Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	1	26

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-5	TYPICAL CROSS SECTIONS
6-8	CONSTRUCTION DETAILS
9	CONSTRUCTION AREA SIGNS
10	TRAFFIC HANDLING PLAN
11-13	PAVEMENT DELINEATION QUANTITIES
14	SUMMARY OF QUANTITIES
15-26	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

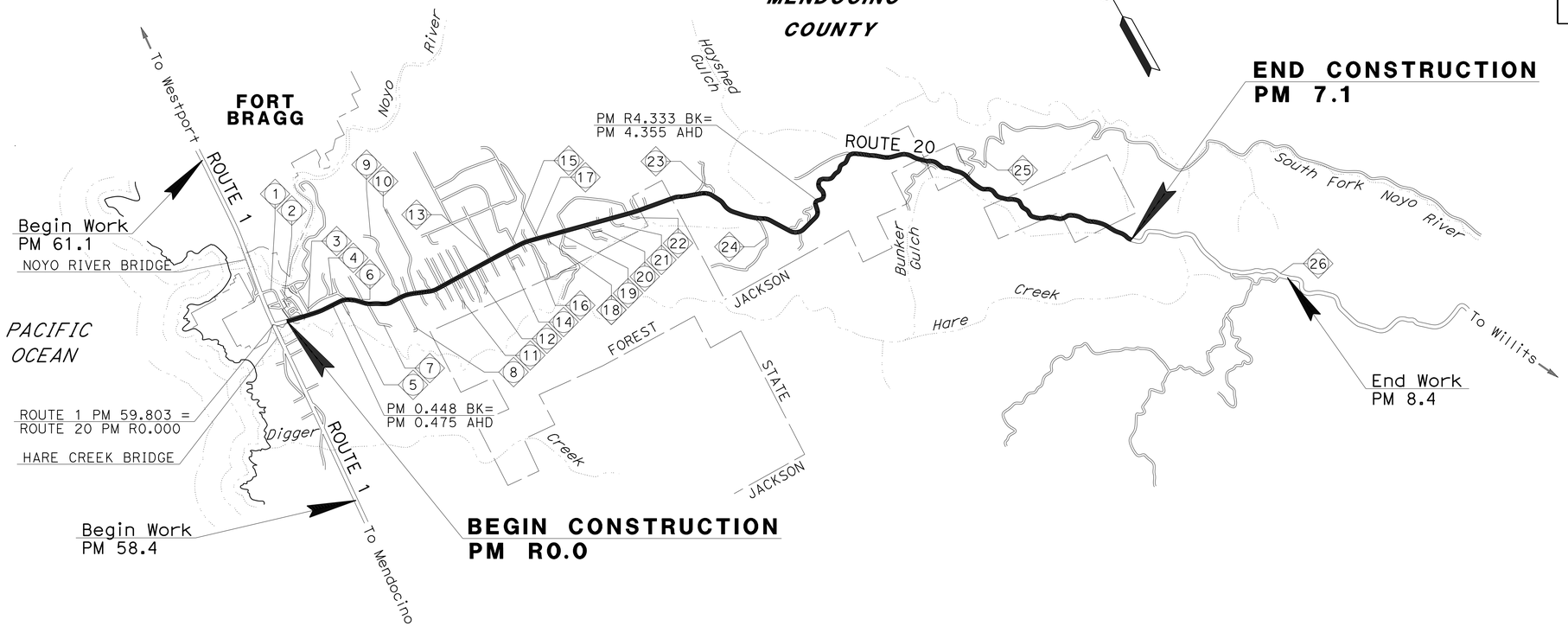
PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN MENDOCINO COUNTY IN AND NEAR FORT BRAGG FROM ROUTE 1 TO 1.0 MILE WEST OF LITTLE LAKE ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

LOCATION MAP



NO SCALE

STREET NAMES

No	NAME
1	BOATYARD Dr
2	TRAILER COVE Rd
3	SOUTH HARBOR Dr
4	OLD WILLITS Rd
5	SYMES Ln
6	BABCOCK Ln
7	SANDY Ln
8	TRILLIUM Rd
9	DORFFI Rd
10	NOYO ACRES Dr
11	VERONICA Ln
12	ANDREA WAY
13	BENSON Ln
14	DWYER Ln
15	OLSON Ln
16	PORTERFIELD Ln
17	SUMMERS Ln
18	LEISURE PINE TRAILER PARK ENTRANCE
19	GRAVEL PIT Rd
20	SWITHENBANK Ln
21	TIMBER POINTE Dr
22	QUAIL Ct
23	WILDWOOD CAMPGROUND ENTRANCE
24	SANGRA LA Ln
25	ROAD 350
26	LITTLE LAKE ROAD

Stanley B. Brandenburg 3-23-15
PROJECT ENGINEER / DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
STANLEY BRANDENBURG
No. C81750
Exp. 03-31-16
CIVIL
STATE OF CALIFORNIA

March 24, 2015
PLANS APPROVAL DATE

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

PROJECT MANAGER T. FITZGERALD
DESIGN MANAGER T. FITZGERALD

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

CONTRACT No.	01-0E5904
PROJECT ID	0114000109

LAST REVISION 02-18-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:04

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	MEN	20	R0.0/7.1	2	26

Stanley B. Brandenburg 3-23-15
REGISTERED CIVIL ENGINEER DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
STANLEY BRANDENBURG
No. C81750
Exp. 03-31-16
CIVIL
STATE OF CALIFORNIA

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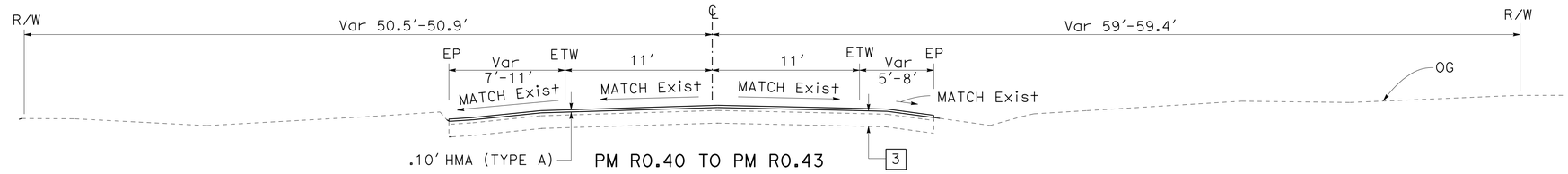
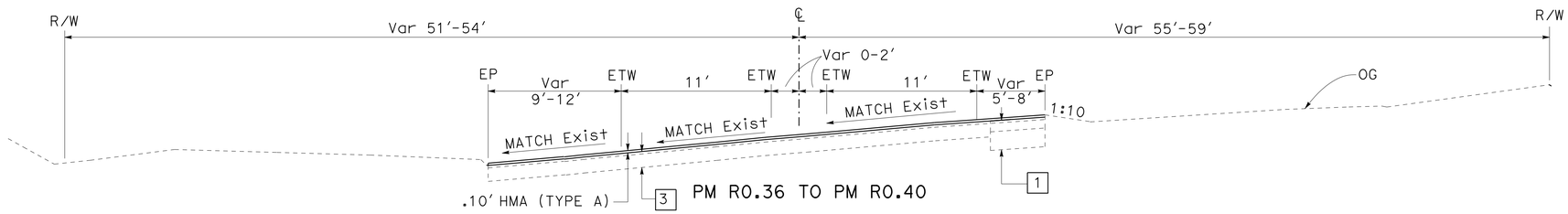
NOTES:
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

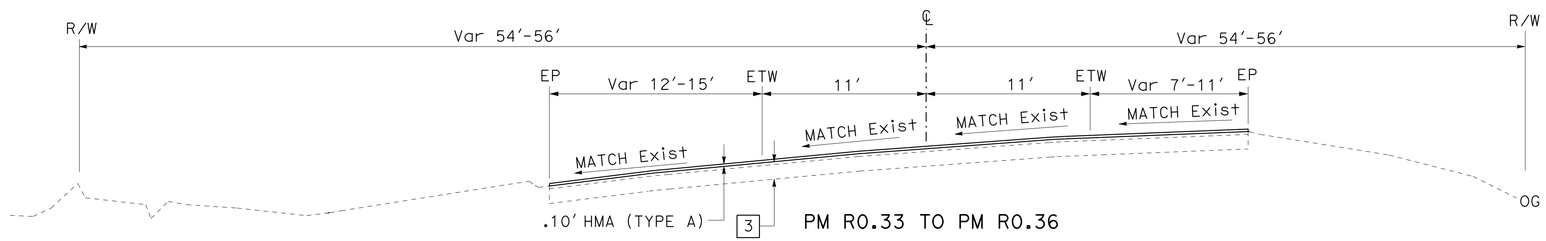
PAVEMENT CLIMATE REGION
NORTH COAST



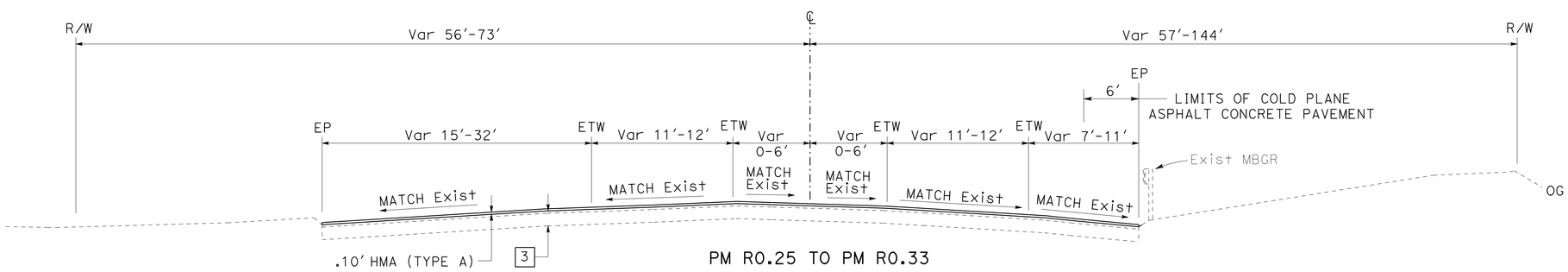
PM R0.40 TO PM R0.43



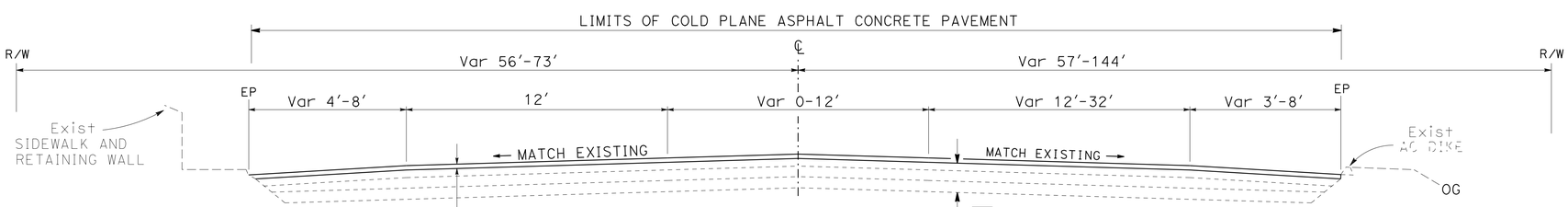
PM R0.36 TO PM R0.40



PM R0.33 TO PM R0.36



PM R0.25 TO PM R0.33



PM R.06 TO PM R0.25

EXISTING STRUCTURAL SECTIONS

1 — .16' OGAC
.40' AC (TYPE A)
.67' AB

2 — .16' OGAC
.15'-17 AC (TYPE A)
.57' AC

3 — .16' OGAC
.57' AC

4 — .40' AC
.45' AB
.60' AS

5 — .16' MIN AC (TYPE A)

ROUTE 20

TYPICAL CROSS SECTIONS
NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: J. JACKSON
REVISED BY
DATE REVISED

LAST REVISION 01-20-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:04

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	MEN	20	R0.0/7.1	3	26

Stanley B. Brandenburg 3-23-15
REGISTERED CIVIL ENGINEER DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
STANLEY BRANDENBURG
No. C81750
Exp. 03-31-16
CIVIL
STATE OF CALIFORNIA

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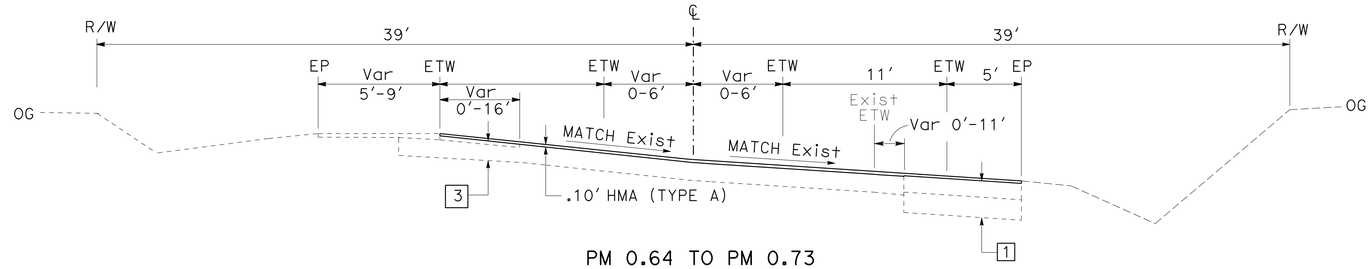
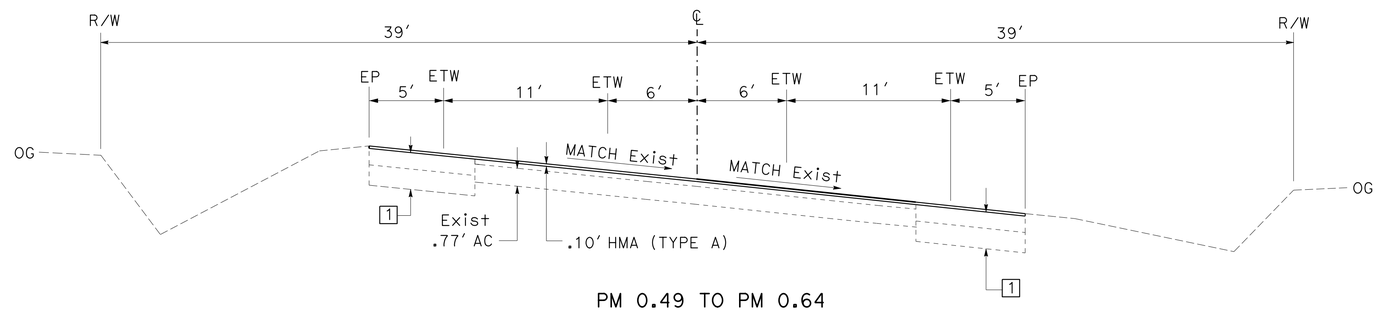


PM 0.64 TO PM 0.73



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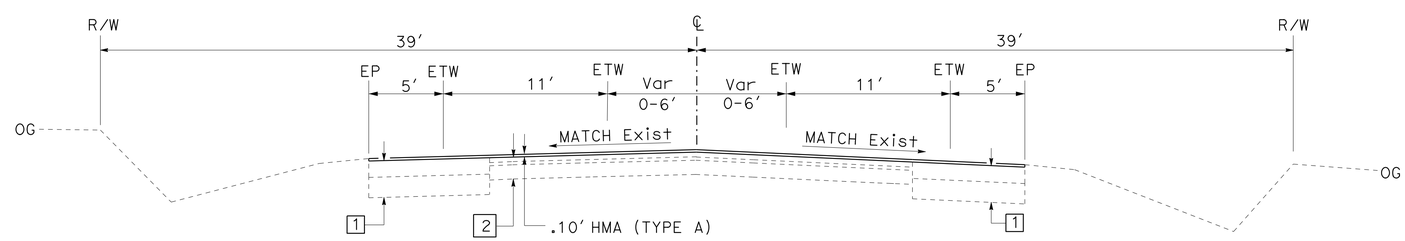
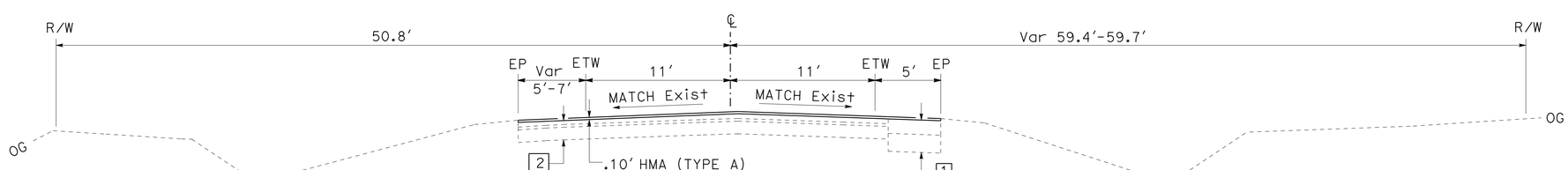


PM 0.47 TO PM 0.49



PM R0.43 TO PM 0.47

ROUTE 20

TYPICAL CROSS SECTIONS

NO SCALE

X-2

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

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: J. JACKSON
REVISED BY
DATE REVISED

LAST REVISION 01-20-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:05

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	MEN	20	R0.0/7.1	4	26

Stanley B. Brandenburg 3-23-15
REGISTERED CIVIL ENGINEER DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
STANLEY BRANDENBURG
No. C81750
Exp. 03-31-16
CIVIL
STATE OF CALIFORNIA

