Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	1	14

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE SHEET AND LOCATION MAP
2	TYPICAL CROSS SECTION AND CONSTRUCTION DETAILS
3	CONSTRUCTION AREA SIGNS AND SUMMARY OF QUANTITIES
4-10	ELECTRICAL PLANS
11-12	TRAFFIC CONTROL SYSTEM
13-14	REVISED STANDARD 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

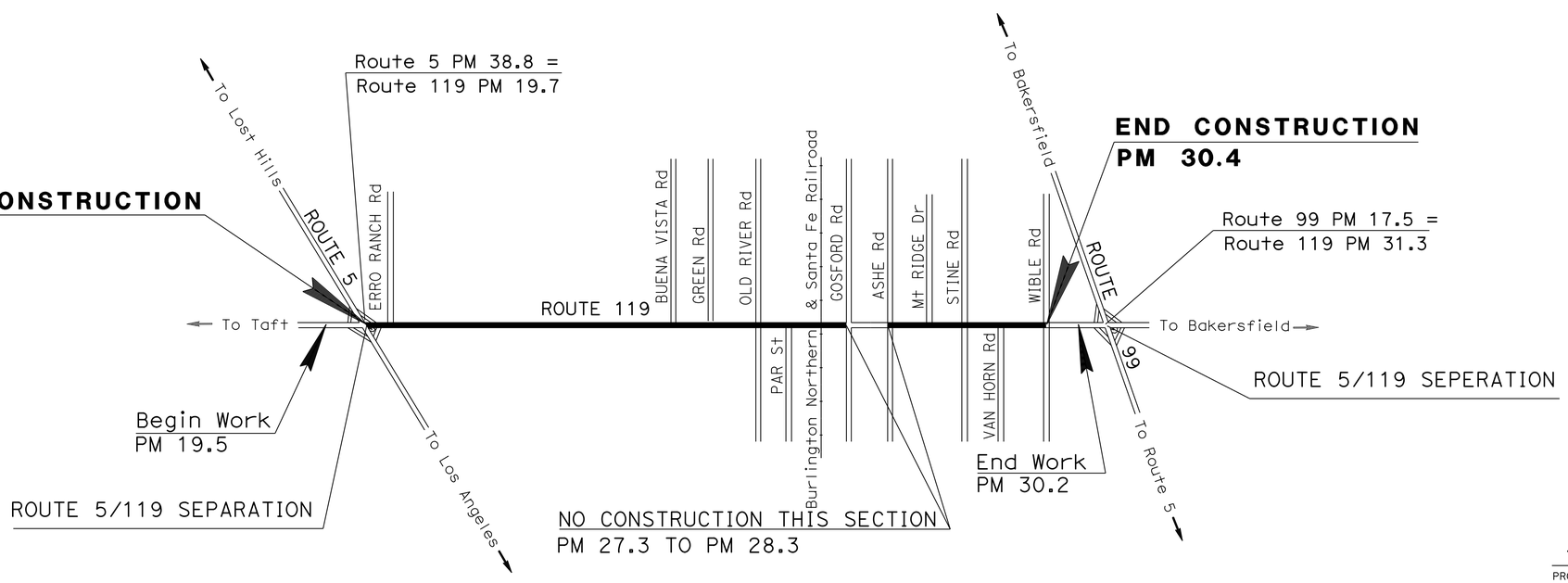
IN KERN COUNTY NEAR BAKERSFIELD

FROM ROUTE 5/119 SEPARATION

TO WIBLE ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

LOCATION MAP



PROJECT MANAGER: BILL MOSES

DESIGN ENGINEER: FRANK GONZALEZ

01-13-13

PROJECT ENGINEER REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER — Jose Victor Echeveste — No. 50825 — Exp. 09-30-13 — CIVIL — STATE OF CALIFORNIA

February 11, 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.

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

NO SCALE

CONTRACT No.	06-0Q3604
PROJECT ID	0613000060

LAST REVISION 02-11-13

DATE PLOTTED => 13-FEB-2013
TIME PLOTTED => 10:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	2	14

REGISTERED CIVIL ENGINEER 01-13-13 DATE

2-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Jose Victor Echeveste No. 50825 Exp. 09-30-13 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.

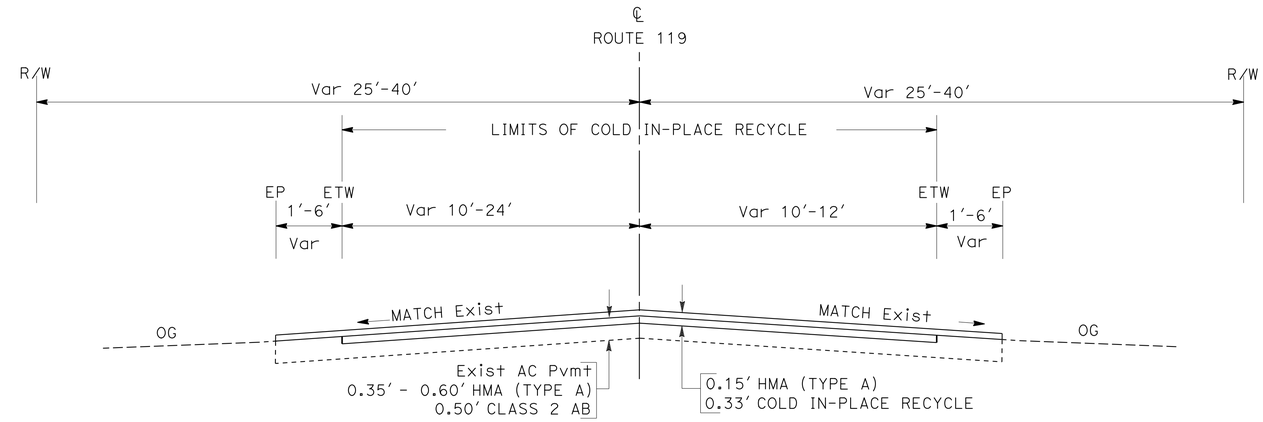
NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
3. FOR LOCATION OF HMA (MISCELLANEOUS AREA) AND COLD PLANING AC PAVEMENT SEE PLAN SHEET Q-1.
4. FOR MEASUREMENT OF WIDTH OF THE INTERSECTING STREET OR DRIVEWAY SEE PLAN SHEET Q-1.

LEGEND:

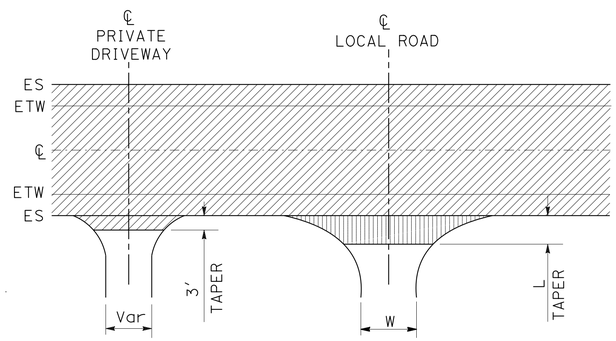
0.10' HMA (TYPE A)

0.10' Max COLD PLANE AC PAVEMENT
0.10' HMA (TYPE A)

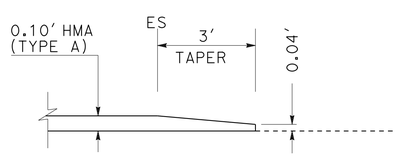


ROUTE 119
PM 19.7 TO 30.4

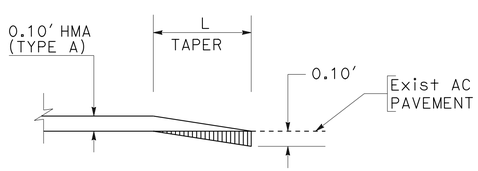
PRIVATE DRIVEWAY INTERSECTIONS		
ROUTE	PM	SIDE
119	23.4	R†
	28.0	R†/L†
	28.1	R†
	29.0	R†
	29.0	R†
	29.0	R†
	29.0	L†



