

INDEX OF PLANS

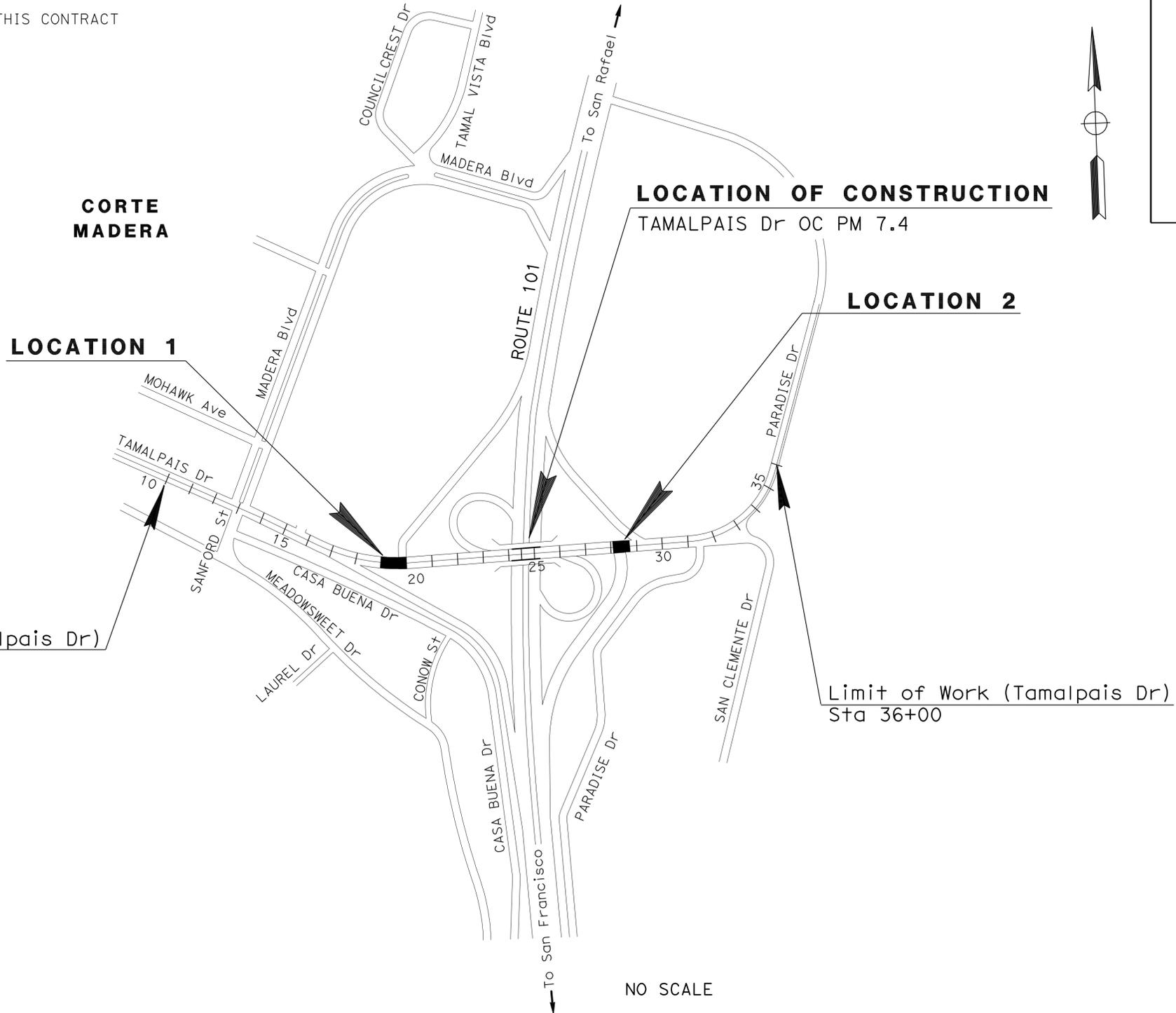
SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	TYPICAL CROSS SECTIONS
4	LAYOUTS
5-6	CONSTRUCTION DETAILS
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STRUCTURE PLANS
37-39 FOUNDATION INVESTIGATION REPORT

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

STATE OF CALIFORNIA ACNH-Q101(203)E
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN MARIN COUNTY
IN CORTE MADERA
AT TAMALPAIS DRIVE OVERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER
JAY HAGHPARAST

DESIGN ENGINEER
ALI ALOATAMI

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

Richard H. Kuan 06-06-11
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER



September 26, 2011
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.

CONTRACT No.	04-4S5504
PROJECT ID	0400001248

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	2	39

<i>Richard H. Kuan</i>	06-06-11
REGISTERED CIVIL ENGINEER	DATE
9-26-11	
PLANS APPROVAL DATE	

RICHARD H. KUAN No. 56678 Exp. 06/30/13 CIVIL
--

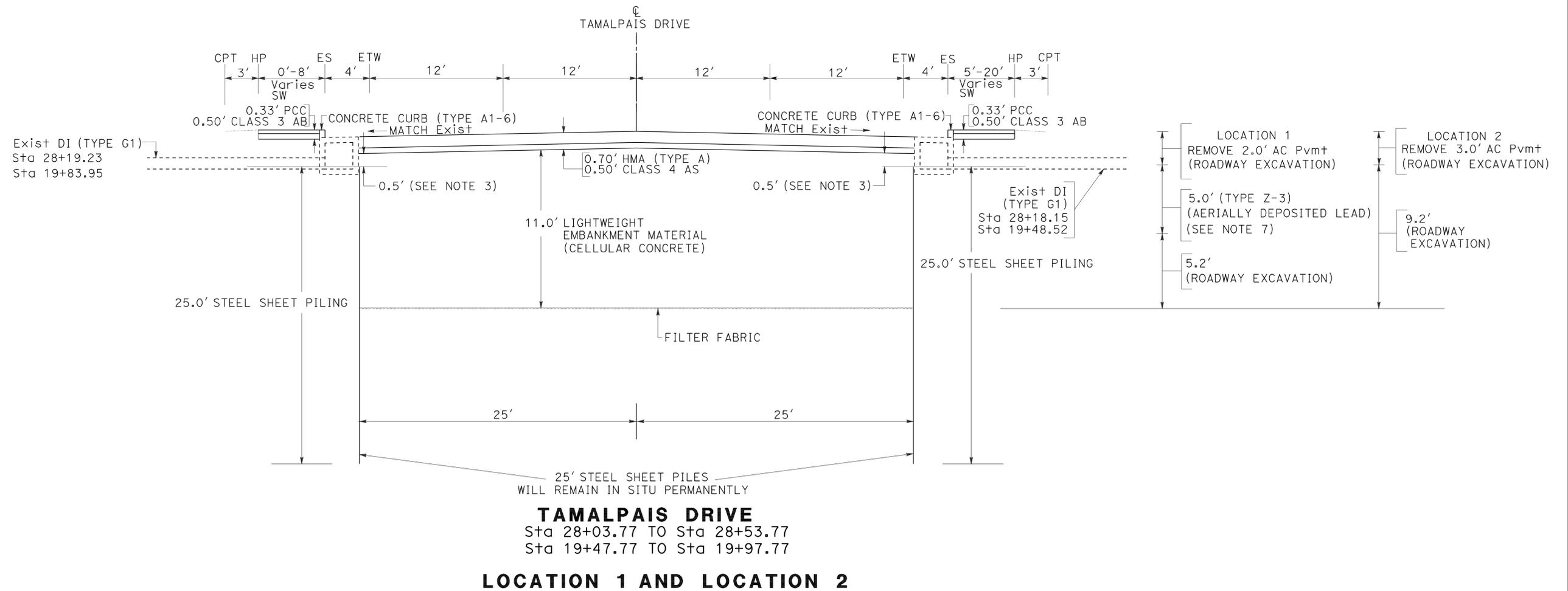
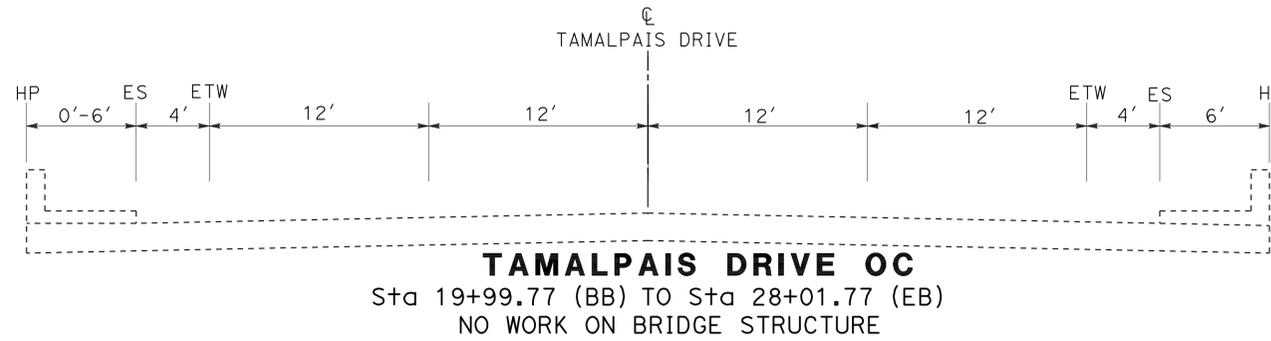
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NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. SHORING SHALL BE LEFT IN PLACE AND CUT OFF AT 0.5 FEET BELOW PAVEMENT STRUCTURAL SECTION.
4. EXCAVATION SHORING AND DEWATERING ARE REQUIRED AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.
5. EXCAVATION SHORING SHALL MAINTAIN THE STABILITY OF ADJACENT FACILITIES AND STRUCTURES THROUGH THE CONSTRUCTION PERIOD.
6. THE SHORING SHALL BE INSTALLED ALONG THE ENTIRE PERIMETER OF THE EXCAVATION.
7. ROADWAY EXCAVATION (TYPE Z-3) (AERIALY DEPOSITED LEAD) IS WITHIN THE TOP 7.0' IN THE WEST BRIDGE APPROACH AT LOCATION 1 AS SHOWN ON THE LAYOUT SHEET FROM Sta 19+47.77 TO Sta 19+97.77, OTHERWISE WILL BE ROADWAY EXCAVATION.

ABBREVIATION:

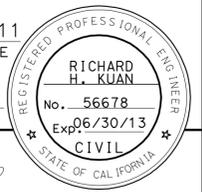
CPT - CATCH POINT



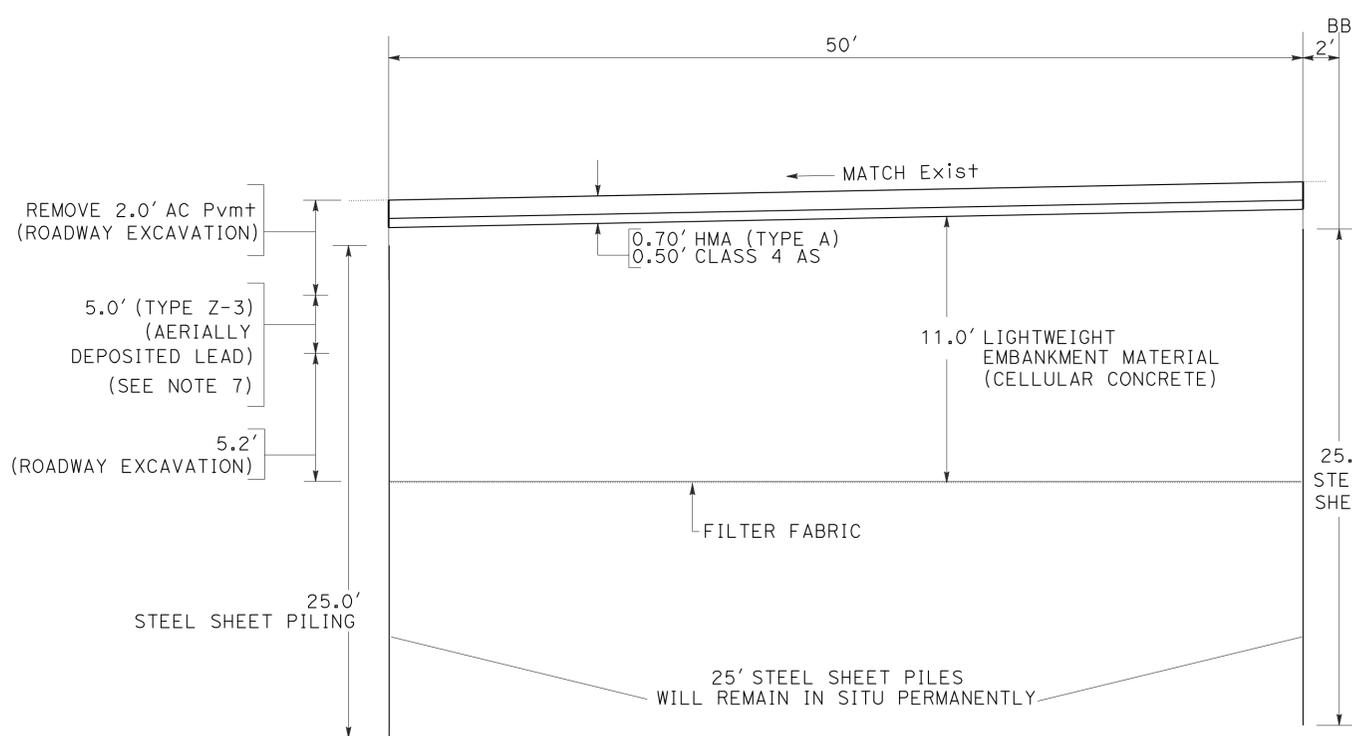
TYPICAL CROSS SECTIONS
NO SCALE
X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN
 FUNCTIONAL SUPERVISOR: ALI ALOATAMI
 CALCULATED/DESIGNED BY: FERNANDO MORALES
 CHECKED BY: RICHARD KUAN
 REVISOR BY: DATE REVISOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	3	39
Richard H. Kuan		06-06-11	DATE		
REGISTERED CIVIL ENGINEER		DATE			
9-26-11		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.					



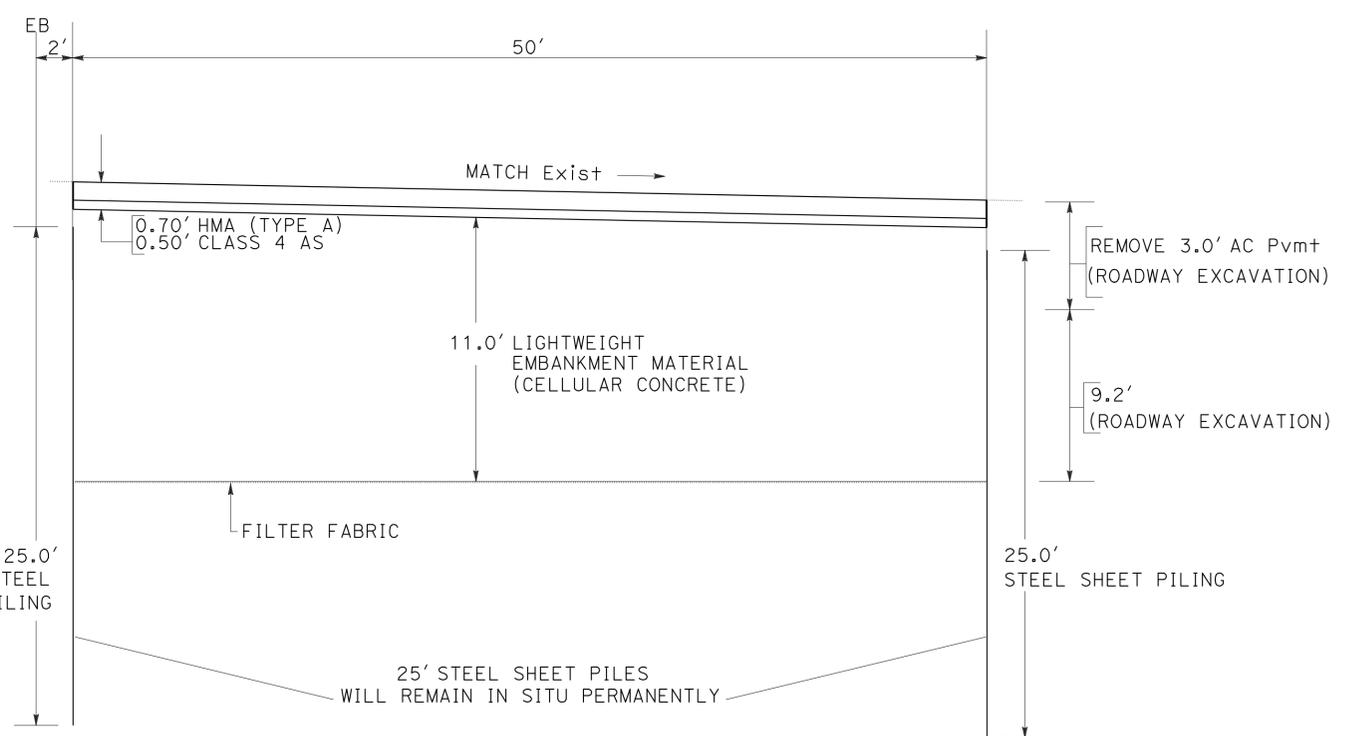
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN
 FUNCTIONAL SUPERVISOR: ALI ALOATAMI
 CALCULATED/DESIGNED BY: FERNANDO MORALES
 CHECKED BY: RICHARD KUAN
 REVISED BY: DATE REVISIONS



TAMALPAIS DRIVE LONGITUDINAL SECTION

Sta 19+47.77 TO Sta 19+97.77

LOCATION 1



TAMALPAIS DRIVE LONGITUDINAL SECTION

Sta 28+03.77 TO Sta 28+53.77

LOCATION 2

TYPICAL CROSS SECTIONS

NO SCALE

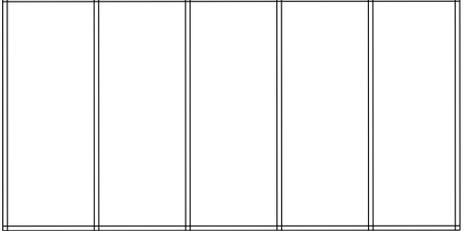
X-2

LAST REVISION DATE PLOTTED => 29-SEP-2011
 06-06-11 TIME PLOTTED => 10:01

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN

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

LEGEND:
 BRIDGE APPROACH REPAIR WITH
 STEEL PILING, LIGHTWEIGHT EMBANKMENT MATERIAL (CELLULAR CONCRETE), AND FILTER FABRIC.



☀ Exist SIGNAL (SEE SHEETS E1 THROUGH E4 FOR DETAILS)
 ▣ Exist DI
 ▲ Exist FES

REVISOR: FERNANDO MORALES, RICHARD KUAN
 DATE: [REDACTED]
 CHECKED BY: [REDACTED]
 DESIGNED BY: [REDACTED]
 SUPERVISOR: ALI ALQATAMI

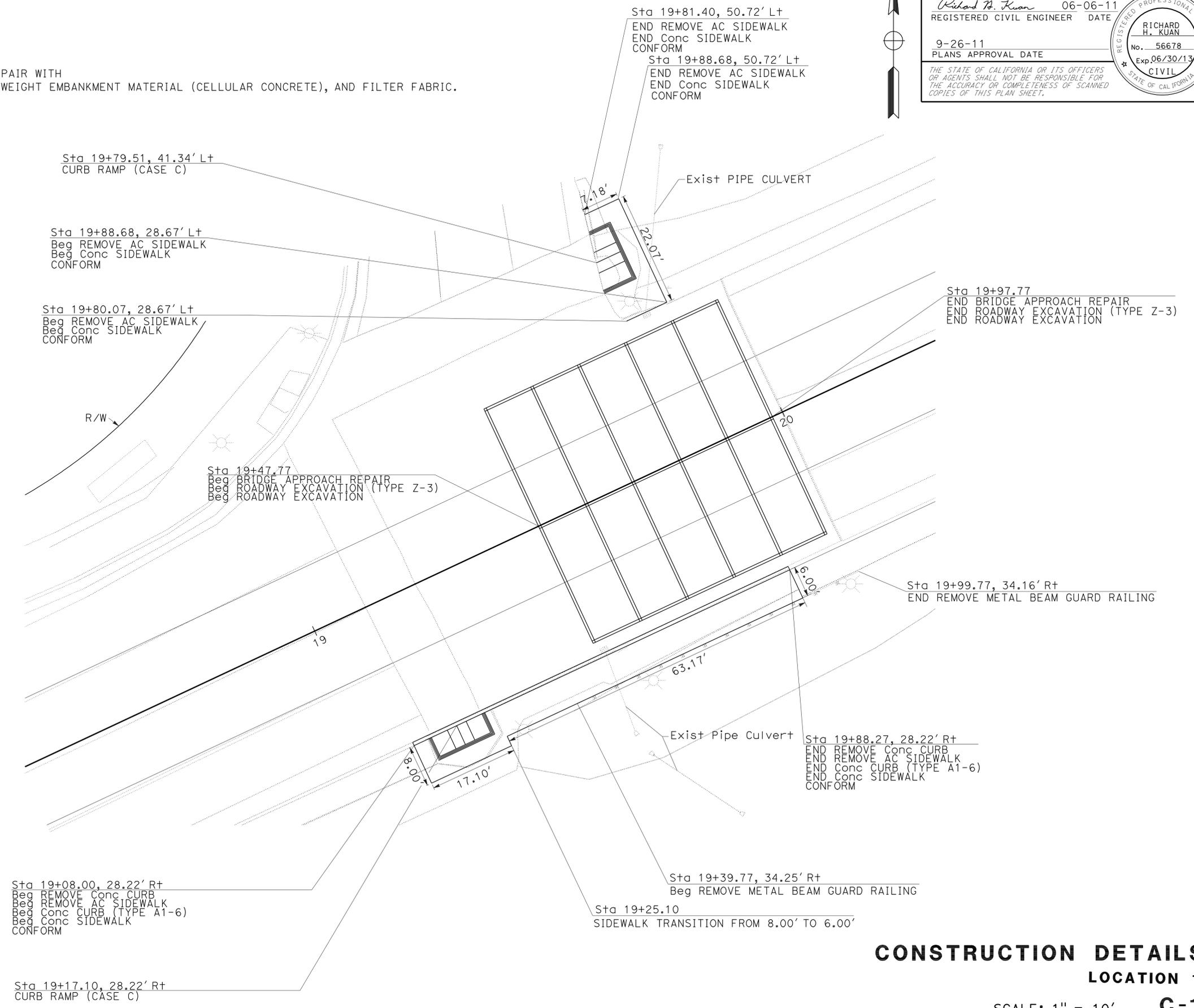
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	5	39

Richard H. Kuan 06-06-11
 REGISTERED CIVIL ENGINEER DATE

9-26-11
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 RICHARD H. KUAN
 No. 56678
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA



CONSTRUCTION DETAILS
LOCATION 1
 SCALE: 1" = 10' **C-1**

DATE PLOTTED => 29-SEP-2011
 TIME PLOTTED => 10:57

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	6	39

<i>Richard H. Kuan</i>	06-06-11
REGISTERED CIVIL ENGINEER	DATE
9-26-11	
PLANS APPROVAL DATE	

RICHARD H. KUAN
No. 56678
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN

FUNCTIONAL SUPERVISOR
 ALT ALQATAMI

CALCULATED/DESIGNED BY
 CHECKED BY

FERNANDO MORALES
 RICHARD KUAN

REVISED BY
 DATE REVISED

Sta 28+21.77, 38.45' Lt
 Conc CURB (TYPE A1-6)

Sta 28+01.77, 40.11' Lt
 Beg REMOVE Conc CURB
 Beg Conc CURB (TYPE A1-6)
 CONFORM

Sta 28+01.77, 49.18' Lt
 Beg REMOVE METAL BEAM GUARD RAILING

Sta 28+61.77, 42.46' Lt
 END REMOVE METAL BEAM GUARD RAILING

Sta 28+76.77, 32.42' Lt
 END REMOVE Conc CURB
 END Conc CURB (TYPE A1-6)
 CONFORM

Sta 28+53.77
 END BRIDGE APPROACH REPAIR
 END ROADWAY EXCAVATION

Sta 28+03.77
 Beg BRIDGE APPROACH REPAIR
 Beg ROADWAY EXCAVATION

Sta 28+12.54 28.16' Rt
 Beg REMOVE AC SIDEWALK
 Beg Conc SIDEWALK
 CONFORM

Sta 28+31.89, 28.87' Rt
 END REMOVE AC SIDEWALK
 END Conc SIDEWALK
 CONFORM

Sta 28+30.92, 38.84' Rt
 CURB RAMP (CASE C)

Exist PIPE CULVERT

Exist PIPE CULVERT

Exist PIPE CULVERT

Sta 28+01.77 EB

18.68'
 17.12'

R/W

CONSTRUCTION DETAILS
LOCATION 2

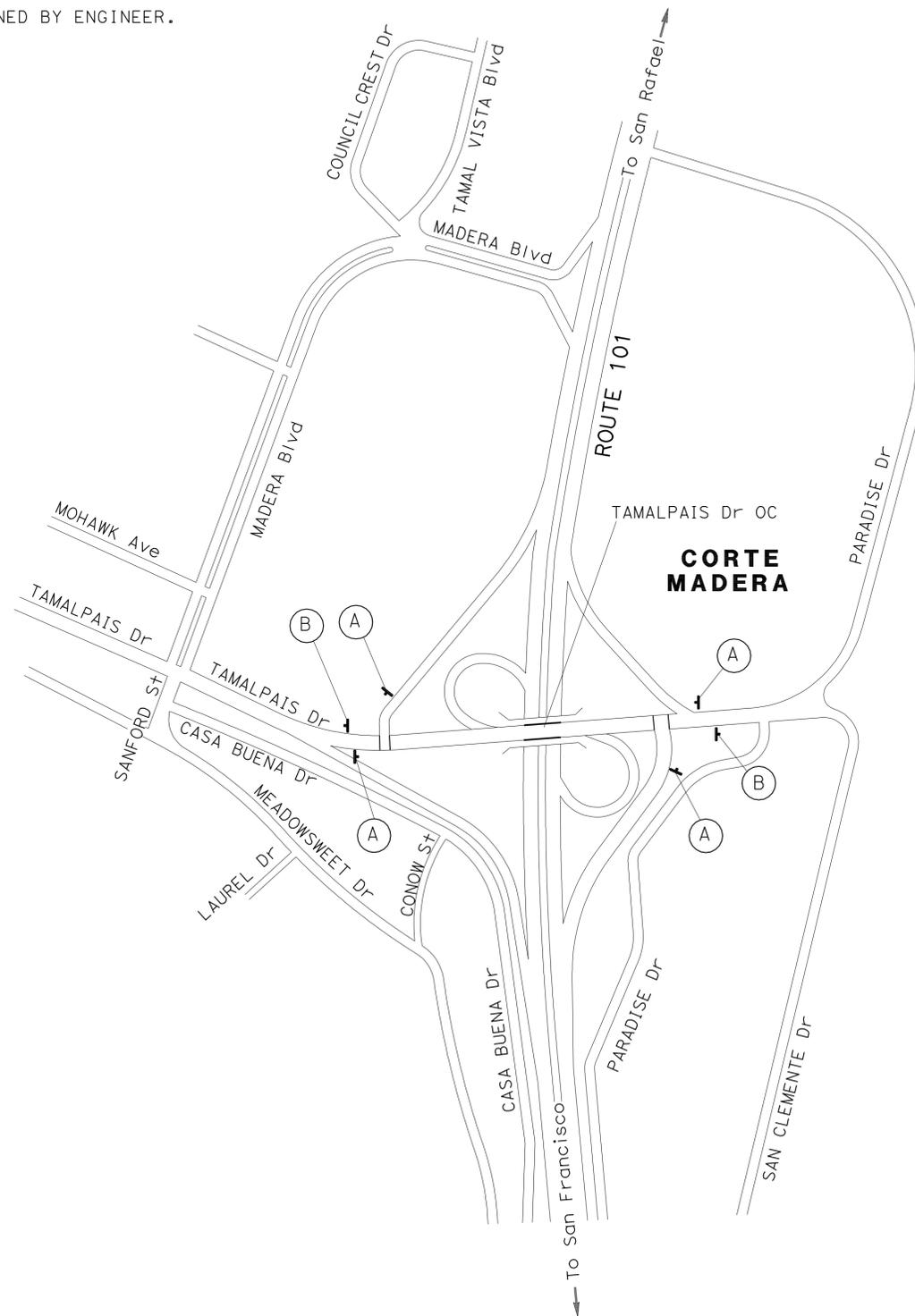
SCALE: 1" = 10' **C-2**

LEGEND

- (X) CONSTRUCTION AREA SIGN No.
- ➔ DIRECTION OF TRAFFIC

NOTE:

