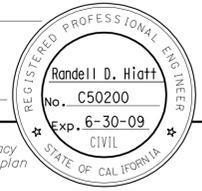


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	201	346

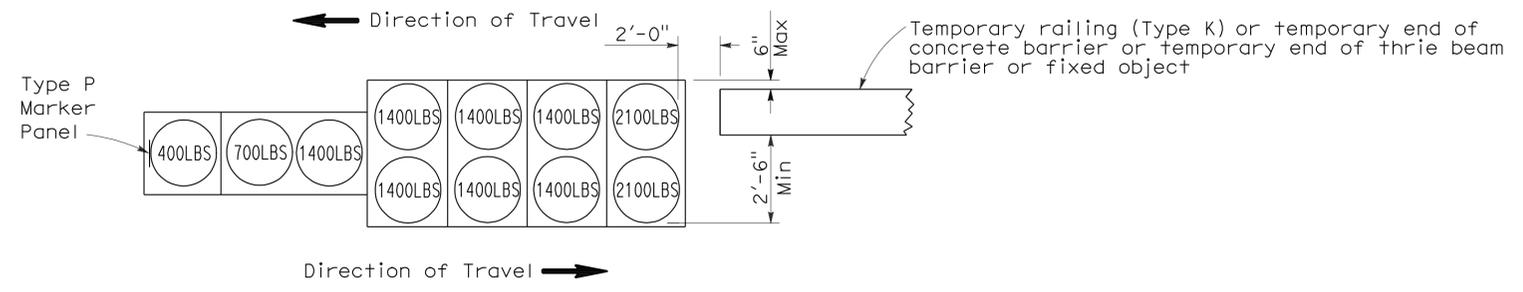
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

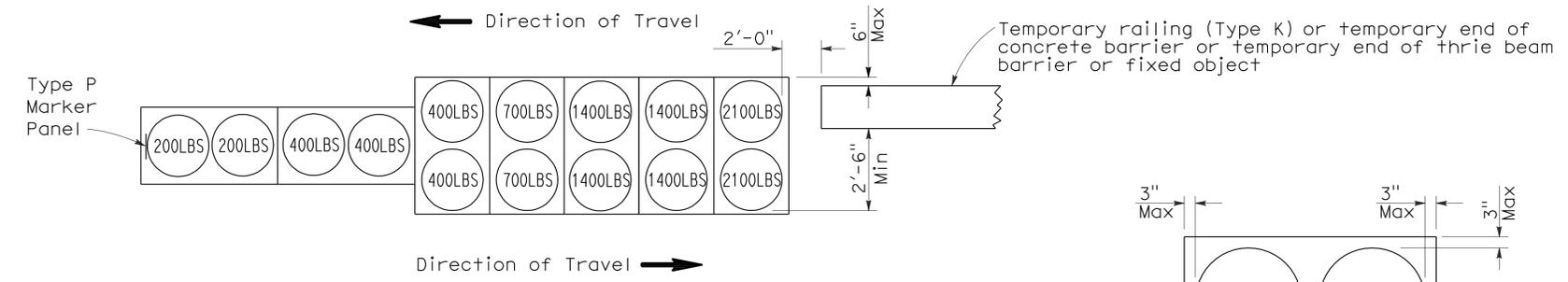


To accompany plans dated 4-16-12



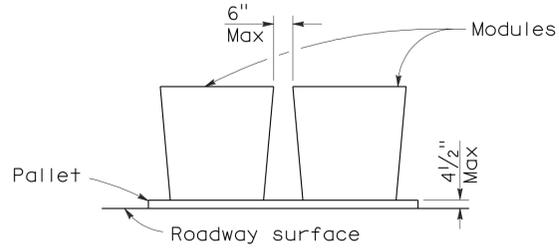
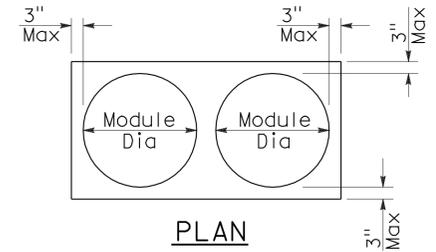
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

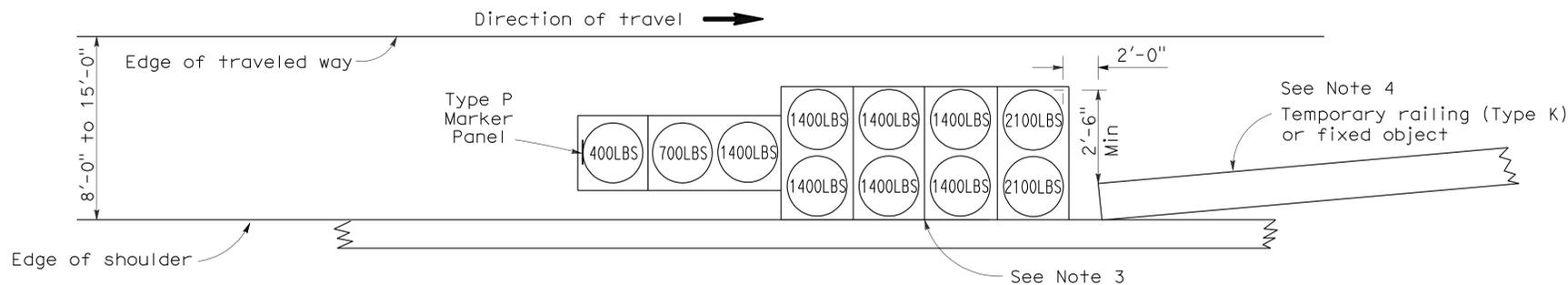
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	202	346

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

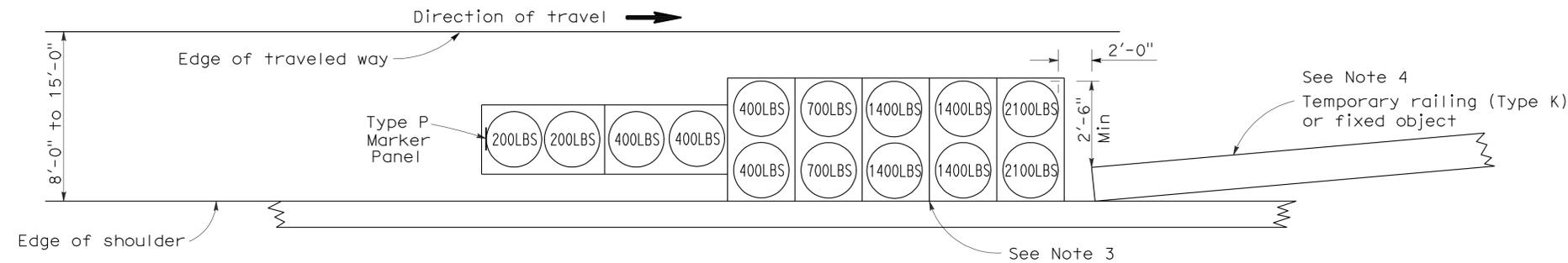
June 6, 2008
PLANS APPROVAL DATE

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

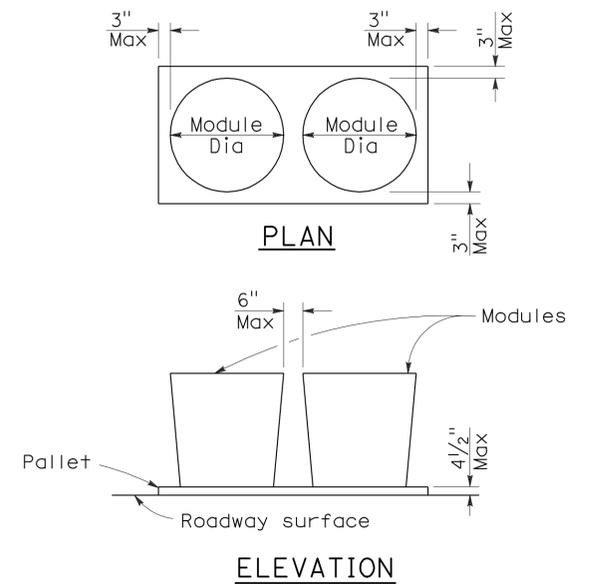
To accompany plans dated 4-16-12



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



ARRAY 'TS14'
Approach speed 45 mph or more
See Note 9



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

- ⊗ Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

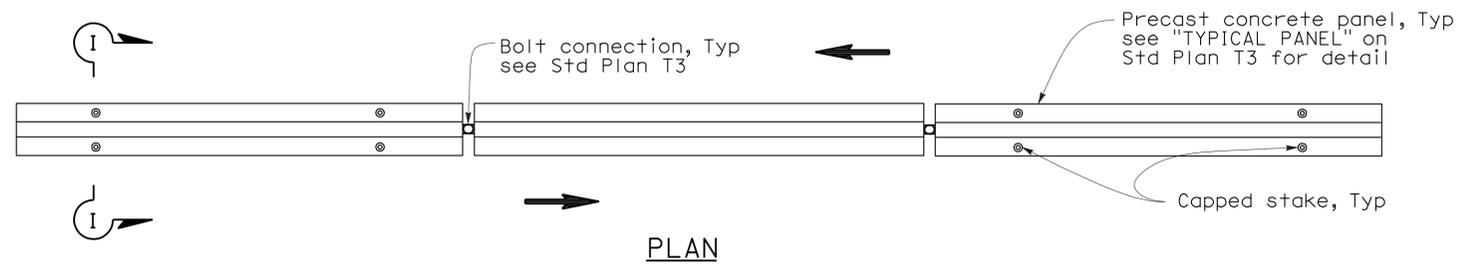
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	203	346

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

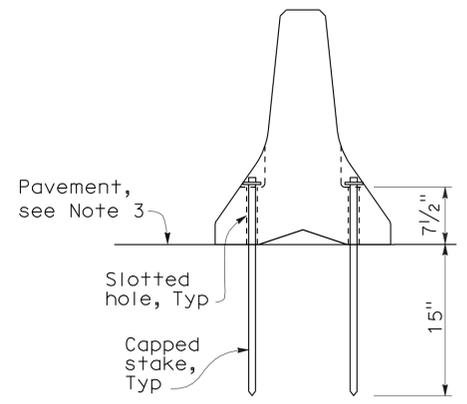
May 20, 2011
PLANS APPROVAL DATE

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To accompany plans dated 4-16-12



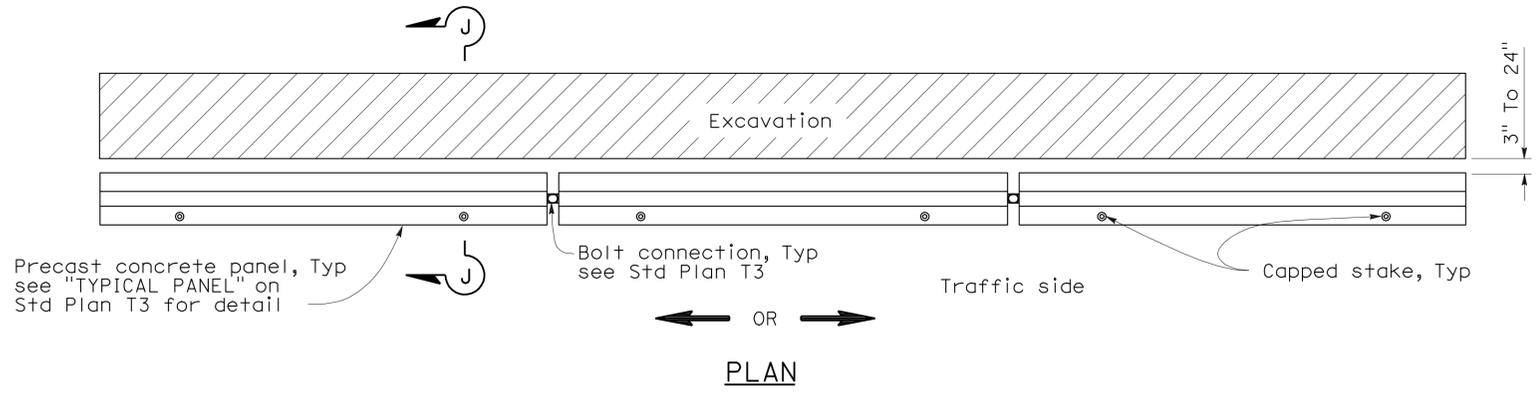
RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1



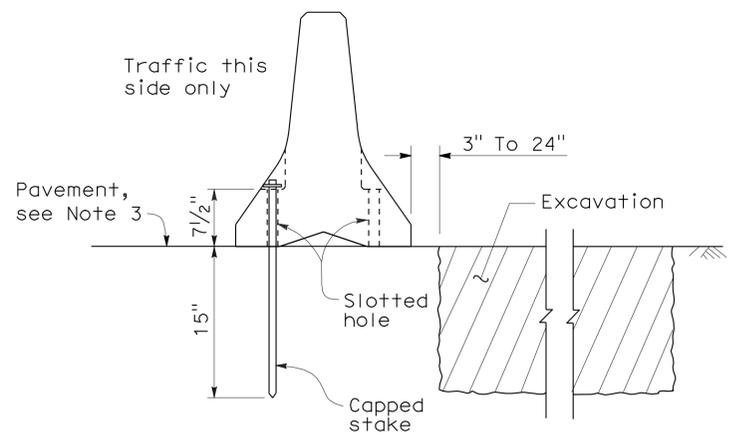
SECTION I-I

NOTES:

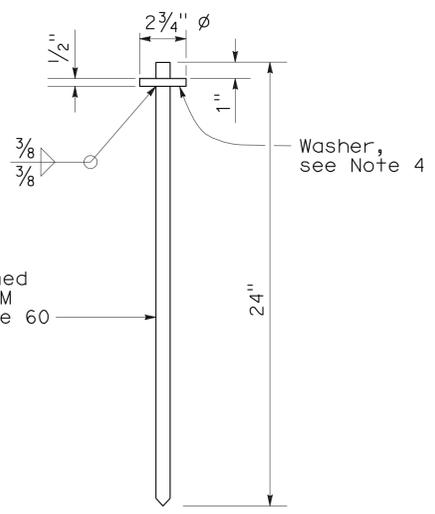
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by \Rightarrow .



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



SECTION J-J



CAPPED STAKE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY RAILING
(TYPE K)**
NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T3A

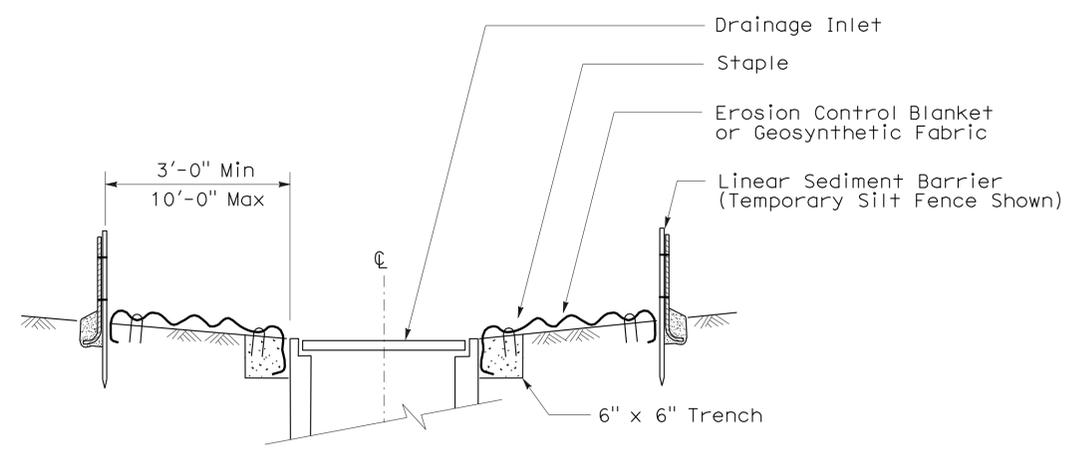
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	205	346

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE
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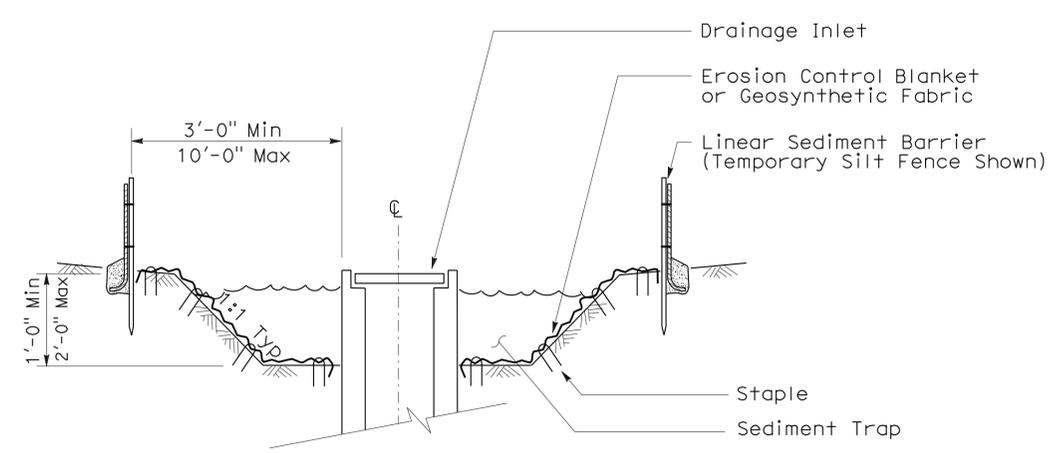


To accompany plans dated 4-16-12

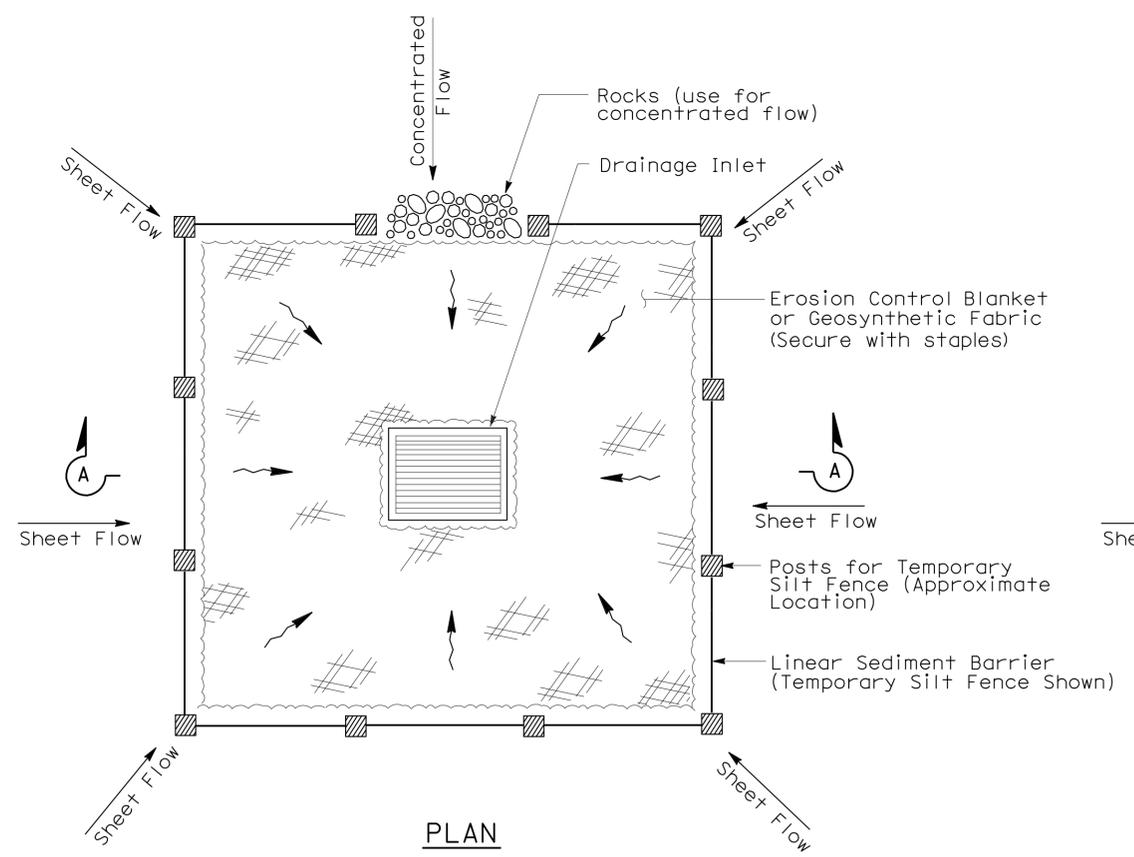
- NOTES:**
1. See Standard Plan T51 for Temporary Silt Fence.
 2. Dimensions may vary to fit field conditions.



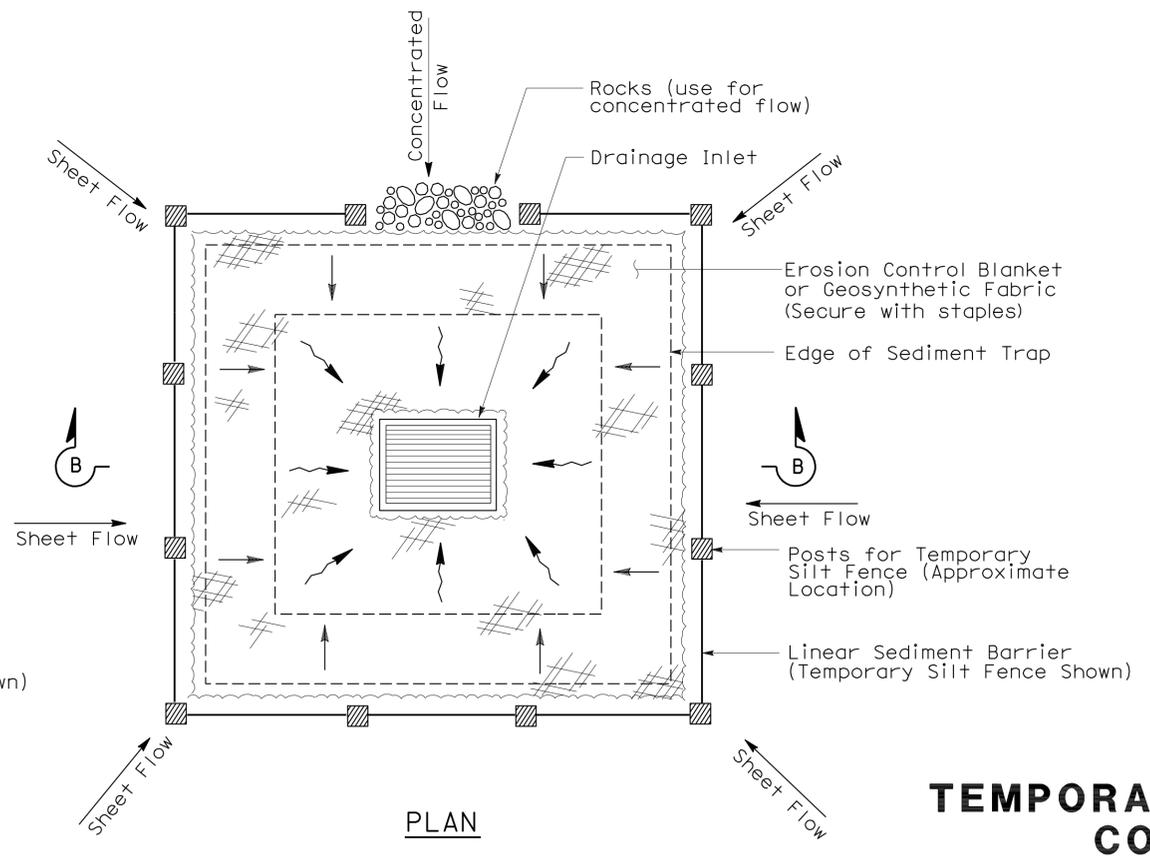
SECTION A-A



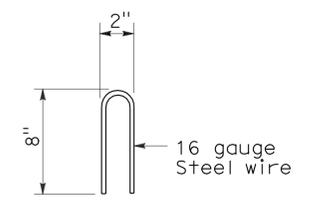
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



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



STAPLE DETAIL

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

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

2006 NEW STANDARD PLAN NSP T61

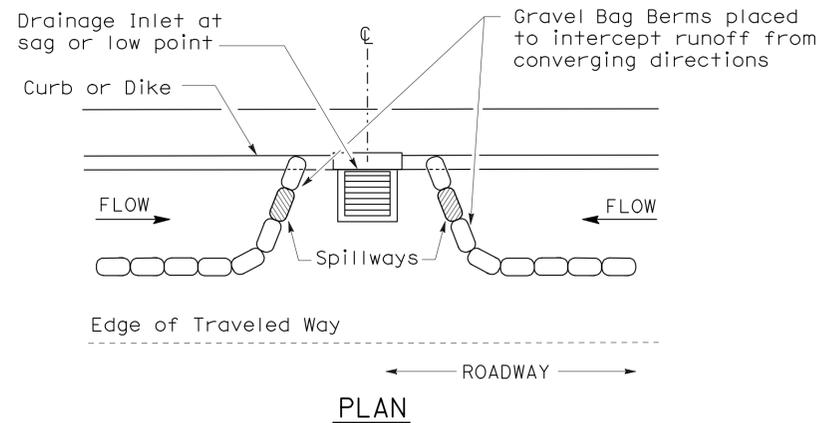


To accompany plans dated 4-16-12

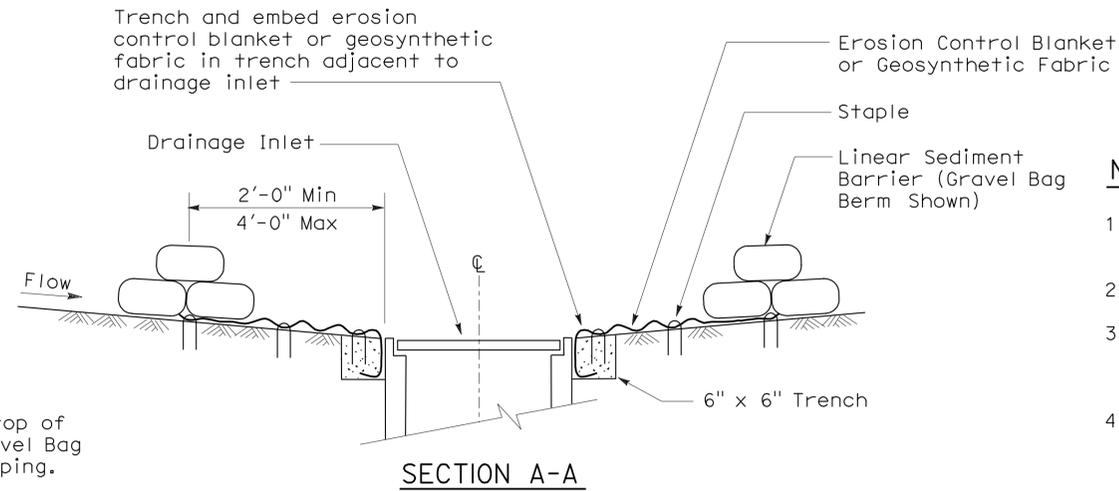
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

For slope of less than 1%, install barriers only if erosion/sediment is prevalent



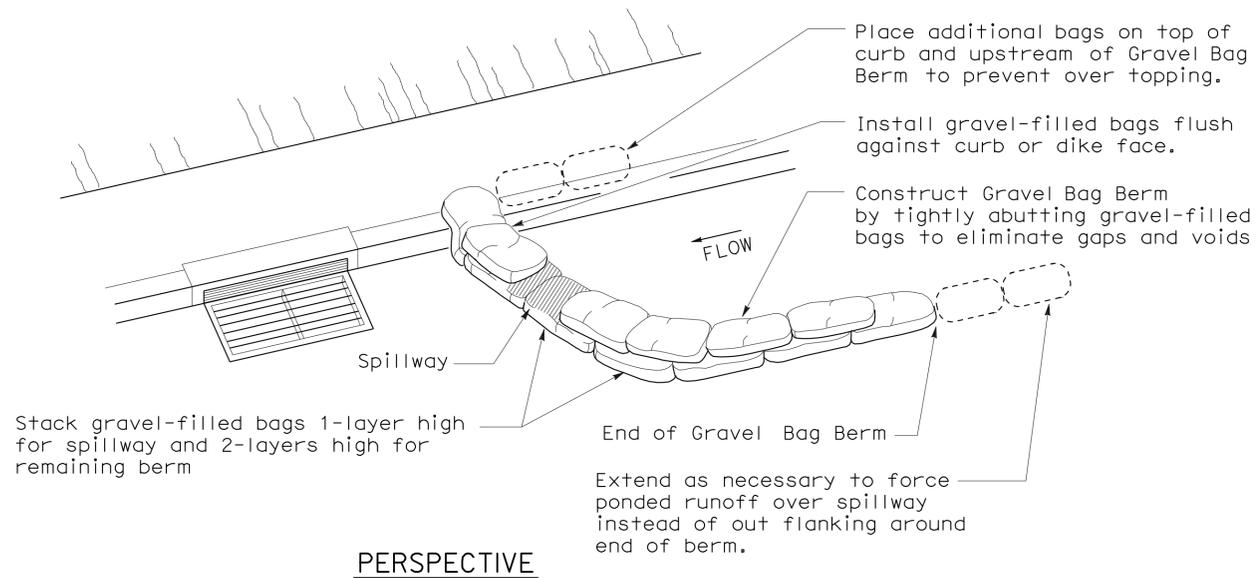
PLAN
CONFIGURATION FOR SAG POINT INLET
(GRAVEL BAG BERM)



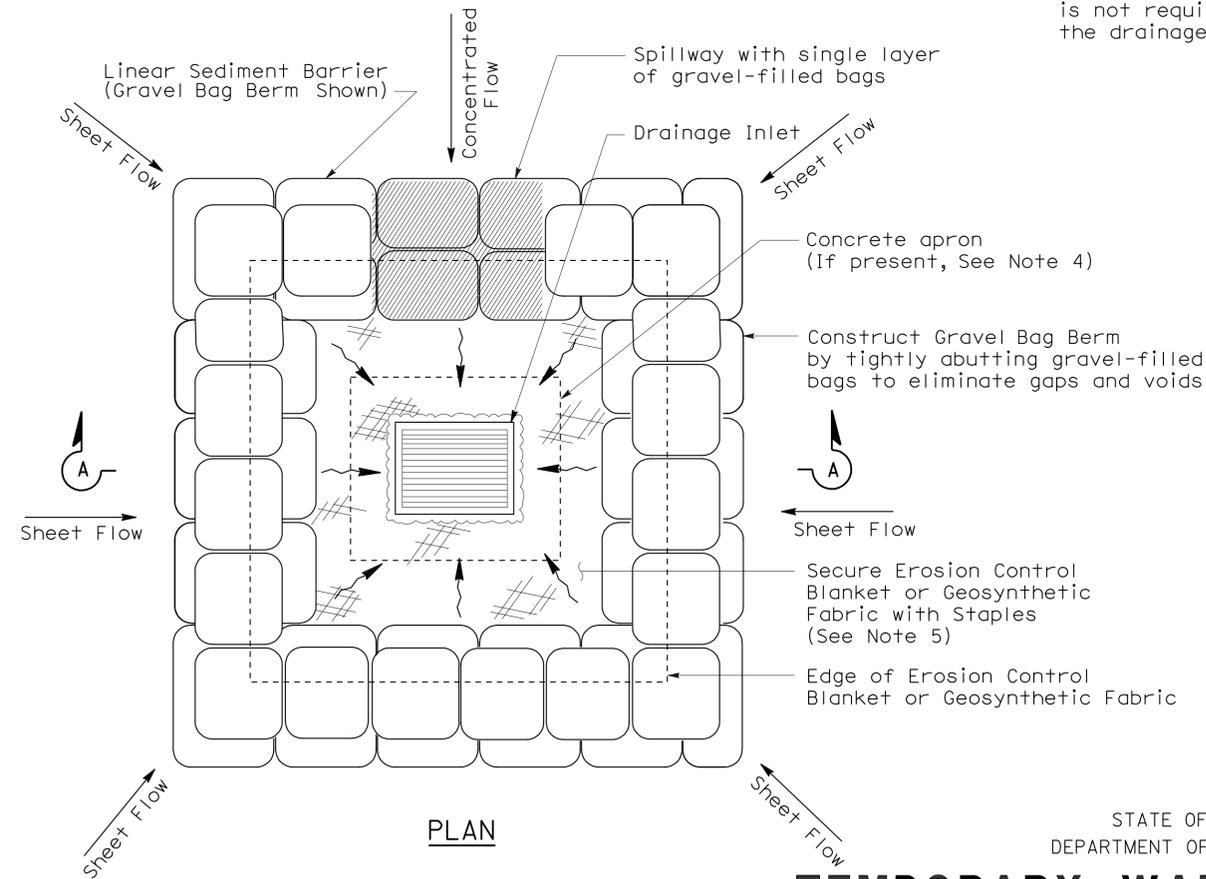
SECTION A-A

NOTES:

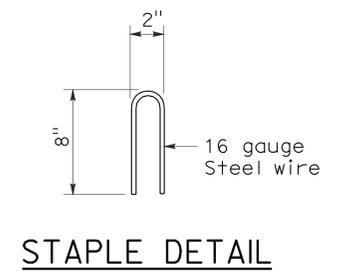
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



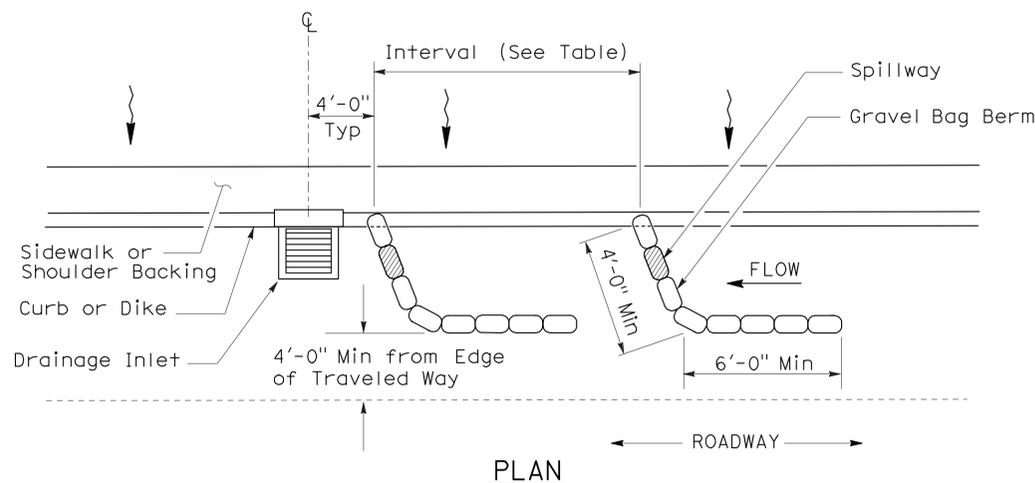
PERSPECTIVE



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)

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

2006 NEW STANDARD PLAN NSP T62

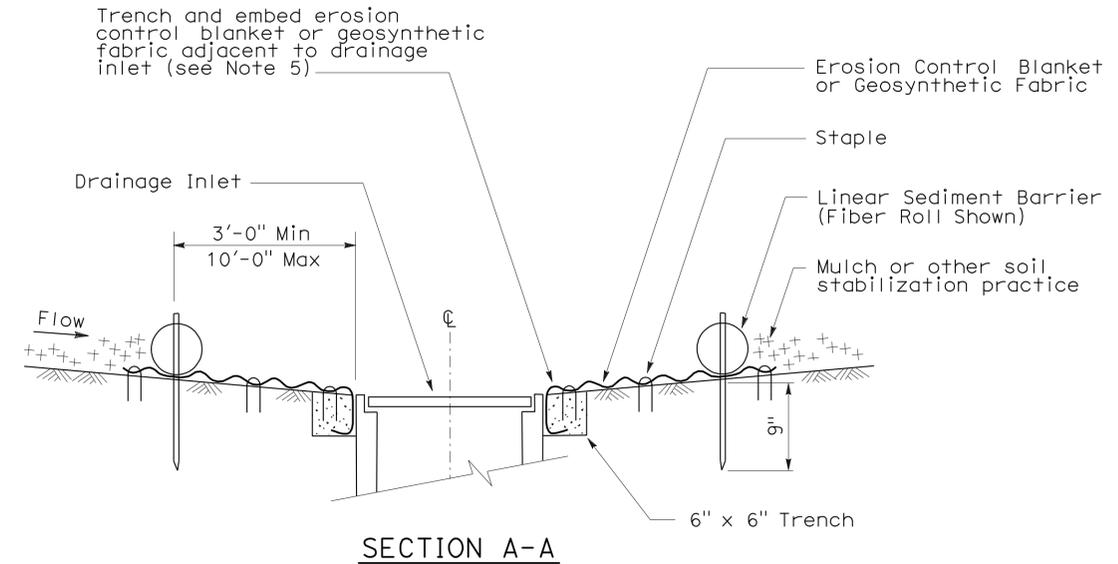
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	207	346

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

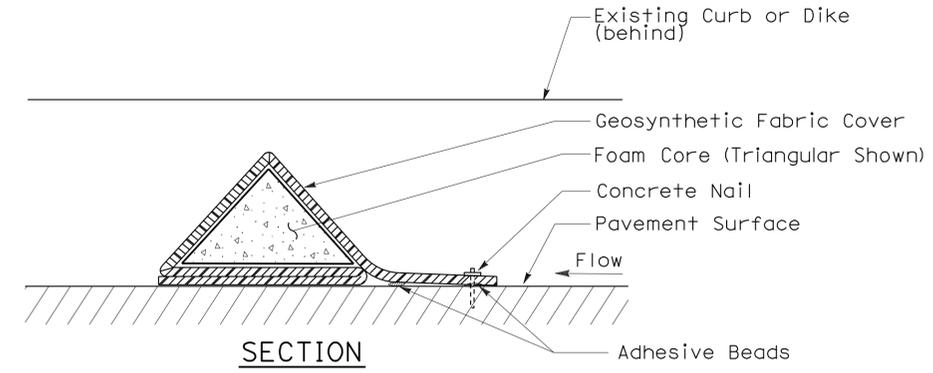
To accompany plans dated 4-16-12

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'



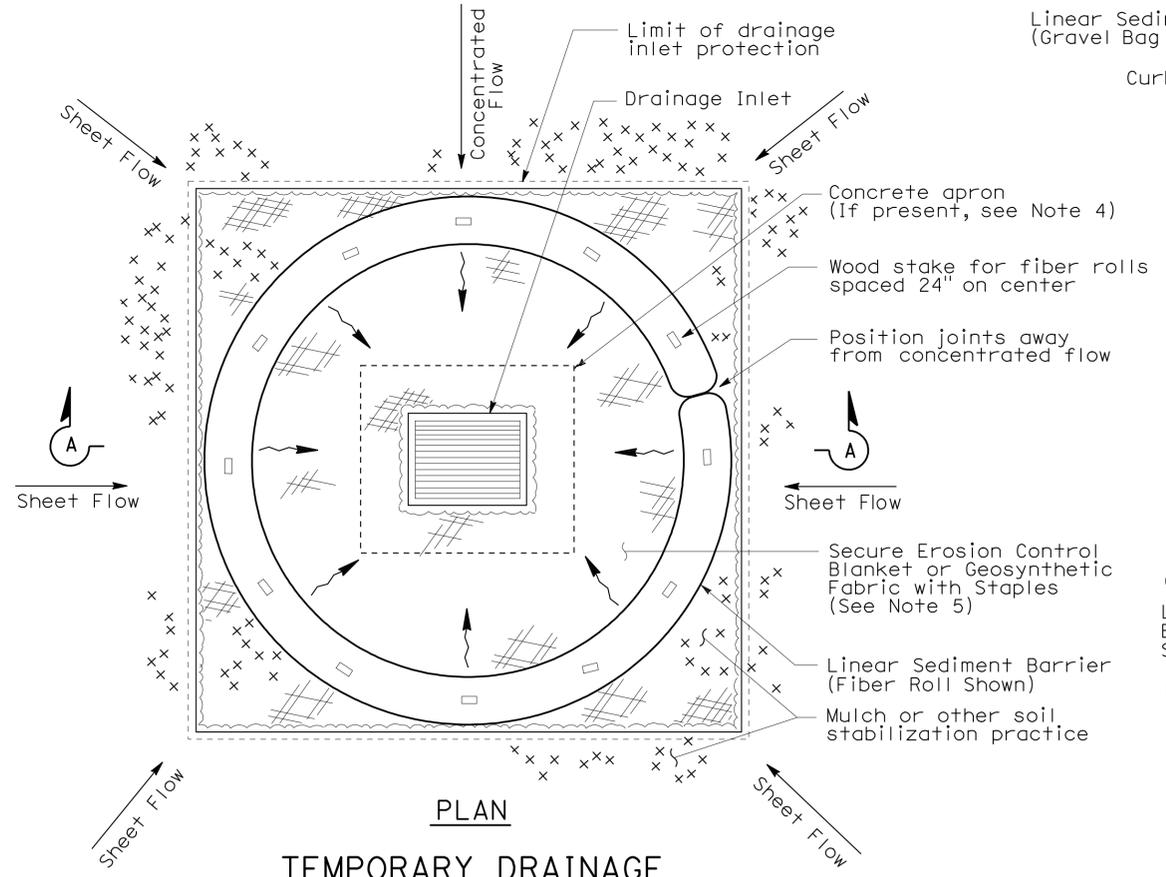
SECTION A-A



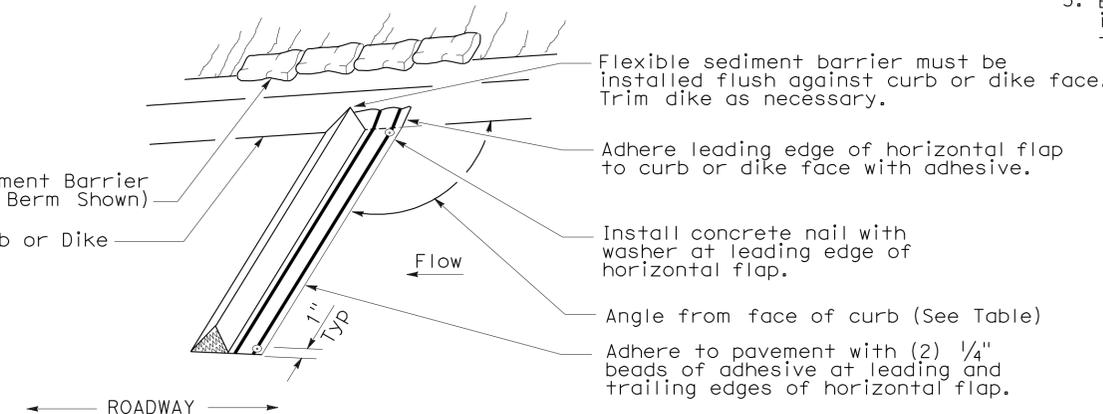
FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)

NOTES:

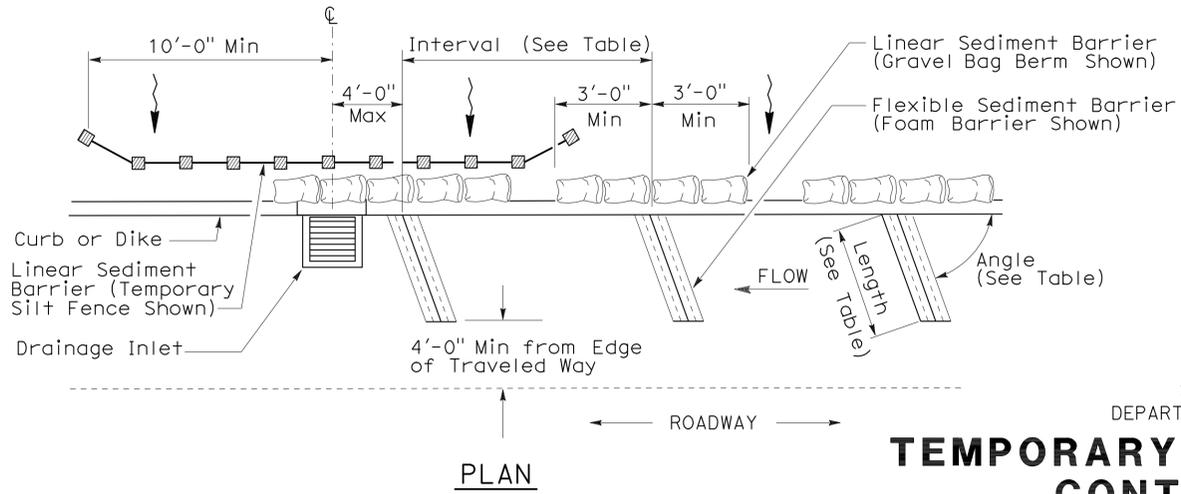
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



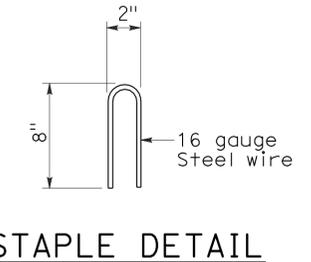
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



PERSPECTIVE



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4B) FLEXIBLE SEDIMENT BARRIER



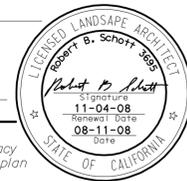
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
 NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

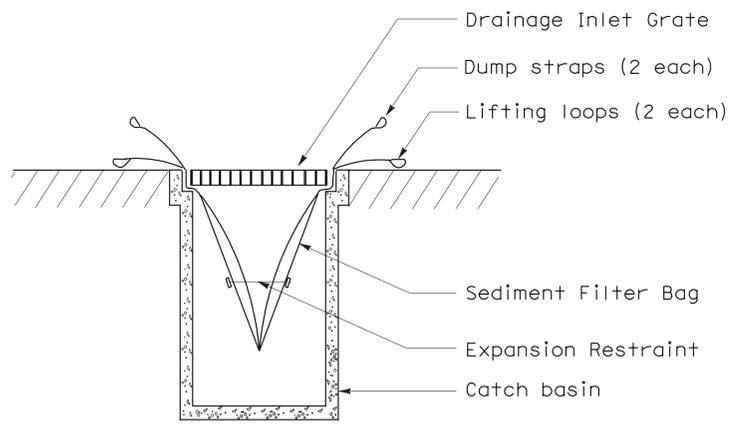
2006 NEW STANDARD PLAN NSP T63

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	208	346

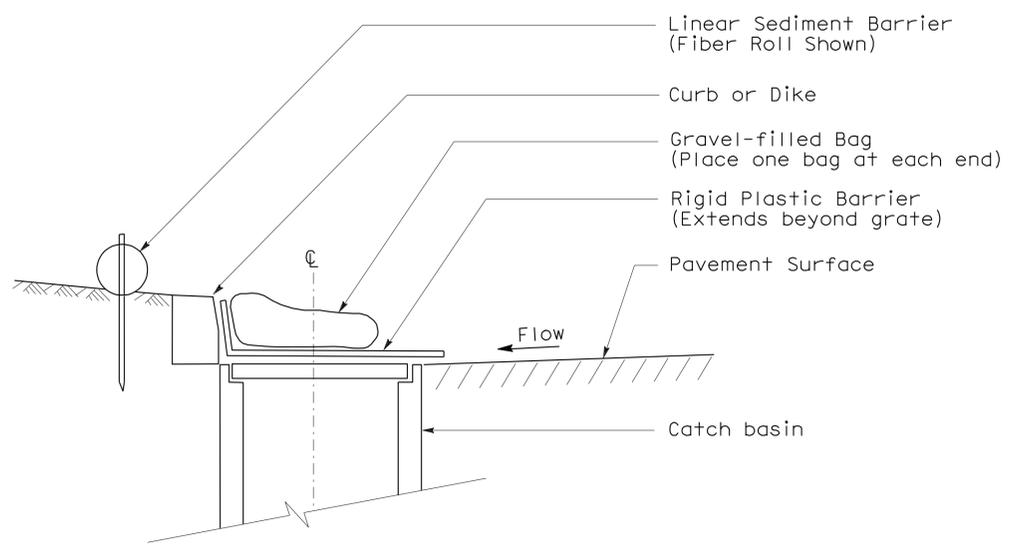
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



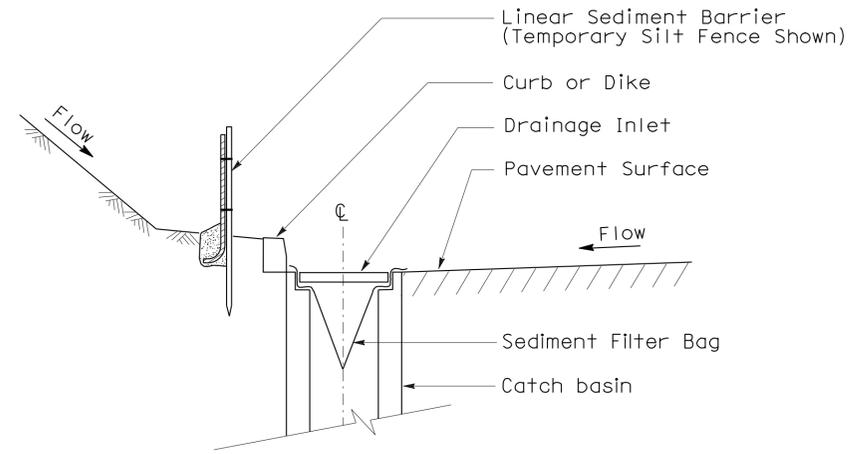
To accompany plans dated 4-16-12



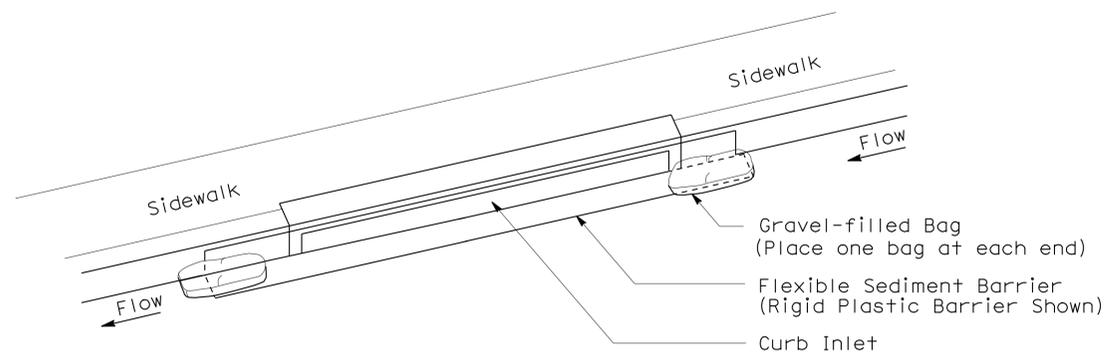
SECTION B-B
SEDIMENT FILTER BAG DETAIL



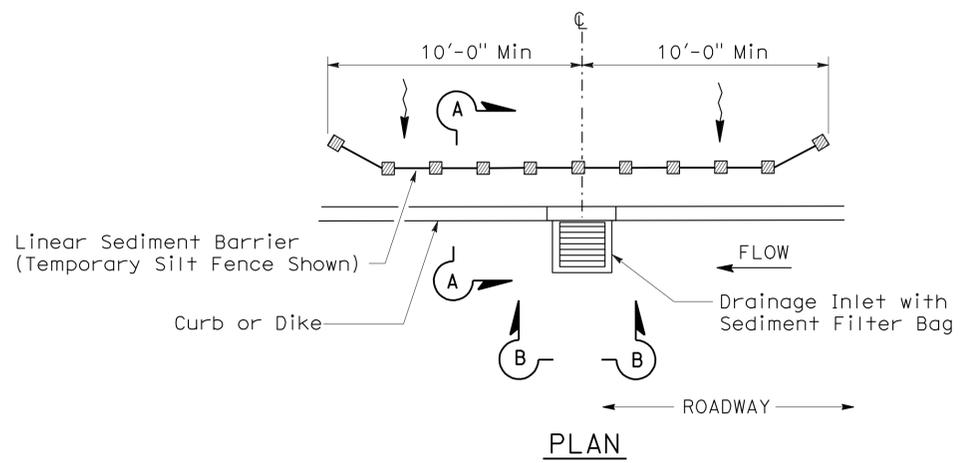
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



PERSPECTIVE
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

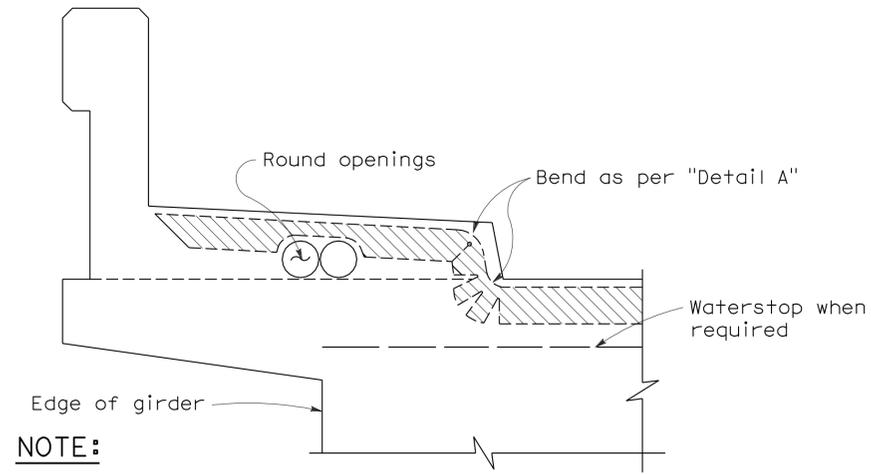
NO SCALE

NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

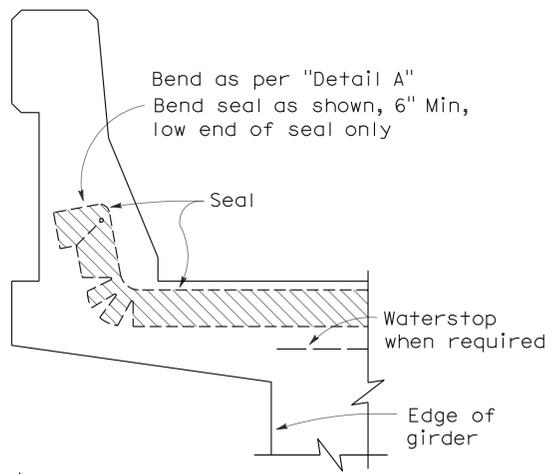
2006 NEW STANDARD PLAN NSP T64

To accompany plans dated 4-16-12

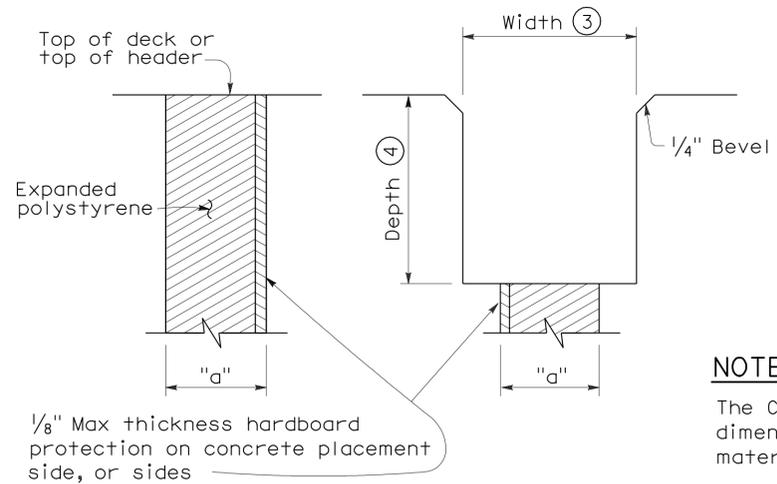


NOTE:
 Type "B" seal shown. Type "A" seals to conform to the general path of seal shown, cuts for bending not required. Bend Type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK



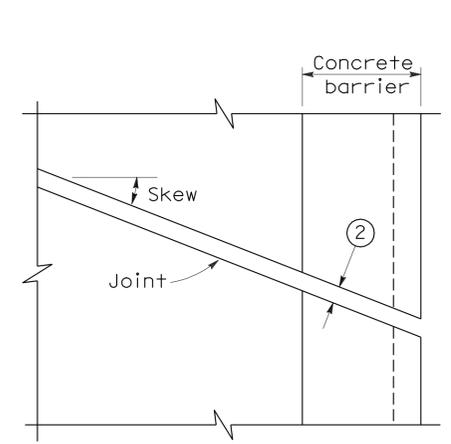
CONCRETE BARRIER



FORMING DETAIL SAWCUT DETAIL

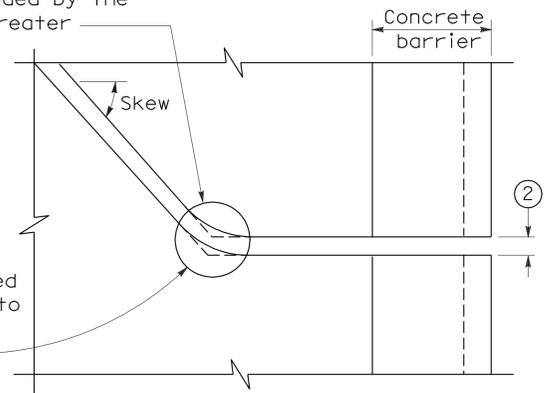
NOTE:
 The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

JOINT SEALS DETAILS



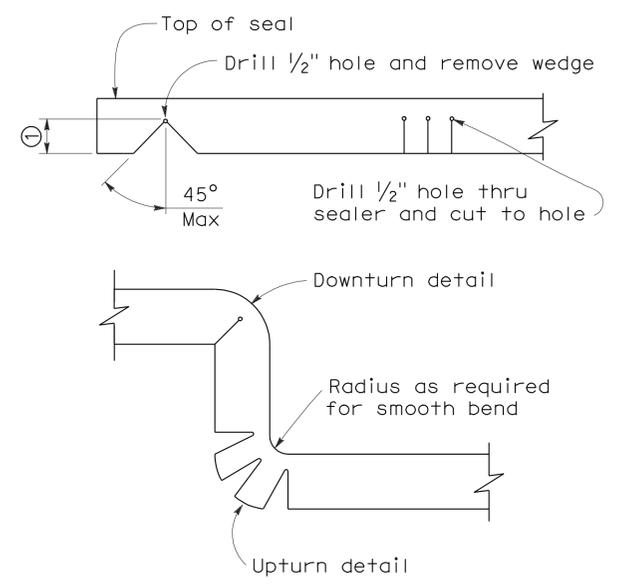
PLAN OF JOINT (SKEW ≤ 20°)

Min ϕ radius to be 4 times uncompressed width of seal or as recommended by the manufacturer, whichever is greater



PLAN OF JOINT (SKEW > 20°)

In lieu of saw cutting, this area may be blocked out and reconstructed to match saw cutting on both sides.



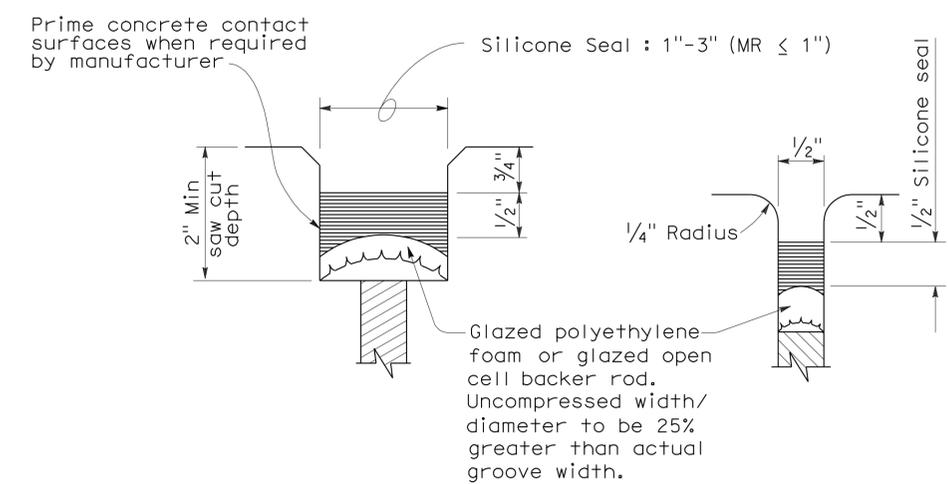
DETAIL A

- NOTES:**
- Make smooth cuts from the bottom of seal to 1 1/2" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
 - Opening in barrier to match width of sawn deck joint.
 - Sawcut groove widths shall be as ordered by the Engineer.
 - Depth of sawcut: Type A - Depth to be 2" minimum.
 Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W₂) plus dimensions shown.
 - MR (movement rating) as shown on other plan sheets.
 - Other depths must be approved by the Engineer.

DIMENSIONS "a" OF JOINT REQUIRED

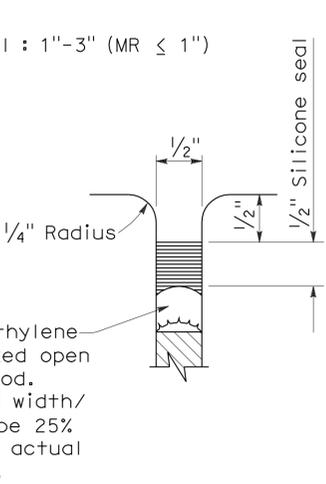
Movement Rating (MR) ⑤	Bridge Type	"a" Dimension		
		Deck Concrete Placed		
		Winter	Fall-Spring	Summer
2"	All except CIP/PS	1 1/2"	1 1/4"	3/4"
	CIP/PS	1 1/4"	1"	1/2"
1 1/2"	All except CIP/PS	1 1/4"	1"	1/2"
	CIP/PS	1"	3/4"	1/2"
1"	All except CIP/PS	1"	3/4"	1/2"
	CIP/PS	3/4"	1/2"	1/2"
1/2"	All except CIP/PS	3/4"	3/4"	1/2"
	CIP/PS	1/2"	1/2"	1/2"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
JOINT SEALS
(MAXIMUM MOVEMENT RATING = 2")
 NO SCALE



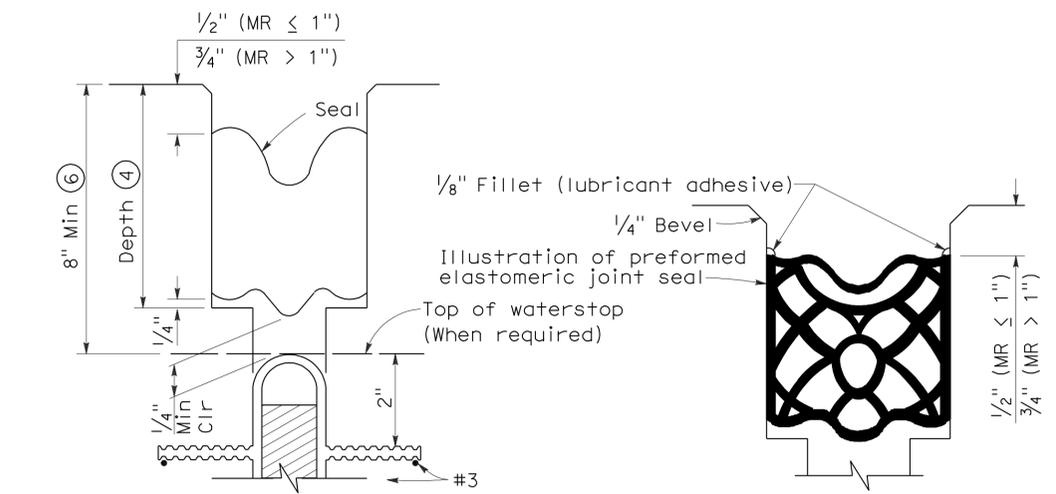
TYPE A SEAL

Movement rating : Silicone = 1" Max



TYPE AL SEAL

Longitudinal joints only



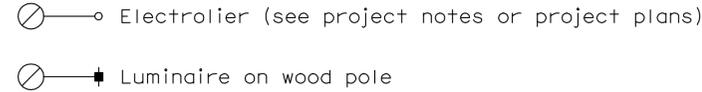
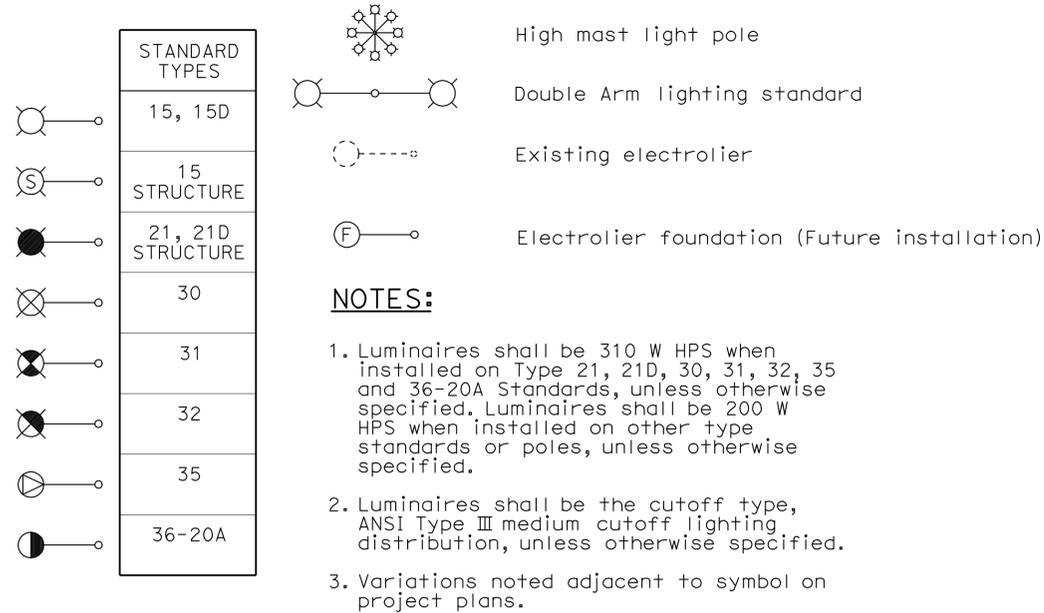
TYPE B JOINT SEAL IN MINIMUM WIDTH POSITION (W₂)

TYPE B SEAL

Movement Rating ≤ 2"

RSP B6-21 DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN B6-21 DATED MAY 1, 2006 - PAGE 258 OF THE STANDARD PLANS BOOK DATED MAY 2006.

ELECTROLIERS



STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	210	346

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

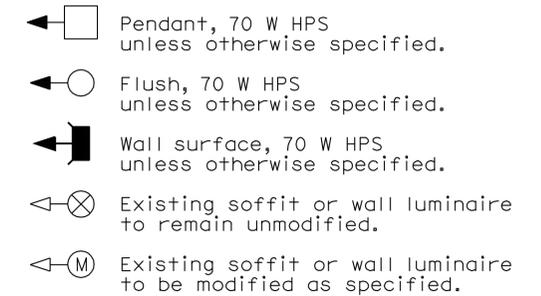
October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 4-16-12

SOFFIT AND WALL MOUNTED LUMINAIRES



NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	211	346

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 No. E14512
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To accompany plans dated 4-16-12

CONDUIT

PROPOSED	EXISTING	
		Lighting Conduit, unless otherwise indicated or noted
		Traffic signal conduit
		Communication conduit
		Telephone conduit
		Fire alarm conduit
		Fiber optic conduit
		Conduit termination
		Conduit riser in/on structure or service pole

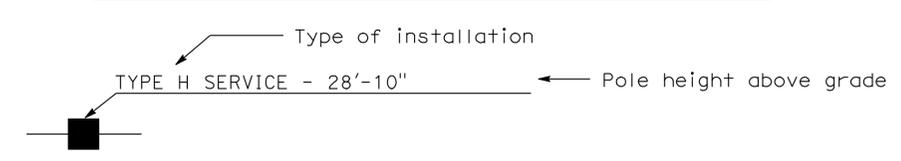
SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" indicates all non-arrow sections louvered "LG" indicates louvered green section only "PV" indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SERVICE EQUIPMENT

PROPOSED	EXISTING	
		Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SYMBOLS AND ABBREVIATIONS)**
 NO SCALE

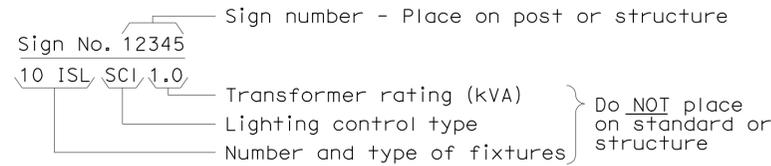
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

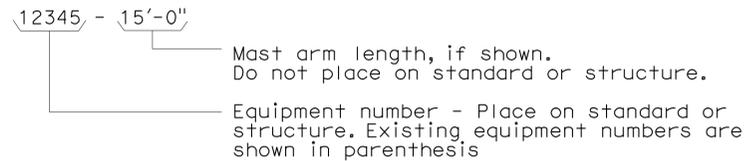
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

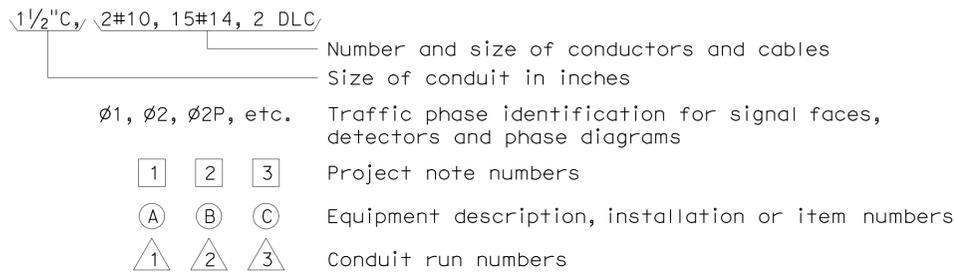
ILLUMINATED SIGN IDENTIFICATION NUMBER:



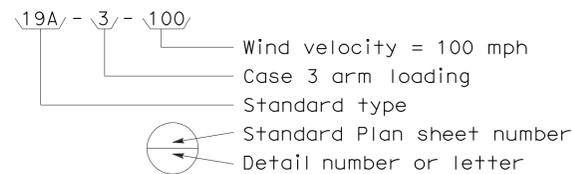
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



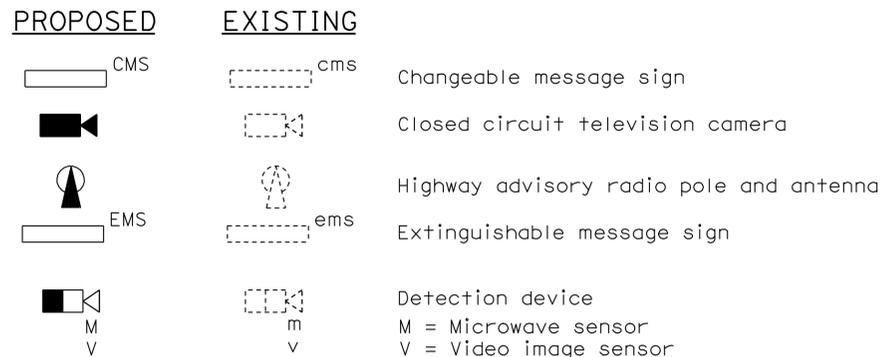
CONDUIT AND CONDUCTOR IDENTIFICATION:



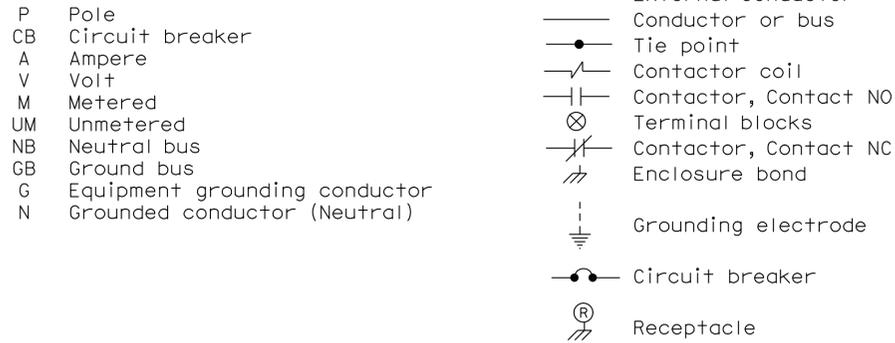
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



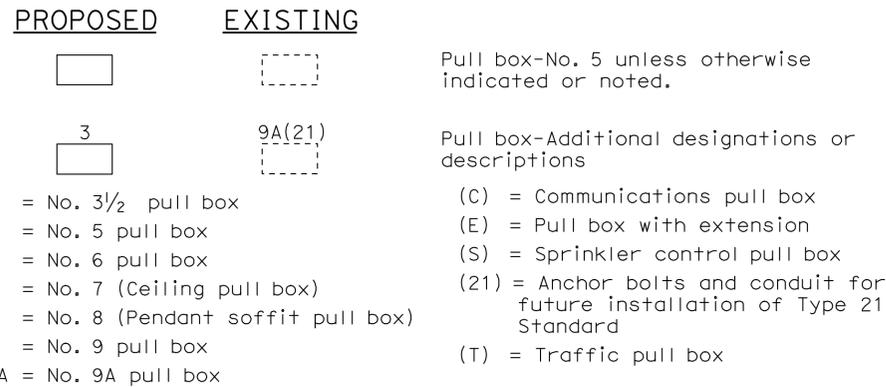
MISCELLANEOUS EQUIPMENT



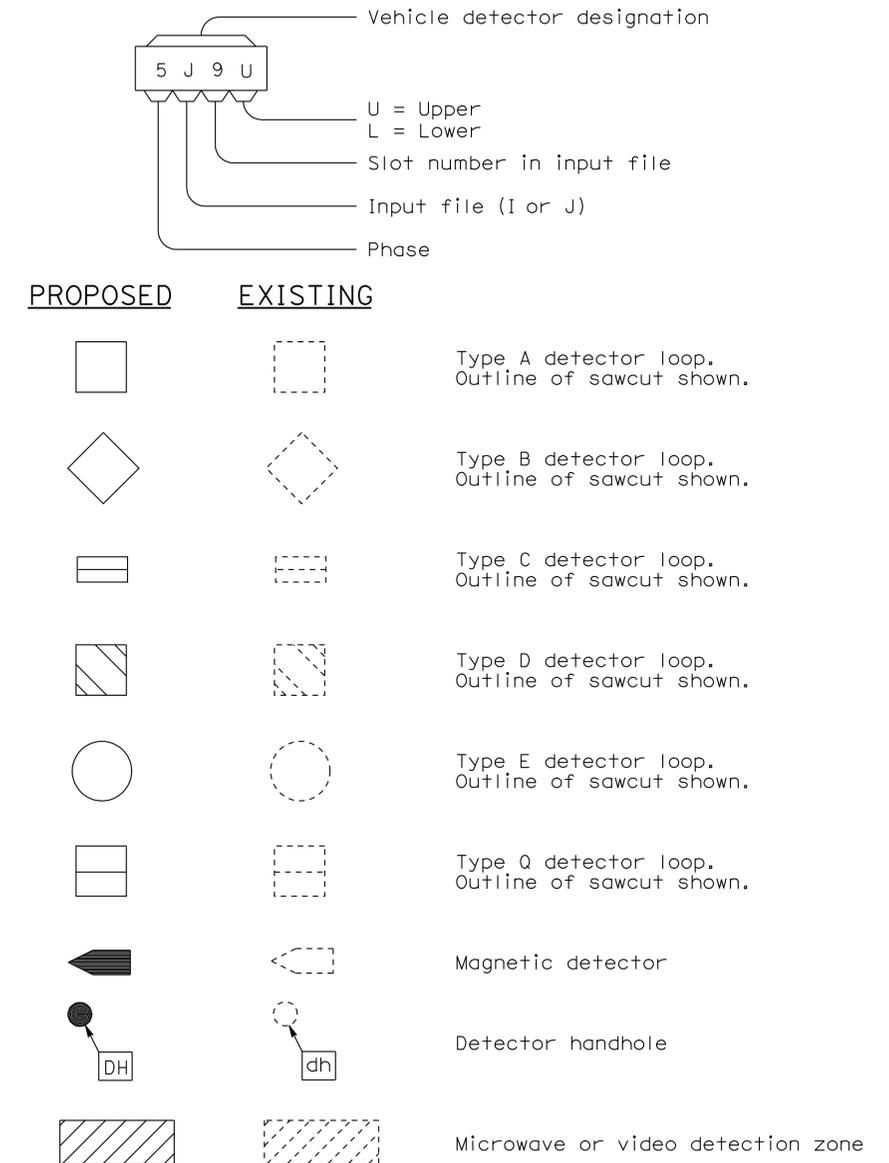
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
 DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	213	346

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER

October 5, 2007
 PLANS APPROVAL DATE

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

NOTES-TYPE III SERVICE EQUIPMENT ENCLOSURES:

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

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

To accompany plans dated 4-16-12

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

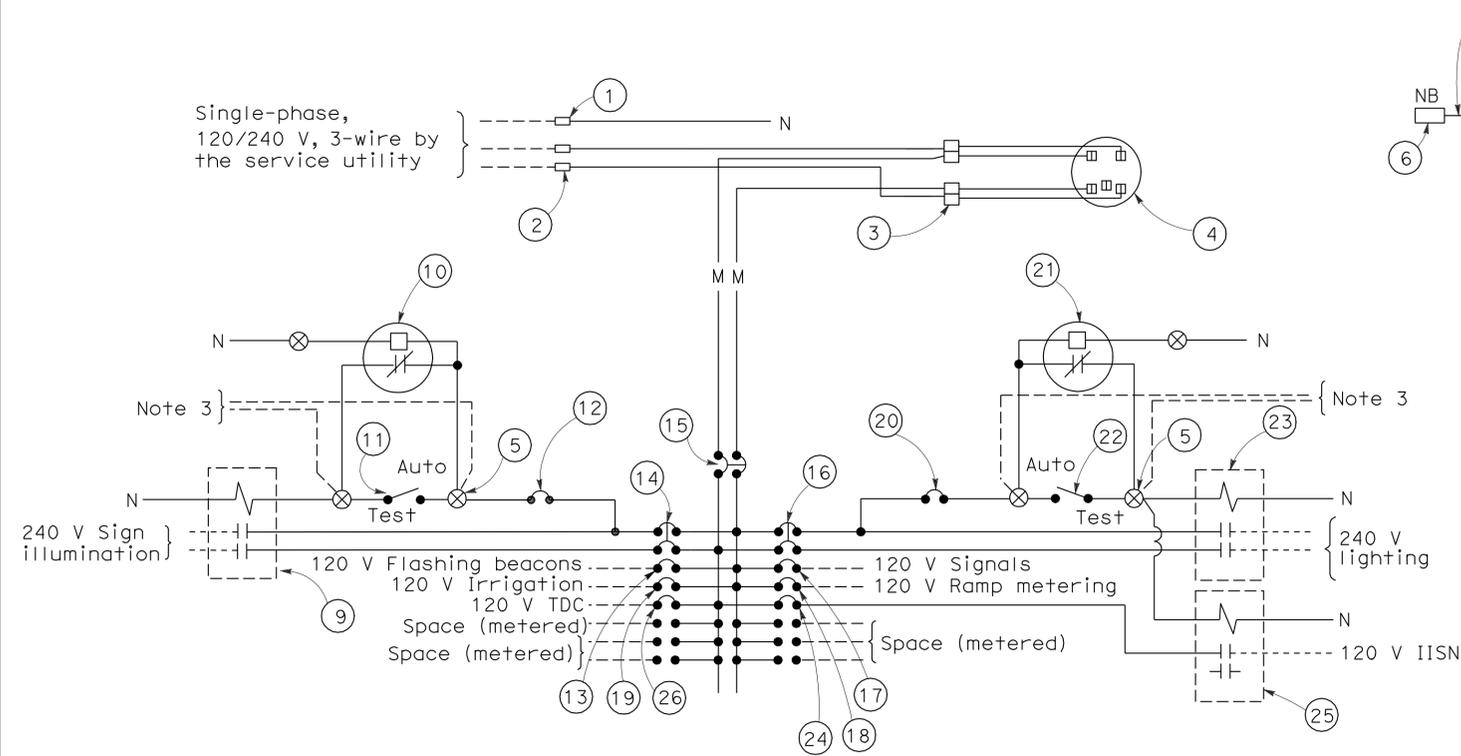
**ELECTRICAL SYSTEMS
 (SERVICE EQUIPMENT NOTES
 TYPE III SERIES)**

NO SCALE

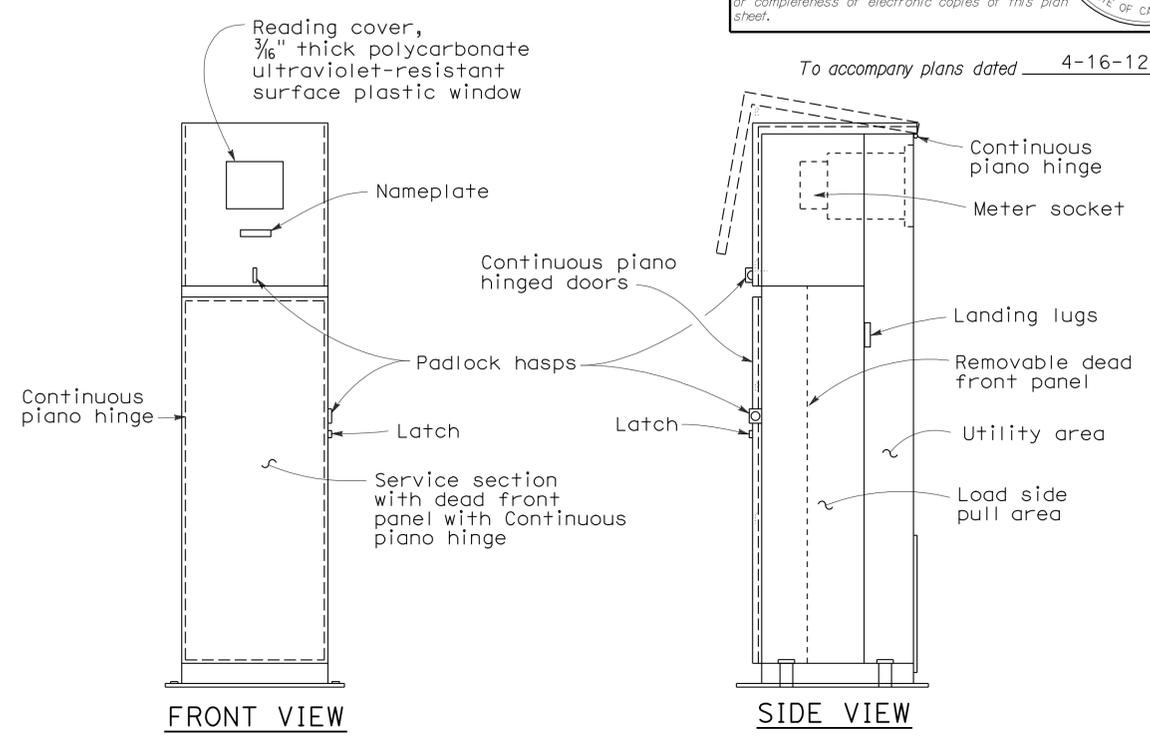
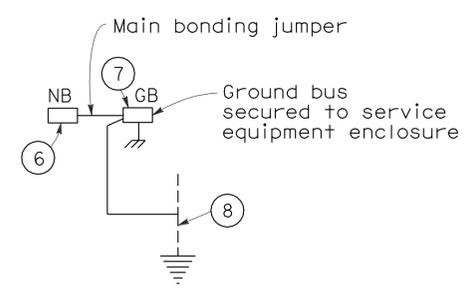
RSP ES-2C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2C
 DATED MAY 1, 2006 - PAGE 405 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-2C

