Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	1	34

ACHSSTP-S193(010)E

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

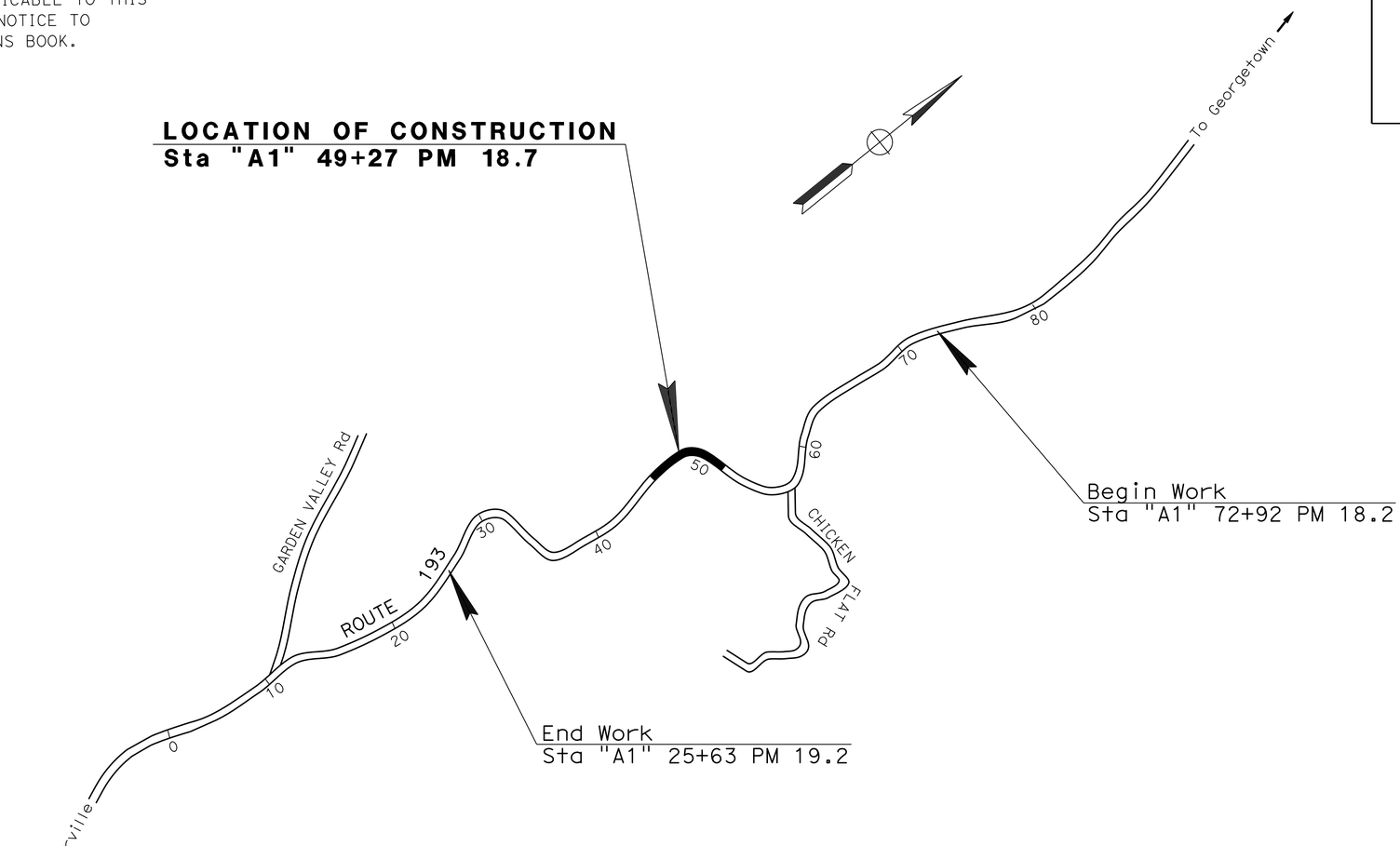
IN EL DORADO COUNTY
ABOUT 6.0 MILES SOUTH OF GEORGETOWN
AT CHICKEN FLAT ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3	LAYOUT
4	PROFILE AND SUPERLEVATION DIAGRAM
5-7	CONSTRUCTION DETAILS
8-12	DRAINAGE PLAN, PROFILES, DETAILS, QUANTITIES
13	UTILITY PLAN
14	CONSTRUCTION AREA SIGNS
15-17	STAGE CONSTRUCTION PLANS
18-19	TRAFFIC HANDLING PLANS AND QUANTITIES
20	PAVEMENT DELINIATION AND SIGN PLAN AND QUANTITIES
21	SIGN QUANTITIES
22	SUMMARY OF QUANTITIES
23-24	EROSION CONTROL PLAN AND QUANTITIES
25-34	REVISED STANDARD PLANS

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



NO SCALE

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

PROJECT MANAGER: SUKHWINDER S. BAJWA

DESIGN ENGINEER: STEPHEN T. WRIGHT

PROJECT ENGINEER REGISTERED CIVIL ENGINEER — DATE: 5-13-13

May 13, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ALEX W. WU — No. 77266 — Exp. 6-30-13 — 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.

CONTRACT No.	03-1F3304
PROJECT ID	0300001113

LAST REVISION 05-07-13

DATE PLOTTED => 27-JUN-2013
TIME PLOTTED => 15:50

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	2	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ALEX W. WU No. 77266 Exp. 6-30-13 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. SUPERELEVATIONS ARE SHOWN ON THE SUPERELEVATION DIAGRAM.
3. FOR SAFETY EDGE, SEE STANDARD PLANS.

ABBREVIATION:

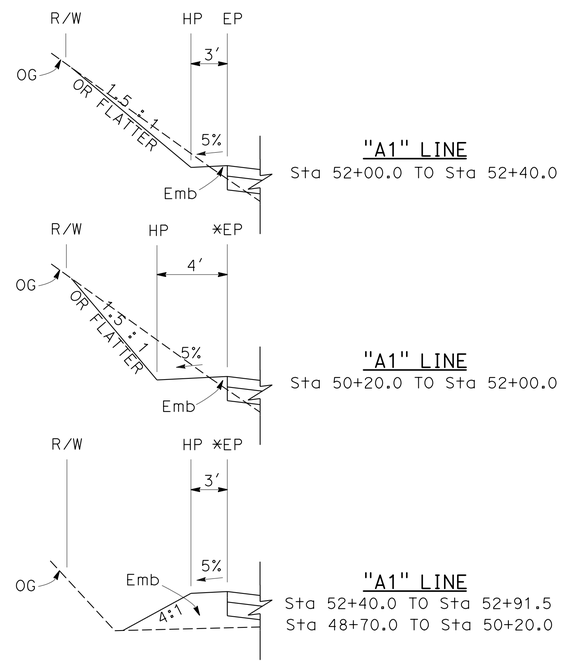
SCL SAWCUT LINE

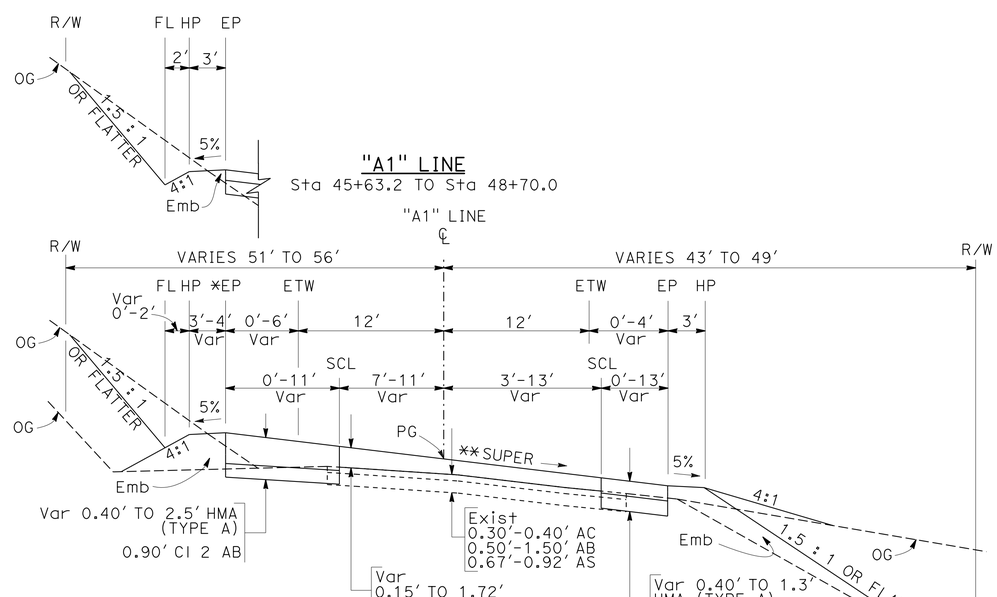
PAVEMENT CLIMATE REGION

LOW MOUNTAIN

DESIGN DESIGNATION

ADT (2012)	2,380	D	65%
ADT (2032)	2,820	T	4%
DHV	280	V	55 mph
		TI_{20}	8.0





ROUTE 193

"A1" LINE

Sta 45+63.2 TO Sta 52+91.5

* SEE C-1 FOR DRIVEWAY 1 CROSS SECTION
** SEE SUPERELEVATION DIAGRAM

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® **TRAFFIC DESIGN**

FUNCTIONAL SUPERVISOR: STEPHEN T. WRIGHT

CALCULATED-DESIGNED BY: ALEX WU
CHECKED BY: DZUNG BUI

REVISED BY | DATE REVISED

LAST REVISION 05-01-13 | DATE PLOTTED => 16-MAY-2013 | TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	3	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ALEX W. WU No. 77266 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA

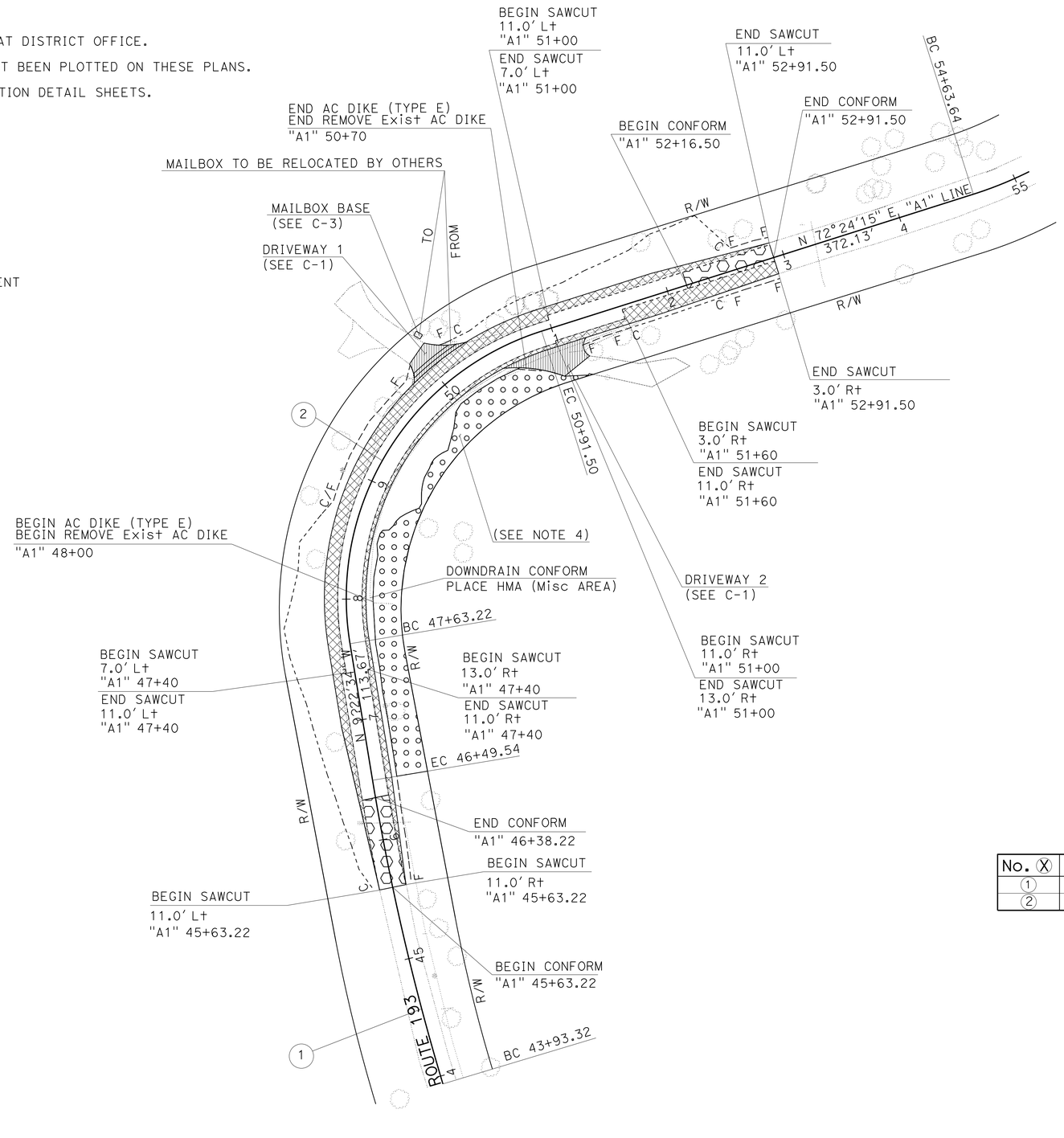
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. FOR DRIVEWAY DETAILS, SEE CONSTRUCTION DETAIL SHEETS.

LEGEND:

- WIDENING
- COLD PLANE AC PAVEMENT (SEE C-2)
- PRIVATE DRIVEWAY (SEE C-1)
- ROADSIDE CLEARING



CURVE DATA

No. (X)	R	Δ	T	L
(1)	2000.00'	7°20'25"	128.29'	256.22'
(2)	230.00'	81°46'49"	199.16'	328.29'

LAYOUT

SCALE 1" = 50'

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: STEPHEN T. WRIGHT
CALCULATED-DESIGNED BY: DZUNG BUI
CHECKED BY: ALEX WU
REVISED BY
DATE REVISED

LAST REVISION 05-07-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:40

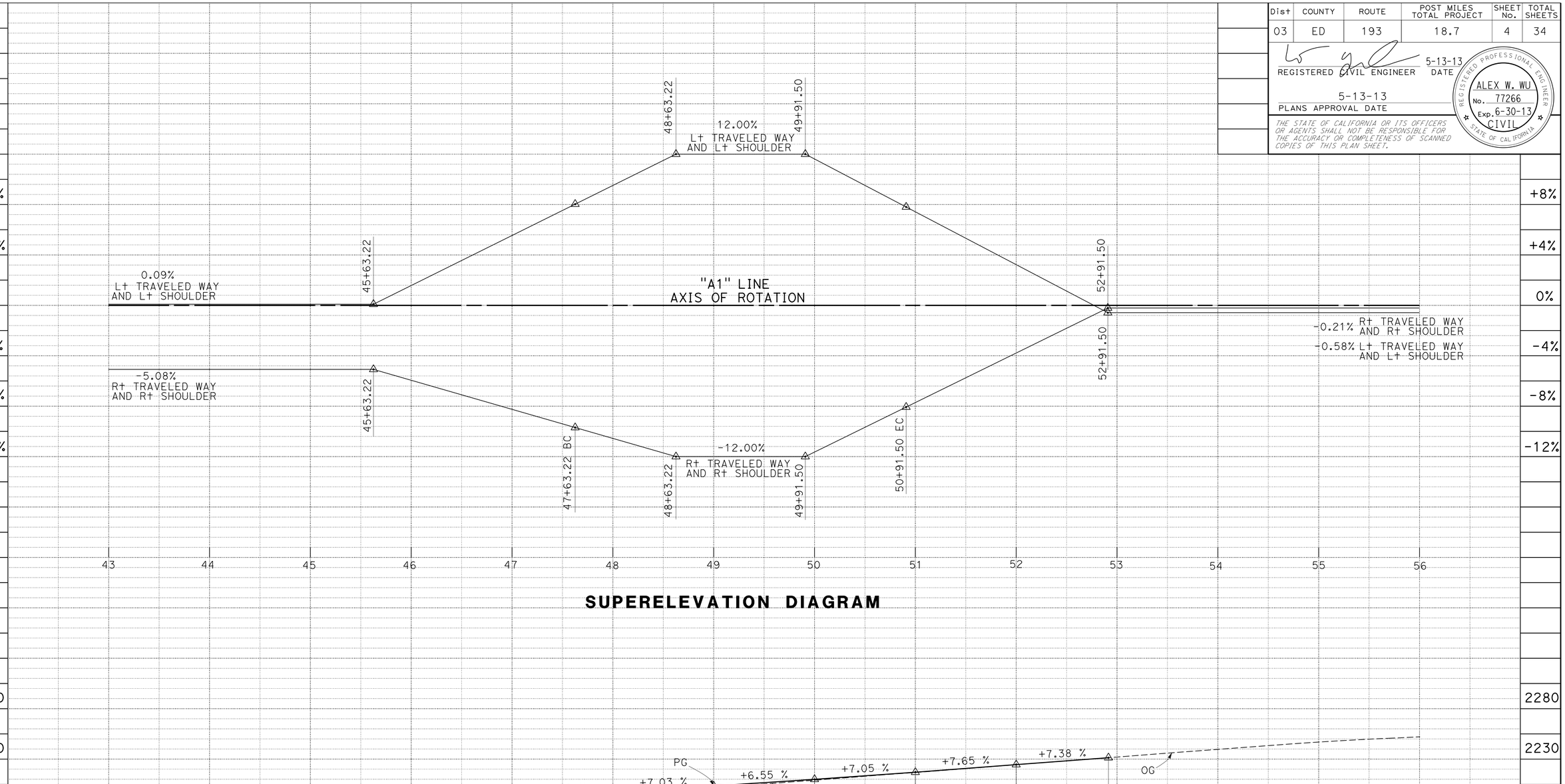
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	4	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

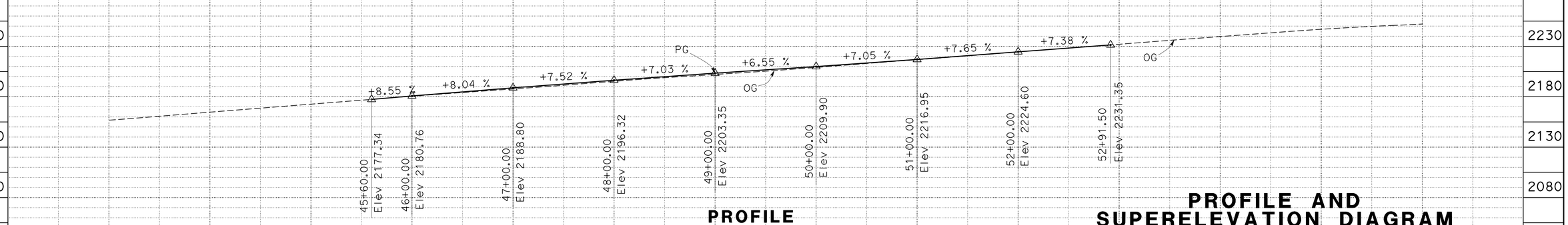
5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ALEX W. WU
No. 77266
Exp. 6-30-13
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.



SUPERELEVATION DIAGRAM



PROFILE

ROUTE 193
"A1" LINE

PROFILE AND SUPERELEVATION DIAGRAM

SCALE: Horiz 1" = 50'
Vert 1" = 50'

P-1

STATION	43	44	45	46	47	48	49	50	51	52	53	54	55	56	TOTAL
CY Exc															
CY Emb															

REVISED BY | DATE REVISED
DZUNG BUI | ALEX WU
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: STEPHEN T. WRIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

LAST REVISION 05-13-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:40

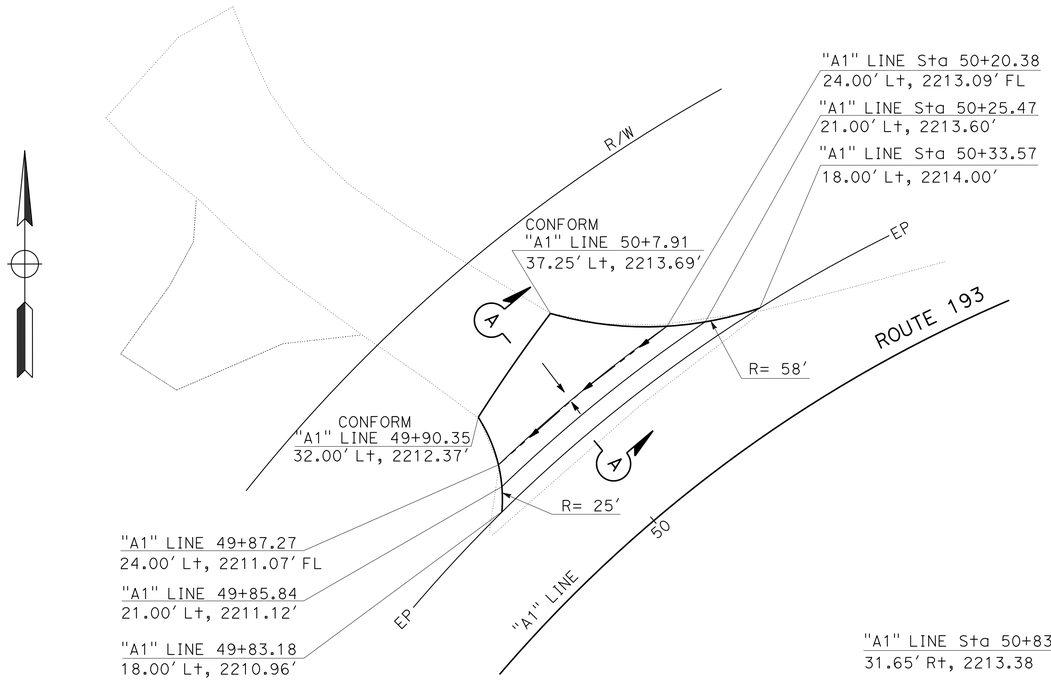
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	5	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

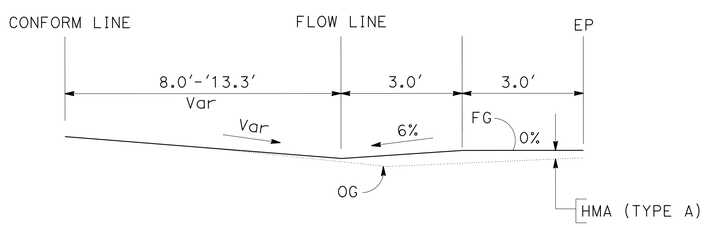
REGISTERED PROFESSIONAL ENGINEER
ALEX W. WU
No. 77266
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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.

