGGREGATE SUB BASE
- OGFC OPEN GRADED FRICTION COURSE

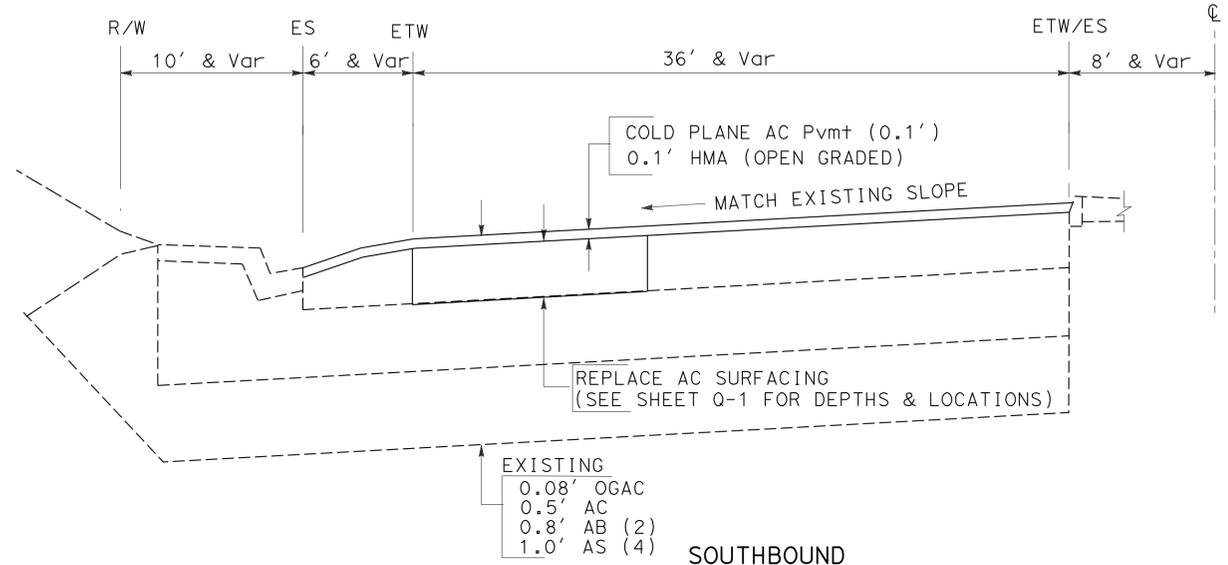
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	2	42

Vijith Thilakarathne 12/17/10
 REGISTERED CIVIL ENGINEER DATE

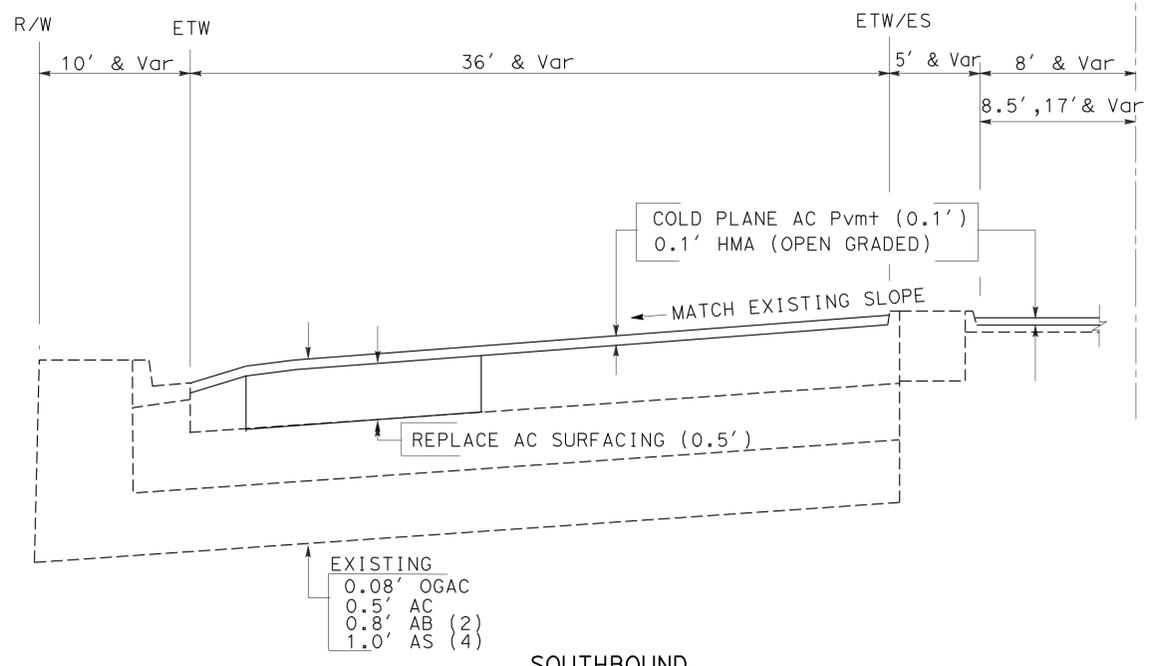
1-30-12
 PLANS APPROVAL DATE

V. Thilakarathne
 No. 51278
 Exp 9-30-13
 CIVIL

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**SOUTHBOUND
 ROUTE 82**
 PM 14.3-19.2



**SOUTHBOUND
 ROUTE 82**
 PM 15.53, 15.76,
 15.95, 17.49, 18.38, 19.05

TYPICAL CROSS SECTIONS
 NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

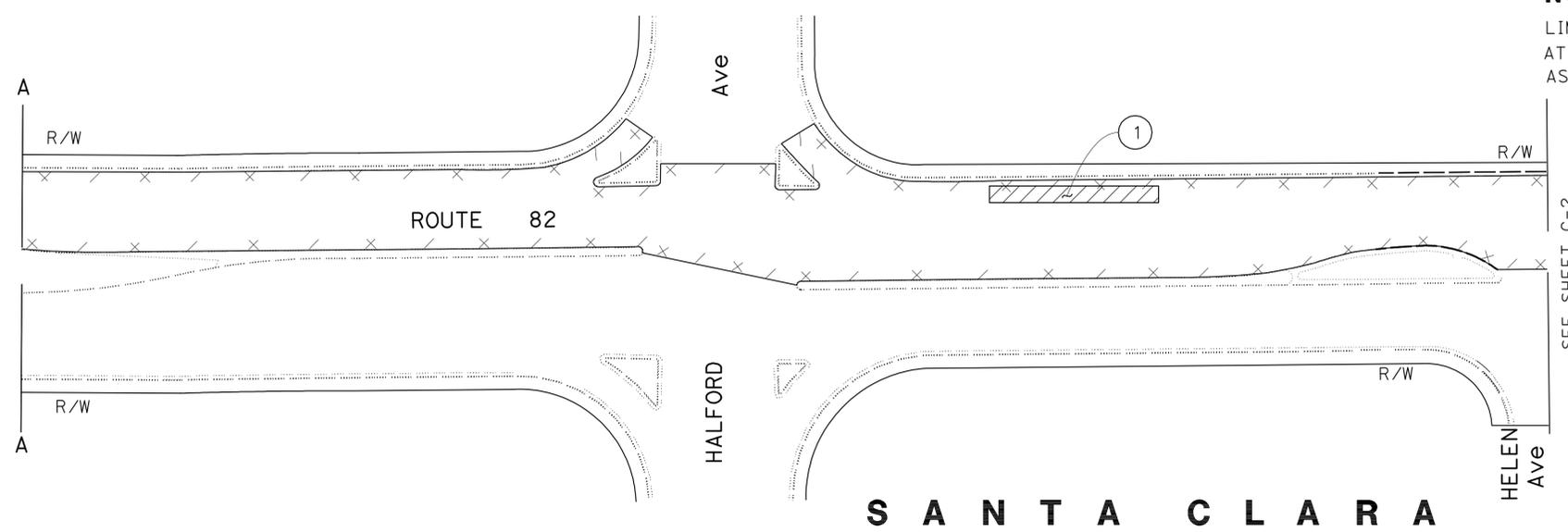
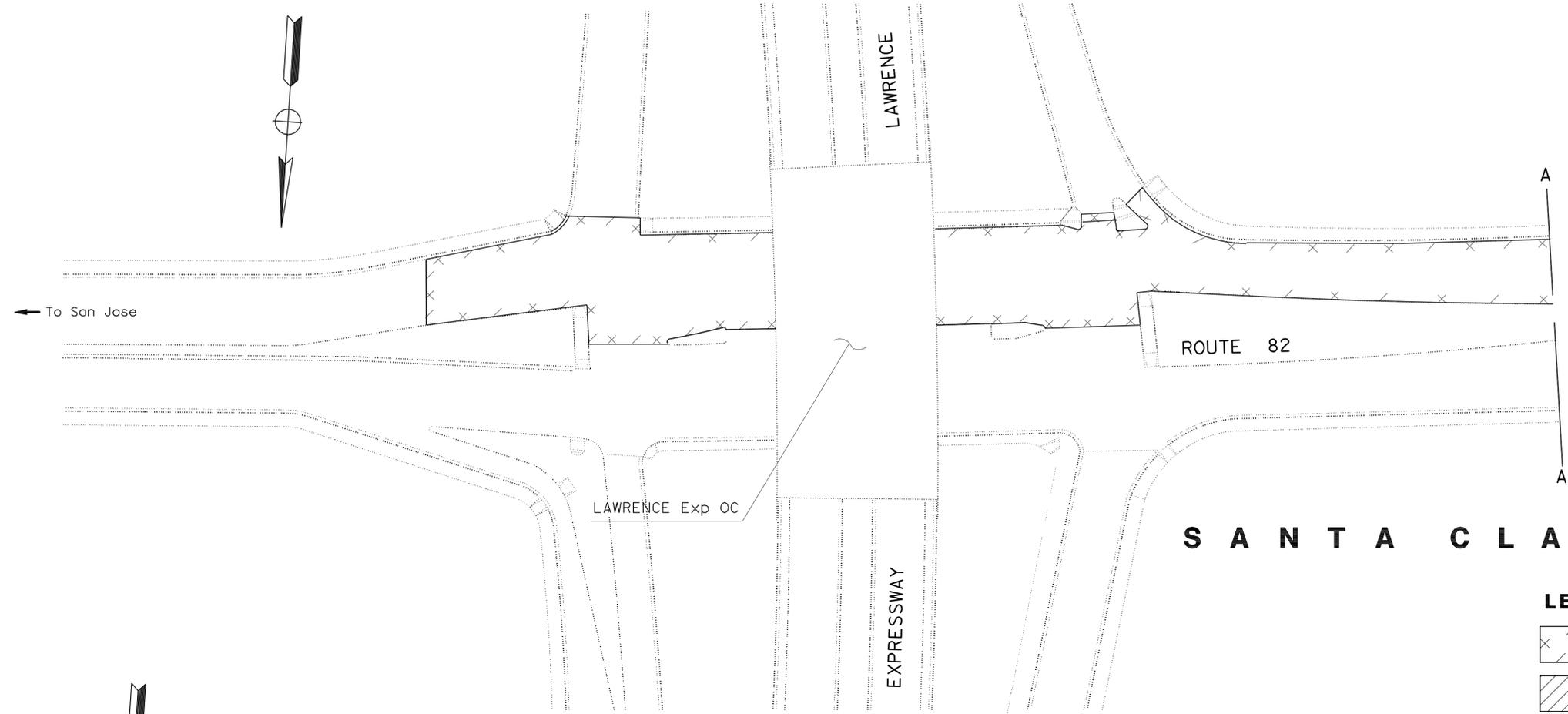
FUNCTIONAL SUPERVISOR
 RAMSES SARGISS

CALCULATED/DESIGNED BY
 CHECKED BY

CHAO-HUN TANG
 VIJITH THILAKARATNE

REVISED BY
 DATE REVISED

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



- LEGEND:**
-  COLD PLANE AC Pvmf AND HMA (OPEN GRADED)
 -  REPLACE AC SURFACING (SEE Q-1 SHEET)
 -  REPLACE AC SURFACING LOCATION No.

NOTE:
 LIMIT LINE OF OGFC ON CROSS STREETS IS
 AT OUTER EDGE OF CROSSWALK STRIPE OR
 AS DIRECTED BY THE ENGINEER.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	3	42

Vijith Thilakarathne 12/17/10
 REGISTERED CIVIL ENGINEER DATE

1-30-12
 PLANS APPROVAL DATE

V. Thilakarathne
 No. 51278
 Exp 9-30-13
 CIVIL

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CONSTRUCTION DETAILS
 NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE

FUNCTIONAL SUPERVISOR
 RAMSES SARGISS

CALCULATED/DESIGNED BY
 CHECKED BY

CHAO-HUN TANG
 VIJITH THILAKARATNE

REVISED BY
 DATE REVISED

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

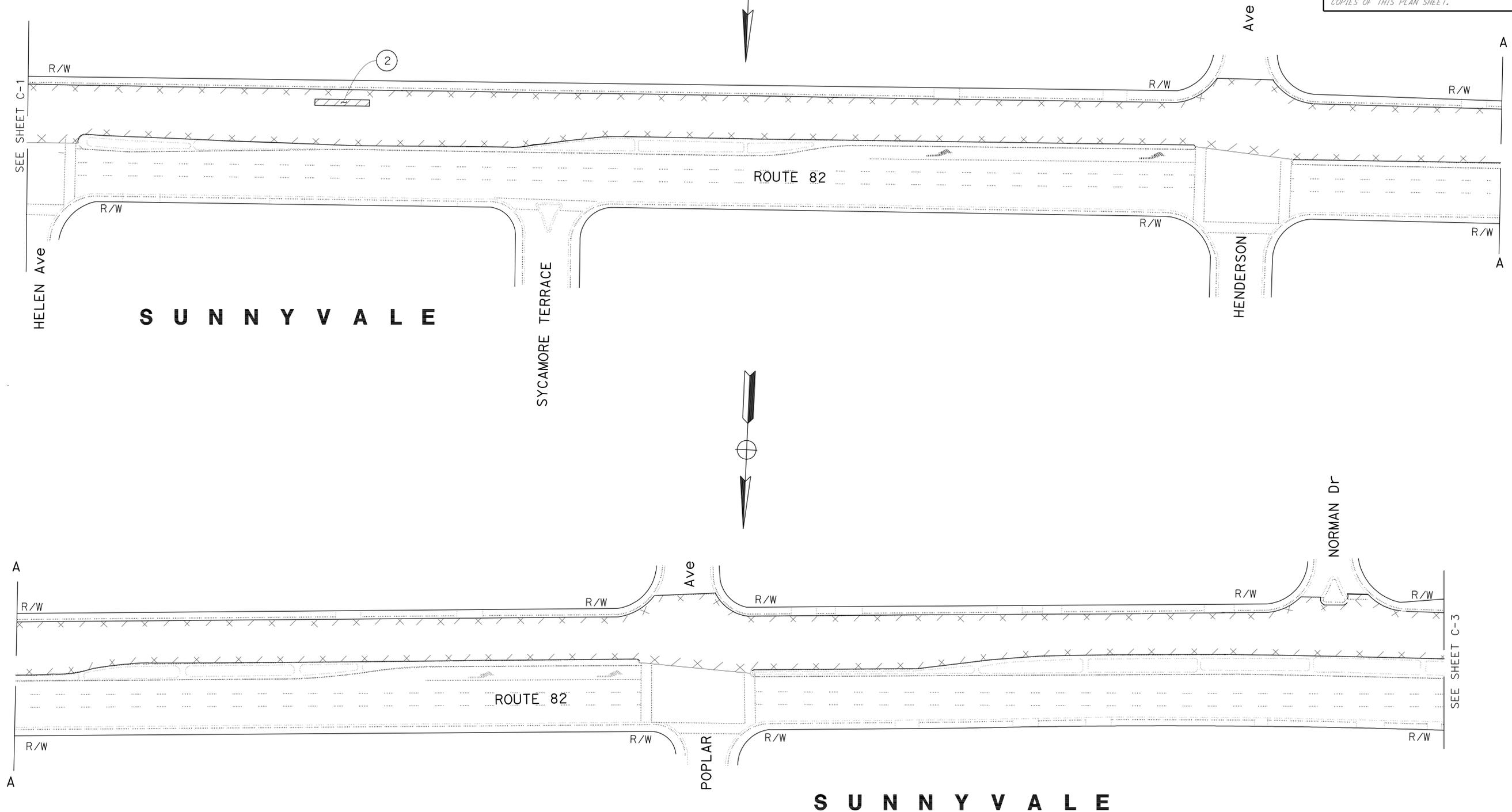
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04	SCI	82	14.3/19.2	4	42

Vijith Thilakarathne 12/17/10
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1-30-12
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V. Thilakarathne
 No. 51278
 Exp 9-30-13
 CIVIL
 STATE OF CALIFORNIA

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FOR NOTES
 AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
 RAMSES SARGISS

CALCULATED/DESIGNED BY
 CHECKED BY

CHAO-HUN TANG
 VIJITH THILAKARATNE

REVISED BY
 DATE REVISED

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	SCI	82	14.3/19.2	5	42

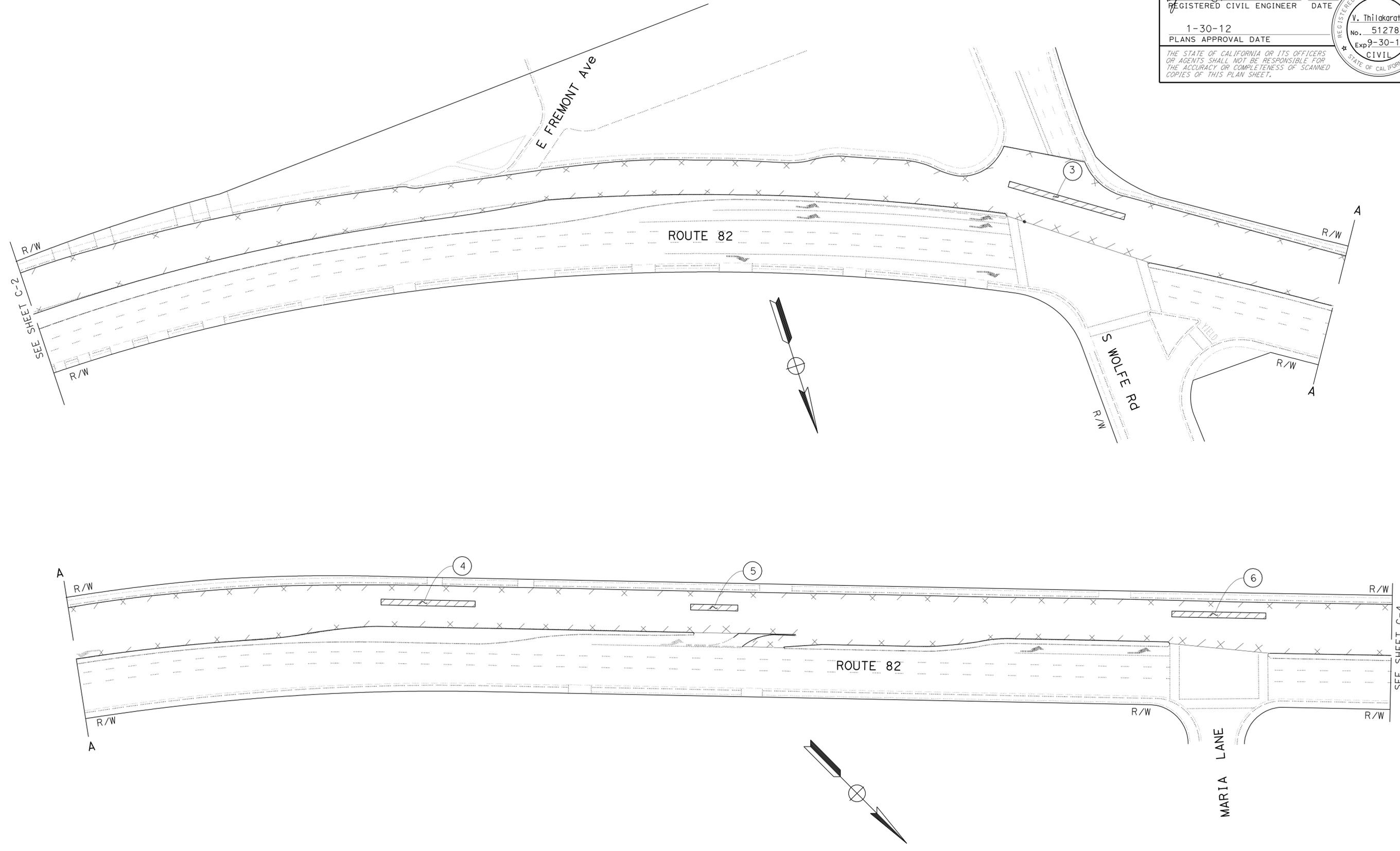
Vijith Thilakarathne 12/17/10
 REGISTERED CIVIL ENGINEER DATE

1-30-12
 PLANS APPROVAL DATE

V. Thilakarathne
 No. 51278
 Exp 9-30-13
 CIVIL

REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA

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FOR NOTES AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
RAMSES SARGISS

CALCULATED/DESIGNED BY
CHECKED BY

CHAO-HUN TANG
VIJITH THILAKARATNE

REVISED BY
DATE REVISED

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	SCI	82	14.3/19.2	6	42

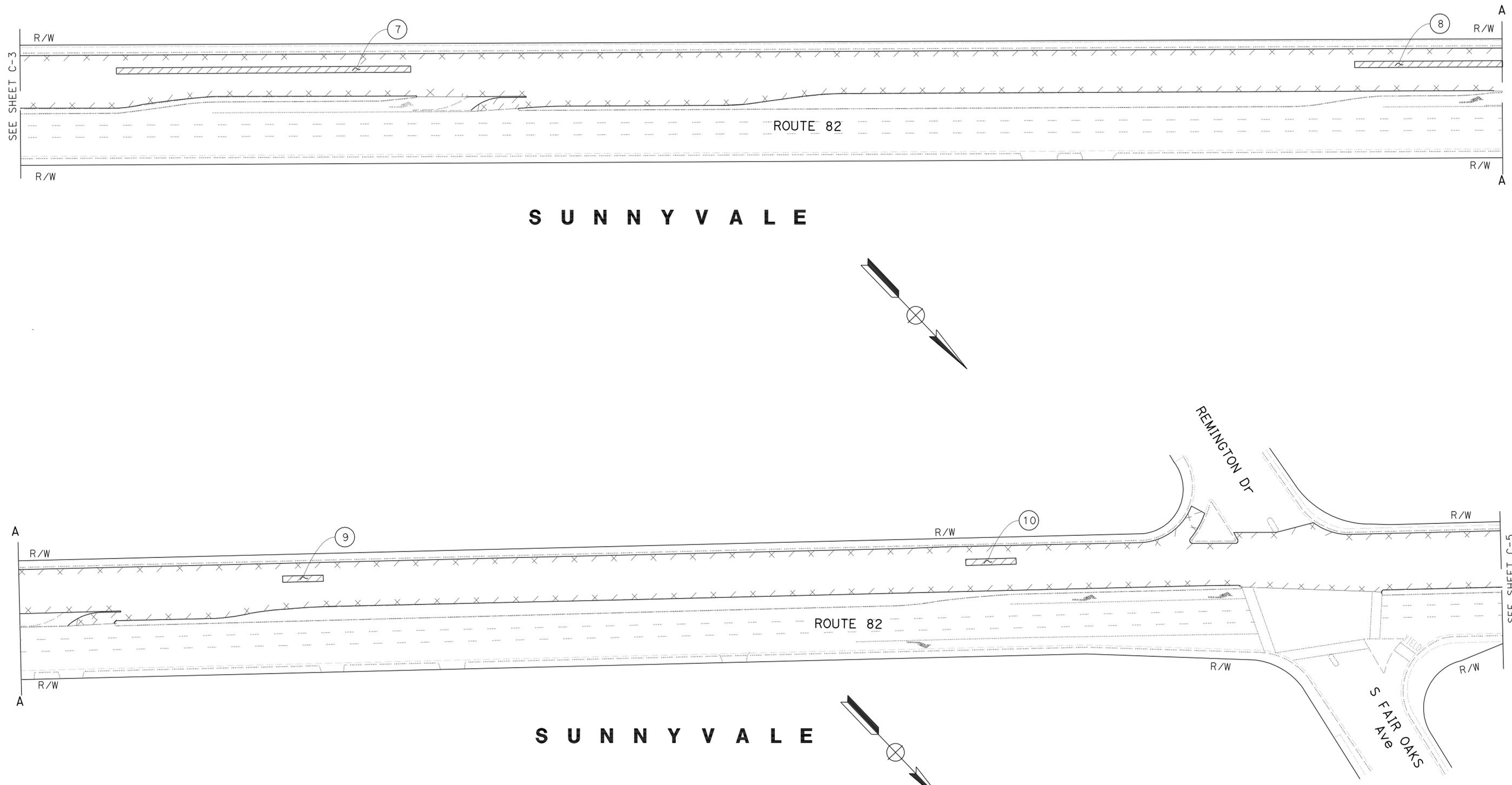
Vijith Thilakarathne 12/17/10
 REGISTERED CIVIL ENGINEER DATE

1-30-12
 PLANS APPROVAL DATE

V. Thilakarathne
 No. 51278
 Exp 9-30-13
 CIVIL

REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA

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FOR NOTES
 AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

