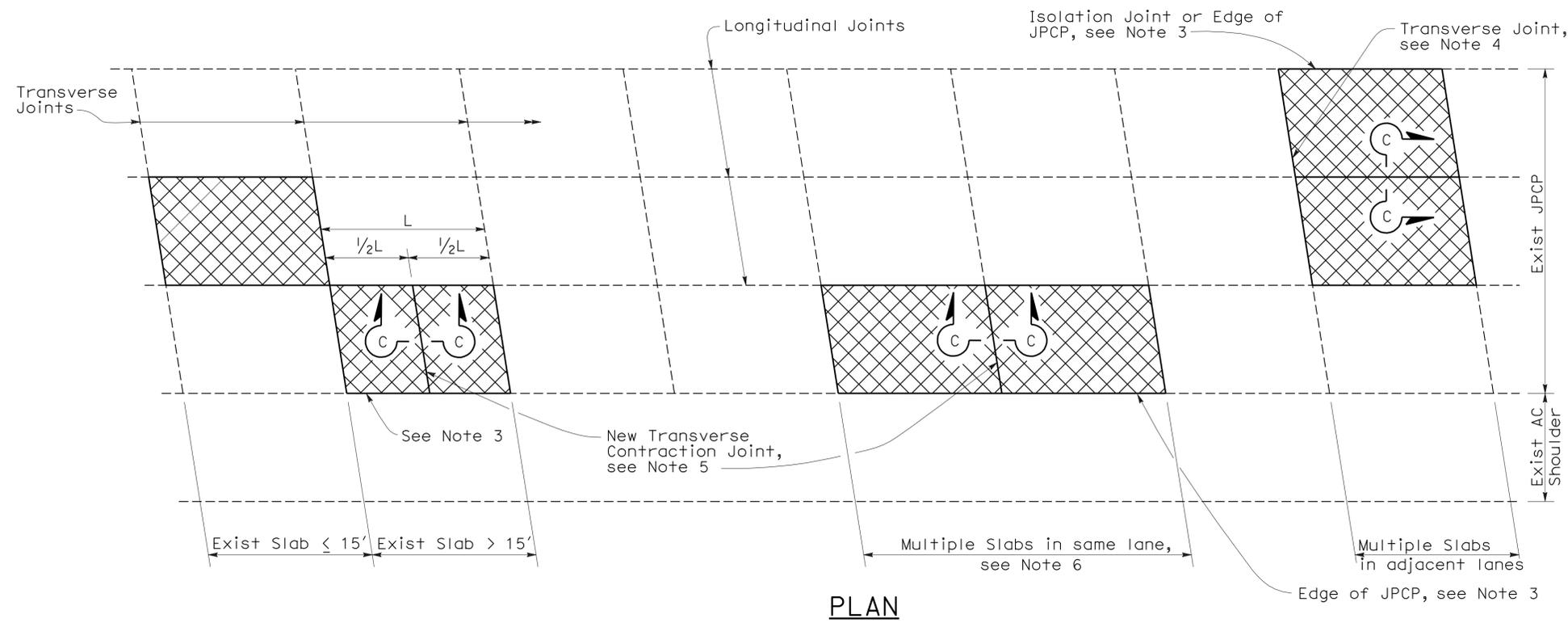


|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 07   | LA     | 60    | R23.9/R30.5              | 101       | 124          |

William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 May 15, 2009  
 PLANS APPROVAL DATE  
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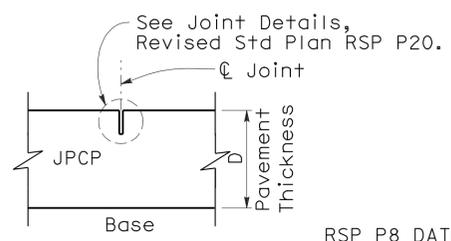
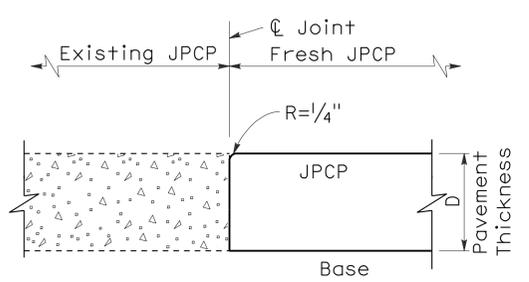
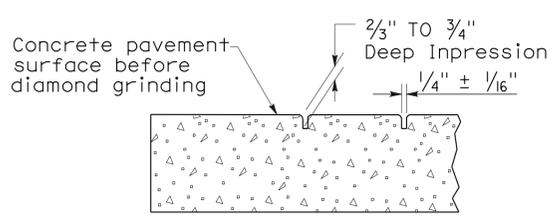
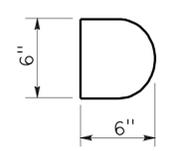
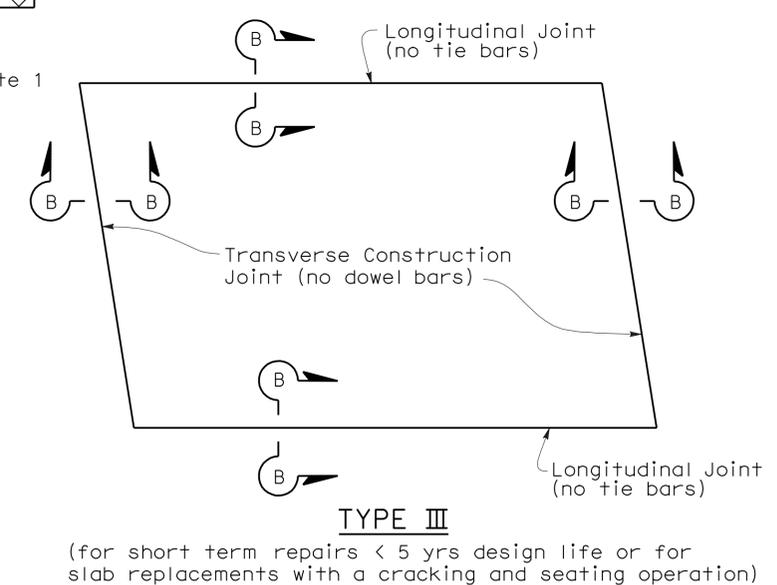
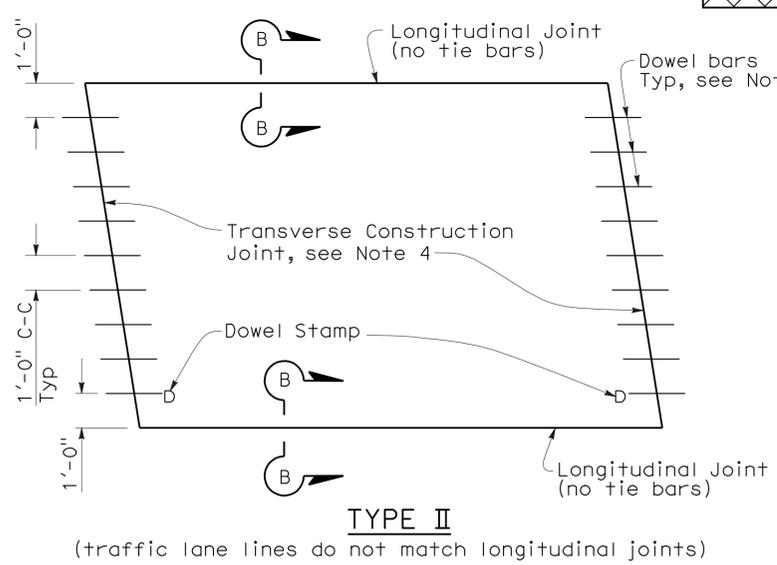
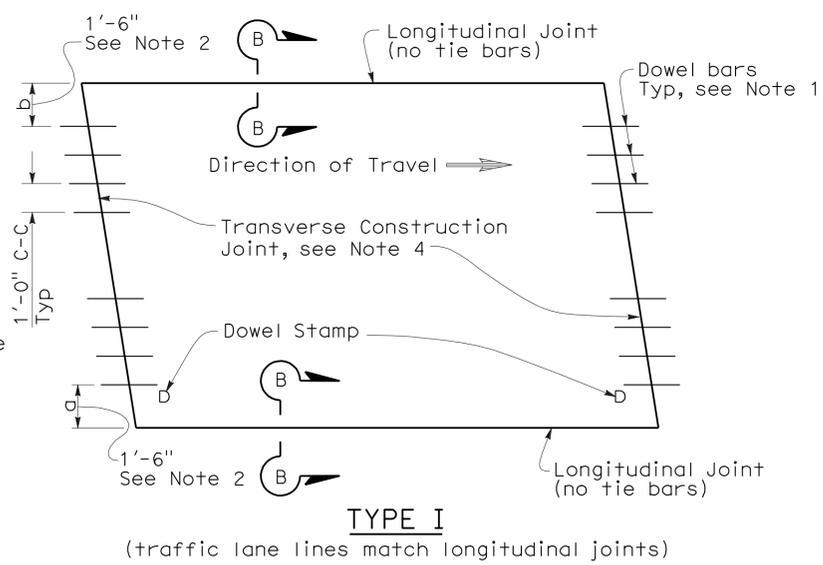
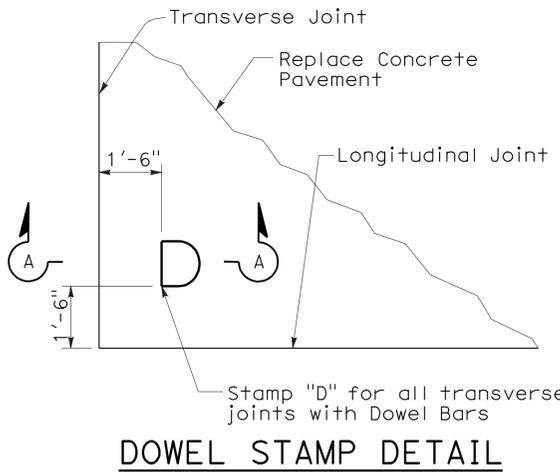
To accompany plans dated 4-26-10



**NOTES:**

- For details not shown, see Revised Standard Plan RSP P10.
- Where the existing outer shoulder pavement is asphalt concrete pavement, the "a" dimension shall be 1'-0" and the "b" dimension shall be 2'-0".
- Side forms shall be used where edge of pavement is adjacent to asphalt concrete.
- For detail, see Transverse Construction Joint for existing concrete pavement detail on Revised Standard Plan RSP P10.
- Transverse joint to match skew of existing joint. Omit dowel bars.
- This Standard Plan only applicable when replacing multiple slabs in the same lane is less than 100'.

**LEGEND**

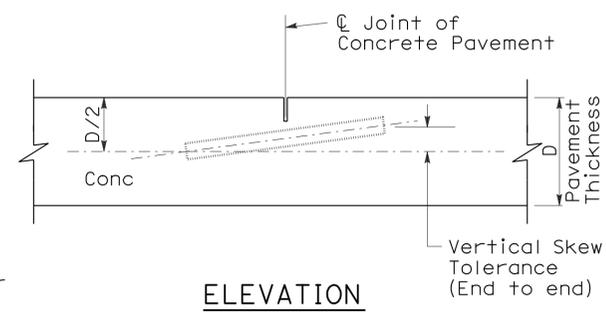
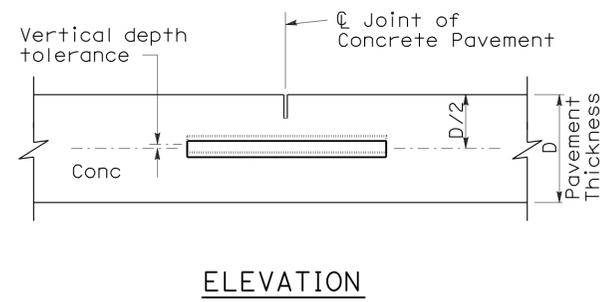
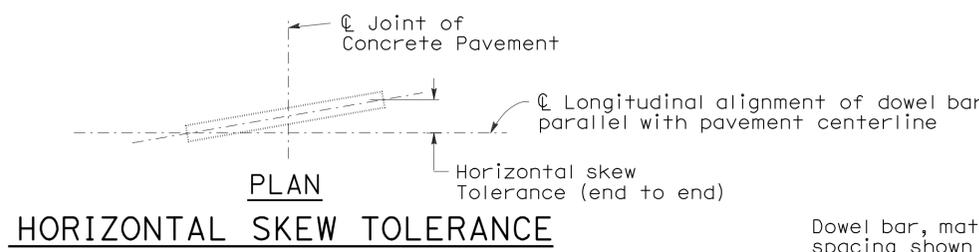
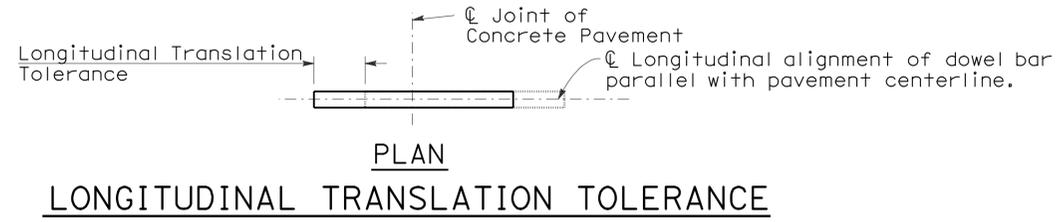
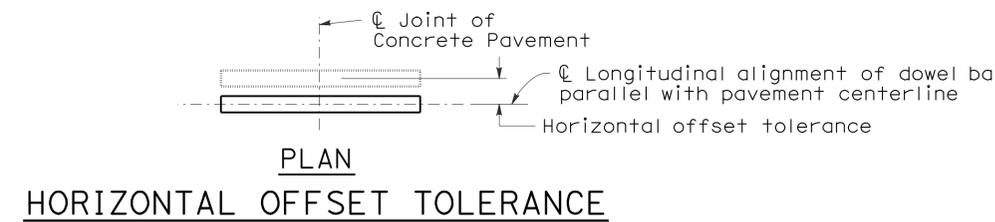
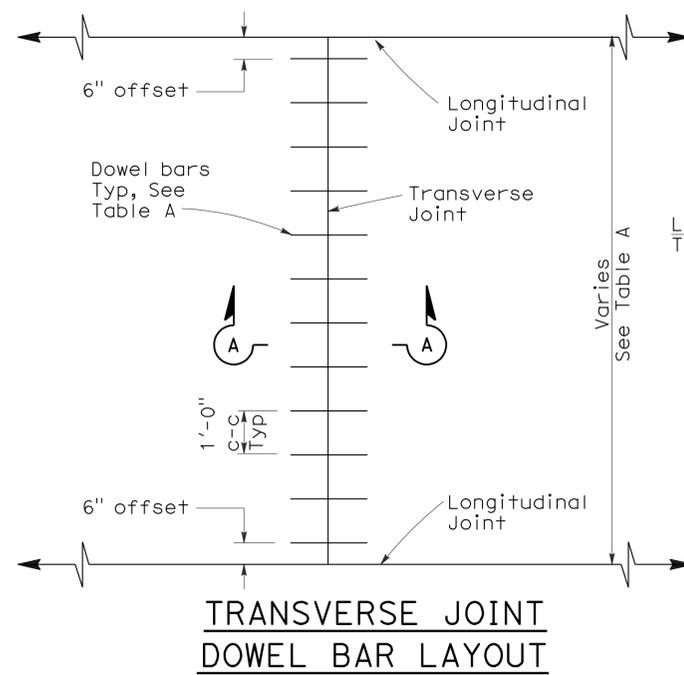


STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**JOINTED PLAIN CONCRETE PAVEMENT-INDIVIDUAL SLAB REPLACEMENT**  
 NO SCALE

RSP P8 DATED MAY 15, 2009 SUPERSEDES RSP P8 DATED SEPTEMBER 1, 2006 AND STANDARD PLAN P8 DATED MAY 1, 2006 - PAGE 123 OF THE STANDARD PLANS BOOK DATED MAY 2006.

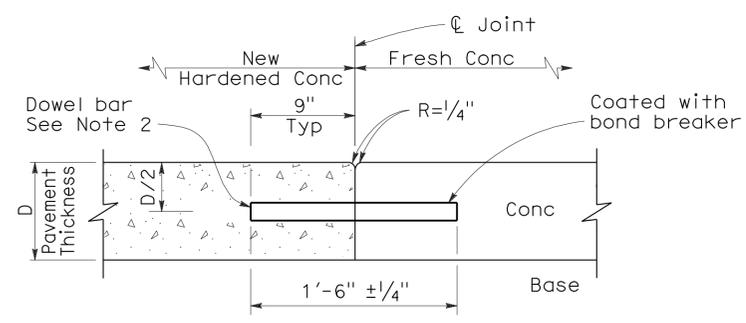
**REVISED STANDARD PLAN RSP P8**

2006 REVISED STANDARD PLAN RSP P8

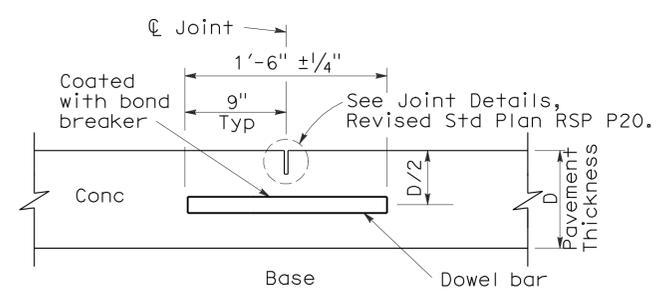


To accompany plans dated 4-26-10

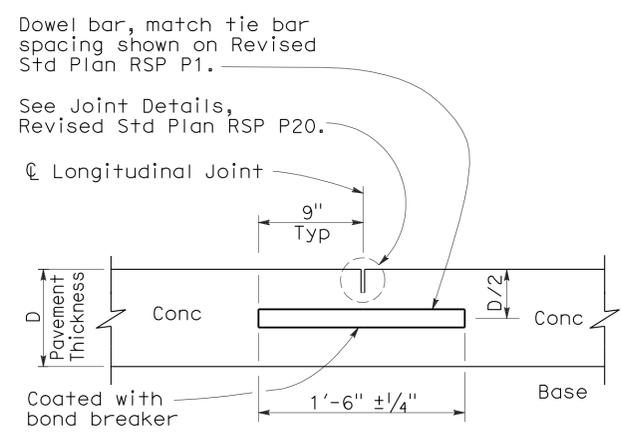
- NOTES:**
- See Revised Standard Plan RSP P1 for typical dowel bar placement and locations.
  - 1 1/2" Dia smooth dowel bars are to be used with a pavement thickness, D, equal to or greater than 0.70 feet. For pavement thickness, D, less than 0.70 feet, use 1 1/4" Dia smooth dowel bars.
  - For widths not shown, see Project Plans.
  - If fresh concrete pavement is placed adjacent to existing concrete pavement, the top corner of the existing concrete pavement does not need to be rounded to the 1/4" radius, as shown.



**SECTION A-A  
TRANSVERSE  
CONSTRUCTION JOINT DETAIL**



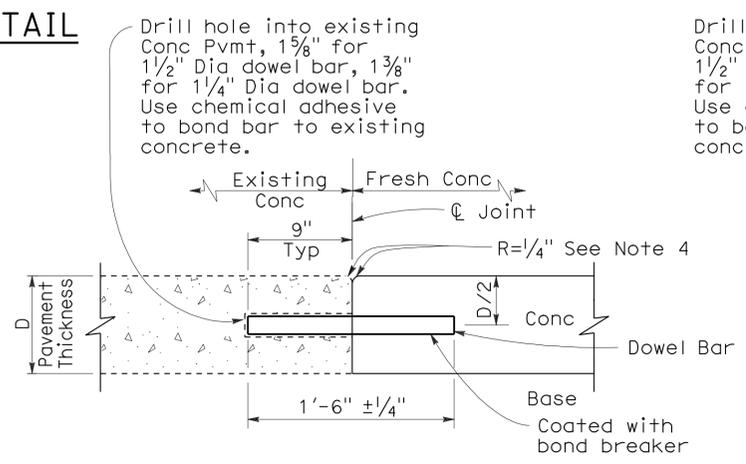
**TRANSVERSE CONTRACTION JOINT**



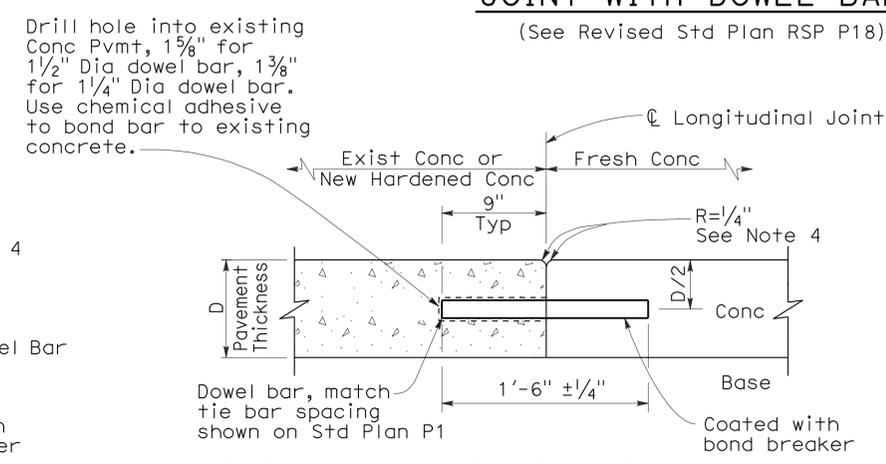
**LONGITUDINAL CONTRACTION  
JOINT WITH DOWEL BARS**  
(See Revised Std Plan RSP P18)

**TABLE A (See Note 3)**  
Dowel Bar Transverse Spacing Table

| Width between Longitudinal Joints | Number of Dowels between Longitudinal Joints |
|-----------------------------------|--|
| 14'-0"                            | 14   |
| 13'-0"                            | 13   |
| 12'-0"                            | 12   |
| 11'-0"                            | 11   |
| 10'-0"                            | 10   |
| 8'-0"                             | 8  |
| 5'-0"                             | 5  |
| 4'-0"                             | 4  |



**TRANSVERSE CONSTRUCTION JOINT  
FOR EXISTING CONCRETE PAVEMENT**  
(Drill and bond locations)



**LONGITUDINAL CONSTRUCTION JOINT  
WITH DOWEL BARS**  
(See Revised Std Plan RSP P18)

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT-  
DOWEL BAR  
DETAILS**  
NO SCALE

RSP P10 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P10  
DATED MAY 1, 2006 - PAGE 124 OF THE STANDARD PLANS BOOK DATED MAY 2006.