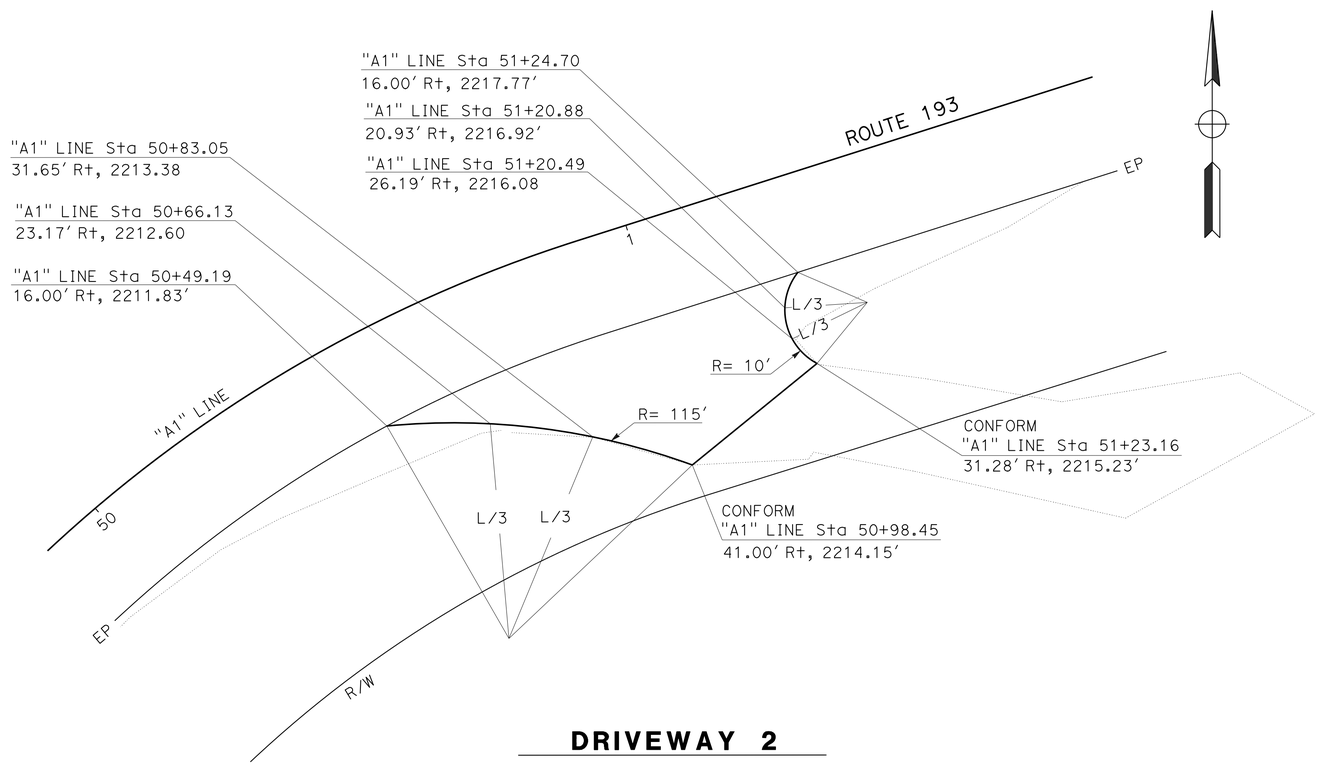


DRIVEWAY 1

"A1" 49+83.18 TO 50+33.57



SECTION A-A



DRIVEWAY 2

"A1" 50+49.19 TO 51+24.70

CONSTRUCTION DETAILS

NO SCALE

C-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
DZUNG BUI	ALEX WU

FUNCTIONAL SUPERVISOR: STEPHEN T. WRIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

LAST REVISION 12-01-12 | DATE PLOTTED => 16-MAY-2013 | TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	6	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

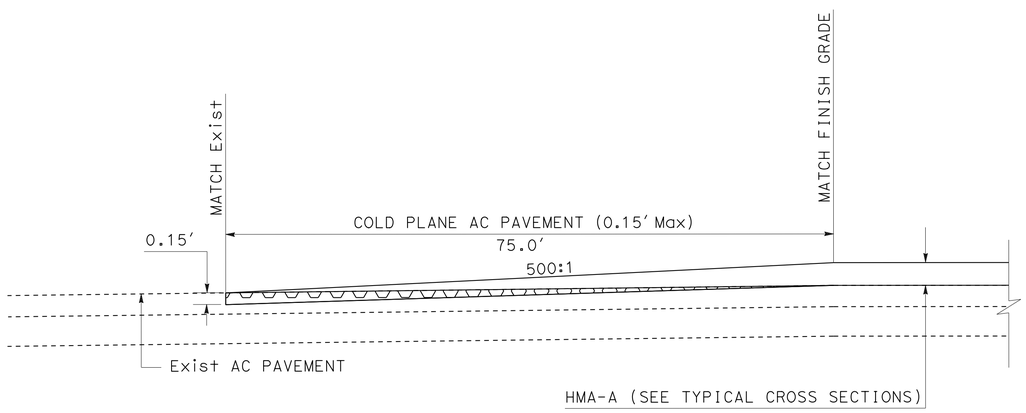
5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ALEX W. WU
No. 77266
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

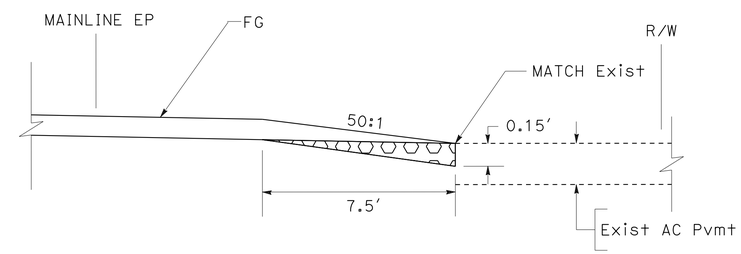
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

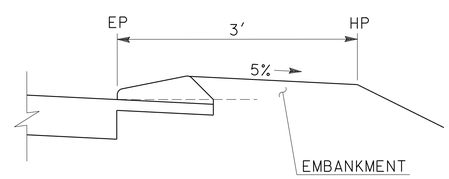
COLD PLANE AC PAVEMENT



MAINLINE PAVEMENT CONFORM



PRIVATE AC DRIVEWAYS/ROADS



TYPE E DIKE BACKFILL DETAIL

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: STEPHEN T. WRIGHT
CALCULATED-DESIGNED BY: DZUNG BUI
CHECKED BY: ALEX WU
REVISED BY
DATE REVISED

LAST REVISION 01-11-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	7	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ALEX W. WU No. 77266 Exp. 6-30-13 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.

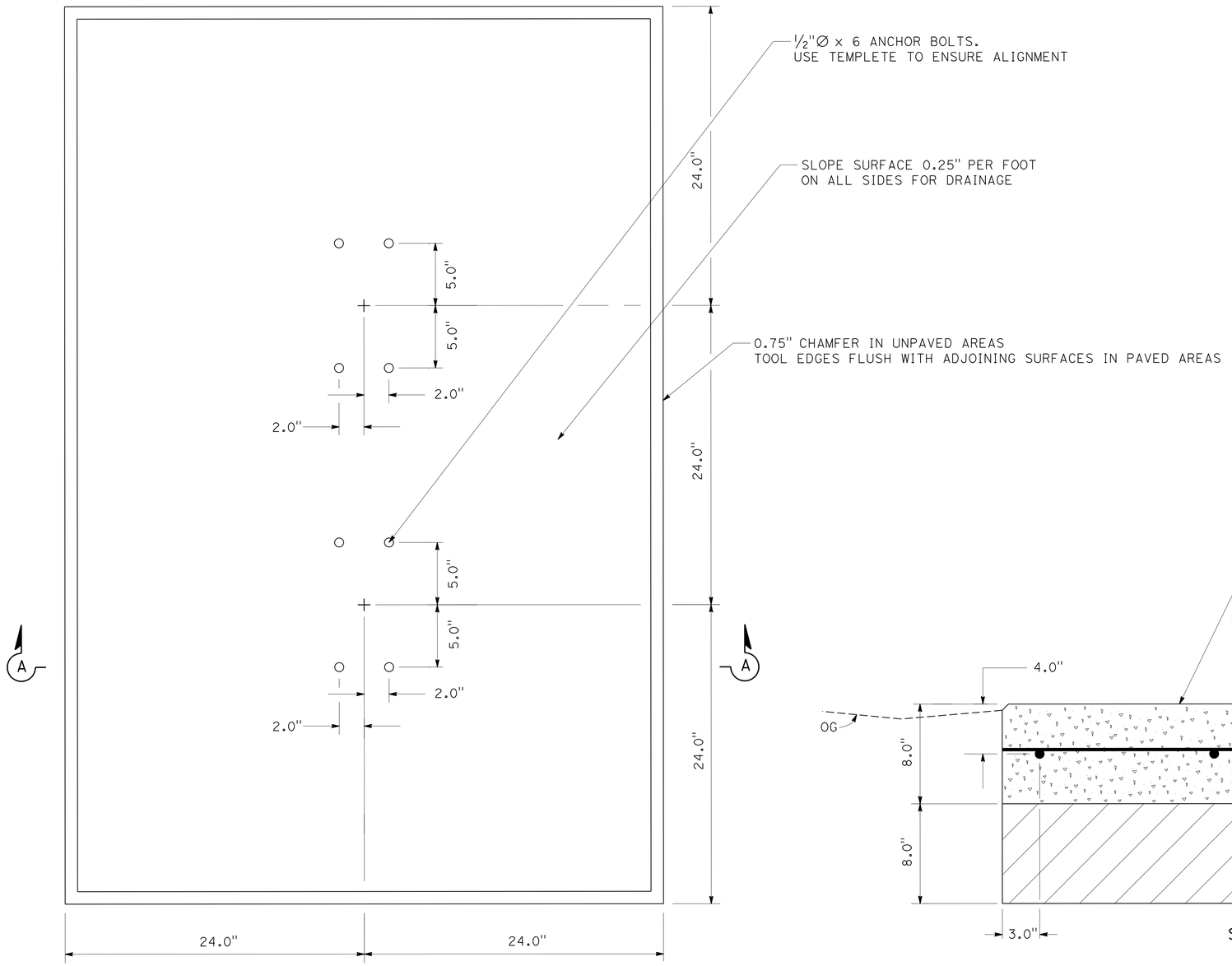
NOTE:

1. ANCHOR BOLTS SHALL CONFORM TO ASTM A193, GRADE B8M, TYPE 316 STAINLESS STEEL.

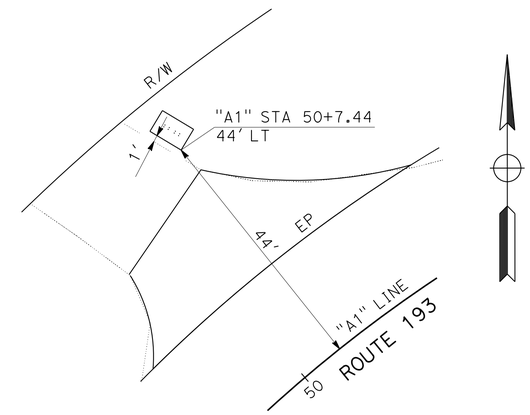
LEGEND:

CLASS 2 AGGREGATE BASE

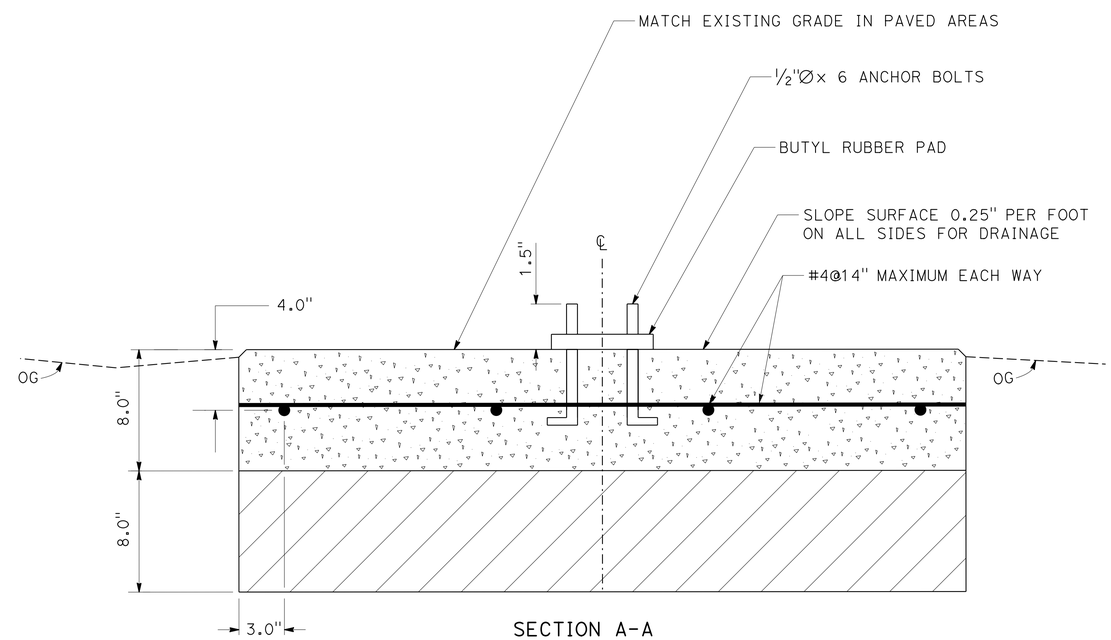
MINOR CONCRETE (MINOR STRUCTURE)



DETAIL



PLAN



SECTION A-A

MAILBOX BASE

44' L+ "A1" 50+10

CONSTRUCTION DETAILS

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: STEPHEN T. WRIGHT
CALCULATED-DESIGNED BY: ALEX WU
CHECKED BY: DZUNG BUI
REVISED BY
DATE REVISED

LAST REVISION 05-08-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	8	34

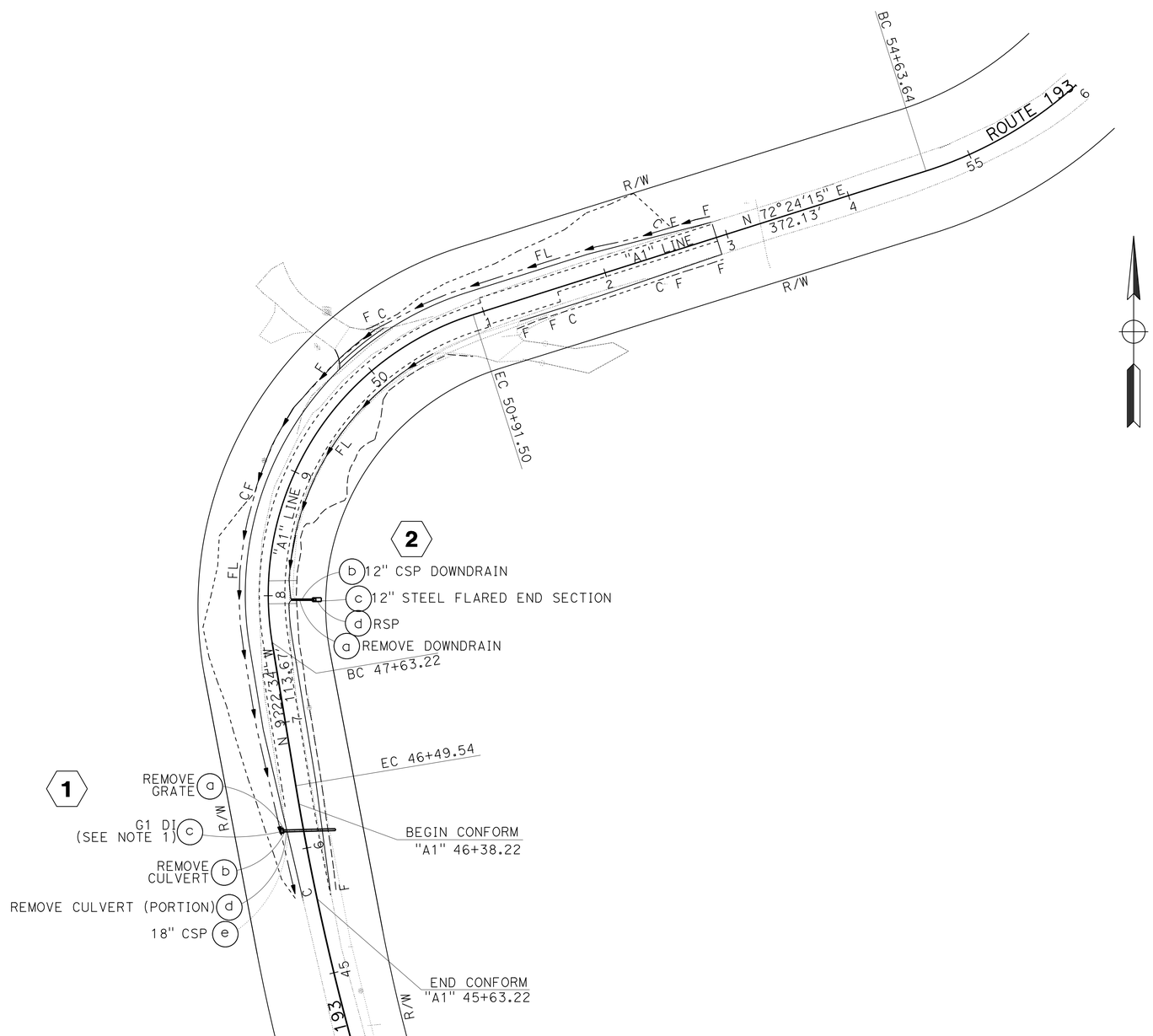
REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
A. LEGARRA SPECK
No. 69243
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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

NOTES:
1. RESET MARKER IN LOCATION TO BE DETERMINED BY THE ENGINEER.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.



DRAINAGE PLAN

SCALE 1" = 50'

APPROVED FOR DRAINAGE WORK ONLY

D-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR: DENNIS JAGODA
CALCULATED-DESIGNED BY: ANDRA SPECK
CHECKED BY: CHRIS ROCKEY
REVISED BY
DATE REVISED

LAST REVISION 05-08-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	9	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

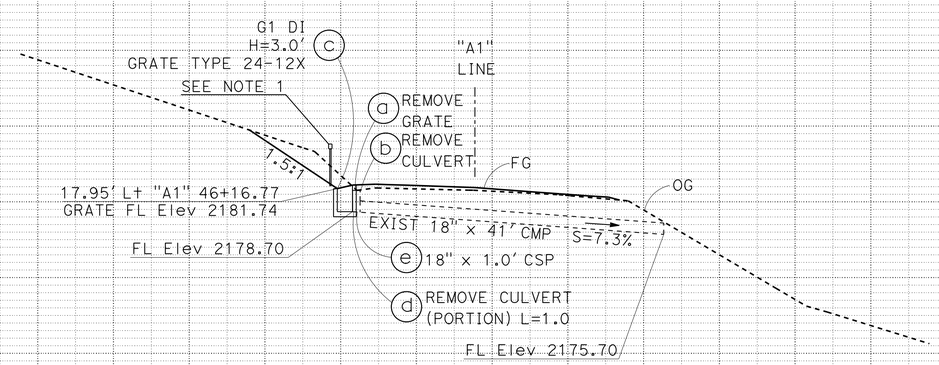
5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER A. LEGARRA SPECK No. 69243 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

NOTES:

1. RESET MARKER IN LOCATION TO BE DETERMINED BY ENGINEER.
2. SEE STANDARD PLAN D87A FOR ENTRANCE TAPER DETAIL AND CORRUGATED METAL PIPE ASSEMBLY DETAIL.



