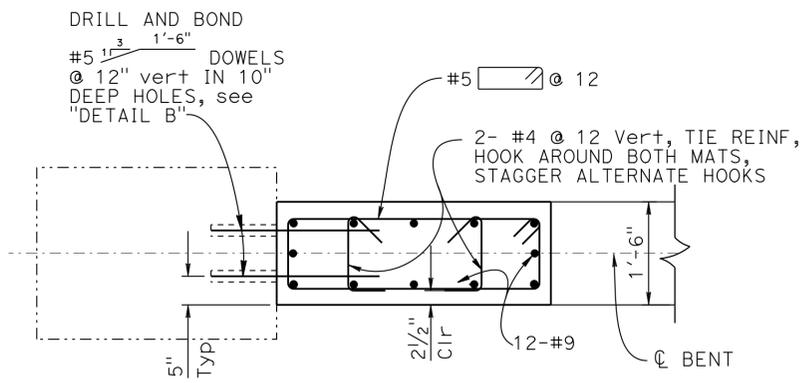


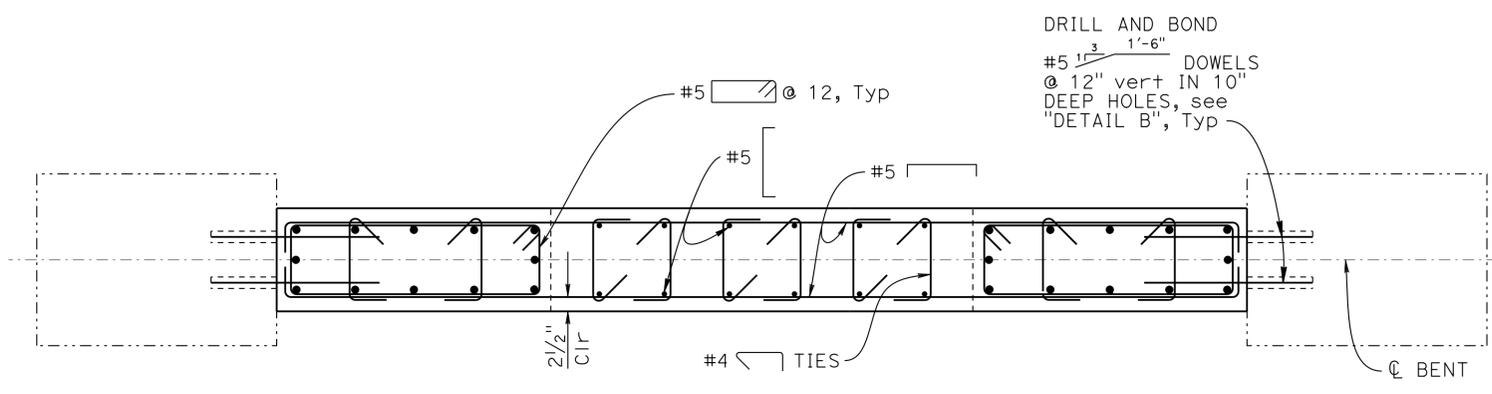
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	601	652

REGISTERED CIVIL ENGINEER  
 DATE 11/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 REGISTERED PROFESSIONAL ENGINEER  
 MATTHEW T. NEGRETE  
 No. 61768  
 Exp. 6/30/13  
 CIVIL  
 STATE OF CALIFORNIA

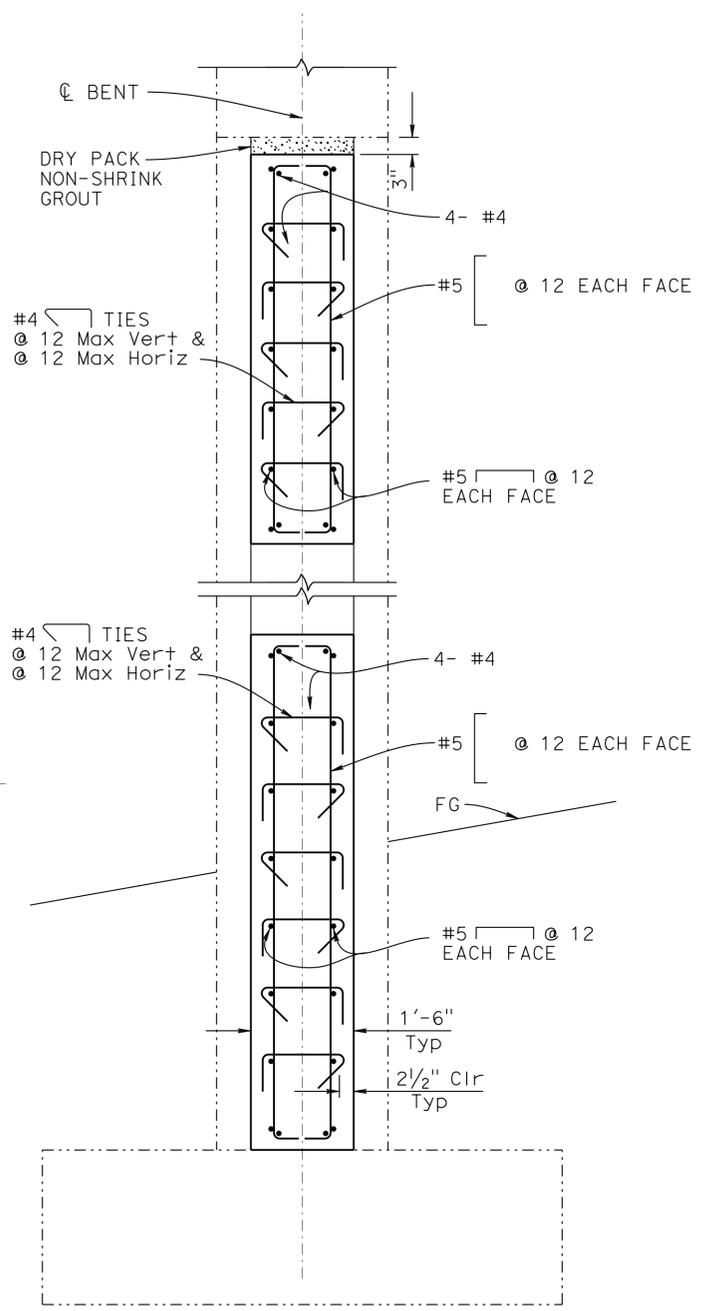
CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



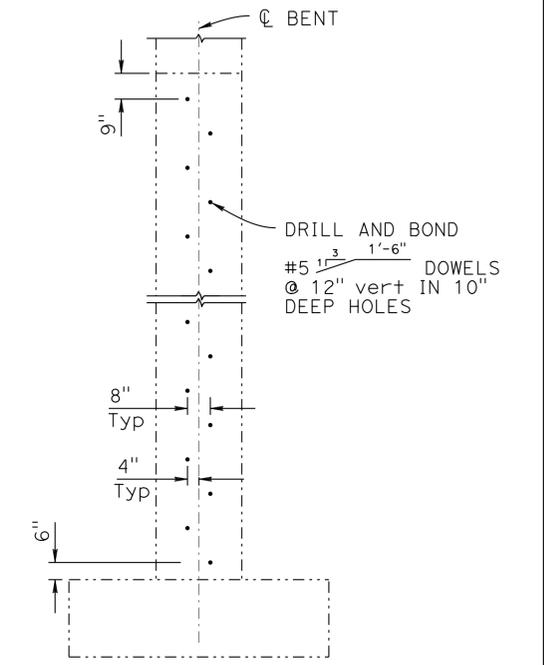
**SECTION A-A**  
 $\frac{3}{4}" = 1'-0"$



**SECTION B-B**  
 $\frac{3}{4}" = 1'-0"$



**SECTION C-C**  
 $\frac{3}{4}" = 1'-0"$



**DETAIL B**  
 NO SCALE

NOTE: Location of drilled holes shown are approximate. Prior to drilling holes in concrete, the Contractor shall locate all reinforcing steel and adjust the location of all holes to clear all existing reinforcing steel. Final hole locations are subject to the approval of the Engineer.

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

LEGEND:  
 - - - - - Indicates Existing Structure  
 ——— Indicates New Construction

Richard C. Hartzell  
 DESIGN OVERSIGHT  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY M. Negrete	CHECKED H. Larsen
DETAILS	BY N. Morales	CHECKED H. Larsen
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

PREPARED FOR THE  
 STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52-0274
POST MILES	

**CONEJO SCHOOL ROAD UC (WIDEN)**  
**BENT RETROFIT DETAILS NO. 1**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3573  
 PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 12 OF 31
	10/24/12 10/27/12 05/21/12 06/27/12	

FILE => 52-0274-h-b01rdt01.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 09:51

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	602	652

REGISTERED CIVIL ENGINEER DATE 11/21/12

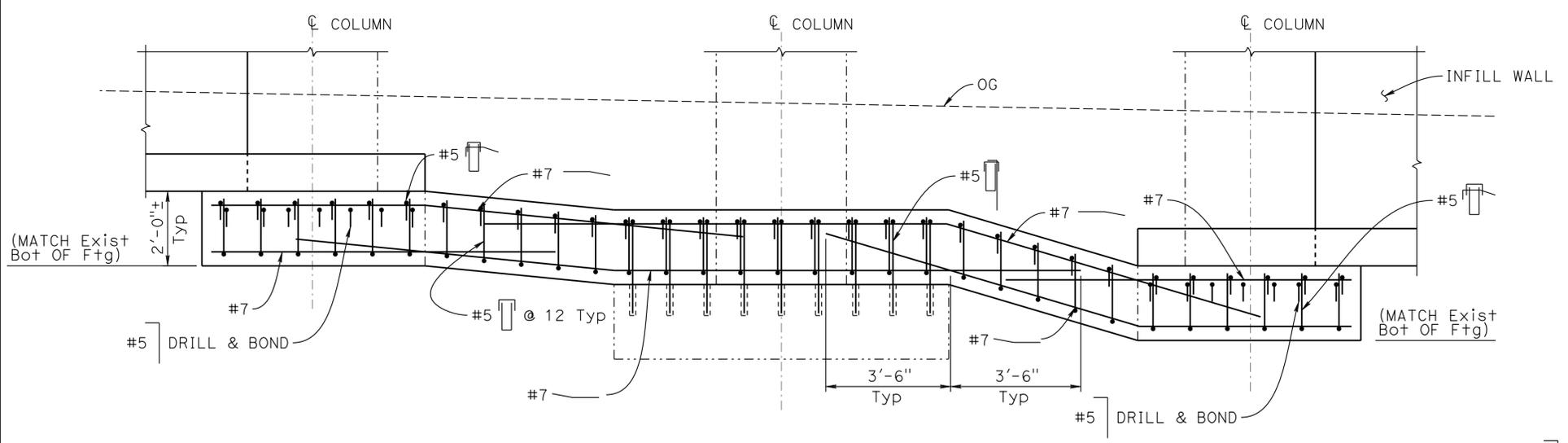
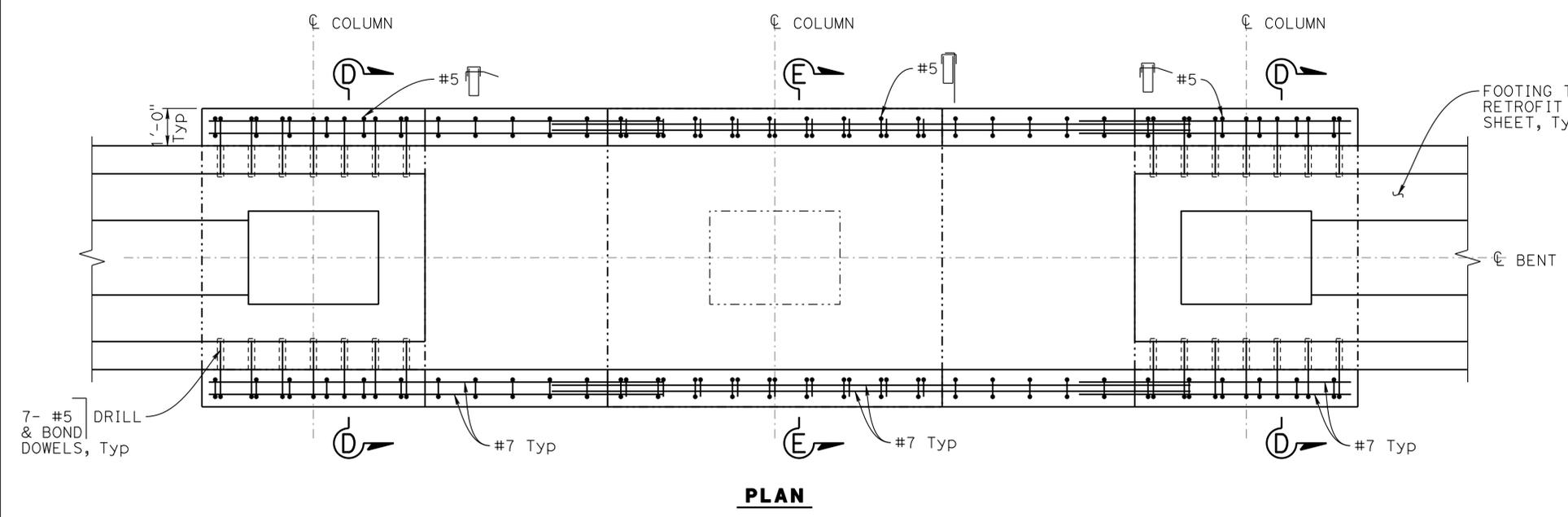
6-3-13 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
MATTHEW T. NEGRETE  
No. 61768  
Exp. 6/30/13  
CIVIL  
STATE OF CALIFORNIA

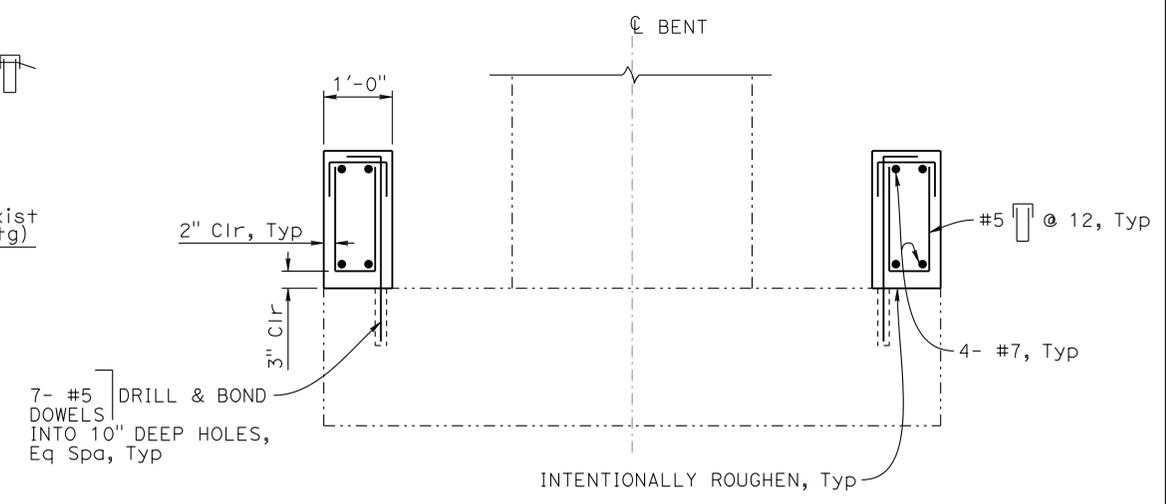
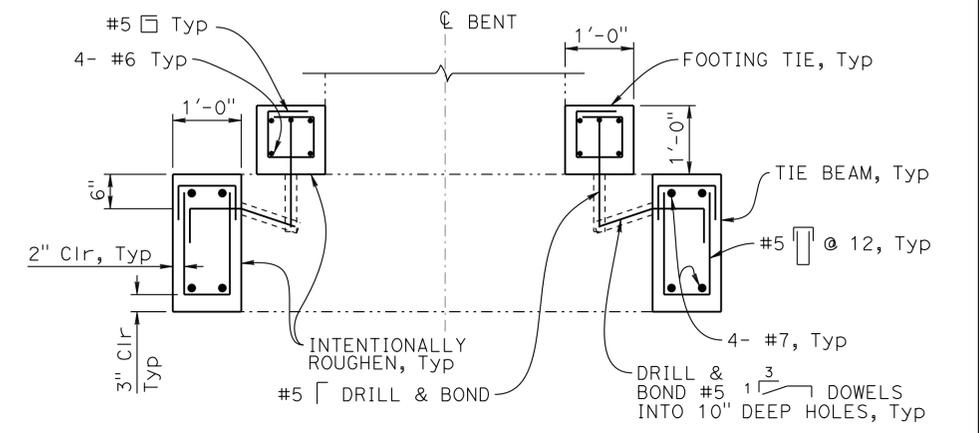
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CITY OF THOUSAND OAKS  
2100 THOUSAND OAKS BLVD  
THOUSAND OAKS, CA 91362

CH2M HILL  
1000 WILSHIRE BLVD, 21ST FLOOR  
LOS ANGELES, CA 90017



**TIE BEAM DETAILS**  
1/2" = 1'-0"



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

**NOTE:** Location of drilled holes shown are approximate. Prior to drilling holes in concrete, the Contractor shall locate all reinforcing steel and adjust the location of all holes to clear all existing reinforcing steel. Final hole locations are subject to the approval of the Engineer.

**LEGEND:**  
----- Indicates Existing Structure  
————— Indicates New Construction

Richard C. Hartzell  
DESIGN OVERSIGHT  
12-17-12  
SIGN OFF DATE

DESIGN	BY M. Negrete	CHECKED H. Larsen
DETAILS	BY N. Morales	CHECKED H. Larsen
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

PREPARED FOR THE  
**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

Milind Desai  
PROJECT ENGINEER

BRIDGE NO. 52-0274  
POST MILES  
**CONEJO SCHOOL ROAD UC (WIDEN)**  
**BENT RETROFIT DETAILS NO. 2**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3573  
PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

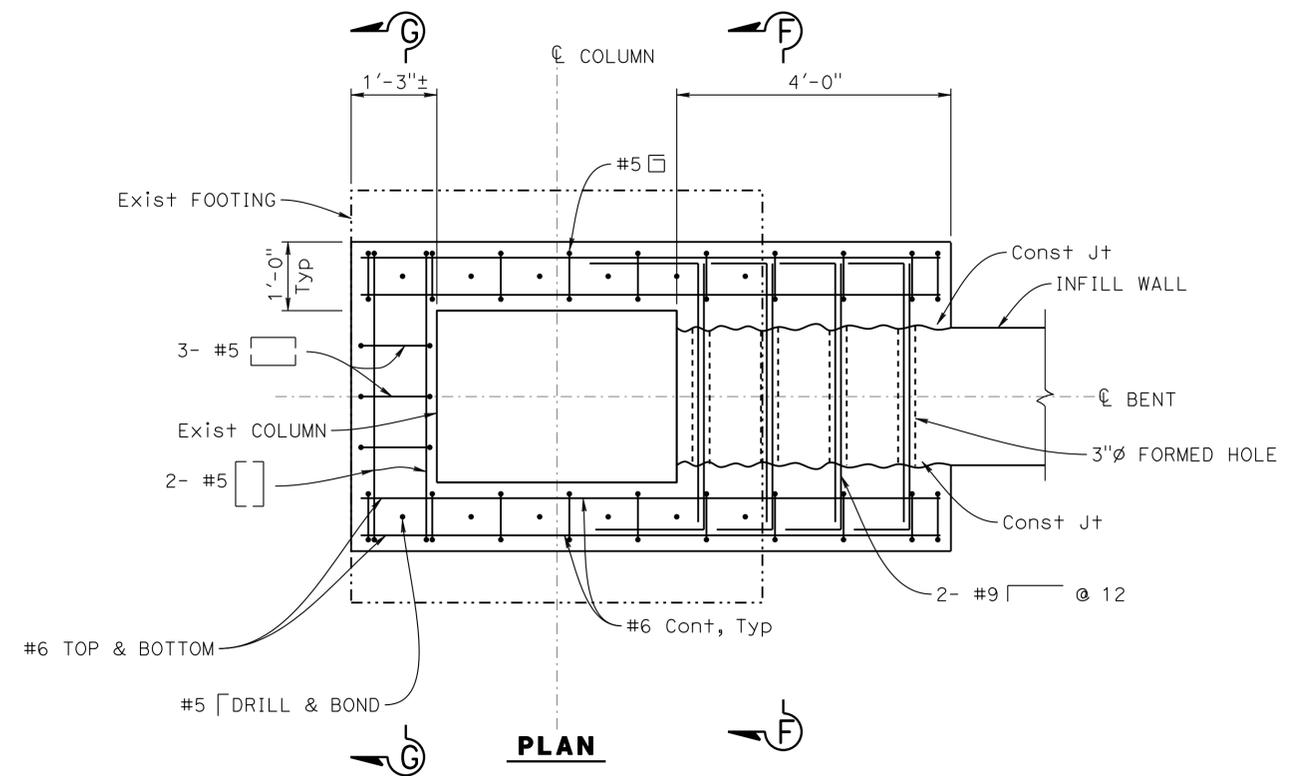
REVISION DATES	SHEET	OF
10/24/12 10/27/11 05/27/12 06/27/12	13	31

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 09:51

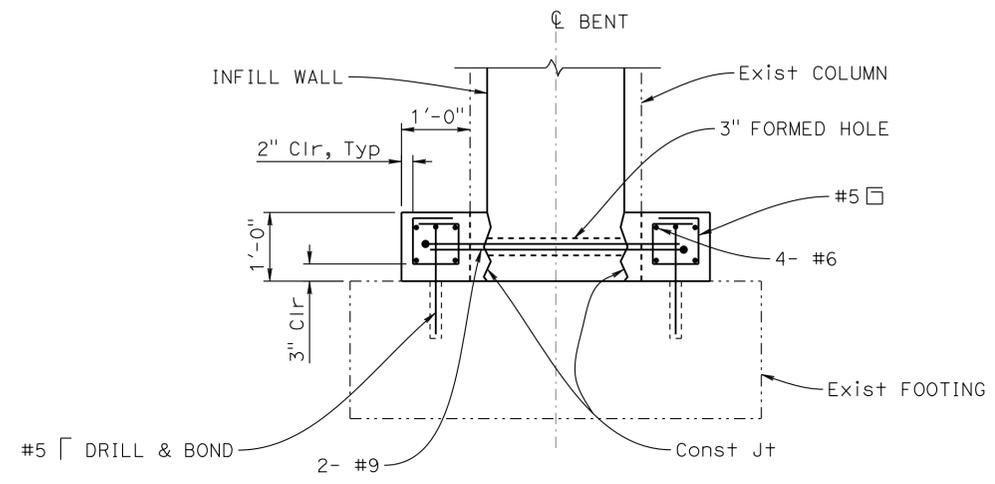
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	603	652

REGISTERED CIVIL ENGINEER  
 DATE 11/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 REGISTERED PROFESSIONAL ENGINEER  
 MATTHEW T. NEGRETE  
 No. 61768  
 Exp. 6/30/13  
 CIVIL  
 STATE OF CALIFORNIA

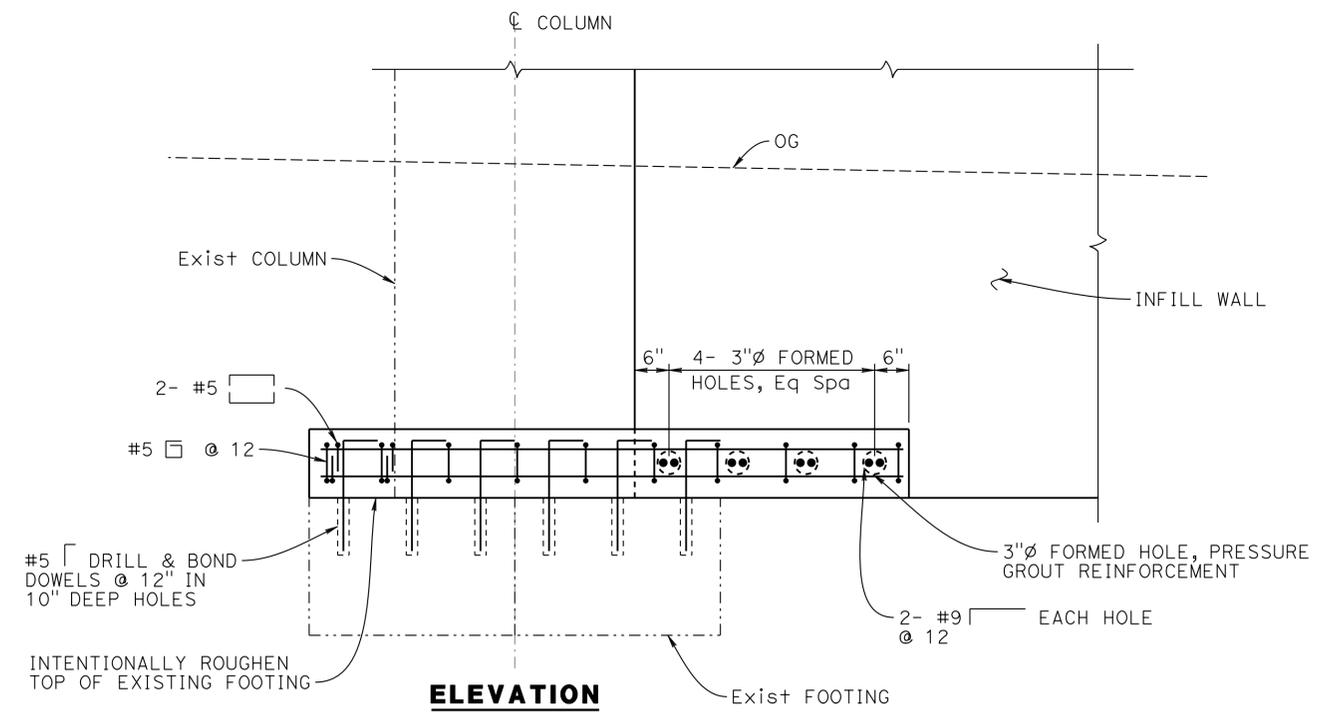
CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



**PLAN**



**SECTION F-F**  
3/4" = 1'-0"

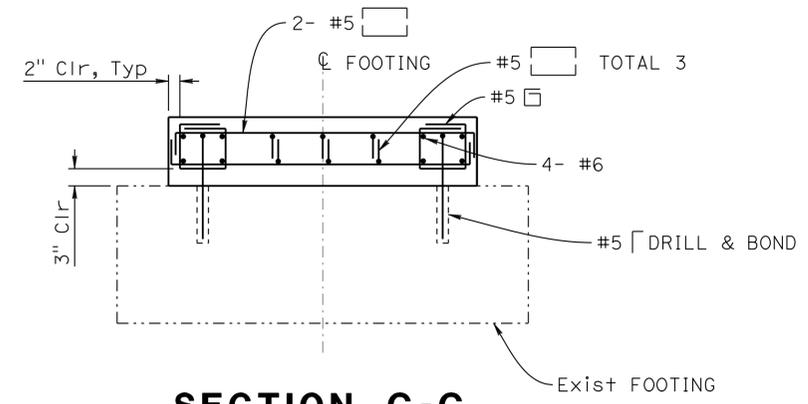


**ELEVATION**

**FOOTING TIE DETAILS**

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

**NOTE:** Location of drilled holes shown are approximate. Prior to drilling holes in concrete, the Contractor shall locate all reinforcing steel and adjust the location of all holes to clear all existing reinforcing steel. Final hole locations are subject to the approval of the Engineer.



**SECTION G-G**  
3/4" = 1'-0"

**LEGEND:**  
 ----- Indicates Existing Structure  
 \_\_\_\_\_ Indicates New Construction

DESIGN OVERSIGHT  
 Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY M. Negrete	CHECKED H. Larsen
DETAILS	BY N. Morales	CHECKED H. Larsen
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

PREPARED FOR THE  
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO. 52-0274  
 POST MILES 2.25  
**CONEJO SCHOOL ROAD UC (WIDEN)**  
**BENT RETROFIT DETAILS NO. 3**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3573  
 PROJECT NUMBER & PHASE: 0700000201  
 CONTRACT NO.: 07-1952U1

REVISION DATES	SHEET	OF
10/24/12	14	31

FILE => 52-0274-h-b01rd+03.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 09:51

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	604	652

*Hans Larsen*  
REGISTERED CIVIL ENGINEER DATE 11/21/12

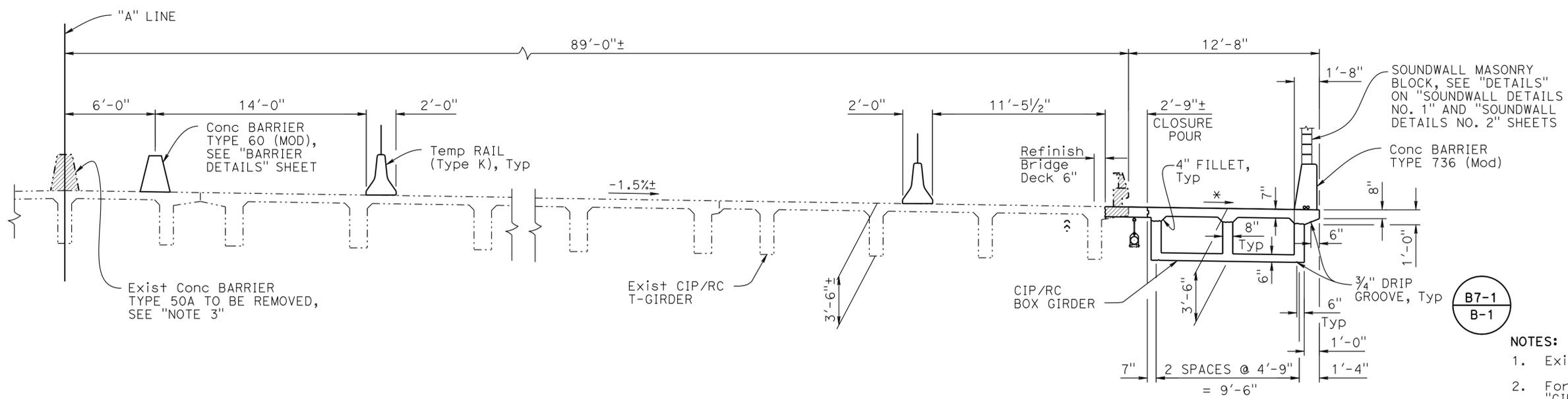
6-3-13  
PLANS APPROVAL DATE

*Hans Dean Larsen*  
REGISTERED PROFESSIONAL ENGINEER  
No. 75674  
Exp. 6/30/14  
CIVIL  
STATE OF CALIFORNIA

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CITY OF THOUSAND OAKS  
2100 THOUSAND OAKS BLVD  
THOUSAND OAKS, CA 91362

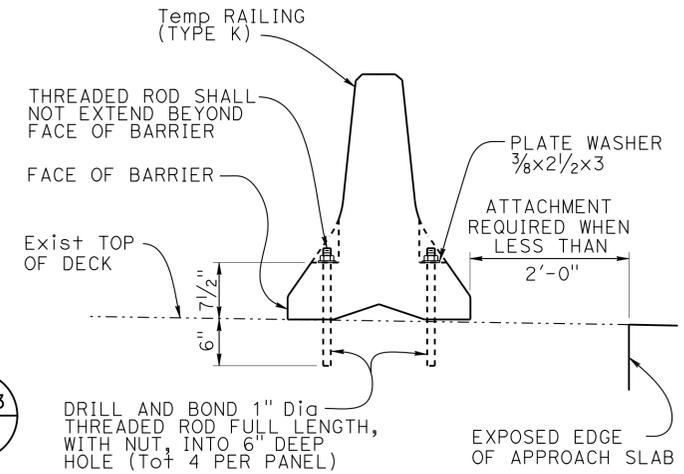
CH2M HILL  
1000 WILSHIRE BLVD, 21ST FLOOR  
LOS ANGELES, CA 90017



**TYPICAL SECTION**  
1/4" = 1'-0"

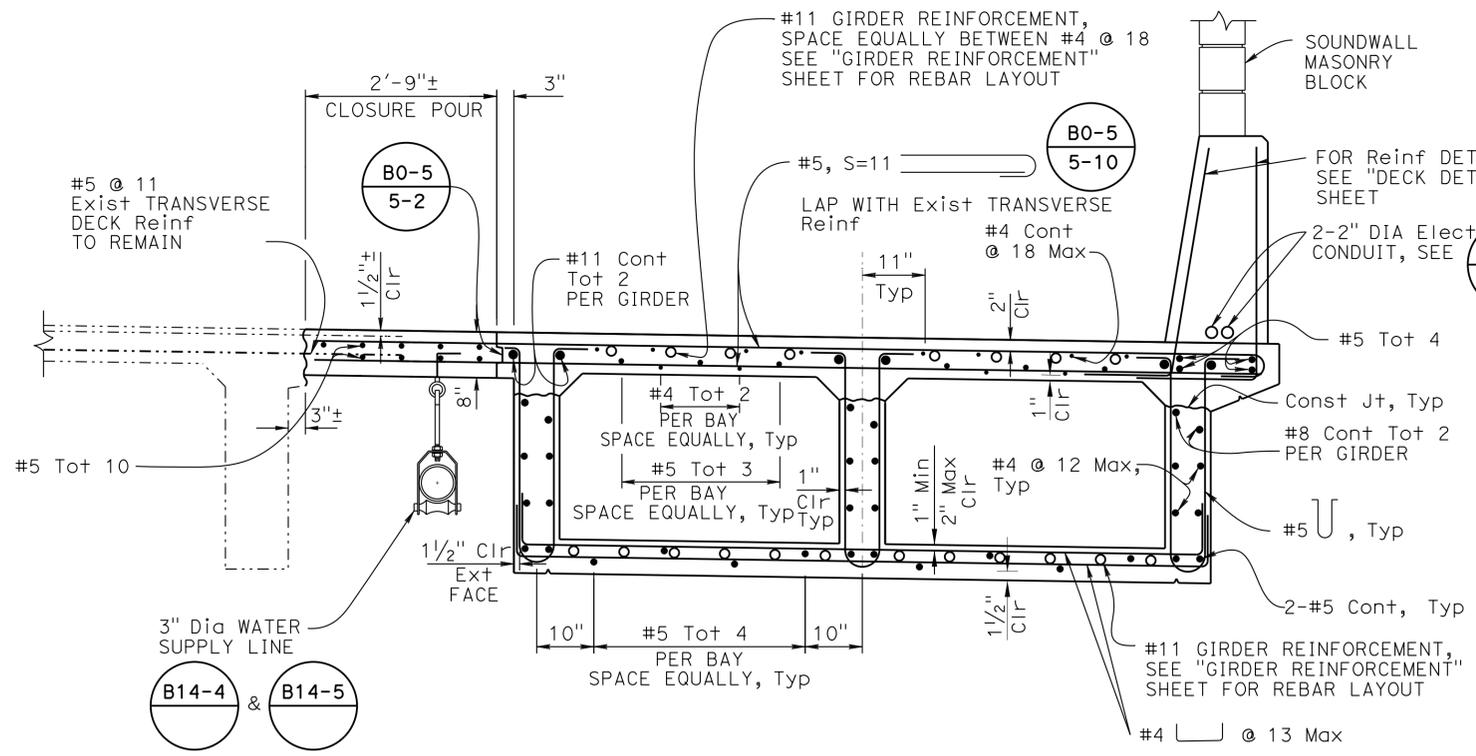
B7-1  
B-1

- NOTES:**
- Existing Utilities not shown.
  - For main reinforcement details, see "GIRDER REINFORCEMENT" sheet.
  - For limits of refinish bridge deck, see "LIMITS OF CONCRETE REMOVAL EXISTING DECK" on "DECK DETAILS" sheet.
  - Temporary railing (Type K), see "ROAD PLANS". See "TEMPORARY RAILING ATTACHMENT DETAIL" this sheet for anchorage into existing structure when clearance from edge of temporary railing to edge of approach is less than 2'-0".
  - Falsework Release: Falsework shall be removed as soon as permitted by specifications. Closure pour shall not be placed sooner than 60 days after the falsework has been released.



**TEMPORARY RAILING ATTACHMENT DETAIL**  
NO SCALE  
(SEE NOTE 4)

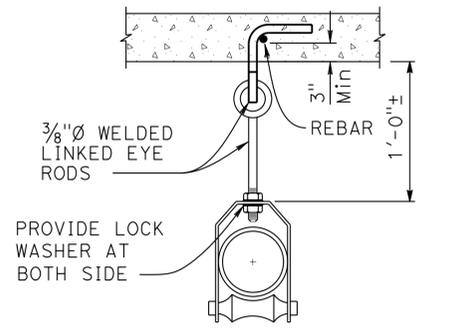
- LEGEND:**
- Indicates Existing Structure
  - Indicates New Construction
  - ▨ Bridge Removal (Portion)
  - \* Match Existing Grade & Cross Slope



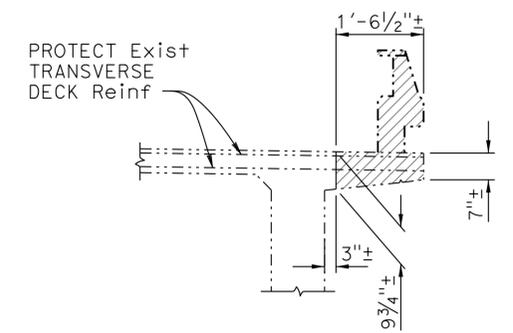
**PART TYPICAL SECTION**  
3/4" = 1'-0"

B0-5 B7-1

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



**WATER LINE PIPE HANGER DETAIL**  
NO SCALE



**LIMITS OF CONCRETE REMOVAL EXISTING DECK**  
NO SCALE

*Richard C. Hartzell*  
DESIGN OVERSIGHT  
12-17-12  
SIGN OFF DATE

DESIGN	BY H. Larsen	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

DESIGN	BY H. Larsen	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

PREPARED FOR THE  
**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

Milind Desai  
PROJECT ENGINEER

BRIDGE NO. 52-0274  
POST MILES  
**CONEJO SCHOOL ROAD UC (WIDEN)**  
**TYPICAL SECTION**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3573  
PROJECT NUMBER & PHASE: 0700000201  
CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
10/24/12	15	31

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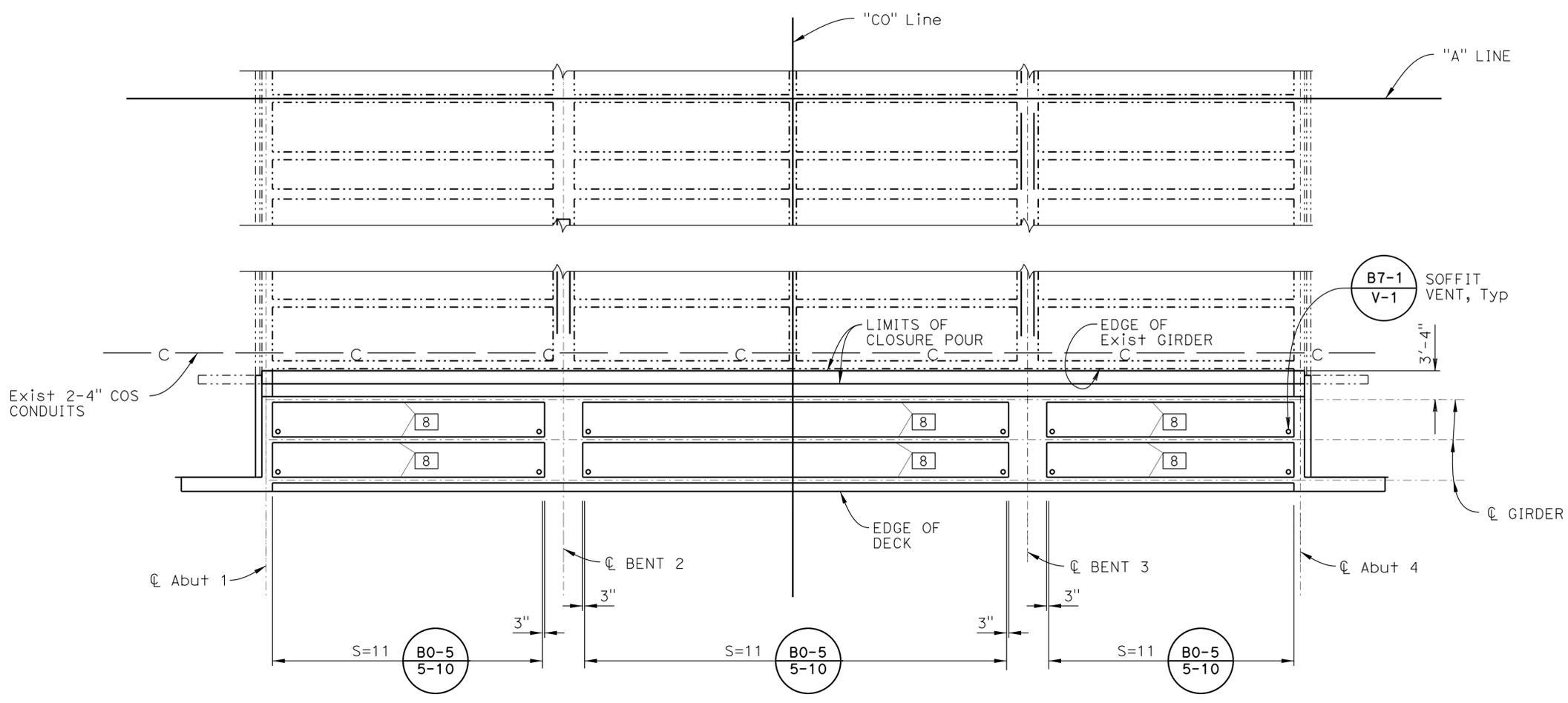


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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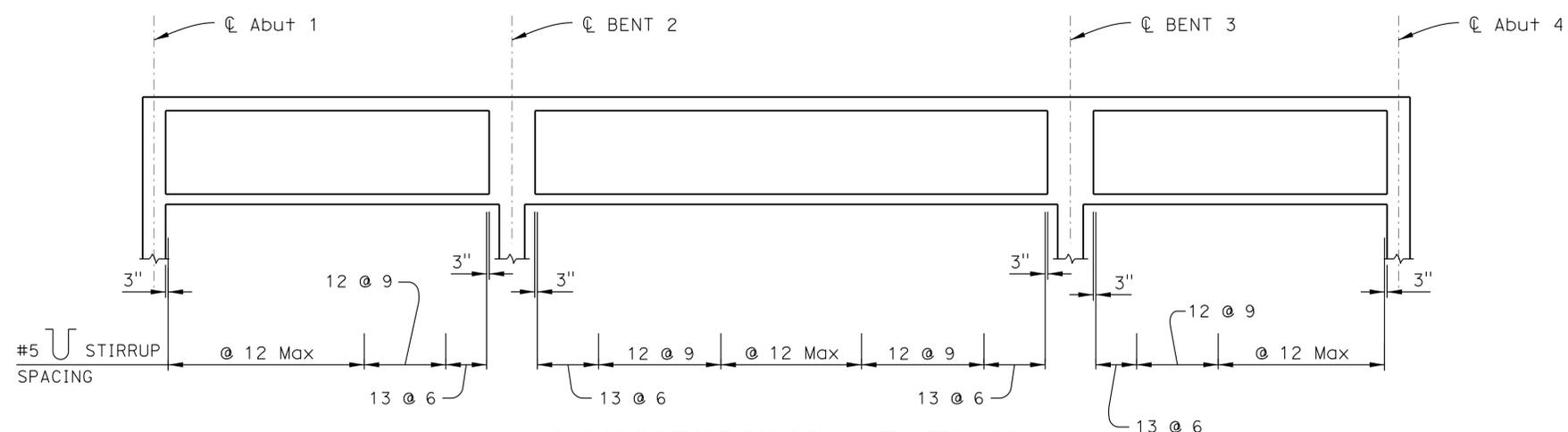
*Hans Larsen*  
 REGISTERED CIVIL ENGINEER DATE 11/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 HANS DEAN LARSEN  
 No. 75674  
 Exp. 6/30/14  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

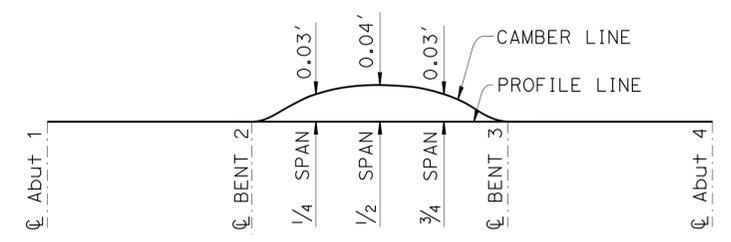
**LEGEND:**  
 - - - - - Indicates Existing Structure  
 \_\_\_\_\_ Indicates New Construction  
 [XX] Indicates girder stem width in inches



**GIRDER LAYOUT**  
 1/8" = 1'-0"



**LONGITUDINAL SECTION**  
 NO SCALE



**CAMBER DIAGRAM**  
 NO SCALE

**NOTE:**  
 Camber diagram does not include allowance for falsework settlement.

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

*Richard C. Hartzell*  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY H. Larsen	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO. 52-0274  
 POST MILES  
**CONEJO SCHOOL ROAD UC (WIDEN)**  
**GIRDER LAYOUT**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

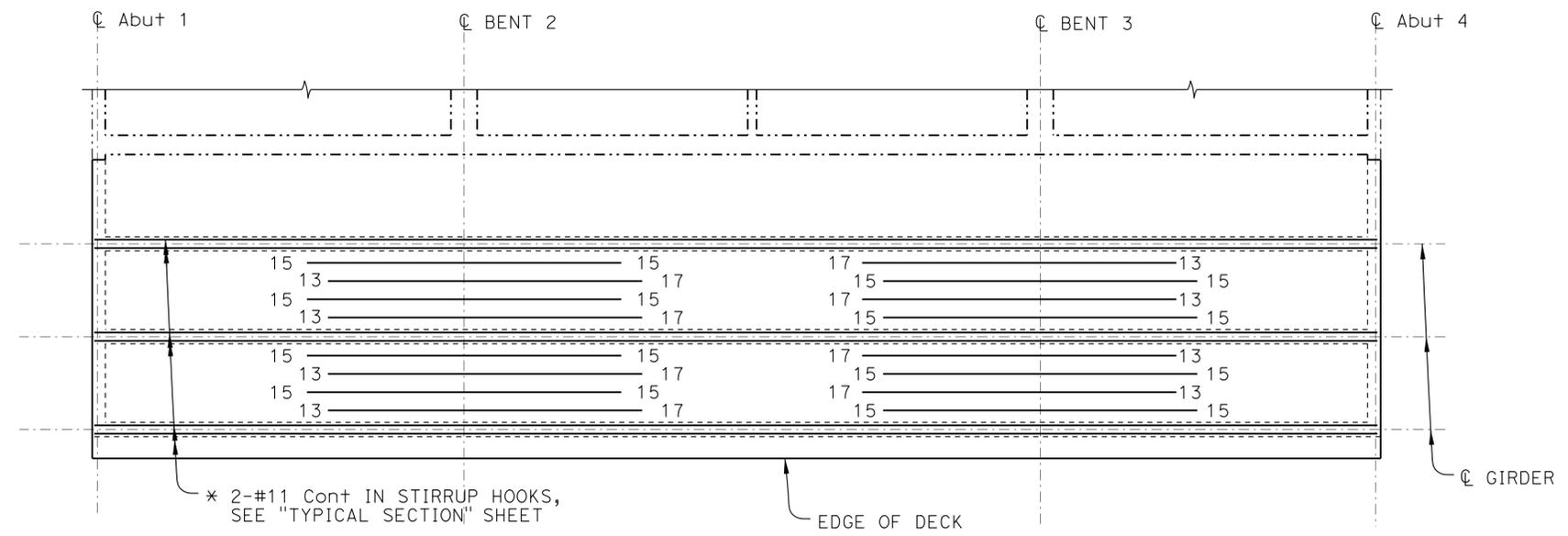
REVISION DATES	SHEET	OF
10/24/12 10/27/11 05/21/12 06/27/12	16	31

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	606	652

*Hans Larsen*  
 REGISTERED CIVIL ENGINEER DATE 11/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 HANS DEAN LARSEN  
 No. 75674  
 Exp. 6/30/14  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



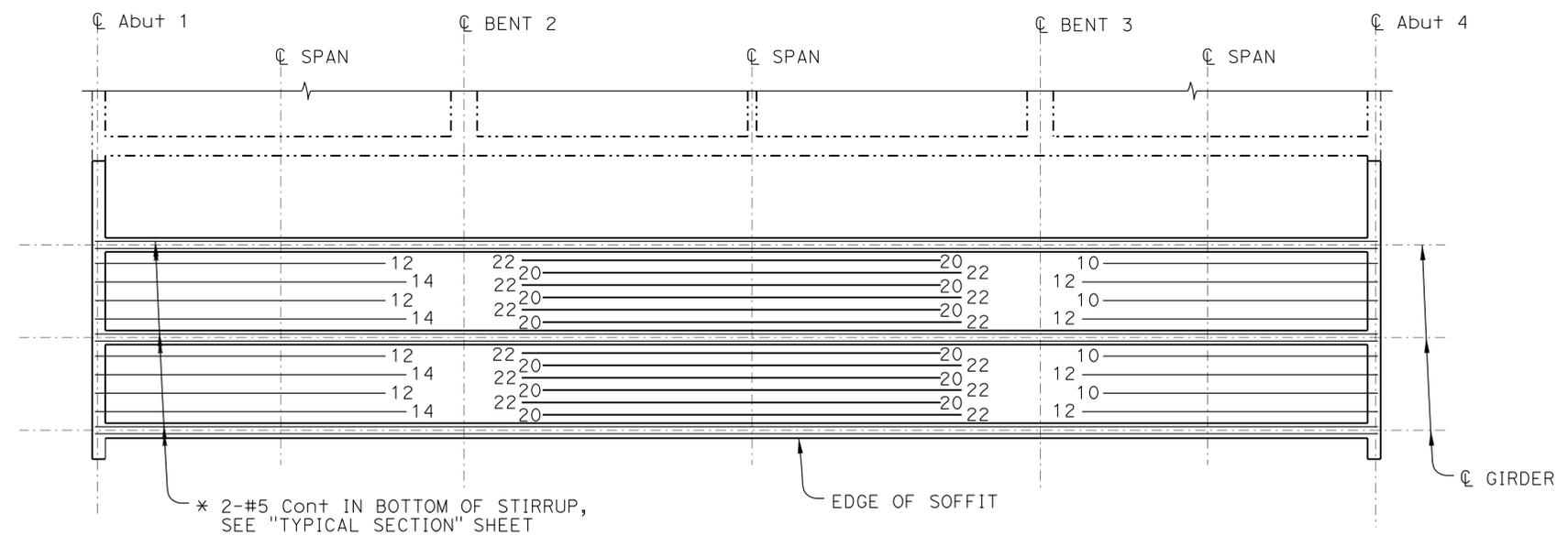
**TOP REINFORCEMENT**  
 NO SCALE

**NOTES:**

- All bars are #11 unless otherwise noted.
- Numbers at the end of bars indicate distance from  $\varnothing$  Bent or  $\varnothing$  Span
- \* Splice #11 top bars and #5 bottom bars with service splices midway between  $\varnothing$  span and  $\varnothing$  bent. Stagger splices per standard specifications.

