

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 04 | Ala | 580 | R4.0 | 47 | 58 |

| | | |
|---------------------------|--|------|
| REGISTERED CIVIL ENGINEER | | DATE |
| 2-25-15 | | |
| PLANS APPROVAL DATE | | |
| 6-1-15 | | |

| | |
|----------------------------------|-----------|
| REGISTERED PROFESSIONAL ENGINEER | |
| LINAN WANG | No. 54714 |
| Exp. 12-31-15 | |
| CIVIL | |

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GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
* AASHTO LRFD Bridge Design Specifications, Forth Edition with the 2010, 2011, Interims and the California Amendments.

LIVE LOADING:
2'-0" Soil Surcharge

SEISMIC LOADING:
Ground Anchor - 14 H psf: (Rectangular Pressure Diagram)
H = Design Height of wall.

CONCRETE:
fy = 60 ksi
f'c = 3.6 ksi

STRUCTURAL STEEL (new construction):
fy = Grade 36 minimum

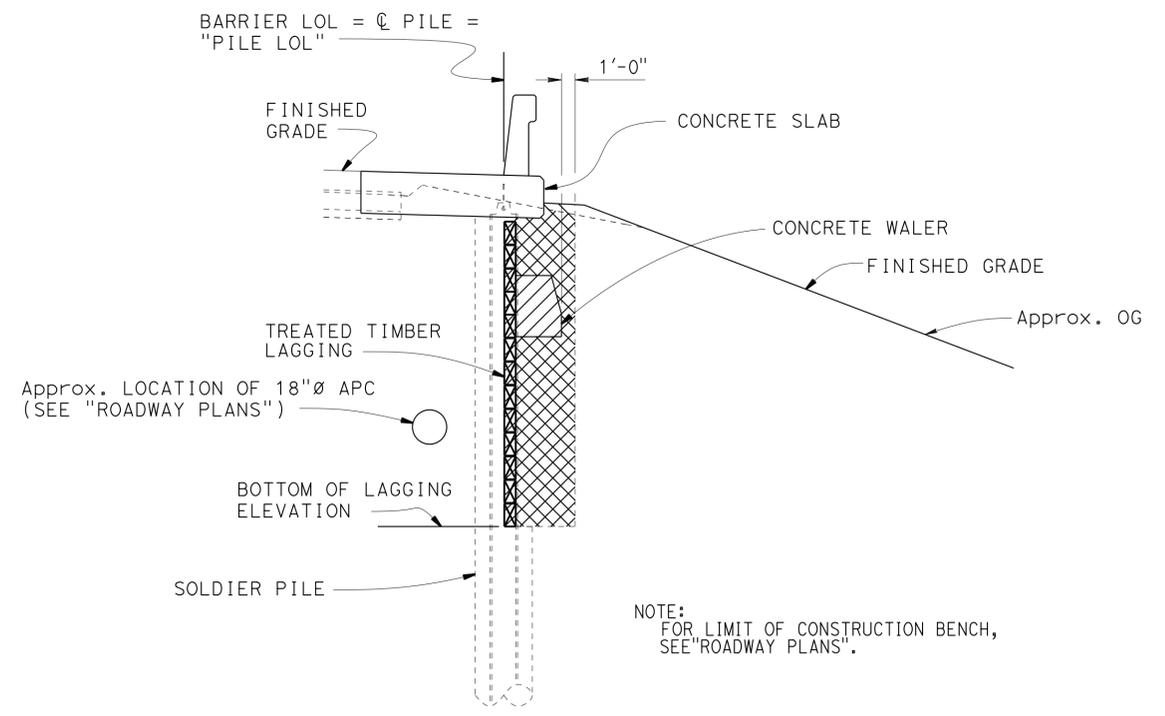
STRUCTURAL TIMBER:
Treated Douglas Fir, Grade No. 1 or better.
Timber to be full sawn.
Timber Laggng Size: 6" (deep) x 12" (wide)

SOIL PARAMETERS:
GROUND ANCHOR WALL:
SLIDE ZONE - $\phi = 15^\circ$ c = 350 psf $\gamma = 120$ pcf

