ROAD NO. 80130	MILE POST PM 0.3	KEVIN ROSS	DEPARTMENT OF PUBLIC WORKS		1
PROJECT NO.: CR 4400(070)	EA NO.: 01-1Z4903	DESIGNED BY: DHA	RED CAP ROAD BRIDGE REPLACEMENT		OF
CONTRACT NO.: 594021	BRIDGE NO.: 04C-0259	DRAWN BY: DHA	COVER SHEET		57
DRAWING FILE NAME: XXXXXXXXX		REVIEWED BY: DFW			
PLOT DATE: 05/26/15					

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
1	HUM	C.R.	0.3

drake haglan AND ASSOCIATES

County of Humboldt Department of Public Works
1106 2nd Street
Eureka, CA 95501

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
PROJECT PLANS FOR CONSTRUCTION OF

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH at PM 0.30

CONTRACT NO. 594021

FEDERAL HIGHWAY BRIDGE PROGRAM PROJECT
FEDERAL AID PROJECT BRLO-5904(113)
BRIDGE NO. 04C-0259

TO BE SUPPLEMENTED BY STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, STANDARD SPECIFICATIONS, AND AMENDMENTS DATED 2010

INDEX OF SHEETS

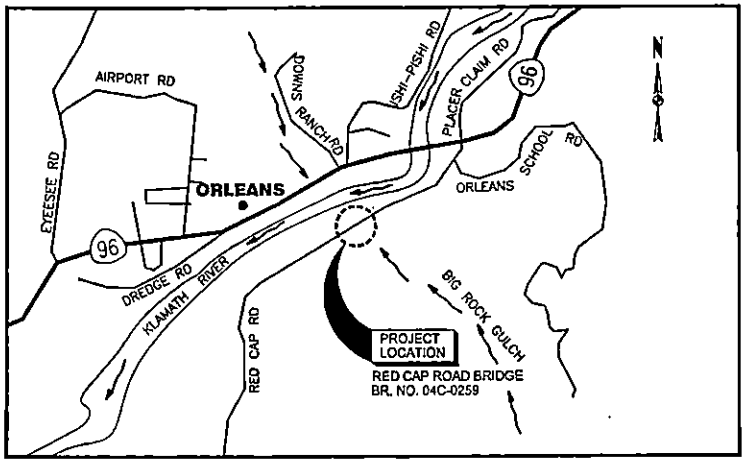
UTILITY CONTACTS

UTILITY	COMPANY	REPRESENTATIVE	PHONE
GAS & ELECTRICITY	PG&E	ALEX MOSSMAN	(707) 445-5533
WATER	ORLEANS COMMUNITY SERVICES DISTRICT	JAMES TRASK	(530) 627-3454
COMMUNICATION	VERIZON	DENNIS HARMAN	(530) 623-5546

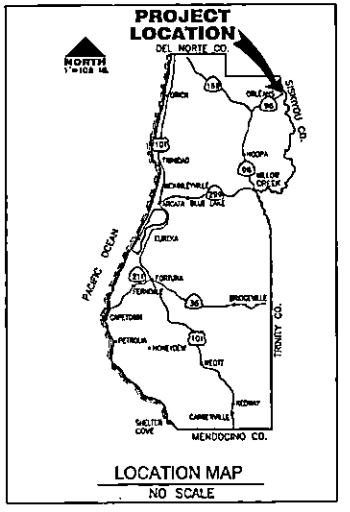
CALTRANS STANDARD PLANS DATED 2010

A10A, A10C, A10D, A10E, A20A, A20B, A62A, A73A, A73B, A73C, H51, H52, RS1, RS2, RS4, T3A, T3B, T51, T53, T57, T58, T59, T60, AND T65.

REVISED STANDARD PLANS (RSP)
A10B, A87B, A77L1, A77M1, A77N1, A77N3, A77N4, A77N5, A77N6, A77N7, A77U2, AND A77U4, AND T13.



VICINITY MAP
NO TO SCALE



LOCATION MAP
NO SCALE

AVOID CUTTING UNDERGROUND UTILITY LINES IT'S COSTLY
Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE ALERT (USA)

The Contractor shall possess the Class (or Classes) of license as specified in the "Notice to Contractors" on page 1 of the Special Provisions.

Kevin J Ross

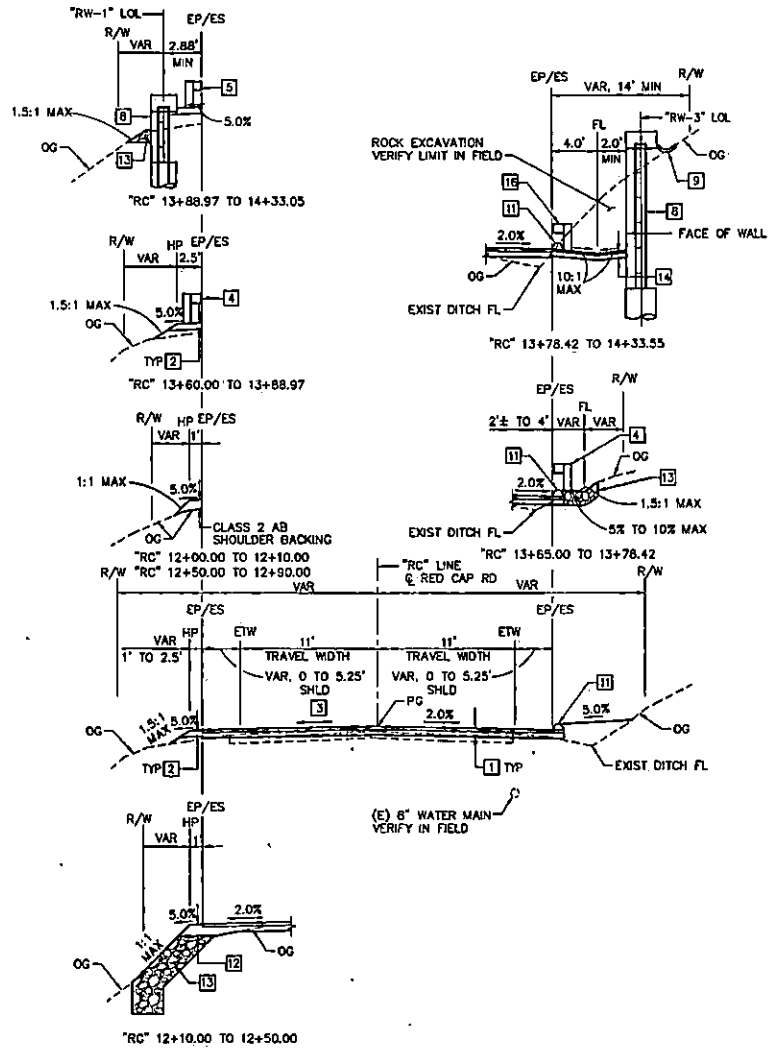
08/22/2014
DATE

KEVIN ROSS, P.E.
DRAKE HAGLAN AND ASSOCIATES, PROJECT MANAGER
RCE 49652, EXP. 9/30/2018

REGISTERED PROFESSIONAL ENGINEER
KEVIN J ROSS
NO. 49652
EXP. 09/30/18
CIVIL
STATE OF CALIFORNIA

T-1

ORIGINAL LOW BID PRICE	CONSTRUCTED BY	RESIDENT ENGINEER
	PROJECT COMPLETED / /	CONSTRUCTION COST $



RED CAP ROAD
"RC" 11+90.00 TO 14+33.55

GENERAL NOTES:

1. PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE IN THE FIELD THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY THE MEMBERS OF THE UNDERGROUND SERVICE ALERT (U.S.A.) 48 HOURS IN ADVANCE OF PERFORMING EXCAVATION WORK OR SIGN RELOCATION WORK BY CALLING THE TOLL-FREE NUMBER 1-800-227-2600.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS AND DEPTHS. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES, SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES, AND SERVICES TO THE PROJECT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS. ALL RE-TESTING SHALL BE PAID BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO PRESERVE AND PROTECT ALL EXISTING SURVEY MONUMENTS OR OTHER SURVEY MARKERS. ANY MONUMENTS, DAMAGED, DISPLACED, OBLITERATED OR LOST SHALL BE RE-ESTABLISHED OR REPLACED BY PERSONS AUTHORIZED TO PRACTICE LAND SURVEYING AT THE CONTRACTOR'S SOLE EXPENSE.

TYPICAL CROSS SECTION NOTES:

1. DIMENSIONS OF THE STRUCTURAL SECTION ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. FOR LOCATIONS OF PAVEMENT TRANSITION, MGS, HMA DIKES, AND HMA SHOULDER BACKING, SEE LAYOUT SHEETS.
3. FOR LOCATIONS OF HMA VALLEY GUTTER AND ROCK SLOPE PROTECTION V-DITCH, SEE CONSTRUCTION DETAILS SHEET CD-4.
4. FOR LOCATIONS AND DETAILS OF SOLDIER PILE WALLS AND WING WALLS, SEE BRIDGE PLANS.

DESGIN DESIGNATION:

TRAFFIC INDEX (TI)	= 7.0
AVERAGE DAILY TRAFFIC VOLUME (ADT, CURRENT)	= 400
AVERAGE DAILY TRAFFIC VOLUME (ADT, 2020)	= 600
ROADWAY CLASSIFICATION	= MINOR RURAL COLLECTOR
DESIGN SPEED	= 40MPH
R-VALUE	= 50

CONSTRUCTION NOTES:

1. 4" HMA (1/2", TYPE A) / 6" CLASS 2 AB
2. 6" CLASS 2 AB SHOULDER BACKING
3. — 2% MAX, VARIES PER SUPERELEVATION DIAGRAM, SEE SHEET SE-1
4. — MGS ALTERNATIVE IN-LINE TERMINAL SYSTEM (8" X 8" X 7'-0" WOOD POST WITH 8" X 8" X 1'-2" WOOD BLOCK)
5. — MGS MODIFIED TRANSITION RAILING, SEE SHEET CD-6
6. — HMA DIKE (TYPE C) PER CALTRANS STD PLAN A87B
7. — HMA DIKE (TYPE F) PER CALTRANS STD PLAN A87B
8. — SOLDIER PILE WALL, SEE RETAINING WALL PLANS
9. — GUTTER BEHIND THE WALL, SEE SHEET DD-1
10. — VEGETATION CONTROL PER CALTRANS STD PLANS A77N5, A77N6, AND A77N7.
11. — HMA DIKE (TYPE A) PER CALTRANS STD PLAN A87B
12. — 12" CLASS 2 AB SHOULDER BACKING
13. — ROCK SLOPE PROTECTION (FACING, METHOD B), SEE SHEETS CD-3, CD-4 AND CD-5
14. 2.5" HMA (1/2", TYPE A) / 6" CLASS 2 AB
15. — MGS ALTERNATIVE FLARED TERMINAL SYSTEM (8" X 8" X 7'-0" WOOD POST WITH 8" X 8" X 1'-2" WOOD BLOCK)
16. — MGS TRANSITION RAILING (TYPE WB-31) PER CALTRANS STD PLAN RSP A77U4
17. — HMA PAVEMENT EXTENSION 4" HMA (1/2", TYPE A) / 6" CLASS 2 AB

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
TEL (707) 445-7491
FAX (707) 445-7409

DESIGNED: K. LI
DRAWN: K. LI
CHECKED: J. SILVA
APPROVED: K. ROSS

drake haglan AND ASSOCIATES
11050 White Rock Road, Suite 200
Rancho Cordova, CA 95670

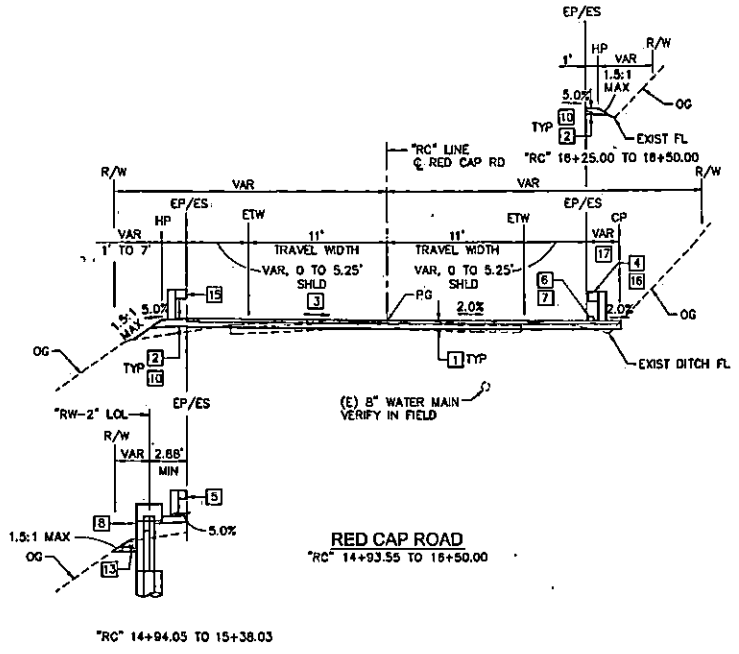
SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

