DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	601	639

David J. Morrell
REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID J. MORRELL — No. 60578 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

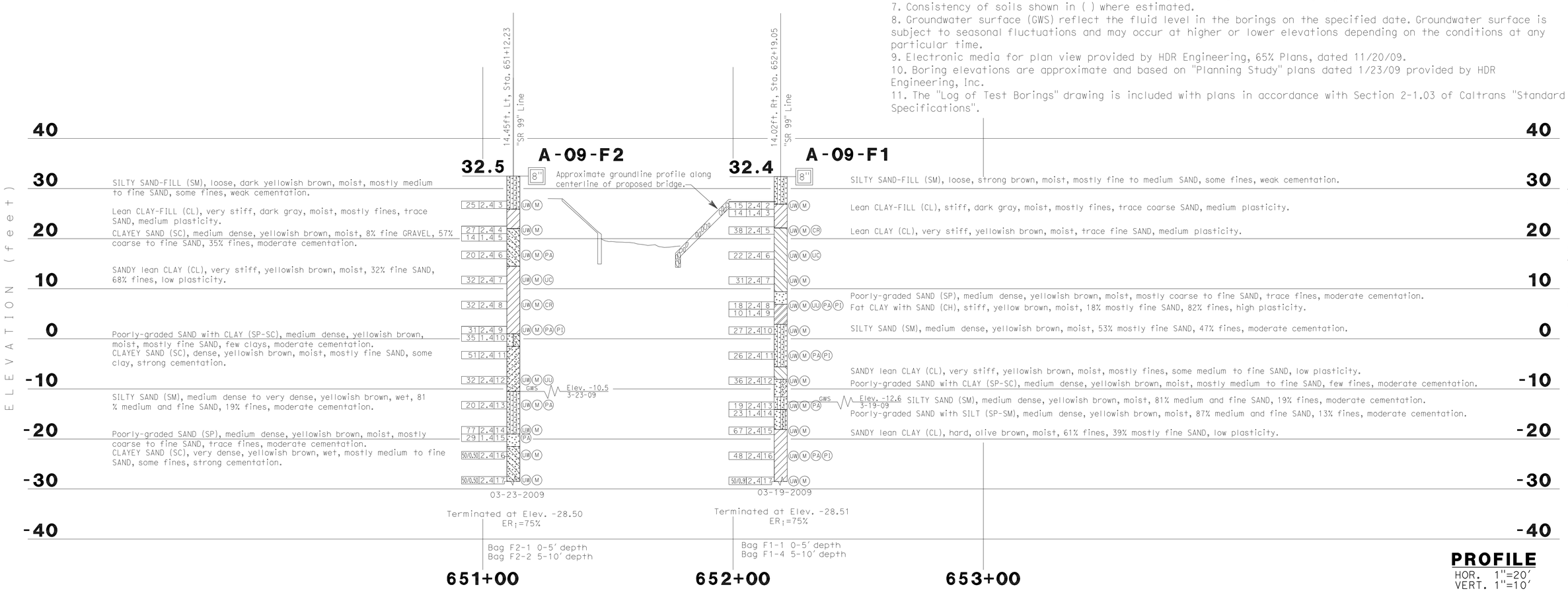
BENCH MARKS
BENCHMARK# 662 ELEV.30.80 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED APPROXIMATE CENTERLINE STATION 649+74, ON THE NORTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 1.5' EAST OF THE EDGE OF PAVEMENT, 90' SOUTH OF THE END OF A GUARDRAIL, AND 205' SOUTH OF THE CENTERLINE OF A SLOUGH.
NGVD 29, N2140617.92, E6354085.49.

BENCHMARK# 695 ELEV.31.30 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED APPROXIMATE CENTERLINE STATION 649+55, ON THE SOUTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 1.5' WEST OF THE EDGE OF PAVEMENT, 30' SOUTH EAST OF A POWER POLE SUPPLYING POWER TO A WELL PUMP, 210' SOUTH OF THE CENTERLINE OF A SLOUGH.
NGVD 29, N2140593.55, E6353972.04.

FOR PLAN VIEW
SEE LOG OF TEST BORINGS 1 OF 5

NOTES:

1. Field classification of soils was in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (June 2007). See Log of Test Borings No. 3 and 4, "Soil Legend".
2. Standard Penetration tests were performed in accordance with ASTM D 1586-99 using a hammer operated with an automated drop system. Drill rods were 1 5/8-inch diameter "A"-rods; sampler was driven with brass liners.
3. "2.4 inch sampler": ID=2.4 inch, OD=2.9 inch. Driven in same manner as SPT ("1.4 inch") sampler.
4. Where less than the 0.5 inches of penetration is achieved, the blow count shown is for that fraction of the interval actually penetrated.
5. If laboratory tests are not shown as being performed, the soil descriptions presented in the LOTB are based solely on the visual practices described in the before mentioned Manual.
6. The length of each sampled interval is shown graphically on the boring log.
7. Consistency of soils shown in ( ) where estimated.
8. Groundwater surface (GWS) reflect the fluid level in the borings on the specified date. Groundwater surface is subject to seasonal fluctuations and may occur at higher or lower elevations depending on the conditions at any particular time.
9. Electronic media for plan view provided by HDR Engineering, 65% Plans, dated 11/20/09.
10. Boring elevations are approximate and based on "Planning Study" plans dated 1/23/09 provided by HDR Engineering, Inc.
11. The "Log of Test Borings" drawing is included with plans in accordance with Section 2-1.03 of Caltrans "Standard Specifications".



PROFILE
HOR. 1"=20'
VERT. 1"=10'

John Fujimoto DESIGN OVERSIGHT John Fujimoto	DRAWN BY	M ROBERTSON	A SHINNEFIELD FIELD INVESTIGATION BY:	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	JOHN A. KLEMUNES, JR. PROJECT ENGINEER	BRIDGE NO. 29-0019 POST MILE 12.33	FRENCH CAMP SLOUGH BRIDGE (WIDEN)
2-7-11 SIGN OFF DATE	CHECKED BY	A SHINNEFIELD	DATE: March, 2009				LOG OF TEST BORINGS NO. 2

GS CIVIL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES: 5-3-10, 8-2-10, 11-5-10, 12-3-10

SHEET 12 OF 15

FILE => 29-0019-z-ltb02.dgn

USERNAME => s109858 DATE PLOTTED => 30-NOV-2011 TIME PLOTTED => 11:20

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL, (JUNE, 2007)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	602	639

David J. Morrell — REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID J. MORRELL — No. 60578 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

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
Size	A	Auger Boring
Size	R P	Rotary drilled boring Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778)
	O	Other

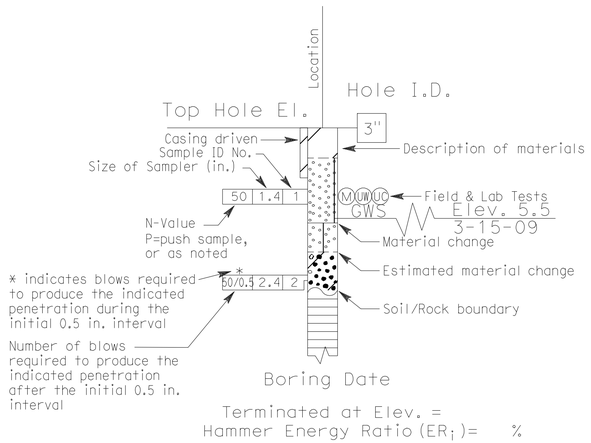
NOTE: Size in inches.

CONSISTENCY OF COHESIVE SOILS

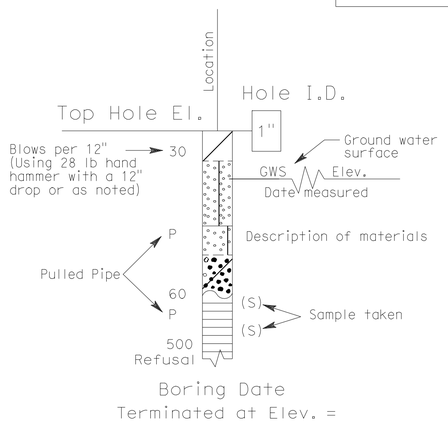
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	<0.25	<0.25	<0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS

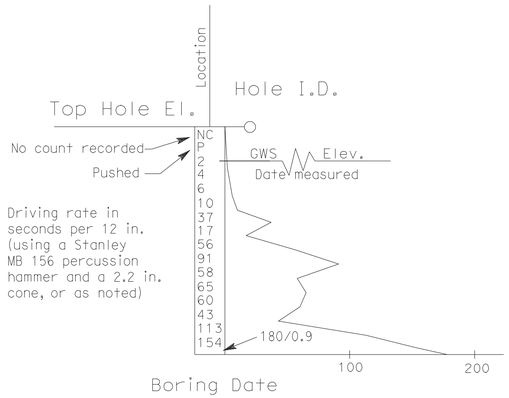
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



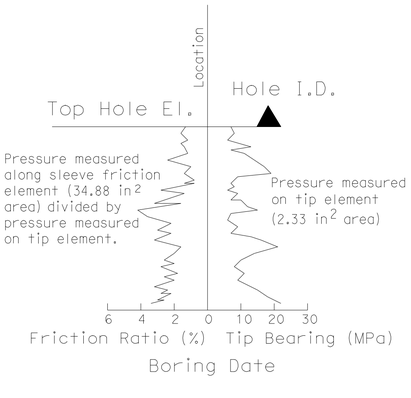
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

SOIL LEGEND

John Fujimoto — DESIGN OVERSIGHT — John Fujimoto
2-7-11 SIGN OFF DATE

DRAWN BY: M ROBERTSON
CHECKED BY: A SHINNEFIELD

A SHINNEFIELD — FIELD INVESTIGATION BY:
DATE: March, 2009

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR. — PROJECT ENGINEER

BRIDGE NO. 29-0019
POST MILE 12.33

FRENCH CAMP SLOUGH BRIDGE (WIDEN)

LOG OF TEST BORINGS NO. 3

GS LOTB SOIL LEGEND SHEET 1 (ENGLISH) (REV. 07/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	13	15

FILE => 29-0019-z-1tb03.dgn

USERNAME => s109858 DATE PLOTTED => 30-NOV-2011 TIME PLOTTED => 11:20

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL, (JUNE, 2007)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly-graded GRAVEL Poorly-graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly-graded GRAVEL with SILT Poorly-graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly-graded GRAVEL with CLAY (or SILTY CLAY) Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean Clay ORGANIC lean Clay with SAND ORGANIC lean Clay with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly-graded SAND Poorly-graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly-graded SAND with SILT Poorly-graded SAND with SILT and GRAVEL		
SP-SC	Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	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
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OH/OL	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
	COBBLES COBBLES and BOULDERS BOULDERS		

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
- (PP) Pocket Penetrometer
- (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)
- (TV) Pocket Torvane
- (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 2937)
- (VS) Vane Shear (AASHTO T 223)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	603	639

David J. Morrell — REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVID J. MORRELL — No. 60578 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60}-Value (Blows / 12 inches)
Very Loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

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

PARTICLE SIZE

Description		Size
Boulder		> 12"
Cobble		3" to 12"
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

John Fujimoto — DESIGN OVERSIGHT (I) John Fujimoto — 2-7-11 SIGN OFF DATE

DRAWN BY: M ROBERTSON — CHECKED BY: A SHINNEFIELD

A SHINNEFIELD — FIELD INVESTIGATION BY: — DATE: March, 2009

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR. — PROJECT ENGINEER

BRIDGE NO. 29-0019 — POST MILE 12.33

SOIL LEGEND

FRENCH CAMP SLOUGH BRIDGE (WIDEN)

LOG OF TEST BORINGS NO. 4

GS LOTB SOIL LEGEND SHEET 2 (ENGLISH) (REV. 07/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-8-10 | 12-3-10

SHEET 14 OF 15

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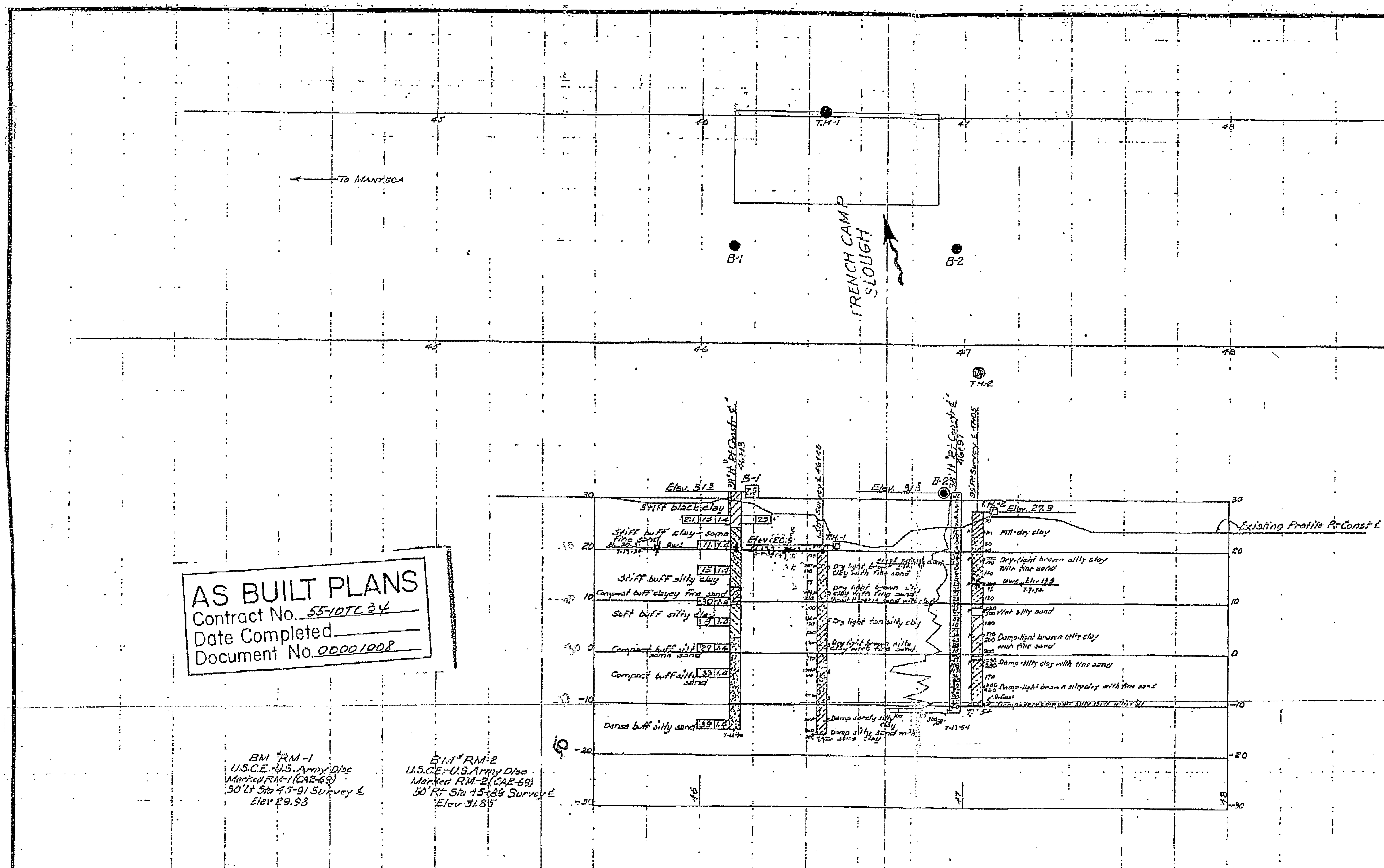
IN-192 (Z)

FED. ROAD DIV. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CAL.			41	45

OCTOBER 25 1951



TO ACCOMPANY PLANS DATED 10-17-11

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES

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

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	99	4.9/14.2	604	639

David J Morrell — REGISTERED CIVIL ENGINEER — DATE 1-20-11

FRENCH CAMP SLOUGH BRIDGE (WIDEN)

AS-BUILT LOG OF TEST BORINGS

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

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401

BRIDGE No.	Sheet	of
29-0019	15	15

Revisions made to this Log of Test Borings from the original 1963 Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "LT" Line
B-1	651+18.20	5.29 ft Lt
B-2	652+02.47	04.76 ft Lt
TH-1	651+52.36	57.12 ft Lt
TH-2	652+11.25	43.02 ft Rt

REGISTERED PROFESSIONAL ENGINEER — DAVID J. MORRELL — No. 60578 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

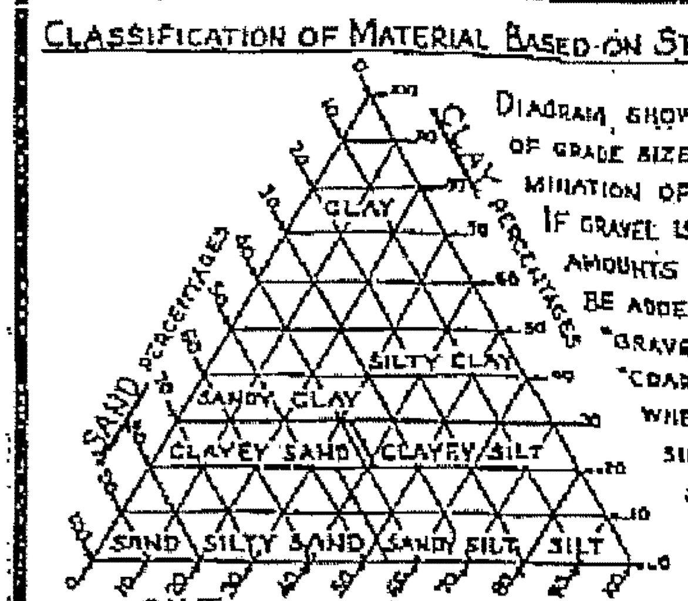
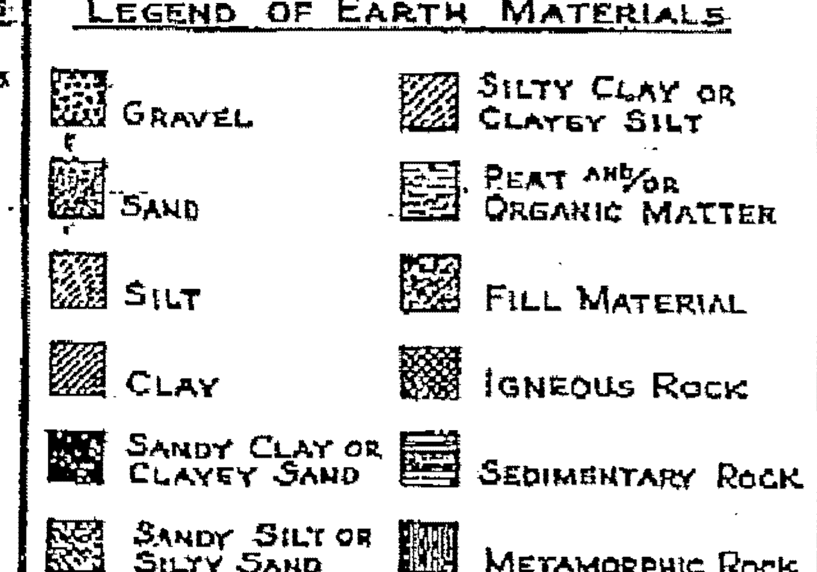


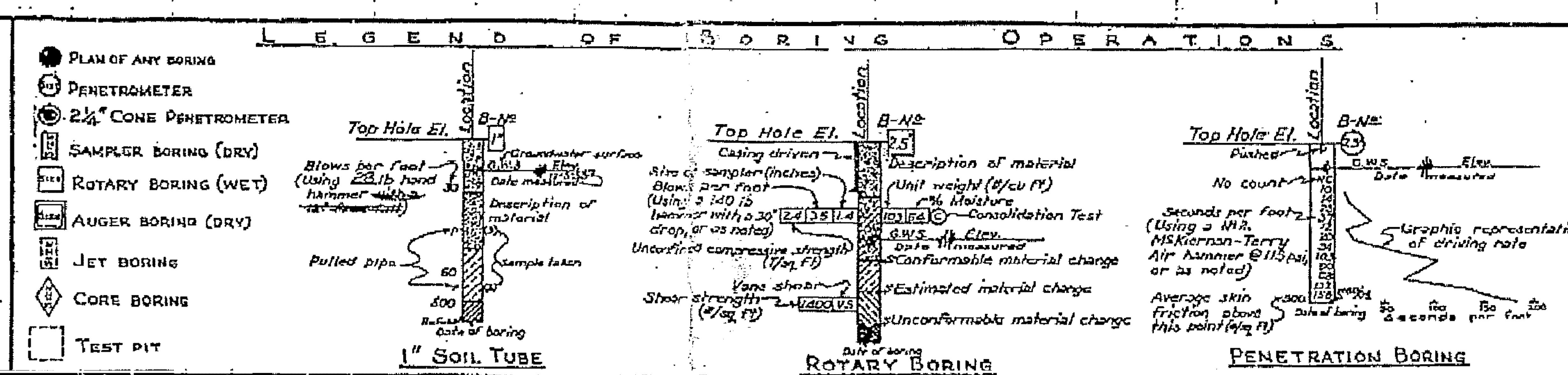
Diagram showing the basis for estimates of grade size distribution used in determination of class names.

If gravel is present in appreciable amounts the term "gravelly" may be added to the class name, viz. "gravelly sand". The terms "coarse", "medium" and "fine" when used to describe sand, silt and gravel refer to standard grade size limits.

LEGEND OF EARTH MATERIALS



LEGEND OF BORING OPERATIONS



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

BRIDGE ACROSS FRENCH CAMP SLOUGH

LOG OF TEST BORINGS

SCALE Hor 1"=20' Vert 1"=10'	BRIDGE 29-19 R/L	FILE	DRAWING C-3919-5

FILENAME => 29-0019-z-ltb05.tif

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	605	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

SHARIQ PERVIAZ No. C67068 Exp. 9-30-12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

10-17-11
PLANS APPROVAL DATE

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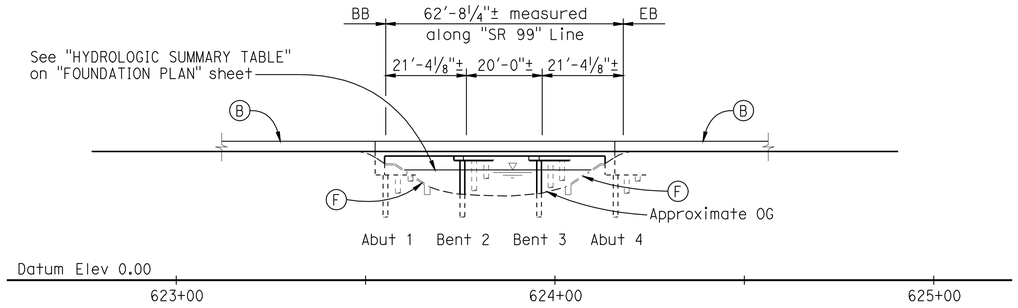
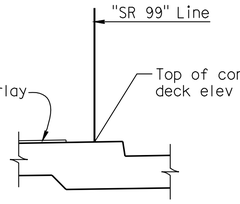
SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



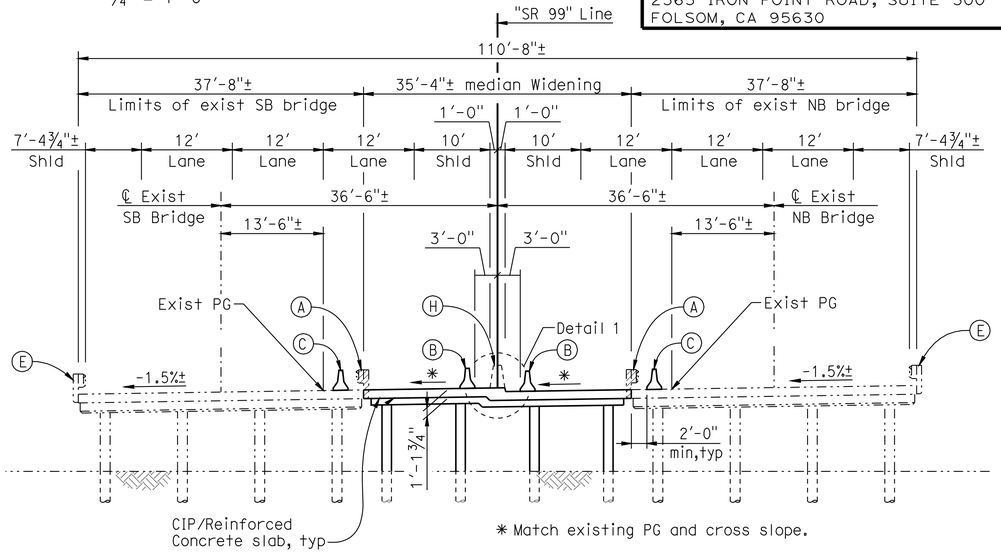
SECTION A-A

1" = 20'



DETAIL 1

¾" = 1'-0"



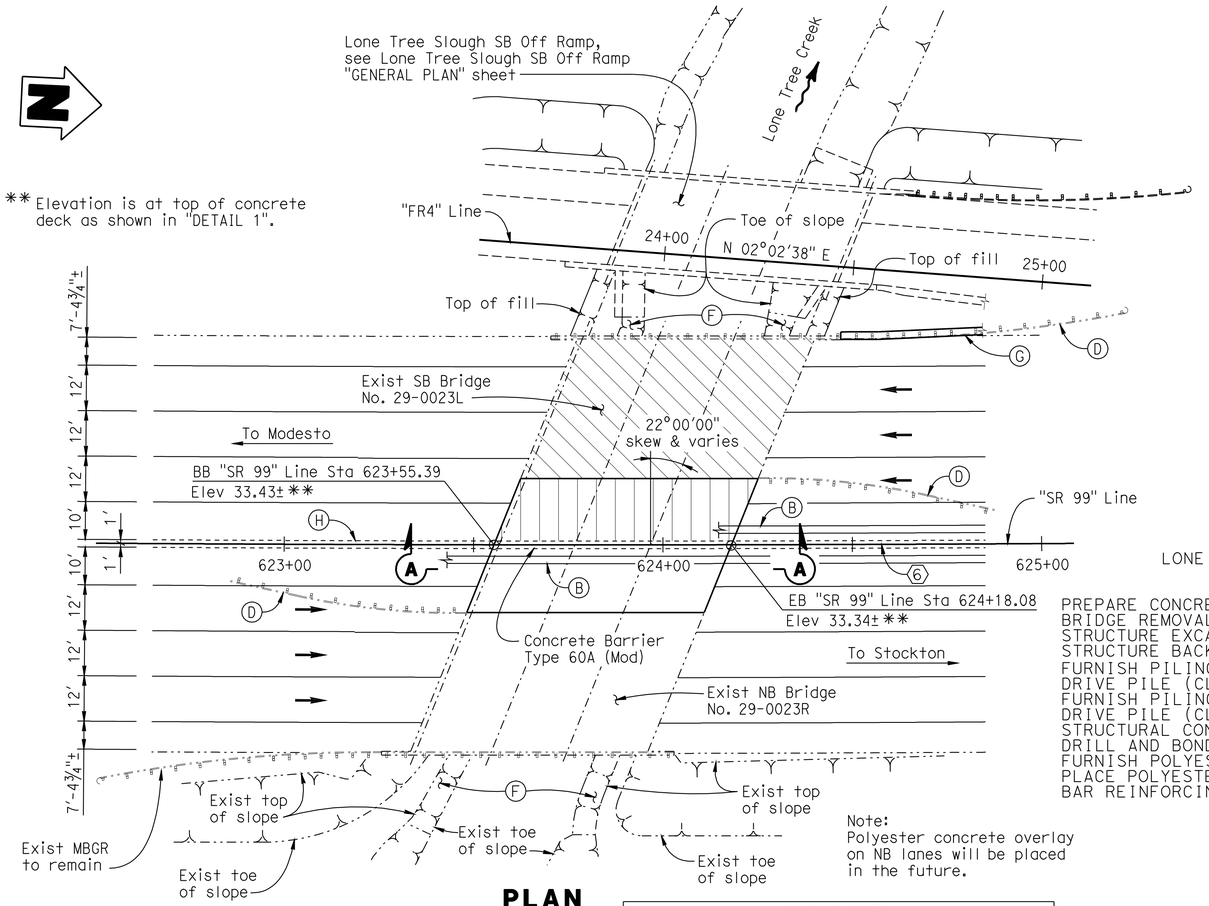
TYPICAL SECTION

1" = 10'

Notes:
1. For "GENERAL NOTES", see "DECK CONTOURS" sheet.
2. For "PILE DATA", see "FOUNDATION PLAN" sheet.