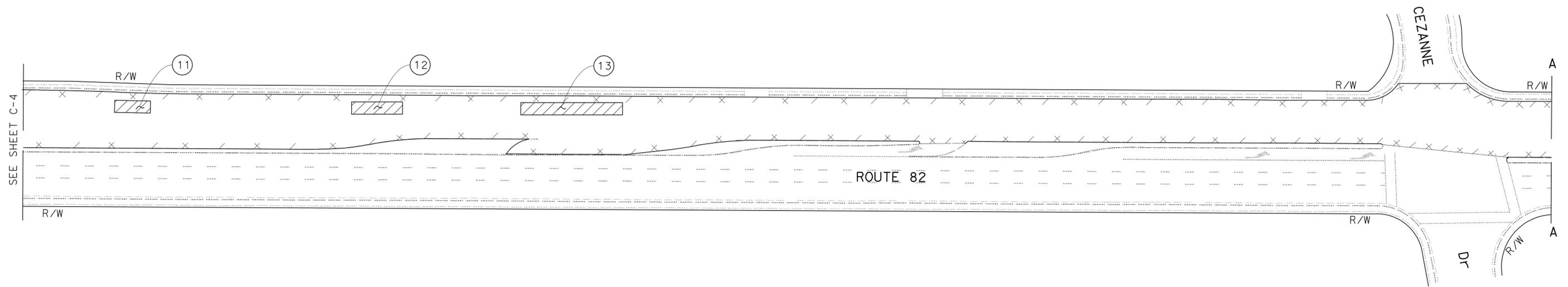
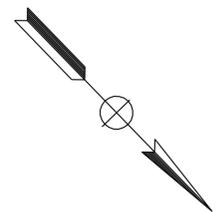
C-4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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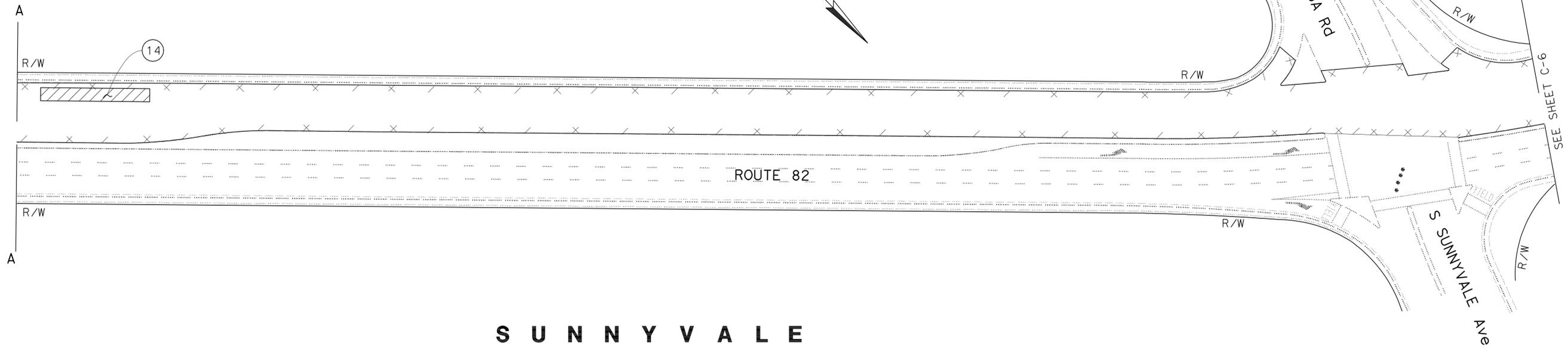
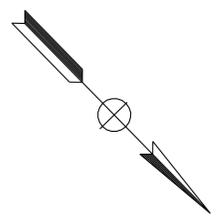
V. Thilakaratri 12/17/10
 REGISTERED CIVIL ENGINEER DATE
 1-30-12
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 V. Thilakaratri
 No. 51278
 Exp. 9-30-13
 CIVIL
 STATE OF CALIFORNIA

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



S U N N Y V A L E



S U N N Y V A L E

FOR NOTES
 AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

C-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	RAMSES SARGISS	CHAO-HUN TANG	
MAINTENANCE		VIJITH THILAKARATNE	
	CALCULATED/DESIGNED BY	CHECKED BY	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR	RAMSES SARGISS
CALCULATED/DESIGNED BY	CHECKED BY
CHAO-HUN TANG	VIJITH THILAKARATNE
REVISED BY	DATE

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

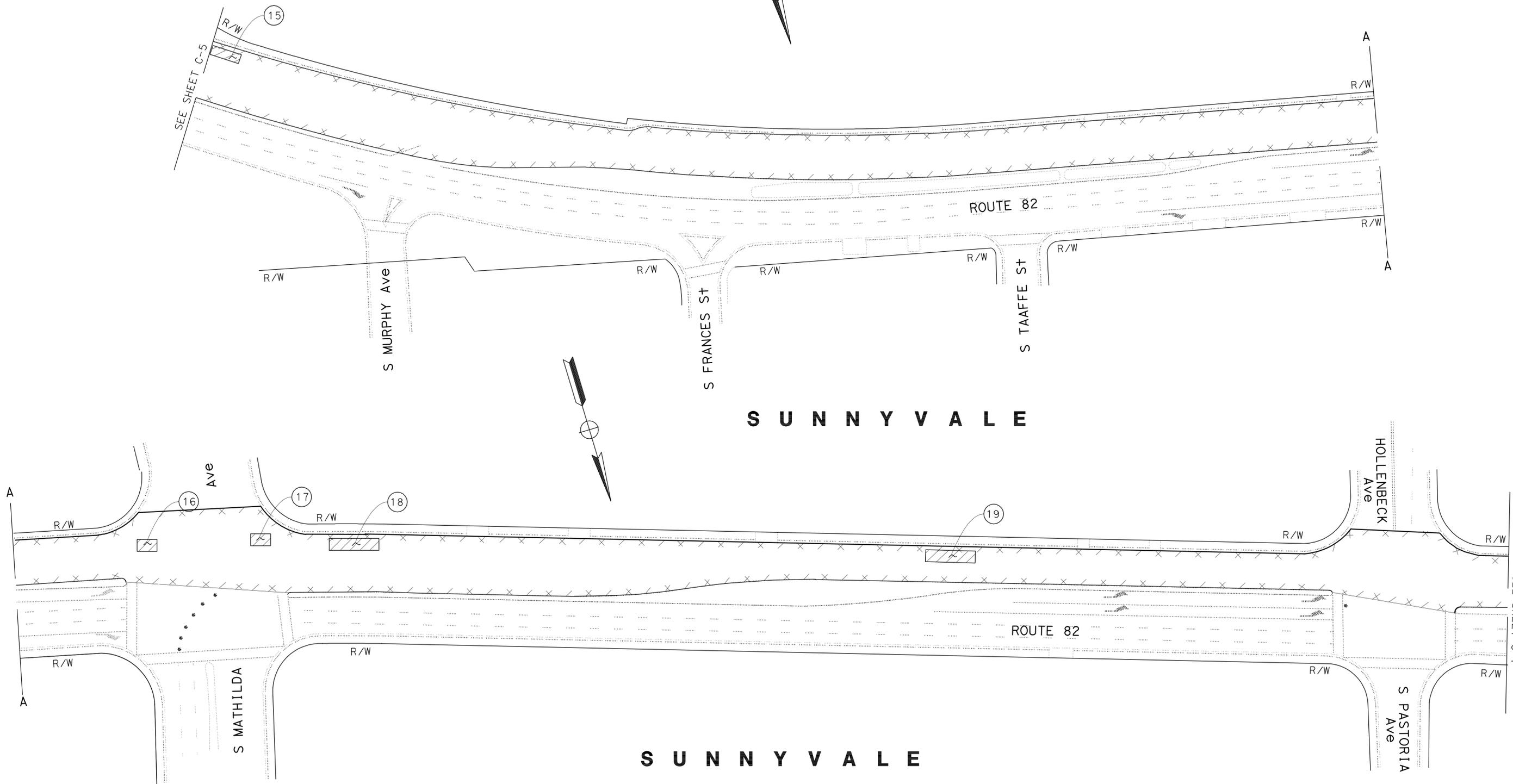
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	8	42

Vijith Thilakarathne 12/17/10
 REGISTERED CIVIL ENGINEER DATE

1-30-12
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 V. Thilakarathne
 No. 51278
 Exp 9-30-13
 CIVIL
 STATE OF CALIFORNIA



FOR NOTES AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

C-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR: RAMSES SARGISS
 CALCULATED/DESIGNED BY: CHECKED BY:
 CHAO-HUN TANG VIJITH THILAKARATNE
 REVISED BY: DATE REVISED:

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

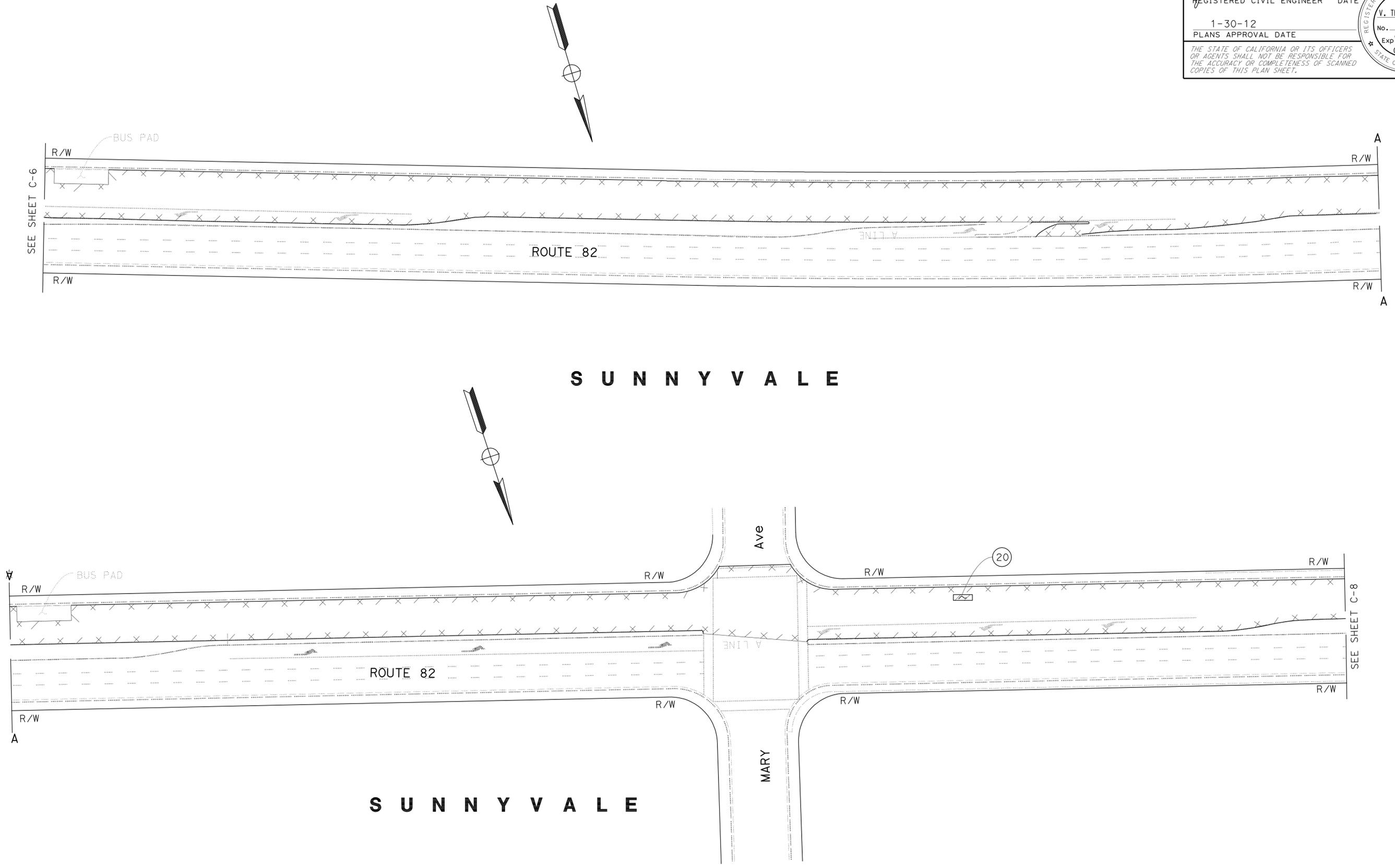
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	9	42

Vijith Thilakarathne 12/17/10
 REGISTERED CIVIL ENGINEER DATE

1-30-12
 PLANS APPROVAL DATE

V. Thilakarathne
 No. 51278
 Exp 9-30-13
 CIVIL
 STATE OF CALIFORNIA

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FOR NOTES AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

C-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR RAMSES SARGISS	CALCULATED, DESIGNED BY CHECKED BY	CHAO-HUN TANG VIJITH THILAKARATNE	REVISED BY DATE REVISED
---	---------------------------------------	--------------------------------------	----------------------------

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

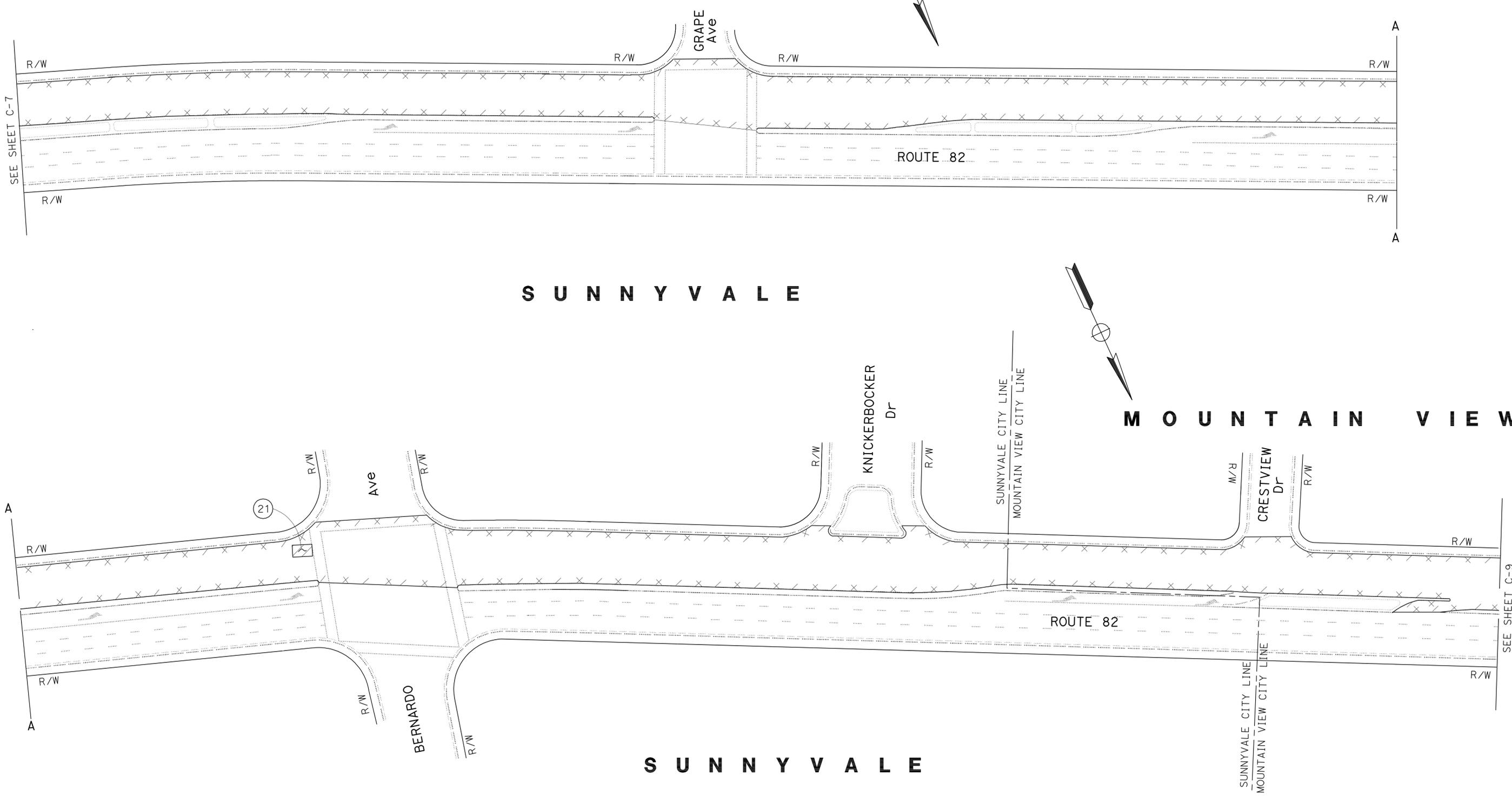
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	10	42

Vijith Thilakarathne 12/17/10
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1-30-12
 PLANS APPROVAL DATE

V. Thilakarathne
 No. 51278
 Exp 9-30-13
 CIVIL

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S U N N Y V A L E

M O U N T A I N V I E W

S U N N Y V A L E

FOR NOTES
 AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

C - 8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
 RAMSES SARGISS

CALCULATED, DESIGNED BY
 CHECKED BY

CHAO-HUN TANG
 VIJITH THILAKARATNE

REVISOR BY
 DATE REVISED

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	SCI	82	14.3/19.2	11	42

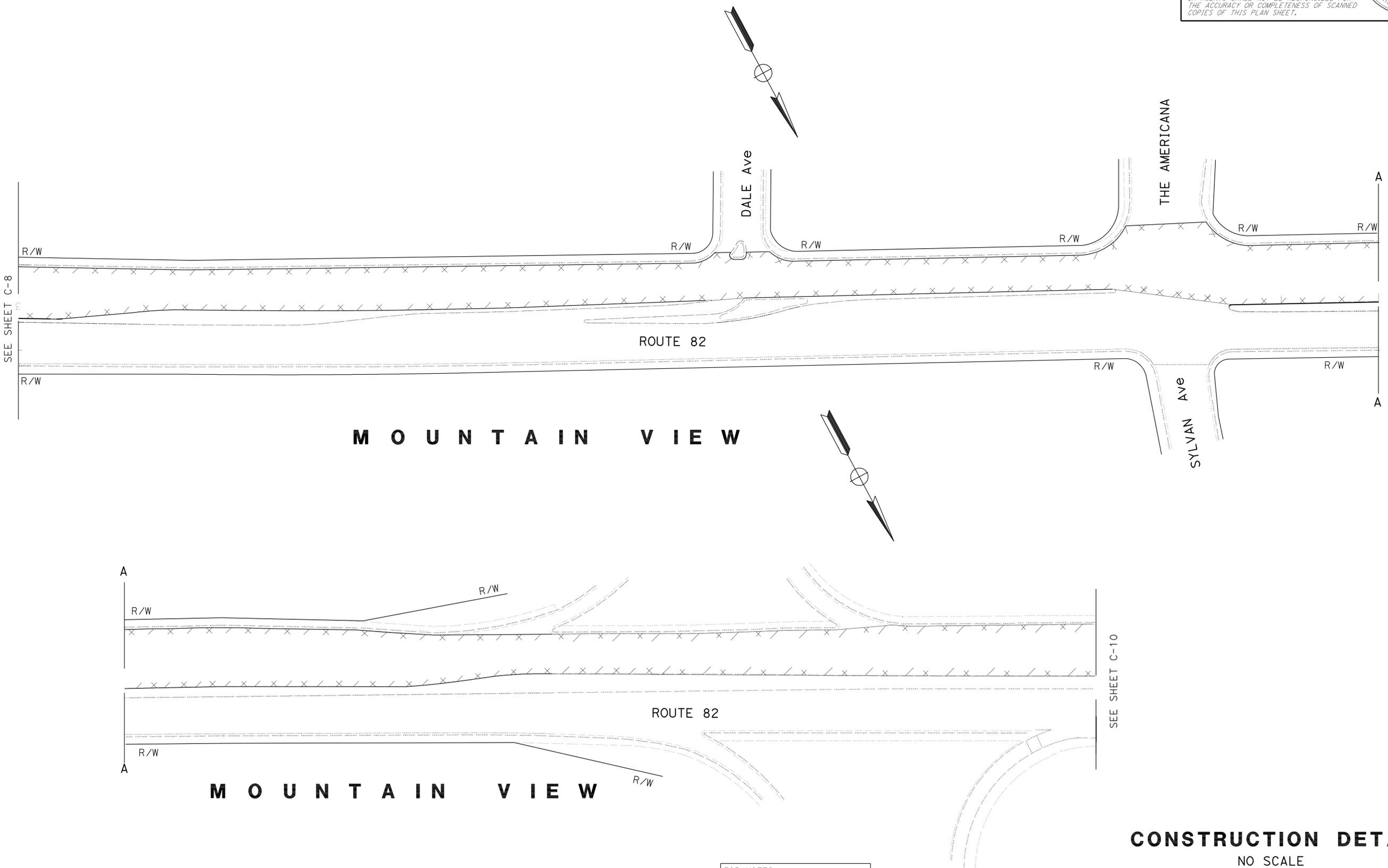
Vijith Thilakarathne 12/17/10
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1-30-12
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V. Thilakarathne
 No. 51278
 Exp. 9-30-13
 CIVIL

REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA

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SEE SHEET C-8

SEE SHEET C-10

FOR NOTES AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

C-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR	RAMSES SARGISS
CALCULATED/DESIGNED BY	CHECKED BY
CHAO-HUN TANG	VIJITH THILAKARATNE
REVISED BY	DATE REVISED

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

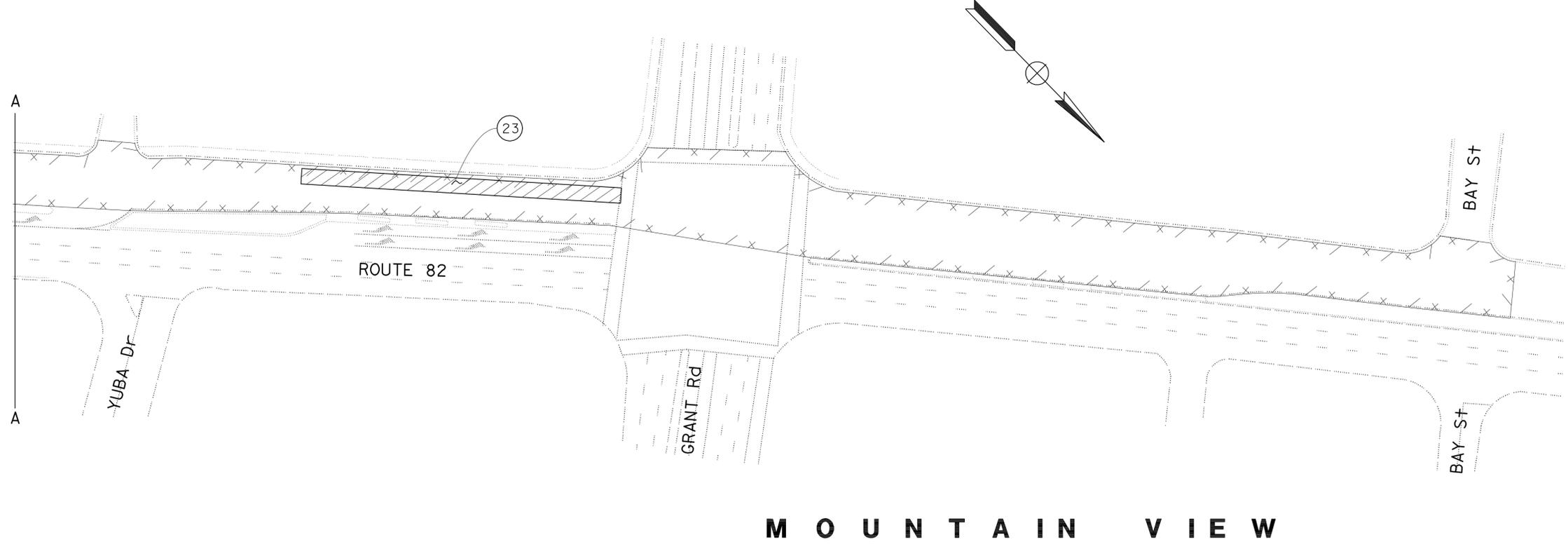
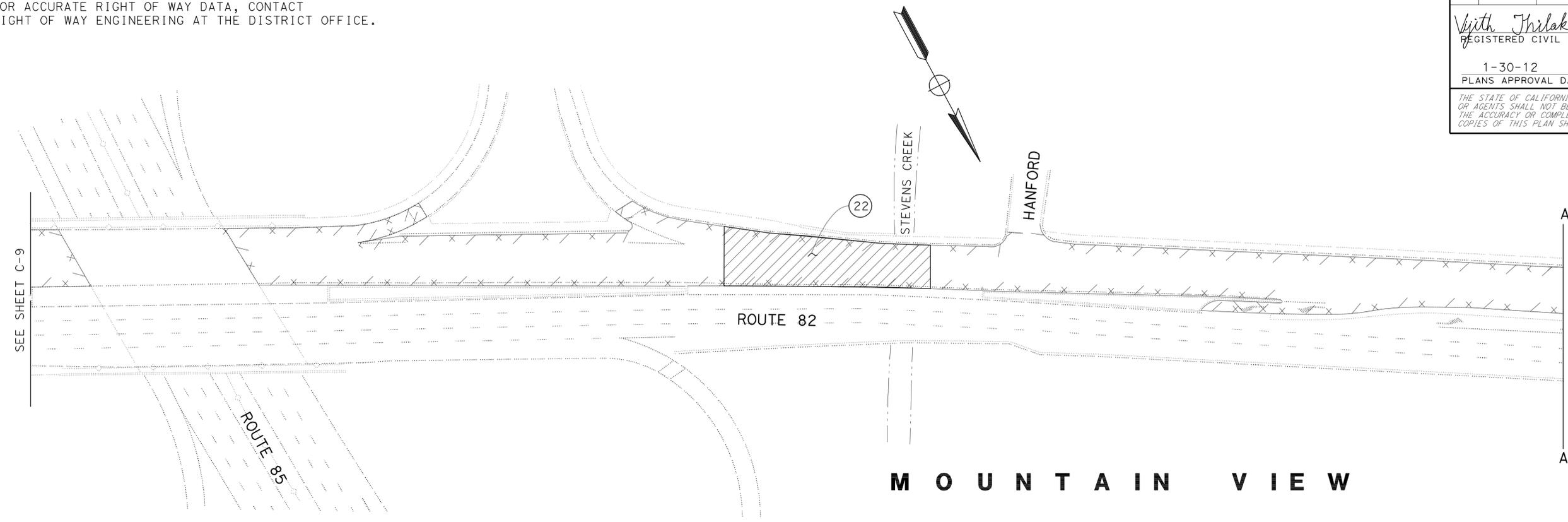
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04	SCI	82	14.3/19.2	12	42

Vijith Thilakarathne 12/17/10
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1-30-12
 PLANS APPROVAL DATE

V. Thilakarathne
 No. 51278
 Exp 9-30-13
 CIVIL
 STATE OF CALIFORNIA

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FOR NOTES AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

C-10

LAST REVISION DATE PLOTTED => 05-MAR-2012 12-10-10 TIME PLOTTED => 07:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	13	42

Jeryl L. Struven
 REGISTERED CIVIL ENGINEER DATE 1/07/11
 1-30-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Jeryl L. Struven
 No. 49964
 Exp. 2-31-12
 CIVIL
 STATE OF CALIFORNIA

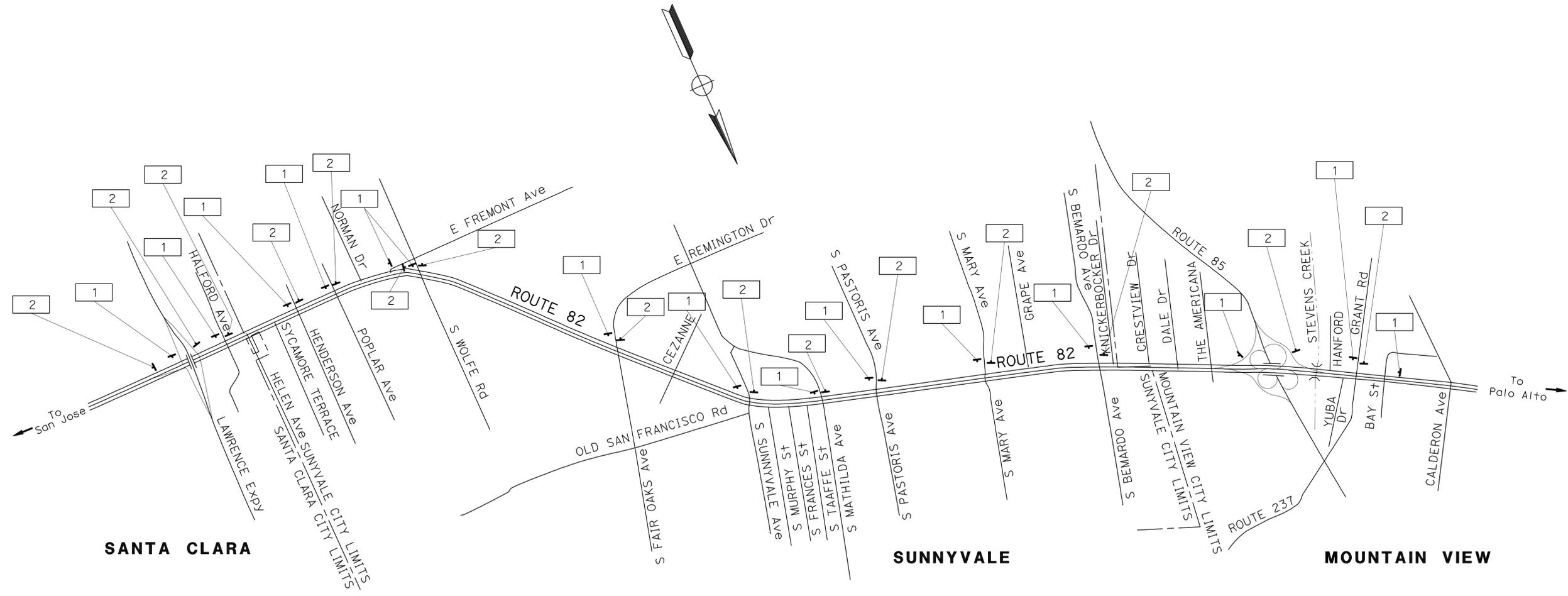
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

NO. CONSTRUCTION AREA SIGN NUMBER

NOTE:

- EXACT LOCATION AND POSITION OF CONSTRUCTION AREA SIGNS WILL BE DETERMINED BY THE ENGINEER.



