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STRUCTURE PLANS
11-27 ROUTE 80 BRIDGES

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN NEVADA COUNTY
NEAR TRUCKEE
AT DONNER LAKE UNDERCROSSING
AND AT TRUCKEE RIVER BRIDGE**

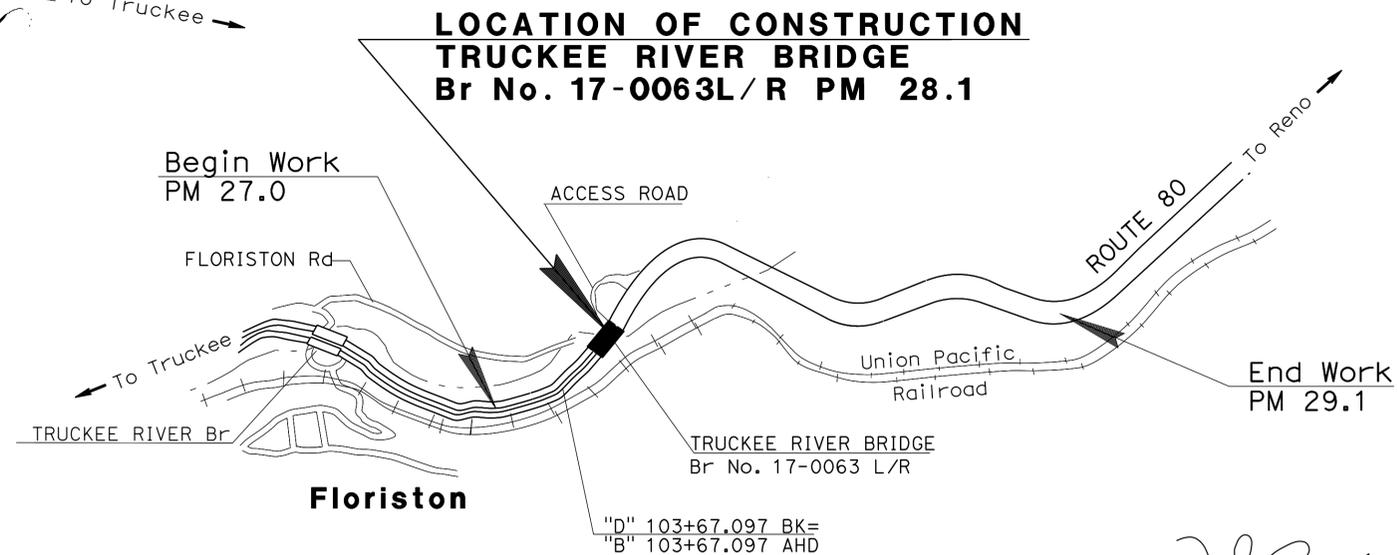
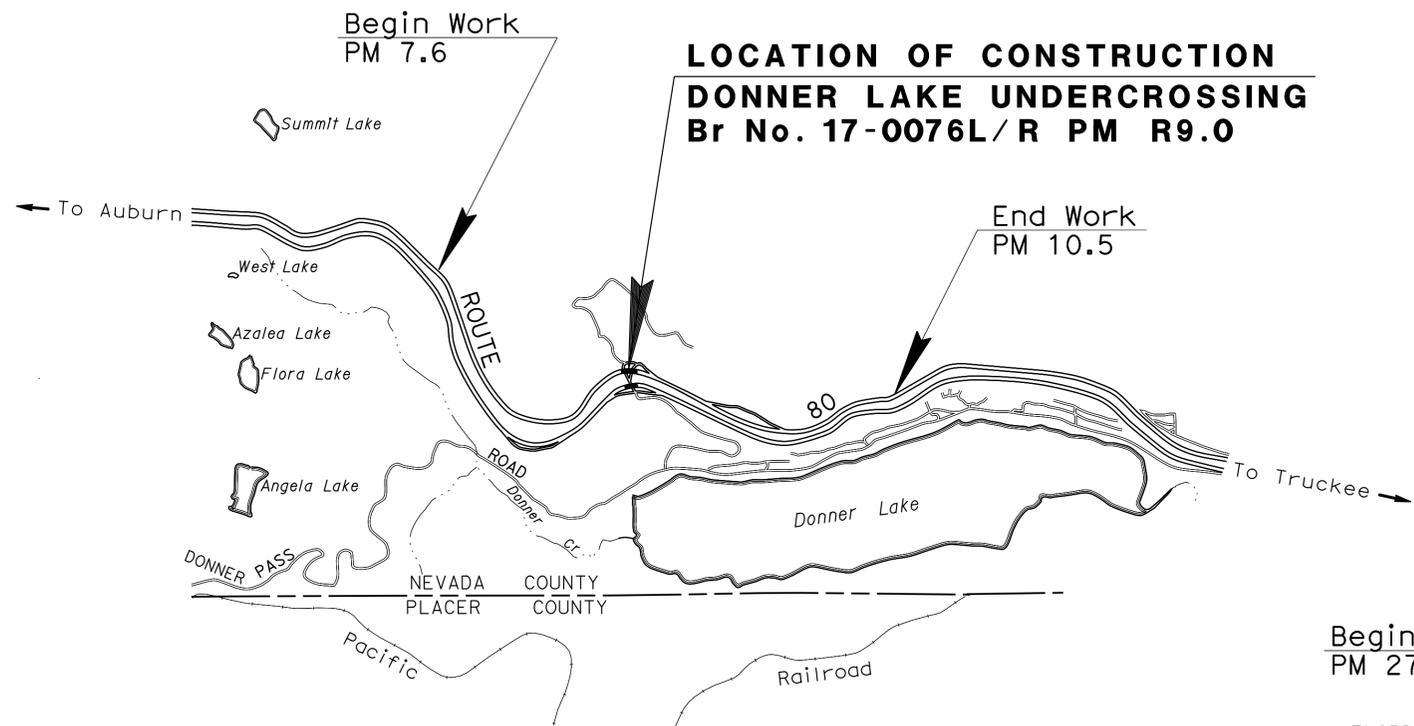
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	1	27



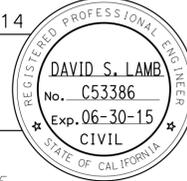


LOCATION MAP



"D" 103+67.097 BK=
"B" 103+67.097 AHD


 PROJECT ENGINEER REGISTERED CIVIL ENGINEER
 DATE 3-3-14
 March 3, 2014
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



PROJECT MANAGER
RONALD S SYKES

 DESIGN ENGINEER
RONALD S SYKES

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

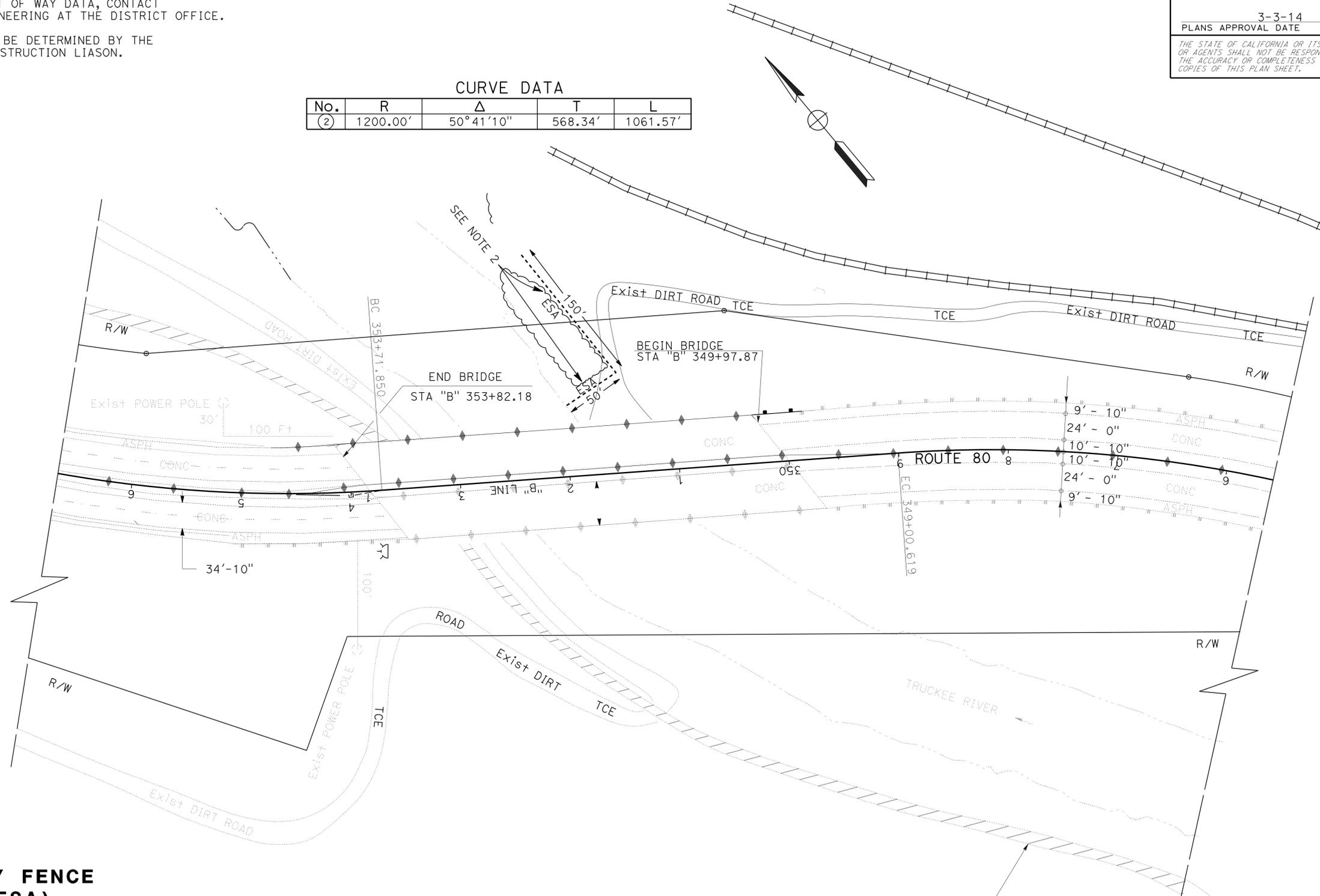
DATE PLOTTED => 05-MAR-2014 TIME PLOTTED => 14:42

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXACT LOCATION TO BE DETERMINED BY THE ENVIRONMENTAL CONSTRUCTION LIASON.

CURVE DATA

No.	R	Δ	T	L
(2)	1200.00'	50°41'10"	568.34'	1061.57'



TEMPORARY FENCE (TYPE ESA)

POST MILE LIMITS		LF
BEGIN	END	
28.00	28.10	200.8
TOTAL		200.8

HISTORIC SIERRA PACIFIC POWER COMPANY'S FARAD FLUME (ENVIRONMENTALLY SENSITIVE AREA)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR: RONALD S. SYKES
 CALCULATED/DESIGNED BY: [blank]
 CHECKED BY: [blank]
 ROBERT M. FLOYD II
 DAVID S. LAMB
 REVISED BY: [blank]
 DATE REVISED: [blank]



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
 RONALD S. SYKES

CALCULATED/DESIGNED BY
 CHECKED BY

ROBERT M. FLOYD II
 DAVID S. LAMB

REVISED BY
 DATE REVISED

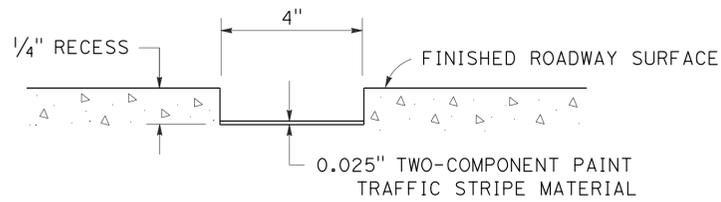
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	4	27

D.S. Lamb 3-3-14
 REGISTERED CIVIL ENGINEER DATE

3-3-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 No. C53386
 Exp. 06-30-15
 CIVIL
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



DETAIL FOR RECESSED TWO-COMPONENT PAINT TRAFFIC STRIPE
 NO SCALE

RECESSED TWO-COMPONENT PAINT TRAFFIC STRIPE

COUNTY	ROUTE	POST MILE	BRIDGE NAME	BRIDGE NUMBER	4" TWO-COMPONENT PAINT TRAFFIC STRIPE (RECESSED)(BROKEN 36-12)	
					4" TWO-COMPONENT PAINT TRAFFIC STRIPE (RECESSED)	
					DETAIL NUMBER	DETAIL NUMBER
Nev	80	9.01	DONNER LAKE UC	17-0076L	11 (LF) 584	24 (LF) 292
Nev	80	9.07	DONNER LAKE UC	17-0076R	172	172
Nev	80	28.0	TRUCKEE RIVER BRIDGE	17-0063L	405	405
TOTAL					1,161	1,738

PAVEMENT DELINEATION QUANTITIES
PDQ-1



	M	
Maint	MAINTENANCE	
Max	MAXIMUM	
MB	METAL BEAM	
MBB	METAL BEAM BARRIER	
MBGR	METAL BEAM GUARD RAILING	
Med	MEDIAN	
MGS	MIDWEST GUARDRAIL SYSTEM	
MH	MANHOLE	
Min	MINIMUM	
Misc	MISCELLANEOUS	
Misc I & S	MISCELLANEOUS IRON AND STEEL	
Mkr	MARKER	
Mod	MODIFIED, MODIFY	
Mon	MONUMENT	
MP	METAL PLATE	
MPGR	METAL PLATE GUARD RAILING	
MR	MOVEMENT RATING	
MSE	MECHANICALLY STABILIZED EMBANKMENT	
Mt	MOUNTAIN, MOUNT	
MtI	MATERIAL	
MVP	MAINTENANCE VEHICLE PULLOUT	
	N	
N	NORTH	
NB	NORTHBOUND	
No.	NUMBER (MUST HAVE PERIOD)	
Nos.	NUMBERS (MUST HAVE PERIOD)	
NPS	NOMINAL PIPE SIZE	
NS	NEAR SIDE	
NSP	NEW STANDARD PLAN	
NTS	NOT TO SCALE	
	O	
ObItr	OBLITERATE	
OC	OVERCROSSING	
OD	OUTSIDE DIAMETER	
OF	OUTSIDE FACE	
OG	ORIGINAL GROUND	
OGAC	OPEN GRADED ASPHALT CONCRETE	
OGFC	OPEN GRADED FRICTION COURSE	
OH	OVERHEAD	
OHWM	ORDINARY HIGH WATER MARK	
O-O	OUT TO OUT	
Opp	OPPOSITE	
OSD	OVERSIDE DRAIN	
	P	
P	PAGE	
PAP	PERFORATED ALUMINUM PIPE	
PB	PULL BOX	
PC	POINT OF CURVATURE, PRECAST	
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE	
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN	
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE	
PCVC	POINT OF COMPOUND VERTICAL CURVE	
PEC	PERMIT TO ENTER AND CONSTRUCT	
Ped	PEDESTRIAN	
Ped OC	PEDESTRIAN OVERCROSSING	
Ped UC	PEDESTRIAN UNDERCROSSING	
Perm MtI	PERMEABLE MATERIAL	

	P continued	
PG	PROFILE GRADE	
PI	POINT OF INTERSECTION	
PJP	PARTIAL JOINT PENETRATION	
Pkwy	PARKWAY	
PL, PL	PLATE	
P/L	PROPERTY LINE	
PM	POST MILE, TIME FROM NOON TO MIDNIGHT	
PN	PAVING NOTCH	
POC	POINT OF HORIZONTAL CURVE	
POT	POINT OF TANGENT	
POVC	POINT OF VERTICAL CURVE	
PP	PIPE PILE, PLASTIC PIPE, POWER POLE	
PPL	PREFORMED PERMEABLE LINER	
PPP	PERFORATED PLASTIC PIPE	
PRC	POINT OF REVERSE CURVE	
PRF	PAVEMENT REINFORCING FABRIC	
PRVC	POINT OF REVERSE VERTICAL CURVE	
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES	
PS, P/S	PRESTRESSED	
PSP	PERFORATED STEEL PIPE	
PT	POINT OF TANGENCY	
PVC	POLYVINYL CHLORIDE	
Pvmt	PAVEMENT	
	Q	
Qty	QUANTITY	
	R	
R	RADIUS	
R & D	REMOVE AND DISPOSE	
R & S	REMOVE AND SALVAGE	
R/C	RATE OF CHANGE	
RCA	REINFORCED CONCRETE ARCH	
RCB	REINFORCED CONCRETE BOX	
RCP	REINFORCED CONCRETE PIPE	
RCPA	REINFORCED CONCRETE PIPE ARCH	
Rd	ROAD	
Reinf	REINFORCED, REINFORCEMENT, REINFORCING	
Rel	RELOCATE	
Repl	REPLACEMENT	
Ret	RETAINING	
Rev	REVISED, REVISION	
Rdwy	ROADWAY	
RHMA	RUBBERIZED HOT MIX ASPHALT	
Riv	RIVER	
RM	ROAD-MIXED	
RP	RADIUS POINT, REFERENCE POINT	
RR	RAILROAD	
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN	
Rt	RIGHT	
Rte	ROUTE	
RW	REDWOOD, RETAINING WALL	
R/W	RIGHT OF WAY	
Rwy	RAILWAY	

	S	
S	SOUTH, SUPPLEMENT	
SAE	STRUCTURE APPROACH EMBANKMENT	
Salv	SALVAGE	
SAPP	STRUCTURAL ALUMINUM PLATE PIPE	
SB	SOUTHBOUND	
SC	SAND CUSHION	
SCSP	SLOTTED CORRUGATED STEEL PIPE	
SD	STORM DRAIN	
Sec	SECOND, SECTION	
Sep	SEPARATION	
SG	SUBGRADE	
Shld	SHOULDER	
Sht	SHEET	
Sim	SIMILAR	
±	STATION LINE	
SM	SELECTED MATERIAL	
Spec	SPECIAL, SPECIFICATIONS	
SPP	SLOTTED PLASTIC PIPE	
SS	SLOPE STAKE	
SSBM	STRAP AND SADDLE BRACKET METHOD	
SSD	STRUCTURAL SECTION DRAIN	
SSPA	STRUCTURAL STEEL PLATE ARCH	
SSPP	STRUCTURAL STEEL PLATE PIPE	
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	
SSRP	STEEL SPIRAL RIB PIPE	
St	STREET	
Sta	STATION	
STBB	SINGLE THRIE BEAM BARRIER	
Std	STANDARD	
Str	STRUCTURE	
Surf	SURFACING	
SW	SIDEWALK, SOUND WALL	
Swr	SEWER	
Sym	SYMMETRICAL	
S4S	SURFACE 4 SIDES	
	T	
T	SEMI-TANGENT	
Tan	TANGENT	
TBB	THRIE BEAM BARRIER	
Tbr	TIMBER	
TC	TOP OF CURB	
TCB	TRAFFIC CONTROL BOX	
TCE	TEMPORARY CONSTRUCTION EASEMENT	
Tel	TELEPHONE	
Temp	TEMPORARY	
TG	TOP OF GRADE	
To+	TOTAL	
TP	TELEPHONE POLE	
TPB	TREATED PERMEABLE BASE	
TPM	TREATED PERMEABLE MATERIAL	
Trans	TRANSITION	

	T continued	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	U
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	V
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	W
W	WEST, WIDTH	
WB	WESTBOUND	
WH	WEEP HOLE	
WM	WIRE MESH	
WS	WATER SURFACE	
WSP	WELDED STEEL PIPE	
Wt	WEIGHT	
WV	WATER VALVE	
WW	WINGWALL	
WWLOL	WINGWALL LAYOUT LINE	X
X Sec	CROSS SECTION	
Xing	CROSSING	Y
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	5	27



REGISTERED CIVIL ENGINEER
 Grace M. Tsushima
 No. C49814
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

July 19, 2013
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 3-3-14

UNIT OF MEASUREMENT SYMBOLS:
 Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

TABLE A

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kip	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

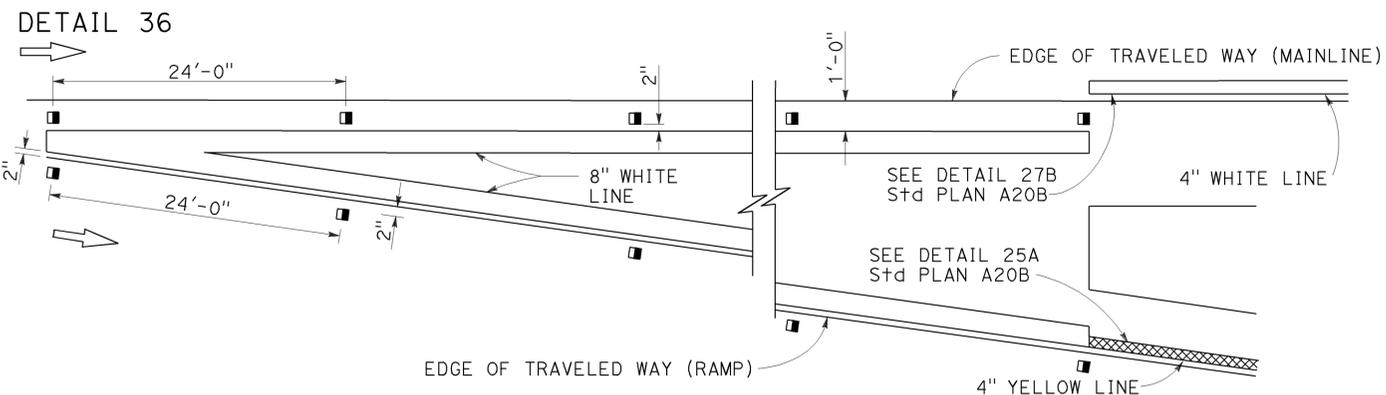
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
 (SHEET 2 OF 2)**