**LEGEND:**

- Indicates Existing Structure
- Indicates New Construction



**BOTTOM REINFORCEMENT**  
 NO SCALE

**NOTE:**

THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.

*Richard C. Hartzell*  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY H. Larsen	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52-0274
POST MILES	

**CONEJO SCHOOL ROAD UC (WIDEN) GIRDER REINFORCEMENT**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

REVISION DATES	10/24/12	10/27/11	05/21/12	06/27/12	SHEET 17	OF 31
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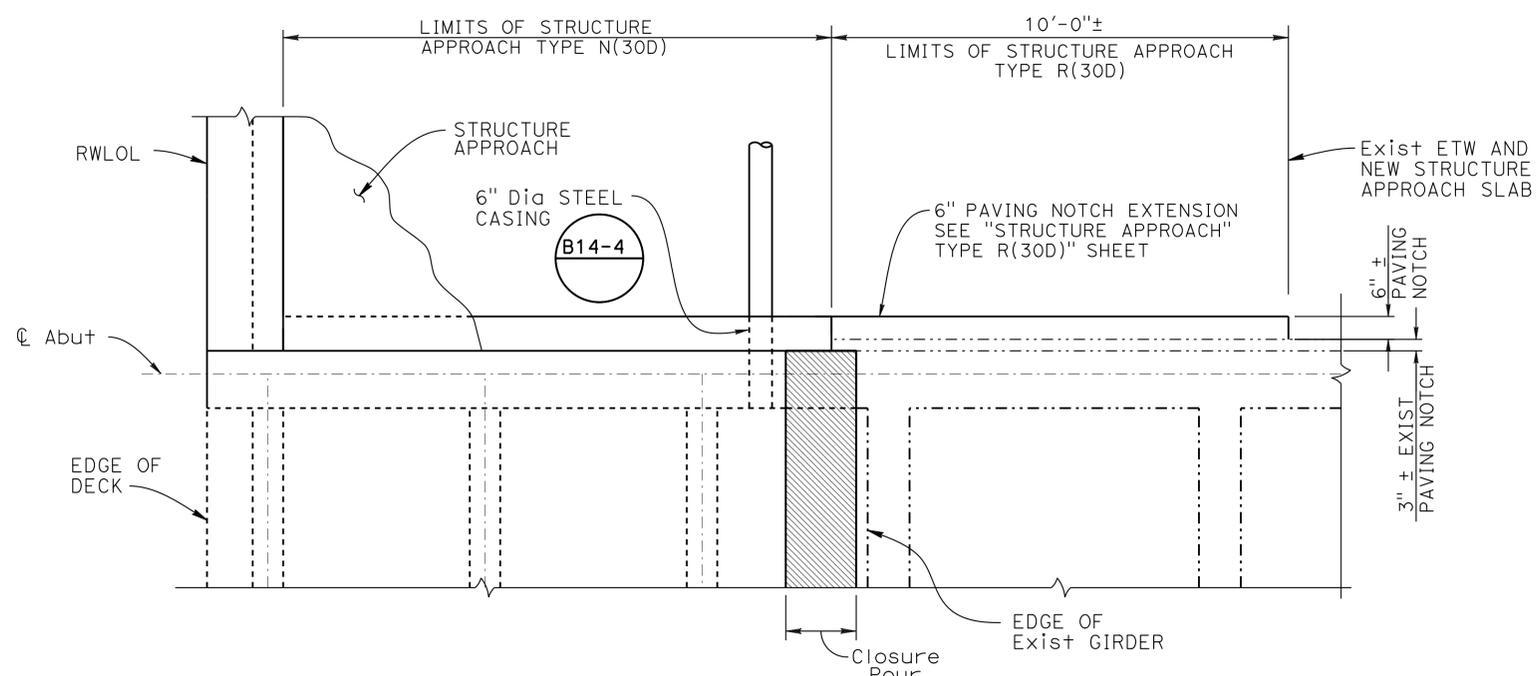
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USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 09:51

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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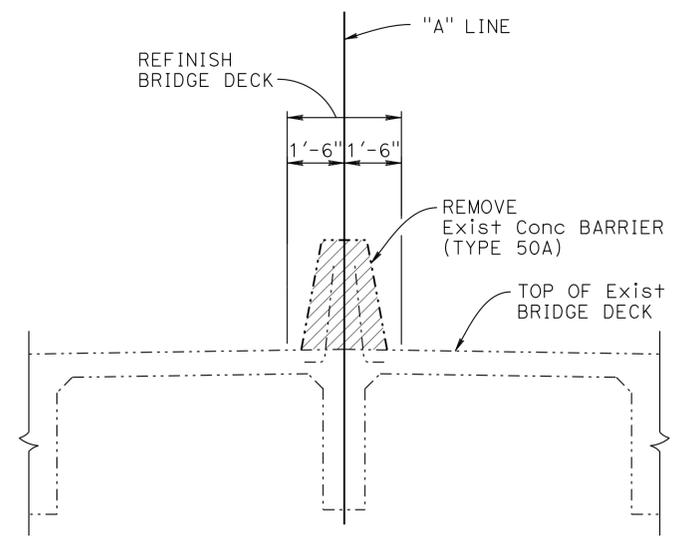
*Hans Larsen*  
 REGISTERED CIVIL ENGINEER DATE 11/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 HANS DEAN LARSEN  
 No. 75674  
 Exp. 6/30/14  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

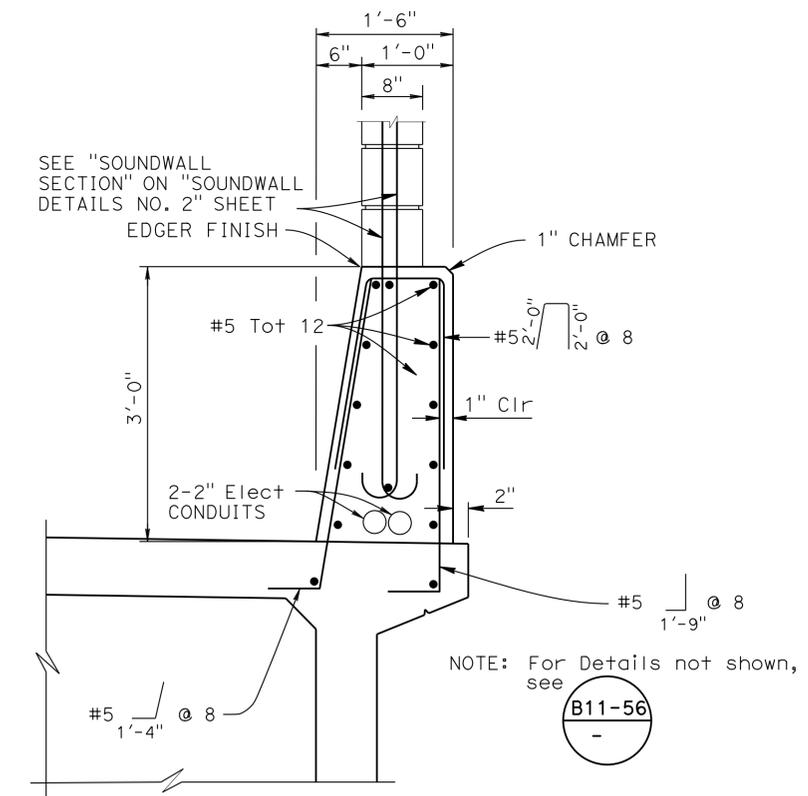


**END DIAPHRAGM**  
 1/2" = 1'-0"  
 (Abut 1 shown, Abut 4 similar)

**LEGEND:**  
 - - - - - Indicates Existing Structure  
 ——— Indicates New Construction  
 [Hatched Box] Bridge removal (Portion)



**LIMITS OF CONCRETE REMOVAL EXISTING DECK**  
 NO SCALE



**CONCRETE BARRIER TYPE 736 MODIFIED**  
 1" = 1'-0"

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

*Richard C. Hartzell*  
 DESIGN OVERSIGHT      Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY H. Larsen	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO. 52-0274  
 POST MILES  
**CONEJO SCHOOL ROAD UC (WIDEN) DECK DETAILS**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3573  
 PROJECT NUMBER & PHASE: 0700000201

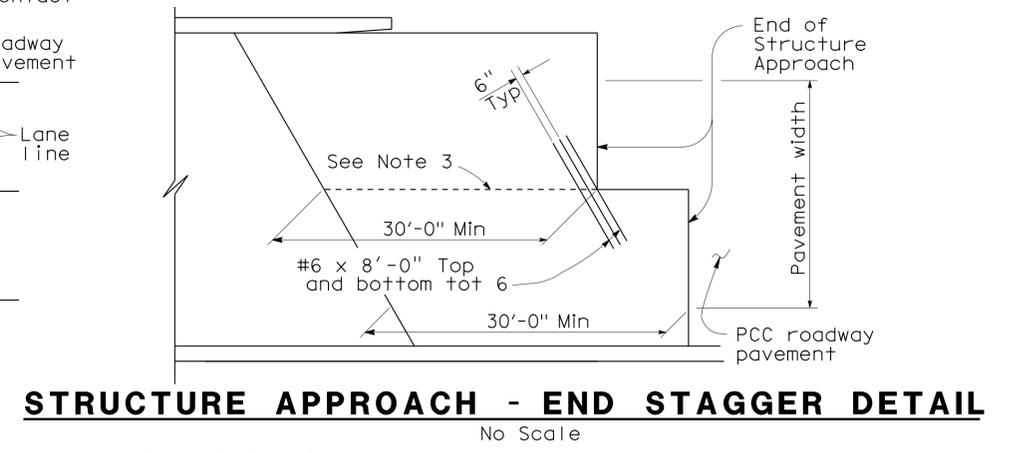
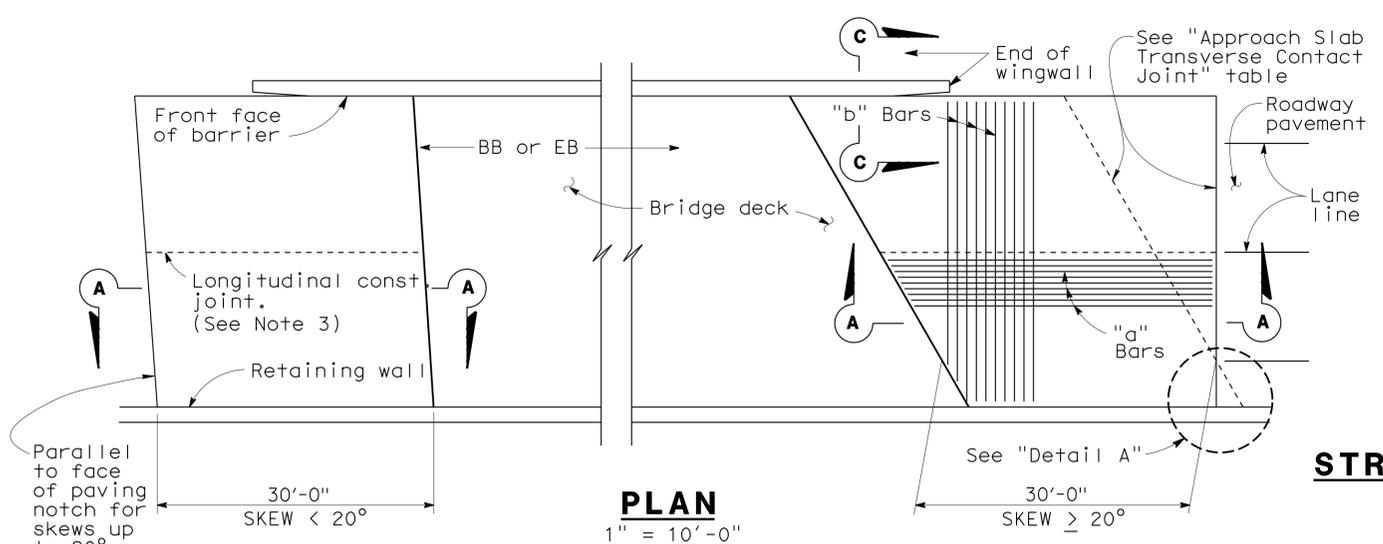
CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

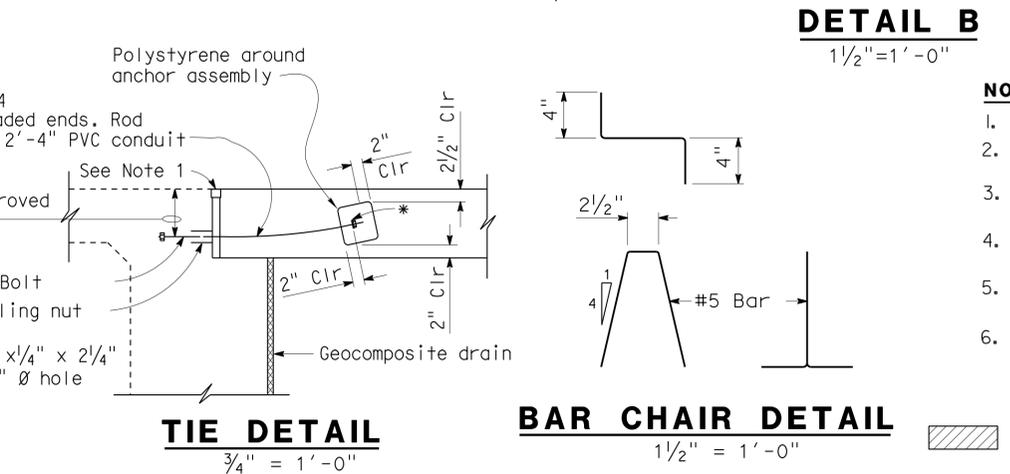
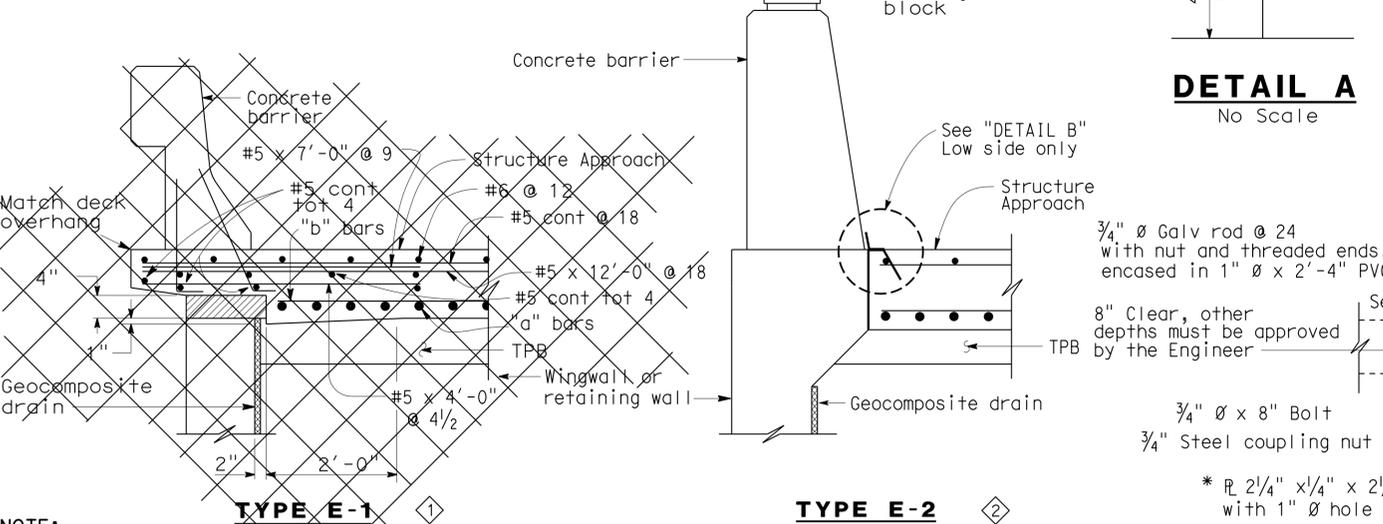
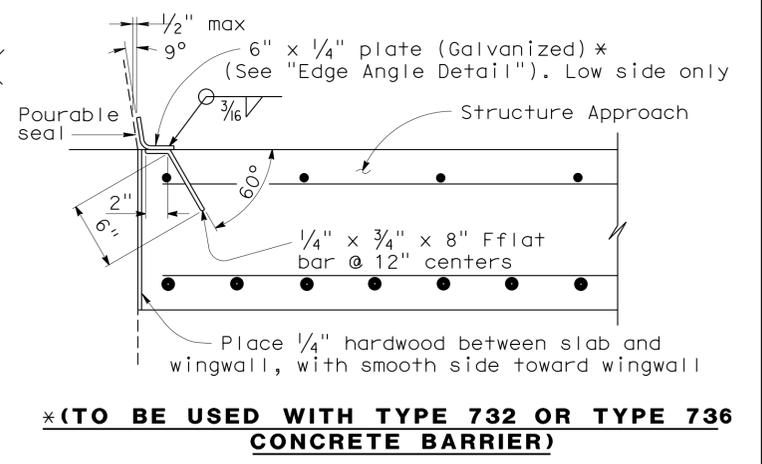
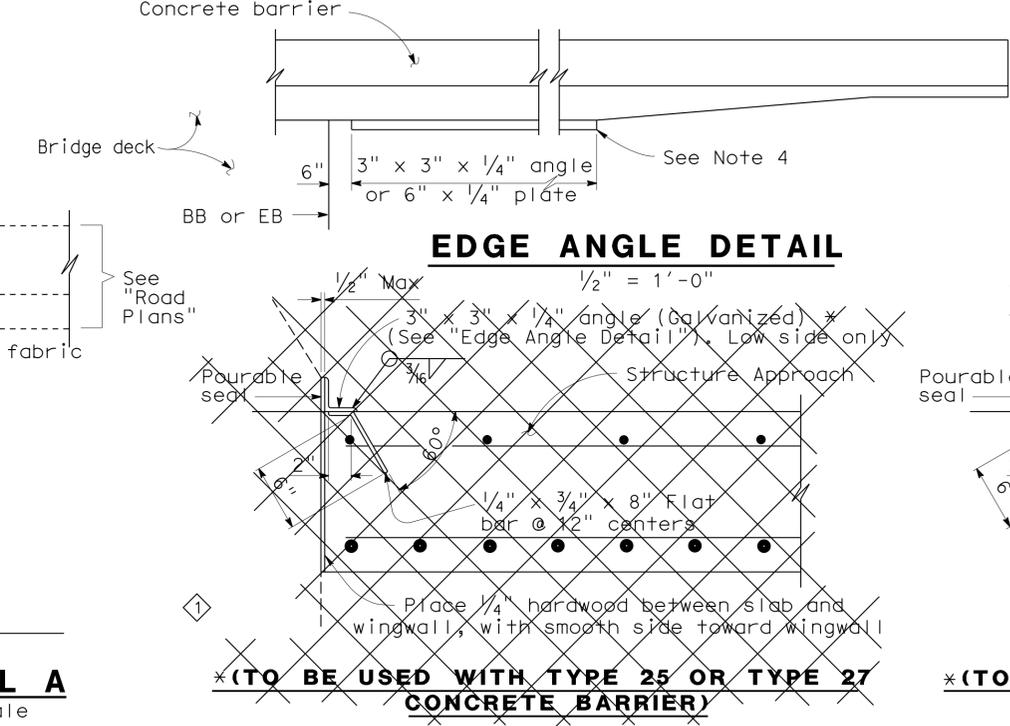
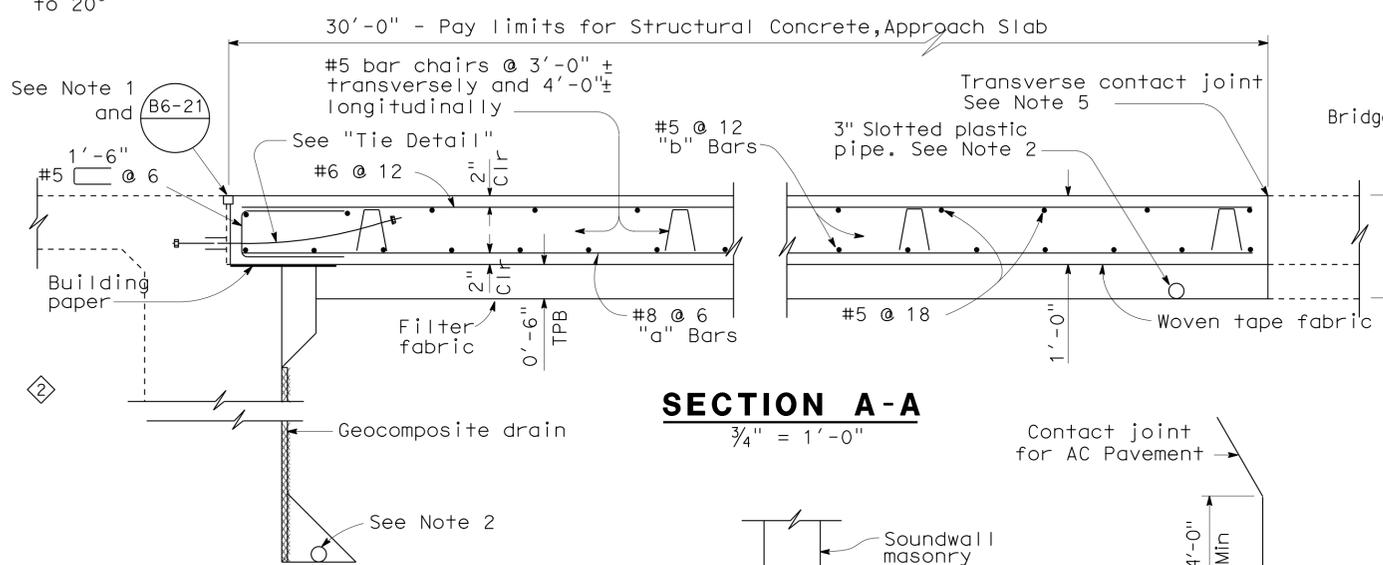
REVISION DATES	SHEET	OF
10/24/12    10/27/11    05/27/12    06/27/12	18	31

USERNAME => s124496      DATE PLOTTED => 08-JUN-2013      TIME PLOTTED => 09:51





APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	Parallel to face of paving notch	Parallel to face of paving notch
20° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line



- DETAIL B**  
1/2" = 1'-0"
- NOTES:**
- For details not noted or shown, see Structure Plans.
  - For drainage details, see "Structure Approach Drainage Details" sheet.
  - Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
  - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach, as applicable.
  - For transverse contact joint with new PCC paving, refer to Revised Standard Plan P10.
  - At the contractor's option, approach slab transverse reinforcement may be placed parallel to paving notch. Spacing of transverse reinforcement is measured along roadway.
- Polystyrene to be removed.

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

**TYPE E-1**  
**SECTION C-C**  
3/4" = 1'-0"

**TYPE E-2**

REVISED STANDARD DRAWING			
FILE NO. <b>xs3-180e</b>	APPROVED BY <b>M. Ha</b> RESPONSIBLE TECHNICAL SPECIALIST	RELEASED BY <b>O. Alcantara</b> RESPONSIBLE OFFICE CHIEF	
APPROVAL DATE <b>4-1-11</b>		RELEASE DATE <b>4-1-11</b>	

- 1 Does Not Apply
- 2 Revised Detail

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 52-0274  
POST MILES

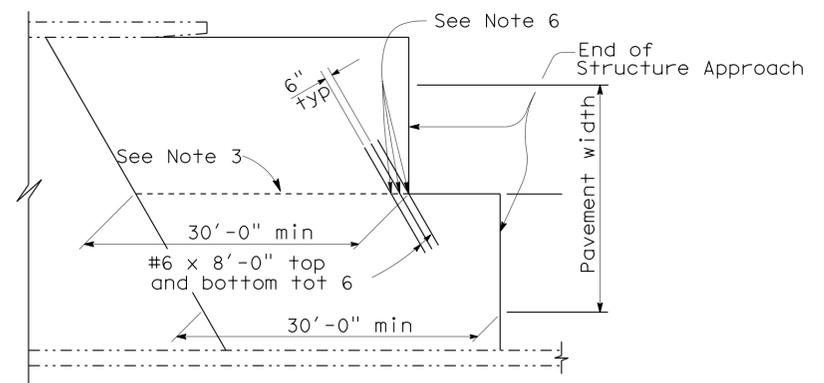
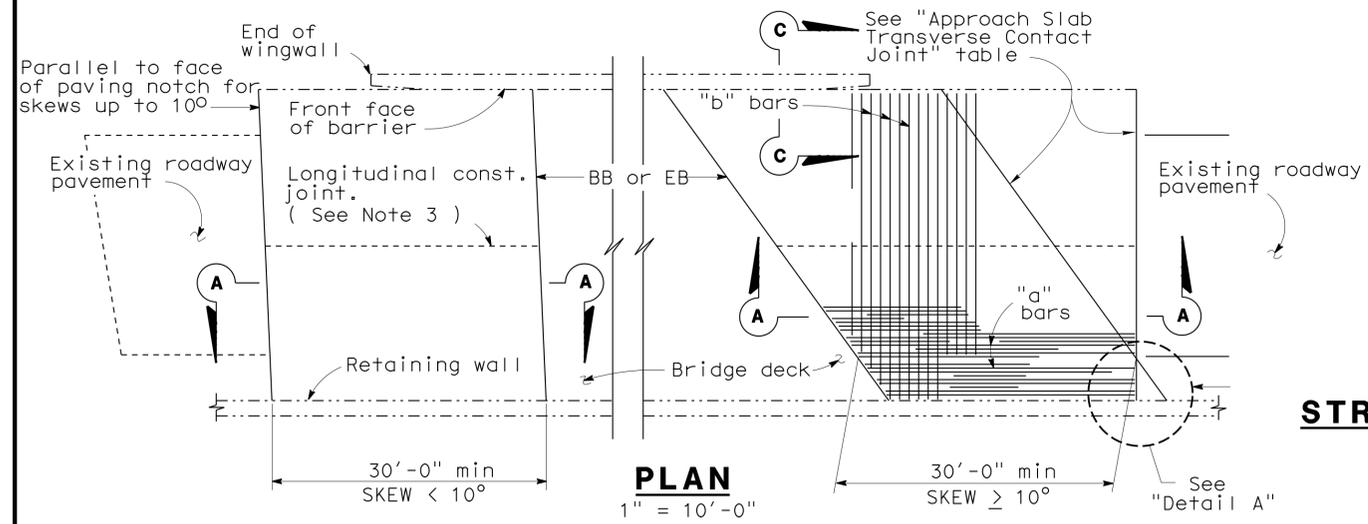
**CONEJO SCHOOL ROAD UC (WIDEN)  
STRUCTURE APPROACH TYPE N(30D)**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	610	652

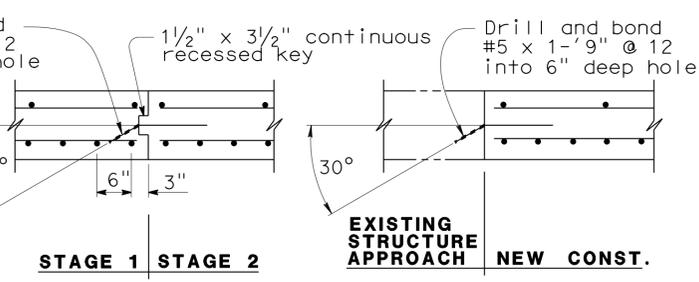
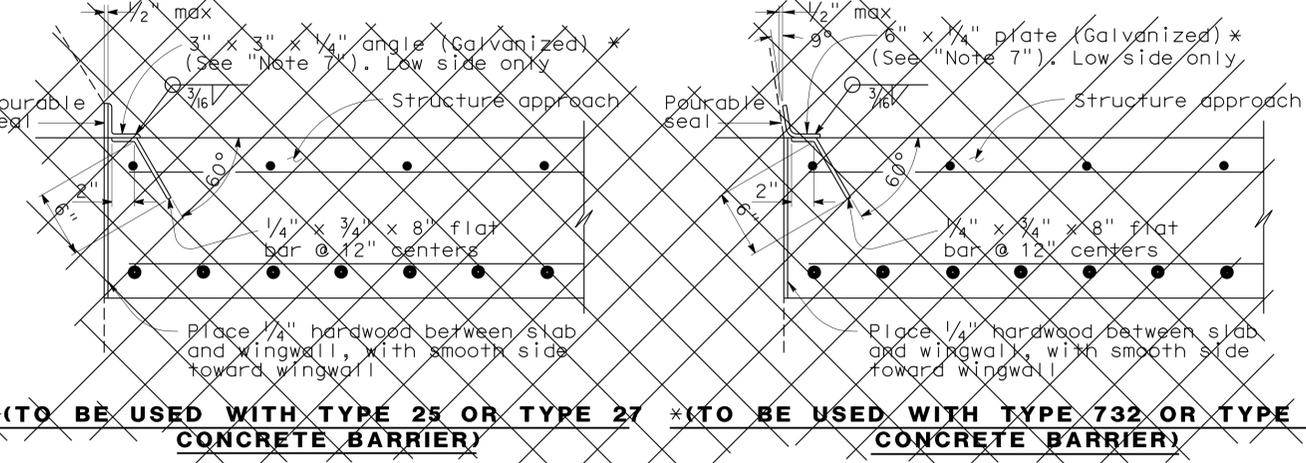
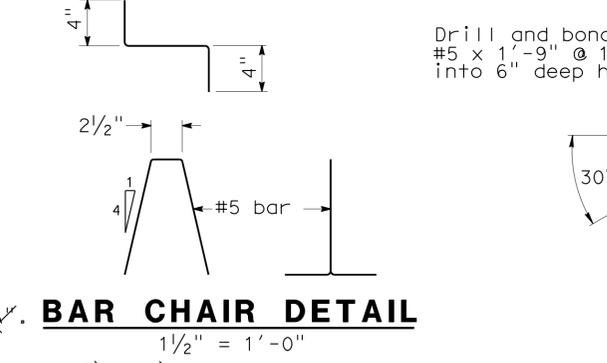
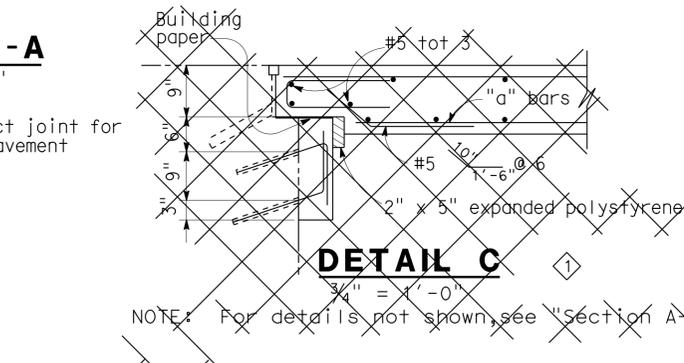
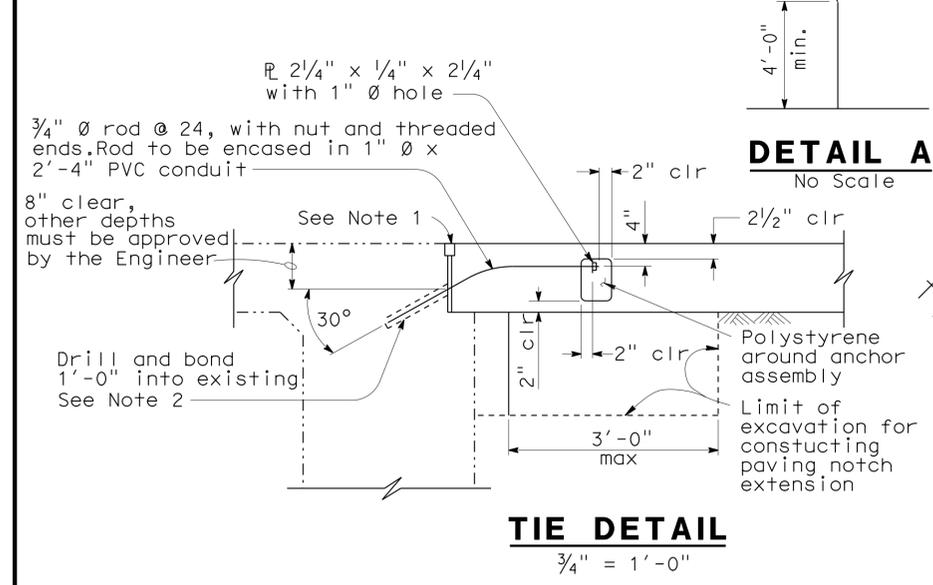
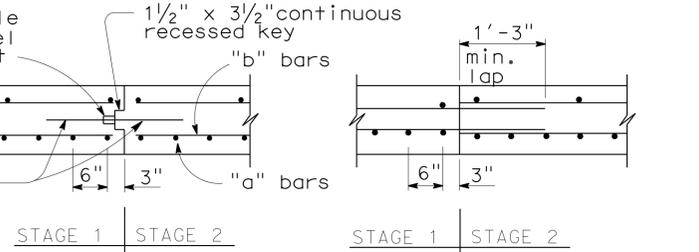
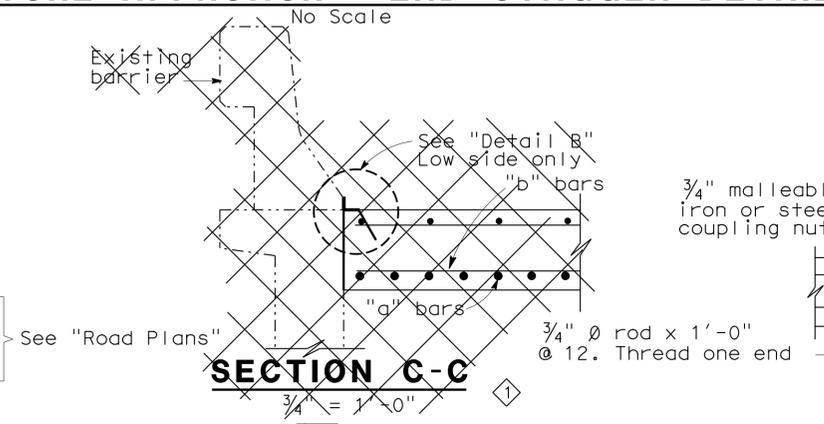
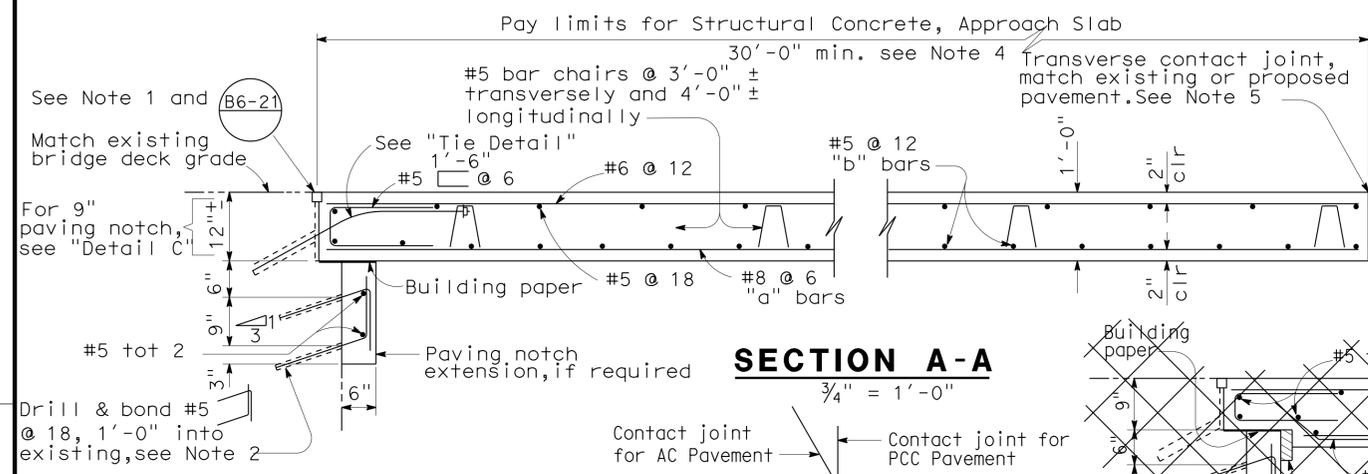
*Hans Larsen*  
REGISTERED CIVIL ENGINEER DATE 11/21/12  
6-3-13  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
HANS DEAN LARSEN  
No. 75674  
Exp. 6/30/14  
CIVIL  
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.



APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	Parallel to face of paving notch	Parallel to face of paving notch
10° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line



**LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES**

- NOTES:**
- For details not shown or noted, see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required.
  - Space to avoid existing prestress anchorages and main reinforcement.
  - Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
  - Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint.
  - For transverse contact joint with new PCC paving, refer to Standard Plan P10.
  - Couplers are required for stage construction.
  - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable.

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

REVISED STANDARD DRAWING				Does Not Apply
RELEASE DATE 4/1/11	DESIGN BY M. TRAFFALIS	CHECKED E. THORKILDSEN	RELEASED BY	
FILE NO. xs3-140e	DETAILS BY R. YEE	CHECKED E. THORKILDSEN	OFFICE CHIEF	
	SUBMITTED BY M. HA	DRAWING DATE 4/1/11		

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

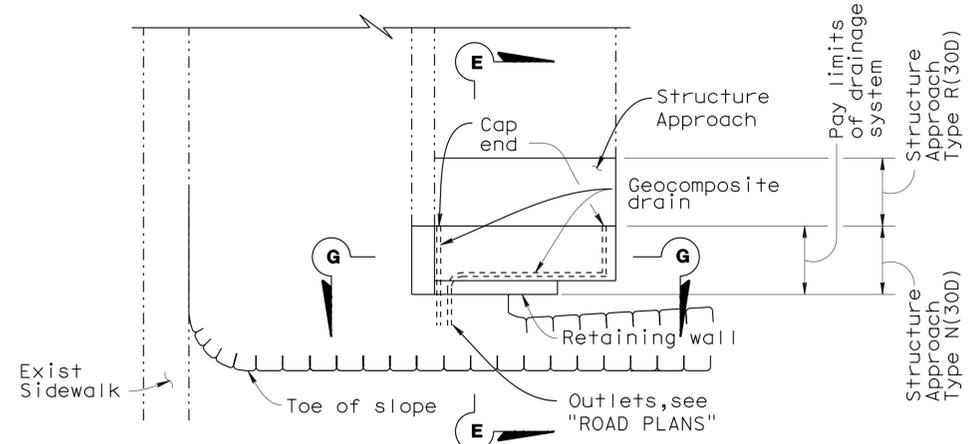
BRIDGE NO. 52-0274  
POST MILES

**CONEJO SCHOOL ROAD UC (WIDEN)  
STRUCTURE APPROACH TYPE R(30D)**

REVISION DATES	SHEET 21 OF 31
10/24/12	10/27/11

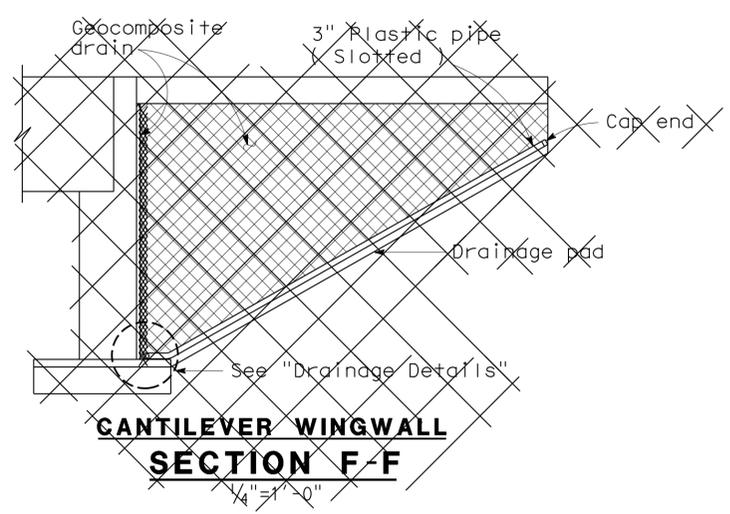
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	611	652

Hans Larsen  
 REGISTERED CIVIL ENGINEER  
 DATE 11/21/12  
 PLANS APPROVAL DATE 6-3-13  
 HANS DEAN LARSEN  
 No. 75674  
 Exp. 6/30/14  
 CIVIL  
 STATE OF CALIFORNIA

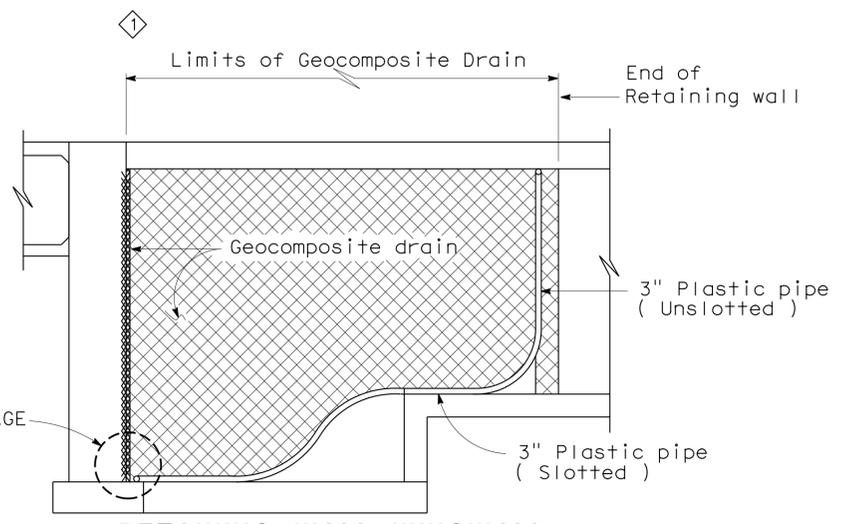


**TYPICAL PLAN**

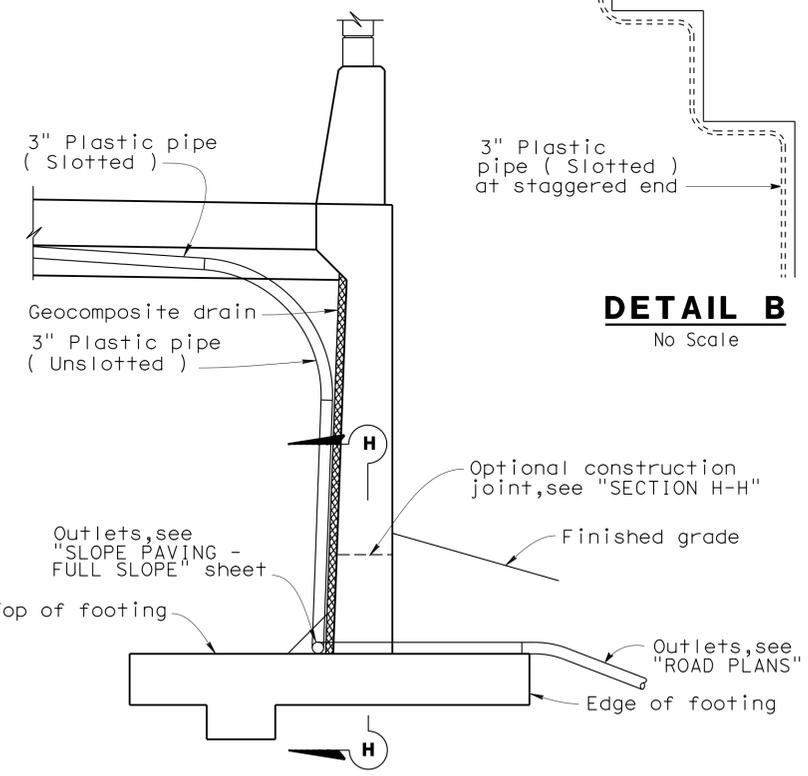
1" = 10'-0"  
\*For pipe layout at staggered end, see "Detail B".



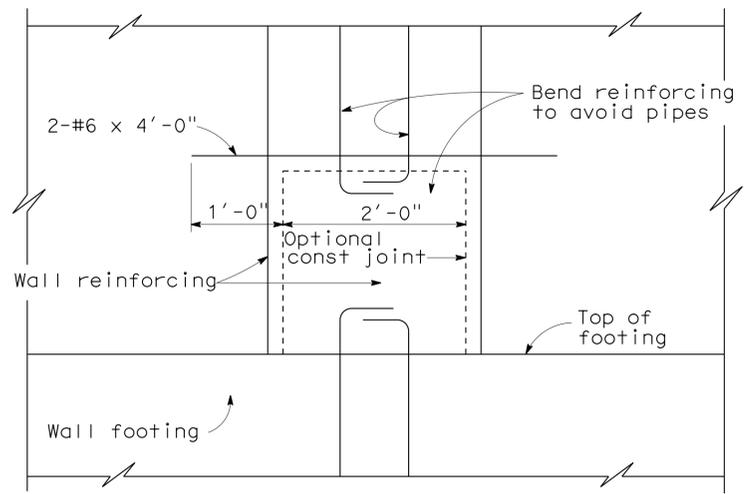
**CANTILEVER WINGWALL SECTION F-F**



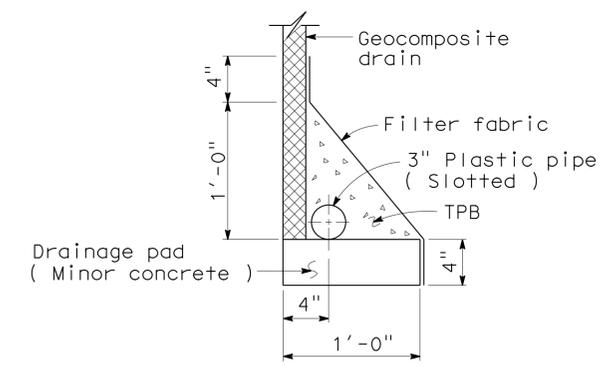
**RETAINING WALL WINGWALL SECTION G-G**



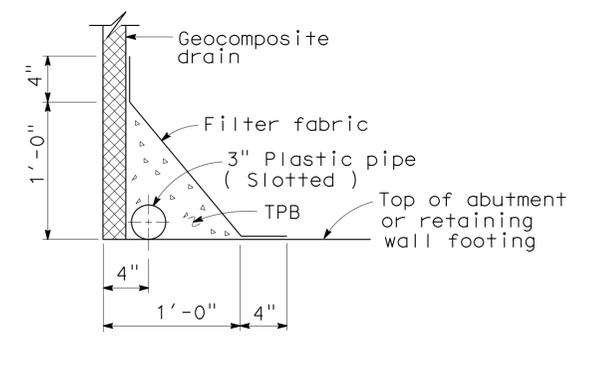
**DETAIL B**  
No Scale



**SECTION H-H**  
1" = 1'-0"



**WITHOUT FOOTING**



**WITH FOOTING**

**DRAINAGE DETAILS**

1/2" = 1'-0"

**SPECIAL DETAILS**

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

STANDARD DRAWING			
RELEASE DATE 4/23/98	DESIGN BY M. TRAFFALIS	CHECKED E. THORKILDSEN	RELEASED BY
FILE NO. xs3-110e	DETAILS BY R. YEE	CHECKED E. THORKILDSEN	
	SUBMITTED BY M. HA	DRAWING DATE 4/98	OFFICE CHIEF

- 1 Revised dimensions
- 2 Does Not Apply
- 3 Revised Detail

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

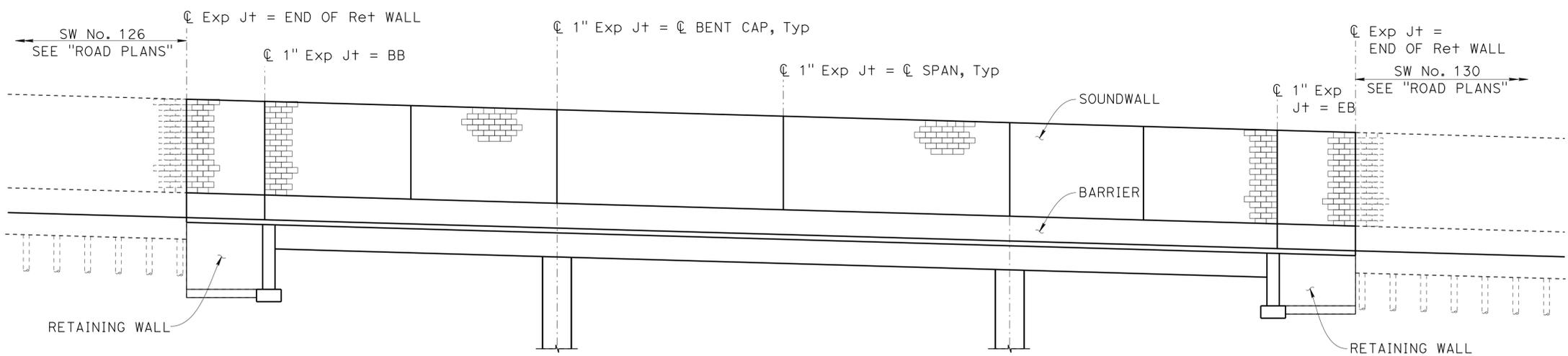
BRIDGE NO.	52-0274
POST MILES	

**CONEJO SCHOOL ROAD UC (WIDEN)**  
**STRUCTURE APPROACH DRAINAGE DETAILS**

USERNAME => s124496 DATE PLOTTED => 06-JUN-2013 TIME PLOTTED => 09:52

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	612	652

*Hans Larsen*  
REGISTERED CIVIL ENGINEER DATE 11/21/12  
6-3-13  
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.  
CITY OF THOUSAND OAKS  
2100 THOUSAND OAKS BLVD  
THOUSAND OAKS, CA 91362  
CH2M HILL  
1000 WILSHIRE BLVD, 21ST FLOOR  
LOS ANGELES, CA 90017



**ELEVATION - (WIDEN)**  
1/8" = 1'-0"

**DESIGN NOTES (SOUNDWALL ON BRIDGE)**

**DESIGN**

Uniform Building Code, 1997 Edition and the Bridge Design Specifications.