SANTA CLARA

SUNNYVALE

MOUNTAIN VIEW

CONSTRUCTION AREA SIGNS
NO SCALE

CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	REVISION
Caltrans	ROLAND AU-YEUNG	SHARI TALAI	SHARI TALAI	
TRAFFIC		JERILYN STRUVEN	JERILYN STRUVEN	

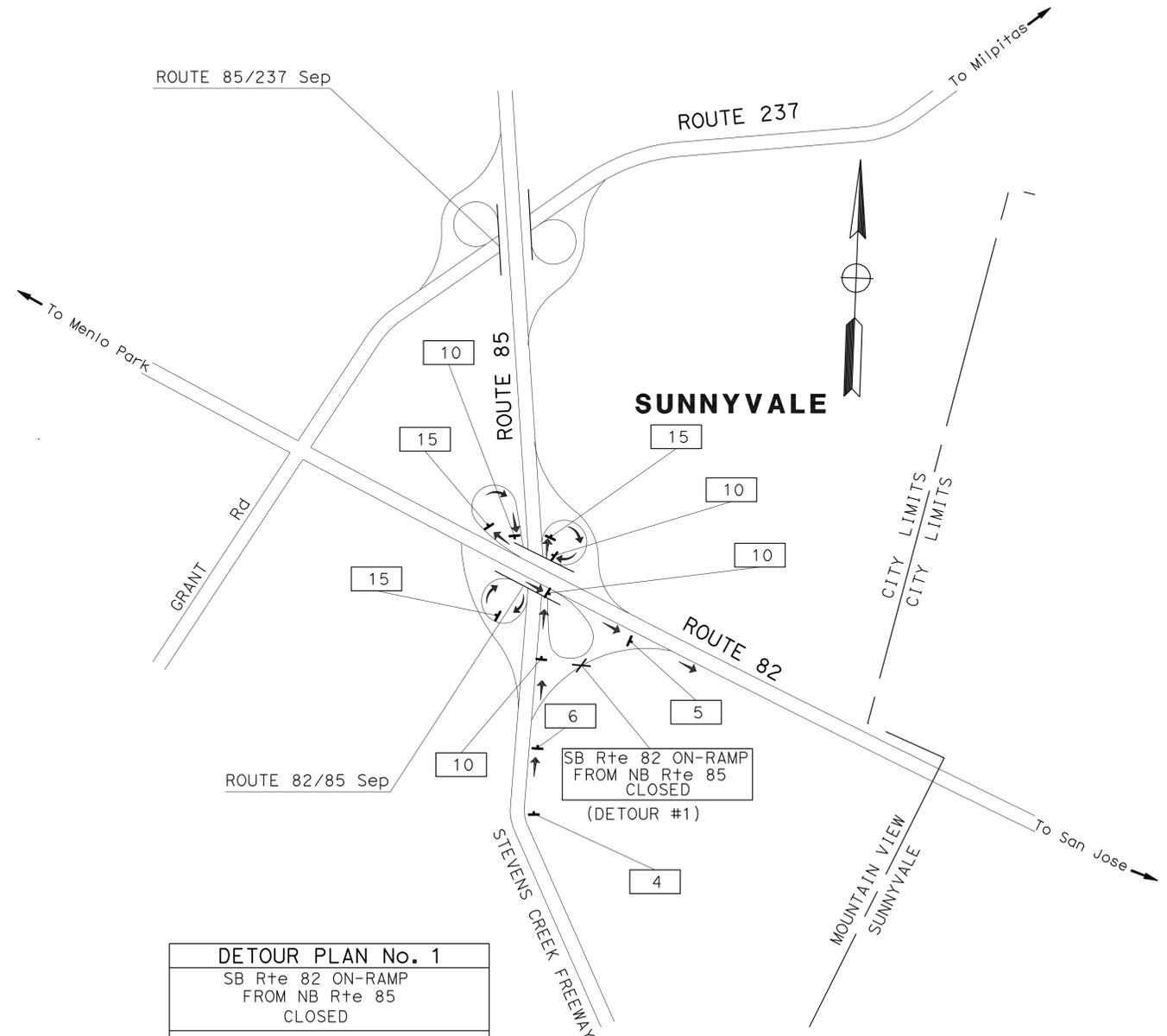
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG
 CALCULATED/DESIGNED BY: SHARI TALAI
 CHECKED BY: JERILYN STRUVEN
 REVISIONS: SHARI TALAI, JERILYN STRUVEN, ROLAND AU-YEUNG

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	14	42

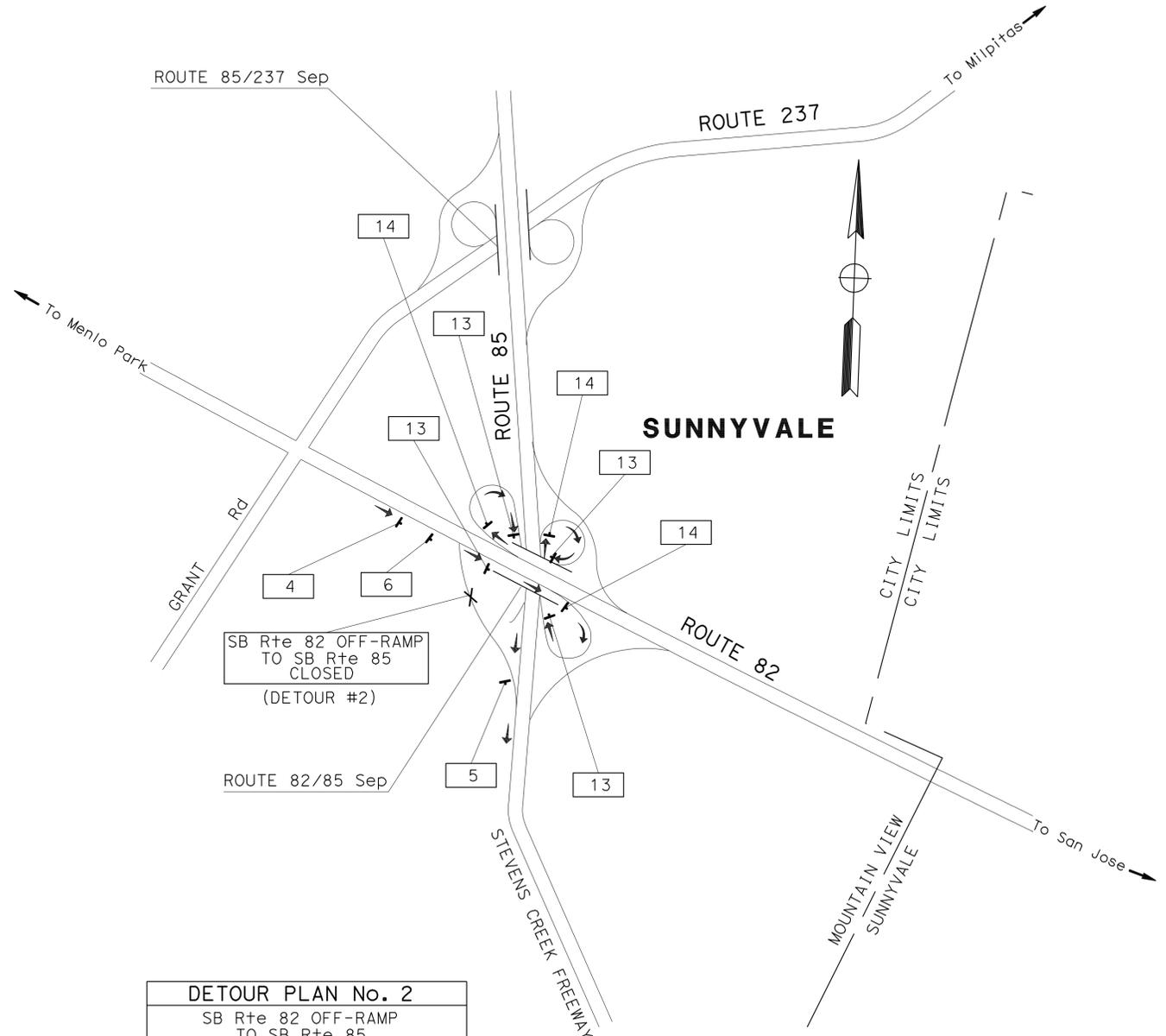
REGISTERED CIVIL ENGINEER: *Jerilyn L. Struven* 1/07/11
 DATE: 1-30-12
 PLANS APPROVAL DATE: 1-30-12
 REGISTERED PROFESSIONAL ENGINEER: Jerilyn L. Struven, No. 49964, Exp. 2-31-12, CIVIL
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:
 [NO.] CONSTRUCTION AREA SIGN NUMBER

NOTE:
 1. EXACT LOCATION AND POSITION OF CONSTRUCTION AREA SIGNS WILL BE DETERMINED BY THE ENGINEER.



DETOUR PLAN No. 1
 SB Rte 82 ON-RAMP FROM NB Rte 85 CLOSED
 DETOUR-VIA
 NB Rte 85;
 LOOP OFF-RAMP TO NB Rte 82;
 FROM NB Rte 82 LOOP OFF-RAMP TO SB Rte 85
 FROM SB Rte 85 LOOP OFF-RAMP TO SB Rte 82



DETOUR PLAN No. 2
 SB Rte 82 OFF-RAMP TO SB Rte 85 CLOSED
 DETOUR-VIA
 SB Rte 82;
 LOOP OFF-RAMP TO NB Rte 85;
 FROM NB Rte 85 LOOP OFF-RAMP TO NB Rte 82;
 FROM NB Rte 82 LOOP OFF-RAMP TO SB Rte 85

DETOUR PLAN
 NO SCALE

THIS PLAN ACCURATE FOR DETOUR PLAN WORK ONLY

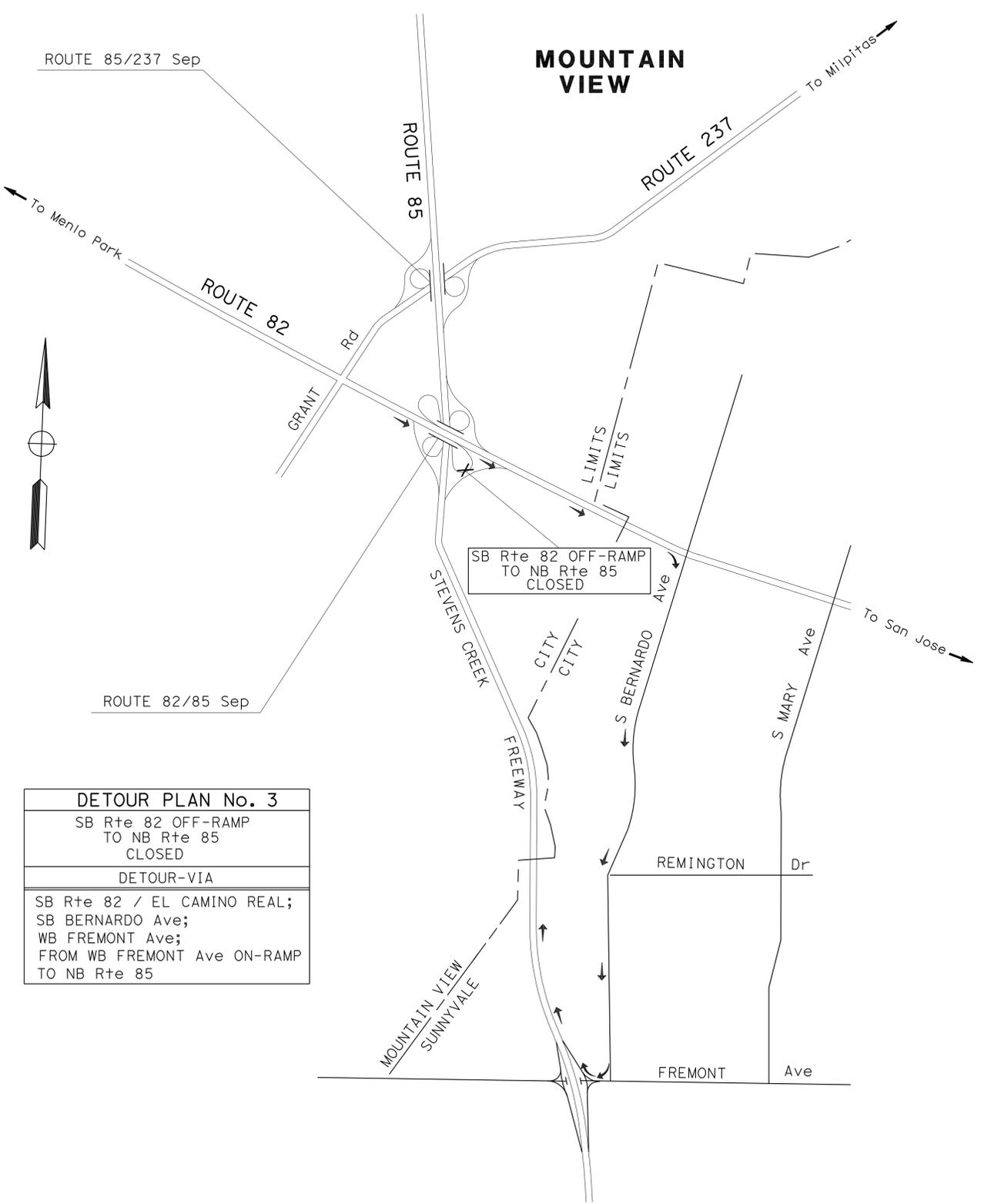
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	15	42

Jeryl L. Struven
 REGISTERED CIVIL ENGINEER DATE 1/07/11
 1-30-12
 PLANS APPROVAL DATE

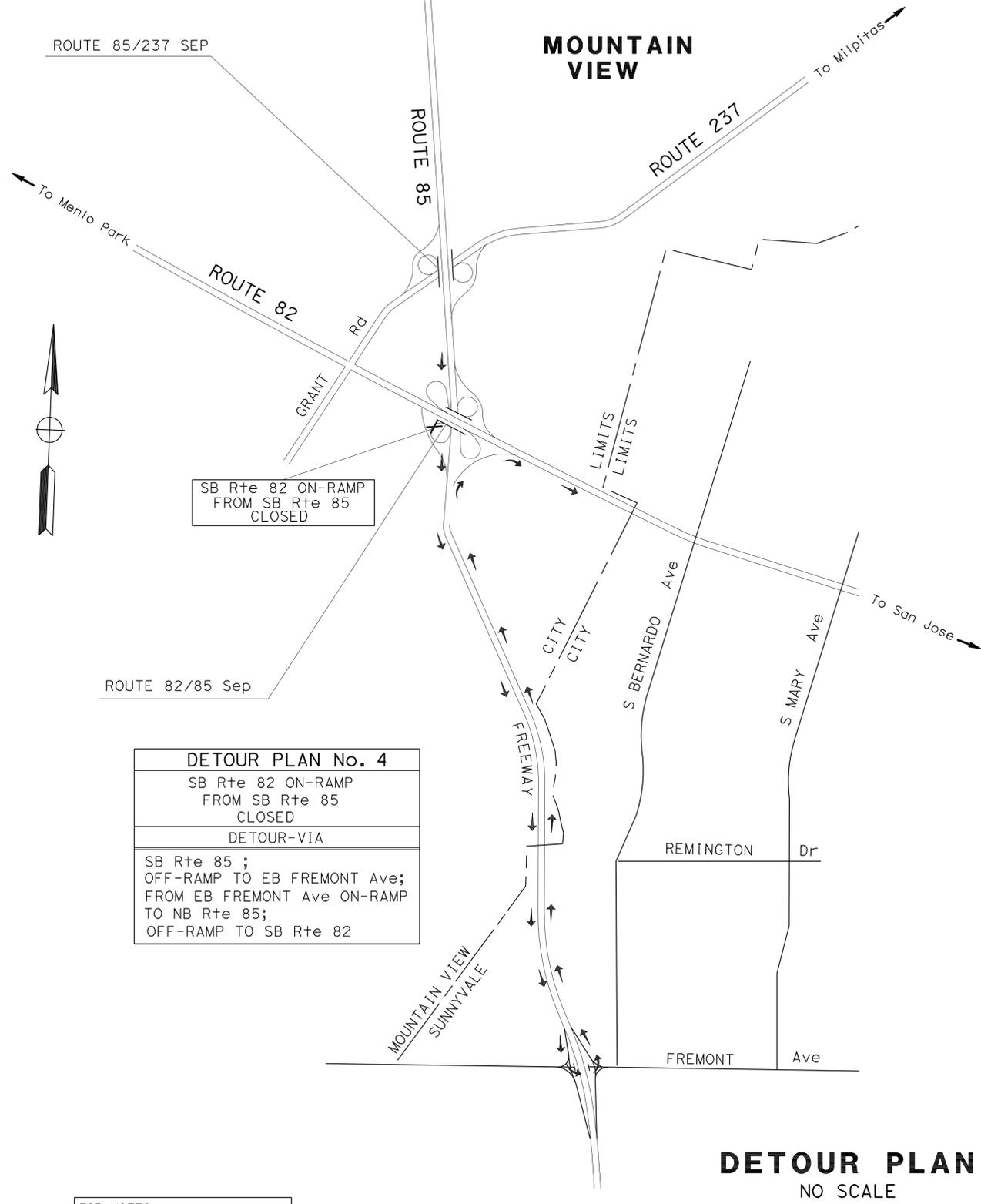
REGISTERED PROFESSIONAL ENGINEER
 No. 49964
 Exp. 2-31-12
 CIVIL
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	TRAFFIC
FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG
CALCULATED/DESIGNED BY	CHECKED BY
SHARI TALAI	JERILYN STRUVEN
REVISOR	DATE
REVISOR	DATE



DETOUR PLAN No. 3
 SB Rte 82 OFF-RAMP TO NB Rte 85 CLOSED
 DETOUR-VIA
 SB Rte 82 / EL CAMINO REAL;
 SB BERNARDO Ave;
 WB FREMONT Ave;
 FROM WB FREMONT Ave ON-RAMP TO NB Rte 85



DETOUR PLAN No. 4
 SB Rte 82 ON-RAMP FROM SB Rte 85 CLOSED
 DETOUR-VIA
 SB Rte 85 ;
 OFF-RAMP TO EB FREMONT Ave;
 FROM EB FREMONT Ave ON-RAMP TO NB Rte 85;
 OFF-RAMP TO SB Rte 82

FOR NOTES AND LEGEND, SEE SHEET DE-1

THIS PLAN ACCURATE FOR DETOUR PLAN WORK ONLY

DETOUR PLAN
 NO SCALE

DE-2



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	16	42

Jeryl L. Struven
 REGISTERED CIVIL ENGINEER DATE 1/07/11
 1-30-12
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 Jeryl L. Struven
 No. 49964
 Exp. 2-31-12
 CIVIL
 STATE OF CALIFORNIA

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	MUTCD CODE	SIGN	PANEL SIZE	NUMBER OF POST AND SIZE	No. OF SIGNS
1	W20-1	ROAD WORK AHEAD	48" x 48"	(ONE) 4" x 4"	15
2	G20-2	END ROAD WORK	48" x 48"	(ONE) 4" x 4"	15
4	W20-2	DETOUR AHEAD	48" x 48"	(ONE) 4" x 4"	4
5	M4-8A	END DETOUR	30" x 18"	(ONE) 4" x 4"	4
6	SC6-4(CA)	RAMP CLOSED	60" x 48"	(TWO) 4" x 4"	4
7	SC3(▲)	DETOUR (STRAIGHT ARROW)	48" x 18"	(ONE) 4" x 4"	3
	M3-1	NORTH	21" x 9"		
	G28-2(85)	ROUTE SHIELD	28" x 24"		
8	M4-10(R+)	DETOUR (RIGHT)	48" x 18"	(ONE) 4" x 4"	2
	M3-1	NORTH	21" x 9"		
	G28-2(85)	ROUTE SHIELD	28" x 24"		
9	M4-10(L+)	DETOUR (LEFT)	48" x 18"	(ONE) 4" x 4"	3
	M3-1	NORTH	21" x 9"		
	G28-2(85)	ROUTE SHIELD	28" x 24"		
10	SC3(▲)	DETOUR (STRAIGHT ARROW)	48" x 18"	(ONE) 4" x 4"	7
	M3-3	SOUTH	21" x 9"		
	G28-2(82)	ROUTE SHIELD	28" x 24"		
11	M4-10(L+)	DETOUR (LEFT)	48" x 18"	(ONE) 4" x 4"	2
	M3-3	SOUTH	21" x 9"		
	G28-2(82)	ROUTE SHIELD	28" x 24"		
12	M4-10(R+)	DETOUR (RIGHT)	48" x 18"	(ONE) 4" x 4"	1
	M3-3	SOUTH	21" x 9"		
	G28-2(82)	ROUTE SHIELD	28" x 24"		
13	SC3(▲)	DETOUR (STRAIGHT ARROW)	48" x 18"	(ONE) 4" x 4"	5
	M3-3	SOUTH	21" x 9"		
	G28-2(85)	ROUTE SHIELD	28" x 24"		
14	M3-8	DETOUR	25" x 24"	(ONE) 4" x 4"	4
	M3-3	SOUTH	21" x 9"		
	G28-2(85)	ROUTE SHIELD	28" x 24"		
	M6-2(▲)	DETOUR (DIAGONAL ARROW)	21" x 15"		

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	MUTCD CODE	SIGN	PANEL SIZE	NUMBER OF POST AND SIZE	No. OF SIGNS
15	M3-8	DETOUR	25" x 24"	(ONE) 4" x 4"	3
	M3-3	SOUTH	21" x 9"		
	G28-2(82)	ROUTE SHIELD	28" x 24"		
	M6-2(▲)	DETOUR (DIAGONAL ARROW)	21" x 15"		
17	M4-10(R+)	DETOUR (RIGHT)	48" x 18"	(ONE) 4" x 4"	
	M3-3	SOUTH	21" x 9"		
	G28-2(85)	ROUTE SHIELD	28" x 24"		
18	M4-10(L+)	DETOUR (LEFT)	48" x 18"	(ONE) 4" x 4"	
	M3-3	SOUTH	21" x 9"		
	G28-2(82)	ROUTE SHIELD	28" x 24"		
19	M3-8	DETOUR	25" x 24"	(ONE) 4" x 4"	
	M3-1	NORTH	21" x 9"		
	G28-2(82)	ROUTE SHIELD	28" x 24"		
	M6-2(▲)	DETOUR (DIAGONAL ARROW)	21" x 15"		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC
 FUNCTIONAL SUPERVISOR ROLAND AU-YEUNG
 CALCULATED/DESIGNED BY CHECKED BY
 SHARI TALAI JERILYN STRUVEN
 REVISED BY DATE REVISED

DETOUR PLAN
NO SCALE

DE-3

LAST REVISION DATE PLOTTED => 05-MAR-2012
 09-07-10 TIME PLOTTED => 07:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	17	42

Vijith Thilakarathne 12/17/10
REGISTERED CIVIL ENGINEER DATE

1-30-12
PLANS APPROVAL DATE



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PAVEMENT DELINEATION QUANTITIES

DESCRIPTION	PM	DETAIL NO. OR PAVEMENT MARKING	SOUTHBOUND							
			PAVEMENT MARKER			THERMO-PLASTIC PAVEMENT MARKING		THERMOPLASTIC TRAFFIC STRIPE		
			NON-RETRO REFLECTIVE	RETROREFLECTIVE				YELLOW	WHITE	
			TYPE A	TYPE G	TYPE H	WHITE (a)	YELLOW (b)	4 INCH SOLID	4 INCH WHITE (BROKEN 17-7)	8 INCH WHITE (BROKEN 12-3)
EA			SQFT		LF					
LAWRENCE EXPRESSWAY - SOUTH WOLFE ROAD	14.3/15.3	9		221				10,560		
		25					5,280			
		38		106					2,300	
		40A	20							
		TYPE III (L) ARROW			630					
		TYPE III (R) ARROW			0					
		TYPE I (18') ARROW			100					
		12" LIMIT LINE			1,300					
		YIELD			24					
SOUTH WOLFE ROAD - SUNNYVALE Ave	15.3/16.8	9		331				15,840		
		25					7,920			
		38		111					2,420	
		40A	0							
		TYPE III (L) ARROW			672					
		TYPE III (R) ARROW			168					
		TYPE I (18') ARROW			0					
		12" LIMIT LINE			800					
		YIELD			48					
SUNNYVALE Ave - SOUTH MARY Ave	16.8/17.7	9		199				9,504		
		25					4,752			
		38		100					2,200	
		40A	27							
		TYPE III (L) ARROW			672					
		TYPE III (R) ARROW			0					
		TYPE I (18') ARROW			50					
		12" LIMIT LINE			600	100				
		YIELD			0					

PAVEMENT DELINEATION QUANTITIES

PDQ-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	18	42

Vijith Thilakarathne 12/17/10
REGISTERED CIVIL ENGINEER DATE

1-30-12
PLANS APPROVAL DATE

V. Thilakarathne
No. 51278
Exp. 9-30-13
CIVIL

THE STATE OF CALIFORNIA OR ITS OFFICERS
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COPIES OF THIS PLAN SHEET.