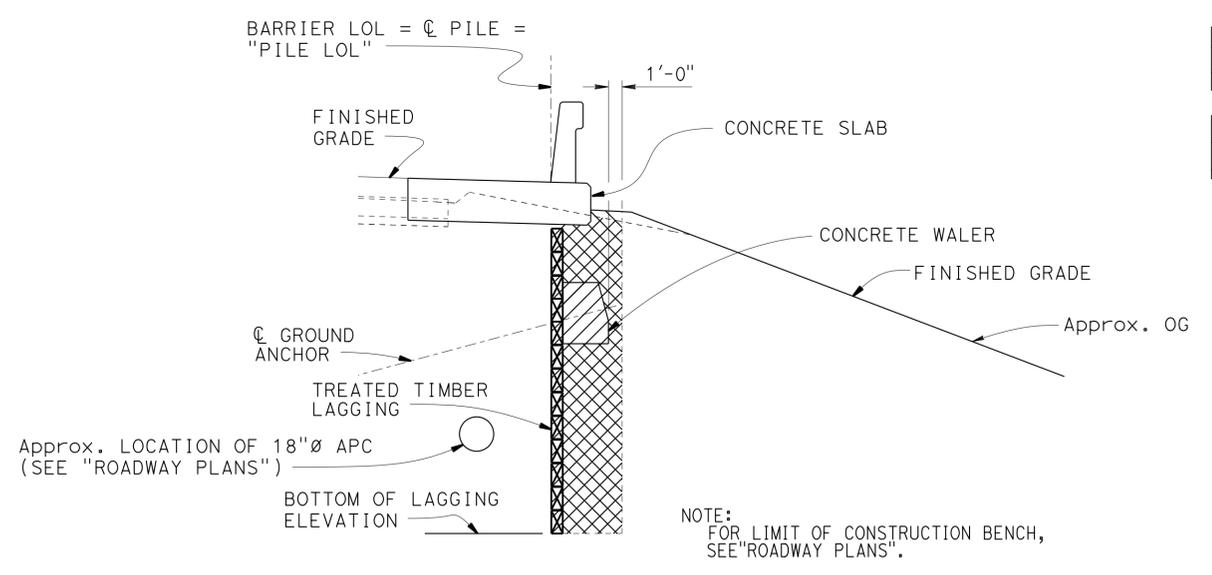
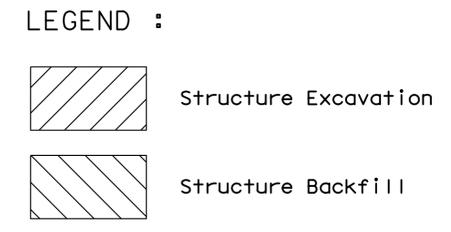
PRESTRESSING STEEL (GROUND ANCHOR):
See 'SUB HORIZONTAL GROUND ANCHOR DETAILS' sheet

QUANTITIES

| | | |
|---|------------------|-----------------|
| STRUCTURE EXCAVATION (SOLDIER PILE WALL) | 1,135 | CY |
| STRUCTURE BACKFILL (SOLDIER PILE WALL) | 825 | CY |
| CONCRETE BACKFILL (SOLDIER PILE WALL) | 445 | CY |
| LEAN CONCRETE BACKFILL | 428 | CY |
| GROUND ANCHOR (SUBHORIZONTAL) | 86 | EA |
| STEEL SOLDIER PILE (W 14 X 68) | 4,900 | LF |
| 30" DRILLED HOLE | 4,950 | LF |
| STRUCTURAL CONCRETE, WALER | 108 | CY |
| STRUCTURAL CONCRETE, BARRIER SLAB | 293 | CY |
| BAR REINFORCING STEEL (WALER) | 33,100 | LB |
| TIMBER LAGGING | 40 | MFBM |
| CLEAN AND PAINT STEEL SOLDIER PILING | LUMP | SUM |
| PREPARE AND STAIN CONCRETE | 3,400 | SQFT |
| FURNISH AND INSTALL DRAIN PIPE (HORIZONTAL DRAIN) | 2,891 | LF |
| DRILL HOLE (HORIZONTAL DRAIN) | 2,891 | LF |
| MISCELLANEOUS METAL (RETAINING WALL) | 1,600 | LB |
| CONCRETE BARRIER (TYPE 742) | 534 | LF |