**DESIGN WIND LOAD**

37 psf on Bridge  
33 psf on Retaining Wall

**DESIGN SEISMIC LOAD**

2.0 Dead load

**REINFORCED CONCRETE**

f'c = 3,600 psi  
fy = 60,000 psi

**CONCRETE MASONRY**

**HIGH STRENGTH**  
f'm = 2,500 psi  
fy = 60,000 psi

**LOAD FACTORS AND LOAD COMBINATIONS**

Load Factor Design ( LFD )

- Group A: BD+1.7 E+1.7 SC
- Group B: BD+1.7 E+1.3 W
- Group C: BD+1.3 E+1.0 EQE
- Group D: BD+1.3 E+1.0 EQD
- Group E: BD+1.1 E+0.85 ( EQE + EQD )

Where : B = 0.9 or 1.2, whichever controls in design  
D = Dead load  
E = Lateral earth pressure  
SC = Live load surcharge  
W = Wind load  
EQD = Seismic dead load  
EQE = Seismic earth load

**STRENGTH REDUCTION FACTORS, φ**

Reinforced concrete:  
For flexure ----- φ=0.90  
For shear ----- φ=0.85

Concrete masonry:  
For flexure ----- φ=0.80  
For shear ----- φ=0.60

**GENERAL NOTES**

- Note A: For type of block, see "MASONRY BLOCK TYPE TABLE" on "SOUNDWALL DETAILS NO. 2" sheet
- Note B: When blocks are laid in stacked bond, ladder type, galvanized joint reinforcement shall be provided. A minimum of 2 - 9 gauge wires continuous at 4'-0" maximum to be used. Locate reinforcement in joints that are at the approximate midpoint between bond beams.
- Note C: Horizontal joints shall be tooled concave or may be weathered. Vertical joints shall be tooled concave or may be raked.
- Note D: All masonry to be high strength unless otherwise noted.
- Note E: For location of expansion joints, see "ELEVATION - (WIDEN)"

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

*Richard C. Hartzell*  
DESIGN OVERSIGHT Richard C. Hartzell  
12-17-12  
SIGN OFF DATE

DESIGN	BY H. Larsen	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**

Milind Desai  
PROJECT ENGINEER

BRIDGE NO.	52-0274
POST MILES	

**CONEJO SCHOOL ROAD UC (WIDEN) SOUNDWALL DETAILS NO. 1**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3573  
PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

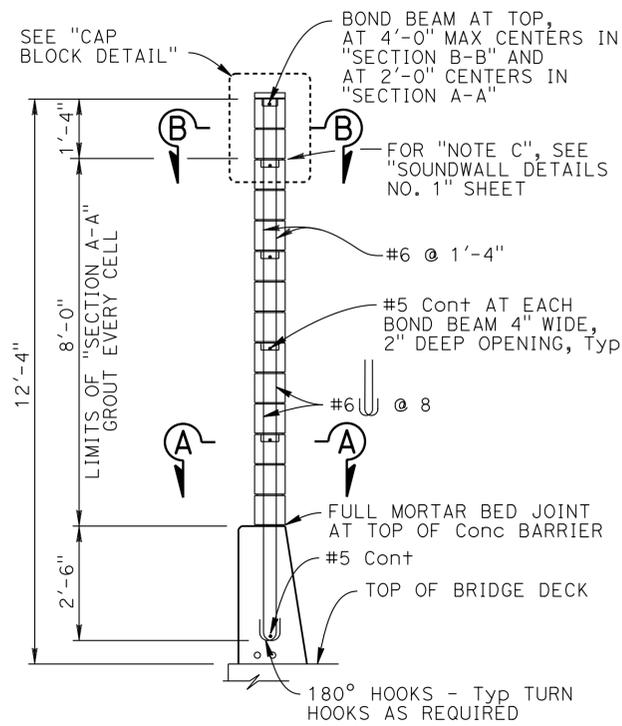
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
10/24/12 10/27/11 05/17/12 06/27/12	23	31

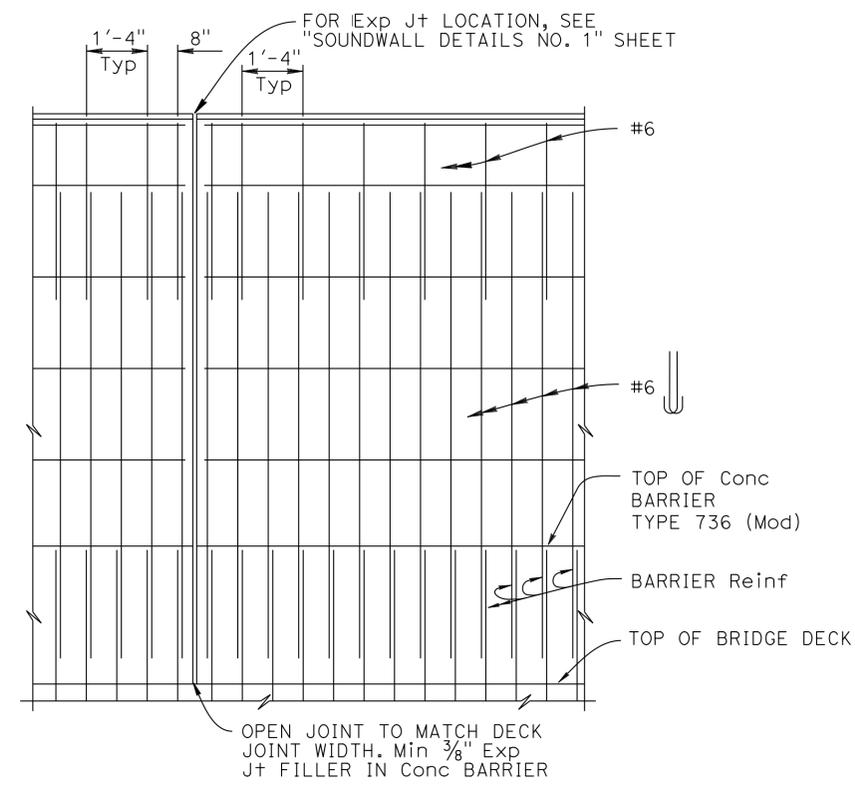
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USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 09:52

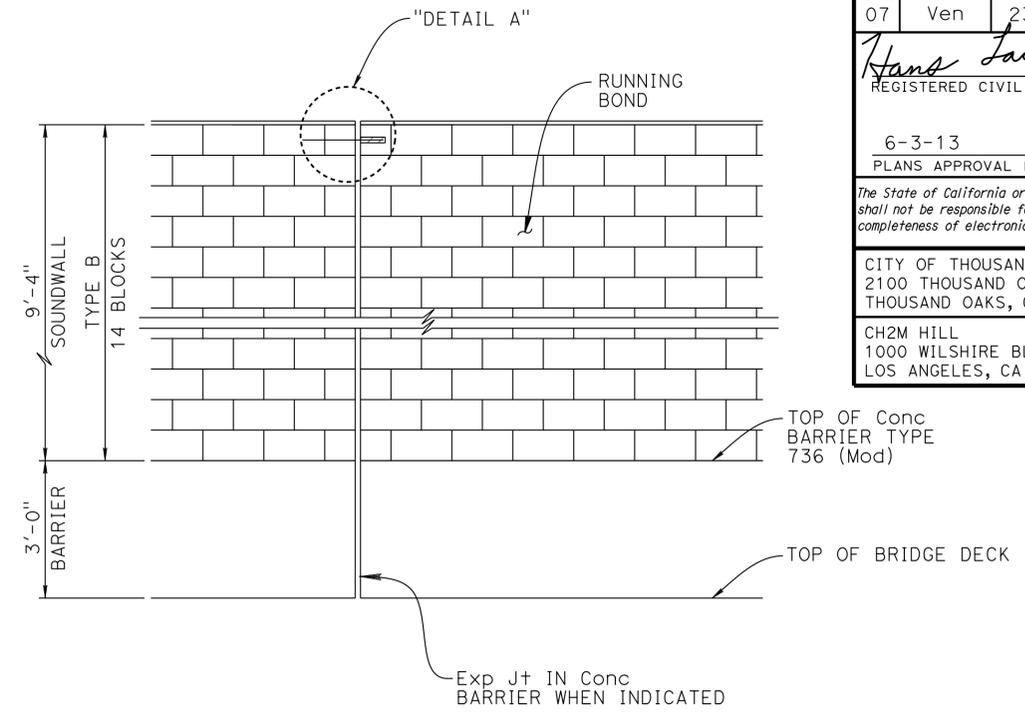
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	613	652
<i>Hans Larsen</i> REGISTERED CIVIL ENGINEER 11/21/12 DATE				REGISTERED PROFESSIONAL ENGINEER HANS DEAN LARSEN No. 75674 Exp. 6/30/14 CIVIL STATE OF CALIFORNIA	
6-3-13 PLANS APPROVAL DATE <i>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</i>					
CITY OF THOUSAND OAKS 2100 THOUSAND OAKS BLVD THOUSAND OAKS, CA 91362					
CH2M HILL 1000 WILSHIRE BLVD, 21ST FLOOR LOS ANGELES, CA 90017					



**SOUNDWALL SECTION**  
1/2" = 1'-0"



**WALL JOINT DETAIL**  
1/2" = 1'-0"

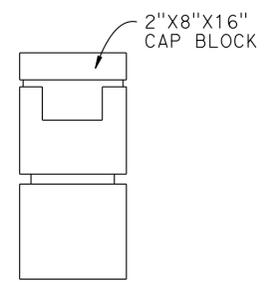


**SOUNDWALL - ARCHITECTURAL TREATMENT DETAIL**  
1/2" = 1'-0"

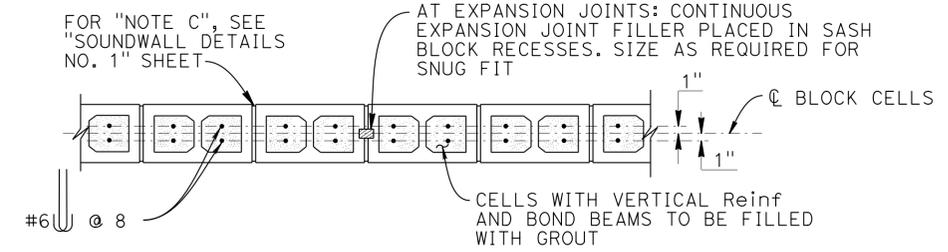
BLOCK TYPE	NOMINAL SIZE	TEXTURE	COLOR
B	8 INCH x 8 INCH x 16 INCH	SLUMPSTONE	MISSION (70%) & FAWN (30%) RANDOM MIX *

- NOTES:
- BOND (TYPE 2) COMMON BOND
  - MORTAR COLOR TO MATCH BLOCK
  - TOOLED JOINTS.
- \* TO MATCH ANGELUS BLOCK COMPANY COLOR  
FAWN AND MISSION OR EQUAL.

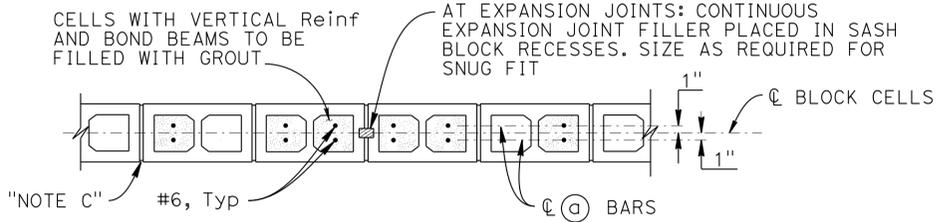
NOTE:  
1. Details on this sheet apply to soundwall on bridge locations.



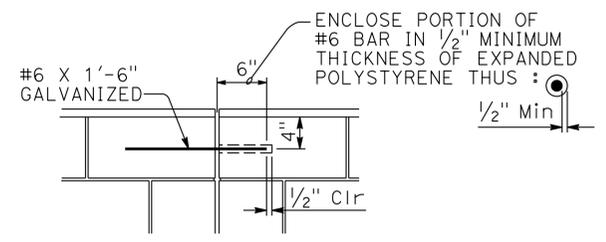
**CAP BLOCK DETAIL**  
NO SCALE



**SECTION A-A**  
NO SCALE



**SECTION B-B**  
NO SCALE



**DETAIL A**  
NO SCALE

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

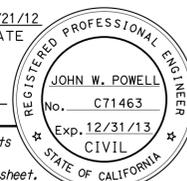
*Richard C. Hartzell*  
 DESIGN OVERSIGHT  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY H. Larsen	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**  
 Milind Desai  
 PROJECT ENGINEER

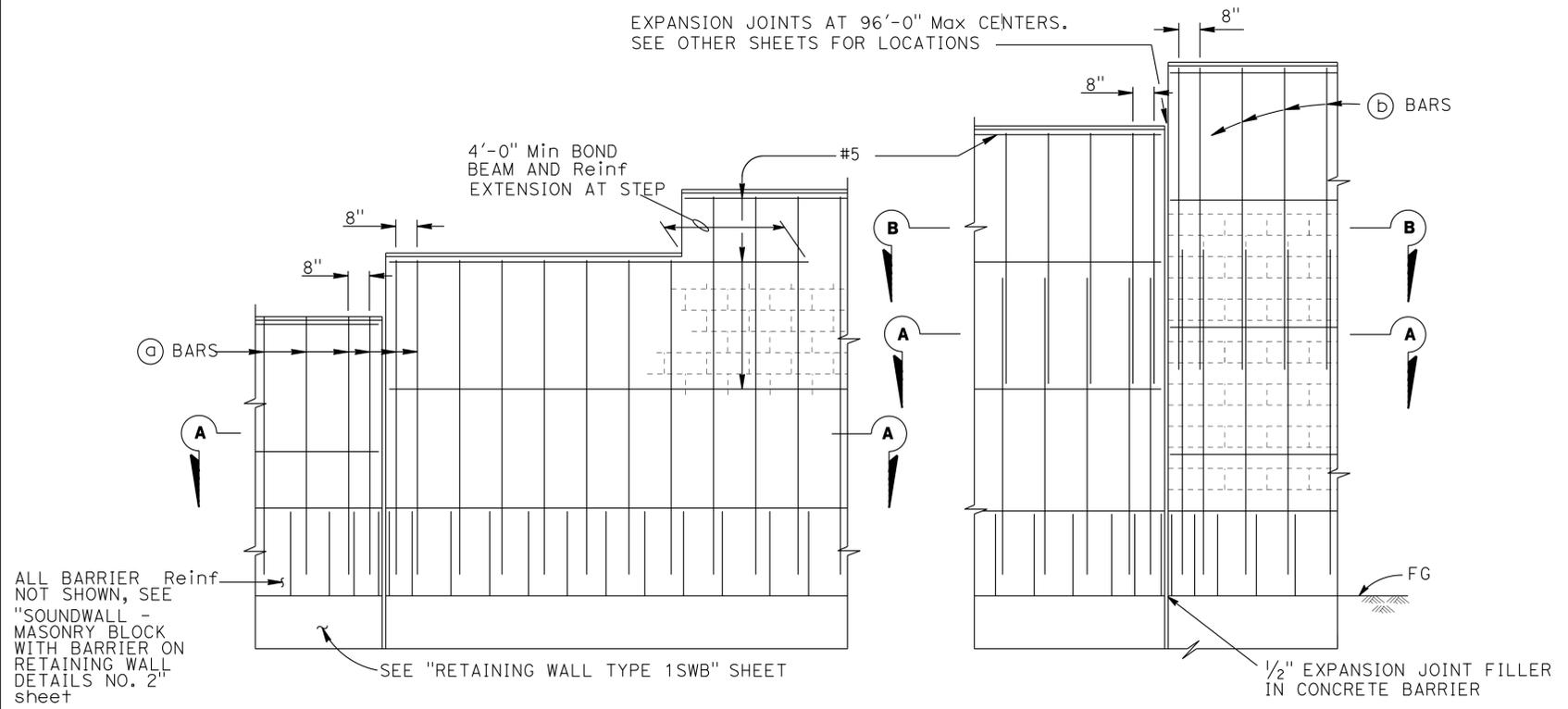
BRIDGE NO. 52-0274  
 POST MILES  
**CONEJO SCHOOL ROAD UC (WIDEN)**  
**SOUNDWALL DETAILS NO. 2**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	614	652


  
 REGISTERED CIVIL ENGINEER DATE 11/21/12  
 6-3-13  
 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.

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

EXPANSION JOINTS AT 96'-0" Max CENTERS.  
SEE OTHER SHEETS FOR LOCATIONS



ALL BARRIER Reinf NOT SHOWN, SEE "SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS NO. 2" sheet

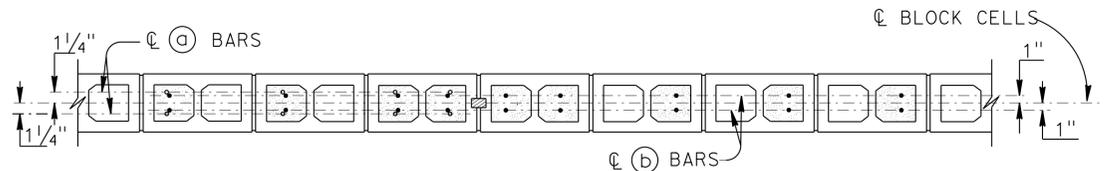
SEE "RETAINING WALL TYPE 1SWB" SHEET

1/2" EXPANSION JOINT FILLER IN CONCRETE BARRIER

**PART ELEVATIONS**

**SOUNDWALL REINFORCEMENT TABLE**

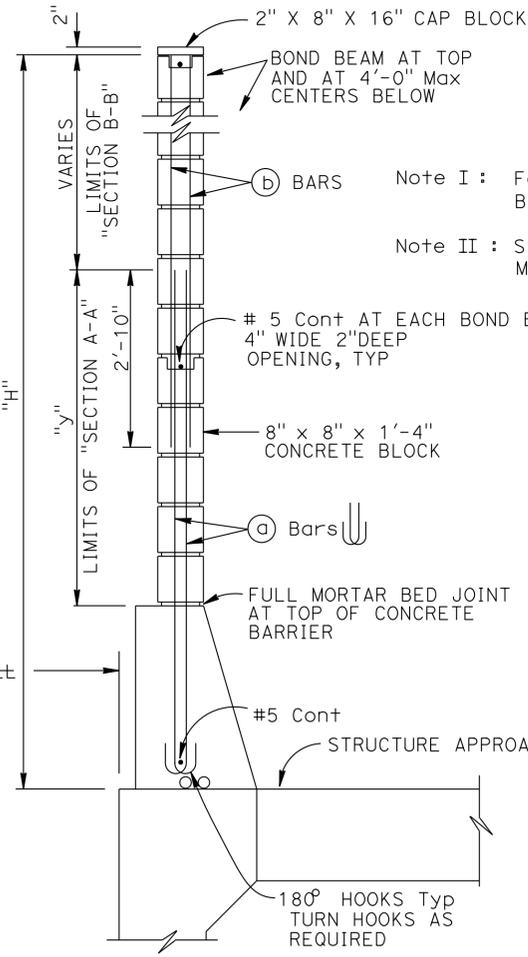
MAXIMUM H	(a) BARS @ 1'-4" Max	(b) BARS @ 1'-4" Max	"y"	f'm (KSI)	COMPRESSIVE STRENGTH OF CMU (KSI)	MAXIMUM H
6'-4"	# 4	---	---	1.5	1.9	6'-4"
8'-4"	# 4	---	---	1.5	1.9	8'-4"
10'-4"	# 4	---	---	1.5	1.9	10'-4"
12'-4"	# 5	# 4	5'-0"	1.5	1.9	12'-4"
14'-4"	# 6	# 4	7'-0"	1.5	1.9	14'-4"
16'-4"	# 6	# 4	9'-0"	2.5	3.7	16'-4"



**SECTION A-A SECTION B-B**

For details not shown, see other details  
**H=12'-4" THRU H=16'-4"**

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



**H=12'-4" THRU H=16'-4"**

Note I: For details not shown, see "SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS NO. 2" sheet.  
 Note II: Slope ground at traffic side of barrier to drain. Maximum slope 10%.

**GENERAL NOTES**

Note A: For type of block and joint finish, see other sheets.  
 Note B: When blocks are laid in stacked bond, ladder type, galvanized joint reinforcement shall be provided. A minimum of 0.07"-0.14" wire continuous at 4'-0" maximum to be used. Locate reinforcement in joints that are at the approximate midpoint between bond beams.  
 Note C: Horizontal joints shall be tooled concave or may be weathered. Vertical joints shall be tooled concave or may be raked.  
 Note D: For intermediate wall heights that are between the "H's" given. Use the tabular information for the next higher "H".  
 Note E: Masonry strengths are listed in "SOUNDWALL REINFORCEMENT TABLE".  
 Note F: Concrete to be used for the barrier shall contain not less than 590 pounds of cementitious material per cubic yard.

DESIGN OVERSIGHT  
 Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52-0274
POST MILES	

**CONEJO SCHOOL ROAD UC (WIDEN)**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL**  
**DETAILS NO. 1**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

UNIT: PROJECT NUMBER & PHASE: 0700000201

3573

CONTRACT NO.: 07-1952U1

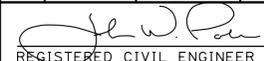
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
10/24/12 10/27/11 05/27/12 06/27/12	25	31

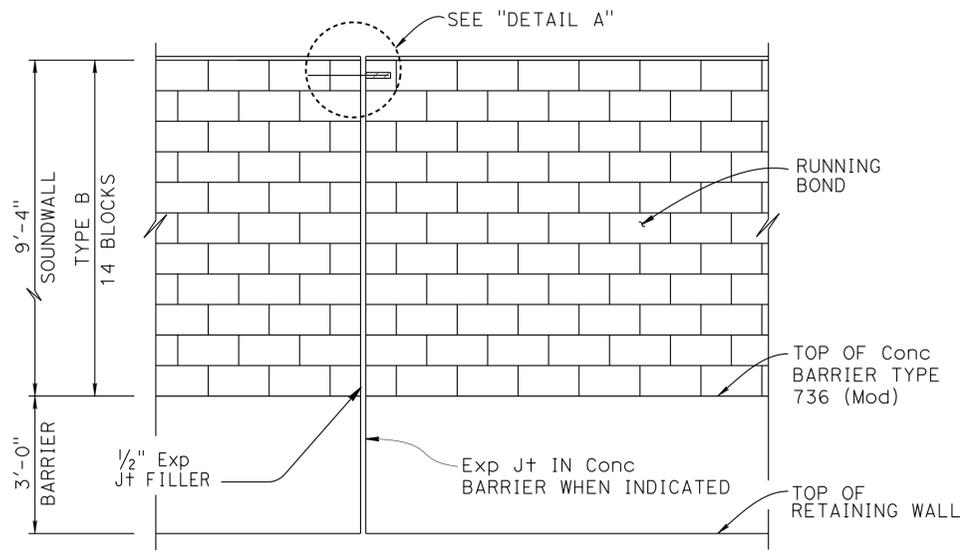
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USERNAME => s124496 DATE PLOTTED => 09:52 TIME PLOTTED => 09:52

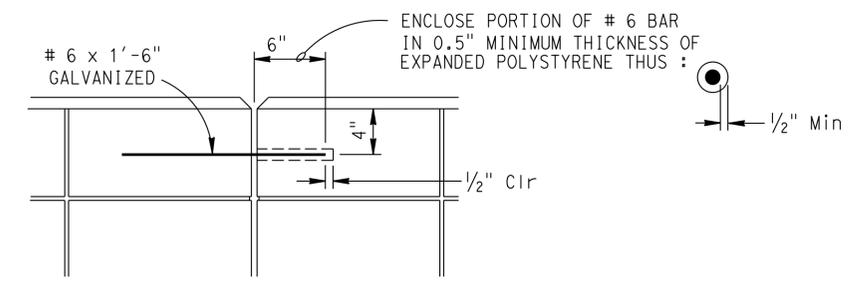
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	615	652

  
 REGISTERED CIVIL ENGINEER 11/21/12 DATE  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

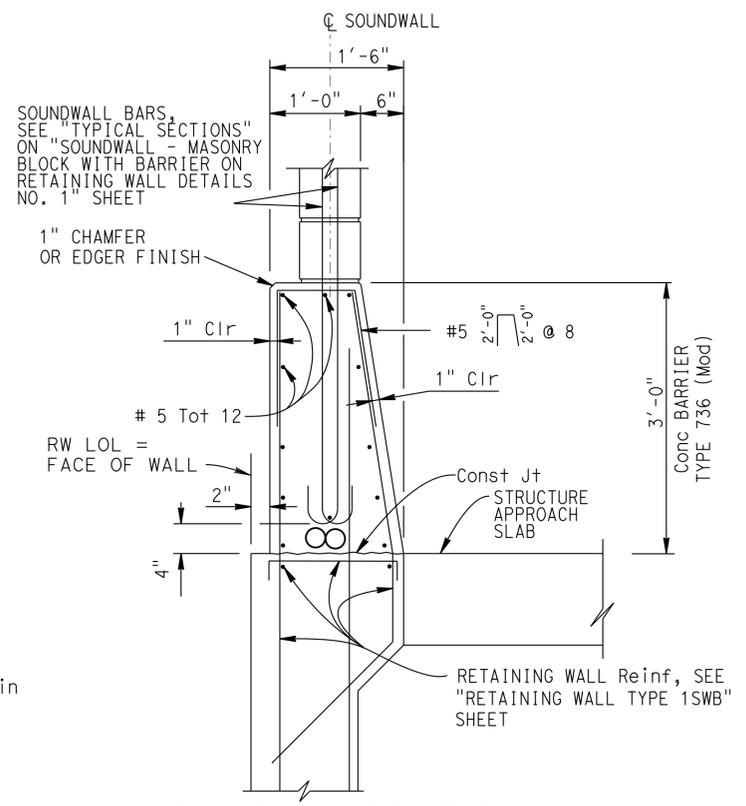
CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



**ALIGNMENT KEY DETAIL**  
NO SCALE



**DETAIL A**  
NO SCALE



**BARRIER SECTION**  
NO SCALE

- NOTES:**
- I : For details not shown, see "RETAINING WALL TYPE 1SWB" sheet.
  - II : Slope ground at traffic side of barrier to drain. Maximum slope ±10%.

**DESIGN NOTES**

**DESIGN**  
Uniform Building Code, 1997 Edition and the Bridge Design Specifications.

**DESIGN WIND LOAD**  
33 PSF

**DESIGN SEISMIC LOAD**  
0.57 Dead load

**CONCRETE MASONRY**

REINFORCED CONCRETE	REGULAR STRENGTH	HIGH STRENGTH	
$f'_c = 3,600$ PSI	$f'_m = 1,500$ PSI	$f'_m = 2,000$ PSI	$f'_m = 2,500$ PSI
$f_y = 60,000$ PSI	$f_b = 495$ PSI	$f_b = 660$ PSI	$f_b = 830$ PSI
	$f_s = 24,000$ PSI	$f_s = 24,000$ PSI	$f_s = 24,000$ PSI
	$n = 25.8$	$n = 19.3$	$n = 15.5$

**LOAD FACTORS AND LOAD COMBINATIONS**

Working Stress Design ( WSD ) Percentage of unit stress

Group 1: D + E + SC	100%
Group 2: D + W + SC + E	100%
Group 3: D + 0.71 EQD + E	100%

Where:

- D = Dead load
- E = Lateral earth pressure
- SC = Live load surcharge
- W = Wind load
- EQD = Seismic dead load

Load Factor Design ( LFD )

- Group A: BD + 1.7 E + 1.7 SC
- Group B: BD + 1.7 E + 1.3 W
- Group C: BD + 1.3 E + 1.0 EQE
- Group D: BD + 1.3 E + 1.0 EQD
- Group E: BD + 1.1 E + 0.85 ( EQE + EQD )

Where :

- D = Dead load
- E = Lateral earth pressure
- SC = Live load surcharge
- W = Wind load
- EQD = Seismic dead load
- EQE = Seismic earth load

**STRENGTH REDUCTION FACTORS,  $\phi$**

Reinforced concrete:

- For flexure -----  $\phi=0.90$
- For shear -----  $\phi=0.85$

Concrete masonry:

- For flexure -----  $\phi=0.80$
- For shear -----  $\phi=0.60$

Foundations :

- See "RETAINING WALL TYPE 1SWB" sheet.

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY H. Larsen	CHECKED J. Reguyal

**PREPARED FOR THE**  
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52-0274
POST MILES	

**CONEJO SCHOOL ROAD UC (WIDEN)**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER**  
**ON RETAINING WALL**  
**DETAILS NO. 2**

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 09:52

**BENCHMARKS AND DATUM**

The horizontal coordinates are based on the North American Datum of 1983 (NAD83) California Coordinate System Zone 5 epoch 1991.35, locally determined by points 5434,5433,5435, and 5441 from Caltrans Survey Request 94-156.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88) locally determined by the following benchmarks published by the National Geodetic Survey.

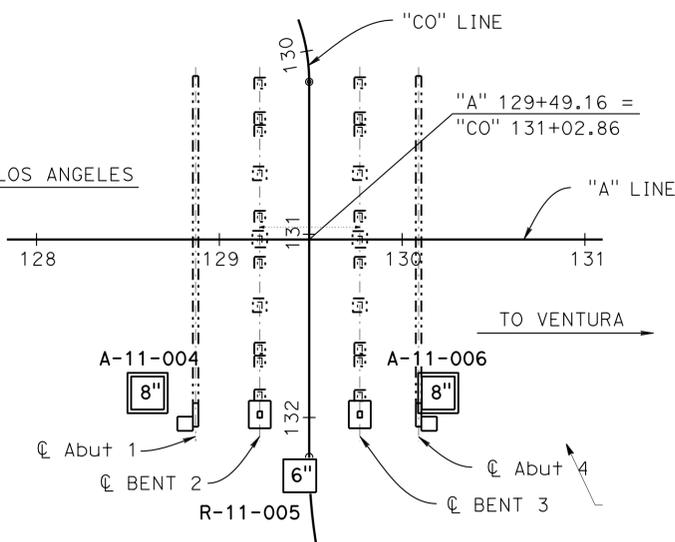
AA3344	Elev	830.93	(Adj	1995)
AA3348	Elev	953.66	(Adj	1995)
AA3205	Elev	747.56	(Adj	1995)
AA3346	Elev	922.40	(Adj	1995)

Survey Disk at the intersection of Freeway 101 and Hampshire Rd on top of and 2 ft northeast of the southwest end of the bridge deck.



TO LOS ANGELES

TO VENTURA



**PLAN**

1" = 50'

**NOTES:**

- This LOTB sheet was prepared in accordance with the Caltrans Soil and Rock Logging, Classification, and Presentation Manual (June 2010).
- Groundwater was not encountered in boring R-11-005.

**CORRECTION FACTOR:**

A multiplication factor 0.65 was used to convert from California Modified Ring Sampler blow count to equivalent Standard Penetration Test Sampler blow count.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	616	652

11/21/12  
GEOTECHNICAL PROFESSIONAL DATE

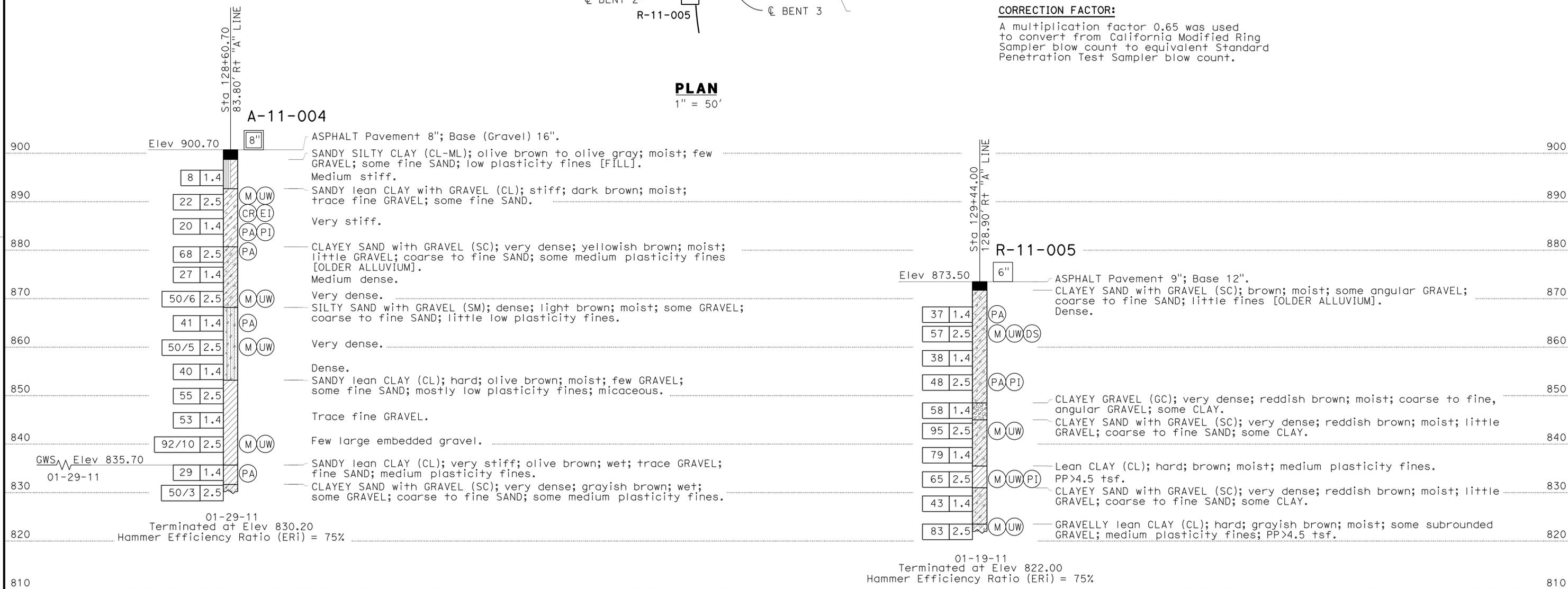
6-3-13  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
PING TIAN  
No. GE2660  
Exp. 12/31/13  
GEOTECHNICAL  
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.

CITY OF THOUSAND OAKS  
2100 THOUSAND OAKS BLVD  
THOUSAND OAKS, CA 91362

CH2M HILL  
1000 WILSHIRE BLVD, 21ST FLOOR  
LOS ANGELES, CA 90017



**PROFILE**

Horz: 1" = 50'  
Vert: 1" = 10'

STATIONING "A" LINE

 DESIGN OVERSIGHT Richard C. Hartzell 12-17-12 SIGN OFF DATE	DRAWN BY	N. MORALES	K. RADHAKRISHNAN & J. LEE	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	Milind Desai PROJECT ENGINEER	BRIDGE NO. 52-0274	<b>CONEJO SCHOOL ROAD UC (WIDEN)</b> <b>LOG OF TEST BORINGS 1 OF 5</b>
	CHECKED BY	J. Lee	DATE: 01/19/11 & 01/29/11			POST MILES	

**BENCHMARKS AND DATUM**

The horizontal coordinates are based on the North American Datum of 1983 (NAD83) California Coordinate System Zone 5 epoch 1991.35, locally determined by points 5434,5433,5435, and 5441 from Caltrans Survey Request 94-156.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88) locally determined by the following benchmarks published by the National Geodetic Survey.

AA3344	Elev	830.93	(Adj 1995)
AA3348	Elev	953.66	(Adj 1995)
AA3205	Elev	747.56	(Adj 1995)
AA3346	Elev	922.40	(Adj 1995)

Survey Disk at the intersection of Freeway 101 and Hampshire Rd on top of and 2 ft northeast of the southwest end of the bridge deck.

**NOTES:**

- This LOTB sheet was prepared in accordance with the "Caltrans Soil and Rock Logging, Classification, and Presentation Manual" (June 2010).
- Groundwater was not encountered in boring A-11-006.

**CORRECTION FACTOR:**

A multiplication factor 0.65 was used to convert from California Modified Ring Sampler blow count to equivalent Standard Penetration Test Sampler blow count.

FOR PLAN VIEW, SEE "LOG OF TEST BORINGS 1 OF 5" SHEET.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	617	652

11/21/12  
GEOTECHNICAL PROFESSIONAL DATE

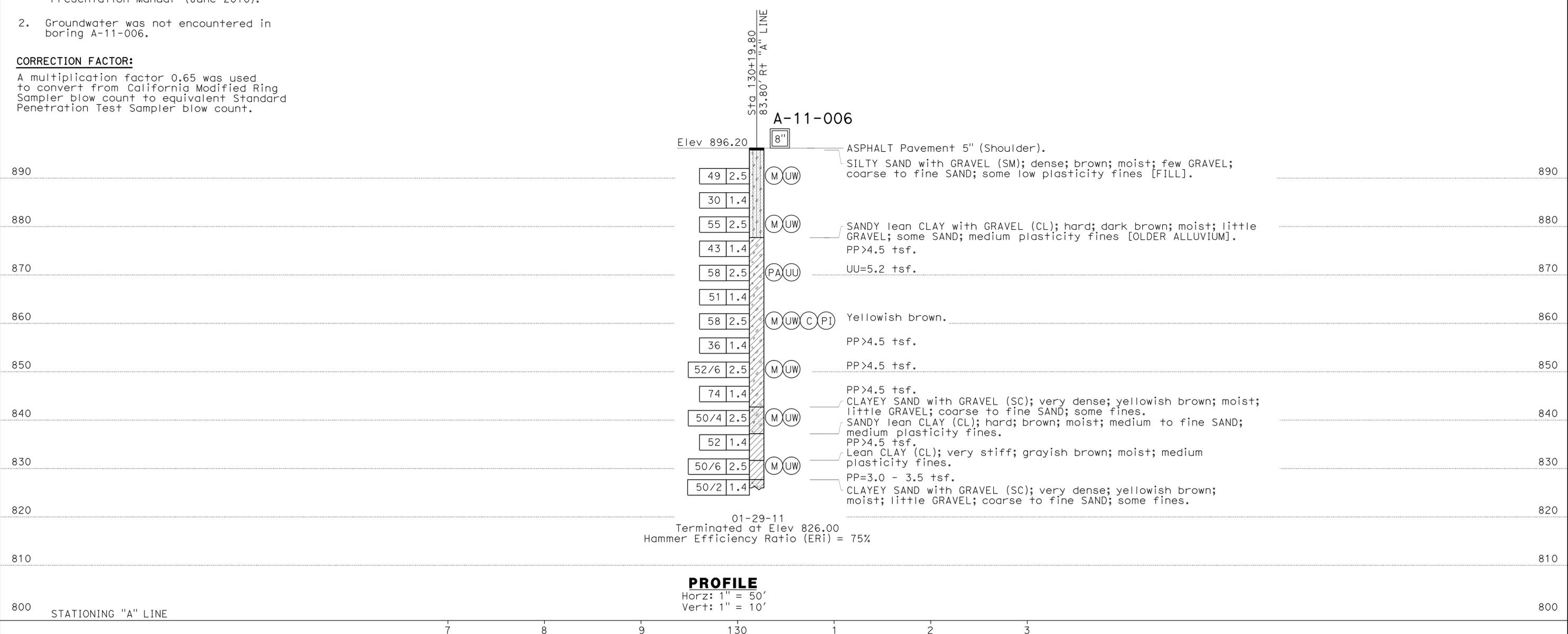
6-3-13  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
PING TIAN  
No. GE2660  
Exp. 12/31/13  
GEOTECHNICAL  
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.

CITY OF THOUSAND OAKS  
2100 THOUSAND OAKS BLVD  
THOUSAND OAKS, CA 91362

CH2M HILL  
1000 WILSHIRE BLVD, 21ST FLOOR  
LOS ANGELES, CA 90017



DESIGN OVERSIGHT Richard C. Hartzell 12-17-12 SIGN OFF DATE	DRAWN BY N. MORALES	CHECKED BY J. Lee	K. RADHAKRISHNAN & J. LEE FIELD INVESTIGATION BY: DATE: 01/29/11	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	Milind Desai PROJECT ENGINEER	BRIDGE NO. 52-0274 POST MILES	CONEJO SCHOOL ROAD UC (WIDEN) LOG OF TEST BORINGS 2 OF 5
65 GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: PROJECT NUMBER & PHASE: 0700000201	3573 CONTRACT NO.: 07-1952U1	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				0 1 2 3	0 1 2 3	0 1 2 3	REVISION DATES 10/24/12 10/27/11 05/11/12 06/27/12
					FILE => 52-0274-z-1tb02.dgn		SHEET 28 OF 31

FILE NO.	STATE	PROJECT NO.	DATE	SCALE
7	CAL.			

