

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3	CONSTRUCTION AREA SIGNS
4	PAVEMENT DELINEATION QUANTITIES
5	SUMMARY OF QUANTITIES
6-9	REVISED AND NEW STANDARD PLANS

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PROJECT PLANS FOR CONSTRUCTION ON  
STATE HIGHWAY**  
**IN SAN MATEO COUNTY  
IN HALF MOON BAY  
FROM ROUTE 1 TO PILARCITOS CREEK ROAD**

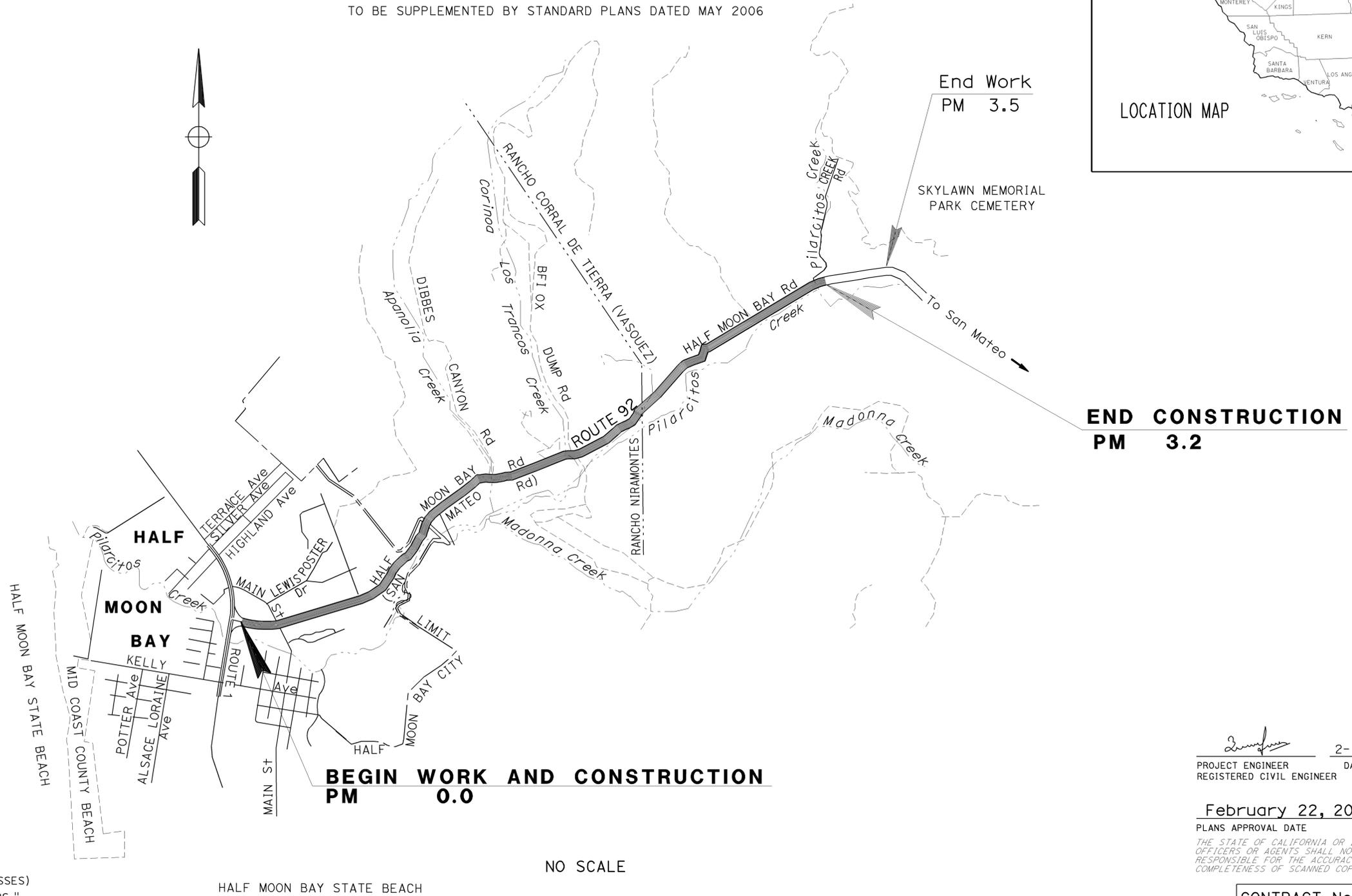
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	0.0/3.2	1	9





LOCATION MAP



PROJECT MANAGER  
RAMSES SARGISS  
  
 DESIGN ENGINEER  
ASHOK K BHATNAGAR

  
 PROJECT ENGINEER DATE 2-11-10  
 REGISTERED CIVIL ENGINEER  
 No. 48814  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

February 22, 2010  
 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."

HALF MOON BAY STATE BEACH

CONTRACT No. **04-1E2604**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	0.0/3.2	2	9