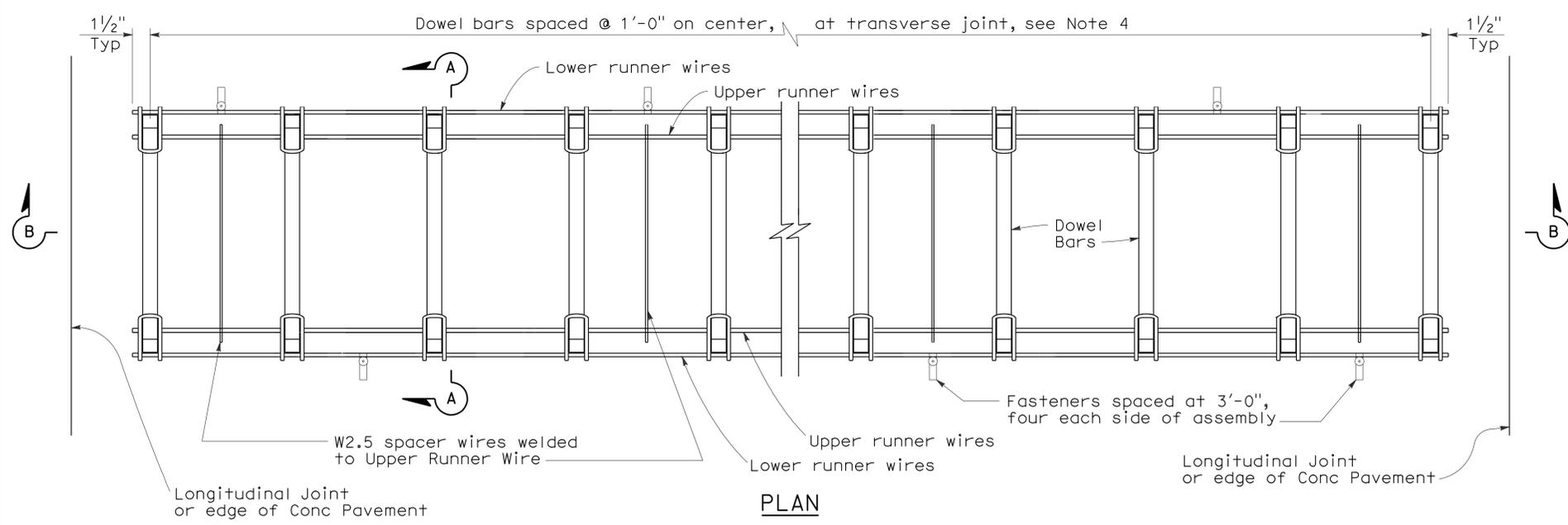
2006 REVISED STANDARD PLAN RSP P10

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 07   | LA     | 60    | R23.9/R30.5              | 103       | 124          |

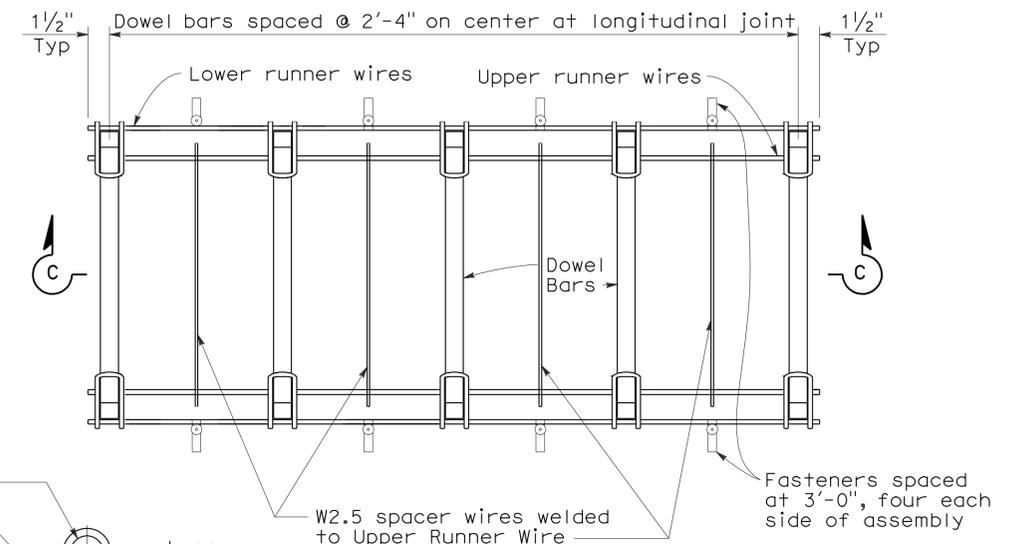
William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 May 15, 2009  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER  
 William K. Farnbach  
 No. C49042  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

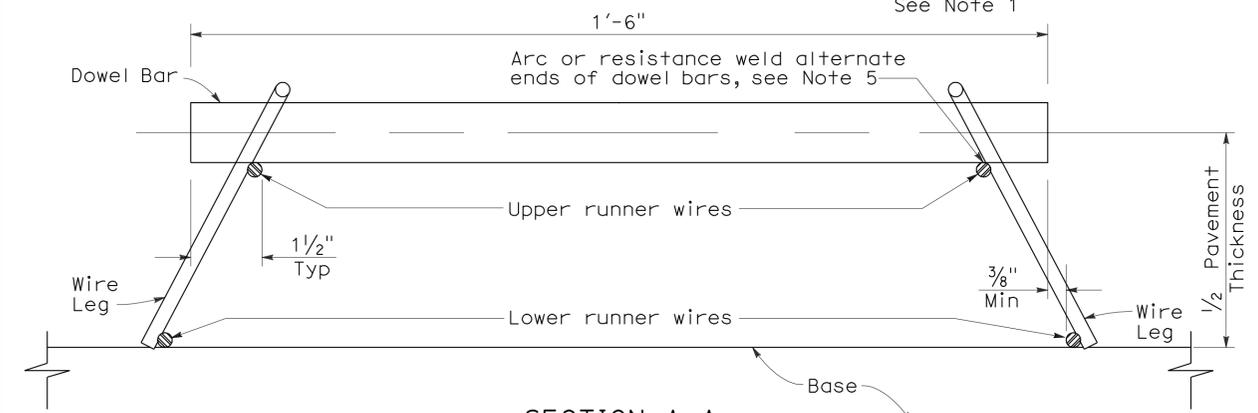
To accompany plans dated 4-26-10



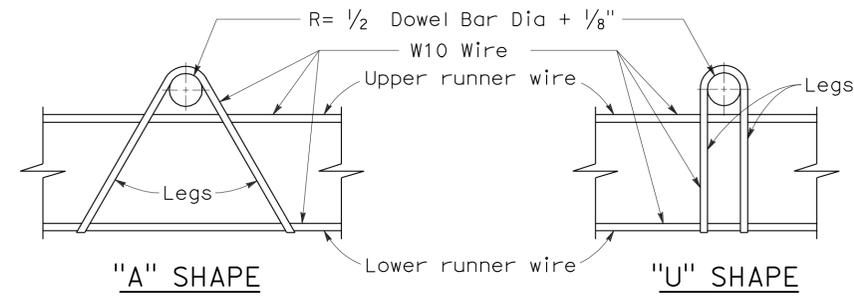
**PLAN**  
**DOWEL BAR BASKET**  
**(TRANSVERSE JOINT)**  
 See Note 1



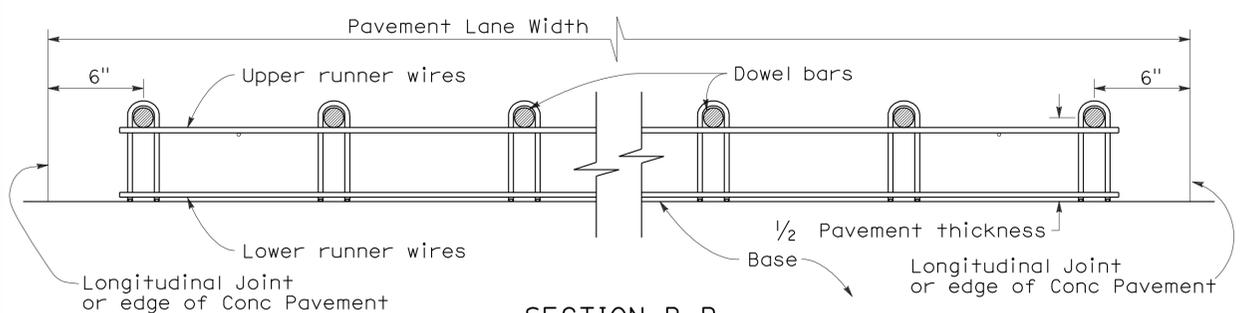
**PLAN**  
**DOWEL BAR BASKET**  
**(LONGITUDINAL JOINT)**  
 See Note 1



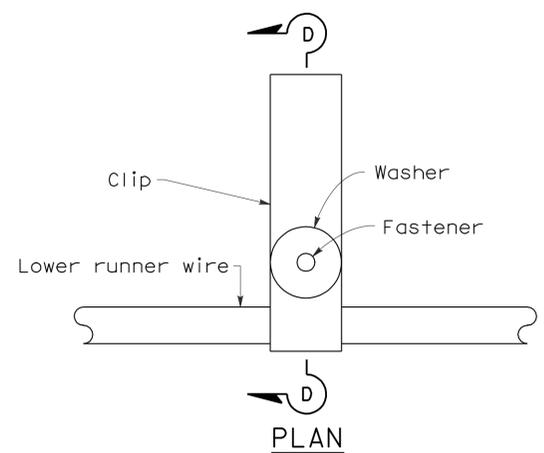
SECTION A-A



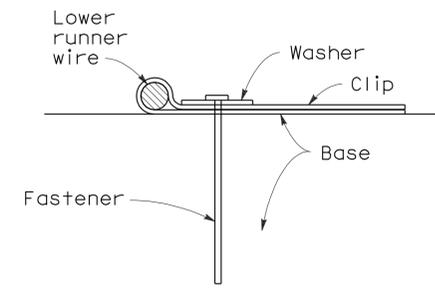
ASSEMBLY FRAME DETAILS



SECTION B-B  
See Note 1



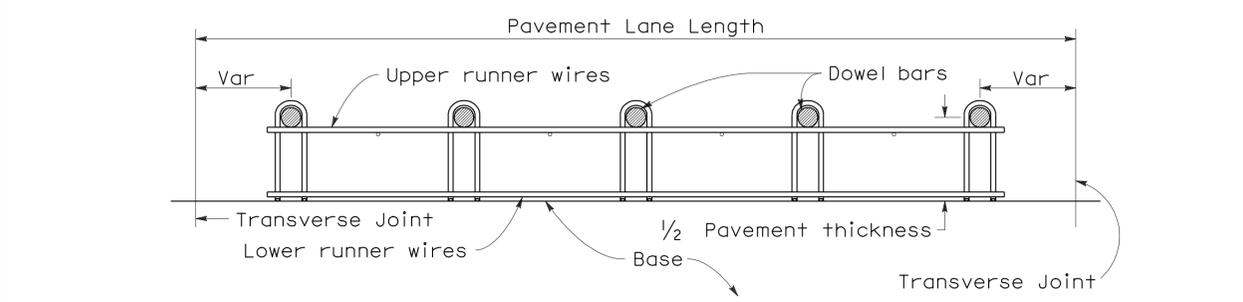
FASTENER DETAIL



SECTION D-D

**NOTES:**

- "U" frame shape assembly shown. "U" frame shape or "A" frame shape are acceptable.
- Wire sizes shown are minimum required.
- All wire intersections are to be resistance welded.
- Use tie bar spacing for longitudinal dowel bar locations. See Revised Std Plans RSPs P1, P2, and P3 for tie bar requirements.
- Weld may be at top or bottom of dowel bar.



SECTION C-C  
See Notes 1 and 4

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT-**  
**DOWEL BAR BASKET**  
**DETAILS**  
 NO SCALE

RSP P12 DATED MAY 15, 2009 SUPERSEDES RSP P12 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P12 DATED MAY 1, 2006 - PAGE 125 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P12**

2006 REVISED STANDARD PLAN RSP P12

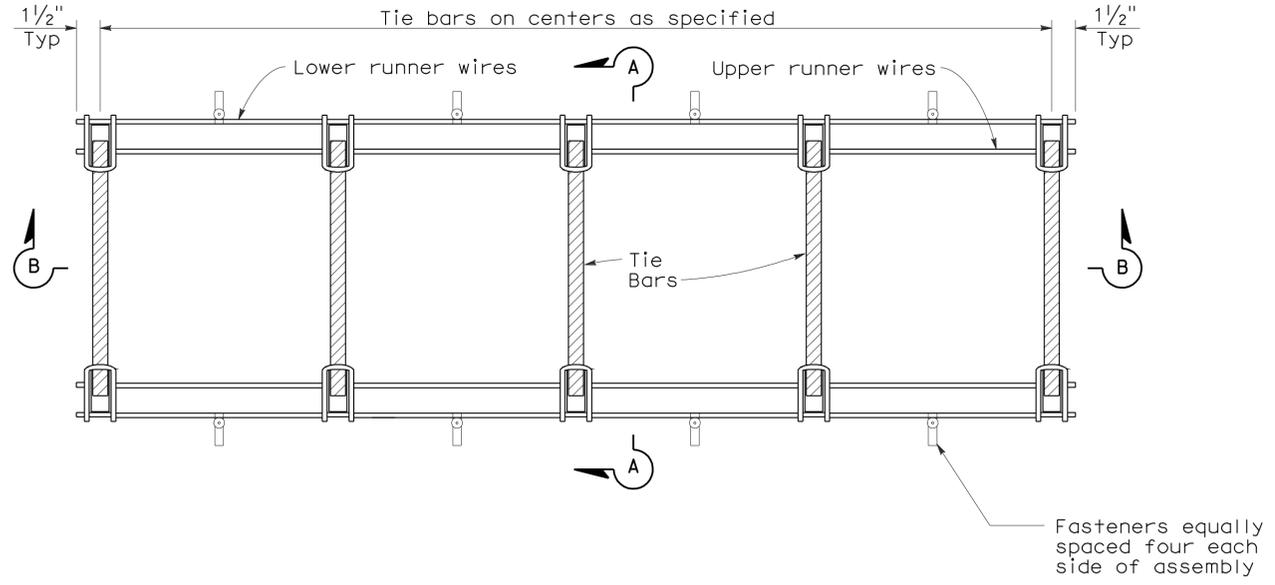
|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 07   | LA     | 60    | R23.9/R30.5              | 104       | 124          |

*William K. Farnbach*  
 REGISTERED CIVIL ENGINEER  
 May 15, 2009  
 PLANS APPROVAL DATE

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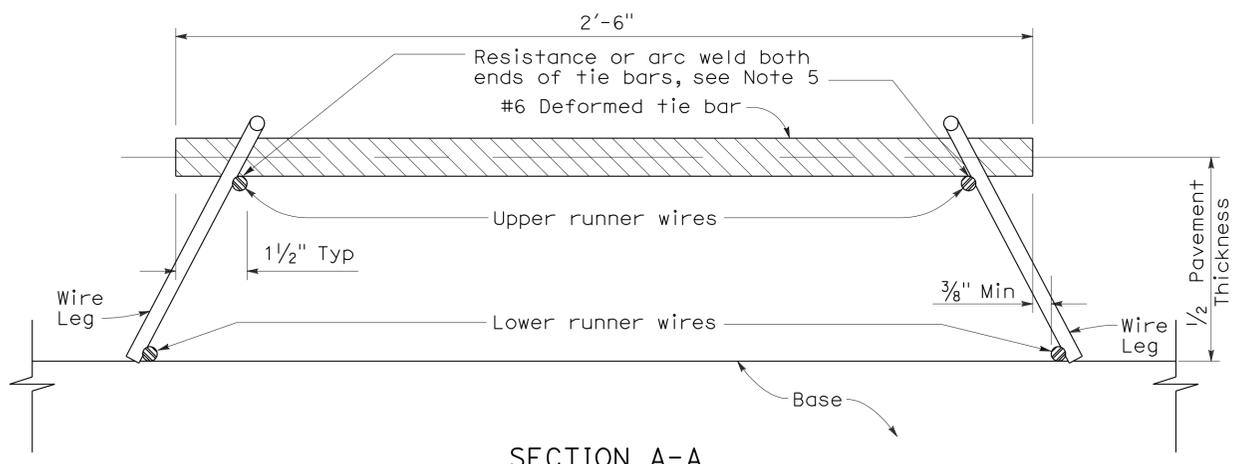
REGISTERED PROFESSIONAL ENGINEER  
 William K. Farnbach  
 No. C49042  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

To accompany plans dated 4-26-10

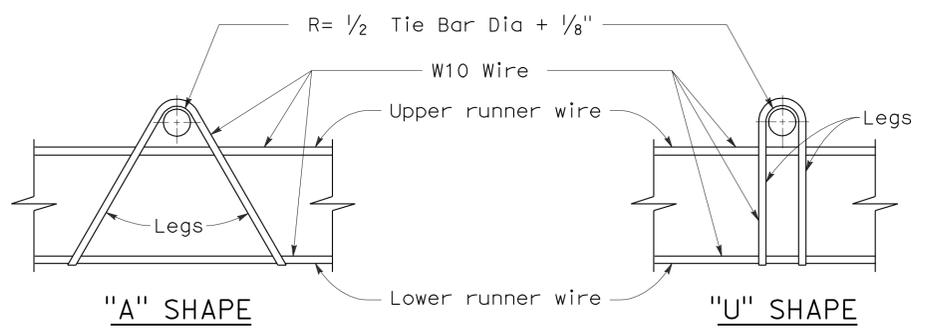


**PLAN**  
**TIE BAR BASKET**  
 (TIE BARS AT LONGITUDINAL JOINT)  
 See Note 1

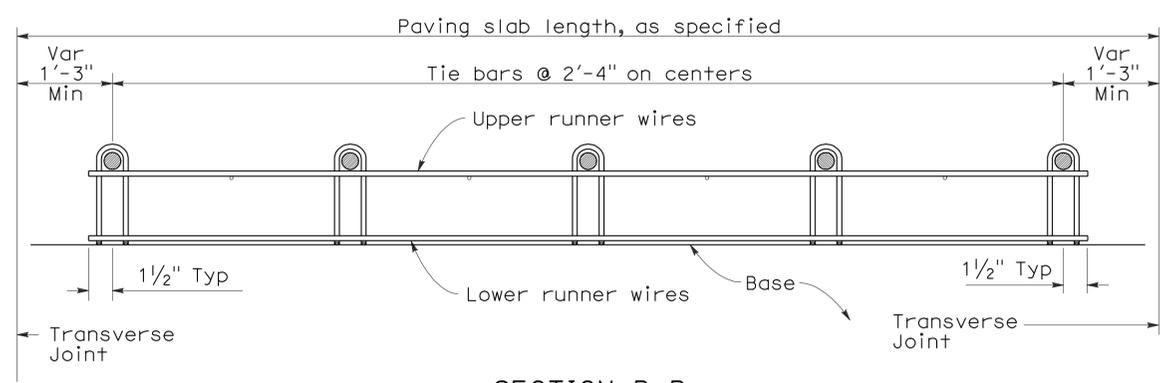
- NOTES:**
- "U" frame shape assembly shown. "U" frame shape or "A" frame shape are acceptable.
  - Wire sizes shown are minimum required.
  - All wire intersections are to be resistance welded.
  - Not for use on nondoweled skewed jointed plain concrete pavement.
  - Weld may be at top or bottom of tie bar.



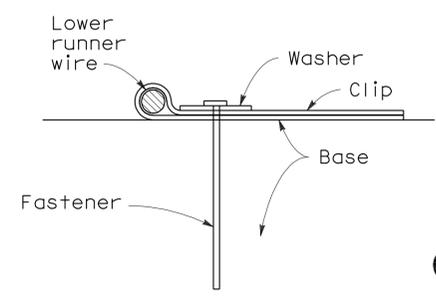
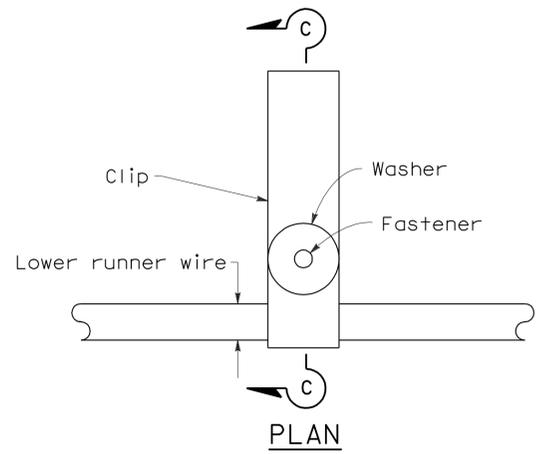
**SECTION A-A**



**ASSEMBLY FRAME DETAILS**



**SECTION B-B**  
 See Note 1



**FASTENER DETAIL**

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT -  
 TIE BAR BASKET  
 DETAILS**

NO SCALE

RSP P17 DATED MAY 15, 2009 SUPERSEDES RSP P17 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P17 DATED MAY 1, 2006 - PAGE 126 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P17**

2006 REVISED STANDARD PLAN RSP P17

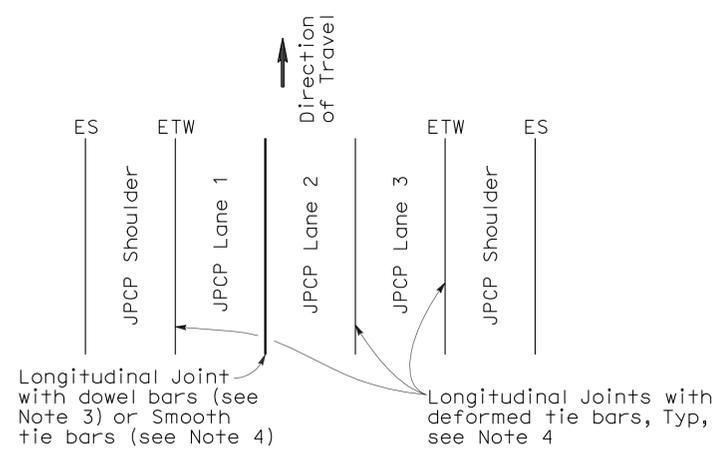
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|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 07   | LA     | 60    | R23.9/R30.5              | 105       | 124          |

William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 June 5, 2009  
 PLANS APPROVAL DATE

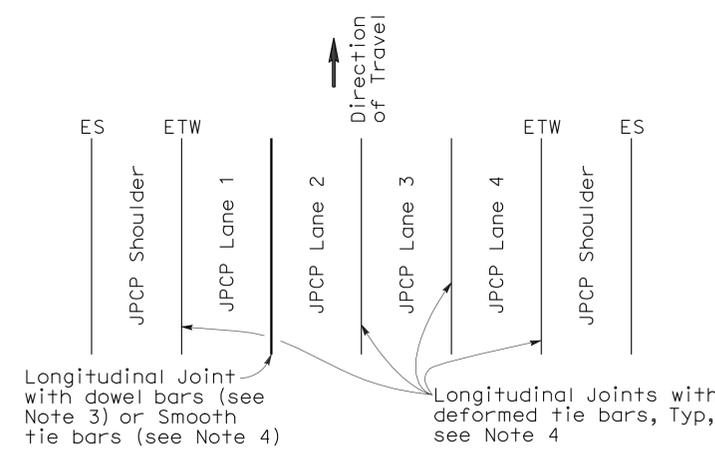
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To accompany plans dated 4-26-10