Date of Issue: August 10, 1964  
 Scale: 1"=20'  
 PLAN  
 Scale 1"=20'

**BENCH MARK #128-2 Ven A-58**  
 Set ch sq on top southeast corner  
 O.I. & Ventura @ Sta. 128+00  
**ELEV. 899.01**

**DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES**

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	Sheet No.	Total Sheets
07	Ven	23,101	3.3/3.8, R0.1/R4.5	618	652

CERTIFIED ENGINEERING GEOLOGIST: [Signature]  
 DATE: 5/18/12

**CONEJO SCHOOL ROAD UC (WIDEN)**  
**LOG OF TEST BORINGS 3 OF 5**

UNIT: 3573  
 PROJECT NUMBER & PHASE: 070000201

BRIDGE No.	Sheet	of
52-0274	29	31

Revisions made to this Log of Test Borings from the original Log of Test Borings are the addition of the following table and notes:

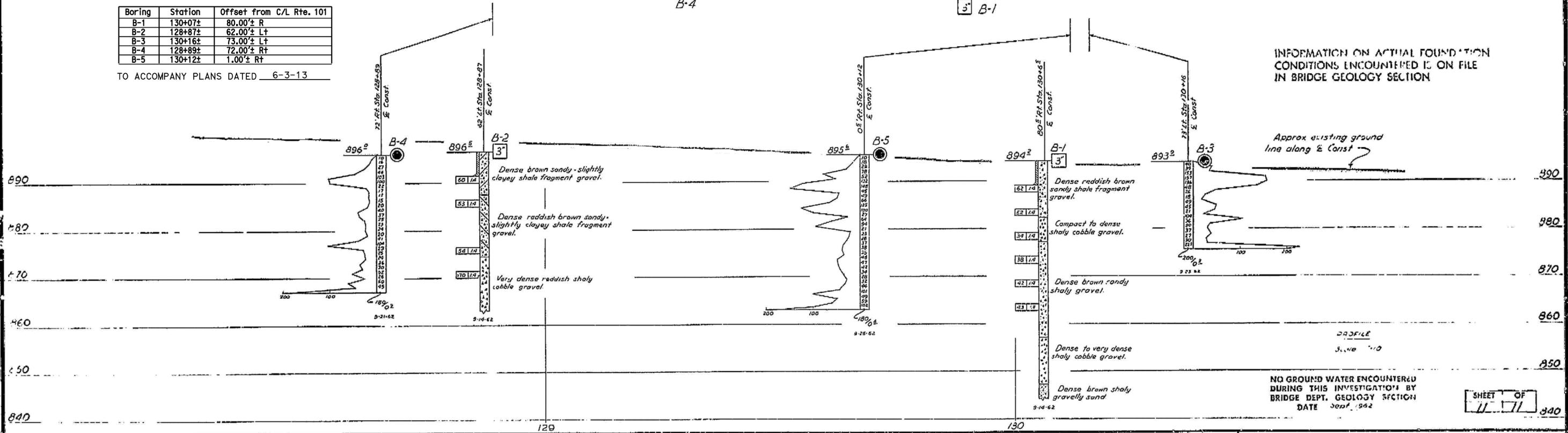
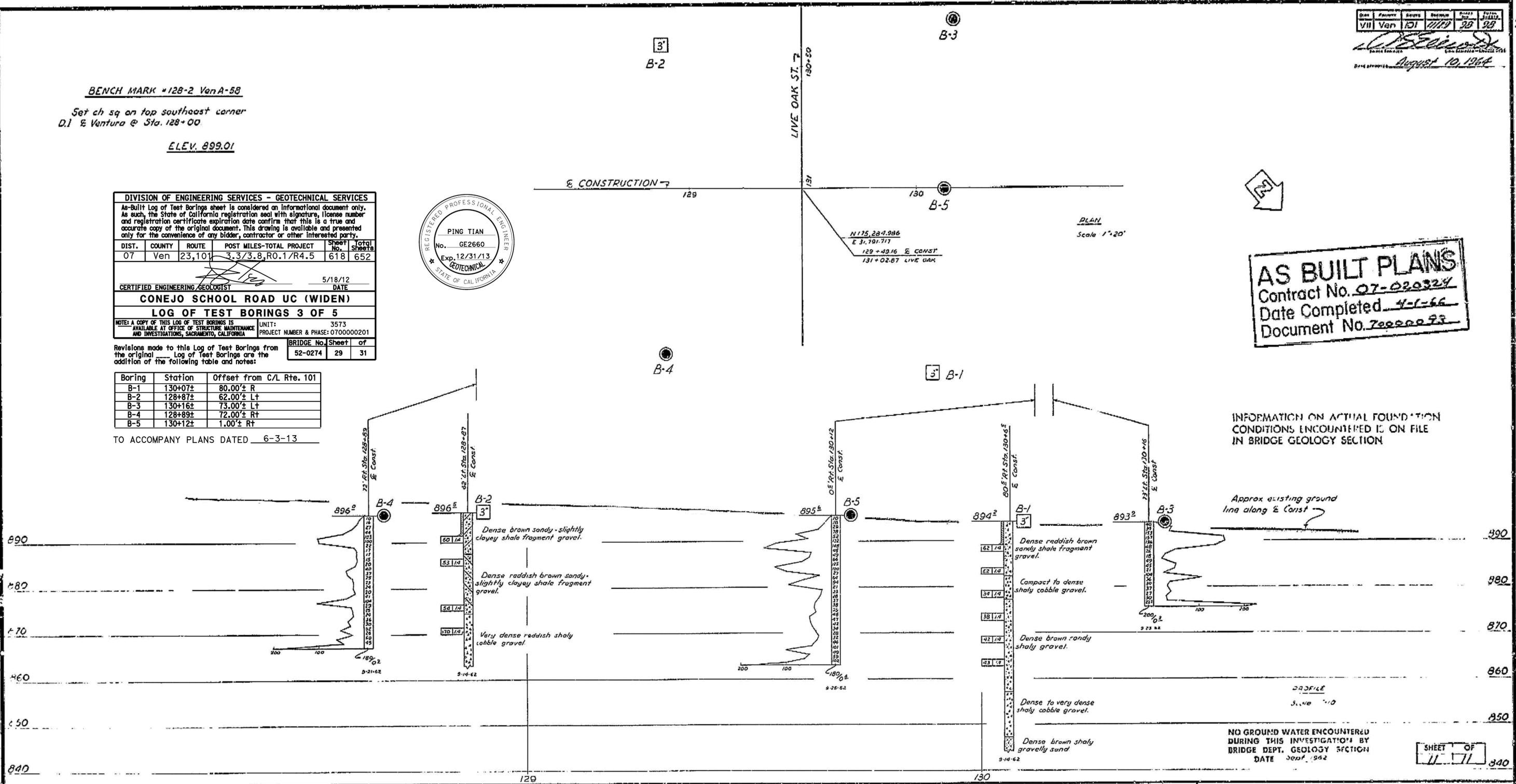
Boring	Station	Offset from C/L Rte. 101
B-1	130+07±	80.00± R
B-2	128+87±	62.00± Lt
B-3	130+16±	73.00± Lt
B-4	128+89±	72.00± Rt
B-5	130+12±	1.00± Rt



**AS BUILT PLANS**  
 Contract No. 07-020324  
 Date Completed 4-1-66  
 Document No. 70000093

TO ACCOMPANY PLANS DATED 6-3-13

Boring	Station	Offset from C/L Rte. 101
B-1	130+07±	80.00± R
B-2	128+87±	62.00± Lt
B-3	130+16±	73.00± Lt
B-4	128+89±	72.00± Rt
B-5	130+12±	1.00± Rt

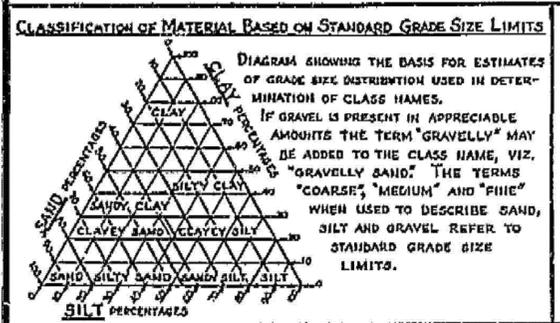


INFORMATION ON ACTUAL FOUNDATION CONDITIONS ENCOUNTERED IS ON FILE IN BRIDGE GEOLOGY SECTION

Approx existing ground line along E Const

NO GROUND WATER ENCOUNTERED DURING THIS INVESTIGATION BY BRIDGE DEPT. GEOLOGY SECTION  
 DATE Sept. 1962

SHEET OF 31



**LEGEND OF EARTH MATERIALS**

GRAVEL	SILTY CLAY OR CLAYEY SILT
SAND	PEAT AND/OR ORGANIC MATTER
SILT	FILL MATERIAL
CLAY	IGNEOUS ROCK
SANDY CLAY OR CLAYEY SAND	SEDIMENTARY ROCK
SANDY SILT OR SILTY SAND	METAMORPHIC ROCK

**LEGEND OF BORING OPERATIONS**

- PENETROMETER
- 2 1/4" CONE PENETROMETER
- SAMPLER BORING (DRY)
- ROTARY BORING (WET)
- AUGER BORING (DRY)
- JET BORING
- CORE BORING
- TEST PIT

**ROTARY BORING**  
 Top Hole El. Location  
 Casing driven  
 Blows per foot (Using 140 lb hammer with a 12" Prec Fall)  
 Description of material  
 Unconfined compressive strength (1/2 sq ft)  
 Vane shear  
 Shear strength (1/2 sq ft)

**PENETRATION BORING**  
 Top Hole El. Location  
 Pushed  
 No count recorded  
 Seconds per foot (Using a No. 2 McKiernan-Terry Air Hammer @ 115 psi or as noted)  
 Average skin friction above this point (1/2 sq ft)

**NOTE**

Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

**LIVE OAK ST. U.C.**

**LOG OF TEST BORINGS**

SCALE As Noted BRIDGE 52-274 FILE DRAWING 52-274-B

BRIDGE DEPARTMENT

CHECKED: [Signature]  
 Approved: [Signature]

28

98

302

DATE APPROVED: April 1, 1968



**DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES**

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	Sheet No.	Total Sheets
07	Ven	23,101	3.3/3.8, R0.1/R4.5	619	652

CERTIFIED ENGINEER/GEOLOGIST: [Signature] DATE: 5/18/12

**CONEJO SCHOOL ROAD UC (WIDEN)**

**LOG OF TEST BORINGS 4 OF 5**

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

UNIT:	3573
PROJECT NUMBER & PHASE:	0700000201
BRIDGE No.	52-0274
Sheet of	30 of 31

Boring	Station	Offset from C/L Rte. 101
B-1	129+90±	88.00± L+
B-2	128+79±	98.00± Rt
B-3	130+16±	73.00± L+
B-4	128+89±	72.00± Rt

TO ACCOMPANY PLANS DATED 6-3-13

**BENCH MARK**  
 E.M. # 128-2 Van A-58 Elev. 899.01  
 Set chiseled square on top of southeast corner D.I. & Venture Frwy at Sta 128+00

**NOTE:**  
 Refer to plan sheet 3 of 5 for location of borings. Stationing is from Van A-58, station number 52074-0 (C.M. 07-5-11-5)

**LEGEND**

PHOTOMETRY  
 2 1/2" COHE PENETROMETER  
 SAMPLER BOXING (S.B.)  
 RETRACTED BORING (R.B.)  
 ACCESS BOX NO. (A.B.)  
 JET BORING  
 CORE BORING  
 TEST PIT

**LEGEND OF EARTH MATERIALS**

SILTY CLAY OR CLAYEY SILT  
 PEAT AND/OR ORGANIC MATTER  
 FILL MATERIAL  
 SANDY CLAY OR CLAYEY SAND  
 SANDY SILT OR SILTY SAND

GRAVEL  
 SAND  
 SILT  
 CLAY  
 SANDY CLAY OR CLAYEY SAND  
 SANDY SILT OR SILTY SAND

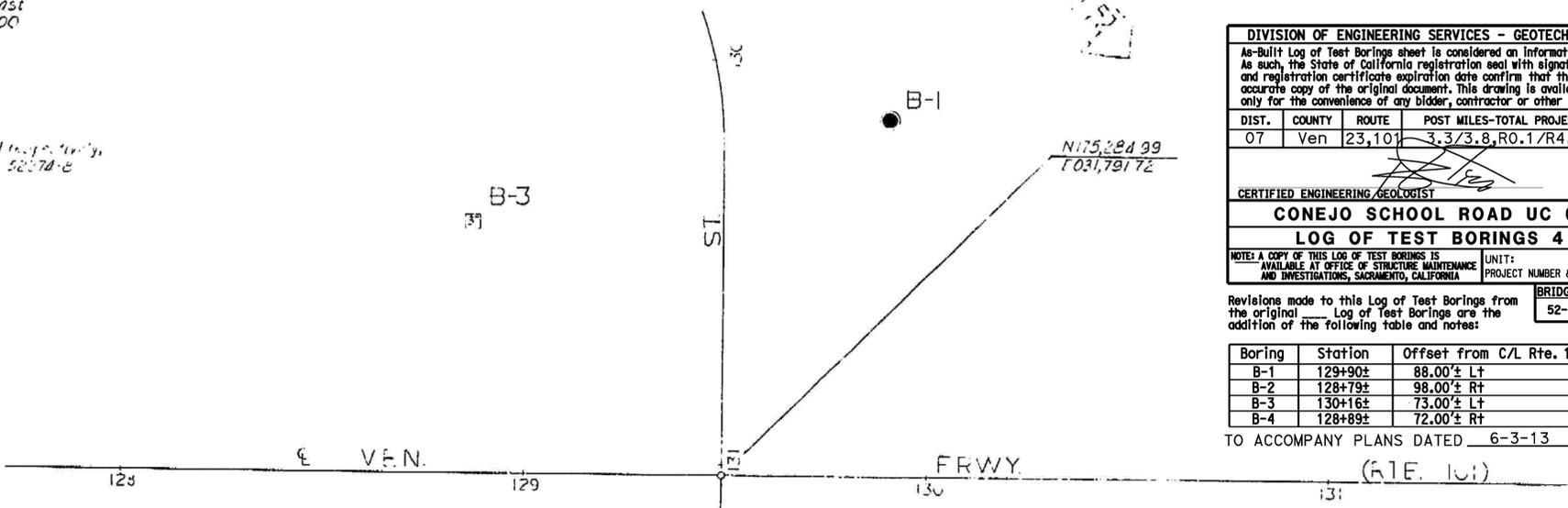
INCOHESIVE ROCK  
 SILTY SAND OR SILTY CLAY  
 METACRATIC ROCK

**CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS**

NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

**BRIDGE DEPARTMENT ENGINEERING GEOLOGY SECTION**

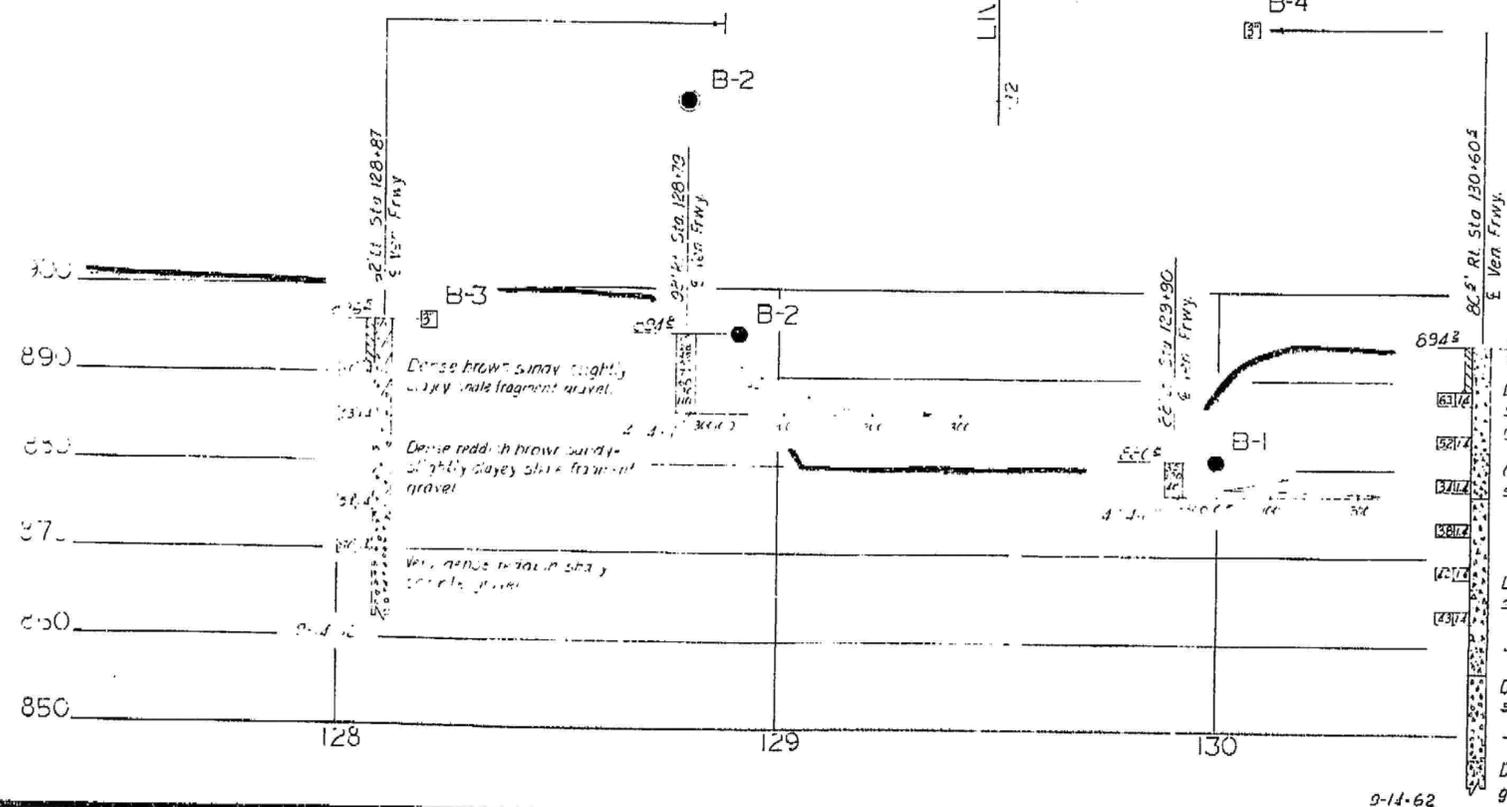
CHECKED BY: [Signature]



**AS BUILT PLANS**  
 Contract No. 07-024514  
 Date Completed \_\_\_\_\_  
 Document No. 70001456

**PLAN**  
 Scale: 1" = 20'

**AS BUILT**  
 CORRECTIONS BY L.W. JENKINS AEC  
 CONTRACT NO. 07-024514  
 DATE 8-21-69 10-19-70



**PROFILE**  
 Scale: Vert 1" = 10'  
 Horiz 1" = 20'

Note: This bridge has been removed from this contract. (MEDIAN WIDENING HAS BEEN DELETED FROM THIS CONTRACT)

STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

**LIVE OAK STREET UNDERCROSSING WIDEN**

**LOG OF TEST BORINGS**

SCALE: As Noted | BRIDGE 52-274 R/L | FILL | DRAWING 52274-10

PREL. DRAWING NO. PR- [ ]

REGISTERED CIVIL ENGINEER NO. 124  
 DATE APPROVED: November 29, 1971

DATE	APR 1, 1968
BY	[Signature]
CHECKED	[Signature]



**DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES**

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	Sheet No.	Total Sheets
07	Ven	23, 101	3.3/3.8 R0.1/R4.5	620	652

CERTIFIED ENGINEERING GEOLOGIST  
 DATE: 5/18/12

**CONEJO SCHOOL ROAD UC (WIDEN)**

**LOG OF TEST BORINGS 5 OF 5**

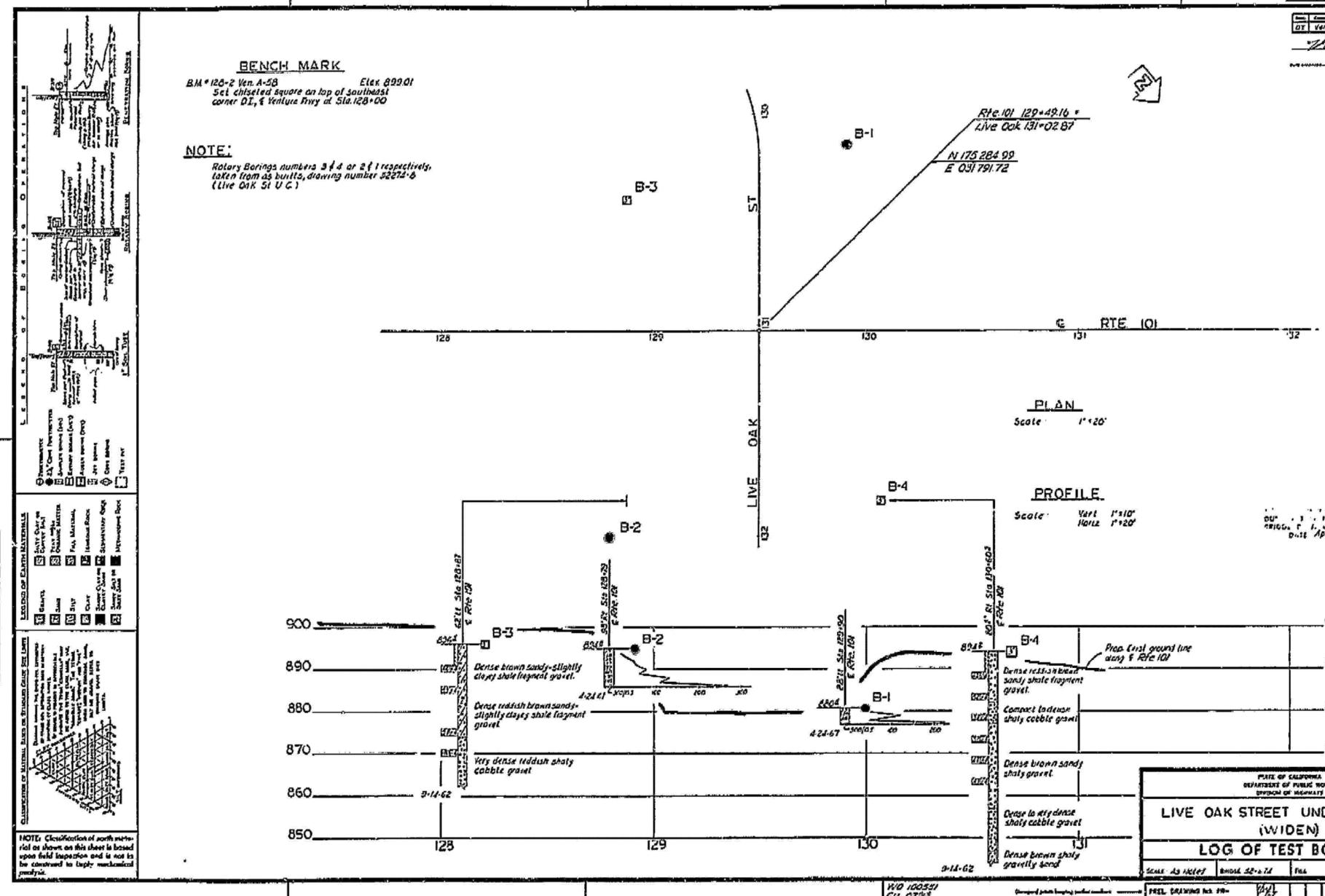
NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

UNIT: 3573  
 PROJECT NUMBER & PHASE: 070000201

BRIDGE No.	Sheet	of
52-0274	31	31

Boring	Station	Offset from C/L Rte. 101
B-1	129+90±	88.00'± L+
B-2	128+79±	98.00'± R+
B-3	130+16±	73.00'± L+
B-4	128+89±	72.00'± R+

TO ACCOMPANY PLANS DATED 6-3-13



STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

**LIVE OAK STREET UNDERCROSSING (WIDEN)**

**LOG OF TEST BORINGS**

SCALE: AS SHOWN  
 BRIDGE 52-0274  
 FILE  
 DRAWING

**AS BUILT PLANS**  
 Contract No. 07-100554  
 Date Completed 11-71  
 Document No. 070006338

**AS BUILT**  
 CORRECTIONS BY: \_\_\_\_\_  
 CONTRACT NO. \_\_\_\_\_  
 DATE \_\_\_\_\_

STATE OF CALIFORNIA  
 TRANSPORTATION AGENCY  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

**LIVE OAK STREET UNDERCROSSING WIDEN, LOG OF TEST BORINGS**

BRIDGE NO.	52-274	POST MILE	DRAWING NO.	SHEET	OF
				5	5

REVISION DATES: \_\_\_\_\_  
 SHEETWOMAN'S SCALE ONLY: \_\_\_\_\_

CHECKED BY: [Signature]  
 APPROVED BY: [Signature]

BRIDGE DEPARTMENT  
 ENGINEERING GEOLOGY SECTION

292

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	621	652

REGISTERED CIVIL ENGINEER  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

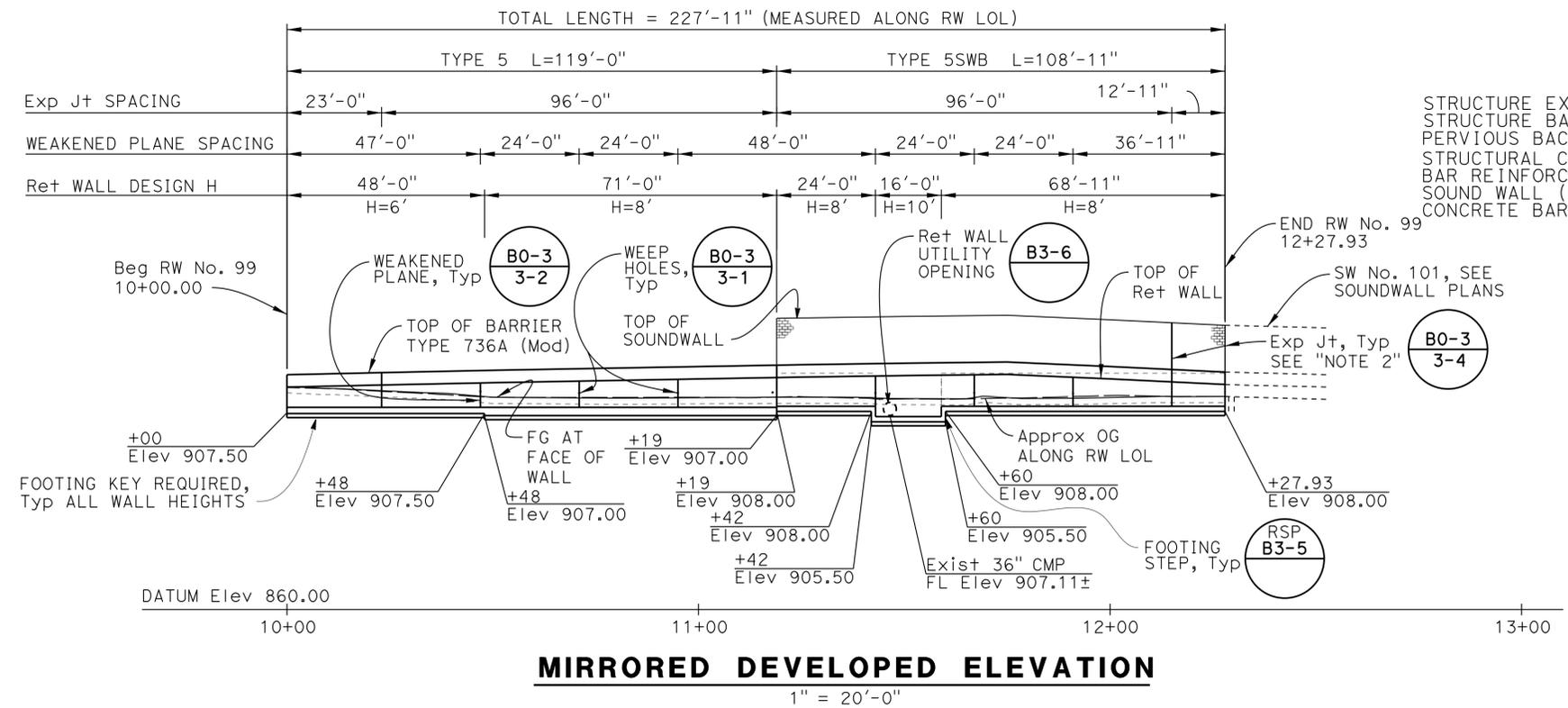
5/21/12 DATE

6-3-13 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.

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362

CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



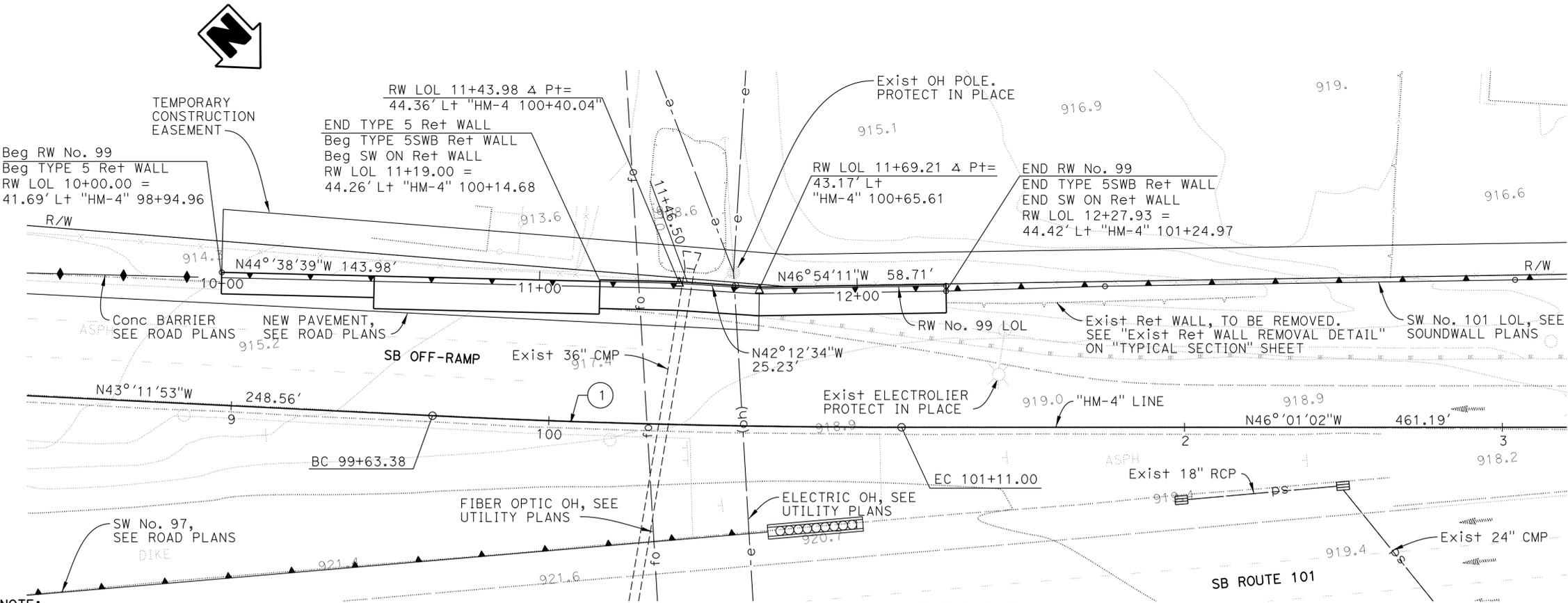
- RETAINING WALL NO. 99 QUANTITIES
- STRUCTURE EXCAVATION (RETAINING WALL) 753 CY
  - STRUCTURE BACKFILL (RETAINING WALL) 558 CY
  - PERVIOUS BACKFILL MATERIAL (RETAINING WALL) 18 CY
  - STRUCTURAL CONCRETE, RETAINING WALL 197 CY
  - BAR REINFORCING STEEL (RETAINING WALL) 21,272 LB
  - SOUND WALL (MASONRY BLOCK) 1,235 SQFT
  - CONCRETE BARRIER (TYPE 736A MODIFIED) 228 LF

**INDEX TO PLANS**

Sheet No.	Title
1	GENERAL PLAN
2	TYPICAL SECTION
3	RETAINING WALL TYPE 5SWB
4	SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS No. 1
5	SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS No. 2
6	SOUNDWALL DETAILS
7	LOG OF TEST BORINGS

**STANDARD PLANS (DATED 2010)**

A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
A10F	LEGEND-SOIL (SHEET 1 OF 2)
A10G	LEGEND-SOIL (SHEET 2 OF 2)
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE SURCHARGE AND WALL
B0-3	BRIDGE DETAILS
RSP B3-4A	RETAINING WALL TYPE 5 (CASE 1)
RSP B3-5	RETAINING WALL DETAILS No. 1
B3-6	RETAINING WALL DETAILS No. 2
B11-56	CONCRETE BARRIER TYPE 736
RSP B15-6	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (1).
B15-9	SOUND WALL MASONRY BLOCK MISCELLANEOUS DETAILS.



**NOTE:**

THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.

**PLAN**  
 1" = 20'-0"

**CURVE DATA**

No.	R	Δ	T	L
1	3000.00'	02°49'09"	73.82'	147.61'

- NOTES:**
- Utility locations shown are approximate. For new and existing utility locations and details, see ROAD PLANS.
  - Extend waterstop 6" into Concrete Barrier and 1' below finished grade.
  - For "TYPICAL SECTION" and "RETAINING WALL ELEVATION TABLE" see "TYPICAL SECTION" sheet.
  - Contractor to field verify all utility locations prior to retaining wall construction.
  - For drainage system and details, see DRAINAGE PLANS.

Richard C. Hartzell  
 DESIGN OVERSIGHT  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Cooper
DETAILS	BY N. Morales	CHECKED M. Cooper
QUANTITIES	BY J. Powell	CHECKED A. Issa

LAYOUT	BY N. Morales	CHECKED J. Powell
SPECIFICATIONS	BY M. Remolador	PLANS AND SPECS COMPARED M. Desai

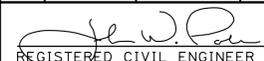
PREPARED FOR THE  
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER

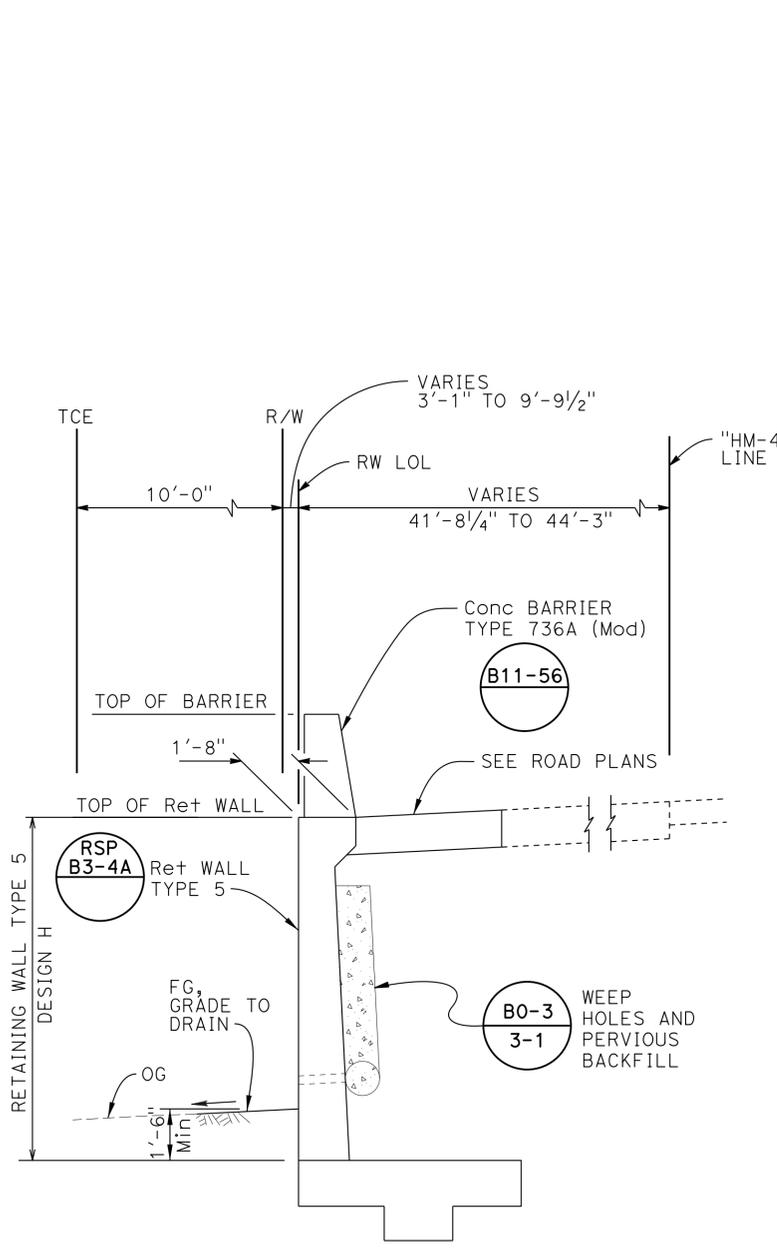
BRIDGE NO.	52E0018
POST MILES	

**RETAINING WALL NO. 99**  
**GENERAL PLAN**

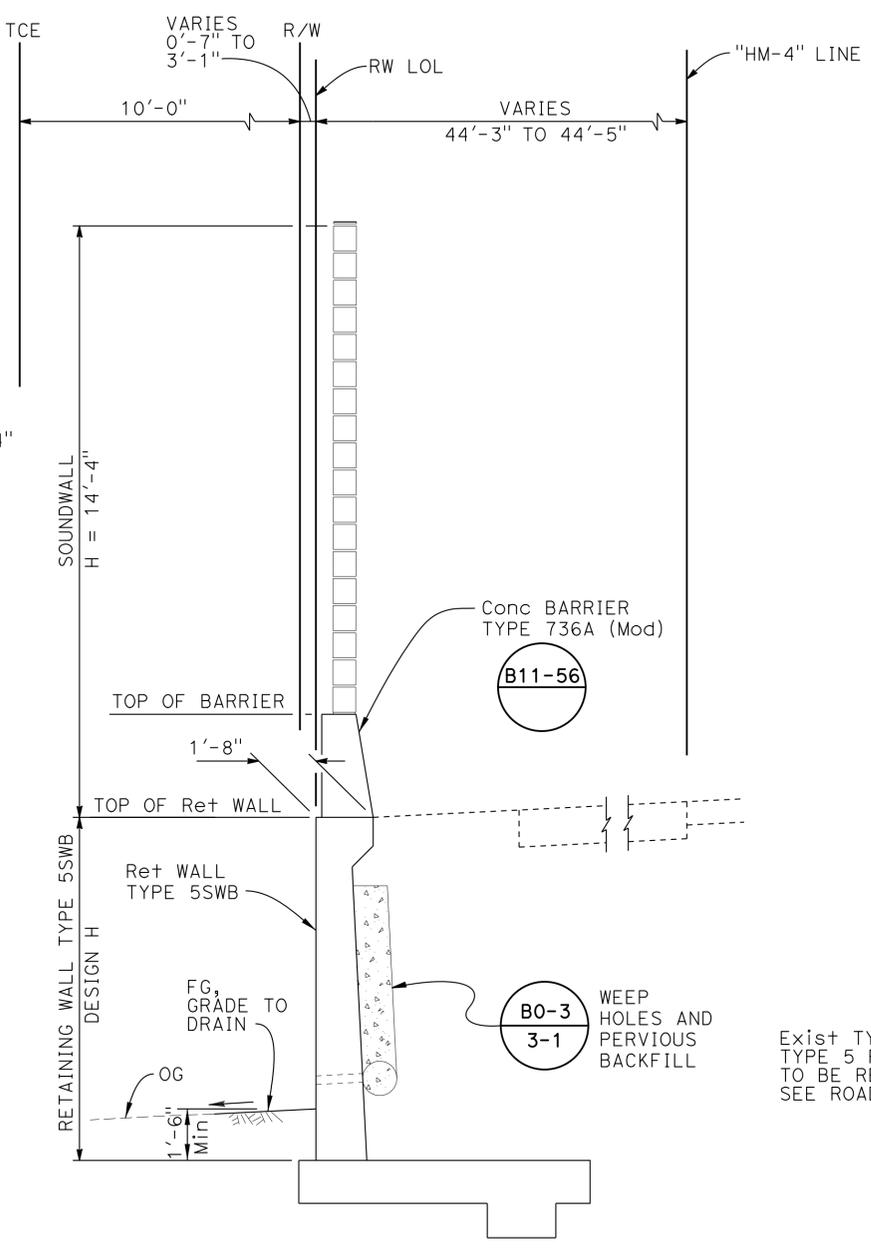
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	622	652

  
 REGISTERED CIVIL ENGINEER 12/04/12 DATE  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

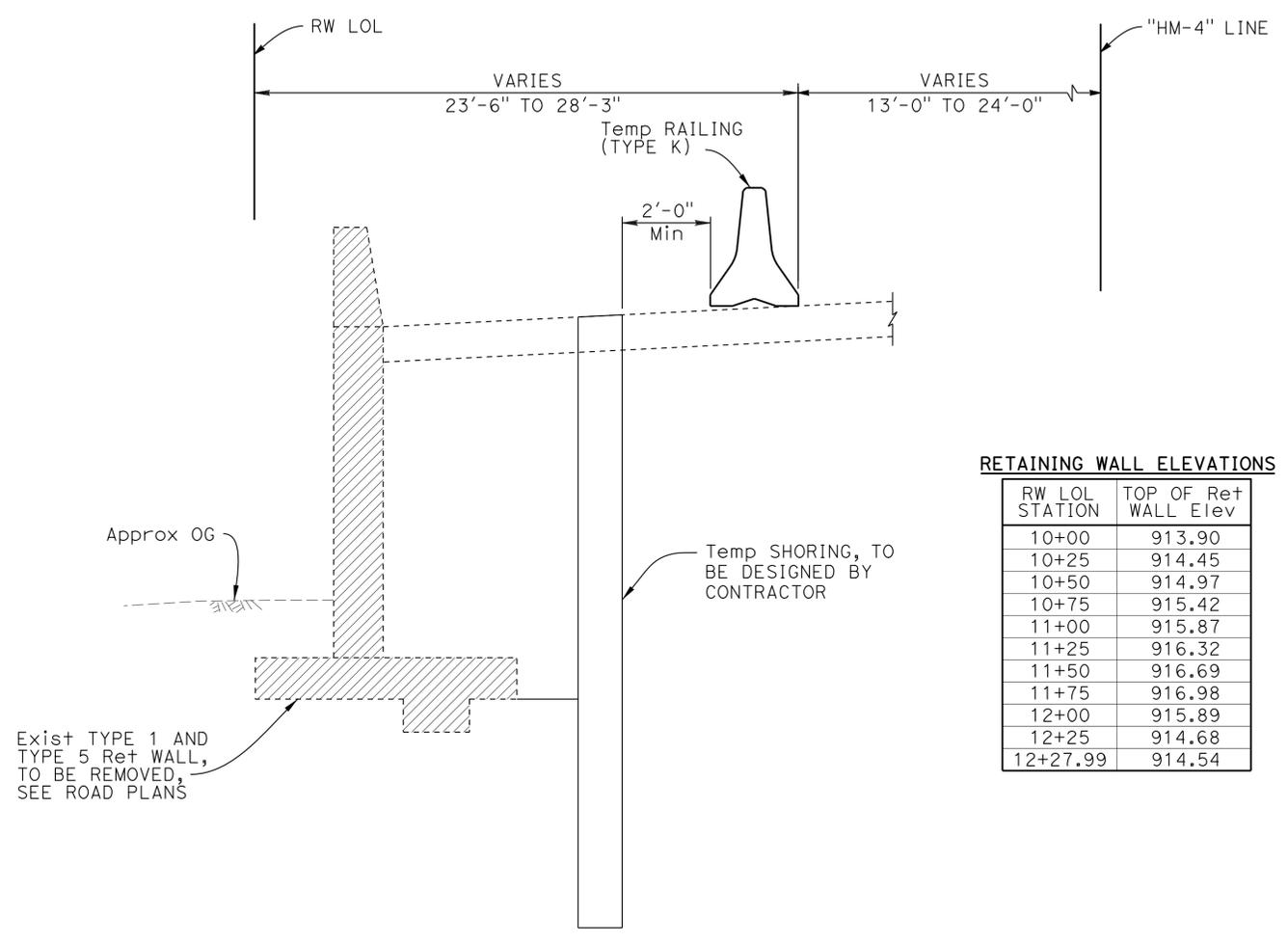
CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



**TYPICAL SECTION**  
 NO SCALE  
 FROM 10+00 TO 11+19.00



**TYPICAL SECTION**  
 NO SCALE  
 FROM 11+19.00 TO 12+27.93



**EXISTING RETAINING WALL REMOVAL DETAIL**  
 NO SCALE

**RETAINING WALL ELEVATIONS**

RW LOL STATION	TOP OF Ret WALL Elev
10+00	913.90
10+25	914.45
10+50	914.97
10+75	915.42
11+00	915.87
11+25	916.32
11+50	916.69
11+75	916.98
12+00	915.89
12+25	914.68
12+27.99	914.54

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

- NOTES:**
- See ROAD PLANS for temporary lane closure during construction.
  - See ROAD PLANS for pavement removal and replacement.

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Cooper
DETAILS	BY N. Morales	CHECKED M. Cooper
QUANTITIES	BY J. Powell	CHECKED A. Issa

**PREPARED FOR THE STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER  
 BRIDGE NO. 52E0018  
 POST MILES 1.67

**RETAINING WALL NO. 99**  
**TYPICAL SECTION**

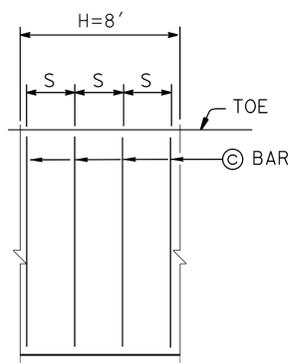
DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3573  
 PROJECT NUMBER & PHASE: 0700000201  
 CONTRACT NO.: 07-1952U1

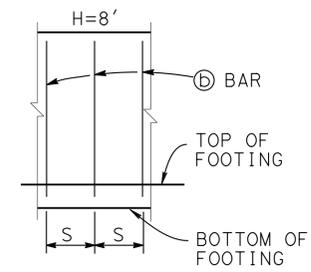
REVISION DATES	SHEET	OF
10/22/11 05/14/12 06/27/12 10/24/12	2	7

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14



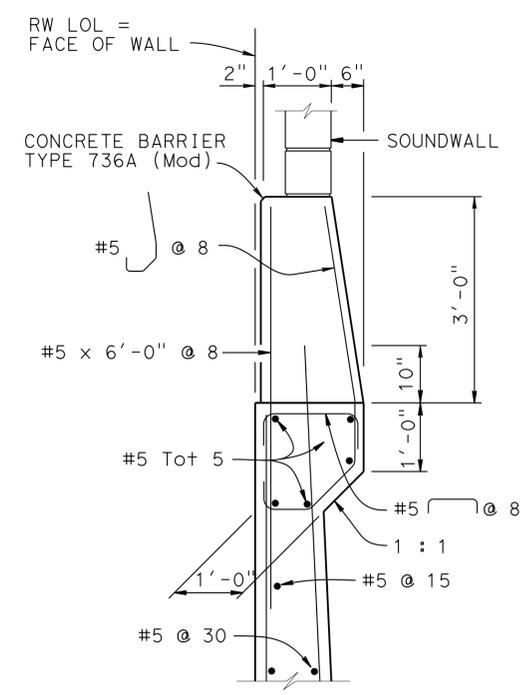
**PLAN**  
NO SCALE

NOTES:  
Only  $\odot$  bars shown  
"S" is  $\odot$  bar spacing, see table



**ELEVATION**  
No scale

NOTES:  
"S" is  $\odot$  bar spacing, see table.



**DETAIL A**  
 $\frac{3}{4}" = 1'-0"$

TABLE OF REINFORCING STEEL DIMENSIONS AND DATA			
DESIGN	H	8'	10'
W		9'-0"	9'-6"
F SPREAD FOOTING		1'-3"	1'-3"
STEM WITH HAUNCH, BATTER		1/2:12	1/2:12
$\odot$ BARS		#8 @ 12	#7 @ 6
$\odot$ BARS		#8 @ 12	#7 @ 12
SER I: B'(ft), $q_0$ (ksf)		7.1, 1.9	7.2, 2.2
STR Ia: B'(ft), $q_0$ (ksf)		7.4, 3.3	7.4, 3.7
STR Ib: B'(ft), $q_0$ (ksf)		5.5, 2.5	5.6, 2.9
STR IIIa: B'(ft), $q_0$ (ksf)		6.0, 3.0	6.4, 3.4
STR IIIb: B'(ft), $q_0$ (ksf)		5.2, 2.8	5.5, 3.1
STR Va: B'(ft), $q_0$ (ksf)		7.1, 3.2	7.2, 3.5
STR Vb: B'(ft), $q_0$ (ksf)		5.3, 2.6	5.4, 3.0
EXT I: B'(ft), $q_0$ (ksf)		3.0, 4.7	2.5, 6.5
EXT II: B'(ft), $q_0$ (ksf)		4.3, 3.5	5.1, 3.5

LEGEND:  
 SER: service limit state  
 STR: strength limit state  
 EXT: extreme event limit state  
 B': effective footing width (ft)  
 $q_0$ : net bearing stress (ksf)  
 $q_0$ : gross uniform bearing stress (ksf)

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

DESIGN OVERSIGHT  
 Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

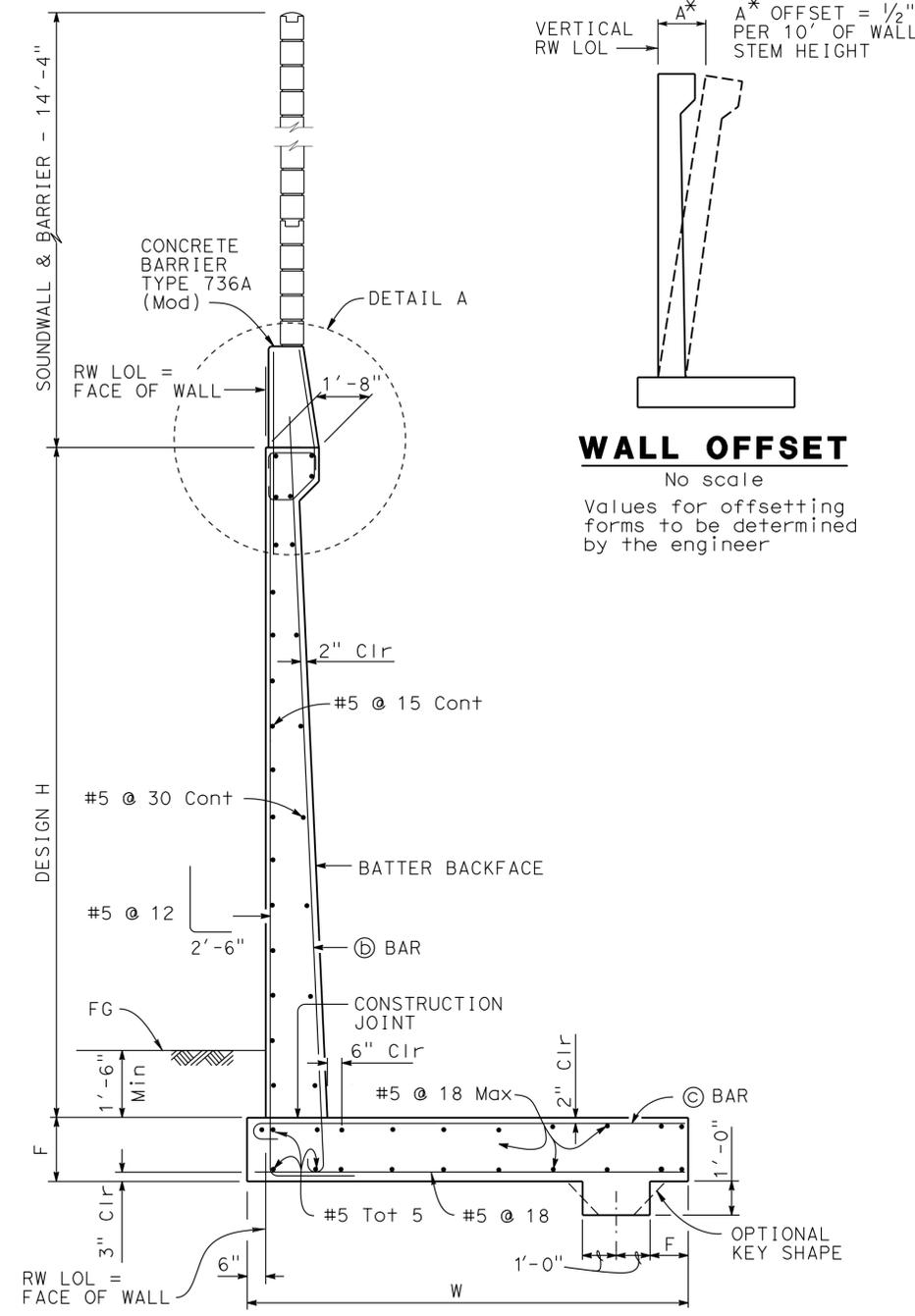
DESIGN	BY J. Powell	CHECKED M. Cooper
DETAILS	BY N. Morales	CHECKED M. Cooper
QUANTITIES	BY J. Powell	CHECKED A. Issa

PREPARED FOR THE  
 STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.  
 52E0018  
 POST MILES

**RETAINING WALL NO. 99**  
**RETAINING WALL TYPE 5SWB**



**SPREAD FOOTING SECTION**  
 $\frac{3}{8}" = 1'-0"$

NOTES:  
 1. For Details not shown and Drainage Notes, see RSP B3-5  
 2. Footing cover, 1'-6" minimum.  
 3. For sound wall and barrier reinforcement details, see "SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL" sheet.  
 4. For H = 8', extend  $\odot$  bars into Barrier for stem with haunch.