1. LOCATION OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE EXACT LOCATIONS WILL BE DETERMINED BY ENGINEER.



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	7	39

Amarjit S. Dhillon 06-06-11
 REGISTERED CIVIL ENGINEER DATE
 9-26-11
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
AMARJIT S. DHILLON
 No. 67458
 Exp. 6/30/13
 CIVIL
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	AMARJIT S. DHILLON	REVISOR	DATE
Caltrans 06-TRAFFIC DESIGN	HASSAN TAHA	DESIGNER	DATE
FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY	DATE
MOHAMMED OATAMI			

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

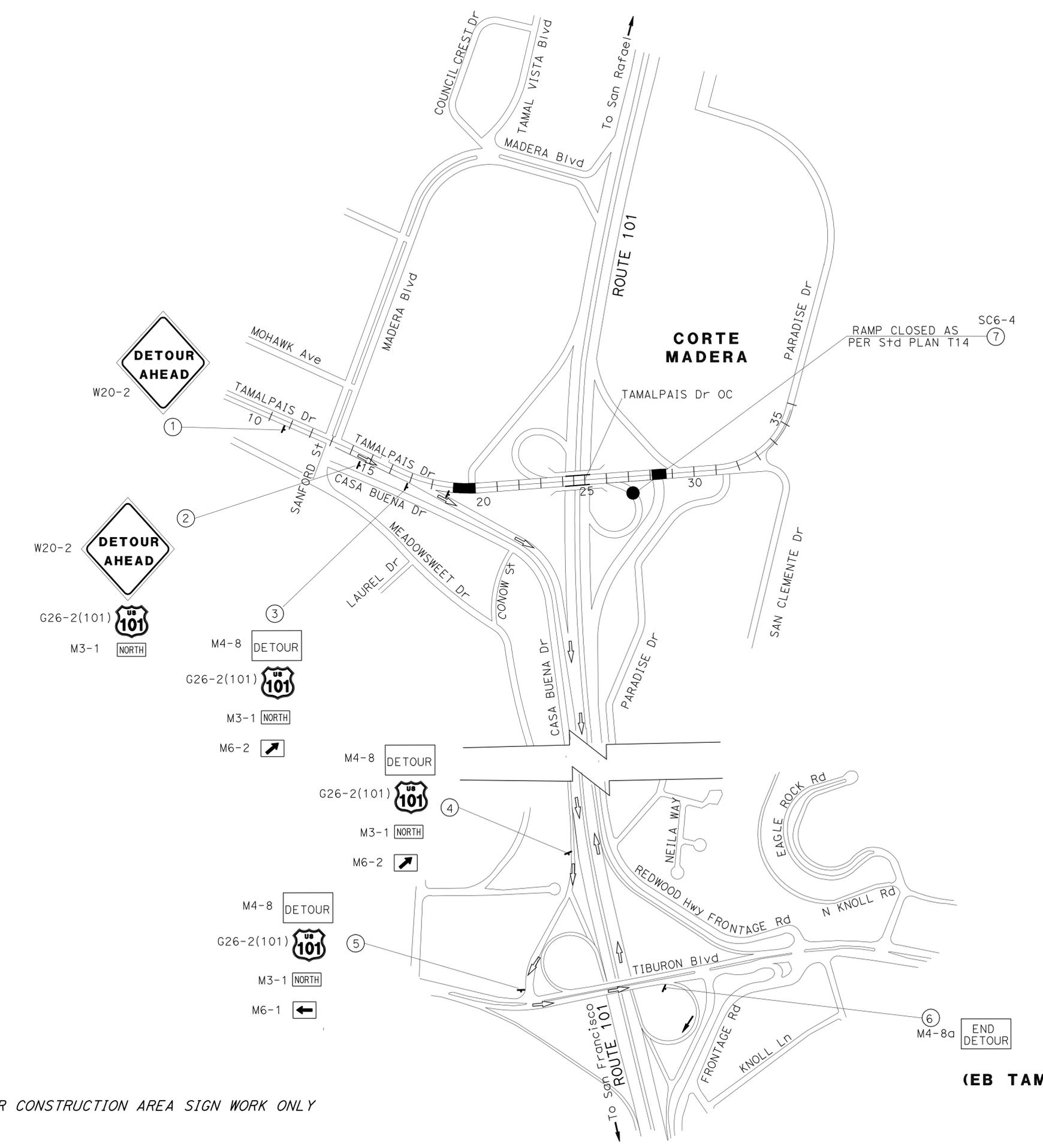
NO SCALE

CS-1



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR MOHAMMED OATAMI	CALCULATED/DESIGNED BY CHECKED BY	AMARJIT S DHILLON HASSAN TAHA	REVISED BY DATE REVISED
--	--------------------------------------	----------------------------------	----------------------------



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	8	39

Amarjit S. Dhillon 06-06-11
 REGISTERED CIVIL ENGINEER DATE

9-26-11
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 AMARJIT S. DHILLON
 No. 67458
 Exp. 6/30/13
 CIVIL
 STATE OF CALIFORNIA

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APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS
 (EB TAMALPAIS DR ON-RAMP TO NB 101 CLOSURE)
CS-2

NO SCALE

LAST REVISION DATE PLOTTED => 29-SEP-2011 06-06-11 TIME PLOTTED => 09:47

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06 - TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR
 MOHAMMED OATAMI

DESIGNED BY
 AMARJIT S DHILLON

CHECKED BY
 HASSAN TAHA

REVISOR
 DATE

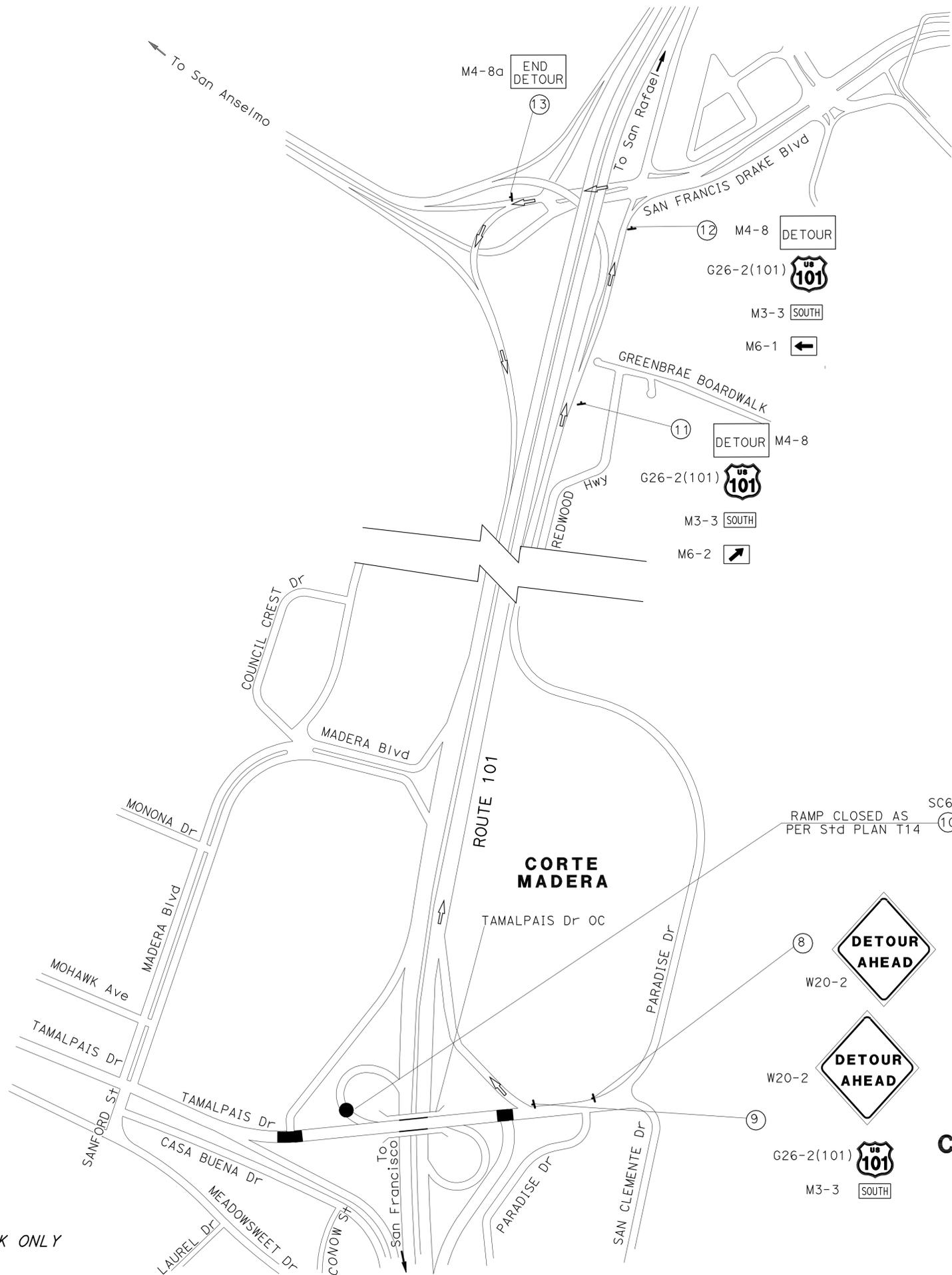
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	9	39

Amarjit S. Dhillon 06-06-11
 REGISTERED CIVIL ENGINEER DATE

9-26-11
 PLANS APPROVAL DATE

AMARJIT S. DHILLON
 No. 67458
 Exp. 6/30/13
 CIVIL

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RAMP CLOSED AS PER Std PLAN T14 SC6-4 (10)



G26-2(101) (101) M3-3 SOUTH

CONSTRUCTION AREA SIGNS
 (WB TAMALPAIS Dr ON-RAMP TO SB 101 CLOSURE)

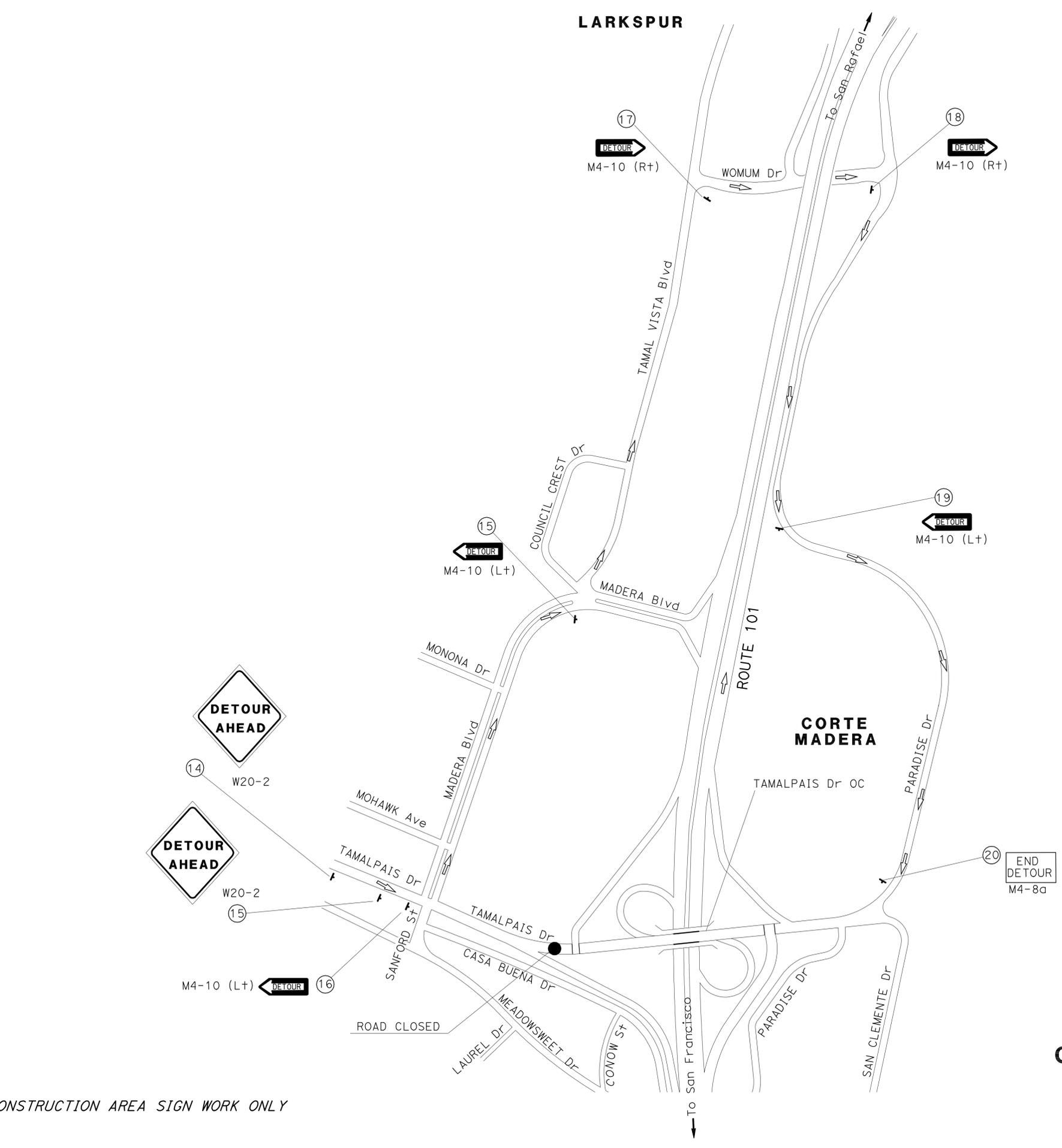
NO SCALE

CS-3

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR	MOHAMMED OATAMI
CALCULATED/DESIGNED BY	CHECKED BY
AMARJIT S DHILLON	HASSAN TAHA
REVISED BY	DATE REVISED



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	10	39

Amarjit S. Dhillon 06-06-11
 REGISTERED CIVIL ENGINEER DATE

9-26-11
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 AMARJIT S. DHILLON
 No. 67458
 Exp. 6/30/13
 CIVIL
 STATE OF CALIFORNIA



APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS
 (EB TAMALPAIS Dr CLOSURE)

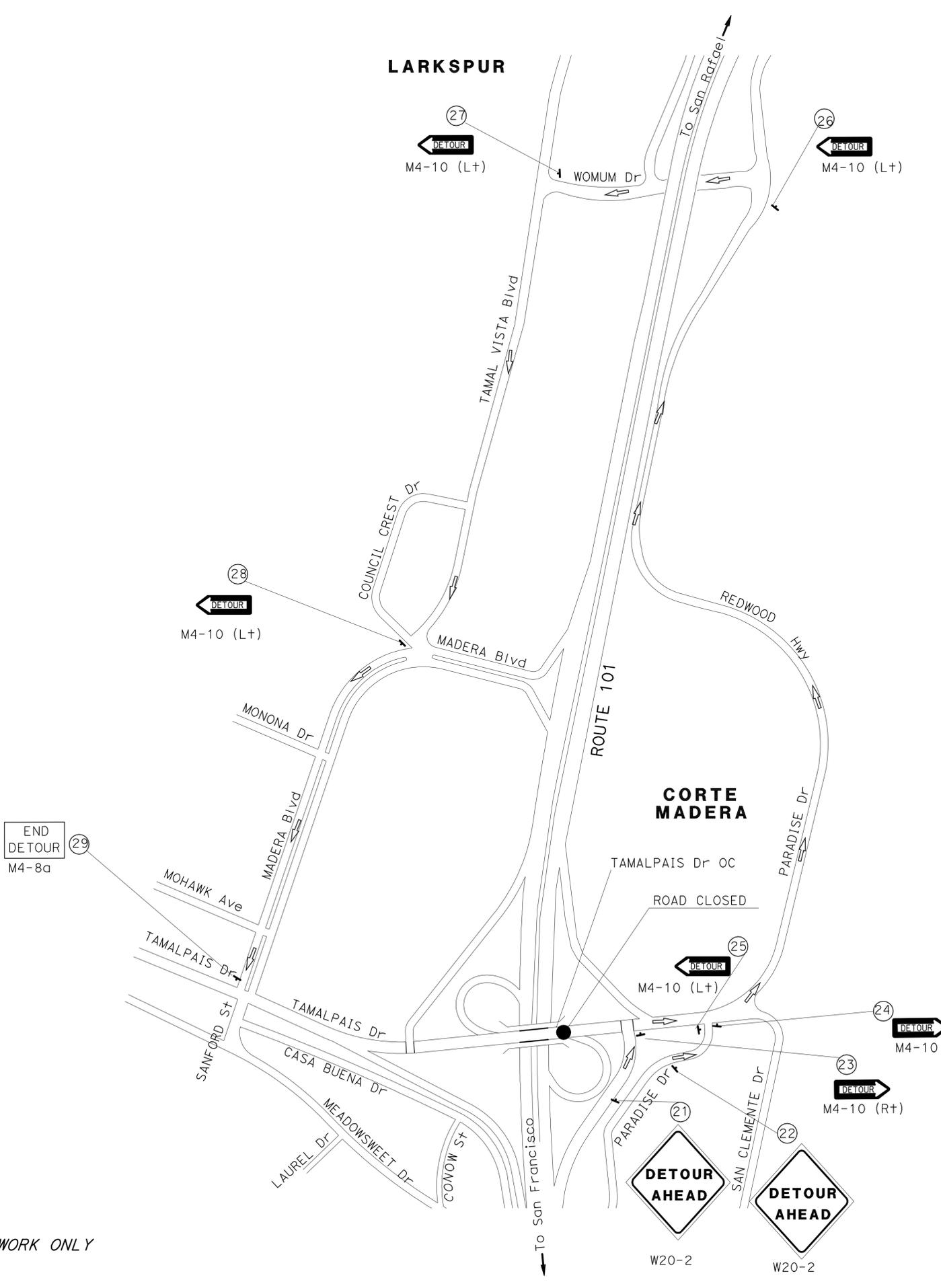
NO SCALE

CS-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR	MOHAMMED OATAMI
DESIGNED BY	CHECKED BY
AMARJIT S DHILLON	HASSAN TAHA
REVISOR	DATE

USERNAME => s123631
 DGN FILE => 44s5501a005.dgn



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	11	39

Amarjit S. Dhillon 06-06-11
 REGISTERED CIVIL ENGINEER DATE

9-26-11
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 AMARJIT S. DHILLON
 No. 67458
 Exp. 6/30/13
 CIVIL
 STATE OF CALIFORNIA

CONSTRUCTION AREA SIGNS
 (WB TAMALPAIS Dr CLOSURE)
CS-5

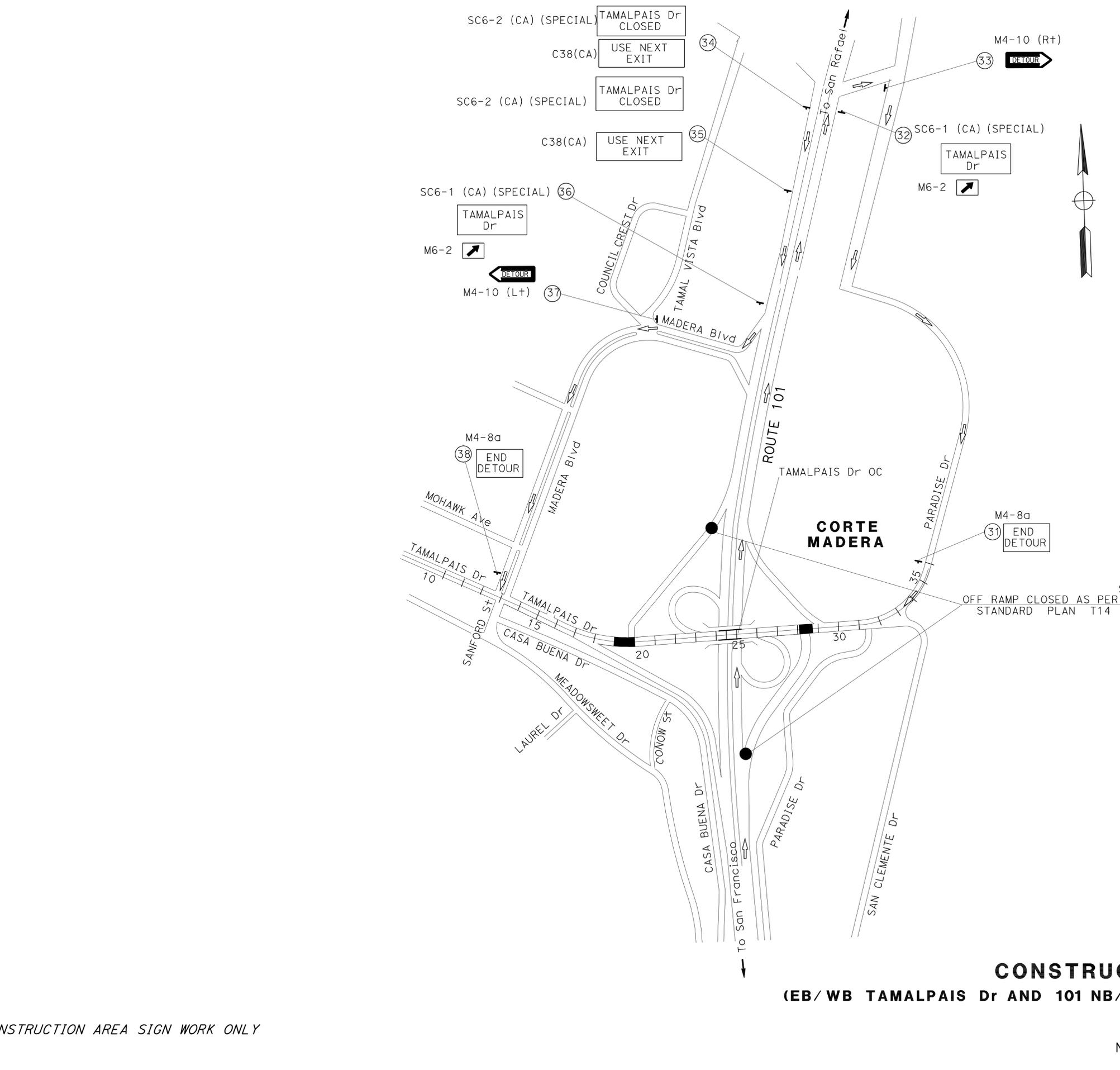
NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

LAST REVISION DATE PLOTTED => 29-SEP-2011
 06-06-11 TIME PLOTTED => 09:47

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06 - TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR	MOHAMMED OATAMI
DESIGNED BY	CHECKED BY
AMARJIT S DHILLON	HASSAN TAHA
REVISOR	DATE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	12	39
AMARJIT S. DHILLON		06-06-11		DATE	
REGISTERED CIVIL ENGINEER		PLANS APPROVAL DATE			
9-26-11					
<small>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.</small>					



CONSTRUCTION AREA SIGNS
(EB/WB TAMALPAIS Dr AND 101 NB/SB OFF-RAMPS CLOSURES)
CS-6

NO SCALE

CONSTRUCTION AREA SIGNS

SHEET No.	SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POST AND SIZE	No. OF SIGNS	REMARK
				in x in	in x in		
CS-1	A	W20-1	ROAD WORK AHEAD	48 x 48	1- 4 x 6	4	
	B	G20-2	END ROAD WORK	48 x 18	1- 4 x 6	2	
CS-2	1	W20-2	DETOUR AHEAD	30 x 36	1- 4 x 6	1	
	2	W20-2	DETOUR AHEAD	30 x 36	1- 4 x 6	1	
		G26-2(101)(CA)	101	28 x 24			
		M3-1	NORTH	24 x 12			
	3	M4-8	DETOUR	24 x 12	1- 4 x 6	1	
		G26-2(101)(CA)	101	28 x 24			
		M3-1	NORTH	24 x 12			
	4	M4-8	DETOUR	30 x 15	1- 4 x 6	1	
		G26-2(101)(CA)	101	35 x 30			
		M3-1	NORTH	30 x 15			
	5	M4-8	DETOUR	21 x 15	1- 4 x 6	1	
		G26-2(101)(CA)	101	21 x 15			
		M3-1	NORTH	21 x 15			
6	M4-8a	END DETOUR	24 x 12	1- 4 x 6	1		
	SC6-4	RAMP CLOSURE NOTICE	48 x 60				
CS-3	8	W20-2	DETOUR AHEAD	30 x 36	1- 4 x 6	1	
	9	W20-2	DETOUR AHEAD	30 x 36	1- 4 x 6	1	
		G26-2(101)(CA)	101	28 x 24			
		M3-3	SOUTH	24 x 12			
	10	SC6-4	RAMP CLOSURE NOTICE	48 x 60	1- 4 x 6	1	
		M4-8	DETOUR	24 x 12			
		G26-2(101)(CA)	101	28 x 24			
	11	M4-8	DETOUR	24 x 12	1- 4 x 6	1	
		G26-2(101)(CA)	101	28 x 24			
		M3-3	SOUTH	24 x 12			
	12	M4-8	DETOUR	21 x 15	1- 4 x 6	1	
G26-2(101)(CA)		101	28 x 24				
M3-3		SOUTH	24 x 12				
13	M4-8a	END DETOUR	21 x 15	1- 4 x 6	1		
	W20-2	DETOUR AHEAD	30 x 36				
CS-4	14	W20-2	DETOUR AHEAD	30 x 36	1- 4 x 6	1	
	15	W20-2	DETOUR AHEAD	30 x 36	1- 4 x 6	1	
	16	M4-10(L+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
	17	M4-10(R+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
	18	M4-10(R+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
	19	M4-10(L+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
	20	M4-8a	END DETOUR	48 x 18	1- 4 x 6	1	
C5-5	21	W20-2	DETOUR AHEAD	21 x 15	1- 4 x 6	1	
	22	W20-2	DETOUR AHEAD	30 x 36	1- 4 x 6	1	
	23	M4-10(R+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
	24	M4-10(R+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
	25	M4-10(L+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
	26	M4-10(L+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
	27	M4-10(L+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
	28	M4-10(L+)	DETOUR ARROW	48 x 18	1- 4 x 6	1	
CS-6	29	M4-8a	END DETOUR	21 x 15	1- 4 x 6	1	
	30	SC6-4	RAMP CLOSURE NOTICE	48 x 60	1- 4 x 6	2	
	31	M4-8a	END DETOUR	21 x 15	1- 4 x 6	1	5" D BLACK/ORANGE
		SC6-1 SPECIAL	TAMALPAIS Dr	54 x 24			
	32	M6-2	ARROW	21 x 15	1- 4 x 6	1	5" D BLACK/ORANGE
		M4-10(R+)	DETOUR ARROW	48 x 18			
	33	SC6-2 SPECIAL	TAMALPAIS Dr CLOSED	54 x 36	1- 4 x 6	1	5" D BLACK/ORANGE
		C38	USE NEXT EXIT	30 x 30			
	34	SC6-2 SPECIAL	TAMALPAIS Dr CLOSED	54 x 36	1- 4 x 6	1	5" D BLACK/ORANGE
		C38	USE NEXT EXIT	30 x 30			
35	SC6-1 SPECIAL	TAMALPAIS Dr	54 x 24	1- 4 x 6	1	5" D BLACK/ORANGE	
	M6-2	ARROW	21 x 15				
36	M4-10(L+)	DETOUR ARROW	48 x 18	1- 4 x 6	1		
	M4-8a	END DETOUR	21 x 15				

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	13	39

Amarjit S. Dhillon 06-06-11
 REGISTERED CIVIL ENGINEER DATE

9-26-11
 PLANS APPROVAL DATE

AMARJIT S. DHILLON
 No. 67458
 Exp. 6/30/13
 CIVIL
 STATE OF CALIFORNIA

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CONSTRUCTION AREA SIGNS QUANTITIES CS-7

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	14	39

Amrajit S. Dhillon 06-06-11
 REGISTERED CIVIL ENGINEER DATE
 9-26-11
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 AMARJIT S. DHILLON
 No. 67458
 Exp. 6/30/13
 CIVIL
 STATE OF CALIFORNIA