Legend:

- (A) Existing Metal Beam Bridge Railing to be removed and posts to be salvaged.
- (B) Concrete Barrier (Type K), see "ROAD PLANS".
- (C) Temporary Railing (Type K), see "ROAD PLANS".
- (D) Existing Metal Beam Guard Railing to be removed, see "ROAD PLANS".
- (E) Existing Metal Guard Bridge Railing to remain.
- (F) Exist concrete slope protection at abutments to remain undamaged.
- (G) Concrete Barrier Type 60, see "ROAD PLANS"
- (H) Future Concrete Barrier Type 60A (Mod).
- ——— Indicates new structure.
- ·—·—· Indicates existing structure.
- Indicates limits of tine existing polyester concrete overlay.
- Indicates limits of prepare concrete bridge deck surface, place ¾" min polyester concrete overlay and tine polyester concrete overlay.



PLAN

1" = 20'

Note:
Polyester concrete overlay on NB lanes will be placed in the future.

CURVE DATA				
No.	R	Δ	T	L
(6)	20000.00	1°39'37"	289.78	579.52

LONE TREE SLOUGH BRIDGE (WIDEN) #29-0023
QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE	1,045	SQFT
BRIDGE REMOVAL (PORTION), LOCATION A	LUMP	SUM
STRUCTURE EXCAVATION (BRIDGE)	50	CY
STRUCTURE BACKFILL (BRIDGE)	22	CY
FURNISH PILING (CLASS 90)(ALTERNATIVE X)	385	LF
DRIVE PILE (CLASS 90)(ALTERNATIVE X)	12	EA
FURNISH PILING (CLASS 140)	434	LF
DRIVE PILE (CLASS 140)	8	EA
STRUCTURAL CONCRETE, BRIDGE	140	CY
DRILL AND BOND DOWEL	80	LF
FURNISH POLYESTER CONCRETE OVERLAY	65	CF
PLACE POLYESTER CONCRETE OVERLAY	1,045	SQFT
BAR REINFORCING STEEL (BRIDGE)	28,000	LB

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

	BY	CHECKED	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	
DESIGN	S PERVAIZ	P CHENG			
DETAILS	J VOUGHT	P CHENG	LAYOUT: S PERVAIZ		CHECKED: T KENG
QUANTITIES	M KOCHLY	J NAUMAN	SPECIFICATIONS: T KENG		PLANS AND SPECS COMPARED: J MANISCALCO

DESIGN OVERSIGHT: John Fujimoto
2-7-11
SIGN OFF DATE

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILES 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)

GENERAL PLAN

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-5-10	12-3-10	1	18

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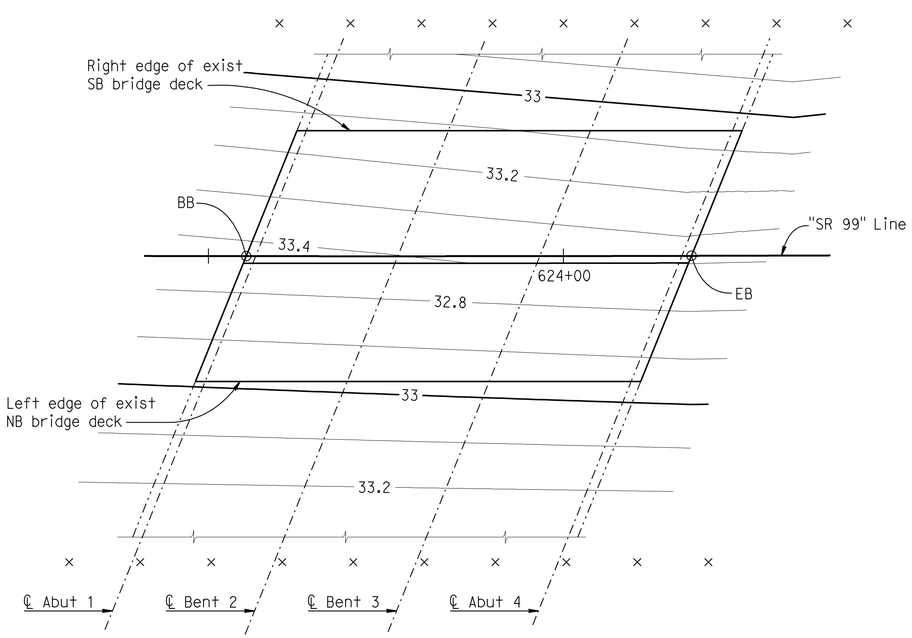

PARTIAL PLAN - DECK CONTOURS

$\frac{3}{32}$" = 1'-0"

Notes:

1. × - Indicates 10' intervals along "SR 99" Line.
2. Contour interval = 0.1'.
3. Contours do not include camber or allowance for falsework settlement.
4. Contours are developed to match existing grade & cross slope at edge of deck and indicate top of concrete deck elevation.

INDEX TO PLANS:

CALTRANS 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
RSP	A76A	CONCRETE BARRIER TYPE 60
	B0-1	BRIDGE DETAILS
	B0-3	BRIDGE DETAILS
	B2-5	PILE DETAILS CLASS 90 AND CLASS 140

STANDARD PLAN SHEET NO.

DETAIL NO.

Structural Concrete, Bridge

PC/PS Concrete Pile (Class 140), see "BENT DETAILS" sheet

PC/PS Concrete Pile (Class 90), Alternative X, see B2-5

CONCRETE STRENGTH AND TYPE LIMITS

No Scale

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	606	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — SHARIO PERVIAZ — No. C67068 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

GENERAL NOTES
LOAD & RESISTANCE FACTOR DESIGN

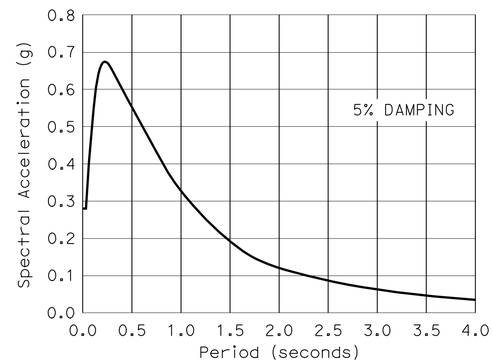
DESIGN:
AASHTO LRFD Bridge Design Specifications, 4th Edition and the Caltrans Amendments, preface dated Dec 2008; except that bridge (incl. barrier and railing) details taken from Standard Plans March 2006 and earlier versions, Standard Bridge Details XS sheets, etc) are designed using Bridge Design Specifications (96 AASHTO w/Revisions by Caltrans).

SEISMIC DESIGN:
Caltrans Seismic Design Criteria (SDC), Version 1.4 July 2006.

DEAD LOAD
Includes 35 psf for future wearing surface.

LIVE LOADING:
HL93 and permit design load.

SEISMIC LOADING:
CALTRANS SDC ARS Curve: Figure B.7
(Soil Profile Type D) Magnitude = 6.5± 0.25
(Spectrum Peak Rock Acceleration = 0.2 g)



DESIGN A.R.S. CURVE

REINFORCED CONCRETE:
f_y = 60 ksi
f'_c= 3.6 ksi, unless otherwise noted.
n = 8

PILES:
See "PILE DATA TABLE" on "FOUNDATION PLAN" sheet.

John Fujimoto
DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	S PERVAIZ	P CHENG
DETAILS	J VOUGHT	P CHENG
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)
DECK CONTOURS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-8-10 | 12-3-10

SHEET 2 OF 18

FILE => 29-0023-d-dc01.dgn

USERNAME => s1244496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:46

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	607	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — SHARIQ PERVIAZ — No. C67068 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

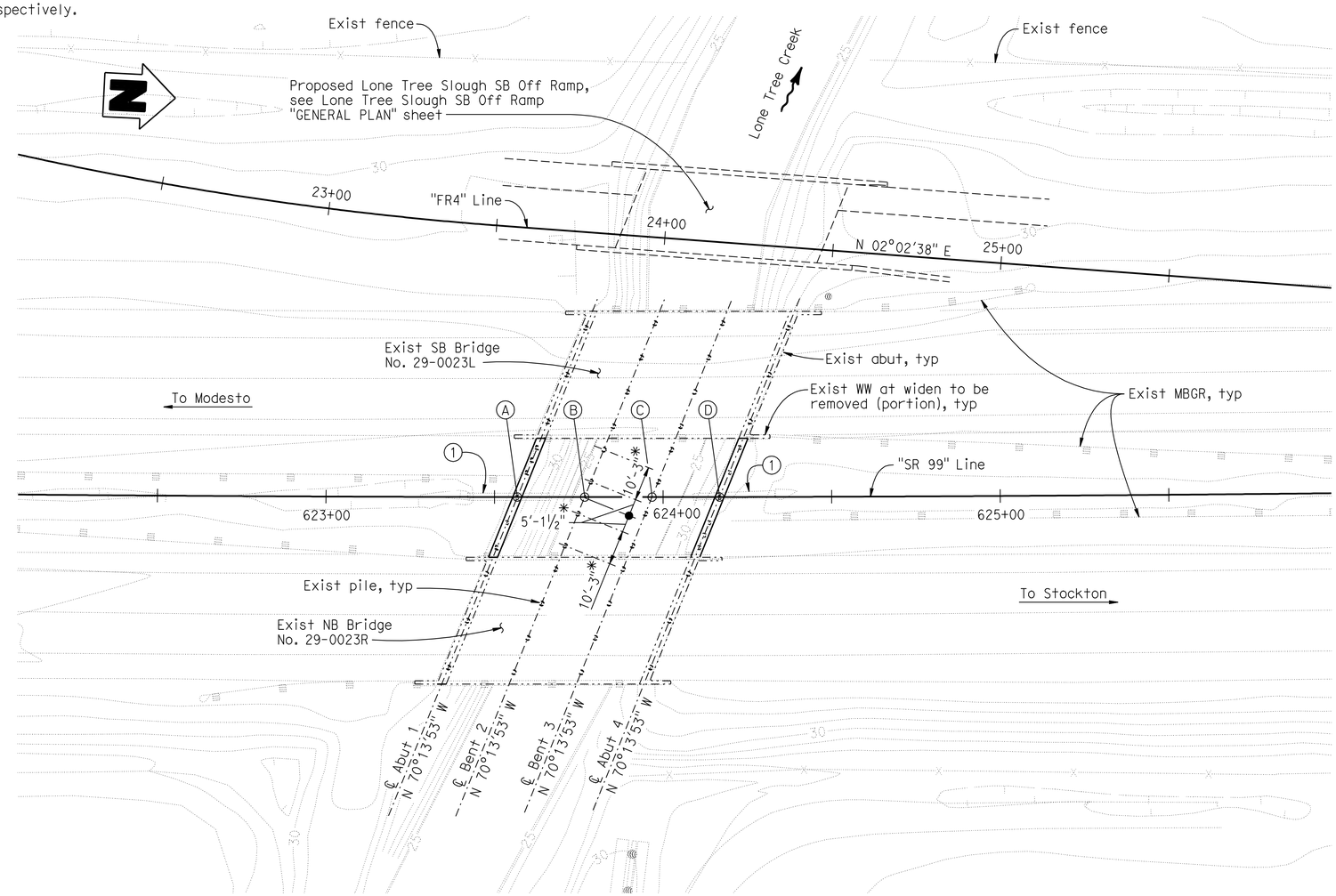
PILE DATA TABLE

Location	Pile Type	Nominal Resistance		Design Tip Elevations (ft)	Specified Tip Elevation (ft)	Nominal Driving Resistance (kips)
		Compression (kips)	Tension (kips)			
Abut 1	Class 90 Alt 'X'	140	0	-5.0 (a)	-5.0	140
Bent 2 & 3	PC/PS Conc Pile Class 140	280	0	-23.0 (a)(b)	-23.0	310
Abut 4	Class 90 Alt 'X'	140	0	-5.0 (a)	-5.0	140

Design tip elevations for Abutments are controlled by: (a) Compression.
Design tip elevations for Bents are controlled by: (a) Compression (Strength Limit), (b) Scour, respectively.

ABUTMENTS & BENTS ℄ STATIONS

- (A) SR 99 Sta 623+56.74
- (B) SR 99 Sta 623+76.74
- (C) SR 99 Sta 623+96.74
- (D) SR 99 Sta 624+16.74



PLAN
1" = 20'

*Typical bent pile spacing, unless noted otherwise.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

HYDROLOGIC SUMMARY TABLE

Drainage Area: 86.0 Square Miles

	Design Flood	Base Flood	Overtopping Flood
Frequence (Years)	50	100	N/A
Discharge (Cubic Feet per Second)	840	955	2855
Water Surface Elevation at Bridge (Feet)	29.58	30.00	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.

BENCH MARKS

BENCHMARK# 658 — ELEV. 33.00 Ft
DESCRIPTION: KSN CONTROL POINT, ½" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED AT APPROXIMATE CENTERLINE STATION 625+67, ON THE NORTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 1' EAST OF THE EDGE OF PAVEMENT, 205' NORTH OF THE END OF THE CENTERLINE OF LONE TREE CREEK.
NGVD 29, N2138213.81, E6354203.76.

BENCHMARK# 699 — ELEV. 31.83 Ft
DESCRIPTION: KSN CONTROL POINT, ½" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED APPROXIMATE CENTERLINE STATION 625+50, ON THE SOUTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 3' WEST OF THE EDGE OF PAVEMENT, 140' NORTH OF THE CENTERLINE OF LONE TREE CREEK.
NGVD 29, N2138191.62, E6354088.62.

Notes:
1. See "UTILITY PLANS" for type and exact locations of all existing and proposed utilities.
2. Location of existing utilities shown are approximate. The Contractor shall verify locations of all affected utilities prior to performing any excavation.
3. Not all piles shown here.

Legend:

- ···—··— Indicates existing structure.
- = Indicates driven piles at abutments.
- ⁘ Indicates driven piles at bents.
- (1) Exist storm drain to be removed, see "ROAD PLANS"

GEOTECHNICAL PROFESSIONAL — 12-3-10 APPROVAL DATE

DESIGN OVERSIGHT John Fujimoto — 2-7-11 SIGN OFF DATE

SCALE: 1" = 40'	VERT.DATUM NGVD29	HORZ.DATUM NAD1983	DESIGN	BY S PERVAIZ	CHECKED P CHENG	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	JOHN A. KLEMUNES, JR. PROJECT ENGINEER
PHOTOGRAMMETRY AS OF: 08/09/2007	ALIGNMENT TIES		DETAILS	BY J VOUGHT	CHECKED P CHENG		
SURVEYED BY AERIAL PHOTOMAPPING SERVICES	DRAFTED BY KSN		QUANTITIES	BY M KOCHLY	CHECKED J NAUMAN		
FIELD CHECKED BY KRIS F. NEHMER	CHECKED BY KRIS F. NEHMER						

BRIDGE NO. 29-0023 — POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)
FOUNDATION PLAN

FOUNDATION PLAN SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	3	18

FILE => 29-0023-e-fp01.dgn

USERNAME => s124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:46

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	608	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — SHARIO PERVIAZ — No. C67068 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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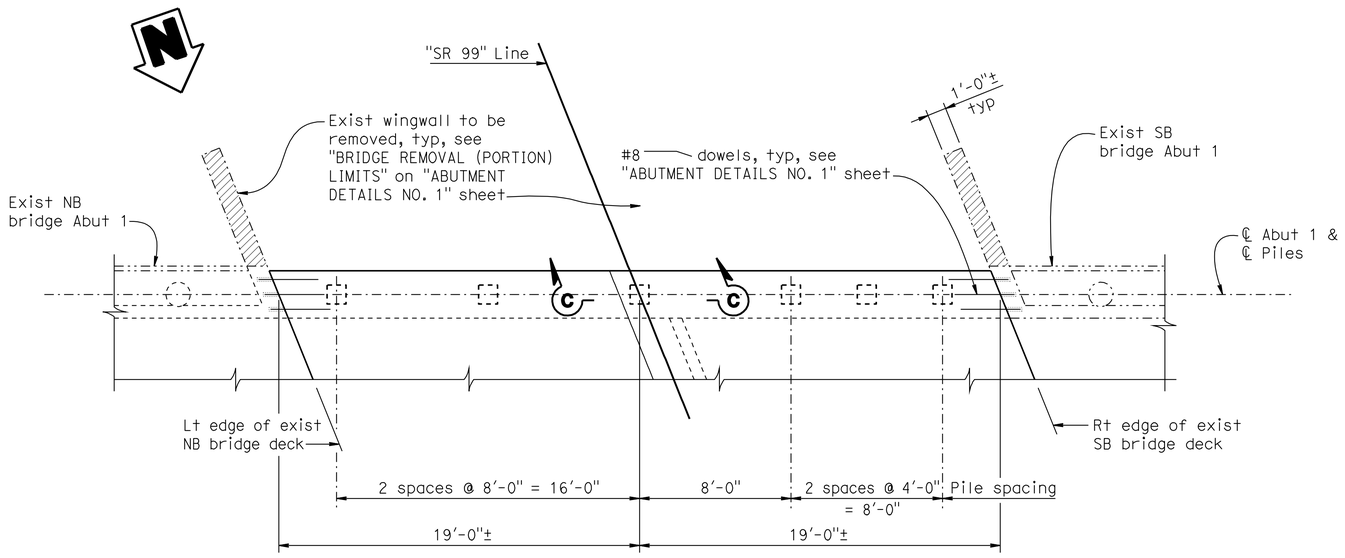
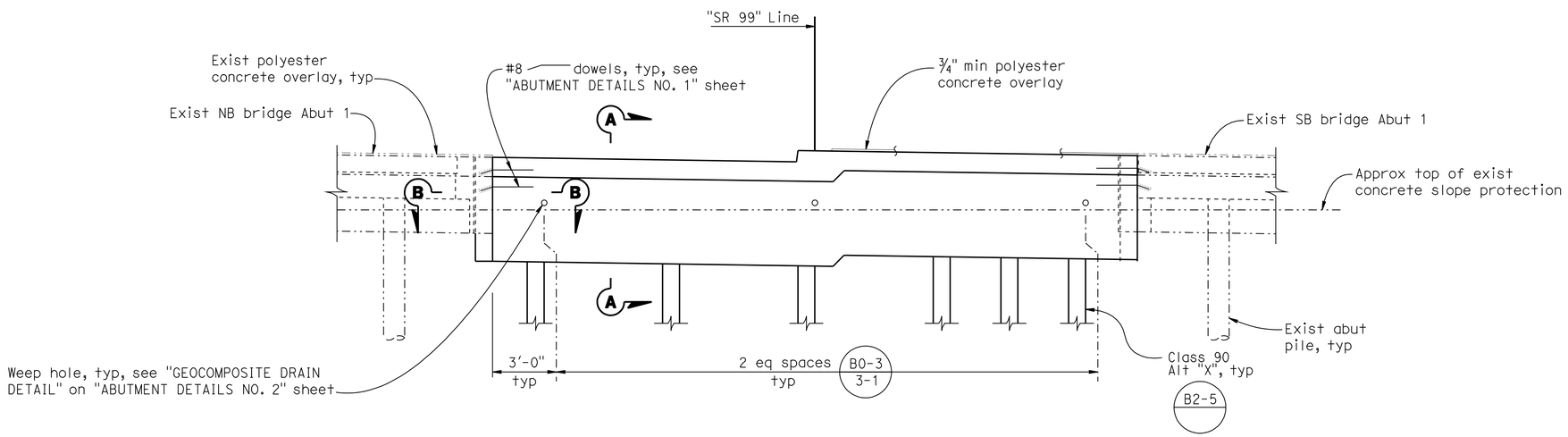
FOLSOM, CA 95630



PARTIAL PLAN

1/4" = 1'-0"



ELEVATION

1/4" = 1'-0"

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

Note:
For sections and details, see "ABUTMENT DETAILS NO. 1 & NO. 2" sheets.

Legend:
- Indicates limits of bridge removal (portion).
- Indicates existing structure.
- Indicates new structure.

John Fujimoto
DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

DESIGN	BY S PERVAIZ	CHECKED P CHENG	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY J VOUGHT	CHECKED P CHENG	
QUANTITIES	BY M KOCHLY	CHECKED J NAUMAN	

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)

ABUTMENT 1 LAYOUT

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	4	18

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	609	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — SHARIO PERVIAZ — No. C67068 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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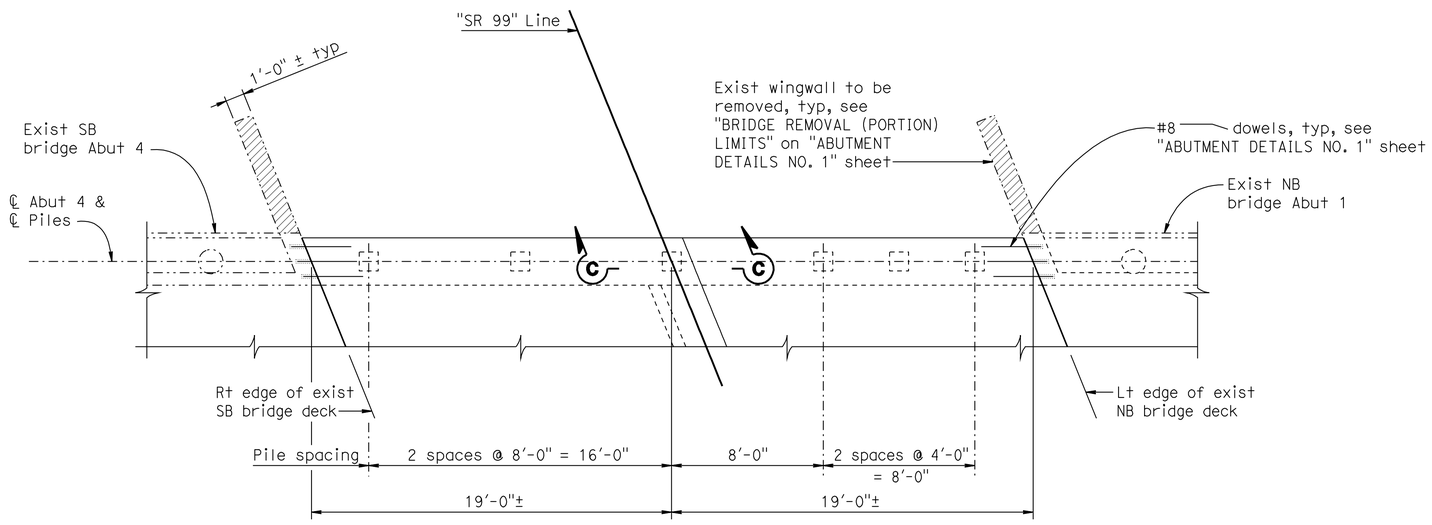
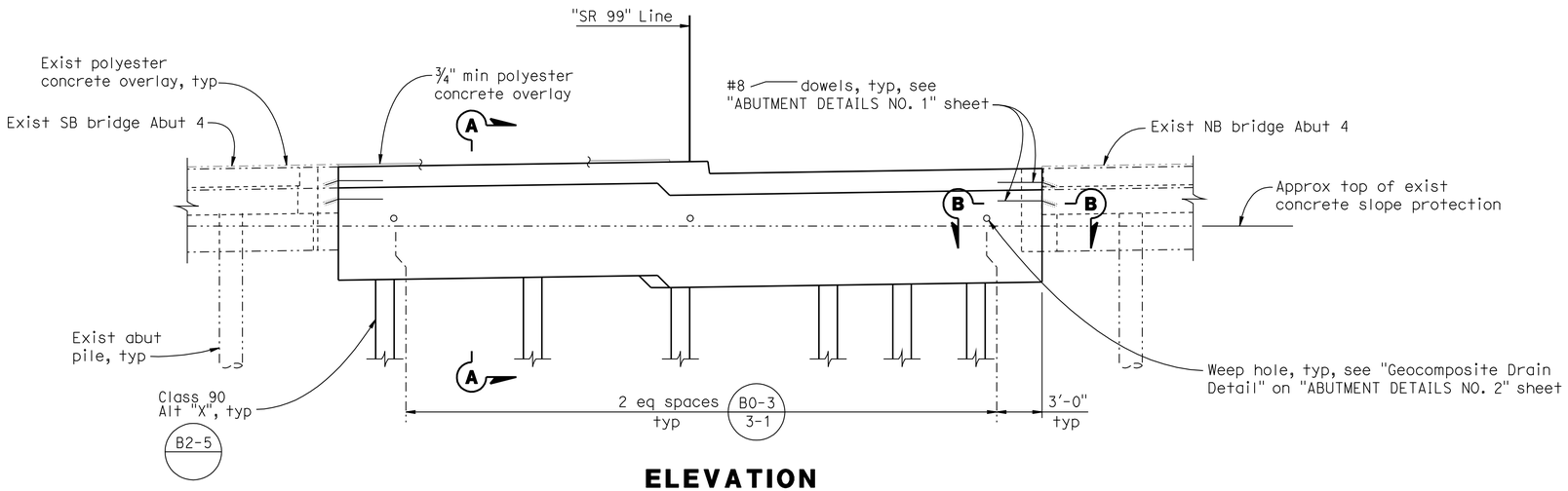
HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



PARTIAL PLAN

1/4" = 1'-0"



ELEVATION

1/4" = 1'-0"

Note:
For sections and details, see "ABUTMENT DETAILS NO. 1 & NO. 2" sheets.