**DESIGN DATA**

Design: AASHTO LRFD Bridge Design Specifications 4th Edition with California Amendments  
 WS: 33 psf on SoundWall and Barrier  
 LS: Varied surcharge on level ground surface  
 CT: 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 1:1 distribution down and outward  
 EQE: Mononabe-Okabe Method  
 $K_h = 0.3$   
 $K_v = 0.0$   
 Soil:  $\phi = 34^\circ$   
 $\gamma = 120$  pcf  
 Reinforced Concrete:  $f'_c = 3,600$  psi  
 $f_y = 60,000$  psi

Load Combinations and Limit States

Service I  $Q=1.00DC+1.00EV+1.00EH+1.00LS+0.30WS$   
 Service II  $Q=1.00DC+1.00EV+1.00EH+1.00WS$   
 Strength I  $Q=aDC+\beta EV+1.50EH+1.75LS$   
 Strength III  $Q=aDC+\beta EV+1.50EH+1.40WS$   
 Strength V  $Q=aDC+\beta EV+1.50EH+1.35LS+0.40WS$   
 Extreme I  $Q=1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE$   
 Extreme II  $Q=1.00DC+1.00EV+1.00EH+1.00CT$

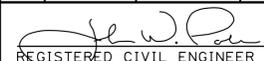
Where:

Q: Force Effects  
 a: 1.25 or 0.90, Which ever Controls Design  
 B: 1.35 or 1.00, which ever Controls Design  
 DC: Dead Load of Structure Components  
 EV: Vertical Earth Fill Pressure  
 LS: Live Load Surcharge  
 EQE: Seismic Earth Pressure  
 EQD: Soil and Structure Components Inertia. Soil inertia ignored for stem design.  
 WS: Wind Load on Sound Wall and Barrier  
 CT: Vehicular Collision Force

LRFD Bearing Resistance:

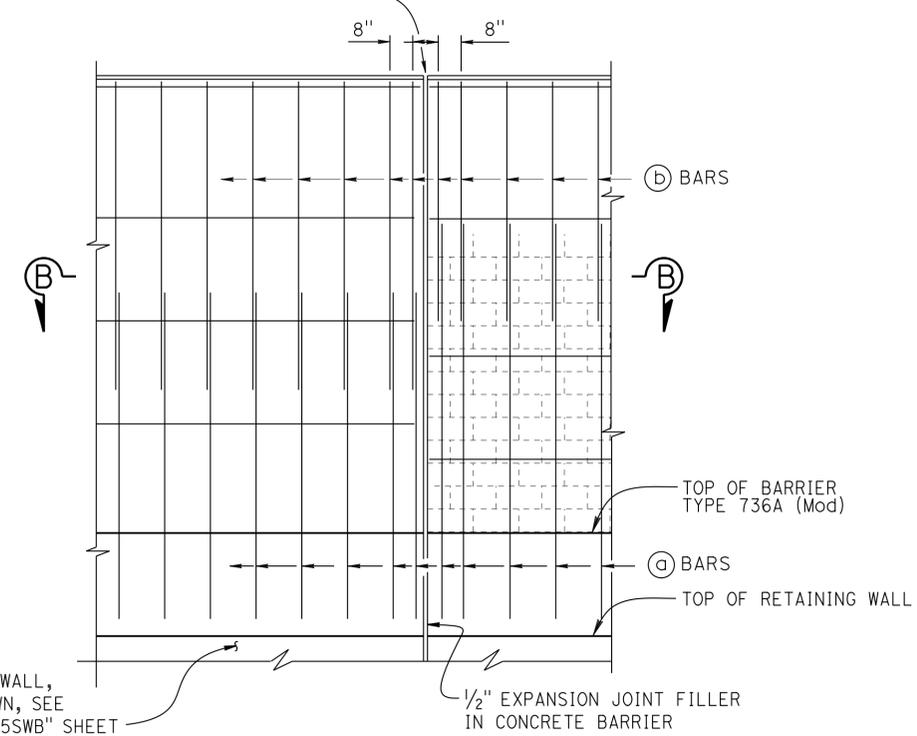
Permissible Net Contact Stress (Service) = 3.1 ksf,  $B'=7.2'$   
 Factored Gross Nominal Bearing Resistance (Strength,  $\phi = 0.45$ ) = 3.9 ksf,  $B'=5.5'$   
 Factored Gross Nominal Bearing Resistance (Extreme,  $\phi = 1.0$ ) = 10.2 ksf,  $B'=2.5'$

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	624	652

  
 REGISTERED CIVIL ENGINEER 5/21/12 DATE  
 6-3-13 PLANS APPROVAL DATE  
 JOHN W. POWELL No. C71463 Exp. 12/31/13 CIVIL STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

EXPANSION JOINTS AT 96'-0" Max CENTERS.  
SEE OTHER SHEETS FOR LOCATIONS



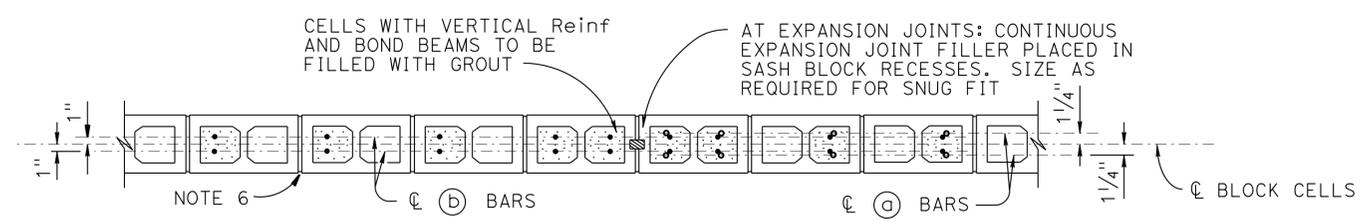
TYPE 5SWB RETAINING WALL,  
FOR DETAILS NOT SHOWN, SEE  
RETAINING WALL TYPE 5SWB" SHEET

**H=14'-4"**

**PART ELEVATION**

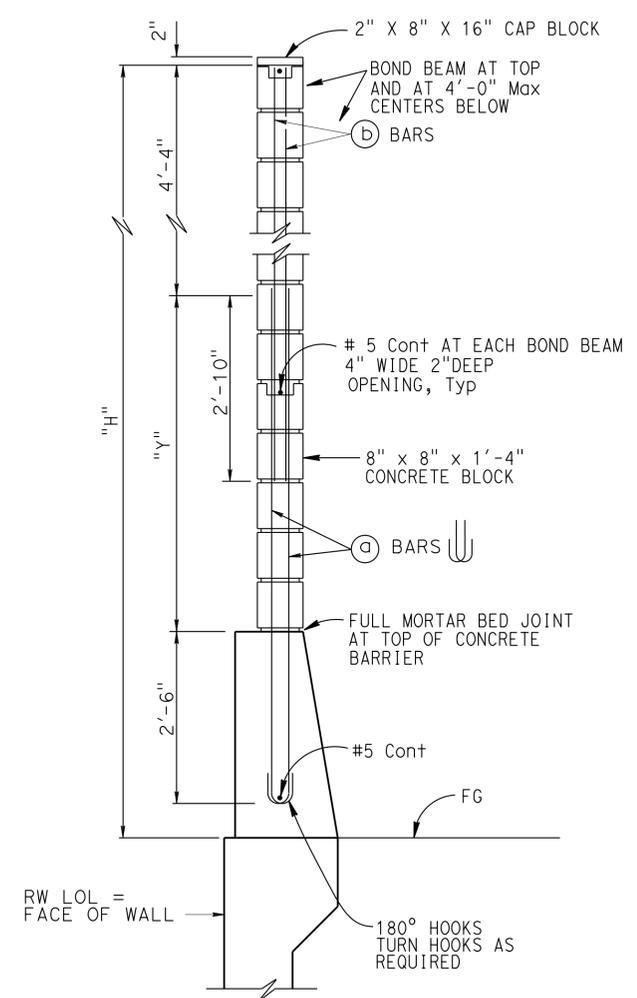
No Scale

"H"	(A) BARS @ 1'-4" Max	(B) BARS @ 1'-4" Max	"Y"	f'm (psi)	COMPRESSIVE STRENGTH OF CMU (psi)	"H"
14'-4"	#6	#4	7'-0"	1500	1900	14'-4"



**SECTION B-B**

No Scale



**H=14'-4"**

**TYPICAL SECTION**

No Scale

NOTES:

- For details not shown, see "SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL - DETAILS NO. 2" sheet
- Slope ground at traffic side of barrier to drain. Maximum slope ±10%
- See STANDARD PLANS B15-9 for other details
- For type of block and joint finish, see other sheets
- When blocks are laid in stacked bond, ladder type, galvanized joint reinforcement shall be provided. A minimum of 2-9 gauge wire continuous at 4'-0" maximum to be used. Locate reinforcement in joints that are at the approximate midpoint between bond beams
- Horizontal joints shall be tooled concave or may be weathered. Vertical joints shall be tooled concave or may be raked
- Masonry strengths are listed in "SOUNDWALL REINFORCEMENT TABLE"
- Concrete to be used for the barrier shall contain not less than 590 pounds of cementitious material per cubic yard

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Cooper
DETAILS	BY N. Morales	CHECKED M. Cooper
QUANTITIES	BY J. Powell	CHECKED A. Issa

PREPARED FOR THE  
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0018
POST MILES	

**RETAINING WALL NO. 99**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL**  
**DETAILS NO. 1**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

UNIT: 3573  
PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

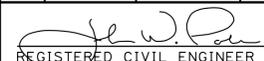
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
10/22/11 05/21/12 06/27/12	4	7

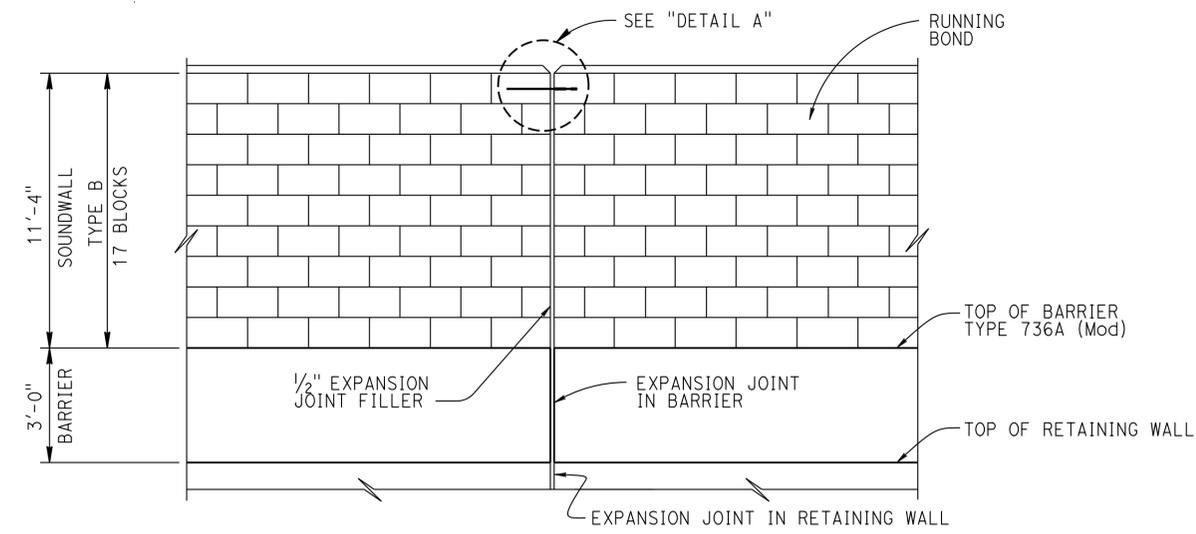
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USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	625	652

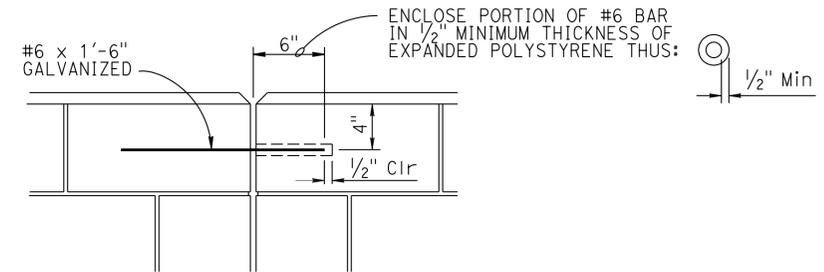
  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



**ALIGNMENT KEY DETAIL**

No Scale



**DETAIL A**

No Scale

**DESIGN NOTES**

DESIGN  
Uniform Building Code, 1997 Edition and the Bridge Design Specifications

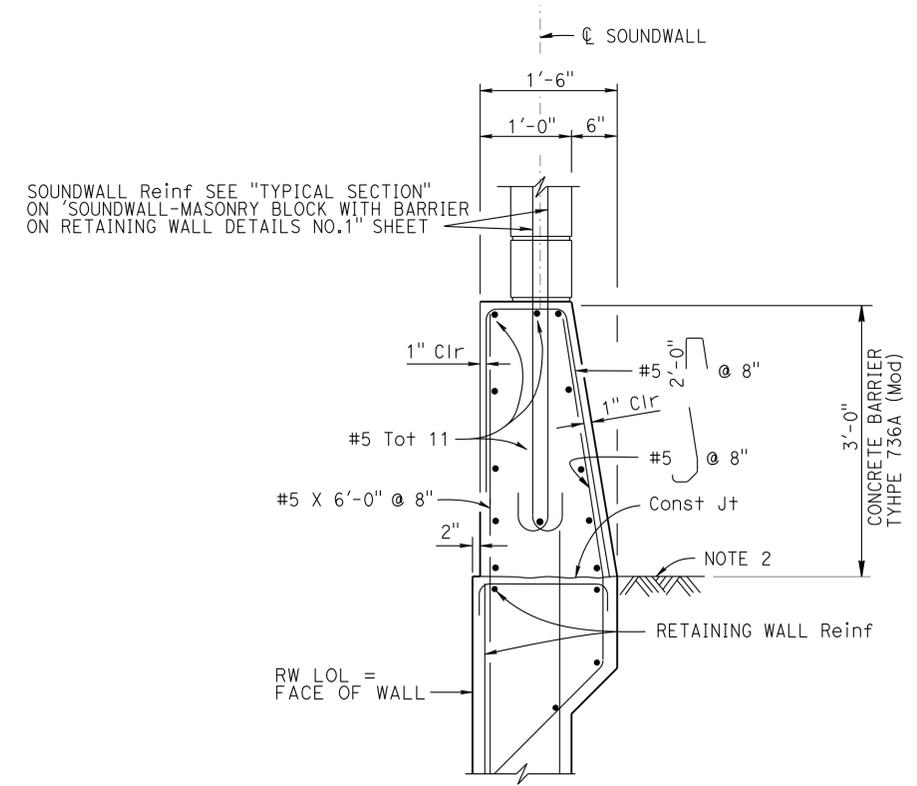
DESIGN WIND LOAD  
33 psf

DESIGN SEISMIC LOAD  
0.57 Dead load

CONCRETE MASONRY

REINFORCED CONCRETE	REGULAR STRENGTH	HIGH STRENGTH	
f'c = 3,600 psi	f'm = 1,500 psi	f'm = 2,000 psi	f'm = 2,500 psi
fy = 60,000 psi	fb = 495 psi	fb = 660 psi	fb = 830 psi
	fs = 24,000 psi	fs = 24,000 psi	fs = 24,000 psi
	n = 25.8	n = 19.3	n = 15.5

- NOTES:
- For details not shown, see REVISED STANDARD PLAN B15-6
  - Slope ground at traffic side of barrier to drain. Maximum slope ±10%. See STANDARD PLAN B11-56, Note D



**BARRIER SECTION**

No Scale

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Cooper
DETAILS	BY N. Morales	CHECKED M. Cooper
QUANTITIES	BY J. Powell	CHECKED A. Issa

PREPARED FOR THE  
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0018
POST MILES	

**RETAINING WALL NO. 99**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER**  
**ON RETAINING WALL**  
**DETAILS NO. 2**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: PROJECT NUMBER & PHASE: 0700000201

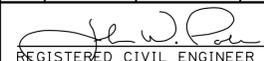
CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	10/22/11 05/21/12 06/27/12	5	7

FILE => 52E0018-t-swdt02.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

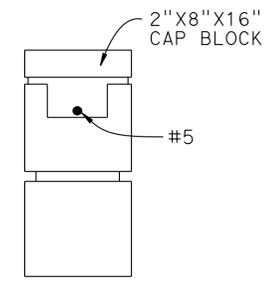
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	626	652

  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

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 CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

MASONRY BLOCK TYPE TABLE			
BLOCK TYPE	NOMINAL SIZE	TEXTURE	COLOR
B	8 INCH x 8 INCH x 16 INCH	SLUMPSTONE	MISSION (70%) & FAWN (30%) RANDOM MIX *

- NOTES:
- BOND (TYPE 2) COMMON BOND
  - MORTAR COLOR TO MATCH BLOCK
  - TOOLED JOINTS.
- \* TO MATCH ANGELUS BLOCK COMPANY COLOR FAWN AND MISSION OR EQUAL.



**CAP BLOCK DETAIL**  
NO SCALE

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Cooper
DETAILS	BY N. Morales	CHECKED M. Cooper
QUANTITIES	BY J. Powell	CHECKED A. Issa

**PREPARED FOR THE  
STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0018
POST MILES	

**RETAINING WALL NO. 99**  
**SOUNDWALL DETAILS**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

UNIT: 3573  
PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
10/22/11 05/11/12 06/27/12	6	7

FILE => 52E0018-t-swd+03.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

**BENCHMARKS AND DATUM**

The horizontal coordinates are based on the North American Datum of 1983 (NAD83) California Coordinate System Zone 5 epoch 1991.35, locally determined by points 5434,5433,5435, and 5441 from Caltrans Survey Request 94-156.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88) locally determined by the following benchmarks published by the National Geodetic Survey.

AA3344	Elev	830.93	(Adj	1995)
AA3348	Elev	953.66	(Adj	1995)
AA3205	Elev	747.56	(Adj	1995)
AA3346	Elev	922.40	(Adj	1995)

Survey Disk at the intersection of Freeway 101 and Hampshire Rd on top of and 2 ft northeast of the southwest end of the bridge deck.

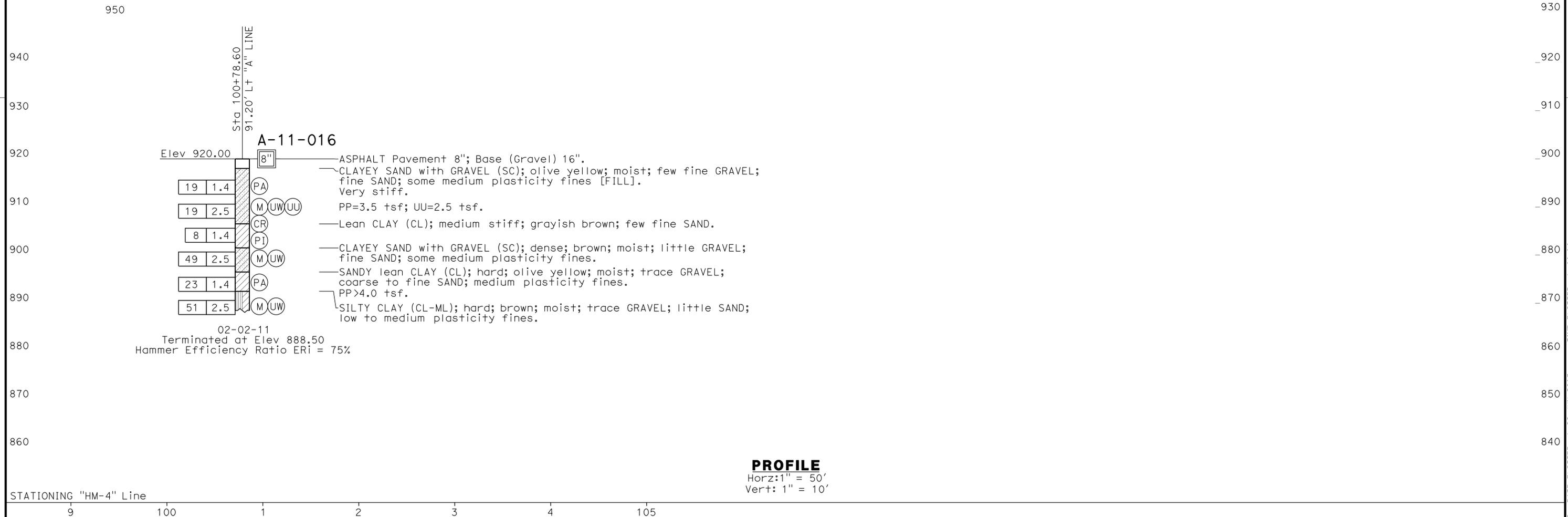
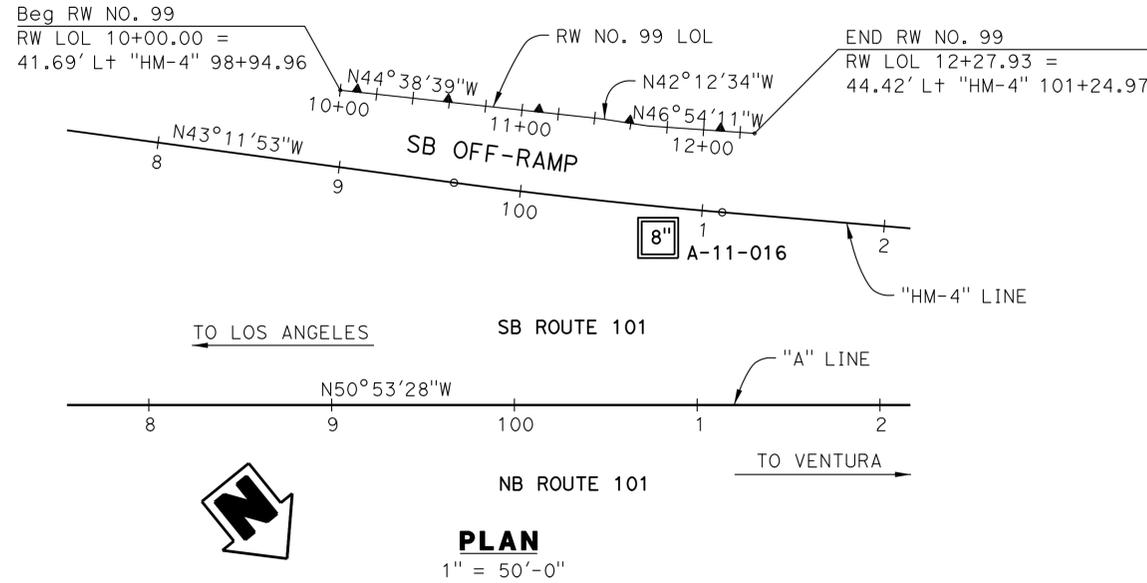
**NOTE:**

This LOTB sheet was prepared in accordance with the "Caltrans Soil and Rock Logging, Classification, and Presentation Manual" (June 2010).

**CORRECTION FACTOR:**

A multiplication factor 0.65 was used to convert from California Modified Ring Sampler blow count to equivalent Standard Penetration Test Sampler blow count.

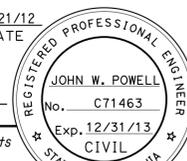
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	627	652
GEOLOGICAL PROFESSIONAL			DATE	5/21/12	
6-3-13			PLANS APPROVAL DATE		
PING TIAN			No. GE2660		
Exp. 12/31/13			GEOLOGICAL		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					
CITY OF THOUSAND OAKS 2100 THOUSAND OAKS BLVD THOUSAND OAKS, CA 91362					
CH2M HILL 1000 WILSHIRE BLVD, 21ST FLOOR LOS ANGELES, CA 90017					



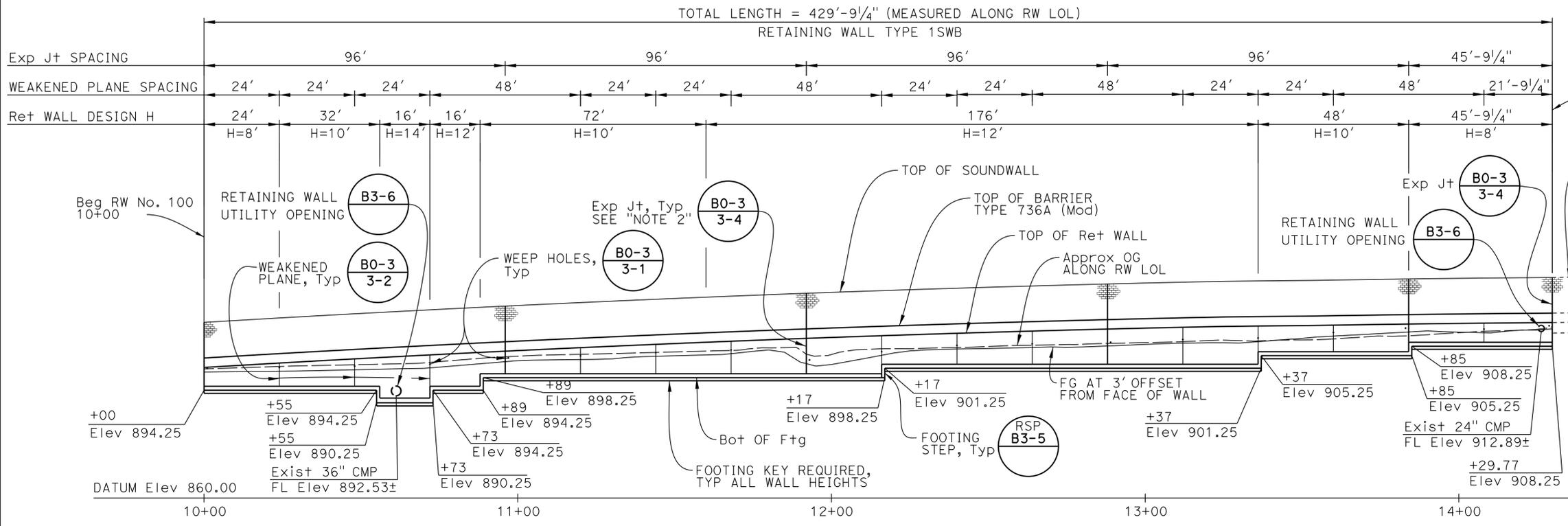
 DESIGN OVERSIGHT Richard C. Hartzell 12-17-12 SIGN OFF DATE	DRAWN BY N. MORALES	K. RADHAKRISHNAN & J. LEE FIELD INVESTIGATION BY: DATE: 02/01/11 & 02/02/11	PREPARED FOR THE <b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	Milind Desai PROJECT ENGINEER	BRIDGE NO. 52E0018 POST MILES	<b>RETAINING WALL NO. 99</b> <b>LOG OF TEST BORINGS</b>
	CHECKED BY J. LEE	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: PROJECT NUMBER & PHASE: 0700000201 CONTRACT NO.: 07-1952U1	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 10/12/11 05/17/12 08/21/12	SHEET 7 OF 7

FILE => 52E0018-z-1+b01.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	628	652

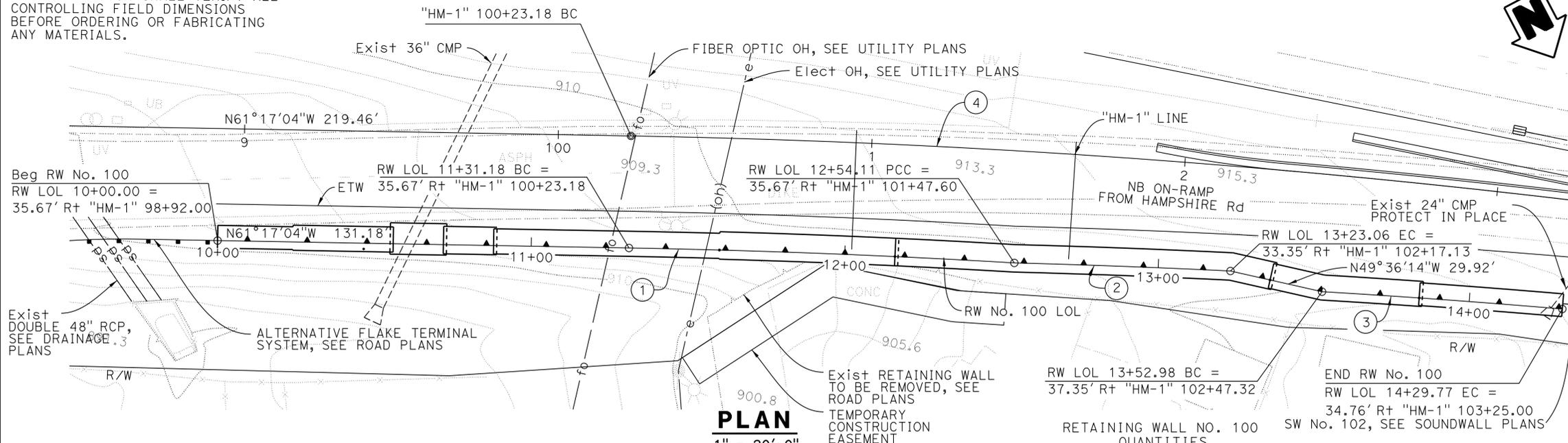

 REGISTERED CIVIL ENGINEER  
 5/21/12 DATE  
 6-3-13 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



**DEVELOPED ELEVATION**  
1" = 20'-0"

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



**CURVE DATA**

① RW LOL	② RW LOL	③ RW LOL	④ "HM-1" LINE
R = 2964.33'	R = 2968.66'	R = 2963.66'	R = 3000.00'
Δ = 02°22'34"	Δ = 01°19'51"	Δ = 01°29'05"	Δ = 09°14'52"
L = 122.93'	L = 68.95'	L = 76.79'	L = 484.21'
T = 61.47'	T = 34.48'	T = 38.40'	T = 242.63'

**QUANTITIES**

STRUCTURE EXCAVATION (RETAINING WALL)	2,141	CY
STRUCTURE EXCAVATION (TYPE Y-1) (AERIALY DEPOSITED LEAD)	82	CY
STRUCTURE BACKFILL (RETAINING WALL)	1,674	CY
PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	71	CY
STRUCTURAL CONCRETE, RETAINING WALL	415	CY
BAR REINFORCING STEEL (RETAINING WALL)	54,624	LB
SOUND WALL (MASONRY BLOCK)	4,871	SOFT
CONCRETE BARRIER (TYPE 736A MODIFIED)	430	LF

**INDEX TO PLANS**

Sheet No.	Title
1	GENERAL PLAN
2	TYPICAL SECTION
3	RETAINING WALL TYPE 1SWB
4	SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS NO. 1
5	SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS NO. 2
6	SOUNDWALL DETAILS
7	LOG OF TEST BORINGS 1 OF 2
8	LOG OF TEST BORINGS 2 OF 2

**STANDARD PLANS (DATED 2010)**

A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 2 OF 3)
A10F	LEGEND-SOIL (SHEET 1 OF 2)
A10G	LEGEND-SOIL (SHEET 2 OF 2)
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE SURCHARGE AND WALL
B0-3	BRIDGE DETAILS
RSP B3-5	RETAINING WALL DETAILS No. 1
B3-6	RETAINING WALL DETAILS No. 2
B11-56	CONCRETE BARRIER TYPE 736
RSP B15-6	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (1).
B15-9	SOUND WALL MASONRY BLOCK MISCELLANEOUS DETAILS.

**NOTES:**

- Utility locations shown are approximate. For new and existing utility locations and details, see "ROAD PLANS".
- Extend waterstop 6" into Concrete Barrier and 1' below finished grade.
- For "TYPICAL SECTION" and "RETAINING WALL ELEVATION TABLE" see "TYPICAL SECTION" sheet.
- Contractor to field verify all utility locations prior to retaining wall construction.
- For drainage system and details, see Drainage Plans.

Richard C. Hartzell  
 DESIGN OVERSIGHT  
 12-17-12  
 SIGN OFF DATE

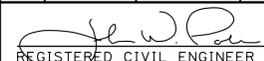
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DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates	SPECIFICATIONS	BY M. Remolador	CHECKED M. Desai
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal			

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 Milind Desai  
 PROJECT ENGINEER

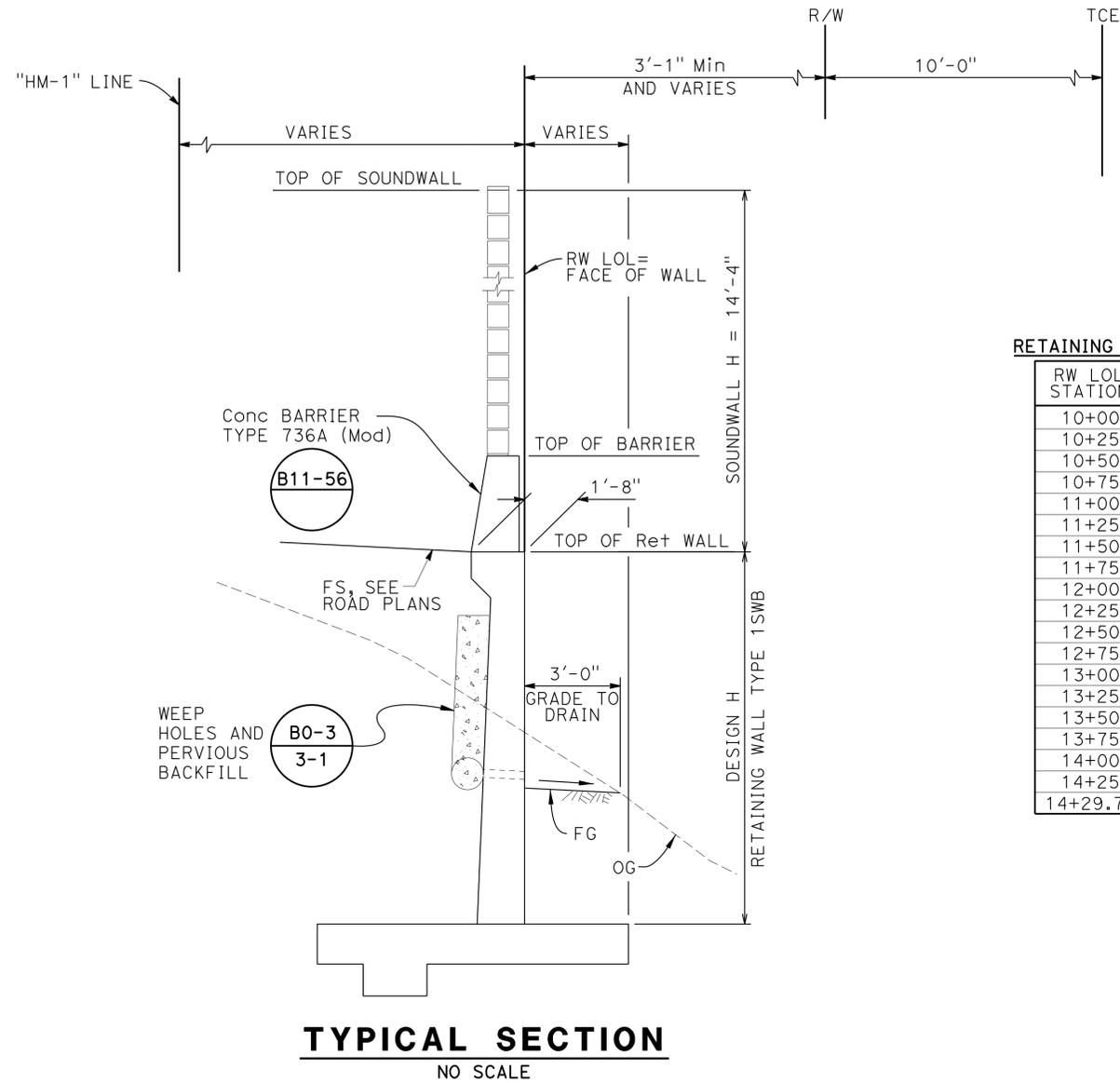
BRIDGE NO.	52E0019
POST MILES	

**RETAINING WALL NO. 100 GENERAL PLAN**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	629	652

  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

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 CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



RETAINING WALL ELEVATIONS

RW LOL STATION	TOP OF Ret WALL Elev
10+00	901.49
10+25	902.95
10+50	904.33
10+75	905.63
11+00	906.86
11+25	908.01
11+50	909.09
11+75	910.10
12+00	911.03
12+25	911.88
12+50	912.66
12+75	913.36
13+00	914.00
13+25	914.54
13+50	914.80
13+75	915.17
14+00	915.49
14+25	915.74
14+29.77	915.77

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

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 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0019
POST MILES	

**RETAINING WALL NO. 100**  
**TYPICAL SECTION**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



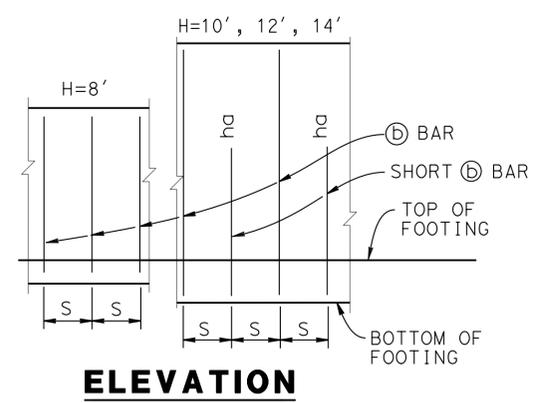
UNIT: 3573  
 PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
04/22/11 10/12/11 05/17/12 06/21/12	2	8

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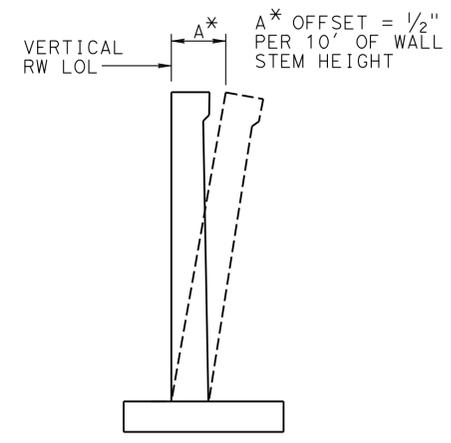
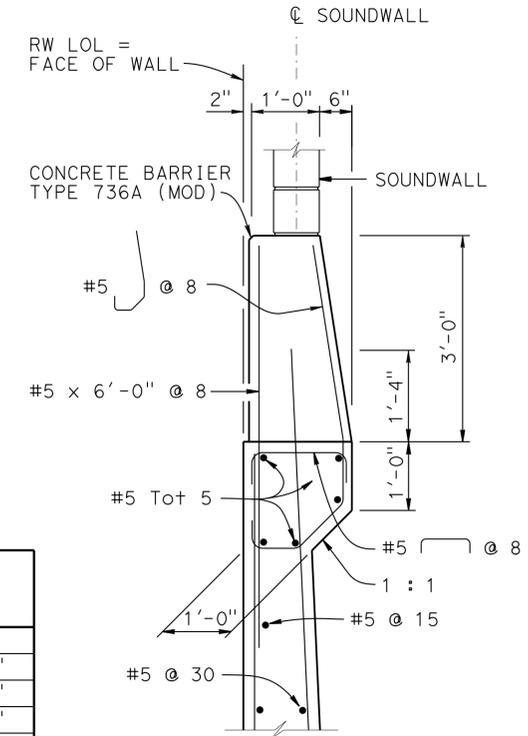


NOTES:  
 "ha" indicates distance from top of footing to upper end of short bars, see table.  
 "S" is bar spacing, see table.

DESIGN H	8'	10'	12'	14'
W	7'-3"	8'-0"	8'-9"	10'-0"
C	2'-5"	2'-8"	2'-11"	3'-4"
B	4'-10"	5'-4"	5'-10"	6'-8"
F SPREAD FOOTING	1'-3"	1'-3"	1'-3"	1'-6"
STEM WITH HAUNCH, BATTER	1/2:12	1/2:12	1/2:12	1/2:12
⊕ BARS	#8 @ 12	#7 @ 6	#7 @ 6	#7 @ 6
ha	N/A	5'-0"	6'-0"	7'-0"
hy	2'-4"	1'-8"	2'-0"	2'-4"
hz	N/A	N/A	N/A	3'-1"
⊙ BARS	#7 @ 12	#5 @ 6	#6 @ 6	#7 @ 6
SER I: B'(ft), q <sub>0</sub> (ksf)	6.0, 1.4	6.5, 1.6	7.0, 1.8	8.1, 1.9
STR Ia: B'(ft), q <sub>0</sub> (ksf)	6.3, 2.3	6.7, 2.5	7.0, 2.9	8.1, 3.1
STR Ib: B'(ft), q <sub>0</sub> (ksf)	4.3, 2.0	4.3, 2.4	4.3, 2.8	4.3, 2.9
STR IIIa: B'(ft), q <sub>0</sub> (ksf)	4.3, 2.4	4.3, 2.5	4.3, 2.8	4.3, 2.9
STR IIIb: B'(ft), q <sub>0</sub> (ksf)	3.2, 2.3	3.2, 2.4	3.2, 2.6	3.2, 2.7
STR Va: B'(ft), q <sub>0</sub> (ksf)	5.9, 2.3	5.9, 2.6	5.9, 2.9	5.9, 3.1
STR Vb: B'(ft), q <sub>0</sub> (ksf)	3.8, 2.1	3.8, 2.5	3.8, 2.8	3.8, 2.9
EXT I: B'(ft), q <sub>0</sub> (ksf)	2.5, 4.3	2.5, 6.4	2.5, 10.9	2.5, 13.3
EXT II: B'(ft), q <sub>0</sub> (ksf)	1.4, 3.5	1.4, 2.8	1.4, 2.7	1.4, 2.5

LEGEND:  
 SER: service limit state  
 STR: strength limit state  
 EXT: extreme event limit state  
 B': effective footing width (ft)  
 q<sub>0</sub>: net bearing stress (ksf)  
 q<sub>g</sub>: gross uniform bearing stress (ksf)

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



Values for offsetting forms to be determined by the Engineer

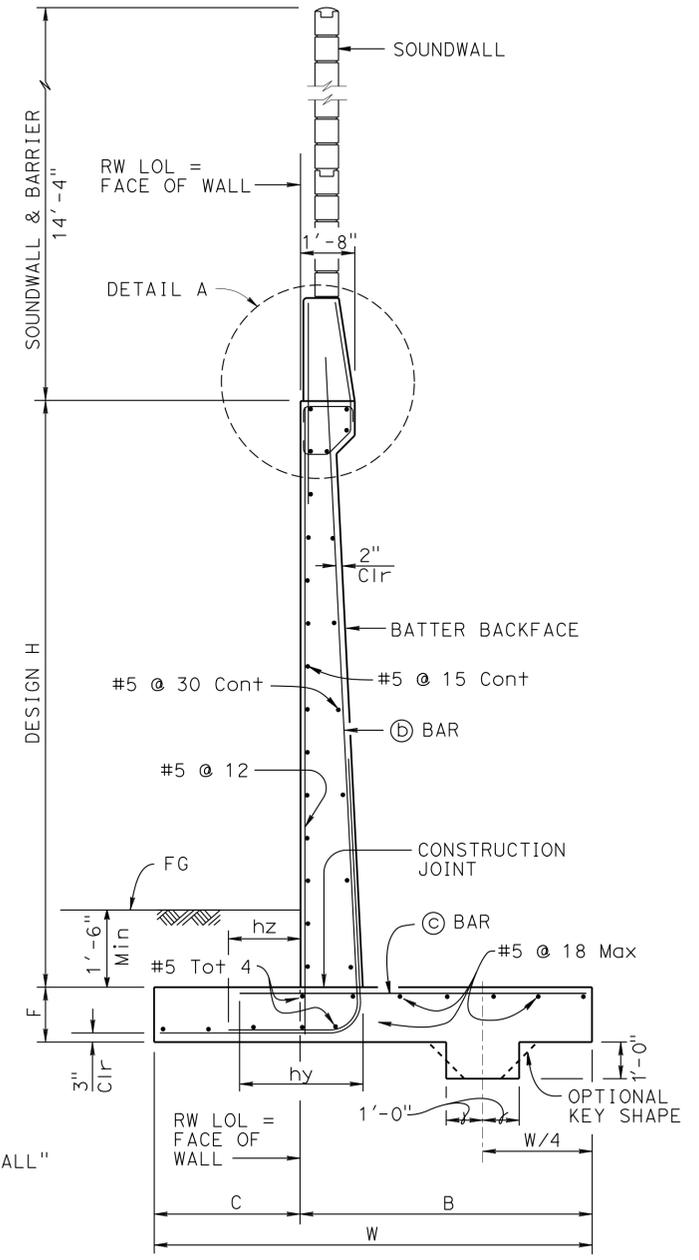
**DESIGN DATA**

Design: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments  
 WS: 33 psf on Soundwall and Barrier  
 LS: Varied surcharge on level ground surface  
 CT: 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 1:1 distribution down and outward  
 EQE: Mononabe-Okabe Method  
 K<sub>h</sub> = 0.3  
 K<sub>v</sub> = 0.0  
 Soil: ϕ = 34°  
 γ = 120 pcf  
 Reinforced Concrete: f'<sub>c</sub> = 3,600 psi  
 f<sub>y</sub> = 60,000 psi  
 Load Combinations and Limit States  
 Service I Q=1.00DC+1.00EV+1.00EH+1.00LS+0.30WS  
 Service II Q=1.00DC+1.00EV+1.00EH+1.00WS  
 Strength I Q=aDC+βEV+1.50EH+1.75LS  
 Strength III Q=aDC+βEV+1.50EH+1.40WS  
 Strength V Q=aDC+βEV+1.50EH+1.35LS+0.40WS  
 Extreme I Q=1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE  
 Extreme II Q=1.00DC+1.00EV+1.00EH+1.00CT

Where: Q: Force Effects  
 a: 1.25 or 0.90, Which ever Controls Design  
 β: 1.35 or 1.00, which ever Controls Design  
 DC: Dead Load of Structure Components  
 EV: Vertical Earth Fill Pressure  
 LS: Live Load Surcharge  
 EQE: Seismic Earth Pressure  
 EQD: Soil and Structure Components Inertia. Soil inertia ignored for stem design  
 WS: Wind Load on Sound Wall and Barrier  
 CT: Vehicular Collision Force

LRFD Bearing Resistance:  
 Permissible Net Contact Stress (Service) = 5.0 ksf, B'=8.1'  
 Factored Gross Nominal Bearing Resistance (Strength, ϕ = 0.45) = 6.2 ksf, B'=3.2'  
 Factored Gross Nominal Bearing Resistance (Extreme, ϕ = 1.0) = 13.7 ksf, B'=2.5'

- NOTES:  
 1. For details not shown and drainage notes, see RSP B3-5  
 2. Footing cover, 1'-6" minimum.  
 3. For sound wall and barrier reinforcement details, see "SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL" sheet.  
 4. For H = 8' through 14', extend ⊕ bars into Barrier for stem with haunch.



