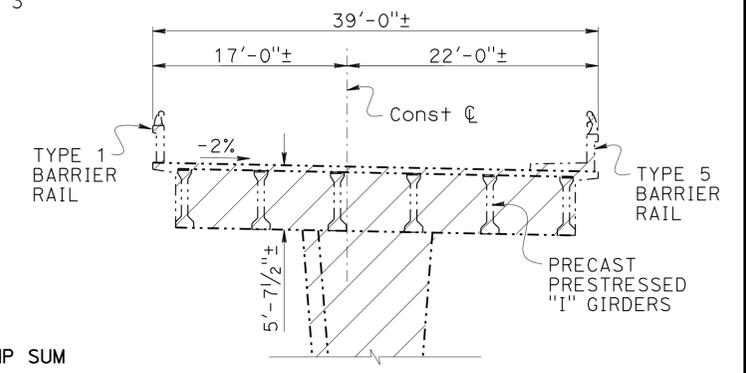
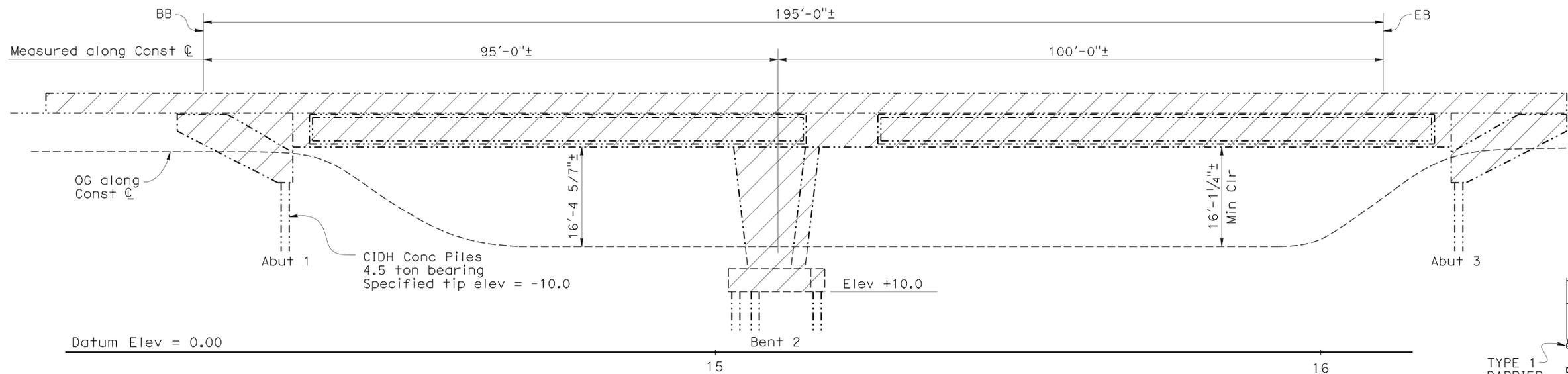


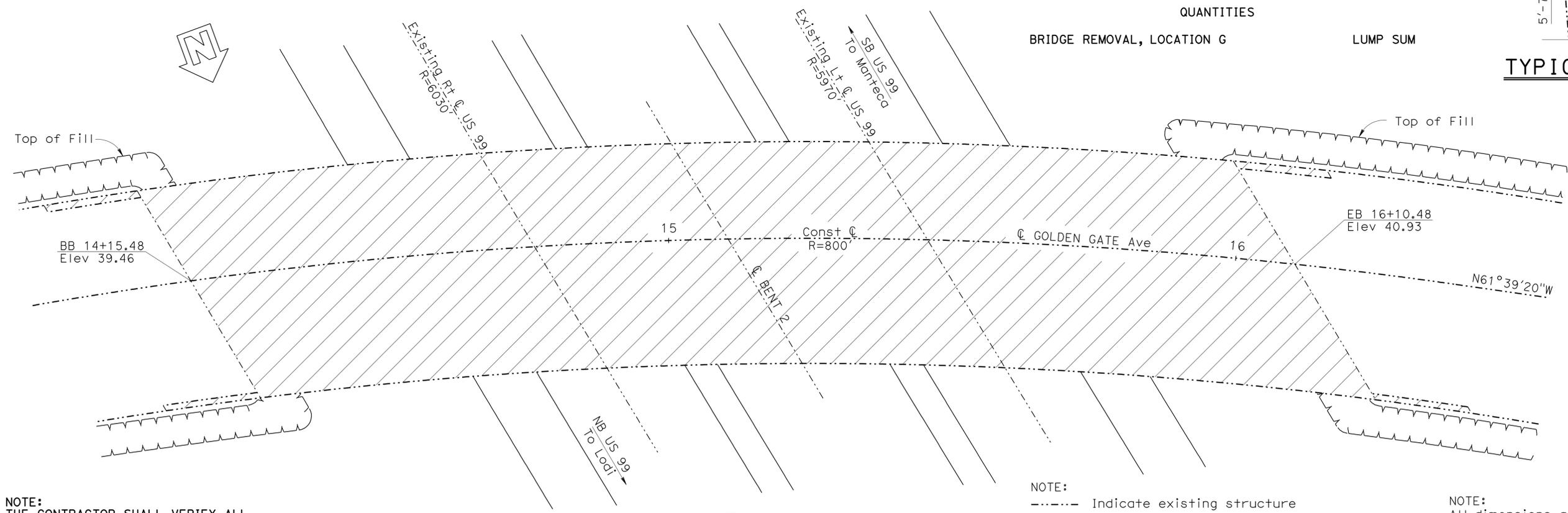
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1001	1414
REGISTERED CIVIL ENGINEER Chris V. Udarbe No. 62985 Exp. 06-30-12			11-04-11 DATE 3-26-12 PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



**ELEVATION**  
1" = 10'

QUANTITIES  
BRIDGE REMOVAL, LOCATION G  
LUMP SUM

**TYPICAL SECTION**  
1/8" = 1'-0"



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

NOTE:  
- - - - - Indicate existing structure  
▨ Indicates limits of removal. Bridge removal, LOCATION G.

NOTE:  
All dimensions and elevations are approximate.

**PLAN**  
1" = 10'

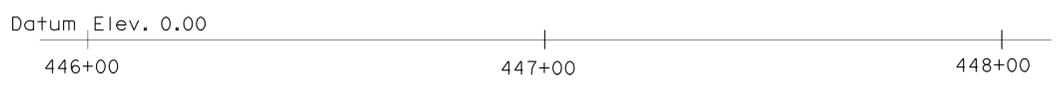
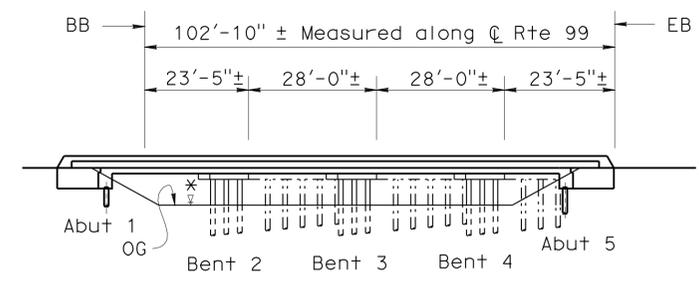
Gary Joe DESIGN ENGINEER	DESIGN	BY C. Udarbe	CHECKED M. Friedheim	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 w/"LOW BOY": PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO.	29-0103	
	DETAILS	BY E. Strickler	CHECKED C. Udarbe	LAYOUT	BY E. Strickler			CHECKED C. Udarbe	POST MILE	17.46
	QUANTITIES	BY C. Udarbe	CHECKED M. Friedheim	SPECIFICATIONS	BY V. Renganathan			PLANS AND SPECS COMPARED V. Renganathan		

<b>SOUTH STOCKTON WIDENING</b>	
<b>GOLDEN GATE AVENUE OC (REMOVAL)</b>	
<b>GENERAL PLAN</b>	

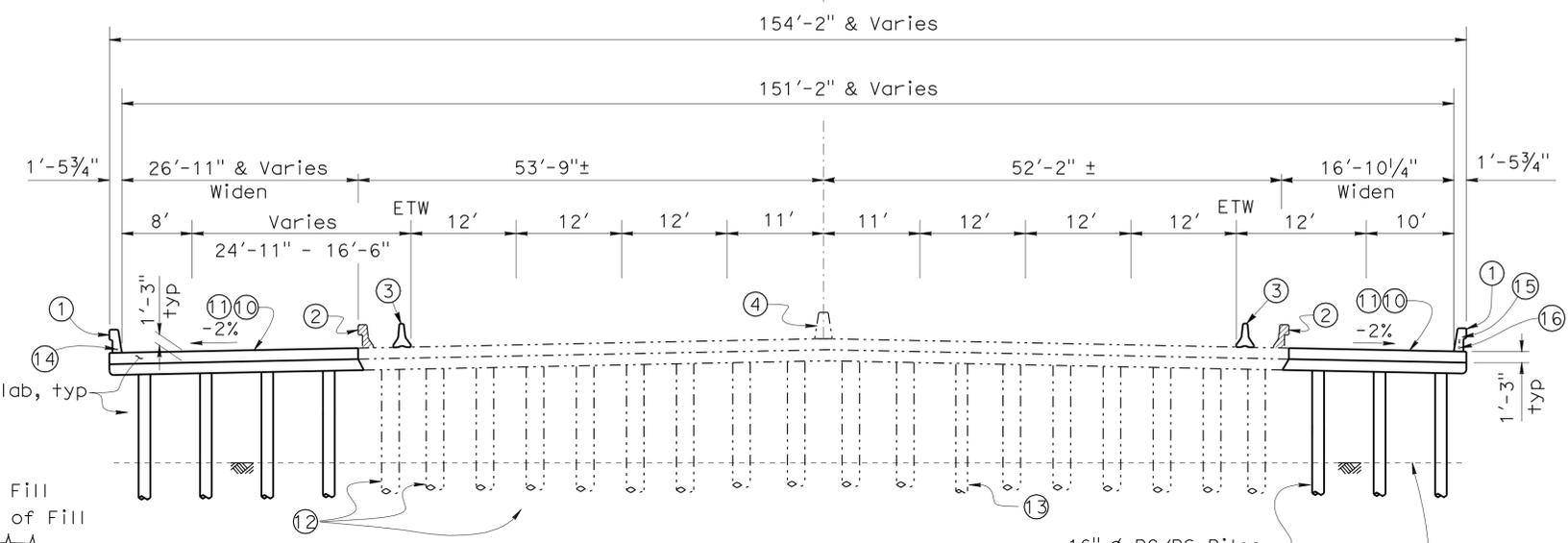
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1002	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

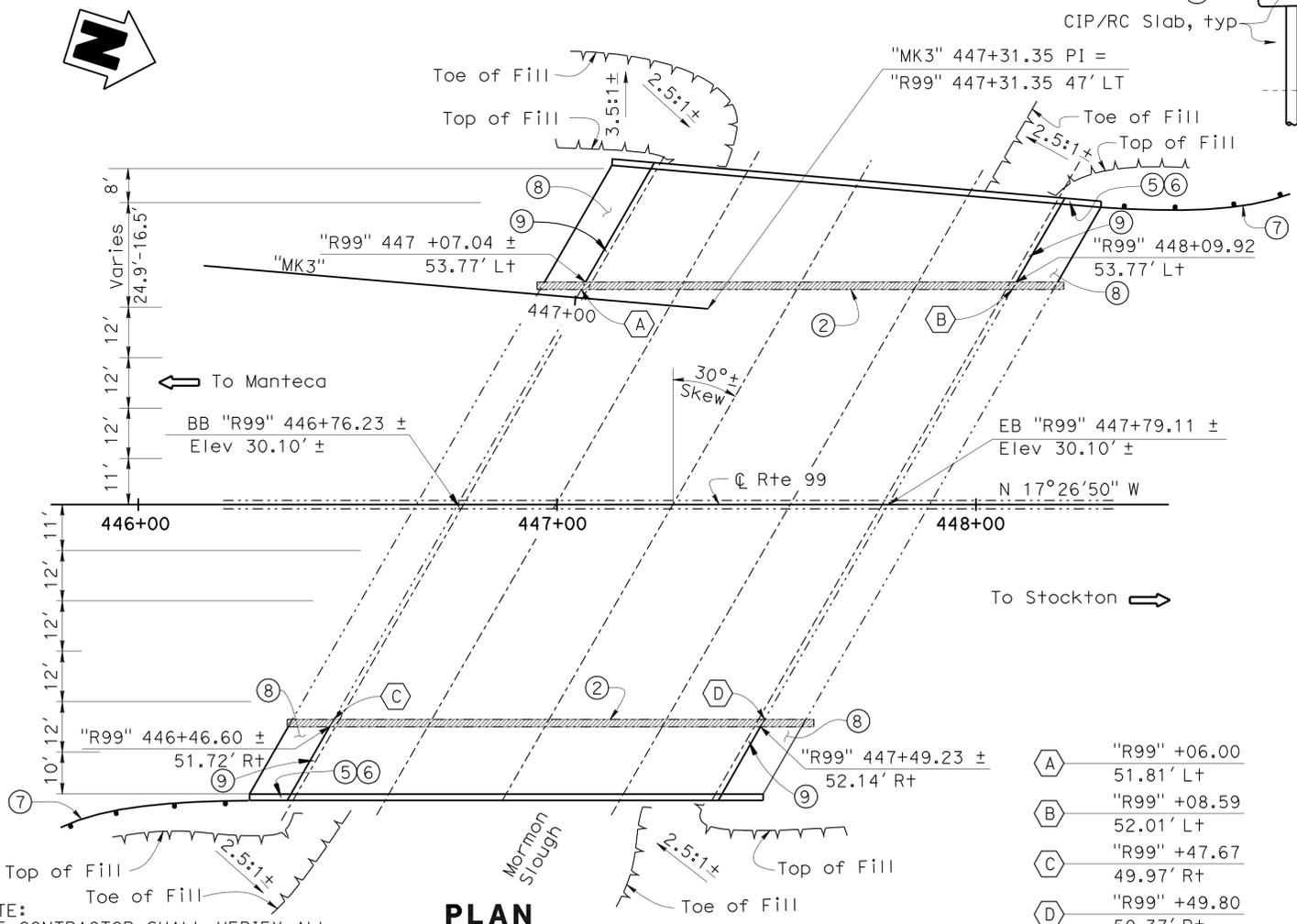
REGISTERED PROFESSIONAL ENGINEER  
 Chris Udarbe  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA



**ELEVATION**  
1" = 20'



**TYPICAL SECTION**  
1" = 10'



**PLAN**  
1" = 20'

**NOTES:**

- ① Concrete Barrier Type 736
- ② Remove Concrete Barrier Type 25 (MOD)
- ③ Temporary Rail (Type K), see "ROAD PLANS"
- ④ Existing Concrete Barrier Type 60A
- ⑤ Paint "Br. No. 29-0119"
- ⑥ Paint "Mormon Slough Bridge"
- ⑦ MBGR, see "ROAD PLANS"
- ⑧ Approach slab, N(3D)
- ⑨ Joint Seal
- ⑩ Polyester concrete overlay
- ⑪ Match existing grade and cross slope
- ⑫ Existing Pile Extensions that have been retrofitted
- ⑬ Existing Pile Extensions to be retrofitted
- ⑭ 1-2" conduit, see "ROAD PLANS"
- ⑮ 2-2" conduit, see "ROAD PLANS"
- ⑯ 1-3" conduit, see "ROAD PLANS"

- ▨ Indicates limits of removal. Bridge removal (Portion), LOCATION M
- Indicates existing structure
- \* 100 Yr HW Elev = 20.8' For Hydrologic summary see "FOUNDATION PLAN" sheet

**QUANTITIES**

PREPARE CONCRETE BRIDGE DECK SURFACE	4,353	SQFT
BRIDGE REMOVAL (PORTION), LOCATION M LUMP SUM		
STRUCTURE EXCAVATION (BRIDGE)	42	CY
STRUCTURE BACKFILL (BRIDGE)	68	CY
FURNISH PILING (CLASS 140)	1,671	LF
DRIVE PILE (CLASS 140)	34	EA
STRUCTURAL CONCRETE, BRIDGE	260	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	31	CY
DRILL AND BOND DOWEL	332	LF
FURNISH POLYESTER CONCRETE OVERLAY	10	CF
PLACE POLYESTER CONCRETE OVERLAY	4,353	SQFT
JOINT SEAL (MR1/2")	92	LF
BAR REINFORCING STEEL (BRIDGE)	56,805	LB
BRIDGE DECK DRAINAGE SYSTEM	3,555	LB
CONCRETE BARRIER (TYPE 736)	253	LF

NOTE:  
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DESIGN ENGINEER Gary Joe	DESIGN	BY T. Bui	CHECKED I. Chernioglo	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE
	DETAILS	BY T. Bui	CHECKED I. Chernioglo	LAYOUT	BY T. Bui
	QUANTITIES	BY T. Win	CHECKED J. Lee	SPECIFICATIONS	BY V. Renganathan

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0119
POST MILE	16.70

**SOUTH STOCKTON WIDENING**  
**MORMON SLOUGH BRIDGE (WIDEN)**  
**GENERAL PLAN**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1003	1414

C.V. Udabe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udabe  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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## GENERAL NOTES

### LOAD AND RESISTANCE FACTOR DESIGN

**DESIGN:**  
AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments, preface dated December 2008.

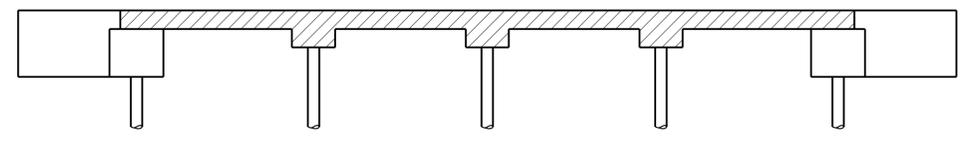
**SEISMIC DESIGN:**  
Caltrans Seismic Design Criteria (SDC), Version 1.5 dated January 2010

**DEAD LOAD:**  
Includes 35 psf for future wearing surface.

**LIVE LOADING:**  
HL93 and permit design load.

**SEISMIC LOADING:**  
Soil profile type D  
Magnitude group 6.7 ± 0.25  
Peak Rock Acceleration 0.29 g  
 $V_{s30} = 920$  ft/sec

**CONCRETE:**  
 $f_y = 60$  ksi  
 $f'_c = 3.6$  ksi  
 $n = 8$



Structural Concrete, Bridge (4000 psi at 28 days)

Structural Concrete, Bridge

### CONCRETE STRENGTH AND TYPE LIMITS

No Scale

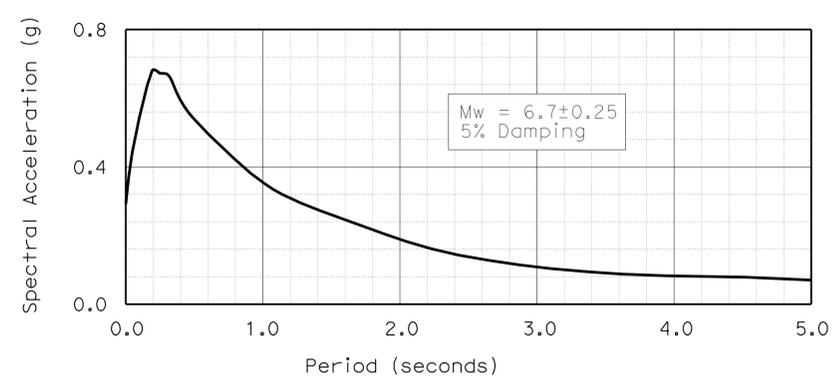
### PILE DATA TABLE

Location	Pile Type	Nominal Resistance		Design Tip Elevations (ft)	Specified Tip Elevation (ft)	Nominal Driving Resistance (kips)
		Compression	Tension			
Abut 1	CLASS 140 (ALT Y)	110 kips	0	-16.0 (a)	-16.0	410 (b)
Bent 2	CLASS 140 (ALT Y)	200 kips	0	-25.0 (a)	-25.0	440 (b)
Bent 3	CLASS 140 (ALT Y)	200 kips	0	-25.0 (a)	-25.0	440 (b)
Bent 4	CLASS 140 (ALT Y)	200 kips	0	-25.0 (a)	-25.0	440 (b)
Abut 5	CLASS 140 (ALT Y)	110 kips	0	-11.2 (a)	-11.2	410 (b)

**NOTES:**

(a) Design Tip Elevations are controlled by compression.

(b) Nominal Driving Resistance provided assumes ground water below pile tip at time of driving.



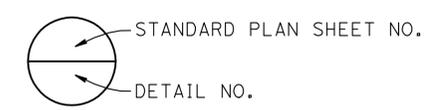
### SITE SPECIFIC ACCELERATION RESPONSE SPECTRA CURVE

### INDEX TO PLANS

Sheet No.	Title
1	GENERAL PLAN
2	INDEX TO PLANS
3	FOUNDATION PLAN
4	ABUTMENT 1 LAYOUT
5	ABUTMENT 5 LAYOUT
6	ABUTMENT DETAILS
7	BENT DETAILS
8	TYPICAL SECTION
9	SLAB REINFORCEMENT TOP
10	SLAB REINFORCEMENT BOTTOM
11	DECK DRAIN LAYOUT
12	DECK DRAIN DETAILS
13	STRUCTURE APPROACH DETAILS
14	PILE STRENGTHENING DETAILS
15	STRUCTURE APPROACH DRAINAGE DETAILS
16	LOG OF TEST BORINGS 1 OF 2
17	LOG OF TEST BORINGS 2 OF 2

### STANDARD PLANS DATED MAY 2006

- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- B0-1 BRIDGE DETAILS
- B0-3 BRIDGE DETAILS
- B0-5 BRIDGE DETAILS
- B2-5 PILE DETAILS CLASS 90 AND CLASS 140
- RSP B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- B7-8 DECK DRAINAGE DETAILS
- B11-56 CONCRETE BARRIER TYPE 736



<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION			DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0119 POST MILE 16.70	<b>SOUTH STOCKTON WIDENING</b> <b>MORMON SLOUGH BRIDGE (WIDEN)</b> <b>INDEX TO PLANS</b>	
DESIGN BY T. Bui	CHECKED I. Chernioglo	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
DETAILS BY M. Tran	CHECKED I. Chernioglo					REVISION DATES 08-07-10 05-01-12 01-30-12	
QUANTITIES BY T. Win	CHECKED J. Lee					SHEET 2 OF 17	

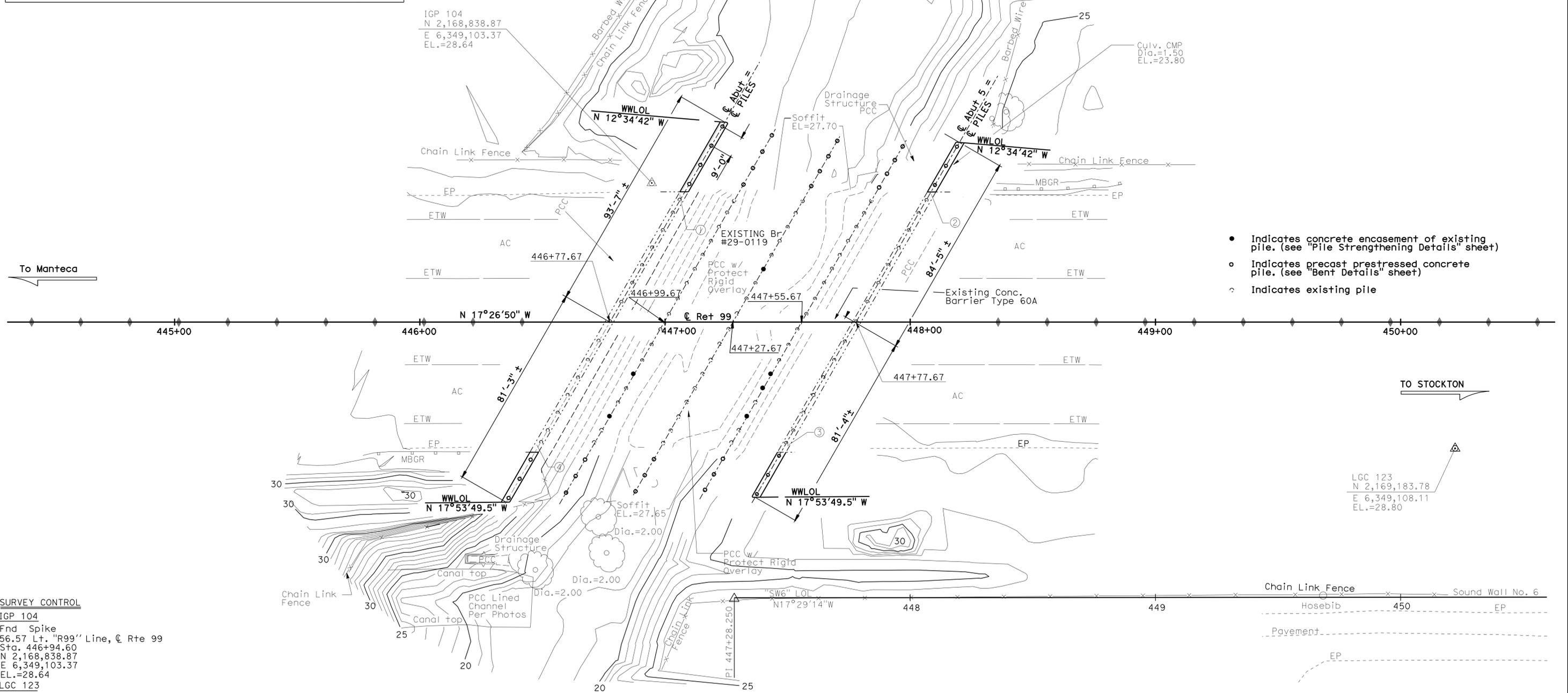
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) FILE => 29-0119-b-1tp.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1004	1414

C.V. Udabe  
 REGISTERED CIVIL ENGINEER DATE 11-04-11  
 3-26-12  
 PLANS APPROVAL DATE  
 No. C62985  
 Exp. 6/30/12  
 CIVIL  
 STATE OF CALIFORNIA  
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HYDROLOGIC SUMMARY			
Drainage Area: 2.5 square miles			
	Design Flood	Base Flood	Overtopping Flood/Flood of Record
Frequency	50-yr	100-yr	N/A
Discharge	300 cfs	365 cfs	N/A
Water Surface Elevation at bridge	17.3 ft	17.6 ft	N/A

Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the State and interested or affected parties should make their own investigation.



- Indicates concrete encasement of existing pile. (see "Pile Strengthening Details" sheet)
- Indicates precast prestressed concrete pile. (see "Bent Details" sheet)
- Indicates existing pile

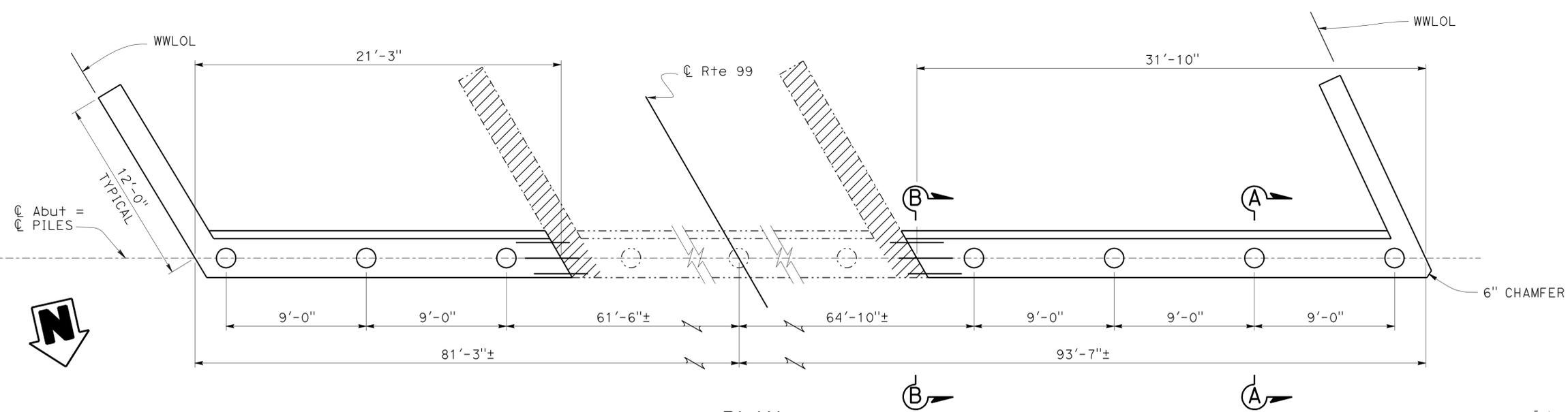
**SURVEY CONTROL**  
 IGP 104  
 Fnd Spike  
 56.57 Lt. "R99" Line, C Rte 99  
 Sta. 446+94.60  
 N 2,168,838.87  
 E 6,349,103.37  
 EL.=28.64  
 LGC 123  
 Fnd PK Nail w/ Caltrans Tag  
 51.36 Rt. "R99" Line, C Rte 99  
 Sta. 450+22.21  
 N 2,169,183.78  
 E 6,349,108.11  
 EL.=28.80

Bridge Location #29-0119 (PN Points)  
 ① - 51.81 Lt. "R99" Line C Rte 99, Sta.447+06.00, EL.=29.20±  
 ② - 52.01 Lt. "R99" Line C Rte 99, Sta.448+08.59, EL.=29.18±  
 ③ - 50.37 Rt. "R99" Line C Rte 99, Sta.447+49.80, EL.=29.09±  
 ④ - 49.97 Rt. "R99" Line C Rte 99, Sta.446+47.67, EL.=29.06±

PRELIMINARY INVESTIGATION SECTION				DESIGN	BY T. Bui	CHECKED I. Cherniaglo	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0119	<b>SOUTH STOCKTON WIDENING</b> <b>MORMON SLOUGH BRIDGE (WIDENING)</b> <b>FOUNDATION PLAN</b>
SCALE	VERT. DATUM	PHOTOGRAMMETRY	AS OF: X	DETAILS	BY L. Wang	CHECKED I. Cherniaglo			POST MILE	16.70	
1"=20'	HORZ. DATUM NAD83 (1991.35)	SURVEYED	BY District/PI North	CHECKED	BY Tom Gillett 10/2009	CHECKED J. Lee					
ALIGNMENT TIES Dist. Traverse Sheet				DRAFTED	BY Sharon Zheng 10/2009	CHECKED	BY T. Zolnikova 10/2009	QUANTITIES	BY T. Win		

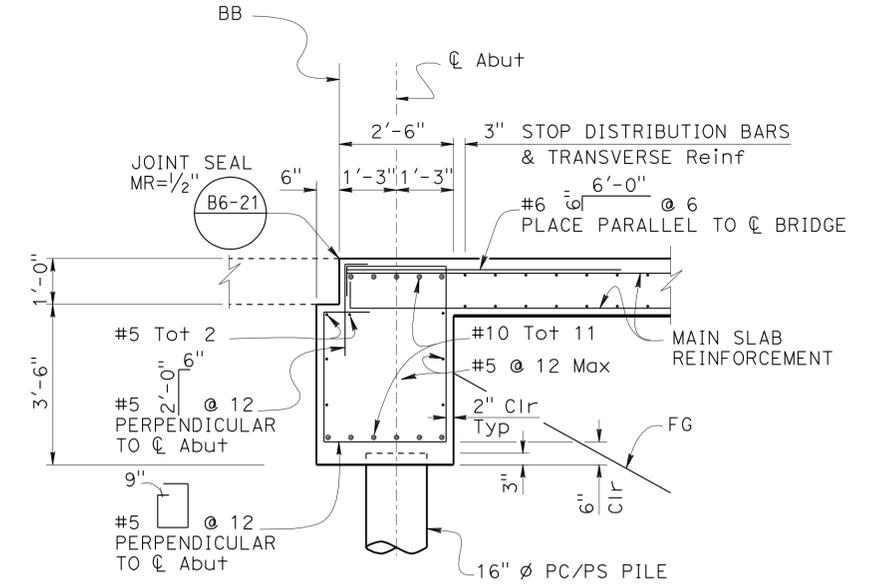
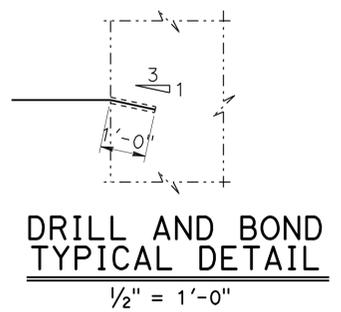
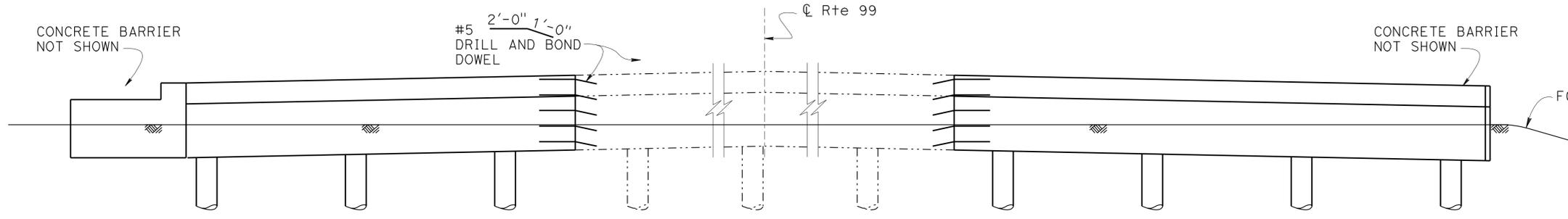
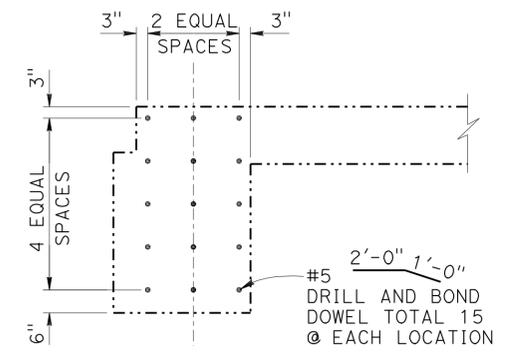
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS  
 UNIT: 3646 PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 10-3A1001  
 DISREGARD PRINTS BEARING EARLIER REVISION DATES  
 REVISION DATES: 10-20-09, 10-13-11, 3-02-12  
 SHEET 3 OF 17  
 FILE => 29-0119-e-fp.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1005	1414
<i>Chris Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE	Chris Udarbe No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA	
3-26-12 PLANS APPROVAL DATE					
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**LEGEND**

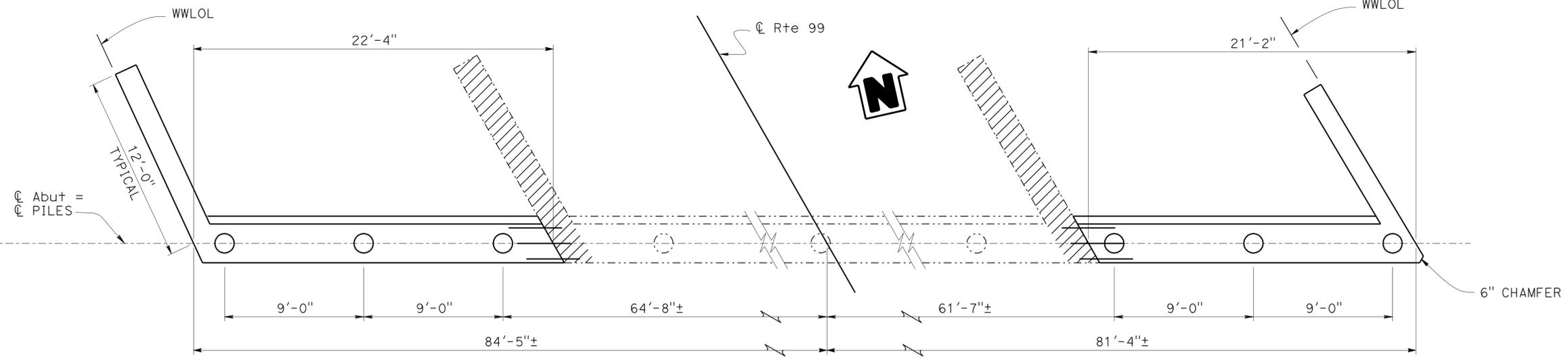
— Indicates new Structure  
 - - - - - Indicates Existing Structure  
 [Hatched] Indicates limits of removal



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

DESIGN BY T. Bui CHECKED I. Chernioglo		<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0119	<b>SOUTH STOCKTON WIDENING</b> <b>MORMON SLOUGH BRIDGE (WIDEN)</b> <b>ABUTMENT 1 LAYOUT</b>		
DETAILS BY M. Tran CHECKED I. Chernioglo				POST MILE 16.70			
QUANTITIES BY T. Win CHECKED J. Lee							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 4 OF 17

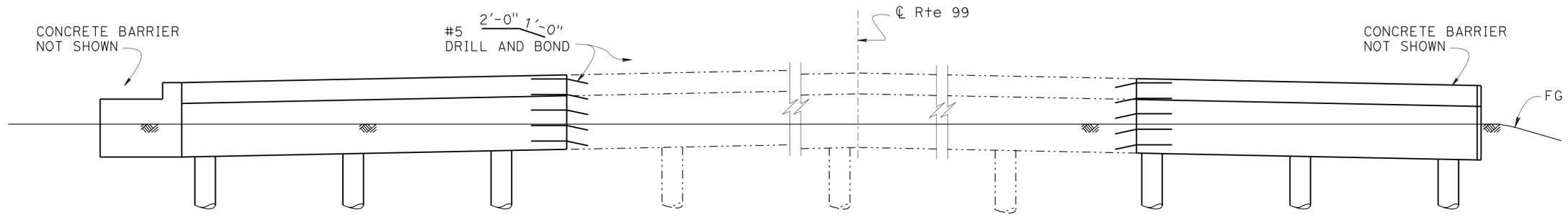
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1006	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			Chris Udarbe No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



**PLAN**  
1/4" = 1'

**LEGEND**

- Indicates new Structure
- - - - - Indicates Existing Structure
- ////// Indicates limits of removal



**ELEVATION**  
1/4" = 1'

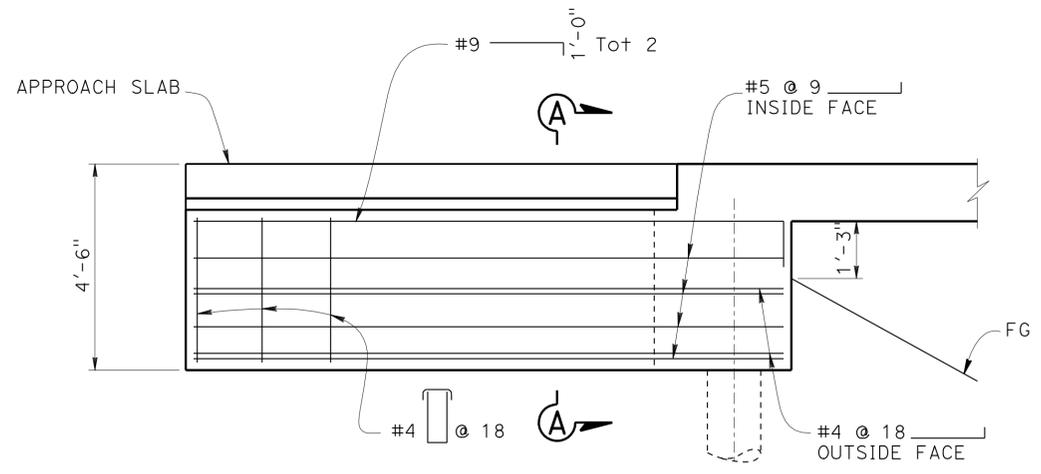
NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY T. Bui	CHECKED I. Chernioglo	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0119
DETAILS	BY M. Tran	CHECKED I. Chernioglo			POST MILE	16.70
QUANTITIES	BY T. Win	CHECKED J. Lee				

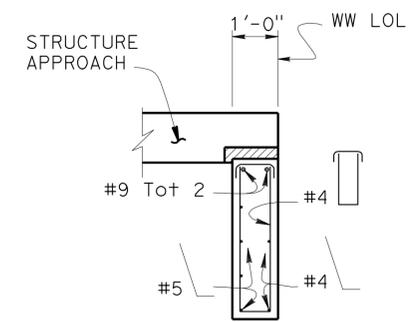
<b>SOUTH STOCKTON WIDENING</b>	
<b>MORMON SLOUGH BRIDGE (WIDEN)</b>	
<b>ABUTMENT 5 LAYOUT</b>	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1007	1414

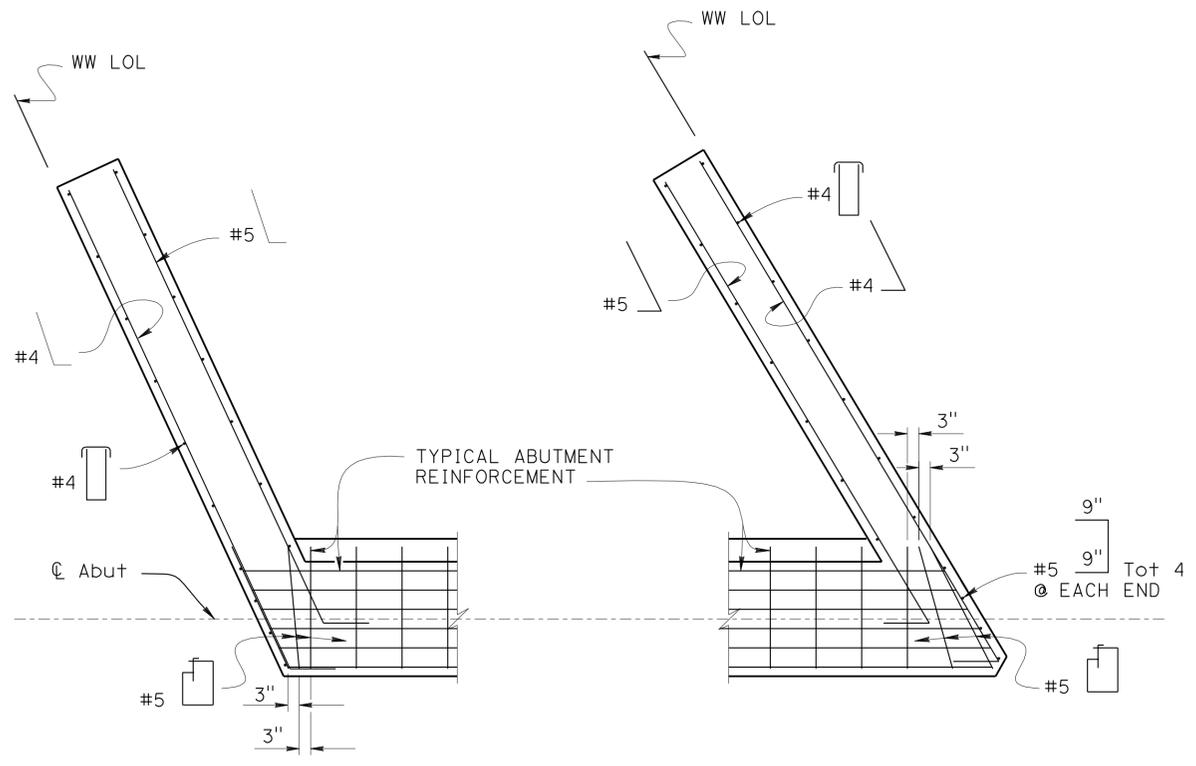
C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udarbe  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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**WINGWALL ELEVATION**  
1/2" = 1'-0"



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



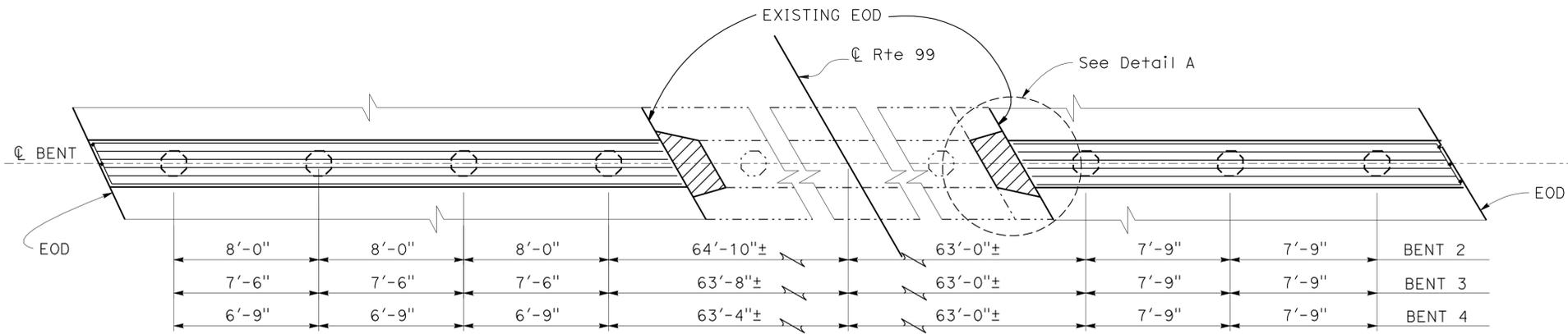
**WINGWALL PLAN**  
1/2" = 1'-0"

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

DESIGN	BY	T. Bui	CHECKED	I. Chernioglio	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO.	29-0119	
	DETAILS	BY	M. Tran	CHECKED			I. Chernioglio	POST MILE	16.70
	QUANTITIES	BY	T. Win	CHECKED			J. Lee		

<b>SOUTH STOCKTON WIDENING</b>	
<b>MORMON SLOUGH BRIDGE (WIDEN)</b>	
<b>ABUTMENT DETAILS</b>	

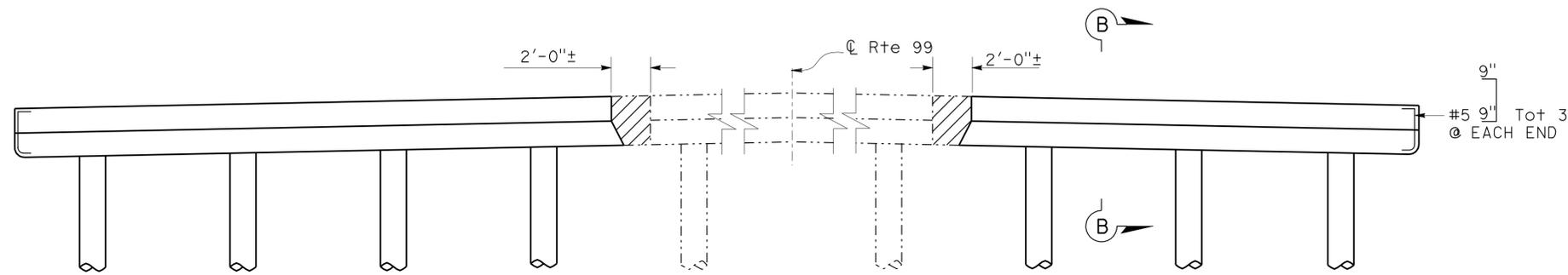
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1008	1414
<i>C. V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
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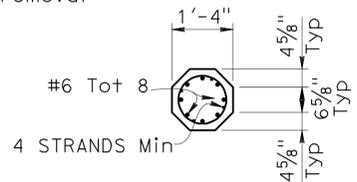
**PLAN**  
1/4" = 1'

**LEGEND**

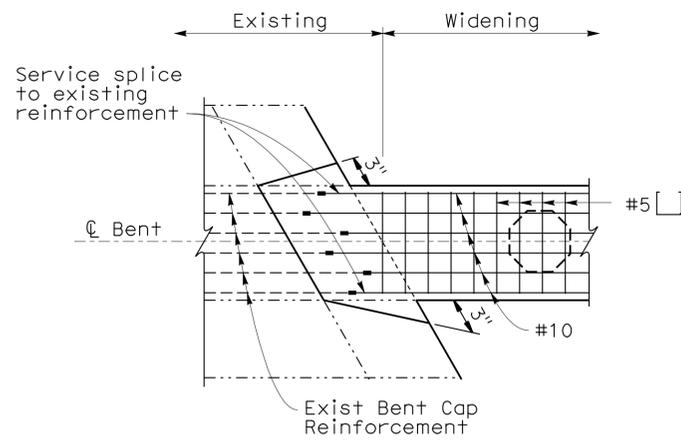
- Indicates new Structure
- - - - - Indicates Existing Structure
- /// Indicates limits of removal



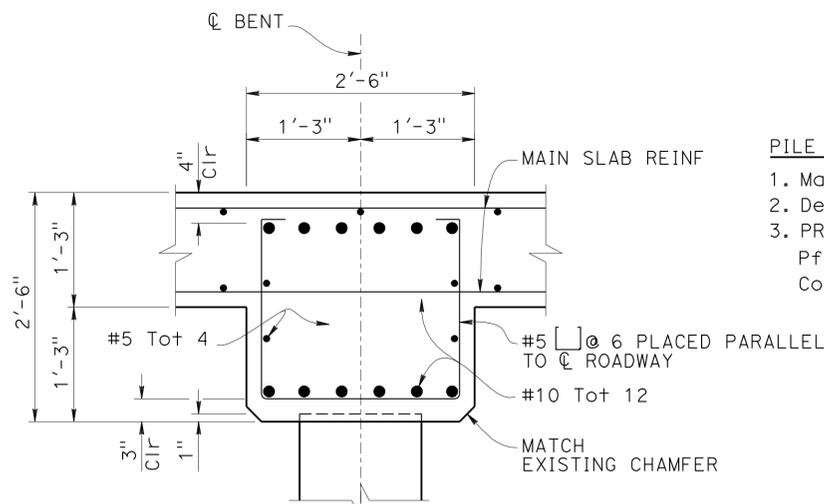
**ELEVATION**  
1/4" = 1'



**SECTION A-A**  
NO SCALE



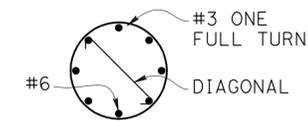
**DETAIL A**  
1/2" = 1'



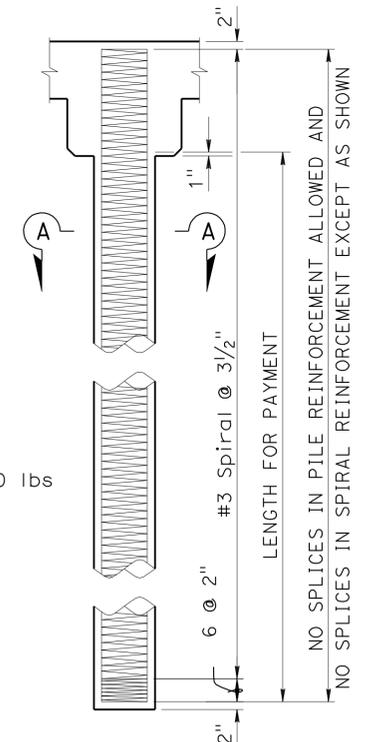
**SECTION B-B**  
1" = 1'

**PILE DESIGN NOTES**

1. Maximum size of aggregate is 1"
2. Design service level loading is 200 kips
3. PRECAST PRESTRESSED PILES:  
 Pf = Prestress force (after losses) = 130,000 lbs  
 Concrete Strength  $f'_c$  @ 28 days = 7,000 psi  
 $f'_{ci}$  @ transfer = 4,000 psi



**END SPIRAL ANCHORAGE DETAIL**  
NO SCALE



**PRECAST PRESTRESSED CONCRETE PILE**  
NO SCALE

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

DESIGN	BY T. Bui	CHECKED I. Chernioglo	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0119	<b>SOUTH STOCKTON WIDENING</b> <b>MORMON SLOUGH BRIDGE (WIDEN)</b> <b>BENT DETAILS</b>
DETAILS	BY M. Tran	CHECKED I. Chernioglo			POST MILE 16.70	
QUANTITIES	BY T. Win	CHECKED J. Lee				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

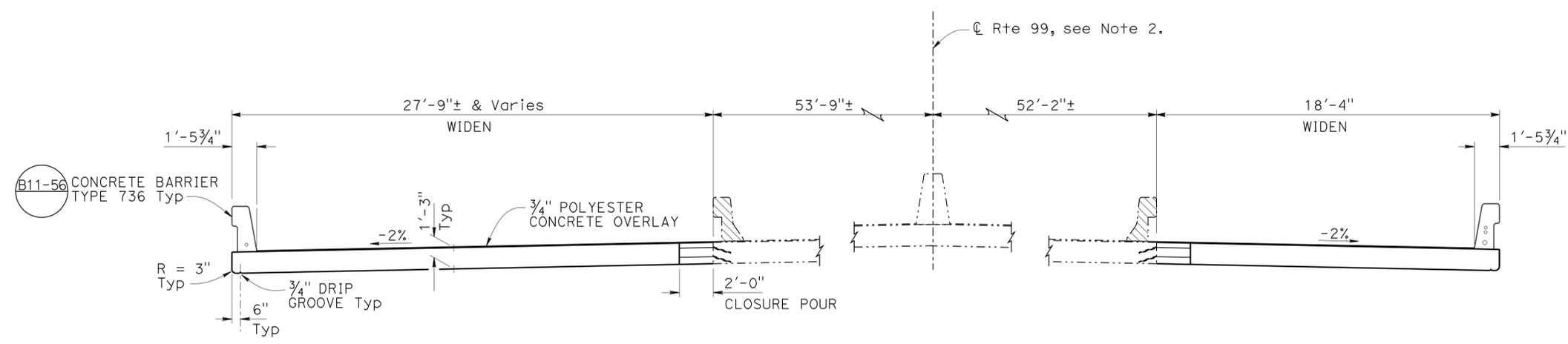
UNIT: 3586  
PROJECT NUMBER & PHASE: 10000004091

CONTRACT NO.: 10-3A1001

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
8-09-10	7	17

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1009	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
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.					



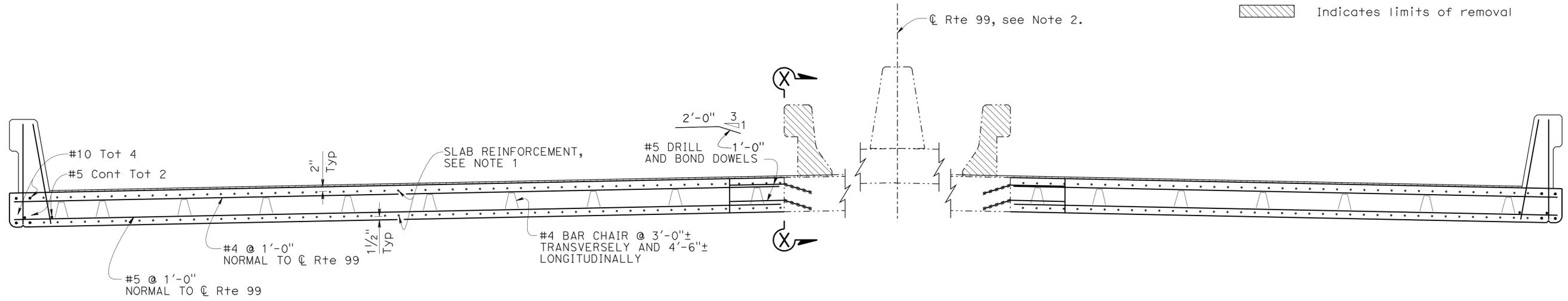
**TYPICAL SECTION**  
1/4" = 1'-0"

**NOTES:**

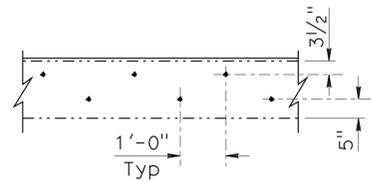
1. Indicates longitudinal slab reinf, see "Slab Reinforcement" sheet. Falsework shall be removed as soon as permitted by the specifications, Closure pour shall not be placed sooner than 30 days after the falsework has been released.
2. Details shown are symmetrical about  $\text{C} \text{ Rte } 99$ .

**LEGEND:**

- Indicates new structure
- - - - - Indicates existing structure
- ▨ Indicates polyester concrete overlay
- ▩ Indicates limits of removal



**PART TYPICAL SECTION**  
1/2" = 1'-0"

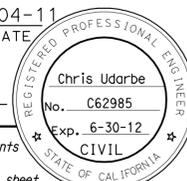


**SECTION X-X**  
1/2" = 1'-0"

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

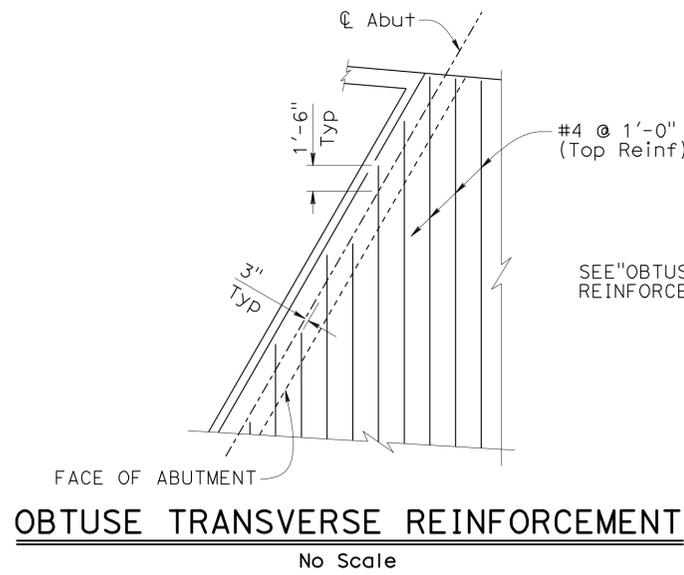
DESIGN	BY T. Bui	CHECKED I. Chernioglo	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0119
DETAILS	BY C. Figuerres	CHECKED I. Chernioglo			POST MILE	16.70
QUANTITIES	BY T. Win	CHECKED J. Lee				

<b>SOUTH STOCKTON WIDENING</b>	
<b>MORMON SLOUGH BRIDGE (WIDEN)</b>	
<b>TYPICAL SECTION</b>	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1010	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
<small>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.</small>					

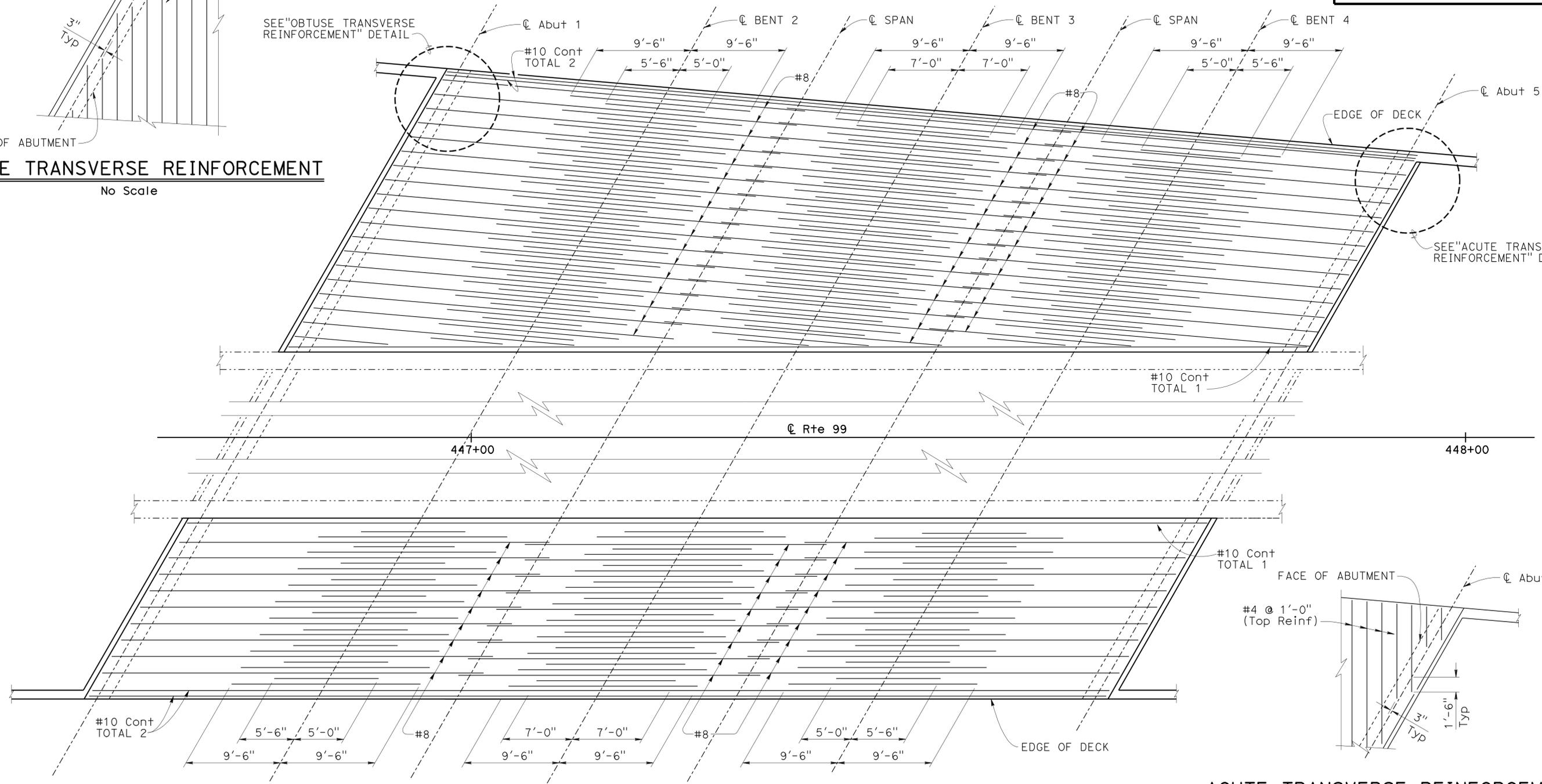
Notes:  
 All reinforcement #7 unless otherwise noted. Except for #10 Cont, all reinforcement is @ 6" spacing.

----- Indicates existing structure



SEE "OBTUSE TRANSVERSE REINFORCEMENT" DETAIL

SEE "ACUTE TRANSVERSE REINFORCEMENT" DETAIL



**SLAB REINFORCEMENT**  
No Scale

**ACUTE TRANSVERSE REINFORCEMENT**  
No Scale

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

DESIGN	BY T. Bui	CHECKED I. Chernioglo
DETAILS	BY C. Figuerres	CHECKED I. Chernioglo
QUANTITIES	BY T. Win	CHECKED J. Lee

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0119
POST MILE	16.70

**SOUTH STOCKTON WIDENING**  
**MORMON SLOUGH BRIDGE (WIDEN)**  
**SLAB REINFORCEMENT TOP**



REVISION DATES	SHEET	OF
3-26-10 3-27-11 10-13-11	9	17

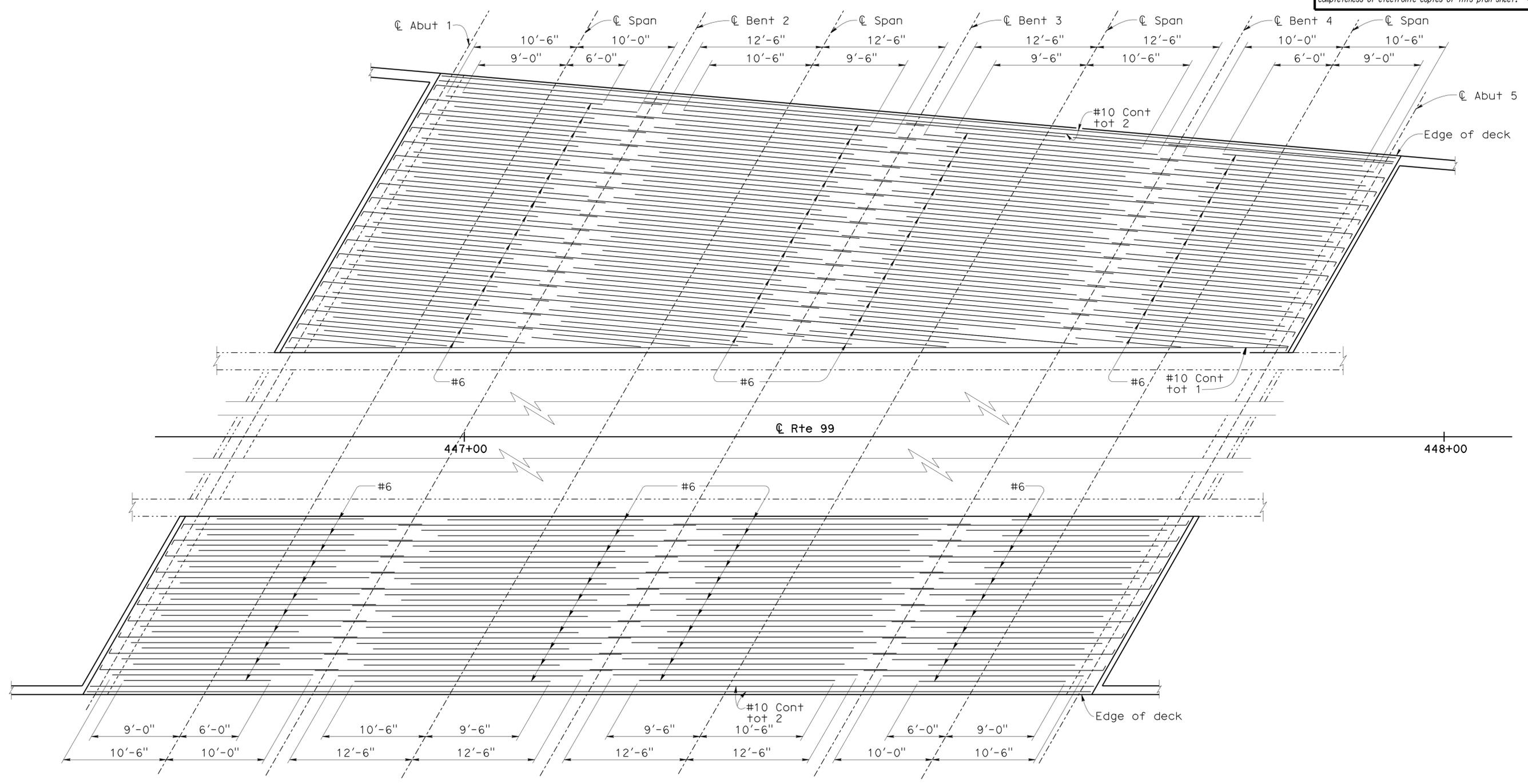
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1011	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udarbe  
 No. C62985  
 Exp. 6-30-12  
 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.

Notes:  
 All reinforcement #7 unless otherwise noted. Except for #10 cont, all reinforcement is @ 6" spacing.

----- Indicates existing structure



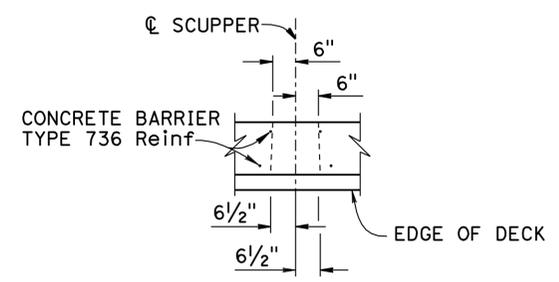
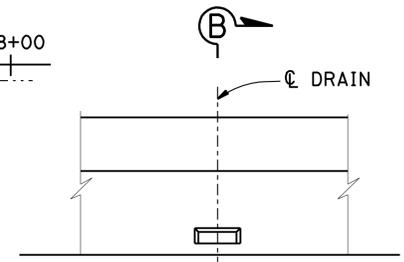
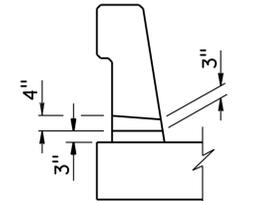
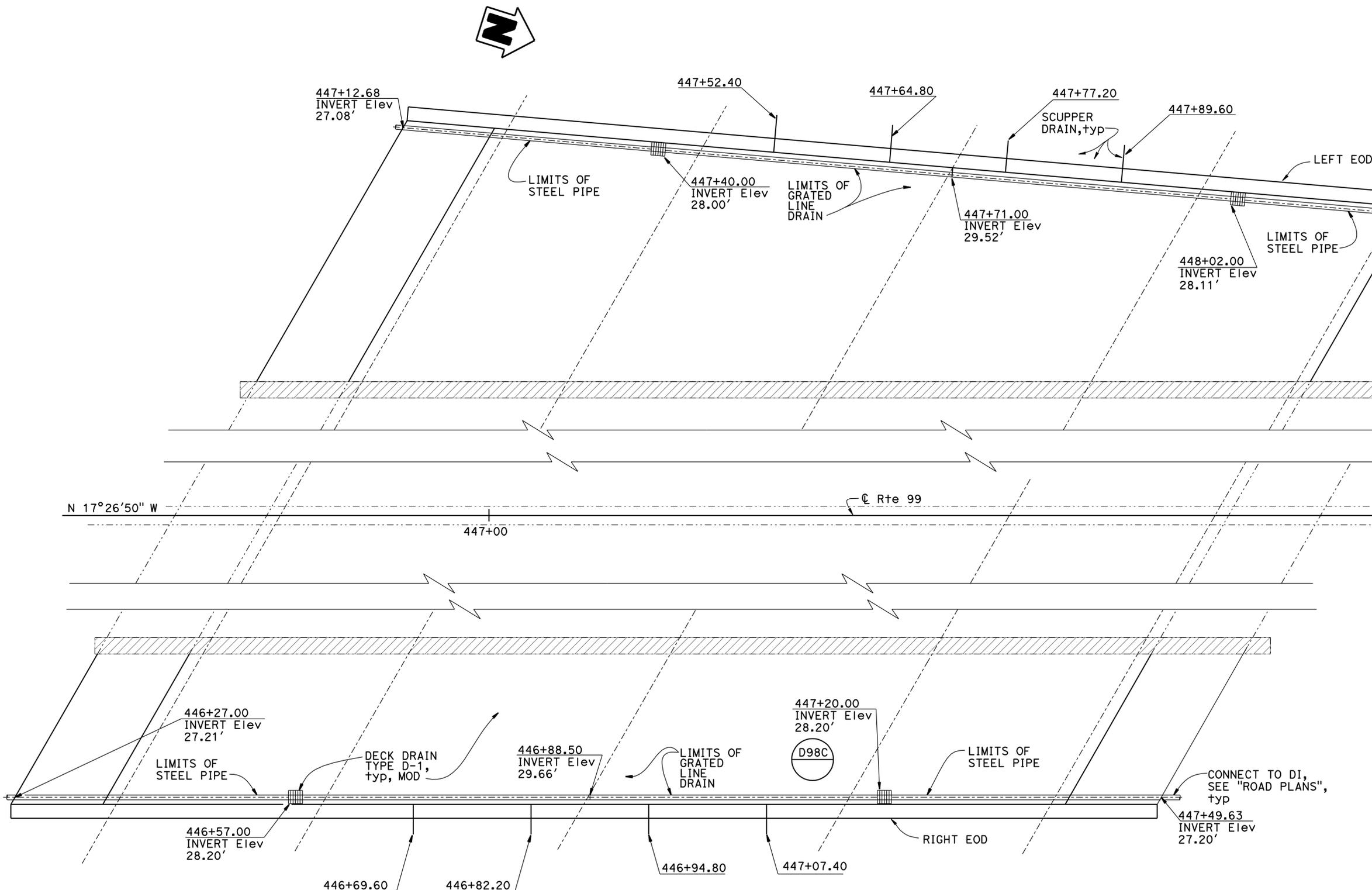
NOTE:  
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

**SLAB REINFORCEMENT**  
 No Scale

DESIGN	BY T. Bui	CHECKED I. Chernioglo	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DIVISION OF ENGINEERING SERVICES</b> <b>STRUCTURE DESIGN</b> <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0119
DETAILS	BY C. Figuerres	CHECKED I. Chernioglo			POST MILE	16.70
QUANTITIES	BY T. Win	CHECKED J. Lee				

**SOUTH STOCKTON WIDENING**  
**MORMON SLOUGH BRIDGE (WIDEN)**  
**SLAB REINFORCEMENT BOTTOM**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1012	1414
<i>C.V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE	Chris Udarbe No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA	
3-26-12 PLANS APPROVAL DATE					
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**DRAINAGE LAYOUT** (B7-6) (B7-8) (D98C)  
No Scale

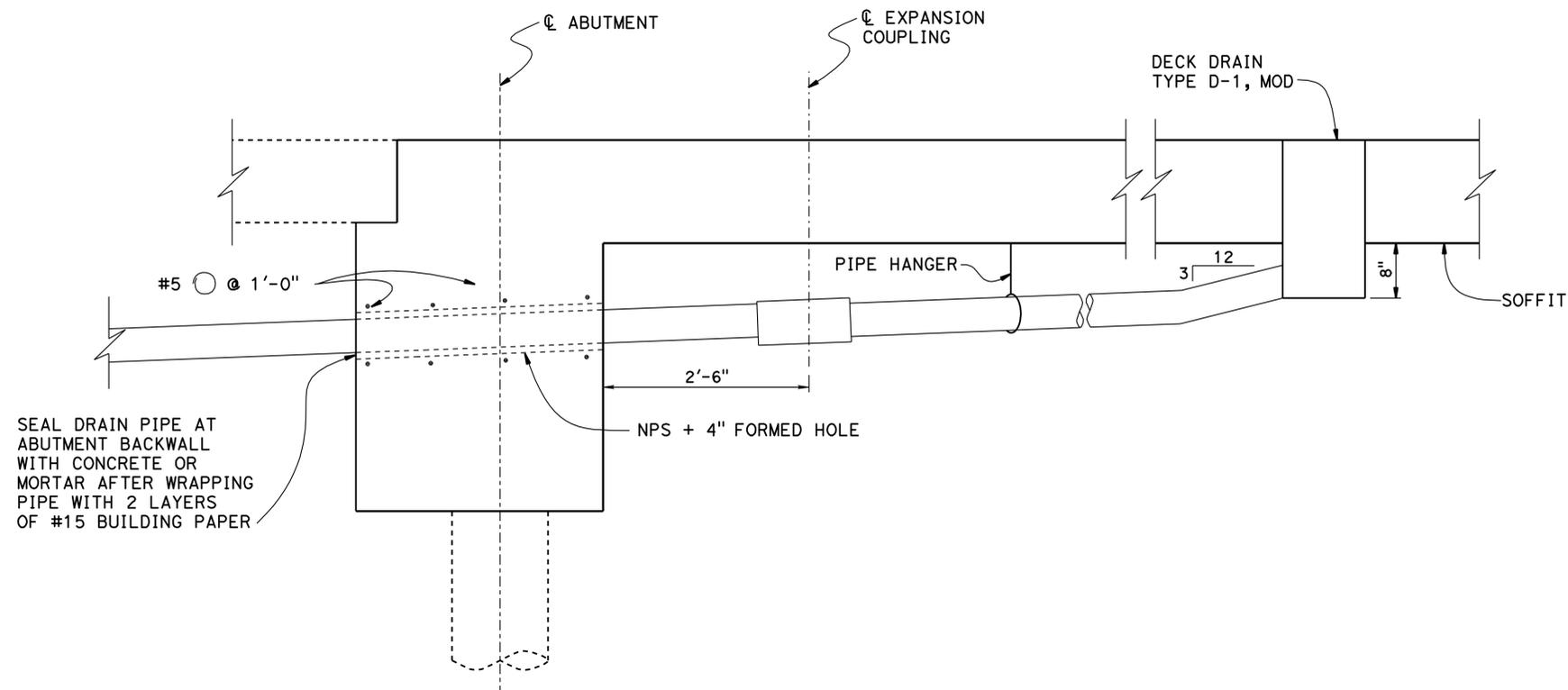
NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY	T. Bui	CHECKED	I. Chernioglo	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO.	29-0119
	DETAILS	T. Bui / L. Wang	CHECKED	I. Chernioglo			POST MILE	16.70
	QUANTITIES	T. Win	CHECKED	J. Lee				

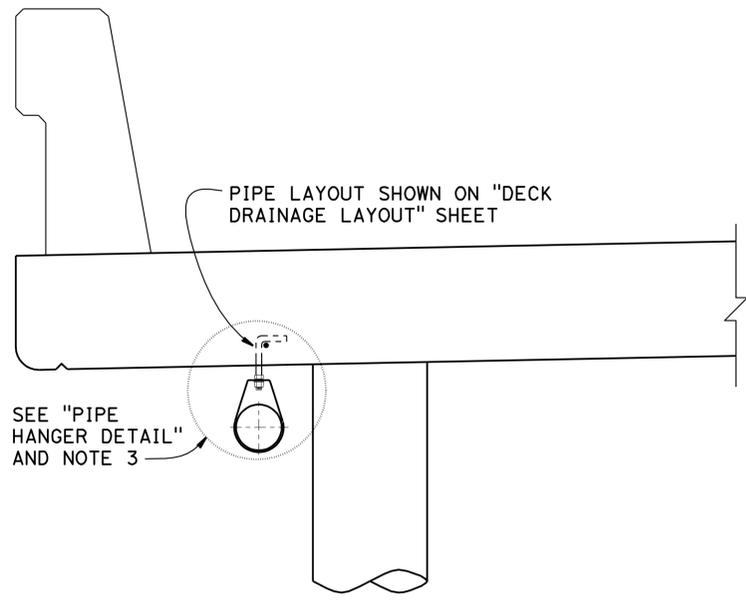
<b>SOUTH STOCKTON WIDENING</b>	
<b>MORMON SLOUGH BRIDGE (WIDEN)</b>	
<b>DECK DRAIN LAYOUT</b>	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1013	1414

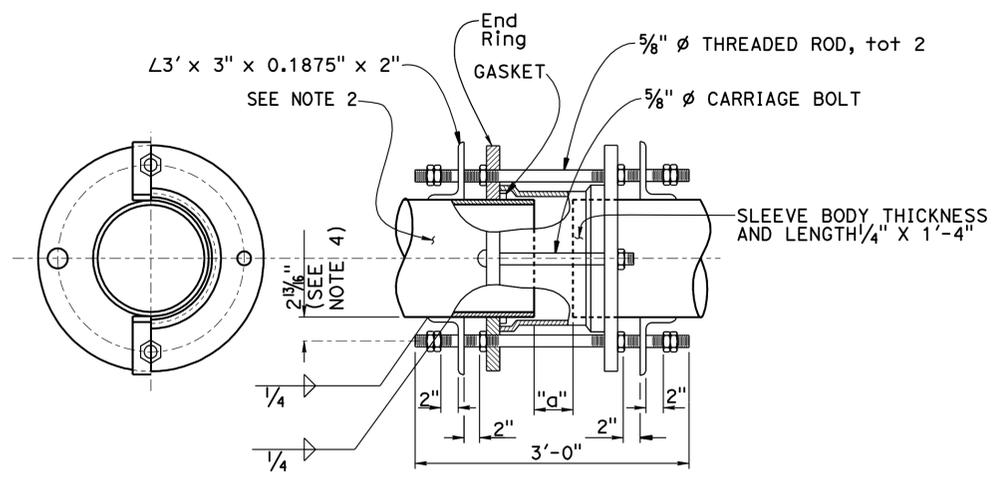
C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udarbe  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



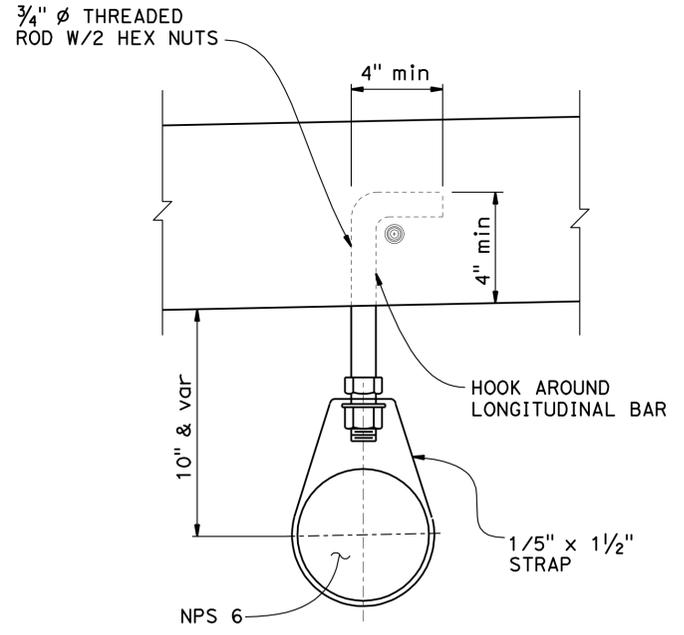
**DECK DRAIN PIPE DETAIL AT ABUTMENT**  
1" = 1'-0"



**HANGER SUPPORT DETAIL**  
1" = 1'-0"



**EXPANSION COUPLING**  
1" = 1'-0"

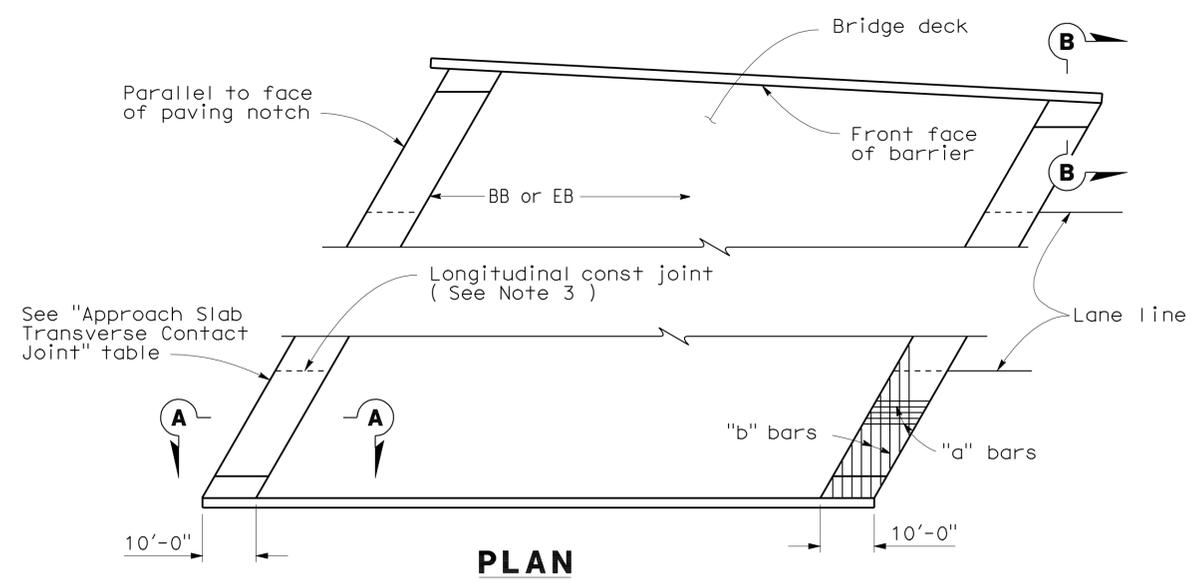


**PIPE HANGER DETAIL**  
3" = 1'-0"

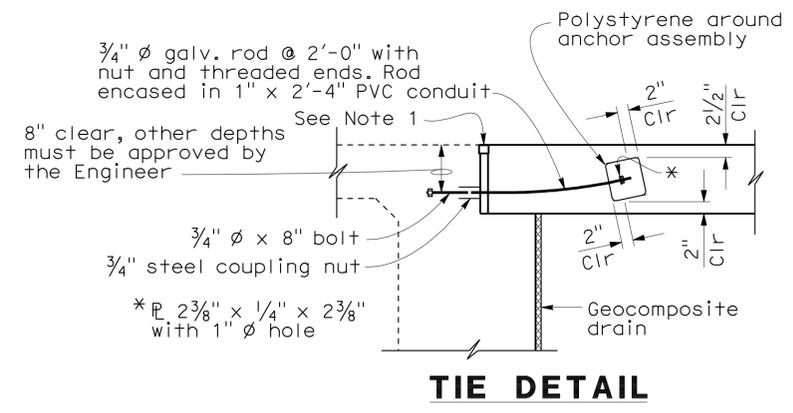
DESIGN	BY T. Bui	CHECKED I. Chernioglo	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0119
DETAILS	BY L. Wang	CHECKED I. Chernioglo			POST MILE	16.70
QUANTITIES	BY T. Win	CHECKED J. Lee				

**SOUTH STOCKTON WIDENING**  
**MORMON SLOUGH BRIDGE (WIDEN)**  
**DECK DRAIN DETAILS**

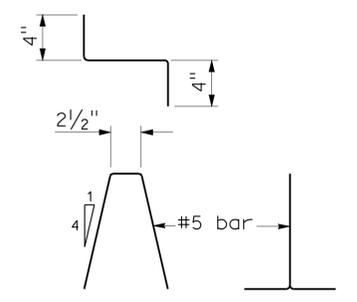
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1014	1414
REGISTERED CIVIL ENGINEER Chris Udarbe No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA			11-04-11 DATE 3-26-12 PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



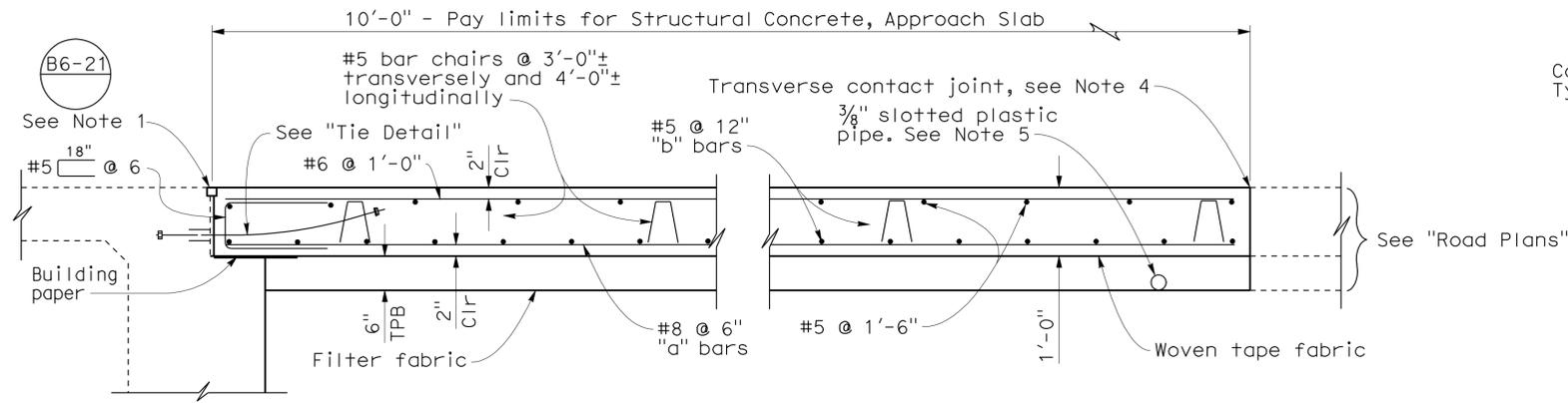
**PLAN**



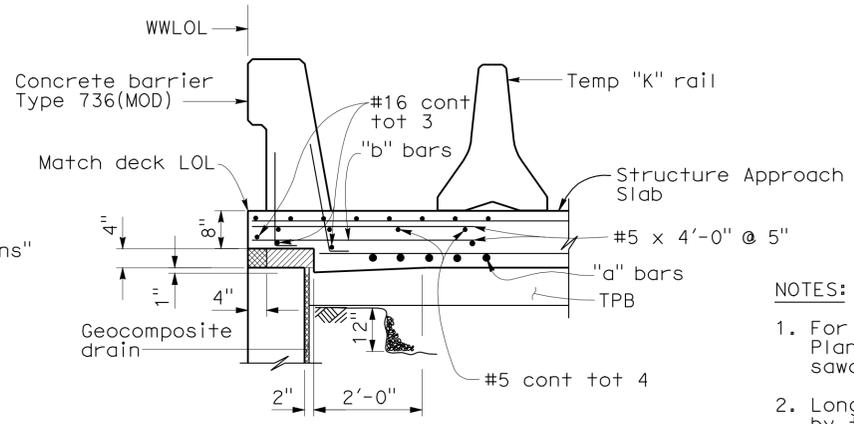
**TIE DETAIL**



**BAR CHAIR DETAIL**



**SECTION A-A**



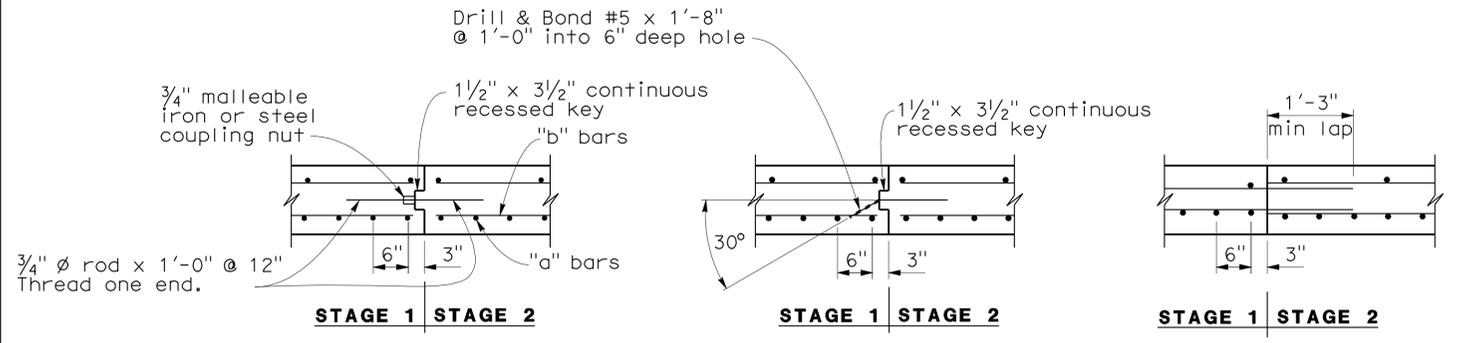
**SECTION B-B**

**NOTES:**

- For details not shown or noted, see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required.
- Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
- Transverse contact joint shall be a minimum of 4'-6" from an existing or constructed weakened plane joint.
- For transverse contact joint with new PCC paving, refer to Standard Plan A35-A.
- For drainage details, see "Structure Approach Drainage Details" sheet.
- Space to avoid main reinforcement.

**LEGEND:**

- Polystyrene to be removed.
- Indicates Polystyrene.