PAVEMENT DELINEATION QUANTITIES

DESCRIPTION	PM	DETAIL NO. OR PAVEMENT MARKING	SOUTHBOUND								
			PAVEMENT MARKER			THERMO-PLASTIC PAVEMENT MARKING		THERMOPLASTIC TRAFFIC STRIPE			
			NON-RETRO REFLECTIVE	RETROREFLECTIVE				YELLOW	WHITE		
			TYPE A	TYPE G	TYPE H	WHITE (a)	YELLOW (b)	4 INCH SOLID	4 INCH WHITE (BROKEN 17-7)	8 INCH WHITE (BROKEN 12-3)	8 INCH SOLID
EA			SQFT		LF						
SOUTH MARY Ave - 82/85 SEPARATION	17.7/18.8	9		243					11,616		
		25			122			5,808			
		38		100							2,150
		40A	9								
		TYPE III (L) ARROW				546					
		TYPE III (R) ARROW				126					
		TYPE I (18') ARROW				0					
		12" LIMIT LINE				700	100				
		YIELD				0					
82/85 SEPARATION - BAY STREET	18.8/19.2	9		89					4,224		
		25			45			2,112			
		37B		34					480		
		38		37							700
		40A	0								
		TYPE III (L) ARROW				252					
		TYPE III (R) ARROW				0					
		TYPE I (18') ARROW				0					
		12" LIMIT LINE				240					
		YIELD				0					
SUB-TOTAL			56	1,570	544	6,928	200	25,872	51,744	480	9,770
TOTAL			56	2,114		7,128		25,872	51,744	480	9,770

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
RAMSES SARGISS

REVISOR BY
CHAO-HUN TANG

REVISOR BY
VIJITH THILAKARATNE

DESIGNED BY
CALCULATED BY

CHECKED BY

**PAVEMENT DELINEATION
QUANTITIES**

PDQ-2

LAST REVISION DATE PLOTTED => 05-MAR-2012
02-24-11 TIME PLOTTED => 07:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	19	42

Vijith Thilakarathu 12/17/10
REGISTERED CIVIL ENGINEER DATE

1-30-12
PLANS APPROVAL DATE

V. Thilakarathu
No. 51278
Exp. 9-30-13
CIVIL

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COLD PLANE AC PAVEMENT AND HMA (OPEN GRADED)

SOUTHBOUND														
LOCATION	PM	LEFT LANE 1		LEFT LANE 2		LANE 1		LANE 2		LANE 3		COLD PLANE AC PAVEMENT 0.1'	HMA (OPEN GRADED) (0.1 FT)	TACK COAT
		LENGTH (N)	WIDTH (N)											
		FT												
LAWRENCE EXPRESSWAY - SOUTH WOLFE ROAD	14.3/15.3	1730	12	900	12	5280	12	5280	12	5280	24	31667	2138	9.43
SOUTH WOLFE ROAD - SUNNYVALE AVE.	15.3/16.8	2450	12	470	12	7920	12	7920	12	7920	24	46133	3114	13.74
SUNNYVALE AVE. - SOUTH MARY AVE.	16.8/17.7	1550	12	1060	12	4752	12	4752	12	4752	24	28824	1946	8.59
SOUTH MARY AVE. - 82/85 SEPARATION	17.7/18.8	2600	12	0	12	5808	12	5808	12	5808	24	34443	2325	10.26
82/85 SEPARATION - BAY STREET	18.8/19.2	620	12	400	12	2112	12	2112	12	2112	24	12624	852	3.76
TOTAL												153691	10374	45.78

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

REPLACE AC SURFACING

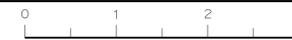
SOUTHBOUND											
LOCATION	PM	LOCATION No.	LANE 1		LANE 2		LANE 3		DEPTH (N)	REPLACE AC SURFACING (0.5')	
			LENGTH (N)	WIDTH (N)	LENGTH (N)	WIDTH (N)	LENGTH (N)	WIDTH (N)			
			FT								CY
LAWRENCE EXPRESSWAY - SOUTH WOLFE ROAD	14.3/15.3	1					100	12	0.5	22	
		2			50	6			0.5	6	
		3	100	6					0.5	11	
SOUTH WOLFE ROAD - SUNNYVALE AVE.	15.3/16.8	4	100	6					0.5	11	
		5	150	6					0.5	17	
		6	100	6					0.5	11	
		7	300	6					0.5	33	
		8	150	6					0.5	17	
		9	30	6					0.5	3	
		10	50	12					0.5	11	
		11			30	12			0.5	7	
		12	50	12					0.5	11	
		13	100	12					0.5	22	
SUNNYVALE AVE. - SOUTH MARY AVE.	16.8/17.7	14			100	12			0.5	22	
		15					30	12	0.5	7	
		16	20	12					0.5	4	
		17	20	12					0.5	4	
SOUTH MARY AVE. - 82/85 SEPARATION	17.7/18.8	18					50	12	0.5	11	
		19	50	12					0.5	11	
82/85 SEPARATION - BAY STREET	18.8/19.2	20			20	6			0.5	2	
		21	20	12					0.5	4	
TOTAL		22	200	12	200	12	200	20	0.17	55	
		23	250	12					0.5	56	
TOTAL										360	

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

SUMMARY OF QUANTITIES

Q-1

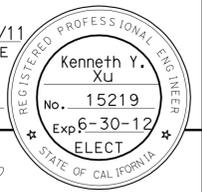
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR
 RAMSES SARGISS
 CALCULATED/DESIGNED BY
 CHECKED BY
 CHAO-HUN TANG
 VIJITH THILAKARATHU
 REVISED BY
 DATE REVISED



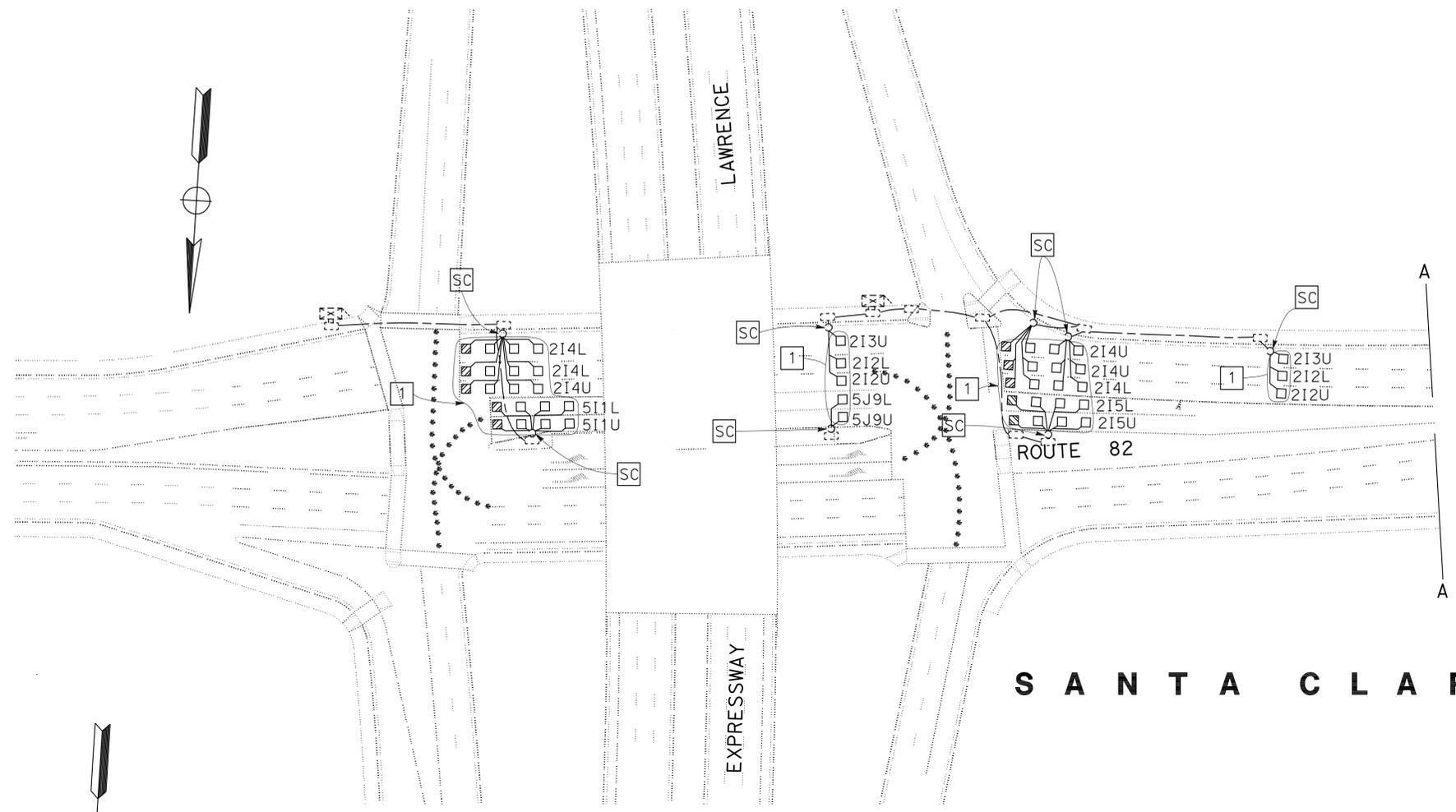
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	20	42

<i>Kenneth Y. Xu</i>	1/03/11
REGISTERED ELECTRICAL ENGINEER	DATE
1-30-12	
PLANS APPROVAL DATE	

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NOTE:
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GENERAL NOTES:

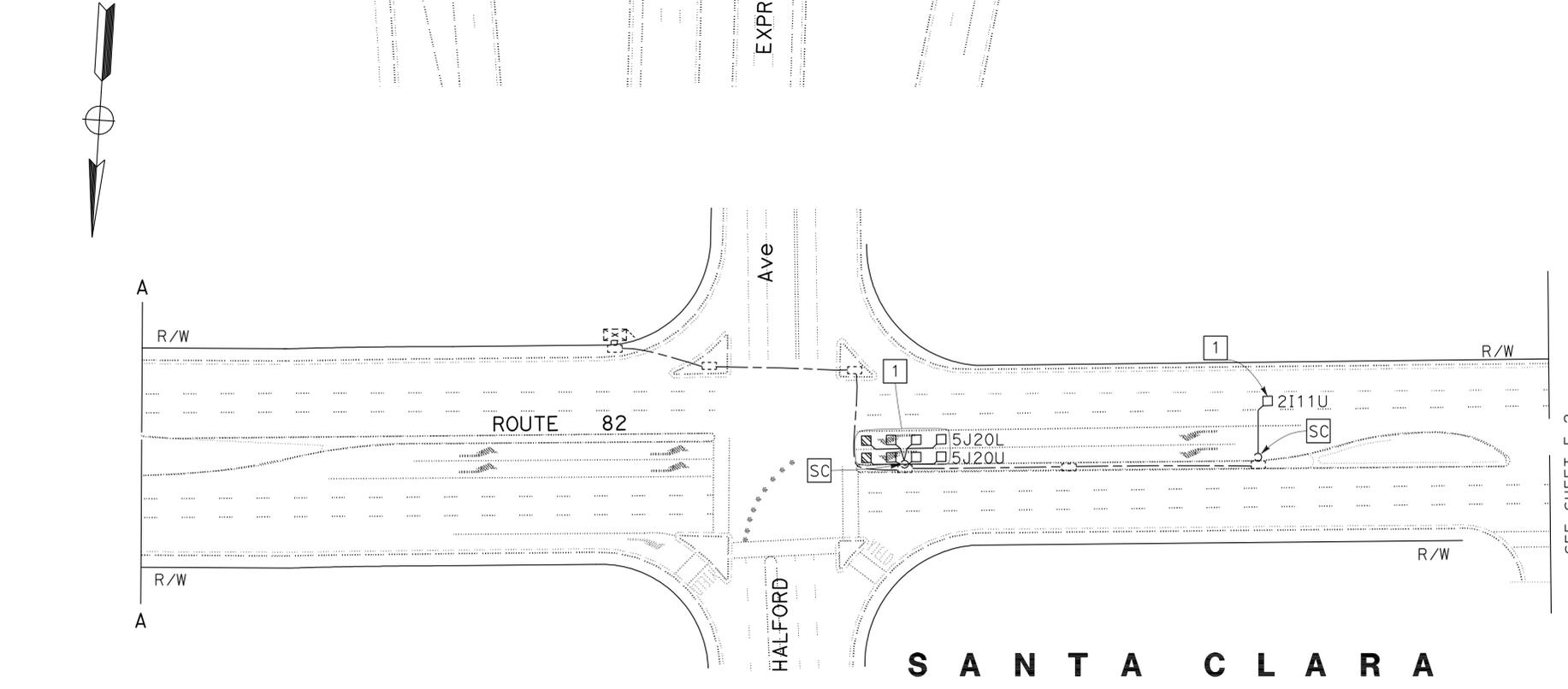
1. ABANDON EXISTING LOOPS IN PLACE WHEN CUTTING NEW REPLACEMENT LOOPS. REPLACED LOOPS SHALL BE AT THE SAME VICINITY OF THE EXISTING LOOPS. SPLICE NEW DETECTOR CONDUCTORS TO CORRESPONDING d/c IN TERMINATION PULL BOX. VERIFY IDENTIFICATION OF EXISTING d/c BEFORE CONNECTING TO THE CORRESPONDING LOOP DETECTORS.
2. INSTALL LOCKING GRADE RING FOR EXISTING DETECTOR HANDHOLE AS NEEDED.
3. EXISTING ELECTRICAL EQUIPMENT SHALL REMAIN IN PLACE EXCEPT OTHERWISE SHOWN ON THE PLAN.
4. PULL BOX AND DETECTOR LOOP LOCATIONS ARE APPROXIMATE, EXACT LOCATIONS ARE TO BE DETERMINED BY THE CONTRACTOR.
5. ALL LOOP DETECTORS AT EACH LOCATION SHALL BE REPLACED AND TESTED WITHIN THE TIME ALLOTTED FOR TRAFFIC SIGNAL SYSTEM SHUTDOWN AT THAT LOCATION.
6. THE CONTRACTOR SHALL PROVIDE TWO REPORTS PER LOCATION ON THE STATUS OF EACH DETECTOR LOOP REPLACEMENT SHOWING CONTINUITY AND INSULATION RESISTANCE READINGS. THE REPORTS SHALL BE SUBMITTED TO THE ENGINEER, ONE BEFORE STARTING WORK AND THE OTHER AFTER WORK HAS BEEN COMPLETED AT EACH LOCATION.
7. 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 SHALL 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) SHALL BE CONNECTED IN SERIES FOR TRAFFIC SIGNAL SYSTEM ONLY AND NOT FOR RAMP METERING SYSTEM.

PROJECT NOTES:

- 1 ABANDON EXISTING LOOP AND INSTALL NEW LOOP.

ELECTRICAL INDEX

- E-1 TO E-10 MODIFY INDUCTIVE LOOP DETECTOR (REPLACE)
- E-11 ELECTRICAL DETAILS



MODIFY INDUCTIVE LOOP DETECTOR

(REPLACE)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E - 1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans	KENNETH XU	CHECKED BY	DORIS YANG
			KENNETH XU
			DATE
			REVISOR
			DATE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 ELECTRICAL

FUNCTIONAL SUPERVISOR KENNETH XU	CALCULATED/DESIGNED BY KENNETH XU	DORIS YANG	REVISED BY KENNETH XU
CHECKED BY	DATE	DATE	DATE

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
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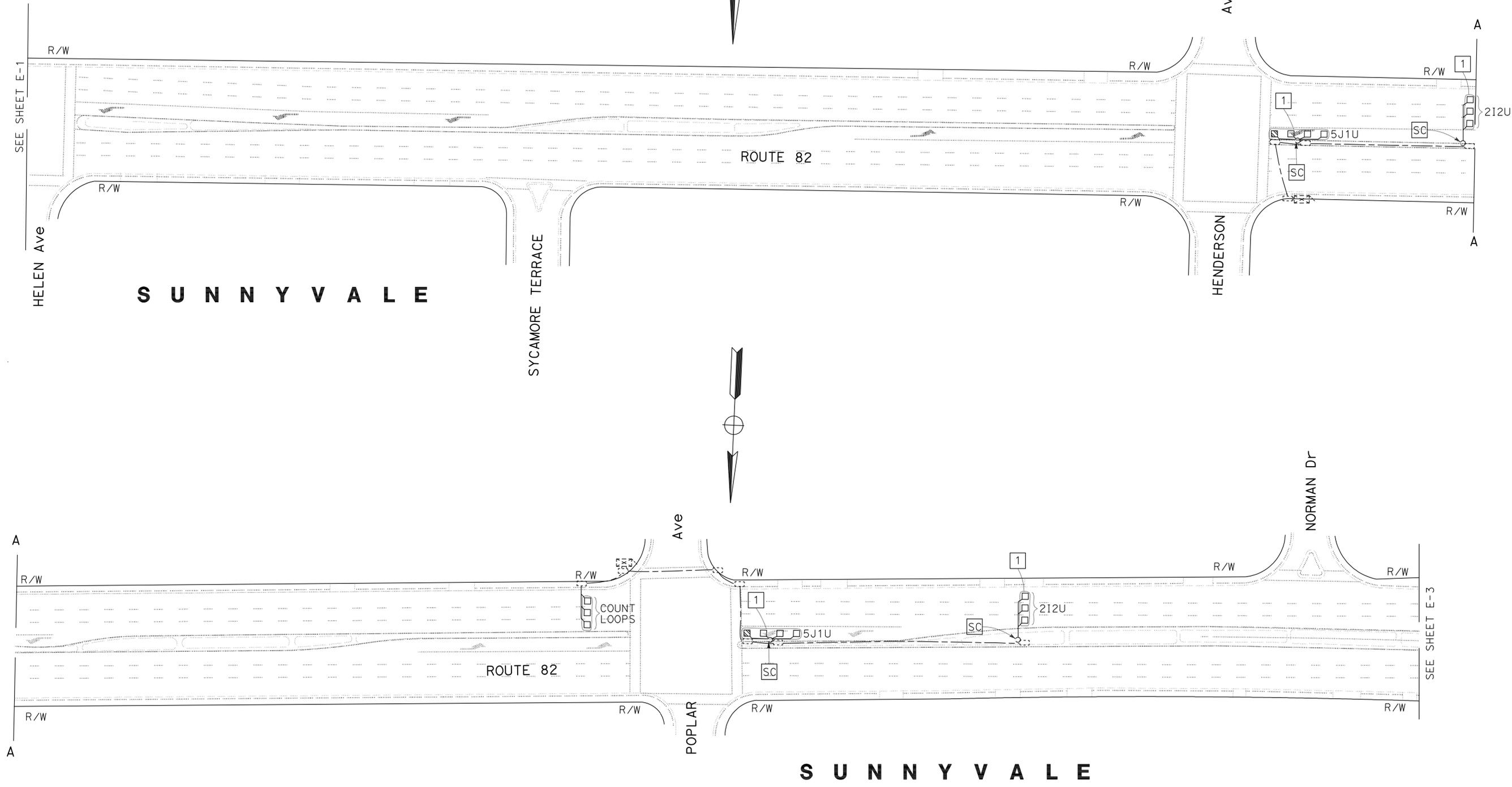
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	21	42

REGISTERED ELECTRICAL ENGINEER
 Kenneth Y. Xu
 No. 15219
 Exp. 6-30-12
 ELECT

1/03/11
 DATE

1-30-12
 PLANS APPROVAL DATE

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MODIFY INDUCTIVE LOOP DETECTOR

(REPLACE)

NO SCALE

E-2

FOR NOTES
 AND LEGEND, SEE SHEET E-1

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 ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL

FUNCTIONAL SUPERVISOR: KENNETH XU
 CALCULATED/DESIGNED BY: KENNETH XU
 CHECKED BY: KENNETH XU
 DORIS YANG
 KENNETH XU
 REVISED BY: DATE REVISION

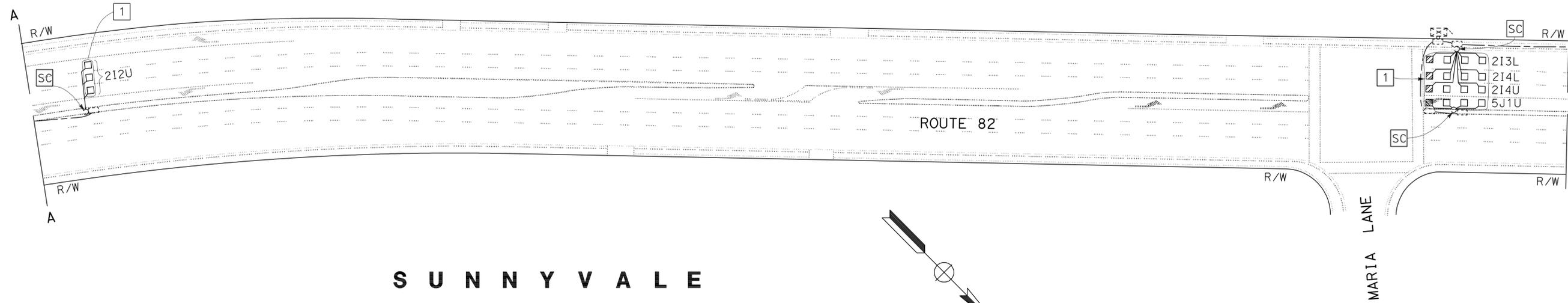
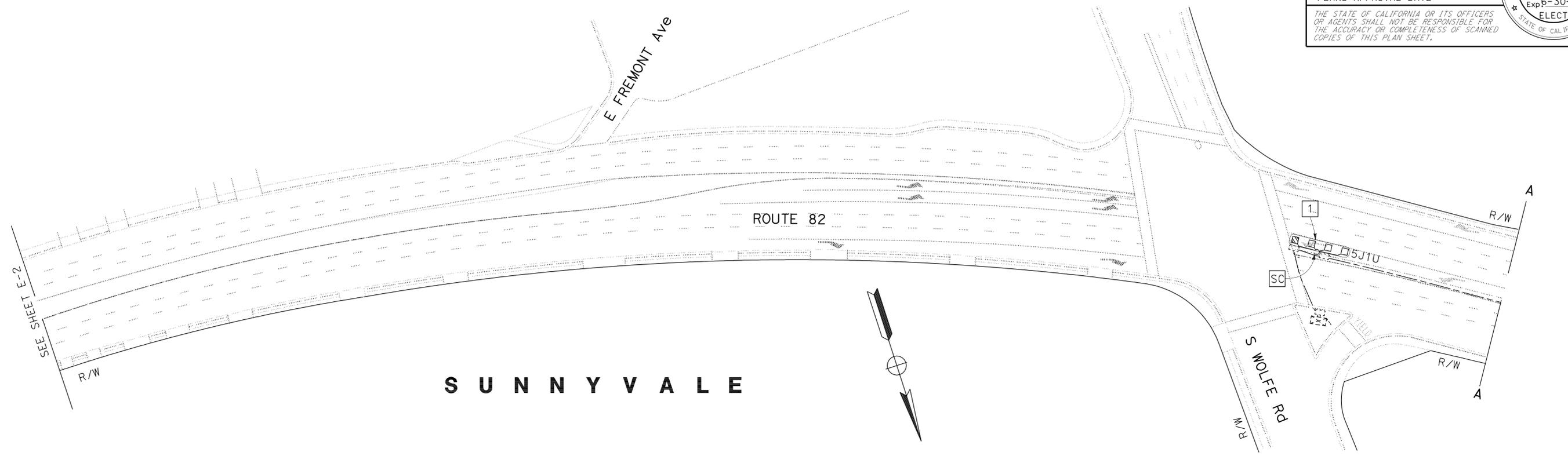
NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	22	42

REGISTERED ELECTRICAL ENGINEER: Kenneth Y. Xu
 DATE: 1/03/11
 PLANS APPROVAL DATE: 1-30-12

REGISTERED PROFESSIONAL ENGINEER
 Kenneth Y. Xu
 No. 15219
 Exp. 6-30-12
 ELECT

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MODIFY INDUCTIVE LOOP DETECTOR
 (REPLACE)
 NO SCALE

FOR NOTES AND LEGEND, SEE SHEET E-1

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E - 3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL

FUNCTIONAL SUPERVISOR: KENNETH XU
 CALCULATED/DESIGNED BY: KENNETH XU
 CHECKED BY: KENNETH XU
 DORIS YANG
 KENNETH XU
 REVISED BY: KENNETH XU
 DATE REVISED: 1-30-12

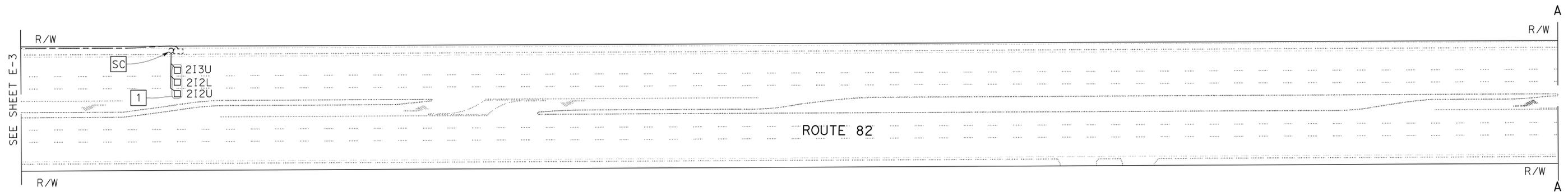
NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	23	42

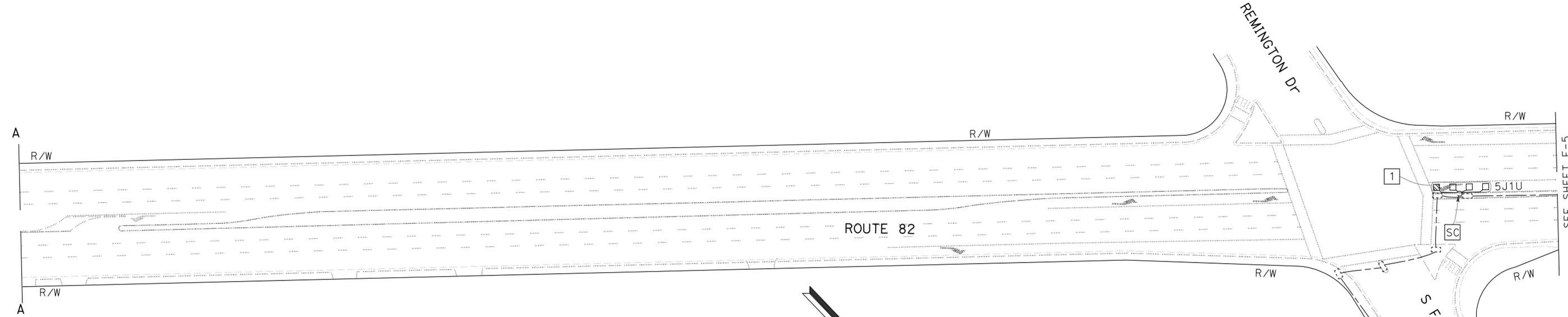
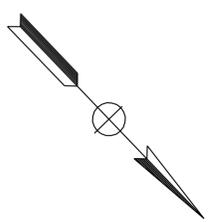
REGISTERED ELECTRICAL ENGINEER: Kenneth Y. Xu
 DATE: 1/03/11
 PLANS APPROVAL DATE: 1-30-12