<i>[Signature]</i>	2-11-10
REGISTERED CIVIL ENGINEER	DATE
2-22-10	
PLANS APPROVAL DATE	

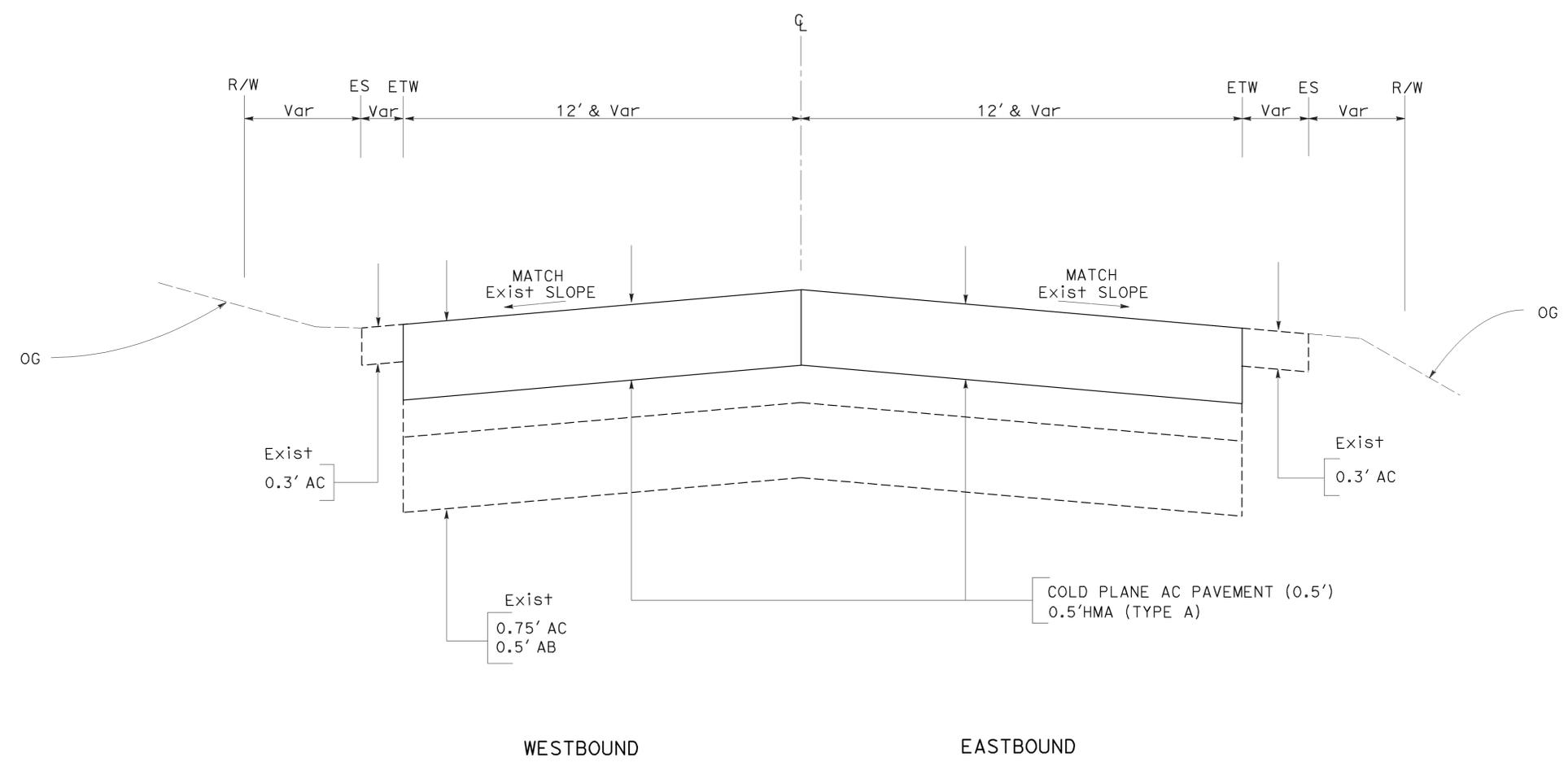
REGISTERED PROFESSIONAL ENGINEER	
Ashok K. Bhatnagar	
No. 48814	
Exp. 9-30-10	
CIVIL	
STATE OF CALIFORNIA	

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.
- SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- THE EXISTING PAVEMENT DELINEATION WILL BE REPLACED AT THE SAME LOCATION IN KIND.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- FOR LOCATION AND DIMENSIONS OF COLD PLANE AC PAVEMENT, SEE SHEET Q-1 AND AS DIRECTED BY THE ENGINEER.
- EXISTING UTILTY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR  
 RAMSES SARGISS  
 CALCULATED-DESIGNED BY  
 CHAO HUN TANG  
 ASHOK K BHATNAGAR  
 REVISOR BY  
 CT  
 10/13/09



**ROUTE 92**  
PM 0.0 TO PM 3.25

**TYPICAL CROSS SECTIONS**  
NO SCALE

**X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CHECKED BY: JERILYN L. STRUVEN  
 DESIGNED BY: SHARI TALAI  
 REVISED BY: JERILYN L. STRUVEN  
 DATE: 2/22/10  
 ST