2006 REVISED STANDARD PLAN RSP ES-2C



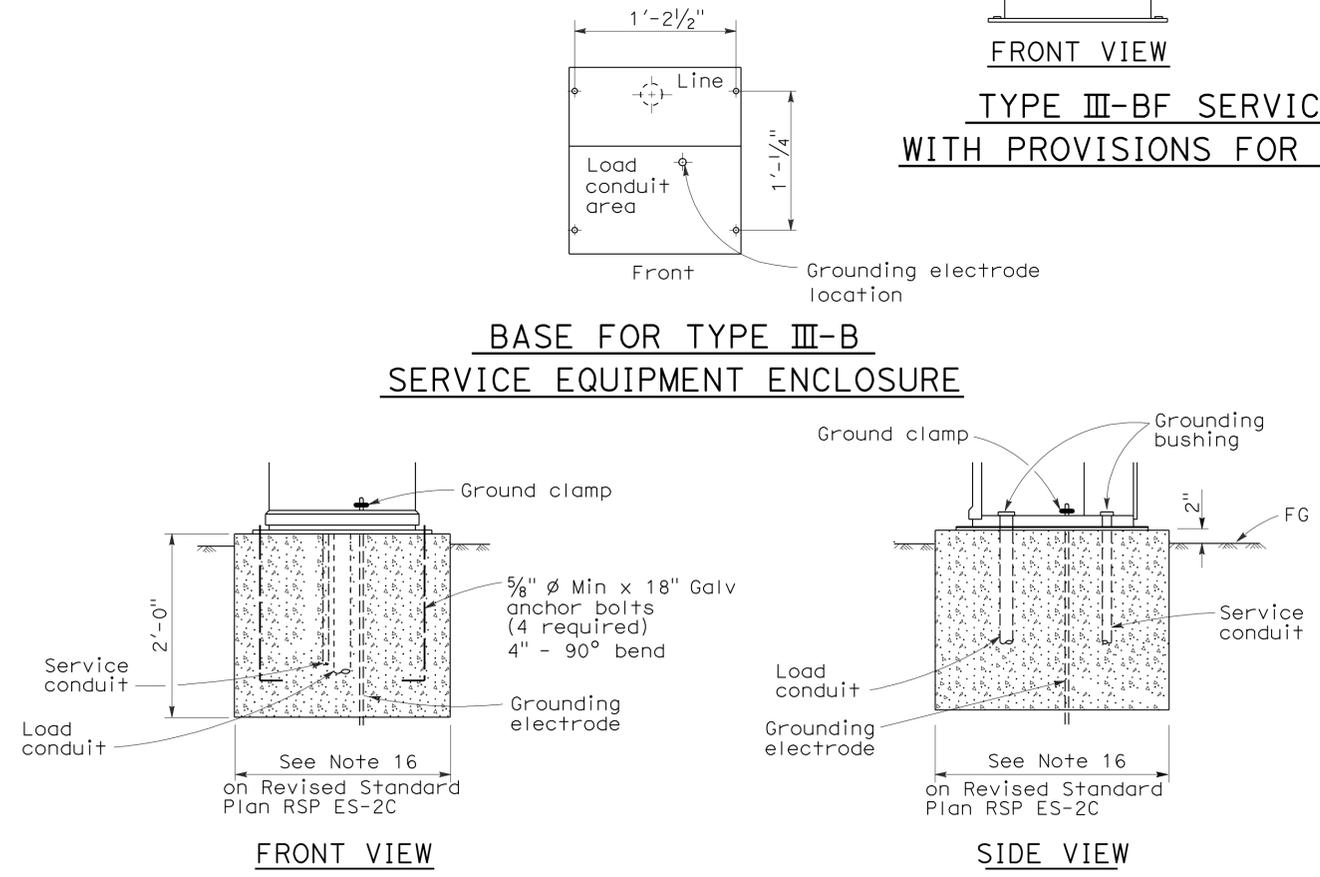
120/240 V SERVICE WIRING DIAGRAM (TYPICAL)



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

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

BASE FOR TYPE III-B SERVICE EQUIPMENT ENCLOSURE



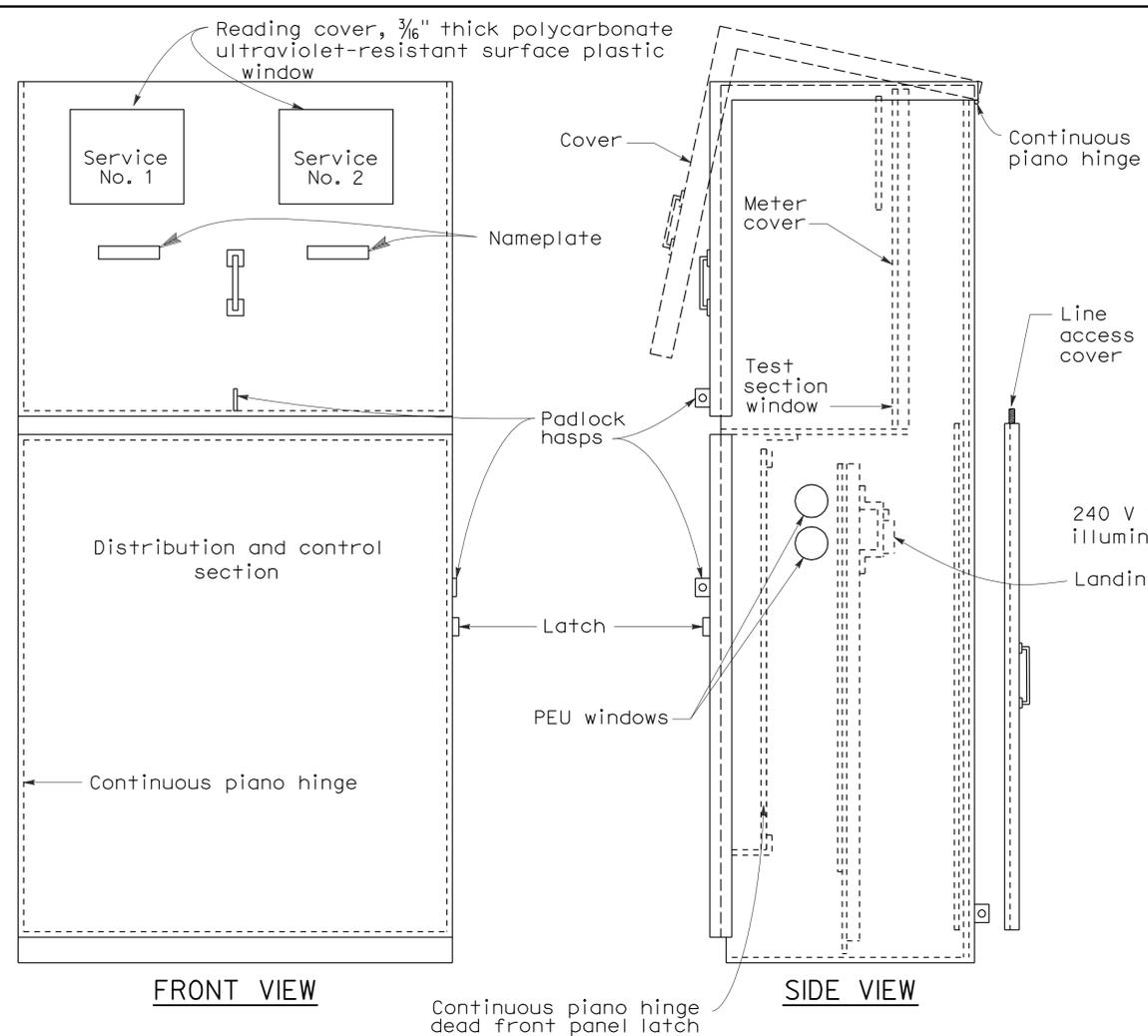
TYPE III-B SERVICE EQUIPMENT ENCLOSURE FOUNDATION DETAILS

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

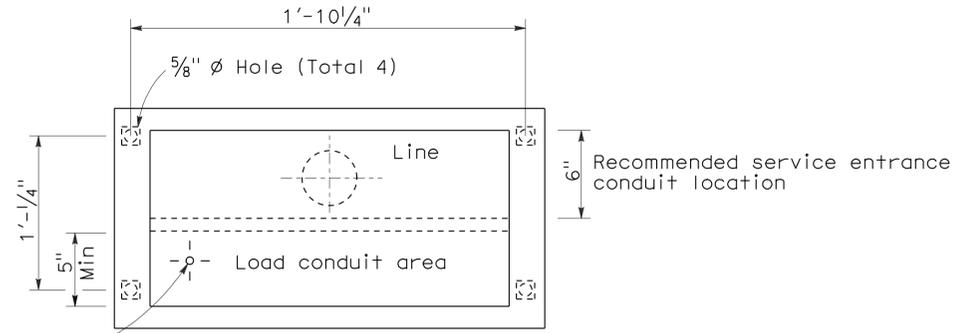
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SERVICE EQUIPMENT AND
 TYPICAL WIRING DIAGRAM,
 TYPE III-B SERIES)**
 NO SCALE

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

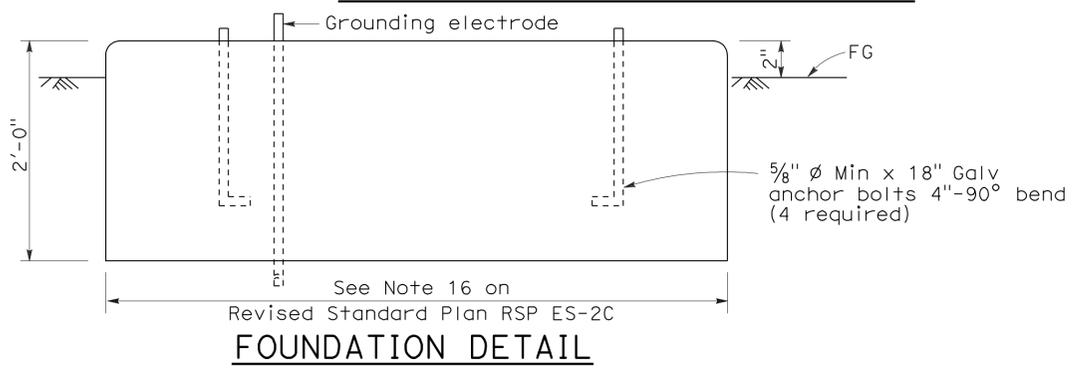
2006 REVISED STANDARD PLAN RSP ES-2E



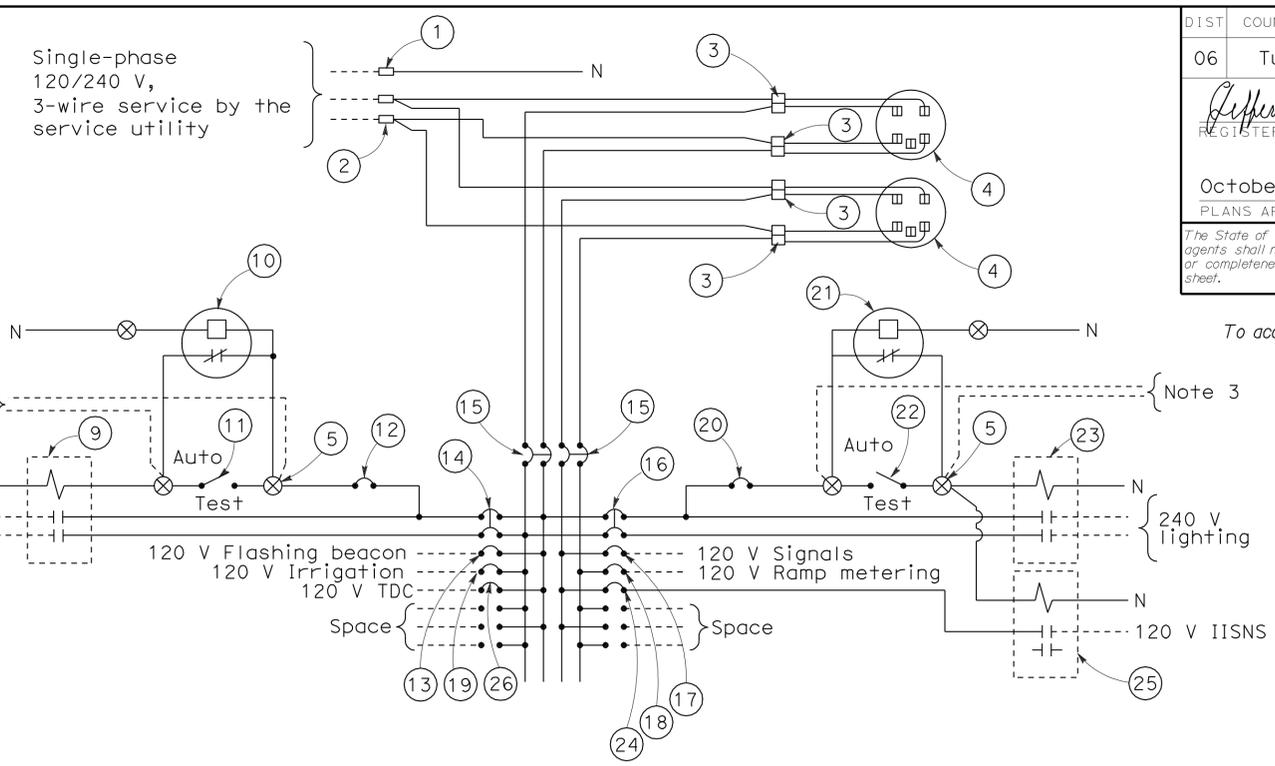
TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH PROVISIONS FOR TWO 100 A METERS (TYPICAL)



BASE FOR TYPE III-C SERVICE EQUIPMENT ENCLOSURE



FOUNDATION DETAIL



120/240 V SERVICE WIRING DIAGRAM (TYPICAL)

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

NOTES: (FOR SERVICE EQUIPMENT ENCLOSURE)

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

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

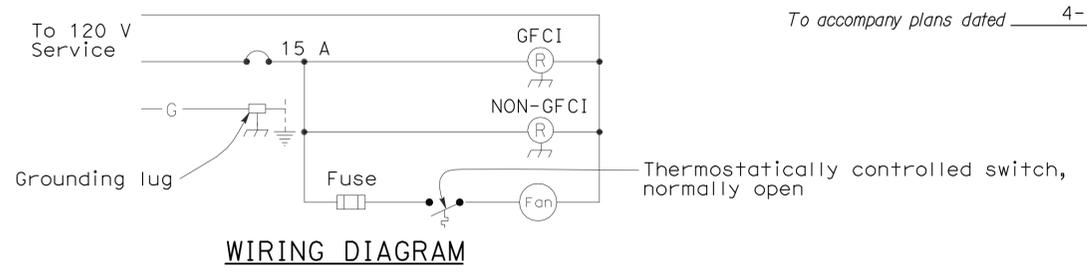
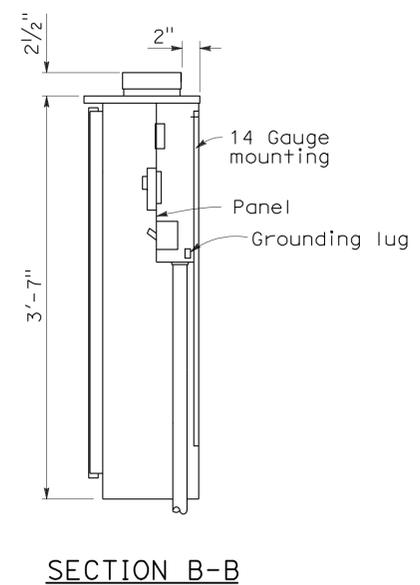
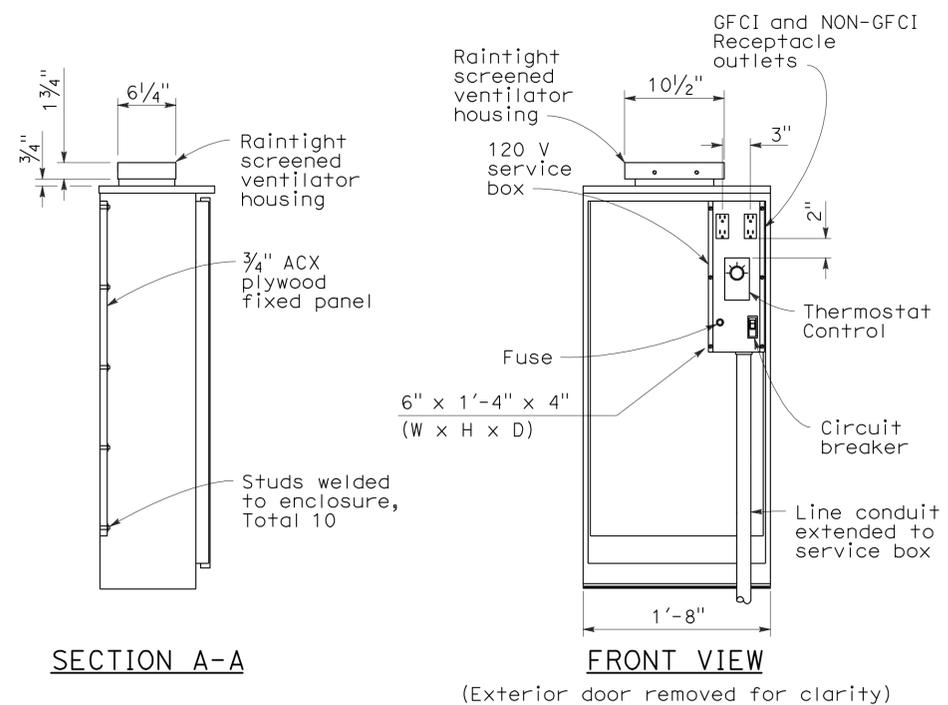
RSP ES-2F DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2F DATED MAY 1, 2006 - PAGE 408 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-2F

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	216	346

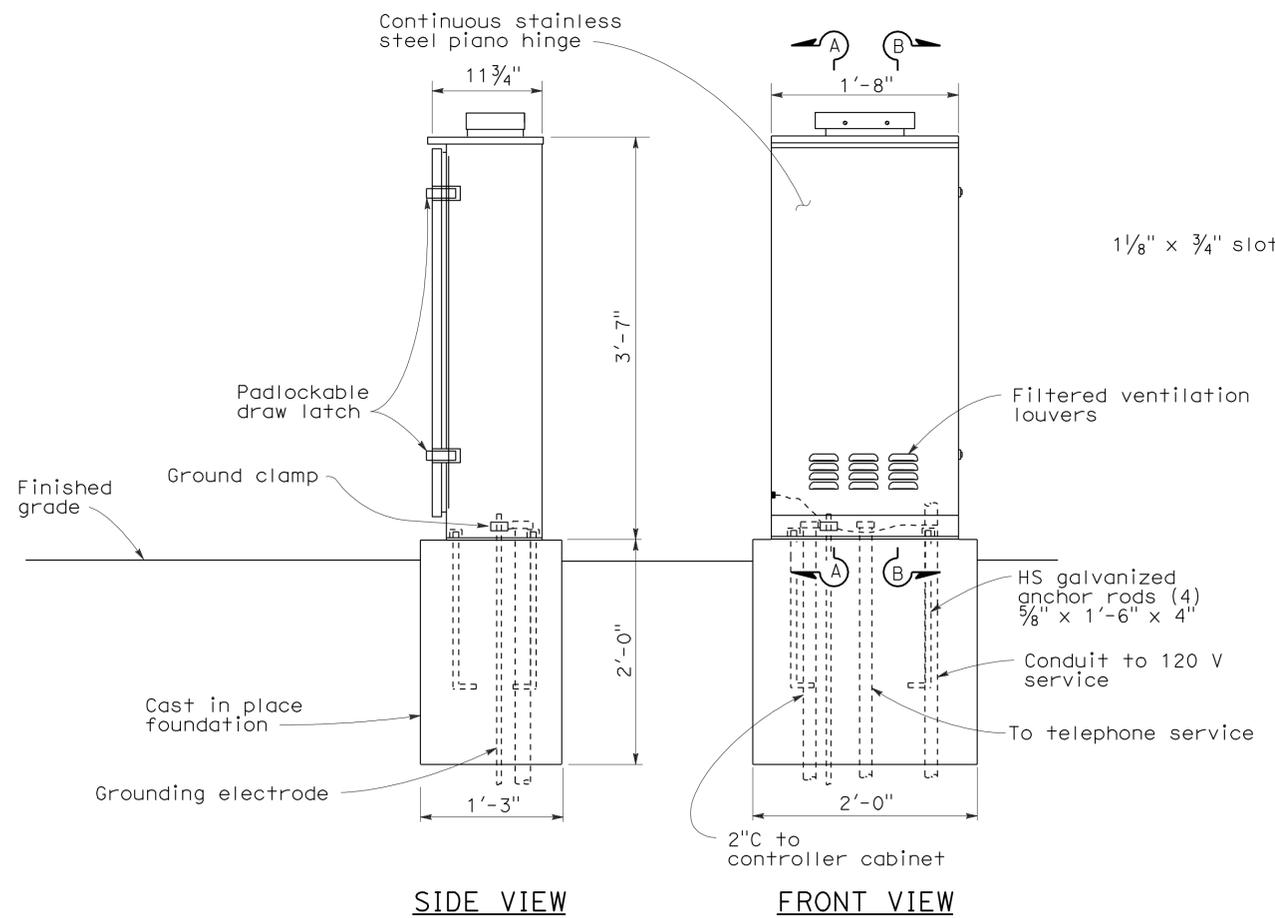
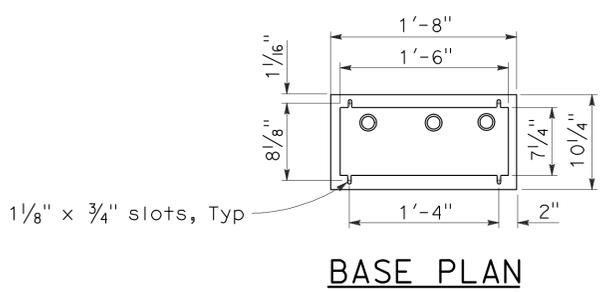
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA



NOTES:

- Telephone demarcation cabinet shall be furnished with a mounting panel, outlets, circuit breaker and deadfront plates in place. Dimensions are nominal.
- An approved mastic or caulking compound shall be placed on the foundation prior to placing the cabinet to seal openings between the bottom of the cabinet and the foundation.
- In unpaved areas, a raised PCC pad shall be placed in front of the telephone demarcation cabinet. Pad shall be 2'-0" x 1'-10" x 4" thick, with 2" above the finished grade.
- All conduits shall be bonded to the enclosure.
- Telephone demarcation cabinet:
 - Material shall be anodized aluminum (1/8" thick).
 - Fabrication shall conform to the requirements of the Standard Specifications.
 - The exterior door shall be side hung and secured with a padlockable draw latch, the padlock hole shall be a minimum diameter of 7/16" to receive a padlock.
 - Ventilation louvers shall be located on the door.
 - Fan shall be mounted in a ventilator housing.
 - Fan shall be thermostatically controlled and adjustable to turn on between 80°F and 130°F.
 - Fan circuit shall be fused at 175 percent of the fan motor capacity.
 - Fan capacity shall be at least 25 cubic feet per minute.
 - Fasten fixed mounting panels with nuts, lock and flat washers to 3/16" ø x 1" studs welded to enclosure.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(TELEPHONE DEMARICATION
CABINET, TYPE B)**

NO SCALE

RSP ES-3E DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-3E
DATED MAY 1, 2006 - PAGE 414 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-3E

2006 REVISED STANDARD PLAN RSP ES-3E

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	217	346

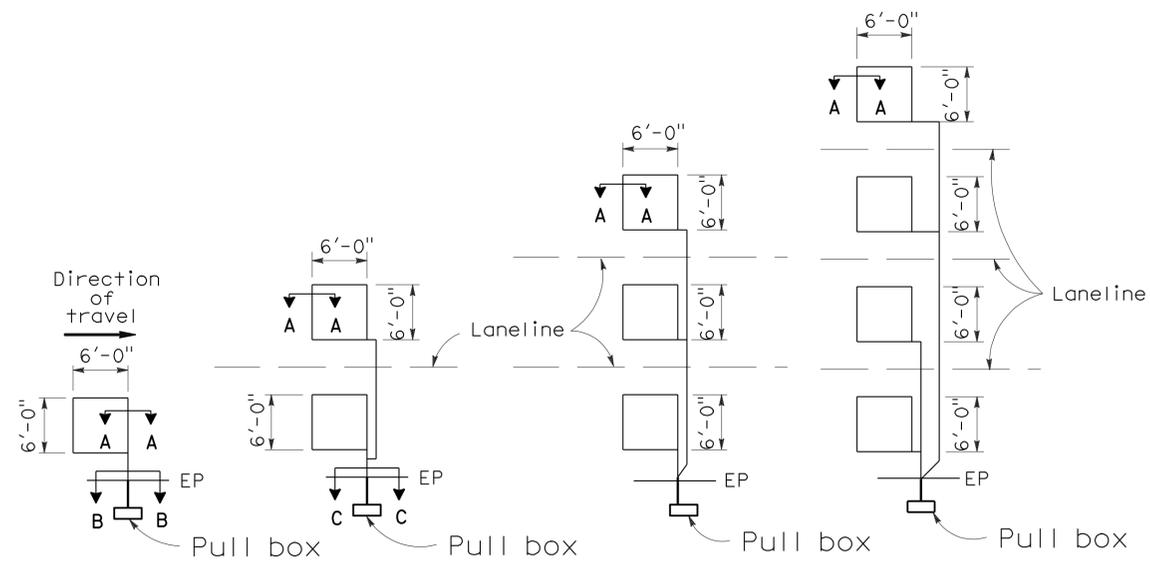
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 PLANS APPROVAL DATE

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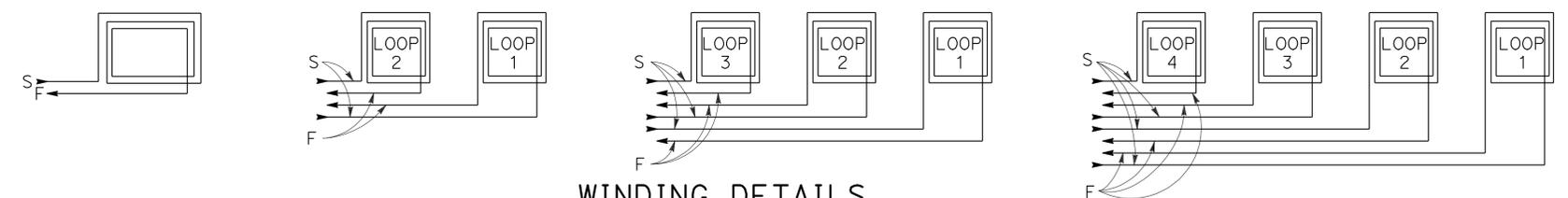
LOOP INSTALLATION PROCEDURE

- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
- Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.



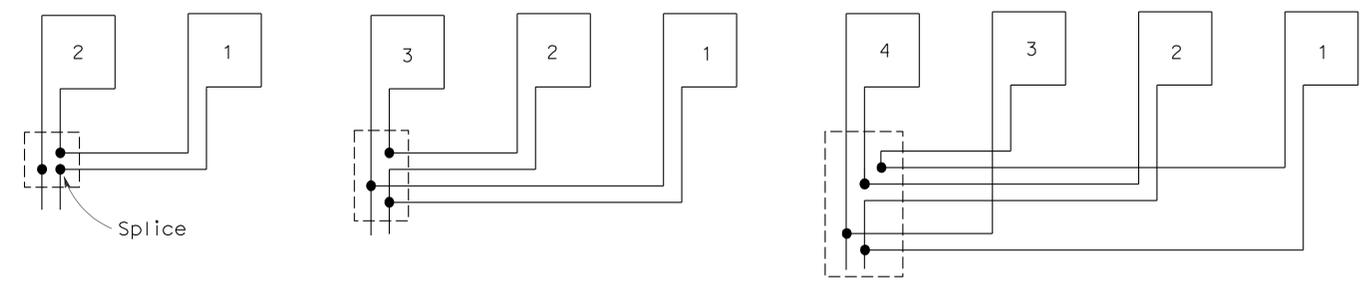
TYPE 1A INSTALLATION TYPE 2A INSTALLATION TYPE 3A INSTALLATION TYPE 4A INSTALLATION
SAWCUT DETAILS
 (Type A loop detector configurations illustrated)

- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



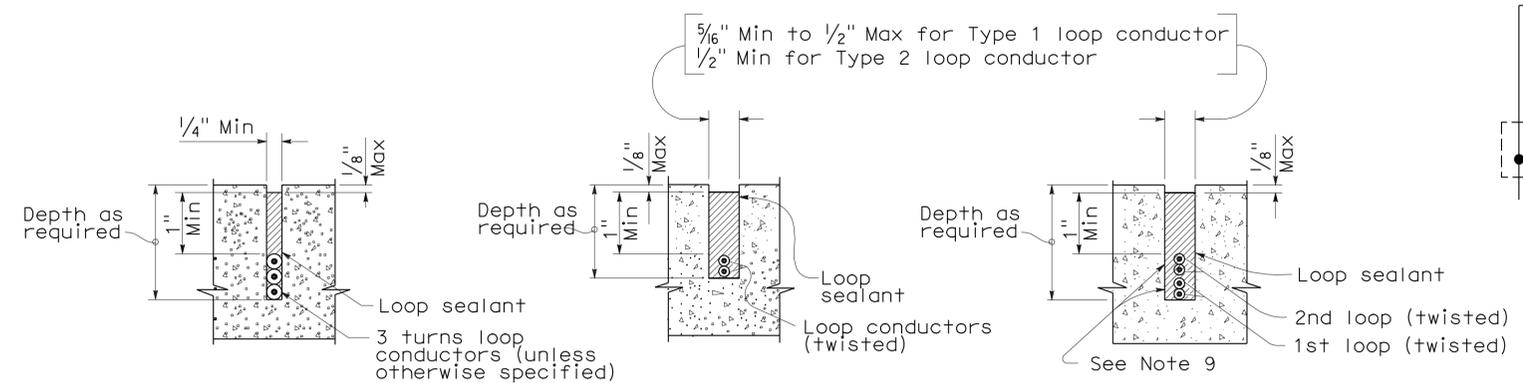
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A SECTION B-B SECTION C-C
SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

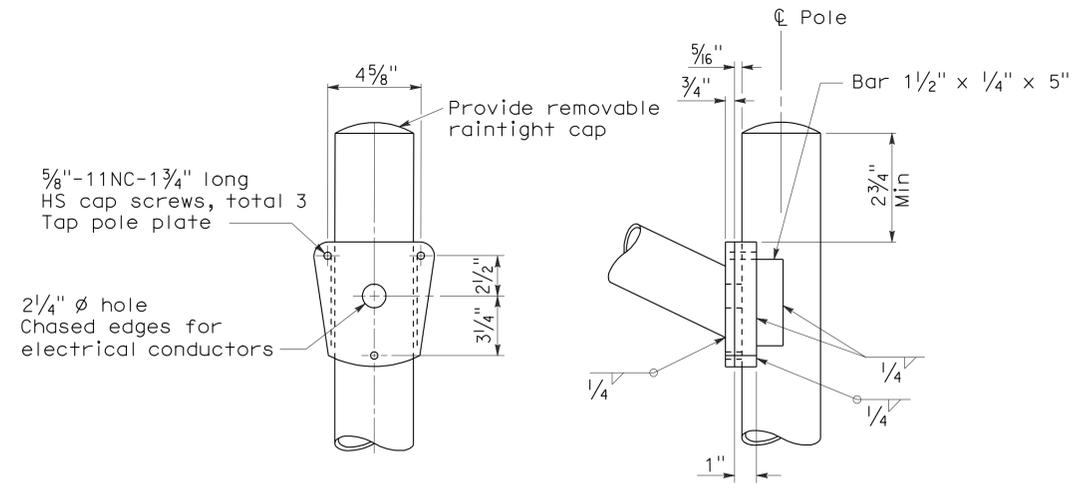
RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A
 DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-5A

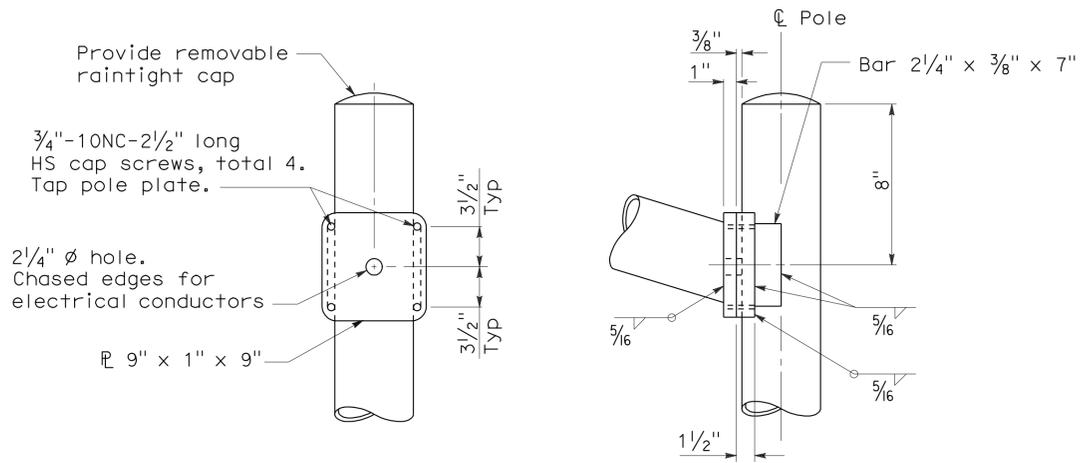
LUMINAIRE ARM DATA

PROJECTED LENGTH	THICKNESS	MINIMUM OD @ POLE	MOUNTING HEIGHT
* 6'-0"	0.1196"	3/4"	36'-9"±
8'-0"		3/2"	37'-3"±
10'-0"		3 3/4"	38'-0"±
12'-0"		3 3/4"	39'-0"±
15'-0"		4 1/4"	39'-6"±
** 20'-0"	0.1793"	5"	37'-0"±

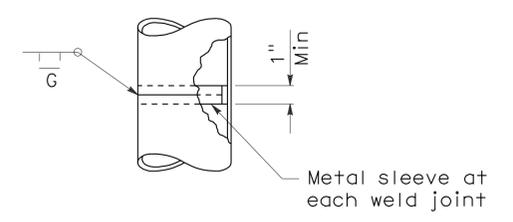
* Type 30 - arm length 6'-0" - 15'-0" maximum
 ** Type 31 - arm lengths 20'-0"



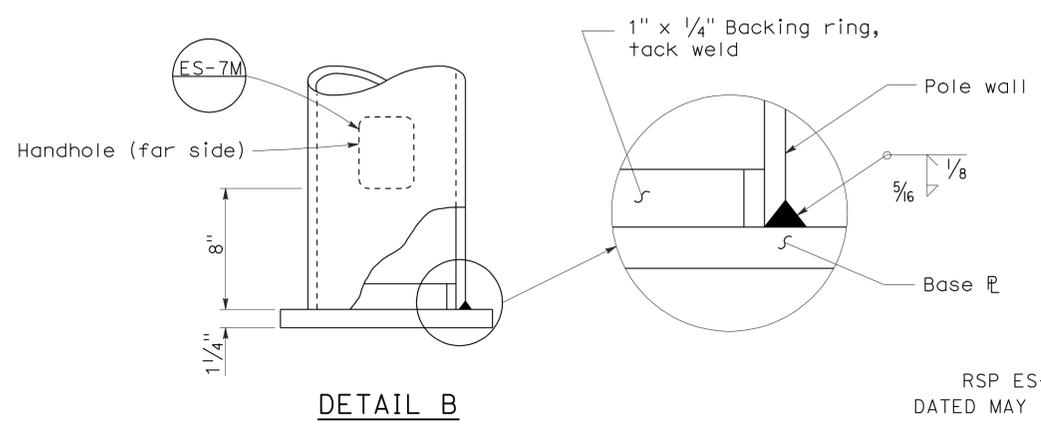
DETAIL A - TYPE 30



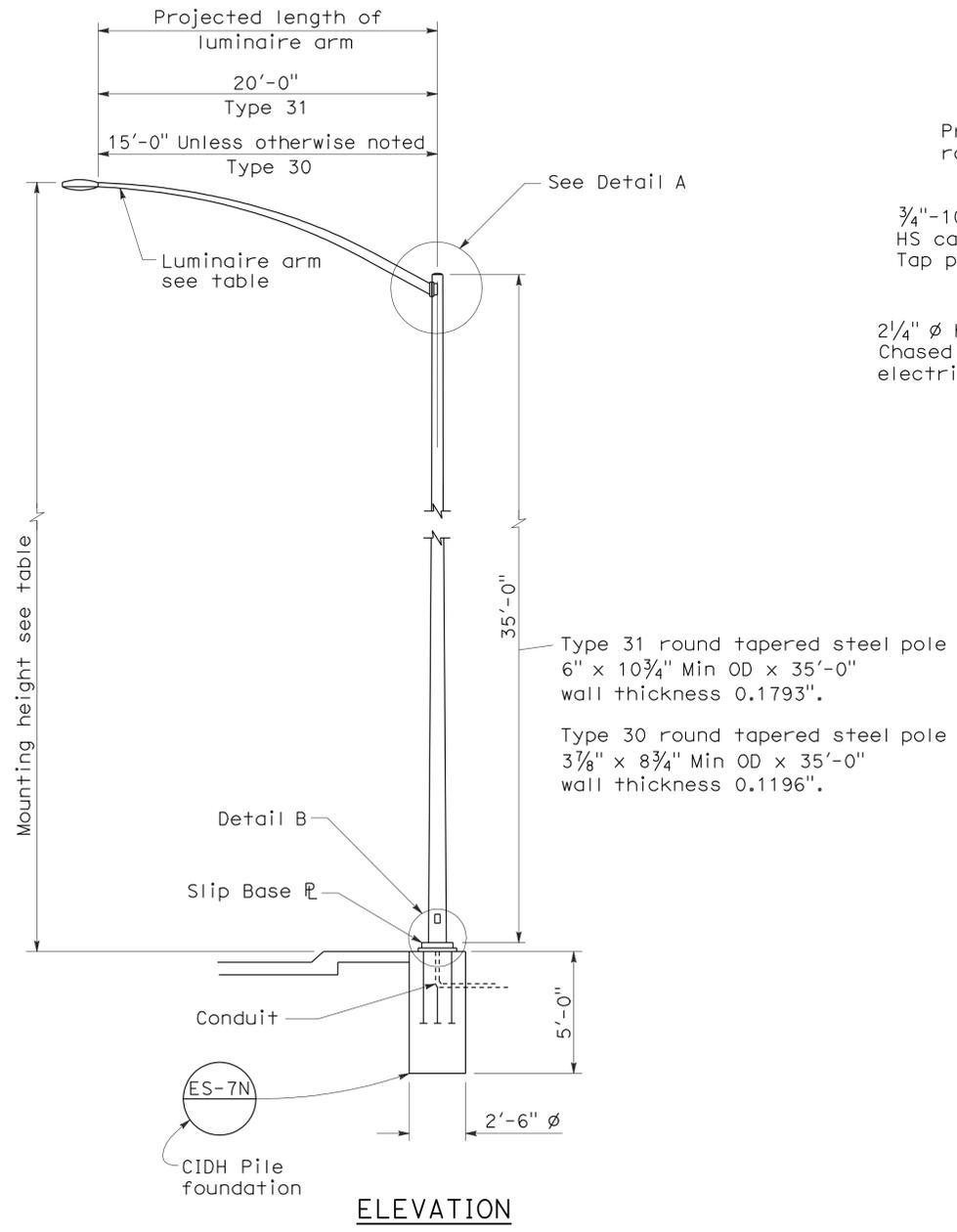
DETAIL A - TYPE 31



POLE SPLICE



DETAIL B



ELEVATION

NOTES:

- Sheet steel shall have a minimum yield of 48,000 psi.
- For slip base details see Standard Plan ES-6F.
- For Type 30 fixed base use Type 15 base plate, and foundation shown on Revised Standard Plan RSP ES-6A. Use 1 1/4 inch Dia x 3'-6 inch x 4 inch anchor bolts.
- For Type 31 fixed base use Type 32 base plate, anchor bolts and foundation on Standard Plan ES-6G.
- Handhole shall be located on downstream side of traffic unless noted otherwise on plans.
- For additional general notes refer to Standard Plan ES-7M.

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**ELECTRICAL SYSTEMS
 (LIGHTING STANDARD
 TYPES 30 AND 31)**
 NO SCALE

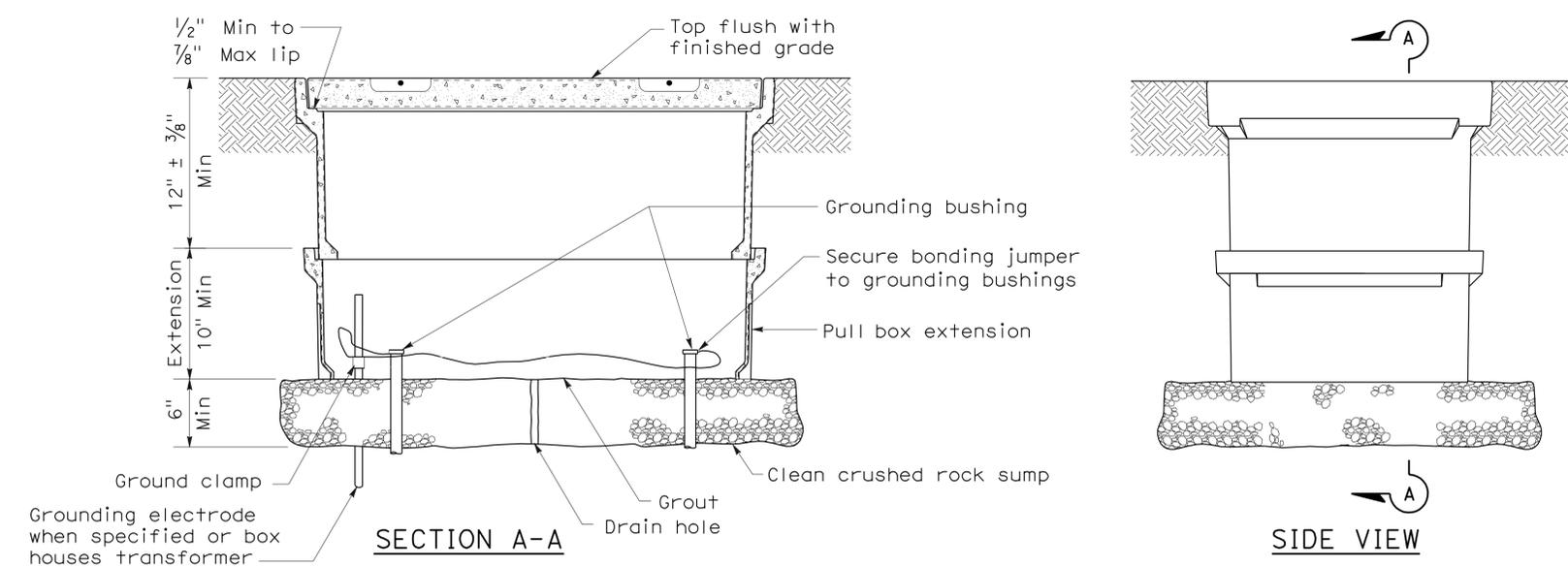
RSP ES-6E DATED JANUARY 18, 2008 SUPERCEDES STANDARD PLAN ES-6E
 DATED MAY 1, 2006 - PAGE 430 OF THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	219	346

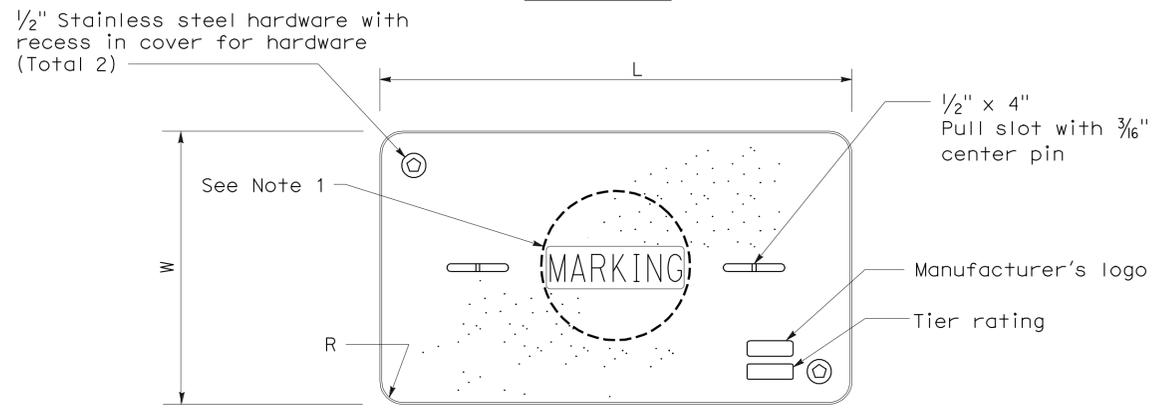
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 January 20, 2012
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-12
 ELECTRICAL
 STATE OF CALIFORNIA

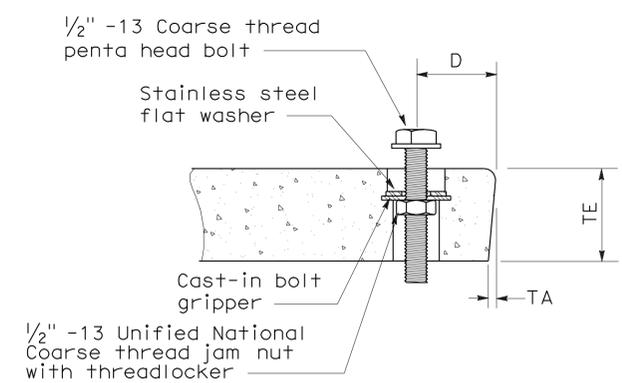
To accompany plans dated 4-16-12



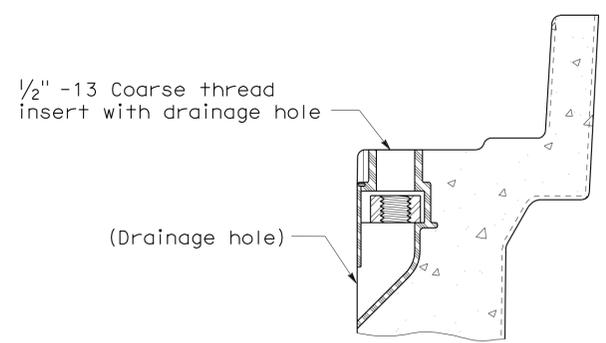
INSTALLATION DETAILS
DETAIL A



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT
(Or similar)



TYPICAL THREADED INSERT
(Or similar)

NOTES ON PULL BOXES:

- Pull box covers must be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 V or less; "CALTRANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;
 - No. 3/2 pull box.
 - "SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
 - "ST LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
 - No. 5, 6, 9 or 9A pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
 - "STREET LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
 - "STREET LIGHTING-HIGH VOLTAGE" - Street or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATIONS" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communication line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
- The nominal dimensions of the opening in which the cover sets must be the same as the cover dimensions (L and W) plus 1/8" or greater.
- Covers and boxes must be interchangeable with California Standard. When interchanged with a standard, the top surfaces must be flush within 1/8". Top outside radius of covers and pull boxes must have a 1/8" radius.
- Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.

PULL BOX	PULL BOX			COVER						
	Minimum Depth Box	Minimum Depth Extension	Maximum Weight	L	W	R	TE	TA	D	Maximum Weight
No. 3/2	12"	N/A	40 lb	1' - 3 3/8"	10 1/8"	1 3/8"	2"	1/8"	1 3/4"	30 lb
No. 5	12"	10"	55 lb	1' - 11 1/4"	1' - 1 3/4"	1 3/8"	2"	1/8"	1 3/4"	60 lb
No. 6	12"	10"	70 lb	2' - 6 1/2"	1' - 5 1/2"	1 3/8"	2"	1/8"	2"	85 lb

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(PULL BOX)
 NO SCALE

NSP ES-8A DATED JANUARY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP ES-8A

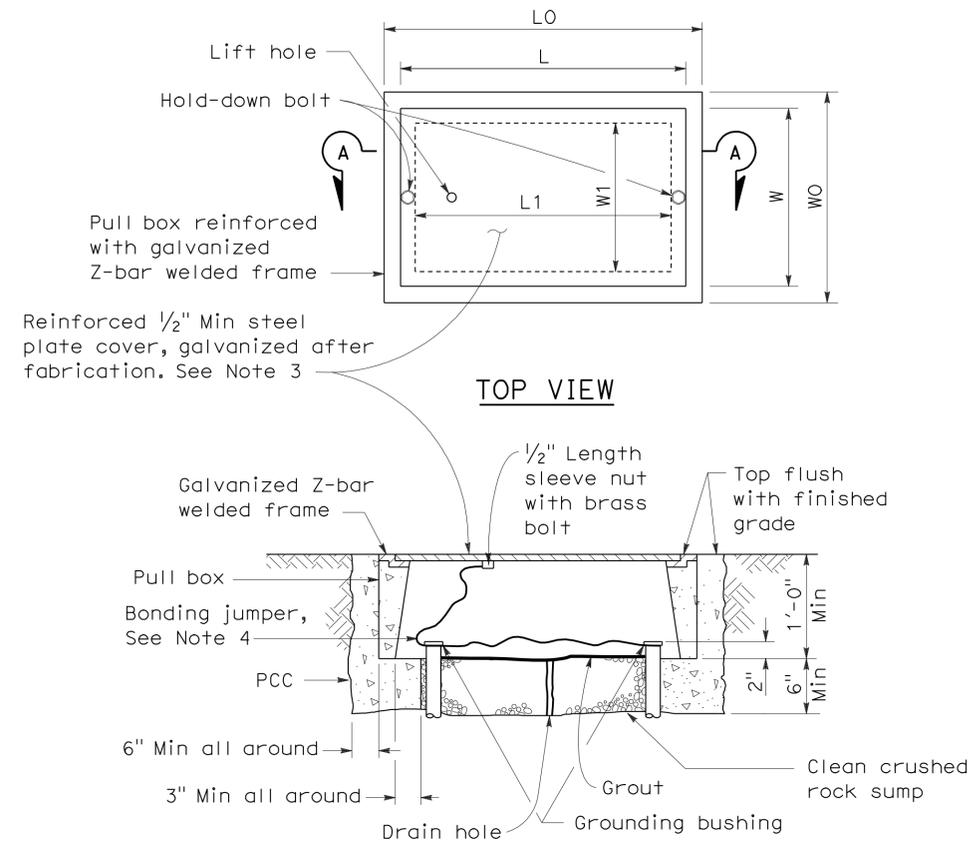
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	220	346

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 January 20, 2012
 PLANS APPROVAL DATE

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To accompany plans dated 4-16-12

2006 NEW STANDARD PLAN NSP ES-8B



**No. 3 1/2(T), No. 5(T) AND
No. 6(T) TRAFFIC PULL BOX**

NOTES ON PULL BOXES:

- Traffic pull box shall be provided with steel cover and special concrete footing. Steel cover shall have embossed non-skid pattern.
- Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
- Pull box covers must be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" Sprinkler control circuits, 50 V or less; "CALTRANS" On all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service.
 - No. 3 1/2(T) pull box.
 - "SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
 - "ST LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
 - No. 5(T) or 6(T) pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
 - "STREET LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
 - "STREET LIGHTING-HIGH VOLTAGE" - Street or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATION" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communications line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
- Bonding jumper for metal covers shall be 3' long, minimum.
- The nominal dimensions of the opening in which the cover sets must be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes must be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces must be flush within 1/8".

DIMENSION TABLE

PULL BOX	BOX						COVER				
	Minimum * Thickness	Minimum Depth Box and Extension	W0	L0	L1	W1	L **	W **	R	Edge Thickness	Edge Taper
No. 3 1/2(T)	1 1/2"	1'-0"	1'-5"± 1"	1'-8 7/8"±	1'-2 1/2"±	10 5/8"± 1"	1'-8"±	1'-1 3/4"±	0"	1/2"	None
No. 5(T)	1 3/4"	1'-0"	1'-11 1/2"± 1"	2'-5 1/2"±	1'-7"±	1'-1"± 1"	2'-3"±	1'-4"±	0"	1/2"	None
No. 6(T)	2"	1'-0"	2'-6"± 1"	2'-11 1/2"±	1'-11 1/2"±	1'-5"± 1"	2'-9"±	1'-8"±	0"	1/2"	None

* Excluding conduit web ** Top dimension

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (TRAFFIC RATED PULL BOX)**
 NO SCALE

NSP ES-8B DATED JANUARY 20, 2012 SUPPLEMENTS THE
STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	221	346

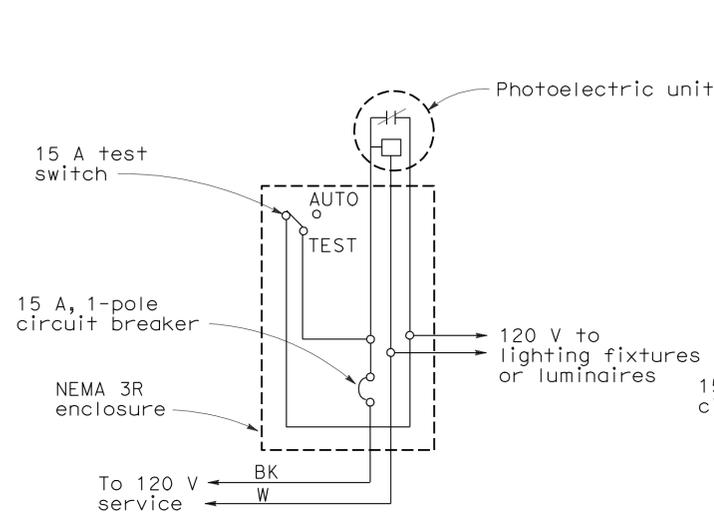
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

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NOTES: (FOR LIGHTING AND SIGN ILLUMINATION CONTROL)

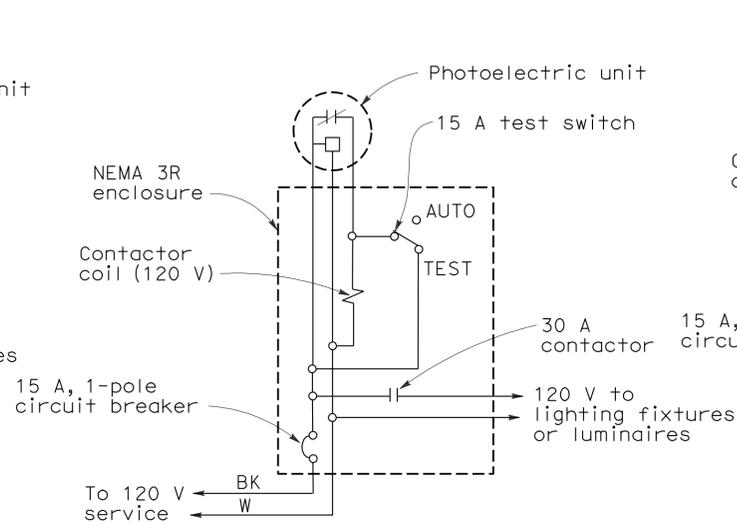
1. The ballast voltages of lighting fixtures and luminaires shall match line service voltages.
2. Voltage rating of photoelectric controls shall conform to the service voltage indicated on the plans.
3. Terminal strip shall be provided for wiring to fixtures.
4. Type SC1A, SC2A, SC3A controls are similar to Types SC1, SC2 and SC3 controls respectively except test switch and wiring are not required.

To accompany plans dated 4-16-12



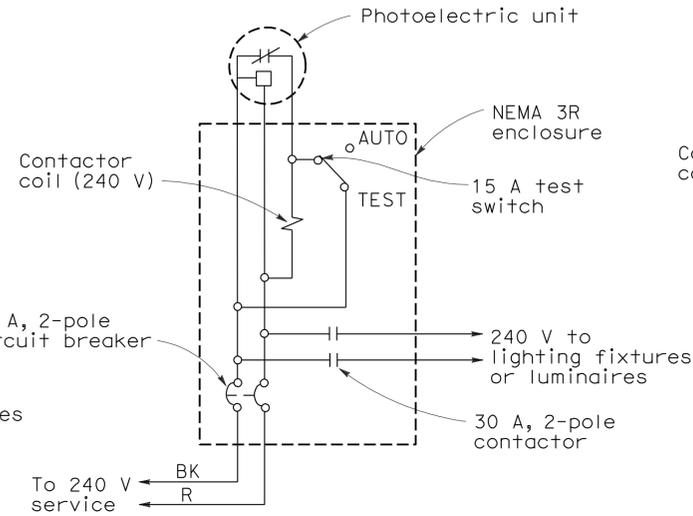
TYPE LC1 CONTROL

For 120 V unswitched circuit with no more than 800 W load.



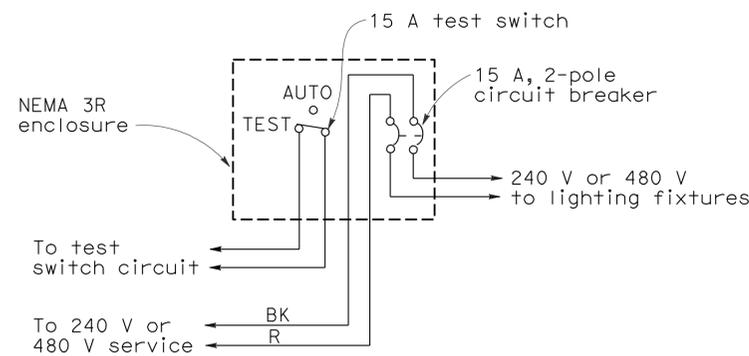
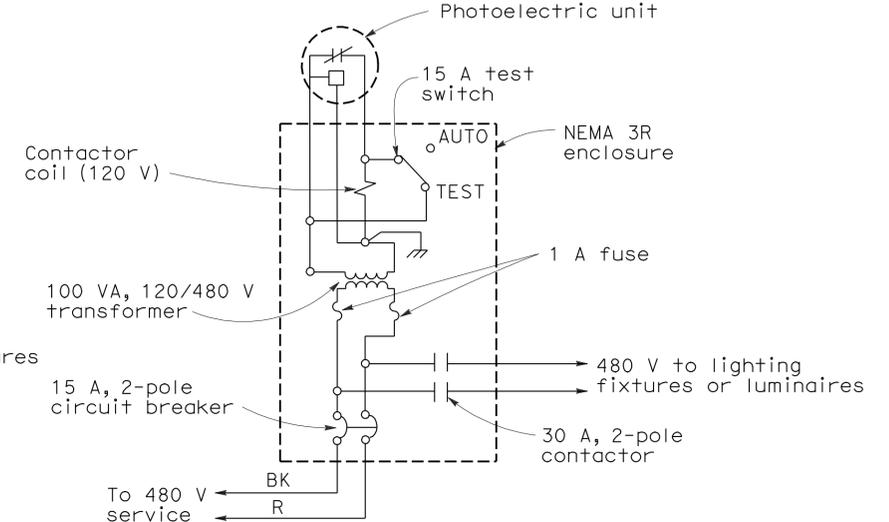
TYPE LC2 CONTROL

For 120 V unswitched circuit



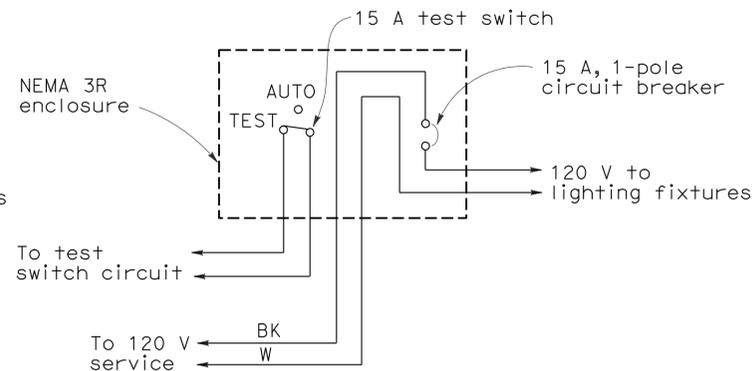
TYPE LC3 CONTROL

For 240 V and 480 V unswitched circuits



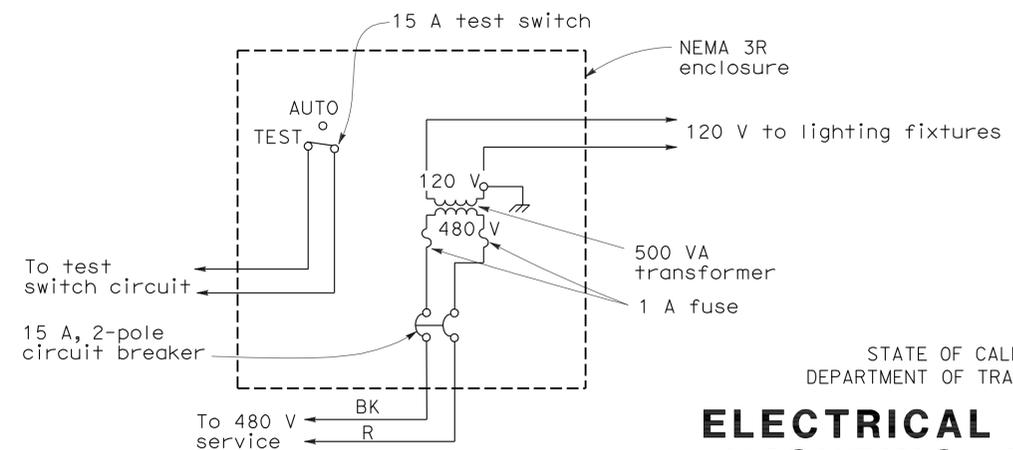
TYPE SC1 CONTROL

For 240 V or 480 V switched circuit, see Note 4 for Type SC1A



TYPE SC2 CONTROL

For 120 V switched circuit, see Note 4 for Type SC2A



TYPE SC3 CONTROL

For 480 V switched sign circuit, see Note 4 for Type SC3A

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (LIGHTING AND SIGN
 ILLUMINATION CONTROL)**

NO SCALE

RSP ES-15D DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-15D DATED MAY 1, 2006 - PAGE 472 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-15D

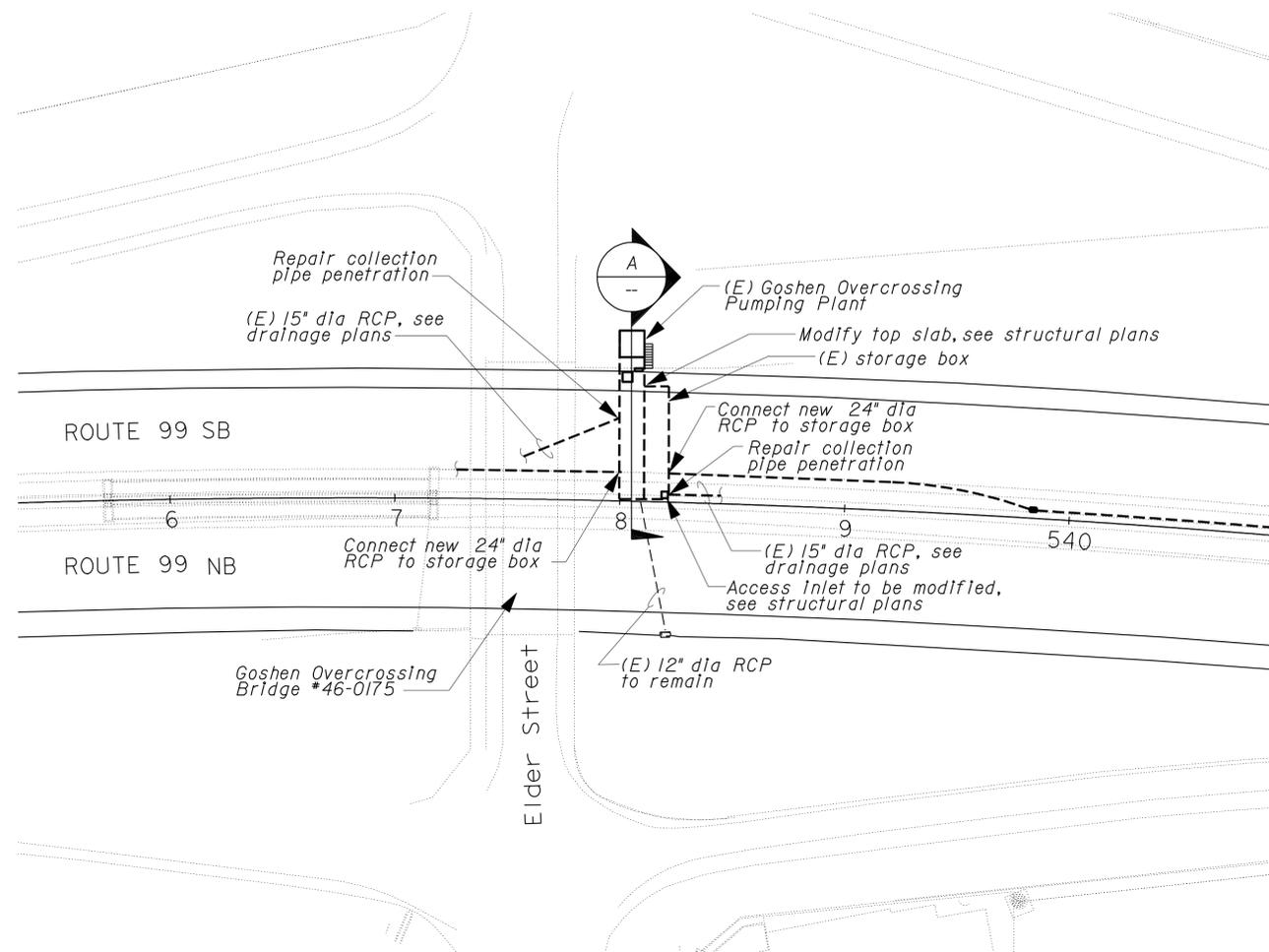
2006 REVISED STANDARD PLAN RSP ES-15D

INDEX OF SHEETS

SHEET	DESCRIPTION
GP	General Plan

STRUCTURAL

ST-0	Structural Site Plan
ST-1	Pumping Plant Section
ST-2	Concrete Beams & Limits of Excavation
ST-3	Demo of (E) Concrete Walls
ST-4	Foundation Plan
ST-5	End of Storage Box
ST-6	Debris Sump Grate Details
ST-7	Storage Box Details
ST-8	Ladder and Landing Details



DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	222	346

REGISTERED ENGINEER-ELECTRICAL DATE 11/17/11
 Jack Wheeler
 No. 21648
 Exp. 06-30-13
 MECH
 STATE OF CALIFORNIA

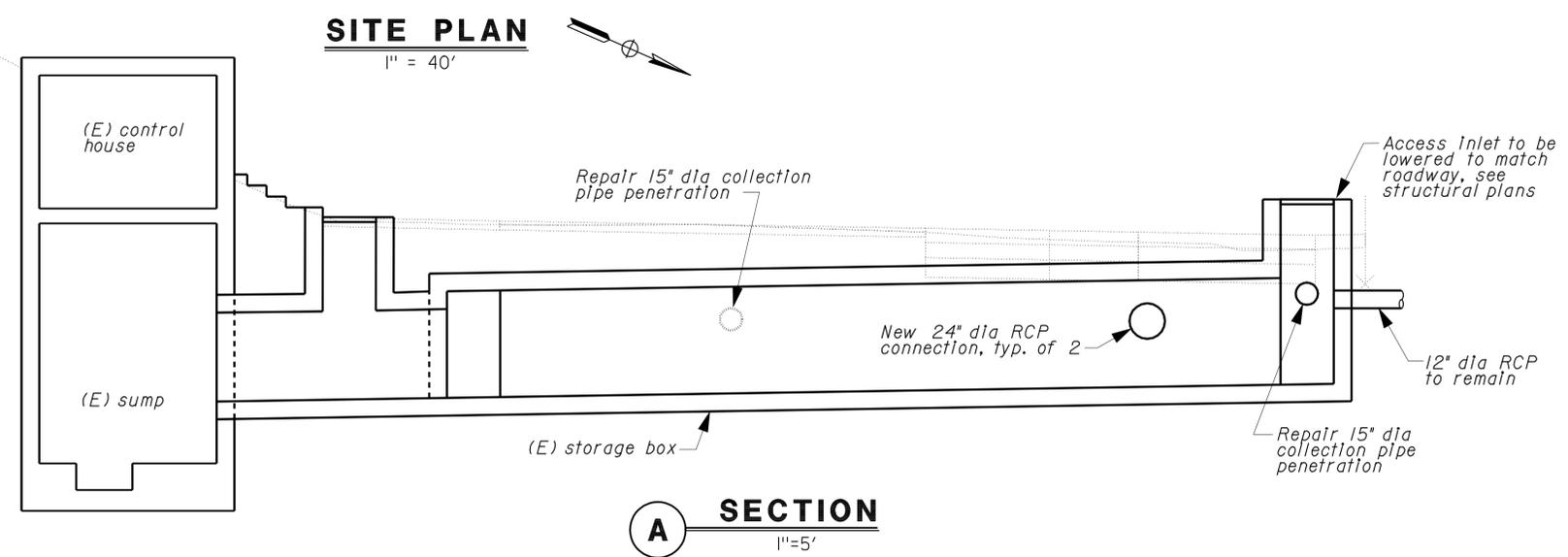
4-16-12
 PLANS APPROVAL DATE

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QUANTITIES	
BRIDGE REMOVAL (PORTION), LOCATION E	LUMP SUM
STRUCTURE EXCAVATION (PUMPING PLANT)	65 CY
STRUCTURE BACKFILL (PUMPING PLANT)	60 CY
STRUCTURE CONCRETE (PUMPING PLANT)	5 CY
DRILL AND BOND DOWEL	33 LF
DRILL AND BOND DOWEL (CHEMICAL ADHESIVE)	16 EA
BAR REINFORCING STEEL (PUMPING PLANT)	1,152 LB
MISCELLANEOUS METAL	1,250 LB

ABBREVIATIONS

⊕	Centerline
⊞	Plate
APC	Alternative Pipe Culvert
DIA	Diameter
DIP	Ductile Iron Pipe
EL	Elevation
(E)	Existing
FL	Flow Line
GSP	Galvanized Steel Pipe
Max.	Maximum
Min.	Minimum
O.D.	Outside Diameter
RCP	Reinforced Concrete Pipe
Typ.	Typical
WSP	Welded Steel Pipe



THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

DESIGN SUPERVISOR <i>Thomas Dietsch</i> DESIGN ENGINEER <i>Jack Wheeler</i>	DESIGN	BY Thomas Dietsch	CHECKED Jack Wheeler	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF STRUCTURES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	46-0175W	GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION GENERAL: PLAN	SHEET GP
	DETAILS	BY Thomas Dietsch	CHECKED Jack Wheeler			POST MILE			
	QUANTITIES	BY Thomas Dietsch	CHECKED Jack Wheeler						
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT PROJECT NUMBER & PHASE 3615 0600020408		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY) 06/23/11 07/15/11 09/18/11 11/17/11	

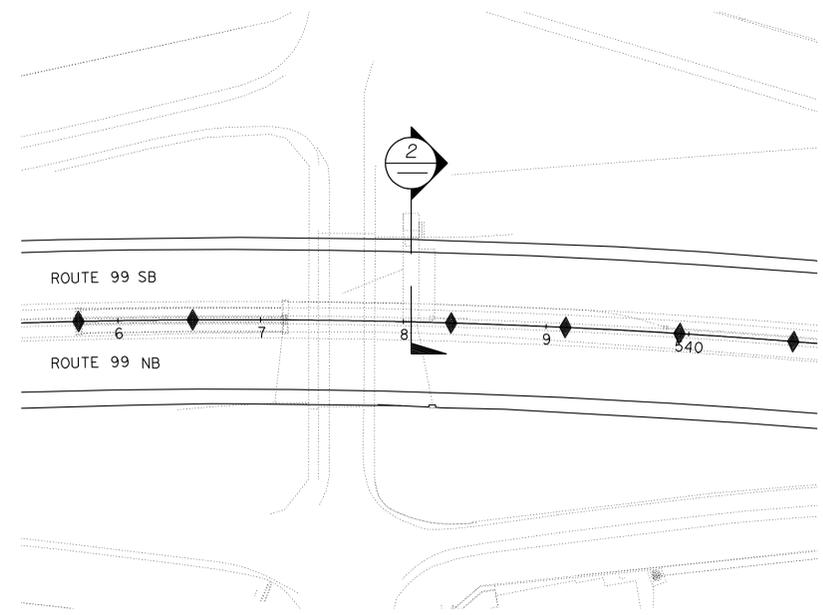
EA 360211

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	223	346

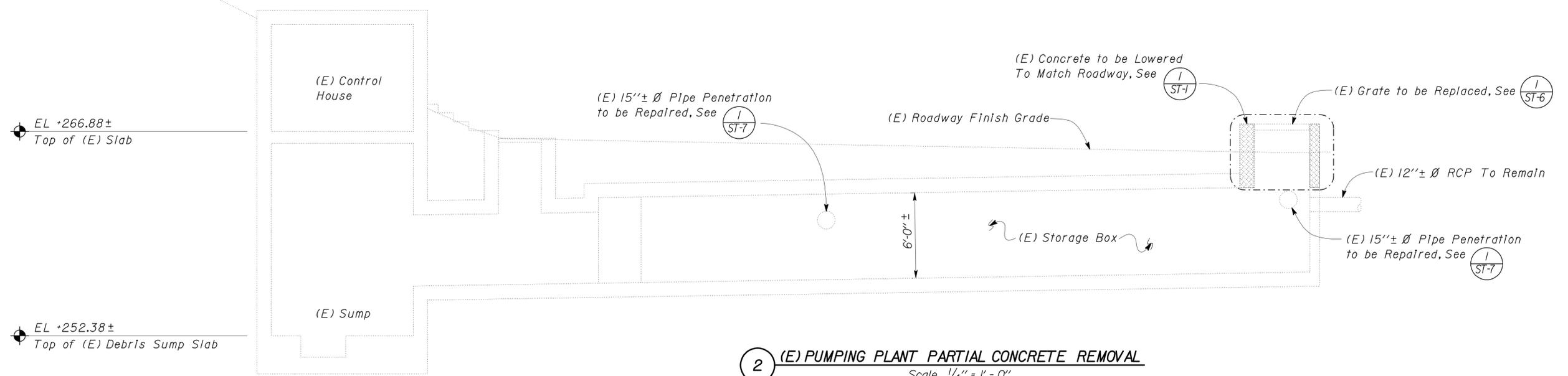
<i>C. N. Bapat</i>	11-18-11	REGISTERED PROFESSIONAL ENGINEER No. 46493 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA
REGISTERED CIVIL ENGINEER	DATE	

4-16-12
PLANS APPROVAL DATE

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1 SITE PLAN
Scale 1" = 40' - 0"



2 (E) PUMPING PLANT PARTIAL CONCRETE REMOVAL
Scale 1/4" = 1' - 0"

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

DESIGN SUPERVISOR <i>R. E. Travis</i> DESIGN ENGINEER <i>Joe Goshen</i>	DESIGN BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46-0175W	GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION STRUCTURAL SITE PLAN	SHEET OF ST-0
	DETAILS BY	Daniel Harakh	CHECKED	Chandra Bapat			POST MILE	GOSHEN PUMPING PLANT		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					UNIT PROJECT NUMBER & PHASE 3581 0600020408 EA	DISREGARD PRINTS BEARING EARLIER REVISION DATES			REVISION DATES (PRELIMINARY STAGE ONLY) 07-13-11 09-08-11 09-27-11 11-15-11 11-17-11	SHEET OF 19-APR-2012 12:13

A PUMPING PLANT DESIGN NOTES

1. Design : AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments, preface dated December 2008.
- a. Loads :
- Vertical Box :
 - Earth Loads (Equivalent Fluid Pressure) : 60 PCF above GWT, 90 PCF below GWT
 - Horizontal Box :
 - Live Load : HS 20-44 Truck
 - Roof : 30% Impact up to 3' of cover, no Impact above 3' of cover.
 - Walls : No surcharge
 - Invert : No impact
 - Earth Loads (Equivalent Fluid Pressure for two conditions) : 140 PCF vertical and 42 PCF horizontal, 140 PCF vertical and horizontal
 - Landings : Live Load 100 PSF
- b. Reinforced Concrete (Ultimate Strength Design) :
 $f'_c = 3,250$ PSI
 $f_y = 60,000$ PSI
- c. Miscellaneous Metal (Working Stress Design) :
 $f_y = 36,000$ PSI unless otherwise noted
2. Soil Report : 1500 PSF ASSUMED

B DETAIL NOTES

1. Metal Work Notes :
- All metal work shall be hot dip galvanized after fabrication
 - Mechanical Expansion Anchors shall be $\frac{5}{8}$ " \emptyset and have a 4" minimum embedment, 3'-0" maximum spacing and placed 6" from ends, two minimum, unless otherwise shown.
 - Mechanical Expansion Anchors used for securing ladders inside of Pumping Plant shall be of stainless steel.
 - All lock washers shall be helical spring lock washers.
 - All Railing and Ladders shall have smooth edges.
- f. Welded Steel Grate :
- Traffic Rated Grate :
 - Bearing Bars 5" x $\frac{3}{8}$ " @ 1 $\frac{3}{16}$ " C-C
 - Cross Bars @ 4" C-C
 - Trim Bars 5" x $\frac{3}{8}$ " fillet welded to ends of Bearing Bars
 - Direction of Bearing Bars is indicated by
2. For Discharge Pipe locations and elevations, see Mechanical Plans.