Legend:
- Indicates limits of bridge removal (portion).
- Indicates existing structure.
- Indicates new structure.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DESIGN OVERSIGHT: John Fujimoto	DESIGN	BY S PERVAIZ	CHECKED P CHENG	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	JOHN A. KLEMUNES, JR. PROJECT ENGINEER
2-7-11 SIGN OFF DATE	DETAILS	BY J VOUGHT	CHECKED P CHENG		BRIDGE NO. 29-0023 POST MILE 11.80
	QUANTITIES	BY M KOCHLY	CHECKED J NAUMAN		

LONE TREE SLOUGH BRIDGE (WIDEN)

ABUTMENT 4 LAYOUT

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	5	18

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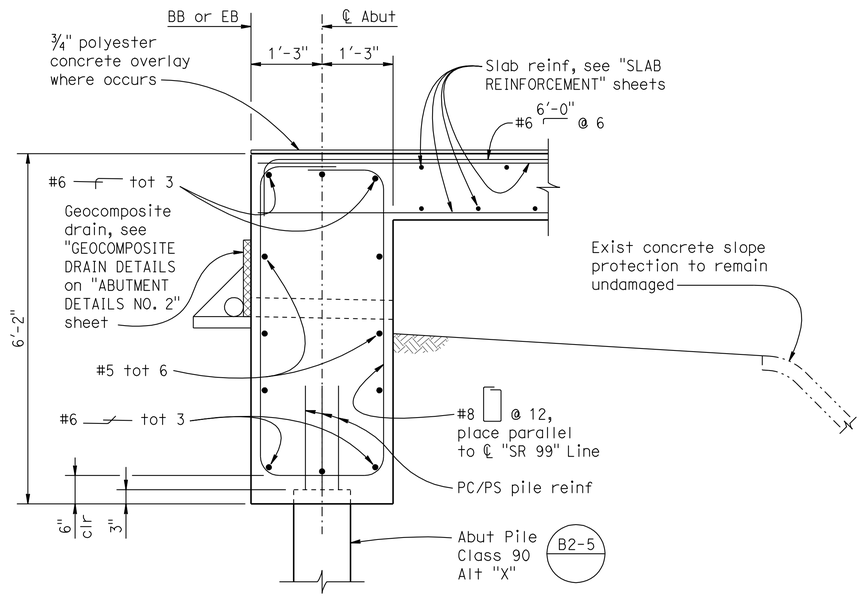
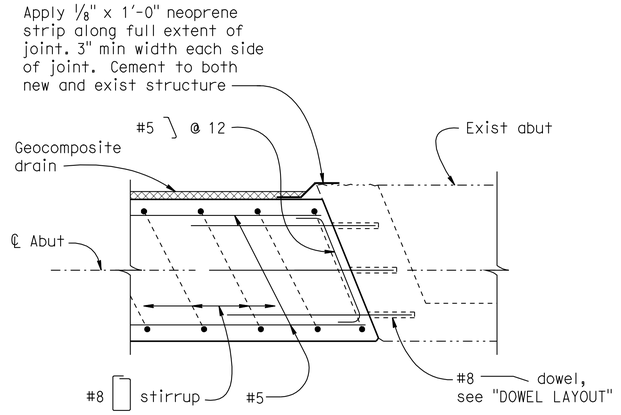


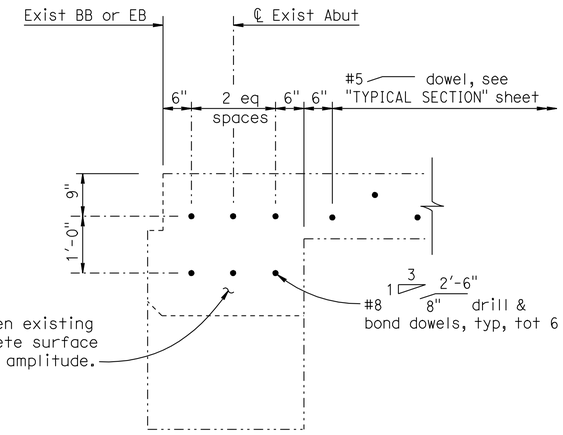
SECTION A-A

¾" = 1'-0"



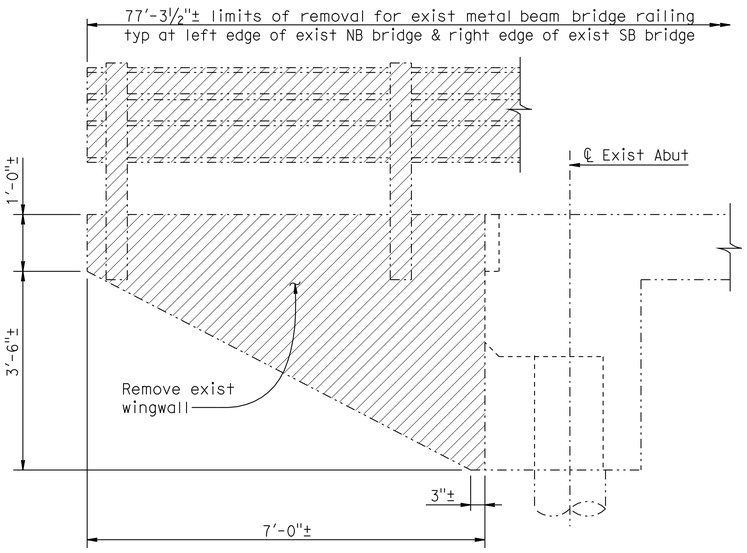
SECTION B-B

¾" = 1'-0"



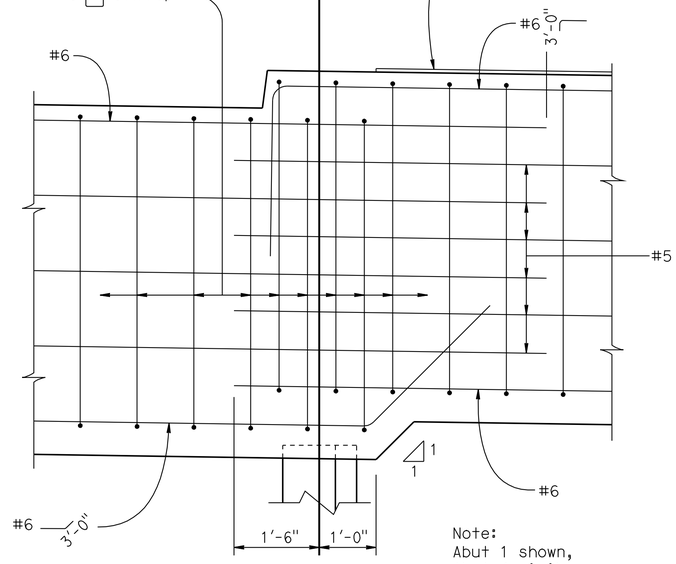
DOWEL LAYOUT

¾" = 1'-0"



BRIDGE REMOVAL (PORTION) LIMITS

¾" = 1'-0"



SECTION C-C

¾" = 1'-0"

Note:
1. For additional information, see "ABUTMENT DETAILS NO. 2" sheet.

Legend:

- Indicates limits of bridge removal (portion).
- Indicates existing structure.
- Indicates new structure.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	610	639

REGISTERED CIVIL ENGINEER — DATE 1-20-11

SHARIO PERVIAZ No. C67068 Exp. 9-30-12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

10-17-11
PLANS APPROVAL DATE

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HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

DESIGN OVERSIGHT John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	S PERVAIZ	P CHENG
DETAILS	J VOUGHT	P CHENG
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)

ABUTMENT DETAILS NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401
CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-5-10	12-3-10	6	18

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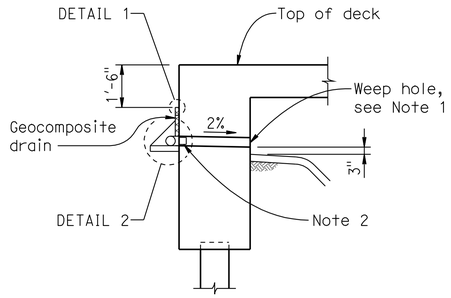
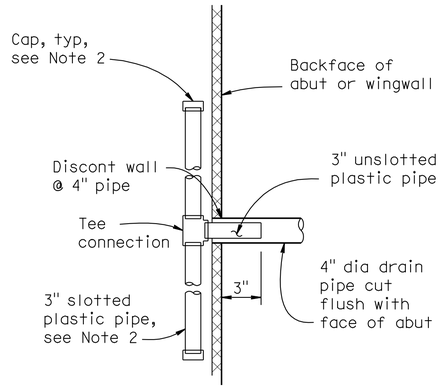
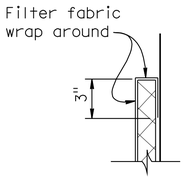


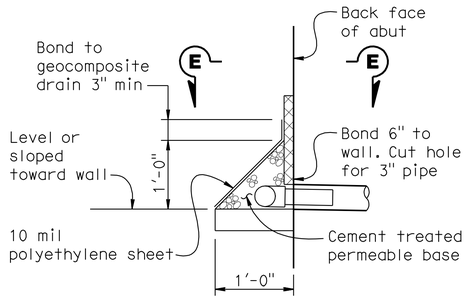
ABUTMENT SECTION



VIEW E-E



DETAIL 1



DETAIL 2

GEOCOMPOSITE DRAIN DETAIL

No Scale

Drainage Notes:

1. 4" drains at intermediate sag points and at 25' max center to center. Exposed wall drains shall be located 3"± above finished grade.

2. Geocomposite drain, cement treated permeable base, and 3" dia slotted plastic pipe continuous behind abutment. Cap ends of pipe. Provide "Tee" connection at each 4" dia drain.

3. Connect the low end of plastic pipe to the main outlet pipe at weep hole as applicable.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	611	639

REGISTERED CIVIL ENGINEER — DATE 1-20-11

SHARIO PERVIAZ No. C67068 Exp. 9-30-12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

10-17-11
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STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

DESIGN OVERSIGHT John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	S PERVAIZ	P CHENG
DETAILS	J VOUGHT	P CHENG
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)

ABUTMENT DETAILS NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

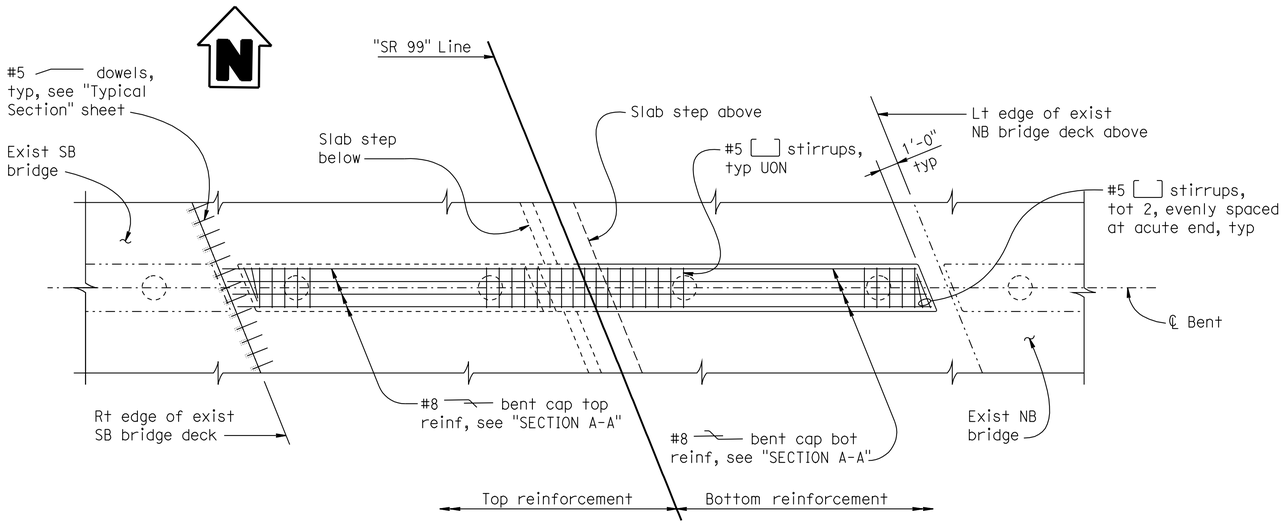
DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-8-10 | 12-3-10

SHEET 7 OF 18

FILE => 29-0023-f-a01dt02.dgn

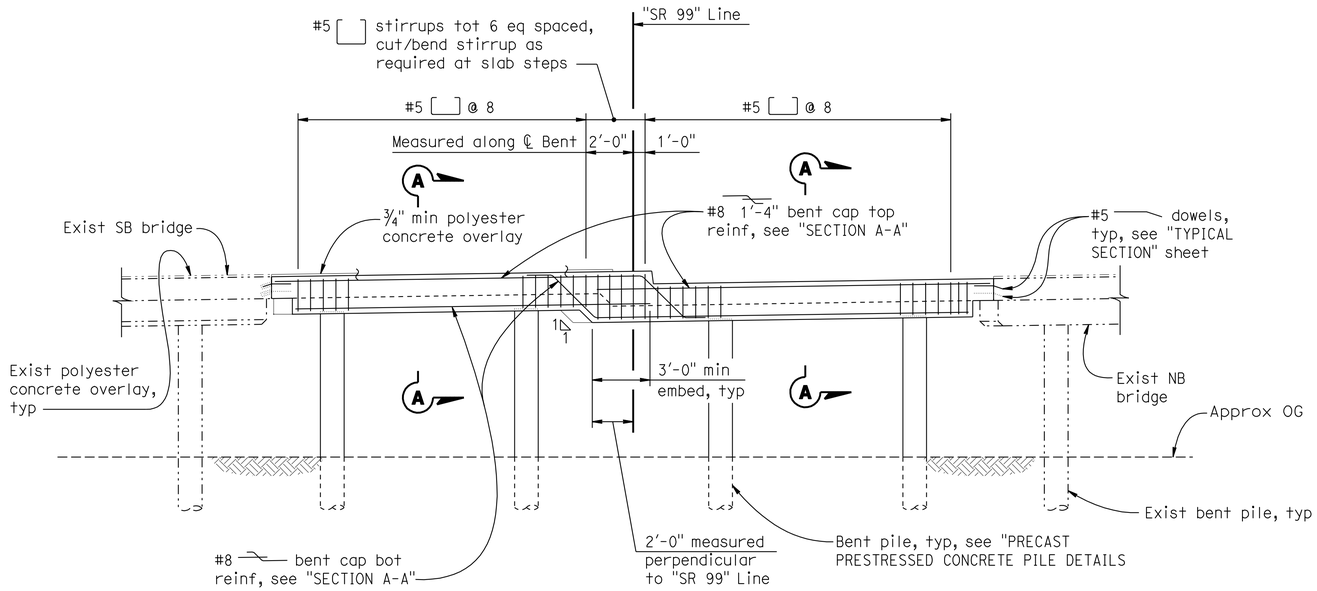
USERNAME => s119571 DATE PLOTTED => 21-NOV-2011 TIME PLOTTED => 14:04



Note: Slab reinf not shown.

PARTIAL PLAN

1/4" = 1'-0"



Note: Bent 2 shown, Bent 3 similar.

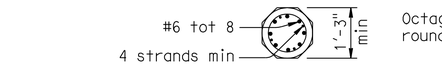
ELEVATION

1/4" = 1'-0"

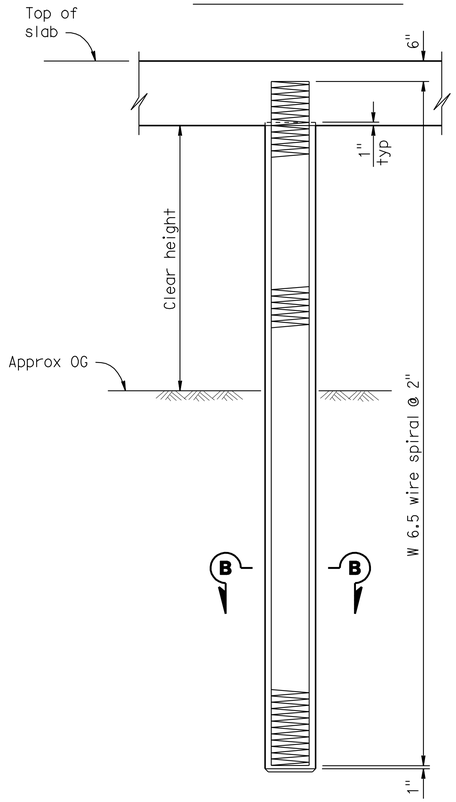
Legend:

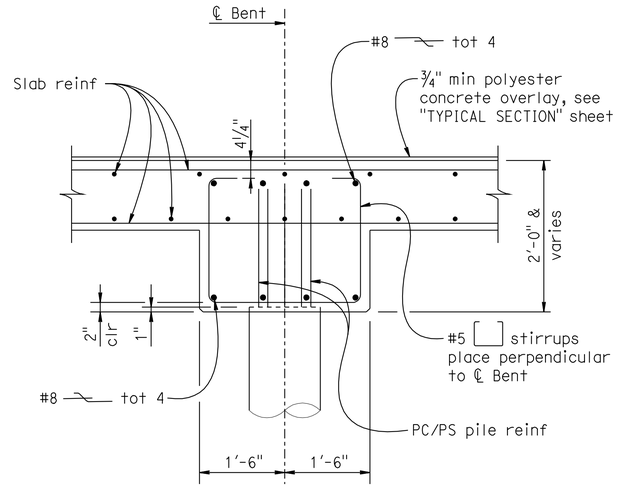
-·-·-·- Indicates existing structure.

——— Indicates new structure.



SECTION B-B





SECTION A-A

3/4" = 1'-0"

NOTES:

1. Design service level loading is 140 kips or less as noted.
2. Maximum size of aggregate is 1".
3. For the prestressed concrete pile:
   A. The prestress force after all losses shall provide 725 psi minimum stress and shall not be less than 130 kips.
   B. The concrete strength shall not be less than 6000 psi at 28 days.
4. No splices allowed in the longitudinal reinforcement within the "clear height" or within 10' below the ground line.

PRECAST PRESTRESSED CONCRETE PILE

No Scale

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	612	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — SHARIO PERVIAZ — No. C67068 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

DESIGN OVERSIGHT: John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	S PERVAIZ	P CHENG
DETAILS	J VOUGHT	P CHENG
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)

BENT DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES			
5-3-10	8-2-10	11-8-10	12-3-10

SHEET 8 OF 18

FILE => 29-0023-h-b01dt.dgn

USERNAME => s1244396 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:47

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	613	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — SHARIQ PERVIAZ — No. C67068 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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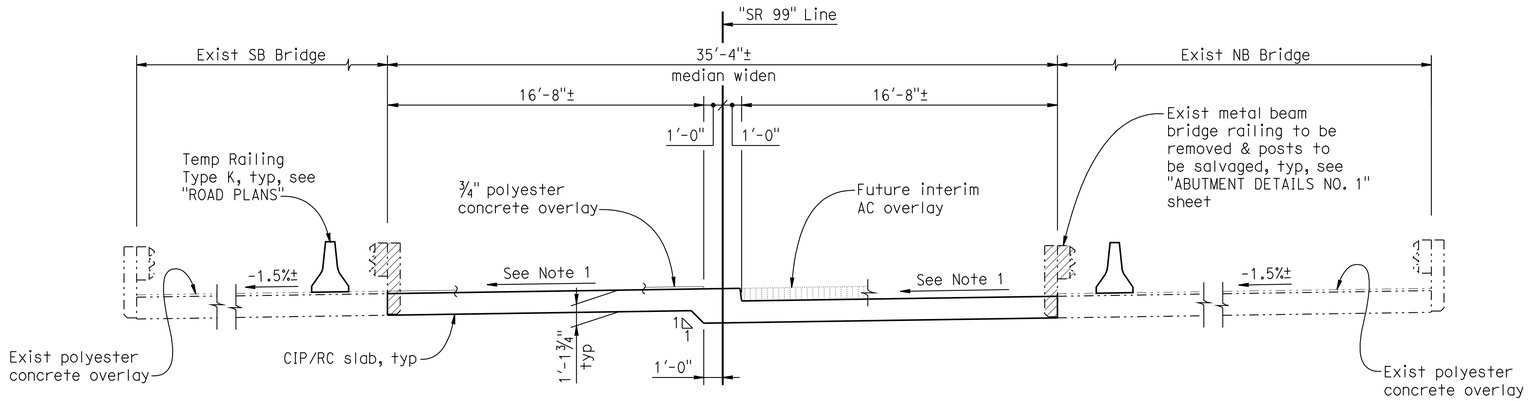
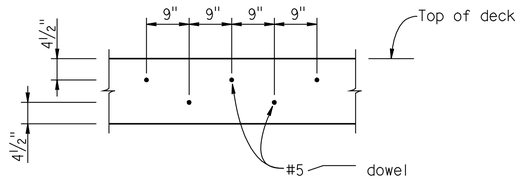
HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



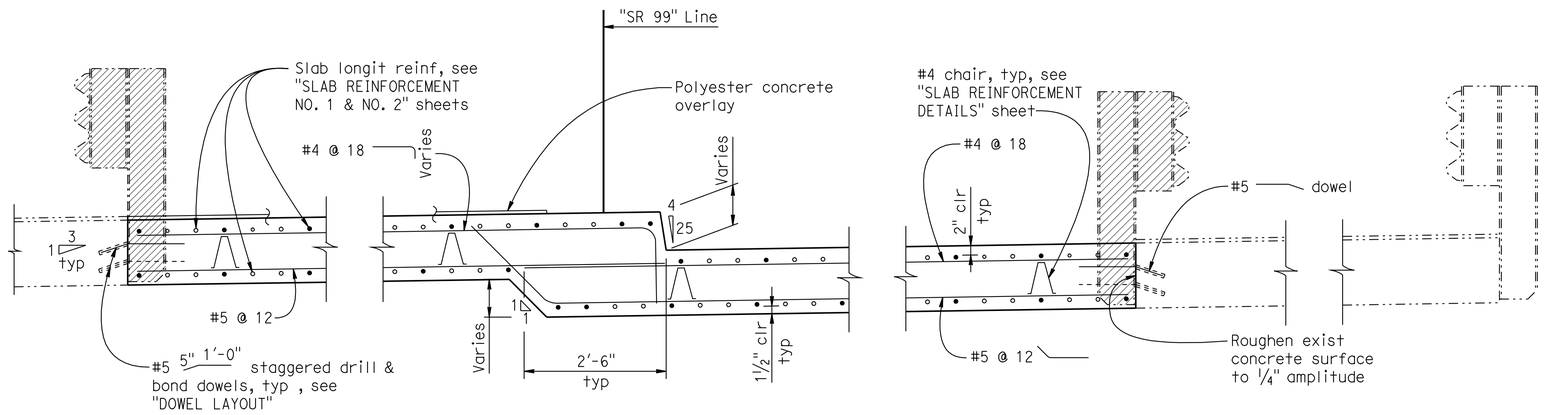
TYPICAL SECTION

¼" = 1'-0"



DOWEL LAYOUT

¾" = 1'-0"



PART TYPICAL SECTION

¾" = 1'-0"

Notes:

1. Match exist grade and cross slope.
2. For additional information, see "SLAB REINFORCEMENT DETAILS" sheet.
3. Tine new and existing bridge deck after placement of polyester concrete overlay.

Legend:

- Indicates limits of bridge removal (portion).
- Indicates existing structure.
- Indicates new structure.
- • Indicates continuous bar.
- ◦ Indicates partial length bar.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

John Fujimoto
DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	S PERVAIZ	P CHENG
DETAILS	J VOUGHT	P CHENG
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)

TYPICAL SECTION

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	9	18

FILE => 29-0023-k-ts01.dgn

USERNAME => s6119571 DATE PLOTTED => 21-NOV-2011 TIME PLOTTED => 14:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	614	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — SHARIQ PERVIAZ — No. C67068 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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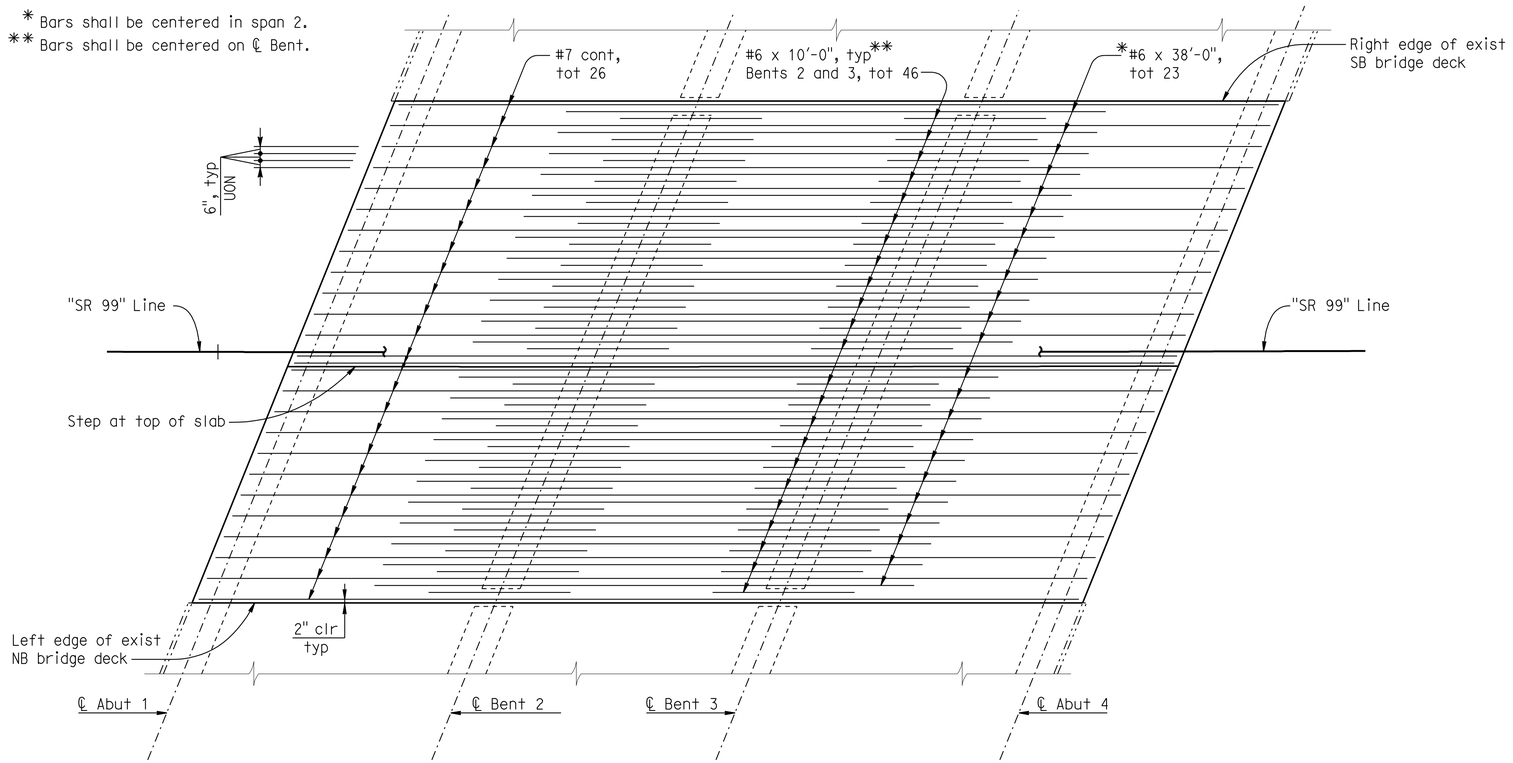
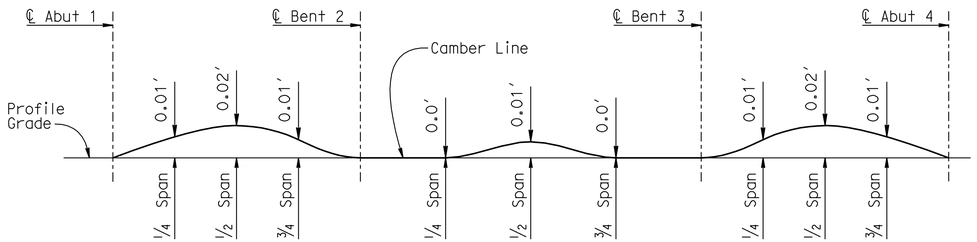
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

* Bars shall be centered in span 2.
** Bars shall be centered on ℄ Bent.