DRAINAGE SYSTEM No. 1

"A1" 46+13.98

DRAINAGE PROFILES

SCALE: Horiz 1" = 10'
Vert 1" = 10'

DP-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

FUNCTIONAL SUPERVISOR: DENNIS JAGODA

CALCULATED-DESIGNED BY: ANDRA SPECK

CHECKED BY: CHRIS ROCKEY

REVISED BY

DATE REVISED

LAST REVISION 03-17-13 DATE PLOTTED => 16-MAY-2013 TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	10	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
A. LEGARRA SPECK
No. 69243
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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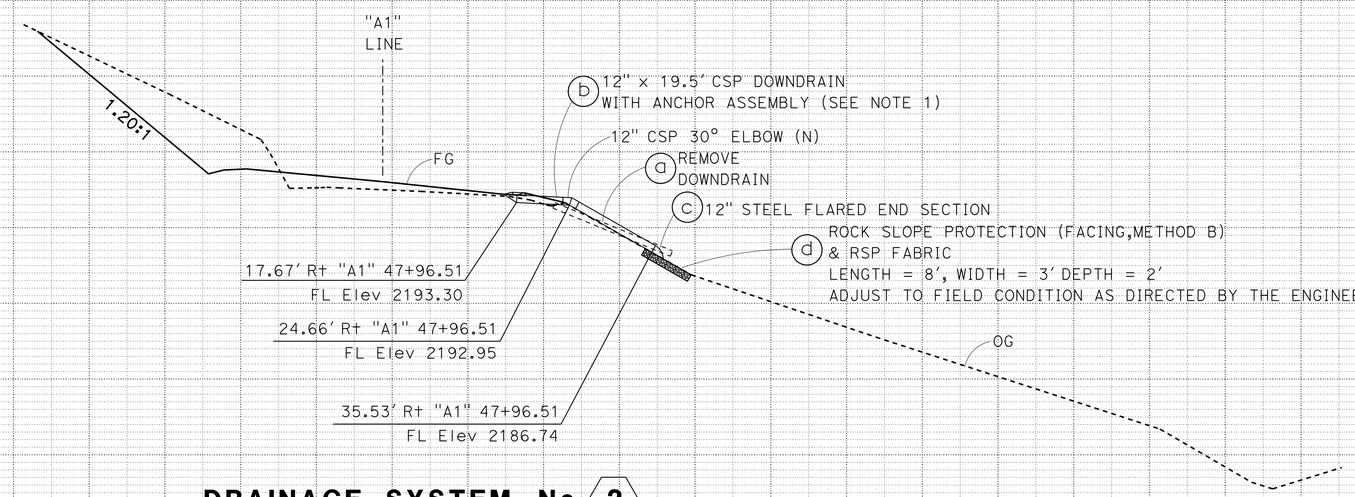

DRAINAGE SYSTEM No. 2

"A1" 47+96.51

DRAINAGE PROFILES

SCALE: Horiz 1" = 10'
Vert 1" = 10'

DP-2

ANDRA SPECK — CHRIS ROCKEY — DENNIS JAGODA — REVISED BY — DATE REVISED — CALCULATED-DESIGNED BY — CHECKED BY — FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 03-17-13 — DATE PLOTTED => 16-MAY-2013 — TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	11	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
A. LEGARRA SPECK
No. 69243
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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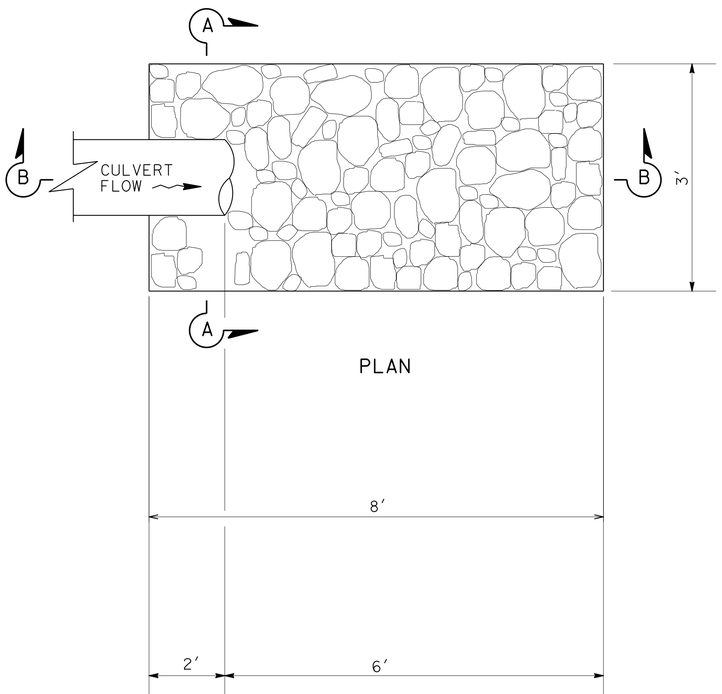
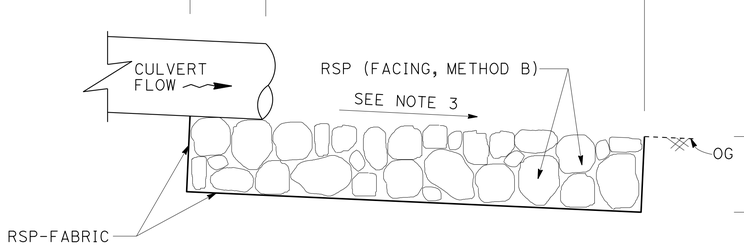
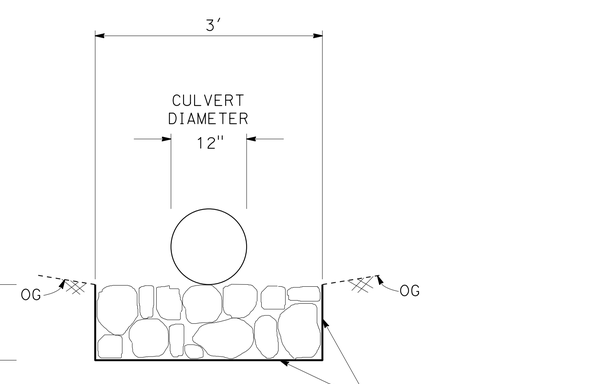


PLAN



SECTION B-B



SECTION A-A

NOTES:

1. SQUARED EDGE NOT REQUIRED
2. PLACE RSP-FABRIC LOOSELY ON BOTTOM & ALL SIDES OF TRENCH. PIN RSP-FABRIC TO SIDES OF TRENCH AS REQUIRED.
3. PLACE RSP CLASS DISSIPATER ROCK IN TRENCH SO THAT ROCK DOES NOT PROTRUDE ABOVE CULVERT FLOW-LINE OR ADJACENT GROUND
4. MATCH DISSIPATER GRADE WITH DOWNSTREAM FLOW-LINE AND ADJACENT GROUND
5. RSP-FABRIC SHALL NOT BE EXPOSED ABOVE GROUND

RSP DETAIL
DRAINAGE SYSTEM No. 1

DRAINAGE DETAILS
DD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING
Caltrans

FUNCTIONAL SUPERVISOR: DENNIS JAGODA
CALCULATED-DESIGNED BY: ANDRA SPECK
CHECKED BY: CHRIS ROCKEY
REVISED BY
DATE REVISED

LAST REVISION 05-08-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	12	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER A. LEGARRA SPECK No. 69243 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

DRAINAGE QUANTITIES

DRAINAGE SHEET	DRAINAGE SYSTEM NO.	DRAINAGE UNIT	18" CSP (.079" THICK)	DRAINAGE INLETS (N) INLET TYPE	(N) FRAME GRATE TYPE	(N) HEIGHT OF INLET "H"	* MINOR CONCRETE (MINOR STRUCTURE)	MISC IRON & STEEL	RESET MARKER	(N) LADDER	REMOVE CULVERT	REMOVE GRATE	REMOVE DOWNDRAIN	12" CSP DOWNDRAIN (0.79" THICK)	12" STEEL FLARED END SECTION	RSP (FACING, METHOD B)	RSP FABRIC (CLASS 8)	(N) 18" CSP COUPLER	(N) 12" CSP 30° ELBOW	DESCRIPTION	STATION	DRAINAGE SYSTEM NO.	DRAINAGE UNIT
			LF				CY	LB	EA	EA	LF	EA	EA	LF	EA	CY	SQYD	EA	EA				
D-1	1	a										1								REMOVE GRATE		1	a
		b									2.88									REMOVE CULVERT (RISER)			b
		c		G1	24-12X	3.5	1.06	239	1	1										G1 DI	"A1" 46+16.77		c
		d									1.0									REMOVE CULV (PORTION)			d
		e	1.0															1.0		18" CSP			e
D-2	2	a											1							REMOVE DOWNDRAIN	"A1" 47+96.51	2	a
		b												19.5					1	12" CSP DOWNDRAIN WITH ELBOW			b
		c													1					12" STEEL FLARED END SECTION			c
		d														1.78	9.33			RSP			d
SUBTOTAL			1.0				1.06	239	1	1	3.88	1	1	19.5	1	1.78	9.33	1.0	1				
TOTAL			1.0				1.06	239	1	1	3.88	1	1	19.5	1	1.78	9.33	1.0	1				

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

* FOR TOTAL MINOR CONCRETE (MINOR STRUCTURE) QUANTITIES, SEE MINOR CONCRETE (MINOR STRUCTURE) ON SHEET Q-1

DRAINAGE QUANTITIES

DQ-1

REVISED BY | DATE REVISED

ANDRA SPECK | CHRIS ROCKEY

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

DENNIS JAGODA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DIVISION OF ENGINEERING

LAST REVISION 05-08-13 | DATE PLOTTED => 27-JUN-2013 | TIME PLOTTED => 15:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	13	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THIEN H SLOCUM
No. 77253
Exp. 06-30-13
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.

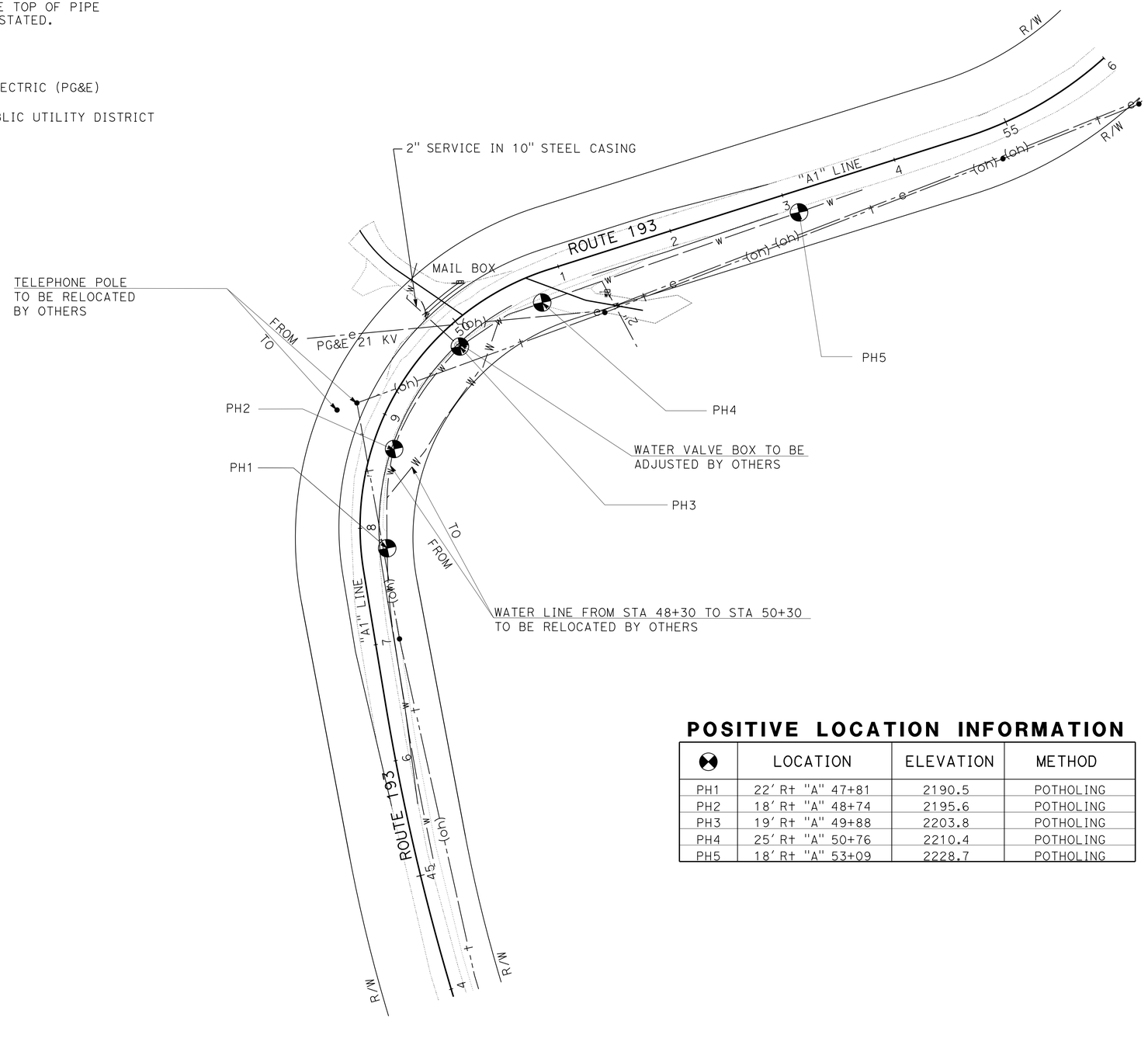
NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. ELEVATIONS SHOWN REFER TO THE TOP OF PIPE OR CONDUIT, UNLESS OTHERWISE STATED.
3. UTILITY OWNERSHIP:

   ELECTRICAL - PACIFIC GAS & ELECTRIC (PG&E)
   TELEPHONE - AT&T
   WATER - GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

LEGEND:

POTHOLE
TELEPHONE POLE



POSITIVE LOCATION INFORMATION

	LOCATION	ELEVATION	METHOD
PH1	22' Rt "A" 47+81	2190.5	POTHOLING
PH2	18' Rt "A" 48+74	2195.6	POTHOLING
PH3	19' Rt "A" 49+88	2203.8	POTHOLING
PH4	25' Rt "A" 50+76	2210.4	POTHOLING
PH5	18' Rt "A" 53+09	2228.7	POTHOLING

UTILITY PLAN

SCALE 1" = 50'

U-1

APPROVED FOR UTILITY WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR: CHARLES W. LAUGHLIN
CALCULATED-DESIGNED BY: THIEN SLOCUM
CHECKED BY: RUSS PETTY
REVISED BY
DATE REVISED

LAST REVISION 05-08-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	14	34

Kris M. Albers 5-13-13
REGISTERED CIVIL ENGINEER DATE

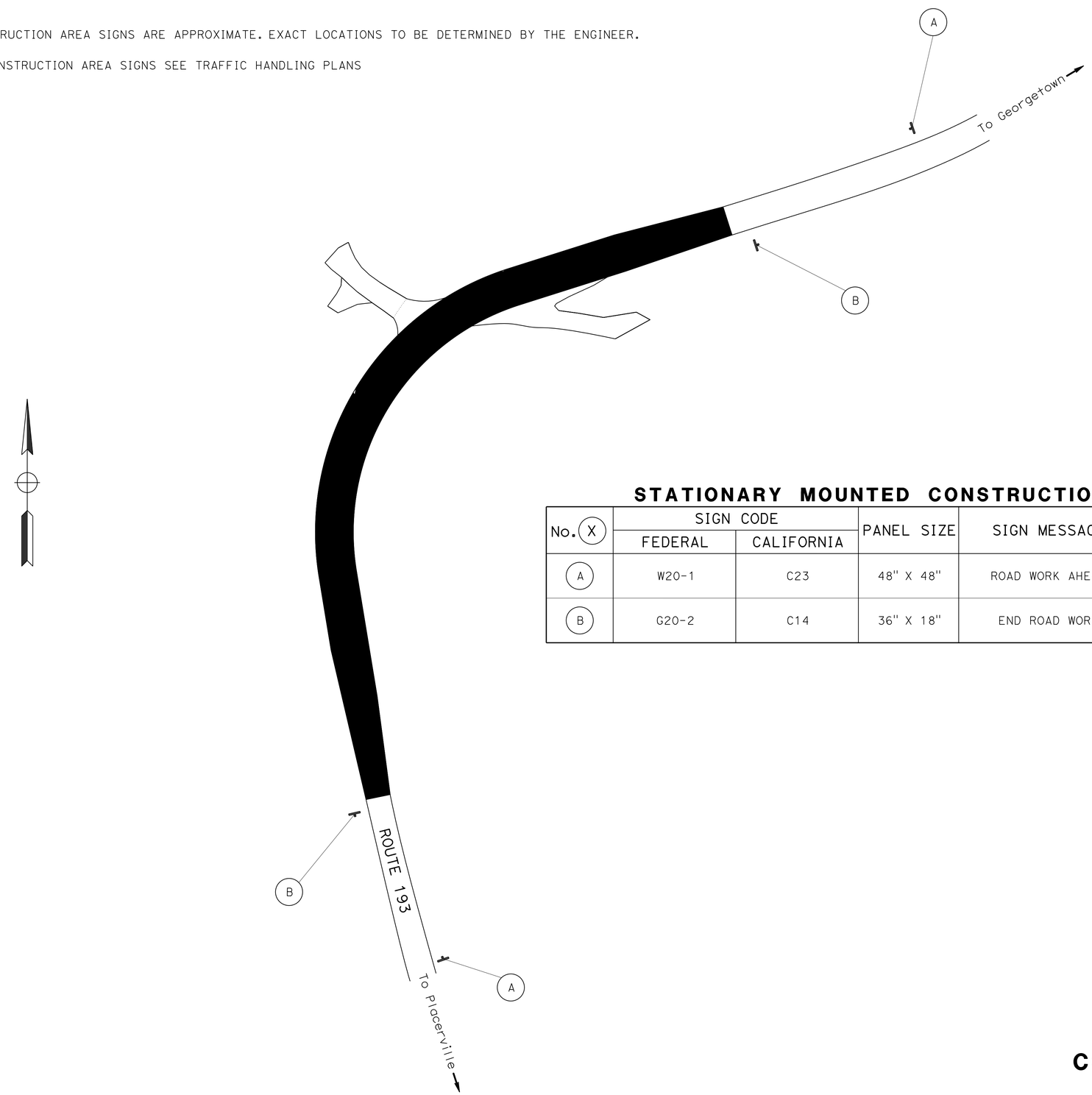
5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-13
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. LOCATION OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL CONSTRUCTION AREA SIGNS SEE TRAFFIC HANDLING PLANS



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

No. (X)	SIGN CODE FEDERAL	SIGN CODE CALIFORNIA	PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS
A	W20-1	C23	48" X 48"	ROAD WORK AHEAD	1 - 6" X 6"	2
B	G20-2	C14	36" X 18"	END ROAD WORK	1 - 4" X 4"	2

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

SCALE: 1"=50'

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: SERGIO ACEVES
CALCULATED-DESIGNED BY: KRIS ALBERS
CHECKED BY: JACK KEMMERLY
REVISED BY
DATE REVISED

LAST REVISION 05-02-13 | DATE PLOTTED => 16-MAY-2013 | TIME PLOTTED => 10:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	15	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ALEX W. WU
No. 77266
Exp. 6-30-13
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

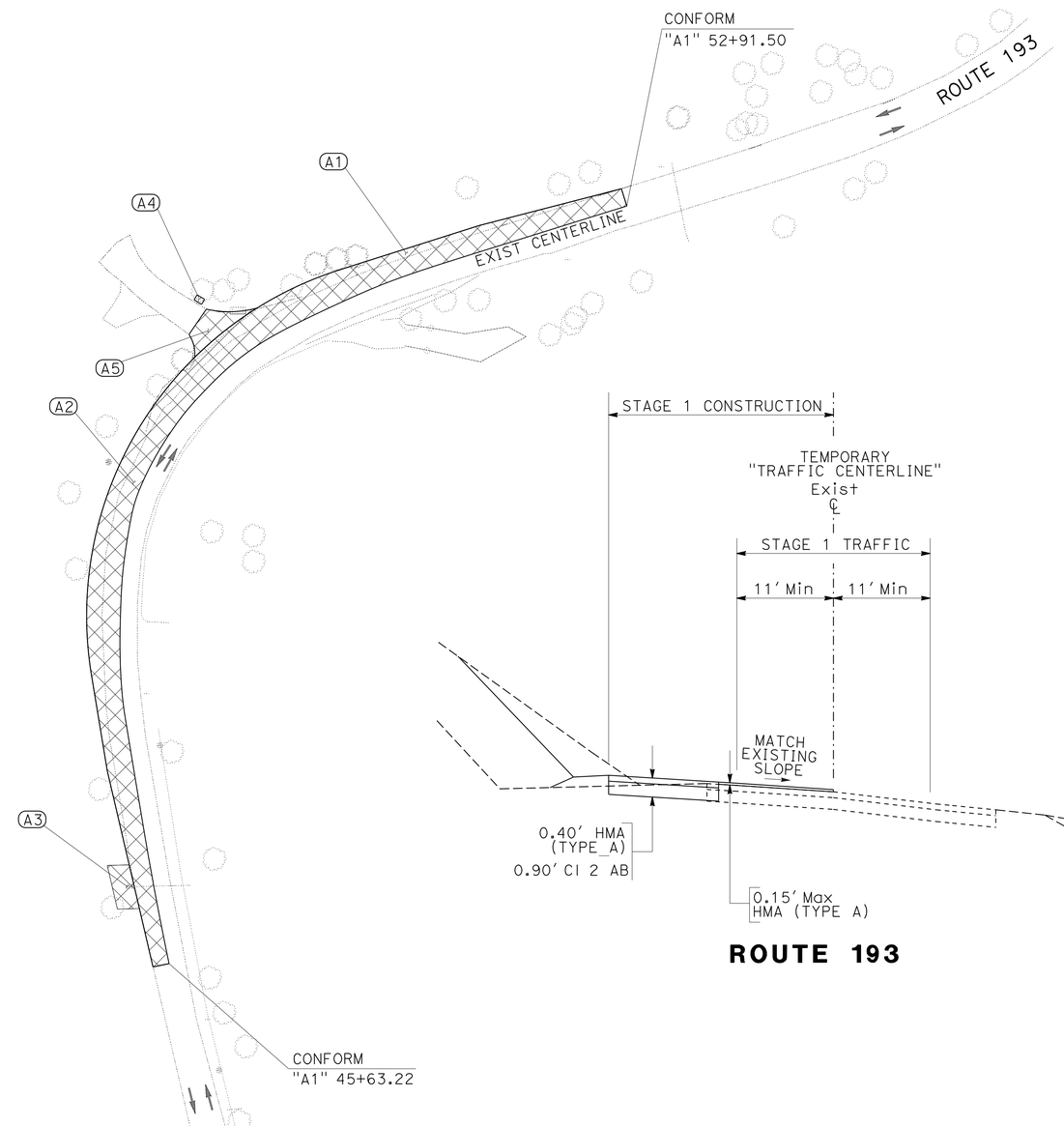
1. THESE PLANS ACCURATE FOR STAGE CONSTRUCTION WORK ONLY.
2. CONTRACTOR SHALL PROVIDE TEMPORARY PUBLIC ACCESS TO DRIVEWAYS AND ROADWAY CONNECTIONS THROUGH WORK AT ALL TIMES.
3. FOR SAWCUT LINES, SEE SHEET L-1.
4. FOR FINAL EROSION CONTROL, SEE EROSION CONTROL PLAN.
5. INDEX NOTES DO NOT REPRESENT AN ORDER OF WORK EXCEPT AS INDICATED.
6. FOR UTILITY INFORMATION, SEE UTILITY PLAN.

