

INDEX OF PLANS

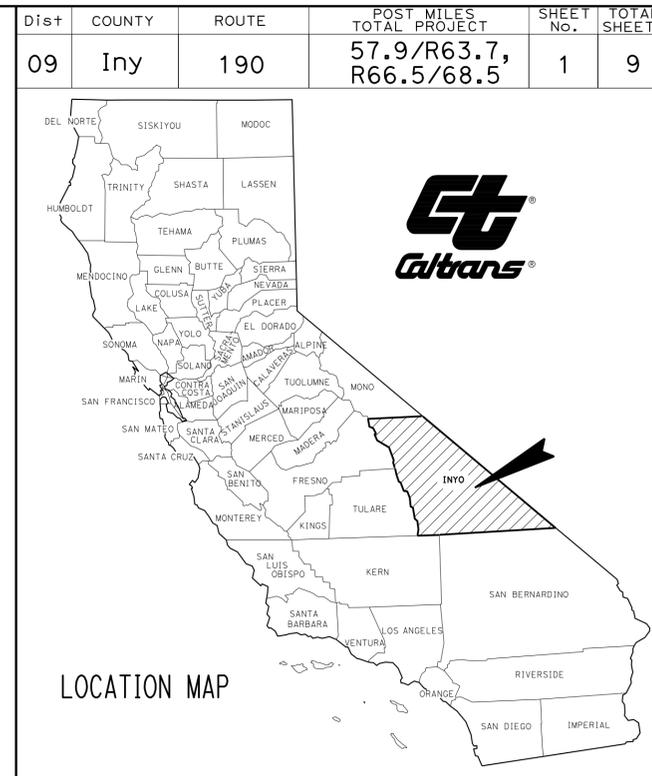
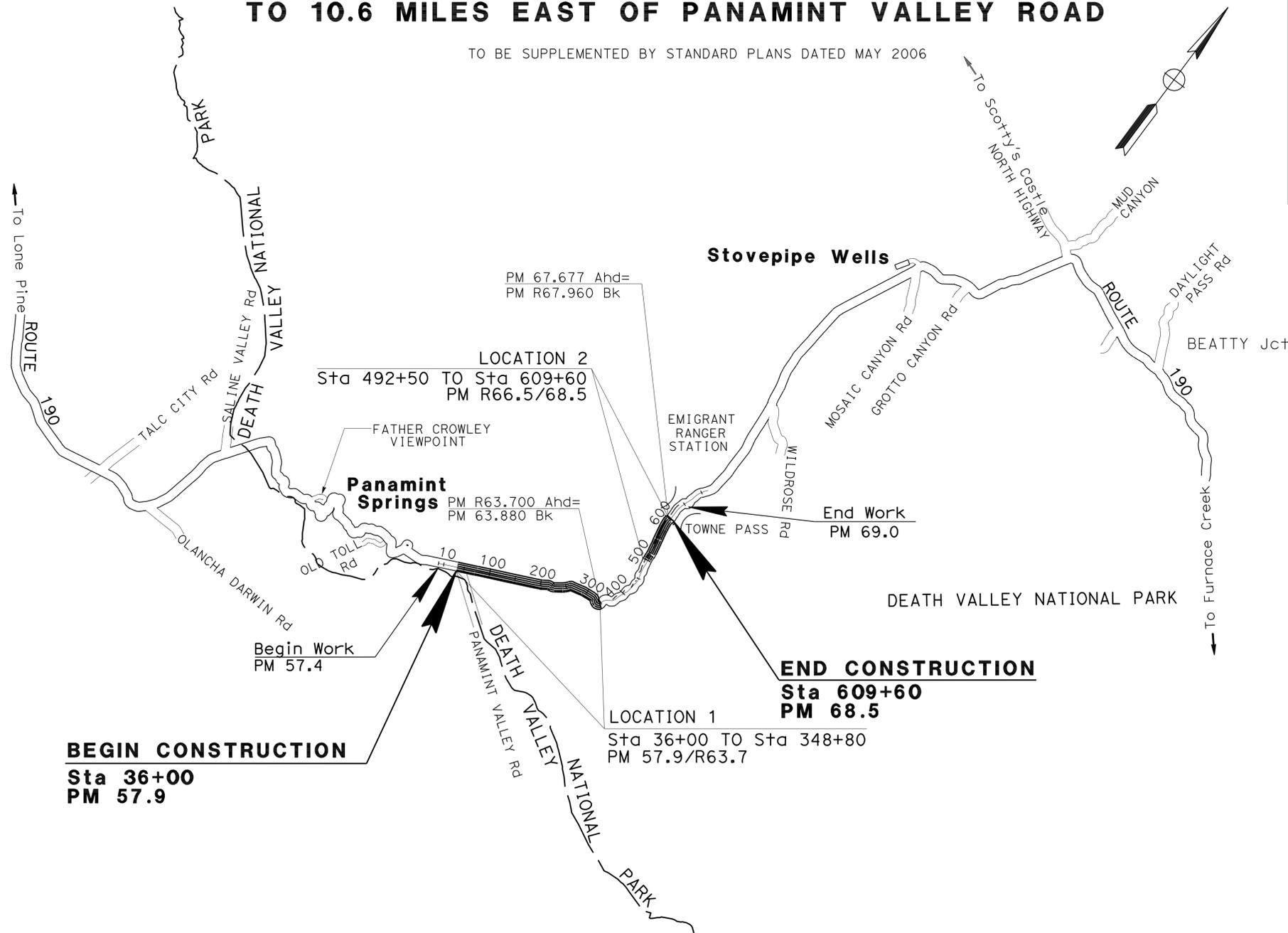
SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-4	CONSTRUCTION DETAILS
5	CONSTRUCTION AREA SIGNS
6	SUMMARY OF QUANTITIES
7-9	REVISED AND NEW STANDARD PLANS

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 INYO COUNTY
IN DEATH VALLEY NATIONAL PARK
FROM PANAMINT VALLEY ROAD
TO 5.8 MILES EAST OF PANAMINT VALLEY ROAD
AND FROM 8.4 MILES EAST OF PANAMINT VALLEY ROAD
TO 10.6 MILES EAST OF PANAMINT VALLEY ROAD

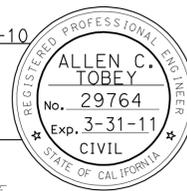
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER
JOHN FOX

DESIGN ENGINEER
JOHN FOX

Allen Tobey 05-12-10
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER



July 6, 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."

NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	190	57.9/R63.7, R66.5/68.5	2	9

Allen Foley 05-12-10
 REGISTERED CIVIL ENGINEER DATE

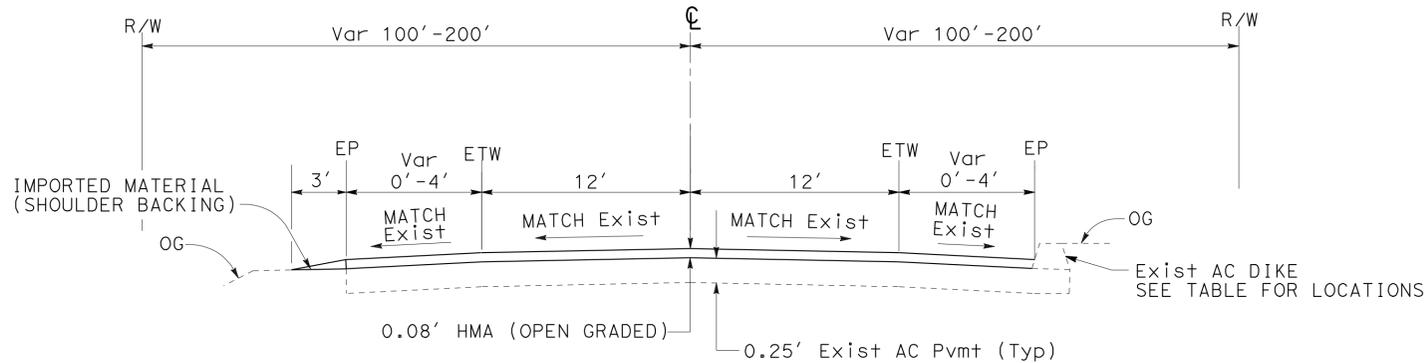
7-6-10
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
ALLEN C. TOBEY
 No. 29764
 Exp. 03-31-11
 CIVIL
 STATE OF CALIFORNIA

NOTES:

- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS
- SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER
- FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAP AT THE DISTRICT OFFICE.
- STATIONING SHOWN IS FOR CONSTRUCTION PURPOSES ONLY.



ROUTE 190

STA 36+00 TO STA 348+80
 STA 492+50 TO STA 609+60

EXISTING AC DIKE

STATION	Lt	Rt
493+50-494+60		X
494+60-495+77	X	X
495+77-499+85	X	
499+85-499+90	X	X
499+90-502+65		X
502+65-503+65	X	X
503+65-505+50	X	
505+50-506+63	X	X
510+17-511+98	X	
515+67-517+43	X	
527+85-532+82	X	
532+82-533+20	X	X
533+20-538+17		X
538+17-549+20	X	X
549+20-549+60	X	
552+72-562+30		X
565+83-573+10	X	
573+97-575+26		X
586+06-587+08	X	
587+08-589+72	X	X
589+72-591+32		X
591+32-603+50	X	X
603+50-603+60		X

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

TYPICAL CROSS SECTIONS
 NO SCALE
X-1

LEGEND

-  - LIMITS OF COLD PLANE 0.33' AC, 0.33' HMA (TYPE A), & 0.08' HMA (OPEN GRADED)
-  - LIMITS OF 0.08' HMA (OPEN GRADED)
-  - LIMITS OF COLD PLANE AC & 0.08' HMA (OPEN GRADED)
-  - DIRECTION OF TRAVEL

NOTES:

1. GUARDRAIL ELEMENTS (10 TOTAL) FROM STATION 503+12 TO 504+37 SHALL BE REPLACED WITH NEW TYPE 4 (WEATHERING STEEL) GUARDRAIL ELEMENTS. GUARDRAIL ELEMENTS REMOVED FROM STATION 503+12 TO 504+37 SHALL BE USED TO REPLACE DAMAGED GUARDRAIL ELEMENTS (6 TOTAL) FROM STATION 504+37 TO 509+75 AND STATION 522+00 TO 527+38. DAMAGED GUARDRAIL ELEMENTS (6 TOTAL) SHALL BE DISPOSED OF OUTSIDE OF R/W.
2. 4 GUARDRAIL ELEMENTS REMOVED FROM STATION 503+12 TO 504+37 SHALL BE SALVAGED AND DELIVERED TO THE DEATH VALLEY HIGHWAY MAINTENANCE STATION.
3. 3/4 WRAP END SECTION AT STATION 519+40 SHALL BE REMOVED AND REPLACED WITH A NEW TYPE 4 (WEATHERING STEEL) 3/4 WRAP END SECTION.