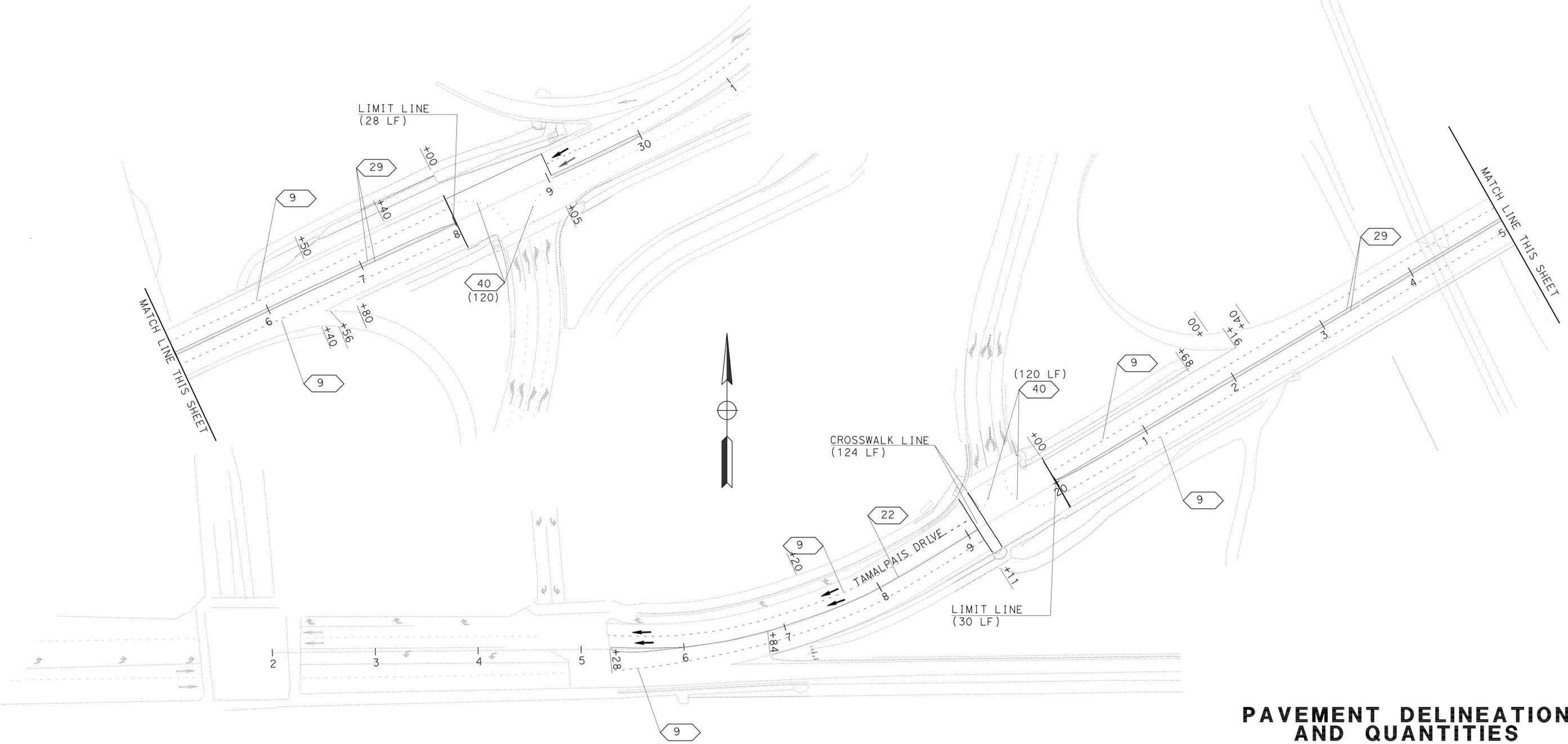
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LEGEND:

- XX TRAFFIC STRIPE DETAIL No.
- ← TYPE I (24) ARROWS

PAVEMENT DELINEATION QUANTITIES

LOCATION	DETAIL No.	PAVEMENT MARKER (RETROREFLECTIVE)		THERMOPLASTIC TRAFFIC STRIPE			THERMOPLASTIC PAVEMENT MARKING	
		TYPE D MARKER	TYPE G MARKER	4" SOLID	4" BROKEN (17-7)	4" BROKEN (6-1)	DESCRIPTION	SQFT
		EA	EA	LF	LF	LF		
NB OFF-RAMP INTERSECTION	40					120	6- TYPE I(24) ARROW	150
Sta 15+28 TO Sta 19+11	9		9		383		2- LIMIT LINE	58
Sta 15+28 TO Sta 19+11	22	34		766			1- CROSSWALK LINE	124
Sta 15+28 TO Sta 19+11	9		9		383			
Sta 20+00 TO Sta 28+01	9		18		801			
Sta 20+00 TO Sta 28+01	29	70		3204				
Sta 20+00 TO Sta 28+01	9		18		801			
SB OFF-RAMP INTERSECTION	40	36				120		
SUBTOTAL		140	54			240		
TOTAL		194		3970	2368	240		332



APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION AND QUANTITIES

SCALE: 1" = 50'

PD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: MOHAMMED OATAMI
 CALCULATED/DESIGNED BY: HASSAN TAHA
 CHECKED BY: AMARJIT S. DHILLON
 REVISOR: HASSAN TAHA
 DATE REVISOR: AMARJIT S. DHILLON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	15	39

Richard H. Kuan 06-06-11
REGISTERED CIVIL ENGINEER DATE

9-26-11
PLANS APPROVAL DATE

Richard H. Kuan
No. 56678
Exp. 06/30/13
CIVIL

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

EARTHWORK

LOCATION	ROADWAY EXCAVATION	ROADWAY EXCAVATION (TYPE Z-3) (AERIALY DEPOSITED LEAD)	CLASS 3 AGGREGATE BASE	CLASS 4 AGGREGATE SUBBASE
	CY	CY	CY	CY
1	670	470		65
2	1130			65
AC TO PCC SIDEWALK			26	
TOTAL	1,800	470	26	130

HOT MIX ASPHALT (TYPE A)

LOCATION	TON
Sta 19+47.77 TO Sta 19+97.77	130
Sta 28+03.77 TO Sta 28+53.77	130
TOTAL	260

TEMPORARY DRAINAGE INLET PROTECTION

LOCATION	EA
Sta 19+83.95, Lt SIDE	1
Sta 28+19.23, Lt SIDE	1
Sta 19+48.52, Rt SIDE	1
Sta 28+18.15, Rt SIDE	1
TOTAL	4

REMOVE ASPHALT CONCRETE SURFACING

LOCATION	DESCRIPTION	CY
Sta 19+80.07 TO Sta 19+88.68, Lt SIDE	AC SIDEWALK AND CURB RAMP	6
Sta 19+08.00 TO Sta 19+88.27, Rt SIDE	AC SIDEWALK AND CURB RAMP	28
Sta 28+12.54 TO Sta 28+31.89, Rt SIDE	AC SIDEWALK AND CURB RAMP	17
TOTAL		50

STEEL SHEET PILING

LOCATION	PERMANENT SQFT
1	7,500
2	7,500
TOTAL	15,000

REMOVE CONCRETE

LOCATION	DESCRIPTION	CY
Sta 19+08.22 TO Sta 19+88.27, Rt SIDE	CURB	2
Sta 28+01.77 TO Sta 28+76.77, Lt SIDE	CURB	2
TOTAL		4

LIGHTWEIGHT EMBANKMENT MATERIAL (CELLULAR CONCRETE)

LOCATION	CY
1	1,050
2	1,050
TOTAL	2,100

FILTER FABRIC

LOCATION	SQYD
1	300
2	300
TOTAL	600

REMOVE METAL BEAM GUARD RAILING

LOCATION	LF
Sta 19+39.77 TO Sta 19+99.77, Rt SIDE	60
Sta 28+01.77 TO Sta 28+61.77, Lt SIDE	60
TOTAL	120

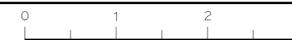
MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)

LOCATION	CY*
1	14
2	9
TOTAL	23

*INCLUDES CONCRETE CURB, CURB RAMP, AND SIDEWALK

SUMMARY OF QUANTITIES Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN
 FUNCTIONAL SUPERVISOR: ALT ALQATAMI
 CALCULATED/DESIGNED BY: FERNANDO MORALES
 CHECKED BY: RICHARD KUAN
 REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	16	39

Norma M. Gallegos 06-06-11
 REGISTERED ELECTRICAL ENGINEER DATE
 9-26-11
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
NORMA M. GALLEGOS
 No. 19105
 Exp. 6-30-12
 ELECTRICAL
 STATE OF CALIFORNIA

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

LEGEND: (FOR SHEETS E-1 THROUGH E-7)

1 Exist 120/240 V, 1 ϕ , 3-WIRE, TYPE III-AF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

CTID No. 04271010007371T

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	3	MAIN BREAKER	2P NO 1P YES	—
15	120	1	TELEPHONE LIGHTING	YES	—
30	240	2	SIGN LIGHTING	NO	—
60	240	2	HIGHWAY LIGHTING	NO	III
40	120	1	SIGNAL CABINET	YES	—
20	120	1	IRRIGATION CONTROLLER	YES	—
—	—	1	SPACE	—	—

2 Exist MODEL 170 CONTROLLER ASSEMBLY.

3 Exist 120/240 V, 1 ϕ , 3-WIRE, TYPE III-AF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

CTID No. 04271010007370T

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	—
15	120	1	TELEPHONE LIGHTING	YES	—
15	120	1	LIGHTING CONTROLS	YES	—
60	240	2	HIGHWAY LIGHTING	YES	III
40	120	1	SIGNAL CABINET	YES	—
20	120	1	IRRIGATION CONTROLLER	YES	—
—	—	1	SPACE	—	—

SYMBOLS:

-  Exist CONDUIT RUN.
-  Exist SIGNAL AND LIGHTING STANDARD.

ABBREVIATIONS:

- ADV - ADVANCE
- CTID - CALTRANS IDENTIFICATION

POLE AND EQUIPMENT SCHEDULE

No.	STANDARD		VEH SIG MTG		PED SIG MTG	PPB		HPS LUM (W)	SPECIAL REQUIREMENTS	
	TYPE	SMA	LMA	MAST ARM		POLE	ϕ			ARROW
	19-3-70	25'	12'	mas	sv-2-ta	sp-1-t	4 6		200	RC 2-PPB'S
	1-B					tp-1-t	4 6			RS
	1-A					TP-1-T	6			
	1-B				tv-1	sp-1-t	6			RS
	1-A				TV-1	SP-1-T	6			
	17-3-70	20'	12'	mas	sv-2-ta				200	
	1-B				tv-1					
	15TS		12'		sv-2-ta	sp-1-t	4		200	RS
	15TS		12'		SV-2-TA	SP-1-T	4		200	
	PPB POLE						4			
	19-3-70	30'	12'	mas	sv-2-ta				200	3-12" SIGNAL SECTIONS ON ϕ 8 WITH GREEN LEFT TURN ARROW
	1-B				tv-1-t					4-12" SIGNAL SECTIONS WITH GREEN LEFT TURN ARROW AND GREEN RIGHT TURN ARROW
	1-B				tv-2-t					3-12" SIGNAL SECTIONS ON ϕ 8 WITH GREEN RIGHT TURN ARROW
	19-3-70	25'	15'	mas	sv-2-ta	sp-1-t	2		200	RC PPB
	15TS		15'		sv-1-t	sp-1-t	2		200	RC PPB
	PPB POLE						2			
	PPB POLE						2			

**MODIFY SIGNAL AND LIGHTING
(LOCATIONS 1 AND 2)**

APPROVED FOR ELECTRICAL WORK ONLY

E-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: OMAR MENDOZA
 REVISOR: NORMA M. GALLEGOS
 REVISIONS: REVISED BY DATE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	17	39

Norma M. Gallegos 06-06-11
 REGISTERED ELECTRICAL ENGINEER DATE

9-26-11
 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.

**Exist CONDUIT AND CONDUCTOR SCHEDULE
(LOCATION 1)**

CABLE TYPE	PHASE	CONDUIT RUN NUMBER AND SIZE							
		△1 2-3"	△2 3"	△3 2 1/2"	△4 2 1/2"	△5 2-3"	△6 3 1/2"	△7 3"	△8 1 1/2"
VEH-#14	∅2	3	3	3	3				
	∅4	3	3	3	3				
	∅6	3				3	3		
PED-#14	∅4P	2	2			2			
	∅6P	2				2	2		
PPB-#14	PPB ∅4P	1	1			1			
	PPB ∅6P	1				1	1		
	PPB COMMON	1	1			1	1		
#14	SPARES	3	3	3	3	3	3		
TOTAL SIGNAL CONDUCTORS		19	13	9	9	13	10		
SIZE	CIRCUIT								
#6	SIGNAL	2							2
#8	LIGHTING		2	2	2	2	2	2	2
#8	SIGNAL COMMON	2	1	1	1	1	1	1	1
#12	IRRIGATION CONTROLLER		2	2	2				2
#12	TELEPHONE LIGHT					2			2
#14	PEU					3			3
DLC	SIC	2	2	1	1				
	PHASE								
	∅2	2	2						
	∅2 ADV	2	2						
	∅4	3				3			
	∅4 MID	3				3			
	∅4 ADV	3				3			
	∅6	2				2	2	2	
	∅6 ADV	2				2	2	2	
	TOTAL DLC	17	4	0	0	13	4	4	0

**Exist CONDUIT AND CONDUCTOR SCHEDULE
(LOCATION 2)**

CABLE TYPE	PHASE	CONDUIT RUN NUMBER AND SIZE										
		△9 2-3"	△10 3"	△11 2"	△12 1 1/2"	△13 1 1/2"	△14 2-3"	△15 2-3"	△16 3 1/2"	△17 2 1/2"	△18 2 1/2"	△19 2"
VEH-#14	∅2	3					3	3	3			
	∅6	3	3	3	3	3						
	∅8	6	3	3	3	3	3					
PED-#14	∅2P	2					2	2	2	2		
PPB-#14	PPB ∅2P	1					1	1	1	1		
	PPB COMMON	1					1	1	1	1		
#14	SPARES	6	3	3	3	3	3	3	3	3		
TOTAL SIGNAL CONDUCTORS		22	9	9	9	9	13	10	10	10		
SIZE	CIRCUIT											
#6	SIGNAL	2										2
#8	LIGHTING		2	2	2	2	2	2	2	2	2	6
#8	SIGNAL COMMON	2	1	1	1	1	1	1	1	1		
#12	IRRIGATION CONTROLLER						2	2	2			2
#12	TELEPHONE LIGHT						2	2	2			2
#14	PEU						3					3
DLC	SIC	2	1				1	1	1	1	1	
	PHASE											
	∅2	2					2	2	2	2	2	
	∅2 ADV	2					2	2	2	2	2	
	∅6	2	2									
	∅6 ADV	2	2									
	∅8	4					4	4	2			
	∅8 MID	4					4	4	4			
	∅8 ADV	4					4	4	4			
	TOTAL DLC	20	4	0	0	0	16	16	14	4	4	0

**MODIFY SIGNAL AND LIGHTING
(LOCATIONS 1 AND 2)**

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-ELECTRICAL DESIGN
 NORMA M. GALLEGOS
 DANIEL T. VO
 CALCULATED/DESIGNED BY
 CHECKED BY
 FUNCTIONAL SUPERVISOR
 ALI BAKHDOUD
 REVISOR BY
 DATE REVISOR
 REVISOR BY
 DATE REVISOR

LAST REVISION
 06-06-11
 DATE PLOTTED => 29-SEP-2011
 TIME PLOTTED => 10:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	18	39

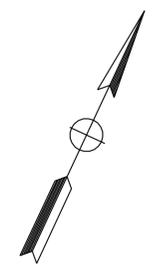
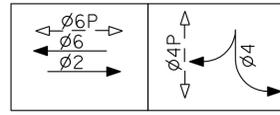
Norma M. Gallegos 06-06-11
 REGISTERED ELECTRICAL ENGINEER DATE
 9-26-11
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
NORMA M. GALLEGOS
 No. 19105
 Exp. 6-30-12
 ELECTRICAL
 STATE OF CALIFORNIA

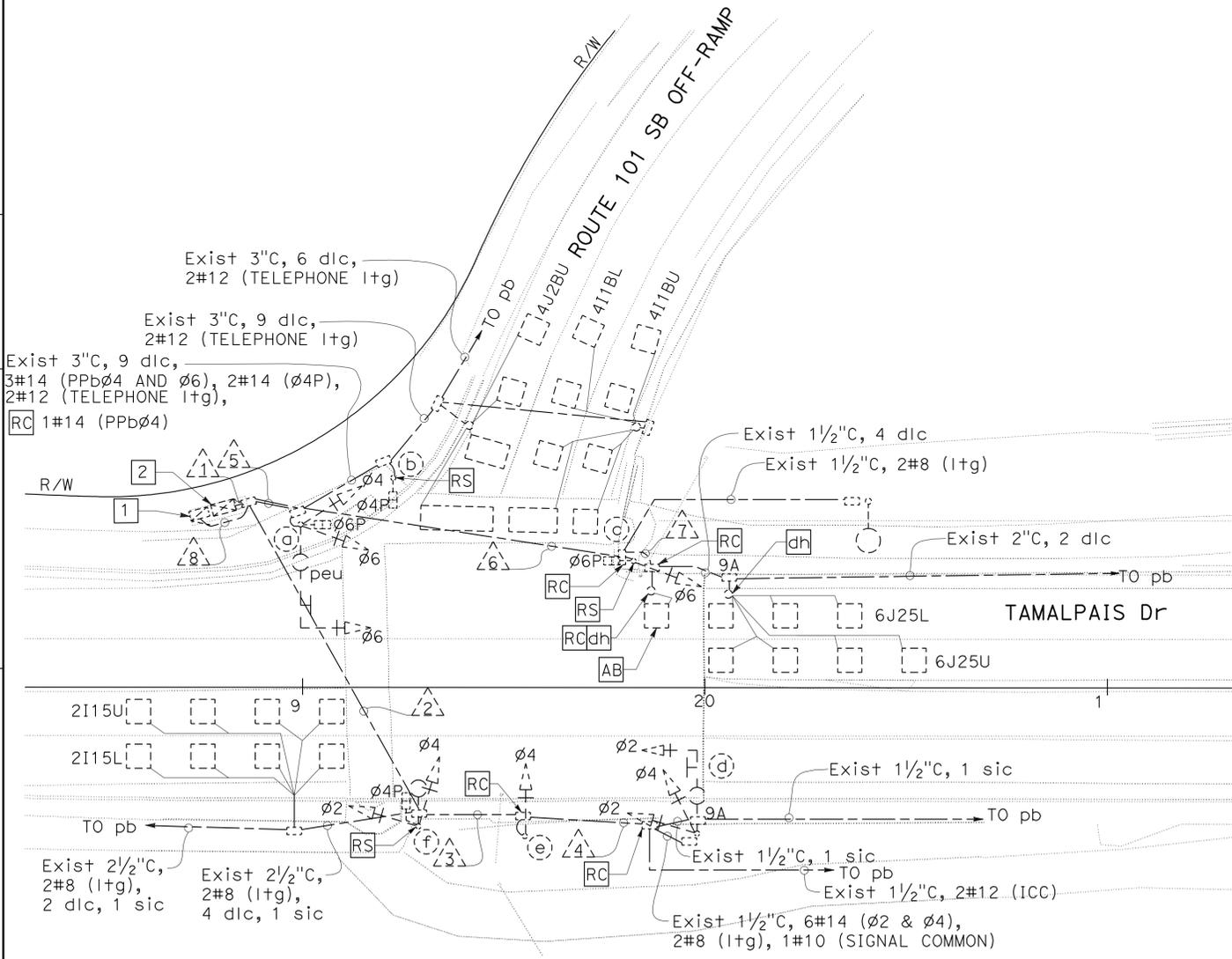
NOTES: (FOR THIS SHEET ONLY)

- FOR LEGEND AND SCHEDULES, SEE SHEETS E-1 AND E-2.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

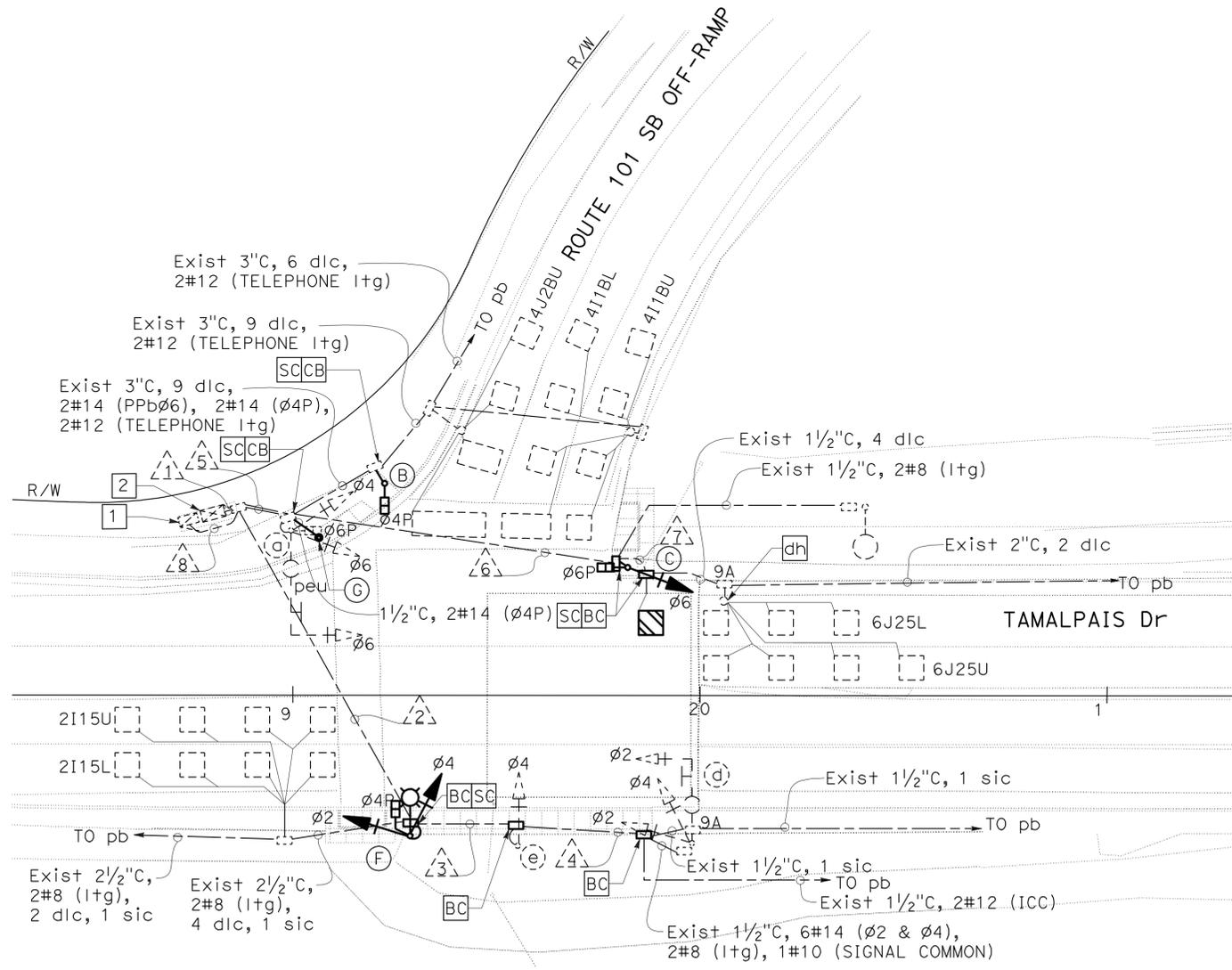
PHASE DIAGRAM



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: [blank]
 CHECKED BY: [blank]
 REVISOR: NORMA M. GALLEGOS
 DATE: [blank]
 REVISOR: OMAR MENDOZA
 DATE: [blank]



Exist SIGNAL AND LIGHTING



MODIFY SIGNAL AND LIGHTING (LOCATION 1)

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1" = 20'

LAST REVISION: 06-06-11
 DATE PLOTTED => 29-SEP-2011
 TIME PLOTTED => 09:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	19	39

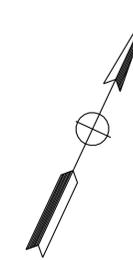
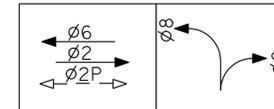
Norma M. Gallegos 06-06-11
 REGISTERED ELECTRICAL ENGINEER DATE
 9-26-11
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
NORMA M. GALLEGOS
 No. 19105
 Exp. 6-30-12
 ELECTRICAL
STATE OF CALIFORNIA

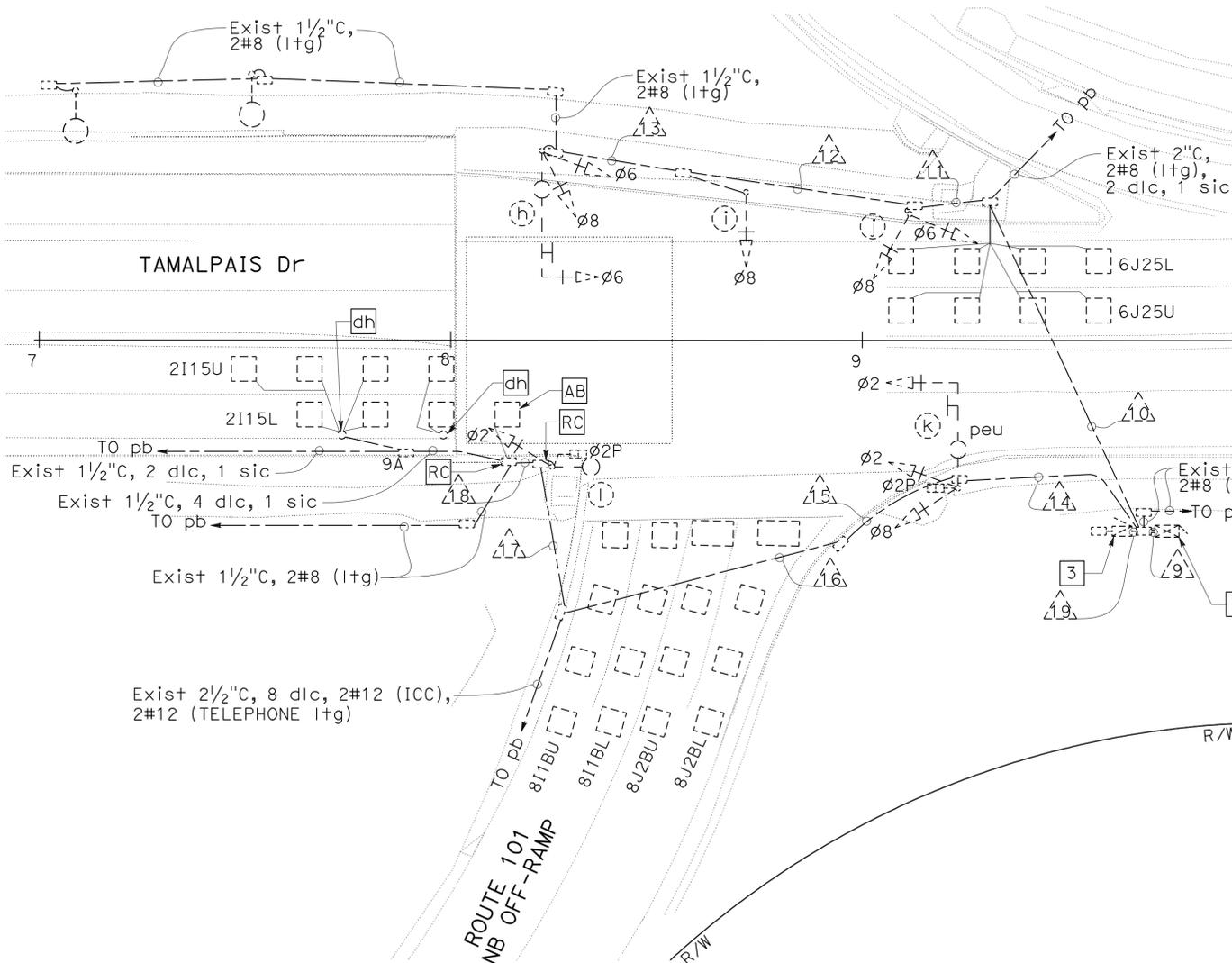
NOTES: (FOR THIS SHEET ONLY)

- FOR LEGEND AND SCHEDULES, SEE SHEETS E-1 AND E-2.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