PARTIAL PLAN - TOP REINFORCEMENT

3/16" = 1'-0"



Note:
Does not include allowance for falsework settlement.

CAMBER DIAGRAM

No Scale

Notes:

1. For transverse reinforcement and Drill & Bond Dowel details, see "TYPICAL SECTION" sheet.
2. For details not shown, see "SLAB REINFORCEMENT DETAILS" sheet.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DESIGN OVERSIGHT: John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	S PERVAIZ	P CHENG
DETAILS	J VOUGHT	P CHENG
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)
SLAB REINFORCEMENT NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	10	18

FILE => 29-0023-1-sr01.dgn

USERNAME => s124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:47

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	615	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — SHARIQ PERVIAZ — No. C67068 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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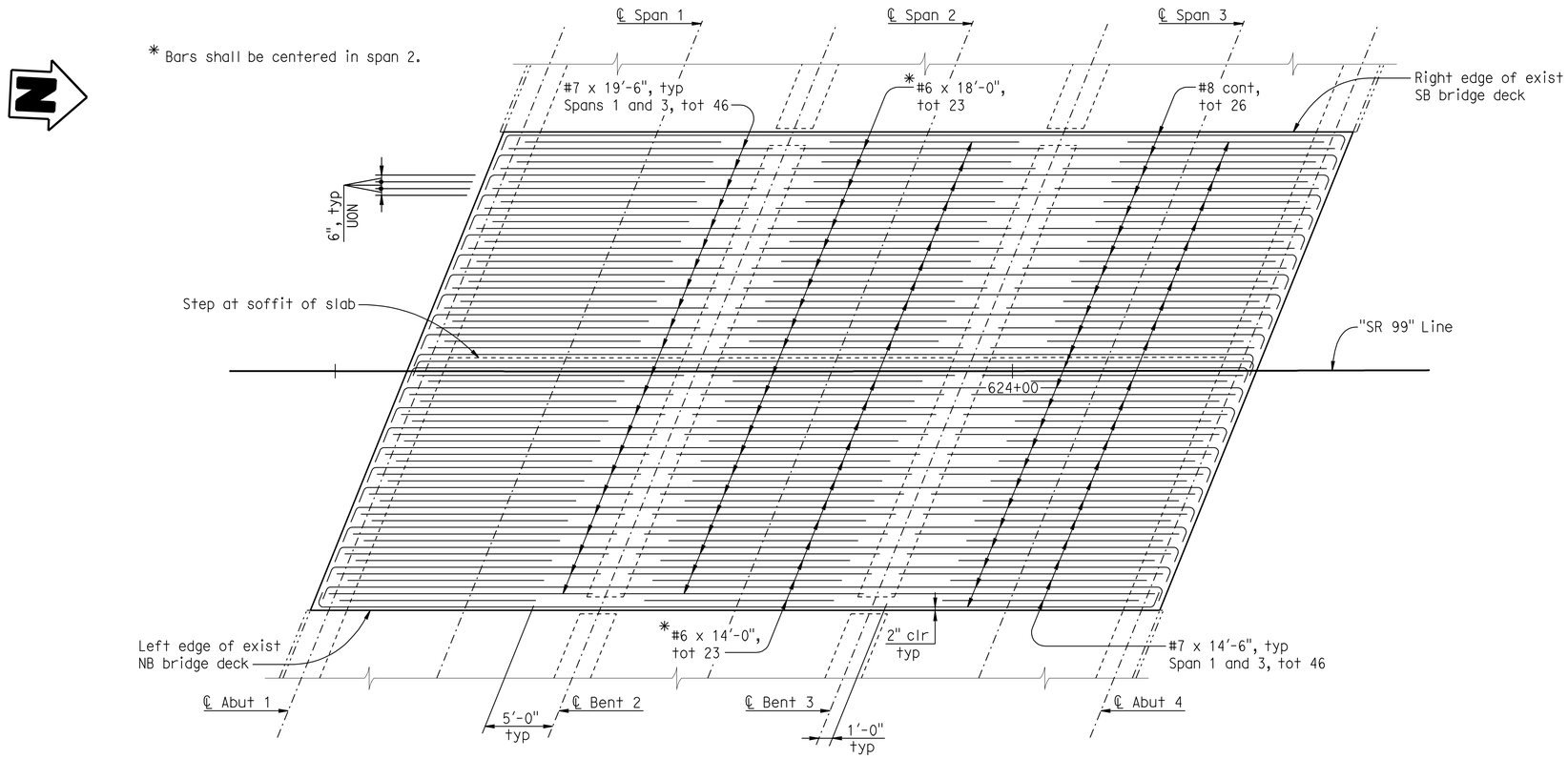
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



PARTIAL PLAN - BOTTOM REINFORCEMENT

3/16" = 1'-0"

Notes:

For notes, see "SLAB REINFORCEMENT NO. 1" sheet.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

John Fujimoto
DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	S PERVAIZ	P CHENG
DETAILS	J VOUGHT	P CHENG
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)
SLAB REINFORCEMENT NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-5-10	12-3-10	11	18

FILE => 29-0023-1-sr02.dgn

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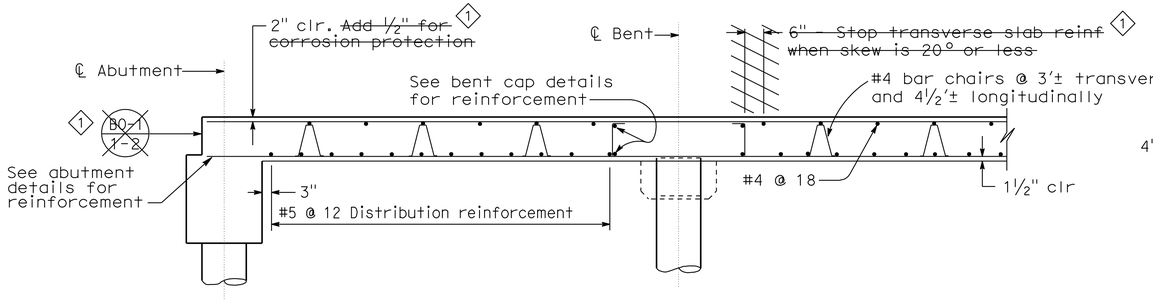
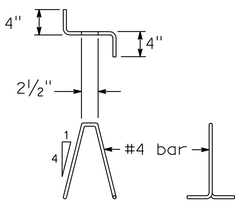
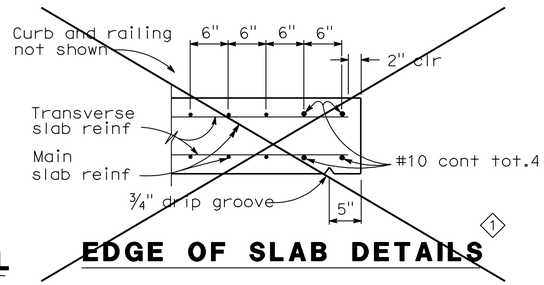


LONGITUDINAL SECTION



BAR CHAIR DETAIL

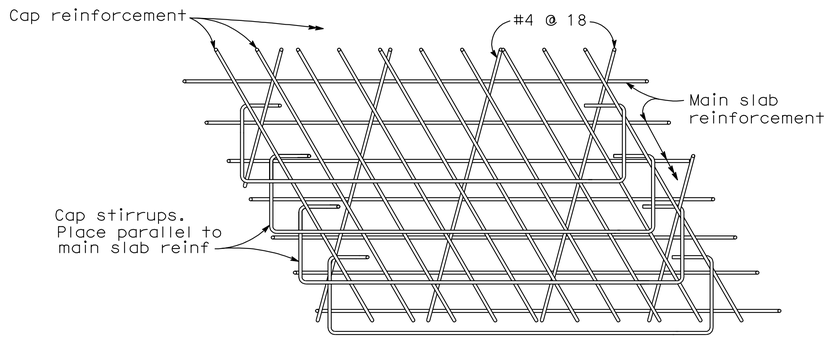


EDGE OF SLAB DETAILS

BAR SPLICE LENGTH								
Bar size	#4	#5	#6	#7	#8	#9	#10	#11
All bars, except top bars in spans over 24'	23"	28"	34"	39"	45"	68"	76"	85"
Top bars in spans over 24'	23"	28"	34"	53"	60"	77"	97"	120"

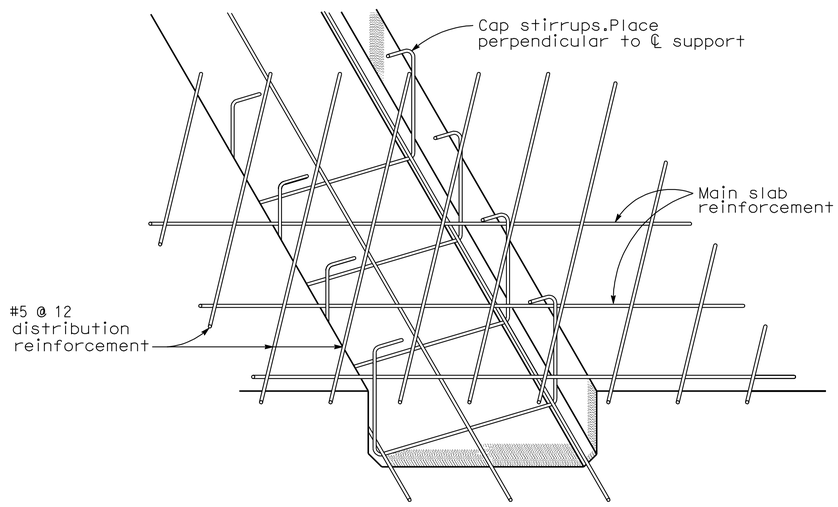
REINFORCEMENT NOTES:

Splices in top main bars to be located near center of span.
Splices in bottom main bars to be located near bent.
Spacing of all transverse bars is measured along ℄ roadway.
1 ~~Skew 0° to 20°: Place all transverse bars parallel to bent.~~
Skew over 20°: Place transverse slab bars perpendicular to ℄ bridge. See details at right and below.

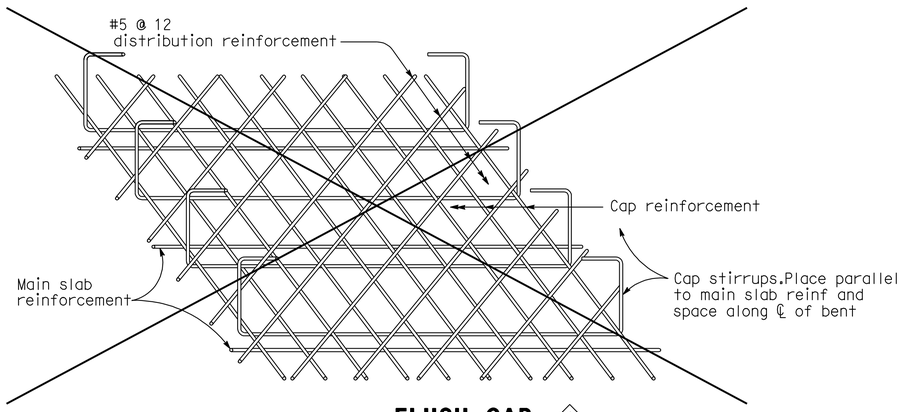


TOP SLAB REINFORCEMENT AT BENT

2 Note: Bar placement for flush cap shown, dropped cap similar.



DROPPED CAP



FLUSH CAP 1

BOTTOM SLAB REINFORCEMENT AT BENT

GENERAL NOTES 1
LOAD FACTOR DESIGN

Design: Bridge Design Specifications (1983 AASHTO with Interims and revisions by CALTRANS)
Dead load: Includes 35 psi for future wearing surface.
Live loading: HS20-44 and alternative and permit design load.
Reinforced concrete: fy = 60,000 psi
f'c = 3,250 psi
n = 9

NO SCALE

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	4.9/14.2	616	639

1-20-11
REGISTERED ENGINEER - CIVIL
10-17-11
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
SHARIQ PERVIAZ
No. C67068
Exp. 9-30-12
CIVIL
STATE OF CALIFORNIA

SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

STANDARD DRAWING

RELEASE DATE 8/26/97	DESIGN	BY L.Y. LEE	CHECKED T. FARNAN	RELEASED BY
FILE NO. xs 1-220	DETAILS	BY R. YEE	CHECKED T. FARNAN	
	SUBMITTED	BY R.S. WATANABE	DRAWING DATE 8/88	OFFICE CHIEF

1 Deleted Detail
2 Revised Notes

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)
SLAB REINFORCEMENT DETAILS

DS OSD 2147A (METRIC) (REV. 2/25/97)
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3
UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111
DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES: ~~5-3-10~~ ~~8-2-10~~ ~~11-5-10~~ 12-3-10
SHEET 12 OF 18

USERNAME => s124496
DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:47
29-0023-1-sr03.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	617	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

10-17-11
PLANS APPROVAL DATE

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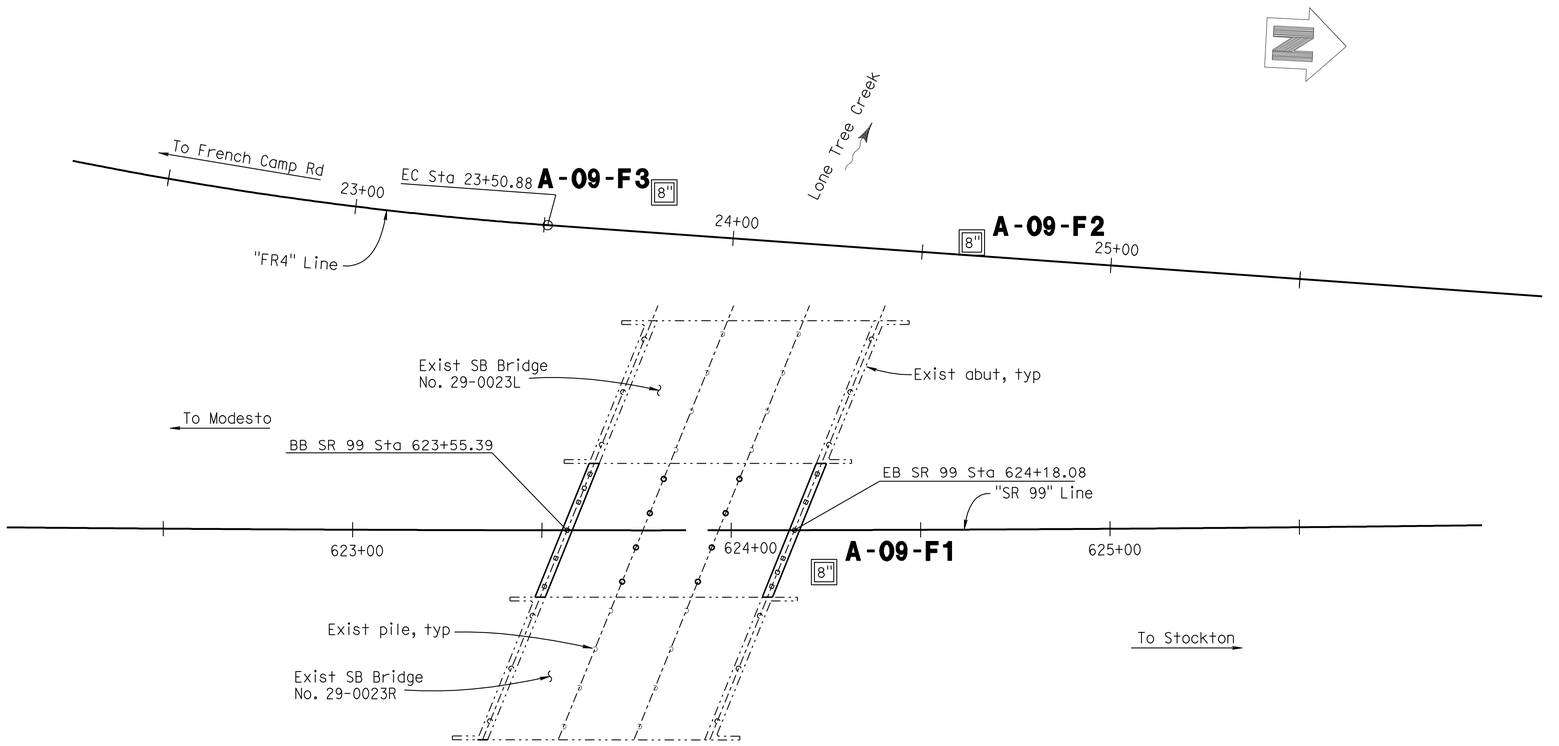
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b



PLAN
1" = 20'

Legend:

- ··-··- Indicates existing structure.
- ▫ Indicates driven piles at abutments.
- ◦ Indicates driven piles at bents.

DESIGN OVERSIGHT: John Fujimoto
2-7-11
SIGN OFF DATE

DRAWN BY: M ROBERTSON
CHECKED BY: A SHINNEFIELD

A WOOD
FIELD INVESTIGATION BY:
DATE: March, August 2009

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)
LOG OF TEST BORINGS NO. 1

GS GEOLOGIST LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	13	18

FILE => 29-0023-z-1tb01.dgn

USERNAME => s128843 DATE PLOTTED => 26-OCT-2011 TIME PLOTTED => 10:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	618	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

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555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

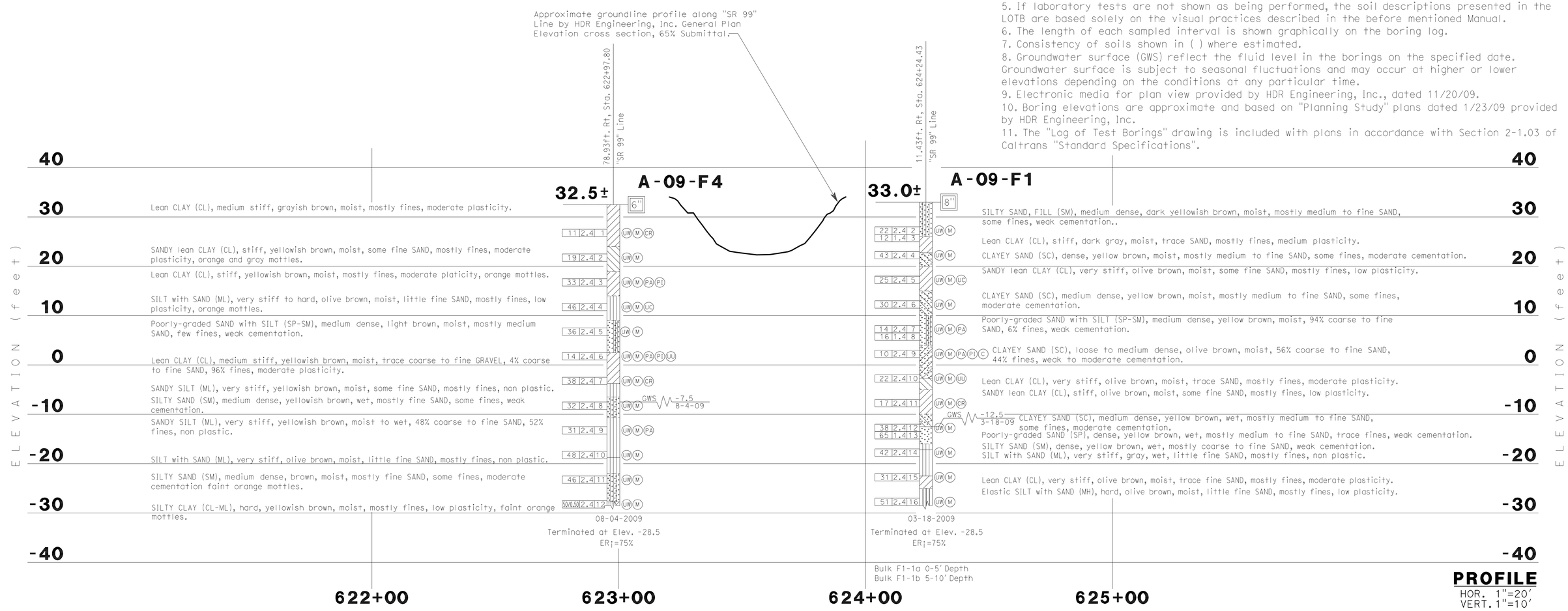
BENCH MARKS
BENCHMARK# 658 ELEV.33.00 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED AT APPROXIMATE CENTERLINE STATION 625+67, ON THE NORTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 1' EAST OF THE EDGE OF PAVEMENT, 205' NORTH OF THE END OF THE CENTERLINE OF LONE TREE CREEK. NGVD 29, N2138213.81, E6354203.76.

BENCHMARK# 699 ELEV.31.83 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED APPROXIMATE CENTERLINE STATION 625+50, ON THE SOUTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 3' WEST OF THE EDGE OF PAVEMENT, 140' NORTH OF THE CENTERLINE OF LONE TREE CREEK. NGVD 29, N2138191.62, E6354088.62.

FOR PLAN VIEW
SEE LOG OF TEST BORINGS 1 OF 6

NOTES:

1. Field classification of soils was in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (June 2007). See Log of Test Borings No. 4 and 5, "Soil Legend".
2. Standard Penetration tests were performed in accordance with ASTM D 1586-99 using a hammer operated with an automated drop system. Drill rods were 1 5/8-inch diameter "A"-rods; sampler was driven with brass liners.
3. "2.4 inch sampler": ID=2.4 inch, OD=2.9 inch. Driven in same manner as SPT ("1.4 inch") sampler.
4. Where less than the 0.5 inches of penetration is achieved, the blow count shown is for that fraction of the interval actually penetrated.
5. If laboratory tests are not shown as being performed, the soil descriptions presented in the LOTB are based solely on the visual practices described in the before mentioned Manual.
6. The length of each sampled interval is shown graphically on the boring log.
7. Consistency of soils shown in ( ) where estimated.
8. Groundwater surface (GWS) reflect the fluid level in the borings on the specified date. Groundwater surface is subject to seasonal fluctuations and may occur at higher or lower elevations depending on the conditions at any particular time.
9. Electronic media for plan view provided by HDR Engineering, Inc., dated 11/20/09.
10. Boring elevations are approximate and based on "Planning Study" plans dated 1/23/09 provided by HDR Engineering, Inc.
11. The "Log of Test Borings" drawing is included with plans in accordance with Section 2-1.03 of Caltrans "Standard Specifications".



PROFILE
HOR. 1"=20'
VERT. 1"=10'

John Fujimoto DESIGN OVERSIGHT	DRAWN BY	M ROBERTSON	A WOOD FIELD INVESTIGATION BY:	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	JOHN A. KLEMUNES, JR. PROJECT ENGINEER	BRIDGE NO. 29-0023 POST MILE 11.80	LONE TREE SLOUGH BRIDGE (WIDEN) LOG OF TEST BORINGS NO. 2
2-7-11 SIGN OFF DATE	CHECKED BY	A SHINNEFIELD	DATE: March, August 2009				

GS GEOLOGIST LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-5-10	12-3-10	14	18

FILE => 29-0023-z-ltb02.dgn

USERNAME => s6124096 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:47

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	619	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

10-17-11
PLANS APPROVAL DATE

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

BENCH MARKS

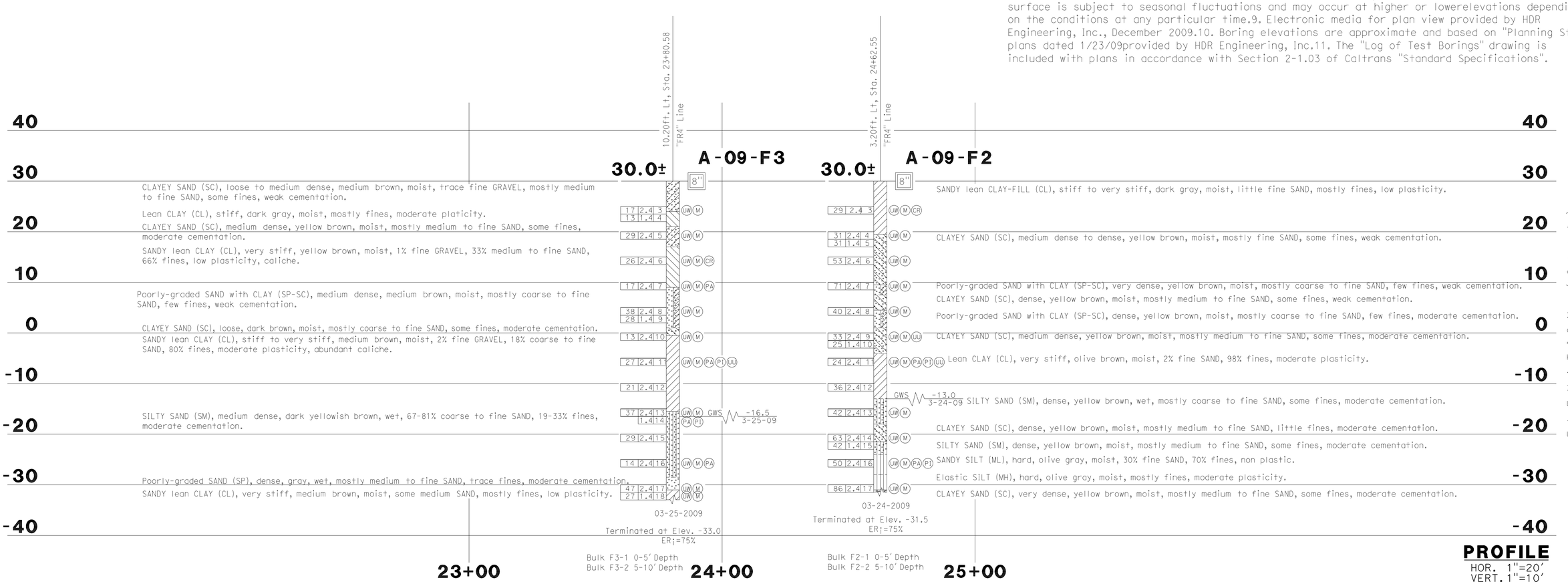
BENCHMARK# 658 ELEV.33.00 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED AT APPROXIMATE CENTERLINE STATION 625+67, ON THE NORTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 1' EAST OF THE EDGE OF PAVEMENT, 205' NORTH OF THE END OF THE CENTERLINE OF LONE TREE CREEK. NGVD 29, N2138213.81, E6354203.76.

BENCHMARK# 699 ELEV.31.83 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED APPROXIMATE CENTERLINE STATION 625+50, ON THE SOUTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 3' WEST OF THE EDGE OF PAVEMENT, 140' NORTH OF THE CENTERLINE OF LONE TREE CREEK. NGVD 29, N2138191.62, E6354088.62.

FOR PLAN VIEW
SEE LOG OF TEST BORINGS 1 OF 6

NOTES:

1. Field classification of soils was in accordance with the Caltrans Soil & Rock Logging,Classification, and Presentation Manual (June 2007). See Log of Test Borings No. 4 and 5,"Soil Legend".2. Standard Penetration tests were performed in accordance with ASTM D 1586-99 using ahammer operated with an automated drop system. Drill rods were 1 5/8-inch diameter"A"-rods; sampler was driven with brass liners. 3. "2.4 inch sampler": ID=2.4 inch, OD=2.9 inch. Driven in same manner as SPT ("1.4inch") sampler.4. Where less than the 0.5 inches of penetration is achieved, the blow count shown is forthat fraction of the interval actually penetrated.5. If laboratory tests are not shown as being performed, the soil descriptions presented inthe LOTB are based solely on the visual practices described in the before mentioned Manual.6. The length of each sampled interval is shown graphically on the boring log.7. Consistency of soils shown in ( ) where estimated.8. Groundwater surface (GWS) reflect the fluid level in the borings on the specified date.Groundwater surface is subject to seasonal fluctuations and may occur at higher or lowerelevations depending on the conditions at any particular time.9. Electronic media for plan view provided by HDR Engineering, Inc., December 2009.10. Boring elevations are approximate and based on "Planning Study" plans dated 1/23/09provided by HDR Engineering, Inc.11. The "Log of Test Borings" drawing is included with plans in accordance with Section 2-1.03 of Caltrans "Standard Specifications".