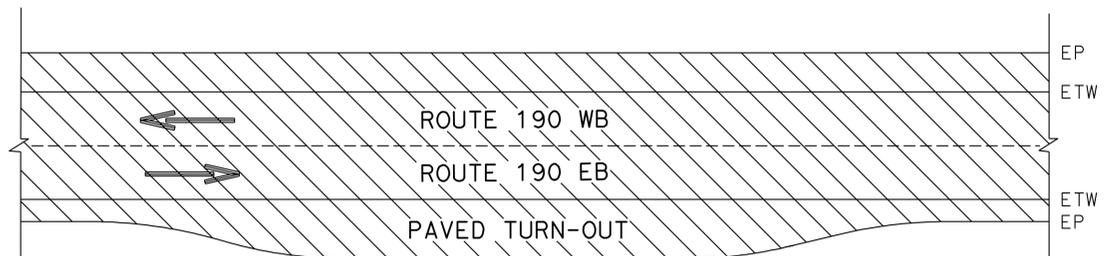
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	190	57.9/R63.7, R66.5/68.5	3	9

Allen Tobey 05-24-10
 REGISTERED CIVIL ENGINEER DATE

7-6-10
 PLANS APPROVAL DATE

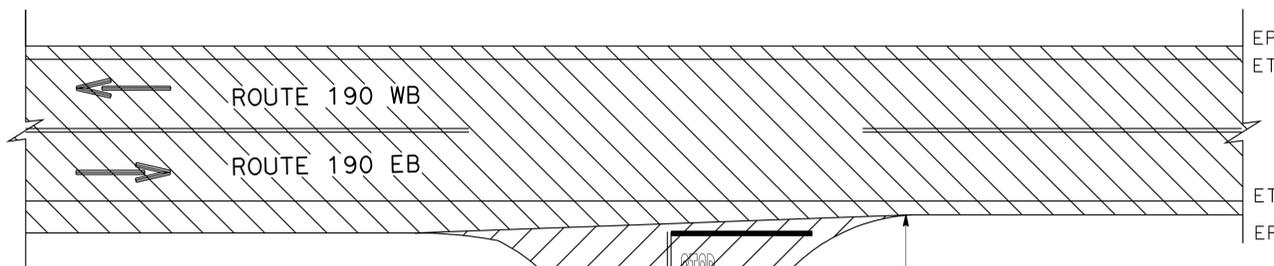
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REGISTERED PROFESSIONAL ENGINEER
ALLEN C. TOBEY
 No. 29764
 Exp. 3-31-11
 CIVIL
 STATE OF CALIFORNIA



LIMITS OF HMA (OPEN GRADED) AT PAVED TURN-OUT

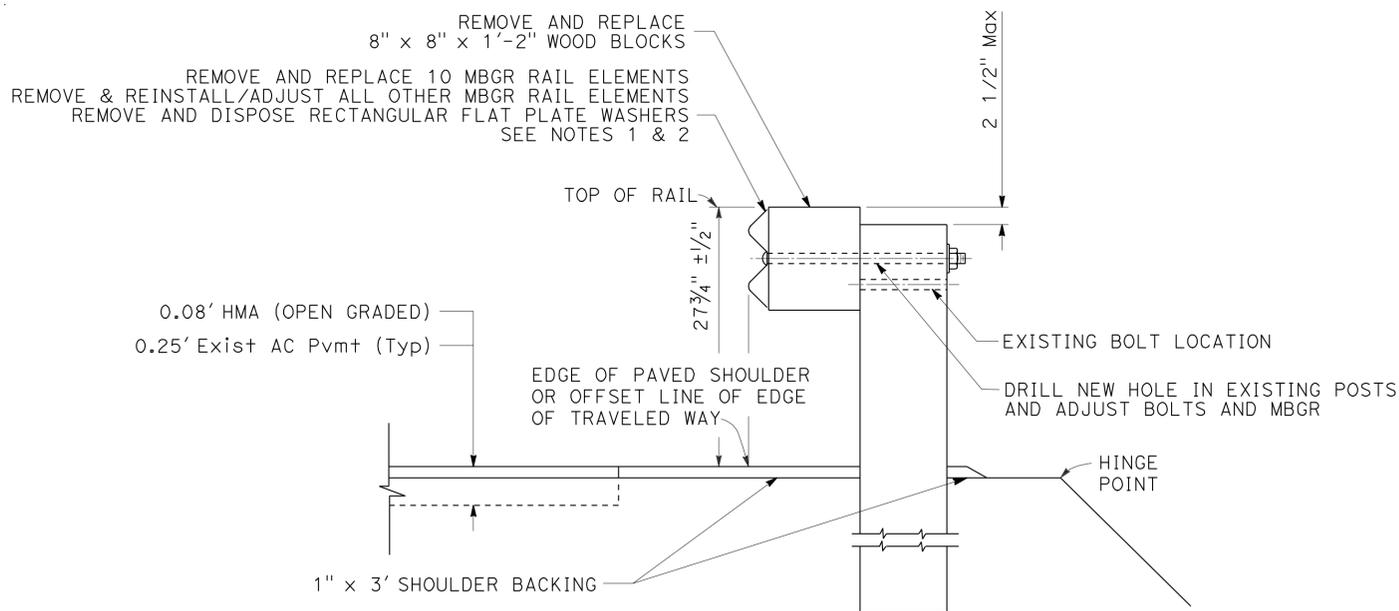
STATION 292+00



- 0.33' COLD PLANE AC
- 0.33' HMA (TYPE A)
- 0.08' HMA (OPEN GRADED)
- 0.08' HMA (OPEN GRADED)
- END TAPER
- CONFORM
- COLD PLANE AC PAVEMENT GRIND (Var 0.0' - 0.08')
- 0.08' HMA (OPEN GRADED)
- BEGIN TAPER