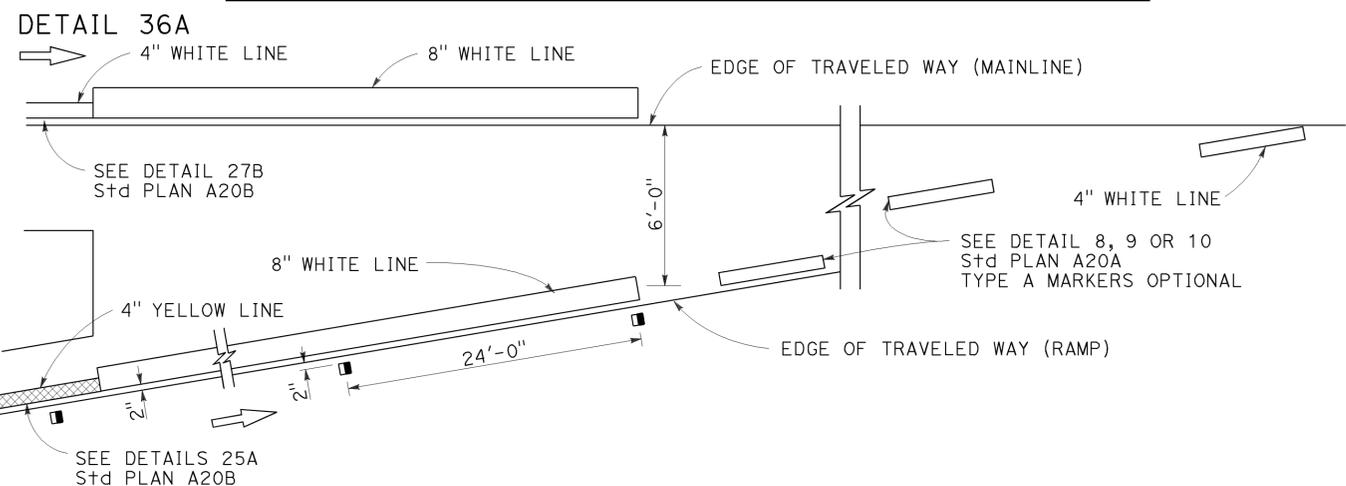
NO SCALE

2010 REVISED STANDARD PLAN RSP A10B

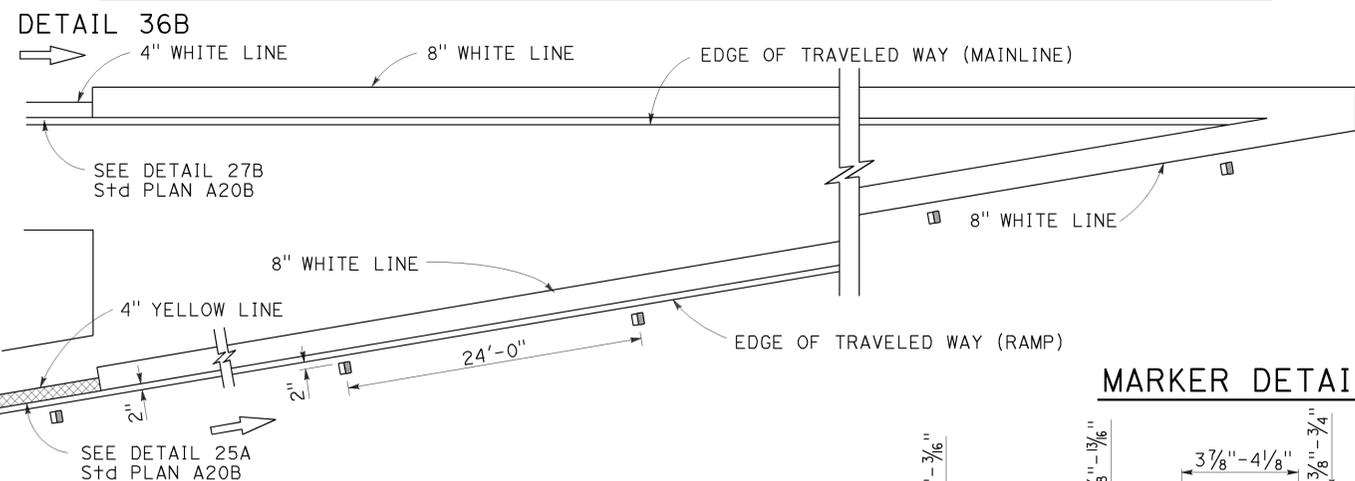
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

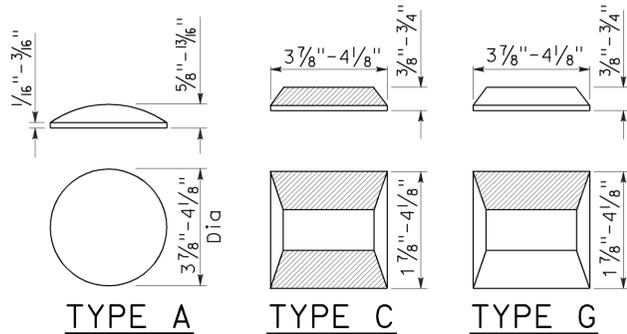


MARKER DETAILS

LEGEND:

MARKERS

- TYPE A WHITE NON-REFLECTIVE
- ◻ TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE



RETROREFLECTIVE FACE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	6	27

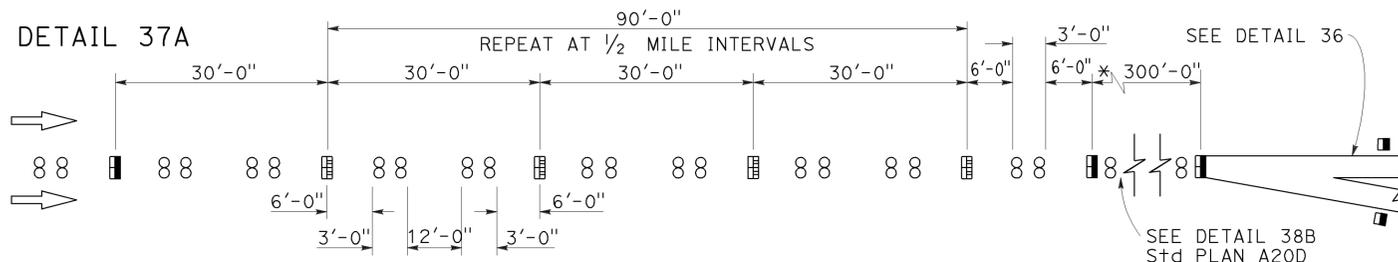
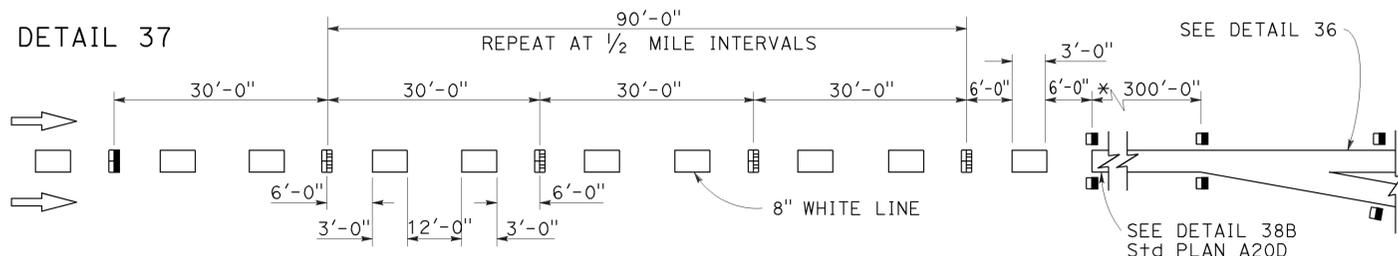
Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 No. C40375
 Exp. 3-31-15
 CIVIL
 STATE OF CALIFORNIA

July 19, 2013
PLANS APPROVAL DATE

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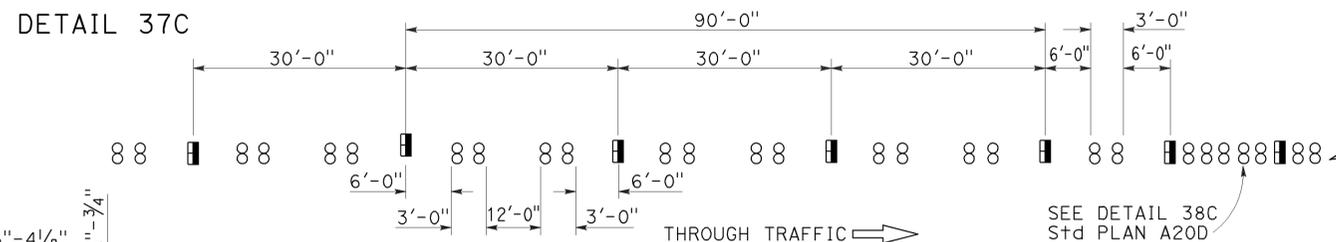
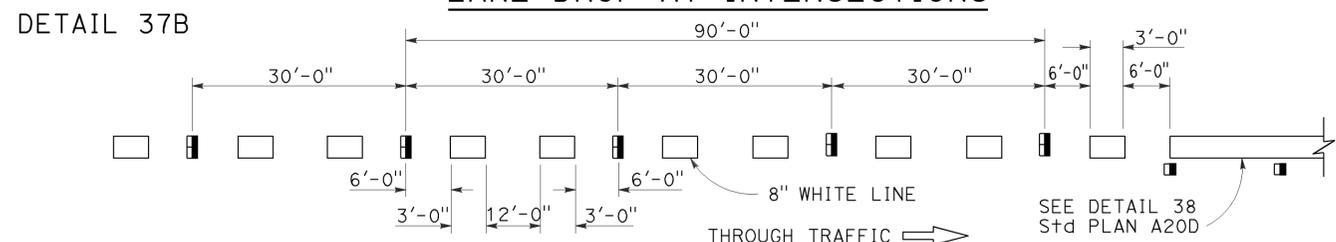
TO ACCOMPANY PLANS DATED 3-3-14

LANE DROP AT EXIT RAMP



* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

RSP A20C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A20C DATED MAY 20, 2011 - PAGE 11 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A20C

2010 REVISED STANDARD PLAN RSP A20C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	7	27

Gurinderpal Bhuillar
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 3-3-14

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z **
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

* - For other offsets, use the following merging taper length formula for L:
For speed of 40 mph or less, $L = WS^2/60$
For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
W = Width of offset in feet
S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING			
ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

2010 REVISED STANDARD PLAN RSP T9

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM TABLES
FOR LANE AND RAMP CLOSURES**

NO SCALE

RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	8	27

G. S. Miller
REGISTERED CIVIL ENGINEER

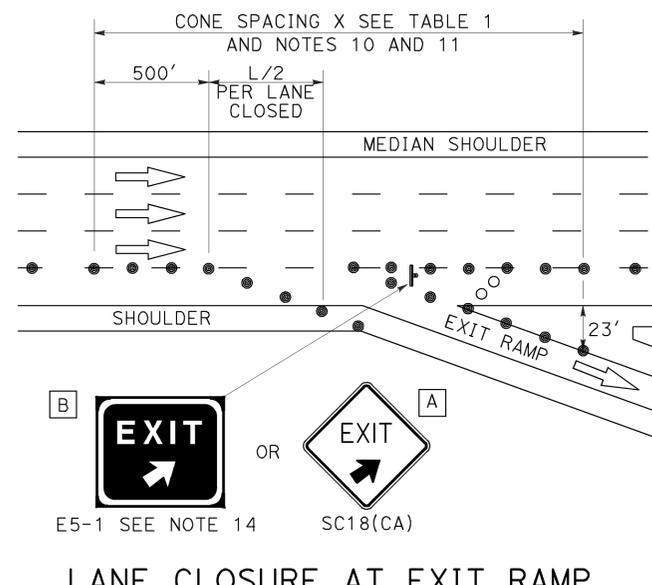
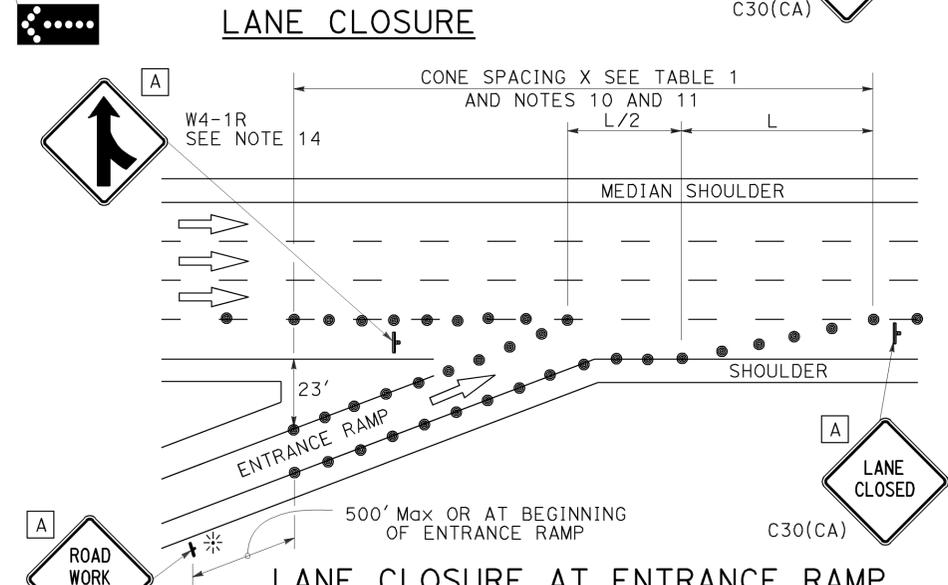
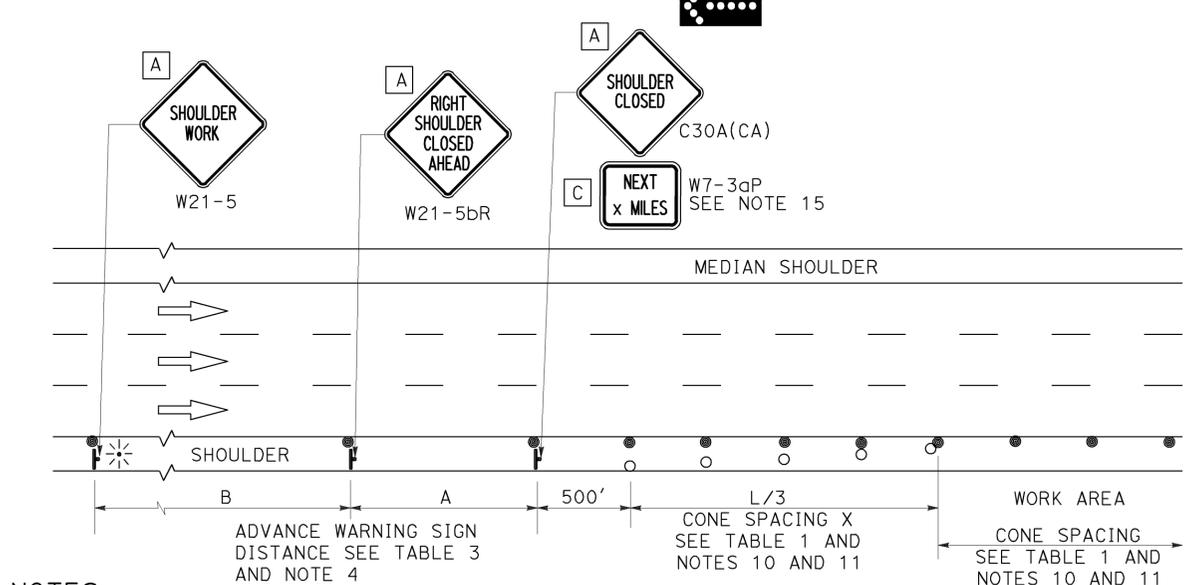
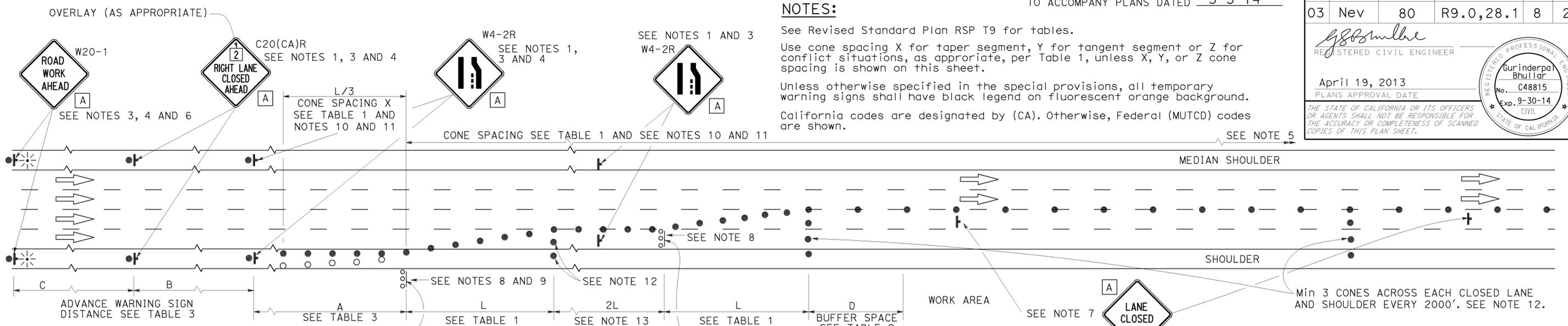
April 19, 2013
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
Gurinderpal Bhullar
No. C48815
Exp. 9-30-14
CIVIL
STATE OF CALIFORNIA

NOTES:

See Revised Standard Plan RSP T9 for tables.
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



NOTES:

- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Duplicate sign installations are not required:
 - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

SHOULDER CLOSURE

W20-1 SEE NOTE 4

- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
- A W7-3aP "NEXT _____ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ⊛ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 72" x 60"
- C 36" x 30"

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

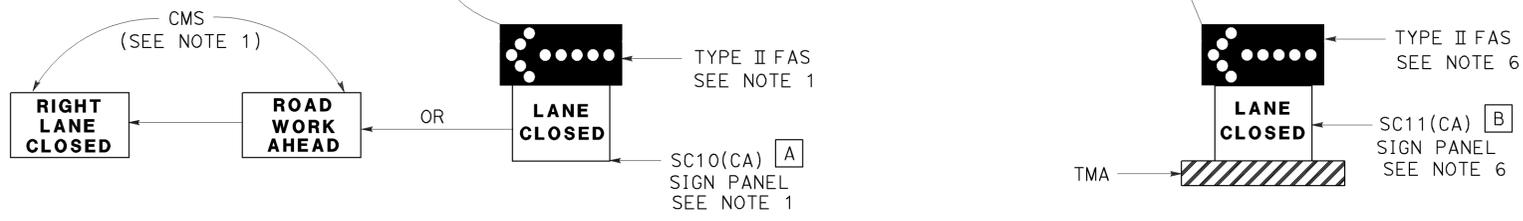
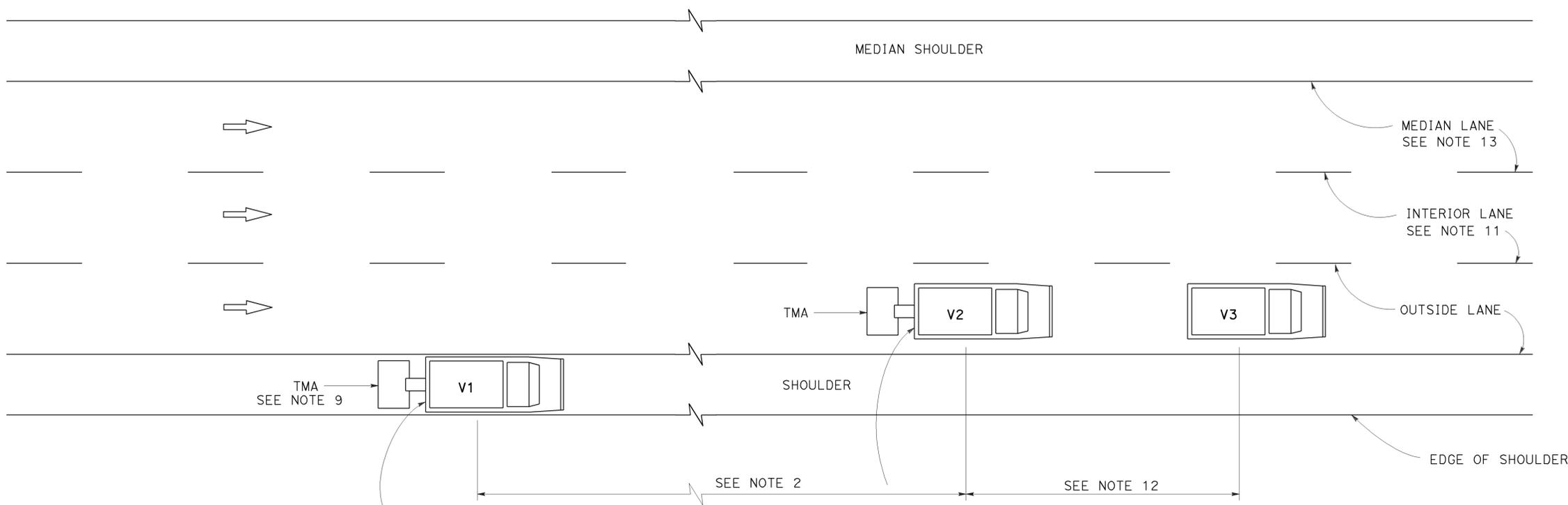
2010 REVISED STANDARD PLAN RSP T10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	9	27

Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 3-3-14

2010 REVISED STANDARD PLAN RSP T15



**MOVING LANE CLOSURE ON MEDIAN LANE OR
OUTSIDE LANE OF MULTILANE HIGHWAYS**

NOTES:

1. Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on interior lane of multilane highways, use Revised Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

SIGN PANEL SIZE (Min)

- A 66" x 36"
- B 54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- FLASHING ARROW SIGN (FAS)
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
FOR MOVING LANE CLOSURE
ON MULTILANE HIGHWAYS**

NO SCALE

RSP T15 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T15
DATED MAY 20, 2011 - PAGE 243 OF THE STANDARD PLANS BOOK DATED 2010.

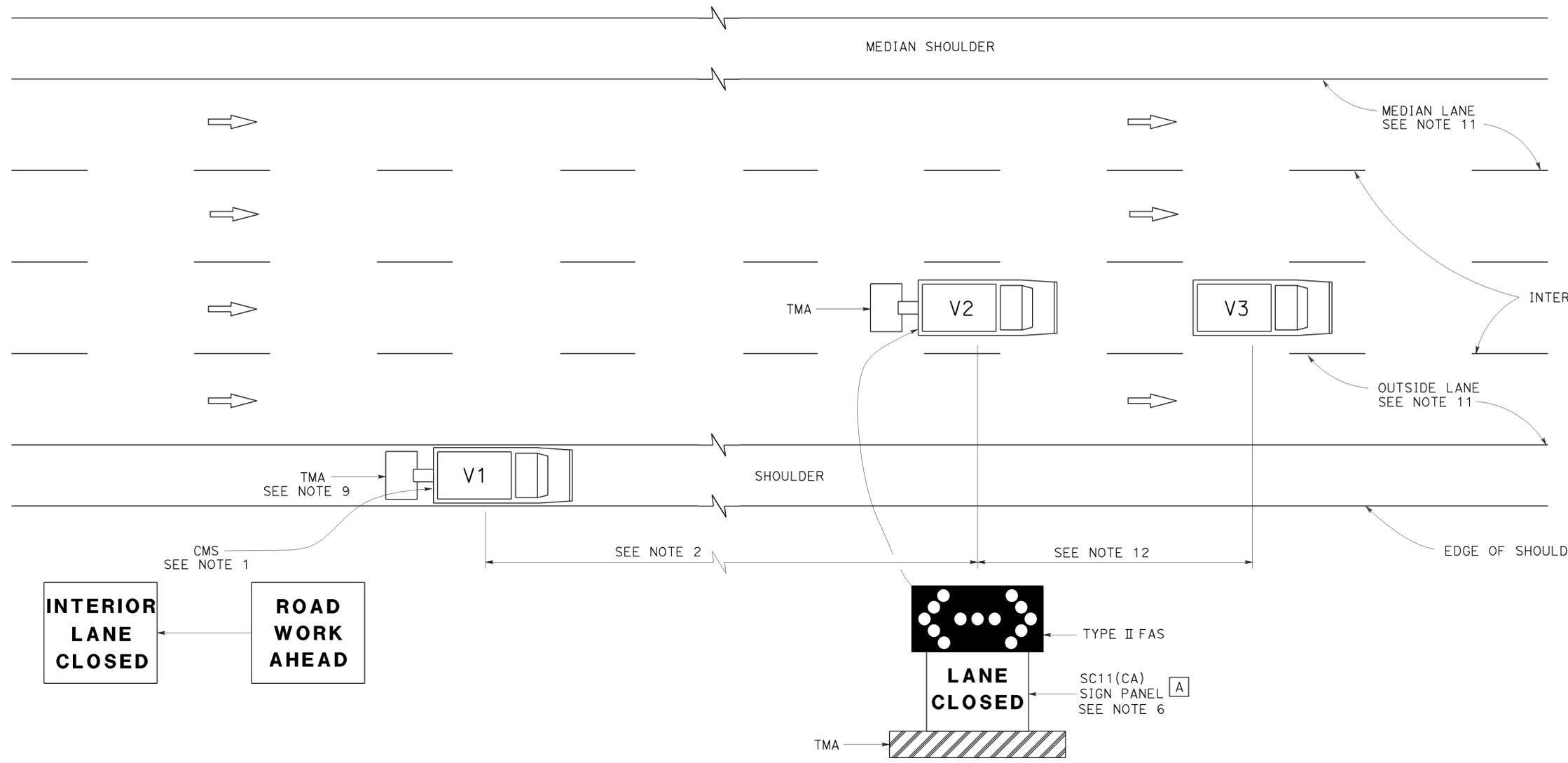
REVISED STANDARD PLAN RSP T15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	10	27

Gurinderpal Bhuillar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



TO ACCOMPANY PLANS DATED 3-3-14



SIGN PANEL SIZE (Min)
A 54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- FLASHING ARROW SIGN (FAS) IN FLASHING DOUBLE ARROW MODE
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

NOTES:

1. A changeable message sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11 etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on median lane or outside lane of multilane highways, use Revised Standard Plan T15.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR MOVING LANE CLOSURE
 ON MULTILANE HIGHWAYS**
 NO SCALE

RSP T16 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T16
 DATED MAY 20, 2011 - PAGE 244 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T16

2010 REVISED STANDARD PLAN RSP T16

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	11	27

9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 PLANS APPROVAL DATE
 REGISTERED PROFESSIONAL ENGINEER
 TIMOTHY J. POWELL
 No. C 61037
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

NOTES: (APPLY TO ALL SHEETS)

----- Indicates existing.