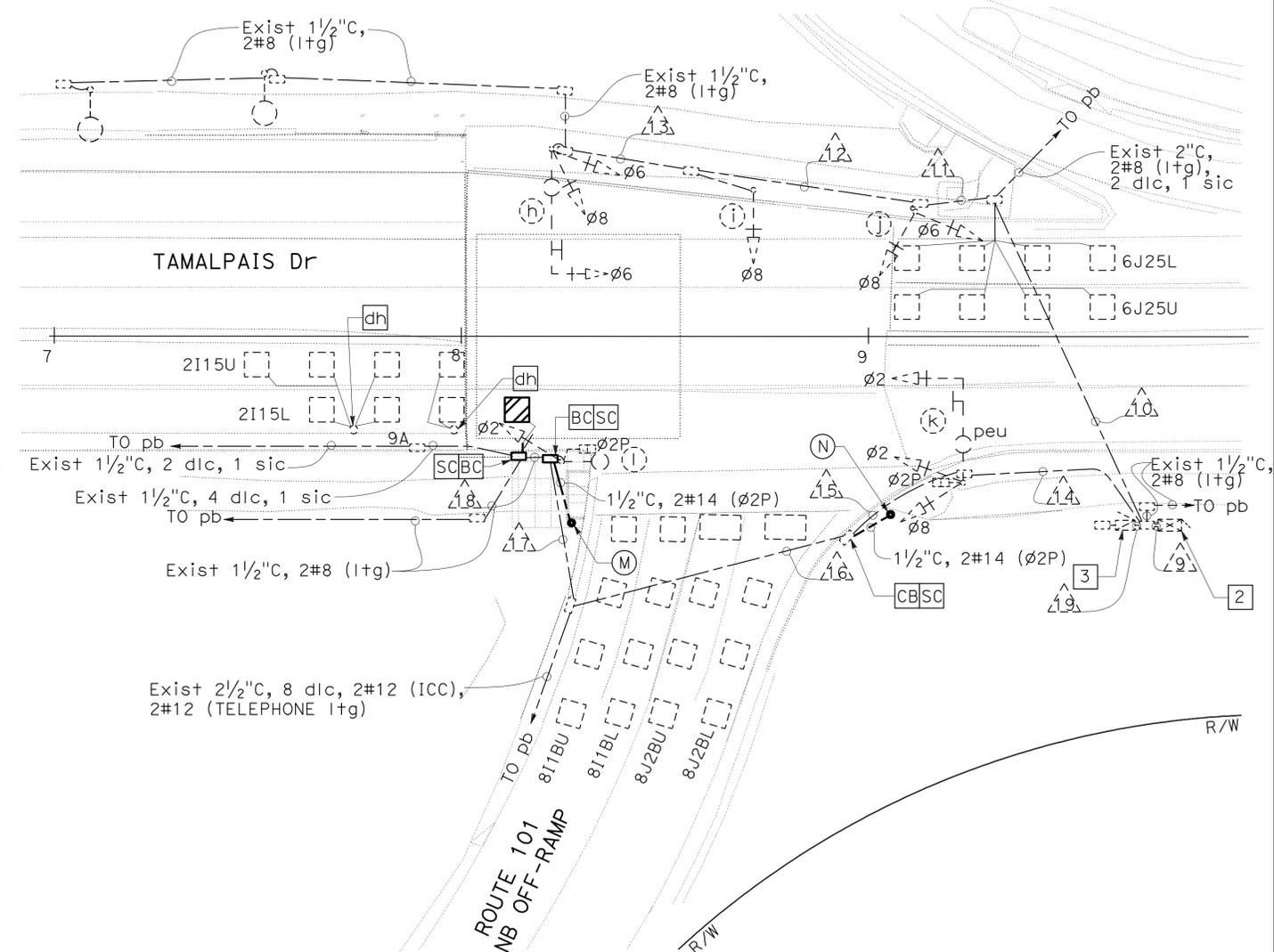
PHASE DIAGRAM



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: [blank]
 CHECKED BY: [blank]
 NORMA M. GALLEGOS
 OMAR MENDOZA
 REVISED BY: [blank]
 DATE REVISED: [blank]



Exist SIGNAL AND LIGHTING

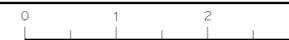


MODIFY SIGNAL AND LIGHTING (LOCATION 2)

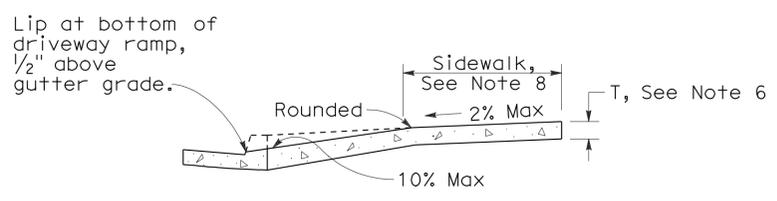
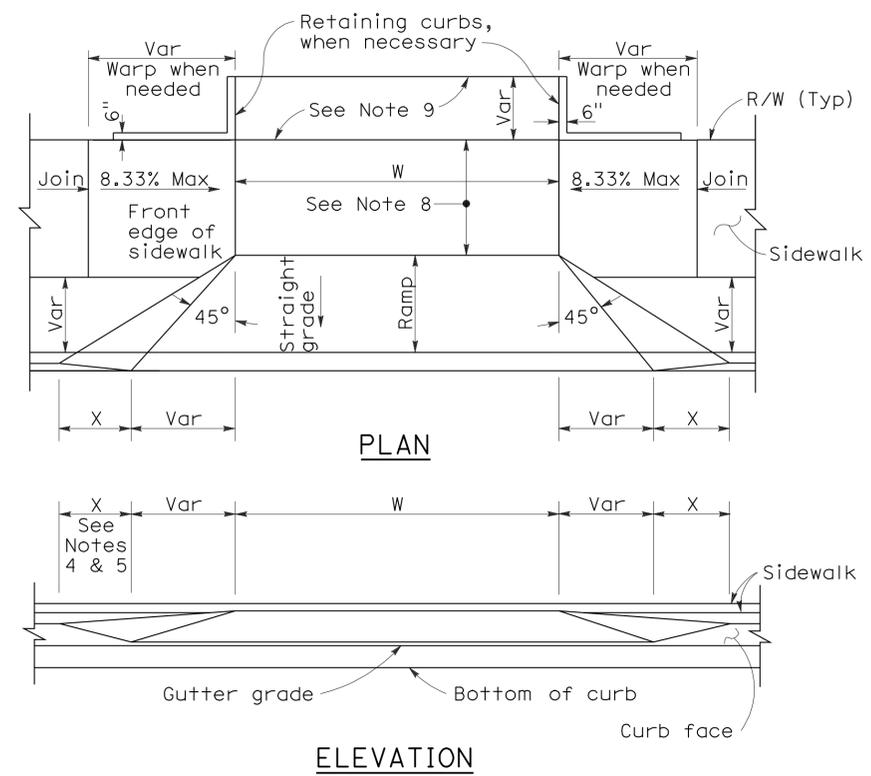
APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1" = 20'

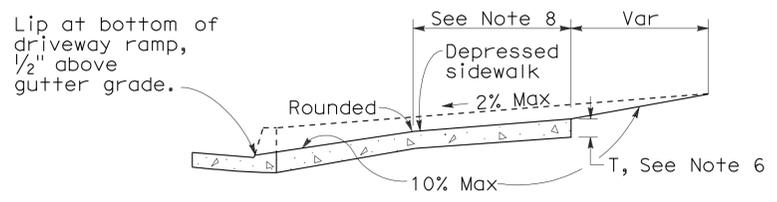
E-4



LAST REVISION: 06-06-11
 DATE PLOTTED => 29-SEP-2011
 TIME PLOTTED => 09:54



CASE A
Typical driveway, sidewalk not depressed



CASE B
Driveway with depressed sidewalk

SECTIONS

CURB QUANTITIES

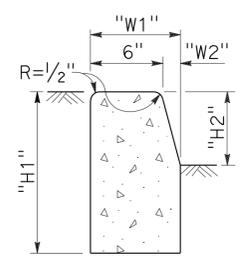
TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661

TABLE A

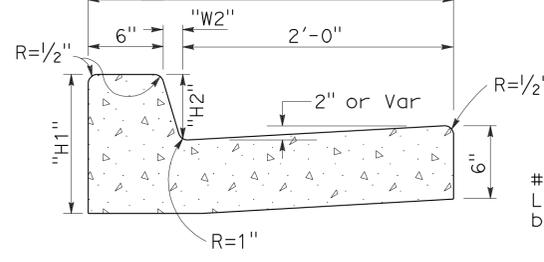
CURB TYPE	DIMENSIONS			
	"H1"	"H2"	"W1"	"W2"
A1-6	1'-2"	6"	7 1/2"	1 1/2"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7 1/2"	1 1/2"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7 1/4"	1 1/4"
A3-8	8"	7"	7 3/4"	1 3/4"
B1-4	1'-0"	4"	7 1/2"	2 1/2"
B1-6	1'-2"	6"	9"	4"
B2-4	10"	4"	2'-7 1/2"	2 1/2"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8 1/2"	3 1/2"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-8"

To accompany plans dated 9-26-11

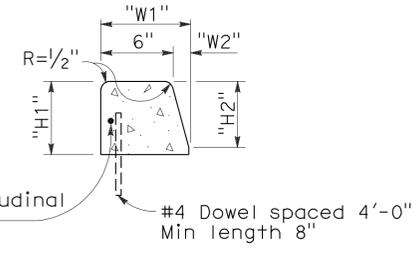
DRIVEWAYS



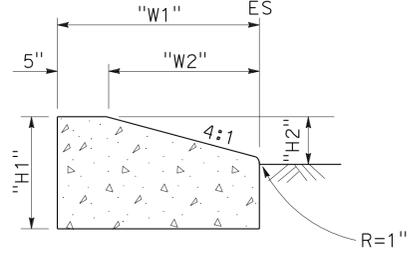
TYPE A1 CURBS
See Table A



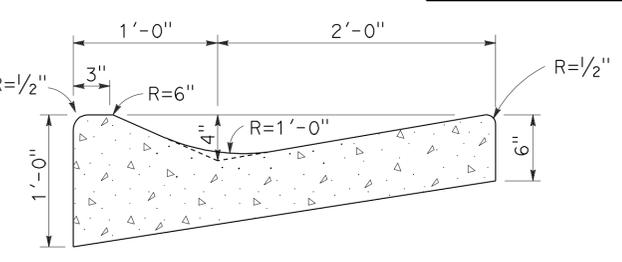
TYPE A2 CURBS
See Table A



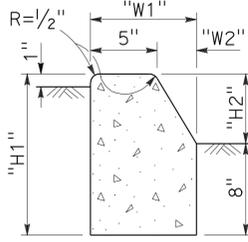
TYPE A3 CURBS
Superimposed on existing pavement
See Table A



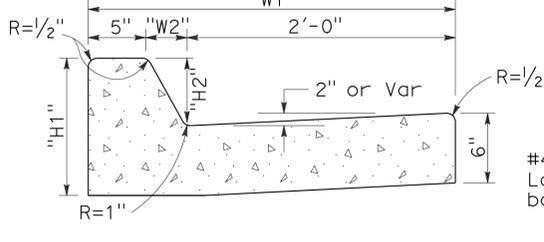
TYPE D CURBS
See Table A



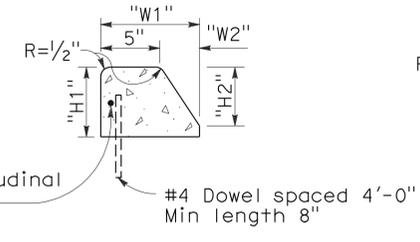
TYPE E CURB



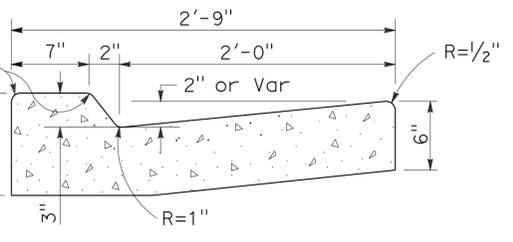
TYPE B1 CURBS
See Table A



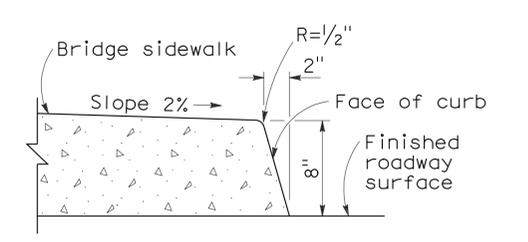
TYPE B2 CURBS
See Table A



TYPE B3 CURBS
Superimposed on existing pavement
See Table A



TYPE B4 CURBS



TYPE H CURB
On Bridges

CURBS

NOTES:

- Case A driveway section typically applies.
- Use Case B driveway section when ramp slopes would exceed 10% in Case A.
- Use Case B driveway section when sidewalk cross slope would exceed 2% in Case A.
- X=3'-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
- X is a variable when sidewalk is located where wheelchairs may traverse the surface. Slopes shall not exceed 8.33%.
- Sidewalk and ramp thickness "T" at driveway shall be 4" for residential and 6" for commercial.
- Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
- Minimum width of clear passageway for sidewalk shall be 4'-0".
- Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
- Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURBS AND DRIVEWAYS

NO SCALE

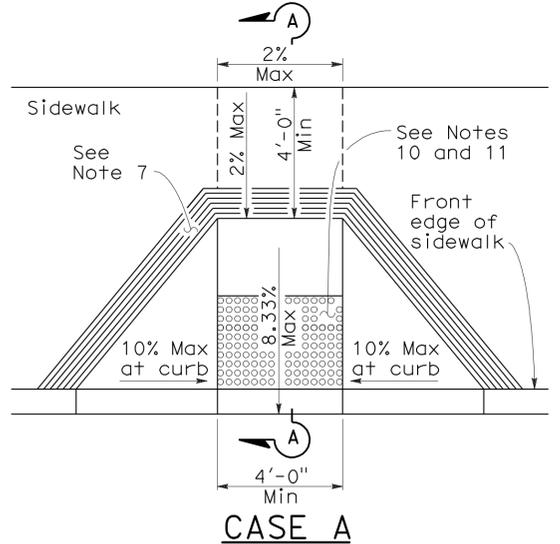
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	21	39

H. David Cordova
REGISTERED CIVIL ENGINEER

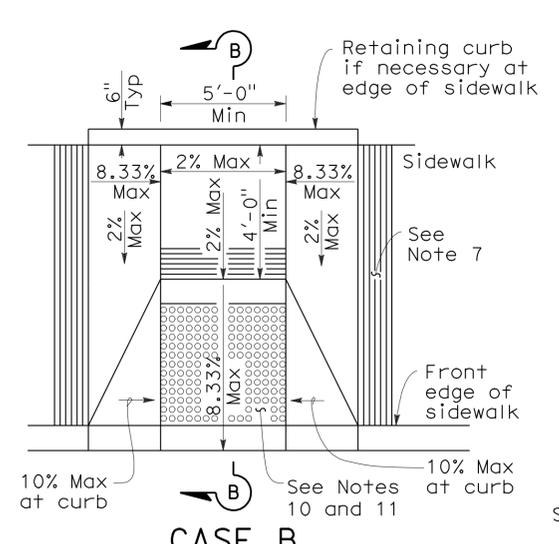
September 1, 2006
PLANS APPROVAL DATE

Hector David Cordova
No. C41957
Exp. 3-31-08
CIVIL
STATE OF CALIFORNIA

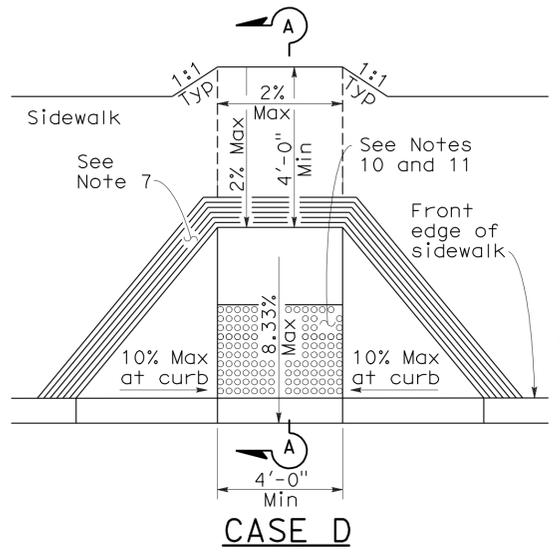
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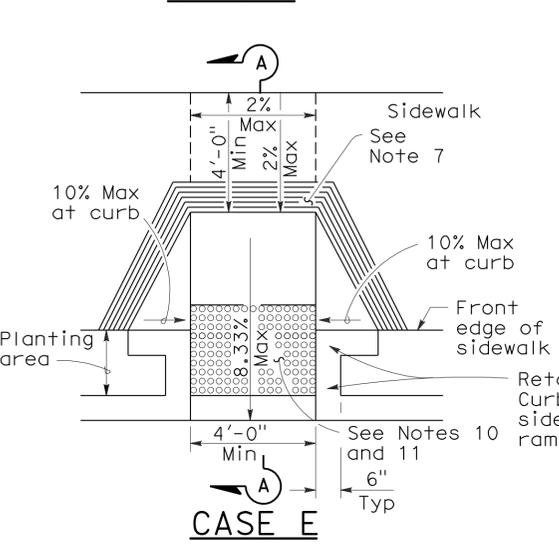
CASE A



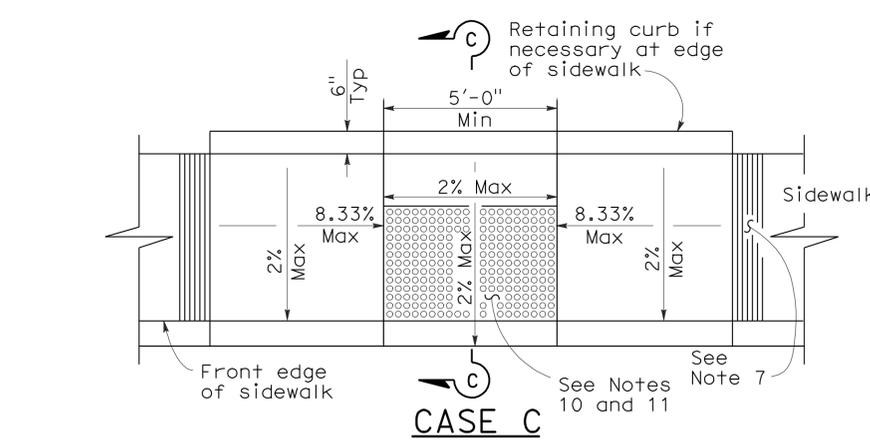
CASE B



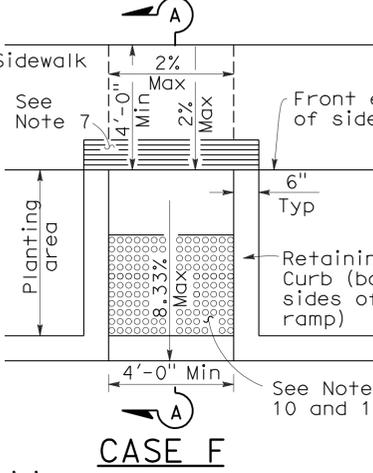
CASE D



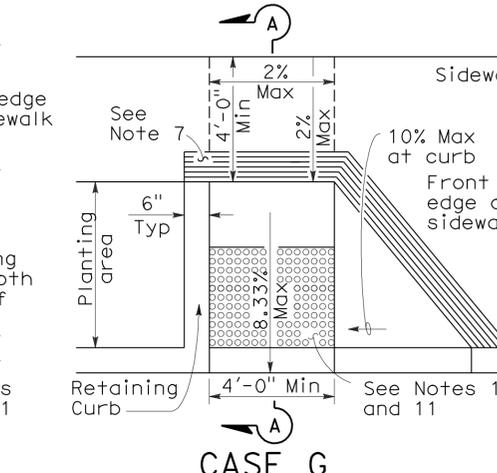
CASE E



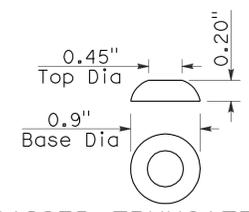
CASE C



CASE F



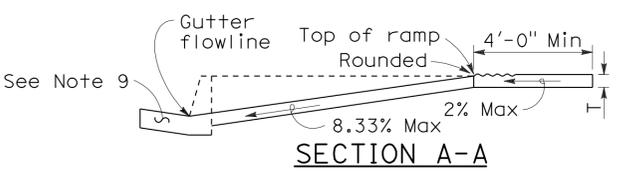
CASE G



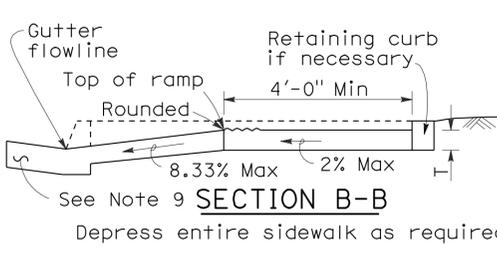
RAISED TRUNCATED DOME

NOTES:

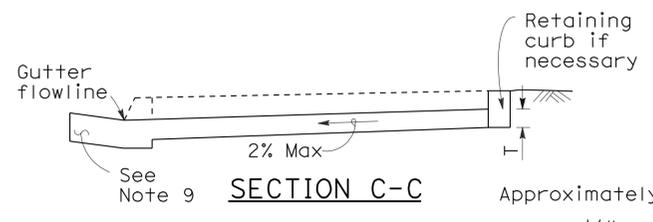
- As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.
- If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-0" 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.
- When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
- As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
- If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-0".
- Side slope of ramp flares vary uniformly from a maximum of 10% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
- 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.
- Transitions from ramps and landing to walks, gutters or streets shall be flush and free of abrupt changes.
- Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 5 percent within 4'-0" of the top and bottom of the curb ramp.
- Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.
- The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
- Sidewalk and ramp thickness, "T", shall be 3/2" minimum.
- 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.
- For retrofit conditions, removal and replacement of curb apron will be at the Contractor's option, unless otherwise shown on project plans.



SECTION A-A



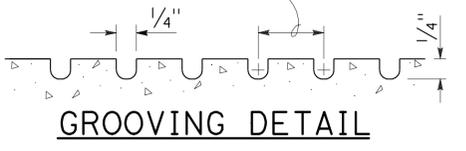
SECTION B-B



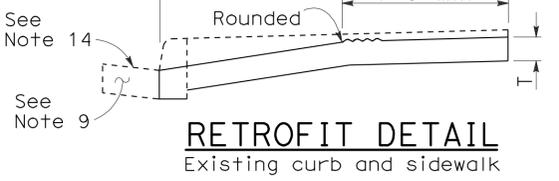
SECTION C-C



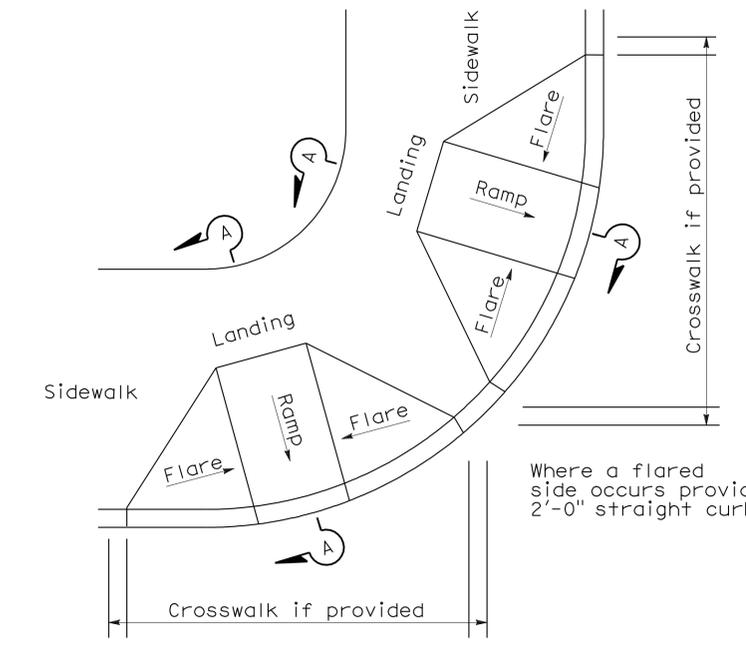
RAISED TRUNCATED DOME PATTERN (IN-LINE) DETECTABLE WARNING SURFACE



GROOVING DETAIL



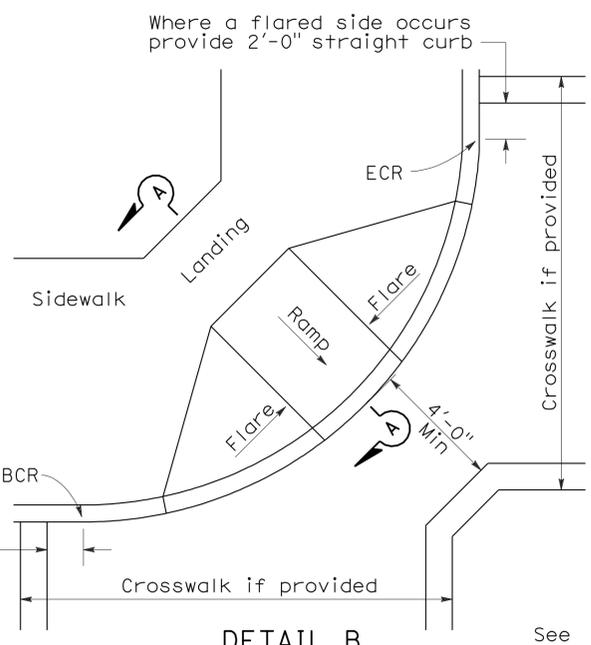
RETROFIT DETAIL



DETAIL A

TYPICAL TWO-RAMP CORNER INSTALLATION

See Note 1



DETAIL B TYPICAL ONE-RAMP CORNER INSTALLATION

See Notes 1 and 3

2006 REVISED STANDARD PLAN RSP A88A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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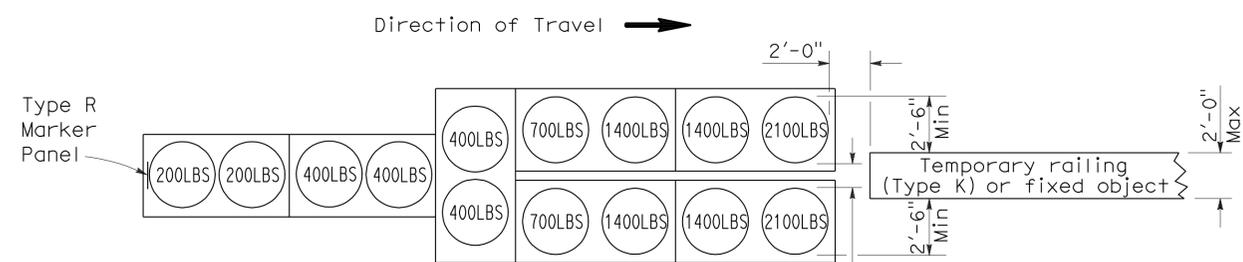
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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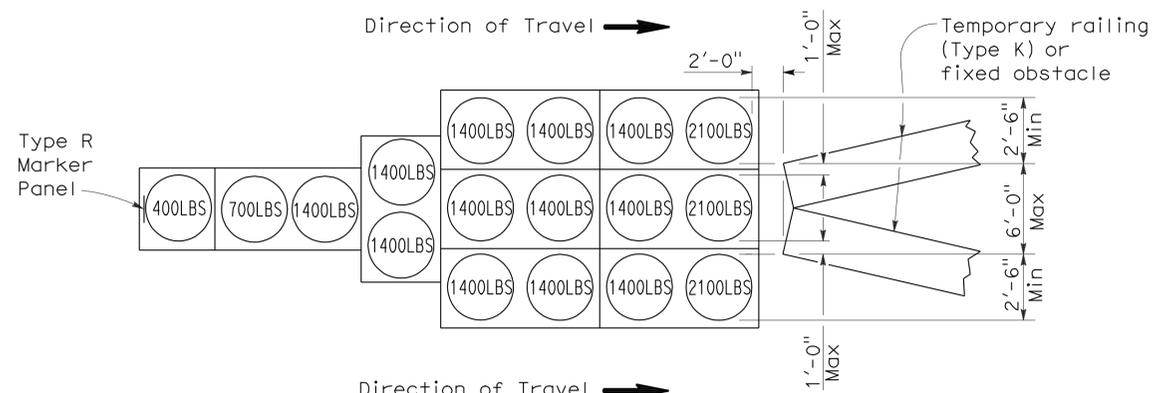
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 9-26-11