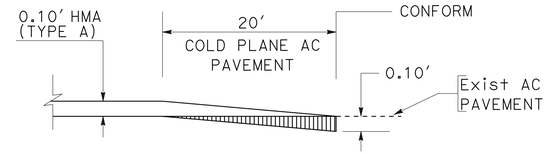
TYPICAL INTERSECTION WORK



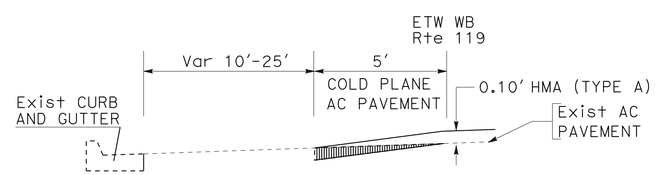
PRIVATE DRIVEWAY CONFORM TAPER



LOCAL ROAD CONFORM TAPER



TYPICAL LONGITUDINAL TRANSITION AT PM 19.7, 27.3, 28.3, 30.4, AND RAILROAD CROSSING (PM 26.8)



TYPICAL TRANSVERSE TRANSITION AT Mt RIDGE Dr (WB) PM 28.6 TO 28.9 AND AT ERRO RANCH Rd (WB) PM 19.8 TO 20.2

LOCAL ROAD CONFORN TAPER, TRANSVERSE CONFORM TAPER AT BEGIN AND END CONSTRUCTION

PM	SIDE	LOCATION	"L"	"W"	COLD PLANE AC PAVEMENT
			LF	LF	SQYD
19.7		BEGIN	20	28	62
20.2	L†	ERRO RANCH Rd	5	1000	556
25.3	L†	BUENA VISTA Rd	20	25	56
25.8	L†	GREEN Rd	20	20	44
26.3	R†/L†	OLD RIVER Rd	20	25	56
26.4	R†	PAR St	20	25	56
26.8		RAILROAD X-ING	20	28	62
27.3		END	20	28	62
28.3		BEGIN	20	28	62
28.8	R†/L†	ASHE Rd	15	25	42
29.3		Mt RIDGE Dr	5	1000	556
29.8	R†/L†	STINE Rd	15	25	42
30.4	R†	VAN HORN Rd	20	25	56
30.4		END	20	28	62
TOTAL					1772

TYPICAL CROSS SECTIONS AND CONSTRUCTION DETAILS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: FRANK GONZALEZ
CALCULATED-DESIGNED BY: PANAYIOTIS K STRATARAS
CHECKED BY: JOSE VICTOR ECHEVESTE
REVISED BY / DATE REVISED

LAST REVISION 02-11-13
DATE PLOTTED => 13-FEB-2013
TIME PLOTTED => 10:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	3	14

REGISTERED CIVIL ENGINEER 01-13-13 DATE

2-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Jose Victor Echeveste No. 50825 Exp. 09-30-13 CIVIL STATE OF CALIFORNIA

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NOTES:

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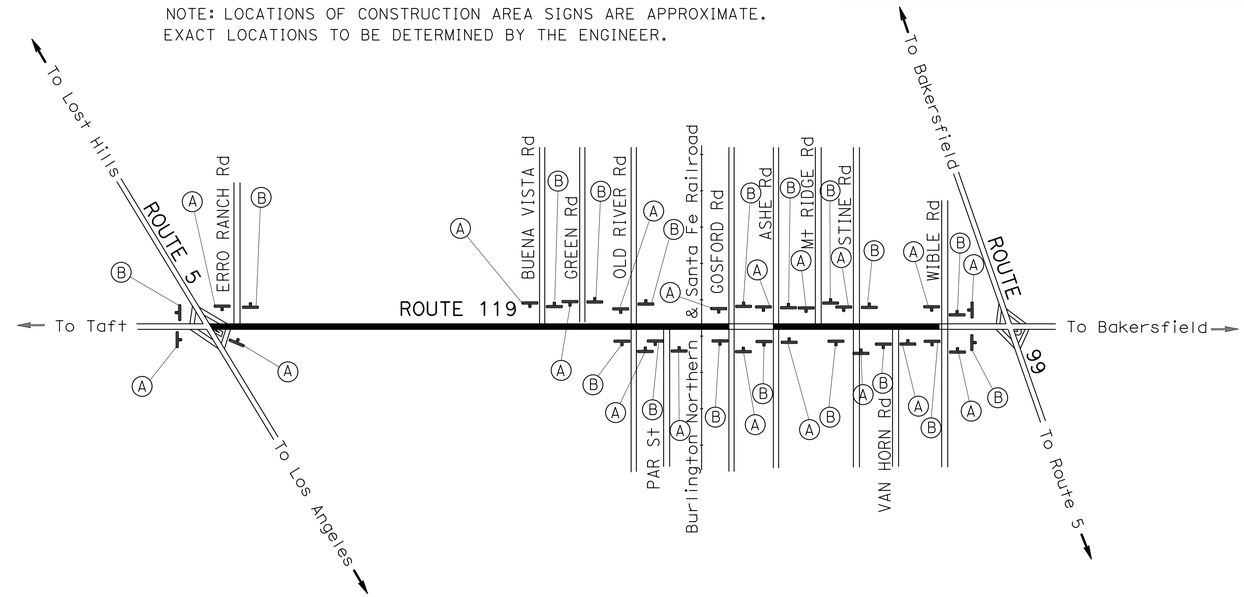
3. FOR LOCATION OF HMA (MISCELLANEOUS AREA) AND COLD PLANING AC PAVEMENT SEE PLAN SHEET Q-1.
4. FOR MEASUREMENT OF WIDTH OF THE INTERSECTING STREET OR DRIVEWAY SEE PLAN SHEET Q-1.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST AND SIZE	No. SIGNS
A	W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 4"	19
B	G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	18

NOTE: LOCATIONS OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.



ROADWAY QUANTITIES

EMULSIFIED RECYCLING AGENT	SAND COVER	ASPHALTIC EMULSION (FOG SEAL COAT)	COLD IN-PLACE RECYCLING	HOT MIX ASPHALT (TYPE A)	RECYCLING ADDITIVE (CEMENT)
(TON)	(TON)	(TON)	(SQYD)	(TON)	(TON)
930	108	82	143,400	17,500	320

PAVEMENT DELINEATION QUANTITIES

DETAIL No.	THERMOPLASTIC TRAFFIC STRIPE				PAVEMENT MARKER (RETROREFLECTIVE)			THERMOPLASTIC PAVEMENT MARKING	
	8" (SOLID)	4" (SOLID)	4" (BROKEN 12 - 3)	4" (BROKEN 36 - 12)	TYPE D	TYPE G	TYPE H		
	LF	LF	LF	LF	EA	EA	EA	DESCRIPTION	SQFT
6				35,000	750			2 - SLOW	46
19		9,000		9,000	200		400	2 - SCHOOL	70
22		24,000			2,000			2 - XING	42
27B		113,000						4 - SIGNAL	128
27C			2,500					4 - AHEAD	121
29		14,000			600			CROSSWALK	75
38	6,000					250		7 - CHEVRONS	40
								2 - RAILROAD SYMBOL	240
								2 - TYPE V ARROW	66
								3 - TYPE III (R) ARROW	126
								31 - TYPE III (L) ARROW	1302
SUBTOTAL					3,550	250	400		2256
TOTAL	6,000	160,000	2,500	44,000	4,200				2256

CONSTRUCTION AREA SIGNS AND SUMMARY OF QUANTITIES

NO SCALE

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: FRANK GONZALEZ
CALCULATED-DESIGNED BY: PANAYIOTIS K STRATARAS
CHECKED BY: JOSE VICTOR ECHEVESTE
REVISED BY
DATE REVISED

LAST REVISION 01-25-13
DATE PLOTTED => 13-FEB-2013
TIME PLOTTED => 10:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	4	14

David C. Arias 02-05-13
REGISTERED ELECTRICAL ENGINEER DATE

2-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER David C. Arias No.15559 Exp.12/31/13 ELECTRICAL 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:

1 Exist 120/240 V, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE.

2 Exist MODEL 334L CONTROLLER CABINET.

3 INSTALL LOOP DETECTORS FOR LEFT TURN LANE AS SHOWN IN DETAIL E ON SHEET E-6.

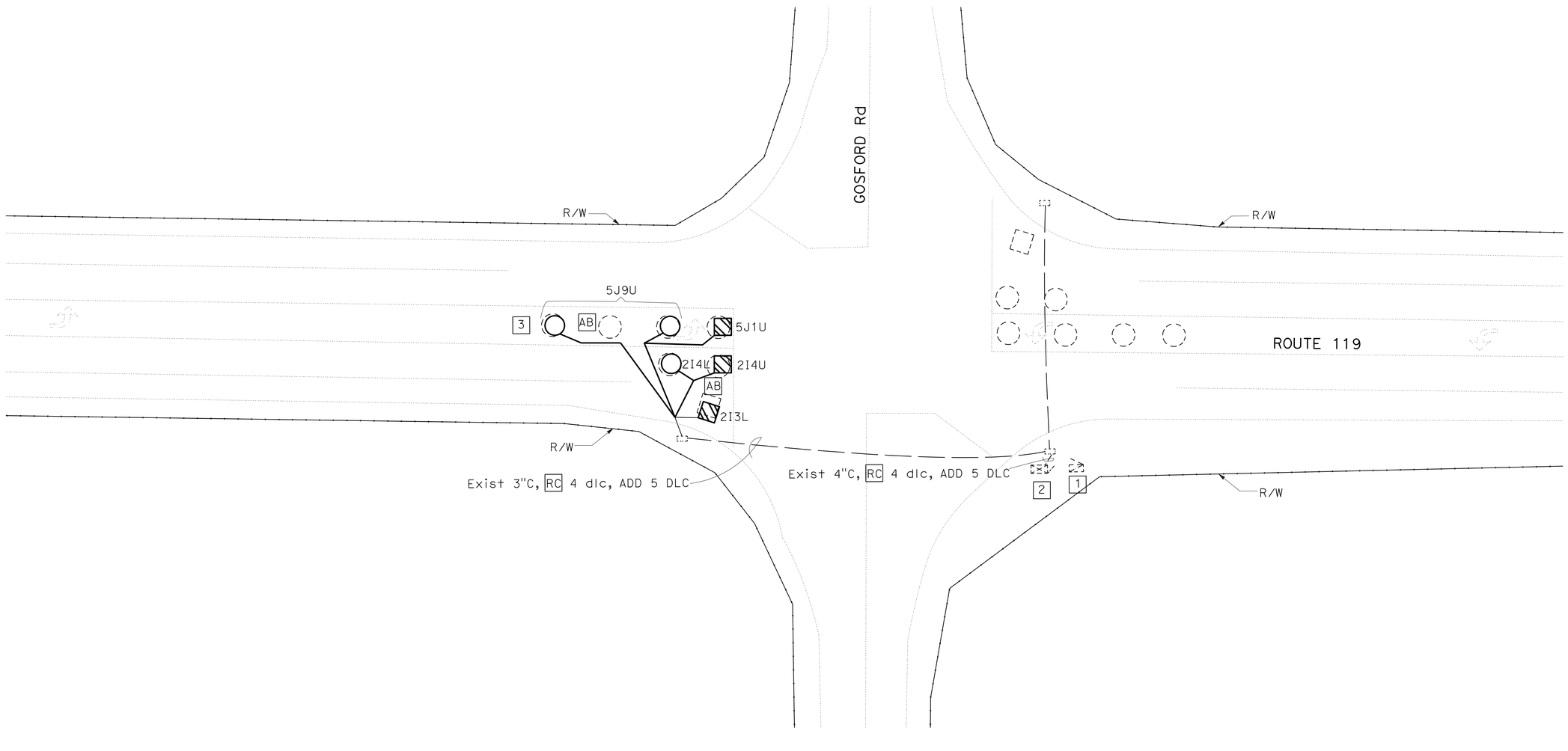
4 LOOP DETECTORS AND PIEZO AXLE SENSORS MUST BE INSTALLED AND IDENTIFIED AS SHOWN IN DETAILS A, B, C, AND D ON SHEET E-6.

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. Exist SIGNAL NOT SHOWN.

ABBREVIATION:

STC - SCREENED TRANSMISSION CABLE



MODIFY SIGNAL
E-1

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1"=20'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: FRANK GONZALEZ

CALCULATED-DESIGNED BY: ARTURO ARIAS
CHECKED BY: DAVID C. ARIAS

REVISED BY | DATE REVISED

LAST REVISION 02-05-13 | DATE PLOTTED => 13-FEB-2013 | TIME PLOTTED => 10:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	5	14

David C. Arias 02-05-13
REGISTERED ELECTRICAL ENGINEER DATE

2-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
David C. Arias
No. 15559
Exp. 12/31/13
ELECTRICAL
STATE OF CALIFORNIA

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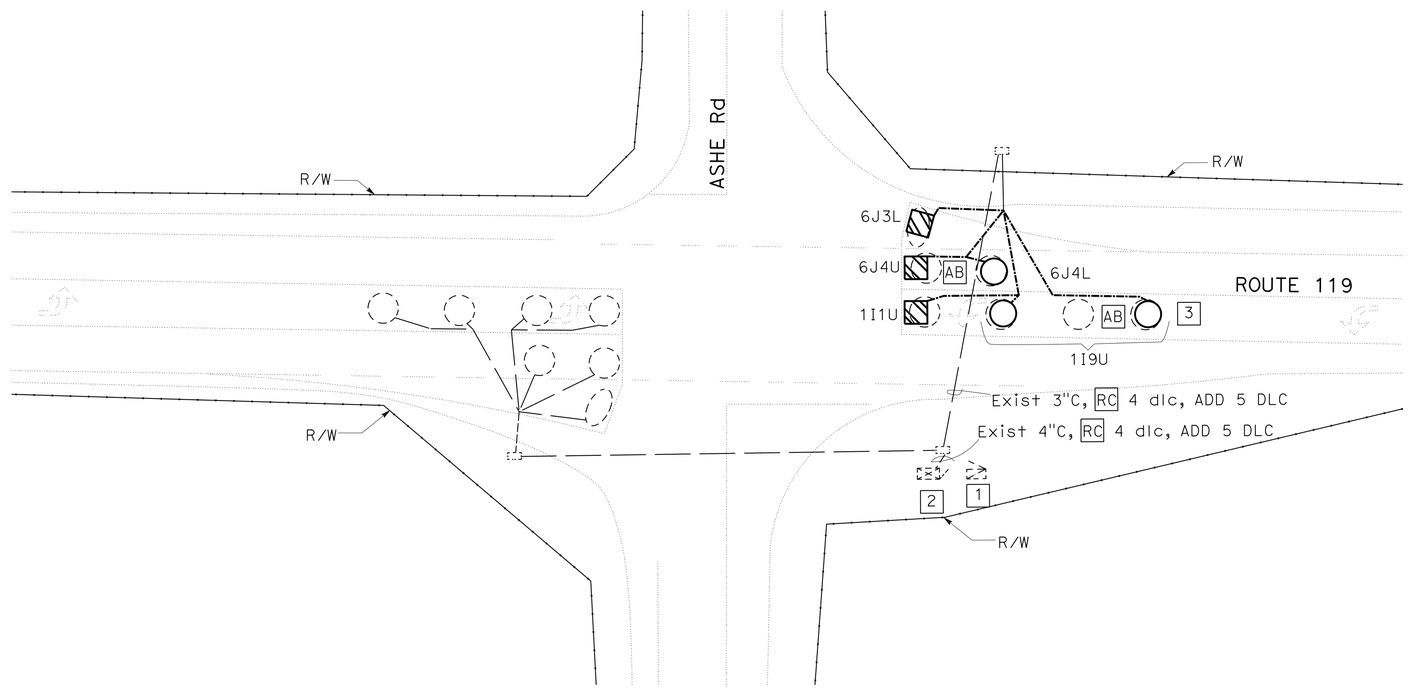