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

⊕ STANDARD PLAN SHEET NUMBER
 ⊖ DETAIL NUMBER

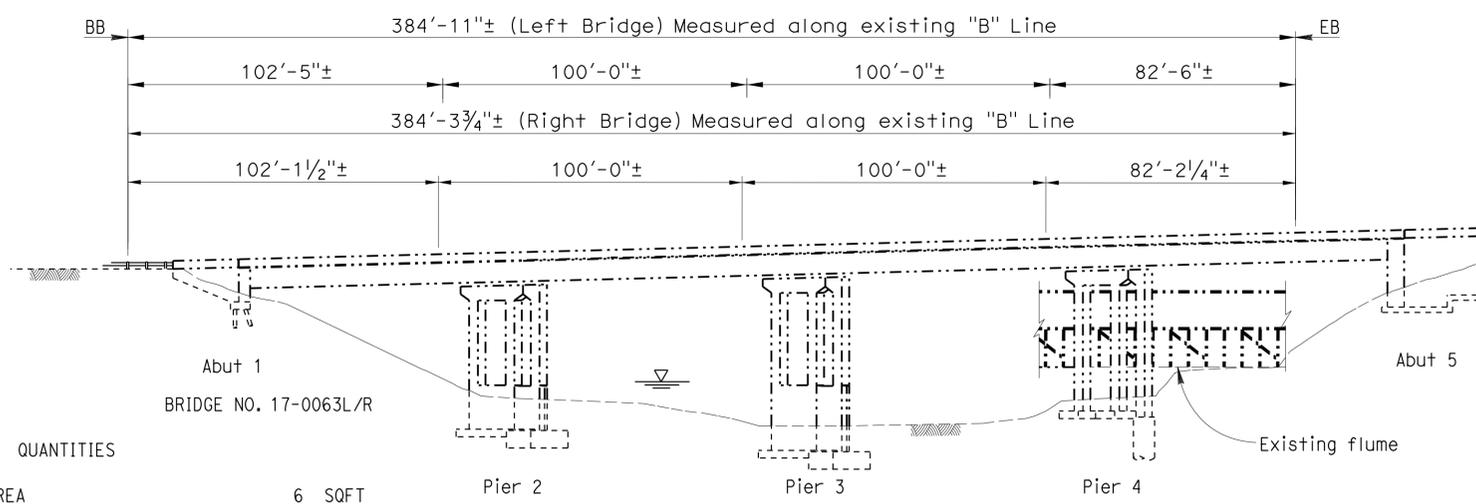
NOTES: (APPLY TO THIS SHEET ONLY)

① Indicates location of remove spalled concrete, existing shear blocks, and restrainer cables, place structural concrete and install new restrainer cables. For details, see "PIER DETAILS NO.1" and "PIER DETAILS NO. 2" sheets.

② Indicates location of place temporary supports. For details, see "TEMPORARY SUPPORT TABLE" on "PIER DETAILS NO. 1" sheet.

— Indicates limits of clean expansion joint and install new joint seal. Remove existing snowplow deflectors and replace with new snowplow deflectors. For details, see "SNOWPLOW DEFLECTOR DETAILS" sheet

▨ Indicates the limits of remove 1" polyester concrete overlay, remove unsound concrete, prepare concrete bridge deck surface and place new 1" polyester concrete overlay. Match with existing deck grade.



TRUCKEE RIVER BRIDGE

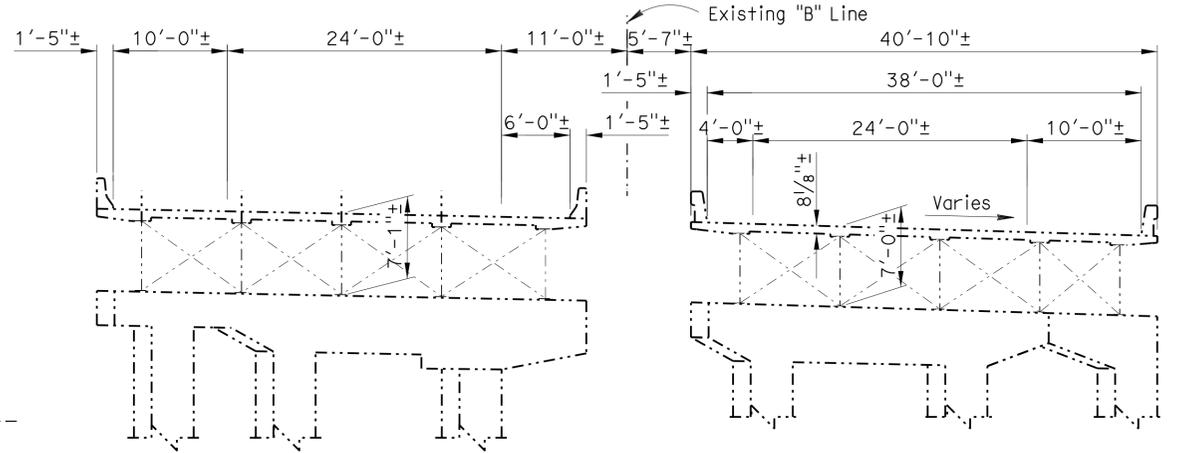
BRIDGE NO. 17-0063L/R

QUANTITIES

REPAIR SPALLED SURFACE AREA	6	SQFT
REMOVE POLYESTER CONCRETE OVERLAY	8,470	SQFT
REMOVE UNSOUND CONCRETE	77	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	8,470	SQFT
FURNISH POLYESTER CONCRETE OVERLAY	847	CF
PLACE POLYESTER CONCRETE OVERLAY	8,470	SQFT
BRIDGE REMOVAL (PORTION), LOCATION A	LUMP	SUM
TEMPORARY SUPPORT	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE	20	CY
DRILL AND BOND DOWEL	423	LF
DRILL AND BOND DOWEL (CHEMICAL ADHESIVE)	62	EA
CLEAN EXPANSION JOINT	334	LF
SNOWPLOW DEFLECTOR	55	EA
JOINT SEAL (MR 1/2")	194	LF
JOINT SEAL (MR 1")	141	LF
BAR REINFORCING STEEL (EPOXY COATED)(BRIDGE)	6,056	LB
GALVANIC ANODES	143	EA
MISCELLANEOUS METAL (RESTRAINER - CABLE TYPE)	1,659	LB

ELEVATION

1" = 30'

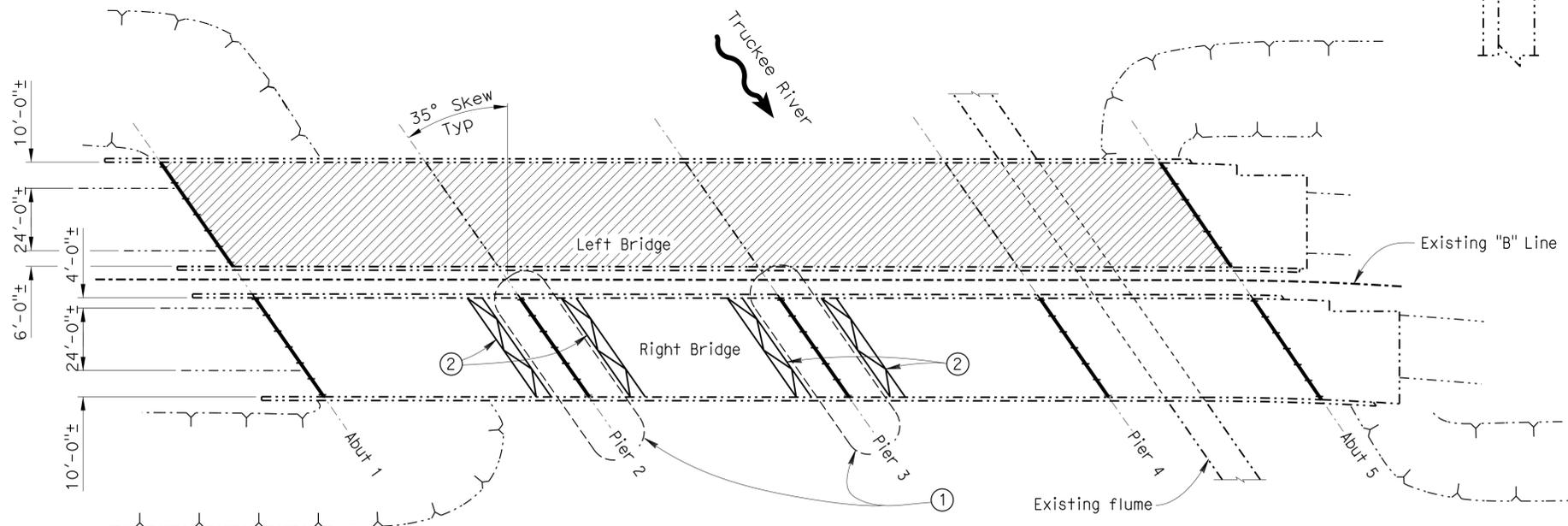


TYPICAL SECTION

BR. NO. 17-0063L/R
 1/8" = 1'-0"

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	PIER DETAILS NO. 1
4	PIER DETAILS NO. 2
5	ABUTMENT DETAILS
6	BENT DETAILS NO. 1
7	BENT DETAILS NO. 2
8	BENT DETAILS NO. 3
9	BENT DETAILS NO. 4
10	CABLE RESTRAINER DETAILS NO. 1
11	CABLE RESTRAINER DETAILS NO. 2
12	CABLE RESTRAINER DETAILS NO. 3
13	CABLE RESTRAINER DETAILS NO. 4
14	CABLE RESTRAINER DETAILS NO. 5
15	CABLE RESTRAINER DETAILS NO. 6
16	SPALL REPAIR DETAILS
17	SNOWPLOW DEFLECTOR DETAILS



TRUCKEE RIVER

BR. NO. 17-0063L/R, RTE 80, NEV, PM 28
 1"=30'



STANDARD PLANS DATED 2010

SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP-A10B	ABBREVIATIONS (SHEET 2 OF 2)

DESIGN	BY T. Powell	CHECKED C. Hutchinson	LOAD FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN LOAD
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson	LAYOUT	BY M. Hallstrom
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson	SPECIFICATIONS	BY D. Klein

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 17-0063L/R
 POST MILE 28

I-80 BRIDGES
 GENERAL PLAN NO. 1

USERNAME => s119538 DATE PLOTTED => 07-MAR-2014 TIME PLOTTED => 14:12

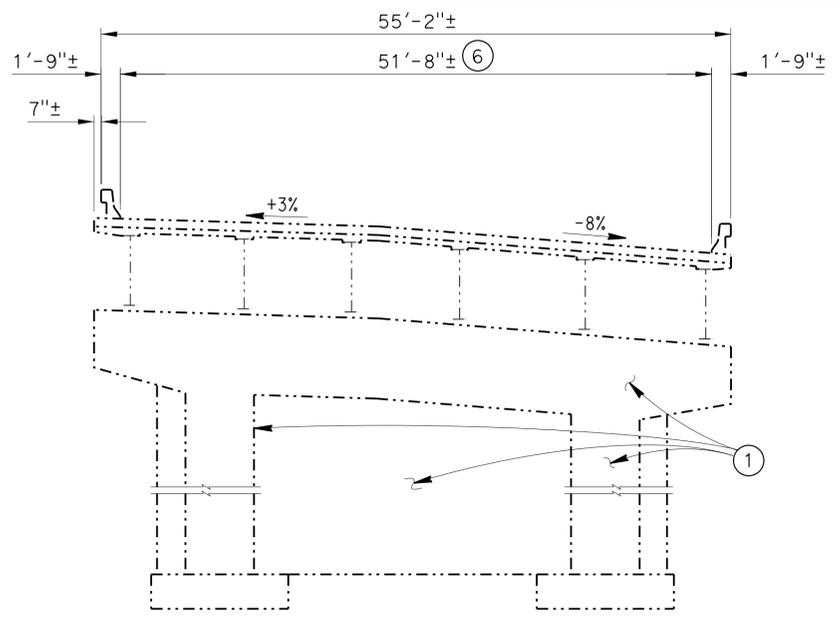
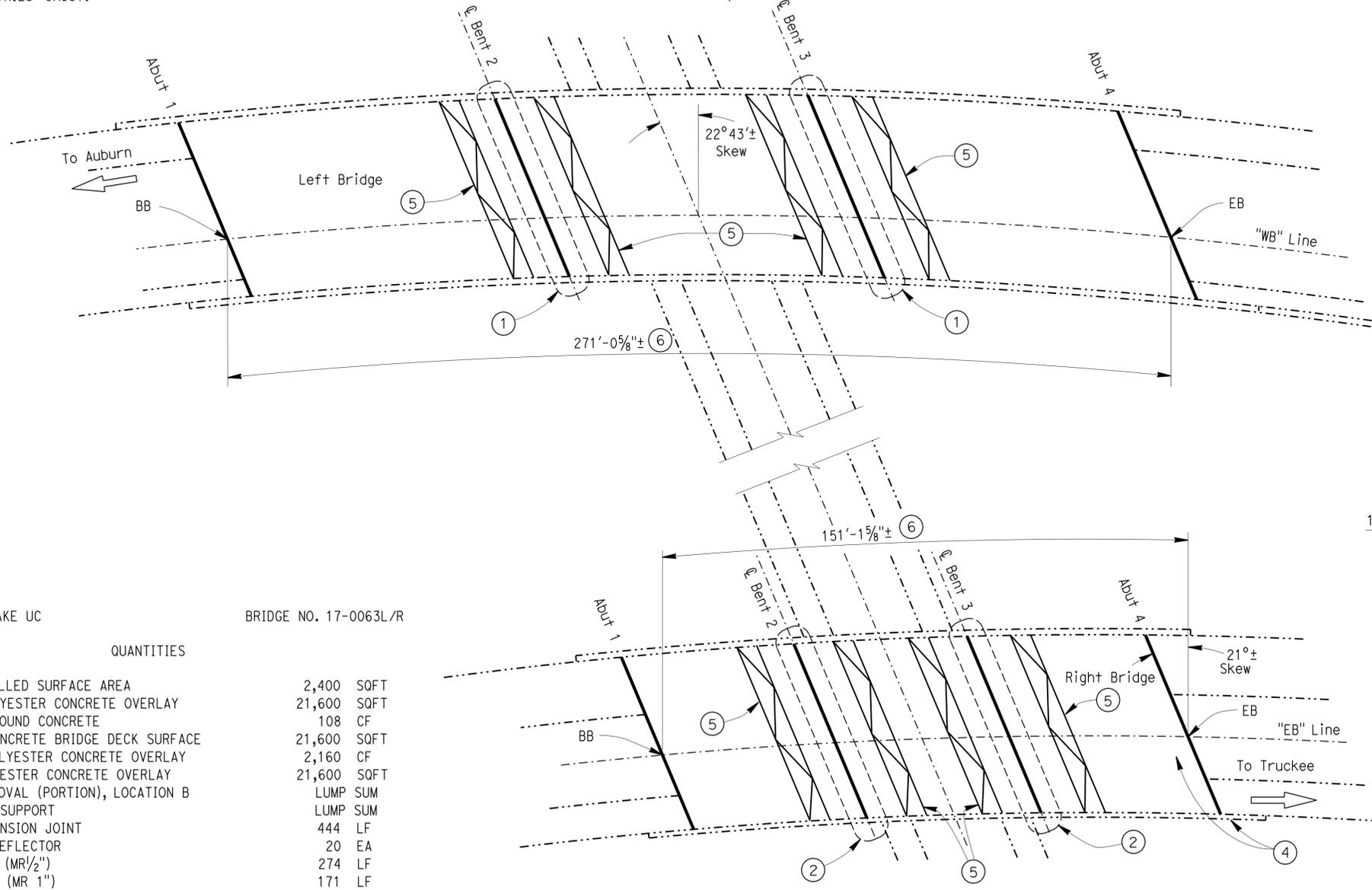
NOTES: (APPLY TO THIS SHEET ONLY)

- ① Indicates location of remove restrainer cables, repair spalled surface areas on bent caps, columns, and infill walls, place galvanic anodes and install new restrainer cables. For details, see "PIER DETAILS NO. 1", "CABLE RESTRAINER DETAILS NO. 1", "CABLE RESTRAINER DETAILS NO. 2", "CABLE RESTRAINER DETAILS NO. 3" and "SPALL REPAIR DETAILS" sheets.
- ② Indicates location of remove restrainer cables, repair spalled surface areas on bent caps, columns, and infill walls, place galvanic anodes and install new restrainer cables. For details, see "BENT DETAILS NO. 3", "CABLE RESTRAINER DETAILS NO. 1", "CABLE RESTRAINER DETAILS NO. 2", "CABLE RESTRAINER DETAILS NO. 3" and "SPALL REPAIR DETAILS" sheets.
- ③ Indicates location of repair spalled surface areas on underside of soffit. Depth varies from 1/2" to 2". Approximate area = 75ft². For details, see "SPALL REPAIR DETAILS" sheet.

- ④ Indicates location of repair spalled surface areas and place galvanic anodes on wingwall and girder pedestals. Approximate area = 40ft². For details, see "SPALL REPAIR DETAILS" sheet.
 - ⑤ Indicates location of place temporary supports. See "TEMPORARY SUPPORT TABLE" on SPALL REPAIR DETAILS sheet.
 - ⑥ Indicates location of remove 1" polyester concrete overlay, remove unsound concrete, prepare concrete bridge deck surface and place new 1" polyester concrete overlay. Match with existing deck grades.
- Indicates limits of clean expansion joint and install new joint seal. Remove existing snow plow deflectors and replace with new snowplow deflectors. For details, see "SNOWPLOW DEFLECTOR DETAILS" sheet.

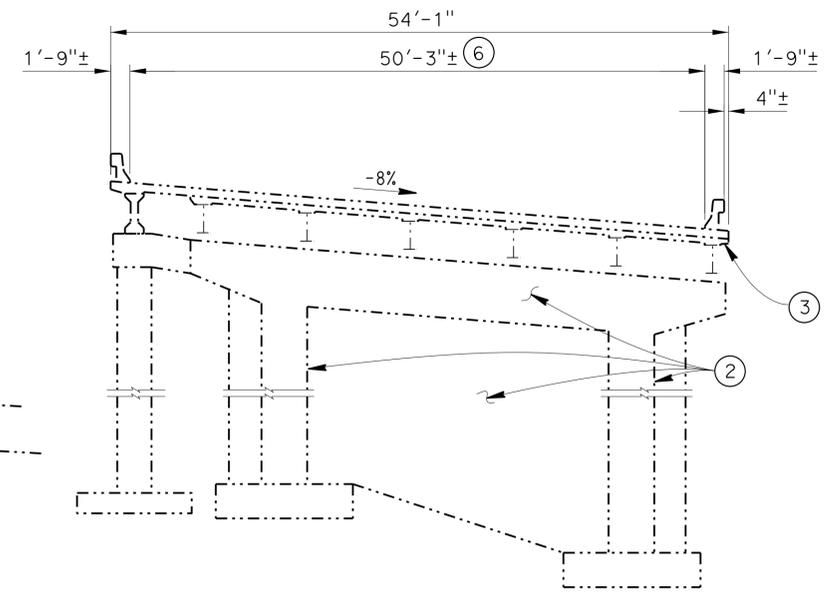
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	12	27

9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 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.



