

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	185	5.3/5.7	1	23



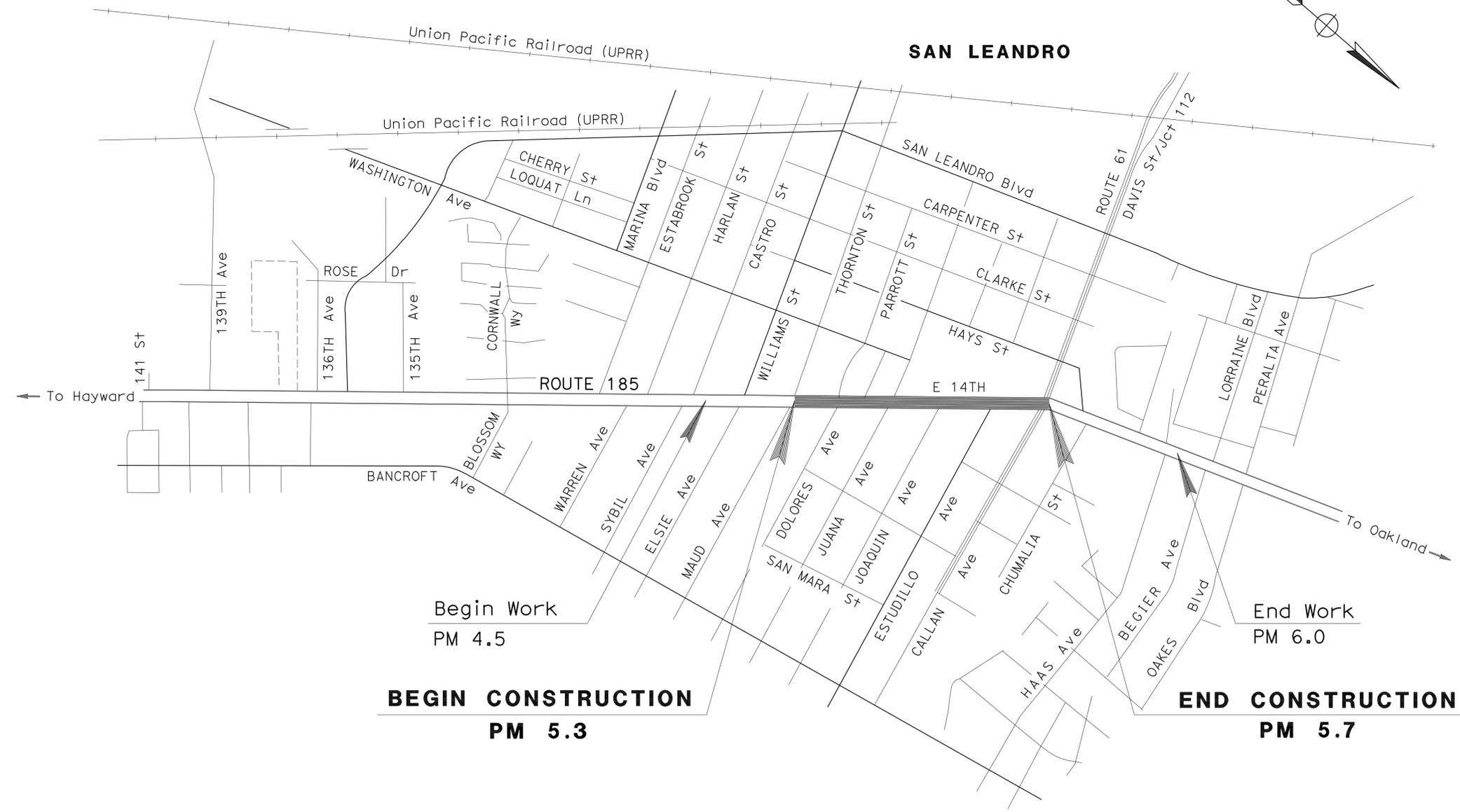
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE SHEET AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-4	CONSTRUCTION DETAILS
5	CONSTRUCTION AREA SIGNS
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9	SUMMARY OF QUANTITIES
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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN ALAMEDA COUNTY
IN SAN LEANDRO
FROM THORNTON STREET TO DAVIS STREET

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

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER
RAMSES SARGISS

DESIGN ENGINEER
ROBERT CAMARGO

Robert Camargo 1-17-12
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER

January 23, 2012
 PLANS APPROVAL DATE

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



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

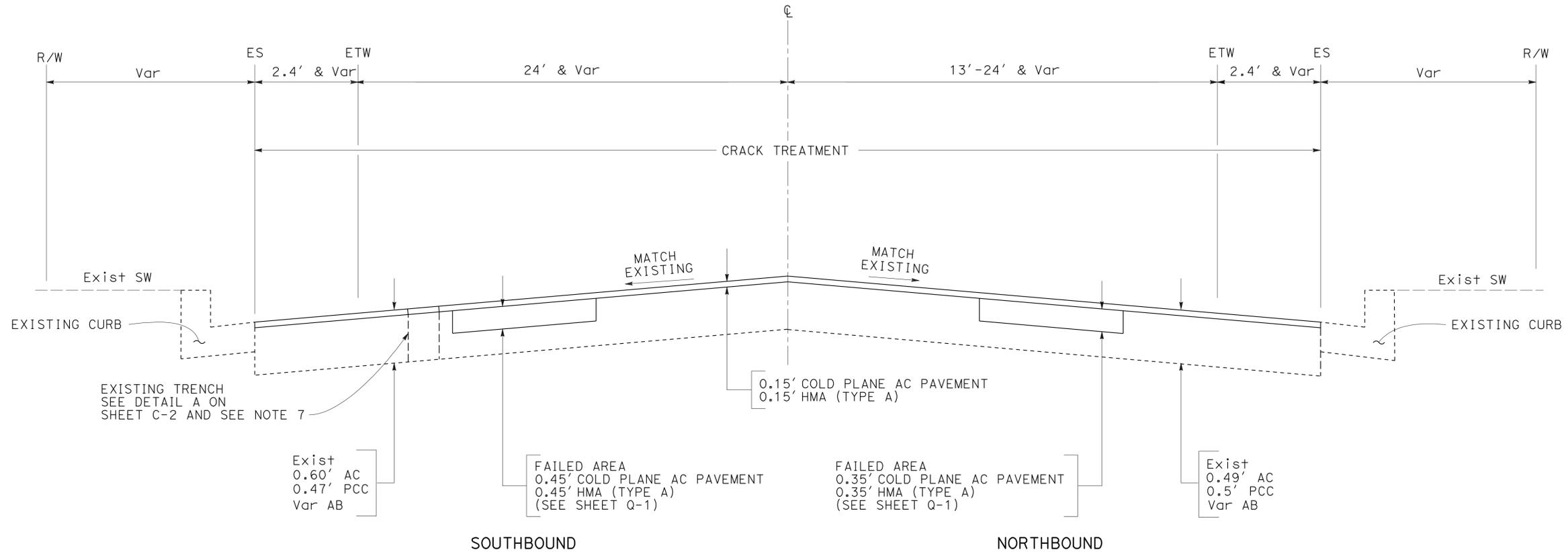
DATE PLOTTED => 25-JAN-2012 TIME PLOTTED => 14:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	185	5.3/5.7	2	23

Robert Camargo 1-17-12
 REGISTERED CIVIL ENGINEER DATE
 1-23-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Robert Camargo
 No. 34402
 Exp. 9-30-13
 CIVIL
 STATE OF CALIFORNIA

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



NOTES:

- DIMENSIONS OF PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- COLD PLANING SHOULD BE LIMITED WITHIN ASPHALT CONCRETE, AND Max 0.6'.
- THE EXISTING PAVEMENT DELINEATION WILL BE REPLACED IN KIND AT THE SAME LOCATION
- SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- EXISTING ASPHALT CONCRETE SHALL BE REMOVED OVER THE TRENCH AND CONTRACTOR IS RESPONSIBLE FOR MEASURING THE DEPTH OF ASPHALT CONCRETE.

ROUTE 185
(PM 5.3/5.7)

TYPICAL CROSS SECTIONS
NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	AMARJIT BRAR	REVISOR	DATE
MAINTENANCE	ROBERT CAMARGO	DESIGNER	DATE
FUNCTIONAL SUPERVISOR	ROBERT CAMARGO	CHECKED BY	
		CALCULATED/DESIGNED BY	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

AMARJIT BRAR
ROBERT CAMARGO

FUNCTIONAL SUPERVISOR
ROBERT CAMARGO

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

LEGEND:


 0.15' COLD PLANE AC PAVEMENT
 0.15' HMA (TYPE A)

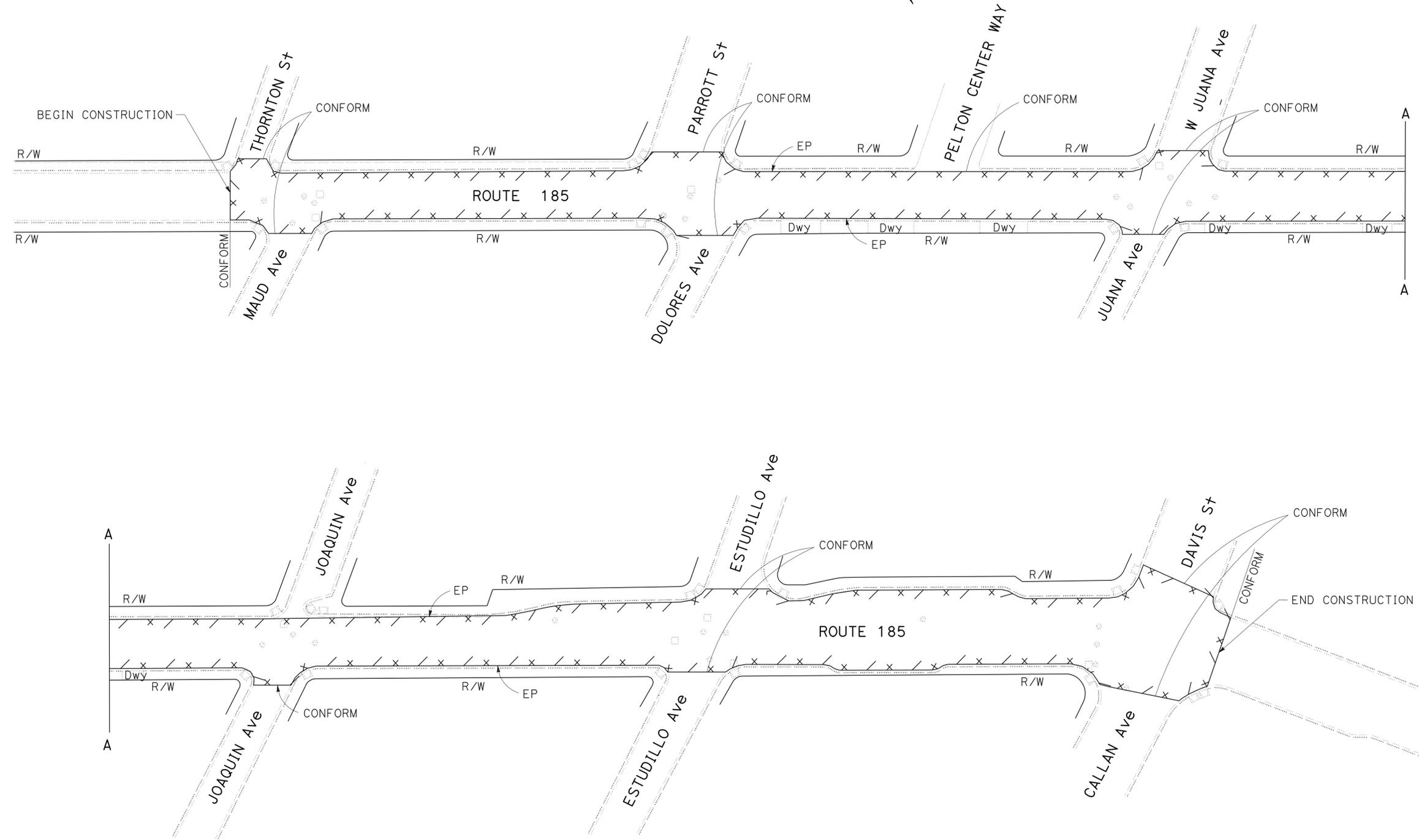
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	185	5.3/5.7	3	23

Robert Camargo 1-17-12
 REGISTERED CIVIL ENGINEER DATE

1-23-12
 PLANS APPROVAL DATE

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 COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Robert Camargo
 No. 34402
 Exp. 9-30-13
 CIVIL
 STATE OF CALIFORNIA



CONSTRUCTION DETAILS
NO SCALE

C-1

LAST REVISION DATE PLOTTED => 25-JAN-2012
 01-18-12 TIME PLOTTED => 14:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	185	5.3/5.7	4	23

REGISTERED CIVIL ENGINEER	DATE
Robert Camargo	1-17-12
PLANS APPROVAL DATE	
	1-23-12

REGISTERED PROFESSIONAL ENGINEER
Robert Camargo
No. 34402
Exp. 9-30-13
CIVIL

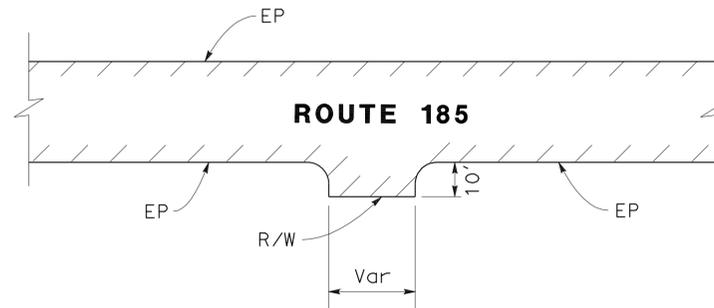
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

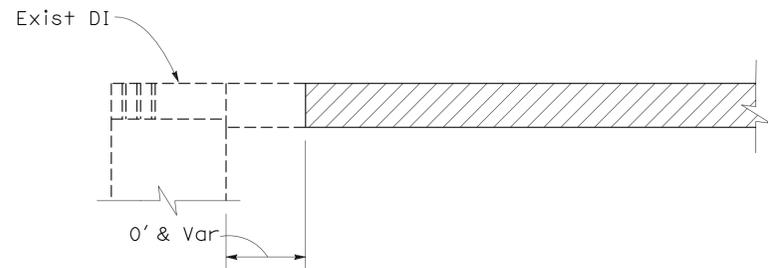
- 0.15' COLD PLANE EXISTING PAVEMENT
- 0.15' PLACE HMA (TYPE A)