Richard C. Hartzell  
 DESIGN OVERSIGHT  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

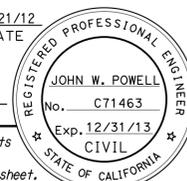
PREPARED FOR THE  
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0019
POST MILES	

**RETAINING WALL NO. 100**  
**RETAINING WALL TYPE 1SWB**

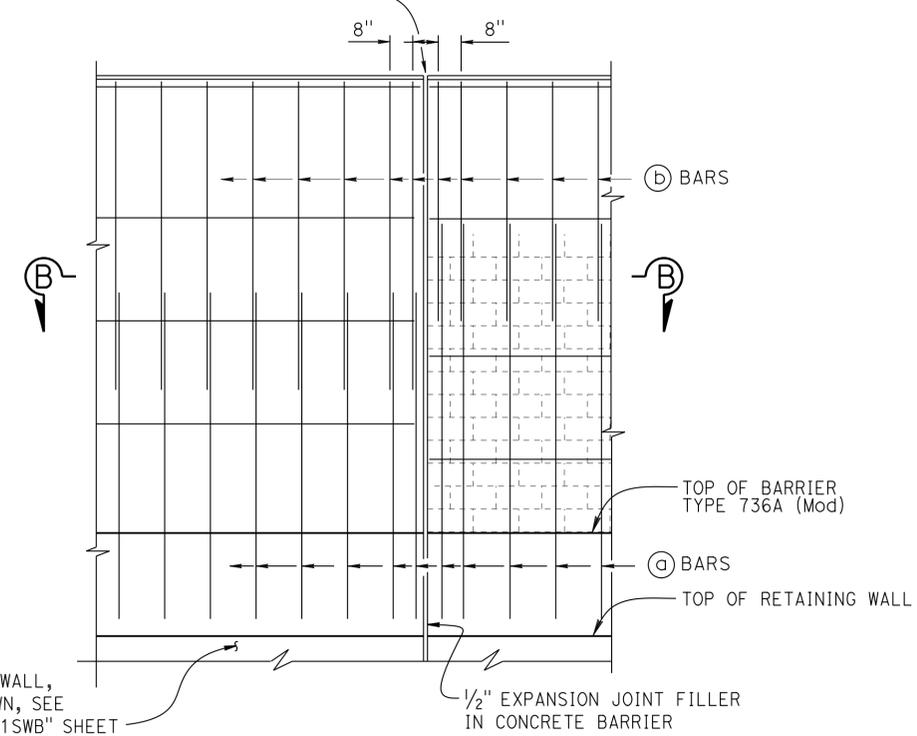
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	631	652


 REGISTERED CIVIL ENGINEER  
 DATE 5/21/12  
 PLANS APPROVAL DATE 6-3-13  
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CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

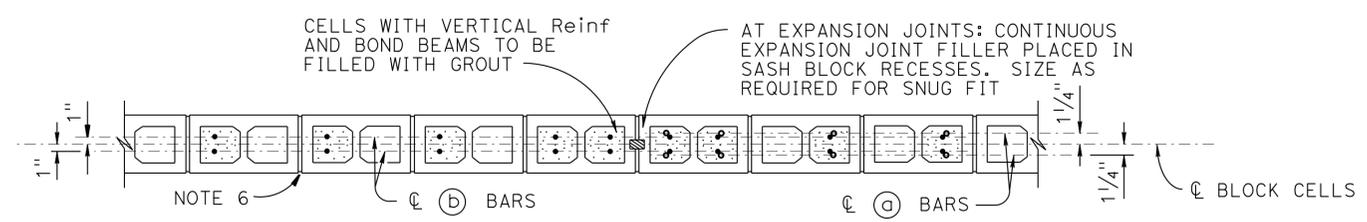
EXPANSION JOINTS AT 96'-0" Max CENTERS.  
SEE OTHER SHEETS FOR LOCATIONS



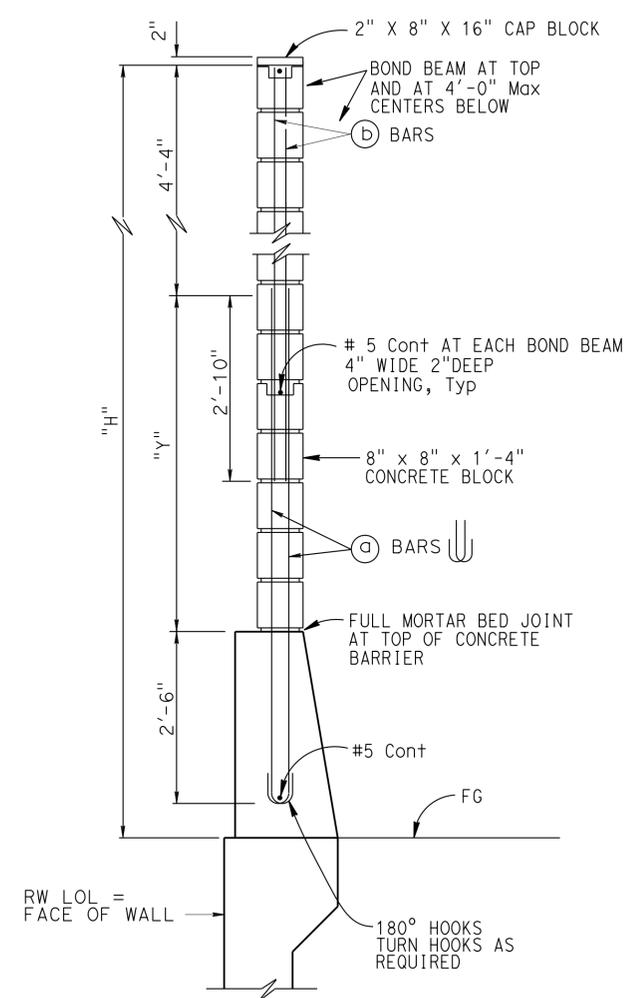
TYPE 1SWB RETAINING WALL,  
FOR DETAILS NOT SHOWN, SEE  
RETAINING WALL TYPE 1SWB" SHEET

**H=14'-4"**  
**PART ELEVATION**  
No Scale

"H"	(a) BARS @ 1'-4" Max	(b) BARS @ 1'-4" Max	"Y"	f'm (psi)	COMPRESSIVE STRENGTH OF CMU (psi)	"H"
14'-4"	#6	#4	7'-0"	1500	1900	14'-4"



**SECTION B-B**  
No Scale



**H=14'-4"**  
**TYPICAL SECTION**  
No Scale

NOTES:

- For details not shown, see "SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL - DETAILS NO. 2" sheet
- Slope ground at traffic side of barrier to drain. Maximum slope ±10%
- See STANDARD PLANS B15-9 for other details
- For type of block and joint finish, see other sheets
- When blocks are laid in stacked bond, ladder type, galvanized joint reinforcement shall be provided. A minimum of 2-9 gauge wire continuous at 4'-0" maximum to be used. Locate reinforcement in joints that are at the approximate midpoint between bond beams
- Horizontal joints shall be tooled concave or may be weathered. Vertical joints shall be tooled concave or may be raked
- Masonry strengths are listed in "SOUNDWALL REINFORCEMENT TABLE"
- Concrete to be used for the barrier shall contain not less than 590 pounds of cementitious material per cubic yard

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

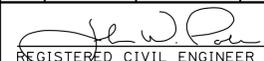
DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

PREPARED FOR THE  
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION  
 Milind Desai  
 PROJECT ENGINEER

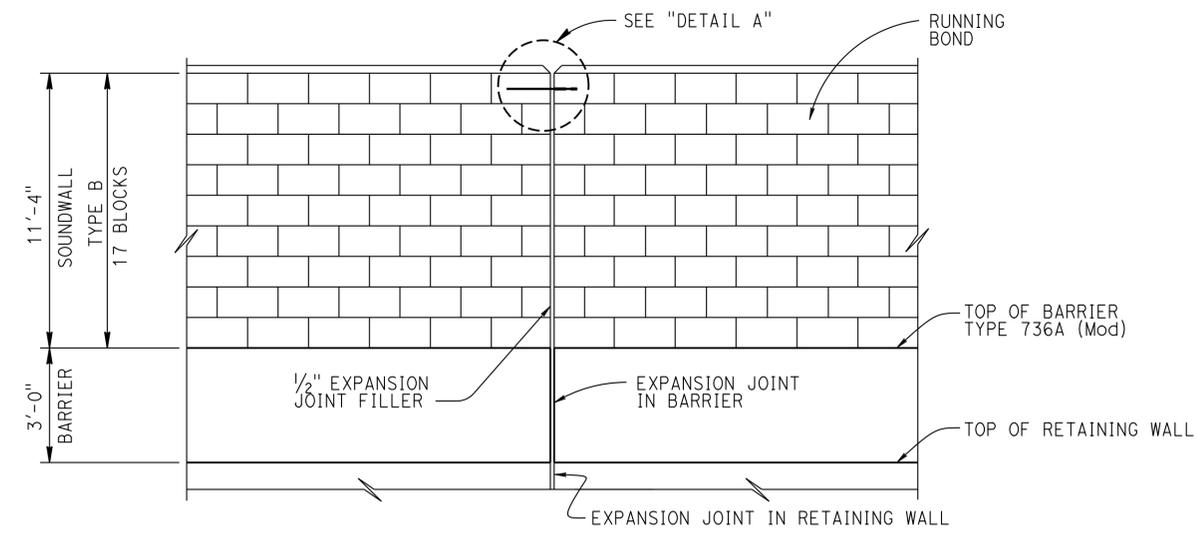
BRIDGE NO.	52E0019
POST MILES	

**RETAINING WALL NO. 100**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL**  
**DETAILS NO. 1**

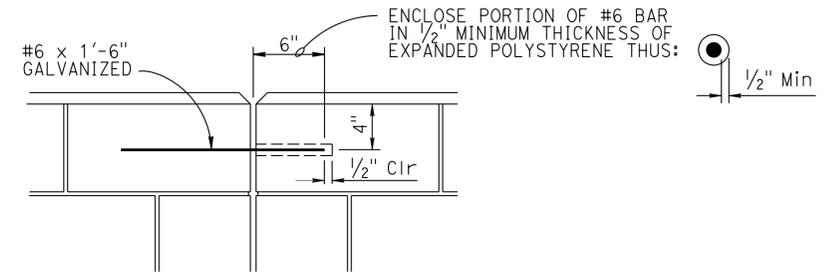
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07	Ven	23,101	3.3/3.8 R0.1/R4.5	632	652

  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

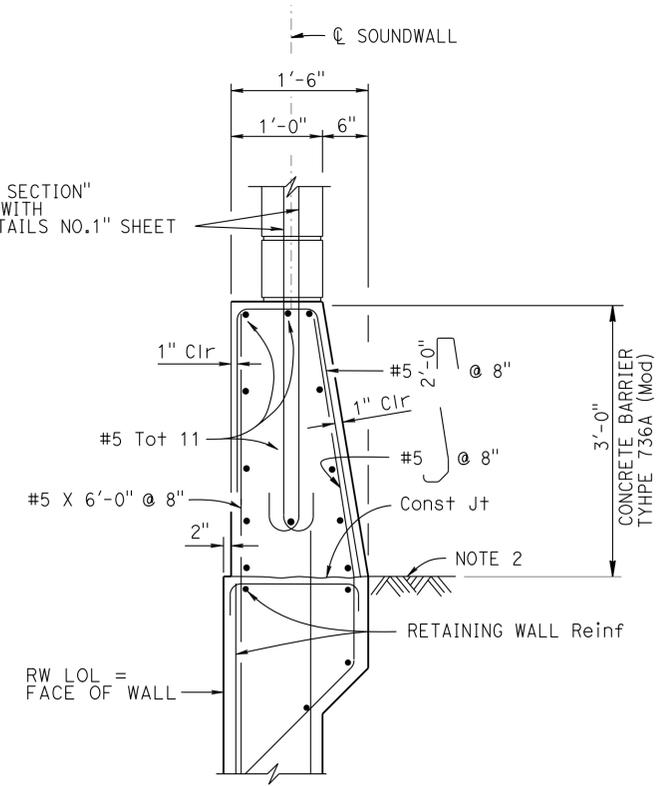


**ALIGNMENT KEY DETAIL**  
No Scale



**DETAIL A**  
No Scale

SOUNDWALL Reinf SEE "TYPICAL SECTION" ON "SOUNDWALL-MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS NO.1" SHEET



**BARRIER SECTION**  
No Scale

**DESIGN NOTES**

**DESIGN**  
Uniform Building Code, 1997 Edition and the Bridge Design Specifications

**DESIGN WIND LOAD**  
33 psf

**DESIGN SEISMIC LOAD**  
0.57 Dead load

REINFORCED CONCRETE	REGULAR STRENGTH	HIGH STRENGTH	
f'c = 3,600 psi	f'm = 1,500 psi	f'm = 2,000 psi	f'm = 2,500 psi
fy = 60,000 psi	fb = 495 psi	fb = 660 psi	fb = 830 psi
	fs = 24,000 psi	fs = 24,000 psi	fs = 24,000 psi
	n = 25.8	n = 19.3	n = 15.5

- NOTES:
- For details not shown, see REVISED STANDARD PLAN B15-6
  - Slope ground at traffic side of barrier to drain. Maximum slope ±10%. See STANDARD PLAN B11-56, Note D

NOTE:  
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 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

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QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

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 DEPARTMENT OF TRANSPORTATION  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0019
POST MILES	

**RETAINING WALL NO. 100**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL**  
**DETAILS NO. 2**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: PROJECT NUMBER & PHASE: 0700000201

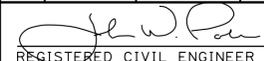
CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	03/22/11 10/22/11 05/21/12 06/21/12	5	8

FILE => 52E0019-t-swdt02.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

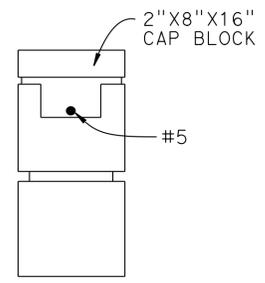
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	633	652

  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
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 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

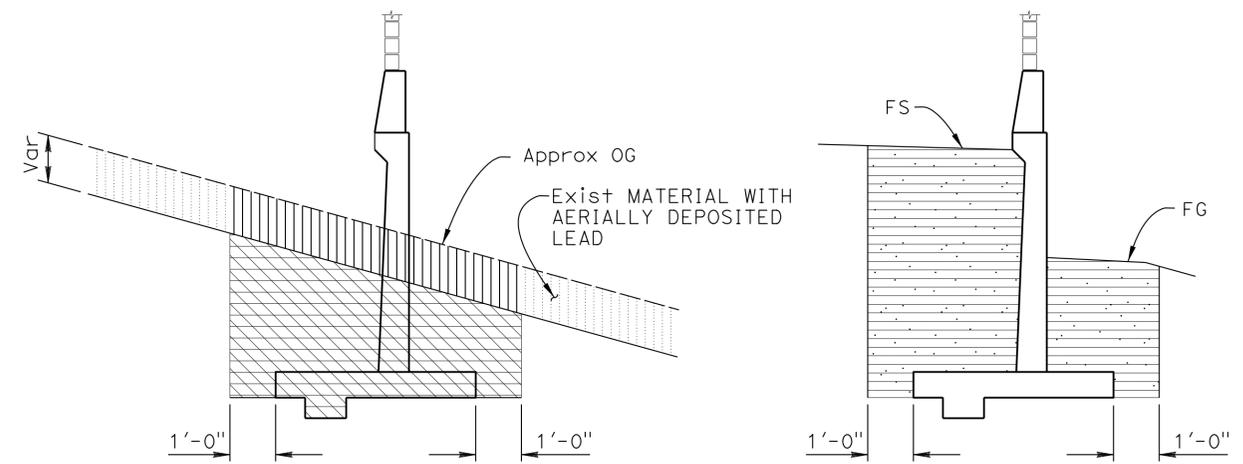
CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

MASONRY BLOCK TYPE TABLE			
BLOCK TYPE	NOMINAL SIZE	TEXTURE	COLOR
B	8 INCH x 8 INCH x 16 INCH	SLUMPSTONE	MISSION (70%) & FAWN (30%) RANDOM MIX

- NOTES:
- BOND (TYPE 2) COMMON BOND
  - MORTAR COLOR TO MATCH BLOCK
  - TOOLED JOINTS.
  - \* TO MATCH ANGELUS BLOCK COMPANY COLOR  
FAWN AND MISSION OR EQUAL.



**CAP BLOCK DETAIL**  
NO SCALE



**LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL**  
NO SCALE

For details not shown, see **A62B**

**NOTE:**  
For limits and depth of Structure Excavation (Type Y-1) (Aerially Deposited Lead), see "ROAD PLANS".

- LEGEND:**
-  Structure Excavation (Ret Wall)
  -  Structure Backfill (Ret Wall)
  -  Structure Excavation (Type Y-1) (Aerially Deposited Lead)

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA**  
**DEPARTMENT OF TRANSPORTATION**

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0019
POST MILES	

**RETAINING WALL NO. 100**  
**SOUNDWALL DETAILS**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3573  
PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
03/22/11   10/12/11   05/17/12   06/21/12	6	8

FILE => 52E0019-t-swd03.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

**BENCHMARKS AND DATUM**

The horizontal coordinates are based on the North American Datum of 1983 (NAD83) California Coordinate System Zone 5 epoch 1991.35, locally determined by points 5434, 5433, 5435, and 5441 from Caltrans Survey Request 94-156.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88) locally determined by the following benchmarks published by the National Geodetic Survey.

AA3344	Elev	830.93	(Adj	1995)
AA3348	Elev	953.66	(Adj	1995)
AA3205	Elev	747.56	(Adj	1995)
AA3346	Elev	922.40	(Adj	1995)

Survey Disk at the intersection of Freeway 101 and Hampshire Rd on top of and 2 ft northeast of the southwest end of the bridge deck.

**NOTES:**

- This LOTB sheet was prepared in accordance with the "Caltrans Soil and Rock Logging, Classification, and Presentation Manual (June 2010).
- Groundwater was not encountered in boring A-11-012.

**CORRECTION FACTOR:**

A multiplication factor 0.65 was used to convert from California Modified Ring Sampler blow count to equivalent Standard Penetration Test Sampler blow count.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	634	652

5/21/12 DATE

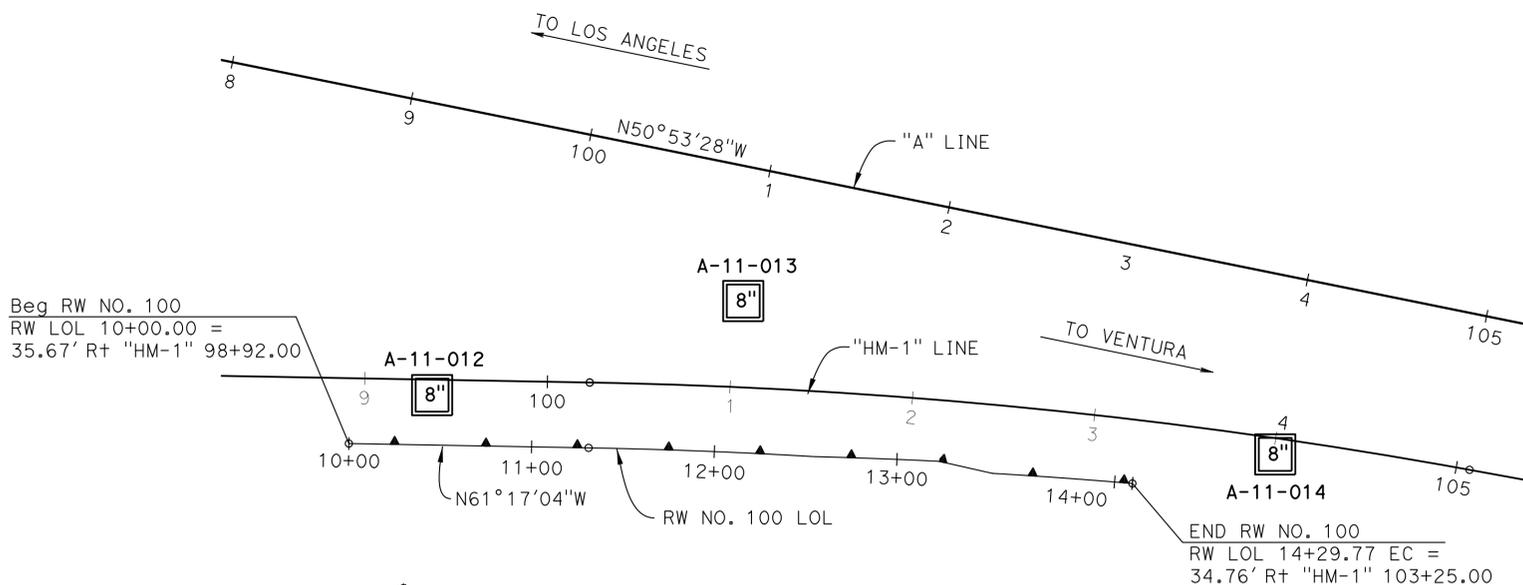
REGISTERED PROFESSIONAL ENGINEER  
PING TIAN  
No. GE2660  
Exp. 12/31/13  
STATE OF CALIFORNIA

6-3-13 PLANS APPROVAL DATE

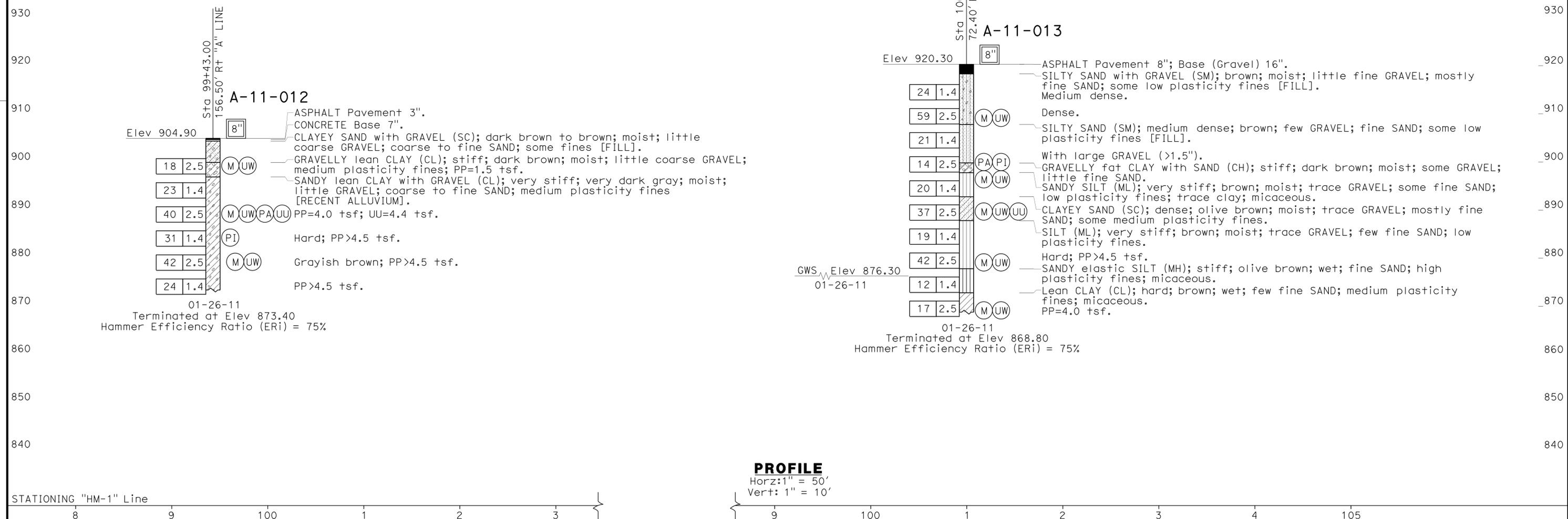
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CITY OF THOUSAND OAKS  
2100 THOUSAND OAKS BLVD  
THOUSAND OAKS, CA 91362

CH2M HILL  
1000 WILSHIRE BLVD, 21ST FLOOR  
LOS ANGELES, CA 90017



**PLAN**  
1" = 50'



**PROFILE**  
Horz: 1" = 50'  
Vert: 1" = 10'

DESIGN OVERSIGHT Richard C. Hartzell 12-17-12 SIGN OFF DATE	DRAWN BY	N. MORALES	K. RADHAKRISHNAN & J. LEE FIELD INVESTIGATION BY: DATE: 1/26/11 & 1/27/11	PREPARED FOR THE <b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	<b>RETAINING WALL NO. 100</b> <b>LOG OF TEST BORINGS 1 OF 2</b>
	CHECKED BY	J. LEE			PROJECT ENGINEER	
GS GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3573 PROJECT NUMBER & PHASE: 0700000201 CONTRACT NO.: 07-1952U1	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				FILE => 52E0019-Z-1+B01.dgn	REVISION DATES 04/22/11 10/12/11 05/11/12 06/21/12	SHEET 7 OF 8

**BENCHMARKS AND DATUM**

The horizontal coordinates are based on the North American Datum of 1983 (NAD83) California Coordinate System Zone 5 epoch 1991.35, locally determined by points 5434,5433,5435, and 5441 from Caltrans Survey Request 94-156.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88) locally determined by the following benchmarks published by the National Geodetic Survey.

AA3344	Elev	830.93	(Adj	1995)
AA3348	Elev	953.66	(Adj	1995)
AA3205	Elev	747.56	(Adj	1995)
AA3346	Elev	922.40	(Adj	1995)

Survey Disk at the intersection of Freeway 101 and Hampshire Rd on top of and 2 ft northeast of the southwest end of the bridge deck.

FOR PLAN VIEW, SEE "LOG OF TEST BORINGS 1 OF 2" SHEET.

**NOTES:**

1. This LOTB sheet was prepared in accordance with the Caltrans Soil and Rock Logging, Classification, and Presentation Manual (June 2010).
2. Groundwater was not encountered in boring A-11-014.

**CORRECTION FACTOR:**

A multiplication factor 0.65 was used to convert from California Modified Ring Sampler blow count to equivalent Standard Penetration Test Sampler blow count.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	635	652

GEOTECHNICAL PROFESSIONAL DATE 5/21/12  
 PING TIAN  
 No. GE2660  
 Exp. 12/31/13  
 REGISTERED PROFESSIONAL ENGINEER  
 STATE OF CALIFORNIA  
 GEOTECHNICAL

6-3-13  
 PLANS APPROVAL DATE

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CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362

CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



 DESIGN OVERSIGHT Richard C. Hartzell 12-17-12 SIGN OFF DATE	DRAWN BY N. MORALES	K. RADHAKRISHNAN & J. LEE FIELD INVESTIGATION BY:	PREPARED FOR THE <b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 52E0019	<b>RETAINING WALL NO. 100</b> <b>LOG OF TEST BORINGS 2 OF 2</b>
	CHECKED BY J. LEE	DATE: 1/26/11 & 1/27/11		PROJECT ENGINEER Milind Desai	

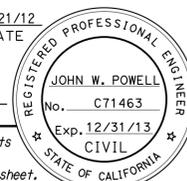
65 GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3573 PROJECT NUMBER & PHASE: 0700000201 CONTRACT NO.: 07-1952U1 DISREGARD PRINTS BEARING EARLIER REVISION DATES

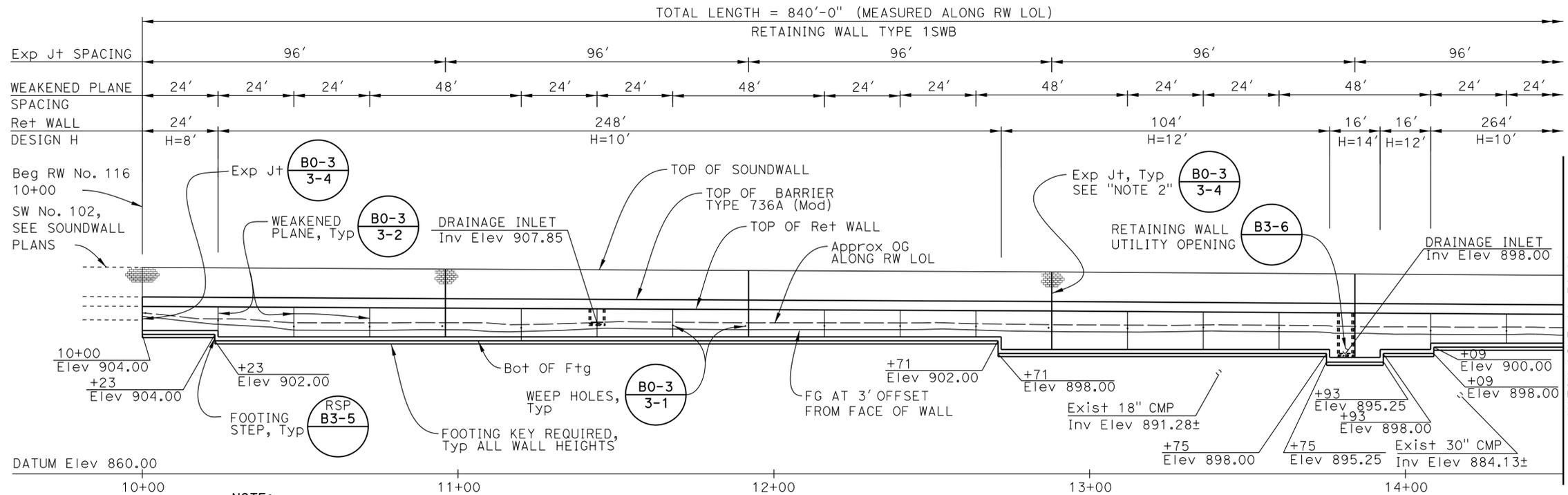
REVISION DATES	SHEET	OF
04/22/11 10/12/11 05/11/12 06/21/12	8	8

FILE => 52E0019-z-1+tb02.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	636	652

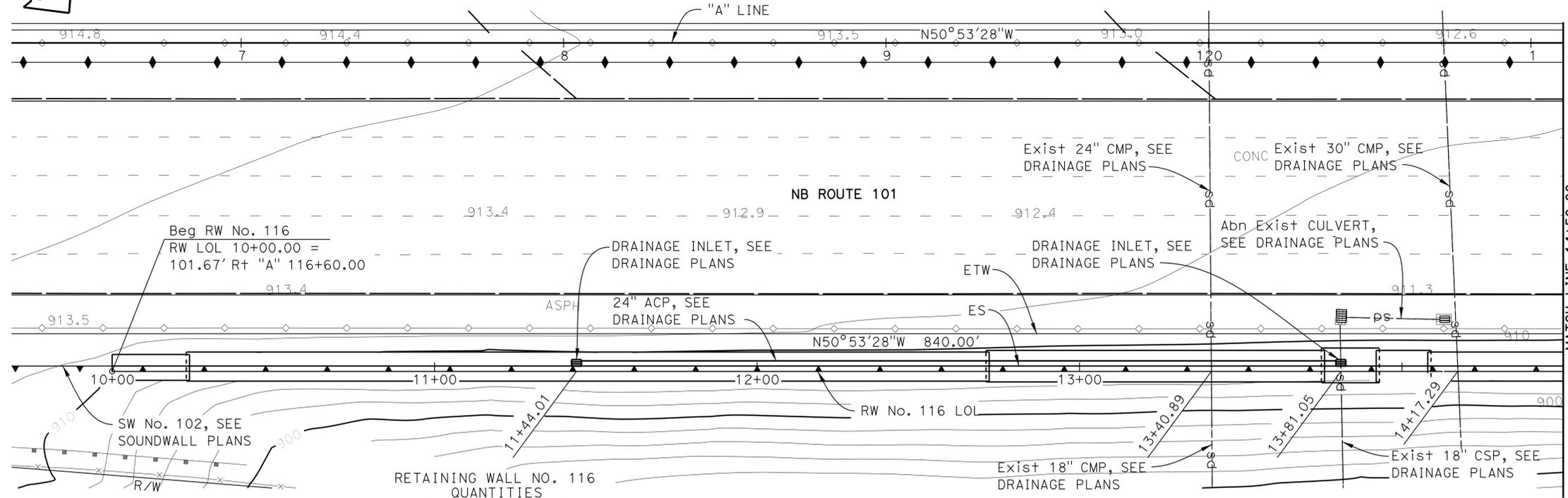

  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13 PLANS APPROVAL DATE  
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CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



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

**ELEVATION**  
 1" = 20'-0"



QUANTITIES

STRUCTURE EXCAVATION (RETAINING WALL)	1,191	CY
STRUCTURE EXCAVATION (TYPE Y-1)	94	CY
(AERIALY DEPOSITED LEAD)		
STRUCTURE BACKFILL (RETAINING WALL)	2,050	CY
PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	140	CY
STRUCTURAL CONCRETE, RETAINING WALL	763	CY
BAR REINFORCING STEEL (RETAINING WALL)	102,382	LB
SOUND WALL (MASONRY BLOCK)	7,840	SQFT
CONCRETE BARRIER (TYPE 736A MODIFIED)	840	LF

**PLAN**  
 1" = 20'-0"

MATCH LINE 14+50.00 SEE "GENERAL PLAN No. 2" SHEET

MATCH LINE 14+50.00 SEE "GENERAL PLAN No. 2" SHEET

**INDEX TO PLANS**

Sheet No.	Title
1	GENERAL PLAN No. 1
2	GENERAL PLAN No. 2
3	RETAINING WALL TYPE 1SWB
4	SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS No. 1
5	SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS No. 2
6	SOUNDWALL DETAILS
7	LOG OF TEST BORINGS 1 OF 2
8	LOG OF TEST BORINGS 2 OF 2

**STANDARD PLANS (DATED 2010)**

A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 2 OF 2)
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE SURCHARGE AND WALL
B0-3	BRIDGE DETAILS
RSP B3-5	RETAINING WALL DETAILS No. 1
B3-6	RETAINING WALL DETAILS No. 2
B11-56	CONCRETE BARRIER TYPE 736
RSP B15-6	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (1).
B15-9	SOUND WALL MASONRY BLOCK MISCELLANEOUS DETAILS.

- NOTES:**
- Utility locations shown are approximate. For new and existing utility locations and details, see ROAD PLANS.
  - Extend waterstop 6" into Concrete Barrier and 1' below finished grade.
  - For "TYPICAL SECTION" and "RETAINING WALL ELEVATION TABLE" see "GENERAL PLAN No. 2" sheet.
  - Contractor to field verify all utility locations prior to retaining wall construction.
  - For drainage system and details, see DRAINAGE PLANS.

DESIGN OVERSIGHT  
 Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

LAYOUT	BY N. Morales	CHECKED J. Powell
SPECIFICATIONS	BY M. Remolador	PLANS AND SPECS COMPARED M. Desai

**PREPARED FOR THE STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

Milind Desai PROJECT ENGINEER	BRIDGE NO. 52E0020
	POST MILES

**RETAINING WALL NO. 116**  
**GENERAL PLAN No. 1**

USERNAME => s128843 DATE PLOTTED => 13-JUN-2013 TIME PLOTTED => 10:23

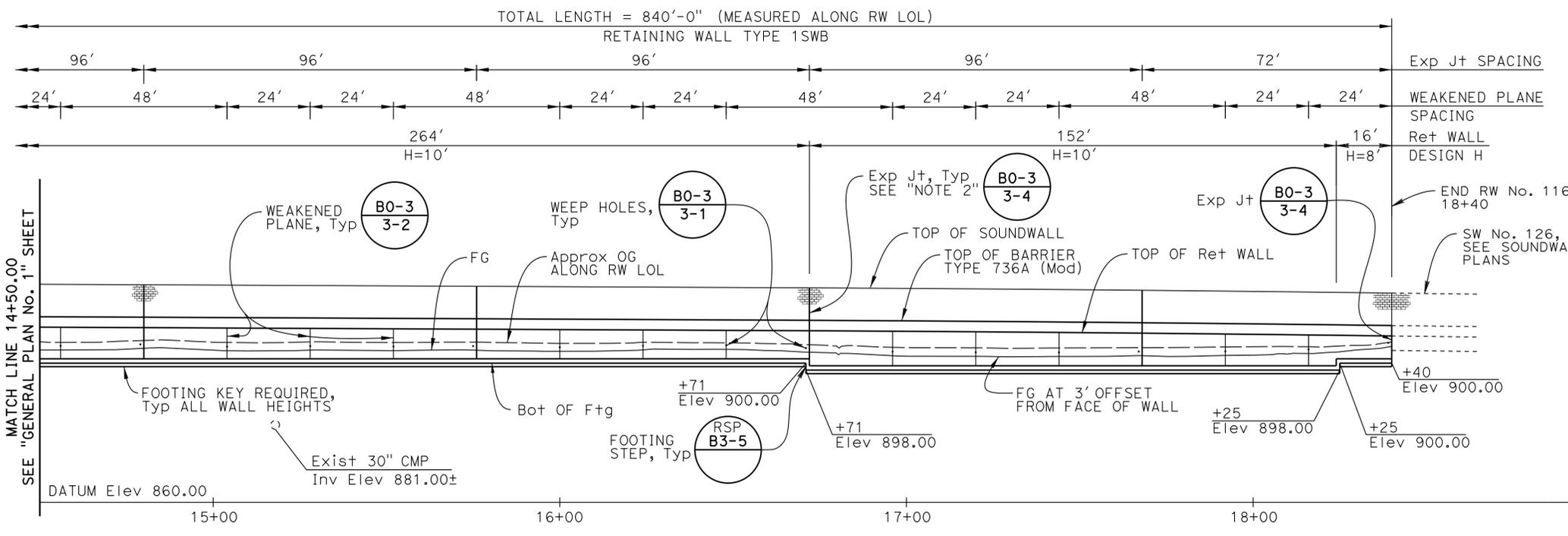
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	637	652

REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
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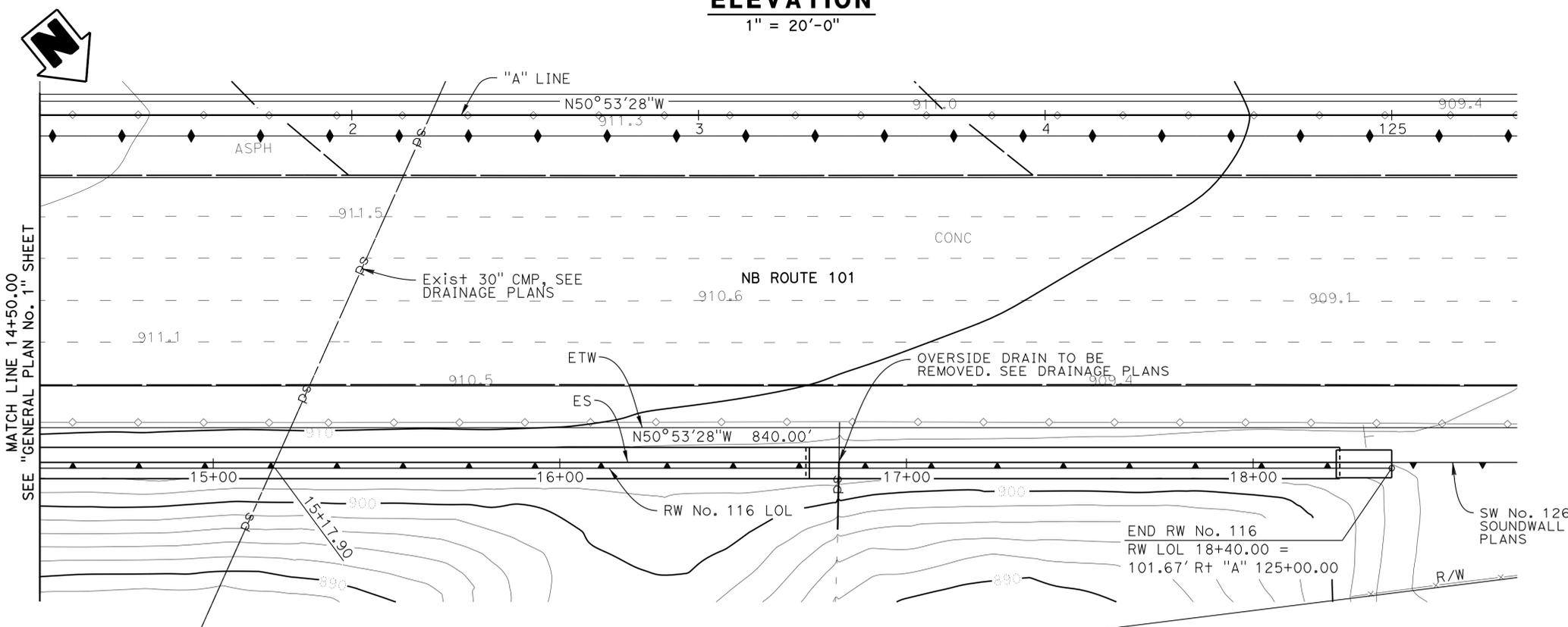
CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

**RETAINING WALL ELEVATIONS**

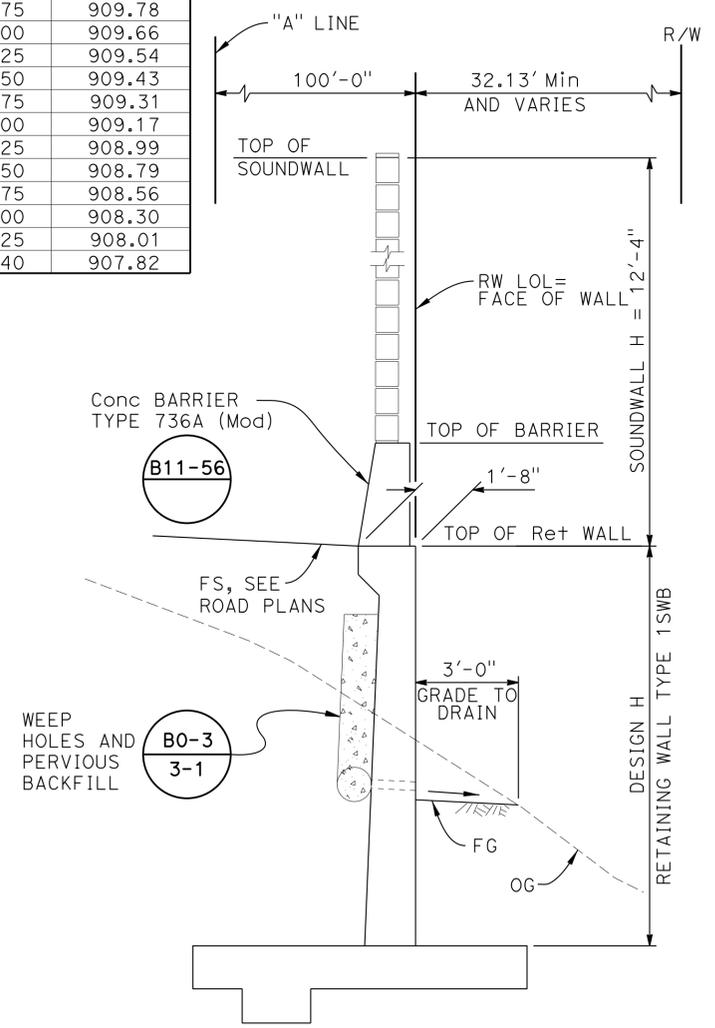
R/W LOL STATION	TOP OF Ret WALL Elev
10+00	912.85
10+25	912.71
10+50	912.56
10+75	912.42
11+00	912.29
11+25	912.17
11+50	912.06
11+75	911.94
12+00	911.82
12+25	911.70
12+50	911.59
12+75	911.47
13+00	911.33
13+25	911.17
13+50	911.00
13+75	910.84
14+00	910.67
14+25	910.51
14+50	910.36
14+75	910.24
15+00	910.13
15+25	910.01
15+50	909.89
15+75	909.78
16+00	909.66
16+25	909.54
16+50	909.43
16+75	909.31
17+00	909.17
17+25	908.99
17+50	908.79
17+75	908.56
18+00	908.30
18+25	908.01
18+40	907.82



**ELEVATION**  
1" = 20'-0"



**PLAN**  
1" = 20'-0"



**TYPICAL SECTION**  
NO SCALE

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

**NOTE:**  
 1. For "NOTES" see "GENERAL PLAN No. 1" sheet.

DESIGN OVERSIGHT: Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates	LAYOUT	BY N. Morales	CHECKED J. Powell
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates	SPECIFICATIONS	BY M. Remolador	PLANS AND SPECS COMPARED M. Desai
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal			

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**  
 PROJECT ENGINEER: Milind Desai

BRIDGE NO.	52E0020
POST MILES	

**RETAINING WALL NO. 116**  
**GENERAL PLAN No. 2**

DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

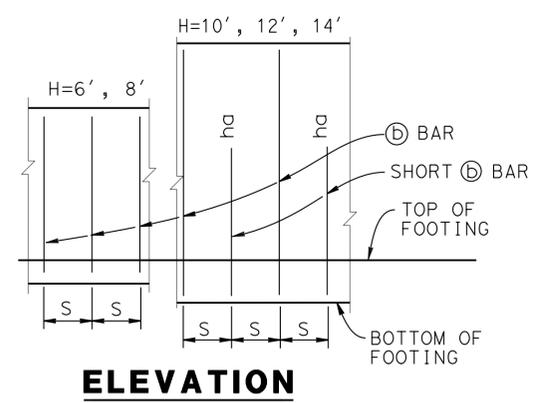


UNIT: 3573  
 PROJECT NUMBER & PHASE: 0700000201  
 CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
03/22/11 10/27/11 05/17/12 06/21/12	2	8

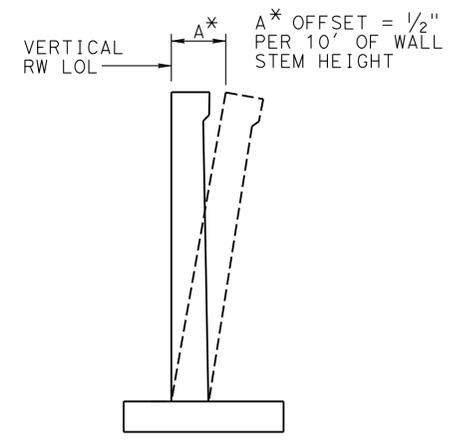
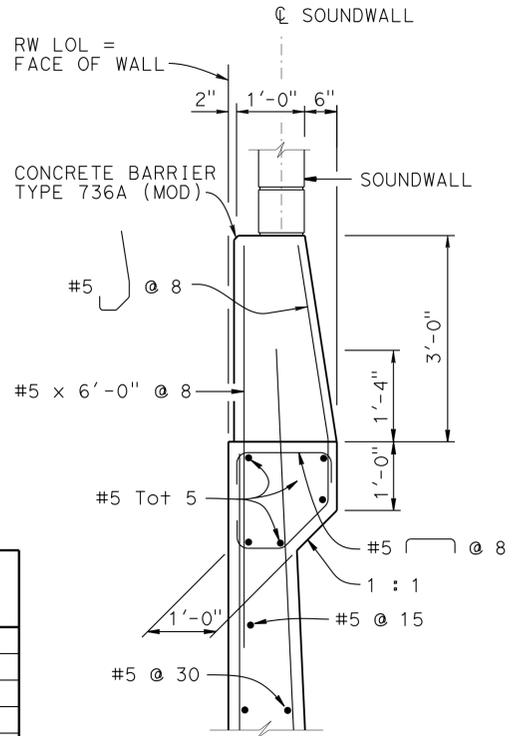
USERNAME => s124496 DATE PLOTTED => 10-JUN-2013 TIME PLOTTED => 12:01



NOTES:  
 "ha" indicates distance from top of footing to upper end of short bars, see table.  
 "S" is bar spacing, see table.

DESIGN H	8'	10'	12'	14'
W	7'-3"	8'-0"	8'-9"	10'-0"
C	2'-5"	2'-8"	2'-11"	3'-4"
B	4'-10"	5'-4"	5'-10"	6'-8"
F SPREAD FOOTING	1'-3"	1'-3"	1'-3"	1'-6"
STEM WITH HAUNCH, BATTER	1/2:12	1/2:12	1/2:12	1/2:12
Ⓢ BARS	#8 @ 12	#7 @ 6	#7 @ 6	#7 @ 6
ha	N/A	5'-0"	6'-0"	7'-0"
hy	2'-4"	1'-8"	2'-0"	2'-4"
hz	N/A	N/A	N/A	3'-1"
Ⓢ BARS	#7 @ 12	#5 @ 6	#6 @ 6	#7 @ 6
SER I: B'(ft), q <sub>0</sub> (ksf)	6.0, 1.4	6.5, 1.6	7.0, 1.8	8.1, 1.9
STR Ia: B'(ft), q <sub>0</sub> (ksf)	6.3, 2.3	6.7, 2.5	7.0, 2.9	8.1, 3.1
STR Ib: B'(ft), q <sub>0</sub> (ksf)	4.3, 2.0	4.3, 2.4	4.3, 2.8	4.3, 2.9
STR IIIa: B'(ft), q <sub>0</sub> (ksf)	4.3, 2.4	4.3, 2.5	4.3, 2.8	4.3, 2.9
STR IIb: B'(ft), q <sub>0</sub> (ksf)	3.2, 2.3	3.2, 2.4	3.2, 2.6	3.2, 2.7
STR Va: B'(ft), q <sub>0</sub> (ksf)	5.9, 2.3	5.9, 2.6	5.9, 2.9	5.9, 3.1
STR Vb: B'(ft), q <sub>0</sub> (ksf)	3.8, 2.1	3.8, 2.5	3.8, 2.8	3.8, 2.9
EXT I: B'(ft), q <sub>0</sub> (ksf)	2.5, 4.3	2.5, 6.4	2.5, 10.9	2.5, 13.3
EXT II: B'(ft), q <sub>0</sub> (ksf)	1.4, 3.5	1.4, 2.8	1.4, 2.7	1.4, 2.5

LEGEND:  
 SER: service limit state  
 STR: strength limit state  
 EXT: extreme event limit state  
 B': effective footing width (ft)  
 q<sub>0</sub>: net bearing stress (ksf)  
 q<sub>g</sub>: gross uniform bearing stress (ksf)



Values for offsetting forms to be determined by the Engineer

**DESIGN DATA**

Design: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments  
 WS: 33 psf on Soundwall and Barrier  
 LS: Varied surcharge on level ground surface  
 CT: 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 1:1 distribution down and outward  
 EQE: Mononabe-Okabe Method  
 K<sub>h</sub> = 0.3  
 K<sub>v</sub> = 0.0  
 Soil: ϕ = 34°  
 γ = 120 pcf  
 Reinforced Concrete: f'<sub>c</sub> = 3,600 psi  
 f<sub>y</sub> = 60,000 psi

Load Combinations and Limit States

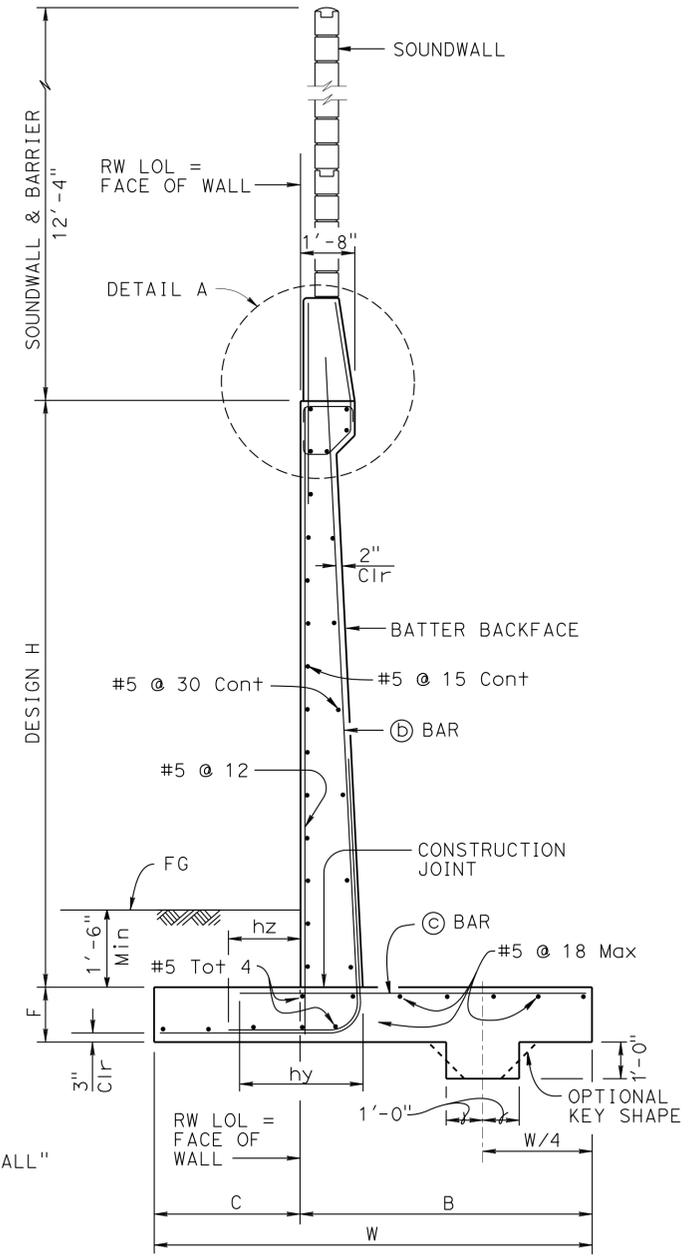
Service I Q=1.00DC+1.00EV+1.00EH+1.00LS+0.30WS  
 Service II Q=1.00DC+1.00EV+1.00EH+1.00WS  
 Strength I Q=aDC+βEV+1.50EH+1.75LS  
 Strength III Q=aDC+βEV+1.50EH+1.40WS  
 Strength V Q=aDC+βEV+1.50EH+1.35LS+0.40WS  
 Extreme I Q=1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE  
 Extreme II Q=1.00DC+1.00EV+1.00EH+1.00CT

Where: Q: Force Effects  
 a: 1.25 or 0.90, Which ever Controls Design  
 β: 1.35 or 1.00, which ever Controls Design  
 DC: Dead Load of Structure Components  
 EV: Vertical Earth Fill Pressure  
 LS: Live Load Surcharge  
 EQE: Seismic Earth Pressure  
 EQD: Soil and Structure Components Inertia. Soil inertia ignored for stem design  
 WS: Wind Load on Sound Wall and Barrier  
 CT: Vehicular Collision Force

LRFD Bearing Resistance:

Permissible Net Contact Stress (Service) = 10.4 ksf, B'=8.1'  
 Factored Gross Nominal Bearing Resistance (Strength, ϕ = 0.45) = 7.5 ksf, B'=3.2'  
 Factored Gross Nominal Bearing Resistance (Extreme, ϕ = 1.0) = 16.7 ksf, B'=2.5'

- NOTES:
- For details not shown and drainage notes see RSP B3-5
  - Footing cover, 1'-6" minimum.
  - For sound wall and barrier reinforcement details, see "SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL" sheet.
  - For H = 8' through 14', extend bars into Barrier for stem with haunch.