REGISTERED PROFESSIONAL ENGINEER
 Kenneth Y. Xu
 No. 15219
 Exp. 6-30-12
 ELECT

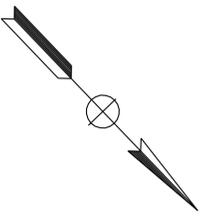
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SUNNYVALE



SUNNYVALE



MODIFY INDUCTIVE LOOP DETECTOR

(REPLACE)

NO SCALE

FOR NOTES AND LEGEND, SEE SHEET E-1

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL

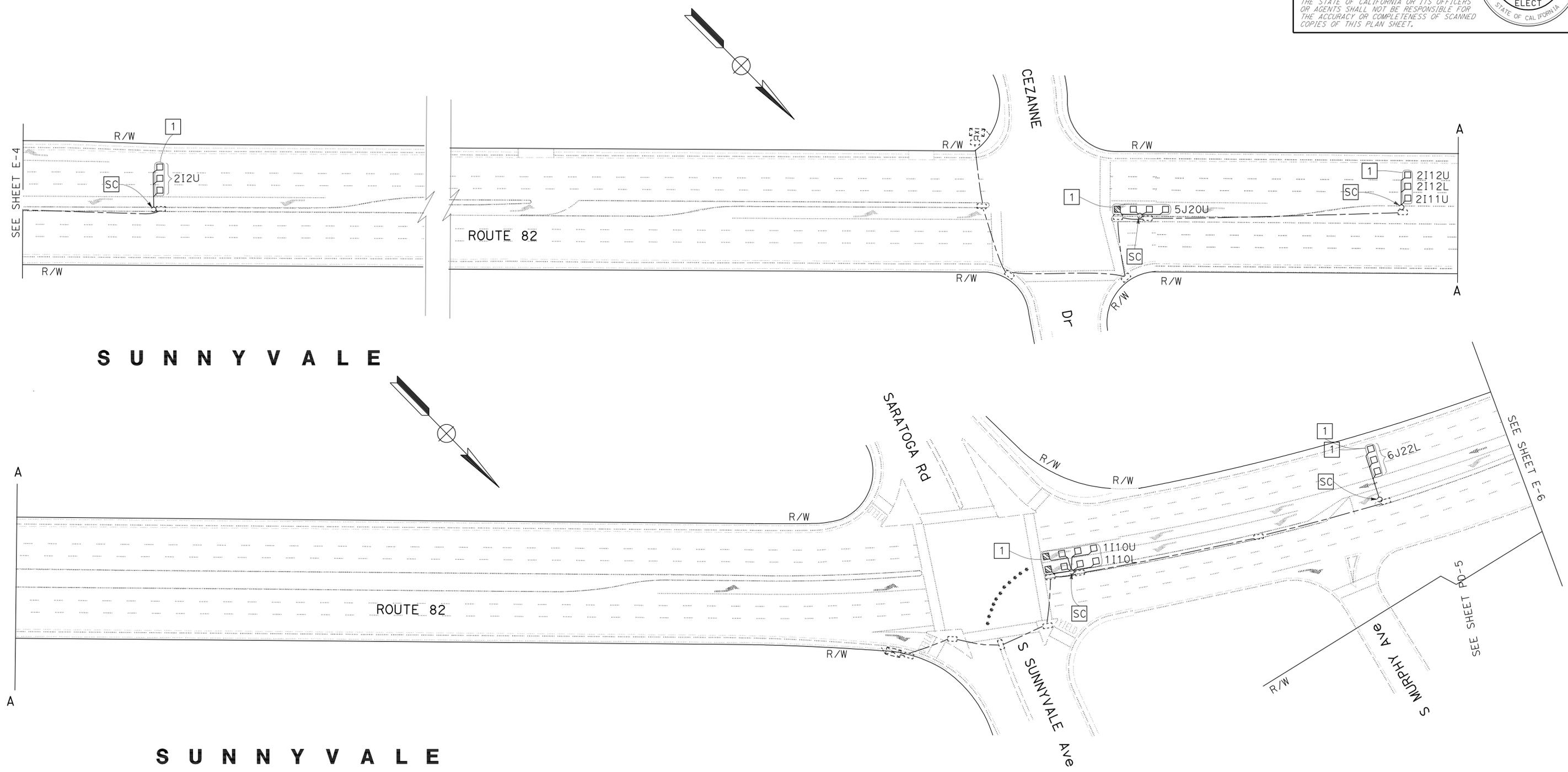
FUNCTIONAL SUPERVISOR: KENNETH XU
 CALCULATED/DESIGNED BY: KENNETH XU
 CHECKED BY: KENNETH XU
 DORIS YANG
 KENNETH XU
 REVISED BY: KENNETH XU
 DATE REVISED: KENNETH XU

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	SCI	82	14.3/19.2	24	42

REGISTERED ELECTRICAL ENGINEER: Kenneth Y. Xu
 DATE: 1/03/11
 PLANS APPROVAL DATE: 1-30-12
 No. 15219
 Exp 6-30-12
 ELECT

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MODIFY INDUCTIVE LOOP DETECTOR

(REPLACE)

NO SCALE

FOR NOTES AND LEGEND, SEE SHEET E-1

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E - 5

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Caltrans ELECTRICAL

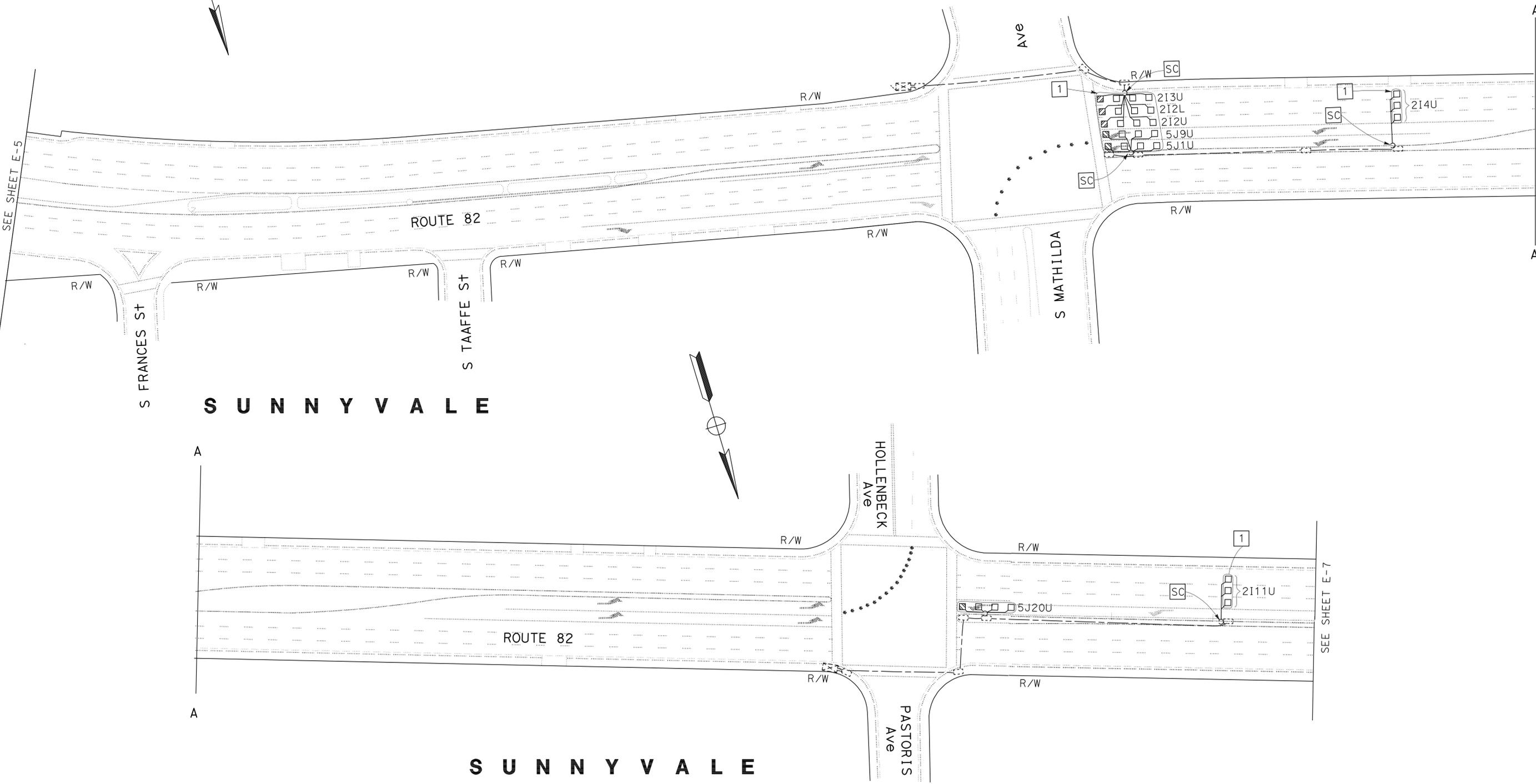
FUNCTIONAL SUPERVISOR
 KENNETH XU

CALCULATED/DESIGNED BY
 CHECKED BY

DORIS YANG
 KENNETH XU

REVISED BY
 DATE REVISED

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	SCI	82	14.3/19.2	25	42

REGISTERED ELECTRICAL ENGINEER
 Kenneth Y. Xu
 No. 15219
 Exp 6-30-12
 ELECT

1/03/11
 REGISTERED ELECTRICAL ENGINEER DATE
 1-30-12
 PLANS APPROVAL DATE

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MODIFY INDUCTIVE LOOP DETECTOR

(REPLACE)

NO SCALE

E - 6

FOR NOTES
 AND LEGEND, SEE SHEET E-1

THIS PLAN ACCURATE FOR
 ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL

REVISOR
 REVISED BY
 DATE

DESIGNER
 DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR
 KENNETH XU

DORIS YANG
 KENNETH XU

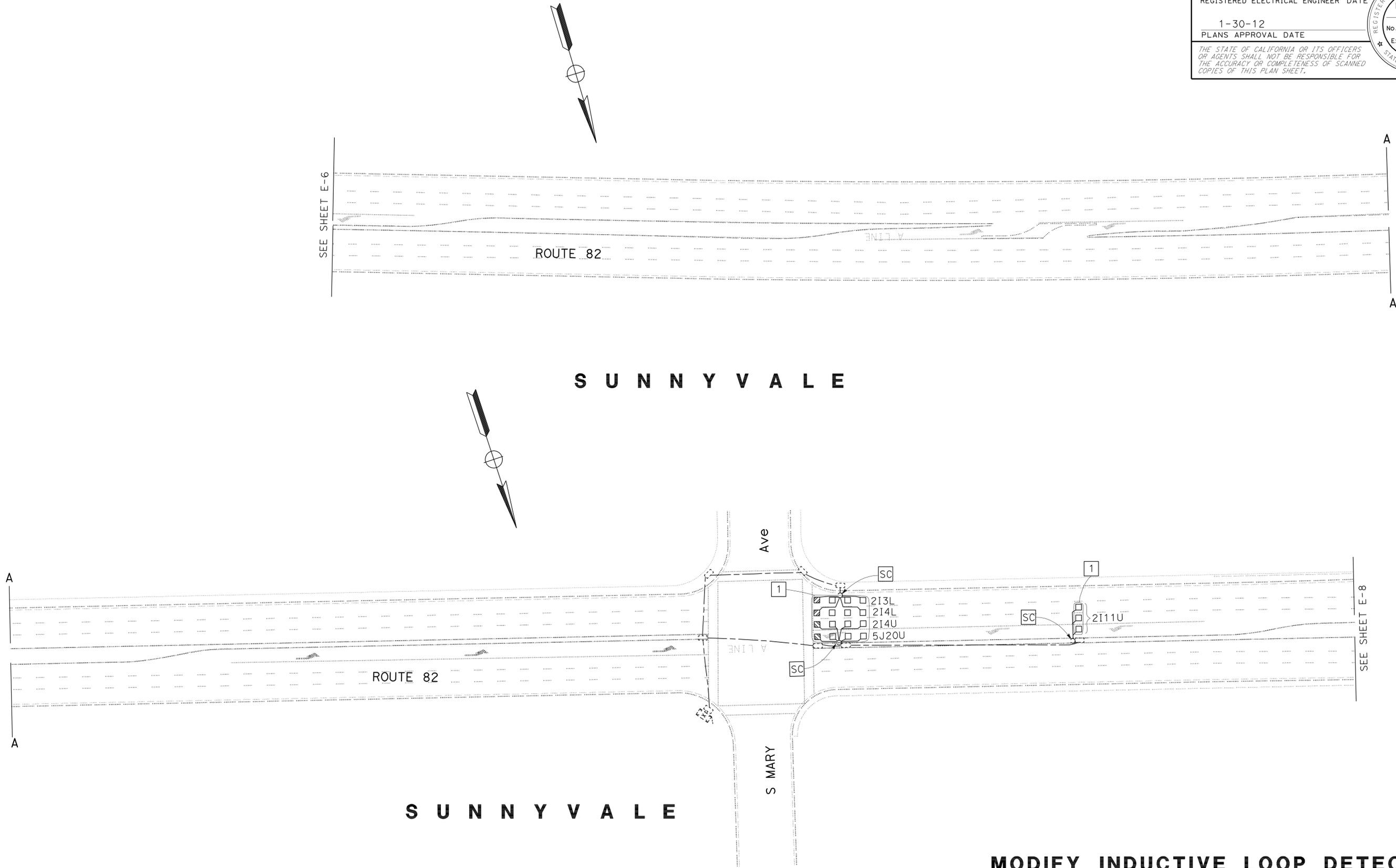
NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	26	42

REGISTERED ELECTRICAL ENGINEER DATE: *Kenneth Y. Xu* 1/03/11
 PLANS APPROVAL DATE: 1-30-12

REGISTERED PROFESSIONAL ENGINEER
 Kenneth Y. Xu
 No. 15219
 Exp. 6-30-12
 ELECT
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS
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 COPIES OF THIS PLAN SHEET.



MODIFY INDUCTIVE LOOP DETECTOR

(REPLACE)

NO SCALE

E - 7

FOR NOTES
 AND LEGEND, SEE SHEET E-1

THIS PLAN ACCURATE FOR
 ELECTRICAL WORK ONLY

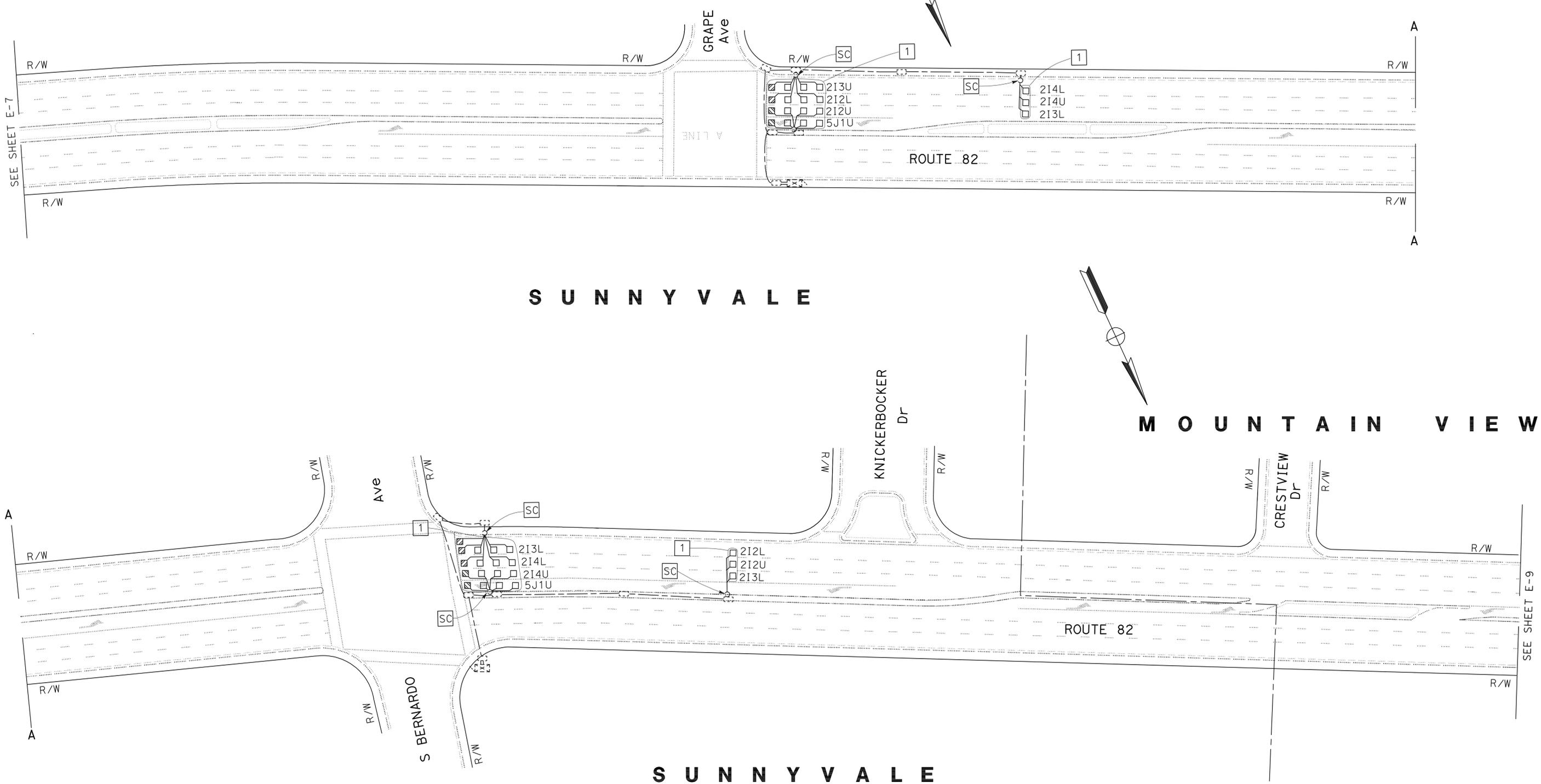
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL
 FUNCTIONAL SUPERVISOR: KENNETH XU
 CALCULATED/DESIGNED BY: CHECKED BY:
 DORIS YANG KENNETH XU
 REVISED BY: DATE REVISED:
 REVISIONS: x x x x x

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	SCI	82	14.3/19.2	27	42

Kenneth Y. Xu 1/03/11
 REGISTERED ELECTRICAL ENGINEER DATE
 1-30-12
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Kenneth Y. Xu
 No. 15219
 Exp. 6-30-12
 ELECT
 STATE OF CALIFORNIA



MODIFY INDUCTIVE LOOP DETECTOR
 (REPLACE)
 NO SCALE

FOR NOTES
 AND LEGEND, SEE SHEET E-1

THIS PLAN ACCURATE FOR
 ELECTRICAL WORK ONLY

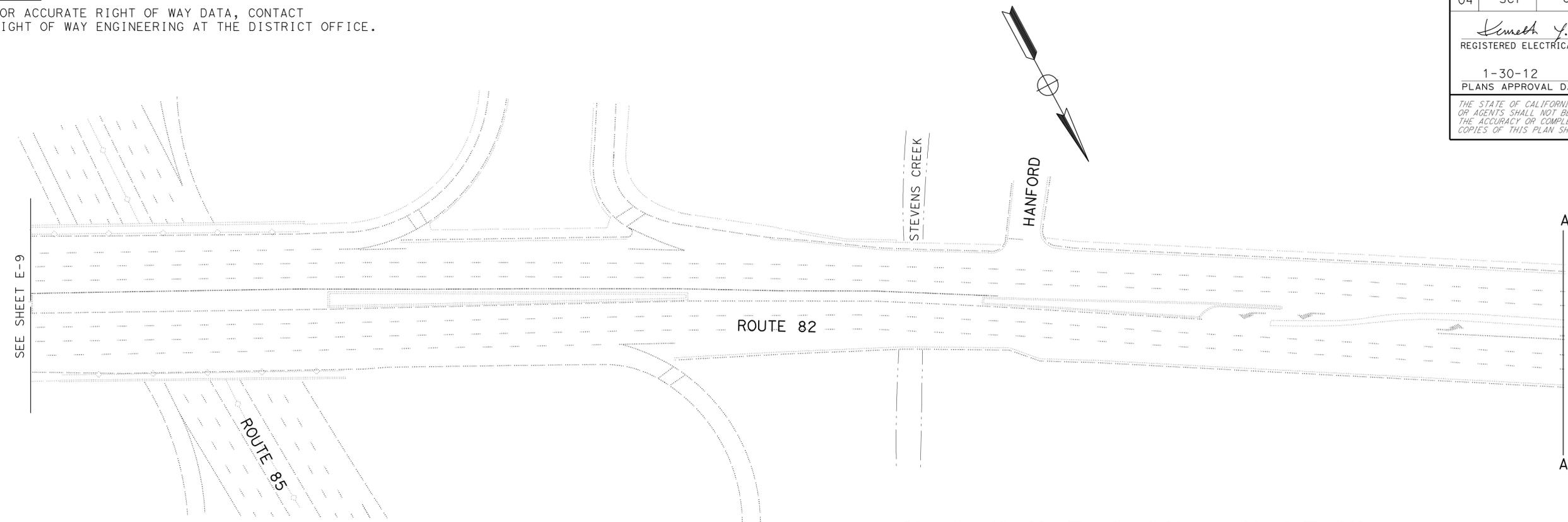
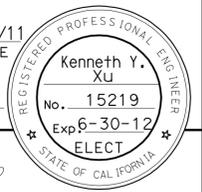
E - 8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL

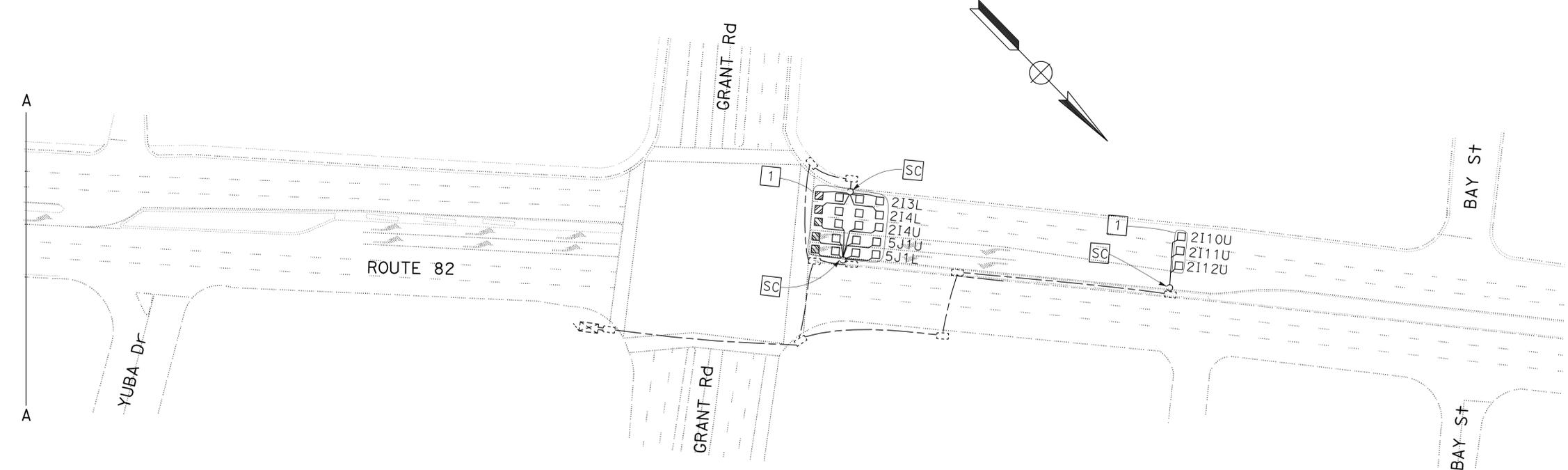
NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	29	42

REGISTERED ELECTRICAL ENGINEER DATE: *Kenneth Y. Xu* 1/03/11
 PLANS APPROVAL DATE: 1-30-12
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M O U N T A I N V I E W



M O U N T A I N V I E W

MODIFY INDUCTIVE LOOP DETECTOR

(REPLACE)

NO SCALE

FOR NOTES AND LEGEND, SEE SHEET E-1

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

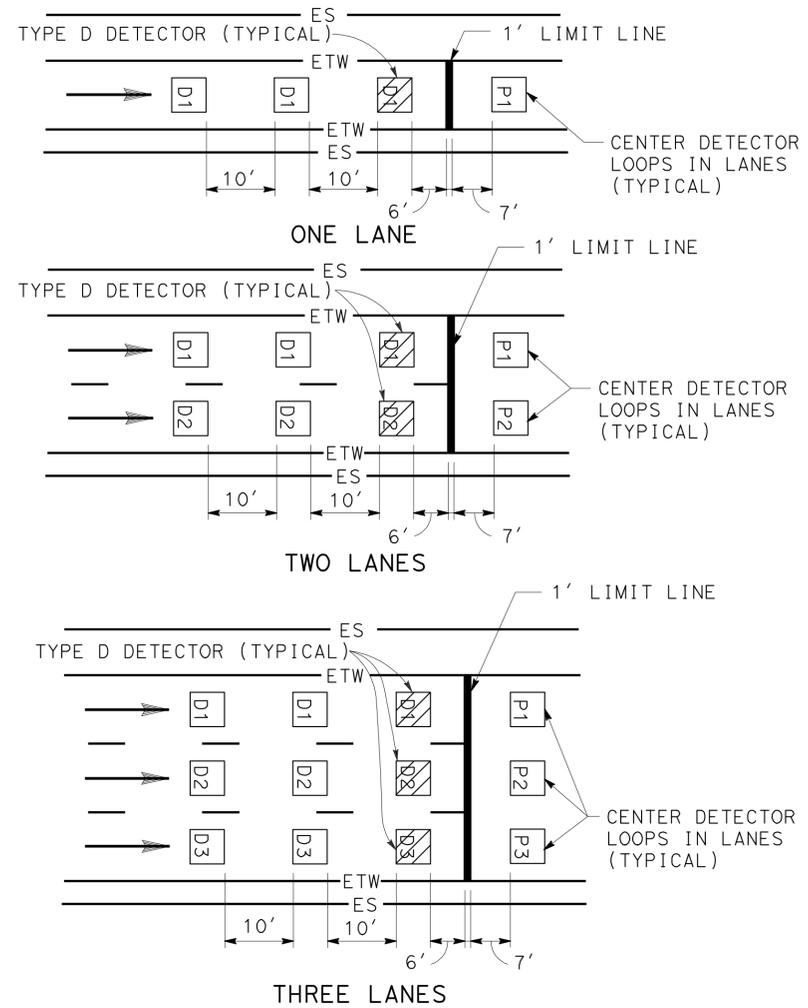
E-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	30	42

<i>Kenneth Y. Xu</i>	1/03/11
REGISTERED ELECTRICAL ENGINEER	DATE
1-30-12	
PLANS APPROVAL DATE	

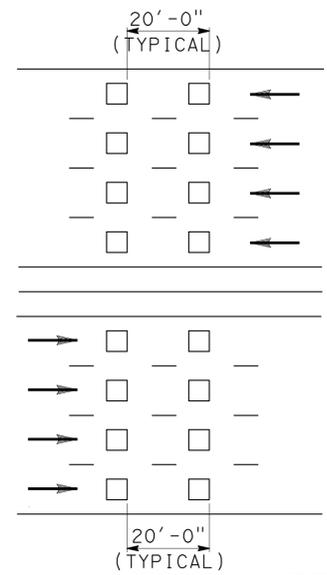
REGISTERED PROFESSIONAL ENGINEER
Kenneth Y. Xu
No. 15219
Exp 6-30-12
ELECT

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.