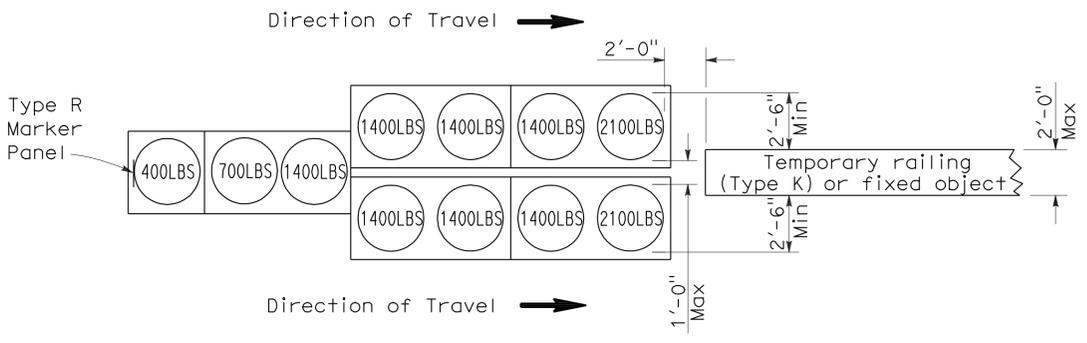
ARRAY 'TU14'

Approach speed 45 mph or more



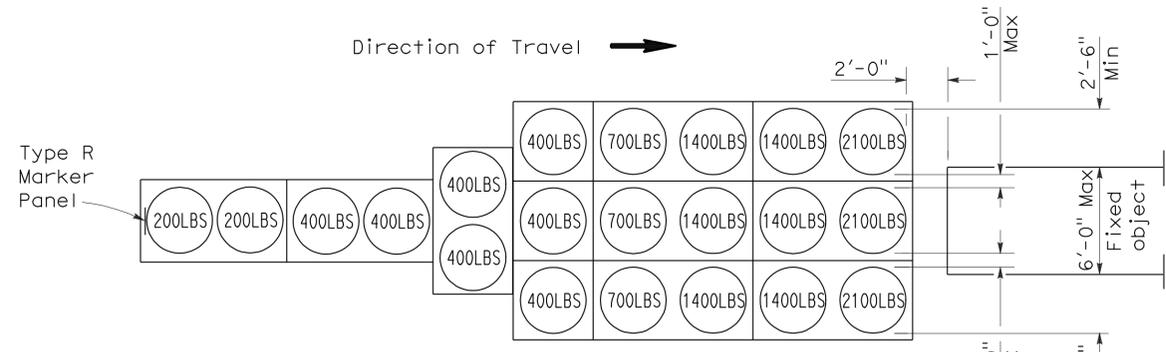
ARRAY 'TU17'

Approach speed less than 45 mph



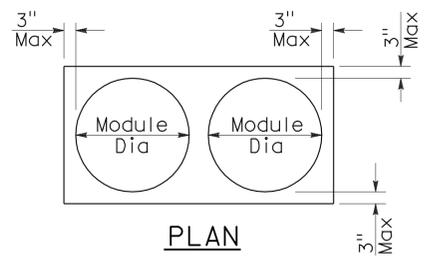
ARRAY 'TU11'

Approach speed less than 45 mph

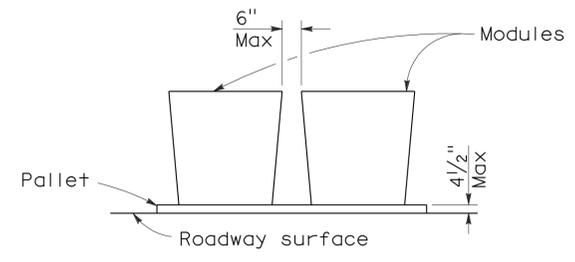


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

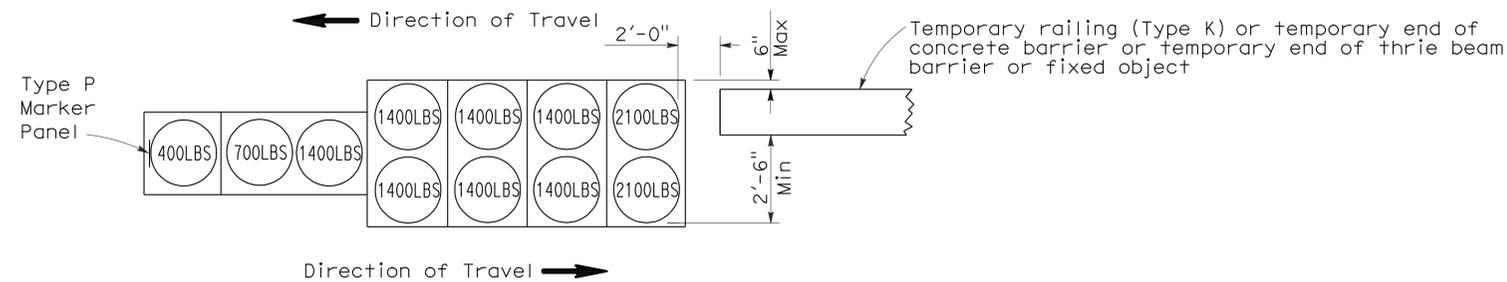
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	23	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

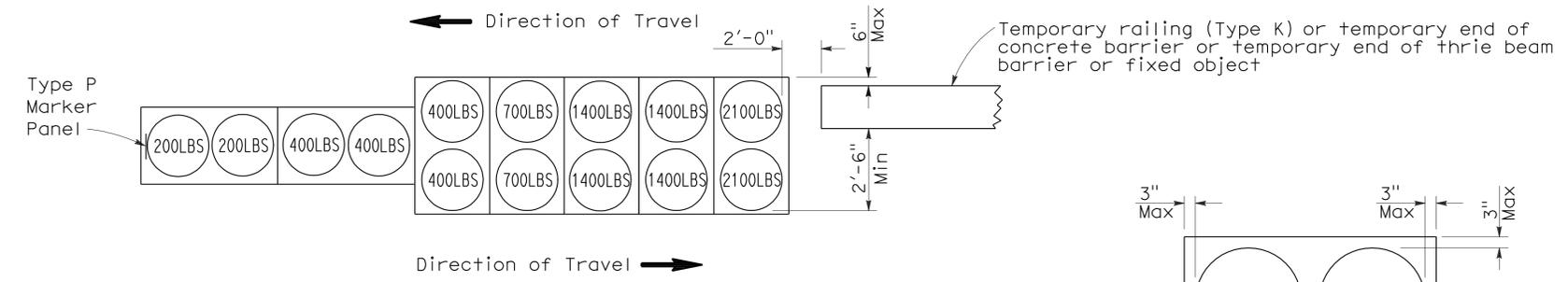
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To accompany plans dated 9-26-11



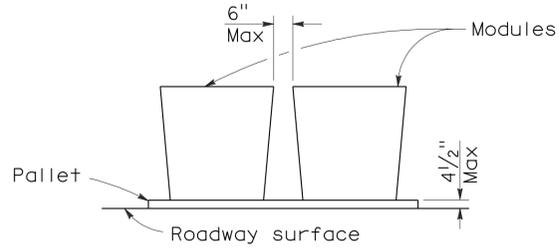
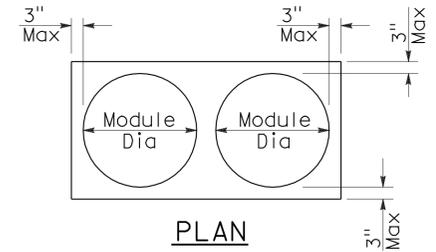
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

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

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

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

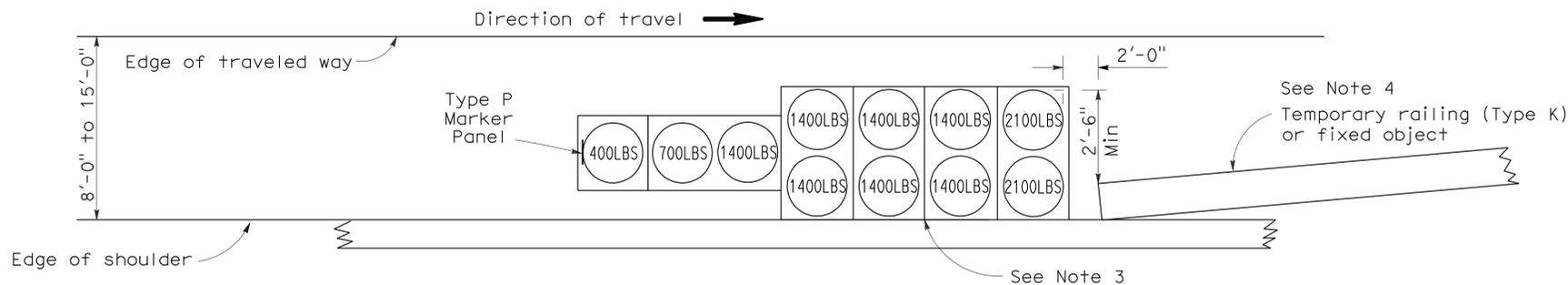
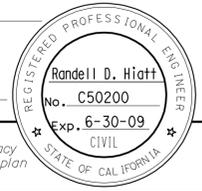
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	24	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

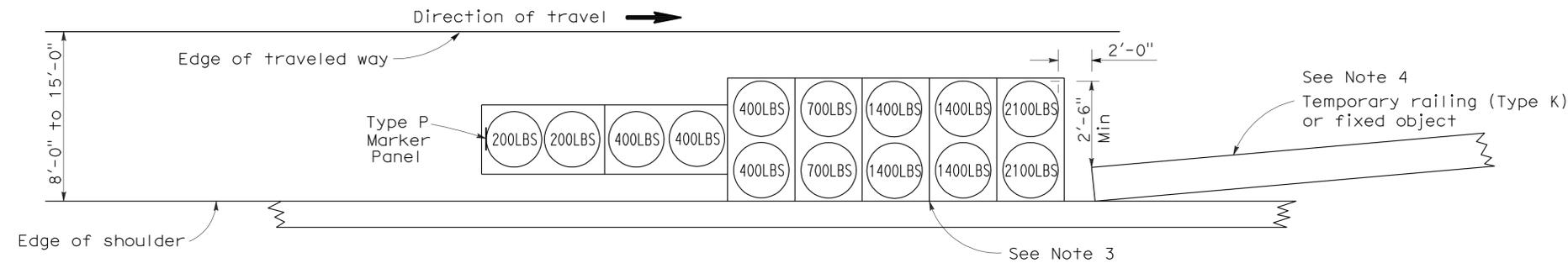
June 6, 2008
PLANS APPROVAL DATE

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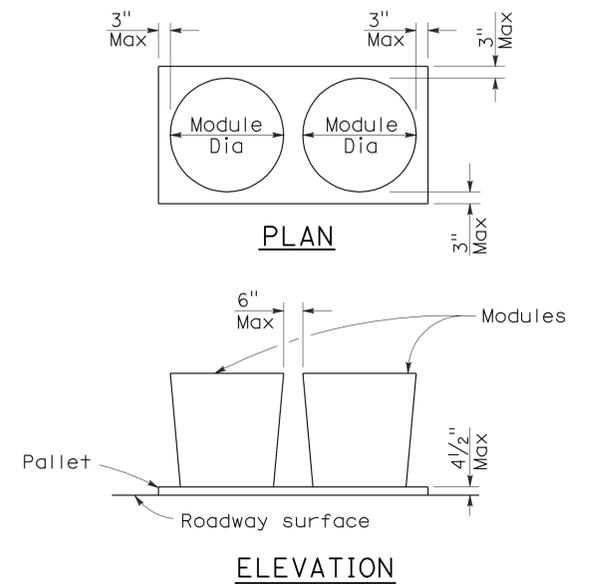
To accompany plans dated 9-26-11



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



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



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

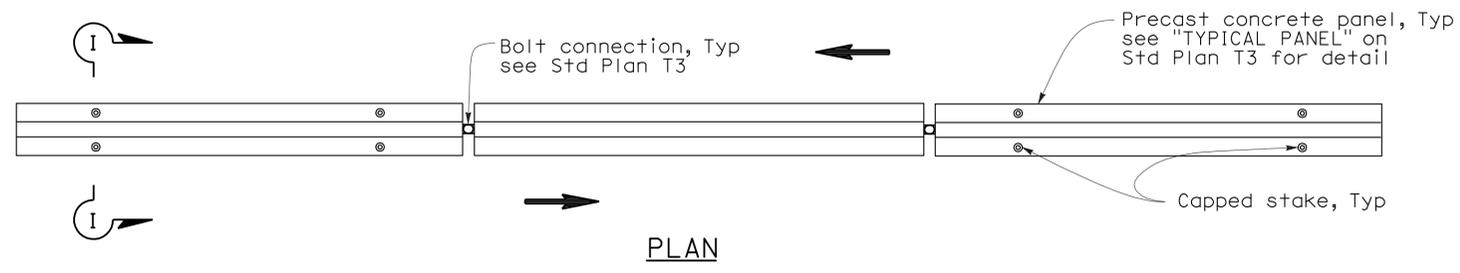
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Mrn	101	7.4	25	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

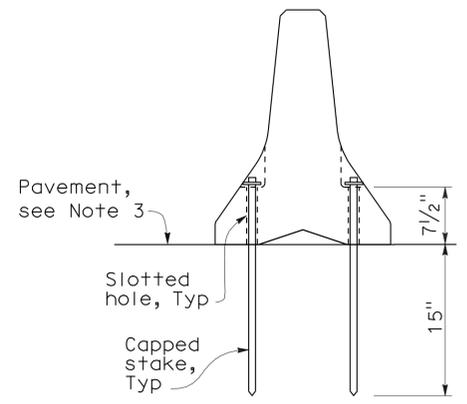
May 20, 2011
PLANS APPROVAL DATE

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To accompany plans dated 9-26-11



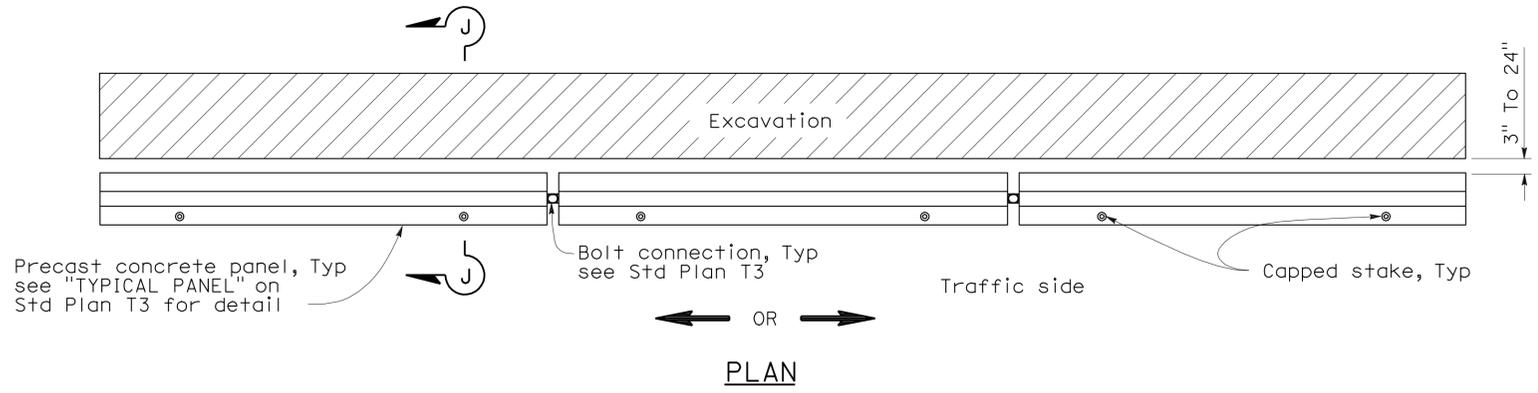
RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1



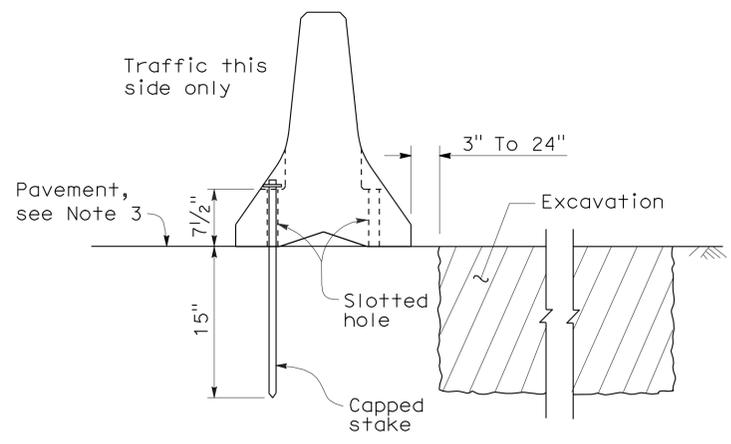
SECTION I-I

NOTES:

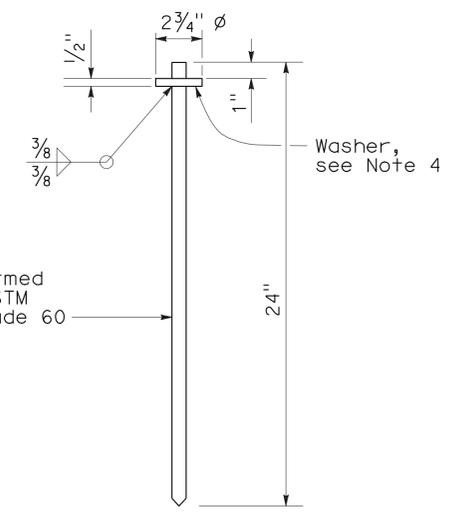
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of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



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



SECTION J-J



CAPPED STAKE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY RAILING
(TYPE K)**

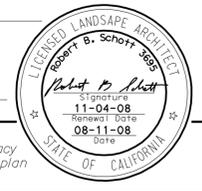
NO SCALE

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

2006 NEW STANDARD PLAN NSP T3A

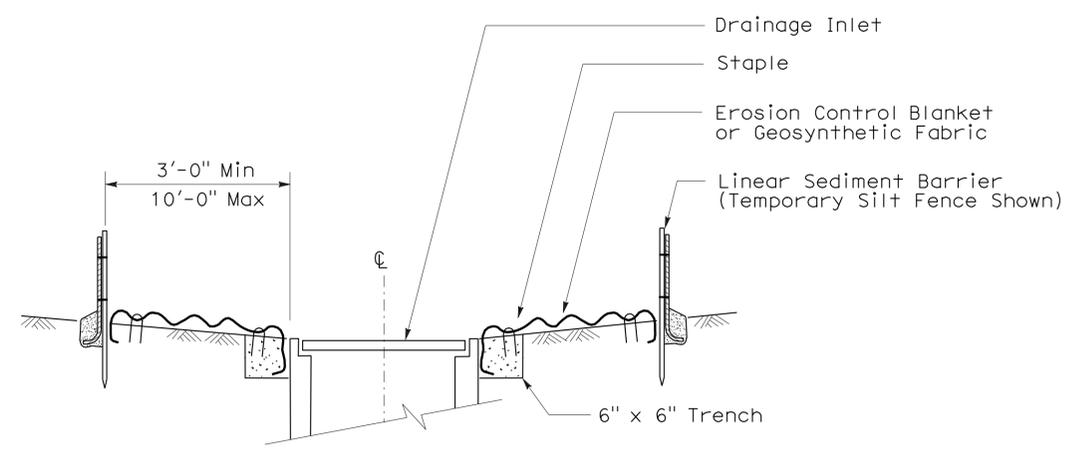
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	26	39

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE
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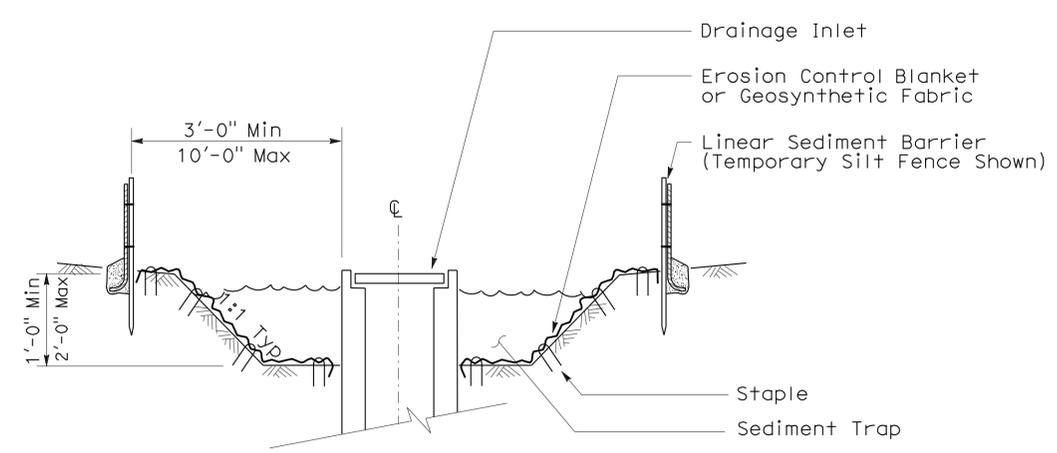


To accompany plans dated 9-26-11

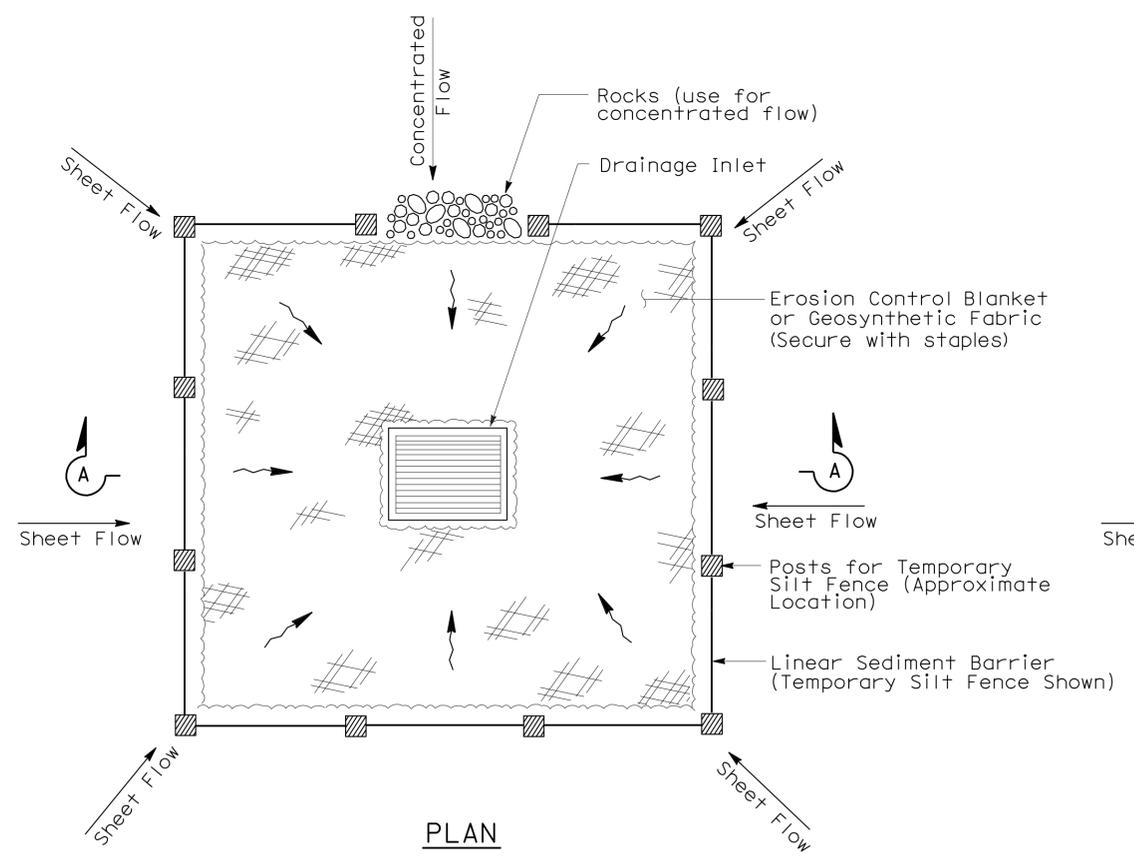
- NOTES:**
- See Standard Plan T51 for Temporary Silt Fence.
 - Dimensions may vary to fit field conditions.