ABBREVIATIONS

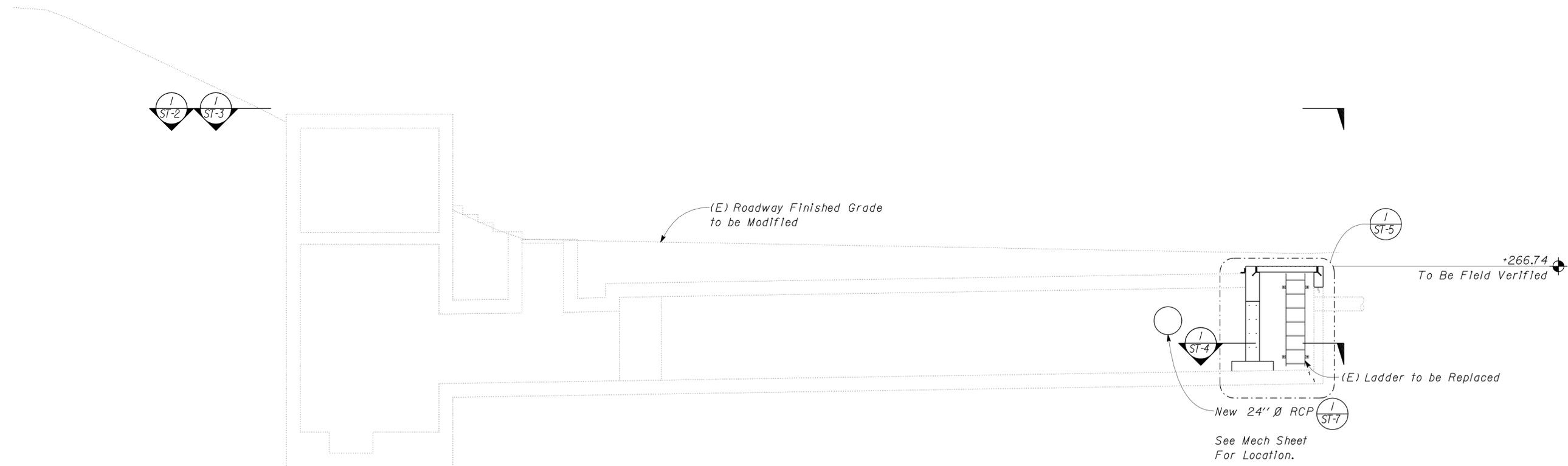
Alt	Alternative
APC	Alternative Pipe Culvert
CIPCP	Cast In Place Concrete Pipe
Clr	Clear
Conc	Concrete
Const	Construction
EL	Elevation
(E)	Elevation
Exp	Expansion
FL	Flow Line
GWT	Ground Water Table
Jt	Joint
MEA	Mechanical Expansion Anchor
OH	Opposite Hand
PP LOL	Pumping Plant Layout Line
RCP	Reinforced Concrete Pipe
Sim	Similar
Stagg	Staggered
Sym	Symmetrical
Typ	Typical

SYMBOLS

	Elevation or Working Point
	Existing Features
	Earth
	Free Draining Granular Material
	Reinforced Concrete
	Detail Number or Note Number
	Additional Reference (If required)
	Sheet Number
	Limits of Structural Backfill (shown on plan view)
	Structural Backfill
	Structural Excavation
	Concrete Removal

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	224	346

REGISTERED CIVIL ENGINEER DATE 11-18-11
 PLANS APPROVAL DATE 4-16-12
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1 PUMPING PLANT SECTION
 Scale $\frac{1}{4}$ " = 1' - 0"

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

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46-0175W	GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION	PUMPING PLANT SECTION	SHEET OF ST-1
POST MILE			

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	225	346

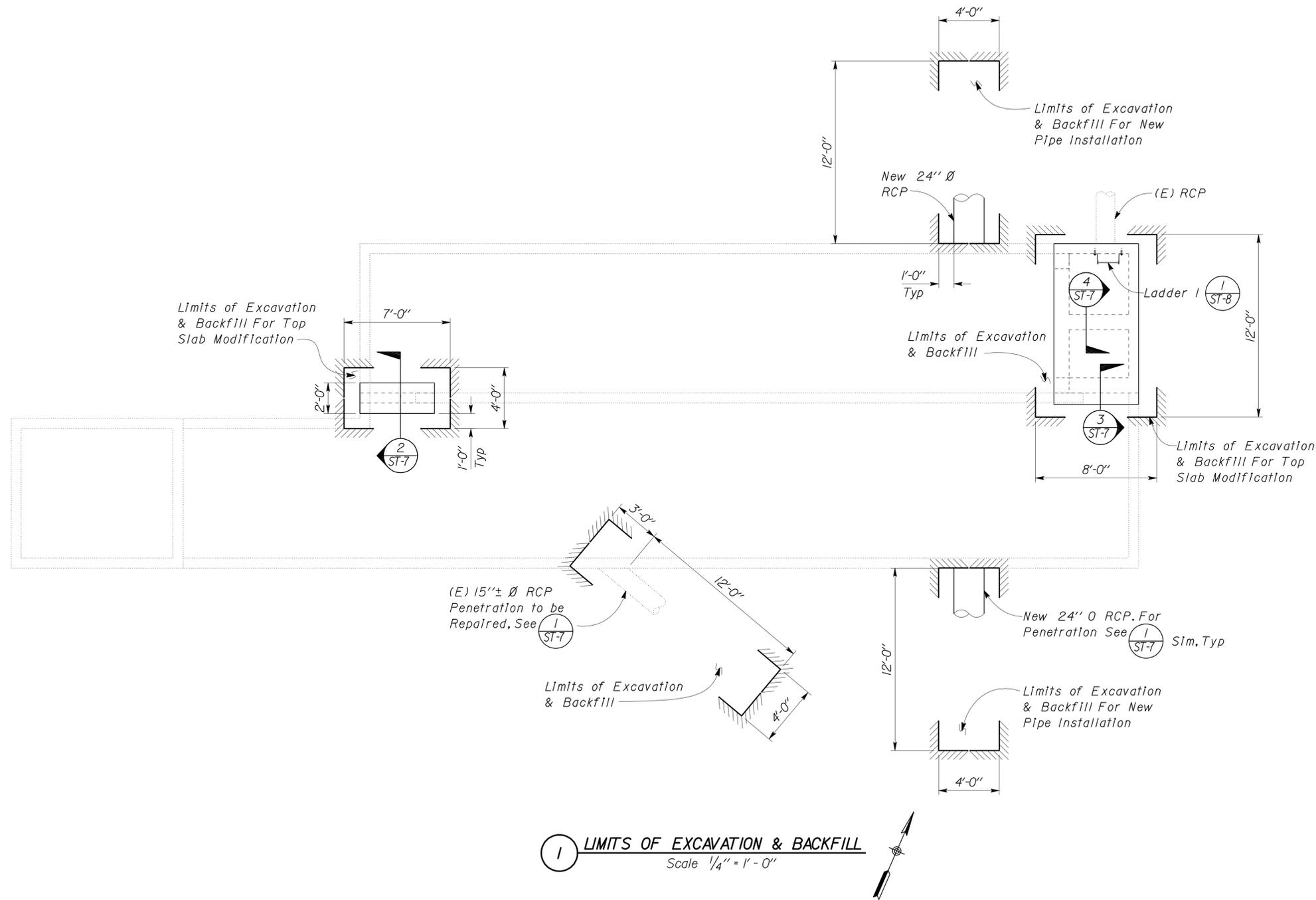
C. N. Bapat
REGISTERED CIVIL ENGINEER

11-18-11
DATE

4-16-12
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
C. N. Bapat
No. 46493
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.
46-0175W
POST MILE

GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION
CONCRETE BEAMS & LIMITS OF EXCAVATION

SHEET
ST-2

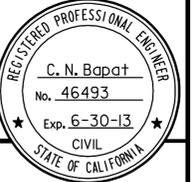


REVISION DATES (PRELIMINARY STAGE ONLY)	
09-27-11	09-27-11
09-27-11	09-27-11
09-27-11	09-27-11
09-27-11	09-27-11
09-27-11	09-27-11

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	226	346

C. N. Bapat 11-18-11
REGISTERED CIVIL ENGINEER DATE

4-16-12
PLANS APPROVAL DATE



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1 DEMO OF (E) CONCRETE WALL & SLAB
Scale 1" = 1'-0"

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

DESIGN BY Chandra Bapat CHECKED Thomas Tong	DETAILS BY Daniel Harakh CHECKED Chandra Bapat	QUANTITIES BY CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46-0175W	GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION	SHEET ST-3
					POST MILE		
DOES SD Imp... Rev. 7/10			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3581 0600020408	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 08-24-11 09-08-11 09-27-11 11-15-11 11-17-11	SHEET OF

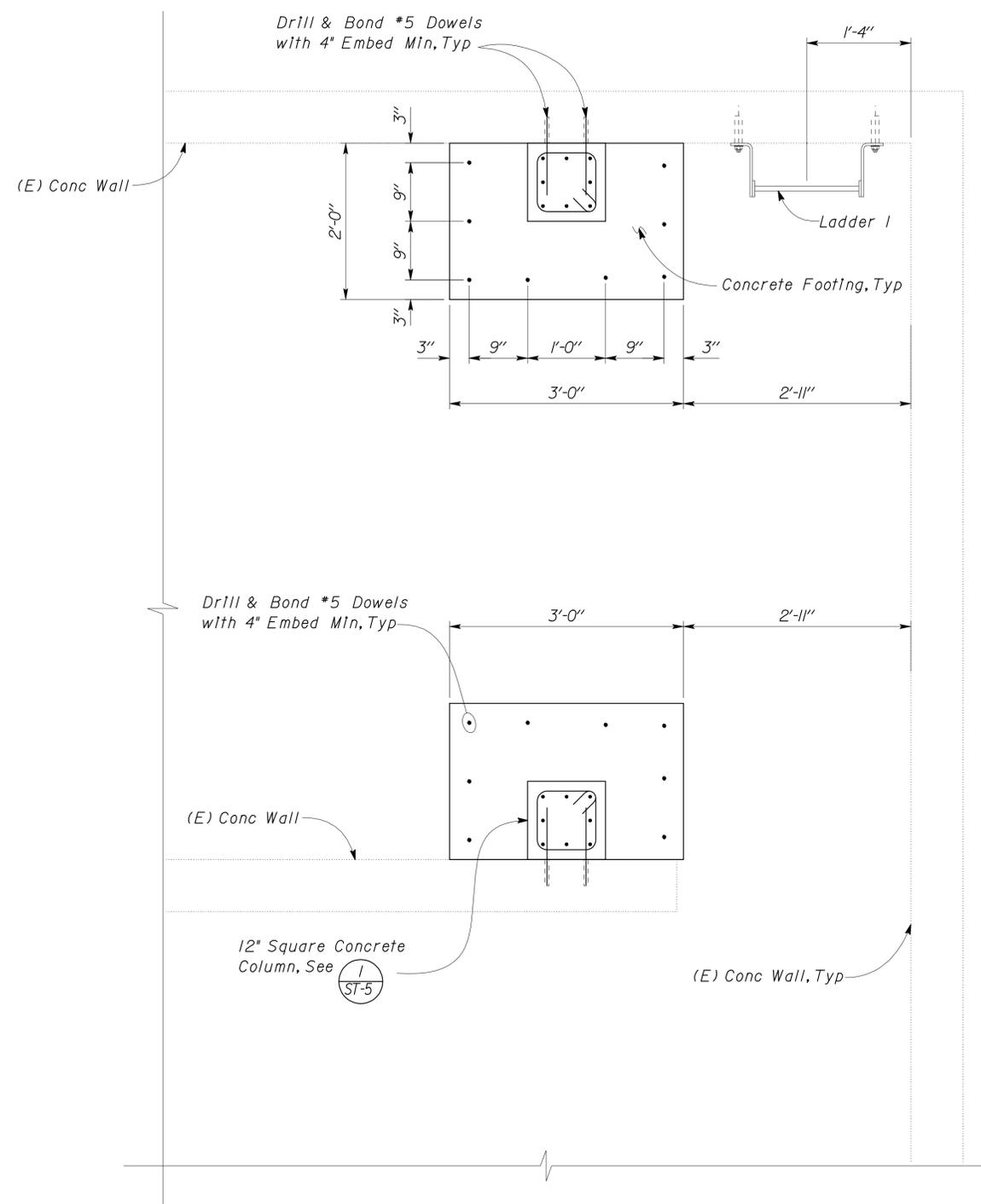
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	227	346

C. N. Bapat 11-18-11
REGISTERED CIVIL ENGINEER DATE

C. N. Bapat
No. 46493
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

4-16-12
PLANS APPROVAL DATE

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1 FOUNDATION PLAN
Scale 1/4" = 1'-0"

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

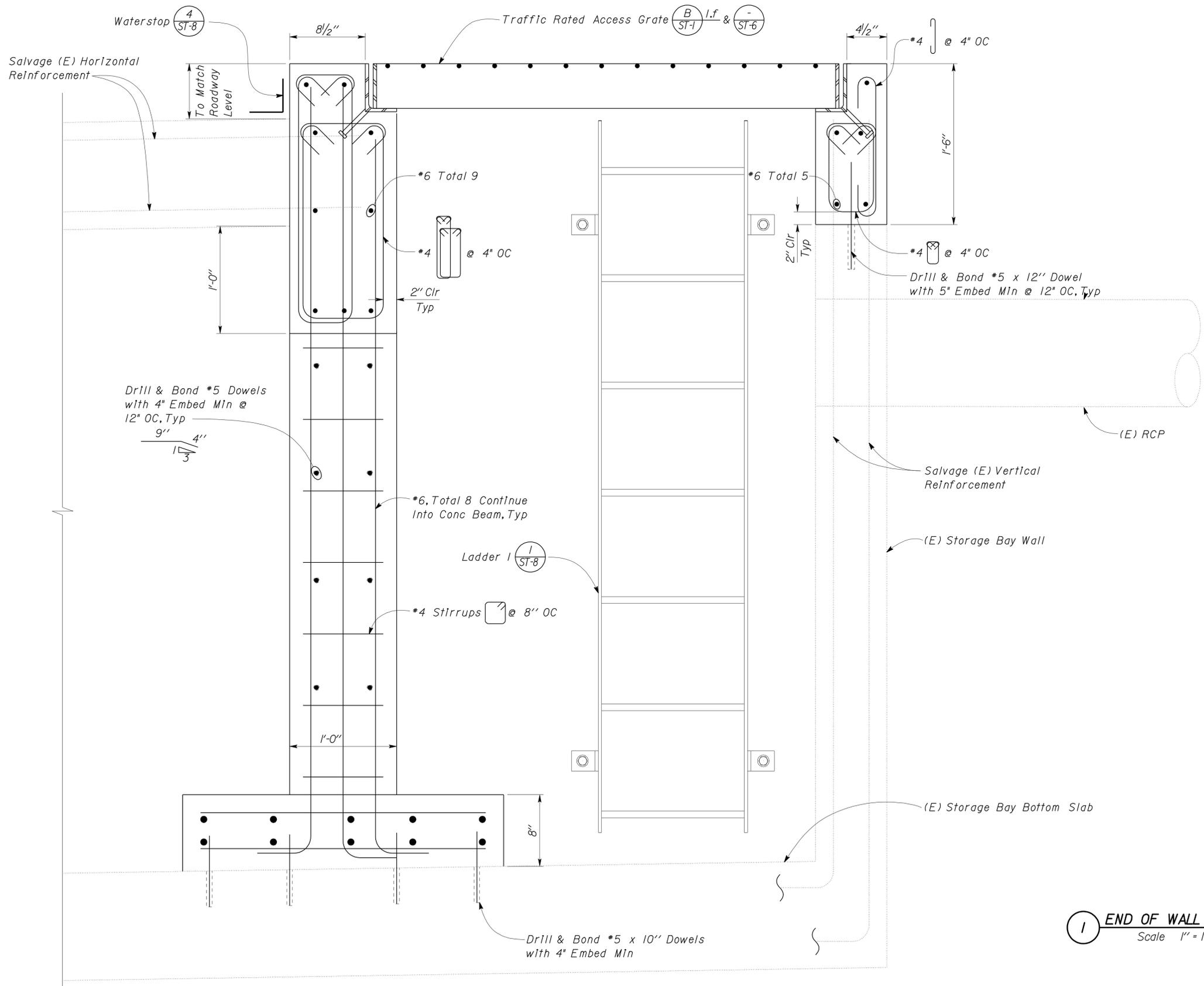
DESIGN BY Chandra Bapat	CHECKED Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46-0175W	GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION FOUNDATION PLAN	SHEET ST-4
				POST MILE		
DETAILS BY Daniel Harakh	CHECKED Chandra Bapat	UNIT PROJECT NUMBER & PHASE 3581 0600020408		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)
QUANTITIES BY	CHECKED	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		09-07-11 09-12-11 09-27-11 11-15-11 11-17-11		SHEET OF

DOES SD Imp... Rev. 7/10

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19-APR-2012 12:13

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	228	346
			11-18-11 REGISTERED CIVIL ENGINEER DATE		
4-16-12 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



1 END OF WALL SECTION
Scale 1" = 1'-0"

DESIGN	BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION		SHEET	
	DETAILS	BY	Daniel Harakh	CHECKED			Chandra Bapat	46-0175W	GOSHEN PUMPING PLANT		ST-5
QUANTITIES	BY		CHECKED				POST MILE	END OF STORAGE BOX		OF	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES		
DOES SD Imp...					UNIT PROJECT NUMBER & PHASE		3581 0600020408	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF	

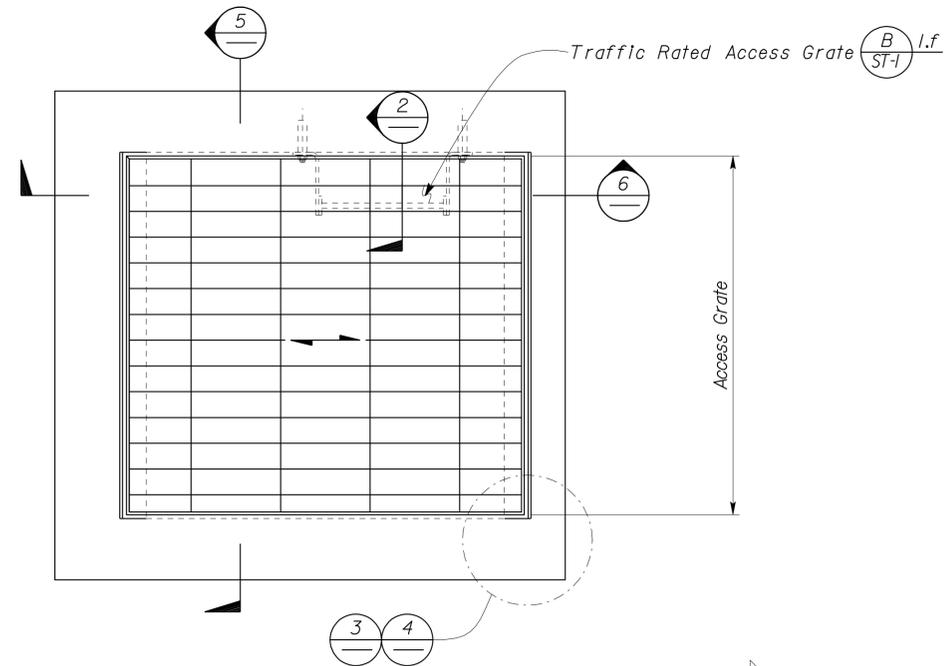
19-APR-2012 12:13

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	229	346

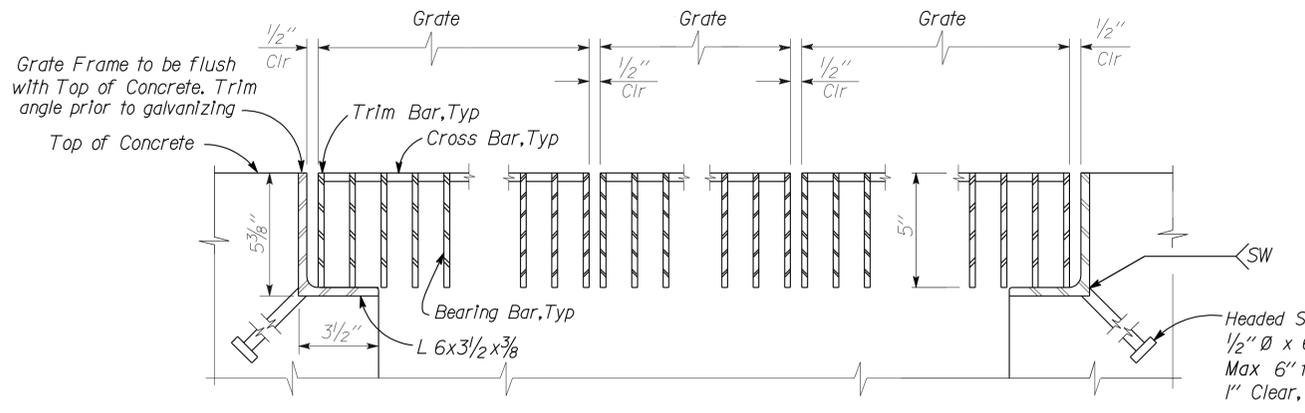
C. N. Bapat 11-18-11
REGISTERED CIVIL ENGINEER DATE

4-16-12
PLANS APPROVAL DATE

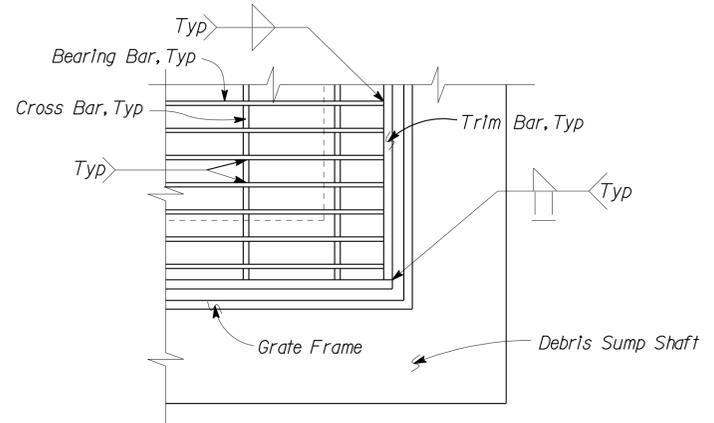
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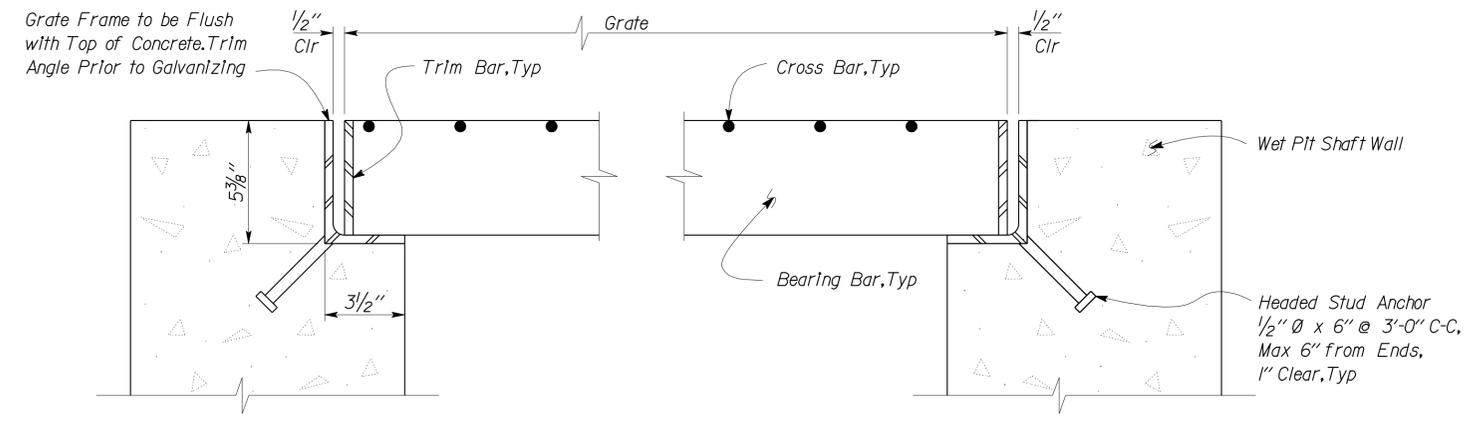
1 TRAFFIC RATED GRATE PLAN
Scale 1/2" = 1' - 0"



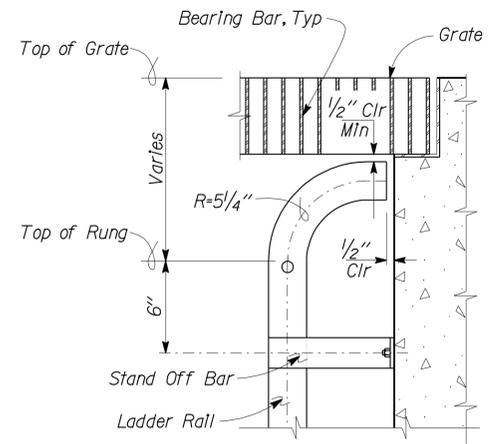
5 TRAFFIC RATED GRATE AND FRAME SECTION
Scale 3" = 1' - 0"



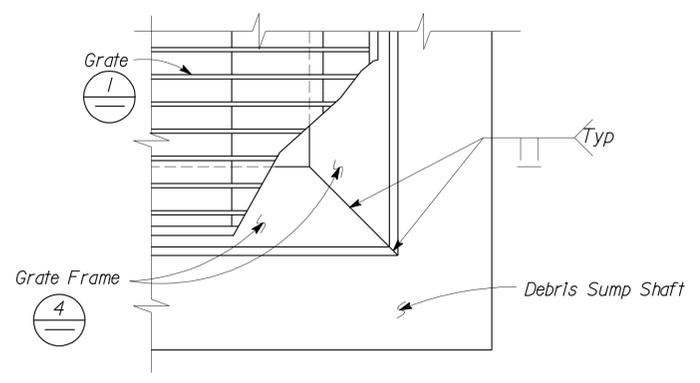
4 GRATE DETAIL



6 TRAFFIC RATED GRATE AND FRAME SECTION
Scale 3" = 1' - 0"



2 LADDER AT ACCESS GRATE
Scale 2" = 1' - 0"



3 GRATE FRAME DETAIL
Scale 3" = 1' - 0"

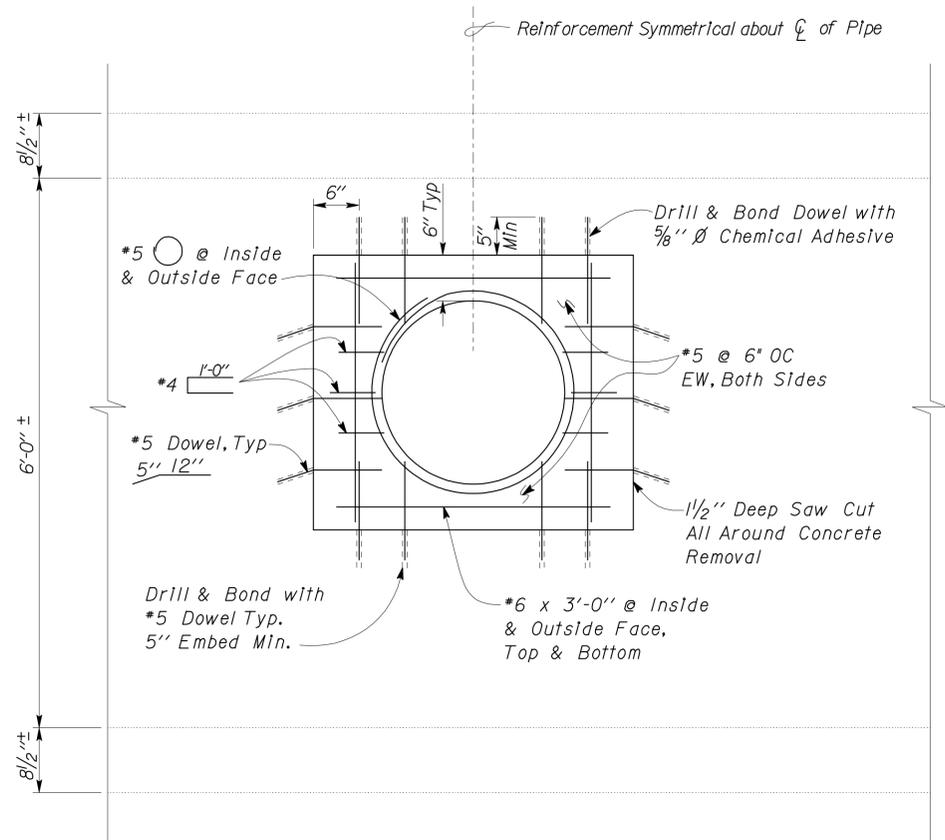
DESIGN BY Chandra Bapat	CHECKED Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46-0175W	GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION	SHEET ST-6
				POST MILE		
DETAILS BY Daniel Harakh	CHECKED Chandra Bapat	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3581 0600020408	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
QUANTITIES BY	CHECKED	0 1 2 3	EA	09-07-11 09-27-11 11-15-11		

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	230	346

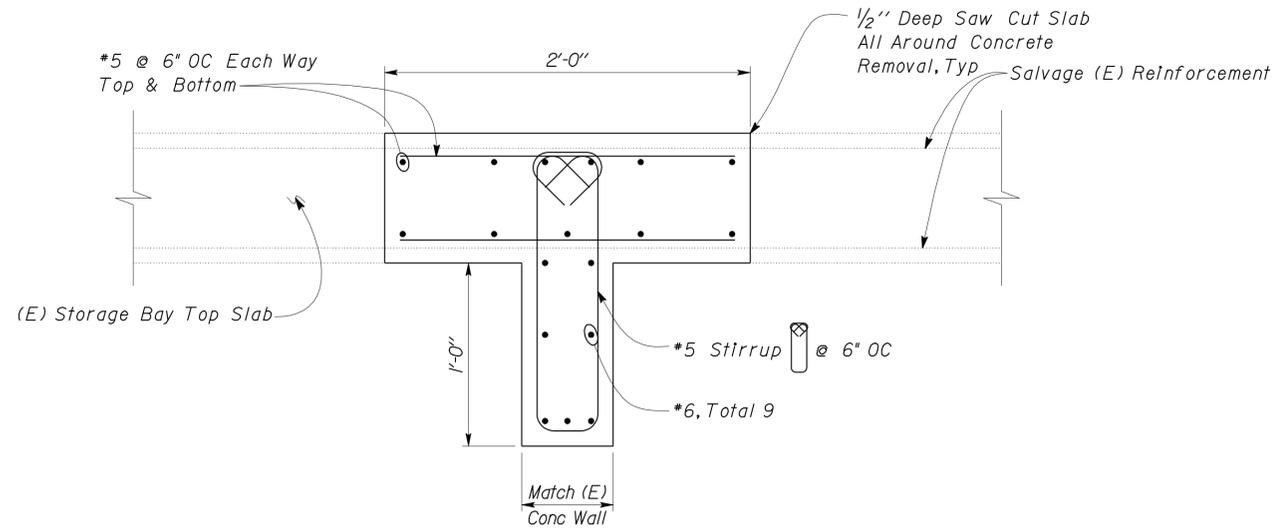
C. N. Bapat 11-18-11
REGISTERED CIVIL ENGINEER DATE

4-16-12
PLANS APPROVAL DATE

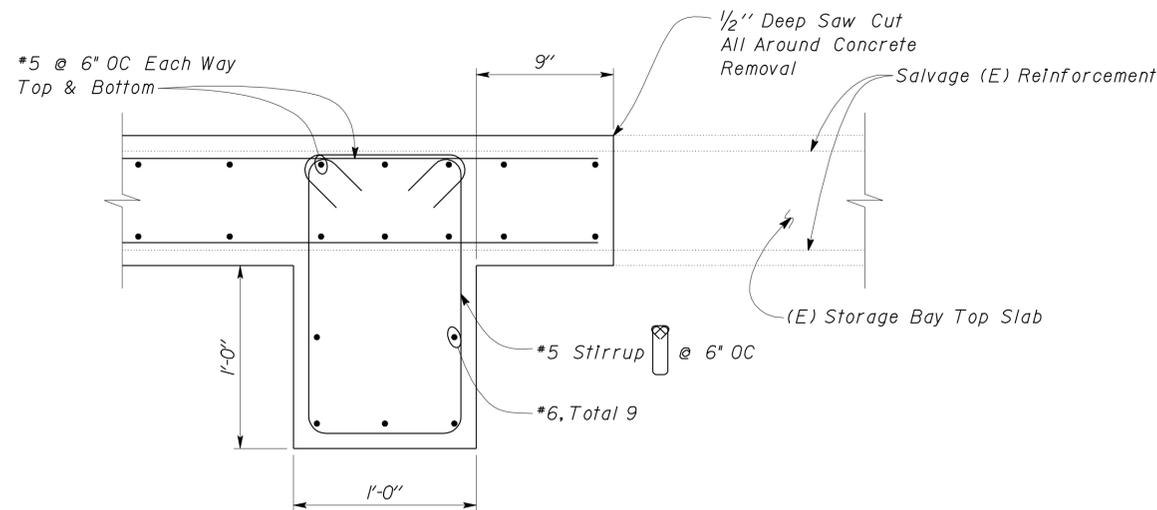
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



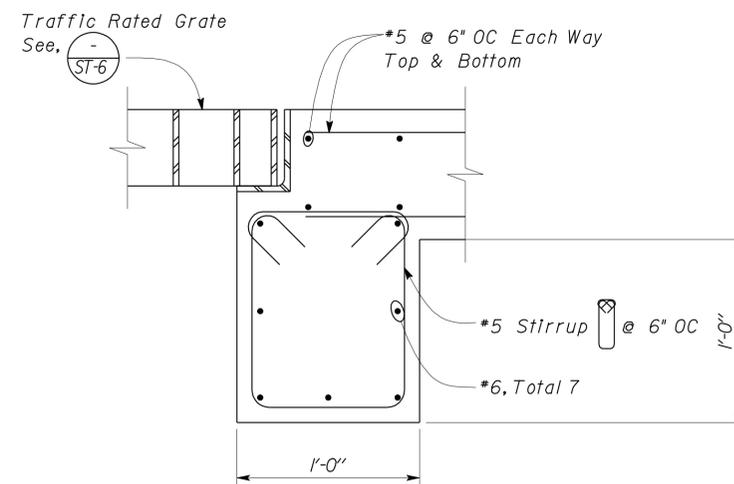
1 CONCRETE PIPE PENETRATION REPAIR DETAIL
Scale 1" = 1'-0"



2 CONCRETE TOP SLAB MODIFICATION DETAIL
Scale 2" = 1'-0"



3 CONCRETE TOP SLAB MODIFICATION DETAIL
Scale 2" = 1'-0"



4 CONCRETE TOP SLAB MODIFICATION AT TRAFFIC RATED GATE
Scale 2" = 1'-0"

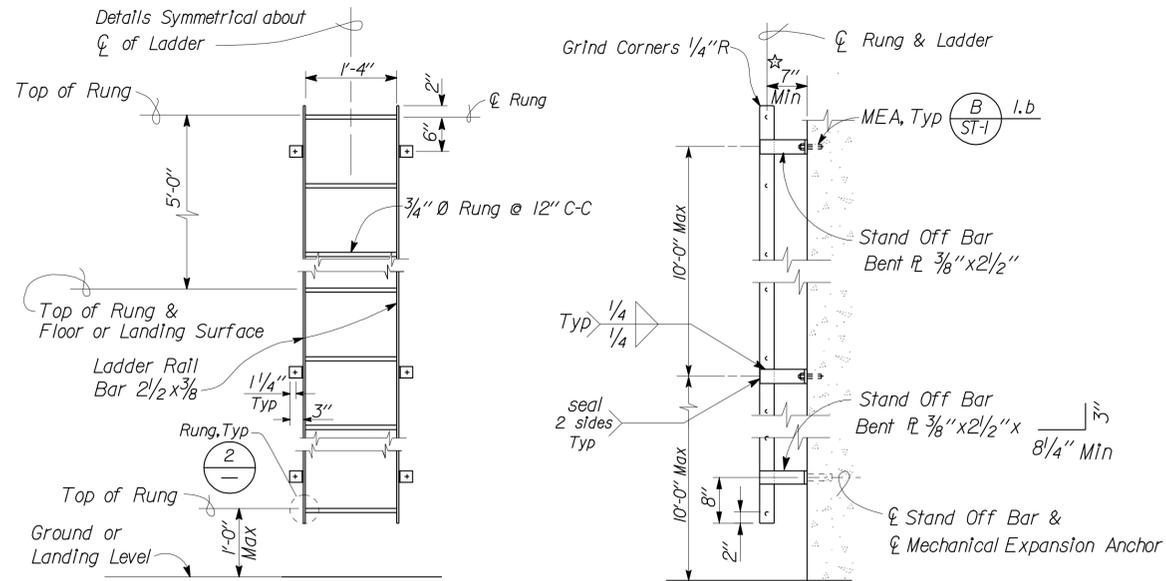
DESIGN	BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION		SHEET ST-7	
	DETAILS	BY	Daniel Harakh	CHECKED			Chandra Bapat	46-0175W	GOSHEN PUMPING PLANT STORAGE BOX DETAILS		
QUANTITIES	BY		CHECKED		UNIT PROJECT NUMBER & PHASE	3581 0600020408	POST MILE	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF	
DOES SD Imp... Rev. 7/10					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		19-APR-2012 12:13

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	231	346

C. N. Bapat 11-18-11
REGISTERED CIVIL ENGINEER DATE

4-16-12
PLANS APPROVAL DATE

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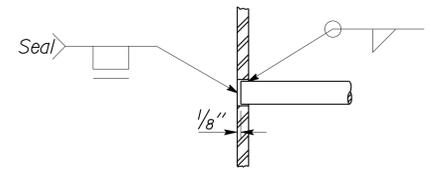


ELEVATION

SIDE VIEW

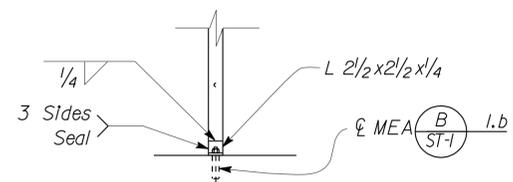
NOTE
For Bottom of Ladder option see (3)

1 LADDER DETAILS
Scale 3/4" = 1'-0"

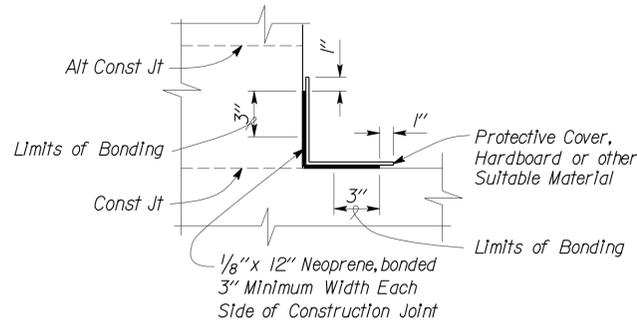


NOTE:
Rung to be Placed 1/8"
Inside of Ladder Rail

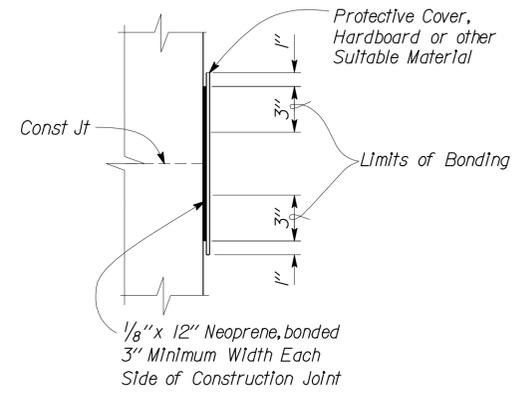
2 RUNG DETAIL
Scale 4" = 1'-0"



3 BOTTOM OF LADDER OPTION
Scale 3/4" = 1'-0"



4 WATERSTOP DETAIL
No Scale



5 WATERSTOP DETAIL
No Scale

DESIGN	BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	GOSHEN OVERCROSSING PUMPING PLANT MODIFICATION		SHEET	
	DETAILS	BY	Daniel Harakh	CHECKED			Chandra Bapat	46-0175W	LADDER AND LANDING DETAILS		ST-8
QUANTITIES	BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE	3581 0600020408	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	232	346

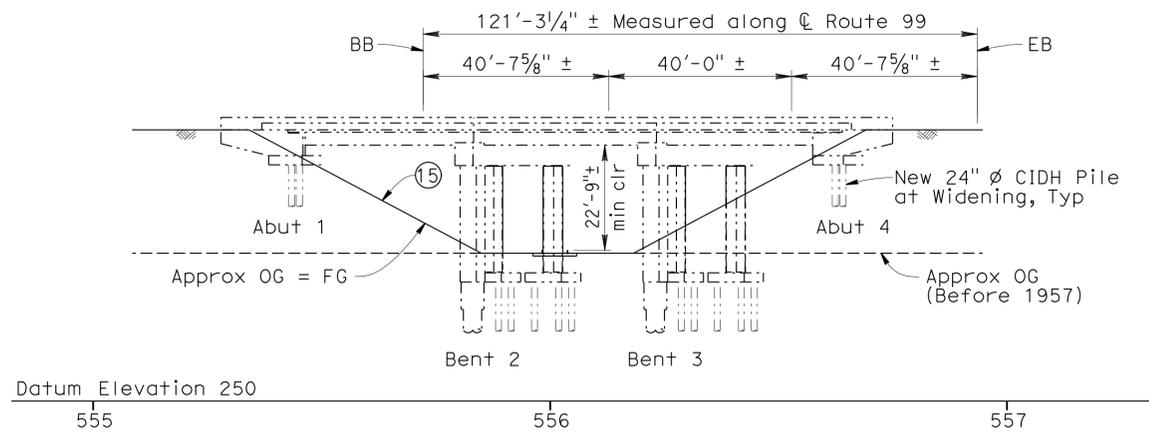
Richard Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
PLANS APPROVAL DATE

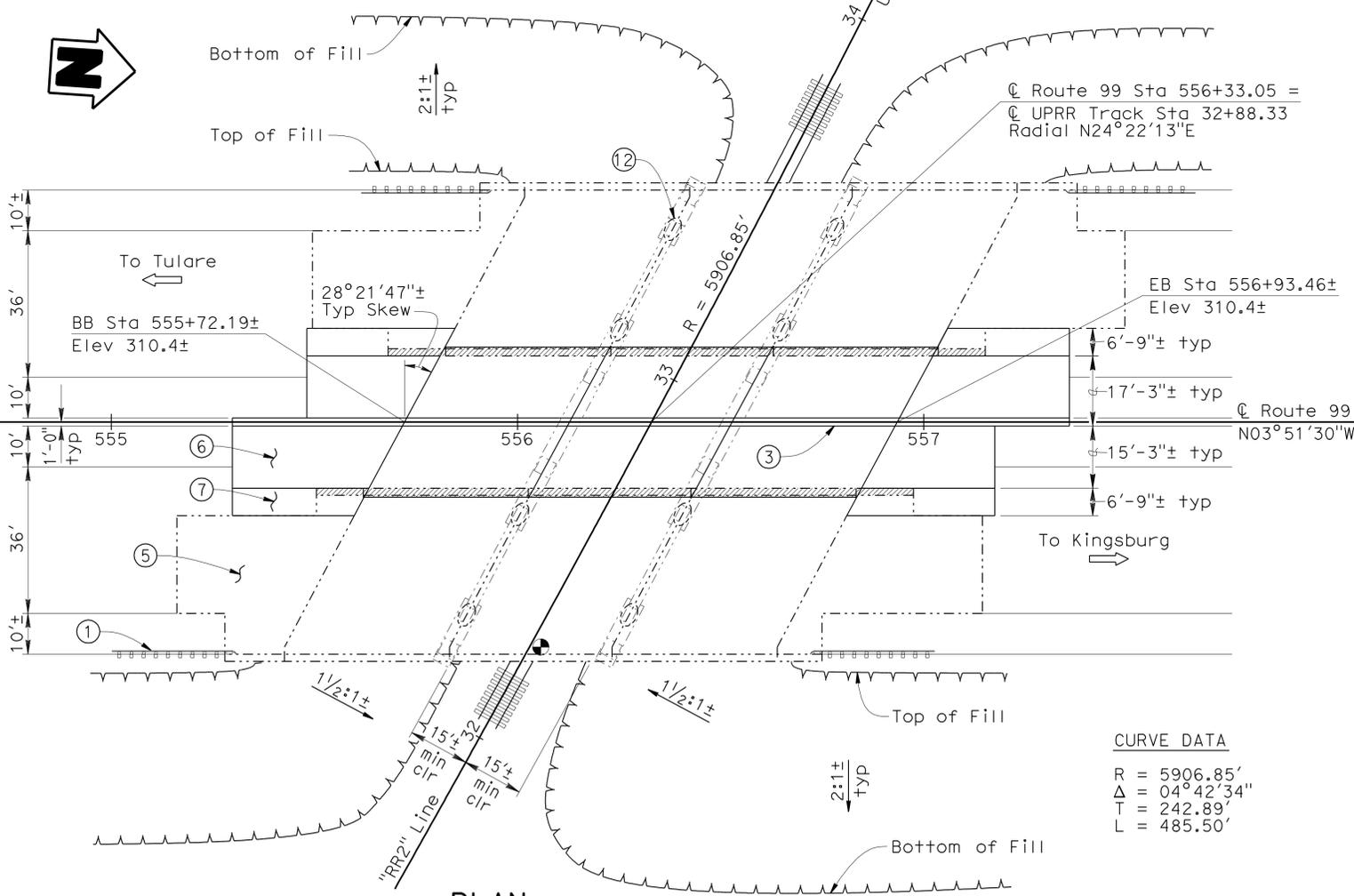
Richard E. Schendel
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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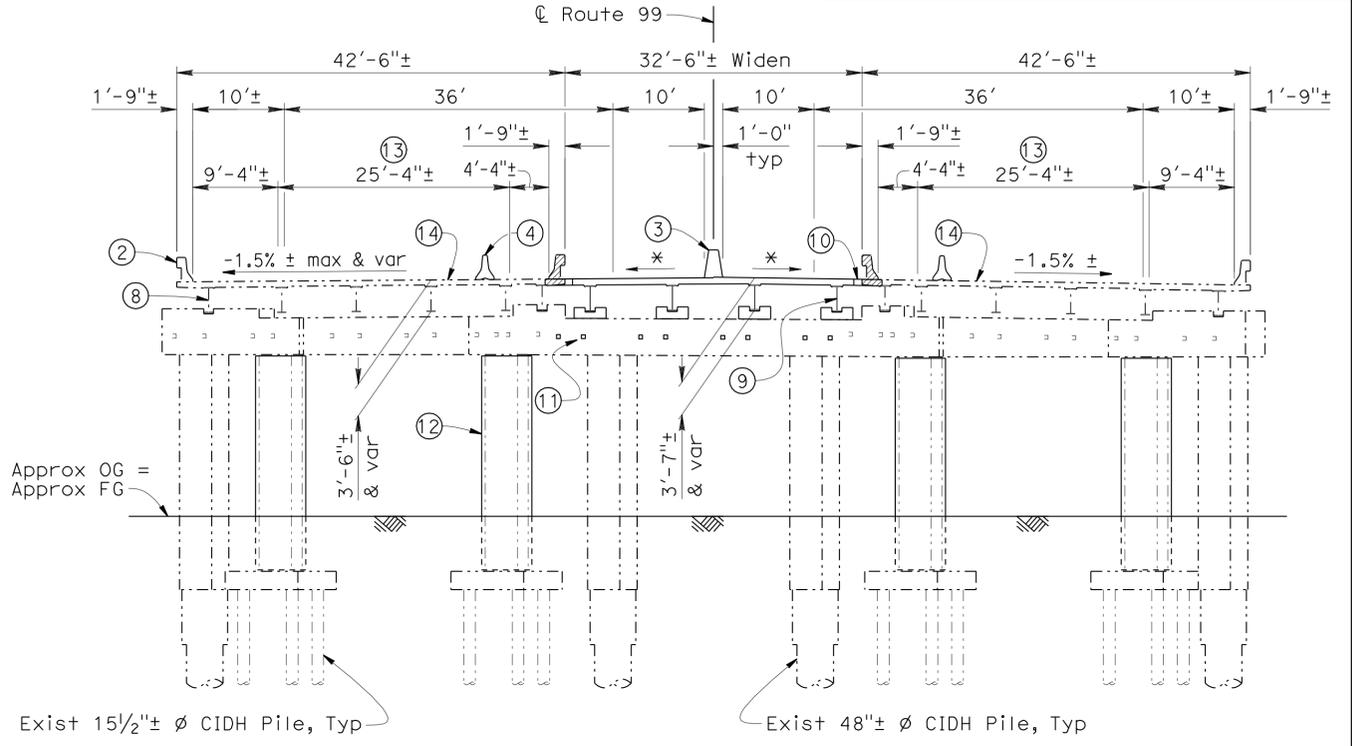
For "GENERAL NOTES", "STANDARD PLANS", "INDEX TO PLANS", "PILE DATA", and "QUANTITIES", see "INDEX TO PLANS" sheet.



ELEVATION
1" = 20'



PLAN
1" = 20'



TYPICAL SECTION
1" = 10'

NOTES

- ① MBGR, Typ, see "ROAD PLANS"
- ② Exist Concrete Barrier Type 25, Typ
- ③ Concrete Barrier Type 60A
- ④ Temporary Railing Type K, Typ, see "ROAD PLANS"
- ⑤ Exist Structure Approach Type R(30S), Typ
- ⑥ Structure Approach Type N(30S), Typ
- ⑦ Structure Approach Type R(30S), Typ
- ⑧ Exist Steel Girder (Rolled Section, Non-composite), Typ
- ⑨ New Steel Girder (W33x130, Non-Composite), Typ
- ⑩ 3'-0" Closure Pour, Typ
- ⑪ Cable restrainers connecting new girders to bentcap
- ⑫ Steel Column Casing, Typ
- ⑬ Grind epoxy grit surfacing on exist deck
- ⑭ Prepare & treat exist deck with methacrylate
- ⑮ Full Slope Paving, Exist and Widen, Typ

LEGEND

- Existing Structure
- New Structure
- ▨ Bridge Removal (Portion)
- Point of min vert clearance
- * Match Existing

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

MICHAEL POPE DESIGN ENGINEER	DESIGN	BY RICHARD SCHENDEL	CHECKED PREM RIMAL	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	NORTH GOSHEN OVERHEAD (WIDEN)			
	DETAILS	BY RICHARD SCHENDEL	CHECKED PREM RIMAL	LAYOUT	BY RICHARD SCHENDEL			CHECKED PREM RIMAL		46-0055 R/L		
	QUANTITIES	BY RICHARD SCHENDEL	CHECKED PREM RIMAL	SPECIFICATIONS	BY REBECCA FRANTI			PLANS AND SPECS COMPARED REBECCA FRANTI		POST MILE	41.1	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 1	OF 23

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	233	346

Richard E. Schendel
 REGISTERED CIVIL ENGINEER
 DATE 12/01/11
 4-16-12
 PLANS APPROVAL DATE
 RICHARD E. SCHENDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA
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GENERAL NOTES

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
 AASHTO LRFD Bridge Design Specifications, 4th edition and the Caltrans Amendments, preface dated September 2010; except that axial loading on existing median 48" diameter CIDH piles checked using Bridge Design Specifications (1996 AASHTO with Revisions by Caltrans), Nominal Axial Pile Resistance = 715 kips

SEISMIC DESIGN:
 Caltrans Seismic Design Criteria (SDC), Version 1.6, November 2010

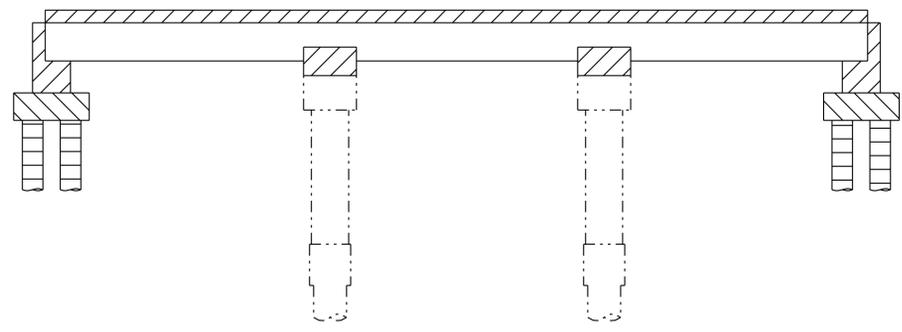
DEAD LOAD:
 Includes 35 psf for future wearing surface

LIVE LOADING:
 HL93 and permit design load

SEISMIC LOADING:
 See "ACCELERATION RESPONSE SPECTRA CURVE"
 Soil Profile: Vs30 = 980 ft/sec for the top 100 ft of soil
 Moment Magnitude: Mmax = 7.9
 Peak Ground Acceleration = 0.23 g

CONCRETE:
 fy = 60 ksi
 fc = See "CONCRETE STRENGTH AND TYPE LIMITS".

STRUCTURAL STEEL:
 ASTM A709
 Grade 50 (fy = 50 ksi) for W sections
 Grade 36 (fy = 36 ksi) minimum elsewhere



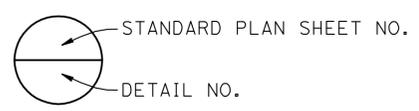
- Structural Concrete, Bridge (3.60 ksi at 28 days)
- Structural Concrete, Bridge Footing (3.60 ksi at 28 days)
- Cast-In-Drilled-Hole Concrete Pile (3.60 ksi at 28 days)

CONCRETE STRENGTH AND TYPE LIMITS

No Scale

STANDARD PLANS DATED MAY 2006

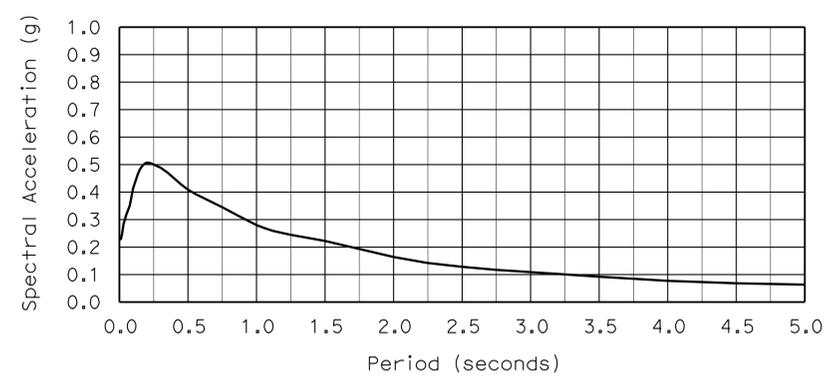
- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
- A76A CONCRETE BARRIER TYPE 60
- B0-1 BRIDGE DETAILS
- B0-5 BRIDGE DETAILS
- B2-3 16" AND 24" CAST-IN-DRILLED-HOLE CONCRETE PILE
- RSP B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- P10 CONCRETE PAVEMENT - DOWEL BAR DETAILS



PILE DATA

Location	Pile Type	Nominal Resistance (kips)		Design Tip Elevation (ft)	Specified Tip Elevation (ft)
		Compression	Tension		
Abut 1	24" CIDH	200	0	262.0 (a), 262.0 (c)	262.0
Abut 4	24" CIDH	200	0	262.0 (a), 262.0 (c)	262.0

Note: Design tip elevations are controlled by: (a) Compression, (c) Lateral Load



ACCELERATION RESPONSE SPECTRA CURVE

INDEX TO PLANS

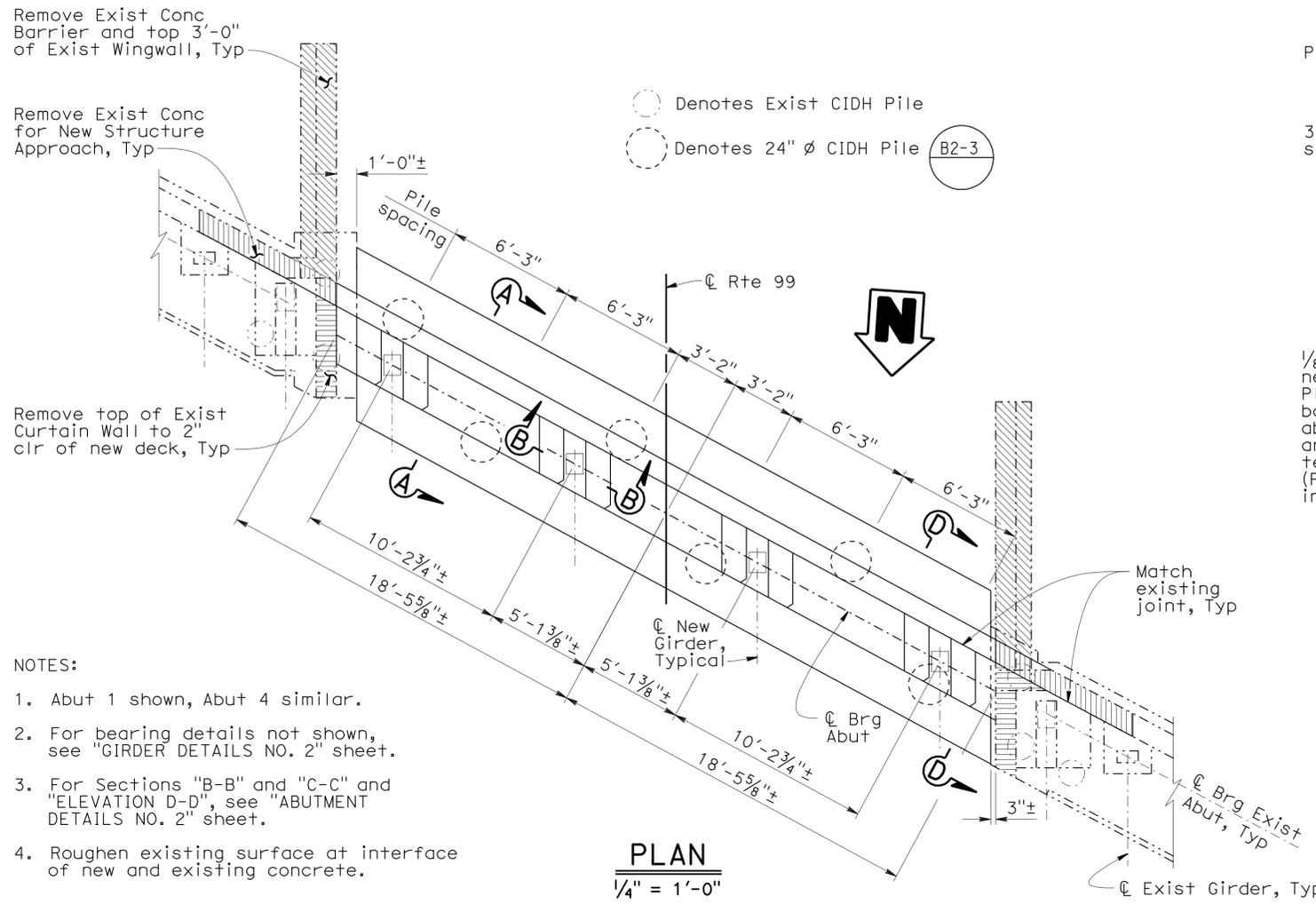
Sheet No.	Title
1	GENERAL PLAN
2	INDEX TO PLANS
3	FOUNDATION PLAN
4	ABUTMENT DETAILS NO. 1
5	ABUTMENT DETAILS NO. 2
6	BENT DETAILS
7	STEEL COLUMN CASING DETAILS NO. 1
8	STEEL COLUMN CASING DETAILS NO. 2
9	TYPICAL SECTION
10	GIRDER LAYOUT
11	GIRDER DETAILS NO. 1
12	GIRDER DETAILS NO. 2
13	RESTRAINER LAYOUT
14	RESTRAINER DETAILS
15	STRUCTURE APPROACH TYPE N(30S)
16	STRUCTURE APPROACH TYPE R(30S)
17	STRUCTURE APPROACH DRAINAGE DETAILS
18	SLOPE PAVING - FULL SLOPE
19	LOG OF TEST BORINGS 1 OF 5
20	LOG OF TEST BORINGS 2 OF 5
21	LOG OF TEST BORINGS 3 OF 5
22	LOG OF TEST BORINGS 4 OF 5
23	LOG OF TEST BORINGS 5 OF 5

QUANTITIES

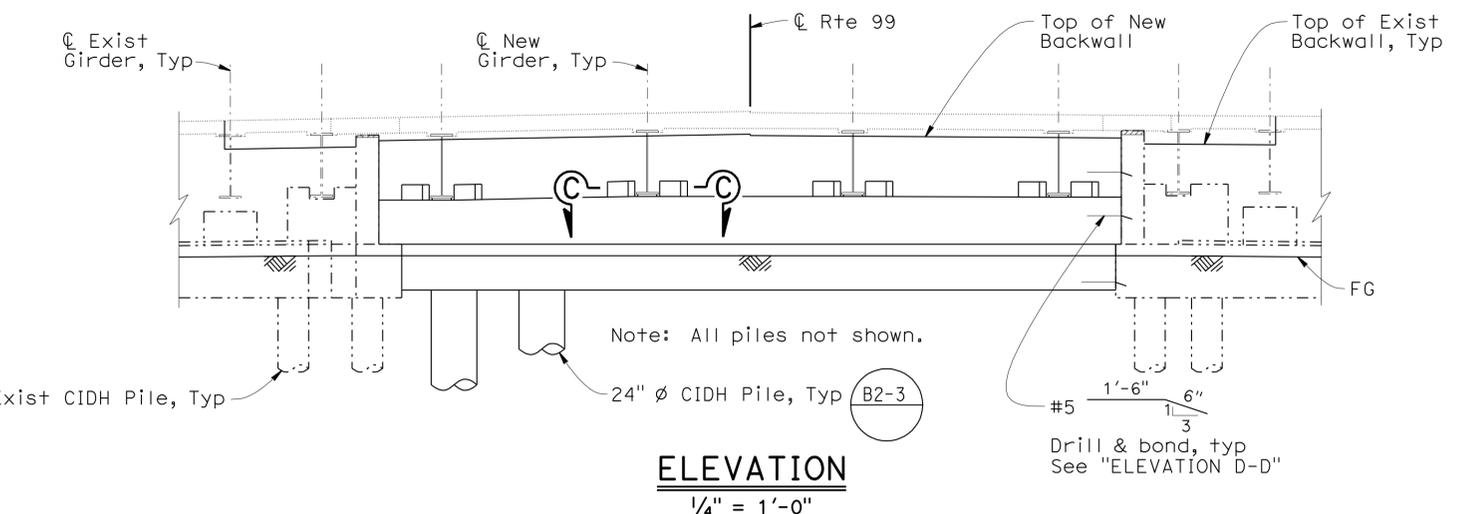
GRIND EPOXY GRIT SURFACING	6,144 SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	9,400 SQFT
BRIDGE REMOVAL (PORTION), LOCATION F	LUMP SUM
STRUCTURE EXCAVATION (BRIDGE)	393 CY
STRUCTURE BACKFILL (BRIDGE)	326 CY
AGGREGATE BASE (APPROACH SLAB)	3 CY
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	490 LF
STRUCTURAL CONCRETE, BRIDGE FOOTING	39 CY
STRUCTURAL CONCRETE, BRIDGE	154 CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	81 CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	33 CY
DRILL AND BOND DOWEL	227 LF
CORE CONCRETE (2 1/2")	145 LF
JOINT SEAL (MR 1/2")	190 LF
BAR REINFORCING STEEL (BRIDGE)	52,690 LB
ASPHALT MEMBRANE WATERPROOFING	1,075 SQFT
TREAT BRIDGE DECK	9,400 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	126 GAL
PUBLIC SAFETY PLAN	LUMP SUM
COLUMN CASING	42,773 LB
FURNISH STRUCTURAL STEEL (BRIDGE)	78,850 LB
ERECT STRUCTURAL STEEL (BRIDGE)	78,850 LB
CLEAN AND PAINT STRUCTURAL STEEL	LUMP SUM
SLOPE PAVING (CONCRETE)	144 CY
MISCELLANEOUS METAL (RESTRAINER - CABLE TYPE)	1,890 LB
CONCRETE BARRIER (TYPE 60A)	206 LF

DESIGN BY RICHARD SCHENDEL CHECKED PREM RIMAL DETAILS BY RICHARD SCHENDEL CHECKED PREM RIMAL QUANTITIES BY RICHARD SCHENDEL CHECKED PREM RIMAL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0055 R/L	NORTH GOSHEN OVERHEAD (WIDEN) INDEX TO PLANS					
			POST MILE 41.1						
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 2 OF 23

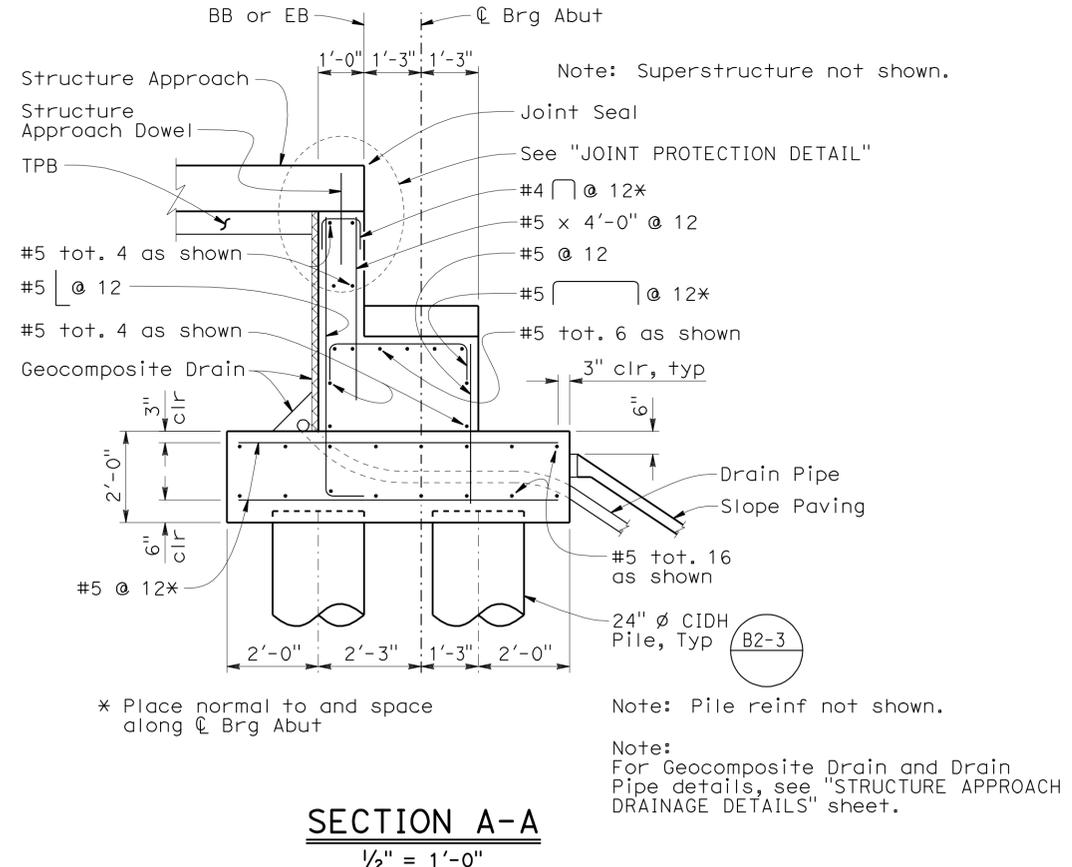
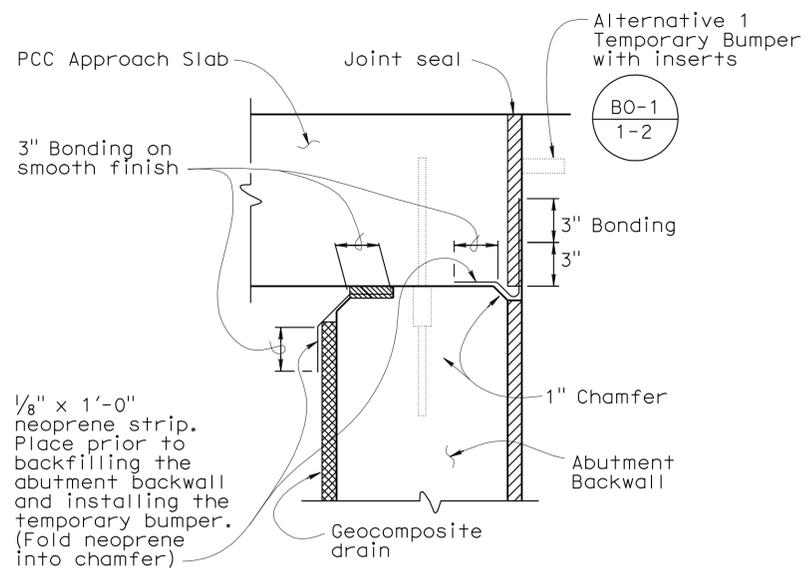
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	235	346
 REGISTERED CIVIL ENGINEER			12/01/11	DATE	
4-16-12 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



- NOTES:
1. Abut 1 shown, Abut 4 similar.
 2. For bearing details not shown, see "GIRDER DETAILS NO. 2" sheet.
 3. For Sections "B-B" and "C-C" and "ELEVATION D-D", see "ABUTMENT DETAILS NO. 2" sheet.
 4. Roughen existing surface at interface of new and existing concrete.



NOTE:
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DESIGN	BY RICHARD SCHENDEL	CHECKED PREM RIMAL
DETAILS	BY RICHARD SCHENDEL	CHECKED PREM RIMAL
QUANTITIES	BY RICHARD SCHENDEL	CHECKED PREM RIMAL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

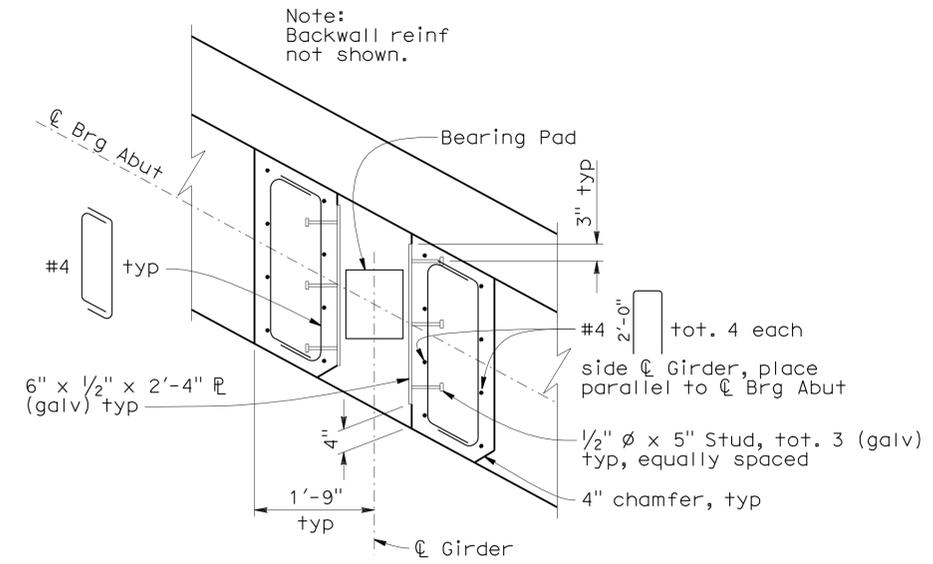
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

BRIDGE NO. 46-0055 R/L
POST MILE 41.1
NORTH GOSHEN OVERHEAD (WIDEN)
ABUTMENT DETAILS NO. 1

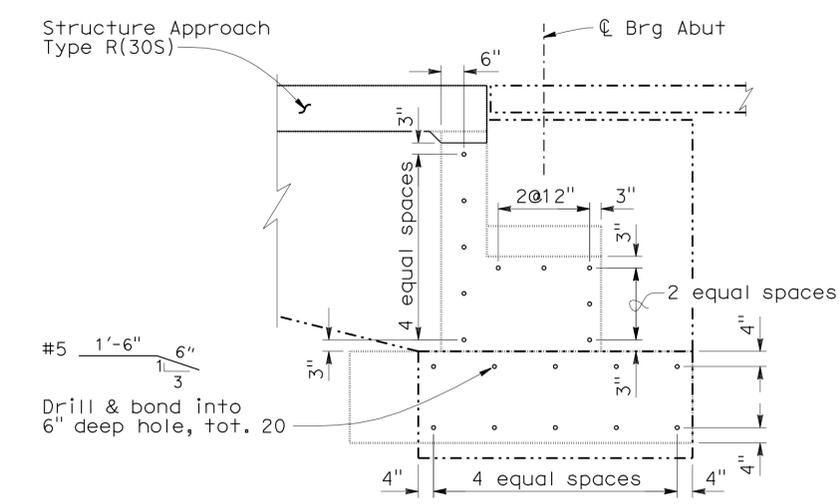
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	236	346

Richard Schendel
 REGISTERED CIVIL ENGINEER DATE 12/01/11
 4-16-12
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 RICHARD E. SCHEDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA



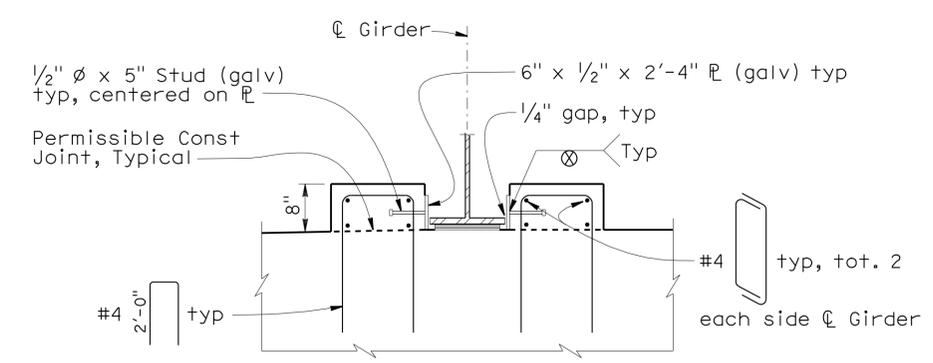
Note: Girder not shown.
SECTION C-C
 3/4" = 1'-0"



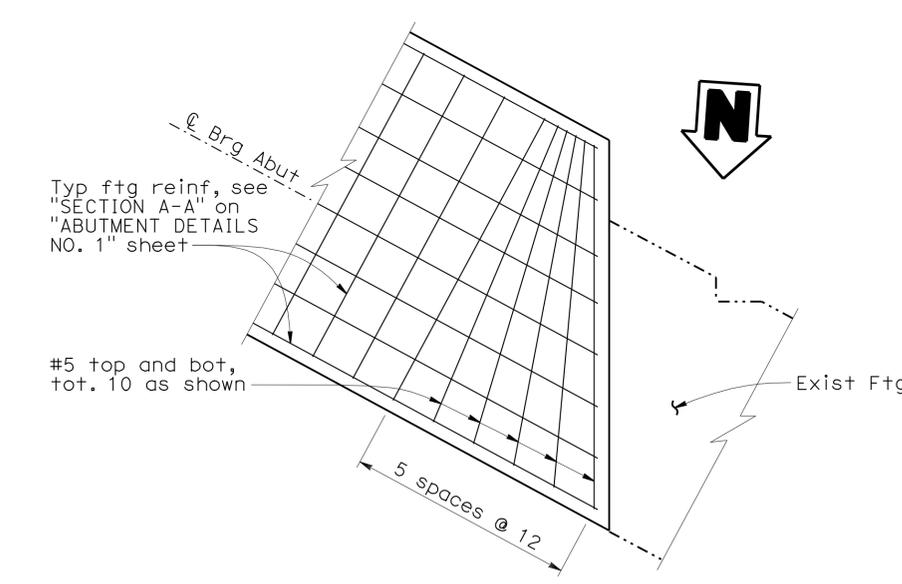
Abut 1 left side shown, other locations similar.
ELEVATION D-D
 1/2" = 1'-0"

Note: Exist Conc Barrier, Bridge Removal (Portion), and piles not shown.

Note: For bearing details not shown, see "GIRDER DETAILS NO. 2" sheet.



Note: Abut stem reinf not shown.
SECTION B-B
 3/4" = 1'-0"

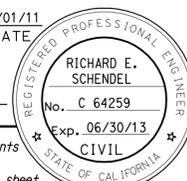


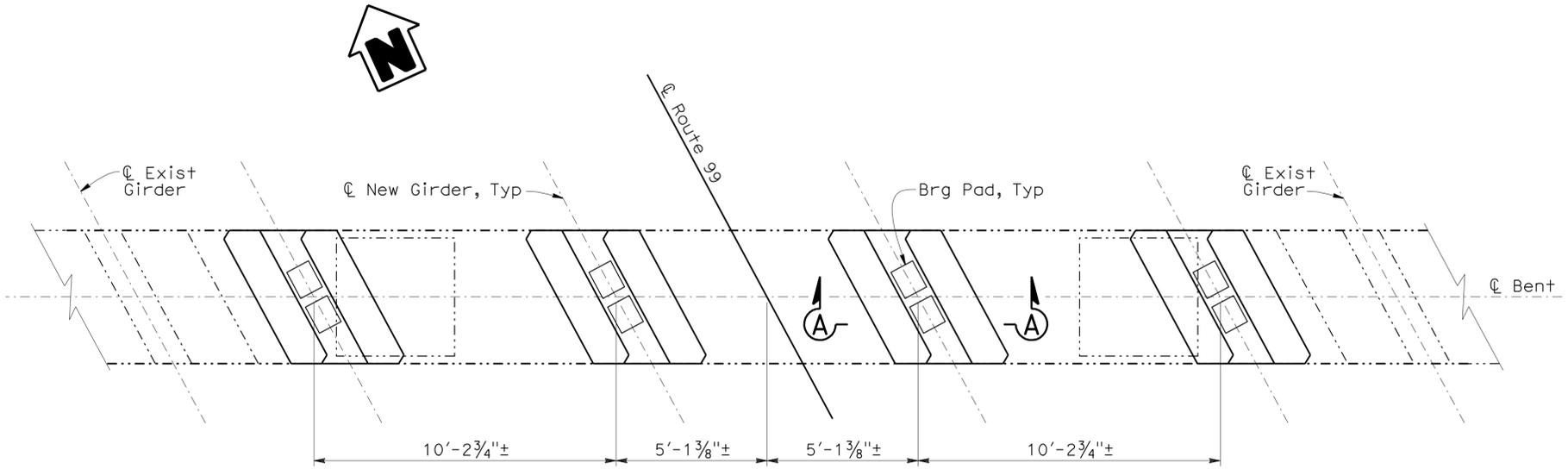
Abut 1 left side shown, other locations similar.
FOOTING CORNER REINFORCEMENT-PLAN
 1/2" = 1'-0"

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

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY RICHARD SCHEDEL	CHECKED PREM RIMAL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	NORTH GOSHEN OVERHEAD (WIDEN) ABUTMENT DETAILS NO. 2			
	DETAILS	BY RICHARD SCHEDEL	CHECKED PREM RIMAL			46-0055 R/L				
	QUANTITIES	BY RICHARD SCHEDEL	CHECKED PREM RIMAL			POST MILE 41.1				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	REVISION DATES	SHEET OF	
					DISREGARD PRINTS BEARING EARLIER REVISION DATES	01/06/11	05/18/11	06/28/11	5	23

USERNAME => 8124496 DATE PLOTTED => 19-APR-2012 TIME PLOTTED => 12:14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	237	346
 REGISTERED CIVIL ENGINEER			12/01/11 DATE		
4-16-12 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

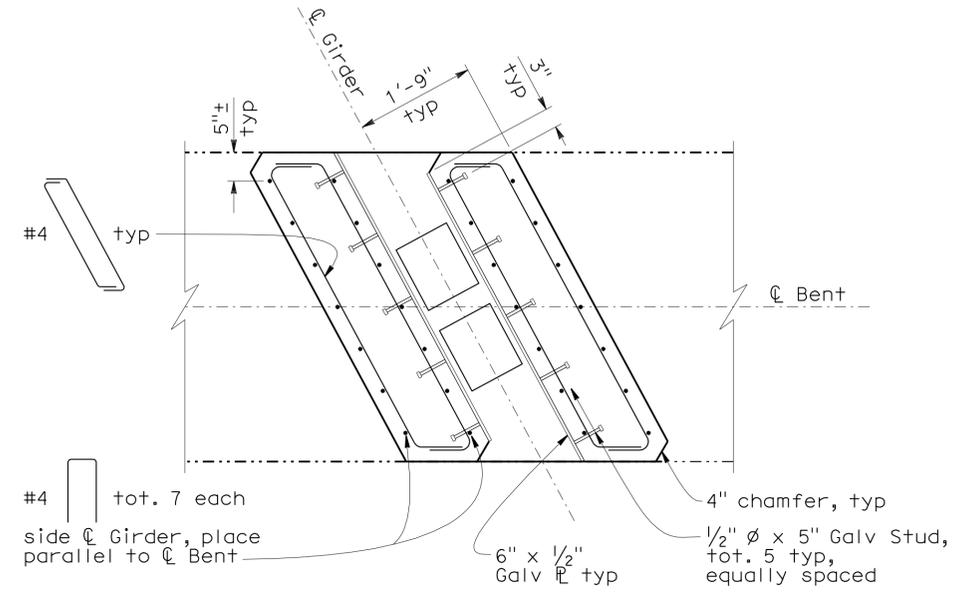


Note: Girders not shown.

PLAN
3/8" = 1'-0"

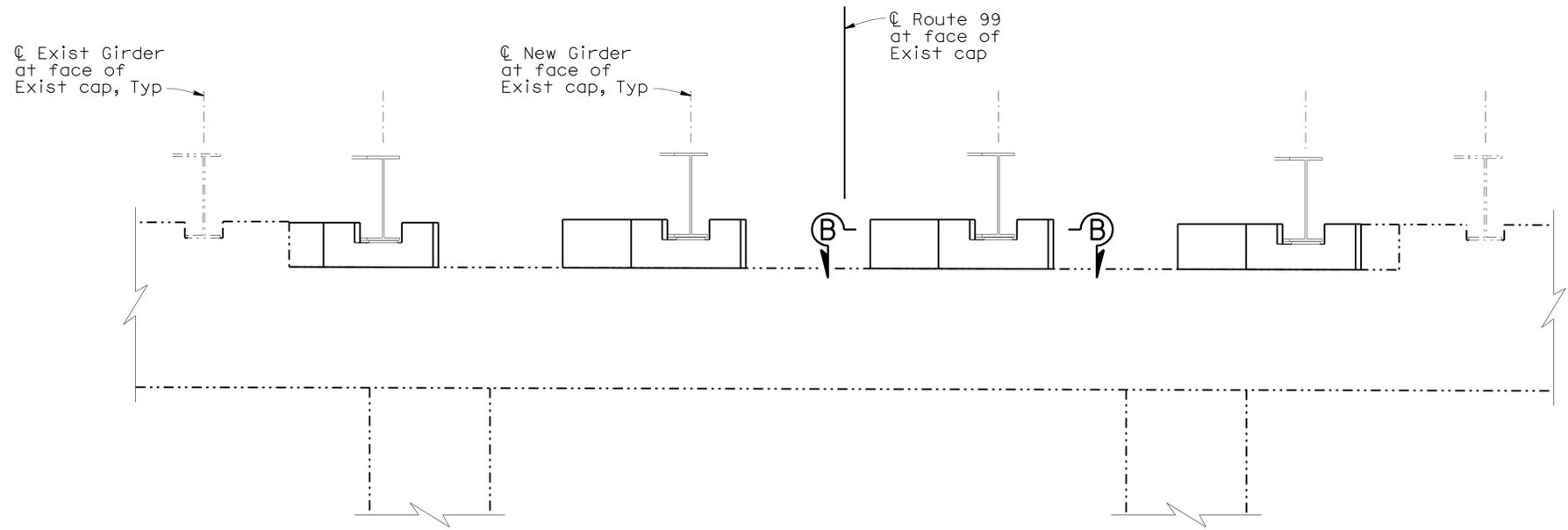
Note:
For restrainers not shown, see
"RESTRAINER LAYOUT" sheet.

Note:
For bearing details not shown,
see "GIRDER DETAILS NO. 2" sheet.

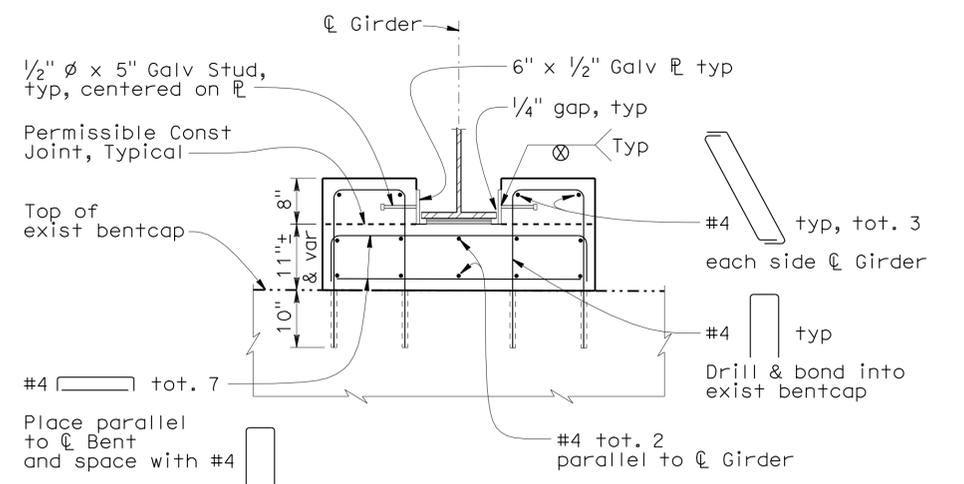


Note: Girder not shown.

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



ELEVATION
3/8" = 1'-0"



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

NOTE:
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BEFORE ORDERING OR FABRICATING
ANY MATERIAL.

DESIGN DETAILS QUANTITIES	BY RICHARD SCHEDEL	CHECKED PREM RIMAL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0055 R/L	NORTH GOSHEN OVERHEAD (WIDEN) BENT DETAILS		
	BY RICHARD SCHEDEL	CHECKED PREM RIMAL			POST MILE 41.1			
	BY RICHARD SCHEDEL	CHECKED PREM RIMAL			CONTRACT NO.: 06-360211			
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 01/06/11 06/15/11 07/21/11	SHEET 6 OF 23

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	238	346

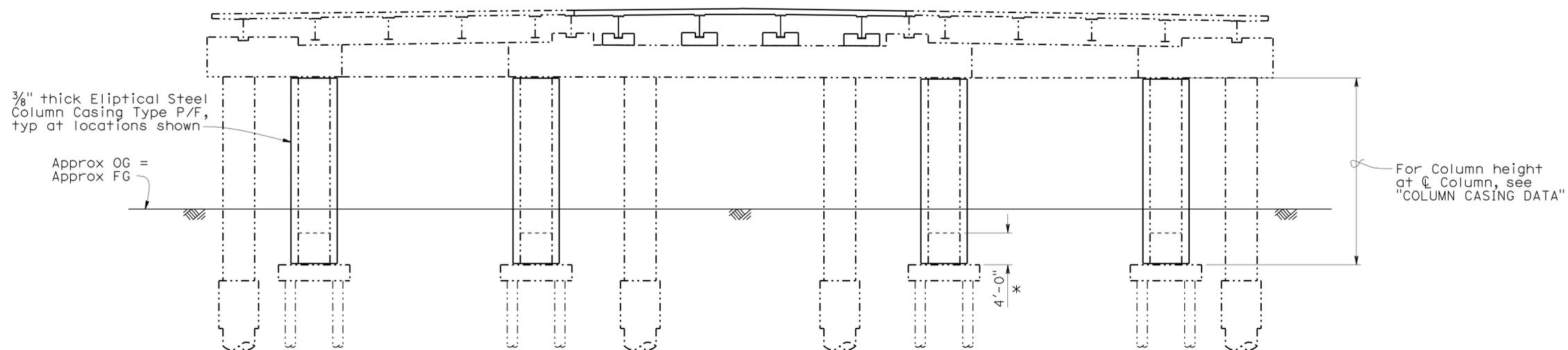
Richard Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
PLANS APPROVAL DATE

RICHARD E. SCHENDEL
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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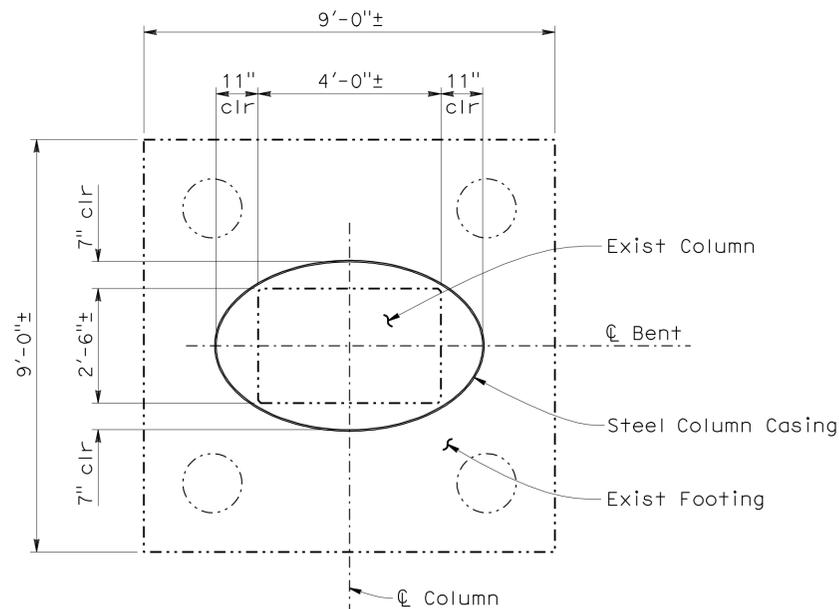
Note: Barriers not shown.



BENT ELEVATION
 $\frac{1}{8}'' = 1'-0''$

* Limits of polyethylene, typ, see "STEEL COLUMN CASING DETAILS NO. 2" sheet.

Note:
For details not shown, see "STEEL COLUMN CASING DETAILS NO. 2" sheet.

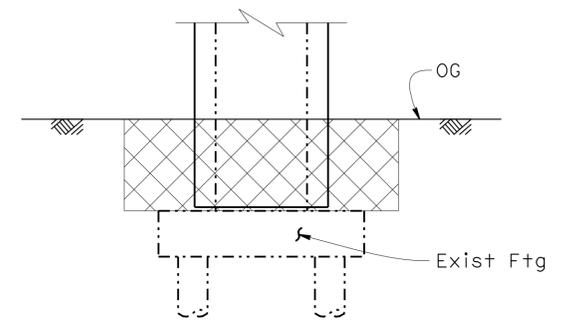


TYPICAL SECTION AT STEEL COLUMN CASING
 $\frac{1}{2}'' = 1'-0''$

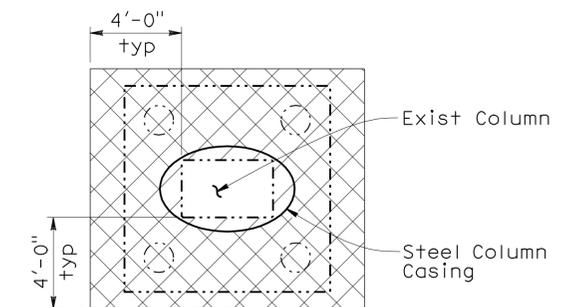
COLUMN CASING DATA

Location		Column Height (ft)	Casing Class	Casing Thickness	Top of Footing Elevation (ft)	Approx OG Elevation (ft)
Lt Bridge Bent 2	Lt Col	23.7±	P/F	$\frac{3}{8}''$	278.3±	286.8±
	Rt Col	23.7±	P/F	$\frac{3}{8}''$	278.3±	286.9±
Lt Bridge Bent 3	Lt Col	23.5±	P/F	$\frac{3}{8}''$	278.3±	286.9±
	Rt Col	23.5±	P/F	$\frac{3}{8}''$	278.3±	287.5±
Rt Bridge Bent 2	Lt Col	23.5±	P/F	$\frac{3}{8}''$	278.3±	287.3±
	Rt Col	23.5±	P/F	$\frac{3}{8}''$	278.3±	287.0±
Rt Bridge Bent 3	Lt Col	23.5±	P/F	$\frac{3}{8}''$	278.3±	287.2±
	Rt Col	23.5±	P/F	$\frac{3}{8}''$	278.3±	286.8±

Note: Approx OG Elevation (ft) is given at intersection of C Bent and C Column.