TYPICAL SECTION AT SOLDIER PILE



TYPICAL SECTION BETWEEN SOLDIER PILES

LIMITS OF EXCAVATION AND BACKFILL
NO SCALE

INDEX TO PLANS

- GENERAL PLAN
- GENERAL NOTES
- STRUCTURE PLAN NO. 1
- STRUCTURE PLAN NO. 2
- STRUCTURE PLAN NO. 3
- TYPICAL SECTION
- MISCELLANEOUS DETAILS NO. 1
- MISCELLANEOUS DETAILS NO. 2
- RETAINING WALL DETAILS NO. 1
- RETAINING WALL DETAILS NO. 2
- SUB HORIZONTAL GROUND ANCHOR DETAILS
- LOG OF TEST BORINGS 1 OF 2
- LOG OF TEST BORINGS 2 OF 2

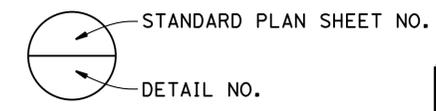
STANDARD PLANS DATED 2010

| | |
|----------|---|
| A10A | ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2) |
| RSP A10B | ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2) |
| A10F | LEGEND - SOIL (SHEET 1 OF 2) |
| A10G | LEGEND - SOIL (SHEET 2 OF 2) |
| B11-57 | CONCRETE BARRIER TYPE 742 |

Notes

- For Concrete Coping details, see "TYPICAL SECTION" sheet.
- For Right of Way, see 'ROADWAY PLANS'

2 REPLACED PER ADDENDUM No. 2 DATED OCTOBER 30, 2015



GROUND ANCHOR SOLDIER PILE WALL
RETAINING WALL AT P.M. 3.9 (EB 580)
GENERAL NOTES

| | | |
|------------|----------------|------------------------|
| DESIGN | BY Ben Nguyen | CHECKED Rafael Salazar |
| DETAILS | BY Jeff Thorne | CHECKED Ben Nguyen |
| QUANTITIES | BY Ben Nguyen | CHECKED Linan Wang |

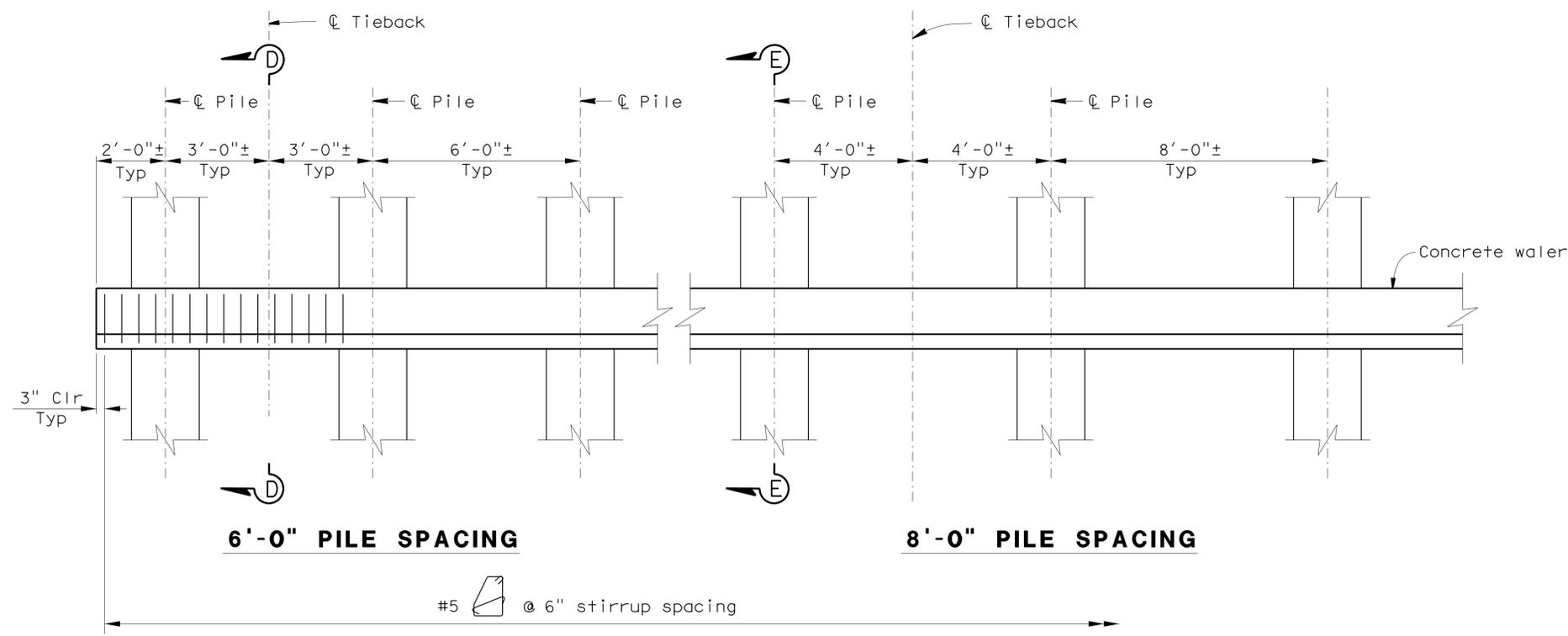
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 4

