INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-5	CONSTRUCTION DETAILS
6	CONSTRUCTION AREA SIGNS
7	SUMMARY OF QUANTITIES
8	DETECTOR LOOP
9-16	REVISED STANDARD PLANS

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

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

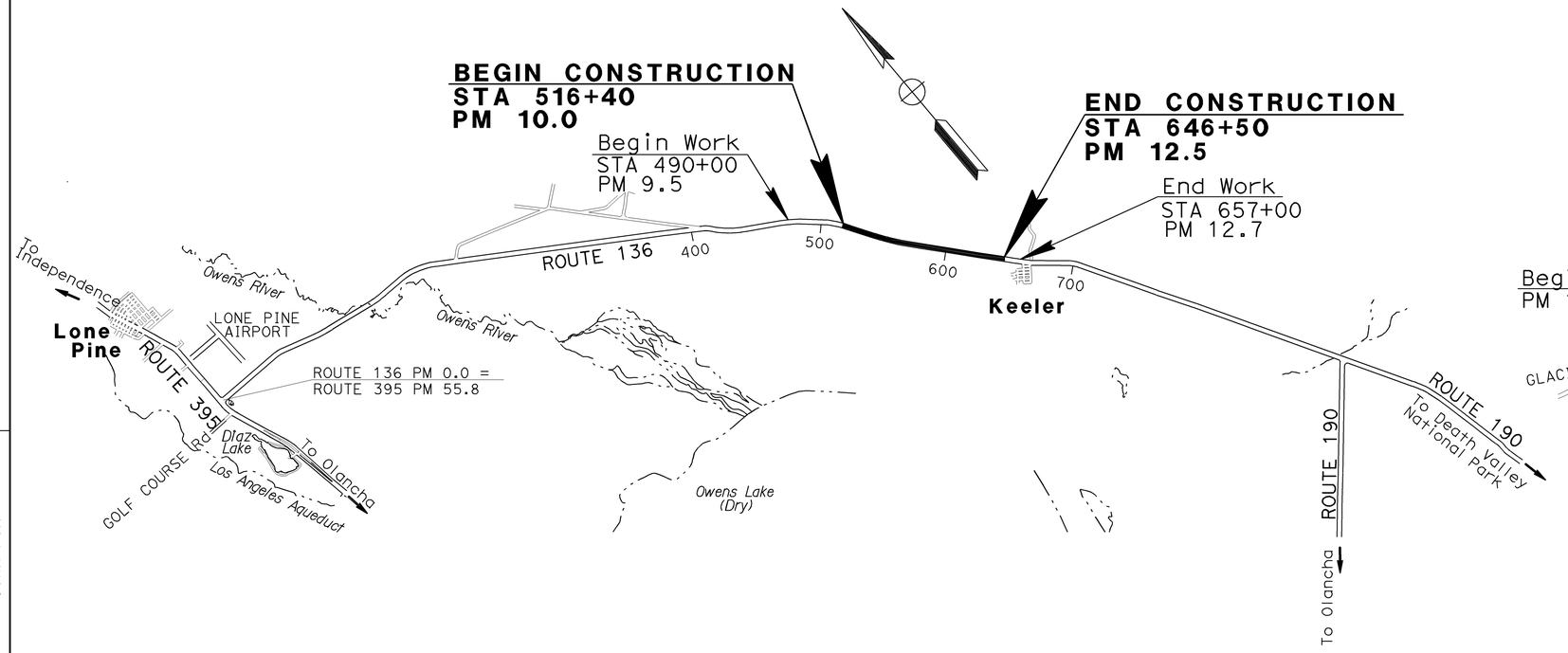
STATE HIGHWAY

IN INYO COUNTY ABOUT 11 MILES EAST OF LONE PINE ON ROUTE 136 FROM 10.0 MILES EAST TO 12.5 MILES EAST OF ROUTE 395 AND NEAR BIG PINE ON ROUTE 168 FROM ROUTE 395 TO 0.2 MILE WEST OF DEATH VALLEY ROAD

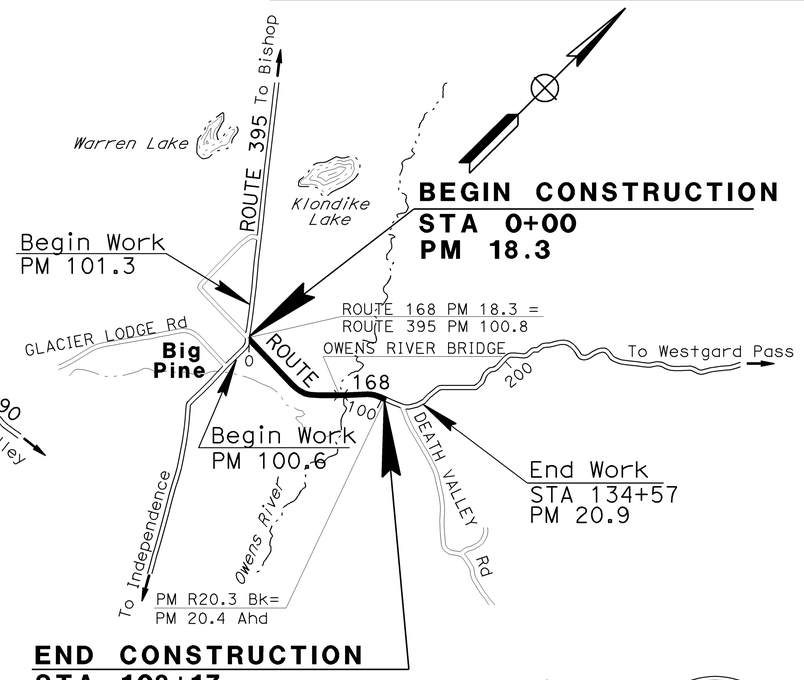
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	1	16

LOCATION MAP



LOCATION 1



LOCATION 2

NO SCALE

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

BRAD LARSON 12-21-10
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
BRADLEY L LARSON
No. 76951
Exp. 12-31-12
CIVIL
STATE OF CALIFORNIA

January 31, 2011
PLANS APPROVAL DATE

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

PROJECT MANAGER: JOHN FOX
DESIGN ENGINEER: JOHN FOX

CONTRACT No.	09-347304
PROJECT ID	0900020073

LAST REVISION => 01-27-11
DATE PLOTTED => 02-FEB-2011
TIME PLOTTED => 09:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	2	16

BRAD LARSON 12-21-10
REGISTERED CIVIL ENGINEER DATE

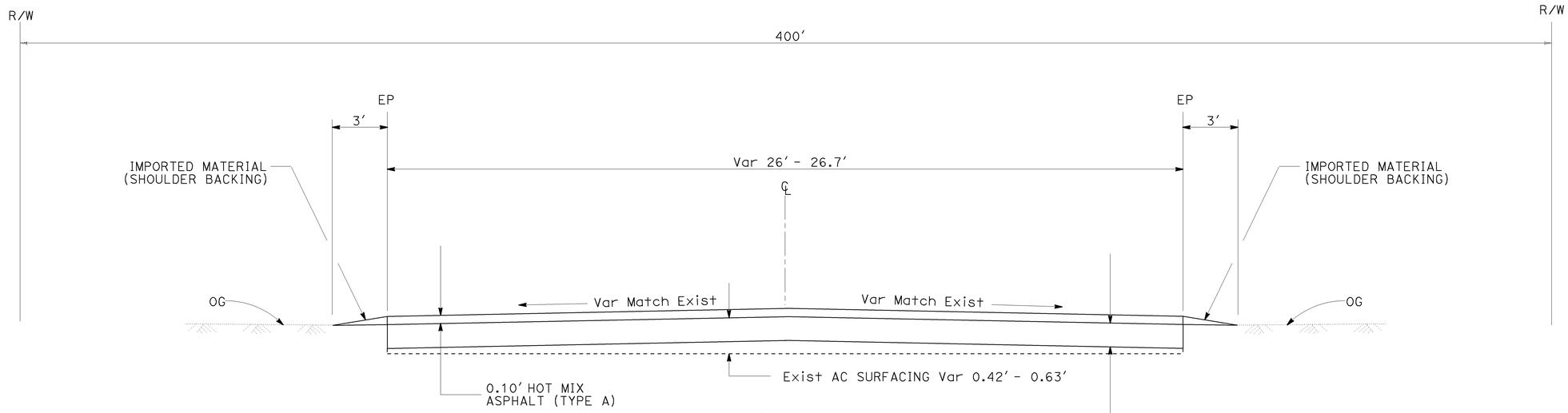
1-31-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRADLEY L. LARSON
No. 76951
Exp.12-31-12
CIVIL
STATE OF CALIFORNIA