**LEGEND:**

No. CONSTRUCTION AREA SIGN NUMBERS

**NOTES:**

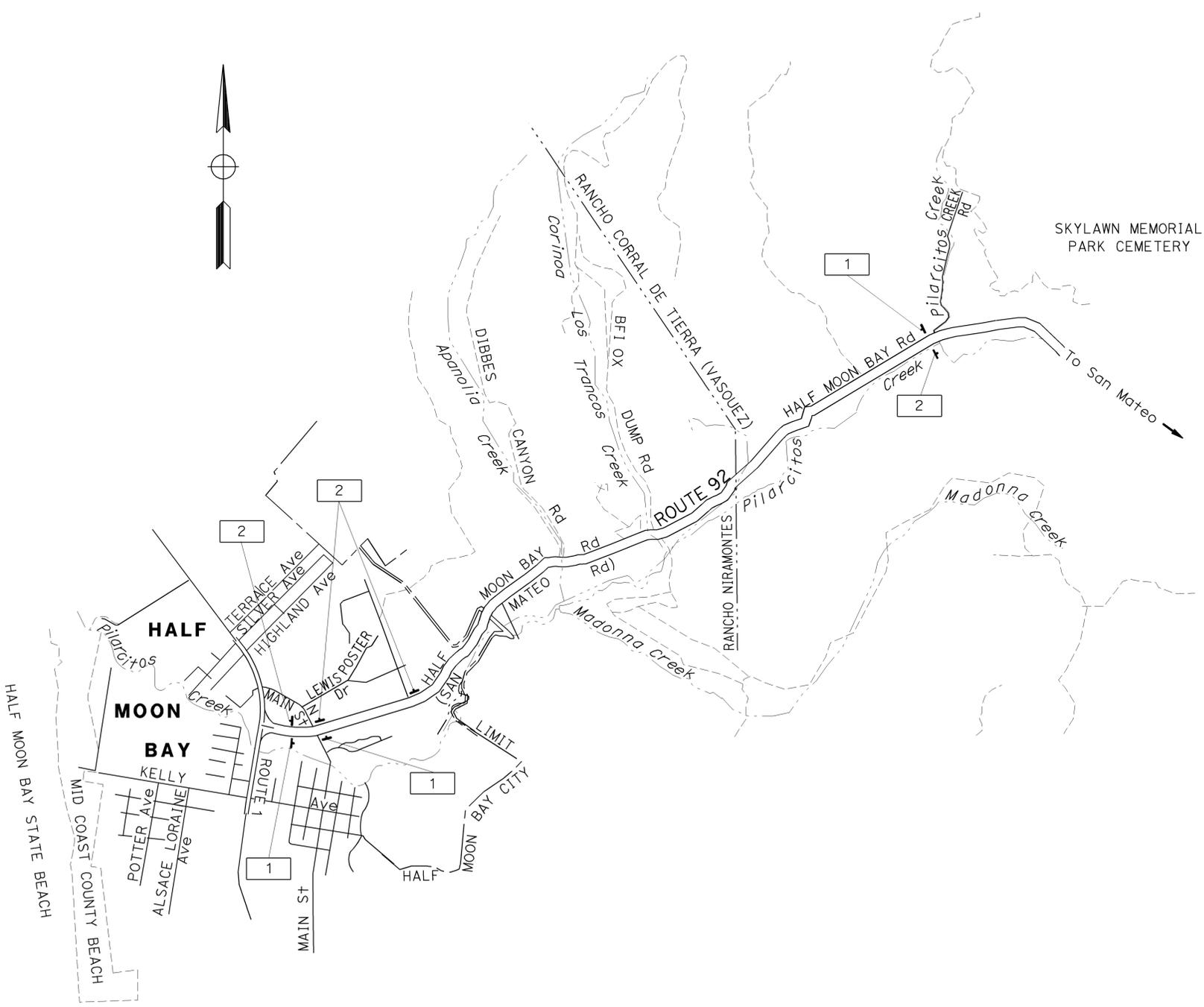
1. LOCATION OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

**STATIONARY MOUNTED CONSTRUCTION AREA SIGNS**

SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	NUMBER OF POST AND SIZE	No. OF SIGNS
	FEDERAL				
1	W20-1	ROAD WORK AHEAD	48'' x 48''	1- 4'' x 6''	3
2	G20-2	END ROAD WORK	36'' x 18''	1- 4'' x 4''	3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	0.0/3.2	3	9

REGISTERED CIVIL ENGINEER: Jerilyn L. Struven  
 No. 49964  
 Exp. 12-31-10  
 CIVIL  
 DATE: 2-17-10  
 PLANS APPROVAL DATE: 2-22-10  
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.



**CONSTRUCTION AREA SIGNS**  
 NO SCALE

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

**CS-1**

DATE PLOTTED => 24-FEB-2010  
 TIME PLOTTED => 12:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	0.0/3.2	4	9

REGISTERED CIVIL ENGINEER DATE 2-11-10  
 Ashok K. Bhatnagar  
 No. 48814  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE 2-22-10  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**TRAFFIC STRIPES, PAVEMENT MARKING AND PAVEMENT MARKERS**

DESCRIPTION	PM	DETAIL No. OR PAVEMENT MARKING	REMOVE			PAVEMENT MARKER		THERMOPLASTIC PAVEMENT MARKING		THERMOPLASTIC TRAFFIC STRIPE	
			PAVEMENT MARKER	THERMOPLASTIC		RETROREFLECTIVE		WHITE		YELLOW 4" SOLID	WHITE 4" SOLID
				PAVEMENT MARKING	TRAFFIC STRIPE (YELLOW)	TYPE D	TYPE H	ARROW			
EA	SQFT	LF	EA		SQFT	LF					
EB		6	3		24	3				24	
		16	14		131	4	10			131	
	0.0/7.3	22	103		2450	103				2450	
		27B									2635
		29	5		200	5				200	
		TYPE IV(L) ARROW		30					30		
SUBTOTAL EB			125	30	2805	125		30		5440	

DESCRIPTION	PM	DETAIL No. OR PAVEMENT MARKING	REMOVE			PAVEMENT MARKER		THERMOPLASTIC PAVEMENT MARKING		THERMOPLASTIC TRAFFIC STRIPE	
			PAVEMENT MARKER	THERMOPLASTIC		RETROREFLECTIVE		WHITE		YELLOW 4" SOLID	WHITE 4" SOLID
				PAVEMENT MARKING	TRAFFIC STRIPE (YELLOW)	TYPE D	TYPE H	ARROW			
EA	SQFT	LF	EA		SQFT	LF					
WB		6	3		24	3				24	
	0.0/7.3	16	10		124	3				124	
		22	140		3360	140				3360	
		27B									3515
SUBTOTAL WB			153		3508	153				7023	
SUBTOTAL EB			125		2805	125				5440	
GRAND TOTAL			278	30	6313	278		30		12463	

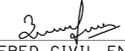
NOTE: ALL EXISTING DELINEATIONS SHALL BE REMOVED AND REPLACED IN KIND OR AS DIRECTED BY THE ENGINEER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR  
 RAMSES SARGISS  
 CALCULATED-DESIGNED BY  
 CHECKED BY  
 CHAO HUN TANG  
 ASHOK K BHATNAGAR  
 REVISED BY  
 DATE REVISED  
 CT  
 10/13/09

**PAVEMENT DELINEATION  
 QUANTITIES**  
**PDQ-1**

LAST REVISION | DATE PLOTTED => 24-FEB-2010  
 02-22-10 TIME PLOTTED => 12:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	0.0/3.2	5	9