TYPICAL SECTIONS NO. 1

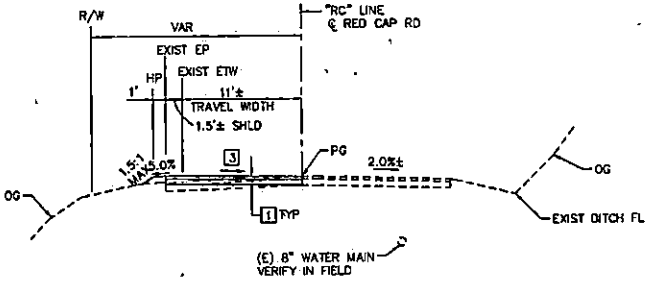
X-1

ORIGINAL SCALE: NO SCALE
DATE: 05/28/15
SHEET 2 OF 57



RED CAP ROAD
"RC" 14+93.55 TO 15+50.00

"RC" 14+94.05 TO 15+38.03



RED CAP ROAD
"RC" 16+50.00 TO 17+00.00

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
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APPROVED: K. ROSS

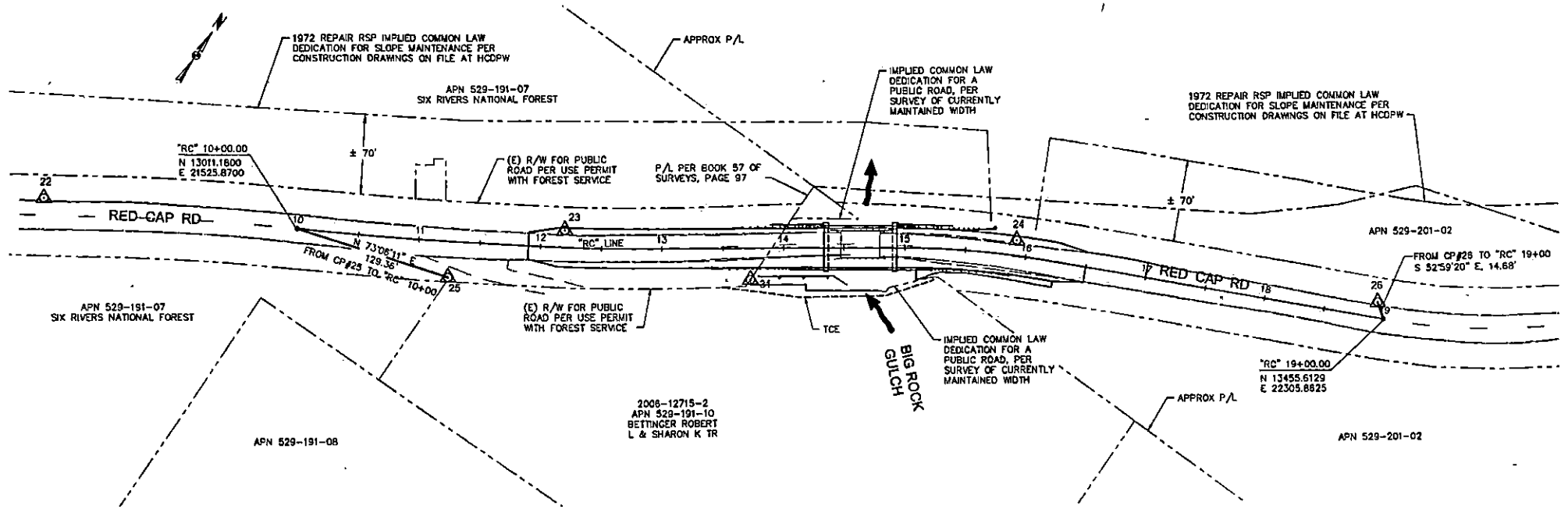
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT
OVER BIG ROCK GULCH

TYPICAL SECTIONS NO. 2

X-2
ORIGINAL SCALE: NO SCALE
DATE: 05/28/15
SHEET 3 OF 57



NOTES:

FOR COMPLETE RIGHT-OF-WAY DATA, SEE RECORD MAPS AT COUNTY OFFICE.

ROW NOTE:
OVER LANDS OF USA, RIGHT-OF-WAY IS 66' WIDE, 33' EACH SIDE OF CENTERLINE PER USE PERMIT WITH US FOREST SERVICE, OTHER THAN THE AREA NEAR BIG GULCH BRIDGE, APPROX. STATION 14+50 AREA NEAR BIG ROCK GULCH BRIDGE IS IMPLIED COMMON LAW DEDICATION FOR AN IRREGULARLY SHAPED AREA SURVEYED HISTORICALLY MAINTAINED ROAD LIMITS.

BASIS OF BEARINGS AND COORDINATES
BOOK 21 OF SURVEYS PAGE 59.
CP19 = CORNER NOTE 7 THEREON, CP 20 = CORNER NOTE 4 THERON, CP18 = CORNER NOTE 5 THERON. BEARING FROM CORNER NOTE 4 TO CORNER NOTE 7 HELD.

BASIS OF ELEVATIONS
ELEVATIONS FOR THIS SURVEY ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29) AS REFERENCED BY CP100 (ELEVATION = 414.32) LOCATED ON USGS GAGE UPSTREAM OF US96 BRIDGE, UNIT SHOWN ARE BASED ON US SURVEY FOOT.

CONTROL FOR DESIGN AND CONSTRUCTION

CP #	NORTHING	EASTING	ELEVATION	DESCRIPTION	REMARKS
1	10000.00	20000.00	452.19	80D SPIKE	
16	10591.44	20192.35	435.09	2.5" BC-OPC#5 "RE1754-1963"	
19	10244.63	19697.58	–	USDA3.25"ALCAP	
20	11419.62	20418.07	406.67	2.5" BC-OPC#4 "RE1754-1963"	
22	12913.77	21342.38	414.35	80D NAIL	
23	13134.96	21706.86	412.41	80D NAIL	
24	13338.29	22019.31	412.88	80D NAIL	
25	13048.78	21649.65	413.21	USDA3.25"ALCAP	
26	13464.45	22294.14	409.04	80D NAIL	
31	13187.81	21855.46	413.78	USDA3.25"ALCAP	REMAIN AND BE PROTECTED IN PLACE
100	14239.95	22458.29	414.32	FOUND BRASS CAP AT USGS GAGE UPSTREAM OF US96 BRIDGE	

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
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TEL (707) 445-7491
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DESIGNED: K. U
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CHECKED: J. SILVA
APPROVED: K. ROSS