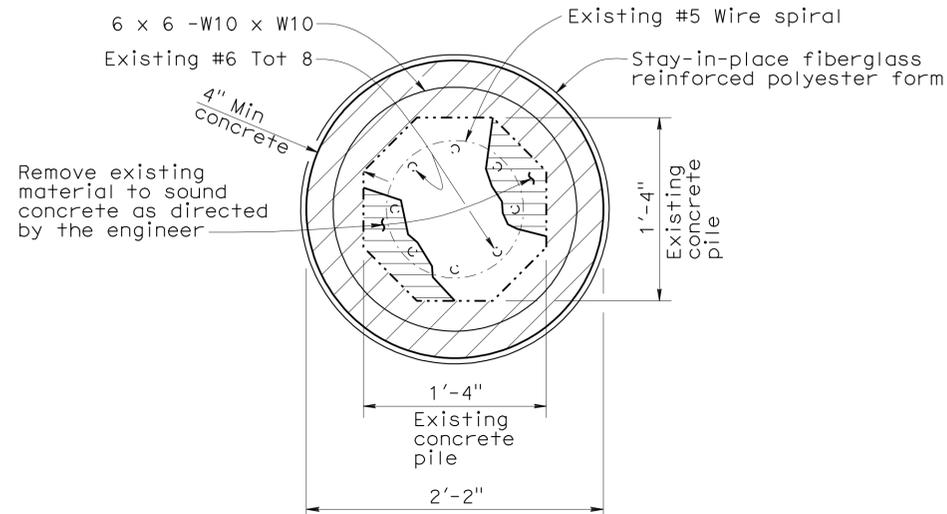
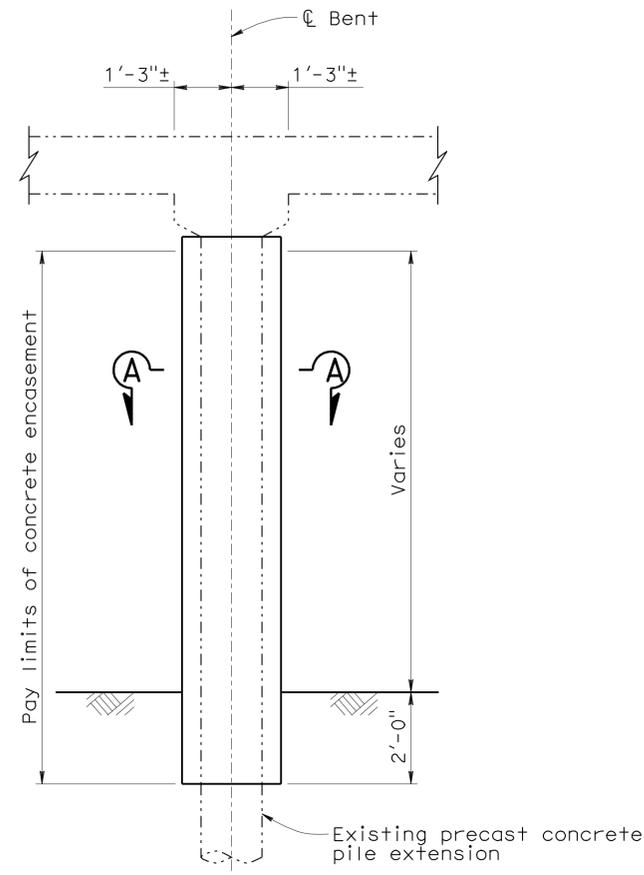
**LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES**

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

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 7.2 m to 10.8 m apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line

DESIGN BY T. Bui DETAILS BY J. Casarino QUANTITIES BY T. Win			CHECKED I. Chernioglo CHECKED I. Chernioglo CHECKED J. Lee		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0119 POST MILE 16.70		<b>SOUTH STOCKTON WIDENING</b> <b>MORMON SLOUGH BRIDGE (WIDEN)</b> <b>STRUCTURE APPROACH DETAILS</b>		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
						0 1 2 3		REVISION DATES: 7-22-11, 9-29-11, 2-27-12		SHEET 13 OF 17			

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1015	1414
			REGISTERED CIVIL ENGINEER	DATE	
			Chris Udarbe	11-04-11	
			PLANS APPROVAL DATE		
			3-26-12		
REGISTERED PROFESSIONAL ENGINEER No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA					
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Indicates structure concrete

**EXISTING CONCRETE PILE STRENGTHENING**  
 1/2" = 1'-0"

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

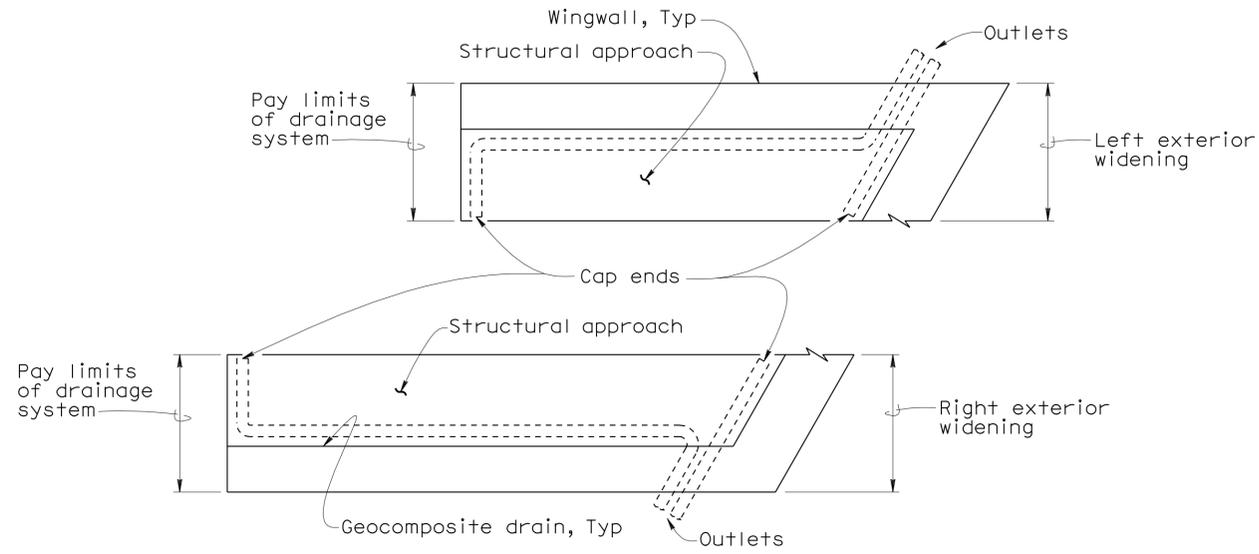
NOTE:  
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN BY T. Bui DETAILS BY C. Figuerres QUANTITIES BY T. Win	CHECKED I. Chernioglo CHECKED I. Chernioglo CHECKED J. Lee	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	<b>SOUTH STOCKTON WIDENING</b> <b>MORMON SLOUGH BRIDGE (WIDEN)</b> <b>PILE STRENGTHENING DETAILS</b>			
				29-0119				
				POST MILE				
				16.70				
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 3-26-10 9-27-11 3-28-11	SHEET OF 14 17

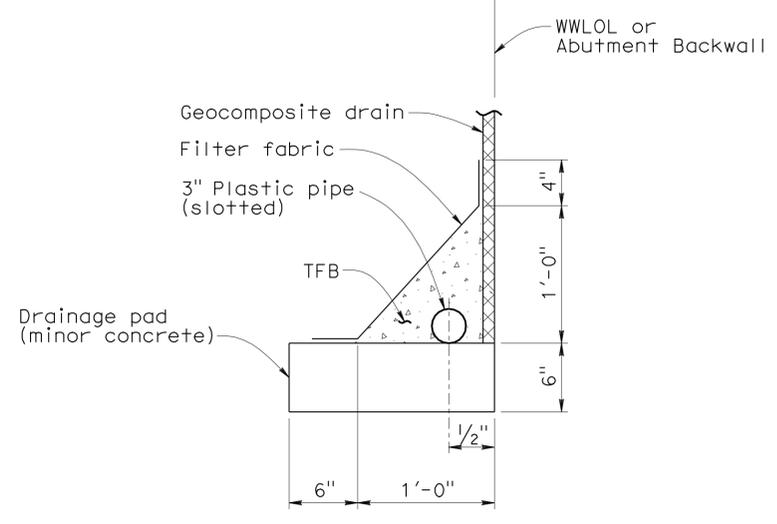
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1016	1414

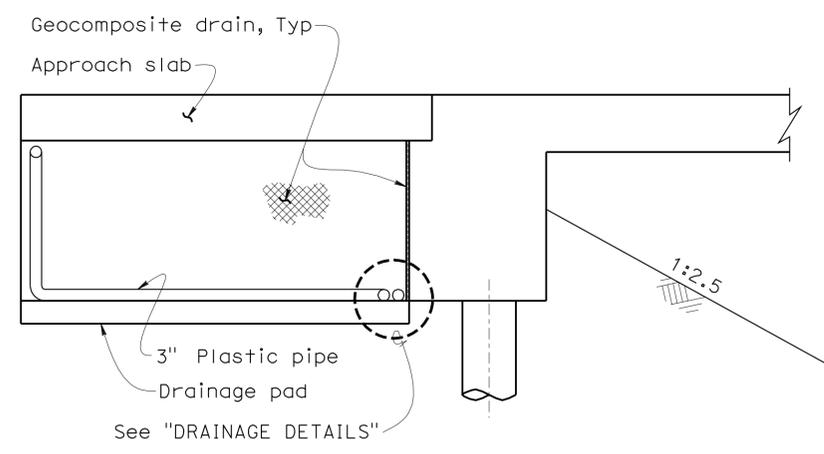
C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udarbe  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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**DRAINAGE DETAIL**  
1/2" = 1'-0"



**DRAINAGE DETAIL**  
1/2" = 1'-0"



**CANTILEVER WINGWALL**  
1/2" = 1'-0"

DESIGN	BY T. Bui	CHECKED I. Chernioglo
DETAILS	BY T. Bui	CHECKED I. Chernioglo
QUANTITIES	BY T. Win	CHECKED J. Lee

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO.	29-0119
POST MILE	16.70

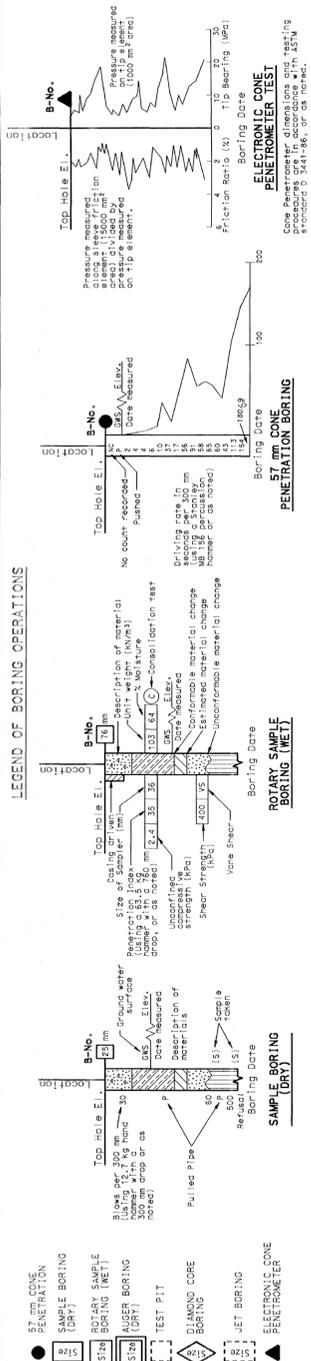
**SOUTH STOCKTON WIDENING**  
**MORMON SLOUGH BRIDGE (WIDEN)**  
**STRUCTURE APPROACH DRAINAGE DETAILS**



CONTRACT NO: 10-046503

TRANSFER DATE: 02-19-2004  
FIELD CORRECTION DATE: 10-15-2003

CORRECTIONS TRANSFERRED BY: AV  
FIELD CORRECTIONS BY: Bonneventure Ezeji



CONSISTENCY CLASSIFICATION FOR SOILS	
According to the Standard Penetration Test	
SPT (Blow Count) (0.3m)	Very Loose (2)
Gravel or (0.3m)	Loose (4-8)
	Medium Dense (9-15)
	Dense (16-30)
	Very Dense (>31)
	Hard

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.

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

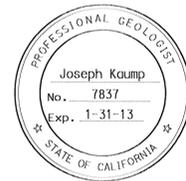


DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	28.4/28.8 28.3/28.9	30	30

REGISTERED GEOLOGIST  
 Mark A. Richards  
 No. 5240  
 Exp. 7-31-02

PLANS APPROVAL DATE: 4-16-01

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DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES

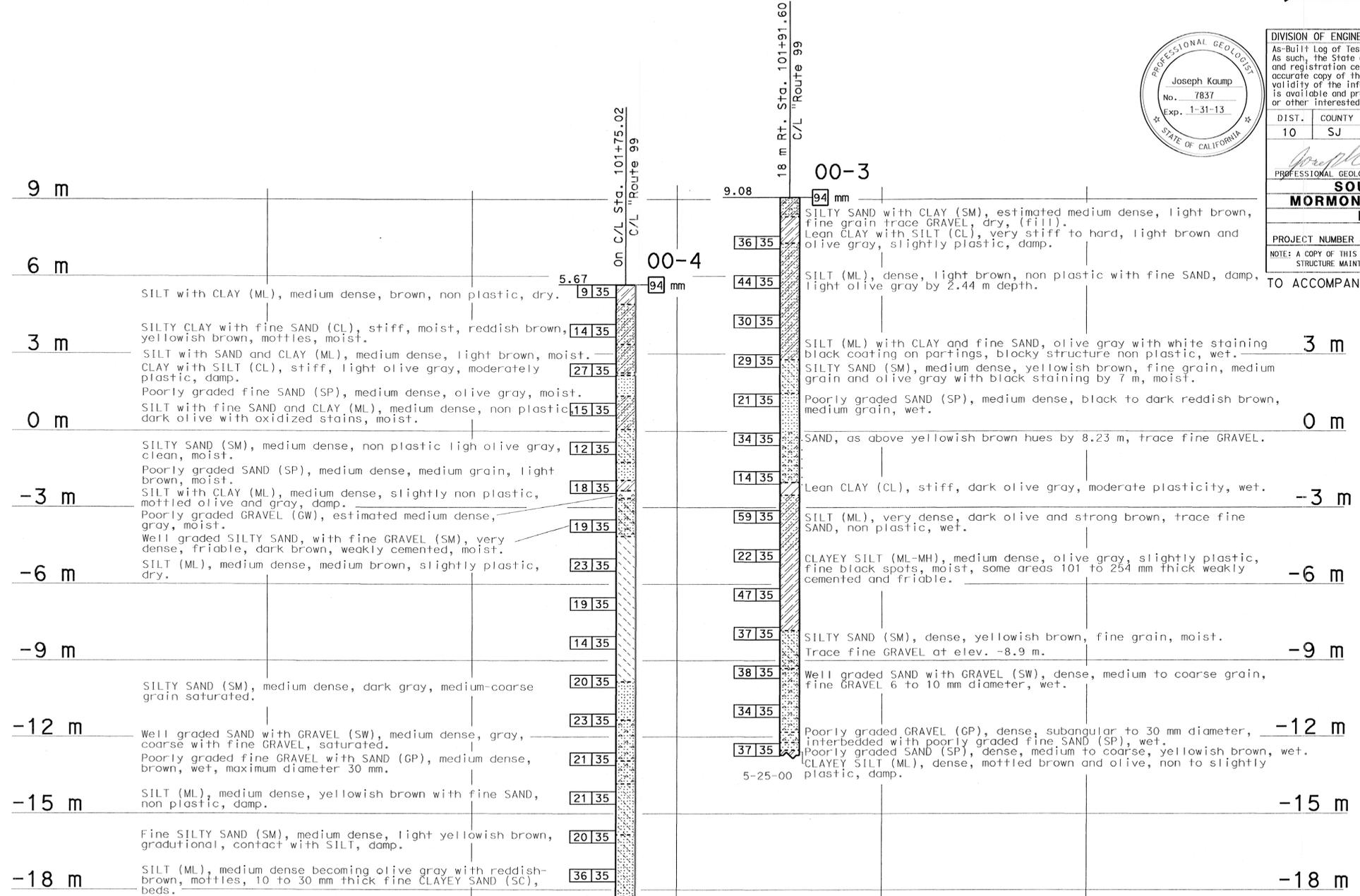
As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in 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 MILE-TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	4,99	R19.5/R20.1,15.0/18.6	1018	1414

PROJECT NUMBER & PHASE: 1000004091  
 CONTRACT No. 10-3A1001  
 BRIDGE No. 529-0119

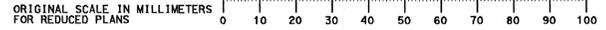
NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

TO ACCOMPANY PLANS DATED 3-26-12



PROFILE  
 HOR. 1:250  
 VER. 1:100

ENGINEERING SERVICE CENTER		STRUCTURE FOUNDATIONS		FIELD INVESTIGATION BY: M. Richards		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF STRUCTURES STRUCTURE DESIGN 7		BRIDGE NO. 29-0119		MORMON SLOUGH BRIDGE (WIDEN)	
DRAWN BY P. Phommachit 7/00		CHECKED BY M. Richards 8/00		M. Richards		CU 10 EA 0A6501		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)		LOG OF TEST BORINGS 2 OF 2	



USERNAME => ova10bz DATE PLOTTED => 26-FEB-2004 TIME PLOTTED => 10:21

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1019	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
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.					

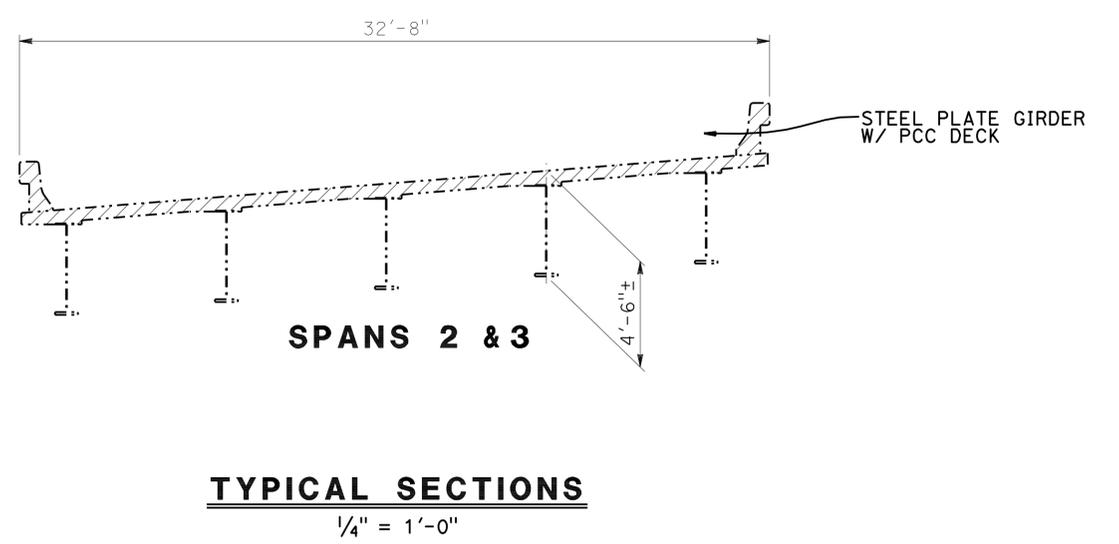
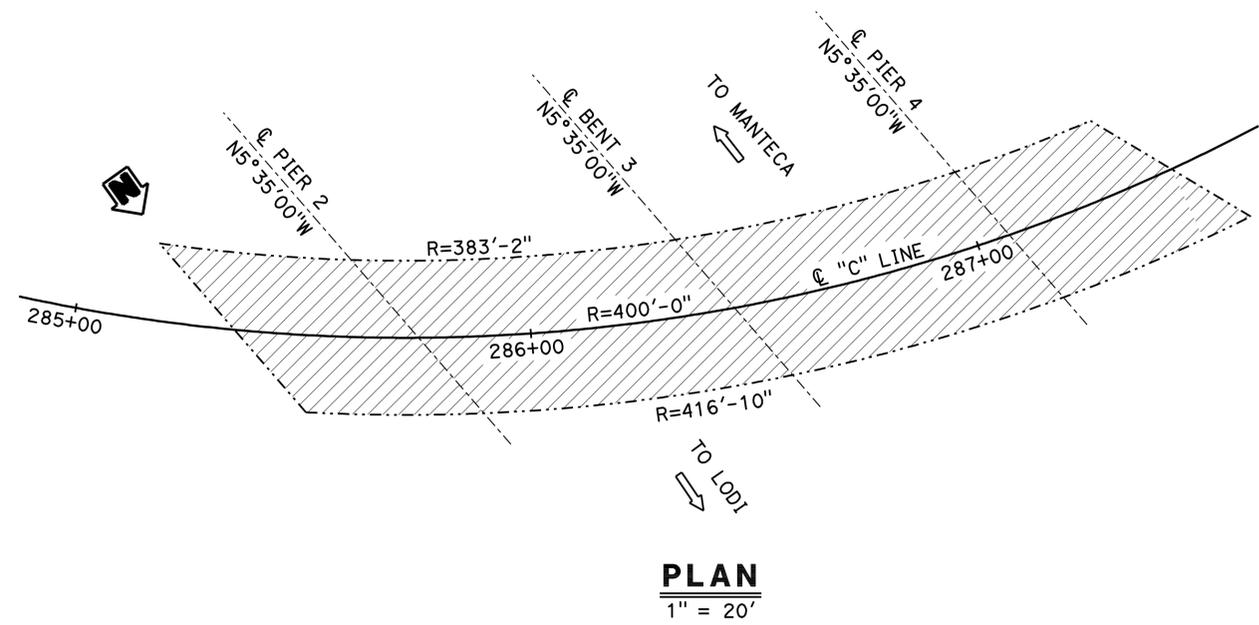
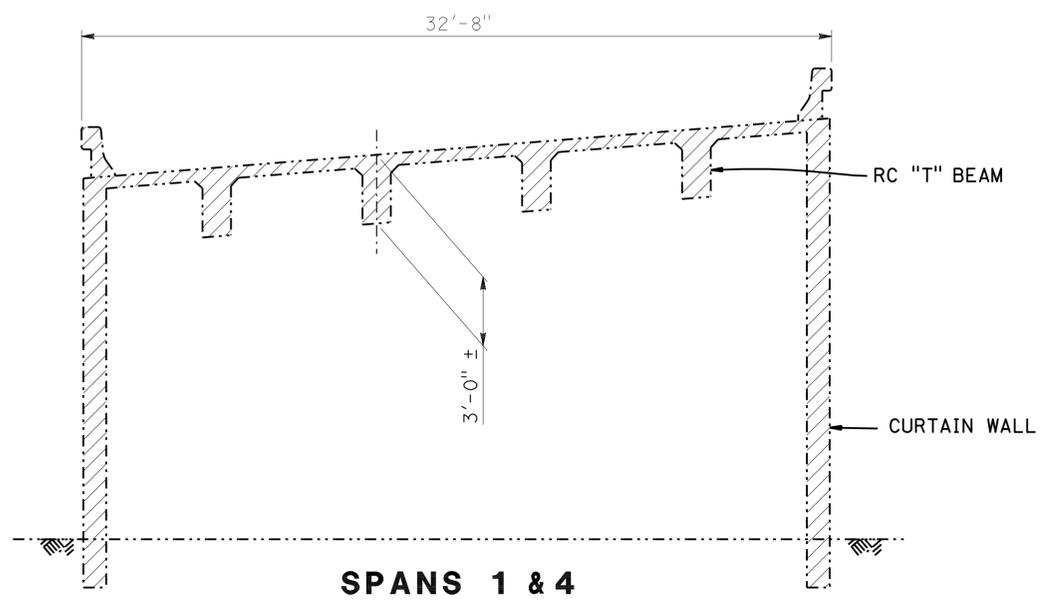
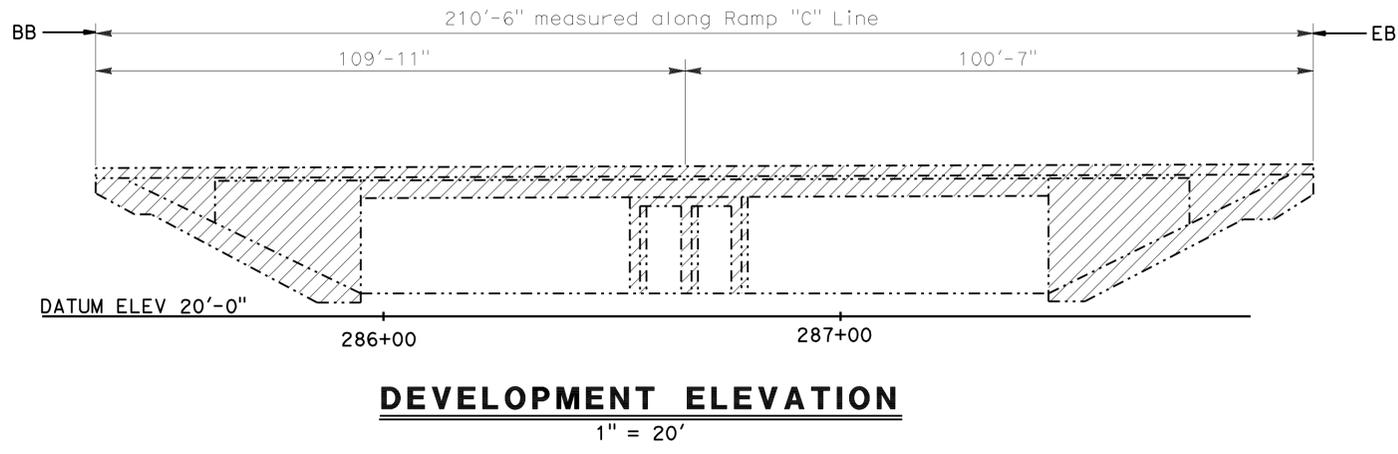
**QUANTITIES**

BRIDGE REMOVAL, LOCATION F

LUMP SUM

**Legend:**

- Indicates existing structure
- ▨ Indicates limits of bridge removal, LOCATION F



Gary Joe  
DESIGN ENGINEER

DESIGN	BY C. Udarbe	CHECKED M. Friedheim
DETAILS	BY L. Wang	CHECKED C. Udarbe
QUANTITIES	BY C. Udarbe	CHECKED M. Friedheim

LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE
LAYOUT	BY L. Wang
SPECIFICATIONS	BY V. Renganathan

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0156G
POST MILE	16.87

**SOUTH STOCKTON WIDENING**  
**SOUTH STOCKTON OC (REMOVAL)**  
**GENERAL PLAN**

REVISION DATES	SHEET	OF
05-27-11 08-29-11 08-30-11 01-10-12	1	1

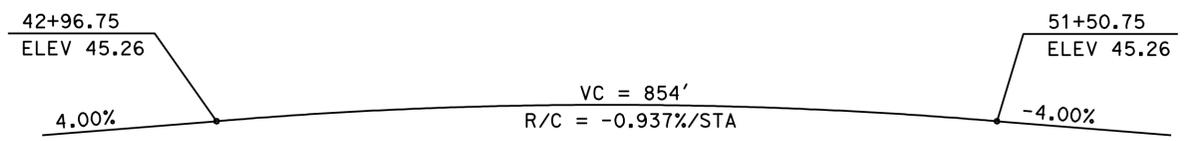
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1020	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
Chris Udarbe			REGISTERED PROFESSIONAL ENGINEER		
No. C62985			Exp. 6-30-12		
CIVIL			STATE OF CALIFORNIA		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

**Notes:**

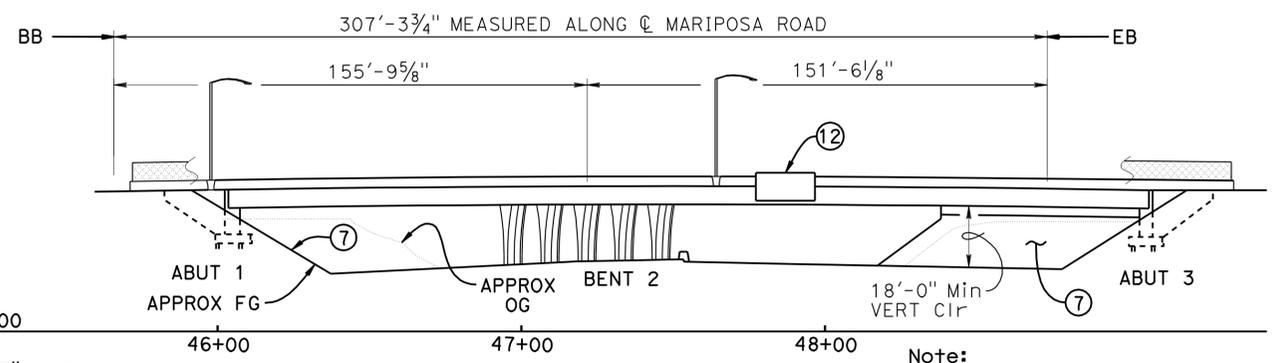
- ① Paint "Br No. 29-0325"
- ② Paint "Mariposa Road OC"
- ③ Chain link railing Type 7 (Mod)
- ④ Concrete barrier Type 26 (Mod)
- ⑤ MBGR, see "ROAD PLANS"
- ⑥ Structure approach slab Type N(30S)
- ⑦ Slope paving
- ⑧ 4" AT&T ducts, total 4
- ⑨ Future utility opening
- ⑩ City of Stockton communication line, (3"Ø conduit in 5" opening)
- ⑪ No. 5 Pullbox on sidewalk, see "ROAD PLANS"
- ⑫ Bridge Mounted Sign, see "ROAD PLANS"
- ⑬ 2-2" conduit, see "ROAD PLANS"
- ⑭ 1-4" conduit, see "ROAD PLANS"

**Legend:**

- Bridge removal, Location D Br. No. 29-0157
- Denotes point of minimum vertical clearance
- Indicates structure lighting, See "ROAD PLANS"



**PROFILE GRADE**  
NO SCALE

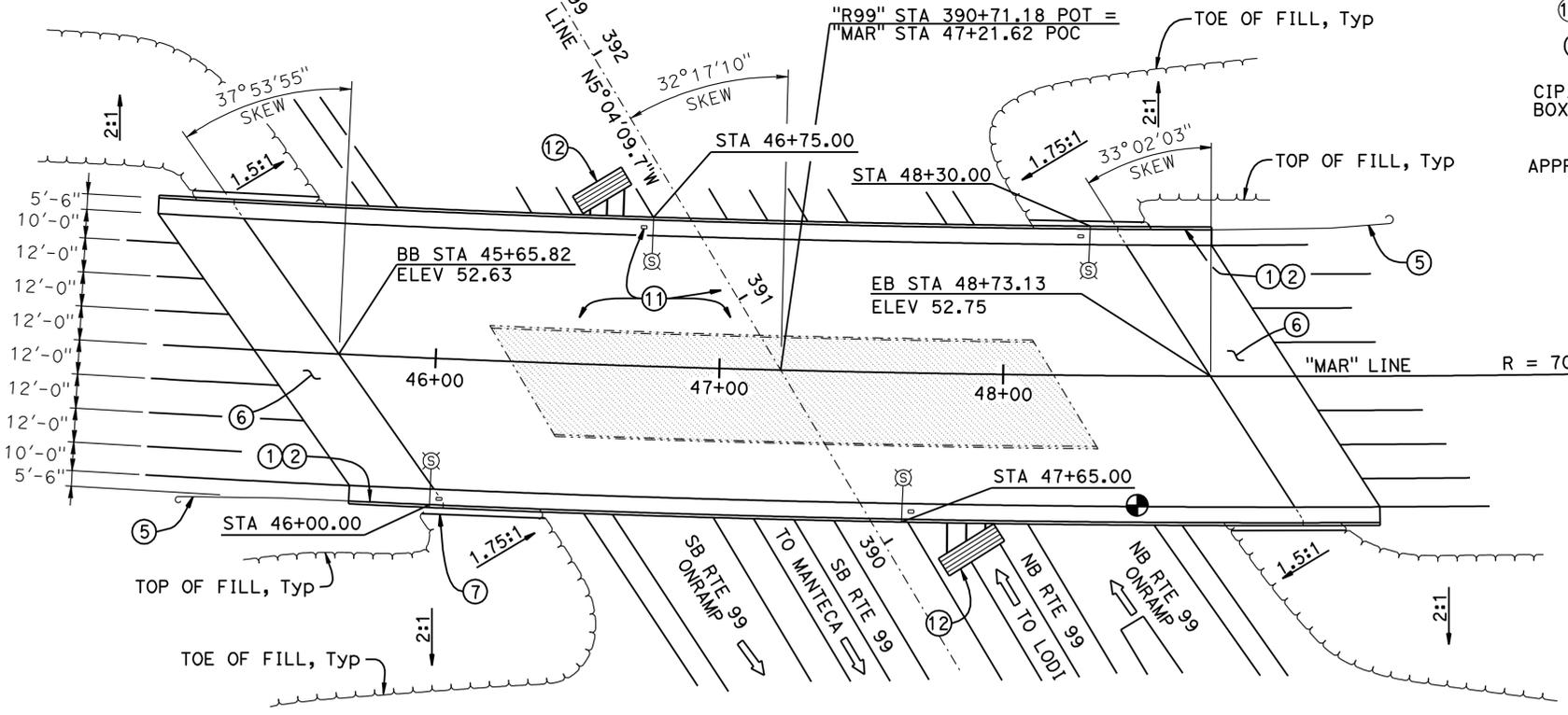


DATUM ELEV = 6.00

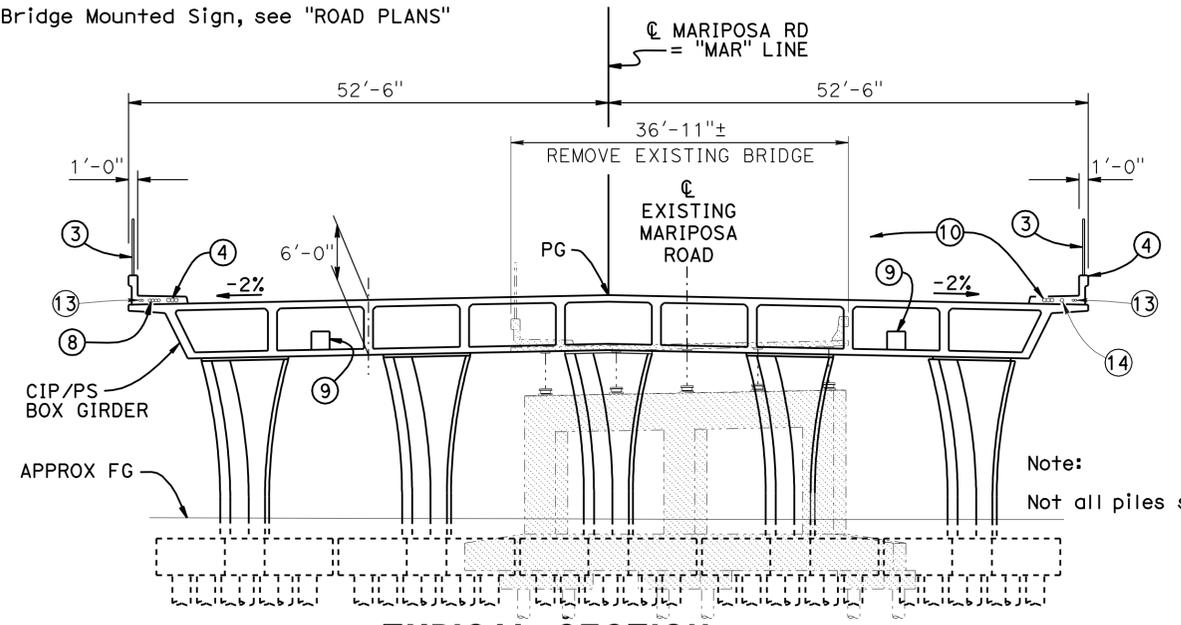
**CURVE DATA "MAR" LINE**  
 R = 7000.00'  
 Δ = 10°39'02"  
 T = 652.49'  
 L = 1301.22'

**ELEVATION**  
1" = 30'-0"

Note: Not all structure lighting shown



**PLAN**  
1" = 30'-0"



**TYPICAL SECTION**  
1" = 10'

Note: Not all piles shown

**QUANTITIES**

BRIDGE REMOVAL, LOCATION D	LUMP SUM
STRUCTURE EXCAVATION (BRIDGE)	1,343 CY
STRUCTURE BACKFILL (BRIDGE)	825 CY
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	5,606 LF
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	386 CY
STRUCTURAL CONCRETE, BRIDGE	2,917 CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	252 CY
ARCHITECTURAL TEXTURE (SPLIT FACE)	6,246 SQFT
ARCHITECTURAL TEXTURE (RIVER ROCK)	186 SQFT
JOINT SEAL ASSEMBLY (MR 4")	231 LF
BAR REINFORCING STEEL (BRIDGE)	813,975 LB
PREPARE AND STAIN CONCRETE	186 SQFT
SLOPE PAVING (CONCRETE)	83 CY
SLOPE PAVING (RIVER ROCK)	1,375 SQFT
CHAIN LINK RAILING (TYPE 7 MODIFIED)	726 LF
CONCRETE BARRIER (TYPE 26 MODIFIED)	729 LF

**SOUTH STOCKTON WIDENING**  
**MARIPOSA ROAD OC (REPLACEMENT)**  
**GENERAL PLAN**

DESIGN ENGINEER Gary Joe	DESIGN	BY R. Reyes	CHECKED M. Friedheim	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO.	29-0325	
	DETAILS	BY M. Tran/S. Ng	CHECKED M. Friedheim	LAYOUT	BY R. Reyes			CHECKED M. Friedheim	POST MILE	16.7
	QUANTITIES	BY I. Cherniogo	CHECKED R. Wilson	SPECIFICATIONS	BY V. Renganathan			CHECKED V. Renganathan		

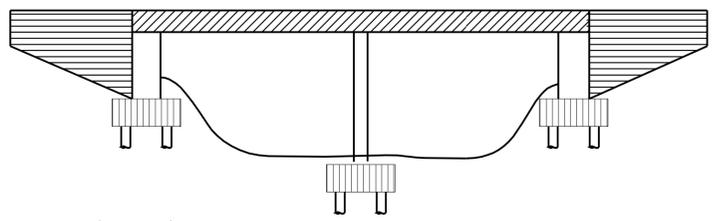
UNIT: 3586	PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 1 OF 29
------------	-------------------------------------	-------------------------	---	----------------	---------------

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1021	1414

REGISTERED CIVIL ENGINEER *Chris Udarbe* DATE 11-04-11  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA

3-26-12  
 PLANS APPROVAL DATE

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- Legend:
- Structural Concrete, Bridge (5000 psi at 28 days)
  - Structural Concrete, Bridge
  - Structural Concrete, Bridge Footing

**GENERAL NOTES**  
**LOAD AND RESISTANCE FACTOR DESIGN**

**DESIGN:**  
 AASHTO LRFD Bridge Design Specifications, 4th edition with the California Amendments, preface dated December 2008

**SEISMIC DESIGN:**  
 Caltrans Seismic Design Criteria (SDC), Version 1.5 dated January 2010

**DEAD LOAD:**  
 Includes 35 psf for future wearing surface.

**LIVE LOADING:**  
 HL93 and permit design load.

**SEISMIC LOADING:**  
 Soil profile type D  
 Magnitude group 6.7 ± 0.25  
 Peak Rock Acceleration 0.29 g  
 See ARS curve  
 $V_{50} = 920$  ft/sec

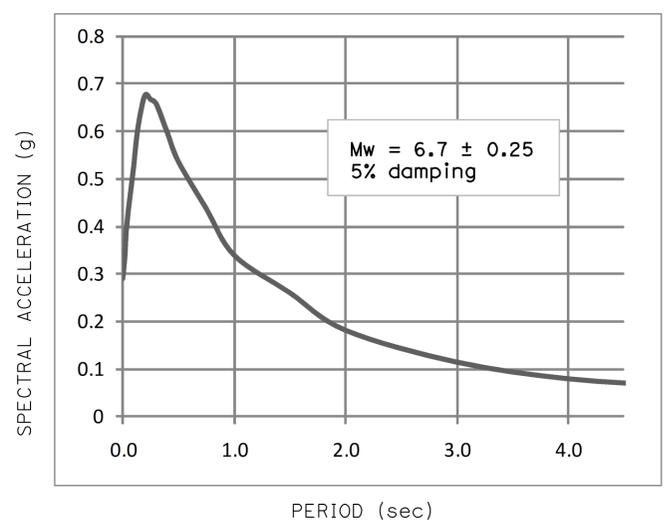
**REINFORCED CONCRETE:**  
 $f_y = 60$  ksi  
 $f'_c = 3.6$  ksi  
 $n = 8$

**PRESTRESSED CONCRETE:**  
 See "Prestressing Notes" on "Longitudinal Section" Sheet

**INDEX TO PLANS**

SHEET NO.	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	DECK CONTOURS
4	FOUNDATION PLAN
5	ABUTMENT LAYOUT
6	ABUTMENT DETAILS NO. 1
7	ABUTMENT DETAILS NO. 2
8	ABUTMENT DETAILS NO. 3
9	BENT LAYOUT
10	BENT DETAILS NO. 1
11	BENT DETAILS NO. 2
12	TYPICAL SECTION
13	GIRDER LAYOUT
14	LONGITUDINAL SECTION
15	GIRDER REINFORCEMENT
16	ARCHITECTURAL DETAILS NO. 1
17	ARCHITECTURAL DETAILS NO. 2
18	ARCHITECTURAL DETAILS NO. 3
19	ARCHITECTURAL DETAILS NO. 4
20	ARCHITECTURAL DETAILS NO. 5
21	SLOPE PAVING - FULL SLOPE
22	JOINT SEAL ASSEMBLY (MAX MOVEMENT RATING=4")
23	STRUCTURE APPROACH TYPE N(30S)
24	STRUCTURE APPROACH DRAINAGE DETAILS
25	LOG OF TEST BORINGS 1 OF 5
26	LOG OF TEST BORINGS 2 OF 5
27	LOG OF TEST BORINGS 3 OF 5
28	LOG OF TEST BORINGS 4 OF 5
29	LOG OF TEST BORINGS 5 OF 5

**CONCRETE STRENGTH AND TYPE LIMITS**



**SITE SPECIFIC ACCELERATION RESPONSE SPECTRA CURVE**

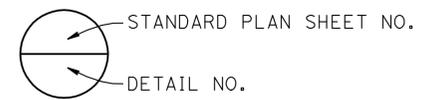
**PILE DATA TABLE**

Location	Pile Type	Nominal Resistance		Design Tip Elevation (ft)	Specified Tip Elevation (ft)
		Compression	Tension		
Abut 1	24 inch CIDH	410 kips	0	-18.0 (a)	-18.0
Bent 2	24 inch CIDH	510 kips	0	-29.0 (a)	-29.0
Abut 3	24 inch CIDH	410 kips	0	-18.0 (a)	-18.0

(a) Design tip elevations are controlled by compression

**STANDARD PLANS DATED MAY 2006**

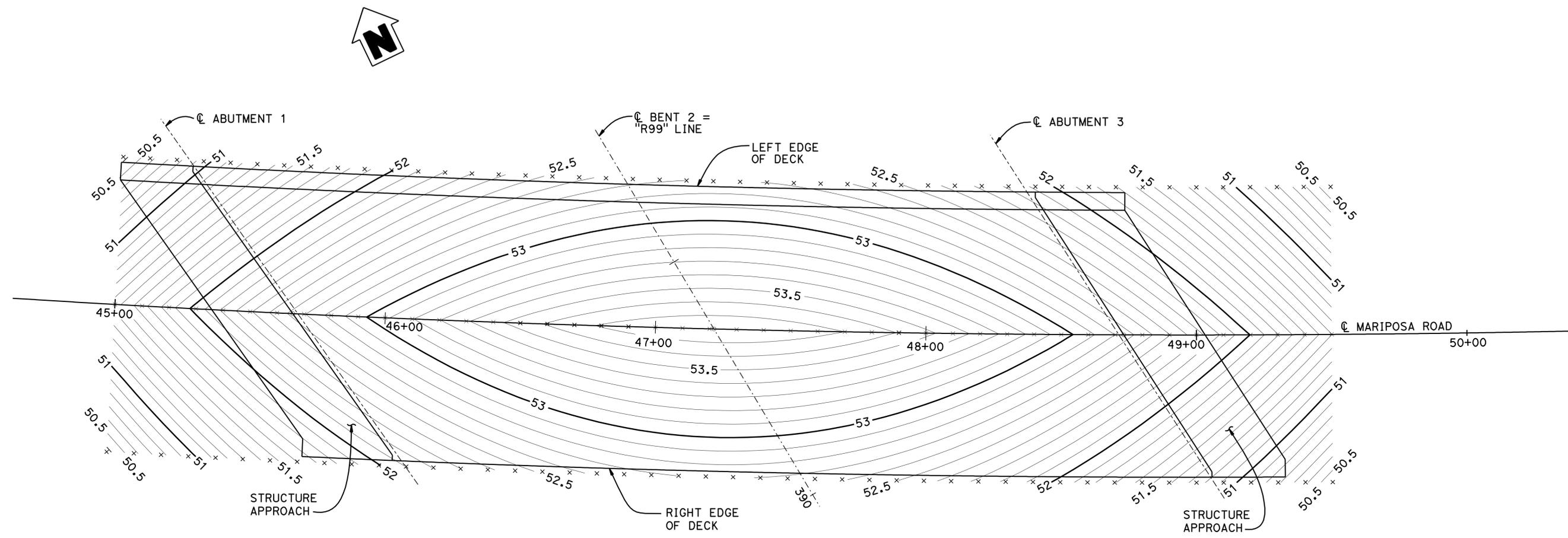
- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
- B0-1 BRIDGE DETAILS
- B0-3 BRIDGE DETAILS
- B0-5 BRIDGE DETAILS
- B0-13 BRIDGE DETAILS
- B2-3 18" AND 24" CAST-IN-DRILLED-HOLE CONCRETE PILE
- RSP B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING=2")
- B7-1 BOX GIRDER DETAILS
- B7-10 UTILITY OPENING BOX GIRDER
- B8-5 CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
- B11-7 CHAIN LINK RAILING
- B11-52 CHAIN LINK RAILING TYPE 7
- B11-54 CONCRETE BARRIER TYPE 26
- ES-6B ELECTRICAL SYSTEMS (LIGHTING STANDARD TYPES 15 AND 21 BARRIER RAIL MOUNTED DETAILS)
- ES-9D ELECTRICAL SYSTEMS (ELECTRICAL DETAILS STRUCTURE INSTALLATIONS)



**SOUTH STOCKTON WIDENING**  
**MARIPOSA ROAD OC (REPLACEMENT)**  
**INDEX TO PLANS**

DESIGN BY R. Reyes	CHECKED M. Friedheim	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	BRIDGE NO. 29-0325
DETAILS BY S. Ng	CHECKED M. Friedheim		POST MILE 16.7
QUANTITIES BY I. Chernioglo	CHECKED R. Wilson		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1022	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER Chris Udarbe No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA					
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**DECK CONTOURS**  
1" = 20'

- Notes:
1. Contour interval = 0.1 ft
  2. x = 10 ft intervals along station line
  3. Contours do not include camber

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 03-26-10 10-26-10 05-02-11 07-25-11		SHEET 3 OF 29	
DESIGN	BY R. Reyes	CHECKED M. Friedheim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17		BRIDGE NO.	SOUTH STOCKTON WIDENING MARIPOSA ROAD OC (REPLACEMENT) DECK CONTOURS								
DETAILS	BY S. Ng/L. Wang	CHECKED M. Friedheim					29-0325									
QUANTITIES	BY I. Chernioglo	CHECKED R. Wilson					POST MILE 15.0									

USERNAME => s108868 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:34:59

CURVE DATA

No.	R	Δ	T	L
(A)	7000.00	10°39'2"	652.49	1301.22
(B)	3000.00	3°11'29"	83.57	167.10
(C)	3000.00	3°11'29"	83.57	167.10

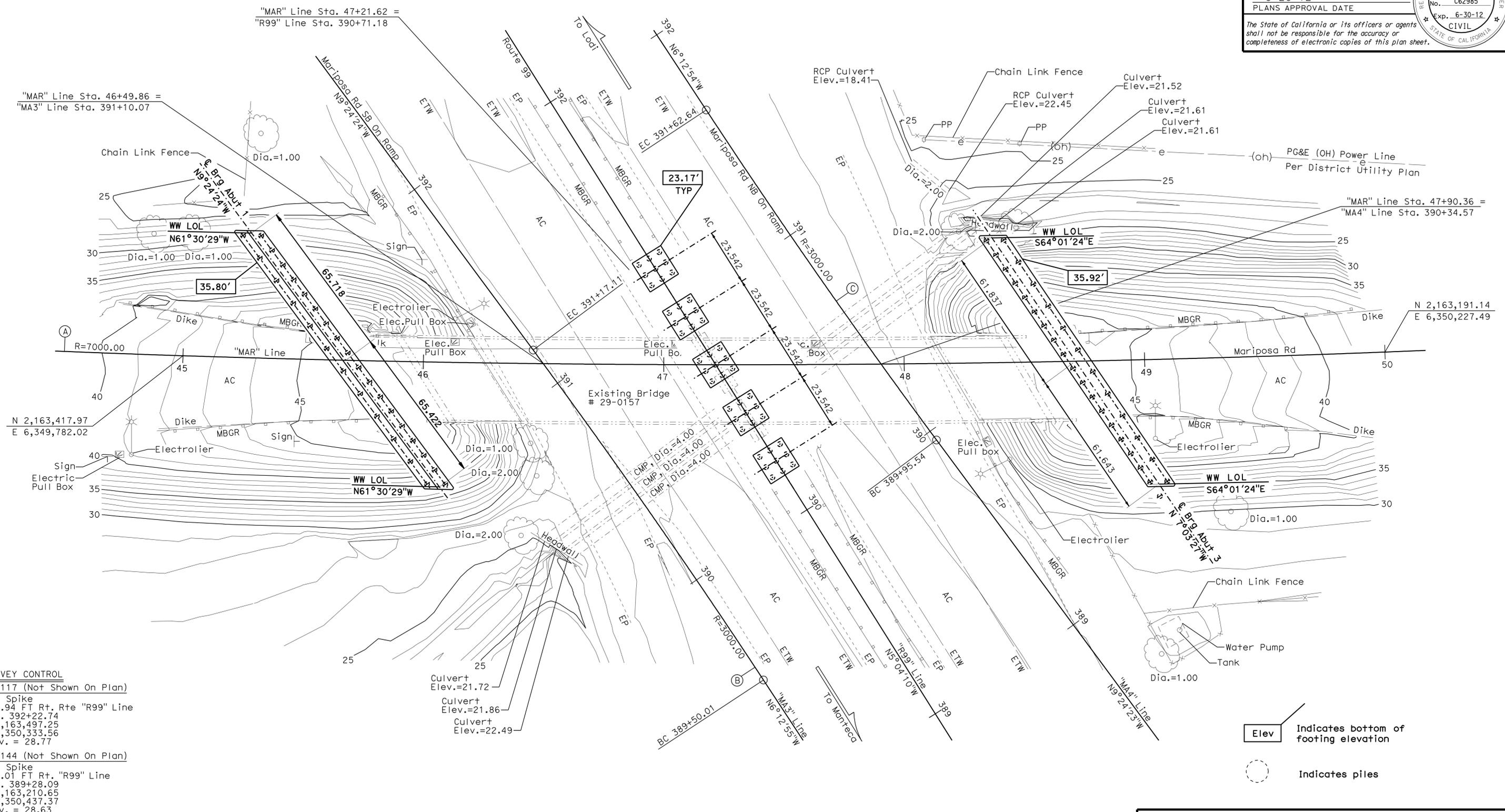
NOTES:

- Existing foundations in conflict with new bridge foundations shall be removed.
- Existing culvert to be removed and backfilled prior to footing excavation.



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1023	1414

C.V. Udabe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
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**SURVEY CONTROL**  
 CCL117 (Not Shown On Plan)  
 Fnd Spike  
 370.94 FT Rt. Rte "R99" Line  
 Sta. 392+22.74  
 N 2,163,497.25  
 E 6,350,333.56  
 Elev. = 28.77

LGC144 (Not Shown On Plan)  
 Fnd Spike  
 449.01 FT Rt. "R99" Line  
 Sta. 389+28.09  
 N 2,163,210.65  
 E 6,350,437.37  
 Elev. = 28.63

Elev Indicates bottom of footing elevation

○ Indicates piles

<p>PRELIMINARY INVESTIGATION SECTION</p>				<p>DESIGN BY R. Reyes</p>	<p>CHECKED M. Friedheim</p>	<p>STATE OF CALIFORNIA                  DEPARTMENT OF TRANSPORTATION</p>	<p>DIVISION OF ENGINEERING SERVICES                  STRUCTURE DESIGN                  DESIGN BRANCH 17</p>	<p>BRIDGE NO. 29-0325</p>	<p><b>SOUTH STOCKTON WIDENING                  MARIPOSA ROAD OC (REPLACE)                  FOUNDATION PLAN</b></p>
<p>SCALE 1"=20'</p>	<p>VERT. DATUM NGVD29</p>	<p>PHOTOGRAMMETRY AS OF: X</p>	<p>DETAILS BY S. Ng</p>	<p>CHECKED M. Friedheim</p>	<p>POST MILE 16.70</p>				
<p>ALIGNMENT TIES Dist. Traverse Sheet</p>	<p>DRAFTED BY J. Martinez</p>	<p>CHECKED BY L. Lew</p>	<p>QUANTITIES BY I. Chernioglo</p>	<p>CHECKED R. Wilson</p>	<p>REVISION DATES</p>				

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3646 PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 10-3A1001

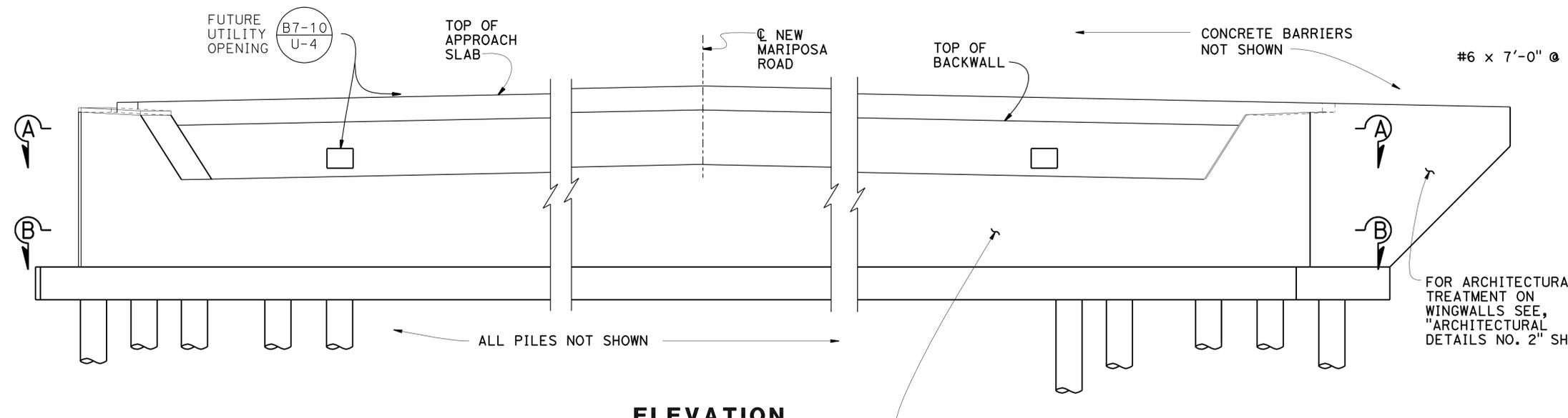
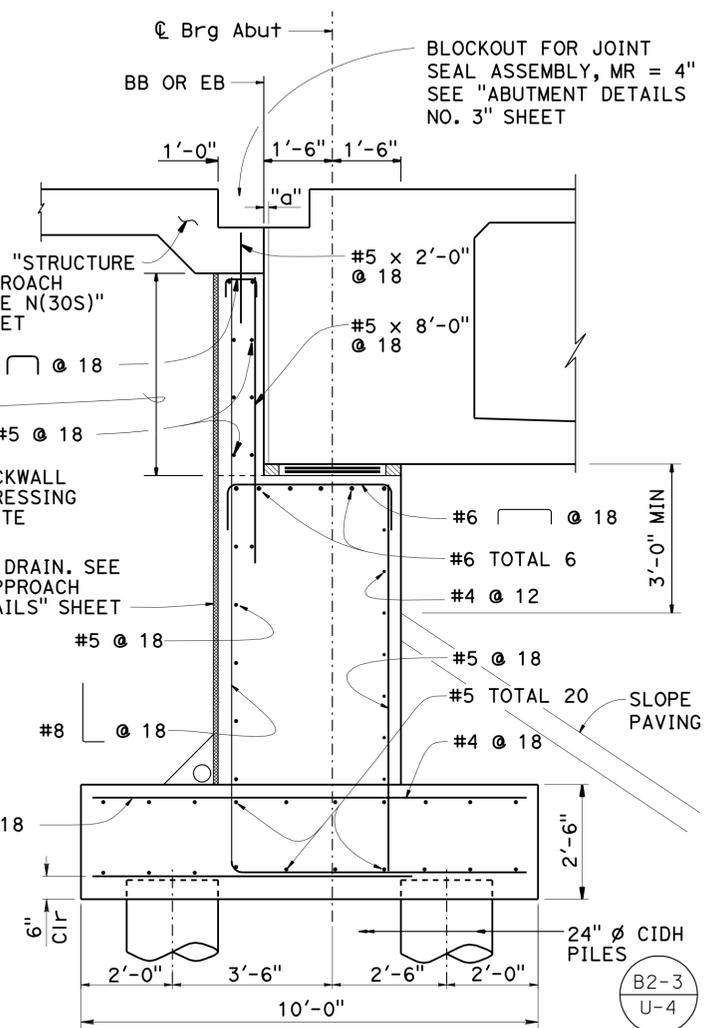
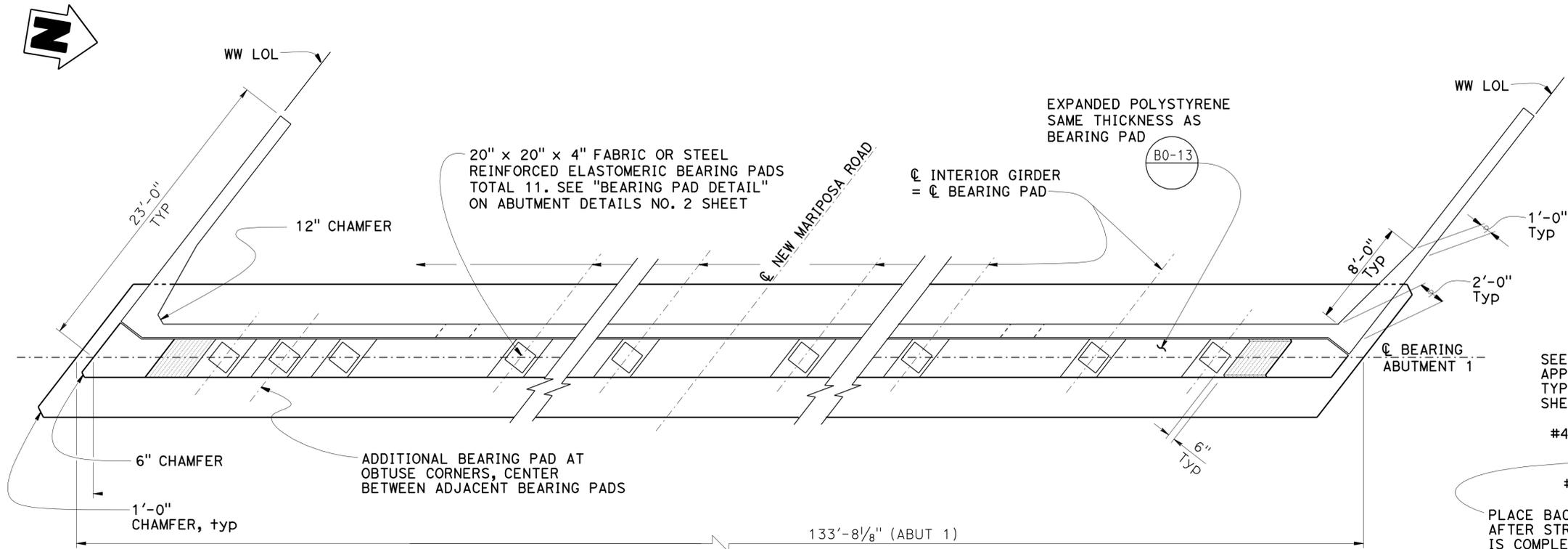
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 09/24/09, 12/28/11, 01/18/12

SHEET 4 OF 29

FILE => 29-0325-e-fp.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1024	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE	Chris Udarbe No. C62985 Exp. 6-30-12 CIVIL	
3-26-12			PLANS APPROVAL DATE		
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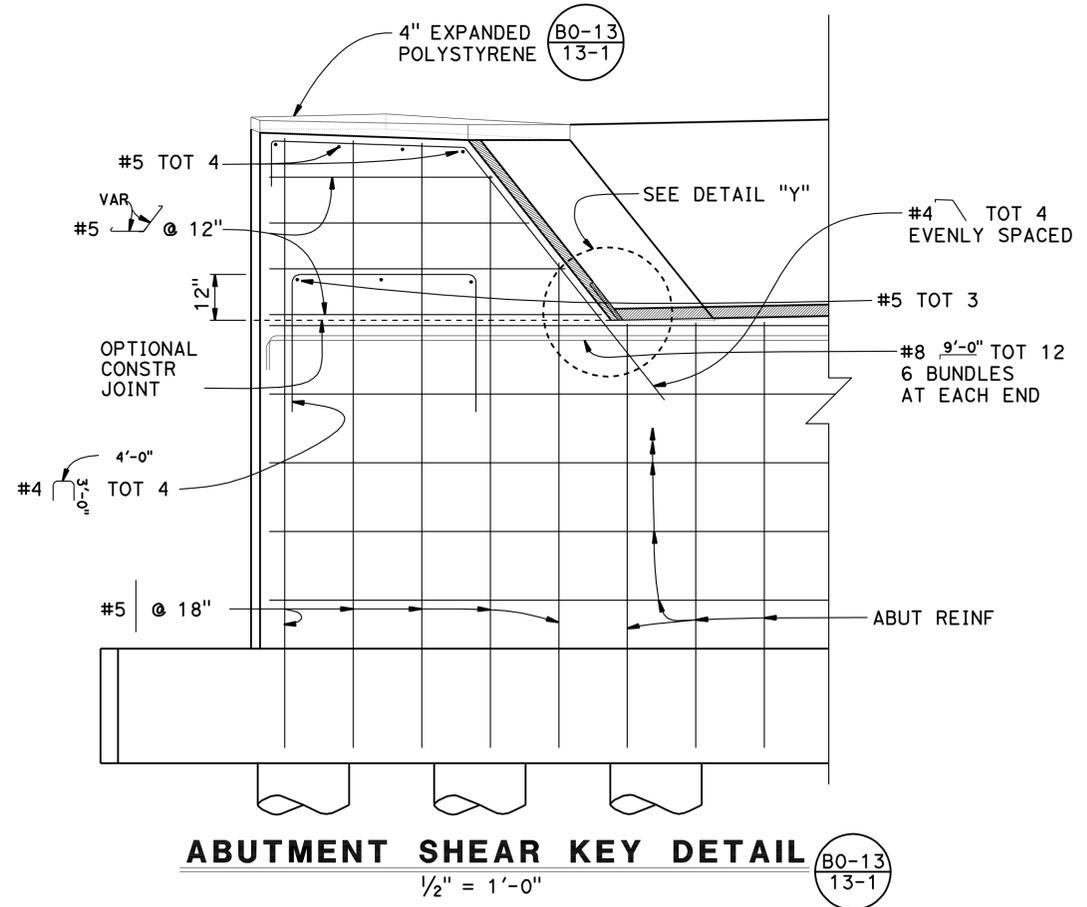
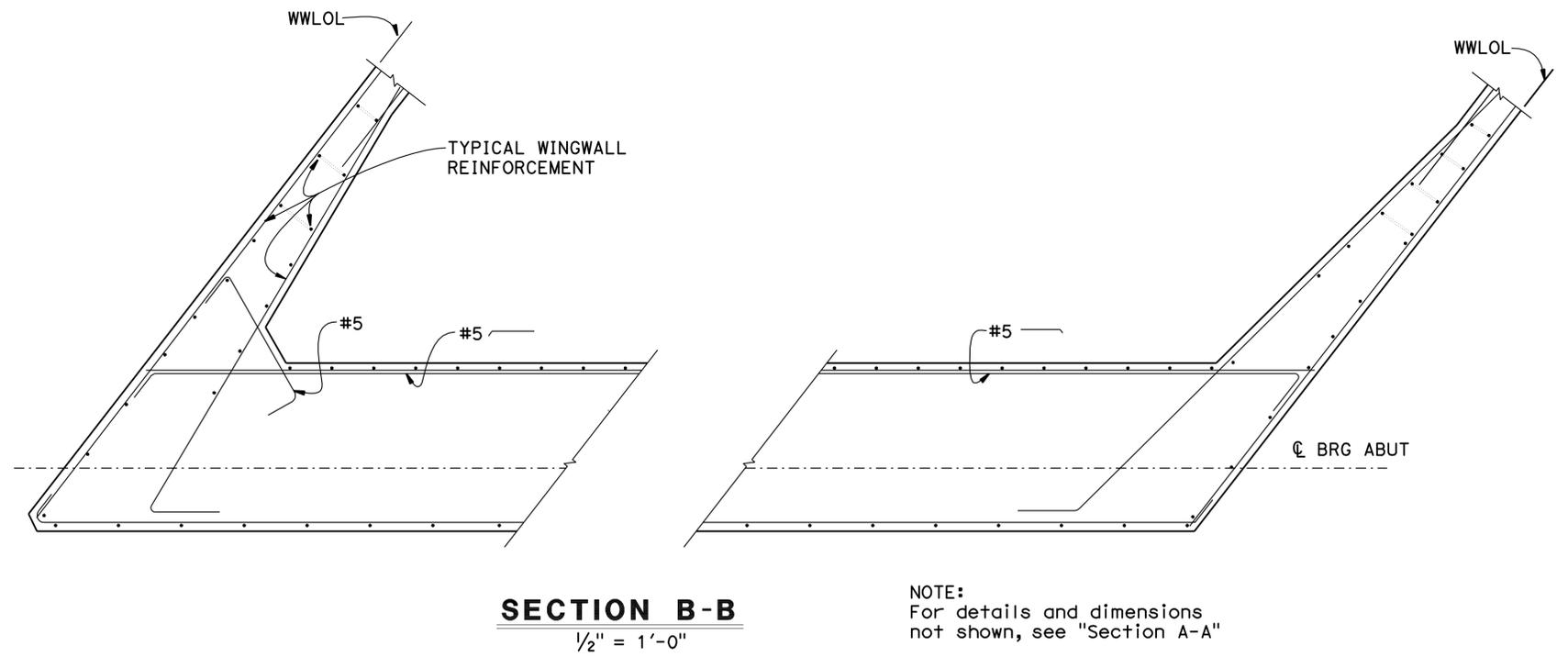
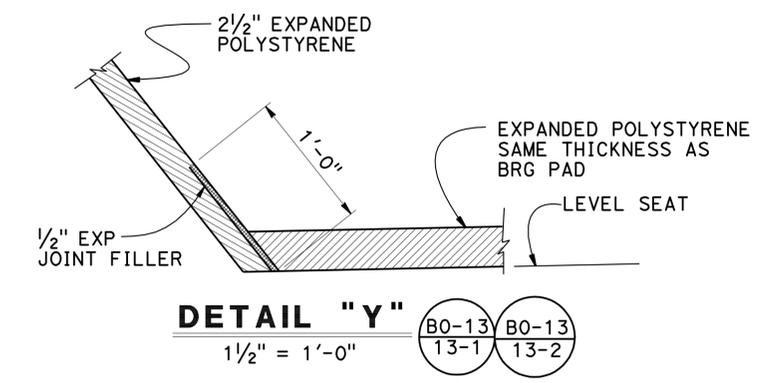
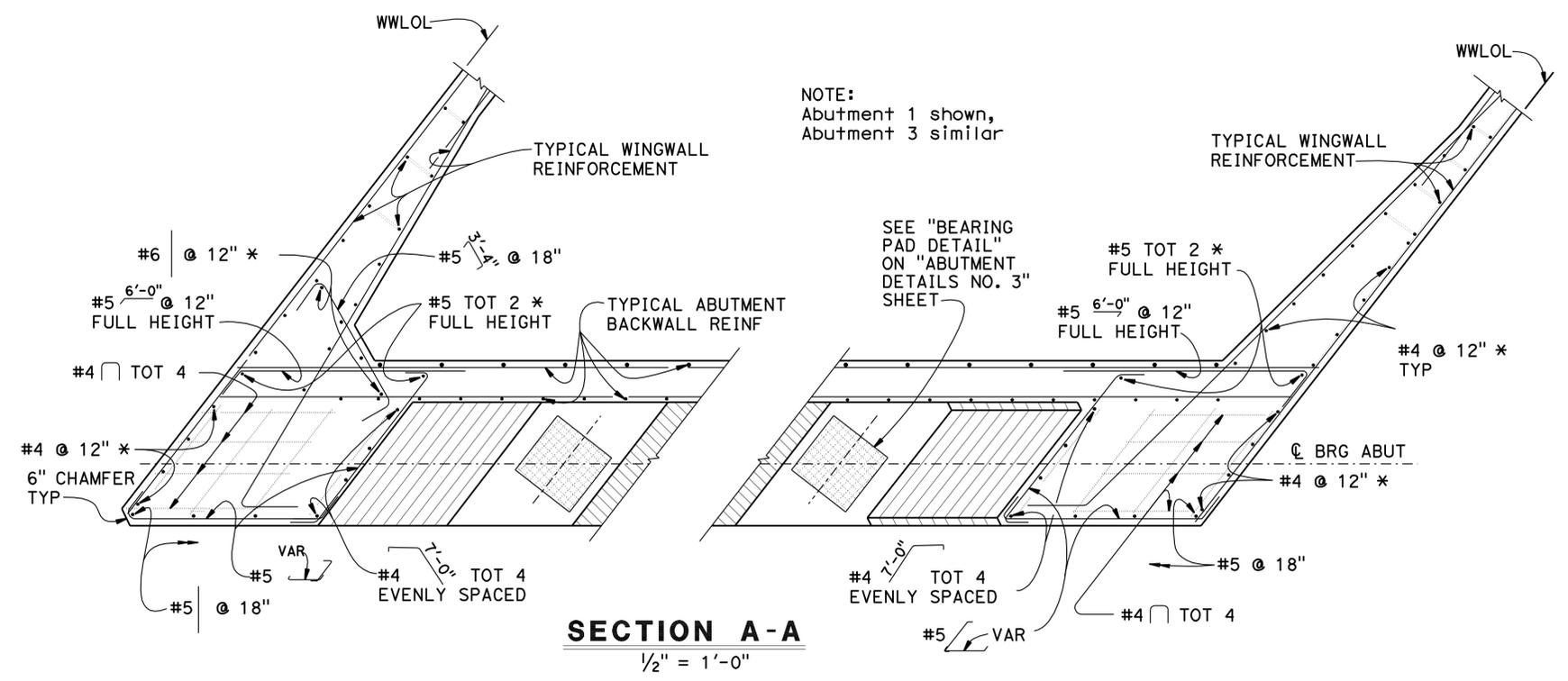
<b>STATE OF CALIFORNIA</b>				<b>DEPARTMENT OF TRANSPORTATION</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>STRUCTURE DESIGN</b>		<b>BRIDGE NO. 29-0325</b>		<b>POST MILE 15.0</b>		<b>SOUTH STOCKTON WIDENING</b>		<b>MARIPOSA ROAD OC (REPLACEMENT)</b>		<b>ABUTMENT LAYOUT</b>	
DESIGN	BY R. Reyes	CHECKED M. Friedheim	<b>DESIGN BRANCH 17</b>		<b>UNIT: 3586</b>		<b>PROJECT NUMBER &amp; PHASE: 10000004091</b>		<b>CONTRACT NO.: 10-3A1001</b>		<b>DISREGARD PRINTS BEARING EARLIER REVISION DATES</b>		<b>REVISION DATES</b>		<b>SHEET 5 OF 29</b>				
DETAILS	BY S. Ng	CHECKED M. Friedheim											01-29-11	08-29-11	10-06-11	11-07-11			
QUANTITIES	BY I. Chernioglo	CHECKED R. Wilson																	

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 FILE => 29-0325-F-g01\_1o1.dgn

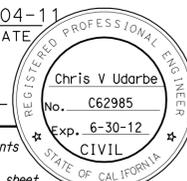
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1025	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
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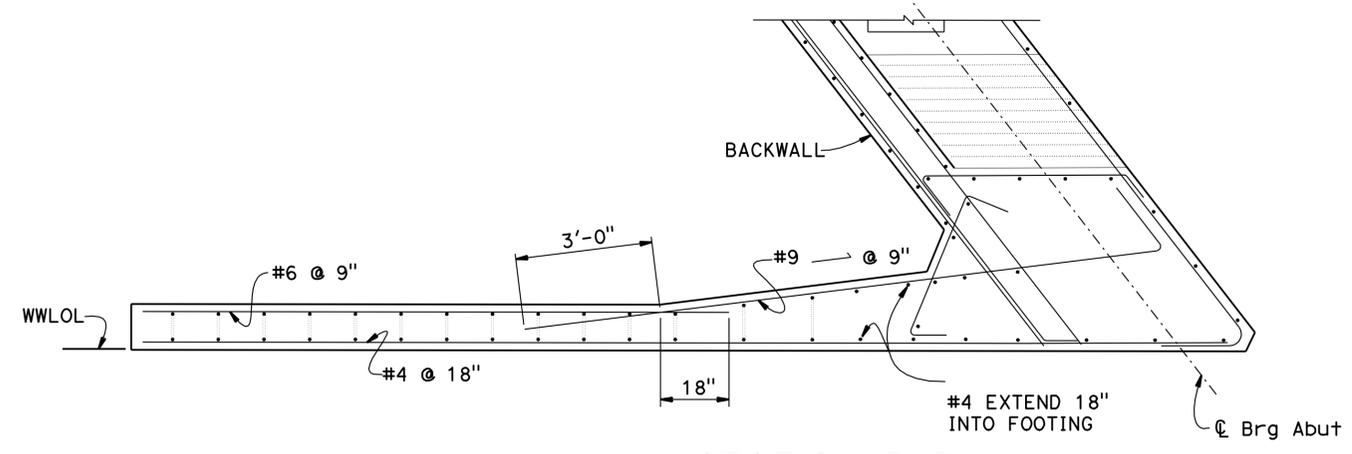


NOTE:  
For location of Sections A-A and B-B, see "Abutment Layout" Sheet.

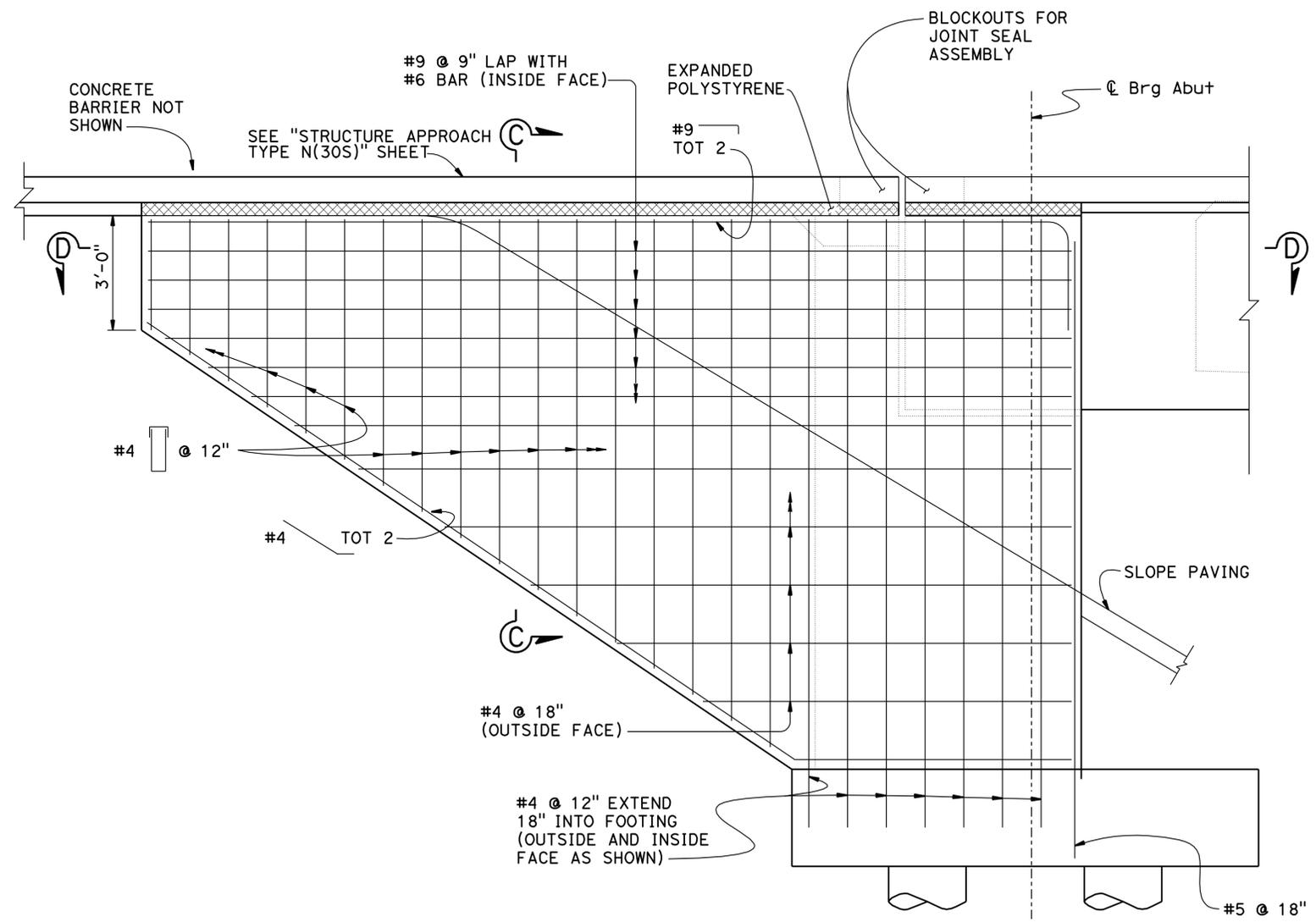


DESIGN BY R. Reyes DETAILS BY L. Wang QUANTITIES BY I. Chernioglo				CHECKED M. Friedheim CHECKED M. Friedheim CHECKED R. Wilson		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0325 POST MILE 15.0		SOUTH STOCKTON WIDENING <b>MARIPOSA ROAD OC (REPLACEMENT)</b> <b>ABUTMENT DETAILS NO. 1</b>	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES: 11-18-10, 08-25-11, 10-05-11, 11-07-11 SHEET 6 OF 29	

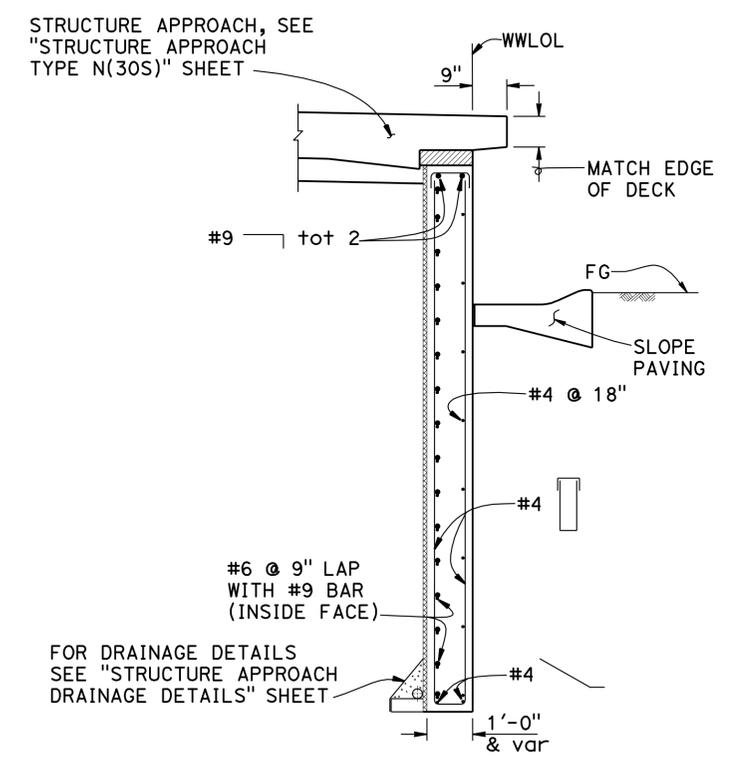
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1026	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
					
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**SECTION D-D**  
1/2" = 1'-0"



**WINGWALL ELEVATION**  
1/2" = 1'-0"



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

DESIGN	BY R. Reyes	CHECKED M. Friedheim
DETAILS	BY L. Wang	CHECKED M. Friedheim
QUANTITIES	BY I. Chernioglo	CHECKED R. Wilson

<b>STATE OF CALIFORNIA</b>	
DEPARTMENT OF TRANSPORTATION	

<b>DESIGN BRANCH 17</b>	
BRIDGE NO.	29-0325
POST MILE	15.0

<b>SOUTH STOCKTON WIDENING</b>	
<b>MARIPOSA ROAD OC (REPLACEMENT)</b>	
<b>ABUTMENT DETAILS NO. 2</b>	

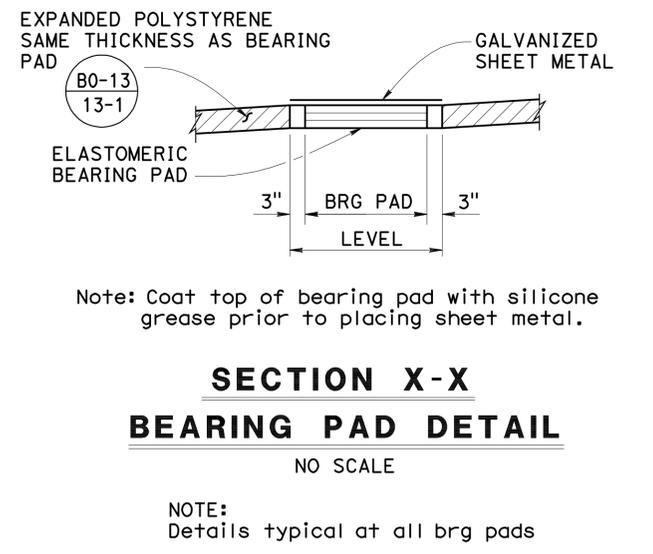
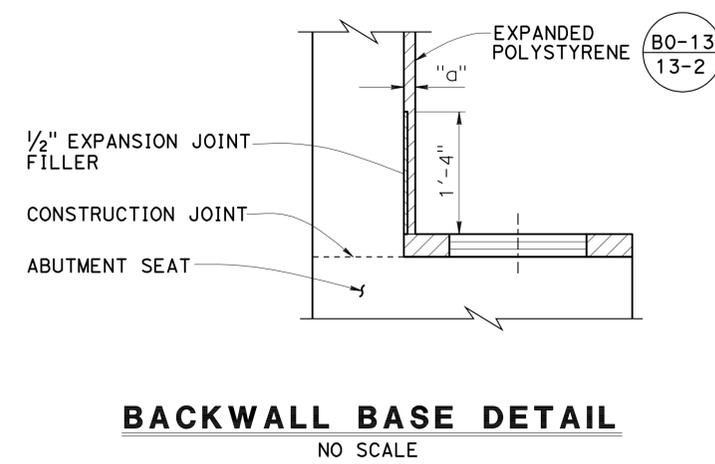
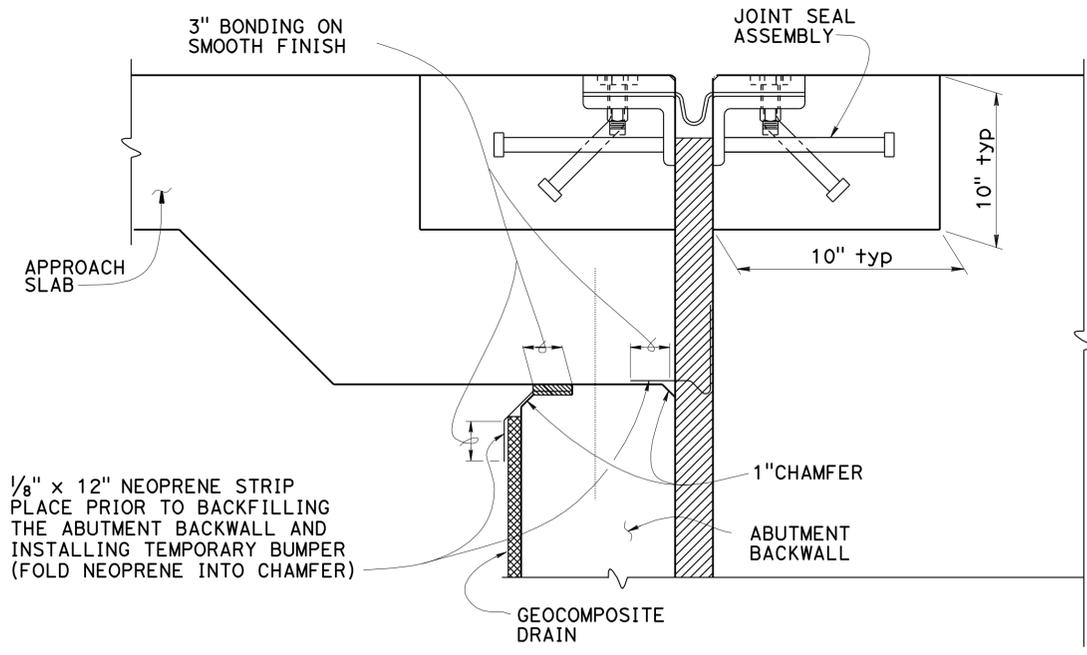
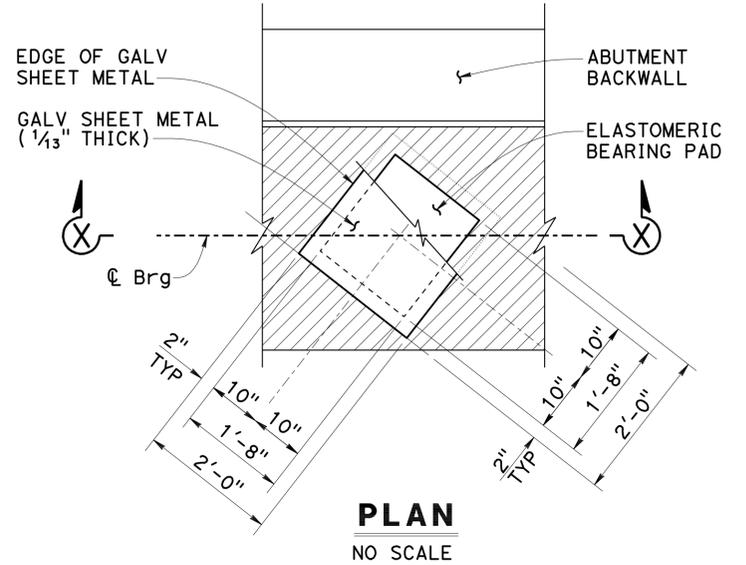
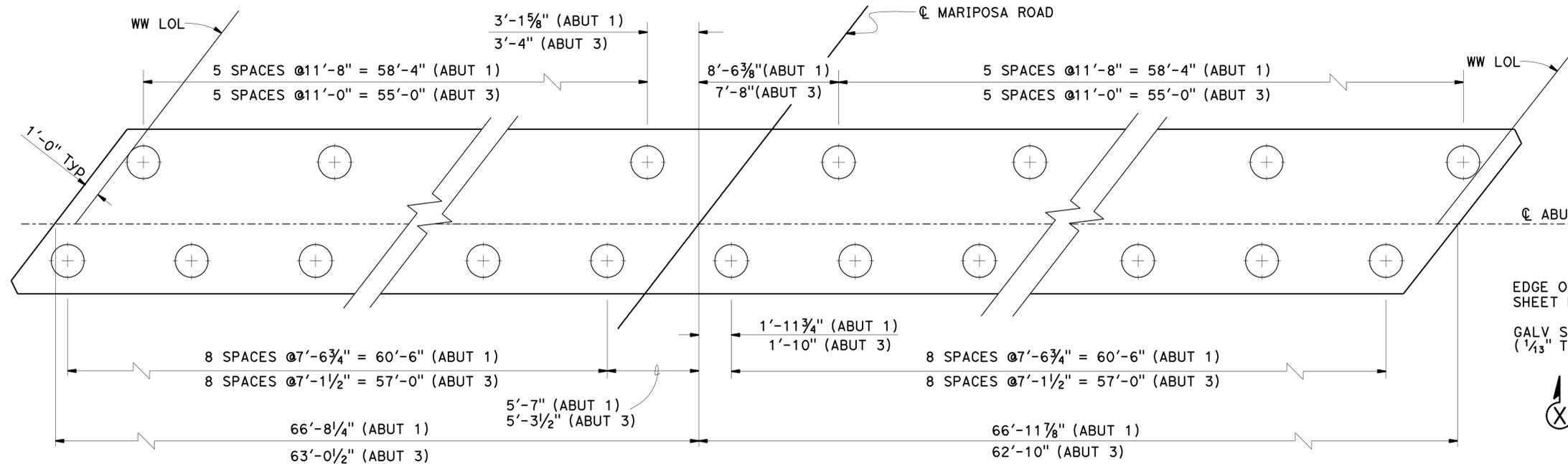
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1027	1414

REGISTERED CIVIL ENGINEER	DATE
Chris Udarbe	11-04-11
PLANS APPROVAL DATE	
3-26-12	

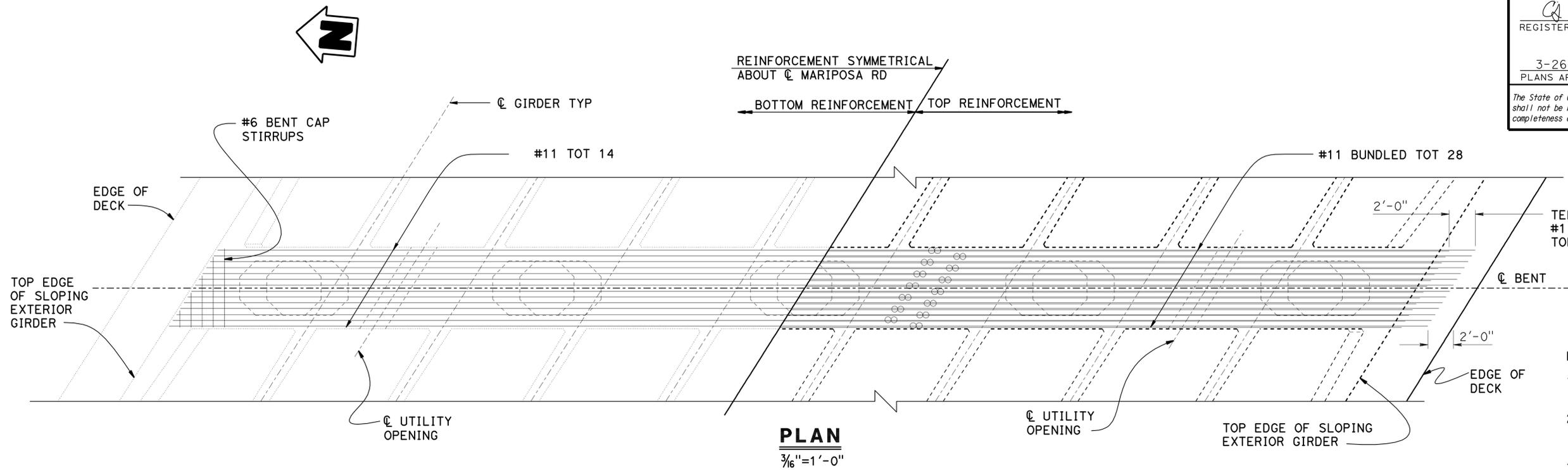
Chris Udarbe  
No. C62985  
Exp. 6-30-10  
CIVIL  
STATE OF CALIFORNIA

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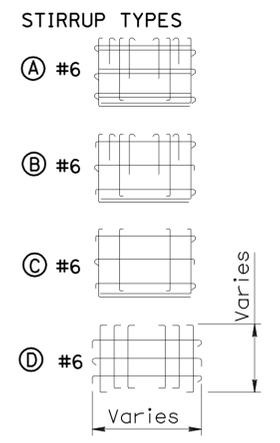
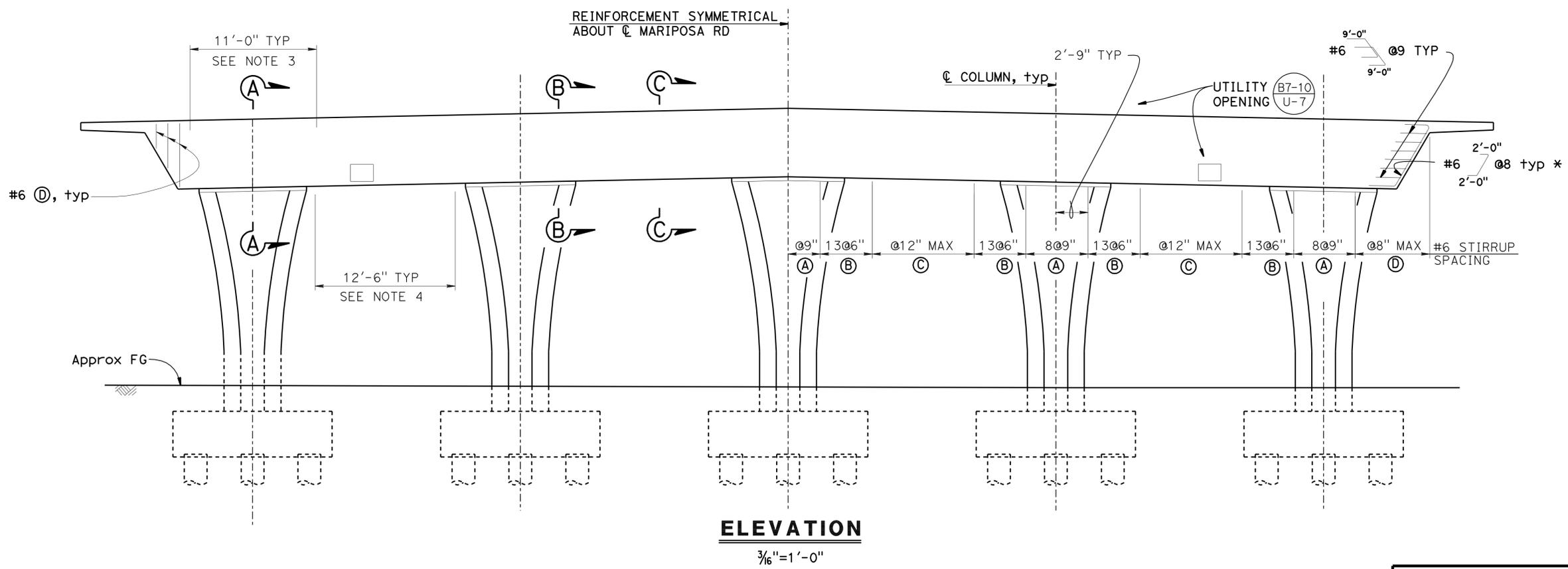


<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION				<b>DIVISION OF ENGINEERING SERVICES</b> STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		<b>SOUTH STOCKTON WIDENING</b> <b>MARIPOSA ROAD OC (REPLACEMENT)</b> <b>ABUTMENT DETAILS NO.3</b>	
DESIGN BY	R. Reyes	CHECKED	M. Friedheim	BRIDGE NO.	29-0325	REVISION DATES	
DETAILS BY	S. Ng/L. Wang	CHECKED	M. Friedheim	POST MILE	15.0		
QUANTITIES BY	I. Cherniglo	CHECKED	R. Wilson				
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	
				CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
						SHEET 8 OF 29	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1028	1414
C.V. Udabe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
<small>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.</small>					



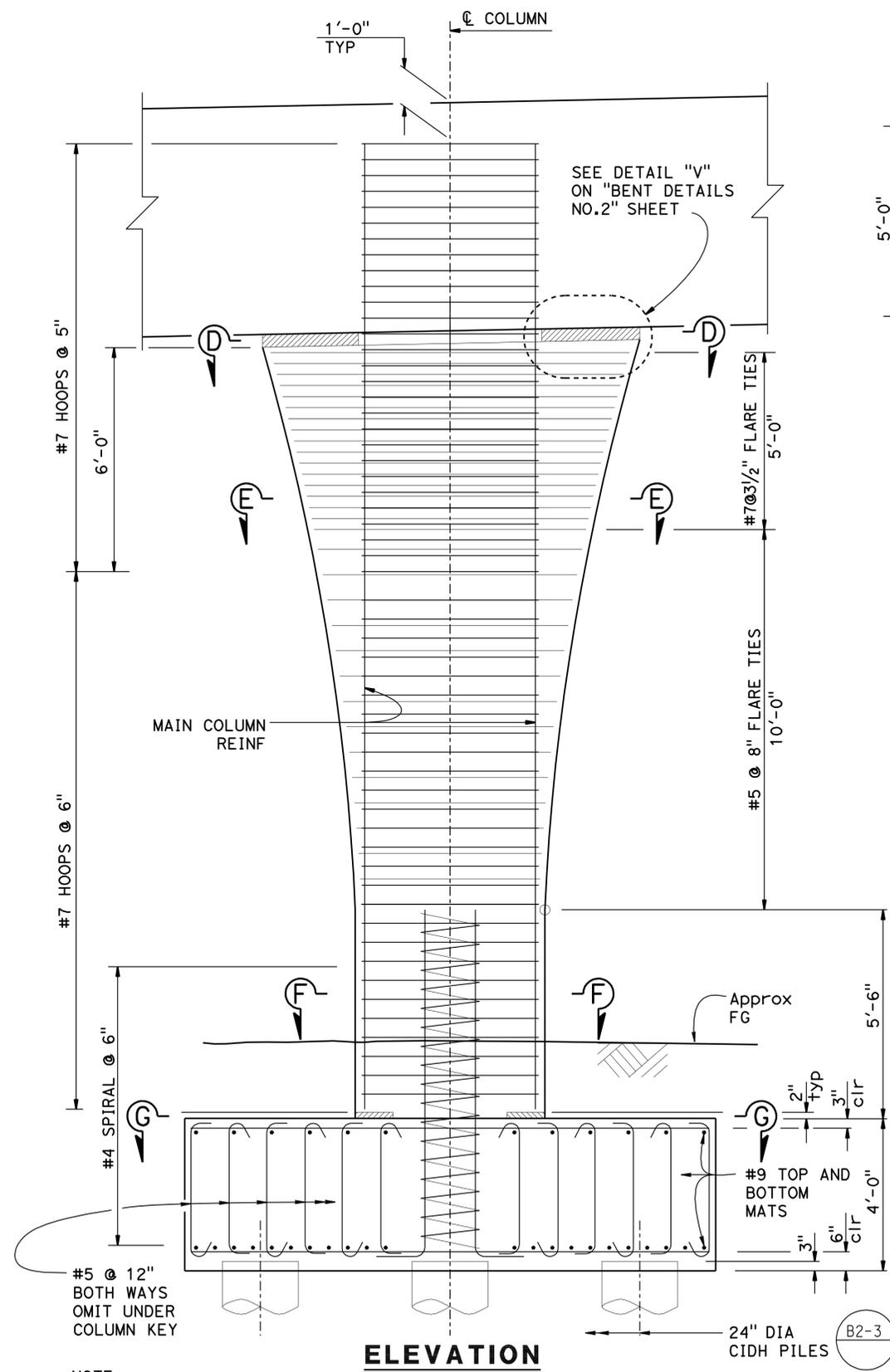
- NOTES:
1. For Sections A-A, B-B, C-C see "BENT DETAILS NO. 2" sheet
  2. Only staggered "Ultimate" butt splices are allowed in main bent cap reinf
  3. No splice zone for top main bent cap reinf
  4. No splice zone for bottom main bent cap reinf
  5. Concrete barrier omitted for clarity
- \* Spaced along EOD
- Denotes bundled reinforcement