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1"=20'

MODIFY SIGNAL
E-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: FRANK GONZALEZ

CALCULATED-DESIGNED BY: ARTURO ARIAS
CHECKED BY: DAVID C. ARIAS

REVISED BY
DATE REVISED

LAST REVISION 02-05-13
DATE PLOTTED => 13-FEB-2013
TIME PLOTTED => 10:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	6	14

David C. Arias 02-05-13
REGISTERED ELECTRICAL ENGINEER DATE

2-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER David C. Arias No.15559 Exp.12/31/13 ELECTRICAL STATE OF CALIFORNIA

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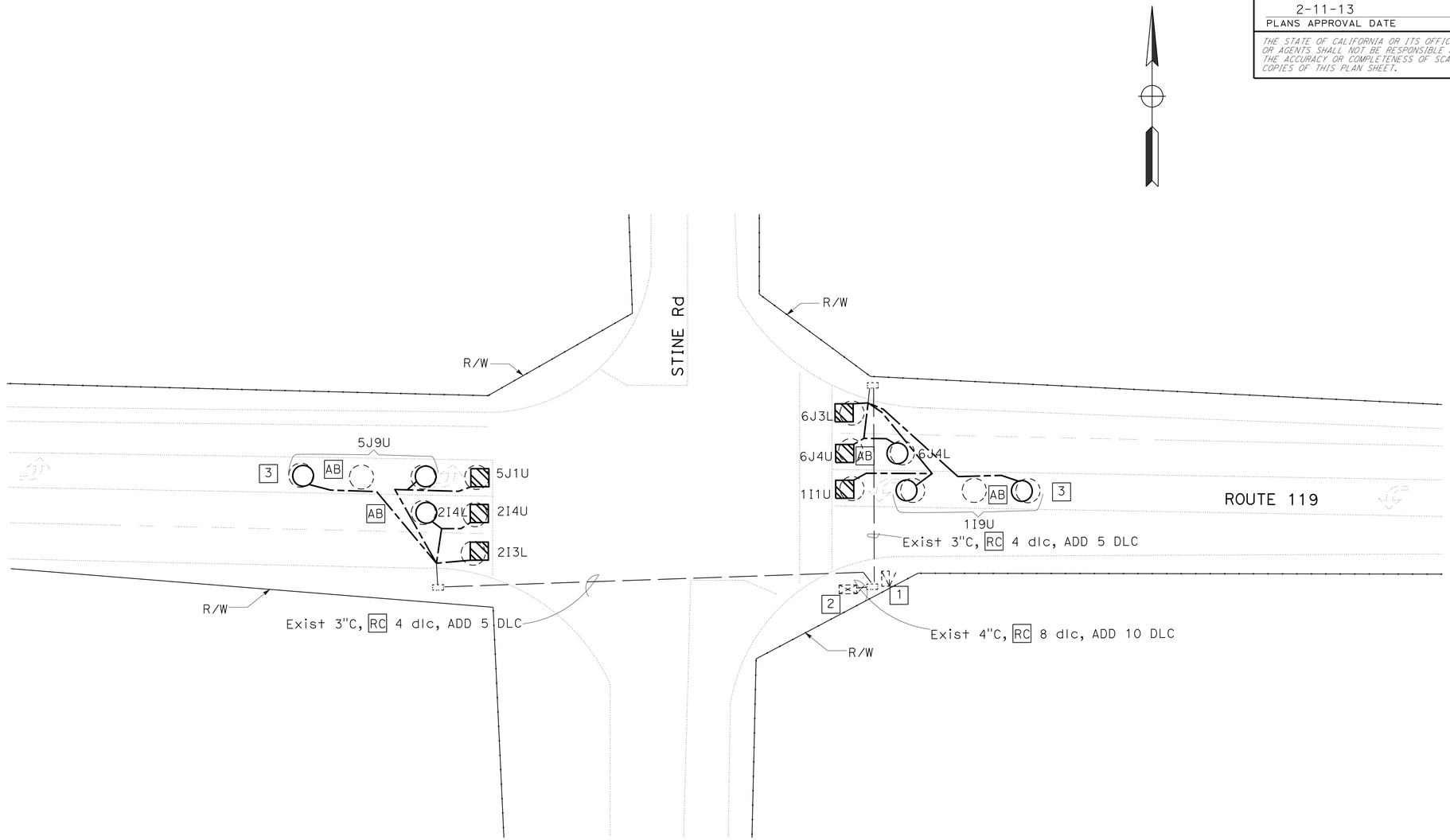

MODIFY SIGNAL
E-3

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1"=20'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: FRANK GONZALEZ
CALCULATED-DESIGNED BY: ARTURO ARIAS
CHECKED BY: DAVID C. ARIAS
REVISED BY
DATE REVISED

LAST REVISION 02-05-13
DATE PLOTTED => 13-FEB-2013
TIME PLOTTED => 10:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	7	14

David C. Arias 02-05-13
REGISTERED ELECTRICAL ENGINEER DATE

2-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
David C. Arias
No. 15559
Exp. 12/31/13
ELECTRICAL
STATE OF CALIFORNIA

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NOTE:

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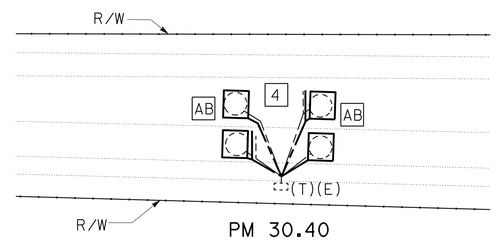

MODIFY VEHICLE CLASSIFICATION STATION

E-4

NO SCALE

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

CONSULTANT FUNCTIONAL SUPERVISOR: FRANK GONZALEZ
CALCULATED-DESIGNED BY: ARTURO ARIAS
CHECKED BY: DAVID C. ARIAS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 13-FEB-2013
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	8	14

David C. Arias 02-05-13
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2-11-13
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REGISTERED PROFESSIONAL ENGINEER
David C. Arias
No. 15559
Exp. 12/31/13
ELECTRICAL
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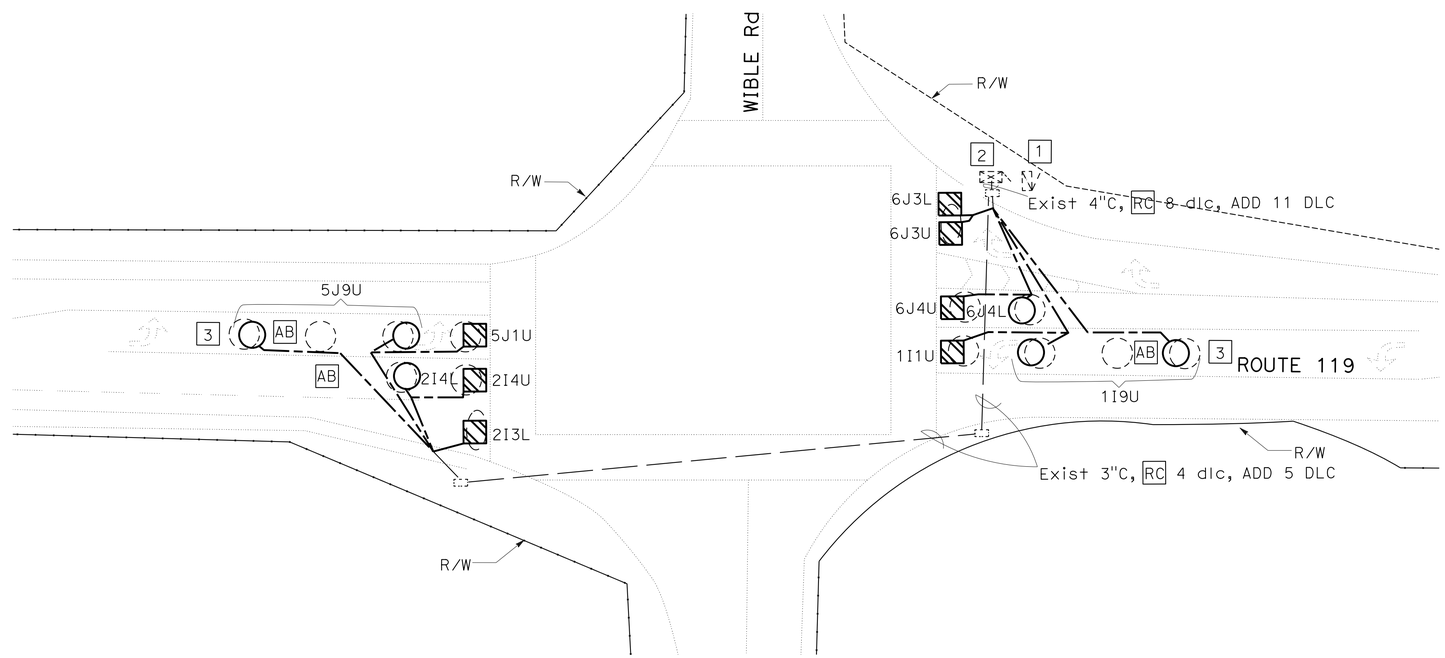