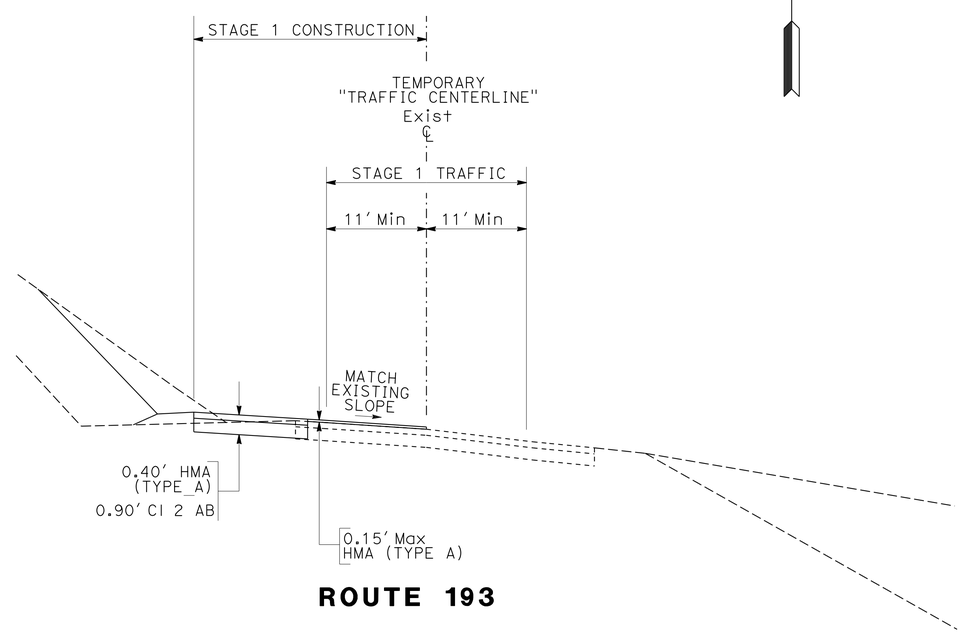
LEGEND:

CONSTRUCTION THIS STAGE

STAGE 1

(A1) WIDENING, SOUTHBOUND LANE AND SHOULDER
(A2) PERFORM AC OVERLAY 0.15' Max FROM EXISTING CENTERLINE TO SOUTHBOUND EP.
(A3) CONSTRUCT DRAINAGE SYSTEM NO.1 (SEE DRAINAGE PLAN)
(A4) CONSTRUCT MAILBOX BASE. RELOCATE MAILBOX BY OTHERS.
(A5) CONSTRUCT TEMPORARY DRIVEWAY





APPROVED FOR STAGE CONSTRUCTION WORK ONLY

STAGE 1
STAGE CONSTRUCTION PLAN

SCALE 1" = 50'

SC-1

REVISED BY	DATE REVISED

DZUNG BUI — ALEX WU
CALCULATED-DESIGNED BY — CHECKED BY
FUNCTIONAL SUPERVISOR — STEPHEN T. WRIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

LAST REVISION 05-08-13 | DATE PLOTTED => 16-MAY-2013 | TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	16	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ALEX W. WU
No. 77266
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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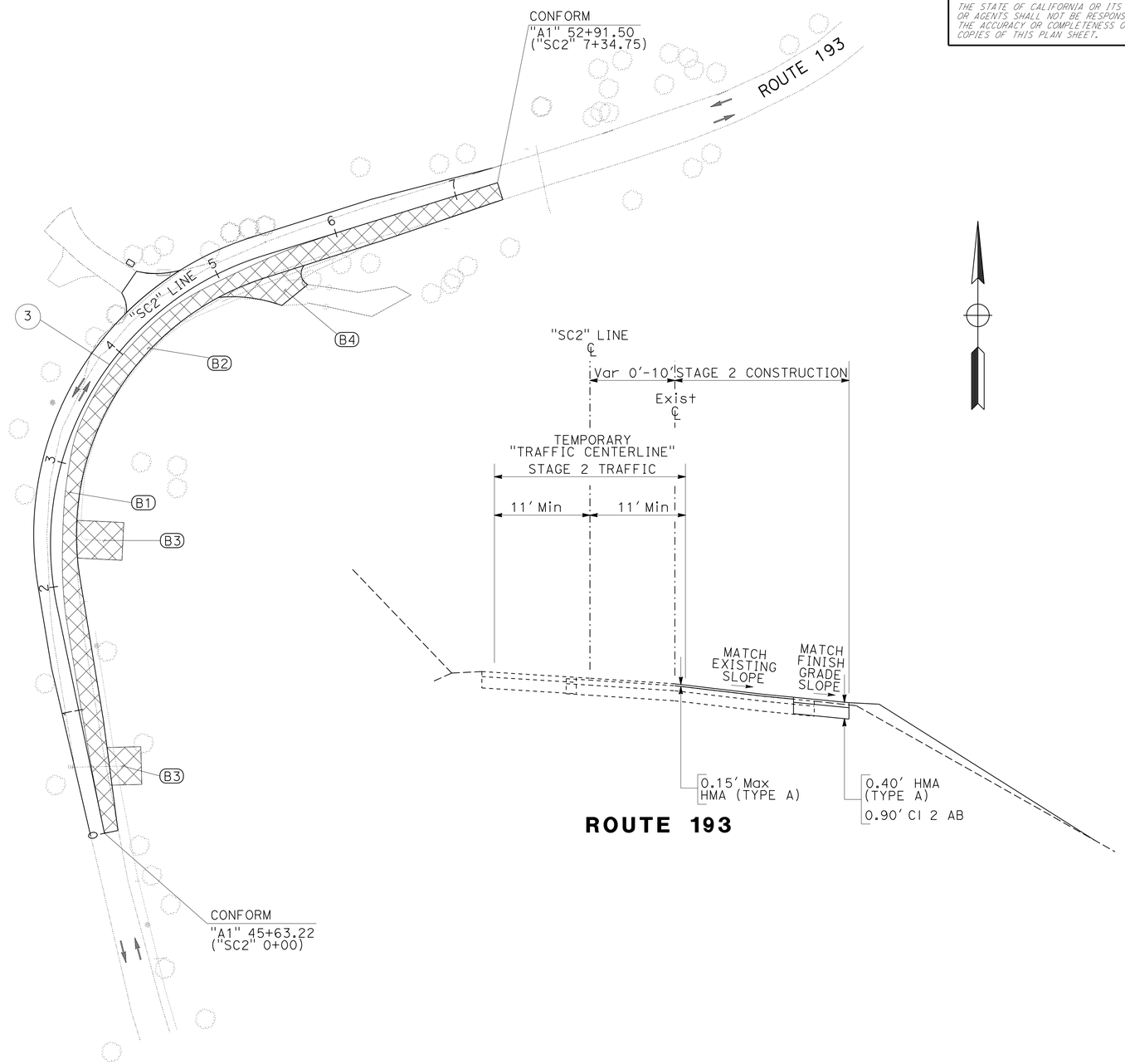
STAGE 2

(B1) PERFORM AC OVERLAY 0.15′ MAX FROM EXISTING CENTERLINE TO NORTHBOUND EP.

(B2) WIDENING, NORTHBOUND LANE AND SHOULDER. WIDENING FROM STATION 51+60 TO 52+91.5 SHALL BE COMPLETED AT THE END OF THE SAME SHIFT.

(B3) CONSTRUCT DRAINAGE SYSTEMS NO.1 AND 2 (SEE DRAINAGE PLAN)

(B4) CONSTRUCT TEMPORARY DRIVEWAY



CURVE DATA

No.	R	Δ	T	L
3	240′	84°31′44"	218.11′	354.07′

STAGE 2
STAGE CONSTRUCTION PLAN

SCALE 1" = 50′

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

SC-2

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: DZUNG BUI
CHECKED BY: ALEX WU
FUNCTIONAL SUPERVISOR: STEPHEN T. WRIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

LAST REVISION 05-08-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	17	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

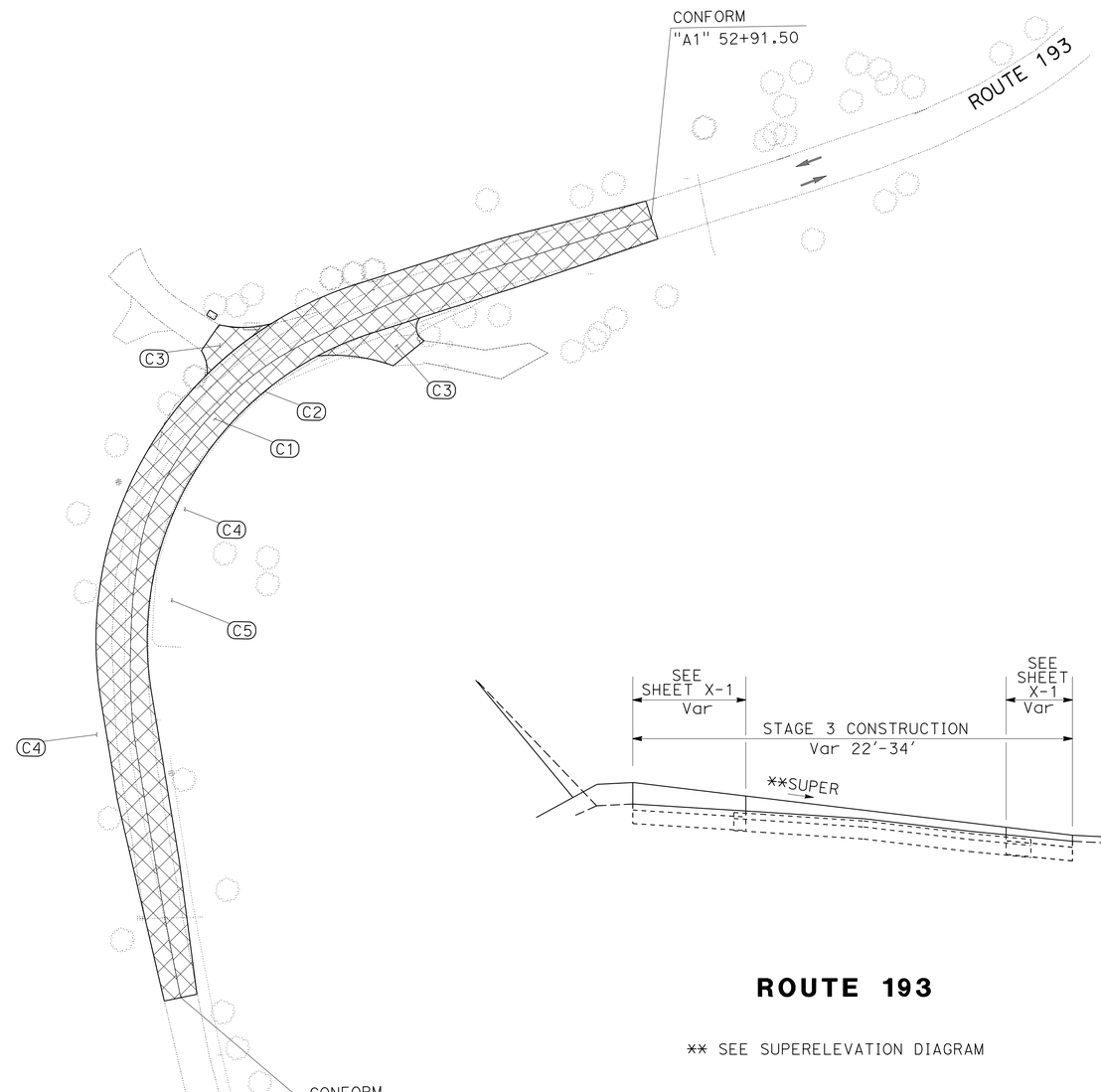
5-13-13
PLANS APPROVAL DATE

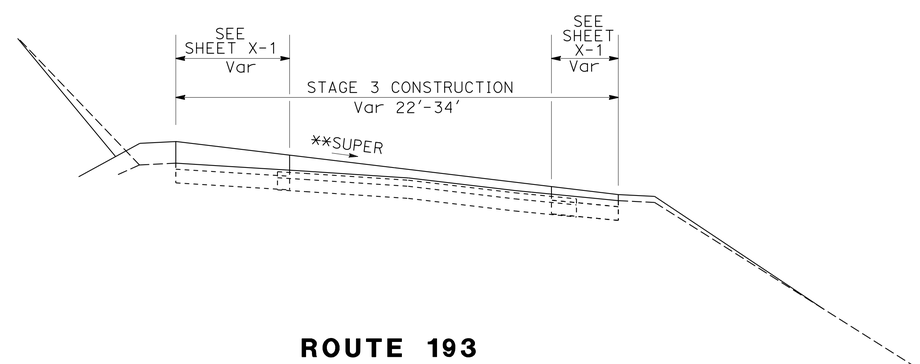
REGISTERED PROFESSIONAL ENGINEER
ALEX W. WU
No. 77266
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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.

STAGE 3

(C1) PERFORM AC OVERLAY TO FG
(C2) CONSTRUCT AC DIKE TYPE E (SEE LAYOUT)
(C3) CONSTRUCT DRIVEWAYS (SEE CONSTRUCTION DETAIL)
(C4) CONSTRUCT NEW EMBANKMENT AND DITCH FOR NORTHBOUND LANE AND SOUTHBOUND LANE.
(C5) PERFORM ROADSIDE CLEARING (SEE LAYOUT)





ROUTE 193

** SEE SUPERELEVATION DIAGRAM

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

STAGE 3
STAGE CONSTRUCTION PLAN

SCALE 1" = 50'

SC-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: STEPHEN T. WRIGHT
CALCULATED-DESIGNED BY: DZUNG BUI
CHECKED BY: ALEX WU
REVISED BY
DATE REVISED

LAST REVISION 05-08-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	18	34

Kris M. Albers 5-13-13
REGISTERED CIVIL ENGINEER DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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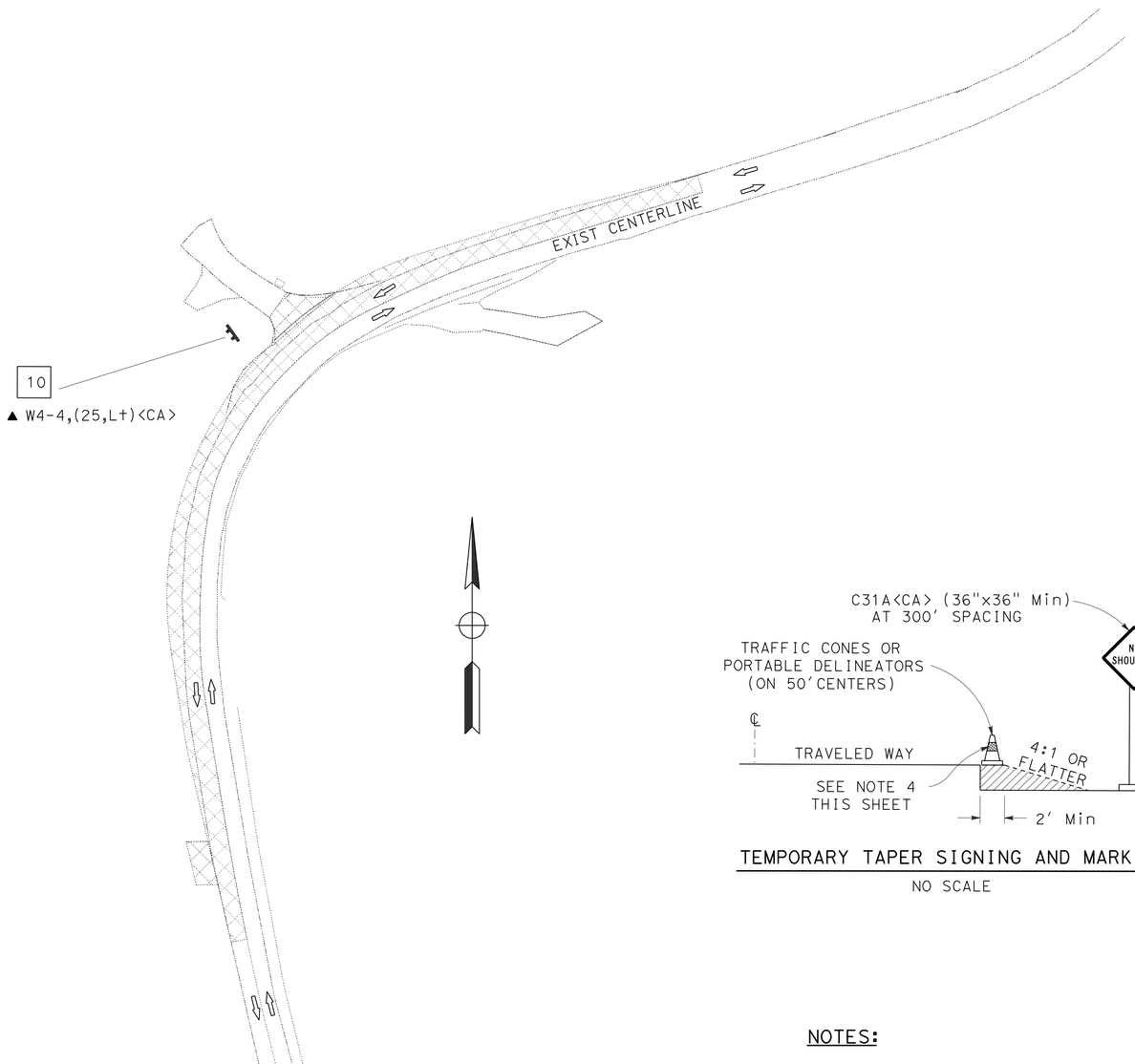

STAGE 1

TEMPORARY TAPER SIGNING AND MARKING

NO SCALE

LEGEND:

No / P	PAVEMENT DELINEATION DETAIL NUMBER P=TEMPORARY TRAFFIC STRIPE (PAINT)
No.	ROADSIDE SIGN/CONSTRUCTION AREA SIGN NUMBER
⇨	DIRECTION OF TRAVEL
▲	RESET ROADSIDE SIGN

NOTES:

1. ALL EXISTING SIGNS NOT SHOWN FOR REMOVAL OR RESETTING SHALL REMAIN IN PLACE.
2. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
3. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE SHEET CS-1.
4. ALL CONES USED FOR LANE CLOSURES DURING THE HOURS OF DARKNESS SHALL BE FITTED WITH RETROREFLECTIVE BANDS (OR SLEEVES) AS SPECIFIED IN THE SPECIFICATIONS.