**SOUTH STOCKTON WIDENING  
MARIPOSA ROAD OC (REPLACEMENT)  
BENT LAYOUT**

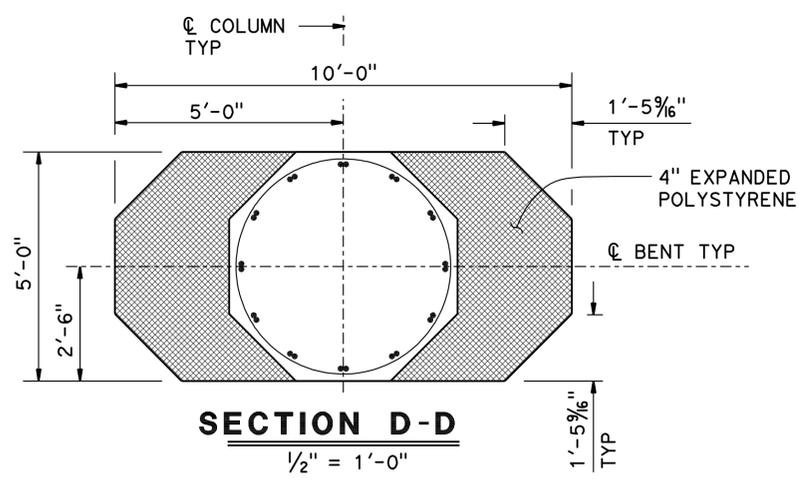
DESIGN	BY R. Reyes	CHECKED M. Friedheim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0325
DETAILS	BY L. Wang/G. Zweier	CHECKED M. Friedheim		POST MILE	15.0
QUANTITIES	BY I. Chernioglo	CHECKED R. Wilson			

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1029	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
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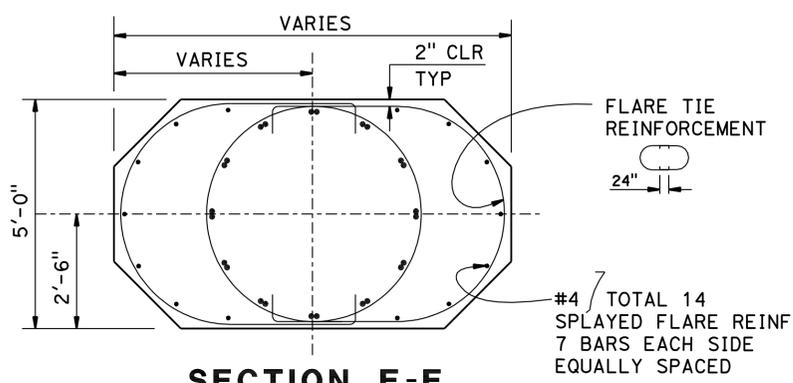


**ELEVATION**  
1/2" = 1'-0"

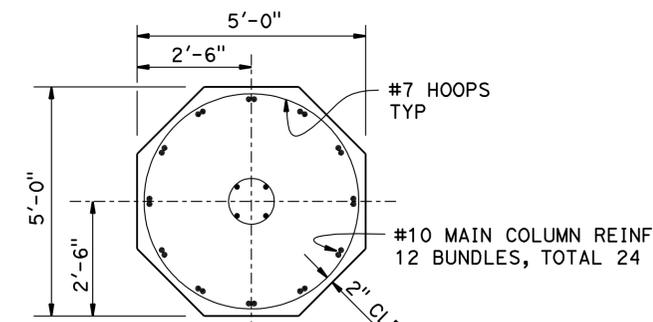
NOTE:  
SPLAYED FLARE REINF  
OMITTED FOR CLARITY



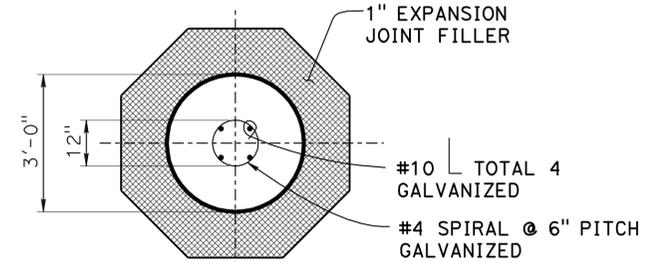
**SECTION D-D**  
1/2" = 1'-0"



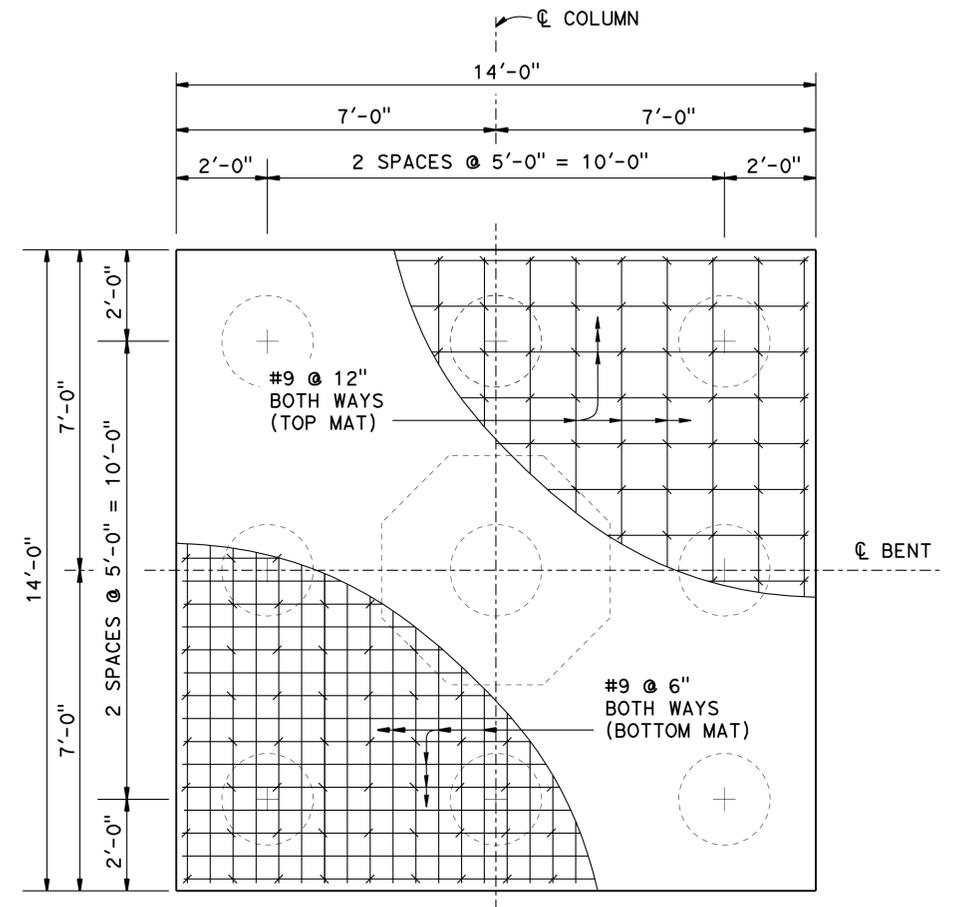
**SECTION E-E**  
1/2" = 1'-0"



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



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

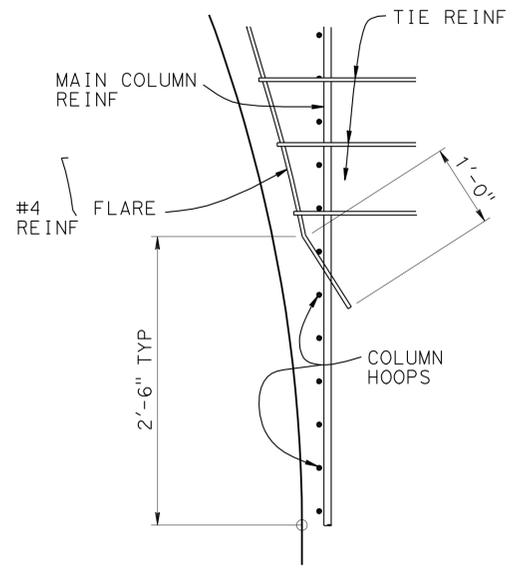


**FOOTING PLAN**  
1/2" = 1'-0"

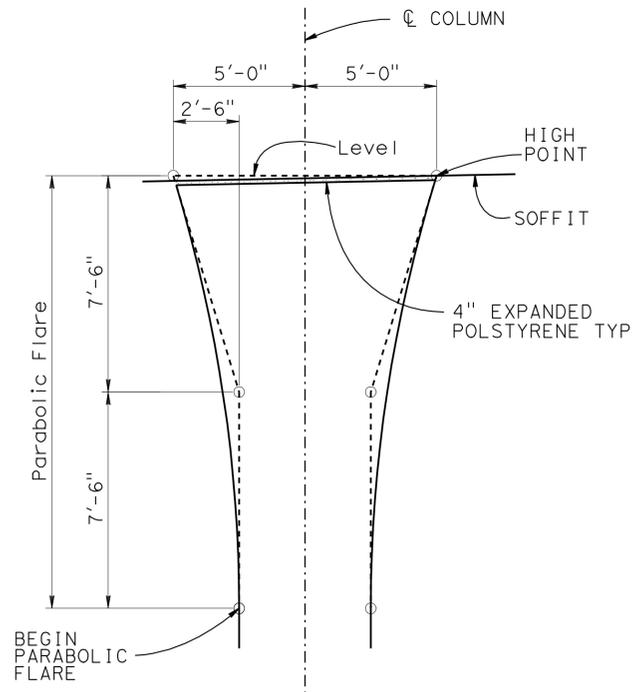
- NOTES:
- No splices allowed in main column longitudinal reinf
  - All hoops shall be "ULTIMATE" butt splices

DESIGN BY R. Reyes		CHECKED M. Friedheim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0325	<b>SOUTH STOCKTON WIDENING</b> <b>MARIPOSA ROAD OC (REPLACEMENT)</b> <b>BENT DETAILS NO. 1</b>
DETAILS BY L. Wang/G. Zweier		CHECKED M. Friedheim			POST MILE 15.0	
QUANTITIES BY I. Cherniglo		CHECKED R. Wilson				

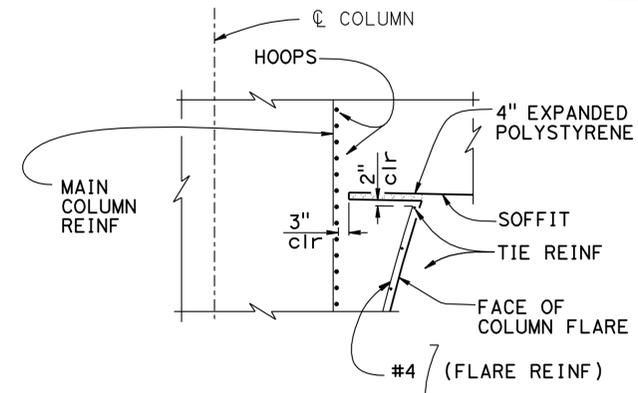
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1030	1414
<i>C.V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			Chris Udarbe No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA		
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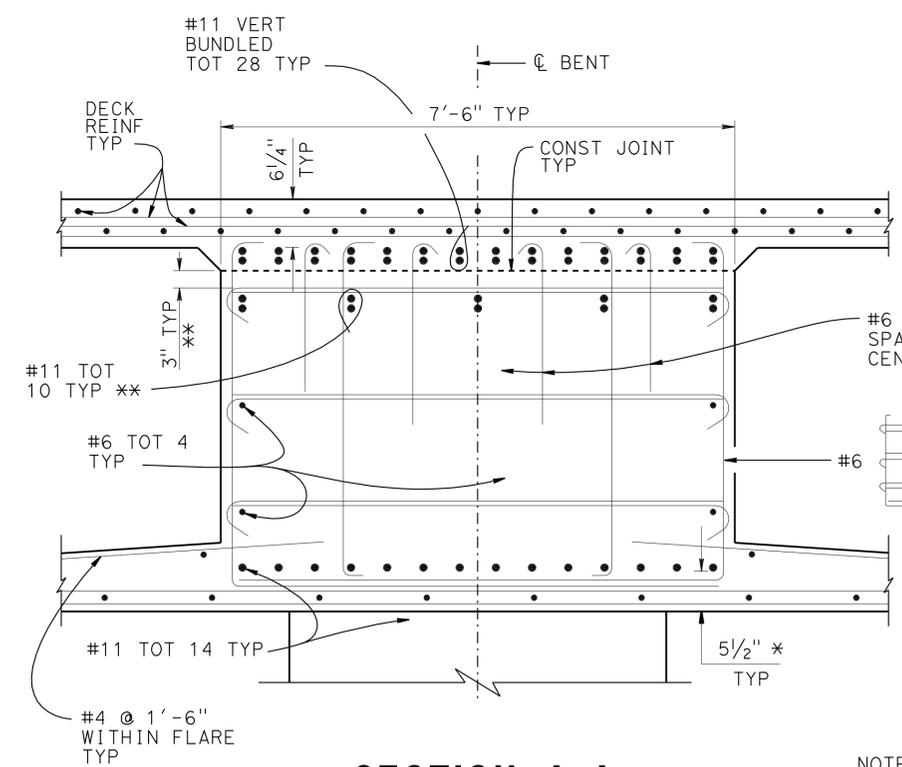
**FLARE REINFORCEMENT**  
NO SCALE



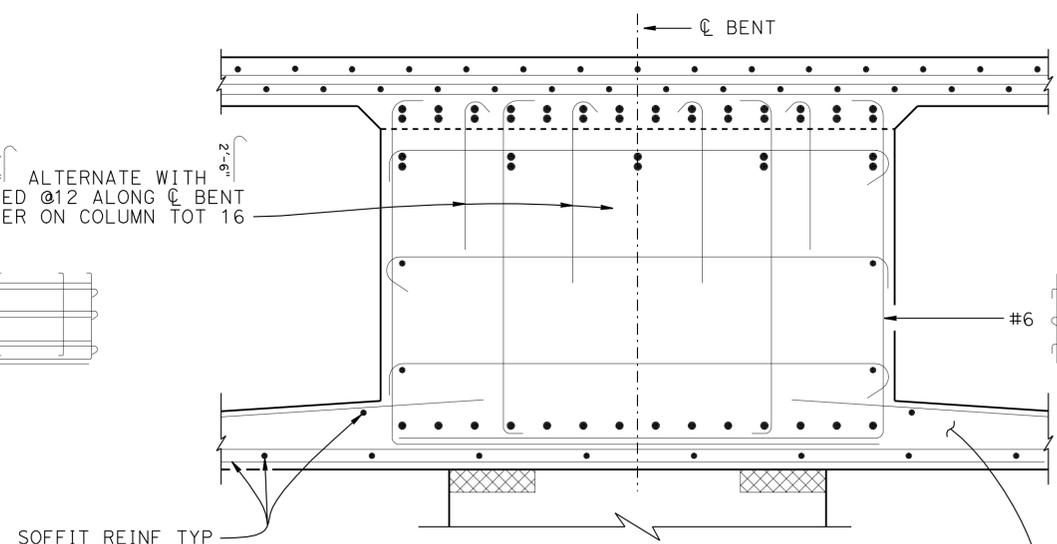
**FLARE GEOMETRY**  
NO SCALE



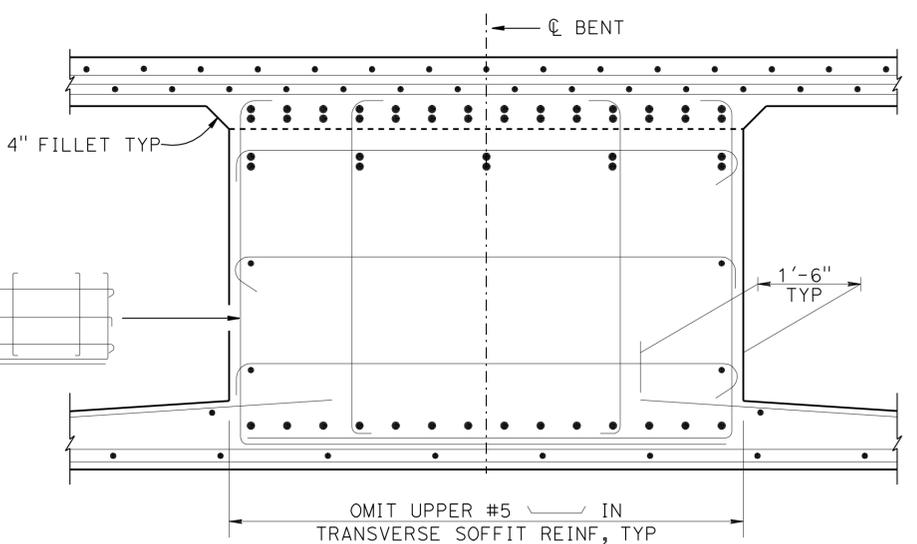
**DETAIL "V"**  
NO SCALE



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



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



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

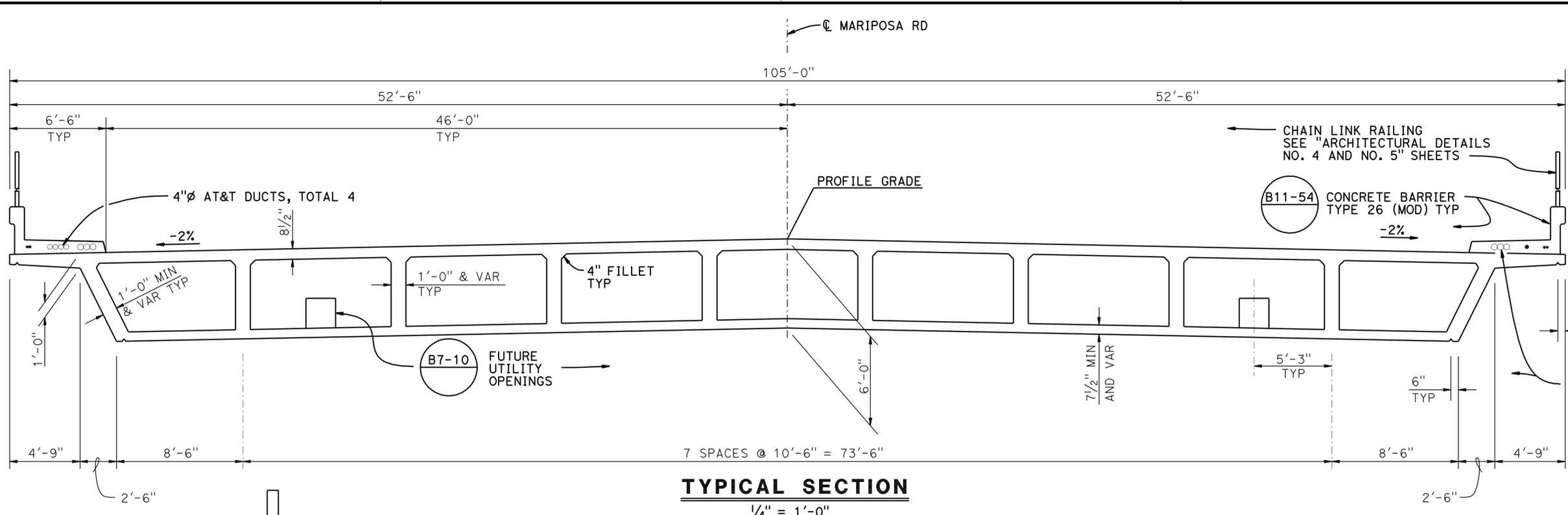
NOTES:  
 \* Clearance to Main Cap Reinf  
 \*\* Bars may be adjusted to clear Prestressing Tendons

FOR SOFFIT FLARE DETAILS, SEE "GIRDER LAYOUT" SHEET

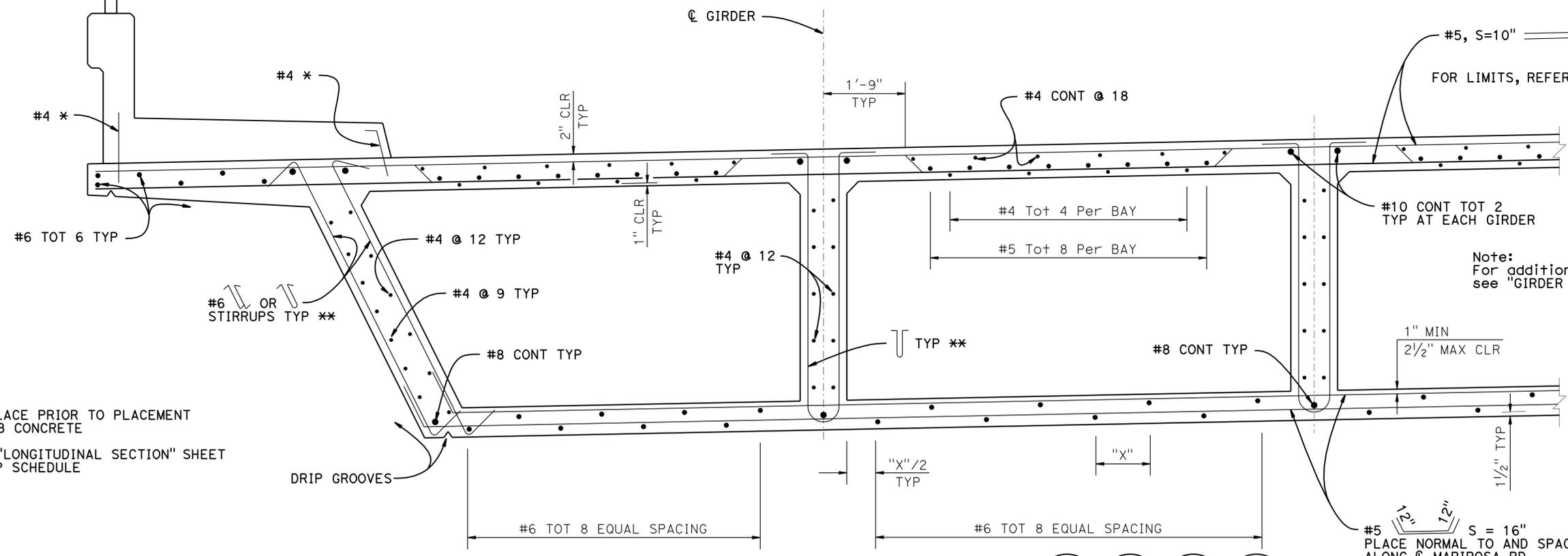
DESIGN BY R. Reyes CHECKED M. Friedheim DETAILS BY G. Zweier CHECKED M. Friedheim QUANTITIES BY I. Chernioglo CHECKED R. Wilson				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0325 POST MILE 15.0	<b>SOUTH STOCKTON WIDENING</b> <b>MARIPOSA ROAD OC (REPLACEMENT)</b> <b>BENT DETAILS NO.2</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				0 1 2 3	5-09-11 11-07-11 09-29-11	SHEET 11 OF 29	USERNAME => s109858 DATE PLOTTED => 14:00 TIME PLOTTED => 29-MAR-2012

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1031	1414

C.V. Udabe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udabe  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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**TYPICAL SECTION**  
 1/4" = 1'-0"



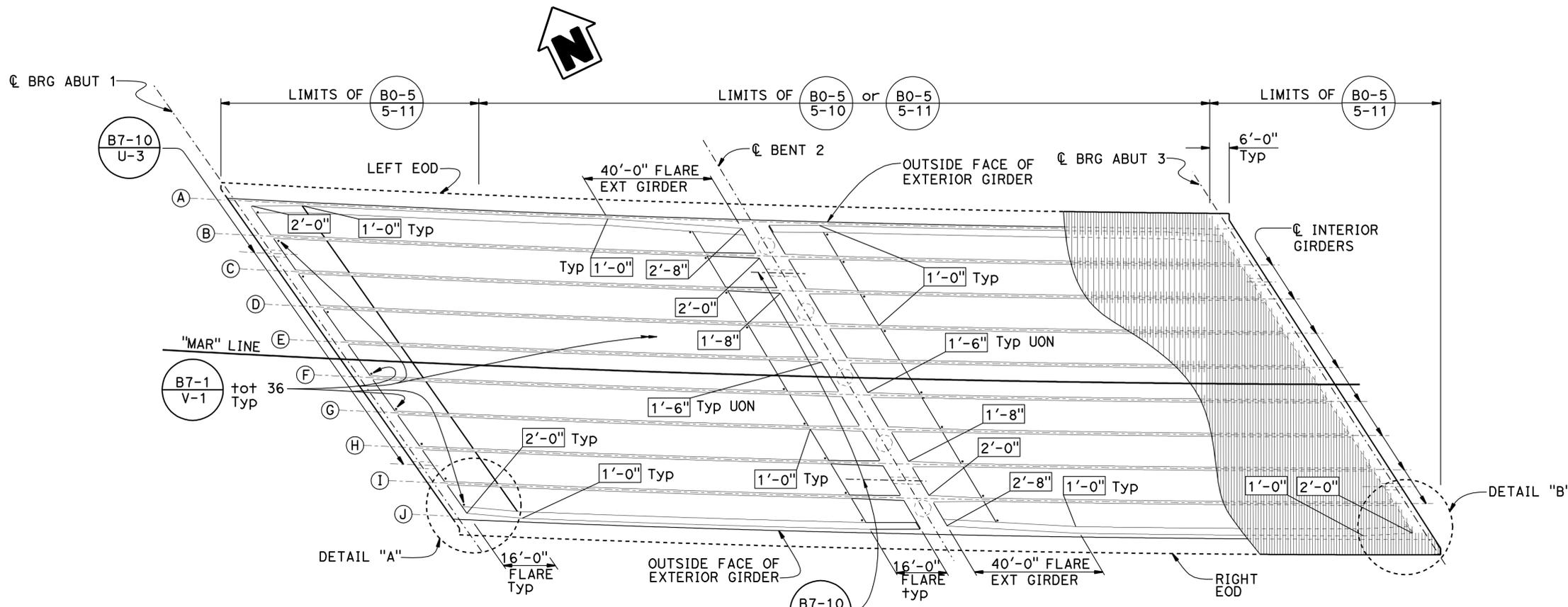
**PART TYPICAL SECTION**  
 3/4" = 1'-0"

\* TO BE IN PLACE PRIOR TO PLACEMENT OF TOP SLAB CONCRETE  
 \*\* REFERENCE "LONGITUDINAL SECTION" SHEET FOR STIRRUP SCHEDULE

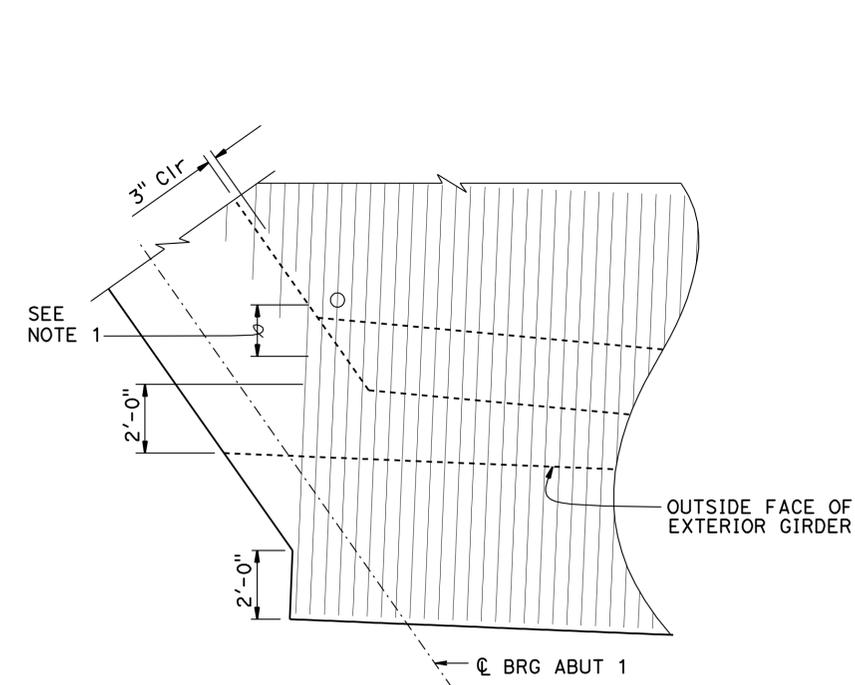
**SOUTH STOCKTON WIDENING**  
**MARIPOSA ROAD OC (REPLACEMENT)**  
**TYPICAL SECTION**

DESIGN	BY R. Reyes	CHECKED M. Friedheim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO.	29-0325
DETAILS	BY J. Yang	CHECKED M. Friedheim			POST MILE	15.0
QUANTITIES	BY I. Cherniglo	CHECKED R. Wilson				

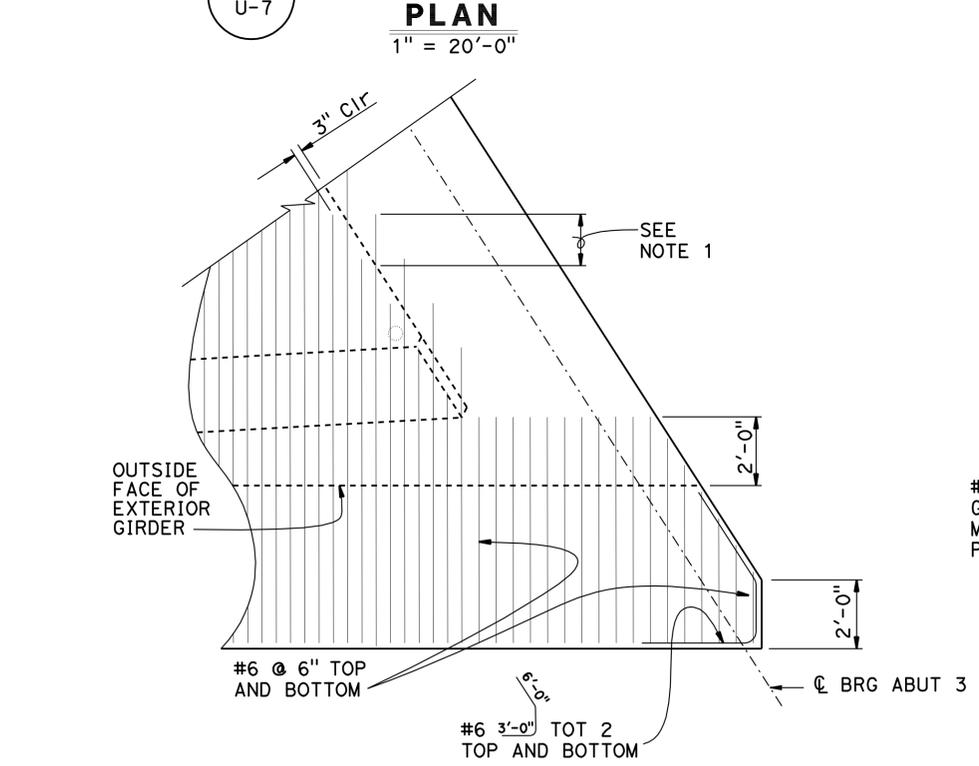
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1032	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



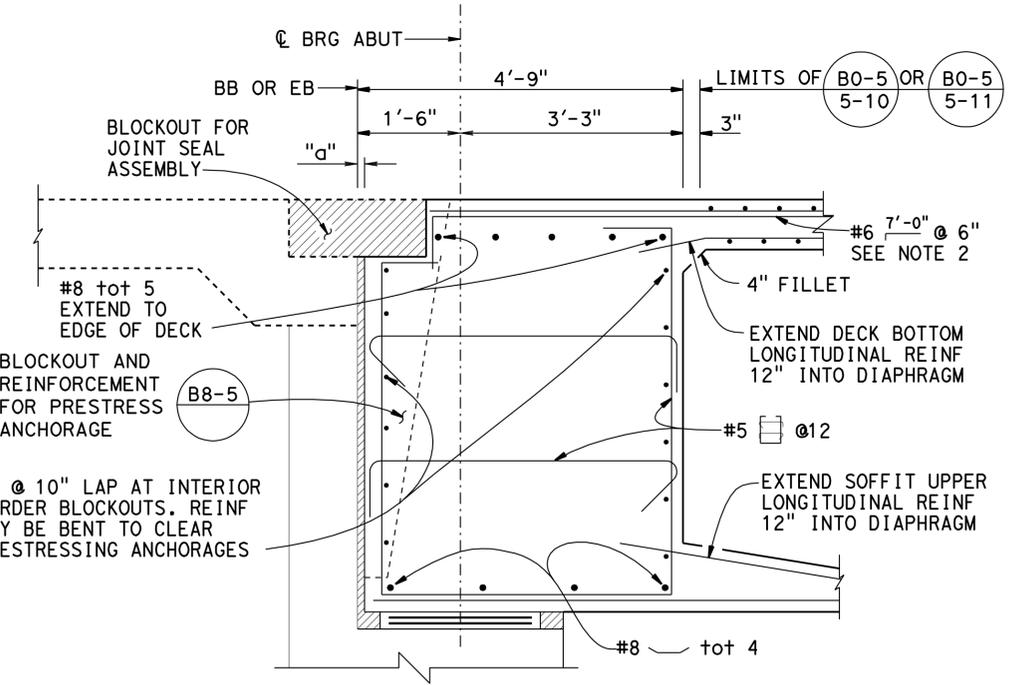
- NOTES:
1. Extend alternate top transverse deck reinf 18" into Diaphragm.
  2. Place parallel to  $\bar{C}$  Girder and space along  $\bar{C}$  Bearing
  3. Details A and B are similar at opposite corners of bridge.



**DETAIL A**  
 $\frac{3}{8}'' = 1'-0''$



**DETAIL B**  
 $\frac{3}{8}'' = 1'-0''$

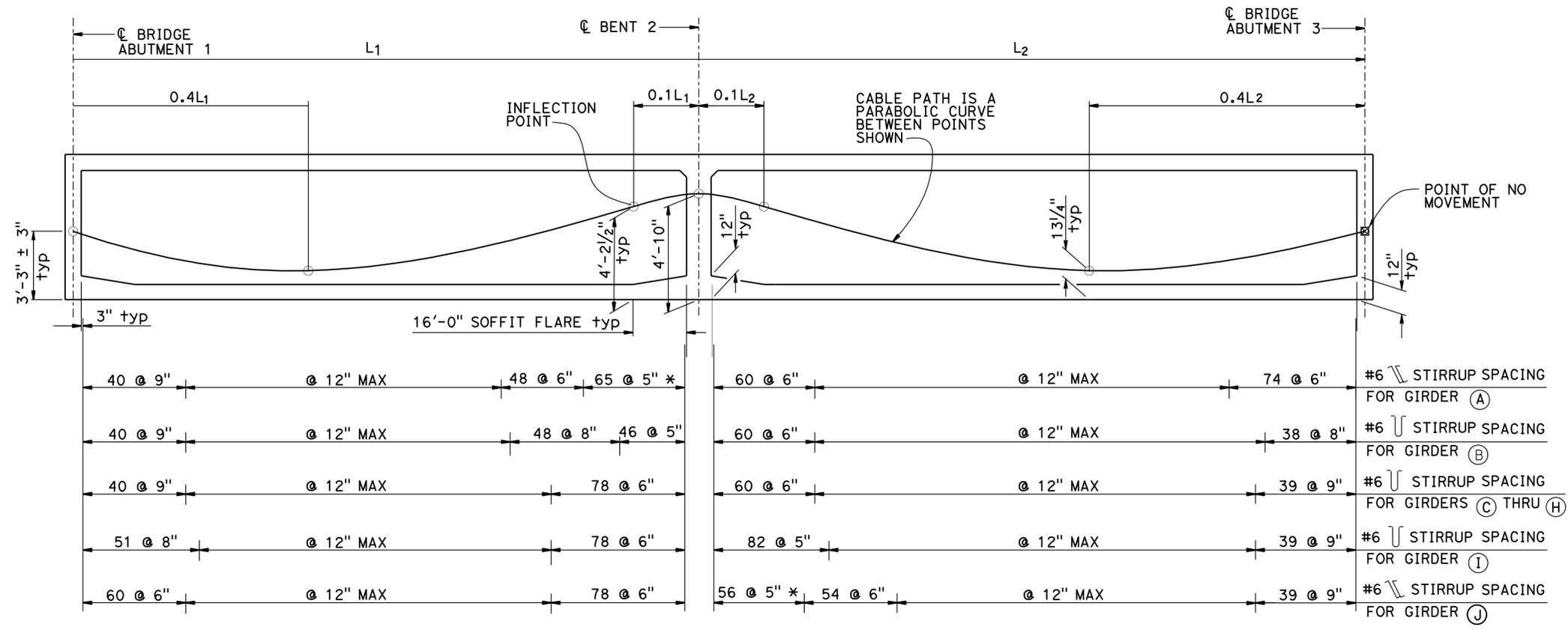


**END DIAPHRAGM AT GIRDER**  
 $\frac{3}{4}'' = 1'-0''$

DESIGN BY R. Reyes CHECKED M. Friedheim				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0325	<b>SOUTH STOCKTON WIDENING</b> <b>MARIPOSA ROAD OC (REPLACEMENT)</b> <b>GIRDER LAYOUT</b>	
DETAILS BY S. Ng/L. Wang CHECKED M. Friedheim					PROJECT NUMBER & PHASE: 10000004091		POST MILE 15.0	CONTRACT NO.: 10-3A1001	SHEET OF 13 29
QUANTITIES BY I. Chernioglo CHECKED R. Wilson					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 11-17-10, 08-26-11, 11-07-11

USERNAME => s109858 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 14:00

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1033	1414
C.V. Udabe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
<small>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.</small>					



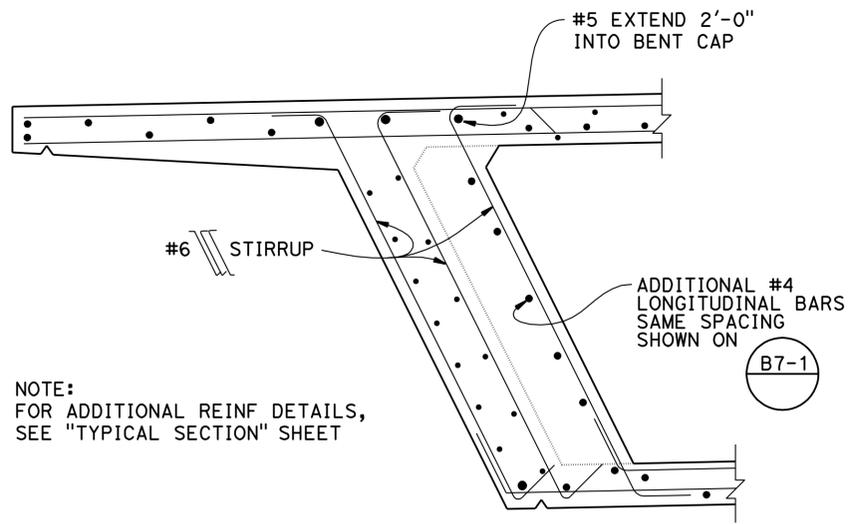
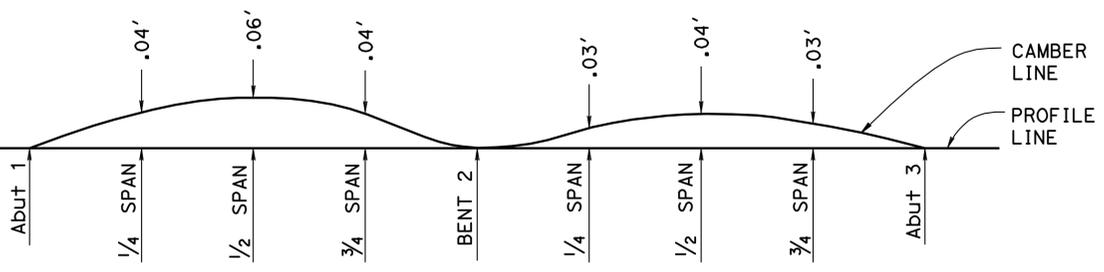
**PRESTRESSING NOTES**

270 KSI MPa Low Relaxation Strand:  
 $P_{jack} = 29,100$  KIPS  
 Anchor Set = 0.37 in  
 Total Number of Girders = 10

Friction curvature coefficient  $\mu = 0.15$   
 Friction wobble coefficient  $k = 0.0002$  1/ft  
 Distribution of prestress force ( $P_{jack}$ ) between girders shall not exceed the ratio of 3:2.  
 Maximum final force variation between girders shall not exceed 725 kips.  
 Concrete:  $f'_c = 5.0$  Ksi @ 28 days  
 $f'_{ci} = 3.6$  Ksi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at  
 $\delta = 0.877$  times jacking stress.

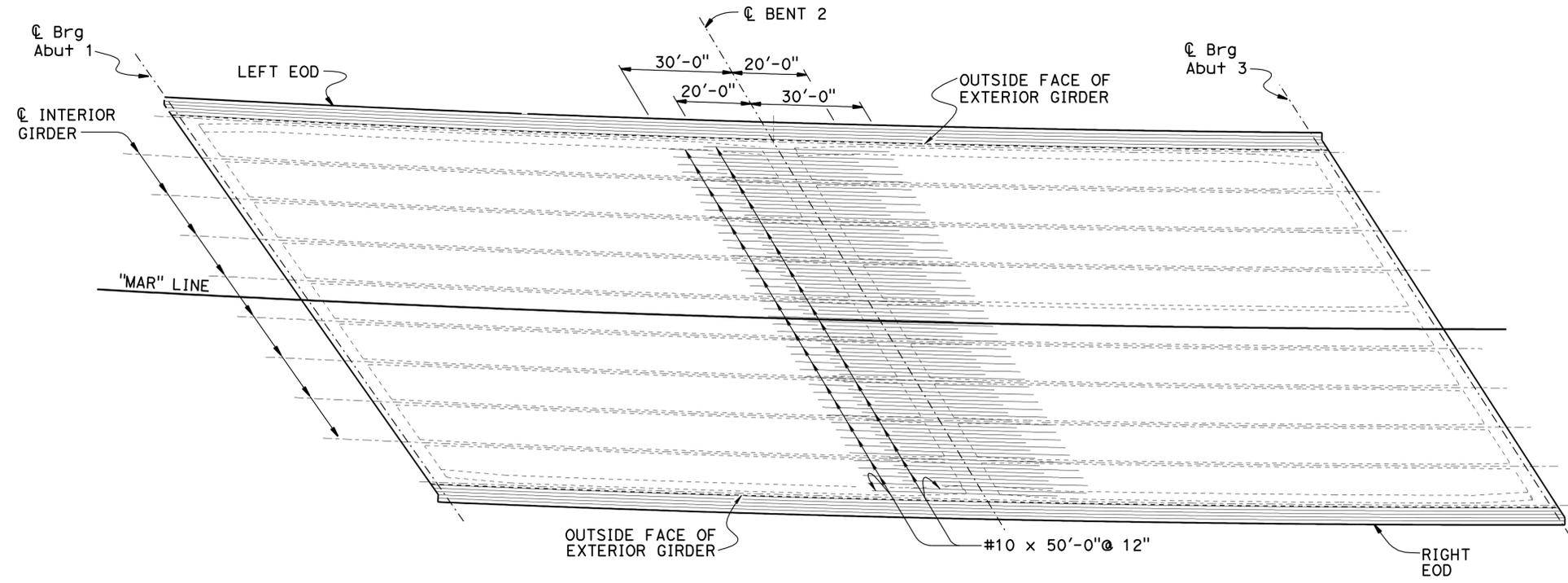
One end stressing shall be performed from Abutment 1 only.



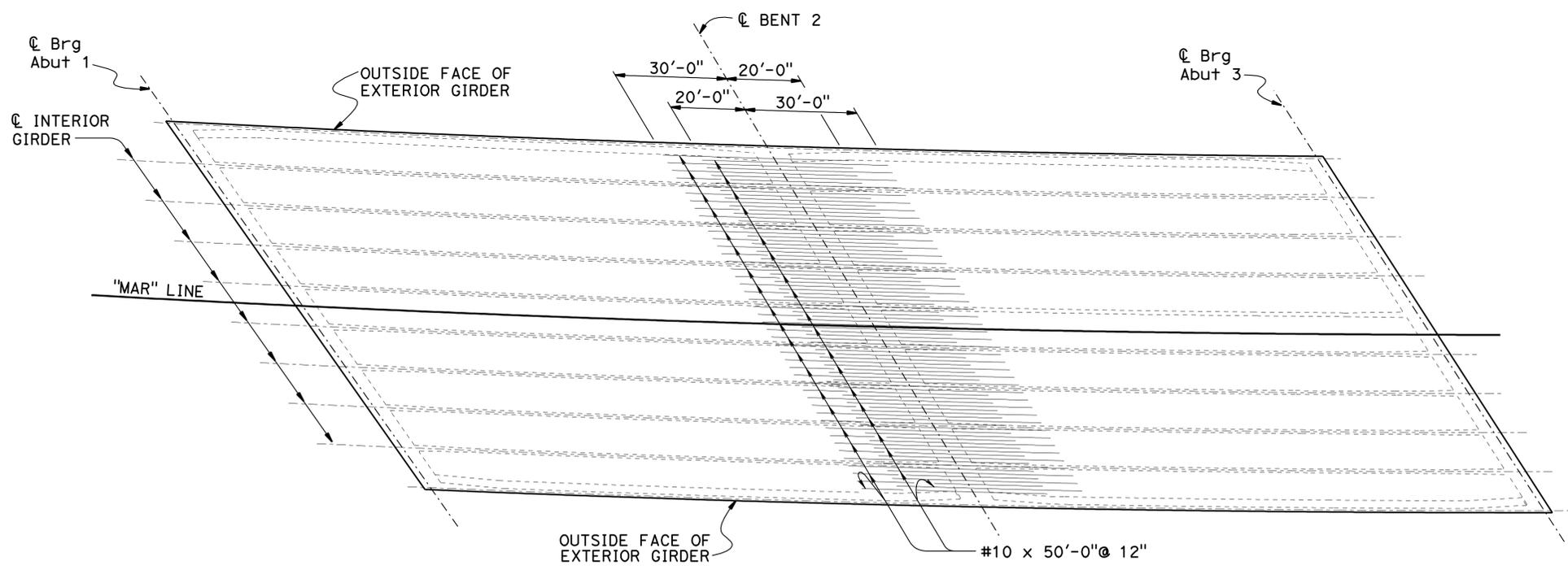
NOTE:  
Does not include allowance for falsework settlement

DESIGN BY R. Reyes CHECKED M. Friedheim				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0325	<b>SOUTH STOCKTON WIDENING</b> <b>MARIPOSA ROAD OC (REPLACEMENT)</b> <b>LONGITUDINAL SECTION</b>	
DETAILS BY L. Wang CHECKED M. Friedheim						POST MILE 15.0		
QUANTITIES BY I. Chernioglo CHECKED R. Wilson								
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 11-17-10 08-26-11 10-04-11	SHEET 14 OF 29

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1034	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
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**TOP REINFORCEMENT**  
1" = 20'-0"



**BOTTOM REINFORCEMENT**  
1" = 20'-0"

NOTES:

1. For details and reinforcement not shown see "TYPICAL SECTION" sheet.
2. Vents not shown. For details and location see "GIRDER LAYOUT" sheet.
3. No splices allowed in additional #10 bars. Splices in continuous reinforcement shall be service level splices.

DESIGN BY R. Reyes DETAILS BY L. Wang QUANTITIES BY I. Chernioglo				CHECKED M. Friedheim CHECKED M. Friedheim CHECKED R. Wilson		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0325 POST MILE 15.0		<b>SOUTH STOCKTON WIDENING</b> <b>MARIPOSA ROAD OC (REPLACEMENT)</b> <b>GIRDER REINFORCEMENT</b>	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES REVISION DATES: 10-28-10, 08-26-11, 10-04-11 SHEET 15 OF 29	

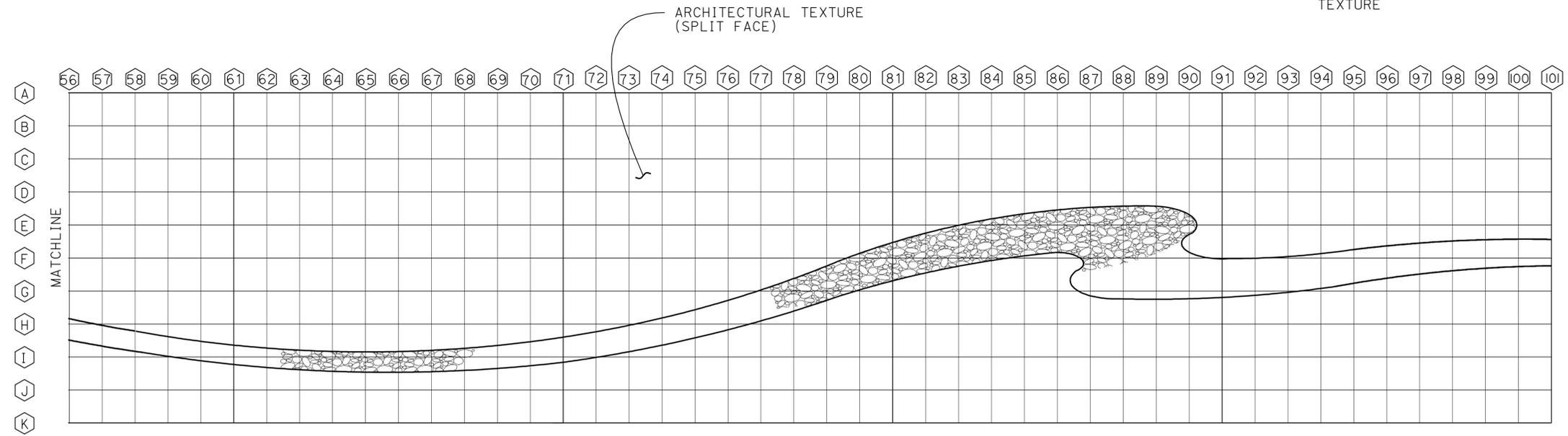
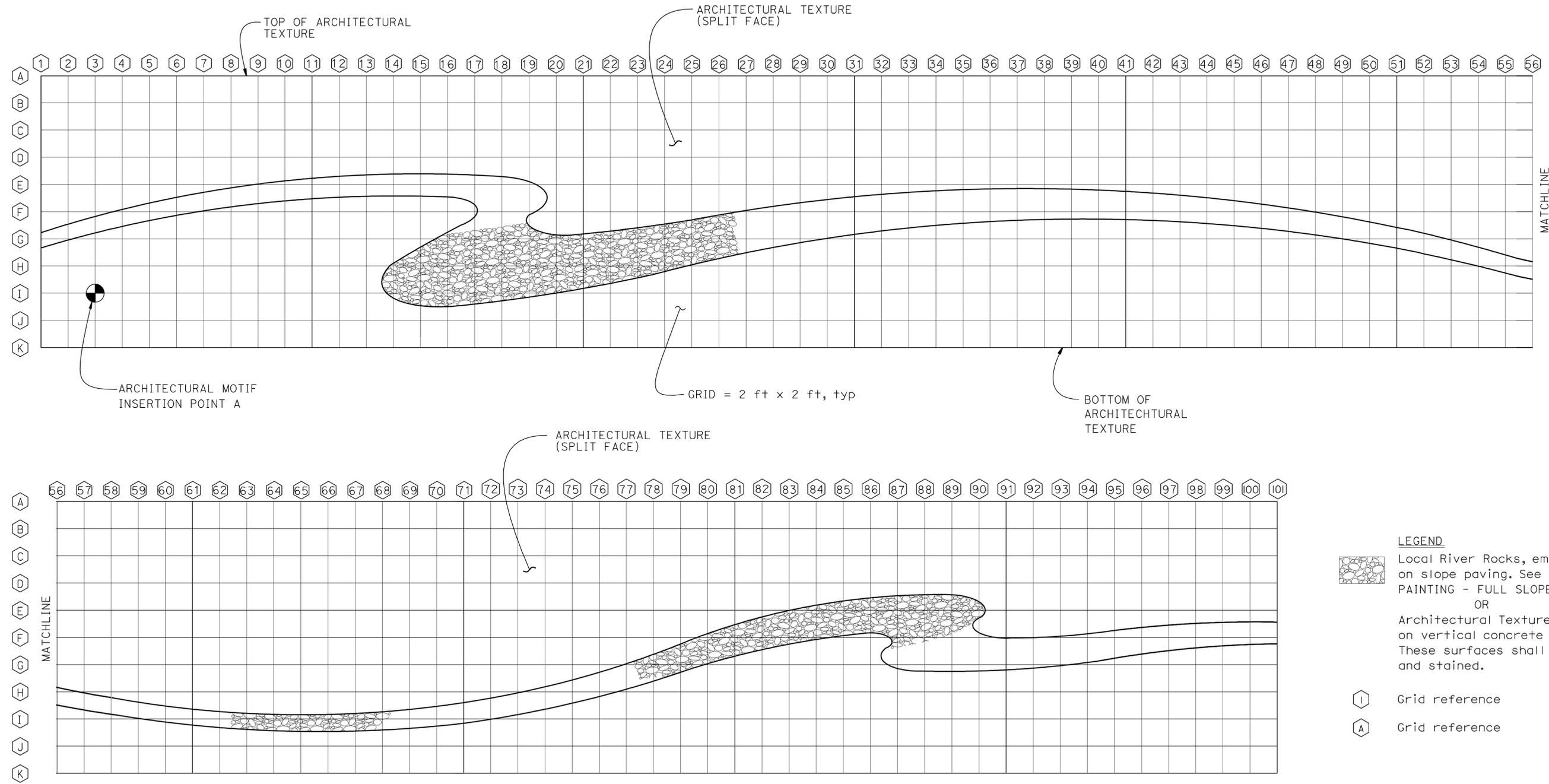
USERNAME => s109858 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 14:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1035	1414
			REGISTERED CIVIL ENGINEER	DATE	
			3-26-12	PLANS APPROVAL DATE	
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**NOTES:**

- For the architectural insertion point, see, "SLOPE PAVING-FULL SLOPE" sheet. Band of local river rocks to be continuous between adjacent structures.
- Rocks to be spaced at 1" to 3" apart the first and last 5'-0" of this motif. Additionally, space rocks 1" to 3" apart over a distance of 5'-0" on either side of an angle point in the wall. Elsewhere, space the rocks 1/2" to 3/4" apart. Provide gradual transitions where spacings differ.



**LEGEND**

Local River Rocks, embedded on slope paving. See "SLOPE PAINTING - FULL SLOPE" sheet.

OR

Architectural Texture (River Rock) on vertical concrete surfaces. These surfaces shall be prepared and stained.

Grid reference

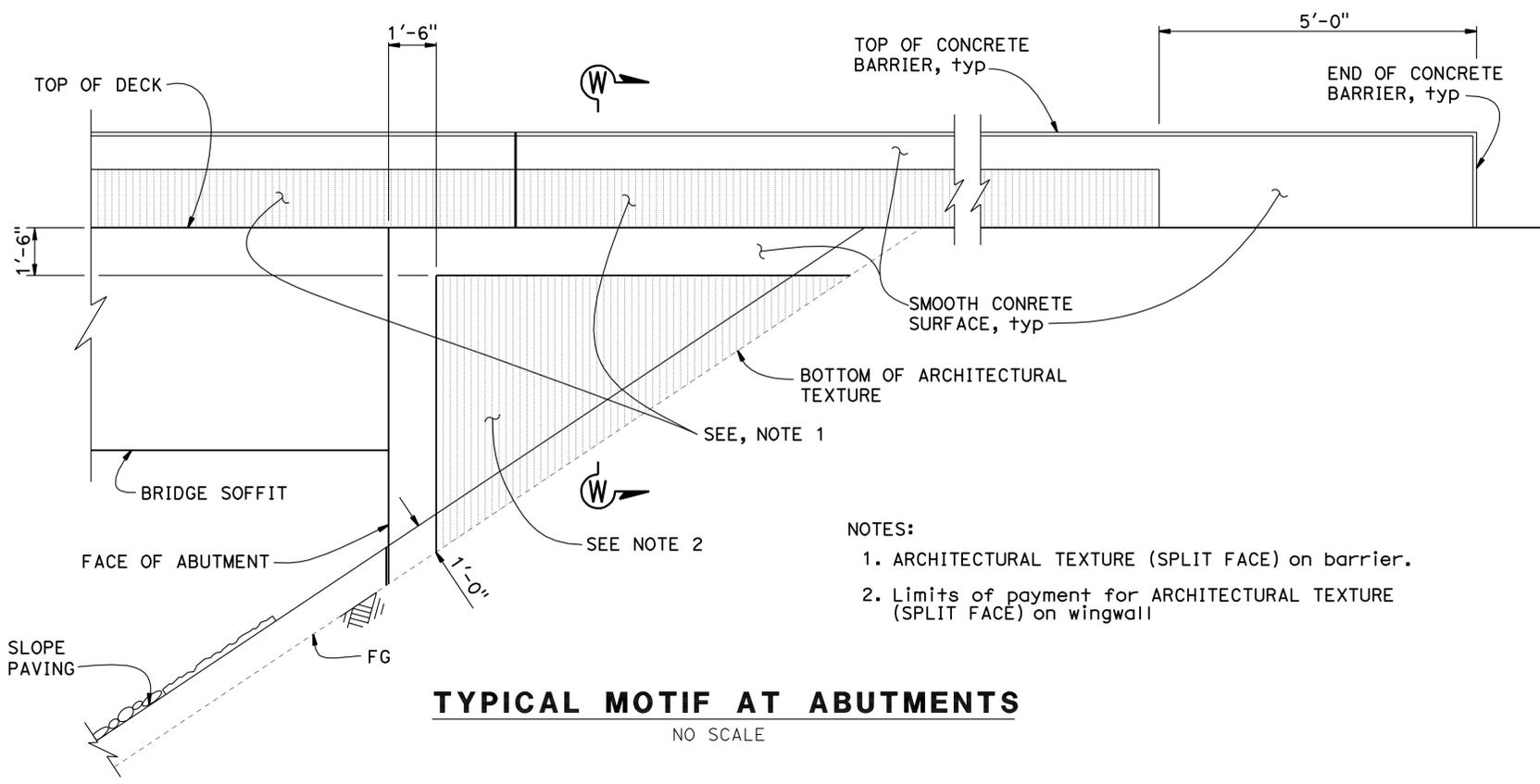
Grid reference

**SLOPE PAVING ARCHITECTURAL MOTIF**  
1/4" = 1'-0"

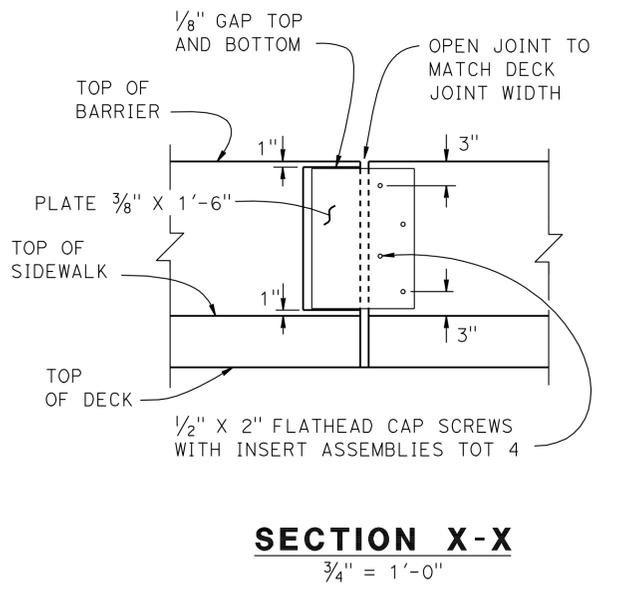
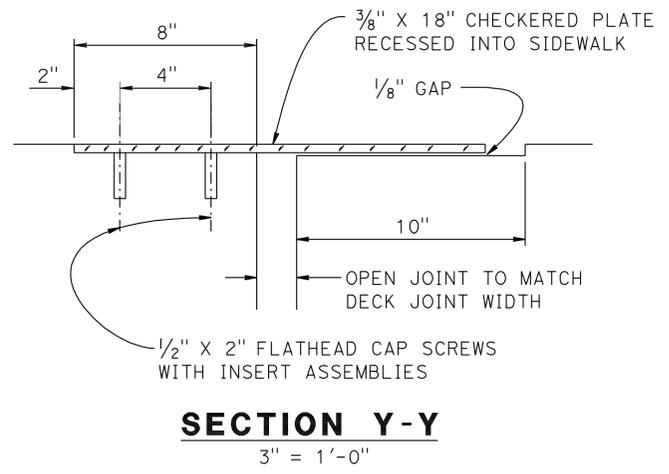
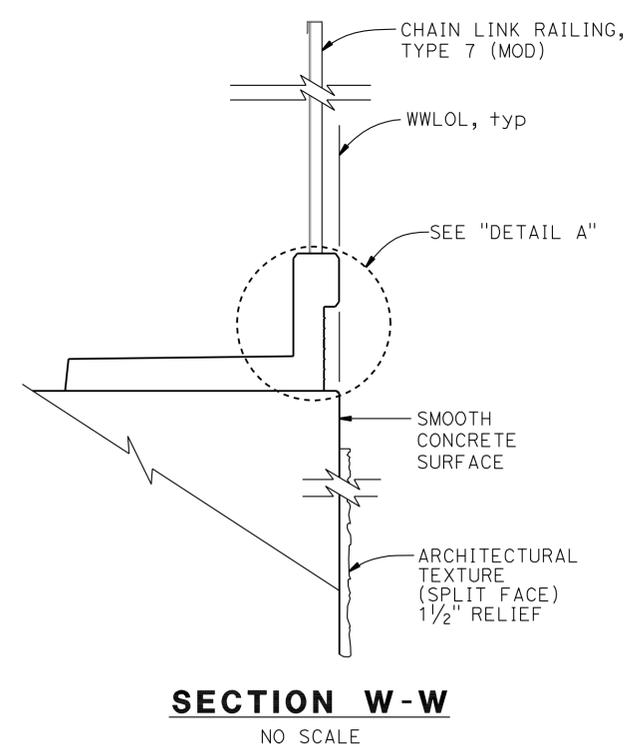
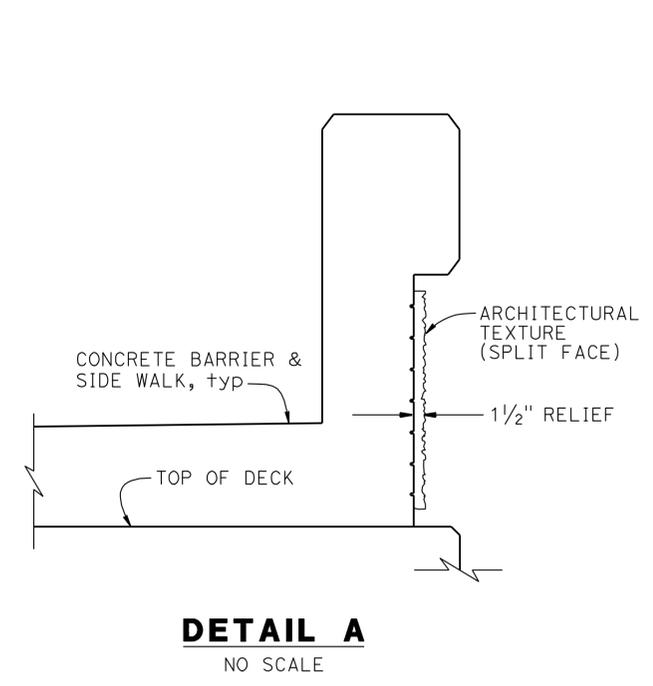
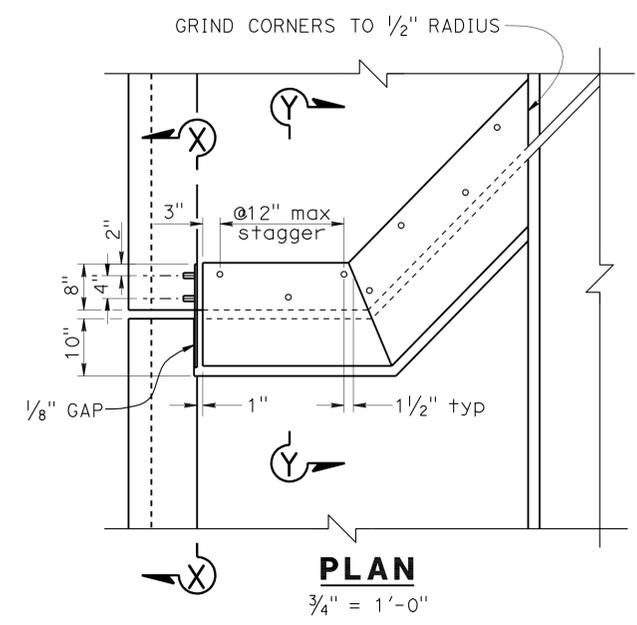
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		DESIGN BY C. Udarbe CHECKED M. Friedheim DETAILS BY L. Wang CHECKED M. Friedheim QUANTITIES BY C. Udarbe CHECKED M. Friedheim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0325 POST MILE 15.0	<b>SOUTH STOCKTON WIDENING</b> <b>MARIPOSA ROAD OC (REPLACEMENT)</b> <b>ARCHITECTURAL DETAILS NO. 1</b>
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 07-02-11 1-3-12	SHEET 16 OF 29

USERNAME => s109858 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 14:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1036	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
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- NOTES:
1. ARCHITECTURAL TEXTURE (SPLIT FACE) on barrier.
  2. Limits of payment for ARCHITECTURAL TEXTURE (SPLIT FACE) on wingwall



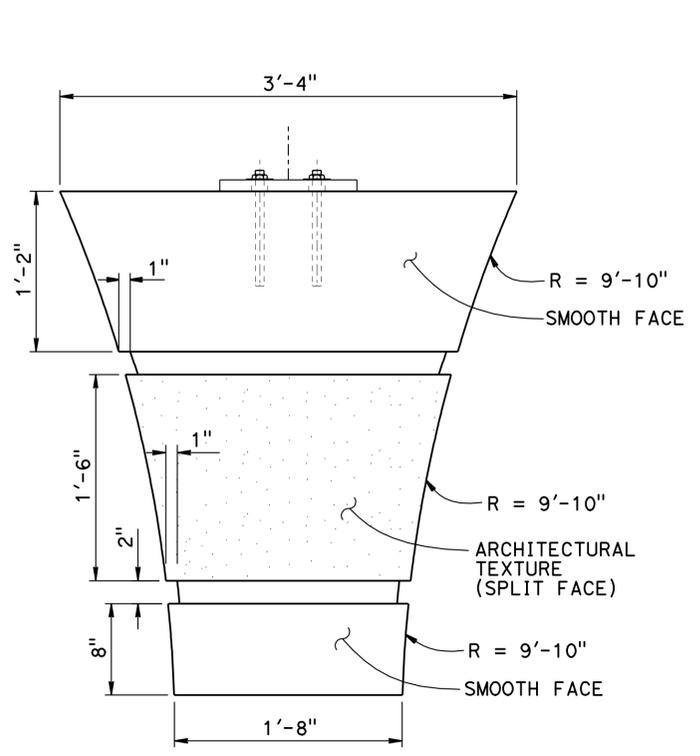
**SIDEWALK EXPANSION JOINT ARMOR**

NOTE: DETAIL BOLTS TO MISS UTILITIES WHEN PRESENT IN SIDEWALK

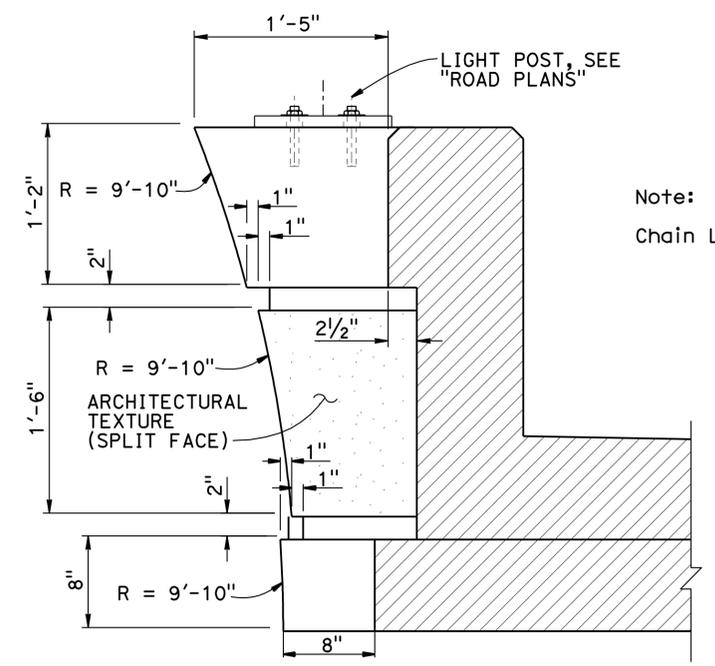
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
DESIGN	BY	C. Udarbe	CHECKED	K. Green	BRIDGE NO.	29-0325		<b>SOUTH STOCKTON WIDENING</b>			
DETAILS	BY	L. Wang	CHECKED	C. Udarbe	POST MILE	15.0		<b>MARIPOSA RD OC (REPLACEMENT)</b>			
QUANTITIES	BY	I. Chernioglo	CHECKED	R. Wilson			<b>ARCHITECTURAL DETAILS NO. 2</b>				
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION					DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		REVISION DATES: 01-07-11, 08-07-11, 10-05-11, 1-3-12				

USERNAME => s108985 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 14:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1037	1414
<i>C. V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
<small>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.</small>					

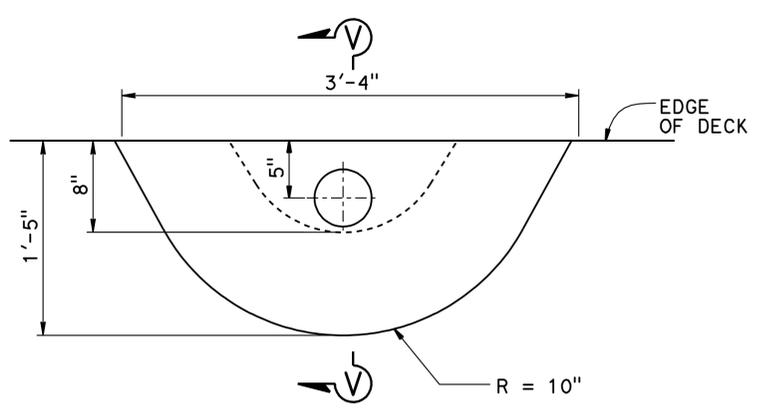


**PEDESTAL ELEVATION (FRONT)**  
1/2" = 1'-0"

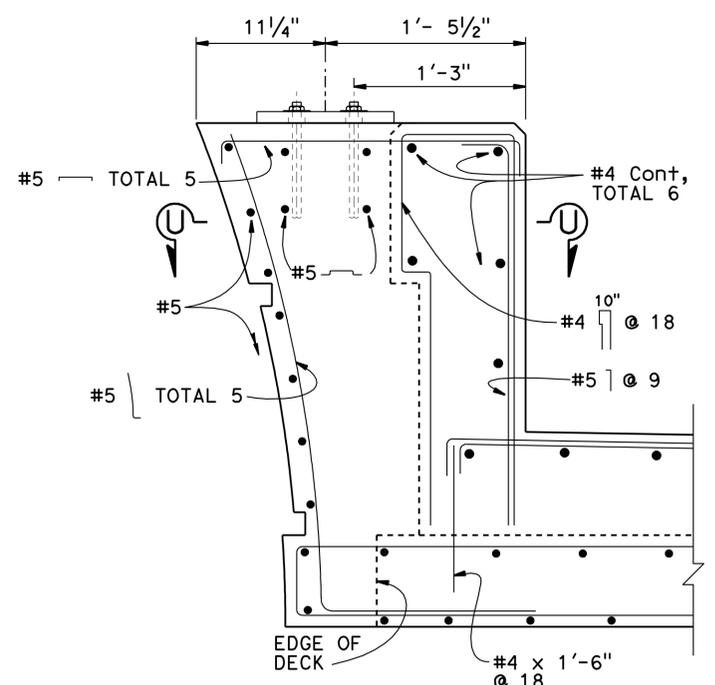


**PEDESTAL ELEVATION (SIDE)**  
1/2" = 1'-0"

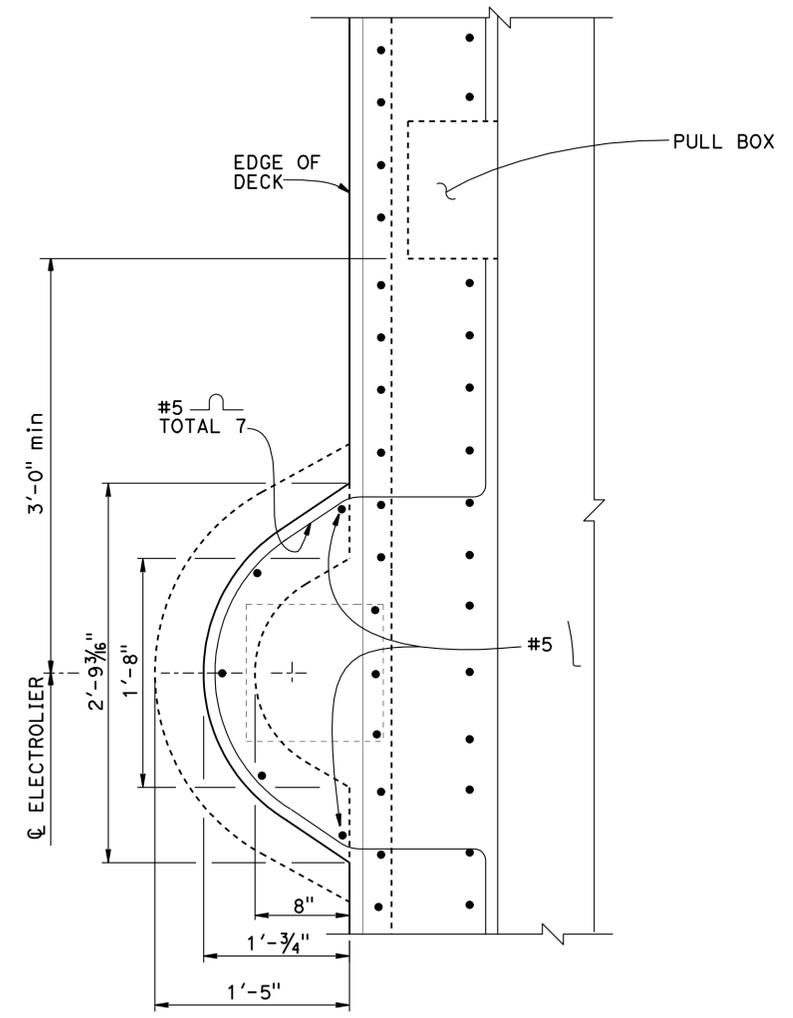
Note:  
Chain Link Railing Type 7 (MOD), not shown.



**PLAN VIEW**  
1/2" = 1'-0"



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



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

DESIGN	BY C. Udarbe	CHECKED K. Green
DETAILS	BY L. Wang	CHECKED C. Udarbe
QUANTITIES	BY C. Udarbe	CHECKED X

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0325
POST MILE	15.0

**SOUTH STOCKTON WIDENING**  
**MARIPOSA ROAD OC (REPLACEMENT)**  
**ARCHITECTURAL DETAILS NO. 3**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1038	1414

<i>Chris V. Udarbe</i>	11-04-11
REGISTERED CIVIL ENGINEER	DATE
3-26-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER

Chris V. Udarbe

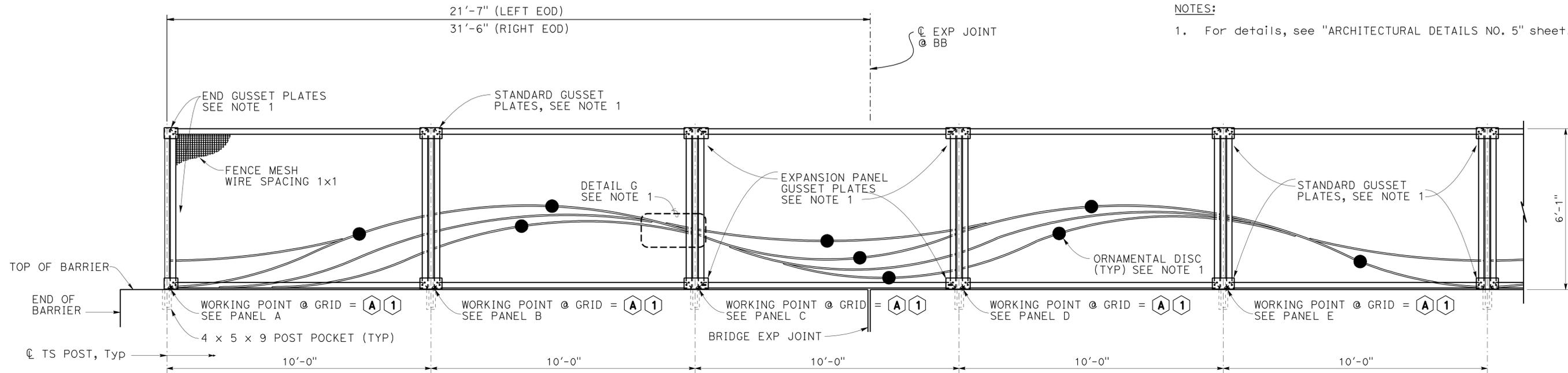
No. C62985

Exp. 06-30-12

CIVIL

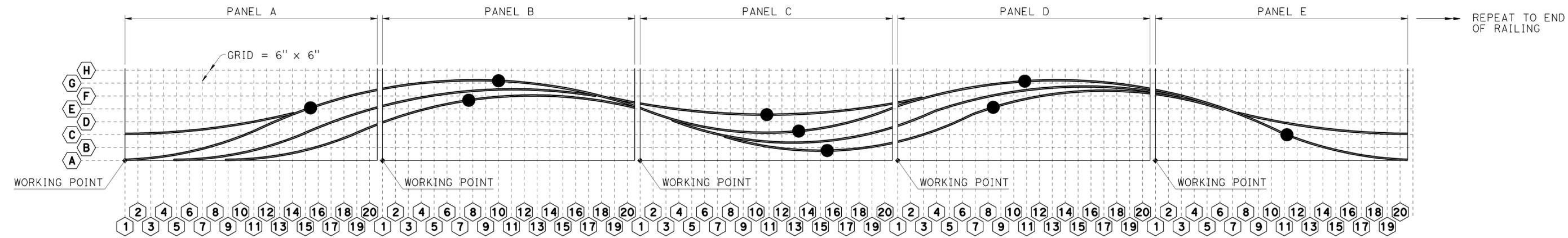
STATE OF CALIFORNIA

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**NOTES:**  
 1. For details, see "ARCHITECTURAL DETAILS NO. 5" sheet.

**ELEVATION**  
 $\frac{1}{2}'' = 1'-0''$



**LAYOUT**  
 $\frac{1}{2}'' = 1'-0''$

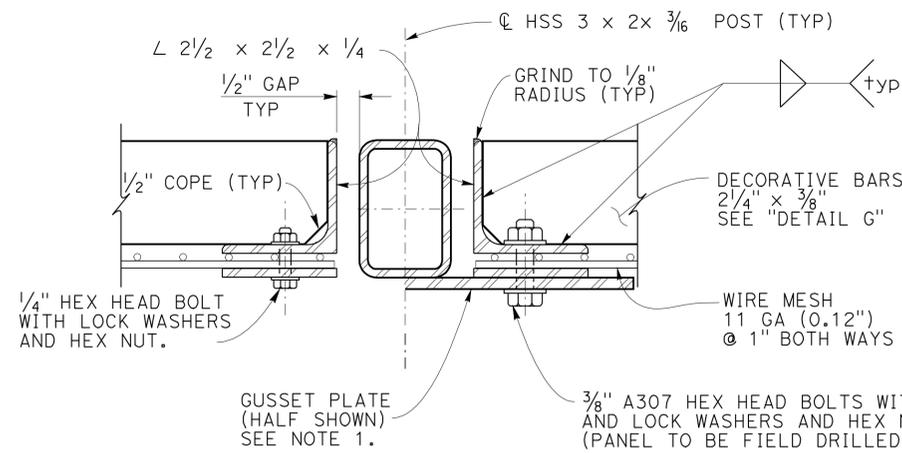
<b>STATE OF CALIFORNIA</b>				<b>DIVISION OF ENGINEERING SERVICES</b>		<b>BRIDGE NO. 29-0325</b>		<b>SOUTH STOCKTON WIDENING</b>			
<b>DEPARTMENT OF TRANSPORTATION</b>				<b>STRUCTURE DESIGN</b>		<b>POST MILE 15.0</b>		<b>MARIPOSA ROAD OC (REPLACEMENT)</b>			
<b>DESIGN BRANCH 17</b>								<b>ARCHITECTURAL DETAILS NO. 4</b>			

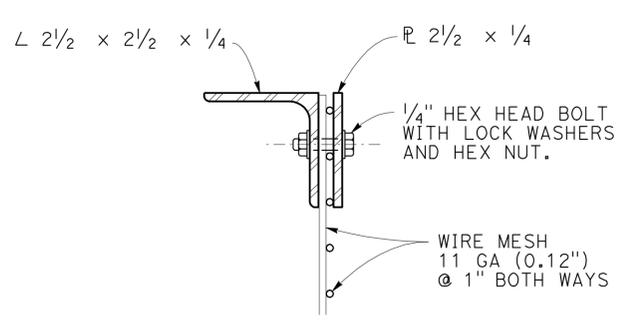
DESIGN BY C. UDARBE	CHECKED R. SIMMONS	BRIDGE NO. 29-0325	SHEET 19
DETAILS BY C. FIGUERRES	CHECKED R. SIMMONS	POST MILE 15.0	OF 29
QUANTITIES BY R. SIMMONS	CHECKED C. UDARBE	CONTRACT NO.: 10-3A1001	REVISION DATES: 8-02-11, 12-13-11

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091 FILE => 29-0325-u-archdt04.dgn

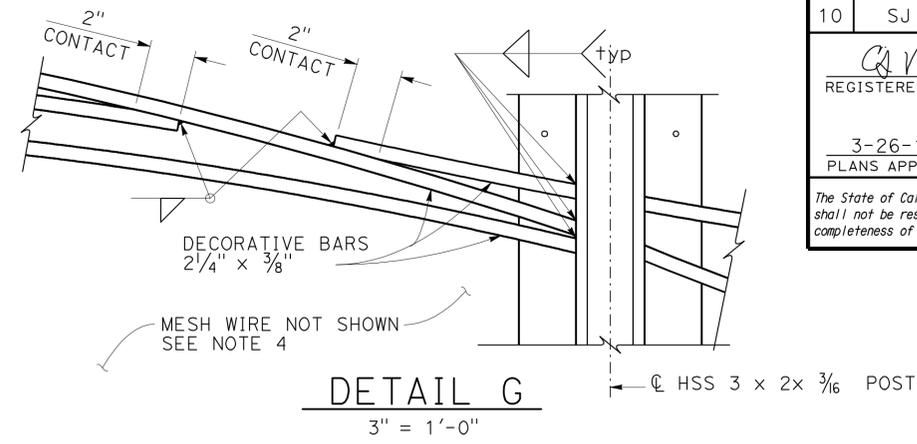
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1039	1414
C. V. Udarbe REGISTERED CIVIL ENGINEER 11-04-11 DATE			3-26-12 PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



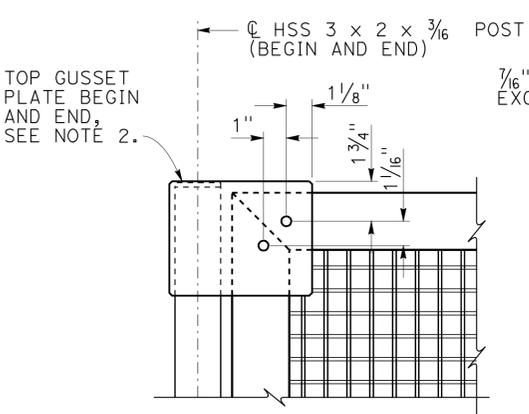
**SECTION O-O**  
6" = 1'-0"



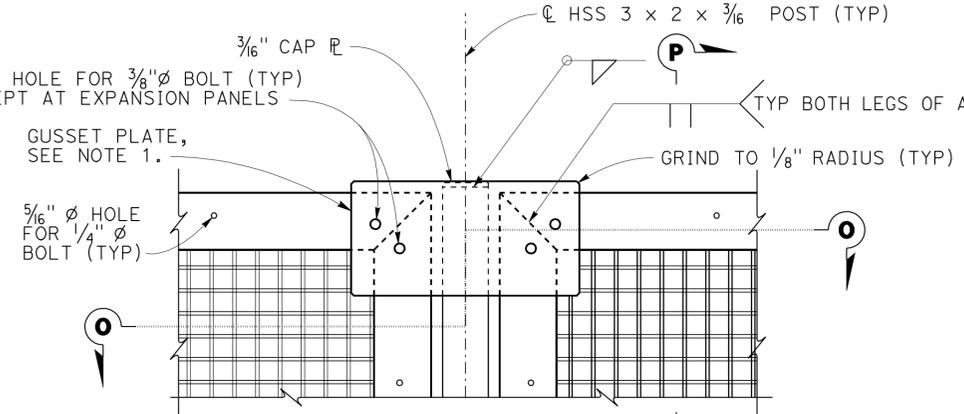
**SECTION P-P**  
6" = 1'-0"



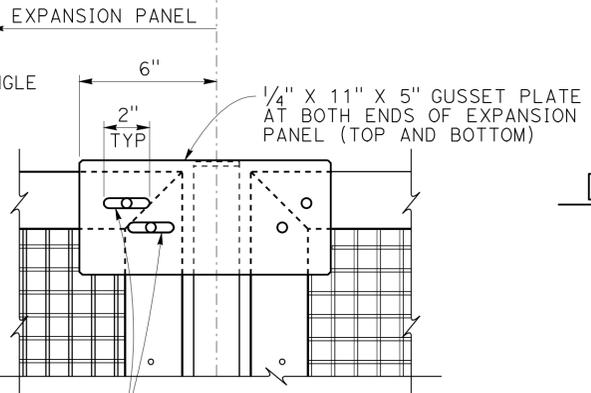
**DETAIL G**  
3" = 1'-0"



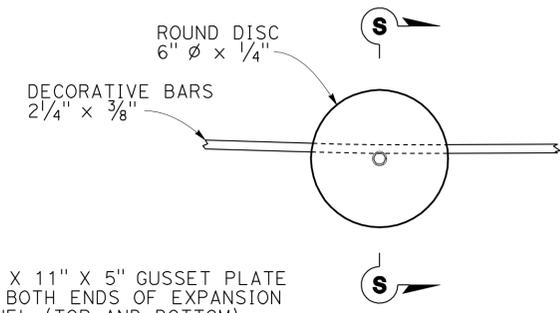
**DETAIL A**  
3" = 1'-0"



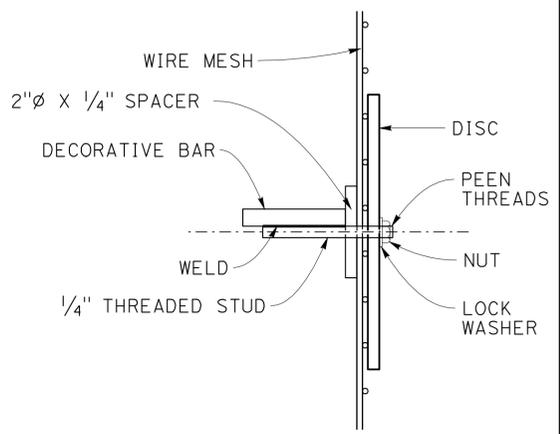
**DETAIL B**  
3" = 1'-0"



**DETAIL C**  
3" = 1'-0"



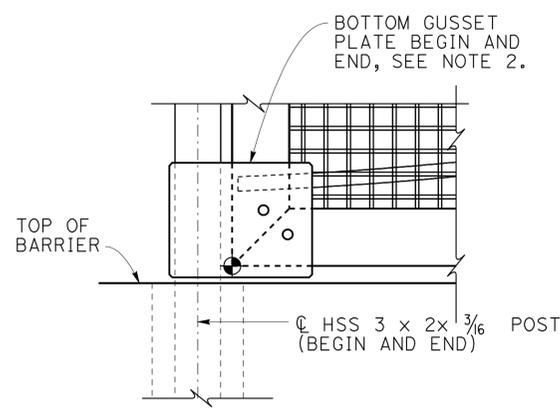
**DISC DETAIL**  
3" = 1'-0"



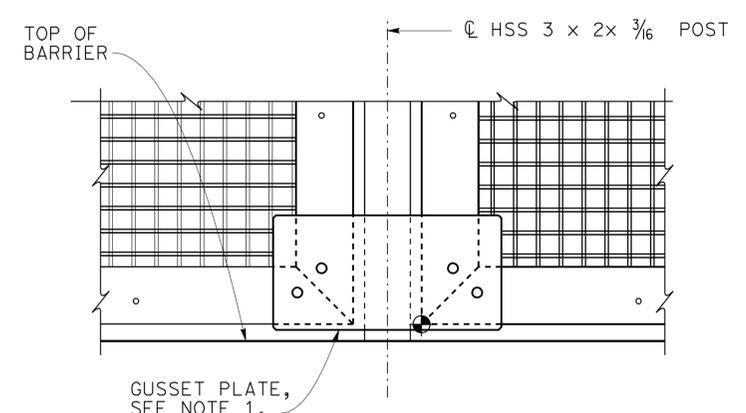
**SECTION S-S**  
6" = 1'-0"

- NOTES:
- 1/4" x 10" x 5" Gusset Plate, groove weld at sides of post. Fillet weld at top and bottom (continuous weld.)
  - 1/4" x 6 1/4" x 5" begin and end Gusset Plate, groove weld at sides of post. Fillet weld at top and bottom (continuous weld.)
  - All materials including fasteners to be galvanized after fabrication and painted black.
  - Shown on traffic side of fence.
  - For details not shown, see 811-52
  - At all slotted holes, use 3/8" diameter hex bolt with 2 plain washers and hex nut, finger tight, peen threads.
  - Holes in gusset plates to be shop drilled. Field drill holes in panels after adjusting panel to line and grade. Field drilled holes to be deburred and painted prior to installing bolts.
  - C.C. spacing of posts shall be within 1/2" tolerance.
  - Posts shall be set plumb to within 1/4" in 6'.

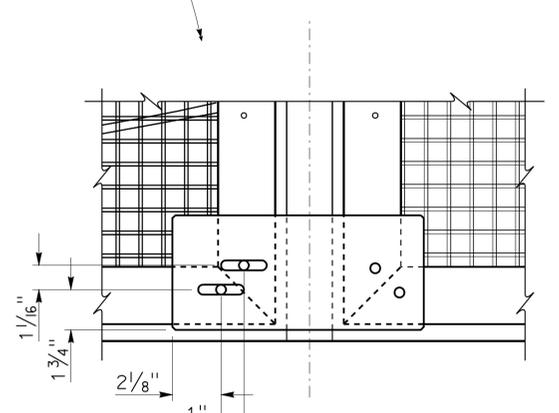
Indicates working point



**DETAIL D**  
3" = 1'-0"



**DETAIL E**  
3" = 1'-0"



**DETAIL F**  
3" = 1'-0"

DESIGN	BY R. Simmons	CHECKED C. Udarbe
DETAILS	BY J. Casarino	CHECKED R. Simmons
QUANTITIES	BY R. Simmons	CHECKED C. Udarbe

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO.	29-0325
POST MILE	15.0

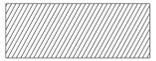
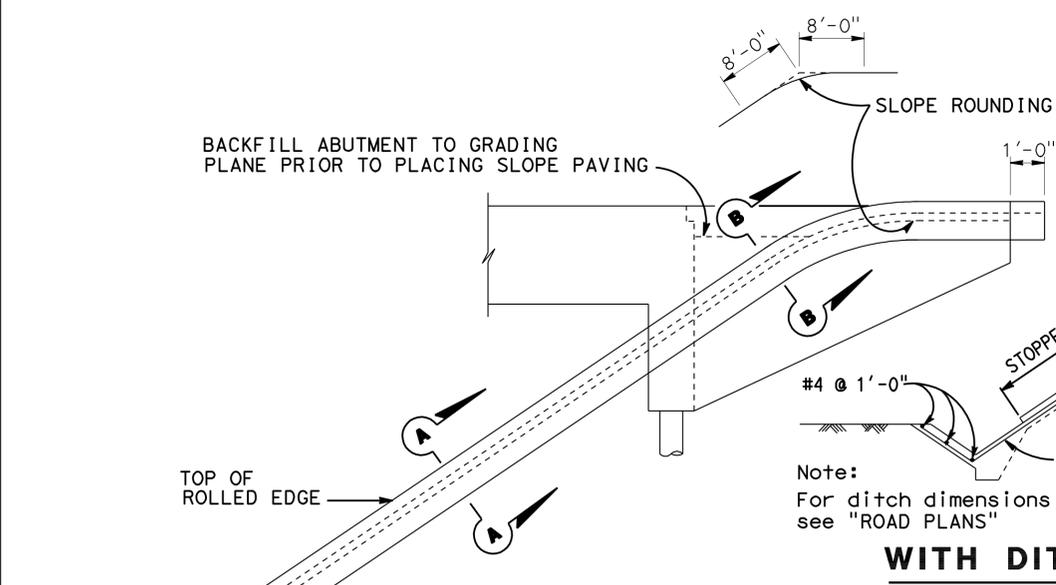
**SOUTH STOCKTON WIDENING**  
**MARIPOSA ROAD OC (REPLACEMENT)**  
**ARCHITECTURAL DETAILS NO. 5**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1040	1414

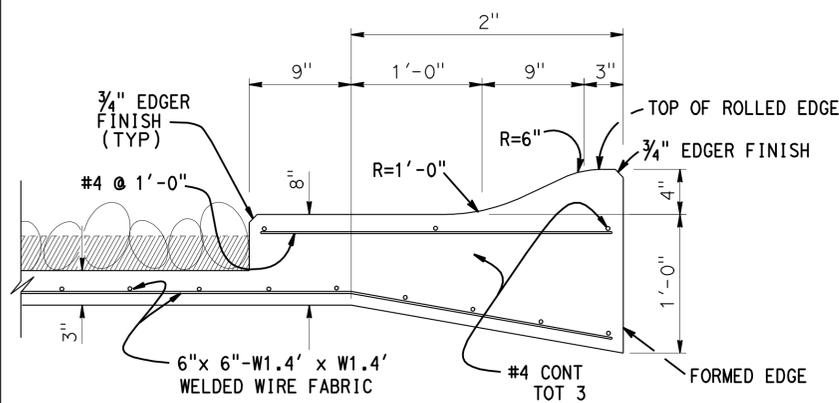
C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris V. Udarbe  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

- Notes:
- Cobbles shall be fully seated in the mortar bed. The mortar surface shall be trimmed to the mid depth of the cobbles.
  - Excess mortar shall be removed and the river rock surfaces shall be cleaned after placement.
  - Bottom of slope paving to match toe of fill. Dimensions to be field verified.