PROFILE
HOR. 1"=20'
VERT. 1"=10'

DESIGN OVERSIGHT: John Fujimoto	DRAWN BY	M ROBERTSON	A WOOD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	JOHN A. KLEMUNES, JR. PROJECT ENGINEER
2-7-11 SIGN OFF DATE	CHECKED BY	A SHINNEFIELD	FIELD INVESTIGATION BY: DATE: March, August 2009		BRIDGE NO. 29-0023 POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)
LOG OF TEST BORINGS NO. 3

GS GEOLOGIST LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-5-10	12-3-10	15	18

FILE => 29-0023-z-ltb03.dgn

USERNAME => s124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:47

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL, (JUNE, 2007)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	620	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

10-17-11
PLANS APPROVAL DATE

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

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
Size	A	Auger Boring
Size	R P	Rotary drilled boring Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
○	D	Dynamic Cone Penetration Boring
▲	CPT	Cone Penetration Test (ASTM D 5778)
□	O	Other

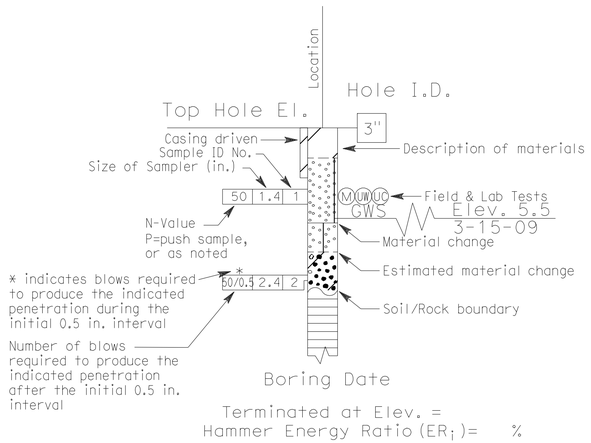
NOTE: Size in inches.

CONSISTENCY OF COHESIVE SOILS

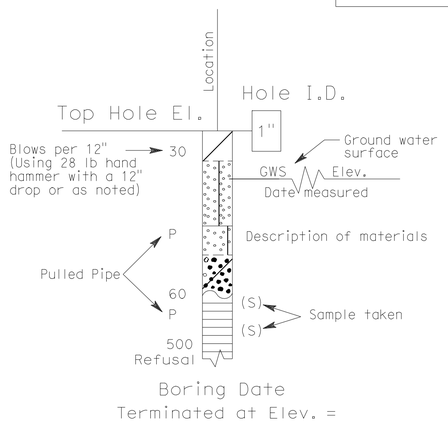
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	<0.25	<0.25	<0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS

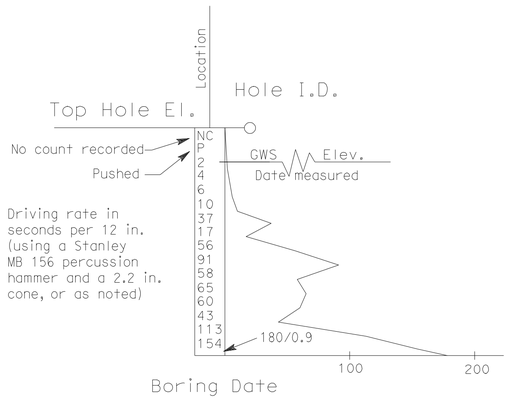
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



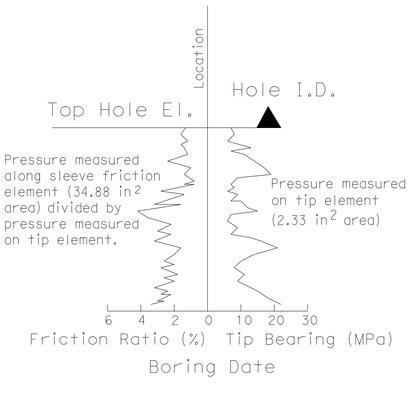
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

SOIL LEGEND

DESIGN OVERSIGHT: John Fujimoto	DRAWN BY	M ROBERTSON	A WOOD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	JOHN A. KLEMUNES, JR. PROJECT ENGINEER	BRIDGE NO. 29-0023
2-7-11 SIGN OFF DATE	CHECKED BY	A SHINNEFIELD	FIELD INVESTIGATION BY: DATE: March, August 2009			POST MILE 11.80

LONE TREE SLOUGH BRIDGE (WIDEN)

LOG OF TEST BORINGS NO. 4

GS LOTB SOIL LEGEND SHEET 1 (ENGLISH) (REV. 07/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455 PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	16	18

FILE => 29-0023-z-1tb04.dgn

USERNAME => s1244966 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:48

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL, (JUNE, 2007)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly-graded GRAVEL Poorly-graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly-graded GRAVEL with SILT Poorly-graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly-graded GRAVEL with CLAY (or SILTY CLAY) Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean Clay ORGANIC lean Clay with SAND ORGANIC lean Clay with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly-graded SAND Poorly-graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly-graded SAND with SILT Poorly-graded SAND with SILT and GRAVEL		
SP-SC	Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	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
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OH/OL	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
	COBBLES COBBLES and BOULDERS BOULDERS		

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
- (PP) Pocket Penetrometer
- (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)
- (TV) Pocket Torvane
- (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 2937)
- (VS) Vane Shear (AASHTO T 223)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	621	639

W Eric Nichols — REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11 PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60}-Value (Blows / 12 inches)
Very Loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

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

PARTICLE SIZE

Description		Size
Boulder		> 12"
Cobble		3" to 12"
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

John Fujimoto — DESIGN OVERSIGHT — John Fujimoto — 2-7-11 SIGN OFF DATE

DRAWN BY: M ROBERTSON
CHECKED BY: A SHINNEFIELD
FIELD INVESTIGATION BY: A WOOD
DATE: March, August 2009

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR. — PROJECT ENGINEER

BRIDGE NO. 29-0023
POST MILE 11.80

SOIL LEGEND
LONE TREE SLOUGH BRIDGE (WIDEN)
LOG OF TEST BORINGS NO. 5

GS LOTB SOIL LEGEND SHEET 2 (ENGLISH) (REV. 07/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-8-10 | 12-3-10

SHEET 17 OF 18

FILE => 29-0023-z-ltb05.dgn

USERNAME => s8124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:48

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
X	SJ	4	E		

BRIDGE ENGINEER — CIVIL AND STRUCTURAL ENGINEER — LICENSE 3585

DATE APPROVED

TO ACCOMPANY PLANS DATED 10-17-11

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES

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

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	99	4.9/14.2	622	639

W. Eric Nichols — 1-20-11
REGISTERED CIVIL ENGINEER — DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

LONE TREE SLOUGH BRIDGE (WIDEN)

AS-BUILT LOG OF TEST BORINGS

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

UNIT: 1455
PROJECT NUMBER & PHASE: 1000020440

BRIDGE No.	Sheet	Of
29-0023	18	18

Revisions made to this Log of Test Borings from the original 1963 Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "SR 99" Line
B-1	623+51.55	45.88 ft Lt
B-2	624+63.22	39.57 ft Lt

1. See Log of Test Borings 1 of 6 for stationing.

2. The table above are the locations for the As-Built Test Borings referenced to the proposed new structure location. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.

STRUCTURAL FOUNDATIONS BRANCH - ENGINEERING SERVICE CENTER

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 will not be required. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILES - TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	99			

LONE TREE SLOUGH BRIDGE (WIDEN)

LOG OF TEST BORINGS

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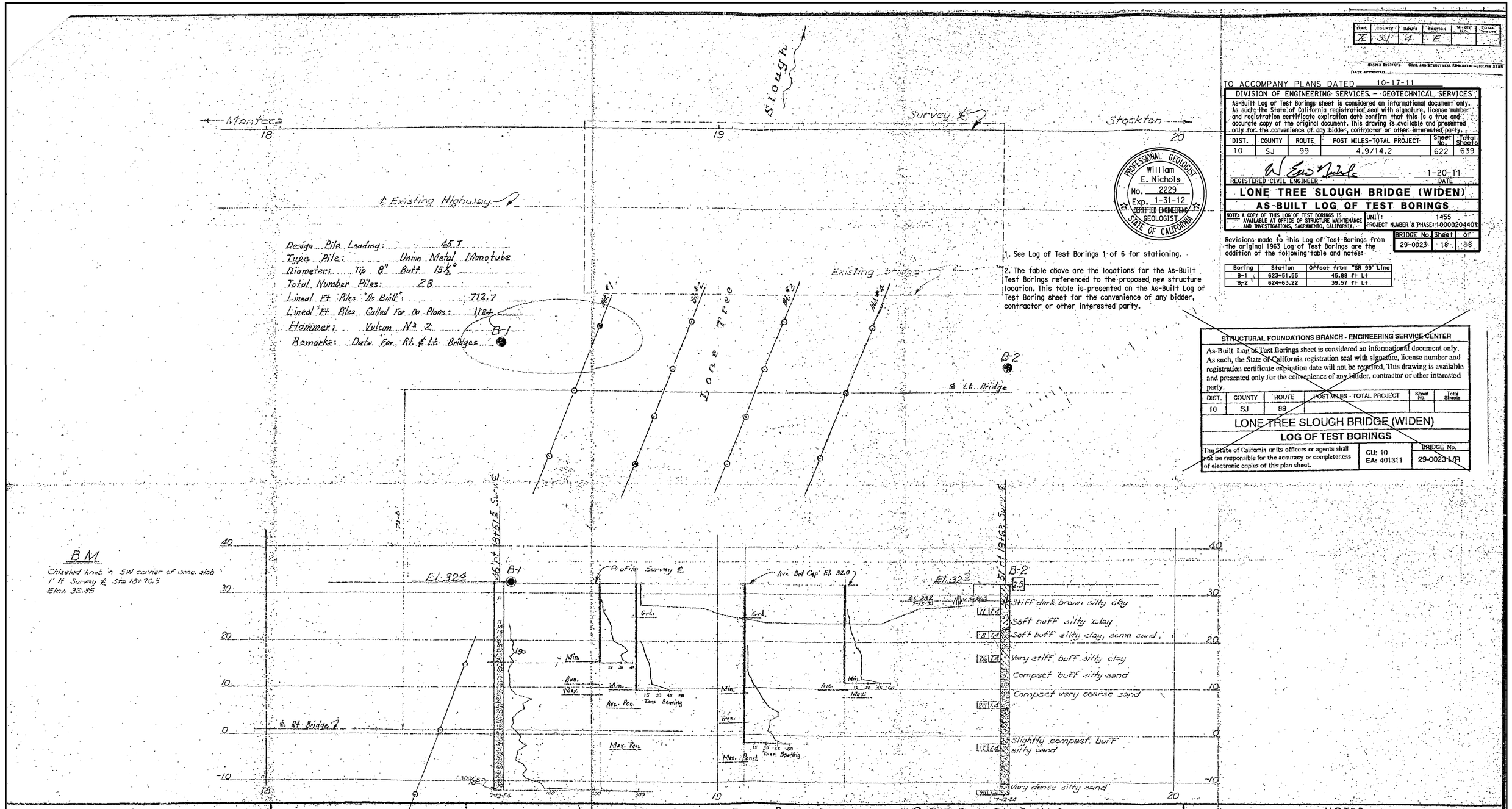
CU: 10
EA: 401311

BRIDGE No. 29-0023 L/R



CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

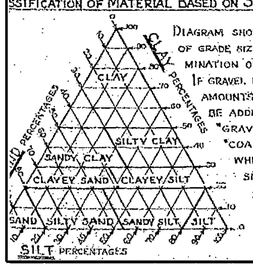


DIAGRAM SHOWING THE BASIS FOR ESTIMATES OF GRADE SIZE DISTRIBUTION USED IN DETERMINATION OF CLASS NAMES.

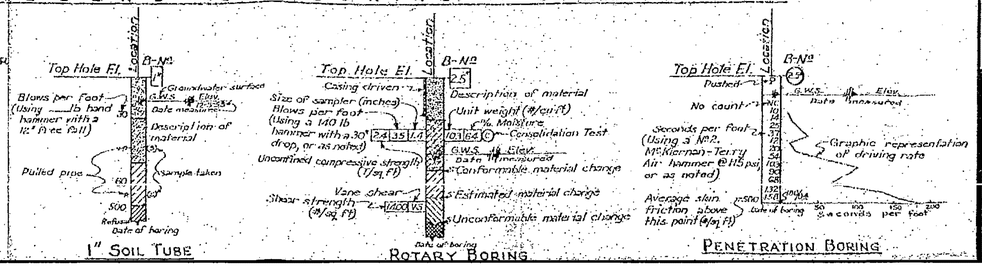
IF GRAVEL IS PRESENT IN APPRECIABLE AMOUNTS THE TERM "GRAVELLY" MAY BE ADDED TO THE CLASS NAME, VIZ. "GRAVELLY SAND." THE TERMS "COARSE", "MEDIUM" AND "FINE" WHEN USED TO DESCRIBE SAND, SILT AND GRAVEL REFER TO STANDARD GRADE SIZE LIMITS.

LEGEND OF EARTH MATERIALS

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

- PLAN OF ANY BORING
- PENETROMETER
- 2½" CONE PENETROMETER
- SAMPLER BORING (DRY)
- ROTARY BORING (WET)
- AUGER BORING (DRY)
- JET BORING
- CORE BORING
- TEST PIT

LEGEND OF BORING OPERATIONS



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.

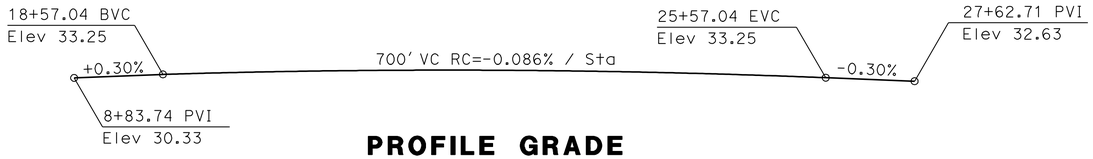
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

BRIDGE ACROSS LONE TREE SLOUGH

LOG OF TEST BORINGS

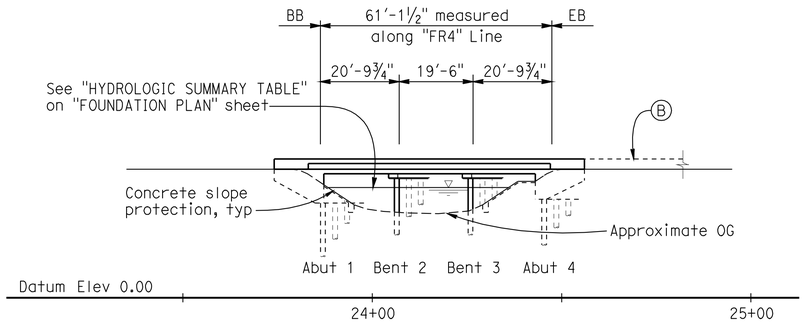
SCALE 1"=10' | BRIDGE 29-23 | FILE | DRAWING PR-4011-3

FILENAME => 29-0023-z-ltb06.tif



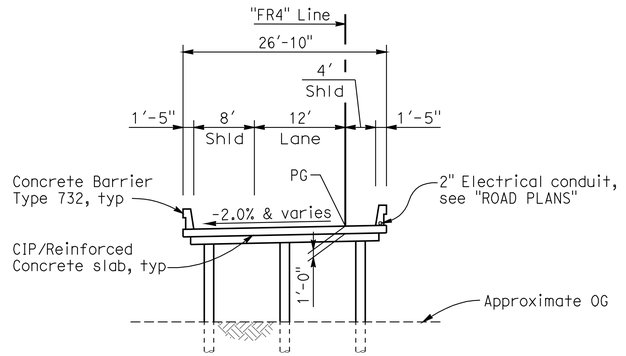
PROFILE GRADE

No Scale



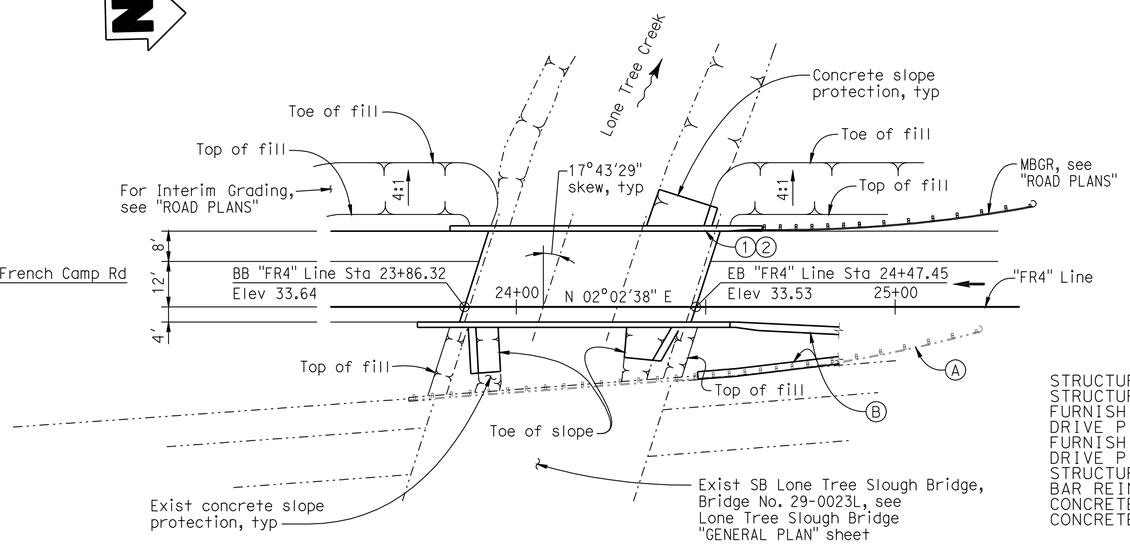
ELEVATION

1" = 20'



TYPICAL SECTION

1" = 10'



PLAN

1" = 20'

LONE TREE SLOUGH SB OFF-RAMP #29-0333
QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	45	CY
STRUCTURE BACKFILL (BRIDGE)	32	CY
FURNISH PILING (CLASS 90)(ALTERNATIVE X)	276	LF
DRIVE PILE (CLASS 90)(ALTERNATIVE X)	8	EA
FURNISH PILING (CLASS 140)	328	LF
DRIVE PILE (CLASS 140)	6	EA
STRUCTURAL CONCRETE, BRIDGE	110	CY
BAR REINFORCING STEEL (BRIDGE)	23,000	LB
CONCRETE (SLOPE PROTECTION)	26	CY
CONCRETE BARRIER (TYPE 732)	166	LF

Notes:
1. For "GENERAL NOTES", see "DECK CONTOURS" sheet.
2. For "PILE DATA", see "FOUNDATION PLAN" sheet.

Legend:
- (1) Paint "Bridge No. 29-0333" & year of construction.
- (2) Paint "Lone Tree Slough SB Off Ramp"
- (A) Existing Metal Beam Guard Railing to be removed, see "ROAD PLANS".
- (B) Concrete Barrier Type 60, see "ROAD PLANS"
- ——— Indicates new structure.
- ··-·-·— Indicates existing structure.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	623	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TITUS KENG No. 45226 Exp. 9-30-12 CIVIL — STATE OF CALIFORNIA

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

DESIGN OVERSIGHT: John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	T KENG	J MANISCALCO
DETAILS	J VOUGHT	J MANISCALCO
QUANTITIES	M KOCHLY	J NAUMAN

LOAD & RESISTANCE FACTOR DESIGN — LIVE LOADING: HL93 W/"LOW-BOY": PERMIT DESIGN VEHICLE

	BY	CHECKED
LAYOUT	T KENG	S PERVAIZ
SPECIFICATIONS	T KENG	PLANS AND SPECS COMPARED J MANISCALCO

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILES 11.80

LONE TREE SLOUGH SB OFF RAMP
GENERAL PLAN

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

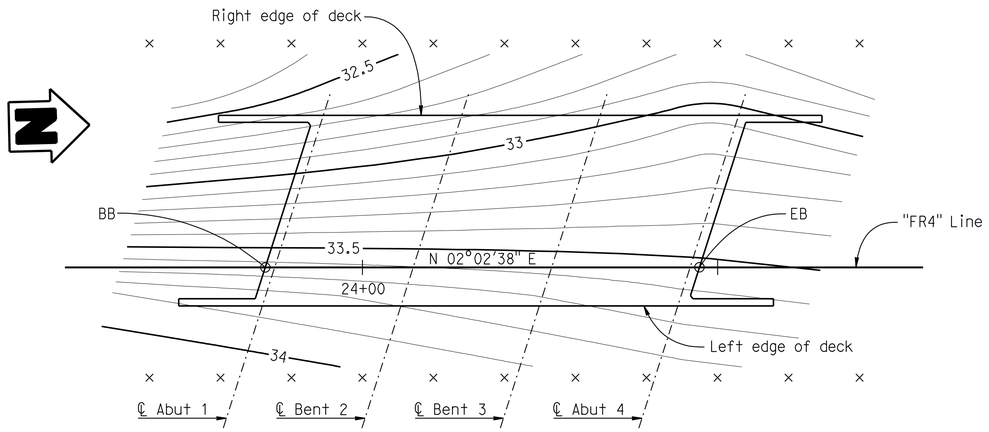
UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	1	17

FILE => 29-0333-a-gp01.dgn

USERNAME => s1216l4 DATE PLOTTED => 30-NOV-2011 TIME PLOTTED => 10:32

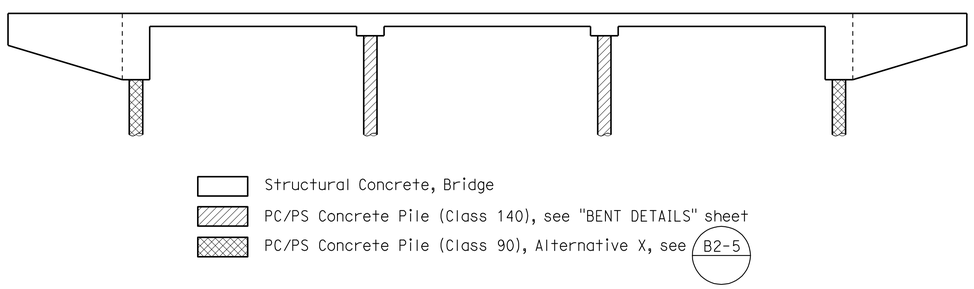


PARTIAL PLAN - DECK CONTOURS

3/32" = 1'-0"

Notes:

1. x - Indicates 10' intervals along "FR4" Line
2. Contour interval = 0.1'.
3. Contours do not include camber or allowance for falsework settlement.



Structural Concrete, Bridge

PC/PS Concrete Pile (Class 140), see "BENT DETAILS" sheet

PC/PS Concrete Pile (Class 90), Alternative X, see B2-5

CONCRETE STRENGTH AND TYPE LIMITS

No Scale

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

INDEX TO PLANS:

CALTRANS 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
B2-5	PILE DETAILS CLASS 90 AND CLASS 140
B11-55	CONCRETE BARRIER TYPE 732

STANDARD PLAN SHEET NO.

DETAIL NO.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	624	639

REGISTERED CIVIL ENGINEER — DATE 1-20-11

REGISTERED PROFESSIONAL ENGINEER — TITUS KENG No. 45226 Exp. 9-30-12 CIVIL — STATE OF CALIFORNIA

10-17-11
PLANS APPROVAL DATE

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

GENERAL NOTES
LOAD & RESISTANCE FACTOR DESIGN

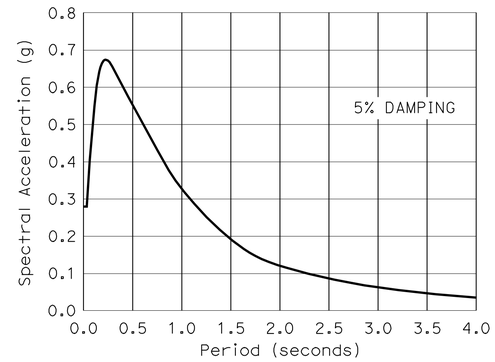
DESIGN:
AASHTO LRFD Bridge Design Specifications, 4th Edition and the Caltrans Amendments, preface dated Dec 2008; except that bridge (incl. barrier and railing) details taken from Standard Plans March 2006 and earlier versions, Standard Bridge Details XS sheets, etc) are designed using Bridge Design Specifications (96 AASHTO w/Revisions by Caltrans).

SEISMIC DESIGN:
Caltrans Seismic Design Criteria (SDC), Version 1.4 July 2006.

DEAD LOAD
Includes 35 psf for future wearing surface.

LIVE LOADING:
HL93 and permit design load.

SEISMIC LOADING:
CALTRANS SDC ARS Curve: Figure B.7
(Soil Profile Type D) Magnitude = 6.5± 0.25
(Spectrum Peak Rock Acceleration = 0.2 g)



DESIGN A.R.S. CURVE

REINFORCED CONCRETE:
f_y = 60 ksi
f'_c= 3.6 ksi, unless otherwise noted.
n = 8

PILES:
See "PILE DATA TABLE" on "FOUNDATION PLAN" sheet.