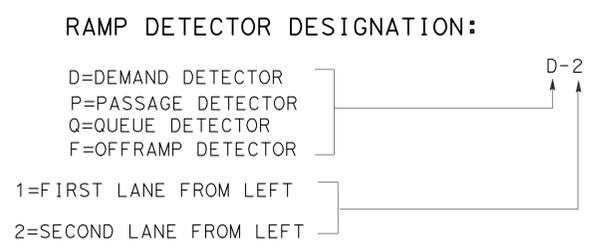


- RAMP METERING STATION NOTES**
- SEE ES-5A, ES-5B, AND ES-13A FOR ADDITIONAL DETAILS.
 - DLC CONDUCTORS SHALL BE SPLICED TO THE LOOP CONDUCTORS IN THE NEAREST PULLBOX.
 - ALL SPLICES SHALL BE TYPE "S" OR TYPE "ST" AS REQUIRED.

**DETAIL "RM"
RAMP METERING STATION**



- TRAFFIC MONITORING STATION NOTES**
- FREEWAY MAINLINE DETECTOR DESIGNATION:**
- N=NORTHBOUND LANES (NB)
 - S=SOUTHBOUND LANES (SB)
 - E=EASTBOUND LANES (EB)
 - W=WESTBOUND LANES (WB)
- NUMBER OF LANES FROM LEFT WITH RESPECT TO DIRECTION OF TRAFFIC:**
- 1=FIRST LANE FROM LEFT
 - 2=SECOND LANE FROM LEFT
 - 3=THIRD LANE FROM LEFT
 - 4=FOURTH LANE FROM LEFT
- NUMBER OF DETECTOR IN THE SAME LANE:**
- 1=ENTERING DETECTOR
 - 2=LEAVING DETECTOR



**DETAIL "TM"
TRAFFIC MONITORING STATION**

**ELECTRICAL DETAILS
(RAMP METERING AND TRAFFIC MONITORING
DETECTOR SPACING AND DESIGNATION)**

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL

FUNCTIONAL SUPERVISOR: KENNETH XU

DESIGNED BY: DORIS YANG

CHECKED BY: KENNETH XU

REVISOR: DORIS YANG

DATE: [REVISOR]

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	82	14.3/19.2	31	42

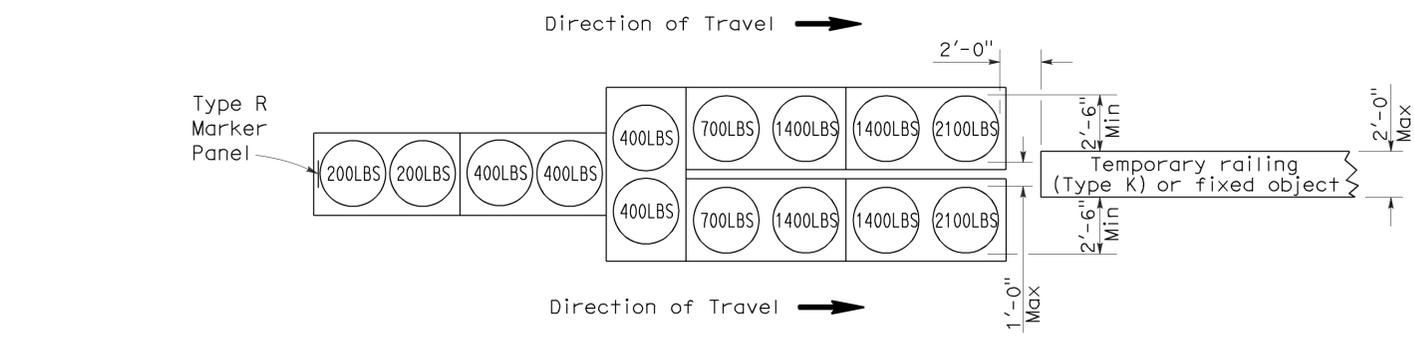
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

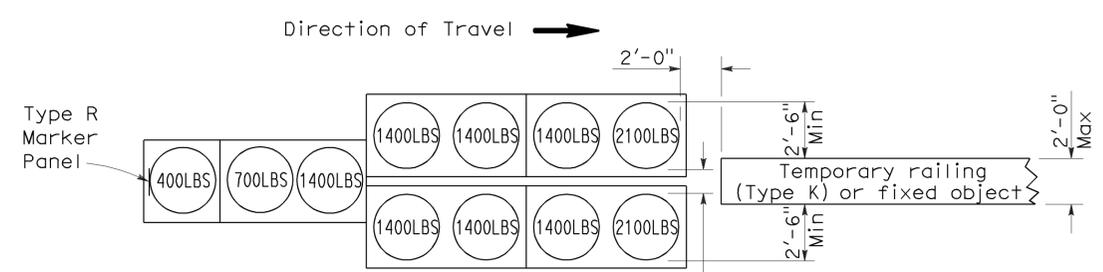
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To accompany plans dated 1-30-12



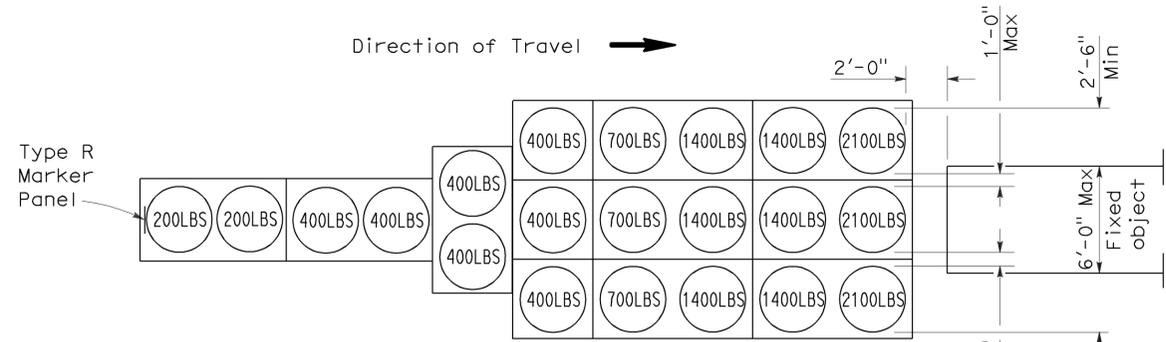
ARRAY 'TU14'

Approach speed 45 mph or more



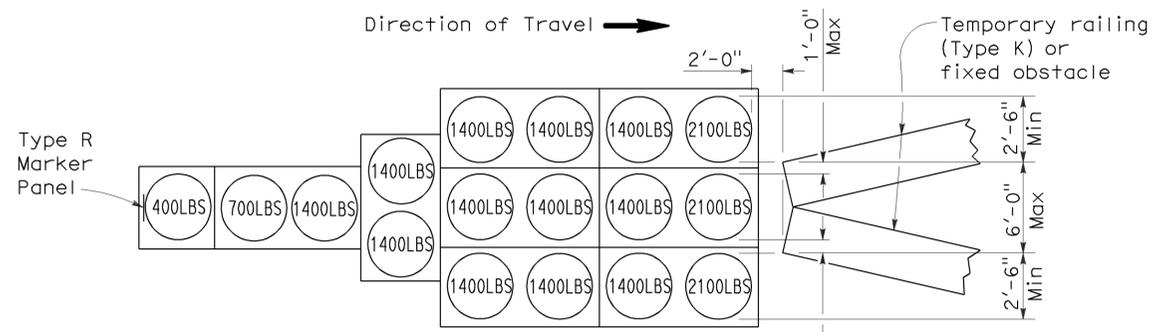
ARRAY 'TU11'

Approach speed less than 45 mph



ARRAY 'TU21'

Approach speed 45 mph or more

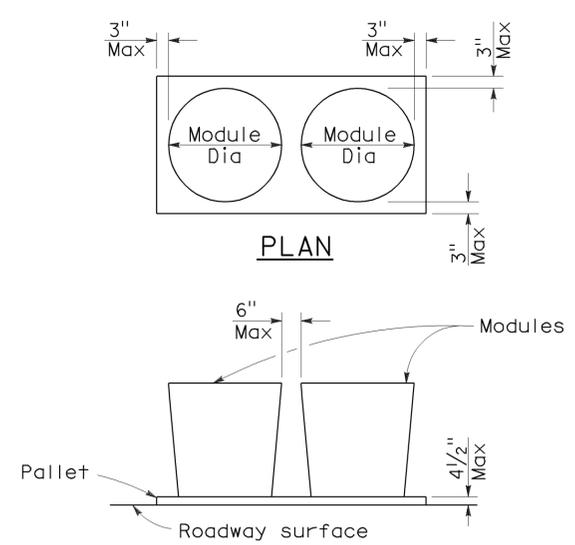


ARRAY 'TU17'

Approach speed less than 45 mph

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.



CRASH CUSHION PALLET DETAIL
See Note 7

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	82	14.3/19.2	32	42

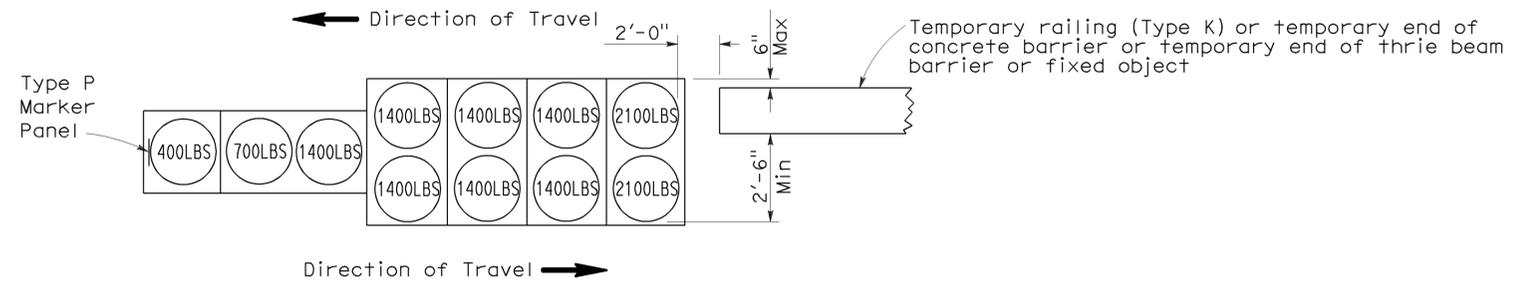
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

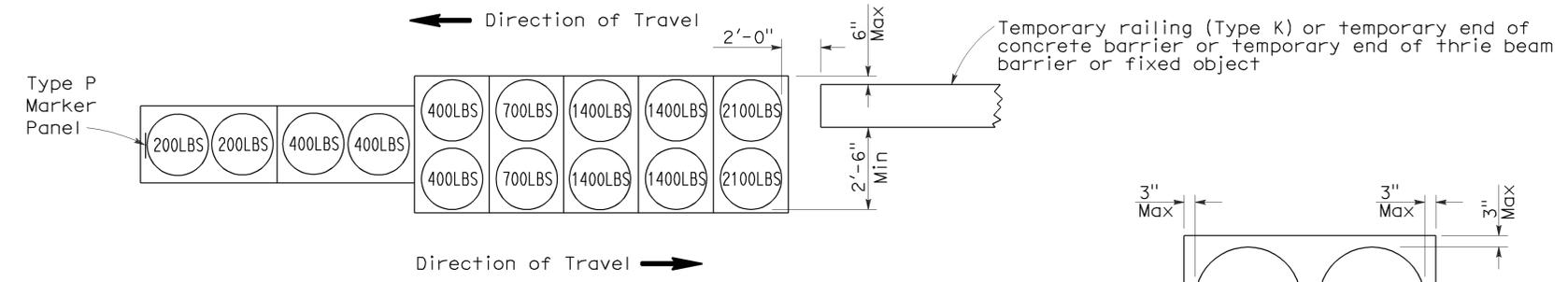
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

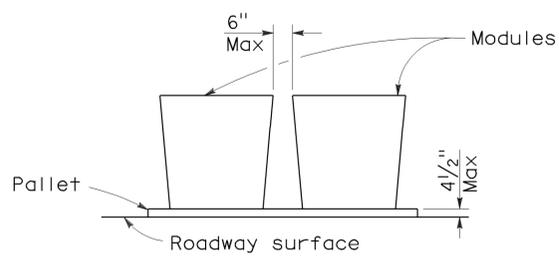
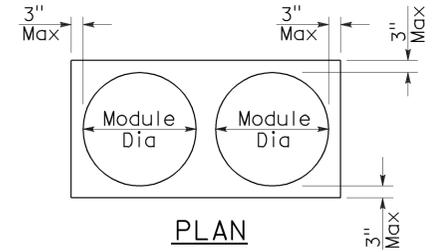
To accompany plans dated 1-30-12



ARRAY 'TB11'
Approach speed less than 45 mph



ARRAY 'TB14'
Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

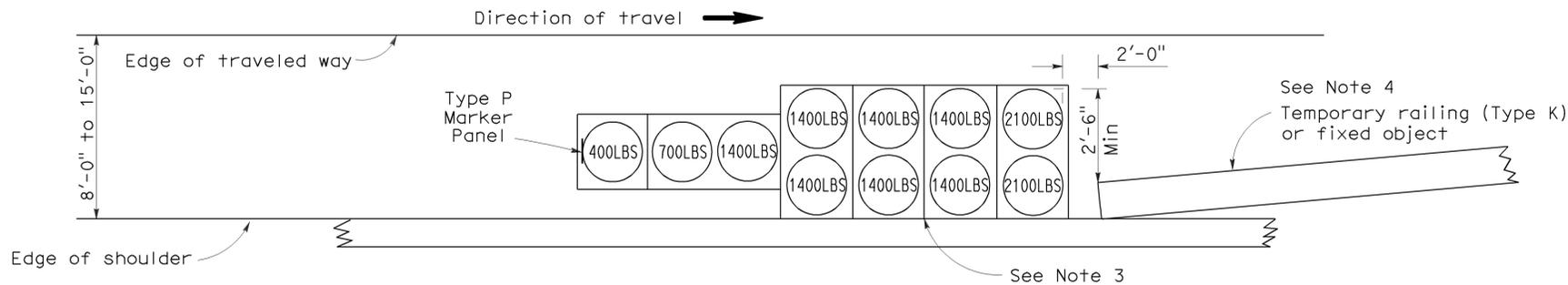
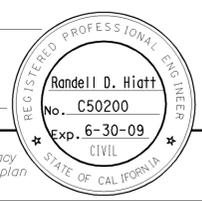
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	82	14.3/19.2	33	42

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

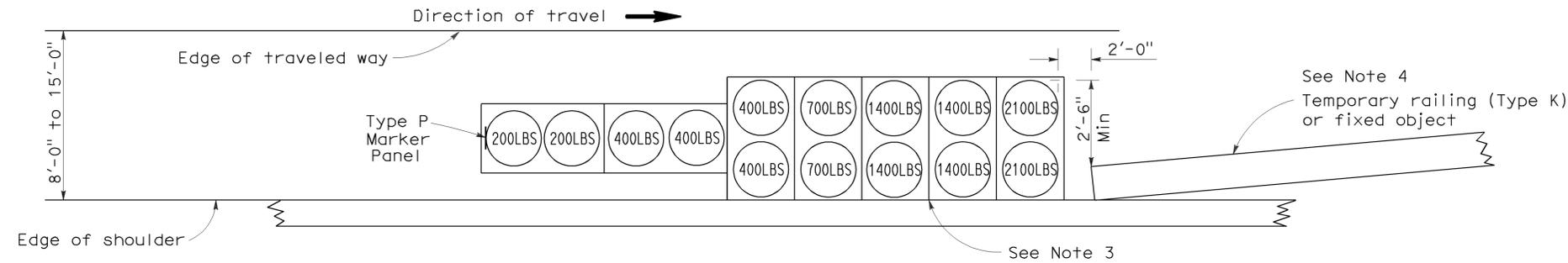
June 6, 2008
PLANS APPROVAL DATE

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To accompany plans dated 1-30-12



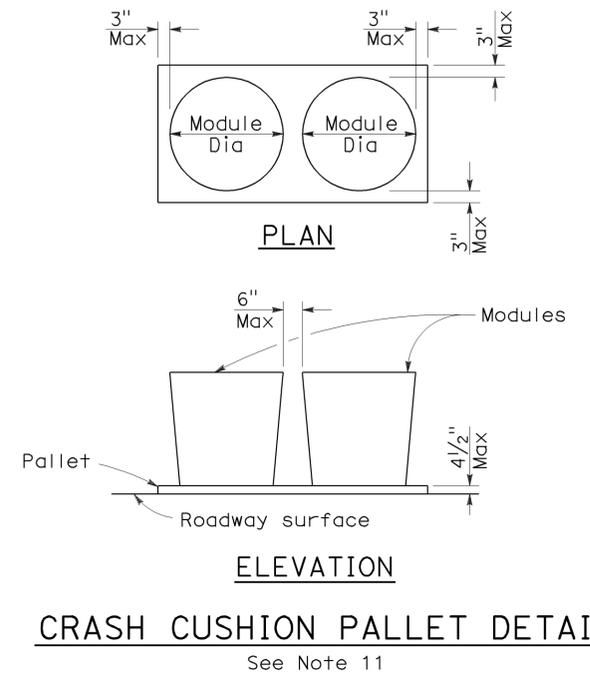
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



ARRAY 'TS14'
Approach speed 45 mph or more
See Note 9

NOTES:

- (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.



CRASH CUSHION PALLET DETAIL
See Note 11

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**
NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	82	14.3/19.2	34	42

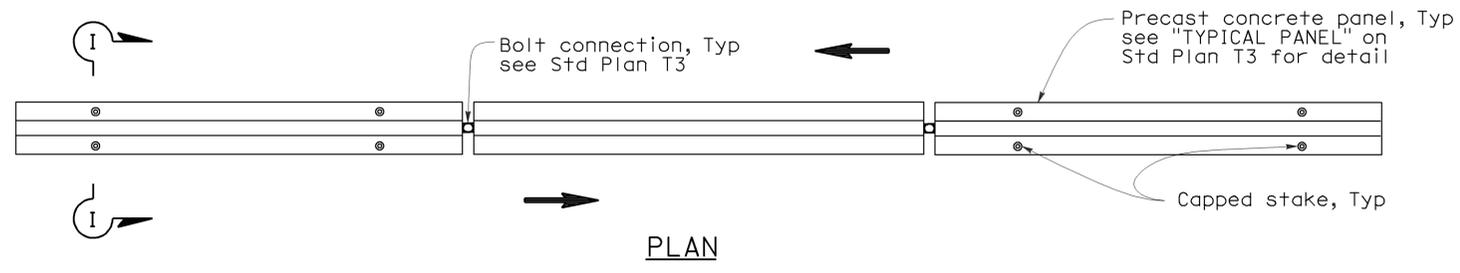
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

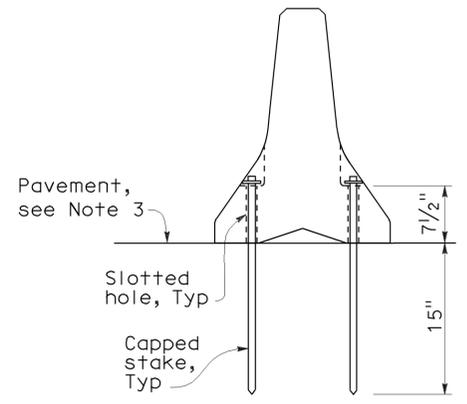
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 1-30-12

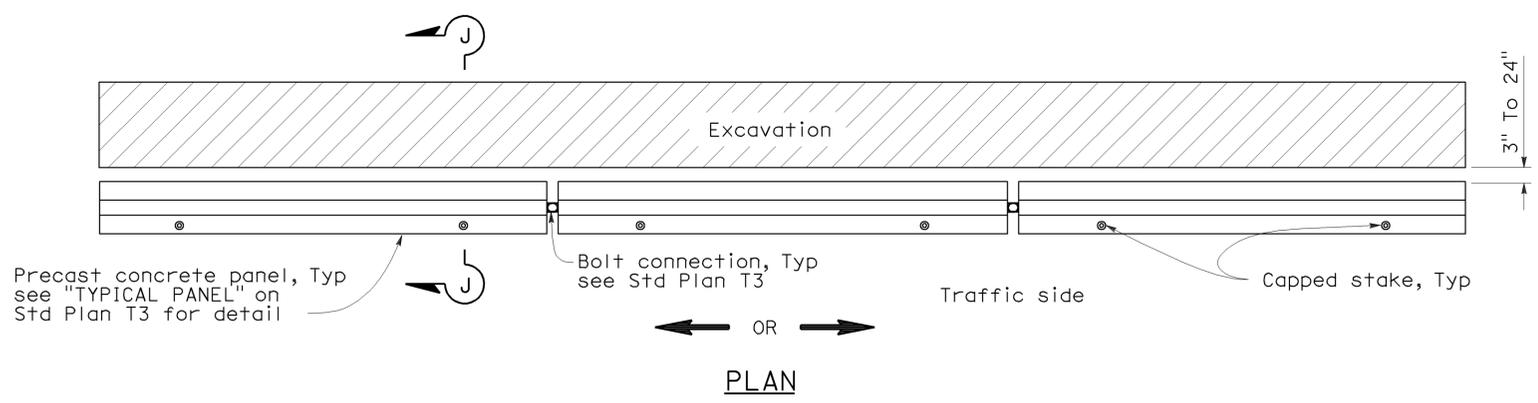


RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1

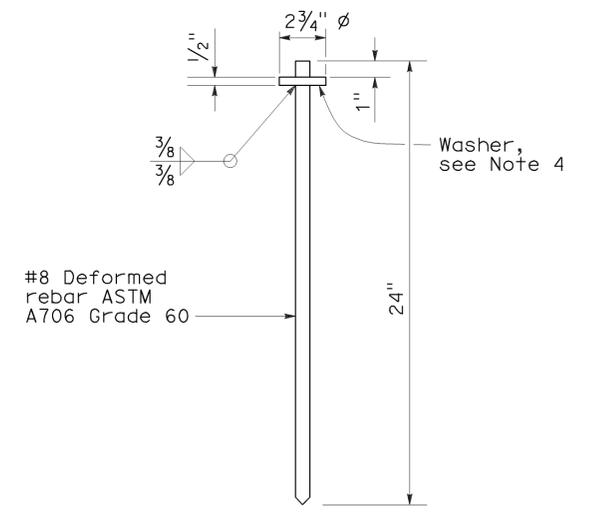
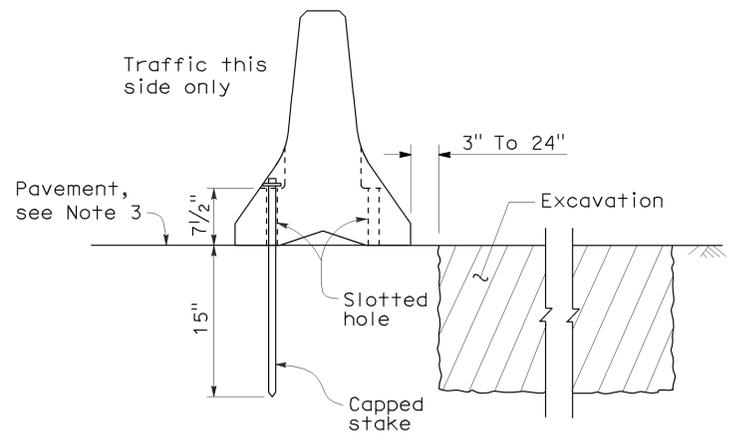


NOTES:

1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by \Rightarrow .