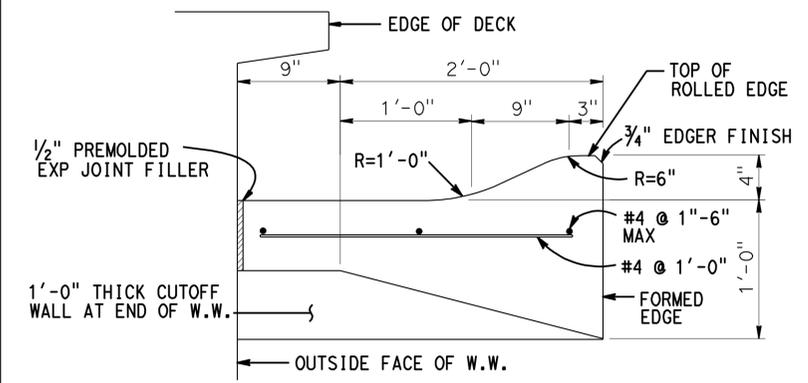
Legend:

 Indicates mortar bed area


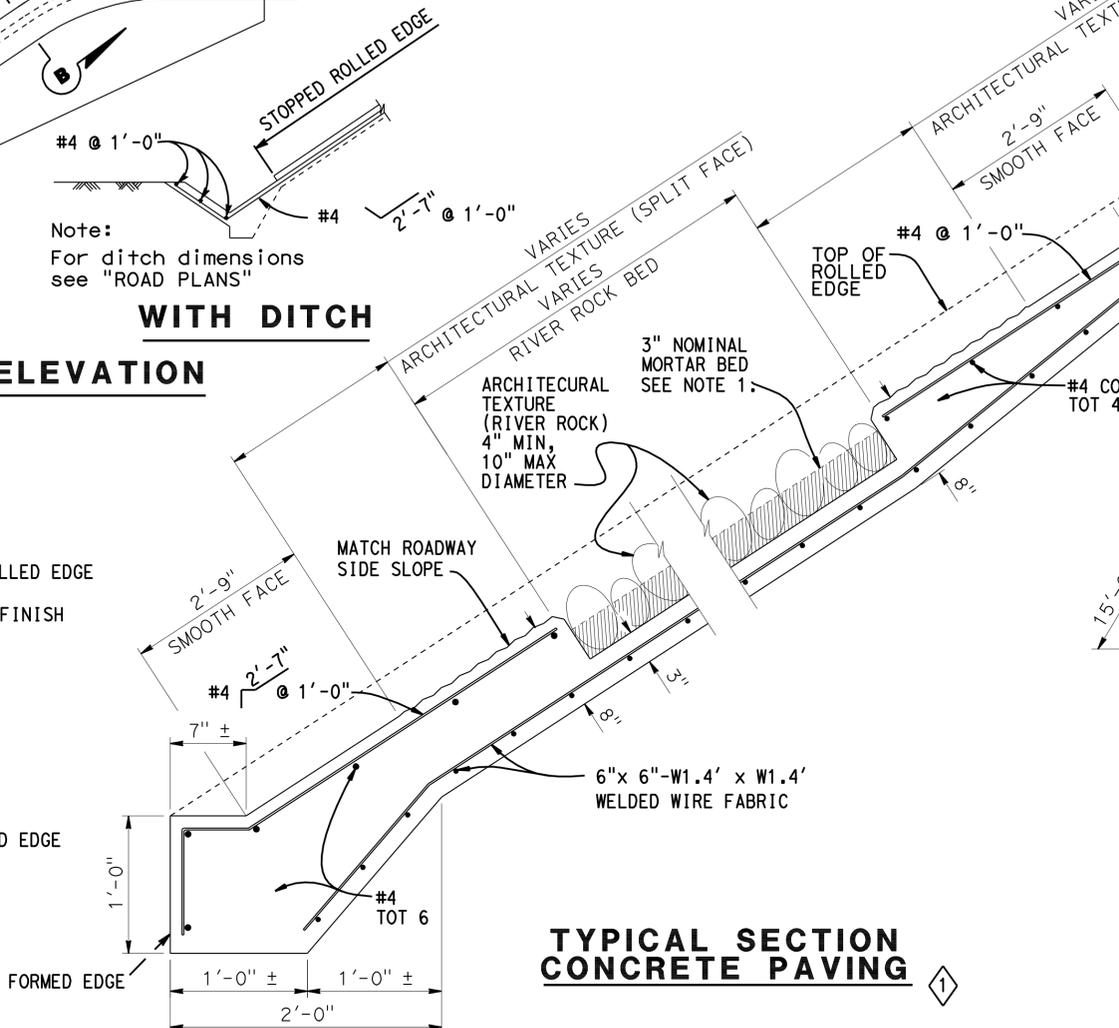
**WINGWALL ELEVATION**



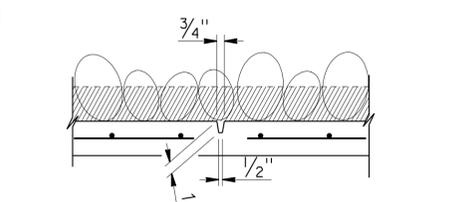
**SECTION A-A**



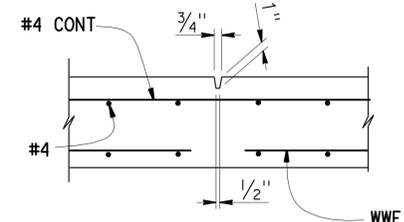
**SECTION B-B**



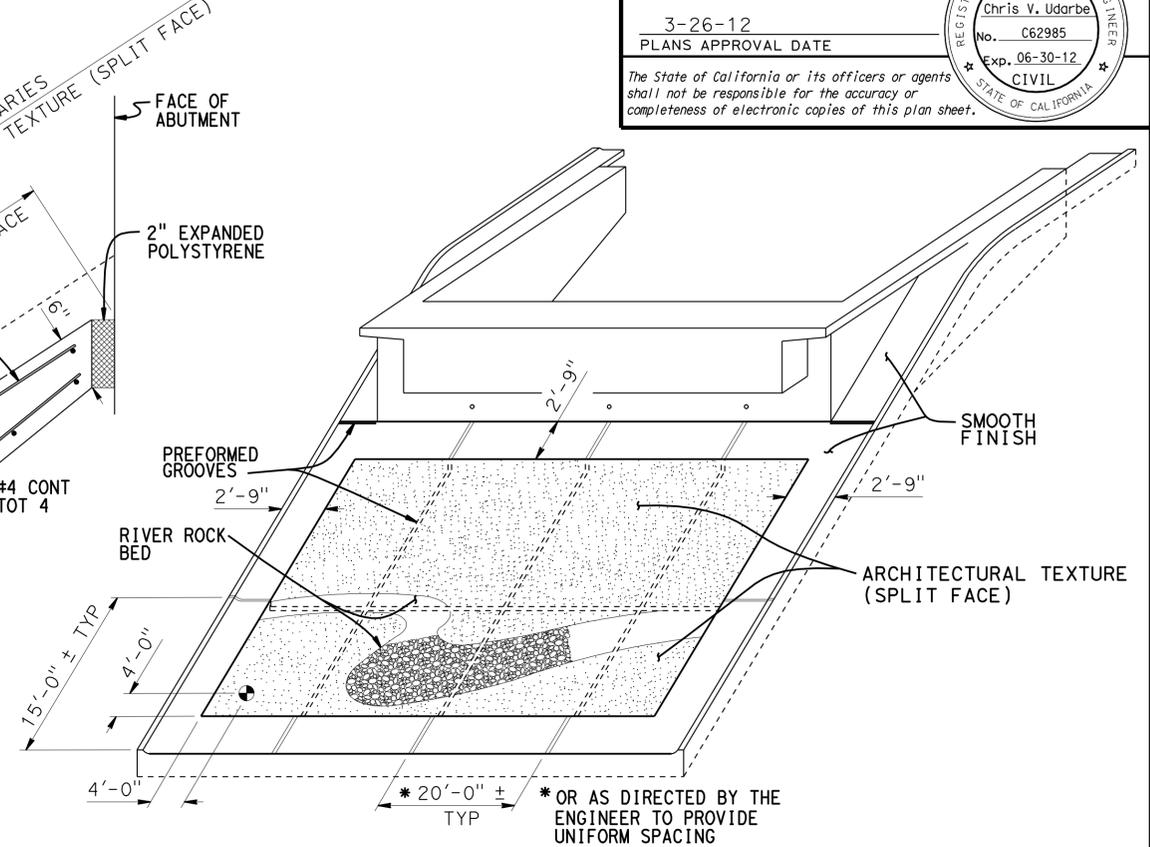
**TYPICAL SECTION CONCRETE PAVING**



**PREFORMED GROOVE AT RIVER ROCK BED**

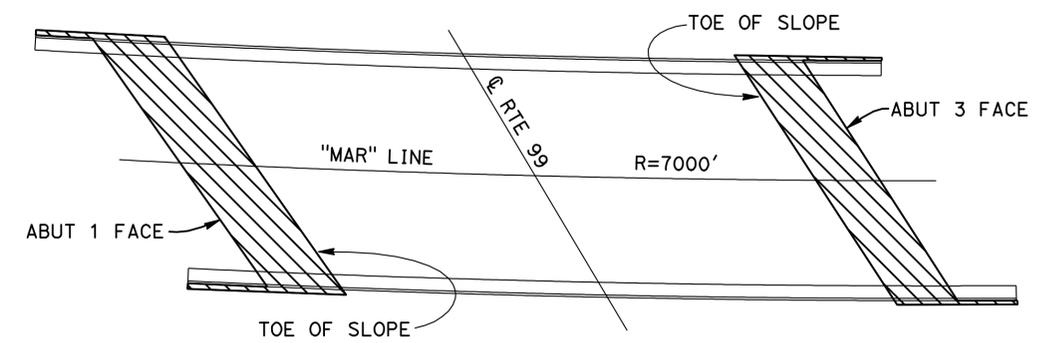


**PREFORMED GROOVE AT PERIMETER**



**PICTORIAL VIEW OF TYPICAL INSTALLATION**

Insertion Point A for architectural texture, see "ARCHITECTURAL DETAILS NO. 1" sheet



**LIMITS OF SLOPE PAVING**

NO SCALE

Legend:

 Indicates limits of slope paving

REVISED STANDARD DRAWING

FILE NO. **xs4-210**

APPROVAL DATE July 2011

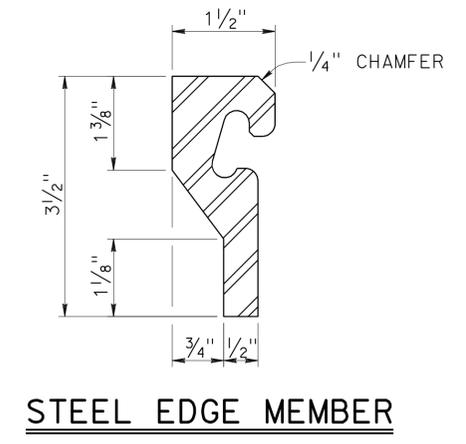
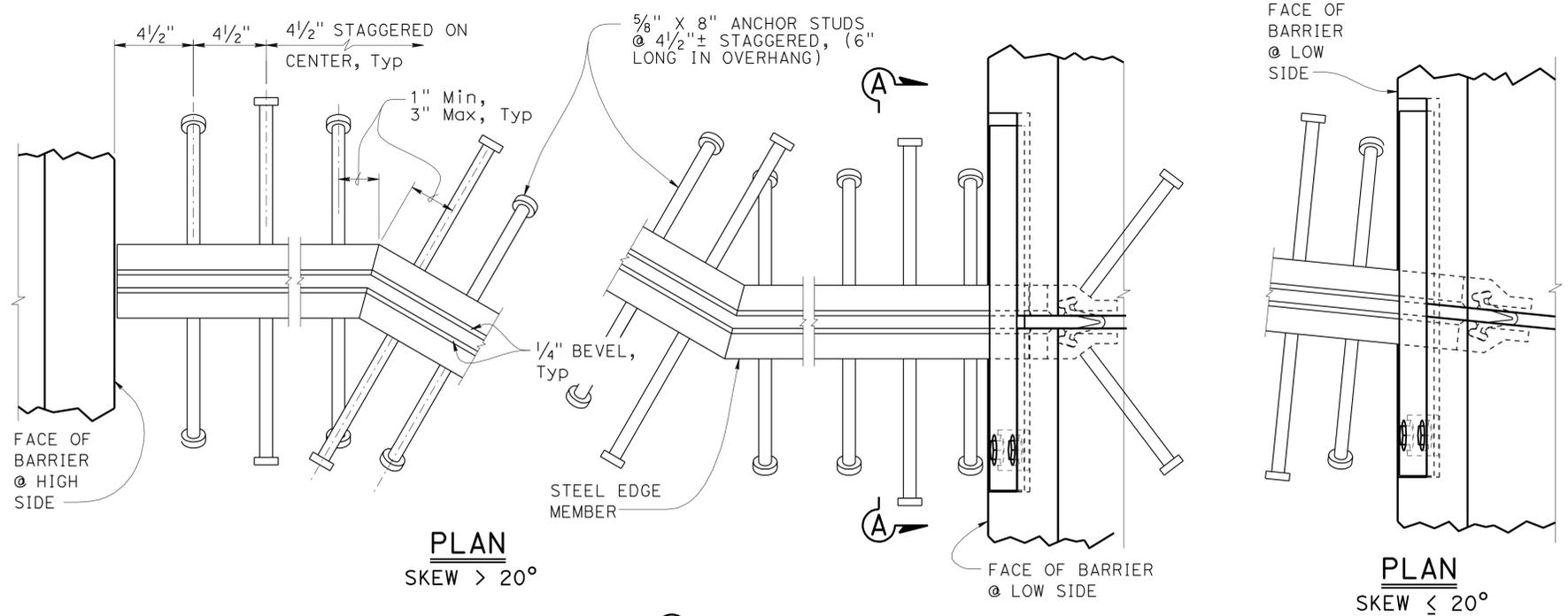
- 1 Slope paving details.
- 2 Removed Drainage details.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 29-0325  
POST MILE 15.0

**SOUTH STOCKTON WIDENING**  
**MARIPOSA RD OC (REPLACEMENT)**  
**SLOPE PAVING - FULL SLOPE**

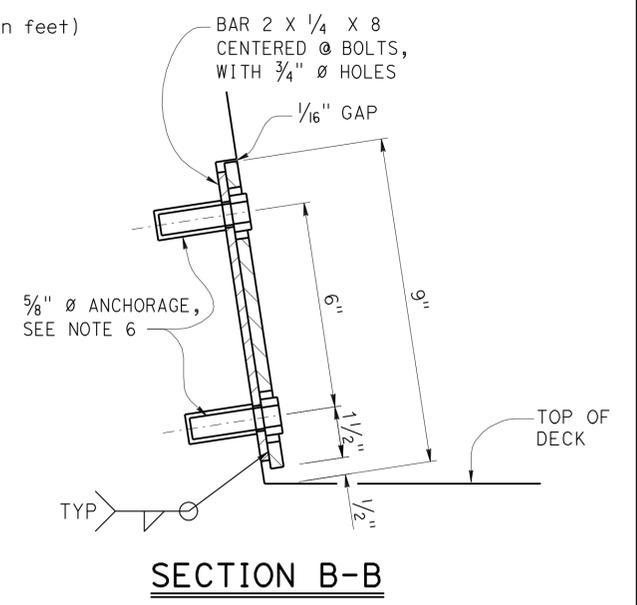
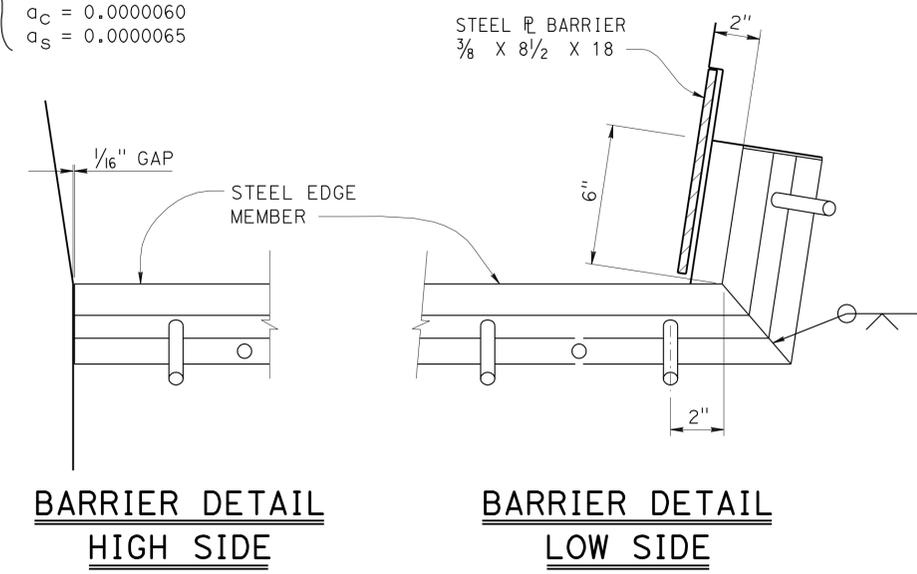
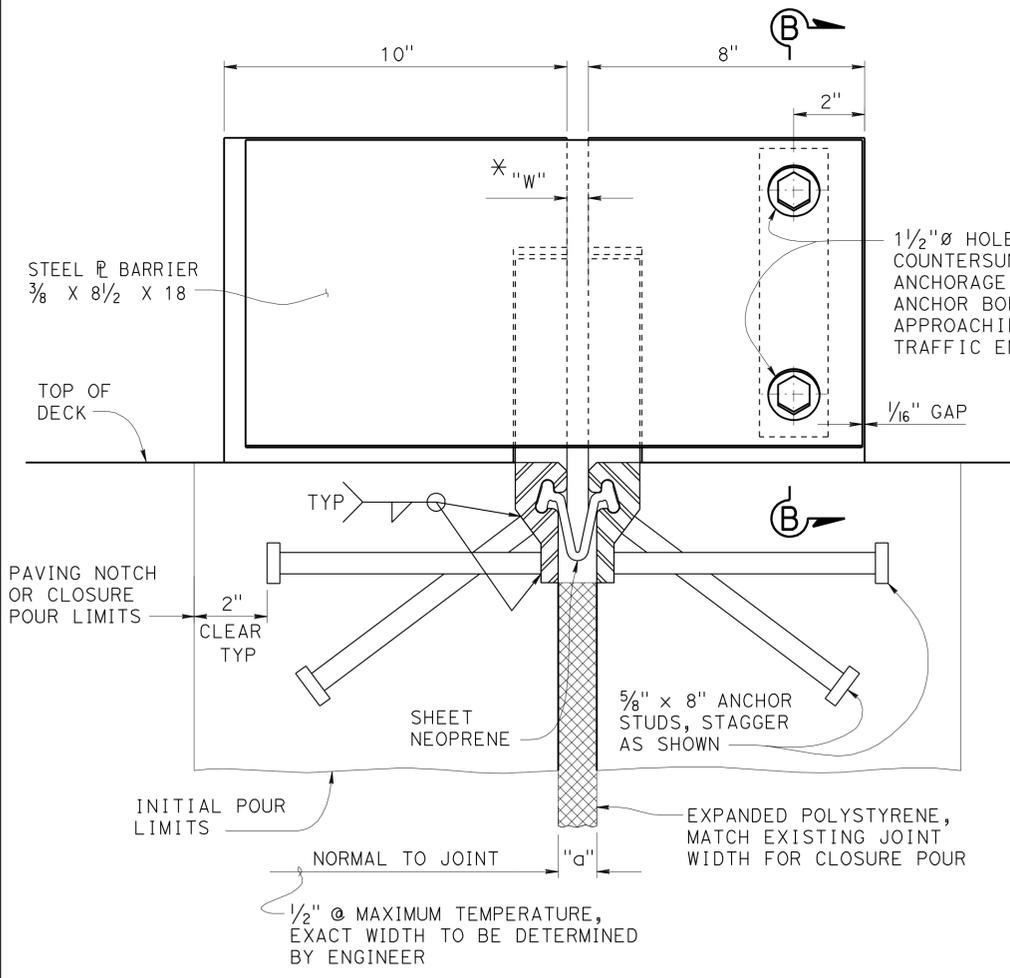


- NOTES:
- Full penetration butt welds may be substituted for fillet welds on all anchor studs
  - Alternate types of anchor studs may be permitted subject to the approval by the Engineer
  - Joint seal assembly to be used in conjunction with closure pour. (See other sheets for limits). Closure pour shall not be placed until final deck surface is within the tolerances specified
  - Use joint at crown of roadway, at any change in traverse slope in deck and at changes in horizontal direction. Place other joints at or near lanes. All metal parts to be painted or galvanized after fabrication
  - Sheet Neoprene shall be fabricated in one continuous piece and shall be fabricated to bend around corners
  - Insert assembly or expansion anchorage for 5/8" x 1 3/4" bolts. Use installation bolts extended 1/2" minimum past nut and coat with bond breaker, after concrete has cured, remove installation bolts, install A325 bolts and sheet neoprene
  - Sidewalk Detail similar to Barrier Detail on low side at both sides if the roadway is crowned or if the difference in elevation between the ends of the seal is 0.5' or less
  - $a_c, a_s$ , are the thermal expansion coefficients for concrete and steel respectively.

JOINT INFORMATION			"a" DIMENSIONS		
LOCATION	MOVEMENT RATING (MR)	SKEW	WINTER	SPRING & FALL	SUMMER
BB	4"	37°53'55"	1 3/8"	1"	1/2"
EB	4"	33°02'03"	1 3/8"	1"	1/2"

\* TO SET MINIMUM JOINT OPENING "w"

$$w = \begin{cases} \frac{1}{2} + [(Max \text{ Str temperature in } F^\circ) - (actual \text{ Str temperature in } F^\circ)] * (a_c \text{ or } a_s) * (12) * (\text{contributory L in feet}) \\ \frac{1}{2} \text{ Minimum} \\ a_c = 0.0000060 \\ a_s = 0.0000065 \end{cases}$$



NO SCALE

**SOUTH STOCKTON WIDEN**

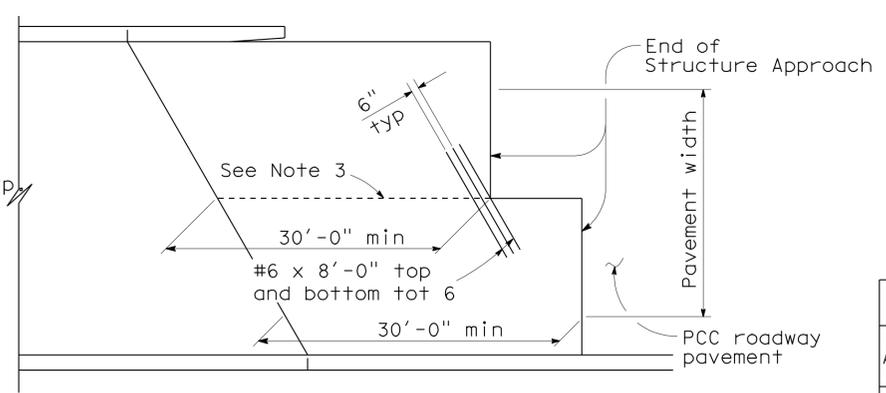
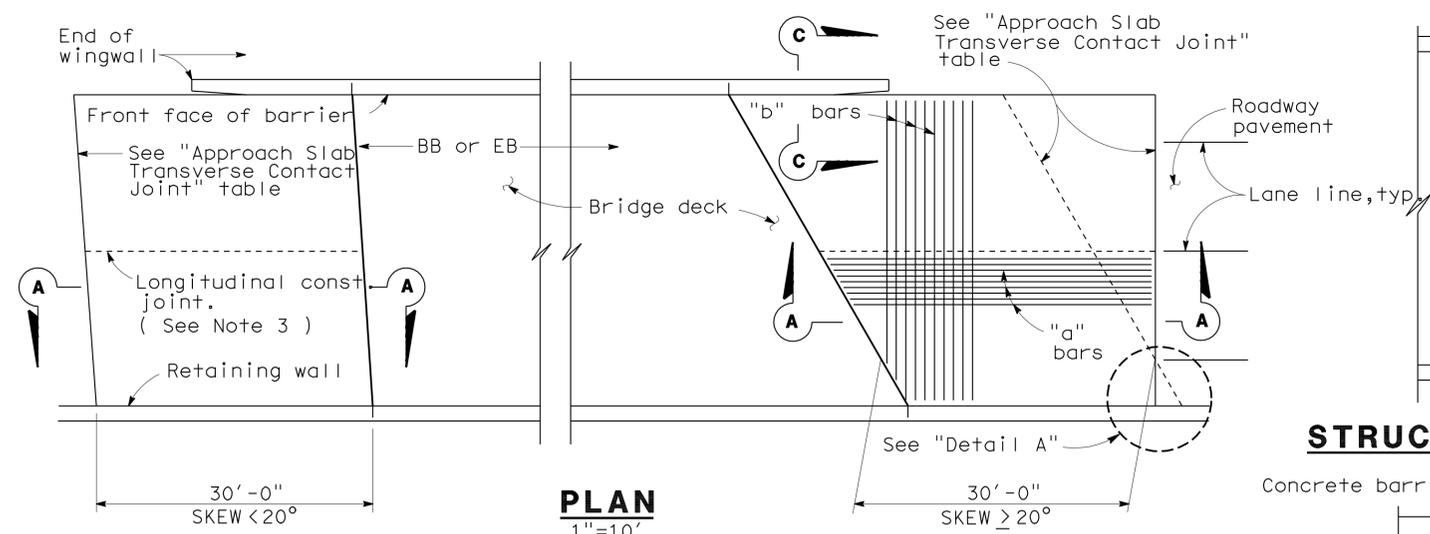
**MARIPOSA ROAD OC (REPLACEMENT)**

**JOINT SEAL ASSEMBLY (MAXIMUM MOVEMENT RATING = 4")**

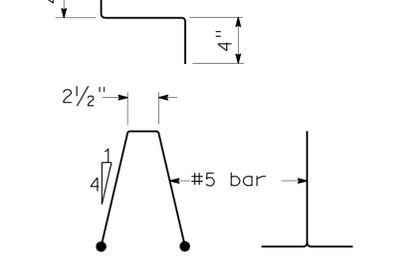
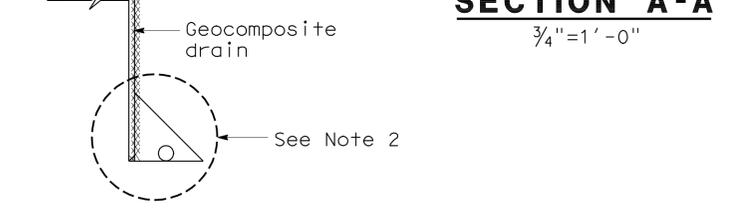
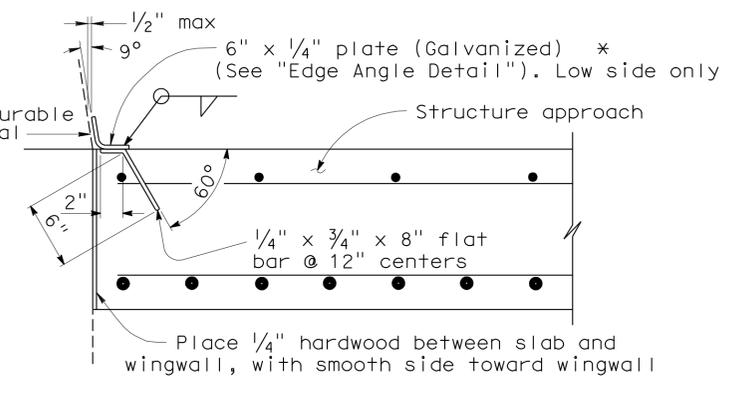
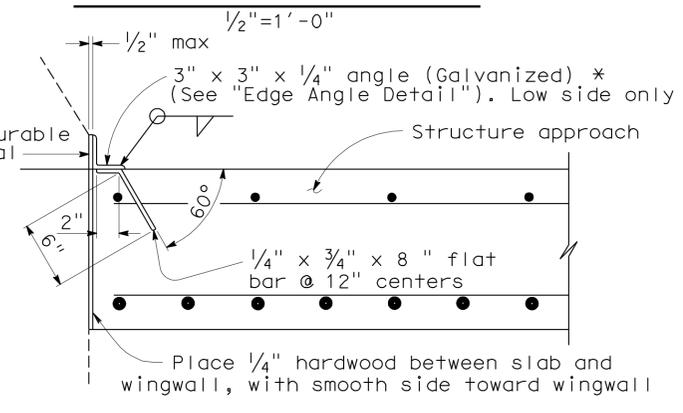
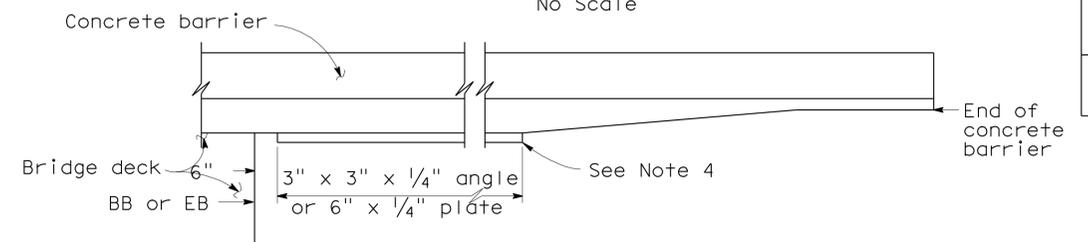
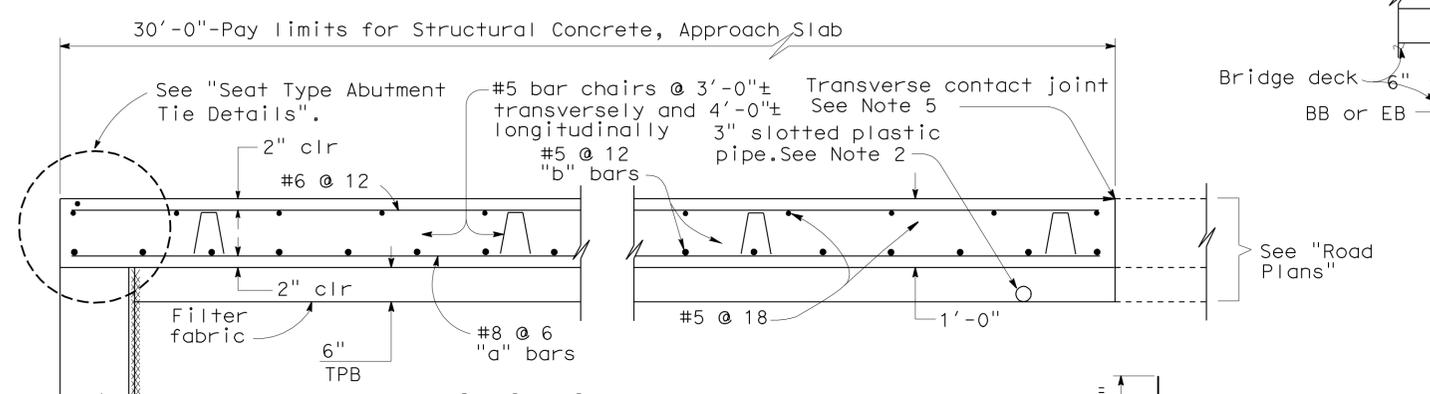
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1042	1414

REGISTERED CIVIL ENGINEER  
 11-04-11  
 DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 No. C62985  
 Exp. 6/30/12  
 CIVIL  
 STATE OF CALIFORNIA

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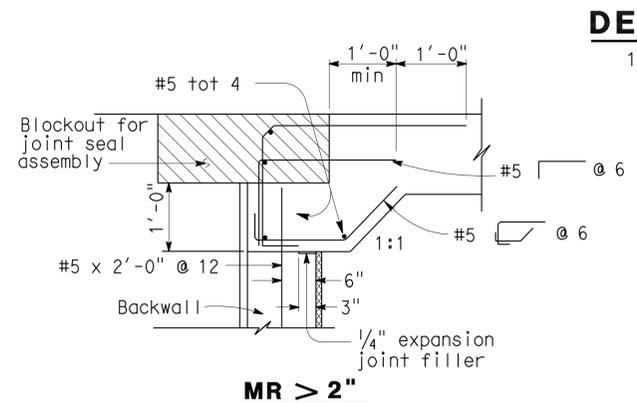
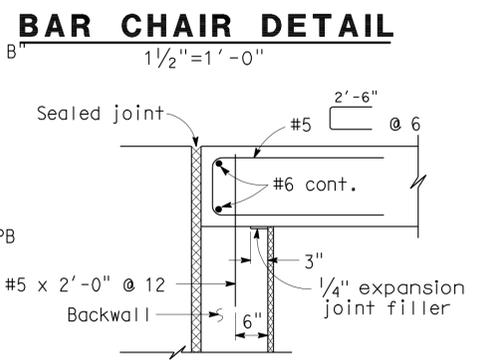
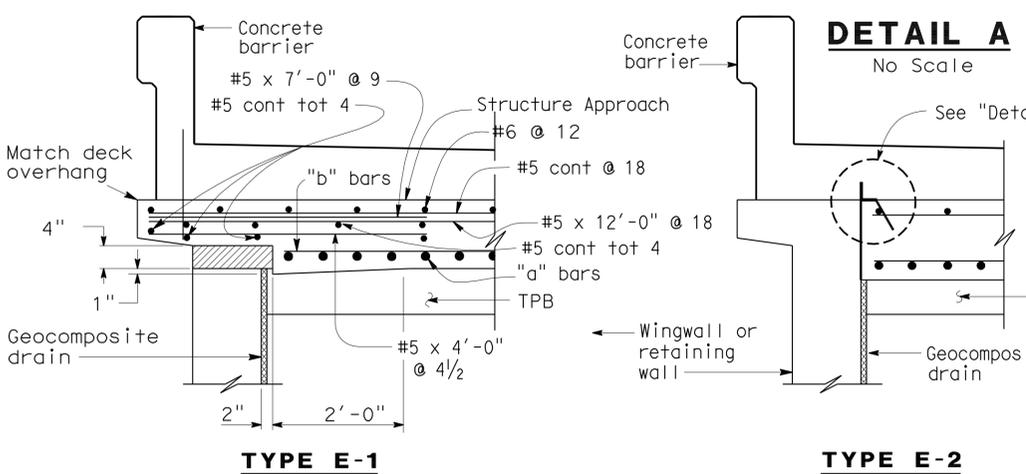


APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	Parallel to face of paving notch	Parallel to face of paving notch
20° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart.
> 45°	Parallel to face of P N use (Detail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



\* (TO BE USED WITH TYPE 25 OR TYPE 27 CONCRETE BARRIER)

\* (TO BE USED WITH TYPE 25 OR TYPE 27 CONCRETE BARRIER)



- NOTES:**
- For details not shown, see Structure Plans. For MR ≤ 2, adjust bar reinforcement to clear a sawcut for sealed joint, when required.
  - 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 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.
- Remove all polystyrene.

STANDARD DRAWING

FILE NO. **xs3-120e**

APPROVAL DATE 3-14-05

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 29-0325  
POST MILE 15.0

UNIT: 3586  
PROJECT NUMBER & PHASE: 10000004091

CONTRACT NO.: 10-3A1001

**SOUTH STOCKTON WIDENING**

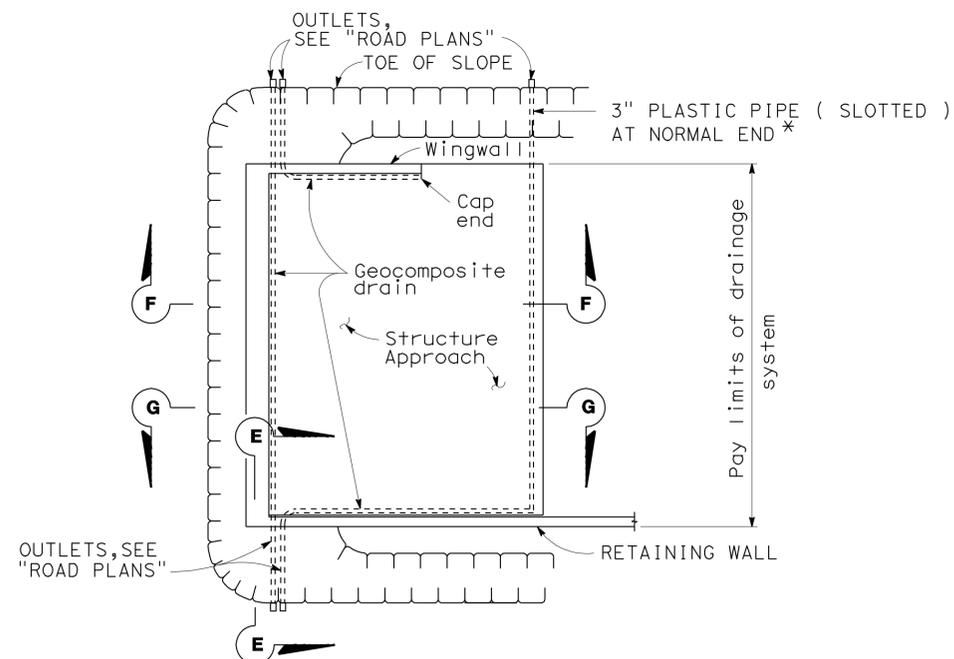
**MARIPOSA ROAD OC (REPLACEMENT)**

**STRUCTURE APPROACH TYPE N(30S)**

REVISION DATES: 10-04-11

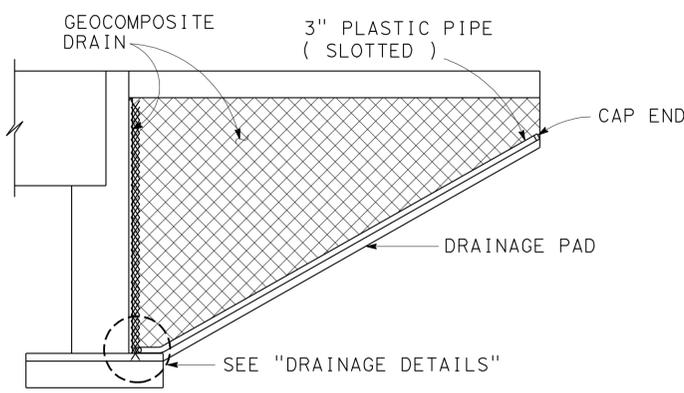
SHEET 23 OF 29

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1043	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11	DATE	
3-26-12			PLANS APPROVAL DATE		
Chris Udarbe No. C62985 Exp. 6/30/12 CIVIL			REGISTERED PROFESSIONAL ENGINEER 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.					

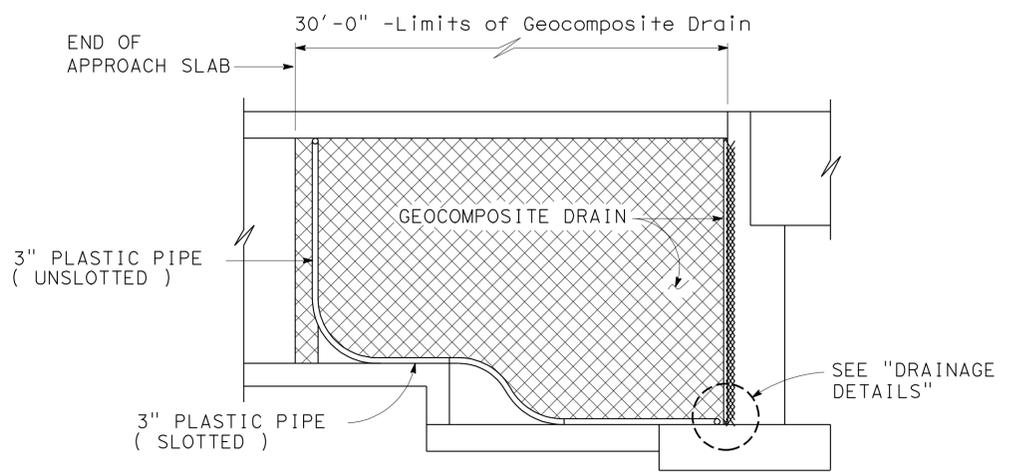


**TYPICAL PLAN**  
1"=10'

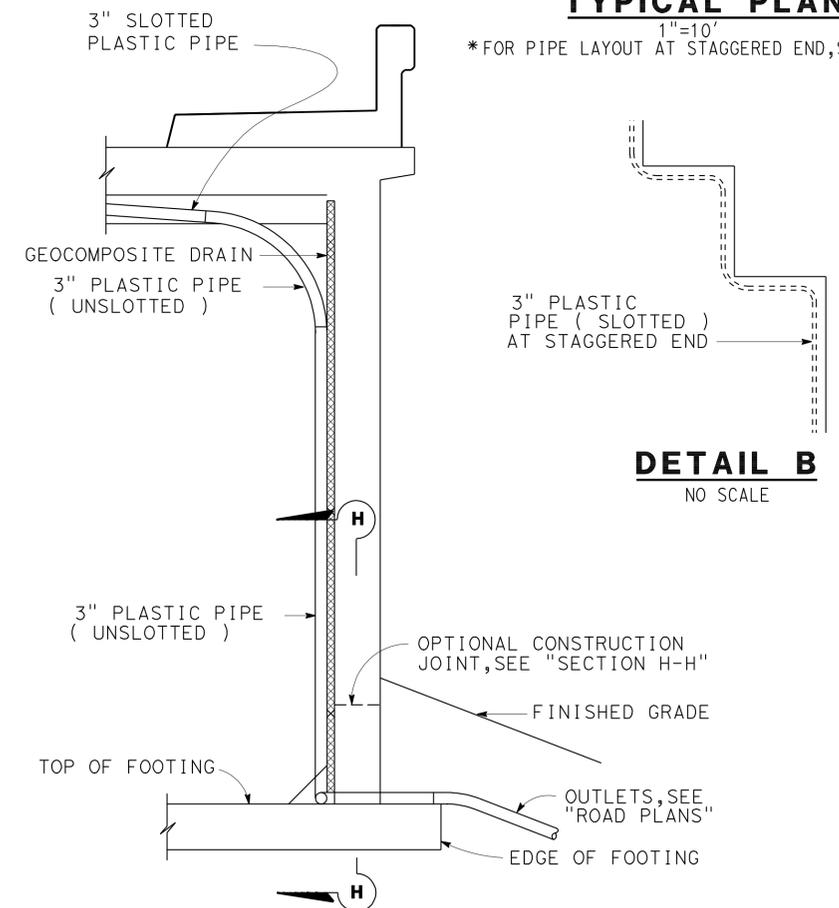
\*FOR PIPE LAYOUT AT STAGGERED END, SEE "DETAIL B".



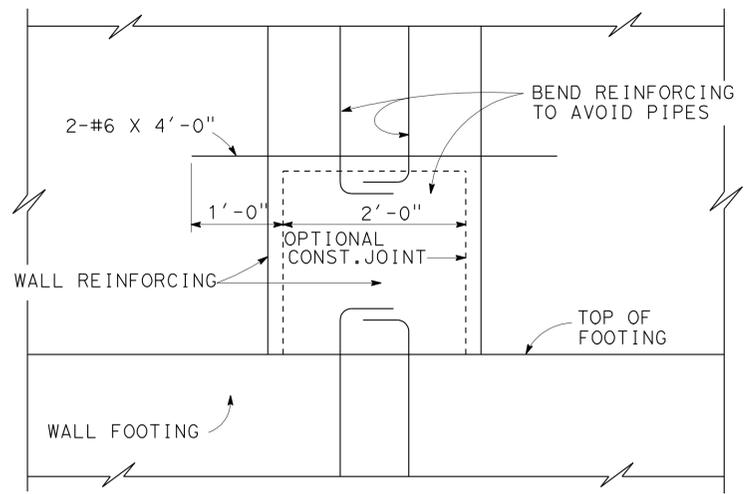
**CANTILEVER WINGWALL SECTION F-F**  
1/4"=1'-0"



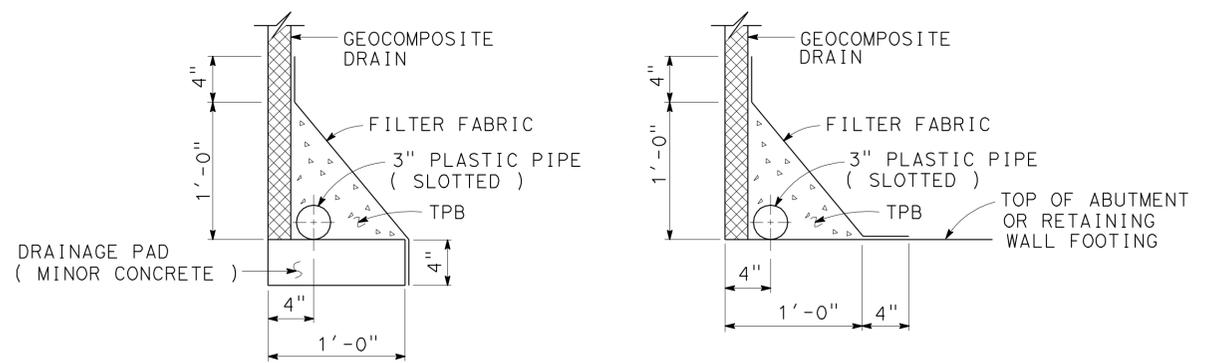
**RETAINING WALL WINGWALL SECTION G-G**  
1/4"=1'-0"



**DETAIL B**  
NO SCALE



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



**WITHOUT FOOTING**

**WITH FOOTING**

**DRAINAGE DETAILS**  
1/2"=1'-0"

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

NOTE: BENDS AND JUNCTIONS IN 3" PLASTIC PIPE ARE 30" RADIUS MIN.

STANDARD DRAWING	
FILE NO. xs3-110e	APPROVAL DATE 4-23-98

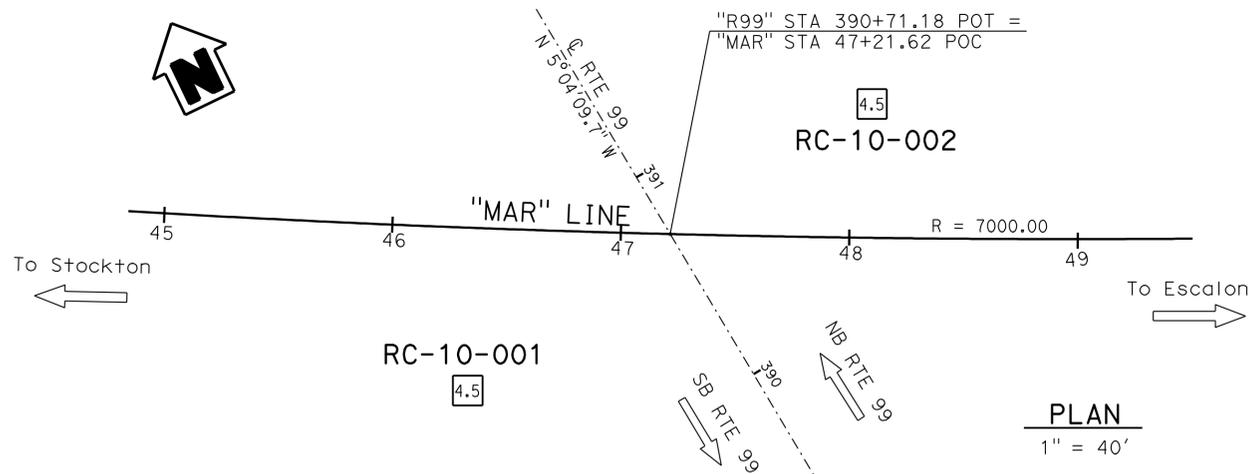
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	
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DIVISION OF ENGINEERING SERVICES	
BRIDGE NO. 29-0325	POST MILE 15.0

SOUTH STOCKTON WIDENING	
MARIPOSA ROAD OC (REPLACEMENT)	
STRUCTURE APPROACH DRAINAGE DETAILS	

**BENCH MARK**

Bottom of culvert under existing Mariposa Road OC (Br. No. 29-0157)  
 NE side Elev 21.5'  
 SW side Elev 21.7'  
 Vert Datum: NGVD 29



**PLAN**  
1" = 40'



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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1044	1414

Professional Geologist: Joseph M. Kaump, No. 7837, Exp. 01-31-13  
 Date: 8-18-11  
 Plans Approval Date: 3-26-12

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.

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

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDENING</b>	
FUNCTIONAL SUPERVISOR		DRAWN BY: I. G-Remmen		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 29-0325		<b>MARIPOSA ROAD OC (REPLACEMENT)</b>	
NAME: R. Buehl		CHECKED BY: A. Barrie		FIELD INVESTIGATION BY: J. Kaump		POST MILE 15.0		<b>LOG OF TEST BORINGS 1 OF 5</b>	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 3A-1001	
				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET 25 OF 29	

USERNAME => S109858 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 14:03  
 FILE => 29-0325-Z-1+1of5.dgn



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1046	1414

Joseph M Kaump 8-18-11  
PROFESSIONAL GEOLOGIST

3-26-12  
PLANS APPROVAL DATE

Joseph Kaump  
No. 7837  
Exp. 01-31-13  
STATE OF CALIFORNIA

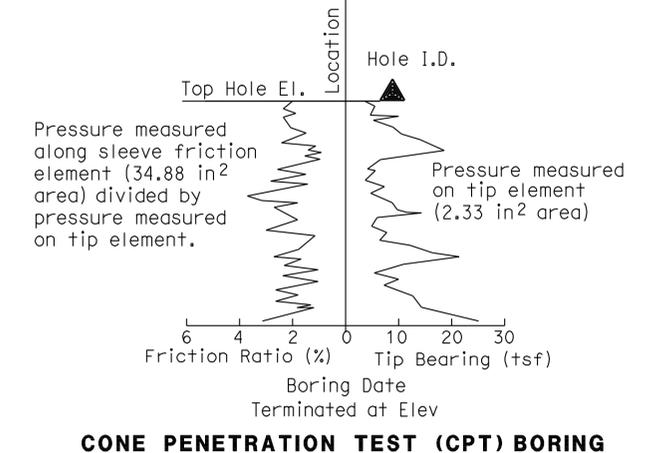
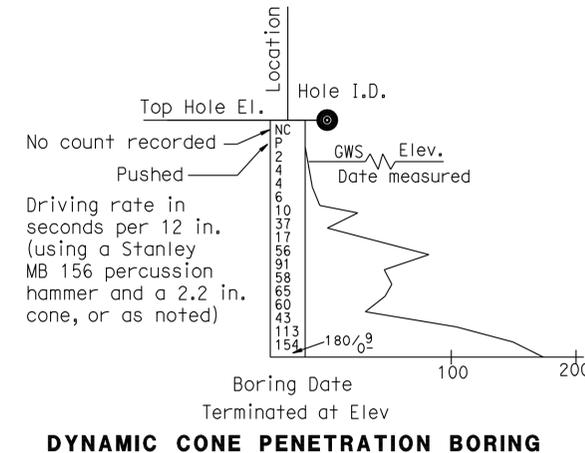
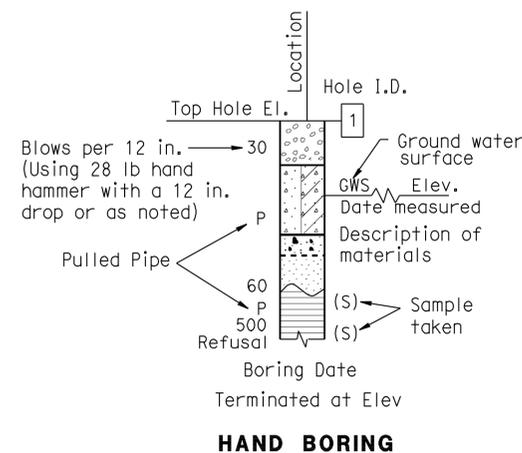
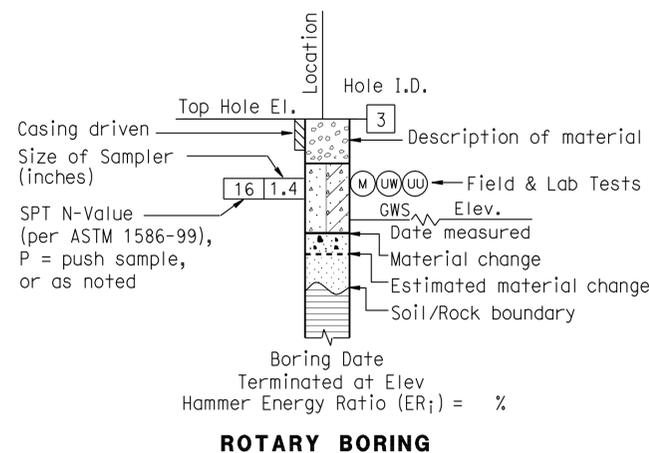
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778)
	O	Other (note on LOTB)

Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>BRIDGE NO.</b>		<b>SOUTH STOCKTON WIDENING</b>	
		PREPARED BY: I. G-Remmen		<b>DEPARTMENT OF TRANSPORTATION</b>		<b>STRUCTURE DESIGN</b>		29-0325		<b>MARIPOSA ROAD OC (REPLACEMENT)</b>	
						<b>DESIGN BRANCH 17</b>		POST MILE 15.0		<b>LOG OF TEST BORINGS 3 OF 5</b>	
GS LOTB SOIL LEGEND		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 3A-1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 08-23-11	
				0 1 2 3						SHEET 27 OF 29	

FILE => 29-0325-z-1+tb3of5.dgn

USERNAME => S109858 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 14:03

Joseph M. Kaump 8-18-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
 No. 7837  
 Exp. 01-31-13  
 STATE OF CALIFORNIA  
 PROFESSIONAL GEOLOGIST

GROUP SYMBOLS AND NAMES			
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	Well-graded GRAVEL		Lean CLAY
	Well-graded GRAVEL with SAND		Lean CLAY with SAND
	Poorly-graded GRAVEL		Lean CLAY with GRAVEL
	Poorly-graded GRAVEL with SAND		SANDY lean CLAY
	Well-graded GRAVEL with SILT		SANDY lean CLAY with GRAVEL
	Well-graded GRAVEL with SILT and SAND		GRAVELLY lean CLAY
	Well-graded GRAVEL with CLAY (or SILTY CLAY)		GRAVELLY lean CLAY with SAND
	Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SILTY CLAY
	Poorly-graded GRAVEL with SILT		SILTY CLAY with SAND
	Poorly-graded GRAVEL with SILT and SAND		SILTY CLAY with GRAVEL
	Poorly-graded GRAVEL with CLAY (or SILTY CLAY)		SANDY SILTY CLAY
	Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SANDY SILTY CLAY with GRAVEL
	SILTY GRAVEL		GRAVELLY SILTY CLAY
	SILTY GRAVEL with SAND		GRAVELLY SILTY CLAY with SAND
	CLAYEY GRAVEL		SILT
	CLAYEY GRAVEL with SAND		SILT with SAND
	SILTY, CLAYEY GRAVEL		SILT with GRAVEL
	SILTY, CLAYEY GRAVEL with SAND		SANDY SILT
	Well-graded SAND		SANDY SILT with GRAVEL
	Well-graded SAND with GRAVEL		GRAVELLY SILT
	Poorly-graded SAND		GRAVELLY SILT with SAND
	Poorly-graded SAND with GRAVEL		ORGANIC lean CLAY
	Well-graded SAND with SILT		ORGANIC lean CLAY with SAND
	Well-graded SAND with SILT and GRAVEL		ORGANIC lean CLAY with GRAVEL
	Well-graded SAND with CLAY (or SILTY CLAY)		SANDY ORGANIC lean CLAY
	Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		SANDY ORGANIC lean CLAY with GRAVEL
	Poorly-graded SAND with SILT		GRAVELLY ORGANIC lean CLAY
	Poorly-graded SAND with SILT and GRAVEL		GRAVELLY ORGANIC lean CLAY with SAND
	Poorly-graded SAND with CLAY (or SILTY CLAY)		ORGANIC SILT
	Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		ORGANIC SILT with SAND
	SILTY SAND		ORGANIC SILT with GRAVEL
	SILTY SAND with GRAVEL		SANDY ORGANIC SILT
	CLAYEY SAND		SANDY ORGANIC SILT with GRAVEL
	CLAYEY SAND with GRAVEL		GRAVELLY ORGANIC SILT
	SILTY, CLAYEY SAND		GRAVELLY ORGANIC SILT with SAND
	SILTY, CLAYEY SAND with GRAVEL		ORGANIC fat CLAY
	PEAT		ORGANIC fat CLAY with SAND
	COBBLES		ORGANIC fat CLAY with GRAVEL
	COBBLES and BOULDERS		SANDY ORGANIC fat CLAY
	BOULDERS		SANDY ORGANIC fat CLAY with GRAVEL
			GRAVELLY ORGANIC fat CLAY
			GRAVELLY ORGANIC fat CLAY with SAND
			ORGANIC elastic SILT
			ORGANIC elastic SILT with SAND
			ORGANIC elastic SILT with GRAVEL
			SANDY ORGANIC elastic SILT
			SANDY ORGANIC elastic SILT with GRAVEL
			GRAVELLY ORGANIC elastic SILT
			GRAVELLY ORGANIC elastic SILT with SAND
			ORGANIC SOIL
			ORGANIC SOIL with SAND
			ORGANIC SOIL with GRAVEL
			SANDY ORGANIC SOIL
			SANDY ORGANIC SOIL with GRAVEL
			GRAVELLY ORGANIC SOIL
			GRAVELLY ORGANIC SOIL with SAND

FIELD AND LABORATORY TESTING	
(C)	Consolidation (ASTM D 2435)
(CL)	Collapse Potential (ASTM D 5333)
(CP)	Compaction Curve (CTM 216)
(CR)	Corrosivity Testing (CTM 643, CTM 422, CTM 417)
(CU)	Consolidated Undrained Triaxial (ASTM D 4767)
(DS)	Direct Shear (ASTM D 3080)
(EI)	Expansion Index (ASTM D 4829)
(M)	Moisture Content (ASTM D 2216)
(OC)	Organic Content-% (ASTM D 2974)
(P)	Permeability (CTM 220)
(PA)	Particle Size Analysis (ASTM D 422)
(PI)	Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
(PL)	Point Load Index (ASTM D 5731)
(PM)	Pressure Meter
(R)	R-Value (CTM 301)
(SE)	Sand Equivalent (CTM 217)
(SG)	Specific Gravity (AASHTO T 100)
(SL)	Shrinkage Limit (ASTM D 427)
(SW)	Swell Potential (ASTM D 4546)
(UC)	Unconfined Compression-Soil (ASTM D 2166)
(UR)	Unconfined Compression-Rock (ASTM D 2938)
(UU)	Unconsolidated Undrained Triaxial (ASTM D 2850)
(UW)	Unit Weight (ASTM D 4767)

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N <sub>60</sub> (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

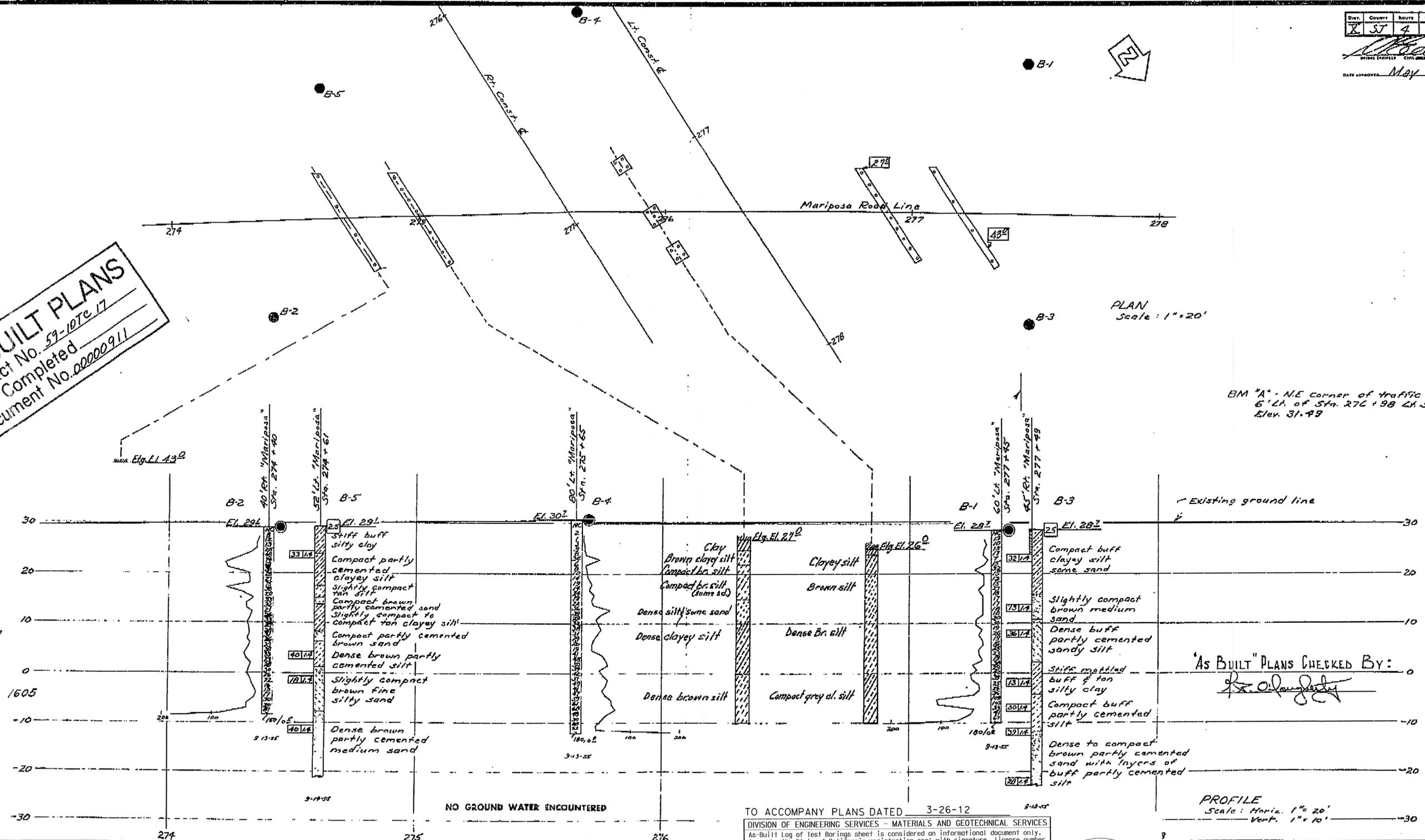
MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

PARTICLE SIZE		
Description	Size (in.)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0325	SOUTH STOCKTON WIDENING	
				POST MILE 15.0	MARIPOSA ROAD OC (REPLACEMENT)	
PREPARED BY: W. Tang 6/11				LOG OF TEST BORINGS 4 OF 5		REVISION DATES
UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091				CONTRACT NO.: 3A-1001		SHEET 28 OF 29

**AS BUILT PLANS**  
 Contract No. 59-107C-17  
 Date Completed  
 Document No. 00000911

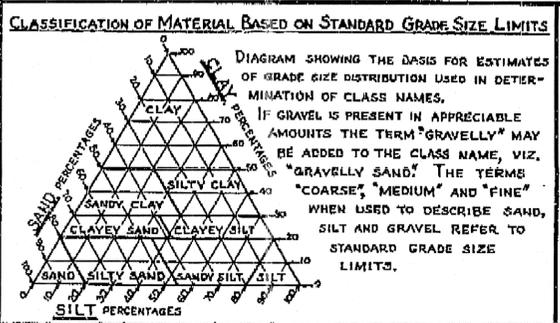


Design Pile Loading = 457  
 Type Pile: Concrete cast in drilled hole  
 Diameter: 15 1/2"  
 Total No Piles: 39  
 Lineal Ft. Piles "As Built": 1605  
 Lineal Ft. Piles Called for on Plans: 1570  
 Drills: Bucket Drill

BM "A" - NE corner of traffic light base  
 6' Lt. of Sta. 276 + 98 LA Survey E  
 Elev. 31.49

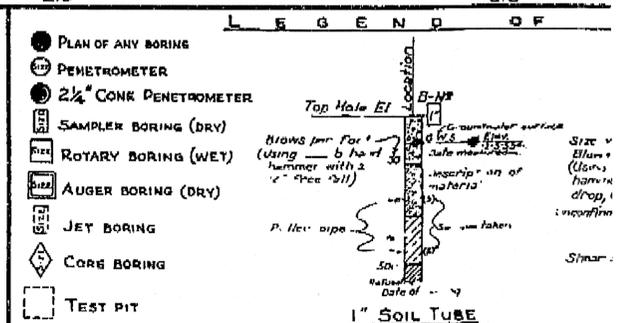
'AS BUILT' PLANS CHECKED BY:  
*[Signature]*

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



LEGEND OF EARTH MATERIALS

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



TO ACCOMPANY PLANS DATED 3-26-12

DIVISION OF ENGINEERING SERVICES - MATERIALS AND 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. It does not attest to the accuracy or validity of the information contained in 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 MILE-TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1048	1414

Professional Geologist: Joseph M. Kaupf  
 Date: 8/18/11

**SOUTH STOCKTON WIDENING  
 MARIPOSA ROAD OC (REPLACEMENT)  
 LOG OF TEST BORINGS 5 OF 5**

UNIT: 3643	CONTRACT No. 10-3A1001	BRIDGE No. 29-0325
PROJECT NUMBER & PHASE: 10000004091		Sheet of 29

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



NOTES

The contractor's attention is directed to Section 2, Article (c) of the Standard Specifications and to the Special Provisions accompanying this set of plans. Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

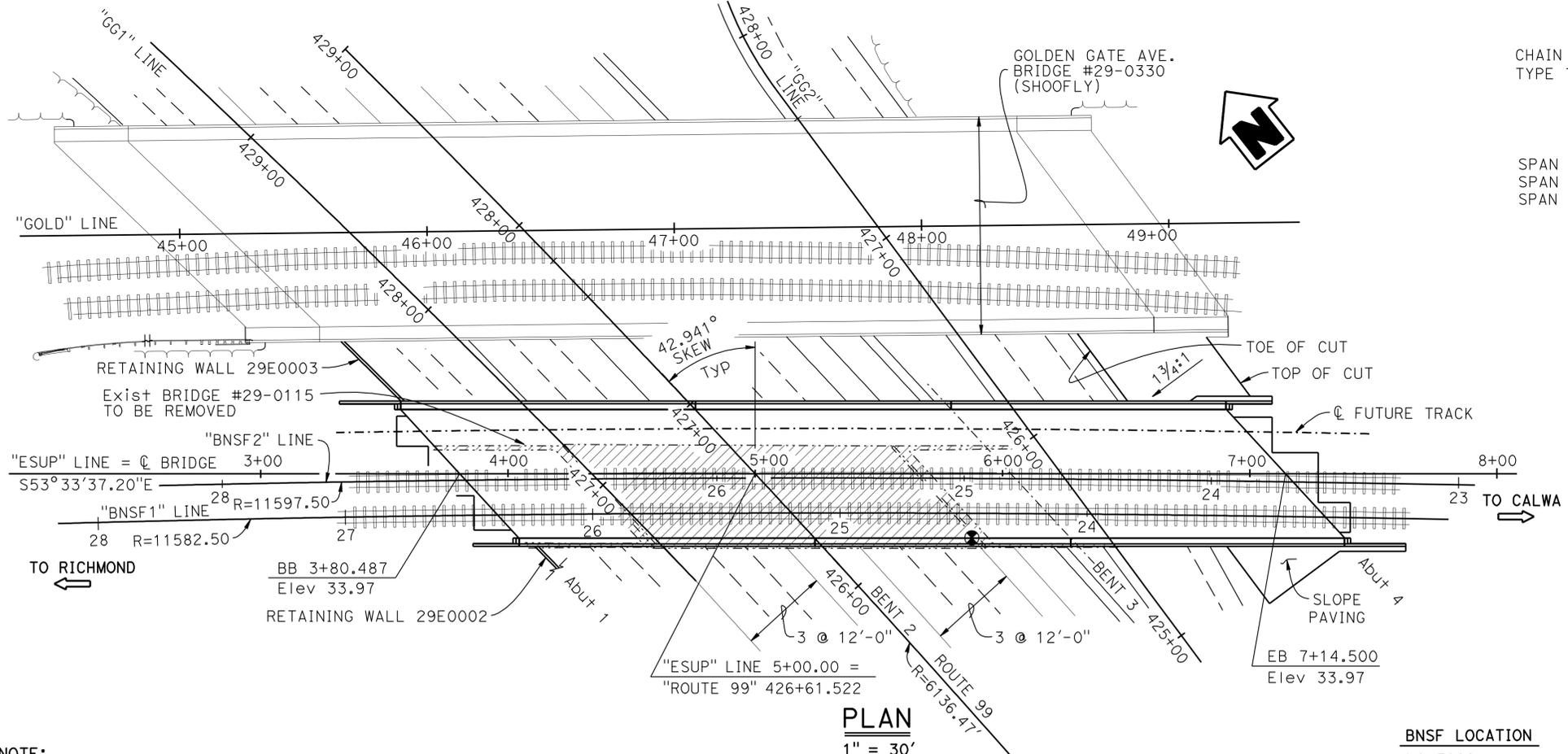
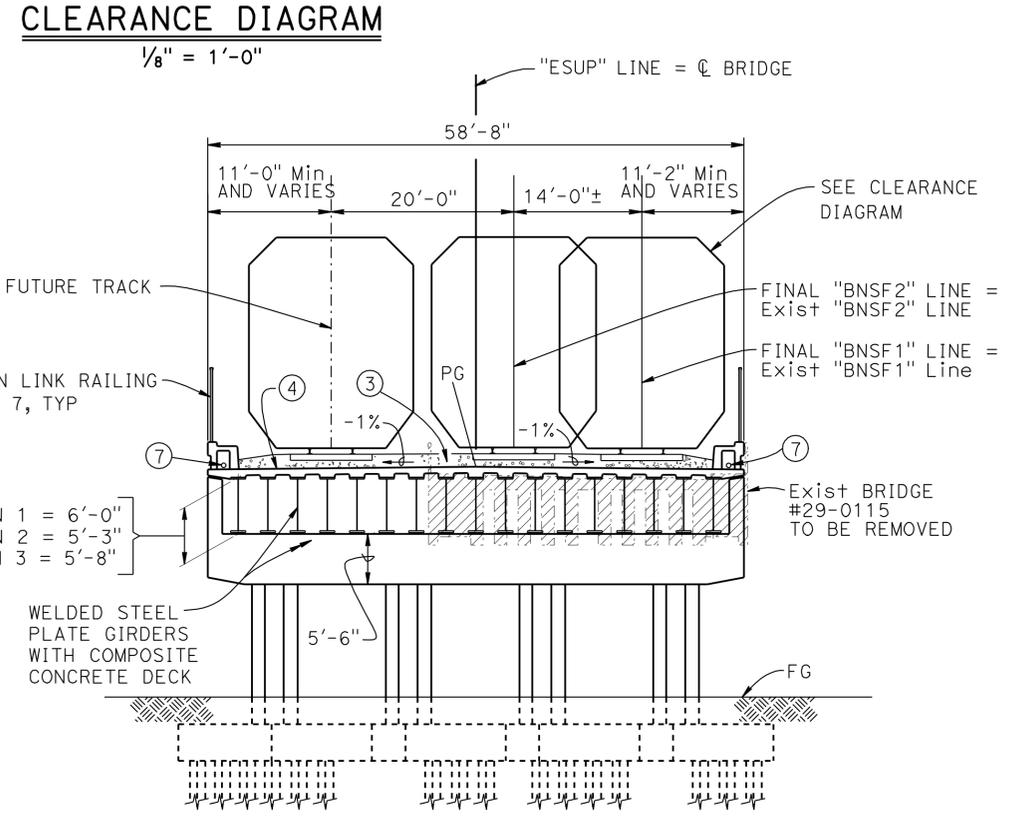
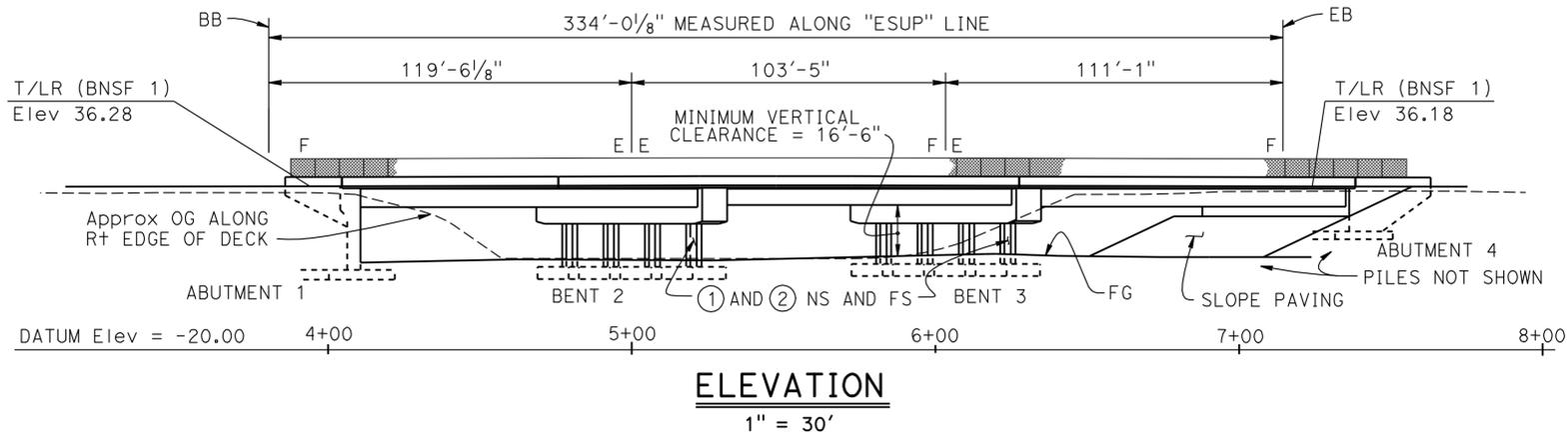
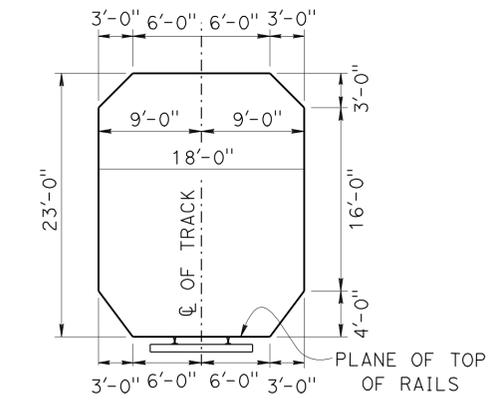
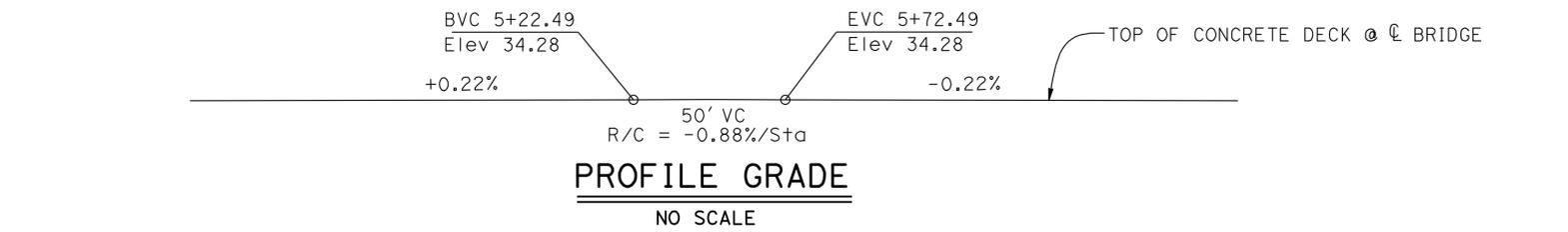
STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

**MARIPOSA ROAD OVERCROSSING**

**LOG OF TEST BORINGS**

SCALE: As Noted | BRIDGE 29-157 | FILE | DRAWING C-4424-9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1049	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER CHRIS V. UDARBE No. 62985 Exp. 6-30-12 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.					



- NOTES:
- ① Paint Bridge Name "EAST STOCKTON UNDERPASS"
  - ② Paint "Br No. 29-0326"
  - ③ 6" Ballast (Additional Ballast by Others)
  - ④ Waterproofing
  - ⑤ [Hatched Area] Indicates Existing Structure to be removed. Bridge removal, LOCATION E
  - ⑥ [Circle with X] = Indicates Point of Min Vert Cir
  - ⑦ 3" dia future Utility Duct

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

DESIGN ENGINEER Gary Joe	DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim	AREMA WSD	COOPER E80
	DETAILS	BY E. Montevirgen	CHECKED R. Simmons	LAYOUT	BY R. Simmons
	QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim	SPECIFICATIONS	BY V. Renganathan
				PLANS AND SPECS COMPARED	V. Renganathan

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO. 29-0326  
POST MILE 17.39

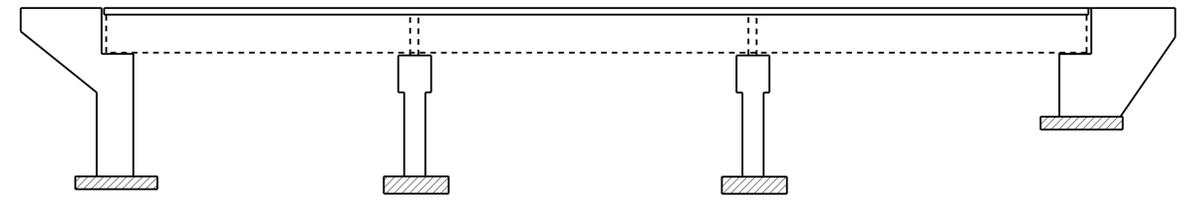
**SOUTH STOCKTON WIDENING**  
**EAST STOCKTON UNDERPASS**  
**GENERAL PLAN**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1050	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 REGISTERED PROFESSIONAL ENGINEER  
 CHRIS V. UDARBE  
 No. 62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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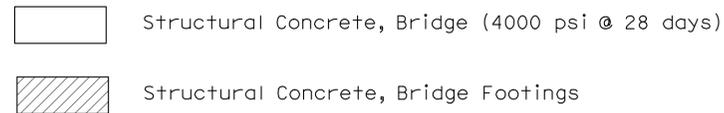
### INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	DECK CONTOURS
4	FOUNDATION PLAN
5	ABUTMENT 1 LAYOUT
6	ABUTMENT 4 LAYOUT
7	ABUTMENT DETAILS NO. 1
8	ABUTMENT DETAILS NO. 2
9	ABUTMENT DETAILS NO. 3
10	BENT LAYOUT
11	BENT DETAILS
12	ANCHOR ROD DETAILS
13	TYPICAL SECTION
14	DECK DETAILS
15	WALKWAY DETAILS
16	GIRDER LAYOUT NO. 1
17	GIRDER LAYOUT NO. 2
18	GIRDER LAYOUT NO. 3
19	GIRDER DETAILS NO. 1
20	GIRDER DETAILS NO. 2
21	GIRDER DETAILS NO. 3
22	GIRDER DETAILS NO. 4
23	GIRDER DETAILS NO. 5
24	GIRDER DETAILS NO. 6
25	WATERPROOFING DETAILS
26	DECK DRAINAGE LAYOUT AND DETAILS
27	ARCHITECTURAL DETAILS NO. 1
28	ARCHITECTURAL DETAILS NO. 2
29	ARCHITECTURAL DETAILS NO. 3
30	SLOPE PAVING - FULL SLOPE
31	LOG OF TEST BORINGS 1 OF 7
32	LOG OF TEST BORINGS 2 OF 7
33	LOG OF TEST BORINGS 3 OF 7
34	LOG OF TEST BORINGS 4 OF 7
35	LOG OF TEST BORINGS 5 OF 7
36	LOG OF TEST BORINGS 6 OF 7
37	LOG OF TEST BORINGS 7 OF 7



### CONCRETE STRENGTH AND TYPE LIMITS

No Scale



### GENERAL NOTES

- DESIGN: AREMA 2010, BNSF/UPRR Guidelines for Railroad Grade Separation Projects
- LIVE LOADING: COOPER E80 WITH DIESEL IMPACT
- SEISMIC DESIGN: AREMA 2010, Soil Type 2  
V<sub>s30</sub> = 890 ft/sec
- REINFORCED CONCRETE: f<sub>y</sub> = 60000 psi  
f'<sub>c</sub> = 4000 psi  
n = 8
- STRUCTURAL STEEL: ASTM A709 GRADE 50 T2  
Secondary member rolled shapes A992  
A325 HS galvanized bolts, 7/8"Ø unless noted otherwise  
All bolted connections are slip critical unless otherwise noted  
Class B faying surface
- ANCHOR RODS: ASTM F1554 Grade 55 (galvanized)
- FABRICATION: Refer to AREMA Chapter 15
- ELASTOMERIC BEARINGS: Steel Reinforced, 3" thick overall w/2 1/2" thick elastomer only  
60 durometer hardness

### QUANTITIES

DESCRIPTION	LUMP SUM
BRIDGE REMOVAL, LOCATION E	
STRUCTURE EXCAVATION (BRIDGE)	2,724 CY
STRUCTURE BACKFILL (BRIDGE)	1,543 CY
PERVIOUS BACKFILL MATERIAL	94 CY
FURNISH STEEL PILING (HP 14 X 89)	19,942 LF
DRIVE STEEL PILE (HP 14 X 89)	238 EA
STRUCTURAL CONCRETE, BRIDGE FOOTING	574 CY
STRUCTURAL CONCRETE, BRIDGE	1,374 CY
STRUCTURAL CONCRETE, APPROACH SLAB	56 CY
ARCHITECTURAL TEXTURE (SPLIT FACE)	217 SQFT
ARCHITECTURAL TEXTURE (RIVER ROCK)	4,717 SQFT
BAR REINFORCING STEEL (BRIDGE)	482,091 LB
WATERPROOFING AND COVER	19,613 SQFT
FURNISH STRUCTURAL STEEL (BRIDGE)	2,451,492 LB
ERECT STRUCTURAL STEEL (BRIDGE)	2,451,492 LB
CLEAN AND PAINT STRUCTURAL STEEL	LUMP SUM
PREPARE AND STAIN CONCRETE	4,717 SQFT
SLOPE PAVING (CONCRETE)	54 CY
SLOPE PAVING (RIVER ROCK)	923 SQFT
MISCELLANEOUS METAL (BRIDGE)	467 LB
CHAIN LINK RAILING (TYPE 7)	732 LF

### PILE DATA TABLE

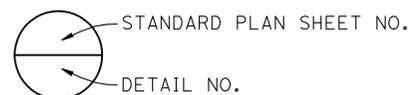
Support Location	Pile Type	Design Loading (kips)	Nominal Resistance (kips)		Cut-off Elevation (ft)	Design Tip Elevations (ft)	Specified Tip Elevation (ft)	Nominal Driving Resistance (kips)
			Compression	Tension				
Abut 1	HP 14 X 89	190	480	0	3.42	-83 (a)	-83 (a)	480
Bent 2	HP 14 X 89	163	410	0	0.67	-73 (a)	-73 (a)	410
Bent 3	HP 14 X 89	202	510	0	4.67	-88 (a)	-88 (a)	510
Abut 4	HP 14 X 89	185	470	0	16.92	-60 (a)	-60 (a)	470

- (a) Design tip elevations are controlled by compression.  
 (b) Since there are no soft compressible soil layers below the design tip elevation, there is no design tip elevation for settlement.  
 (c) The specified tip elevation shall not be raised above the design tip elevations for Lateral Load.

**BNSF LOCATION**  
 LS 7200  
 MP 1118.20

### STANDARD PLANS DATED MAY 2006

- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)  
 A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)  
 A10C SYMBOLS (SHEET 1 OF 2)  
 A10D SYMBOLS (SHEET 2 OF 2)  
 A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE  
 B0-1 BRIDGE DETAILS  
 B0-3 BRIDGE DETAILS  
 B11-52 CHAIN LINK RAILING TYPE 7



## SOUTH STOCKTON WIDENING EAST STOCKTON UNDERPASS INDEX TO PLANS

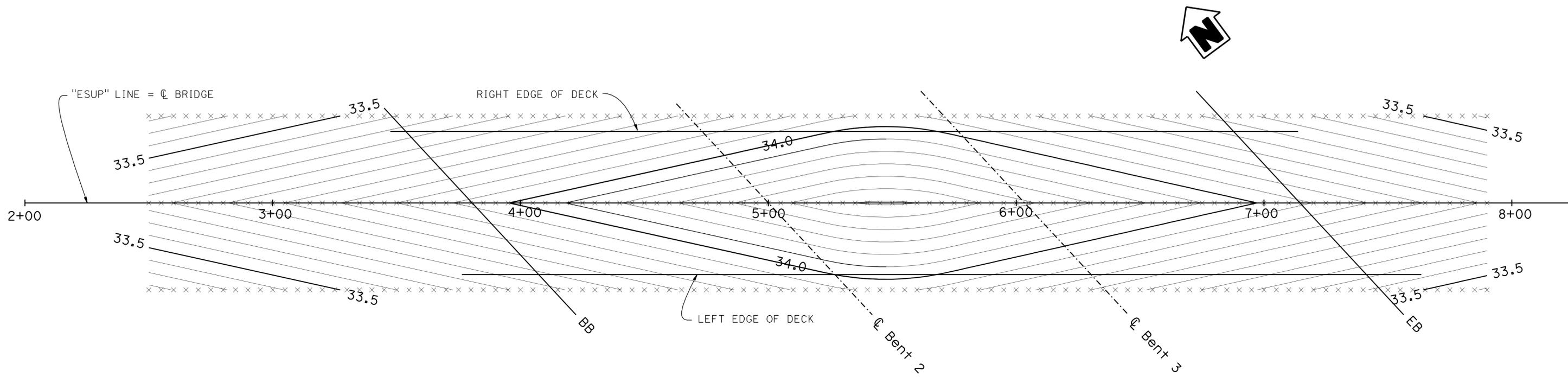
DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	<b>DIVISION OF ENGINEERING SERVICES</b> STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0326
DETAILS	BY J. Guo	CHECKED R. Simmons			POST MILE	17.39
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim				

USERNAME => s109858 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 14:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1051	1414

REGISTERED CIVIL ENGINEER: Chris V. Udarbe DATE: 11-04-11  
 PLANS APPROVAL DATE: 3-26-12  
 No. 62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA

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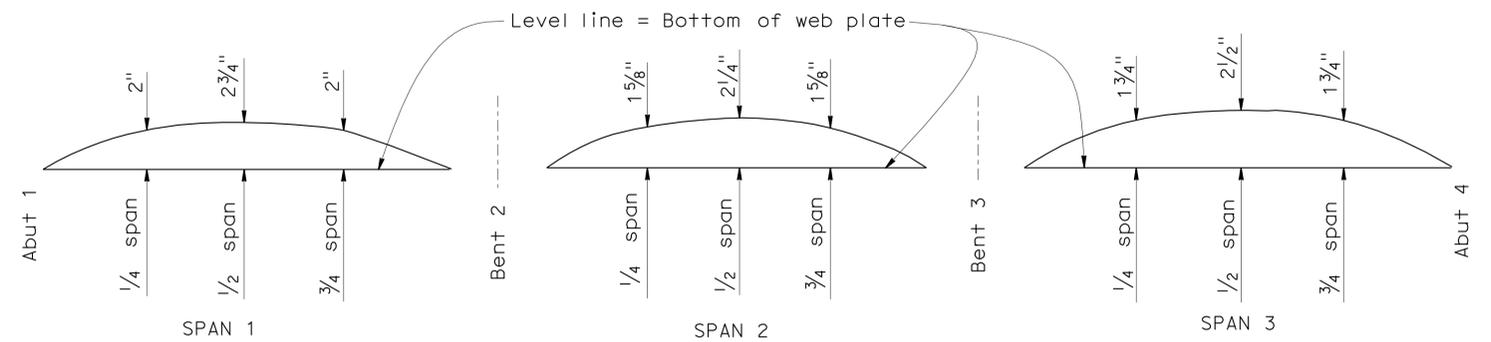


**CAMBER**  
(inches)

	SPAN 1			SPAN 2			SPAN 3		
	.25	.50	.75	.25	.50	.75	.25	.50	.75
Girder Self Weight	3/8	1/2	3/8	1/4	3/8	1/4	5/16	7/16	5/16
Deck Dead Load	3/8	1/2	3/8	1/4	3/8	1/4	5/16	7/16	5/16
Added Dead Load	5/8	7/8	5/8	1/2	3/4	1/2	9/16	13/16	9/16
Deck Shrinkage	5/8	7/8	5/8	5/8	3/4	5/8	9/16	13/16	9/16
Total	2	2 3/4	2	1 5/8	2 1/4	1 5/8	1 3/4	2 1/2	1 3/4

**PLAN**  
1" = 20'

NOTES:  
 X = 5' STATION INCREMENT MEASURED ALONG STATION LINE  
 CONTOURS DO NOT INCLUDE CAMBER  
 CONTOUR INTERVAL = .05'



**CAMBER DIAGRAM**  
No Scale

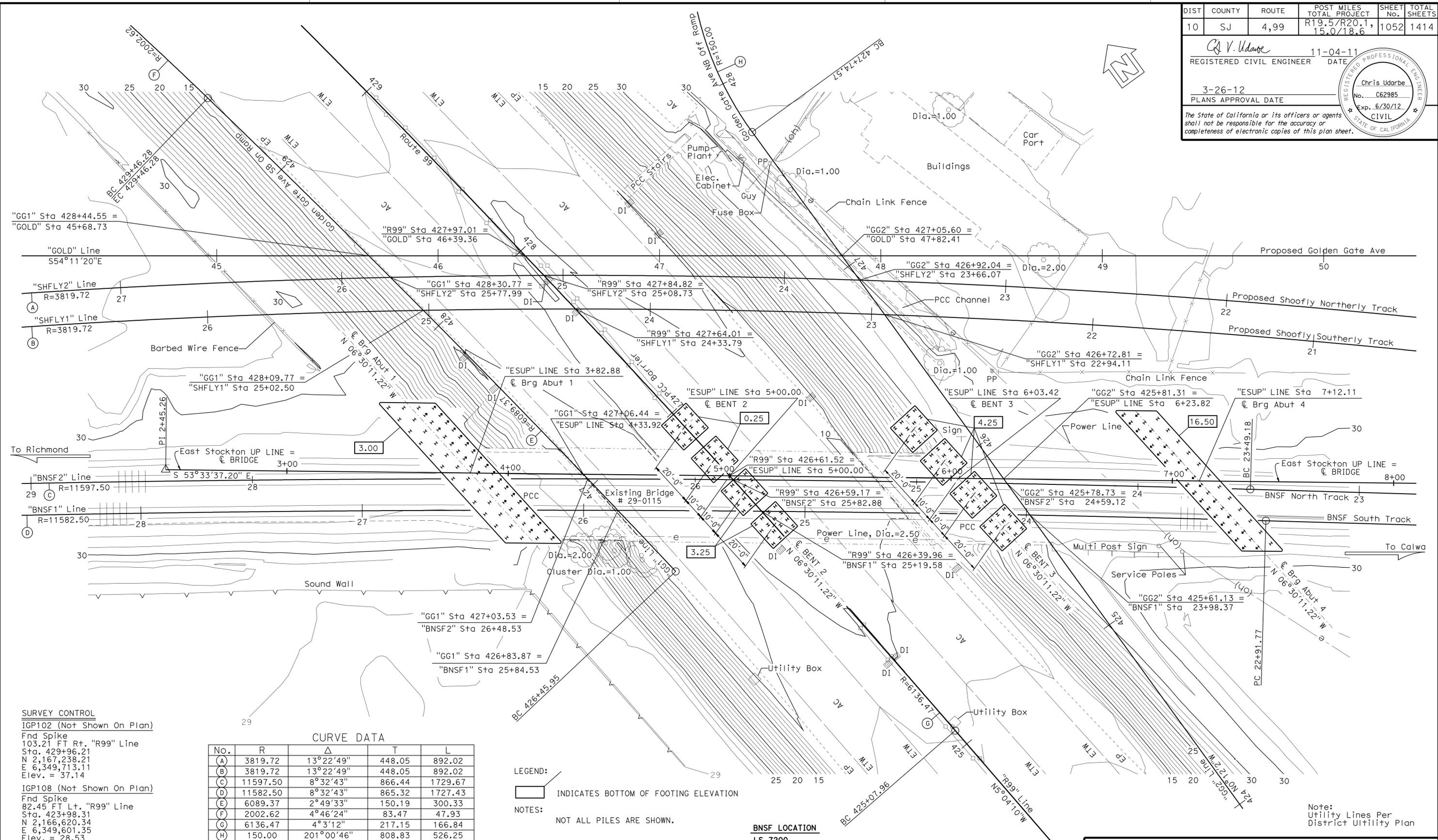
BNSF LOCATION  
 LS 7200  
 MP 1118.20

**SOUTH STOCKTON WIDENING  
 EAST STOCKTON UNDERPASS  
 DECK CONTOURS**

DESIGN BY R. Simmons	CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0326
DETAILS BY E. Montevirgen	CHECKED R. Simmons			POST MILE 17.39
QUANTITIES BY R. Simmons	CHECKED Yong-Pil Kim			

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1052	1414

C. V. Udabe  
 REGISTERED CIVIL ENGINEER  
 11-04-11 DATE  
 3-26-12 PLANS APPROVAL DATE  
 Chris Udabe  
 REGISTERED PROFESSIONAL ENGINEER  
 No. C62985  
 Exp. 6/30/12  
 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.