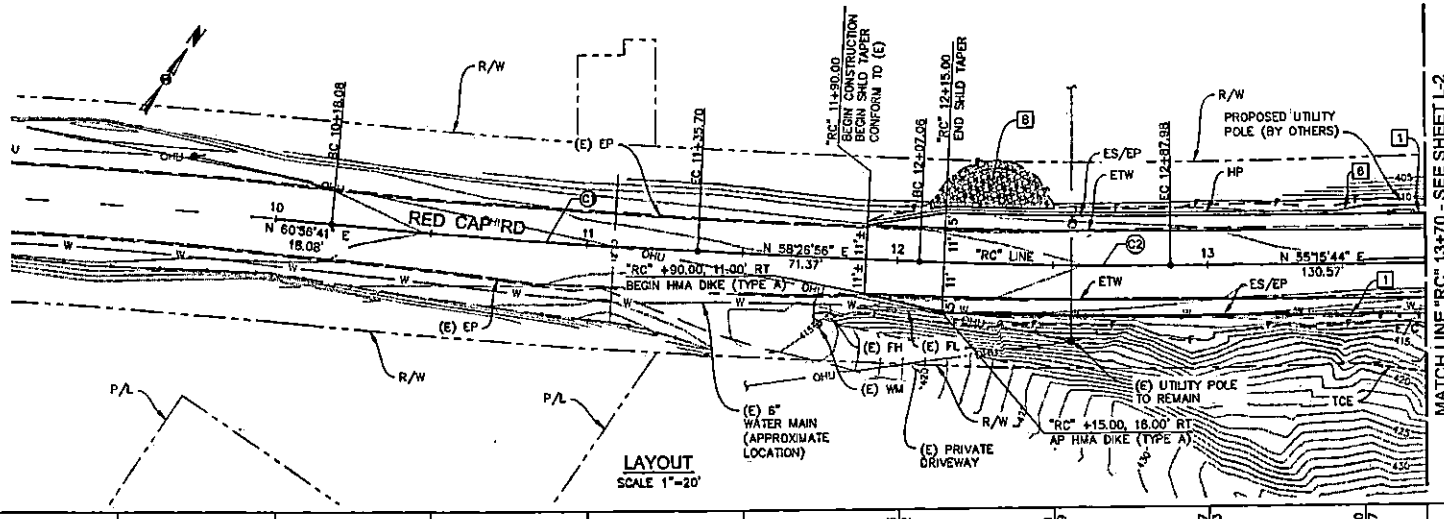
drakehaglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

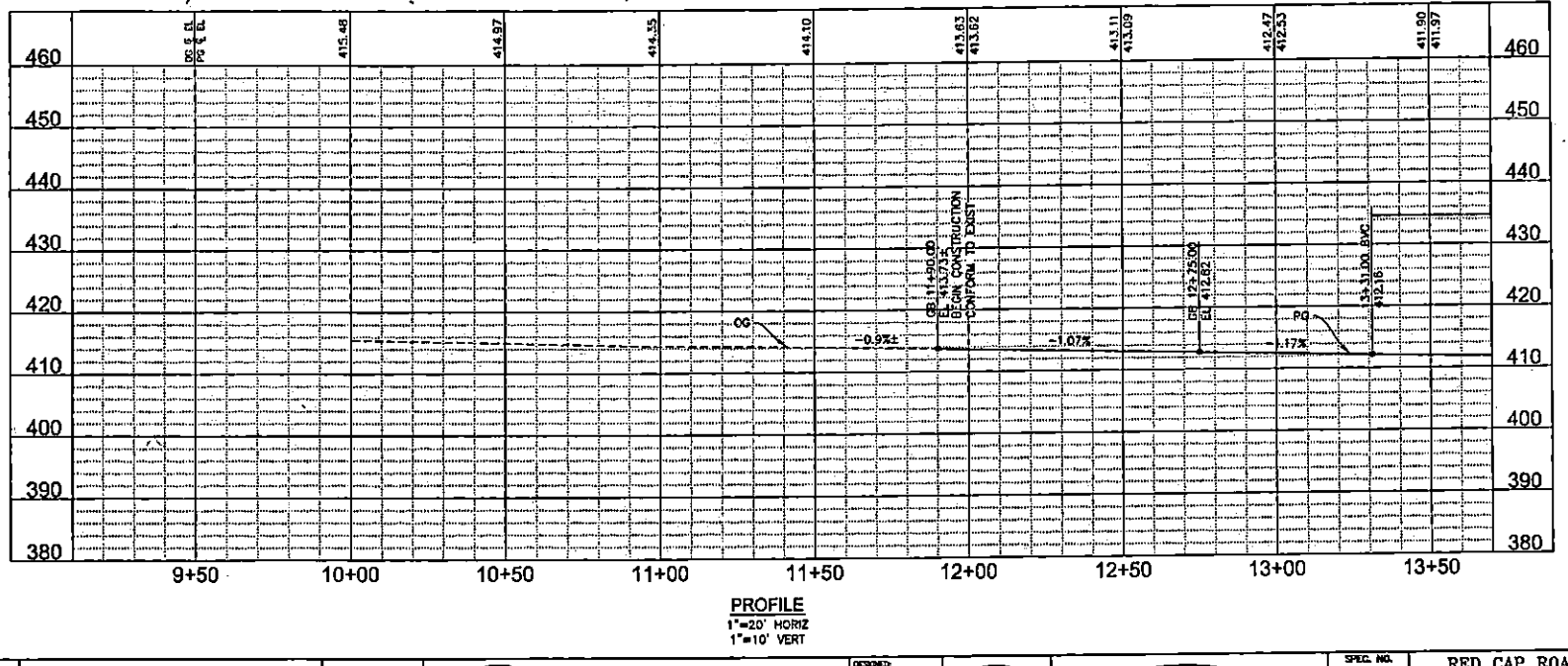
RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

PROJECT CONTROL

PC-1
ORIGINAL SCALE: NO SCALE
DATE: 05/28/15
SHEET 4 OF 57



LAYOUT
SCALE 1"=20'



PROFILE
1"=20' HORIZ
1"=10' VERT

LEGEND

- EXISTING RIGHT-OF-WAY / PROPERTY LINE (P/L)
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT (TCE)
- —C— CUT
- —F— FILL
- FLOWLINE
- ROCK SLOPE PROTECTION, SEE SHEETS CD-1, CD-2, CD-3, CD-4 AND CD-5 FOR DETAILS
- CLEAN RIVER RUN ROCK, SEE SHEETS CD-1 AND CD-2 FOR DETAILS

CONSTRUCTION NOTE:

1. PLACE MGS ALTERNATIVE IN-LINE TERMINAL SYSTEM, 8" X 8" X 7'-0" WOOD POST WITH 8" X 8" X 1'-2" WOOD BLOCK.
6. SEE SHEET CD-4 FOR HINGE POINT TRANSITION DETAIL.
8. ROCK SLOPE PROTECTION, SEE DETAILS ON SHEET CD-5.