TYPICAL SECTION

BR. NO. 17-0076L, RTE 80, NEV, PM R9.07
 1/8" = 1'-0"



TYPICAL SECTION

BR. NO. 17-0076R, RTE 80, NEV, PM R9.07
 1/8" = 1'-0"

DONNER LAKE UC

BRIDGE NO. 17-0063L/R

QUANTITIES

REPAIR SPALLED SURFACE AREA	2,400	SQFT
REMOVE POLYESTER CONCRETE OVERLAY	21,600	SQFT
REMOVE UNSOUND CONCRETE	108	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	21,600	SQFT
FURNISH POLYESTER CONCRETE OVERLAY	2,160	CF
PLACE POLYESTER CONCRETE OVERLAY	21,600	SQFT
BRIDGE REMOVAL (PORTION), LOCATION B	LUMP	SUM
TEMPORARY SUPPORT	LUMP	SUM
CLEAN EXPANSION JOINT	444	LF
SNOWPLOW DEFLECTOR	20	EA
JOINT SEAL (MR 1/2")	274	LF
JOINT SEAL (MR 1")	171	LF
GALVANIC ANODES	425	EA
MISCELLANEOUS METAL (RESTRAINER - CABLE TYPE)	3,313	LB

DONNER LAKE UNDERCROSSING

BR. NO. 17-0076L/R, RTE 80, NEV, PM R9.07
 1" = 20'



9-17-13

 DESIGN ENGINEER

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

LOAD FACTOR DESIGN	BY M. Hallstrom	CHECKED C. Hutchinson
LAYOUT	BY M. Hallstrom	CHECKED C. Hutchinson
SPECIFICATIONS	BY D. Klein	CHECKED D. Klein

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	17-0076L/R
POST MILE	R9.07

**I-80 BRIDGES
 GENERAL PLAN NO. 2**

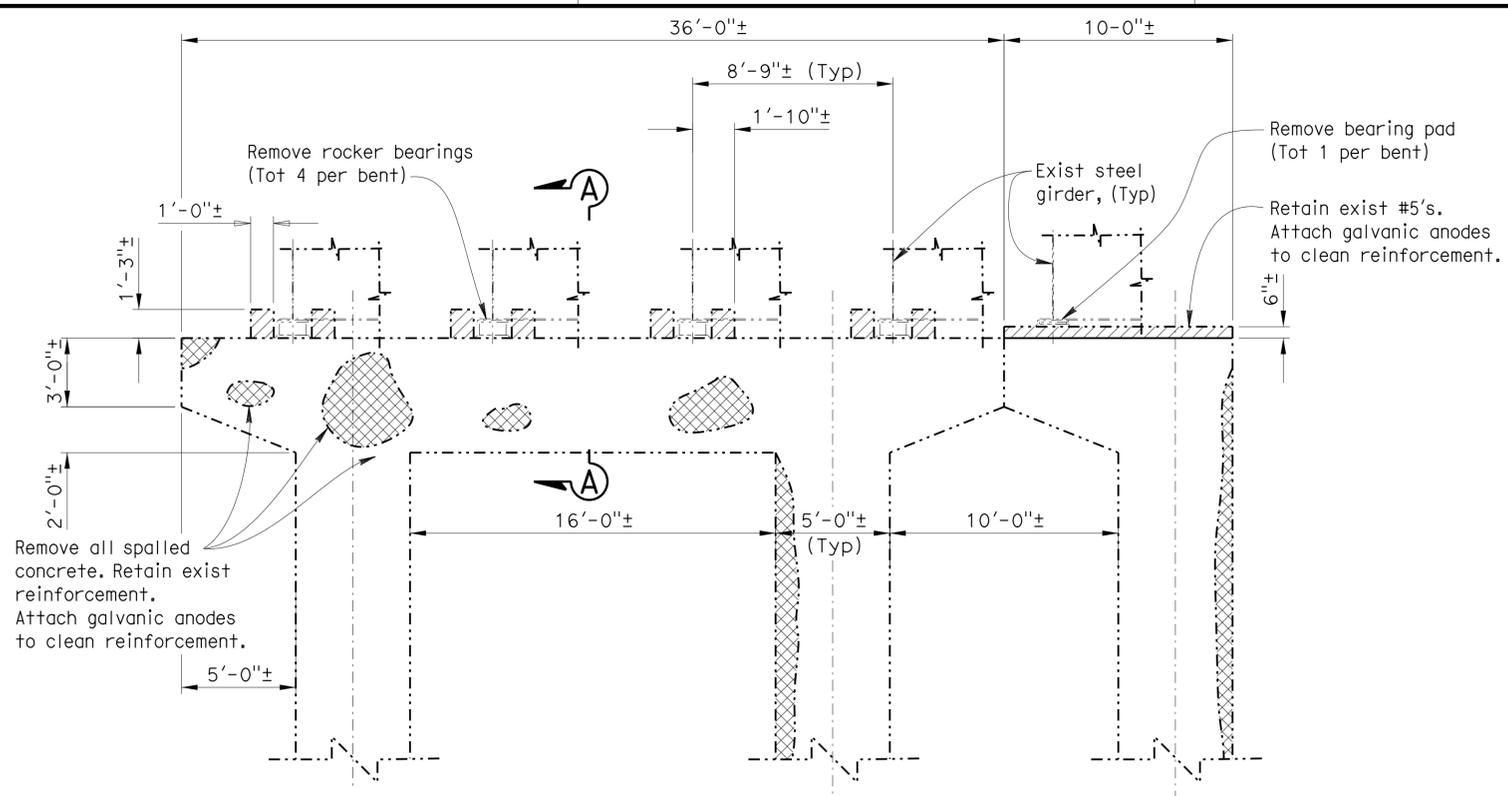
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	13	27
			9-17-13	DATE	
REGISTERED CIVIL ENGINEER			3-3-14	PLANS APPROVAL DATE	
<i>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</i>					

NOTES: (APPLY TO THIS SHEET ONLY)

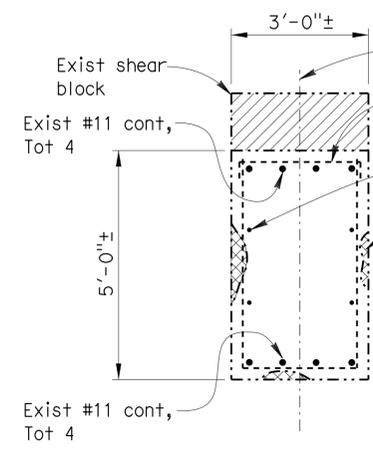
Indicates remove concrete.

Indicates repair spalled surface areas. Total area = 1070ft².

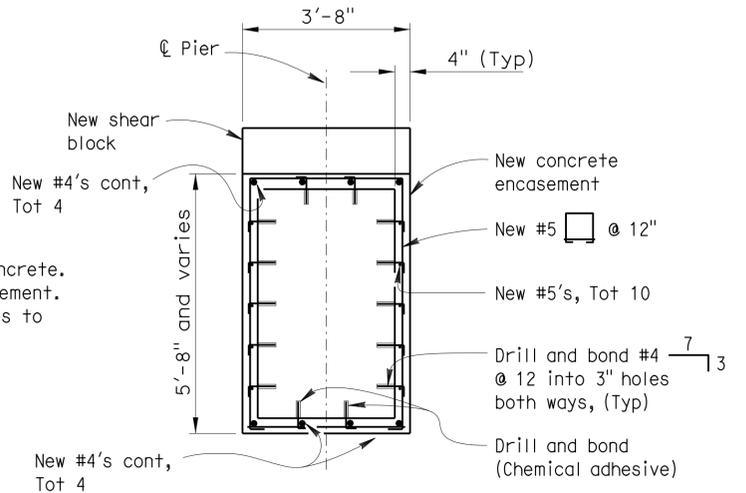
All reinforcement to be epoxy coated. For SECTION B-B, see PIER DETAILS NO. 2 sheet.



EXISTING



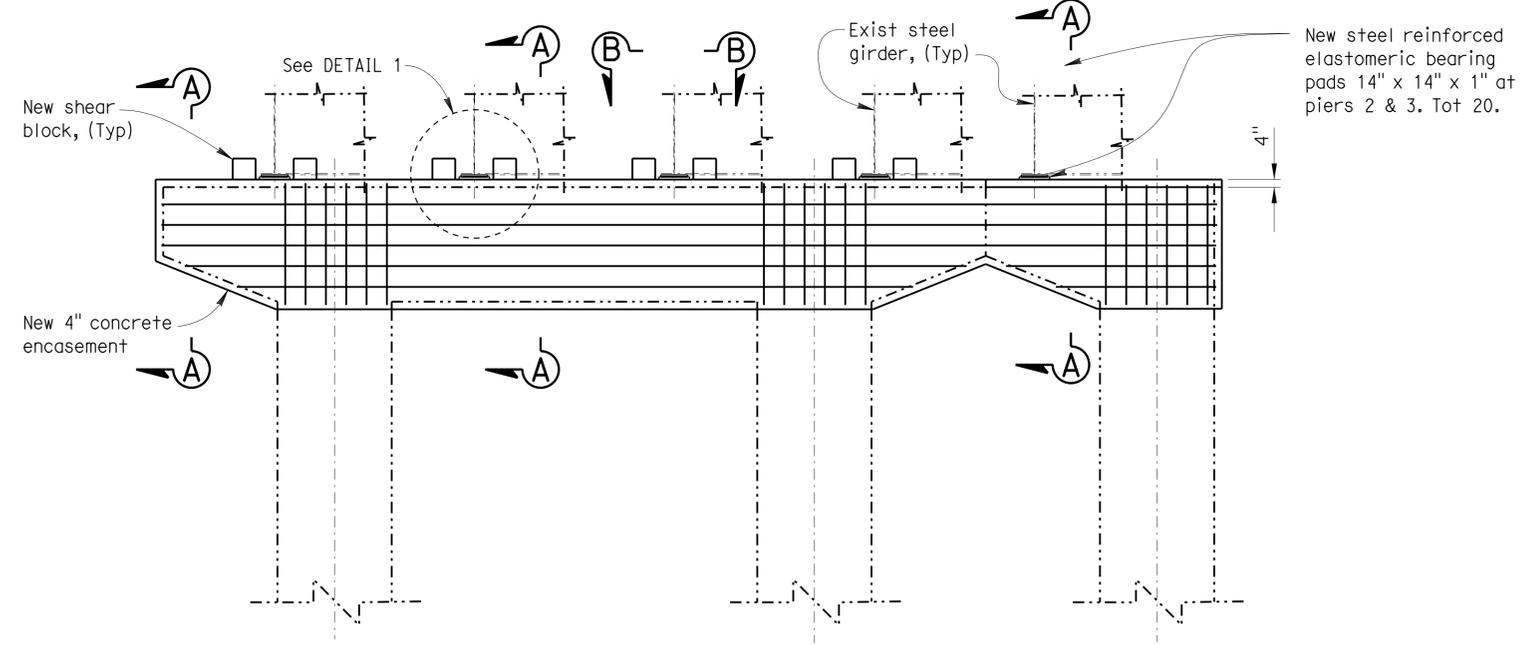
EXISTING



RECONSTRUCTION

SECTION A-A

1/2" = 1'-0"



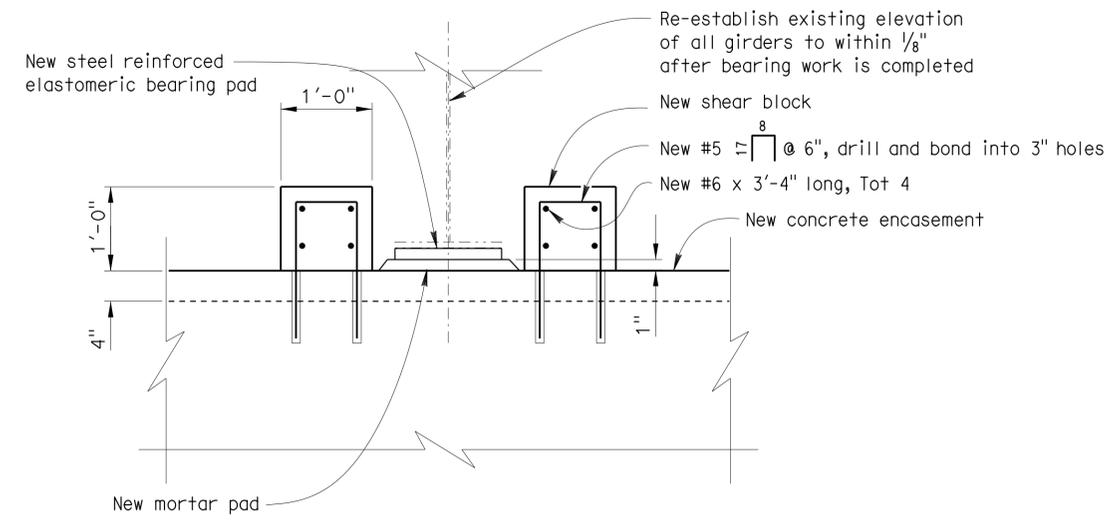
RECONSTRUCTION

TYPICAL BENT CAP ELEVATION (PIERS 2 AND 3 ONLY)

1/4" = 1'-0"

TRUCKEE RIVER

BR. NO. 17-0063R



DETAIL 1

1" = 1'-0"

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

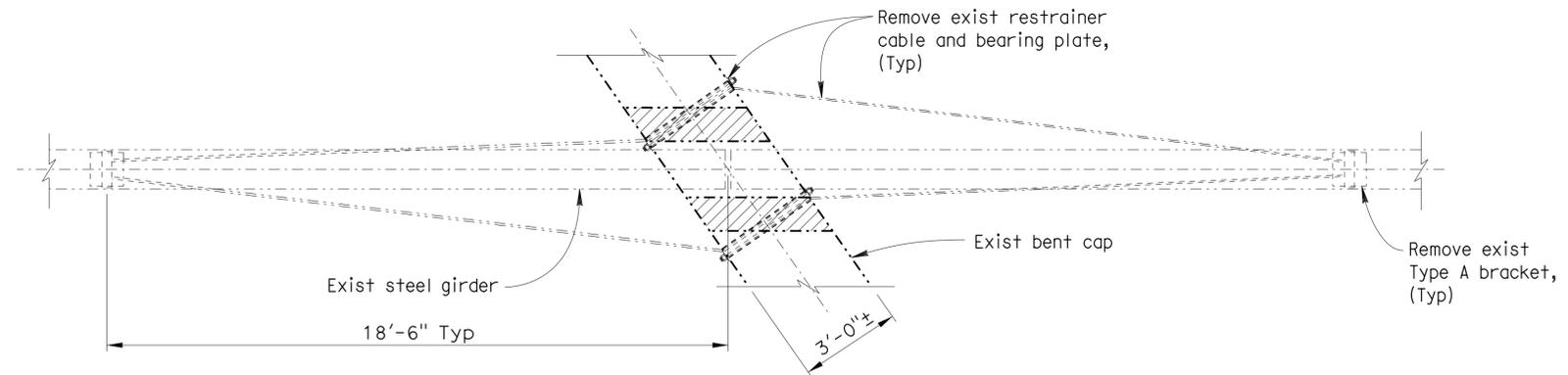
DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	17-0063R
POST MILE	28

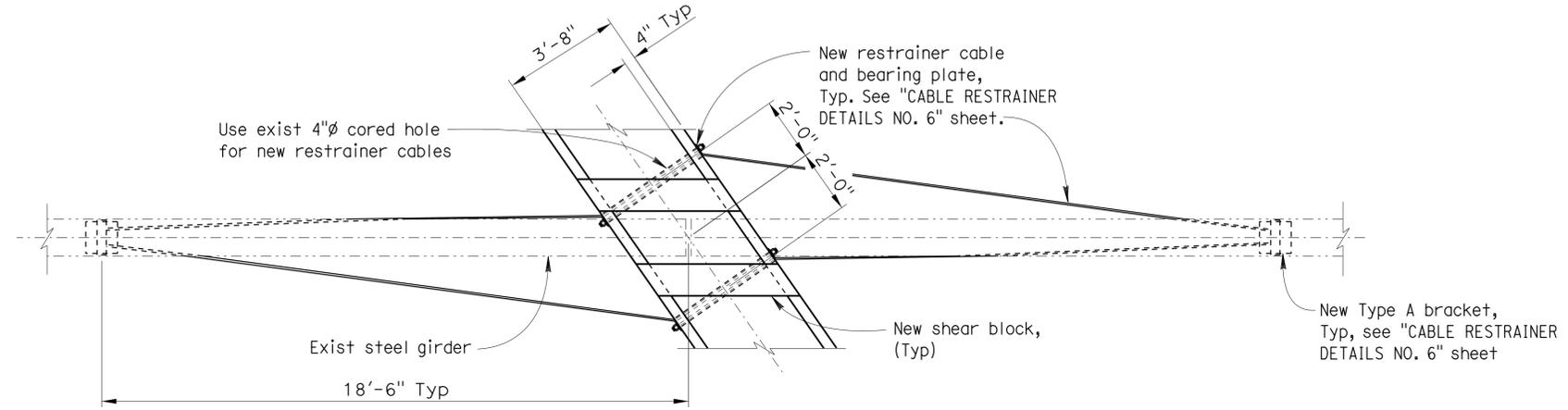
I-80 BRIDGES
PIER DETAILS NO. 1

NOTES: (APPLY TO THIS SHEET ONLY)

 Indicates existing concrete shear block removal.

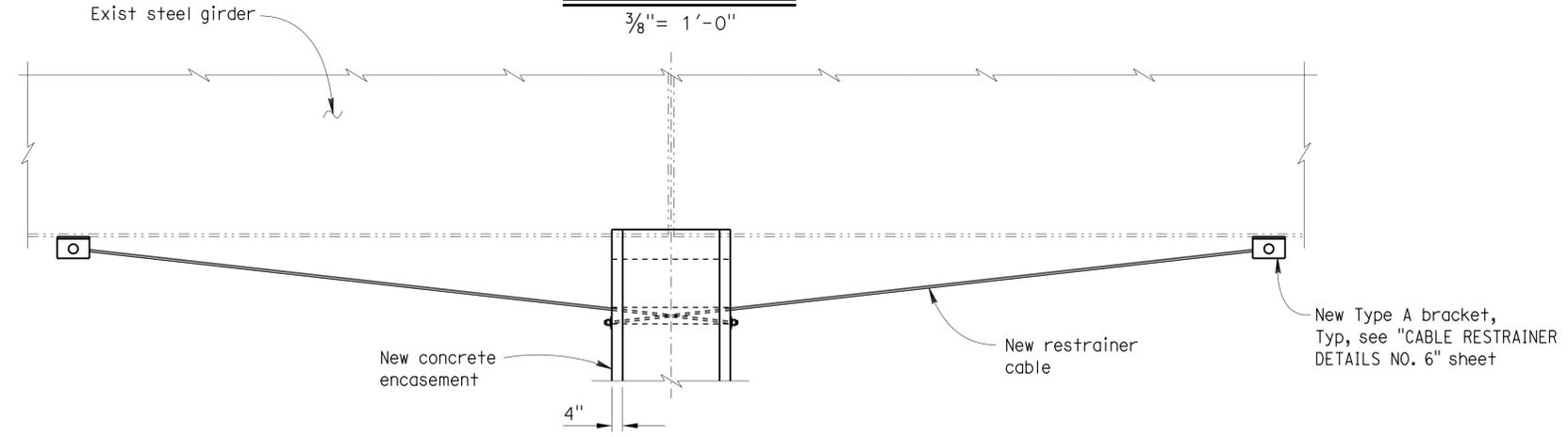


EXISTING



RECONSTRUCTION

SECTION B-B



TYPICAL PIER ELEVATION

TRUCKEE RIVER

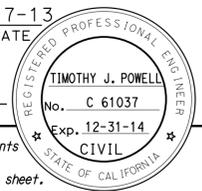
BR. NO. 17-0063R

BRIDGE NUMBER	LOCATION	DL (k)	DL + LL + I (k)	LATERAL LOAD (k)	
17-0063R	PIER 2	EAST SIDE	295	454	30
		WEST SIDE	287	446	30
	PIER 3	EAST SIDE	287	446	30
		WEST SIDE	287	446	30

The maximum allowable transverse displacement of the superstructure measured at the bottom flanges of the girders relative to the base of the temporary support is 1". The differential vertical lift between jacks shall not exceed 1/16". The temporary support shall be jacked to provide a snug fit with the girders.

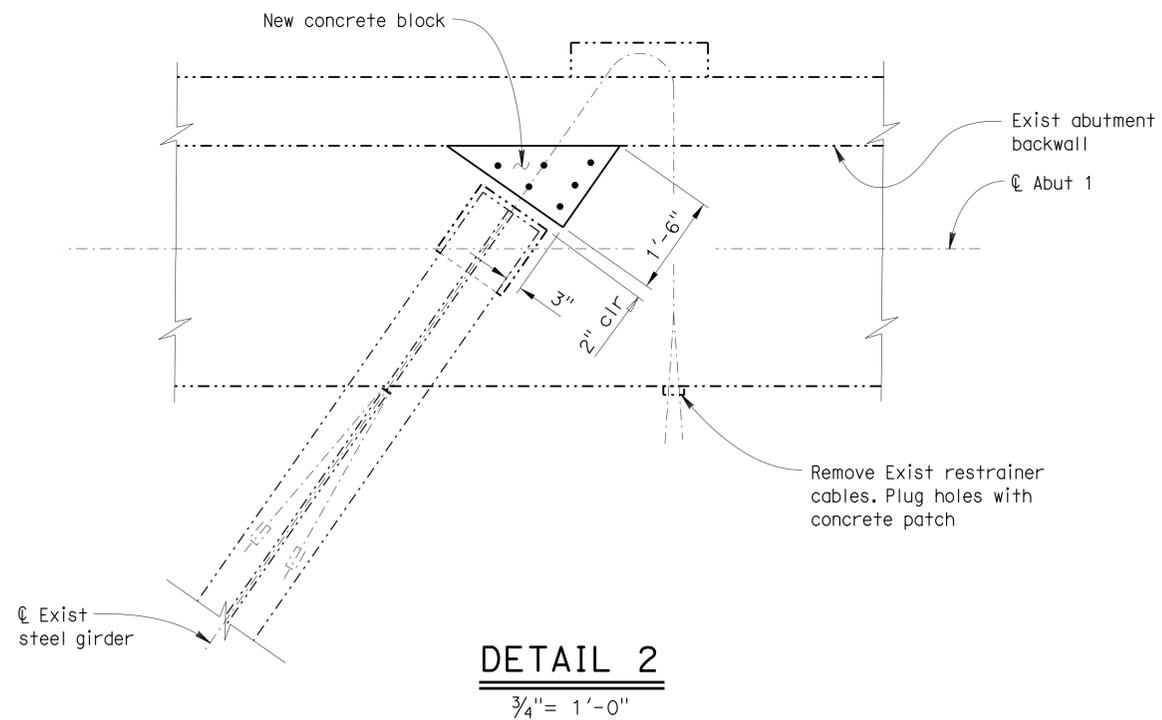
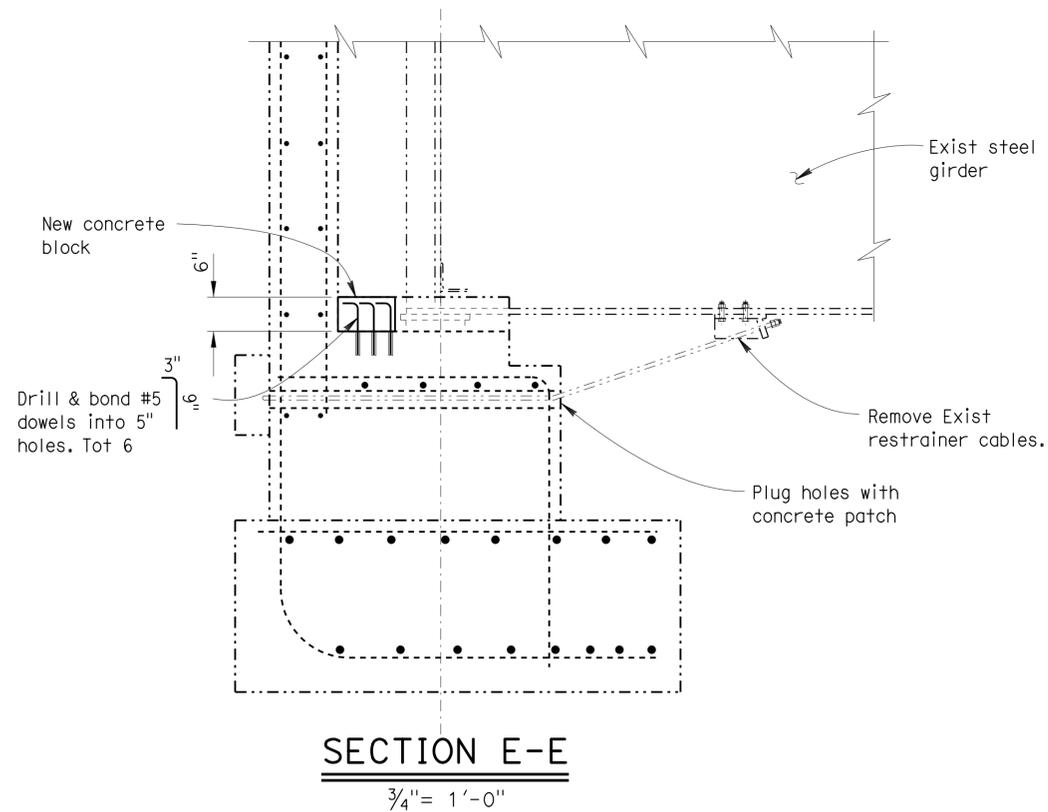
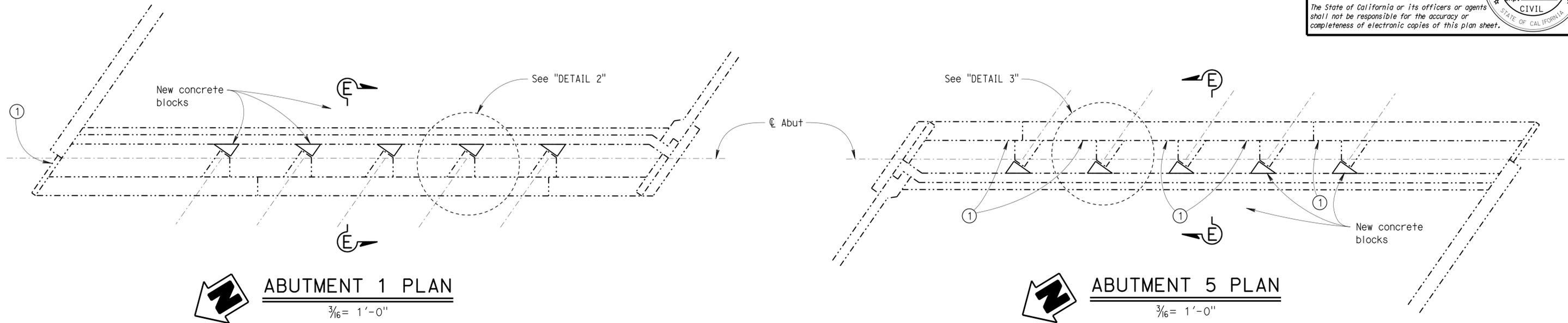
**GENERAL NOTES
LOAD FACTOR DESIGN**

- DESIGN: BRIDGE DESIGN SPECIFICATIONS (1996 AASHTO with Interims and Revisions by CALTRANS)
- DEAD LOAD: Includes 35 psf for future wearing surface.
- LIVE LOADING: HL93 and permit design load.
- REINFORCED CONCRETE: fy = 60 ksi, f'c = 3.6 ksi, n = 8
- STRUCTURAL CONCRETE: fy = 60 ksi, f'c = 3.6 ksi, n = 8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	15	27
			9-17-13	DATE	
REGISTERED CIVIL ENGINEER			DATE		
3-3-14			PLANS APPROVAL DATE		
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NOTES: (APPLY TO THIS SHEET ONLY)

- ① Repair spalled surface area. Attach galvanic anodes to clean reinforcement.