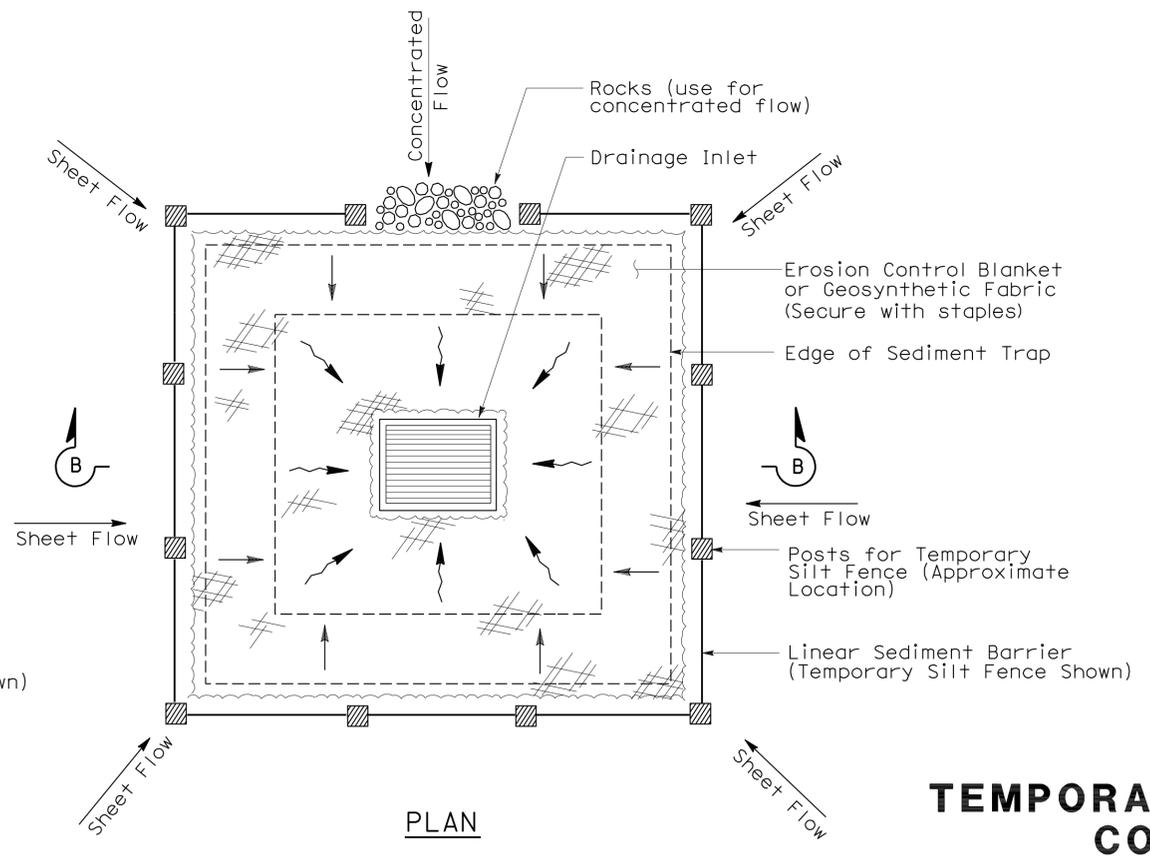
SECTION A-A



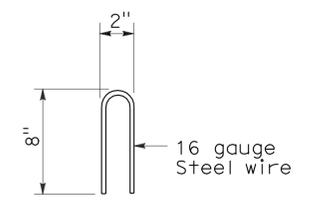
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



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



STAPLE DETAIL

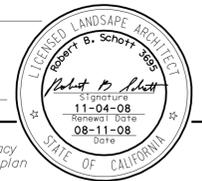
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)
 NO SCALE

NSP T61 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T61

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	27	39

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



To accompany plans dated 9-26-11

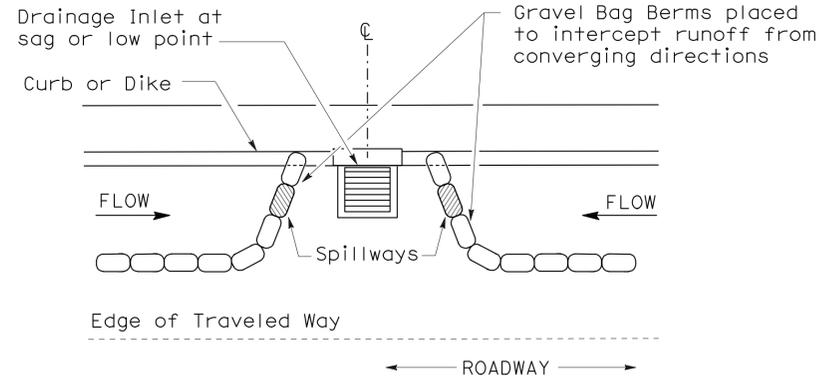
NOTES:

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

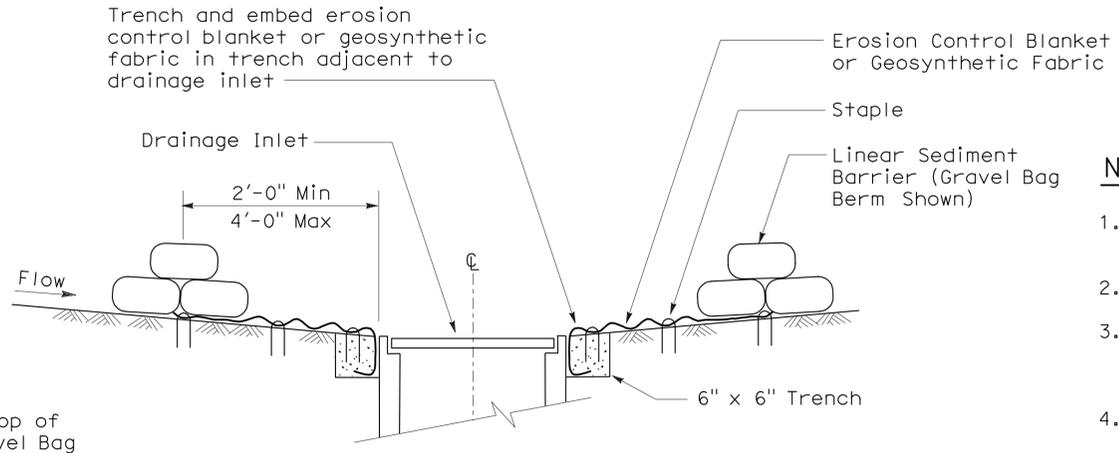
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

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

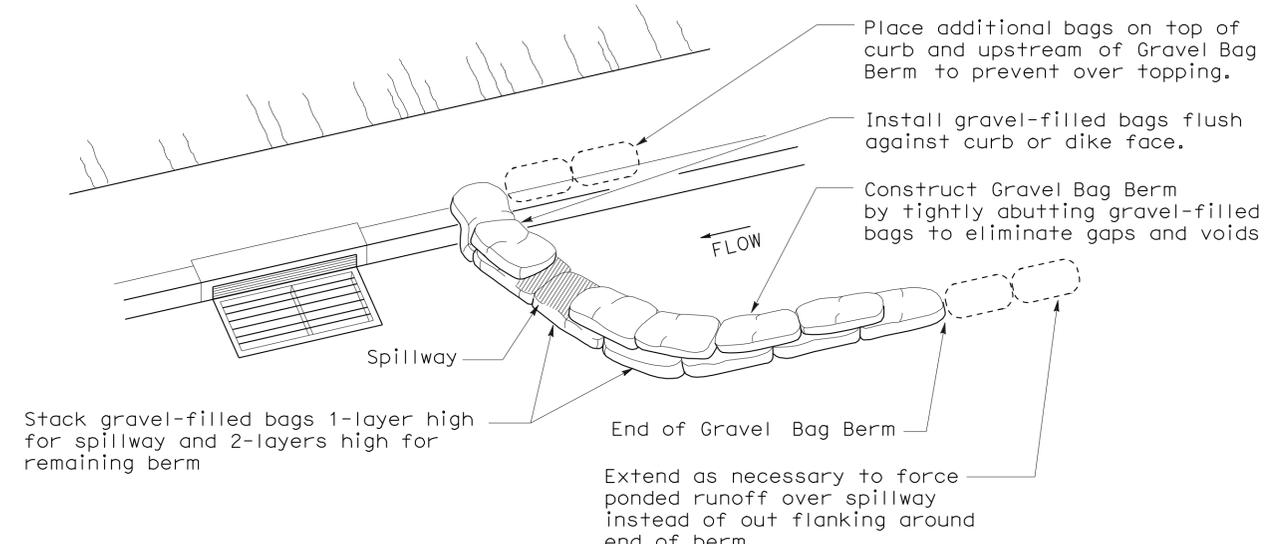
For slope of less than 1%, install barriers only if erosion/sediment is prevalent



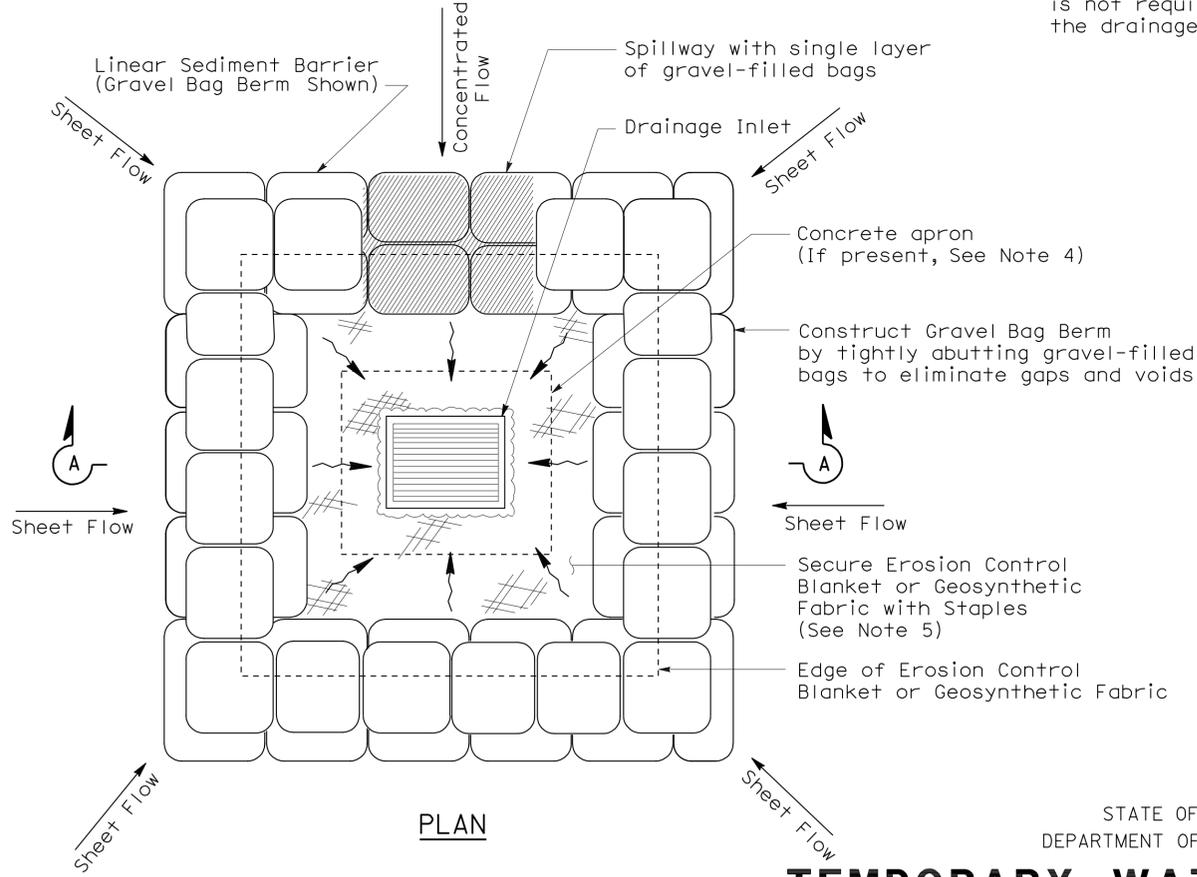
PLAN
CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)



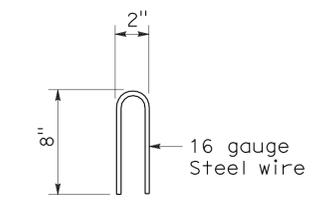
SECTION A-A



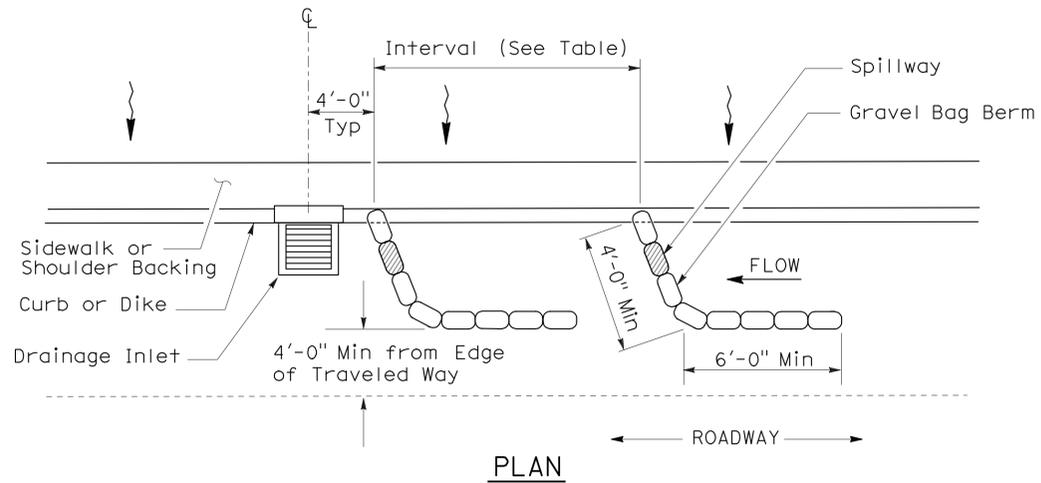
PERSPECTIVE



PLAN
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



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

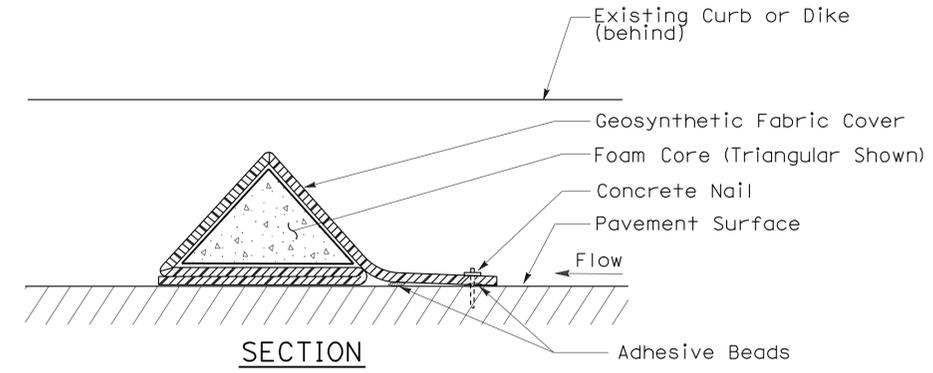
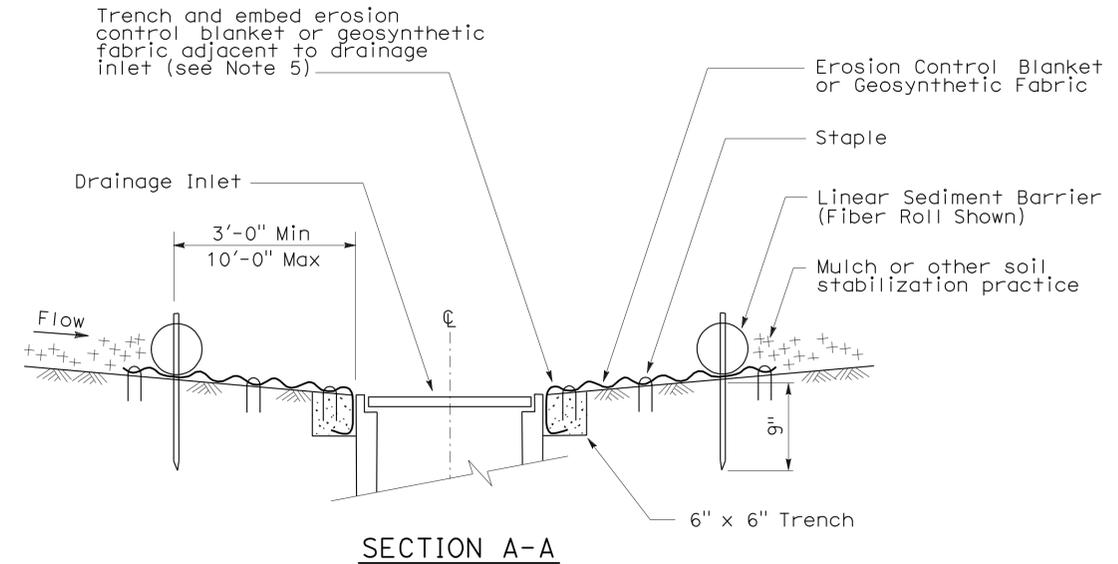
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

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

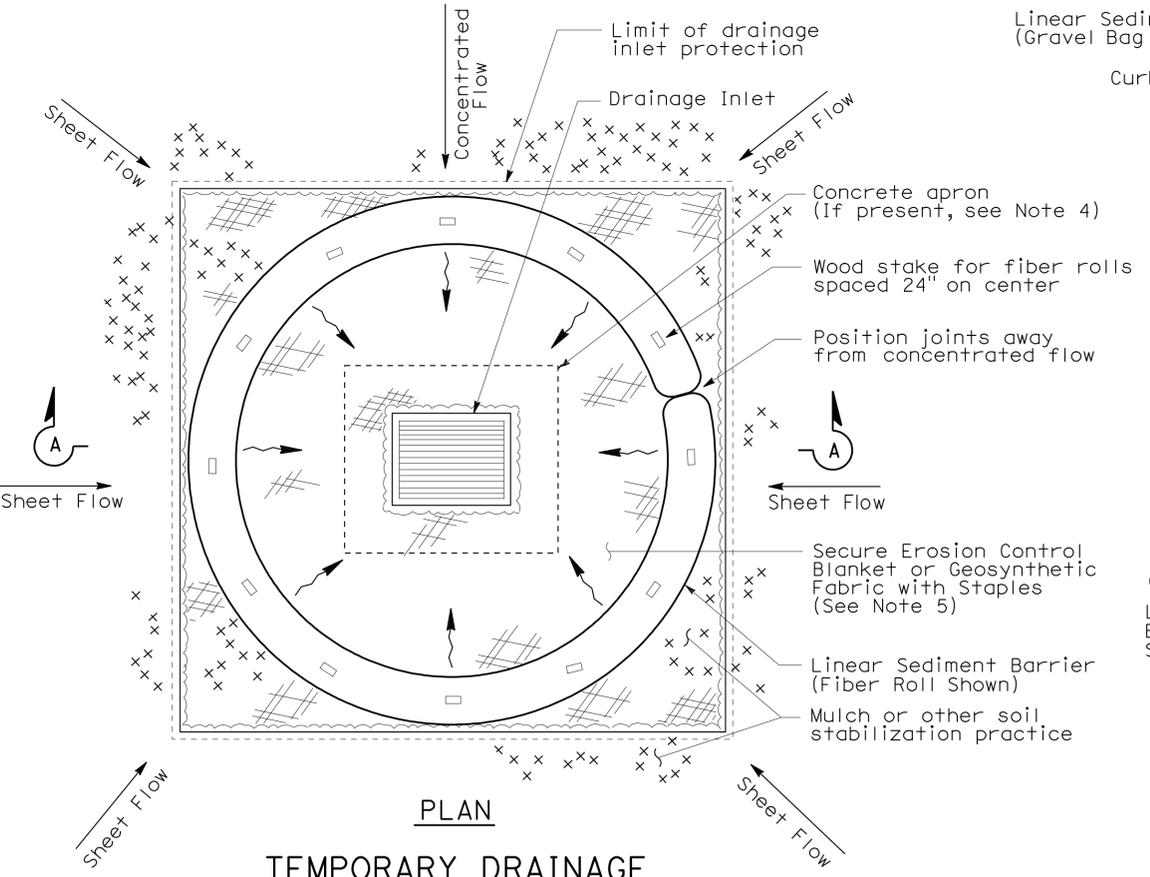
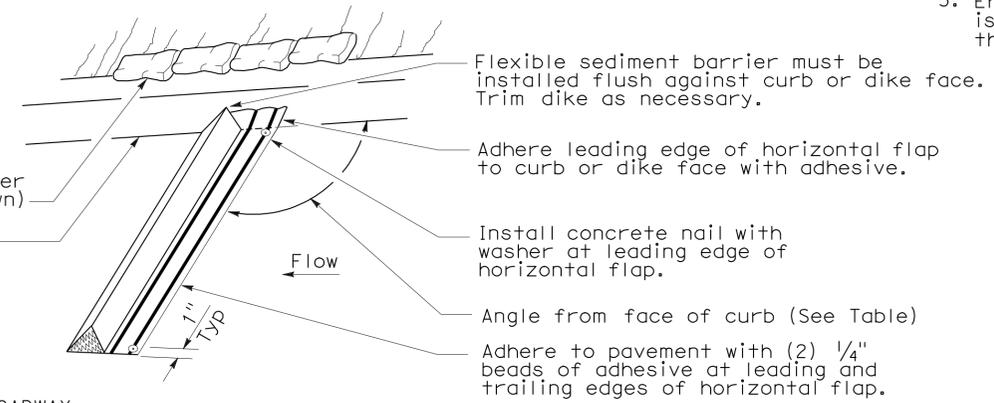
2006 NEW STANDARD PLAN NSP T62

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

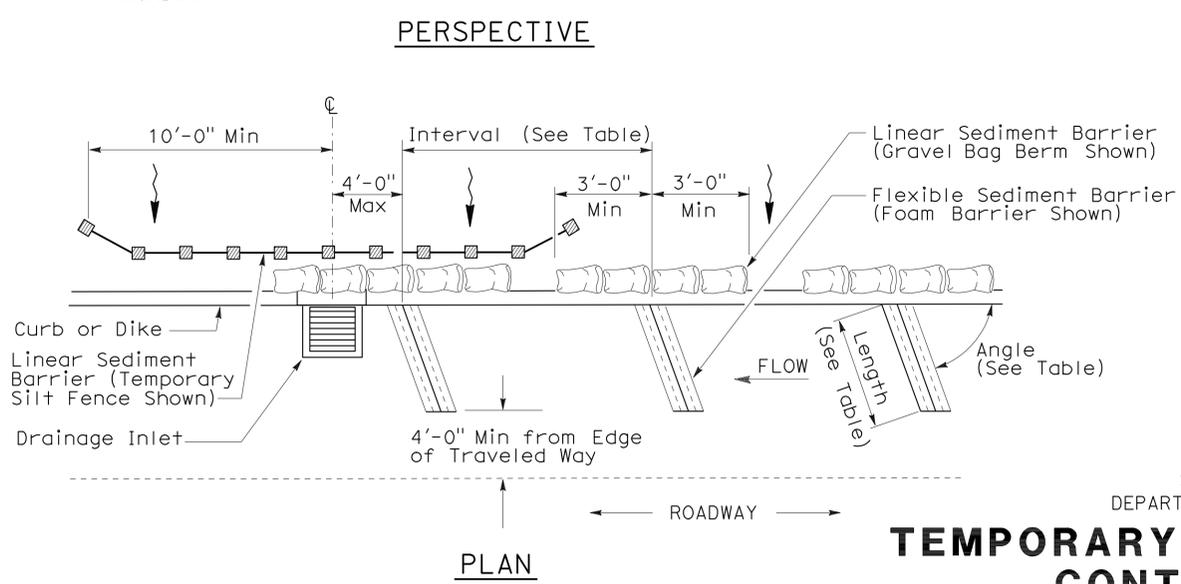
SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'



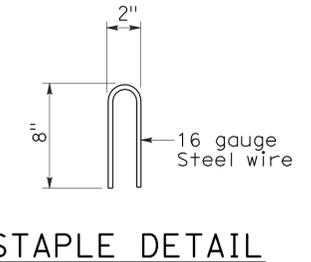
FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



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



NOTES:

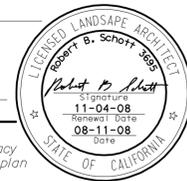
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

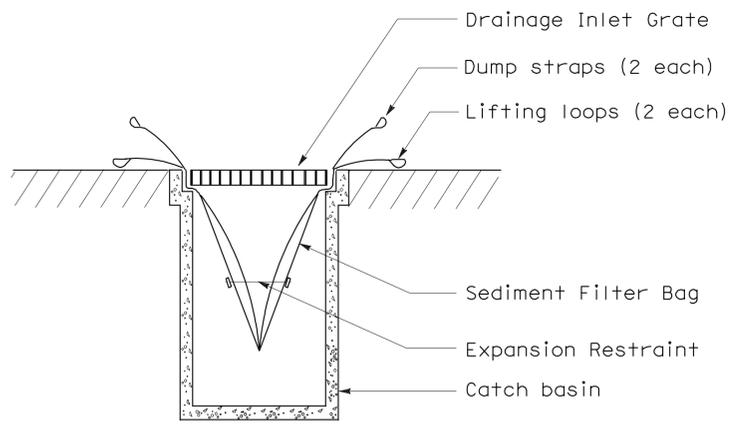
NO SCALE
 NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS
 THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	29	39

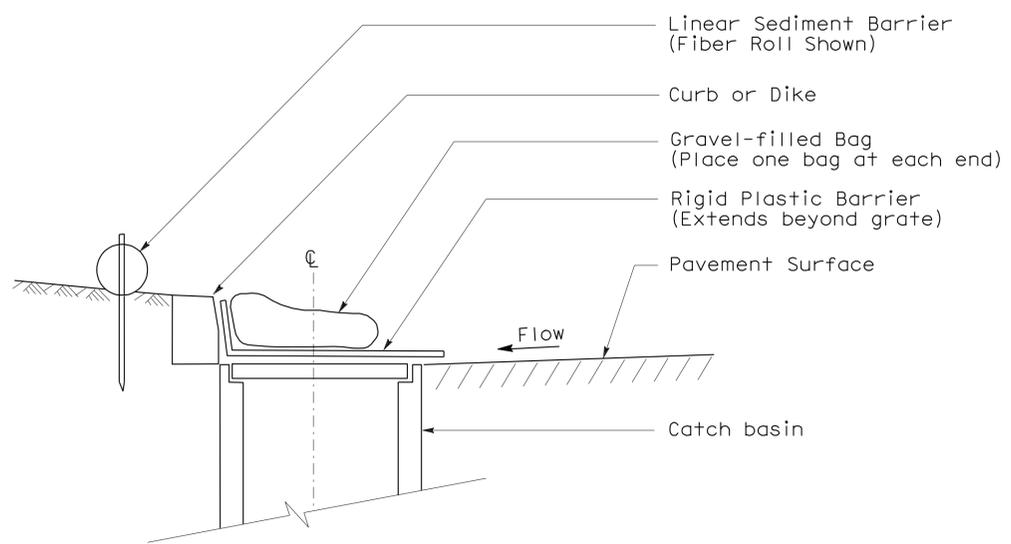
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
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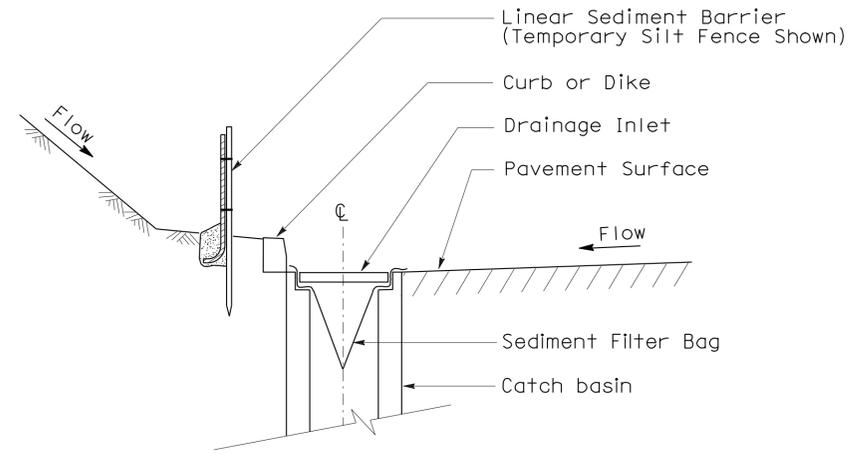
To accompany plans dated 9-26-11



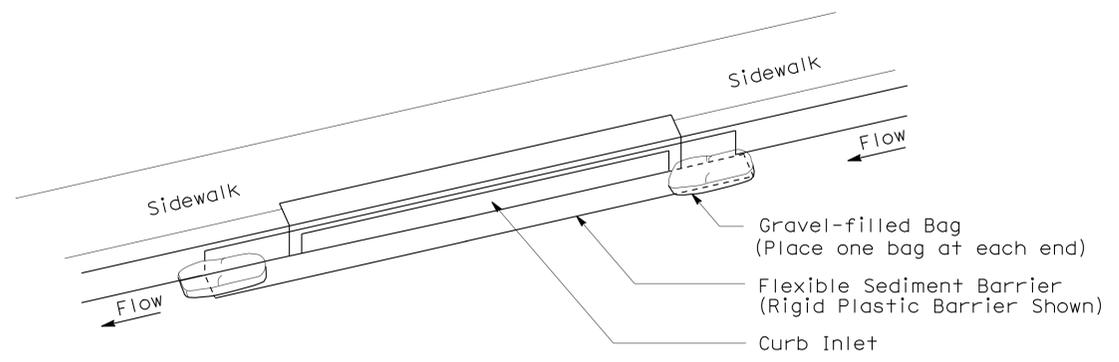
SECTION B-B
SEDIMENT FILTER BAG DETAIL



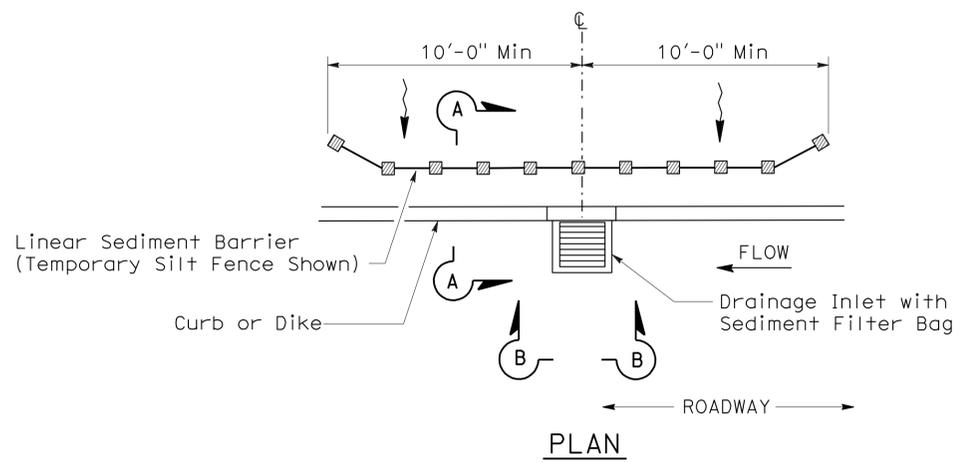
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



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



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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

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

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

ELECTROLIERS

STANDARD TYPES	Symbol	Description
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		NOTES: 1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified. 2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified. 3. Variations noted adjacent to symbol on project plans.
32		
35		
36-20A		

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

STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	30	39

REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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To accompany plans dated 9-26-11

SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SYMBOLS AND ABBREVIATIONS)**

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	31	39

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

October 5, 2007
 PLANS APPROVAL DATE

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To accompany plans dated 9-26-11