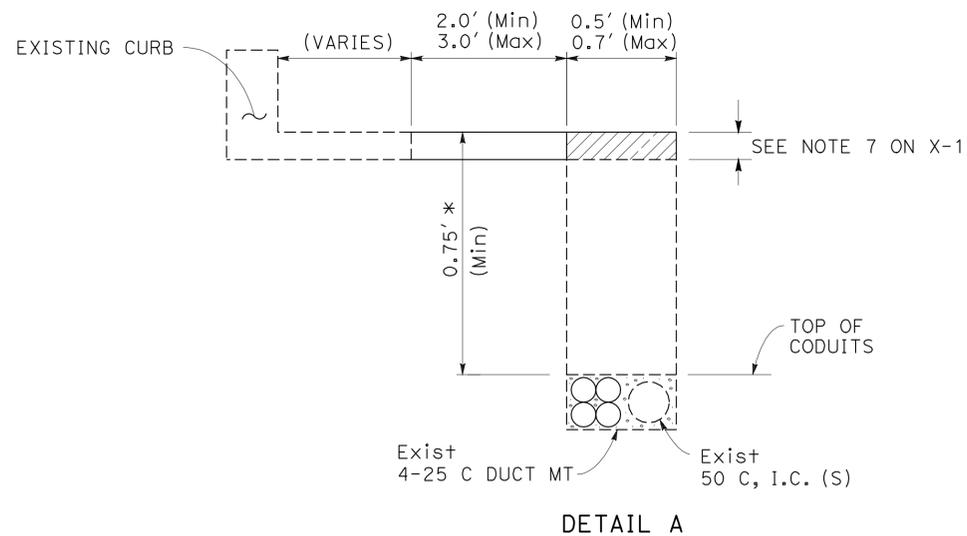
CONFORM DETAIL AT BEGIN AND END OF PROJECT LIMIT



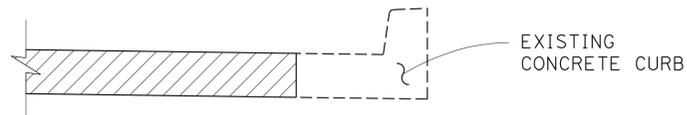
LIMIT OF PAVING CONFORM AT INTERSECTION



PAVING CONFORM AT DRAINAGE INLETS



PAVING DETAIL AT EXISTING TRENCH BETWEEN THORNTON St AND DAVIS St



CONFORM DETAIL AT CONCRETE CURB AND GUTTER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 FUNCTIONAL SUPERVISOR: ROBERT CAMARGO
 CALCULATED/DESIGNED BY: ROBERT CAMARGO
 CHECKED BY:
 AMARJIT BRAR
 ROBERT CAMARGO
 REVISED BY: --
 DATE REVISED: --
 USERNAME => s135696
 DGN FILE => 0412000190ga002.dgn

CONSTRUCTION DETAILS
NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: LOURDES DAVID
 CALCULATED/DESIGNED BY: CLAUDIA FANG
 CHECKED BY: FLORANTE PEREZ
 REVISED BY: --
 DATE REVISED: --

LEGEND:

X CONSTRUCTION AREA SIGN

NOTE:

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

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

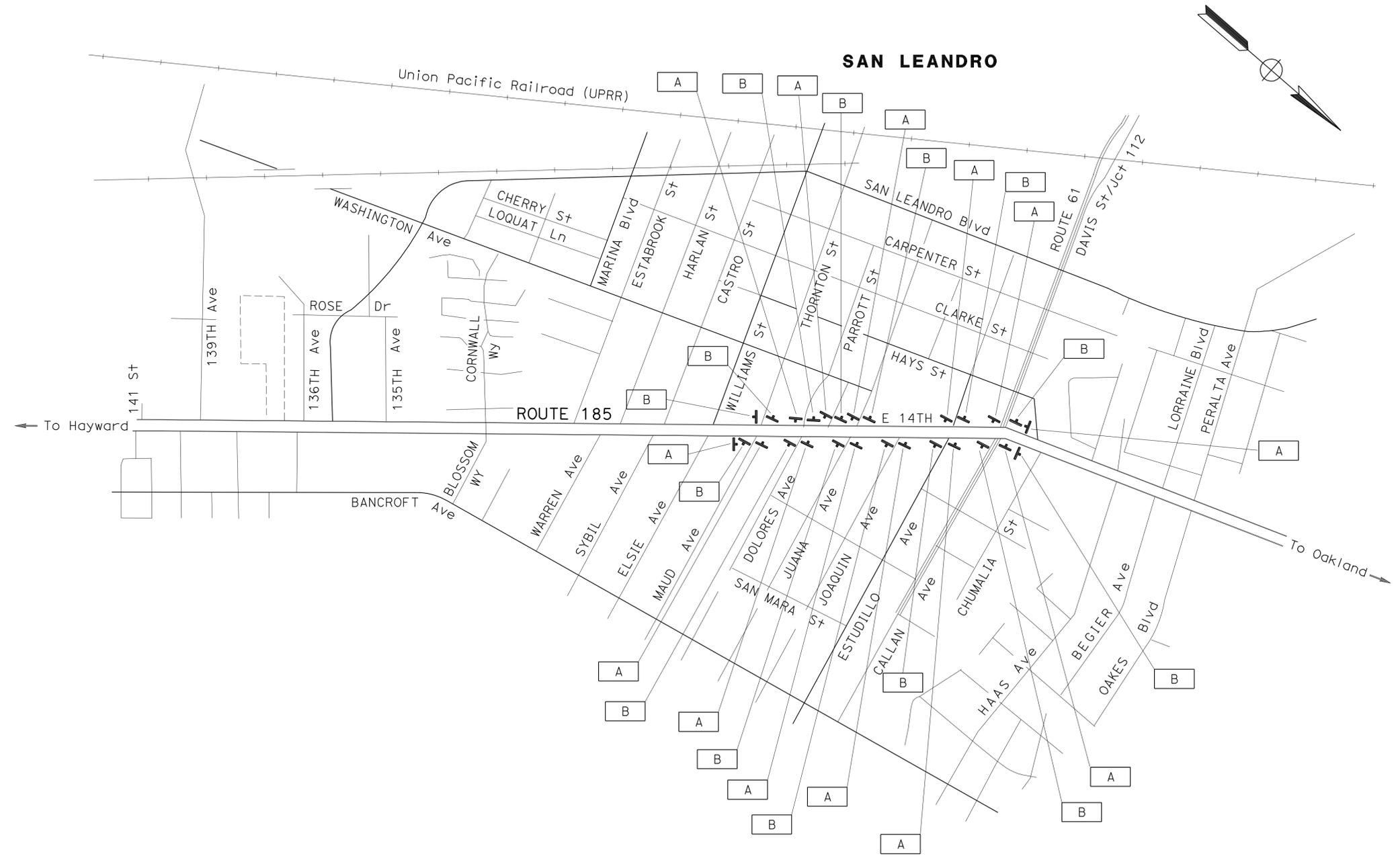
SIGN	SIGN CODE	MESSAGE	PANEL SIZE	NUMBER OF POST AND SIZE	No. OF SIGNS
A	W20-1	ROAD WORK AHEAD	36" x 36"	1 - 4" x 6"	13
B	G20-2	END ROAD WORK	36" x 18"	1 - 4" x 4"	14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	185	5.3/5.7	5	23

1-23-12
 REGISTERED CIVIL ENGINEER DATE
 1-23-12
 PLANS APPROVAL DATE

Florante P. Perez
 No. 41030
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

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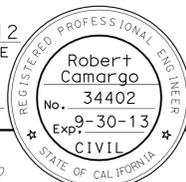
CONSTRUCTION AREA SIGNS
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

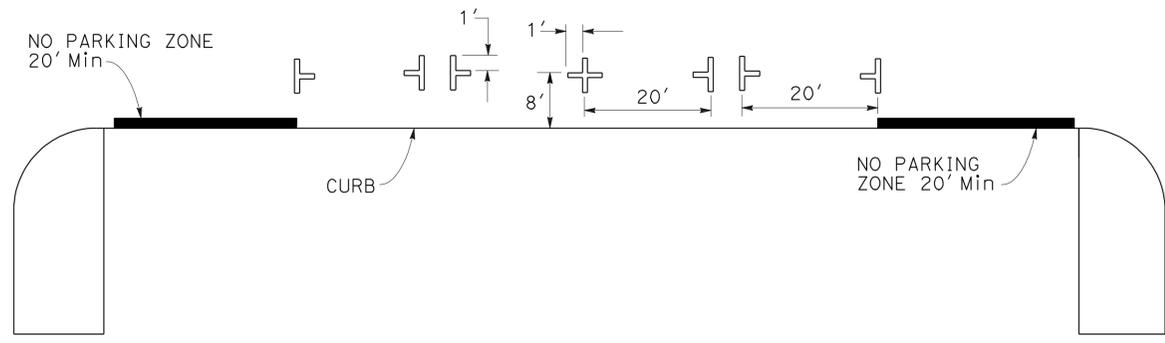
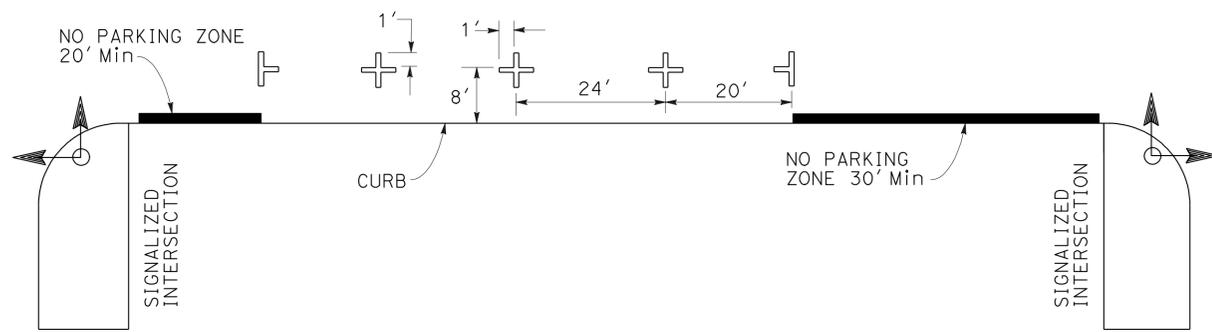
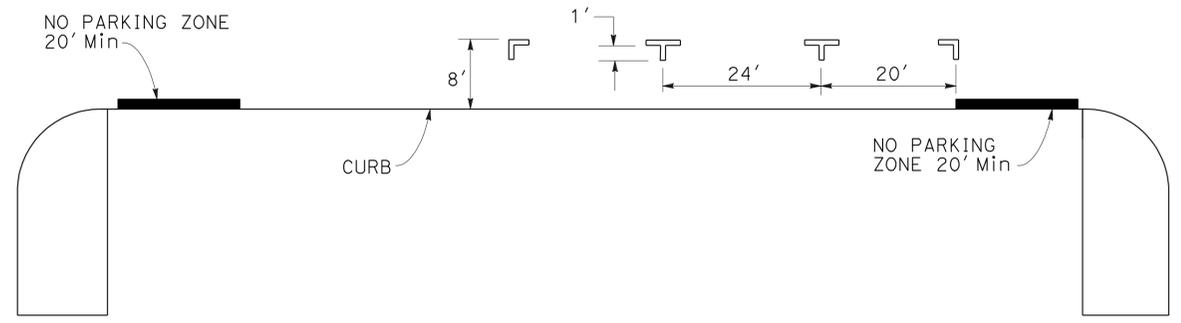
CS-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	185	5.3/5.7	7	23

Robert Camargo 1-17-12
 REGISTERED CIVIL ENGINEER DATE
 1-23-12
 PLANS APPROVAL DATE



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TYPICAL PARKING STALL MARKINGS

NOTES:

1. FOR PARKING STALLS ALONG THE LEFT SIDE CURB ON ON-WAY STREETS, MARKING MAY BE PLACED ON THE CURB DELINEATING THE END OF THE INDIVIDUAL STALLS.
2. ALL STALL MARKINGS ARE MADE WITH 4 INCH WIDE WHITE LINES. THE SHAPE IS OPTIONAL.
3. THE PARKING STALL CROSS LINE, 8 FT+ FROM THE CURB, MAY BE CONTINUOUS LONGITUDINALLY.

PAVEMENT DELINEATION DETAILS
 NO SCALE

PDD-1

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

LAST REVISION DATE PLOTTED => 25-JAN-2012
 01-05-12 TIME PLOTTED => 14:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	185	5.3/5.7	9	23

Robert Camargo 1-17-12
REGISTERED CIVIL ENGINEER DATE

1-23-12
PLANS APPROVAL DATE

Robert Camargo
No. 34402
Exp. 9-30-13
CIVIL

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**COLD PLANE AC PAVEMENT
AND HMA (TYPE A) ON NORTHBOUND (FAILED AREA)**

LOCATION (POST MILE)	WIDTH (N)	LENGTH (N)	DEPTH (N)	COLD PLANE AC PAVEMENT (1)	HMA (TYPE A) (1)	TACK COAT (1)	LANE NUMBER
				SQYD	TON		
THORNTON St TO PARROTT St/DOLORES Ave (5.34/5.42)	10	80	0.35	88.89	21.00	0.07	1
	13	25	0.35	36.11	8.53	0.03	1
PARROTT St/DOLORES Ave TO W JUANA Ave (5.42/5.50)	10	25	0.35	27.78	6.56	0.02	1
	10	45	0.35	50.00	11.81	0.04	1
	11	25	0.35	30.56	7.22	0.03	2
	8	20	0.35	17.78	4.20	0.01	2
W JUANA Ave TO JOAQUIN Ave (5.50/5.57)	8	75	0.35	66.67	15.75	0.06	2
	10	50	0.35	55.56	13.13	0.05	1
	8	20	0.35	17.78	4.20	0.01	2
JOAQUIN Ave TO ESTUDILLO Ave (5.57/5.65)	8	70	0.35	62.22	14.70	0.05	2
	10	65	0.35	72.22	17.06	0.06	2
	10	25	0.35	27.78	6.56	0.02	1
ESTUDILLO Ave TO DAVIS St (5.65/5.73)	12	35	0.35	46.67	11.03	0.04	1
	13	50	0.35	72.22	17.06	0.06	2
	10	35	0.35	38.89	9.19	0.03	2
	10	85	0.35	94.44	22.31	0.08	1
	11	110	0.35	134.44	31.76	0.11	1
	8	40	0.35	35.56	8.40	0.03	2
	8	35	0.35	31.11	7.35	0.03	2
	9	20	0.35	20.00	4.73	0.02	2
10	70	0.35	77.78	18.38	0.06	LEFT TURN	
10	40	0.35	44.44	10.50	0.04	INTERSECTION	
10	80	0.35	88.89	21.00	0.07		
SUB TOTAL				1237.78	292.43	1.03	

**COLD PLANE AC PAVEMENT
AND HMA (TYPE A) ON SOUTHBOUND (FAILED AREA)**

LOCATION (POST MILE)	WIDTH (N)	LENGTH (N)	DEPTH (N)	COLD PLANE AC PAVEMENT (1)	HMA (TYPE A) (1)	TACK COAT (1)	LANE NUMBER
				SQYD	TON		
THORNTON St TO PARROTT St/DOLORES Ave (5.34/5.42)	14	30	0.45	46.67	14.18	0.04	2
	14	25	0.45	38.89	11.81	0.03	2
	14	50	0.45	77.78	23.63	0.06	2
PARROTT St/DOLORES Ave TO W JUANA Ave (5.42/5.50)	14	20	0.45	31.11	9.45	0.03	2
	20	65	0.45	144.44	43.88	0.12	2
	12	80	0.45	106.67	32.40	0.09	2
	12	60	0.45	80.00	24.30	0.07	2
	8	30	0.45	26.67	8.10	0.02	2
	10	50	0.45	55.56	16.88	0.05	2
W JUANA Ave TO JOAQUIN Ave (5.50/5.57)	20	50	0.45	111.11	33.75	0.09	2
	18	135	0.45	270.00	82.01	0.22	2
	8	60	0.45	53.33	16.20	0.04	2
	12	20	0.45	26.67	8.10	0.02	2
JOAQUIN Ave TO ESTUDILLO Ave (5.57/5.65)	8	40	0.45	35.56	8.40	0.03	2
	8	65	0.45	57.78	17.55	0.05	2
	10	25	0.45	27.78	8.44	0.02	1
	11	35	0.45	42.78	12.99	0.04	1
ESTUDILLO Ave TO DAVIS St (5.65/5.73)	11	90	0.45	110.00	33.41	0.09	2
	9	55	0.45	55.00	16.71	0.05	2
	8	40	0.45	35.56	10.80	0.03	2
	11	65	0.45	79.44	24.13	0.07	2
11	30	0.45	36.67	11.14	0.03	2	
SUB TOTAL				1549.44	470.66	1.29	

(N) = NOT A SEPARATE ITEM, FOR INFORMATION ONLY.
(1) = QUANTITIES ARE INCLUDED IN SUMMARY OF QUANTITIES TABLE.