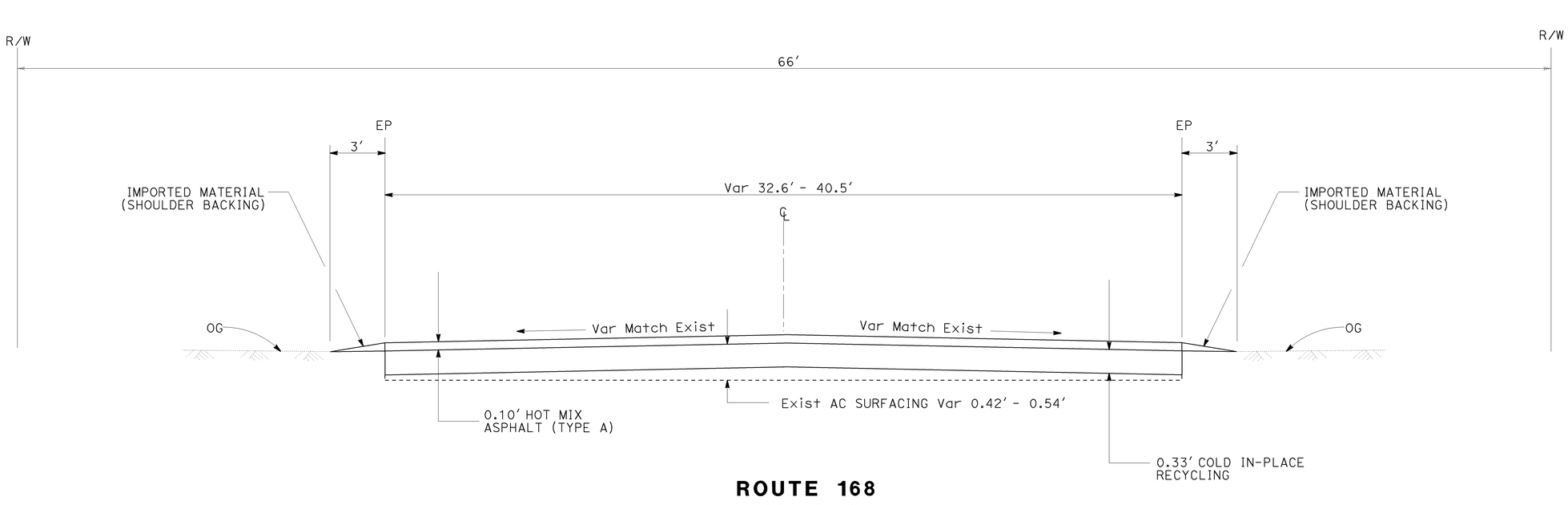
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
4. STATIONING SHOWN IS FOR CONSTRUCTION PURPOSES ONLY.
4. ALL HMA SHALL HAVE LIQUID ANTISTRIP TREATMENT.



ROUTE 136
LOCATION 1
STA 516+40 TO STA 646+50



ROUTE 168
LOCATION 2
STA 0+00 TO STA 108+17

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

TYPICAL CROSS SECTIONS

NO SCALE **X-1**

REVISED BY | DATE REVISED
BRADLEY LARSON | DAN FROILAND
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR | JOHN FOX
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

LAST REVISION | DATE PLOTTED => 28-JAN-2011
01-27-11 | TIME PLOTTED => 10:04

BORDER LAST REVISED 7/2/2010
USERNAME => S123915
DGN FILE => 934730ca001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2480
PROJECT NUMBER & PHASE 09000200731

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	3	16

BRAD LARSON 12-21-10
REGISTERED CIVIL ENGINEER DATE

1-31-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRADLEY L. LARSON
No. 76951
Exp.12-31-12
CIVIL
STATE OF CALIFORNIA

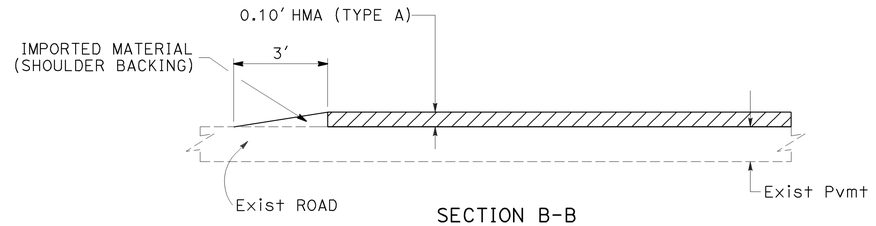
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

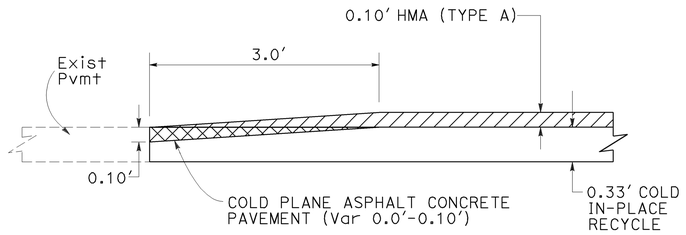
0-0.10' Var COLD PLANE ASPHALT CONCRETE PAVEMENT
0.10' HMA (TYPE A)

0.10' HMA (TYPE A)

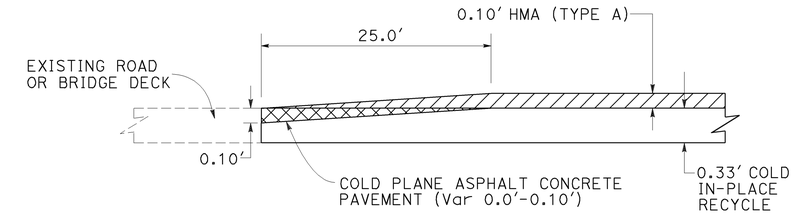
- DIRECTION OF TRAVEL



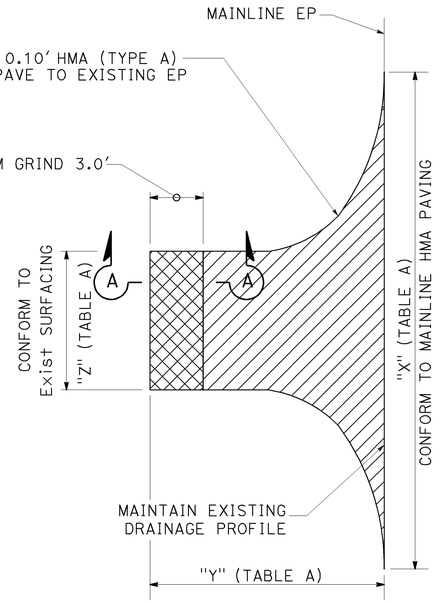
SECTION B-B



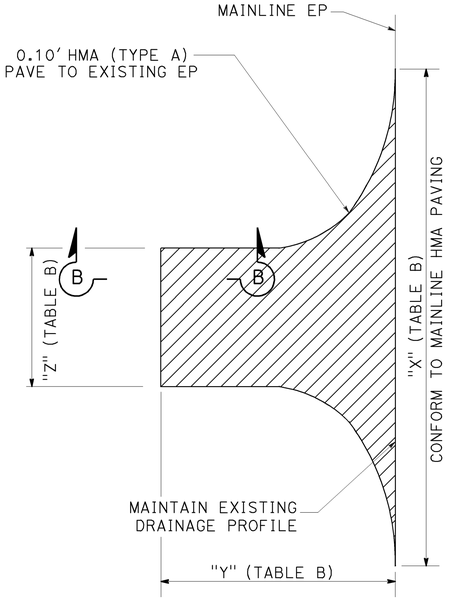
SECTION A-A



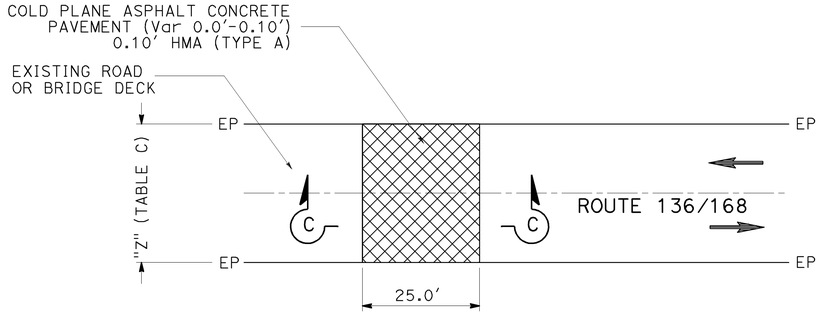
SECTION C-C



TYPICAL COLD PLANE AND HMA PAVING LIMITS AT PAVED ROAD CONNECTION



TYPICAL HMA PAVING LIMITS AT UNPAVED ROAD CONNECTION



COLD PLANE AND HMA PAVING LIMITS AT Exist Rdwy AND BRIDGE DECK

TABLE A

COLD PLANE AND HMA PAVING LIMITS AT PAVED ROAD CONNECTION

Loc	Sta	Lt	Rt	"X"	"Y"	"Z"	DESCRIPTION
2	0+40		X	69.0'	30.0	31.0'	CAMPGROUND ENTRANCE
	97+60	X		260.0'	50.0'	45.0'	LEIGHTON ROAD

TABLE B

HMA PAVING LIMITS AT UNPAVED ROAD CONNECTION

Loc	Sta	Lt	Rt	"X"	"Y"	"Z"	DESCRIPTION
1	540+26	X		95.0'	34.0'	31.0'	GRAVEL ROAD APPROACH
	582+80		X	167.0'	50.0'	58.0'	HISTORICAL MARKER PULLOUT
2	31+65		X	81.0'	48.0'	10.0'	GRAVEL ROAD APPROACH
	53+60		X	50.0'	18.0'	10.0'	GRAVEL ROAD APPROACH
	53+70	X		58.0'	40.0'	11.0'	GRAVEL ROAD APPROACH
	72+67		X	60.0'	48.0'	13.0'	GRAVEL ROAD APPROACH
	73+10	X		53.0'	41.0'	16.0'	GRAVEL ROAD APPROACH

TABLE C

COLD PLANE AND HMA PAVING LIMITS AT Exist Rdwy AND BRIDGE DECK

Loc	Sta	"Z"	DESCRIPTION
1	516+40	26.7'	BEGIN WORK
	646+50	26.6'	END WORK
2	0+00	37.7'	BEGIN WORK
	77+42	40.0'	WEST SIDE BRIDGE DECK
	78+45	40.0'	EAST SIDE BRIDGE DECK
	108+17	40.4'	END WORK