STAGE 1
TRAFFIC HANDLING PLAN

SCALE: 1"=50'

APPROVED FOR TRAFFIC HANDLING WORK ONLY

TH-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: SERGIO ACEVES
CALCULATED-DESIGNED BY: KRIS M. ALBERS
CHECKED BY: JOHN KEBER
REVISED BY
DATE REVISED

LAST REVISION 05-14-13 | DATE PLOTTED => 16-MAY-2013 | TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	19	34

Kris M. Albers 5-13-13
REGISTERED CIVIL ENGINEER DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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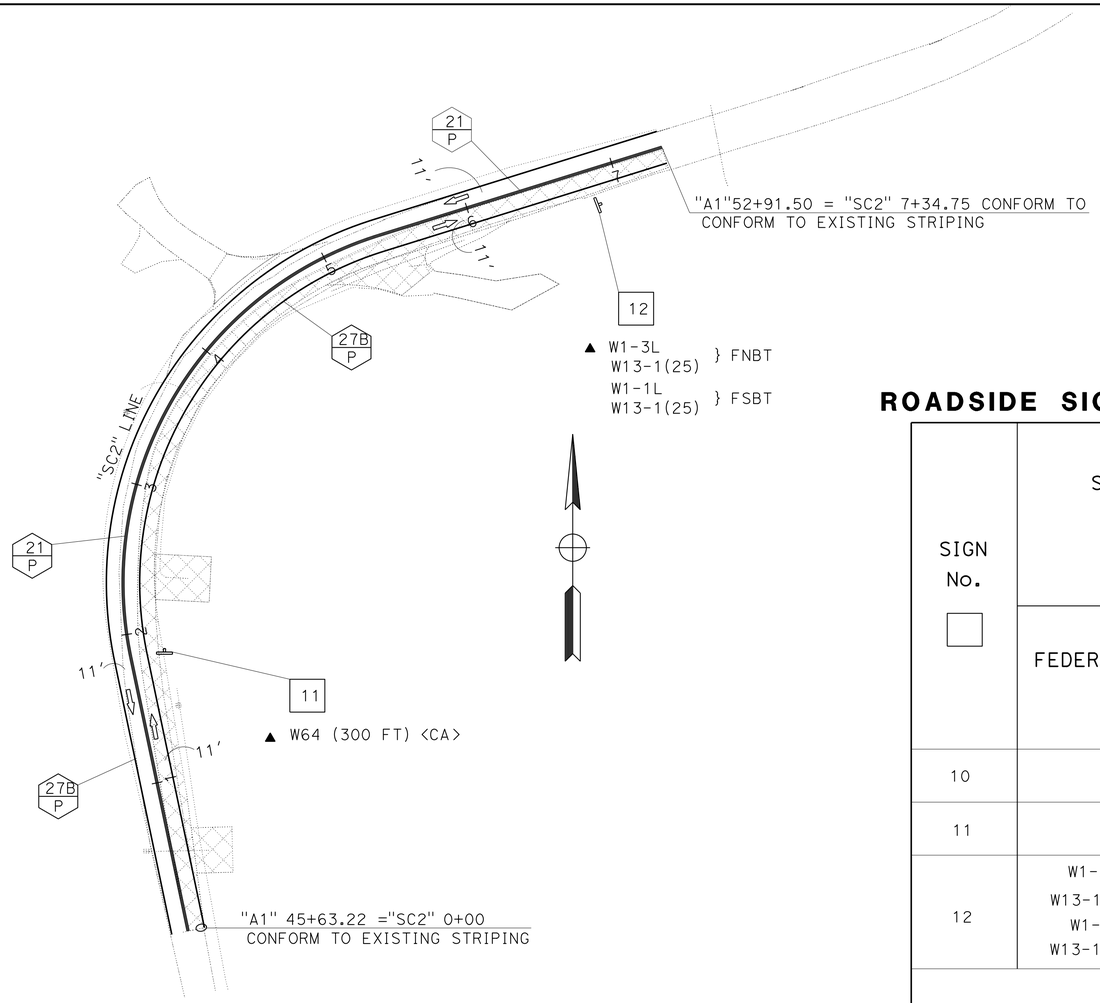

STAGE 2

ROADSIDE SIGN - ADDITIONAL STATIONARY MOUNTED CONSTRUCTION AREA SIGN

SIGN No.	SIGN CODE		STAGE 1	STAGE 2		"FINAL"	REMARKS
			ROADSIDE SIGN	ROADSIDE SIGN	CONSTRUCTION AREA SIGN	CONSTRUCTION AREA SIGN	
	FEDERAL	CALIFORNIA	RESET ROADSIDE SIGN (EACH)	RESET ROADSIDE SIGN (EACH)	SIGN TO REMAIN	REMOVE SIGN	
10		W4-4(25,L+)	1		X	X	
11		W64(300)		1		X	
12	W1-3L W13-1(25) W1-1L W13-1(25)			1		X	BACK TO BACK
STAGE TOTAL			1	2			

ROADSIDE SIGN QUANTITIES

STAGE	RESET ROADSIDE SIGN (EACH)
1	1
2	2
SHEET TOTAL	3

NOTE: FOR ADDITIONAL ROADSIDE SIGN QUANTITIES SEE SHEET SQ-1

TEMPORARY TRAFFIC STRIPE (PAINT)

DETAIL NO.	STAGE 2 (LF)
21	735
27B	1470
TOTAL	2205

STAGE 2
TRAFFIC HANDLING PLAN AND QUANTITIES

SCALE: 1"=50'

APPROVED FOR TRAFFIC HANDLING WORK ONLY

TH-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: SERGIO ACEVES
CALCULATED-DESIGNED BY: KRIS ALBERS
CHECKED BY: JOHN KEBER
REVISED BY
DATE REVISED

LAST REVISION 05-08-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	20	34

Kris M. Albers 5-13-13
REGISTERED CIVIL ENGINEER DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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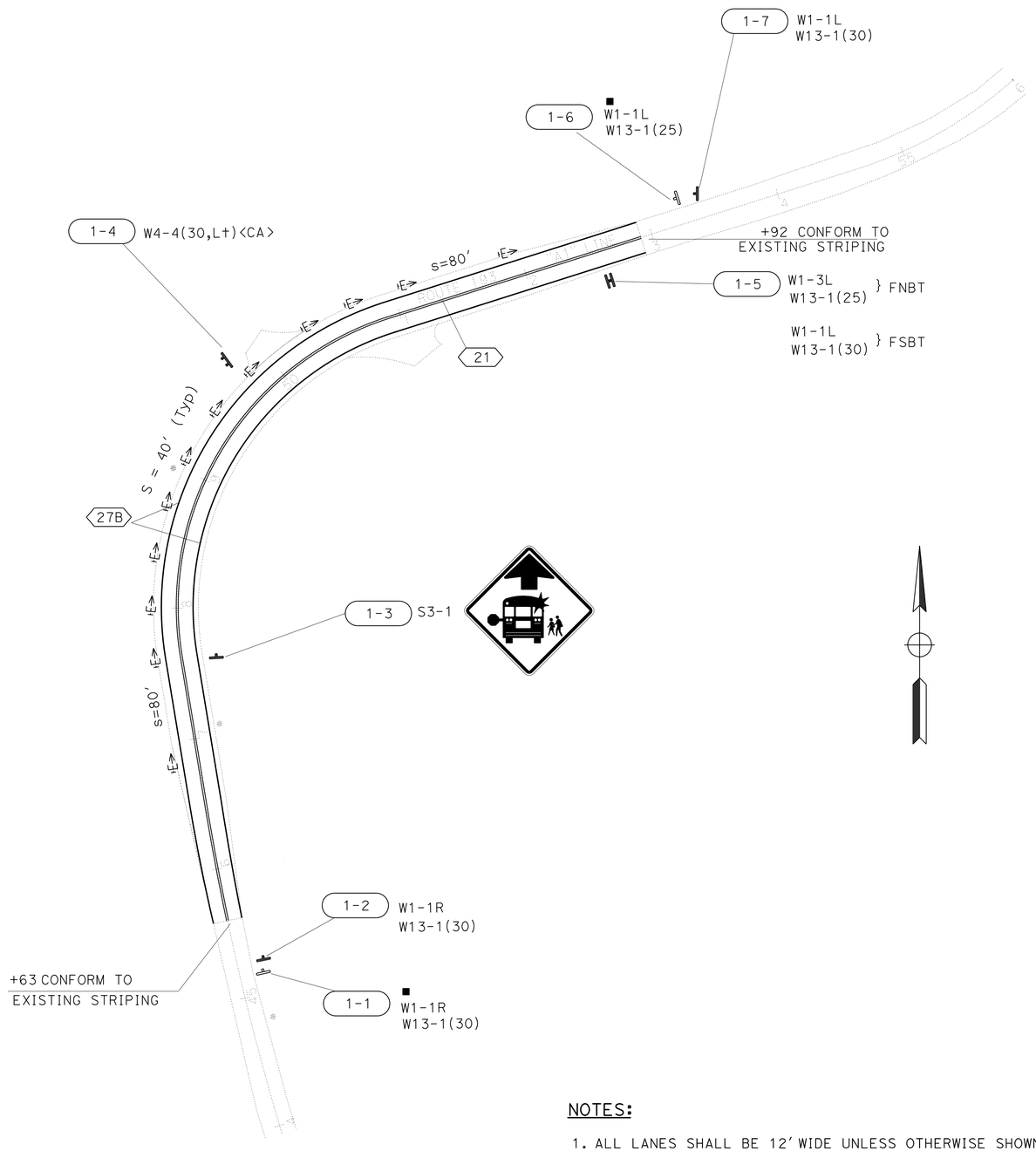


LEGEND

No.	PAVEMENT DELINEATION DETAIL NUMBER
E	DELINEATOR
s=	DELINEATOR SPACING
X-X	ROADSIDE SIGN NUMBER
<CA>	CALIFORNIA SIGN CODE
■	REMOVE ROADSIDE SIGN

4" THERMOPLASTIC TRAFFIC STRIPE

DETAIL NUMBER	LINEAR FEET
21	1,464
27B	1,464
TOTAL	2,928

DELINEATOR (CLASS 2)

SHEET NUMBER	TYPE E
	EACH
PD-1	12
TOTAL	12

NOTES:

1. ALL LANES SHALL BE 12' WIDE UNLESS OTHERWISE SHOWN.
2. ALL EXISTING SIGNS NOT SHOWN FOR REMOVAL, SHALL REMAIN IN PLACE.
3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.

PAVEMENT DELINEATION AND SIGN PLAN AND QUANTITIES

SCALE: 1"=50'

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: SERGIO ACEVES
CALCULATED-DESIGNED BY: KRIS ALBERS
CHECKED BY: JACK KEMMERLY
REVISED BY
DATE REVISED

LAST REVISION 05-10-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	21	34

Kris M. Albers 5-13-13
REGISTERED CIVIL ENGINEER DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KRIS M. ALBERS No. 49986 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA

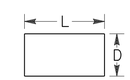
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

ROADSIDE SIGN PANEL QUANTITIES

SIGN CODE FEDERAL	SIGN CODE CALIFORNIA	SIGN MESSAGE/DESCRIPTION	PANEL SIZE (L x D) INCHES	PANEL AREA SQFT	NUMBER OF PANELS	BACKGROUND SHEETING COLOR	BACKGROUND RETROREFLECTIVE ASTM TYPE	LEGEND SHEETING COLOR	LEGEND RETROREFLECTIVE ASTM TYPE	PROTECTIVE OVERLAY PREMIUM	FURNISH SINGLE SHEET ALUMINUM SIGN UNFRAMED 0.063" SQFT	FURNISH SINGLE SHEET ALUMINUM SIGN FRAMED 0.063" SQFT
W1-1R		RIGHT TURN (SYMBOL)	36 x 36	9.00	1	YELLOW	III	BLACK		X	9.00	
W1-1L		LEFT TURN (SYMBOL)	36 x 36	9.00	2	YELLOW	III	BLACK		X	18.00	
W1-3L		LEFT REVERSE TURN (SYMBOL)	36 x 36	9.00	1	YELLOW	III	BLACK		X	9.00	
	W4-4(30,L†)<CA>	30 LEFT TURN ADVISORY	60 x 60	25.00	1	YELLOW	III	BLACK		X		25.00
W13-1(30)		30 MPH	30 x 30	6.25	3	YELLOW	III	BLACK		X	18.75	
W13-1(25)		25 MPH	30 x 30	6.25	1	YELLOW	III	BLACK		X	6.25	
S3-1		SCHOOL BUS STOP AHEAD (SYMBOL)	36 x 36	9.00	1	YELLOW	III	BLACK RED	 III	X	9.00	
										TOTAL	70.00	25.00

ROADSIDE SIGN QUANTITIES

SIGN NUMBER (SHT-NO.)	SIGN CODE FEDERAL	SIGN CODE CALIFORNIA	SIGN PANEL SIZE INCHES	"C" DIM IN FEET	POST SIZE AND LENGTH METAL POST 2½"x2½"	POST SIZE AND LENGTH 4"x6"	ROADSIDE SIGN ONE POST EACH	ROADSIDE SIGN TWO POST EACH	REMOVE ROADSIDE SIGN EACH	RESET ROADSIDE SIGN EACH	REMARKS
1-1	W1-1R W13-1(30)								1		
1-2	W1-1R W13-1(30)		36 x 36 30 x 30	4	12′		1				
1-3	S3-1		36 x 36	5	12′		1				
1-4		W4-4(30,L†)	60 x 60	5		16′		1			
1-5	W1-3L W13-1(25) W1-1L W13-1(30)		36 x 36 30 x 30 36 x 36 30 x 30	4	12′		1				BACK TO BACK
1-6	W1-1L W13-1(25)								1		
1-7	W1-1L W13-1(30)		36 x 36 30 x 30	4	12′		1				
						SHEET TOTAL	4	1	2	0	
						SHEET TOTAL FROM TH-2				3	
						TOTAL	4	1	2	3	



L = LENGTH OF SIGN
D = DEPTH OF SIGN

NOTES:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER.
2. POST LENGTHS GIVEN ARE APPROXIMATE.
3. "C" DIM = VERTICAL CLEARANCE EP TO BOTTOM OF SIGN PANEL.
4. FOR ADDITIONAL ROADWAY SIGNS SEE TRAFFIC HANDLING PLANS.
5. THE W4-4(30,L†)<CA> MUST BE SQUARE SHAPE.

SIGN QUANTITIES
SQ-1

REVISED BY | DATE REVISED
KRIS ALBERS | JACK KEMMERLY
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: ARSHAD IQBAL
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC
Caltrans

LAST REVISION 05-08-13 | DATE PLOTTED => 16-MAY-2013 | TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	22	34

REGISTERED CIVIL ENGINEER 5-13-13 DATE

5-13-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ALEX W. WU
No. 77266
Exp. 6-30-13
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.

TEMPORARY WATER POLLUTION CONTROL QUANTITIES

	TEMPORARY HYDRAULIC MULCH	TEMPORARY FIBER ROLL
	SQYD	LF
TOTAL	1742	1200

ROADWAY QUANTITIES

LOCATION	ROADWAY EXCAVATION	(N) EMBANKMENT	HMA (TYPE A) Var DEPTH AC OVERLAY	HMA (TYPE A) PLACE HMA AT SAFETY EDGE	HMA (TYPE A) PLACE HMA DIKE	TACK COAT	PLACE HMA DIKE (TYPE E)	REMOVE ASPHALT CONCRETE DIKE	COLD PLANE AC PAVEMENT	CLASS 2 AB	PLACE HMA (Misc Area)
	CY	CY	TON	TON	TON	TON	LF	LF	SQYD	CY	SQYD
R†/L† STA 45+63.22 TO STA 52+91.5	1570	290	1570	15	7	5	270	270	300	319.4	10
MAILBOX BASE										0.6	
SUBTOTAL	1570	290	1570	15	7	5	270	270	300	320	10
TOTAL	1570		1592			5	270	270	300	320	10

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

MINOR CONCRETE (MINOR STRUCTURE)

	CY
DRAINAGE SHEET D-1 SYSTEM 1C	1.06
MAILBOX BASE	0.6
TOTAL	1.66

CLEARING AND GRUBBING

STATION	(N) CLEARING AND GRUBBING (ACRES)
R†/L† STA 45+63.22 TO STA 52+91.5	ACRES
TOTAL	0.4

ROADSIDE CLEARING

STATION	(N) ROADSIDE CLEARING (ACRES)
R† STA 46+49.54 TO STA 51+25	ACRES
TOTAL	0.2

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: STEPHEN T. WRIGHT
CALCULATED-DESIGNED BY: ALEX WU
CHECKED BY: DZUNG BUI
REVISED BY
DATE REVISED

LAST REVISION 01-23-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	23	34

LICENSED LANDSCAPE ARCHITECT

5-13-13
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
LESLEY E. PHILLIPS
No. 5066
Signature
03-31-14
Renewal Date
5-14-13
Date
STATE OF CALIFORNIA

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

NOTES:

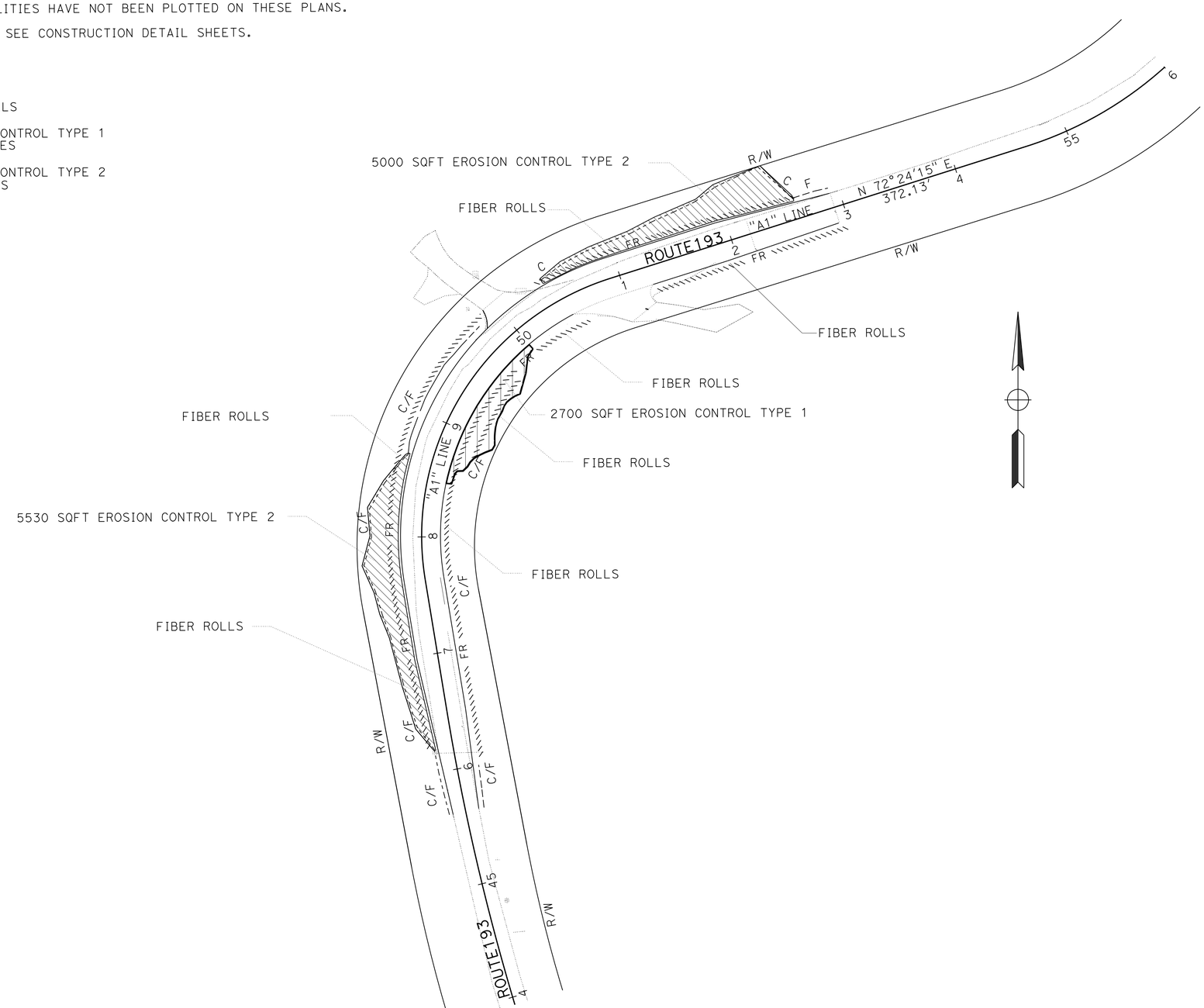
1. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. FOR DRIVEWAY DETAILS, SEE CONSTRUCTION DETAIL SHEETS.

LEGEND

FR FIBER ROLLS

EROSION CONTROL TYPE 1 FILL SLOPES

EROSION CONTROL TYPE 2 CUT SLOPES



EROSION CONTROL PLAN

SCALE 1" = 50'

EC-1

APPROVED FOR EROSION CONTROL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03-LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT: T.CHRIS JOHNSON

CALCULATED-DESIGNED BY: LESLEY E. PHILLIPS
CHECKED BY: LESLEY E. PHILLIPS

REVISED BY
DATE REVISED

LAST REVISION 05-08-13
DATE PLOTTED => 16-MAY-2013
TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	24	34

LICENSED LANDSCAPE ARCHITECT

5-13-13
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
LESLEY E. PHILLIPS
No. 5066
Signature
03-31-14
Renewal Date
5-14-13
Date
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.

EROSION CONTROL TYPE 1

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	APPLICATION RATE	REMARKS
STEP 1	COMPOST	COMPOST	MEDIUM	135 CY/ACRE	.....
STEP 2	ROLLED EROSION CONTROL PRODUCT (NETTING)	NETTING	TYPE B	.....	.....
STEP 3	FIBER ROLLS	FIBER ROLLS	TYPE B 8" TO 10" Dia	.....	TYPE 1 FIBER ROLL INSTALLATION
STEP 4	EROSION CONTROL (BONDED FIBER MATRIX)	SEED WOOD FIBER & TACKIFER	SEED MIX	40 LB/ACRE 1,500 LB/ACRE	.....

EROSION CONTROL TYPE 2

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	APPLICATION RATE	REMARKS
STEP 1	FIBER ROLLS	FIBER ROLLS	TYPE B 8" TO 10" Dia	.....	TYPE 1 FIBER ROLL INSTALLATION
STEP 2	EROSION CONTROL (BONDED FIBER MATRIX)	SEED	SEED MIX	40 LB/ACRE	.....
		WOOD FIBER & TACKIFER	.....	1,500 LB/ACRE	.....

SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
ACHILLEA MILLEFOLIUM (WESTERN YARROW)	72	1
BROMUS CARINATUS HOOK (CALIFONRIA BROME)	72	20
ELYMUS GLAUCUS BUCKLEY (BLUE WILEDRYE)	72	12
NASSELLA PULCHRA (PURPLE NEEDLEGRASS)	63	6
POA SECUNDA (PINE BLUEGRASS)	72	1

EROSION CONTROL

LOCATION	DESCRIPTION	COMPOST	ROLLED EROSION CONTROL PRODUCT (NETTING)	EROSION CONTROL (BONDED FIBER MATRIX)	FIBER ROLLS
		SQFT	SQFT	SQFT	LF
Lt "A1" Sta 46+17.38 TO Sta 48+67.73	EROSION CONTROL TYPE 2	.....	.....	5,530	240
Lt "A1" Sta 48+67.73 TO Sta 49+89.44	FIBER ROLLS	.....	.....	.....	140
Lt "A1" Sta 50+24.00 TO Sta 52+80.00	EROSION CONTROL TYPE 2	.....	.....	5,000	270
Rt "A1" Sta 46+17.08 TO Sta 48+45.30	FIBER ROLLS	.....	.....	.....	200
Rt "A1" Sta 48+45.30 Sta TO 50+00	EROSION CONTROL TYPE 1	2,700	2,700	2,700	142
Rt "A1" Sta 50+00 TO Sta 50+59.14	FIBER ROLLS	.....	.....	.....	55
Rt "A1" Sta 51+59.14 TO Sta 52+97.99	FIBER ROLLS	.....	.....	.....	160
	TOTAL	2,700	2,700	13,230	1,207

EROSION CONTROL QUANTITIES
ECQ-1

REVISED BY | DATE REVISED
LESLEY E. PHILLIPS | T. CHRIS JOHNSON
CALCULATED-DESIGNED BY | CHECKED BY
SENIOR LANDSCAPE ARCHITECT | T.CHRIS JOHNSON
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® 03- LANDSCAPE ARCHITECTURE

LAST REVISION 05-08-13 | DATE PLOTTED => 16-MAY-2013 | TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	25	34

REGISTERED CIVIL ENGINEER

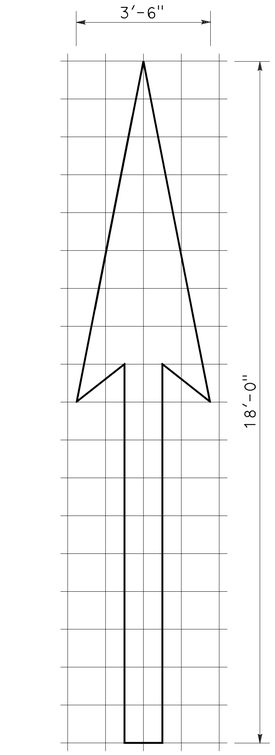
April 20, 2012
PLANS APPROVAL DATE

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.

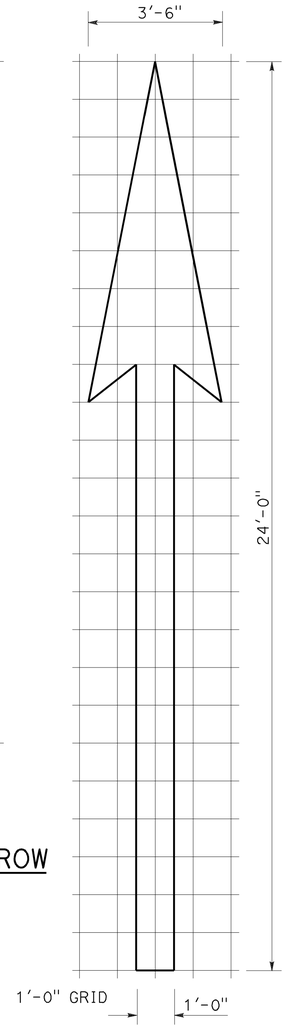
TO ACCOMPANY PLANS DATED 5-13-13

2010 REVISED STANDARD PLAN RSP A24A



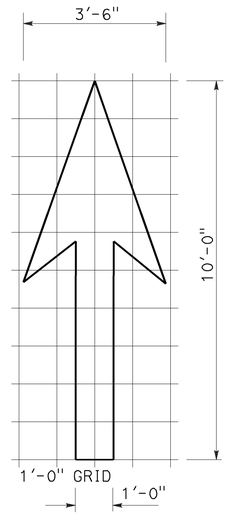
A=25 ft^2

TYPE I 18'-0" ARROW



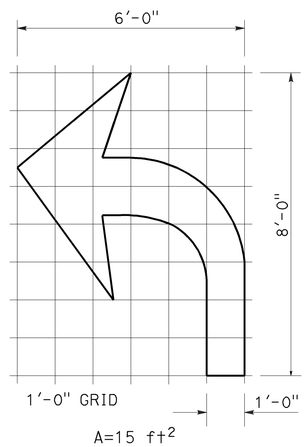
A=31 ft^2

TYPE I 24'-0" ARROW



A=14 ft^2

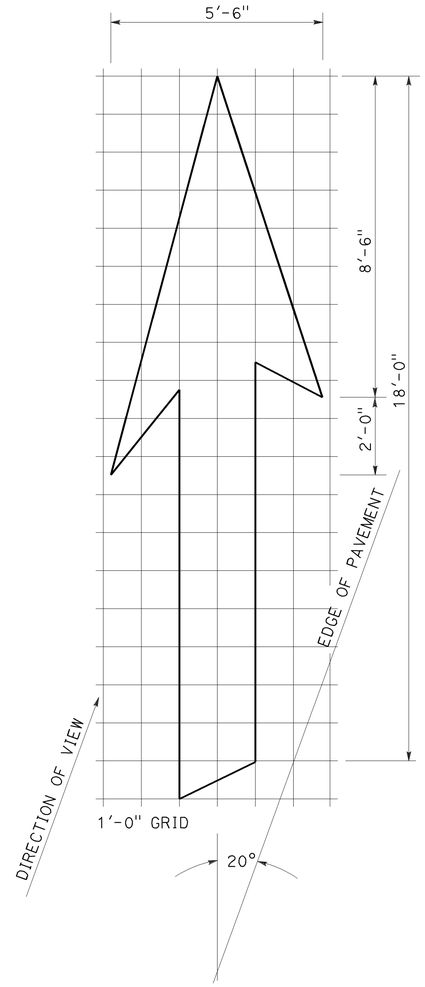
TYPE I 10'-0" ARROW



A=15 ft^2

TYPE IV (L) ARROW

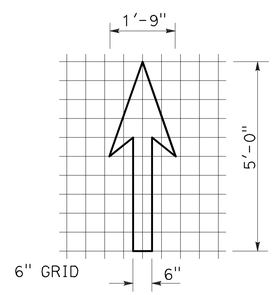
(For Type IV (R) arrow, use mirror image)



A=42 ft^2

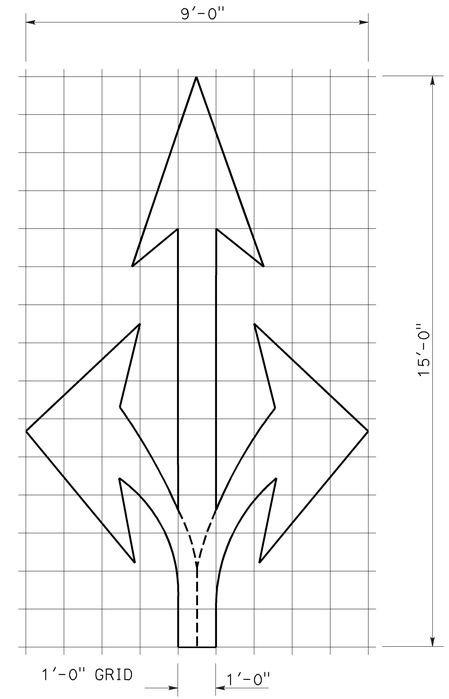
TYPE VI ARROW

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



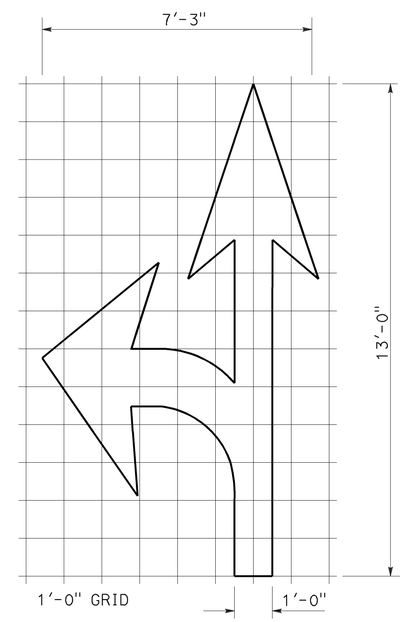
A=3.5 ft^2

BIKE LANE ARROW



A=36 ft^2

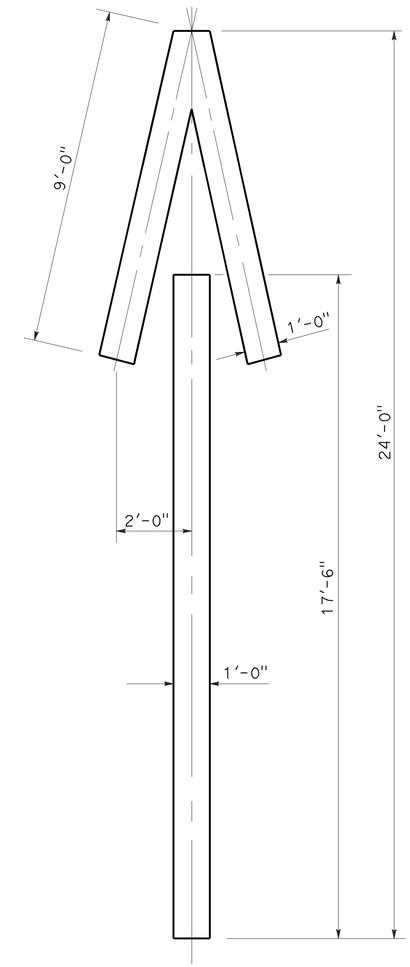
TYPE VIII ARROW



A=27 ft^2

TYPE VII (L) ARROW

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



A=33 ft^2

TYPE V ARROW

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS

NO SCALE

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

REVISED STANDARD PLAN RSP A24A

3-14-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	26	34

REGISTERED CIVIL ENGINEER

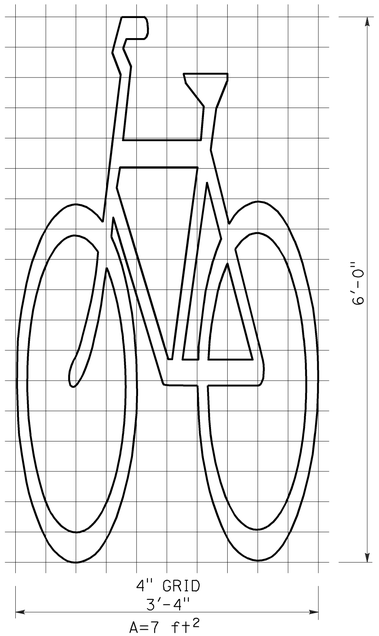
October 19, 2012
PLANS APPROVAL DATE

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

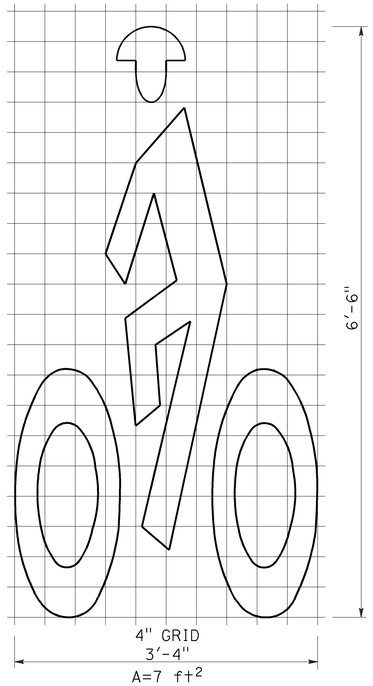
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE: TO ACCOMPANY PLANS DATED 5-13-13

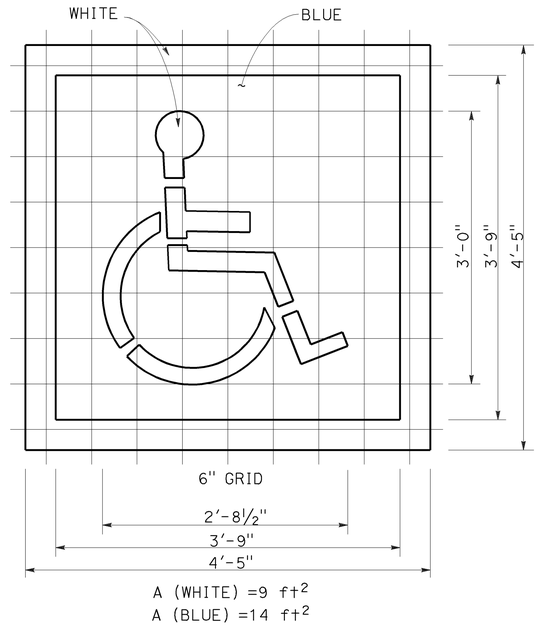
Minor variations in dimensions may be accepted by the Engineer.



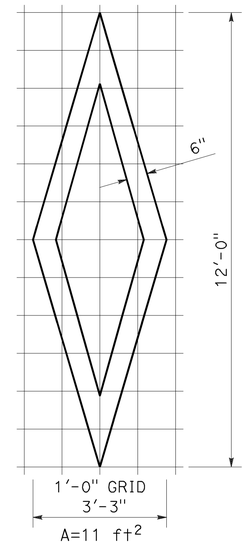
BIKE LANE SYMBOL WITHOUT PERSON



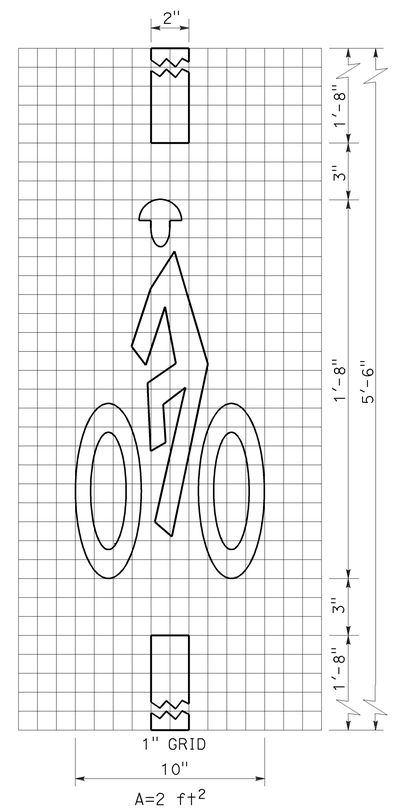
BIKE LANE SYMBOL WITH PERSON



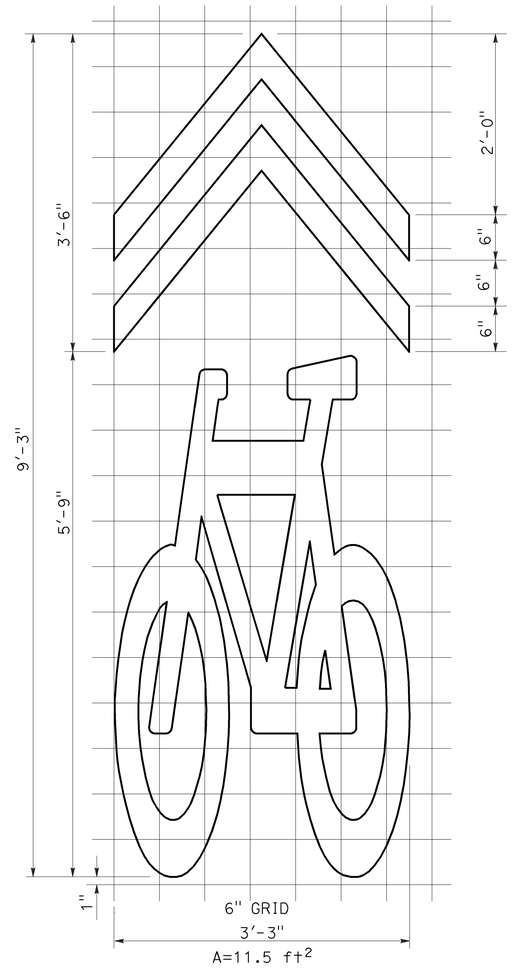
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING



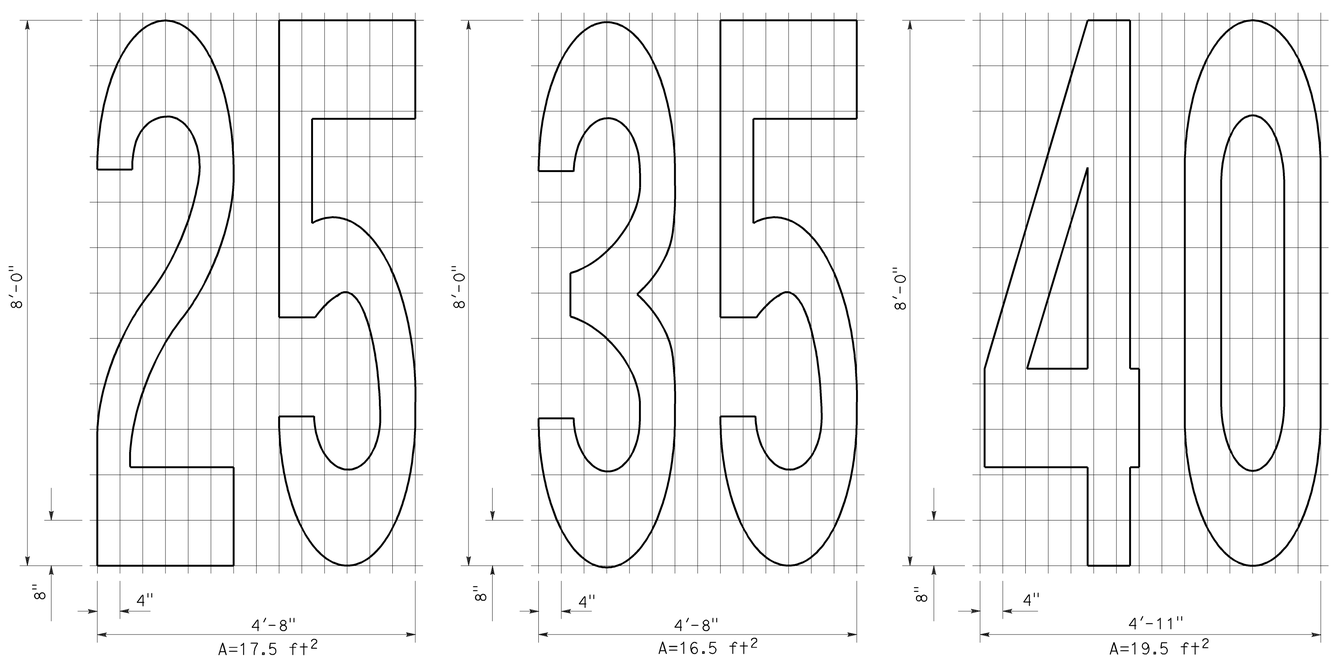
DIAMOND SYMBOL



BICYCLE LOOP DETECTOR SYMBOL



SHARED ROADWAY BICYCLE MARKING



NUMERALS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS SYMBOLS AND NUMERALS

NO SCALE

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

REVISED STANDARD PLAN RSP A24C

2010 REVISED STANDARD PLAN RSP A24C

6-28-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	27	34

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

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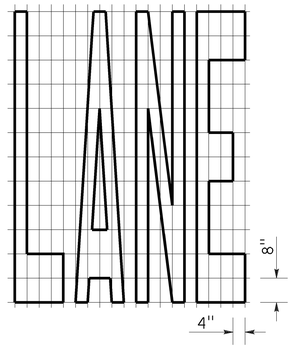
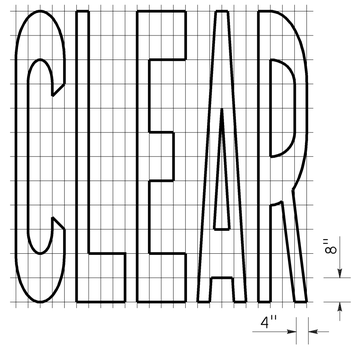
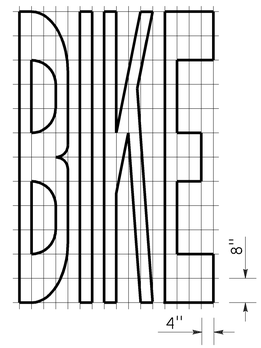
TO ACCOMPANY PLANS DATED 5-13-13