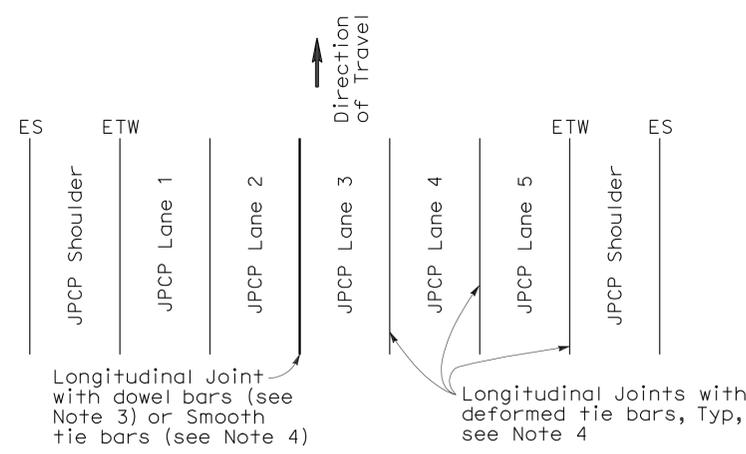
2006 REVISED STANDARD PLAN RSP P18



**3 LANES WITH TIED CONCRETE SHOULDERS**  
PLAN

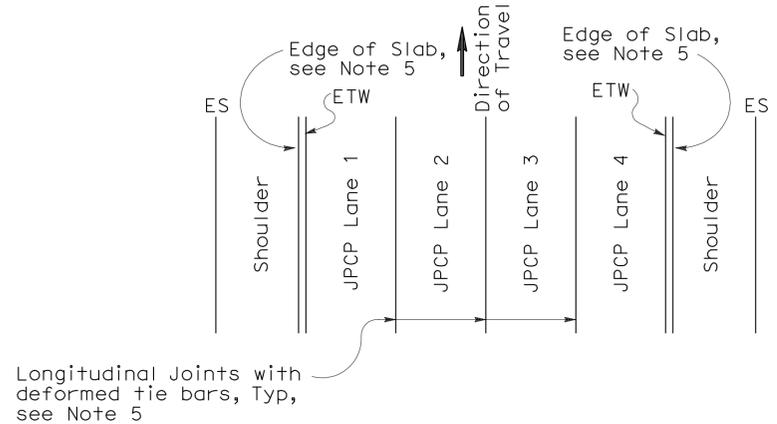


**4 LANES WITH TIED CONCRETE SHOULDERS**  
PLAN

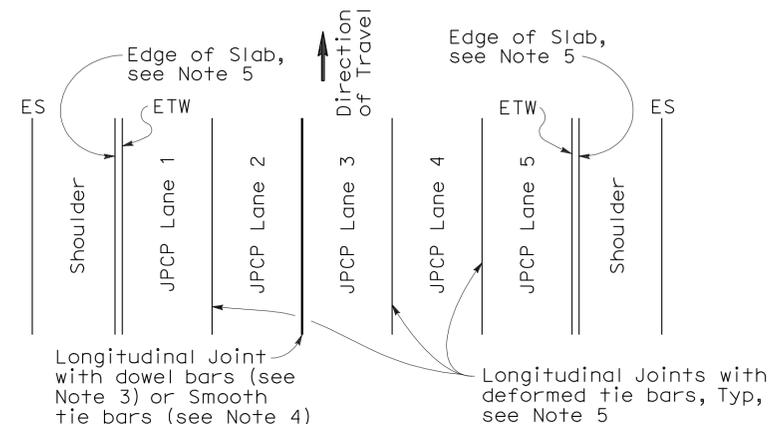


**5 LANES WITH TIED CONCRETE SHOULDERS**  
PLAN

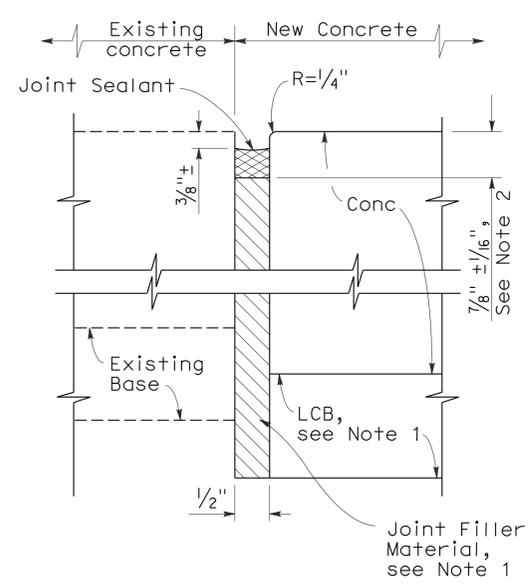
- NOTES:**
- Where Lean Concrete Base is not used as base material, the joint filler material used for the longitudinal isolation joint shall only extend to the bottom of the new concrete slab. See Detail A.
  - Use  $\frac{5}{8}'' \pm \frac{1}{16}''$  dimension for silicone sealant.
  - See Revised Standard Plan RSP P10 for longitudinal joint with dowel bars.
  - See Revised Standard Plan RSP P1.
  - See Revised Standard Plan RSP P2.



**4 LANES OR LESS WITH WIDENED SLAB**  
PLAN

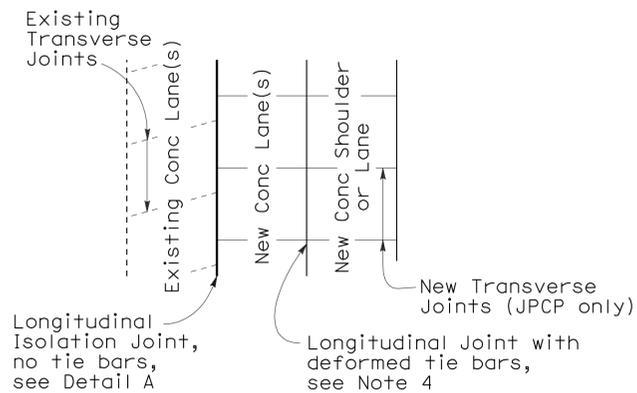


**5 LANES WITH WIDENED SLAB**  
PLAN



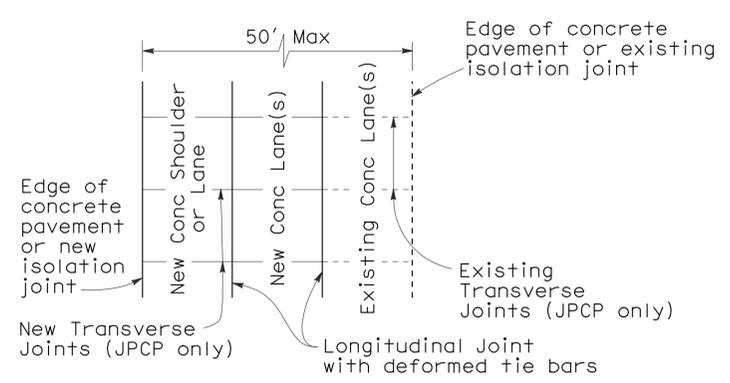
**DETAIL A**  
**ISOLATION JOINT**

**NEW CONSTRUCTION**  
Location of Longitudinal Joints (For JPCP)



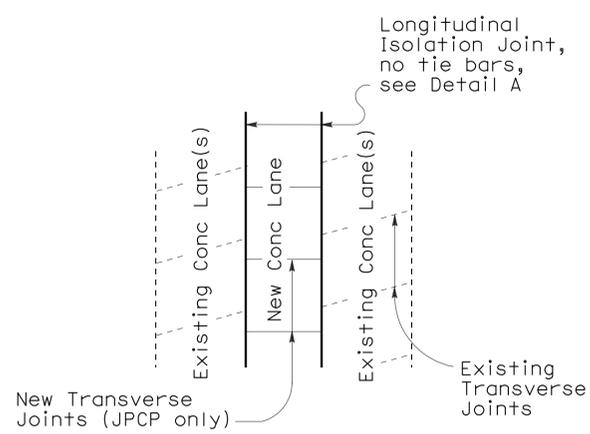
**CASE 1**  
**PLAN**

Transverse Joints do not align between new and existing



**CASE 2**  
**PLAN**

Transverse Joints align between new and existing



**CASE 3 (INTERIOR LANE REPLACEMENT)**  
**PLAN**

Transverse Joints do not align between new and existing

**LANE/SHOULDER ADDITION OR RECONSTRUCTION**  
(For JPCP and CRCP)

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT-  
LANE SCHEMATICS  
AND ISOLATION JOINT DETAIL**  
NO SCALE

RSP P18 DATED JUNE 5, 2009 SUPERSEDES RSP P18 DATED MAY 15, 2009, RSP P18 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P18 DATED MAY 1, 2006 - PAGE 127 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P18**

**NOTE:**

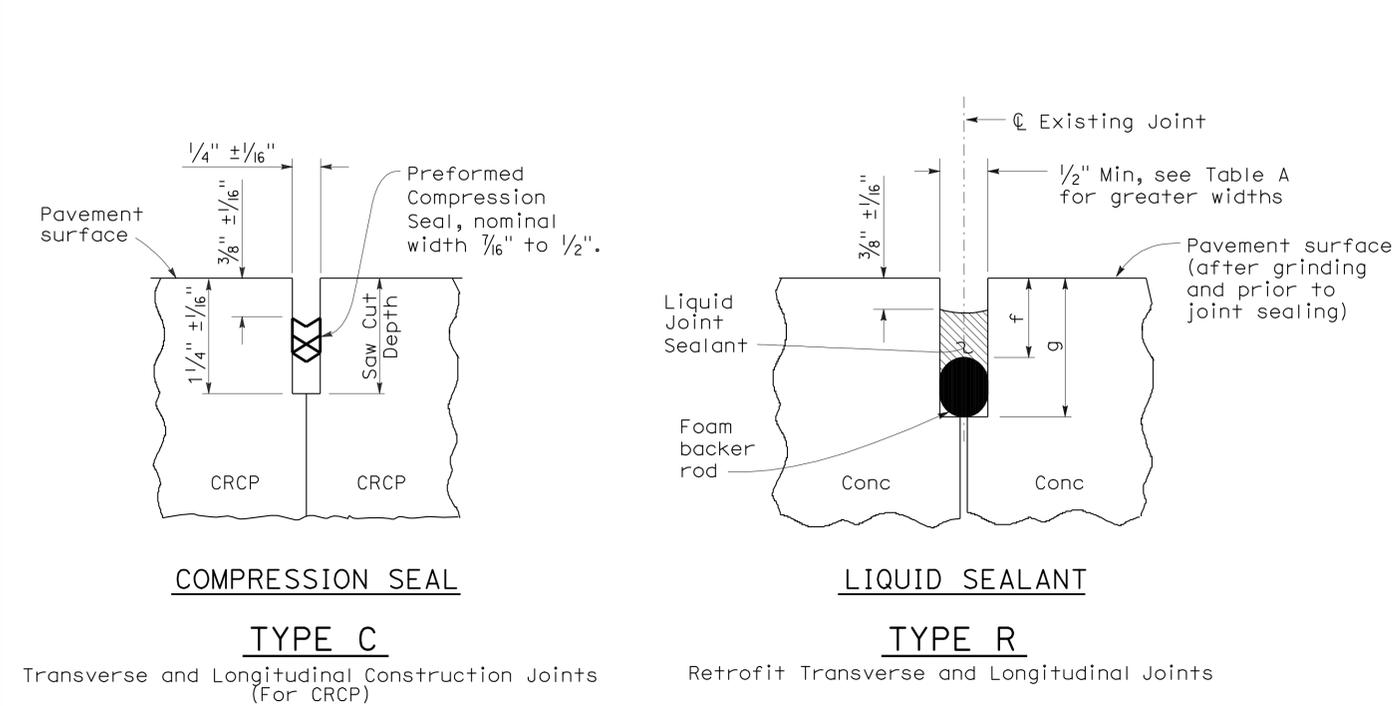
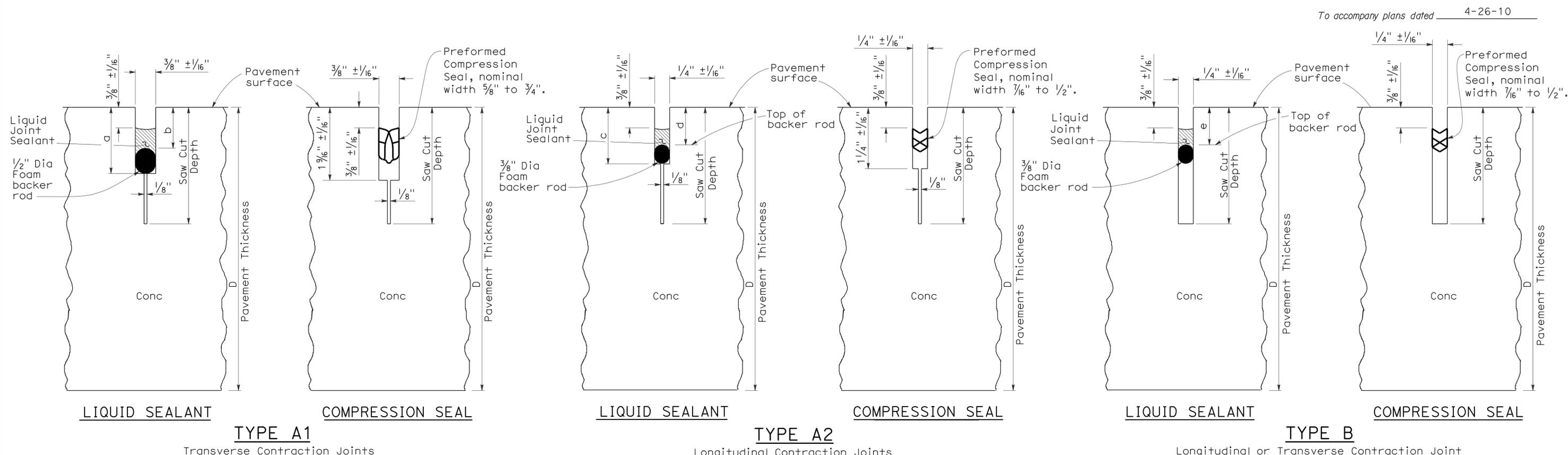
1. Tie bars, dowel bars, and reinforcement are not shown in joint seal details, see Revised Standard Plans RSP P1, RSP P3, RSP P10, RSP P35, RSP P45, or RSP P46 as applicable.

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 07   | LA     | 60    | R23.9/R30.5              | 106       | 124          |

*William K. Farnbach*  
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 No. C49042  
 Exp. 9-30-10  
 STATE OF CALIFORNIA

May 15, 2009  
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LIQUID SEALANT RESERVOIR DEPTH

| LIQUID SEALANT MATERIAL | 3/8" Joint Width Type A1 |              | 1/4" Joint Width Type A2 |                | 1/4" Joint Width Type B |
|-------------------------|--------------------------|--------------|--------------------------|----------------|-------------------------|
|                         | DIMENSION                |              | DIMENSION                |                | DIMENSION               |
|                         | a                        | b            | c                        | d              | e                       |
| SILICONE                | 1" ± 1/16"               | 5/8" ± 1/16" | 15/16" ± 1/16"           | 9/16" ± 1/16"  | 9/16" ± 1/16"           |
| ASPHALT RUBBER          | 1 3/16" ± 1/16"          | 3/4" ± 1/16" | 1 1/16" ± 1/16"          | 11/16" ± 1/16" | 11/16" ± 1/16"          |

TABLE A (TYPE R JOINT)

| Sawn Joint Width | Backer Rod Diameter ± 1/16" | DIMENSION "f" | DIMENSION "g" |
|------------------|-----------------------------|---------------|---------------|
| 1"               | 1 5/16"                     | 7/8"          | 2 1/4"        |
| 7/8"             | 1 3/16"                     | 13/16"        | 2"            |
| 3/4"             | 1"                          | 3/4"          | 1 3/4"        |
| 5/8"             | 7/8"                        | 11/16"        | 1 1/2"        |
| 1/2"             | 11/16"                      | 5/8"          | 1 1/4"        |

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT-JOINT DETAILS**  
 NO SCALE

RSP P20 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P20  
 DATED MAY 1, 2006 - PAGE 128 OF THE STANDARD PLANS BOOK DATED MAY 2006.

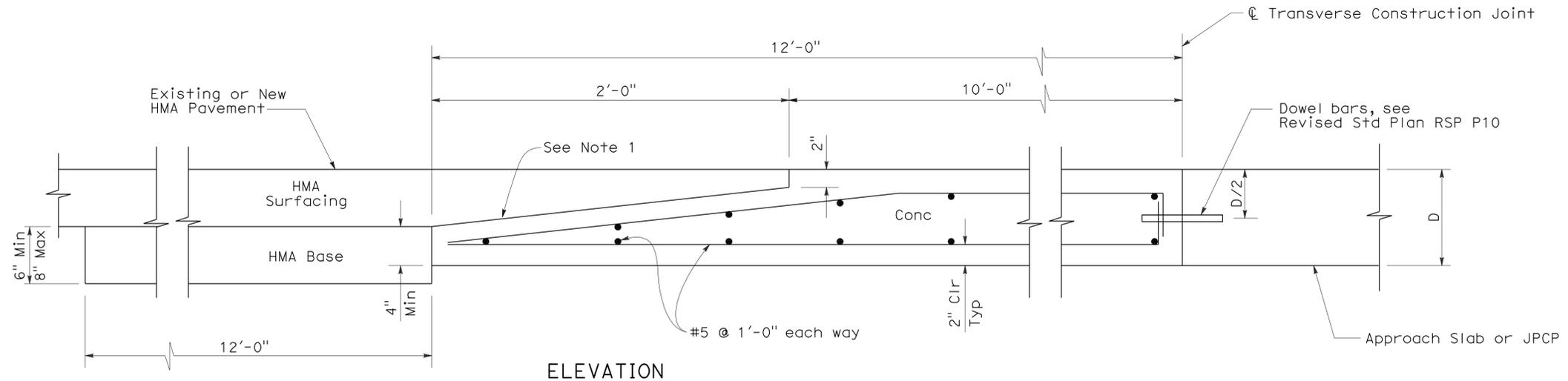
**REVISED STANDARD PLAN RSP P20**

2006 REVISED STANDARD PLAN RSP P20

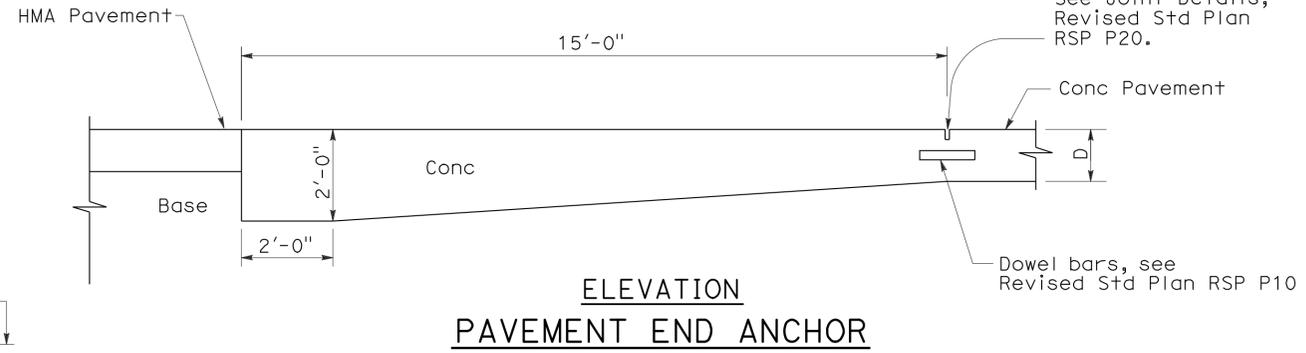
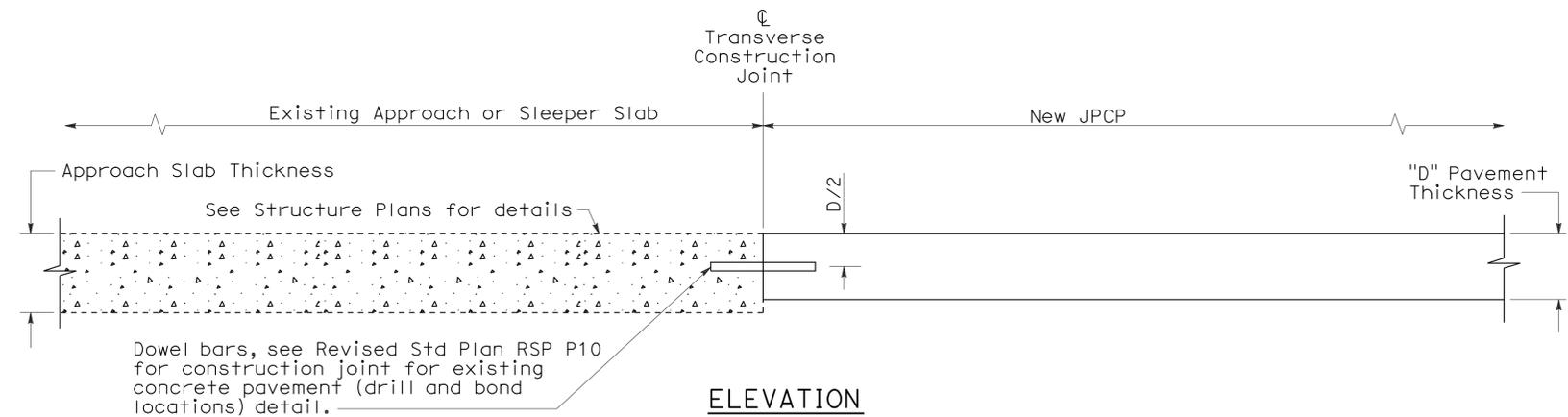
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 07   | LA     | 60    | R23.9/R30.5              | 107       | 124          |

William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 May 15, 2009  
 PLANS APPROVAL DATE  
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To accompany plans dated 4-26-10

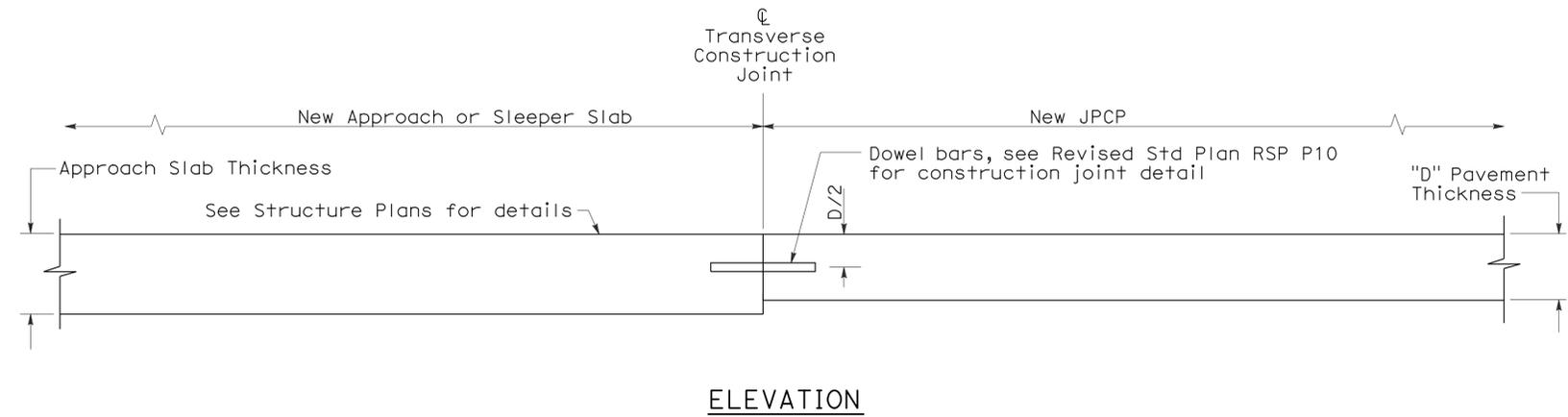


**CONCRETE PAVEMENT TO HOT MIXED ASPHALT PAVEMENT TRANSITION PANEL**



**ELEVATION PAVEMENT END ANCHOR**

**NOTE:**  
1. Heavy broom finish.



**CONCRETE PAVEMENT TRANSITION TO APPROACH OR SLEEPER SLAB**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**JOINTED PLAIN CONCRETE PAVEMENT-  
END PANEL  
PAVEMENT TRANSITIONS**  
NO SCALE