**SURVEY CONTROL**  
 IGP102 (Not Shown On Plan)  
 Fnd Spike  
 103.21 FT Rt. "R99" Line  
 Sta. 429+96.21  
 N 2,167,238.21  
 E 6,349,713.11  
 Elev. = 37.14  
 IGP108 (Not Shown On Plan)  
 Fnd Spike  
 82.45 FT Lt. "R99" Line  
 Sta. 423+98.31  
 N 2,166,620.34  
 E 6,349,601.35  
 Elev. = 28.53

**CURVE DATA**

No.	R	Δ	T	L
(A)	3819.72	13°22'49"	448.05	892.02
(B)	3819.72	13°22'49"	448.05	892.02
(C)	11597.50	8°32'43"	866.44	1729.67
(D)	11582.50	8°32'43"	865.32	1727.43
(E)	6089.37	2°49'33"	150.19	300.33
(F)	2002.62	4°46'24"	83.47	47.93
(G)	6136.47	4°3'12"	217.15	166.84
(H)	150.00	201°00'46"	808.83	526.25

**LEGEND:**  
 [Symbol] INDICATES BOTTOM OF FOOTING ELEVATION  
**NOTES:**  
 NOT ALL PILES ARE SHOWN.

**BNSF LOCATION**  
 LS 7200  
 MP 1118.20

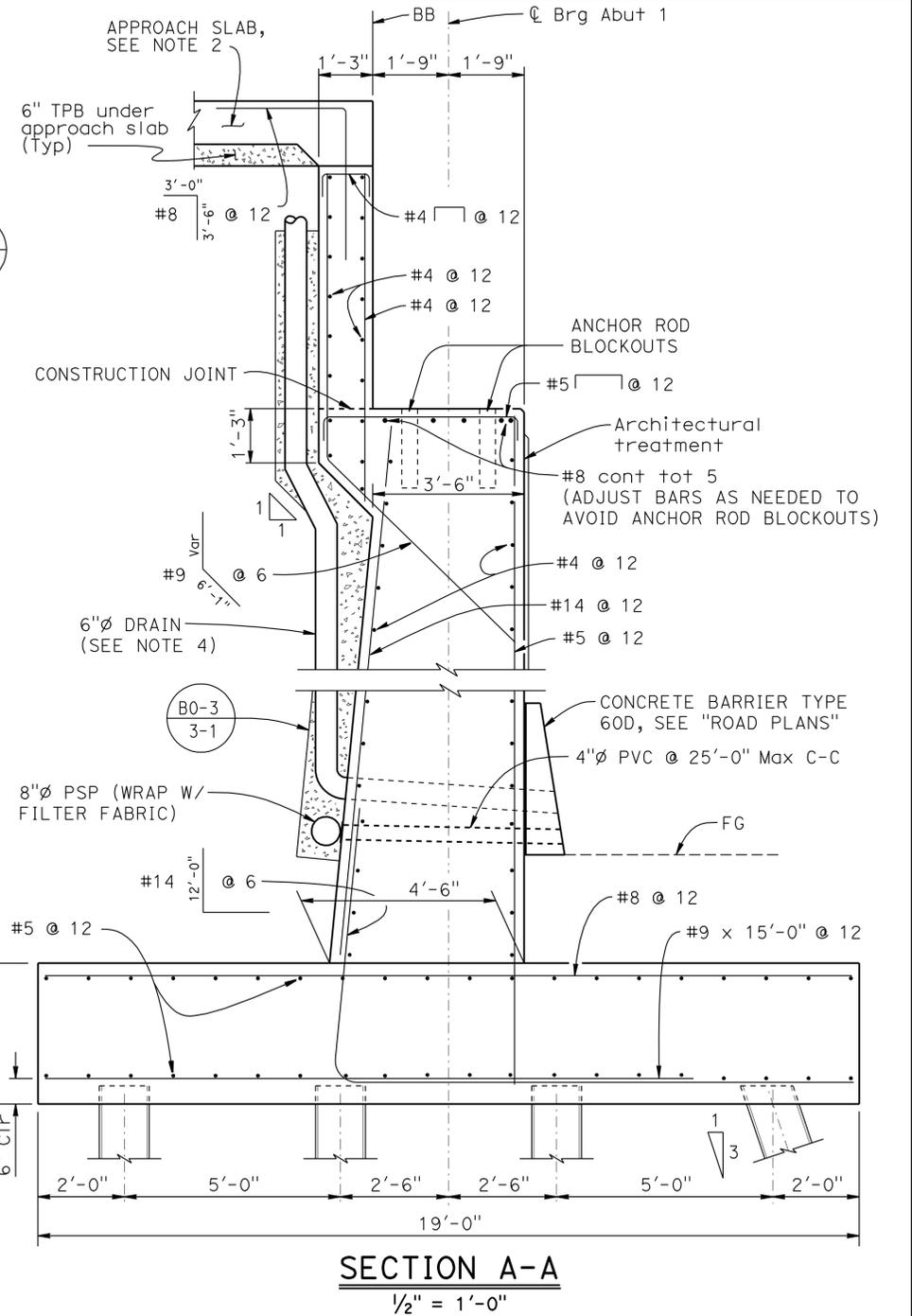
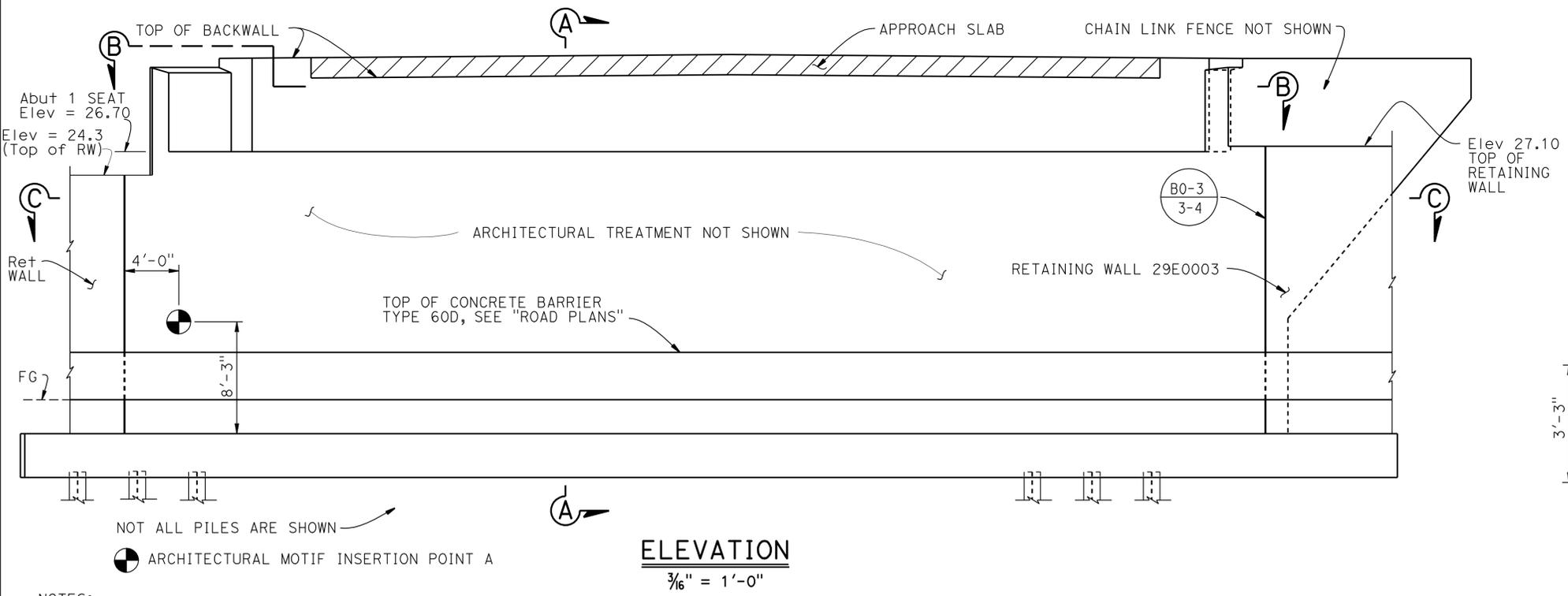
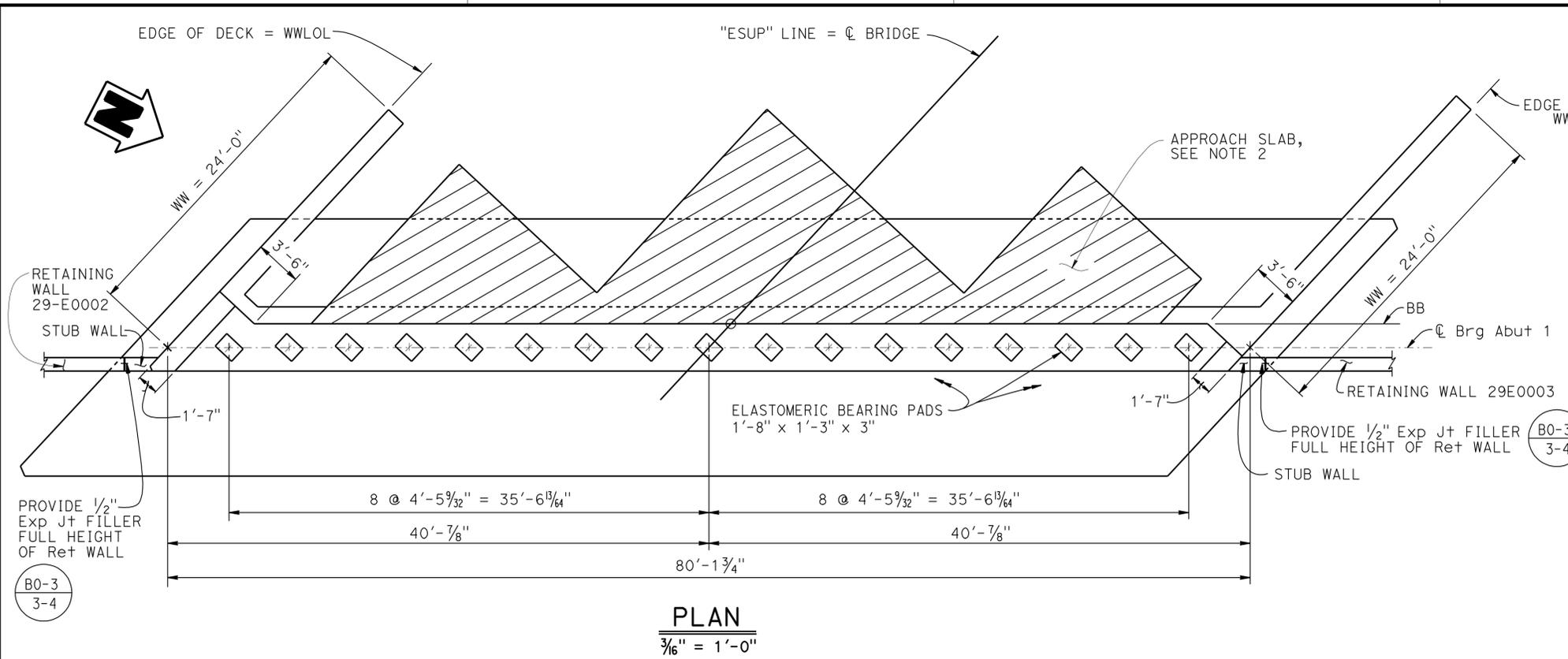
Note:  
 Utility Lines Per  
 District Utility Plan

<b>PRELIMINARY INVESTIGATION SECTION</b>			DESIGN BY R. Simmons	CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DIVISION OF ENGINEERING SERVICES</b> <b>STRUCTURE DESIGN</b> <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0326	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>FOUNDATION PLAN</b>
SCALE 1"=20'	VERT. DATUM NGVD29	PHOTOGRAMMETRY AS OF: X	DETAILS BY E. Montevirgen	CHECKED R. Simmons			POST MILE 17.39	
ALIGNMENT TIES Dist. Traverse Sheet	SURVEYED BY District/T. Gillett	CHECKED BY T. Gillett 9/2009	QUANTITIES BY R. Simmons	CHECKED Yong-Pil Kim				

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS  
 UNIT: 3646 PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 10-3A1001  
 DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
9/14/09	4	37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1053	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			CHRS V. UDARBE No. 62985 Exp. 6-30-12 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.					



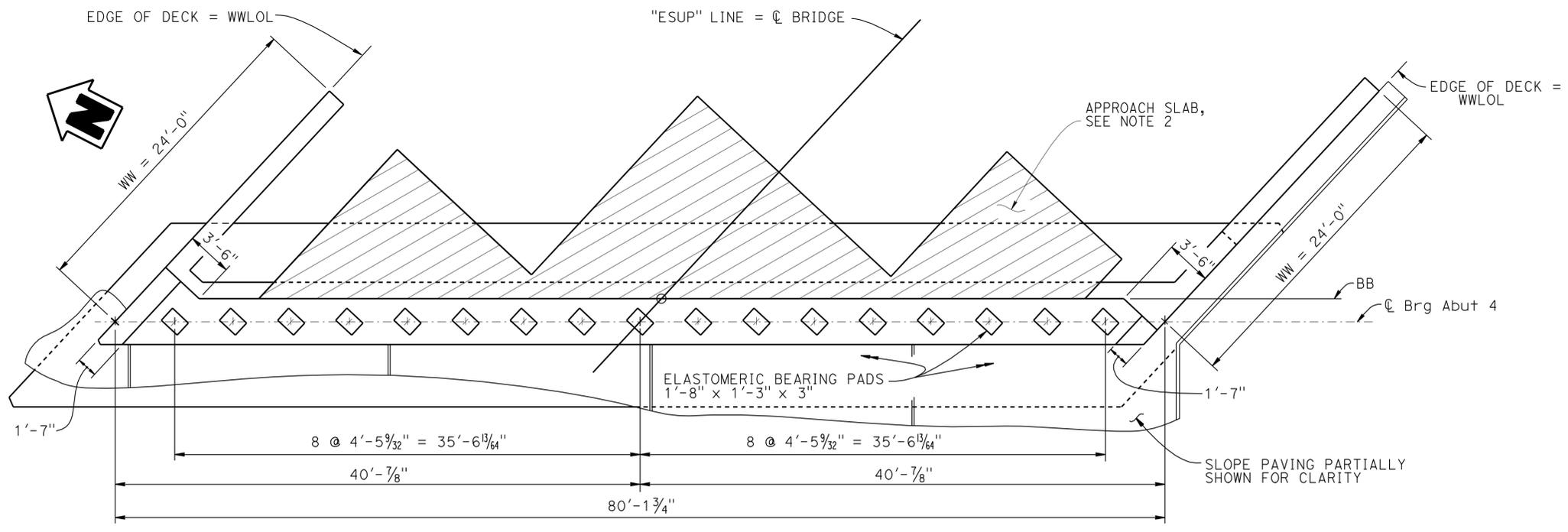
- NOTES:
1. FOR FOOTING LAYOUT, SEE "ABUTMENT DETAILS NO. 1" SHEET.
  2. SEE "DECK DETAILS" SHEET FOR DIMENSIONS AND REINFORCEMENT DETAILS ON APPROACH SLAB.
  3. FOR SECTION B-B AND C-C SEE "ABUTMENT DETAILS NO. 2" SHEET.
  4. FOR DECK DRAINAGE DETAILS, SEE "DECK DRAINAGE LAYOUT AND DETAILS" SHEET.

BNSF LOCATION  
LS 7200  
MP 1118.20

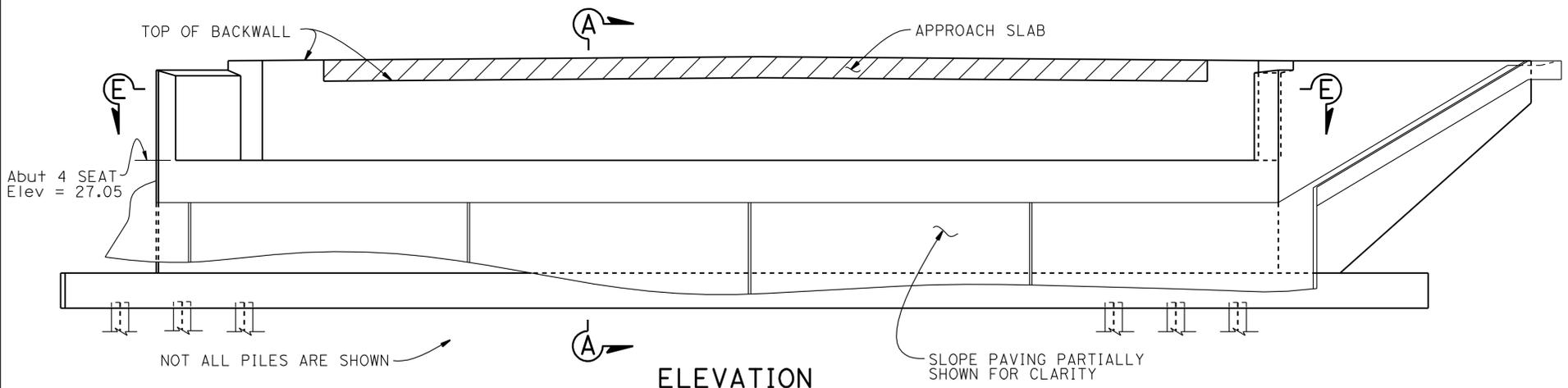
DESIGN BY R. Simmons CHECKED Yong-Pil Kim		<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0326	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>ABUTMENT 1 LAYOUT</b>
DETAILS BY E. Montevirgen CHECKED R. Simmons				POST MILE 17.39	
QUANTITIES BY R. Simmons CHECKED Yong-Pil Kim					
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)					
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				REVISION DATES	SHEET 5 OF 37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1054	1414

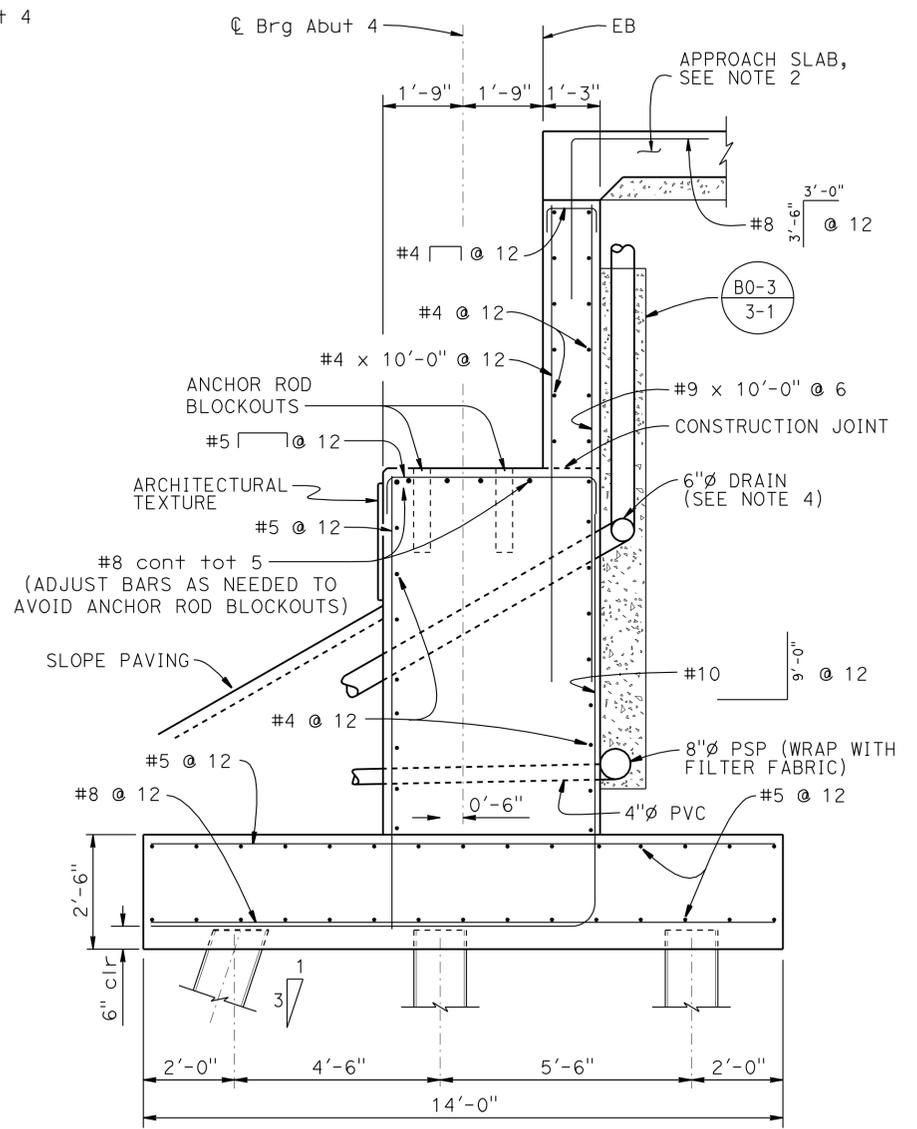
C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



**PLAN**  
3/16" = 1'-0"



**ELEVATION**  
3/16" = 1'-0"



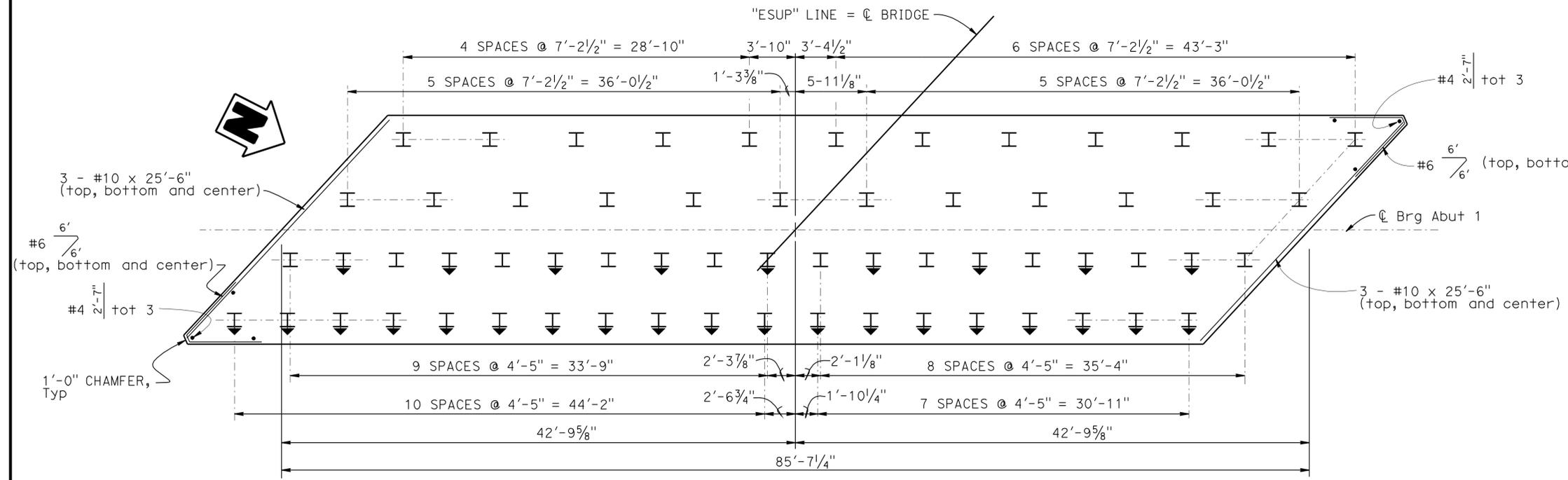
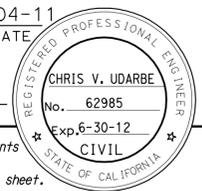
**SECTION A-A**  
1/2" = 1'-0"

- NOTES:
- FOR FOOTING LAYOUT, SEE "ABUTMENT DETAILS NO. 1" SHEET.
  - SEE "DECK DETAILS" SHEET FOR DIMENSIONS AND REINFORCEMENT DETAILS ON APPROACH SLAB.
  - FOR SECTION E-E, SEE "ABUTMENT DETAILS NO. 3" SHEET.
  - FOR DECK DRAINAGE DETAILS, SEE "DECK DRAINAGE LAYOUT AND DETAILS" SHEET.

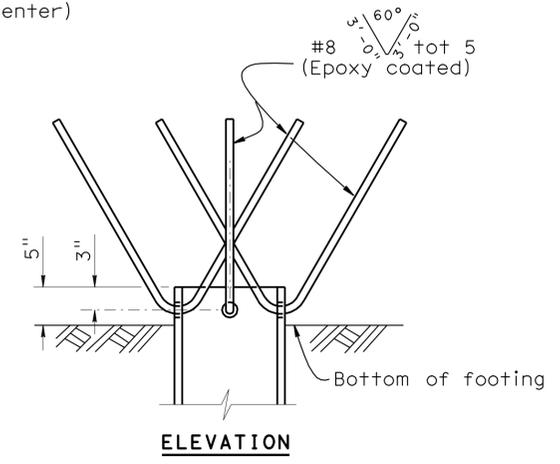
BNSF LOCATION  
LS 7200  
MP 1118.20

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0326	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>ABUTMENT 4 LAYOUT</b>	
	DETAILS	BY E. Montevirgen	CHECKED R. Simmons			POST MILE	17.39		
	QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim			CONTRACT NO.:	10-3A1001		
UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091						DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 2-15-11 6-9-11 3-01-12	SHEET 6 OF 37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1055	1414
			REGISTERED CIVIL ENGINEER	DATE	
			3-26-12	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.					

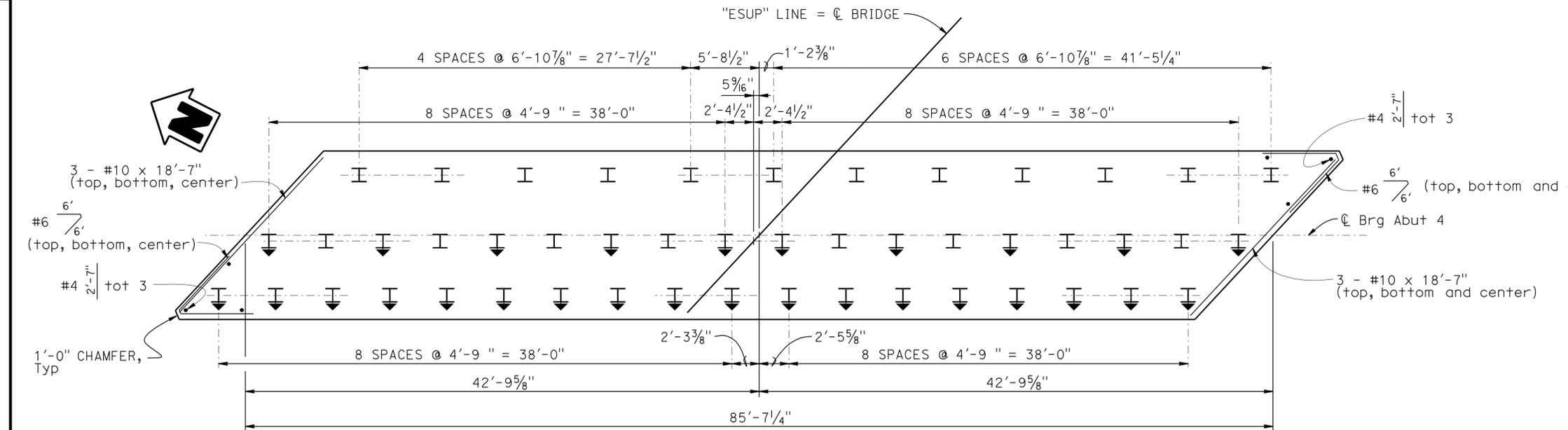


**FOOTING PLAN - Abut 1**  
3/16" = 1'-0"



**(200 kip Pile) STEEL PILE ANCHOR**  
DESIGN CAPACITY:  
Tension = 200 kips (Nominal axial resistance)

- NOTES:
- I INDICATES VERTICAL HP 14 x 89 PILES.
  - ⌋ INDICATES BATTERED HP 14 x 89 PILES.
- SEE SECTION A-A ON "ABUTMENT 1 LAYOUT" AND "ABUTMENT 4 LAYOUT" SHEETS FOR FOOTING REINFORCEMENT NOT SHOWN

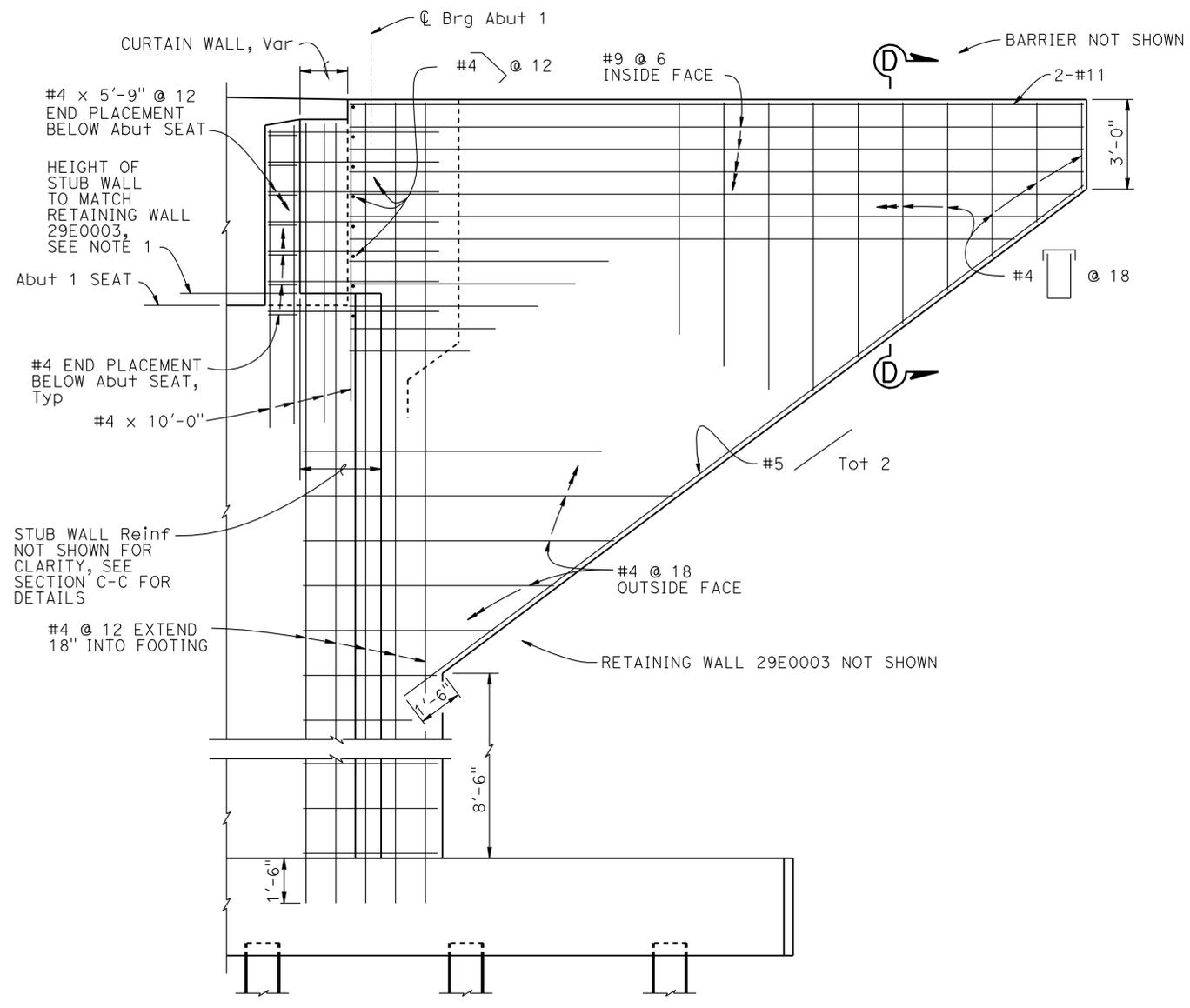


**FOOTING PLAN - Abut 4**  
3/16" = 1'-0"

BNSF LOCATION  
LS 7200  
MP 1118.20

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO.	29-0326		<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>ABUTMENT DETAILS NO. 1</b>			
DETAILS	BY E. Montevirgen	CHECKED R. Simmons			POST MILE	17.39					
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim									
										REVISION DATES	SHEET 7 OF 37

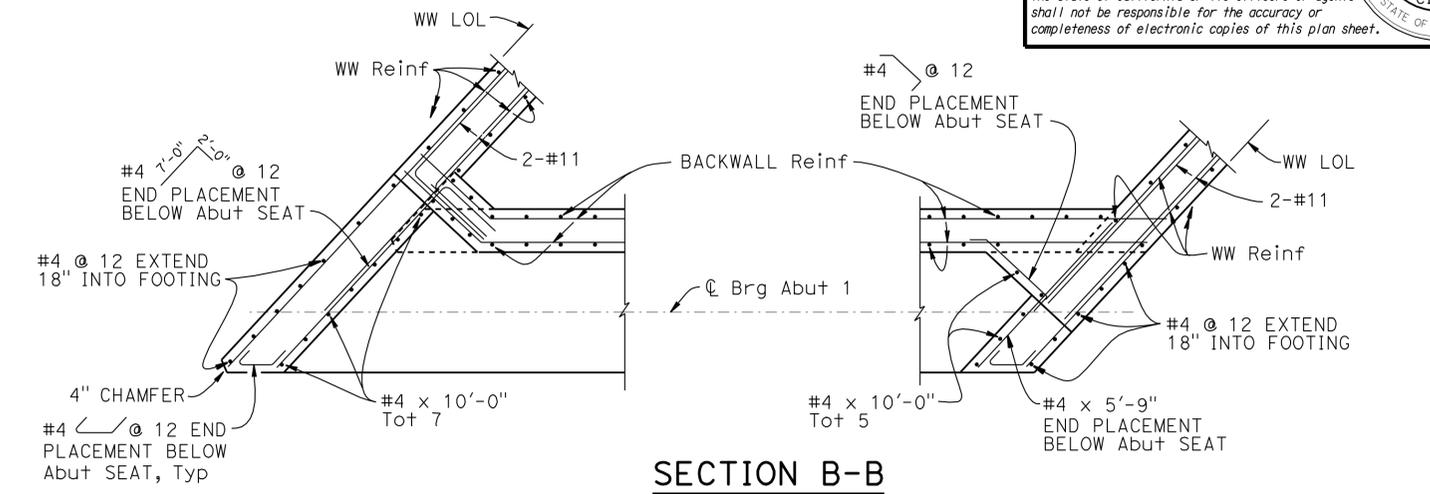
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1056	1414
REGISTERED CIVIL ENGINEER CHRIS V. UDARBE No. 62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA			11-04-11 DATE 3-26-12 PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



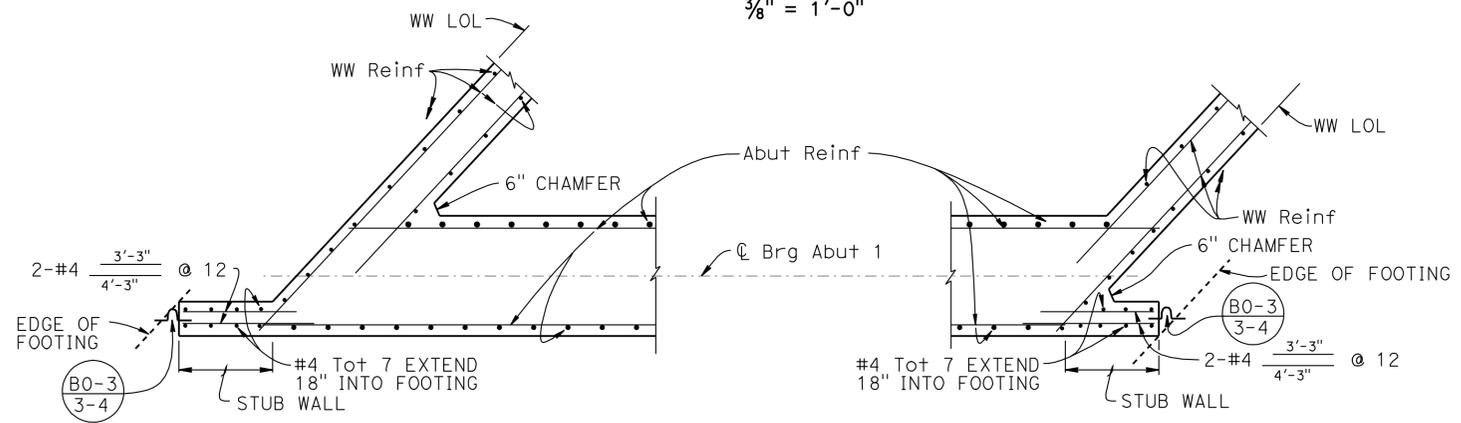
**Abut 1 WINGWALL ELEVATION**  
 $\frac{3}{8}'' = 1'-0''$

Abut 1 LEFT SHOWN, Abut 1 RIGHT SIMILAR EXCEPT AS NOTED

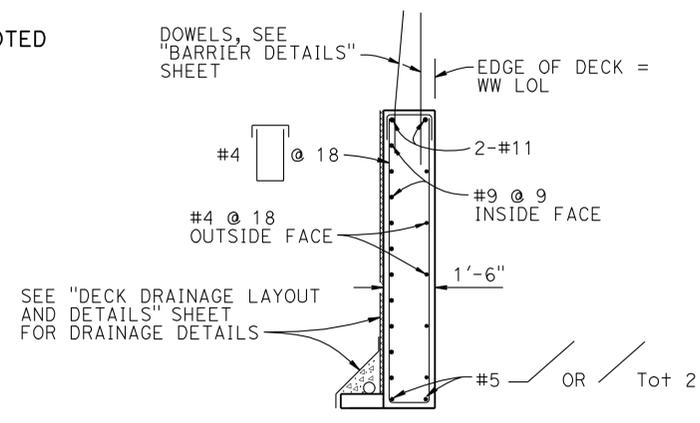
- NOTES:
1. FOR RETAINING WALL 29E0003, SEE "CONNECTING WALL" PLANS FOR DETAILS.
  2. FOR LOCATION OF SECTIONS B-B AND C-C, SEE "ABUTMENT 1 LAYOUT" SHEET.



**SECTION B-B**  
 $\frac{3}{8}'' = 1'-0''$



**SECTION C-C**  
 $\frac{3}{8}'' = 1'-0''$



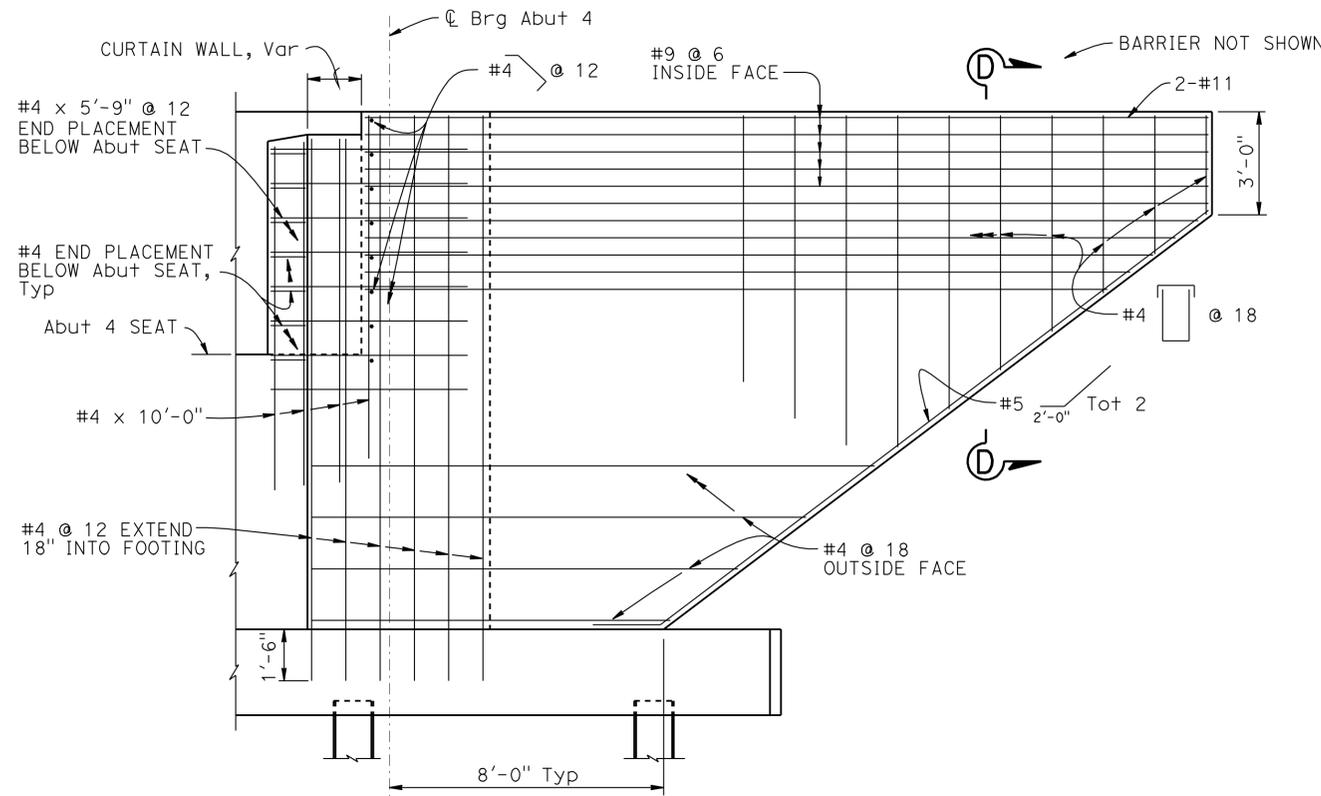
**SECTION D-D**  
 $\frac{3}{8}'' = 1'-0''$

BNSF LOCATION  
 LS 7200  
 MP 1118.20

DESIGN BY R. Simmons CHECKED Yong-Pil Kim DETAILS BY E. Montevirgen CHECKED R. Simmons QUANTITIES BY R. Simmons CHECKED Yong-Pil Kim				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0326 POST MILE 17.39		<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>ABUTMENT DETAILS NO. 2</b>	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3		10-3A1001		3-15-11 11-04-11 3-01-12		SHEET 8 OF 37	

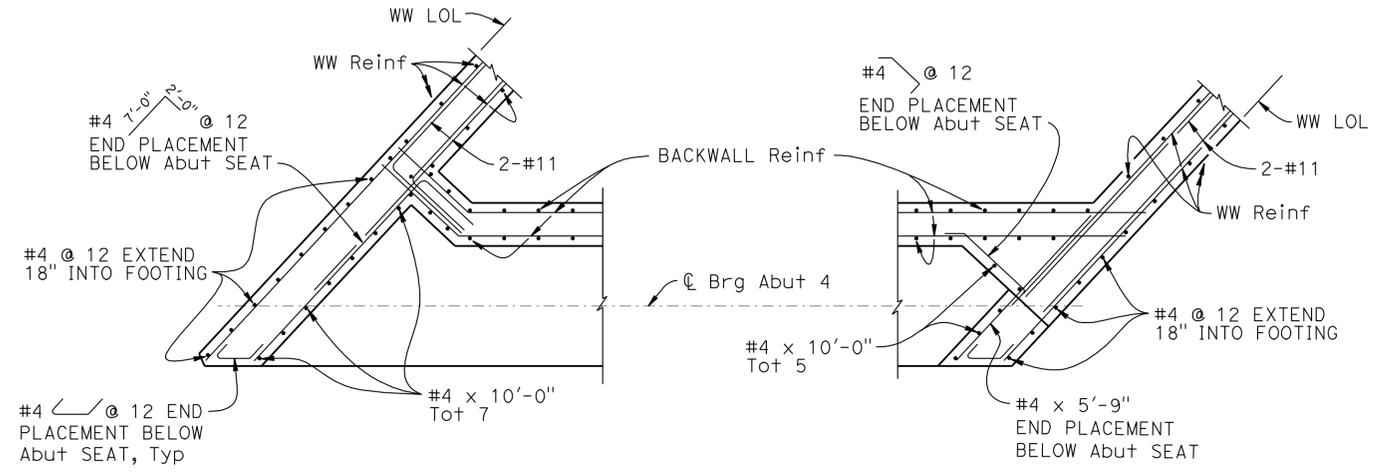
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1057	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

- NOTES:
- FOR LOCATION OF SECTION E-E, SEE "ABUTMENT 4 LAYOUT" SHEET.
  - FOR SECTION D-D, SEE "ABUTMENT DETAILS NO. 2" SHEET.



**Abut 4 WINGWALL ELEVATION**

$\frac{3}{8}'' = 1'-0''$   
Abut 4 RIGHT SHOWN, Abut 4 LEFT SIMILAR EXCEPT AS NOTED



**SECTION E-E**

$\frac{3}{8}'' = 1'-0''$

BNSF LOCATION  
LS 7200  
MP 1118.20

**SOUTH STOCKTON WIDENING  
EAST STOCKTON UNDERPASS  
ABUTMENT DETAILS NO. 3**

DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim
DETAILS	BY E. Montevirgen	CHECKED R. Simmons
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

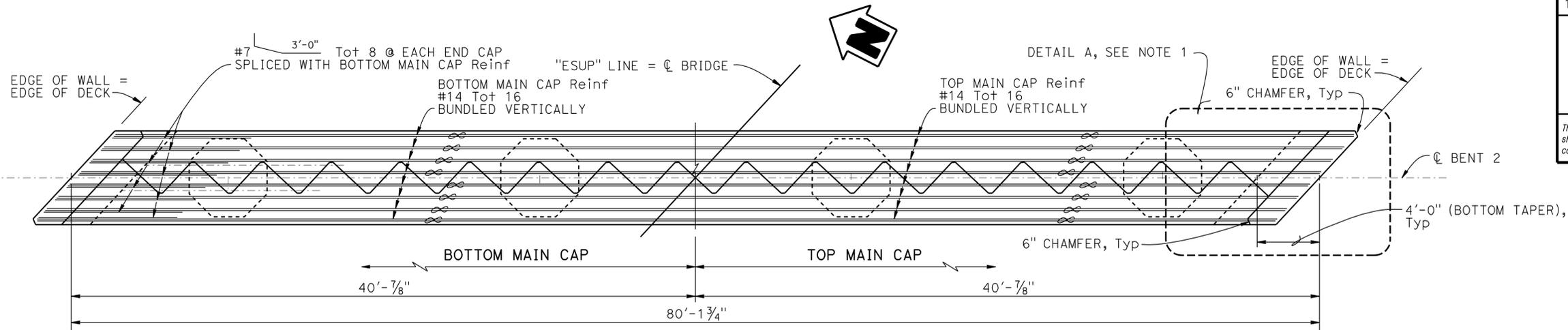
DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0326
POST MILE	17.39

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1058	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

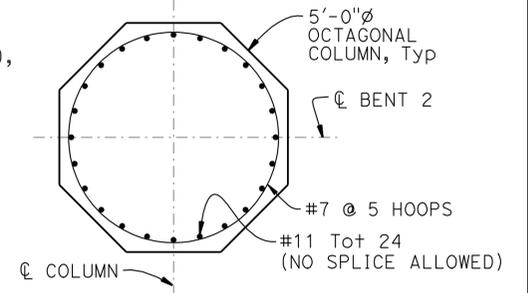
REGISTERED PROFESSIONAL ENGINEER  
 CHRIS V. UDARBE  
 No. 62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA



**PLAN**

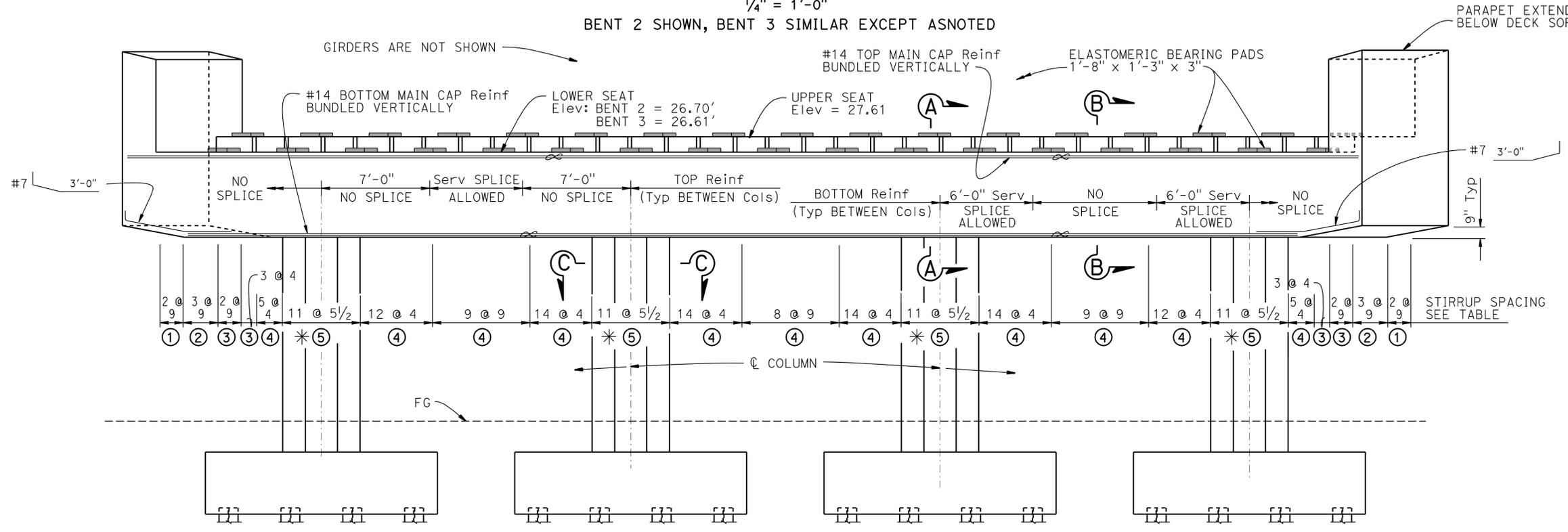
1/4" = 1'-0"

BENT 2 SHOWN, BENT 3 SIMILAR EXCEPT AS NOTED



**SECTION C-C**

1/2" = 1'-0"



**ELEVATION**

1/4" = 1'-0"

BENT 2 SHOWN, BENT 3 SIMILAR EXCEPT AS NOTED

STIRRUP TABLE	
①	#7 Var 1'-11"
②	#7 Var 1'-11"
③	#7 1'-11" 4'-0" 1'-11"
④	#7 1'-11" 4'-0" 1'-11"
⑤	#7 2'-10" 1'-6", Typ

\* ADJUST SPACING AT COLUMN LOCATION AS REQUIRED TO AVOID COLUMN REINFORCEMENT

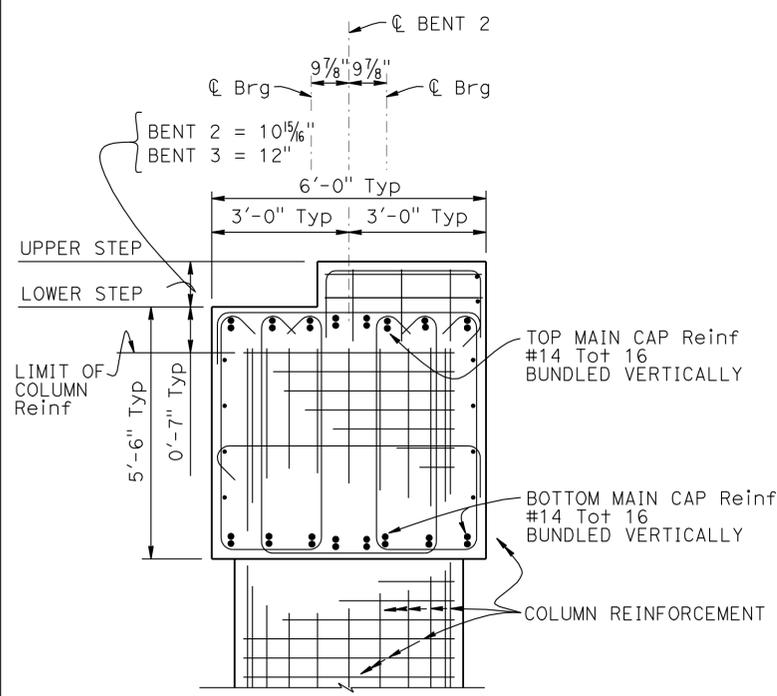
- NOTES:
- FOR PARAPET AND CORNER REINFORCEMENT DETAILS, SEE DETAIL A ON "BENT DETAILS" SHEET.
  - FOR SECTIONS A-A AND B-B, SEE "BENT DETAILS" SHEET.
  - FOR FOOTING DETAILS, SEE "BENT DETAILS" SHEET.

BNSF LOCATION  
LS 7200  
MP 1118.20

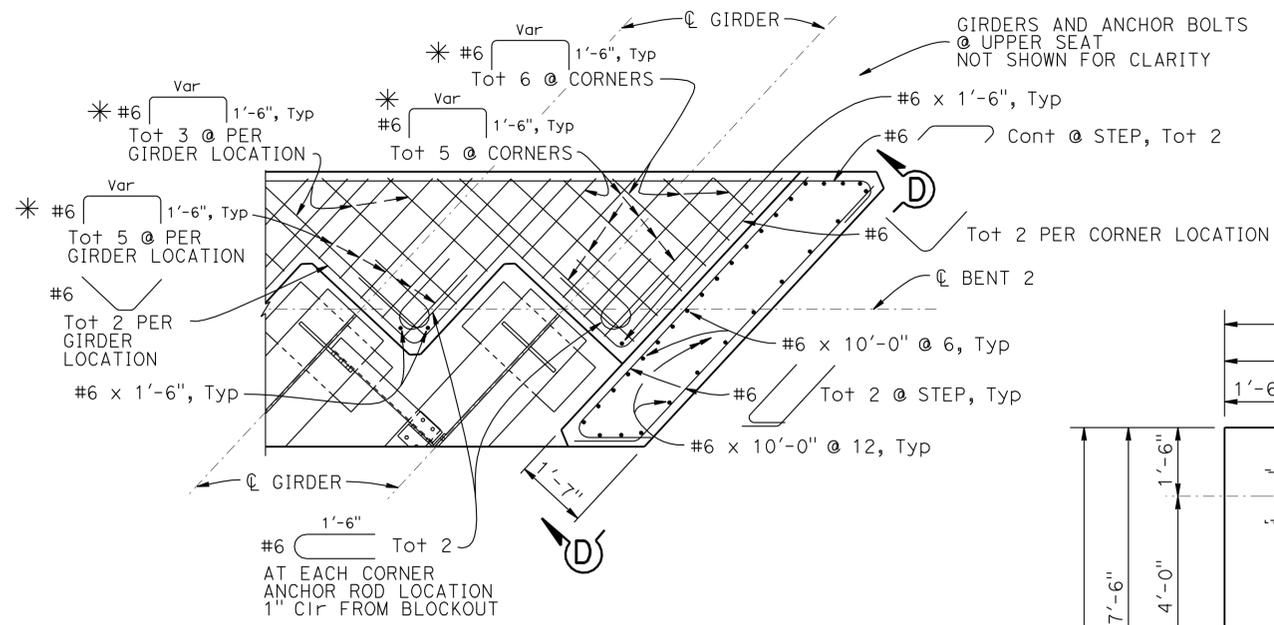
**SOUTH STOCKTON WIDENING**  
**EAST STOCKTON UNDERPASS**  
**BENT LAYOUT**

DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0326
DETAILS	BY E. Montevirgen	CHECKED R. Simmons			POST MILE	17.39
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim				

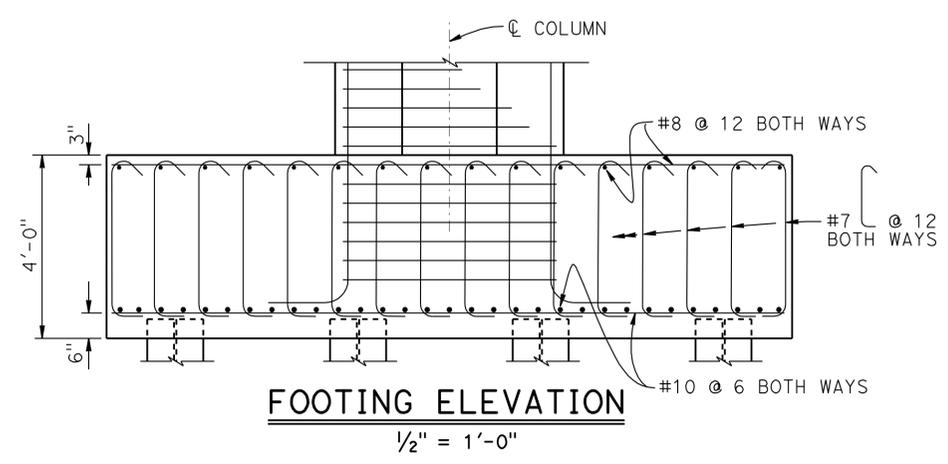
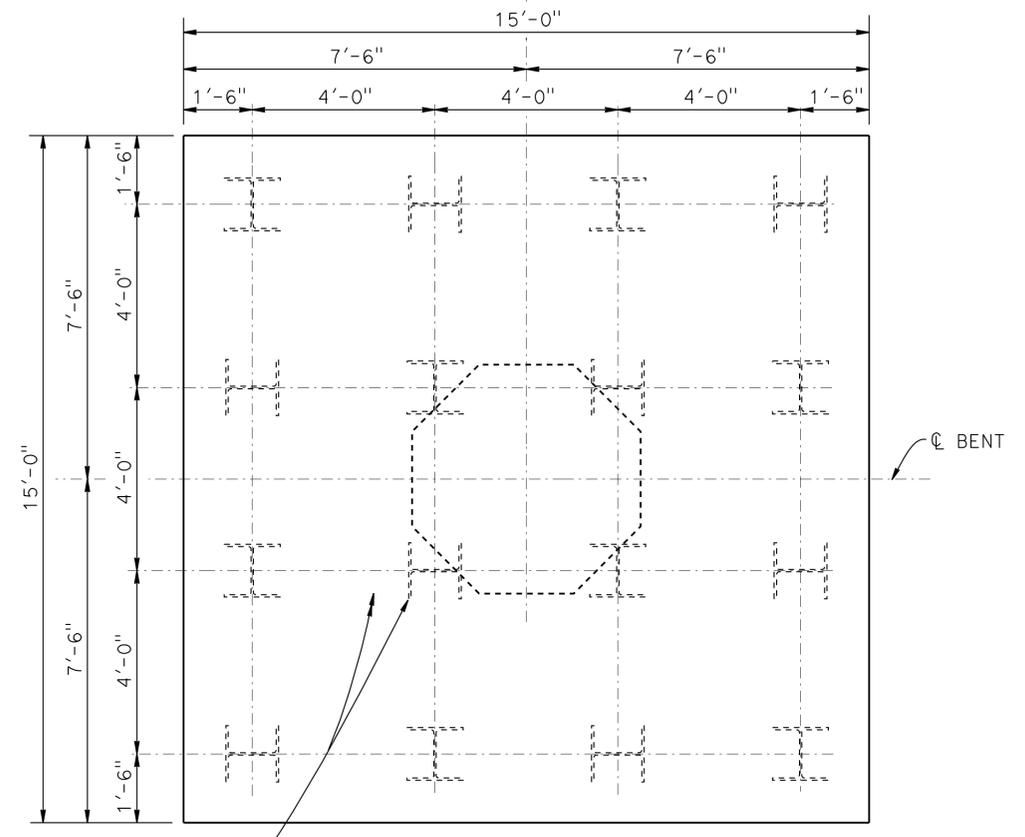
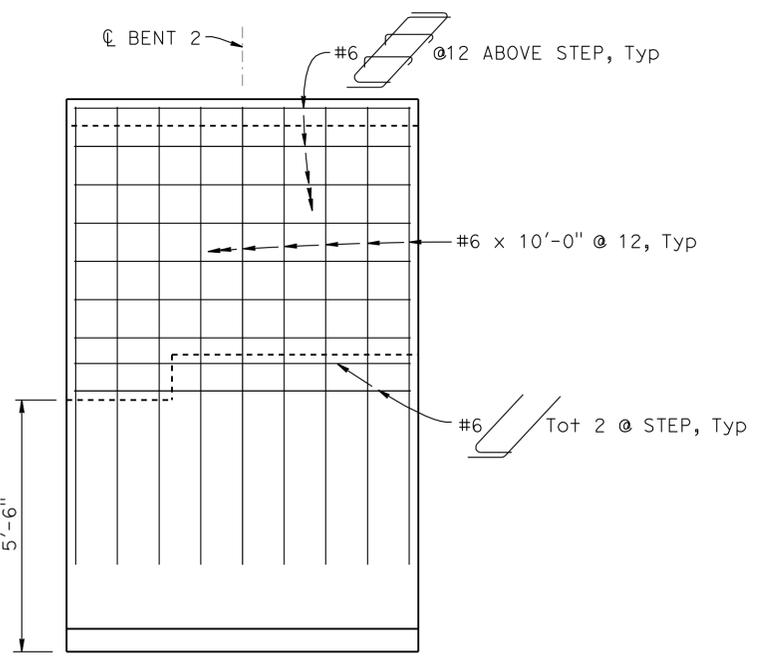
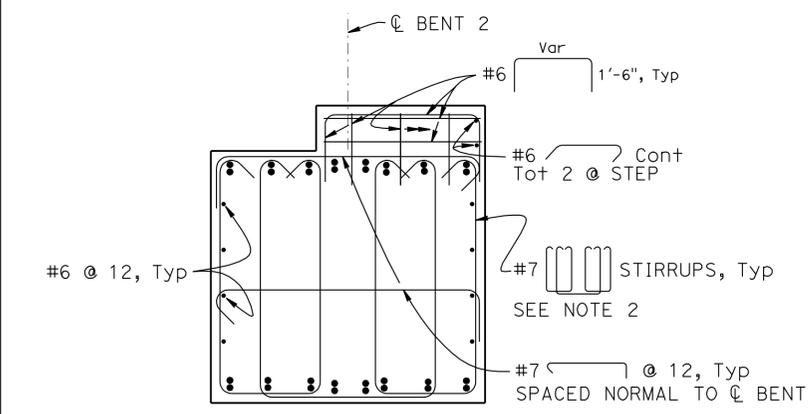
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1059	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			10-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



BENT 2 SHOWN, BENT 3 SIMILAR EXCEPT AS NOTED



\* ADJUST REINFORCEMENT SPACING TO AVOID ANCHOR BOLT BLOCKOUTS  
BENT 2 SHOWN, BENT 3 SIMILAR EXCEPT AS NOTED



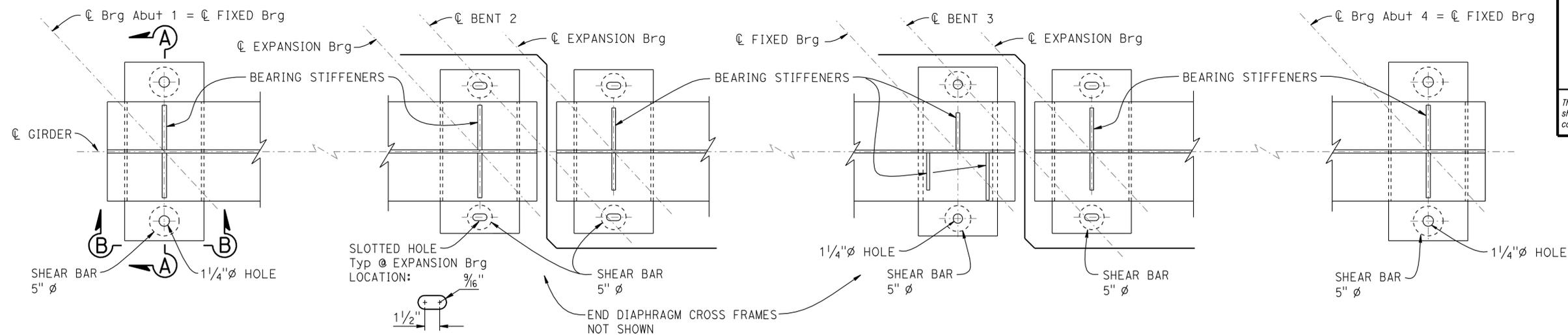
- NOTES:
- FOR LOCATIONS OF SECTIONS A-A AND B-B, SEE "BENT LAYOUT" SHEET.
  - FOR STIRRUP SPACING, SEE "BENT LAYOUT" SHEET.

BNSF LOCATION  
LS 7200  
MP 1118.20

DESIGN BY R. Simmons CHECKED Yong-Pil Kim		<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0326	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>BENT DETAILS</b>		
DETAILS BY E. Montevirgen CHECKED R. Simmons				POST MILE 17.39			
QUANTITIES BY R. Simmons CHECKED Yong-Pil Kim							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 3-14-11 6-24-11 5-01-12	SHEET 11 OF 37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1060	1414

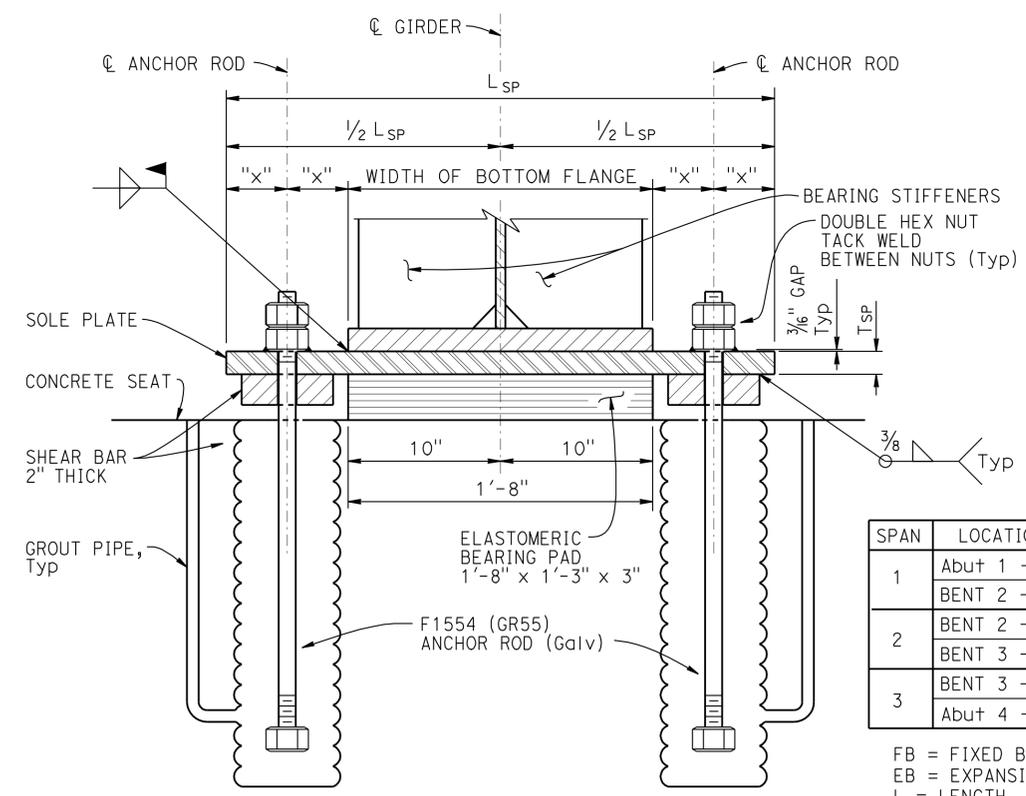
REGISTERED CIVIL ENGINEER  
 DATE 11-04-11  
 3-26-12  
 PLANS APPROVAL DATE  
 No. 62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



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

NOTES:

- THE LOCATION OF THE ANCHOR RODS IN RELATION TO THE SLOTTED HOLES IN THE SOLE PLATE SHALL BE ADJUSTED ACCORDING TO THE TEMPERATURE AT THE TIME OF GROUTING THE ANCHOR RODS. AT 70°F, THE CENTERLINE OF THE ANCHOR ROD EQUALS CENTERLINE OF SLOTTED HOLES.  
 OFFSET FROM CENTERLINE OF HOLE TO CENTERLINE OF ROD =  $\frac{T-70}{50}$  (0.6) INCHES (T=TEMPERATURE (F°))

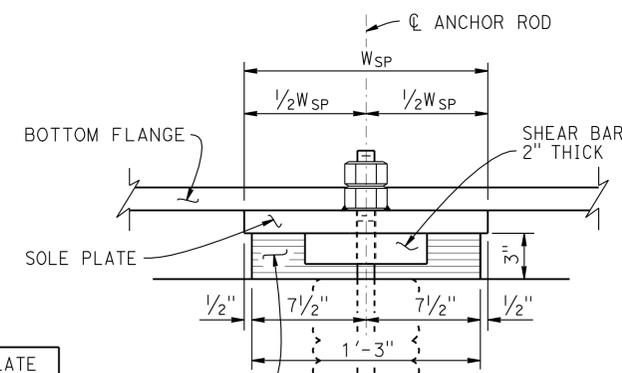


**SECTION A-A**  
2" = 1'-0"

ABUTMENT 1 SHOWN, ABUTMENT 4 SIMILAR EXCEPT AS NOTED SEE TABLE FOR OTHER SOLE PLATE SIZES ON BENTS 2 AND 3

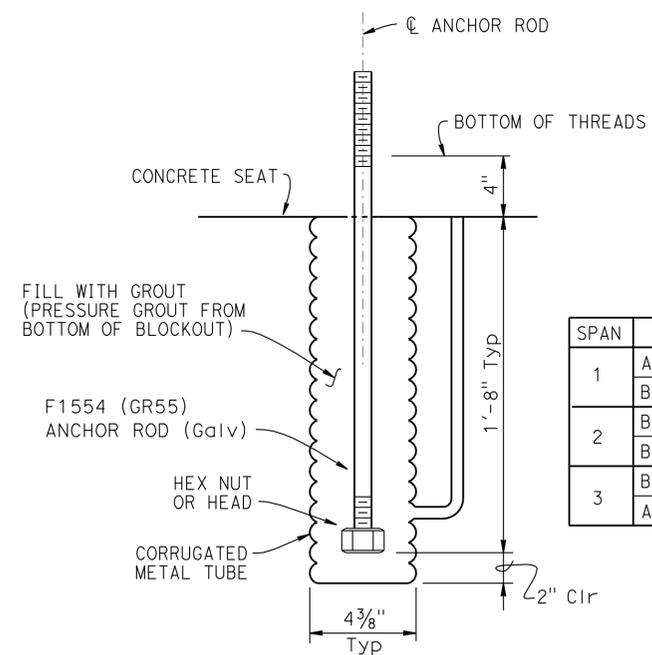
SP=SOLE PLATE				
SPAN	LOCATION	L	W	T
1	Abut 1 - FB	2'-9"	1'-4"	1 1/2"
	BENT 2 - EB	2'-9"	1'-4"	1 1/2"
2	BENT 2 - EB	2'-9"	1'-4"	1 1/4"
	BENT 3 - FB	2'-9"	1'-4"	1 1/4"
3	BENT 3 - EB	2'-9"	1'-4"	1 1/4"
	Abut 4 - FB	2'-9"	1'-4"	1 1/4"

FB = FIXED BRG  
 EB = EXPANSION BRG  
 L = LENGTH  
 W = WIDTH  
 T = THICKNESS



**VIEW B-B**  
2" = 1'-0"

BNSF LOCATION  
 LS 7200  
 MP 1118.20



**TYPICAL ANCHOR ROD BLOCKOUT**  
2" = 1'-0"

SPAN	LOCATION	ROD Ø
1	Abut 1 - FB	1 1/8"
	BENT 2 - EB	1"
2	BENT 2 - EB	1"
	BENT 3 - FB	1 1/8"
3	BENT 3 - EB	1"
	Abut 4 - FB	1 1/8"

**SOUTH STOCKTON WIDENING**

**EAST STOCKTON UNDERPASS**

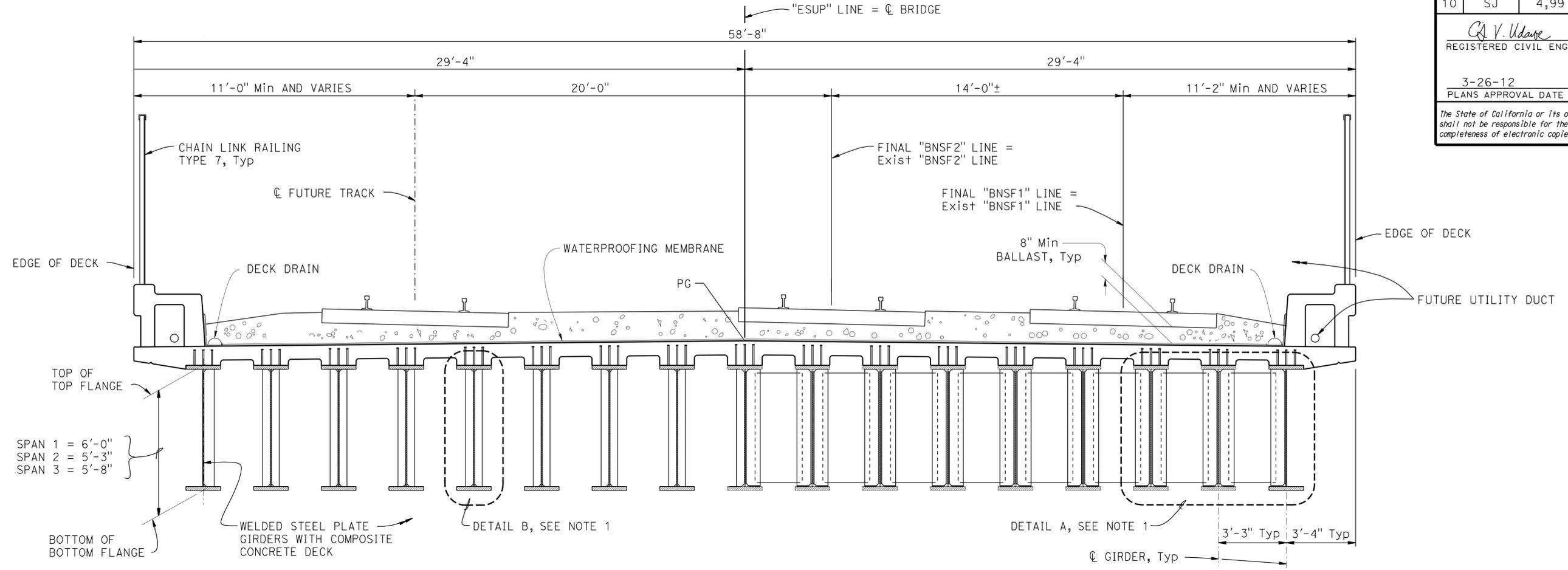
**ANCHOR ROD DETAILS**

DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0326
DETAILS	BY E. Montevirgen	CHECKED R. Simmons			POST MILE	17.39
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1061	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER  
 CHRIS V. UDARBE  
 No. 62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA

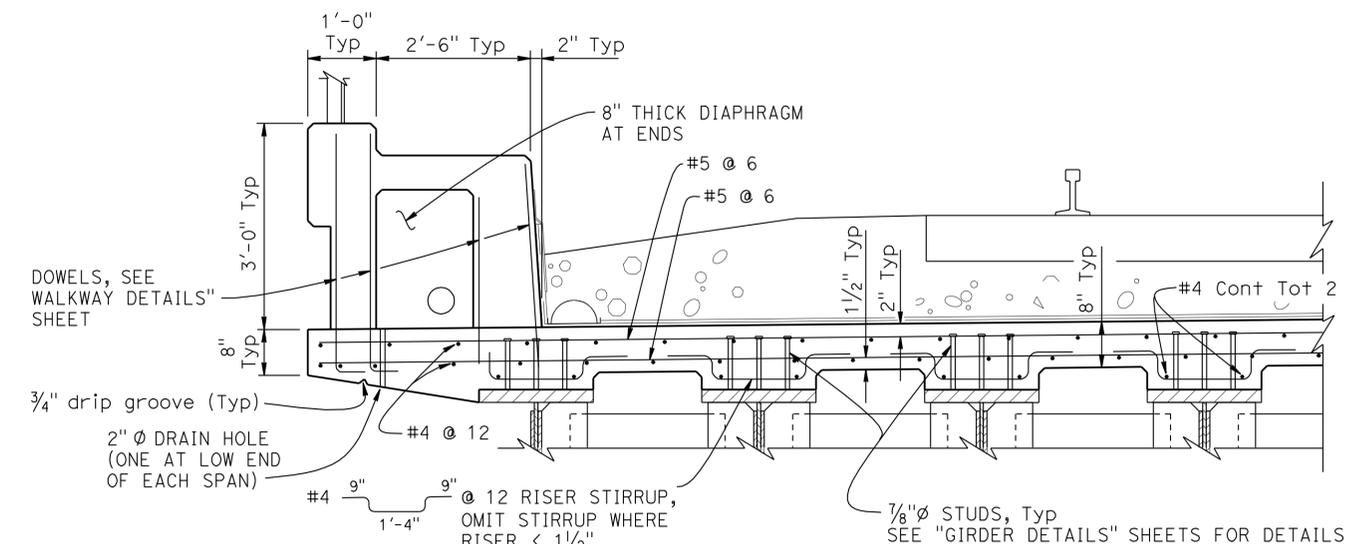


**STIFFENERS**

**INTERMEDIATE CROSS FRAMES**

**TYPICAL SECTION**  
 $\frac{3}{8}'' = 1'-0''$

NOTES:  
 1. FOR DETAILS A AND B, SEE "GIRDER DETAILS NO.3" SHEET.



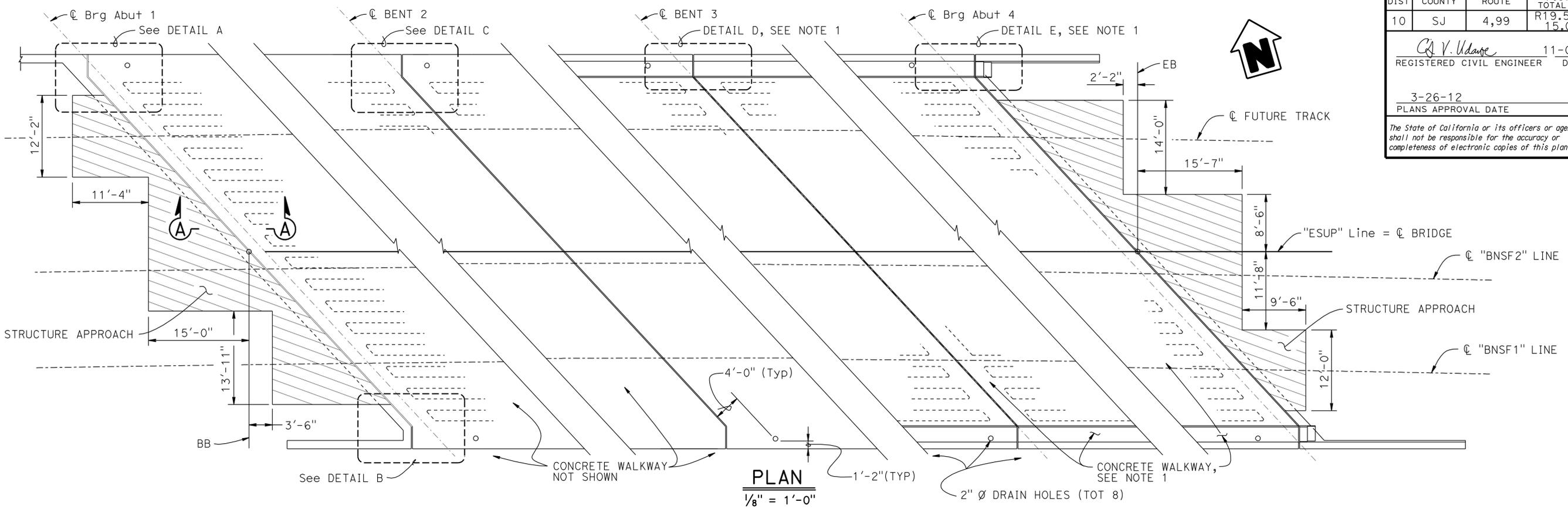
**PART TYPICAL SECTION**  
 $\frac{3}{4}'' = 1'-0''$

**BNSF LOCATION**  
 LS 7200  
 MP 1118.20

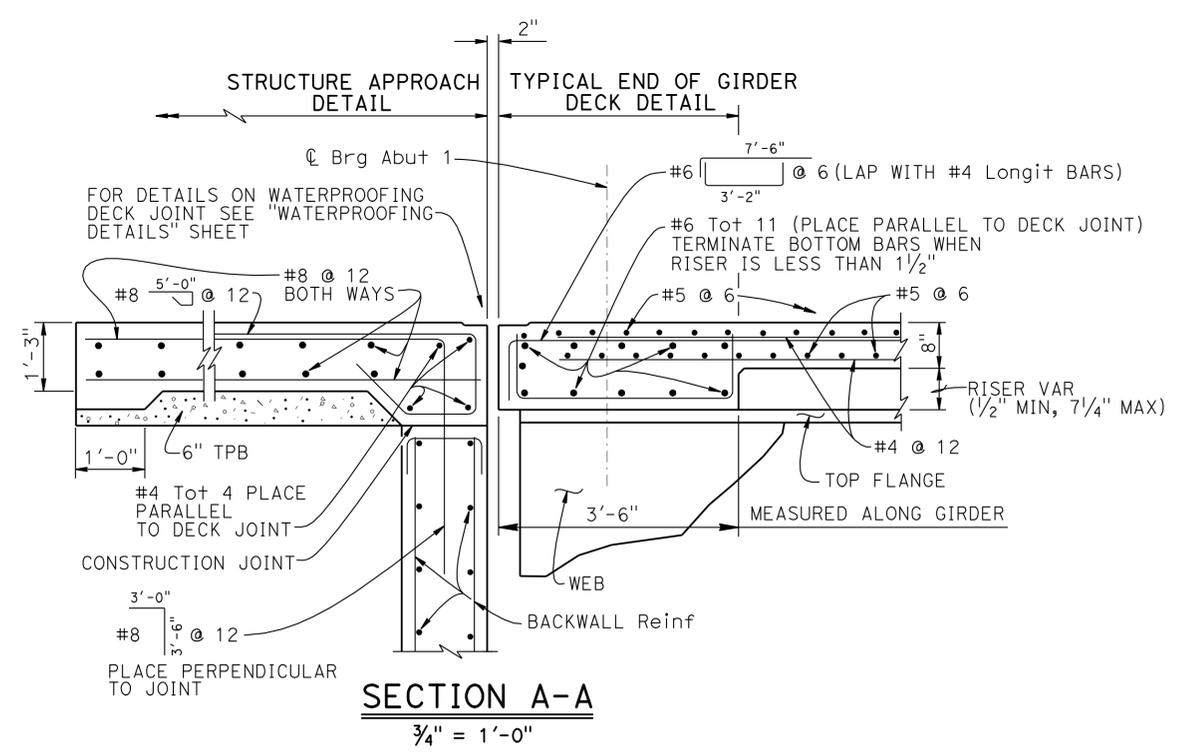
DESIGN BY R. Simmons CHECKED Yong-Pil Kim DETAILS BY E. Montevirgen CHECKED R. Simmons QUANTITIES BY R. Simmons CHECKED Yong-Pil Kim				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0326 POST MILE 17.39	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>TYPICAL SECTION</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES
						REVISION DATES	SHEET OF 13 37

USERNAME => s109858 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 14:05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1062	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
			REGISTERED PROFESSIONAL ENGINEER		
			CHRIS V. UDARBE		
			No. 62985		
			Exp. 6-30-12		
			CIVIL		
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.					

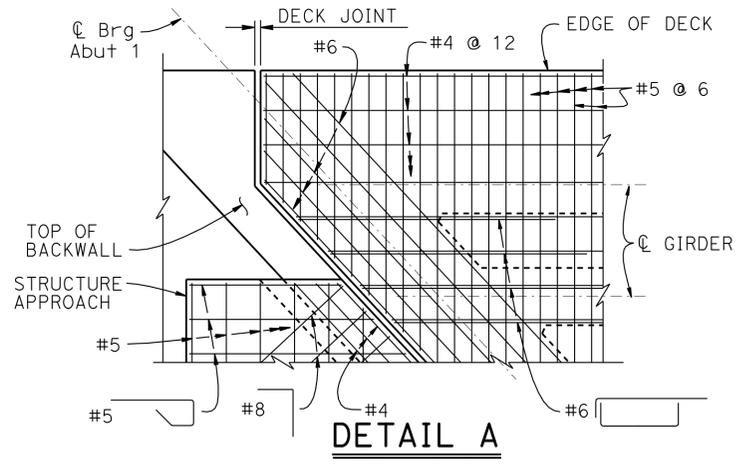


**PLAN**  
1/8" = 1'-0"

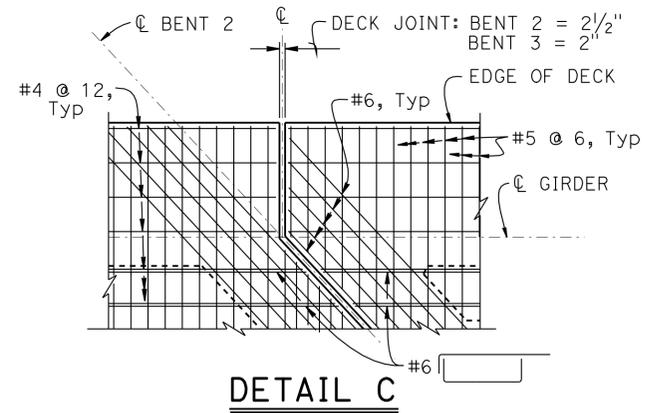


**SECTION A-A**  
3/4" = 1'-0"

SECTION @ Abut 1 SHOWN, Abut 4 SIMILAR EXCEPT AS NOTED



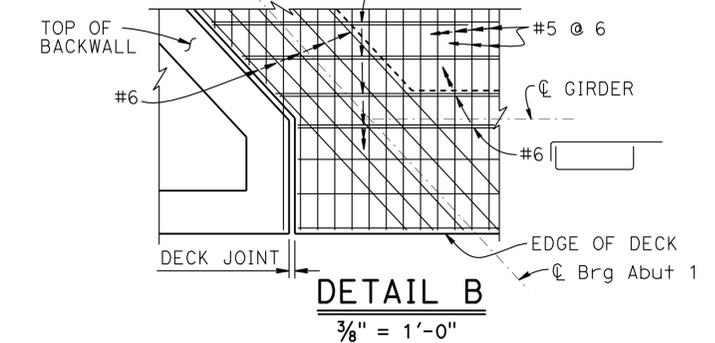
**DETAIL A**  
3/8" = 1'-0"



**DETAIL C**  
3/8" = 1'-0"

FOR ADDITIONAL DETAILS ON TYPICAL END OF GIRDER DECK, SEE SECTION A-A

- NOTES:  
1. FOR DETAILS D AND E ON CONCRETE WALKWAY, SEE "WALKWAY DETAILS" SHEET.

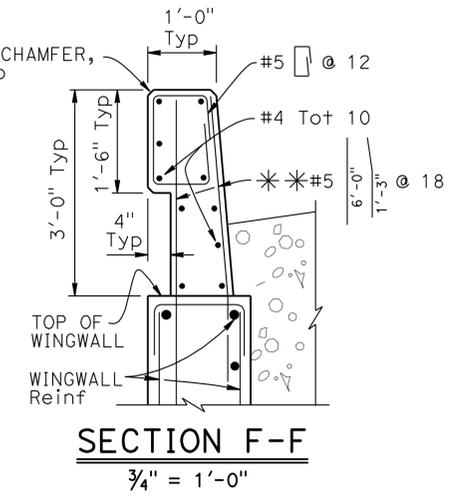
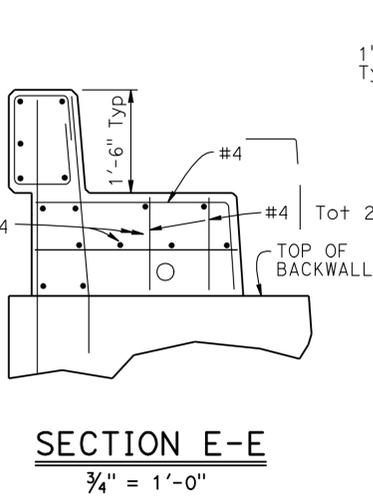
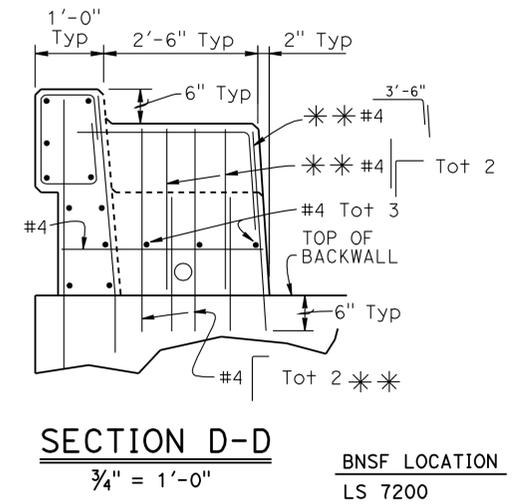
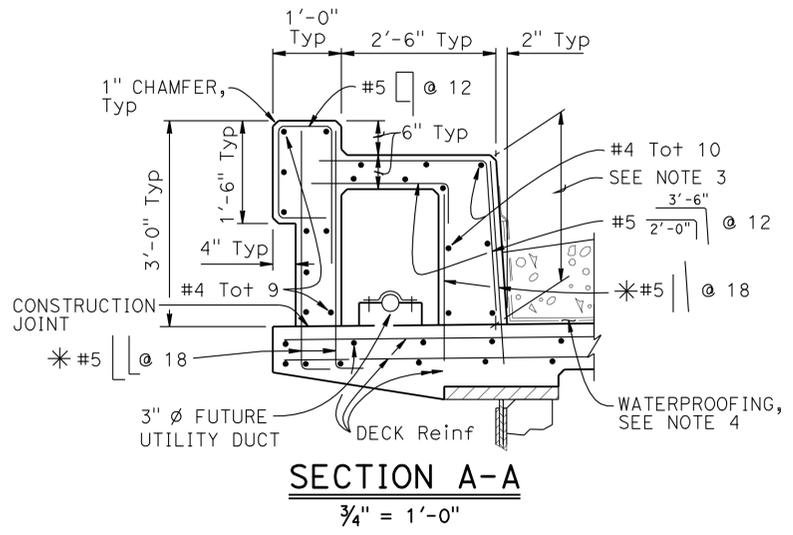
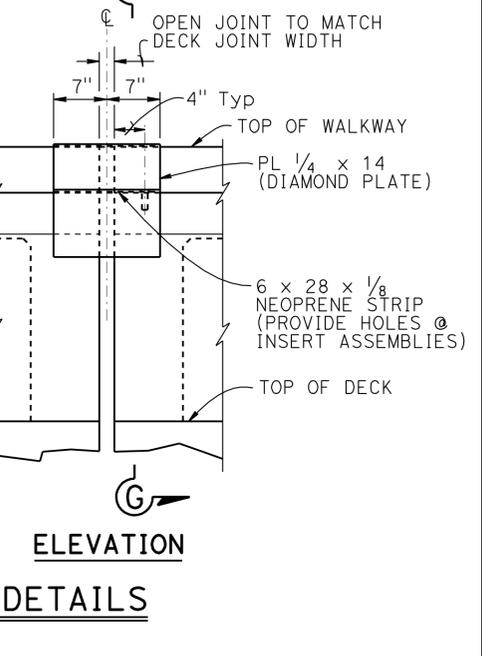
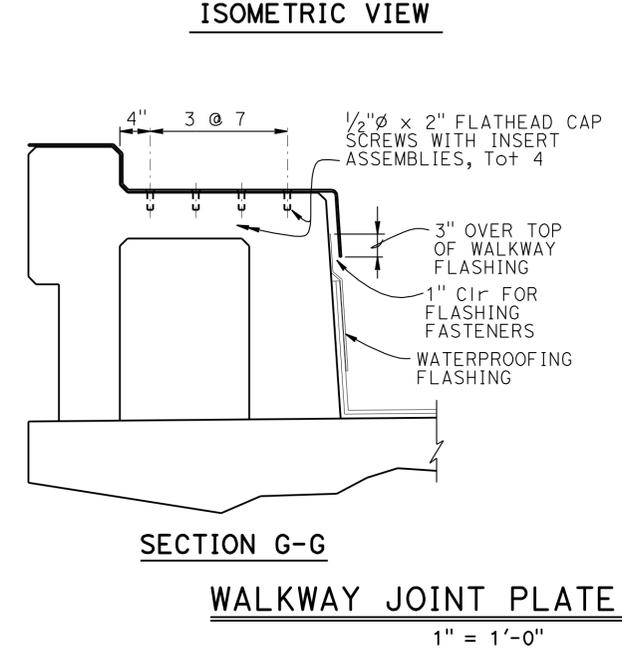
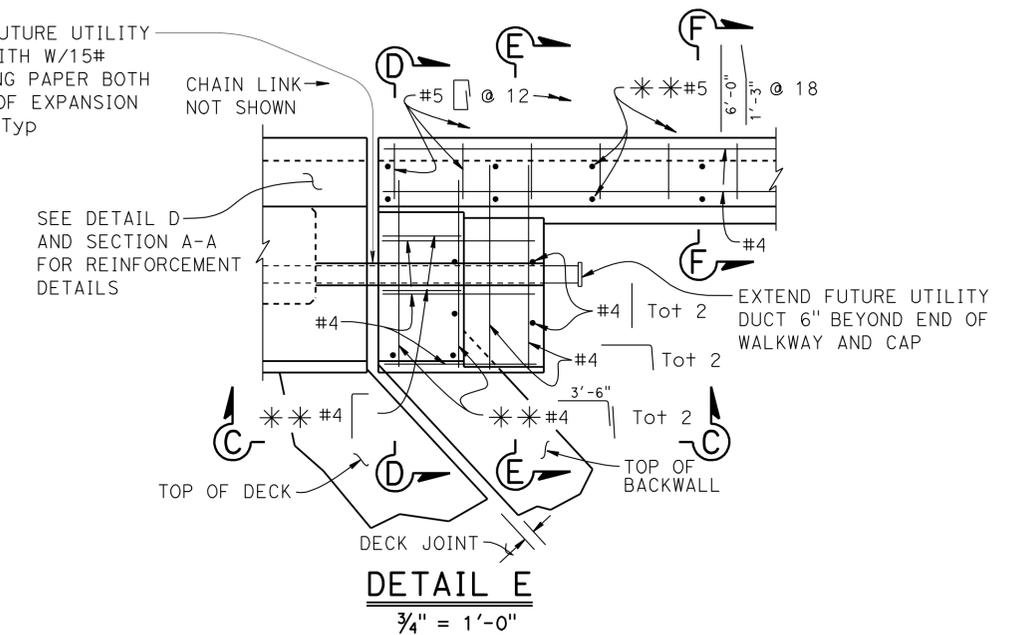
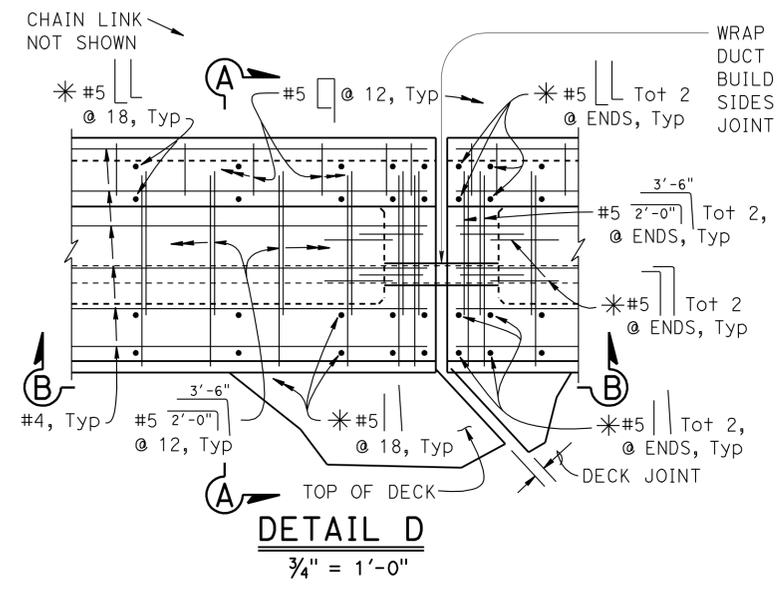
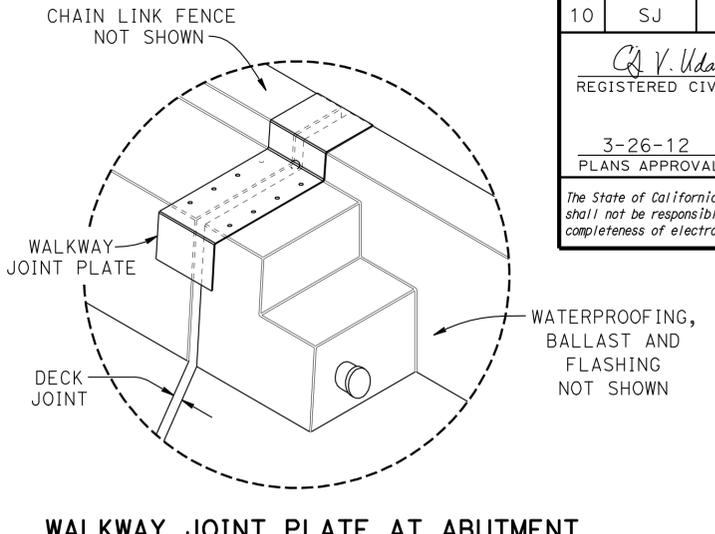
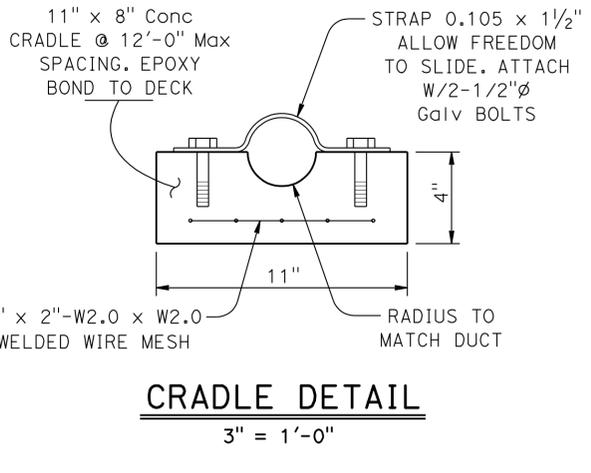
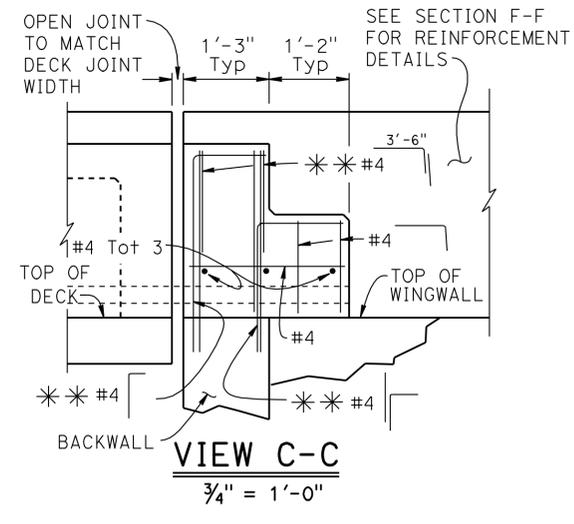
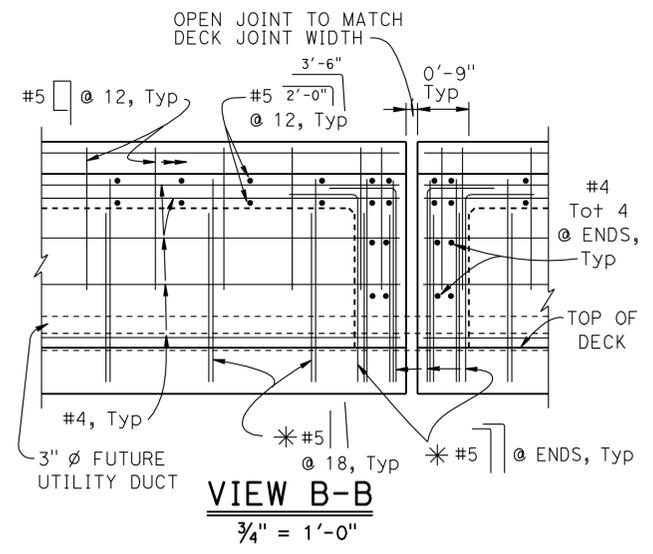


**DETAIL B**  
3/8" = 1'-0"

BNSF LOCATION  
LS 7200  
MP 1118.20

DESIGN BY R. Simmons		CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0326	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>DECK DETAILS</b>
DETAILS BY E. Montevirgen		CHECKED R. Simmons			POST MILE 17.39	
QUANTITIES BY R. Simmons		CHECKED Yong-Pil Kim				
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES SHEET 14 OF 37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1063	1414
			REGISTERED CIVIL ENGINEER	DATE	
			3-26-12	PLANS APPROVAL DATE	
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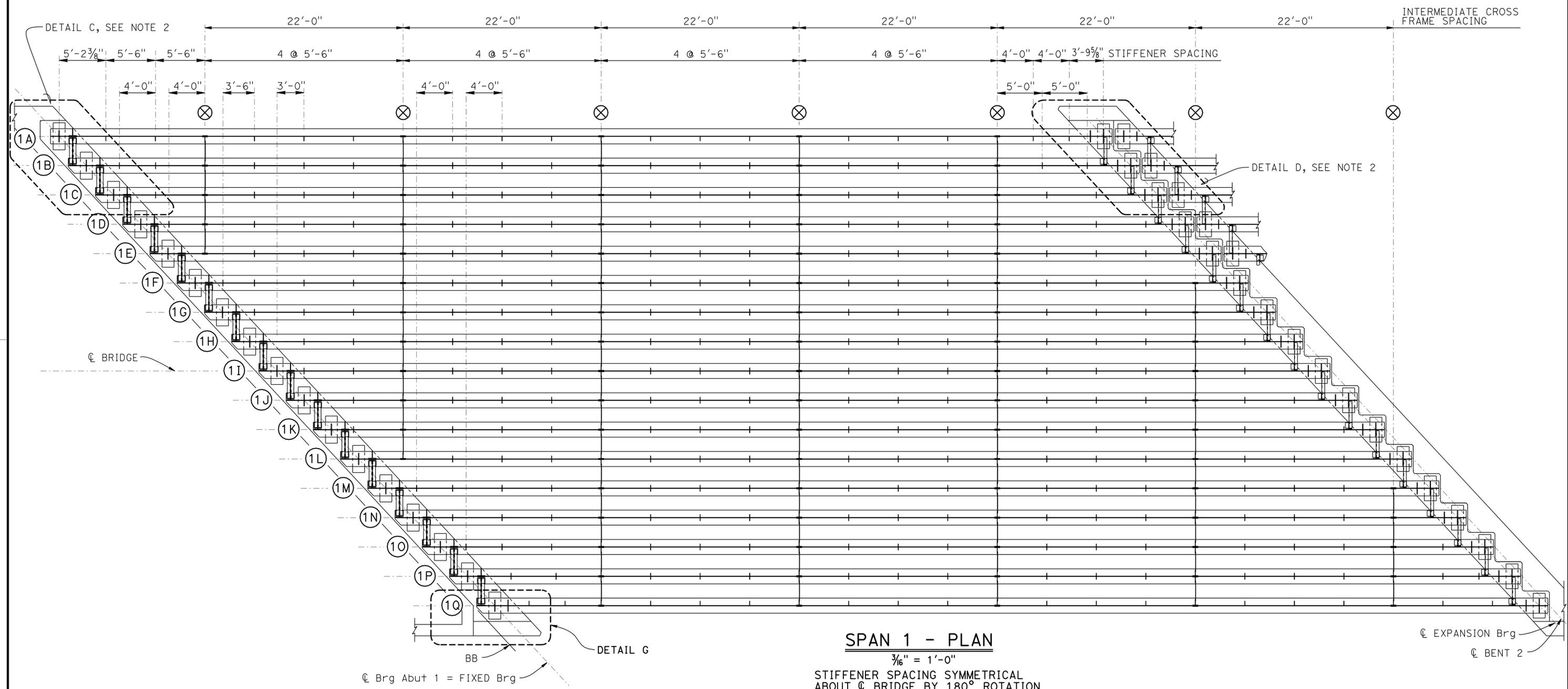


- NOTES:
1. WALKWAY REINFORCEMENT DETAILS SHOWN ARE TYPICAL AT BENT AND ABUTMENT LOCATIONS EXCEPT AS NOTED.
  2. FOR LOCATION OF DETAILS D AND E, SEE "DECK DETAILS" SHEET.
  3. DIMENSIONS MAY VARY WITH DECK CROSS SLOPE AND WITH CERTAIN THICKNESS OF SURFACING.
  4. SEE "WATERPROOFING DETAILS" SHEET FOR DETAILS ON WALKWAY WATERPROOFING.
  5. WALKWAY TO HAVE BROOM FINISH.
  6. ADJUST Reinf AS REQUIRED TO AVOID FUTURE UTILITY DUCTS.
- \* DOWELS TO BE PLACED BEFORE DECK CONCRETE.  
 \*\* DOWELS TO BE PLACED BEFORE BACKWALL AND RETAINING WALL CONCRETE.