CONDUIT

PROPOSED	EXISTING	
		Lighting Conduit, unless otherwise indicated or noted
		Traffic signal conduit
		Communication conduit
		Telephone conduit
		Fire alarm conduit
		Fiber optic conduit
		Conduit termination
		Conduit riser in/on structure or service pole

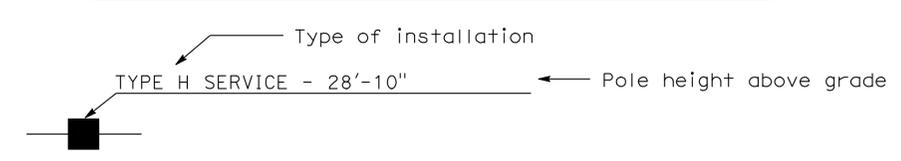
SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" indicates all non-arrow sections louvered "LG" indicates louvered green section only "PV" indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SERVICE EQUIPMENT

PROPOSED	EXISTING	
		Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SYMBOLS AND ABBREVIATIONS)**
 NO SCALE

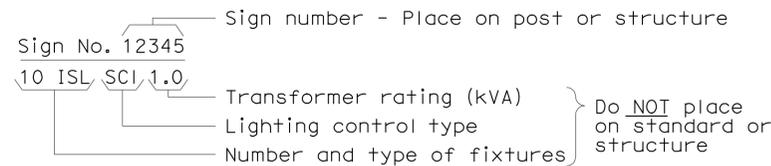
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

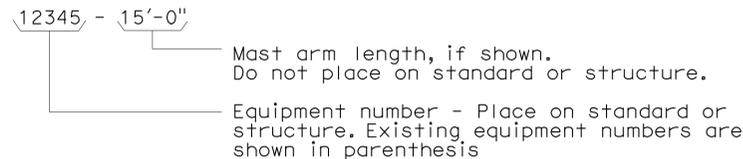
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

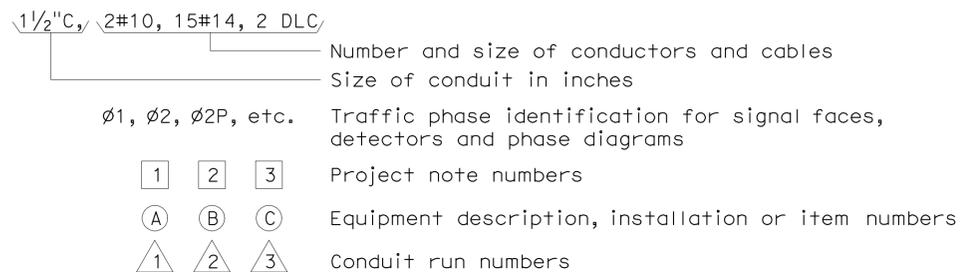
ILLUMINATED SIGN IDENTIFICATION NUMBER:



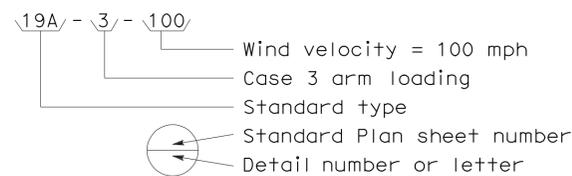
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



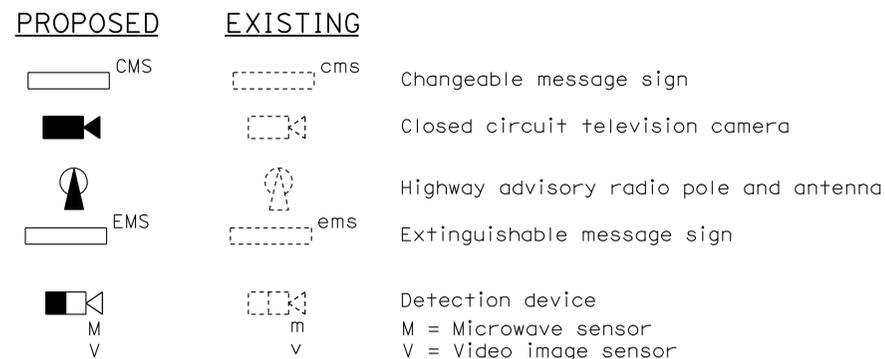
CONDUIT AND CONDUCTOR IDENTIFICATION:



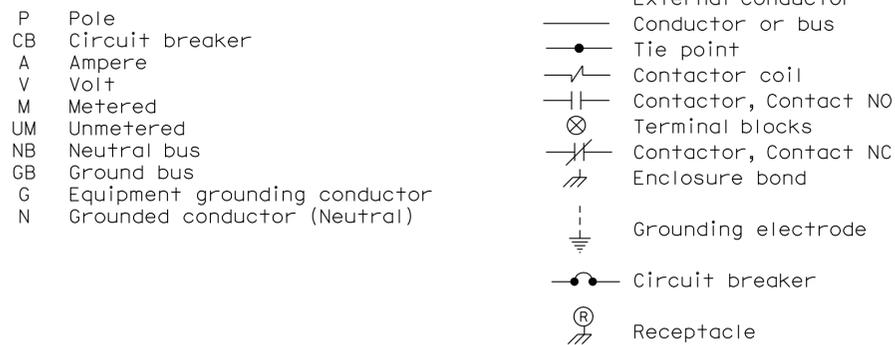
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



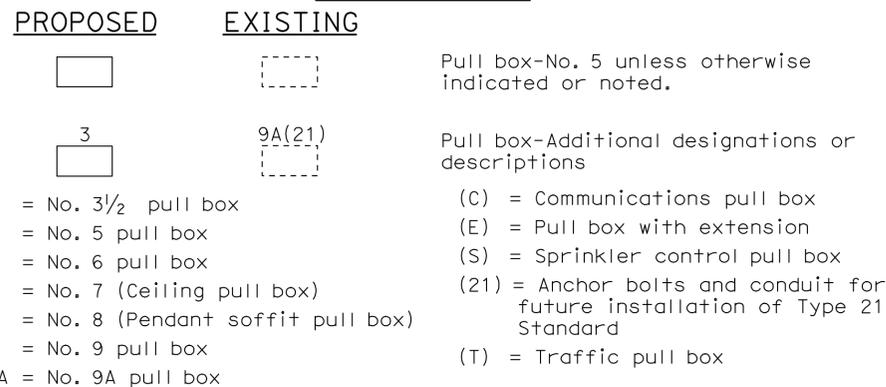
MISCELLANEOUS EQUIPMENT



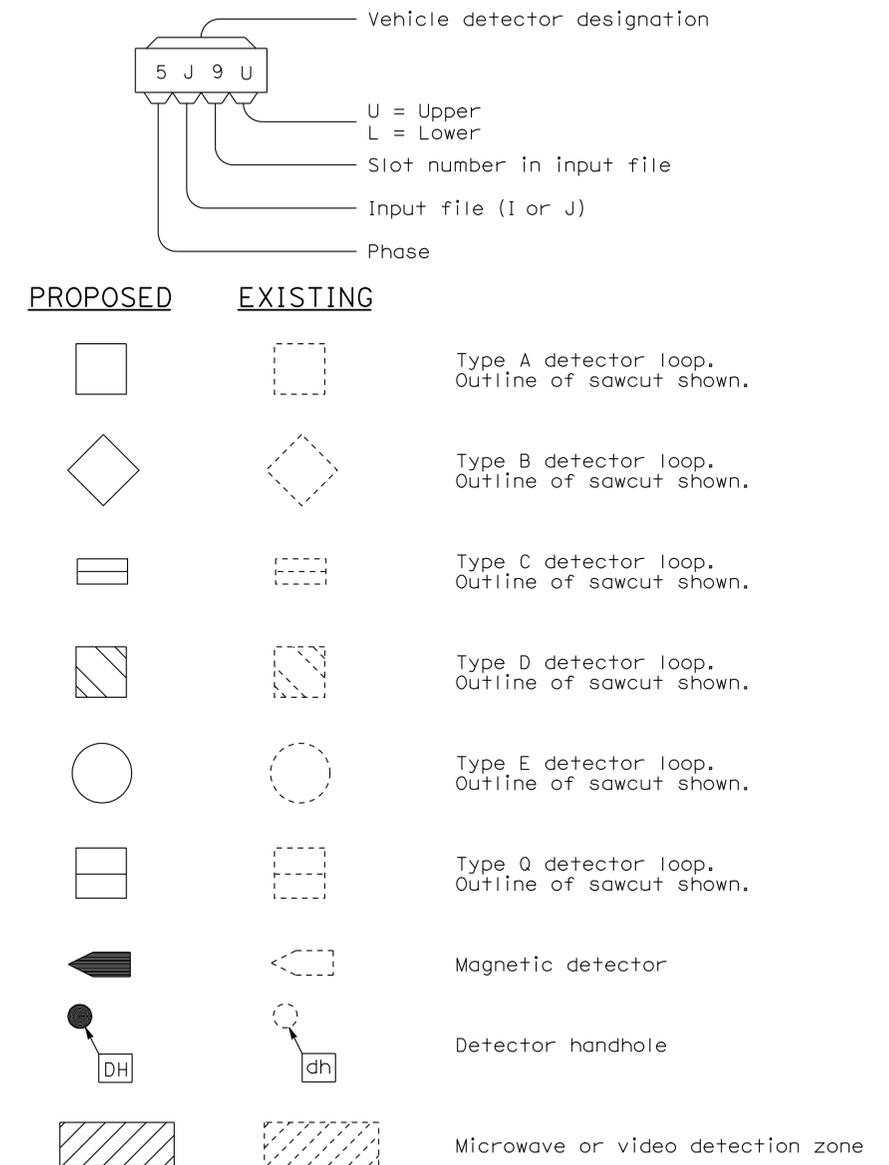
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

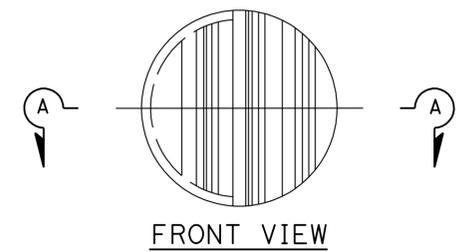
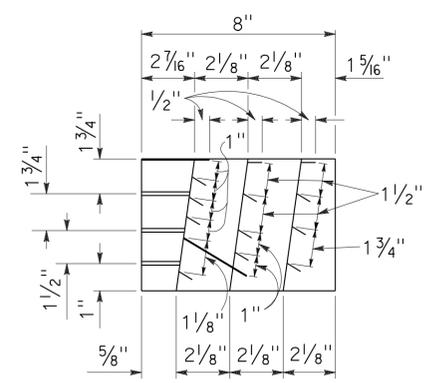
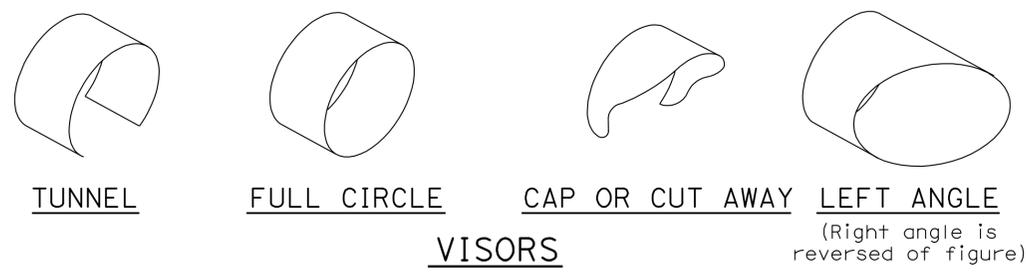
RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
 DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

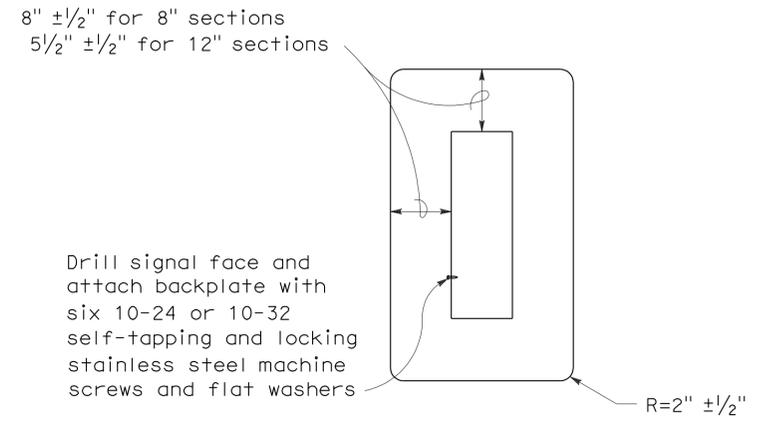
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	33	39

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
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 REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-10
 ELECTRICAL
 STATE OF CALIFORNIA



DIRECTIONAL LOUVER

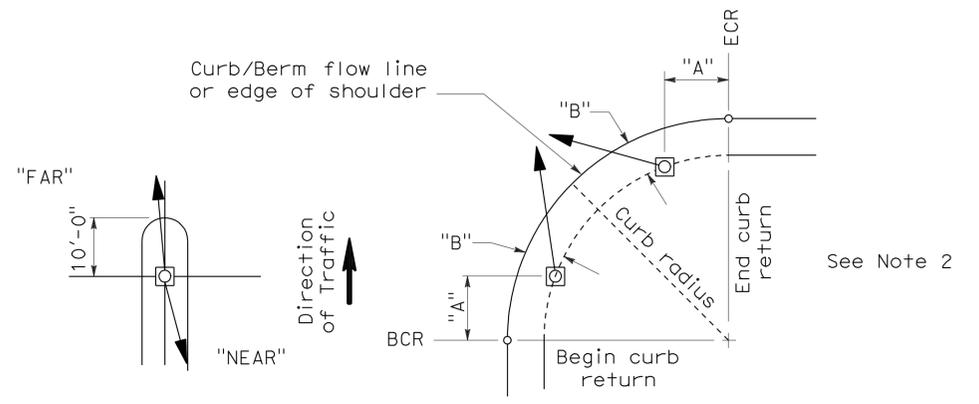
Directional louvers shall be oriented as directed by the Engineer and secured in place with one plated brass machine screw and nut.



8" AND 12" SECTIONS

BACKPLATE

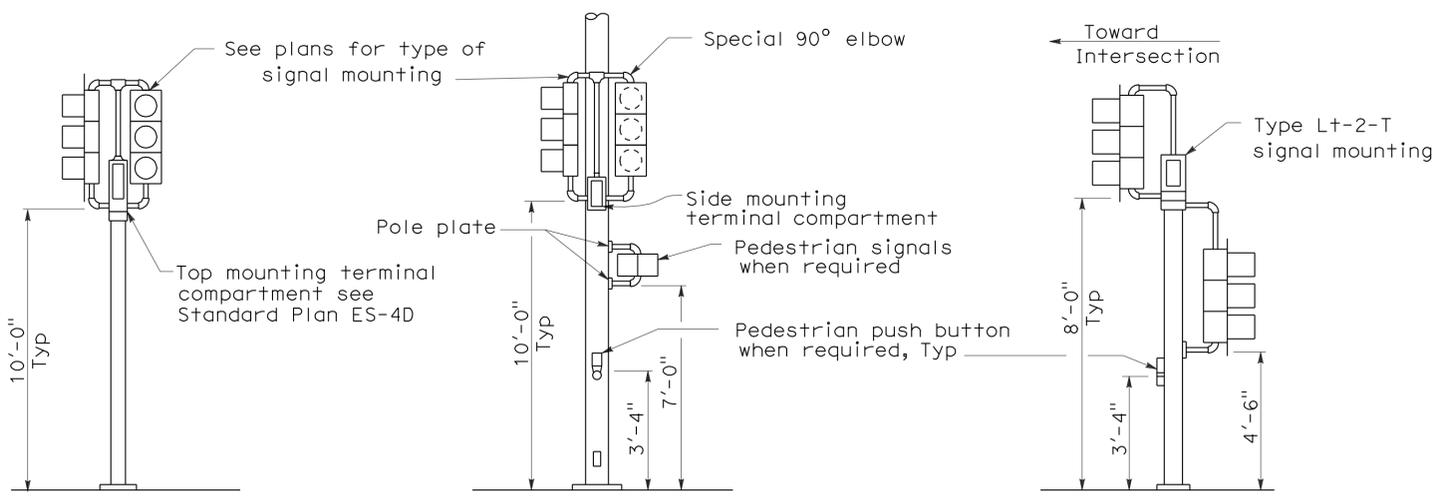
1/16" minimum thickness
 3001-14 aluminum, or plastic when specified



NOTES:

1. Typical signal pole placement unless dimensioned on plans.
2. For "A" and "B" dimensions, see Pole Schedule, or as directed by the Engineer.

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS



TOP MOUNTED SIGNALS (TV)

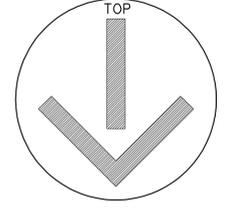
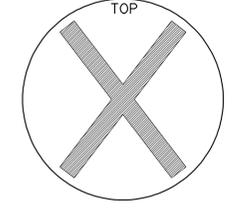
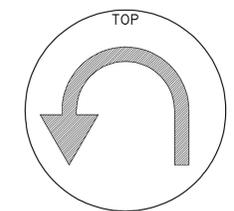
Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans

SIDE MOUNTED SIGNALS (SV AND SP)

Normally used on standards with luminaire or signal mast arm

LEFT TURN LANE SIGNAL

Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans



TYPICAL SIGNAL INSTALLATIONS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

RSP ES-4C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN ES-4C DATED MAY 1, 2006 - PAGE 420 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-4C

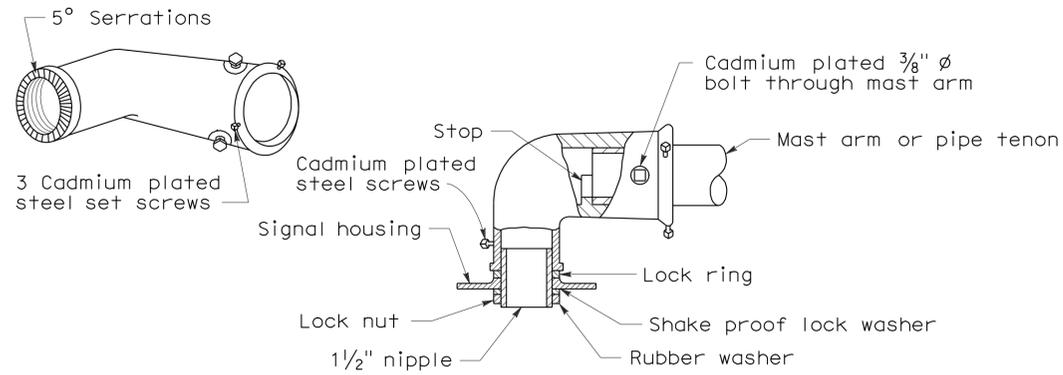
2006 REVISED STANDARD PLAN RSP ES-4C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	34	39

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

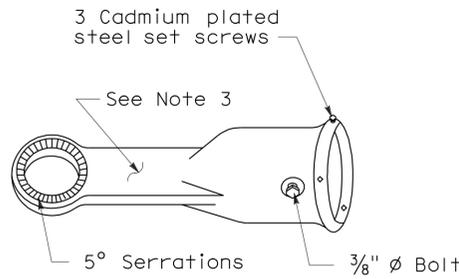
REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-10
 ELECTRICAL
 STATE OF CALIFORNIA

To accompany plans dated 9-26-11



MAST ARM MOUNTING - TYPE "MAT"

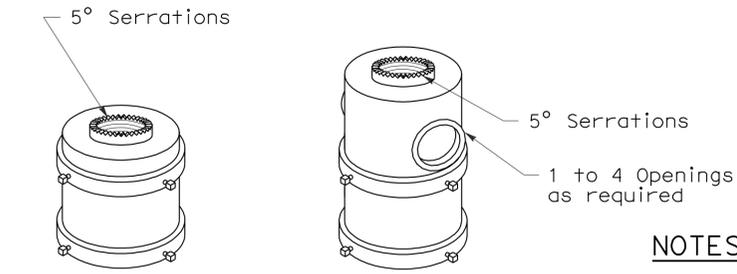
For 2 NPS pipe, see Note 1.



MAST ARM MOUNTING - TYPE "MAS"

For 2 NPS pipe. See Note 1.

SIGNAL SLIP FITTERS



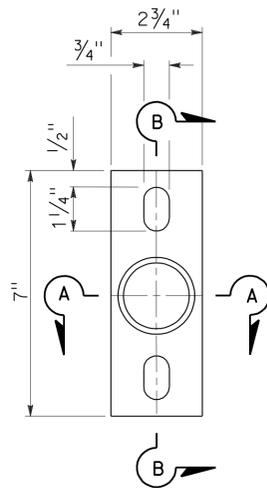
For one mounting For multiple mountings

TOP MOUNTINGS

For 4 NPS pipe, see Note 2.

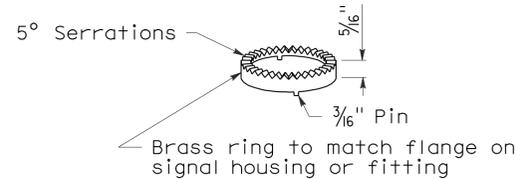
NOTES:

- After mast arm signal has been plumbed and secured, drill 7/16" hole through mast arm tenon in line with slip fitter hole. Place a cadmium plated 3/8" diameter galvanized bolt with washer under bolt head through hole and secure with washer, nut, and locknut. Seal openings between mast arm mountings and mast arm with mastic.
- (a) Threaded top mounted slip fitter openings shall be 1/2" NPS.
(b) Serrations in fittings shall match those on bottom of signal heads or in lock ring.
(c) Top opening shall be offset when backplate is used.
- Wireway shall have a cross section area of 0.95 square inch minimum. Minimum width of 1/2".



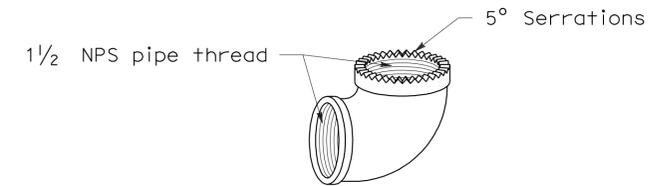
POLE PLATE

For side mountings



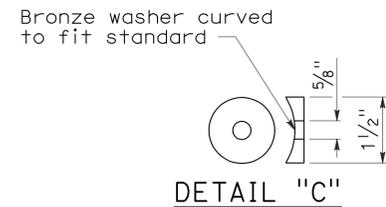
LOCK RING

Use where locking ring is not integral with signal housing or fitting.



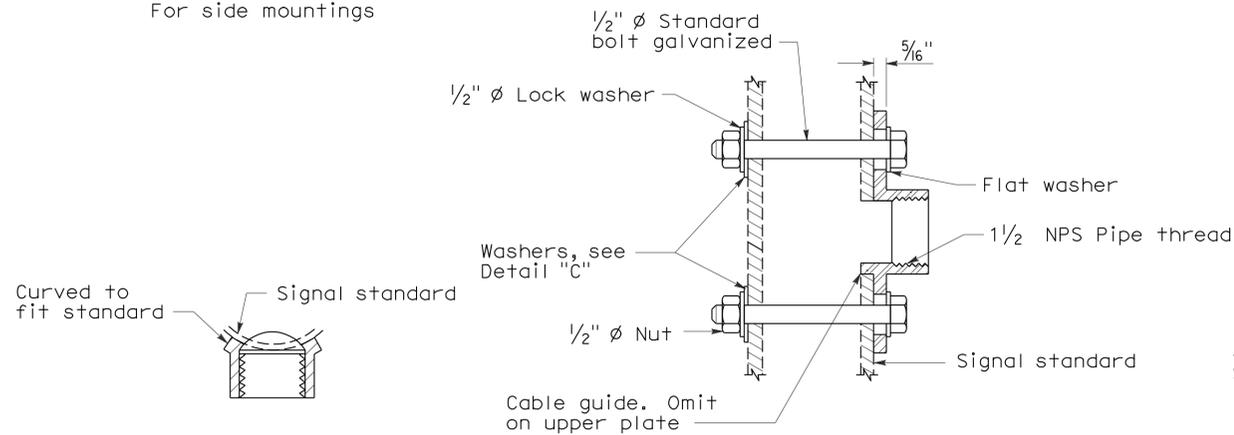
SPECIAL 90° ELBOW

One for each signal head, except those with special slip fitter mounting



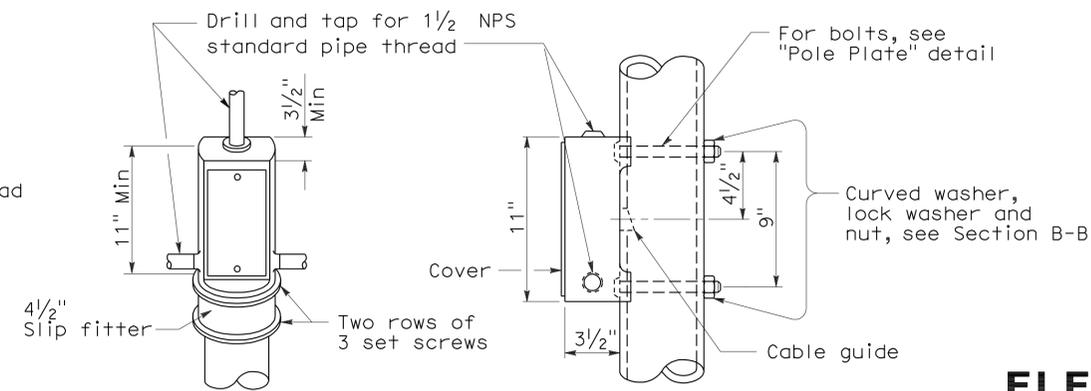
DETAIL "C"

MISCELLANEOUS MOUNTING HARDWARE



SECTION A-A

SECTION B-B



TOP MOUNTING

SIDE MOUNTING

TERMINAL COMPARTMENTS

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

RSP ES-4D DATED June 6, 2008 SUPERSEDES STANDARD PLAN ES-4D DATED MAY 1, 2006 - PAGE 421 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-4D

2006 REVISED STANDARD PLAN RSP ES-4D

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	35	39

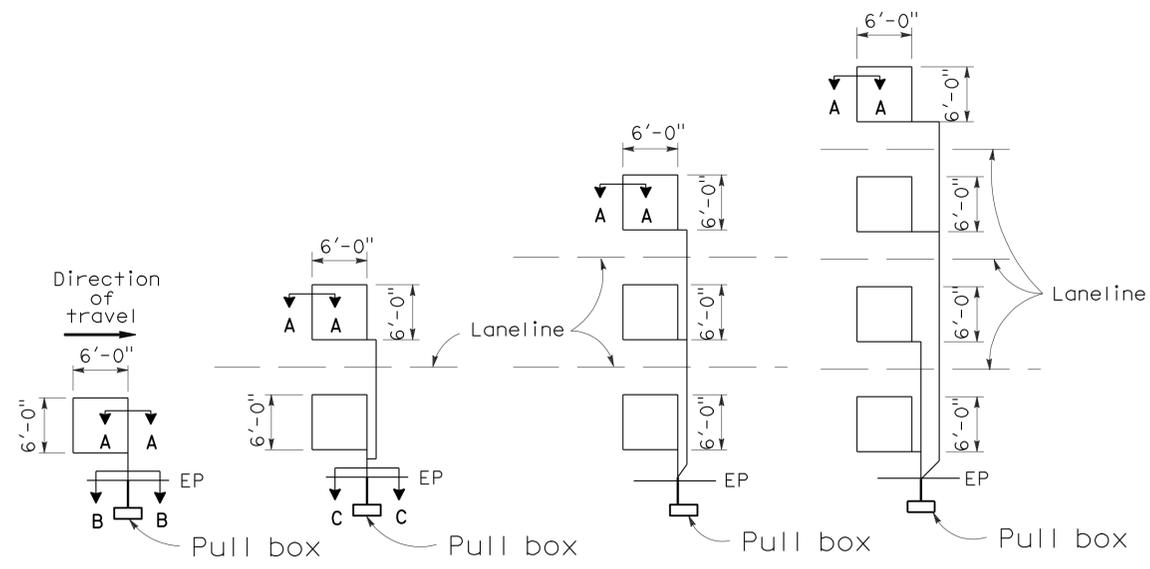
Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