ELEVATION



PLAN

Denotes Structure Excavation
 Denotes Structure Backfill

PAY LIMITS FOR STRUCTURE EXCAVATION AND BACKFILL
 $\frac{1}{4}'' = 1'-0''$

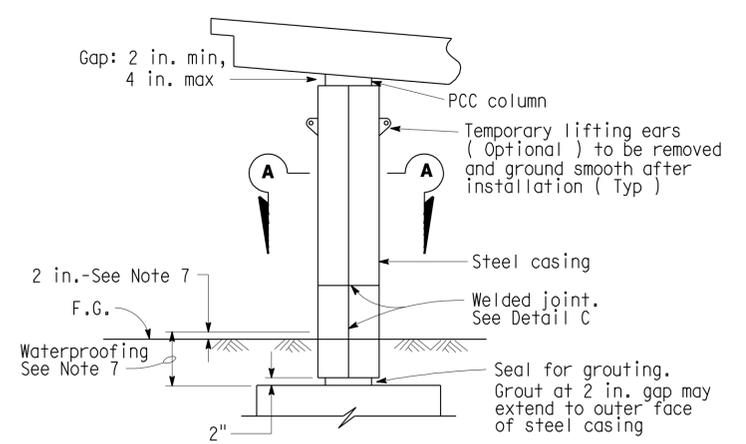
NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY RICHARD SCHENDEL	CHECKED PREM RIMAL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0055 R/L	NORTH GOSHEN OVERHEAD (WIDEN)		
	DETAILS	BY RICHARD SCHENDEL			CHECKED PREM RIMAL		POST MILE 41.1	STEEL COLUMN CASING DETAILS NO. 1
	QUANTITIES	BY RICHARD SCHENDEL			CHECKED PREM RIMAL		CONTRACT NO.: 06-360211	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 01/06/11 05/17/11 06/13/11	SHEET 7 OF 23

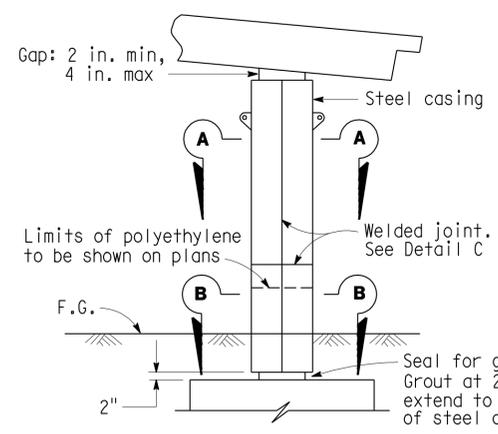
DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	239	346

<i>Richard Schendel</i>		12/01/11
REGISTERED ENGINEER - CIVIL		
4-16-12		
PLANS APPROVAL DATE		
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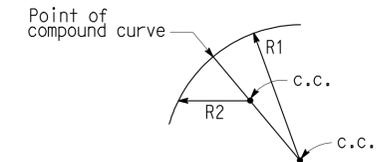
REGISTERED PROFESSIONAL ENGINEER
 RICHARD E. SCHENDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA



CLASS F COLUMN

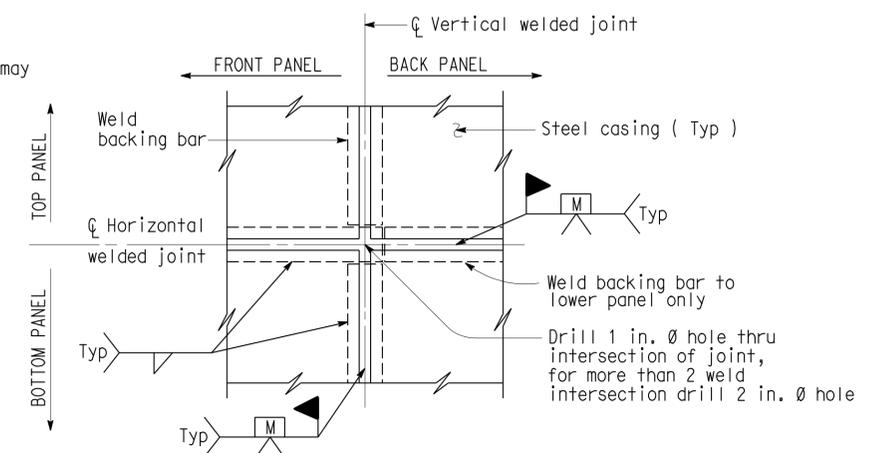


CLASS P/F COLUMN

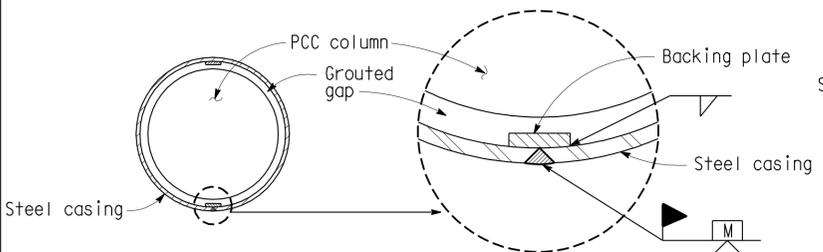


ELLIPTICAL CASING DETAIL CLASS F AND P/F COLUMN

Radii R1 and R2 to be determined by the Contractor subject to the approval of the Engineer

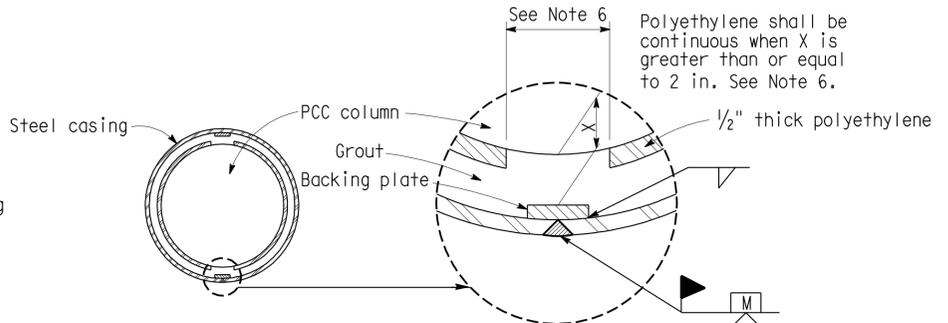


**(TWO WELDED INTERSECTION JOINT)
DETAIL C**



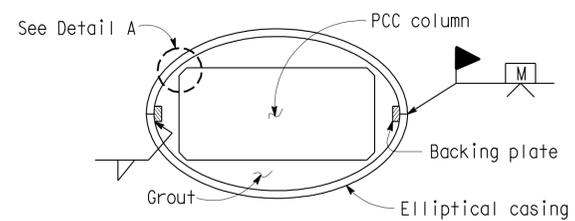
**SECTION A-A
ROUND COLUMN**

Minimum inside diameter of steel casing = 1/2" greater than nominal column diameter for Class F and 2 1/2" for Class P/F

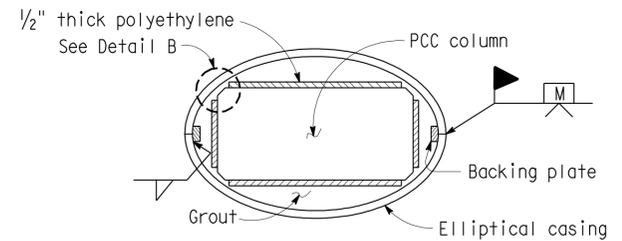


**SECTION B-B
ROUND COLUMN**

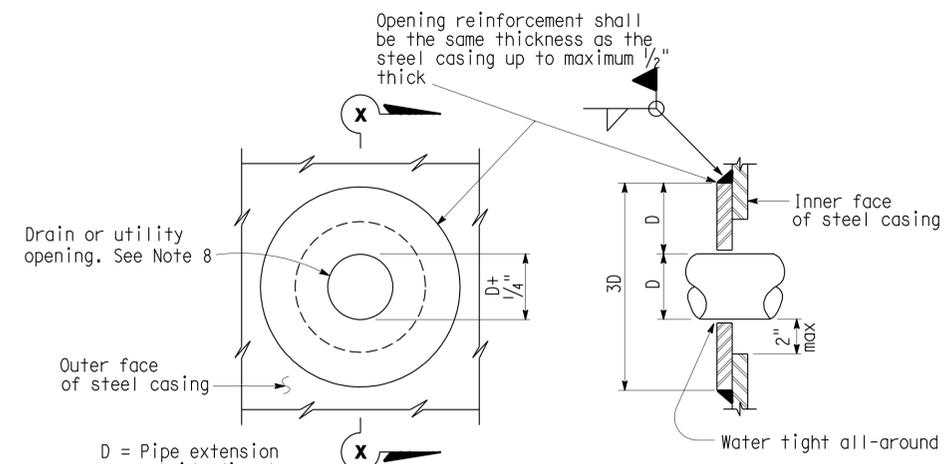
Minimum inside diameter of steel casing = 2 1/2" greater than nominal column diameter for Class P/F.



**SECTION A-A
RECTANGULAR COLUMN**



**SECTION B-B
RECTANGULAR COLUMN**



**SECTION X-X
CASING OPENING**

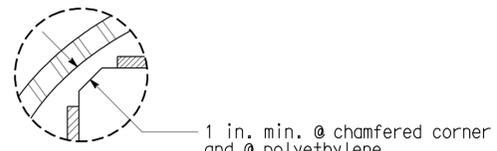
Note: Opening reinforcement required for drain or utility openings larger than 4 in.

NOTES:

- 1) For varying thickness steel casing inside surface to remain flush. Minimum clearance from PCC column to casing shall be maintained.
- 2) Appropriate injection nozzles to be provided on casing, but removed and ground flush following completion of grouting operation.
- 3) All voids between steel casing and polyethylene (Class P/F), and steel casing and PCC column (Class F) to be filled with grout.
- 4) Location and number of vertical and horizontal welds to be determined by the Contractor, and subject to the approval of the Engineer. The location of casing welds are for illustration. No skip welds allowed.
- 5) Circular steel casing to be 1/4" thick minimum for casings with a 4'-4" diameter or less; all other steel casings to be 3/8" thick unless noted differently on contract plans. Backing plates to be the same thickness as casing up to maximum 1/2" thick.
- 6) Contractor shall remove 12 in. polyethylene strip behind backing plate if backing plate is closer than 2" from face of column.
- 7) Waterproof limits for steel casings. Typical for Class "F" and "P/F".
- 8) For pipe extensions, opening shall be no more than 1/4" greater than the pipe extension diameter. For other openings, the opening diameter to be determined by the Engineer.



DETAIL A



DETAIL B

NO SCALE

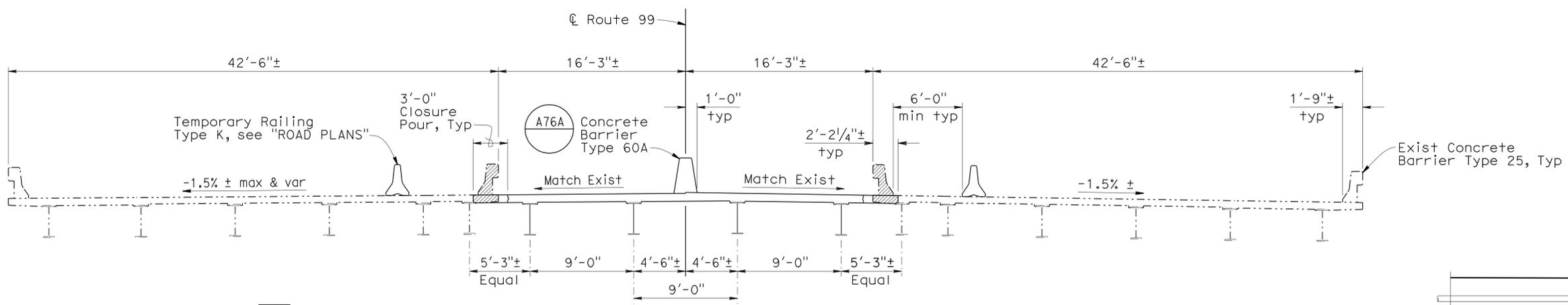
STANDARD DRAWING			
RELEASE DATE 11-16-06	DESIGN BY <i>BRIAN MARONEY</i>	CHECKED <i>R. J. ZELINSKI</i>	RELEASED BY
FILE NO. xs7-010e	DETAILS BY <i>R. YEE</i>	CHECKED <i>PAT HIPLEY</i>	<i>Michael D. Keener</i>
	SUBMITTED BY <i>R. J. ZELINSKI</i>	DRAWING DATE <i>8/93</i>	OFFICE CHIEF

STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES
DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 46-0055 R/L
CU 06 EA 360211	KILOMETER POST 41.1

NORTH GOSHEN OVERHEAD (WIDEN)	
STEEL COLUMN CASING DETAILS NO. 2	
REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
	8 23

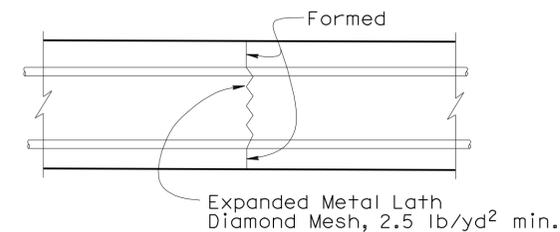
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	240	346

Richard E. Schendel
 REGISTERED CIVIL ENGINEER
 12/01/11
 DATE
 4-16-12
 PLANS APPROVAL DATE
 RICHARD E. SCHENDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA
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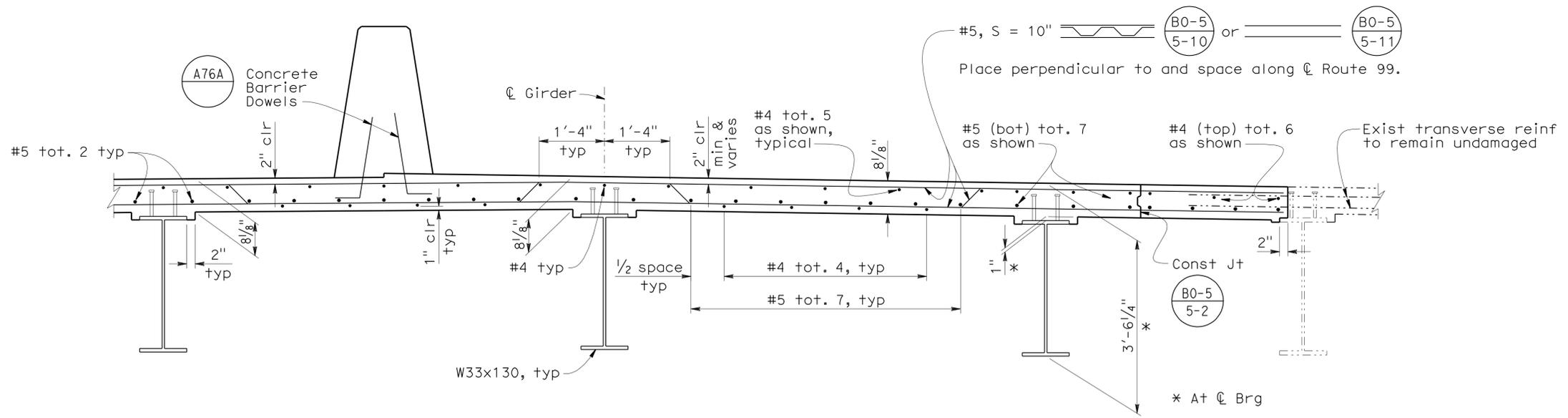


Denotes Bridge Removal (Portion)

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



ALTERNATIVE DECK CONSTRUCTION JOINT
No Scale



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

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DESIGN BY RICHARD SCHENDEL CHECKED PREM RIMAL DETAILS BY RICHARD SCHENDEL CHECKED PREM RIMAL QUANTITIES BY RICHARD SCHENDEL CHECKED PREM RIMAL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0055 R/L POST MILE 41.1	NORTH GOSHEN OVERHEAD (WIDEN) TYPICAL SECTION
	UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1 CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 01/05/11 08/16/11	SHEET OF 9 23
	STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	FILE => 46-0055R1-K-ts01.dgn	

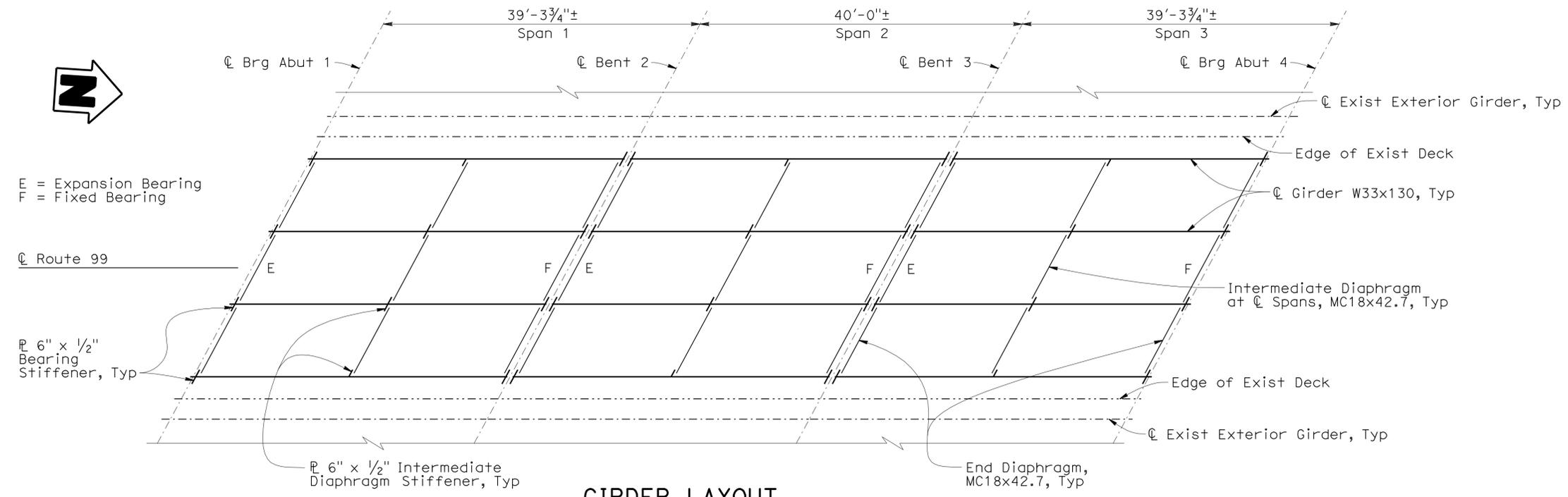
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	241	346

Richard E. Schendel
 REGISTERED CIVIL ENGINEER 12/01/11 DATE

4-16-12
 PLANS APPROVAL DATE

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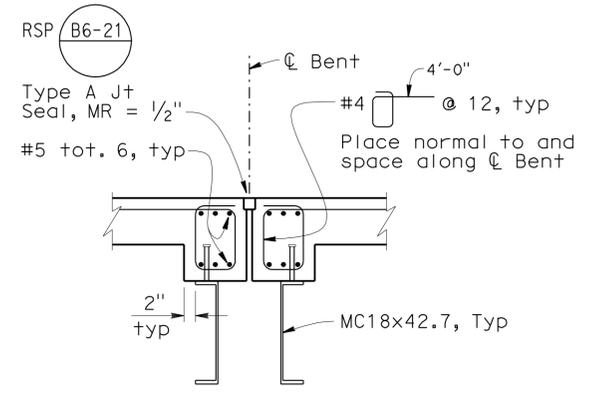
RICHARD E. SCHEDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA



GIRDER LAYOUT
 No Scale

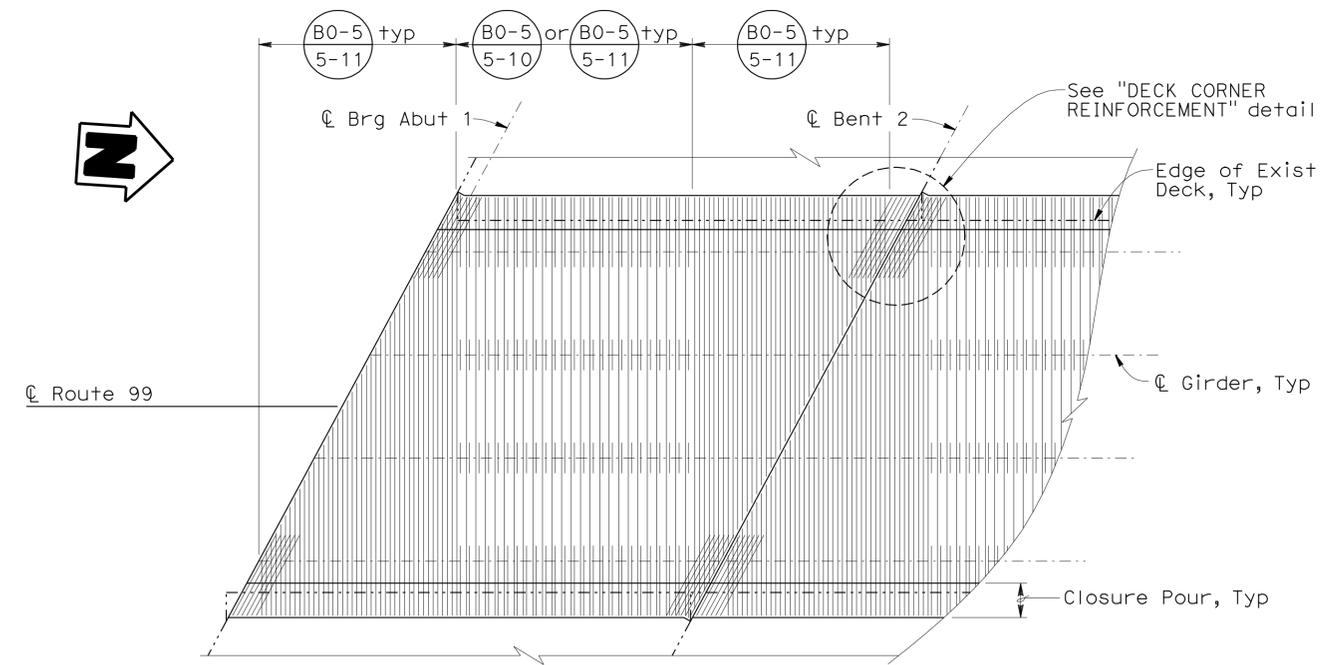
Midspan Dead Load Deflection	
Deck	0.02 ft
Rail & FWS	0.01 ft

FWS = Future Wearing Surface

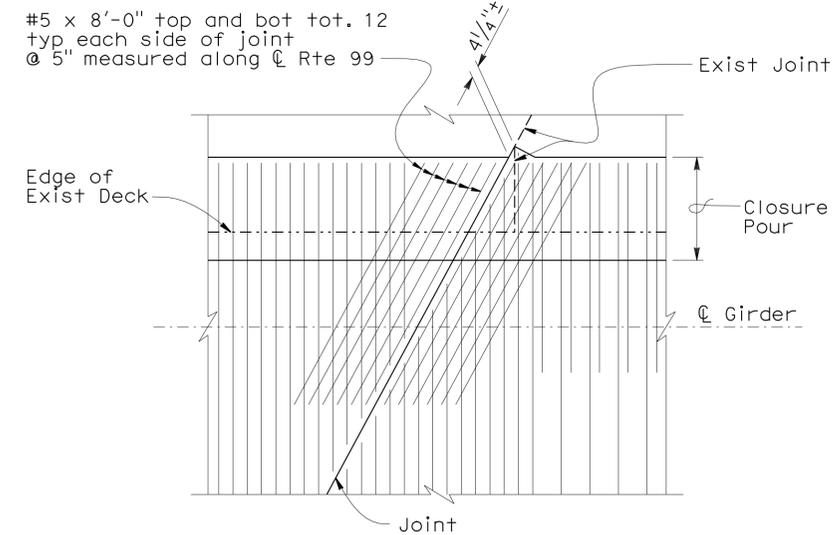


Note: All reinf not shown.

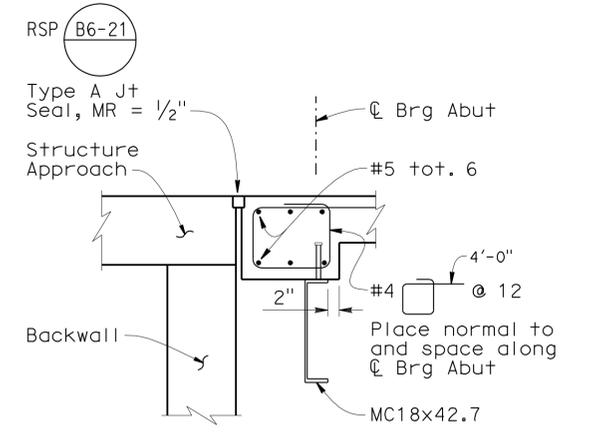
END DIAPHRAGM SECTION AT BENT
 3/4" = 1'-0"



PLAN - DECK REINFORCEMENT
 1/8" = 1'-0"



DECK CORNER REINFORCEMENT
 3/8" = 1'-0"



Note: All reinf not shown.

END DIAPHRAGM SECTION AT ABUTMENT
 3/4" = 1'-0"

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DESIGN	BY RICHARD SCHEDEL	CHECKED PREM RIMAL
DETAILS	BY RICHARD SCHEDEL	CHECKED PREM RIMAL
QUANTITIES	BY RICHARD SCHEDEL	CHECKED PREM RIMAL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 18

BRIDGE NO.	46-0055 R/L
POST MILE	41.1

NORTH GOSHEN OVERHEAD (WIDEN)
GIRDER LAYOUT

USERNAME => 8124496 DATE PLOTTED => 19-APR-2012 TIME PLOTTED => 12:14

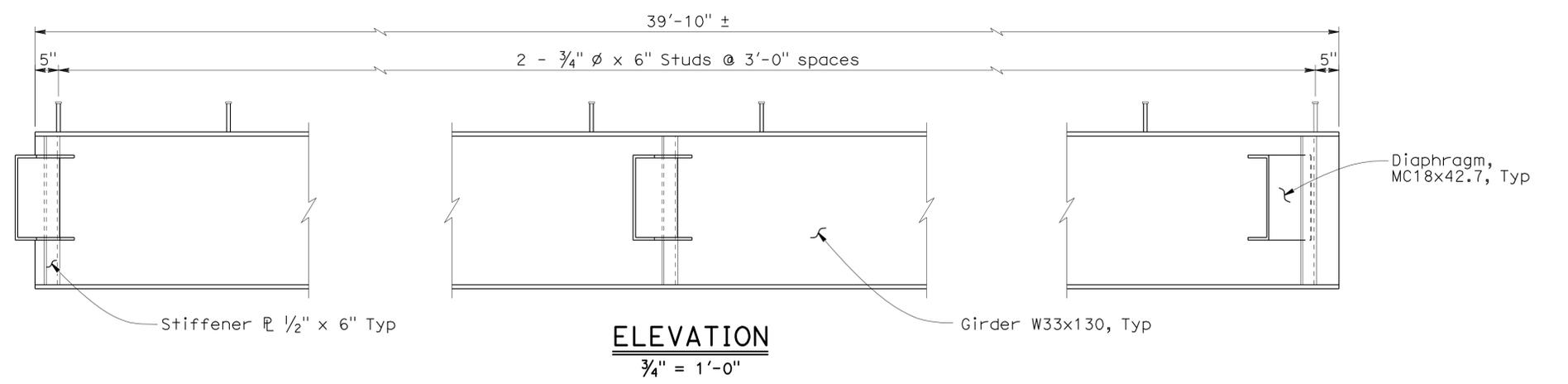
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	242	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER
DATE 12/01/11

4-16-12
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
RICHARD E. SCHENDEL
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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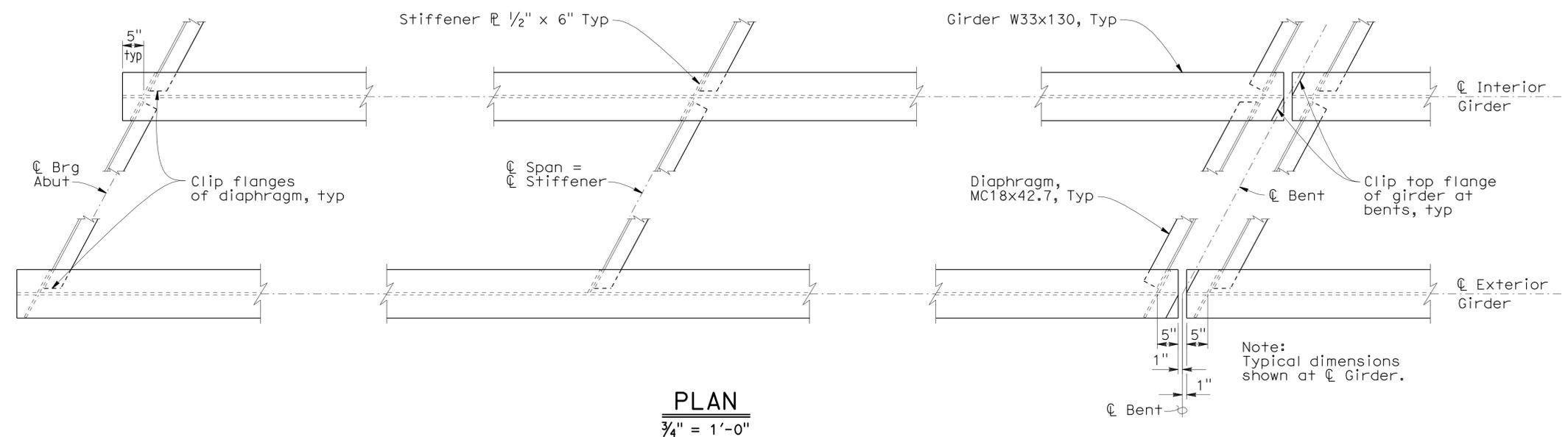
STEEL BRIDGE MEMBER IDENTIFICATION

The bottom half of the W33x130 and the MC18x42.7 (End Diaphragm only) is designated as "T" - Main Tension Member (Non-Fracture Critical Member).

The top half of the W33x130 and the MC18x42.7 (End Diaphragm only) is designated as "C" - Main Compression Member.

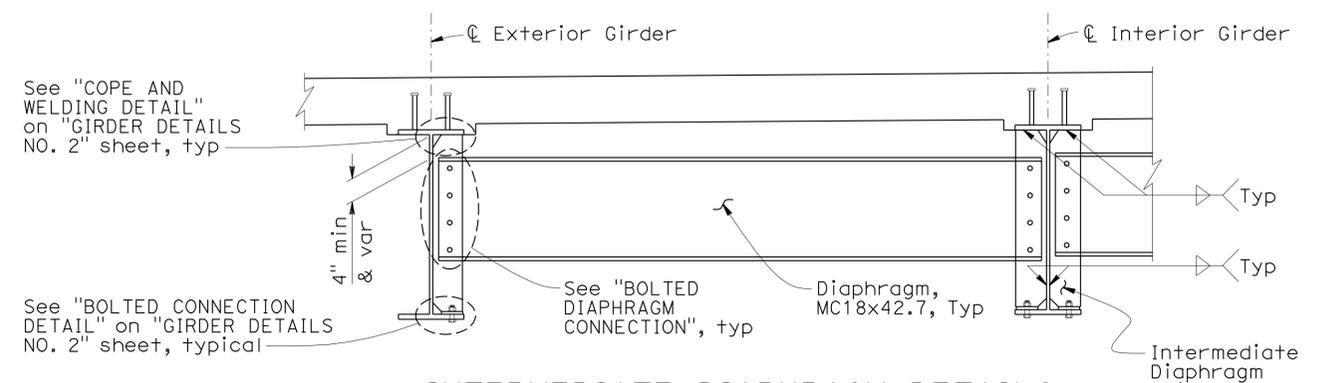
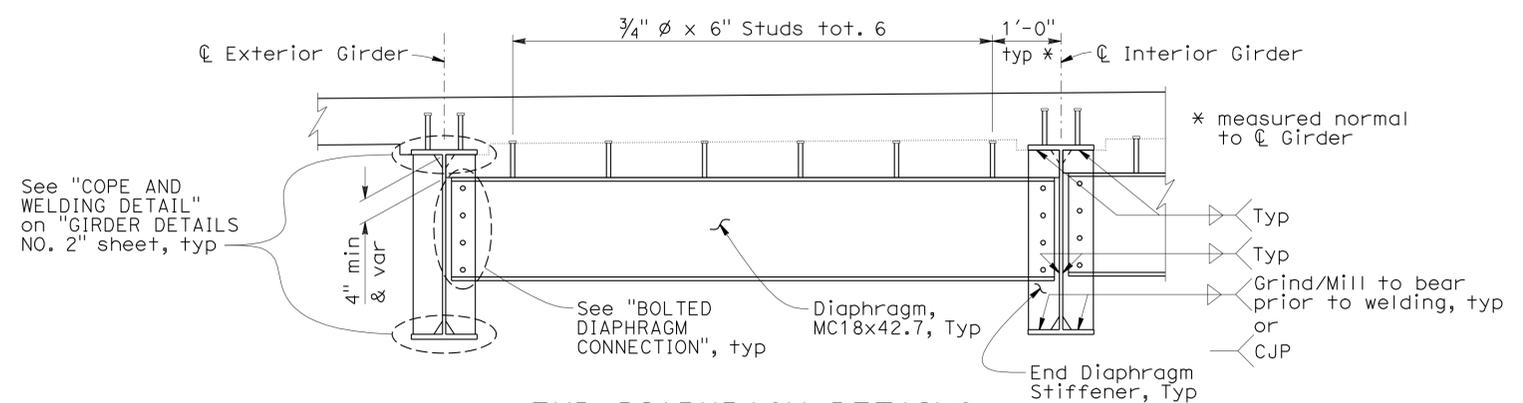
Primary components of Main Members are the Main Members' flanges, webs, and stiffeners.

All members not designated as Main Members are Secondary Members.



BOLTED DIAPHRAGM CONNECTION

1/2" = 1'-0"



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

DESIGN	BY RICHARD SCHENDEL	CHECKED PREM RIMAL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0055 R/L	NORTH GOSHEN OVERHEAD (WIDEN)	
	DETAILS BY RICHARD SCHENDEL	CHECKED PREM RIMAL			POST MILE 41.1		GIRDER DETAILS NO. 1
	QUANTITIES BY RICHARD SCHENDEL	CHECKED PREM RIMAL			CONTRACT NO.: 06-360211		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	REVISION DATES	SHEET 11 OF 23	

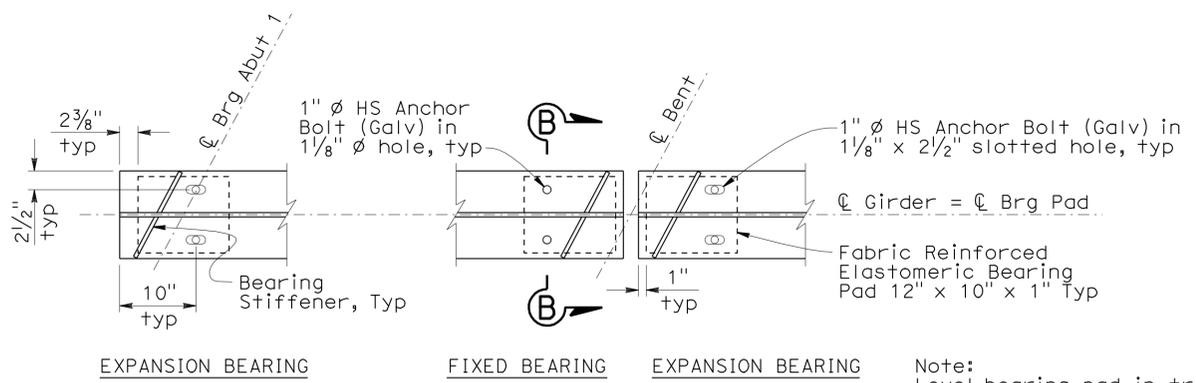
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	243	346

Richard Schendel
 REGISTERED CIVIL ENGINEER 12/01/11 DATE

4-16-12
 PLANS APPROVAL DATE

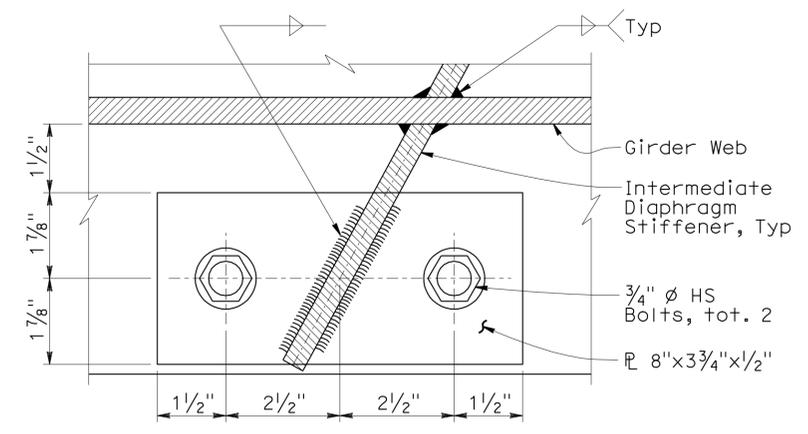
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RICHARD E. SCHEDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA

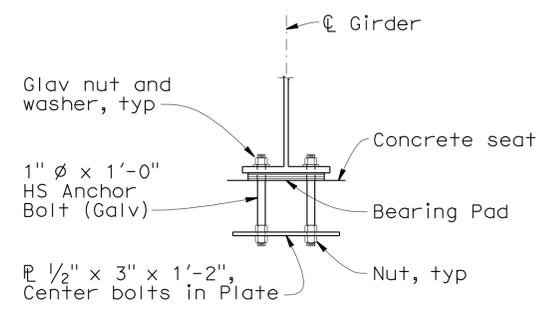


BEARING DETAIL - PLAN
 1" = 1'-0"

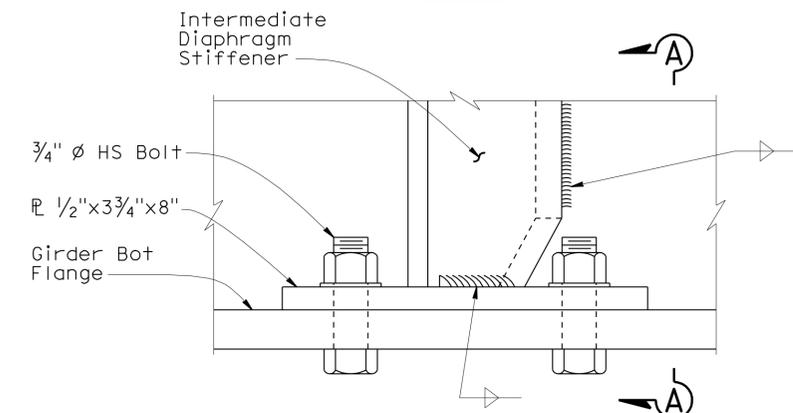
Note:
 Level bearing pad in transverse direction. Slope bearing pad in longitudinal direction to conform to final girder end slope.



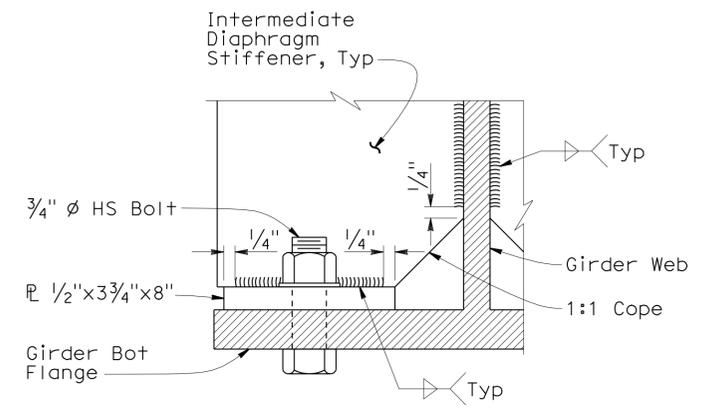
PLAN



SECTION B-B
 1" = 1'-0"

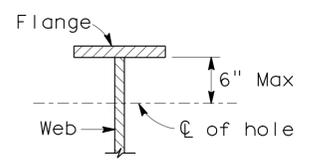


ELEVATION



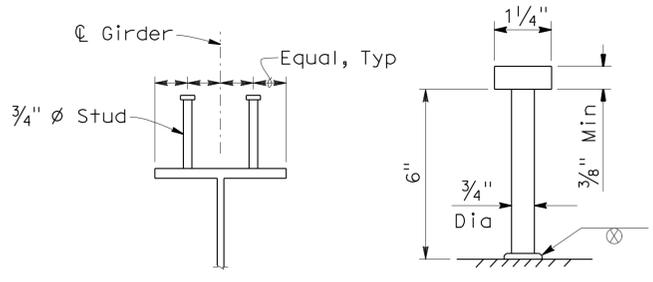
SECTION A-A

BOLTED CONNECTION DETAIL
 6" = 1'-0"

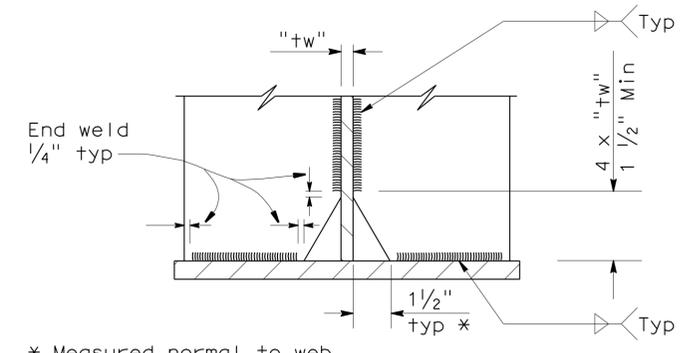


1" Max diameter hole at 4' ± Min spacing to be used for falsework support when specified by the Contractor. Contractor to determine location, size and spacing.

HOLES FOR FALSEWORK
 No Scale



STUD CONNECTOR
 No Scale



COPE AND WELDING DETAIL
 No Scale

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

DESIGN	BY	RICHARD SCHEDEL	CHECKED	PREM RIMAL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	46-0055 R/L	NORTH GOSHEN OVERHEAD (WIDEN) GIRDER DETAILS NO. 2					
	DETAILS	BY	RICHARD SCHEDEL	CHECKED			PREM RIMAL	POST MILE		41.1				
	QUANTITIES	BY	RICHARD SCHEDEL	CHECKED			PREM RIMAL							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)						UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						0	1	2	3	01/06/11	05/18/11	08/16/11	12	23

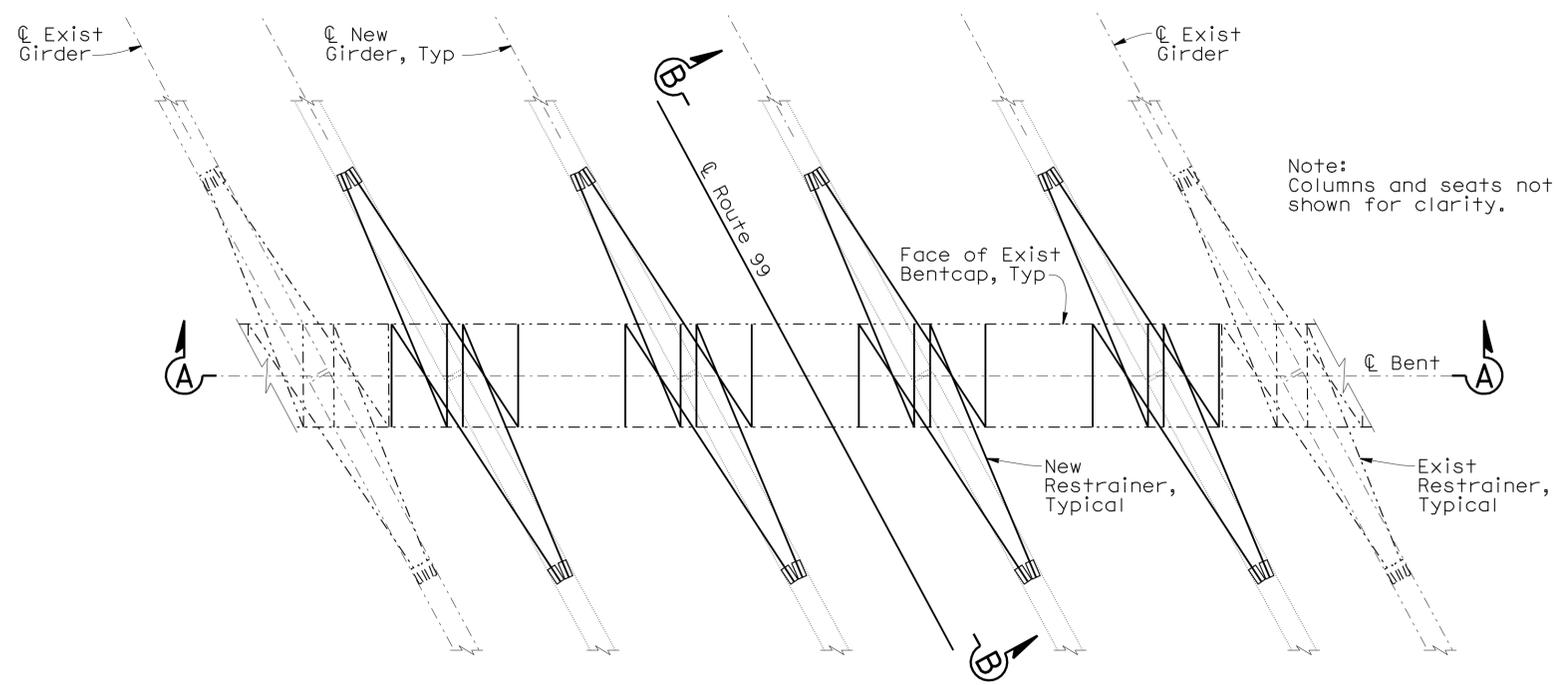
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Richard E. Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
PLANS APPROVAL DATE

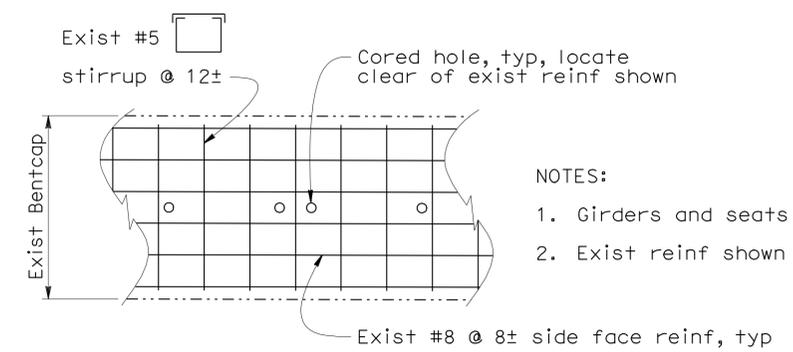
RICHARD E. SCHEDEL
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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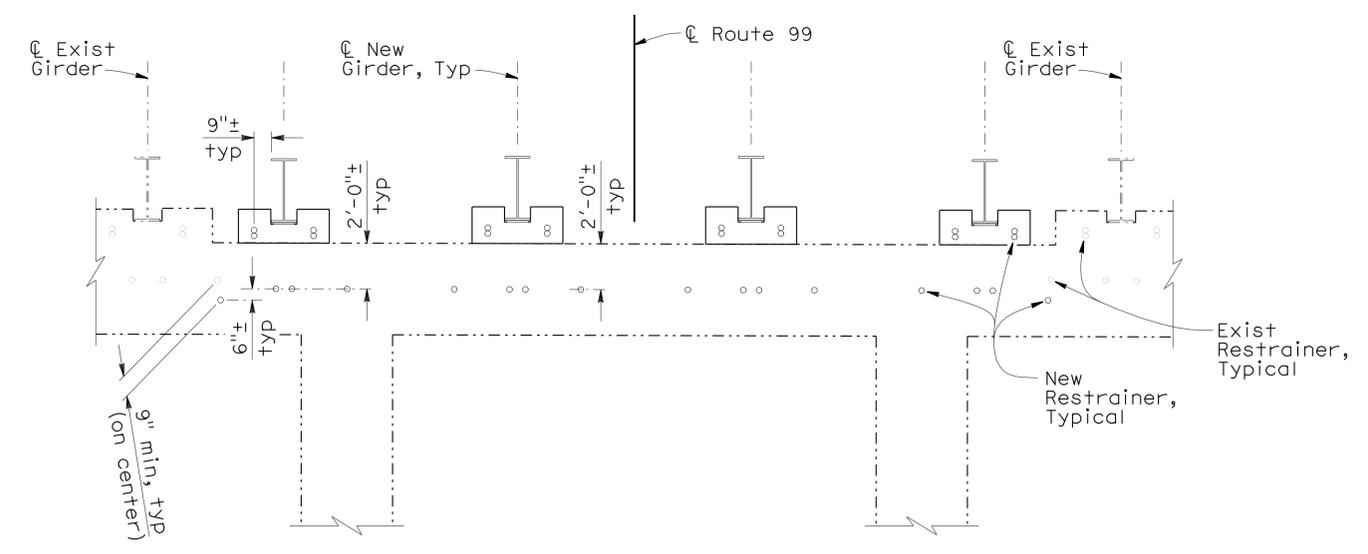
PLAN
1/4" = 1'-0"

Note:
Columns and seats not shown for clarity.

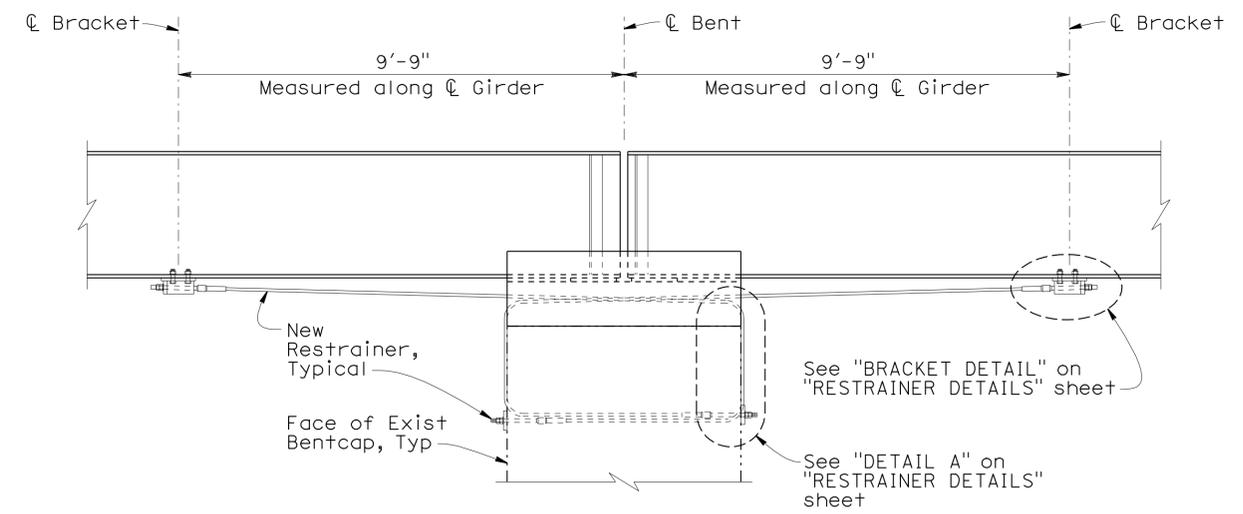


BENTCAP ELEVATION
1/2" = 1'-0"

- NOTES:
- Girders and seats not shown.
 - Exist reinf to remain undamaged.



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



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

NOTE:
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DESIGN	BY RICHARD SCHEDEL	CHECKED PREM RIMAL
DETAILS	BY RICHARD SCHEDEL	CHECKED PREM RIMAL
QUANTITIES	BY RICHARD SCHEDEL	CHECKED PREM RIMAL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

BRIDGE NO.	46-0055 R/L
POST MILE	41.1

NORTH GOSHEN OVERHEAD (WIDEN)
RESTRAINER LAYOUT

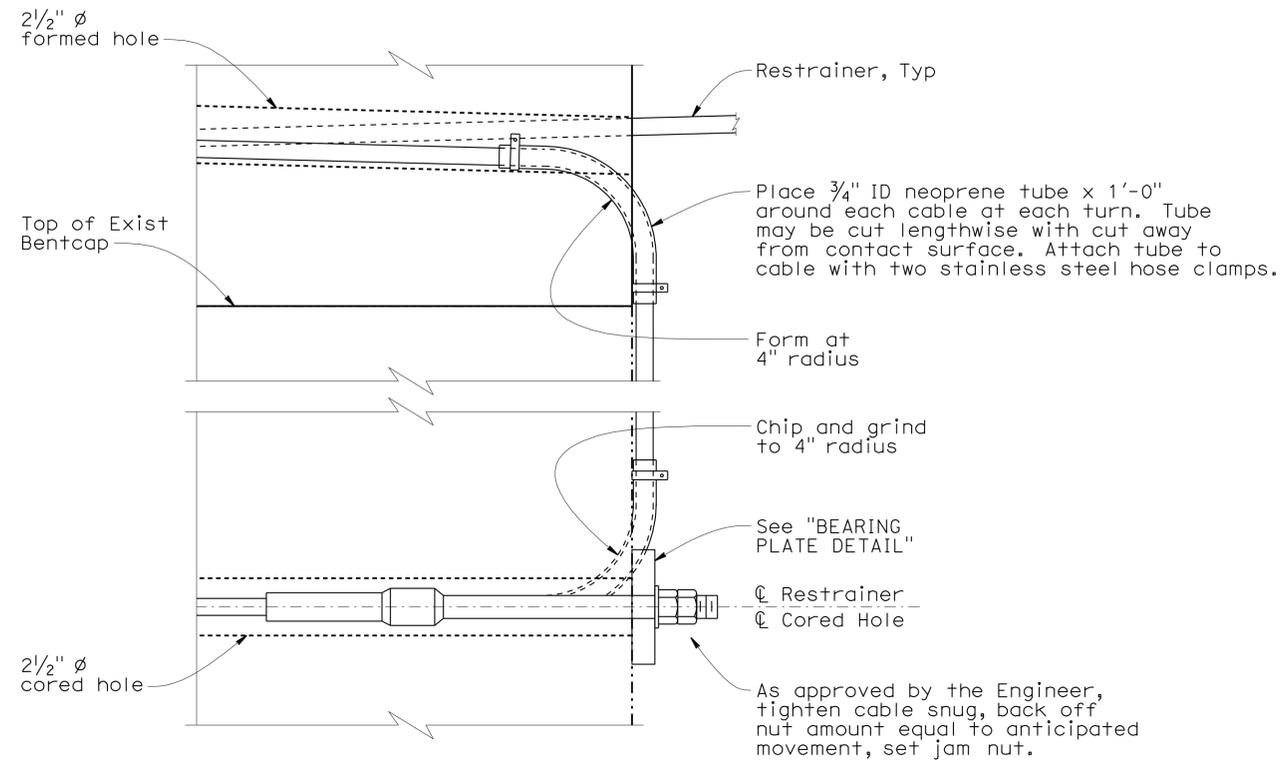
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	245	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER 12/01/11 DATE

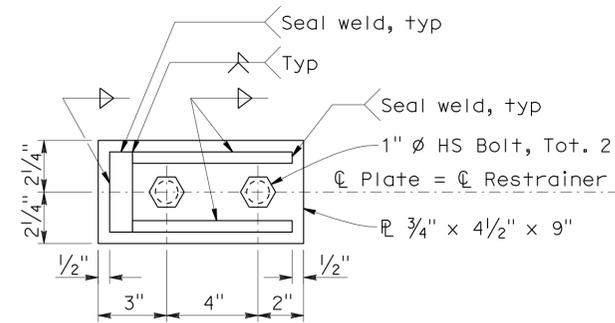
4-16-12
PLANS APPROVAL DATE

RICHARD E. SCHENDEL
No. C 64259
Exp. 06/30/13
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STATE OF CALIFORNIA

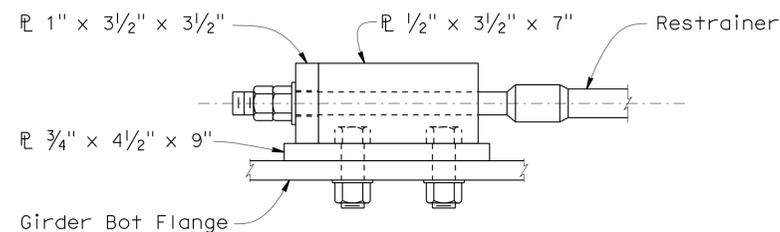
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



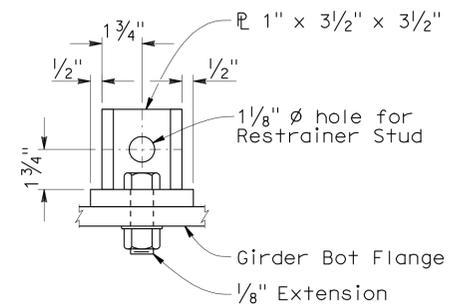
DETAIL A
3" = 1'-0"



PLAN

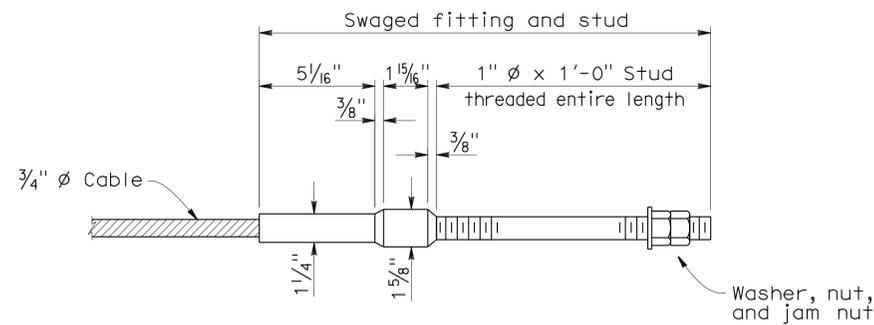


ELEVATION

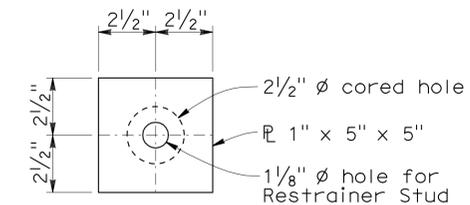


END VIEW

BRACKET DETAIL
3" = 1'-0"



CABLE END ANCHORAGE
3" = 1'-0"

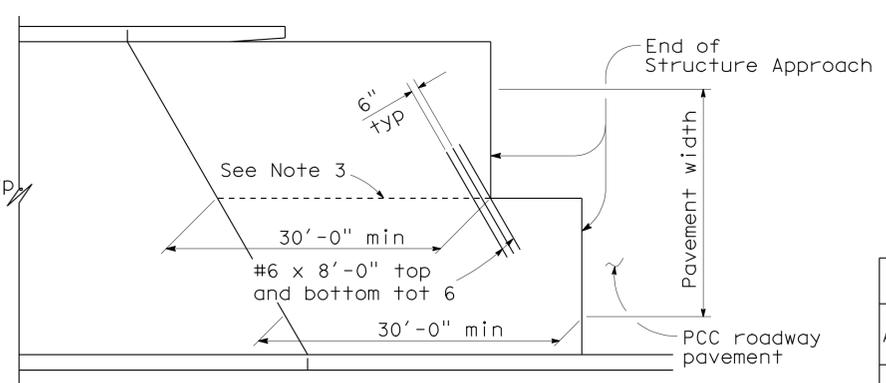
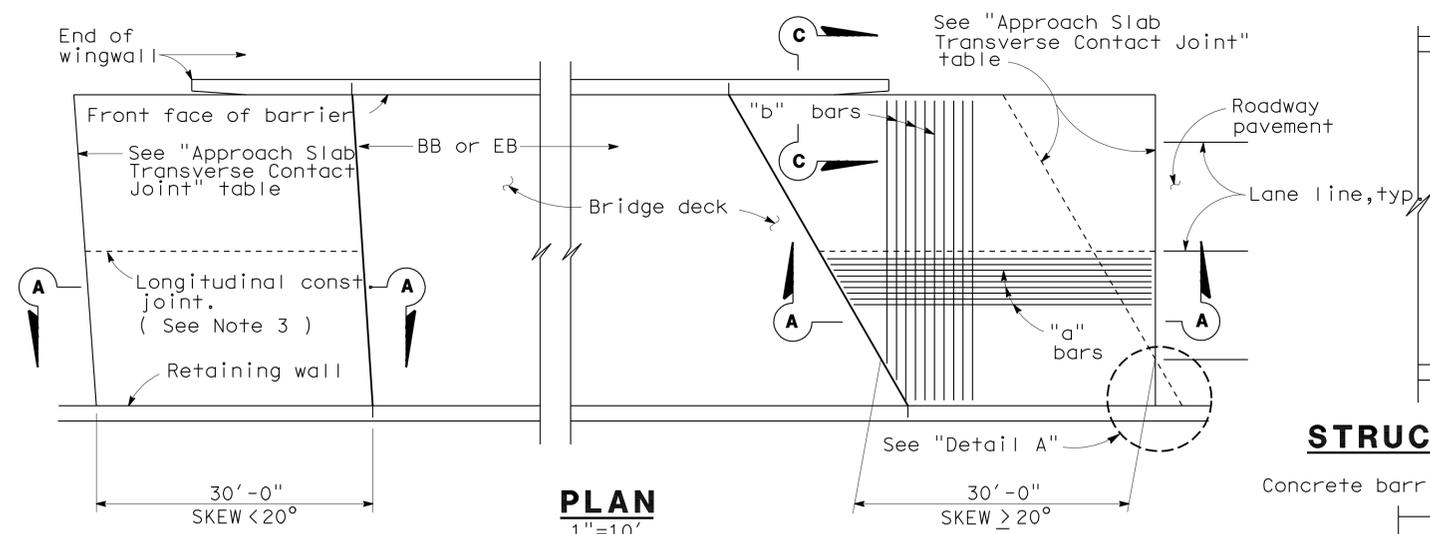


BEARING PLATE DETAIL
3" = 1'-0"

NOTE:
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DESIGN	BY	RICHARD SCHENDEL	CHECKED	PREM RIMAL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	46-0055 R/L	NORTH GOSHEN OVERHEAD (WIDEN) RESTRAINER DETAILS				
	DETAILS	BY	RICHARD SCHENDEL	CHECKED			PREM RIMAL	POST MILE		41.1			
	QUANTITIES	BY	RICHARD SCHENDEL	CHECKED			PREM RIMAL						
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
						0	1	2	3		01/06/11	14	23

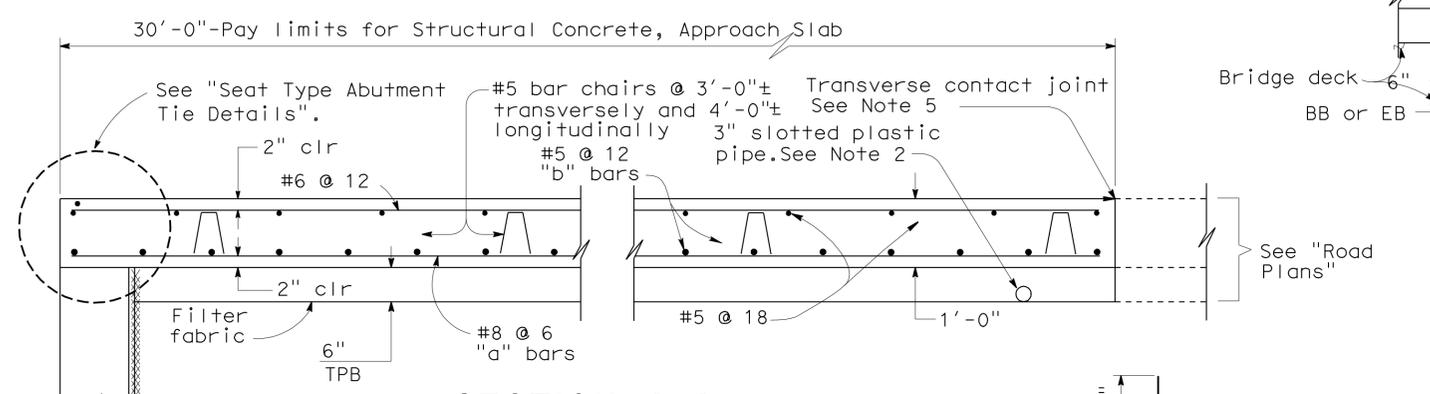
DIST.	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	246	346
			12/01/11 REGISTERED ENGINEER - CIVIL 4-16-12 PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.		



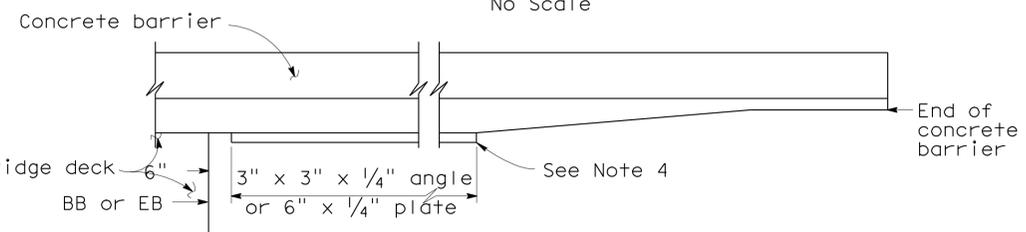
STRUCTURE APPROACH - END STAGGER DETAIL

APPROACH SLAB TRANSVERSE CONTACT JOINT

APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
<math>< 20^\circ</math>	Parallel to face of paving notch	Parallel to face of paving notch
$20^\circ - 45^\circ$	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart.
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line.

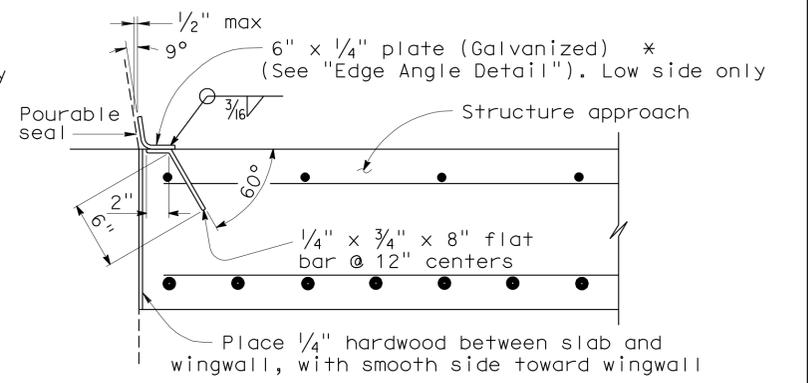


SECTION A-A

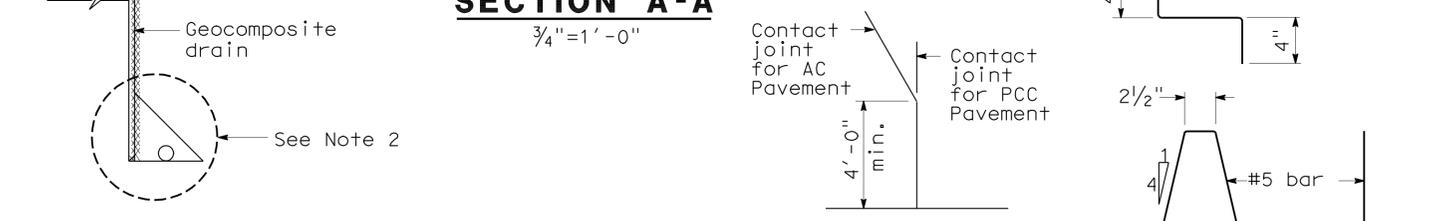


EDGE ANGLE DETAIL

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

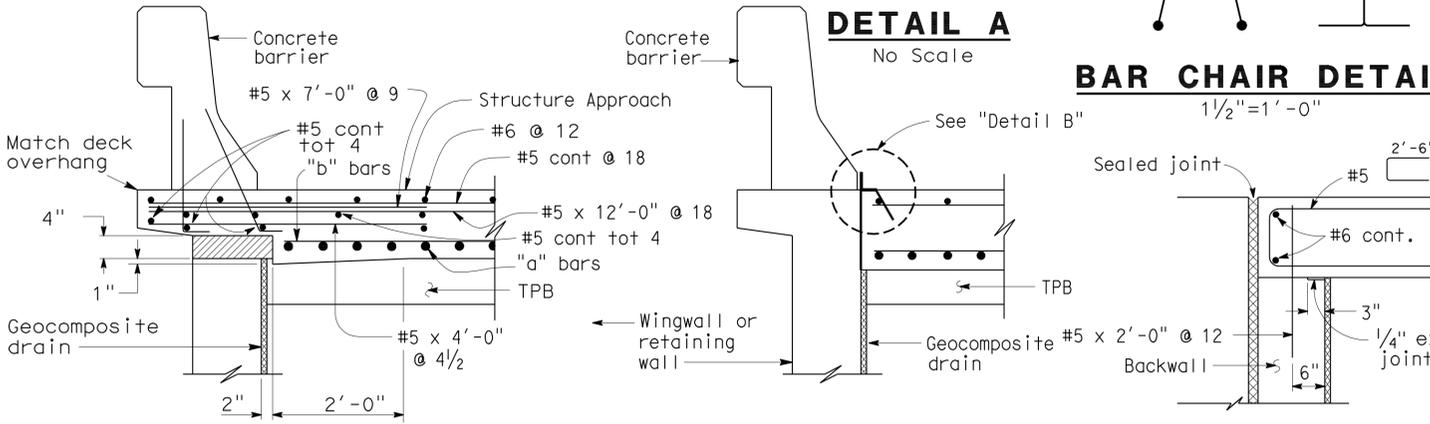


***(TO BE USED WITH TYPE 732 OR TYPE 736 CONCRETE BARRIER)**



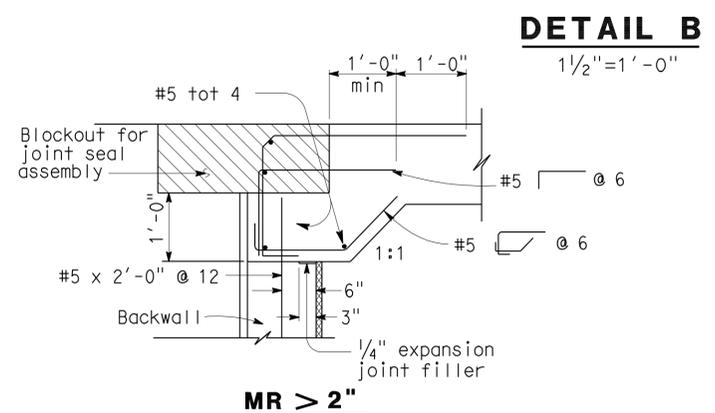
DETAIL A

BAR CHAIR DETAIL



SECTION C-C

SEAT TYPE ABUTMENT TIE DETAILS (SEE NOTE 1)



DETAIL B

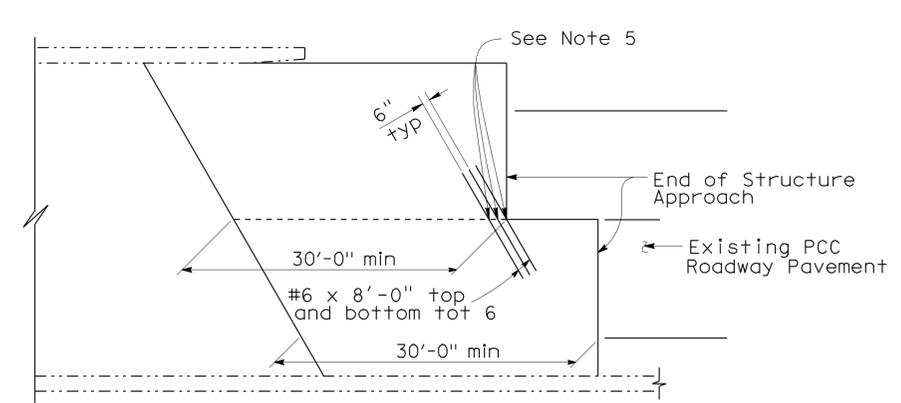
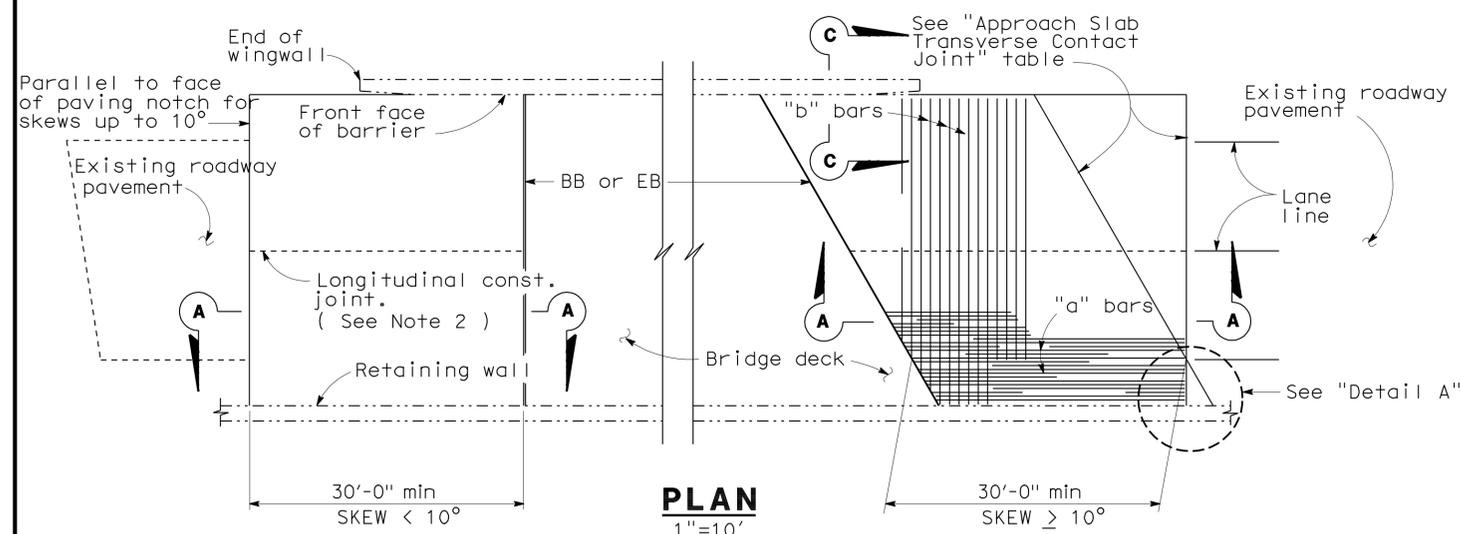
- NOTES:**
- For details not shown, see Structure Plans. For MR ≤ 2 , adjust bar reinforcement to clear a sawcut for sealed joint, when required.
 - For drainage details, see "Structure Approach Drainage Details" sheet.
 - Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
 - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable.
 - For transverse contact joint with new PCC paving, refer to Standard Plan P10.
 - At the contractor's option, approach slab transverse reinforcement may be placed parallel to paving notch. Spacing of transverse reinforcement is measured along @ roadway.
- Remove all polystyrene.

STANDARD DRAWING

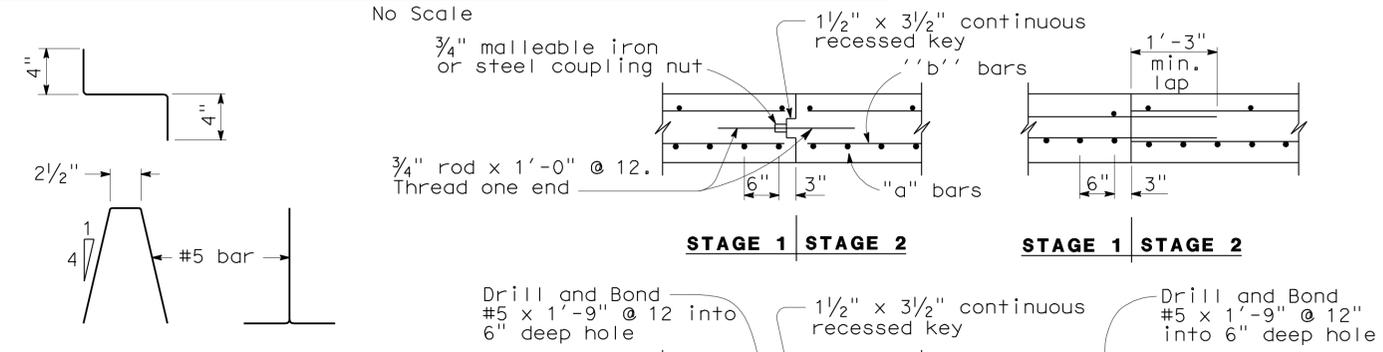
RELEASE DATE 3/14/05	DESIGN BY M. TRAFFALIS	CHECKED E. THORKILDSEN	RELEASED BY
FILE NO. xs3-120e	DETAILS BY R. YEE	CHECKED E. THORKILDSEN	
	SUBMITTED BY M. HA	DRAWING DATE 4/98	OFFICE CHIEF

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 46-0055 R/L	NORTH GOSHEN OVERHEAD (WIDEN)
		MILE POST 41.1	STRUCTURE APPROACH TYPE N(30S)

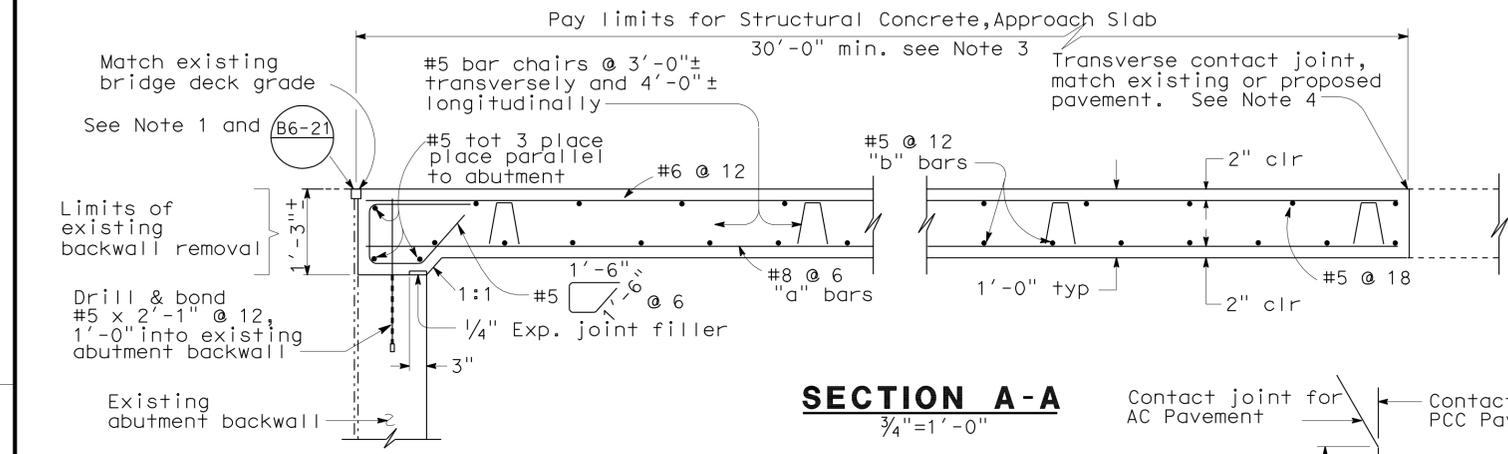
DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET NO. 15	OF 23
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STRUCTURE APPROACH - END STAGGER DETAIL



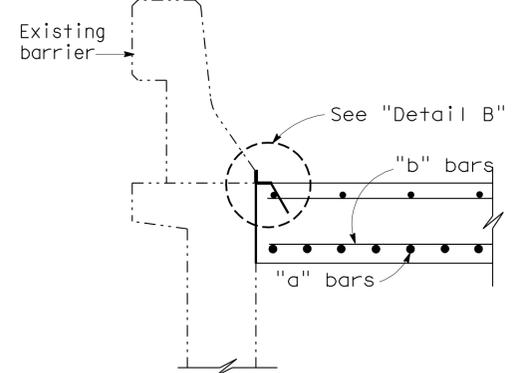
BAR CHAIR DETAIL



SECTION A-A

Contact joint for AC Pavement
Contact joint for PCC Pavement

DETAIL A



SECTION C-C

LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES

LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES

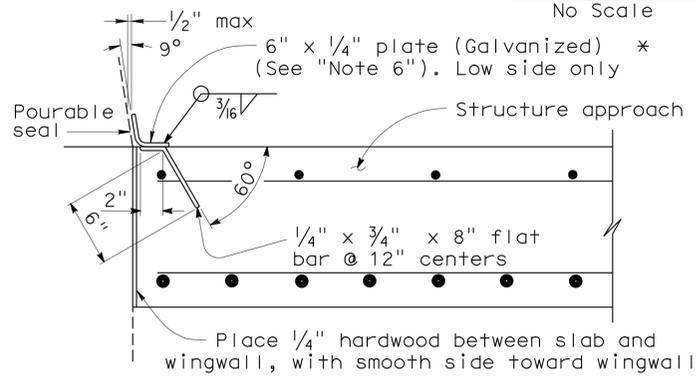
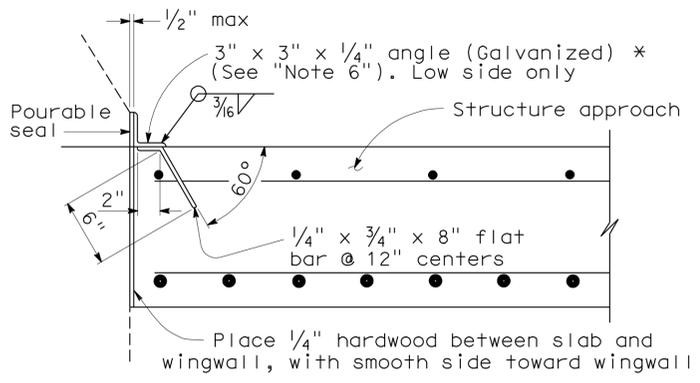
3/4"=1'-0"

NOTES:

- Sealed joint, for M.R. see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required.
- Longitudinal construction joints, when permitted by Engineer, shall be located on lane lines.
- Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint.
- For transverse contact joint with new PCC paving, refer to Standard Plan P10.
- Couplers are required for stage construction.
- End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable.