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

CONSTRUCTION DETAILS
NO SCALE **C-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
FUNCTIONAL SUPERVISOR: JOHN FOX
CALCULATED-DESIGNED BY: BRADLEY LARSON
CHECKED BY: DAN FROILAND
REVISED BY: BL
DATE REVISED: 12-17-10

LAST REVISION
DATE PLOTTED => 28-JAN-2011
TIME PLOTTED => 10:04
01-27-11

BORDER LAST REVISED 7/2/2010
USERNAME => S123915
DGN FILE => 934730ga001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2480
PROJECT NUMBER & PHASE 09000200731

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	4	16

BRAD LARSON 12-21-10
REGISTERED CIVIL ENGINEER DATE

1-31-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRADLEY L. LARSON
No. 76951
Exp.12-31-12
CIVIL
STATE OF CALIFORNIA

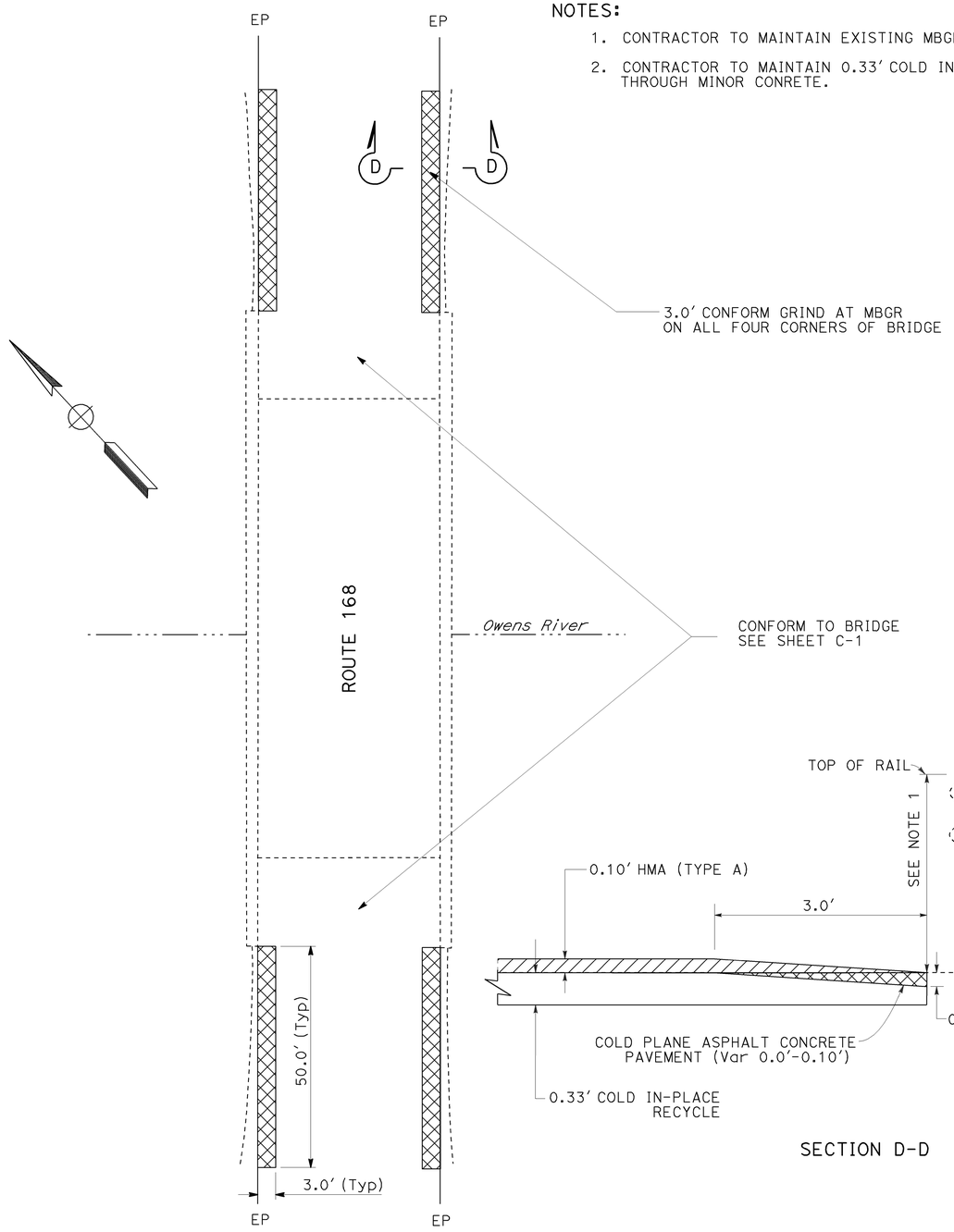
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

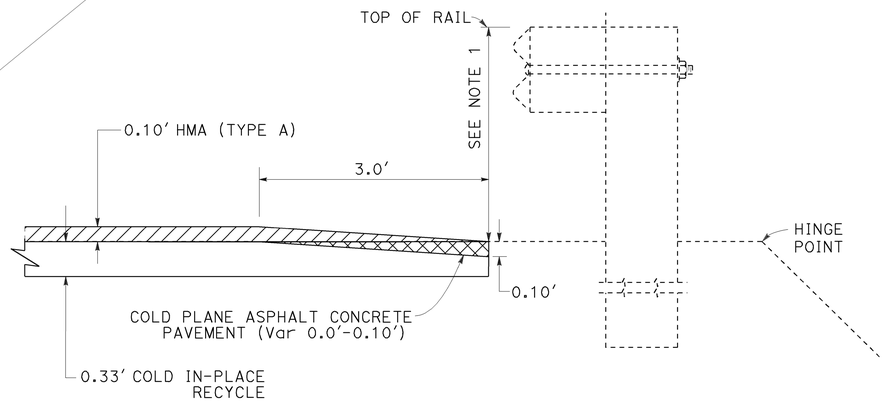
NOTES:

1. CONTRACTOR TO MAINTAIN EXISTING MBGR HEIGHT.
2. CONTRACTOR TO MAINTAIN 0.33' COLD IN-PLACE RECYCLE DEPTH THROUGH MINOR CONRETE.

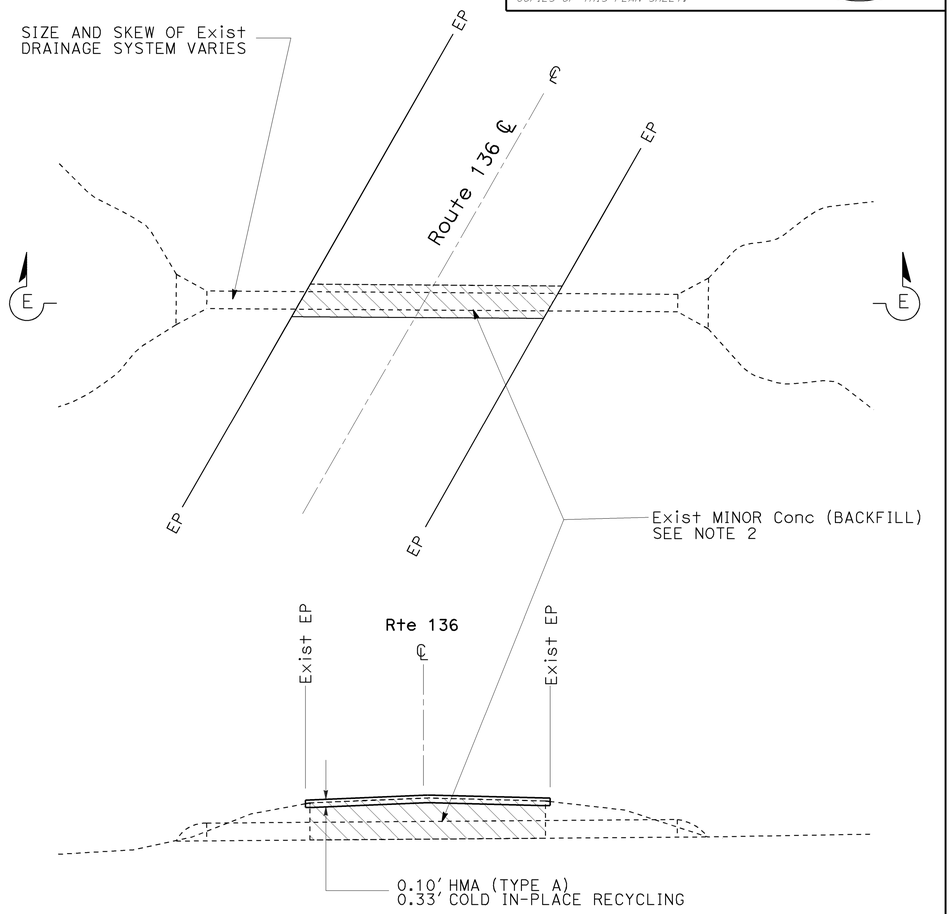
LEGEND:

MINOR Conc (BACKFILL)





SECTION D-D



SECTION E-E

TYPICAL Exist DRAINAGE SYSTEM WITH MINOR Conc (BACKFILL)

Exist DRAINAGE SYSTEMS WITH MINOR Conc (BACKFILL)		
Loc	Sta	REMARKS
1	529+98	TWIN 30" CULVERT
	540+92	48"X72" ARCH CULVERT