RSP P30 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P30  
DATED MAY 1, 2006 - PAGE 129 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P30**

2006 REVISED STANDARD PLAN RSP P30

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 07   | LA     | 60    | R23.9/R30.5              | 108       | 124          |

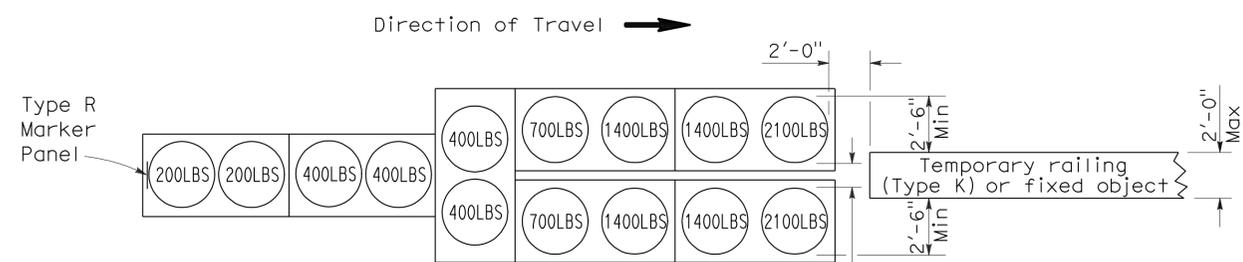
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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

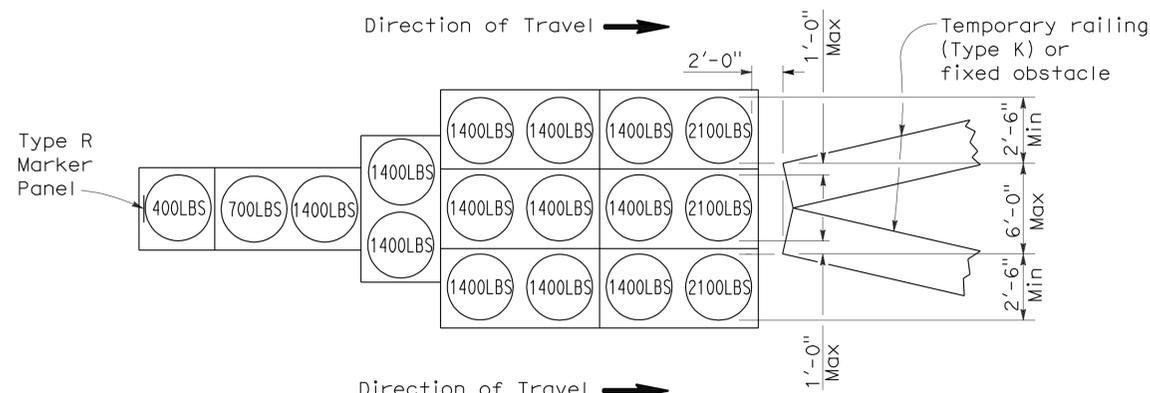
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To accompany plans dated 4-26-10



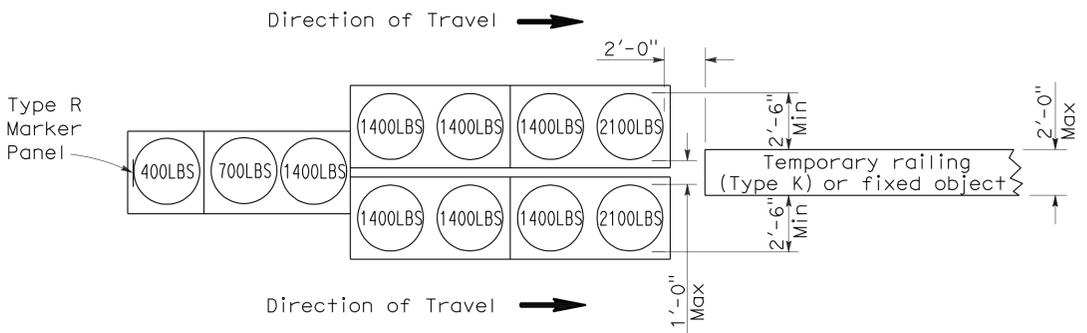
**ARRAY 'TU14'**

Approach speed 45 mph or more



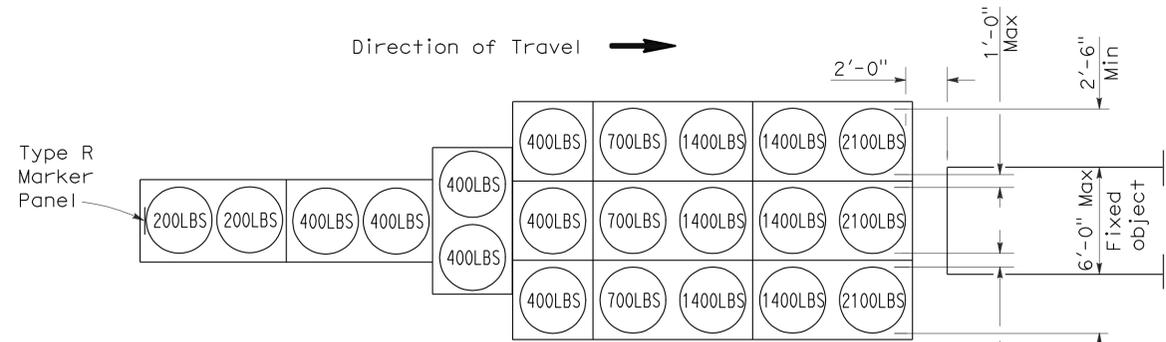
**ARRAY 'TU17'**

Approach speed less than 45 mph



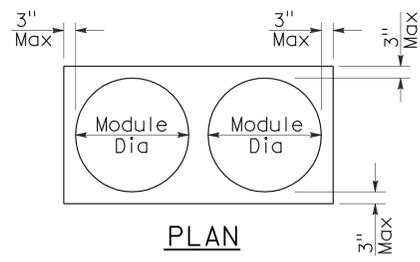
**ARRAY 'TU11'**

Approach speed less than 45 mph

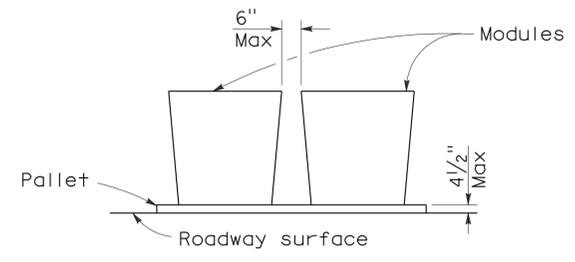


**ARRAY 'TU21'**

Approach speed 45 mph or more



**PLAN**



**ELEVATION**

**CRASH CUSHION PALLET DETAIL**

See Note 7

**NOTES:**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

**REVISED STANDARD PLAN RSP T1A**

2006 REVISED STANDARD PLAN RSP T1A

|      |        |       |                             |              |                 |
|------|--------|-------|-----------------------------|--------------|-----------------|
| DIST | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>NO. | TOTAL<br>SHEETS |
| 07   | LA     | 60    | R23.9/R30.5                 | 109          | 124             |

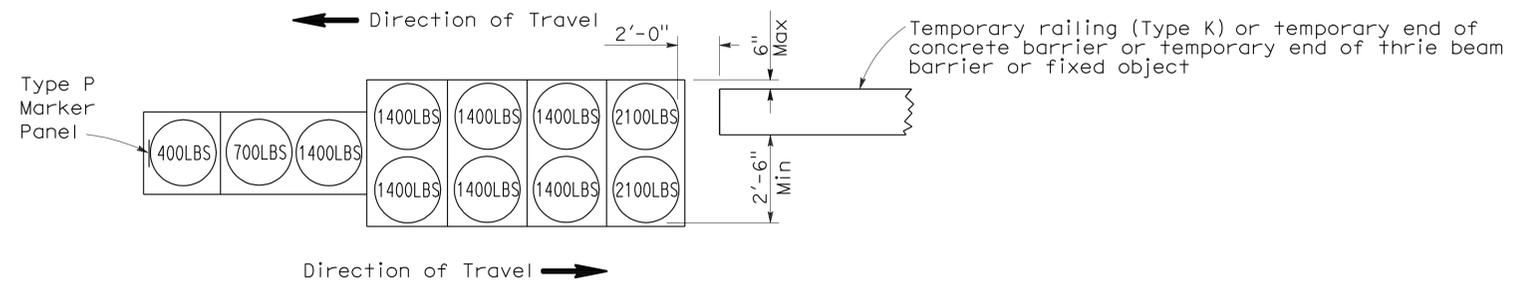
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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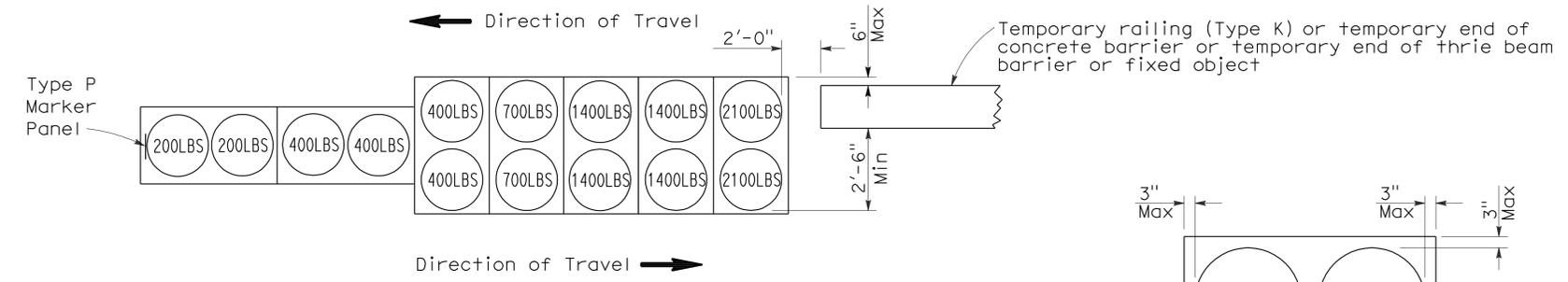
REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

To accompany plans dated 4-26-10



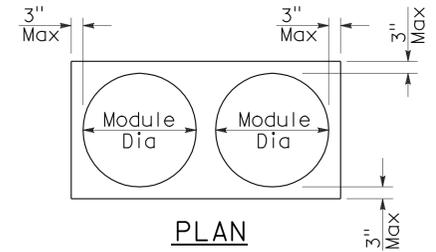
**ARRAY 'TB11'**

Approach speed less than 45 mph

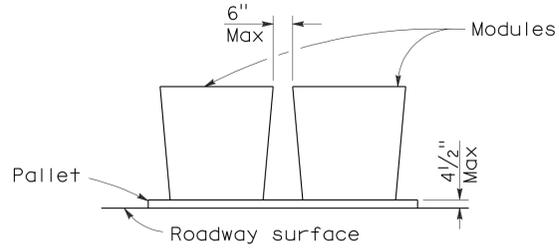


**ARRAY 'TB14'**

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 |
|------|--------|-------|--------------------------|-----------|--------------|
| 07   | LA     | 60    | R23.9/R30.5              | 110       | 124          |

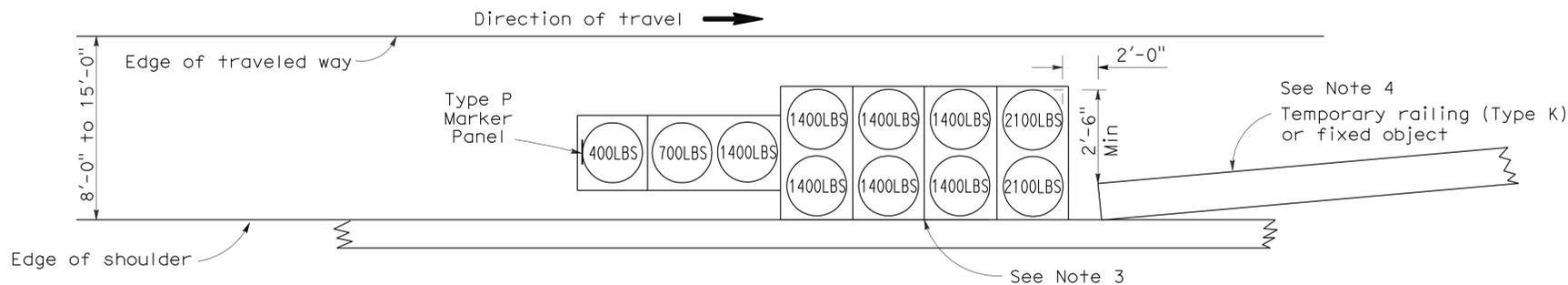
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

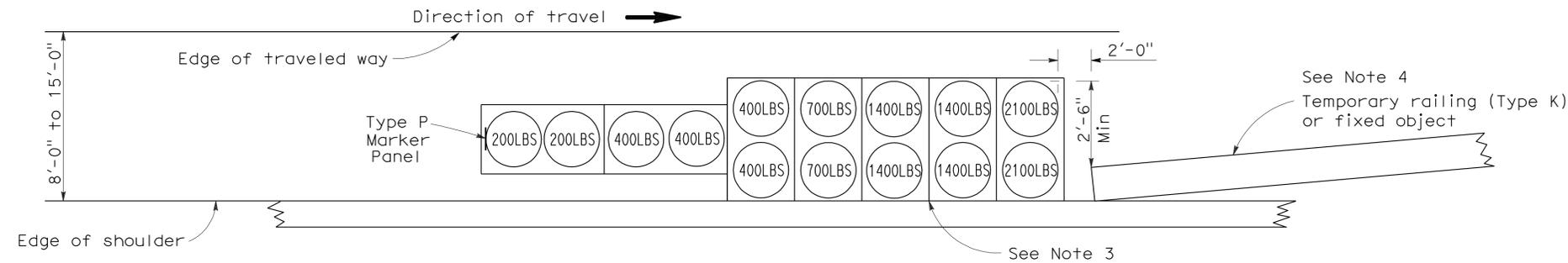
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REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

To accompany plans dated 4-26-10



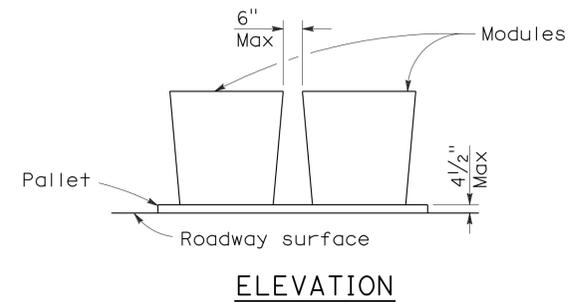
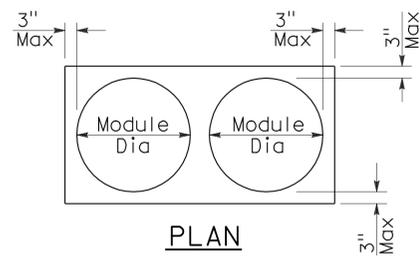
**ARRAY 'TS11'**  
Approach speed less than 45 mph  
See Note 9



**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

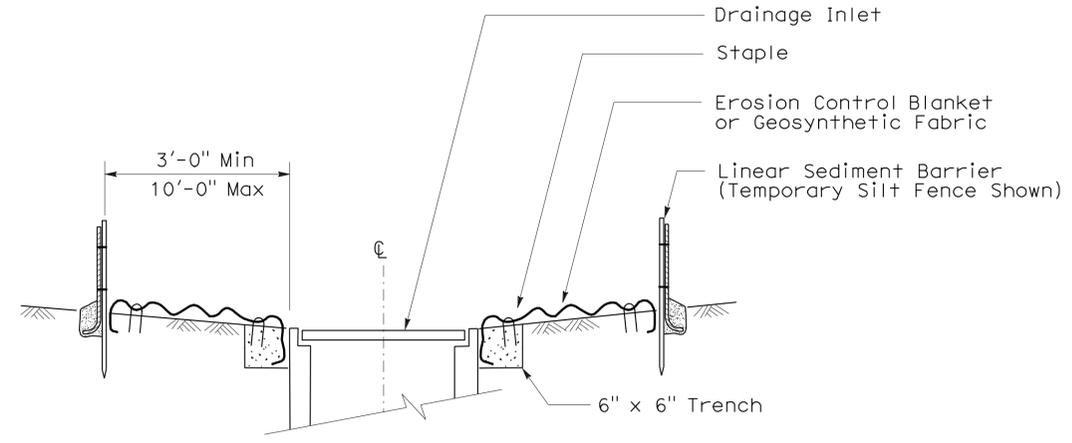


| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 07   | LA     | 60    | R23.9/R30.5              | 112       | 124          |

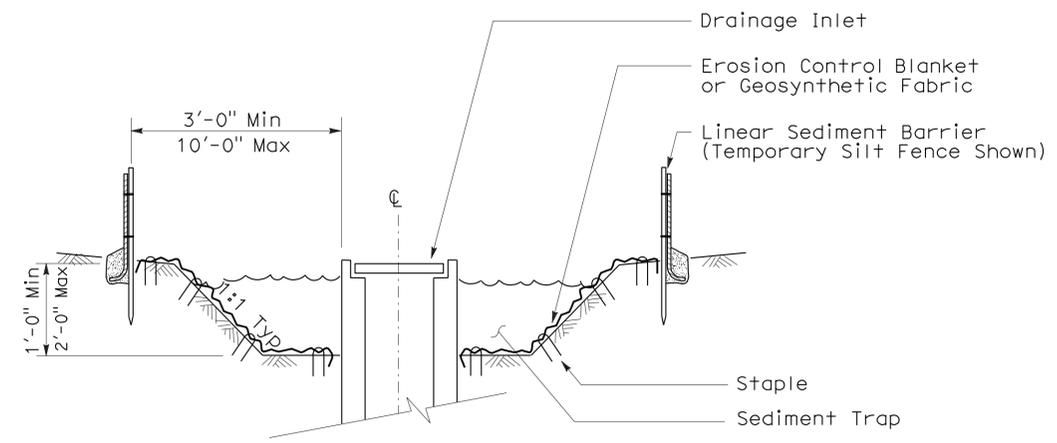
*Robert B. Schott*  
 LICENSED LANDSCAPE ARCHITECT  
 August 15, 2008  
 PLANS Approval DATE  
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To accompany plans dated 4-26-10

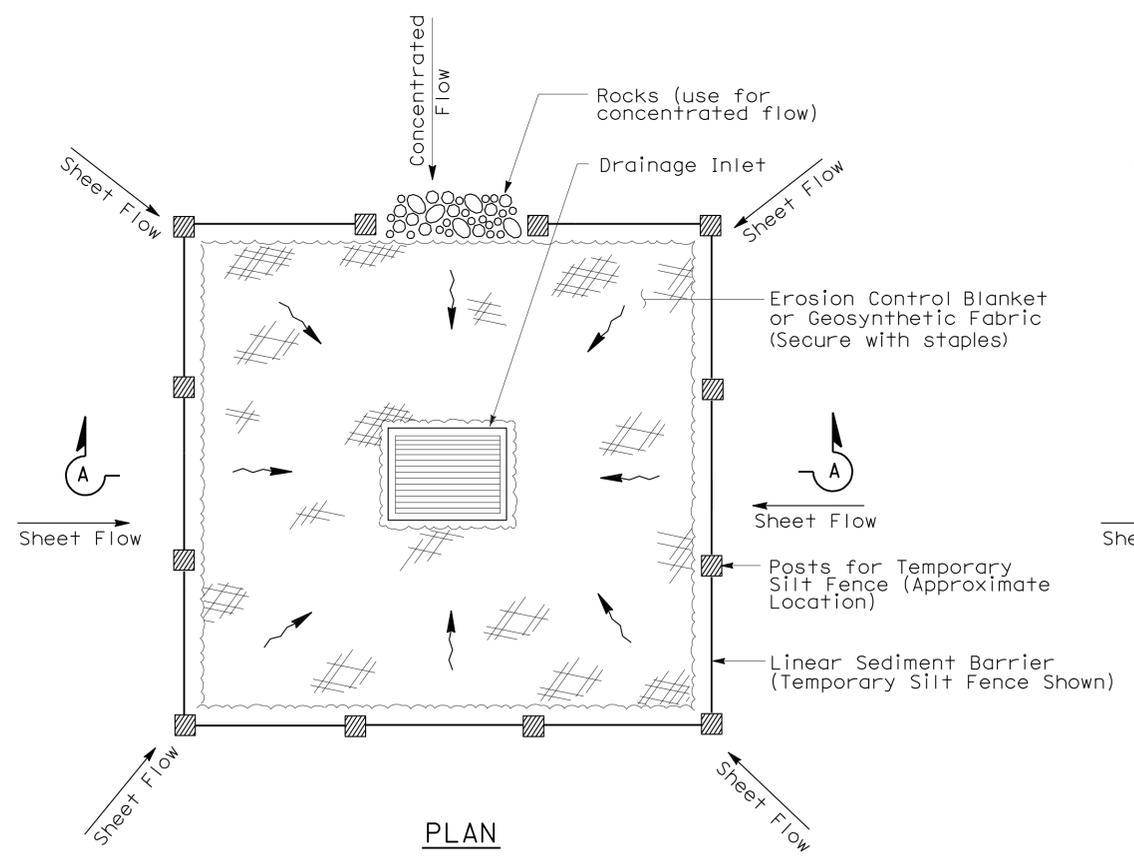
- NOTES:**
- See Standard Plan T51 for Temporary Silt Fence.
  - Dimensions may vary to fit field conditions.