DESIGN BY R. Simmons DETAILS BY E. Montevirgen QUANTITIES BY R. Simmons		CHECKED YONG-PIL KIM CHECKED R. SIMMONS CHECKED YONG-PIL KIM		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17		BRIDGE NO. 29-0326 POST MILE 17.39		SOUTH STOCKTON WIDENING EAST STOCKTON UNDERPASS WALKWAY DETAILS	
BNSF LOCATION LS 7200 MP 1118.20				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)										REVISION DATES SHEET 15 OF 37	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1064	1414
			REGISTERED CIVIL ENGINEER	DATE	
			3-26-12	11-04-11	
			PLANS APPROVAL DATE		
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NOTES:  
 1. WELDS FOR STIFFENERS, GIRDER SPLICES AND TRANSITIONS ARE SHOWN ON "GIRDER DETAILS" SHEETS.  
 2. FOR DETAILS C, D, AND G SEE "GIRDER DETAILS NO. 4" SHEET.  
 ⊗ = INDICATES LOCATION OF CROSS FRAMES.  
 (1A) INDICATES GIRDER LINE  
 \_\_\_\_\_ INDICATES SPAN NUMBER



**SPAN 1 - PLAN**

$\frac{3}{16}'' = 1'-0''$   
 STIFFENER SPACING SYMMETRICAL ABOUT ⊗ BRIDGE BY 180° ROTATION (EXCEPT AS NOTED)

BNSF LOCATION

LS 7200  
 MP 1118.20

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET OF			
DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0326 POST MILE 17.39		<b>SOUTH STOCKTON WIDENING          EAST STOCKTON UNDERPASS          GIRDER LAYOUT NO. 1</b>				17-18-10	19-11	3-01-12	16	37
DETAILS	BY E. Montevirgen	CHECKED R. Simmons															
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim															

USERNAME => s109858 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 14:06



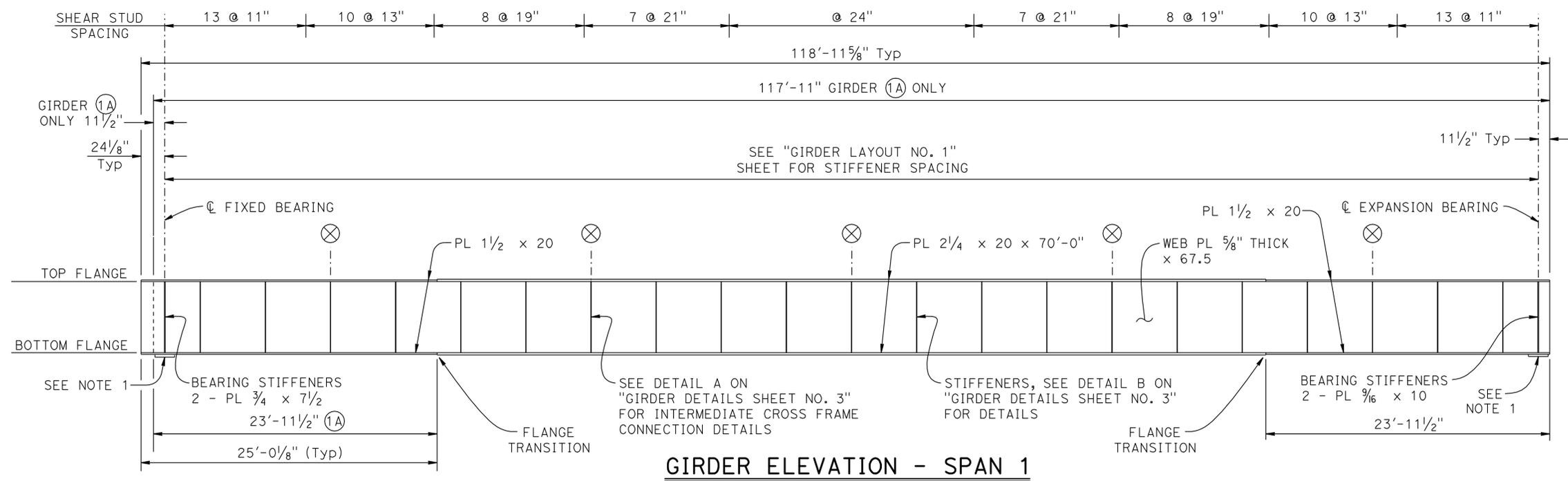


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1067	1414

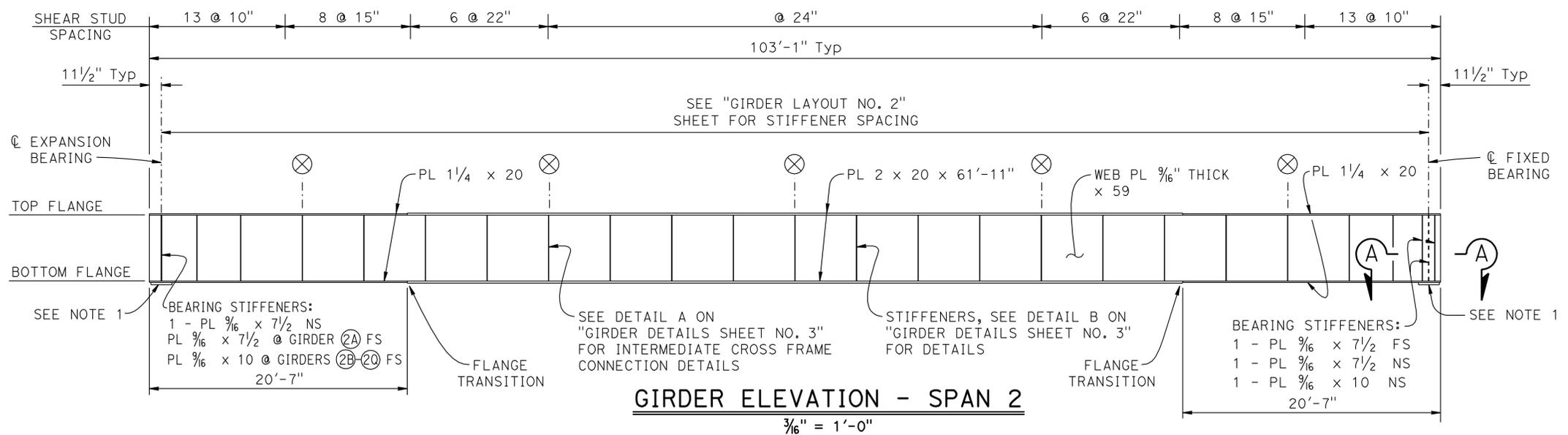
REGISTERED CIVIL ENGINEER  
 No. 62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA

11-04-11  
 DATE  
 3-26-12  
 PLANS APPROVAL DATE

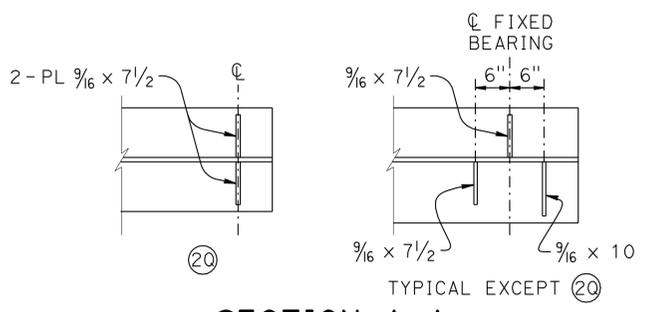
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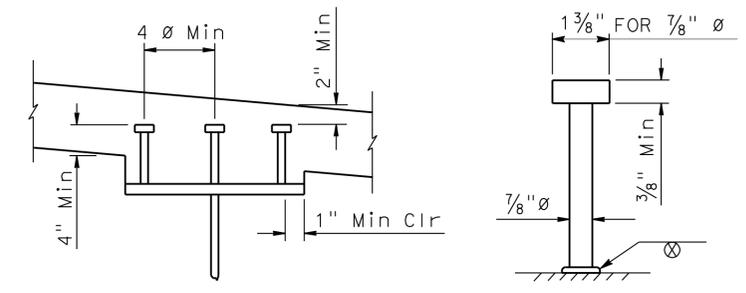
**GIRDER ELEVATION - SPAN 1**  
 $\frac{3}{16}'' = 1'-0''$



**GIRDER ELEVATION - SPAN 2**  
 $\frac{3}{16}'' = 1'-0''$

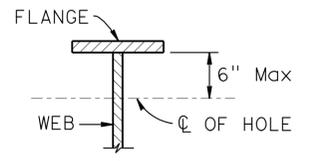


**SECTION A-A**  
 $\frac{3}{4}'' = 1'-0''$



**STUD CONNECTOR DETAIL**  
 NO SCALE

LENGTHS OF STUDS TO BE DETERMINED BY THE CONTRACTOR, Min LENGTH IS 6".



**HOLES FOR CONDUIT AND FALSEWORK**  
 NO SCALE

1" Max Dia HOLE AT 4± Min SPACING TO BE USED FOR FALSEWORK SUPPORT WHEN SPECIFIED BY THE CONTRACTOR. CONTRACTOR TO DETERMINE LOCATION, SIZE AND SPACING

BNSF LOCATION  
 LS 7200  
 MP 1118.20

**SOUTH STOCKTON WIDENING**  
**EAST STOCKTON UNDERPASS**  
**GIRDER DETAILS NO. 1**

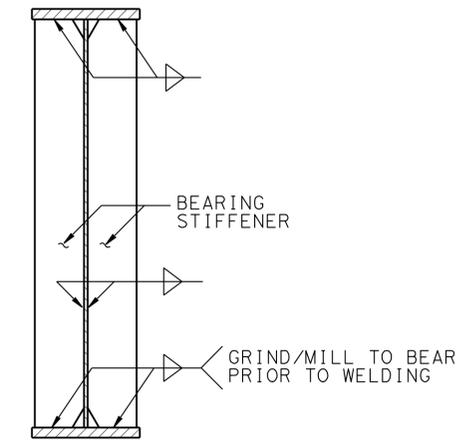
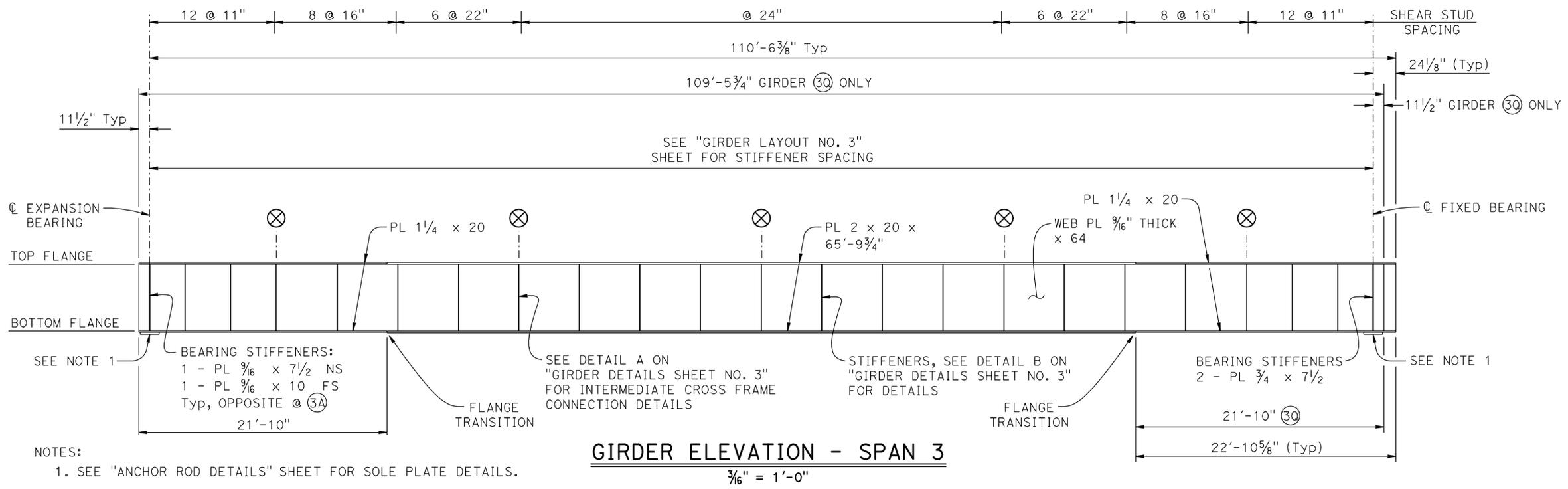
DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DIVISION OF ENGINEERING SERVICES</b> <b>STRUCTURE DESIGN</b> <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0326
DETAILS	BY E. Montevirgen	CHECKED R. Simmons			POST MILE	17.39
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1068	1414

REGISTERED CIVIL ENGINEER: **CHRIS V. UDARBE**  
 No. 62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA

11-04-11 DATE  
 3-26-12 PLANS APPROVAL DATE

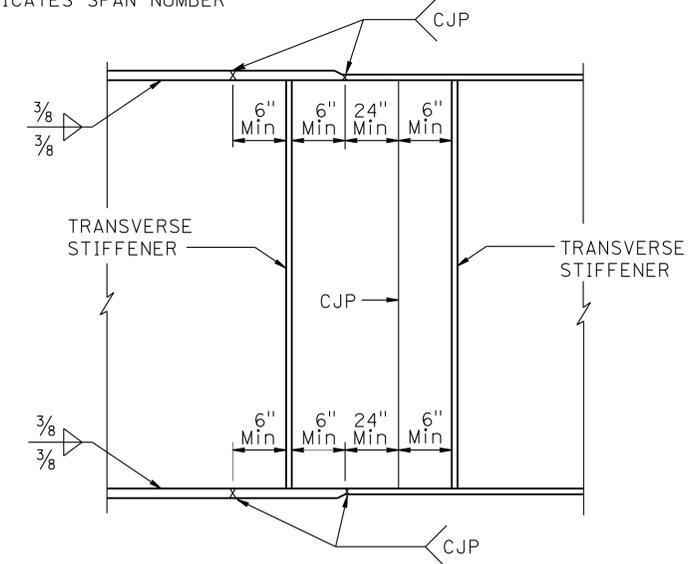
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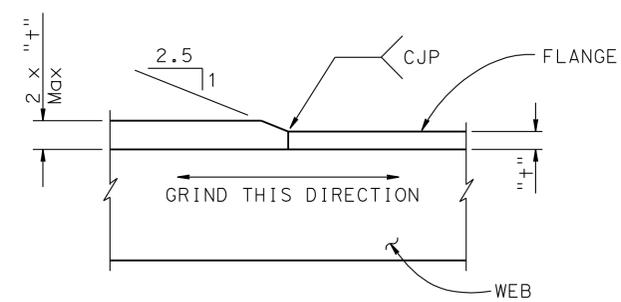
**GIRDER ELEVATION - SPAN 3**  
3/16" = 1'-0"

- NOTES:
- SEE "ANCHOR ROD DETAILS" SHEET FOR SOLE PLATE DETAILS.
  - SEE "GIRDER DETAILS NO. 4" SHEET FOR END FRAMES AND JACKING STIFFENERS.

- LEGEND:
- ⊗ = INDICATES LOCATION OF CROSS FRAMES.
  - (3A) INDICATES GIRDER LINE INDICATES SPAN NUMBER



**GIRDER SHOP SPLICE**  
NO SCALE

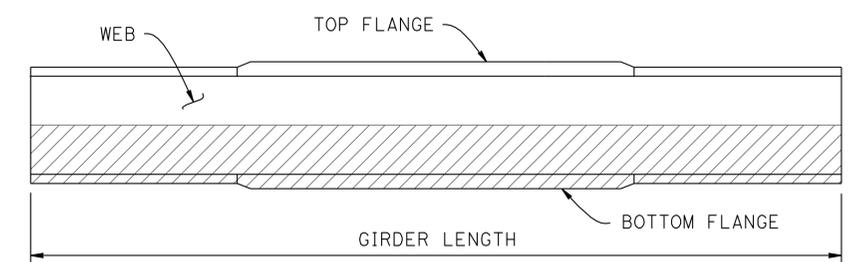


**FLANGE THICKNESS TRANSITION DETAIL**  
NO SCALE

- NOTES ON GIRDER SHOP SPLICE AND TRANSITION DETAIL:
- UNDER FULL DEAD LOAD AS SHOWN ON THE CAMBER DIAGRAM, GIRDER ENDS AND BEARING STIFFENERS SHALL BE VERTICAL EXCEPT THEY MAY BE NORMAL TO GRADE FOR GRADES LESS THAN 2 PERCENT.
  - WEB SPLICES: GRIND ALL WELD SURFACES FLUSH ON THE EXTERIOR FACE OF EXTERIOR GIRDERS.
  - FLANGE SPLICES: GRIND ALL WELD SURFACES FLUSH ON TENSION AND COMPRESSION FLANGES.

NOTES ON BEARING STIFFENER DETAIL:

- UNDER FULL DEAD LOAD AS SHOWN ON THE CAMBER DIAGRAM, GIRDER ENDS AND BEARING STIFFENERS SHALL BE VERTICAL EXCEPT THEY MAY BE NORMAL TO GRADE FOR GRADES LESS THAN 2 PERCENT.
- FOR BEARING STIFFENERS WHICH HAVE CROSS FRAMES OR DIAPHRAGMS ATTACHED, USE DETAIL SHOWN. SEE OTHER "GIRDER DETAILS" SHEETS FOR LOCATIONS WHERE BOLTED CONNECTION IS REQUIRED.
- FILLET WELD SIZE TO BE Min SIZE FROM PROJECT SPECIFICATIONS UNLESS OTHERWISE SHOWN ON PLAN SHEETS.
- DETAILS SHOWN ALSO APPLY TO JACKING STRIFFENERS.



**MAIN MEMBER DESIGNATIONS**

- LEGEND:
- DENOTES MAIN TENSION MEMBER
  - DENOTES MAIN COMPRESSION MEMBER
- NOTES:
- PRIMARY COMPONENTS OF MAIN MEMBERS: FLANGES, WEB, STIFFENERS
  - SECONDARY MEMBERS - ALL MEMBERS NOT DESIGNATED AS "MAIN TENSION MEMBER", OR "MAIN COMPRESSION MEMBER".

BNSF LOCATION  
LS 7200  
MP 1118.20

DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim
DETAILS	BY E. Montevirgen	CHECKED R. Simmons
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim

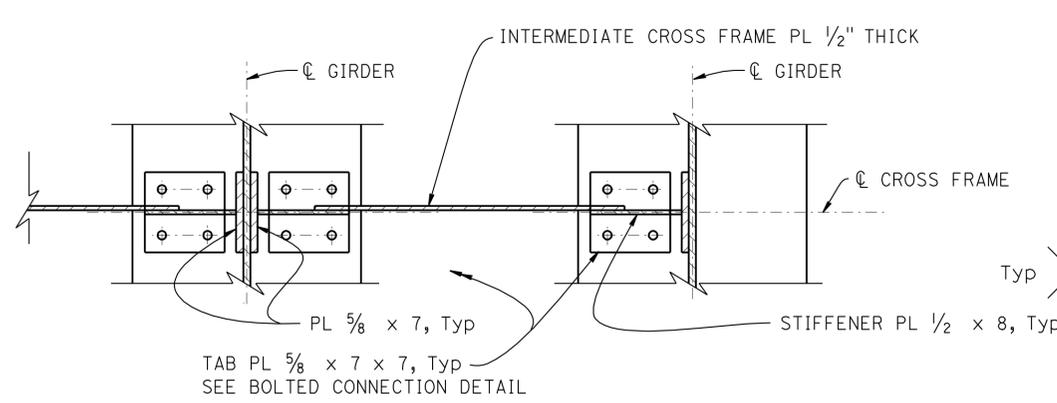
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

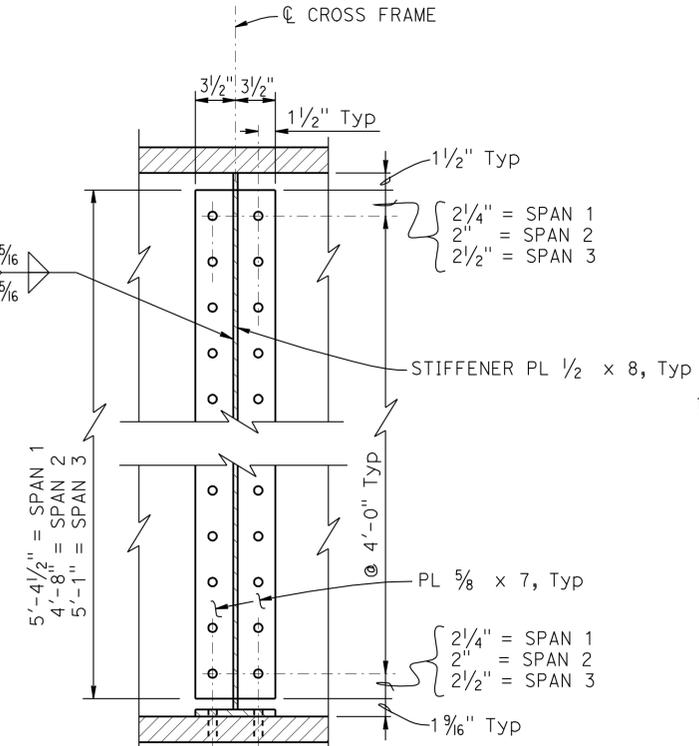
BRIDGE NO.	29-0326
POST MILE	17.39

**SOUTH STOCKTON WIDENING**  
**EAST STOCKTON UNDERPASS**  
**GIRDER DETAILS NO. 2**

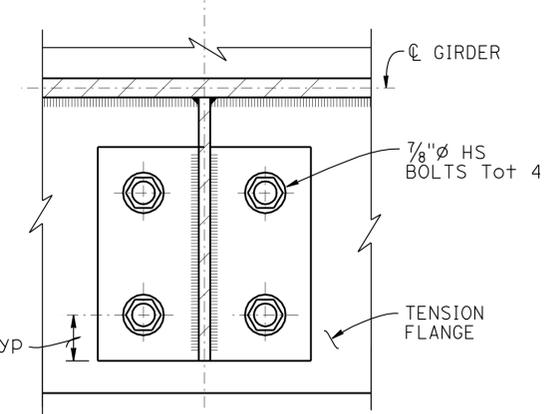
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1069	1414
			REGISTERED CIVIL ENGINEER	DATE	
			3-26-12	PLANS APPROVAL DATE	
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



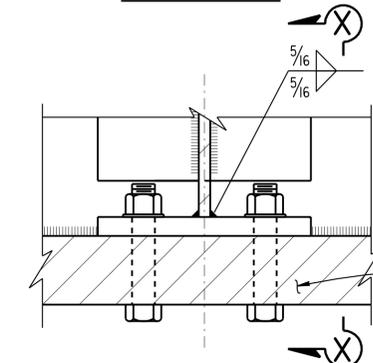
**SECTION A-A**  
1/2" = 1'-0"



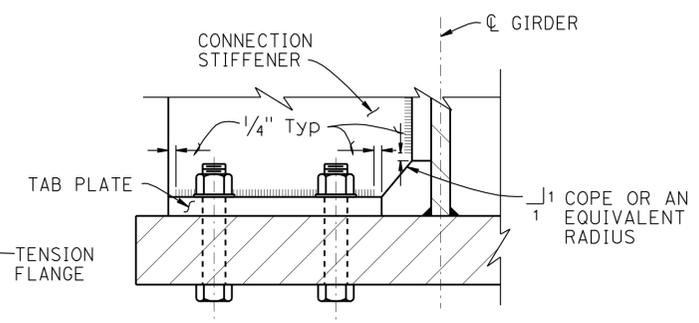
**SECTION B-B**  
1/2" = 1'-0"



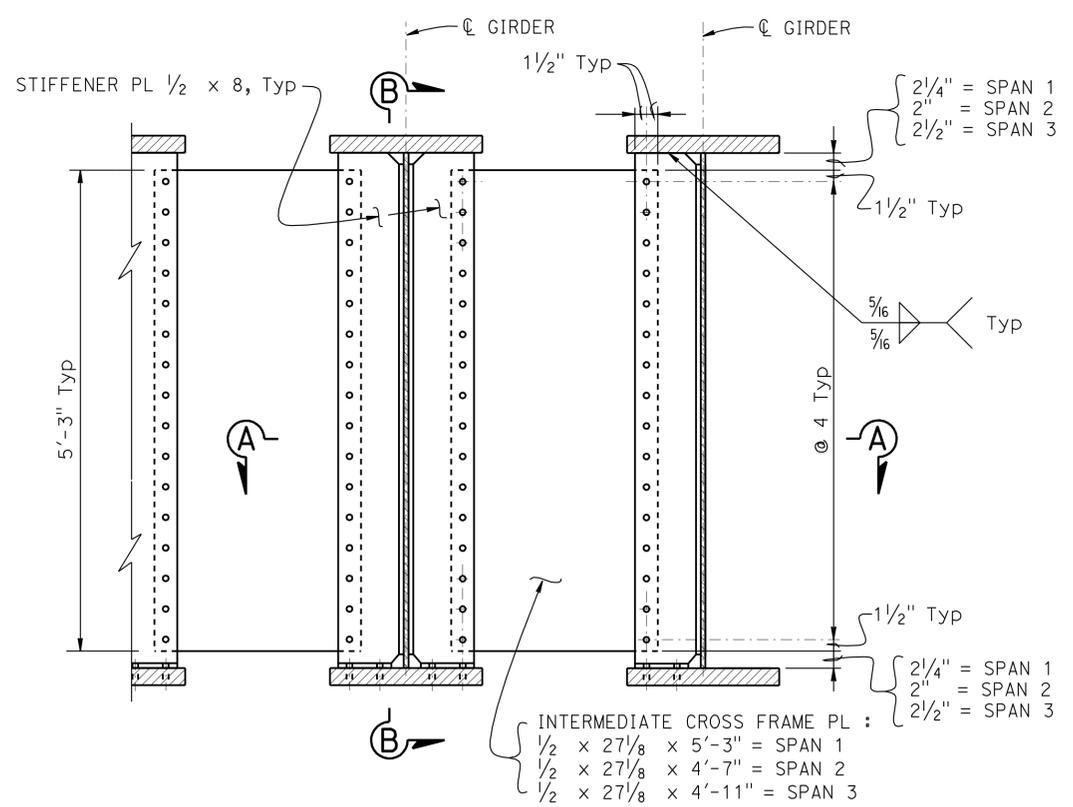
**PLAN VIEW**



**ELEVATION VIEW**

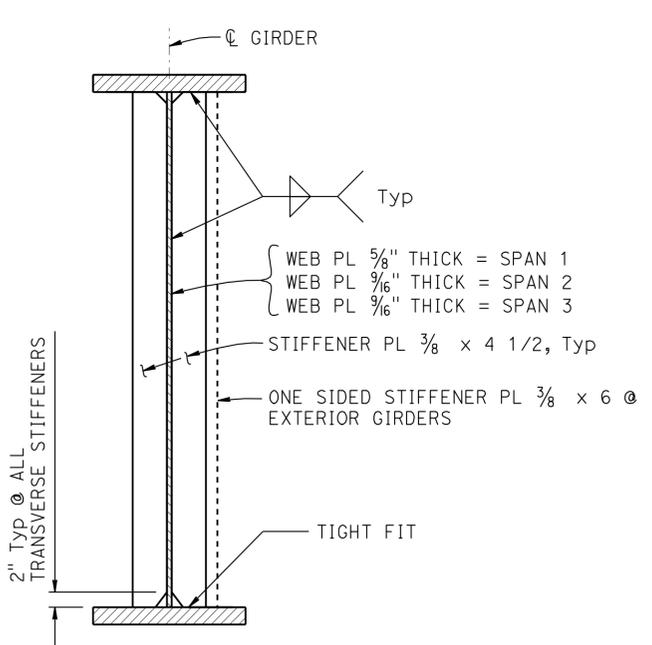


**SECTION X-X**



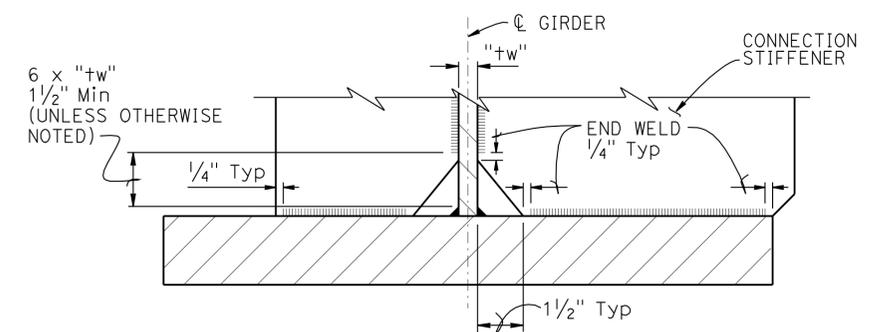
**DETAIL A**  
1" = 1'-0"

SPAN 1 SHOWN, SPANS 2 AND 3 ARE SIMILAR EXCEPT AS NOTED



**DETAIL B**  
1" = 1'-0"

**BOLTED CONNECTION DETAIL**  
NO SCALE



**COPE AND WELDING DETAIL**  
NO SCALE

- NOTES:
- FOR LOCATION OF DETAILS A AND B, SEE "TYPICAL SECTION" SHEET.
  - ENDS OF STIFFENERS SHOWN AS TIGHT FIT MUST BEAR ON THE GIRDER FLANGE WITH AT LEAST POINT BEARING. LOCAL CLEARANCES BETWEEN THE END OF THE STIFFENER AND THE GIRDER FLANGE MUST BE AT MOST 1/16".

**BNSF LOCATION**  
LS 7200  
MP 1118.20

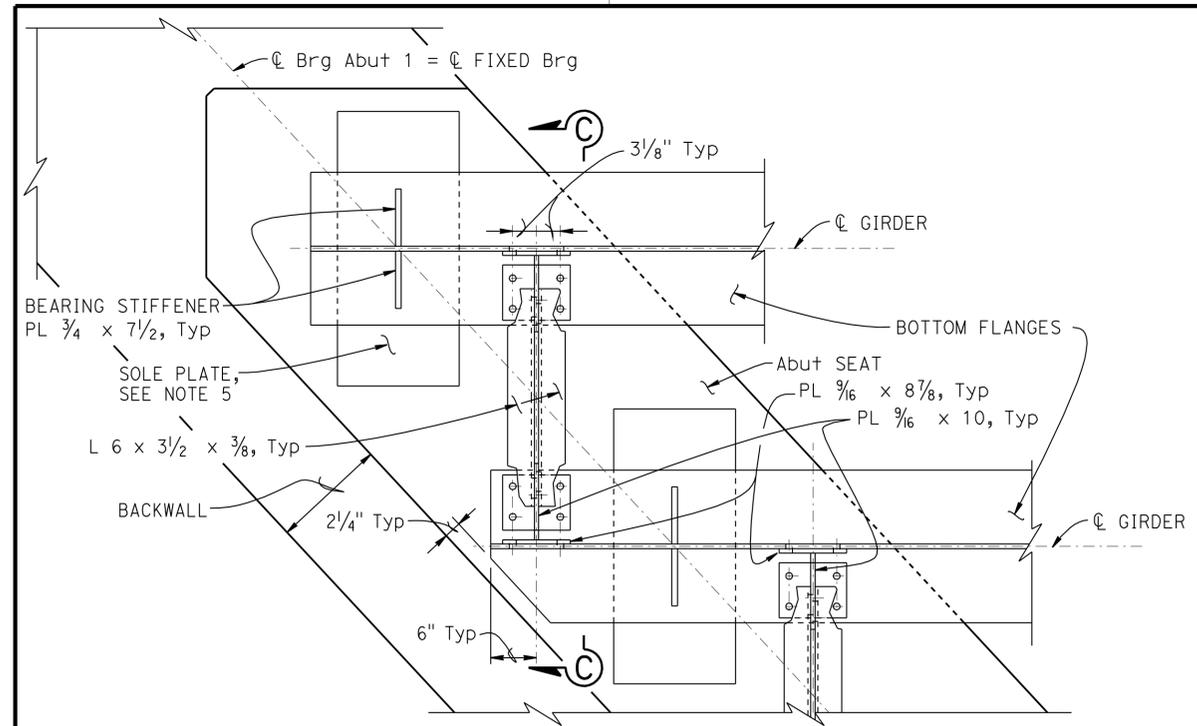
**SOUTH STOCKTON WIDEN  
EAST STOCKTON UNDERPASS  
GIRDER DETAILS NO. 3**

DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim
DETAILS	BY E. Montevirgen	CHECKED R. Simmons
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim

**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION  
**DESIGN BRANCH 17**

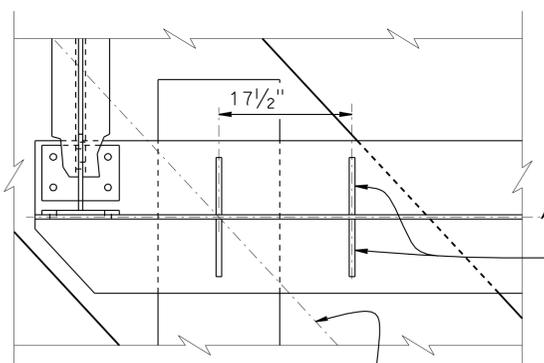
BRIDGE NO.	29-0326
POST MILE	17.39

DIST	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1070	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			10-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			REGISTERED PROFESSIONAL ENGINEER No. 62985 Exp. 6-30-12 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.					



**DETAIL C**  
1" = 1'-0"

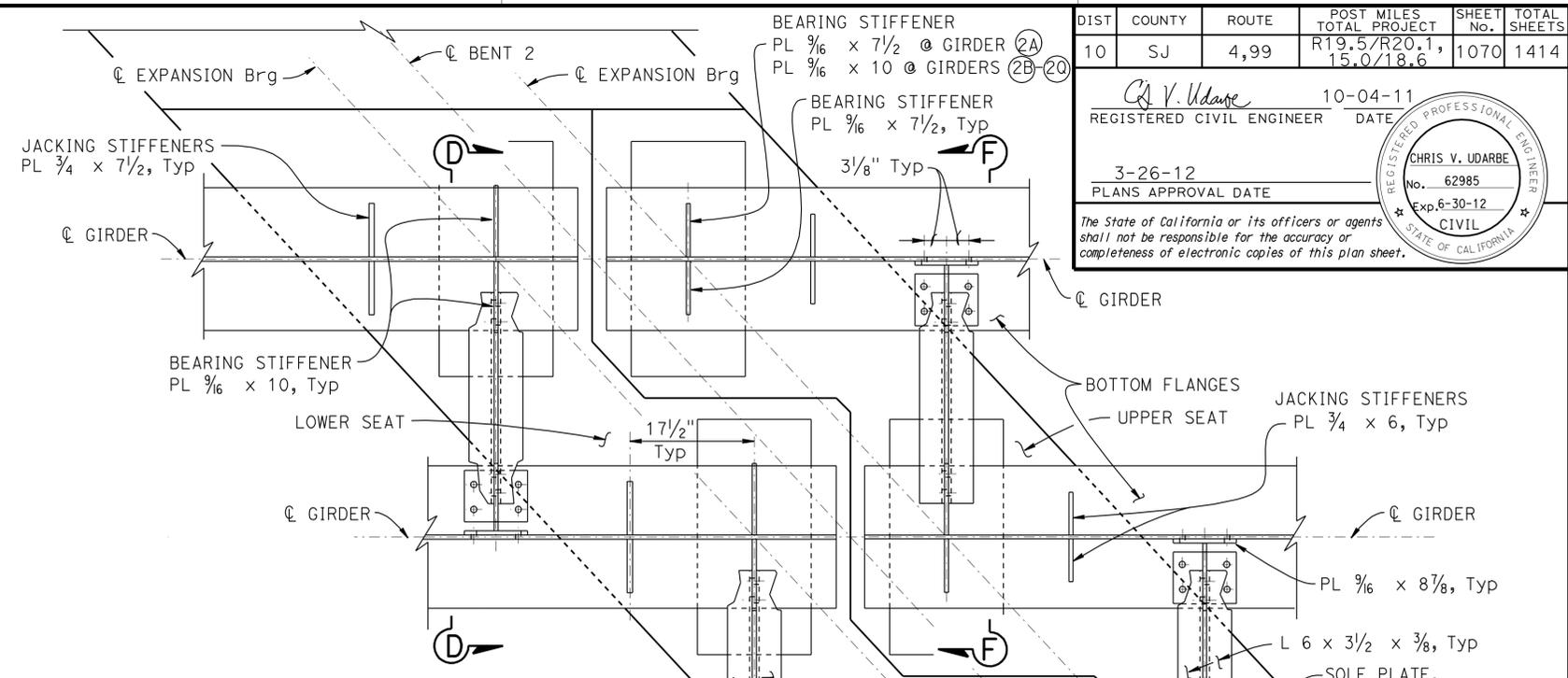
ABUTMENT 1 SHOWN, ABUTMENT 4 SIMILAR EXCEPT AS NOTED



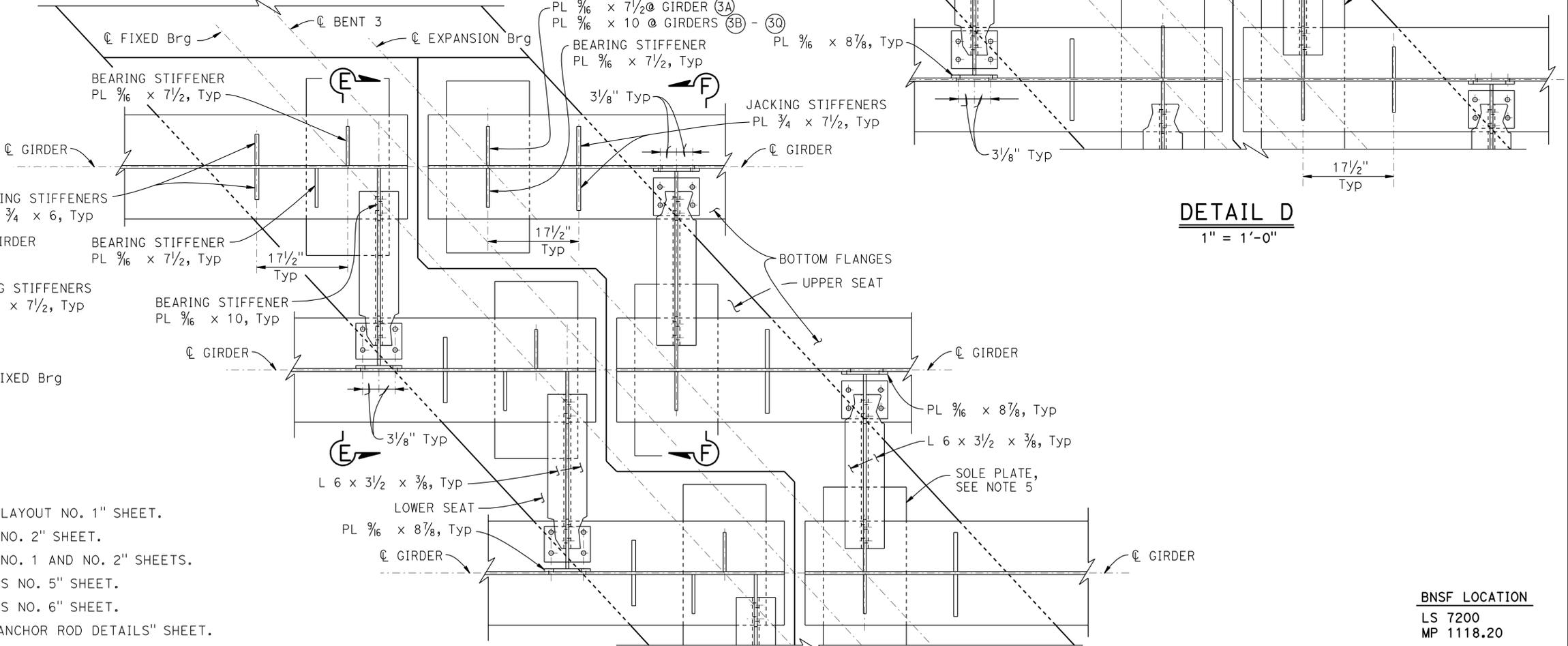
**DETAIL G**  
1" = 1'-0"

ABUTMENT 1 SHOWN, ABUTMENT 4 SIMILAR FOR DETAILS NOT SHOWN, SEE DETAIL C

- NOTES:
1. FOR LOCATION OF DETAILS C AND D, SEE "GIRDER LAYOUT NO. 1" SHEET.
  2. FOR LOCATION OF DETAIL E, SEE "GIRDER LAYOUT NO. 2" SHEET.
  3. FOR LOCATION OF DETAIL G, SEE "GIRDER LAYOUT NO. 1 AND NO. 2" SHEETS.
  4. FOR SECTIONS C-C AND E-E, SEE "GIRDER DETAILS NO. 5" SHEET.
  5. FOR SECTIONS D-D AND F-F, SEE "GIRDER DETAILS NO. 6" SHEET.
  6. FOR SOLE PLATE AND ANCHOR ROD DETAILS, SEE "ANCHOR ROD DETAILS" SHEET.



**DETAIL D**  
1" = 1'-0"



**DETAIL E**  
1" = 1'-0"

BNSF LOCATION  
LS 7200  
MP 1118.20

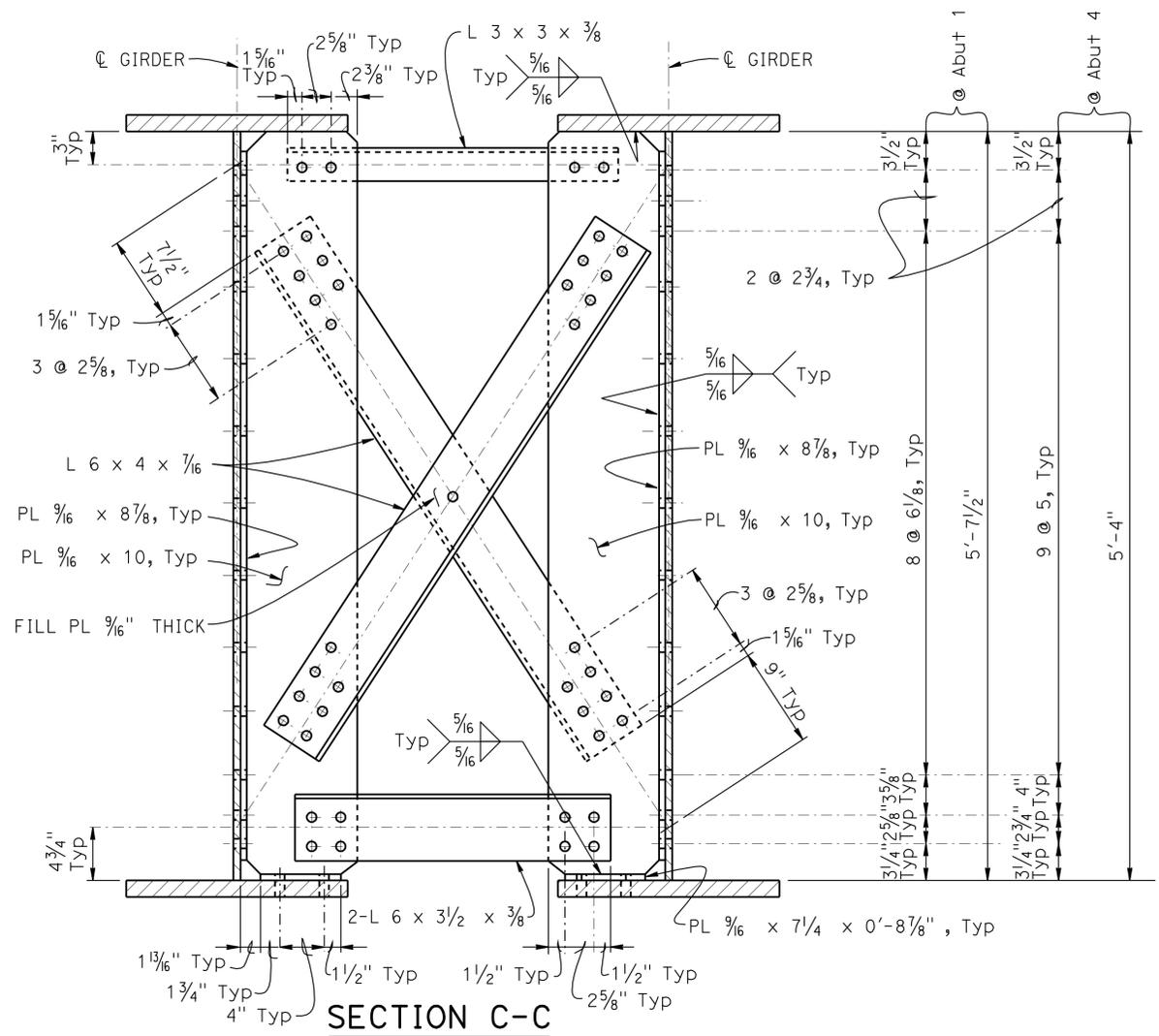
**SOUTH STOCKTON WIDENING  
EAST STOCKTON UNDERPASS  
GIRDER DETAILS NO. 4**

DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim
DETAILS	BY E. Montevirgen	CHECKED R. Simmons
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0326
POST MILE	17.39

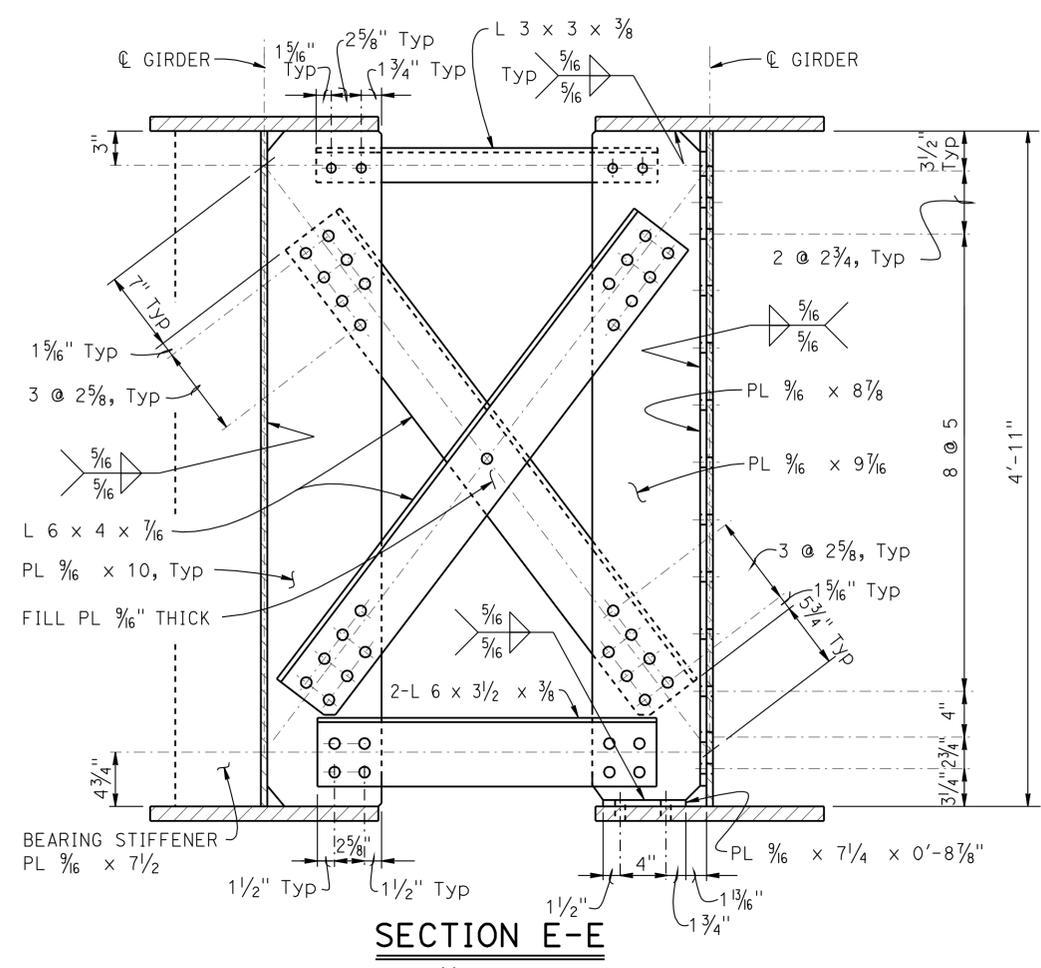


**SECTION C-C**  
1/2" = 1'-0"

**@ Abut 1 and Abut 4 (FIXED Brg)**  
DETAILS SHOWN FOR ABUTMENT 1, ABUTMENT 4 SIMILAR EXCEPT AS NOTED

- NOTES:
- FOR LOCATION OF SECTIONS C-C AND E-E, SEE "GIRDER DETAILS NO. 4" SHEET.
  - ALL BOLTS ARE 7/8"Ø A325 EXCEPT AS NOTED.
  - FOR SOLE PLATE AND ANCHOR BOLT DETAILS, SEE "ANCHOR BOLT LAYOUT" SHEET.
  - CROSS FRAME CONNECTIONS TO BE SUB-PUNCHED OR SUB-DRILLED AND FIELD DRILLED OR FIELD REAMED, SUB-PUNCHED OR SUB-DRILLED HOLES SHALL BE 1/4" LESS THAN DIAMETER OF FINISHED HOLE.

**BNSF LOCATION**  
LS 7200  
MP 1118.20



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

**@ BENT 3 - SPAN 2 (FIXED Brg)**

Single Girder Design Values (5 girders resist one track E80 equally)

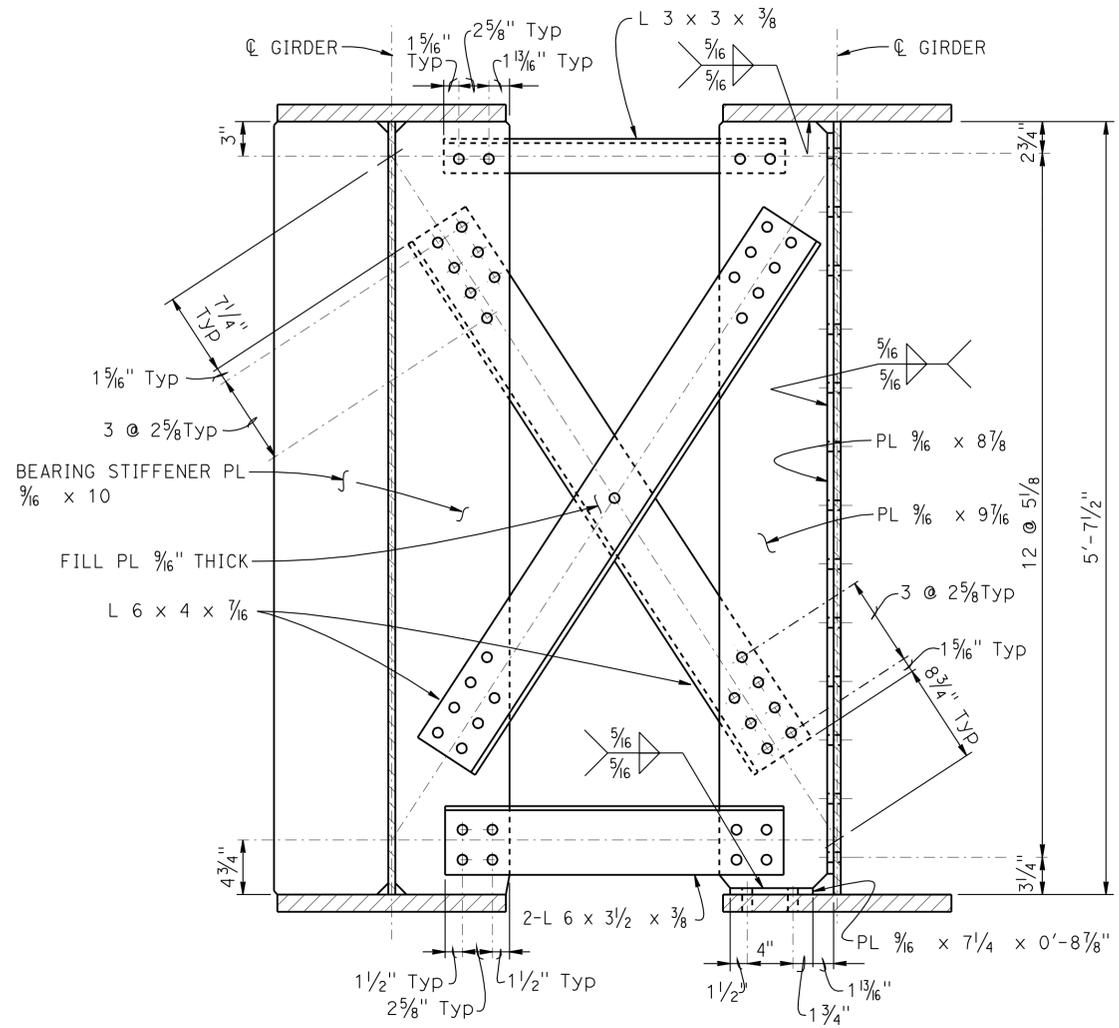
		SPAN 1					SPAN 2					SPAN 3				
		Impact = 1.30					Impact = 1.31					Impact = 1.31				
		0.00	0.20	0.50	0.80	1.00	0.00	0.20	0.50	0.80	1.00	0.00	0.20	0.50	0.80	1.00
Shear (kips)	DL	-49	-31	0	31	49	-40	-24	0	24	40	-43	-27	0	27	43
	ADL	-67	-40	0	40	67	-50	-35	0	35	50	-62	-37	0	37	62
	LL+I	-165	-107	0	107	165	-158	-87	0	87	158	-155	-92	0	92	155
	Total	-281	-178	0	178	281	-248	-146	0	146	248	-260	-156	0	156	260
Moment (ft-kips)	DL	0	937	1479	937	0	0	652	1019	652	0	0	763	1206	763	0
	ADL	0	1247	1948	1247	0	0	948	1481	948	0	0	1072	1675	1072	0
	LL+I	0	3011	4443	3011	0	0	2285	3420	2285	0	0	2558	3854	2558	0
	Total	0	5195	7870	5195	0	0	3885	5920	3885	0	0	4393	6735	4393	0
Bottom Flange Stress (Tension) (ksi)	DL	0	4.533	5.210	4.533	0	0	4.374	4.64	4.374	0	0	4.623	4.968	4.623	0
	ADL	0	5.469	5.270	5.469	0	0	5.714	5.202	5.714	0	0	5.839	5.368	5.839	0
	LL+I	0	12.106	13.480	12.106	0	0	12.607	13.471	12.607	0	0	12.716	13.855	12.716	0
	Total	0	22.108	23.960	22.108	0	0	22.695	23.313	22.695	0	0	23.178	24.191	23.178	0
Deflection (inches)	DL	0	-0.42	-0.7	-0.42	0	0	-0.32	-0.53	-0.32	0	0	-0.38	-0.62	-0.38	0
	ADL	0	-0.56	-0.93	-0.56	0	0	-0.48	-0.79	-0.48	0	0	-0.52	-0.87	-0.52	0
	LL+I	0	-1.3	-2.13	-1.3	0	0	-1.13	-1.85	-1.13	0	0	-1.23	-2.01	-1.23	0
	Total	0	-2.28	-3.76	-2.28	0	0	-1.93	-3.17	-1.93	0	0	-2.13	-3.5	-2.13	0

DL = Girder Self Weight + Concrete Deck (non-composite)  
 ADL = 30" Ballast + Walkway + Track (composite, n=30)  
 LL+I = Cooper E-80 with diesel impact (composite, n=10)  
 Allowable Tensile Stress = 0.55 fy = 0.55(50) = 27.5 ksi

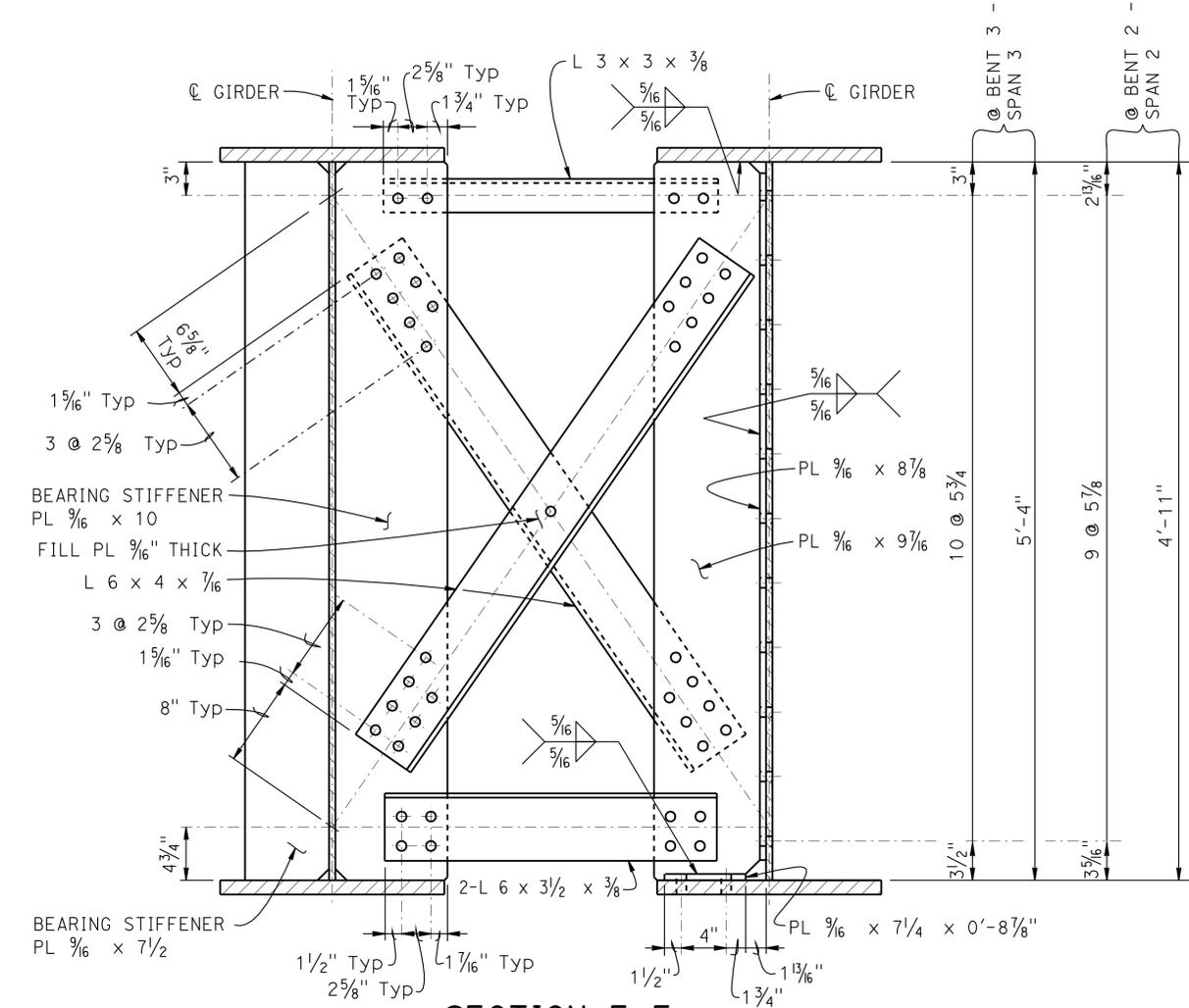
DESIGN BY R. Simmons	CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0326
DETAILS BY E. Montevirgen	CHECKED R. Simmons		POST MILE 17.39
QUANTITIES BY R. Simmons	CHECKED Yong-Pil Kim		

**SOUTH STOCKTON WIDENING**  
**EAST STOCKTON UNDERPASS**  
**GIRDER DETAILS NO. 5**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1072	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER 3-26-12 PLANS APPROVAL DATE			11-04-11 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.					



**SECTION D-D**  
 1/2" = 1'-0"  
 @ BENT 2 - SPAN 1 (EXPANSION Brg)



**SECTION F-F**  
 1/2" = 1'-0"  
 @ BENT 3-SPAN 3 and BENT 2-SPAN 2 (EXPANSION Brg)  
 DETAILS SHOWN FOR BENT 3-SPAN 3, BENT 2-SPAN 2 SIMILAR EXCEPT AS NOTED

- NOTES:
- FOR LOCATION OF SECTIONS D-D AND F-F, SEE "GIRDER DETAILS NO. 4" SHEET.
  - ALL BOLTS ARE 7/8"Ø A325 EXCEPT AS NOTED.
  - FOR SOLE PLATE AND ANCHOR BOLT DETAILS, SEE "ANCHOR BOLT LAYOUT" SHEET.
  - CROSS FRAME CONNECTIONS TO BE SUB-PUNCHED AND FIELD DRILLED OR REAMED, SUB-PUNCHED OR SUB-DRILLED HOLES SHALL BE 1/4" LESS THAN DIAMETER OF FINISHED HOLE.

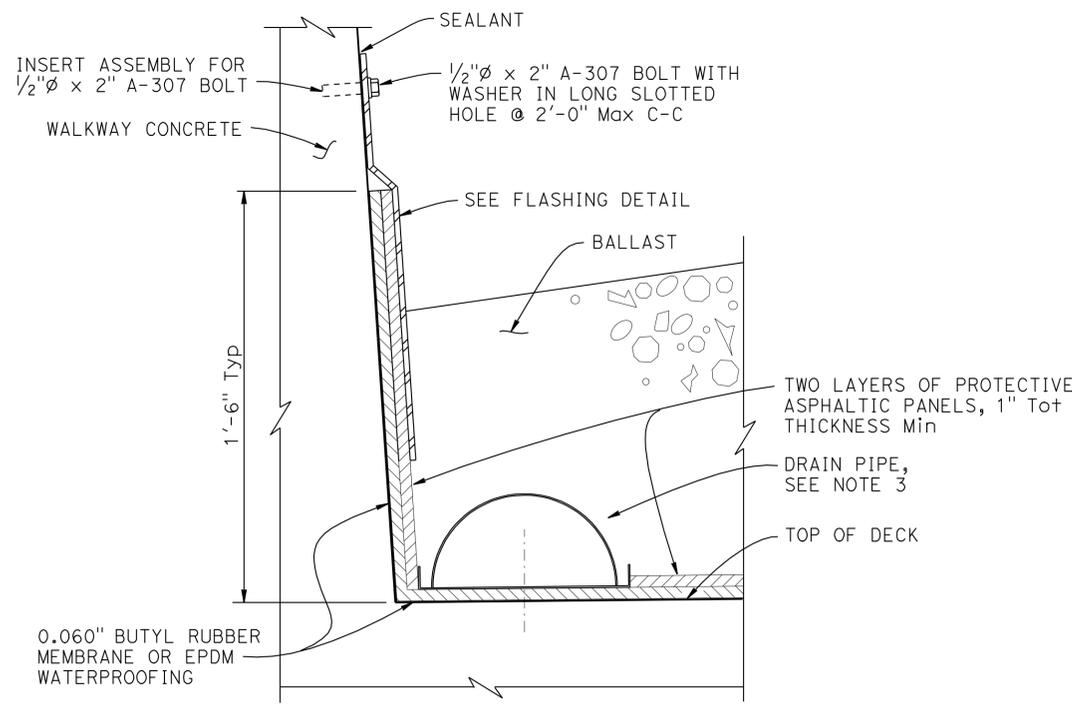
BNSF LOCATION  
 LS 7200  
 MP 1118.20

<b>SOUTH STOCKTON WIDENING</b>	
<b>EAST STOCKTON UNDERPASS</b>	
<b>GIRDER DETAILS NO. 6</b>	

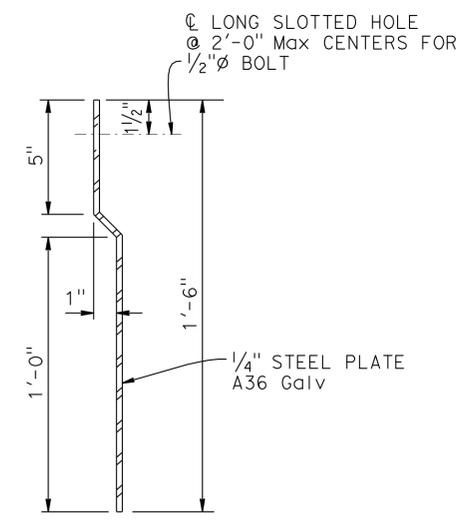
DESIGN	BY R. Simmons	CHECKED Yong-Pil Kim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0326
DETAILS	BY E. Montevirgen	CHECKED R. Simmons			POST MILE	17.39
QUANTITIES	BY R. Simmons	CHECKED Yong-Pil Kim				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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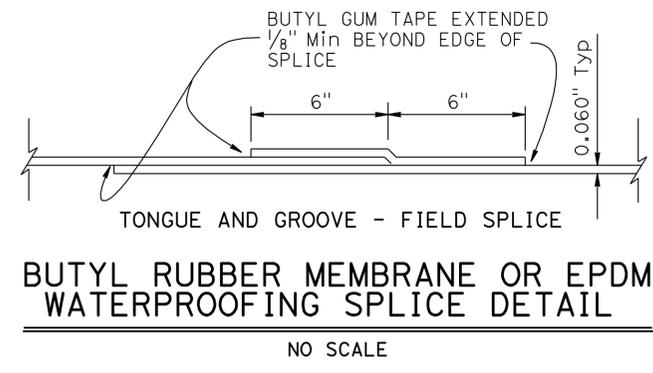
REGISTERED CIVIL ENGINEER  
 DATE 11-04-11  
 3-26-12  
 PLANS APPROVAL DATE  
 No. 62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



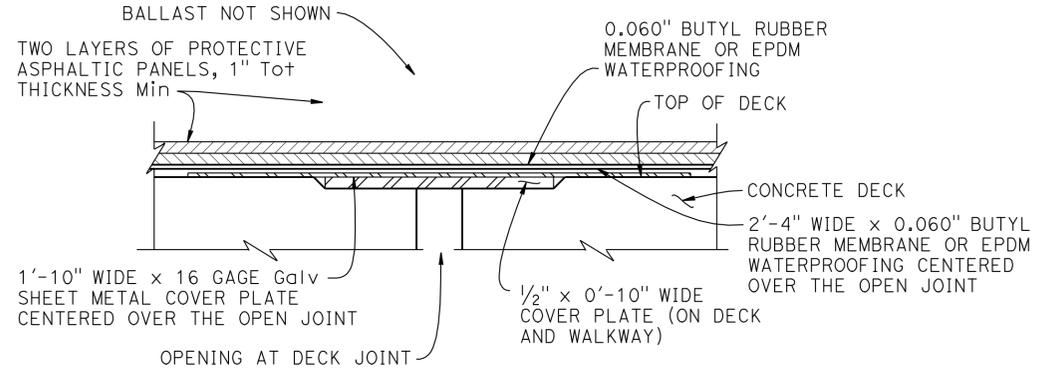
**SECTION AT WALKWAY AND DECK**  
NO SCALE



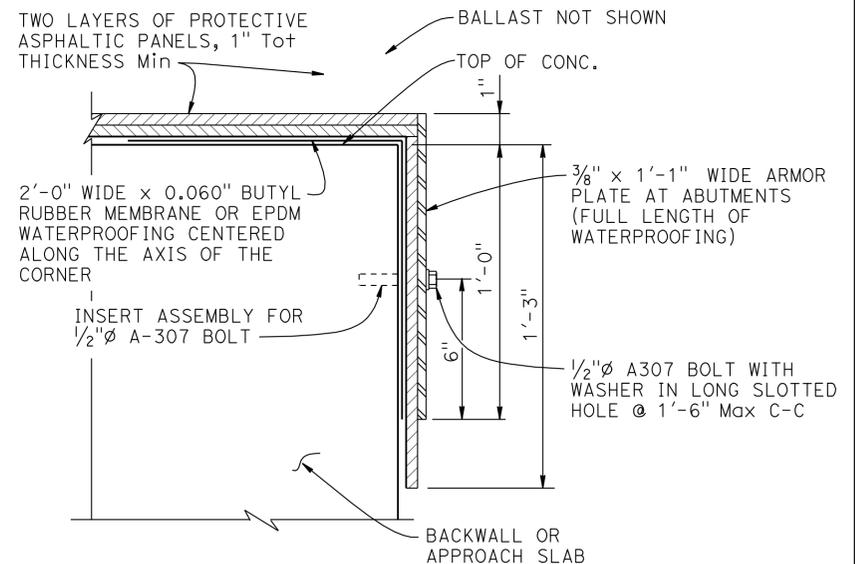
**WALKWAY FLASHING DETAIL**  
NO SCALE



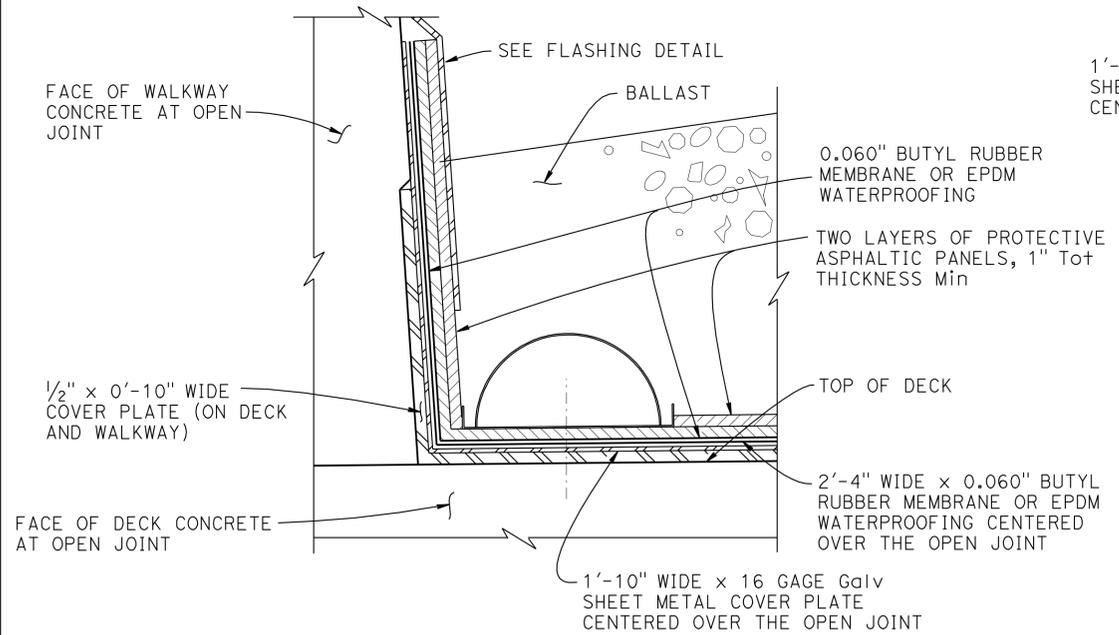
**BUTYL RUBBER MEMBRANE OR EPDM WATERPROOFING SPLICE DETAIL**  
NO SCALE



**TYPICAL LONGITUDINAL SECTION AT BENTS AND BACKWALL**  
NO SCALE



**TYPICAL LONGITUDINAL SECTION AT END OF BACKWALL/APPROACH SLABS**  
NO SCALE



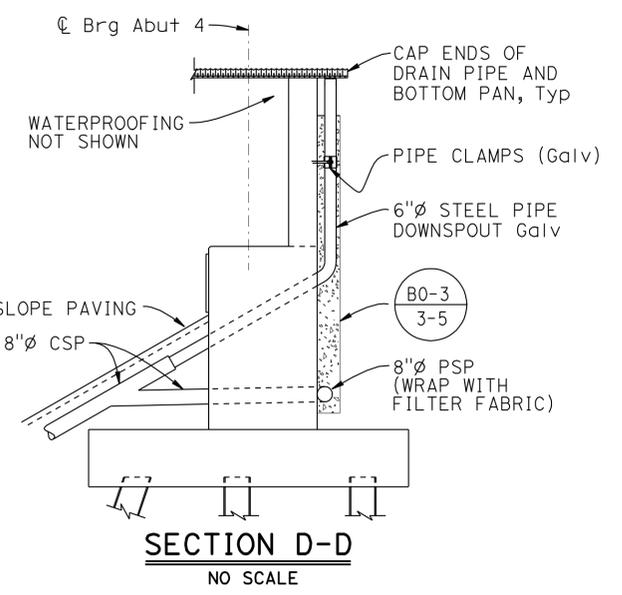
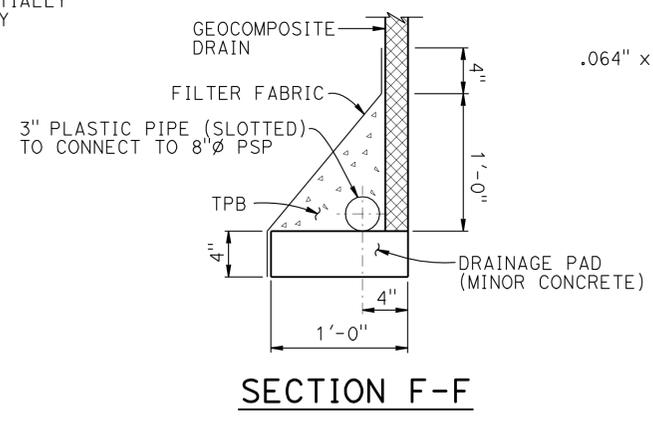
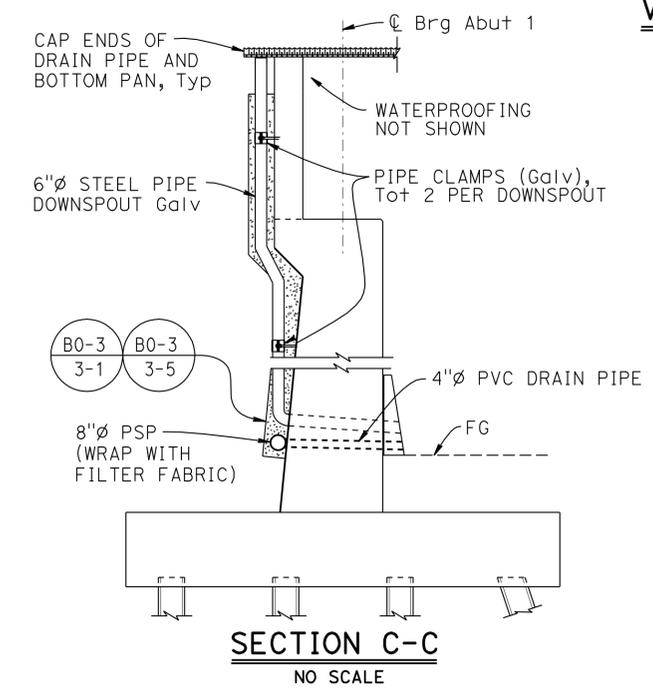
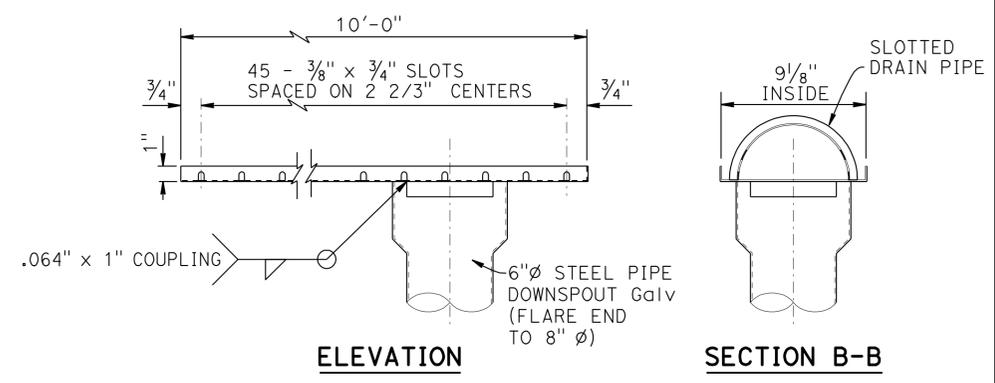
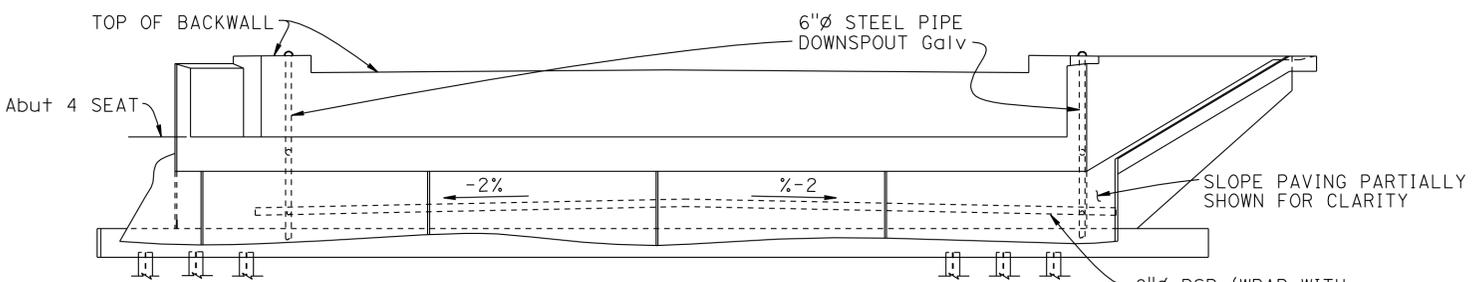
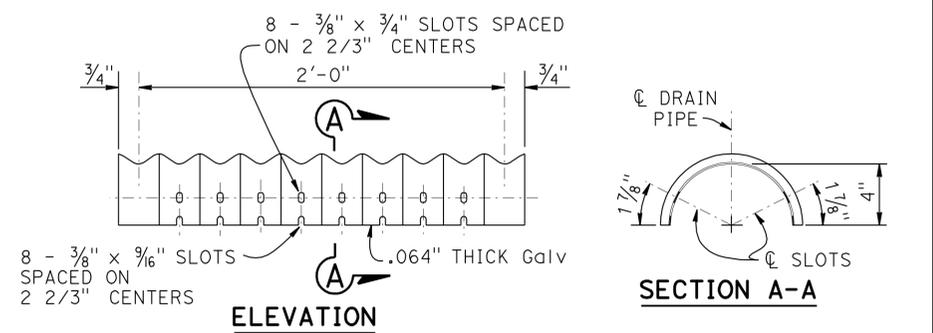
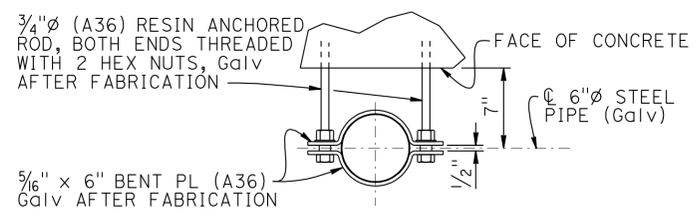
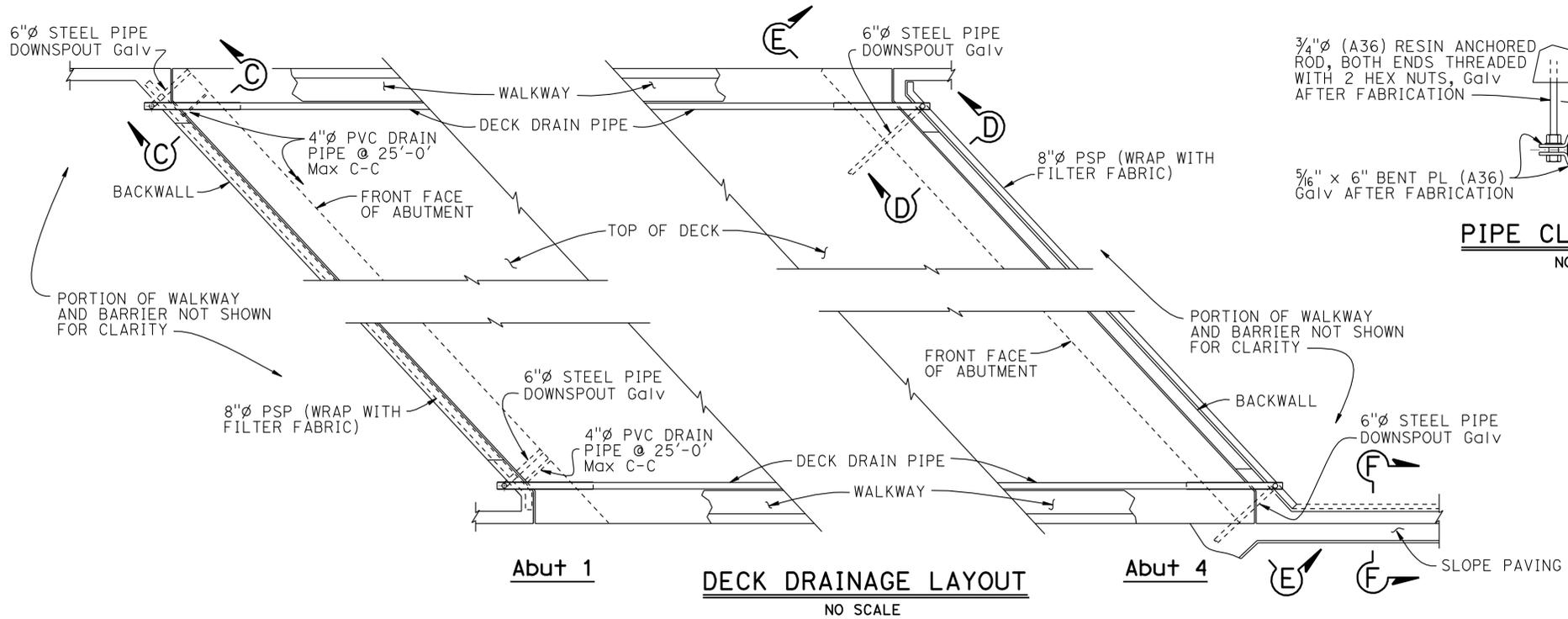
**TYPICAL TRANSVERSE SECTION AT DECK JOINT**  
NO SCALE

- NOTES:
1. ALL STRUCTURAL STEEL PLATES, BOLTS AND WASHERS SHALL BE GALVANIZED.
  2. DISCONTINUE FLASHING OVER JOINTS AT BENTS AND ABUTMENTS.
  3. SEE "DECK DRAINAGE LAYOUT AND DETAILS" SHEET FOR DETAILS ON DRAIN PIPE.

BNSF LOCATION  
LS 7200  
MP 1118.20

DESIGN BY R. Simmons CHECKED Yong-Pil Kim DETAILS BY E. Montevirgen CHECKED R. Simmons QUANTITIES BY R. Simmons CHECKED Yong-Pil Kim				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0326 POST MILE 17.39	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>WATERPROOFING DETAILS</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES REVISION DATES: 3-01-12 SHEET 25 OF 37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1074	1414
REGISTERED CIVIL ENGINEER CHRIS V. UDARBE No. 62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA			11-04-11 DATE 3-26-12 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.		



- NOTES:
- ALL WELDED PIECES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
  - LAP DRAIN PIPE ONE CORRUGATION AT EACH END.

BNSF LOCATION  
 LS 7200  
 MP 1118.20

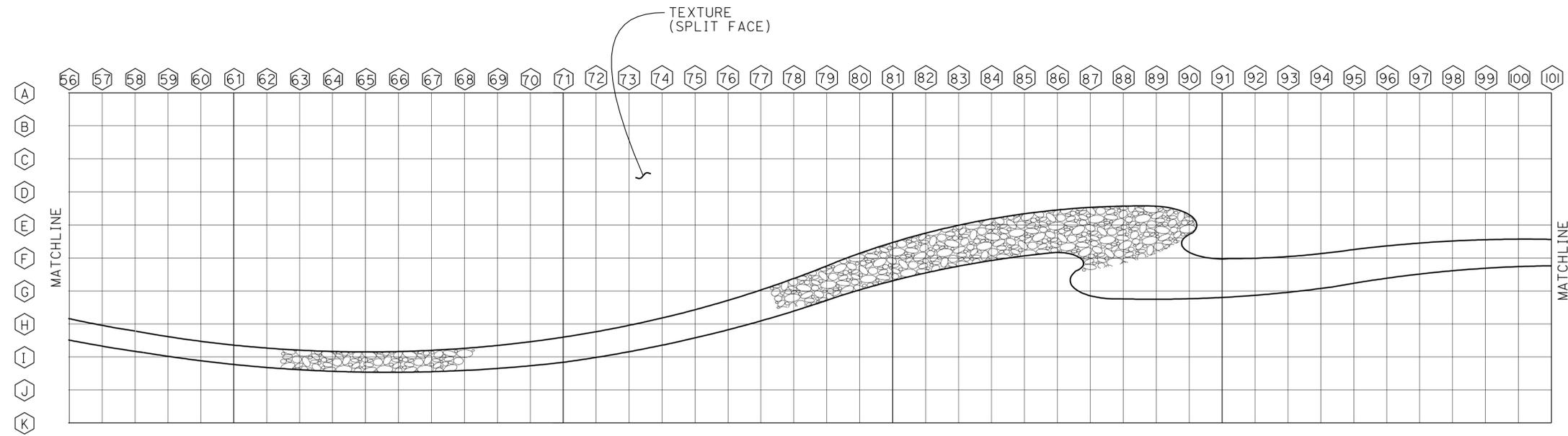
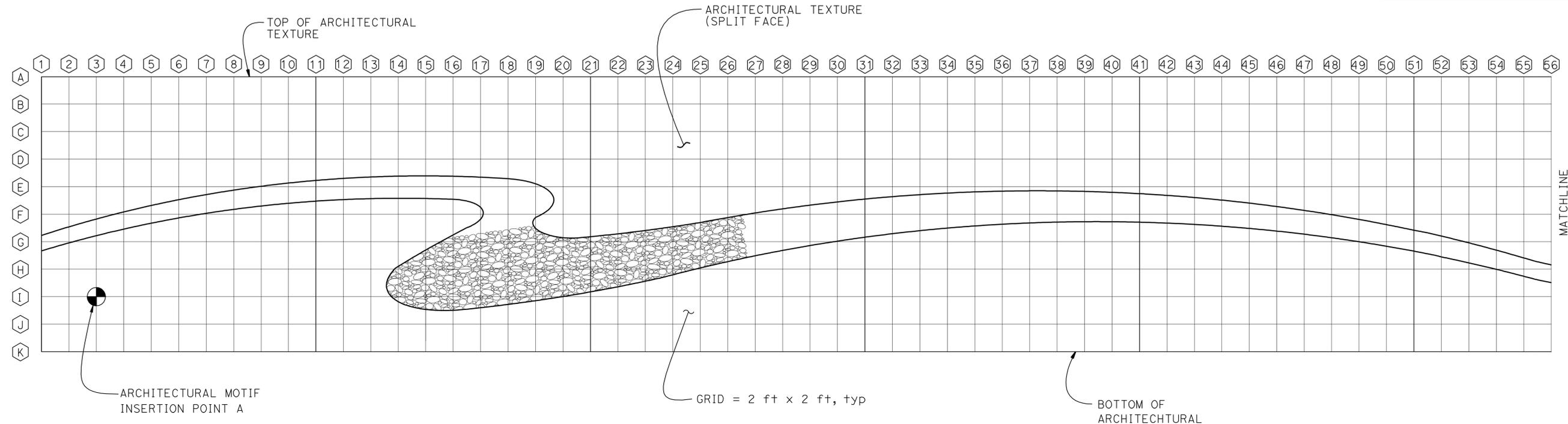
DESIGN BY R. Simmons CHECKED Yong-Pil Kim DETAILS BY E. Montevirgen CHECKED R. Simmons QUANTITIES BY R. Simmons CHECKED Yong-Pil Kim				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0326 POST MILE 17.39	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>DECK DRAINAGE LAYOUT AND DETAILS</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				0 1 2 3	6-11-11 3-01-12	SHEET 26 OF 37	USERNAME => s119571 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 12:43

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1075	1414
			REGISTERED CIVIL ENGINEER	DATE	
			3-26-12	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.					