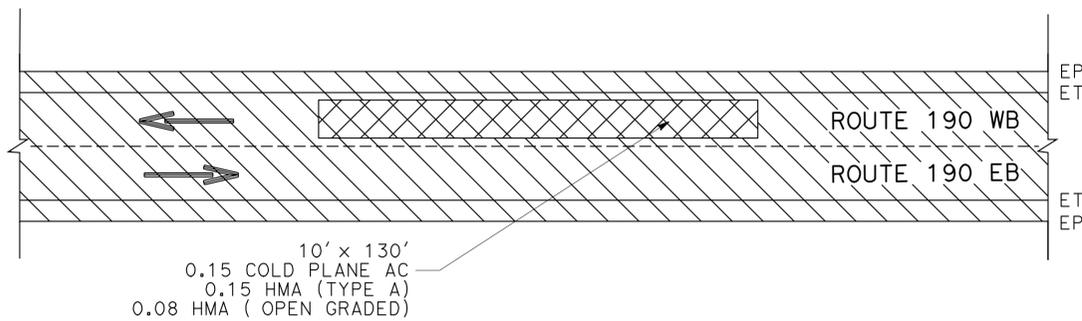
COLD PLANE ASPHALT CONCRETE REMOVE AC AND HMA LIMITS AT PANAMINT VALLEY ROAD INTERSECTION

STATION 36+73



TYPICAL ADJUST METAL BEAM GUARD RAILING AND SHOULDER BACKING AT GUARD RAILING DETAIL

STATION 503+00 TO 509+75
 STATION 522+00 TO 527+38



COLD PLANE AC PAVEMENT

STATION 332+50 TO 333+80

CONSTRUCTION DETAILS C-1

NO SCALE

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	190	57.9/R63.7, R66.5/68.5	4	9

05-12-10
 REGISTERED CIVIL ENGINEER DATE
 7-6-10
 PLANS APPROVAL DATE

ALLEN C. TOBEY
 No. 29764
 Exp. 3-31-11
 CIVIL

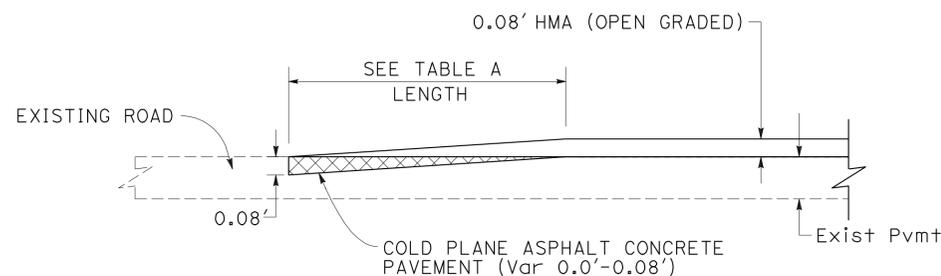
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LEGEND

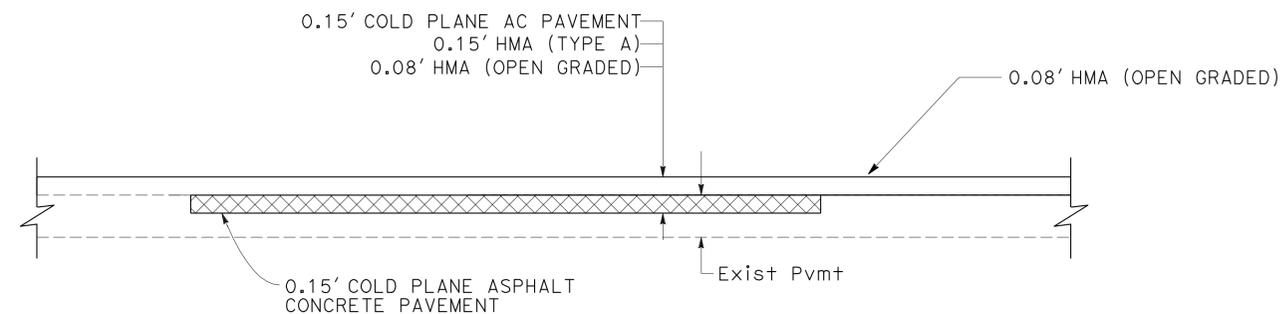
-  - LIMITS OF COLD PLANE ASPHALT CONCRETE PAVEMENT (TYPICAL)
-  - LIMITS OF REMOVE AC & 0.33' HMA (TYPE A)
-  - DIRECTION OF TRAVEL

TABLE A

COLD PLANE ASPHALT CONCRETE PAVEMENT						
LOCATION	STATION	DESCRIPTION	LENGTH (ft)	WIDTH (ft)	DEPTH (ft)	NOTES
1	36+00-36+40	CONFORM GRIND	40.0	34.0	0.08	BEGIN CONSTRUCTION, BEGIN LOCATION 1
	36+73	CONFORM GRIND	30.0	25.5	0.08	PANAMINT VALLEY ROAD INTERSECTION
	36+73	COLD PLANE AC	110.0	40.0	0.33	PANAMINT VALLEY ROAD INTERSECTION
	332+50-333+80	COLD PLANE AC	130.0	10.0	0.15	UNEVEN AREA
2	348+40-348+80	CONFORM GRIND	40.0	28.0	0.08	END LOCATION 1
	492+50-492+90	CONFORM GRIND	40.0	30.7	0.08	BEGIN LOCATION 2
	609+20-609+60	CONFORM GRIND	40.0	25.6	0.08	END CONSTRUCTION, END LOCATION 2