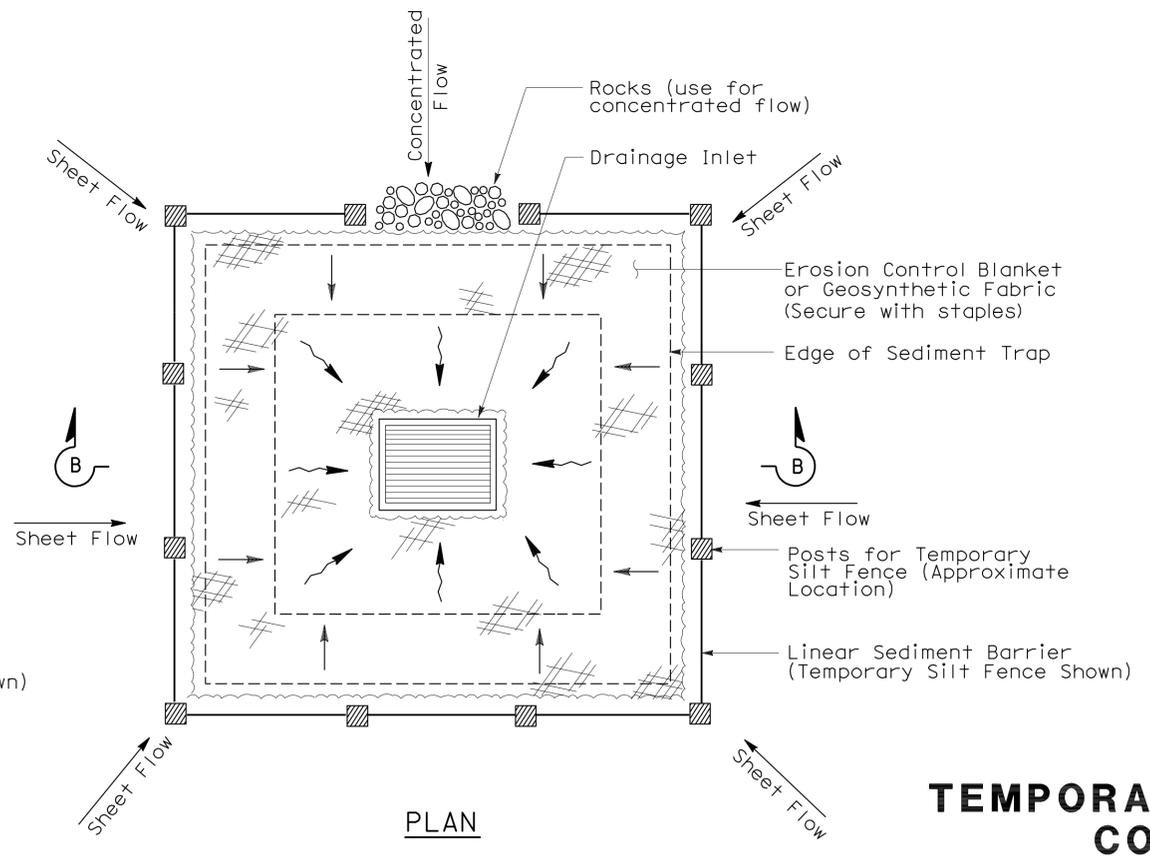
SECTION A-A



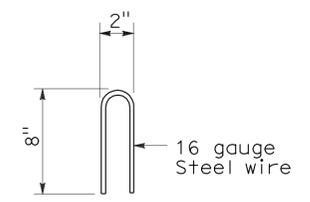
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



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



STAPLE DETAIL

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

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

2006 NEW STANDARD PLAN NSP T61

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 07   | LA     | 60    | R23.9/R30.5              | 113       | 124          |

Robert B. Schott  
LICENSED LANDSCAPE ARCHITECT

August 15, 2008  
PLANS APPROVAL DATE

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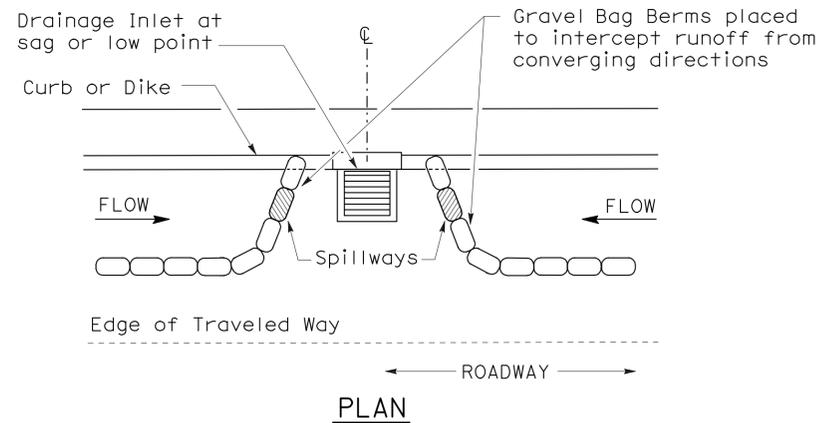
To accompany plans dated 4-26-10

STATE OF CALIFORNIA  
LICENSED LANDSCAPE ARCHITECT  
Robert B. Schott  
Signature: Robert B. Schott  
11-04-08  
08-11-08  
Date

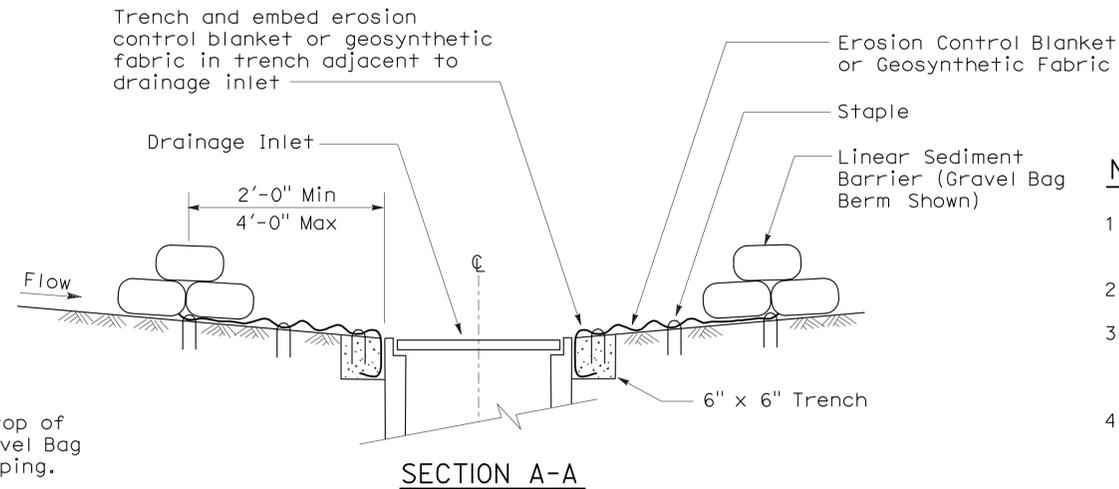
**GRAVEL BAG BERM (TYPE 3A) SPACING TABLE**

|                            |          |          |          |         |     |
|----------------------------|----------|----------|----------|---------|-----|
| 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



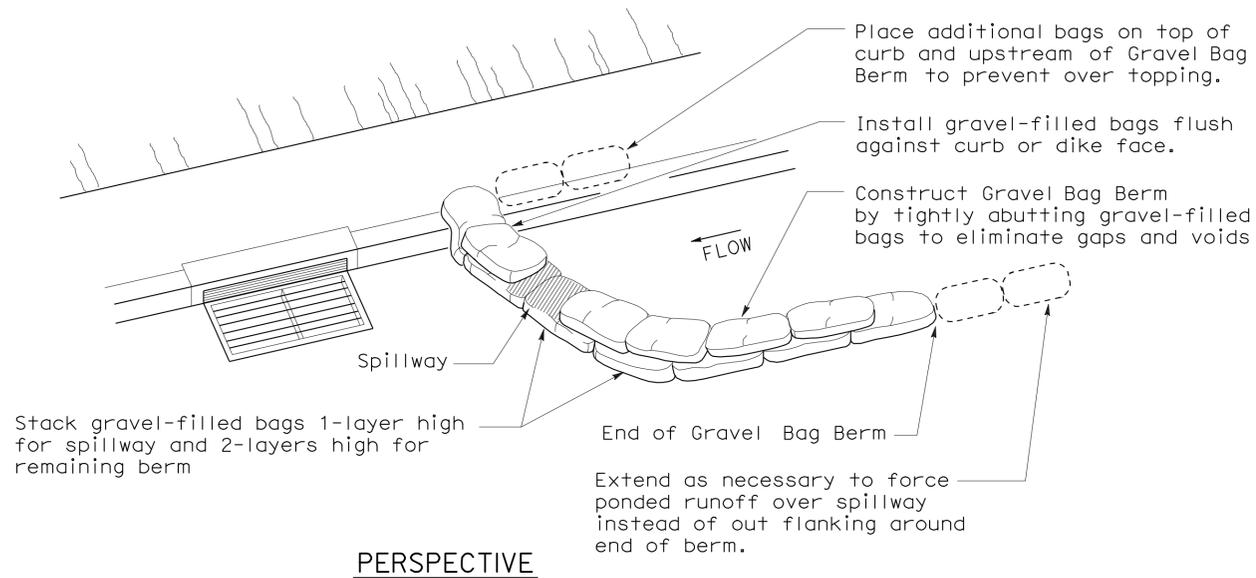
**PLAN**  
**CONFIGURATION FOR SAG POINT INLET**  
**(GRAVEL BAG BERM)**



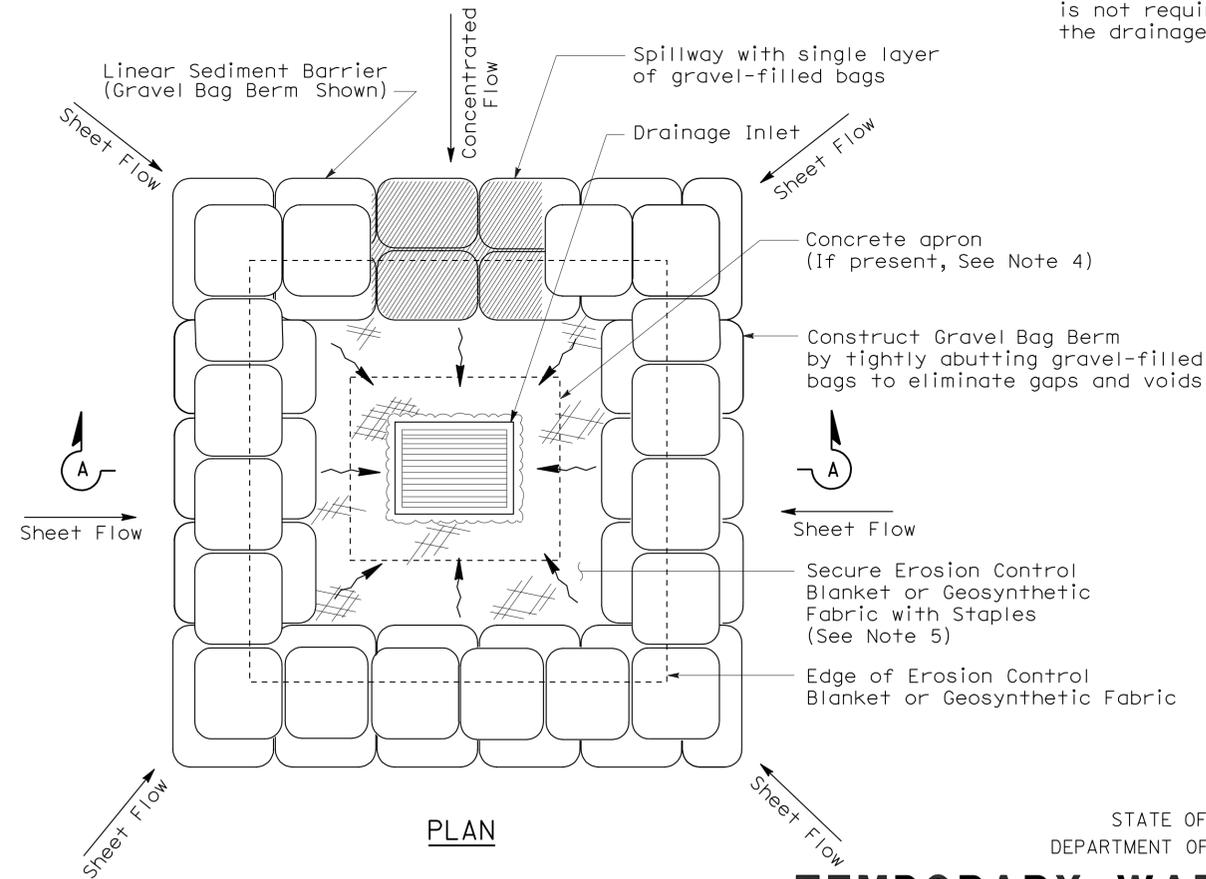
**SECTION A-A**

**NOTES:**

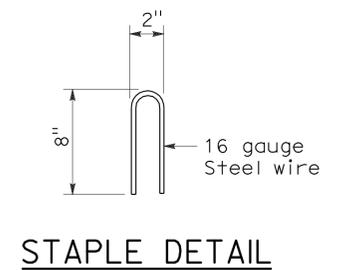
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



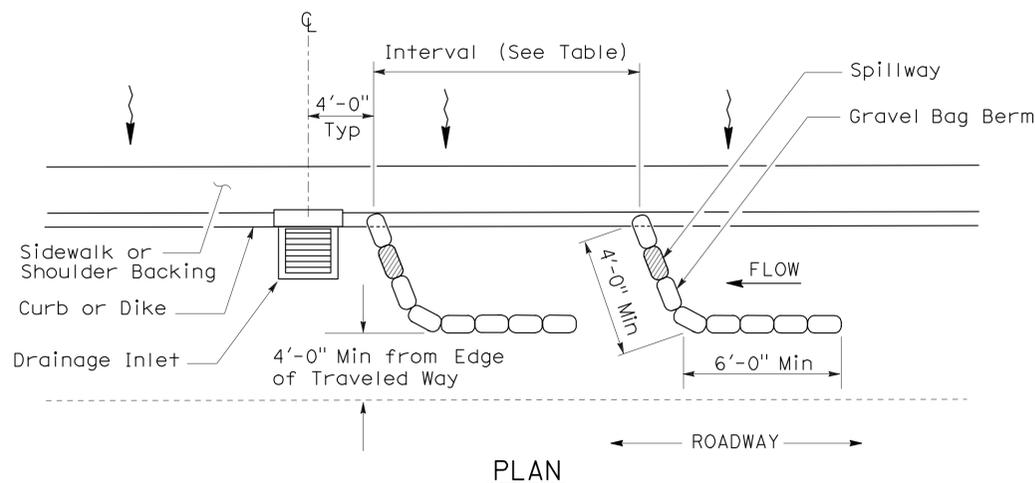
**PERSPECTIVE**



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



**STAPLE DETAIL**



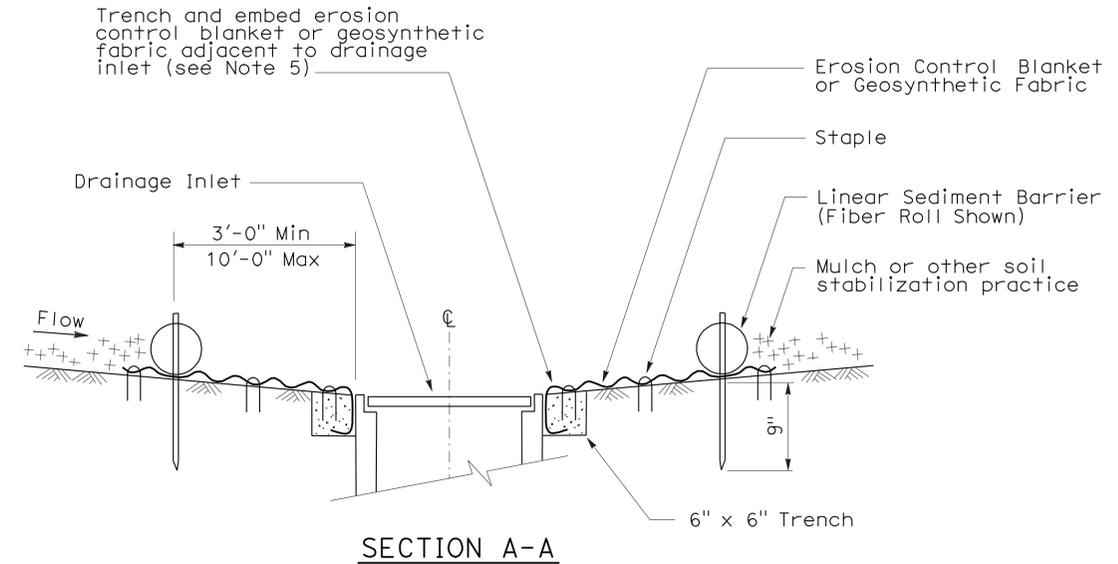
**PLAN**  
**TEMPORARY DRAINAGE**  
**INLET PROTECTION (TYPE 3A)**  
**(GRAVEL BAG BERM)**

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

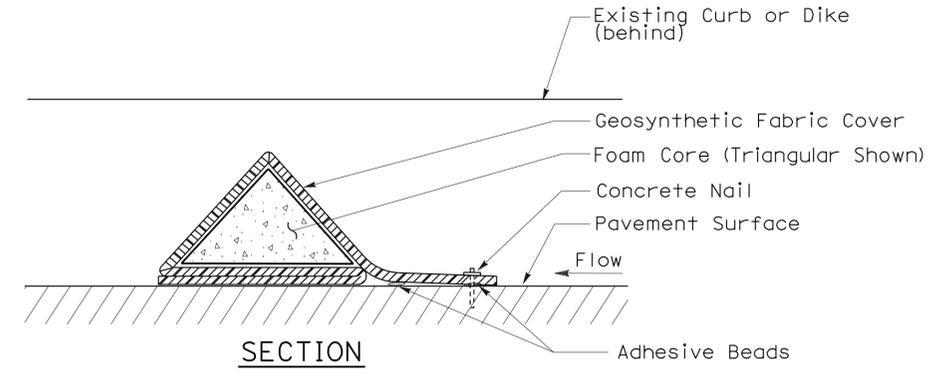
NO SCALE  
NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS  
THE STANDARD PLANS BOOK DATED MAY 2006.

**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'  |



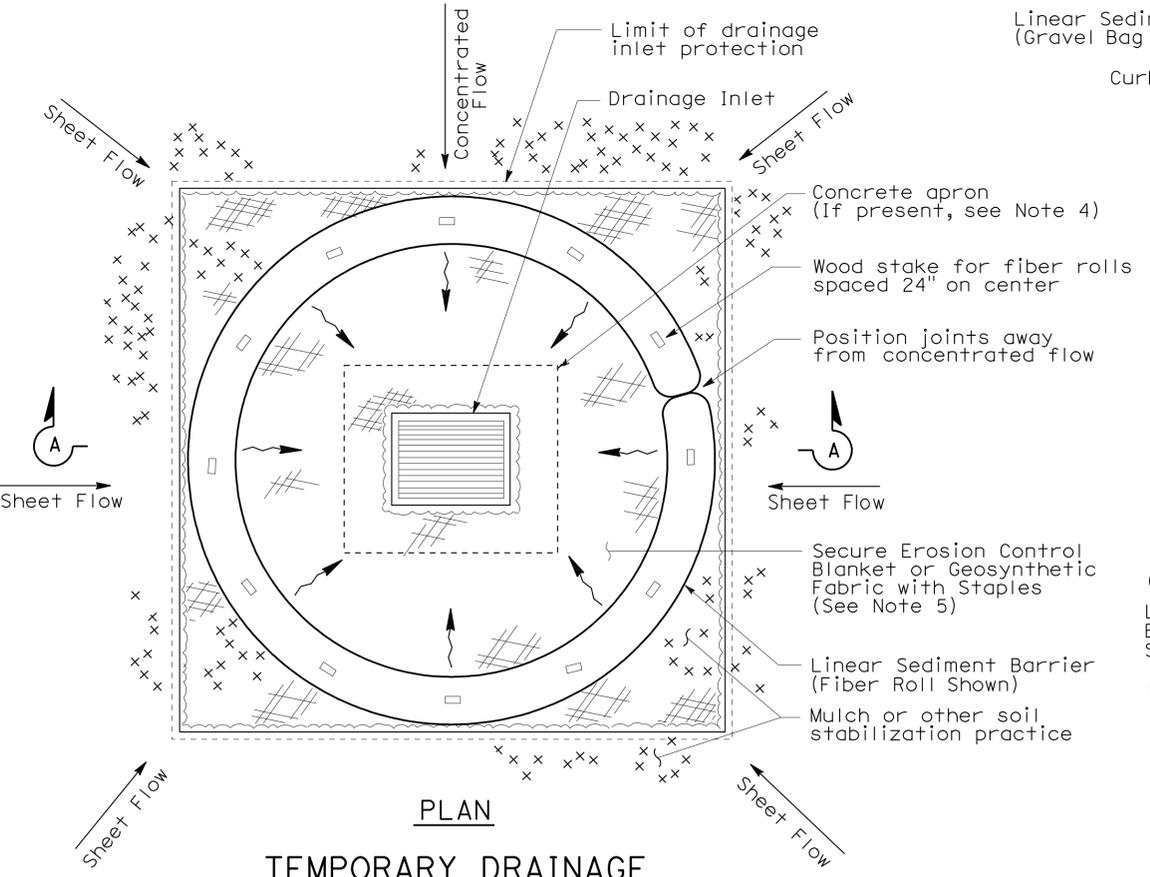
**SECTION A-A**



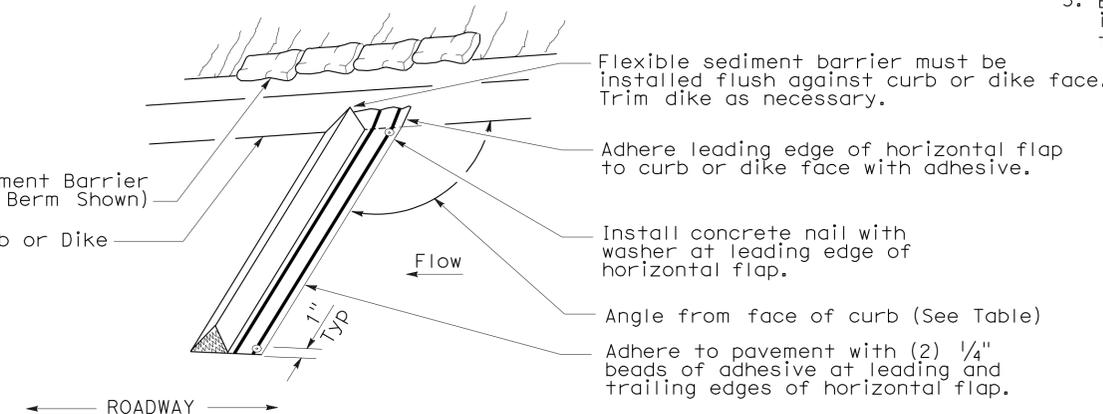
**FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)**