COLD PLANE AT METAL BEAM GUARD RAILING BRIDGE 48-0061

Loc 2 STATION 77+93

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

CONSTRUCTION DETAILS

NO SCALE **C-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING
FUNCTIONAL SUPERVISOR: JOHN FOX
CALCULATED-DESIGNED BY: BRADLEY LARSON
CHECKED BY: DAN FROILAND
REVISED BY: BL
DATE REVISED: 12-17-10

LAST REVISION DATE PLOTTED => 28-JAN-2011
TIME PLOTTED => 10:04

BORDER LAST REVISED 7/2/2010
USERNAME => S123915
DGN FILE => 934730ga002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2480
PROJECT NUMBER & PHASE 09000200731

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	5	16

BRAD LARSON 12-21-10
REGISTERED CIVIL ENGINEER DATE

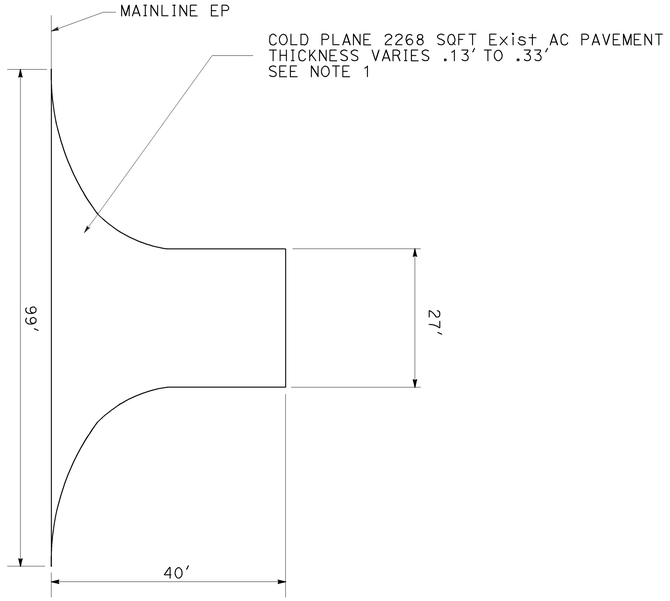
1-31-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRADLEY L. LARSON
No. 76951
Exp.12-31-12
CIVIL
STATE OF CALIFORNIA

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

NOTE:

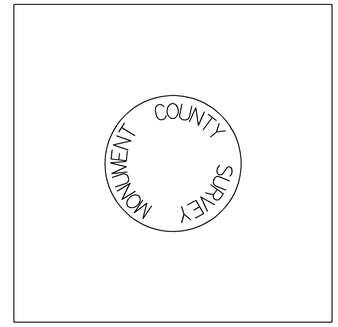
1. IMPORTED MATERIAL(SHOULDER BACKING) TO BE PLACED AT MAINLINE EP AS PER TYPICAL CROSS SECTION SHEET X-1



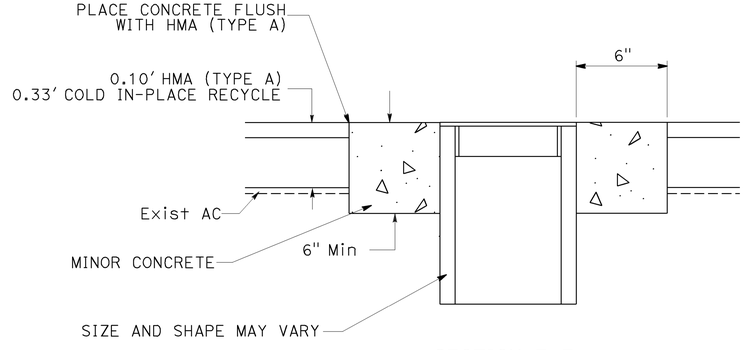
COLD PLANE Exist ROAD CONNECTION

LOCATION 1 STATION 540+26 Rt

DIRECTION OF TRAVEL



PLAN VIEW



SECTION E-E

ADJUST FRAME AND COVER TO GRADE

SURVEY MONUMENT

LOCATION 2 STATION 0+49

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

CONSTRUCTION DETAILS

NO SCALE **C-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: JOHN FOX

CALCULATED-DESIGNED BY: BRADLEY LARSON
CHECKED BY: DAN FROILAND

REVISED BY	DATE REVISED
BL	12-17-10

LAST REVISION DATE PLOTTED => 28-JAN-2011
TIME PLOTTED => 10:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	6	16

BRAD LARSON 12-21-10
REGISTERED CIVIL ENGINEER DATE

1-31-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRADLEY L. LARSON
No. 76951
Exp 12-31-12
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:

1. FOR SIGN INSTALLATION DETAILS AND DIMENSIONS NOT SHOWN SEE STANDARD PLANS.
2. SEE TABLE FOR PLACEMENT TYPE.
3. SIGNS IN CONFLICT WITH ADJACENT, ON-GOING PROJECTS SHALL BE COVERED UPON INSTALLATION AS DIRECTED BY THE ENGINEER.
4. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.

LEGEND

← - DIRECTION OF TRAVEL

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

Loc	ROUTE	PM	STATION	PLACEMENT	REMARKS
1	136	9.50	490+00	A	BEGIN WORK
	136	12.66	657+00	D	END WORK
2	395	100.55	-	E	BEGIN WORK
	395	101.31	-	H	BEGIN WORK
	168	18.31	0+00	A	BEGIN WORK
	168	20.17	97+60	C	LEIGHTON Rd, L†
	168	20.60	120+60	C	DEATH VALLEY Rd, R†
	168	20.90	134+57	D	END WORK

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

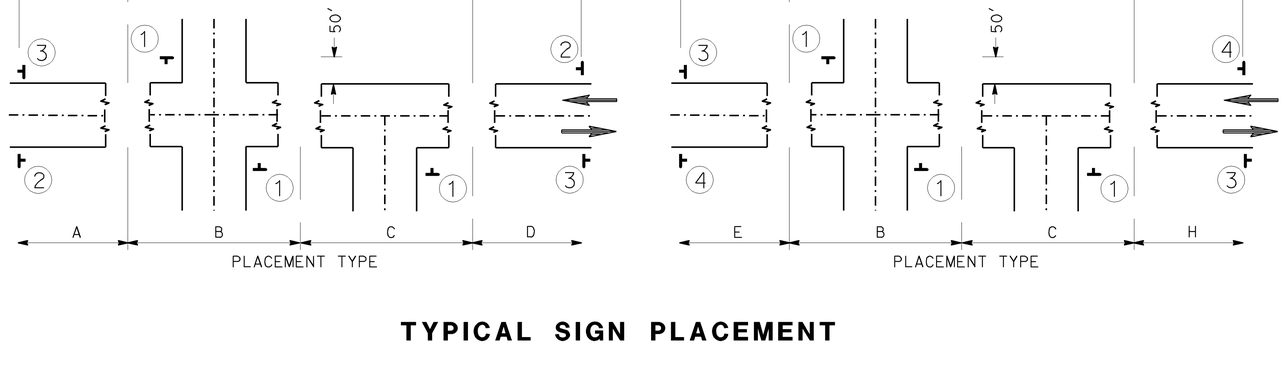
LAYOUT	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF SIGNS	No. OF POST AND SIZE
①	W20-1	36" × 36"	ROAD WORK AHEAD	2	5 - 4" × 6"
②	W20-1	48" × 48"	ROAD WORK AHEAD	4	4 - 6" × 6"
	C23B (CA) (SPECIAL)	48" × 30"	PAVEMENT MAINTENANCE	4	
③	G20-2	36" × 18"	END ROAD WORK	6	6 - 4" × 4"
④	W20-1	48" × 48"	ROAD WORK AHEAD	2	2 - 6" × 6"
	C23B (CA) (SPECIAL)	48" × 30"	PAVEMENT MAINTENANCE ON ROUTE 168	2	

PORTABLE CHANGEABLE MESSAGE SIGNS

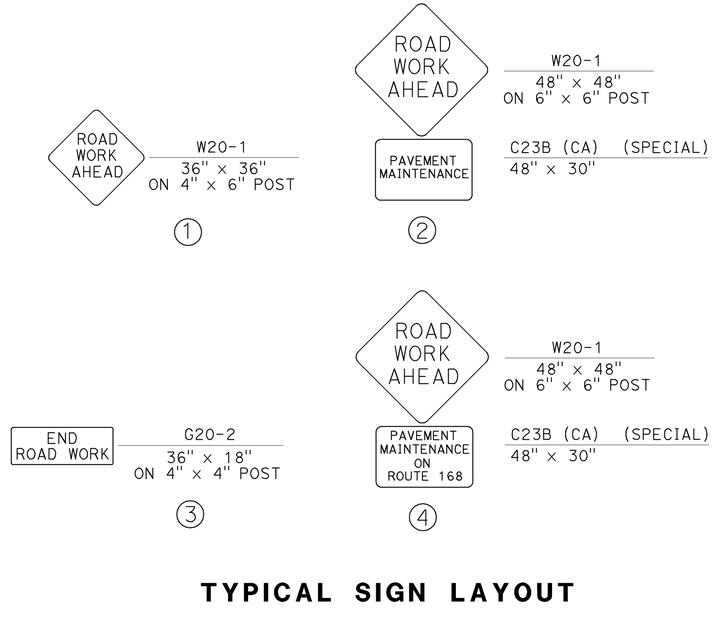
MESSAGE FOR 2 LANE SECTIONS

EXPECT DELAYS	REDUCE SPEED	PREPARE TO STOP

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.