TRUCKEE RIVER
BR. NO. 17-0063L

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	17-0063L
POST MILE	28

I-80 BRIDGES
ABUTMENT DETAILS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	16	27

T. Powell 9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 PLANS APPROVAL DATE

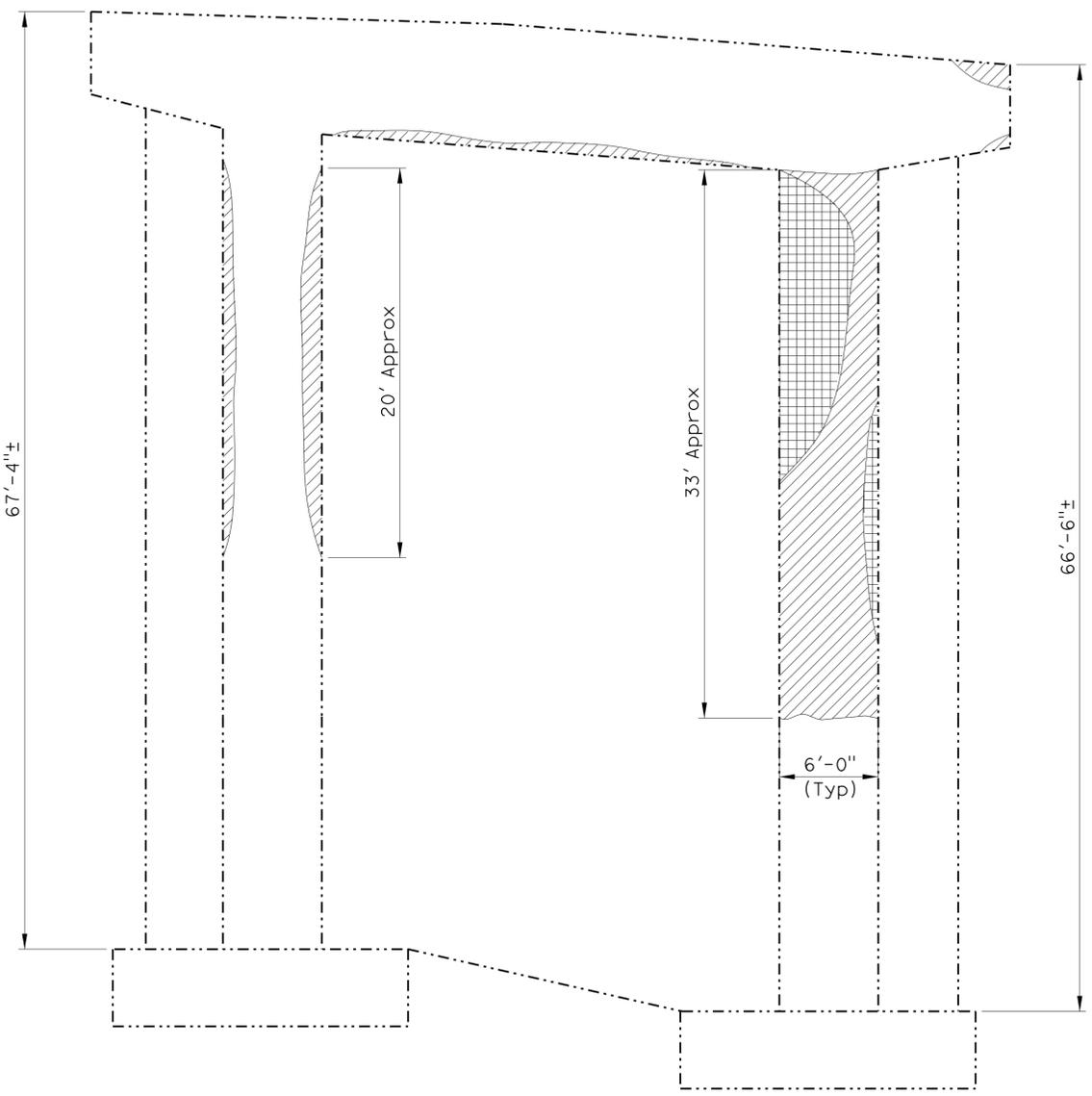
REGISTERED PROFESSIONAL ENGINEER
 TIMOTHY J. POWELL
 No. C 61037
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA

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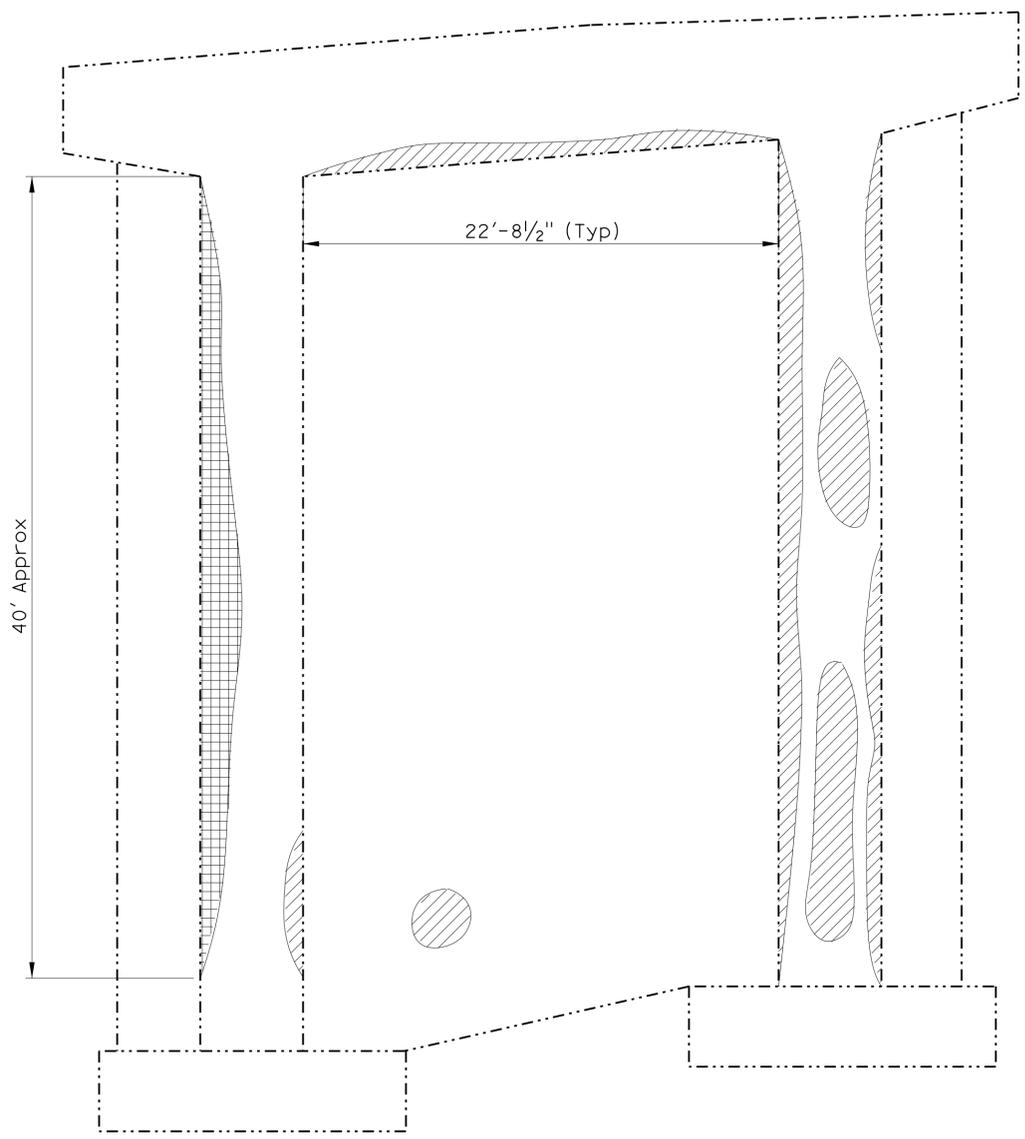
NOTES: (APPLY TO THIS SHEET ONLY)

 Indicates limits of repair spalled surface areas. Loose and spalled concrete varies in depth from 1/2" to 2". For details, see "SPALL REPAIR DETAILS" sheet.

 Indicates limits of repair spalled surface areas and place galvanic anodes. Loose and spalled concrete with exposed reinforcement varies in depth from 1" to 3". For details, see "SPALL REPAIR DETAILS" sheet.



BENT 2 LOOKING EAST



BENT 2 LOOKING WEST

DONNER LAKE UNDERCROSSING

BR. NO. 17-0076L
 Approx Spalled Surface Area = 940ft²
 NO SCALE

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

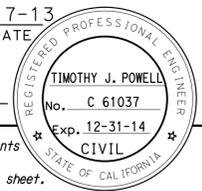
DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	17-0076L
POST MILE	R9.07

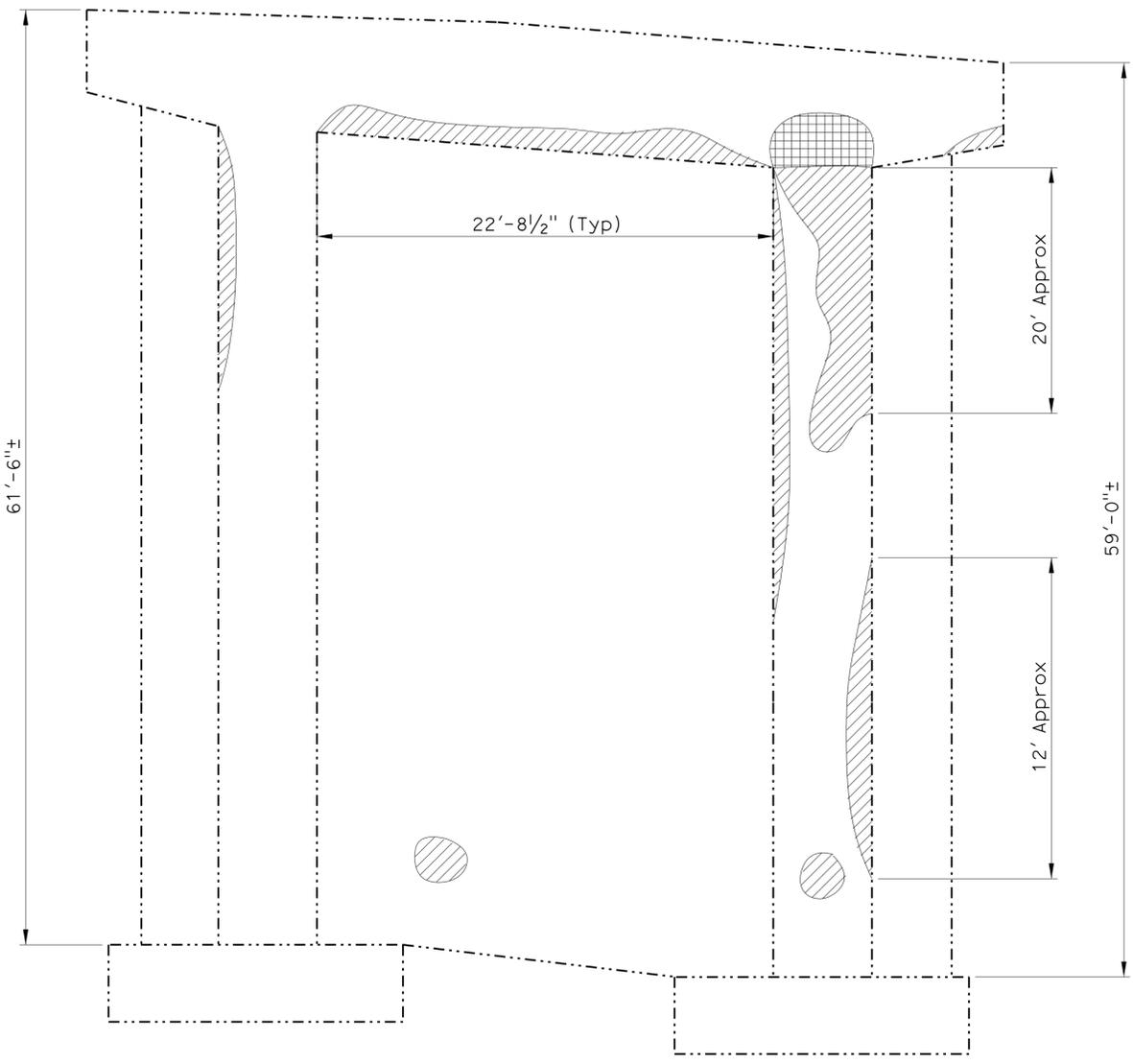
I-80 BRIDGES
 BENT DETAILS NO. 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	17	27

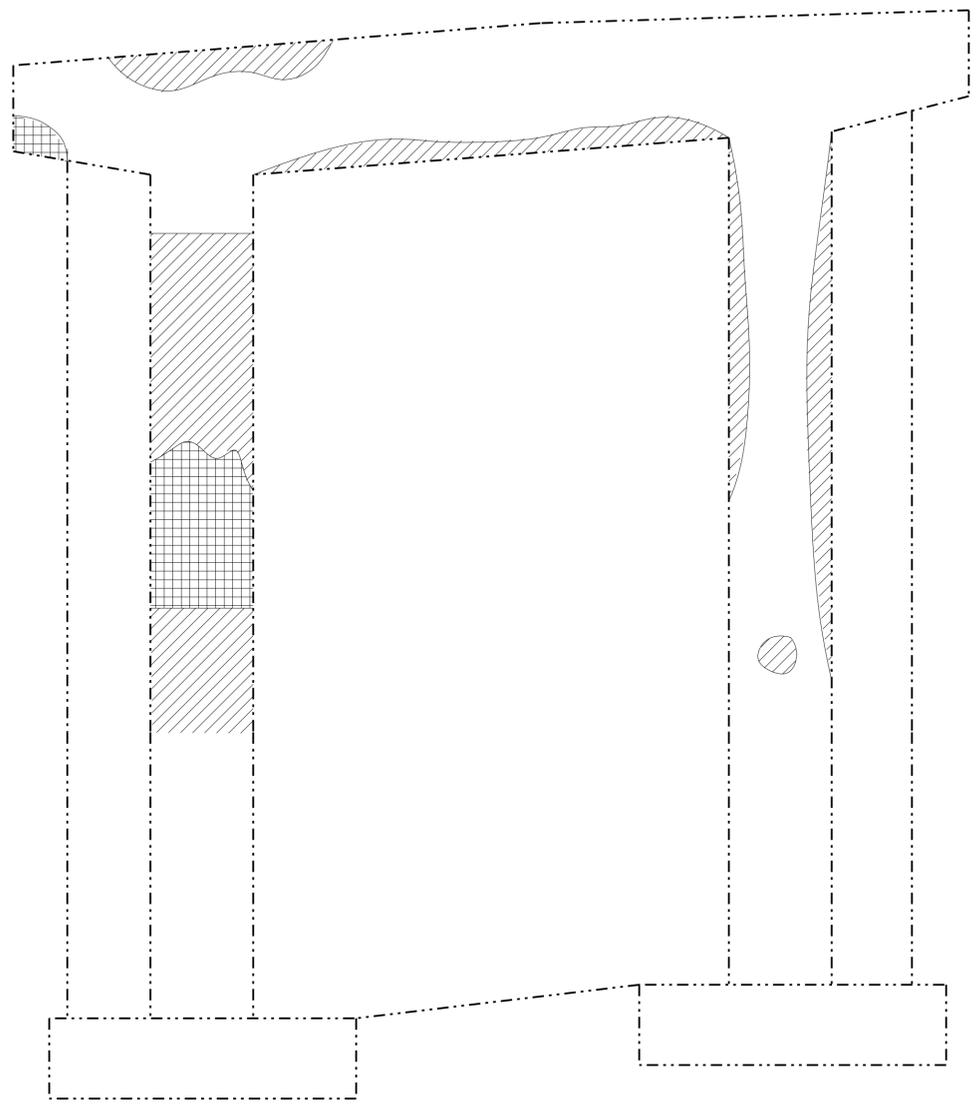
 9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



- NOTES:** (APPLY TO THIS SHEET ONLY)
-  Indicates limits of repair spalled surface areas. Loose and spalled concrete varies in depth from 1/2" to 2". For details, see "SPALL REPAIR DETAILS" sheet.
 -  Indicates limits of repair spalled surface areas and place galvanic anodes. Loose and spalled concrete with exposed reinforcement varies in depth from 1" to 3". For details, see "SPALL REPAIR DETAILS" sheet.



BENT 3 LOOKING EAST



BENT 3 LOOKING WEST

DONNER LAKE UNDERCROSSING

BR. NO. 17-0076L
 Approx Spalled Surface Area = 725ft²
 NO SCALE

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

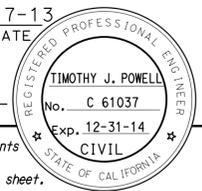
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	17-0076L
POST MILE	R9.07

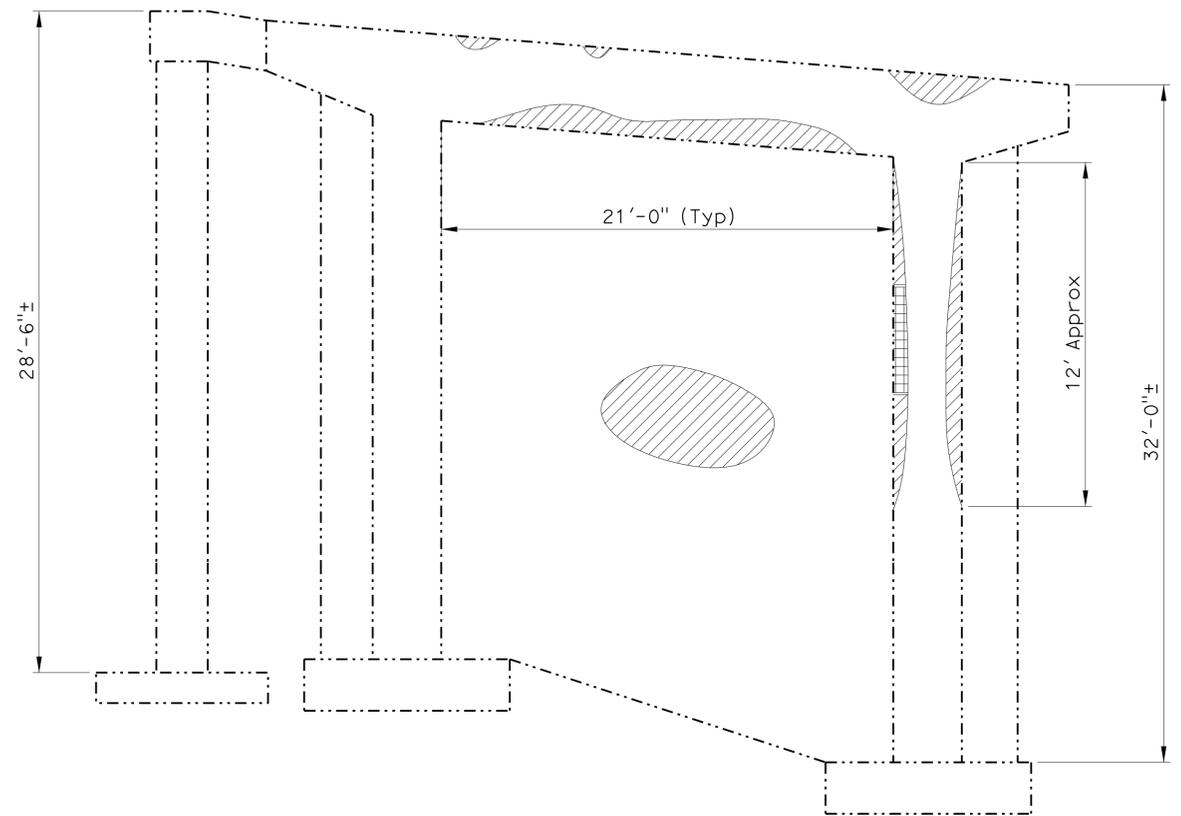
**I-80 BRIDGES
 BENT DETAILS NO. 2**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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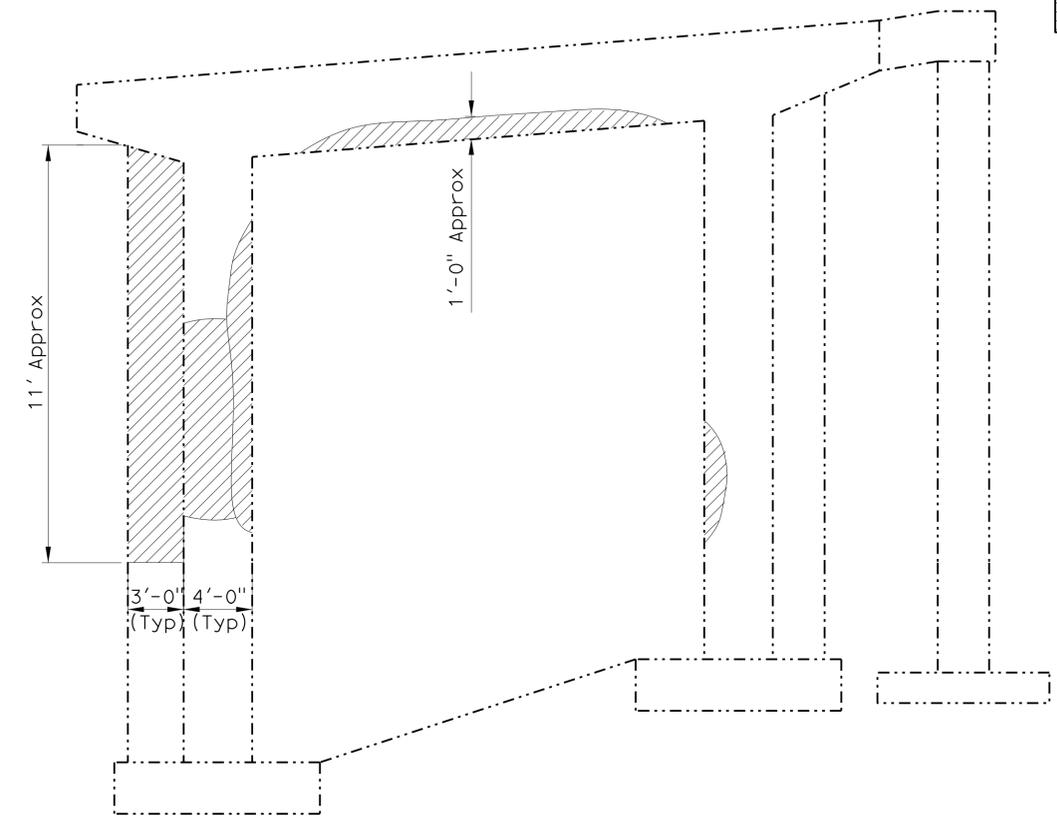

 9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 PLANS APPROVAL DATE


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- NOTES:** (APPLY TO THIS SHEET ONLY)
-  Indicates limits of repair spalled surface areas. Loose and spalled concrete varies in depth from 1/2" to 2". For details, see "SPALL REPAIR DETAILS" sheet.
 -  Indicates limits of repair spalled surface areas and place galvanic anodes. Loose and spalled concrete with exposed reinforcement varies in depth from 1" to 3". For details, see "SPALL REPAIR DETAILS" sheet.