October 5, 2007
 PLANS APPROVAL DATE

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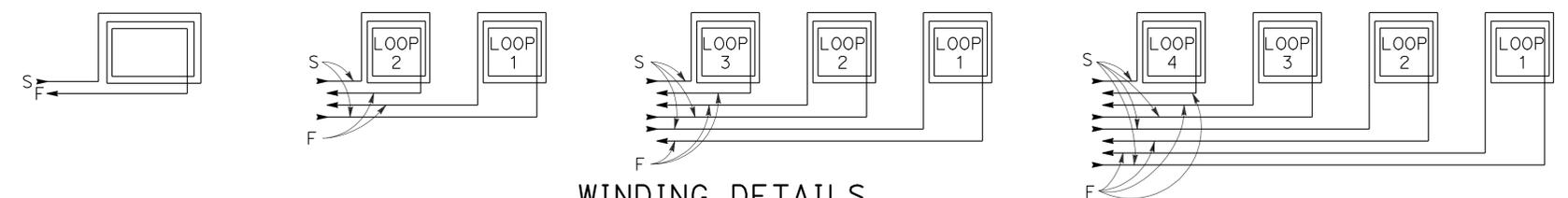
LOOP INSTALLATION PROCEDURE

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



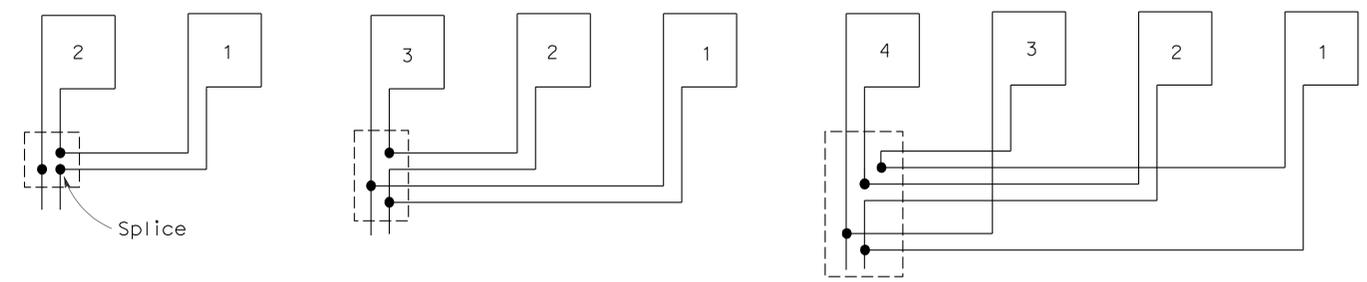
SAWCUT DETAILS

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



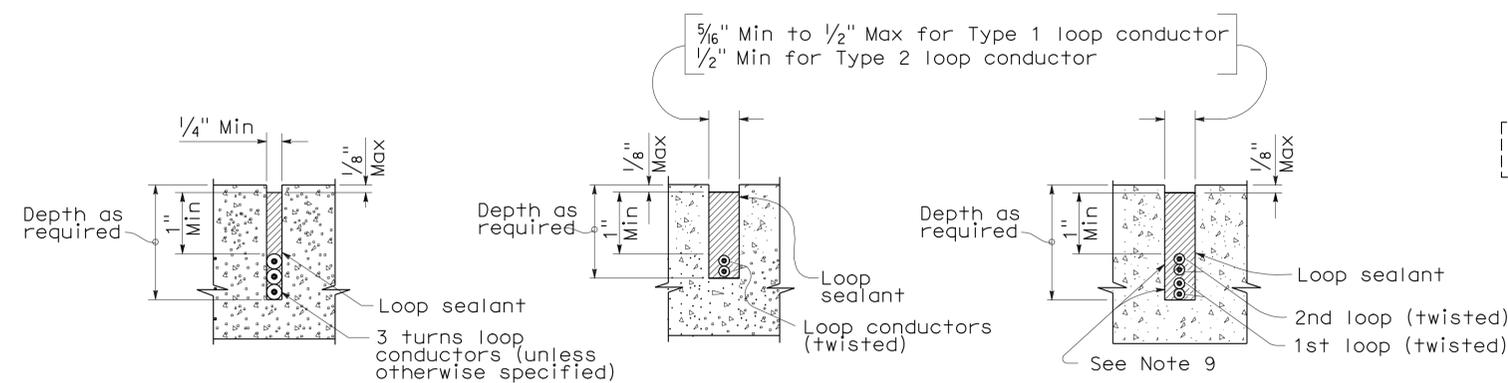
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

NO SCALE

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

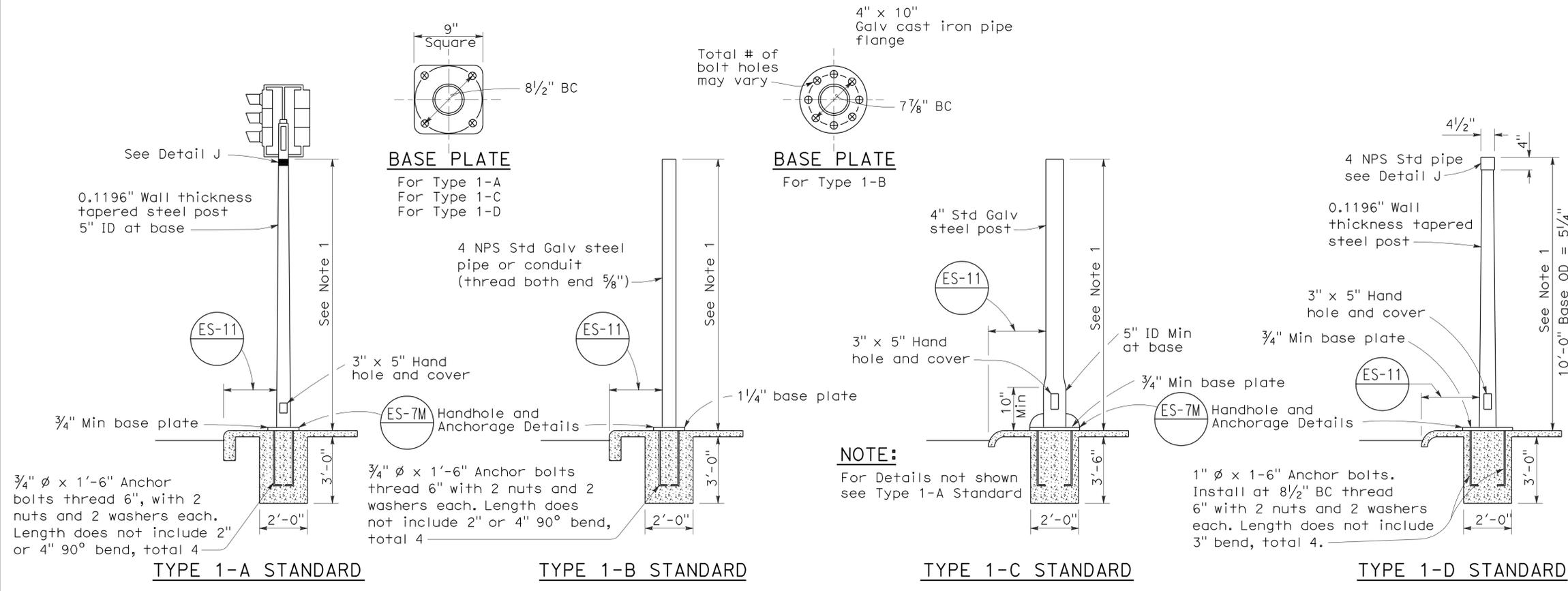
REVISED STANDARD PLAN RSP ES-5A

2006 REVISED STANDARD PLAN RSP ES-5A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Mrn	101	7.4	36	39

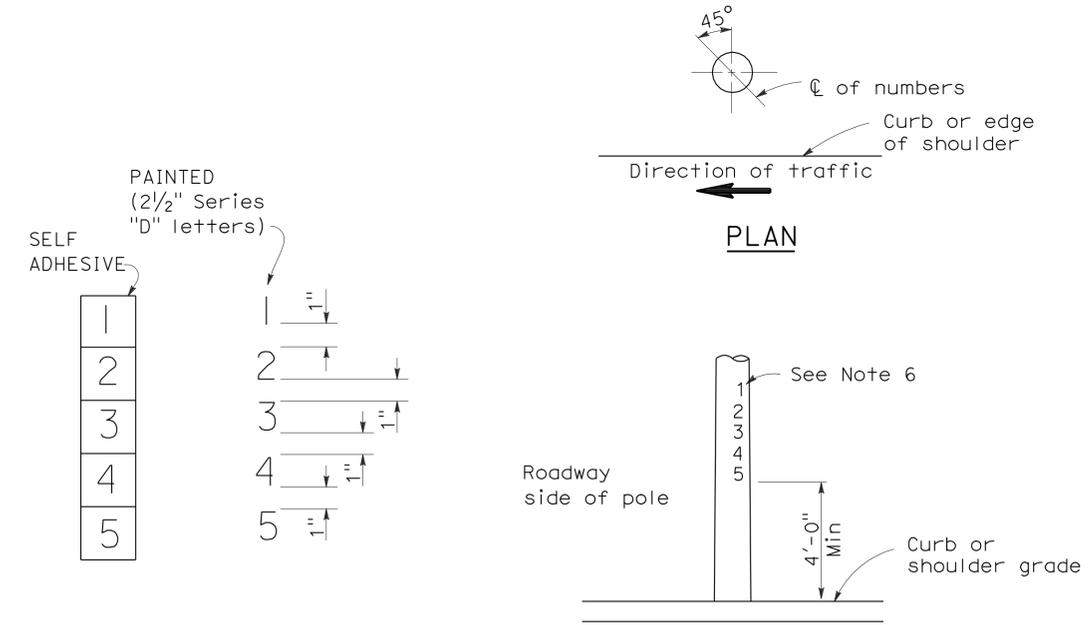
Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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 REGISTERED PROFESSIONAL ENGINEER
 Stanley P. Johnson
 No. C57793
 Exp. 3-31-08
 CIVIL
 STATE OF CALIFORNIA

To accompany plans dated 9-26-11

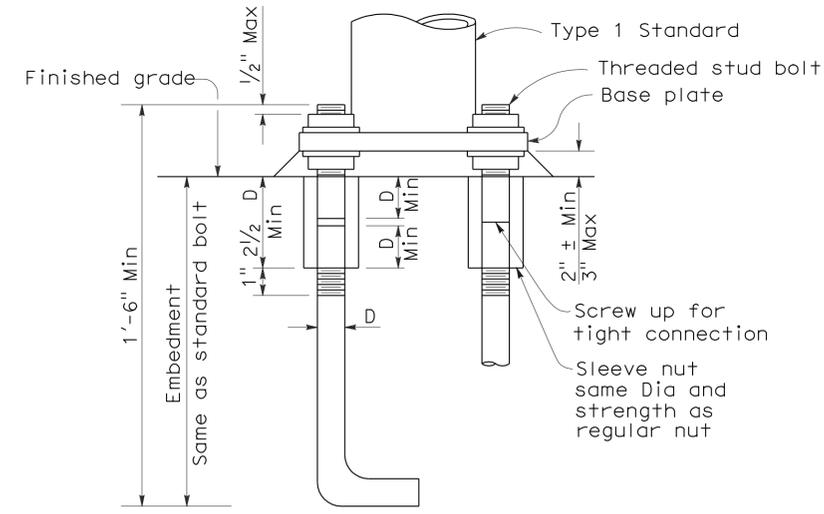


- NOTES:**
- Standards shall be 10'-0" ± 2" for vehicle signals and 7'-0" ± 2" for pedestrian signals unless otherwise noted on plans.
 - Top of standards shall be 4 1/2" OD.
 - Conduits shall extend 2" maximum above finished surface of foundation and for Types 1-A, 1-C and 1-D shall be sloped toward handhole.
 - Anchor bolts shall be bonded to conduit or grounding conductor.
 - Conduit between standard and adjacent pull box shall be 2" minimum.
 - Paint numbers on roadway side facing traffic when electrolier or post is left of direction of traffic.

TYPE 1 SIGNAL STANDARDS



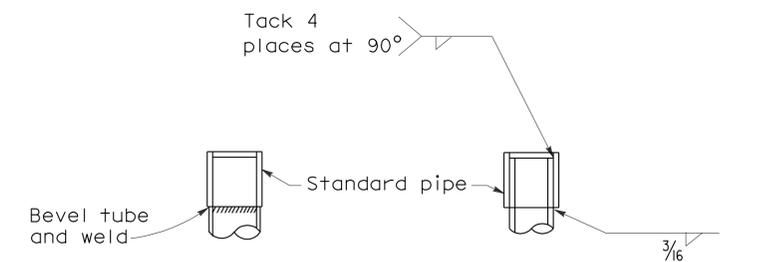
LOCATION OF EQUIPMENT NUMBERS ON STANDARDS AND POSTS



ANCHOR BOLTS WITH SLEEVE NUTS

Sleeve nuts to be used only when shown or specified on Project Plans

D = Diameter of anchor bolt



DETAIL J

Tube may be inserted into pipe or butted as required

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD TYPE 1 STANDARD AND EQUIPMENT NUMBERING)

NO SCALE

RSP ES-7B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-7B DATED MAY 1, 2006 - PAGE 438 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7B

2006 REVISED STANDARD PLAN RSP ES-7B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	Mrn	101	7.4	37	39

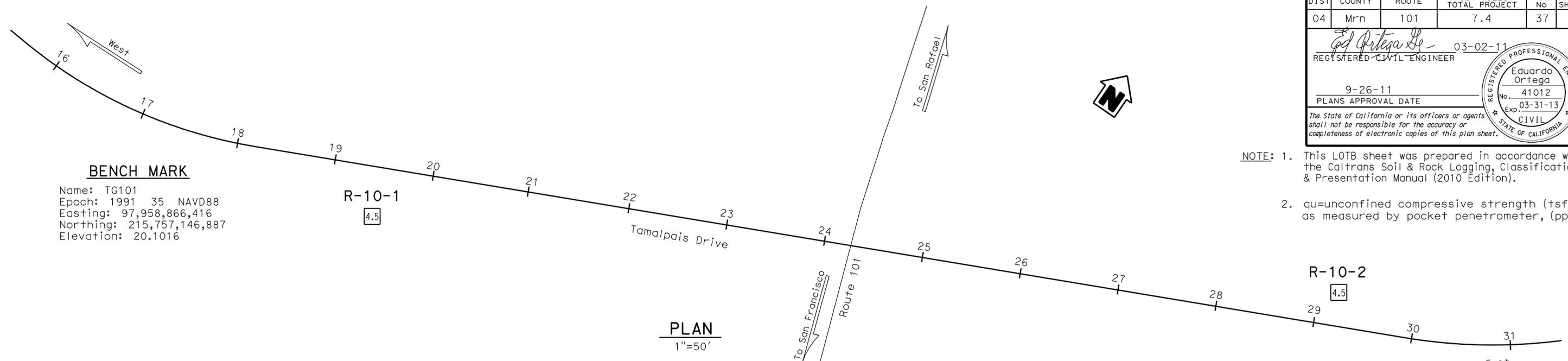
E. Ortega 03-02-11
 REGISTERED CIVIL ENGINEER

9-26-11
 PLANS APPROVAL DATE

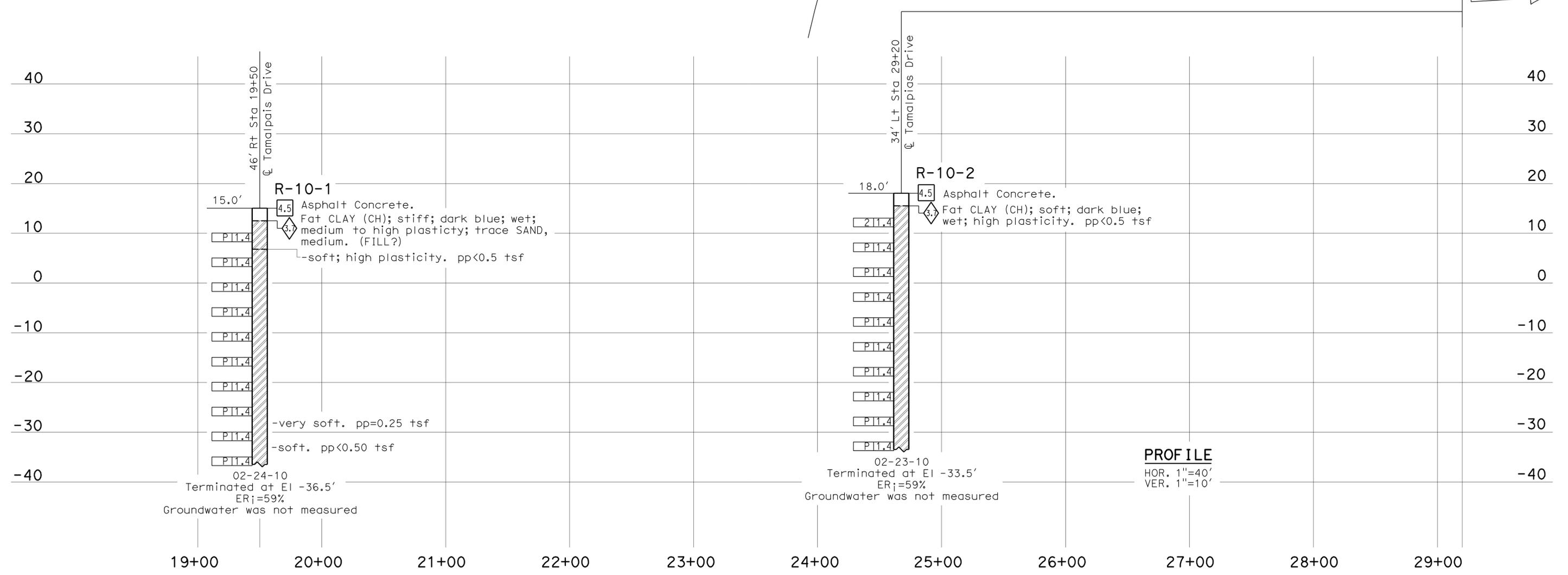
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REGISTERED PROFESSIONAL ENGINEER
 Eduardo Ortega
 No. 41012
 Exp. 03-31-13
 CIVIL
 STATE OF CALIFORNIA

- NOTE: 1. This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).
2. qu=unconfined compressive strength (tsf) as measured by pocket penetrometer, (pp).



BENCH MARK
 Name: TG101
 Epoch: 1991 35 NAVD88
 Easting: 97,958,866,416
 Northing: 215,757,146,887
 Elevation: 20.1016



ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		FOUNDATION INVESTIGATION	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds 11/10		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		LOG OF TEST BORINGS 1 OF 3	
NAME: M. Momenzadeh		CHECKED BY: R. Nashed		E. Ortega		DESIGN BRANCH		BRIDGE NO.	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 04 EA 4S5501		7.4		REVISION DATES	
				0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET OF	

USERNAME => s117606 DATE PLOTTED => 29-SEP-2011 TIME PLOTTED => 10:02
 FILE => 44s550x001.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	Mrn	101	7.4	38	39

Eduardo Ortega 03-02-11
 REGISTERED CIVIL ENGINEER DATE
 9-26-11
 PLANS APPROVAL DATE
 No. 41012
 Exp. 03-31-13
 CIVIL
 STATE OF CALIFORNIA

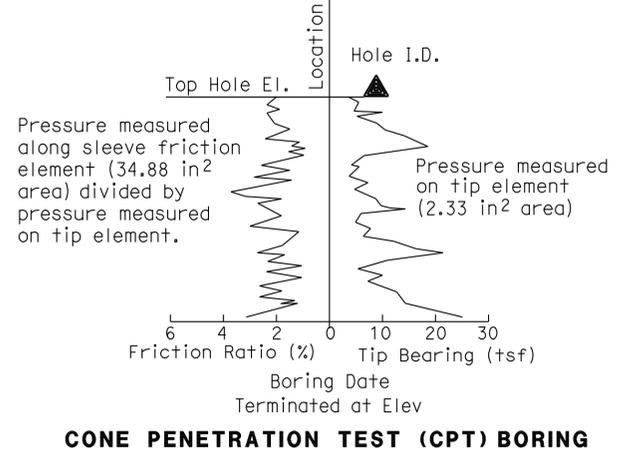
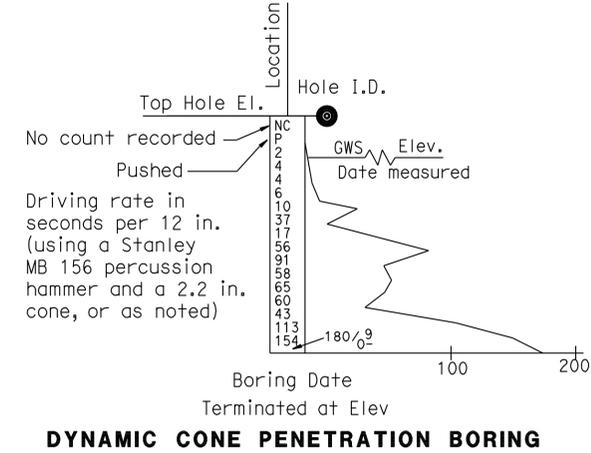
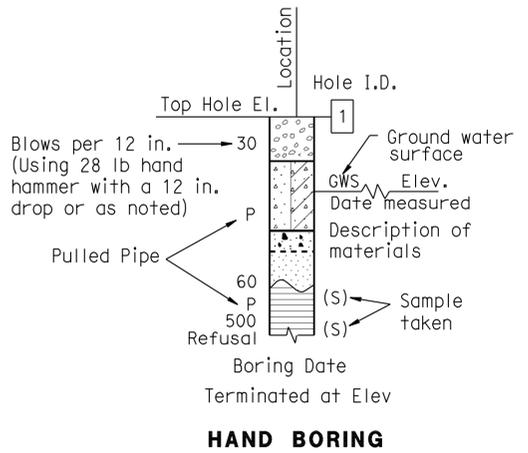
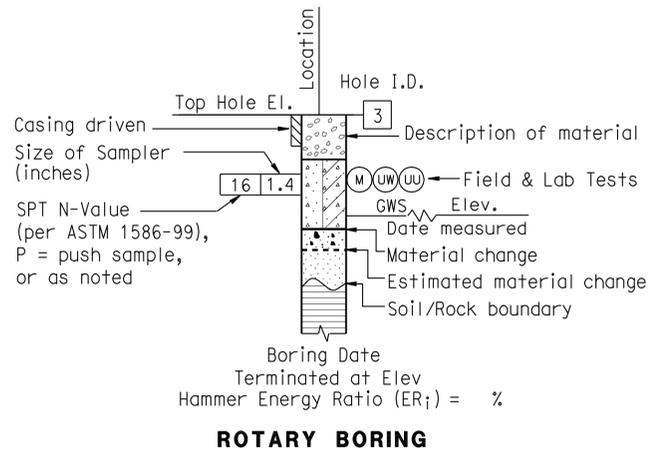
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778)
	O	Other (note on LOTB)

Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES OFFICE OF GEOTECHNICAL	BRIDGE NO.	FOUNDATION INVESTIGATION
	PREPARED BY: M. Reynolds 11/10	DEPARTMENT OF TRANSPORTATION	DESIGN BRANCH	POST MILE 7.4	LOG OF TEST BORINGS 2 of 3
GS LOTB SOIL LEGEND	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 04 EA 4S5501	FILE => 44s550x002.dgn	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES

USERNAME => s117606 DATE PLOTTED => 29-SEP-2011 TIME PLOTTED => 10:03

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	Mrn	101	7.4	39	39

Eduardo Ortega 03-02-11
 REGISTERED CIVIL ENGINEER DATE
 9-26-11
 PLANS APPROVAL DATE
 No. 41012
 Exp. 03-31-13
 CIVIL
 STATE OF CALIFORNIA
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GROUP SYMBOLS AND NAMES			
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	Well-graded GRAVEL		Lean CLAY
	Well-graded GRAVEL with SAND		Lean CLAY with SAND
	Poorly-graded GRAVEL		Lean CLAY with GRAVEL
	Poorly-graded GRAVEL with SAND		SANDY lean CLAY
	Well-graded GRAVEL with SILT		SANDY lean CLAY with GRAVEL
	Well-graded GRAVEL with SILT and SAND		GRAVELLY lean CLAY
	Well-graded GRAVEL with CLAY (or SILTY CLAY)		GRAVELLY lean CLAY with SAND
	Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SILTY CLAY
	Poorly-graded GRAVEL with SILT		SILTY CLAY with SAND
	Poorly-graded GRAVEL with SILT and SAND		SILTY CLAY with GRAVEL
	Poorly-graded GRAVEL with CLAY (or SILTY CLAY)		SANDY SILTY CLAY
	Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SANDY SILTY CLAY with GRAVEL
	SILTY GRAVEL		GRAVELLY SILTY CLAY
	SILTY GRAVEL with SAND		GRAVELLY SILTY CLAY with SAND
	CLAYEY GRAVEL		SILT
	CLAYEY GRAVEL with SAND		SILT with SAND
	SILTY, CLAYEY GRAVEL		SILT with GRAVEL
	SILTY, CLAYEY GRAVEL with SAND		SANDY SILT
	Well-graded SAND		SANDY SILT with GRAVEL
	Well-graded SAND with GRAVEL		GRAVELLY SILT
	Poorly-graded SAND		GRAVELLY SILT with SAND
	Poorly-graded SAND with GRAVEL		ORGANIC lean CLAY
	Well-graded SAND with SILT		ORGANIC lean CLAY with SAND
	Well-graded SAND with SILT and GRAVEL		ORGANIC lean CLAY with GRAVEL
	Well-graded SAND with CLAY (or SILTY CLAY)		SANDY ORGANIC lean CLAY
	Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		GRAVELLY ORGANIC lean CLAY
	Poorly-graded SAND with SILT		GRAVELLY ORGANIC lean CLAY with SAND
	Poorly-graded SAND with SILT and GRAVEL		ORGANIC fat CLAY
	Poorly-graded SAND with CLAY (or SILTY CLAY)		ORGANIC fat CLAY with SAND
	Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		ORGANIC fat CLAY with GRAVEL
	SILTY SAND		SANDY ORGANIC fat CLAY
	SILTY SAND with GRAVEL		SANDY ORGANIC fat CLAY with GRAVEL
	CLAYEY SAND		GRAVELLY ORGANIC fat CLAY
	CLAYEY SAND with GRAVEL		GRAVELLY ORGANIC fat CLAY with SAND
	SILTY, CLAYEY SAND		ORGANIC elastic SILT
	SILTY, CLAYEY SAND with GRAVEL		ORGANIC elastic SILT with SAND
	PEAT		ORGANIC elastic SILT with GRAVEL
	PEAT		SANDY ORGANIC elastic SILT
	COBBLES		GRAVELLY ORGANIC elastic SILT
	COBBLES and BOULDERS		GRAVELLY ORGANIC elastic SILT with SAND

FIELD AND LABORATORY TESTING	
(C)	Consolidation (ASTM D 2435)
(CL)	Collapse Potential (ASTM D 5333)
(CP)	Compaction Curve (CTM 216)
(CR)	Corrosivity Testing (CTM 643, CTM 422, CTM 417)
(CU)	Consolidated Undrained Triaxial (ASTM D 4767)
(DS)	Direct Shear (ASTM D 3080)
(EI)	Expansion Index (ASTM D 4829)
(M)	Moisture Content (ASTM D 2216)
(OC)	Organic Content-% (ASTM D 2974)
(P)	Permeability (CTM 220)
(PA)	Particle Size Analysis (ASTM D 422)
(PI)	Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
(PL)	Point Load Index (ASTM D 5731)
(PM)	Pressure Meter
(R)	R-Value (CTM 301)
(SE)	Sand Equivalent (CTM 217)
(SG)	Specific Gravity (AASHTO T 100)
(SL)	Shrinkage Limit (ASTM D 427)
(SW)	Swell Potential (ASTM D 4546)
(UC)	Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
(UU)	Unconsolidated Undrained Triaxial (ASTM D 2850)
(UW)	Unit Weight (ASTM D 4767)

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N ₆₀ (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

PARTICLE SIZE		
Description	Size (in.)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF GEOTECHNICAL DESIGN BRANCH	BRIDGE NO.	FOUNDATION INVESTIGATION
				POST MILE	
	PREPARED BY: M. Reynolds 11/10			7.4	
GS LOTB SOIL LEGEND	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 04 EA 4S5501			REVISION DATES

USERNAME => s117606 DATE PLOTTED => 29-SEP-2011 TIME PLOTTED => 10:03
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