 2-11-10  
 REGISTERED CIVIL ENGINEER DATE

2-22-10  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 Ashok K. Bhatnagar  
 No. 48814  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS  
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### COLD PLANE AC PAVEMENT AND HMA (TYPE A)

LOCATION	PM	LANE 1		COLD PLANE AC PAVEMENT 0.5'	HMA (A) (0.50 FT)	TACK COAT
		LENGTH (N)	WIDTH (N)			
		FT				
1	0.7	70	11.5	89	30	0.054
2	0.71	35	12	47	16	0.028
3	0.73	120	11.5	153	52	0.092
4	0.91	230	11.5	294	99	0.176
5	1.12	120	11.5	153	52	0.092
6	1.23	95	11.5	121	41	0.072
7	1.38	240	11	293	99	0.174
8	1.39	165	12	220	74	0.132
9	1.41	30	11	37	12	0.022
10	1.43	60	11	73	25	0.044
11	1.48	80	11.5	102	35	0.060
12	1.65	265	12	353	119	0.210
13	1.73	165	11	202	68	0.120
14	1.8	110	12	147	50	0.088
15	1.87	130	12	173	59	0.104
16	1.89	110	11	134	45	0.080
17	2.01	70	11	86	29	0.050
18	2.12	110	11	134	45	0.080
19	2.23	55	11	67	23	0.040
20	2.45	20	11	24	8	0.014
21	2.48	115	12	153	52	0.092
22	2.54	55	12	73	25	0.044
23	2.92	110	11	134	45	0.080
24	3.12	75	11	92	31	0.054
SUBTOTAL				3354	1134	2.002

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

### COLD PLANE AC PAVEMENT AND HMA (TYPE A)

LOCATION	PM	LANE 1		COLD PLANE AC PAVEMENT 0.5'	HMA (A) (0.50 FT)	TACK COAT
		LENGTH (N)	WIDTH (N)			
		FT				
1	1	200	11	244	83	0.146
2	1.29	185	11	226	76	0.134
3	1.4	70	11	86	29	0.050
4	1.5	370	11	452	153	0.270
5	1.55	90	11	110	37	0.066
6	1.65	140	11	171	58	0.102
7	1.73	40	11	49	17	0.030
8	1.89	40	11	49	17	0.030
9	1.91	210	11	257	87	0.152
10	2.19	150	11	183	62	0.110
11	2.21	445	12	593	200	0.354
12	2.25	100	11	122	41	0.072
13	2.29	75	11	92	31	0.054
14	2.51	590	11	721	243	0.430
15	2.53	125	11	153	52	0.092
16	2.55	80	11	98	33	0.058
17	2.53	100	12	133	45	0.080
18	2.87	350	12	467	158	0.278
19	3.15	60	12	80	27	0.048
20	3.24	95	12	127	43	0.076
SUBTOTAL (WESTBOUND)				4413	1492	2.632
SUBTOTAL (EASTBOUND)				3354	1134	2.002
TOTAL				7767	2626	4.634

### CRACK TREATMENT

LOCATION	PM	CRACK TREATMENT
		LNMI
WB	0.0/3.2	3.25
EB	0.0/3.2	3.25
TOTAL		6.25

## SUMMARY OF QUANTITIES

**Q-1**



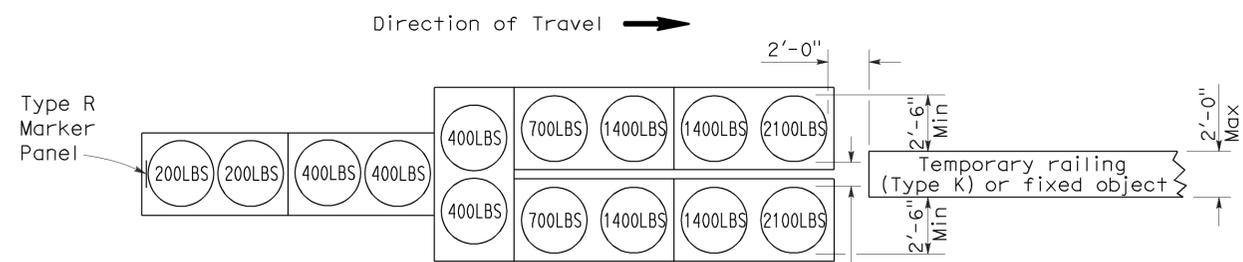
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	0.0/3.2	6	9

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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

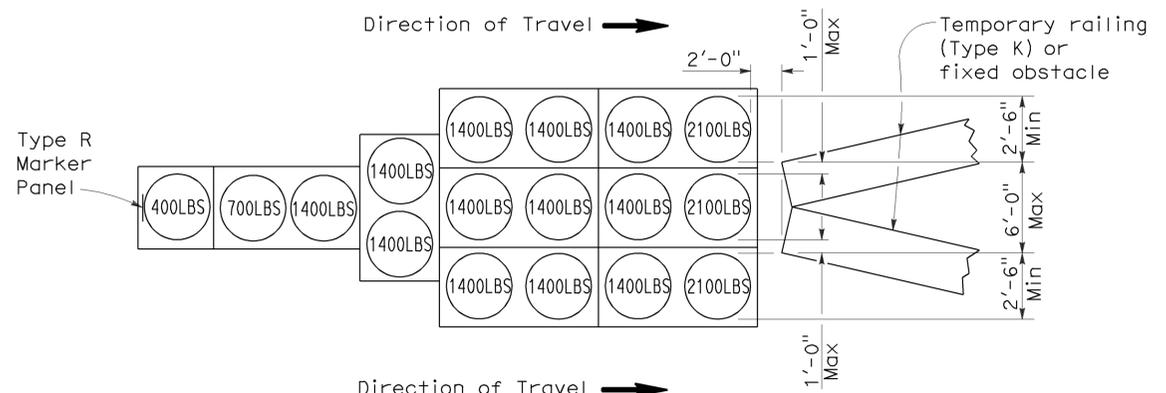
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Direction of Travel →