**NOTES:**

- For the architectural insertion point, see "Abutment 1 Layout" sheet. Band of local river rocks to be continuous between adjacent structures.
- Rocks to be spaced at 1" to 3" apart the first and last 5'-0" of this motif. Additionally, space rocks 1" to 3" apart over a distance of 5'-0" on either side of an angle point in the wall. Elsewhere, space the rocks 1/2" to 3/4" apart. Provide gradual transitions where spacings differ.



**LEGEND**

	Local River Rocks, embedded on slope paving. See "SLOPE PAVING - FULL SLOPE" sheet.
	OR
	Architectural Texture (River Rock) on vertical concrete surfaces. These surfaces shall be prepared and stained.
	Grid reference
	Grid reference

**ABUTMENT, RETAINING WALL AND SLOPE PAVING ARCHITECTURAL MOTIF**  
1/4" = 1'-0"

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY C. Udarbe	CHECKED M. Friedheim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0326	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>ARCHITECTURAL DETAILS NO. 1</b>	
	DETAILS	BY L. Wang	CHECKED M. Friedheim			POST MILE	17.39		
	QUANTITIES	BY C. Udarbe	CHECKED M. Friedheim						
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
								REVISION DATES 07-02-11 09-21-11	SHEET 27 OF 37

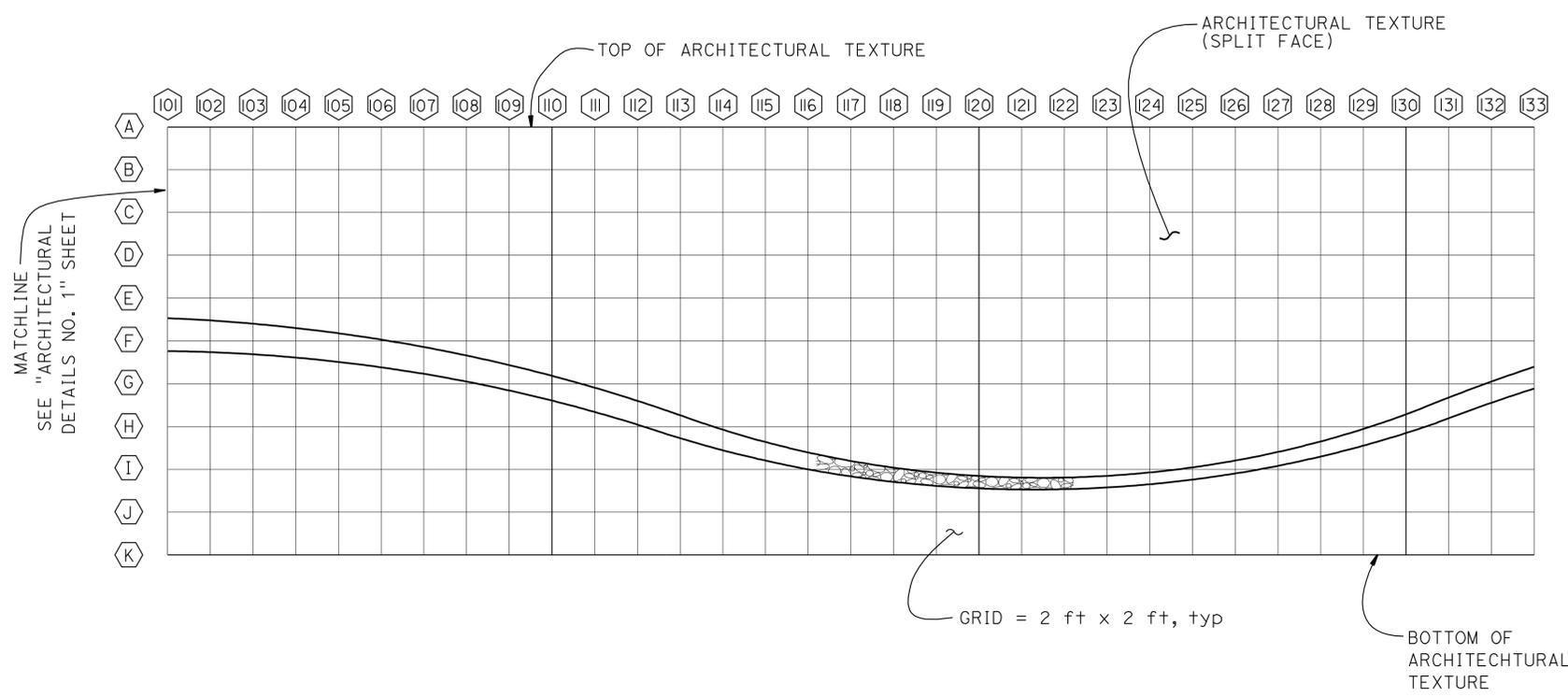
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1076	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE

Chris V. Udarbe  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA

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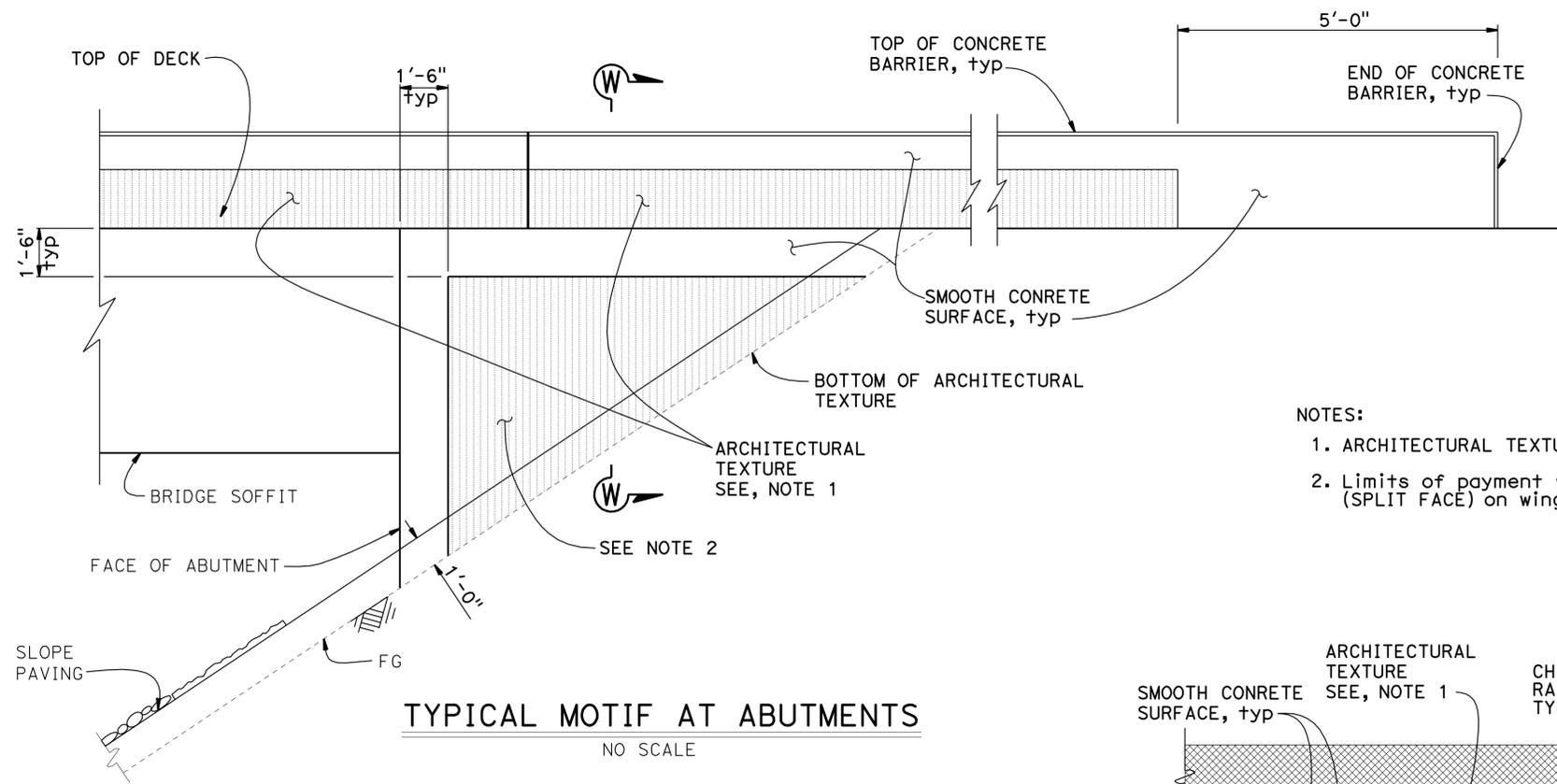


**ABUTMENT, RETAINING WALL AND SLOPE PAVING ARCHITECTURAL MOTIF**  
 1/4" = 1'-0"

- LEGEND**
-  Local River Rocks, embedded on slope paving. See "SLOPE PAVING - FULL SLOPE" sheet.
  - OR
  - Architectural Texture (River Rock) on vertical concrete surfaces. These surfaces shall be prepared and stained.
  -  Grid reference
  -  Grid reference

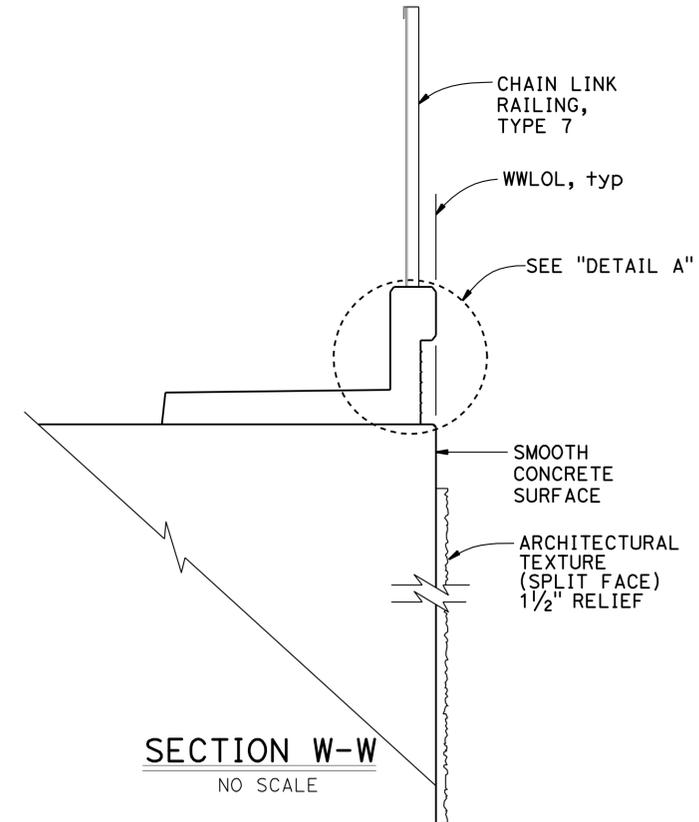
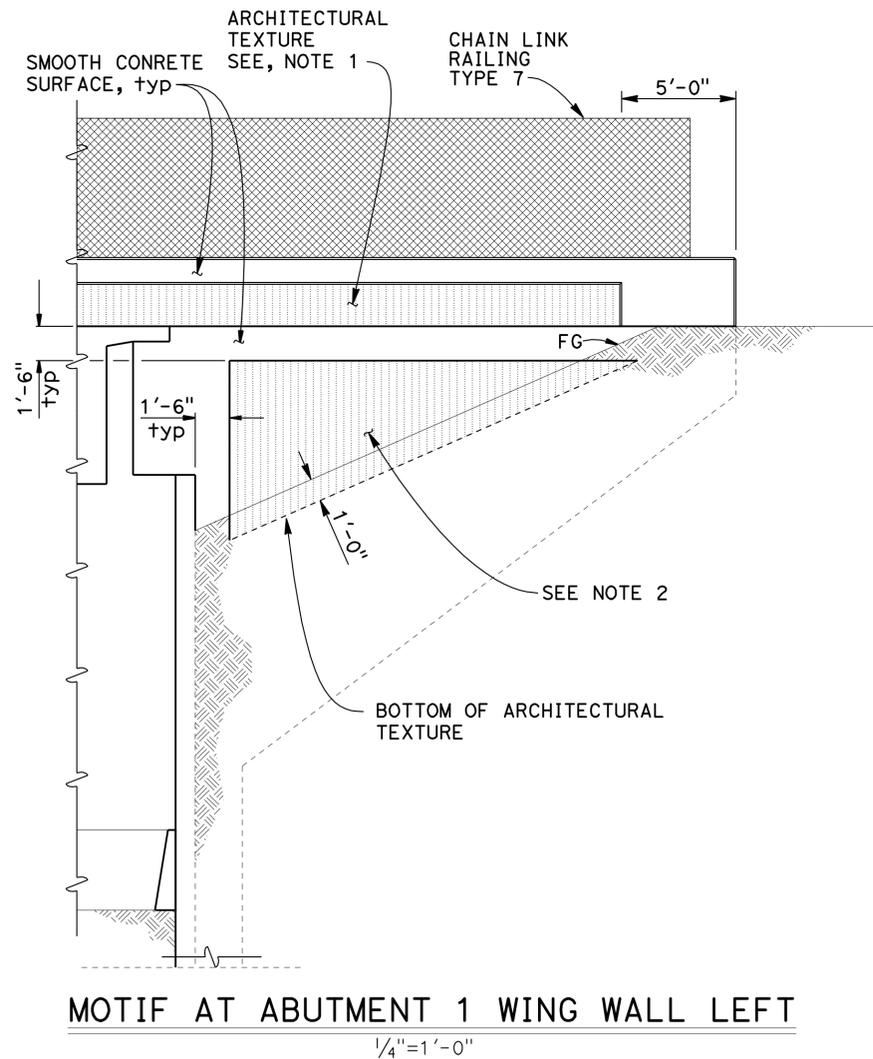
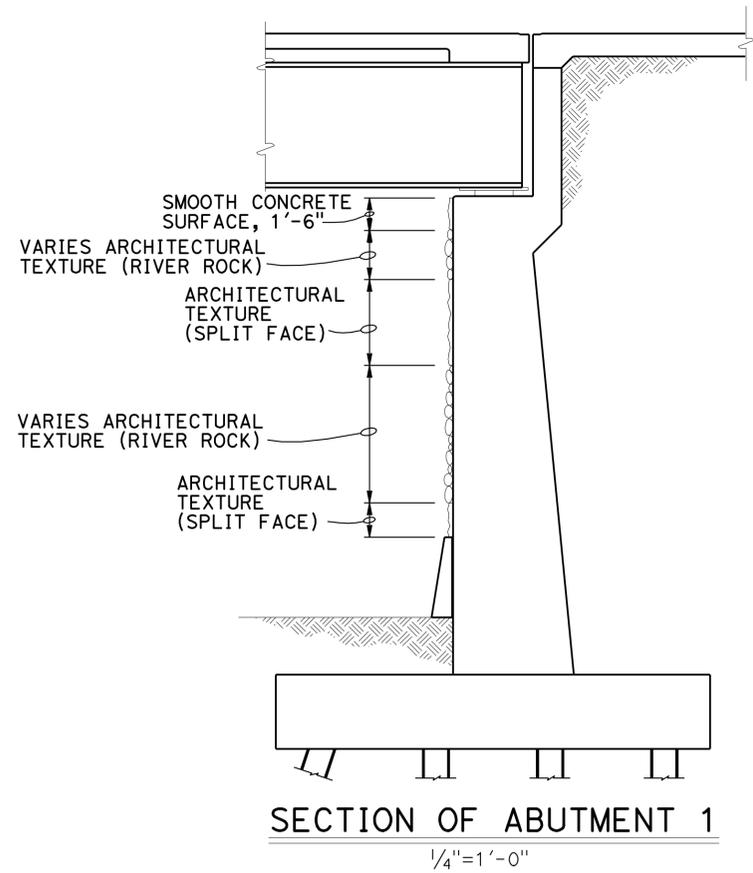
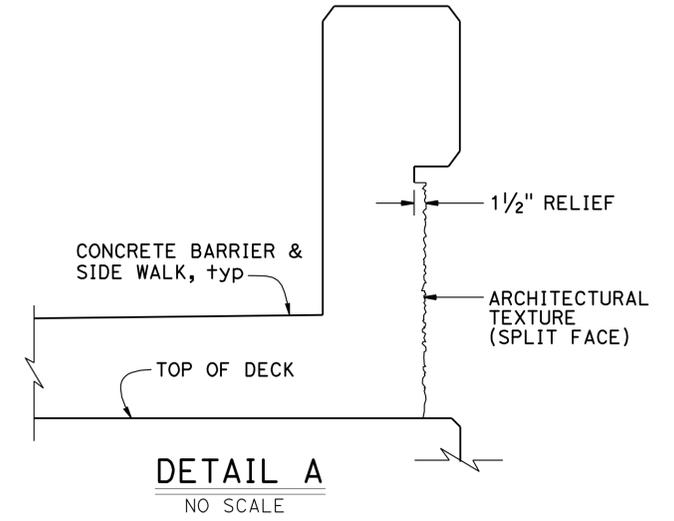
<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION			DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0326 POST MILE 17.39	<b>SOUTH STOCKTON WIDENING</b> <b>EAST STOCKTON UNDERPASS</b> <b>ARCHITECTURAL DETAILS NO. 2</b>			
DESIGN	BY C. Udarbe	CHECKED M. Friedheim	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 10-3A1001		REVISION DATES 07-12-11 09-21-11	SHEET 28	OF 37
DETAILS	BY L. Wang	CHECKED M. Friedheim							
QUANTITIES	BY C. Udarbe	CHECKED M. Friedheim							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			FILE => 29-0326-u-archdt02.dgn		DISREGARD PRINTS BEARING EARLIER REVISION DATES		DATE PLOTTED => 12:44 TIME PLOTTED => 8:11:55:71 USER NAME => 29-MAR-2012		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1077	1414
REGISTERED CIVIL ENGINEER Chris V. Udarbe No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA			11-04-11 DATE 3-26-12 PLANS APPROVAL DATE		
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**TYPICAL MOTIF AT ABUTMENTS**  
NO SCALE

- NOTES:
1. ARCHITECTURAL TEXTURE (SPLIT FACE) on barrier.
  2. Limits of payment for ARCHITECTURAL TEXTURE (SPLIT FACE) on wingwall



DESIGN	BY C. Udarbe	CHECKED R. Simmons
DETAILS	BY L. Wang	CHECKED C. Udarbe
QUANTITIES	BY C. Udarbe	CHECKED M. Friedheim

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO.	29-0326
POST MILE	17.39

**SOUTH STOCKTON WIDENING**  
**EAST STOCKTON UNDERPASS**  
**ARCHITECTURAL DETAILS NO. 3**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1078	1414

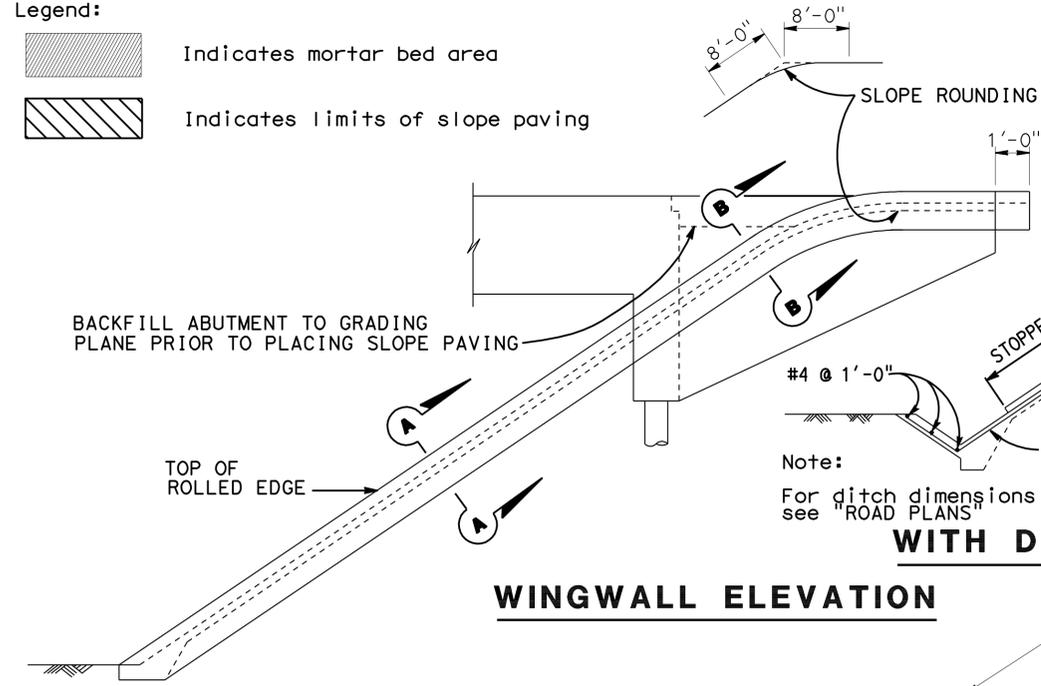
11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris V. Udarbe  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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**Legend:**

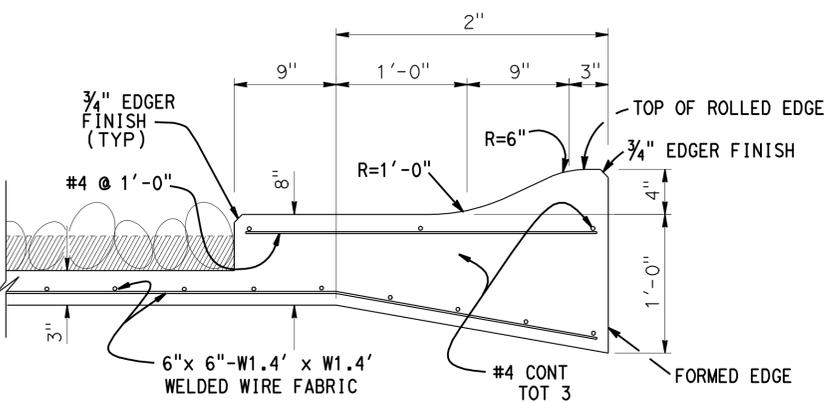
 Indicates mortar bed area

 Indicates limits of slope paving

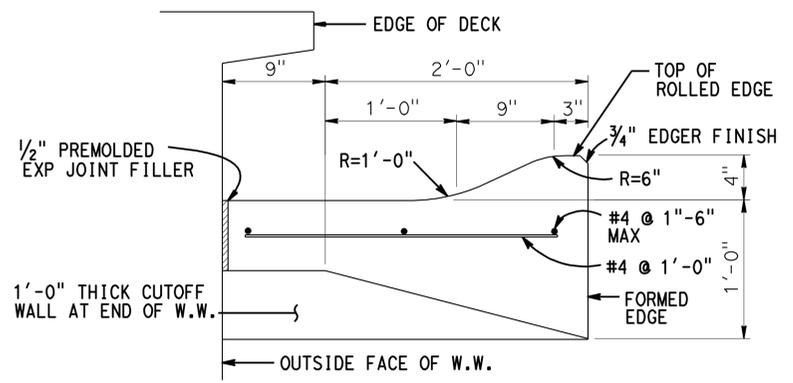
- Notes:**
- Cobbles shall be fully seated in the mortar bed. The mortar surface shall be trimmed to the mid depth of the cobbles.
  - Excess mortar shall be removed and the river rock surfaces shall be cleaned after placement.
  - Bottom of slope paving to match toe of fill. Dimensions to be field verified.



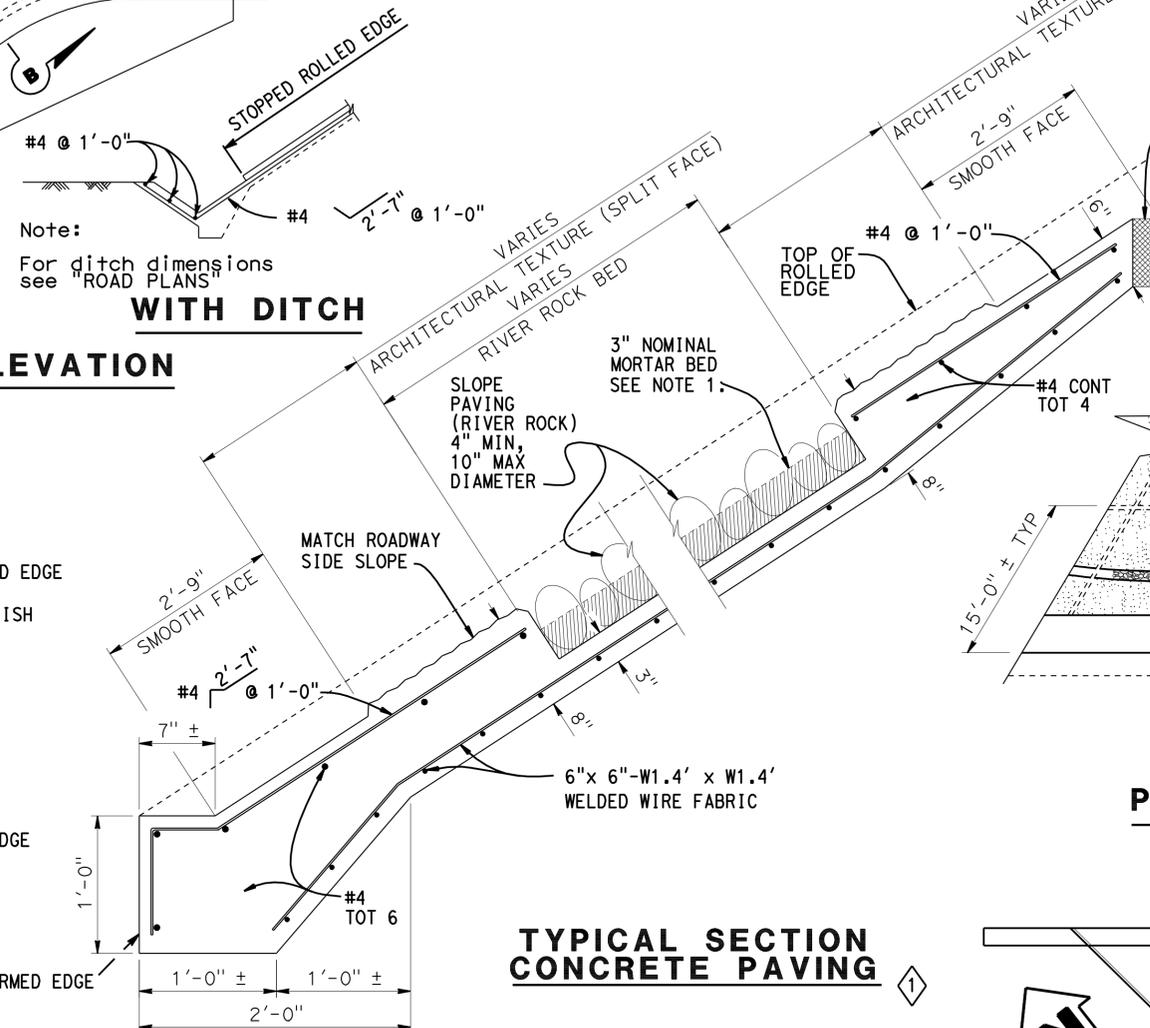
**WINGWALL ELEVATION**



**SECTION A-A**



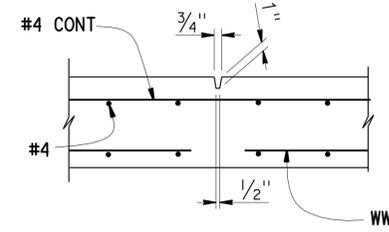
**SECTION B-B**



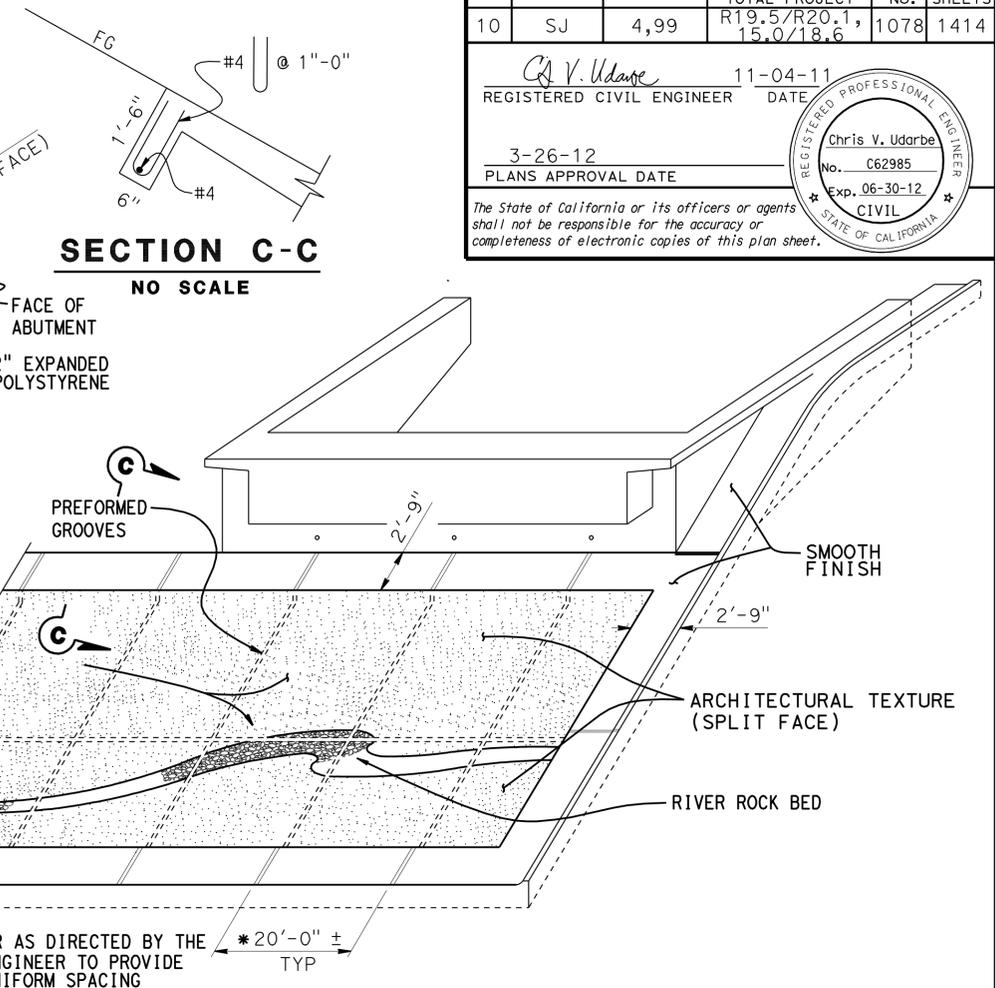
**TYPICAL SECTION CONCRETE PAVING**



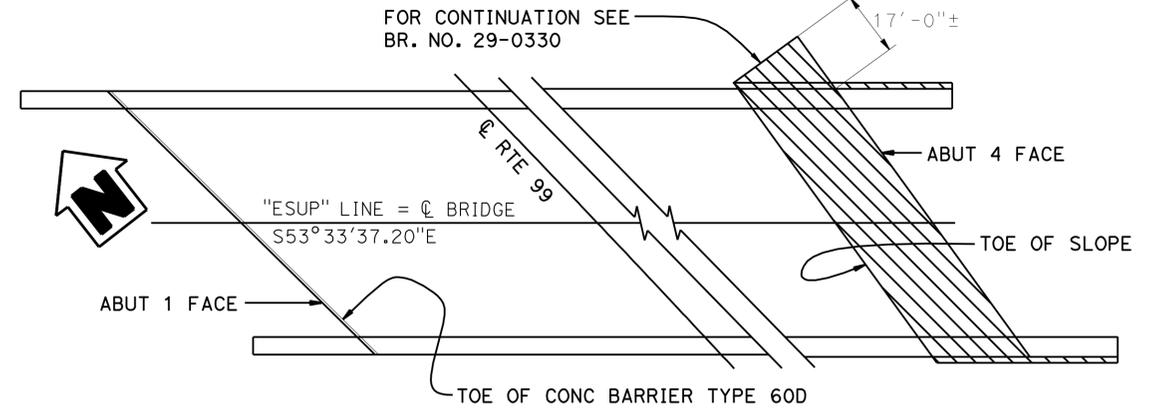
**PREFORMED GROOVE AT RIVER ROCK BED**



**PREFORMED GROOVE AT PERIMETER**



**PICTORIAL VIEW OF TYPICAL INSTALLATION**



**LIMITS OF SLOPE PAVING**

BNSF LOCATION  
LS 7200  
MP 1118.20

**SPECIAL DETAILS**

<b>SOUTH STOCKTON WIDENING</b>	
<b>EAST STOCKTON UNDERPASS</b>	
<b>SLOPE PAVING - FULL SLOPE</b>	

- ① Slope paving details.
- ② Removed Drainage details.
- ③ Removed drainage notes

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES

BRIDGE NO.  
29-0326  
POST MILE  
17.39

REVISED STANDARD DRAWING  
FILE NO. **xs4-210**  
APPROVAL DATE July 2011

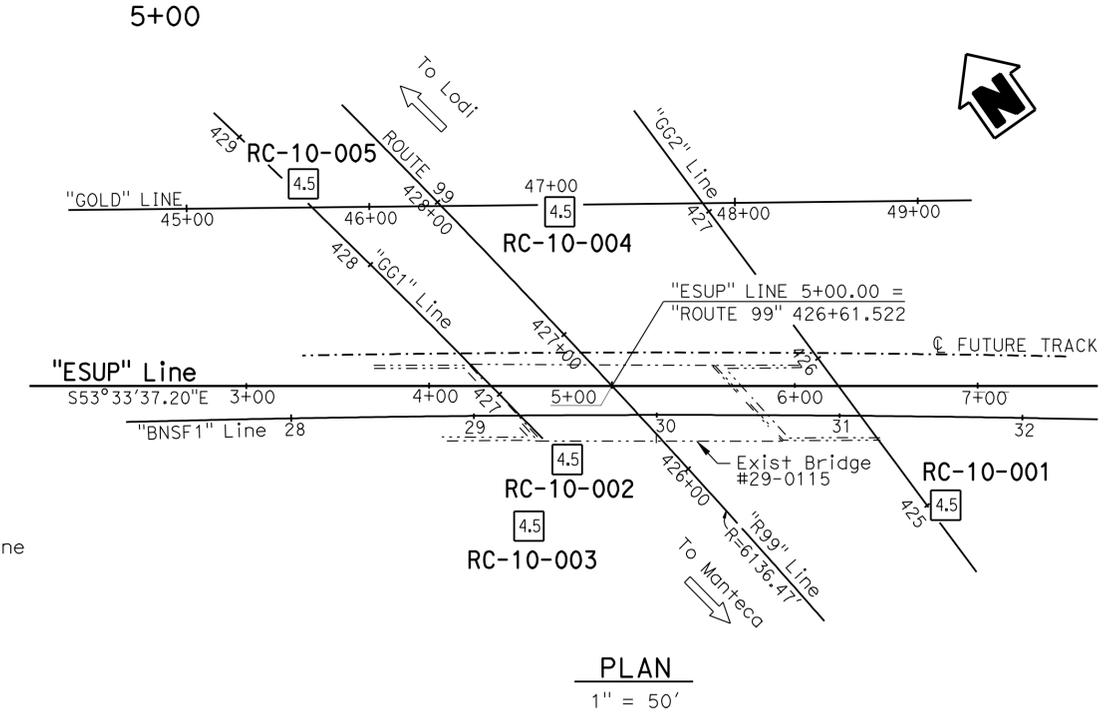
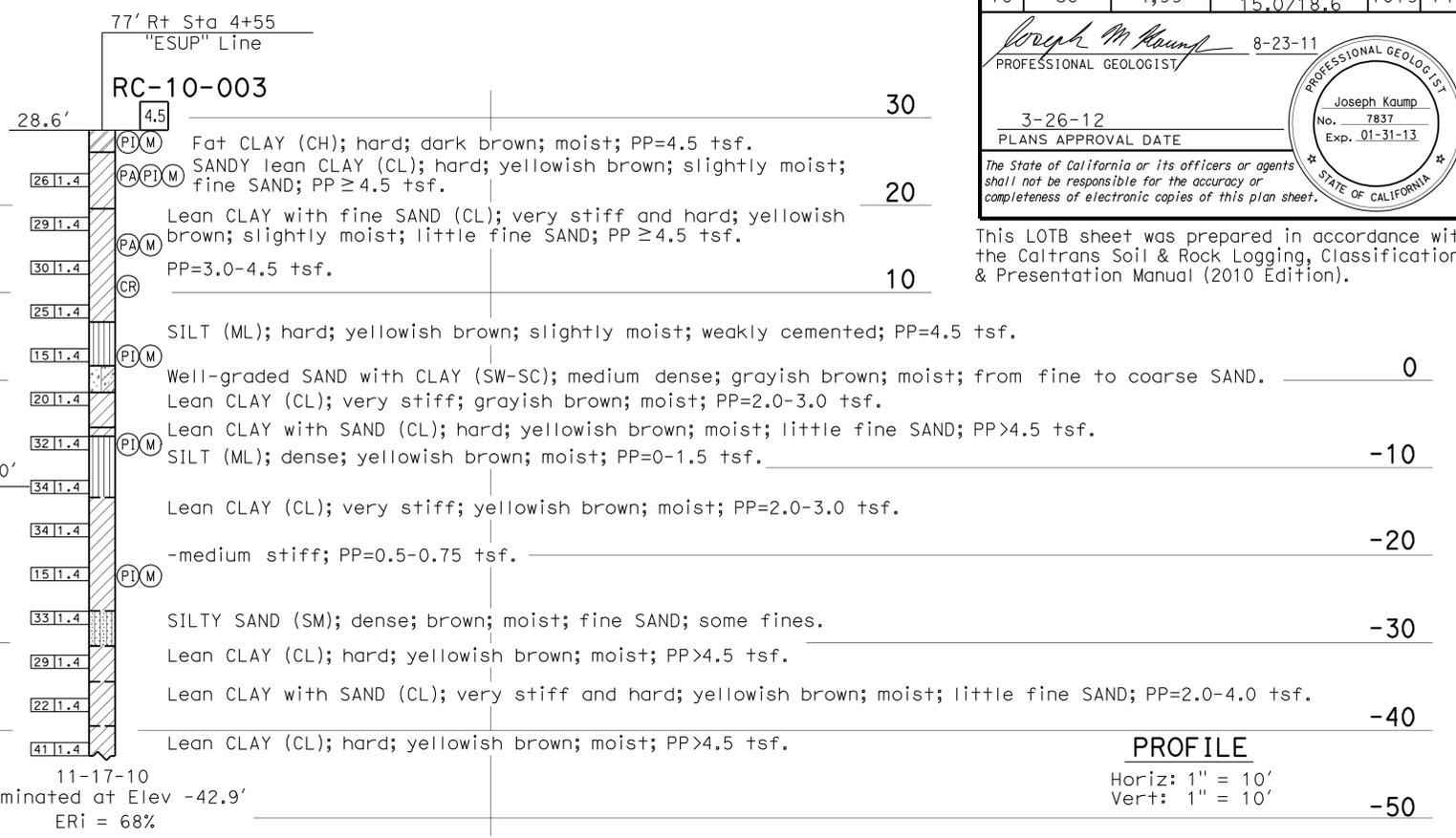
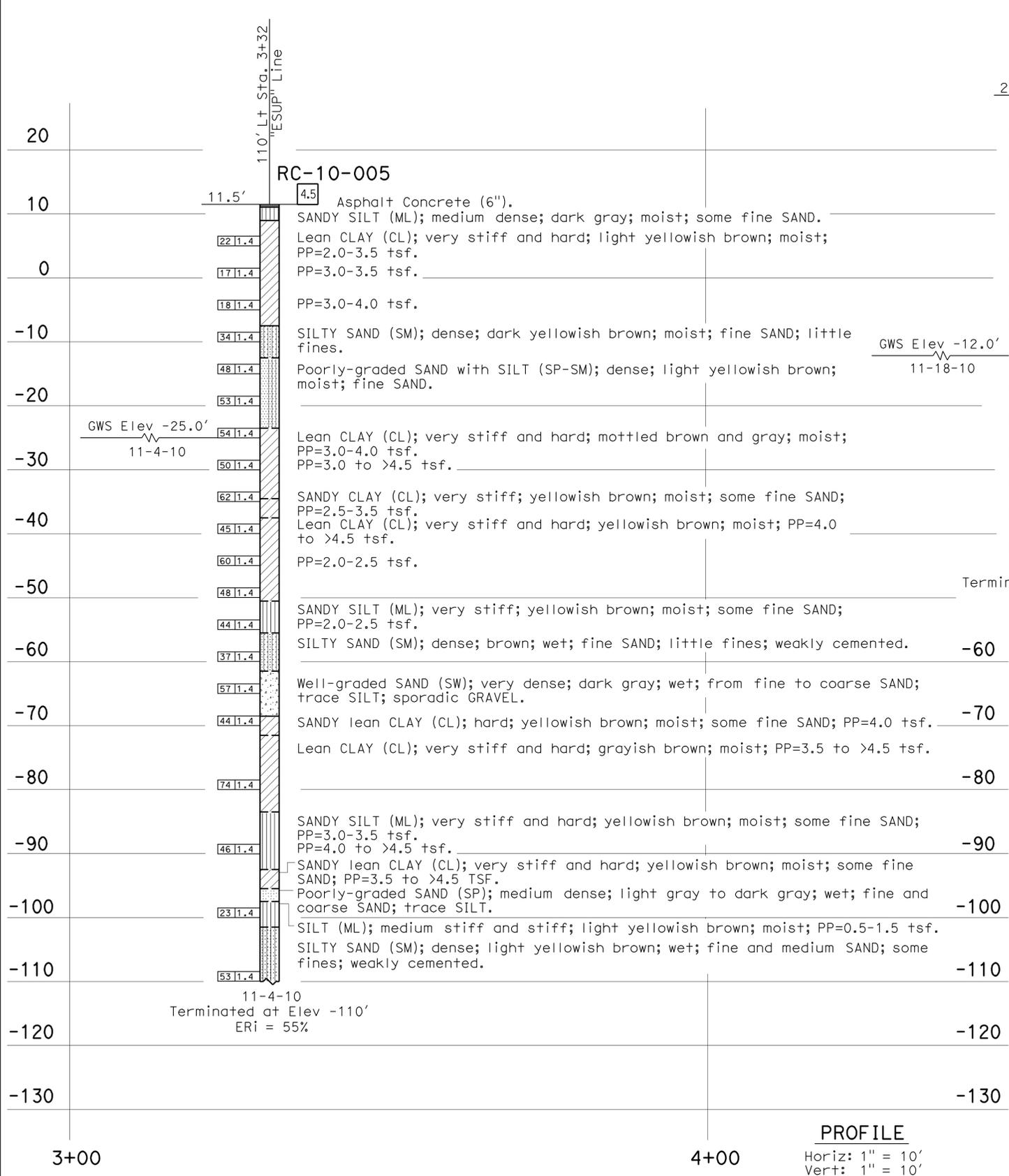
UNIT: 3586  
PROJECT NUMBER & PHASE: 10000004091  
CONTRACT NO.: 3A1001

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
08-01-11	30	37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1079	1414

Joseph M Kaump 8-23-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
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 STATE OF CALIFORNIA  
 PROFESSIONAL GEOLOGIST  
 Joseph Kaump  
 No. 7837  
 Exp. 01-31-13



**BENCH MARK**

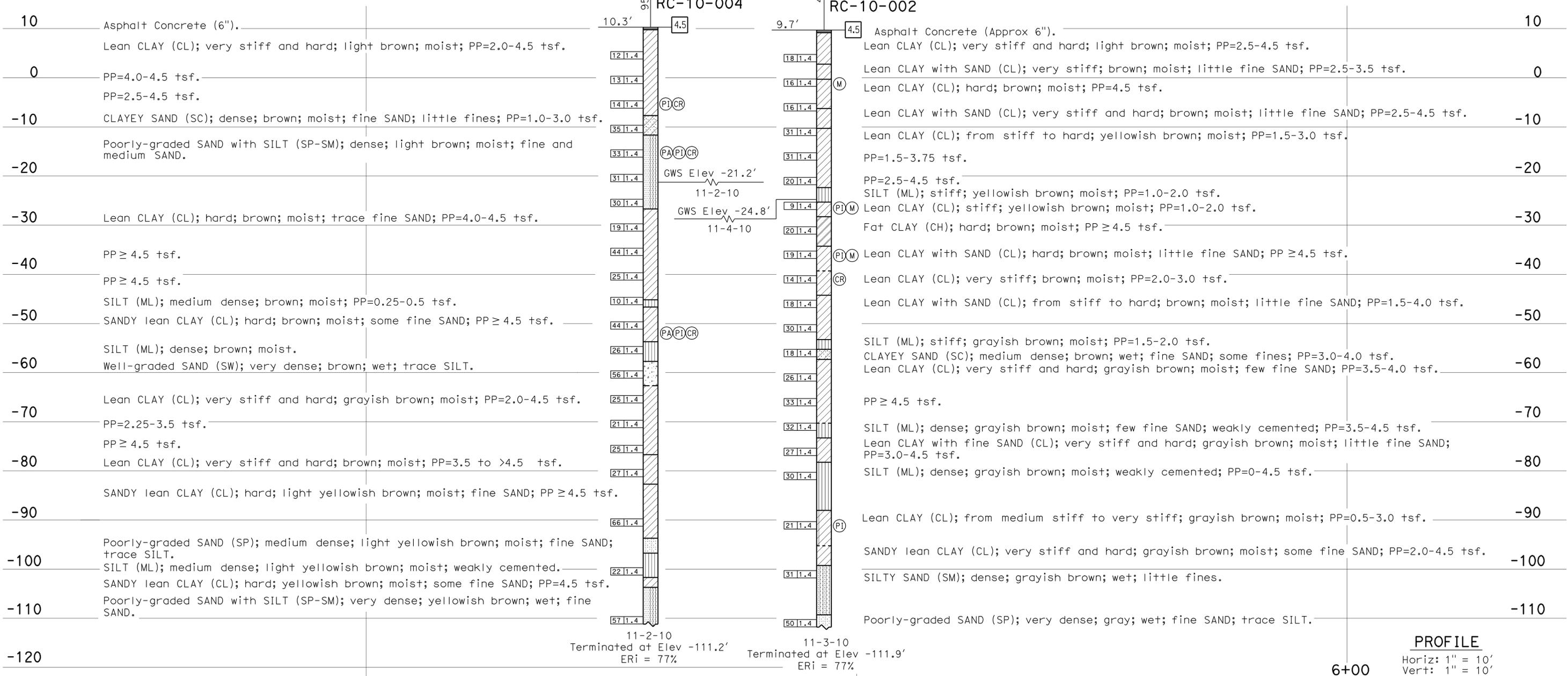
IGP102 Elev 37.14'  
 Fnd Spike  
 103.21' Rt "R99" Line  
 Sta. 429+96.21  
 NGVD29

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION</b>		<b>DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17</b>		<b>SOUTH STOCKTON WIDENING EAST STOCKTON UNDERPASS LOG OF TEST BORINGS 1 OF 7</b>	
FUNCTIONAL SUPERVISOR NAME: R. Buehl	DRAWN BY: I. G-Remmen CHECKED BY: C. Zhen-Ru	FIELD INVESTIGATION BY: A. Barrie / T. Alderman		BRIDGE NO. 29-0326 POST MILE 17.39		CONTRACT NO.: 10-3A1001		REVISION DATES 08-09-11 08-23-11	
065 CIVIL LOG OF TEST BORINGS SHEET				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3		CONTRACT NO.: 10-3A1001		SHEET 31 OF 37	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1080	1414

Joseph M Kaump 8-23-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
 No. 7837  
 Exp. 01-31-13  
 PROFESSIONAL GEOLOGIST  
 STATE OF CALIFORNIA  
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FOR PLAN VIEW, SEE  
"LOG OF TEST BORINGS 1 OF 7"



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

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

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDENING</b>	
FUNCTIONAL SUPERVISOR		DRAWN BY: I. G-Remmen		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 29-0326		<b>EAST STOCKTON UNDERPASS</b>	
NAME: R. Buehl		CHECKED BY: C. Zhen-Ru		FIELD INVESTIGATION BY: T. Alderman		POST MILE 17.39		<b>LOG OF TEST BORINGS 2 OF 7</b>	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001	
						DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES: 08-09-11, 08-23-11	
								SHEET 32 OF 37	

FOR PLAN VIEW, SEE  
"LOG OF TEST BORINGS 1 OF 7"

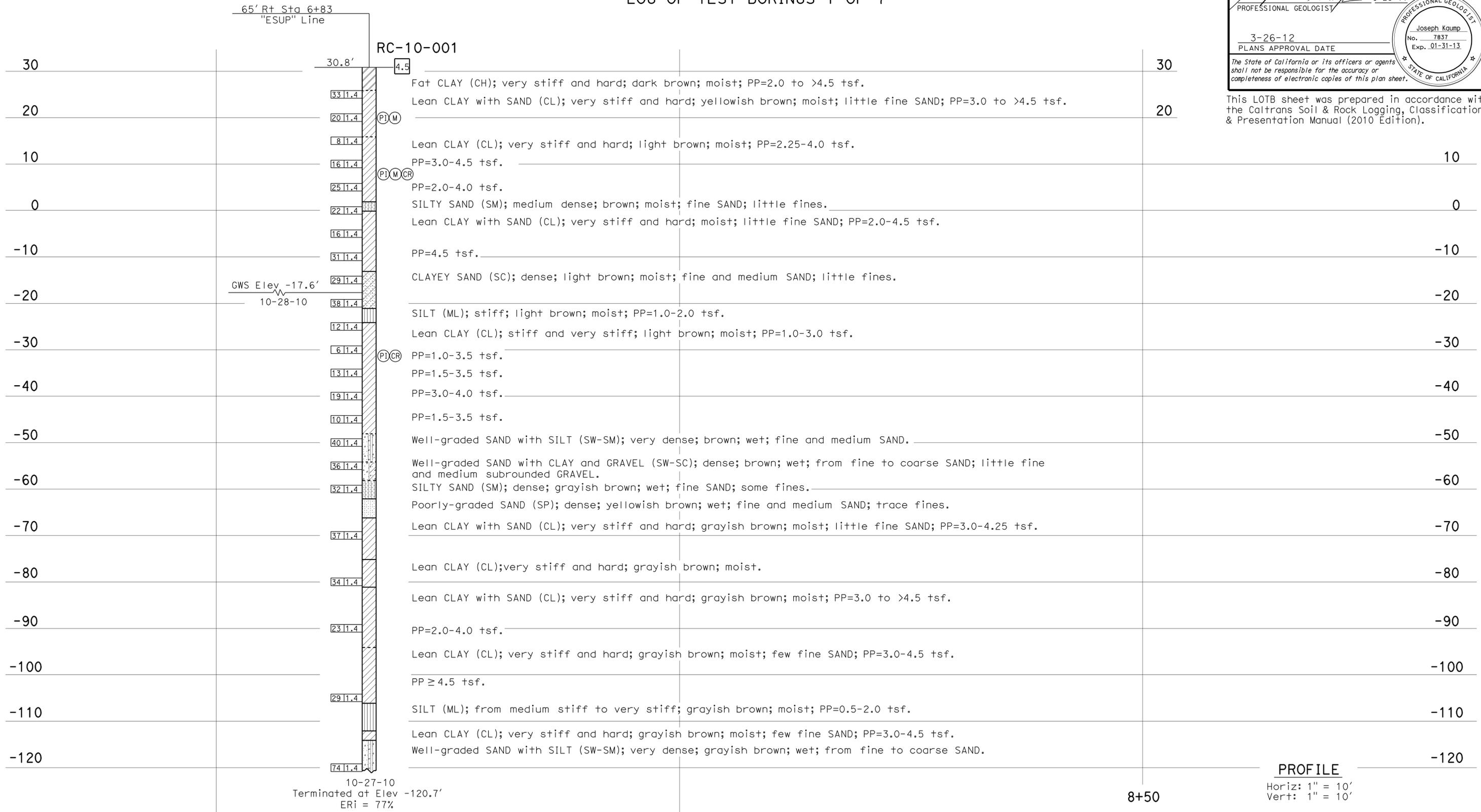
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1081	1414

Joseph M Kaump 8-23-11  
PROFESSIONAL GEOLOGIST

3-26-12  
PLANS APPROVAL DATE

Joseph Kaump  
No. 7837  
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STATE OF CALIFORNIA

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<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDENING</b>	
FUNCTIONAL SUPERVISOR		DRAWN BY: I. G-Remmen		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 29-0326		<b>EAST STOCKTON UNDERPASS</b>	
NAME: R. Buehl		CHECKED BY: C. Zhen-Ru		FIELD INVESTIGATION BY: T. Alderman		POST MILE 17.39		<b>LOG OF TEST BORINGS 3 OF 7</b>	
OGS CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001	
				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET 33 OF 37	

FILE => 29-0326-z-10tb03.dgn

USERNAME => s119571 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 12:45

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1082	1414

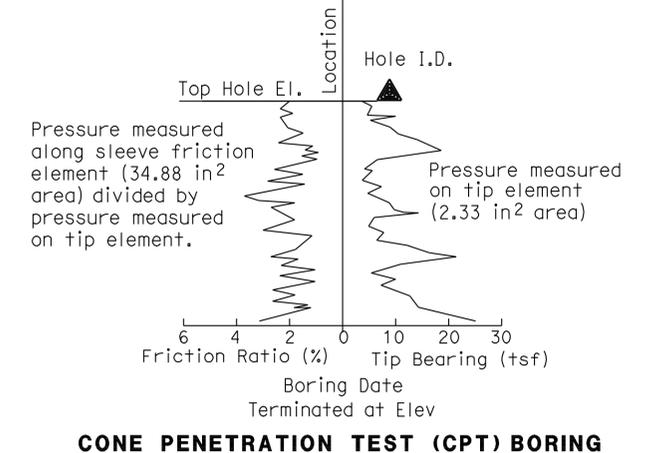
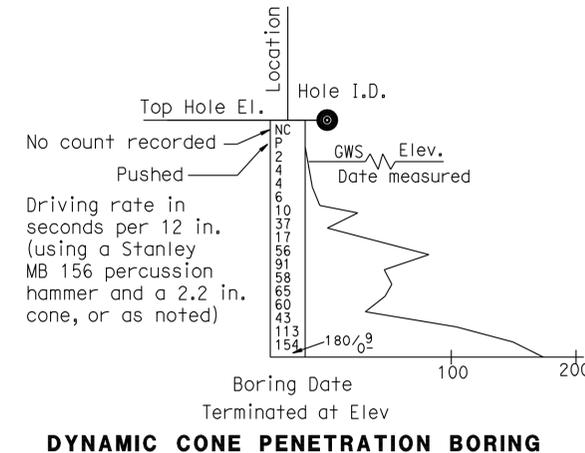
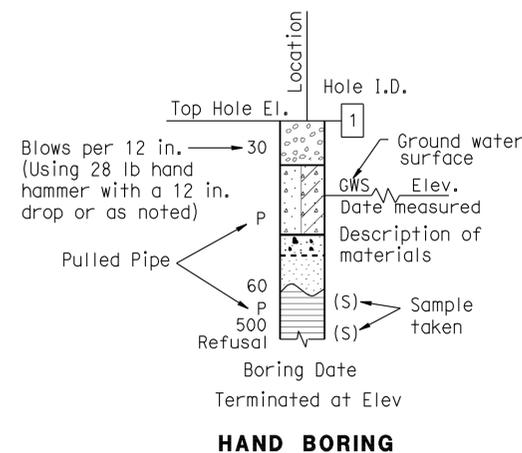
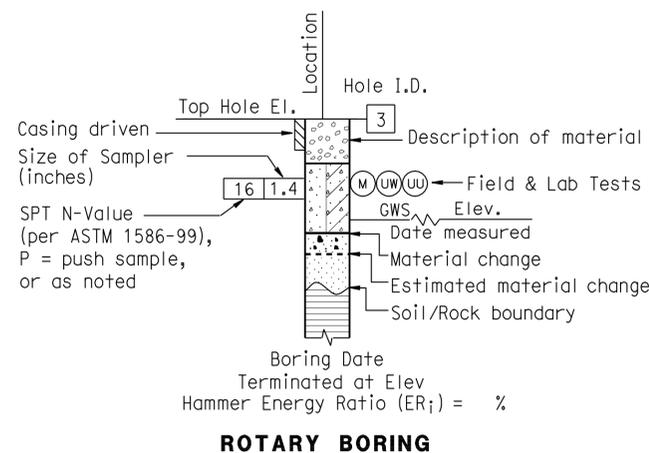
*Joseph M Kaump* 8-23-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
 No. 7837  
 Exp. 01-31-13  
 PROFESSIONAL GEOLOGIST  
 STATE OF CALIFORNIA  
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778)
	O	Other (note on LOTB)

Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDENING</b>	
		PREPARED BY: I.G-Remmen		<b>DEPARTMENT OF TRANSPORTATION</b>		<b>STRUCTURE DESIGN</b>		<b>EAST STOCKTON UNDERPASS</b>	
						<b>DESIGN BRANCH 17</b>		<b>LOG OF TEST BORINGS 4 OF 7</b>	
BRIDGE NO. 29-0326		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		REVISION DATES		SHEET 34 OF 37	
POST MILE 17.39		UNIT: 3643		DISREGARD PRINTS BEARING EARLIER REVISION DATES					

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS  
 FILE => 29-0326-Z-10tb04.dgn

USERNAME => s119571 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 12:45

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1083	1414

*Joseph M Kaump* 8-23-11  
 PROFESSIONAL GEOLOGIST  
 No. 7837  
 Exp. 01-31-13  
 PROFESSIONAL GEOLOGIST  
 STATE OF CALIFORNIA  
 3-26-12  
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GROUP SYMBOLS AND NAMES			
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	Well-graded GRAVEL		Lean CLAY
	Well-graded GRAVEL with SAND		Lean CLAY with SAND
	Poorly-graded GRAVEL		Lean CLAY with GRAVEL
	Poorly-graded GRAVEL with SAND		SANDY lean CLAY
	Well-graded GRAVEL with SILT		SANDY lean CLAY with GRAVEL
	Well-graded GRAVEL with SILT and SAND		GRAVELLY lean CLAY
	Well-graded GRAVEL with CLAY (or SILTY CLAY)		GRAVELLY lean CLAY with SAND
	Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SILTY CLAY
	Poorly-graded GRAVEL with SILT		SILTY CLAY with SAND
	Poorly-graded GRAVEL with SILT and SAND		SILTY CLAY with GRAVEL
	Poorly-graded GRAVEL with CLAY (or SILTY CLAY)		SANDY SILTY CLAY
	Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SANDY SILTY CLAY with GRAVEL
	SILTY GRAVEL		GRAVELLY SILTY CLAY
	SILTY GRAVEL with SAND		GRAVELLY SILTY CLAY with SAND
	CLAYEY GRAVEL		SILT
	CLAYEY GRAVEL with SAND		SILT with SAND
	SILTY, CLAYEY GRAVEL		SILT with GRAVEL
	SILTY, CLAYEY GRAVEL with SAND		SANDY SILT
	Well-graded SAND		SANDY SILT with GRAVEL
	Well-graded SAND with GRAVEL		GRAVELLY SILT
	Poorly-graded SAND		GRAVELLY SILT with SAND
	Poorly-graded SAND with GRAVEL		ORGANIC lean CLAY
	Well-graded SAND with SILT		ORGANIC lean CLAY with SAND
	Well-graded SAND with SILT and GRAVEL		ORGANIC lean CLAY with GRAVEL
	Well-graded SAND with CLAY (or SILTY CLAY)		SANDY ORGANIC lean CLAY
	Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		SANDY ORGANIC lean CLAY with GRAVEL
	Poorly-graded SAND with SILT		GRAVELLY ORGANIC lean CLAY
	Poorly-graded SAND with SILT and GRAVEL		GRAVELLY ORGANIC lean CLAY with SAND
	Poorly-graded SAND with CLAY (or SILTY CLAY)		ORGANIC SILT
	Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		ORGANIC SILT with SAND
	SILTY SAND		ORGANIC SILT with GRAVEL
	SILTY SAND with GRAVEL		SANDY ORGANIC SILT
	CLAYEY SAND		SANDY ORGANIC SILT with GRAVEL
	CLAYEY SAND with GRAVEL		GRAVELLY ORGANIC SILT
	SILTY, CLAYEY SAND		GRAVELLY ORGANIC SILT with SAND
	SILTY, CLAYEY SAND with GRAVEL		ORGANIC fat CLAY
	PEAT		ORGANIC fat CLAY with SAND
	PEAT		ORGANIC fat CLAY with GRAVEL
	COBBLES		SANDY ORGANIC fat CLAY
	COBBLES and BOULDERS		GRAVELLY ORGANIC fat CLAY
			GRAVELLY ORGANIC fat CLAY with SAND

FIELD AND LABORATORY TESTING	
(C)	Consolidation (ASTM D 2435)
(CL)	Collapse Potential (ASTM D 5333)
(CP)	Compaction Curve (CTM 216)
(CR)	Corrosivity Testing (CTM 643, CTM 422, CTM 417)
(CU)	Consolidated Undrained Triaxial (ASTM D 4767)
(DS)	Direct Shear (ASTM D 3080)
(EI)	Expansion Index (ASTM D 4829)
(M)	Moisture Content (ASTM D 2216)
(OC)	Organic Content-% (ASTM D 2974)
(P)	Permeability (CTM 220)
(PA)	Particle Size Analysis (ASTM D 422)
(PI)	Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
(PL)	Point Load Index (ASTM D 5731)
(PM)	Pressure Meter
(R)	R-Value (CTM 301)
(SE)	Sand Equivalent (CTM 217)
(SG)	Specific Gravity (AASHTO T 100)
(SL)	Shrinkage Limit (ASTM D 427)
(SW)	Swell Potential (ASTM D 4546)
(UC)	Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
(UU)	Unconsolidated Undrained Triaxial (ASTM D 2850)
(UW)	Unit Weight (ASTM D 4767)

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N <sub>60</sub> (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

PARTICLE SIZE		
Description	Size (in.)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0326	SOUTH STOCKTON WIDENING EAST STOCKTON UNDERPASS LOG OF TEST BORINGS 5 OF 7
				POST MILE 17.39	
PREPARED BY: I.G-Remmen	UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	REVISION DATES	SHEET 35 OF 37	

GS LOTB SOIL LEGEND ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

FILE => 29-0326-z-1ofb05.dgn

DATE APPROVED: November 9, 1965

TO ACCOMPANY PLANS DATED 3-26-12

DIVISION OF ENGINEERING SERVICES - MATERIALS AND 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. It does not attest to the accuracy or validity of the information contained in 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 MILE-TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	4,99	R19.5/R20.1,15.0/18.6	1084	1414

Professional Geologist: Joseph Kaump, No. 7837, Exp. 1-31-13, State of California

**SOUTH STOCKTON WIDEN EAST STOCKTON UNDERPASS LOG OF TEST BORINGS 6 OF 7**

UNIT: 3643 CONTRACT No. 10-3A1001 BRIDGE No. 29-0326  
 PROJECT NUMBER & PHASE: 10000004091

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

Revisions made to this Log of Test Borings from the original 1957 Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "R99" Line
B-1	430+40	+5 ft Right
B-2	430+20	+50 ft Right
B-4	430+75	+55 ft Left

- Notes:
- See the General Plan and/or the Foundation Plan for "R99" Stationing.
  - Geotechnical Services produced the data presented in the table above. The data are the locations for the As-Built Test Borings referenced to the "R99" Stationing Line. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.

**BRIDGE DEPARTMENT ENGINEERING GEOLOGY SECTION**

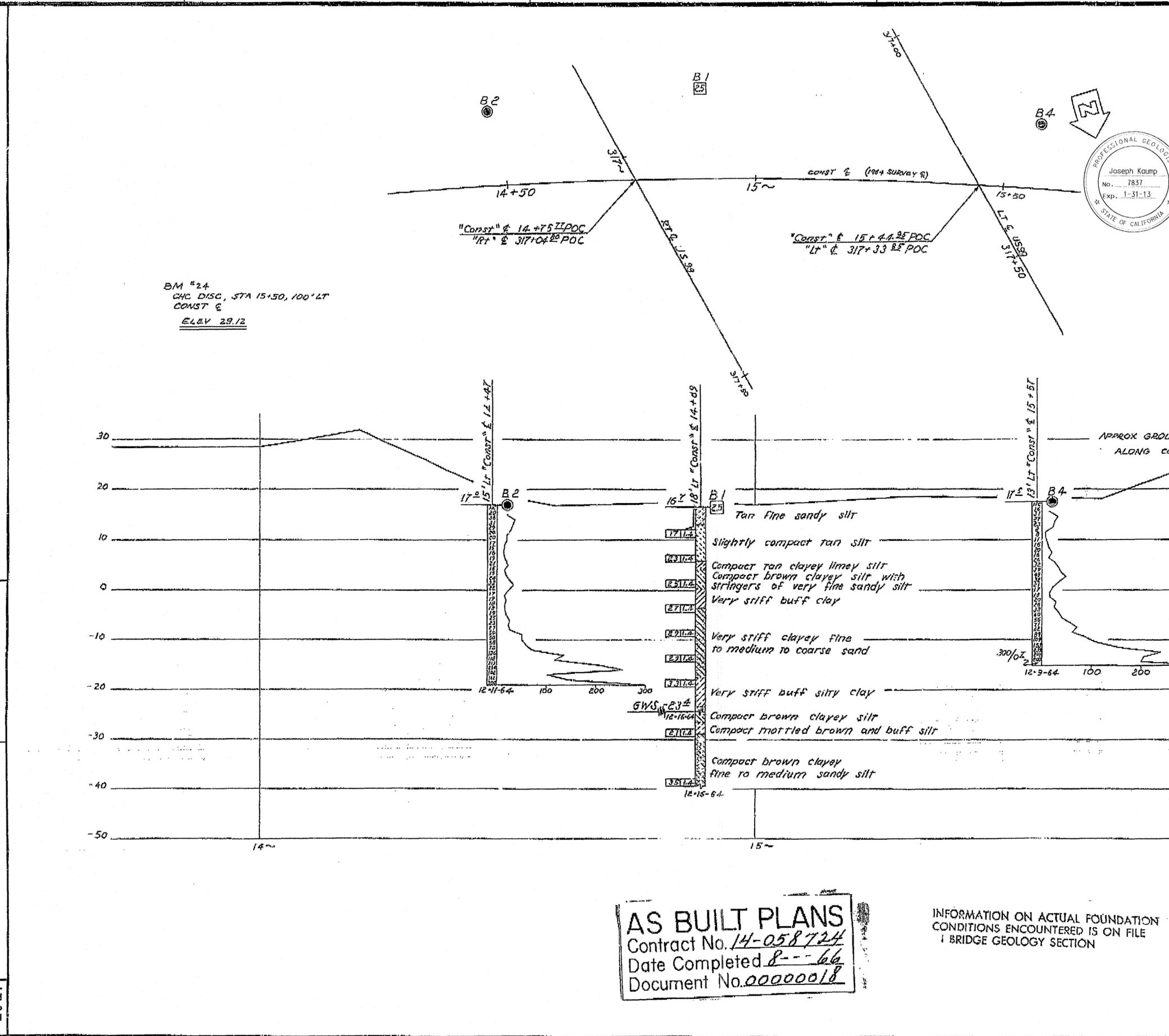
CHECKED: [Signature]

APPROVED: [Signature]

**LEGEND OF EARTH MATERIALS**

CLASSIFICATION OF MATERIALS BASED ON STANDARD GRADE SIZE LIMITS OF BRIDGE DEPARTMENT ENGINEERING GEOLOGY SECTION

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.



**AS BUILT PLANS**  
 Contract No. 14-058724  
 Date Completed 8-66  
 Document No. 00000018

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

STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

**GOLDEN GATE AVENUE O.C.**

**LOG OF TEST BORINGS**

SCALE 1"=10' BRIDGE 29-103 FILE DRAWING 29/03-7

SHEET 10 OF 12

DIST.	COUNTY	ROUTE	SECTION
X	S.J	4	E

BRIDGE ENGINEER LICENSE 1414  
DATE APPROVED \_\_\_\_\_

TO ACCOMPANY PLANS DATED 3-26-12

DIVISION OF ENGINEERING SERVICES - MATERIALS AND 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. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

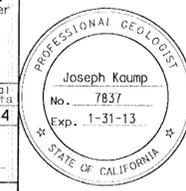
DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	4,99	R19.5/R20.1,15.0/18.6	1085	1414

Professional Geologist: Joseph Kaup, No. 7837, Exp. 1-31-13, Date: 8-25-11

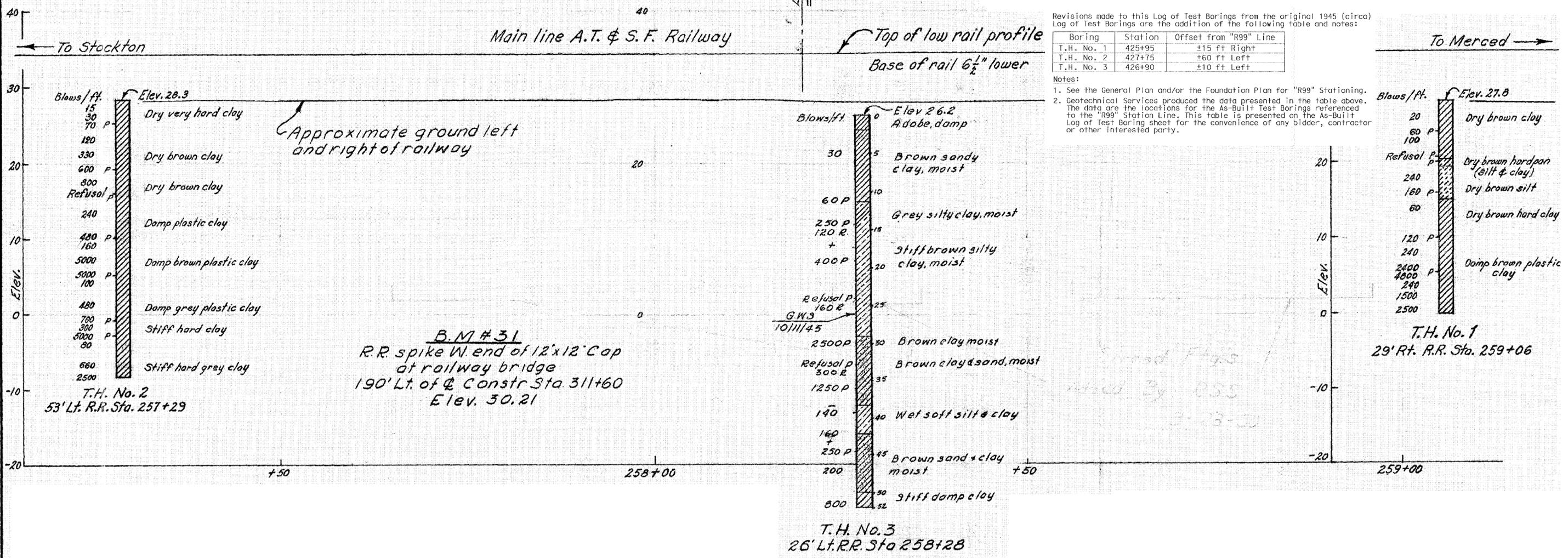
**SOUTH STOCKTON WIDEN EAST STOCKTON UNDERPASS**  
**LOG OF TEST BORINGS 7 OF 7**

UNIT: 3643	CONTRACT No. 10-3A1001	BRIDGE No. 29-0326
PROJECT NUMBER & PHASE: 1000004091	10-3A1001	29-0326

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



Lt. of constr. Sta. 313+43.46 P.O.C.  
= R.R. Sta. 258+19.9 P.O.C.



Revisions made to this Log of Test Borings from the original 1945 (circa) Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "R99" Line
T.H. No. 1	425+95	±15 ft Right
T.H. No. 2	427+75	±60 ft Left
T.H. No. 3	426+90	±10 ft Left

- Notes:  
1. See the General Plan and/or the Foundation Plan for "R99" Stationing.  
2. Geotechnical Services produced the data presented in the table above. The data are the locations for the As-Built Test Borings referenced to the "R99" Station Line. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.

STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF HIGHWAYS  
BRIDGE DEPARTMENT

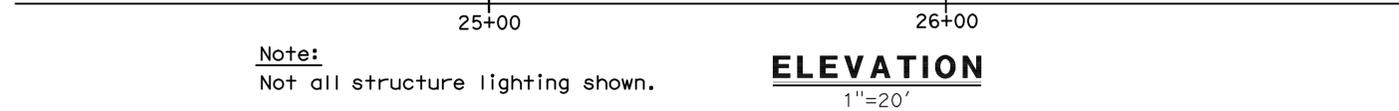
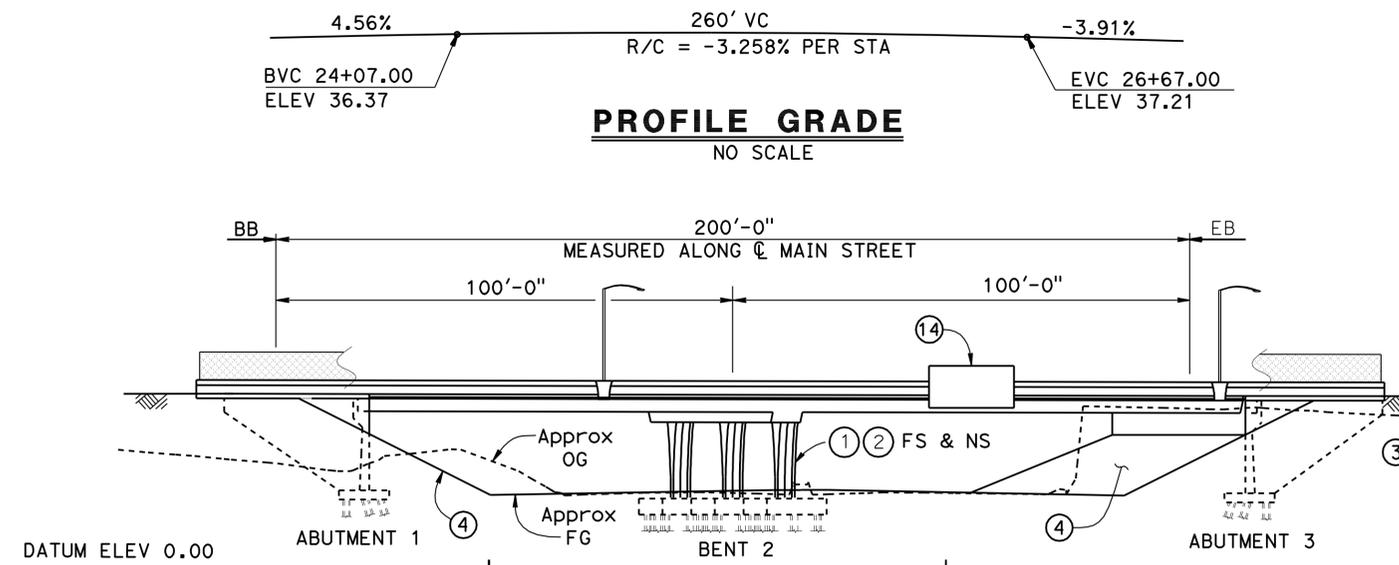
FORM B.D. 95, REV. 11/64  
2/1987 10-45 1M 370

DRAWN BY: S.S. P. 9-45  
CHECKED BY: \_\_\_\_\_  
APPROVED: \_\_\_\_\_  
SURVEY BY: C.W.W.A. 9-45

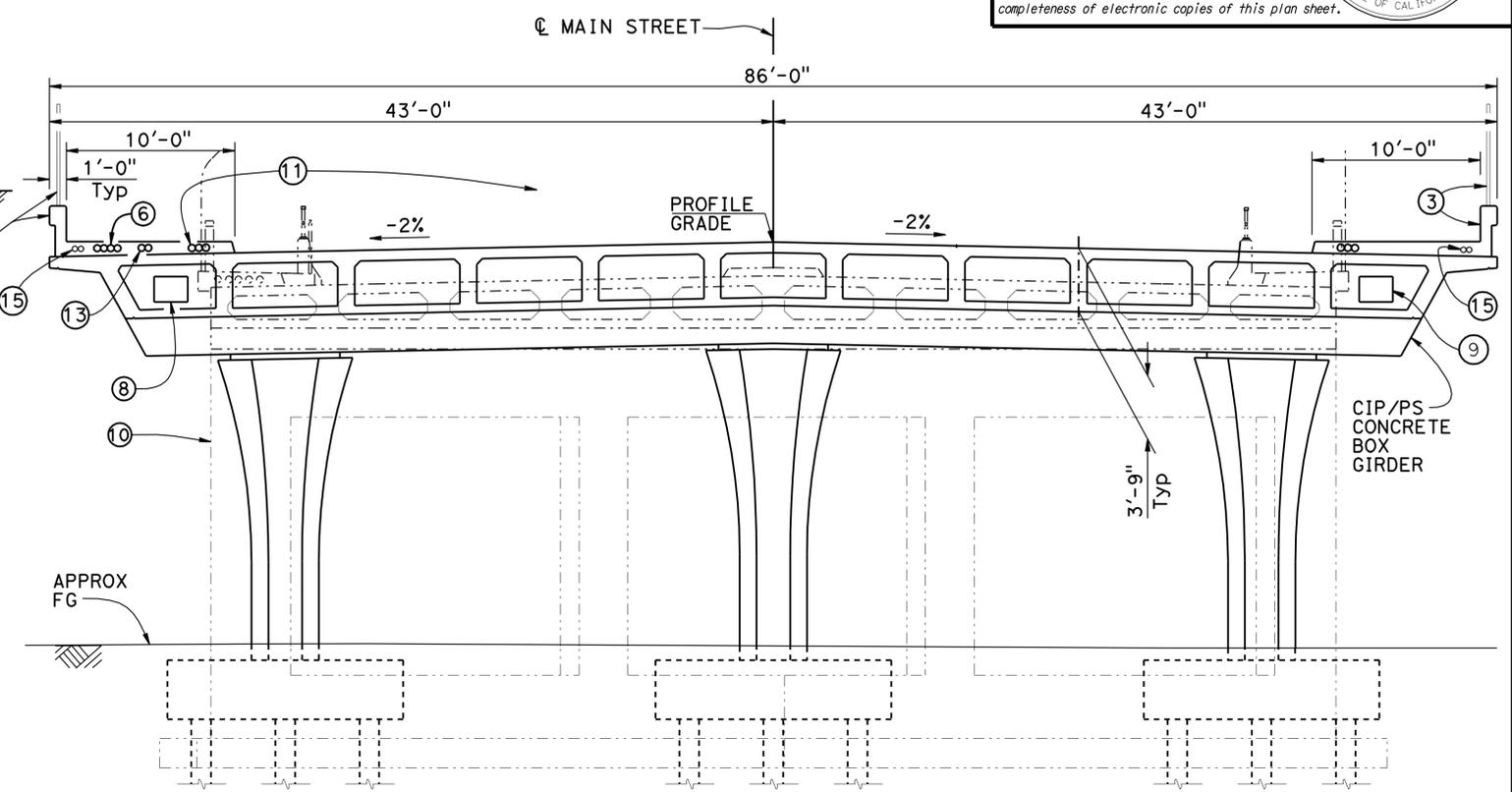
**EAST STOCKTON UNDERPASS**  
**TRACK PROFILE AND TEST HOLES**

SCALE: 1" = 10' FILE NO. E-29  
BRIDGE NO. 29-115 DRWG. NO. P-1008-2-R1

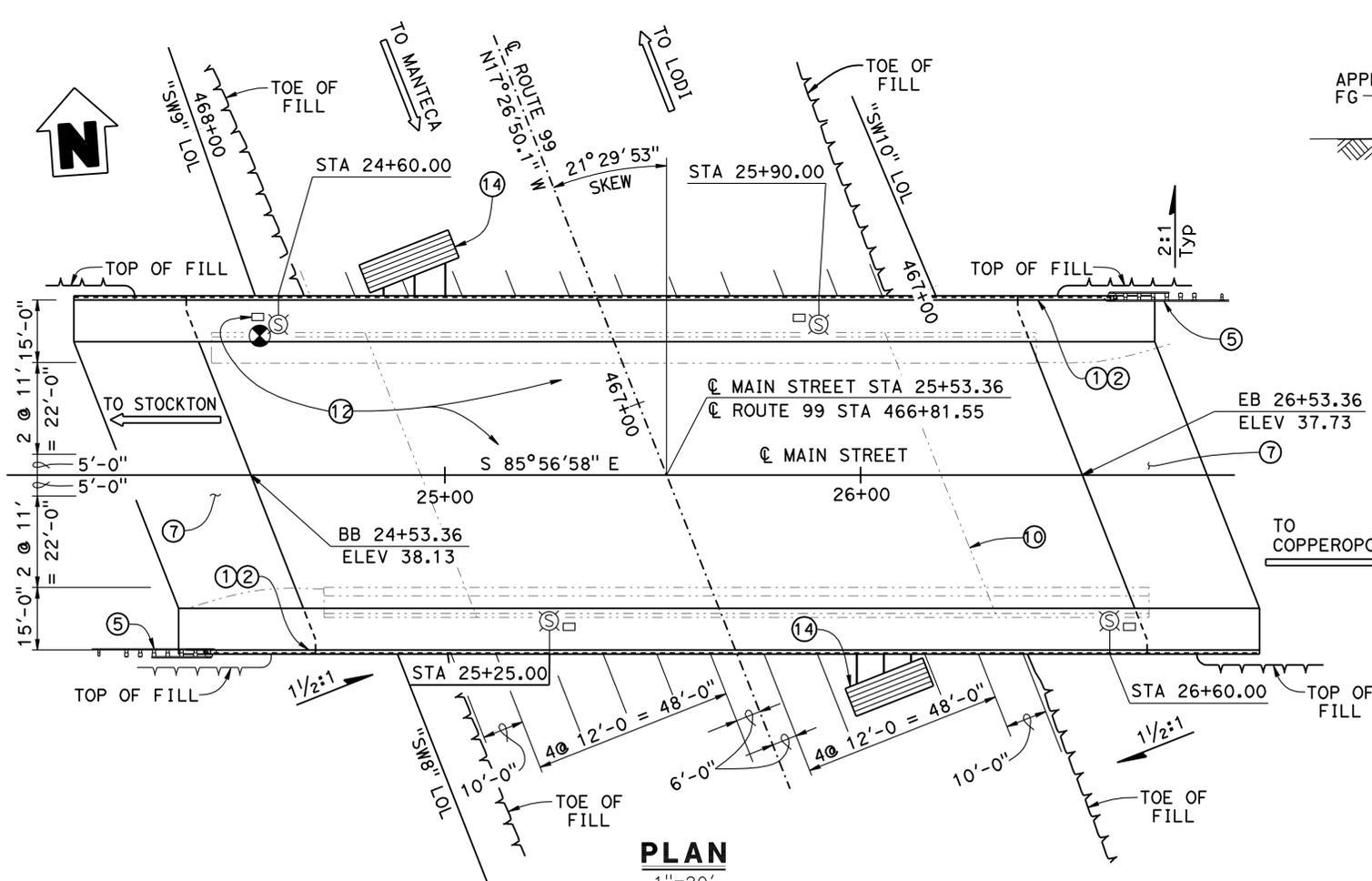
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1086	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
			REGISTERED PROFESSIONAL ENGINEER		
			Chris V. Udarbe		
			No. C 62985		
			Exp. 06-30-12		
			CIVIL		
<small>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.</small>					



Note:  
Not all structure lighting shown.



**TYPICAL SECTION**  
3/16" = 1'-0"



- Notes:**
- ① Paint "Br No. 29-0327"
  - ② Paint "Main Street OC"
  - ③ Concrete barrier Type 26 (Mod) with chain link railing Type 7, (Mod)
  - ④ Slope Paving
  - ⑤ MBGR, see "ROAD PLANS"
  - ⑥ 4"  $\varnothing$  AT&T ducts, total 4
  - ⑦ Structure Approach Type N(30S)
  - ⑧ Utility Opening w/2 - 6" PG&E electrical conduits
  - ⑨ Future Utility Opening
  - ⑩ Existing bridge, Br. No. 29-0121, to be removed. Bridge removal, LOCATION B
  - ⑪ City of Stockton Communication lines (3"  $\varnothing$  conduit in 5" opening), see "ROAD PLANS"
  - ⑫ No. 5 Pullbox on sidewalk, see "ROAD PLANS"
  - ⑬ Comcast 3" Communication Conduit
  - ⑭ Bridge Mounted Sign, see "SIGN PLANS"
  - ⑮ 2-2" conduits, see "ROAD PLANS"

- Legend:**
- Indicates new structure
  - - - - Indicates existing structure
  - ⊙ Indicates structure lighting
  - ⊗ Minimum Vertical Clearance (17'-2")

For "GENERAL NOTES", "INDEX TO PLANS" and "PILE DATA TABLE", see "INDEX TO PLANS" sheet.

<b>SOUTH STOCKTON WIDENING</b>	
<b>MAIN STREET OC (REPLACE)</b>	
<b>GENERAL PLAN</b>	

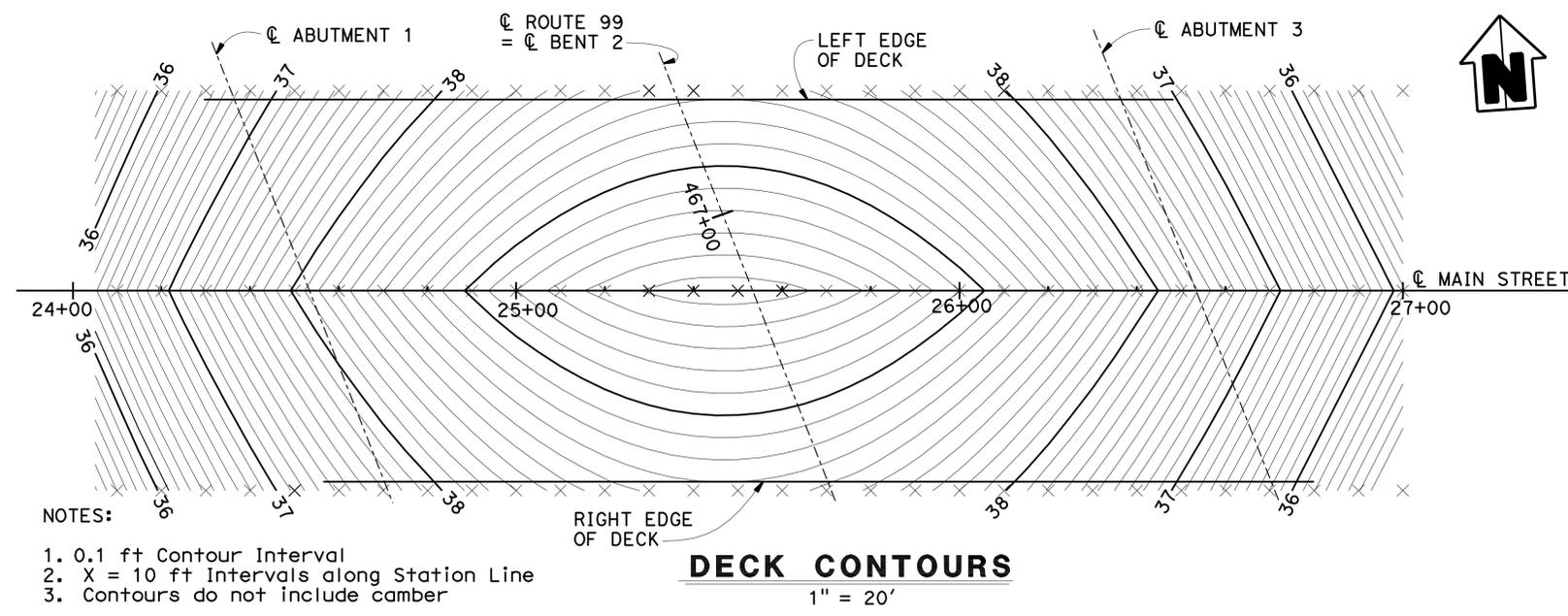
DESIGN	BY R. Odell	CHECKED M. Friedheim	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE
DETAILS	BY L. Wang	CHECKED M. Friedheim	LAYOUT	BY R. Odell
QUANTITIES	BY R. Odell	CHECKED T. Bui	SPECIFICATIONS	BY V. Renganathan

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0327
		POST MILE 18.15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1087	1414
REGISTERED CIVIL ENGINEER <i>C.V. Udarbe</i> 11-04-11 DATE			REGISTERED PROFESSIONAL ENGINEER No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA		
PLANS APPROVAL DATE 3-26-12					
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.					

**INDEX TO PLANS**

SHEET NO.	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	FOUNDATION PLAN
4	ABUTMENT LAYOUT
5	ABUTMENT DETAILS NO. 1
6	ABUTMENT DETAILS NO. 2
7	ABUTMENT DETAILS NO. 3
8	BENT LAYOUT
9	BENT DETAILS NO. 1
10	BENT DETAILS NO. 2
11	TYPICAL SECTION
12	GIRDER LAYOUT
13	GIRDER DETAILS
14	GIRDER REINFORCEMENT
15	ARCHITECTURAL DETAILS NO. 1
16	ARCHITECTURAL DETAILS NO. 2
17	ARCHITECTURAL DETAILS NO. 3
18	ARCHITECTURAL DETAILS NO. 4
19	ARCHITECTURAL DETAILS NO. 5
20	SLOPE PAVING - FULL SLOPE
21	STRUCTURE APPROACH TYPE N (30S)
22	STRUCTURE APPROACH DRAINAGE DETAILS
23	LOG OF TEST BORINGS 1 OF 3
24	LOG OF TEST BORINGS 2 OF 3
25	LOG OF TEST BORINGS 3 OF 3



- NOTES:
- 0.1 ft Contour Interval
  - X = 10 ft Intervals along Station Line
  - Contours do not include camber

**GENERAL NOTES  
LOAD AND RESISTANCE FACTOR DESIGN**

**DESIGN:**  
AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments, preface dated December 2008

**SEISMIC DESIGN:**  
Caltrans Seismic Design Criteria (SDC), Version 1.5 dated January 2010

**DEAD LOAD:**  
Includes 35 psf for future wearing surface.

**LIVE LOADING:**  
HL93 and permit design load.

**SEISMIC LOADING:**  
Soil profile type D  
Magnitude group 6.7 ± 0.25  
Peak Rock Acceleration 0.29g  
See ARS curve below  
 $V_{50} = 920$  ft/sec

**REINFORCED CONCRETE:**  
 $f_y = 60$  ksi  
 $f'_c = 3.6$  ksi  
 $n = 8$

**TEMPORARY PEDESTRIAN OC DESIGN:**  
AASHTO LRFD Temporary POC Guide Specifications, 2nd edition

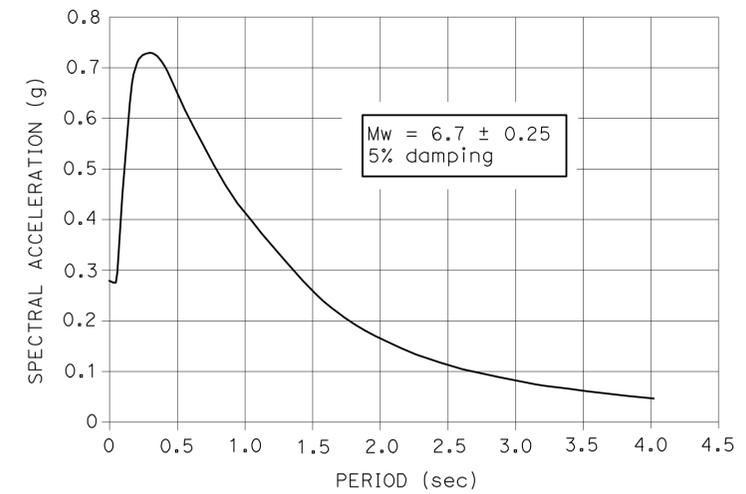
**PILE DATA TABLE**

Location	Pile Type	Nominal Resistance		Design Tip Elevations (ft)	Specified Tip Elevation (ft)	Nominal Driving Resistance (kips)
		Compression	Tension			
Abut 1	HP 14x89	160 kips	0 kips	-15.0 (a)	-20.0	160
Bent 2	HP 14x89	380 kips	0 kips	-45.0 (a)	-47.0	380
Abut 3	HP 14x89	160 kips	0 kips	-17.5 (a)	-20.0	160

- Design tip elevations for Abutments are controlled by: (a) Compression.
- Design tip elevations for Bents are controlled by: (a) Compression.
- Since there are no soft compressible soil layers below the design tip elevation, there is no design tip elevation for settlement.
- The specified tip elevation shall not be raised above the design tip elevations for Lateral Load.