| | |
|------------|---------|
| BRIDGE NO. | 33E0404 |
| POST MILE | 3.9 |

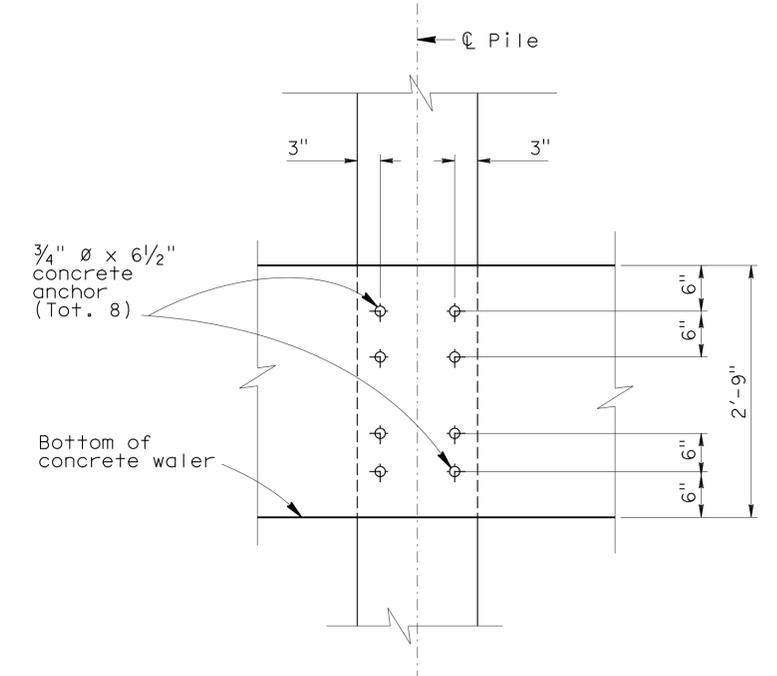
TIME PLOTTED => 1:34:44 DATE PLOTTED => 29-OCT-2015 USERNAME => s126843

| | | | | | |
|--|--------|-------|---------------------------|---------------------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | Ala | 580 | R4.0 | 55 | 58 |
| | | | 2-25-15 | | |
| | | | REGISTERED CIVIL ENGINEER | DATE | |
| | | | 6-1-15 | PLANS APPROVAL DATE | |
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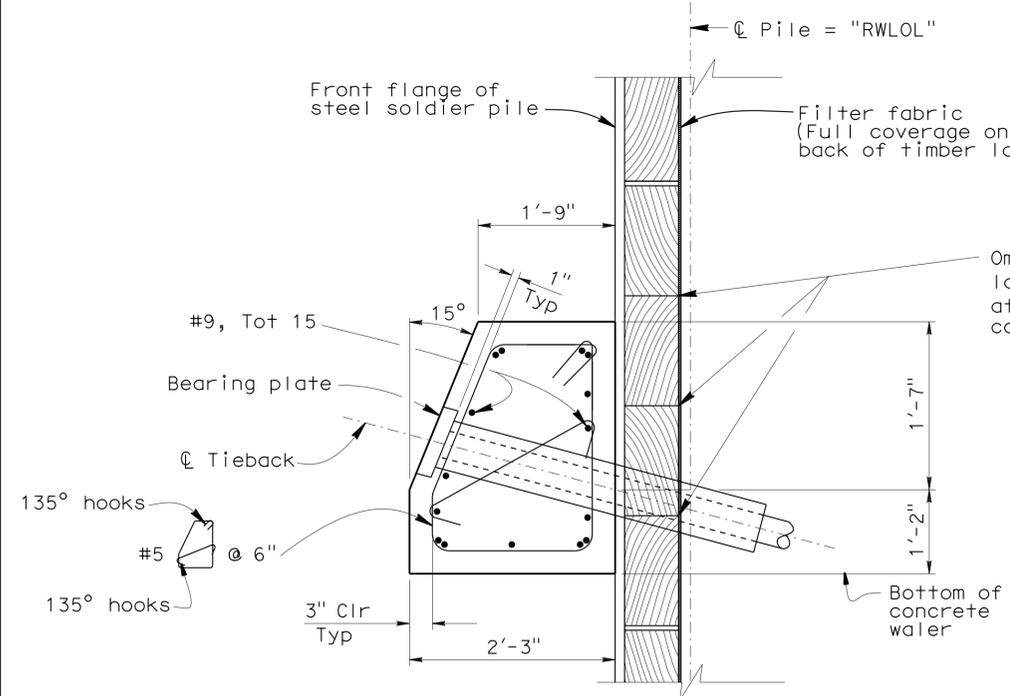