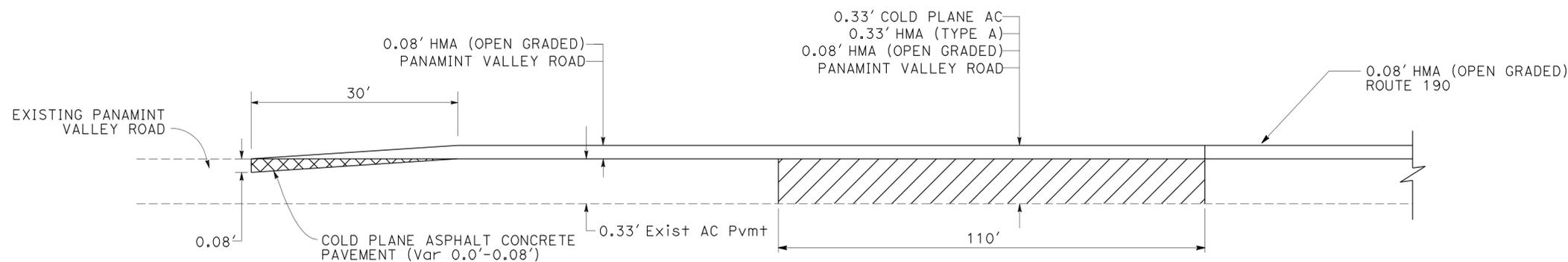


TYPICAL CONFORM GRIND DETAIL



COLD PLANE AC PAVEMENT AND HMA (OPEN GRADED) DETAIL

STATION 332+50 TO 333+80



COLD PLANE AC PAVEMENT AND HMA DETAIL PANAMINT VALLEY ROAD INTERSECTION

STATION 36+73

CONSTRUCTION DETAILS

NO SCALE

C-2

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR
 JOHN FOX
 CALCULATED/DESIGNED BY
 CHECKED BY
 MALISSA REYNOLDS
 REVISED BY
 DATE REVISED
 AT
 03-15-10
 MA
 05-10-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	190	57.9/R63.7, R66.5/68.5	5	9

Allen Tobey 05-24-10
 REGISTERED CIVIL ENGINEER DATE
 7-6-10
 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.

NOTES:

1. FOR SIGN INSTALLATION DETAILS AND DIMENSIONS NOT SHOWN SEE STANDARD PLANS.
2. SEE TABLE FOR PLACEMENT TYPE.
3. THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.
4. SIGNS IN CONFLICT WITH EXISTING PROJECTS SHALL BE COVERED UPON INSTALLATION AS DIRECTED BY THE ENGINEER.

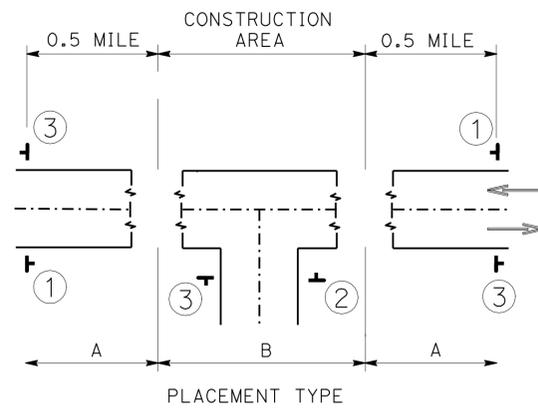
PORTABLE CHANGEABLE MESSAGE SIGNS		
MESSAGE FOR 2 LANE SECTIONS		
EXPECT DELAYS	REDUCE SPEED	PREPARE TO STOP

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS			
STA	PM	PLACEMENT	REMARKS
10+00	57.40	A	BEGIN WORK
36+73	57.91	B	PANAMINT VALLEY ROAD
636+00	69.04	A	END WORK

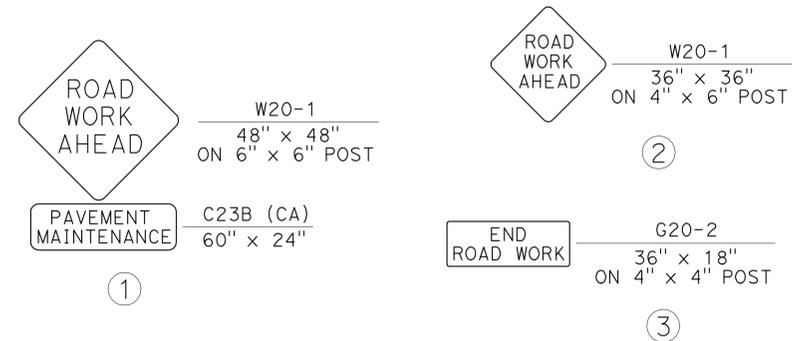
1. PORTABLE CHANGEABLE MESSAGE SIGN LOCATIONS TO BE CONFIRMED BY THE ENGINEER BEFORE THE ACTUAL CLOSURE.
2. ALTERNATE MESSAGES MUST BE APPROVED BY THE ENGINEER.
3. MESSAGE MAY BE ALTERED BY THE ENGINEER.
4. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DISPLAYED DURING SWEEPING OPERATIONS AND WHEN CONSTRUCTION OPERATIONS ARE ACTIVELY IN PROGRESS UNLESS ORDERED OTHERWISE BY THE ENGINEER.