BENT 2 LOOKING EAST



BENT 2 LOOKING WEST

DONNER LAKE UNDERCROSSING

BR. NO. 17-0076R
 Approx Spalled Surface Area = 320ft²
 NO SCALE

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY T. Powell	CHECKED C. Hutchinson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	I-80 BRIDGES		
	DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson			17-0076R		BENT DETAILS NO. 3	
	QUANTITIES	BY T. Powell	CHECKED C. Hutchinson			POST MILE R9.07			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	UNIT: 3488 PROJECT NUMBER & PHASE: 0312000186 1	CONTRACT NO.: 03-4M6101	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES

USERNAME => s119538 DATE PLOTTED => 07-MAR-2014 TIME PLOTTED => 14:12

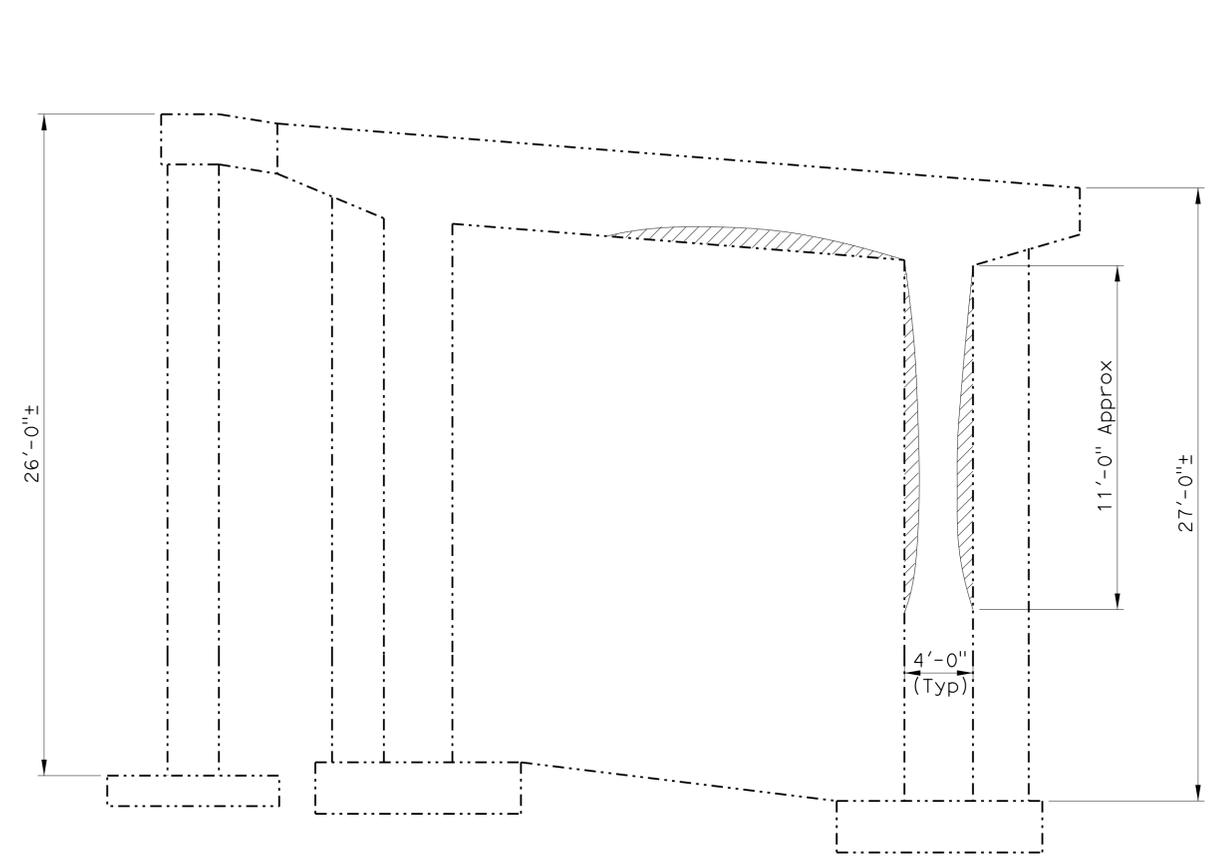
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	19	27


 9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 PLANS APPROVAL DATE

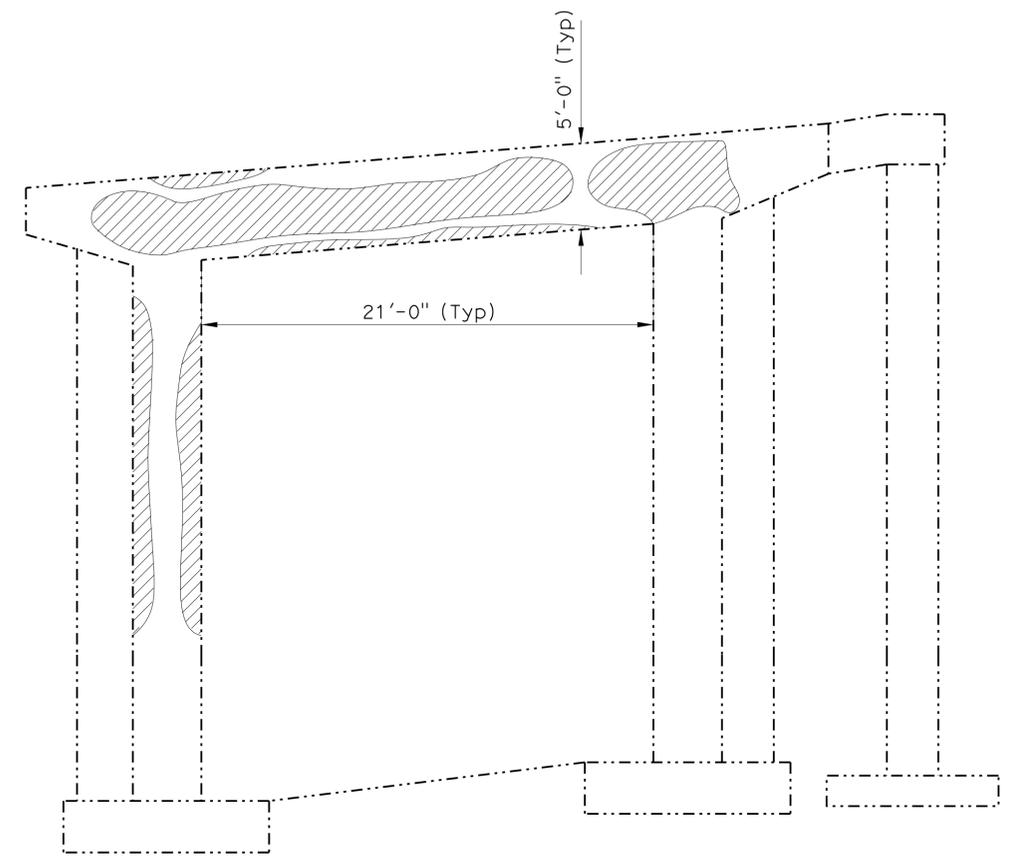
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REGISTERED PROFESSIONAL ENGINEER
 TIMOTHY J. POWELL
 No. C 61037
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA

NOTES: (APPLY TO THIS SHEET ONLY)
 Indicates limits of repair spalled surface areas. Loose and spalled concrete varies in depth from 1/2" to 2". For details, see "SPALL REPAIR DETAILS" sheet.



BENT 3 LOOKING EAST



BENT 3 LOOKING WEST

DONNER LAKE UNDERCROSSING

BR. NO. 17-0076R
 Approx Spalled Surface Area = 340ft²
 NO SCALE

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

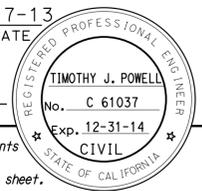
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

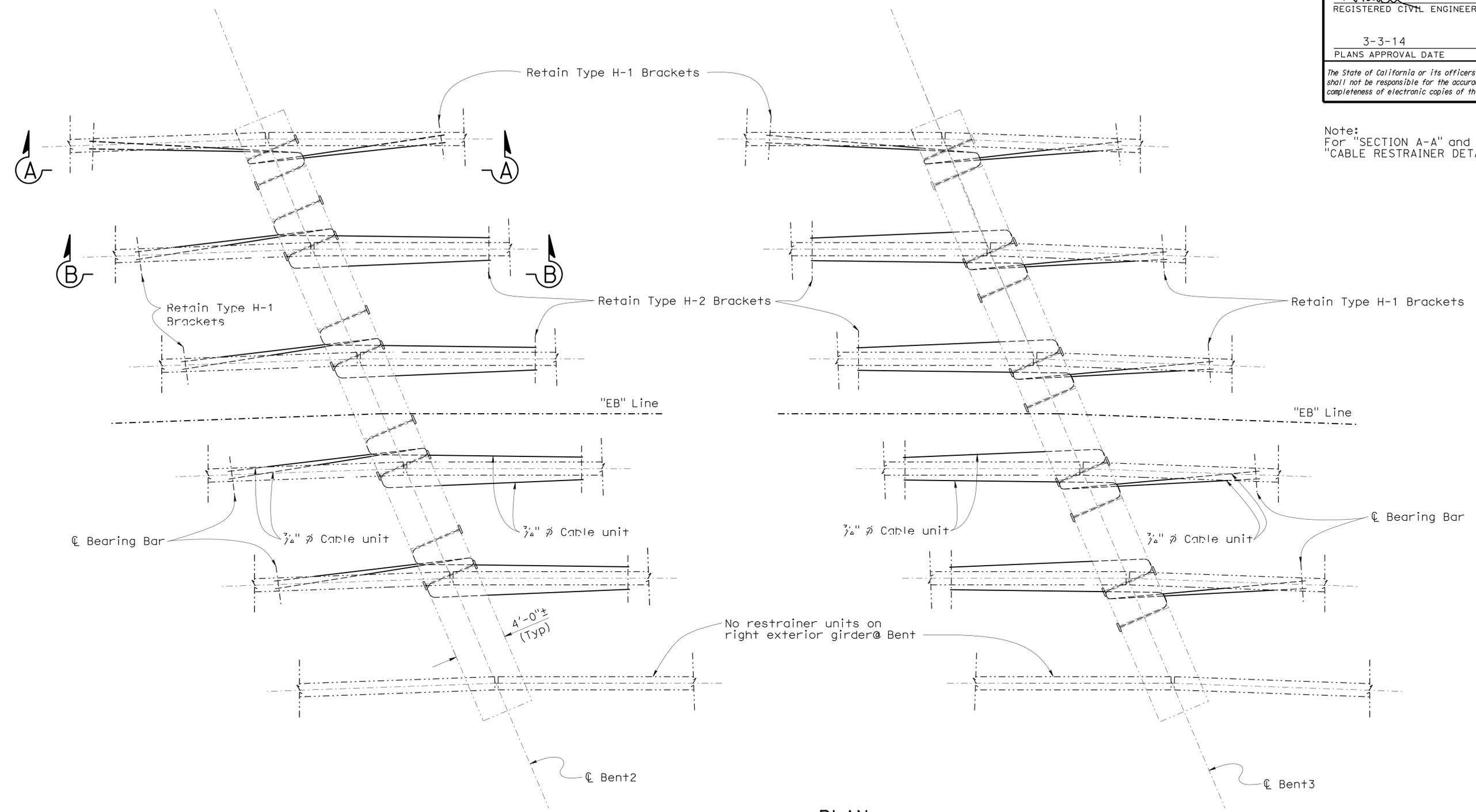
BRIDGE NO.	17-0076R
POST MILE	R9.07

I-80 BRIDGES
BENT DETAILS NO. 4

TIME PLOTTED => 14:12
 DATE PLOTTED => 07-MAR-2014
 USERNAME => s119538

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	20	27
			9-17-13	DATE	
REGISTERED CIVIL ENGINEER			DATE		
3-3-14			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:
For "SECTION A-A" and "SECTION B-B", see "CABLE RESTRAINER DETAILS NO. 3" sheet.



PLAN

DONNER LAKE UNDERCROSSING

BR. NO. 17-0076R
1/4" = 1'-0"

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

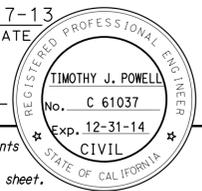
DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

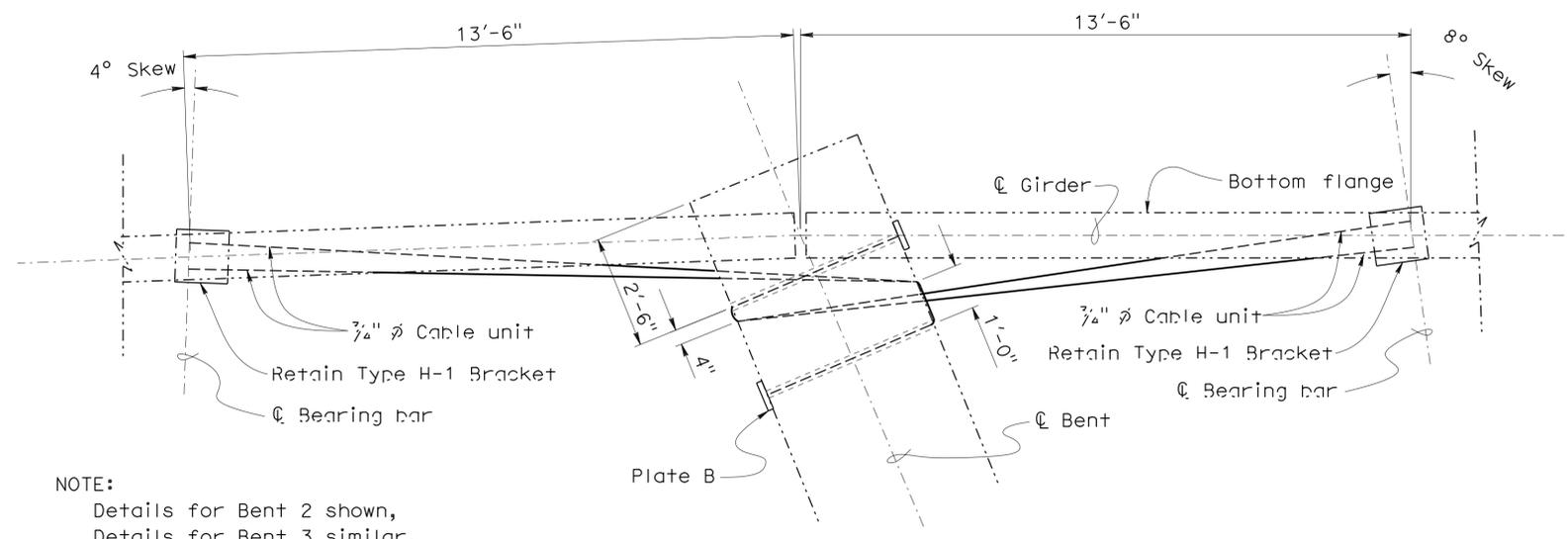
BRIDGE NO.	17-0076R
POST MILE	R9.07

I-80 BRIDGES
CABLE RESTRAINER DETAILS NO. 1

USERNAME => s119538 DATE PLOTTED => 07-MAR-2014 TIME PLOTTED => 14:12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	21	27


 9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 PLANS APPROVAL DATE
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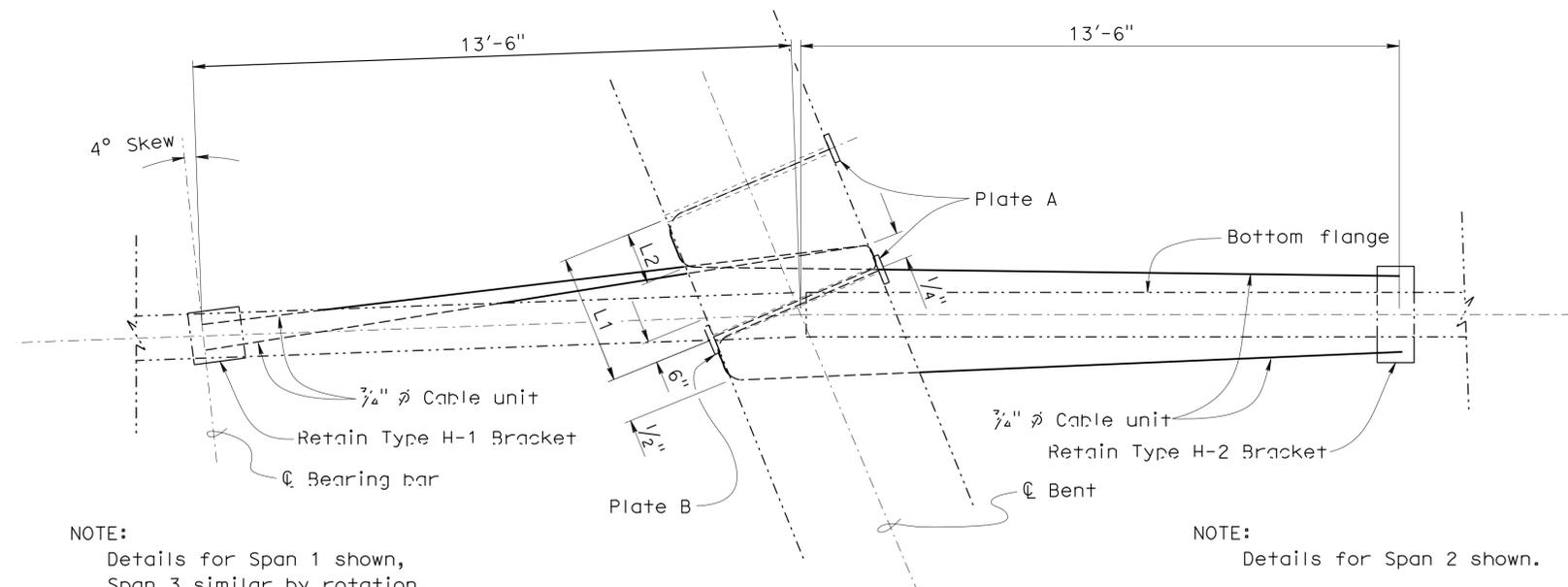


NOTE:
 Details for Bent 2 shown,
 Details for Bent 3 similar.

PLAN - LEFT EXTERIOR GIRGER

BRIDGE No. 17-0076R
 1/2" = 1'-0"

NOTE:
 For Plate A & Plate B details, see
 "CABLE RESTRAINER DETAILS NO. 5" sheet.



NOTE:
 Details for Span 1 shown,
 Span 3 similar by rotation.

NOTE:
 Details for Span 2 shown.

PLAN - TYPICAL INTERIOR GIRDER

BRIDGE No. 17-0076R
 1/2" = 1'-0"

LOC	L1	L2
Bent 2	2'-11"	1'-2"
Bent 3	3'-2"	1'-4"

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN BY T. Powell	CHECKED C. Hutchinson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 17-0076R	I-80 BRIDGES CABLE RESTRAINER DETAILS NO. 2
	DETAILS BY M. Hallstrom	CHECKED C. Hutchinson		POST MILE R9.07	
	QUANTITIES BY T. Powell	CHECKED C. Hutchinson			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT: 3488 PROJECT NUMBER & PHASE: 0312000186 1	CONTRACT NO.: 03-4M6101	DISREGARD PRINTS BEARING EARLIER REVISION DATES
			0 1 2 3	REVISION DATES: 2-28-13	SHEET 11 OF 17

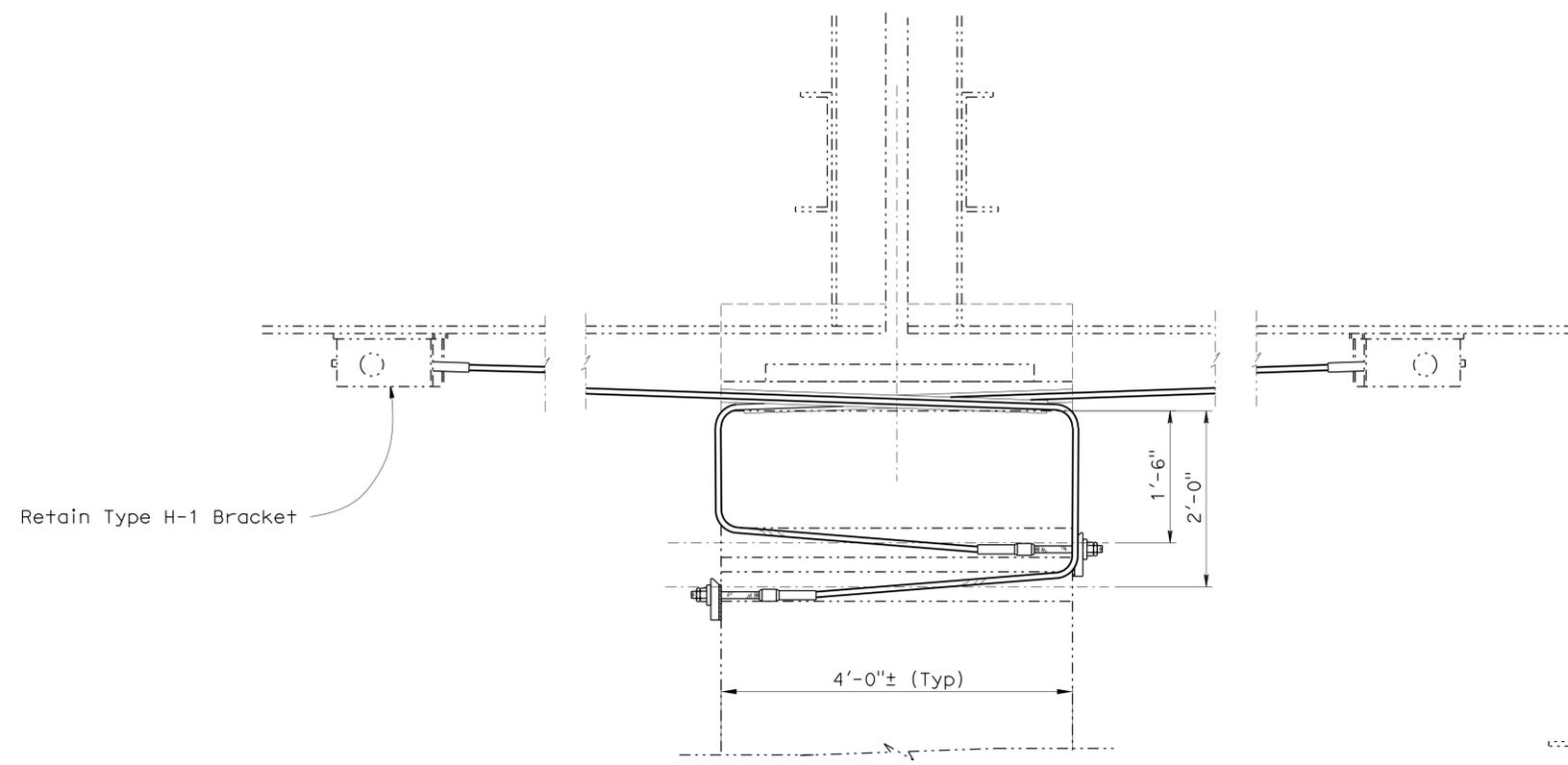
TIME PLOTTED => 14:12
 DATE PLOTTED => 07-MAR-2014
 USERNAME => s119538