SUMMARY OF ROADWAY QUANTITIES

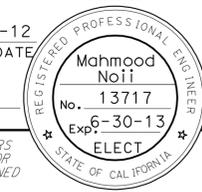
LOCATION	COLD PLANE AC PAVEMENT		HMA (TYPE A)		TACK COAT		CRACK TREATMENT
	MAIN LINE	FAILED AREA	MAIN LINE	FAILED AREA	MAIN LINE	FAILED AREA	
	SQYD		TON		LNMI		
NORTHBOUND	6661.44	1237.78	674.47	292.43	3.33	1.03	0.5
SOUTHBOUND	6924.33	1549.44	701.09	470.66	3.46	1.29	0.5
TOTAL	16372.99		2138.65		9.11		1.0

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
MAINTENANCE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	185	5.3/5.7	10	23
 REGISTERED ELECTRICAL ENGINEER DATE 1-18-12					
1-23-12 PLANS APPROVAL DATE					
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ELECTRICAL INDEX

- E-1 LOOP DETECTOR REPLACEMENT (ELECTRICAL INDEX, NOTES, SYMBOLS, LEGEND, DETAIL, DETECTOR IDENTIFICATION AND LANE DESCRIPTION)
- E-2 LOOP DETECTOR REPLACEMENT (TRAFFIC SIGNAL)

GENERAL NOTES

- AT LEAST THREE WORKING DAYS PRIOR TO PERFORMING ANY WORK ON EACH EXISTING SYSTEM, THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATION, ELECTRICAL AND SIGNAL MAINTENANCE SUPERINTENDENT, PHONE (415) 330-6500
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE LOOP DETECTORS TO BE REPLACED PRIOR TO REPAVING.
- THE CONTRACTOR SHALL PROVIDE TWO REPORTS PER LOCATION ON THE STATUS OF EACH DETECTOR LOOP REPLACEMENT SHOWING CONTINUITY AND INSULATION RESISTANCE READINGS. THE REPORTS SHALL BE SUBMITTED TO THE ENGINEER, ONE BEFORE STARTING WORK AND THE OTHER AFTER WORK HAS BEEN COMPLETED AT EACH LOCATION.
- FOR INSTALLING DETECTOR LOOP IN PRECASTE CONCRETE PAVEMENT OR PRECASTE POST-TENSION CONCRETE PAVEMENT, SLOTS SHALL BE FILLED WITH EPOXY.
- PM IS NOT TO BE USED TO DETERMINE DETECTOR LOOP EXACT LOCATIONS.
- VERIFY EXACT LOCATION OF EACH EXISTING DETECTOR, TERMINATION PULL BOX AND DLC, INCLUDING EACH LOOP CONDUCTOR SPLICE TO DLC, AS FIRST ORDER OF WORK.

PROJECT NOTES

- AB EXISTING DETECTORS AND INSTALL NEW DETECTORS. SPLICE NEW LOOP CONDUCTORS TO CORRESPONDING DLC IN TERMINATION PULL BOX. VERIFY IDENTIFICATION OF EXISTING DLC BEFORE CONNECTING TO CORRESPONDING LOOP CONDUCTORS.

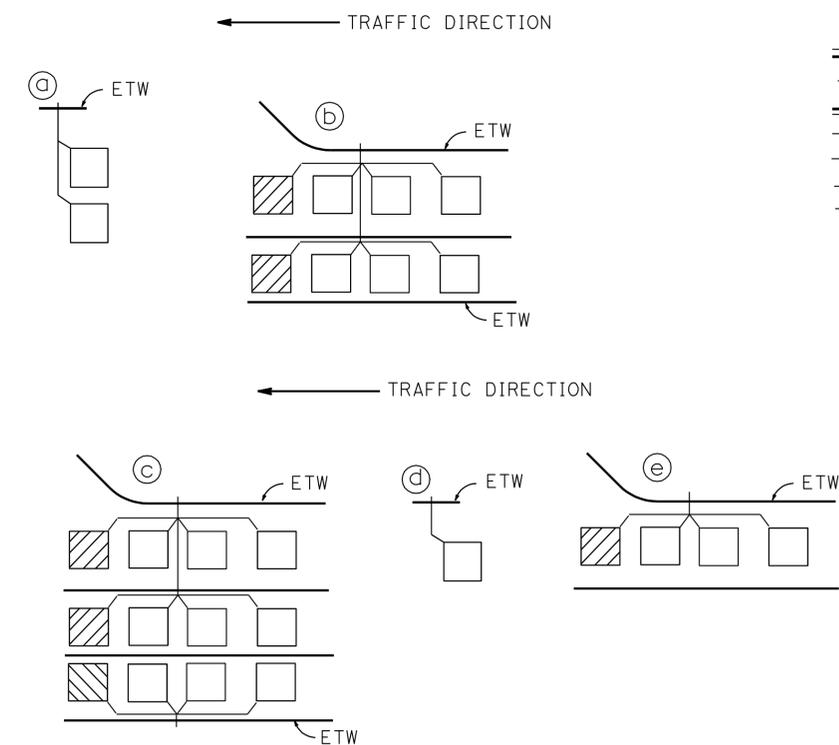
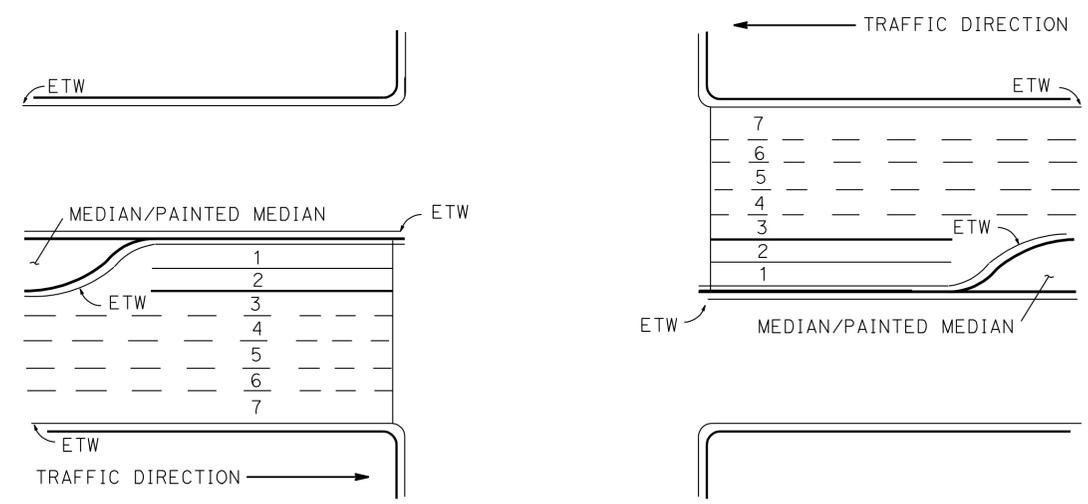
LEGEND

ETW	EDGE OF TRAVELED WAY
NB	NORTH BOUND
SB	SOUTH BOUND
EB	EAST BOUND
WB	WEST BOUND

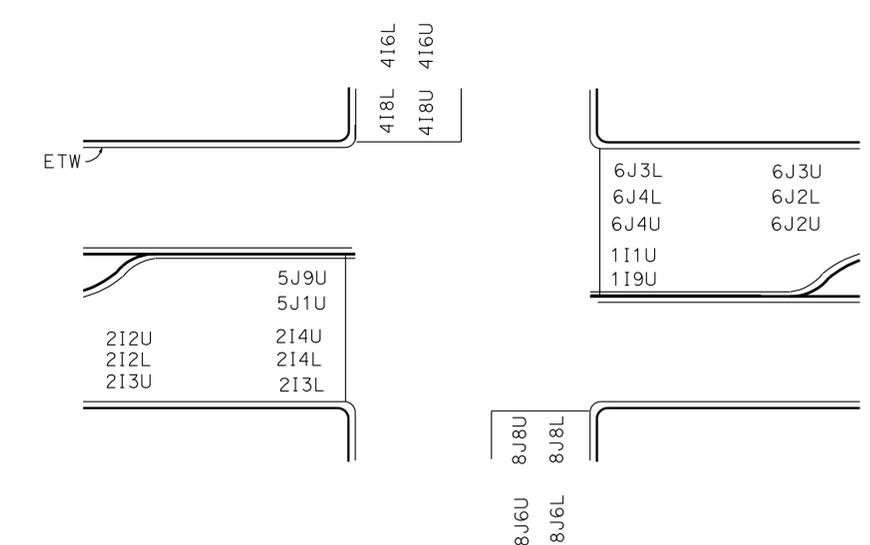
LANE DESCRIPTION

NUMBER OF LANES FROM LEFT WITH RESPECT TO TRAFFIC DIRECTION

- 1= FIRST LANE FROM LEFT
- 2= SECOND LANE FROM LEFT
- 3= THIRD LANE FROM LEFT
- 4= FOURTH LANE FROM LEFT
- 5= FIFTH LANE FROM LEFT
- T= THROUGH TRAFFIC MOVEMENT
- L= LEFT TURN TRAFFIC MOVEMENT
- R= RIGHT TURN TRAFFIC MOVEMENT
- B= BICYCLE LANE



DETECTOR IDENTIFICATION (TYPICAL) LOOP DETECTOR REPLACEMENT (ELECTRICAL INDEX, NOTES, SYMBOLS, LEGEND, DETECTOR IDENTIFICATION AND LANE DESCRIPTION)



APPROVED FOR ELECTRICAL WORK ONLY

E-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	185	5.3/5.7	11	23

M. Noor 1-18-12
 REGISTERED ELECTRICAL ENGINEER DATE
 1-23-12
 PLANS APPROVAL DATE

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LOOP DETECTOR REPLACEMENT

COUNTY ALA	ROUTE 185	KP 5.3/5.7	ROUTE 185 NB & DOLORES Ave/PARROTT STREET INTERSECTION				ROUTE 185 SB & DOLORES Ave/PARROTT STREET INTERSECTION				ROUTE 185 NB & JUANA Ave INTERSECTION				ROUTE 185 SB & JUANA Ave INTERSECTION				ROUTE 185 NB & JOAQUIN Ave INTERSECTION											
			ADVANCE DETECTOR		INTERSECTION DETECTOR		ADVANCE DETECTOR		INTERSECTION DETECTOR		ADVANCE DETECTOR		INTERSECTION DETECTOR		ADVANCE DETECTOR		INTERSECTION DETECTOR		ADVANCE DETECTOR		INTERSECTION DETECTOR									
LANE NUMBER (FROM LEFT WITH RESPECT TO DIRECTION OF TRAFFIC. SEE E-1 FOR LANE DESCRIPTION)			1T	1L			1T	1T	1 T/R	1 T/L			1L	1T	1 T/R	1 T/L			1L	1T	1 T/R	1 T/L			1L	1T	1 T/R	1 T/L		
DISTANCE FROM LIMIT LINE (FEET) (ADVANCE LOOP)			285				285				285				285				285											
DETECTORS: A. FRONT DETECTOR B. INTERMEDIATE DETECTOR C. ADVANCE DETECTOR D. COUNT DETECTOR			C		A		C		A		C		A		C		A		C		A		C		A		C		A	
PULL BOX LOCATION A. RIGHT SHOULDER B. RIGHT SIDE WALK C. MEDIAN D. LEFT SHOULDER E. LEFT SIDE WALK			B		B		B		B		B		B		B		B		B		B		B		B		B		B	
HANDHOLE LOCATION A. RIGHT SHOULDER/(RIGHT ETW) B. LEFT SHOULDER/(LEFT ETW) C. LANE STRIP D. PAINTED MEDIAN E. NONE			A		A		A		A		A		A		A		A		A		A		A		A		A		A	
DETECTOR TYPE & QUANTITY			1		3		1		1		3		3		1		1		1		1		3		3		1		1	
DETECTOR CONFIGURATION (SEE E-1) a, b, c, d, e			d		e		a		b		a		b		a		b		a		b		a		b		a		b	
PULL BOX REPLACEMENT (Y=YES N=NO)			N		N		N		N		N		N		N		N		N		N		N		N		N		N	
HANDHOLE REPLACEMENT (Y=YES N=NO)			Y		Y		Y		Y		Y		Y		Y		Y		Y		Y		Y		Y		Y		Y	
TOTAL LOOP DETECTORS			1		4		1		1		4		4		1		1		4		4		1		1		4		4	
COMMENTS			1				1				1				1				1				1				1			

LOOP DETECTOR REPLACEMENT

COUNTY ALA	ROUTE 185	KP 5.3/5.7	ROUTE 185 SB & JOAQUIN Ave INTERSECTION					ROUTE 185 NB & ESTUDILLO Ave INTERSECTION					ROUTE 185 SB & ESTUDILLO Ave INTERSECTION					ROUTE 185 NB & CALLAN Ave INTERSECTION					ROUTE 185 SB & CALLAN Ave/DAVIS STREET INTERSECTION																	
			ADVANCE DETECTOR		INTERSECTION DETECTOR			ADVANCE DETECTOR		INTERSECTION DETECTOR			ADVANCE DETECTOR		INTERSECTION DETECTOR			ADVANCE DETECTOR		INTERSECTION DETECTOR			ADVANCE DETECTOR		INTERSECTION DETECTOR															
LANE NUMBER (FROM LEFT WITH RESPECT TO DIRECTION OF TRAFFIC. SEE E-1 FOR LANE DESCRIPTION)			1T	1T	1 T/R	1 T/L			1T	1T	1 T/R	1 T/L	1T	1L	1T	1 T/R	1 T/L	1T	1L	1T	1 T/R	1 T/L	1T	1L	1T	1 T/R	1 T/L	1T	1L	1T	1 T/R	1 T/L	1T							
DISTANCE FROM LIMIT LINE (FEET) (ADVANCE LOOP)			285					285					285					285					285																	
DETECTORS: A. FRONT DETECTOR B. INTERMEDIATE DETECTOR C. ADVANCE DETECTOR D. COUNT DETECTOR			C		A			C		A			C		A			C		A			C		A			C		A			C		A					
PULL BOX LOCATION A. RIGHT SHOULDER B. RIGHT SIDE WALK C. MEDIAN D. LEFT SHOULDER E. LEFT SIDE WALK			B		B			B		B/E			A		B/E			A		B/E			A		B/E			A		B/E			A		B/E					
HANDHOLE LOCATION A. RIGHT SHOULDER/(RIGHT ETW) B. LEFT SHOULDER/(LEFT ETW) C. LANE STRIP D. PAINTED MEDIAN E. NONE			A		A			A		A/D			A		A/D			A		A/D			A		A/D			A		A/D			A		A/D					
DETECTOR TYPE & QUANTITY			1		1			3		3			1		1			1		1			3		3			1		1			3		3					
DETECTOR CONFIGURATION (SEE E-1) a, b, c, d, e			a		b			a		c			a		c			a		c			a		c			a		c			a		c					
PULL BOX REPLACEMENT (Y=YES N=NO)			N		N			N		N			N		N			N		N			N		N			N		N			N		N					
HANDHOLE REPLACEMENT (Y=YES N=NO)			Y		Y			Y		*Y			Y		*Y			Y		*Y			Y		*Y			Y		*Y			Y		*Y					
TOTAL LOOP DETECTORS			1		1			4		4			4		4			1		1			4		4			4		1			1			4		4		
COMMENTS			1					1		* TWO HANDHOLE			1		* TWO HANDHOLE			1		* TWO HANDHOLE			1		* TWO HANDHOLE			1		* TWO HANDHOLE			1		* TWO HANDHOLE					