NOTE:

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



DETAIL B

1 1/2"=1'-0"

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

***(TO BE USED WITH TYPE 732 OR TYPE 736 CONCRETE BARRIER)**

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

STANDARD DRAWING			
RELEASE DATE 3/14/05	DESIGN BY M. TRAFFALIS	CHECKED E. THORKILDSEN	RELEASED BY
FILE NO. xs3-130e	DETAILS BY R. YEE	CHECKED E. THORKILDSEN	
	SUBMITTED BY M. HA	DRAWING DATE 8/92	OFFICE CHIEF

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 46-0055 R/L MILE POST 41.1
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NORTH GOSHEN OVERHEAD (WIDEN)	
STRUCTURE APPROACH TYPE R(30S)	

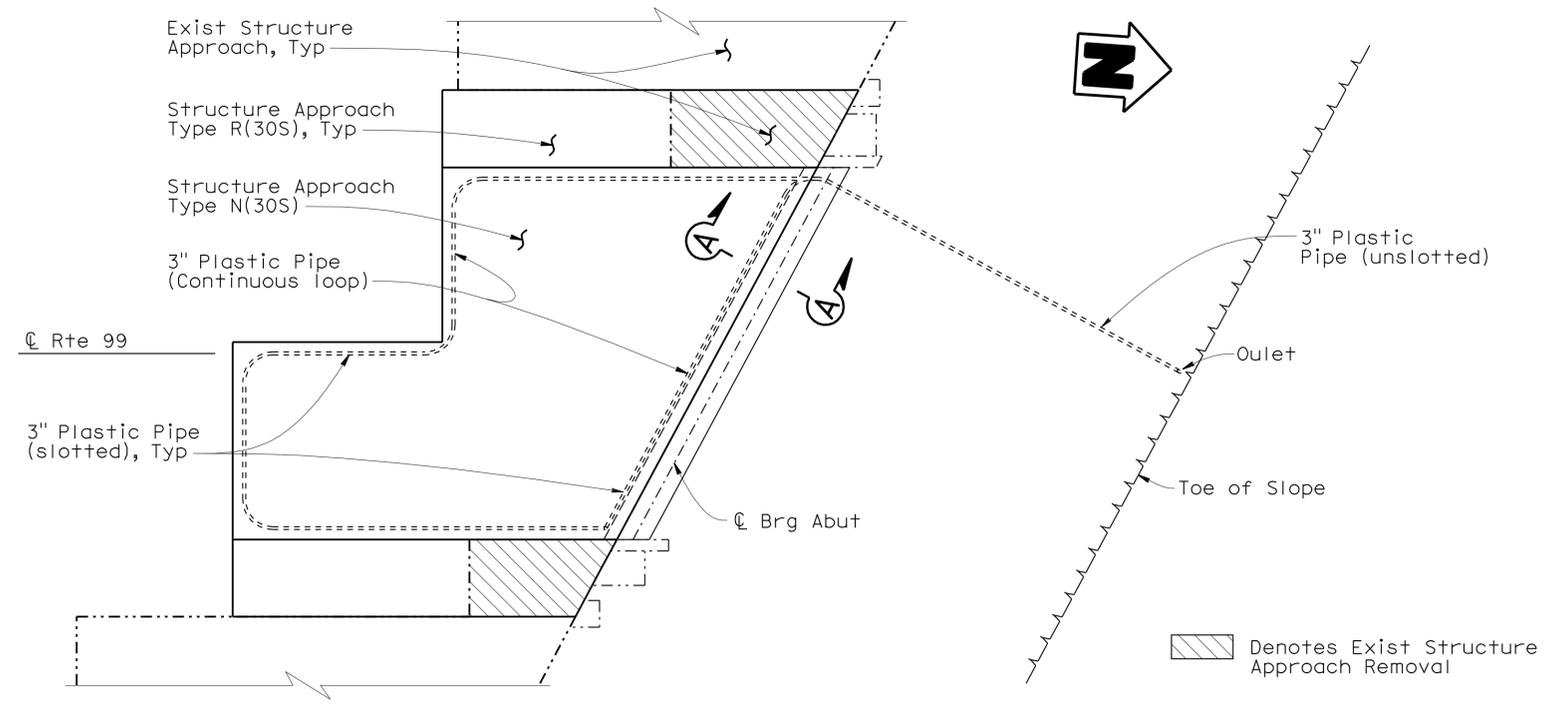
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	248	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
PLANS APPROVAL DATE

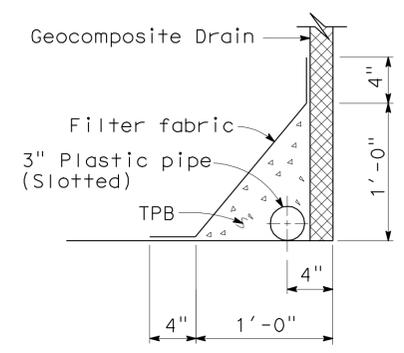
RICHARD E. SCHEDEL
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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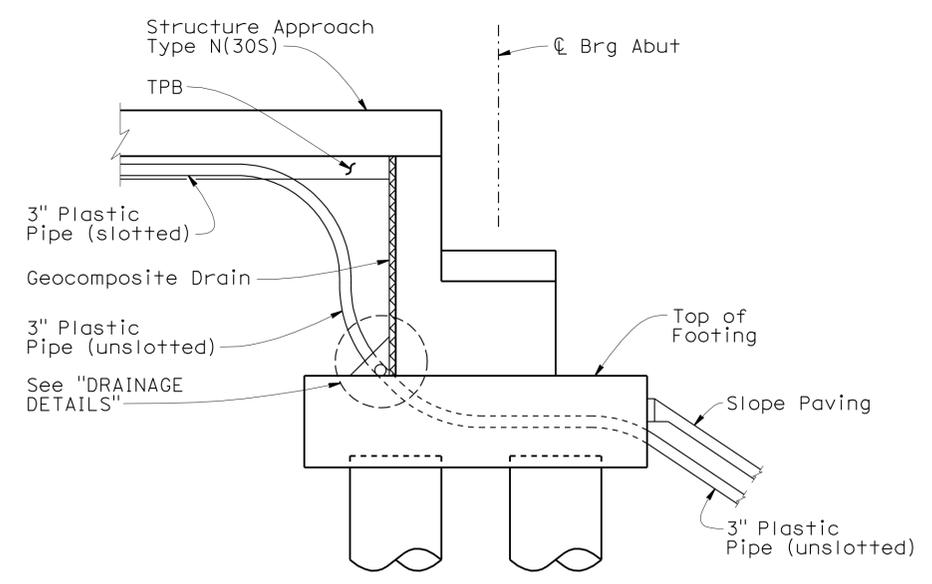


Note: Abut 1 shown, Abut 4 similar.

PLAN
No Scale



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



Note: Bends and junctions in 3" plastic pipe are 2'-6" radius minimum.

SECTION A-A
No Scale

Note: For drainage details at toe of slope, see "SLOPE PAVING - FULL SLOPE" sheet.

DESIGN	BY RICHARD SCHEDEL	CHECKED PREM RIMAL
DETAILS	BY RICHARD SCHEDEL	CHECKED PREM RIMAL
QUANTITIES	BY RICHARD SCHEDEL	CHECKED PREM RIMAL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

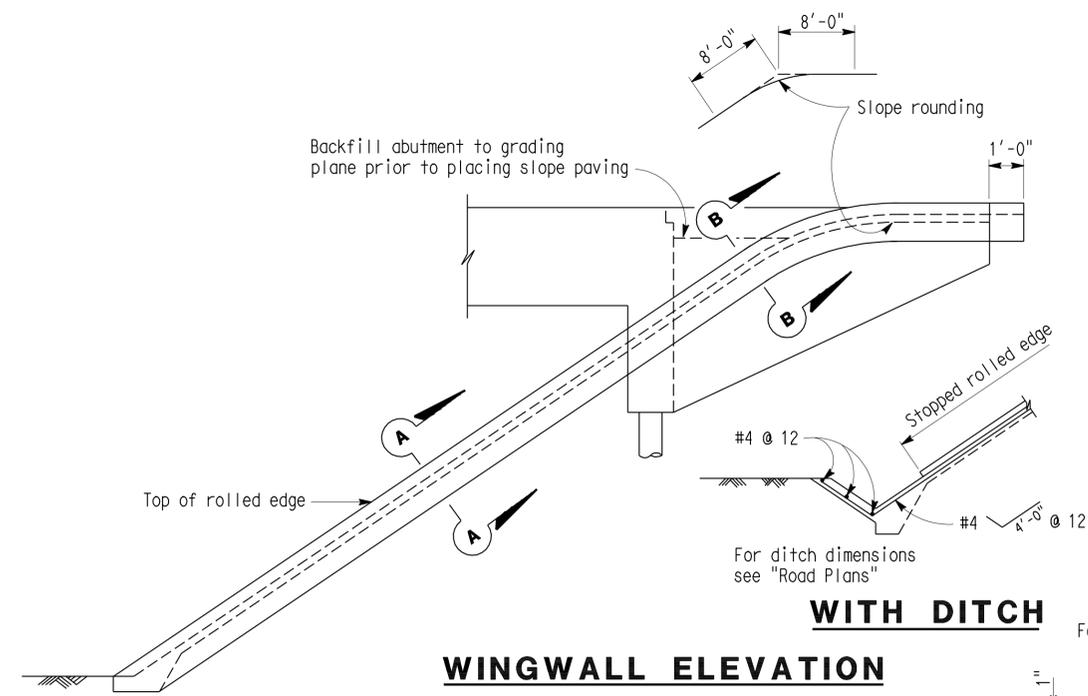
BRIDGE NO.	46-0055 R/L
POST MILE	41.1

NORTH GOSHEN OVERHEAD (WIDEN)
STRUCTURE APPROACH DRAINAGE DETAILS

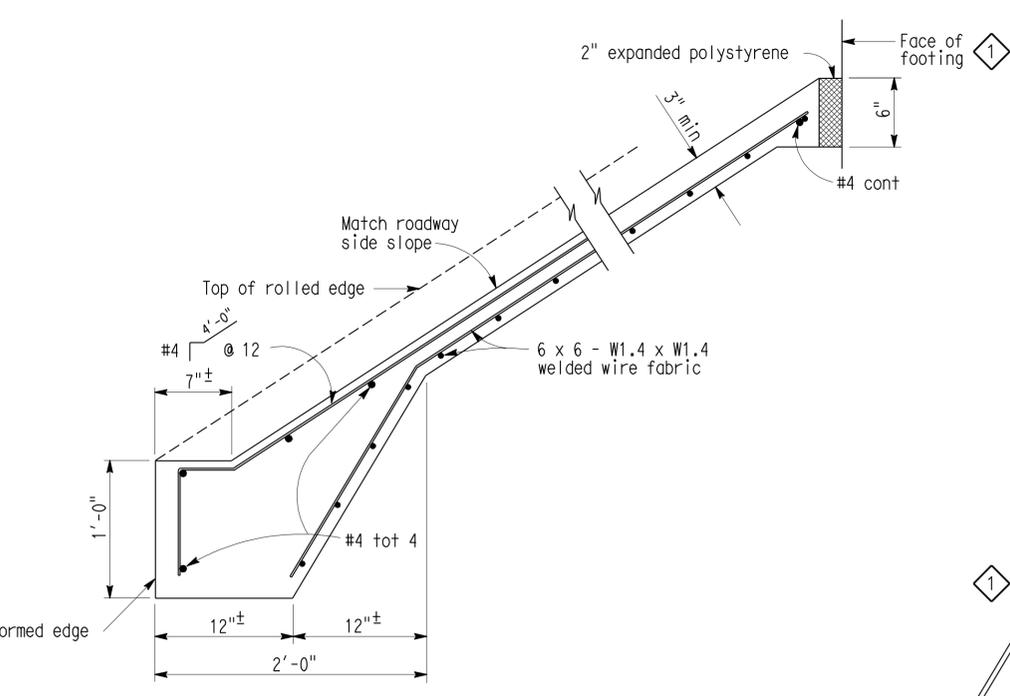
DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Tul	99	R37.3/41.3		249	346

<i>Richard Schendel</i>		12/01/11
REGISTERED CIVIL ENGINEER	DATE	
4-16-12		
PLANS APPROVAL DATE		
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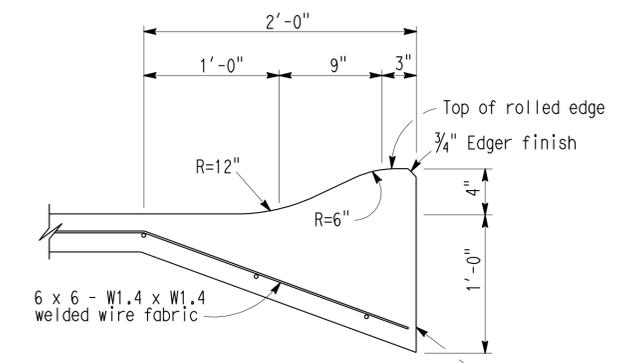
REGISTERED PROFESSIONAL ENGINEER
 RICHARD E. SCHENDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA



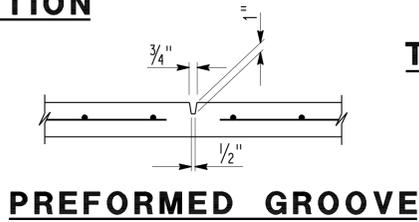
WINGWALL ELEVATION



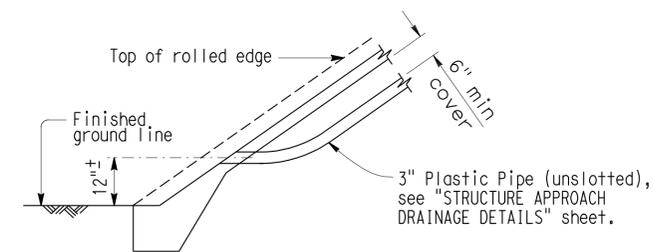
TYPICAL SECTION - CONCRETE PAVING



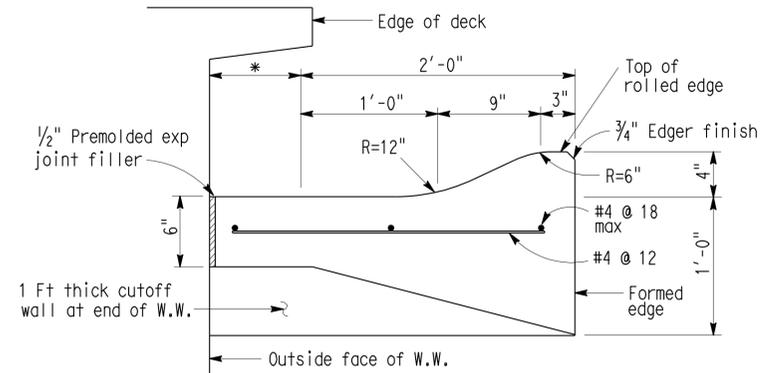
SECTION A-A



PREFORMED GROOVE

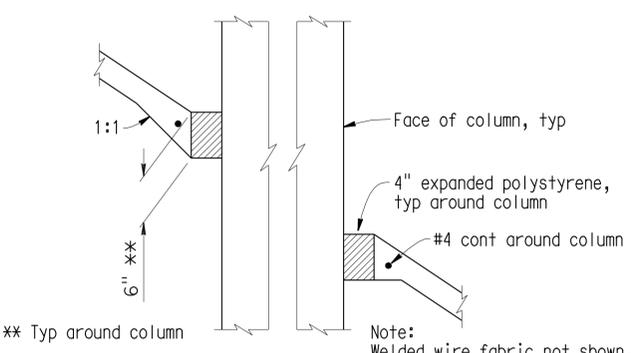


DRAINAGE DETAILS

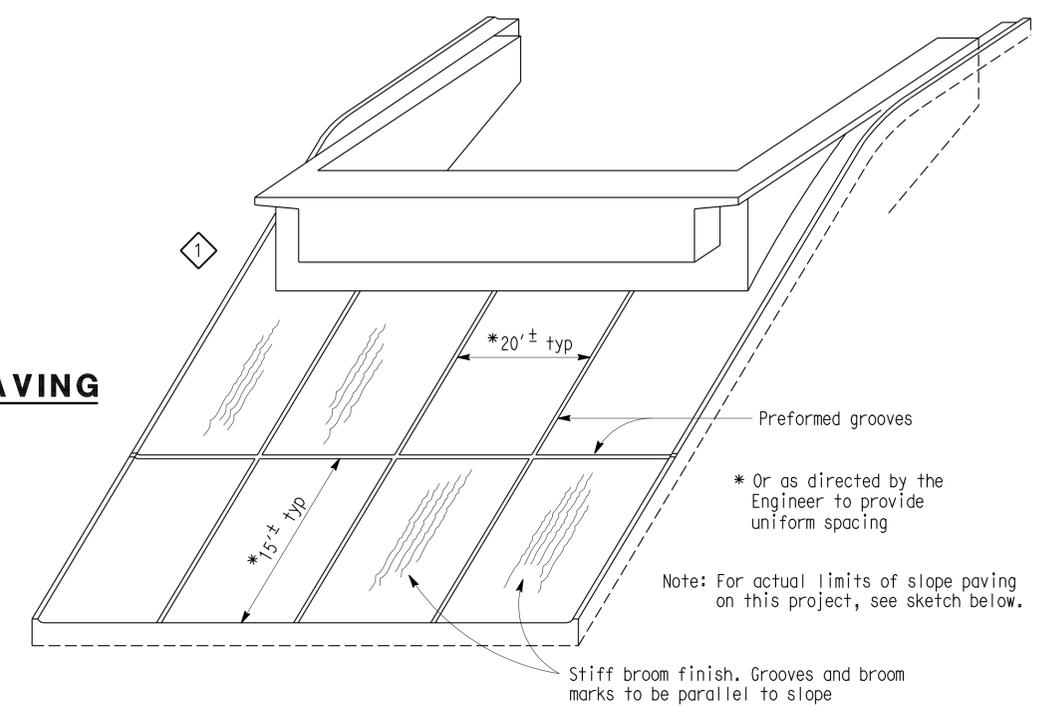


SECTION B-B

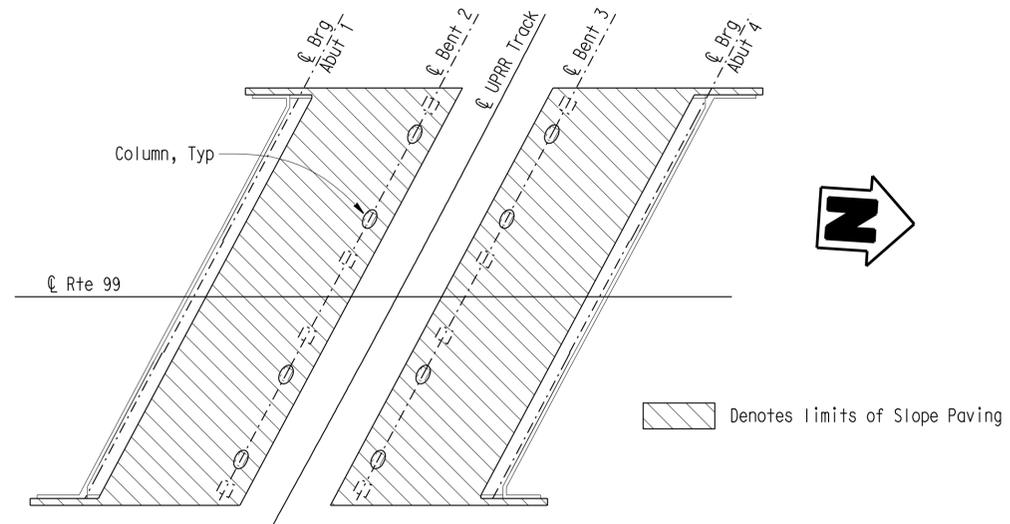
* This dimension becomes zero when edge of deck is at outside face of W.W.



SECTION AT COLUMN



PICTORIAL VIEW OF TYPICAL INSTALLATION



LIMITS OF SLOPE PAVING

NO SCALE
SPECIAL DETAILS

REVISED STANDARD DRAWING				RELEASED BY
RELEASE DATE	DESIGN	BY	CHECKED	Susan Hida
FILE NO. xs4-210	DETAILS	BY D. Wooten	CHECKED	
	SUBMITTED	BY Dan Adams	DRAWING DATE 6/07	OFFICE CHIEF

- ① Modified detail
- ② Added detail

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

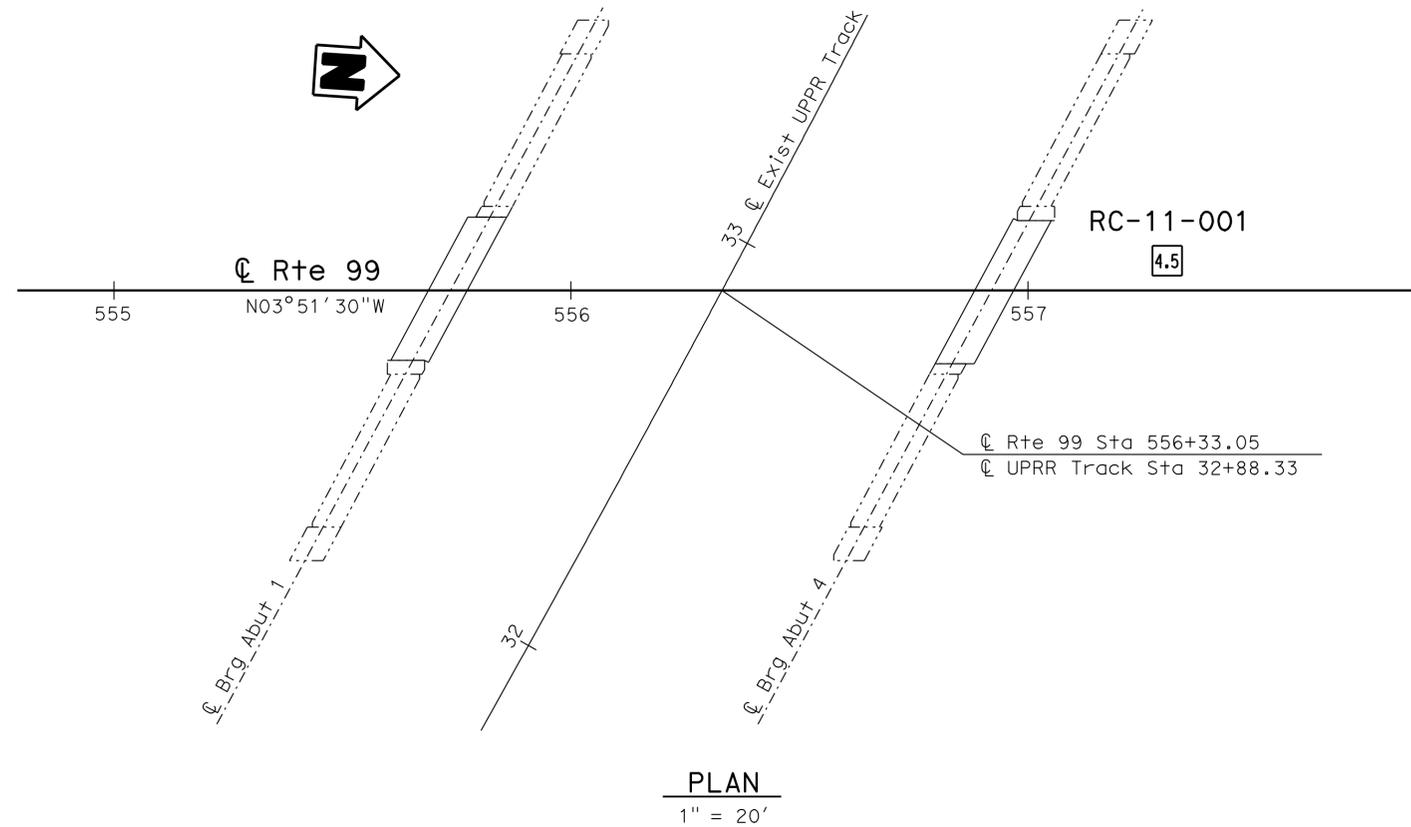
DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 46-0055 R/L
POST MILE 41.1

NORTH GOSHEN OVERHEAD (WIDEN)
SLOPE PAVING - FULL SLOPE

BENCH MARK

PRHV 285
 Fnd 1" I.P. w/red CT PP
 57.67' Lt 99 LOL Sta 557+94.69
 N 2,012,983.77
 E 6,435,496.43
 Elev = 308.27
 NAVD88



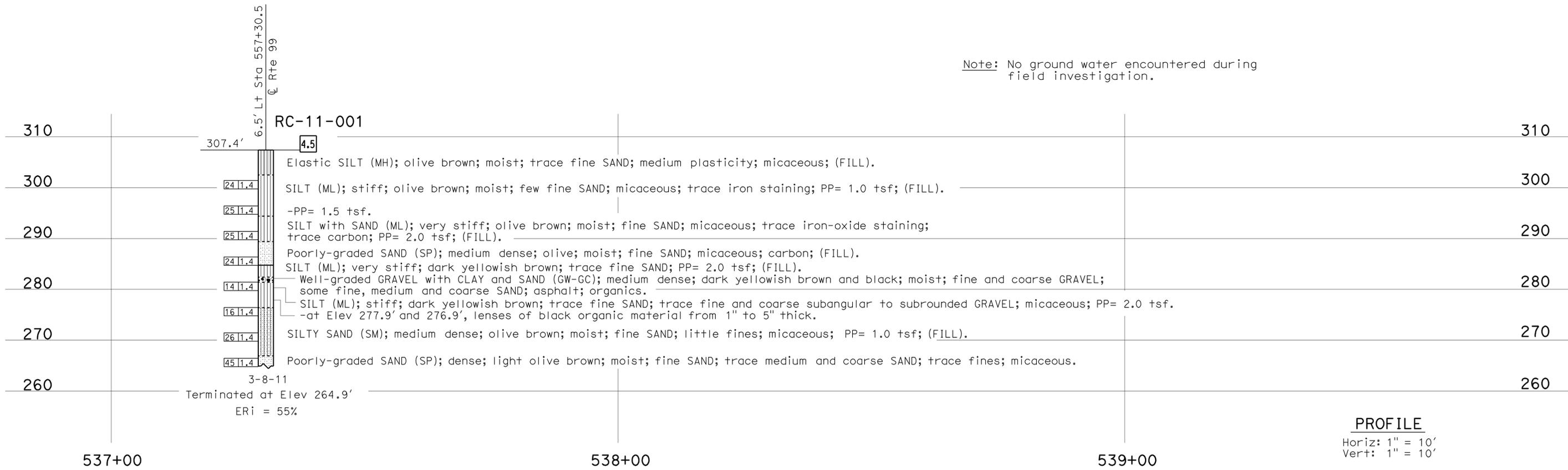
PLAN
 1" = 20'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	250	346

Xing Zheng
 CERTIFIED ENGINEERING GEOLOGIST DATE 9-1-10
 PLANS APPROVAL DATE 4-16-12
 No. 2130
 Exp. 3-31-13
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

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

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



Note: No ground water encountered during field investigation.

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		NORTH GOSHEN OVERHEAD (WIDEN)	
FUNCTIONAL SUPERVISOR		DRAWN BY: F. Nguyen 08/11		FIELD INVESTIGATION BY:		DEPARTMENT OF TRANSPORTATION		46-0055R/L		LOG OF TEST BORINGS 1 OF 5	
NAME: R. Bibben		CHECKED BY: A. Barrie		J. Thorne		DESIGN BRANCH 18		POST MILE		REVISION DATES	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		UNIT: 3643		41.1		08-16-11 08-31-11	
						PROJECT NUMBER & PHASE: 06000204081		CONTRACT NO.: 06-360211		SHEET OF	
						DISREGARD PRINTS BEARING EARLIER REVISION DATES				19 23	

FILE => 46-0055r1-z-1+tb01.dgn


 CERTIFIED ENGINEERING GEOLOGIST DATE 9-1-10
 No. 2130
 Exp. 3-31-13
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

4-16-12
PLANS APPROVAL DATE

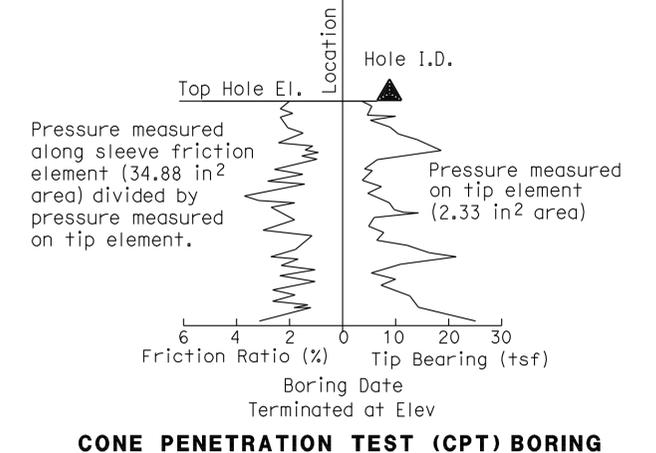
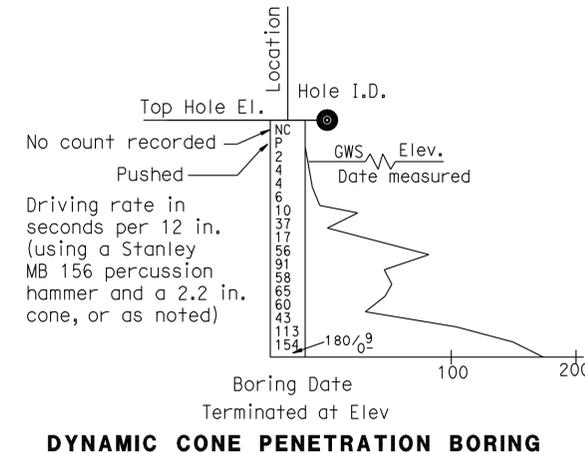
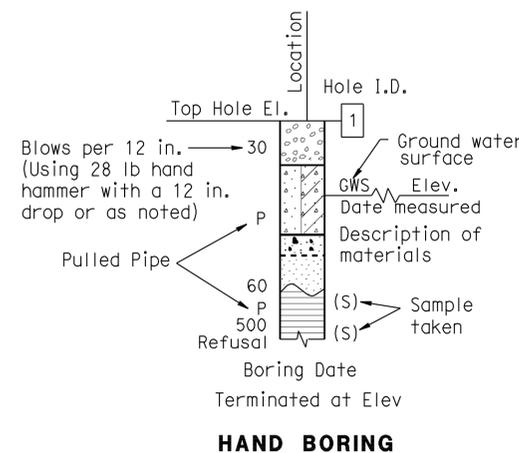
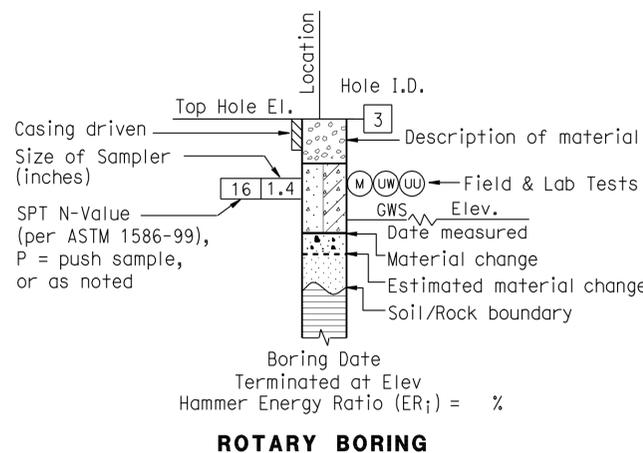
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

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

Note: Size in inches.

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



King Zheng
 CERTIFIED ENGINEERING GEOLOGIST
 No. 2130
 Exp. 3-31-13
 DATE 9-1-10
 PLANS APPROVAL DATE 4-16-12
 PROFESSIONAL GEOLOGIST
 STATE OF CALIFORNIA
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

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

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

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

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

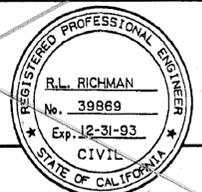
PARTICLE SIZE		
Description	Size (in.)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0055R/L	NORTH GOSHEN OVERHEAD (WIDEN) LOG OF TEST BORINGS 3 OF 5
				POST MILE 41.1	
PREPARED BY: F. Nguyen 08/11		UNIT: 3643 PROJECT NUMBER & PHASE: 06000204081	CONTRACT NO.: 06-360211	REVISION DATES	SHEET 21 OF 23

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

FILE => 46-0055R1-Z-1+tb03.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	41.1	27	28



11-11-91
PLANS APPROVAL DATE

PLAN
1"=40'

TO ACCOMPANY PLANS DATED 4-16-12

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
06	Tul	99	R37.3/41.3	253	346

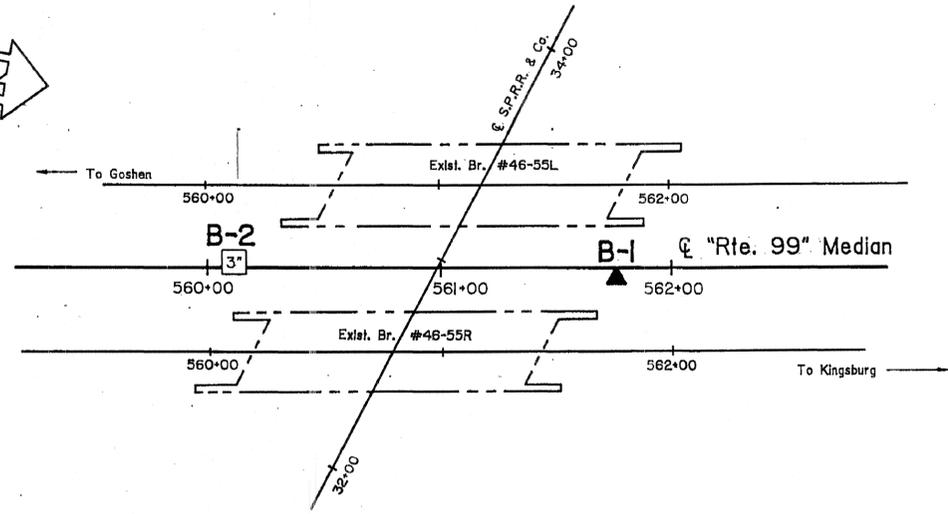
CERTIFIED ENGINEERING GEOLOGIST DATE 8/31/2011

NORTH GOSHEN OVERHEAD (WIDEN)
LOG OF TEST BORINGS 4 OF 5

UNIT: 3643	CONTRACT No. 06-360211	BRIDGE No. 46-0055R/L
PROJ. No. & PHASE: 06000204081		

AS-BUILT VERT DATUM: NGVD29 CONVERSION: NAVD88=NGVD29-0.3'

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA	Sheet of 22	23
---	-------------	----



BENCH MARK
BM: Elev. 310.6
Settlement pin on northwest curb of the northbound bridge.

Note: Unconfined compressive strength approximated by hand penetrometer test.

Note: No ground water encountered during field investigation.

LEGEND OF BORING OPERATIONS

2 1/4" CONE PENETROMETER
SAMPLE BORING (DRY)
ROTARY SAMPLE BORING (WET)
ALGEB BORING (DRY)
TEST PIT
DIAMOND CORE BORING
JET BORING
ELECTRONIC CONE PENETROMETER

LEGEND OF EARTH MATERIALS

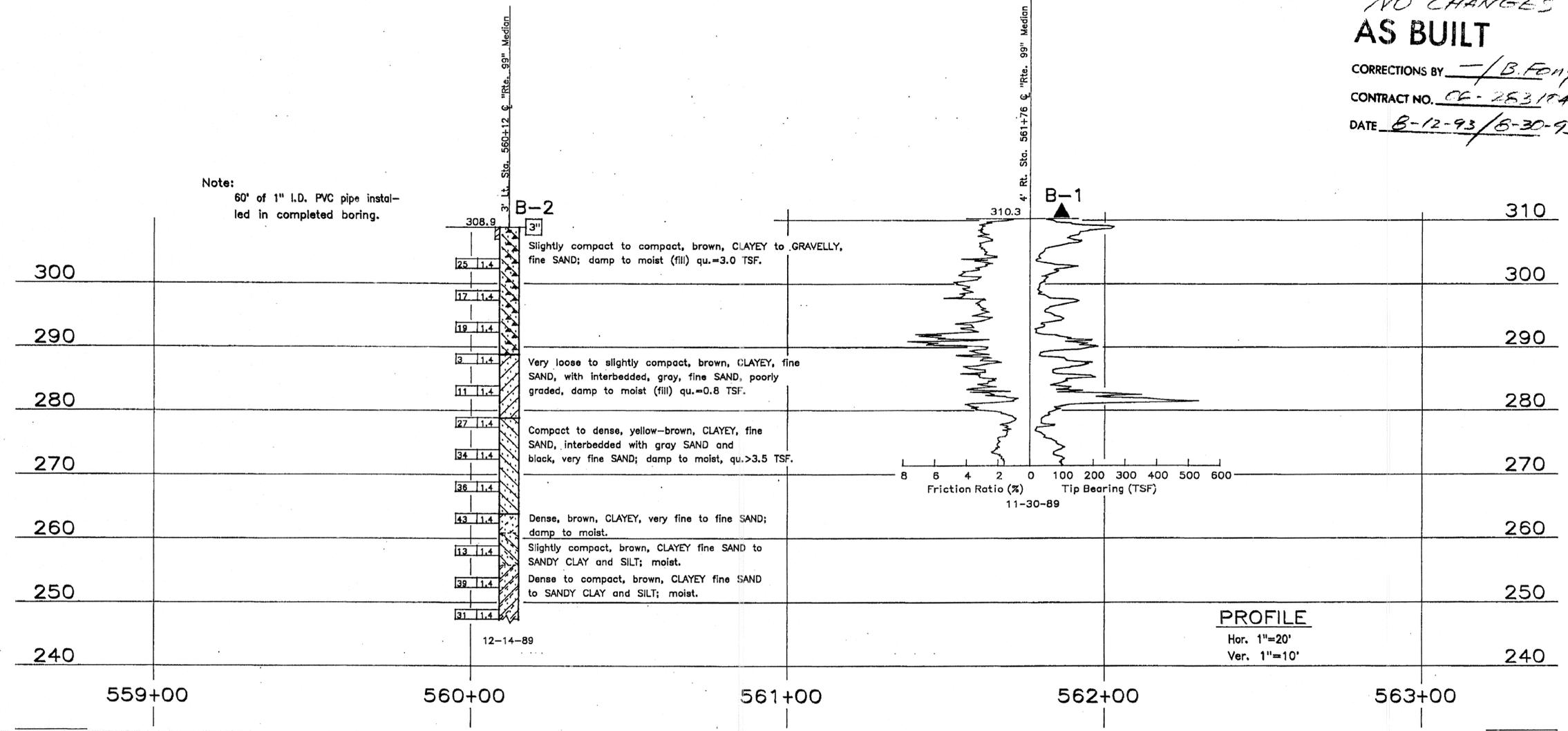
CLAYEY SILT
PEAT and/or ORGANIC MATTER
FILL MATERIAL
IGNEOUS ROCK
SEDIMENTARY ROCK
METAMORPHIC ROCK

GRAVEL
SAND
SILT
CLAY
SANDY CLAY or CLAYEY SAND
SANDY SILT or SILTY SAND
SILTY CLAY

Consistency Classification for Soils
According to the Standard Penetration Test

Penetration (Blows / Ft)
0-4 Very soft
5-9 Soft
10-19 Stiff
20-34 Very stiff
35-69 Hard
>70 Very hard

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



NO CHANGES AS BUILT

CORRECTIONS BY B. FONG

CONTRACT NO. CE-28317A

DATE 8-12-93/8-30-93

PROFILE
Hor. 1"=20'
Ver. 1"=10'

ENGINEERING GEOLOGY BRANCH - TRANSPORTATION LABORATORY		State of CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF STRUCTURES STRUCTURE DESIGN 8		BRIDGE NO. 46-0055R/L		NORTH GOSHEN OVERHEAD (WIDEN)		
DRAWN BY JOHN L. THORNE	1/90	Sham Naramae, PROJECT ENGINEER	CU 08 EA 283101		POST MILE 41.1		LOG OF TEST BORINGS 1 OF 2		REVISION DATES (PRELIMINARY STAGE ONLY)	
CHECKED BY			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET 14 OF 15			

FED. ROAD DIV. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CAL.			69	96

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
06	Tul	99	R37.3/41.3	254	346

DATE: APRIL 30 1956

PROJ. No. & PHASE: 06000204081
 UNIT: 3643
 CONTRACT No.: 06-360211
 BRIDGE No.: 46-0055R/L

AS-BUILT VERT DATUM: NGVD29
 CONVERSION: NAVD88-NGVD29-0.3'

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

Sheet No.	Total Sheets
23	23

PROFESSIONAL GEOLOGIST

Reid Buell
 No. 1481
 Exp. 4-30-13
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

APPROVED

By: *[Signature]*

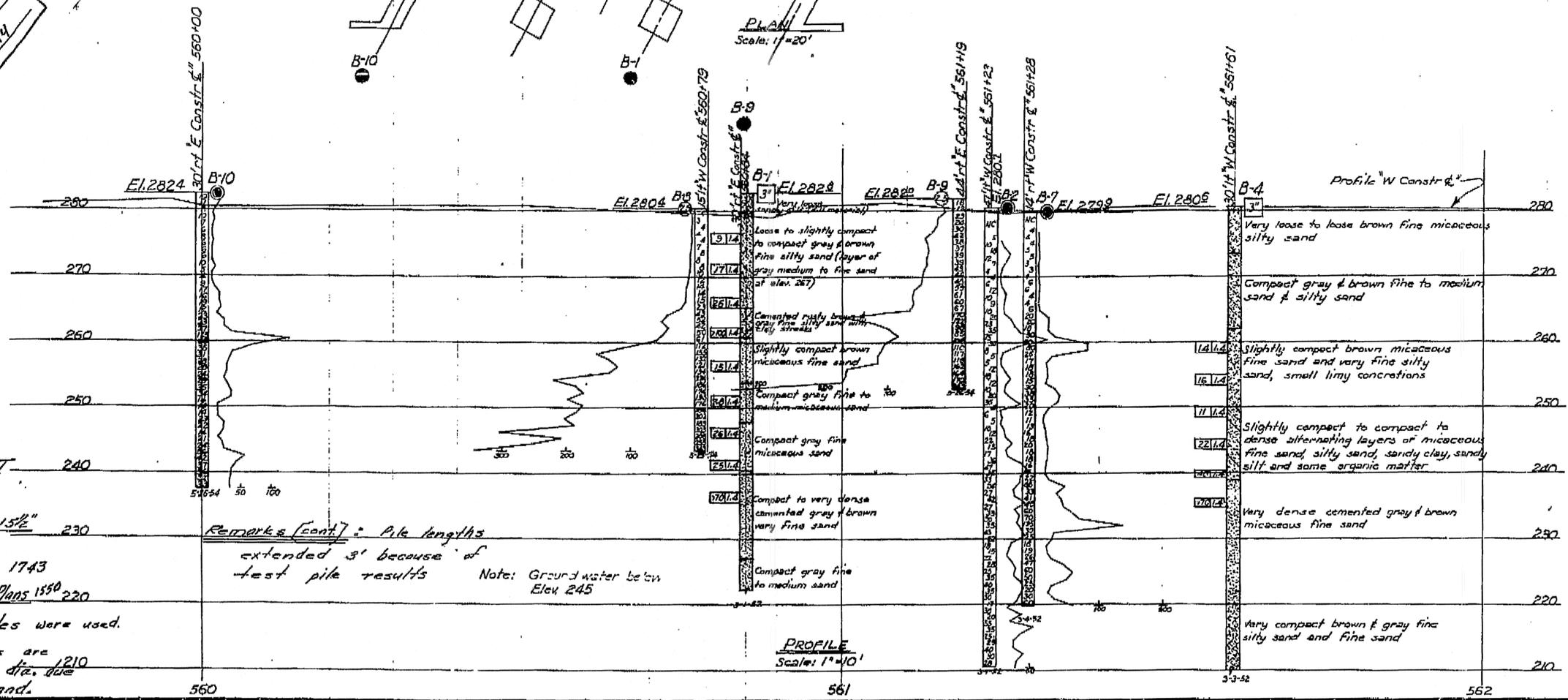
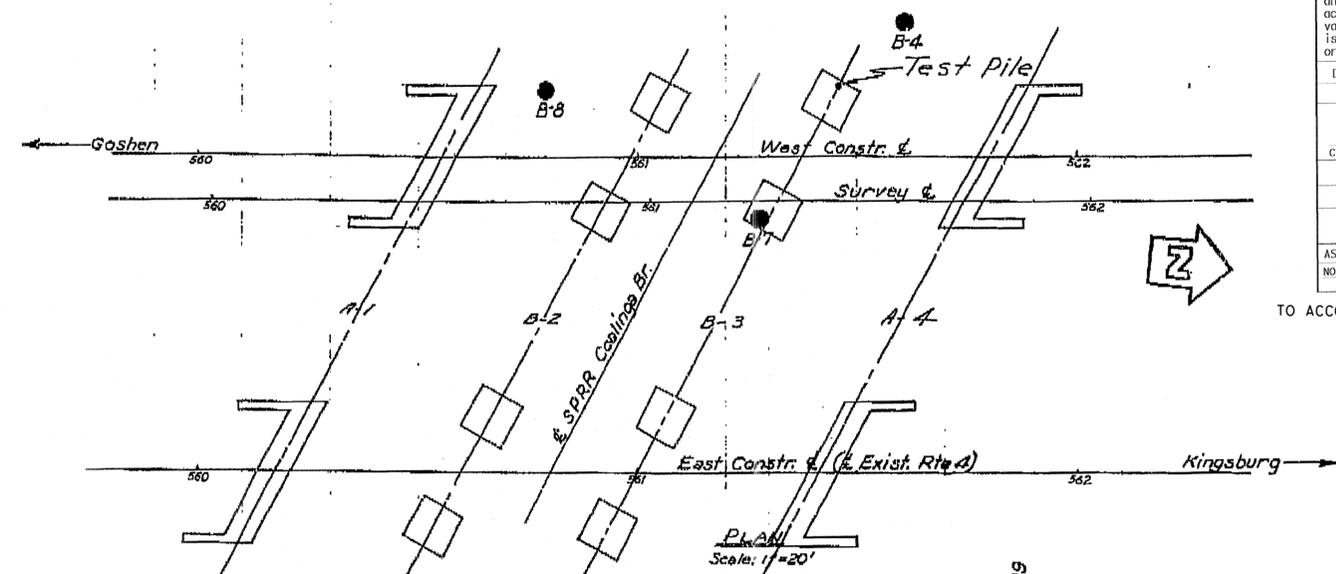
Checked

AS BUILT PLANS

Contract No. 57-61C/6

Date Completed

Document No. 60001014



Design Pile capacity: 45 T

Pile Type: Concrete cast drilled hole

Diameter: Tip 15 1/2" Butt 15 1/2"

Total Number Piles: 53

Lineal ft Piles "As Built": 1743

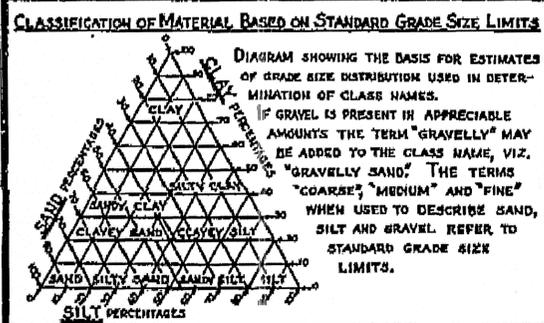
Lineal ft Piles Called for on Plans 1550' 220

Hammer: None, Drilled Holes were used.

Remarks: Several piles are of an increased dia. due to breaking over of sand.

Remarks (cont): Pile lengths extended 3' because of test pile results

Note: Ground water below Elev. 245



LEGEND OF EARTH MATERIALS

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

LEGEND OF BORING OPERATIONS

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

NORTH GOSHEN OVERHEAD (WIDEN)

LOG OF TEST BORINGS

SCALE As shown BRIDGE 46-551&A FILE. DRAWING E-2514-10

PREL. DRAWING NO. 2514

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	255	346

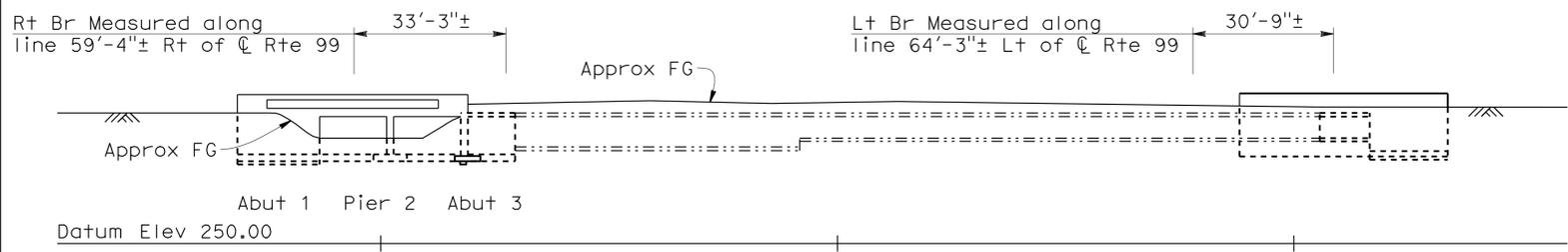
REGISTERED CIVIL ENGINEER
 RICHARD E. SCHEDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA

12/01/11
 DATE
 4-16-12
 PLANS APPROVAL DATE

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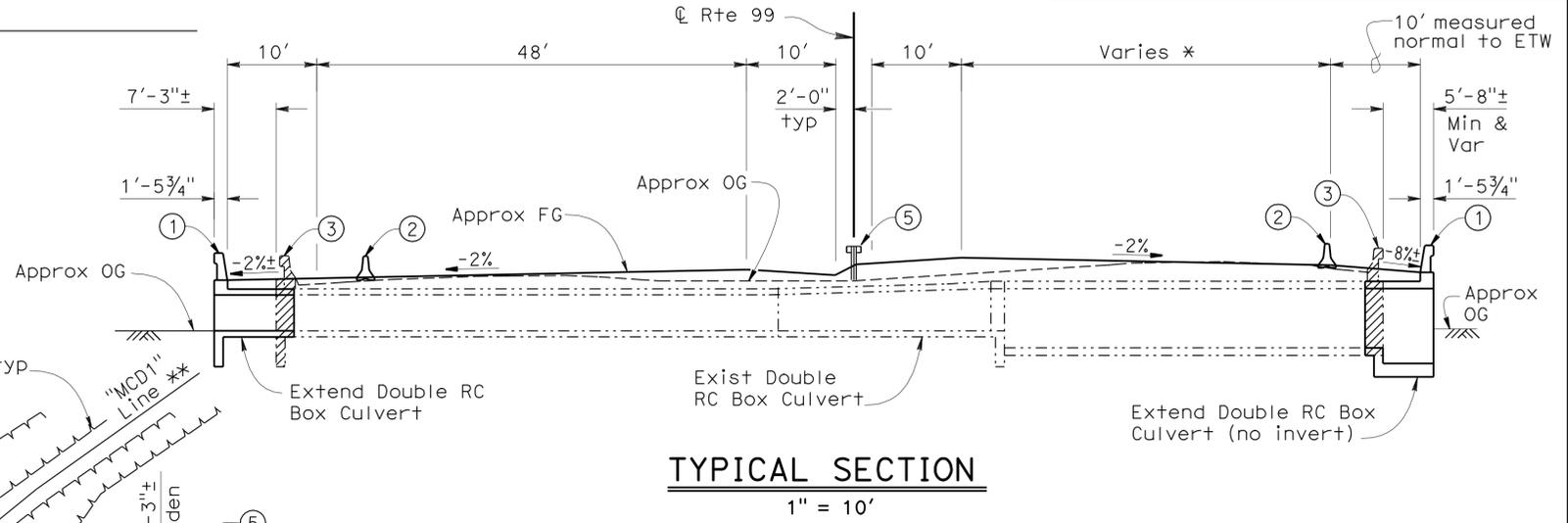
LEGEND

- New Structure
- - - Existing Structure
- ▨ Bridge Removal (Portion)



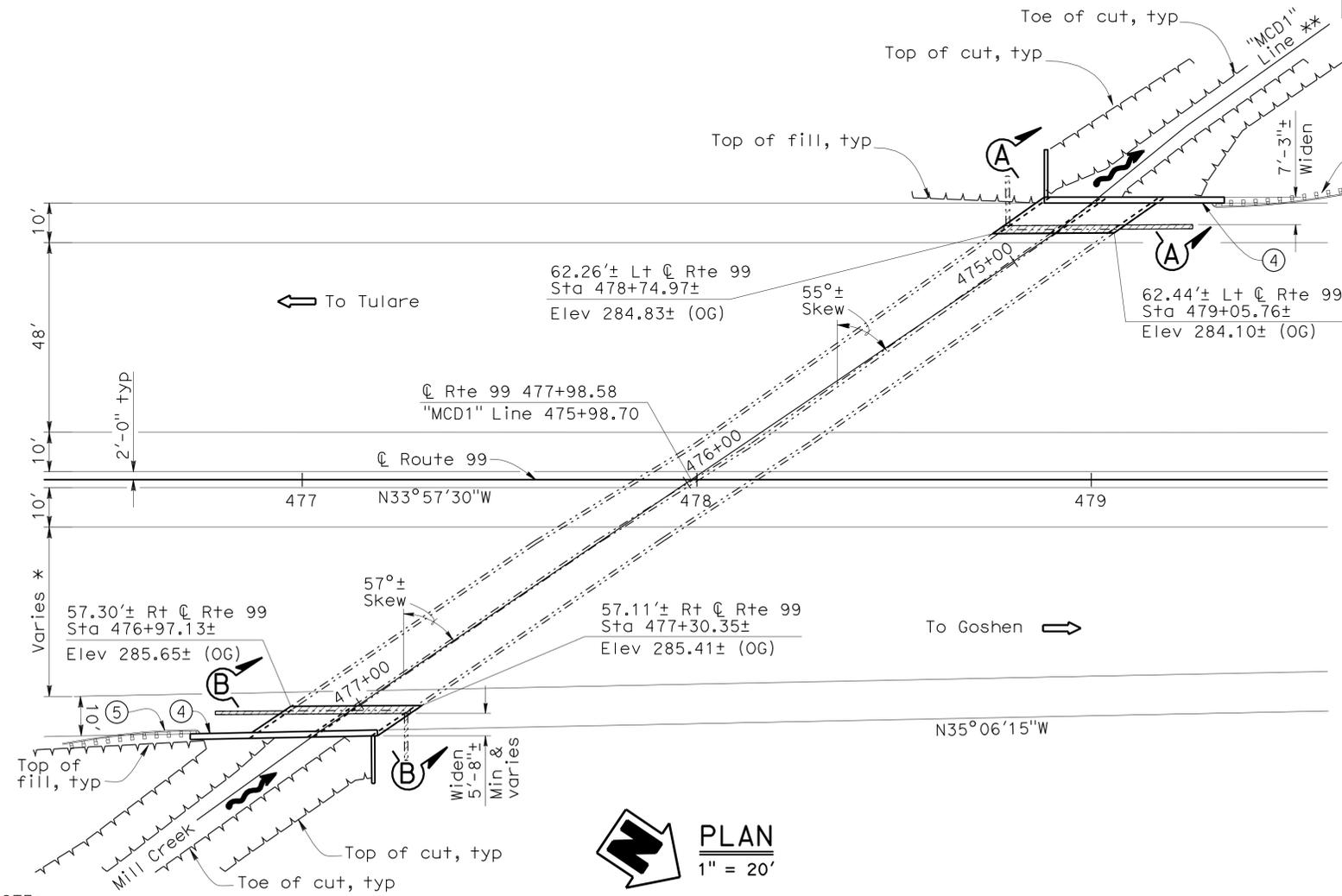
ELEVATION

1" = 20'



TYPICAL SECTION

1" = 10'



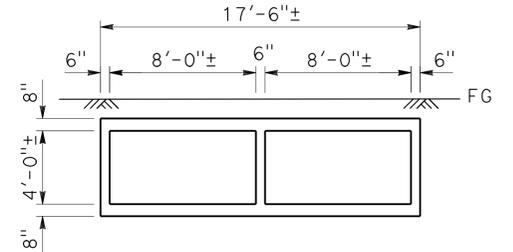
PLAN

1" = 20'

NOTES

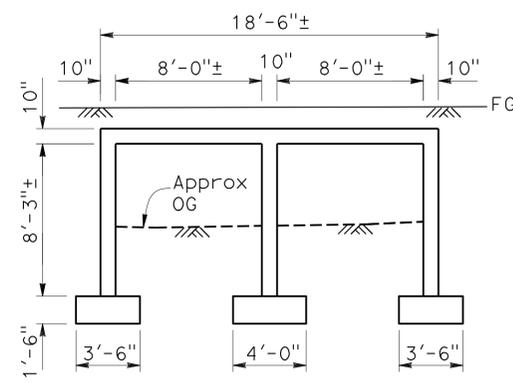
- ① Concrete Barrier Type 736 (Mod)
- ② Temporary Railing Type K, see "ROAD PLANS"
- ③ Existing Concrete Barrier Type 25 (Mod)
- ④ Paint bridge name and number
- ⑤ MBGR, see "ROAD PLANS"

* 48'-0" at Sta 473+86.23
 36'-0" at Sta 479+86.23
 ** For "MCD1" Line layout information, see "FOUNDATION PLAN" sheet.



SECTION A-A

1" = 5'



SECTION B-B

1" = 5'

QUANTITIES

BRIDGE REMOVAL (PORTION), LOCATION D	LUMP SUM
STRUCTURAL CONCRETE, BOX CULVERT	87 CY
BAR REINFORCING STEEL (BOX CULVERT)	17,370 LB
CONCRETE BARRIER (TYPE 736 MODIFIED)	94 LF

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

MICHAEL POPE DESIGN ENGINEER	DESIGN	BY CORY COWDEN	CHECKED RICHARD SCHEDEL	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	46-0127	MILL CREEK DITCH BRIDGE (WIDEN) GENERAL PLAN	
	DETAILS	BY MINH TRAN	CHECKED RICHARD SCHEDEL	LAYOUT	BY MINH TRAN			CHECKED RICHARD SCHEDEL	POST MILE		39.7
	QUANTITIES	BY CORY COWDEN	CHECKED RICHARD SCHEDEL	SPECIFICATIONS	BY REBECCA FRANTI			CHECKED REBECCA FRANTI	PLANS AND SPECS COMPARED		REBECCA FRANTI

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 0 1 2 3
 UNIT: 3603
 PROJECT NUMBER & PHASE: 0600020408 1
 CONTRACT NO.: 06-360211
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 06-28-11, 07-15-11, 09-15-11, 11/21/11
 SHEET 1 OF 12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	256	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
PLANS APPROVAL DATE

RICHARD E. SCHENDEL
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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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)
- A62A EXCAVATION AND BACKFILL - MISCELLANEOUS DETAILS
- A62B LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE SURCHARGE AND WALL
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
- A62E EXCAVATION AND BACKFILL - CAST-IN-PLACE REINFORCED CONCRETE BOX AND ARCH CULVERTS
- D81 CAST-IN-PLACE REINFORCED CONCRETE - DOUBLE BOX CULVERT
- D82 CAST-IN-PLACE REINFORCED CONCRETE BOX CULVERT - MISCELLANEOUS DETAILS
- D84 BOX CULVERT WINGWALLS - TYPES A, B AND C
- B0-1 BRIDGE DETAILS
- B0-3 BRIDGE DETAILS
- B3-8 RETAINING WALL DETAILS NO. 1
- B11-56 CONCRETE BARRIER TYPE 736

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
AASHTO LRFD Bridge Design Specifications, 4th edition and the Caltrans Amendments, preface dated September 2010; except for Standard Plan and modified Standard Plan design details

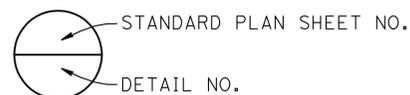
SEISMIC DESIGN:
Caltrans Seismic Design Criteria (SDC), Version 1.6, November 2010

LIVE LOADING:
HL93 and permit design load

SEISMIC LOADING:
See "ACCELERATION RESPONSE SPECTRA CURVE"
Soil Profile: Vs30 = 950 ft/sec for the top 100 ft of soil
Moment Magnitude: Mmax = 7.9
Peak Ground Acceleration = 0.23 g

REINFORCED CONCRETE:
fy = 60 ksi
fc = 3.6 ksi

Design Bearing Pressure for Double Box Culvert (Left Side) = 1.0 ksf

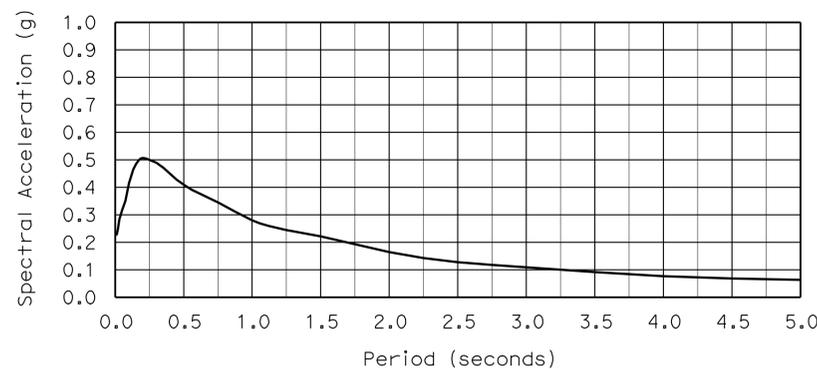


INDEX TO PLANS

Sheet No.	Title
1	GENERAL PLAN
2	INDEX TO PLANS
3	FOUNDATION PLAN
4	REMOVAL DETAILS
5	CULVERT DETAILS NO. 1
6	CULVERT DETAILS NO. 2
7	CULVERT DETAILS NO. 3
8	BARRIER ARCHITECTURAL DETAILS
9	LOG OF TEST BORINGS 1 OF 4
10	LOG OF TEST BORINGS 2 OF 4
11	LOG OF TEST BORINGS 3 OF 4
12	LOG OF TEST BORINGS 4 OF 4

SPREAD FOOTING DATA TABLES

Support Location	Working Stress Design (WSD)		Load and Resistance Factor Design (LRFD)		
	Permissible Gross Contact Stress (Settlement) (ksf)	Allowable Gross Bearing Capacity (ksf)	Service Permissible Net Contact Stress (Settlement) (ksf)	Strength Factored Gross Nominal Bearing Resistance $\phi_b = 0.45$ (ksf)	Extreme Event Factored Gross Nominal Bearing Resistance $\phi_b = 1.00$ (ksf)
Abut 1 (Rt side)	3.5	3.6	N/A	N/A	N/A
Pier 2 (Rt side)	N/A	N/A	3.0	4.0	9.0
Abut 3 (Rt side)	3.5	3.6	N/A	N/A	N/A



ACCELERATION RESPONSE SPECTRA CURVE

Support Location	Wall Design Height (ft)	Recommended Bearing Limits	
		WSD Allowable Gross Bearing Capacity q _{all} (ksf)	LFD Nominal Bearing Resistance q _n (ksf)
Headwalls (Rt side)	H=11'	3.0	N/A
	H=11'	3.0	N/A
Headwalls (Lt side)	H=9'	3.0	N/A
	H=9'	3.0	N/A

Note: The terms "Headwall" and "Wingwall" are used synonymously.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN BY CORY COWDEN	CHECKED RICHARD SCHENDEL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0127	MILL CREEK DITCH BRIDGE (WIDEN)			
	DETAILS BY MINH TRAN	CHECKED RICHARD SCHENDEL			POST MILE 39.7				
	QUANTITIES BY CORY COWDEN	CHECKED RICHARD SCHENDEL							
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 2 OF 12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	257	346

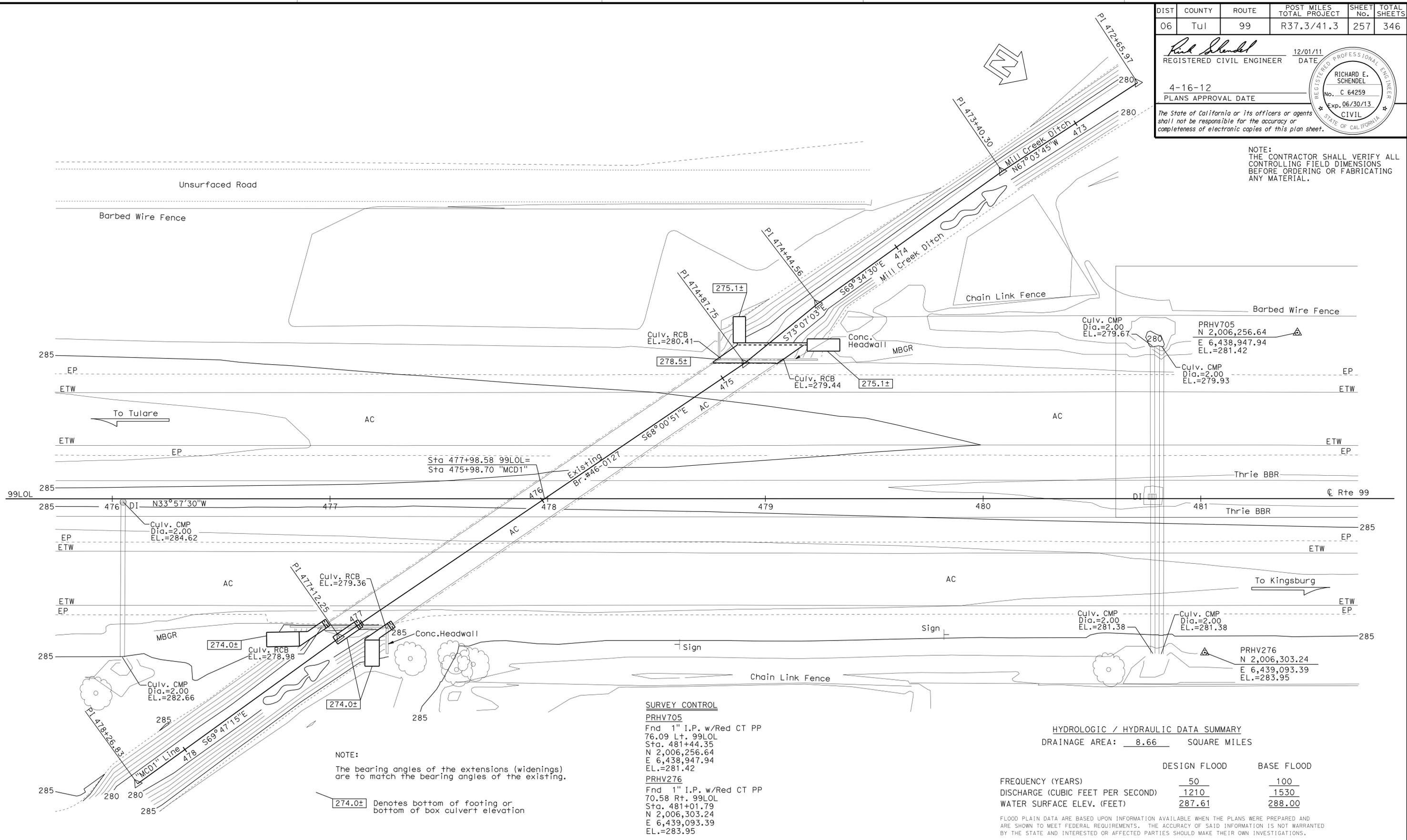
Richard E. Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
RICHARD E. SCHEDEL
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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



NOTE:
The bearing angles of the extensions (widening) are to match the bearing angles of the existing.

[274.0±] Denotes bottom of footing or bottom of box culvert elevation

SURVEY CONTROL
PRHV705
Fnd 1" I.P. w/Red CT PP
76.09 Lt. 99LOL
Sta. 481+44.35
N 2,006,256.64
E 6,438,947.94
EL.=281.42
PRHV276
Fnd 1" I.P. w/Red CT PP
70.58 Rt. 99LOL
Sta. 481+01.79
N 2,006,303.24
E 6,439,093.39
EL.=283.95

HYDROLOGIC / HYDRAULIC DATA SUMMARY
DRAINAGE AREA: 8.66 SQUARE MILES

FREQUENCY (YEARS)	DESIGN FLOOD		BASE FLOOD	
	50	100	1210	1530
DISCHARGE (CUBIC FEET PER SECOND)			287.61	288.00
WATER SURFACE ELEV. (FEET)				

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 INVESTIGATIONS.

PRELIMINARY INVESTIGATION SECTION				DESIGN BY CORY COWDEN	CHECKED RICHARD SCHEDEL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0127	MILL CREEK DITCH BRIDGE (WIDEN) FOUNDATION PLAN	
SCALE 1"=20'	VERT.DATUM NAVD 88	PHOTOGRAMMETRY AS OF: X	DETAILS BY MINH TRAN	CHECKED RICHARD SCHEDEL	POST MILE 39.7					
HORIZ.DATUM NAD83 (1991.35)	SURVEYED BY District/J. Borden	CHECKED BY Lawrence Lew 04/2011	QUANTITIES BY CORY COWDEN	CHECKED RICHARD SCHEDEL						
ALIGNMENT TIES Dist. Traverse Sheet		DRAFTED BY Sharon Zheng 04/2011	CHECKED BY John Borden 04/2011			UNIT: 3646	PROJECT NUMBER & PHASE: 06 0002 0408-1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 3/5/2011 5/26/2011 07/21/11 SHEET 3 OF 12

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 FILE => 46-0127-c-fp101.dgn

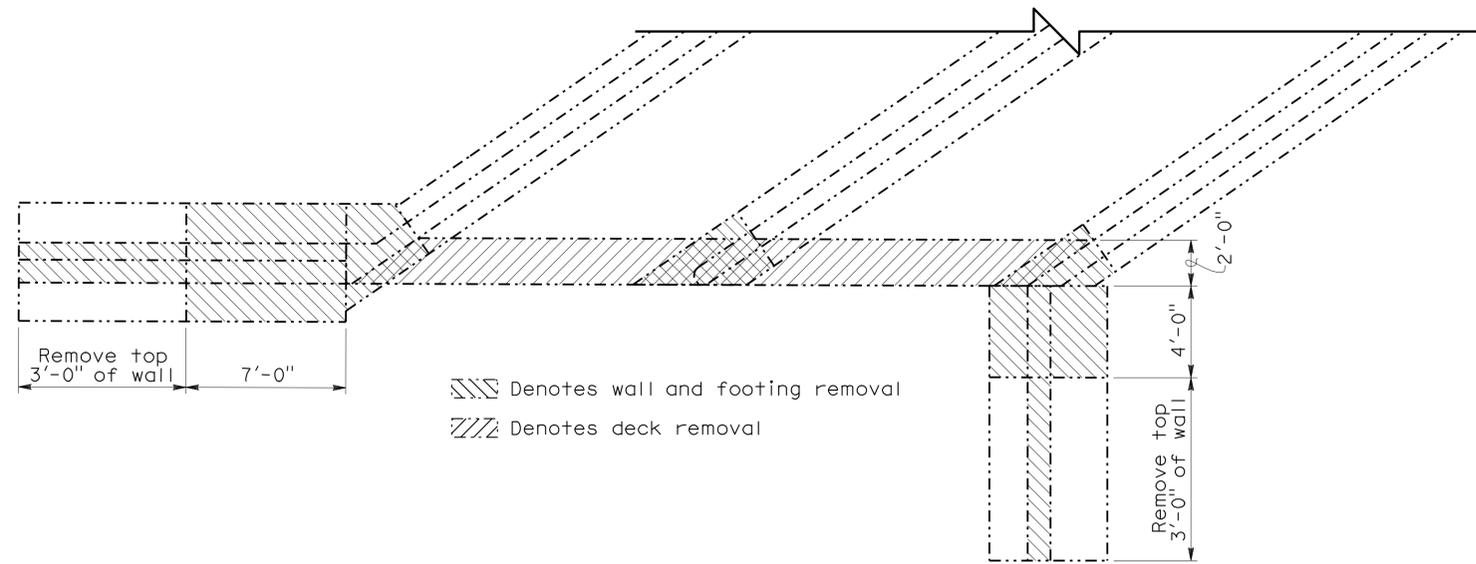
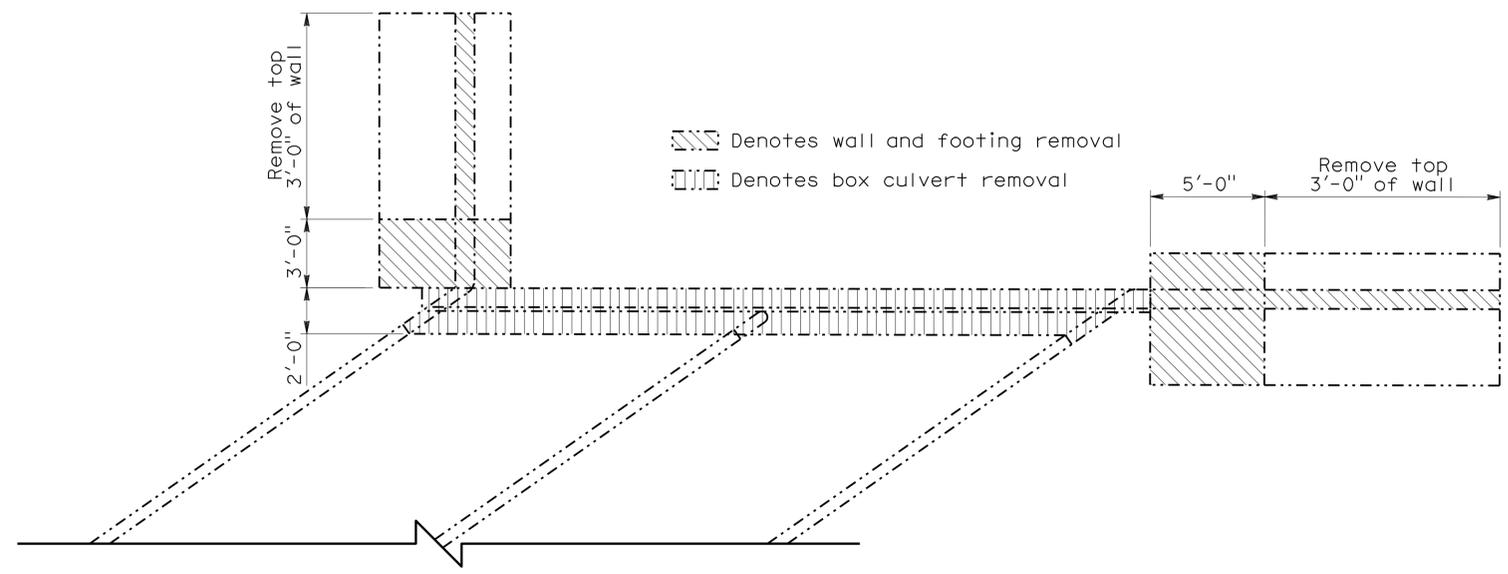
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	258	346

Richard E. Schendel
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NOTE:
Existing reinforcement other than Headwall reinforcement to remain undamaged for connection to new structure.



PART PLAN
 1/4" = 1'-0"

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

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY CORY COWDEN	CHECKED RICHARD SCHENDEL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	46-0127	MILL CREEK DITCH BRIDGE (WIDEN) REMOVAL DETAILS				
	DETAILS	BY MINH TRAN	CHECKED RICHARD SCHENDEL			POST MILE	39.7					
	QUANTITIES	BY CORY COWDEN	CHECKED RICHARD SCHENDEL									
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1		CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
					0	1	2	3	06-28-11	07-18-11	4	12

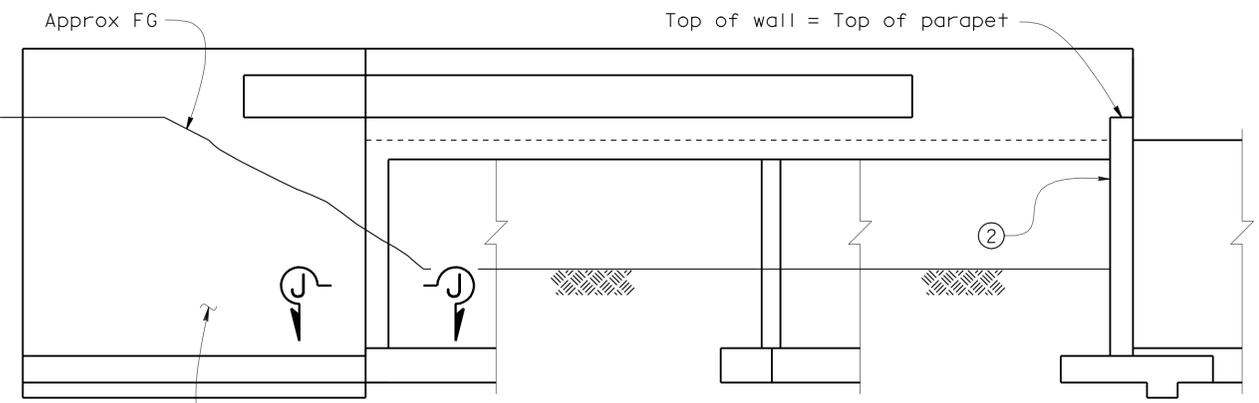
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	259	346

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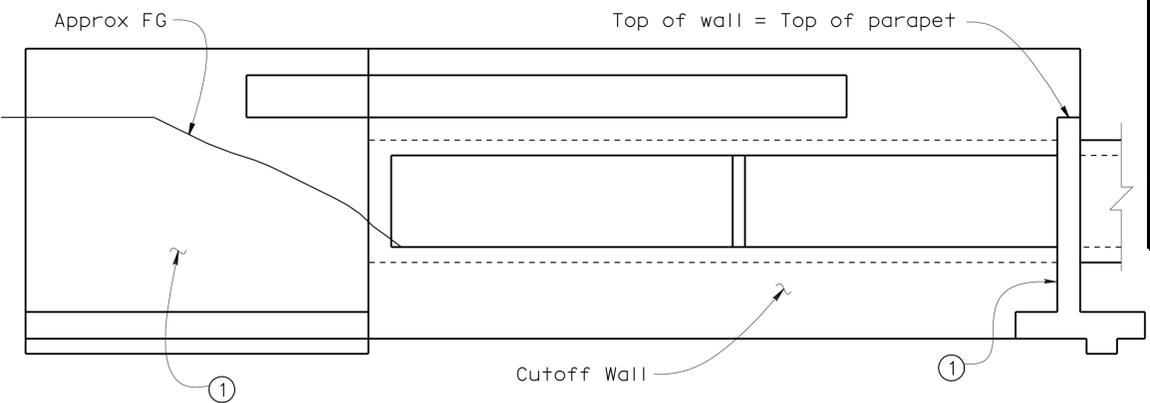
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ELEVATION F-F (D84)
1/4" = 1'-0"

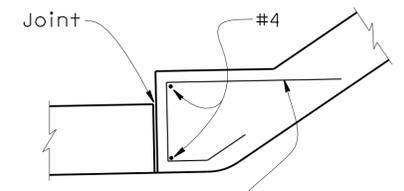


ELEVATION G-G (D84)
1/4" = 1'-0"

NOTES

- ① H = 9'
See Standard Plan D84.
- ② H = 11'
See Standard Plan D84.

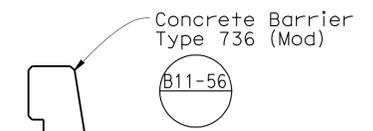
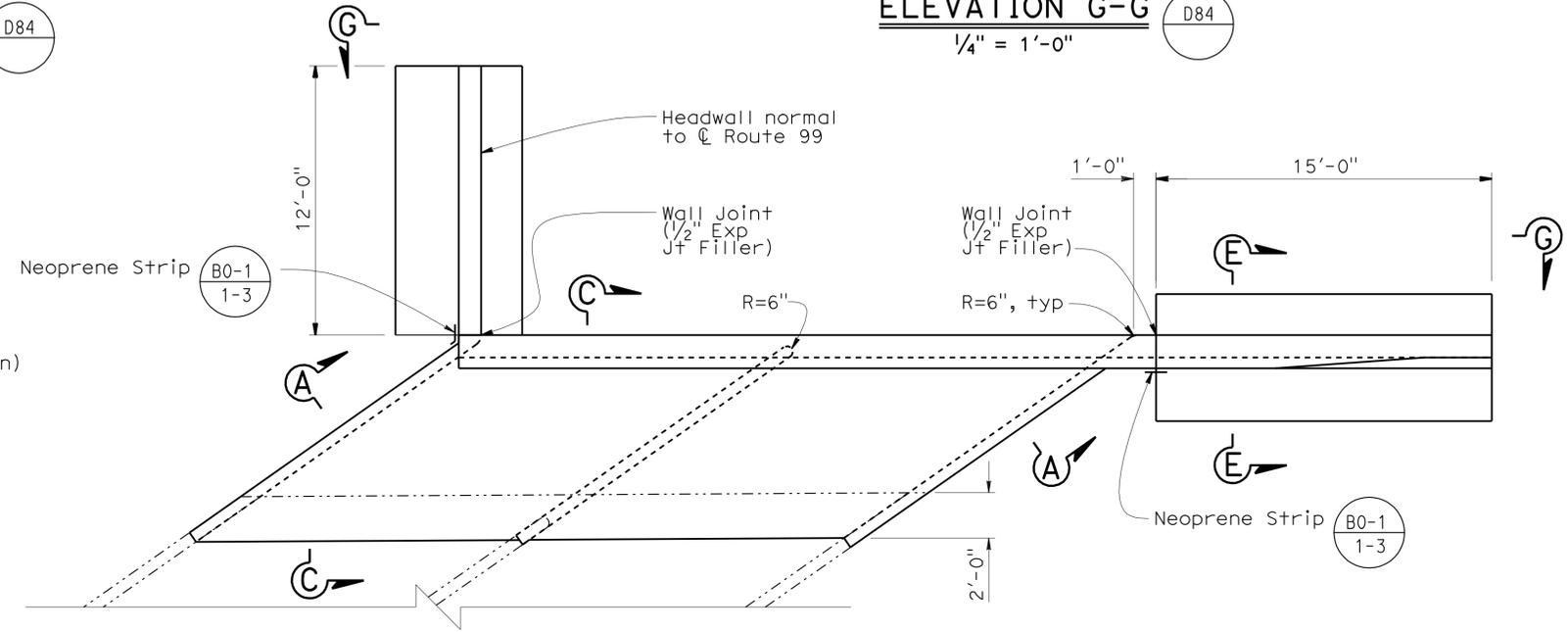
For SECTIONS "A-A", "B-B", "C-C", and "D-D", see "CULVERT DETAILS NO. 2" sheet.



Notes:
1. All reinf not shown.
2. Right widening shown, left similar.

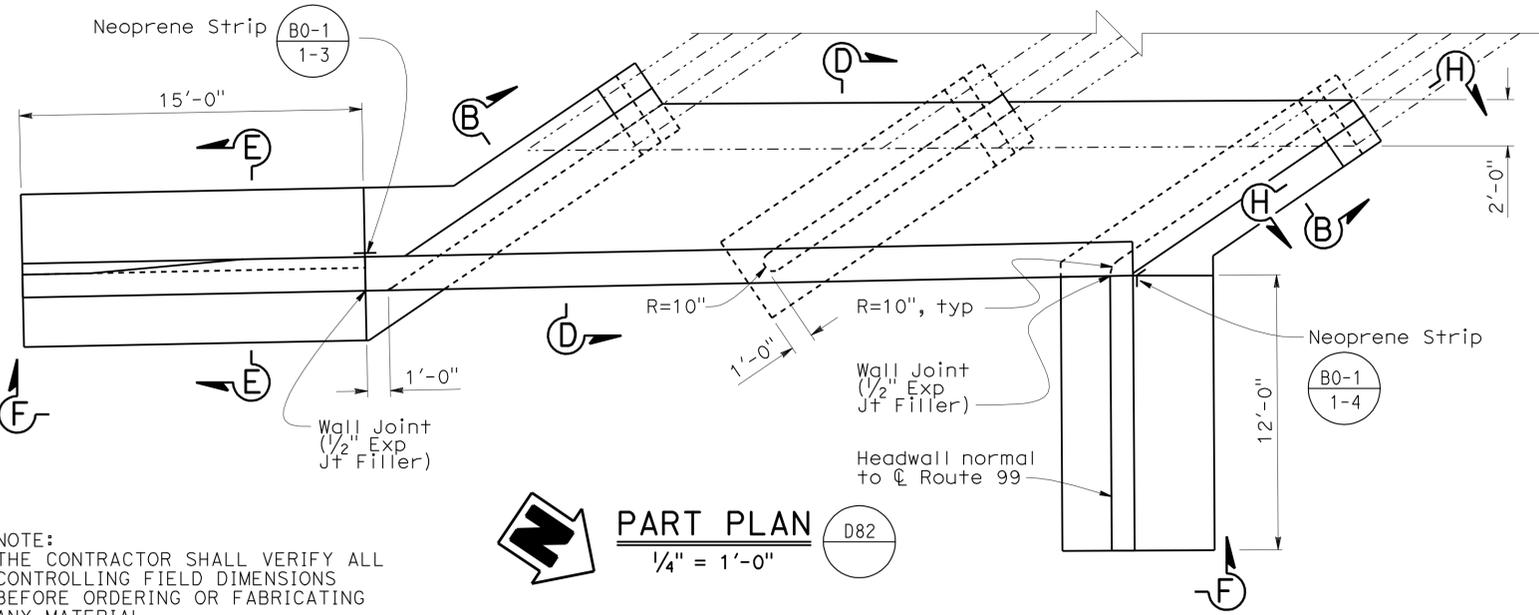
#4 tot. 7 (Rt widen)
tot. 4 (Lt widen)
equally spaced

SECTION J-J
3/4" = 1'-0"

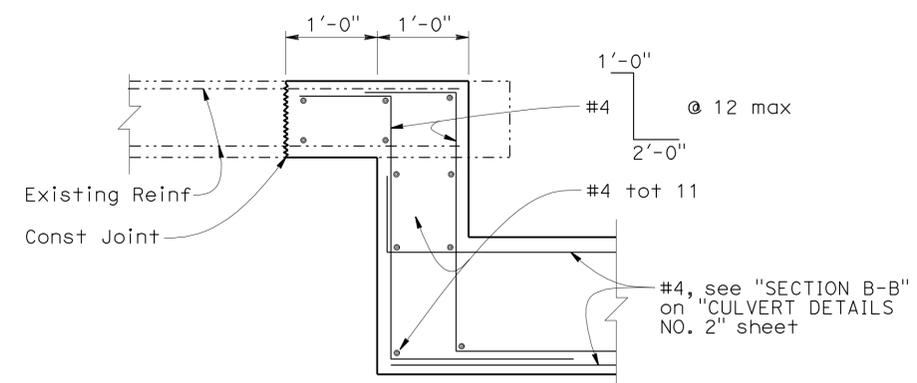


Notes:
1. Reinf not shown.
2. Barrier architectural details not shown.