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY RAILING
(TYPE K)**

NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

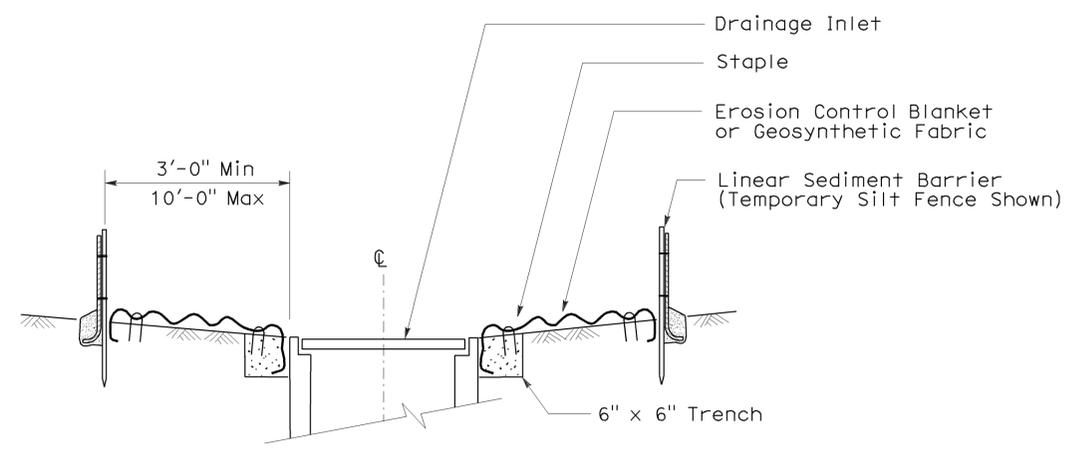
2006 NEW STANDARD PLAN NSP T3A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	82	14.3/19.2	36	42

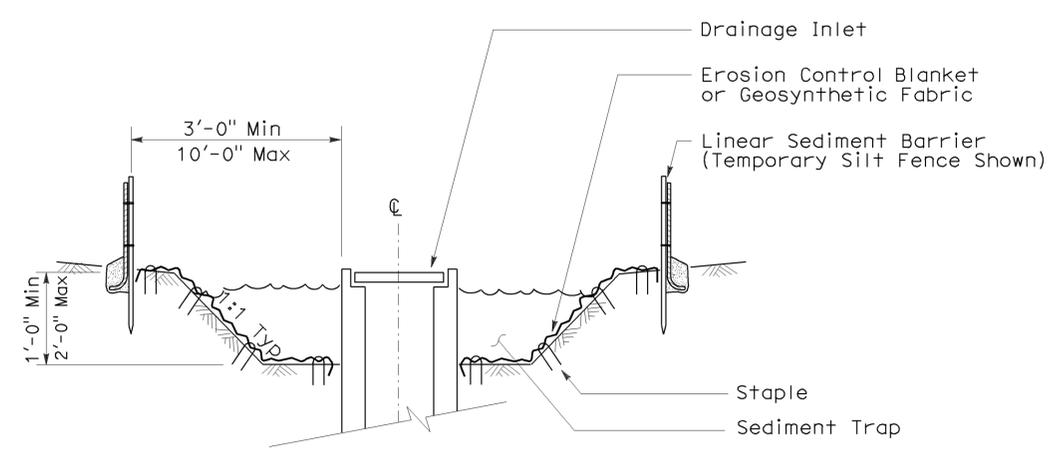
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 1-30-12

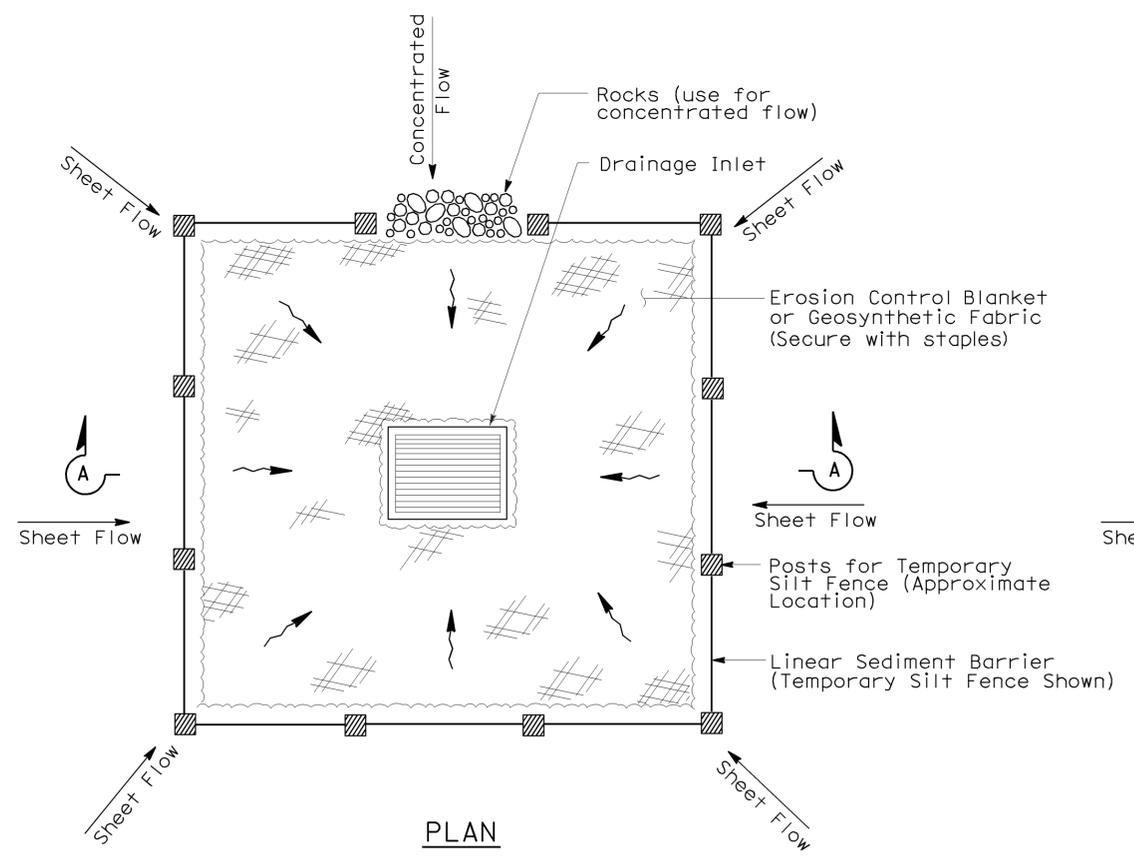
- NOTES:**
- See Standard Plan T51 for Temporary Silt Fence.
 - Dimensions may vary to fit field conditions.



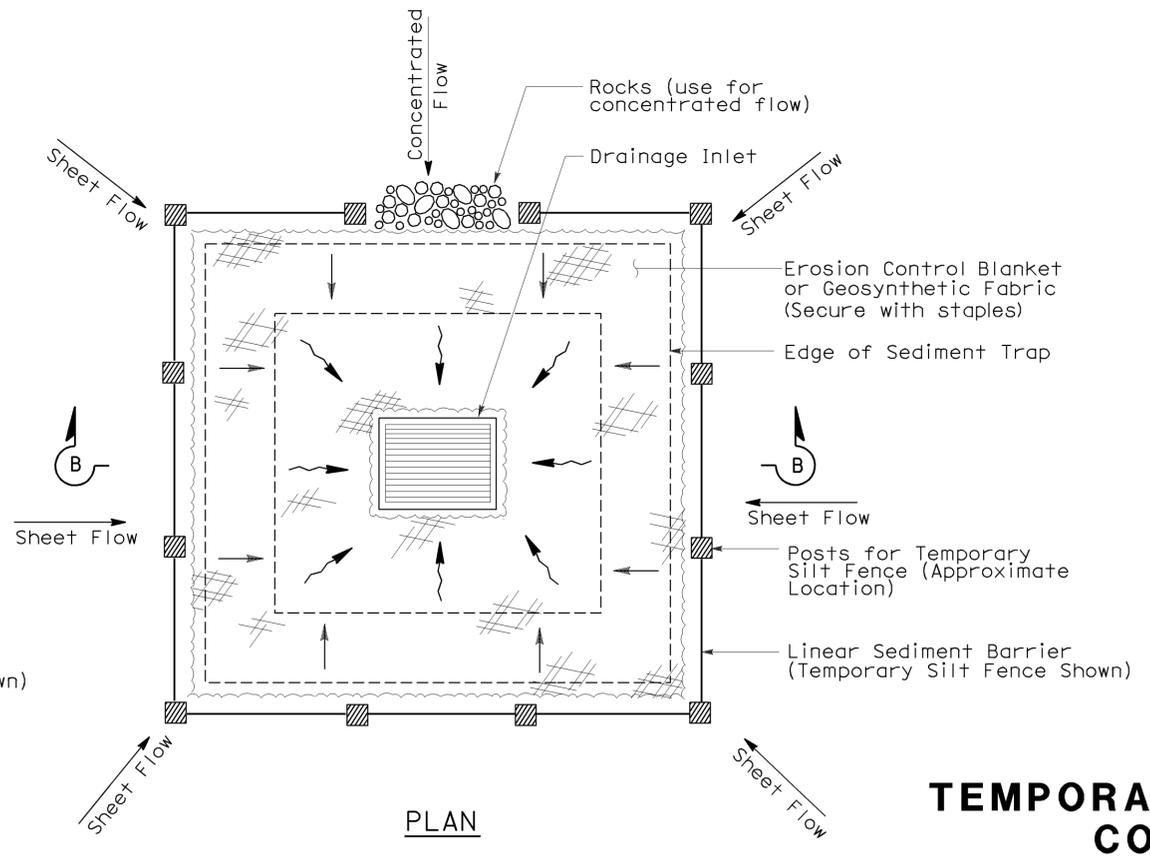
SECTION A-A



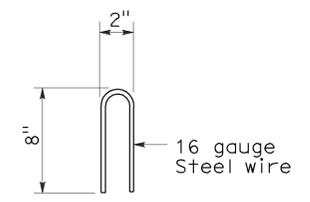
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



**TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2)
(EXCAVATED SEDIMENT TRAP)**



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)**

NO SCALE

Nsp +61 dated august 15, 2008 supplements the standard plans book dated may 2006.

2006 NEW STANDARD PLAN NSP T61

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	82	14.3/19.2	37	42

Robert B. Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

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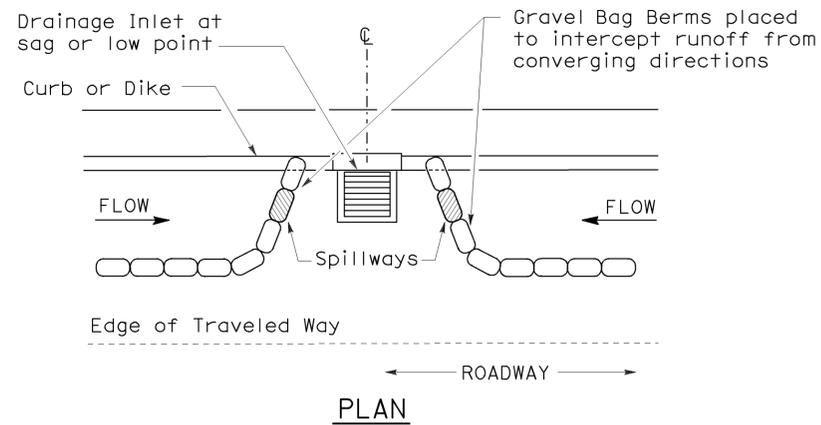
To accompany plans dated 1-30-12



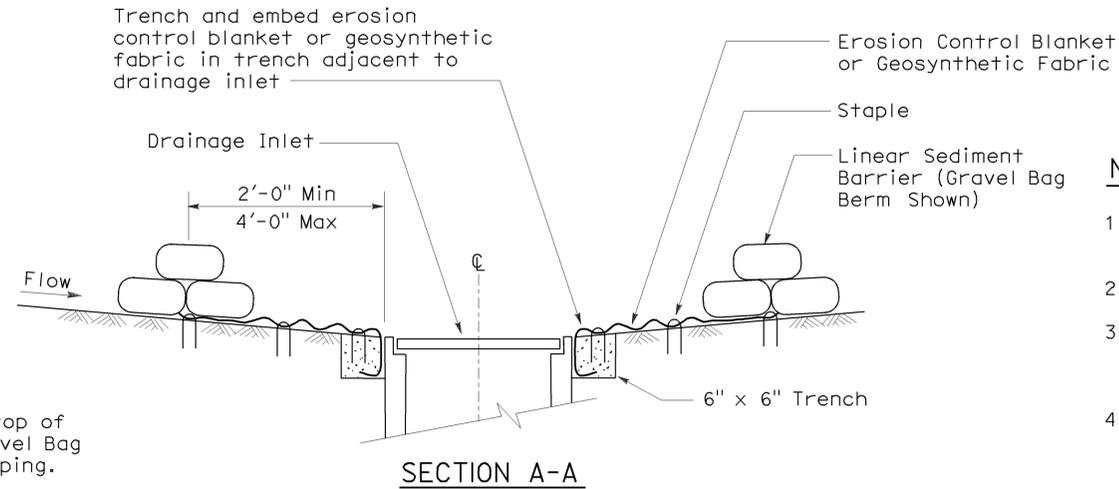
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

For slope of less than 1%, install barriers only if erosion/sediment is prevalent



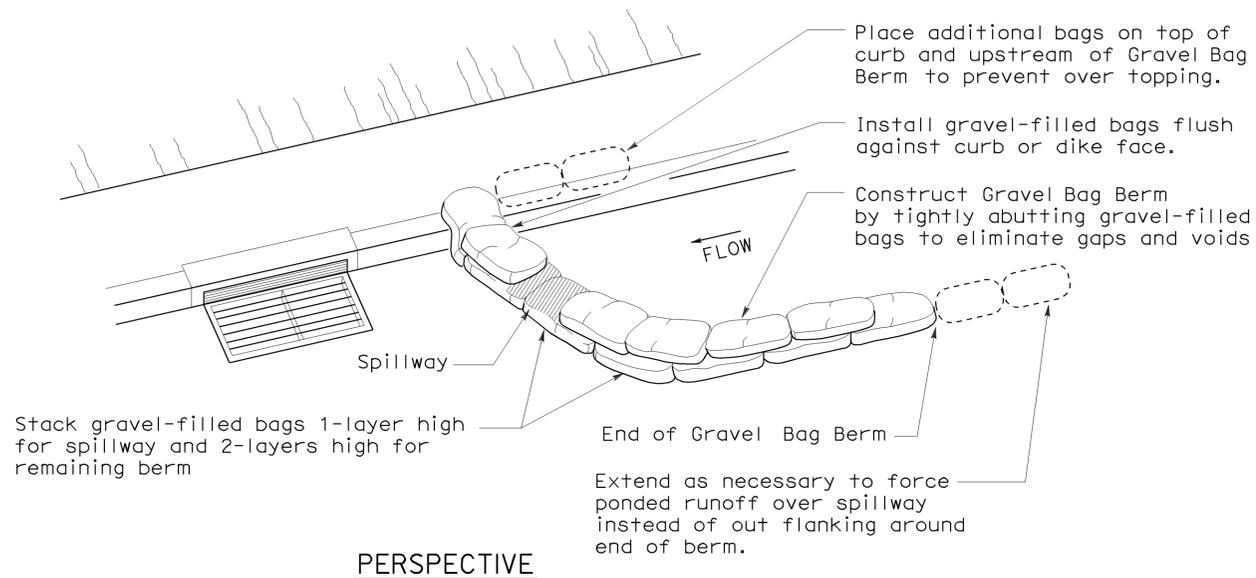
PLAN
CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)



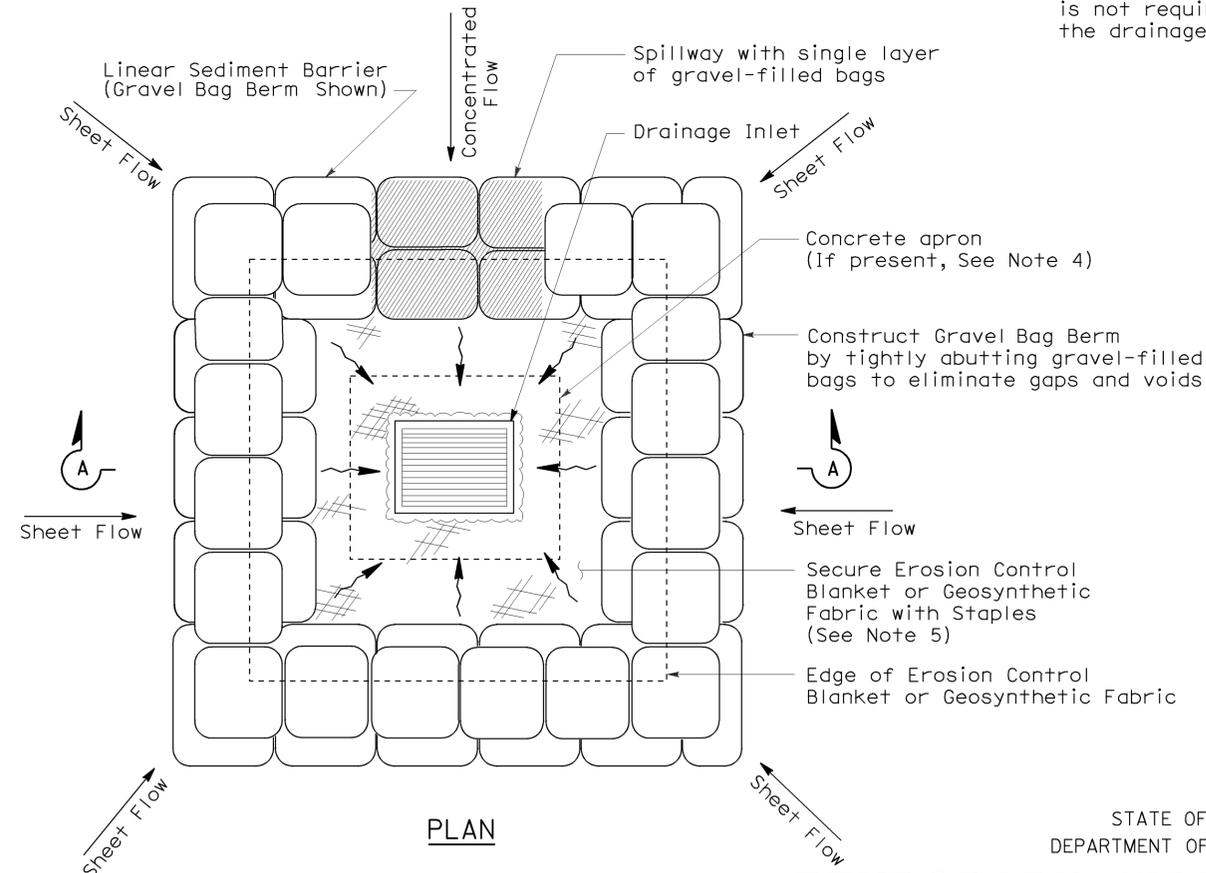
SECTION A-A

NOTES:

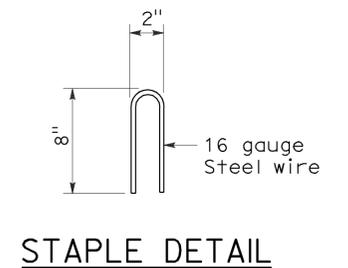
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.



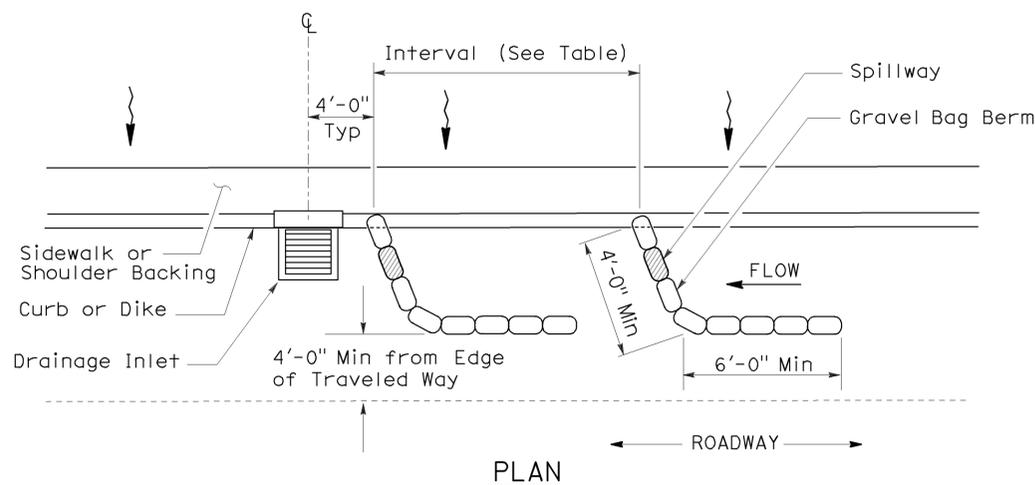
PERSPECTIVE



PLAN
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



PLAN
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3A) (GRAVEL BAG BERM)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	82	14.3/19.2	38	42

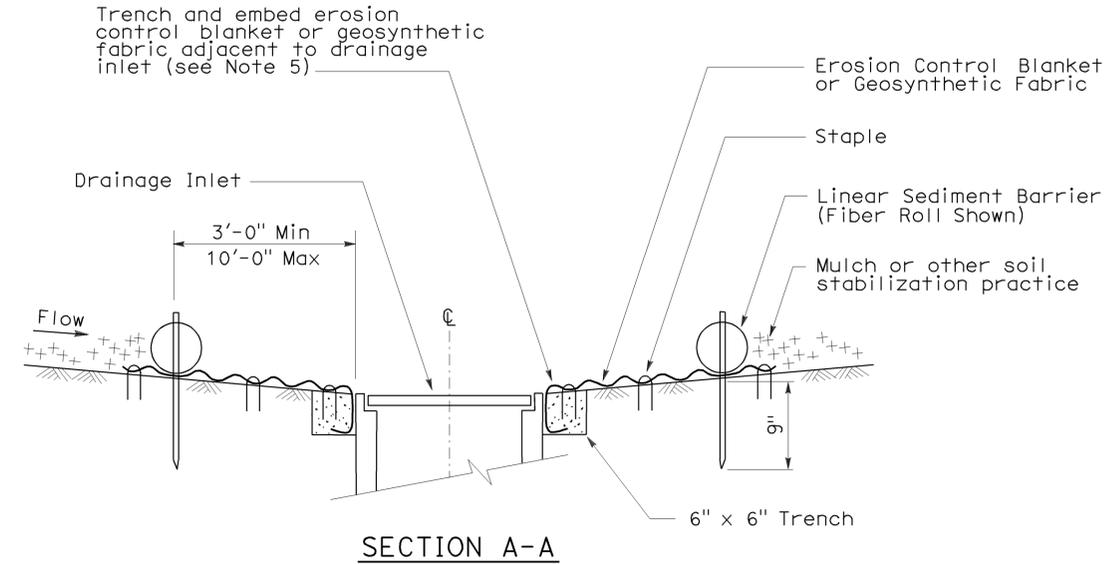
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT

August 15, 2008
 PLANS APPROVAL DATE

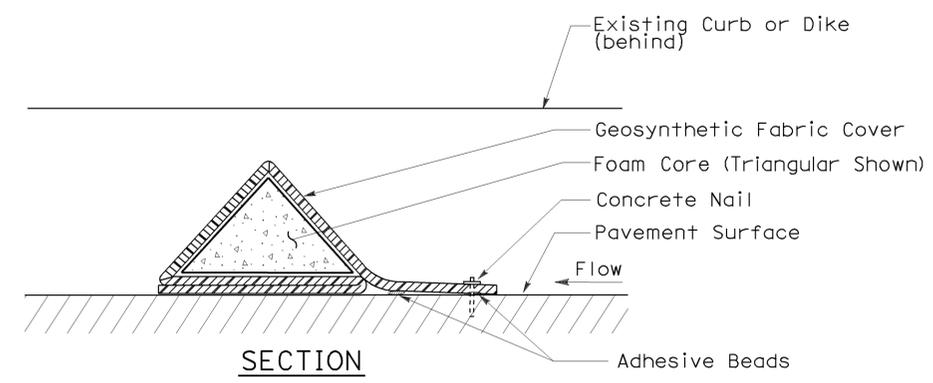
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To accompany plans dated 1-30-12

STATE OF CALIFORNIA
 LICENSED LANDSCAPE ARCHITECT
 Robert B. Schott
 11-04-08
 08-11-08



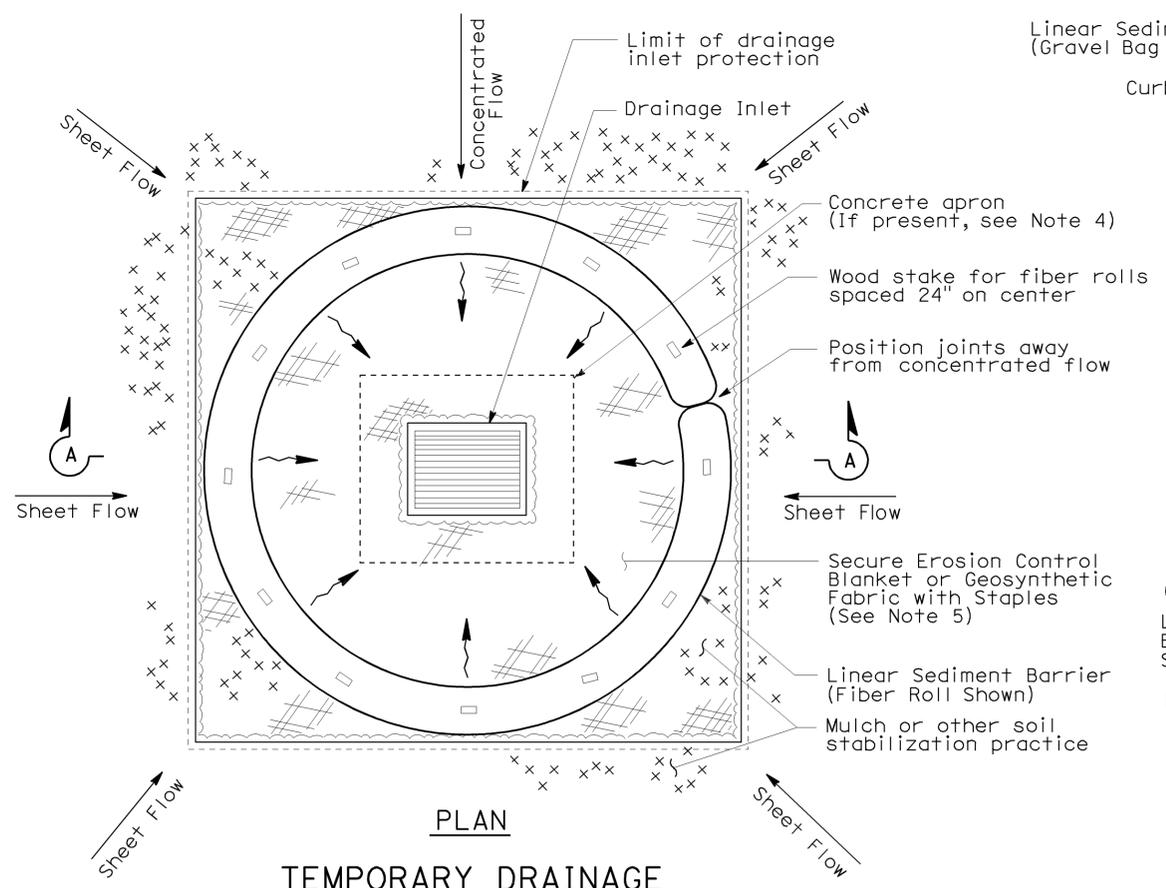
SECTION A-A



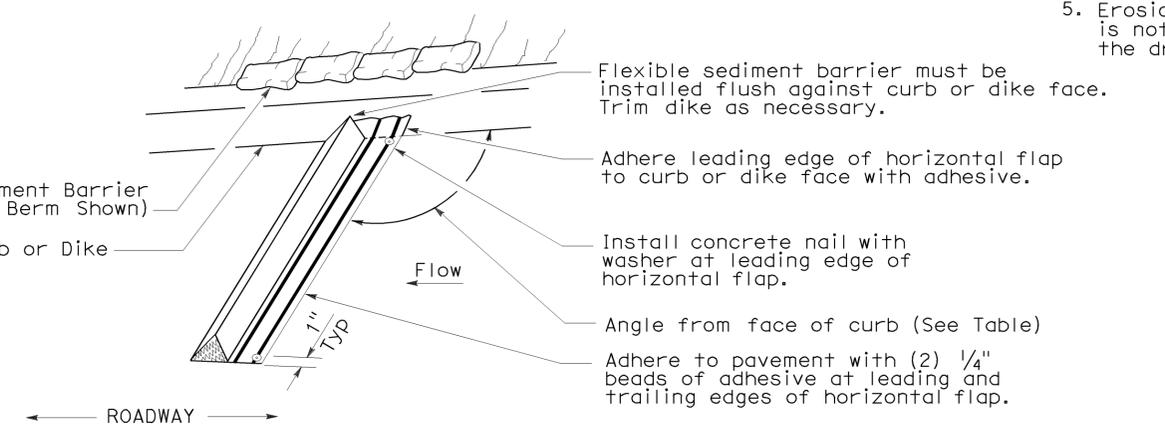
SECTION
 FLEXIBLE SEDIMENT BARRIER DETAIL
 (FOAM BARRIER SHOWN)

NOTES:

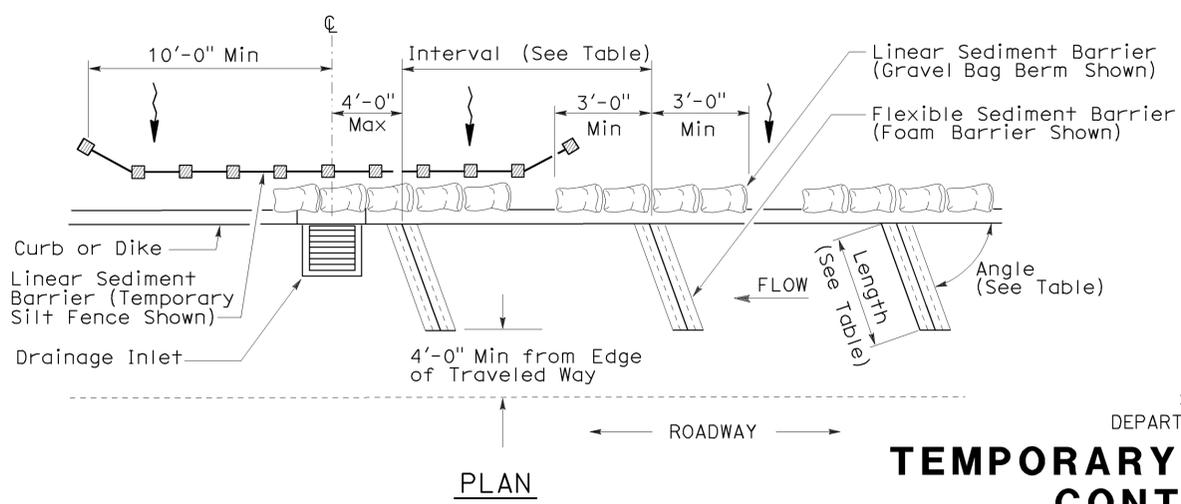
- See Standard Plan T51 for Temporary Silt Fence.
- Dimensions may vary to fit field conditions.
- Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
- Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
- Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.