**NOTES:**

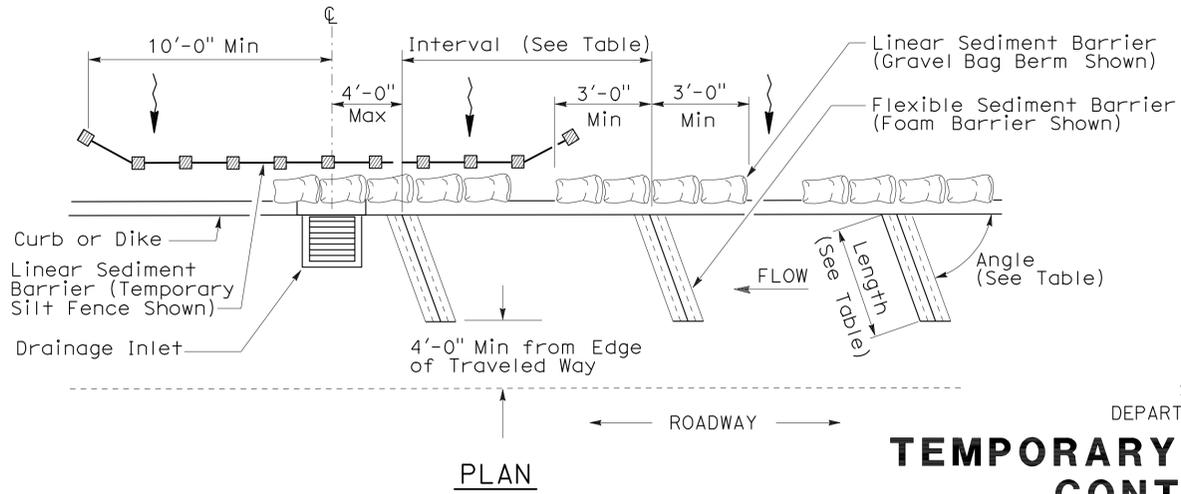
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



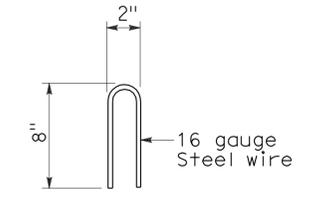
**TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)**



**PERSPECTIVE**



**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

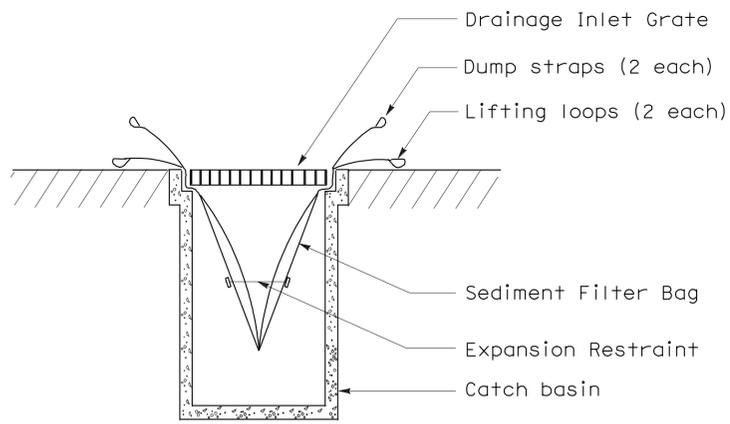
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 07   | LA     | 60    | R23.9/R30.5              | 115       | 124          |

*Robert B. Schott*  
 LICENSED LANDSCAPE ARCHITECT

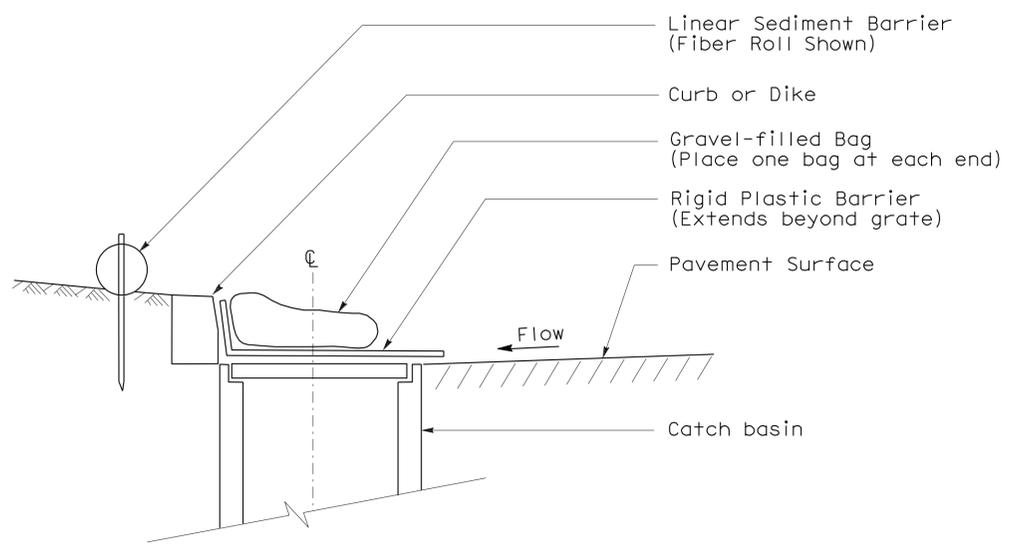
August 15, 2008  
 PLANS APPROVAL DATE

*Robert B. Schott*  
 LICENSED LANDSCAPE ARCHITECT  
 Signature  
 11-04-08  
 Renewal Date  
 08-11-08  
 Date

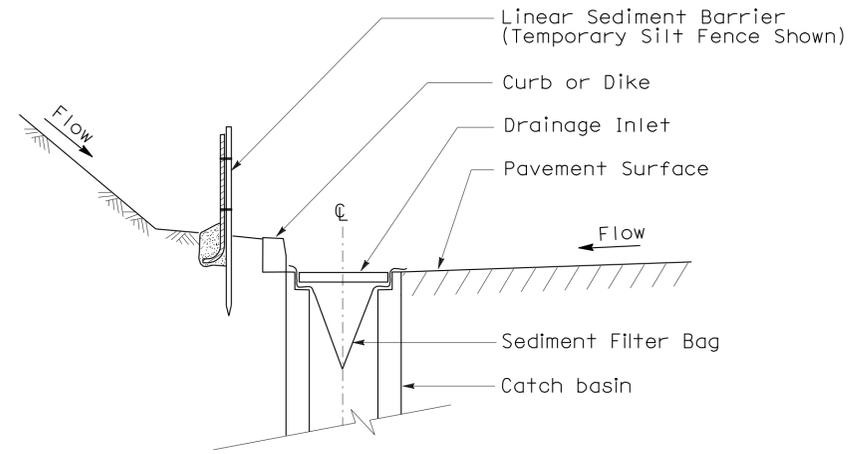
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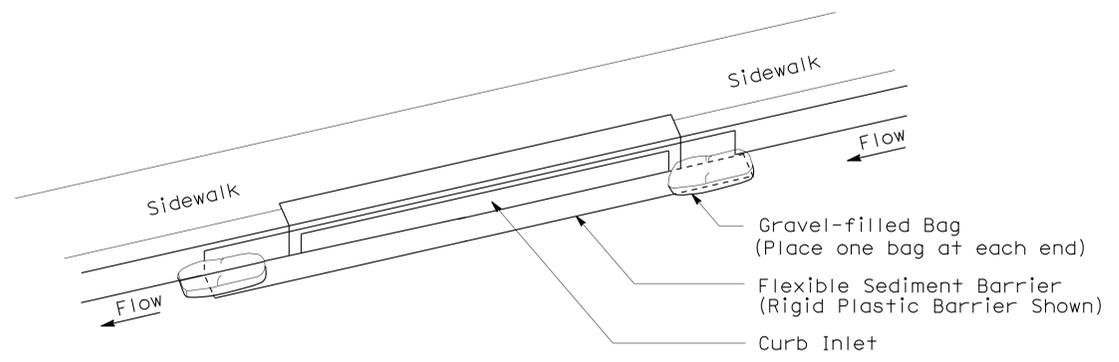
SECTION B-B  
SEDIMENT FILTER BAG DETAIL



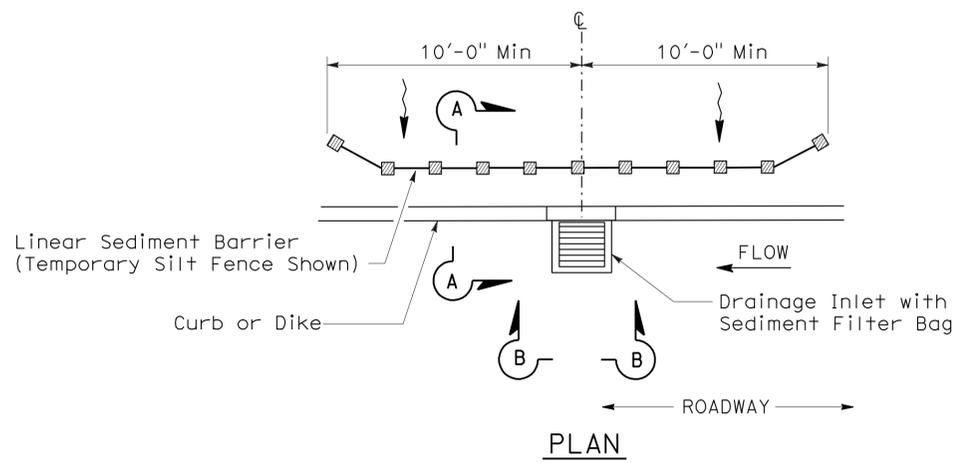
SECTION  
TEMPORARY DRAINAGE  
INLET PROTECTION (TYPE 6A)  
(CATCH BASIN WITH GRATE)



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.

To accompany plans dated 4-26-10

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.

# 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 |
|------|--------|-------|--------------------------|-----------|--------------|
| 07   | LA     | 60    | R23.9/R30.5              | 116       | 124          |

*Jeffery G. McRae*  
REGISTERED ELECTRICAL ENGINEER

October 5, 2007  
PLANS APPROVAL DATE

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

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To accompany plans dated 4-26-10

## 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 |
| 07   | LA     | 60    | R23.9/R30.5              | 117       | 124          |

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

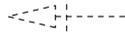
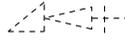
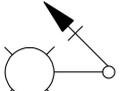
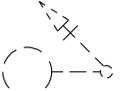
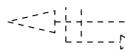
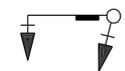
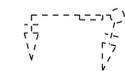
October 5, 2007  
 PLANS APPROVAL DATE

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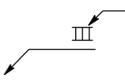
### CONDUIT

| 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  |
|  |  | Conduit riser in/on structure or service pole   |

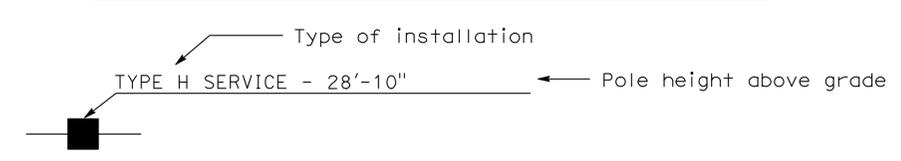
### SIGNAL EQUIPMENT

| 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:<br>"L" indicates all non-arrow sections louvered<br>"LG" indicates louvered green section only<br>"PV" indicates 12" programmed visibility sections<br>"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   |

### SERVICE EQUIPMENT

| PROPOSED  | EXISTING  |   |
|---|---|---|
| ---OH---  | ---oh---  | 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                                 |

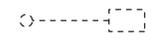
### POLE-MOUNTED SERVICE DESIGNATION



### 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

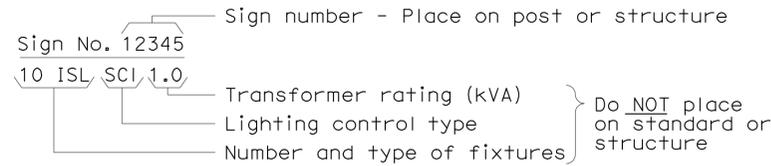
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B  
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1B**

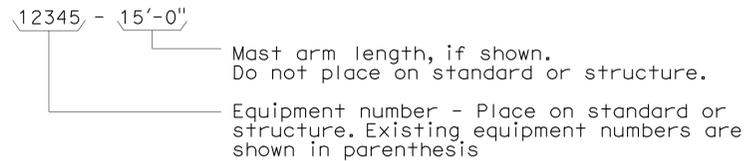
2006 REVISED STANDARD PLAN RSP ES-1B

### EQUIPMENT IDENTIFICATION

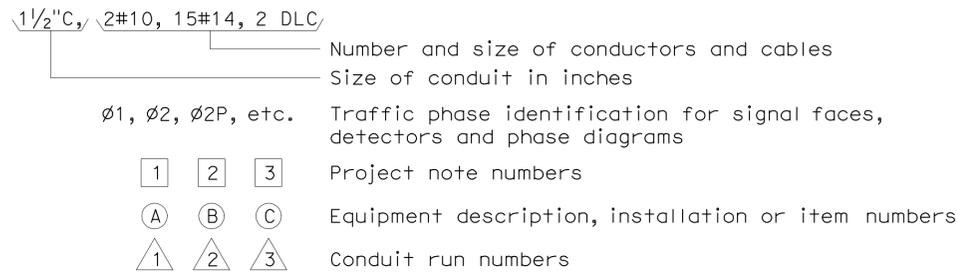
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



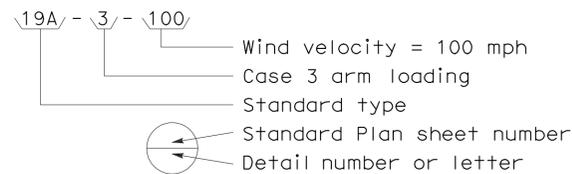
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



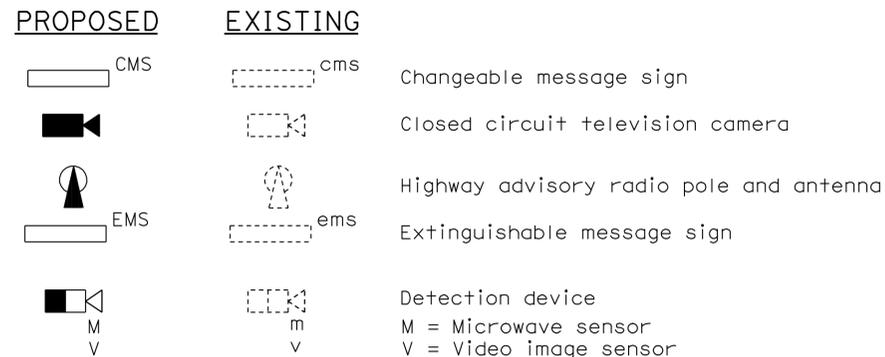
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



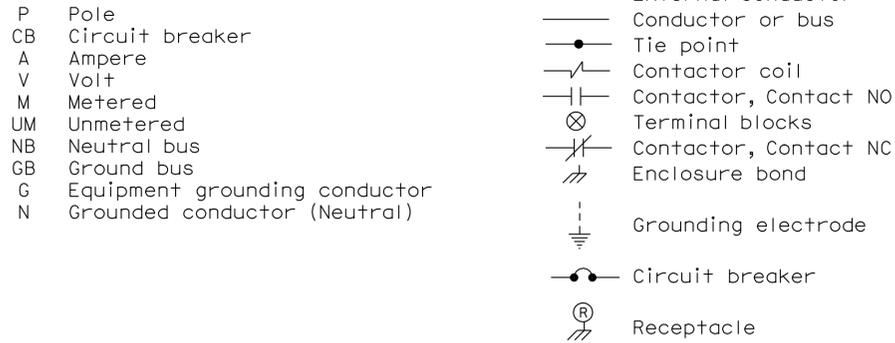
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



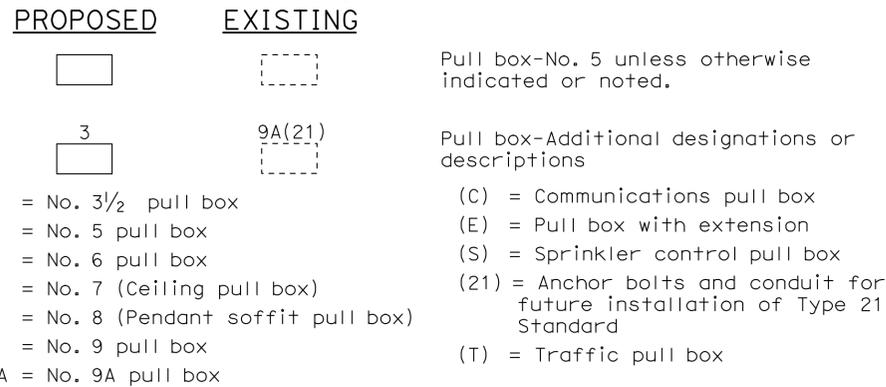
### MISCELLANEOUS EQUIPMENT



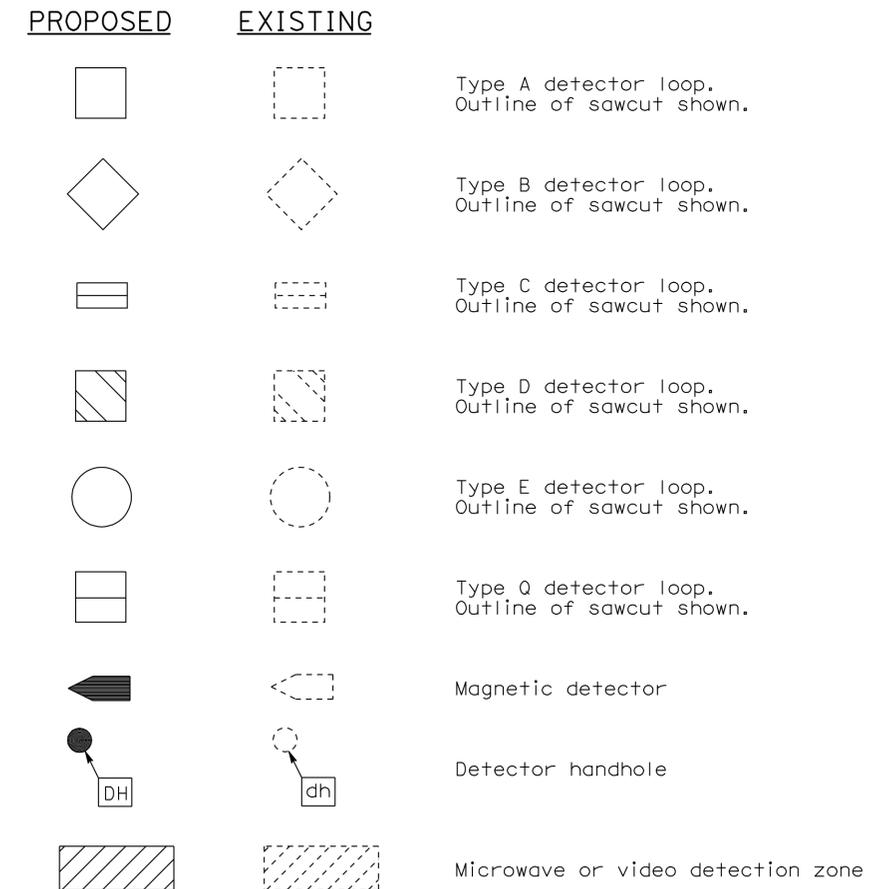
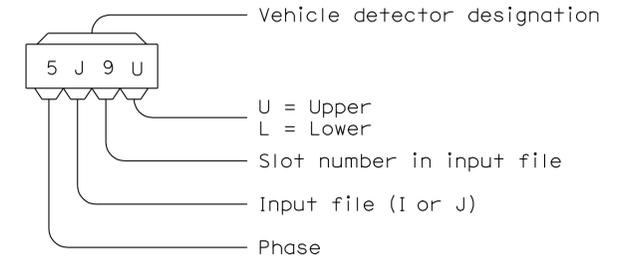
### WIRING DIAGRAM LEGEND



### 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.

2006 REVISED STANDARD PLAN RSP ES-1C

| DIST | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>NO. | TOTAL<br>SHEETS |
|------|--------|-------|-----------------------------|--------------|-----------------|
| 07   | LA     | 60    | R23.9/R30.5                 | 119          | 124             |

*Jeffery G. McRae*  
 REGISTERED ELECTRICAL ENGINEER

October 5, 2007  
 PLANS APPROVAL DATE

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

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

**NOTES-TYPE III SERVICE EQUIPMENT ENCLOSURES:**

1. Service equipment enclosure and metering equipment shall meet the requirements of the service utility. The meter area shall have a sealable, lockable, weathertight cover that can be removed without the use of tools.
2. Service equipment enclosures shall be factory wired and conform to NEMA standards.
3. Dimensions of service equipment enclosures shall meet the requirements of the service utility.
4. The dead front panels on Type III service equipment enclosures shall have a continuous stainless steel or aluminum piano hinge. The panel in front of the breakers shall be secured with a latch or captive screws. No live parts shall be mounted on the dead front panel.
5. The exterior door shall have provisions for padlocking. The padlock hole shall be a minimum diameter of  $\frac{7}{16}$ ".
6. Enclosures housing transformers of more than one kVA shall have effective screened ventilation louver of not less than 50 square inches. Screen shall be stainless steel No. 304, with a No. 10 size mesh. Framed screen shall be secured with at least four bolts.
7. Fasteners on the exterior of the enclosure shall be vandal-resistant and shall not be removable from the exterior. Exterior screws, nuts, bolts and washers shall be stainless steel.
8. Landing lugs for incoming service conductors shall be compatible with either copper or aluminum conductors sized to suit the conductors shown on the plan. Landing lugs shall be copper or tin-plated aluminum. Neutral bus shall be rated for 125 A and be suitable for copper or aluminum conductors unless otherwise specified. The terminal shall include but not be limited to:
  - a) Incoming terminals (landing lugs)
  - b) Neutral lugs
  - c) Solid neutral terminal strip
9. At least 6 standard single pole circuit breaker spaces,  $\frac{3}{4}$ " nominal, shall be provided for branch circuits. Circuit breaker interiors shall be copper. Interiors of enclosure shall accept plug-in or cable-in/cable-out circuit breakers.
10. Control wiring shall be 600 V, 14 stranded machine tool wire. Where subject to flexing, 19 strand wire shall be used.
11. Main bus shall be rated for 125 A and shall be tin-plated copper.
12. A plastic laminated wiring diagram shall be provided with brass mounting eyelets and attached to the inside of the enclosure and the wiring diagram shall be affixed to the interior with a UL or ETL approved method.

13. An engraved phenolic nameplate on the dead front panel indicating the function of each circuit or device shall be installed with stainless steel rivets or stainless steel screws:
  - a) Adjacent to the breaker or device with character size a minimum of  $\frac{1}{8}$ ".
  - b) At the top of the exterior door panel indicating State system number, voltage level and number of phases with character size a minimum of  $\frac{3}{16}$ ".
14. The plan shows the approximate location of devices within the enclosure. Components may be rearranged, however, the "working" clearances within the service equipment enclosure shall be maintained.
15. In unpaved areas a raised portland cement concrete pad 2'-0" x 4" x width of foundation shall be constructed in front of new service equipment enclosure installation. Pad shall be set to elevation of foundation.
16. Foundation shall extend 2" minimum beyond edge of service equipment enclosure.
17. Internal bus, where shown, is typical only. Alternative design of proposed service equipment enclosure shall be submitted to the Engineer for approval.
18. Plug-in circuit breakers may be mounted in the vertical or horizontal position. Cable-in/cable-out circuit breakers shall be mounted in the vertical position.
19. Type III-AF and Type III-BF service equipment enclosures shall have the meter viewing windows located on the front side of the service equipment enclosures.
20. Type III-AR and Type III-BR service equipment enclosures shall be similarly constructed as Type III-AF and Type III-BF respectively, except the meter viewing windows shall be located on the back side of the service equipment enclosures.
21. Minimum clearance shall be required for front and back of service equipment enclosure per National Electrical Code, Article 110.26, "Spaces About Electric Equipment (600 Volts, Nominal, or Less)."