MODIFY SIGNAL

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1"=20'

E-5

REVISED BY | DATE REVISED

ARTURO ARIAS | DAVID C. ARIAS

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: FRANK GONZALEZ

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® MAINTENANCE DESIGN

LAST REVISION 02-05-13 | DATE PLOTTED => 13-FEB-2013 | TIME PLOTTED => 10:20

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06	Ker	119	19.7/30.4	9	14

David C. Arias 02-05-13
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2-11-13
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REGISTERED PROFESSIONAL ENGINEER David C. Arias No. 15559 Exp. 12/31/13 ELECTRICAL STATE OF CALIFORNIA

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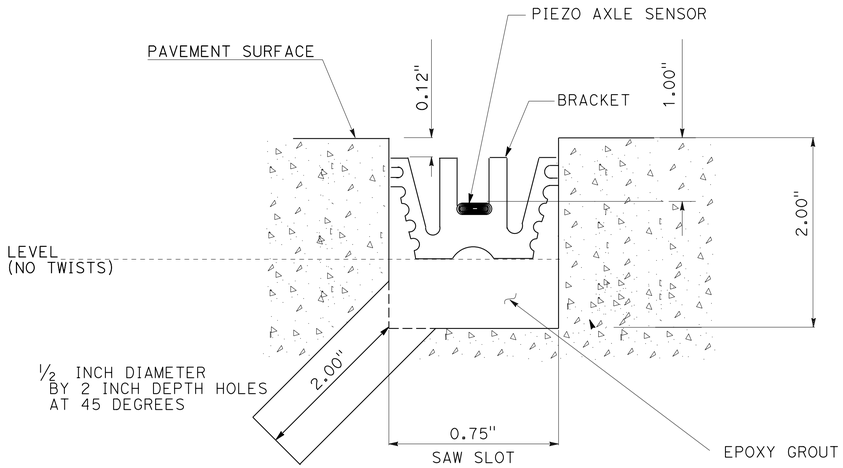
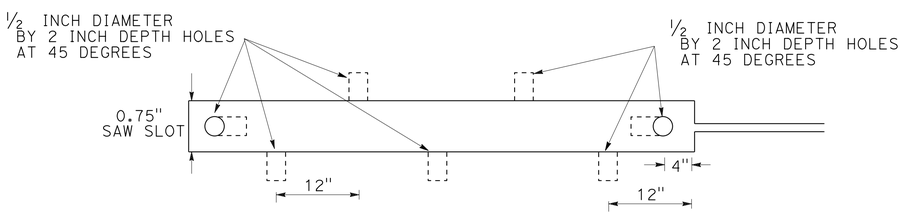
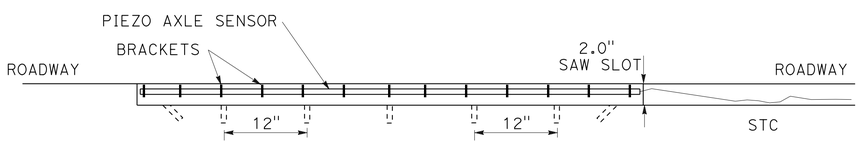


SECTION A-A



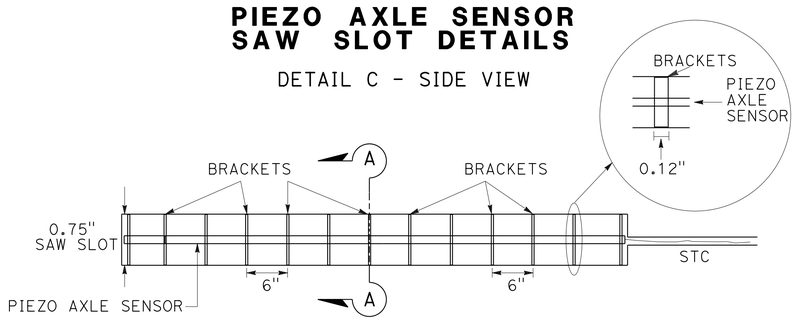
PIEZO AXLE SENSOR SAW SLOT DETAILS PIEZO AXLE SENSOR NOT SHOWN

DETAIL B - TOP VIEW



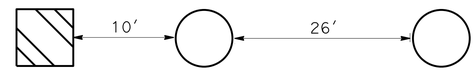
PIEZO AXLE SENSOR SAW SLOT DETAILS

DETAIL C - SIDE VIEW



PIEZO AXLE SENSOR INSTALLATION

DETAIL D - TOP VIEW



LOOP DETAIL (LEFT TURN LANE)

DETAIL E

INDUCTIVE LOOP DETECTOR SENSOR DESIGNATION

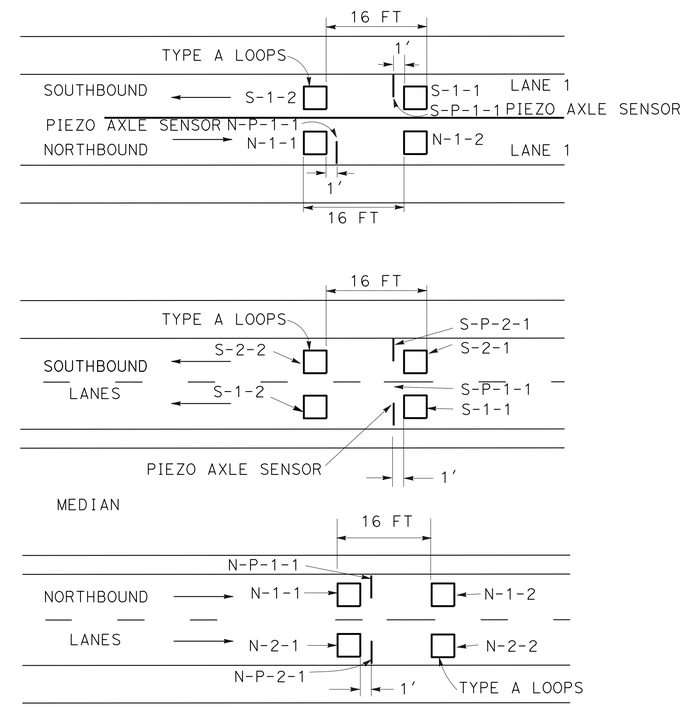
N-1-2

- DIRECTION OF TRAFFIC
  - N - NORTHBOUND , S - SOUTHBOUND
  - E - EASTBOUND , W - WESTBOUND
- 1 - ENTERING
  2 - LEAVING
- LANE NUMBER
  1 - FIRST LANE FROM LEFT
  2 - SECOND LANE

PIEZO AXLE SENSOR DESIGNATION

N-P-1-1

- DIRECTION OF TRAFFIC
  N - NORTHBOUND, S - SOUTHBOUND
  E - EASTBOUND, W - WESTBOUND
- PIEZO AXLE SENSOR
- 1 - FOR ALL PIEZO AXLE SENSORS
- LANE NUMBER
  1 - FIRST LANE FROM LEFT
  2 - SECOND LANE



LOOP DETECTOR AND PIEZO AXLE SENSOR PLACEMENT AND DESIGNATION

DETAIL A

ELECTRICAL DETAILS

E-6

NO SCALE

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

CONSULTANT FUNCTIONAL SUPERVISOR: FRANK GONZALEZ
CALCULATED-DESIGNED BY: ARTURO ARIAS
CHECKED BY: DAVID C. ARIAS
REVISED BY
DATE REVISED

LAST REVISION 02-05-13
DATE PLOTTED => 13-FEB-2013
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David C. Arias 02-05-13
REGISTERED ELECTRICAL ENGINEER DATE

2-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER David C. Arias No.15559 Exp.12/31/13 ELECTRICAL STATE OF CALIFORNIA

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NOTE:

THE QUANTITIES ON THIS SHEET ARE FOR INFORMATION ONLY AND ARE NOT SEPARATE PAY ITEMS.