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

Richard C. Hartzell  
 DESIGN OVERSIGHT  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguay

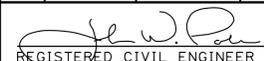
PREPARED FOR THE  
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.  
52E0020  
 POST MILES

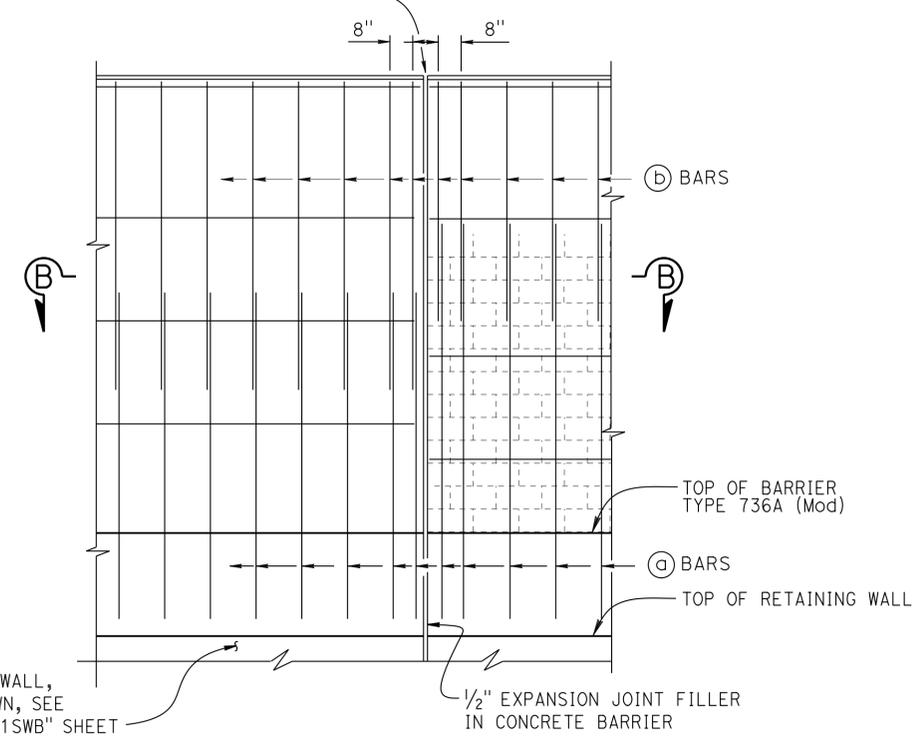
**RETAINING WALL NO. 116**  
**RETAINING WALL TYPE 1SWB**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	639	652

  
 REGISTERED CIVIL ENGINEER 5/21/12 DATE  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
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 LOS ANGELES, CA 90017

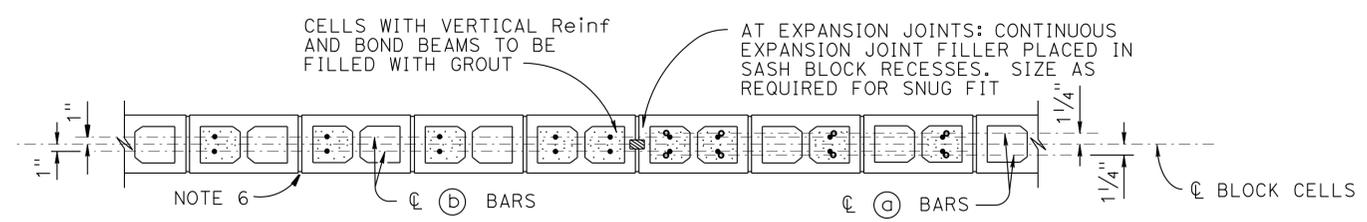
EXPANSION JOINTS AT 96'-0" Max CENTERS.  
SEE OTHER SHEETS FOR LOCATIONS



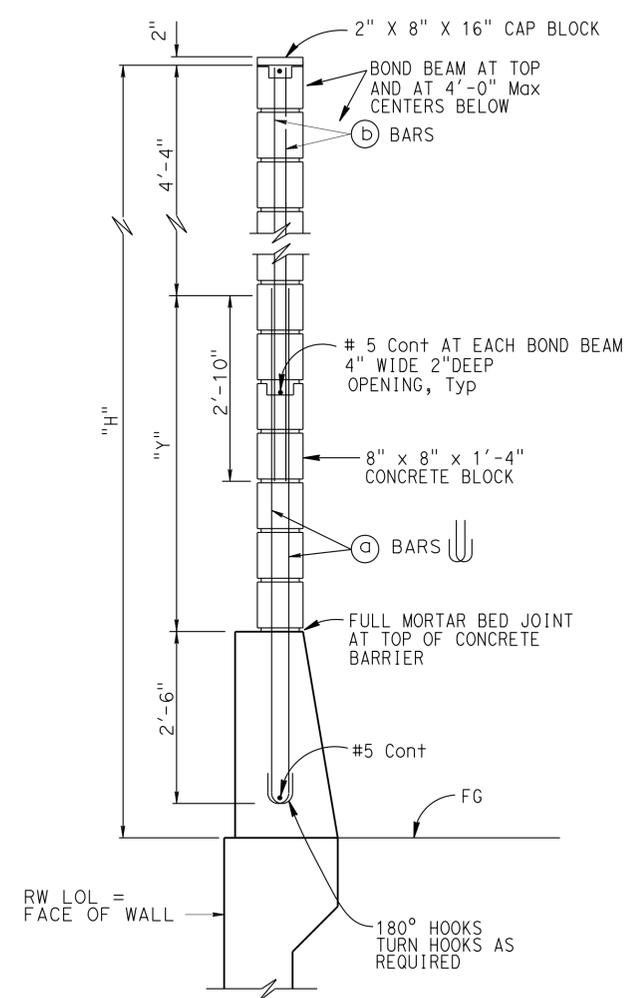
TYPE 1SWB RETAINING WALL,  
FOR DETAILS NOT SHOWN, SEE  
RETAINING WALL TYPE 1SWB" SHEET

**H=12'-4"**  
**PART ELEVATION**  
No Scale

"H"	(A) BARS @ 1'-4" Max	(B) BARS @ 1'-4" Max	"Y"	f'm (psi)	COMPRESSIVE STRENGTH OF CMU (psi)	"H"
12'-4"	#5	#4	5'-0"	1500	1900	12'-4"



**SECTION B-B**  
No Scale



**H=12'-4"**  
**TYPICAL SECTION**  
No Scale

NOTES:

- For details not shown, see "SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL - DETAILS NO. 2" sheet
- Slope ground at traffic side of barrier to drain. Maximum slope ±10%
- See STANDARD PLANS B15-9 for other details
- For type of block and joint finish, see other sheets
- When blocks are laid in stacked bond, ladder type, galvanized joint reinforcement shall be provided. A minimum of 2-9 gauge wire continuous at 4'-0" maximum to be used. Locate reinforcement in joints that are at the approximate midpoint between bond beams
- Horizontal joints shall be tooled concave or may be weathered. Vertical joints shall be tooled concave or may be raked
- Masonry strengths are listed in "SOUNDWALL REINFORCEMENT TABLE"
- Concrete to be used for the barrier shall contain not less than 590 pounds of cementitious material per cubic yard

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
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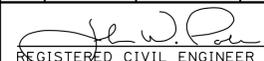
PREPARED FOR THE  
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0020
POST MILES	

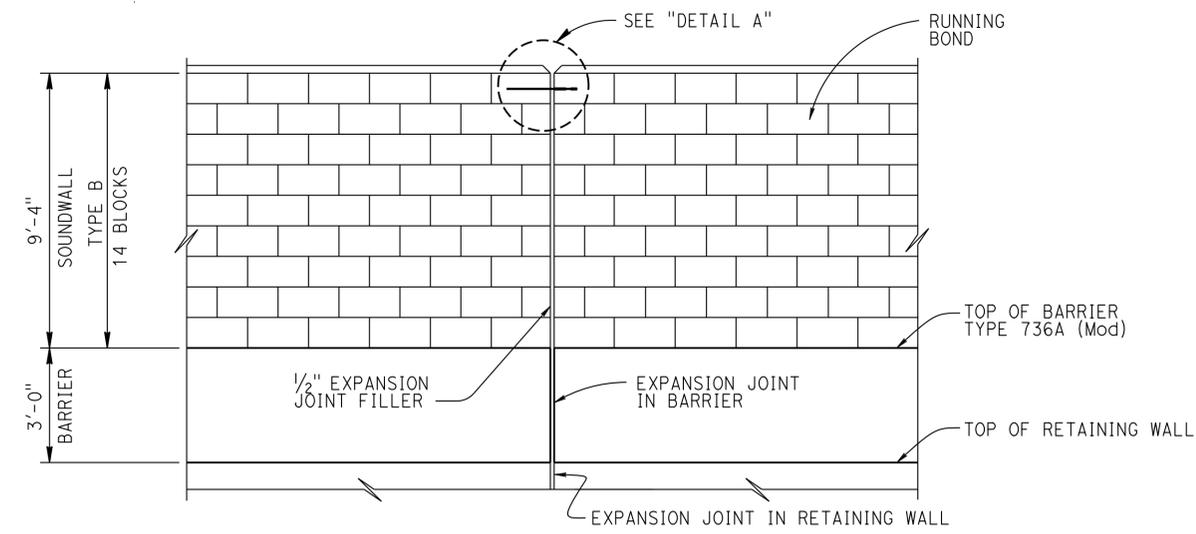
**RETAINING WALL NO. 116**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL**  
**DETAILS NO. 1**

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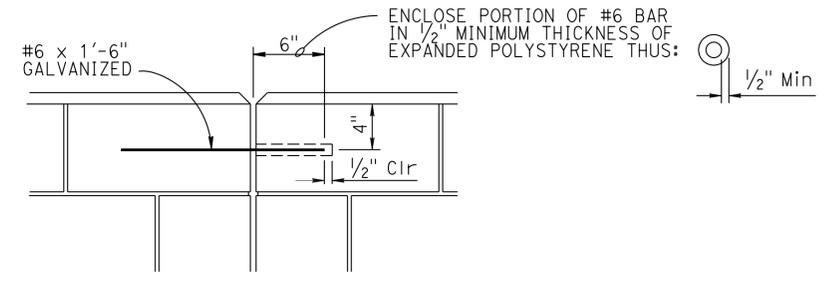
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	640	652

  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

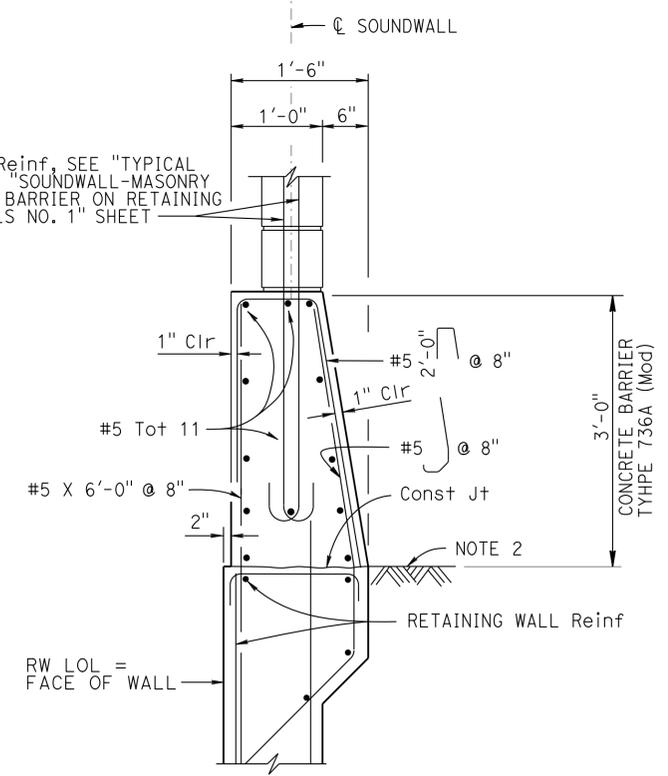


**ALIGNMENT KEY DETAIL**  
No Scale



**DETAIL A**  
No Scale

SOUNDWALL Reinf, SEE "TYPICAL SECTION" ON "SOUNDWALL-MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS NO. 1" SHEET



**BARRIER SECTION**  
No Scale

**DESIGN NOTES**

**DESIGN**  
 Uniform Building Code, 1997 Edition and the Bridge Design Specifications  
**DESIGN WIND LOAD** 33 psf  
**DESIGN SEISMIC LOAD** 0.57 Dead load  
**CONCRETE MASONRY**  

REINFORCED CONCRETE	REGULAR STRENGTH	HIGH STRENGTH	
f'c = 3,600 psi	f'm = 1,500 psi	f'm = 2,000 psi	f'm = 2,500 psi
fy = 60,000 psi	fb = 495 psi	fb = 660 psi	fb = 830 psi
	fs = 24,000 psi	fs = 24,000 psi	fs = 24,000 psi
	n = 25.8	n = 19.3	n = 15.5

**NOTES:**  
 1. For details not shown, see REVISED STANDARD PLAN B15-6  
 2. Slope ground at traffic side of barrier to drain. Maximum slope ±10%. See STANDARD PLAN B11-56, Note D

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

DESIGN OVERSIGHT:   
 Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguay

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0020
POST MILES	

**RETAINING WALL NO. 116**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL**  
**DETAILS NO. 2**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: PROJECT NUMBER & PHASE: 3573 0700000201

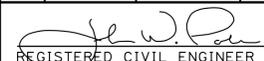
CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	04/22/11 10/12/11 05/11/12 06/21/12	5	8

FILE => 52E0020-t-swdt02.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

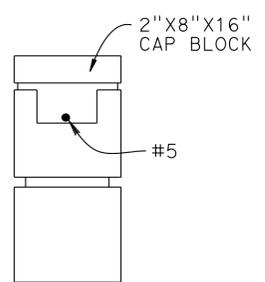
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	641	652

  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

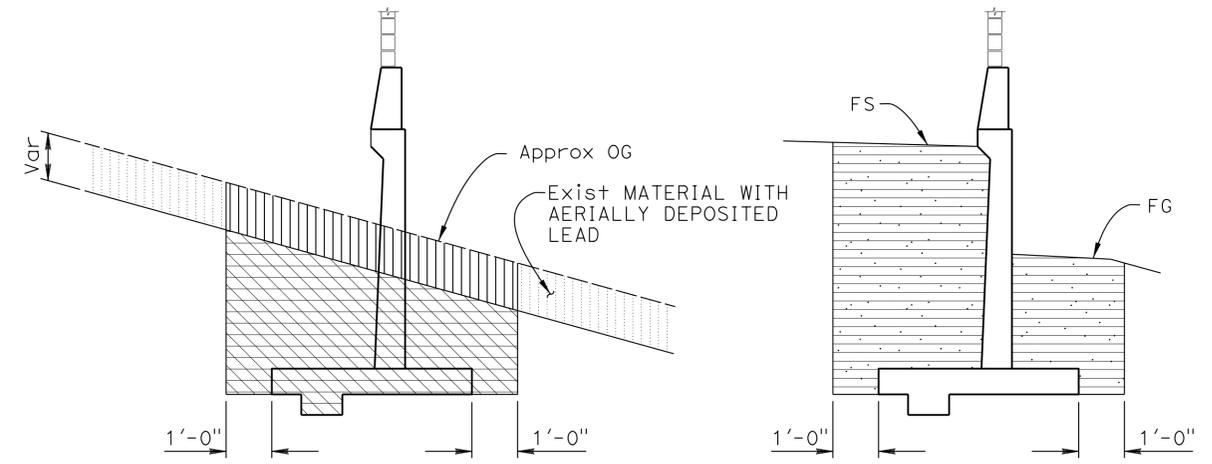
CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

MASONRY BLOCK TYPE TABLE			
BLOCK TYPE	NOMINAL SIZE	TEXTURE	COLOR
B	8 INCH x 8 INCH x 16 INCH	SLUMPSTONE	MISSION (70%) & FAWN (30%) RANDOM MIX

- NOTES:
- BOND (TYPE 2) COMMON BOND
  - MORTAR COLOR TO MATCH BLOCK
  - TOOLED JOINTS.
- \* TO MATCH ANGELUS BLOCK COMPANY COLOR  
FAWN AND MISSION OR EQUAL.



**CAP BLOCK DETAIL**  
NO SCALE



**LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL**  
NO SCALE

For details not shown, see **A62B**

**NOTE:**  
For limits and depth of Structure Excavation (Type Y-1) (Aerially Deposited Lead), see "ROAD PLANS".

- LEGEND:**
-  Structure Excavation (Ret Wall)
  -  Structure Backfill (Ret Wall)
  -  Structure Excavation (Type Y-1) (Aerially Deposited Lead)

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA**  
**DEPARTMENT OF TRANSPORTATION**

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0020
POST MILES	

**RETAINING WALL NO. 116**  
**SOUNDWALL DETAILS**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3573  
PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
04/22/11 10/12/11 05/11/12 06/21/12	6	8

FILE => 52E0020-t-swdt03.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

**BENCHMARKS AND DATUM**

The horizontal coordinates are based on the North American Datum of 1983 (NAD83) California Coordinate System Zone 5 epoch 1991.35, locally determined by points 5434, 5433, 5435, and 5441 from Caltrans Survey Request 94-156.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88) locally determined by the following benchmarks published by the National Geodetic Survey.

AA3344	Elev	830.93	(Adj	1995)
AA3348	Elev	953.66	(Adj	1995)
AA3205	Elev	747.56	(Adj	1995)
AA3346	Elev	922.40	(Adj	1995)

Survey Disk at the intersection of Freeway 101 and Hampshire Rd on top of and 2 ft northeast of the southwest end of the bridge deck.

**NOTES:**

1. This LOTB sheet was prepared in accordance with the "Caltrans Soil and Rock Logging, Classification, and Presentation Manual" (June 2010).
2. Groundwater was not encountered in borings A-11-023 and A-11-024.

**CORRECTION FACTOR:**

A multiplication factor 0.65 was used to convert from California Modified Ring Sampler blow count to equivalent Standard Penetration Test Sampler blow count.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	642	652

5/21/12  
GEOLOGICAL PROFESSIONAL DATE

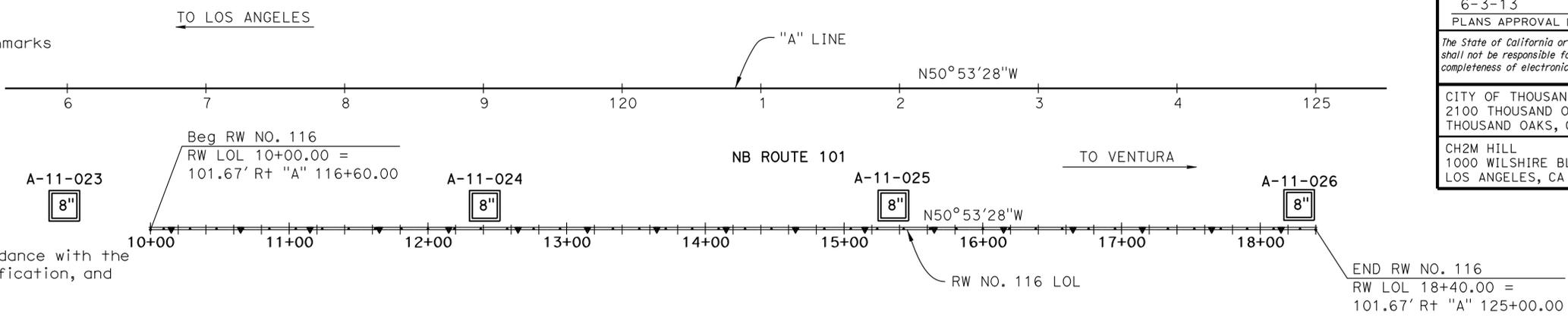
6-3-13  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
PING TIAN  
No. GE2660  
Exp. 12/31/13  
GEOLOGICAL  
STATE OF CALIFORNIA

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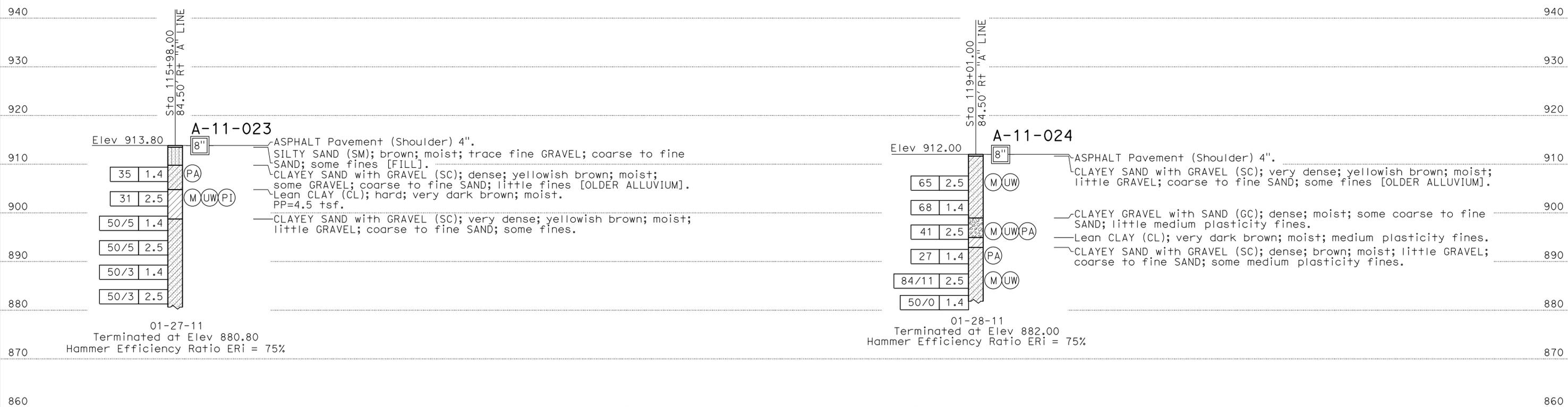
CITY OF THOUSAND OAKS  
2100 THOUSAND OAKS BLVD  
THOUSAND OAKS, CA 91362

CH2M HILL  
1000 WILSHIRE BLVD, 21ST FLOOR  
LOS ANGELES, CA 90017



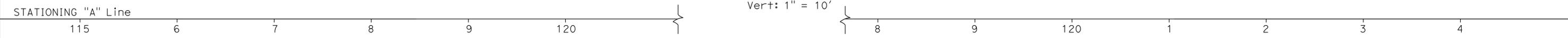
**PLAN**

1" = 50'-0"



**PROFILE**

Horz: 1" = 50'  
Vert: 1" = 10'



 DESIGN OVERSIGHT Richard C. Hartzell 12-17-12 SIGN OFF DATE	DRAWN BY	N. MORALES	K. RADHAKRISHNAN & J. LEE FIELD INVESTIGATION BY: DATE: 01/27/11 & 01/28/11	PREPARED FOR THE <b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	52E0020	<b>RETAINING WALL NO. 116</b> <b>LOG OF TEST BORINGS 1 OF 2</b>
	CHECKED BY	J. LEE			PROJECT ENGINEER	POST MILES	

**BENCHMARKS AND DATUM**

The horizontal coordinates are based on the North American Datum of 1983 (NAD83) California Coordinate System Zone 5 epoch 1991.35, locally determined by points 5434,5433,5435, and 5441 from Caltrans Survey Request 94-156.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88) locally determined by the following benchmarks published by the National Geodetic Survey.

AA3344	Elev	830.93	(Adj	1995)
AA3348	Elev	953.66	(Adj	1995)
AA3205	Elev	747.56	(Adj	1995)
AA3346	Elev	922.40	(Adj	1995)

Survey Disk at the intersection of Freeway 101 and Hampshire Rd on top of and 2 ft northeast of the southwest end of the bridge deck.

**NOTES:**

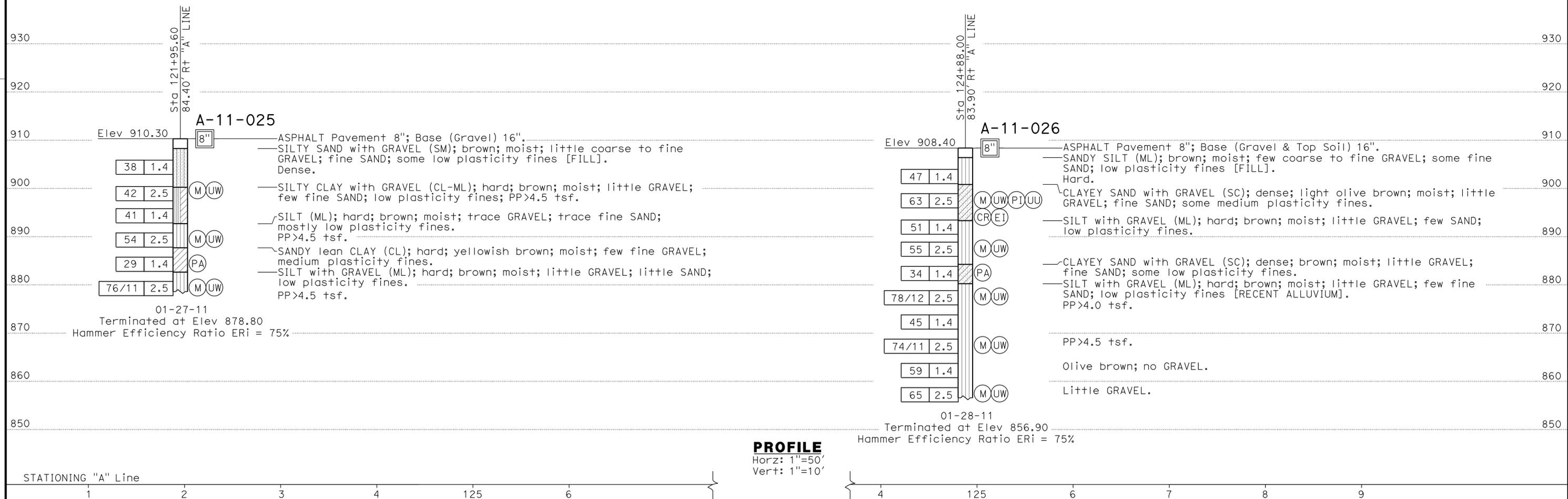
- This LOTB sheet was prepared in accordance with the "Caltrans Soil and Rock Logging, Classification, and Presentation Manual" (June 2010).
- Groundwater was not encountered in borings A-11-025 and A-11-026.

**CORRECTION FACTOR:**

A multiplication factor 0.65 was used to convert from California Modified Ring Sampler blow count to equivalent Standard Penetration Test Sampler blow count.

FOR PLAN VIEW, SEE "LOG OF TEST BORINGS 1 OF 2" SHEET.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	643	652
GEOTECHNICAL PROFESSIONAL			DATE	5/21/12	
6-3-13			PLANS APPROVAL DATE		
PING TIAN			No. GE2660		
Exp. 12/31/13			GEOTECHNICAL		
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.					
CITY OF THOUSAND OAKS 2100 THOUSAND OAKS BLVD THOUSAND OAKS, CA 91362					
CH2M HILL 1000 WILSHIRE BLVD, 21ST FLOOR LOS ANGELES, CA 90017					



**PROFILE**  
Horz: 1"=50'  
Vert: 1"=10'

 DESIGN OVERSIGHT Richard C. Hartzell 12-17-12 SIGN OFF DATE	DRAWN BY	N. MORALES	K. RADHAKRISHNAN & J. LEE FIELD INVESTIGATION BY: DATE: 01/27/11 & 01/28/11	PREPARED FOR THE <b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	<b>RETAINING WALL NO. 116</b> <b>LOG OF TEST BORINGS 2 OF 2</b>	
	CHECKED BY	J. LEE			PROJECT ENGINEER		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	644	652

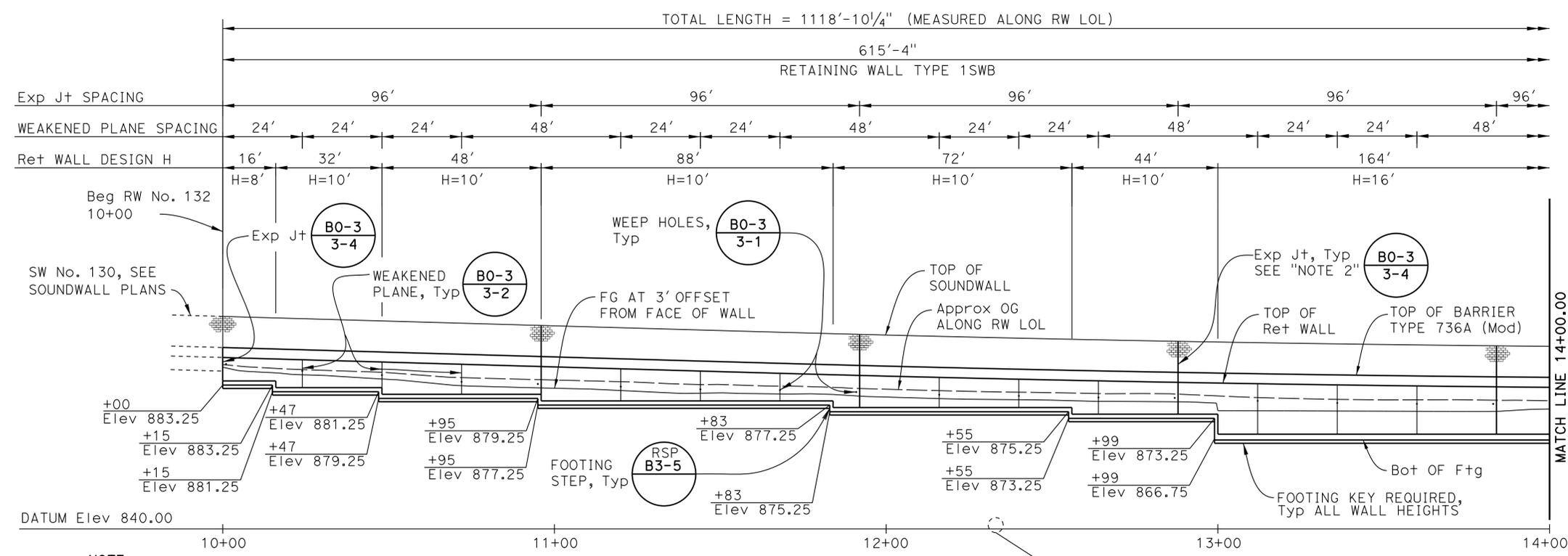
REGISTERED CIVIL ENGINEER  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

5/21/12 DATE  
 6-3-13 PLANS APPROVAL DATE

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CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362

CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



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

**ELEVATION**  
 1" = 20'-0"

MATCH LINE 14+00.00  
SEE "GENERAL PLAN No. 2" SHEET

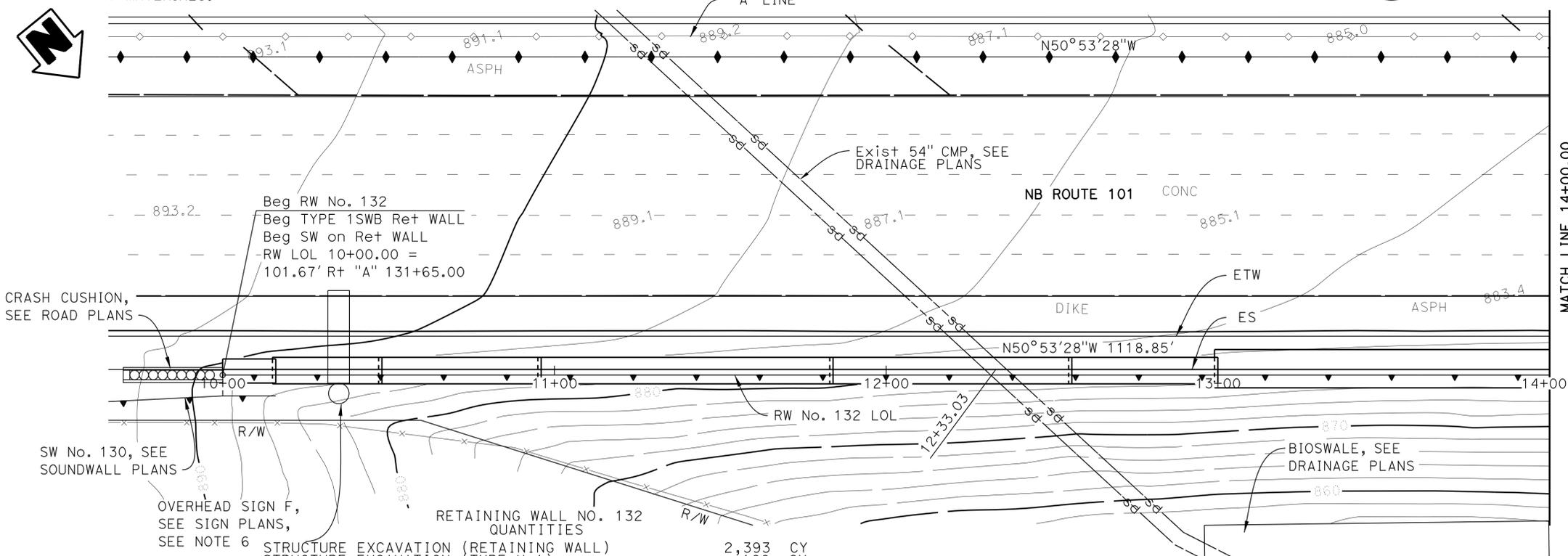
**INDEX TO PLANS**

Sheet No.	Title
1	GENERAL PLAN No. 1
2	GENERAL PLAN No. 2
3	GENERAL PLAN No. 3
4	RETAINING WALL TYPE 1SWB
5	SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS No. 1
6	SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS No. 2
7	SOUNDWALL DETAILS
8	LOG OF TEST BORINGS 1 OF 2
9	LOG OF TEST BORINGS 2 OF 2

**STANDARD PLANS (DATED 2010)**

A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 2 OF 2)
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE SURCHARGE AND WALL
B0-3	BRIDGE DETAILS
RSP B3-1A	RETAINING WALL TYPE 1 (CASE 1)
RSP B3-5	RETAINING WALL DETAILS No. 1
B3-6	RETAINING WALL DETAILS No. 2
B11-56	CONCRETE BARRIER TYPE 736
RSP B15-6	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (1).
B15-9	SOUND WALL MASONRY BLOCK MISCELLANEOUS DETAILS.

MATCH LINE 14+00.00  
SEE "GENERAL PLAN No. 2" SHEET



**PLAN**  
 1" = 20'-0"

**RETAINING WALL NO. 132 QUANTITIES**

STRUCTURE EXCAVATION (RETAINING WALL)	2,393	CY
STRUCTURE EXCAVATION (TYPE Y-1)	166	CY
(AERIALY DEPOSITED LEAD)		
STRUCTURE BACKFILL (RETAINING WALL)	3,739	CY
PREVIOUS BACKFILL MATERIAL (RETAINING WALL)	238	CY
STRUCTURAL CONCRETE, RETAINING WALL	1,156	CY
BAR REINFORCING STEEL (RETAINING WALL)	137,407	LB
SOUND WALL (MASONRY BLOCK)	5,743	SQFT
CONCRETE BARRIER (TYPE 736A MODIFIED)	1,119	LF

**NOTES:**

- Utility locations shown are approximate. For new and existing utility locations and details, see "ROAD PLANS".
- Extend waterstop 6" into Concrete Barrier and 1' below finished grade.
- For "TYPICAL SECTIONS" see "GENERAL PLAN No. 2 AND No. 3" sheets. For "RETAINING WALL ELEVATION TABLE" see "GENERAL PLAN No. 3" sheet.
- Contractor to field verify all utility locations prior to retaining wall construction.
- For drainage system and details, see Drainage Plans.
- Overhead Sign Foundation to be constructed prior to Retaining Wall.

DESIGN OVERSIGHT  
 Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY	CHECKED	LAYOUT	BY	CHECKED
DESIGN	J. Powell	M. Desai/E. Coates	LAYOUT	N. Morales	J. Powell
DETAILS	N. Morales	M. Desai/E. Coates	SPECIFICATIONS	M. Remolador	M. Desai
QUANTITIES	J. Powell	E. Coates/J. Reguyal			

**PREPARED FOR THE STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION  
 PROJECT ENGINEER  
 Milind Desai

BRIDGE NO.	52E0021
POST MILES	

**RETAINING WALL NO. 132**  
**GENERAL PLAN No. 1**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	645	652

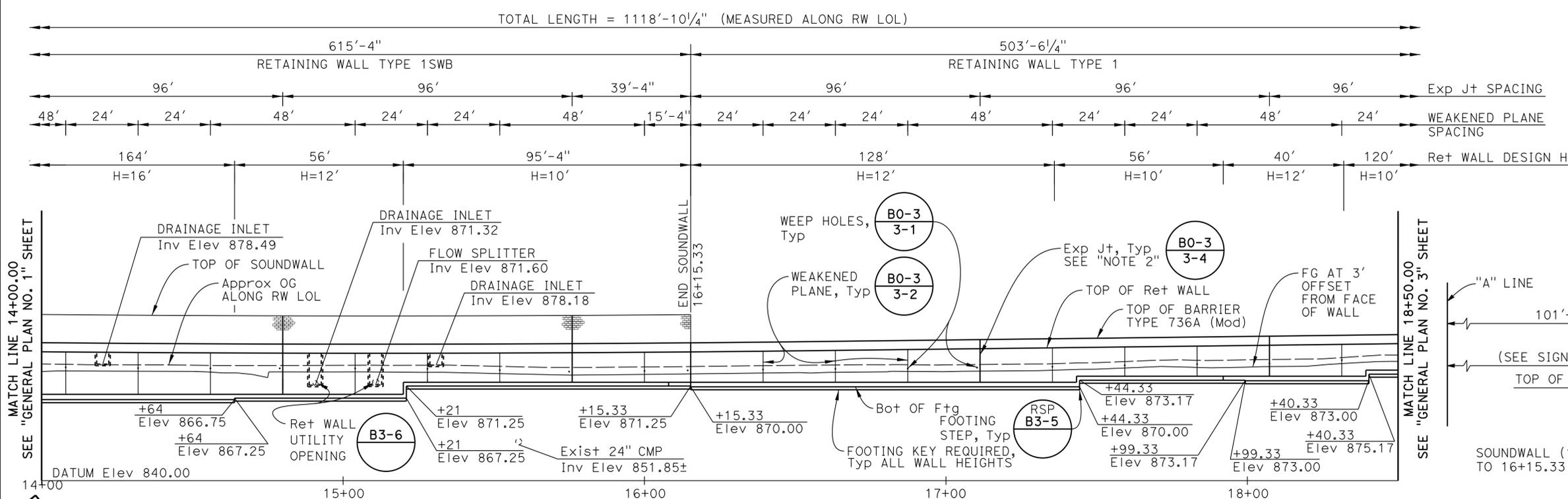
REGISTERED CIVIL ENGINEER  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

5/21/12 DATE  
 6-3-13 PLANS APPROVAL DATE

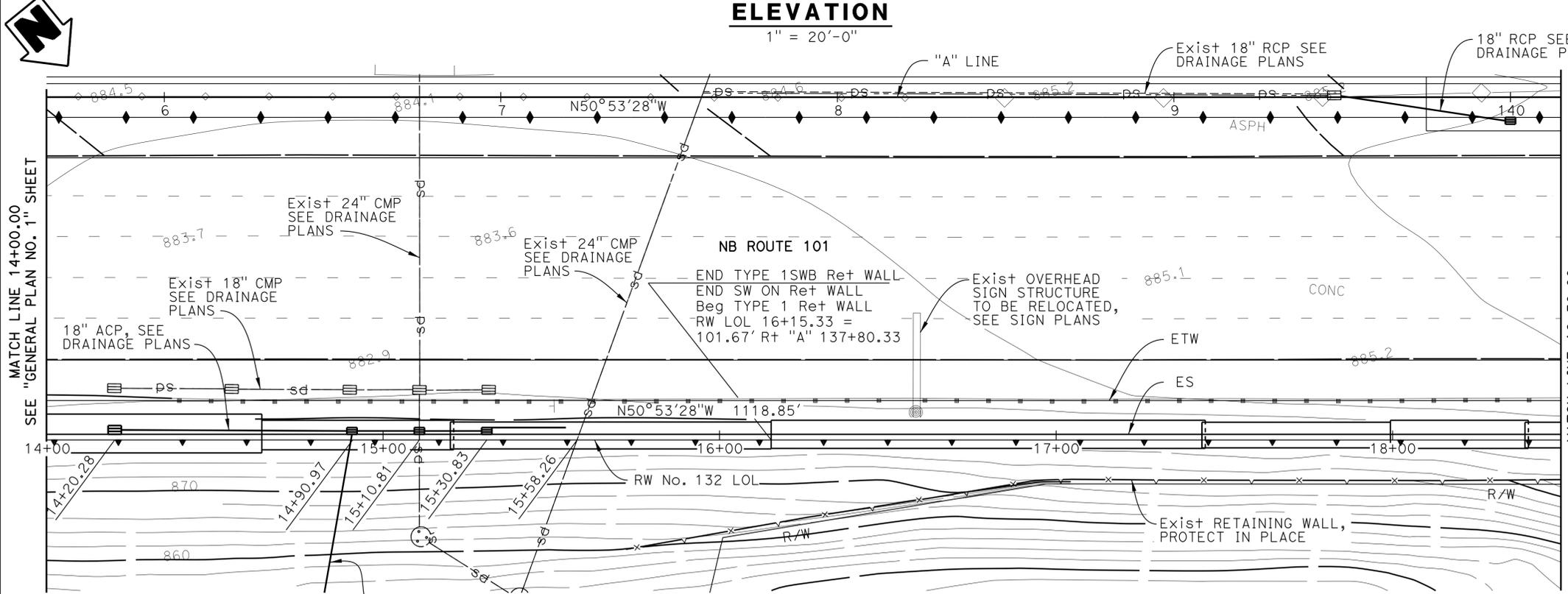
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CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362

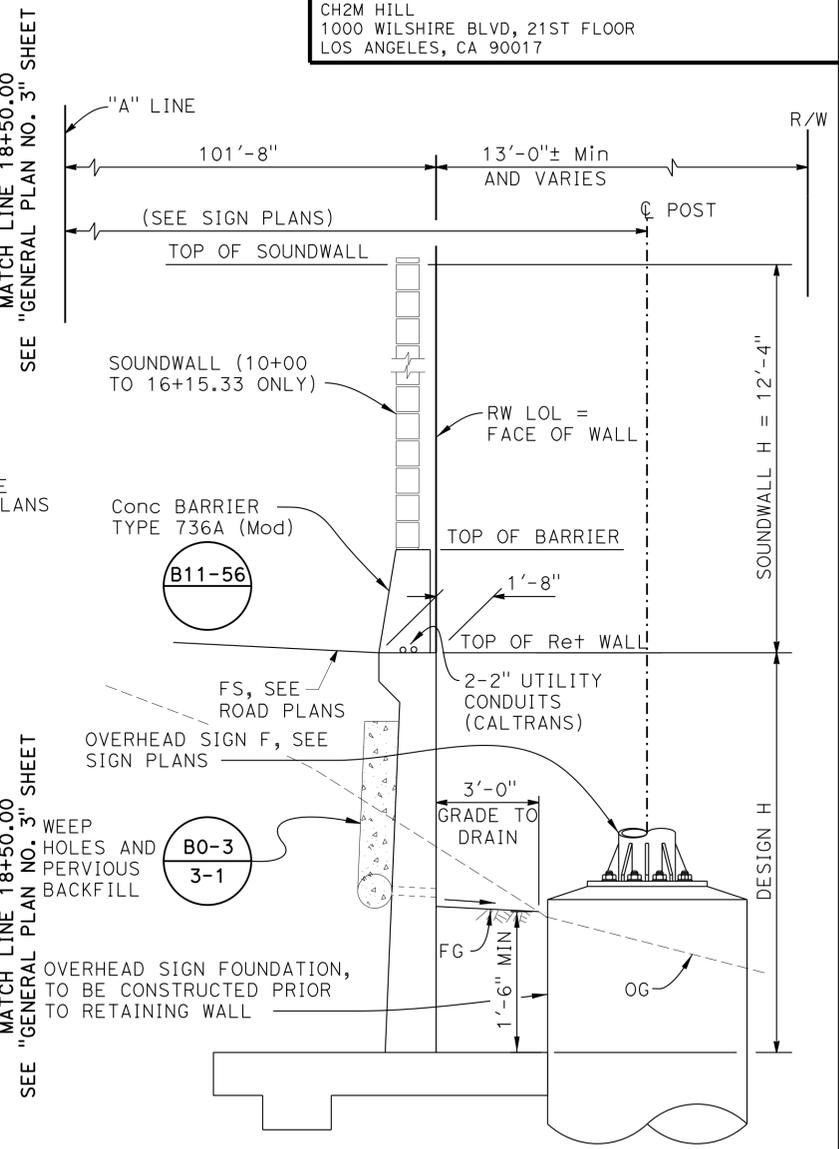
CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



**ELEVATION**  
1" = 20'-0"



**PLAN**  
1" = 20'-0"



**TYPICAL SECTION**  
NO SCALE  
10+00.00 TO 15+72.20 AND 18+58.80 TO 21+18.85

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

**NOTE:**  
1. For "NOTES" see "GENERAL PLAN NO. 1" sheet.

Richard C. Hartzell  
DESIGN OVERSIGHT  
12-17-12  
SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

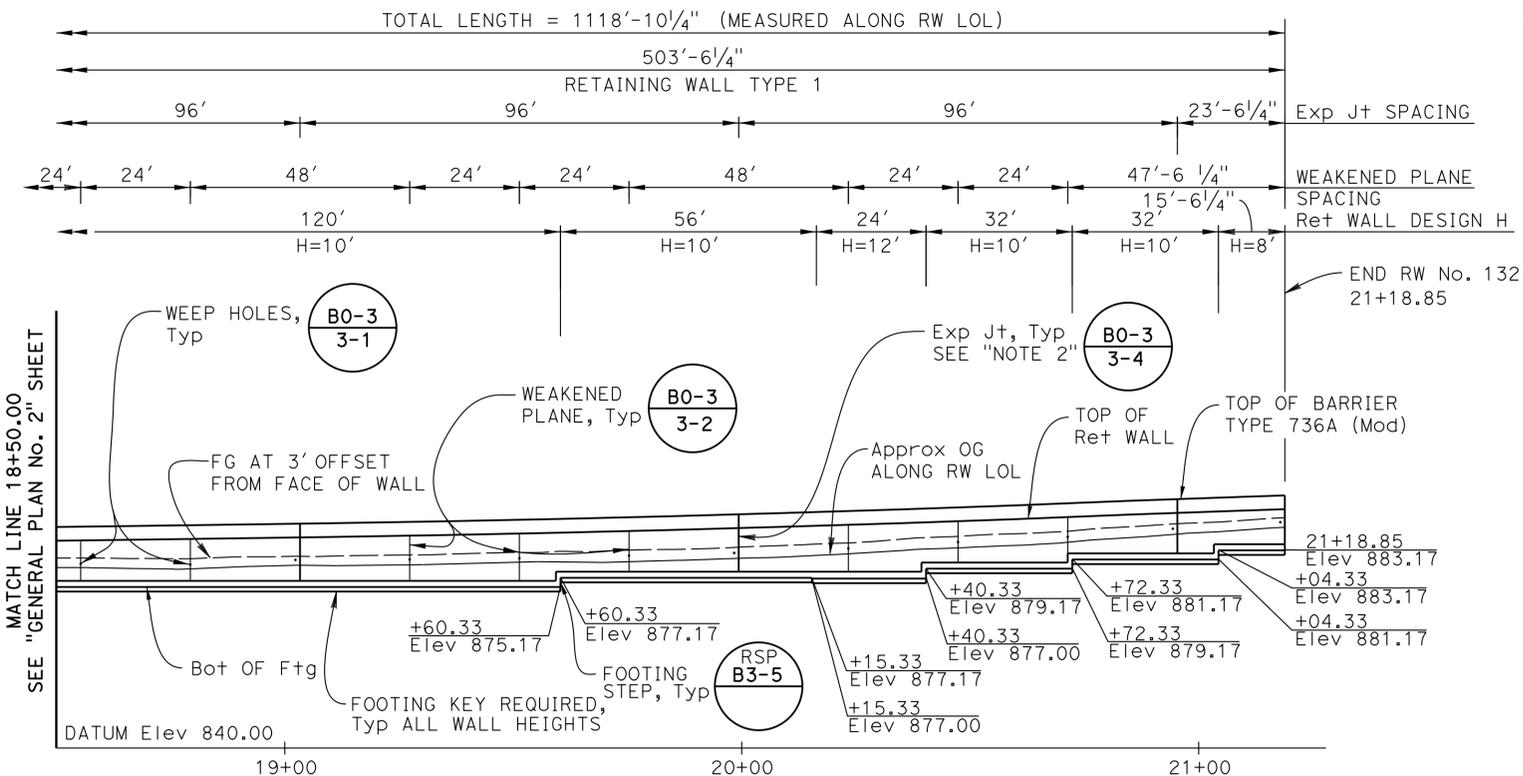
LAYOUT	BY N. Morales	CHECKED J. Powell
SPECIFICATIONS	BY M. Remolador	PLANS AND SPECS COMPARED M. Desai