NOTE:

1. FOR COMPLETE RIGHT-OF-WAY DATA, SEE RECORD MAPS AT COUNTY OFFICE.

ALIGNMENT CURVE DATA				
No.	R	Δ	T	L
C1	2700.00	2°29'45"	58.82	117.61
C2	1500.00	3°05'26"	40.47	80.91

HORIZONTAL 20 10 0 20 40 GRAPHIC SCALE: 1"=20'

VERTICAL 10 5 0 10 20 GRAPHIC SCALE: 1"=10'

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
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APPROVED: K. ROSS

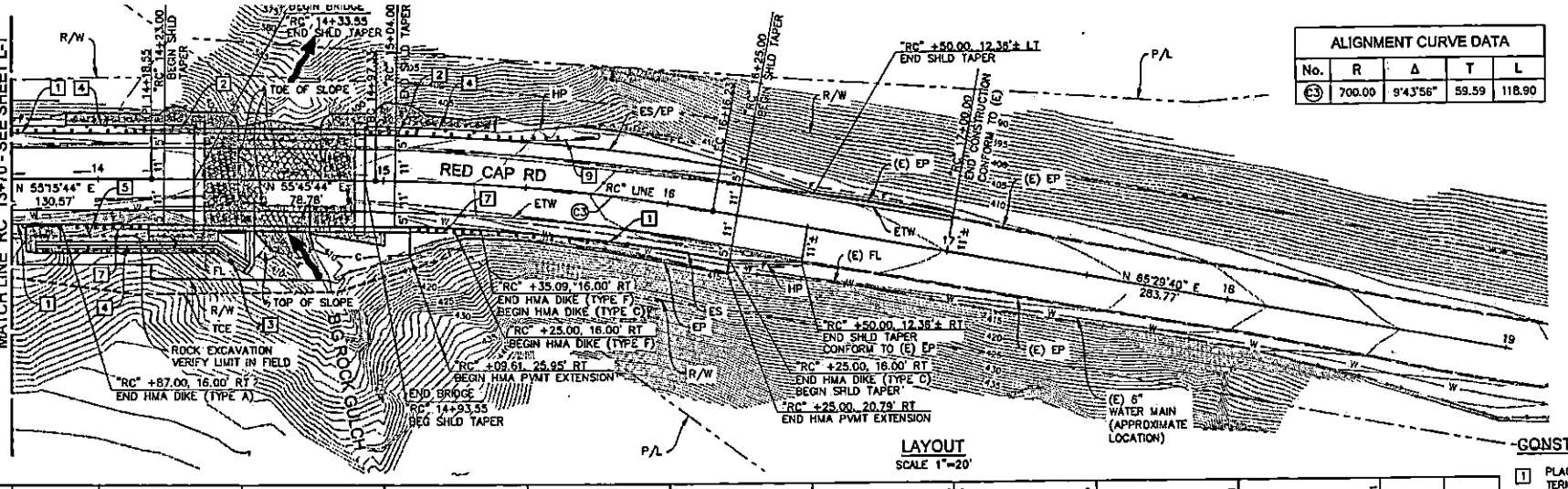
drake haglan AND ASSOCIATES
11080 White Rock Road, Suite 200
Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

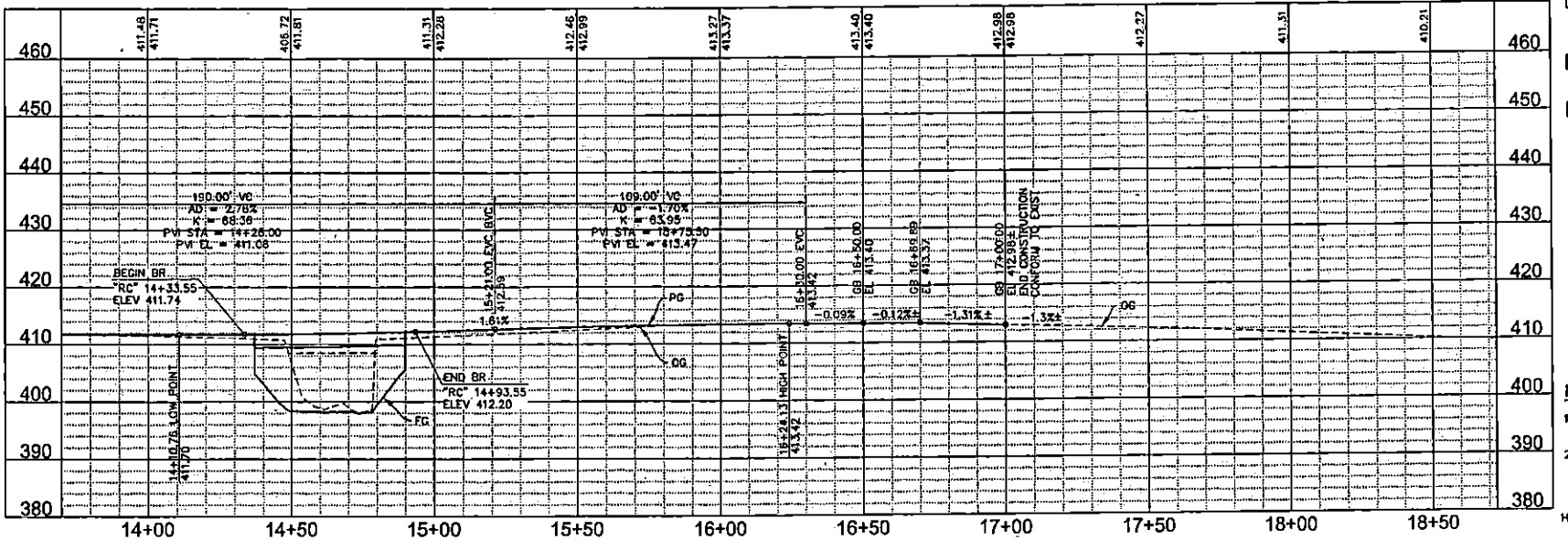
LAYOUT AND PROFILE NO. 1

L-1
ORIGINAL SCALE: AS SHOWN
DATE: 05/26/15
SHEET 5 OF 57



LAYOUT
SCALE 1"=20'

ALIGNMENT CURVE DATA				
No.	R	Δ	T	L
C3	700.00	9°43'56"	59.59	118.90



PROFILE
1"=20' HORIZ
1"=10' VERT

CONSTRUCTION NOTES:

1. PLACE MGS ALTERNATIVE IN-LINE TERMINAL SYSTEM, 8"-X 8" X 7'-0" WOOD POST WITH 8" X 8" X 1'-2" WOOD BLOCK.
2. PLACE MGS MODIFIED TRANSITION RAILING PER DETAILS ON SHEET CD-6.
3. CONSTRUCT GUTTER BEHIND THE SOLDIER PILE WALL, SEE SHEET DD-1 FOR DETAILS.
4. CONSTRUCT SOLDIER PILE WALL, SEE RETAINING WALL PLANS FOR DETAILS.
5. CONSTRUCT HMA PAVED OPENING AND VALLEY GUTTER, SEE CD-4 FOR DETAILS.
6. SEE SHEET CD-4 FOR HINGE POINT TRANSITION DETAIL.
7. PLACE MGS TRANSITION RAILING (TYPE WB-31) PER CALTRANS STD PLAN RSP A77U4.
9. PLACE MGS ALTERNATIVE FLARED TERMINAL SYSTEM, 8" X 8" X 7'-0" WOOD POST WITH 8" X 8" X 1'-2" WOOD BLOCK.