TYPICAL SIGN PLACEMENT



TYPICAL SIGN LAYOUT

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.
EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

CONSTRUCTION AREA SIGNS
NO SCALE

CS-1

REVISED BY	DATE REVISED
BL	12-17-10

CALCULATED-DESIGNED BY: BRADLEY LARSON
CHECKED BY: DAN FROILAND
FUNCTIONAL SUPERVISOR: JOHN FOX

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

LAST REVISION DATE PLOTTED => 28-JAN-2011
TIME PLOTTED => 10:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	7	16

BRAD LARSON 12-21-10
REGISTERED CIVIL ENGINEER DATE

1-31-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BRADLEY L. LARSON No. 76951 Exp. 12-31-12 CIVIL STATE OF CALIFORNIA

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

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

REMOVE THERMOPLASTIC PAVEMENT MARKINGS

LOCATION	"STOP"		LIMIT LINE	
	EA (N)	SQFT	LF (N)	SQFT
1	1	22	26	26
2	2	44	45	45
TOTAL	137			

TEMPORARY FIBER ROLL

LOCATION	STATION	LF	Lt	Rt	DESCRIPTION
2	0+00	60		X	LIVE WATER
	0+40	70		X	LIVE WATER
	8+88	112	X	X	LIVE WATER
TOTAL		242			

ROADWAY ITEMS

LOCATION	COLD IN-PLACE RECYCLING	EMULSIFIED RECYCLING AGENT	ASPHALTIC EMULSION (FOG SEAL COAT)	SAND COVER	COLD PLANE AC PAVEMENT	TACK COAT	HMA (TYPE A)	IMPORTED MATERIAL (SHOULDER BACKING)
	SQYD	TON	TON	TON	SQYD	TON	TON	TON
1	38,114	265	21	71	400	16	2543	633
2	45,340	316	25	84	531	19	3013	676
TOTAL	83,454	581	46	155	931	35	5556	1309

PAINT TRAFFIC STRIPE (2-COAT)

LOCATION	DETAIL NUMBER			
	5	18	21	27B
	LF	LF	LF	LF
1	5,467	665	6,878	26,020
2	9,382	1,269	166	21,476
TOTAL	71,323			

ADJUST FRAME AND COVER TO GRADE

LOCATION	STATION	SURVEY MONUMENT
		EA
2	0+49	1
TOTAL		1

THERMOPLASTIC PAVEMENT MARKINGS

LOCATION	"AHEAD"		"STOP"		LIMIT LINE	
	EA (N)	SQFT	EA (N)	SQFT	LF (N)	SQFT
2	1	31	4	88	72	72
TOTAL	191					

SUMMARY OF QUANTITIES
Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: JOHN FOX
CALCULATED-DESIGNED BY: BRADLEY LARSON
CHECKED BY: DAN FROILAND
REVISED BY: BL
DATE REVISED: 12-21-10

LAST REVISION 01-27-11
DATE PLOTTED => 28-JAN-2011
TIME PLOTTED => 10:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	8	16

BRAD LARSON 12-21-10
REGISTERED CIVIL ENGINEER DATE

1-31-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRADLEY L. LARSON
No. 76951
Exp. 12-31-12
CIVIL
STATE OF CALIFORNIA

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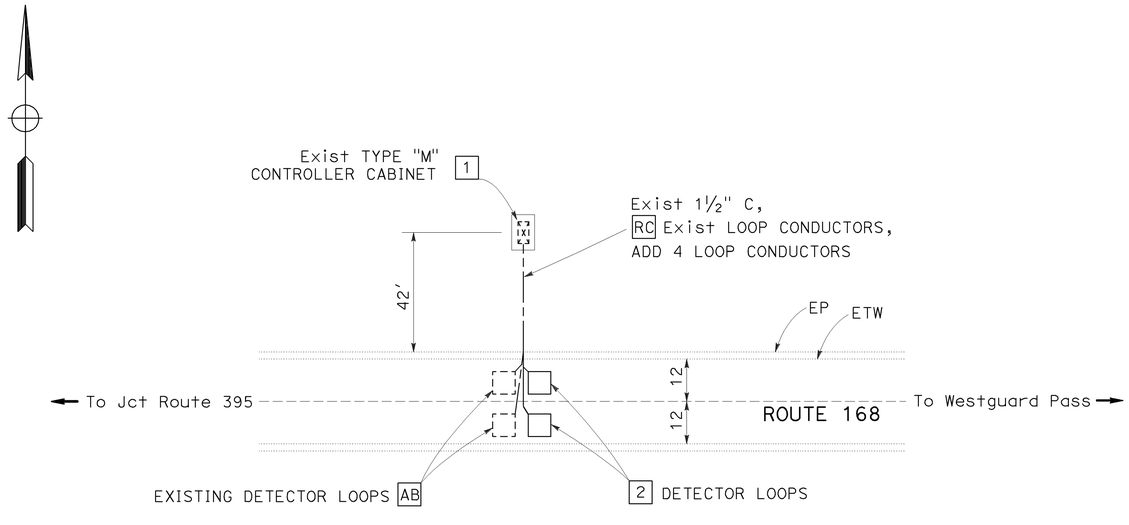
NOTES:

1 COIL 6' OF LOOP CONDUCTORS IN EXISTING TYPE M CABINET.

2 DETECTOR LOOPS SHALL BE INSTALLED WITH 4 TURNS OF LOOP WIRE.



Loc 2 STATION 14+40

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

DETECTOR LOOP
NO SCALE **E-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: JOHN FOX
CALCULATED-DESIGNED BY: BRADLEY LARSON
CHECKED BY: DAN FROILAND
REVISED BY: BL
DATE REVISED: 12-21-10

LAST REVISION 01-03-11
DATE PLOTTED => 28-JAN-2011
TIME PLOTTED => 10:05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	9	16

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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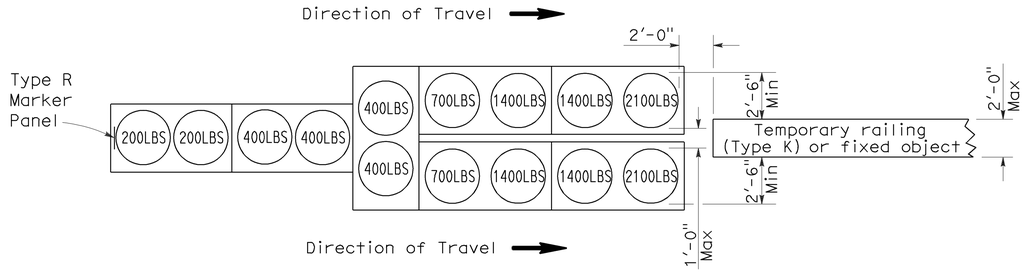
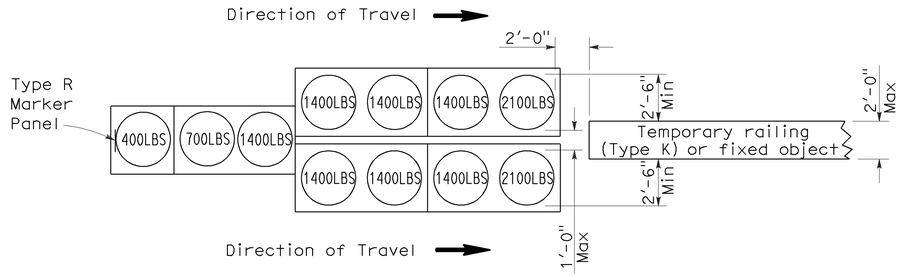
To accompany plans dated 1-31-11



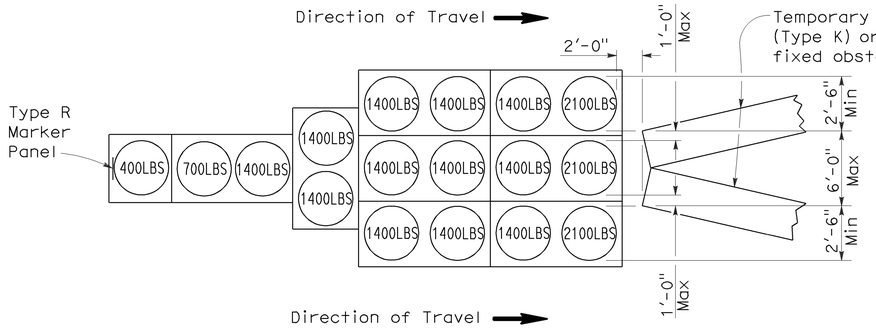
ARRAY 'TU14'

Approach speed 45 mph or more



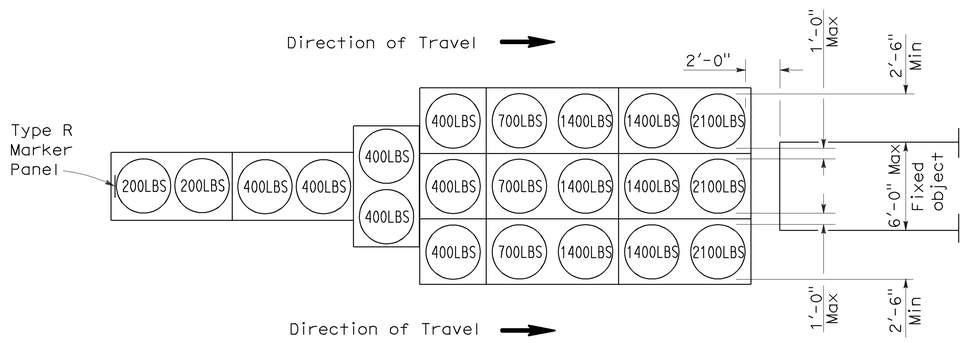
ARRAY 'TU11'