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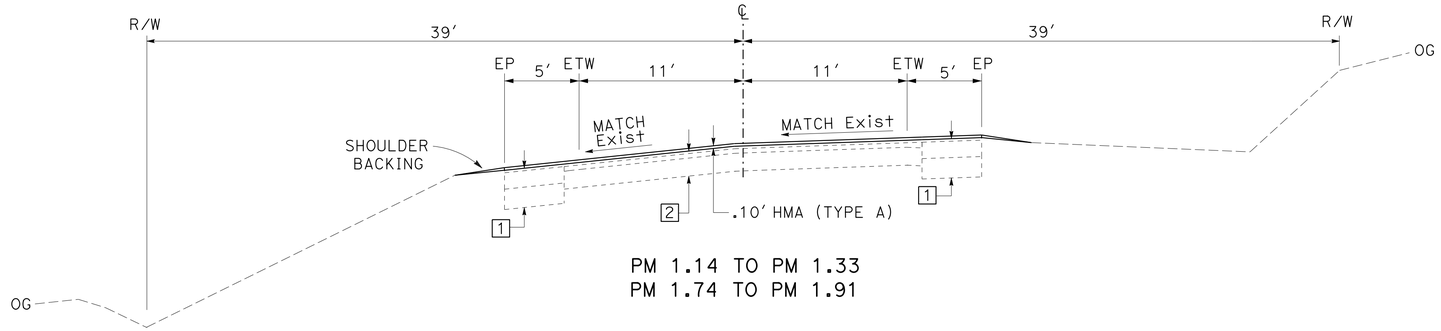
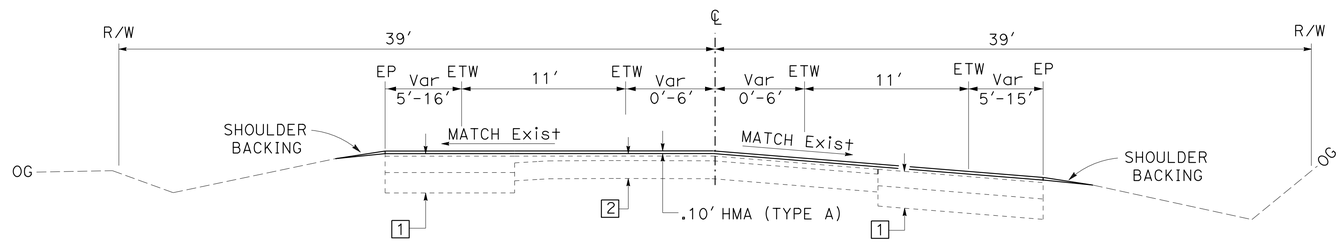
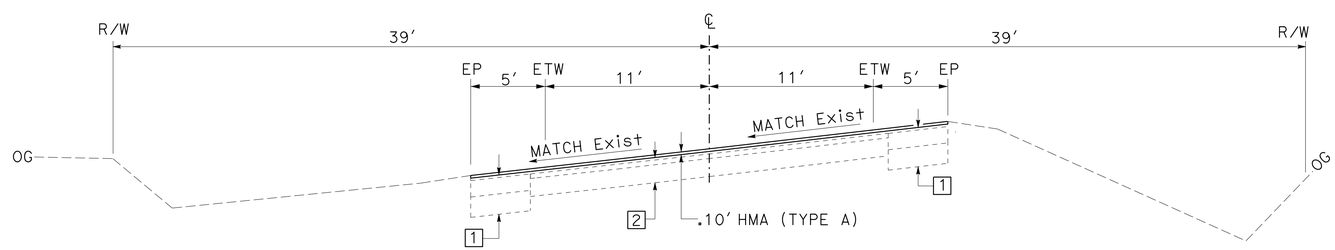


PM 1.14 TO PM 1.33
PM 1.74 TO PM 1.91



PM 0.86 TO PM 1.14
PM 1.33 TO PM 1.74
PM 1.91 TO PM 2.05



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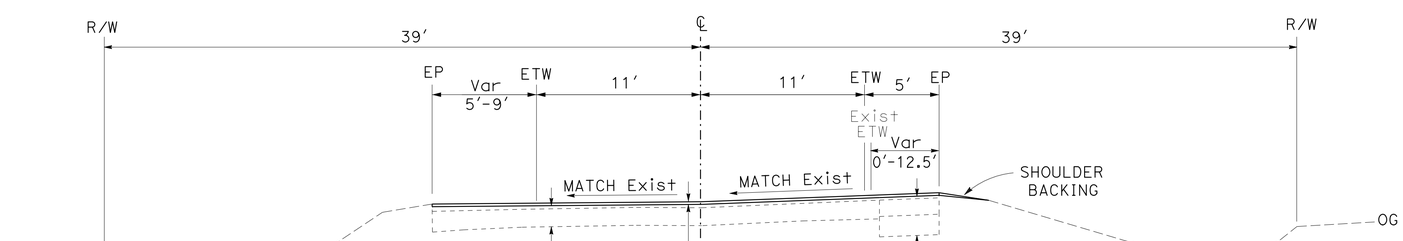

PM 0.73 TO PM 0.83

ROUTE 20

TYPICAL CROSS SECTIONS

NO SCALE

X-3

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

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: J. JACKSON
REVISED BY
DATE REVISED

LAST REVISION 01-20-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:05

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	MEN	20	R0.0/7.1	5	26

REGISTERED CIVIL ENGINEER 3-23-15 DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER STANLEY BRANDENBURG No. C81750 Exp. 03-31-16 CIVIL STATE OF CALIFORNIA

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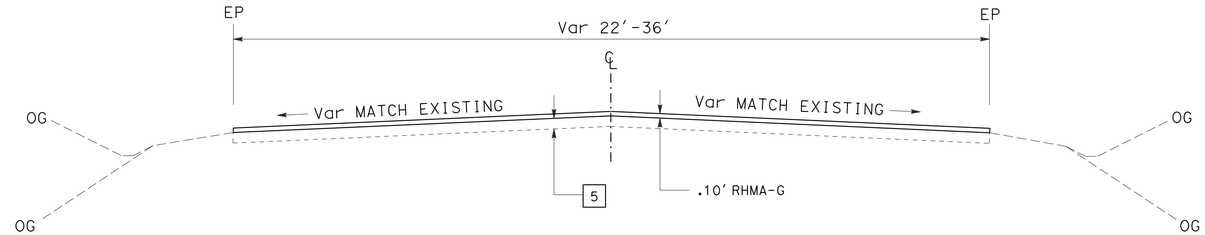
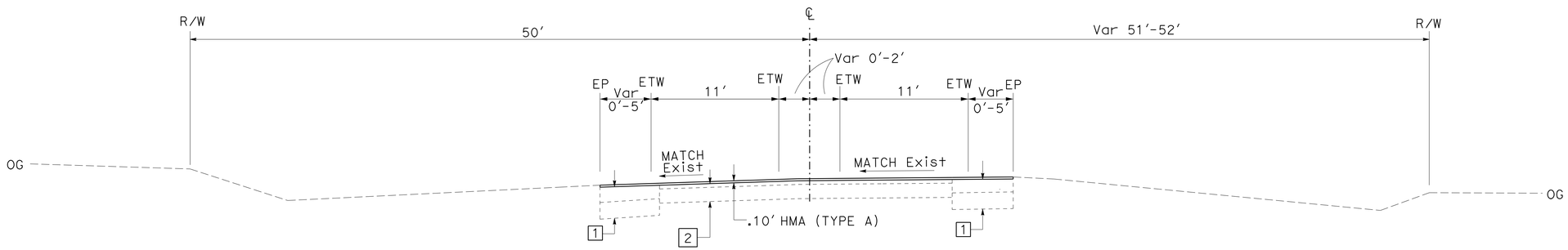
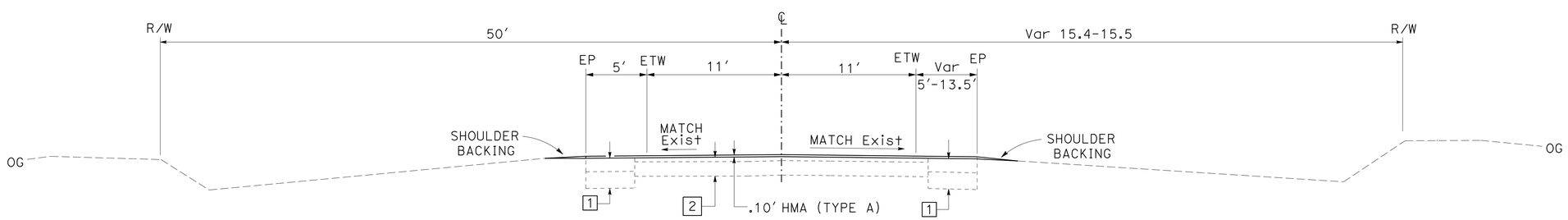


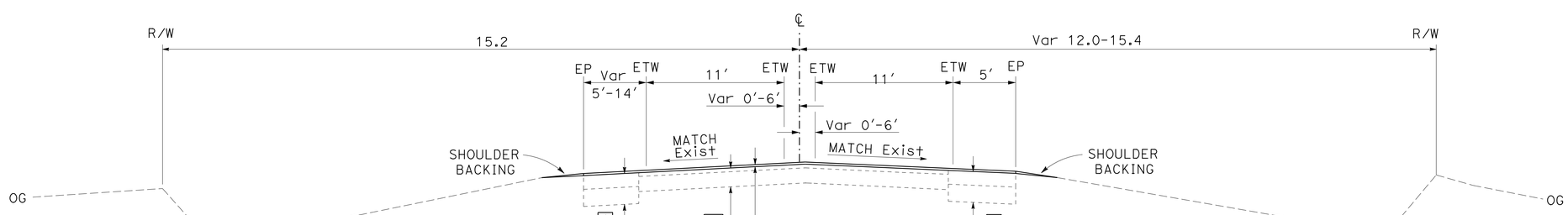
PM 2.32 TO PM 7.4



PM 2.27 TO PM 2.32



PM 2.12 TO PM 2.27



PM 2.05 TO PM 2.12

ROUTE 20

TYPICAL CROSS SECTIONS

NO SCALE

X-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: J. JACKSON
REVISED BY
DATE REVISED

LAST REVISION 01-20-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:05

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	MEN	20	R0.0/7.1	6	26

Stanley B. Brandenburg 3-23-15
REGISTERED CIVIL ENGINEER DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
STANLEY BRANDENBURG
No. C81750
Exp. 03-31-16
CIVIL
STATE OF CALIFORNIA

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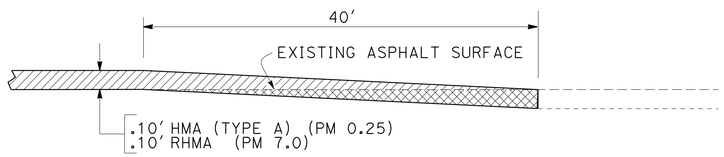
NOTES;

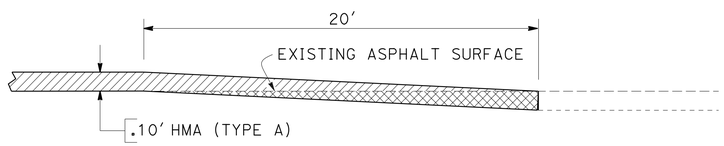
1. IN AREAS WHERE THE WIDTH OF THE EXISTING SURFACING VARIES FROM THAT SHOWN, THE CONTRACTOR SHALL VARY THE WIDTH OF THE PAVING OPERATIONS AS DIRECTED BY THE ENGINEER.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LEGEND

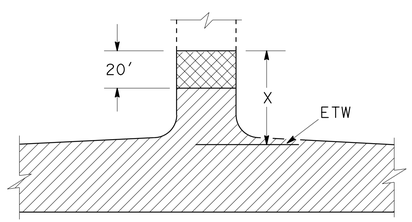
- LIMITS OF COLD PLANE AC PAVEMENT PRIOR TO HMA OVERLAY
- LIMITS OF HMA OVERLAY
- LIMITS OF REPLACE AC SURFACING



CONFORM GRIND
PM R0.25
PM 7.0



PROFILE

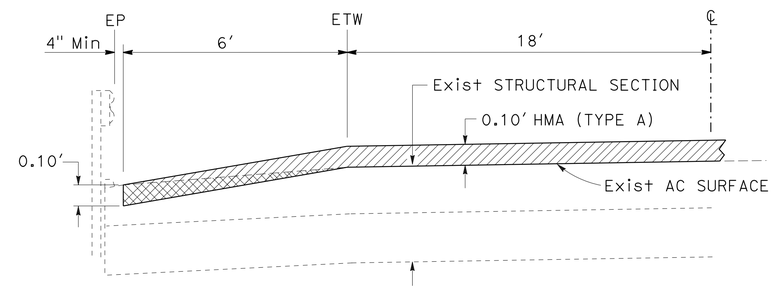


PLAN

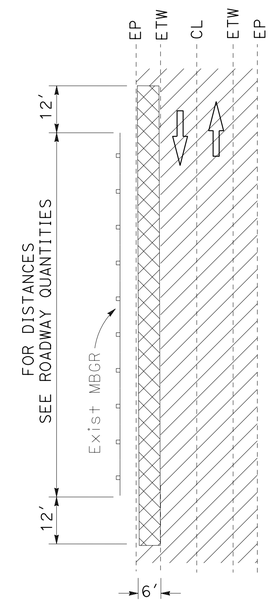
CONFORM GRIND AT PUBLIC ROAD CONNECTIONS

COLD PLANE LIMITS

LOCATION	PM		X FT
SOUTH HARBOR DRIVE	R0.27	FSBT	40
OLD WILLITS ROAD	0.58	FSBT	24
BABCOCK LANE	0.69	FNBT	58
TRILLIUM ROAD	0.99	FNBT	20
TRILLIUM ROAD	0.99	FSBT	20
NOYO ACRES DRIVE	1.10	FSBT	30
BENSON LANE	1.71	FNBT	30
SUMMERS LANE	2.08	FSBT	35
GRAVEL PIT ROAD	2.29	FNBT	30
ROAD 350	5.85	FSBT	20

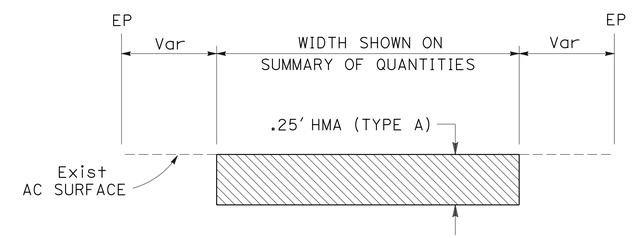


PROFILE



PLAN

COLD PLANE AC PAVEMENT AT MBGR
PM R0.27 TO R0.33



REPLACE ASPHALT CONCRETE SURFACING

FOR LOCATIONS SEE SUMMARY OF QUANTITIES

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN
FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: J. JACKSON
REVISED BY / DATE REVISED

LAST REVISION 01-20-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:05

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	MEN	20	R0.0/7.1	7	26

REGISTERED CIVIL ENGINEER Stanley B. Brandenburg 3-23-15 DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER STANLEY BRANDENBURG No. C81750 Exp. 03-31-16 CIVIL STATE OF CALIFORNIA

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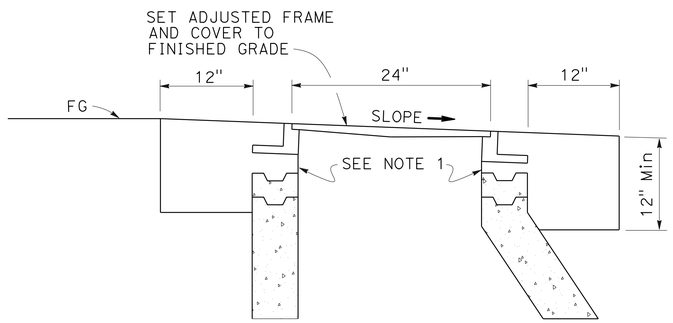
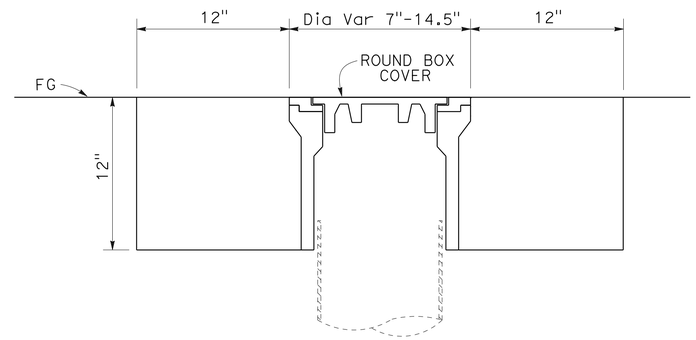
NOTES:

1. PLACE SHIMS UNDER THE FRAME AND COVER ON TOP OF THE HIGHEST GRADE RING AS NEEDED SUCH THAT THE FRAME AND COVER ARE FLUSH WITH THE FINISHED GRADE OF THE STREET. THE MINIMUM SHIM HEIGHT IS 1". CONCRETE SHALL BE PLACED IN BETWEEN THE HIGHEST GRADE RING AND THE SHIMMED FRAME AND LID WHEN THE CONCRETE COLLAR IS CONSTRUCTED, IN EFFECT CREATING A 'CAST-IN-PLACE' GRADE RING OF VARYING THICKNESS.
2. SEAL ALL GRADE RINGS WITH NON-SHRINK GROUT ON BOTH INNER AND OUTER FACES OF EACH JOINT.
3. COMPLETELY DEMOLISH EXISTING CONCRETE COLLARS TO A DEPTH OF 12".
4. NO AREA AVAILABLE FOR "TEMPORARY CONCRETE WASHOUT FACILITY" WITHIN STATE RIGHT-OF-WAY. USE A "PORTABLE TEMPORARY CONCRETE WASHOUT" OR A "TEMPORARY CONCRETE WASHOUT BIN".