John Fujimoto — DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	T KENG	J MANISCALCO
DETAILS	J VOUGHT	J MANISCALCO
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP
DECK CONTOURS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-8-10 | 12-3-10

SHEET 2 OF 17

FILE => 29-0333-d-dc01.dgn

USERNAME => s124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:48

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	625	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TITUS KENG No. 45226 Exp. 9-30-12 CIVIL — STATE OF CALIFORNIA

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

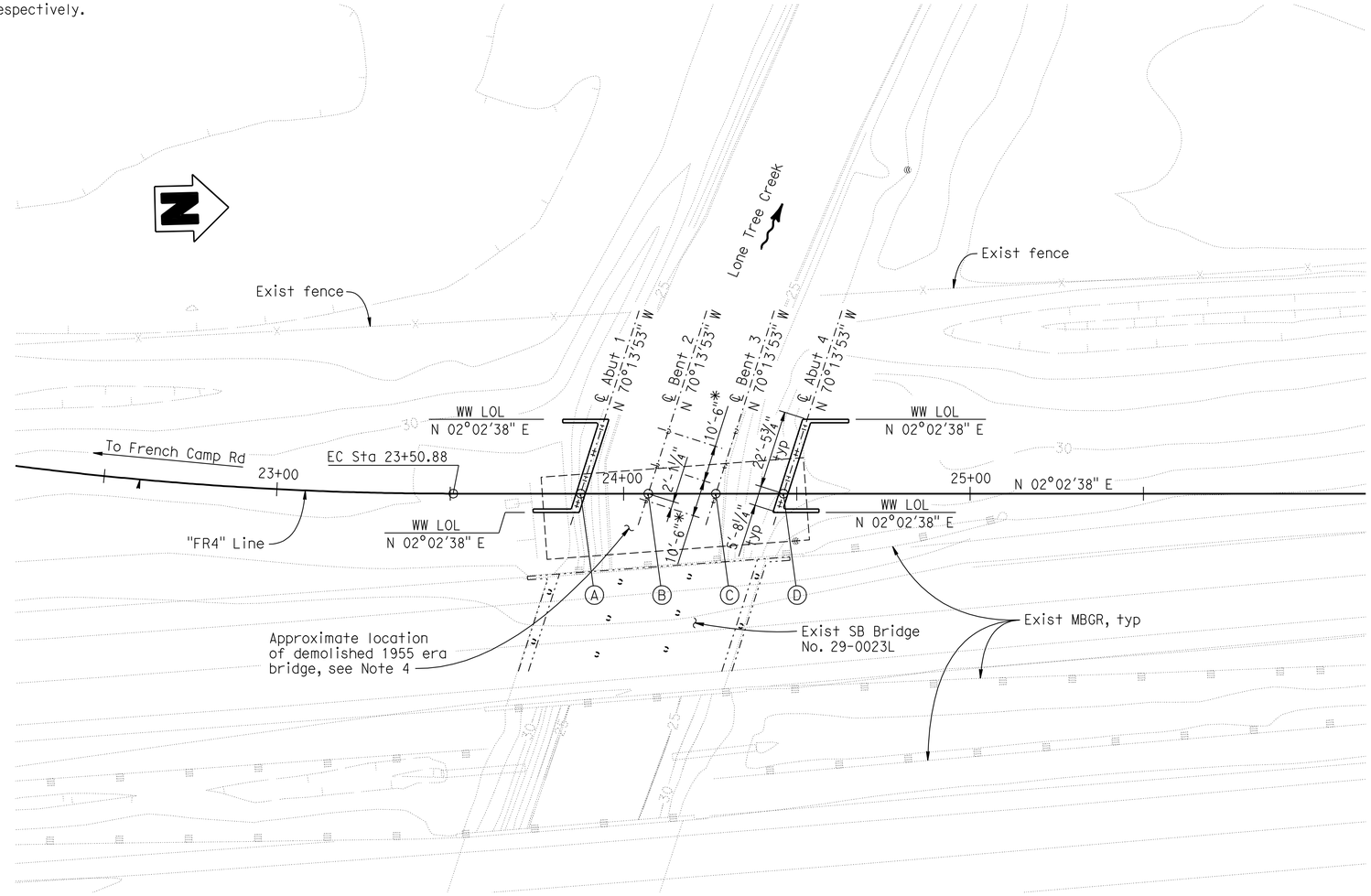
PILE DATA TABLE

Location	Pile Type	Nominal Resistance		Design Tip Elevations (ft)	Specified Tip Elevation (ft)	Nominal Driving Resistance (kips)
		Compression (kips)	Tension (kips)			
Abut 1	Class 90 Alt 'X'	160	0	-10.0 (a)	-10.0	160
Bent 2 & 3	PC/PS Conc Pile Class 140	280	0	-23.0 (a)(b)	-23.0	290
Abut 4	Class 90 Alt 'X'	160	0	-7.0 (a)	-7.0	160

Design tip elevations for Abutments are controlled by: (a) Compression.
Design tip elevations for Bents are controlled by: (a) Compression (Strength Limit), (b) Scour, respectively.

ABUTMENTS & BENTS ℄ STATIONS

- (A) SR 99 Sta 23+87.64
- (B) SR 99 Sta 24+07.14
- (C) SR 99 Sta 24+26.64
- (D) SR 99 Sta 24+46.14



PLAN
1" = 20'

*Typical bent pile spacing.

HYDROLOGIC SUMMARY TABLE

Drainage Area: 86.0 Square Miles

	Design Flood	Base Flood	Overtopping Flood
Frequence (Years)	50	100	N/A
Discharge (Cubic Feet per Second)	840	955	2855
Water Surface Elevation at Bridge (Feet)	29.31	29.72	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.

BENCH MARKS

BENCHMARK# 658 ELEV. 33.00 Ft
DESCRIPTION: KSN CONTROL POINT, ½" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED AT APPROXIMATE CENTERLINE STATION 625+67, ON THE NORTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 1' EAST OF THE EDGE OF PAVEMENT, 205' NORTH OF THE END OF THE CENTERLINE OF LONE TREE CREEK.
NGVD 29, N2138213.81, E6354203.76.

BENCHMARK# 699 ELEV. 31.83 Ft
DESCRIPTION: KSN CONTROL POINT, ½" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED APPROXIMATE CENTERLINE STATION 625+50, ON THE SOUTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 3' WEST OF THE EDGE OF PAVEMENT, 140' NORTH OF THE CENTERLINE OF LONE TREE CREEK.
NGVD 29, N2138191.62, E6354088.62.

Notes:
1. See "UTILITY PLANS" for type and exact locations of all existing and proposed utilities.
2. Location of existing utilities shown are approximate. The Contractor shall verify locations of all affected utilities prior to performing any excavation.
3. Not all piles shown here.
4. Contractor to locate existing burried piles of demolished 1955 era bridge prior to driving new piles.

Legend:

⋯—⋯— Indicates existing structure.
= Indicates driven piles at abutments.
: Indicates driven piles at bents.

GEOTECHNICAL PROFESSIONAL — APPROVAL DATE 12-3-10

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DESIGN OVERSIGHT John Fujimoto
2-7-11
SIGN OFF DATE

SCALE: 1" = 40'	VERT.DATUM NGVD29	HORZ.DATUM NAD1983	
PHOTOGRAMMETRY AS OF: 08/09/2007	ALIGNMENT TIES		
SURVEYED	BY AERIAL PHOTOMAPPING SERVICES	DRAFTED	BY KSN
FIELD CHECKED	BY KRIS F. NEHMER	CHECKED	BY KRIS F. NEHMER

DESIGN	BY T KENG	CHECKED J MANISCALCO
DETAILS	BY J VOUGHT	CHECKED J MANISCALCO
QUANTITIES	BY M KOCHLY	CHECKED J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP
FOUNDATION PLAN

FOUNDATION PLAN SHEET (ENGLISH) (REV.7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES			
5-3-10	8-2-10	11-8-10	12-3-10

SHEET 3 OF 17

FILE => 29-0333-e-fp01.dgn

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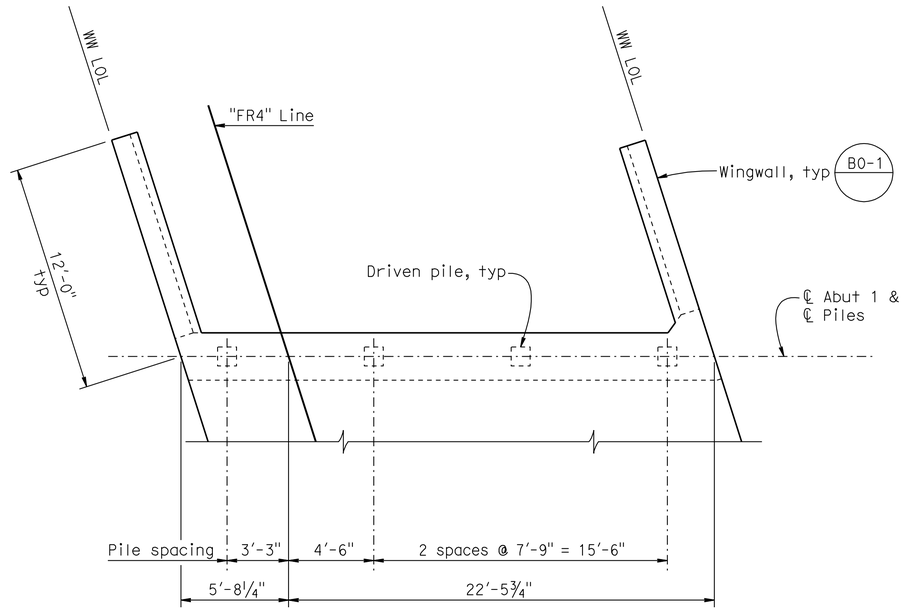
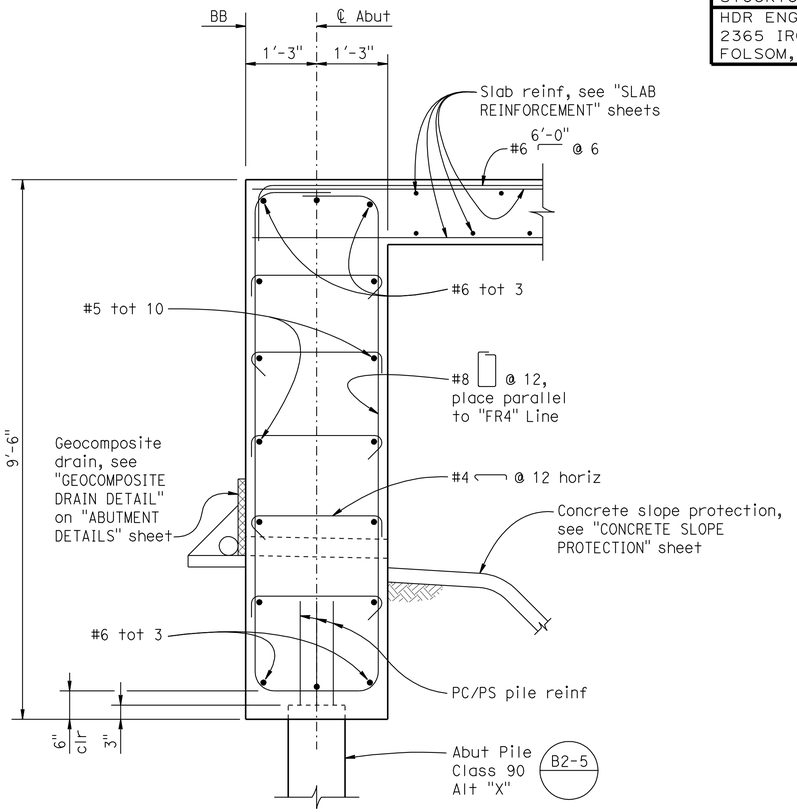


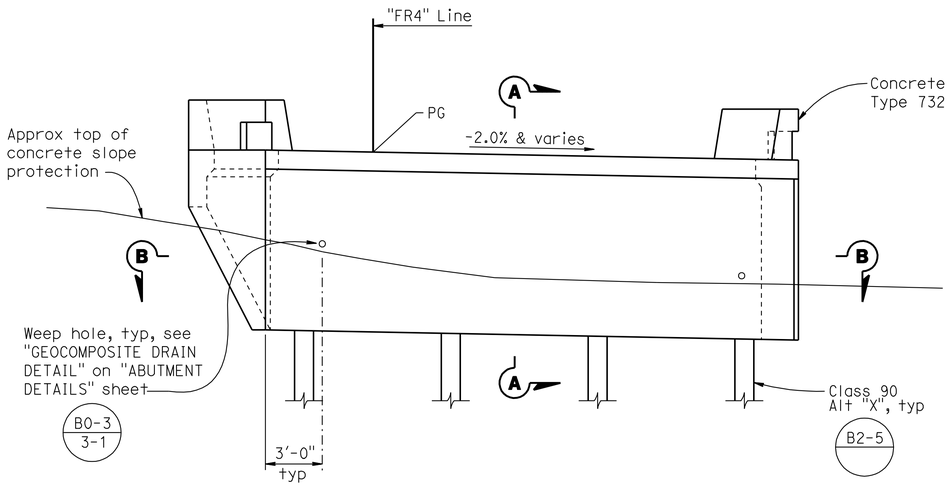
PLAN

¼" = 1'-0"



SECTION A-A

¾" = 1'-0"



ELEVATION

¼" = 1'-0"

Note:
For "SECTION B-B" and details not shown, see "ABUTMENT 4 LAYOUT" & "ABUTMENT DETAILS" sheets.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	626	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TITUS KENG No. 45226 Exp. 9-30-12 CIVIL — STATE OF CALIFORNIA

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555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	T KENG	J MANISCALCO
DETAILS	J VOUGHT	J MANISCALCO
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP

ABUTMENT 1 LAYOUT

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	4	17

FILE => 29-0333-f-a01_101.dgn

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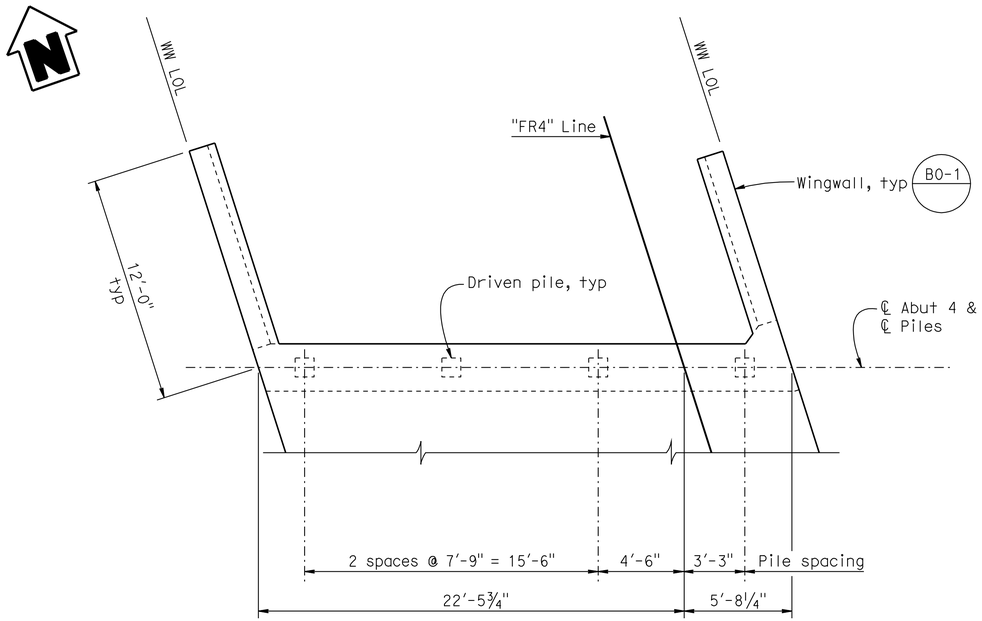
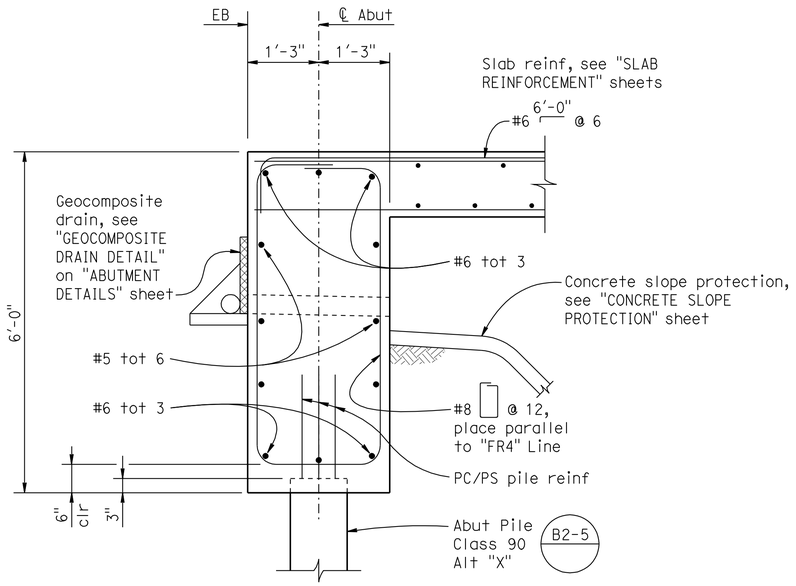
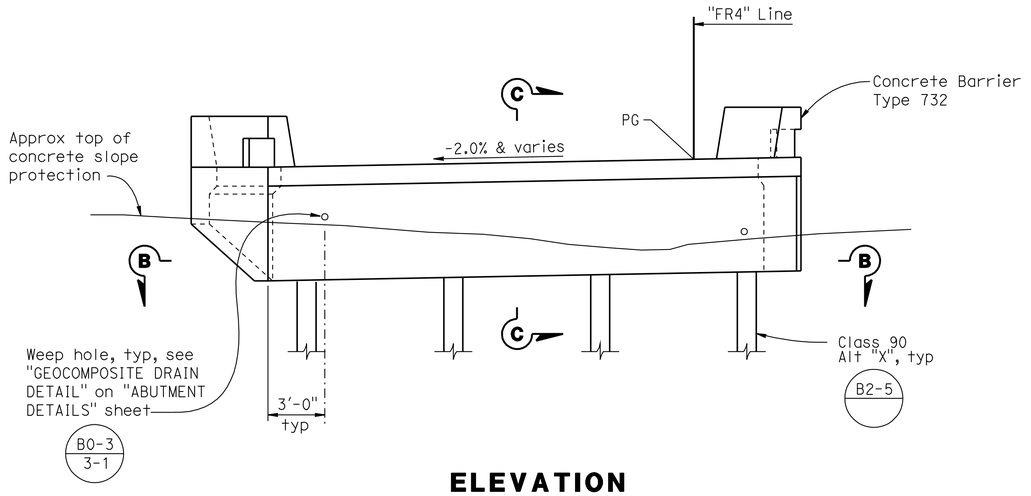


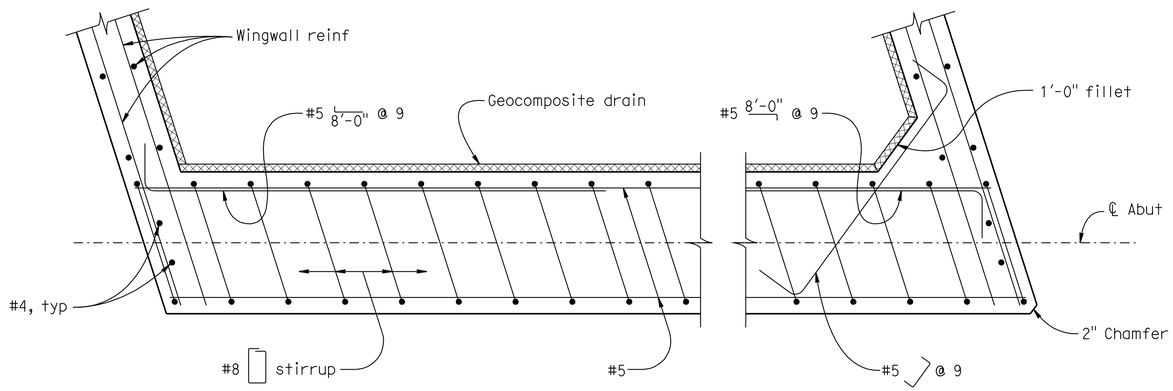
PLAN
¼" = 1'-0"



SECTION C-C
¾" = 1'-0"



ELEVATION
¼" = 1'-0"



SECTION B-B
¾" = 1'-0"

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	627	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
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HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630

Note:
1. For additional details, see "ABUTMENT DETAILS" sheets.

DESIGN OVERSIGHT: John Fujimoto
2-7-11
SIGN OFF DATE

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

	BY	CHECKED
DESIGN	T KENG	J MANISCALCO
DETAILS	J VOUGHT	J MANISCALCO
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP
ABUTMENT 4 LAYOUT

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-8-10 | 12-3-10

SHEET 5 OF 17

FILE => 29-0333-f-a01_102.dgn

USERNAME => s124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:48

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	628	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

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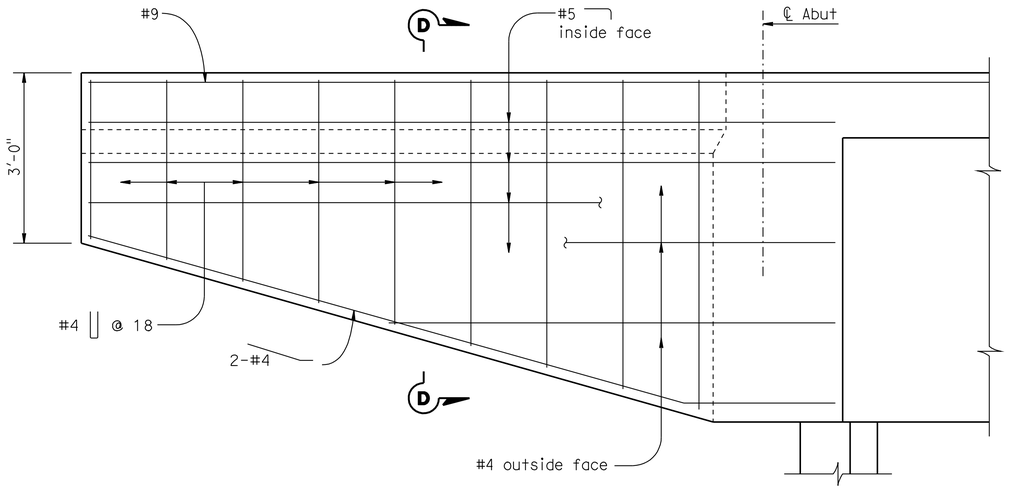
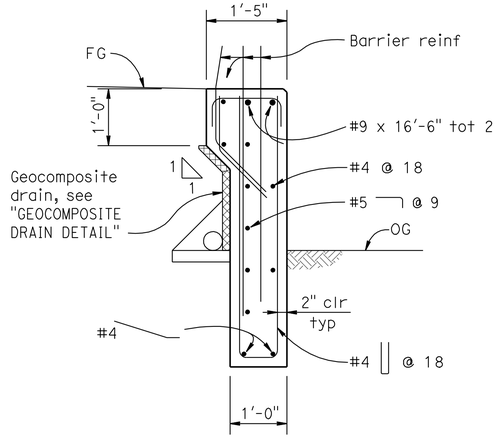
HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



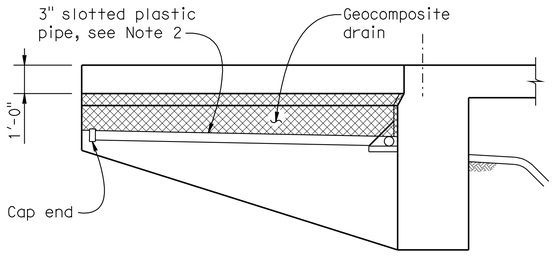
WINGWALL ELEVATION

3/4" = 1'-0"

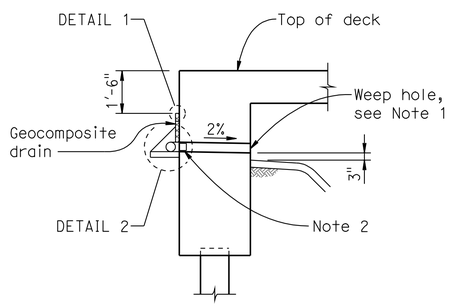


SECTION D-D

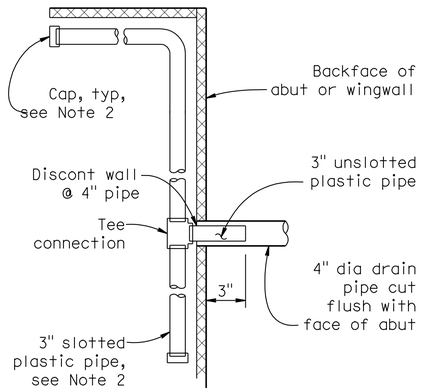
3/4" = 1'-0"



INSIDE FACE OF WINGWALL ELEVATION



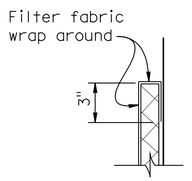
ABUTMENT SECTION



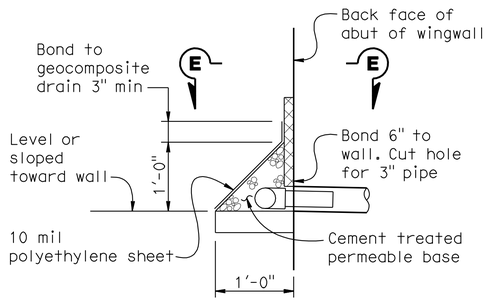
VIEW E-E

Drainage Notes:

1. 4" drains at intermediate sag points and at 25' max center to center. Exposed wall drains shall be located 3"± above finished grade.
2. Geocomposite drain, cement treated permeable base, and 3" dia slotted plastic pipe continuous behind wingwall or abutment. Cap ends of pipe. Provide "Tee" connection at each 4" dia drain.
3. Connect the low end of plastic pipe to the main outlet pipe at weep hole as applicable.



DETAIL 1



DETAIL 2

GEOCOMPOSITE DRAIN DETAIL

No Scale

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

DESIGN	BY T KENG	CHECKED J MANISCALCO	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY J VOUGHT	CHECKED J MANISCALCO	
QUANTITIES	BY M KOCHLY	CHECKED J NAUMAN	

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP

ABUTMENT DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-8-10 | 12-3-10

SHEET 6 OF 17

USERNAME => s124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:48

FILE => 29-0333-f-a01dt01.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	629	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TITUS KENG No. 45226 Exp. 9-30-12 CIVIL — STATE OF CALIFORNIA

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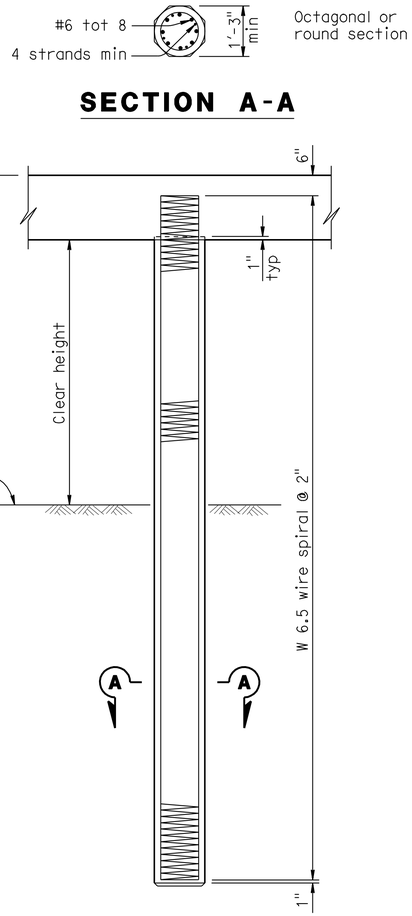
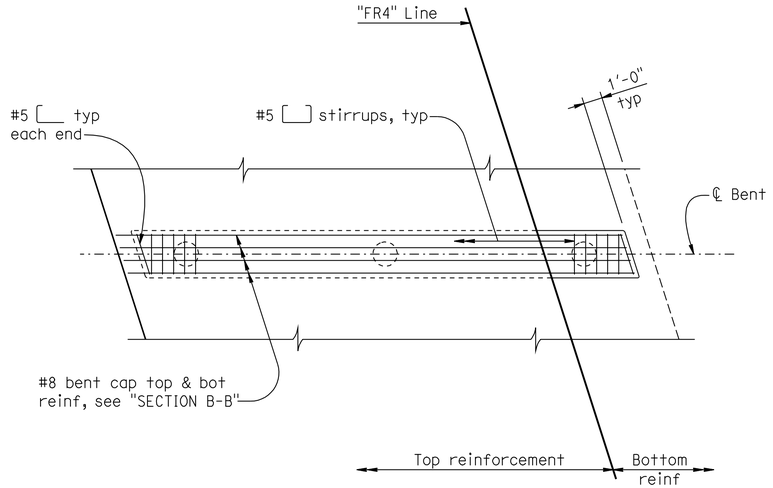
555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



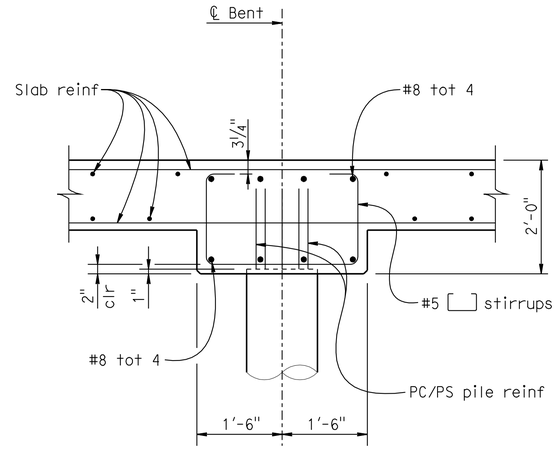
SECTION A-A



Note: Slab reinf not shown.