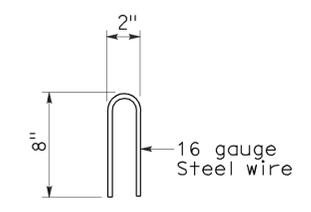
PLAN
 TEMPORARY DRAINAGE
 INLET PROTECTION (TYPE 4A)



PERSPECTIVE



PLAN
 TEMPORARY DRAINAGE
 INLET PROTECTION (TYPE 4B)
 FLEXIBLE SEDIMENT BARRIER



STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

**TEMPORARY WATER POLLUTION
 CONTROL DETAILS
 (TEMPORARY DRAINAGE
 INLET PROTECTION)**

NO SCALE
 NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS
 THE STANDARD PLANS BOOK DATED MAY 2006.

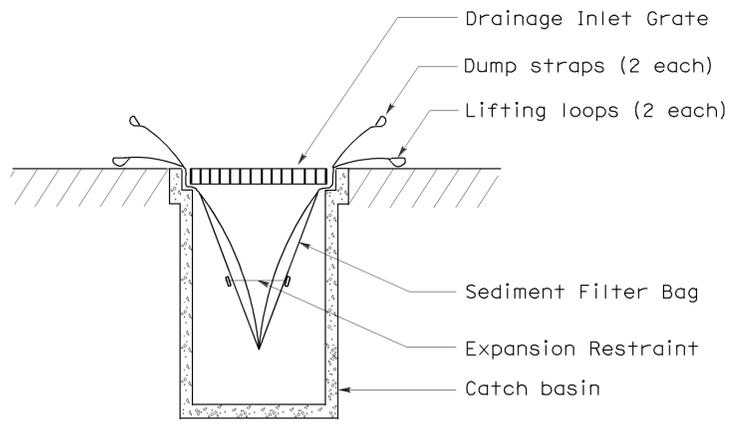
2006 NEW STANDARD PLAN NSP T63

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	82	14.3/19.2	39	42

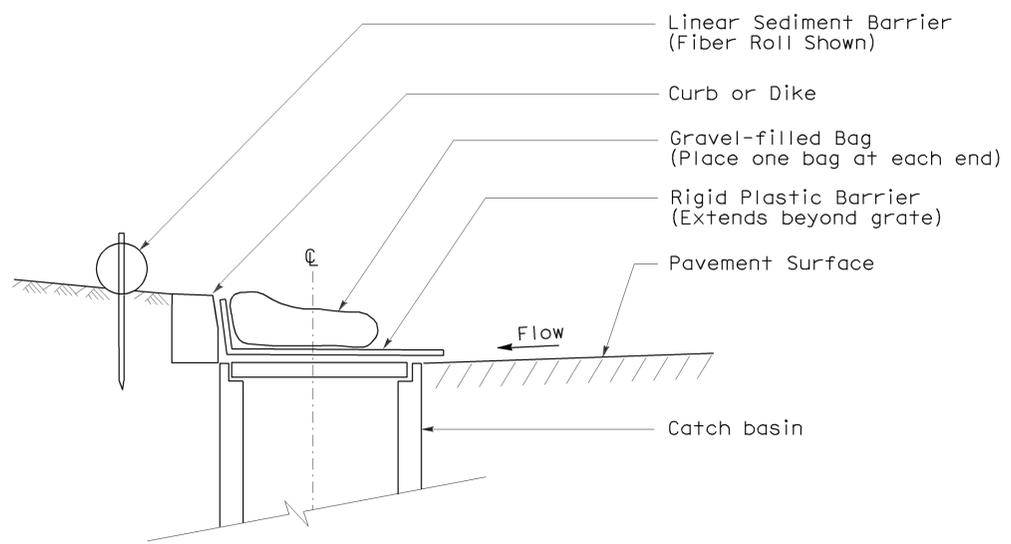
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
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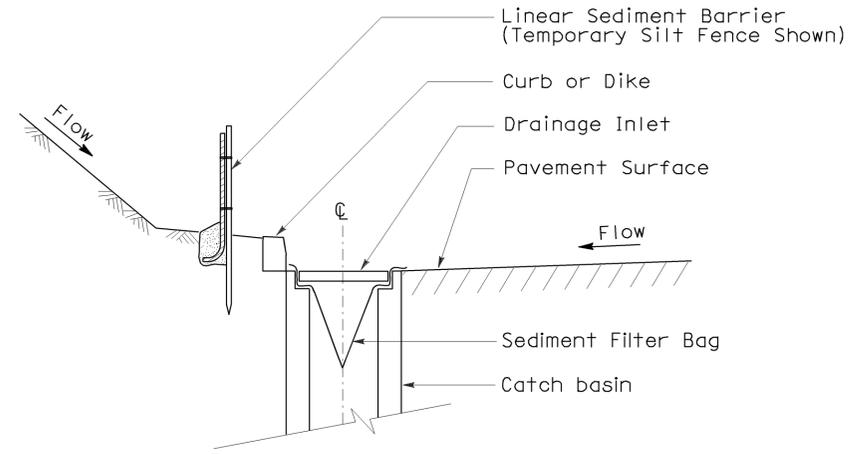
To accompany plans dated 1-30-12



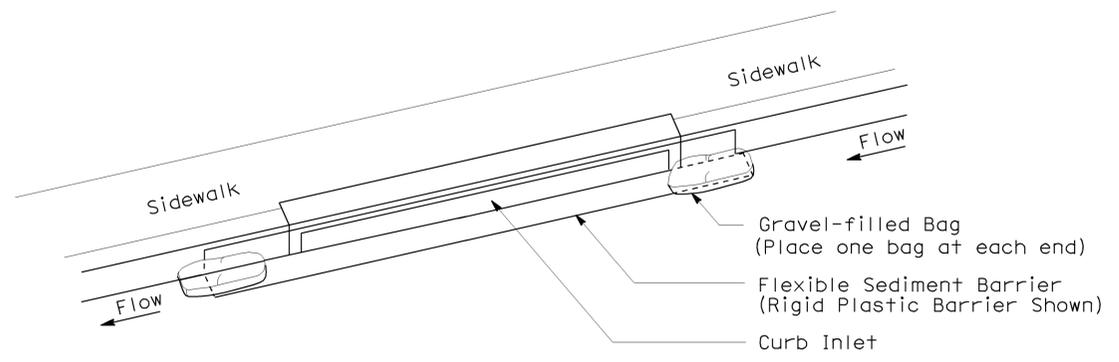
SECTION B-B
SEDIMENT FILTER BAG DETAIL



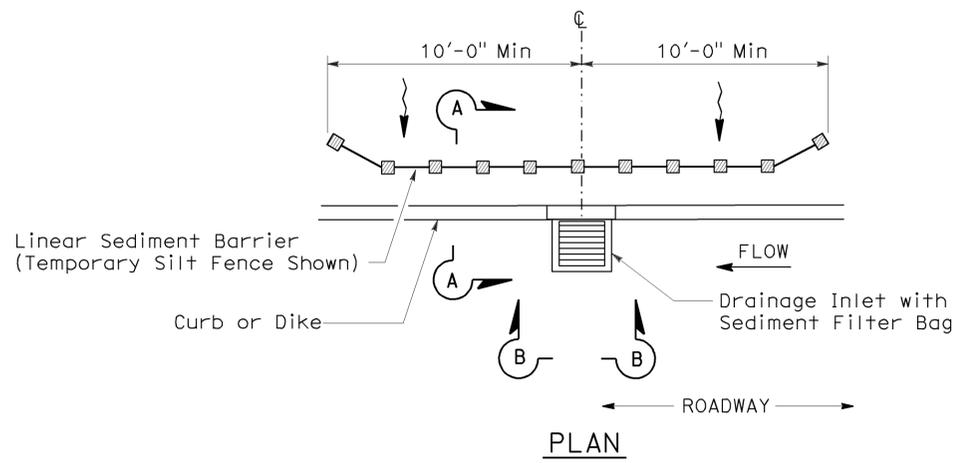
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



PERSPECTIVE
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

ELECTROLIERS

STANDARD TYPES		
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		
32		
35		
36-20A		

NOTES:

- Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
- Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
- Variations noted adjacent to symbol on project plans.

- Electrolier (see project notes or project plans)
- Luminaire on wood pole

STANDARD NOTES:

- 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 wire or rope.
- 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.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	82	14.3/19.2	40	42

Jeffrey G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Jeffrey G. McRae
REGISTERED PROFESSIONAL ENGINEER
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

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To accompany plans dated 1-30-12

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.
- Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

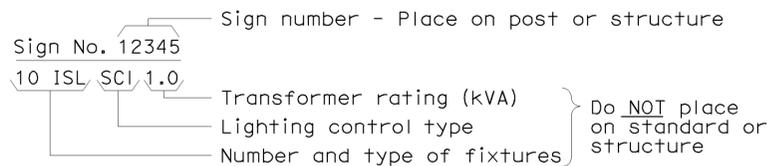
RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

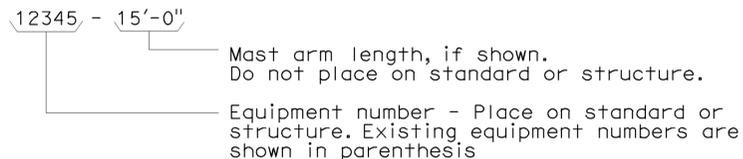
2006 REVISED STANDARD PLAN RSP ES-1A

EQUIPMENT IDENTIFICATION

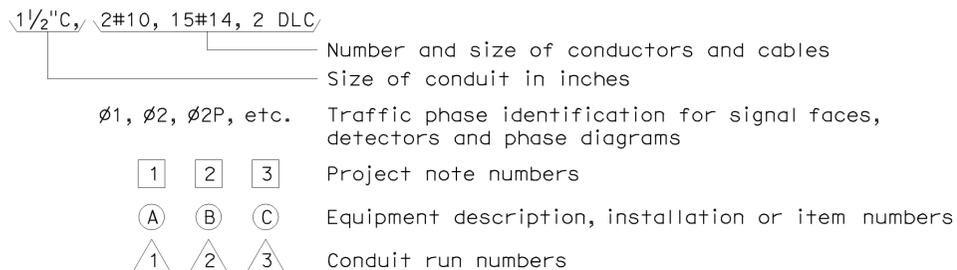
ILLUMINATED SIGN IDENTIFICATION NUMBER:



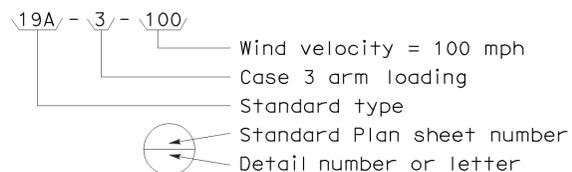
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



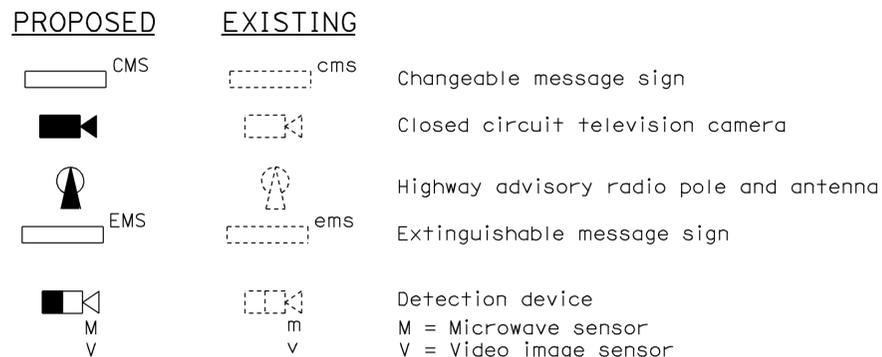
CONDUIT AND CONDUCTOR IDENTIFICATION:



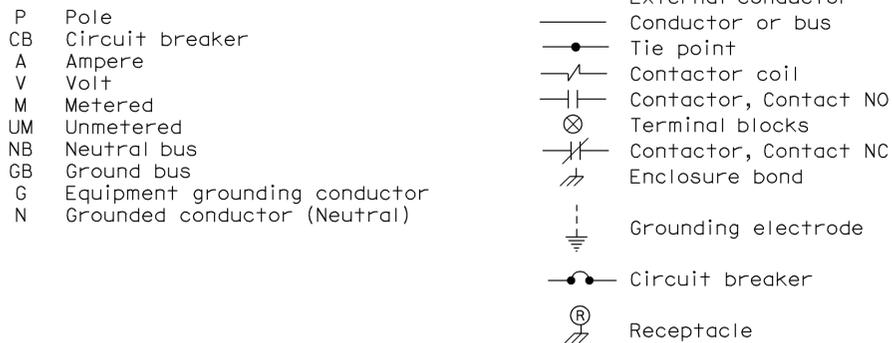
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



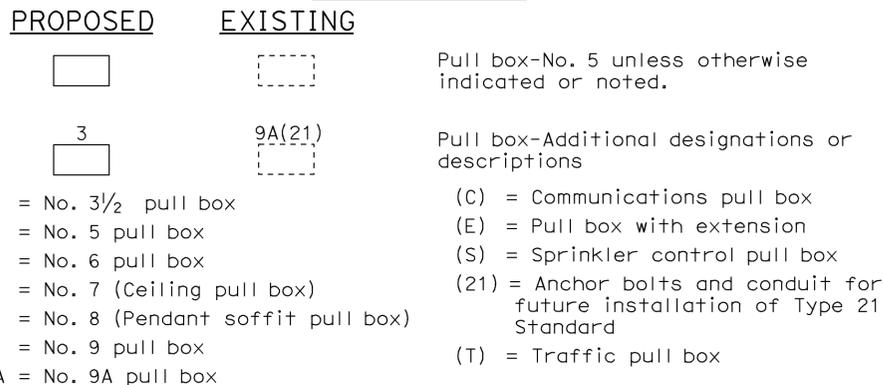
MISCELLANEOUS EQUIPMENT



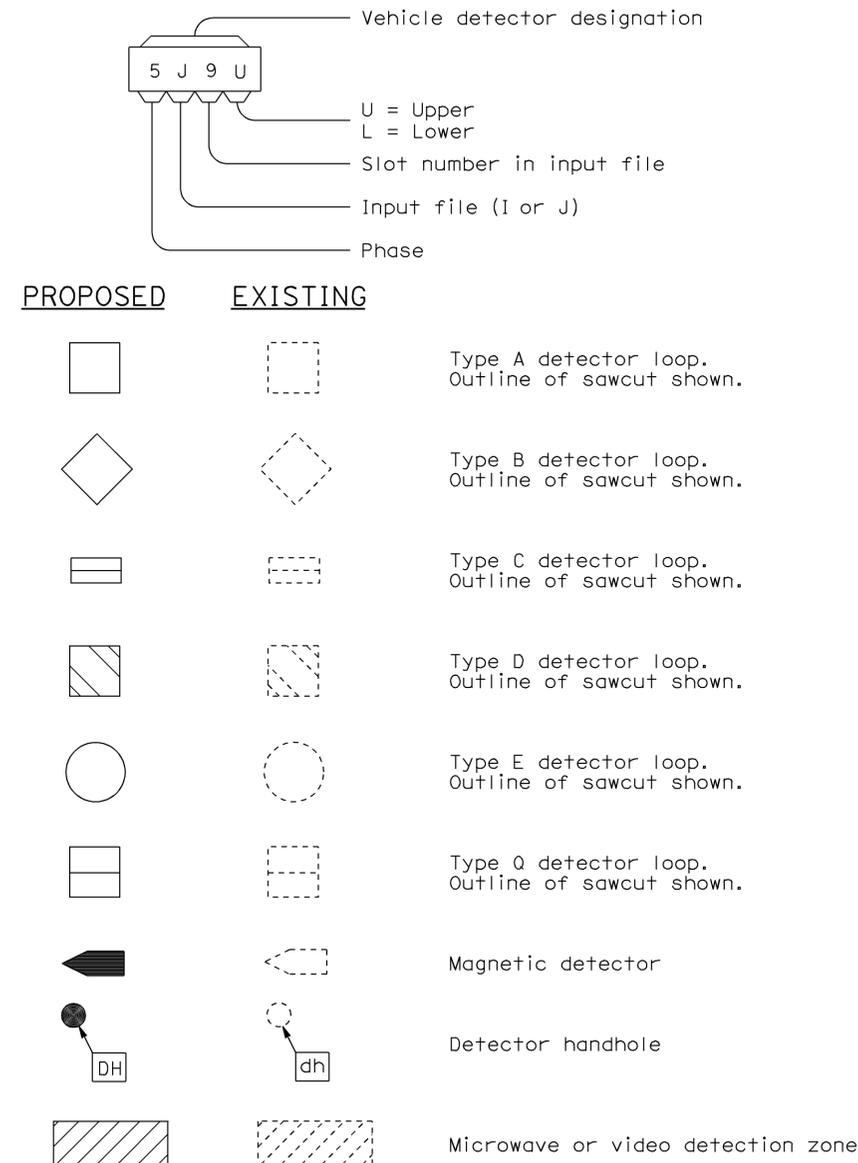
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
 DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	82	14.3/19.2	42	42

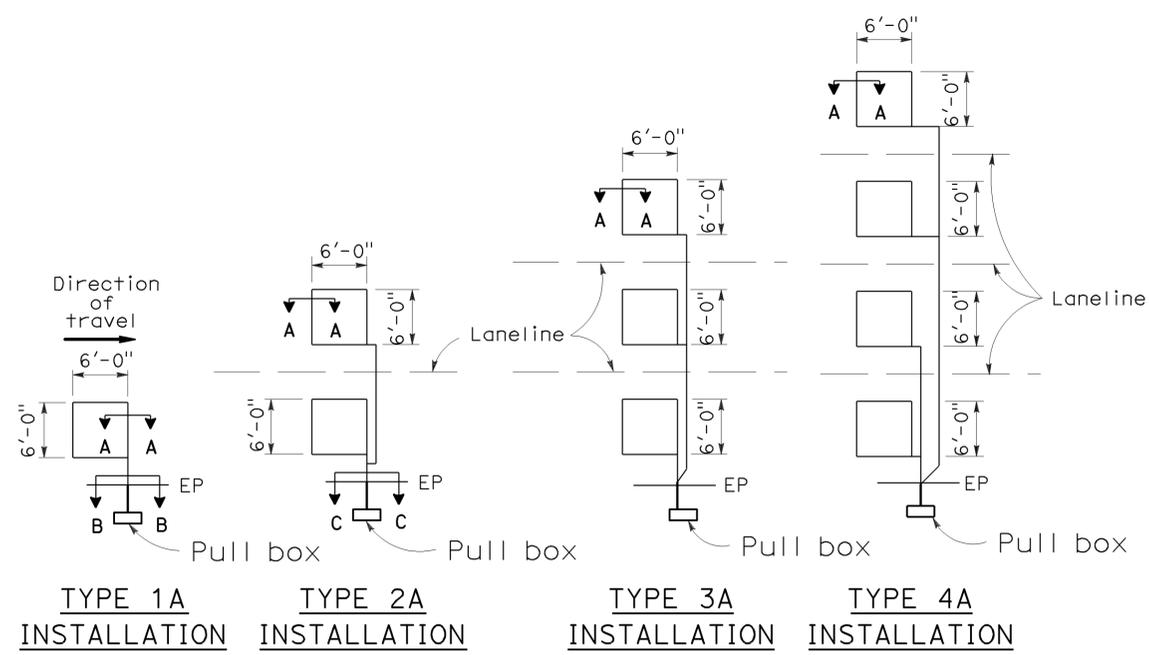
REGISTERED ELECTRICAL ENGINEER
 REGISTERED PROFESSIONAL ENGINEER
 Jeffery G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

October 5, 2007
 PLANS APPROVAL DATE

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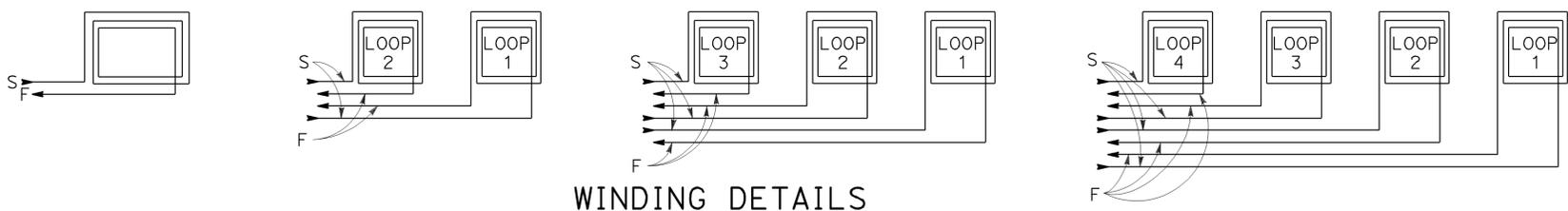
LOOP INSTALLATION PROCEDURE

- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
- Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.



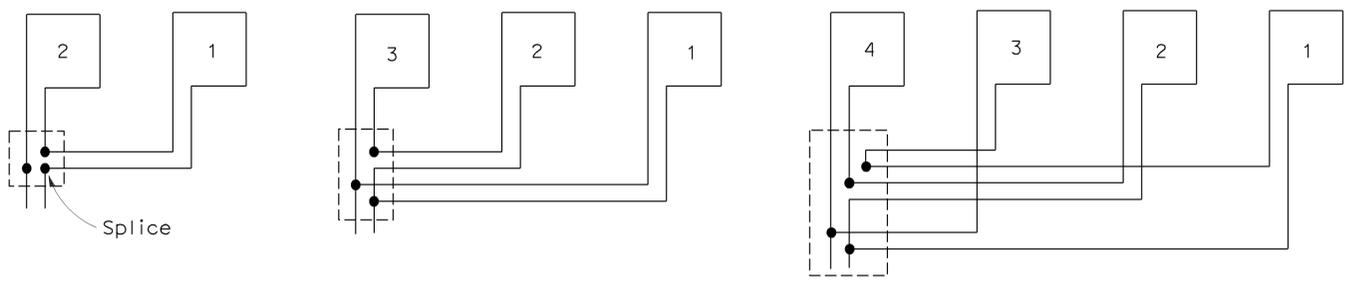
SAWCUT DETAILS

- (Type A loop detector configurations illustrated)
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



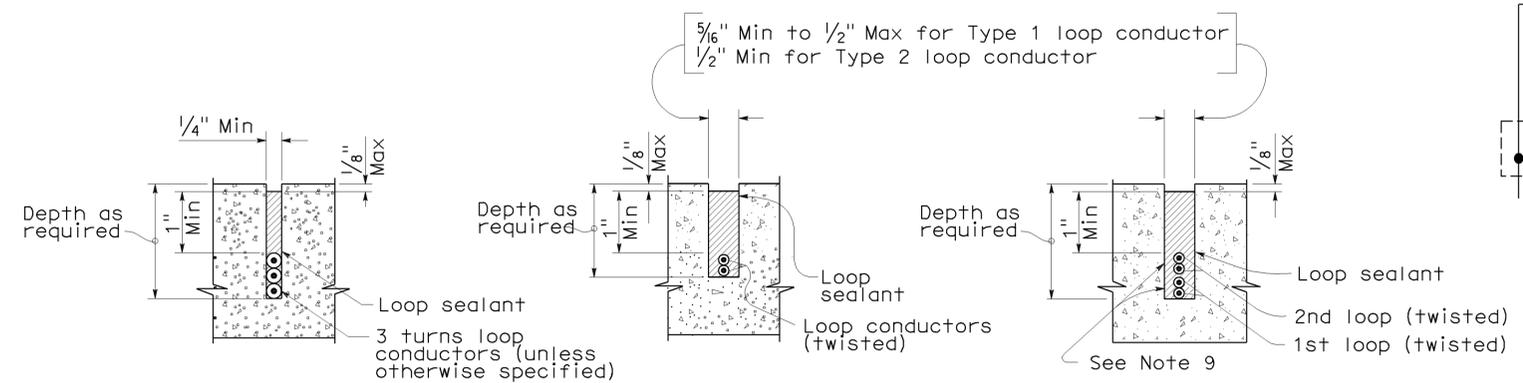
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A
 SECTION B-B
 SECTION C-C
 SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-5A