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



PART PLAN (D82)
1/4" = 1'-0"



FOOTING DETAIL SECTION H-H
1" = 1'-0"

Note:
All reinf not shown.

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

DESIGN	BY CORY COWDEN	CHECKED RICHARD SCHENDEL
DETAILS	BY MINH TRAN	CHECKED RICHARD SCHENDEL
QUANTITIES	BY CORY COWDEN	CHECKED RICHARD SCHENDEL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

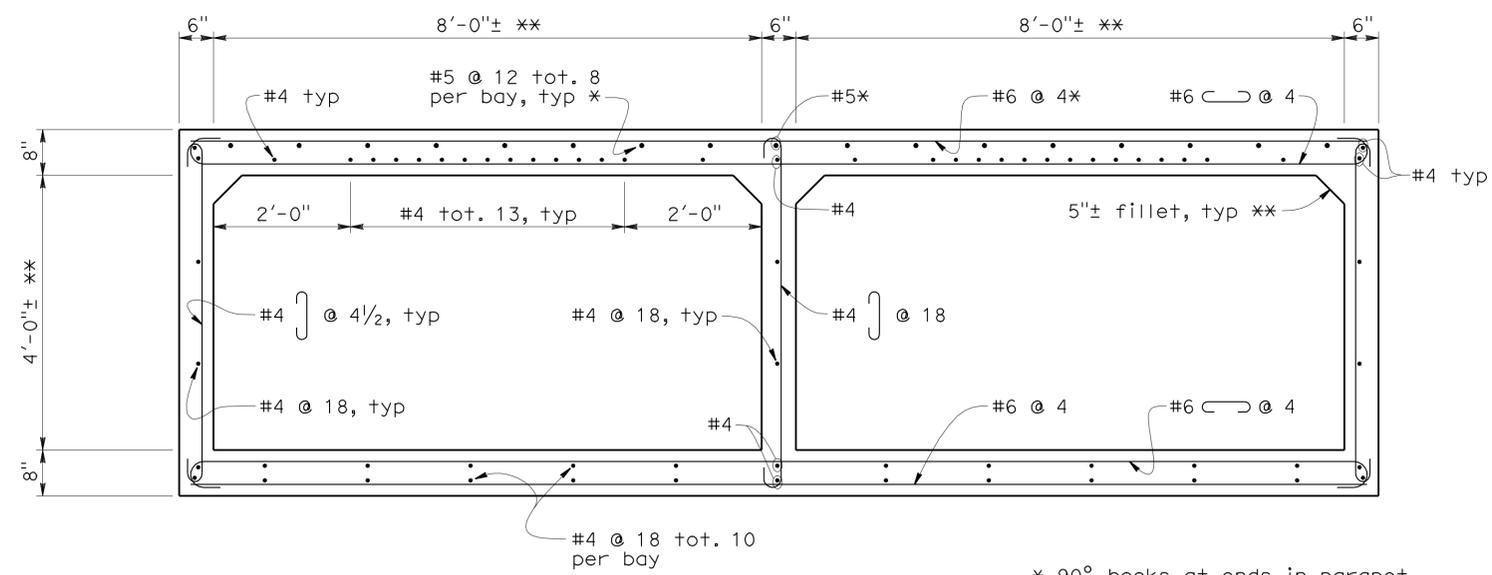
BRIDGE NO.	46-0127
POST MILE	39.7

MILL CREEK DITCH BRIDGE (WIDEN)
CULVERT DETAILS NO. 1

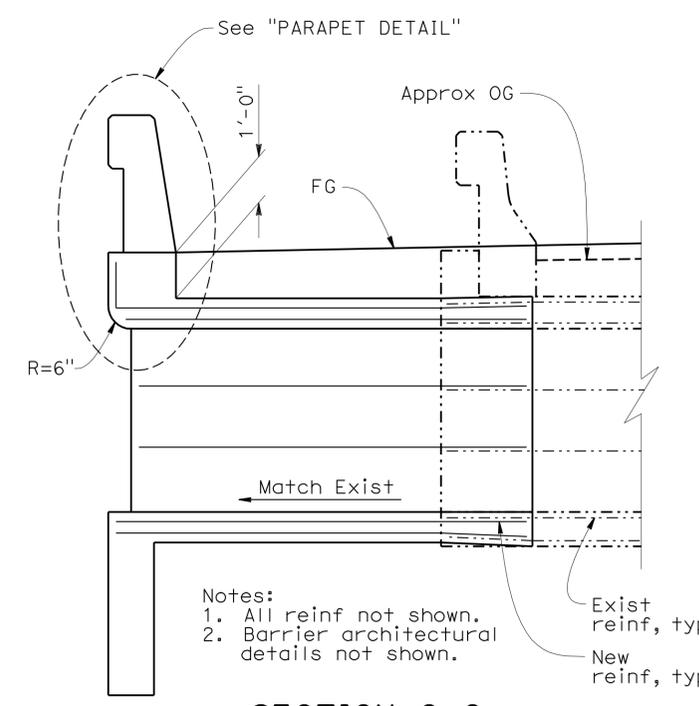
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	260	346

Richard E. Schendel
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 4-16-12 PLANS APPROVAL DATE
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 STATE OF CALIFORNIA

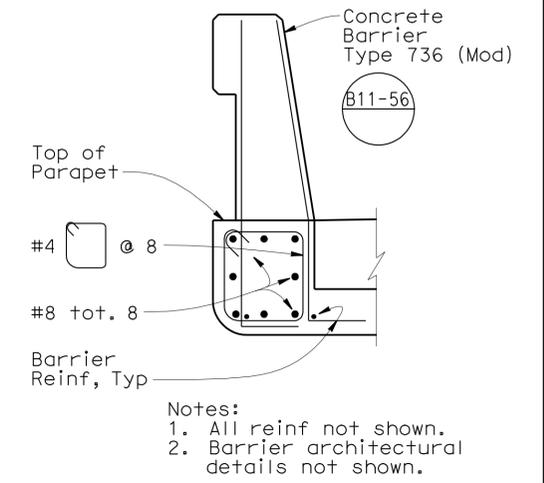


Note: Clearance to reinf is 2" UON.
SECTION A-A (D81)
 $\frac{3}{4}" = 1'-0"$
 * 90° hooks at ends in parapet
 ** Match existing



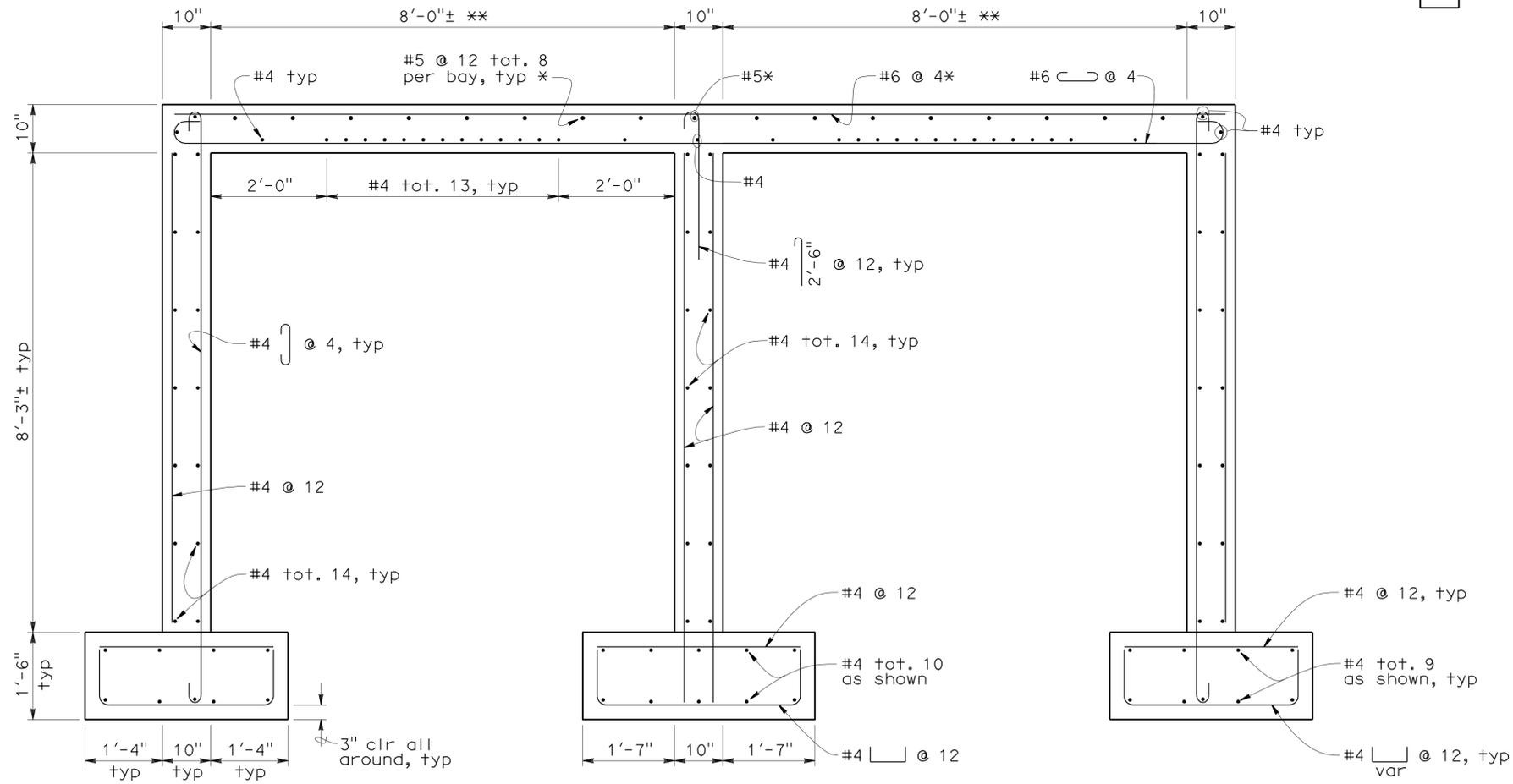
Notes:
 1. All reinf not shown.
 2. Barrier architectural details not shown.

SECTION C-C
 $\frac{1}{2}" = 1'-0"$

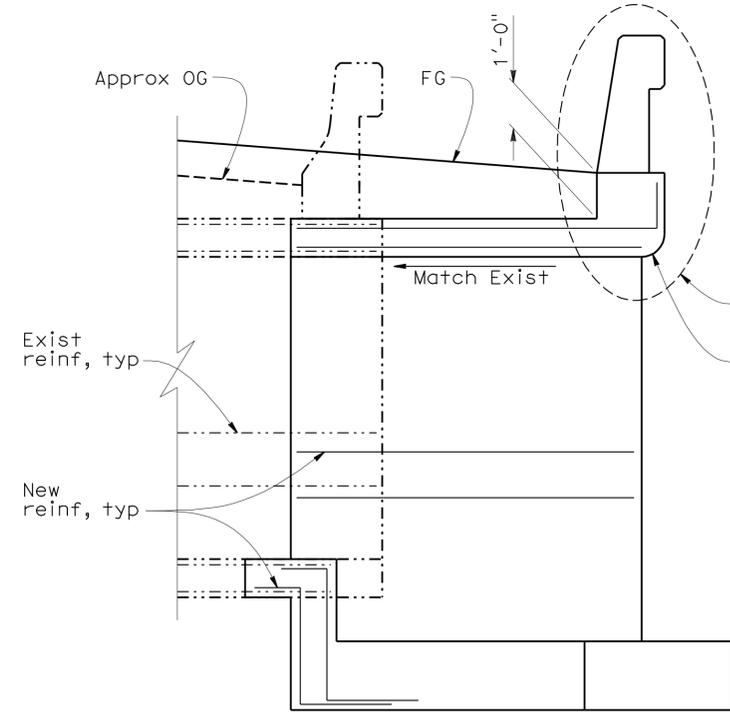


Notes:
 1. All reinf not shown.
 2. Barrier architectural details not shown.

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



SECTION B-B (D81)
 $\frac{3}{4}" = 1'-0"$



SECTION D-D
 $\frac{1}{2}" = 1'-0"$

NOTE:
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STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN BY CORY COWDEN	CHECKED RICHARD SCHENDEL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0127	MILL CREEK DITCH BRIDGE (WIDEN) CULVERT DETAILS NO. 2
	DETAILS BY MINH TRAN	CHECKED RICHARD SCHENDEL			POST MILE 39.7	
	QUANTITIES BY CORY COWDEN	CHECKED RICHARD SCHENDEL				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211
				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES
						SHEET 6 OF 12

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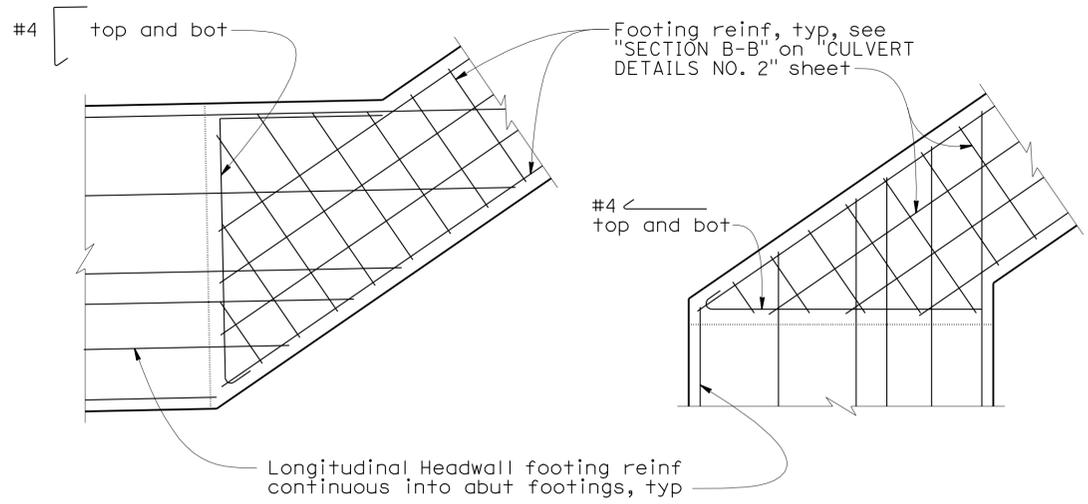
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	261	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER 12/01/11
DATE

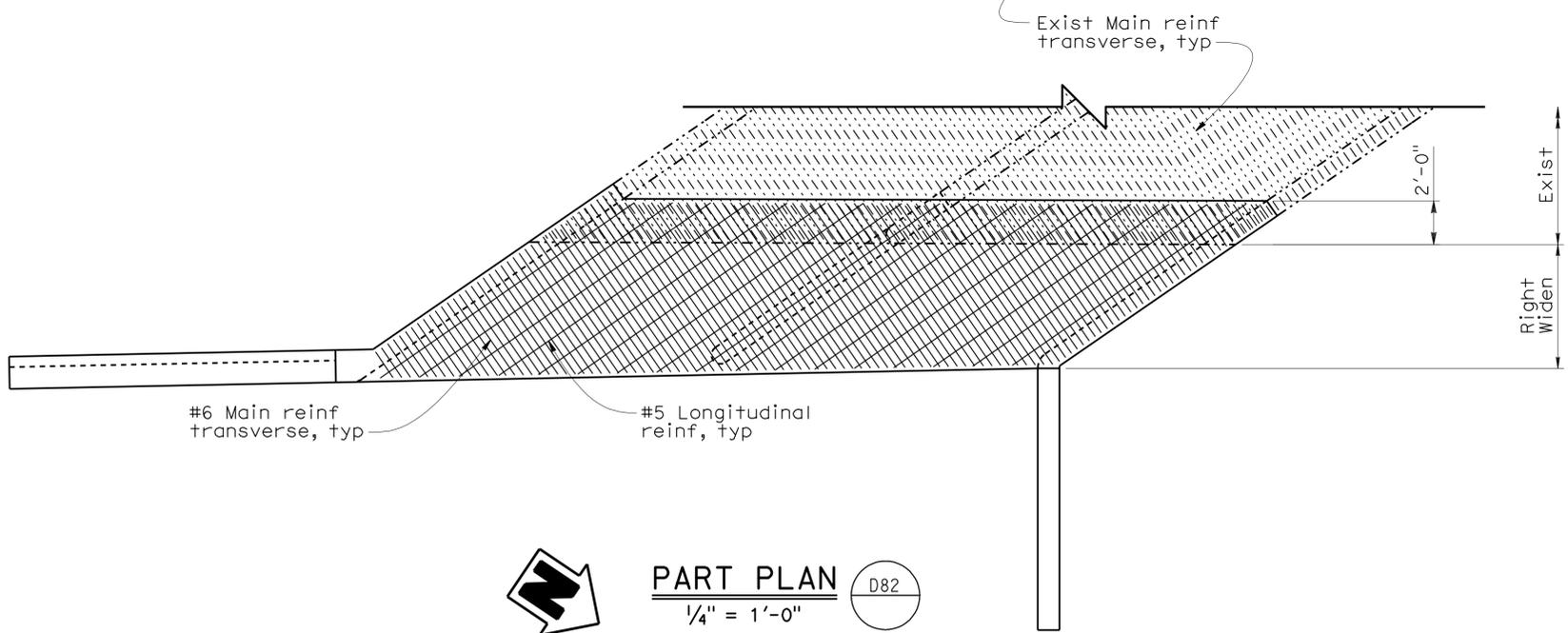
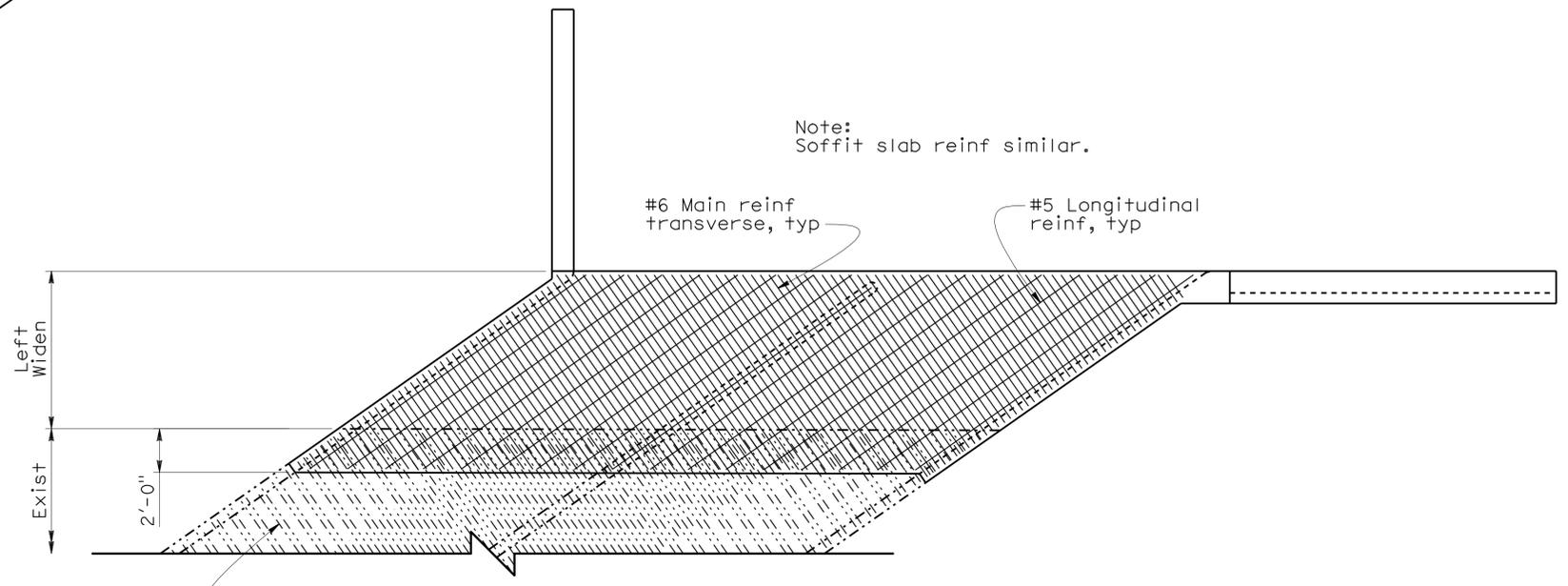
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RICHARD E. SCHENDEL
No. C 64259
Exp. 06/30/13
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STATE OF CALIFORNIA

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FOOTING CORNER DETAILS
1/2" = 1'-0"



PART PLAN
1/4" = 1'-0" D82



- NOTES:
1. Hooks at Parapet not shown.
 2. Parapet reinf not shown.
 3. Exist longitudinal reinf not shown.
 4. Top deck reinf shown, other deck reinf similar.

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

DESIGN	BY CORY COWDEN	CHECKED RICHARD SCHENDEL
DETAILS	BY MINH TRAN	CHECKED RICHARD SCHENDEL
QUANTITIES	BY CORY COWDEN	CHECKED RICHARD SCHENDEL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

BRIDGE NO.	46-0127
POST MILE	39.7

MILL CREEK DITCH BRIDGE (WIDEN)
CULVERT DETAILS NO. 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	262	346

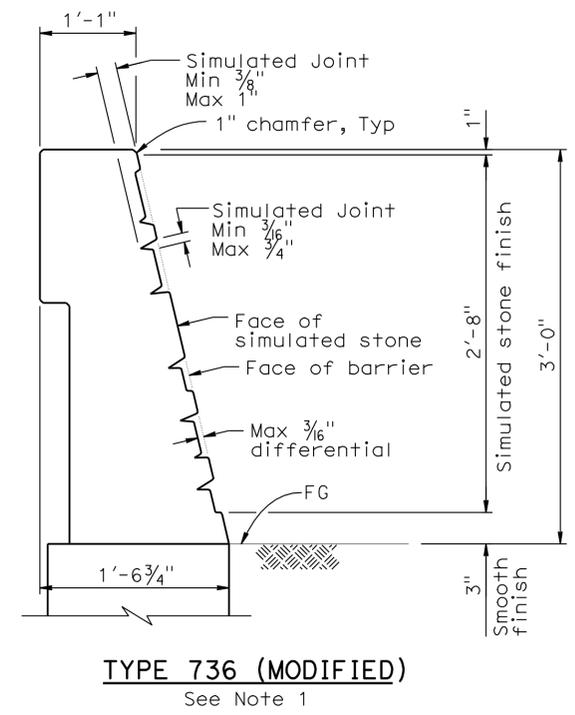
Richard E. Schendel
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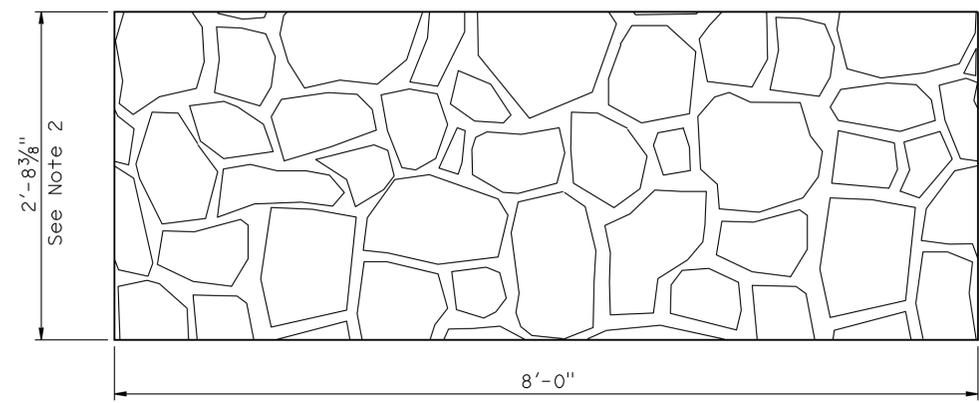
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- NOTES:**
- For details not shown, see Standard Plan B11-56.
 - Height of repeating pattern measured along the slope of the barrier face.
 - Limits of placement and payment for architectural surface (dry stacked stone) texture shall be as shown in "Elevation" and shall extend from beginning to end of Concrete Barrier.

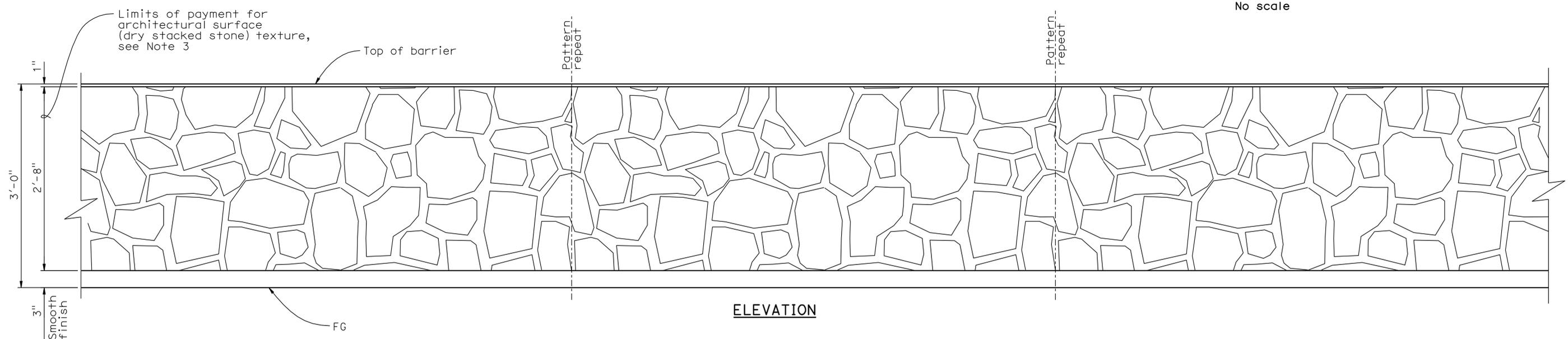


TYPE 736 (MODIFIED)
See Note 1

CONCRETE BARRIER SECTION
No scale



DEVELOPED ELEVATION
REPEATING PATTERN
No scale



ARCHITECTURAL DETAIL
CONCRETE BARRIER TYPE 736 (MODIFIED)
No scale

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

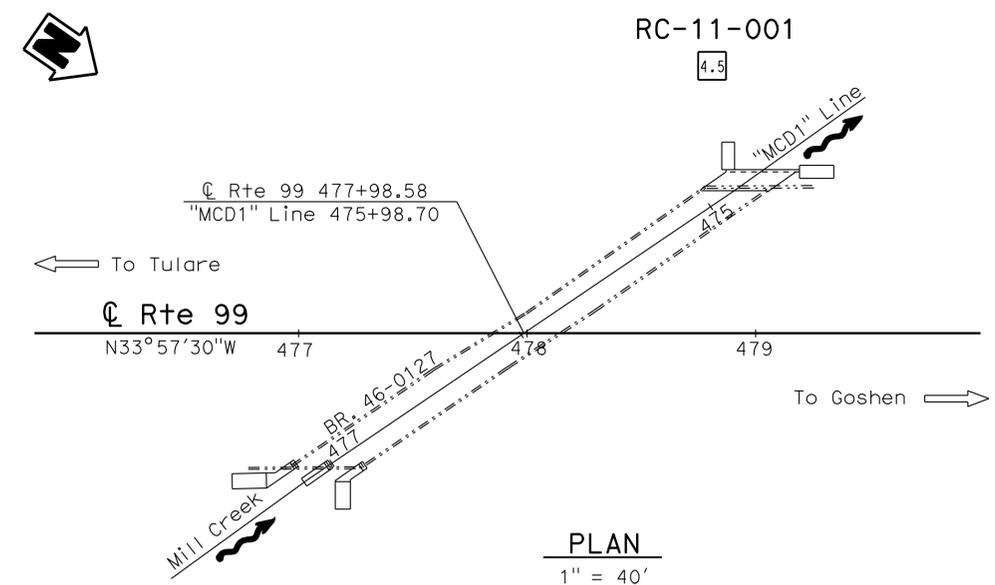
DESIGN	BY	CORY COWDEN	CHECKED	RICHARD SCHENDEL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	46-0127	MILL CREEK DITCH BRIDGE (WIDEN) BARRIER ARCHITECTURAL DETAILS							
	DETAILS	BY	MINH TRAN	CHECKED			RICHARD SCHENDEL	POST MILE		39.7						
	QUANTITIES	BY	CORY COWDEN	CHECKED			RICHARD SCHENDEL									
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
												06-28-11	07-19-11	8	12	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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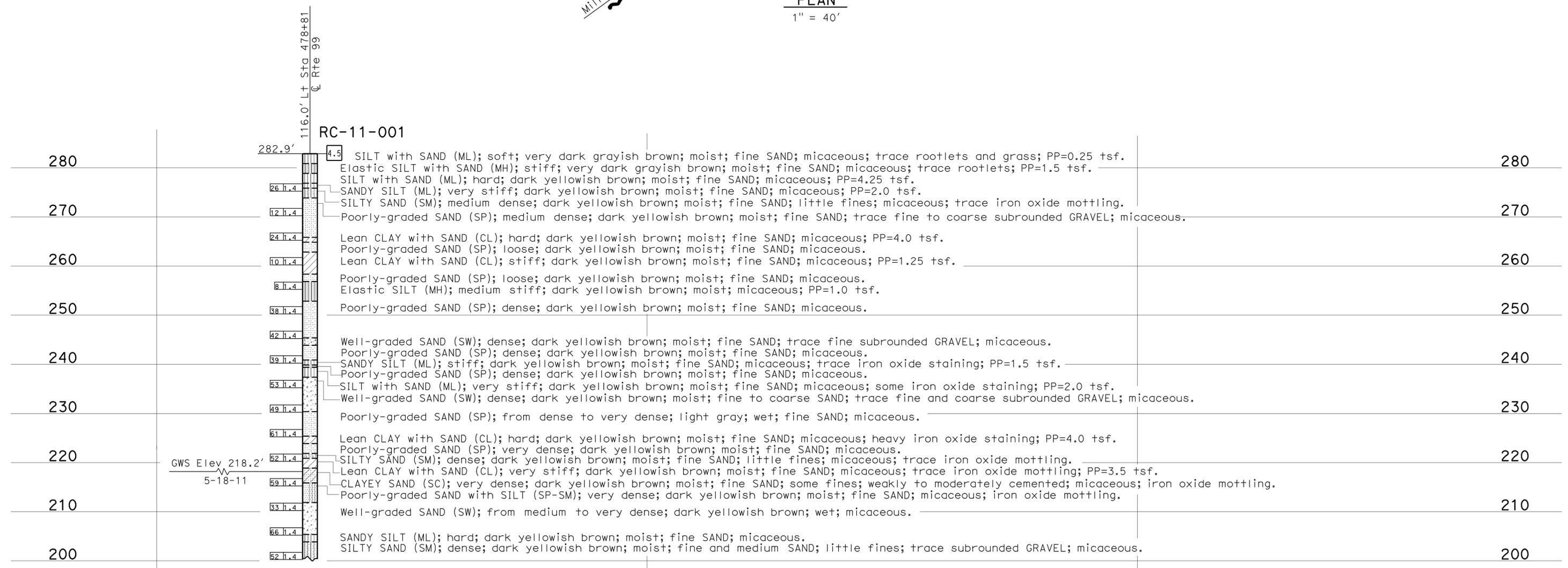
CERTIFIED ENGINEERING GEOLOGIST
 Reid Buell
 No. 1481
 Exp. 4-30-13
 4-16-12
 PLANS APPROVAL DATE
 9-1-11
 PROFESSIONAL GEOLOGIST
 STATE OF CALIFORNIA
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BENCH MARK

BM T-1
 Fnd 1" iron pipe marked T-1 on fence line northwest of bridge.
 Elev 281.79'
 PRHV 705
 Fnd 1" I.P. w/Red CT PP
 75.29' Lt "LOL4" Line,
 C Rte 99 Sta 481+44.40
 N 2,006,256.637
 E 6,438,947.942
 Elev 281.42'
 NAVD 88



PLAN
1" = 40'



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

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		MILL CREEK DITCH BRIDGE (WIDEN)	
FUNCTIONAL SUPERVISOR		DRAWN BY: W. Tang 08/11		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		46-0127		LOG OF TEST BORINGS 1 OF 4	
NAME: R. Buell		CHECKED BY: A. Barrie		FIELD INVESTIGATION BY: J. Thorne		DESIGN BRANCH 18		POST MILE			
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643		PROJECT NUMBER & PHASE: 06000204081		CONTRACT NO.: 06-360211		REVISION DATES	
				0 1 2 3				DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET 9 OF 12	

USERNAME => s124496 DATE PLOTTED => 19-APR-2012 TIME PLOTTED => 11:38

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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9-1-11
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 4-16-12
 PLANS APPROVAL DATE

Reid Buell
 No. 1481
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 STATE OF CALIFORNIA

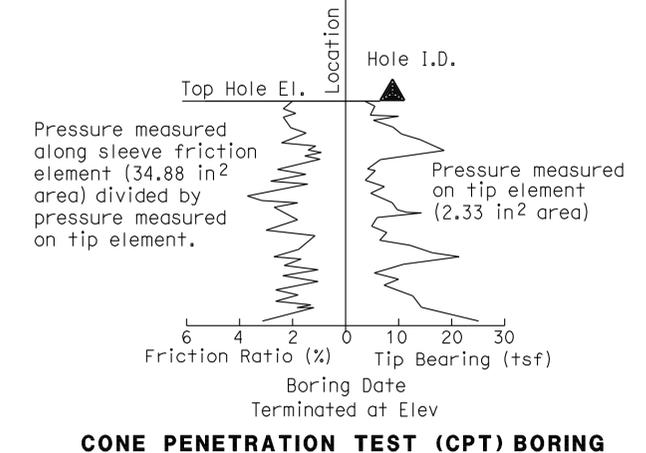
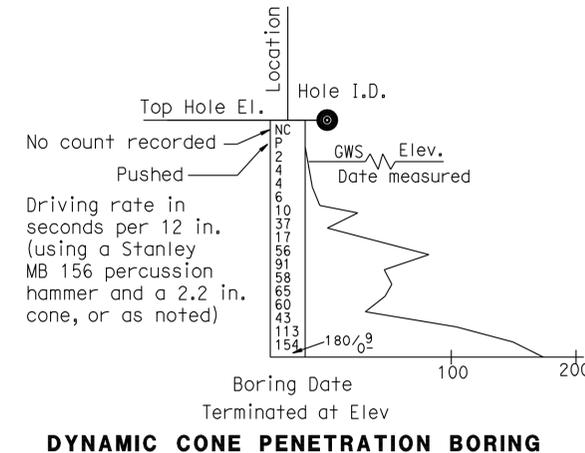
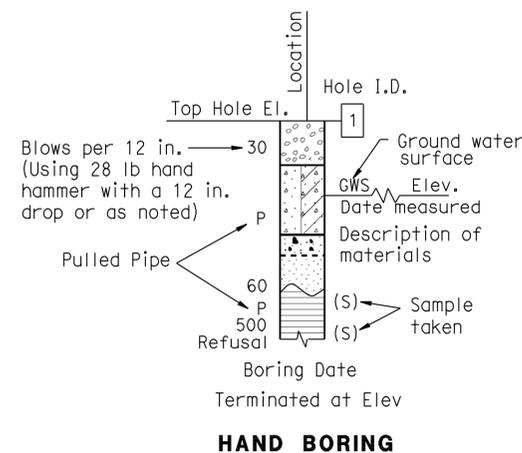
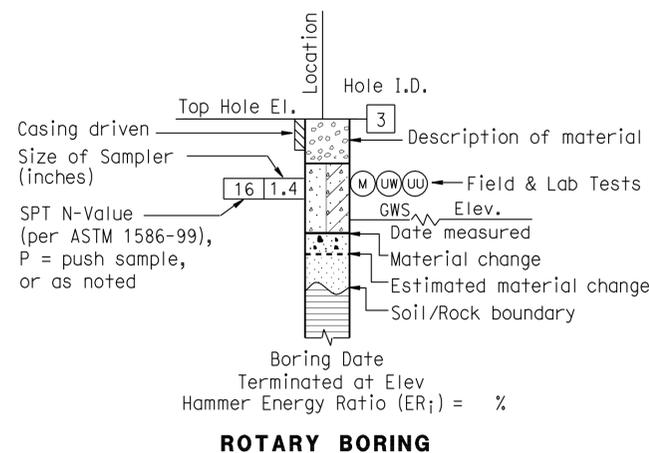
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

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

Note: Size in inches.

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



ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0127	MILL CREEK DITCH BRIDGE (WIDEN)
				POST MILE 39.7	
PREPARED BY: I.G-Remmen		UNIT: 3643 PROJECT NUMBER & PHASE: 06000204081	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
GS LOTB SOIL LEGEND		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	REVISION DATES	SHEET 10	OF 12

FILE => 46-0127-z-1+b02.dgn

9-1-11

CERTIFIED ENGINEERING GEOLOGIST

4-16-12
PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST

Reid Buell
No. 1481
Exp. 4-30-13
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

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

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

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

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

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

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

ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0127 POST MILE 39.7	MILL CREEK DITCH BRIDGE (WIDEN) LOG OF TEST BORINGS 3 OF 4
	PREPARED BY: I. G-Remmen				
GS LOTB SOIL LEGEND	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3643 PROJECT NUMBER & PHASE: 06000204081	CONTRACT NO.: 06-360211	REVISION DATES SHEET 11 OF 12

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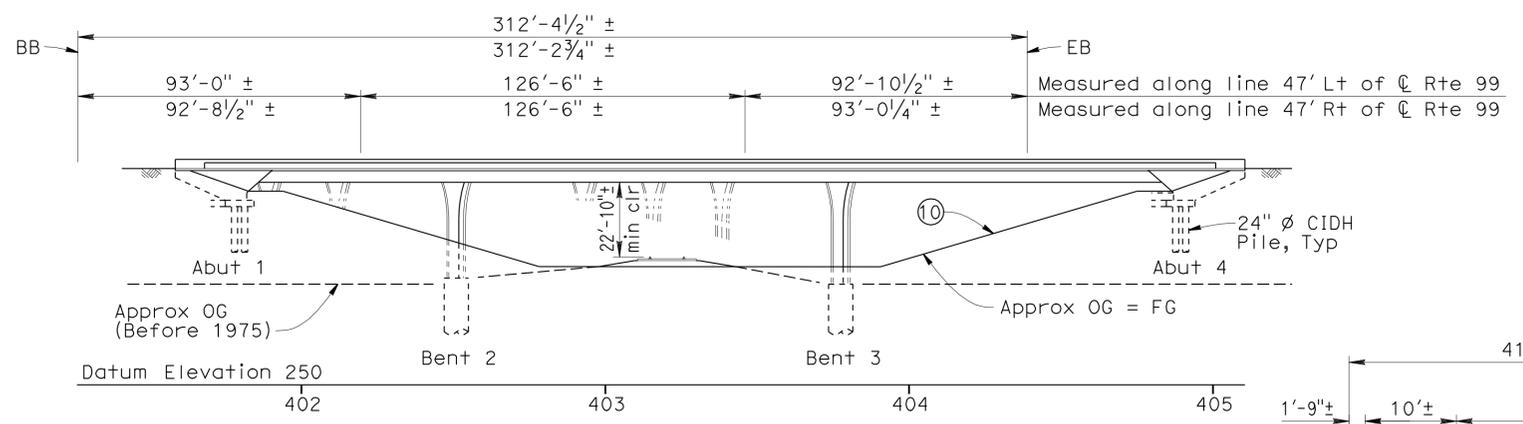
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	267	346

Richard Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

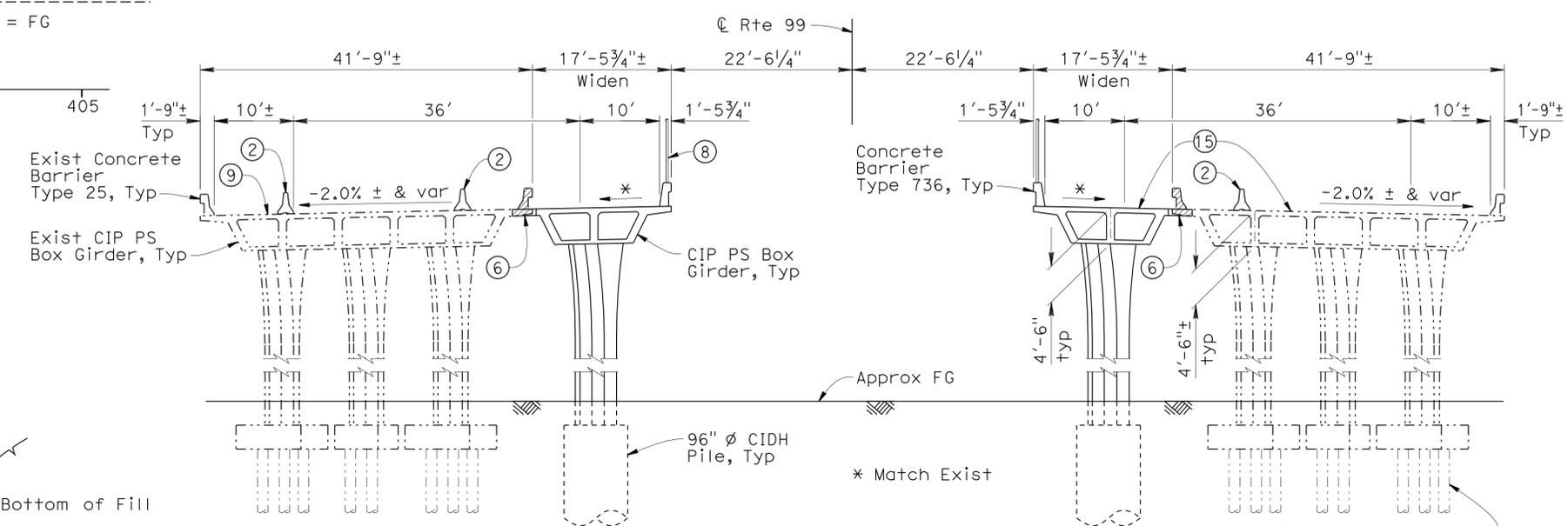
4-16-12
PLANS APPROVAL DATE

Richard E. Schendel
REGISTERED PROFESSIONAL ENGINEER
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

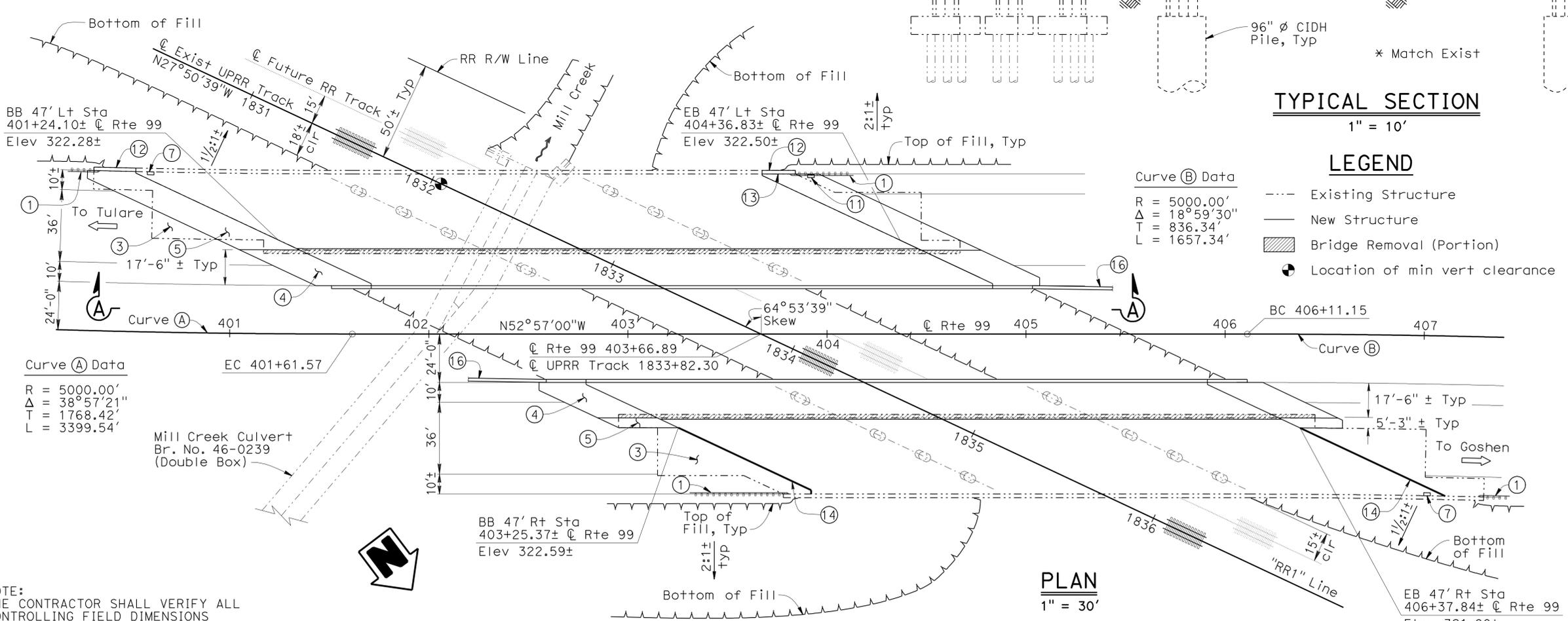
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ELEVATION A-A
1" = 30'



TYPICAL SECTION
1" = 10'



PLAN
1" = 30'

LEGEND

- Existing Structure
- New Structure
- ▨ Bridge Removal (Portion)
- Location of min vert clearance

NOTES

- ① MBGR, see "ROAD PLANS"
- ② Temporary Railing Type K, see "ROAD PLANS"
- ③ Exist Structure Approach, Typ
- ④ Structure Approach Type N(300), Typ
- ⑤ Structure Approach Type R(300), Typ
- ⑥ 3'-0" ± Closure Pour
- ⑦ Exist Deck Drain
- ⑧ Chain Link Railing (Type 7 Mod), Typ
- ⑨ Grind epoxy grit surfacing on exist deck, prepare and treat exist deck with methacrylate
- ⑩ Full Slope Paving (Exist & New), Typ
- ⑪ Relocate Exist DI, see "ROAD PLANS"
- ⑫ Remove and Replace Portion of Exist Concrete Barrier (Type 25)
- ⑬ Paint Bridge Name and Number
- ⑭ Cont New Joint Seal, MR = 2", Typ (no exist waterstop, approx depth of joint to be cleaned is 1'-0")
- ⑮ Grind epoxy grit surfacing on exist deck, prepreg deck (new & exist) and place 3/4" thick polyester concrete overlay (new & exist)
- ⑯ Concrete Barrier, see "ROAD PLANS"

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

MICHAEL POPE DESIGN ENGINEER	DESIGN	BY RICHARD SCHENDEL	CHECKED ARAM SALIMI	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	WEST VISALIA OVERHEAD (WIDEN)			
	DETAILS	BY RICHARD SCHENDEL	CHECKED ARAM SALIMI	LAYOUT	BY RICHARD SCHENDEL			CHECKED ARAM SALIMI		46-0226 R/L		
	QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM	SPECIFICATIONS	BY REBECCA FRANTI	CHECKED REBECCA FRANTI	POST MILE	38.2	GENERAL PLAN			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS							UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 1 OF 30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	268	346

Richard E. Schendel
 REGISTERED CIVIL ENGINEER DATE 12/01/11
 4-16-12
 PLANS APPROVAL DATE
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GENERAL NOTES

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
AASHTO LRFD Bridge Design Specifications, 4th edition and the Caltrans Amendments, preface dated September 2010

SEISMIC DESIGN:
Caltrans Seismic Design Criteria (SDC), Version 1.6, November 2010

DEAD LOAD:
Includes 35 psf for future wearing surface

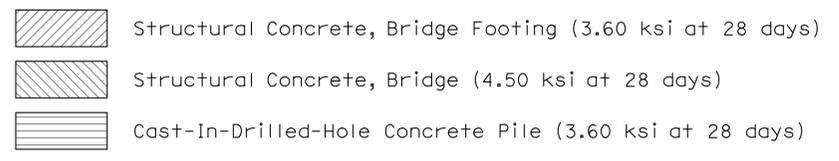
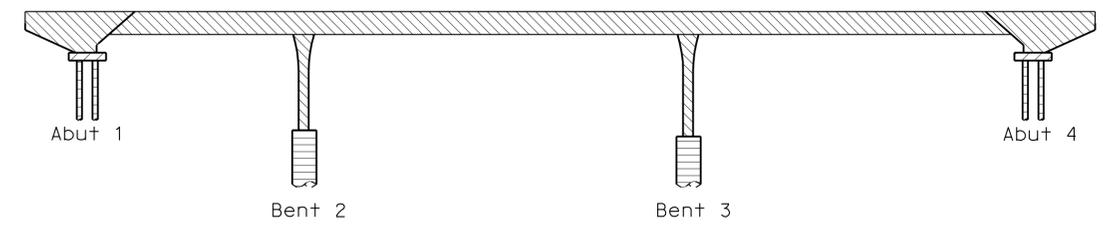
LIVE LOADING:
HL93 and permit design load

SEISMIC LOADING:
See "ACCELERATION RESPONSE SPECTRA CURVE"
Soil Profile: Vs30 = 890 ft/sec for the top 100 ft of soil
Moment Magnitude: Mmax = 7.9
Peak Ground Acceleration = 0.23 g

CONCRETE:
fy = 60 ksi
fc = See "CONCRETE STRENGTH AND TYPE LIMITS".

FALSEWORK RELEASE

Falsework shall be released as soon as permitted by the specifications. Closure pour shall not be placed sooner than 60 days after the falsework has been released.

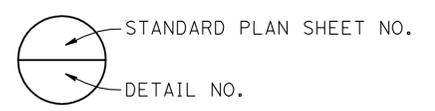


CONCRETE STRENGTH AND TYPE LIMITS

No Scale

STANDARD PLANS DATED MAY 2006

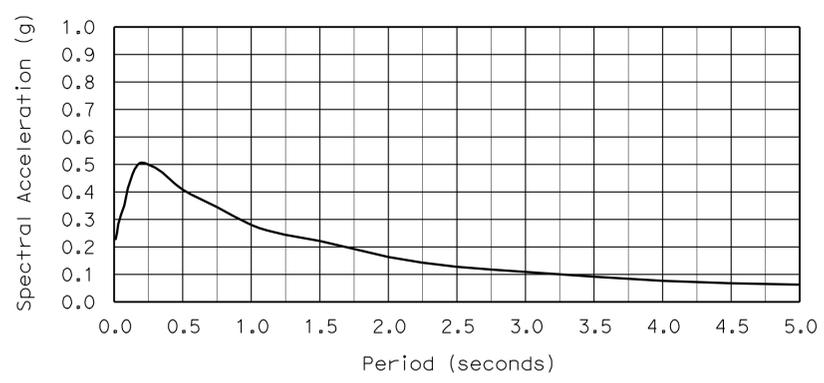
- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
- B0-1 BRIDGE DETAILS
- B0-5 BRIDGE DETAILS
- B0-13 BRIDGE DETAILS
- B2-3 16" AND 24" CAST-IN-DRILLED-HOLE CONCRETE PILE
- RSP B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- B7-1 BOX GIRDER DETAILS
- B8-5 CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
- B11-53 CONCRETE BARRIER TYPE 25
- B11-56 CONCRETE BARRIER TYPE 736
- P10 CONCRETE PAVEMENT - DOWEL BAR DETAILS



PILE DATA

Location	Pile Type	Nominal Resistance (kips)		Cut-Off Elevation (ft)	Design Tip Elevation (ft)	Specified Tip Elevation (ft)
		Compression	Tension			
Abut 1 Lt	24" CIDH	260	0	*	268.0 (a)	268.0
Abut 1 Rt	24" CIDH	260	0	*	268.0 (a)	268.0
Bent 2 Lt & Rt	96" CIDH	3150	0	289.00	204.0 (a) 217.0 (b)	204.0
Bent 3 Lt & Rt	96" CIDH	3150	0	289.00	204.0 (a) 227.0 (b)	204.0
Abut 4 Lt	24" CIDH	260	0	*	268.0 (a)	268.0
Abut 4 Rt	24" CIDH	260	0	*	268.0 (a)	268.0

Note: Design tip elevations are controlled by: (a) Compression, and (b) Lateral Load.
* See other sheets



QUANTITIES

GRIND EPOXY GRIT SURFACING	23,565 SQFT
REMOVE UNSOUND CONCRETE	29 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	29,300 SQFT
BRIDGE REMOVAL (PORTION), LOCATION A	LUMP SUM
STRUCTURE EXCAVATION (BRIDGE)	415 CY
STRUCTURE BACKFILL (BRIDGE)	250 CY
AGGREGATE BASE (APPROACH SLAB)	11 CY
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	1,015 LF
96" CAST-IN-DRILLED-HOLE CONCRETE PILING	340 LF
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	68 CY
STRUCTURAL CONCRETE, BRIDGE	1,105 CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	75 CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	106 CY
DRILL AND BOND DOWEL	124 LF
CLEAN EXPANSION JOINT	158 LF
RAPID SETTING CONCRETE (PATCH)	29 CF
FURNISH POLYESTER CONCRETE OVERLAY	1,312 CF
PLACE POLYESTER CONCRETE OVERLAY	17,500 SQFT
JOINT SEAL (MR 2")	535 LF
BAR REINFORCING STEEL (BRIDGE)	522,000 LB
TREAT BRIDGE DECK	11,800 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	158 GAL
SLOPE PAVING (CONCRETE)	380 CY
CHAIN LINK RAILING (TYPE 7 MODIFIED)	705 LF
CONCRETE BARRIER (TYPE 25)	36 LF
CONCRETE BARRIER (TYPE 736)	705 LF

INDEX TO PLANS

Sheet No.	Title
1	GENERAL PLAN
2	INDEX TO PLANS
3	FOUNDATION PLAN NO. 1
4	FOUNDATION PLAN NO. 2
5	ABUTMENT LAYOUT - LEFT BRIDGE
6	ABUTMENT LAYOUT - RIGHT BRIDGE
7	ABUTMENT ELEVATIONS
8	ABUTMENT DETAILS NO. 1
9	ABUTMENT DETAILS NO. 2
10	ABUTMENT DETAILS NO. 3
11	BENT DETAILS NO. 1
12	BENT DETAILS NO. 2
13	BENT DETAILS NO. 3
14	TYPICAL SECTION
15	GIRDER LAYOUT NO. 1
16	GIRDER LAYOUT NO. 2
17	GIRDER LAYOUT NO. 3
18	GIRDER LAYOUT NO. 4
19	MISCELLANEOUS DETAILS
20	ADDITIONAL GIRDER REINFORCEMENT
21	STRUCTURE APPROACH TYPE N(30D)
22	STRUCTURE APPROACH TYPE R(30D)
23	STRUCTURE APPROACH DRAINAGE DETAILS
24	SLOPE PAVING - FULL SLOPE
25	CHAIN LINK RAILING TYPE 7 (MOD)
26	LOG OF TEST BORINGS 1 OF 5
27	LOG OF TEST BORINGS 2 OF 5
28	LOG OF TEST BORINGS 3 OF 5
29	LOG OF TEST BORINGS 4 OF 5
30	LOG OF TEST BORINGS 5 OF 5

DESIGN BY MICHAEL POPE CHECKED ARAM SALIMI DETAILS BY FARIDEH RASHEDI CHECKED ARAM SALIMI QUANTITIES BY MICHAEL POPE CHECKED C. COWDEN / S. MAM	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0226 R/L POST MILE 38.2 WEST VISALIA OVERHEAD (WIDEN) INDEX TO PLANS
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1 CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES
		REVISION DATES	SHEET 2 OF 30

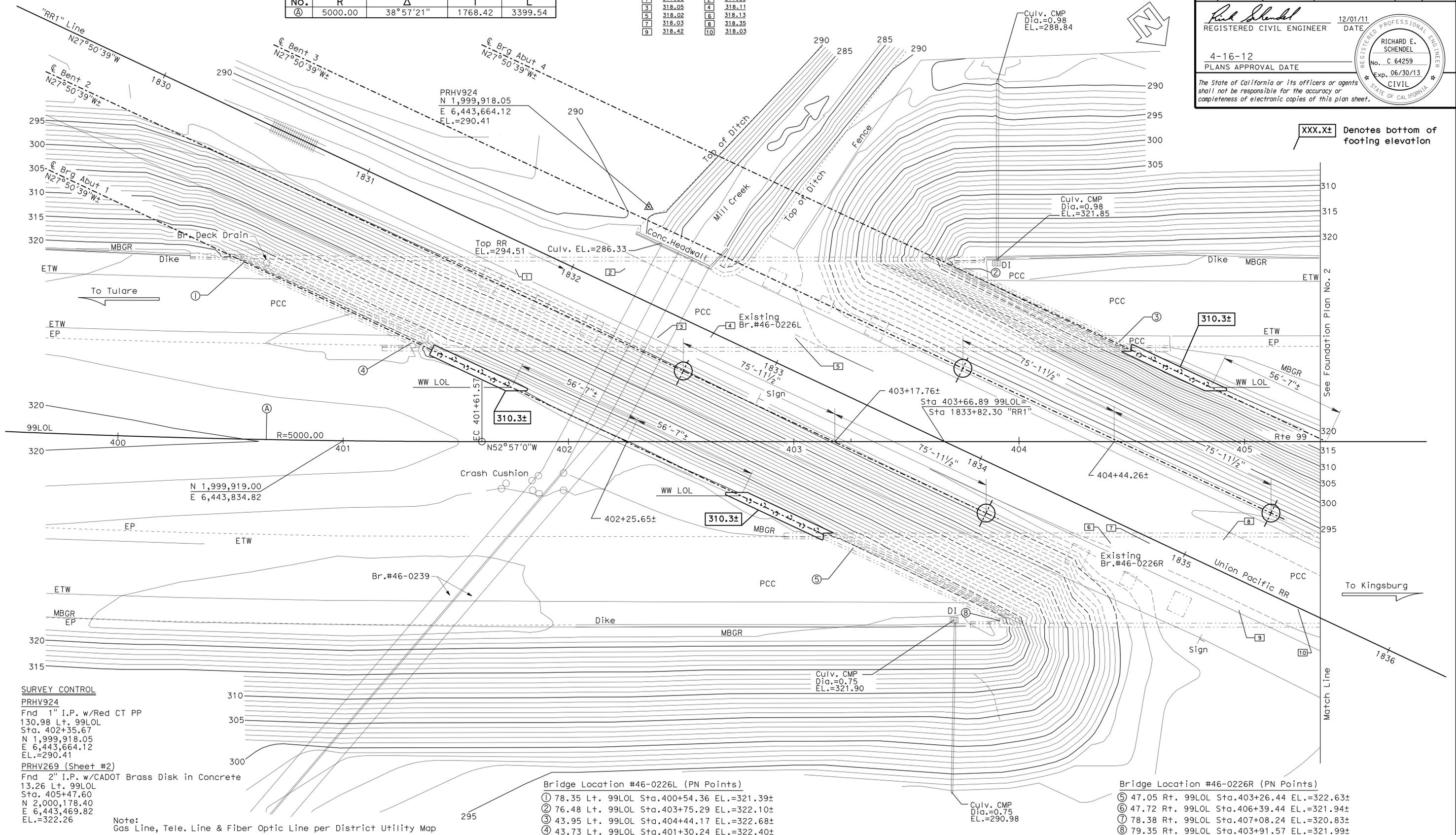
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No.	R	Δ	T	L
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Soffit ELEVATIONS			
1	317.33	2	317.35
3	318.05	4	318.11
5	318.02	6	318.13
7	318.03	8	318.35
9	318.42	10	318.03

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	269	346

Richard E. Schendel
 REGISTERED CIVIL ENGINEER
 DATE 12/01/11
 PLANS APPROVAL DATE 4-16-12
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RICHARD E. SCHENDEL
 No. C. 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA



SURVEY CONTROL
 PRHV924
 Fnd 1" I.P. w/Red CT PP
 130.98 Lt. 99LOL
 Sta. 402+35.67
 N 1,999,918.05
 E 6,443,664.12
 EL.=290.41
 PRHV269 (Sheet #2)
 Fnd 2" I.P. w/CADOT Brass Disk in Concrete
 13.26 Lt. 99LOL
 Sta. 405+47.60
 N 2,000,178.40
 E 6,443,469.82
 EL.=322.26

Note:
 Gas Line, Tele. Line & Fiber Optic Line per District Utility Map

- Bridge Location #46-0226L (PN Points)
- ① 78.35 Lt. 99LOL Sta.400+54.36 EL.=321.39±
 - ② 76.48 Lt. 99LOL Sta.403+75.29 EL.=322.10±
 - ③ 43.95 Lt. 99LOL Sta.404+44.17 EL.=322.68±
 - ④ 43.73 Lt. 99LOL Sta.401+30.24 EL.=322.40±

- Bridge Location #46-0226R (PN Points)
- ⑤ 47.05 Rt. 99LOL Sta.403+26.44 EL.=322.63±
 - ⑥ 47.72 Rt. 99LOL Sta.406+39.44 EL.=321.94±
 - ⑦ 78.38 Rt. 99LOL Sta.407+08.24 EL.=320.83±
 - ⑧ 79.35 Rt. 99LOL Sta.403+91.57 EL.=321.99±

PRELIMINARY INVESTIGATION SECTION				DESIGN BY MICHAEL POPE	CHECKED ARAM SALIMI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0226R/L	WEST VISALIA OVERHEAD (WIDEN) FOUNDATION PLAN NO. 1
SCALE 1"=20'	VERT.DATUM NGVD 88	PHOTOGRAMMETRY AS OF: X	DETAILS BY MINH TRAN	CHECKED ARAM SALIMI	POST MILE 38.2				
ALIGNMENT TIES	Dist. Traverse Sheet	DRAFTED BY Sharon Zheng 03/2011	QUANTITIES BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM					

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1 CONTRACT NO.: 06-360211
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 11/04/11, 03/07/11, 10/20/11
 SHEET 3 OF 30
 FILE => 46-0226R1-b-fp101.dgn

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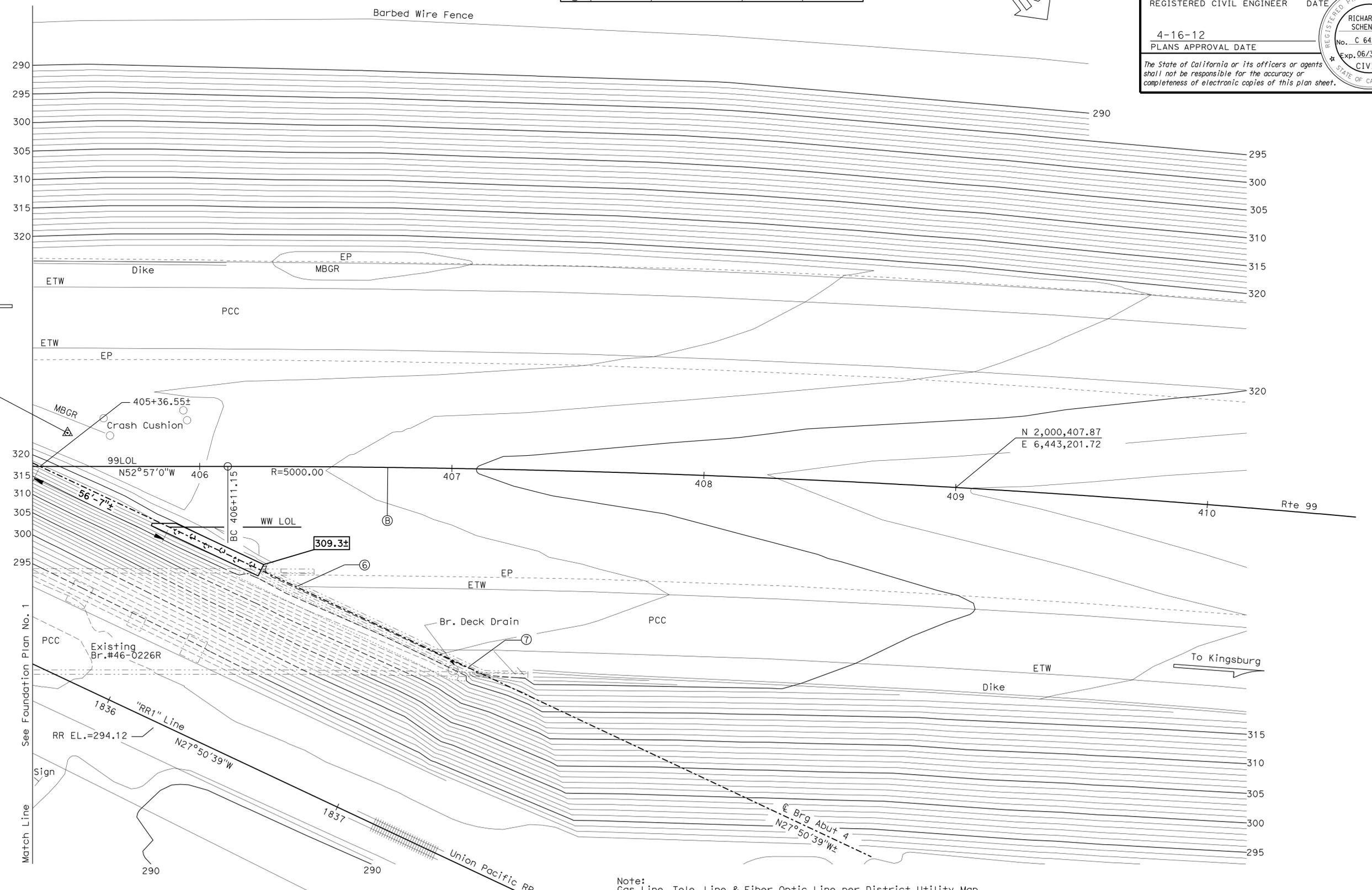
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	270	346

Richard E. Schendel
 REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
 PLANS APPROVAL DATE

RICHARD E. SCHEDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA

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PRHV269
 N 2,000,178.40
 E 6,443,469.82
 EL.=322.26

N 2,000,407.87
 E 6,443,201.72

XXX.X± Denotes bottom of footing elevation

Note:
 Gas Line, Tele. Line & Fiber Optic Line per District Utility Map

PRELIMINARY INVESTIGATION SECTION				DESIGN BY MICHAEL POPE	CHECKED ARAM SALIMI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0226R/L	WEST VISALIA OVERHEAD (WIDEN) FOUNDATION PLAN NO. 2					
SCALE 1"=20'	VERT.DATUM NGVD 88	PHOTOGRAMMETRY AS OF: X	DETAILS BY SURAJ DUTTA	CHECKED ARAM SALIMI	POST MILE 38.2								
ALIGNMENT TIES Dist. Traverse Sheet	DRAFTED BY Sharon Zheng 03/2011	CHECKED BY John Borden 03/2011	QUANTITIES BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM									
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 4	OF 30

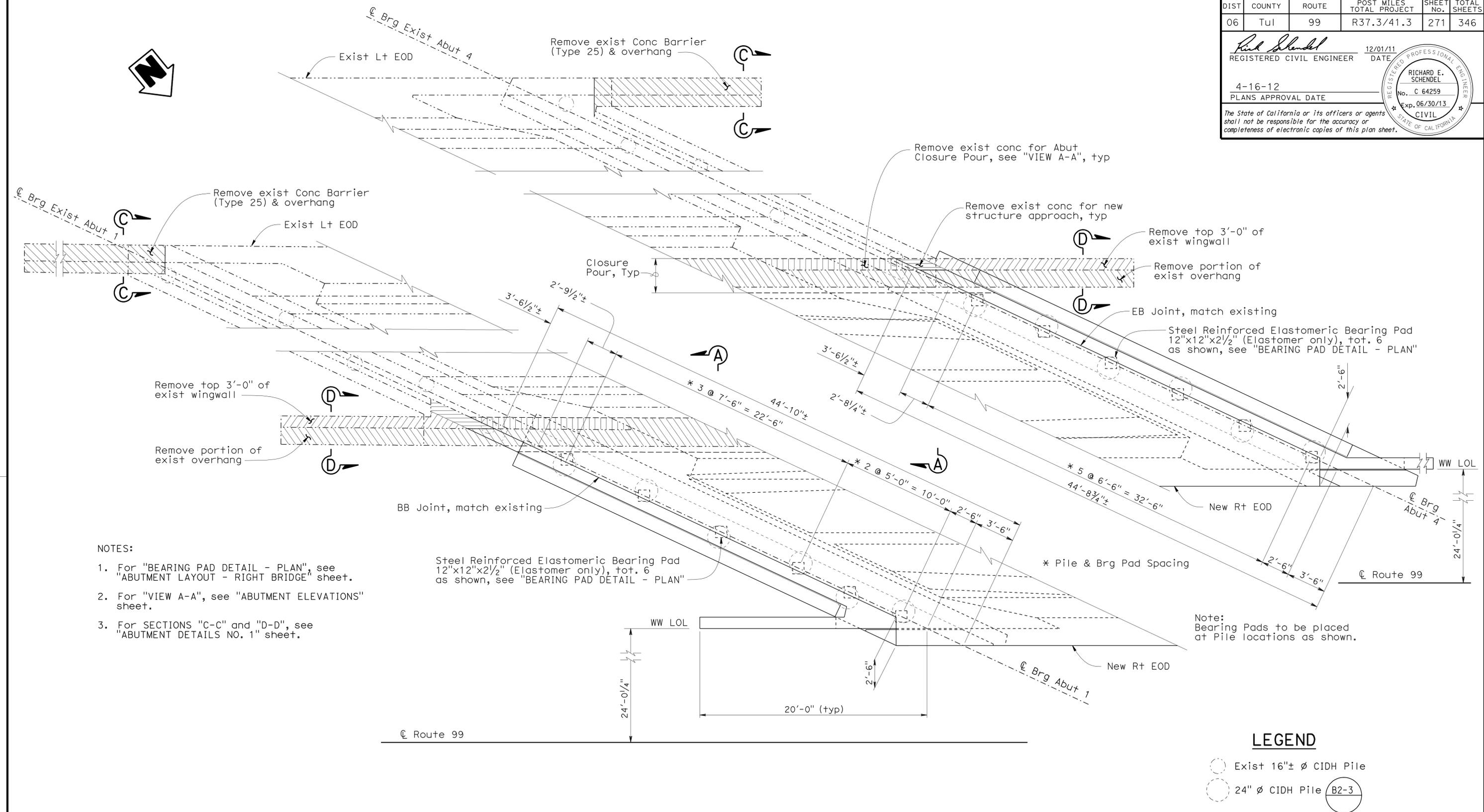
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	271	346

Richard E. Schendel
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- NOTES:
1. For "BEARING PAD DETAIL - PLAN", see "ABUTMENT LAYOUT - RIGHT BRIDGE" sheet.
 2. For "VIEW A-A", see "ABUTMENT ELEVATIONS" sheet.
 3. For SECTIONS "C-C" and "D-D", see "ABUTMENT DETAILS NO. 1" sheet.

Steel Reinforced Elastomeric Bearing Pad 12"x12"x2 1/2" (Elastomer only), tot. 6 as shown, see "BEARING PAD DETAIL - PLAN"

Note: Bearing Pads to be placed at Pile locations as shown.

LEGEND

○ Exist 16"± Ø CIDH Pile

○ 24" Ø CIDH Pile (B2-3)

PLAN
1/4" = 1'-0"

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

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	46-0226 R/L	WEST VISALIA OVERHEAD (WIDEN) ABUTMENT LAYOUT - LEFT BRIDGE	
	DETAILS	BY MINH TRAN	CHECKED ARAM SALIMI			POST MILE	38.2		
	QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM	UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 5 OF 30

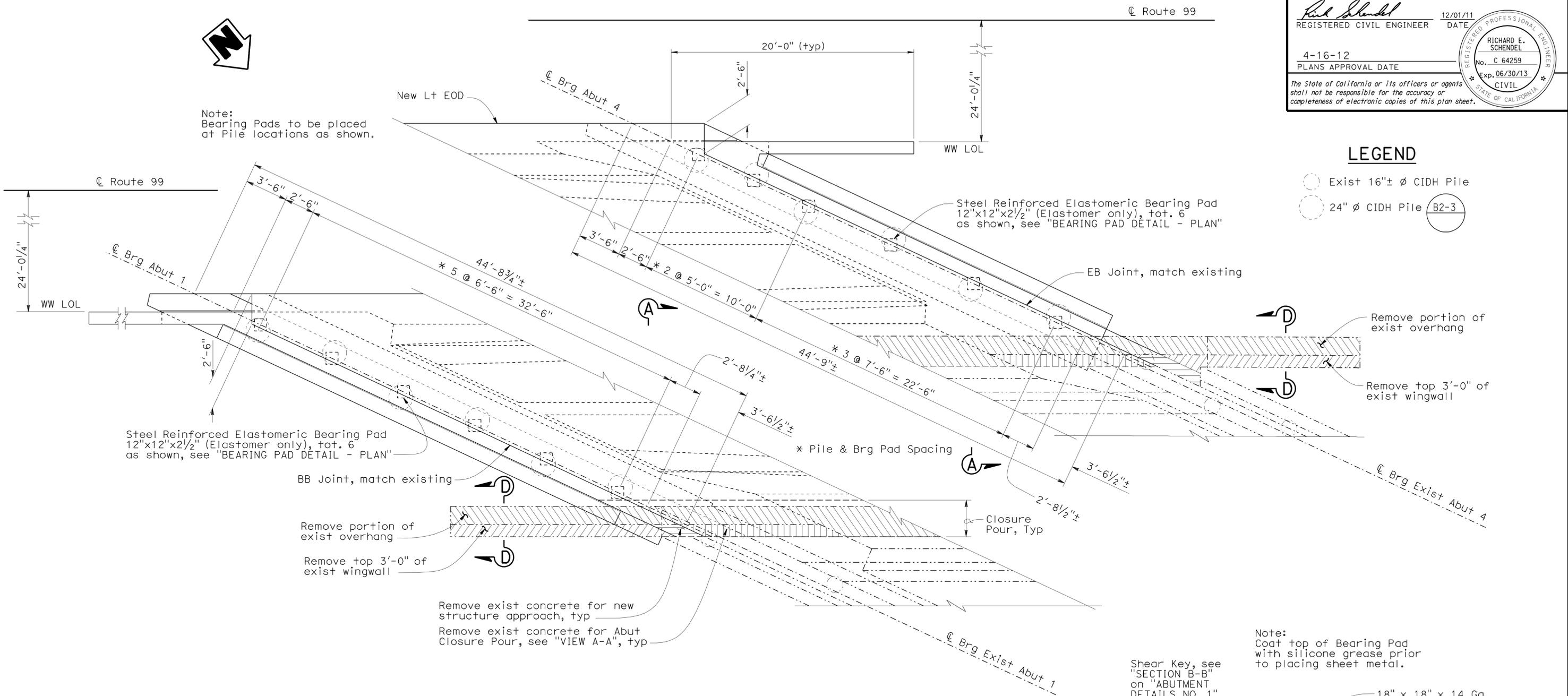
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	272	346

Richard E. Schendel
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Note:
Bearing Pads to be placed
at Pile locations as shown.

LEGEND

- Exist 16"± Ø CIDH Pile
- 24" Ø CIDH Pile (B2-3)

Steel Reinforced Elastomeric Bearing Pad
12"x12"x2 1/2" (Elastomer only), tot. 6
as shown, see "BEARING PAD DETAIL - PLAN"

BB Joint, match existing

Remove portion of
exist overhang

Remove top 3'-0" of
exist wingwall

Remove exist concrete for new
structure approach, typ

Remove exist concrete for Abut
Closure Pour, see "VIEW A-A", typ

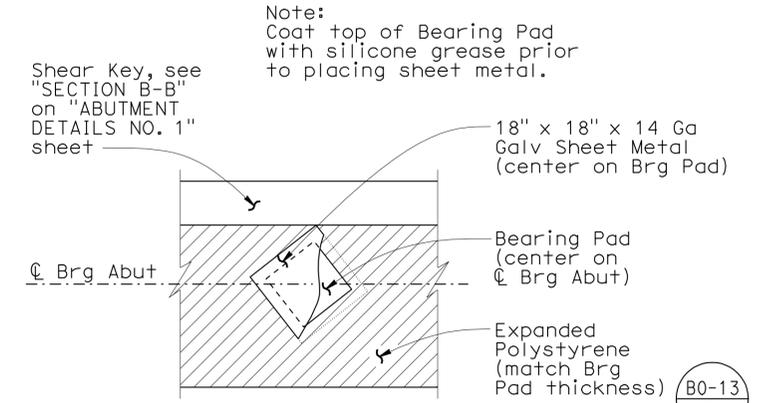
PLAN

1/4" = 1'-0"

NOTES:

1. For "VIEW A-A", see "ABUTMENT ELEVATIONS" sheet.
2. For "SECTION D-D", see "ABUTMENT DETAILS NO. 1" sheet.

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



BEARING PAD DETAIL - PLAN

NO SCALE

DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0226 R/L	WEST VISALIA OVERHEAD (WIDEN)
	DETAILS	BY MINH TRAN			CHECKED ARAM SALIMI	
QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM	UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 10/27/11 11/08/11
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)						SHEET 6 OF 30

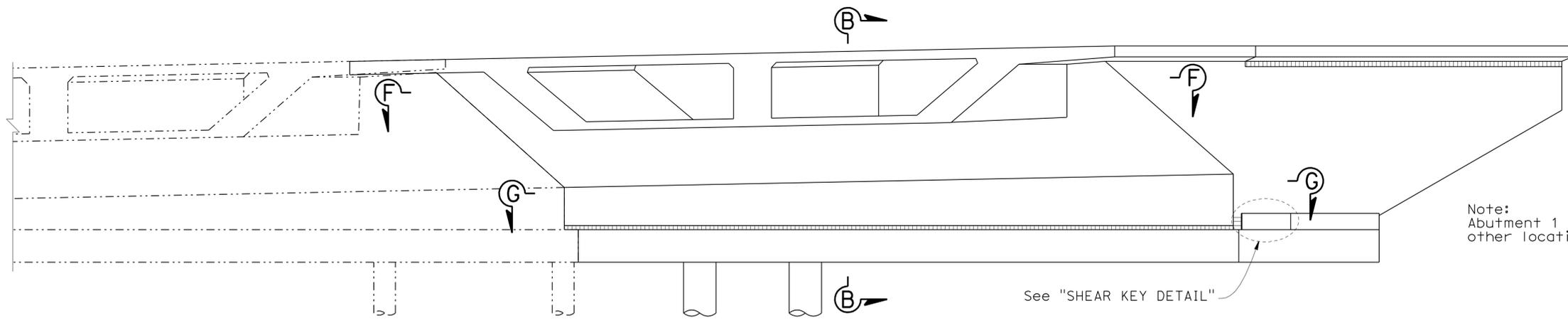
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	273	346

Richard E. Schendel
 REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 RICHARD E. SCHEDEL
 No. C 64259
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 STATE OF CALIFORNIA

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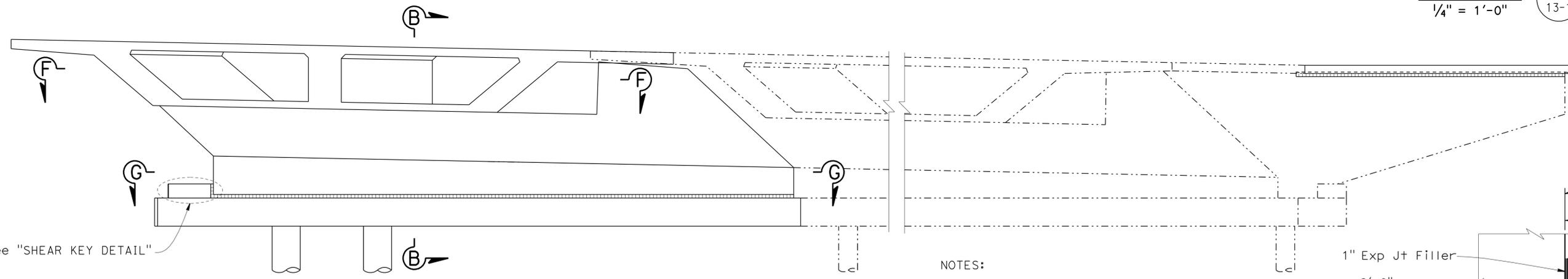
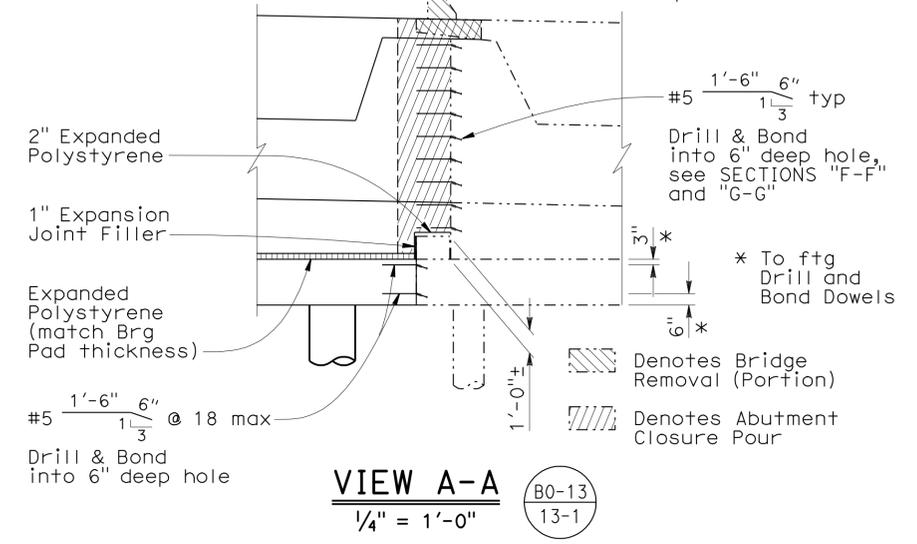


ELEVATION - ABUTMENT 1 RIGHT BRIDGE
 1/4" = 1'-0"

See "SHEAR KEY DETAIL"

Note:
 Abutment 1 Left shown,
 other locations similar.

Note:
 Abut Closure Pour shall not
 be placed sooner than 60
 days after prestressing
 the superstructure.

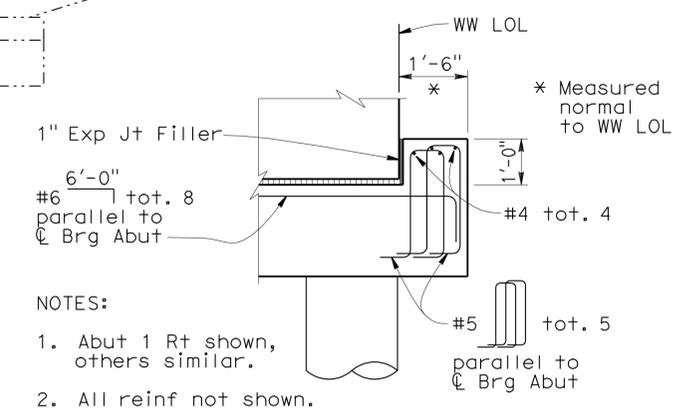


ELEVATION - ABUTMENT 1 LEFT BRIDGE
 1/4" = 1'-0"

See "SHEAR KEY DETAIL"

NOTES:

1. Abut 1 shown, Abut 4 similar.
2. Bridge Removal (Portion) not shown.
3. All piles not shown.
4. Barriers not shown.
5. Roughen existing surface at interface of new and existing concrete.
6. For "SECTION B-B" see "ABUTMENT DETAILS NO. 1" sheet.
7. For "SECTION F-F", see "ABUTMENT DETAILS NO. 2" sheet.
8. For "SECTION G-G", see "ABUTMENT DETAILS NO. 3" sheet.