To accompany plans dated 4-26-10

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

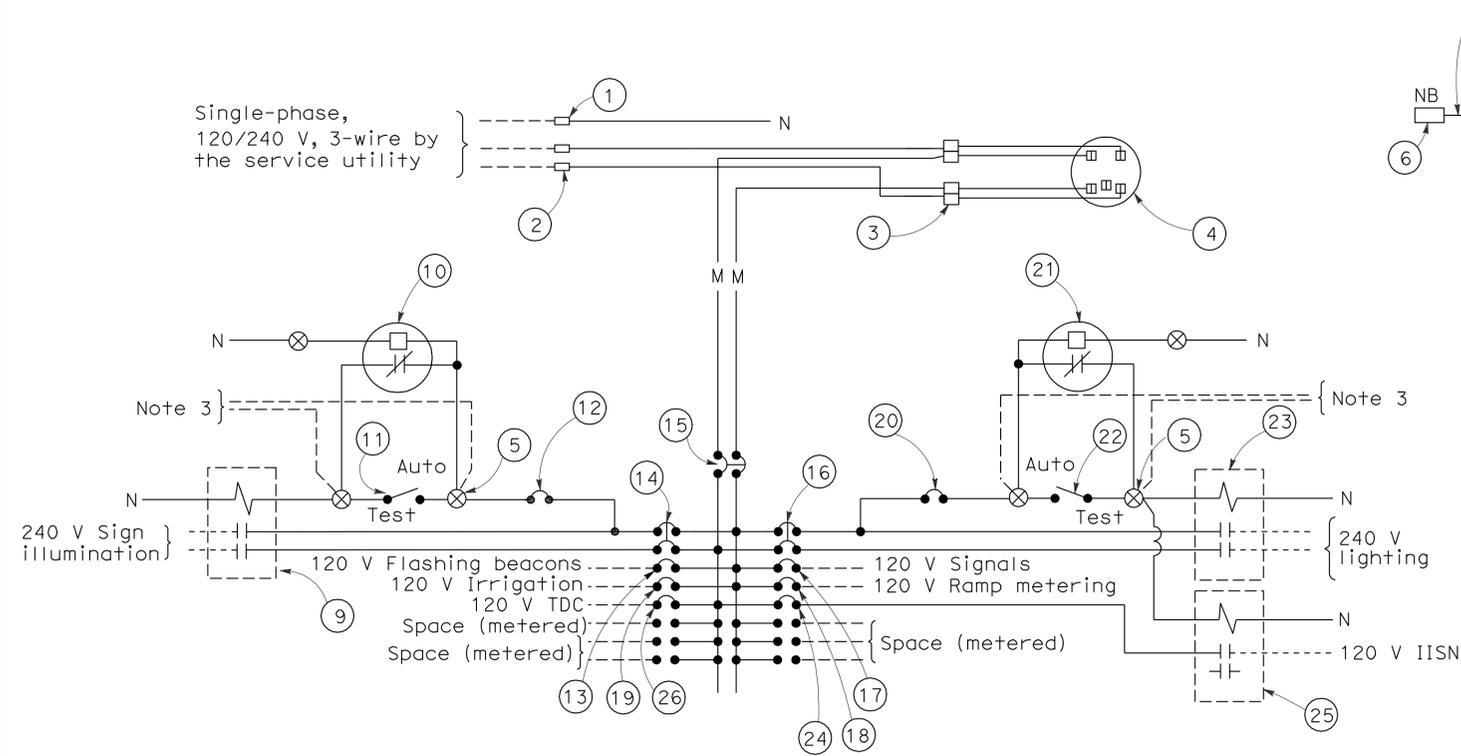
**ELECTRICAL SYSTEMS  
(SERVICE EQUIPMENT NOTES  
TYPE III SERIES)**

NO SCALE

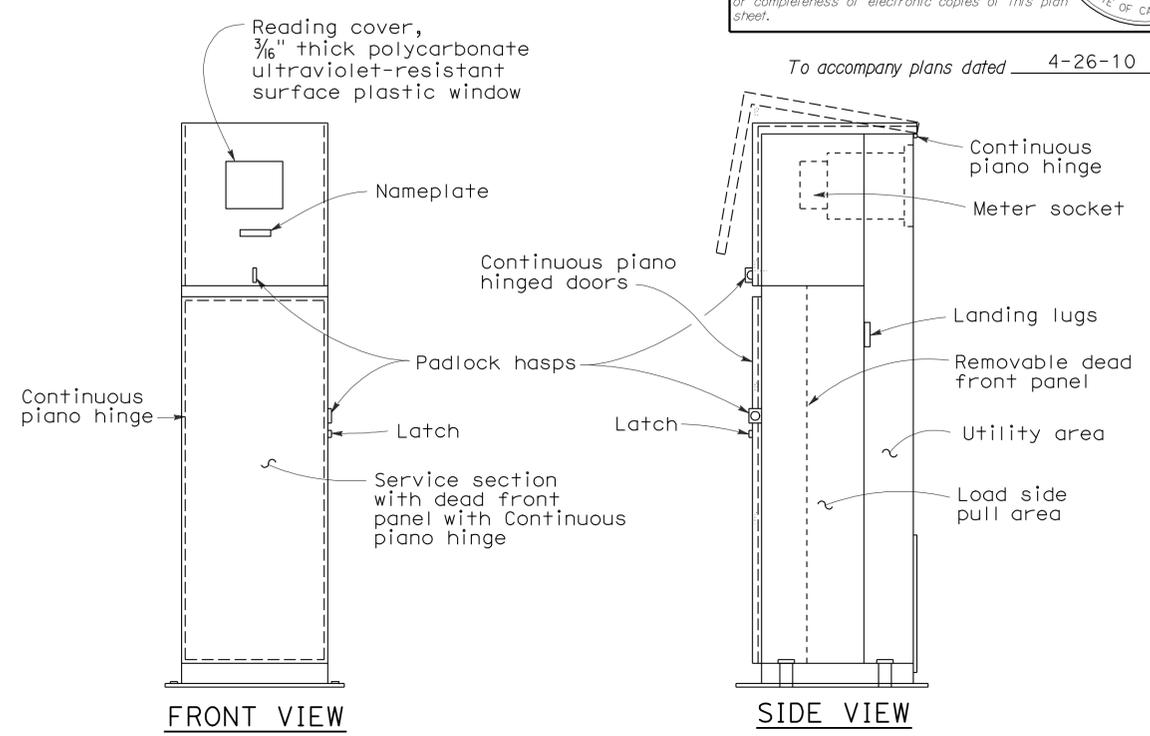
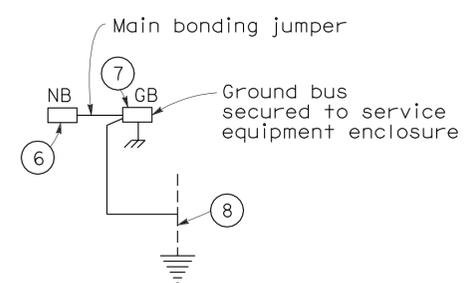
RSP ES-2C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2C  
DATED MAY 1, 2006 - PAGE 405 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-2C**

2006 REVISED STANDARD PLAN RSP ES-2C



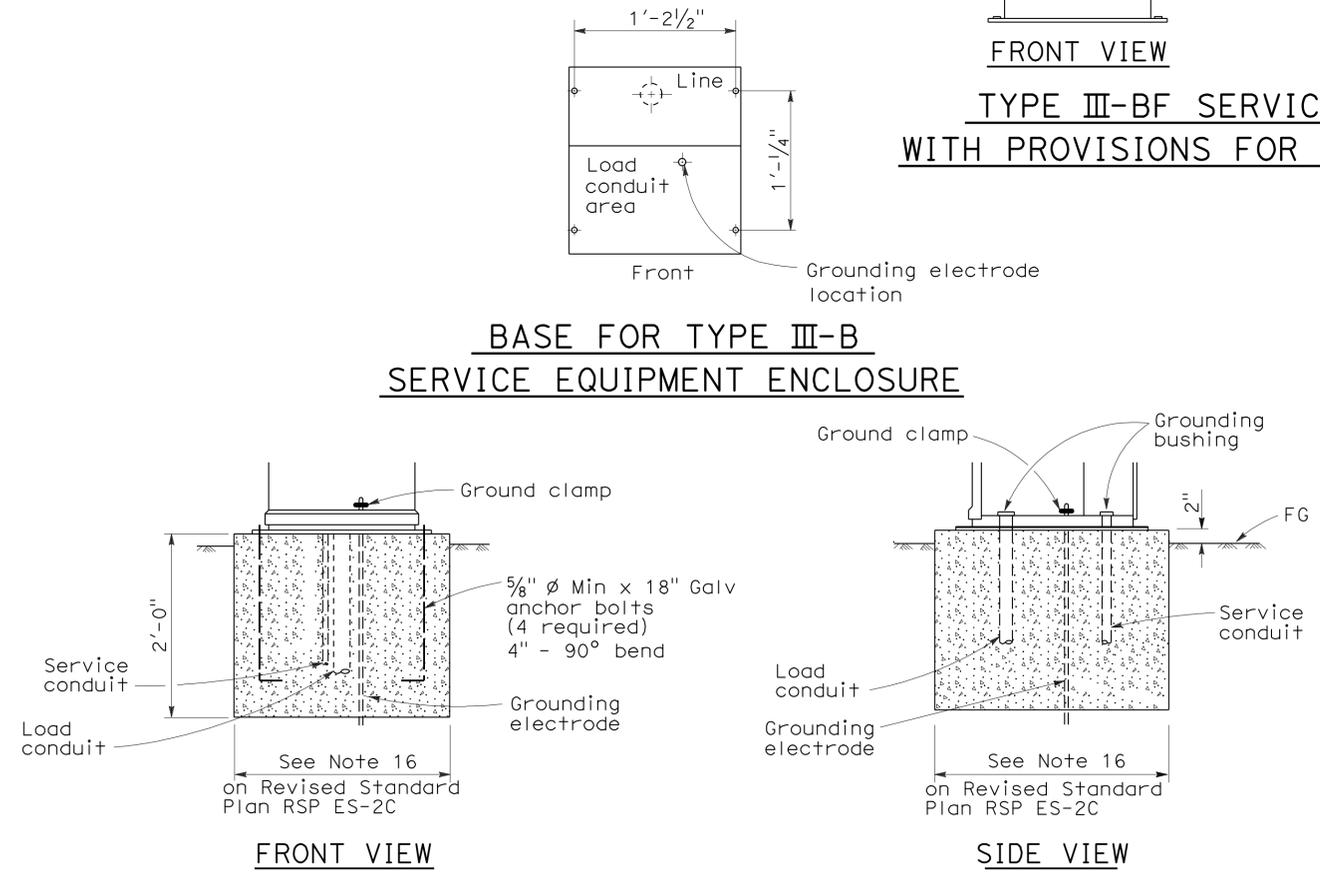
**120/240 V SERVICE WIRING DIAGRAM (TYPICAL)**



**TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH PROVISIONS FOR ONE 100 A METER (TYPICAL)**

| TYPE III-B SERVICE (120/240 V) EQUIPMENT LEGEND |                             |                               |
|---|-----------------------------|-------------------------------|
| ITEM No.  | COMPONENT                   | NAME PLATE DESCRIPTION        |
| ①   | Neutral lug                 |                               |
| ②   | Landing lug (Note 6)        |                               |
| ③   | Test bypass facility        |                               |
| ④   | Meter socket and support    |                               |
| ⑤   | Terminal blocks             |                               |
| ⑥   | Neutral bus                 |                               |
| ⑦   | Ground bus                  |                               |
| ⑧   | Grounding electrode         |                               |
| ⑨   | 30 A, 2PNO Contactor        | Sign Illumination             |
| ⑩   | Photoelectric unit (Note 7) |                               |
| ⑪   | 15 A, 1P, Test switch       | Sign Illumination Test Switch |
| ⑫   | 15 A, 120 V, 1P, CB         | Sign Illumination Control     |
| ⑬   | 15 A, 120 V, 1P, CB         | Flashing Beacon               |
| ⑭   | 30 A, 240 V, 2P, CB         | Sign Illumination             |
| ⑮   | 100 A, 240 V, 2P, CB        | Main Breaker                  |
| ⑯   | 30 A, 240 V, 2P, CB         | Lighting                      |
| ⑰   | 50 A, 120 V, 1P, CB         | Signals                       |
| ⑱   | 30 A, 120 V, 1P, CB         | Ramp Metering                 |
| ⑲   | 20 A, 120 V, 1P, CB         | Irrigation                    |
| ⑳   | 15 A, 120 V, 1P, CB         | Lighting Control              |
| ㉑   | Photoelectric unit (Note 7) |                               |
| ㉒   | 15 A, 1P, Test switch       | Lighting Test Switch          |
| ㉓   | 60 A, 2PNO Contactor        | Lighting                      |
| ㉔   | 15 A, 120 V, 1P, CB         | IISNS                         |
| ㉕   | 30 A, 2PNO Contactor        | IISNS                         |
| ㉖   | 20 A, 120 V, 1P, CB         | Telephone Demarcation Cabinet |

**BASE FOR TYPE III-B SERVICE EQUIPMENT ENCLOSURE**



**TYPE III-B SERVICE EQUIPMENT ENCLOSURE FOUNDATION DETAILS**

- NOTES: (FOR SERVICE EQUIPMENT ENCLOSURE)**
1. Voltage ratings of service equipment shall conform to the service voltages indicated on the plans.
  2. Unless otherwise indicated on the plans, service equipment items shall be provided for each service equipment enclosure as shown.
  3. Connect to remote test switch mounted on lighting standards, sign post or structure when required.
  4. Items No. ① and ⑥ shall be isolated from the service equipment enclosure.
  5. Meter sockets shall be 5 clip type.
  6. The landing lug shall be suitable for multiple conductors.
  7. Type I photoelectric control shall be used unless otherwise indicated on the plans.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS  
 (SERVICE EQUIPMENT AND  
 TYPICAL WIRING DIAGRAM,  
 TYPE III-B SERIES)**  
 NO SCALE

RSP ES-2E DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2E  
 DATED MAY 1, 2006 - PAGE 407 OF THE STANDARD PLANS BOOK DATED MAY 2006.

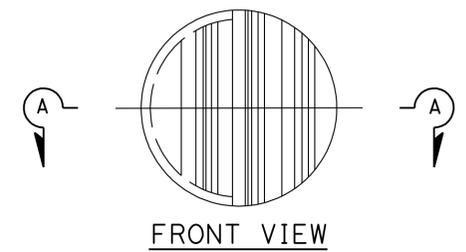
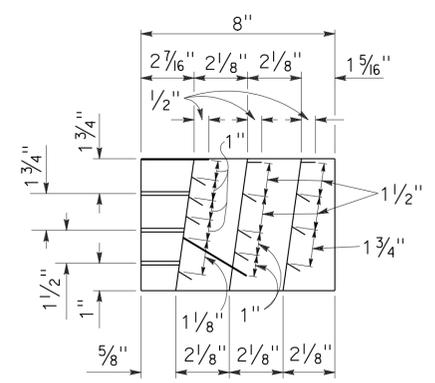
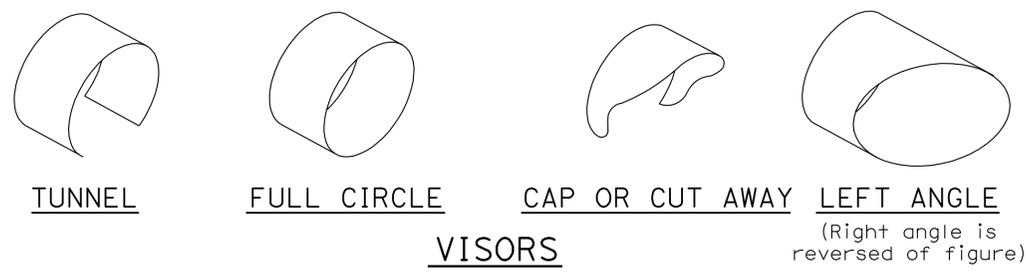
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 07   | LA     | 60    | R23.9/R30.5              | 121       | 124          |

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

June 6, 2008  
 PLANS APPROVAL DATE

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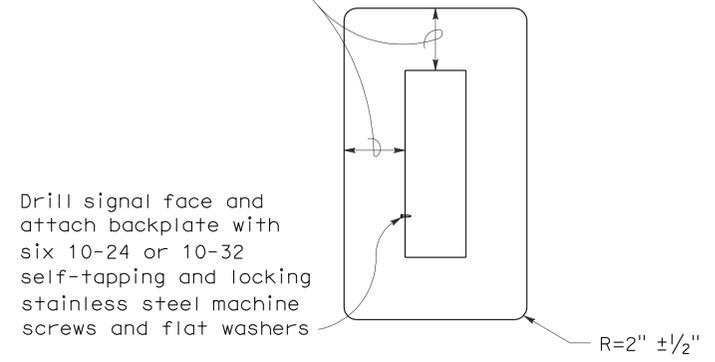
To accompany plans dated 4-26-10



**DIRECTIONAL LOUVER**

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

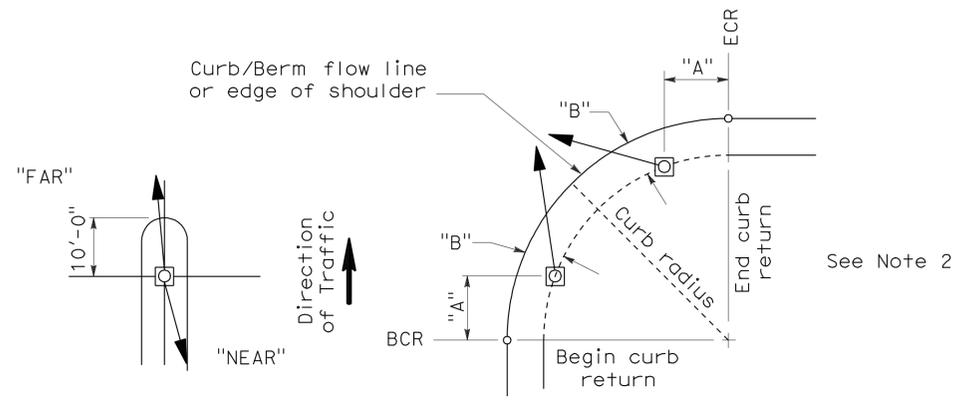
8" ± 1/2" for 8" sections  
 5 1/2" ± 1/2" for 12" sections



**8" AND 12" SECTIONS**

**BACKPLATE**

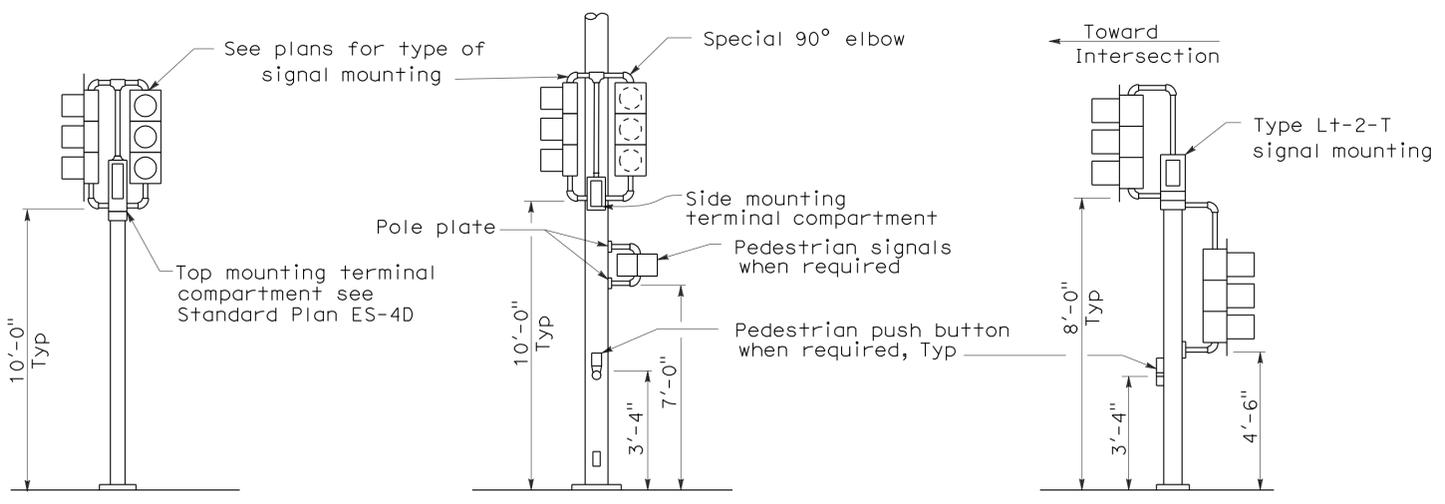
1/16" minimum thickness  
 3001-14 aluminum, or plastic when specified



**NOTES:**

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

**SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS**



**TOP MOUNTED SIGNALS (TV)**

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

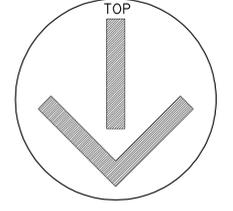
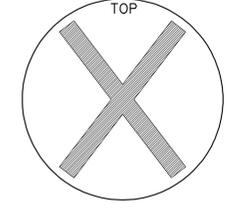
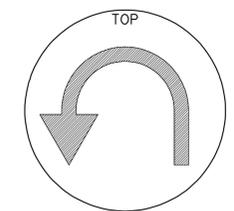
**SIDE MOUNTED SIGNALS (SV AND SP)**

Normally used on standards with luminaire or signal mast arm

**LEFT TURN LANE SIGNAL**

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

**TYPICAL SIGNAL INSTALLATIONS**



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)**

NO SCALE

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

**REVISED STANDARD PLAN RSP ES-4C**

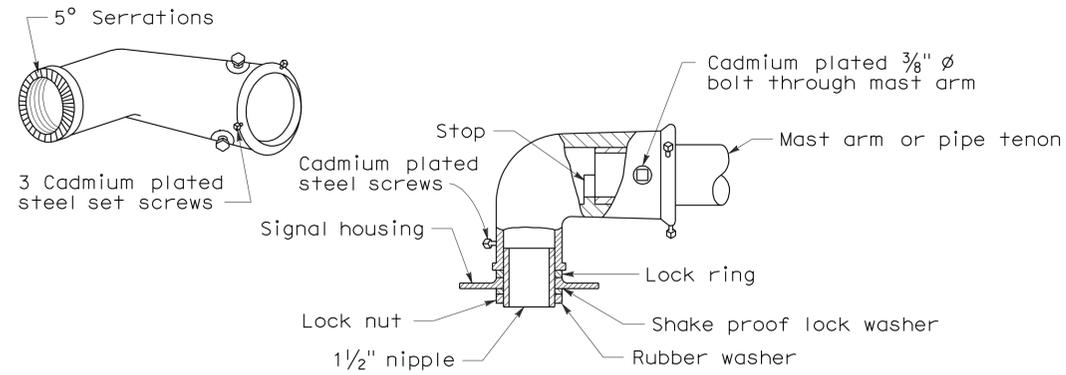
2006 REVISED STANDARD PLAN RSP ES-4C

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
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Jeffrey G. McRae  
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 Exp. 6-30-10  
 STATE OF CALIFORNIA

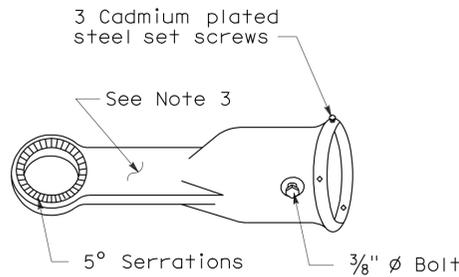
June 6, 2008  
PLANS APPROVAL DATE

To accompany plans dated 4-26-10



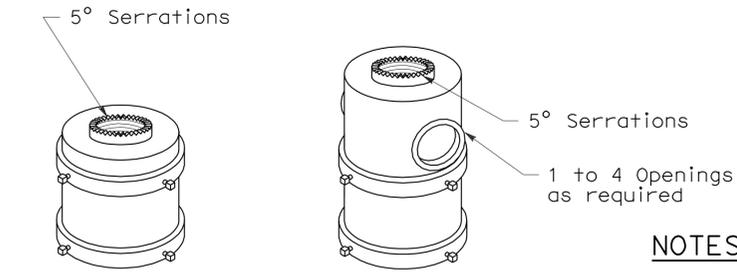
**MAST ARM MOUNTING - TYPE "MAT"**

For 2 NPS pipe, see Note 1.