Approach speed less than 45 mph



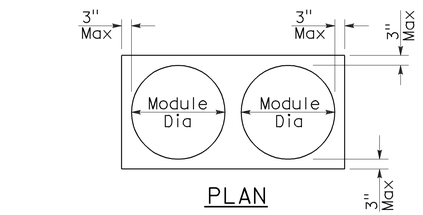
ARRAY 'TU17'

Approach speed less than 45 mph

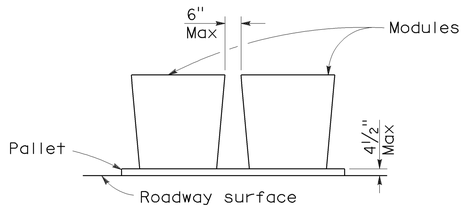


ARRAY 'TU21'

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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	10	16

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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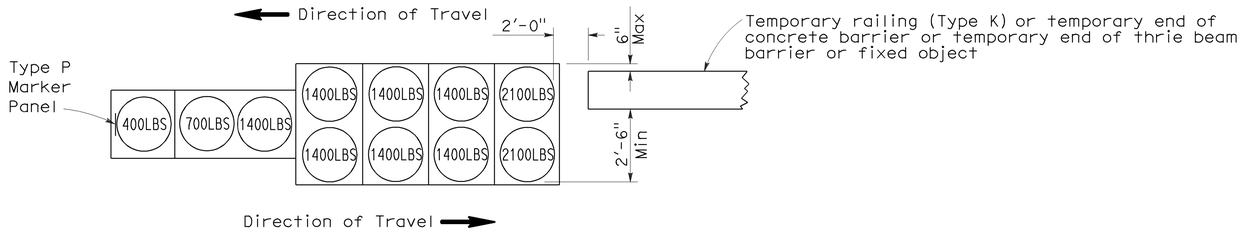
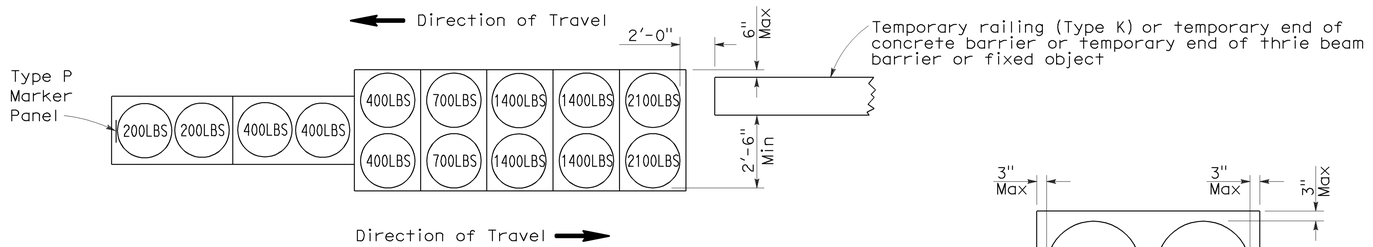
To accompany plans dated 1-31-11



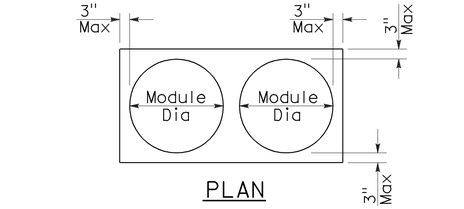
ARRAY 'TB11'

Approach speed less than 45 mph

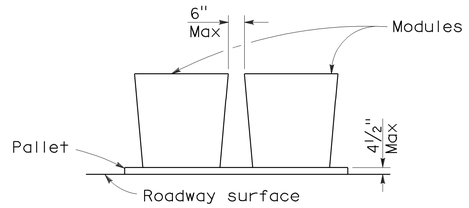


ARRAY 'TB14'

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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	11	16

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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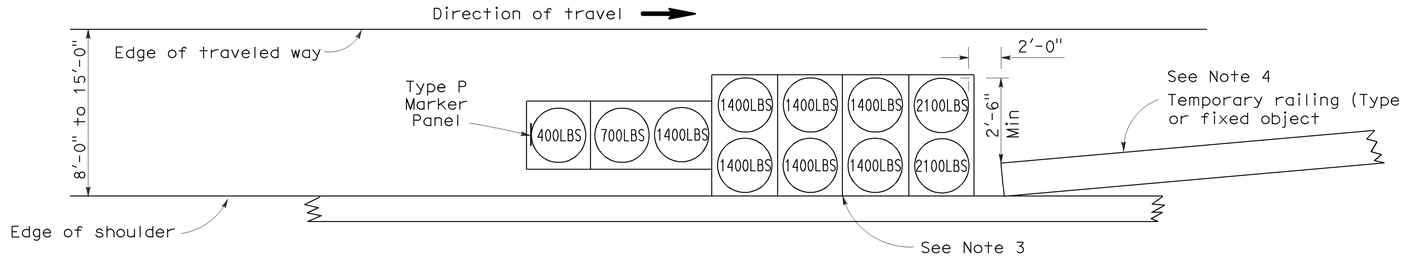
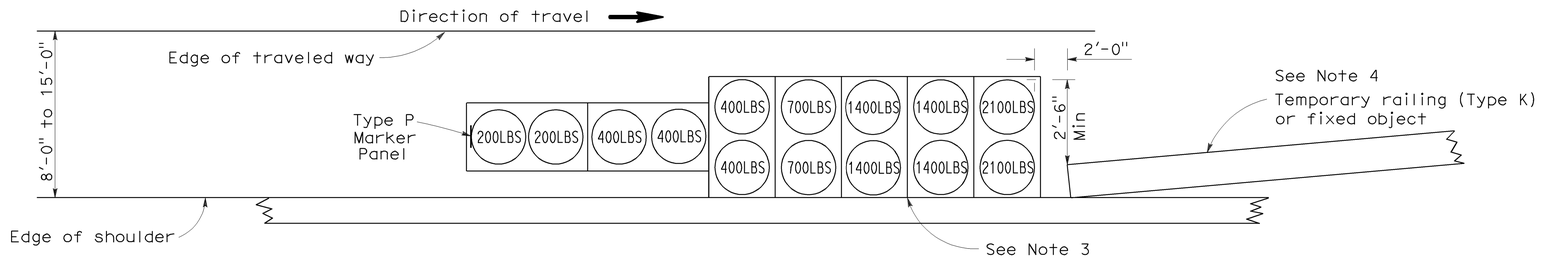
To accompany plans dated 1-31-11



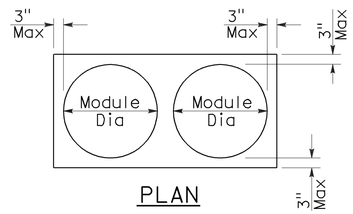
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

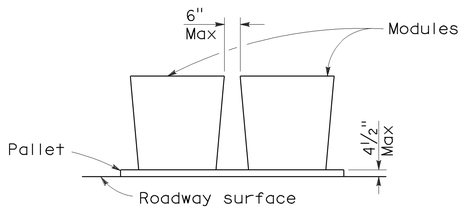


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	12	16

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

April 3, 2009
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3085 — 11-30-10 Renewal Date — 2-25-09 Date — STATE OF CALIFORNIA

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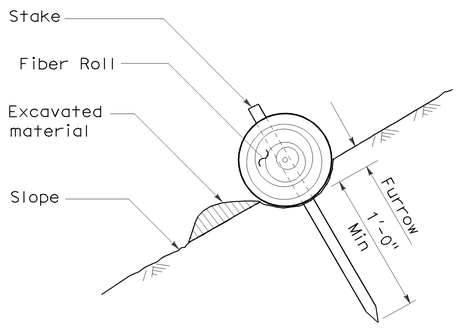
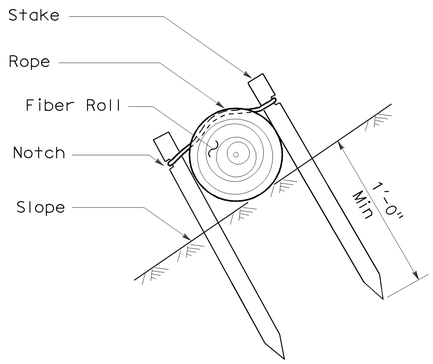
To accompany plans dated 1-31-11

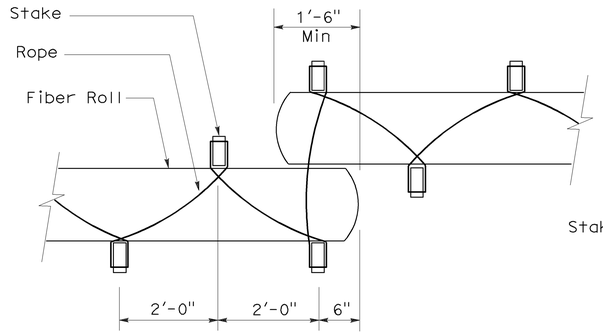


SECTION

TEMPORARY FIBER ROLL (TYPE 1)

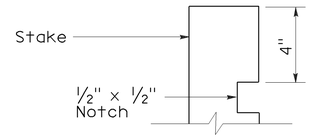


SECTION



PLAN

TEMPORARY FIBER ROLL (TYPE 2)