PROFILE

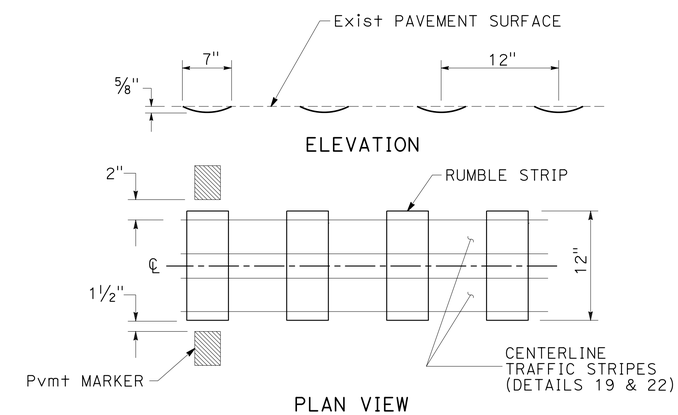
MANHOLE COVER



PROFILE

ROUND BOX

ADJUST UTILITY COVER TO GRADE



CENTERLINE RUMBLE STRIP

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: J. JACKSON
REVISED BY
DATE REVISED

LAST REVISION 01-20-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:05

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	MEN	20	R0.0/7.1	8	26

Stanley B. Brandenburg 3-23-15
REGISTERED CIVIL ENGINEER DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
STANLEY BRANDENBURG
No. C81750
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CIVIL
STATE OF CALIFORNIA

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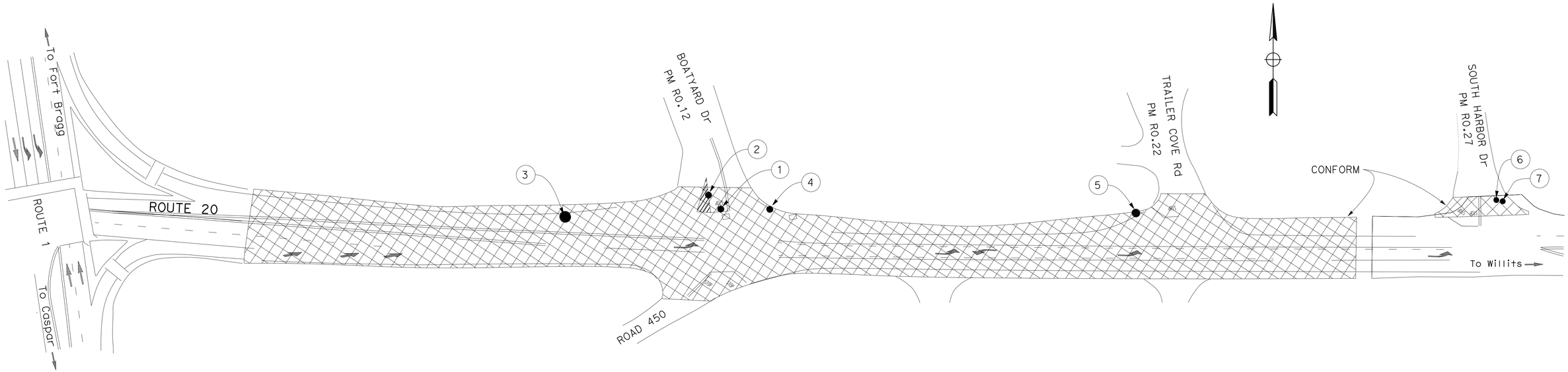
NOTES:

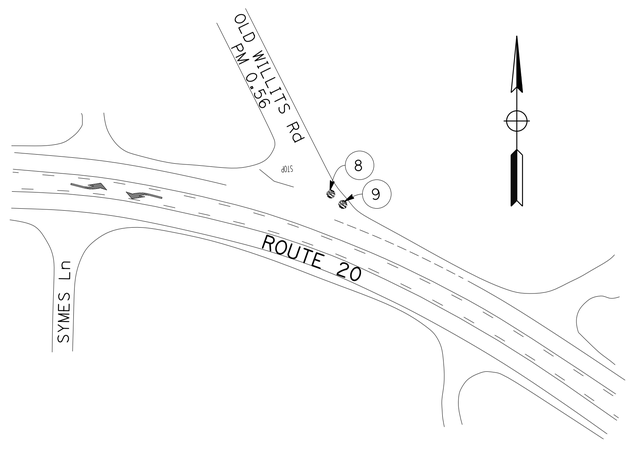
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY MAPS AT DISTRICT OFFICE.
2. ALL EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

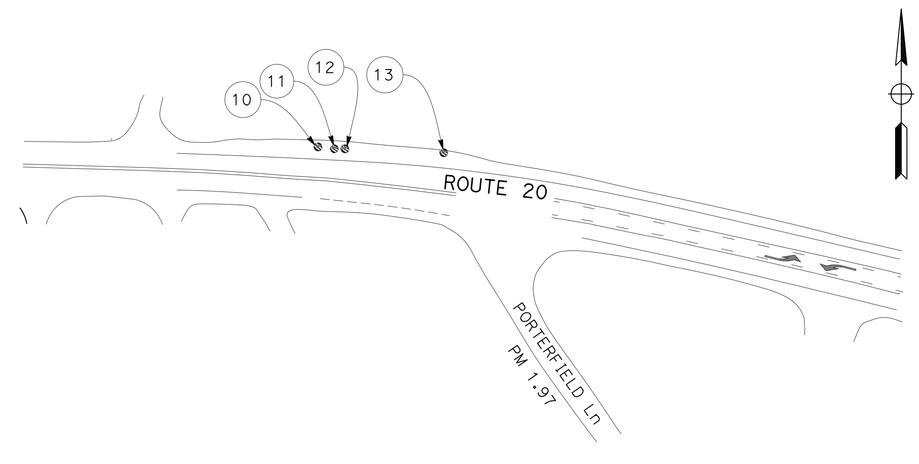
LEGEND

LIMITS OF COLD PLANE AC PAVEMENT PRIOR TO .10' HMA (TYPE A) OVERLAY

ADJUST UTILITY COVERS TO GRADE (ROUND BOX)







ADJUST UTILITY TO GRADE

CONSTRUCTION DETAILS

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: J. JACKSON
REVISED BY
DATE REVISED

LAST REVISION 01-20-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	9	26

Stanley B. Brandenburg 3-23-15
REGISTERED CIVIL ENGINEER DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER STANLEY BRANDENBURG No. C81750 Exp. 03-31-16 CIVIL STATE OF CALIFORNIA

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

NOTE:

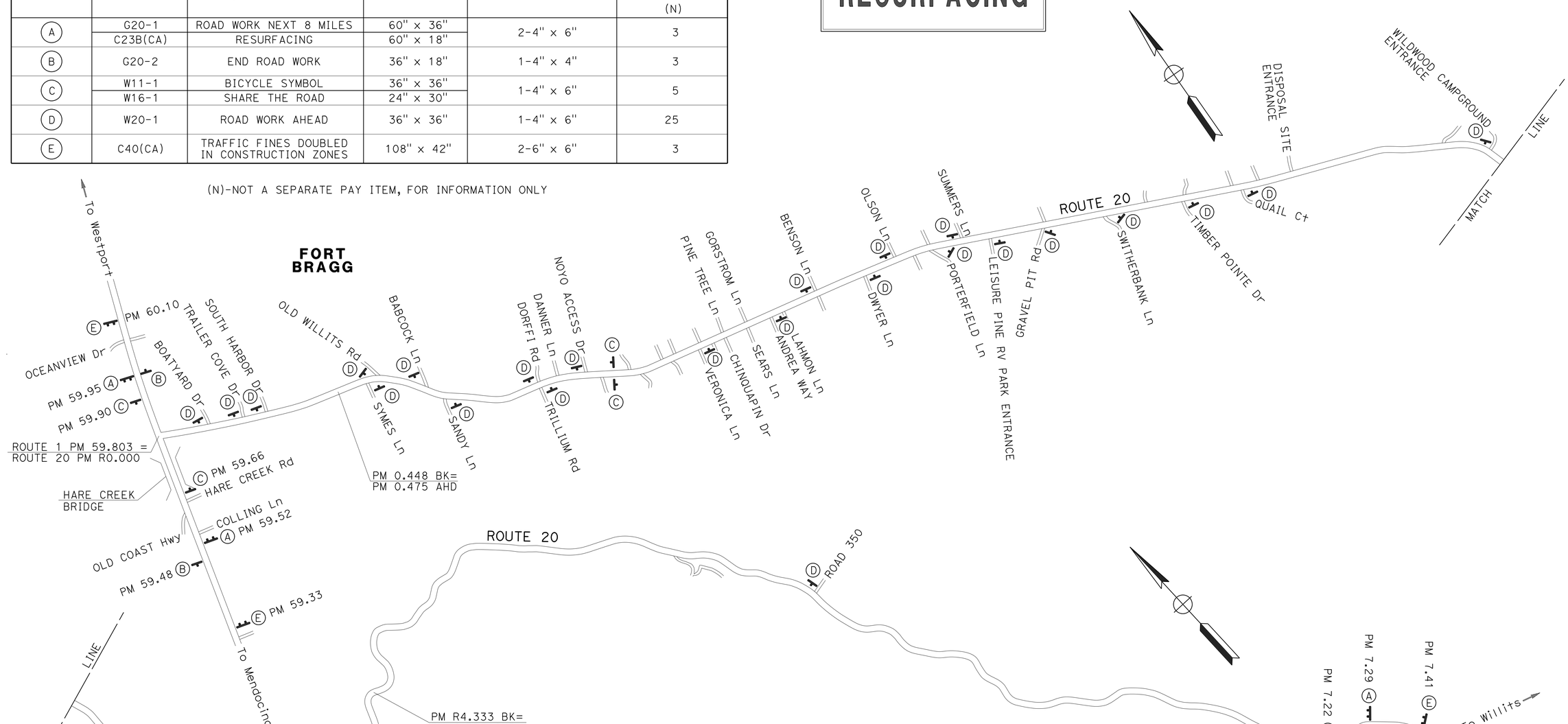
1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS (N)
A	G20-1	ROAD WORK NEXT 8 MILES	60" x 36"	2-4" x 6"	3
	C23B(CA)	RESURFACING	60" x 18"		
B	G20-2	END ROAD WORK	36" x 18"	1-4" x 4"	3
C	W11-1	BICYCLE SYMBOL	36" x 36"	1-4" x 6"	5
	W16-1	SHARE THE ROAD	24" x 30"		
D	W20-1	ROAD WORK AHEAD	36" x 36"	1-4" x 6"	25
E	C40(CA)	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	108" x 42"	2-6" x 6"	3

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

C23B(CA)
60"x18"
BLACK/ORANGE
4" CAPS



EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENACE DESIGN

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: GREG THORNE
REVISED BY
DATE REVISED

LAST REVISION 02-18-15 | DATE PLOTTED => 27-MAR-2015 | TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	10	26

REGISTERED CIVIL ENGINEER — DATE 3-5-15

March 24, 2015
PLANS APPROVAL DATE

SHERI M. RODRIGUEZ No. C66861 Exp. 9-30-16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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

NOTES:

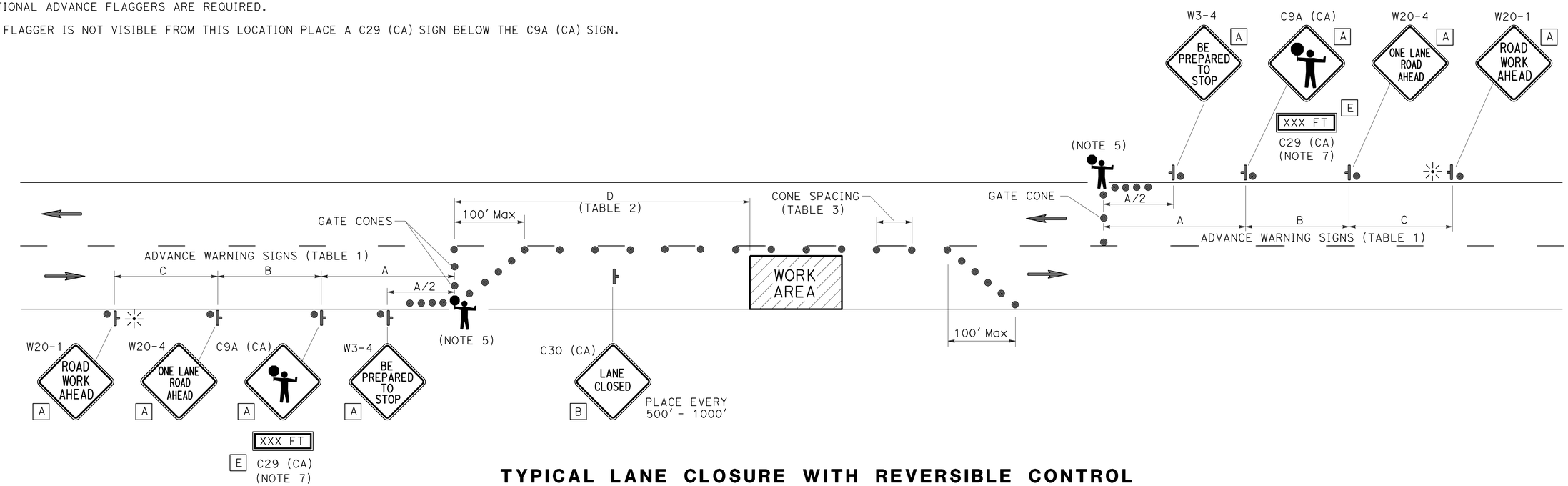
1. CALIFORNIA CODES ARE DESIGNATED BY (CA). OTHERWISE, FEDERAL (MUTCD) CODES ARE SHOWN.
2. ALL SIGNS SHALL HAVE A BLACK LEGEND ON FLUORESCENT ORANGE BACKGROUND AND SHALL BE EQUIPPED WITH AT LEAST TWO 16" x 16" ORANGE FLAGS FOR DAYTIME CLOSURE OR FLASHING BEACONS FOR LANE CLOSURE DURING HOURS OF DARKNESS.
3. ALL CONES USED FOR LANE CLOSURES DURING THE HOURS OF DARKNESS SHALL BE FITTED WITH RETROREFLECTIVE BANDS OR SLEEVES.
4. WHEN A PILOT CAR IS USED, PLACE A C37 (CA) SIGN AT ALL INTERSECTIONS WITHIN TRAFFIC CONTROL AREA. WHERE VEHICULAR TRAFFIC CAN NOT EFFECTIVELY SELF-REGULATE, AT LEAST ONE FLAGGER SHALL BE USED AT EACH INTERSECTION WITHIN THE TRAFFIC CONTROL AREA.
5. FLAGGER SHOULD STAND IN A CONSPICUOUS PLACE, FACING TRAFFIC AT ALL TIMES, BE VISIBLE TO APPROACHING TRAFFIC AS WELL AS APPROACHING VEHICLES AFTER THE FIRST VEHICLE HAS STOPPED.
6. ADDITIONAL ADVANCE FLAGGERS ARE REQUIRED.
7. WHEN FLAGGER IS NOT VISIBLE FROM THIS LOCATION PLACE A C29 (CA) SIGN BELOW THE C9A (CA) SIGN.

LEGEND

- TRAFFIC CONE
- TEMPORARY SIGN
- DIRECTION OF TRAVEL
- PORTABLE FLASHING BEACON
- FLAGGER

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 — UNUSED
- D — UNUSED
- E — 20" x 7"



TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TABLE 1

ADVANCE WARNING SIGN SPACING

ROAD TYPE	Min A	Min B	Min C
	ft		
URBAN (25 mph OR LESS)	100	100	100
URBAN (30 mph TO 40 mph)	250	250	250
URBAN (MORE THAN 40 mph)	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

TABLE 2

BUFFER SPACE

APPROACH SPEED	Min D	DOWNGRADE Min D		
		-3%*	-6%*	-9%*
mph	ft			
25 & 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.

TABLE 3

Max CONE SPACING

POSTED SPEED	TAPER	TANGENT	CONFLICT*
mph	ft		
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	55	110	27
60	60	120	30
65	65	130	32

* USE WHERE THERE IS A CONFLICT BETWEEN EXISTING PAVEMENT MARKINGS AND CHANNELIZERS.