NOTES:

1. Abut 1 Rt shown, others similar.
2. All reinf not shown.

SHEAR KEY DETAIL
 1/2" = 1'-0"

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

DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI
DETAILS	BY MINH TRAN	CHECKED ARAM SALIMI
QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 18

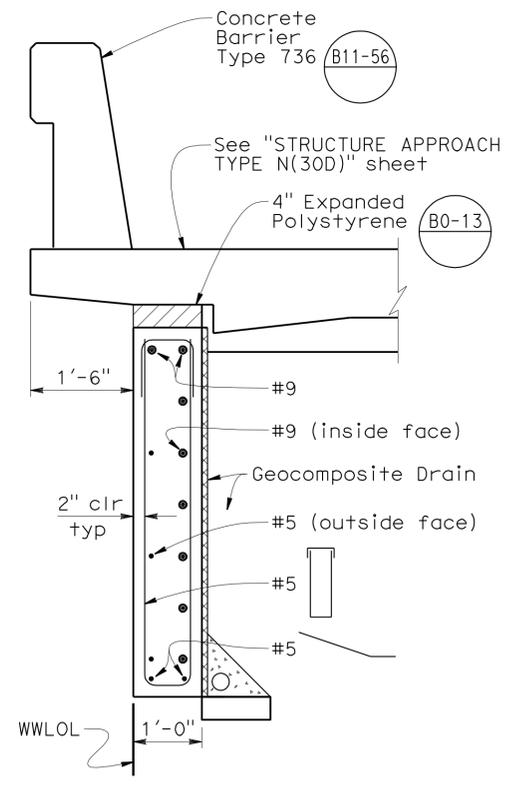
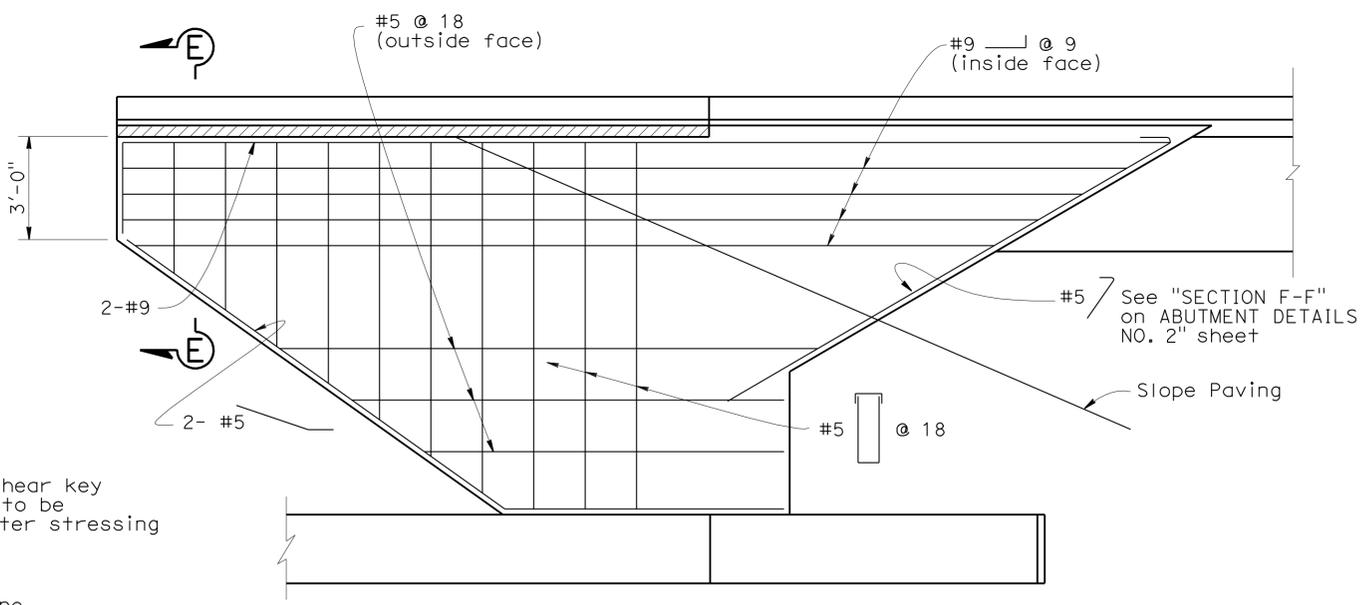
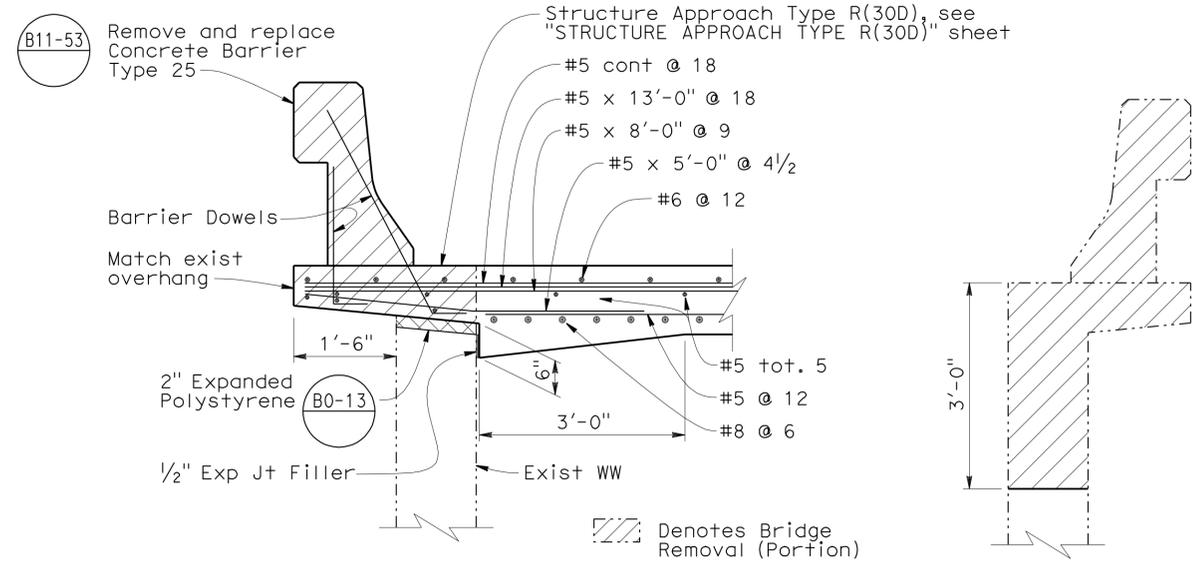
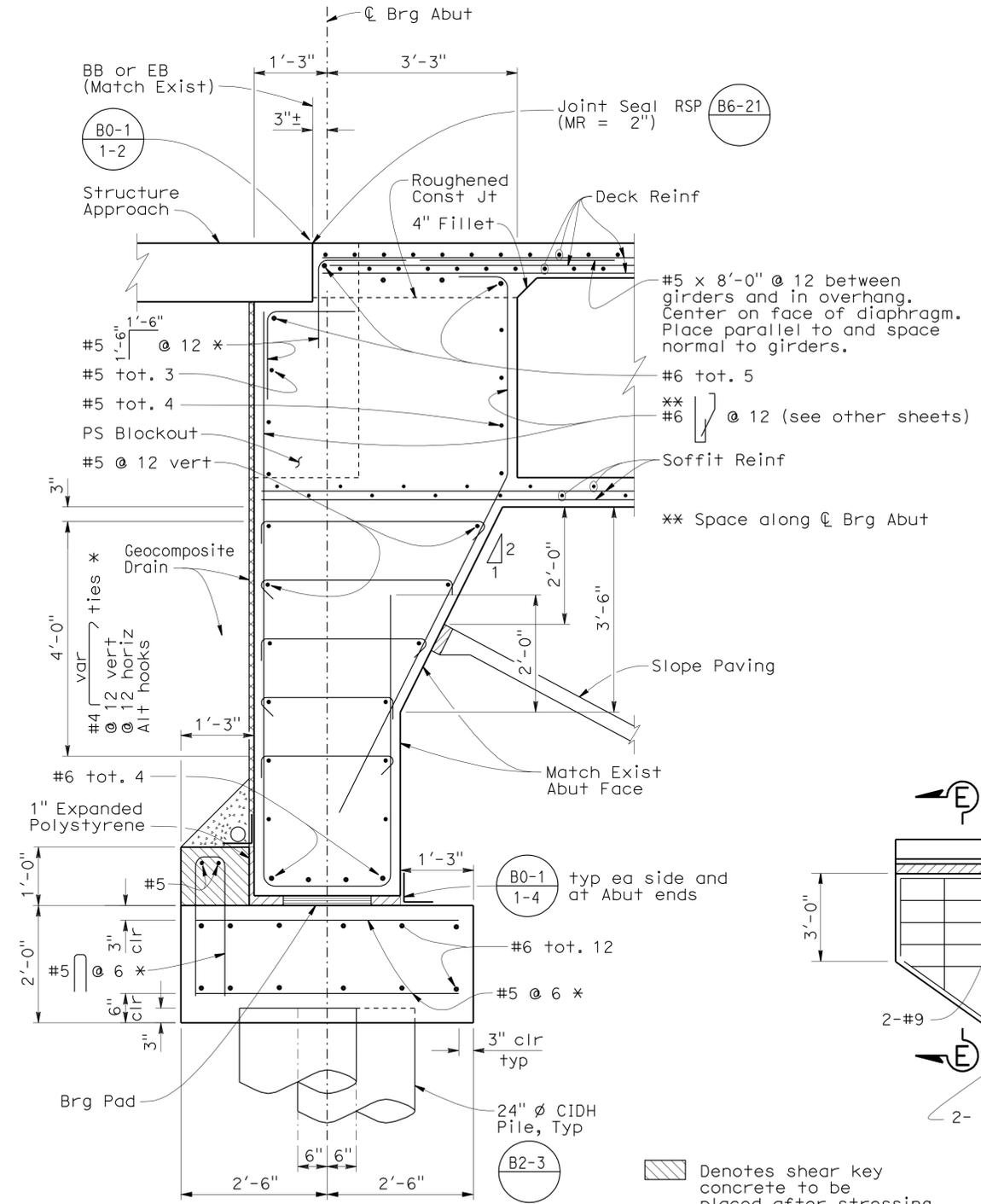
BRIDGE NO.	46-0226 R/L
POST MILE	38.2

WEST VISALIA OVERHEAD (WIDEN)
ABUTMENT ELEVATIONS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	274	346

Richard E. Schendel
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 CIVIL
 STATE OF CALIFORNIA



- Denotes shear key concrete to be placed after stressing
- Denotes Expanded Polystyrene

NOTE:
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DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO.	WEST VISALIA OVERHEAD (WIDEN) ABUTMENT DETAILS NO. 1
DETAILS	BY MINH TRAN	CHECKED ARAM SALIMI			46-0226 R/L	
QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM			POST MILE 38.2	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				REVISION DATES	SHEET 8	OF 30

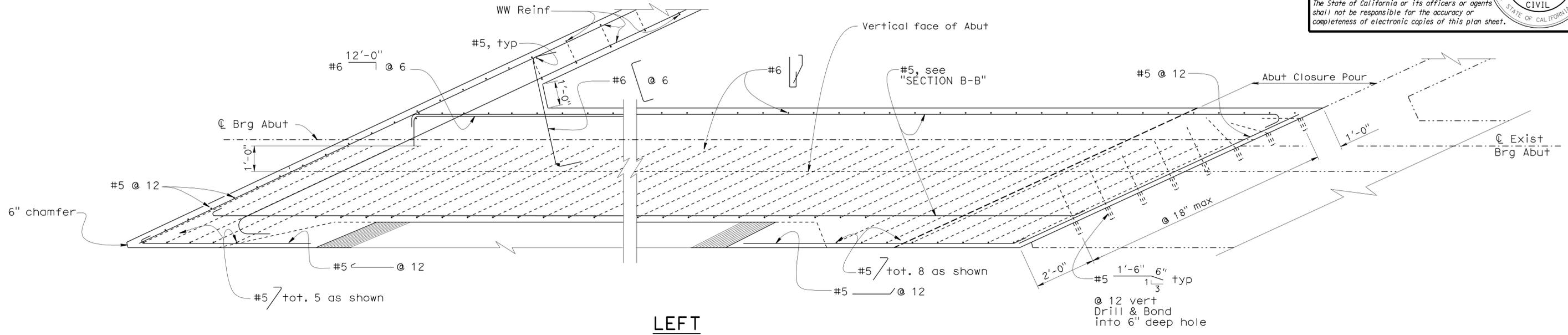
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	275	346

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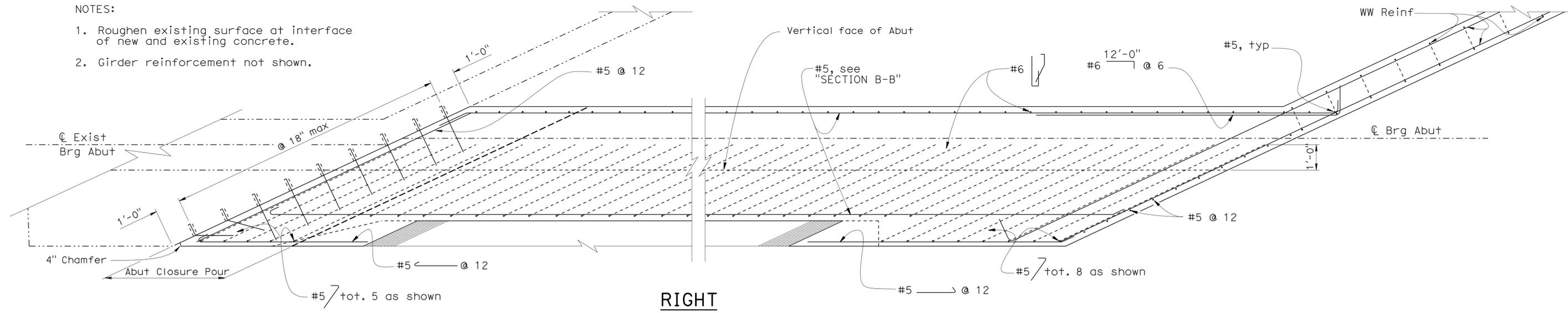
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



LEFT

NOTES:

1. Roughen existing surface at interface of new and existing concrete.
2. Girder reinforcement not shown.



RIGHT

Note: Abut 1 shown, Abut 4 similar.

SECTION F-F
 $\frac{1}{2}'' = 1'-0''$

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

DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI
DETAILS	BY MINH TRAN	CHECKED ARAM SALIMI
QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

BRIDGE NO.	46-0226 R/L
POST MILE	38.2

WEST VISALIA OVERHEAD (WIDEN)
ABUTMENT DETAILS NO. 2



REVISION DATES	SHEET	OF
11/04/11	9	30

DATE PLOTTED => 19-APR-2012
TIME PLOTTED => 11:39
USER NAME => s124496

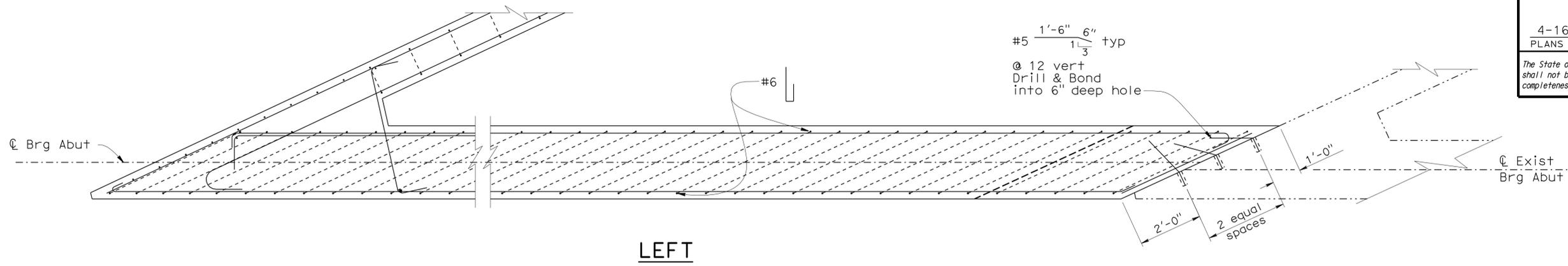
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	276	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

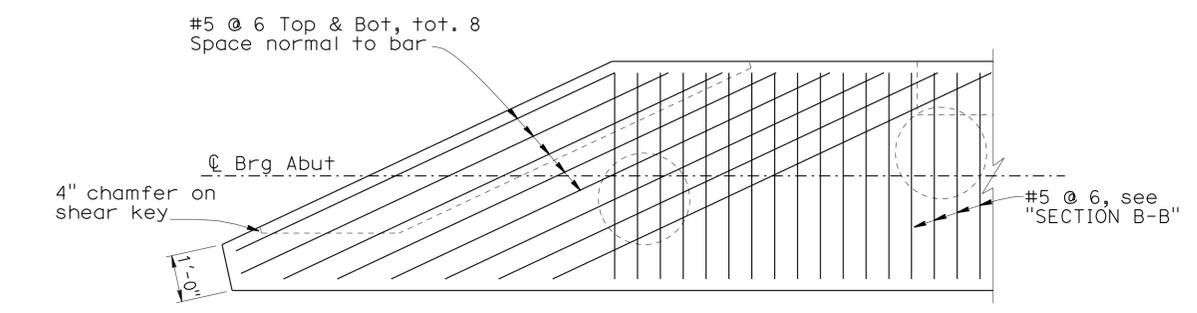
4-16-12
PLANS APPROVAL DATE

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No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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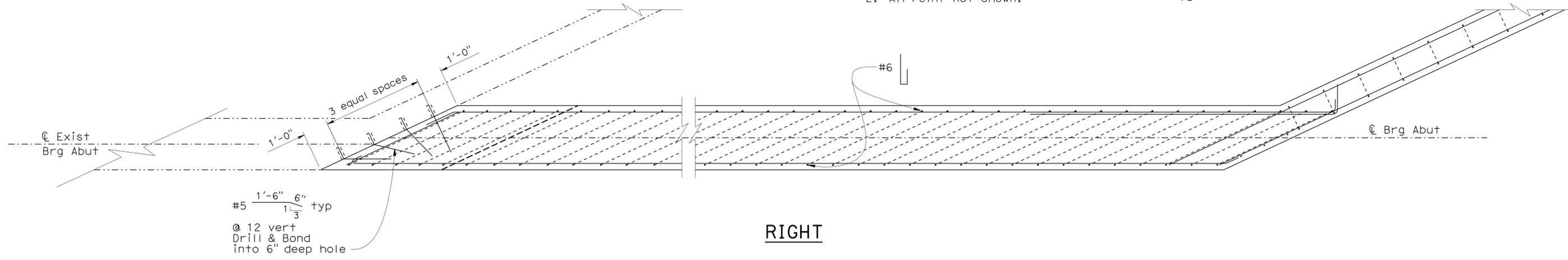


- NOTES:
1. Roughen existing surface at interface of new and existing concrete.
 2. For "SECTION B-B", see "ABUTMENT DETAILS NO. 1" sheet.
 3. For details shown but not noted, see "SECTION F-F" on "ABUTMENT DETAILS NO. 2" sheet.



- NOTES:
1. Right side of Abut 1 Left shown, other locations similar.
 2. All reinf not shown.

FOOTING CORNER DETAIL
 $\frac{1}{2}'' = 1'-0''$



Note: Abut 1 shown, Abut 4 similar.

SECTION G-G
 $\frac{1}{2}'' = 1'-0''$

NOTE:
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DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI
DETAILS	BY MINH TRAN	CHECKED ARAM SALIMI
QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

BRIDGE NO.	46-0226 R/L
POST MILE	38.2

WEST VISALIA OVERHEAD (WIDEN)
ABUTMENT DETAILS NO. 3

TIME PLOTTED => 11:40
DATE PLOTTED => 19-APR-2012
USER NAME => s124496

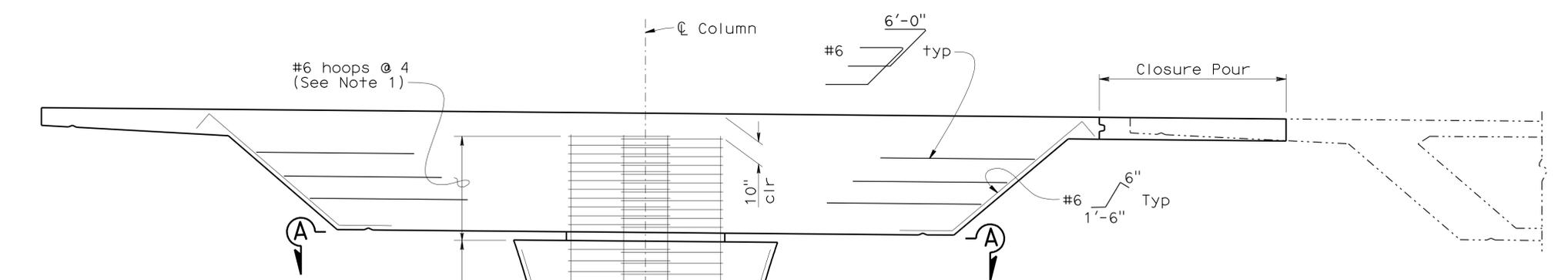
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	277	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER 12/01/11 DATE

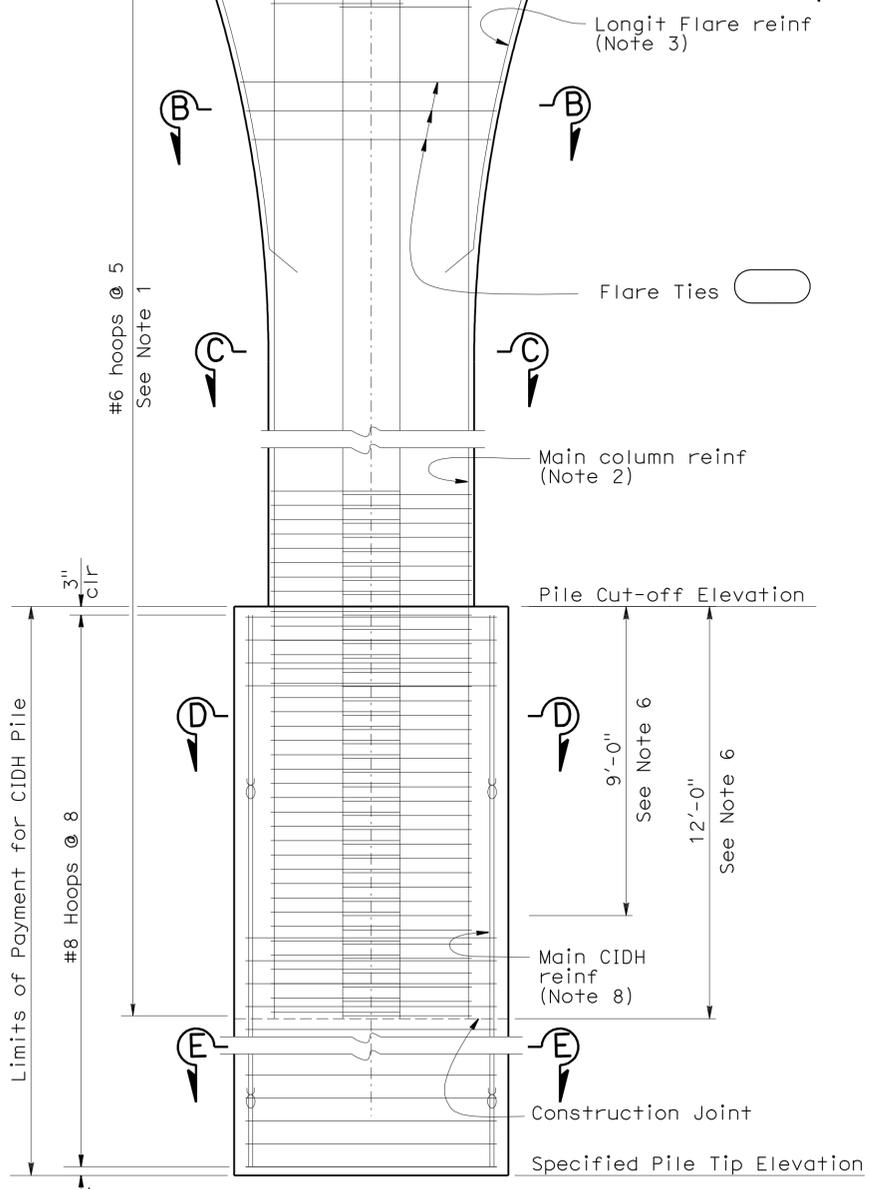
4-16-12
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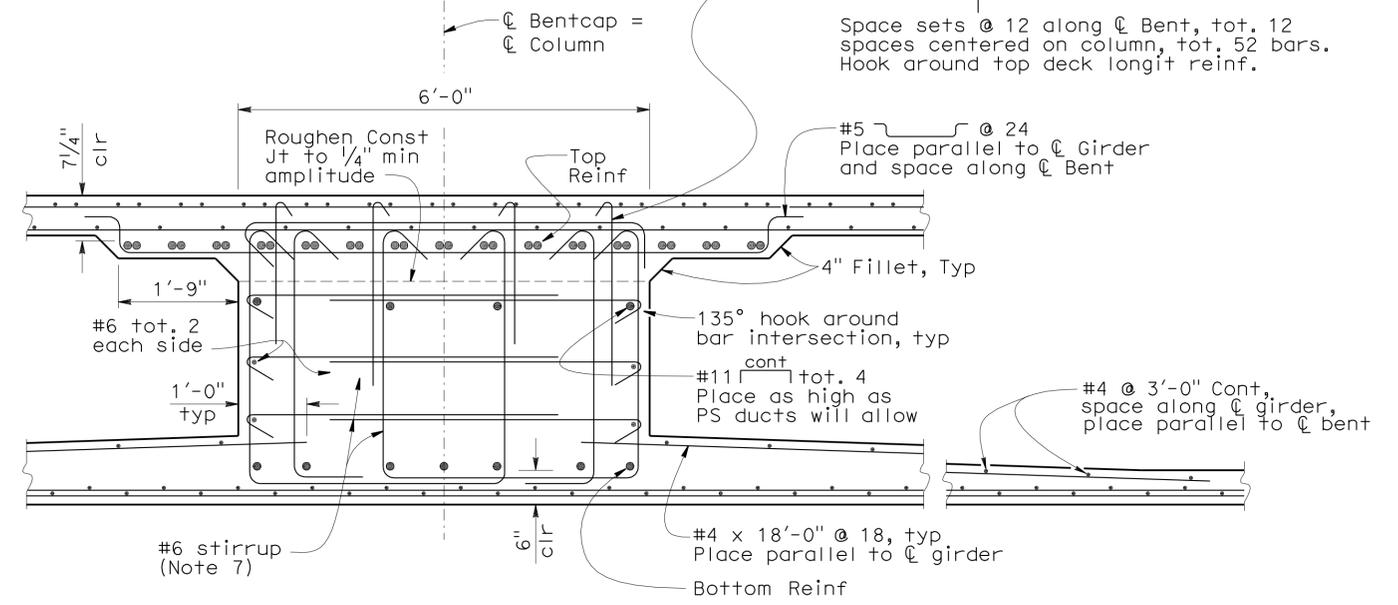
- Notes:**
- All hoops shall be "Ultimate butt-spliced"
 - No splices are allowed in main column reinforcement
 - No splicing allowed for longit flare reinforcement
 - For Sections A-A, B-B, C-C, D-D, and E-E, see "BENT DETAILS NO. 3" sheet
 - Bent 2 Rt shown, other bents similar
 - Alternate cut off lengths of main column reinforcement
 - For Bentcap Stirrup layout, see "BENT DETAILS NO. 2" sheet
 - No splices allowed in main CIDH reinf in top 50'-0" of pile. Only staggered "Ultimate" butt splices allowed elsewhere.



ELEVATION

$\frac{3}{8}'' = 1'-0''$
Bentcap elevation shown at \O Bent

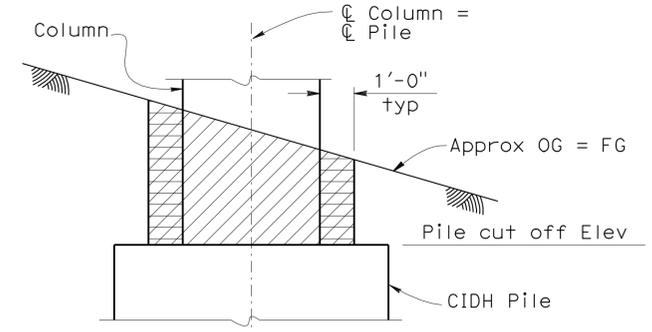
\O Denotes bundled bars



BENTCAP SECTION

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

- Notes:**
- Place stirrups perpendicular to and space along \O Bent.
 - For reinf shown but not noted see "TYPICAL SECTION" sheet.
 - Section shown normal to \O Bent.



PAY LIMITS FOR STRUCTURE EXCAVATION AND BACKFILL AT BENT 2 AND BENT 3

- No Scale
- Denotes Structure Excavation (Bridge)
 - Denotes Structure Backfill (Bridge)

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

DESIGN BY MICHAEL POPE	CHECKED ARAM SALIMI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 46-0226 R/L	WEST VISALIA OVERHEAD (WIDEN) BENT DETAILS NO. 1
DETAILS BY MINH TRAN	CHECKED ARAM SALIMI		POST MILE 38.2	
QUANTITIES BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM			
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3603	DISREGARD PRINTS BEARING EARLIER REVISION DATES
		0 1 2 3	PROJECT NUMBER & PHASE: 0600020408 1	REVISION DATES
			CONTRACT NO.: 06-360211	11 30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	279	346

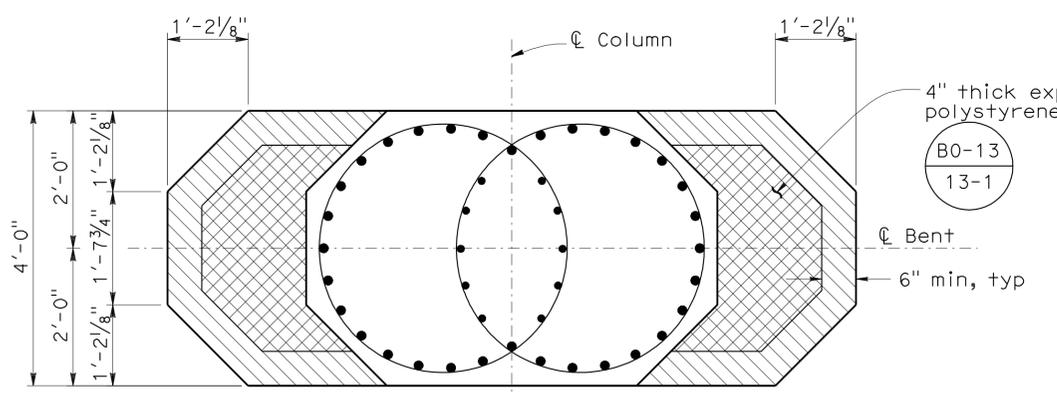
Richard E. Schendel
 REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
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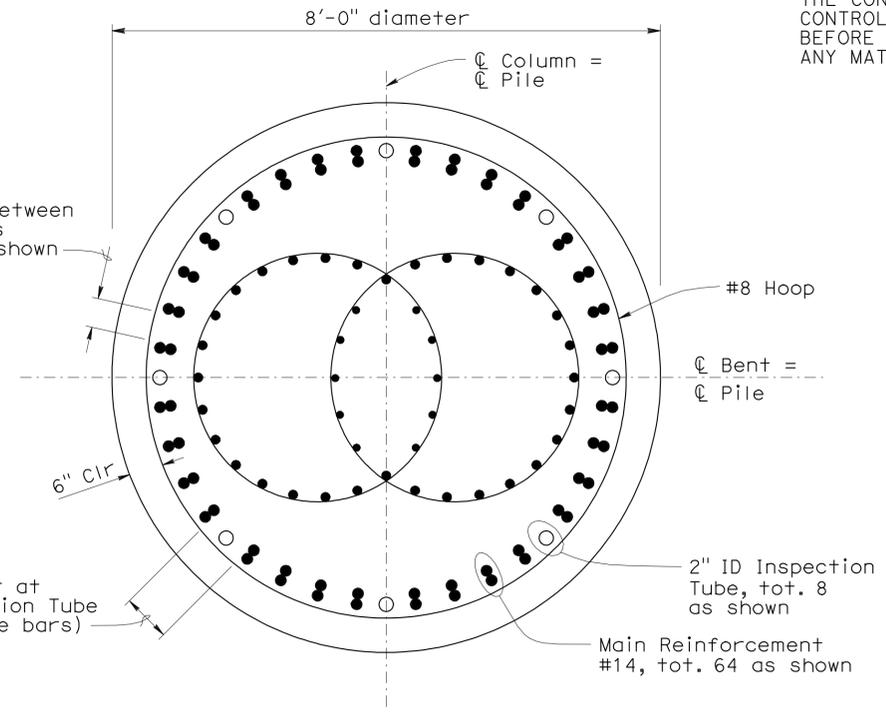
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NOTE:
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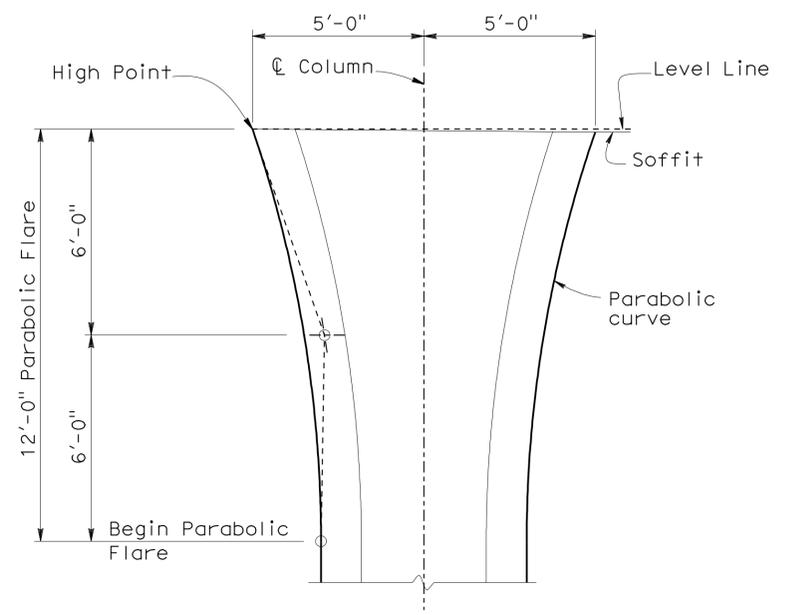


SECTION A-A
 $\frac{3}{4}'' = 1'-0''$

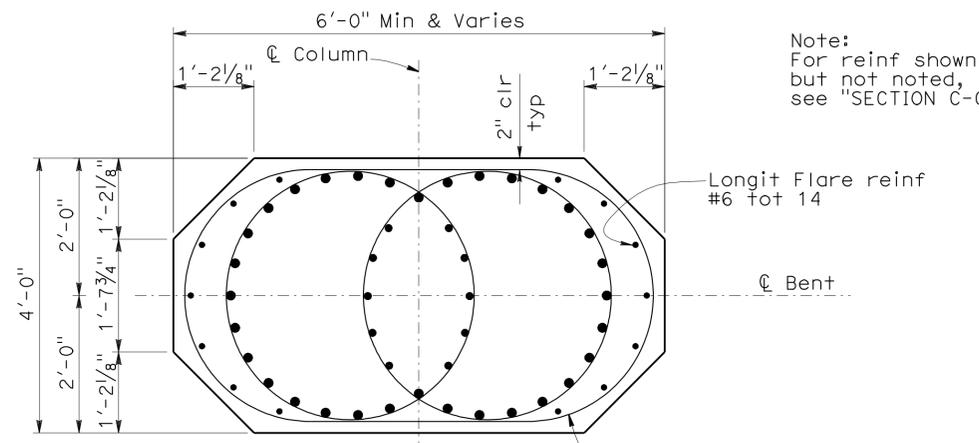
Denotes 4" polystyrene to be removed
 Denotes 4" polystyrene to remain



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

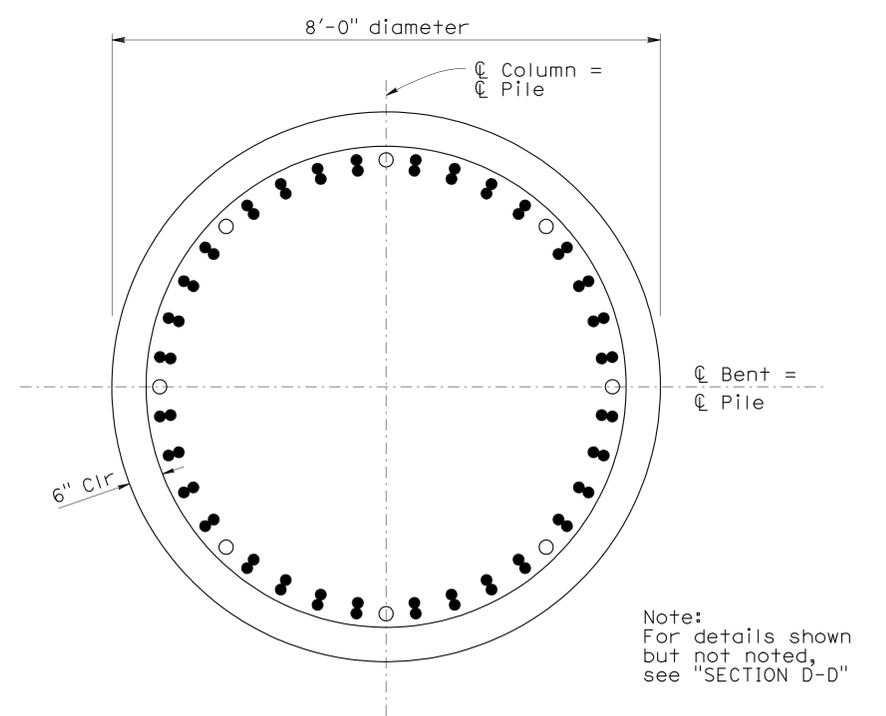


COLUMN FLARE
 $\frac{3}{8}'' = 1'-0''$

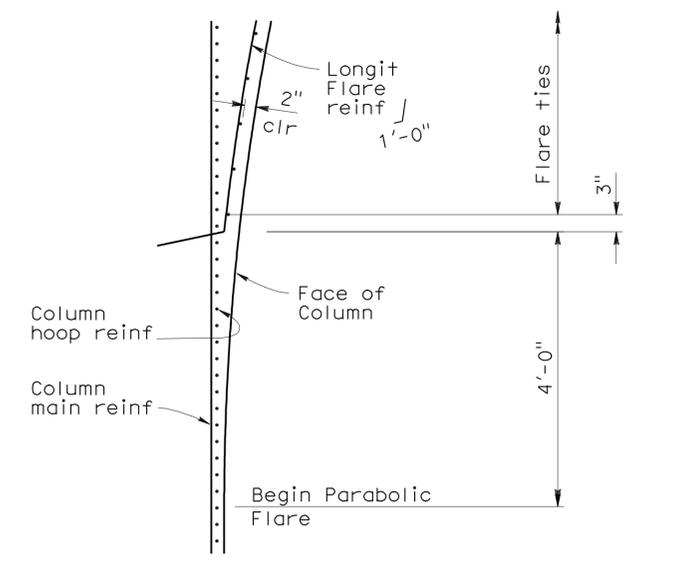


SECTION B-B
 $\frac{3}{4}'' = 1'-0''$

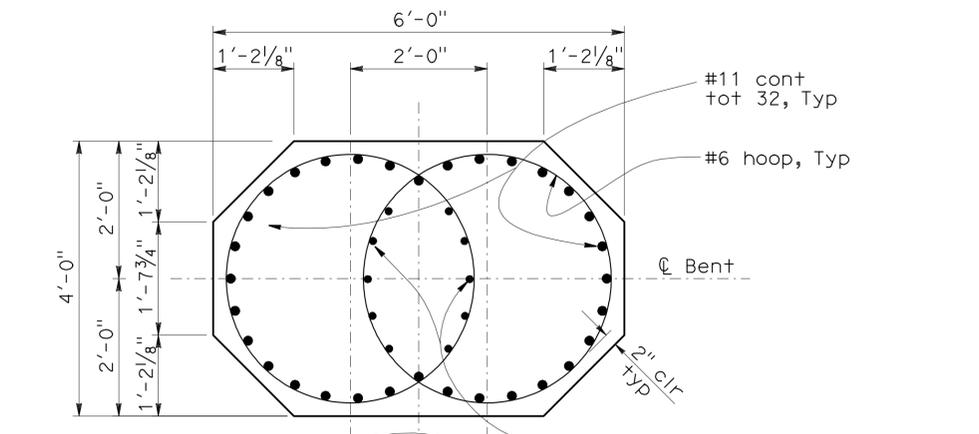
Flare ties - #6 @ 3 1/2 in top 1/3 flare and #4 @ 8 elsewhere. Service splices only



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



COLUMN FLARE REINFORCEMENT
 NO SCALE



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

DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI
DETAILS	BY MINH TRAN	CHECKED ARAM SALIMI
QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 18

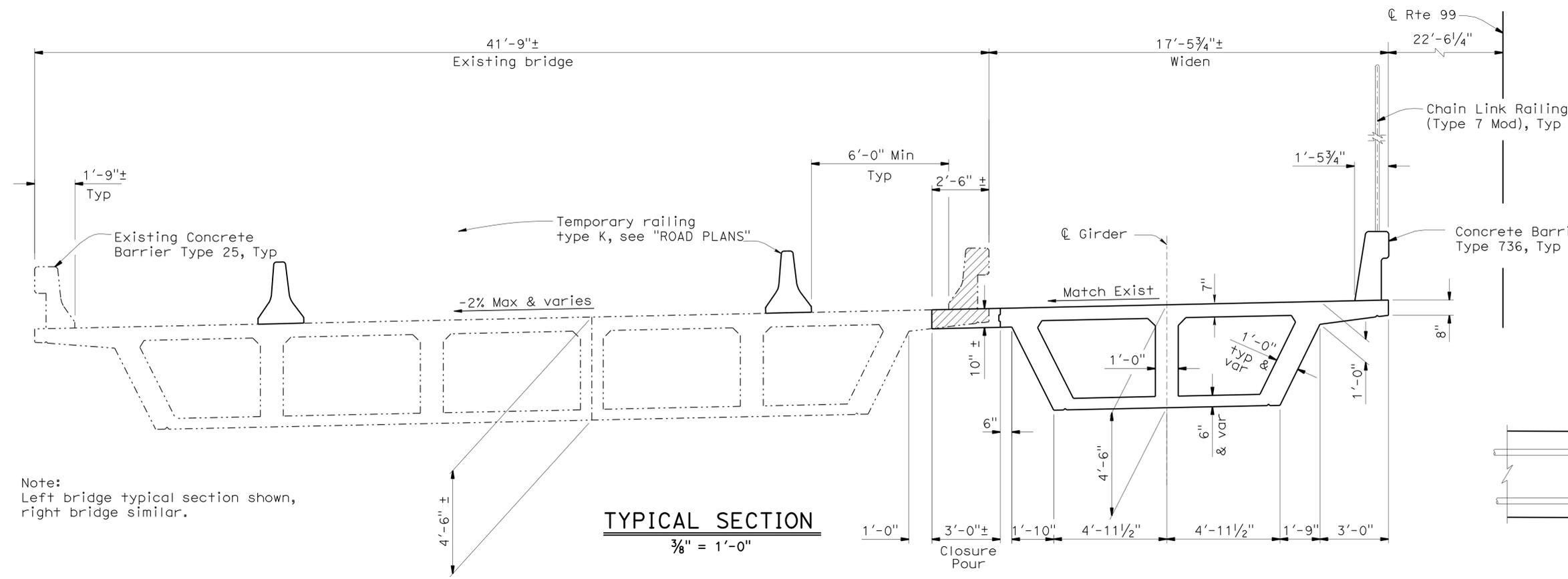
BRIDGE NO.	46-0226 R/L
POST MILE	38.2

WEST VISALIA OVERHEAD (WIDEN)
BENT DETAILS NO. 3

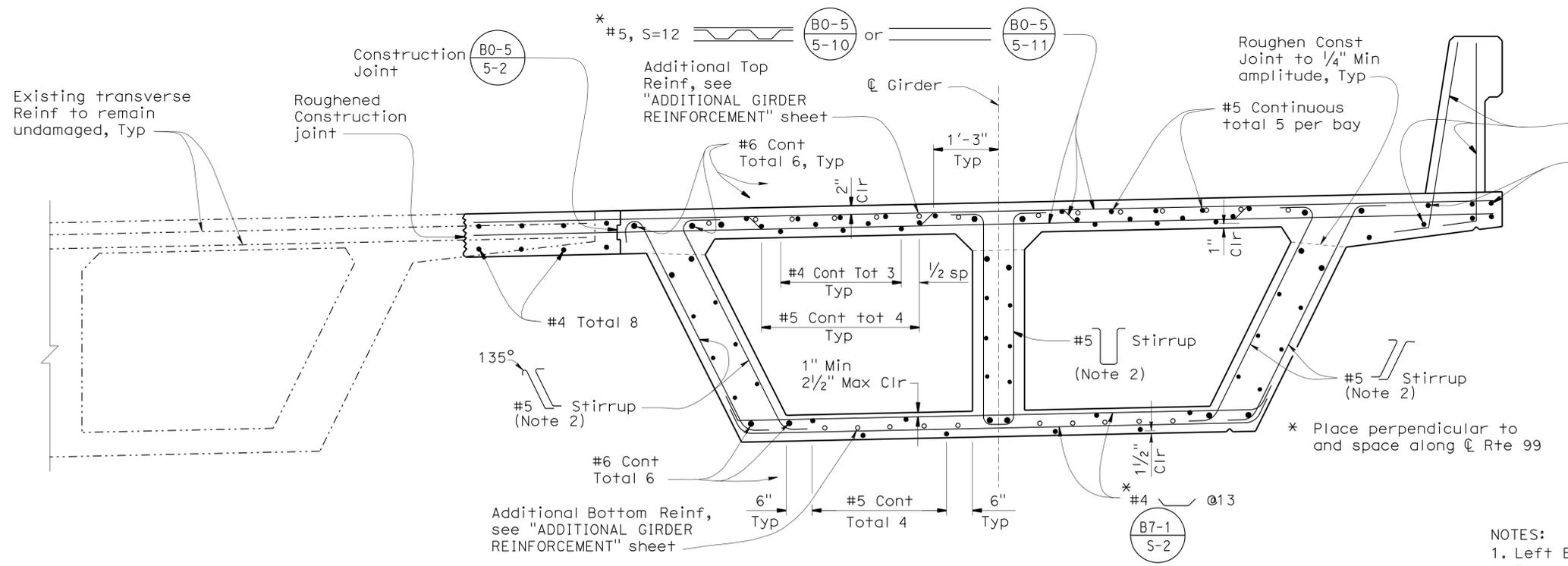
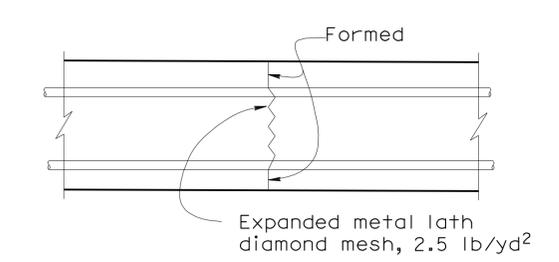
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	280	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER 12/01/11 DATE
4-16-12 PLANS APPROVAL DATE
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No. C 64259
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CIVIL
STATE OF CALIFORNIA



Note:
Left bridge typical section shown,
right bridge similar.



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

NOTES:
1. Left Bridge shown, Right Bridge similar.
2. For stirrup layout, see "GIRDER LAYOUT" sheets.

LEGEND

	Denotes New Structure
	Denotes Existing Structure
	Bridge Removal Portion

DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI
DETAILS	BY FARIDEH RASHEDI	CHECKED ARAM SALIMI
QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
BRIDGE NO. 46-0226R/L
POST MILE 38.2
DESIGN BRANCH 18

WEST VISALIA OVERHEAD (WIDEN)
TYPICAL SECTION

TIME PLOTTED => 19-APR-2012
DATE PLOTTED => 8:12:48 AM
USER NAME =>

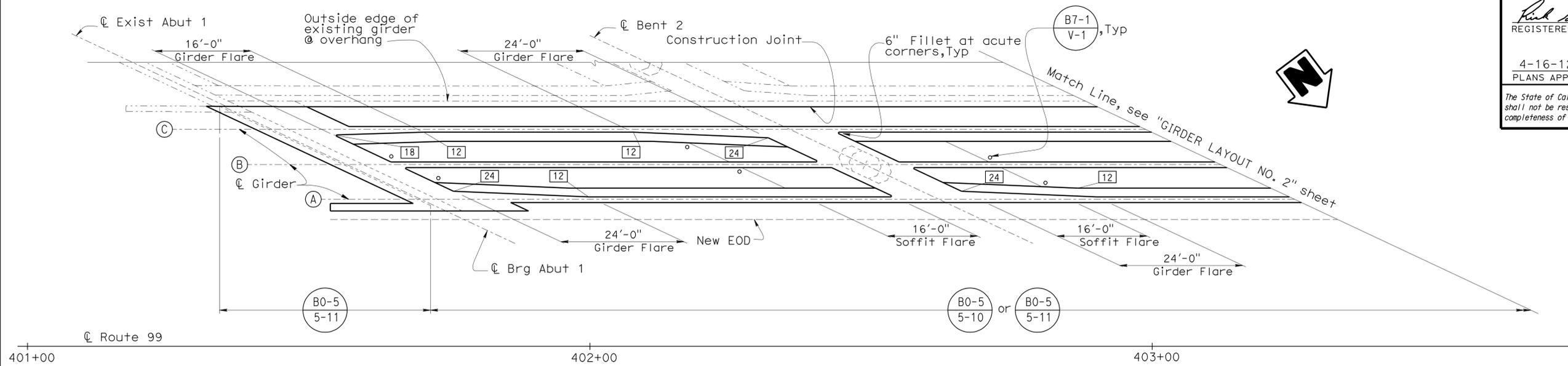
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06	Tul	99	R37.3/41.3	281	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER 12/01/11 DATE

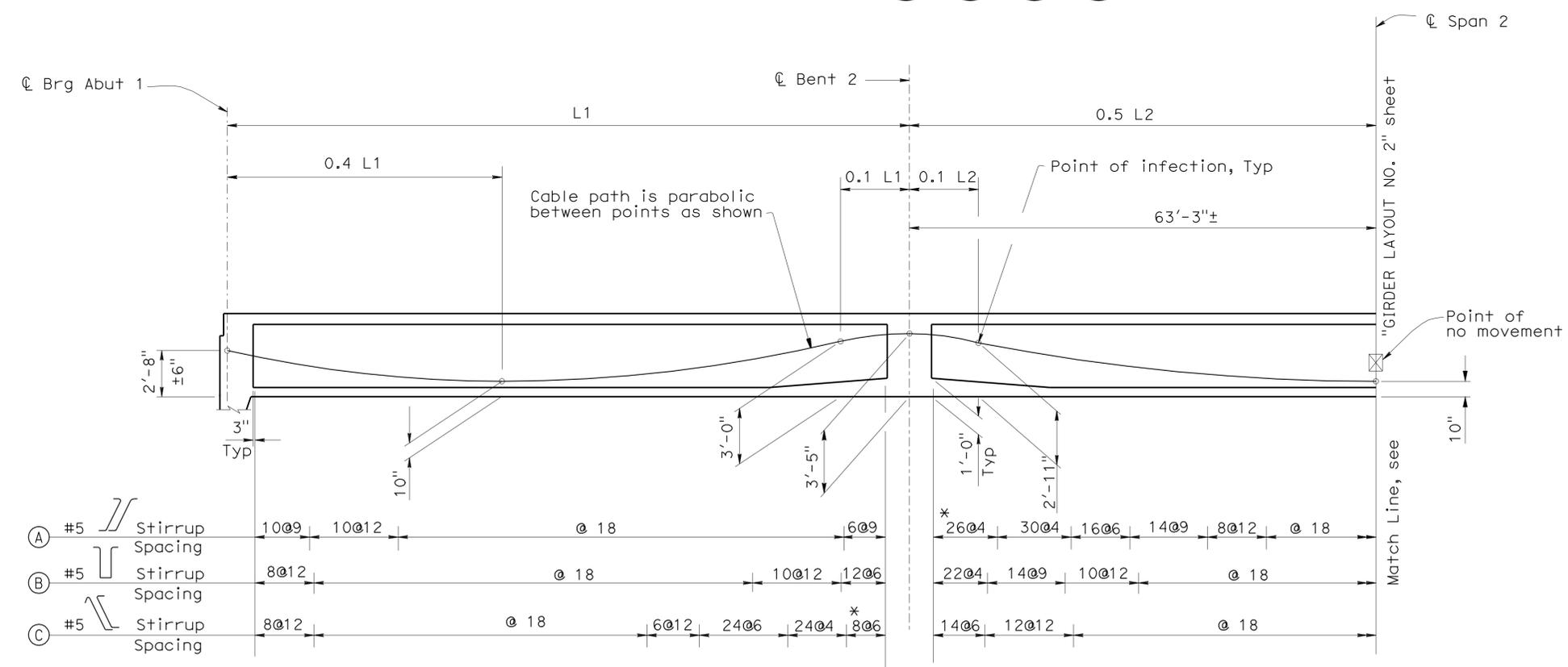
4-16-12
PLANS APPROVAL DATE

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RICHARD E. SCHENDEL
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA



GIRDER LAYOUT (LEFT)
1" = 10'



LONGITUDINAL SECTION (LEFT)
NO SCALE

PRESTRESSING NOTES

270 KSI Low Relaxation Strand:

P_{jack} (Left Bridge) = 3800 kips

Anchor Set = 3/8 in

Total Number of Girders = 3

Distribution of prestress force (P_{jack}) between girders shall not exceed the ratio of 3:2. Maximum final force variation between girders shall not exceed 725 kips.

Concrete: f'_c = 4500 psi @ 28 days

f'_{ci} = 3500 psi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at

λ = 0.906 times jacking stress.

Two end stressing shall be performed.

The jacking force shall be distributed evenly between girder A and C. The jacking force in girders A and C shall not be less than the jacking force in girder B.

LEGEND

XXX Indicates girder stem width in inches

----- Indicates Existing Structure

————— Indicates New Construction

⊠ Indicates Point of No Movement for Two-End Stressing

For CAMBER DIAGRAM, see "GIRDER LAYOUT NO. 2" sheet.

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

DESIGN BY MICHAEL POPE	BY ARAM SALIMI	CHECKED ARAM SALIMI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0226 R/L	WEST VISALIA OVERHEAD (WIDEN) GIRDER LAYOUT NO. 1		
					POST MILE 38.2			
					CONTRACT NO.: 06-360211			
DETAILS BY MINH TRAN	BY ARAM SALIMI	CHECKED ARAM SALIMI	PROJECT NUMBER & PHASE: 0600020408 1	UNIT: 3603	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 10/28/11 11/08/11	SHEET 15	OF 30
QUANTITIES BY MICHAEL POPE	BY C. COWDEN / S. MAM	CHECKED C. COWDEN / S. MAM	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	FILE => 46-0226R1-1-g_1001.dgn				

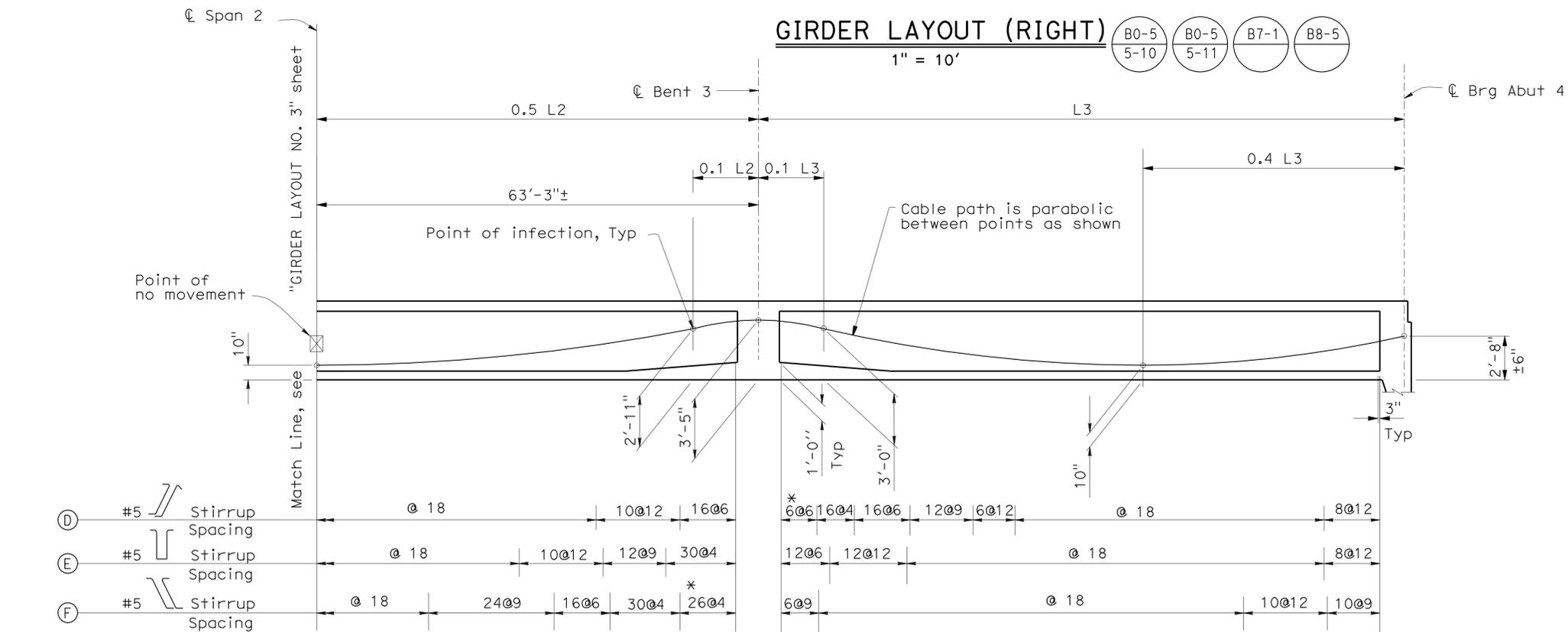
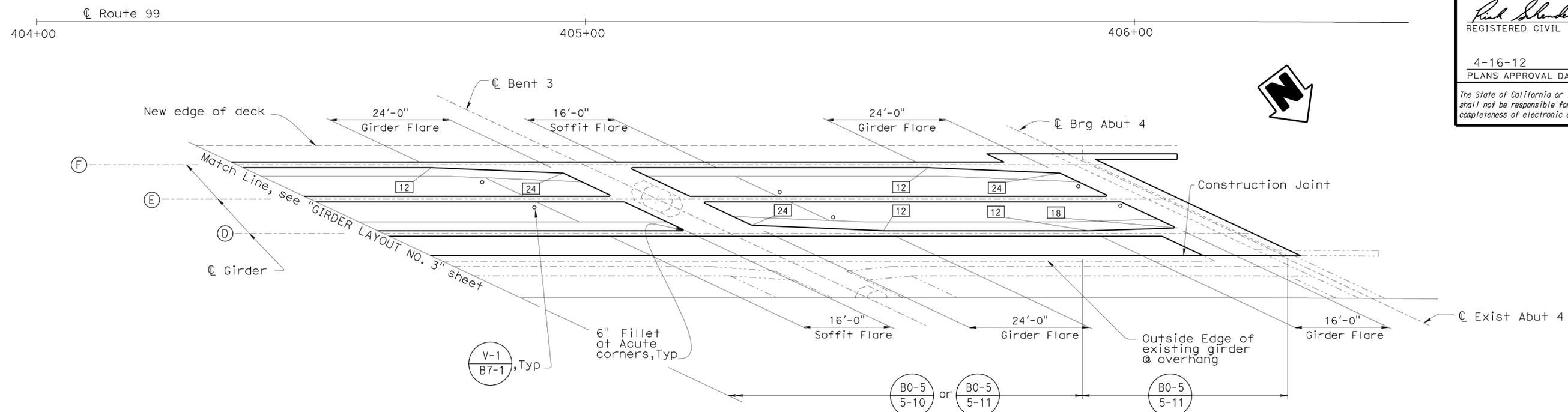
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	284	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

4-16-12
PLANS APPROVAL DATE

RICHARD E. SCHEDEL
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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Notes:
1. For Prestressing Notes, see "GIRDER LAYOUT NO. 3" sheet.
2. For CAMBER DIAGRAM, see "GIRDER LAYOUT NO. 2" sheet.

LEGEND

- XXX Indicates girder stem width in inches
- Indicates Existing Structure
- Indicates New Construction
- ⊠ Indicates Point of No Movement for Two-End Stressing

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

LONGITUDINAL SECTION (RIGHT)
NO SCALE

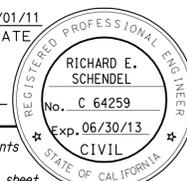
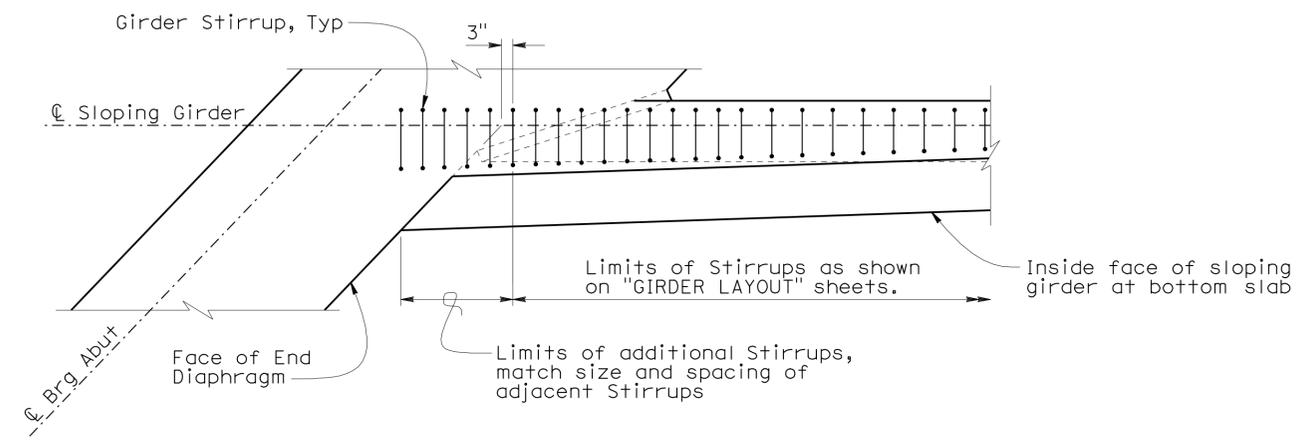
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DETAILS BY MINH TRAN	CHECKED ARAM SALIMI		PROJECT NUMBER & PHASE: 0600020408 1	POST MILE 38.2	
QUANTITIES BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM		CONTRACT NO.: 06-360211		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	285	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER DATE 12/01/11

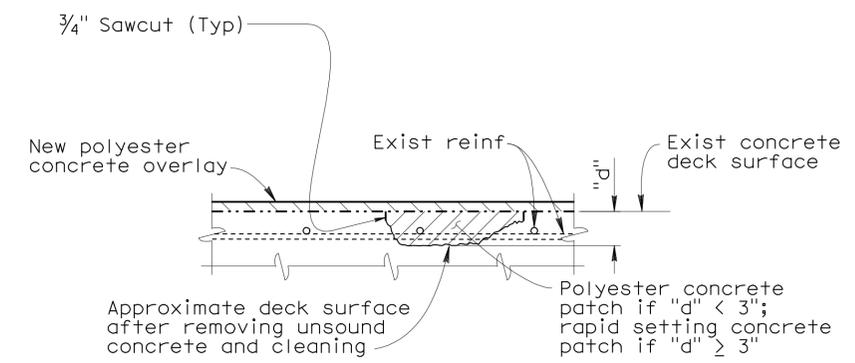
4-16-12
PLANS APPROVAL DATE

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GIRDER STIRRUPS AT OBTUSE ABUTMENT CORNER - PLAN
No Scale

(B7-1 / S-3)



DECK REPAIR DETAIL
No Scale

Locations to be determined by the Engineer. Reinforcement may be encountered during concrete removal.

Approx Total Remaining Exist Deck Area, Rt Br (SQFT)	Approximate Area Damaged (Percent)	Approximate Depth (Inches)
11,711	1.0	3

Locations to be determined by the Engineer. For details see "DECK REPAIR DETAIL"

USERNAME => s124496 DATE PLOTTED => 19-APR-2012 TIME PLOTTED => 11:40

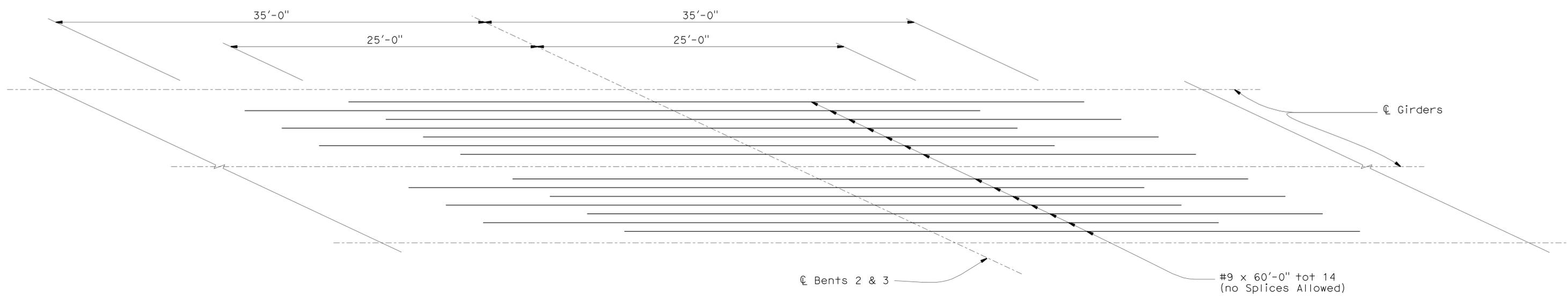
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	286	346

Richard E. Schendel
REGISTERED CIVIL ENGINEER 12/01/11
DATE

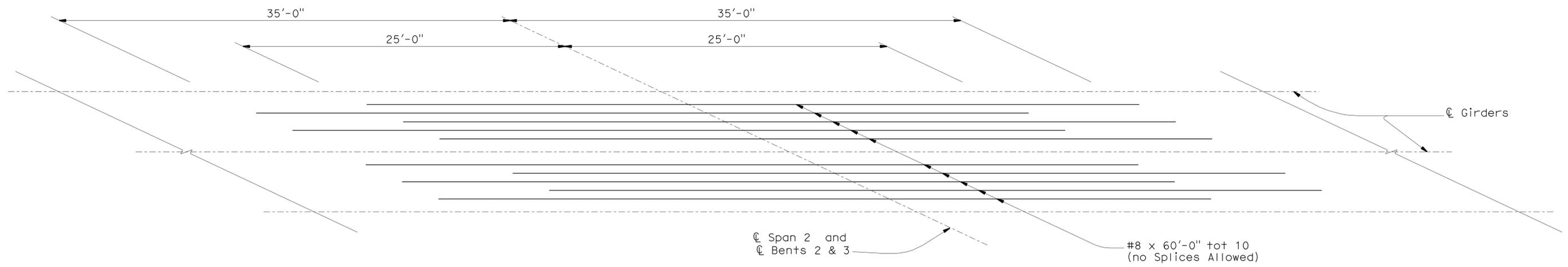
4-16-12
PLANS APPROVAL DATE

RICHARD E. SCHEDEL
No. C 64259
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

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TOP GIRDER REINFORCEMENT
1/4" = 1'-0"



BOTTOM GIRDER REINFORCEMENT
1/4" = 1'-0"

NOTES:
1. Right Bridge shown, Left Bridge similar.
2. Place additional reinforcement parallel to ☉ Girder.

DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI
DETAILS	BY MINH TRAN	CHECKED ARAM SALIMI
QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM

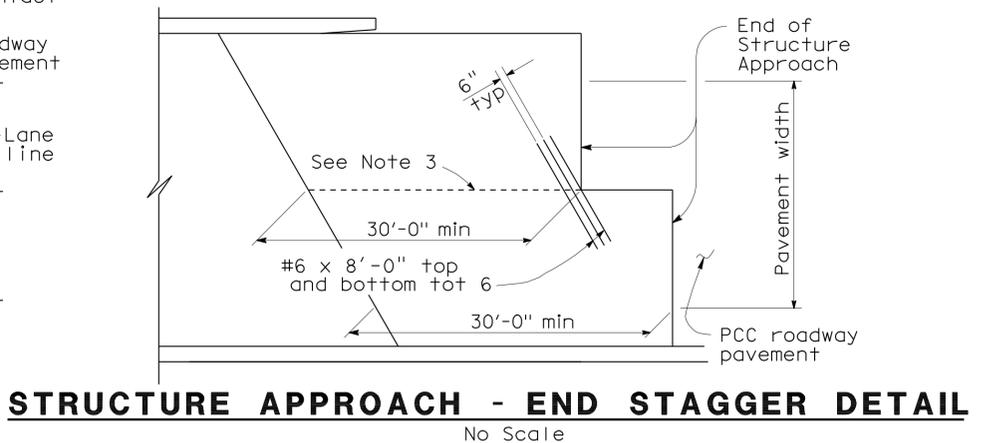
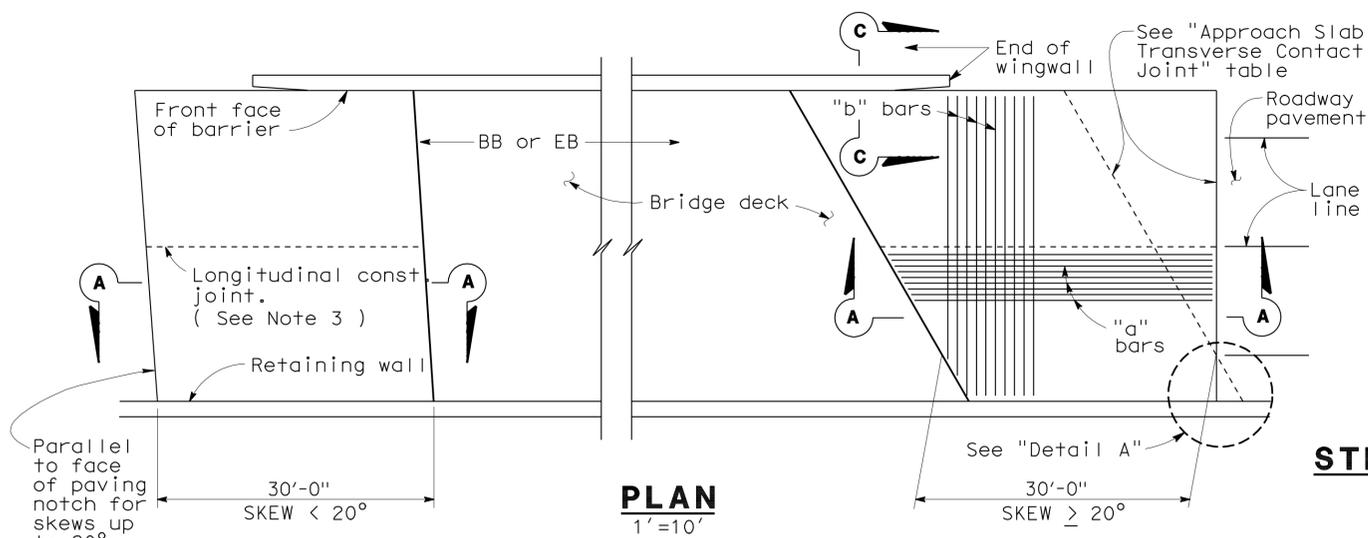
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

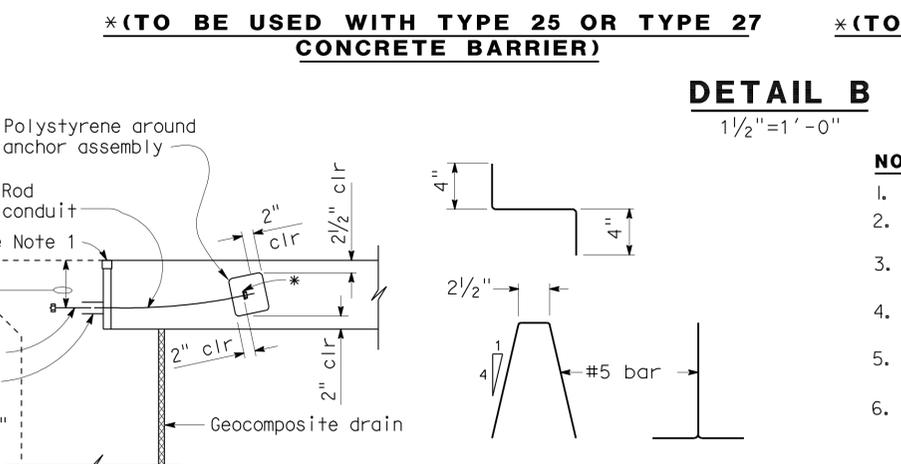
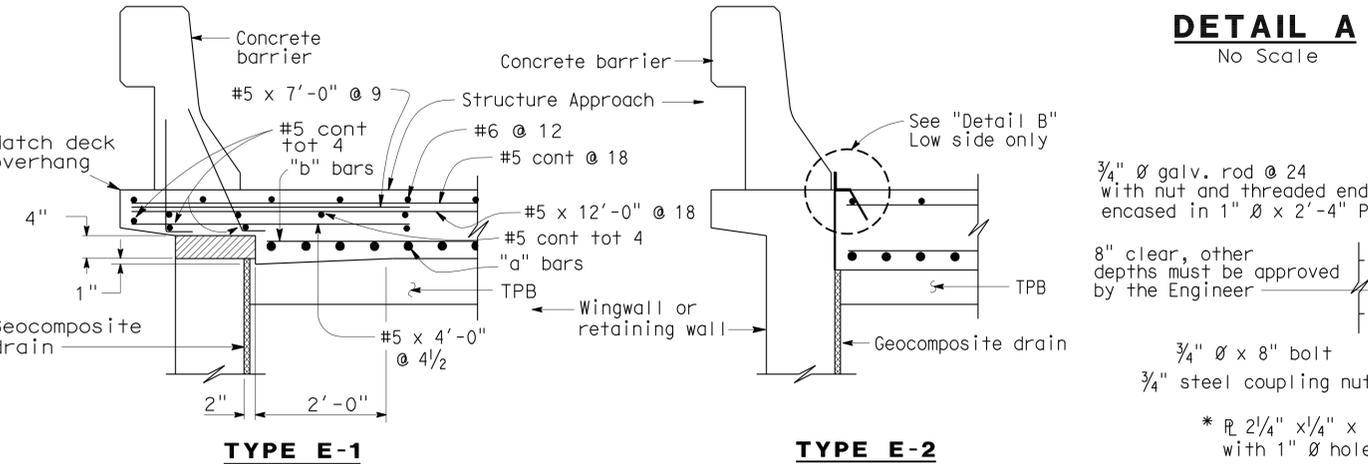
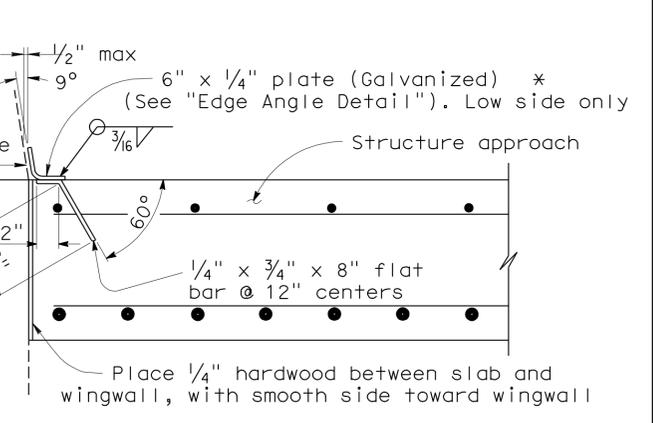
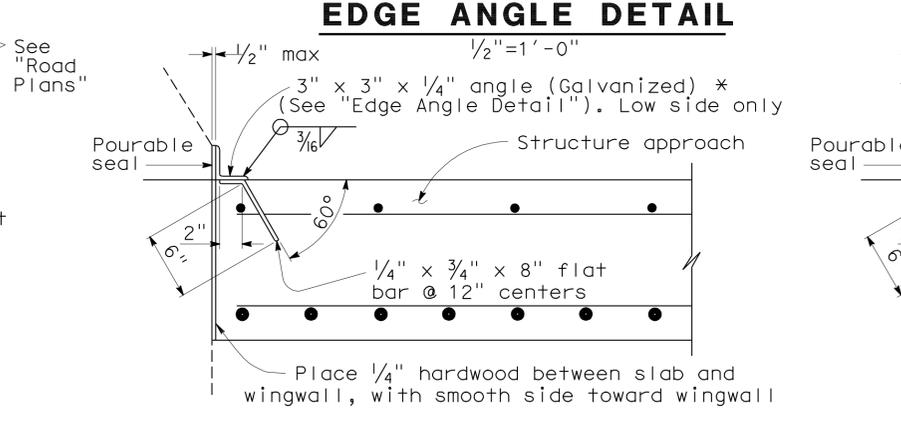
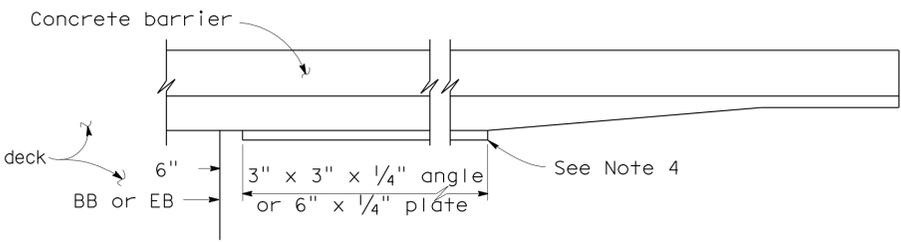
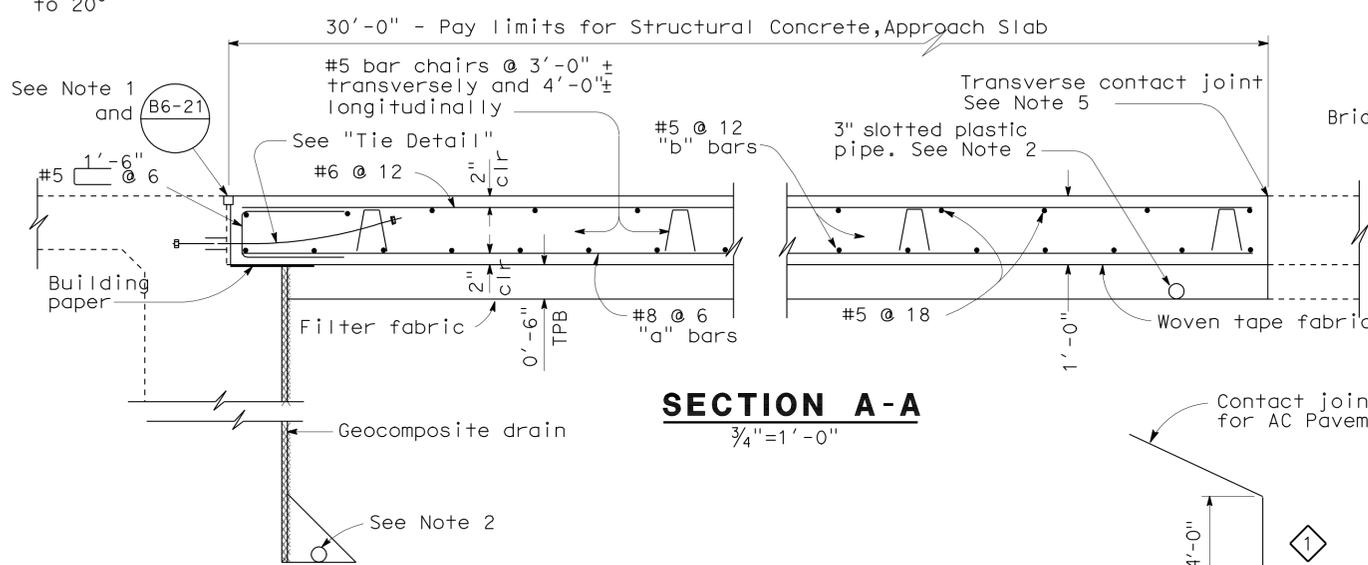
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POST MILE	38.20

WEST VISALIA OVERHEAD (WIDEN)
ADDITIONAL GIRDER REINFORCEMENT

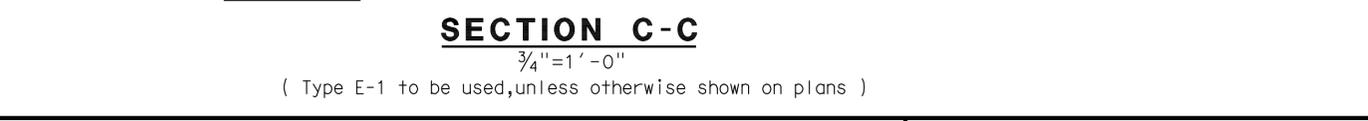
TIME PLOTTED => 11:40
DATE PLOTTED => 19-APR-2012
USER NAME => s124496



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



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

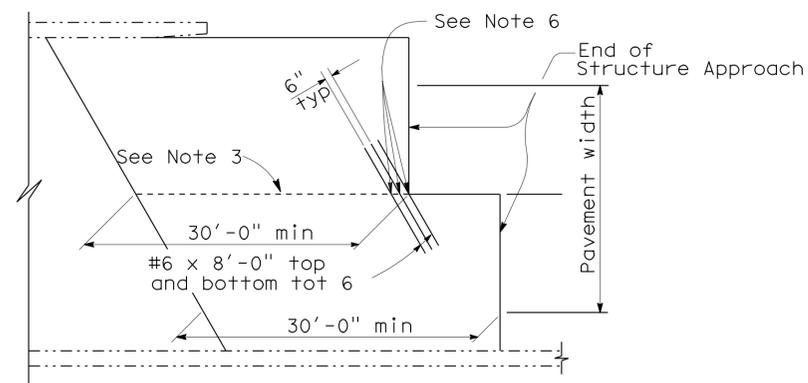
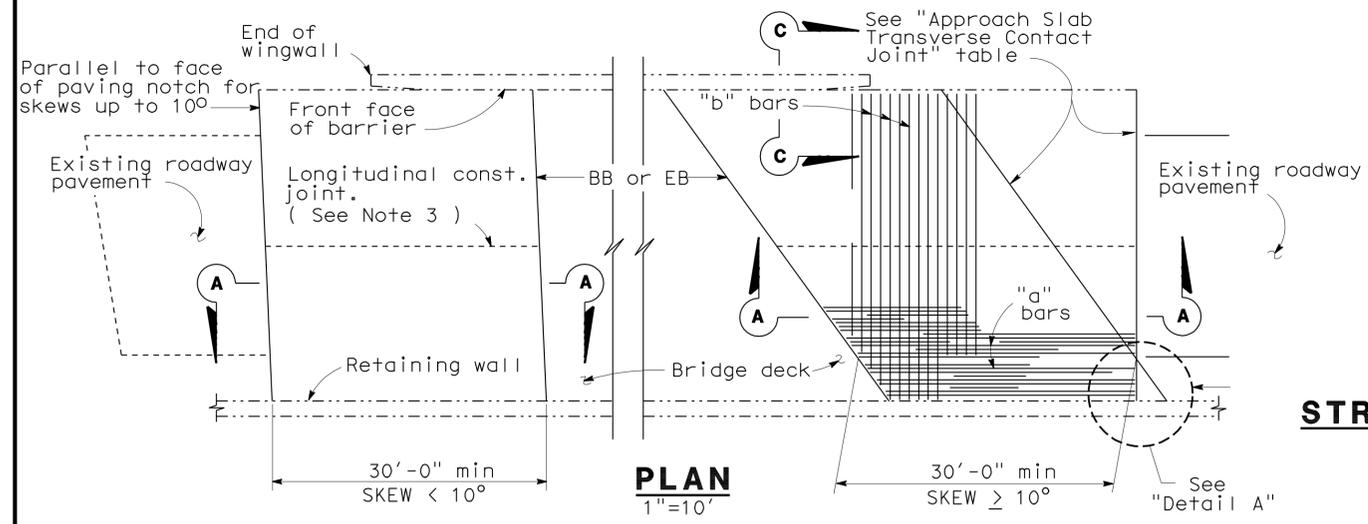


SPECIAL DETAILS

REVISED STANDARD DRAWING		Modified detail
FILE NO. xs3-180e	APPROVED BY <u>M. Ha</u> RESPONSIBLE TECHNICAL SPECIALIST	
APPROVAL DATE <u>8-12-08 REVISED</u>	RELEASED BY <u>O. Alcantara</u> RESPONSIBLE OFFICE CHIEF	
RELEASE DATE <u>8-12-08 REVISED</u>	RELEASE DATE <u>8-12-08 REVISED</u>	

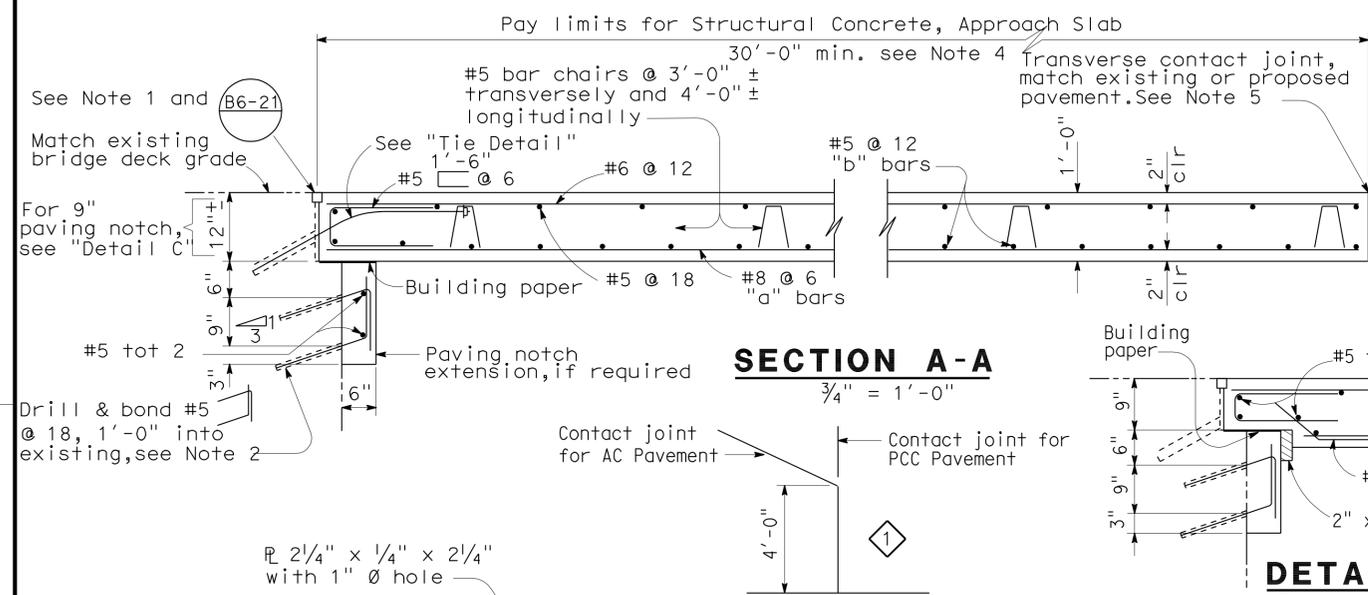
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 BRIDGE NO. 46-0226 R/L
 POST MILE 38.2

WEST VISALIA OVERHEAD (WIDEN)
STRUCTURE APPROACH TYPE N(30D)

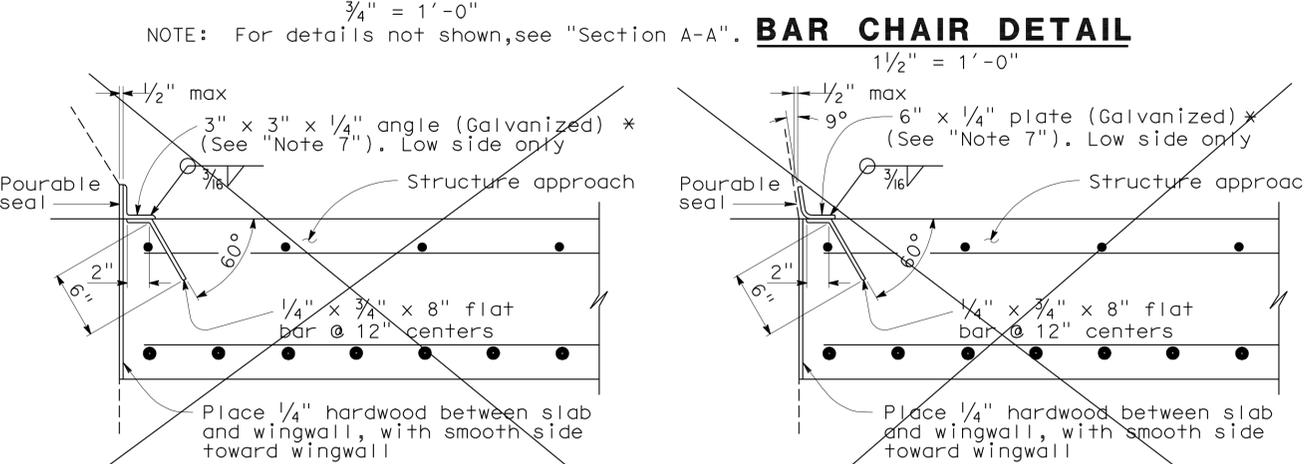
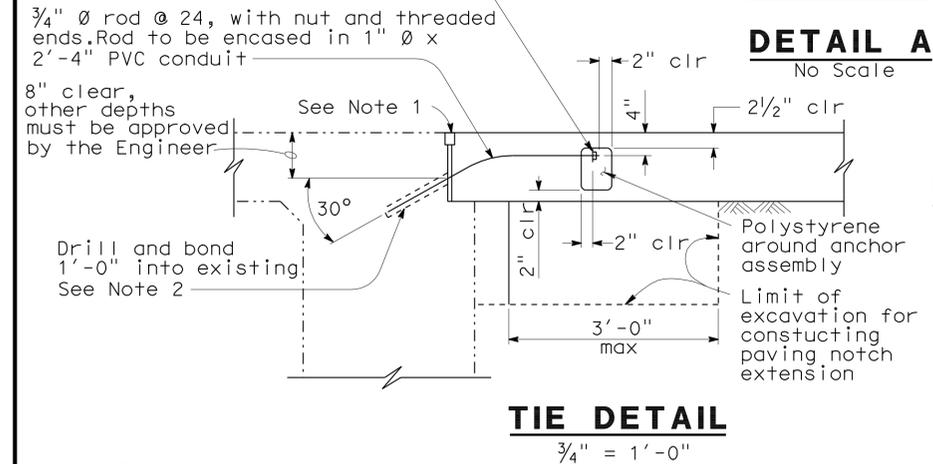
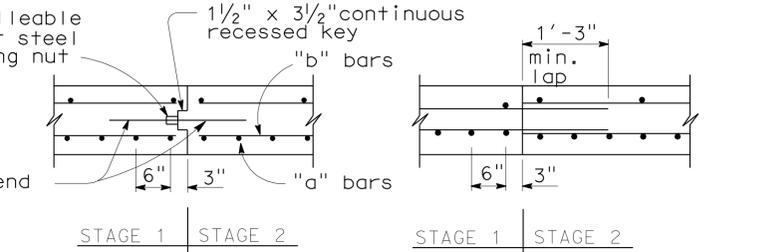


STRUCTURE APPROACH - END STAGGER DETAIL

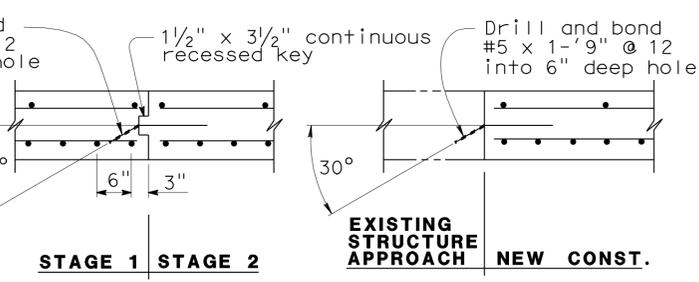
APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	Parallel to face of paving notch	Parallel to face of paving notch
10° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart
> 45°	Parallel to face of P N use (Detail A)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



SECTION C-C



BAR CHAIR DETAIL



LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES

- NOTES:** 3/4" = 1'-0"
- For details not shown or noted, see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required.
 - Space to avoid existing prestress anchorages and main reinforcement.
 - Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
 - Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint.
 - For transverse contact joint with new PCC paving, refer to Standard Plan P10.
 - Couplers are required for stage construction.
 - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable.
 - No Paving Notch Extension is required.