PREPARED FOR THE  
**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

Milind Desai  
PROJECT ENGINEER

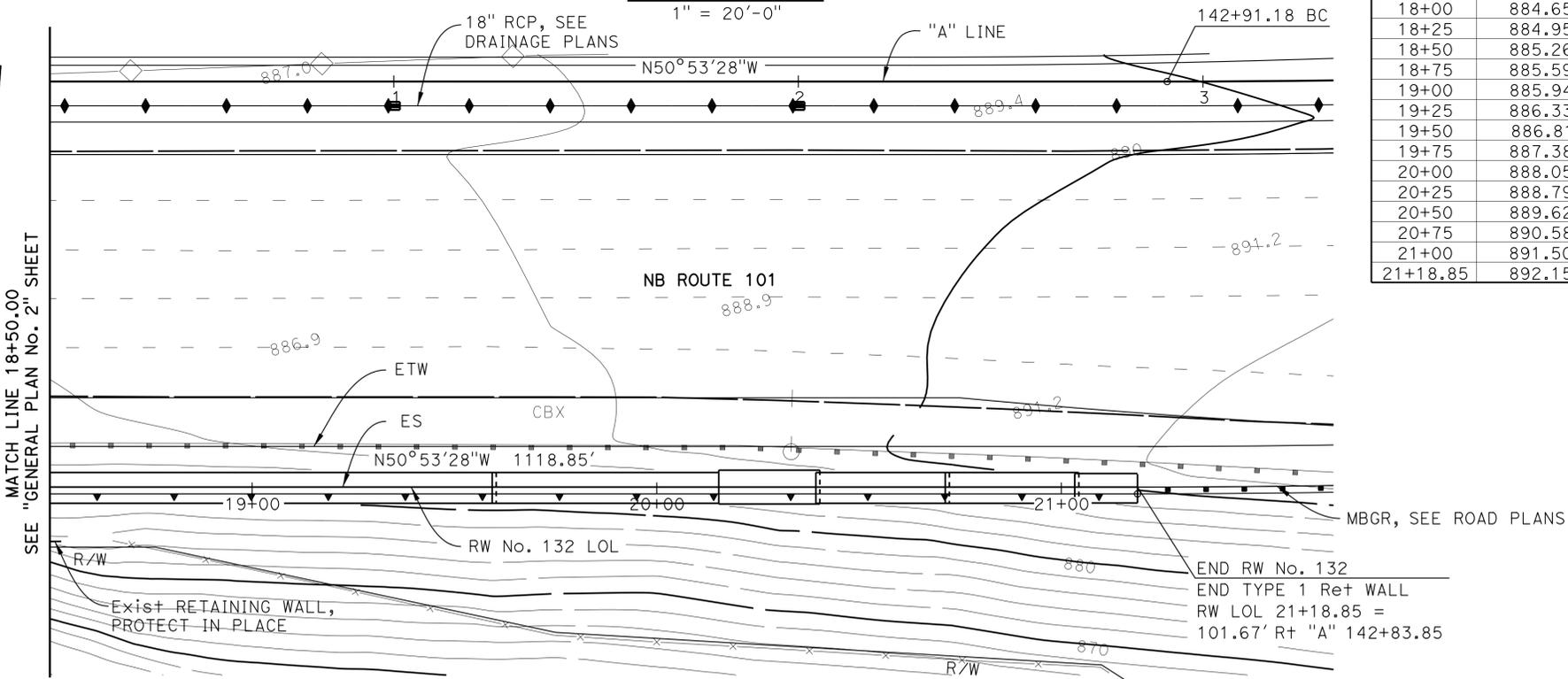
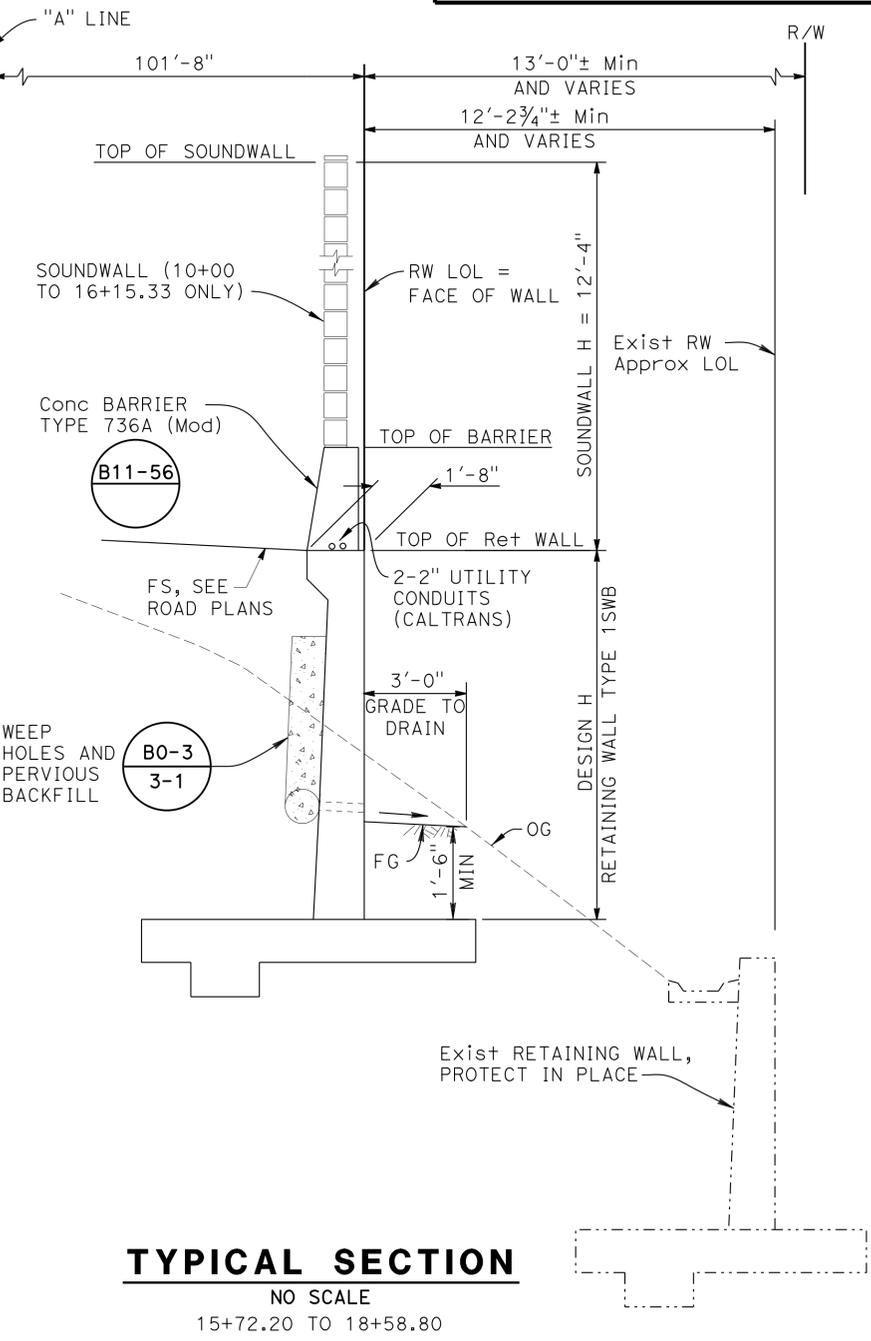
BRIDGE NO.	52E0021
POST MILES	

**RETAINING WALL NO. 132**  
**GENERAL PLAN NO. 2**



**RETAINING WALL ELEVATIONS**

RW LOL STATION	TOP OF Ret WALL Elev
10+00	891.56
10+25	890.85
10+50	890.14
10+75	889.43
11+00	888.72
11+25	888.01
11+50	887.31
11+75	886.61
12+00	885.96
12+25	885.36
12+50	884.81
12+75	884.31
13+00	883.87
13+25	883.47
13+50	883.12
13+75	882.83
14+00	882.58
14+25	882.38
14+50	882.24
14+75	882.14
15+00	882.10
15+25	882.10
15+50	882.16
15+75	882.26
16+00	882.42
16+25	882.62
16+50	882.88
16+75	883.17
17+00	883.47
17+25	883.76
17+50	884.06
17+75	884.36
18+00	884.65
18+25	884.95
18+50	885.26
18+75	885.59
19+00	885.94
19+25	886.33
19+50	886.81
19+75	887.38
20+00	888.05
20+25	888.79
20+50	889.62
20+75	890.58
21+00	891.50
21+18.85	892.15



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

**NOTE:**  
 1. For "NOTES" see "GENERAL PLAN No. 1" sheet.

**TYPICAL SECTION**  
 NO SCALE  
 15+72.20 TO 18+58.80

### DESIGN DATA

Design: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments

WS: 33 psf on Soundwall and Barrier

LS: Varied surcharge on level ground surface

CT: 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 1:1 distribution down and outward

EQE: Mononabe-Okabe Method  
 $K_h = 0.3$   
 $K_v = 0.0$

Soil:  $\phi = 34^\circ$   
 $\gamma = 120$  pcf

Reinforced Concrete:  $f'_c = 3,600$  psi  
 $f_y = 60,000$  psi

Load Combinations and Limit States

Service I  $Q = 1.00DC + 1.00EV + 1.00EH + 1.00LS + 0.30WS$

Service II  $Q = 1.00DC + 1.00EV + 1.00EH + 1.00WS$

Strength I  $Q = aDC + \beta EV + 1.50EH + 1.75LS$

Strength III  $Q = aDC + \beta EV + 1.50EH + 1.40WS$

Strength V  $Q = aDC + \beta EV + 1.50EH + 1.35LS + 0.40WS$

Extreme I  $Q = 1.00DC + 1.00EV + 1.00EH + 1.00EQD + 1.00EQE$

Extreme II  $Q = 1.00DC + 1.00EV + 1.00EH + 1.00CT$

Where:

- Q: Force Effects
- a: 1.25 or 0.90, which ever Controls Design
- $\beta$ : 1.35 or 1.00, which ever Controls Design
- DC: Dead Load of Structure Components
- EV: Vertical Earth Fill Pressure
- LS: Live Load Surcharge
- EQE: Seismic Earth Pressure
- EQD: Soil and Structure Components Inertia. Soil inertia ignored for stem design
- WS: Wind Load on Sound Wall and Barrier
- CT: Vehicular Collision Force

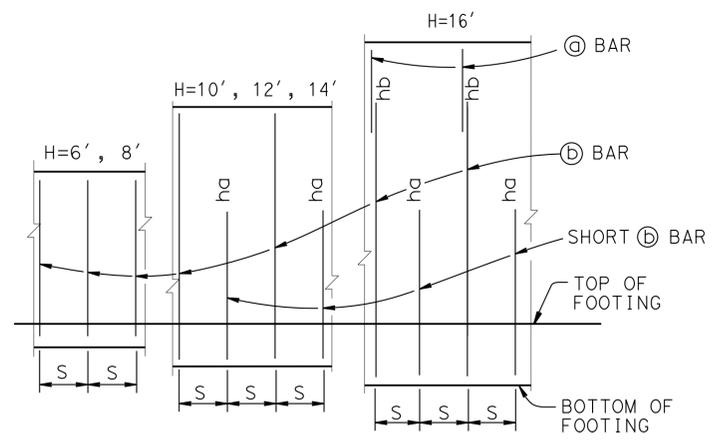
LRFD Bearing Resistance:

Permissible Net Contact Stress (Service) = 6.3 ksf,  $B' = 9.7'$

Factored Gross Nominal Bearing Resistance (Strength,  $\phi = 0.45$ ) = 6.3 ksf,  $B' = 3.2'$

Factored Gross Nominal Bearing Resistance (Extreme,  $\phi = 1.0$ ) = 13.9 ksf,  $B' = 2.5'$

- NOTES:
- For details not shown and drainage notes see RSP B3-5
  - Footing cover, 1'-6" minimum.
  - For soundwall and barrier reinforcement details, see "SOUND WALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL" sheet.
  - For H = 6' through 14', extend  $\textcircled{B}$  bars into Barrier for stem with haunch.
  - For H = 16', extend  $\textcircled{B}$  bars into Barrier for stem with haunch.



### ELEVATION

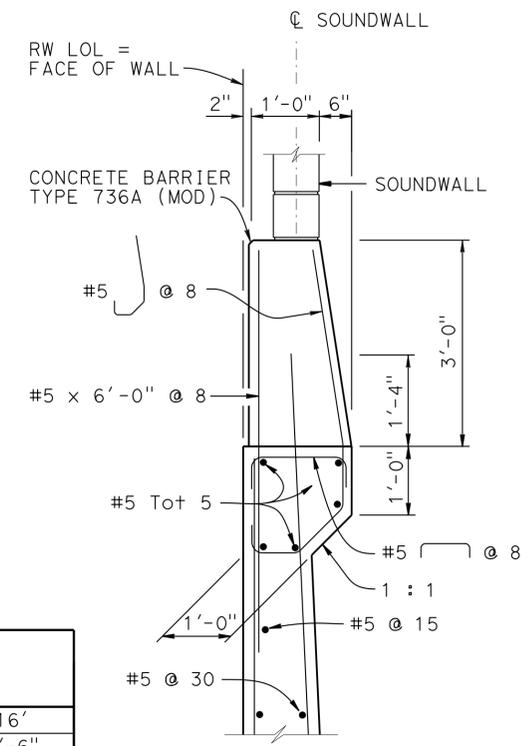
No Scale

NOTES:  
 "ha" and "hb" above  $\textcircled{B}$  bars indicate distance from top of footing to upper end of short  $\textcircled{B}$  bars, see table.  
 "S" is  $\textcircled{B}$  bar spacing, see table.

### TABLE OF REINFORCING STEEL DIMENSIONS AND DATA

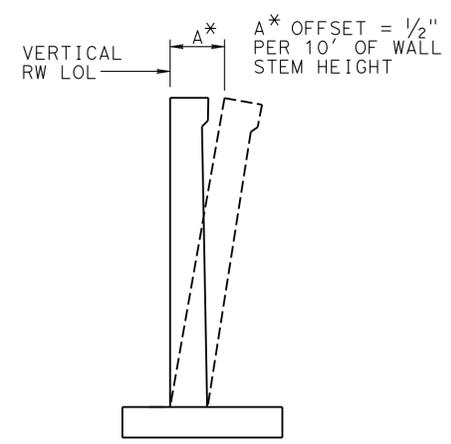
DESIGN H	8'	10'	12'	14'	16'
W	7'-3"	8'-0"	8'-9"	10'-0"	11'-6"
C	2'-5"	2'-8"	2'-11"	3'-4"	3'-10"
B	4'-10"	5'-4"	5'-10"	6'-8"	7'-8"
F SPREAD FOOTING	1'-3"	1'-3"	1'-3"	1'-6"	1'-9"
STEM WITH HAUNCH, BATTER	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12
$\textcircled{A}$ BARS	N/A	N/A	N/A	N/A	#7 @ 15
$\textcircled{B}$ BARS	#8 @ 12	#7 @ 6	#7 @ 6	#7 @ 6	#9 @ 7.5
ha	N/A	5'-0"	6'-0"	7'-0"	7'-0"
hb	N/A	N/A	N/A	N/A	11'-6"
hy	2'-4"	1'-8"	2'-0"	2'-4"	2'-10"
hz	N/A	N/A	N/A	3'-1"	3'-7"
$\textcircled{C}$ BARS	#7 @ 12	#5 @ 6	#6 @ 6	#7 @ 6	#8 @ 7.5
SER I: $B'(ft)$ , $q_0(ksf)$	6.0, 1.4	6.5, 1.6	7.0, 1.8	8.1, 1.9	9.7, 2.0
STR Ia: $B'(ft)$ , $q_0(ksf)$	6.3, 2.3	6.7, 2.5	7.0, 2.9	8.1, 3.1	9.5, 3.2
STR Ib: $B'(ft)$ , $q_0(ksf)$	4.3, 2.0	4.3, 2.4	4.3, 2.8	4.3, 2.9	4.3, 2.9
STR IIIa: $B'(ft)$ , $q_0(ksf)$	4.3, 2.4	4.3, 2.5	4.3, 2.8	4.3, 2.9	4.3, 3.0
STR IIIb: $B'(ft)$ , $q_0(ksf)$	3.2, 2.3	3.2, 2.4	3.2, 2.6	3.2, 2.7	3.2, 2.7
STR Va: $B'(ft)$ , $q_0(ksf)$	5.9, 2.3	5.9, 2.6	5.9, 2.9	5.9, 3.1	5.9, 3.2
STR Vb: $B'(ft)$ , $q_0(ksf)$	3.8, 2.1	3.8, 2.5	3.8, 2.8	3.8, 2.9	3.8, 2.9
EXT I: $B'(ft)$ , $q_0(ksf)$	2.5, 4.3	2.5, 6.4	2.5, 10.9	2.5, 13.3	2.5, 12.4
EXT II: $B'(ft)$ , $q_0(ksf)$	1.4, 3.5	1.4, 2.8	1.4, 2.7	1.4, 2.5	1.4, 2.5

LEGEND:  
 SER: service limit state  
 STR: strength limit state  
 EXT: extreme event limit state  
 $B'$ : effective footing width (ft)  
 $q_0$ : net bearing stress (ksf)  
 $q_0$ : gross uniform bearing stress (ksf)



### DETAIL A

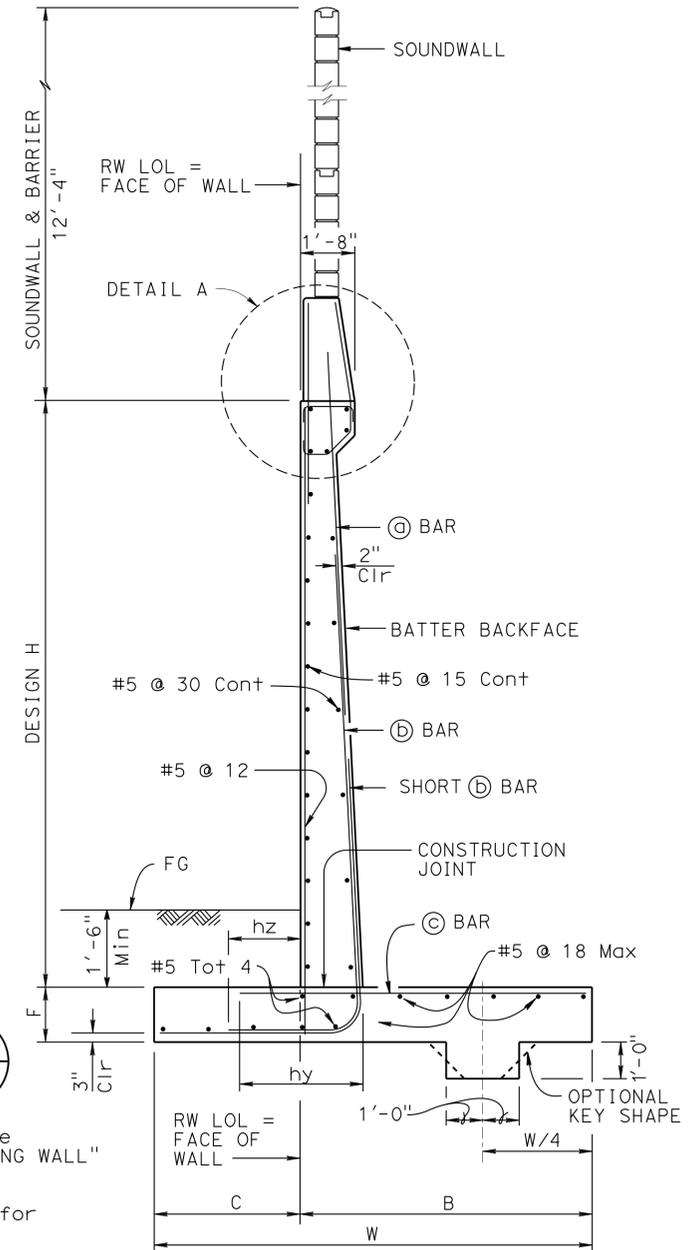
3/4 = 1'-0"



### WALL OFFSET

No Scale

Values for offsetting forms to be determined by the Engineer



### SPREAD FOOTING SECTION

No Scale

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

Richard C. Hartzell  
 DESIGN OVERSIGHT  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguay

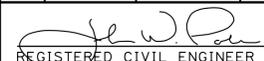
PREPARED FOR THE  
 STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0021
POST MILES	

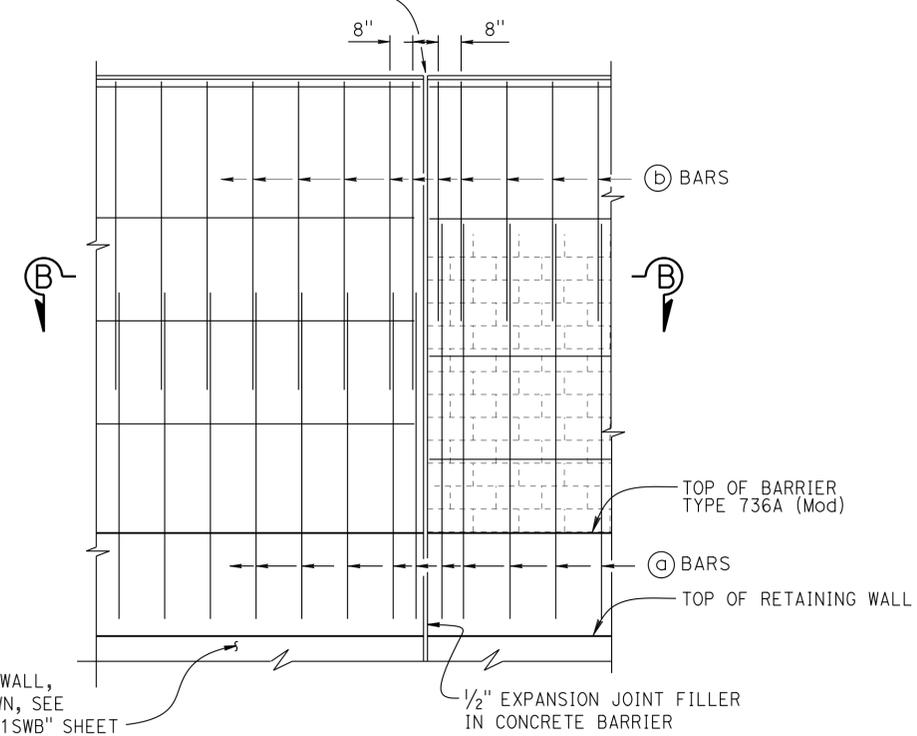
RETAINING WALL NO. 132  
 RETAINING WALL TYPE 1SWB

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	648	652

  
 REGISTERED CIVIL ENGINEER 5/21/12 DATE  
 6-3-13 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

EXPANSION JOINTS AT 96'-0" Max CENTERS.  
SEE OTHER SHEETS FOR LOCATIONS

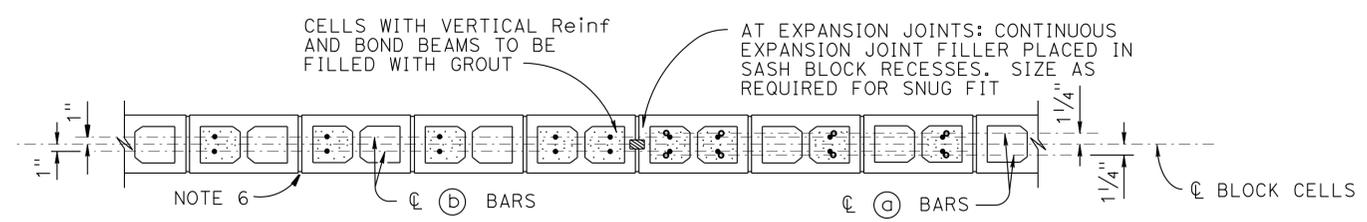


H=12'-4"

**PART ELEVATION**

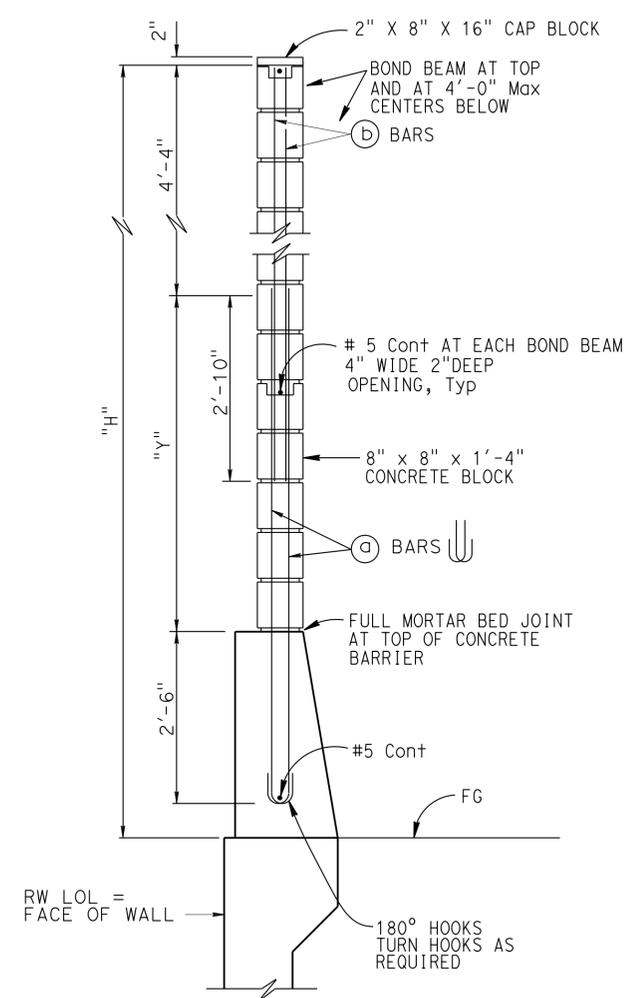
NO SCALE

"H"	(a) BARS @ 1'-4" Max	(b) BARS @ 1'-4" Max	"Y"	f'm (psi)	COMPRESSIVE STRENGTH OF CMU (psi)	"H"
12'-4"	#5	#4	5'-0"	1500	1900	12'-4"



**SECTION B-B**

NO SCALE



H=12'-4"

**TYPICAL SECTION**

NO SCALE

NOTES:

- For details not shown, see "SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL - DETAILS NO. 2" sheet
- Slope ground at traffic side of barrier to drain. Maximum slope ±10%
- See STANDARD PLANS B15-9 for other details
- For type of block and joint finish, see other sheets
- When blocks are laid in stacked bond, ladder type, galvanized joint reinforcement shall be provided. A minimum of 2-9 gauge wire continuous at 4'-0" maximum to be used. Locate reinforcement in joints that are at the approximate midpoint between bond beams
- Horizontal joints shall be tooled concave or may be weathered. Vertical joints shall be tooled concave or may be raked
- Masonry strengths are listed in "SOUNDWALL REINFORCEMENT TABLE"
- Concrete to be used for the barrier shall contain not less than 590 pounds of cementitious material per cubic yard

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0021
POST MILES	

**RETAINING WALL NO. 132**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL**  
**DETAILS NO. 1**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

UNIT: 3573  
PROJECT NUMBER & PHASE: 0700000201

CONTRACT NO.: 07-1952U1

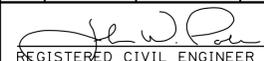
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REVISION DATES	SHEET	OF
10/05/12 10/12/11 05/11/12 06/21/12	5	9

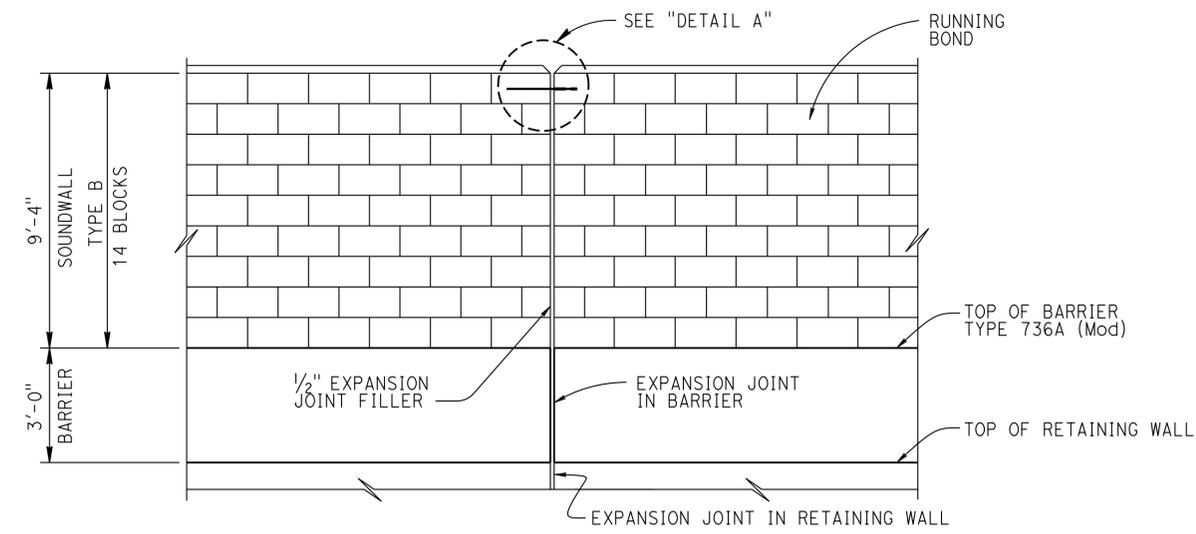
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USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

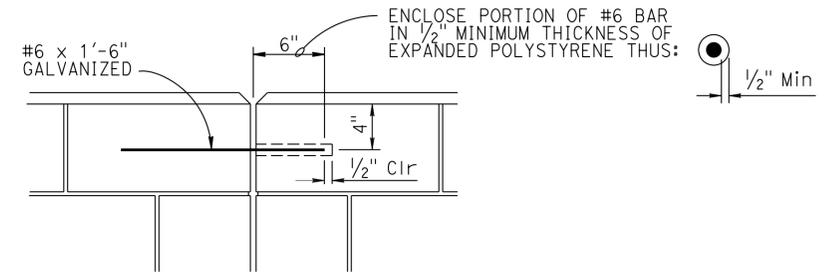
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	649	652

  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

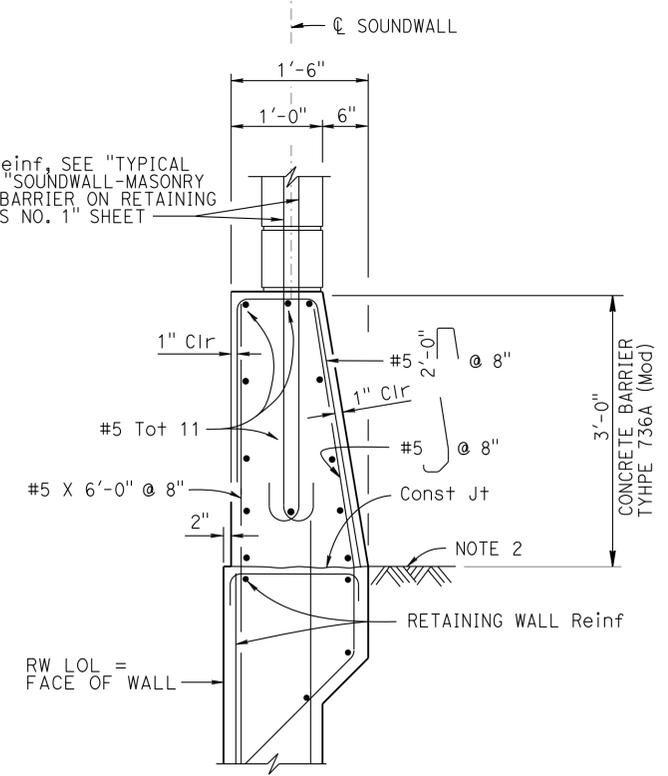


**ALIGNMENT KEY DETAIL**  
No Scale



**DETAIL A**  
No Scale

SOUNDWALL Reinf, SEE "TYPICAL SECTION" ON "SOUNDWALL-MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS NO. 1" SHEET



**BARRIER SECTION**  
No Scale

**DESIGN NOTES**

DESIGN  
Uniform Building Code, 1997 Edition and the Bridge Design Specifications

DESIGN WIND LOAD  
33 psf

DESIGN SEISMIC LOAD  
0.57 Dead load

CONCRETE MASONRY

REINFORCED CONCRETE	REGULAR STRENGTH	HIGH STRENGTH	
f'c = 3,600 psi	f'm = 1,500 psi	f'm = 2,000 psi	f'm = 2,500 psi
fy = 60,000 psi	fb = 495 psi	fb = 660 psi	fb = 830 psi
	fs = 24,000 psi	fs = 24,000 psi	fs = 24,000 psi
	n = 25.8	n = 19.3	n = 15.5

- NOTES:
- For details not shown, see REVISED STANDARD PLAN B15-6
  - Slope ground at traffic side of barrier to drain. Maximum slope ±10%. See STANDARD PLAN B11-56, Note D

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION  
 Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0021
POST MILES	

**RETAINING WALL NO. 132**  
**SOUNDWALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL**  
**DETAILS NO. 2**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: PROJECT NUMBER & PHASE: 0700000201

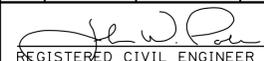
CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	10/05/12 10/22/11 05/11/12 06/24/12	6	9

FILE => 52E0021-t-swdt02.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

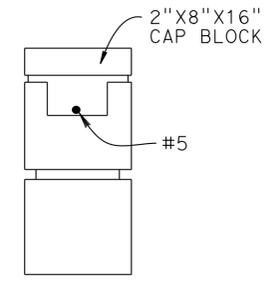
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	650	652

  
 REGISTERED CIVIL ENGINEER DATE 5/21/12  
 6-3-13  
 PLANS APPROVAL DATE  
 JOHN W. POWELL  
 No. C71463  
 Exp. 12/31/13  
 CIVIL  
 STATE OF CALIFORNIA

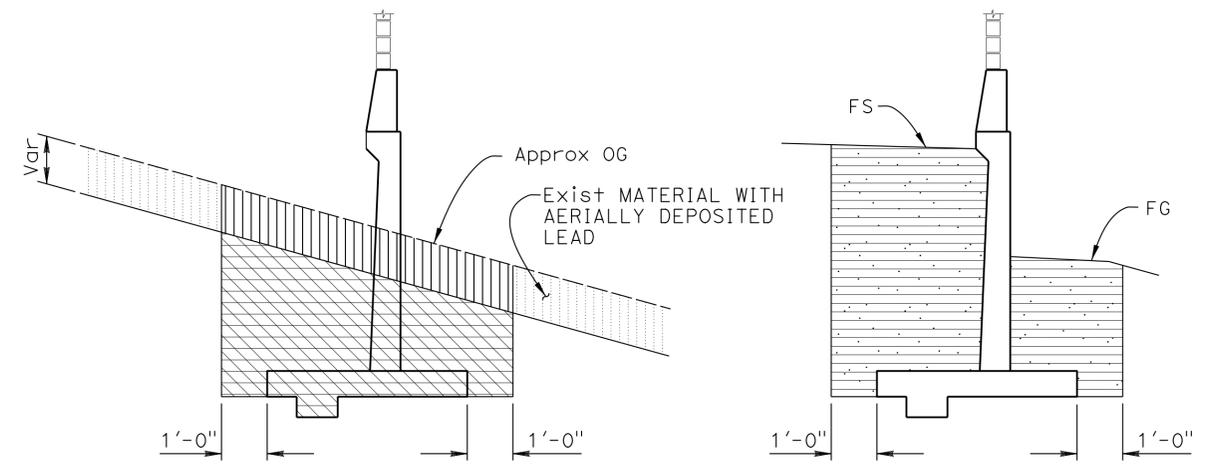
CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362  
 CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017

MASONRY BLOCK TYPE TABLE			
BLOCK TYPE	NOMINAL SIZE	TEXTURE	COLOR
B	8 INCH x 8 INCH x 16 INCH	SLUMPSTONE	MISSION (70%) & FAWN (30%) RANDOM MIX

- NOTES:
- BOND (TYPE 2) COMMON BOND
  - MORTAR COLOR TO MATCH BLOCK
  - TOOLED JOINTS.
  - \* TO MATCH ANGELUS BLOCK COMPANY COLOR  
FAWN AND MISSION OR EQUAL.



**CAP BLOCK DETAIL**  
NO SCALE



**LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL**  
NO SCALE

For details not shown, see **A62B**

NOTE: For limits and depth of Structure Excavation (Type Y-1) (Aerially Deposited Lead), see road plans.

- LEGEND:
-  Structure Excaation (Ret Wall)
  -  Structure Backfill (Ret Wall)
  -  Structure Excavation (Type Y-1) (Aerially Deposited Lead)

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

  
 DESIGN OVERSIGHT Richard C. Hartzell  
 12-17-12  
 SIGN OFF DATE

DESIGN	BY J. Powell	CHECKED M. Desai/E. Coates
DETAILS	BY N. Morales	CHECKED M. Desai/E. Coates
QUANTITIES	BY J. Powell	CHECKED E. Coates/J. Reguyal

**PREPARED FOR THE STATE OF CALIFORNIA**  
**DEPARTMENT OF TRANSPORTATION**

Milind Desai  
 PROJECT ENGINEER

BRIDGE NO.	52E0021
POST MILES	

**RETAINING WALL NO. 132**  
**SOUNDWALL DETAILS**

DESIGN DETAIL SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0	1	2	3
---	---	---	---

UNIT: 3573  
 PROJECT NUMBER & PHASE: 0700000201 CONTRACT NO.: 07-1952U1

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	10/05/12 10/12/11 05/11/12 06/21/12	7	9

FILE => 52E0021-t-swdt03.dgn

USERNAME => s124496 DATE PLOTTED => 08-JUN-2013 TIME PLOTTED => 11:14

**BENCHMARKS AND DATUM**

The horizontal coordinates are based on the North American Datum of 1983 (NAD83) California Coordinate System Zone 5 epoch 1991.35, locally determined by points 5434,5433,5435, and 5441 from Caltrans Survey Request 94-156.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88) locally determined by the following benchmarks published by the National Geodetic Survey.

AA3344	Elev	830.93	(Adj 1995)
AA3348	Elev	953.66	(Adj 1995)
AA3205	Elev	747.56	(Adj 1995)
AA3346	Elev	922.40	(Adj 1995)

Survey Disk at the intersection of Freeway 101 and Hampshire Rd on top of and 2 ft northeast of the southwest end of the bridge deck.

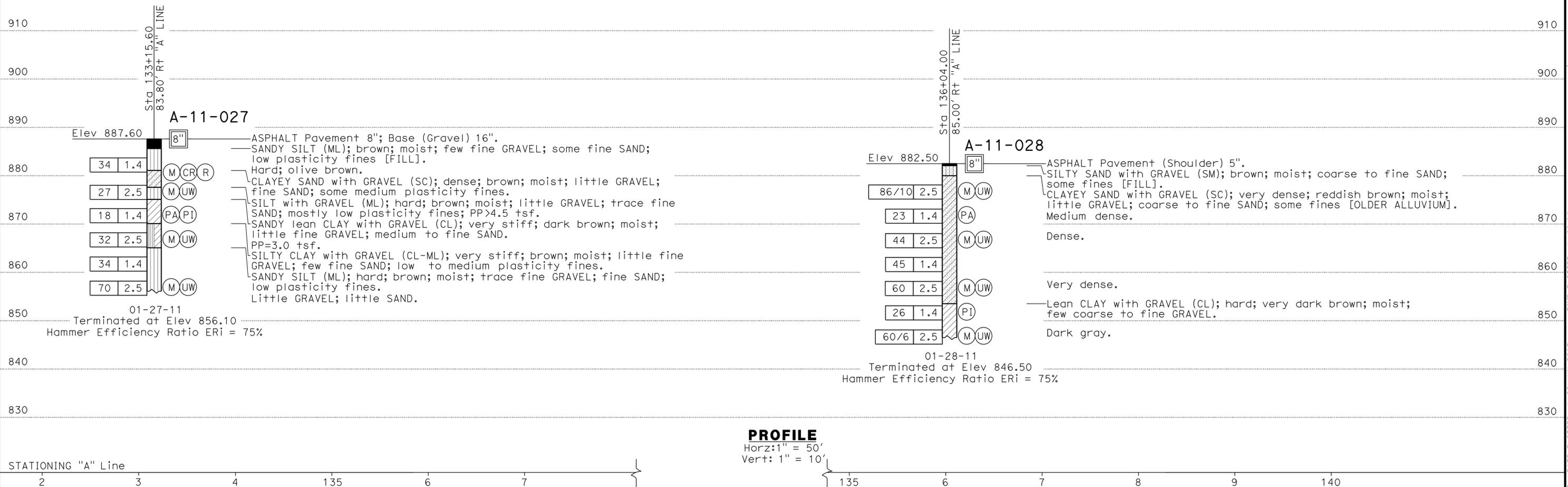
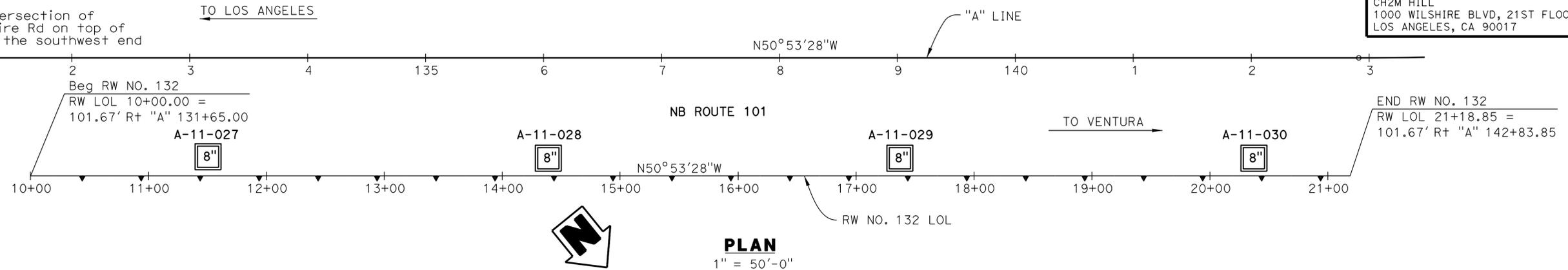
**NOTES:**

- This LOTB sheet was prepared in accordance with the Caltrans Soil and Rock Logging, Classification, and Presentation Manual (June 2010).
- Groundwater was not encountered in borings A-11-027 and A-11-028.

**CORRECTION FACTOR:**

A multiplication factor 0.65 was used to convert from California Modified Ring Sampler blow count to equivalent Standard Penetration Test Sampler blow count.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	651	652
 GEOTECHNICAL PROFESSIONAL DATE 5/21/12			PING TIAN No. GE2660 Exp. 12/31/13 STATE OF CALIFORNIA		
6-3-13 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.					
CITY OF THOUSAND OAKS 2100 THOUSAND OAKS BLVD THOUSAND OAKS, CA 91362					
CH2M HILL 1000 WILSHIRE BLVD, 21ST FLOOR LOS ANGELES, CA 90017					



 DESIGN OVERSIGHT Richard C. Hartzell 12-17-12 SIGN OFF DATE	DRAWN BY	N. MORALES	K. RADHAKRISHNAN & J. LEE FIELD INVESTIGATION BY: DATE: 01/27/11 & 01/28/11	PREPARED FOR THE <b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	52E0021	<b>RETAINING WALL NO. 132</b> <b>LOG OF TEST BORINGS 1 OF 2</b>
	CHECKED BY	J. LEE			PROJECT ENGINEER	POST MILES	

**BENCHMARKS AND DATUM**

The horizontal coordinates are based on the North American Datum of 1983 (NAD83) California Coordinate System Zone 5 epoch 1991.35, locally determined by points 5434,5433,5435, and 5441 from Caltrans Survey Request 94-156.

Vertical control is based on the North American Vertical Datum of 1988 (NAVD88) locally determined by the following benchmarks published by the National Geodetic Survey.

AA3344	Elev	830.93	(Adj 1995)
AA3348	Elev	953.66	(Adj 1995)
AA3205	Elev	747.56	(Adj 1995)
AA3346	Elev	922.40	(Adj 1995)

Survey Disk at the intersection of Freeway 101 and Hampshire Rd on top of and 2 ft northeast of the southwest end of the bridge deck.

**NOTES:**

- This LOTB sheet was prepared in accordance with the "Caltrans Soil and Rock Logging, Classification, and Presentation Manual" (June 2010).
- Groundwater was not encountered in borings A-11-029 and A-11-030.

**CORRECTION FACTOR:**

A multiplication factor 0.65 was used to convert from California Modified Ring Sampler blow count to equivalent Standard Penetration Test Sampler blow count.

FOR PLAN VIEW, SEE "LOG OF TEST BORINGS 1 OF 2" SHEET.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	Ven	23,101	3.3/3.8 R0.1/R4.5	652	652

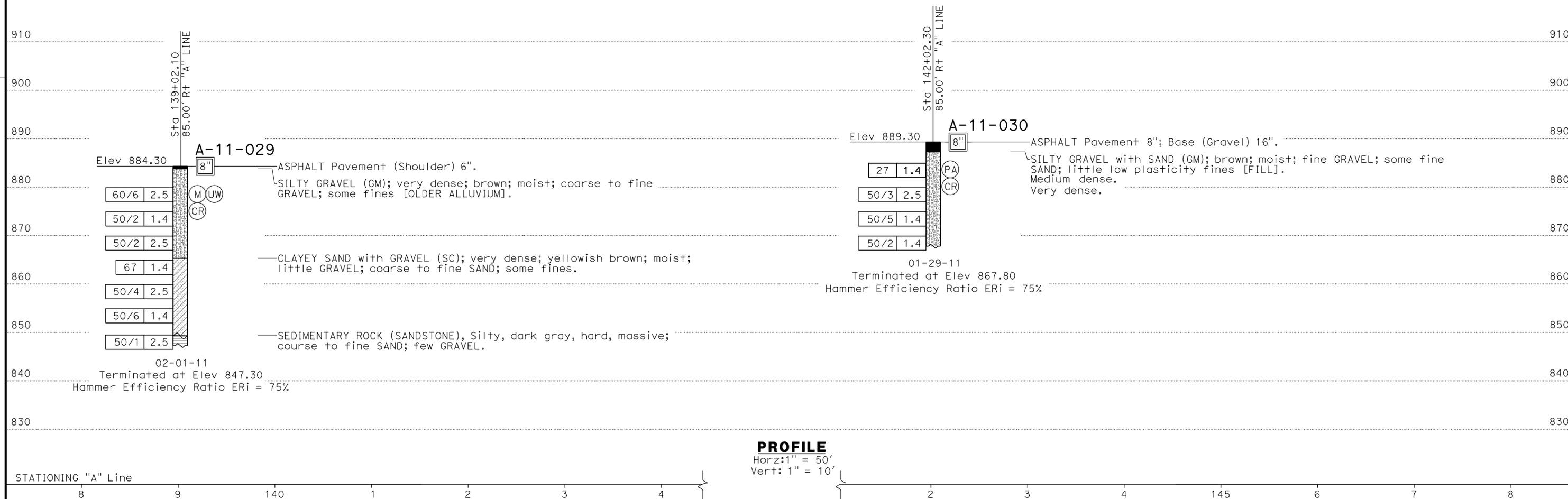
5/21/12  
 GEOTECHNICAL PROFESSIONAL DATE  
 6-3-13  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 PING TIAN  
 No. GE2660  
 Exp. 12/31/13  
 GEOTECHNICAL  
 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.

CITY OF THOUSAND OAKS  
 2100 THOUSAND OAKS BLVD  
 THOUSAND OAKS, CA 91362

CH2M HILL  
 1000 WILSHIRE BLVD, 21ST FLOOR  
 LOS ANGELES, CA 90017



DESIGN OVERSIGHT Richard C. Hartzell 12-17-12 SIGN OFF DATE	DRAWN BY N. MORALES	K. RADHAKRISHNAN & J. LEE FIELD INVESTIGATION BY: DATE: 01/29/11 & 02/01/11	PREPARED FOR THE <b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	Milind Desai PROJECT ENGINEER	BRIDGE NO. 52E0021 POST MILES	<b>RETAINING WALL NO. 132</b> <b>LOG OF TEST BORINGS 2 OF 2</b>
G5 GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: PROJECT NUMBER & PHASE: 0700000201 CONTRACT NO.: 07-1952U1	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 10/05/12   10/27/11   05/11/12   06/27/12 SHEET 9 OF 9

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