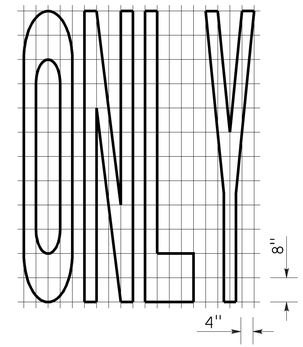
A=24 ft²



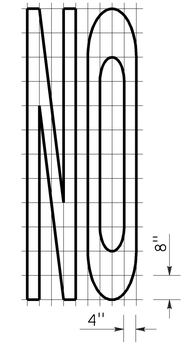
A=27 ft²



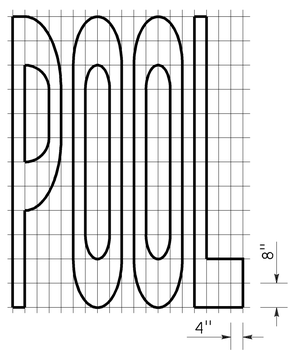
A=21 ft²



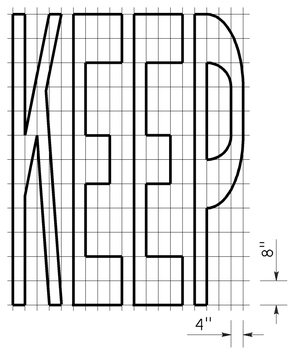
A=22 ft²



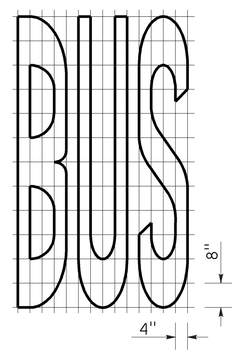
A=14 ft²



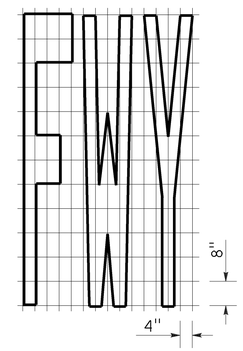
A=23 ft²



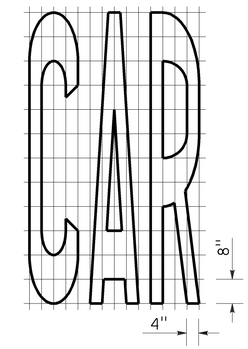
A=24 ft²



A=20 ft²

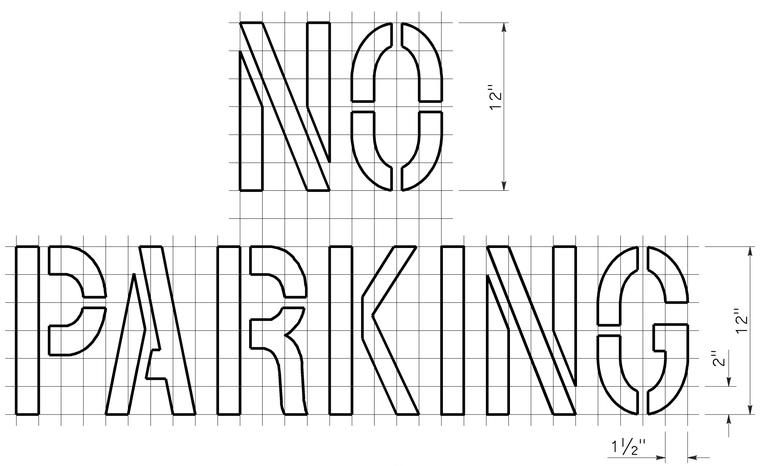


A=16 ft²

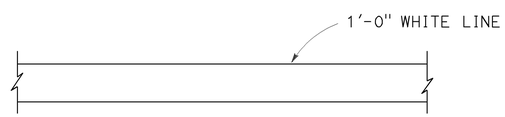


A=17 ft²

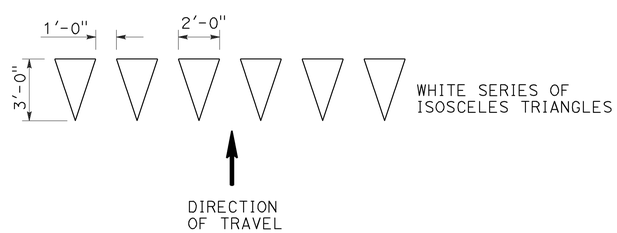
WORD MARKINGS			
ITEM	ft²	ITEM	ft²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS WORDS, LIMIT AND YIELD LINES

NO SCALE

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

REVISED STANDARD PLAN RSP A24E

2010 REVISED STANDARD PLAN RSP A24E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	28	34

REGISTERED CIVIL ENGINEER

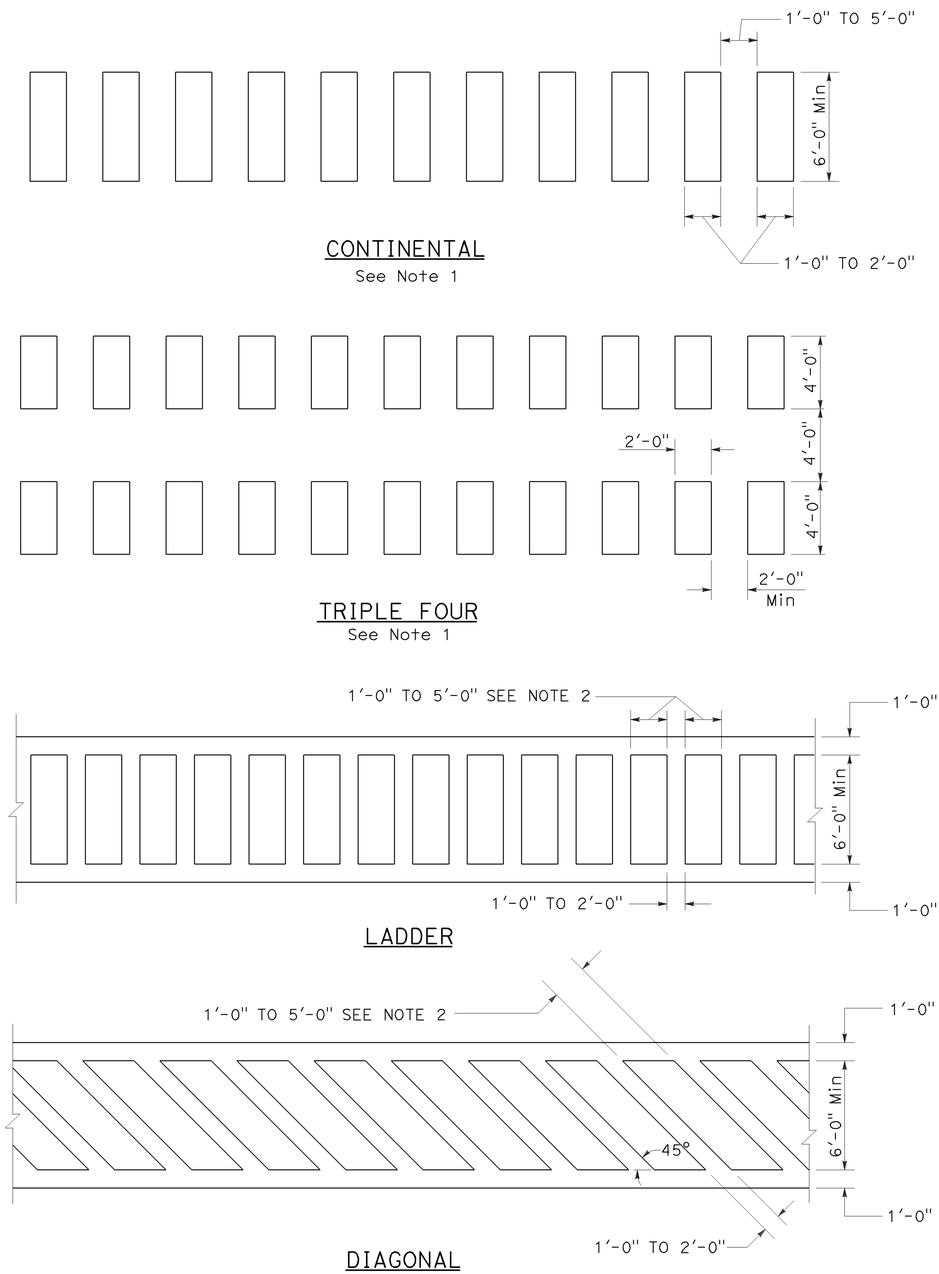
July 20, 2012
PLANS APPROVAL DATE

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 5-13-13

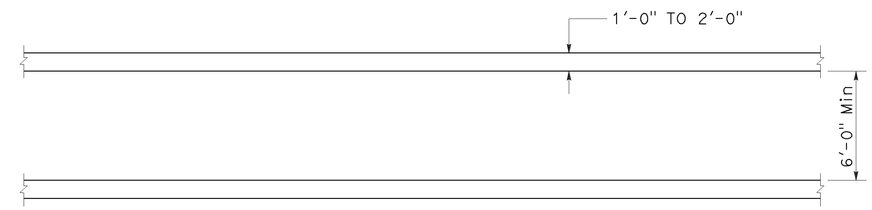
2010 REVISED STANDARD PLAN RSP A24F



HIGHER VISIBILITY CROSSWALKS

NOTES:

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



BASIC

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS CROSSWALKS

NO SCALE

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

REVISED STANDARD PLAN RSP A24F

6-28-12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	29	34

REGISTERED CIVIL ENGINEER

January 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Cornelis M. Hakim
No. C55610
Exp. 12-31-12
CIVIL
STATE OF CALIFORNIA

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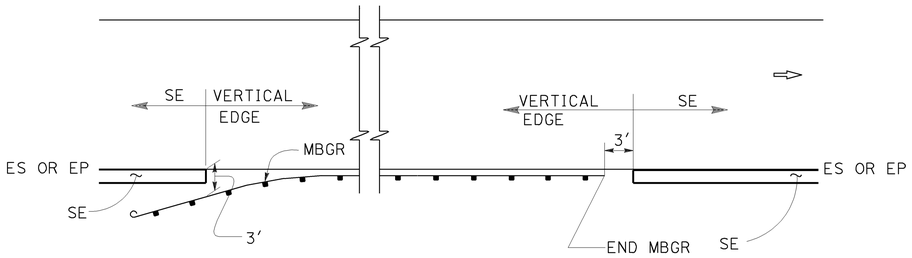
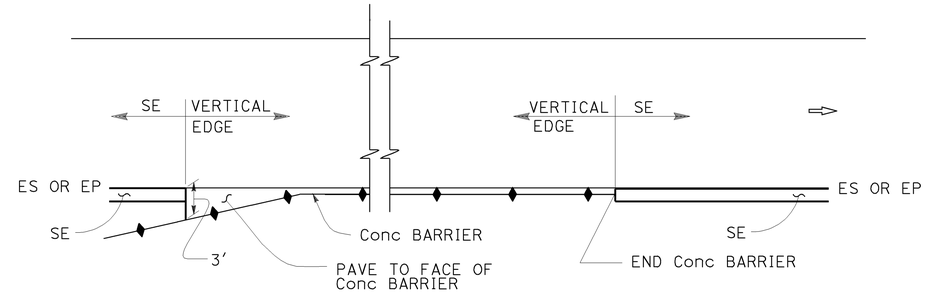
TO ACCOMPANY PLANS DATED 5-13-13



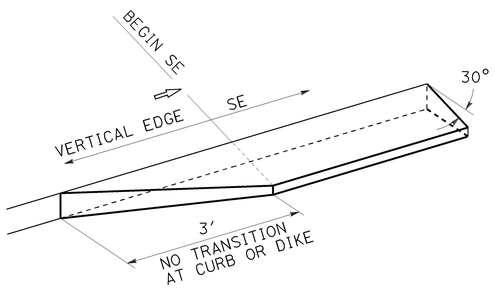
MBGR



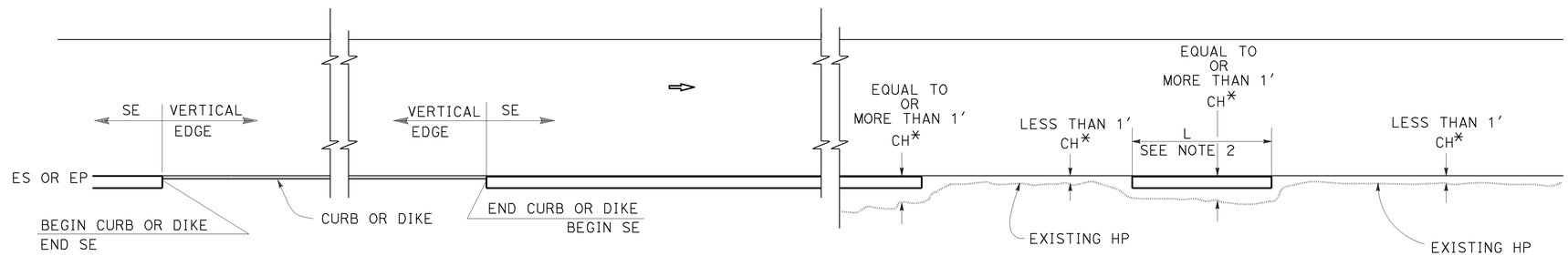
CONCRETE BARRIER

ABBREVIATIONS:

SE SAFETY EDGE



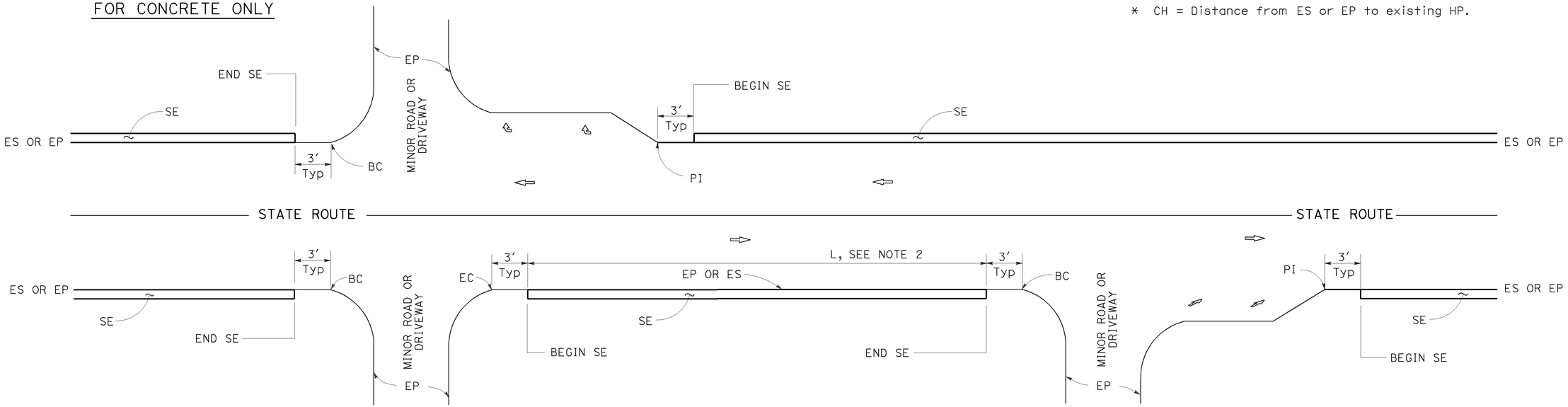
TRANSITION DETAIL
FOR CONCRETE ONLY



CURB OR DIKE

NARROW SIDE SLOPE

* CH = Distance from ES or EP to existing HP.



INTERSECTION

MINOR ROADWAY OR DRIVEWAY

DRIVEWAY AND INTERSECTION

NOTES:

1. For details not shown, see Revised Standard Plans RSP P75 and RSP P76.
2. Safety edge is optional when L is less than 30′.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE TREATMENTS

NO SCALE

RSP P74 DATED JANUARY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P74

2010 REVISED STANDARD PLAN RSP P74

01-05-12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	30	34

REGISTERED CIVIL ENGINEER

January 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Cornelis M. Hakim
No. C55610
Exp. 12-31-12
CIVIL
STATE OF CALIFORNIA

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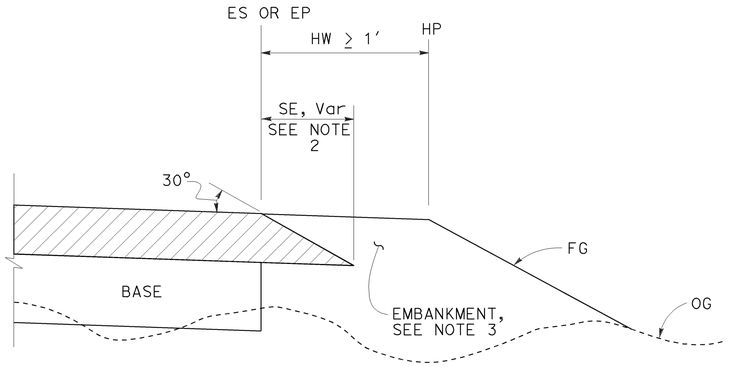
TO ACCOMPANY PLANS DATED 5-13-13

LEGEND:

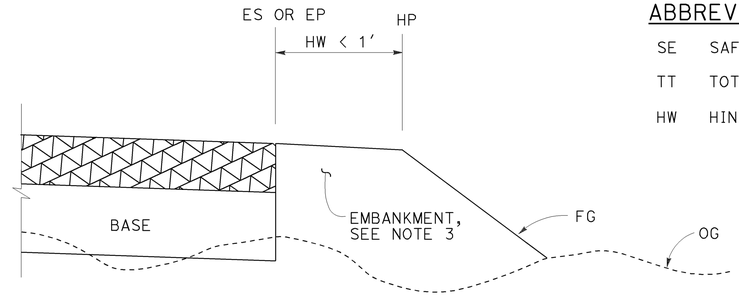
- HMA PAVEMENT
- HMA OR CONCRETE PAVEMENT
- CONCRETE PAVEMENT

ABBREVIATIONS:

SE SAFETY EDGE
TT TOTAL THICKNESS OF SE
HW HINGE WIDTH, DISTANCE FROM ES OR EP TO HP

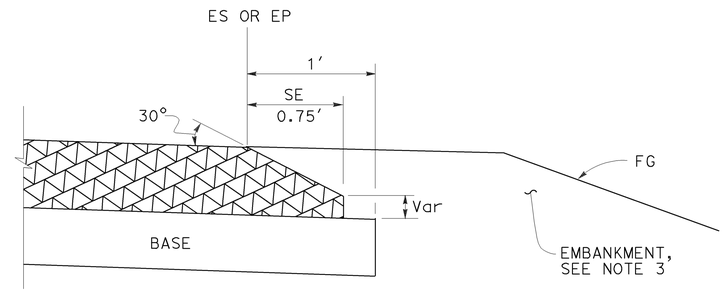


CASE K
Safety Edge - Fill Section, HW ≥ 1′

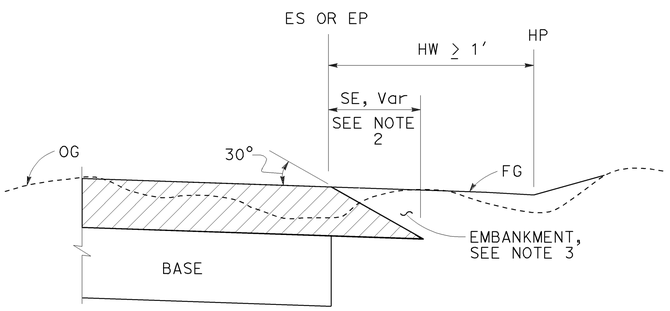


CASE L
Vertical Edge - Fill Section, HW < 1′

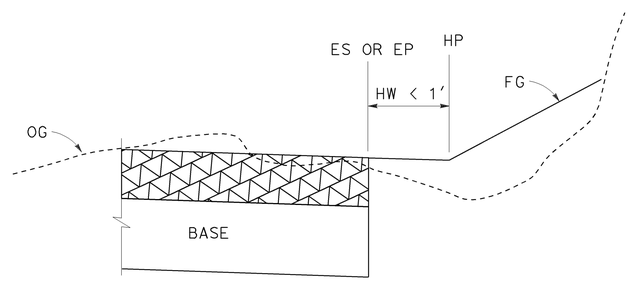
FILL SECTION



DETAIL "B"
For HMA pavement thickness more than 0.43′ or concrete pavement

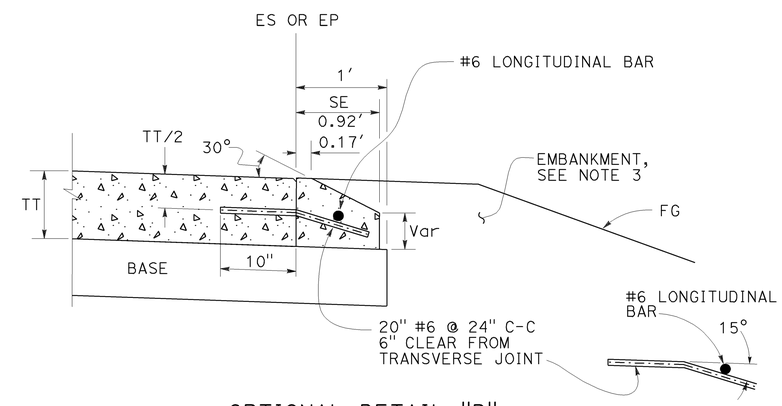


CASE M
Safety Edge - Cut Section, HW ≥ 1′



CASE N
Vertical Edge - Cut Section, HW < 1′

CUT SECTION



OPTIONAL DETAIL "B"
For concrete pavement
See Note 4

NOTES:

1. For limits of safety edge and vertical edge treatments, see Revised Standard Plan RSP P74
2. Details shown for HMA pavement thickness less than 0.43′. See Detail "B" for HMA pavement thickness more than 0.43′ or concrete pavement.
3. For locations and limits of embankment see project plans.
4. Safety edge transverse joint must match pavement transverse joint. End of #6 longitudinal bar must be 2" ±½" clear from transverse joint.
5. Safety edge is not needed in the area of MBGR, barrier, right turn lane and acceleration lane. See Revised Standard Plan RSP P74.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE TREATMENTS-NEW CONSTRUCTION

NO SCALE

RSP P76 DATED JANUARY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P76

2010 REVISED STANDARD PLAN RSP P76

01-09-12

TO ACCOMPANY PLANS DATED 5-13-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	31	34

REGISTERED CIVIL ENGINEER

October 19, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Glenn DeCou No. C34547 Exp. 9-30-13 CIVIL STATE OF CALIFORNIA