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

STATIONARY MOUNTED CONSTRUCTION AREA SIGN DETAILS						
LAYOUT	TYPE	PANEL SIZE	SIGN MESSAGE	No. OF SIGNS	No. OF POSTS	POST SIZE
①	W20-1	48" x 48"	ROAD WORK AHEAD	2	2	6" x 6"
	C23B (CA)	60" x 24"	PAVEMENT MAINTENANCE	2		
②	W20-1	36" x 36"	ROAD WORK AHEAD	1	1	4" x 6"
③	G20-2	36" x 18"	END ROAD WORK	3	3	4" x 4"



TYPICAL SIGN PLACEMENT FOR UNDIVIDED HIGHWAY



TYPICAL SIGN LAYOUT

CONSTRUCTION AREA SIGNS
NO SCALE
CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR **JOHN FOX**
 CALCULATED/DESIGNED BY
 CHECKED BY
 ALLEN TOBEY
 MALISSA REYNOLDS
 REVISED BY
 DATE REVISED
 AT
 MA
 05-10-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR
JOHN FOX

CALCULATED/DESIGNED BY
ALLEN TOBEY

CHECKED BY
MALISSA REYNOLDS

REVISED BY
AT

MA

DATE REVISION
 03-15-10 05-10-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	190	57.9/R63.7, R66.5/68.5	6	9

Allen Tobey 05-12-10
 REGISTERED CIVIL ENGINEER DATE

7-6-10
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ALLEN C. TOBEY
 No. 29764
 Exp. 3-31-11
 CIVIL
 STATE OF CALIFORNIA

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ROADWAY ITEMS					
LOCATION	HOT MIX ASPHALT (TYPE A)	HOT MIX ASPHALT (OPEN GRADED)	COLD PLANE AC PAVEMENT	IMPORTED MATERIAL (SHOULDER BACKING)	TACK COAT
	TON	TON	SQYD	TON	TON
1	116	4605	1072	976	39
2		1882	249	204	16
TOTAL	116	6487	1321	1180	55

THERMOPLASTIC PAVEMENT MARKINGS				
LOCATION	LIMIT LINE		"STOP"	
	LF (N)	SQFT	EA (N)	SQFT
1	32	32	1	22
TOTAL	54			

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

PAINT TRAFFIC STRIPE (2-COAT)					
LOCATION	DETAIL NUMBER				
	5	18	21	27B	38A
	LF	LF	LF	LF	LF
1	16,325	10,640	4295	62,490	278
2	2302	5058	4390	23,500	
TOTAL	129,278				

REMOVE PAVEMENT MARKER	
LOCATION	EA
2	694
TOTAL	694

ADJUST METAL BEAM GUARD RAILING	
LOCATION	LF
2	1213
TOTAL	1213

SALVAGE METAL BEAM GUARD RAILING	
LOCATION	LF
2	50
TOTAL	50

REMOVE END SECTION	
LOCATION	EA
2	1
TOTAL	1

END SECTION	
LOCATION	EA
2	1
TOTAL	1

SUMMARY OF QUANTITIES Q-1

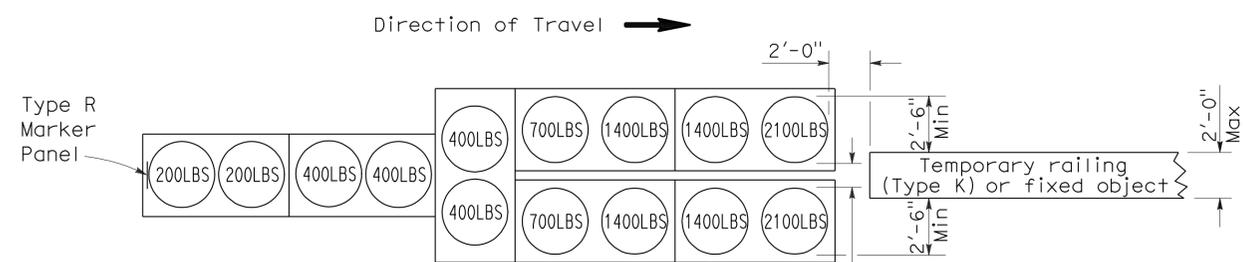
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	190	57.9/R63.7, R66.5/68.5	7	9

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

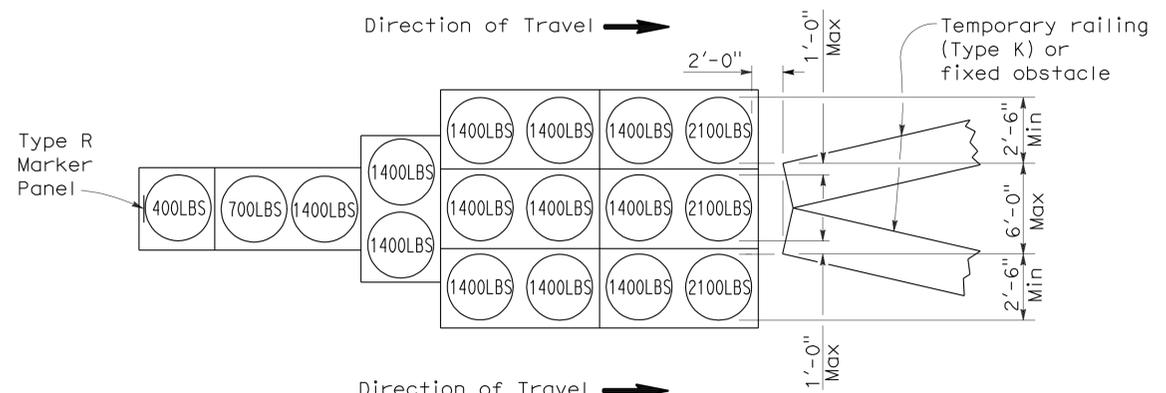
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To accompany plans dated 7-6-10