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	22	27

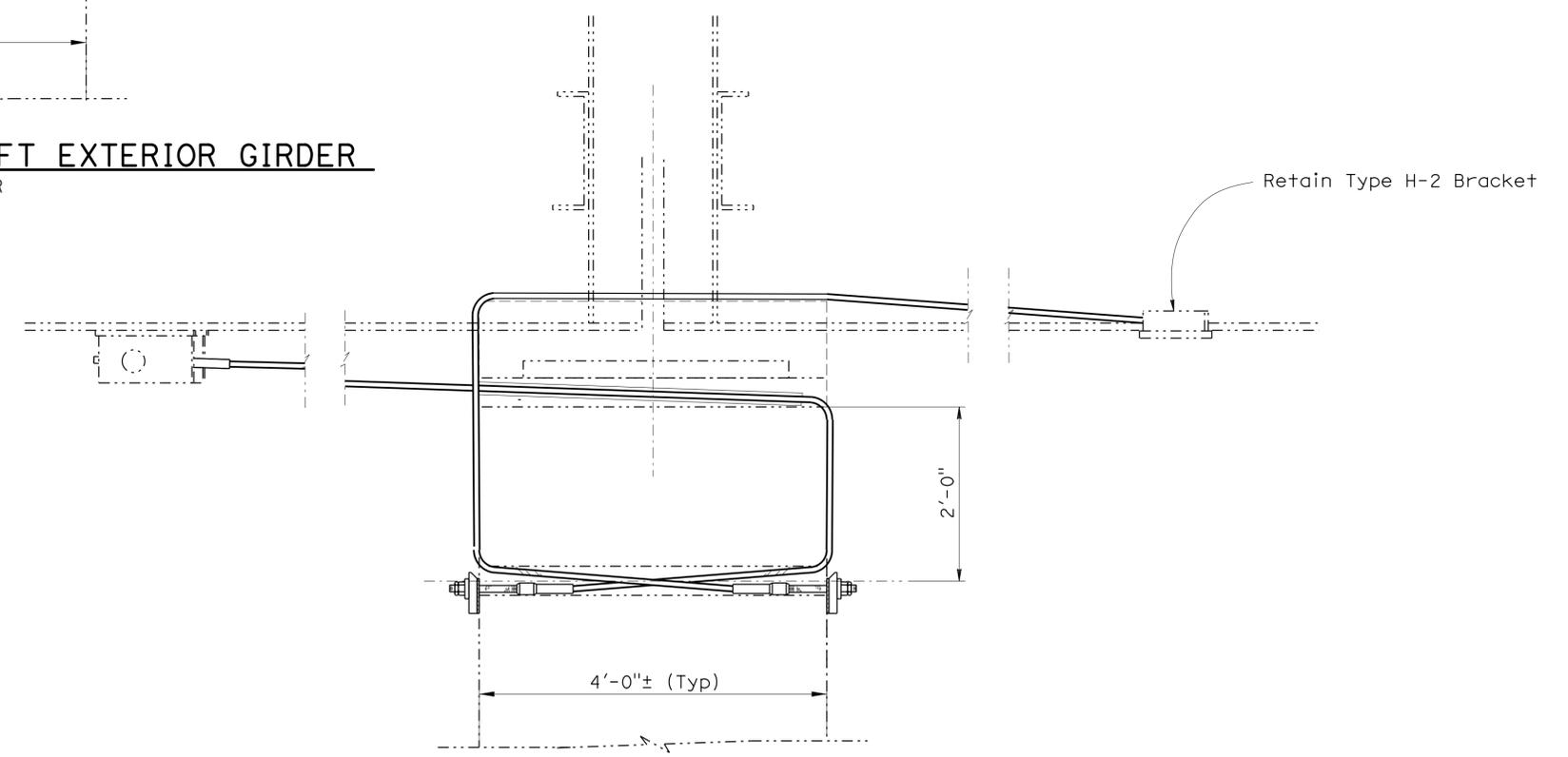
 9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 TIMOTHY J. POWELL
 No. C 61037
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA

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SECTION A-A - TYPICAL LEFT EXTERIOR GIRDER
 BRIDGE No. 17-0076R
 1" = 1'-0"



SECTION B-B - TYPICAL LEFT INTERIOR GIRDER
 BRIDGE No. 17-0076R
 1" = 1'-0"

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

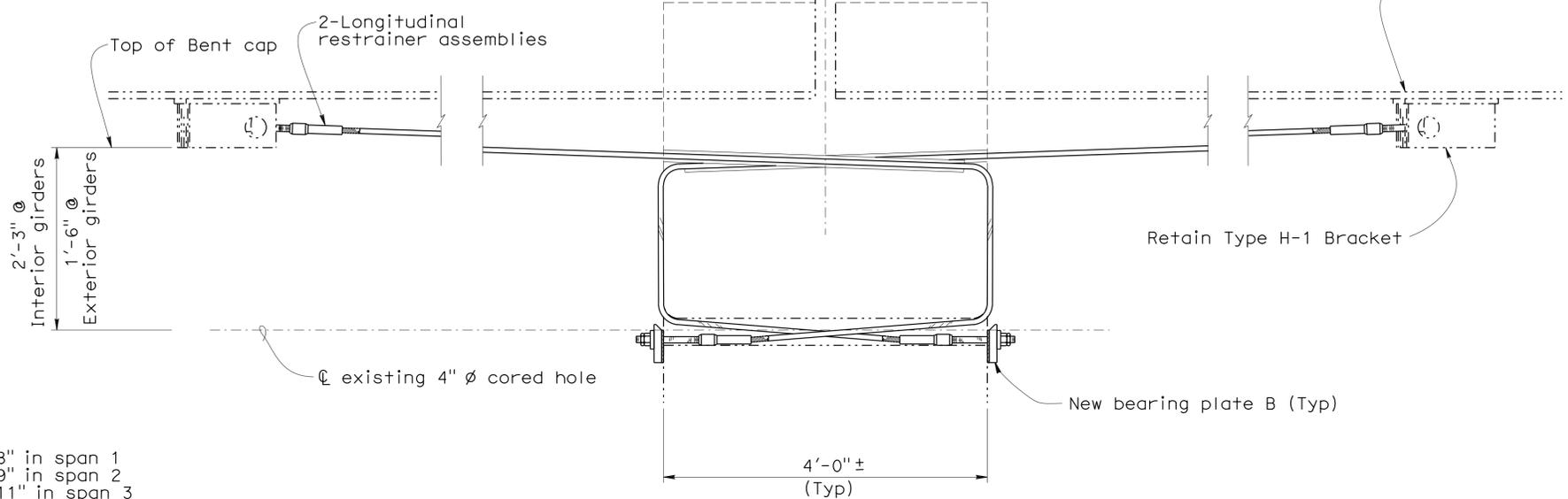
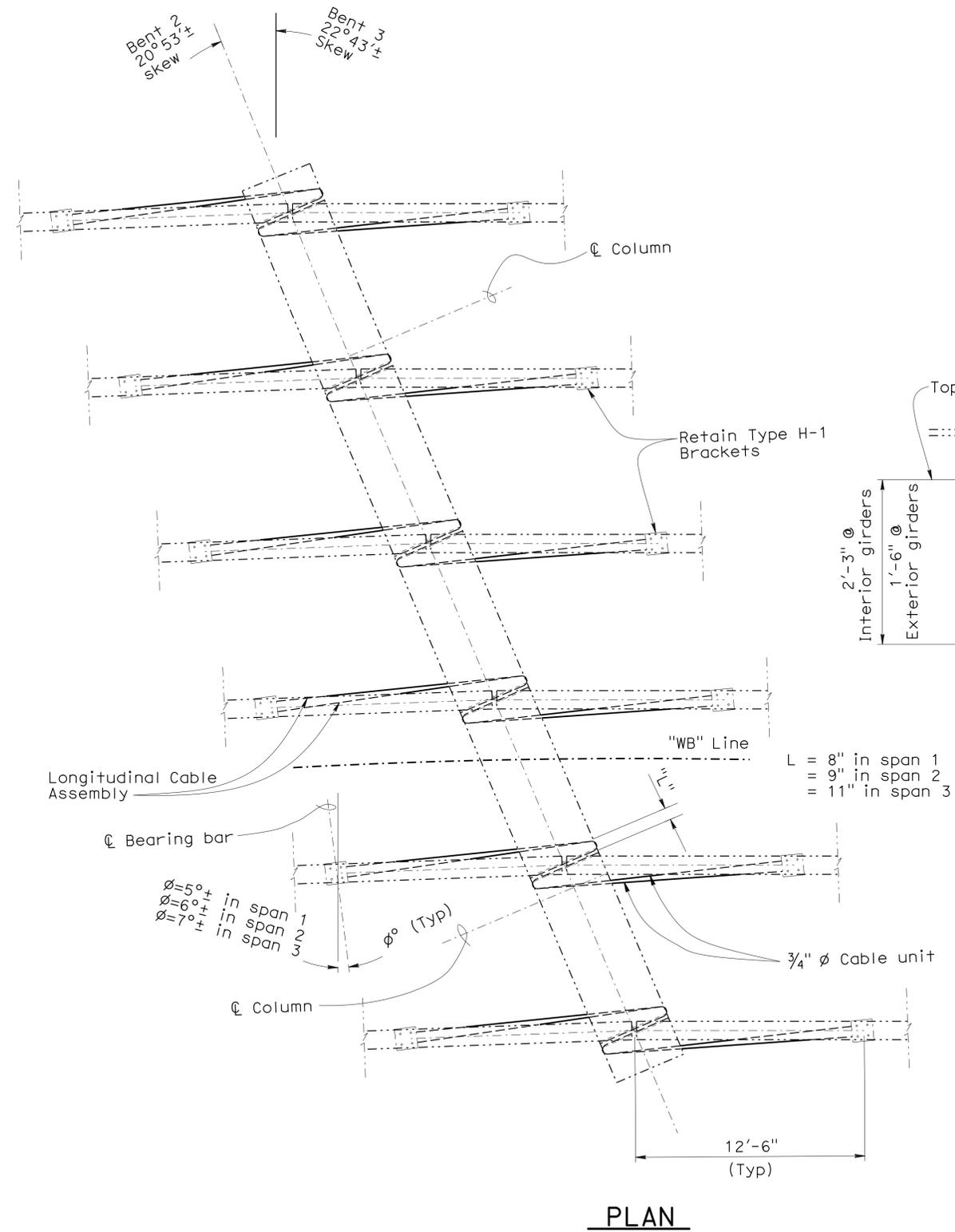
DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	17-0076R
POST MILE	R9.07

I-80 BRIDGES
CABLE RESTRAINER DETAILS NO. 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	23	27

T. Powell 9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 PLANS APPROVAL DATE
 REGISTERED PROFESSIONAL ENGINEER
 TIMOTHY J. POWELL
 No. C 61037
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA
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ELEVATION
LONGITUDINAL RESTRAINER ASSEMBLY
 BR. NO. 17-0076L
 1" = 1'-0"

NOTE:
 For Plate Plate B details, see
 "CABLE RESTRAINER DETAILS NO. 5" sheet.

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

DONNER LAKE UNDERCROSSING
 BR. NO. 17-0076L
 1/4" = 1'-0"

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

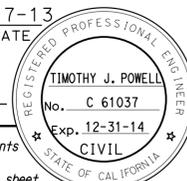
DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	17-0076L
POST MILE	R9.07

I-80 BRIDGES
CABLE RESTRAINER DETAILS NO. 4

USERNAME => 8119538 DATE PLOTTED => 07-MAR-2014 TIME PLOTTED => 14:12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	24	27


 9-17-13
 REGISTERED CIVIL ENGINEER DATE
 3-3-14
 PLANS APPROVAL DATE
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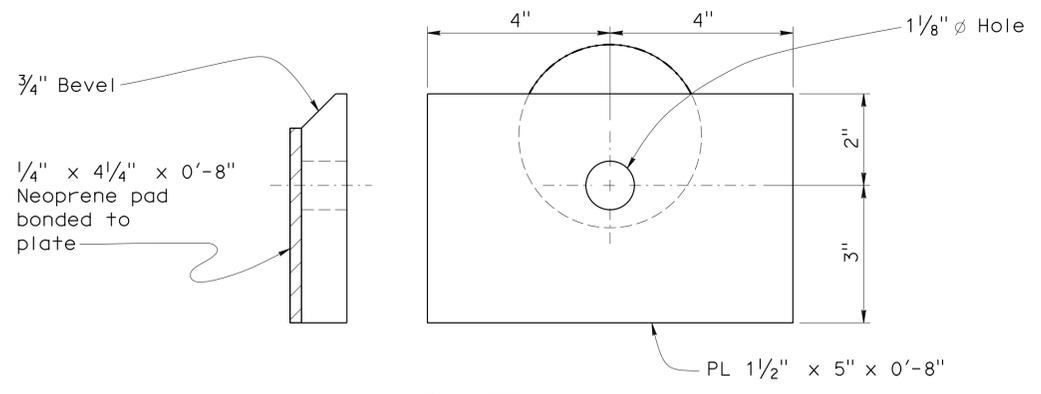


PLATE A

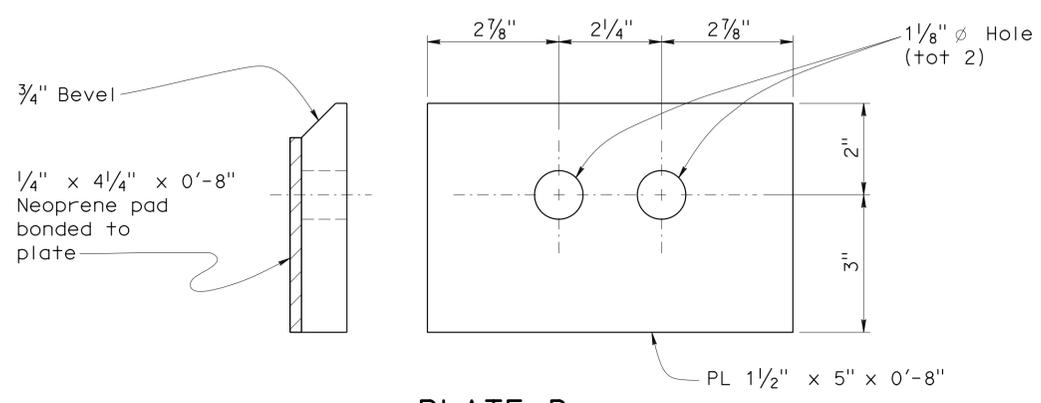
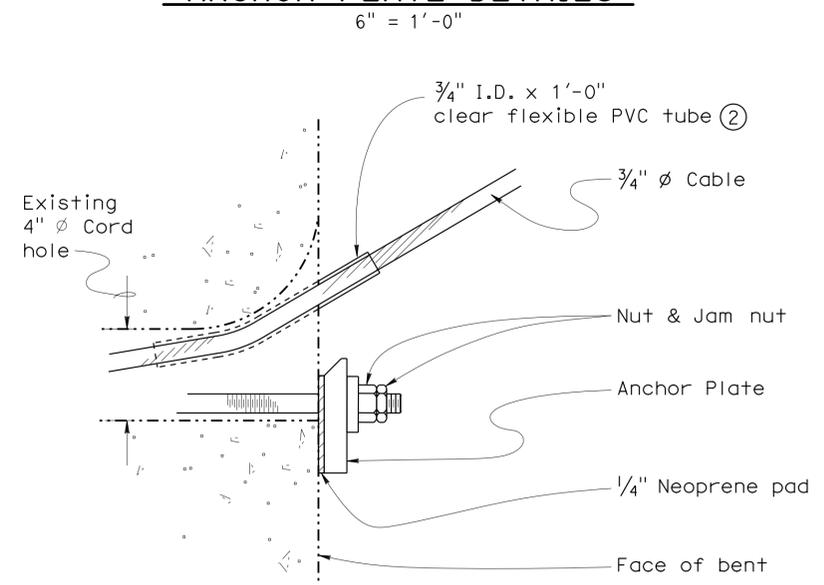


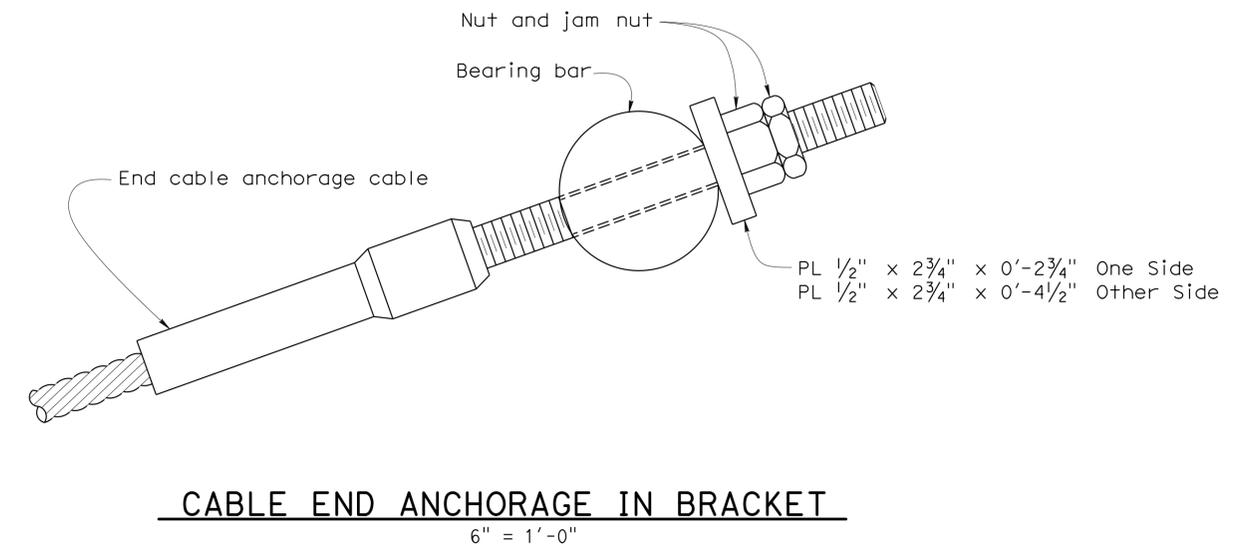
PLATE B

ANCHOR PLATE DETAILS

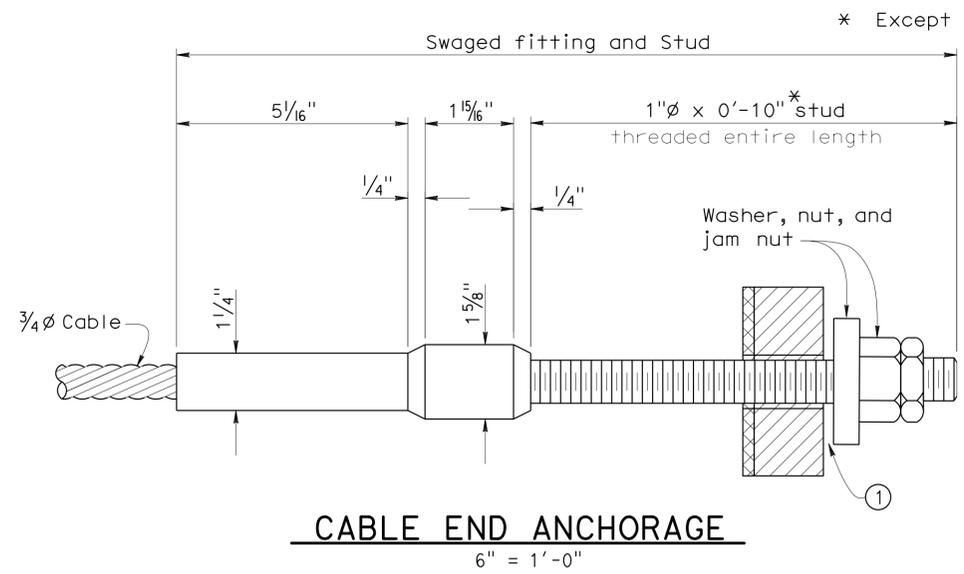


TYPICAL DETAIL AT CABLE END ANCHORAGE

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



CABLE END ANCHORAGE IN BRACKET



CABLE END ANCHORAGE

NOTE: All assemblies to be galvanized after fabrication including cable, studs, nut washers, and plates.

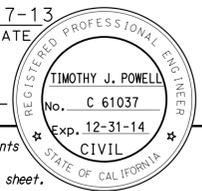
① Insert shim between anchor plate and nut. Tighten nut to 20 Ft-lbs. Tighten jam nuts and remove shim. Shim thickness to be determined by the Engineer.

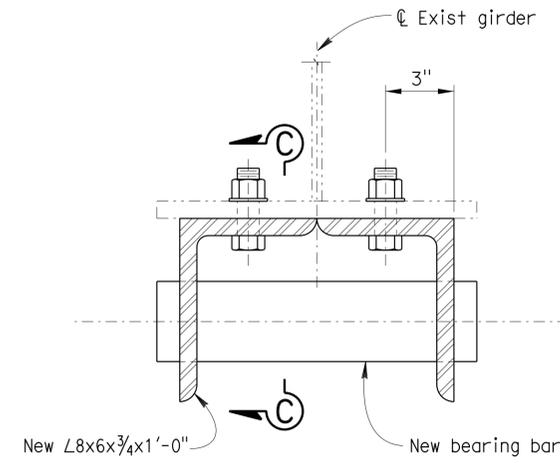
② Place 3/4 I.D. x 1'-0" clear flexible PVC tube around each cable. Tube may be cut length wise with cut away from contact surface. Attach tube to cable with one stainless hose clamp each end.

Torque nut to 20 ft-lbs, back off nut 3 turns and tighten jam nut; or as directed by the Engineer.