MODIFY SIGNAL

SHEET No.	DLC	TYPE D DETECTOR LOOP	TYPE E DETECTOR LOOP
	LF	EA	EA
E-1	686	3	3
E-2	408	3	4
E-3	1,066	6	8
E-5	1,008	7	8

MODIFY VEHICLE CLASSIFICATION STATION

SHEET No.	STC	TYPE A DETECTOR LOOP	PIEZO AXLE SENSOR
	LF	EA	EA
E-4	50	4	2

ELECTRICAL QUANTITIES

E-7

REVISED BY | DATE REVISED

ARTURO ARIAS | DAVID C. ARIAS

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: FRANK GONZALEZ

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

LAST REVISION 02-05-13 | DATE PLOTTED => 13-FEB-2013 | TIME PLOTTED => 10:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	11	14

REGISTERED CIVIL ENGINEER 12-7-12 DATE

2-11-13
PLANS APPROVAL DATE

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

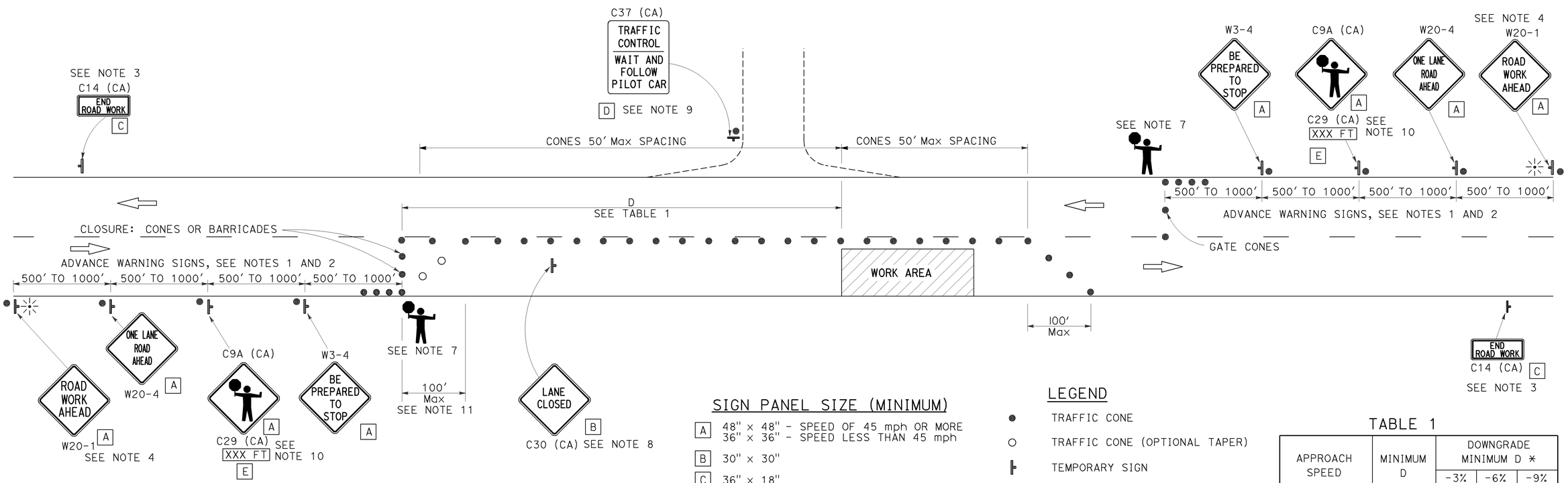
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

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

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

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



SIGN PANEL SIZE (MINIMUM)

- A — 48" x 48" - SPEED OF 45 mph OR MORE; 36" x 36" - SPEED LESS THAN 45 mph
- B — 30" x 30"
- C — 36" x 18"
- D — 36" x 42"
- E — 36" x 9"

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- TEMPORARY SIGN
- PORTABLE FLASHING BEACON
- FLAGGER

TABLE 1

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	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

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

NOTES:

1. Where approach speeds are low, advance warning signs may be placed at 300' spacing, and closer in urban areas.
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 C14 (CA) "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.
4. If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT _____MILES", use a W20-4 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. 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.
8. 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.
9. When a pilot car is used, place a C37 (CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign at all intersections within traffic control area. Signs shall be clean and visible at all times.
10. An optional C29 (CA) sign may be placed below the C9A (CA) sign.
11. Traffic cones or barricades may be placed on the optional taper as shown, barricades shall be Type I, II, or III.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

TCS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FUNCTIONAL SUPERVISOR | CALCULATED-DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 10-DEC-2012 | TIME PLOTTED => 09:45

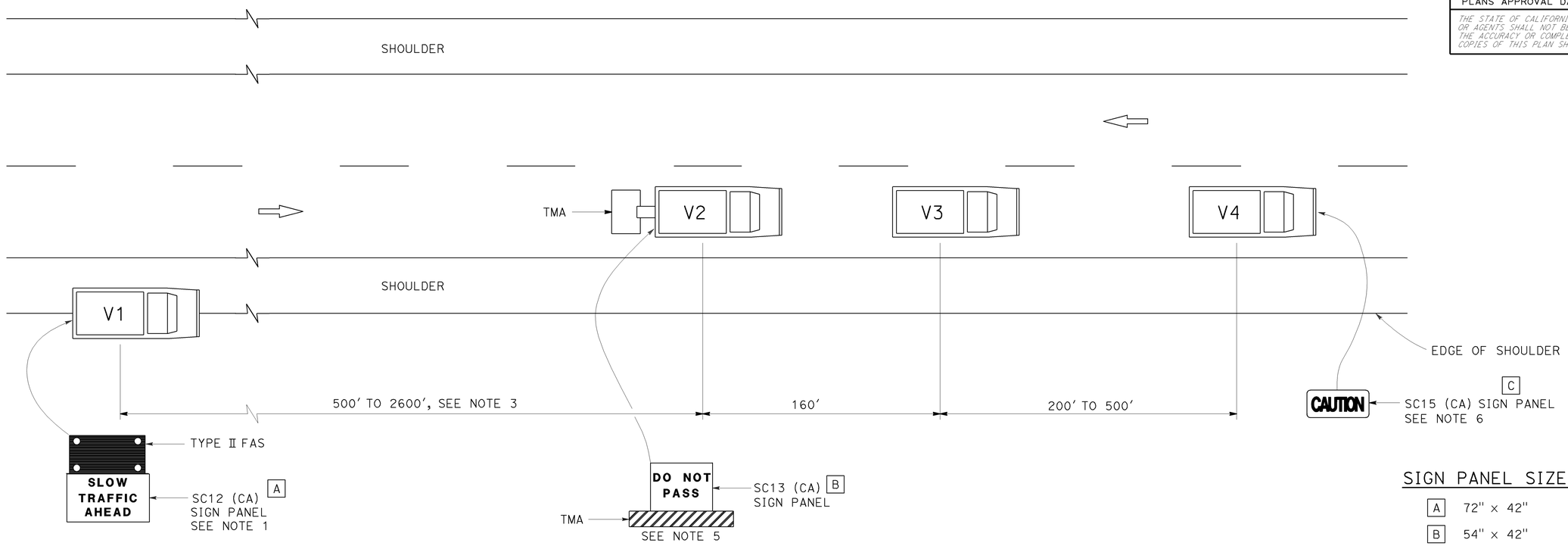
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	12	14

REGISTERED CIVIL ENGINEER 12-7-12 DATE

2-11-13
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.