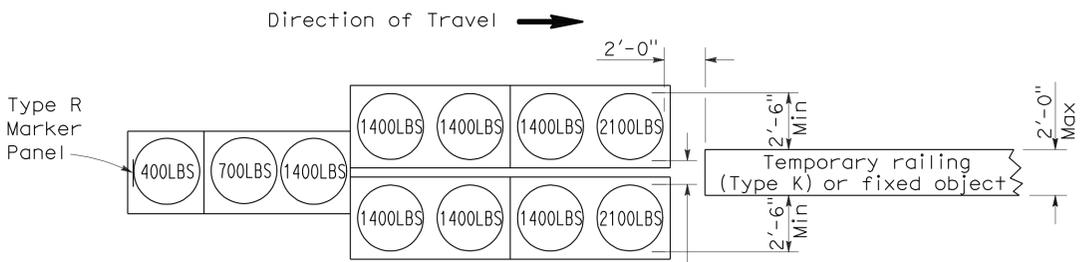
ARRAY 'TU14'

Approach speed 45 mph or more



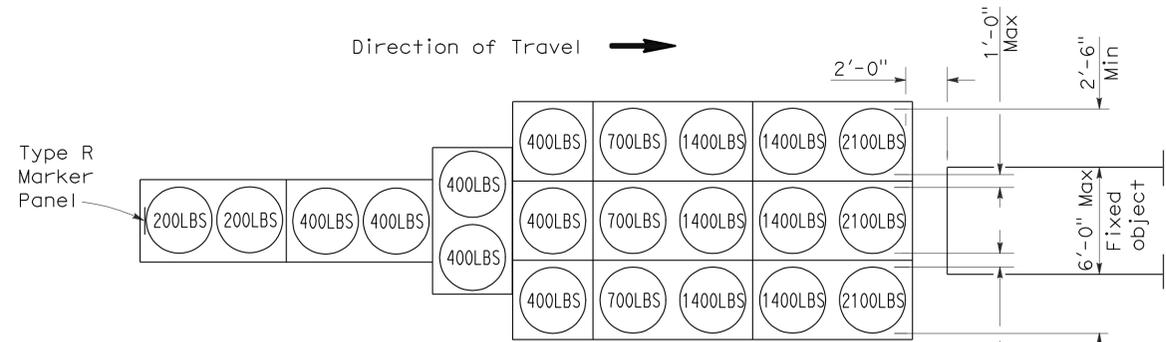
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Approach speed less than 45 mph



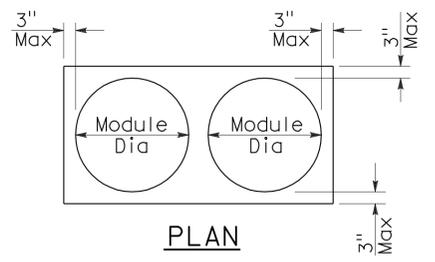
ARRAY 'TU11'

Approach speed less than 45 mph

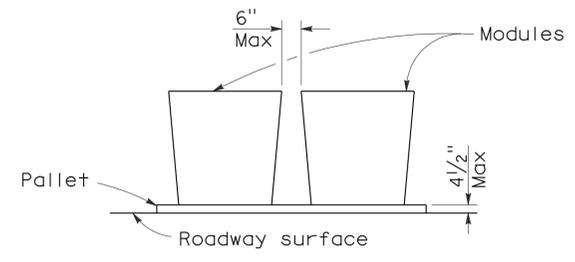


ARRAY 'TU21'

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
09	Iny	190	57.9/R63.7, R66.5/68.5	8	9

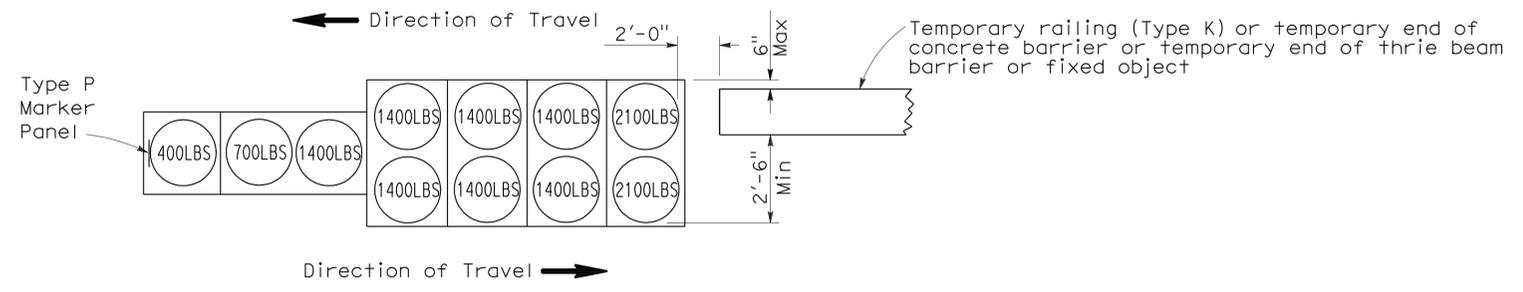
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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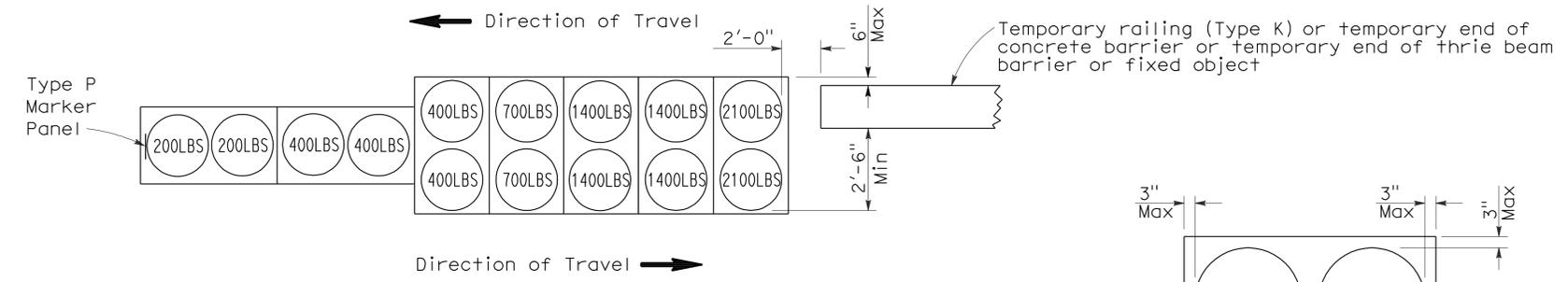
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 7-6-10