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY T. Powell	CHECKED C. Hutchinson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	I-80 BRIDGES
	DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson			17-0076L/R	
	QUANTITIES	BY T. Powell	CHECKED C. Hutchinson			POST MILE R9.07	
					UNIT: 3488	CABLE RESTRAINER DETAILS NO. 5	
					PROJECT NUMBER & PHASE: 0312000186 1	CONTRACT NO.: 03-4M6101	DISREGARD PRINTS BEARING EARLIER REVISION DATES
					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	REVISION DATES
					FILE => 03-4m6101_14cable-restrainer5.dgn	2-28-13	SHEET 14 OF 17

USERNAME => s119538 DATE PLOTTED => 07-MAR-2014 TIME PLOTTED => 14:12

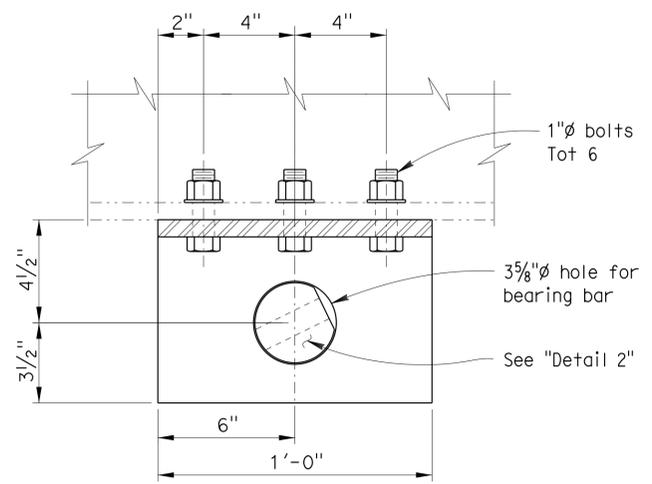
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Neu	80	R9.0,28.1	25	27
			9-17-13	DATE	
REGISTERED CIVIL ENGINEER			DATE		
3-3-14			PLANS APPROVAL DATE		
					
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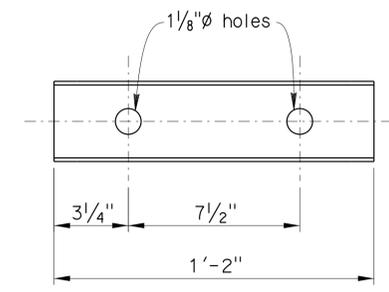
ELEVATION

TYPE A BRACKET

3" = 1'-0"



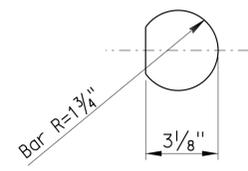
SECTION C-C



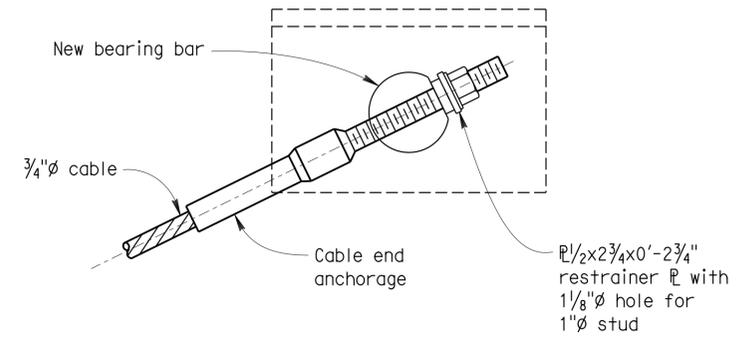
PLAN

BEARING BAR

3" = 1'-0"

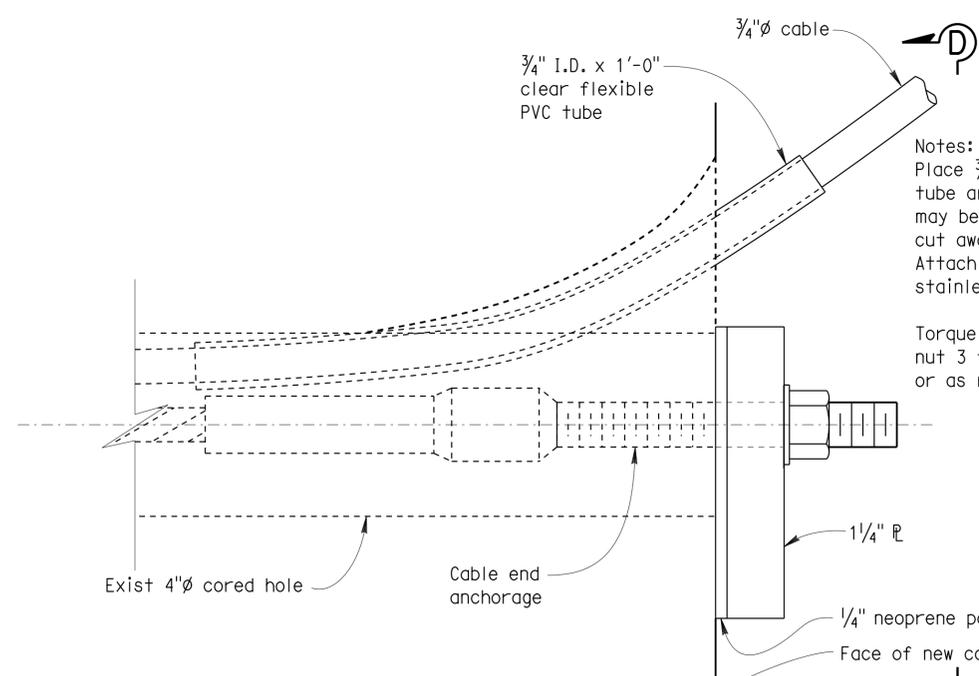


END VIEW



DETAIL 2

3" = 1'-0"



ELEVATION

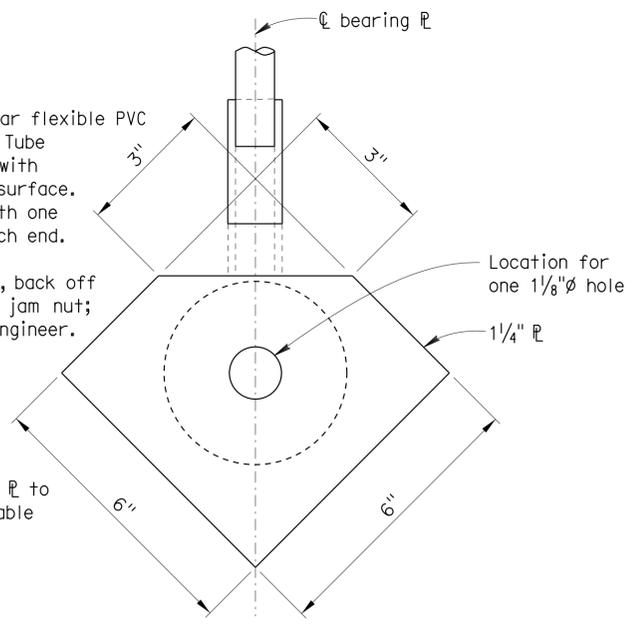
BEARING PLATE DETAIL

6" = 1'-0"

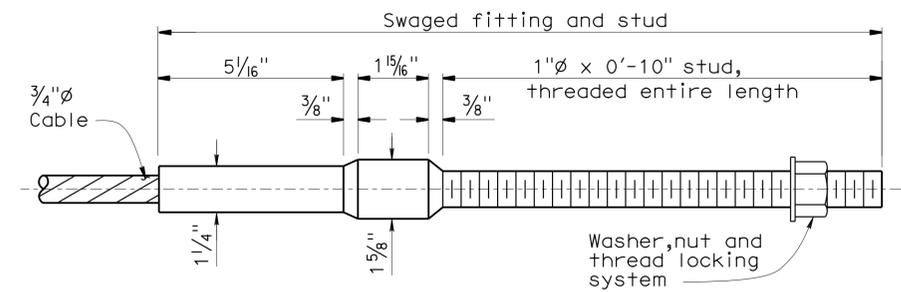
Notes:
Place 3/4" I.D. x 1'-0" clear flexible PVC tube around each cable. Tube may be cut length wise with cut away from contact surface. Attach tube to cable with one stainless hose clamp each end.

Torque nut to 20 ft-lbs, back off nut 3 turns and tighten jam nut; or as required by the Engineer.

Rotate bearing plate to coincide with cable path.



SECTION D-D



CABLE END ANCHORAGE

NO SCALE

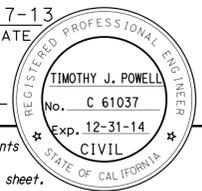
DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

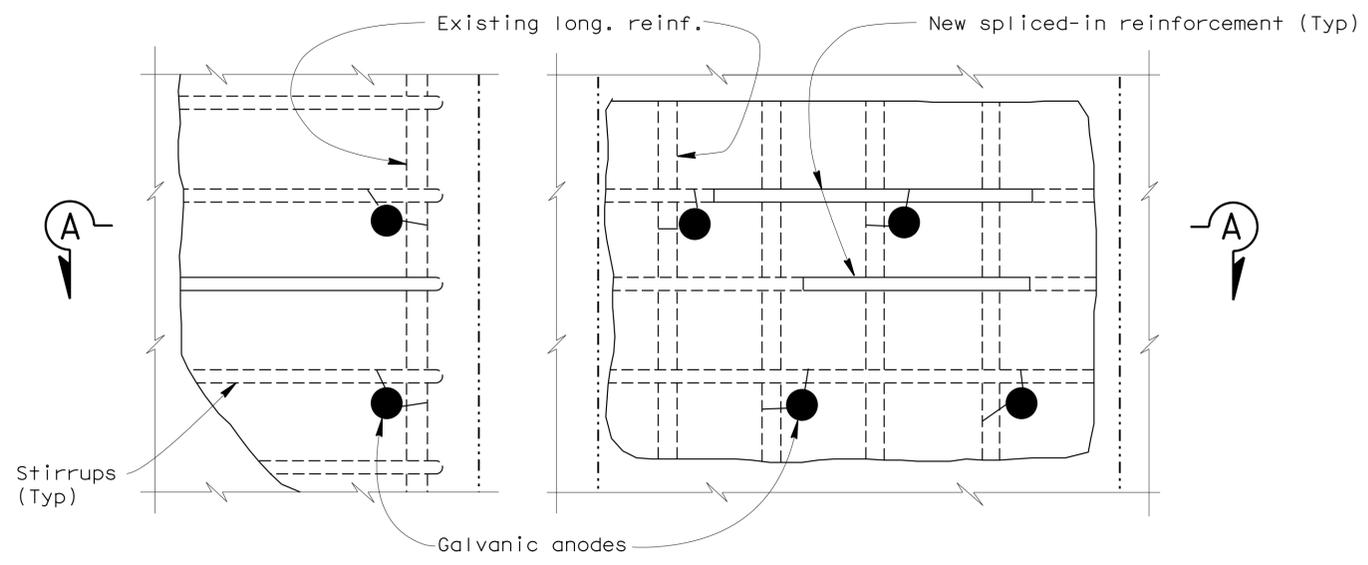
BRIDGE NO.	17-0063R
POST MILE	28

**I-80 BRIDGES
CABLE RESTRAINER DETAILS NO. 6**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	R9.0,28.1	26	27
			9-17-13		
REGISTERED CIVIL ENGINEER			DATE		
3-3-14			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>					

TEMPORARY SUPPORT TABLE					
BRIDGE	LOCATION		DL (k)	DL + [LL + I](k)	LATERAL LOAD (k)
17-0076L	BENT 2	EAST SIDE	606	766	30
		WEST SIDE	606	766	30
17-0076L	BENT 3	EAST SIDE	606	766	30
		WEST SIDE	606	766	30
17-0076R	BENT 2	EAST SIDE	314	464	16
		WEST SIDE	314	464	16
17-0076R	BENT 3	EAST SIDE	314	464	16
		WEST SIDE	314	464	16

The maximum allowable transverse displacement of the superstructure measured at the bottom flanges of the girders relative to the base of the temporary support is 1". The differential vertical lift between jacks shall not exceed 1/16". The temporary support shall be jacked to provide a snug fit with the girders.



ELEVATION OF CORNER AND FACE REPAIRS

No Scale

NOTES:

1. Ensure all exposed reinforcement is clean and securely fastened together with tie wire to provide good continuity.
2. Remove all rusted reinforcement and splice with new bars as directed by the Engineer. Clean all remaining exposed reinforcement to bare metal.
3. Attach galvanic anodes to clean reinforcement at spacing outlined in manufacturers guidelines.

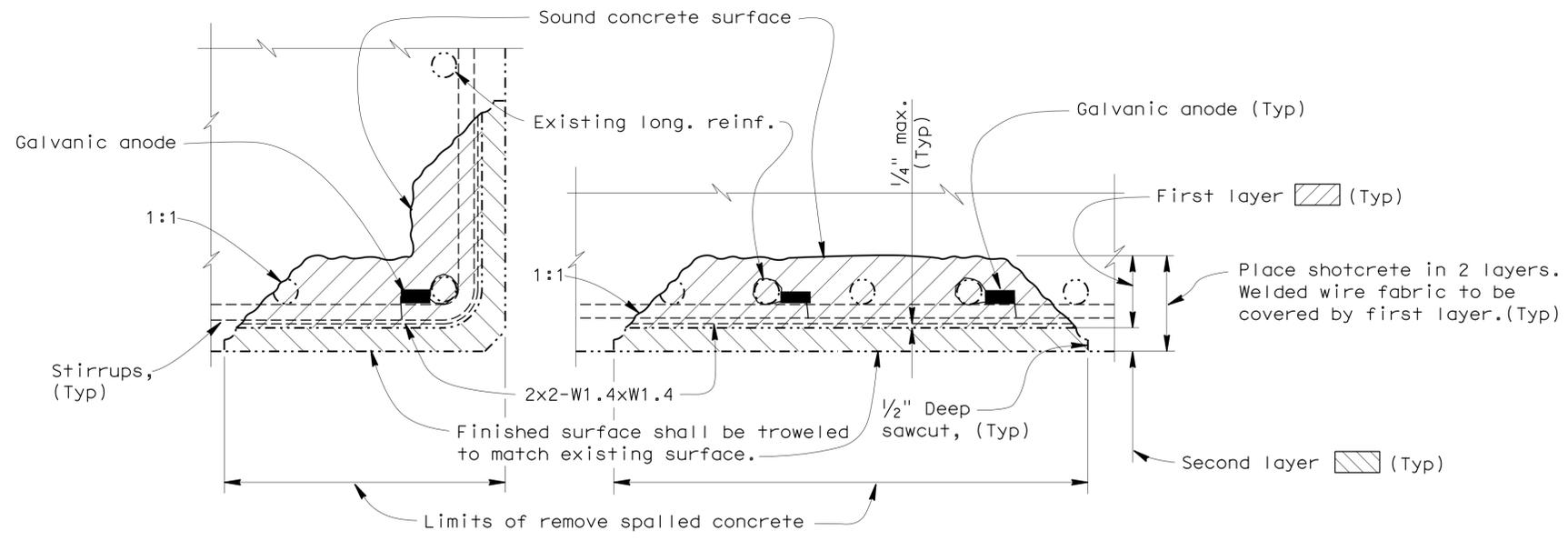
**GENERAL NOTES
LOAD FACTOR DESIGN**

DESIGN: BRIDGE DESIGN SPECIFICATIONS (1996 AASHTO with Interims and Revisions by CALTRANS)

DEAD LOAD: Includes 35 psf for future wearing surface.

LIVE LOADING: HL93 and permit design load.

STRUCTURAL SHOTCRETE: $f_y = 60$ ksi
 $f'_c = 3.6$ ksi
 $n = 8$



SECTION A-A

No Scale

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

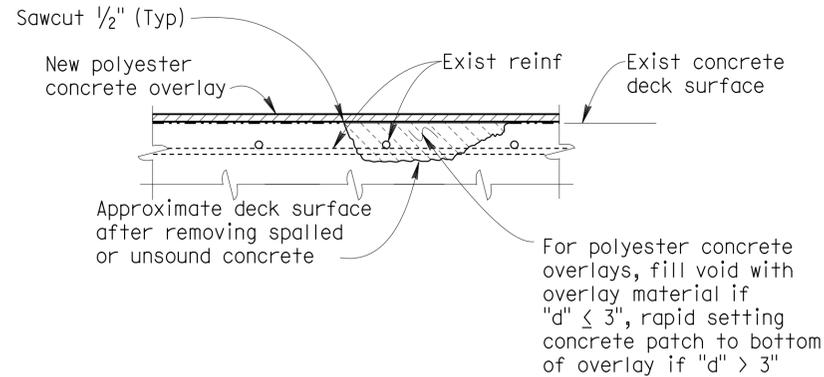
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 17-0076L/R
POST MILE R9.07

**I-80 BRIDGES
SPALL REPAIR DETAILS**

JOINT SEAL TABLE							
BRIDGE NAME	BRIDGE NUMBER	LOCATION	MINIMUM "MR" (inches)	APPROXIMATE LENGTH (feet)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXPANSION JOINT (inches)	EXISTING SNOW PLOW DEFLECTORS (Yes/No)
TRUCKEE RIVER	17-0063L	Abut 1	1/2	50	No	12	Yes
		Abut 5	1/2	50	No	12	Yes
TRUCKEE RIVER	17-0063R	Abut 1	1/2	47	No	12	Yes
		Pier 2	1	47	No	12	Yes
		Pier 3	1	47	No	12	Yes
		Pier 4	1	47	No	12	Yes
		Abut 5	1/2	47	No	12	Yes
DONNER LAKE UNDERCROSSING	17-0076L	Abut 1	1/2	57	No	12	Yes
		Bent 2	1	57	No	12	Yes
		Bent 3	1	57	No	12	Yes
DONNER LAKE UNDERCROSSING	17-0076R	Abut 1	1/2	54	No	12	Yes
		Bent 2	1/2	54	No	12	Yes
		Abut 4	1/2	54	No	12	Yes

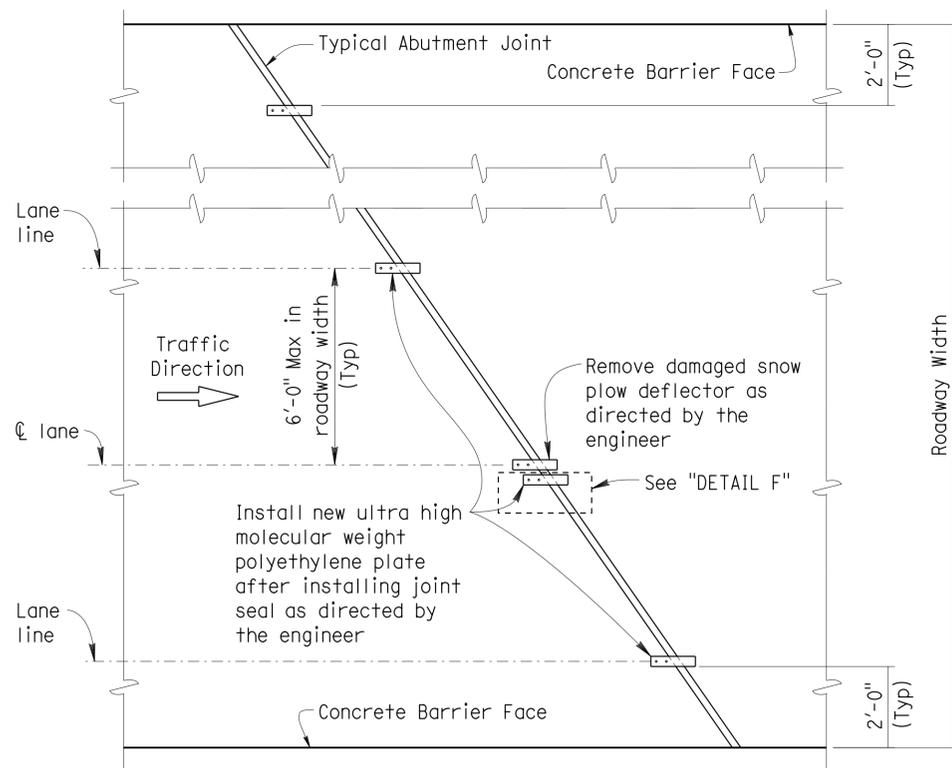


DECK REPAIR DETAIL

Reinforcement may be encountered during deck concrete removal.
NO SCALE

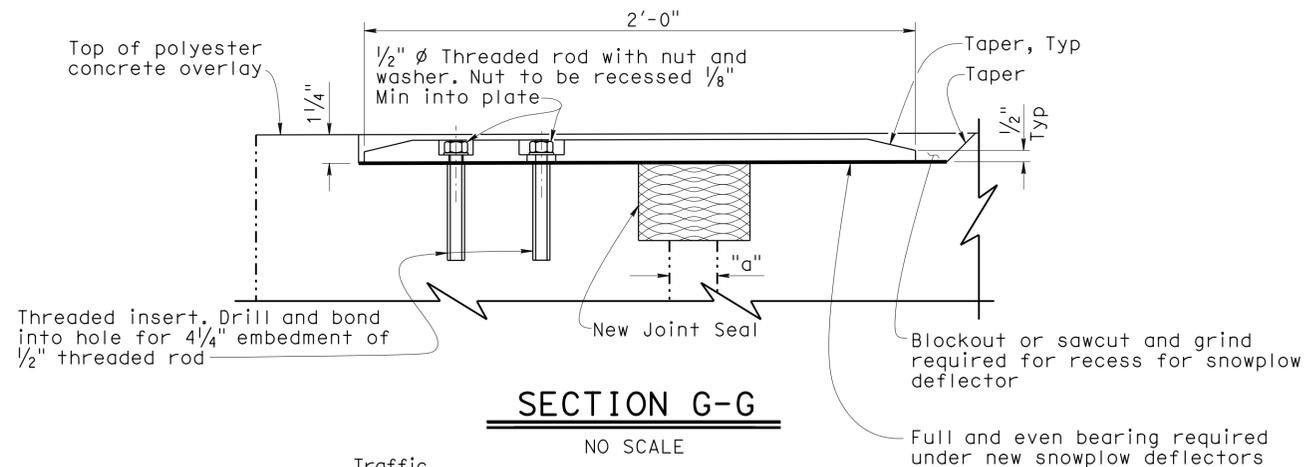
DECK REPAIR TABLE					
BRIDGE NAME	BRIDGE NUMBER	DECK AREA (FT ²)	APPROXIMATE AREA DAMAGED (PERCENT)	APPROXIMATE DEPTH (INCHES)	AREA (FT ²)
TRUCKEE RIVER	17-0063L	15,397	2	3	308
DONNER LAKE UNDERCROSSING	17-0076L	14,005	2	3	280
DONNER LAKE UNDERCROSSING	17-0076R	7593	2	3	152

Note: Use compression seals only at all joint locations.



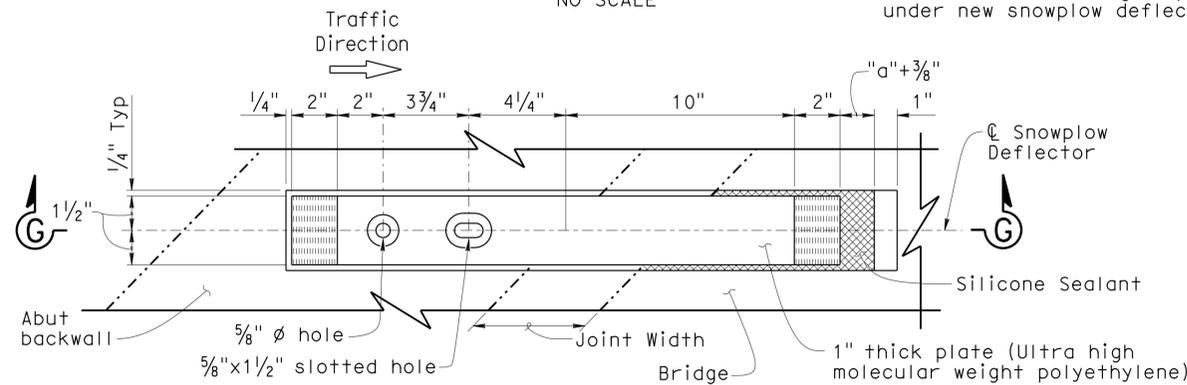
SNOWPLOW DEFLECTOR TYPICAL PLAN

NO SCALE



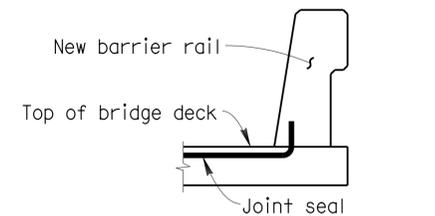
SECTION G-G

NO SCALE



DETAIL F

NO SCALE



JOINT SEAL AT LOW SIDE OF DECK

DETAILS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
FOR USE ONLY WHERE DECK JOINT MATCHES THE BARRIER RAIL JOINT.
NO SCALE

DESIGN	BY T. Powell	CHECKED C. Hutchinson
DETAILS	BY M. Hallstrom	CHECKED C. Hutchinson
QUANTITIES	BY T. Powell	CHECKED C. Hutchinson

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BRIDGE NO.	17-0063R
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I-80 BRIDGES
SNOWPLOW DEFLECTOR DETAILS