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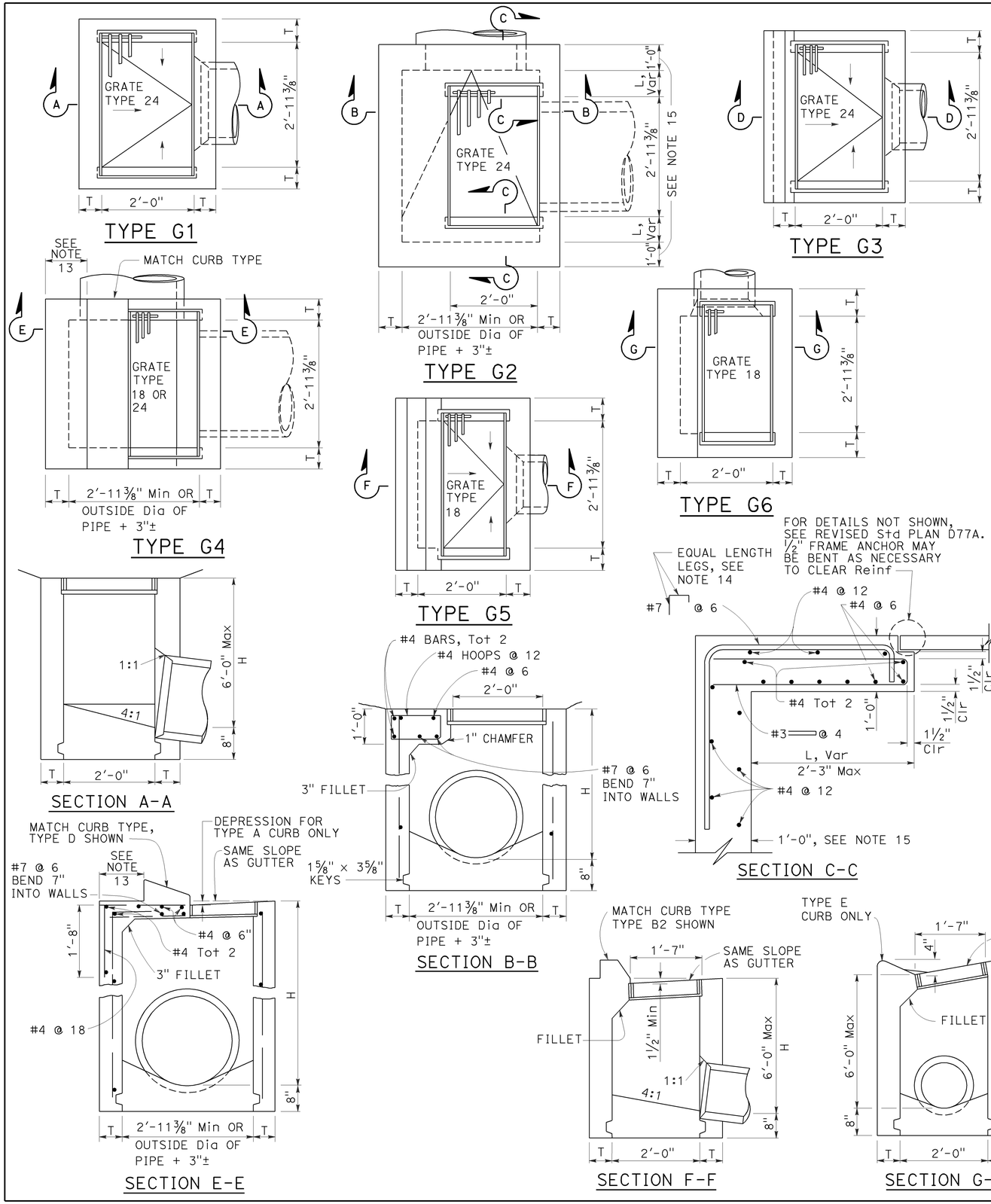

NOTES:

1. "H" is the difference in elevation between the outlet pipe flow line and the normal gutter grade line undepressed.
2. For "T" wall thickness, see Table A below.
3. Wall reinforcing not required when "H" is 8'-0" or less and the unsupported width or length is 7'-0" or less. Walls exceeding these limits shall be reinforced with #4 bars @ 1'-6" ± centers placed 1½" clear to inside of box unless otherwise shown.
4. Inlet bottom reinforcing not required. See Standard Plan D74C for alternative reinforced bottom and alternative half round bottom.
5. Steps-None required where "H" is less than 2'-6". Where "H" is 2'-6" or more, install steps with lowest rung 1'-0" above the floor and highest rung not more than 6" below top of inlet. The distance between steps shall not exceed 1'-0" and shall be uniform throughout the length of the wall. Place steps in the wall without an opening. Steps inserts may be substituted for the bar steps. Step inserts shall comply with State Industrial Safety requirements. See Standard Plan D74C for step details.
6. Details shown apply to both metal and concrete pipe.
7. Pipe(s) can be placed in any wall.
8. Curb section shall match adjacent curb.
9. Basin floors shall have wood trowel finish and a minimum slope of 12:3 from all directions toward outlet pipe.
10. Set inlet so that grate bars are parallel to direction of principal surface flow.
11. See Revised Standard Plans D77A and D77B for grate and frame details and weights of miscellaneous iron and steel.
12. See Standard Plan D78A for gutter depression details.
13. This dimenison will vary with different grates, curbs types, box width and wall thickness.
14. Bar may be rotated as necessary to clear opening. Where "L" is 6" or less, bar may be omitted.
15. Where "L" is 6" or less, wall thickness shall be as shown in Table A.
16. Cast-in-place inlets to be formed around all pipes/stubs intersecting the inlet, and concrete poured in one continuous operation. Precast inlets shall have mortared connections conforming to details for Type GCP Inlet shown on Standard Plan D75B. See Standard Specifications for mortar composition.

TABLE A

CONCRETE QUANTITIES				
TYPE	H=3'-0" TO 8'-0" (T=6")		H=8'-1" TO 20'-0" (T=8")	
	H=3'-0" (CY)	ADDITIONAL PCC PER FOOT (CY)	H=8'-1" (CY)	ADDITIONAL PCC PER FOOT (CY)
G-1	0.95	0.220	See Note A	SEE NOTE A
G-2*	1.31	0.255	3.50	0.357
G-3	1.03	0.220	See Note A	SEE NOTE A
G-4* (TYPE 24)	1.27	0.255	3.48	0.357
G-4* (TYPE 18)	1.30	0.255	3.50	0.357
G-5	1.02	0.220	SEE NOTE A	SEE NOTE A
G-6	1.04	0.220	SEE NOTE A	SEE NOTE A

TABLE BASED ON 8" FLOOR SLAB. NO DEDUCTIONS ARE TO BE MADE TO THESE QUANTITIES BECAUSE OF PIPE OPENINGS, DIFFERENT FLOOR ALTERNATIVES OR DIFFERENT CURB TYPES. * QUANTITIES FOR TYPE G-2 AND G-4 INLETS BASED ON THE MINIMUM INTERIOR DIMENSIONS.

NOTE A:

Maximum allowable height 6'-0".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DRAINAGE INLETS

NO SCALE

RSP D73 DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN D73 DATED MAY 20, 2011 - PAGE 156 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP D73

2010 REVISED STANDARD PLAN RSP D73

7-19-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	32	34

Raymond Don Tsztoo
REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Raymond Don Tsztoo No. C37332 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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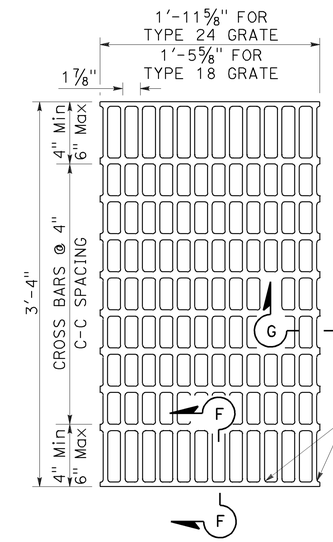
TO ACCOMPANY PLANS DATED 5-13-13

2010 REVISED STANDARD PLAN RSP D77B



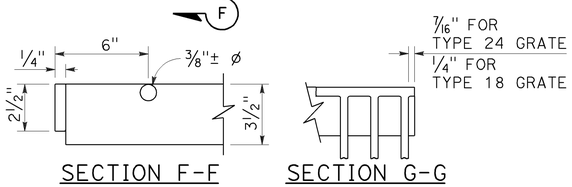
NOTES:

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

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

Weight of Type 24 grate = 141 LBS.

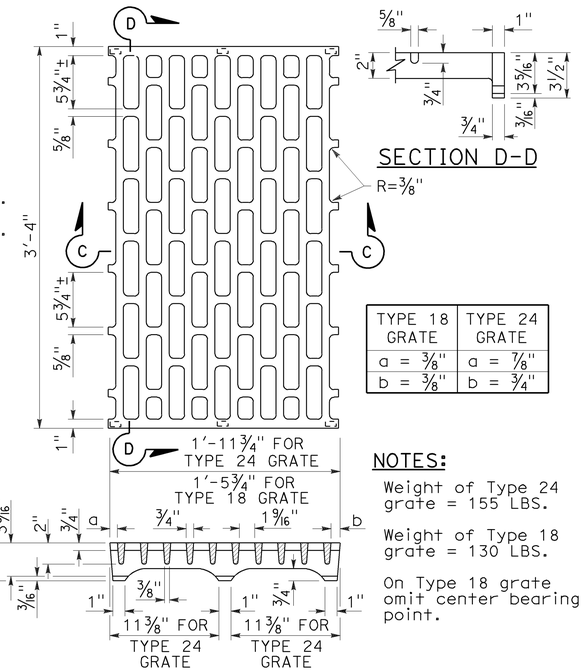
Weight of Type 18 grate = 107 LBS. (Type 24 grate shown).



SECTION F-F SECTION G-G

TYPE 18-10 AND 24-13 GRATE

(Welded Steel)



SECTION D-D

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

NOTES:

Weight of Type 24 grate = 155 LBS.

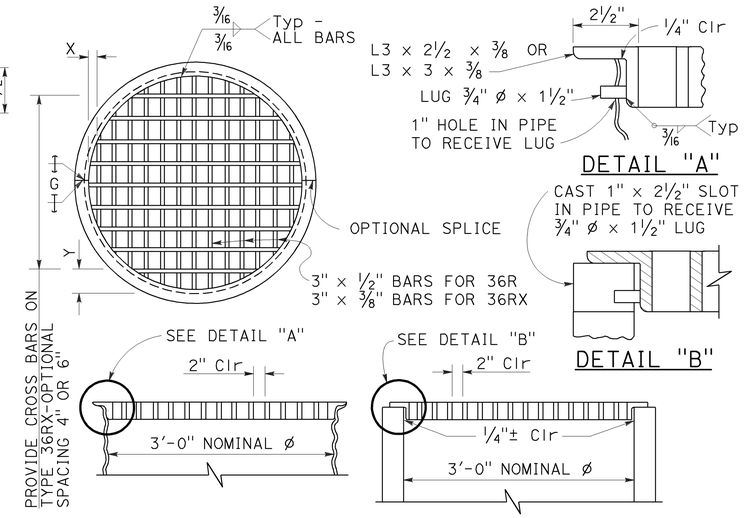
Weight of Type 18 grate = 130 LBS.

On Type 18 grate omit center bearing point.

SECTION C-C

TYPE 18-8C AND 24-10C GRATE

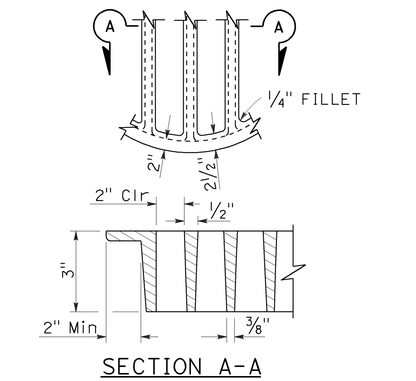
(Cast ductile iron)



DETAIL "A"

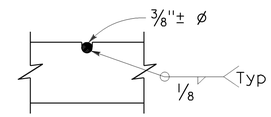
DETAIL "B"

TYPE 36R AND 36RX GRATE DETAILS



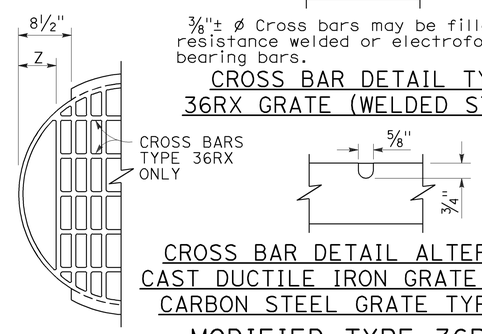
SECTION A-A

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



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

CROSS BAR DETAIL TYPE 36RX GRATE (WELDED STEEL)



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

MODIFIED TYPE 36R AND 36RX GRATE FOR ODI INLET

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

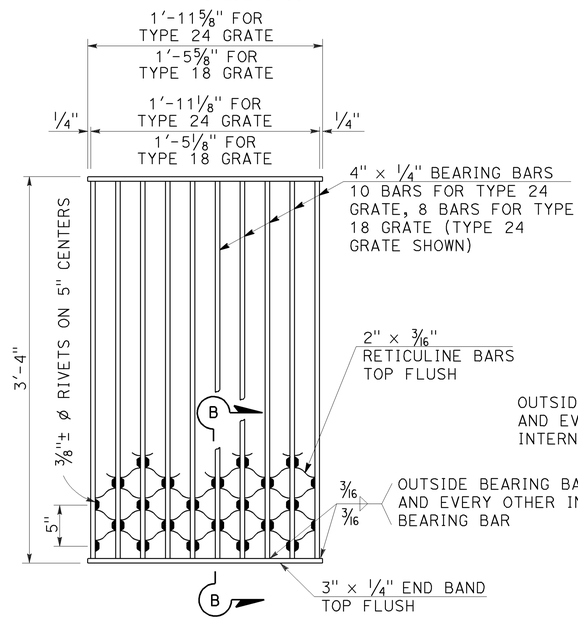
INLET TYPE	GRATE TYPE	No. OF GRATES	WEIGHT LB
GDO (SEE NOTE 4)	24-10C	2	391
	24-10S	2	456
	24-12X	2	473
	24-13	2	374
GO,GOL,G1,G2, G3,G4 (TYPE 24)	24-10C	1	202
	24-10S	1	229
	24-12X	1	239
	24-13	1	188
G4 (TYPE 18) G5,G6	18-8S	1	187
	18-9X	1	187
	18-10	1	149
GT1,GT2	18-8S	2	374
	18-9X	2	374
	18-10	2	298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

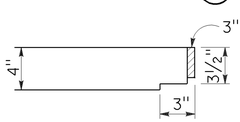
NOTES:

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

GRATE BAR SPACING TABLE

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





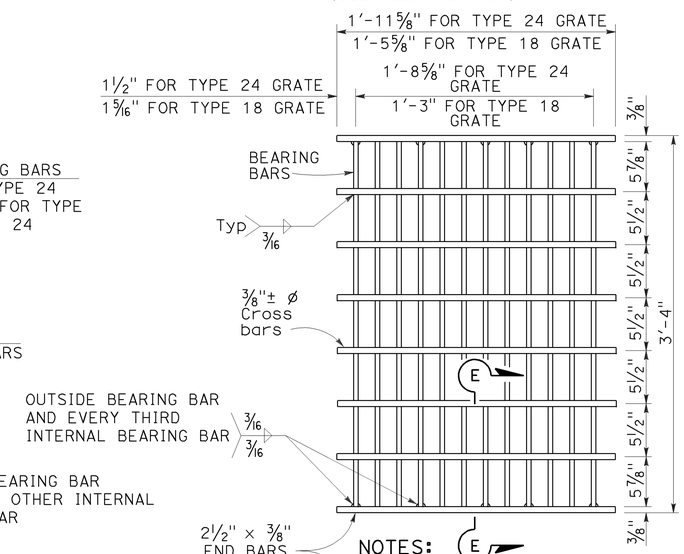
NOTES:

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

SECTION B-B

TYPE 18-8S AND 24-10S GRATE

(Welded Steel) Reticuline type



SECTION E-E

NOTES:

Bearing bars to be 3½" × ⅜" bars on 1⅞" centers.

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

Weight of Type 24 grate = 192 LBS.

Weight of Type 18 grate = 145 LBS.

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

TYPE 18-9X AND 24-12X GRATE

(Welded Steel)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

GRATE DETAILS No. 2

NO SCALE

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

REVISED STANDARD PLAN RSP D77B

4-4-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	33	34

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 5-13-13

NOTES:

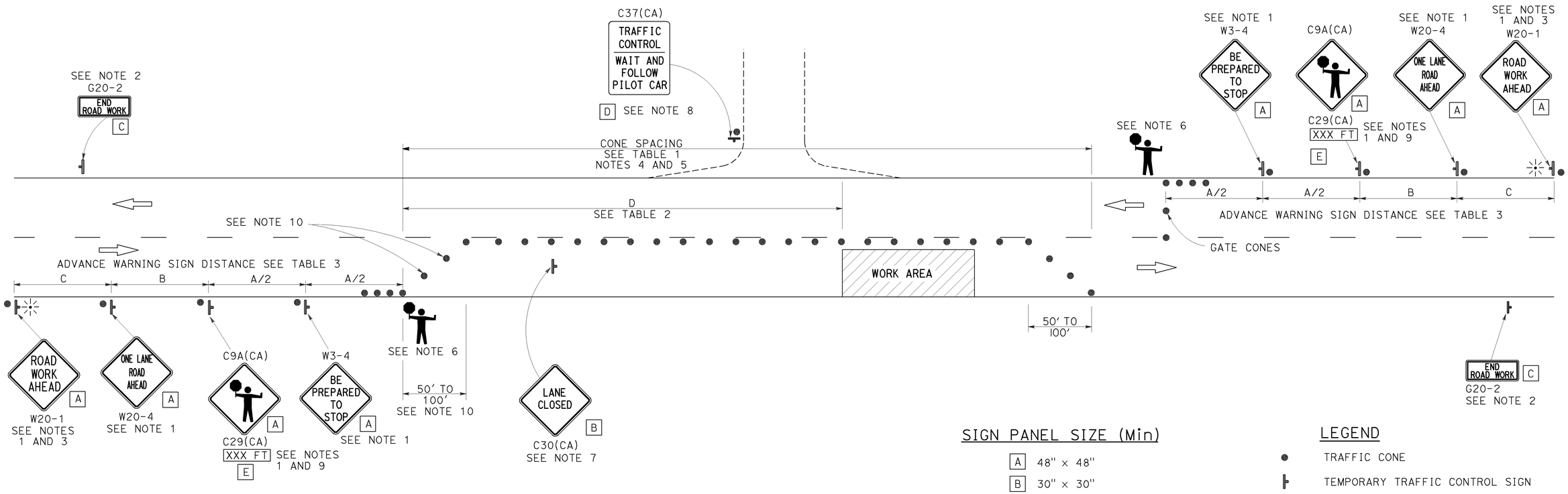
See Revised Standard Plan RSP T9 for tables.

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

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

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

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



SIGN PANEL SIZE (Min)

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

LEGEND

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T13

2010 REVISED STANDARD PLAN RSP T13

4-2-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	193	18.7	34	34

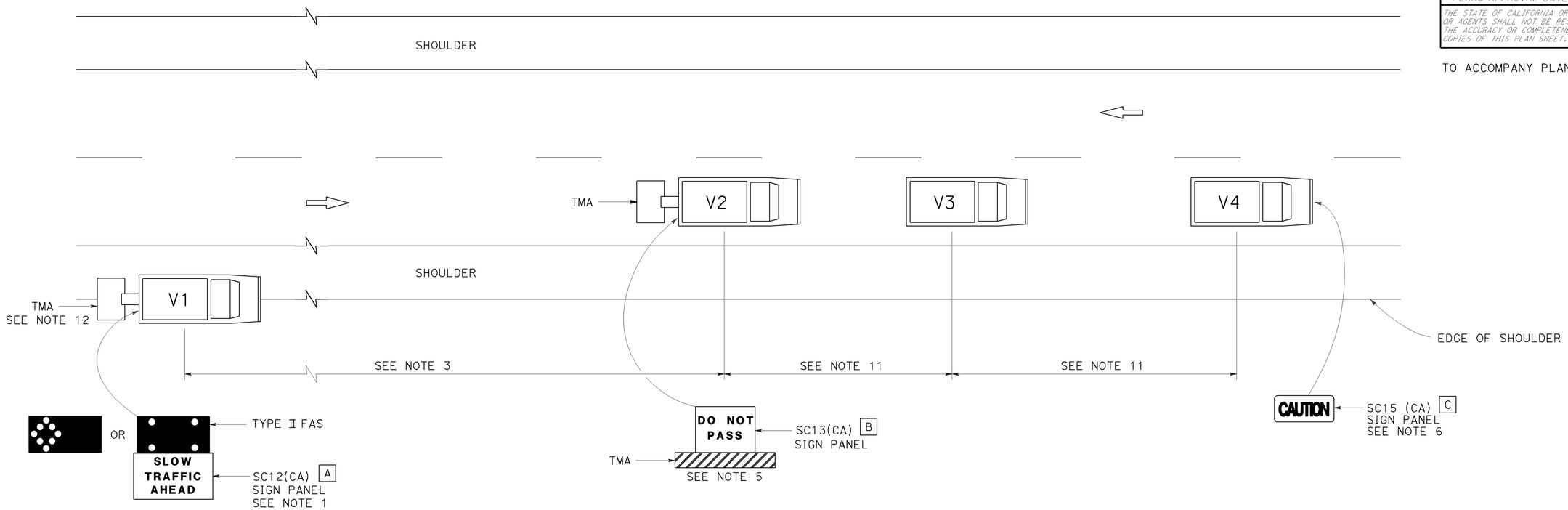
REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 5-13-13



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
	FLASHING ARROW SIGN (FAS) IN ALTERNATING DIAMOND CAUTION

SIGN PANEL SIZE (Min)

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

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. The changeable message sign shall be sequenced to show the "CAUTION" message first, follow by the "SLOW TRAFFIC AHEAD" message. 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 have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
5. Shadow vehicle 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. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Revised Standard Plan T13) for this condition.
11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
12. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON TWO LANE HIGHWAYS

NO SCALE

RSP T17 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T17
DATED MAY 20, 2011 - PAGE 245 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T17

2010 REVISED STANDARD PLAN RSP T17

12-18-12