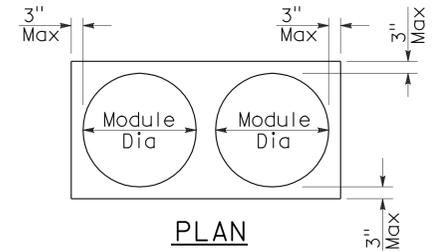
ARRAY 'TB11'

Approach speed less than 45 mph

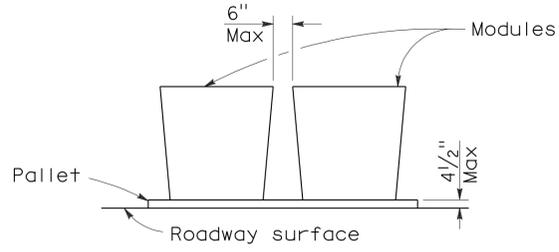


ARRAY 'TB14'

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

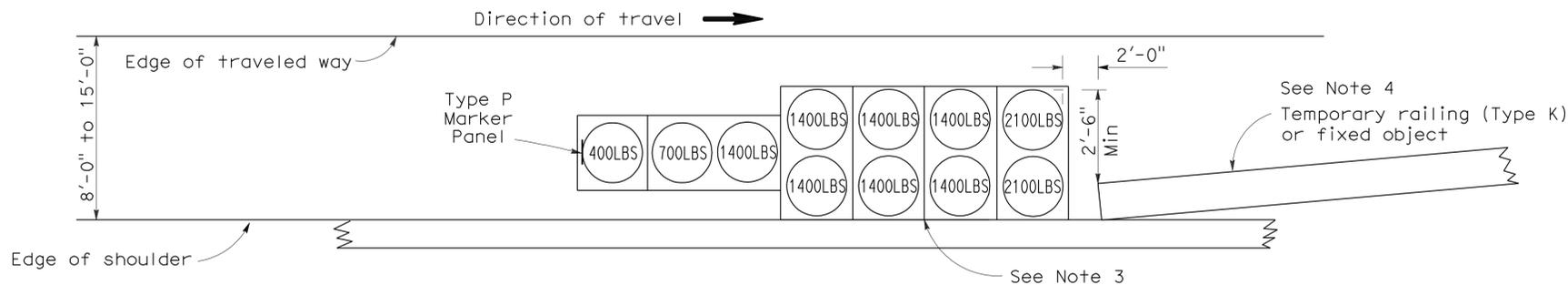
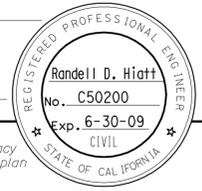
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	190	57.9/R63.7, R66.5/68.5	9	9

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

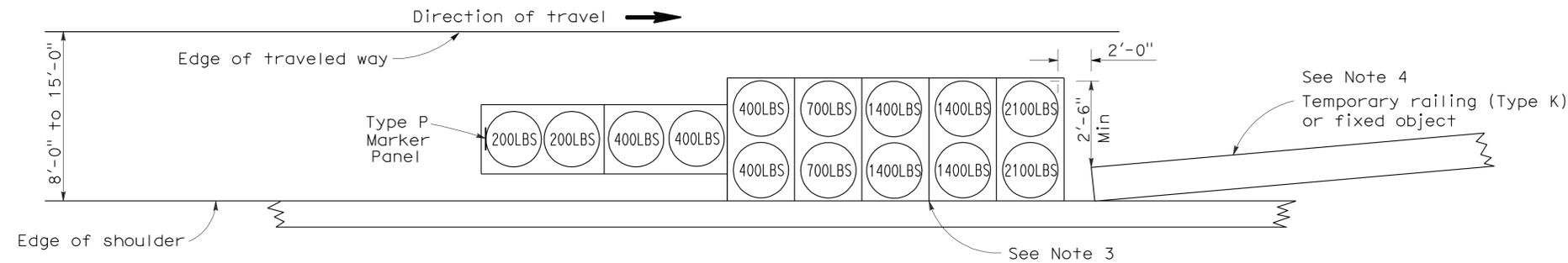
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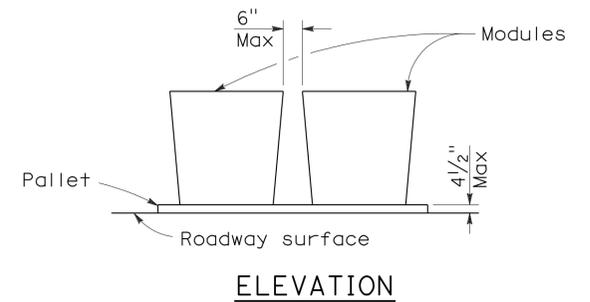
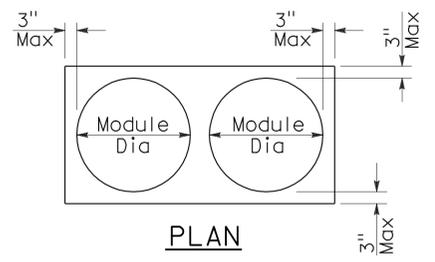
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



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

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.



CRASH CUSHION PALLET DETAIL
See Note 11

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