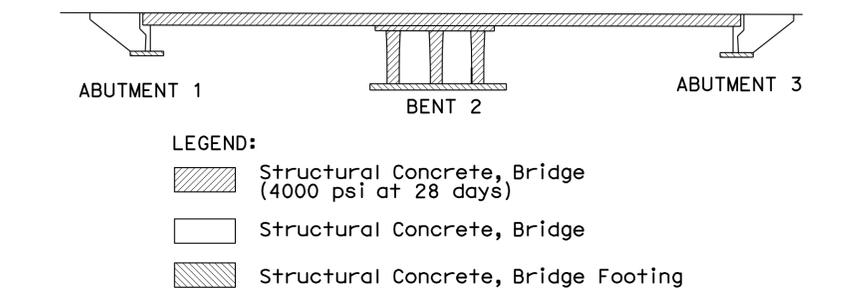
QUANTITIES

	LUMP SUM
BRIDGE REMOVAL, LOCATION B	
STRUCTURE EXCAVATION (BRIDGE)	1,547 CY
STRUCTURE BACKFILL (BRIDGE)	1,067 CY
FURNISH STEEL PILING (HP 14 X 89)	4,855 LF
DRIVE STEEL PILE (HP 14 X 89)	111 EA
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	233 CY
STRUCTURAL CONCRETE, BRIDGE	1,677 CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	191 CY
ARCHITECTURAL TEXTURE (SPLIT FACE)	3,972 SQFT
ARCHITECTURAL TEXTURE (RIVER ROCK)	315 SQFT
JOINT SEAL (MR 1 1/2")	138 LF
BAR REINFORCING STEEL (BRIDGE)	345,403 LB
PREPARE AND STAIN CONCRETE	315 SQFT
SLOPE PAVING (CONCRETE)	62 CY
SLOPE PAVING (RIVER ROCK)	678 SQFT
CHAIN LINK RAILING (TYPE 7 MODIFIED)	520 LF
CONCRETE BARRIER (TYPE 26 MODIFIED)	520 LF
COMMUNICATION CONDUIT (BRIDGE)	2,210 LF



**SITE SPECIFIC ACCELERATION RESPONSE SPECTRA CURVE**

**SOUTH STOCKTON WIDENING  
MAIN STREET OC (REPLACE)  
INDEX TO PLANS**

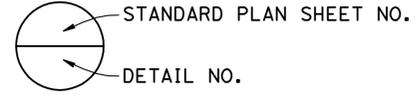


- LEGEND:
- Structural Concrete, Bridge (4000 psi at 28 days)
  - Structural Concrete, Bridge
  - Structural Concrete, Bridge Footing

**CONCRETE STRENGTH AND TYPES LIMITS**  
NO SCALE

**STANDARD PLANS DATED MAY 2006**

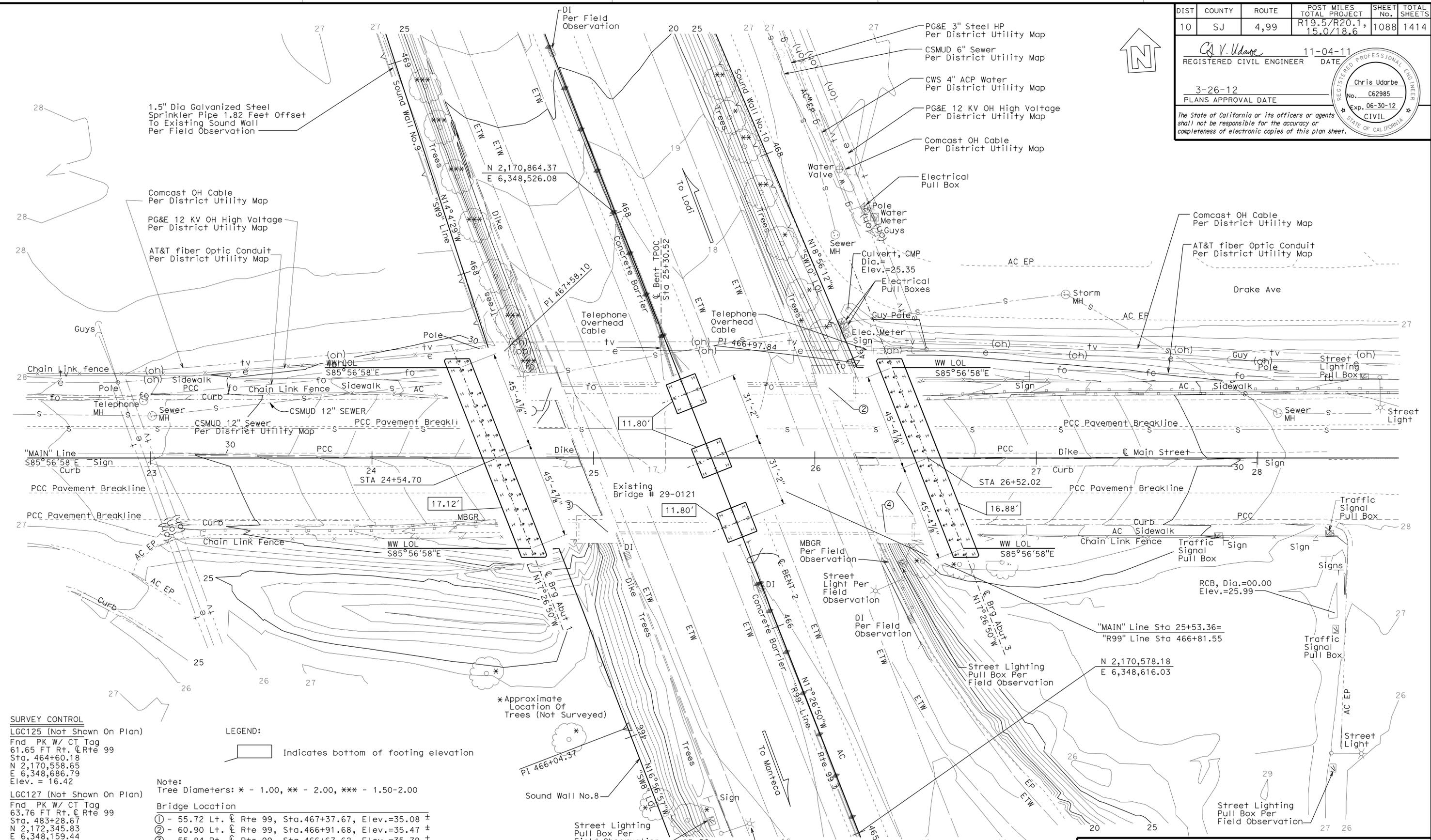
- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
- B0-1 BRIDGE DETAILS
- B0-3 BRIDGE DETAILS
- B0-5 BRIDGE DETAILS
- B2-5 PILE DETAILS CLASS 90 AND CLASS 140
- B3-1 RETAINING WALL TYPE 1 H = 4' THROUGH 30'
- B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- RSP B7-1 BOX GIRDER DETAILS
- B7-10 UTILITY OPENING BOX GIRDER
- B8-5 CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
- B11-52 CHAIN LINK RAILING TYPE 7
- B11-54 CONCRETE BARRIER TYPE 26
- ES-6B ELECTRICAL SYSTEMS (LIGHTING STANDARD TYPES 15 AND 21 BARRIER RAIL MOUNTED DETAILS)
- ES-9D ELECTRICAL SYSTEMS (ELECTRICAL DETAILS STRUCTURE INSTALLATIONS)



DESIGN BY R. Coria	CHECKED M. Friedheim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0327	<b>SOUTH STOCKTON WIDENING MAIN STREET OC (REPLACE) INDEX TO PLANS</b>		
DETAILS BY L. Wang	CHECKED M. Friedheim		POST MILE 10.10	REVISION DATES	SHEET 2	OF 25
QUANTITIES BY R. Coria	CHECKED M. Friedheim			06-02-11	02-29-12	08-28-11
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586	PROJECT NUMBER & PHASE: 10000004091		
			CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1088	1414

C.V. Udabe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 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.



**SURVEY CONTROL**

LGC125 (Not Shown On Plan)  
 Fnd PK W/ CT Tag  
 61.65 FT Rt. @ Rte 99  
 Sta. 464+60.18  
 N 2,170,558.65  
 E 6,348,686.79  
 Elev. = 16.42

LGC127 (Not Shown On Plan)  
 Fnd PK W/ CT Tag  
 63.76 FT Rt. @ Rte 99  
 Sta. 483+28.67  
 N 2,172,345.83  
 E 6,348,159.44  
 Elev. = 27.32

**LEGEND:**

Indicates bottom of footing elevation

Note:  
 Tree Diameters: \* - 1.00, \*\* - 2.00, \*\*\* - 1.50-2.00

**Bridge Location**

①	- 55.72 Lt. @ Rte 99, Sta.467+37.67, Elev.=35.08 ±
②	- 60.90 Lt. @ Rte 99, Sta.466+91.68, Elev.=35.47 ±
③	- 55.84 Rt. @ Rte 99, Sta.466+67.62, Elev.=35.79 ±
④	- 60.82 Rt. @ Rte 99, Sta.466+21.70, Elev.=35.94 ±

PRELIMINARY INVESTIGATION SECTION			
SCALE	VERT.DATUM NGVD29	PHOTOGRAMMETRY AS OF: X	
1"=20'	HORIZ.DATUM NAD83 (1991.35)	SURVEYED BY District/T.Gillett	CHECKED BY T.Gillett 09/2009
ALIGNMENT TIES Dist. Traverse Sheet	DRAFTED BY T.Zolnikov 09/2009	CHECKED BY L.Lew	09/2009

DESIGN	BY R. Coria	CHECKED M. Friedheim
DETAILS	BY S. Ng	CHECKED M. Friedheim
QUANTITIES	BY R. Coria	CHECKED M. Friedheim

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.  
 29-0327  
 POST MILE  
 10.10

**SOUTH STOCKTON WIDENING**  
**MAIN STREET OC (REPLACE)**  
**FOUNDATION PLAN**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1089	1414

<i>Ch V. Udape</i>	11-04-11
REGISTERED CIVIL ENGINEER	DATE
3-26-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER

Chris Udape

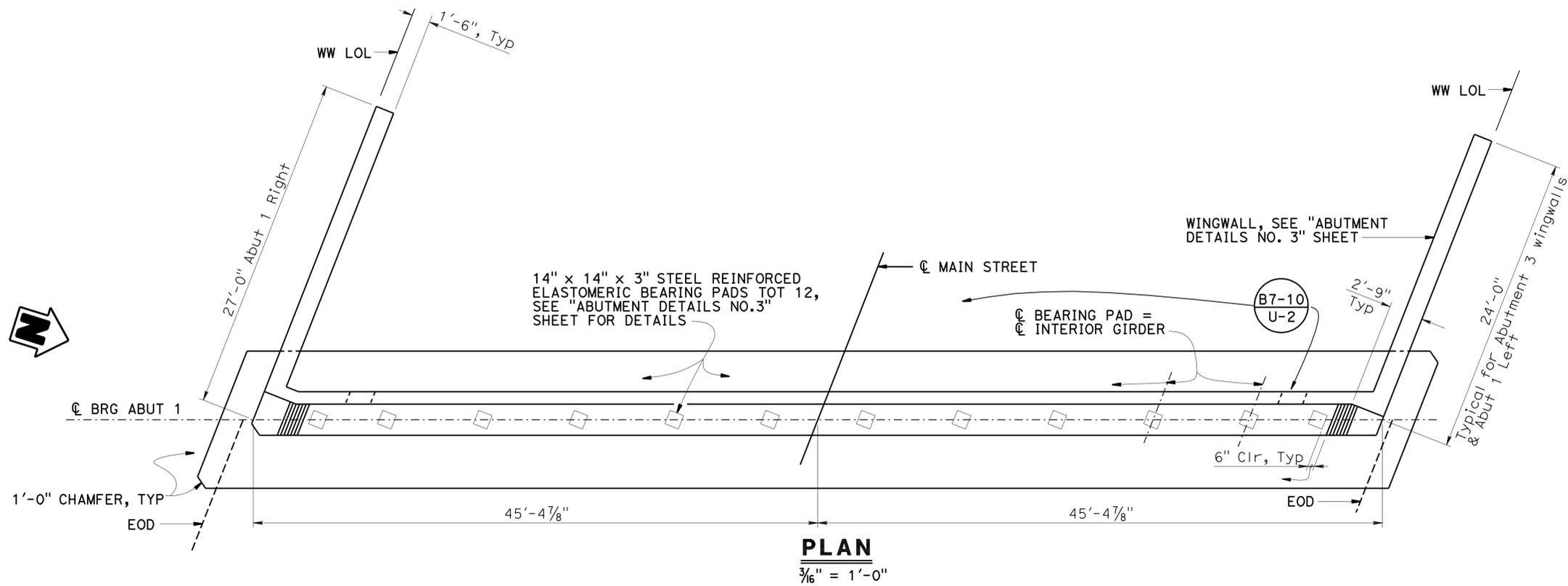
No. C 62985

Exp. 06-30-12

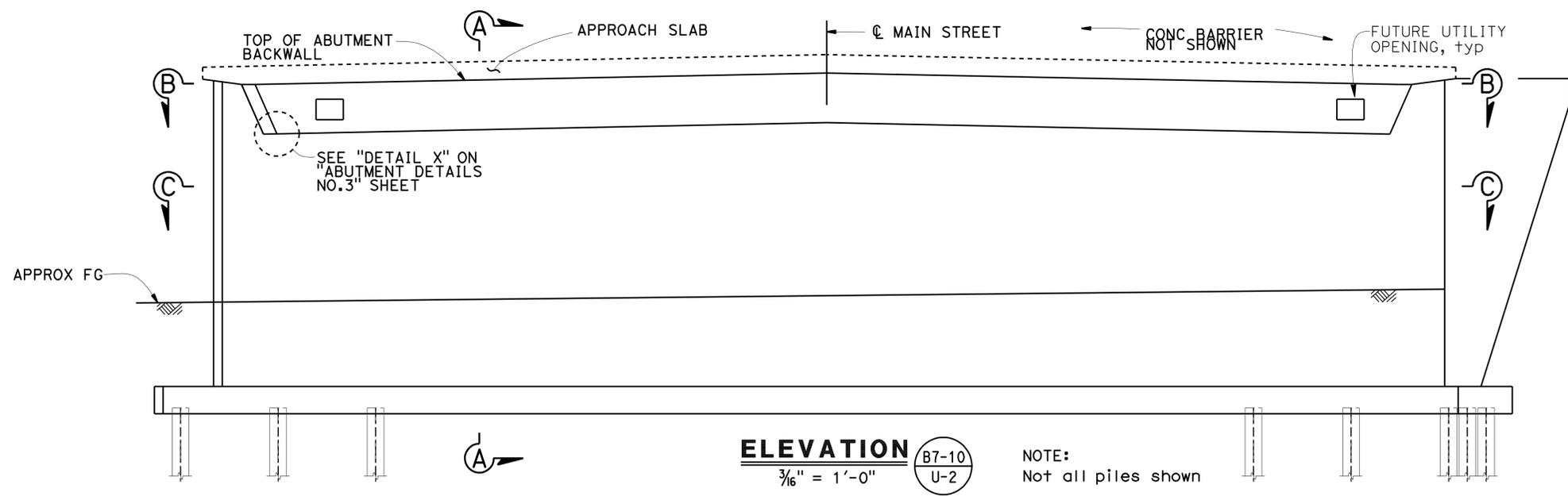
CIVIL

STATE OF CALIFORNIA

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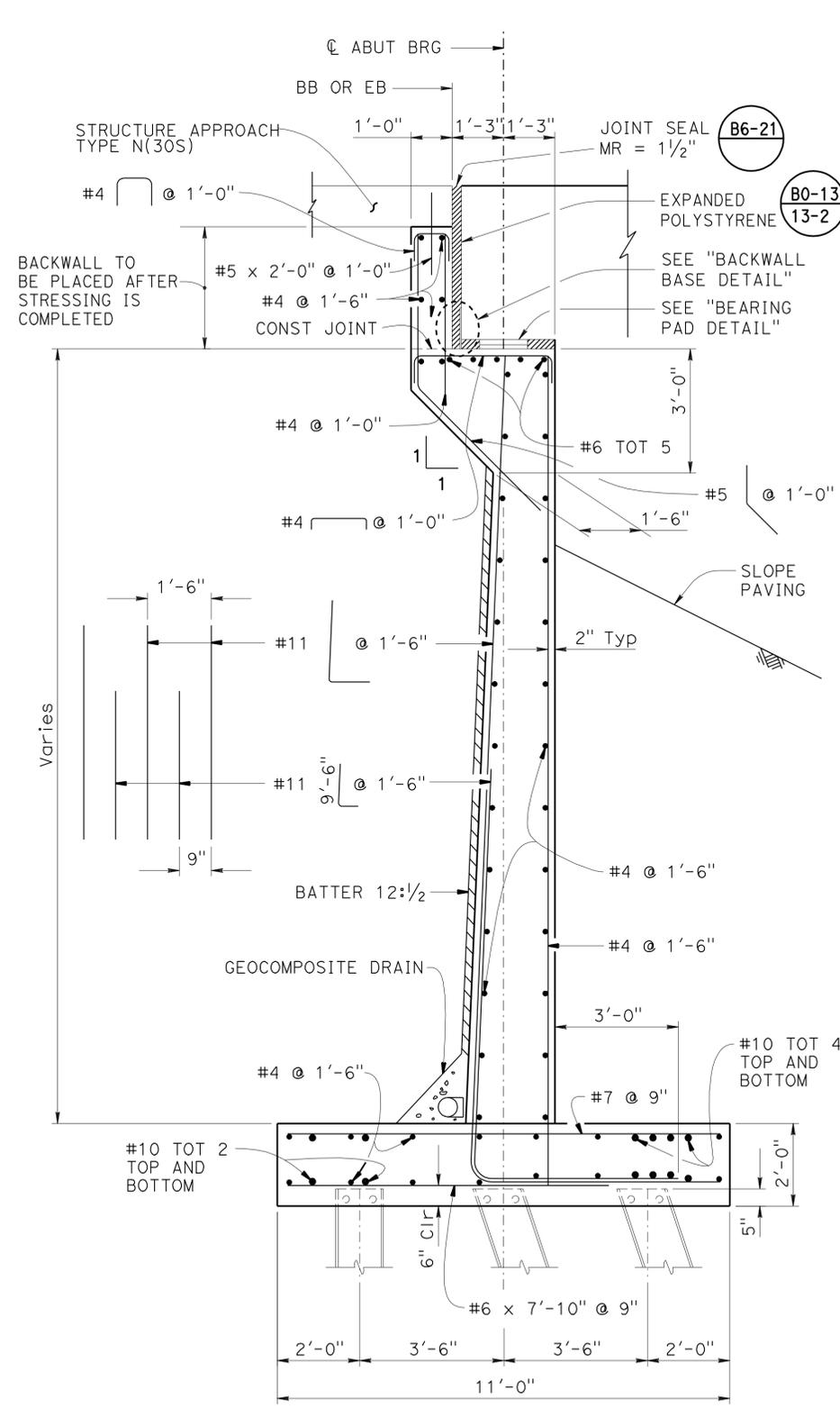
- Notes:**
1. For "SECTION A-A", see "ABUTMENT DETAILS NO.1" sheet
  2. For "SECTION B-B" AND "SECTION C-C", see "ABUTMENT DETAILS NO.2" sheet
  3. For External Shear Key reinforcements, see "ABUTMENT DETAILS NO.2" sheet
  4. Abutment 1 shown, Abutment 3 similar
  5. For abutment "FOOTING PLAN" plan, see "ABUTMENT DETAILS NO.1" sheet



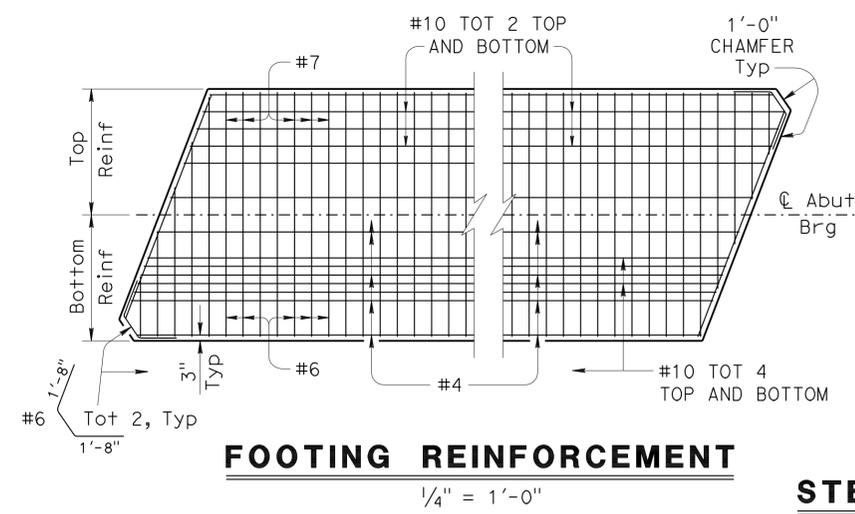
<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION				<b>DIVISION OF ENGINEERING SERVICES</b> STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		<b>SOUTH STOCKTON WIDENING</b> <b>MAIN STREET OC (REPLACE)</b> <b>ABUTMENT LAYOUT</b>				
DESIGN BY R. Coria	CHECKED M. Friedheim	BRIDGE NO. 29-0327	UNIT: 3586 PROJECT NUMBER & PHASE: 1000000409 CONTRACT NO.: 10-3A1001							
DETAILS BY G. Zweier	CHECKED M. Friedheim	POST MILE 10.10								
QUANTITIES BY R. Coria	CHECKED M. Friedheim									
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES				
				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;">12-15-10</td> <td style="width: 20px;">07-13-12</td> <td style="width: 20px;">1-4-12</td> </tr> </table>		12-15-10	07-13-12	1-4-12	SHEET 4	OF 25
12-15-10	07-13-12	1-4-12								

USERNAME => s114640 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:31:18

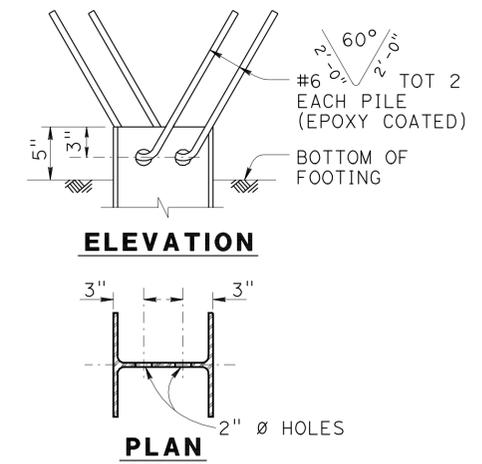
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1090	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER			STATE OF CALIFORNIA		
Chris Udarbe			No. C62985		
Exp. 06-30-12			CIVIL		
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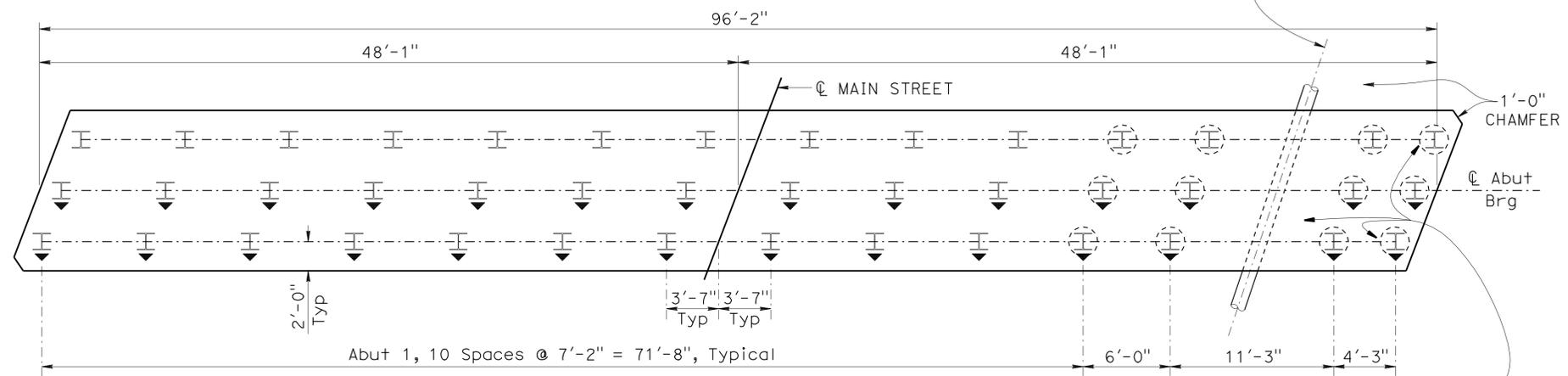
**SECTION A-A**  
1/2" = 1'-0"  
B7-10 U-2



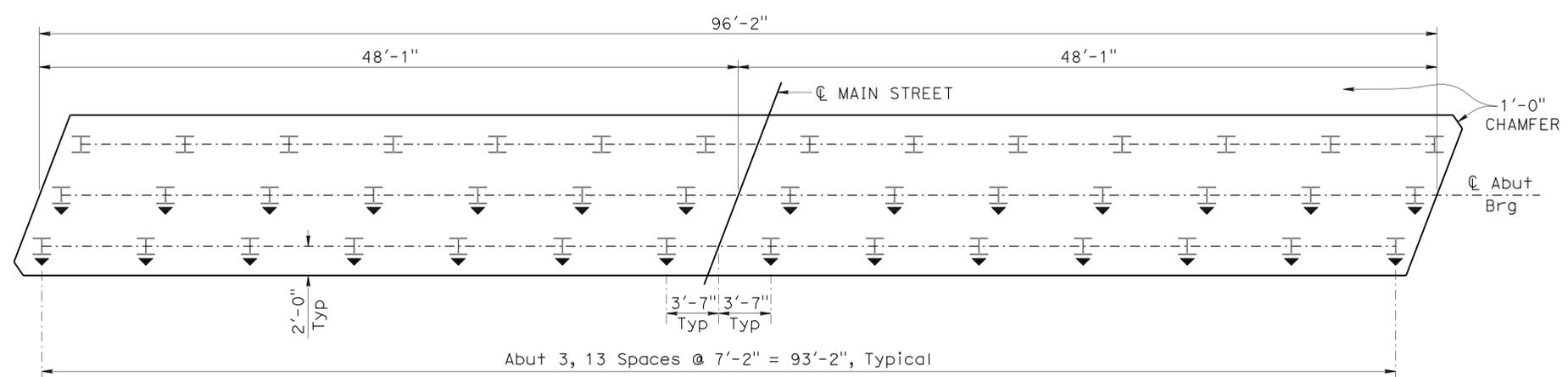
**FOOTING REINFORCEMENT**  
1/4" = 1'-0"



**STEEL PILE ANCHOR DETAIL**  
No Scale  
NOTE: This detail applies to all piles for this bridge.



**ABUTMENT 1 FOOTING PLAN**  
3/16" = 1'-0"



**ABUTMENT 3 FOOTING PLAN**  
3/16" = 1'-0"

- NOTES:
- For location of "SECTION A-A", see "ABUTMENT LAYOUT" sheet.
  - For "BACKWALL BASE DETAIL" and "BEARING PAD DETAIL", see "ABUTMENT DETAILS NO.3" sheet.
  - Abutment 1 shown, Abutment 3 similar except where noted.
- 12" Dia CSMUD SEWER LINE, TO BE PROTECTED DURING CONSTRUCTION
- INDICATES 1'-6" Ø PRE-DRILLING HOLES TO ELEVATION 6.0 BEFORE DRIVING PILE. HOLE SHALL BE BACKFILLED WITH CLASS 3 CONCRETE

LEGEND:  
 INDICATES VERTICAL PILE  
 INDICATES BATTERED PILE (1:3)

DESIGN	BY R. Coria	CHECKED M. Friedheim
DETAILS	BY G. Zweier	CHECKED M. Friedheim
QUANTITIES	BY R. Coria	CHECKED M. Friedheim

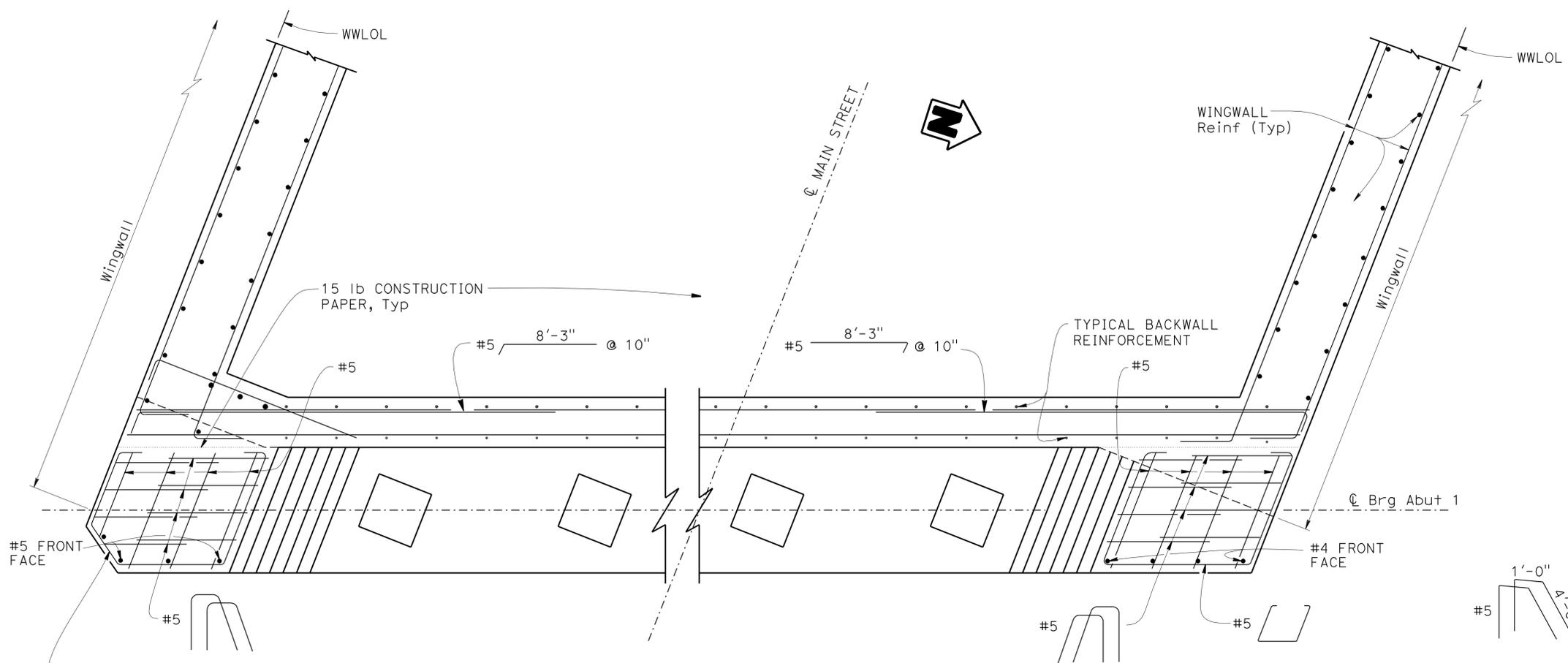
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO. 29-0327  
POST MILE 10.10

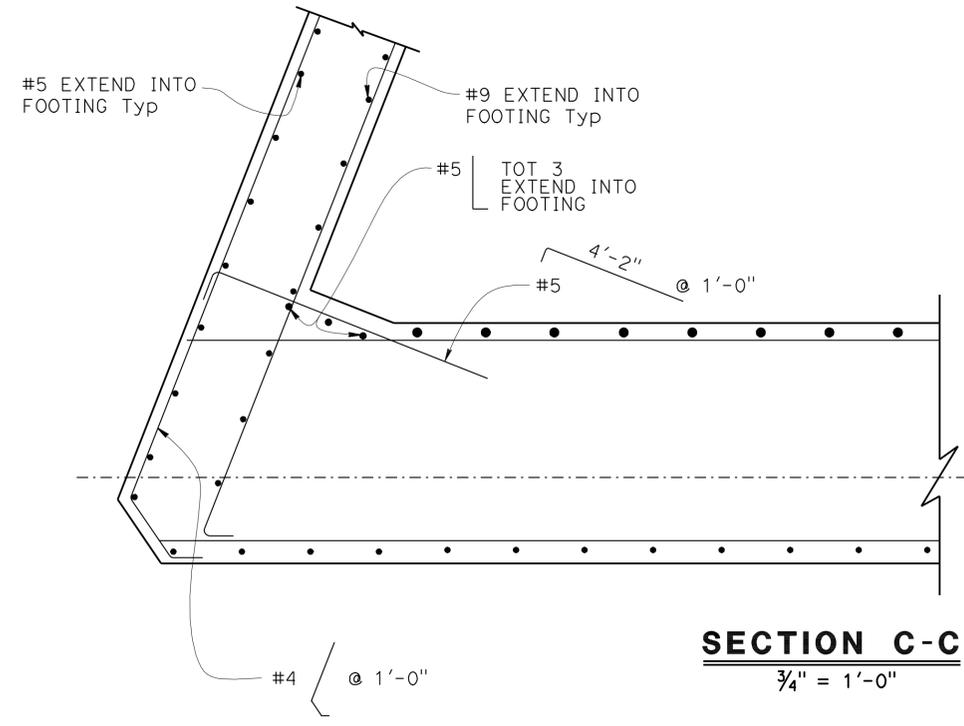
**SOUTH STOCKTON WIDENING**  
**MAIN STREET OC (REPLACE)**  
**ABUTMENT DETAILS NO. 1**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1091	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			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.					

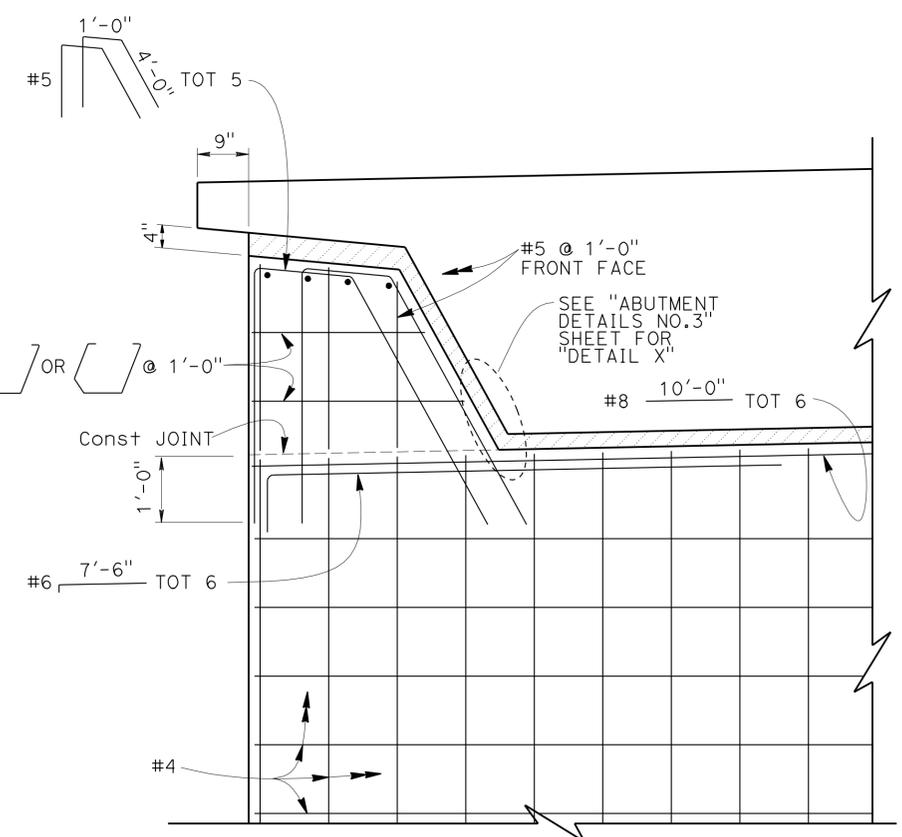


**SECTION B-B**  
3/4" = 1'-0"

- NOTES:
1. For location of "SECTION B-B" AND "SECTION C-C" see "ABUTMENT 1 LAYOUT" sheet.
  2. Abutment 1 shown, Abutment 3 similar.



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



**EXTERNAL SHEAR KEY**  
3/4" = 1'-0"

DESIGN	BY R. Coria	CHECKED M. Friedheim
DETAILS	BY G. Zweier	CHECKED M. Friedheim
QUANTITIES	BY R. Coria	CHECKED M. Friedheim

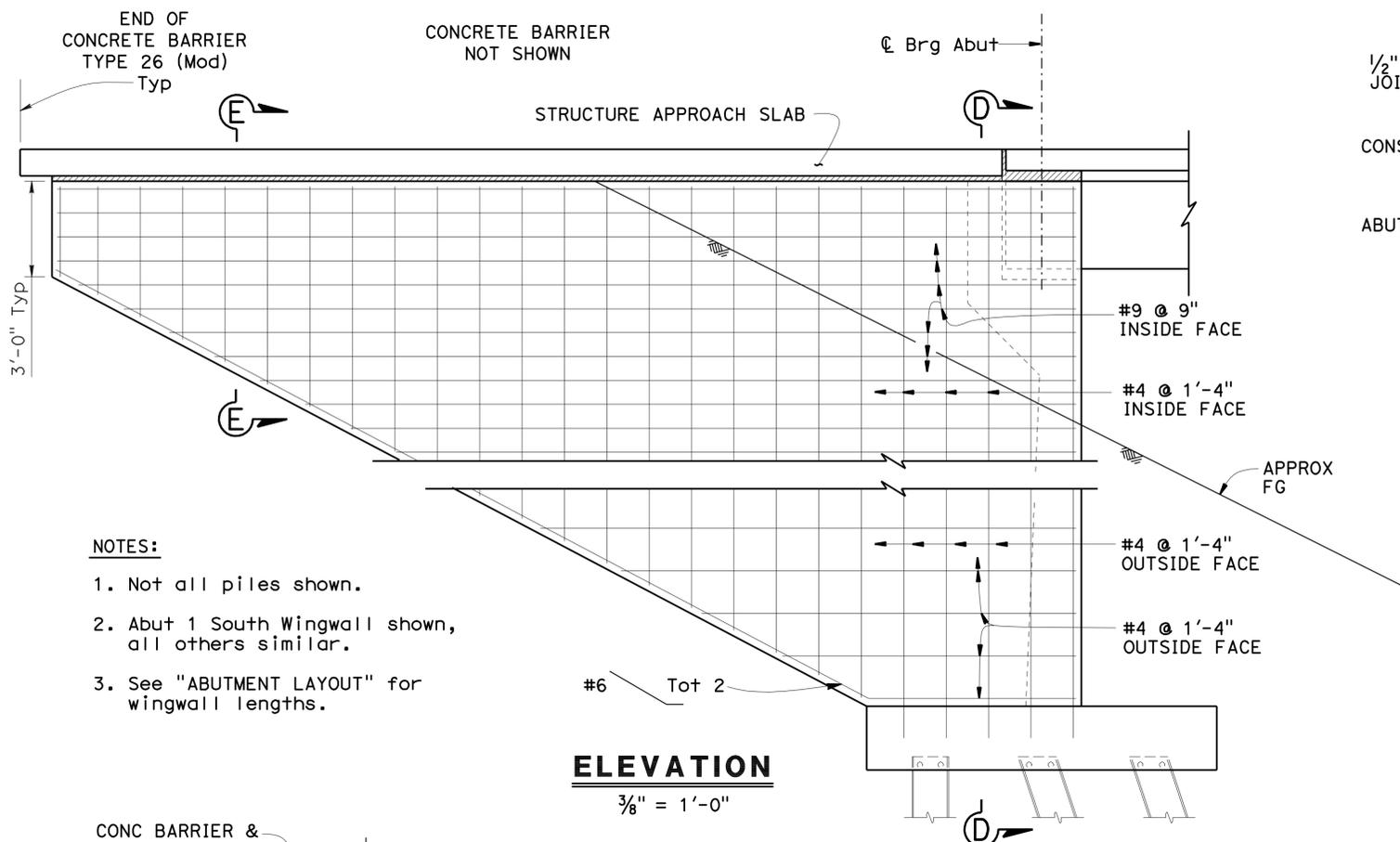
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

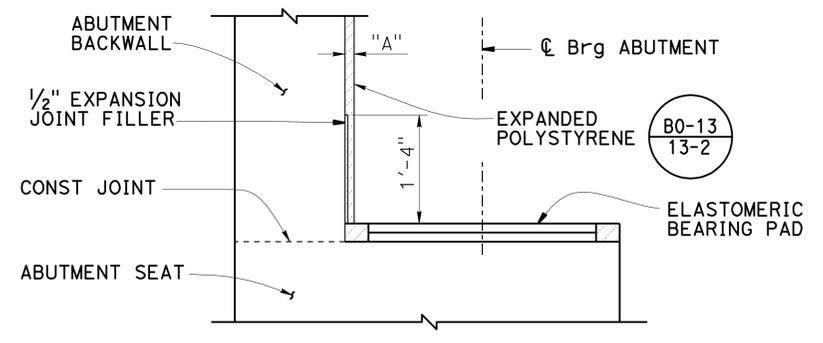
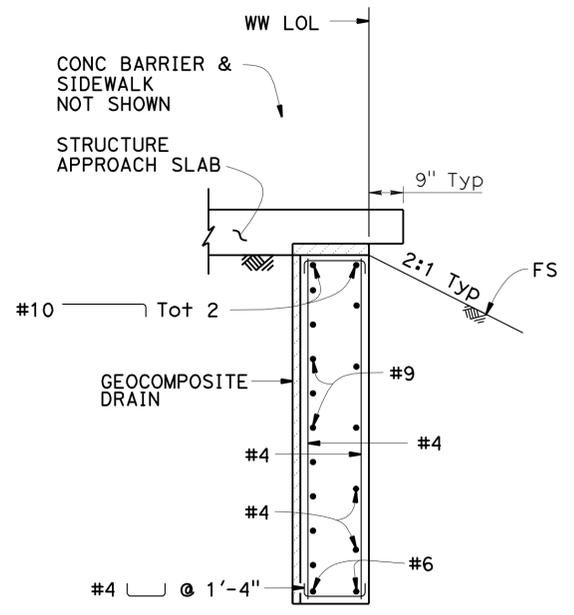
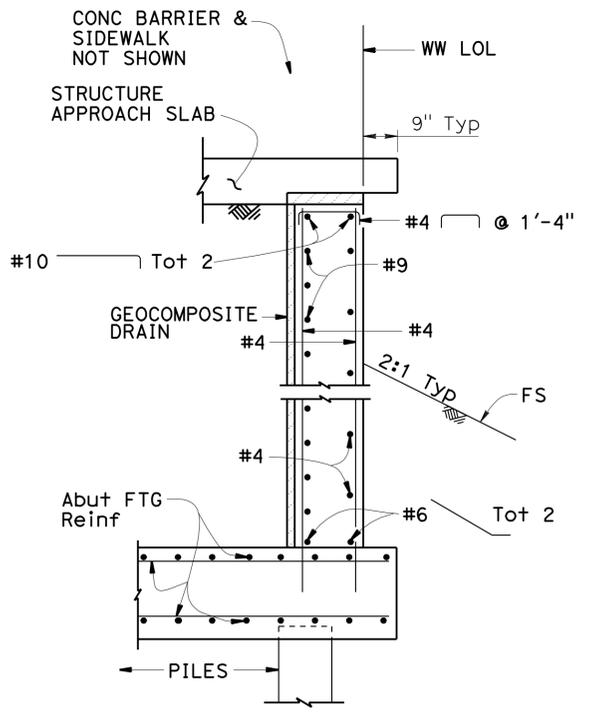
BRIDGE NO.	29-0327
POST MILE	10.10

**SOUTH STOCKTON WIDENING**  
**MAIN STREET OC (REPLACE)**  
**ABUTMENT DETAILS NO. 2**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1092	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
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.					

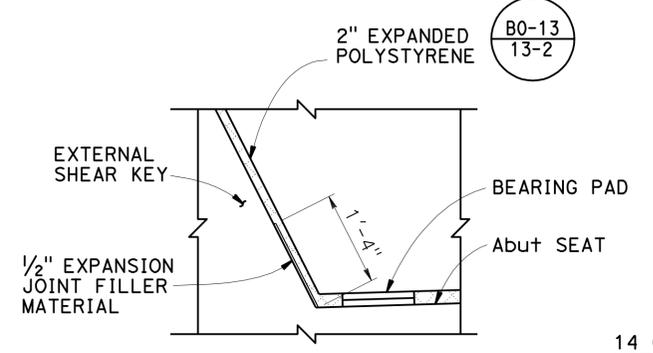


- NOTES:**
- Not all piles shown.
  - Abut 1 South Wingwall shown, all others similar.
  - See "ABUTMENT LAYOUT" for wingwall lengths.

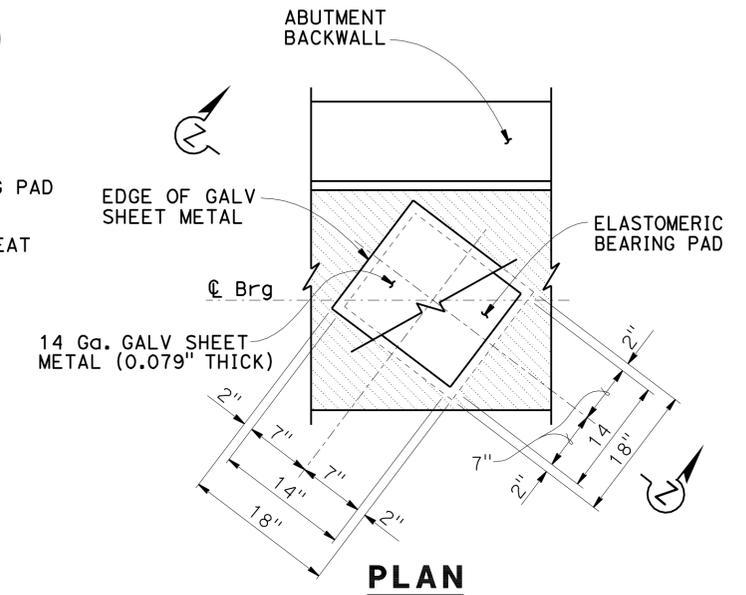


**BACKWALL BASE DETAIL**

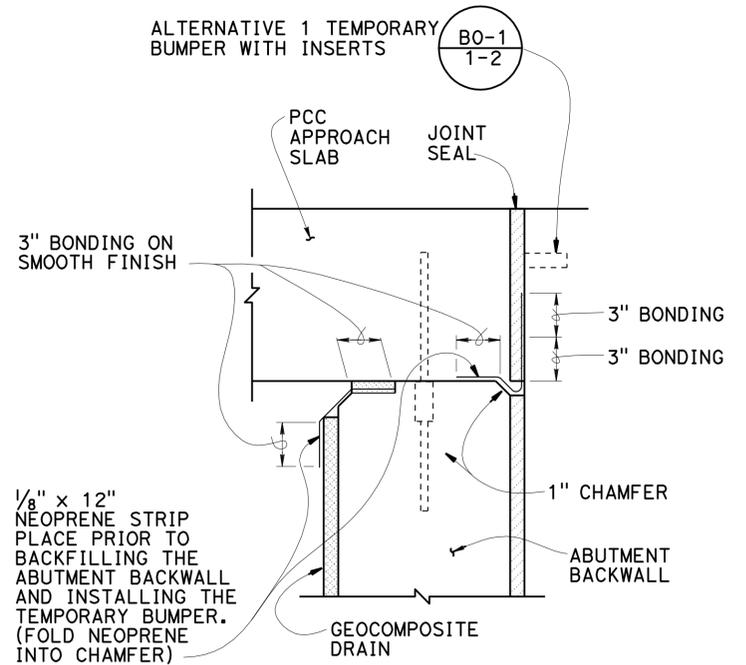
NOTE: For "A" dimension, see B6-21



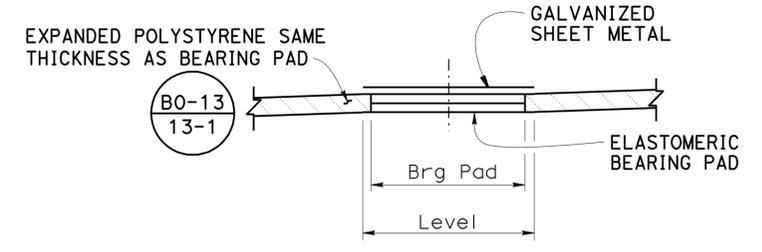
**DETAIL X**



**PLAN**



**JOINT PROTECTION DETAIL**



**SECTION Z-Z**

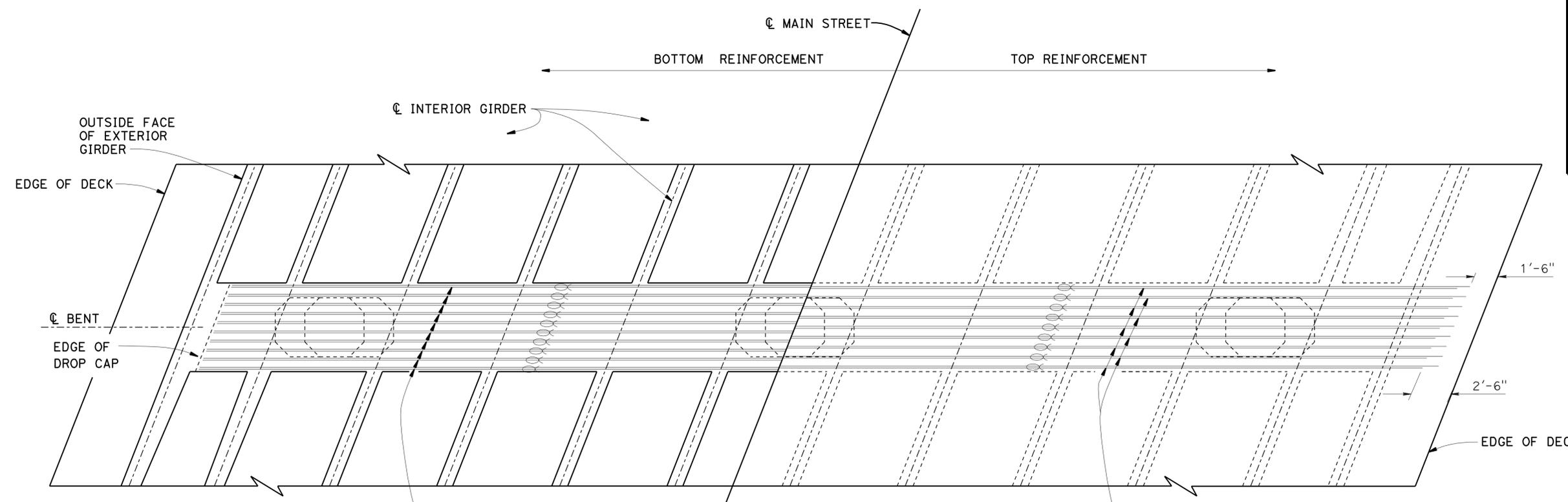
- Notes:**
- Coat top of bearing pad with silicone grease prior to placing sheet metal
  - Details typical at all bearing pads

**BEARING PAD DETAIL**

NO SCALE

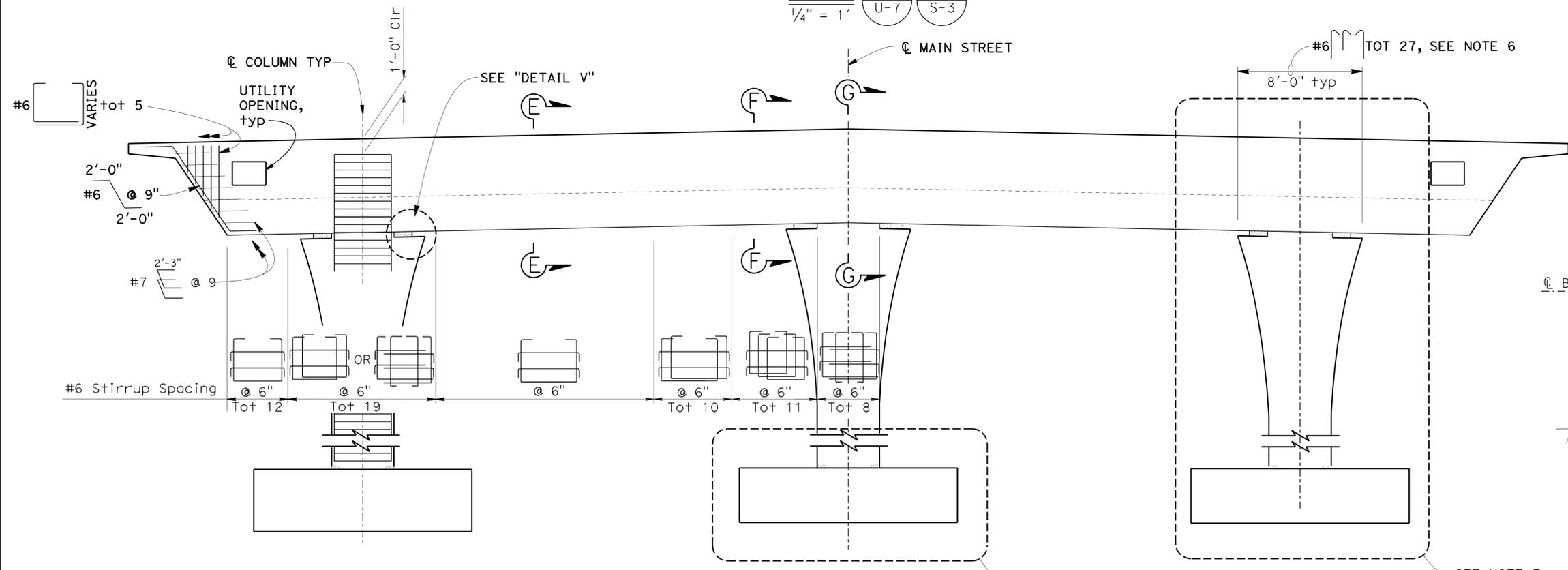
DESIGN BY R. Coria CHECKED M. Friedheim DETAILS BY G. Zweier CHECKED M. Friedheim QUANTITIES BY R. Coria CHECKED M. Friedheim			STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0327 POST MILE 10.10	<b>SOUTH STOCKTON WIDENING          MAIN STREET OC (REPLACE)          ABUTMENT DETAILS NO. 3</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 1000000409	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES
			0 1 2 3	FILE => 29-0327-FR-g02dt03.dgn	REVISION DATES: 06-08-11, 02-29-12, 03-01-11	SHEET 7 OF 25

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1093	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
<small>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.</small>					

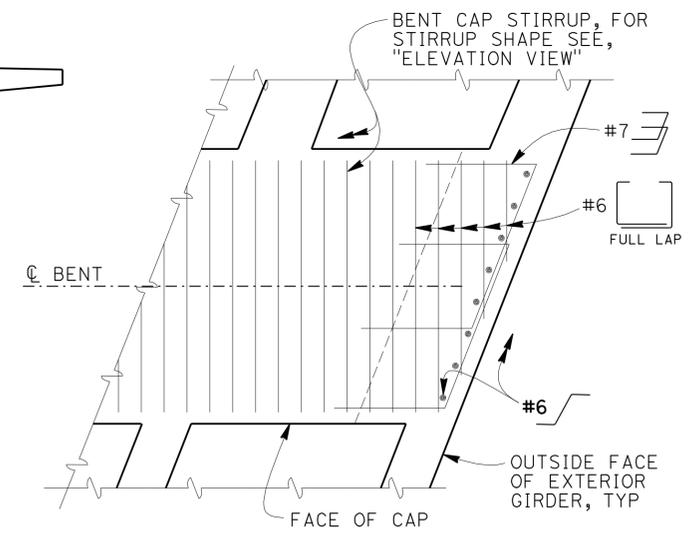


**PLAN** (B7-10 U-7) (B7-1 S-3)  
1/4" = 1'

- Notes:
1. For "DETAIL V", "SECTION E-E", "SECTION F-F", and "SECTION G-G", see "BENT DETAILS NO.2" sheet
  2. For footing details and reinf, see "BENT DETAILS NO.1" sheet, piles not shown
  3. For column details and reinf, see "BENT DETAILS NO.1" sheet
  4. Reinf symmetrical about  $\text{C}$  Main Street
  5. Sidewalk and concrete barrier not shown
  6. Alternate vertical lengths 24" and 30"



**ELEVATION** (B7-10 U-7)  
1/4" = 1'

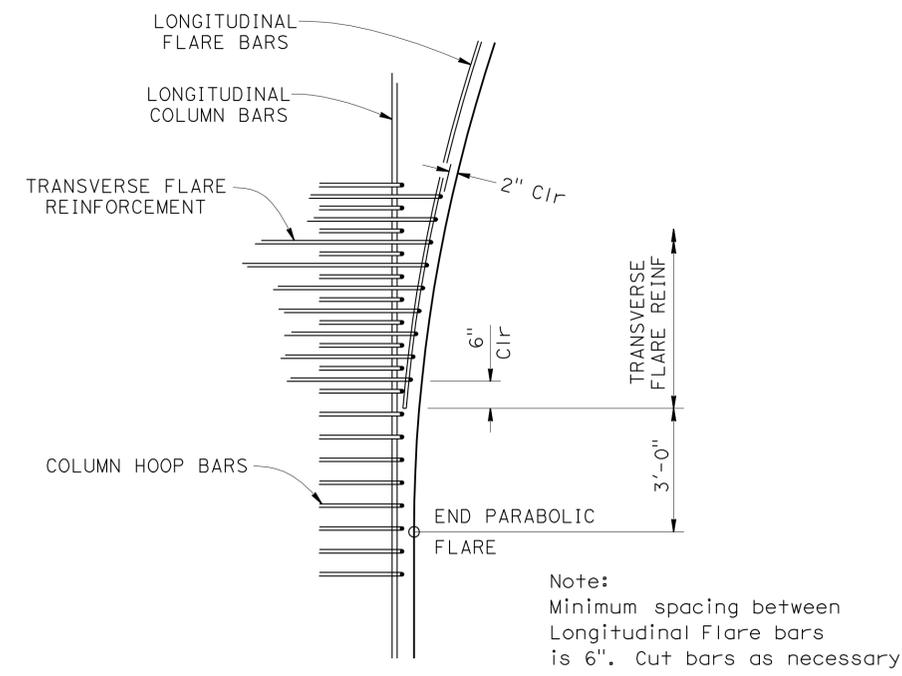


**PART PLAN**  
**CAP END REINFORCEMENT**  
1/2" = 1'

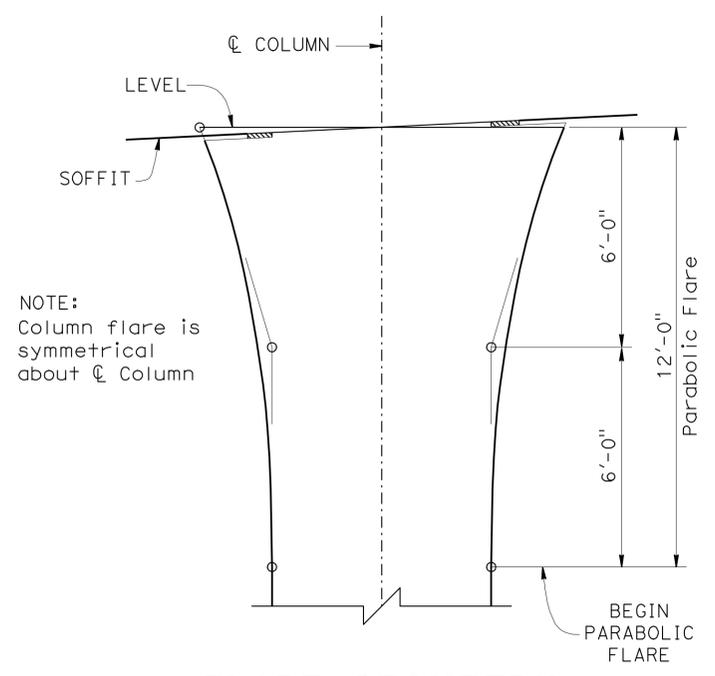
DESIGN BY R. Coria CHECKED M. Friedheim DETAILS BY S. Ng\G. Zweier CHECKED M. Friedheim QUANTITIES BY R. Coria CHECKED M. Friedheim				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0327 POST MILE 10.10	<b>SOUTH STOCKTON WIDENING</b> <b>MAIN STREET OC (REPLACE)</b> <b>BENT LAYOUT</b>	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 1000000409	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0	1	2	3	REVISION DATES: 02-26-10, 1-13-12, 1-14-12 SHEET 8 OF 25



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1095	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
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.					

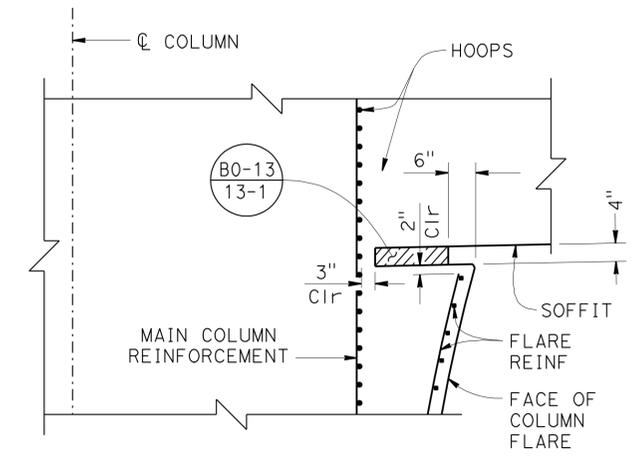


**COLUMN FLARE HOOP AND TIE DETAILS**  
NO SCALE

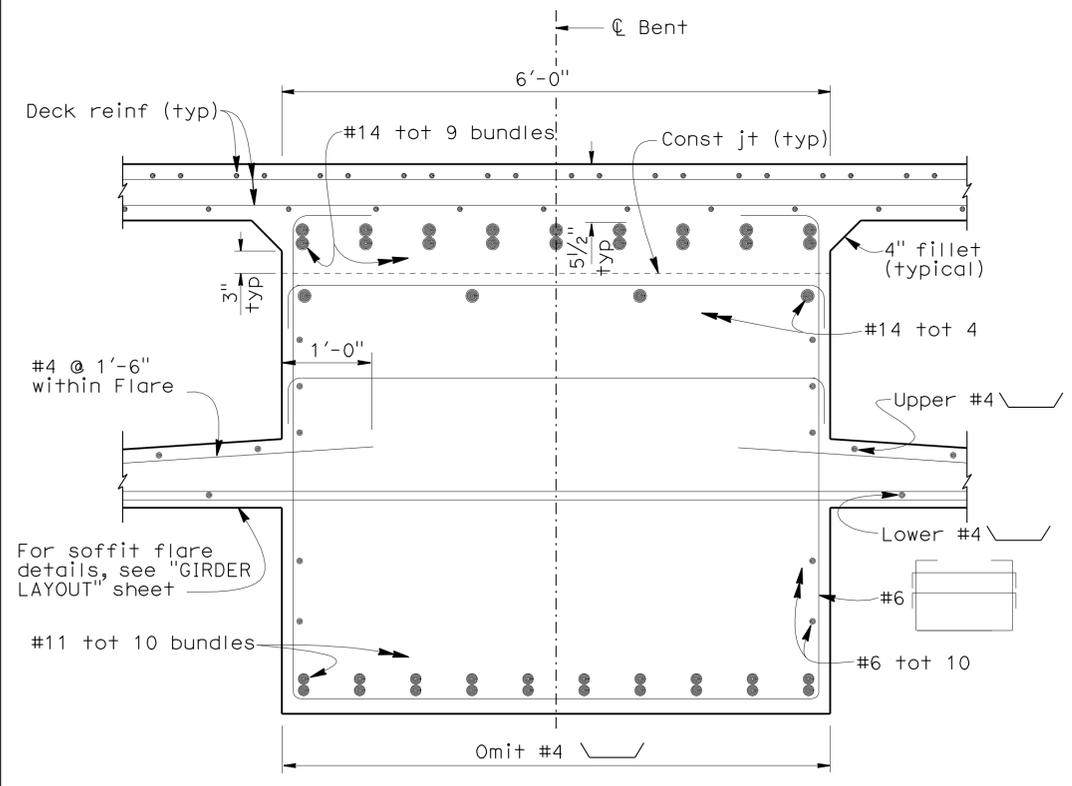


**FLARE GEOMETRY**  
NO SCALE

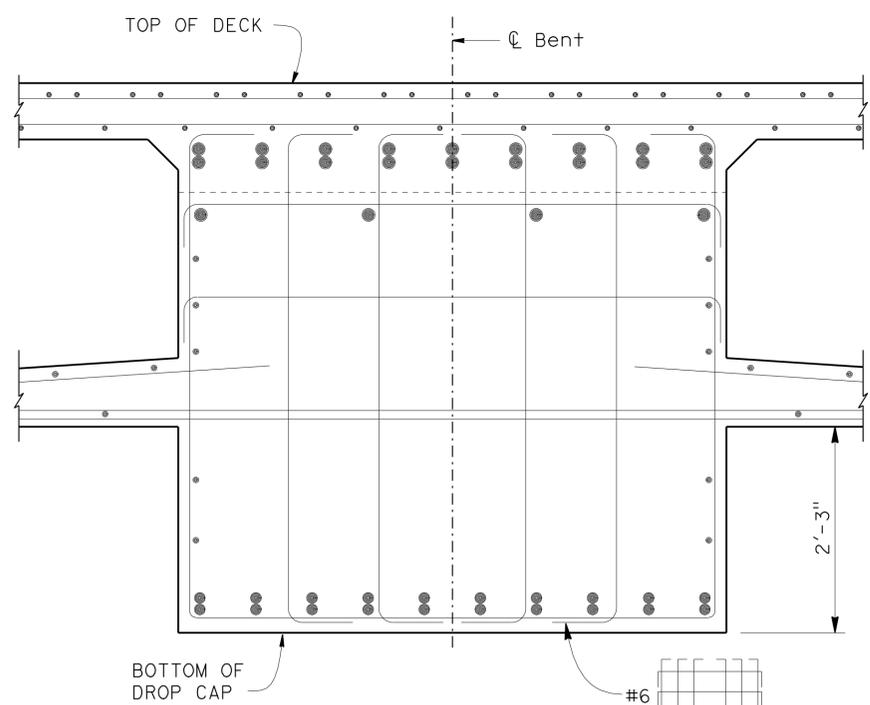
- NOTES:
1. For location of Sections E-E, F-F, and G-G see "BENT LAYOUT" sheet
  2. Reinforcement may be bent or adjusted to clear Prestress Ducts as approved by the engineer
  3. For "COLUMN ELEVATION", see "BENT DETAILS NO.1" sheet



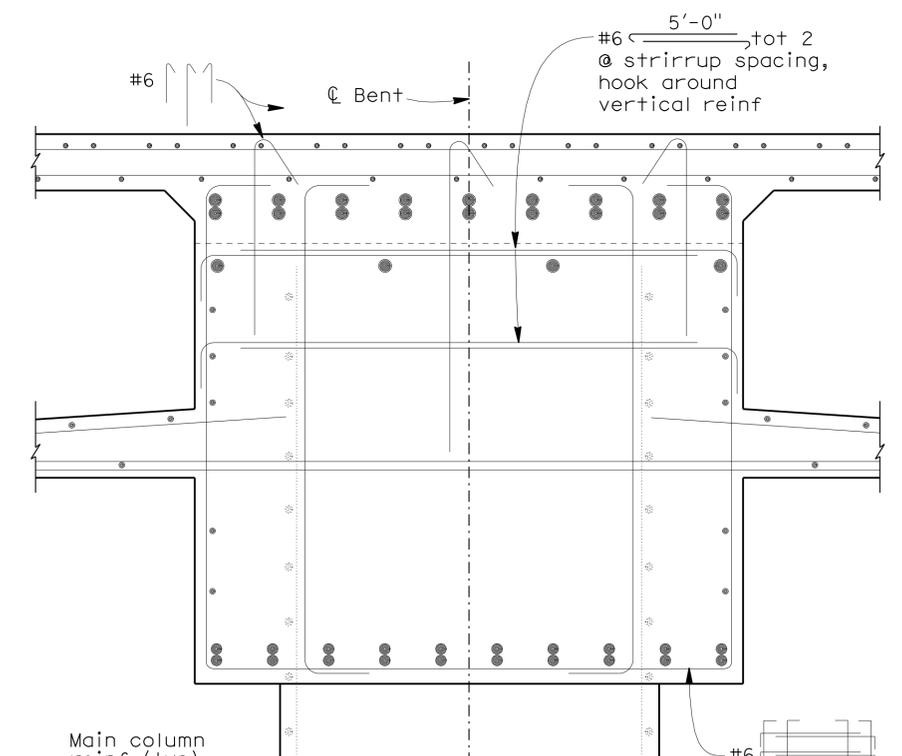
**DETAIL V**  
NO SCALE



**SECTION E-E**  
1" = 1'-0" (B7-10 U-7)



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

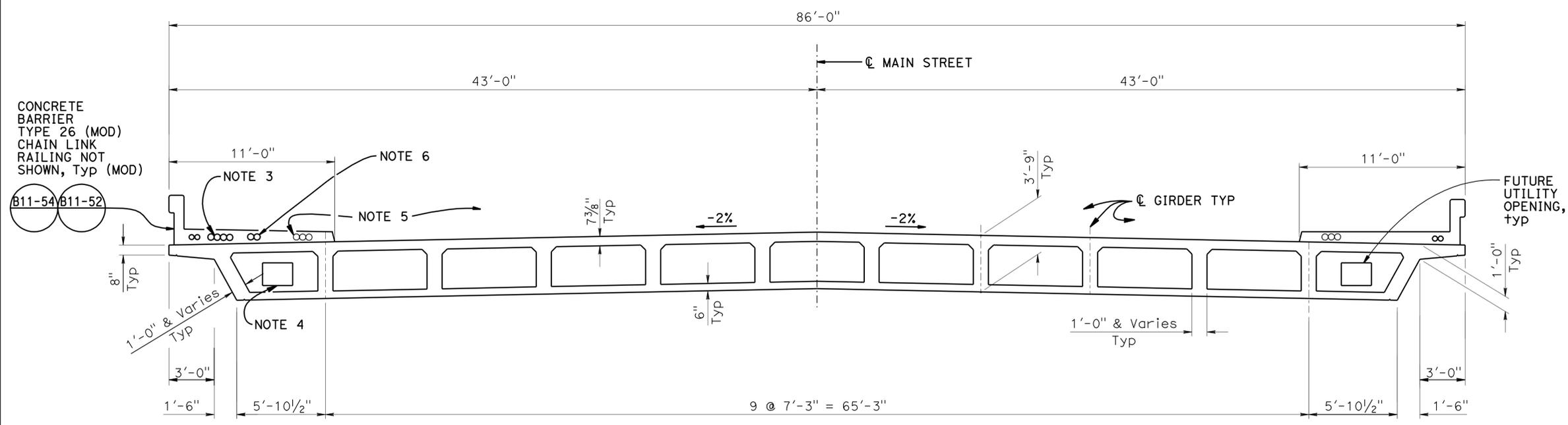


**SECTION G-G**  
1" = 1'-0"

**SOUTH STOCKTON WIDENING  
MAIN STREET OC (REPLACE)  
BENT DETAILS NO. 2**

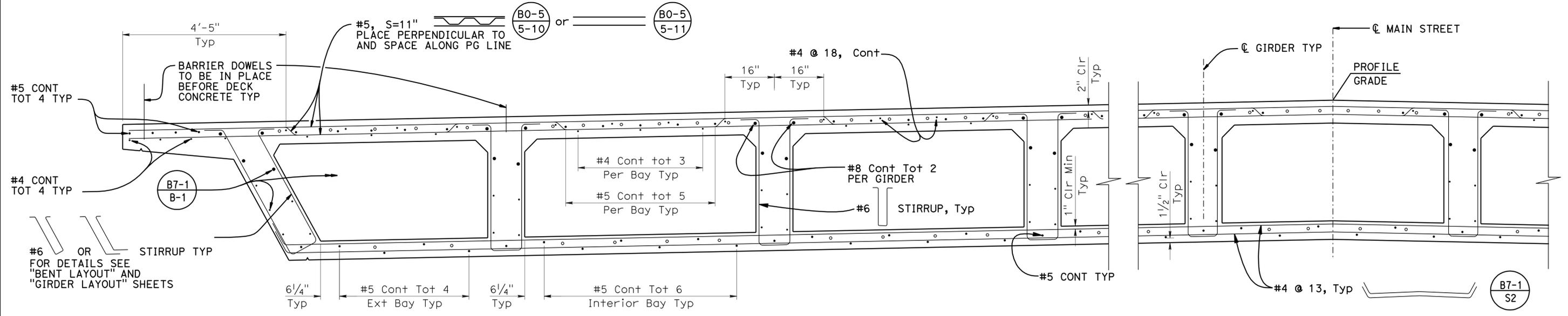
DESIGN	BY R. Coria	CHECKED M. Friedheim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0327
DETAILS	BY G. Leung/G. Zweier	CHECKED M. Friedheim			POST MILE	10.10
QUANTITIES	BY R. Coria	CHECKED M. Friedheim				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1096	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
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**TYPICAL SECTION**  
 $\frac{1}{4}'' = 1'-0''$   
 B7-10, B11-54, B11-52  
 U-3

- Notes:
1. For girder flare dimensions, see "GIRDER LAYOUT" sheet
  2. For additional girder longitudinal reinforcement, see "GIRDER REINFORCEMENT" sheet
  3. 4"  $\phi$  AT&T ducts, total 4
  4. Utility opening w/ 2 - 6" PG&E electrical conduits
  5. City of Stockton Communication lines (3"  $\phi$  conduit in 5" opening)
  6. Comcast 3" Communication Conduits

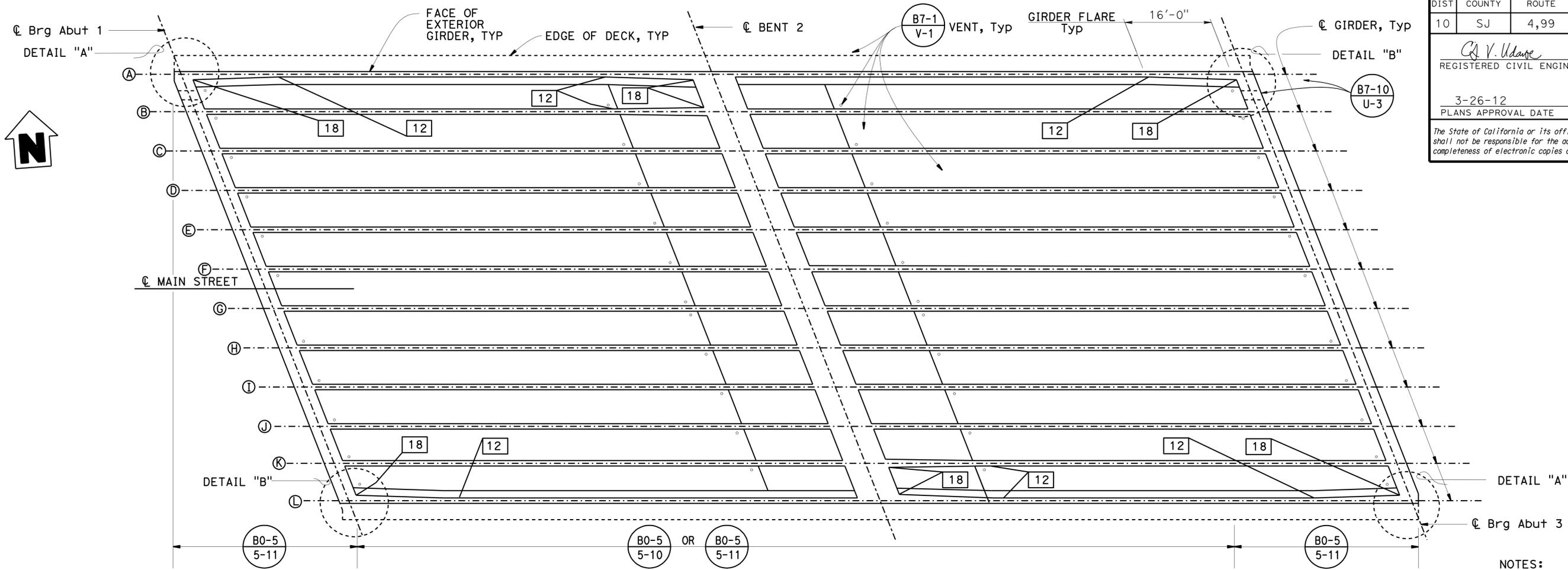


**PART TYPICAL SECTION**  
 $\frac{3}{4}'' = 1'-0''$   
 B0-5, B7-1, B8-5, B11-54

**SOUTH STOCKTON WIDENING  
 MAIN STREET OC (REPLACE)  
 TYPICAL SECTION**

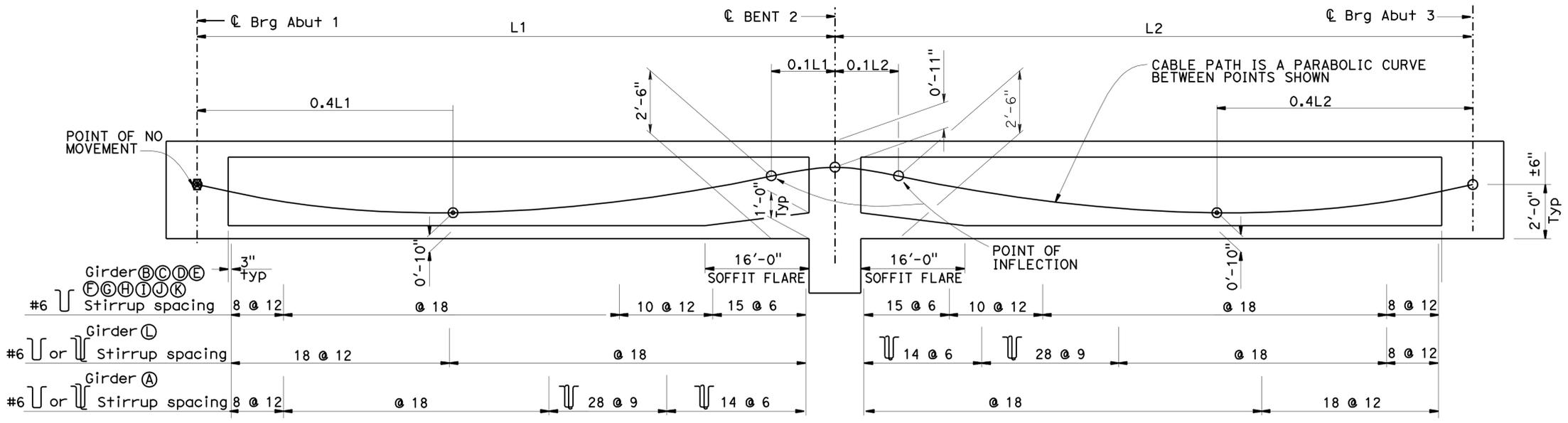
DESIGN	BY R. Coria	CHECKED M. Friedheim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0327
DETAILS	BY S. Ng	CHECKED M. Friedheim			POST MILE	18.15
QUANTITIES	BY R. Coria	CHECKED M. Friedheim				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1097	1414
Chris V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
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**GIRDER LAYOUT**  
1" = 10'-0"

NOTES:  
 DENOTES GIRDER STEM WIDTH IN INCHES  
 See "GIRDER DETAILS" SHEET for DETAIL "A" & "B"  
 FOR PRESTRESSING NOTES, SEE "GIRDER DETAILS" SHEET



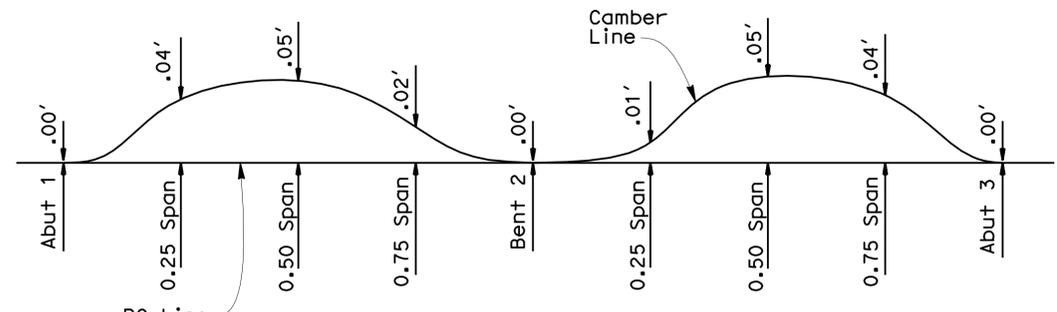
**LONGITUDINAL SECTION**  
NO SCALE

**SOUTH STOCKTON WIDENING  
 MAIN STREET OC (REPLACE)  
 GIRDER LAYOUT**

DESIGN	BY R. Coria	CHECKED M. Friedheim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0327
DETAILS	BY S. Ng	CHECKED M. Friedheim			POST MILE	10.10
QUANTITIES	BY R. Coria	CHECKED M. Friedheim				

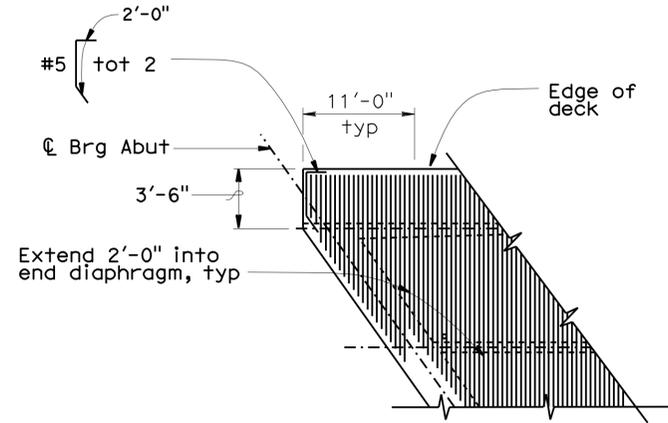
USERNAME => s114640 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:31:18

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1098	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
			REGISTERED PROFESSIONAL ENGINEER		
			Chris Udarbe		
			No. C62985		
			Exp. 06-30-12		
			CIVIL		
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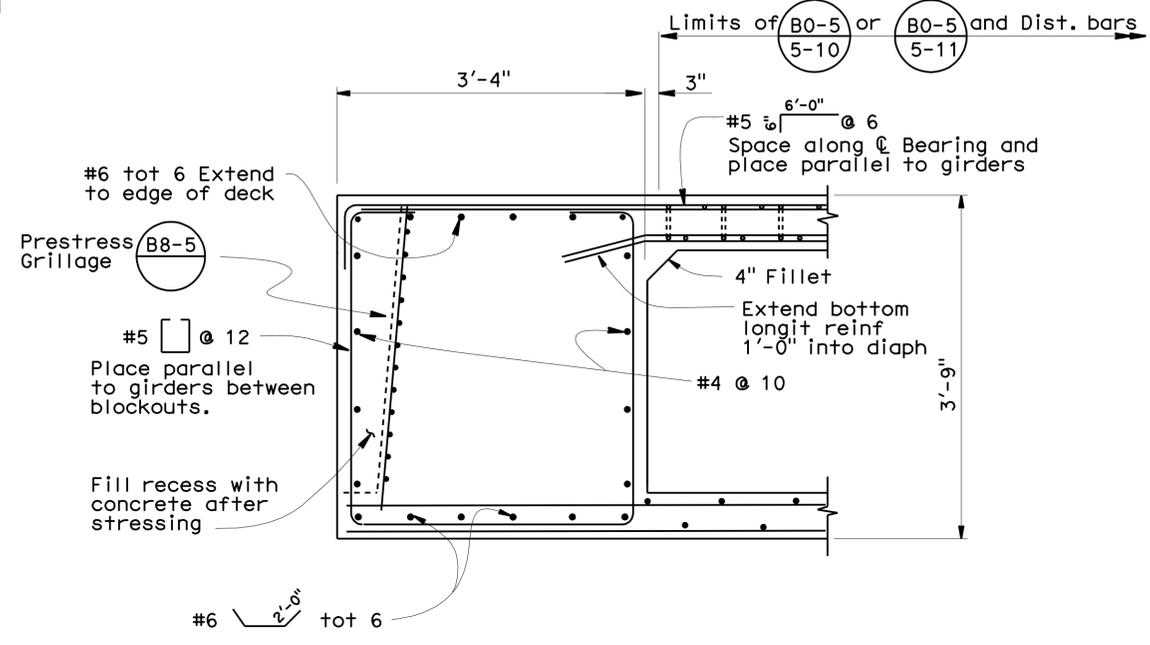


Camber values shown do not include allowance for falsework settlement

**CAMBER DIAGRAM**  
No Scale



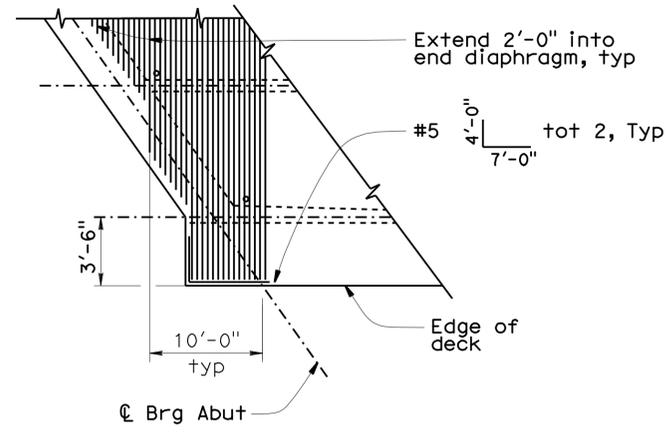
**DETAIL "A"**  
No Scale



**END DIAPHRAGM SECTION**  
1" = 1'-0"

**PRESTRESSING NOTES**

270 Ksi Low Relaxation Strand:  
 $P_{jack} = 15120$  kips  
Anchor Set =  $\frac{3}{8}$  in  
Total Number of Girders = 12  
 $\mu = 0.15$        $K = 2 \times 10^{-4}$  1/ft  
Long term losses assumed to be: 25 Ksi.  
Concrete:  $f'_c = 4000$  psi @ 28 days  
 $f'_{ci} = 3500$  psi @ time of stressing  
Contractor shall submit elongation calculations based on initial stress at  
 $\lambda = 0.915$  times jacking stress.  
One end stressing shall be performed from either end. Right end stressing is shown.



**DETAIL "B"**  
No Scale

DESIGN	BY R. Coria	CHECKED M. Friedheim
DETAILS	BY G. Leung	CHECKED M. Friedheim
QUANTITIES	BY R. Coria	CHECKED M. Friedheim

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

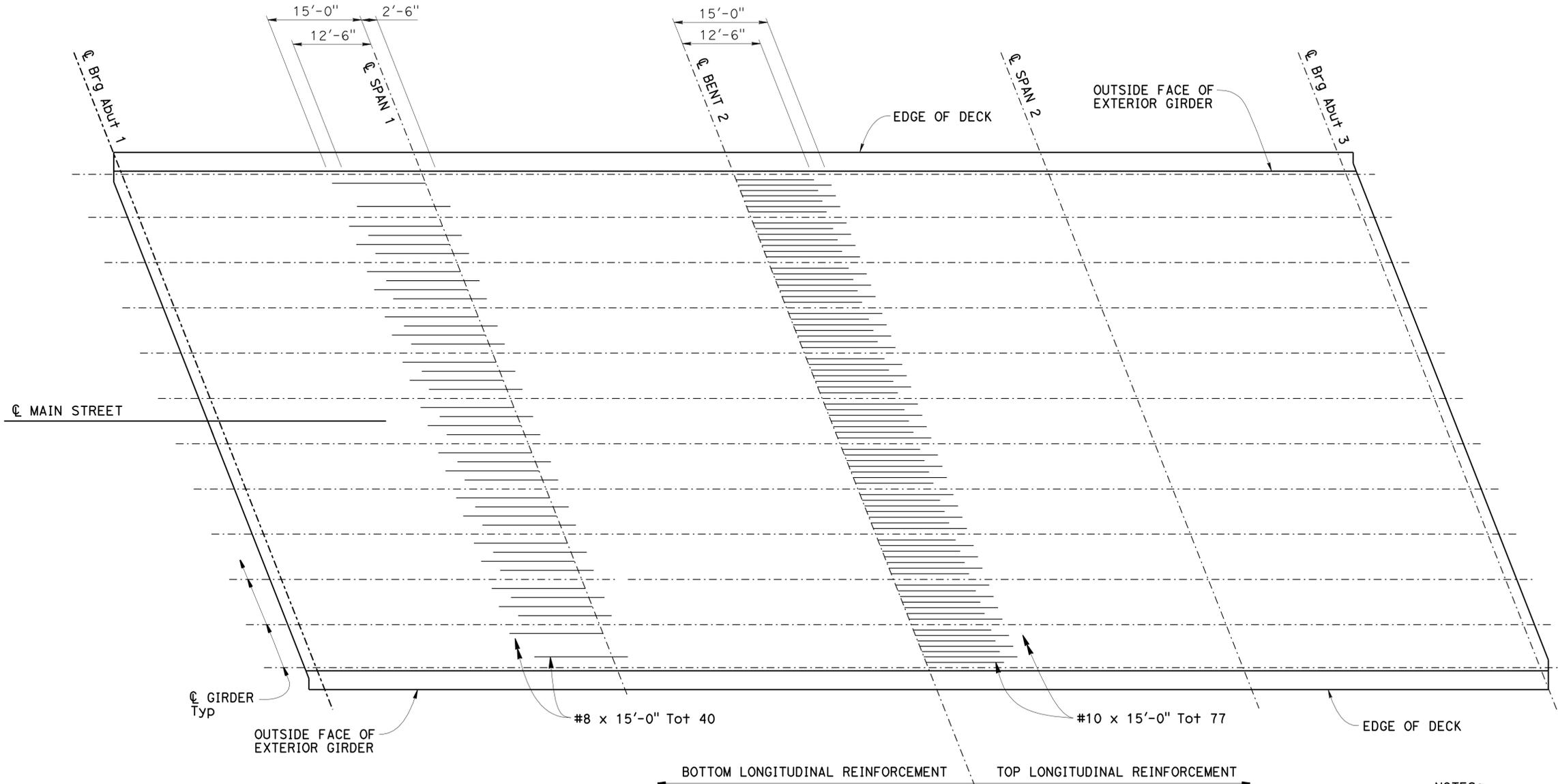
DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0327
POST MILE	10.10

**SOUTH STOCKTON WIDENING  
MAIN STREET OC (REPLACE)  
GIRDER DETAILS**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1099	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udarbe  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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- NOTES:**
- For details not shown, see "TYPICAL SECTION" sheet.
  - Reinf symmetrical about centerline of Bent 2.

**ADDITIONAL LONGITUDINAL REINFORCEMENT**

1" = 10'-0"

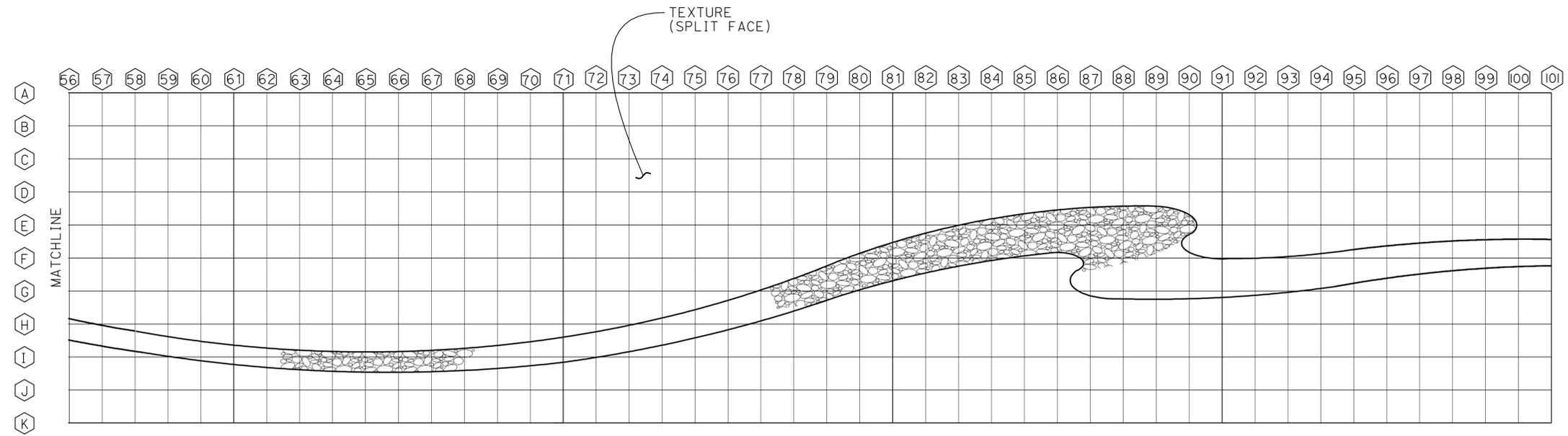
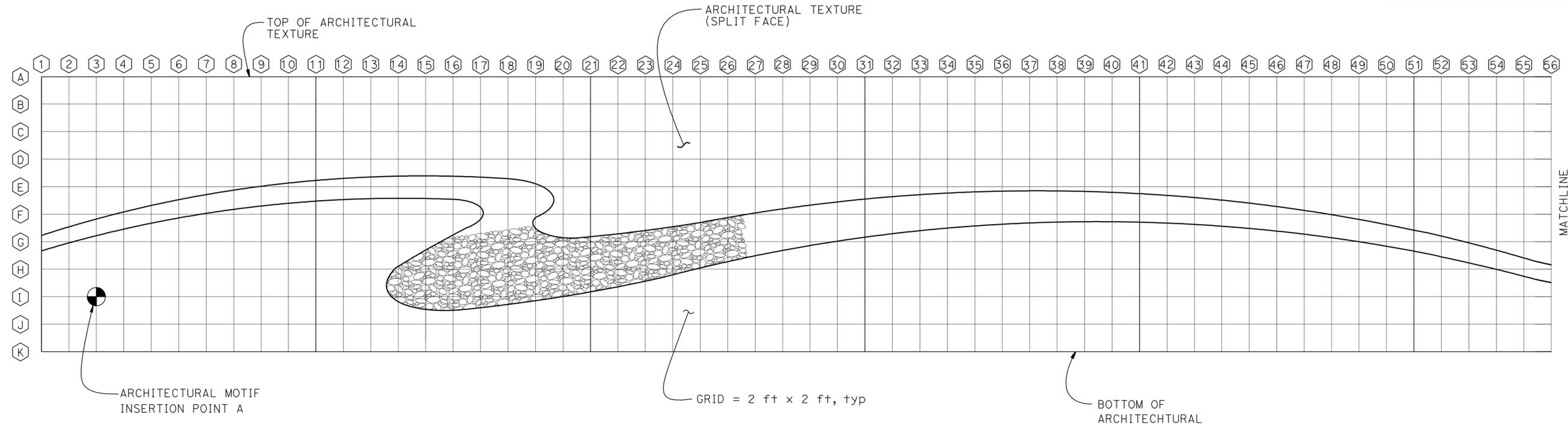
DESIGN BY R. Coria CHECKED M. Friedheim DETAILS BY G. Leung CHECKED M. Friedheim QUANTITIES BY R. Coria CHECKED M. Friedheim				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0327 POST MILE 10.10	<b>SOUTH STOCKTON WIDENING          MAIN STREET OC (REPLACE)          GIRDER REINFORCEMENT</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 1000000409	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				0 1 2 3	1-9-12 01-11-11 03-02-11 03-08-11	SHEET 14 OF 25	USERNAME => s114640 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:31:18

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1100	1414
			REGISTERED CIVIL ENGINEER	DATE	
			3-26-12	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.					



**NOTES:**

- For the architectural insertion point, see "Slope Paving - Full Slope" sheet. Band of local river rocks to be continuous between adjacent structures.
- Rocks to be spaced at 1" to 3" apart the first and last 5'-0" of this motif. Additionally, space rocks 1" to 3" apart over a distance of 5'-0" on either side of an angle point in the wall. Elsewhere, space the rocks 1/2" to 3/4" apart. Provide gradual transitions where spacings differ.



- LEGEND**
- Local River Rocks, embedded on slope paving. See "SLOPE PAINTING - FULL SLOPE" sheet.
  - OR
  - Architectural Texture (River Rock) on vertical concrete surfaces. These surfaces shall be prepared and stained.
  - Grid reference (I)
  - Grid reference (A)

**ABUTMENT, RETAINING WALL AND SLOPE PAVING ARCHITECTURAL MOTIF**  
 1/4" = 1'-0"

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		DESIGN BY C. Udarbe CHECKED M. Friedheim DETAILS BY L. Wang CHECKED M. Friedheim QUANTITIES BY C. Udarbe CHECKED M. Friedheim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0327 POST MILE 10.10	<b>SOUTH STOCKTON WIDENING</b> <b>MAIN STREET OC (REPLACE)</b> <b>ARCHITECTURAL DETAILS NO. 1</b>
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3	UNIT: 3586	PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES REVISION DATES: 07-02-11, 1-9-12 SHEET 15 OF 25

USERNAME => s114640 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:31:18