**ARRAY 'TU14'**

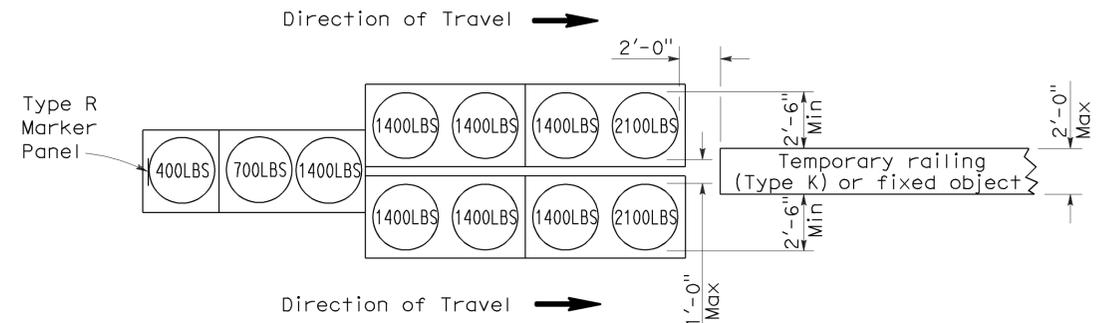
Approach speed 45 mph or more



Direction of Travel →

**ARRAY 'TU17'**

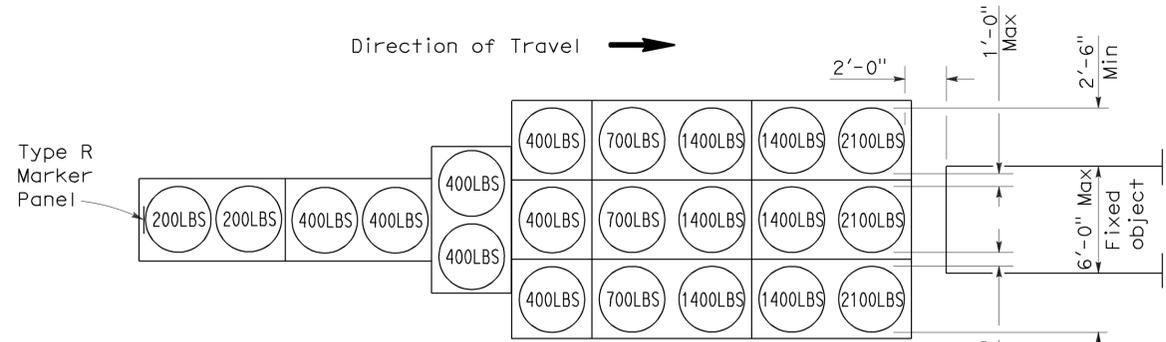
Approach speed less than 45 mph



Direction of Travel →

**ARRAY 'TU11'**

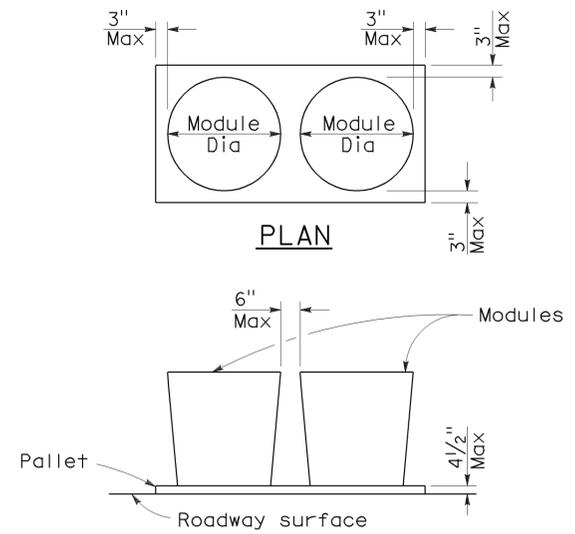
Approach speed less than 45 mph



Direction of Travel →

**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	SM	92	0.0/3.2	7	9

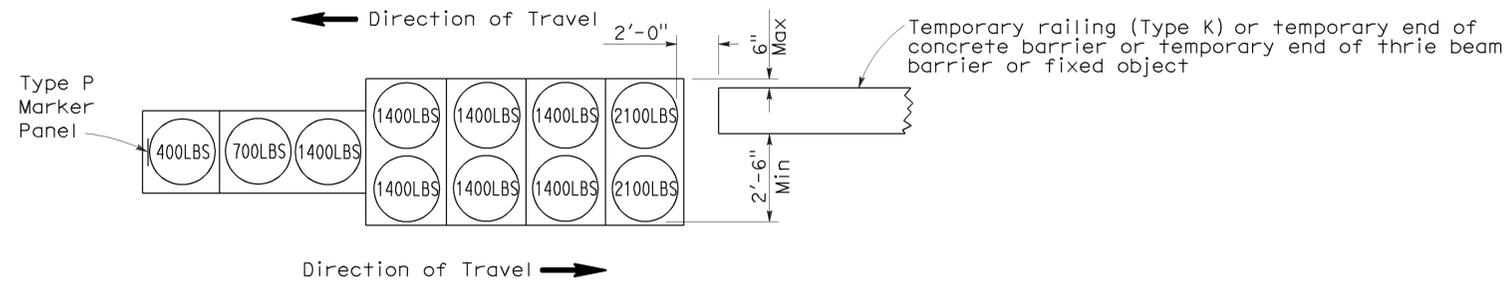
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