LOOP DETECTOR REPLACEMENT (TRAFFIC SIGNAL)

TOTAL		
PULL BOXES	HANDHOLES	LOOP DETECTORS
0	24	115

APPROVED FOR ELECTRICAL WORK ONLY

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	185	5.3/5.7	12	23

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

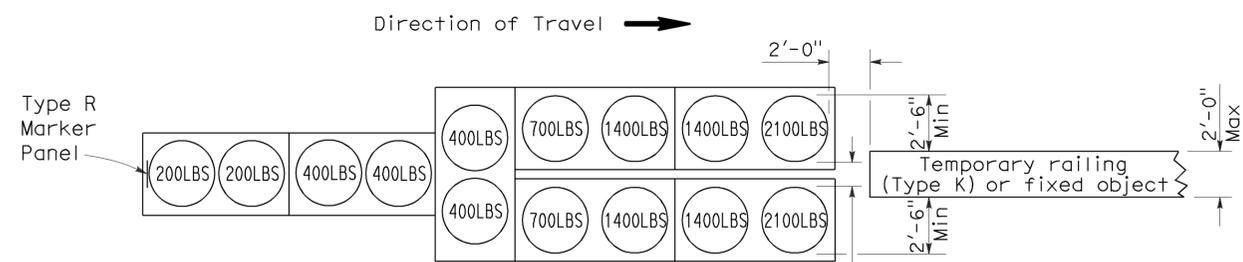
June 6, 2008
PLANS APPROVAL DATE

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

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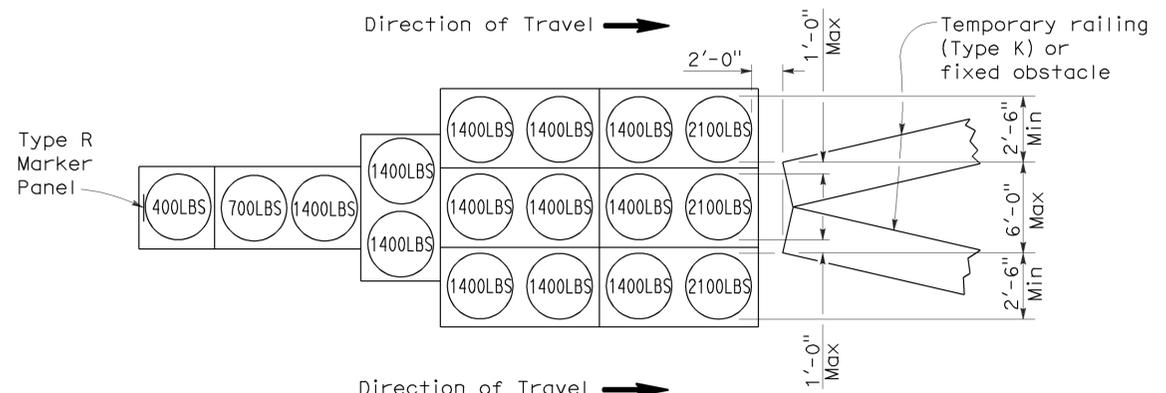
To accompany plans dated 1-23-12

2006 REVISED STANDARD PLAN RSP T1A



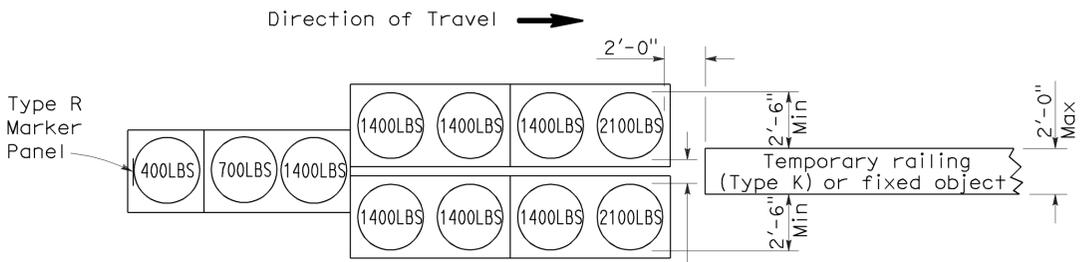
ARRAY 'TU14'

Approach speed 45 mph or more



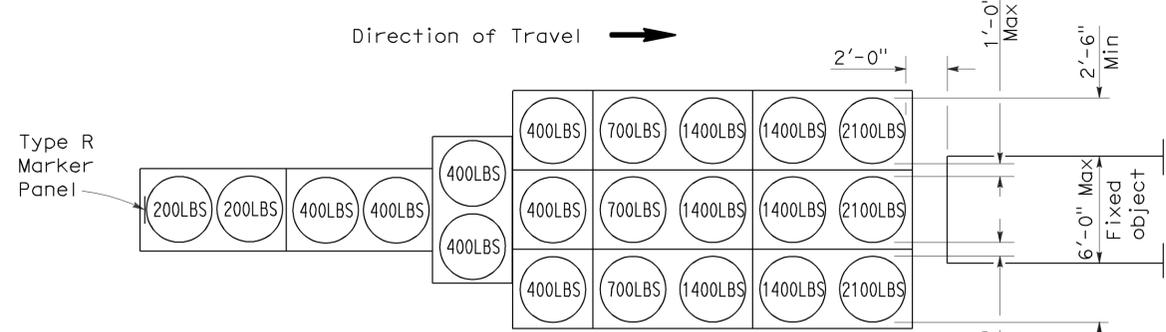
ARRAY 'TU17'

Approach speed less than 45 mph



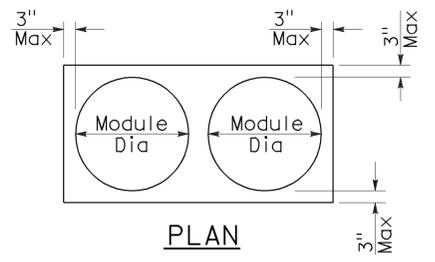
ARRAY 'TU11'

Approach speed less than 45 mph

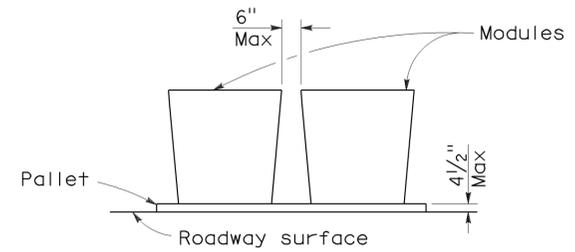


ARRAY 'TU21'

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	185	5.3/5.7	13	23

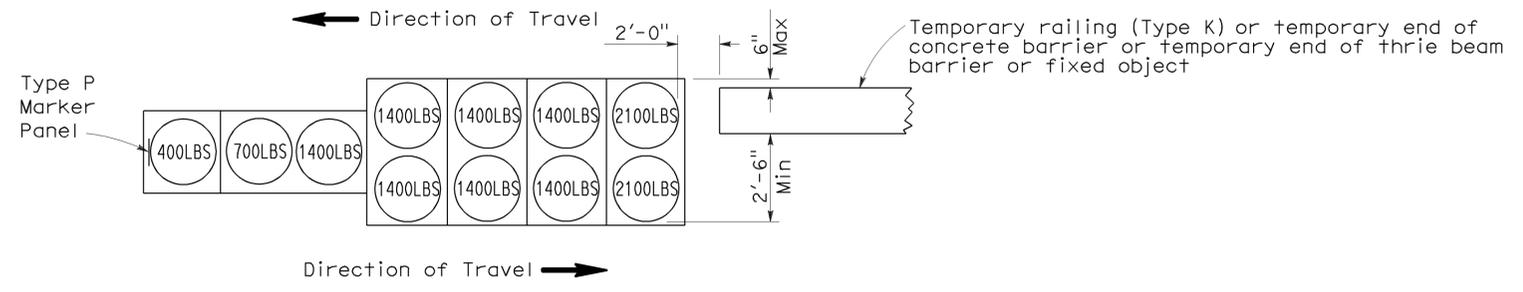
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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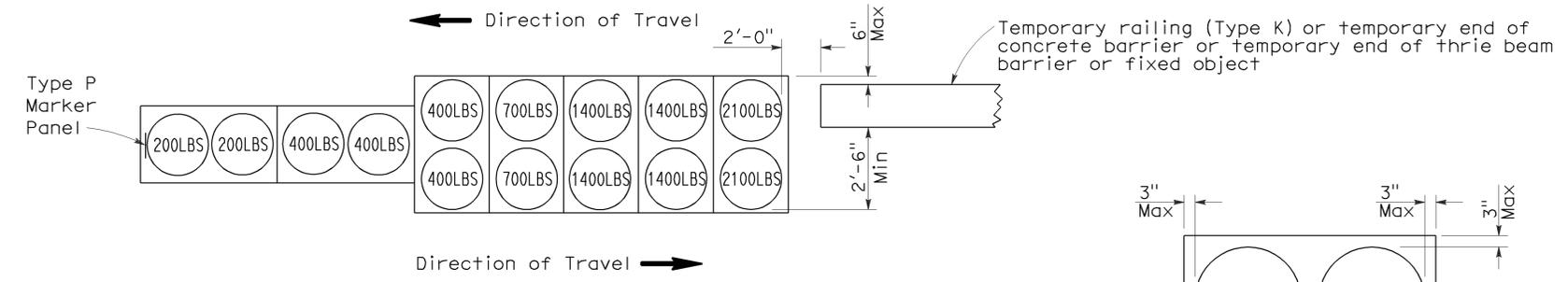
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 1-23-12



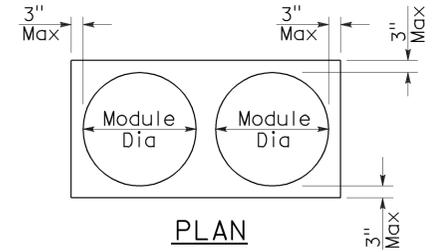
ARRAY 'TB11'

Approach speed less than 45 mph

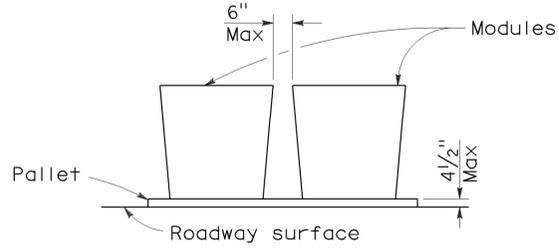


ARRAY 'TB14'

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 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	Ala	185	5.3/5.7	14	23

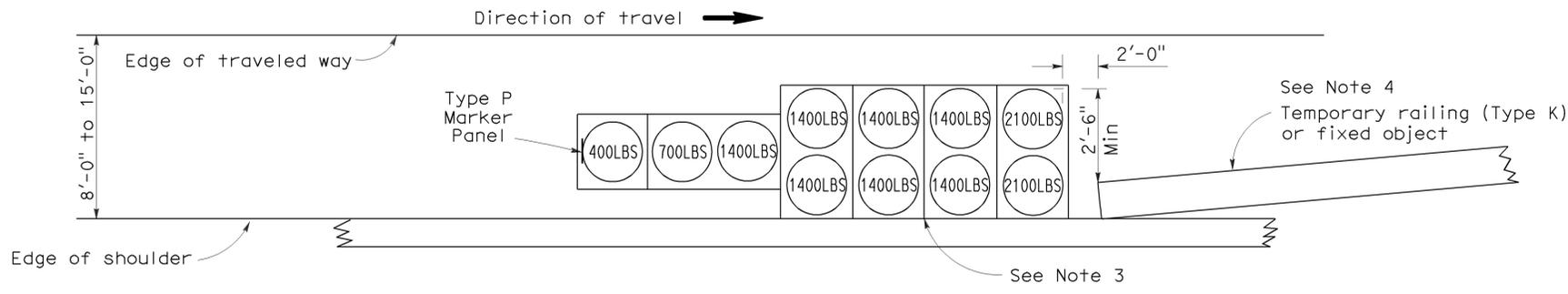
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

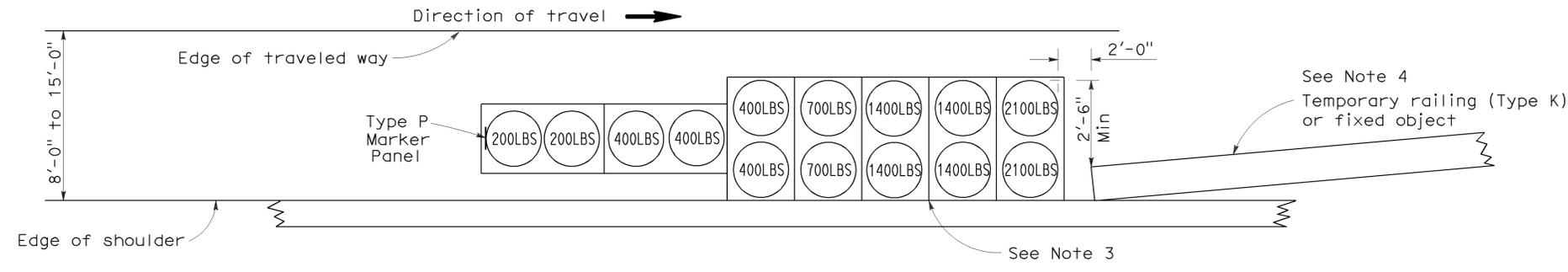
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

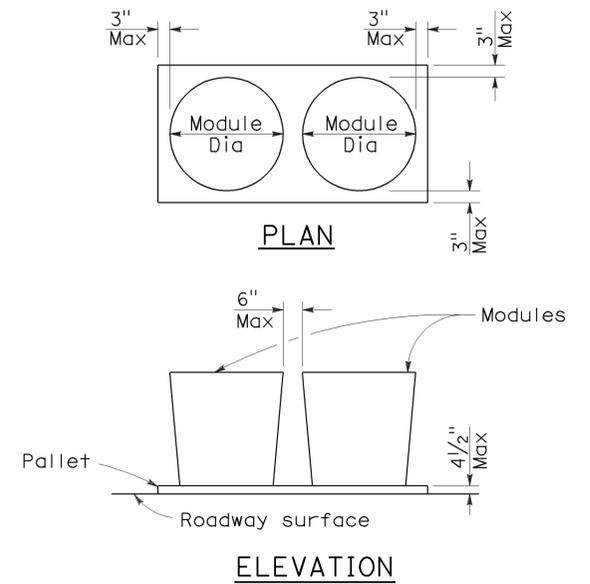
To accompany plans dated 1-23-12



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:

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

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	Ala	185	5.3/5.7	15	23

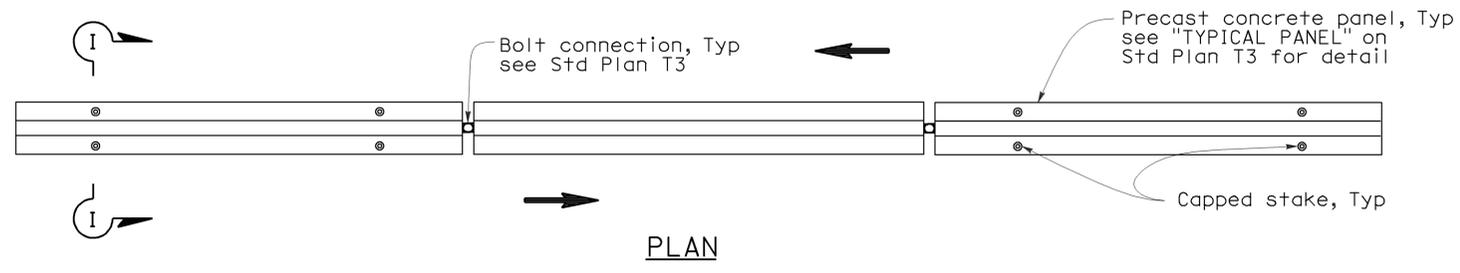
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

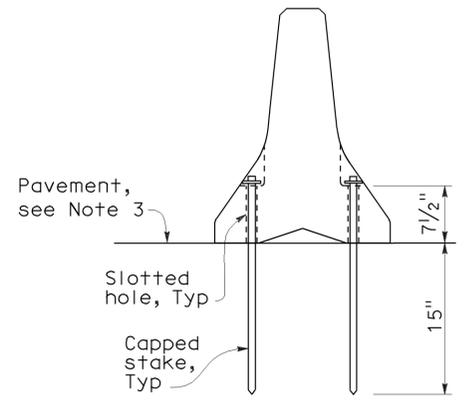
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 1-23-12



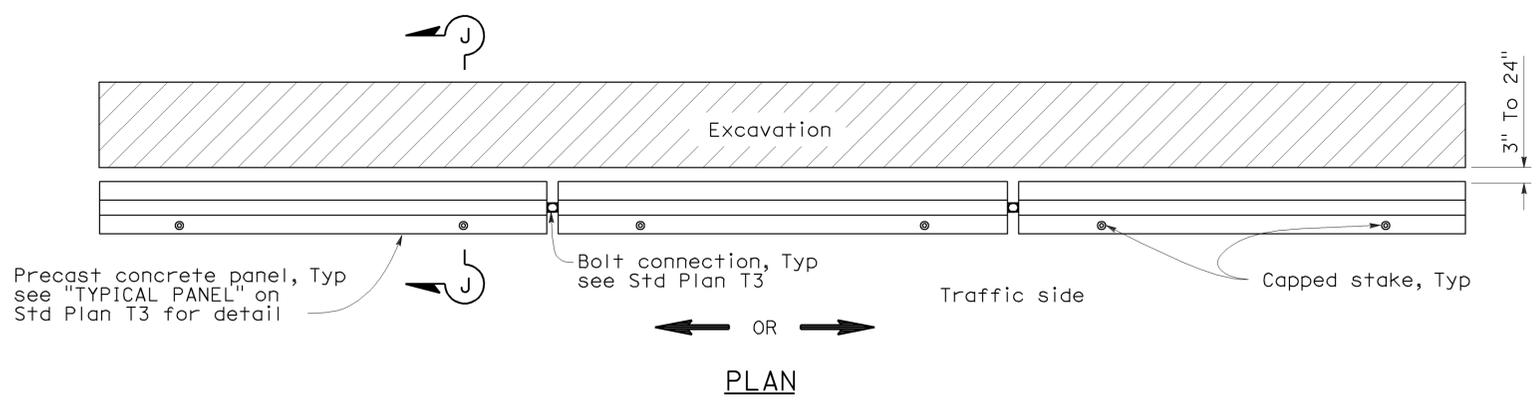
RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1



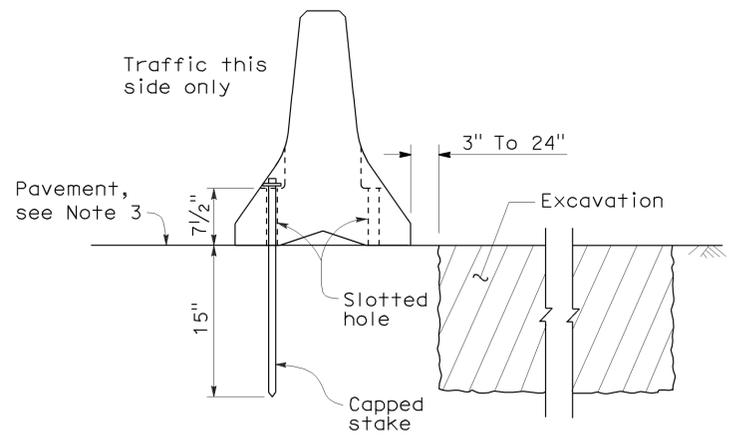
SECTION I-I

NOTES:

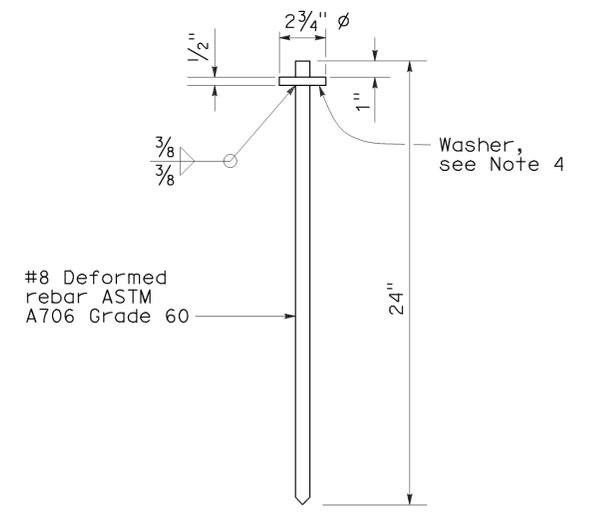
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes 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.

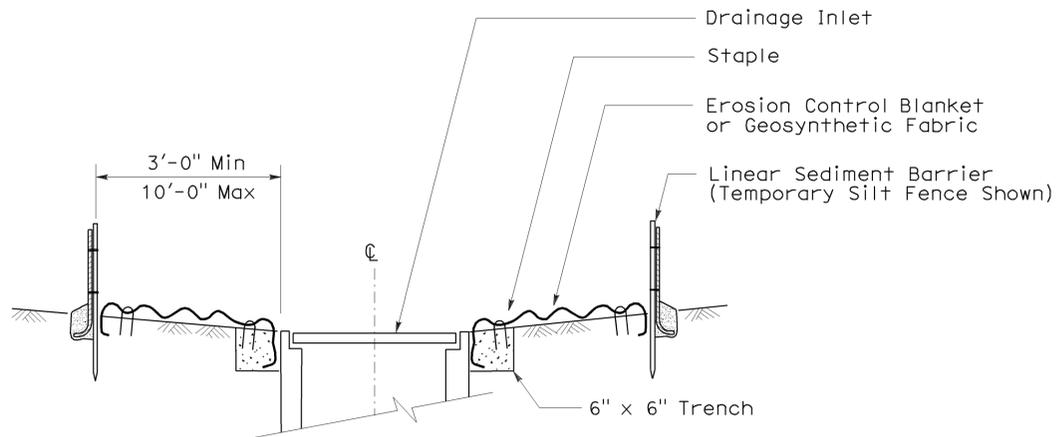
2006 NEW STANDARD PLAN NSP T3A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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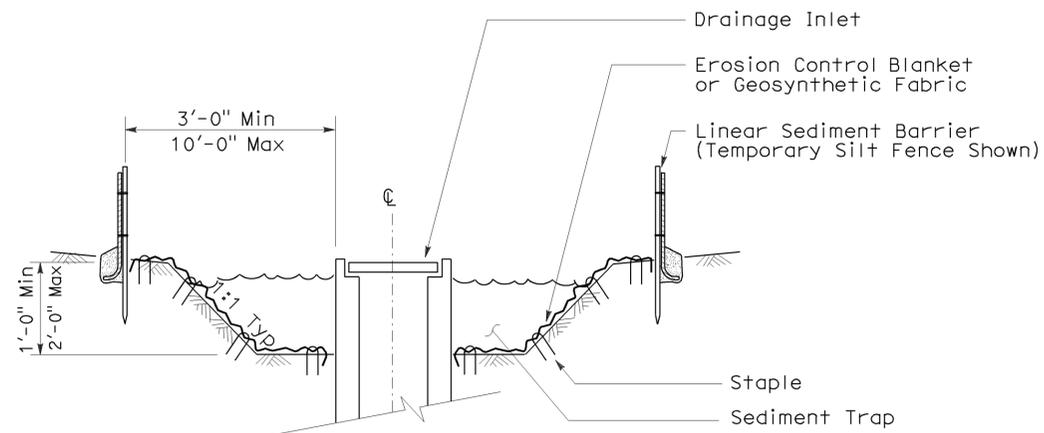
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE

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To accompany plans dated 1-23-12



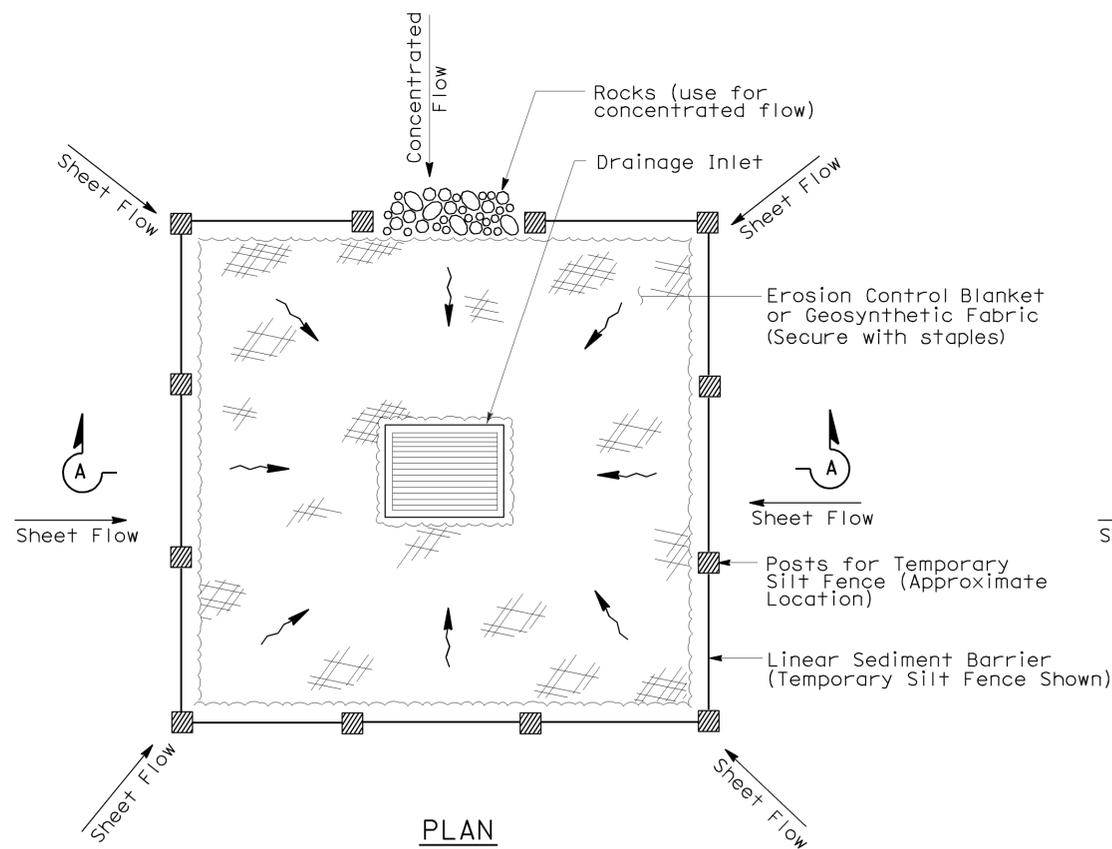
SECTION A-A



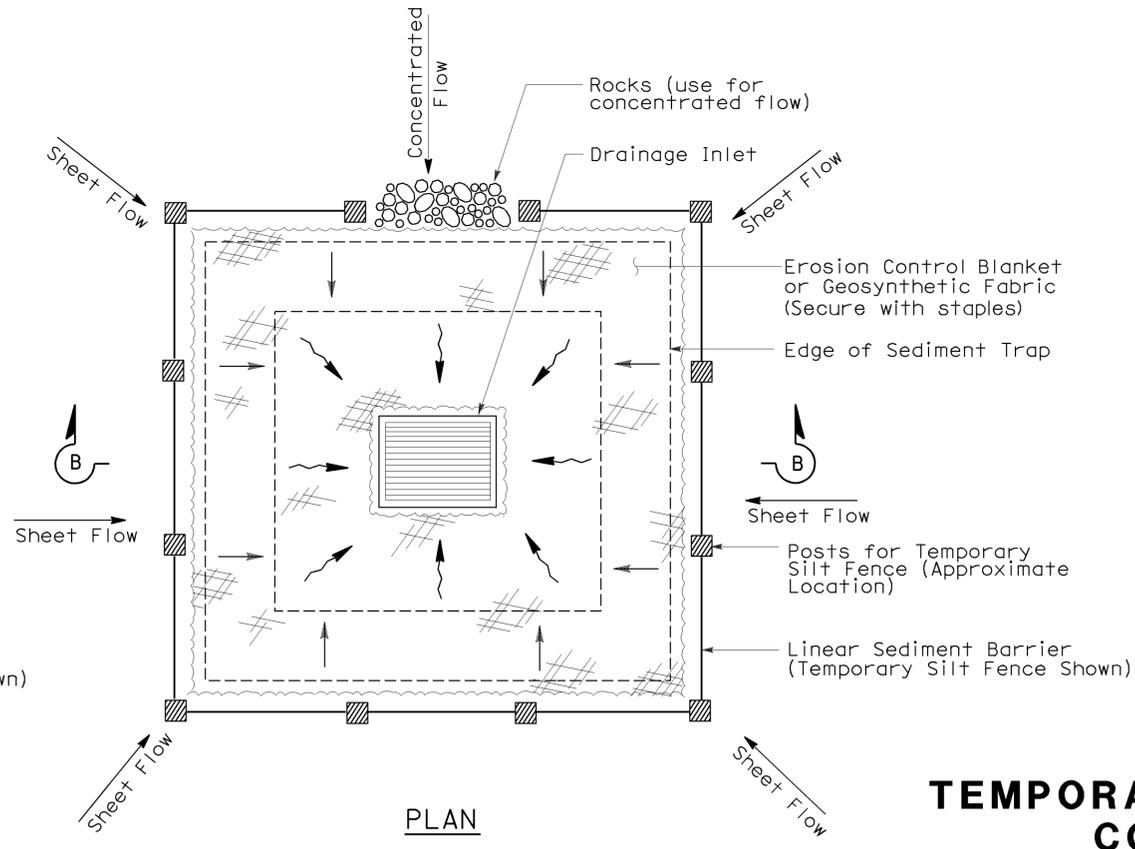
SECTION B-B

NOTES:

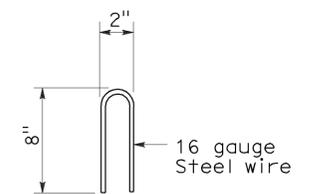
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.



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.