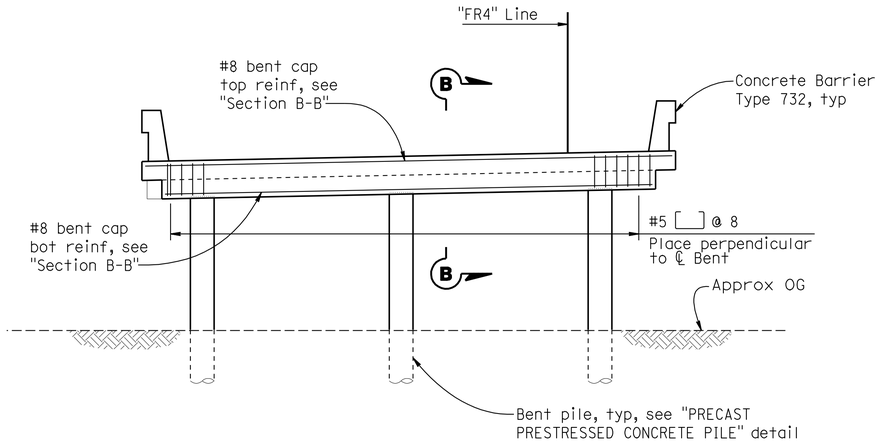
PARTIAL PLAN

1/4" = 1'-0"



SECTION B-B

3/4" = 1'-0"



ELEVATION

1/4" = 1'-0"

NOTES:

1. Design service level loading is 140 kips or less as noted.
2. Maximum size of aggregate is 1".
3. For the prestressed concrete pile:
   - A. The prestress force after all losses shall provide 725 psi minimum stress and shall not be less than 130 kips.
   - B. The concrete strength shall not be less than 6000 psi at 28 days.
4. No splices allowed in the longitudinal reinforcement within the "clear height" or within 10' below the ground line.

PRECAST PRESTRESSED CONCRETE PILE

No Scale

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

John Fujimoto
DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	T KENG	J MANISCALCO
DETAILS	J VOUGHT	J MANISCALCO
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP

BENT DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	7	17

FILE => 29-0333-h-b01dt.dgn

USERNAME => s124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:48

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	630	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TITUS KENG — No. 45226 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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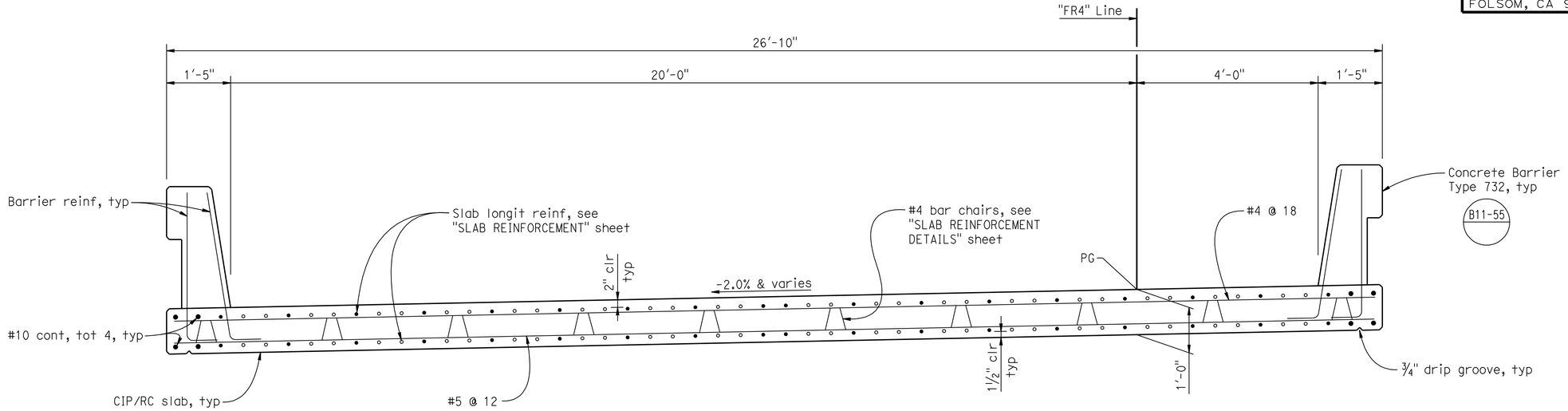
555 E. WEBER AVE.
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



TYPICAL SECTION

¾" = 1'-0"

Note:
For additional information, see "SLAB REINFORCEMENT DETAILS" sheet.

Legend:
- • Indicates continuous bar.
- ◦ Indicates partial length bar.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	T KENG	J MANISCALCO
DETAILS	J VOUGHT	J MANISCALCO
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP
TYPICAL SECTION

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	8	17

FILE => 29-0333-k-ts01.dgn

USERNAME => s124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	631	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TITUS KENG — No. 45226 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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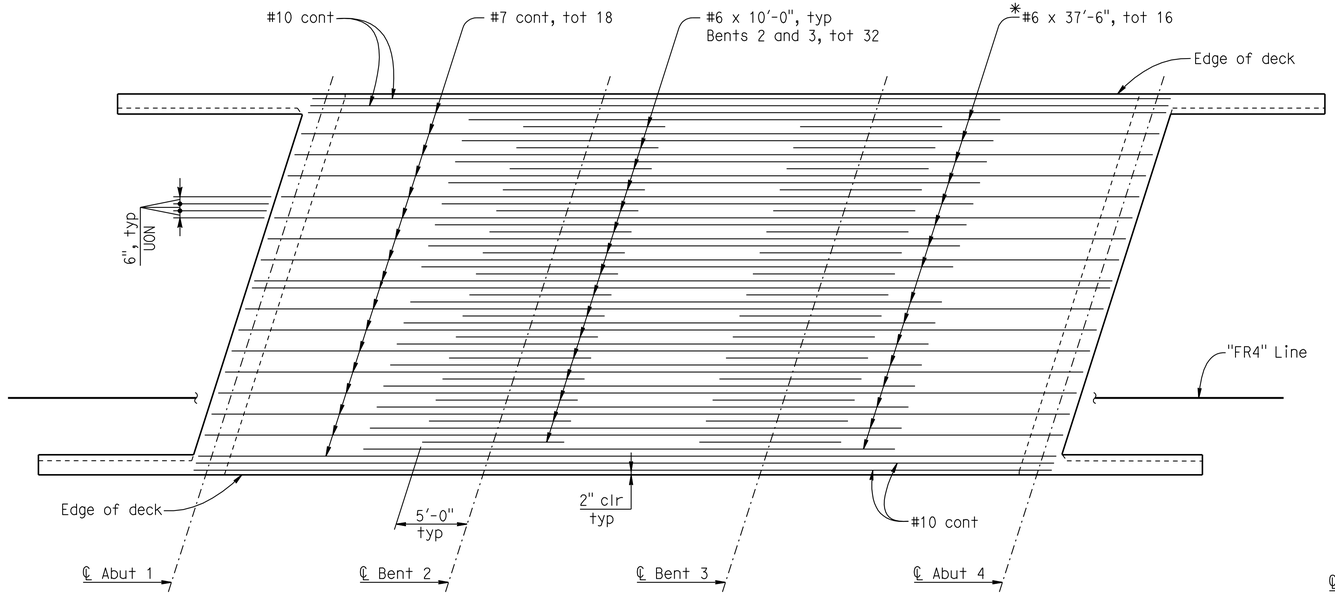
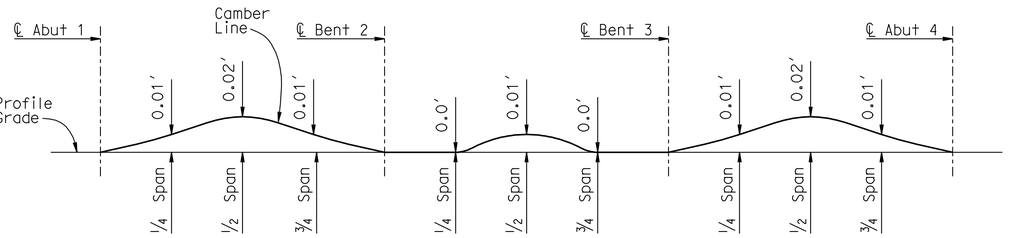
STOCKTON, CA 95202

HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



PARTIAL PLAN - TOP REINFORCEMENT

3/16" = 1'-0"

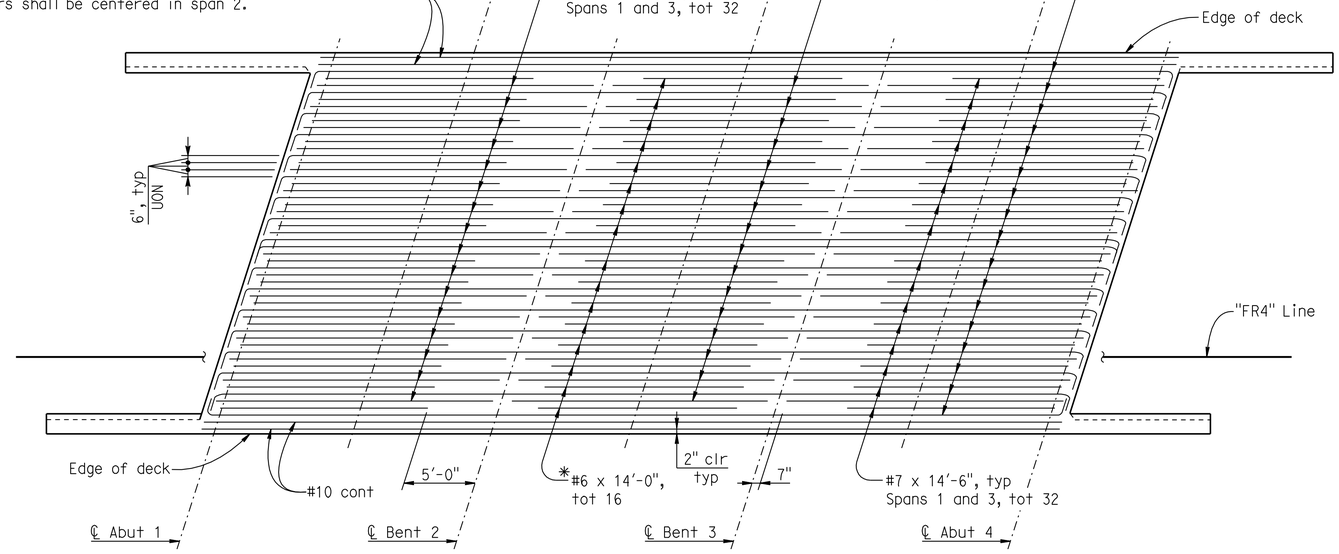


Note:
Does not include allowance for falsework settlement.

CAMBER DIAGRAM

No Scale

* Bars shall be centered in span 2.



PARTIAL PLAN - BOTTOM REINFORCEMENT

3/16" = 1'-0"

Notes:

1. For transverse reinforcement and Drill & Bond Dowel details, see "TYPICAL SECTION" sheet.
2. For details not shown, see "SLAB REINFORCEMENT DETAILS" sheet.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

	BY	CHECKED
DESIGN	T KENG	J MANISCALCO
DETAILS	J VOUGHT	J MANISCALCO
QUANTITIES	M KOCHLY	J NAUMAN

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP
SLAB REINFORCEMENT

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	9	17

FILE => 29-0333-1-sr01.dgn

USERNAME => s8124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:43

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	4.9/14.2	632	639

REGISTERED ENGINEER - CIVIL — 1-20-11

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TITUS KENG — No. 45226 — Exp. 9-30-12 — CIVIL — STATE OF CALIFORNIA

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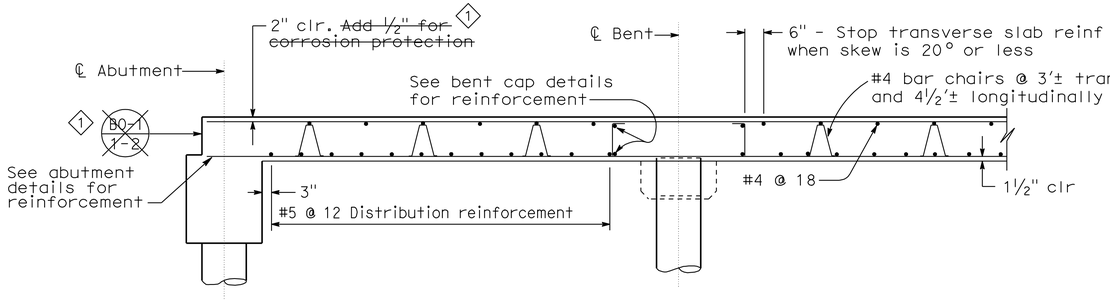
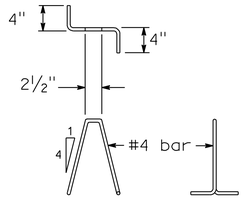
STOCKTON, CA 95202

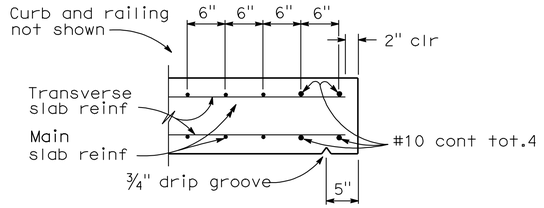
HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



LONGITUDINAL SECTION



BAR CHAIR DETAIL

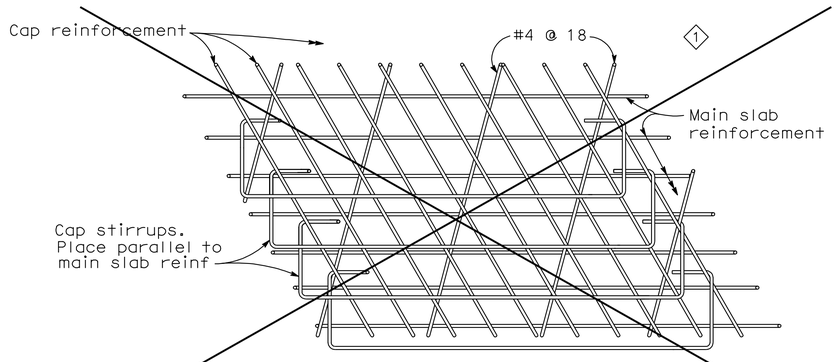


EDGE OF SLAB DETAILS

BAR SPLICE LENGTH								
Bar size	#4	#5	#6	#7	#8	#9	#10	#11
All bars, except top bars in spans over 24'	23"	28"	34"	39"	45"	68"	76"	85"
Top bars in spans over 24'	23"	28"	34"	53"	60"	77"	97"	120"

REINFORCEMENT NOTES:

Splices in top main bars to be located near center of span.
Splices in bottom main bars to be located near bent.
Spacing of all transverse bars is measured along ℄ roadway.
Skew 0°to 20°: Place all transverse bars parallel to bent.
◇1 ~~Skew over 20°: Place transverse slab bars perpendicular to ℄ bridge.See details at right and below.~~

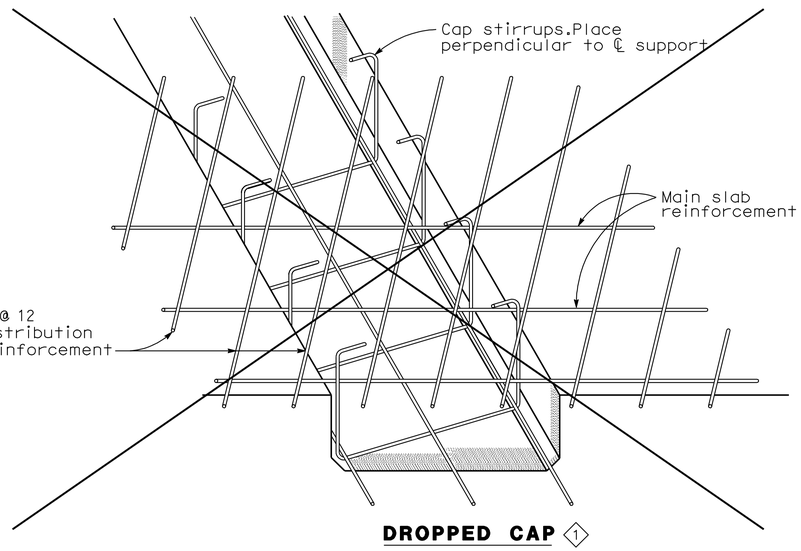


TOP SLAB REINFORCEMENT AT BENT

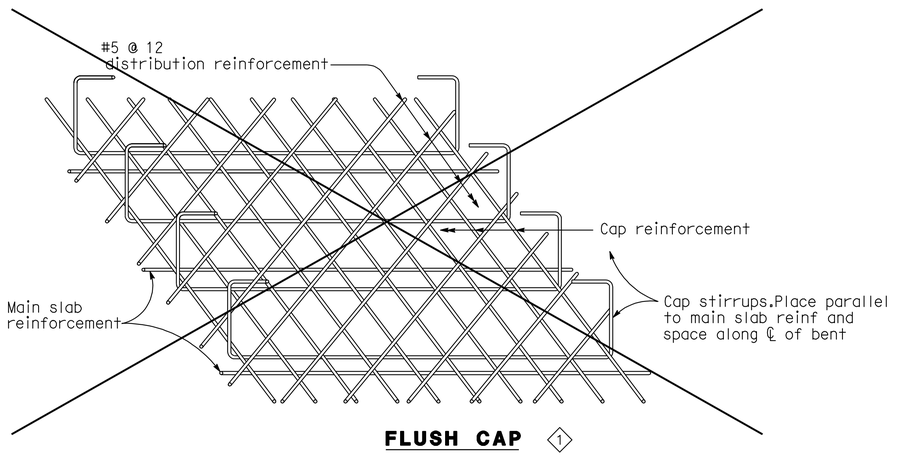
Note: View for main span over 24'.
Bar placement similar for spans under 24'.

GENERAL NOTES ◇1
LOAD FACTOR DESIGN

Design: Bridge Design Specifications (1983 AASHTO with Interims and revisions by CALTRANS)
Dead load: Includes 35 psi for future wearing surface.
Live loading: HS20-44 and alternative and permit design load.
Reinforced concrete: fy = 60,000 psi
f'c = 3,250 psi
n = 9



DROPPED CAP ◇1



FLUSH CAP ◇1

BOTTOM SLAB REINFORCEMENT AT BENT

NO SCALE

STANDARD DRAWING				
RELEASE DATE 8/26/97	DESIGN	BY L.Y. LEE	CHECKED T. FARNAN	RELEASED BY
FILE NO. xs 1-220	DETAILS	BY R.YEE	CHECKED T. FARNAN	OFFICE CHIEF
	SUBMITTED	BY R.S. WATANABE	DRAWING DATE 8/88	

◇1 Deleted Detail

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP
SLAB REINFORCEMENT DETAILS

DS OSD 2147A (METRIC) (REV. 2/25/97)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
~~5-3-10~~	~~8-2-10~~	~~11-5-10~~	12-3-10	10	17

USERNAME => s124496

DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:49

29-0333-1-sr02.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	633	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TITUS KENG No. 45226 Exp. 9-30-12 CIVIL — STATE OF CALIFORNIA

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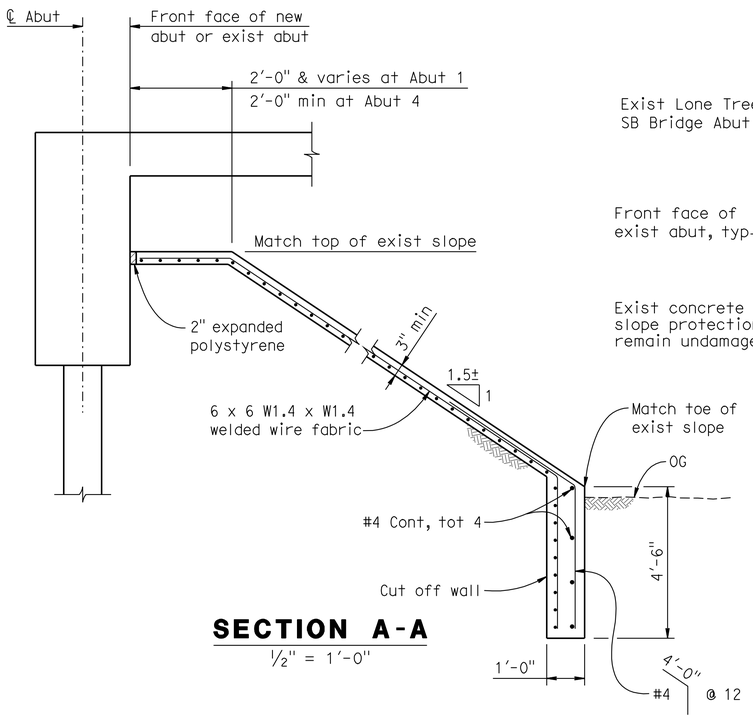
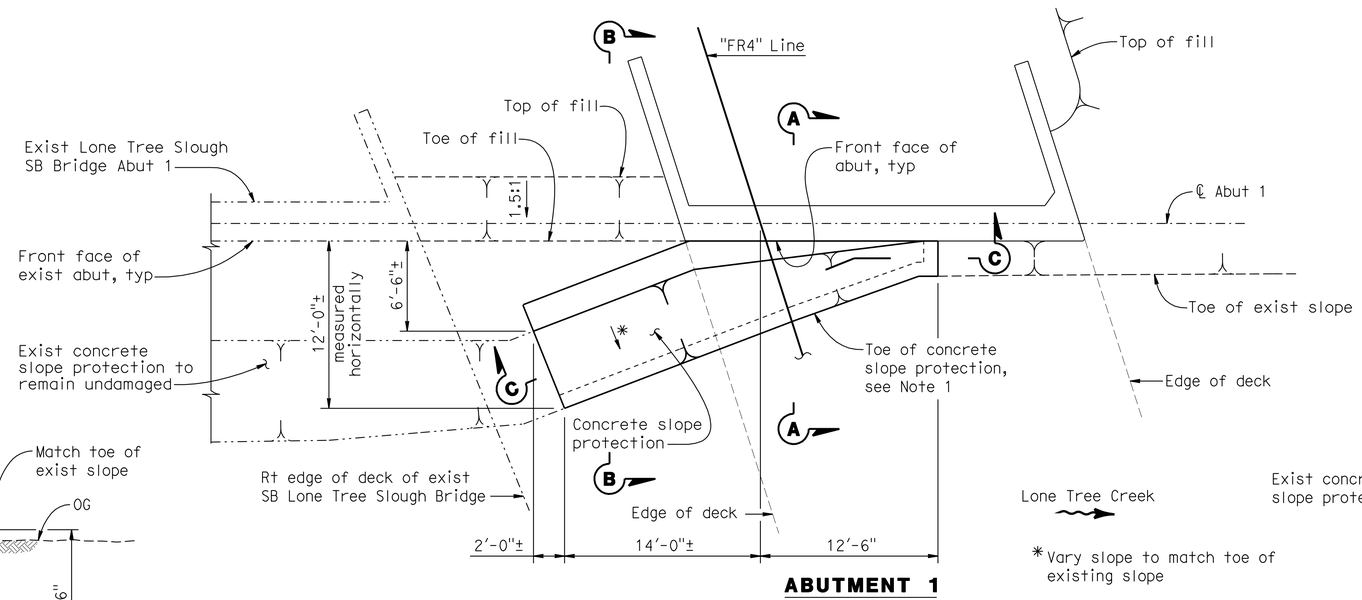
STOCKTON, CA 95202

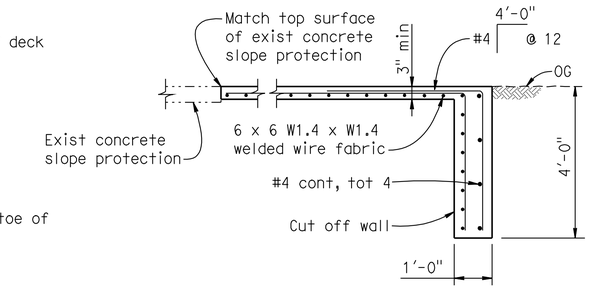
HDR ENGINEERING, INC.
2365 IRON POINT ROAD, SUITE 300
FOLSOM, CA 95630



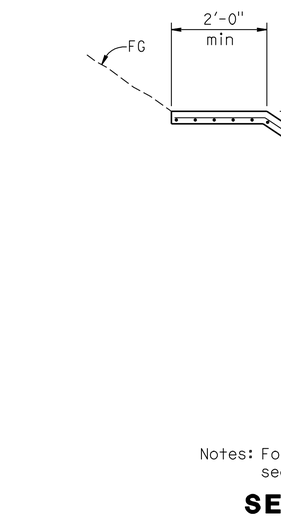
SECTION A-A
½" = 1'-0"



ABUTMENT 1

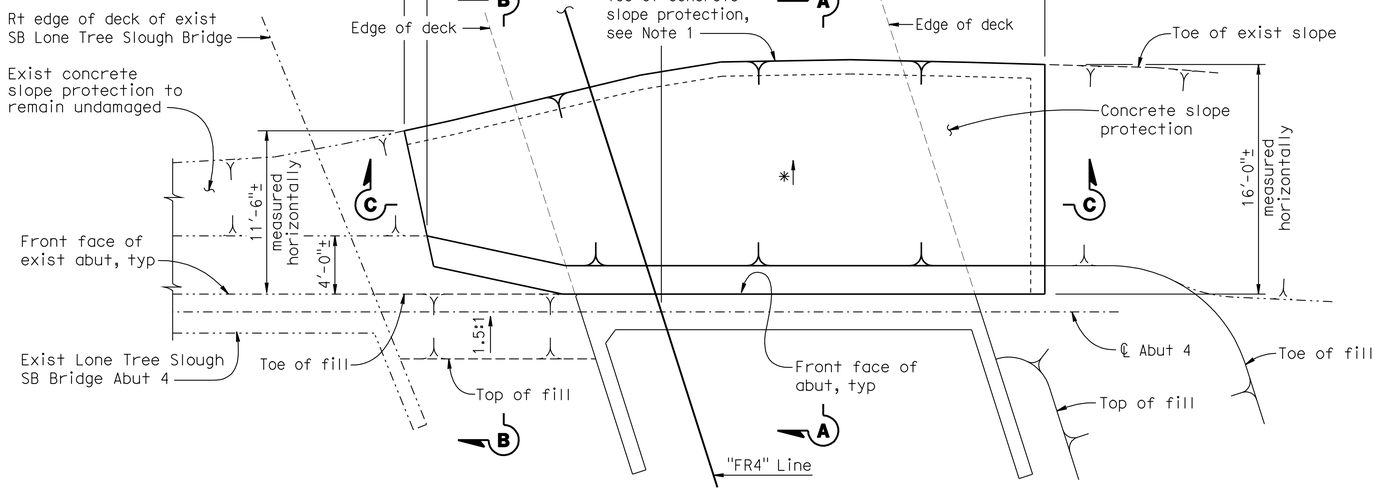


SECTION C-C
½" = 1'-0"



Notes: For additional information, see "SECTION A-A".