**MAST ARM MOUNTING - TYPE "MAS"**

For 2 NPS pipe. See Note 1.

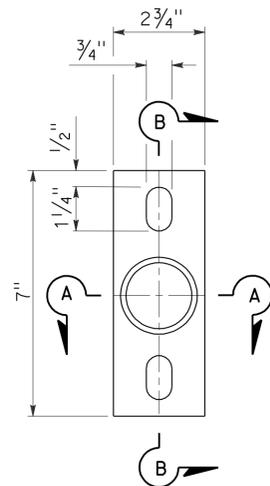


For one mounting For multiple mountings

**TOP MOUNTINGS**

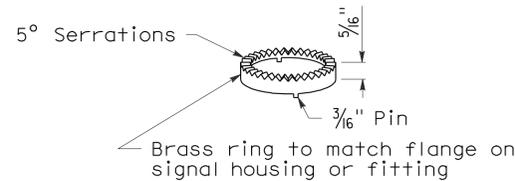
For 4 NPS pipe, see Note 2.

**SIGNAL SLIP FITTERS**



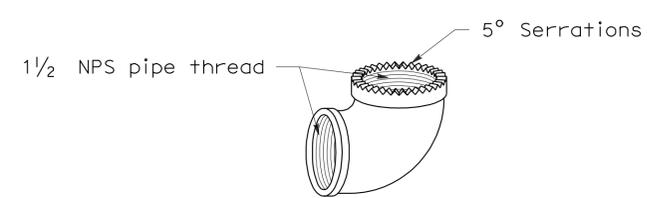
**POLE PLATE**

For side mountings



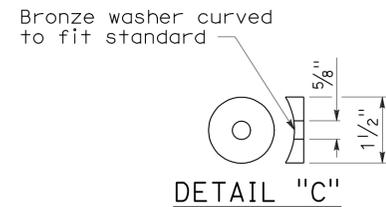
**LOCK RING**

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



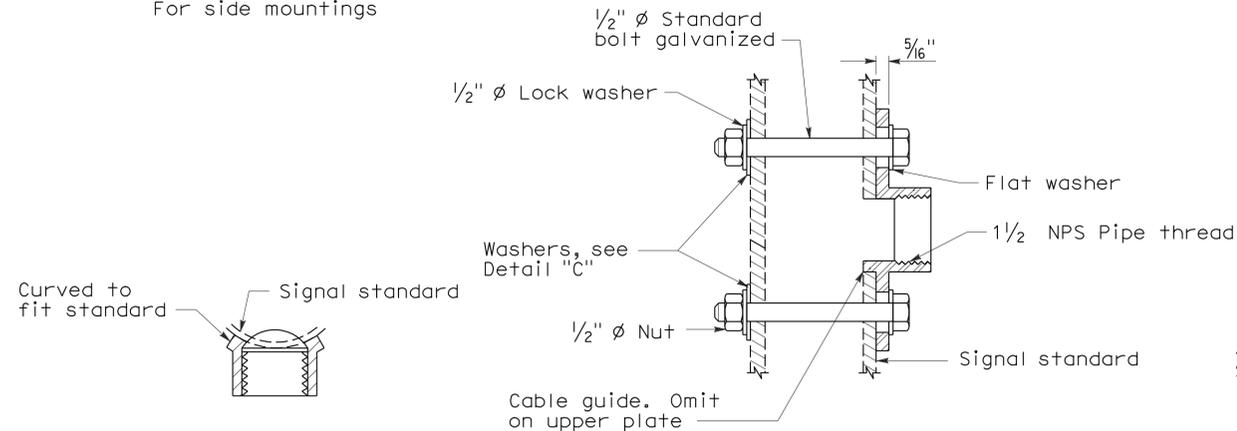
**SPECIAL 90° ELBOW**

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

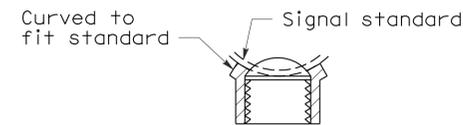


**DETAIL "C"**

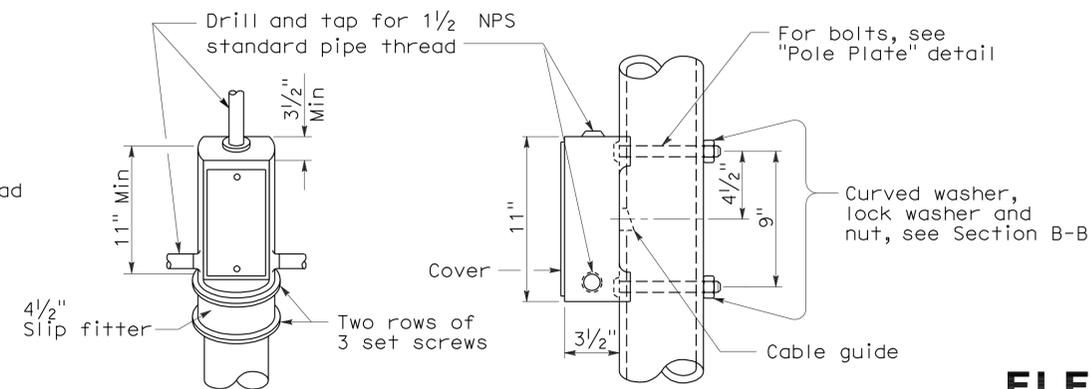
**MISCELLANEOUS MOUNTING HARDWARE**



**SECTION B-B**



**SECTION A-A**



**TOP MOUNTING**

**SIDE MOUNTING**

**TERMINAL COMPARTMENTS**

**ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)**

NO SCALE

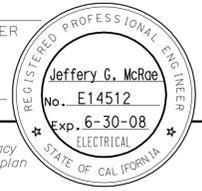
RSP ES-4D DATED June 6, 2008 SUPERSEDES STANDARD PLAN ES-4D DATED MAY 1, 2006 - PAGE 421 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-4D**

2006 REVISED STANDARD PLAN RSP ES-4D

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 07   | LA     | 60    | R23.9/R30.5              | 123       | 124          |

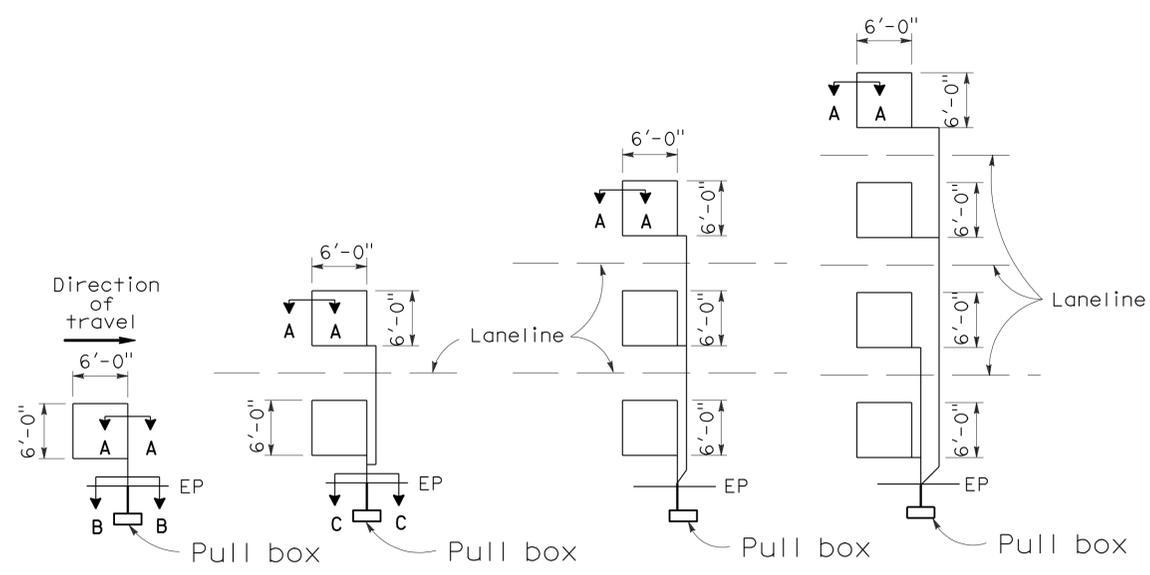
REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



To accompany plans dated 4-26-10

## LOOP INSTALLATION PROCEDURE

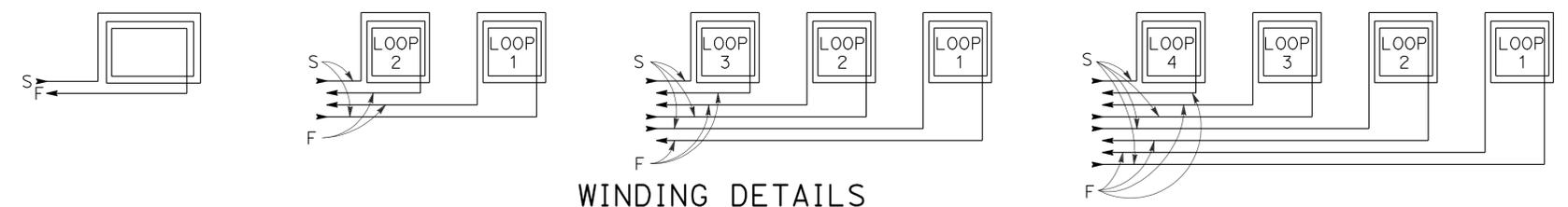
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no 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

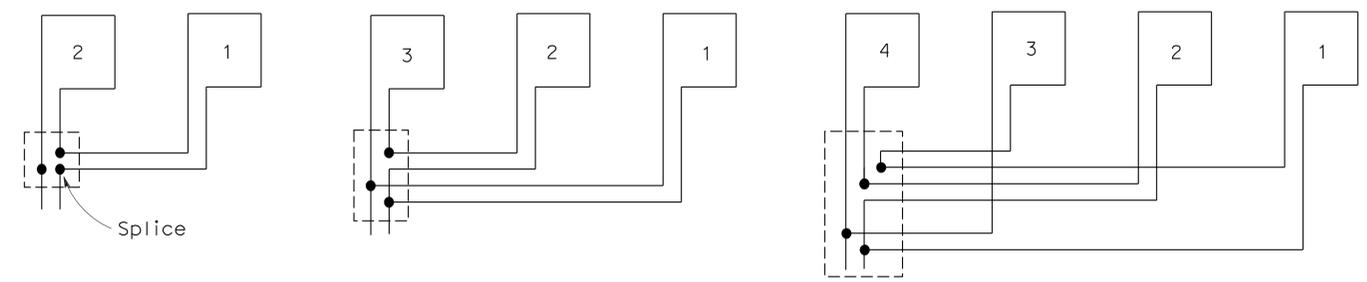
### SAWCUT DETAILS

- (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)



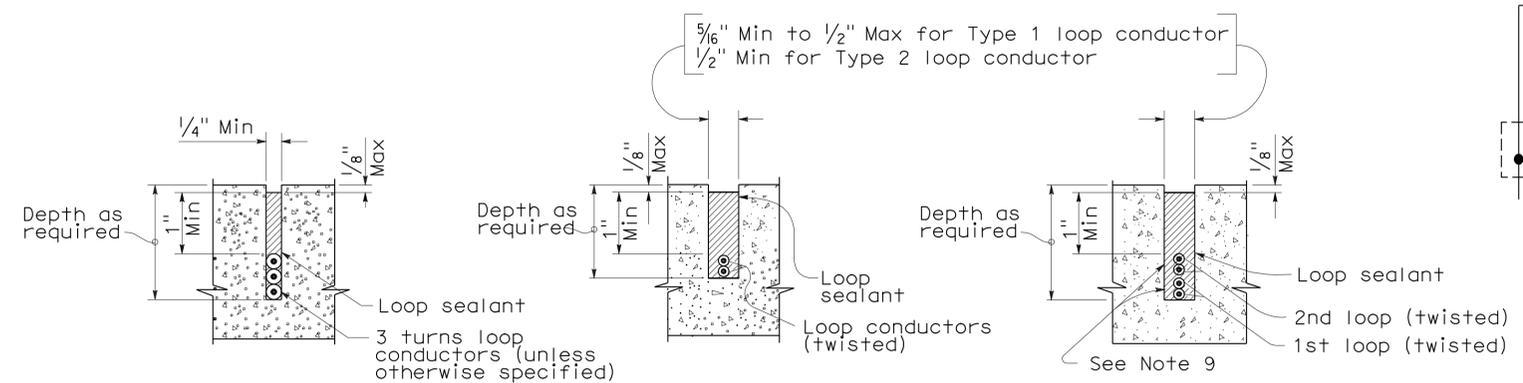
### WINDING DETAILS

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.

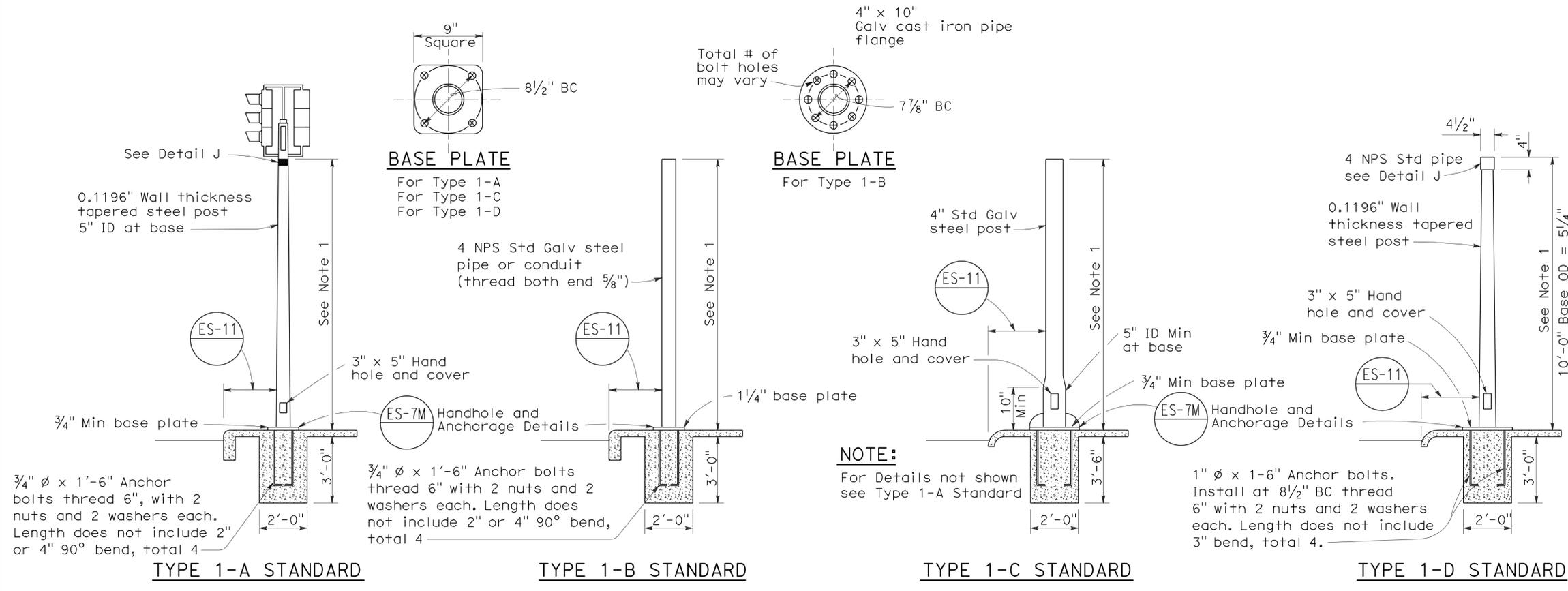
2006 REVISED STANDARD PLAN RSP ES-5A

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 07   | LA     | 60    | R23.9/R30.5              | 124       | 124          |

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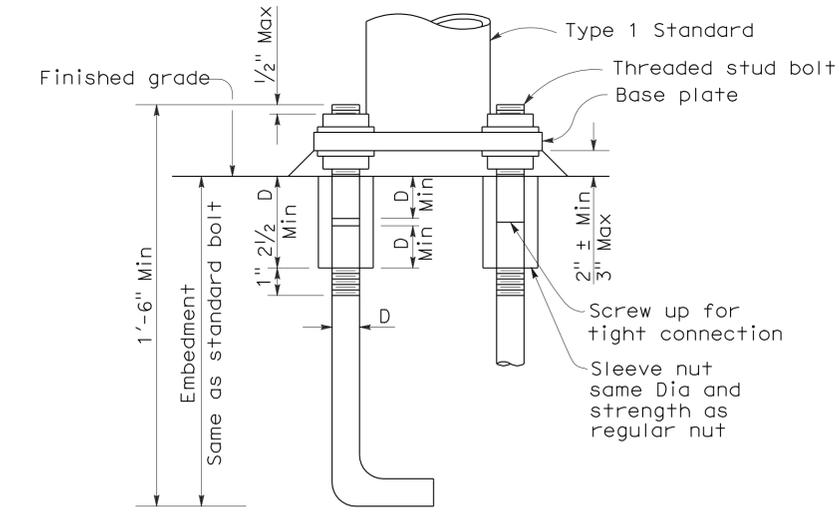
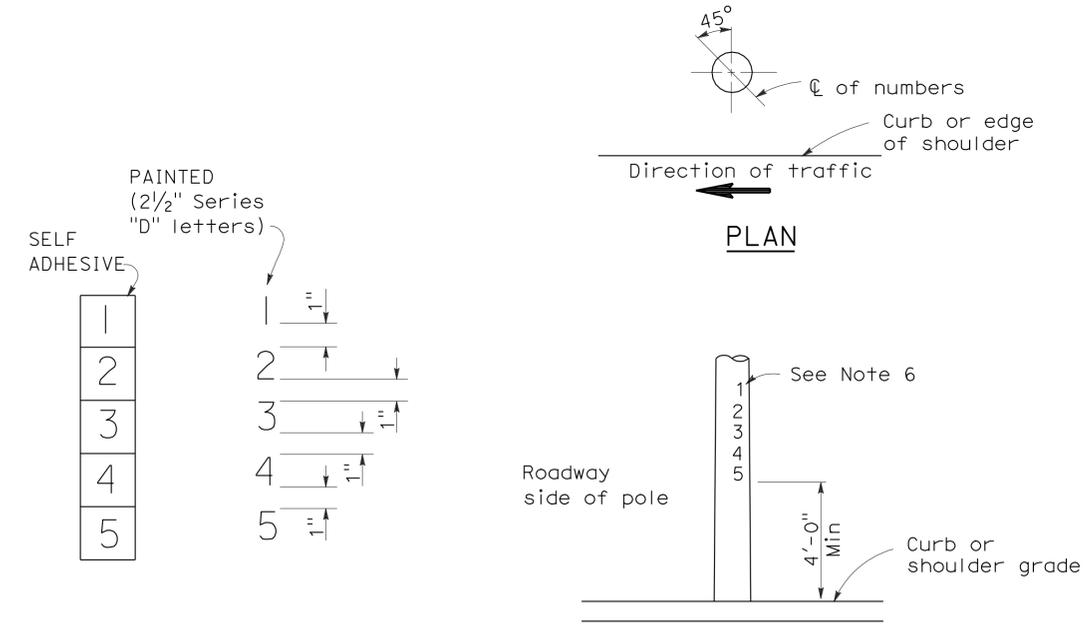
REGISTERED PROFESSIONAL ENGINEER  
 Stanley P. Johnson  
 No. C57793  
 Exp. 3-31-08  
 CIVIL  
 STATE OF CALIFORNIA

To accompany plans dated 4-26-10



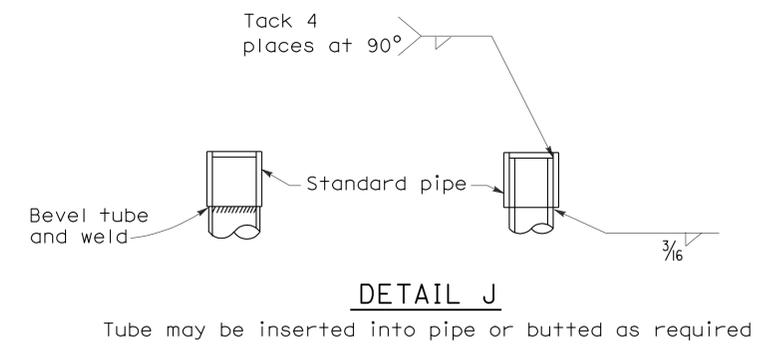
- NOTES:**
- Standards shall be 10'-0"  $\pm$  2" for vehicle signals and 7'-0"  $\pm$  2" for pedestrian signals unless otherwise noted on plans.
  - Top of standards shall be 4 1/2" OD.
  - Conduits shall extend 2" maximum above finished surface of foundation and for Types 1-A, 1-C and 1-D shall be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

**TYPE 1 SIGNAL STANDARDS**



**ANCHOR BOLTS WITH SLEEVE NUTS**

Sleeve nuts to be used only when shown or specified on Project Plans  
D = Diameter of anchor bolt



**ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD TYPE 1 STANDARD AND EQUIPMENT NUMBERING)**

NO SCALE

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

2006 REVISED STANDARD PLAN RSP ES-7B