TRAFFIC HANDLING PLAN

NO SCALE

TH-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY

REVISED BY | DATE REVISED

SHERI M. RODRIGUEZ — TROY A. ARSENEAU

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: RICHARD MULLEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans® TRAFFIC OPERATIONS

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LAST REVISION 00-00-00 | DATE PLOTTED => 27-MAR-2015 | TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	11	26

Stanley B. Brandenburg 3-23-15
REGISTERED CIVIL ENGINEER DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER STANLEY BRANDENBURG No. C81750 Exp. 03-31-16 CIVIL STATE OF CALIFORNIA

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

TRAFFIC STRIPE AND PAVEMENT MARKER QUANTITIES

LOCATION (PM)		DETAIL NUMBER	DETAIL LENGTH (N)	THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT VISIBILITY)								PAVEMENT MARKER (RETROREFLECTIVE)			REMARKS
				REMOVE	8 INCH WHITE	6 INCH WHITE	6 INCH WHITE (BROKEN 8-4)	4 INCH YELLOW	4 INCH WHITE	4 INCH WHITE (BROKEN 12-3)	4 INCH YELLOW (BROKEN 36-12)	TYPE D	TYPE G	TYPE H	
FROM	TO			LF								EA			
0.01	0.25	27B	2534						2534						EB/WB SHLDR
0.01	0.09	29	422					1690				38			Med
0.09	0.13	22	211					422				18			
0.01	0.06	9	264						264						EB SHLDR
0.01	0.04	38	158		158								7		EB LEFT TURN Ln
0.14	0.23	32	475					475			475	54			
0.23	0.25	22	106					212				10			
0.25	0.27	39	92			92									WB BIKE Ln
0.25	0.27	38	105		105								5		EB LEFT TURN Ln
0.25	0.27	22	105					210				10			
0.25	0.91	39	3510			3510									EB BIKE Ln
0.27		21	13					26							SOUTH HARBOR DRIVE
0.28	0.32	39A	197				197								WB BIKE Ln
0.28	0.33	29	262					1050				24			
0.32	0.55	39	1224			1224									WB BIKE Ln
0.33	0.36	22	135					269				12			
0.36	0.40	29	246					984				22			
0.40	0.46	22	312					623				26			
0.46	0.49	29	164					656				14			
0.49	0.66	32	873					1745			1745	94			
0.55		21	13					26							OLD WILLITS ROAD
0.56	0.59	39A	180				180								WB BIKE Ln
0.59	0.66	39	344			344									WB BIKE Ln
0.67		21	16					33							BABCOCK LANE
0.68	0.72	29	217					866				20			
0.68	0.71	39A	197				197								WB BIKE Ln
0.71	0.95	39	1266			1266									WB BIKE Ln
0.73	0.86	22	686					1371				64			
0.86	0.92	29	312					1247				28			
0.91	0.95	39A	197				197								EB BIKE Ln
0.92	0.95	22	180					361				16			
0.92	0.95	38	180	360	180								8		EB LEFT TURN Ln
0.96		21	105					210							DORFFI ROAD
0.96		21	118					236							TRILLIUM ROAD
0.97	1.92	39	5052			5052									EB BIKE Ln
0.97	1.07	32	564					1129			1129	62			
0.97	1.01	39A	197				197								WB BIKE Ln
1.01	1.07	39	344			344									WB BIKE Ln
1.08		21	115					230							NOYO ACRES Dr
1.08	1.14	29	279					1115				24			
1.09	1.14	39A	262				262								WB BIKE Ln
1.14	1.67	39	2805			2805									WB BIKE Ln
1.14	1.33	22	1033					2067				88			
1.33	1.35	29	115					459				10			
1.37	1.39	29	131					525				12			
1.39	1.67	32	1476					2953			2953	156			
1.69	1.71	39A	115				115								WB BIKE Ln
1.69		21	115					230							BENSON LANE
1.69	1.73	29	246					984				22			
1.71	2.05	39	1788			1788									WB BIKE Ln
1.73	1.92	22	968					1936				82			
1.92	1.96	29	240					958				22			
1.92	1.96	39A	197				197								EB BIKE Ln
1.97		21	66					131							PORTERFIELD LANE
1.97	2.05	32	400					801			801	46			
1.98	2.11	39	689			689									EB BIKE Ln
2.05		21	108					217							SUMMERS LANE
SUBTOTAL				360	443	17114	1542	26447	2798	0	7103	974	20	0	
TOTAL SHEET PDQ-1				360	443	17114	1542	29245		0	7103	994			

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

PAVEMENT DELINEATION QUANTITIES
PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENACE DESIGN

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: GREG THORNE
REVISED BY
DATE REVISED

LAST REVISION 02-12-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	12	26

Stanley B. Brandenburg 3-23-15
REGISTERED CIVIL ENGINEER DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER STANLEY BRANDENBURG No. C81750 Exp. 03-31-16 CIVIL STATE OF CALIFORNIA

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TRAFFIC STRIPE AND PAVEMENT MARKER QUANTITIES

LOCATION (PM) FROM	LOCATION (PM) TO	DETAIL NUMBER	DETAIL LENGTH (N)	THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT VISIBILITY) REMOVE	8 INCH WHITE	6 INCH WHITE	6 INCH WHITE (BROKEN 8-4)	4 INCH YELLOW	4 INCH WHITE	4 INCH WHITE (BROKEN 12-3)	4 INCH YELLOW (BROKEN 36-12)	PAVEMENT MARKER (RETROREFLECTIVE) TYPE D	TYPE G	TYPE H	REMARKS
			LF									EA			
2.06	2.12	29	282					1129				26			
2.07	2.10	39A	197				197								WB BIKE Ln
2.10	2.27	39	902			902									WB BIKE Ln
2.11	2.14	39A	197				197								EB BIKE Ln
2.12	2.28	22	853					1706				74			
2.15		21	20					39							TRAILER PARK
2.17	2.22	39	295			295									EB BIKE Ln
2.22	2.25	39A	131				131								EB BIKE Ln
2.25		21	112					223							GRAVEL PIT ROAD
2.27	2.28	39	82			82									WB BIKE Ln
2.27	2.32	27B	246												EB SHLDR
2.28	2.32	27B	197												WB SHLDR
2.28	2.32	29	230					919				22			
2.32	2.51	19R	1003					1003			1003	21		42	
2.32	5.75	27B	18110						18110						WB SHLDR
2.32	2.58	27B	1373						1373						EB SHLDR
2.51	2.59	22	422					845				35			
2.61	2.74	22	686					1373				57			
2.58	2.61	27C	158							158					EB SHLDR
2.61	2.73	27B	634						634						EB SHLDR
2.73	2.76	27C	158							158					EB SHLDR
2.75	5.77	22	15946					31891				1329			
2.76	6.09	27B	17582						17582						EB SHLDR
5.78	7.02	27B	6547						6547						WB SHLDR
6.10	6.13	38	158	316	158								7		EB TURNOUT
6.14	6.32	27B	950						950						EB SHLDR
6.33	6.36	38	158	316	158								7		EB TURNOUT
6.37	6.48	27B	581						581						EB SHLDR
6.48	6.53	38	264	528	264								11		EB TURNOUT
6.54	7.02	27B	2534						2534						EB SHLDR
5.77	7.02	22	6600					13200				550			
SUBTOTAL				1160	580	1279	525	52328	48311	316	1003	2114	25	42	
TOTAL SHEET PDQ-2				1160	580	1279	525	100639		316	1003	2181			
TOTAL SHEET PDQ-1				360	443	17114	1542	29245		0	7103	994			
TOTAL				1520	1023	18393	2067	129884		316	8106	3175			

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

PAVEMENT MARKING QUANTITIES

LOCATION (PM)	ORIENTATION	LEGEND	REMOVE THERMOPLASTIC PAVEMENT MARKING	THERMOPLASTIC PAVEMENT MARKING (ENHANCED WET NIGHT VISIBILITY)	REMARKS
			SQFT		
R0.04	FWBT	XING		21	NB Ln
0.05	FWBT	TYPE VI ARROW		42	
0.05	FWBT	PED		18	
0.06	FEBT	TYPE VI ARROW		42	
0.07	FEBT	TYPE VI ARROW		42	
0.12	FNBT	TYPE III (L) ARROW		42	
0.13	FNBT	(2) STOP		44	447A Rd
0.13	FNBT	LIMIT LINE		42	447A Rd
0.13	FSBT	STOP		22	BOATYARD Dr
0.13	FSBT	LIMIT LINE		20	BOATYARD Dr
0.17	FEBT/FWBT	(2) TYPE III (L) ARROW		84	
0.21	FEBT	TYPE III ARROW		42	
0.21	FSBT	STOP		22	TRAILER COVE ENTRANCE
0.21	FSBT	LIMIT LINE		32	TRAILER COVE ENTRANCE
0.23	FWBT	AHEAD		31	
TOTAL SHEET PDQ-2			0	546	

PAVEMENT DELINEATION QUANTITIES
PDQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENACE DESIGN

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: GREG THORNE
REVISED BY
DATE REVISED

LAST REVISION 02-12-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	13	26

Stanley B. Brandenburg 3-23-15
REGISTERED CIVIL ENGINEER DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER STANLEY BRANDENBURG No. C81750 Exp 03-31-16 CIVIL STATE OF CALIFORNIA

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PAVEMENT MARKING QUANTITIES

LOCATION (PM)	ORIENTATION	LEGEND	REMOVE THERMOPLASTIC PAVEMENT MARKING	THERMOPLASTIC PAVEMENT MARKING (ENHANCED WET NIGHT VISIBILITY)	REMARKS
			SQFT		
0.23	FWBT	SIGNAL		32	
0.25	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
0.25	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
0.27	FEBT	TYPE III (L) ARROW	42	42	
0.27	FSBT	LIMIT LINE	29	29	SOUTH HARBOR Dr
0.27	FSBT	(2) STOP	44	44	SOUTH HARBOR Dr
0.31	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
0.56	FEBT/FWBT	(2) TYPE III (L) ARROW	84	84	
0.56	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
0.58	FSBT	LIMIT LINE	29	29	OLD WILLITS Rd
0.58	FSBT	(2) STOP	44	44	OLD WILLITS Rd
0.62	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
0.67	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
0.69	FEBT	TYPE III (L) ARROW	42	42	
0.70	FSBT	LIMIT LINE	42	42	BABCOCK Ln
0.70	FSBT	(2) STOP	44	44	BABCOCK Ln
0.84	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
0.97	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
0.99	FSBT	TYPE III (L) ARROW	42	42	
0.99	FSBT	LIMIT LINE	32	32	DORFFI Rd
0.99	FSBT	STOP	22	22	DORFFI Rd
0.99	FNBT	LIMIT LINE	36	36	TRILLIUM Rd
0.99	FNBT	STOP	22	22	TRILLIUM Rd
1.00	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
1.03	FEBT/FWBT	(2) TYPE III (L) ARROW	84	84	
1.09	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
1.11	FEBT	TYPE III (L) ARROW	42	42	
1.11	FSBT	LIMIT LINE	32	32	NOYO ACRES Dr
1.11	FSBT	(2) STOP	44	44	NOYO ACRES Dr
1.25	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
1.43	FEBT/FWBT	(2) TYPE III (L) ARROW	84	84	
1.56	FEBT/FWBT	(2) TYPE III (L) ARROW	84	84	
1.64	FEBT/FWBT	(2) TYPE III (L) ARROW	84	84	
1.68	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
1.71	FSBT	LIMIT LINE	53	53	BENSON Ln
1.71	FSBT	(2) STOP	44	44	BENSON Ln
1.74	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
1.94	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
2.00	FNBT	LIMIT LINE	22	22	PORTERFIELD Ln
2.01	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
2.04	FEBT/FWBT	(2) TYPE III (L) ARROW	84	84	
2.06	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
2.09	FSBT	LIMIT LINE	26	26	SUMMERS Ln
2.09	FSBT	(2) STOP	44	44	SUMMERS Ln
2.12	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
2.13	FWBT	BIKE, LANE, BIKE LANE ARROW	18	18	
2.18	FNBT	LIMIT LINE	32	32	GRAVEL PIT Rd
2.18	FNBT	(2) STOP	44	44	GRAVEL PIT Rd
2.20	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
2.24	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
2.29	FNBT	LIMIT LINE	39	39	LEISURE PINE RV PARK ENTRANCE
2.29	FNBT	(2) STOP	44	44	LEISURE PINE RV PARK ENTRANCE
2.30	FEBT	BIKE, LANE, BIKE LANE ARROW	18	18	
2.75	FNBT	LIMIT LINE	28	28	QUAIL Ct
2.75	FNBT	STOP	22	22	QUAIL Ct
5.85	FSBT	LIMIT LINE	25	25	ROAD 350
5.86	FSBT	LIMIT LINE	30	30	ROAD 350
		TOTAL SHEET PDQ-3	2007	2039	
		TOTAL SHEET PDQ-2	0	546	
		TOTAL	2007	2585	

PAVEMENT DELINEATION QUANTITIES
PDQ-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENACE DESIGN

FUNCTIONAL SUPERVISOR: T. FITZGERALD
CALCULATED-DESIGNED BY: S. BRANDENBURG
CHECKED BY: GREG THORNE
REVISED BY
DATE REVISED

LAST REVISION 02-12-15
DATE PLOTTED => 27-MAR-2015
TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	14	26

REGISTERED CIVIL ENGINEER Stanley B. Brandenburg 3-23-15 DATE

March 24, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER STANLEY BRANDENBURG No. C81750 Exp. 03-31-16 CIVIL STATE OF CALIFORNIA

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ADJUST UTILITY COVER TO GRADE

UTILITY LOCATION No.	LOCATION (PM)	ADJUST UTILITY COVER TO GRADE	REMARKS
		EA	
1	R0.130	1	14" WATER COVER
2	R0.130	1	14" WATER COVER
3	R0.100	1	34" ROUND PAC BELL
4	R0.090	1	14" WATER COVER
5	0.200	1	14" WATER COVER
6	0.275	1	14" WATER COVER
7	0.275	1	14" WATER COVER
8	0.580	1	14" WATER COVER
9	0.580	1	14" WATER COVER
10	1.945	1	14" WATER COVER
11	1.947	1	14" WATER COVER
12	1.950	1	14" WATER COVER
13	1.960	1	14" WATER COVER
	TOTAL	13	

MAINTAIN EXISTING TMS ELEMENTS DURING CONSTRUCTION

LOCATION (PM)	ELEMENT	REMARKS
0.25	CMS	FORT BRAGG
0.30	CCTV	FORT BRAGG
0.30	EMS	FORT BRAGG
1.20	EMS	EAST OF FORT BRAGG
1.40	EMS	EAST OF FORT BRAGG

CCTV - CLOSED CIRCUIT TELEVISION
EMS - EXTINGUISHABLE MESSAGE SIGN

ADA CURB RAMP QUANTITIES

LOCATION (PM)	REMOVE CONCRETE	DETECTABLE WARNING SURFACE	MINOR CONCRETE (CURB RAMP)	REMARKS
	CY	SQFT	CY	
0.68	3	15	3	CURB RAMP (CASE C)
TOTAL	3	15	3	

ROADWAY QUANTITIES

LOCATION (PM) FROM	LOCATION (PM) TO	LOCATION No.	WIDTH (N)	LENGTH (N)	DEPTH (N)	AREA (N)	COLD PLANE ASPHALT CONCRETE PAVEMENT	HOT MIX ASPHALT (TYPE A)	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT	REPLACE ASPHALT CONCRETE SURFACING	REMARKS
			LF			SQFT	SQYD	TON			CY	
0.04	0.27					71650	**7961**	602		4.0		EB & WB
0.27						1466	**163**					FSBT - SOUTH HARBOR Dr
0.27			6	316.8		1901	**211**					EB - GUARDRAIL CONFORM
0.27	2.35					527155		4428		29.3		EB & WB
0.55						1181	**131**					FSBT - OLD WILLITS Rd
0.67						860	**96**					FSBT - BABCOCK Ln
0.67	0.72					1584	**176**					FWBT - FIRE STATION CURB & GUTTER
0.96						1772	**197**					FNBT - TRILLIUM Ln
0.96						1560	**173**					FSBT - TRILLIUM Ln
1.08						958	**106**					FSBT - NOYO ACRES Dr
1.67						1246	**138**					FSBT - BENSON Ln
2.05						1102	**122**					FSBT - SUMMERS Ln
2.25						1193	**133**					FNBT - GRAVEL PIT Ln
2.35	7.00					761112			6393	42.3		EB & WB
2.40	2.42	1	25.0	106	0.25	2640					24	EB & WB
2.60	2.62	2	25.0	106	0.25	2640					24	EB & WB
2.75	2.78	3	25.0	158	0.25	3960					37	FEBT & FWBT - QUAIL Ct
2.85	2.89	4	25.0	211	0.25	5280					49	EB & WB
3.30	3.42	5	12.6	634	0.25	7983					74	WB - WILDWOOD CAMP
3.48	3.50	6	12.6	106	0.25	1331					12	WB
3.52	3.54	7	12.6	106	0.25	1331					12	EB
3.56	3.59	8	12.6	158	0.25	1996					18	EB
4.00	4.04	9	12.6	211	0.25	2661					25	EB - TURNOUT
5.30	5.32	10	12.6	106	0.25	1331					12	WB
6.00	6.03	11	12.6	158	0.25	1996					18	EB
						TOTAL	9607	5030	6393	75.6	305	

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

SHOULDER BACKING QUANTITIES

LOCATION (PM) FROM	LOCATION (PM) TO	OFFSET	SHOULDER BACKING
			TON
0.73	0.83	R+	23
1.10	1.40	R+	68
1.27	1.30	L+	7
1.60	1.74	R+	32
1.74	1.76	R+	5
1.88	1.94	R+	14
1.94	2.03	L+	21
2.05	2.06	R+	2
2.06	2.14	R+	18
2.06	2.25	L+	43
2.17	2.20	R+	7
		TOTAL	240

RUMBLE STRIP QUANTITIES

LOCATION (PM) FROM	LOCATION (PM) TO	CENTERLINE RUMBLE STRIP
		STA
2.48	4.32	97
4.45	4.68	12
6.00	7.10	58
	TOTAL	167

SUMMARY OF QUANTITIES
Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
FUNCTIONAL SUPERVISOR T. FITZGERALD
CALCULATED-DESIGNED BY S. BRANDENBURG
CHECKED BY GREG THORNE
REVISED BY
DATE REVISED

LAST REVISION 02-18-15 DATE PLOTTED => 27-MAR-2015 TIME PLOTTED => 13:05

M

Maint	MAINTENANCE
Max	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
Med	MEDIAN
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
Min	MINIMUM
Misc	MISCELLANEOUS
Misc I & S	MISCELLANEOUS IRON AND STEEL
Mkr	MARKER
Mod	MODIFIED,
	MODIFY
Mon	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE GUARD RAILING
MR	MOVEMENT RATING
MSE	MECHANICALLY STABILIZED EMBANKMENT
Mt	MOUNTAIN, MOUNT
Mtl	MATERIAL
MVP	MAINTENANCE VEHICLE PULLOUT

N

N	NORTH
NB	NORTHBOUND
No.	NUMBER (MUST HAVE PERIOD)
Nos.	NUMBERS (MUST HAVE PERIOD)
NPS	NOMINAL PIPE SIZE
NS	NEAR SIDE
NSP	NEW STANDARD PLAN
NTS	NOT TO SCALE

O

Oblr	OBLITERATE
OC	OVERCROSSING
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OG	ORIGINAL GROUND
OGAC	OPEN GRADED ASPHALT CONCRETE
OGFC	OPEN GRADED FRICTION COURSE
OH	OVERHEAD
OHWM	ORDINARY HIGH WATER MARK
O-O	OUT TO OUT
Opp	OPPOSITE
OSD	OVERSIDE DRAIN