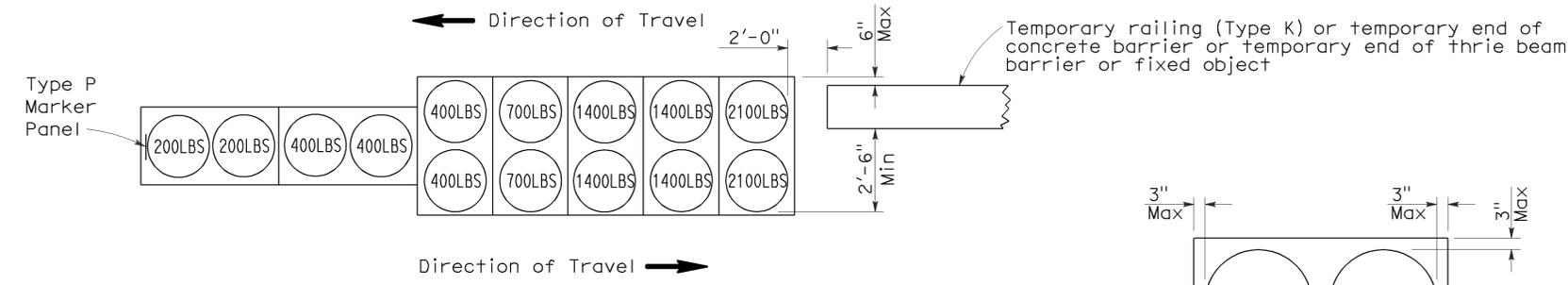
*Randell D. Hiatt*  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

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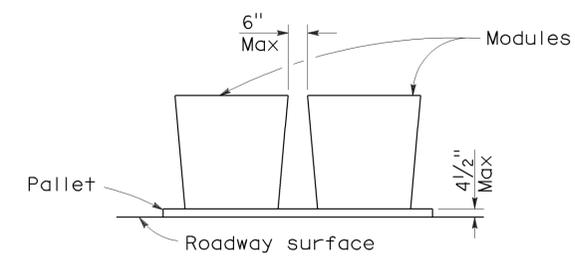
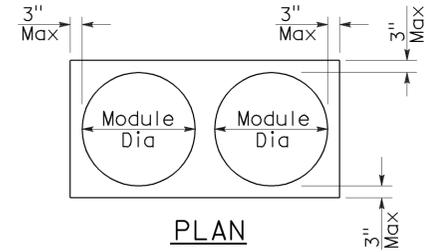
To accompany plans dated \_\_\_\_\_



**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

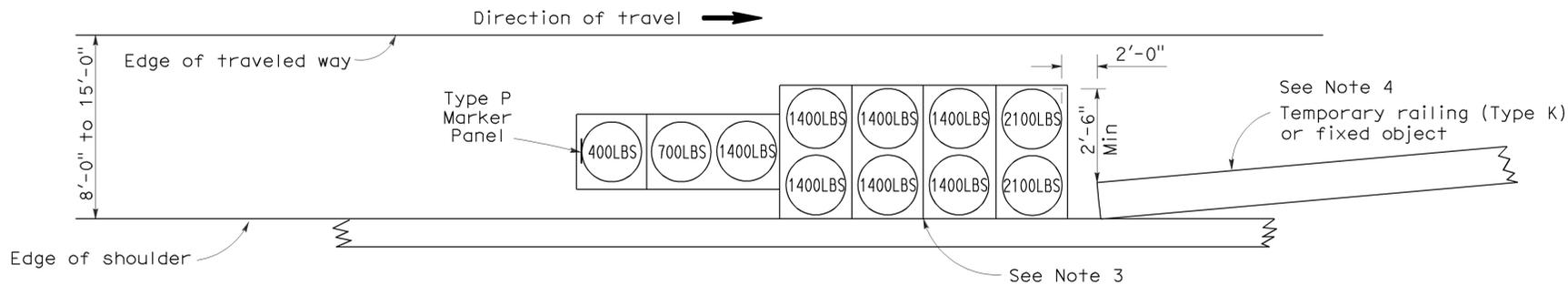
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	0.0/3.2	8	9

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

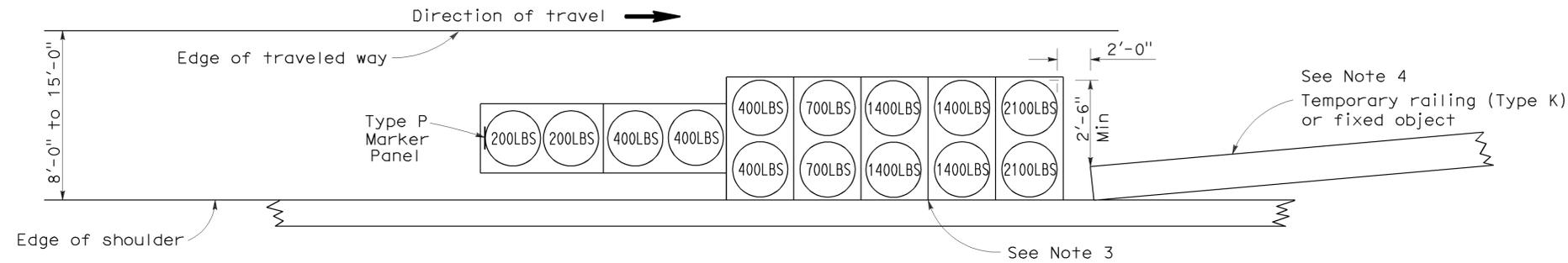
June 6, 2008  
PLANS APPROVAL DATE

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

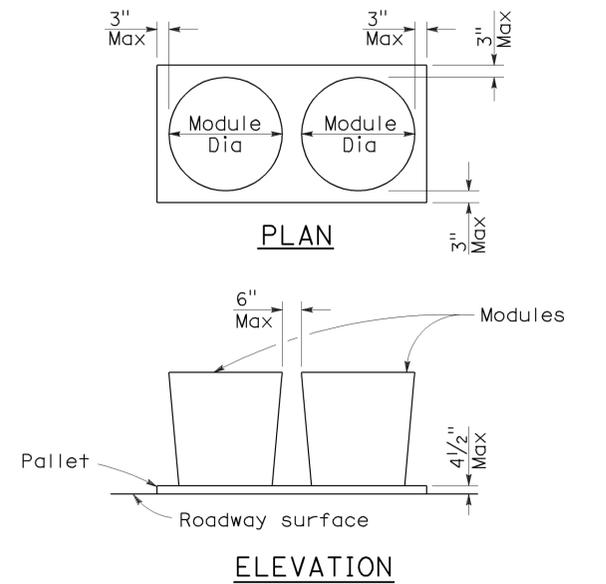
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**ARRAY 'TS11'**  
Approach speed less than 45 mph  
See Note 9