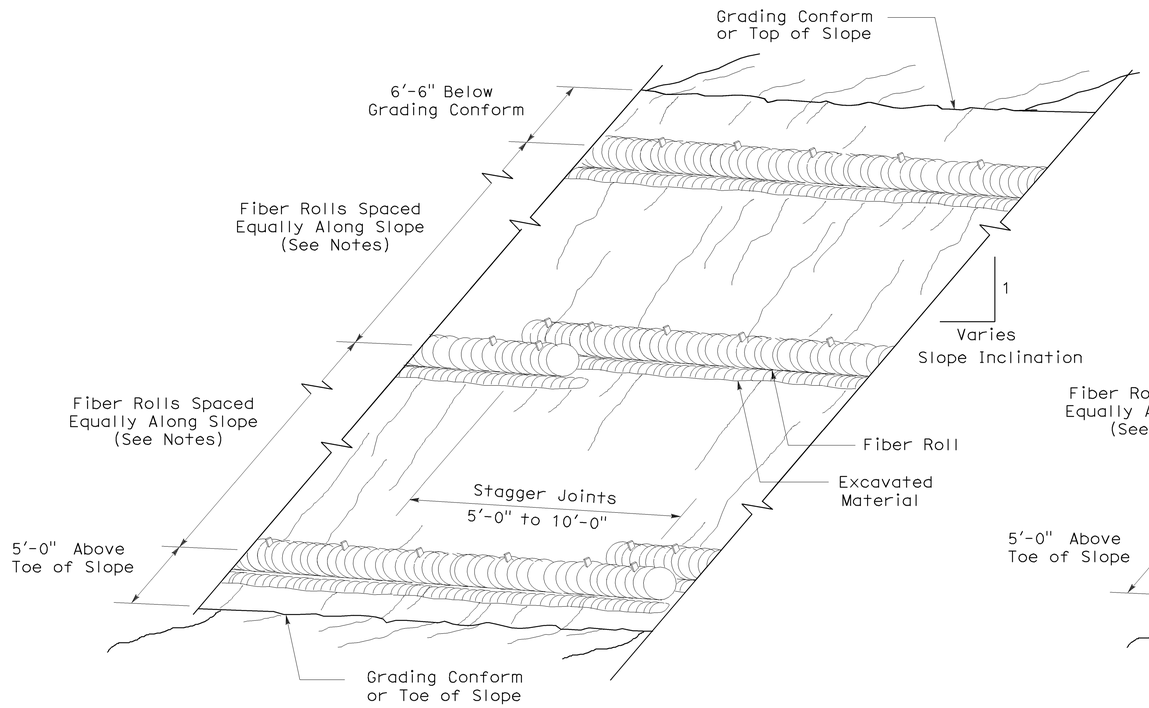


ELEVATION

STAKE NOTCH DETAIL

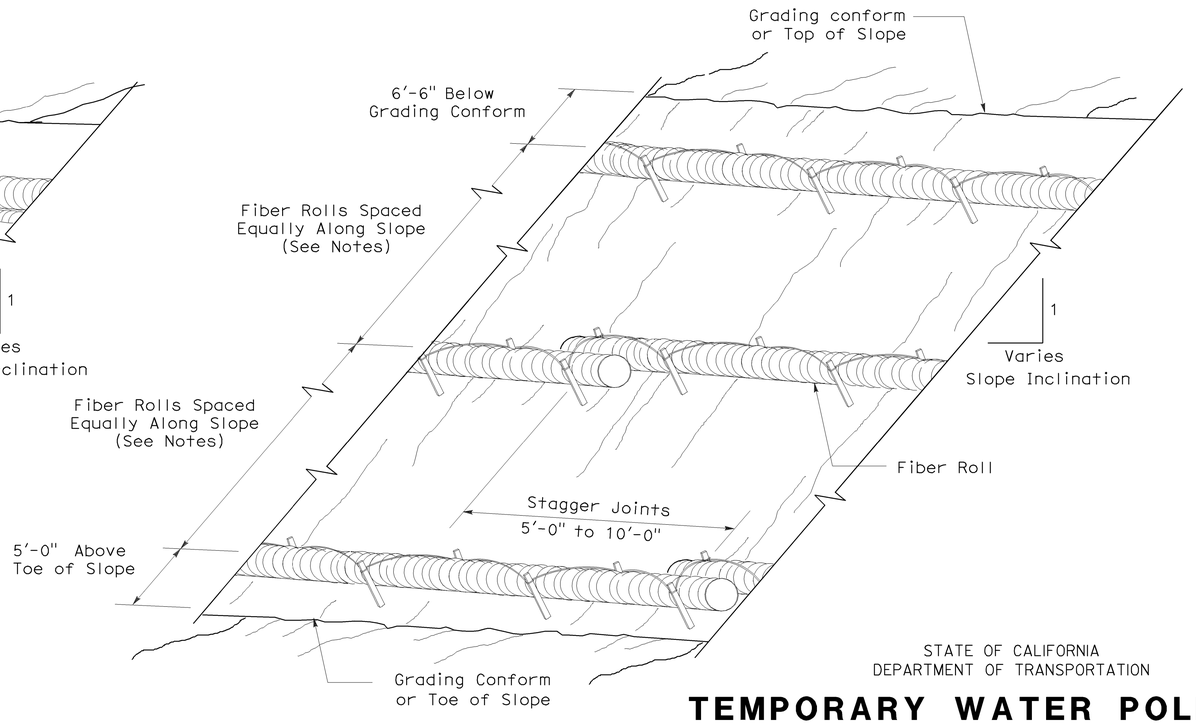
NOTES:

1. Temporary fiber roll spacing varies depending upon slope inclination.
2. Installations shown in the perspectives are for slope inclination of 10:1 and steeper.



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 1)



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 2)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY FIBER ROLL)

NO SCALE

RSP T56 DATED APRIL 3, 2009 SUPERSEDES STANDARD PLAN T56
DATED MAY 1, 2006 - PAGE 232 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	13	16

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

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

October 5, 2007
PLANS APPROVAL DATE

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To accompany plans dated 1-31-11

ELECTROLIERS

STANDARD TYPES
15, 15D
15 STRUCTURE
21, 21D STRUCTURE
30
31
32
35
36-20A

High mast light pole

Double Arm lighting standard

Existing electrolier

Electrolier foundation (Future installation)

NOTES:

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

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,
MAS-4B	mas-4B	side attachment - 4 signal section
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces,
MAS-5B	mas-5B	side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		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

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.

(M) 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

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	14	16

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 1-31-11

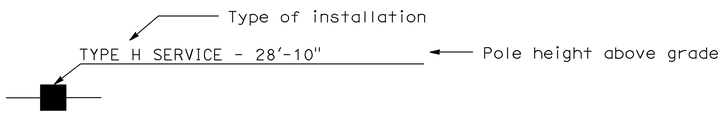
CONDUIT

PROPOSED	EXISTING	
— — —	— — —	Lighting Conduit, unless otherwise indicated or noted
— - — - —	— - — - —	Traffic signal conduit
—C— —	—c— —	Communication conduit
—T— —	—t— —	Telephone conduit
—F— —	—f— —	Fire alarm conduit
—FO— —	—fo— —	Fiber optic conduit
— — —]	— — —]	Conduit termination (RSP ES-9A C)
R	r	Conduit riser in/on structure or service pole

SERVICE EQUIPMENT

PROPOSED	EXISTING	
—OH—	—oh—	Overhead lines
U	U	Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
III		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
T	t	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

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
PV	PV	Modifications of basic symbols: "L" Indicates all non-arrow sections louvered "LG" Indicates louvered green section only "PV" Indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
R	Y	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

SIGNAL EQUIPMENT Cont

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

NOTES:

1. All signal sections shall be 12" unless shown otherwise.
2. Signal heads shall be provided with backplates unless shown otherwise.
3. 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

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	15	16

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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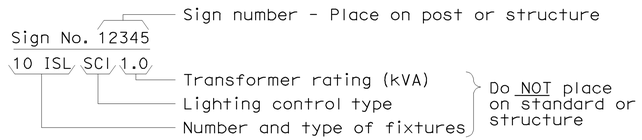
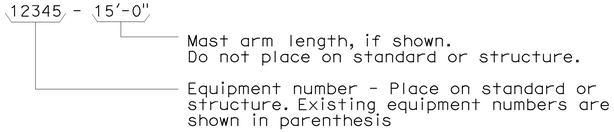
To accompany plans dated 1-31-11

EQUIPMENT IDENTIFICATION

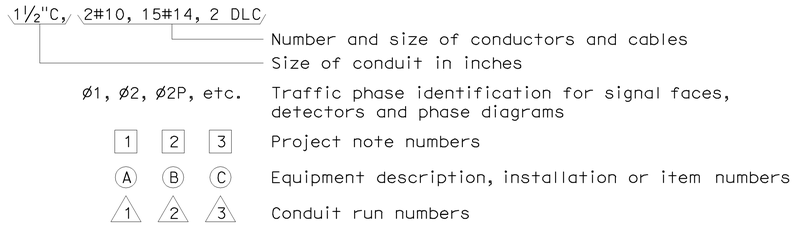
ILLUMINATED SIGN IDENTIFICATION NUMBER:



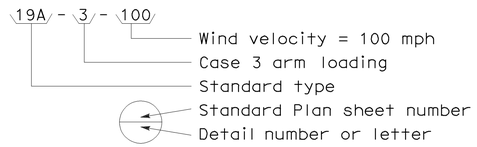
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



CONDUIT AND CONDUCTOR IDENTIFICATION:

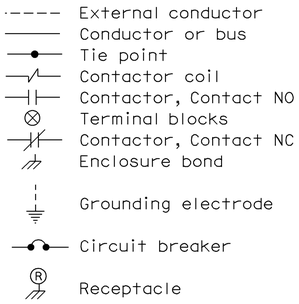


SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



WIRING DIAGRAM LEGEND

P	Pole
CB	Circuit breaker
A	Ampere
V	Volt
M	Metered
UM	Unmetered
NB	Neutral bus
GB	Ground bus
G	Equipment grounding conductor
N	Grounded conductor (Neutral)



PULL BOXES

PROPOSED EXISTING

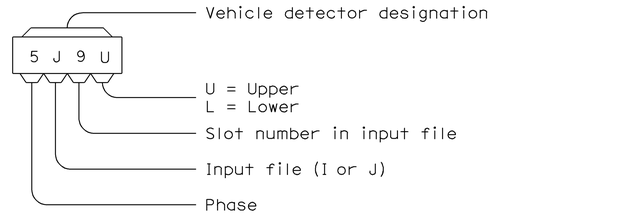
Pull box-No. 5 unless otherwise indicated or noted.