SPECIAL DETAILS

RELEASE DATE	DESIGN BY	CHECKED	RELEASED BY
REVISED 3/14/05	M. TRAFFALIS	E. THORKILDSEN	
FILE NO. xs3-140e	DETAILS BY	CHECKED	
	R. YEE	E. THORKILDSEN	
	SUBMITTED BY	DRAWING DATE	OFFICE CHIEF
	M. HA	8/92	

- 1 Modified detail
- 2 Added notes

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 46-0226 R/L
MILE POST 38.2

CU 06
EA 360211

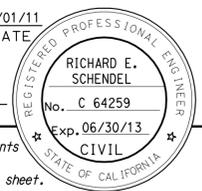
WEST VISALIA OVERHEAD (WIDEN)

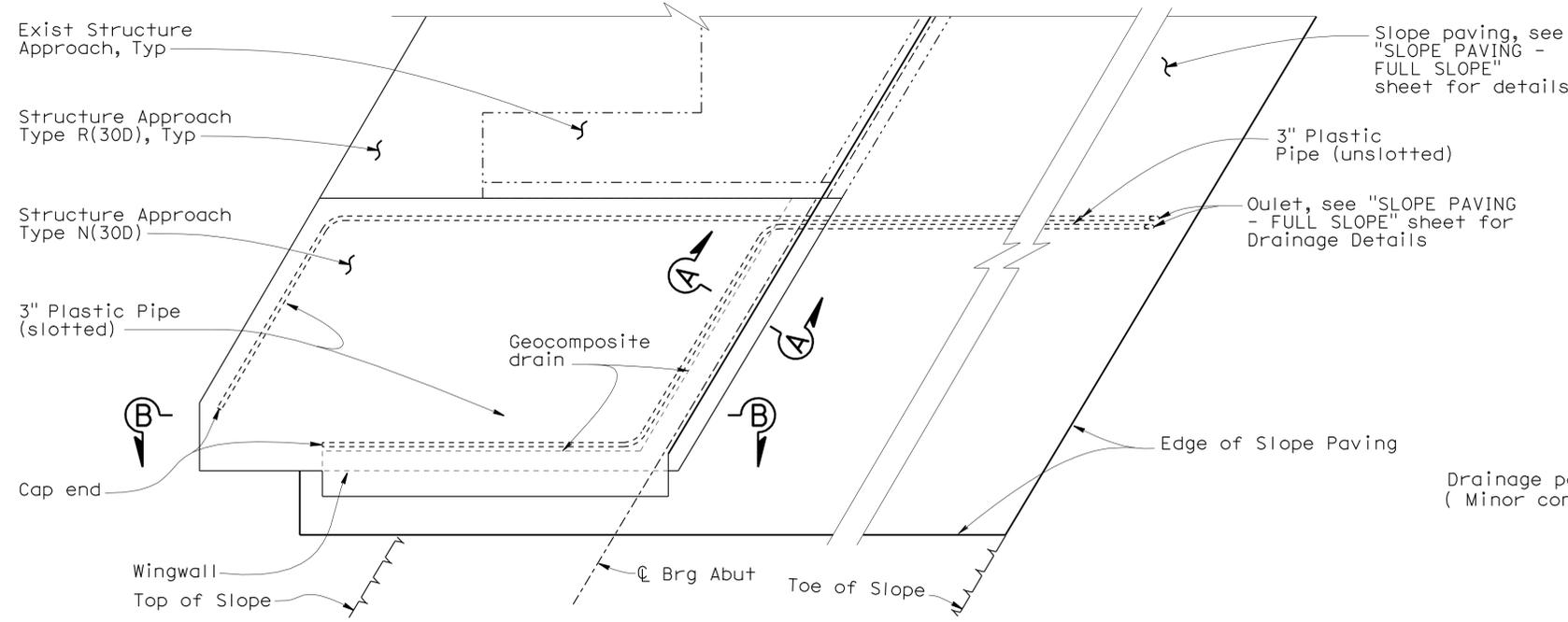
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REVISION DATES (PRELIMINARY STAGE ONLY)

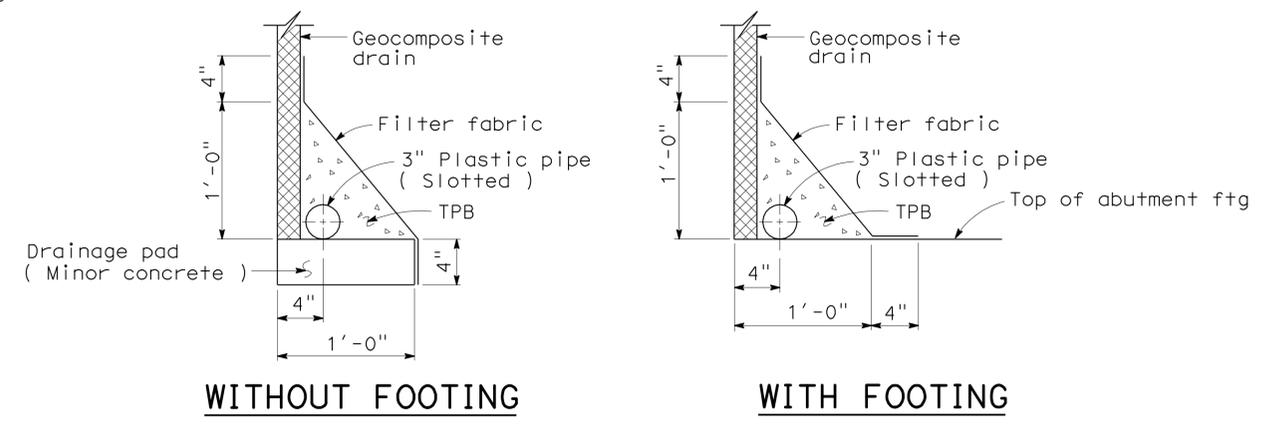
03/29/11	10/31/11				
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SHEET 22 OF 30

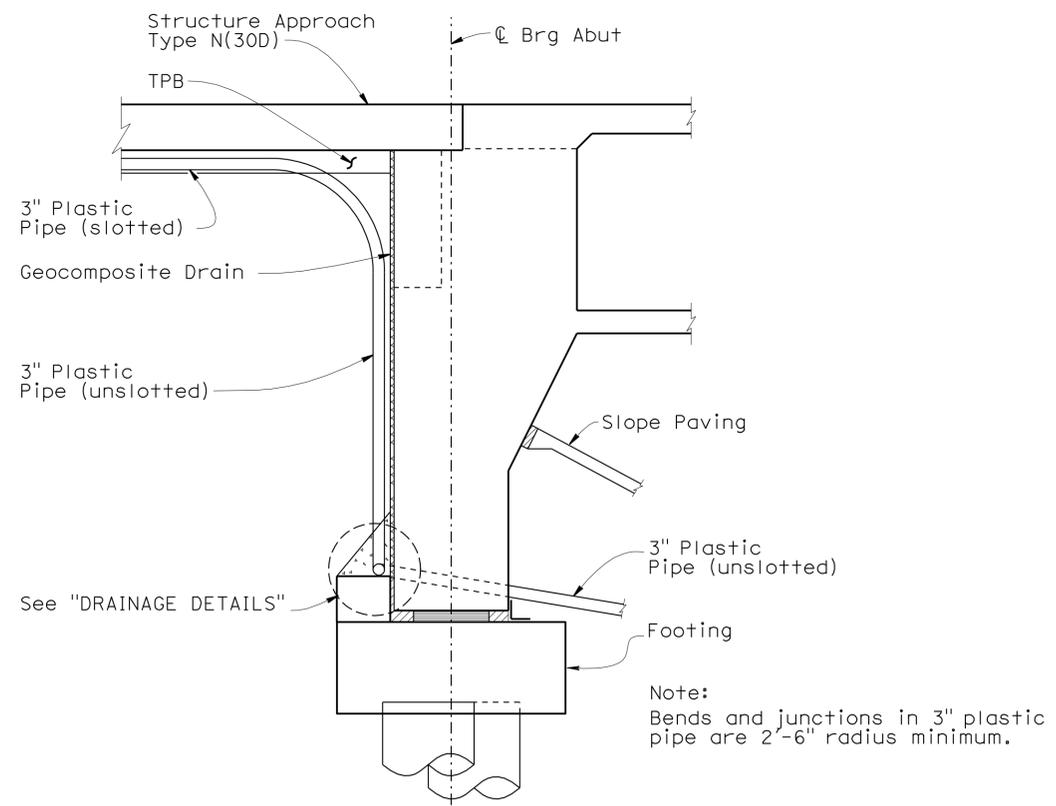
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06	Tul	99	R37.3/41.3	289	346
 REGISTERED CIVIL ENGINEER			12/01/11	DATE	
4-16-12			PLANS APPROVAL DATE		
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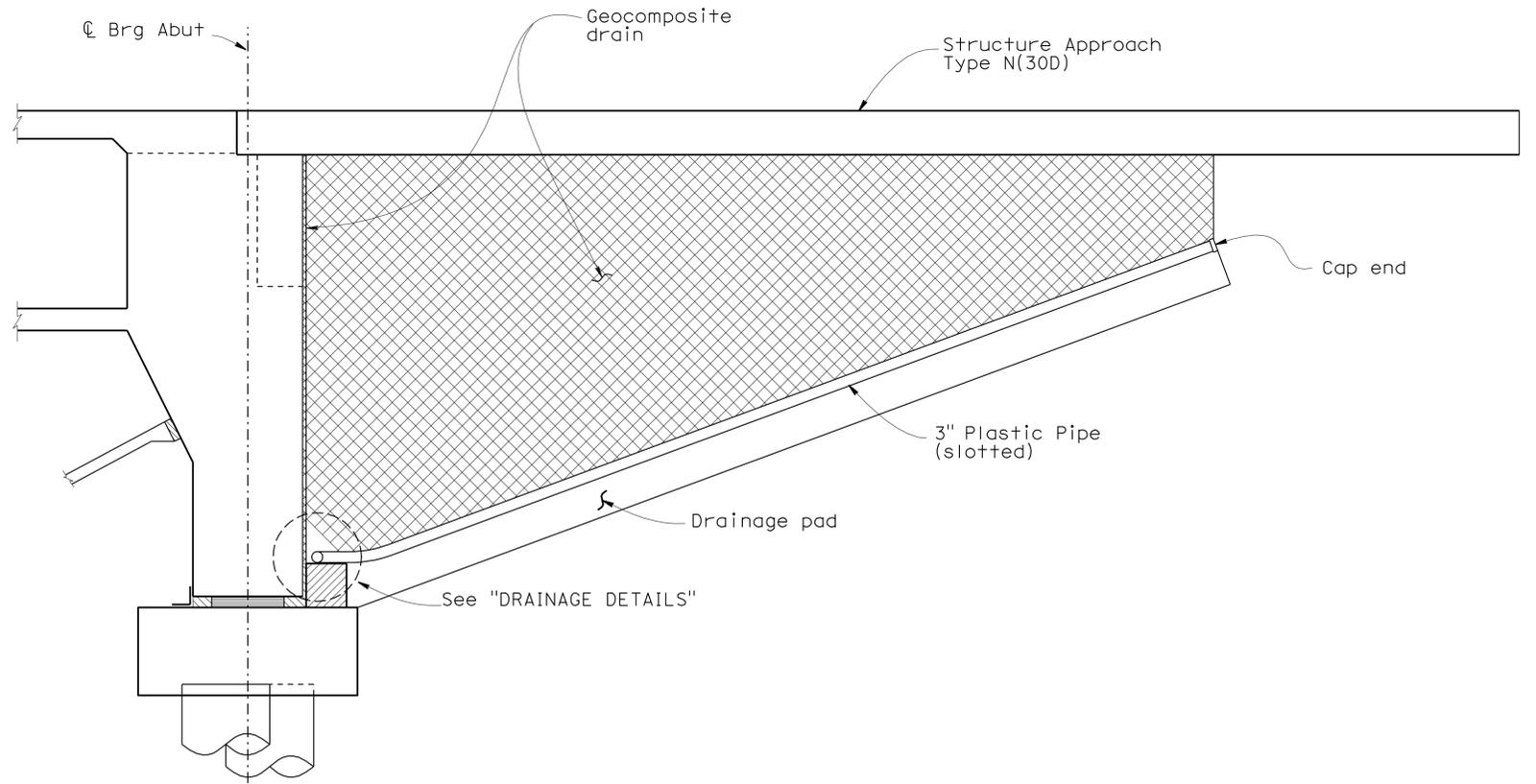
PLAN
No Scale



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



SECTION A-A
No Scale



SECTION B-B
No Scale

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

DESIGN	BY MICHAEL POPE	CHECKED ARAM SALIMI
DETAILS	BY MINH TRAN	CHECKED ARAM SALIMI
QUANTITIES	BY MICHAEL POPE	CHECKED C. COWDEN / S. MAM

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

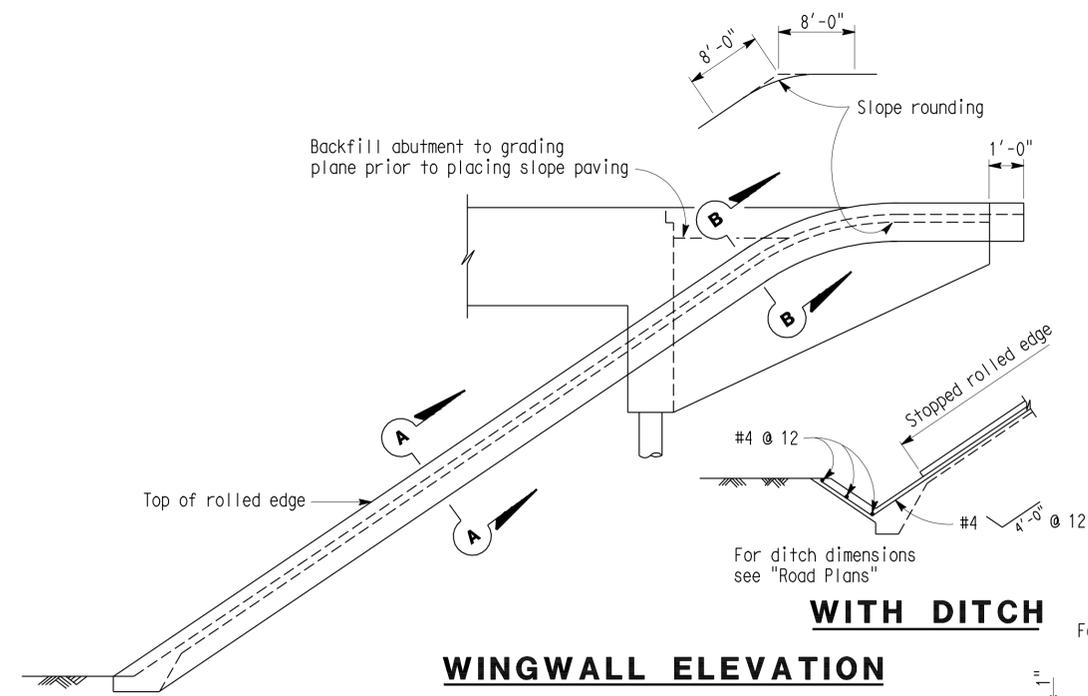
BRIDGE NO. 46-0226 R/L
POST MILE 38.2
WEST VISALIA OVERHEAD (WIDEN)
STRUCTURE APPROACH DRAINAGE DETAILS

USERNAME => s124486 DATE PLOTTED => 19-APR-2012 TIME PLOTTED => 11:41

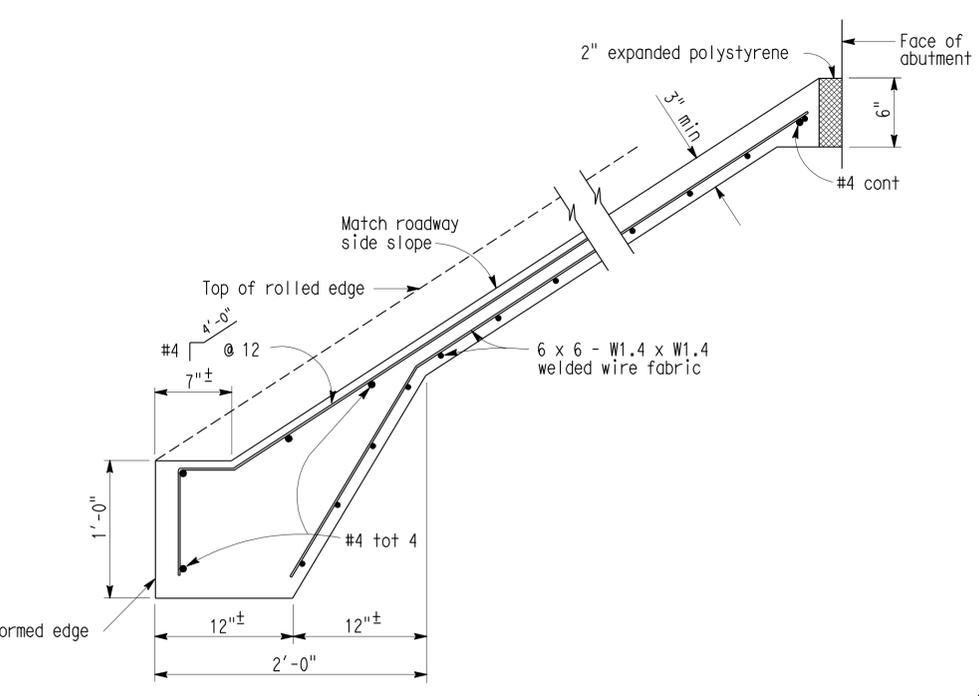
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	290	346

Richard E. Schendel
 REGISTERED CIVIL ENGINEER 12/01/11 DATE
 4-16-12 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

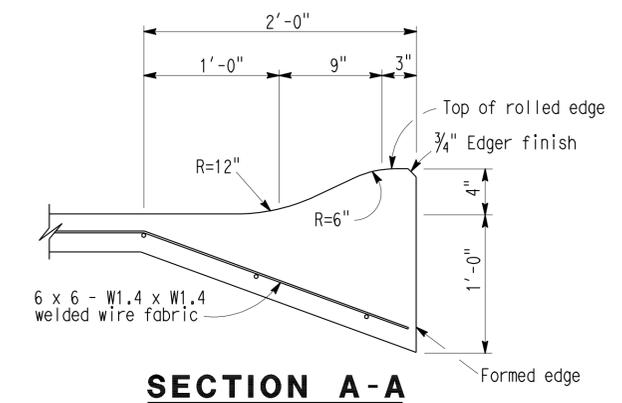
RICHARD E. SCHEDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA



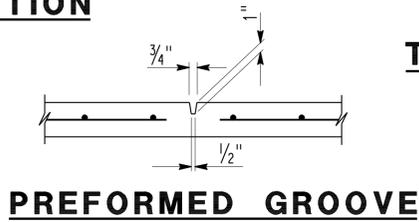
WINGWALL ELEVATION



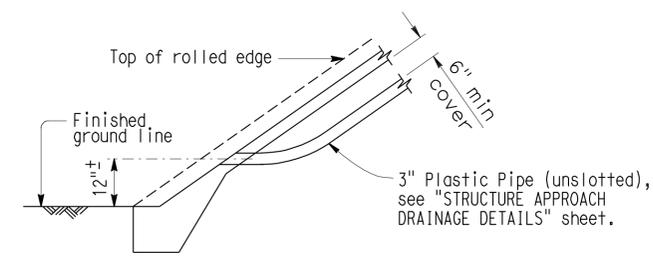
TYPICAL SECTION - CONCRETE PAVING



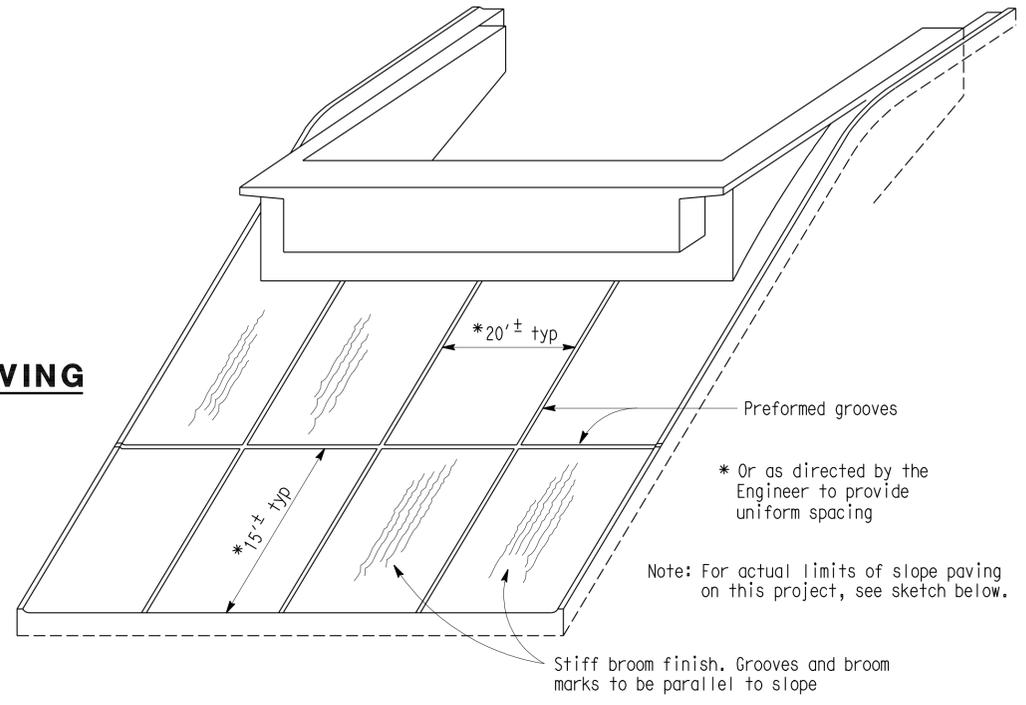
SECTION A-A



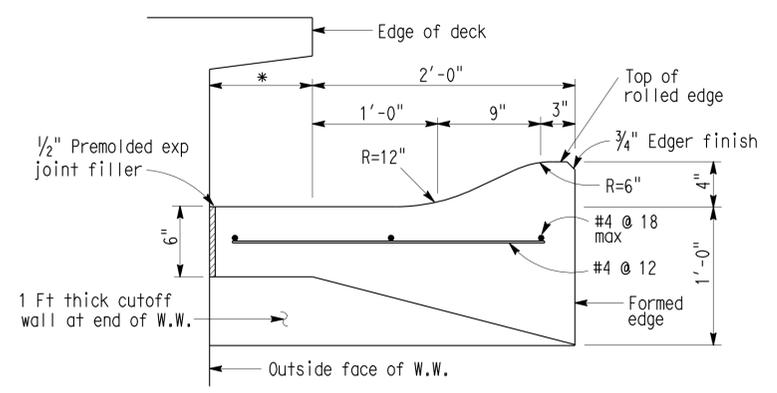
PREFORMED GROOVE



1 DRAINAGE DETAILS

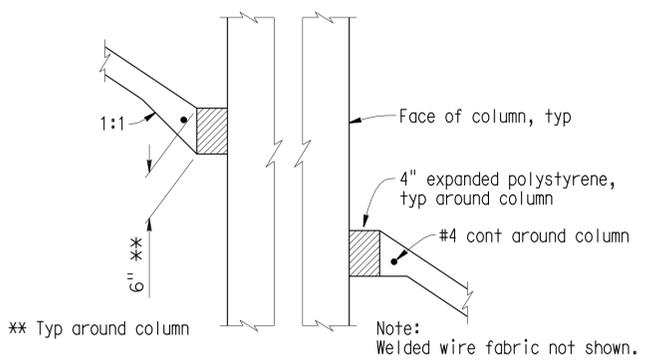


PICTORIAL VIEW OF TYPICAL INSTALLATION

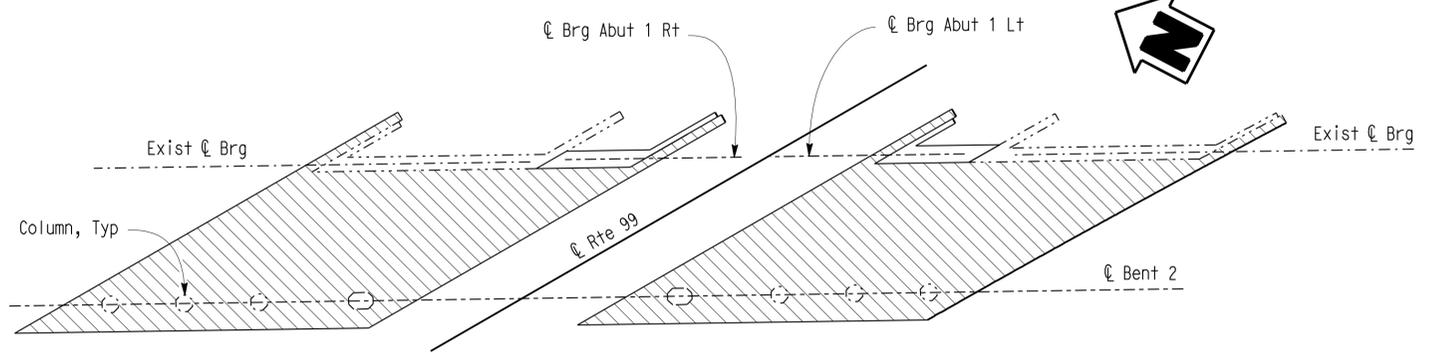


SECTION B-B

* This dimension becomes zero when edge of deck is at outside face of W.W.



2 SECTION AT COLUMN



1 LIMITS OF SLOPE PAVING

Denotes limits of Slope Paving

NO SCALE
SPECIAL DETAILS

REVISED STANDARD DRAWING				RELEASED BY
RELEASE DATE	DESIGN	BY	CHECKED	Susan Hida
FILE NO. xs4-210	DETAILS	BY D. Wooten	CHECKED	OFFICE CHIEF
	SUBMITTED	BY Dan Adams	DRAWING DATE 6/07	

- 1 Modified detail
- 2 Added detail

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 46-0226 R/L
POST MILE 38.2

WEST VISALIA OVERHEAD (WIDEN)
SLOPE PAVING - FULL SLOPE

DS OSD 2147A (CADD) (REV. 4/07)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



CU 06
EA 360211

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES

11/08/11									
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SHEET 24 OF 30

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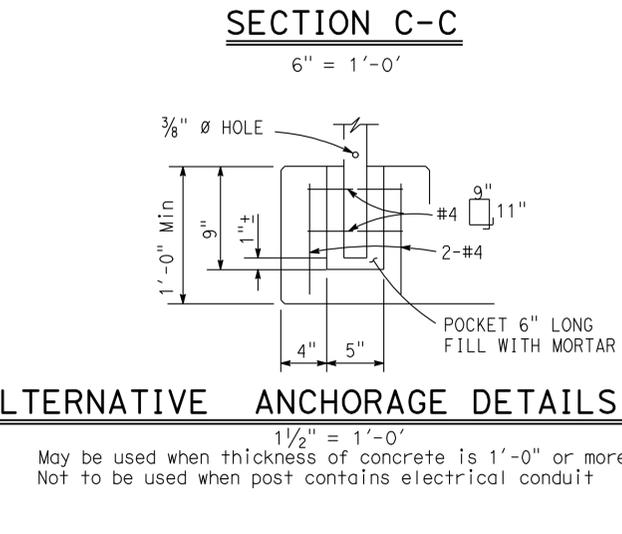
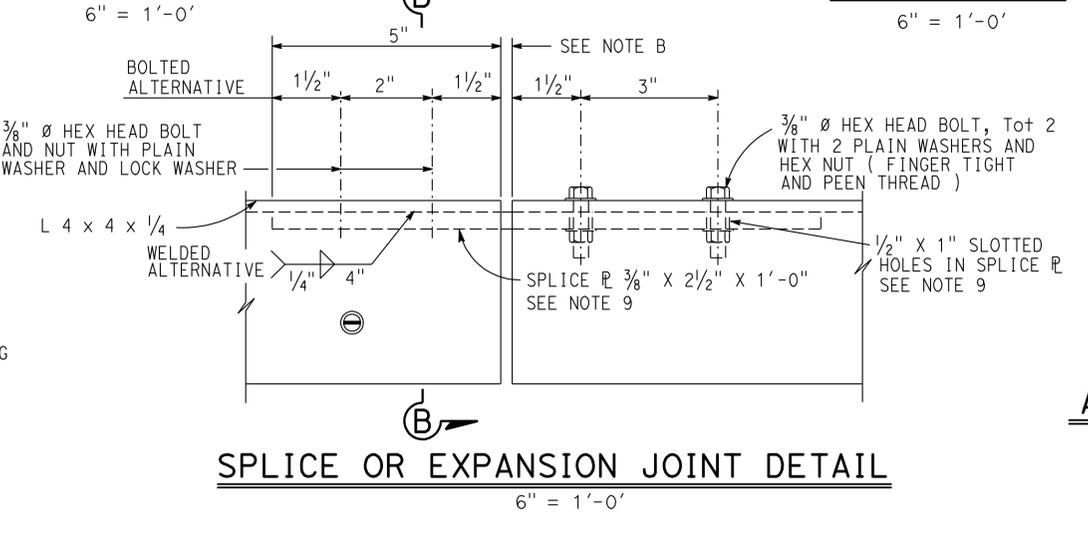
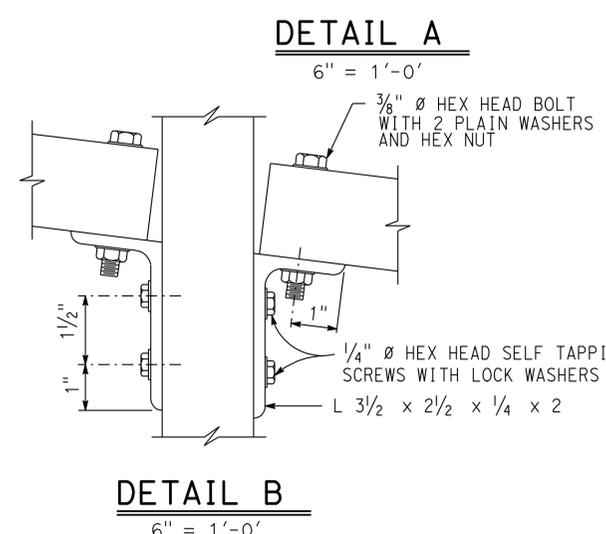
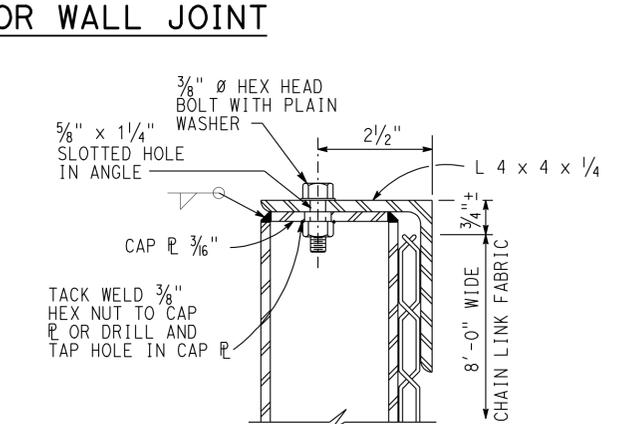
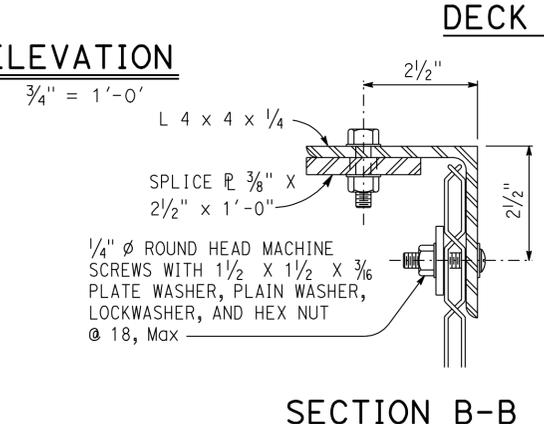
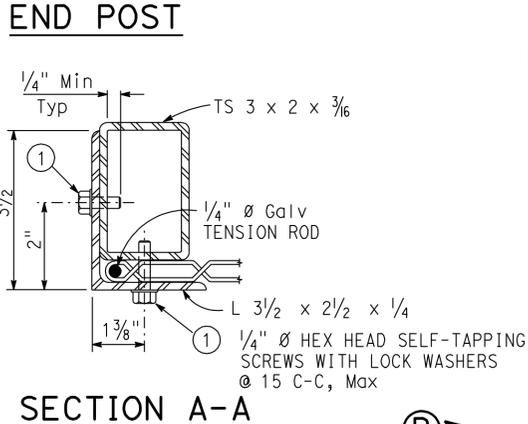
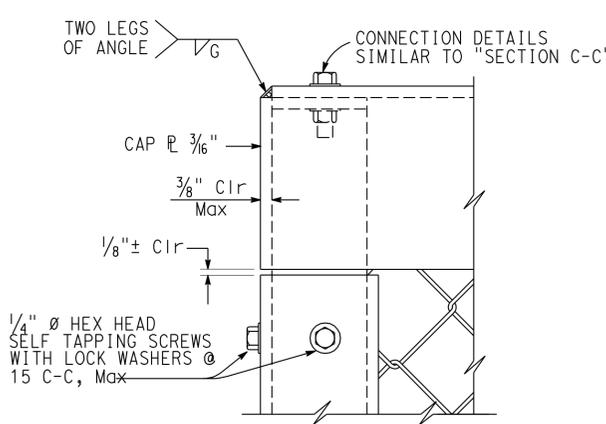
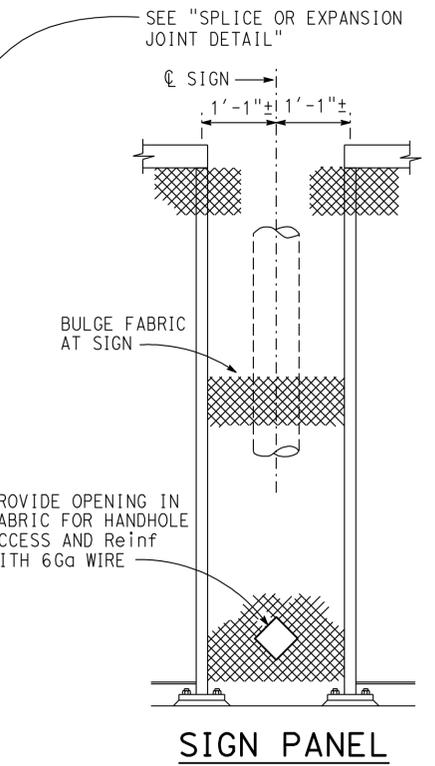
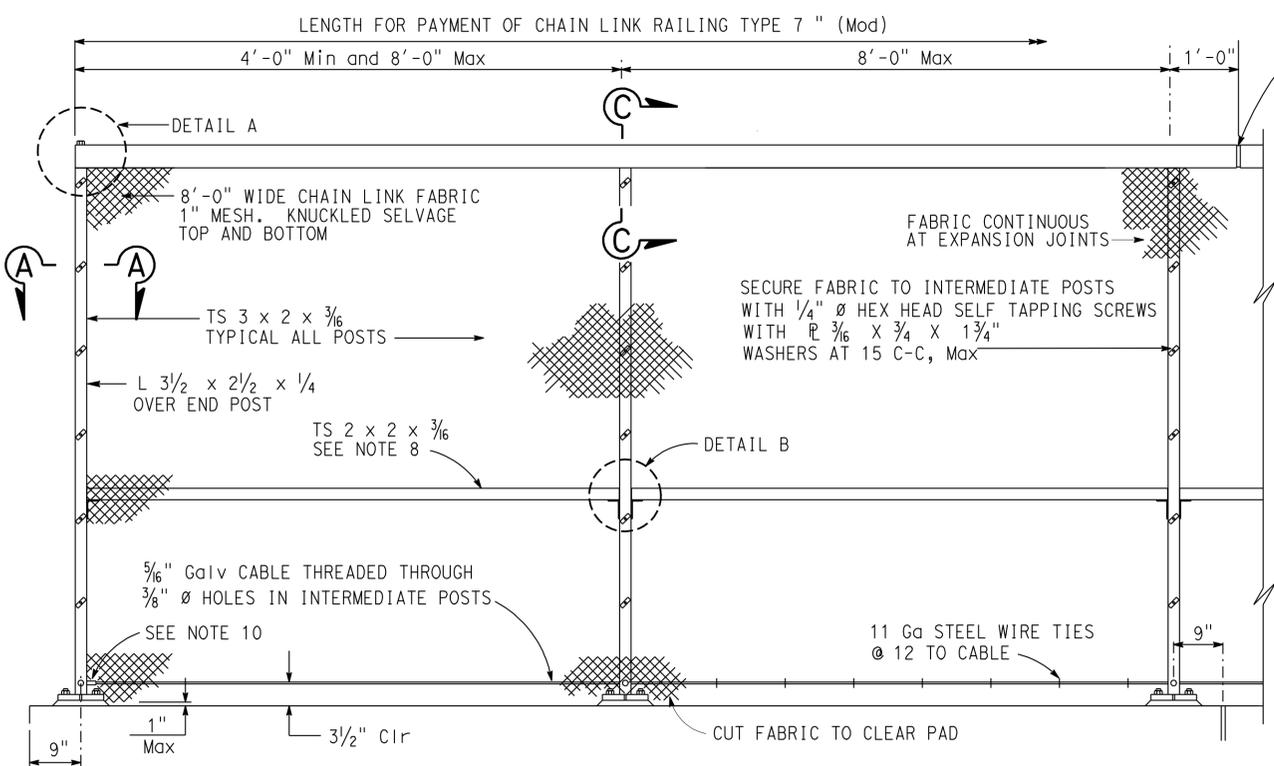
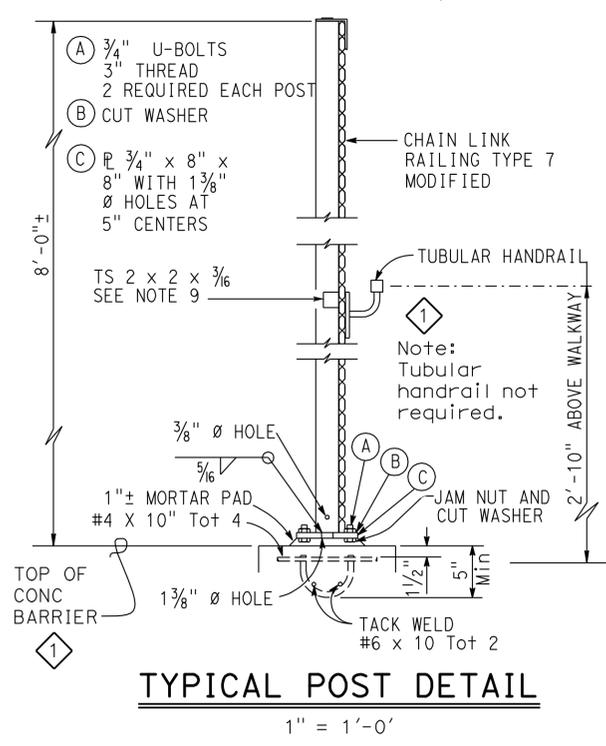
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DATE PLOTTED => 19-APR-2012 TIME PLOTTED => 11:41

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	291	346

<i>Richard E. Schendel</i>		12/01/11
REGISTERED CIVIL ENGINEER	DATE	
4-16-12		
PLANS APPROVAL DATE		
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REGISTERED PROFESSIONAL ENGINEER	
RICHARD E. SCHENDEL	
No. C 64259	
Exp. 06/30/13	
CIVIL	
STATE OF CALIFORNIA	



- NOTES:
- Railing assembly except chain link fabric to be galvanized after fabrication
 - Railing shall conform to horizontal and vertical alignment. Post shall be vertical. Horizontal angle shall be bent to conform to horizontal alignment if radius is 150'-0" or less.
 - Horizontal angle shall be continuous over not less than two intermediate posts, except that a shorter length is permitted at expansion joints and other rail discontinuities.
 - When railing is placed on curved horizontal alignment with radius of 150'-0" or less, drill 1/2" x 3" deep hole in slab and set in epoxy adhesives 3/8" welded eyebolt for 5/16" cable to limit the mid-ordinate distance between the 5/16" cable and curve to be 1" Max.
 - Place fabric parallel to slope.
 - Alternative details may be submitted by the Contractor for Engineer's approval.
 - Provide thimbles at all cable loops.
 - Peen all exposed bolts.
 - TS 2 x 2 x 3/16 required for curves with radius of 150'-0" or less. Bend to conform to curve.
 - Expansion joint same dimension as expansion joint in deck or wall. Increase slotted hole length and splice length correspondingly.
 - Anchor 5/16" galvanized cable at end post and end posts adjacent to electroliner openings or deck or wall joints with 1/2" stud socket assembly or 1/2" welded eyebolt and crimped sleeve clamp. Provide 1 1/2" minimum take-up at each anchorage.

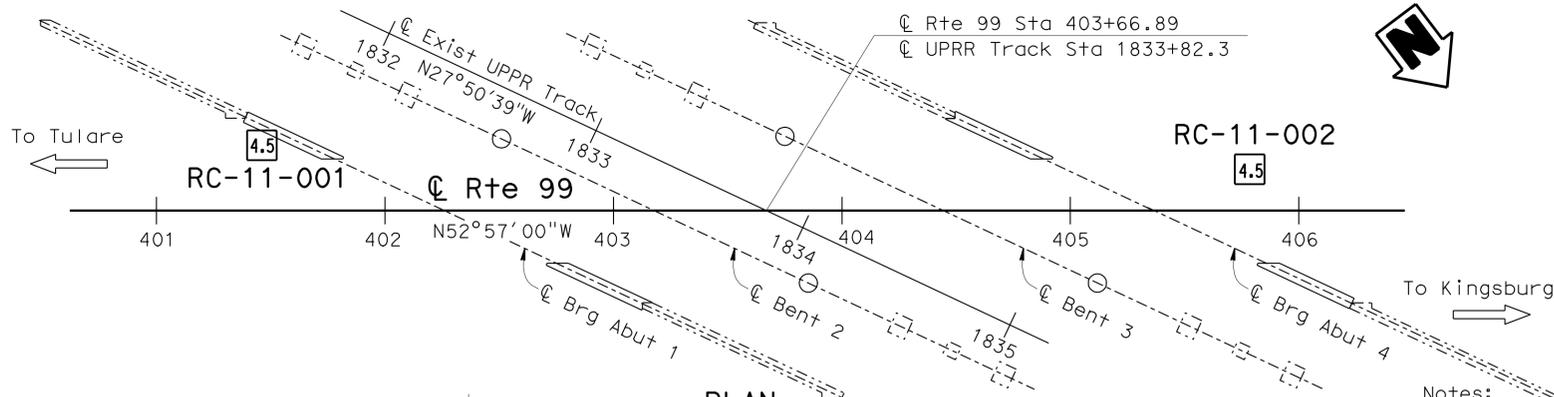
REVISED STANDARD DRAWING	Added notes
FILE NO. xs16-220-1	REVISION DATE July 2011
APPROVAL DATE	

STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES
DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 46-0226 R/L
	POST MILE 38.2

WEST VISALIA OVERHEAD (WIDEN)	CHAIN LINK RAILING TYPE 7 (MOD)
UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1
CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES

BENCH MARK

PRHV 269
 Fnd 2" brass disk set in concrete
 w/CADOT, TUL 099 PM 38.25, 13.51' Lt,
 "LOL4" Line @ Rte 99.
 N 2,000,178.40
 E 6,443,469.82
 Elev = 322.26'
 NAVD88



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	292	346

CERTIFIED ENGINEERING GEOLOGIST
 Reid Buell
 No. 1481
 Exp. 4-30-13
 DATE 9-1-11
 PLANS APPROVAL DATE 4-16-12

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



- Notes:**
- Groundwater was not encountered in borings RC-11-001 and RC-11-002.
 - Pocket Penetrometer (PP) tests were not performed on cohesive soils without PP values

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18		WEST VISALIA OVERHEAD (WIDEN) LOG OF TEST BORINGS 1 OF 5	
FUNCTIONAL SUPERVISOR NAME: R. Bibben	DRAWN BY: F. Nguyen 08/11 CHECKED BY: A. Barrie	FIELD INVESTIGATION BY: J. Thorne		BRIDGE NO. 46-0226R/L POST MILE 38.2		CONTRACT NO.: 06-360211		REVISION DATES 08-16-11 08-27-11 08-26-11 10-13-11	
065 CIVIL LOG OF TEST BORINGS SHEET				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643 PROJECT NUMBER & PHASE: 0600020408 1		SHEET 26 OF 30	

USERNAME => s124496 DATE PLOTTED => 19-APR-2012 TIME PLOTTED => 11:41

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	294	346

CERTIFIED ENGINEERING GEOLOGIST *Reid Buell* DATE 9-1-11
 PLANS APPROVAL DATE 4-16-12
 No. 1481
 Exp. 4-30-13
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

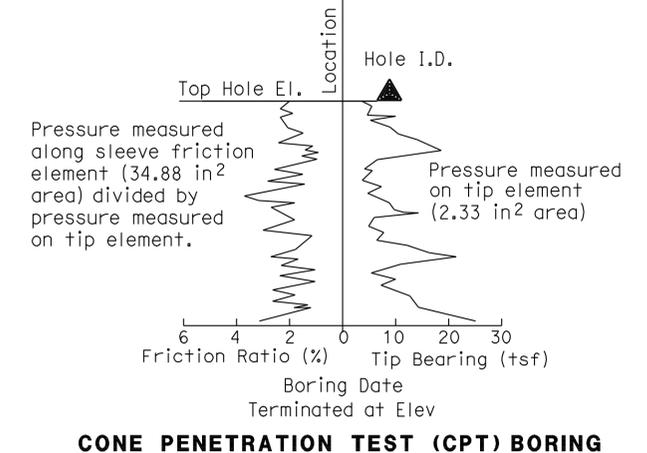
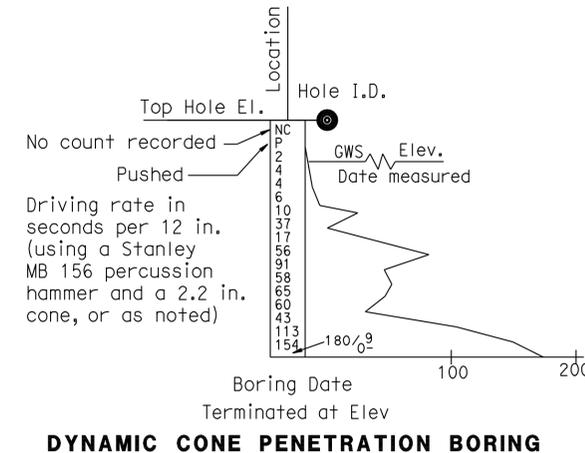
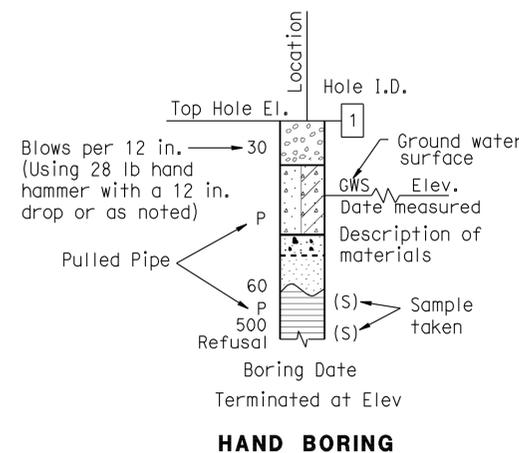
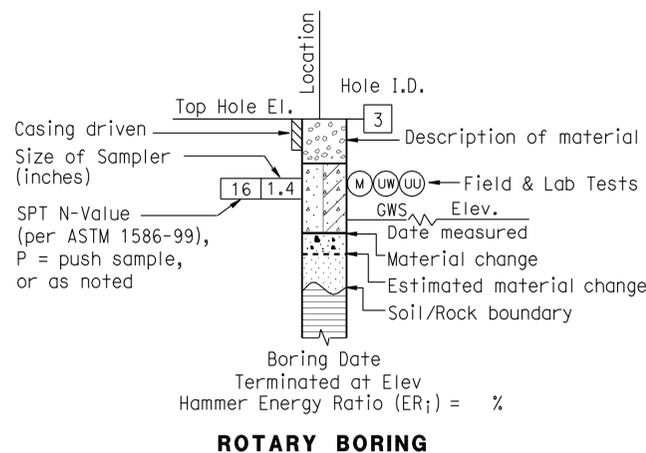
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

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

Note: Size in inches.

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



Reid Buell 9-1-11
 CERTIFIED ENGINEERING GEOLOGIST DATE

4-16-12
 PLANS APPROVAL DATE

Reid Buell
 No. 1481
 Exp. 4-30-13
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

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

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

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

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

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

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

ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0226R/L	WEST VISALIA OVERHEAD (WIDEN) LOG OF TEST BORINGS 4 OF 5
				POST MILE 38.2	
PREPARED BY: F. Nguyen 08/11	UNIT: 3643 PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 29 OF 30

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

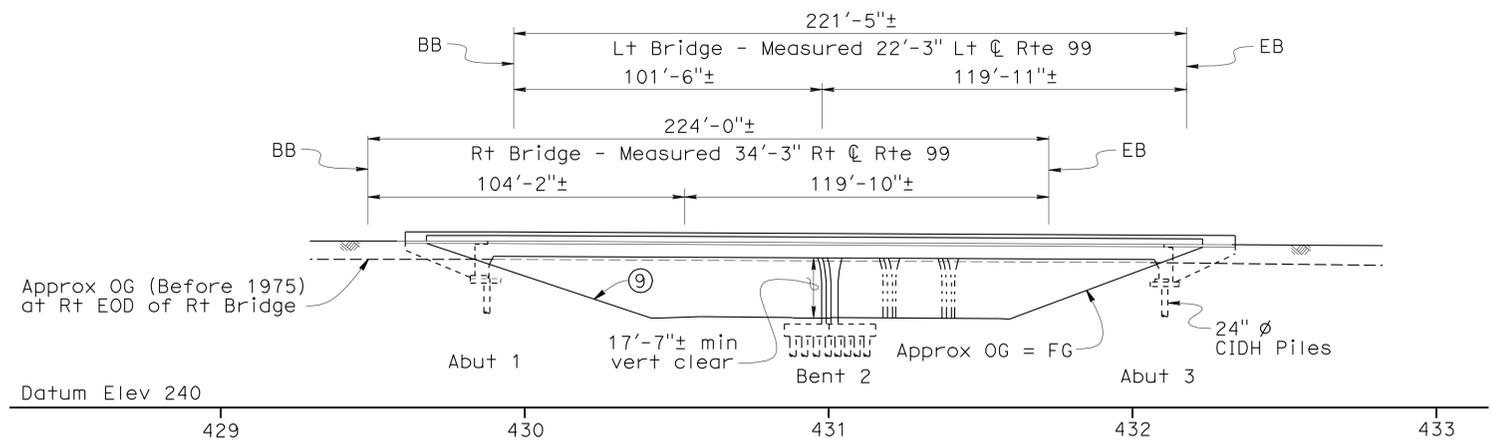
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	297	346

<i>Richard E. Schendel</i>	12/01/11
REGISTERED CIVIL ENGINEER	DATE
4-16-12	
PLANS APPROVAL DATE	

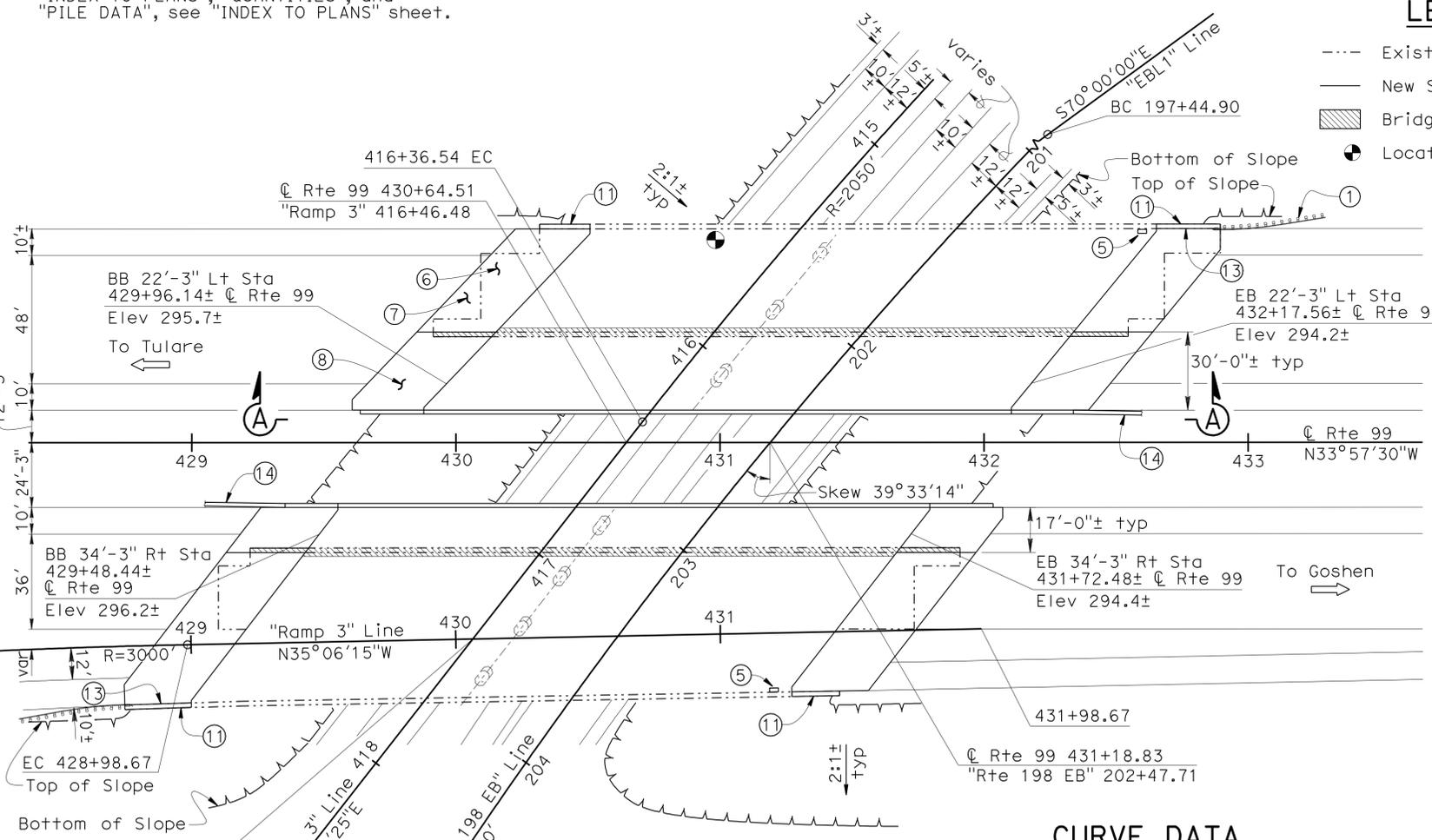
RICHARD E. SCHENDEL
No. C 64259
Exp. 06/30/13
CIVIL

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ELEVATION A-A
1" = 30'

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



CURVE DATA

"Ramp 3"	"Ramp 3"	"Rte 198 EB"
R=2050'	R=3000'	R=2000'
Δ=15°54'25"	Δ=3°11'29"	Δ=34°19'01"
T=286.41'	T=83.57'	T=617.52'
L=569.14'	L=167.10'	L=1197.89'

PLAN
1" = 30'

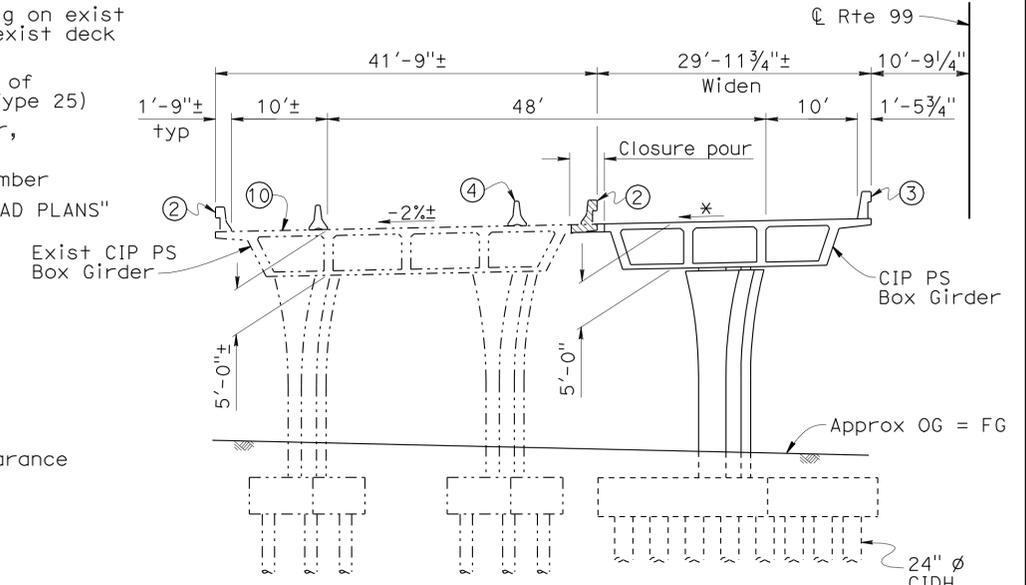
NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTES

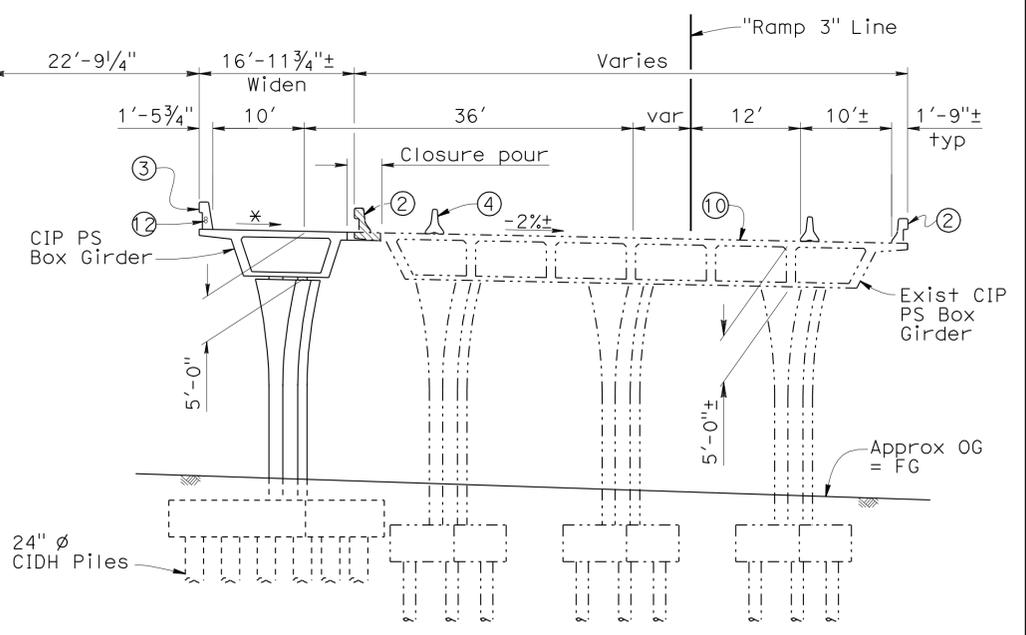
- ① MBGR, Typ, see "ROAD PLANS"
- ② Exist Concrete Barrier (Type 25)
- ③ Concrete Barrier (Type 736)
- ④ Temporary Railing (Type K), typ, see "ROAD PLANS"
- ⑤ Exist Deck Drain
- ⑥ Exist Structure Approach, Typ
- ⑦ Structure Approach Type R(30D), Typ
- ⑧ Structure Approach Type N(30D), Typ
- ⑨ Full Slope Paving (Exposed Aggregate), Exist and Widen, Typ
- ⑩ Grind epoxy grit surfacing on exist deck, prepare and treat exist deck with methacrylate
- ⑪ Remove & replace portion of Exist Concrete Barrier (Type 25)
- ⑫ 2-2" ∅ conduits in Barrier, see "ROAD PLANS"
- ⑬ Paint bridge name and number
- ⑭ Concrete Barrier, see "ROAD PLANS"

LEGEND

- Existing Structure
- New Structure
- ▨ Bridge Removal (Portion)
- Location of min vert clearance



LEFT STRUCTURE



RIGHT STRUCTURE

TYPICAL SECTION
1" = 10'

DESIGN	BY MATT SCHOTT	CHECKED ZIHAN YAN
DETAILS	BY MATT SCHOTT	CHECKED ZIHAN YAN
QUANTITIES	BY MATT SCHOTT	CHECKED DAVID MURRAY / RS

LOAD & RESISTANCE FACTOR DESIGN	BY MATT SCHOTT	CHECKED RICHARD SCHENDEL
LAYOUT	BY MATT SCHOTT	CHECKED RICHARD SCHENDEL
SPECIFICATIONS	BY REBECCA FRANTI	CHECKED REBECCA FRANTI

LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES
	DEPARTMENT OF TRANSPORTATION	STRUCTURE DESIGN
		DESIGN BRANCH 18

BRIDGE NO. 46-0227 R/L	ROUTE 99/198 EAST SEPARATION (WIDEN)
POST MILE 38.7	GENERAL PLAN

UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211
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DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 1 OF 27
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	298	346

12/01/11
 REGISTERED CIVIL ENGINEER DATE
 4-16-12
 PLANS APPROVAL DATE
 RICHARD E. SCHEDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA
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GENERAL NOTES

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
 AASHTO LRFD Bridge Design Specifications, 4th edition and the Caltrans Amendments, preface dated September 2010

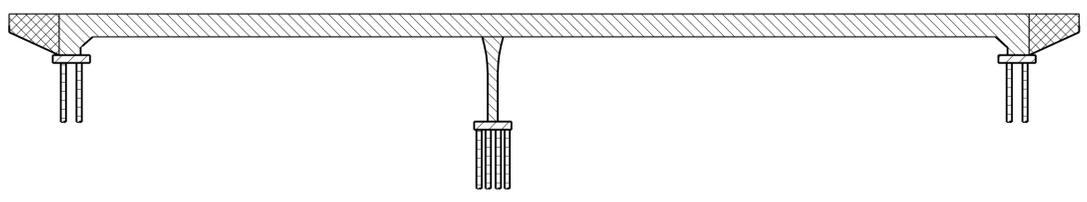
SEISMIC DESIGN:
 Caltrans Seismic Design Criteria (SDC), Version 1.6, November 2010

DEAD LOAD:
 Includes 35 psf for future wearing surface

LIVE LOADING:
 HL93 and permit design load

SEISMIC LOADING:
 See "ACCELERATION RESPONSE SPECTRA CURVE"
 Soil Profile: Vs30 = 900 ft/sec for the top 100 ft of soil
 Moment Magnitude: Mmax = 7.9
 Peak Ground Acceleration = 0.23 g

CONCRETE:
 fy = 60 ksi
 fc = See "CONCRETE STRENGTH AND TYPE LIMITS".



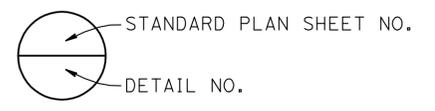
- Structural Concrete, Bridge (3.60 ksi at 28 days)
- Structural Concrete, Bridge (5.50 ksi at 28 days)
- Structural Concrete, Bridge Footing (3.60 ksi at 28 days)
- Cast-In-Drilled-Hole Concrete Pile (3.60 ksi at 28 days)

CONCRETE STRENGTH AND TYPE LIMITS

No Scale

STANDARD PLANS DATED MAY 2006

- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
- B0-1 BRIDGE DETAILS
- B0-5 BRIDGE DETAILS
- B0-13 BRIDGE DETAILS
- B2-3 16" AND 24" CAST-IN-DRILLED-HOLE CONCRETE PILE
- RSP B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- B7-1 BOX GIRDER DETAILS
- B8-5 CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
- B11-53 CONCRETE BARRIER TYPE 25
- B11-56 CONCRETE BARRIER TYPE 736
- B14-3 COMMUNICATION AND SPRINKLER CONTROL CONDUITS (CONDUIT LESS THAN 4")
- P10 CONCRETE PAVEMENT - DOWEL BAR DETAILS



PILE DATA

Location	Pile Type	Nominal Resistance (kips)		Design Tip Elevation (ft)	Specified Tip Elevation (ft)
		Compression	Tension		
Abut 1 Rt	24" CIDH	320	0	235.0 (a)	235.0
Abut 1 Lt	24" CIDH	360	0	233.0 (a)	233.0
Bent 2 Rt	24" CIDH	380	170	219.0 (a), 230.0 (b) 219.0 (c)	219.0
Bent 2 Lt	24" CIDH	380	180	217.0 (a), 229.0 (b), 217.0 (c)	217.0
Abut 3 Rt	24" CIDH	340	0	229.0 (a)	229.0
Abut 3 Lt	24" CIDH	380	0	225.0 (a)	225.0

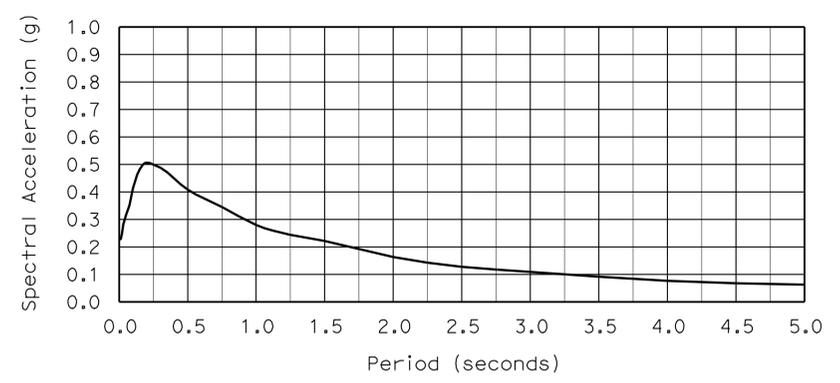
Note:
 Design tip elevations are controlled by: (a) Compression, (b) Tension, and (c) Lateral Load.

QUANTITIES

GRIND EPOXY GRIT SURFACING	20,012	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	20,012	SQFT
BRIDGE REMOVAL (PORTION), LOCATION B		LUMP SUM
STRUCTURE EXCAVATION (BRIDGE)	485	CY
STRUCTURE BACKFILL (BRIDGE)	270	CY
AGGREGATE BASE (APPROACH SLAB)	22	CY
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	2,481	LF
PRESTRESSING CAST-IN-PLACE CONCRETE		LUMP SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	161	CY
STRUCTURAL CONCRETE, BRIDGE	940	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	95	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	216	CY
DRILL AND BOND DOWEL	84	LF
JOINT SEAL (MR 2")	370	LF
BAR REINFORCING STEEL (BRIDGE)	339,800	LB
HEADED BAR REINFORCEMENT	686	EA
TREAT BRIDGE DECK	20,012	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	268	GAL
SLOPE PAVING (EXPOSED AGGREGATE)	18,650	SQFT
CONCRETE BARRIER (TYPE 25)	93	LF
CONCRETE BARRIER (TYPE 736)	543	LF

INDEX TO PLANS

Sheet No.	Title
1	GENERAL PLAN
2	INDEX TO PLANS
3	FOUNDATION PLAN
4	ABUTMENT LAYOUT - LEFT BRIDGE
5	ABUTMENT LAYOUT - RIGHT BRIDGE
6	ABUTMENT ELEVATIONS
7	ABUTMENT DETAILS NO. 1
8	ABUTMENT DETAILS NO. 2
9	BENT LAYOUT - LEFT BRIDGE
10	BENT LAYOUT - RIGHT BRIDGE
11	BENT DETAILS - LEFT BRIDGE
12	BENT DETAILS - RIGHT BRIDGE
13	TYPICAL SECTION
14	GIRDER LAYOUT - LEFT BRIDGE
15	GIRDER LAYOUT - RIGHT BRIDGE
16	MISCELLANEOUS GIRDER DETAILS
17	ADDITIONAL GIRDER REINFORCEMENT - LEFT BRIDGE
18	ADDITIONAL GIRDER REINFORCEMENT - RIGHT BRIDGE
19	STRUCTURE APPROACH TYPE N(30D)
20	STRUCTURE APPROACH TYPE R(30D)
21	STRUCTURE APPROACH DRAINAGE DETAILS
22	SLOPE PAVING - FULL SLOPE
23	LOG OF TEST BORINGS 1 OF 5
24	LOG OF TEST BORINGS 2 OF 5
25	LOG OF TEST BORINGS 3 OF 5
26	LOG OF TEST BORINGS 4 OF 5
27	LOG OF TEST BORINGS 5 OF 5



ACCELERATION RESPONSE SPECTRA CURVE

DESIGN BY MATT SCHOTT CHECKED ZIHAN YAN DETAILS BY FARIDEH RASHEDI CHECKED ZIHAN YAN QUANTITIES BY MATT SCHOTT CHECKED DAVID MURRAY / RS	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0227 R/L POST MILE 38.7	ROUTE 99/198 EAST SEPARATION (WIDEN) INDEX TO PLANS
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		UNIT: 3603 PROJECT NUMBER & PHASE: 0600020408 1		CONTRACT NO.: 06-360211
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			DISREGARD PRINTS BEARING EARLIER REVISION DATES	
			REVISION DATES: 07-29-11, 10-15-11, 11-23-11 SHEET 2 OF 27	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Tul	99	R37.3/41.3	299	346

Richard E. Schendel
 REGISTERED CIVIL ENGINEER 12/01/11 DATE
 4-16-12 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

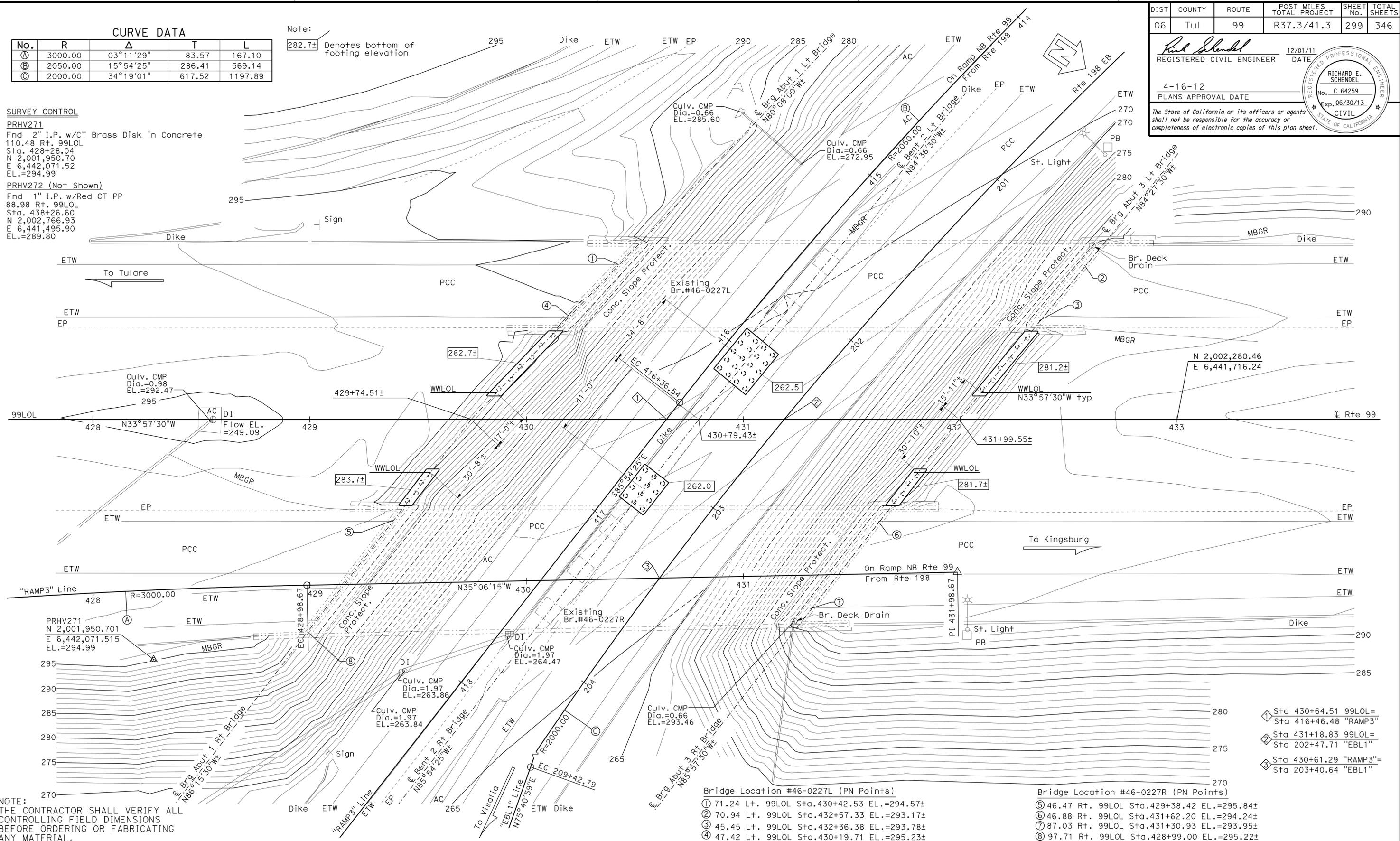
REGISTERED PROFESSIONAL ENGINEER
 RICHARD E. SCHENDEL
 No. C 64259
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA

CURVE DATA

No.	R	Δ	T	L
Ⓐ	3000.00	03°11'29"	83.57	167.10
Ⓑ	2050.00	15°54'25"	286.41	569.14
Ⓒ	2000.00	34°19'01"	617.52	1197.89

Note:
 282.7± Denotes bottom of footing elevation

SURVEY CONTROL
 PRHV271
 Fnd 2" I.P. w/CT Brass Disk in Concrete
 110.48 Rt. 99LOL
 Sta. 428+28.04
 N 2,001,950.70
 E 6,442,071.52
 EL.=294.99
 PRHV272 (Not Shown)
 Fnd 1" I.P. w/Red CT PP
 88.98 Rt. 99LOL
 Sta. 438+26.60
 N 2,002,766.93
 E 6,441,495.90
 EL.=289.80



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

- ① Sta 430+64.51 99LOL = Sta 416+46.48 "RAMP3"
- ② Sta 431+18.83 99LOL = Sta 202+47.71 "EBL1"
- ③ Sta 430+61.29 "RAMP3" = Sta 203+40.64 "EBL1"

Bridge Location #46-0227L (PN Points)		Bridge Location #46-0227R (PN Points)	
①	71.24 Lt. 99LOL Sta. 430+42.53 EL.=294.57±	⑤	46.47 Rt. 99LOL Sta. 429+38.42 EL.=295.84±
②	70.94 Lt. 99LOL Sta. 432+57.33 EL.=293.17±	⑥	46.88 Rt. 99LOL Sta. 431+62.20 EL.=294.24±
③	45.45 Lt. 99LOL Sta. 432+36.38 EL.=293.78±	⑦	87.03 Rt. 99LOL Sta. 431+30.93 EL.=293.95±
④	47.42 Lt. 99LOL Sta. 430+19.71 EL.=295.23±	⑧	97.71 Rt. 99LOL Sta. 428+99.00 EL.=295.22±

PRELIMINARY INVESTIGATION SECTION				DESIGN BY MATT SCHOTT	CHECKED ZIHAN YAN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 18	BRIDGE NO. 46-0227 R/L	ROUTE 99/198 EAST SEPARATION (WIDEN) FOUNDATION PLAN	
SCALE VERT. DATUM NGVD 88	PHOTOGRAMMETRY AS OF: X	DETAILS BY MINH TRAN	CHECKED ZIHAN YAN	POST MILE 38.7						
1"=20'	HORIZ. DATUM NAD83 (1991.35)	QUANTITIES BY MATT SCHOTT	CHECKED DAVID MURRAY / RS							
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3603	PROJECT NUMBER & PHASE: 0600020408 1	CONTRACT NO.: 06-360211	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
						REVISION DATES		SHEET 3 OF 27		