SECTION B-B
½" = 1'-0"



ABUTMENT 4

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

Note:
1. Toe of concrete slope protection shall follow the elevation of exist toe of slope.

Legend:

-·-·-·- Indicates existing structure.

——— Indicates new structure.

Note:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.

DESIGN	BY T KENG	CHECKED J MANISCALCO	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY J VOUGHT	CHECKED J MANISCALCO	
QUANTITIES	BY M KOCHLY	CHECKED J NAUMAN	

John Fujimoto
DESIGN OVERSIGHT — John Fujimoto
2-7-11
SIGN OFF DATE

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP
CONCRETE SLOPE PROTECTION DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	11	17

FILE => 29-0333-y-sp01.dgn

USERNAME => s124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	634	639

W Eric Nichols — 1-20-11
REGISTERED CIVIL ENGINEER — DATE

10-17-11
PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

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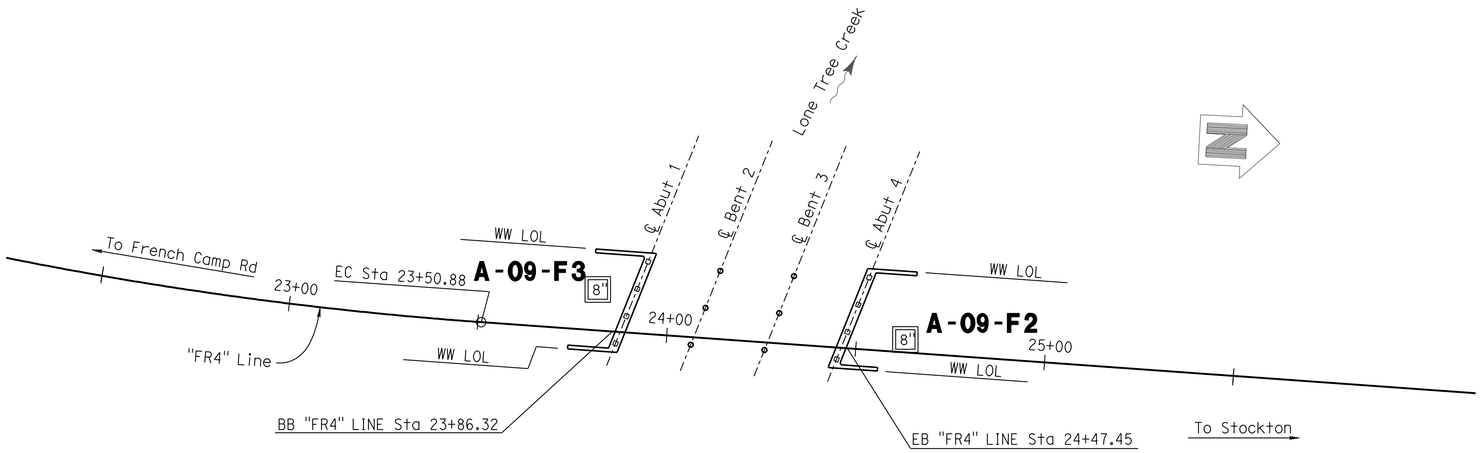
555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b



PLAN
1" = 20'

Legend:
- ··—·—·— Indicates existing structure.
- ▫ Indicates driven piles at abutments.
- ◦ Indicates driven piles at bents.

John Fujimoto — DESIGN OVERSIGHT — John Fujimoto
2-7-11 — SIGN OFF DATE

DRAWN BY: M ROBERTSON
CHECKED BY: A SHINNEFIELD
A WOOD — FIELD INVESTIGATION BY:
DATE: March, 2009

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR. — PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

LONE TREE SLOUGH SB OFF RAMP
LOG OF TEST BORINGS NO. 1

GS GEOLOGIST LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	12	17

FILE => 29-0333-z-1tb01.dgn

USERNAME => s124496 DATE PLOTTED => 21-NOV-2011 TIME PLOTTED => 13:34

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	635	639

W Eric Nichols — REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11 PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

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555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

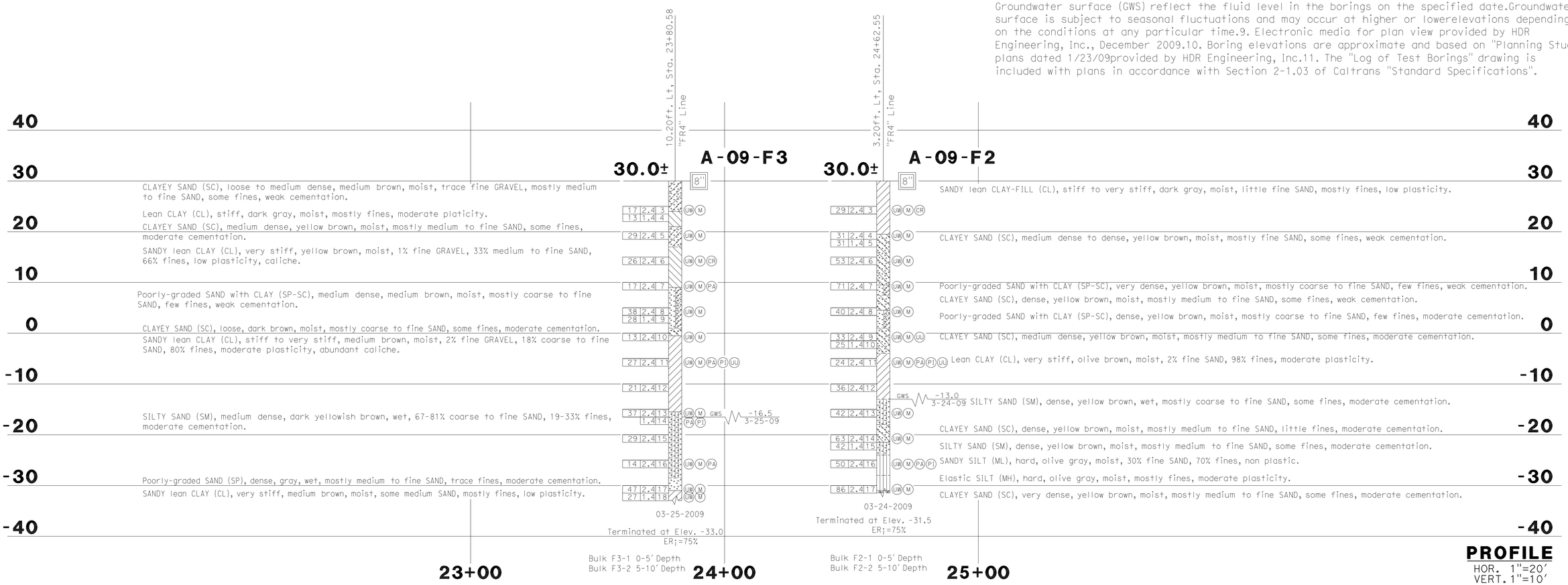
FOR PLAN VIEW
SEE LOG OF TEST BORINGS 1 OF 6

BENCH MARKS
BENCHMARK# 658 ELEV.33.00 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED AT APPROXIMATE CENTERLINE STATION 625+67, ON THE NORTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 1' EAST OF THE EDGE OF PAVEMENT, 205' NORTH OF THE END OF THE CENTERLINE OF LONE TREE CREEK. NGVD 29, N2138213.81, E6354203.76.

BENCHMARK# 699 ELEV.31.83 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED APPROXIMATE CENTERLINE STATION 625+50, ON THE SOUTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 3' WEST OF THE EDGE OF PAVEMENT, 140' NORTH OF THE CENTERLINE OF LONE TREE CREEK. NGVD 29, N2138191.62, E6354088.62.

NOTES:

1. Field classification of soils was in accordance with the Caltrans Soil & Rock Logging,Classification, and Presentation Manual (June 2007). See Log of Test Borings No. 4 and 5,"Soil Legend".2. Standard Penetration tests were performed in accordance with ASTM D 1586-99 using ahammer operated with an automated drop system. Drill rods were 1 5/8-inch diameter"A"-rods; sampler was driven with brass liners. 3. "2.4 inch sampler": ID=2.4 inch, OD=2.9 inch. Driven in same manner as SPT ("1.4inch") sampler.4. Where less than the 0.5 inches of penetration is achieved, the blow count shown is forthat fraction of the interval actually penetrated.5. If laboratory tests are not shown as being performed, the soil descriptions presented inthe LOTB are based solely on the visual practices described in the before mentioned Manual.6. The length of each sampled interval is shown graphically on the boring log.7. Consistency of soils shown in ( ) where estimated.8. Groundwater surface (GWS) reflect the fluid level in the borings on the specified date.Groundwater surface is subject to seasonal fluctuations and may occur at higher or lowerelevations depending on the conditions at any particular time.9. Electronic media for plan view provided by HDR Engineering, Inc., December 2009.10. Boring elevations are approximate and based on "Planning Study" plans dated 1/23/09provided by HDR Engineering, Inc.11. The "Log of Test Borings" drawing is included with plans in accordance with Section 2-1.03 of Caltrans "Standard Specifications".



PROFILE
HOR. 1"=20'
VERT. 1"=10'

John Fujimoto — DESIGN OVERSIGHT — John Fujimoto; 2-7-11 SIGN OFF DATE	DRAWN BY	M ROBERTSON	A WOOD — FIELD INVESTIGATION BY:	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	JOHN A. KLEMUNES, JR. — PROJECT ENGINEER
	CHECKED BY	A SHINNEFIELD	DATE: March, 2009		

BRIDGE NO.	LONE TREE SLOUGH SB OFF RAMP
29-0333	
POST MILE	LOG OF TEST BORINGS NO. 2
11.80	

GS GEOLOGIST LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-5-10 | 12-3-10

SHEET 13 OF 17

FILE => 29-0333-z-ltb02.dgn

USERNAME => s1244496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:43

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	636	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11
PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

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SAN JOAQUIN COUNCIL OF GOVERNMENTS
555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

FOR PLAN VIEW
SEE LOG OF TEST BORINGS 1 OF 6

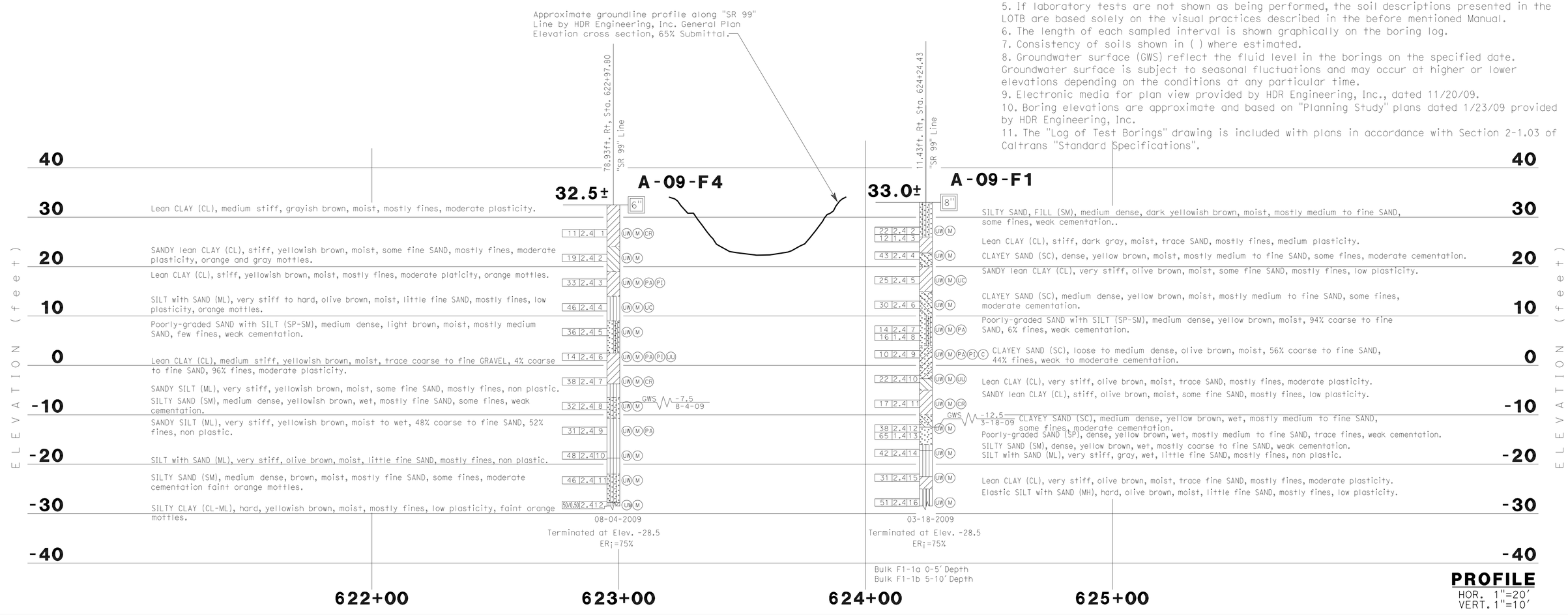
BENCH MARKS
BENCHMARK# 658 ELEV.33.00 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED AT APPROXIMATE CENTERLINE STATION 625+67, ON THE NORTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 1' EAST OF THE EDGE OF PAVEMENT, 205' NORTH OF THE END OF THE CENTERLINE OF LONE TREE CREEK. NGVD 29, N2138213.81, E6354203.76.

BENCHMARK# 699 ELEV.31.83 Ft
DESCRIPTION: KSN Control Point, 1/2" REBAR WITH YELLOW CAP STAMPED "KSN CONTROL", LOCATED APPROXIMATE CENTERLINE STATION 625+50, ON THE SOUTHBOUND MAINLINE, ON THE OUTSIDE SHOULDER, 3' WEST OF THE EDGE OF PAVEMENT, 140' NORTH OF THE CENTERLINE OF LONE TREE CREEK. NGVD 29, N2138191.62, E6354088.62.

Approximate groundline profile along "SR 99" Line by HDR Engineering, Inc. General Plan Elevation cross section, 65% Submittal.

NOTES:

1. Field classification of soils was in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (June 2007). See Log of Test Borings No. 4 and 5, "Soil Legend".
2. Standard Penetration tests were performed in accordance with ASTM D 1586-99 using a hammer operated with an automated drop system. Drill rods were 1 5/8-inch diameter "A"-rods; sampler was driven with brass liners.
3. "2.4 inch sampler": ID=2.4 inch, OD=2.9 inch. Driven in same manner as SPT ("1.4 inch") sampler.
4. Where less than the 0.5 inches of penetration is achieved, the blow count shown is for that fraction of the interval actually penetrated.
5. If laboratory tests are not shown as being performed, the soil descriptions presented in the LOTB are based solely on the visual practices described in the before mentioned Manual.
6. The length of each sampled interval is shown graphically on the boring log.
7. Consistency of soils shown in ( ) where estimated.
8. Groundwater surface (GWS) reflect the fluid level in the borings on the specified date. Groundwater surface is subject to seasonal fluctuations and may occur at higher or lower elevations depending on the conditions at any particular time.
9. Electronic media for plan view provided by HDR Engineering, Inc., dated 11/20/09.
10. Boring elevations are approximate and based on "Planning Study" plans dated 1/23/09 provided by HDR Engineering, Inc.
11. The "Log of Test Borings" drawing is included with plans in accordance with Section 2-1.03 of Caltrans "Standard Specifications".



PROFILE
HOR. 1"=20'
VERT. 1"=10'

DESIGN OVERSIGHT (I) John Fujimoto	DRAWN BY	M ROBERTSON	A WOOD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	JOHN A. KLEMUNES, JR. PROJECT ENGINEER	BRIDGE NO. 29-0333	LONE TREE SLOUGH SB OFF RAMP
2-7-11 SIGN OFF DATE	CHECKED BY	A SHINNEFIELD	FIELD INVESTIGATION BY: DATE: March, 2009			POST MILE 11.80	LOG OF TEST BORINGS NO. 3

GS GEOLOGIST LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-5-10 | 12-3-10

SHEET 14 OF 17

FILE => 29-0333-z-ltb03.dgn

USERNAME = z81240396 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:49

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL, (JUNE, 2007)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	637	639

W Eric Nichols 1-20-11
REGISTERED CIVIL ENGINEER DATE

10-17-11
PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST William E. Nichols No. 2229 Exp. 1-31-12 CERTIFIED ENGINEERING GEOLOGIST STATE OF CALIFORNIA

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555 E. WEBER AVE.
STOCKTON, CA 95202

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

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
Size	A	Auger Boring
Size	R P	Rotary drilled boring Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
○	D	Dynamic Cone Penetration Boring
▲	CPT	Cone Penetration Test (ASTM D 5778)
□	O	Other

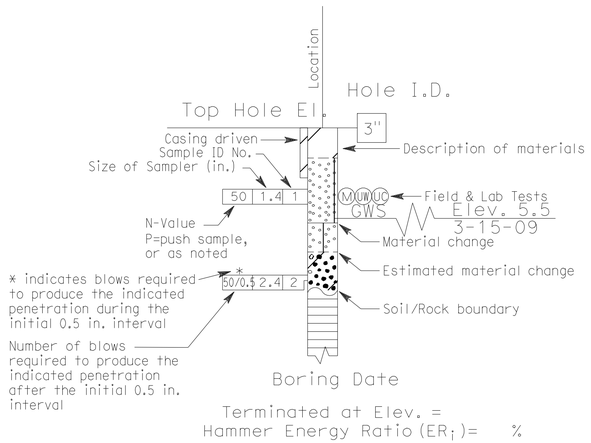
NOTE: Size in inches.

CONSISTENCY OF COHESIVE SOILS

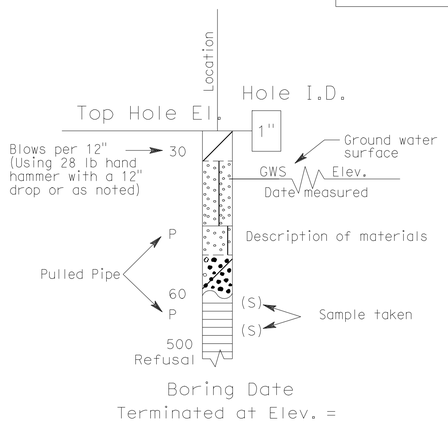
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	<0.25	<0.25	<0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS

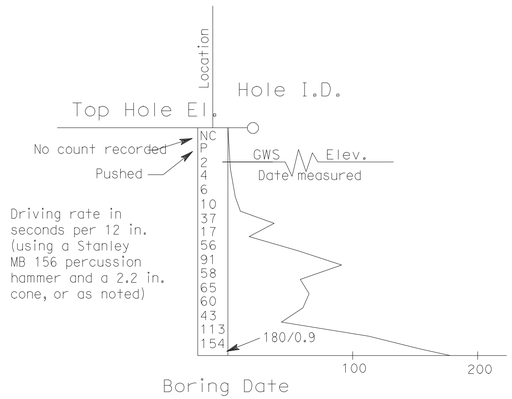
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



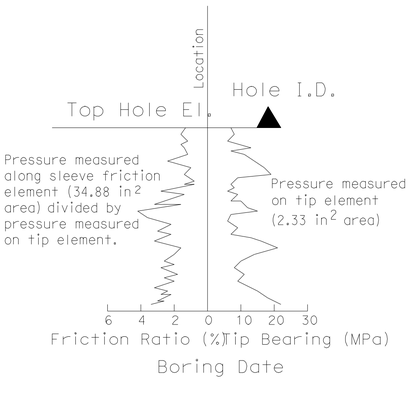
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

John Fujimoto
DESIGN OVERSIGHT John Fujimoto
2-7-11
SIGN OFF DATE

DRAWN BY M ROBERTSON
CHECKED BY A SHINNEFIELD

A WOOD
FIELD INVESTIGATION BY:
DATE: March, 2009

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR.
PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

SOIL LEGEND

LONE TREE SLOUGH SB OFF RAMP

LOG OF TEST BORINGS NO. 4

GS LOTB SOIL LEGEND SHEET 1 (ENGLISH) (REV. 07/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-3-10	8-2-10	11-8-10	12-3-10	15	17

FILE => 29-0333-z-1tb04.dgn

USERNAME => s1244966 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:49

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL, (JUNE, 2007)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly-graded GRAVEL Poorly-graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly-graded GRAVEL with SILT Poorly-graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly-graded GRAVEL with CLAY (or SILTY CLAY) Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean Clay ORGANIC lean Clay with SAND ORGANIC lean Clay with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly-graded SAND Poorly-graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly-graded SAND with SILT Poorly-graded SAND with SILT and GRAVEL		
SP-SC	Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	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
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OH/OL	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
	COBBLES COBBLES and BOULDERS BOULDERS		

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
- (PP) Pocket Penetrometer
- (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)
- (TV) Pocket Torvane
- (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 2937)
- (VS) Vane Shear (AASHTO T 223)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	99	4.9/14.2	638	639

W Eric Nichols — REGISTERED CIVIL ENGINEER — 1-20-11 DATE

10-17-11 PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

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555 E. WEBER AVE.
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BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CA 95691 FILE No. 1201.7b

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60}-Value (Blows / 12 inches)
Very Loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

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

PARTICLE SIZE

Description		Size
Boulder		> 12"
Cobble		3" to 12"
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

John Fujimoto — DESIGN OVERSIGHT — John Fujimoto
2-7-11 SIGN OFF DATE

DRAWN BY: M ROBERTSON
CHECKED BY: A SHINNEFIELD
A WOOD — FIELD INVESTIGATION BY:
DATE: March, 2009

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

JOHN A. KLEMUNES, JR. — PROJECT ENGINEER

BRIDGE NO. 29-0333
POST MILE 11.80

SOIL LEGEND
LONE TREE SLOUGH SB OFF RAMP
LOG OF TEST BORINGS NO. 5

GS LOTB SOIL LEGEND SHEET 2 (ENGLISH) (REV. 07/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 1455
PROJECT NUMBER & PHASE: 10000204401 CONTRACT NO.: 10-0E6111

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 5-3-10 | 8-2-10 | 11-8-10 | 12-3-10

SHEET 16 OF 17

FILE => 29-0333-z-ltb05.dgn

USERNAME => 8124496 DATE PLOTTED => 17-OCT-2011 TIME PLOTTED => 15:49

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
X	SJ	4	E		

DATE APPROVED

TO ACCOMPANY PLANS DATED 10-17-11

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES

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

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	99	4.9/14.2	639	639

REGISTERED CIVIL ENGINEER — 1-20-11 DATE

PROFESSIONAL GEOLOGIST — William E. Nichols — No. 2229 — Exp. 1-31-12 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

LONE TREE SLOUGH SB OFF RAMP

AS-BUILT LOG OF TEST BORINGS

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

UNIT: 1455
PROJECT NUMBER & PHASE: 1000020440

BRIDGE No.	Sheet	of
29-0333	17	17

Revisions made to this Log of Test Borings from the original 1963 Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "SR 99" Line
B-1	623+51.55	45.88 ft Lt
B-2	624+63.22	39.57 ft Lt

1. See Log of Test Borings 1 of 6 for stationing.
2. The table above are the locations for the As-Built Test Borings referenced to the proposed new structure location. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.

STRUCTURAL FOUNDATIONS BRANCH - ENGINEERING SERVICE CENTER

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 will not be required. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILES - TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	99			

LONE TREE SLOUGH BRIDGE (WIDEN)

LOG OF TEST BORINGS

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CU: 10
EA: 401311

BRIDGE No. 29-0023 L/R

Manteca — Stockton — Slough — Survey ℄ — Existing Highway ℄ — ℄ Lt. Bridge

Design Pile Loading: 45 T
Type Pile: Union Metal Monotube
Diameter: Tip 8" Butt 15½"
Total Number Piles: 28
Lineal Ft. Piles "As Built": 712.7
Lineal Ft. Piles Called For On Plans: 1184
Hammer: Vulcan No. 2
Remarks: Data For Rt. & Lt. Bridges

Bent #1 — Bent #2 — Bent #3 — Bent #4 — Existing Bridge — Dune Tree — B-1 — B-2

BM
Chiseled knob in SW corner of conc. slab 1' ± W. of Survey ℄ Sta 18+70.5
Elev. 32.85

℄ Survey — Sta 18+70.5 — 46 Lt. — Sta 19+57.5 — Sta 19+62 — 5' Lt.

B-1 — El. 32.4 — Prof. in Survey ℄ — Grd. — Min. — Ave. — Max. — Ave. Pen. — Tons Bearing — Max. Pen. — 150 — ℄ Rt. Bridge ℄ — 7-13-56

B-2 — El. 32.2 — Ave. Bot. Cap El. 32.0 — Grd. — Min. — Ave. — Max. — Ave. — Max. Pen. — Tons Bearing — 7-12-56

Elev.	Description
32.2	Stiff dark brown silty clay
27.2	Soft buff silty clay
24.2	Soft buff silty clay, some sand
22.2	Very stiff buff silty clay
20.2	Compact buff silty sand
12.2	Compact very coarse sand
7.2	Slightly compact buff silty sand
-17.8	Very dense silty sand

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

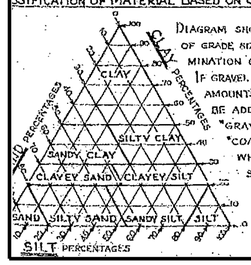


DIAGRAM SHOWING THE BASIS FOR ESTIMATES OF GRADE SIZE DISTRIBUTION USED IN DETERMINATION OF CLASS NAMES.

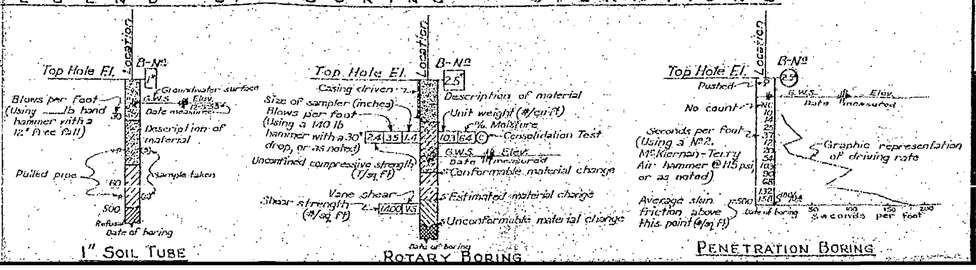
IF GRAVEL IS PRESENT IN APPRECIABLE AMOUNTS THE TERM "GRAVELLY" MAY BE ADDED TO THE CLASS NAME, VIZ. "GRAVELLY SAND." THE TERMS "COARSE", "MEDIUM" AND "FINE" WHEN USED TO DESCRIBE SAND, SILT AND GRAVEL REFER TO STANDARD GRADE SIZE LIMITS.

LEGEND OF EARTH MATERIALS

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

- PLAN OF ANY BORING
- PENETROMETER
- 2½" CONE PENETROMETER
- SAMPLER BORING (DRY)
- ROTARY BORING (WET)
- AUGER BORING (DRY)
- JET BORING
- CORE BORING
- TEST PIT

LEGEND OF BORING OPERATIONS



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

BRIDGE ACROSS LONE TREE SLOUGH

LOG OF TEST BORINGS

SCALE 1"=10' | BRIDGE 29-23 | FILE | DRAWING PR-4011-3

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