**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

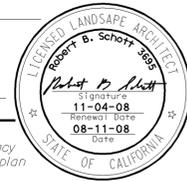
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	0.0/3.2	9	9

Robert B. Schott  
LICENSED LANDSCAPE ARCHITECT

August 15, 2008  
PLANS APPROVAL DATE

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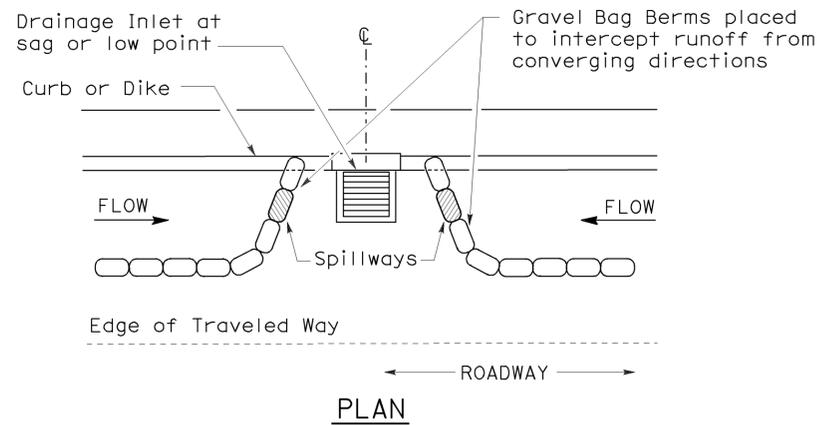
To accompany plans dated \_\_\_\_\_



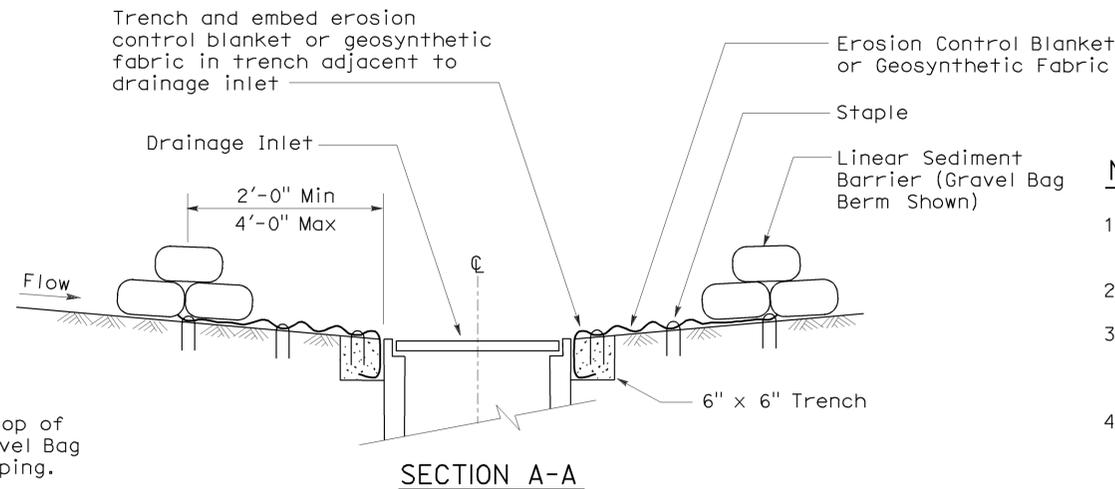
### GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

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



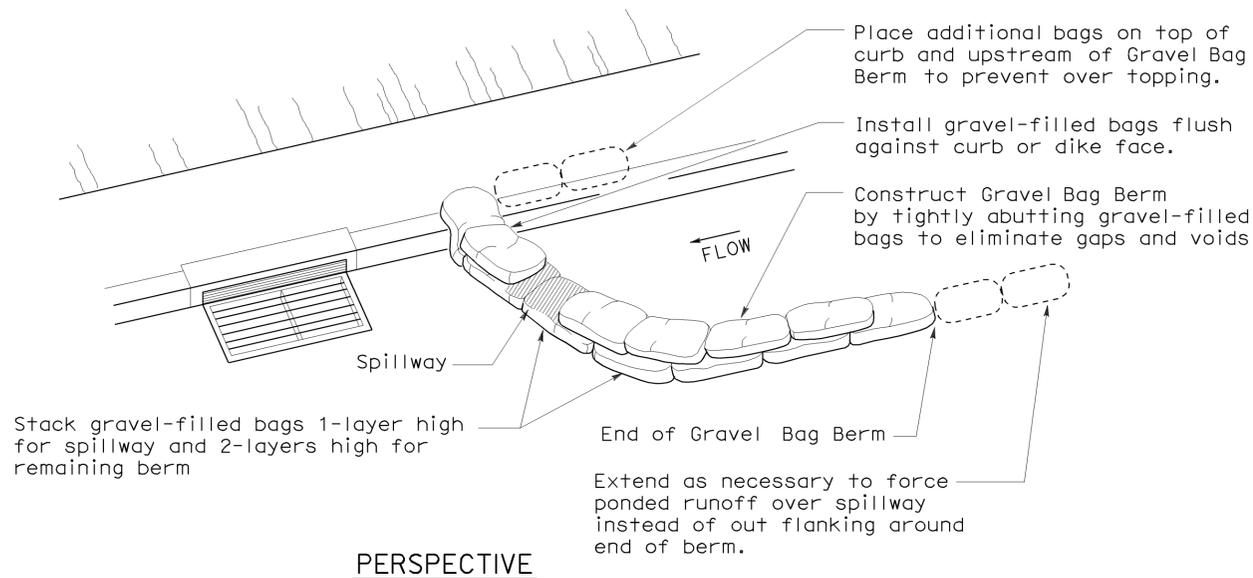
**PLAN**  
**CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)**