Pull box-Additional designations or descriptions

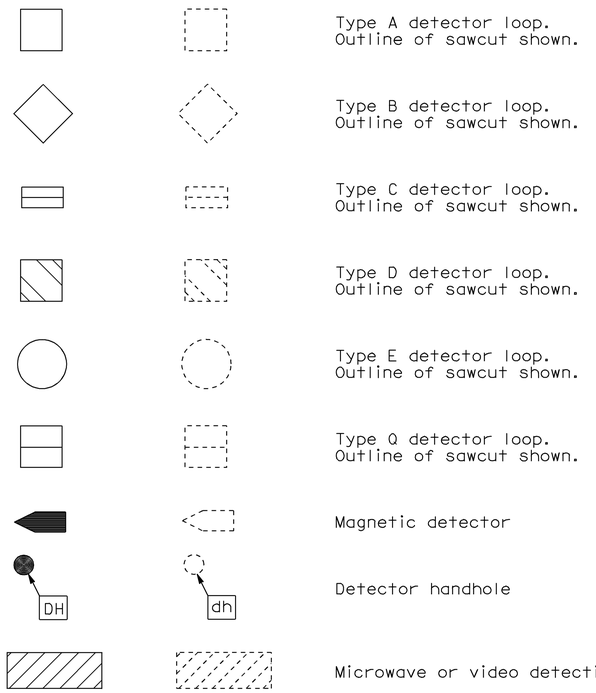
- (C) = Communications pull box
- (E) = Pull box with extension
- (S) = Sprinkler control pull box
- (21) = Anchor bolts and conduit for future installation of Type 21 Standard
- (T) = Traffic pull box

- 3 = No. 3½ pull box
- 5 = No. 5 pull box
- 6 = No. 6 pull box
- 7 = No. 7 (Ceiling pull box)
- 8 = No. 8 (Pendant soffit pull box)
- 9 = No. 9 pull box
- 9A = No. 9A pull box

VEHICLE DETECTORS

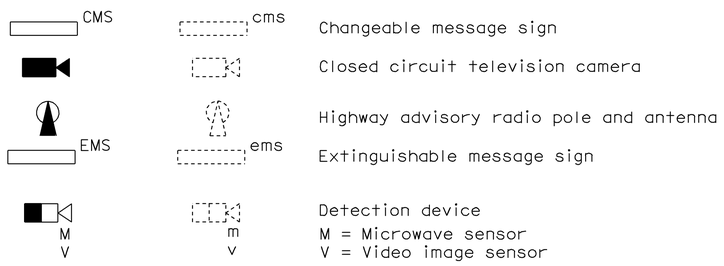


PROPOSED EXISTING



MISCELLANEOUS EQUIPMENT

PROPOSED EXISTING



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

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Iny	136,168	10.0/12.5 18.3/20.4	16	16

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

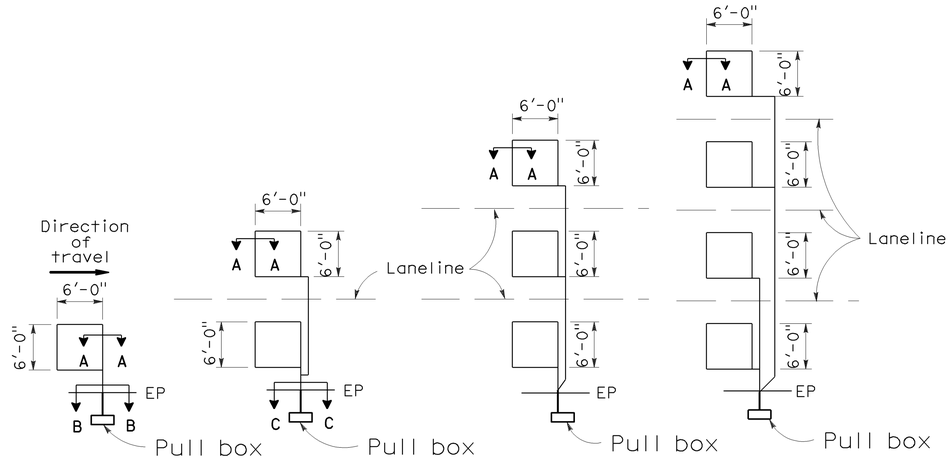
REGISTERED PROFESSIONAL ENGINEER
Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 1-31-11

LOOP INSTALLATION PROCEDURE

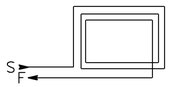
1. Loops shall be centered in lanes.
2. Saw slots in pavement for loop conductors as shown in details.
3. Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
4. Bottom of saw slot shall be smooth with no sharp edges.
5. Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
6. Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
7. 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.
8. 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.
9. No more than 2 twisted pairs shall be installed in one sawed slot.
10. Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
11. 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.
12. Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
13. Fill slots as shown in details.
14. Splice loop conductors to lead-in-cable. Splices shall be soldered.
15. 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.
16. Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
17. Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
18. Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.

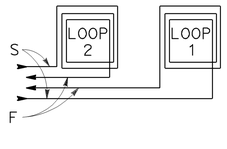


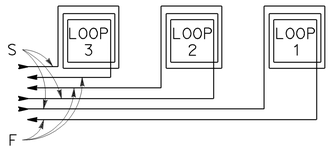
SAWCUT DETAILS

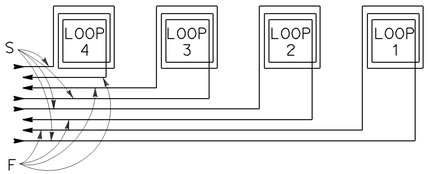
(Type A loop detector configurations illustrated)

1. 1A thru 4A = 1 Type A loop configuration in each lane.
2. 1B thru 4B = 1 Type B loop configuration in each lane.
3. 1C = 1 Type C loop configuration entering lanes as required.
4. 1D thru 4D = 1 Type D loop configuration in each lane.
5. 1E thru 4E = 1 Type E loop configuration in each lane.
6. 1Q thru 4Q = 1 Type Q loop configuration in each lane. (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



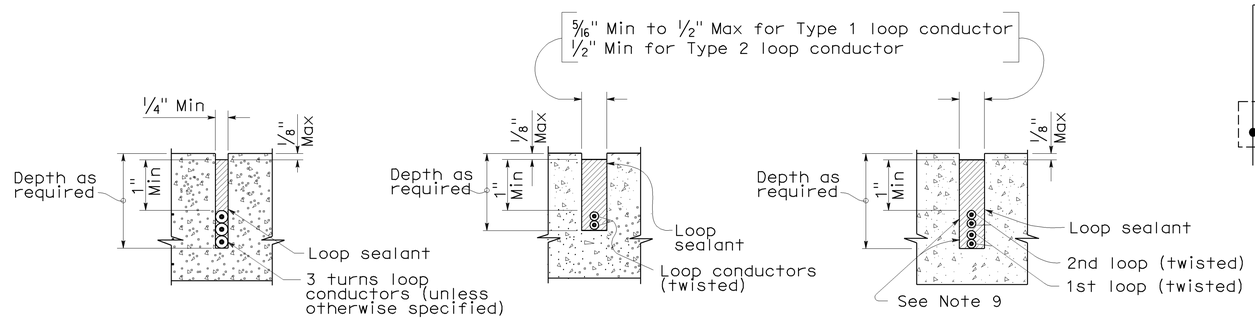






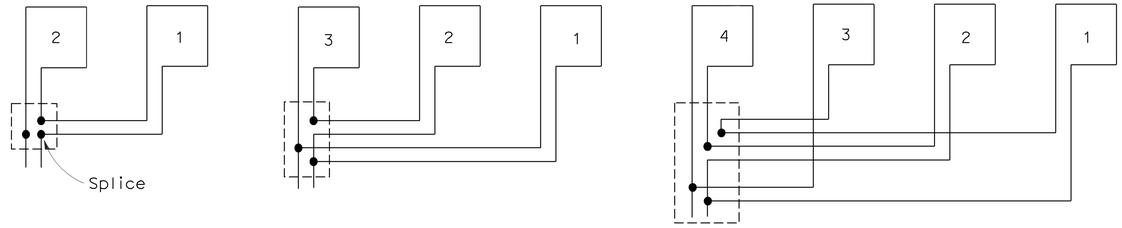
WINDING DETAILS

See Notes 6 and 7



SECTION A-A SECTION B-B SECTION C-C

SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-5A

2006 REVISED STANDARD PLAN RSP ES-5A

8-17-07