NOTES:

1. FOR COMPLETE RIGHT-OF-WAY DATA, SEE RECORD MAPS AT COUNTY OFFICE.
2. FOR SOLDIER PILE WALL DETAILS, SEE RETAINING WALL PLANS.

HORIZONTAL 20 10 0 20 40 GRAPHIC SCALE: 1"=20'
VERTICAL 10 5 0 10 20 GRAPHIC SCALE: 1"=10'

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
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APPROVED: K. ROSS

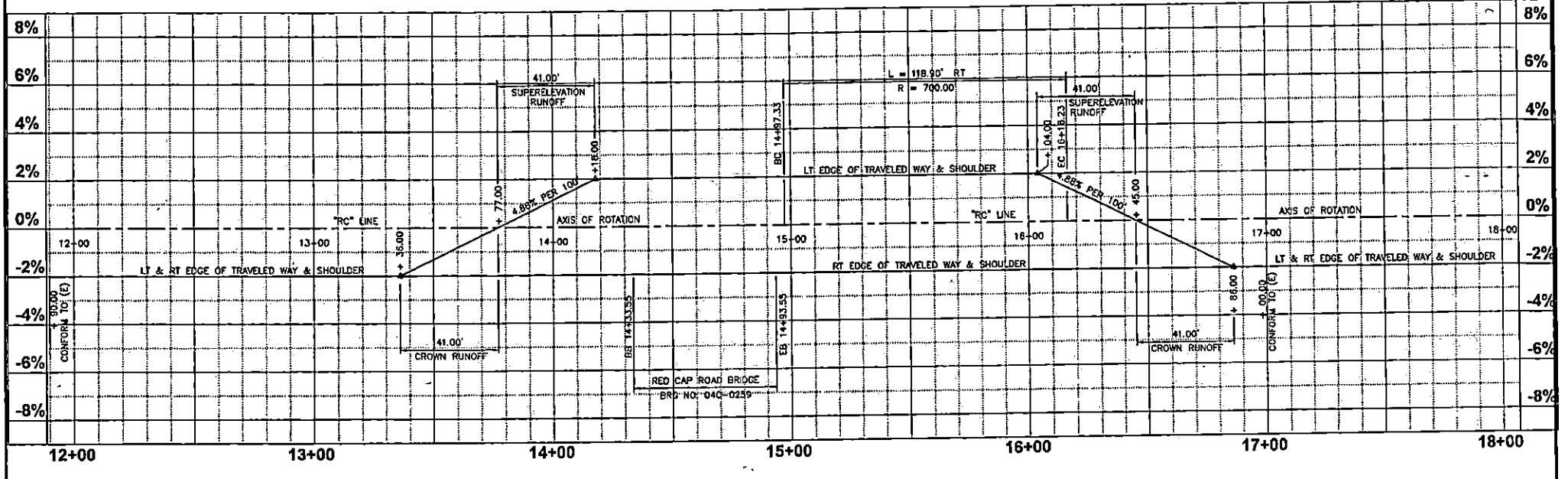
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

LAYOUT AND PROFILE NO. 2

L-2
ORIGINAL SCALE: AS SHOWN
DATE: 05/28/15
SHEET 6 OF 57



RED CAP ROAD "RC" LINE SUPERELEVATION DIAGRAM

SCALE 1"=20'

20 10 0 20 40

GRAPHIC SCALE: 1"=20'

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
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drake haglan AND ASSOCIATES
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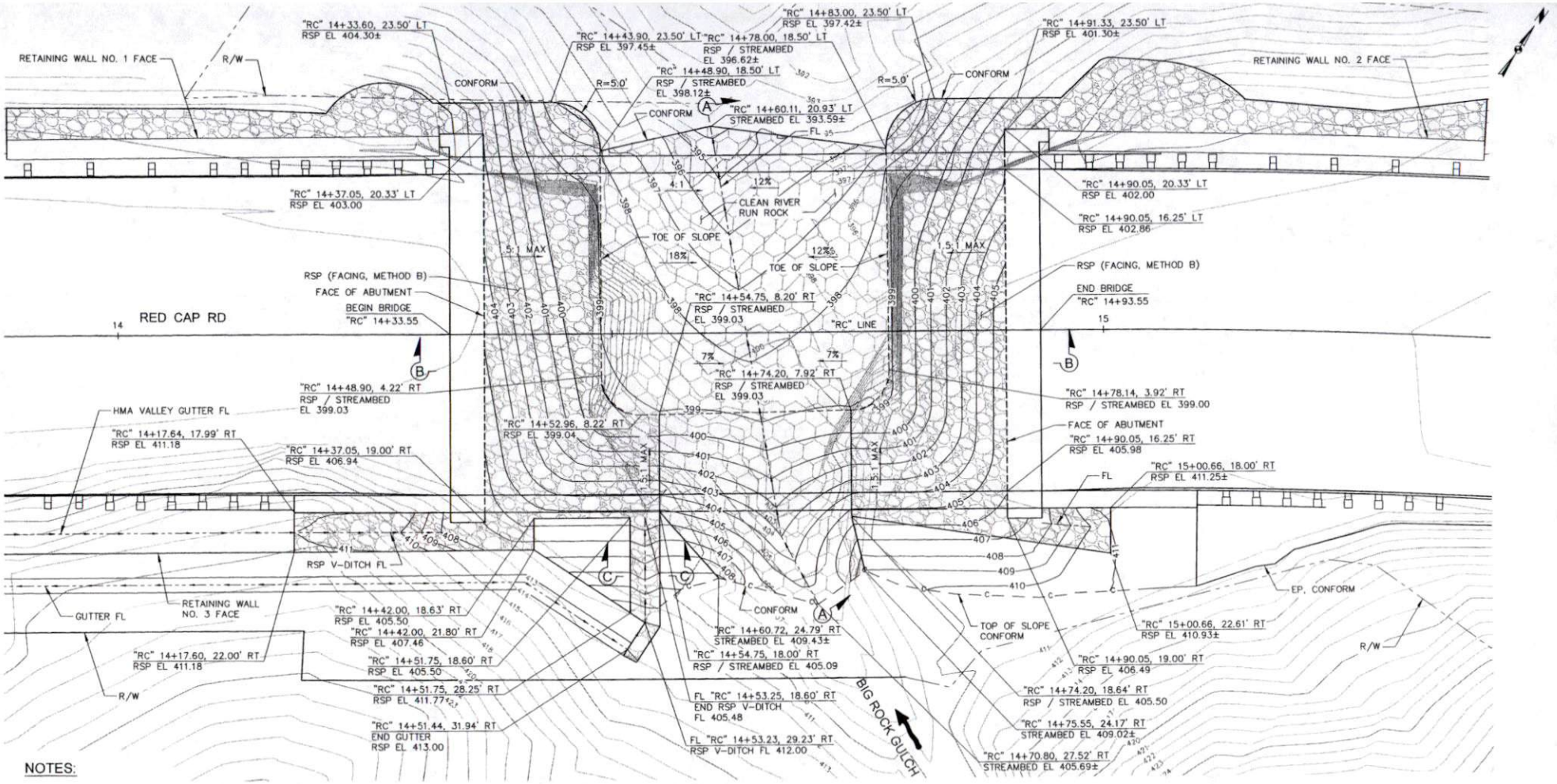
Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT
OVER BIG ROCK GULCH