P

P	PAGE
PAP	PERFORATED ALUMINUM PIPE
PB	PULL BOX
PC	POINT OF CURVATURE,
	PRECAST
PCC	POINT OF COMPOUND CURVE,
	PORTLAND CEMENT CONCRETE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
PCP	PERFORATED CONCRETE PIPE,
	PRESTRESSED CONCRETE PIPE
PCVC	POINT OF COMPOUND VERTICAL CURVE
PEC	PERMIT TO ENTER AND CONSTRUCT
Ped	PEDESTRIAN
Ped OC	PEDESTRIAN OVERCROSSING
Ped UC	PEDESTRIAN UNDERCROSSING
Perm Mtl	PERMEABLE MATERIAL

P continued

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

Q

Qty	QUANTITY

R

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

S

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

T

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

T continued

TS	TRANSVERSE,
	TRAFFIC SIGNAL,
	TUBULAR STEEL
Typ	TYPICAL

U

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

V

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

W

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

X

X Sec	CROSS SECTION
Xing	CROSSING

Y

Yr	YEAR
Yrs	YEARS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	15	26

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Grace M. Tsushima No. C49814 Exp. 9-30-14 CIVIL STATE OF CALIFORNIA

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

TO ACCOMPANY PLANS DATED 3-24-15

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

TABLE A

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft^3, pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kip	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ABBREVIATIONS (SHEET 2 OF 2)

NO SCALE

RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A10B

2010 REVISED STANDARD PLAN RSP A10B

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6-7-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	16	26

REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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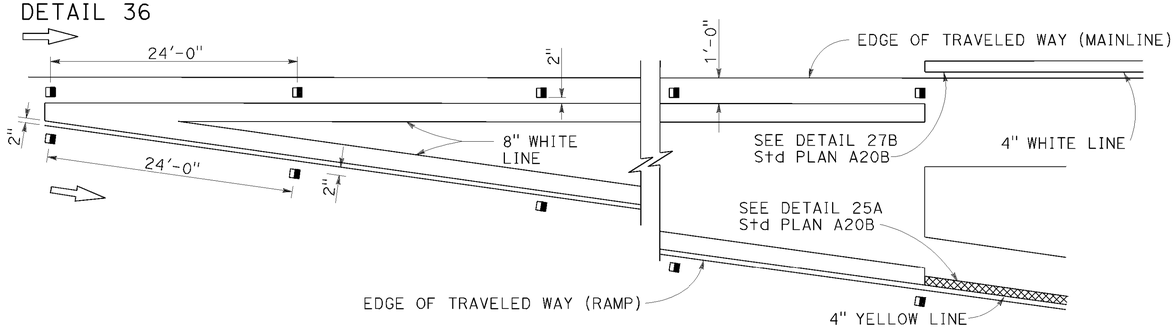
TO ACCOMPANY PLANS DATED 3-24-15

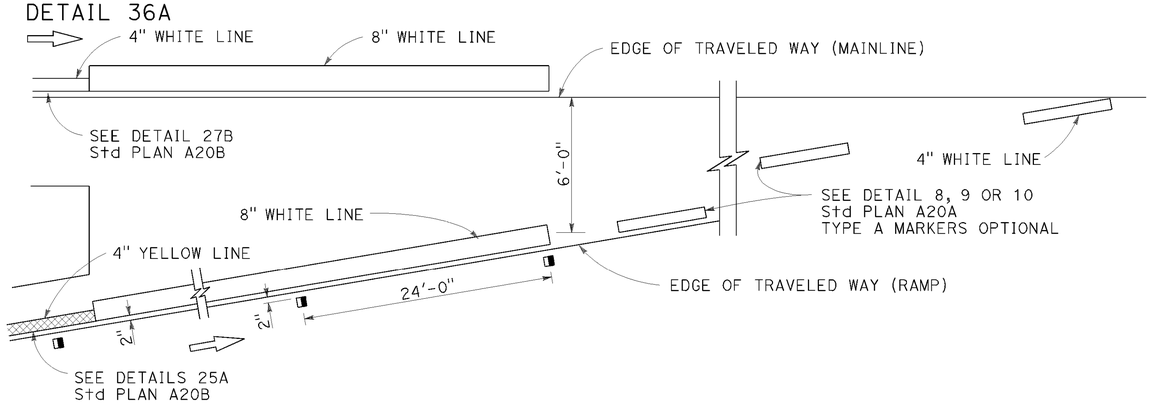
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT

DETAIL 36



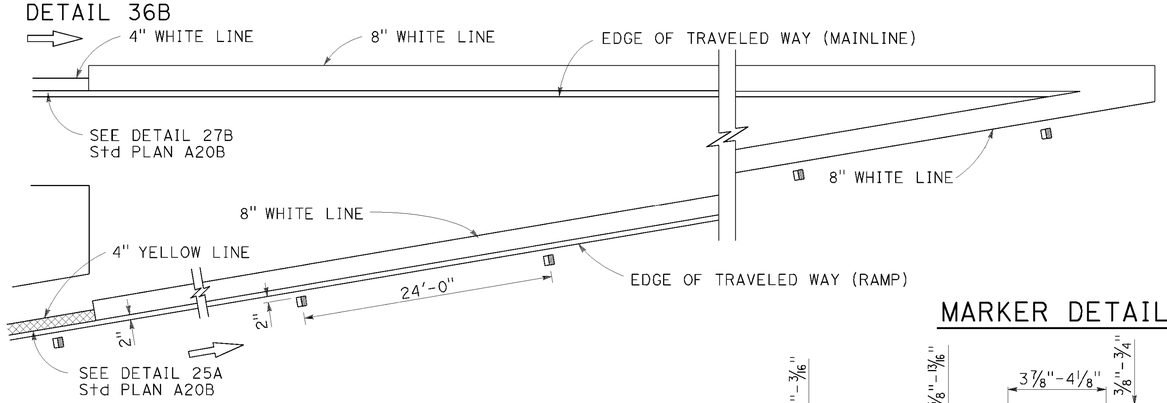
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

DETAIL 36A



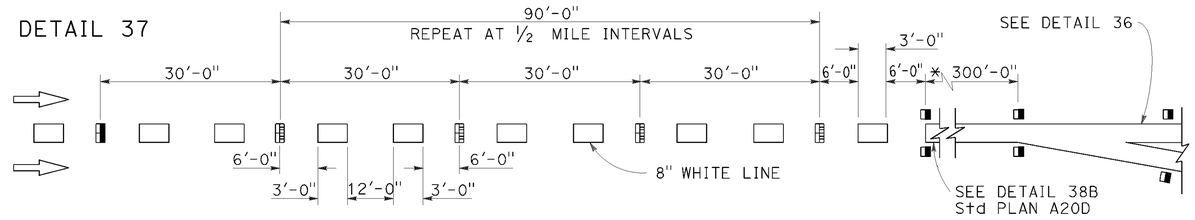
ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

DETAIL 36B

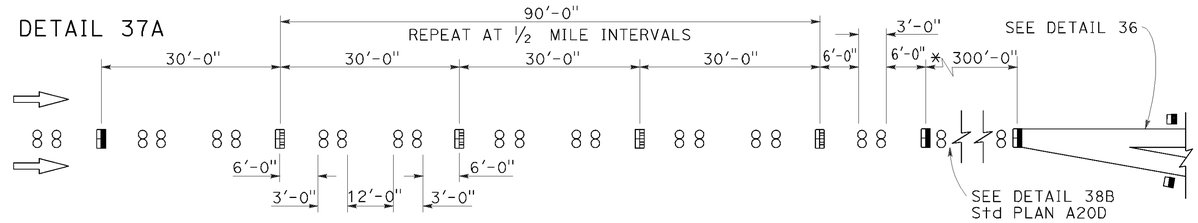


LANE DROP AT EXIT RAMPS

DETAIL 37



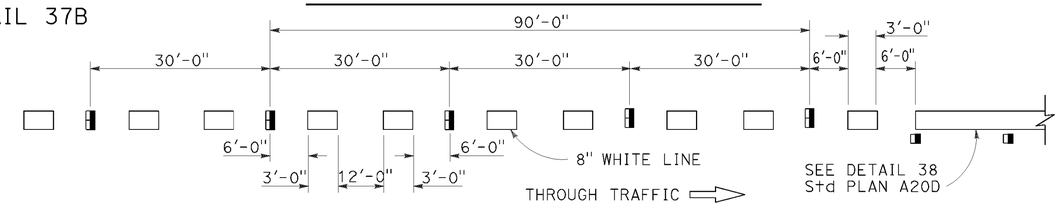
DETAIL 37A



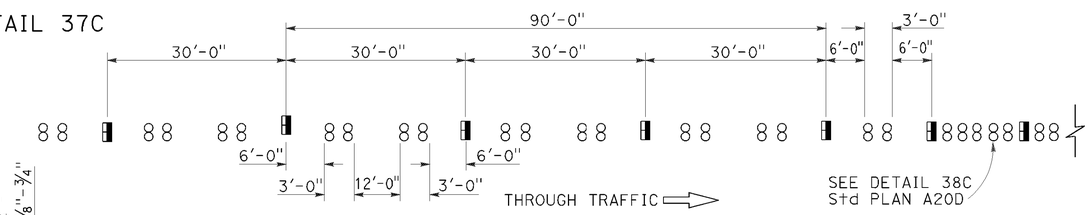
* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS

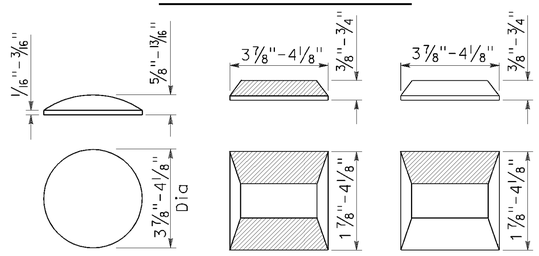
DETAIL 37B



DETAIL 37C



MARKER DETAILS



TYPE A TYPE C TYPE G

RETROREFLECTIVE FACE

LEGEND:

MARKERS

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

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

REVISED STANDARD PLAN RSP A20C

2010 REVISED STANDARD PLAN RSP A20C

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4-29-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	17	26

REGISTERED CIVIL ENGINEER

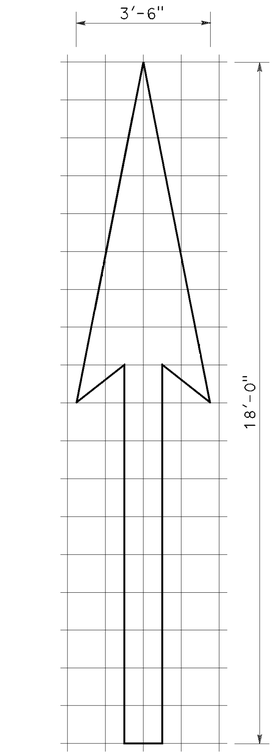
April 20, 2012
PLANS APPROVAL DATE

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

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

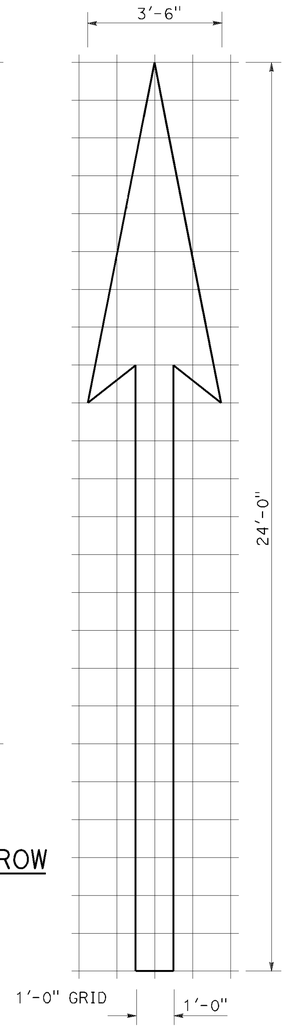
TO ACCOMPANY PLANS DATED 3-24-15

2010 REVISED STANDARD PLAN RSP A24A



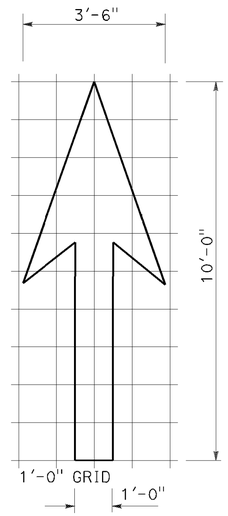
A=25 ft^2

TYPE I 18'-0" ARROW



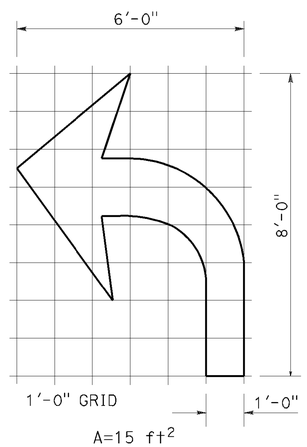
A=31 ft^2

TYPE I 24'-0" ARROW



A=14 ft^2

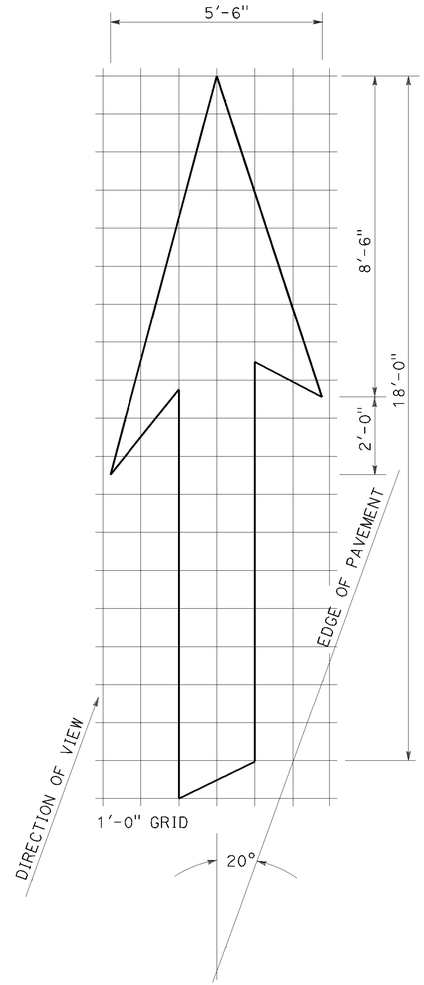
TYPE I 10'-0" ARROW



A=15 ft^2

TYPE IV (L) ARROW

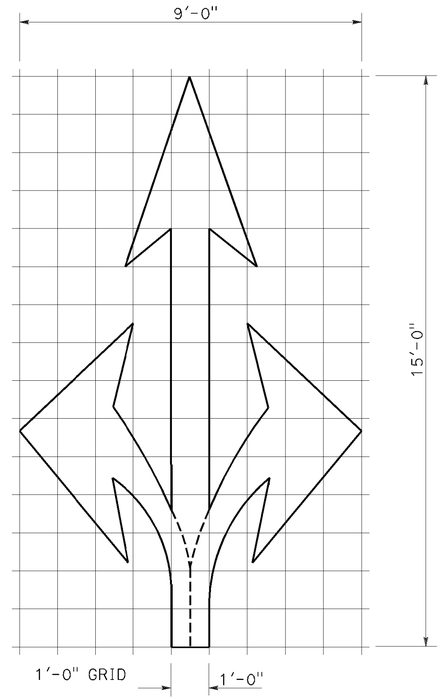
(For Type IV (R) arrow, use mirror image)



A=42 ft^2

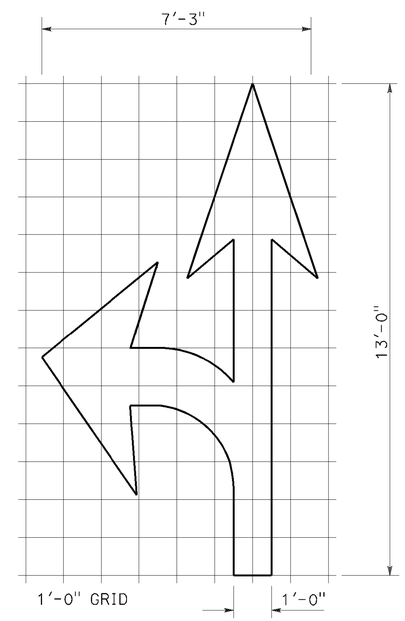
TYPE VI ARROW

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



A=36 ft^2

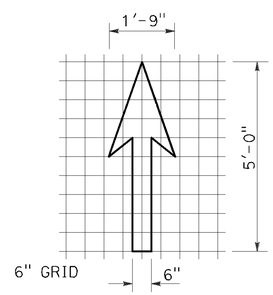
TYPE VIII ARROW



A=27 ft^2

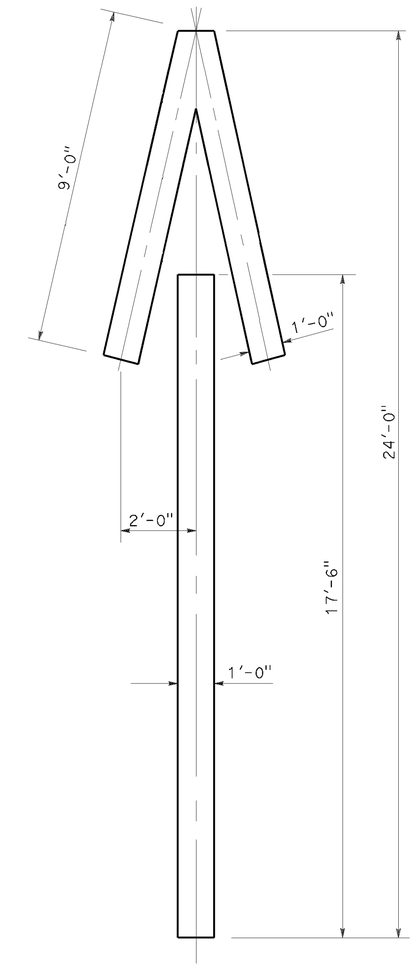
TYPE VII (L) ARROW

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



A=3.5 ft^2

BIKE LANE ARROW



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

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3-14-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	18	26