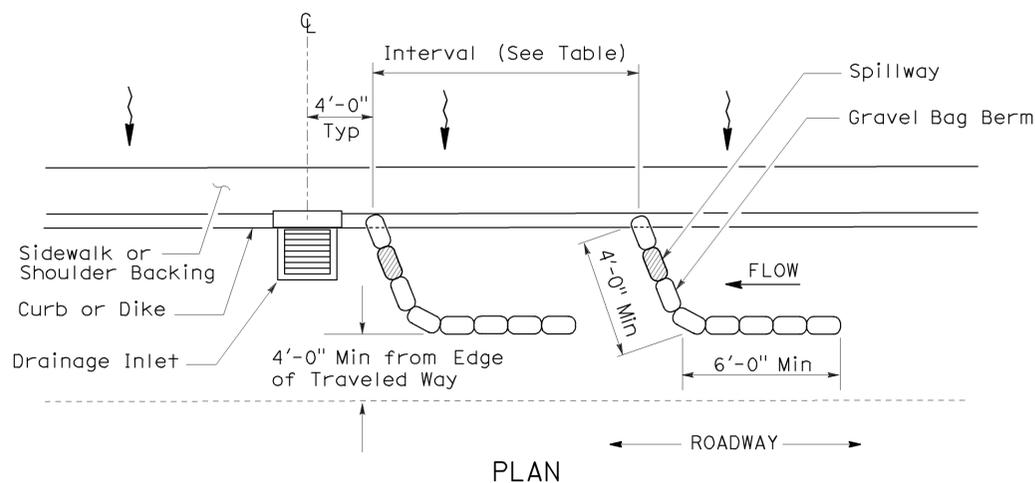
**SECTION A-A**

**NOTES:**

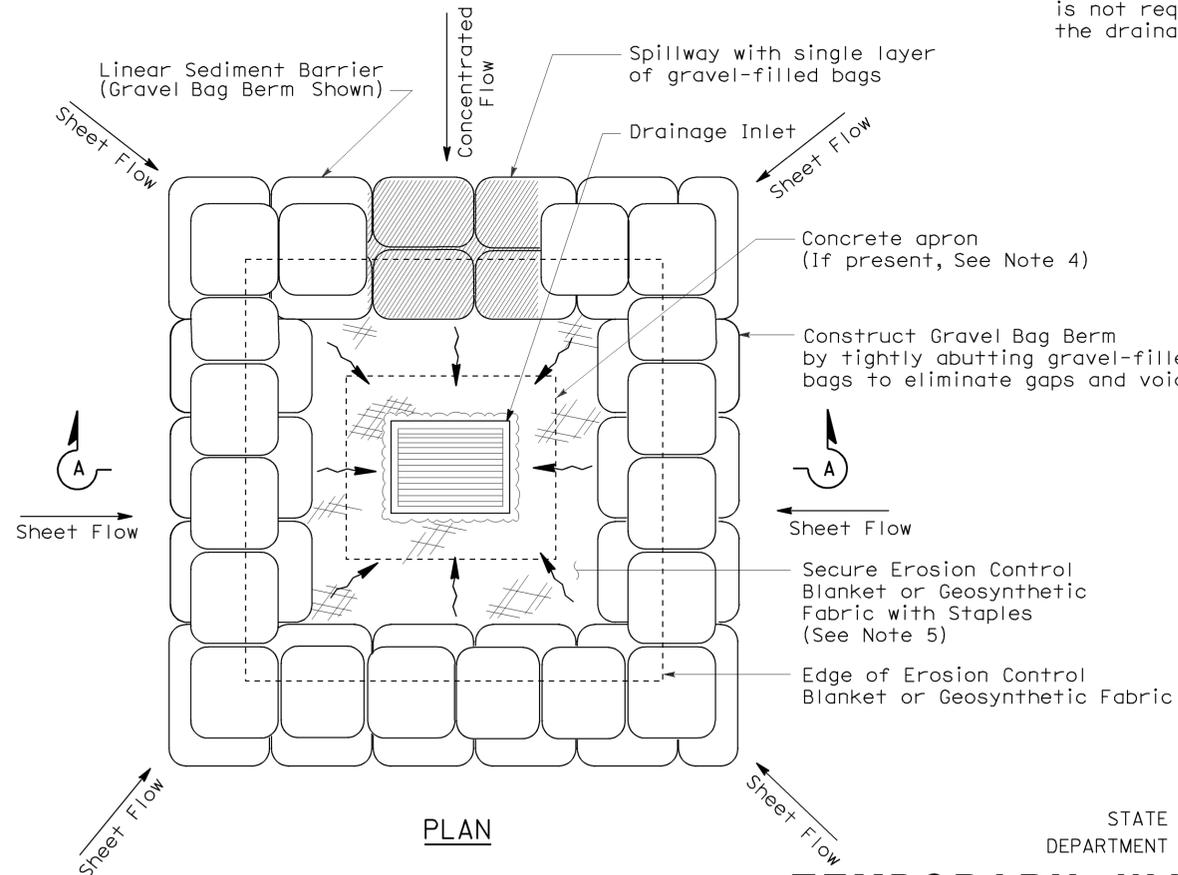
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



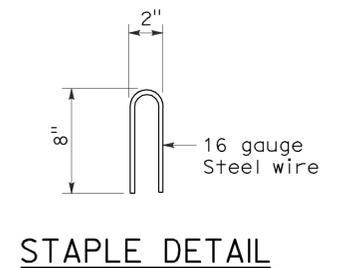
**PERSPECTIVE**



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



**PLAN**  
**TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)**



**STAPLE DETAIL**

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.