SUPERELEVATION DIAGRAM

SE-1
ORIGINAL SCALE: AS SHOWN
DATE: 05/28/15
SHEET 7 OF 57



NOTES:

1. ROCK SLOPE PROTECTION IS TYPE "FACING, METHOD B" UNLESS OTHERWISE NOTED.
2. FOR SECTIONS A–A, B–B, AND C–C, SEE SHEET CD–2.
3. FOR ROCK SLOPE PROTECTION V–DITCH FLOW LINE ELEVATIONS NOT SHOWN HERE, SEE SHEET D–1.
4. FOR SOLDIER PILE WALL DETAILS, SEE RETAINING WALL PLANS.
5. FOR FLOW LINE ELEVATIONS OF GUTTER BEHIND THE WALL, SEE SHEET DD–1.
6. FOR ROCK SLOPE PROTECTION DETAILS IN FRONT OF RETAINING WALL NO. 1 AND 2, SEE SHEET CD–3.
7. FOR ROCK SLOPE PROTECTION DETAILS IN FRONT OF RETAINING WALL NO. 3, SEE SHEET CD–4.
8. DISTURBED AREA WITHIN THE LIMITS OF CREEK NOT COVERED BY EITHER THE ROCK SLOPE PROTECTION OR EROSION CONTROL SHALL BE COVERED WITH CLEAN RIVER RUN ROCK.

ROCK SLOPE PROTECTION DETAIL

SCALE: 1"=5'

LEGEND

ROCK SLOPE PROTECTION (FACING, METHOD B)

CLEAN RIVER RUN ROCK

GRAPHIC SCALE: 1"=5'

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
TEL (707) 445-7491
FAX (707) 445-7409

DESIGNED: K. U
DRAWN: K. U
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APPROVED: K. ROSS

QUONG U. No. CE 62796 Exp. 06/30/17 CIVIL STATE OF CALIFORNIA

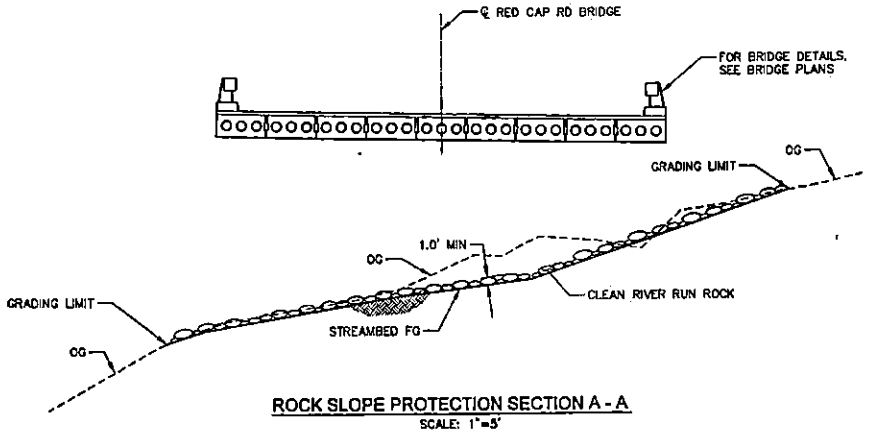
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

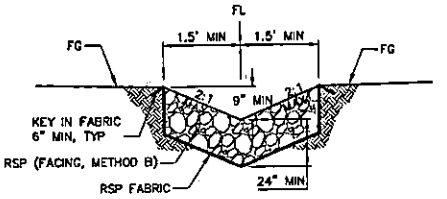
RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

CONSTRUCTION DETAILS NO. 1

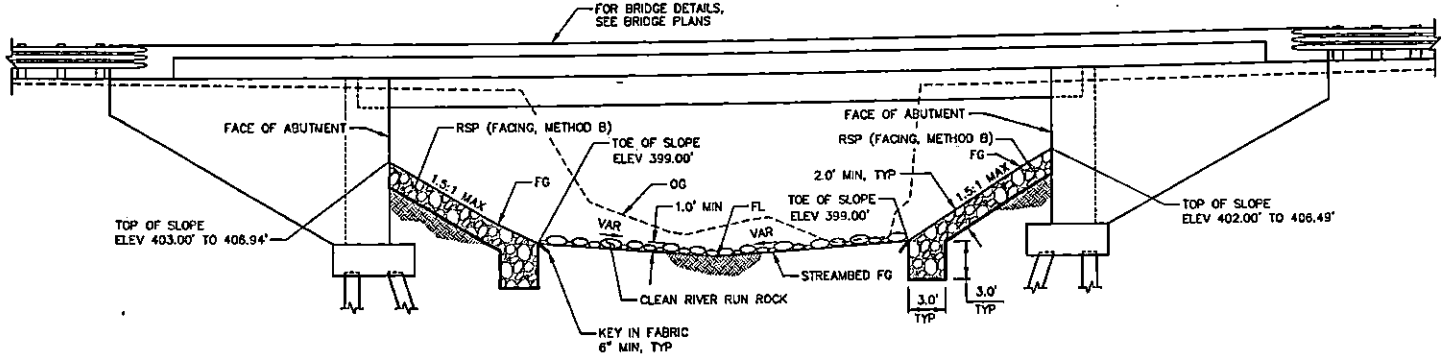
CD-1
ORIGINAL SCALE: AS SHOWN
DATE: 05/26/15
SHEET 8 OF 57



ROCK SLOPE PROTECTION SECTION A - A
SCALE: 1"=5'



ROCK SLOPE PROTECTION V-DITCH SECTION C - C
NO SCALE



ROCK SLOPE PROTECTION SECTION B - B
SCALE: 1"=5'

5 2.5 0 5 10
GRAPHIC SCALE: 1"=5'