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

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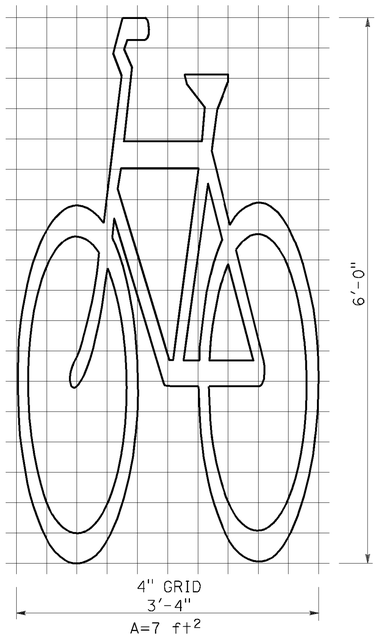
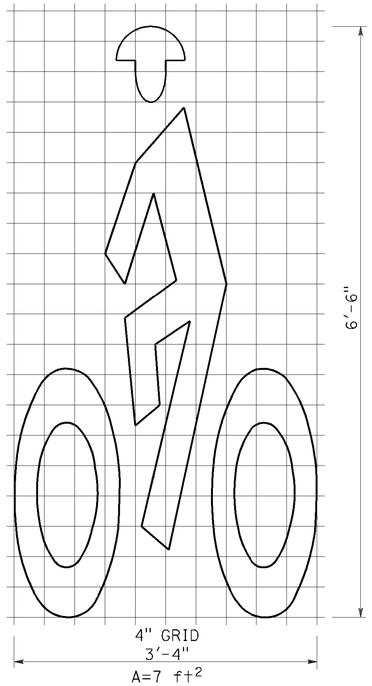
NOTE: TO ACCOMPANY PLANS DATED 3-24-15

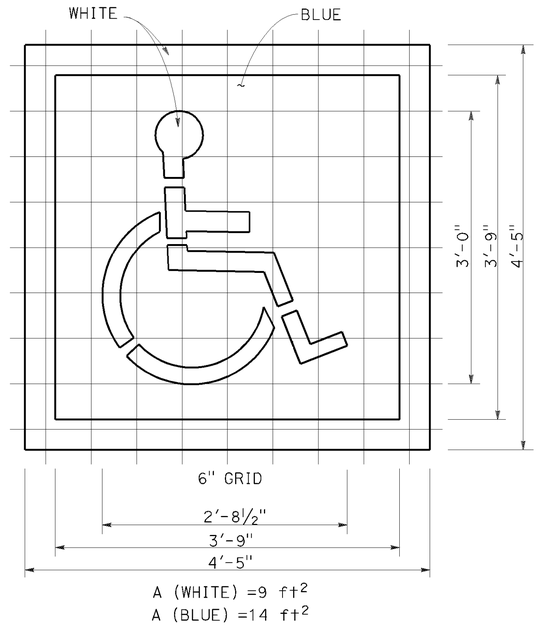
Minor variations in dimensions may be accepted by the Engineer.



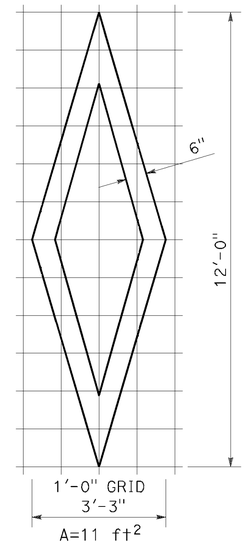
BIKE LANE SYMBOL WITHOUT PERSON



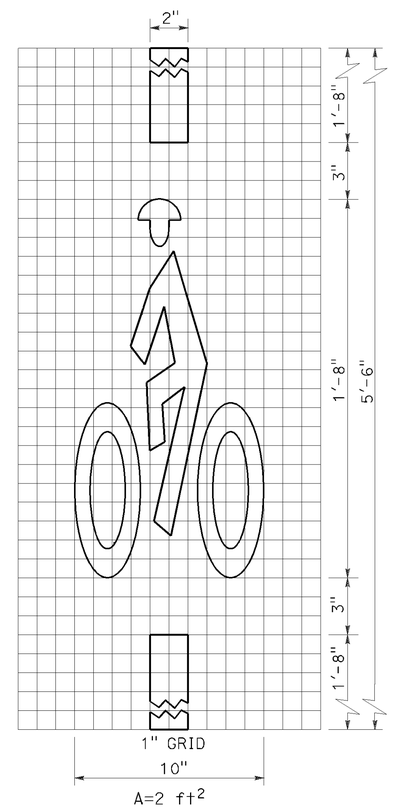
BIKE LANE SYMBOL WITH PERSON



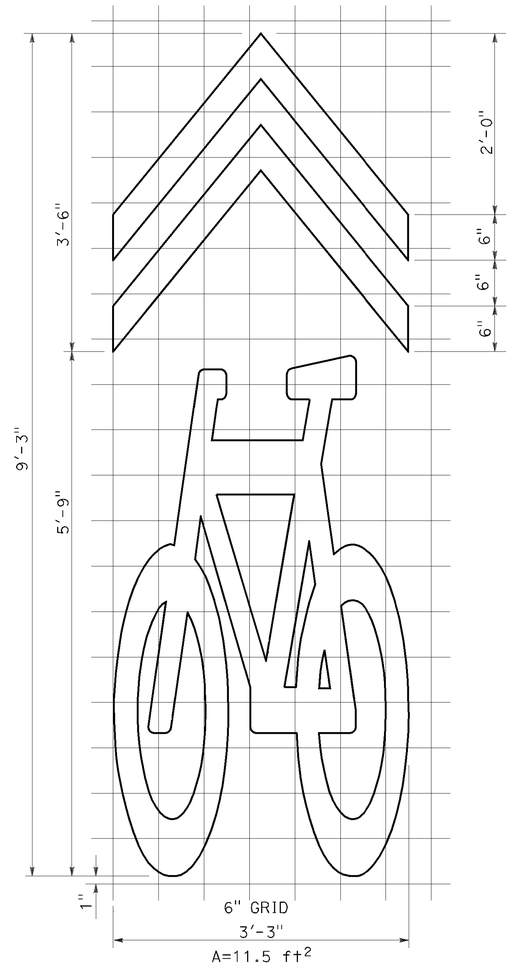
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING



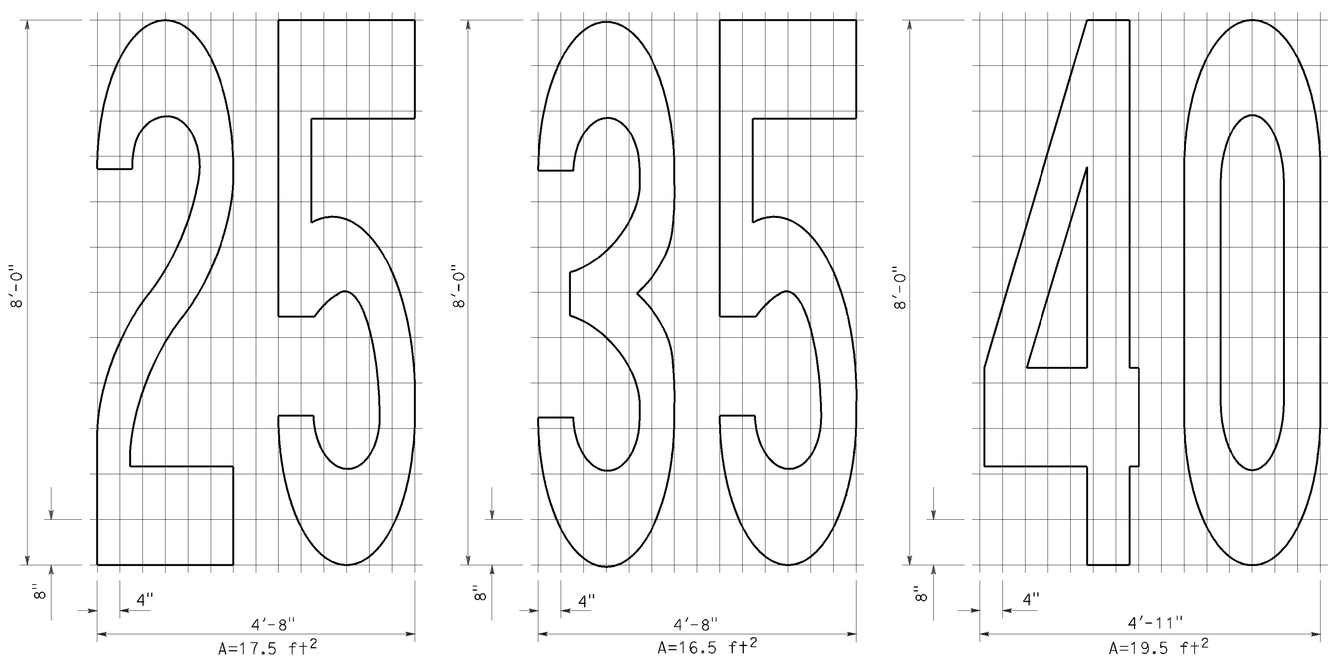
DIAMOND SYMBOL



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

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6-28-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	19	26

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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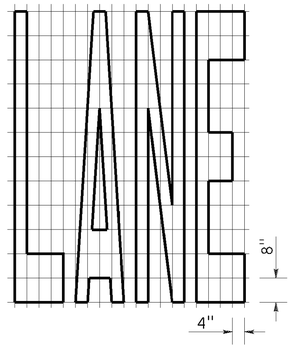
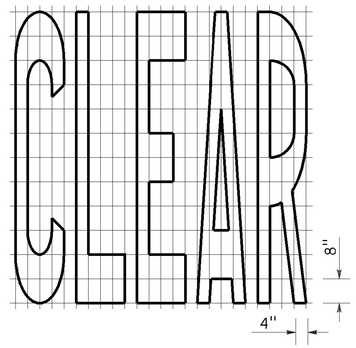
TO ACCOMPANY PLANS DATED 3-24-15



A=24 ft²



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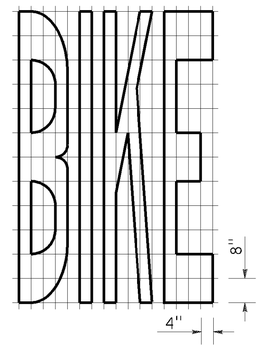
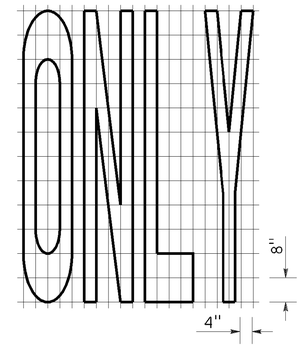


A=21 ft²



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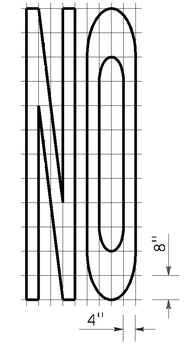
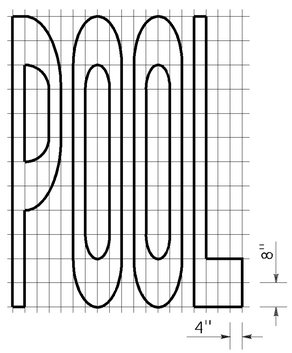


A=14 ft²



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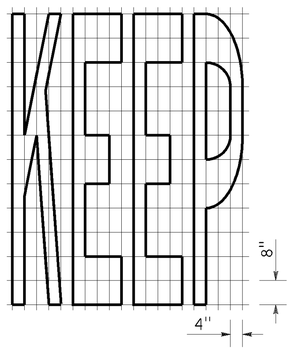

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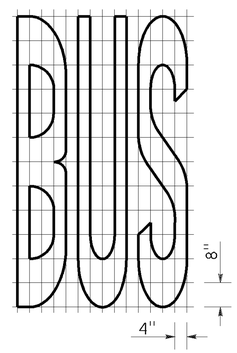
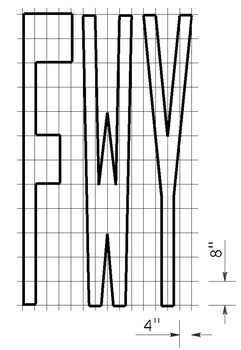
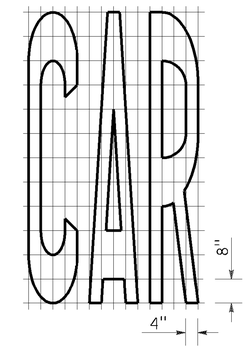


A=20 ft²

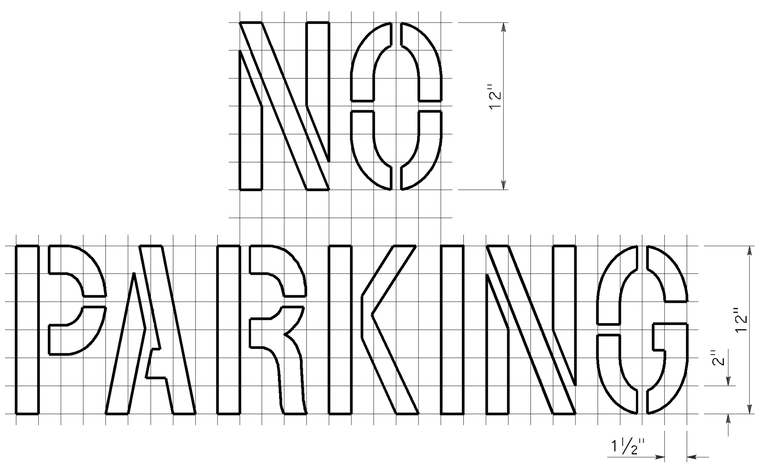


A=16 ft²

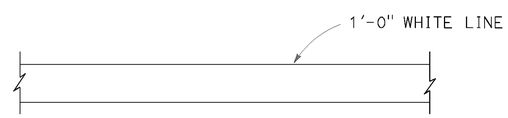


A=17 ft²

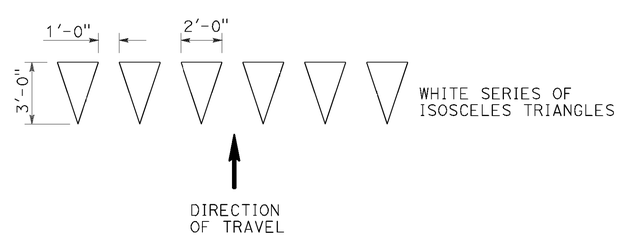
WORD MARKINGS			
ITEM	ft²	ITEM	ft²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



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

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6-12-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	20	26

Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

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

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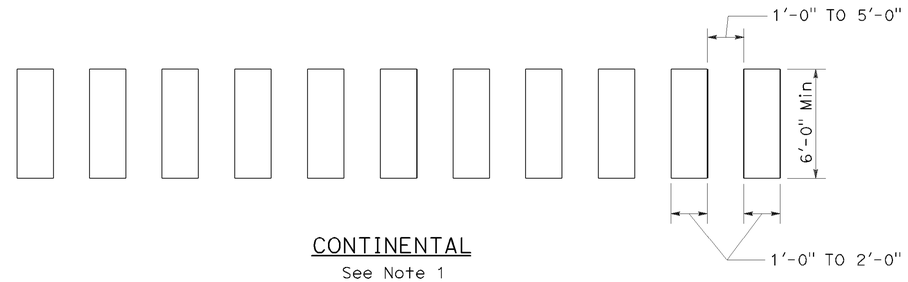
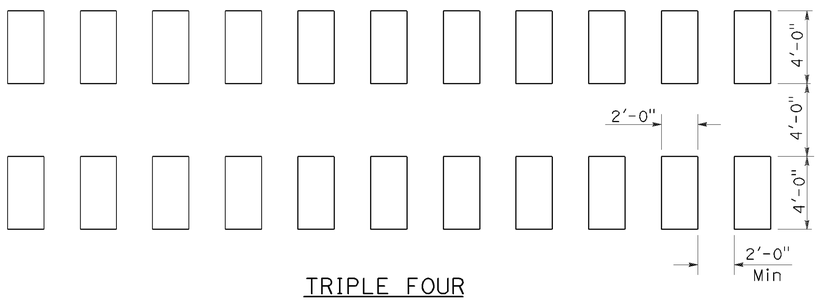
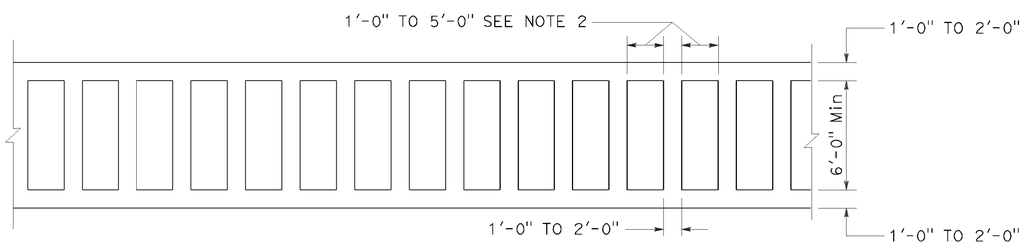
TO ACCOMPANY PLANS DATED 3-24-15