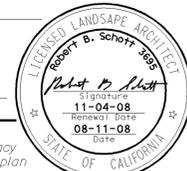
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	185	5.3/5.7	17	23

Robert B. Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

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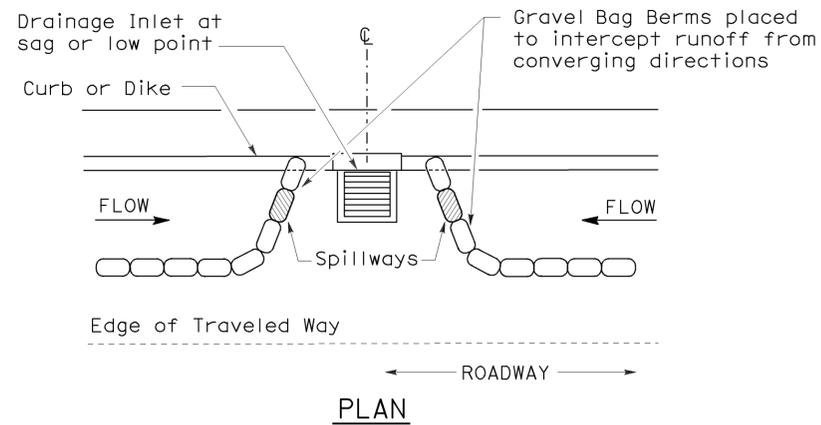
To accompany plans dated 1-23-12



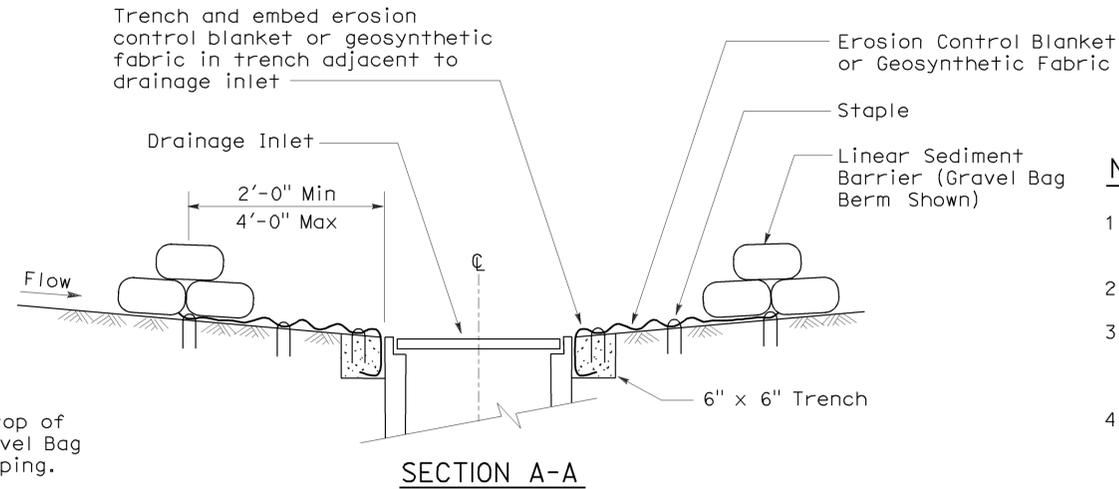
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

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

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

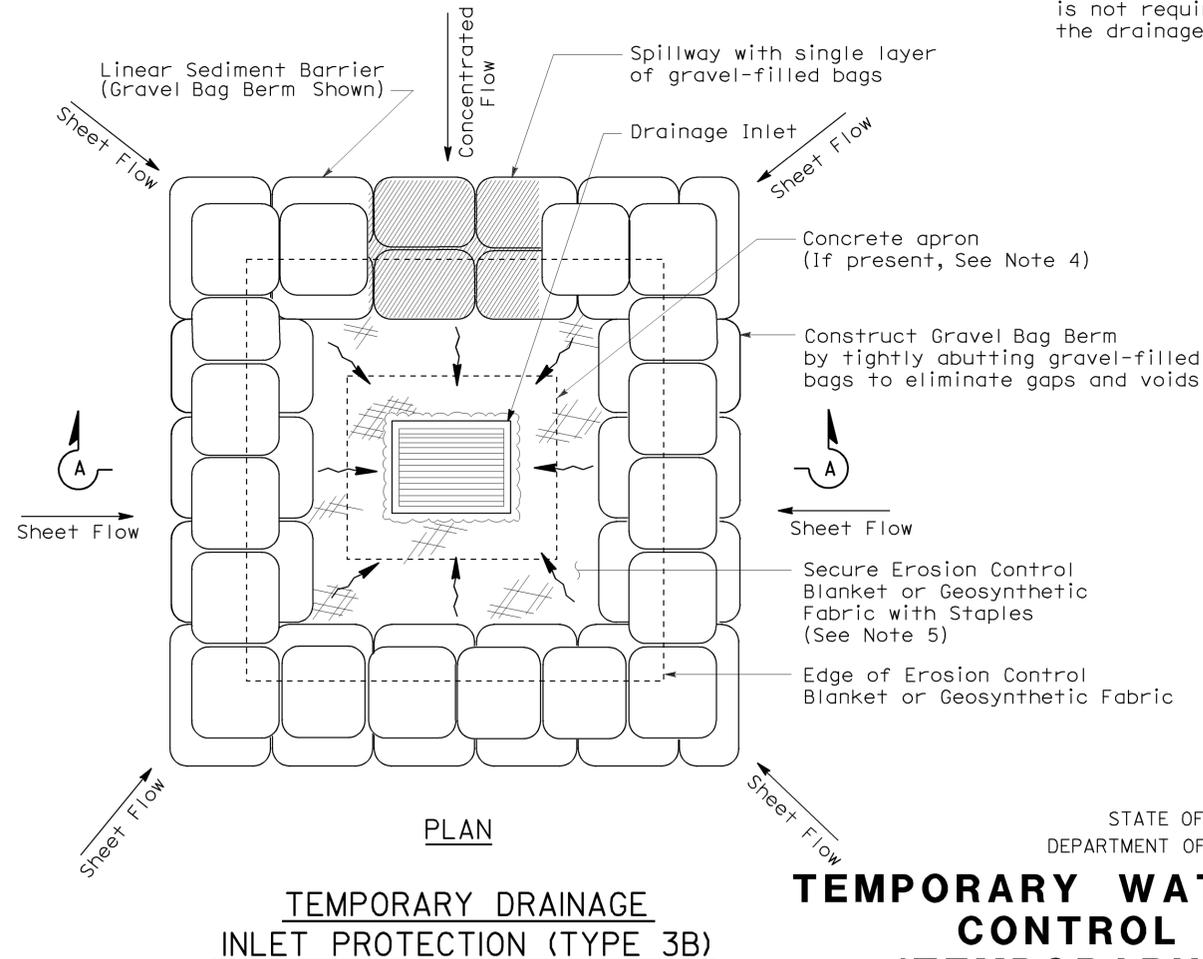
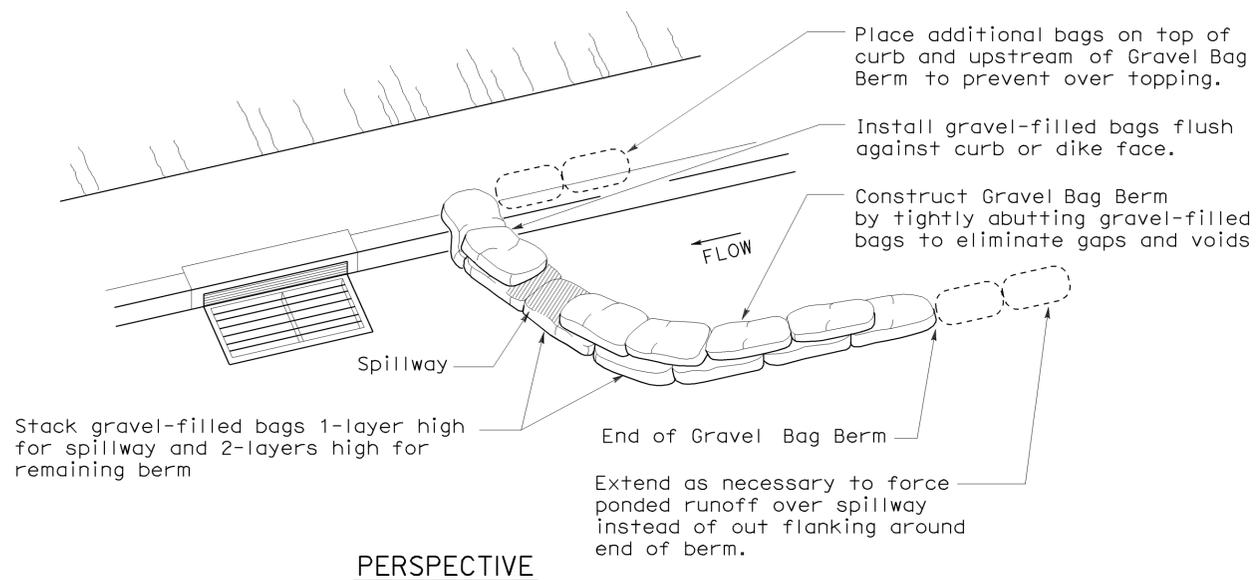


CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)

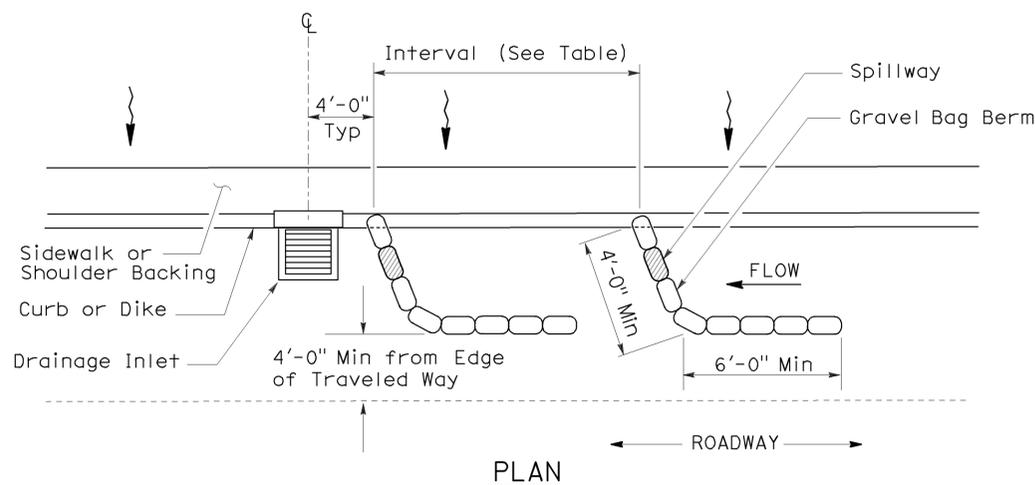
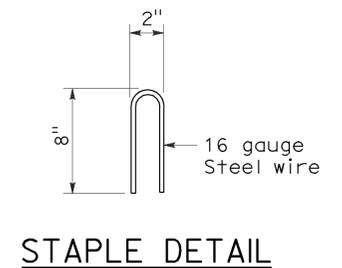


NOTES:

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.



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)



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

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

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

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	185	5.3/5.7	18	23

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT

August 15, 2008
 PLANS APPROVAL DATE

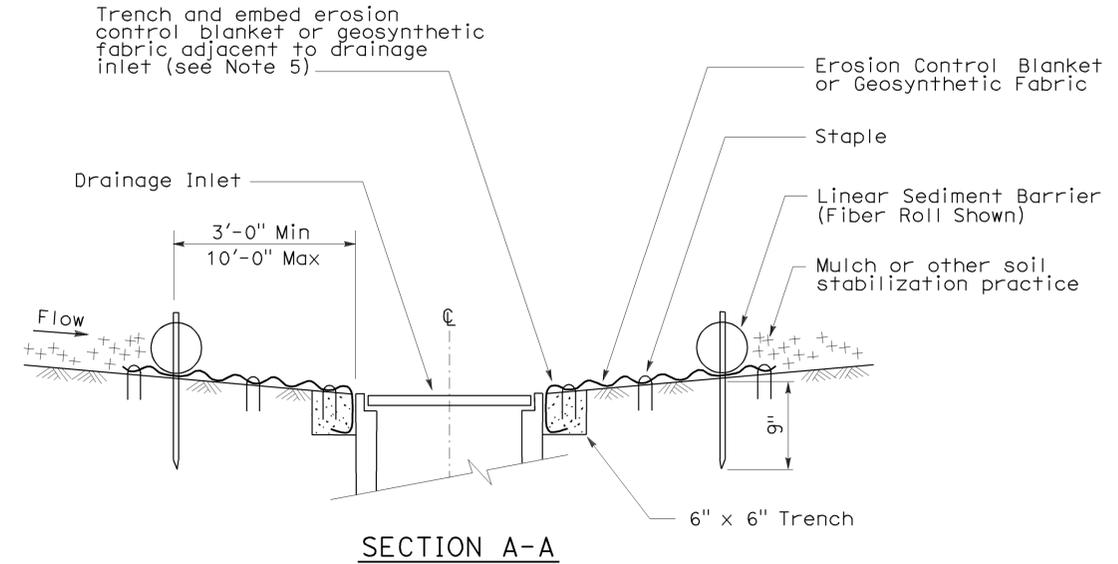
Robert B. Schott
 11-04-08
 08-11-08
 STATE OF CALIFORNIA

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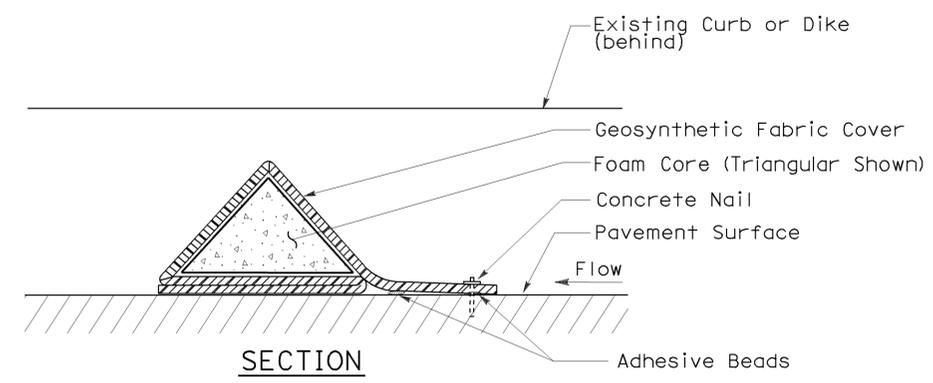
To accompany plans dated 1-23-12

NOTES:

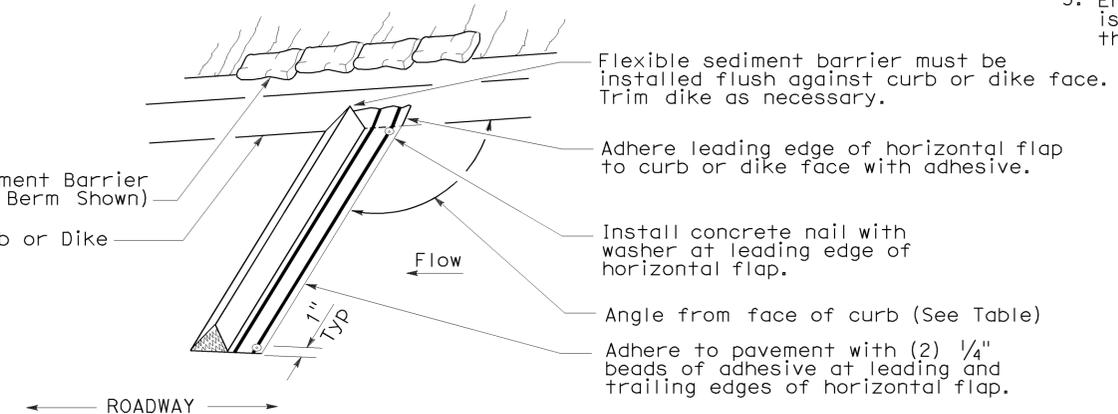
- See Standard Plan T51 for Temporary Silt Fence.
- Dimensions may vary to fit field conditions.
- Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
- Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