PART ELEVATION
No scale

Note: Timber lagging not shown



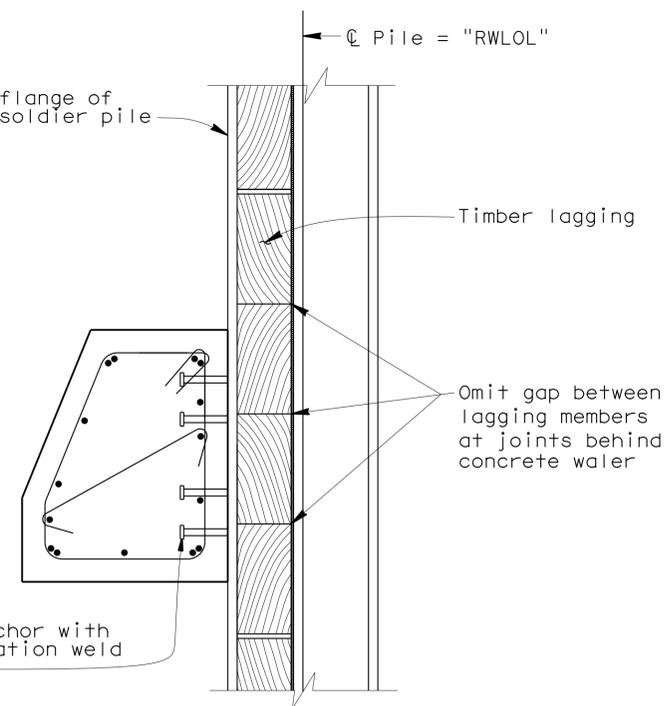
CONCRETE ANCHOR PLACEMENT
No Scale



SECTION D-D
No scale

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

- NOTES**
1. Prepare and stain Concrete Water
 2. Treat the hole surface after cutting the lagging for Ground Anchors.



SECTION E-E
No scale

Note: For details and dimensions not shown. See "SECTION D-D"

2 REPLACED PER ADDENDUM No. 2 DATED OCTOBER 30, 2015

| | | | | | | |
|---|------------|------------|--|----------------|-----------------------|------------|
| DESIGN | BY | Ben Nguyen | CHECKED | Rafael Salazar | BRIDGE NO. 33E0404 | |
| | DETAILS | BY | Jeff Thorne | CHECKED | | Ben Nguyen |
| | QUANTITIES | BY | Ben Nguyen | CHECKED | | Linan Wang |
| STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION | | | DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 4 | | POST MILE 3.9 | |

| GROUND ANCHOR SOLDIER PILE WALL | | | | | | | | | | | |
|--|-------|----|-------------------------|---|--|----------------|-------|----|------------------------------|----|----|
| RETAINING WALL AT P.M. 3.9 (EB 580) | | | | | | | | | | | |
| RETAINING WALL DETAILS NO. 2 | | | | | | | | | | | |
| STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) | | | | ORIGINAL SCALE IN INCHES FOR REDUCED PLANS | 0 1 2 3 | | | | | | |
| UNIT: X PROJECT NUMBER & PHASE: 041200008 4 | | | CONTRACT NO.: 04-268504 | DISREGARD PRINTS BEARING EARLIER REVISION DATES | <table border="1"> <tr> <th>REVISION DATES</th> <th>SHEET</th> <th>OF</th> </tr> <tr> <td>12-3-14 7-1-14 3-9-14 9-3-14</td> <td>10</td> <td>13</td> </tr> </table> | REVISION DATES | SHEET | OF | 12-3-14 7-1-14 3-9-14 9-3-14 | 10 | 13 |
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| 12-3-14 7-1-14 3-9-14 9-3-14 | 10 | 13 | | | | | | | | | |