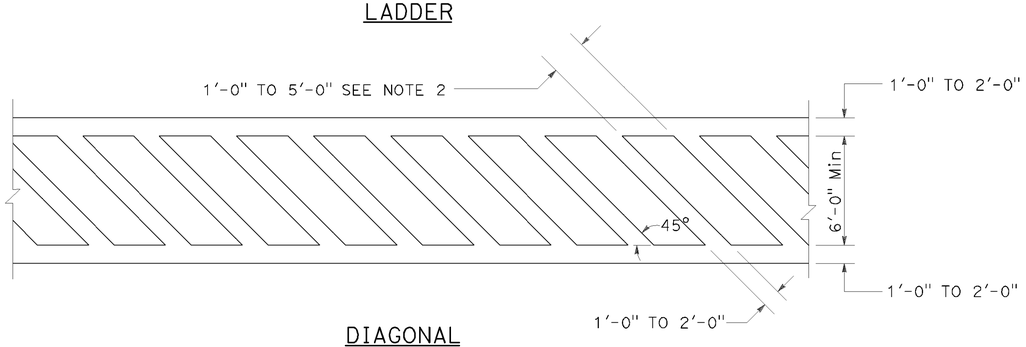
CONTINENTAL
See Note 1



TRIPLE FOUR
See Note 1



LADDER

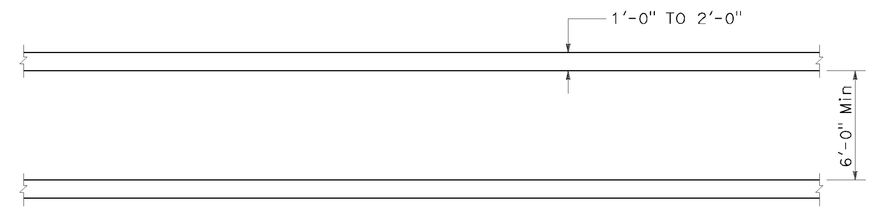


DIAGONAL

HIGHER VISIBILITY CROSSWALKS

NOTES:

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



BASIC

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS CROSSWALKS

NO SCALE

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

REVISED STANDARD PLAN RSP A24F

2010 REVISED STANDARD PLAN RSP A24F

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6-28-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	21	26

REGISTERED CIVIL ENGINEER

March 21, 2014
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Hector David Cordova — No. C41957 — Exp. 3-31-14 — CIVIL — STATE OF CALIFORNIA

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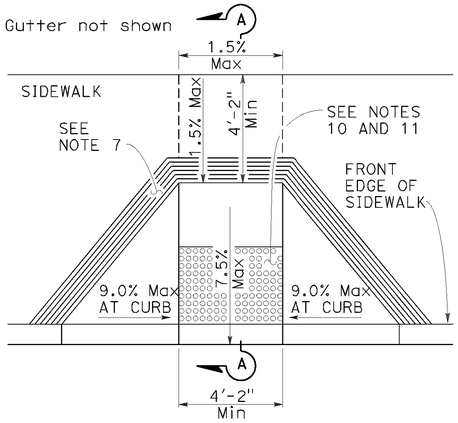
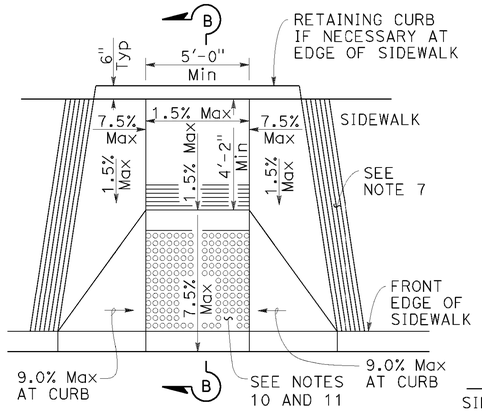
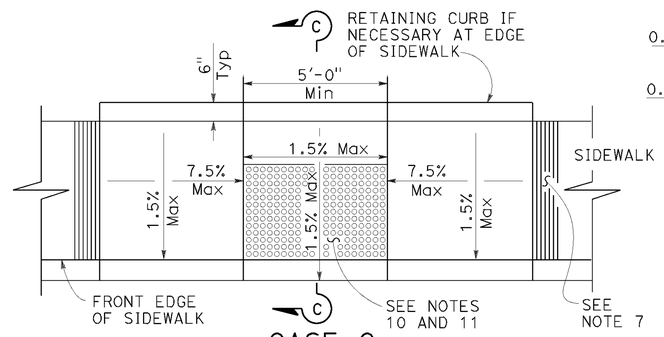
TO ACCOMPANY PLANS DATED 3-24-15



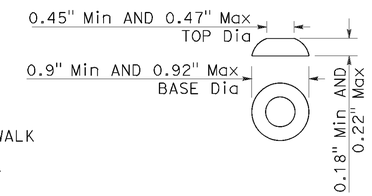
CASE A



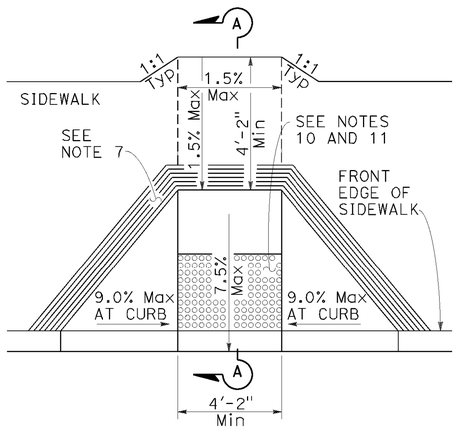
CASE B



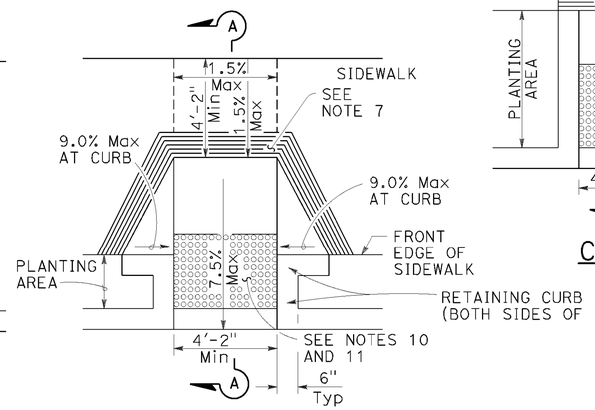
CASE C



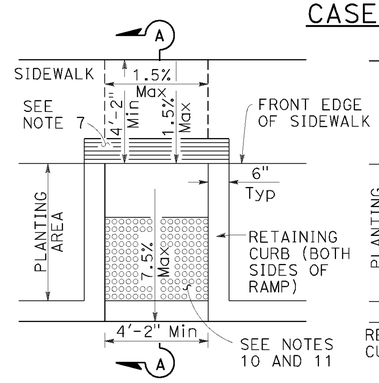
RAISED TRUNCATED DOME



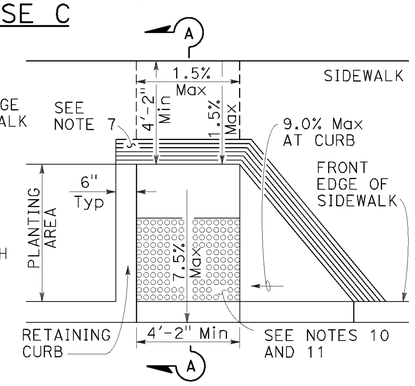
CASE D



CASE E

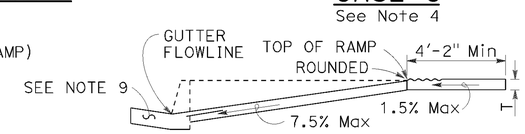


CASE F

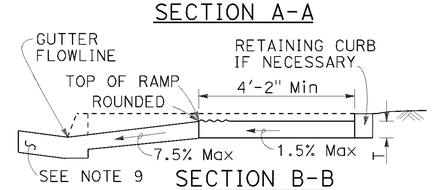


CASE G

See Note 4

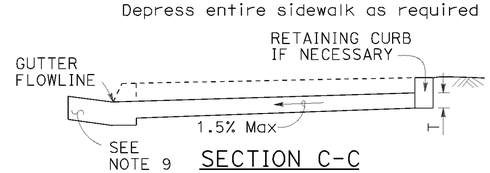


SECTION A-A

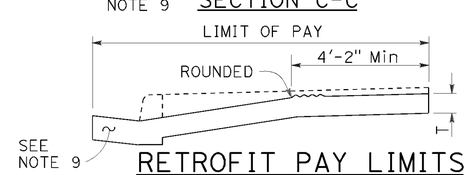


SECTION B-B

Depress entire sidewalk as required

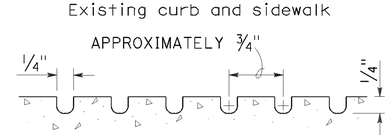


SECTION C-C

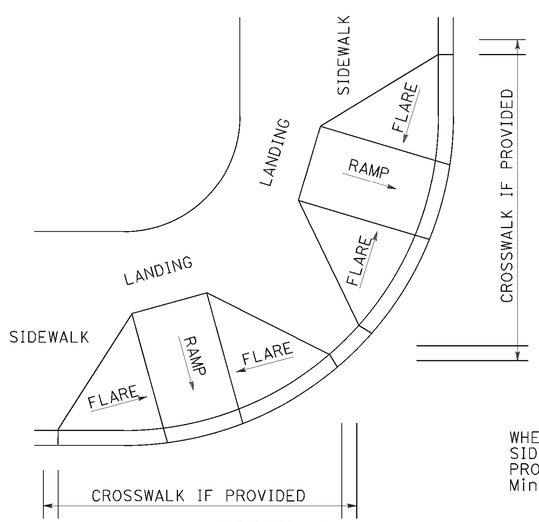


RETROFIT PAY LIMITS

Existing curb and sidewalk



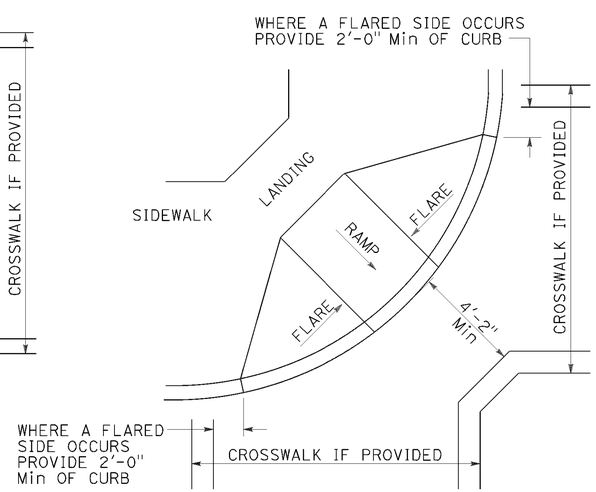
GROOVING DETAIL



DETAIL A

TYPICAL TWO-RAMP CORNER INSTALLATION

See Note 1



DETAIL B

TYPICAL ONE-RAMP CORNER INSTALLATION

See Notes 1 and 3

NOTES:

1. As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.
2. If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B, or C or may be widened as in Case D.
3. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
4. As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
5. If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-2".
6. Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
7. The curb ramp shall be outlined, as shown, with a 1'-0" wide border with 1/4" grooves approximately 3/4" on center. See grooving detail.
8. Transitions from ramps and landing to walks, gutters or streets shall be flush (no lip) and free of abrupt changes.
9. Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1:20 (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
10. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. A 4'-0" wide detectable warning surface may be used on a 4'-2" wide curb ramp. Detectable Warning Surfaces shall conform to the requirements in the Standard Specifications.
11. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
12. Sidewalk and ramp thickness, "T", shall be 3½" minimum.
13. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
14. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.

RAISED TRUNCATED DOME PATTERN (IN-LINE)

DETECTABLE WARNING SURFACE

See Note 10

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS

NO SCALE

RSP A88A DATED MARCH 21, 2014 SUPERSEDES RSP A88A DATED JULY 19, 2013 AND STANDARD PLAN A88A DATED MAY 20, 2011 - PAGE 121 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A88A

2010 REVISED STANDARD PLAN RSP A88A

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2-25-14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	22	26

REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Cornelis M. Hakim No. C55610 Exp. 12-31-14 CIVIL STATE OF CALIFORNIA

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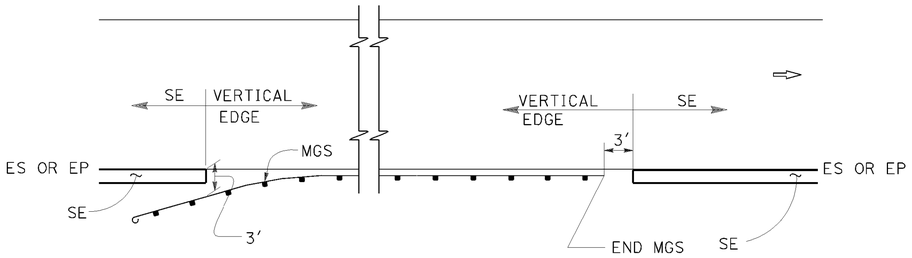
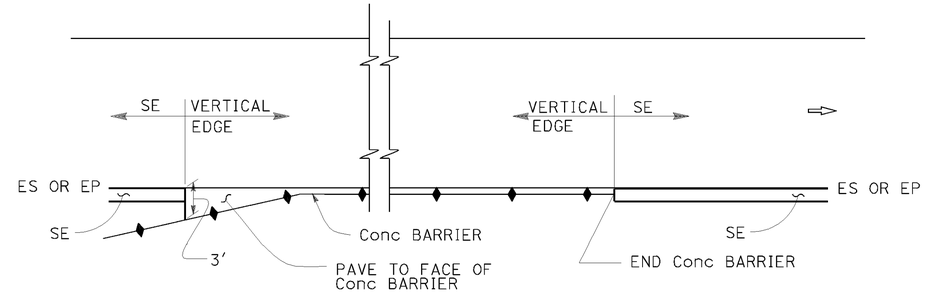
TO ACCOMPANY PLANS DATED 3-24-15

ABBREVIATIONS:

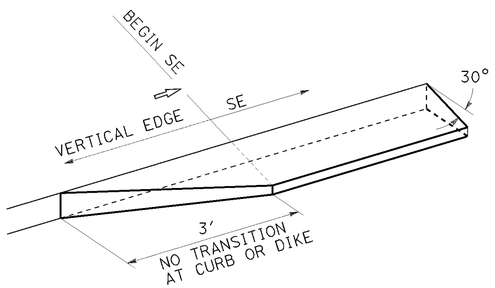
SE SAFETY EDGE



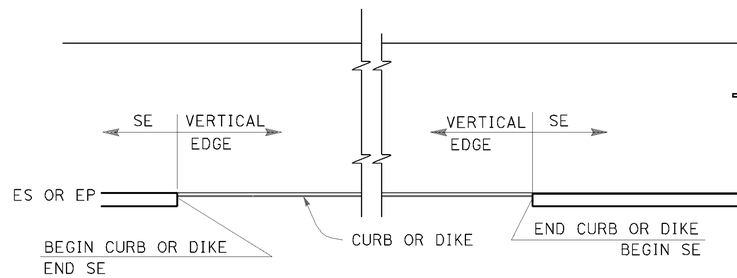
MGS



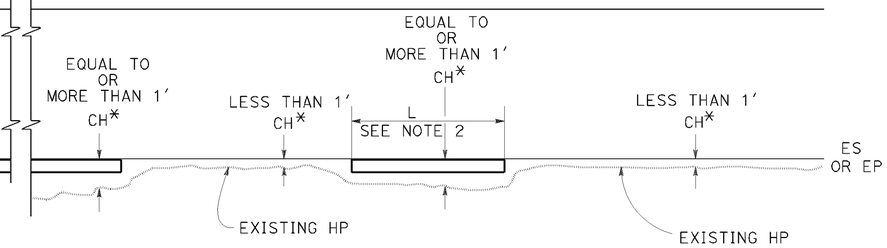
CONCRETE BARRIER



TRANSITION DETAIL FOR CONCRETE ONLY

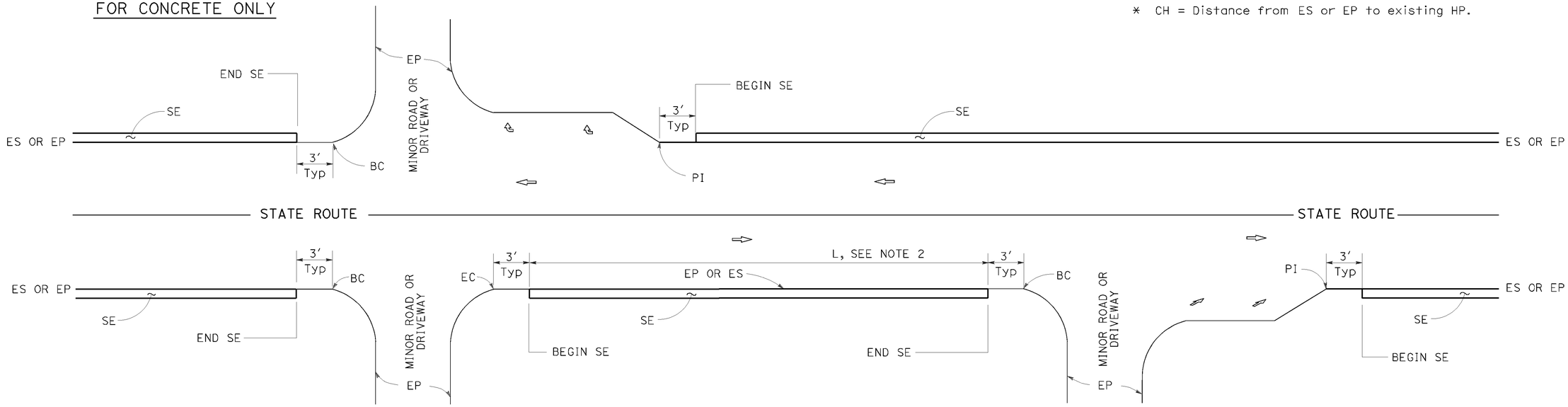


CURB OR DIKE



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 NOVEMBER 15, 2013 SUPERSEDES RSP P74 DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P74

2010 REVISED STANDARD PLAN RSP P74

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10-11-13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	23	26

REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Cornelis M. Hakim
No. C55610
Exp. 12-31-14
CIVIL
STATE OF CALIFORNIA