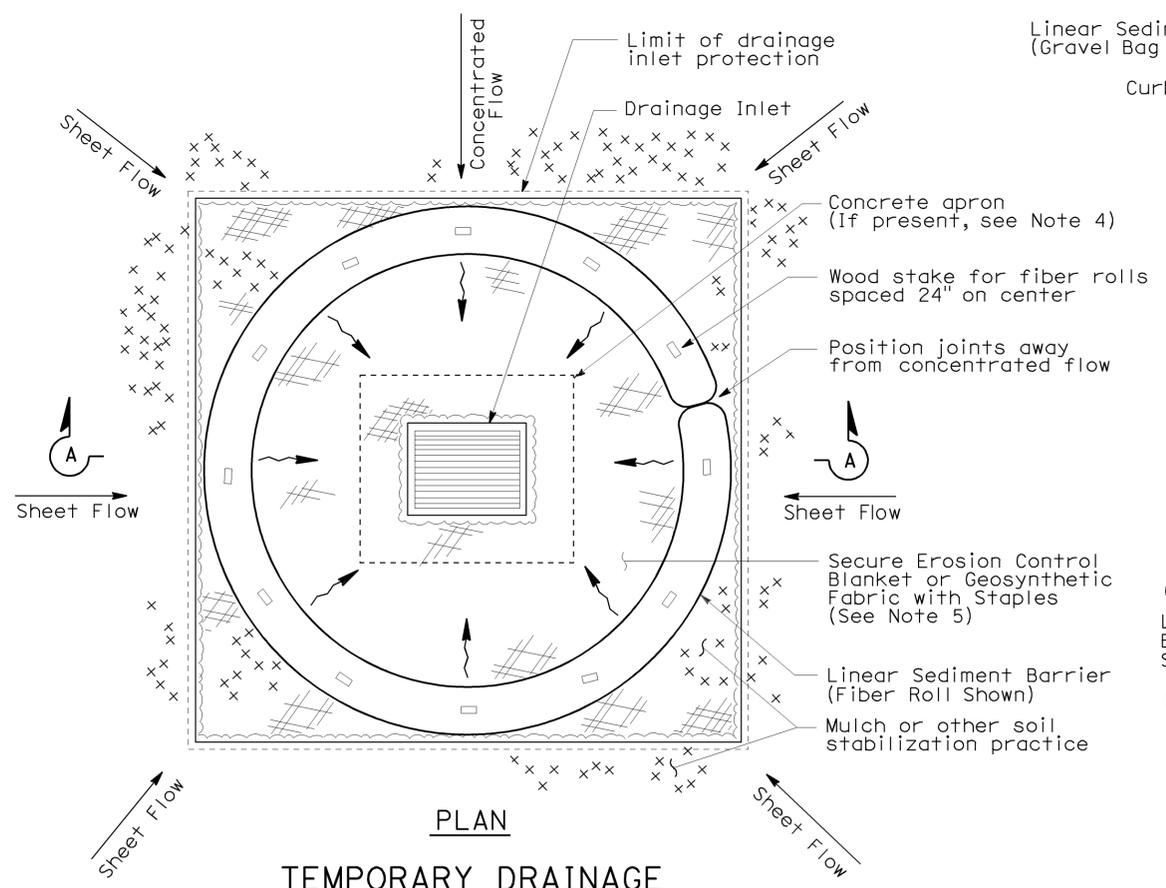
SECTION A-A



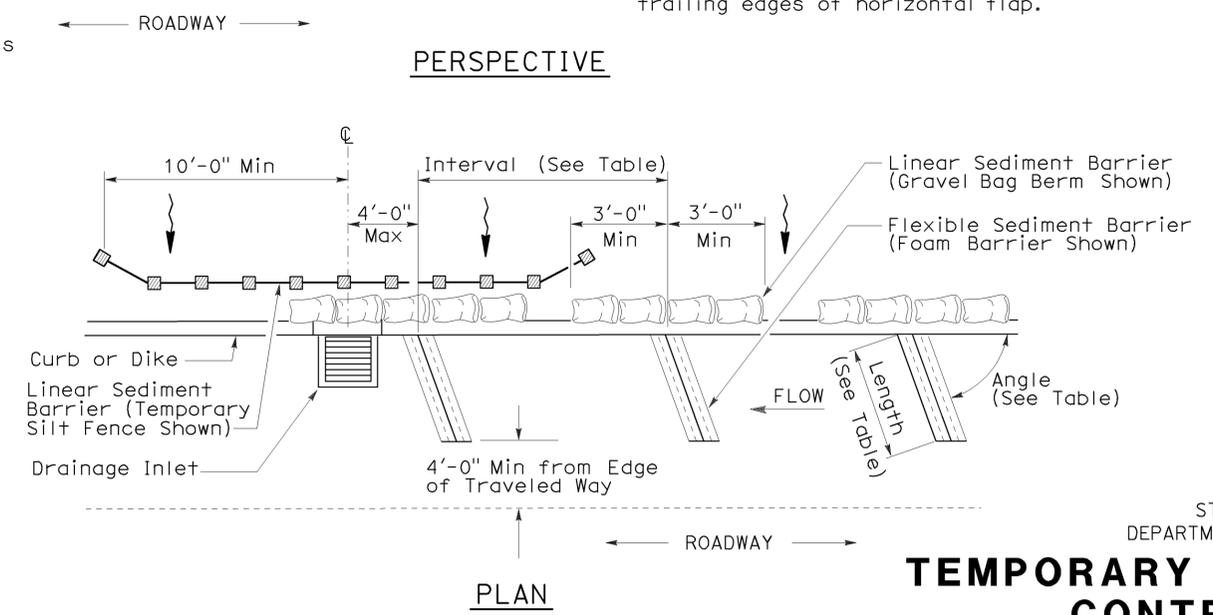
SECTION
 FLEXIBLE SEDIMENT BARRIER DETAIL
 (FOAM BARRIER SHOWN)



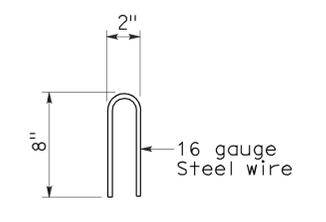
PERSPECTIVE



PLAN
 TEMPORARY DRAINAGE
 INLET PROTECTION (TYPE 4A)



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



STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

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

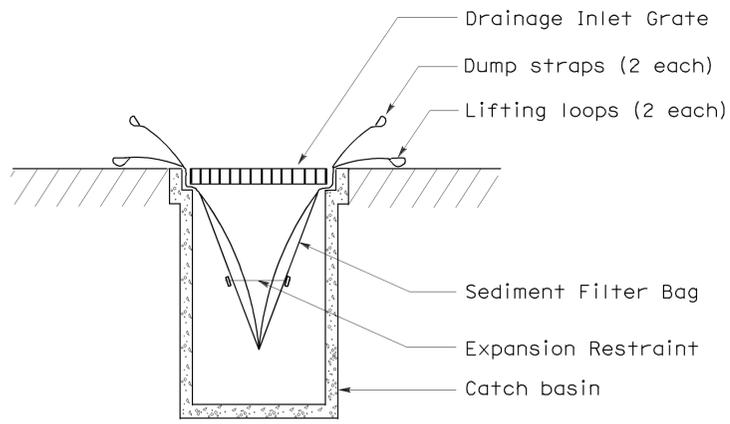
2006 NEW STANDARD PLAN NSP T63

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	185	5.3/5.7	19	23

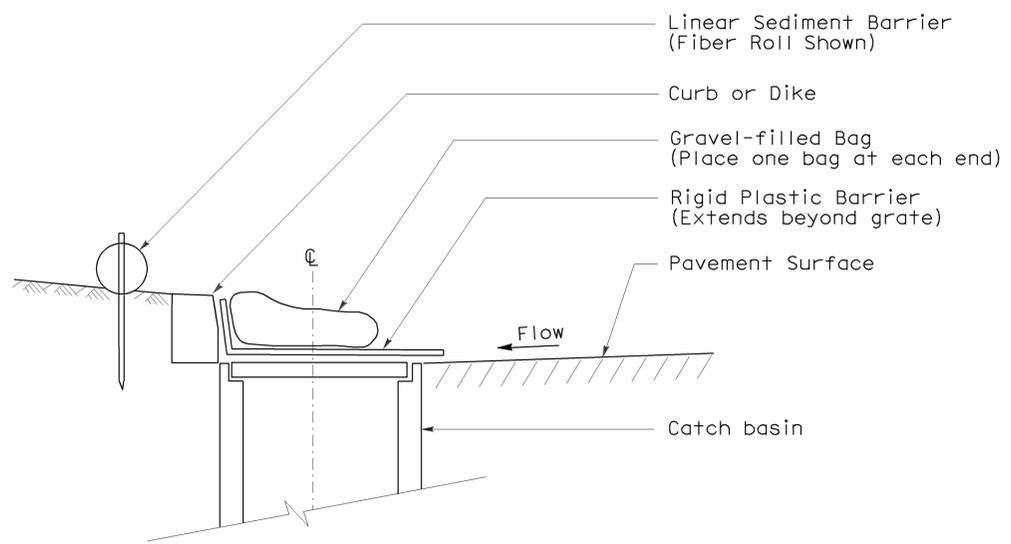
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
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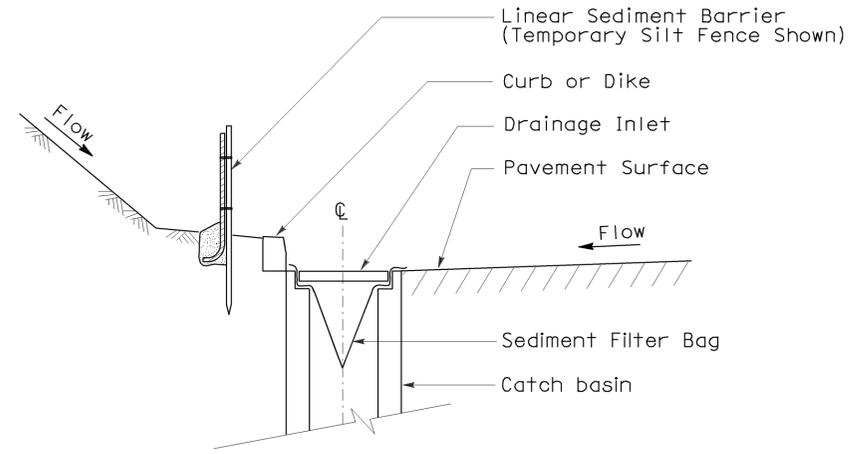
To accompany plans dated 1-23-12



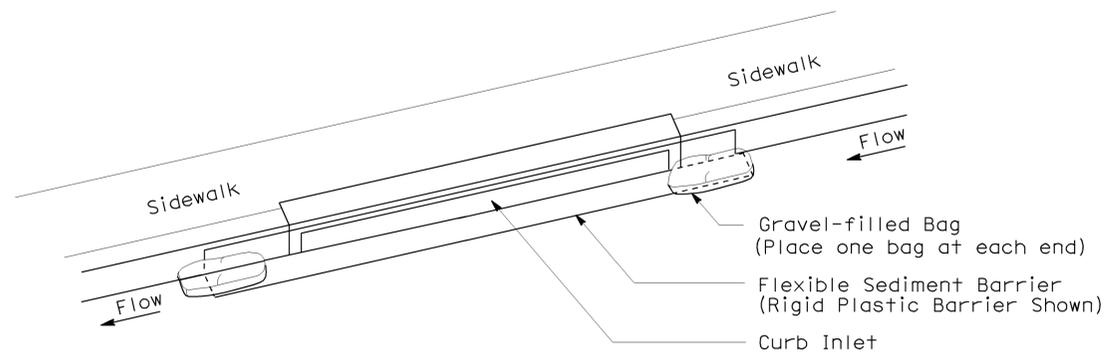
SECTION B-B
SEDIMENT FILTER BAG DETAIL



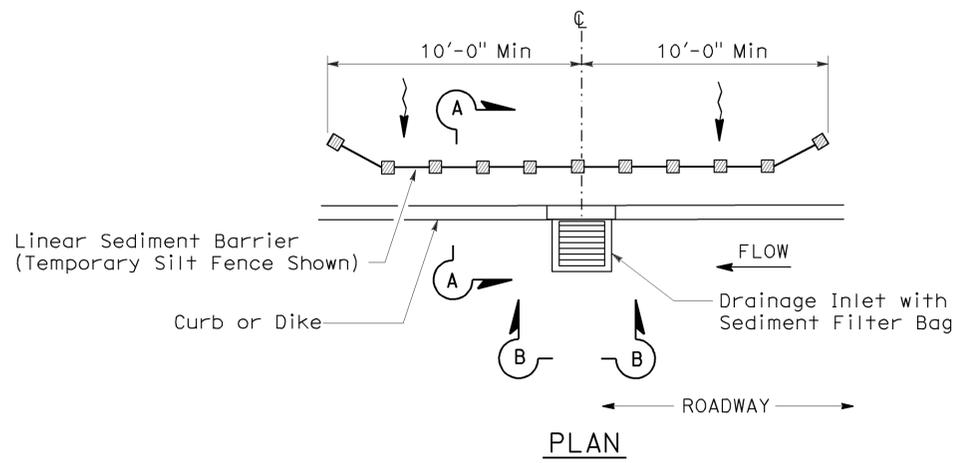
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



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



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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

ELECTROLIERS

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

NOTES:

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

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

STANDARD NOTES:

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

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	185	5.3/5.7	20	23

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 1-23-12

SOFFIT AND WALL MOUNTED LUMINAIRES

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

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	185	5.3/5.7	21	23

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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To accompany plans dated 1-23-12

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

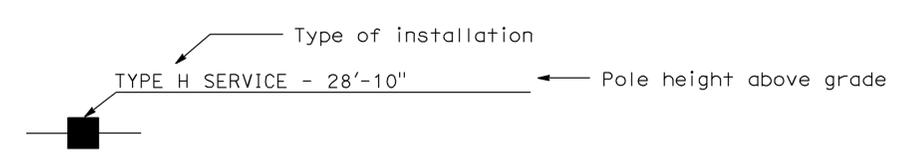
SIGNAL EQUIPMENT

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 lowered "LG" Indicates lowered 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

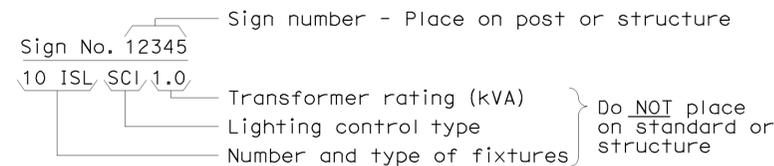
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