SIGN PANEL SIZE (Min)

A	72" x 42"
B	54" x 42"
C	54" x 24"

LEGEND

V1	SIGN VEHICLE
V2	SHADOW VEHICLE
V3	WORK/APPLICATION VEHICLE
V4	SIGN VEHICLE
TMA	TRUCK-MOUNTED ATTENUATOR
	FLASHING ARROW SIGN (FAS) IN FLASHING CAUTION MODE

NOTES:

1. Either a changeable message sign or a SC12 (CA) "SLOW TRAFFIC AHEAD" sign shall be mounted on the rear of sign vehicle V1. A Type II flashing arrow sign may be used with the SC12 (CA) sign panel.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. Vehicle-mounted sign panels shall be Type III, IV VII, VIII or IX retroreflective sheeting, black on white, black on orange, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
5. Gross Vehicle Weight of shadow vehicle shall be a minimum of 20,000 pounds and shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.
7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2' or more from the centerline of the highway during the work or application operations.
9. All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
10. When multiple work vehicles are used in close proximity to each other, only one shadow vehicle is required and spacing between work vehicles shall be minimized in order to deter traffic from entering the closed lane.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON TWO LANE HIGHWAYS

NO SCALE

TCS-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 10-DEC-2012
TIME PLOTTED => 09:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	13	14

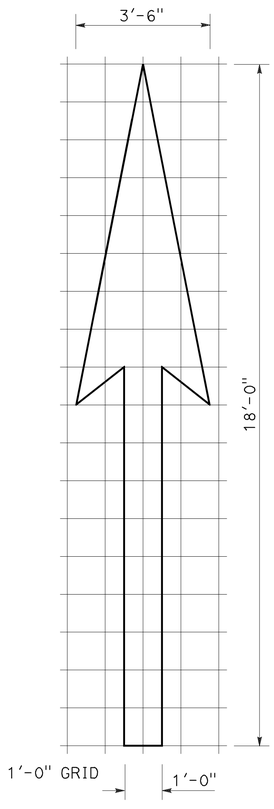
REGISTERED CIVIL ENGINEER

April 20, 2012
PLANS APPROVAL DATE

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

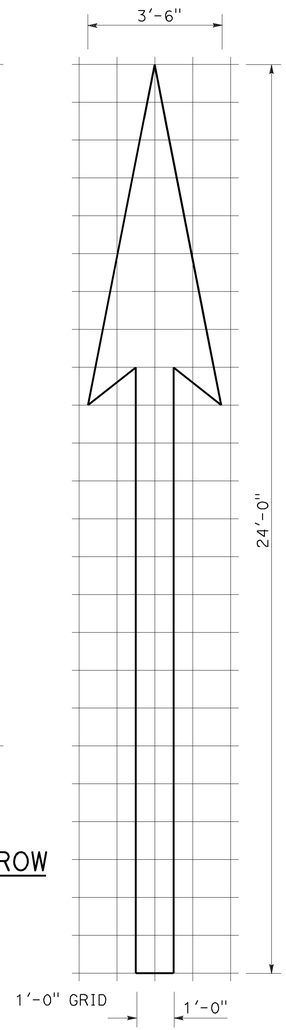
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 2-11-13



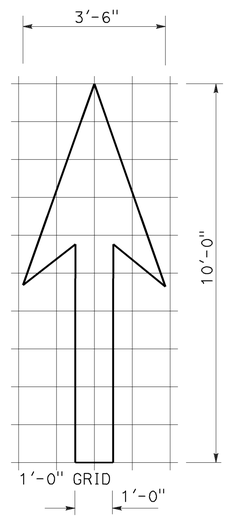
A=25 ft^2

TYPE I 18'-0" ARROW



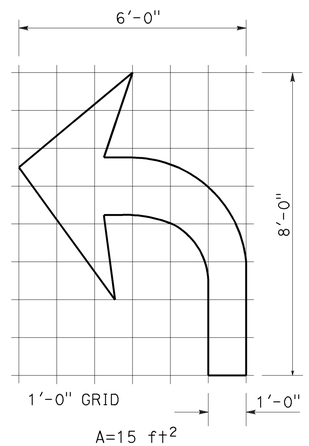
A=31 ft^2

TYPE I 24'-0" ARROW



A=14 ft^2

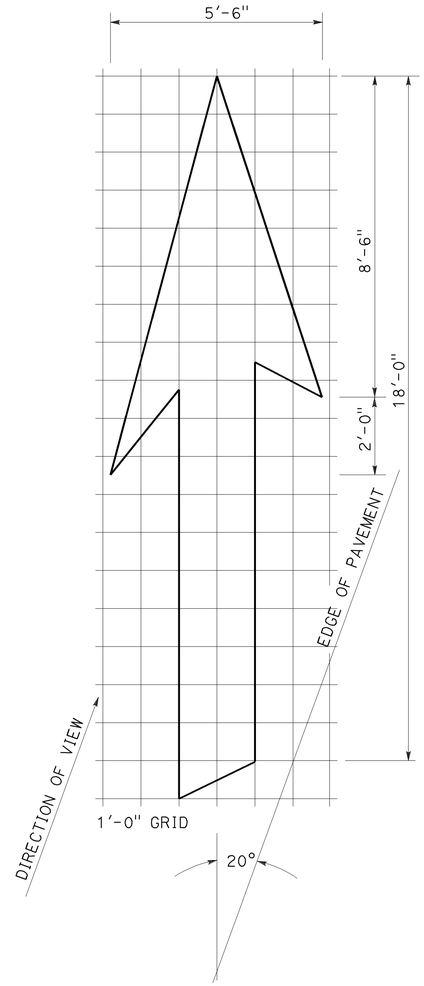
TYPE I 10'-0" ARROW



A=15 ft^2

TYPE IV (L) ARROW

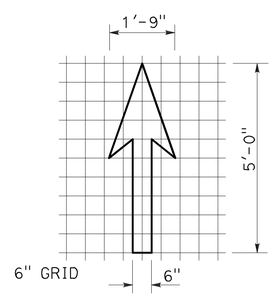
(For Type IV (R) arrow, use mirror image)