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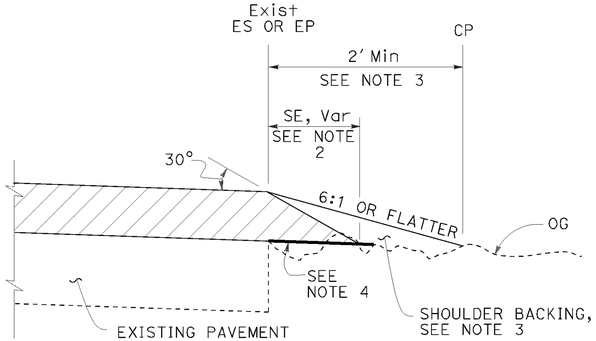
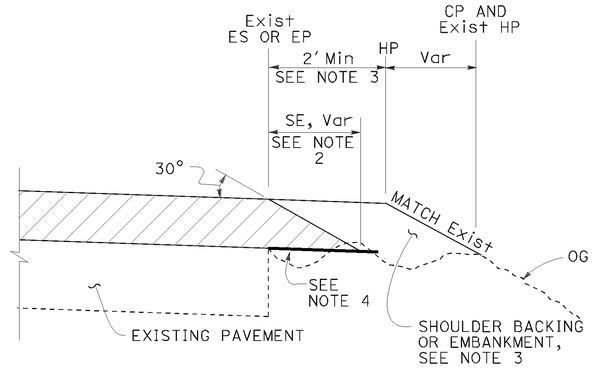
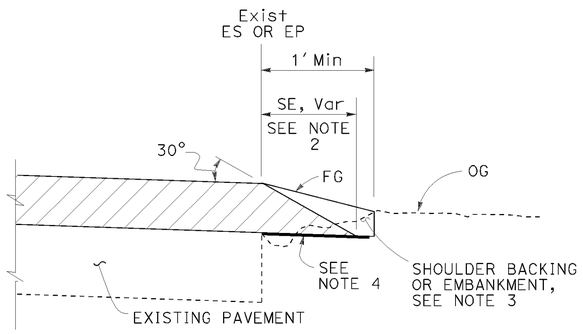
TO ACCOMPANY PLANS DATED 3-24-15



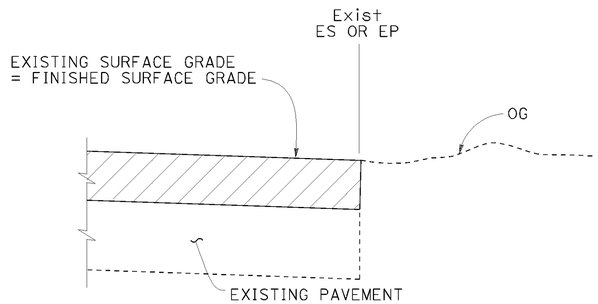
CASE A
Safety Edge



CASE B
Safety Edge



CASE C
Safety Edge



CASE D
Vertical Edge

LEGEND:

- HMA OVERLAY
- HMA OR CONCRETE OVERLAY
- CONCRETE OVERLAY

ABBREVIATIONS:

SE SAFETY EDGE
TT TOTAL THICKNESS OF SE

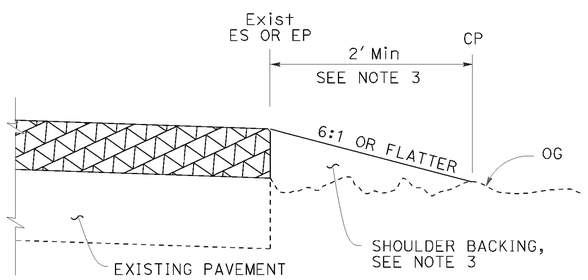
TABLE A
EDGE TREATMENT FOR VARIOUS OVERLAY THICKNESS AND CONDITIONS

	OVERLAY THICKNESS	
FIELD CONDITION	LESS THAN 0.15'	0.15' OR MORE
Exist SLOPE 6:1 OR FLATTER	CASE E	CASE A
Exist SLOPE 3:1 TO 6:1	CASE E	CASE B
Exist SLOPE STEEPER THAN 3:1	CASE F	CASE F
CUT SECTION (REPLACE, COLD PLANE, MILL PAVEMENT)	CASE D	CASE C

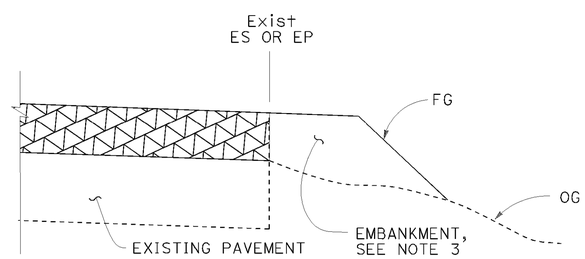
ADDITIONAL HMA OR CONCRETE QUANTITIES FOR SE/SIDE/MILE

TYPICAL CROSS SECTION	TT	TOTAL ADDITIONAL MATERIAL FOR SE/SIDE/MILE		
		HMA (TON)	CONCRETE (CY)*	CONCRETE (CY)**
TT	0.15'	NA	NA	NA
	0.20'	13.7	NA	NA
	0.30'	30.9	NA	NA
	0.40'	54.9	NA	NA
	0.45'	69.4	NA	NA
TT 0.43'	0.50'	84.2	NA	NA
	0.60'	113.9	NA	NA
	0.70'	143.6	70.9	94.2
	0.80'	173.3	85.6	112.2
	0.90'	203.0	100.3	130.2
	1.00'	232.7	114.9	148.2
	1.10'	262.4	129.6	166.2
	1.20'	292.1	144.3	184.2

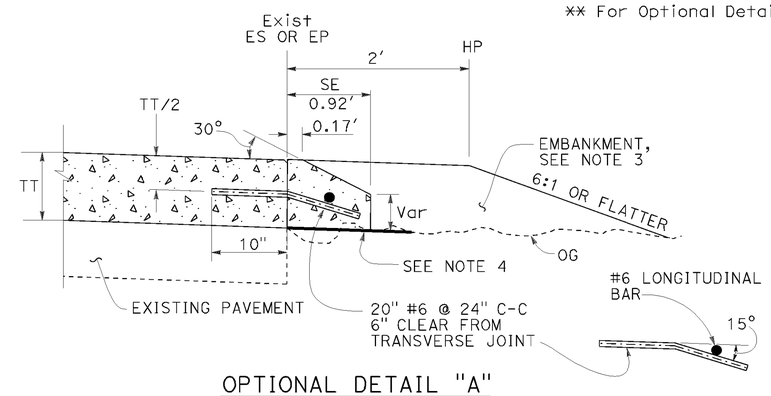
* For Detail "A"
** For Optional Detail "A"



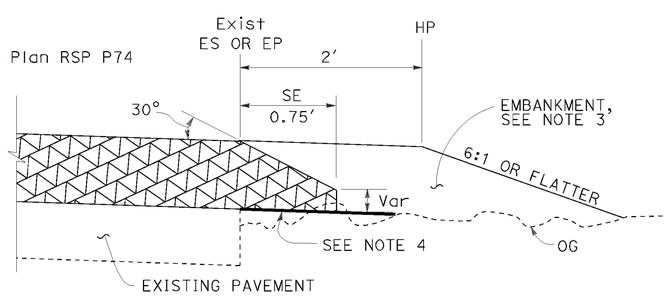
CASE E
Vertical Edge



CASE F
Vertical Edge
* See Table A and Revised Std Plan RSP P74



OPTIONAL DETAIL "A"
For concrete overlay
See Note 5



DETAIL "A"
For HMA overlay thickness more than 0.43' or concrete overlay

NOTES:

1. For limits of safety edge and vertical edge treatments, see Revised Standard Plan RSP P74.
2. Details shown for HMA overlay thickness less than 0.43'. See Detail "A" for HMA overlay thickness more than 0.43' or concrete overlay.
3. For locations and limits of shoulder backing or embankment see project plans.
4. Grade existing ground to place safety edge. 1' minimum width
5. Safety edge transverse joint must match overlay transverse joint. End of #6 longitudinal bar must be 2" ±½" clear from transverse joint.
6. Safety edge is not needed in the area of MGS, barrier, right turn lane and acceleration lane. See Revised Standard Plan RSP P74.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE TREATMENTS-OVERLAYS

NO SCALE

RSP P75 DATED NOVEMBER 15, 2013 SUPERSEDES RSP P75 DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P75

2010 REVISED STANDARD PLAN RSP P75

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10-4-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	24	26

REGISTERED CIVIL ENGINEER

July 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 3-24-15

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING

SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
					X	Y	Z **
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

* - For other offsets, use the following merging taper length formula for L:
For speed of 40 mph or less, $L = WS^2/60$
For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
W = Width of offset in feet
S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING

SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommmended distances.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

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

REVISED STANDARD PLAN RSP T9

2010 REVISED STANDARD PLAN RSP T9

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4-30-13

TO ACCOMPANY PLANS DATED _____

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	25	26

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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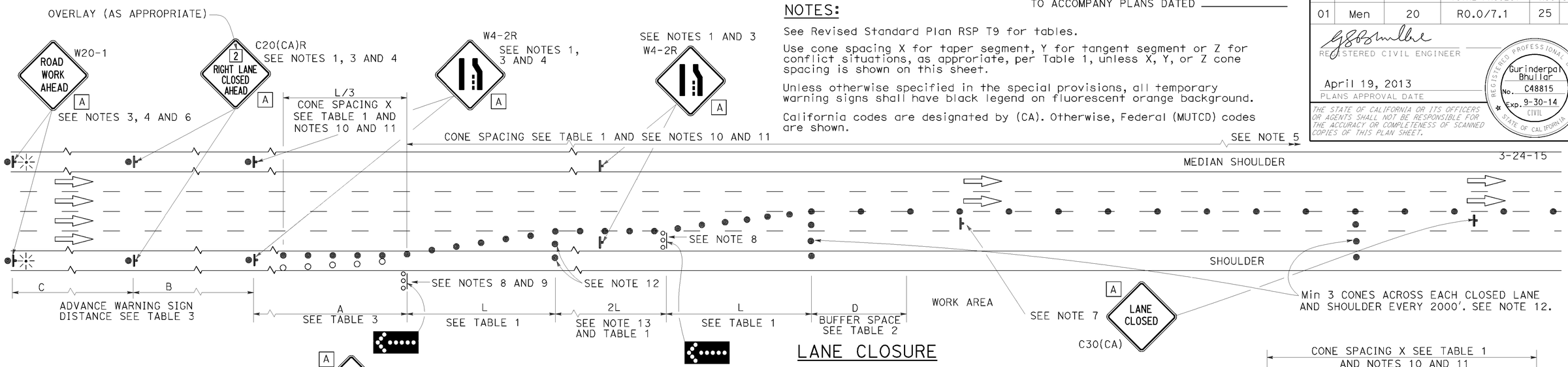
NOTES:

See Revised Standard Plan RSP T9 for tables.

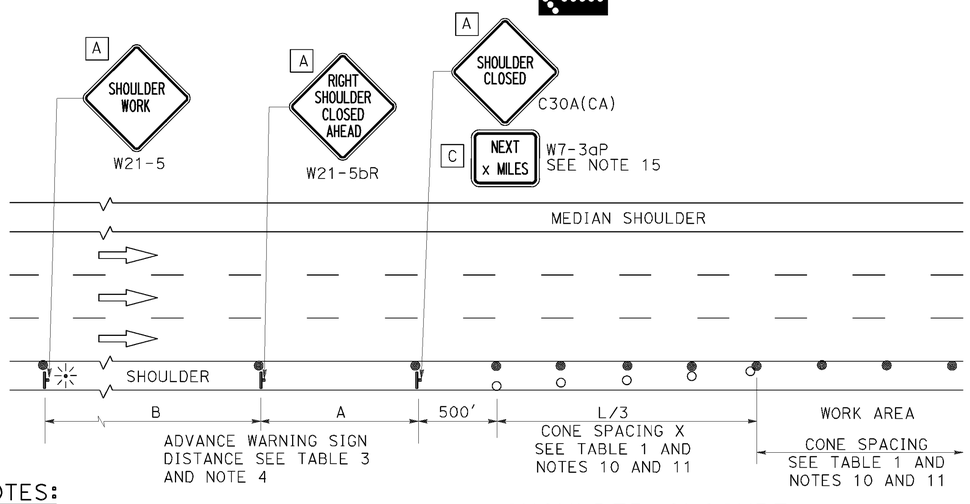
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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

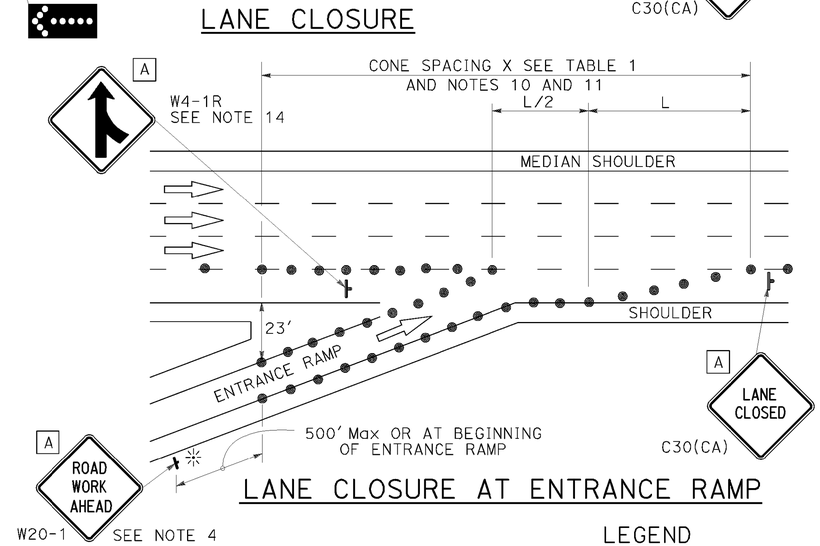
California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



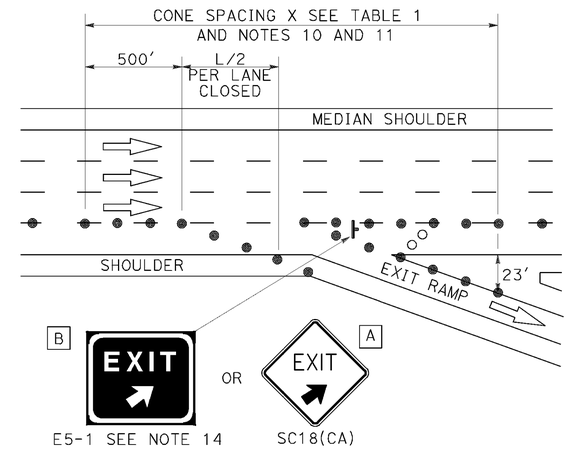
LANE CLOSURE



SHOULDER CLOSURE



LANE CLOSURE AT ENTRANCE RAMP



LANE CLOSURE AT EXIT RAMP

NOTES:

1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Duplicate sign installations are not required:
   a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
   b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
7. Place a C30(CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
15. A W7-3aP "NEXT____ MILES" plaque must be used if theshoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

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

SIGN PANEL SIZE (Min)

A	48" x 48"
B	72" x 60"
C	36" x 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

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12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	R0.0/7.1	26	26

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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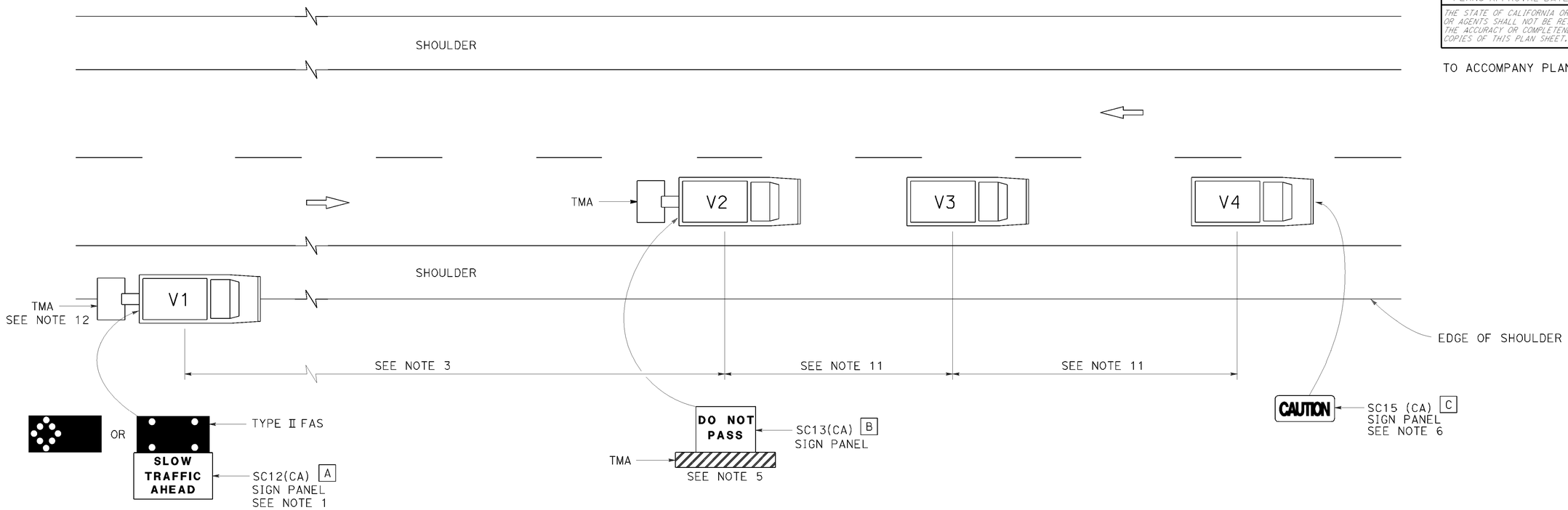
TO ACCOMPANY PLANS DATED 3-24-15

2010 REVISED STANDARD PLAN RSP T17



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" × 42"
B	54" × 42"
C	54" × 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

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12-18-12