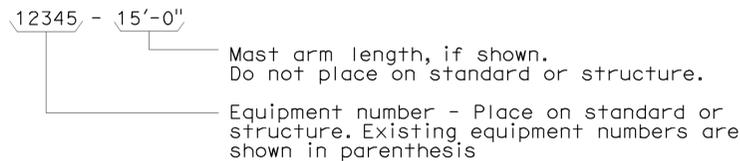
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

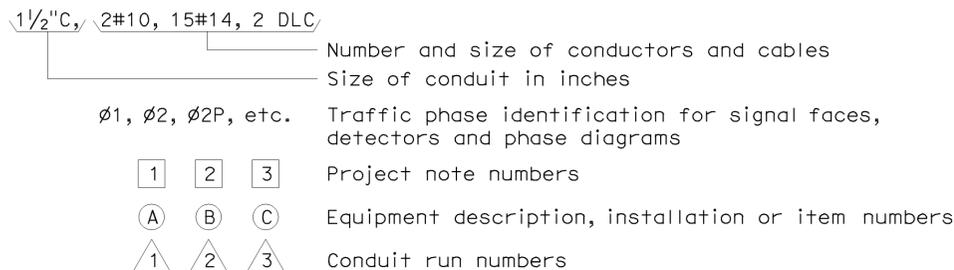
ILLUMINATED SIGN IDENTIFICATION NUMBER:



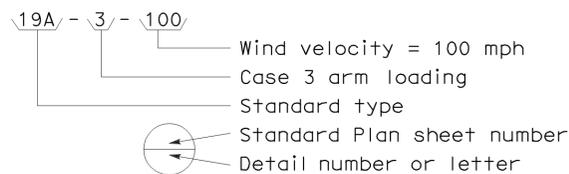
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



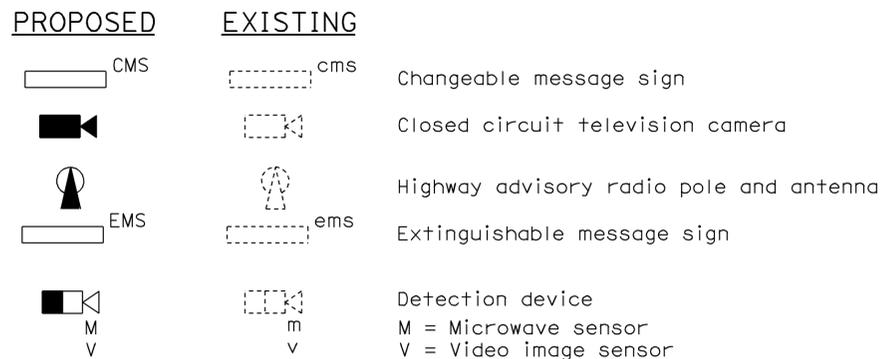
CONDUIT AND CONDUCTOR IDENTIFICATION:



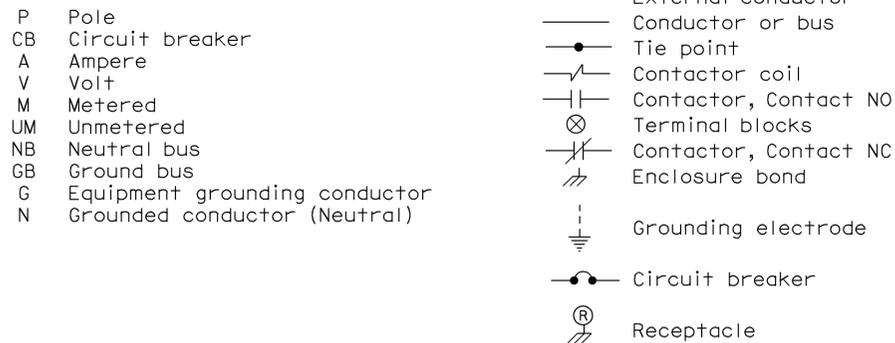
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



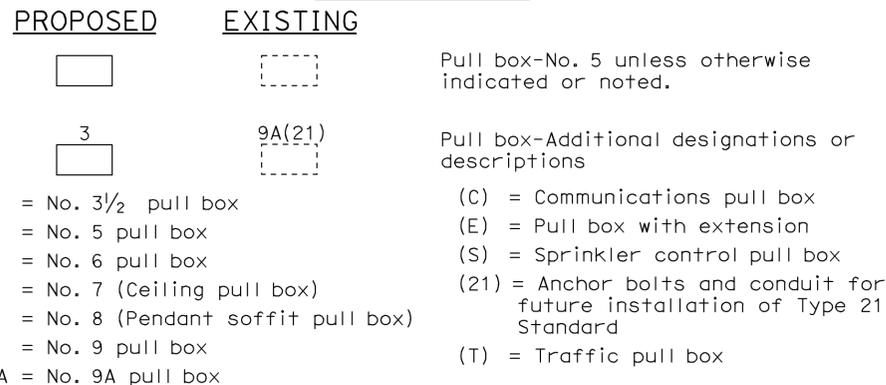
MISCELLANEOUS EQUIPMENT



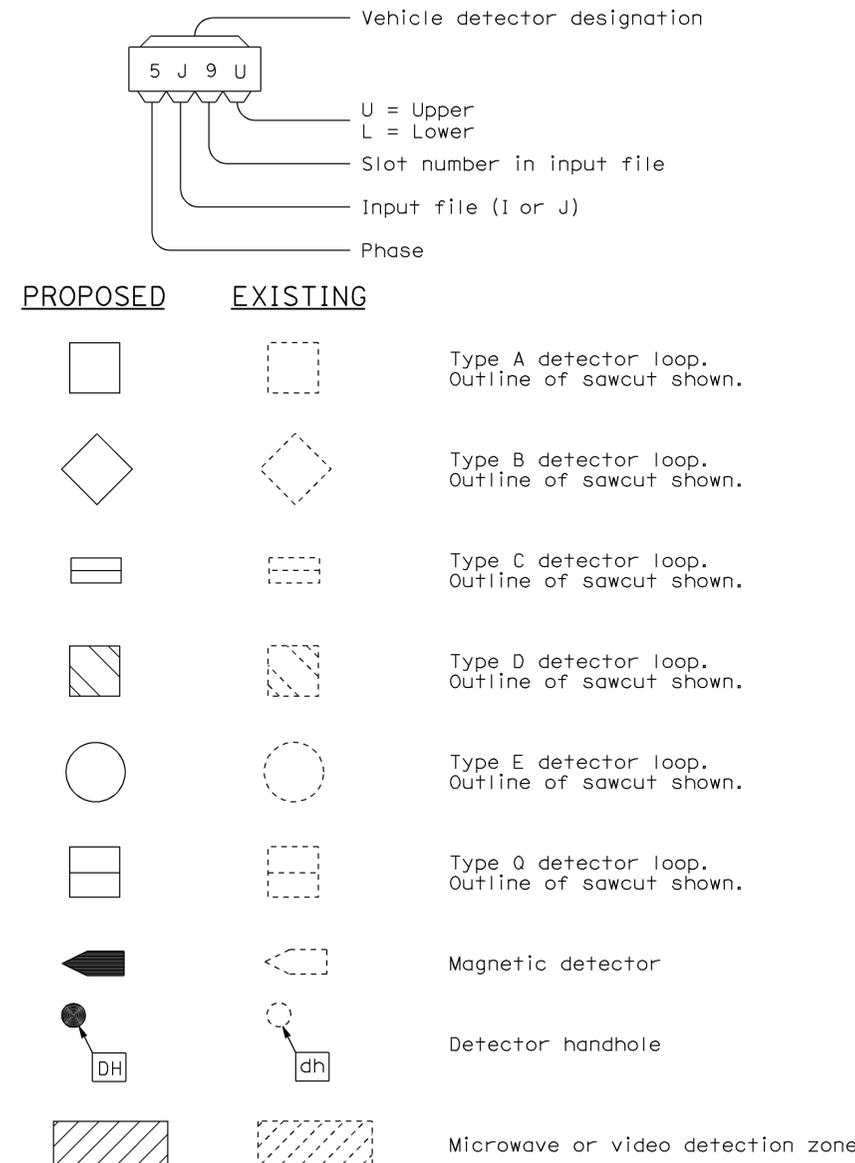
WIRING DIAGRAM LEGEND



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	Ala	185	5.3/5.7	23	23

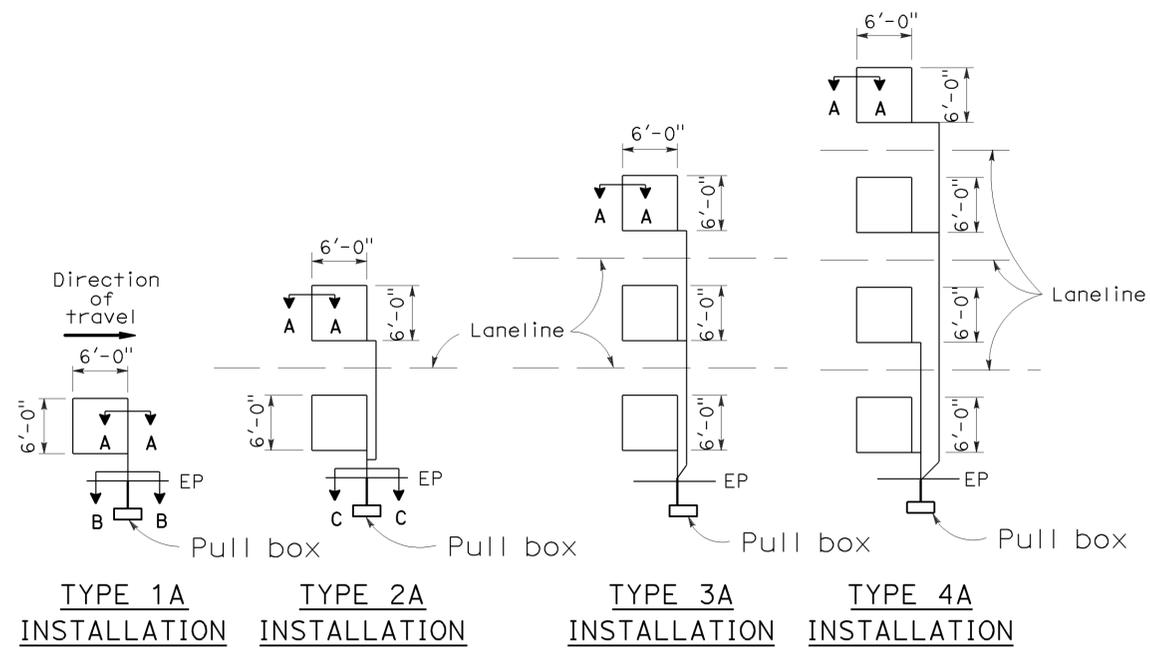
REGISTERED ELECTRICAL ENGINEER
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 Jeffery G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

October 5, 2007
 PLANS APPROVAL DATE

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LOOP INSTALLATION PROCEDURE

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



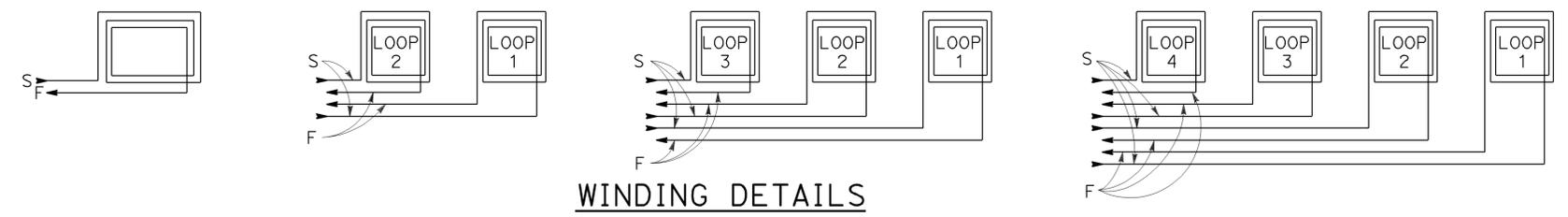
TYPE 1A INSTALLATION TYPE 2A INSTALLATION TYPE 3A INSTALLATION TYPE 4A INSTALLATION

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)

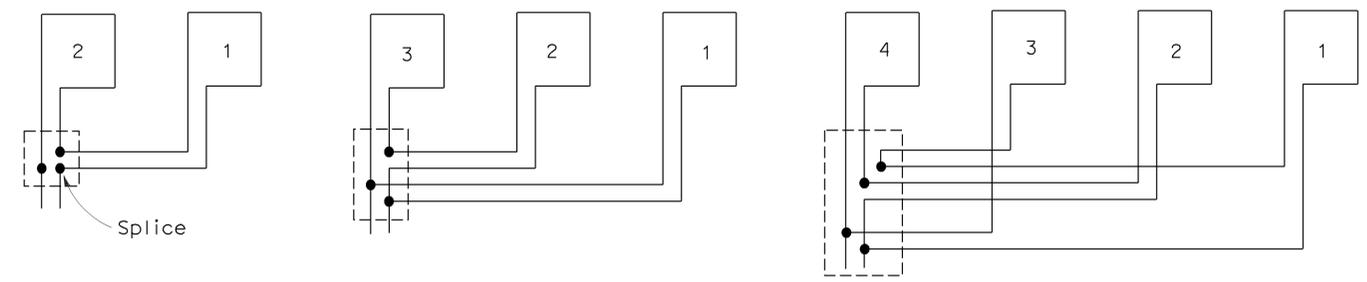
To accompany plans dated 1-23-12

2006 REVISED STANDARD PLAN RSP ES-5A



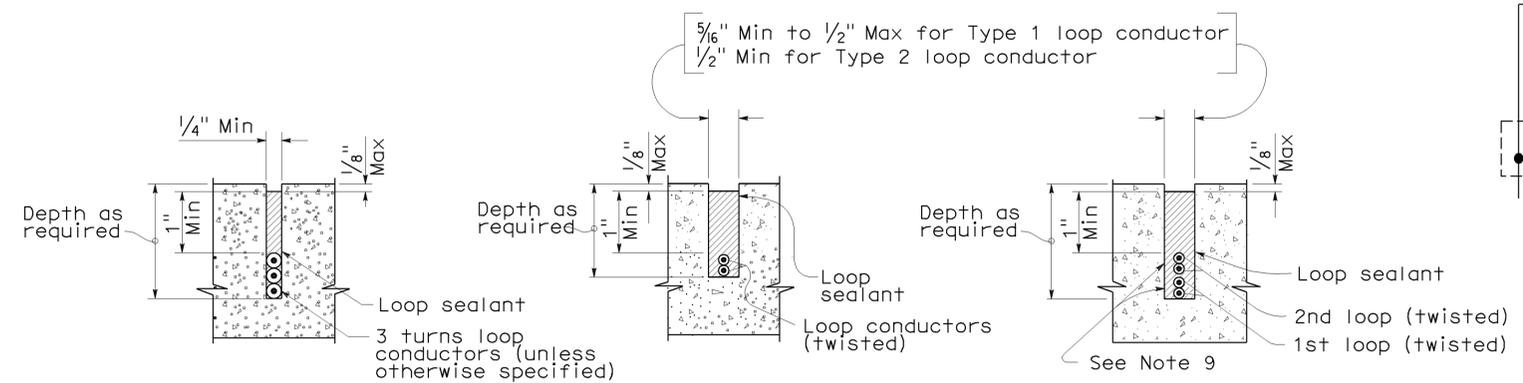
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



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

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

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

REVISED STANDARD PLAN RSP ES-5A