A=42 ft^2

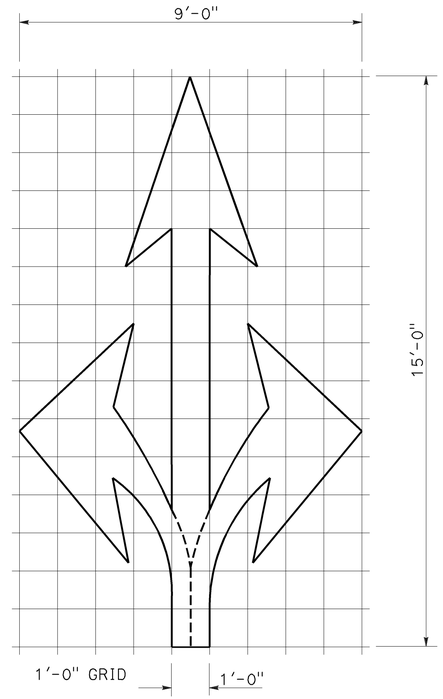
TYPE VI ARROW

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



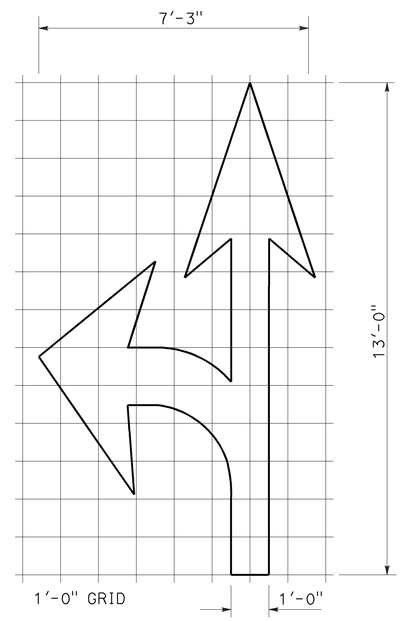
A=3.5 ft^2

BIKE LANE ARROW



A=36 ft^2

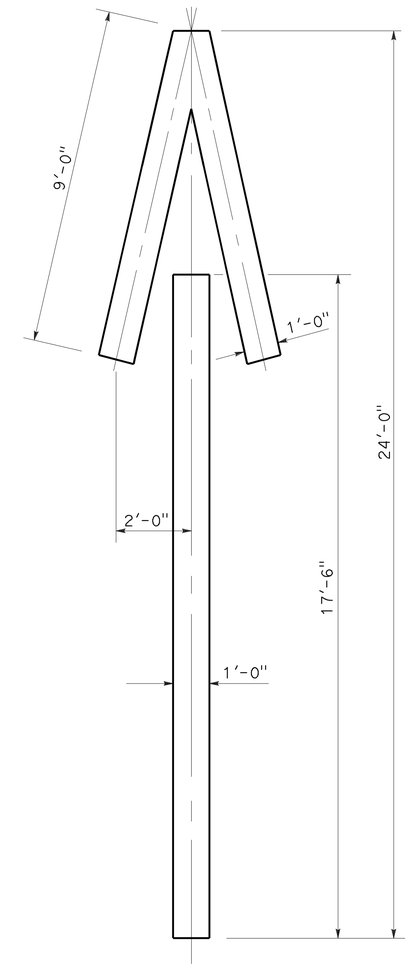
TYPE VIII ARROW



A=27 ft^2

TYPE VII (L) ARROW

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



A=33 ft^2

TYPE V ARROW

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS

NO SCALE

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

REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

3-14-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	19.7/30.4	14	14

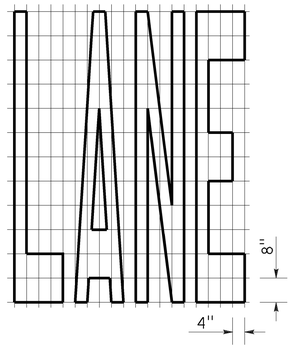
REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

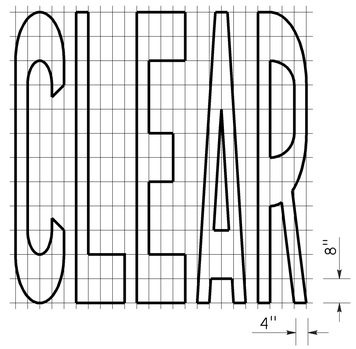
REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

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

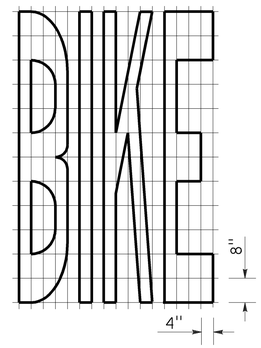
TO ACCOMPANY PLANS DATED 2-11-13



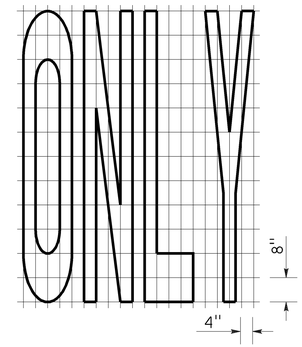
A=24 ft²



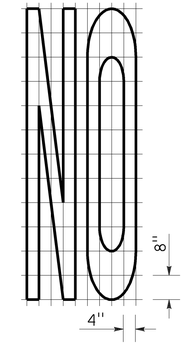
A=27 ft²



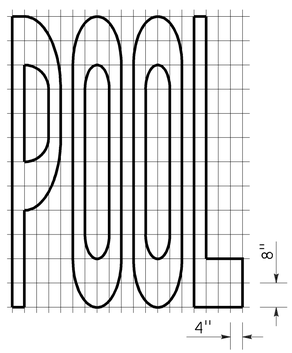
A=21 ft²



A=22 ft²



A=14 ft²



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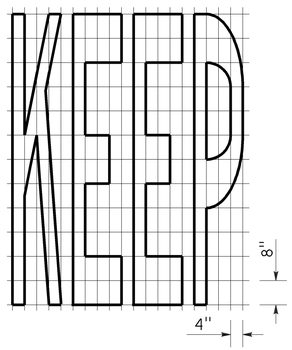

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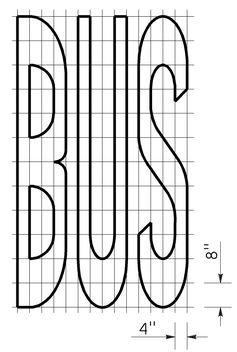
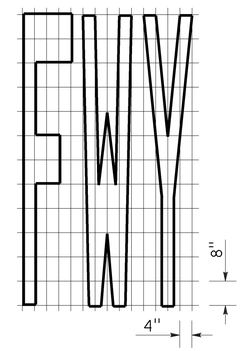
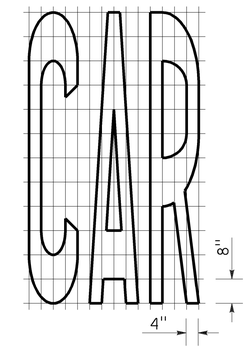


A=20 ft²

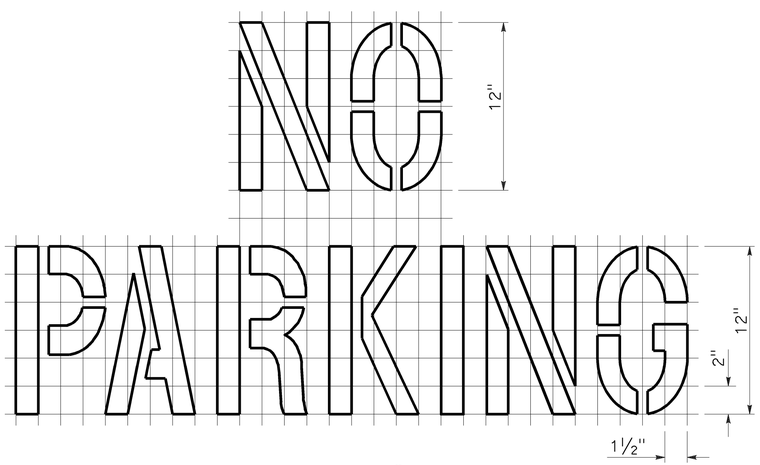


A=16 ft²

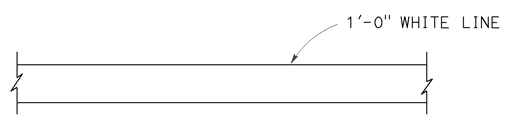


A=17 ft²

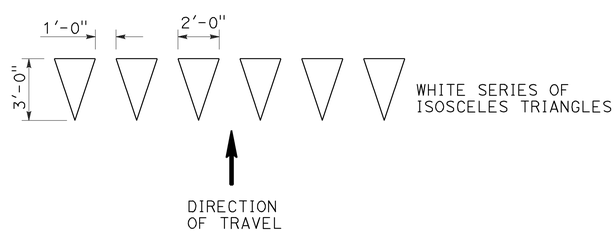
WORD MARKINGS			
ITEM	ft²	ITEM	ft²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

NOTES:

1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS WORDS, LIMIT AND YIELD LINES

NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24E

2010 REVISED STANDARD PLAN RSP A24E

6-12-12