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
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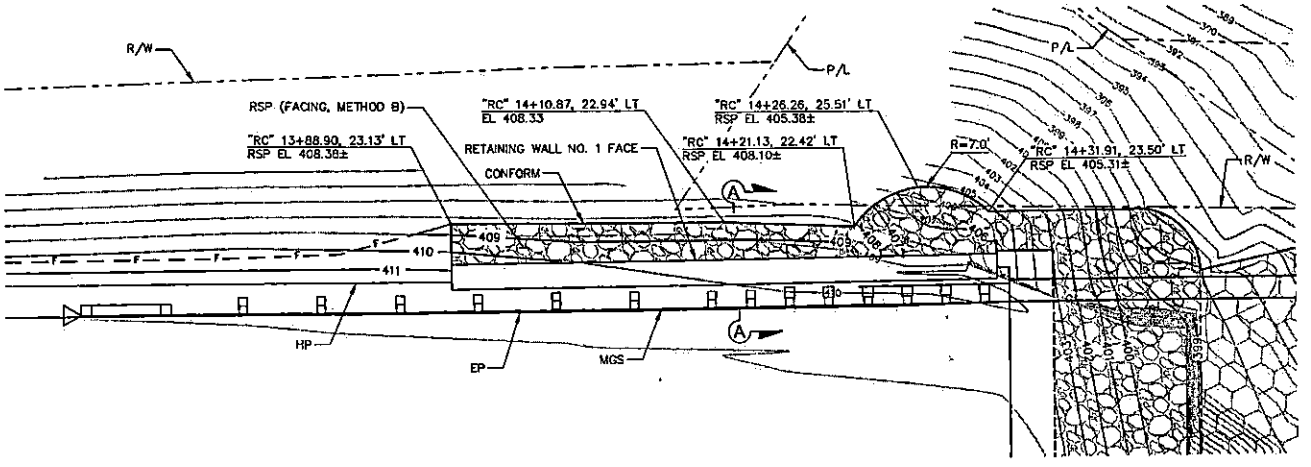
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

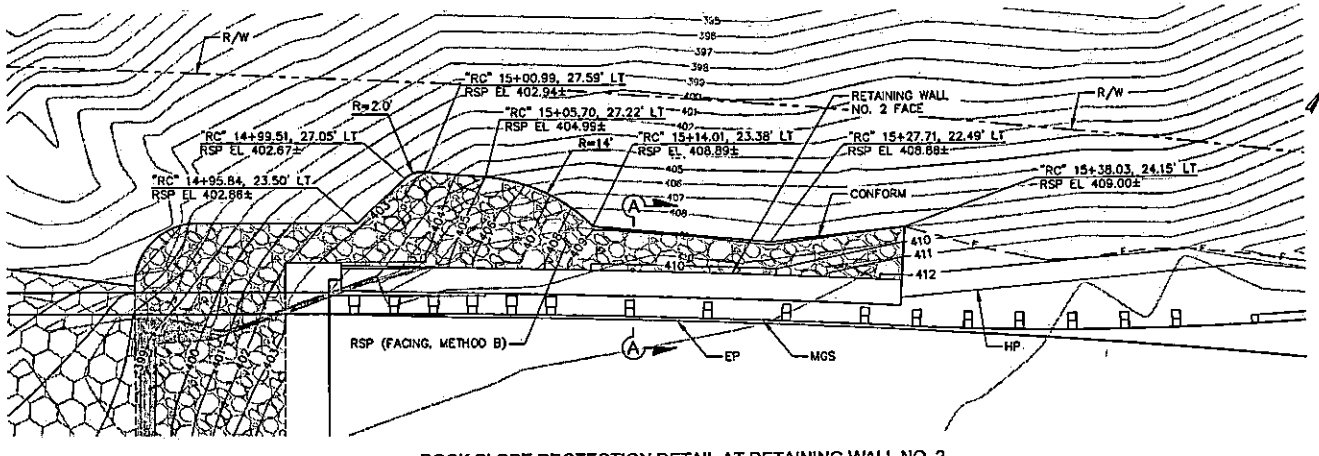
CONSTRUCTION DETAILS NO. 2

CD-2
ORIGINAL SCALE: AS SHOWN
DATE: 05/26/15
SHEET 9 OF 57



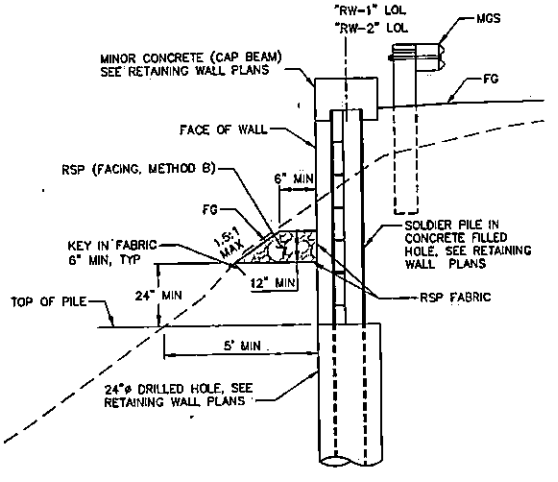
ROCK SLOPE PROTECTION DETAIL AT RETAINING WALL NO. 1

SCALE: 1"=5'



ROCK SLOPE PROTECTION DETAIL AT RETAINING WALL NO. 2

SCALE: 1"=5'



ROCK SLOPE PROTECTION DETAIL SECTION A - A

NO SCALE

NOTE:

1. FOR SOLDIER PILE WALL DETAILS, SEE RETAINING WALL PLANS.

5 2.5 0 5 10

GRAPHIC SCALE: 1"=5'

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
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Rancho Cordova, CA 95670

SPEC. NO.

PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT
OVER BIG ROCK GULCH

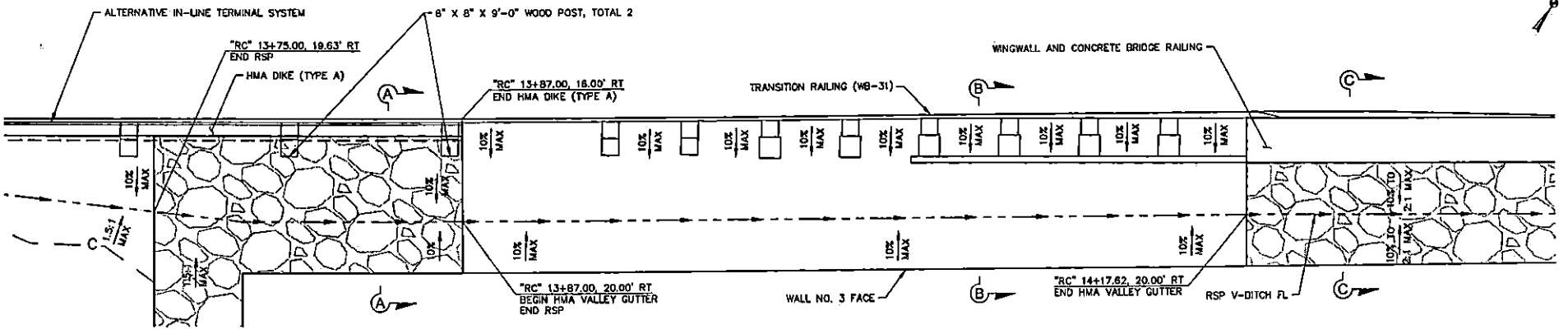
CONSTRUCTION DETAILS NO. 3

CD-3

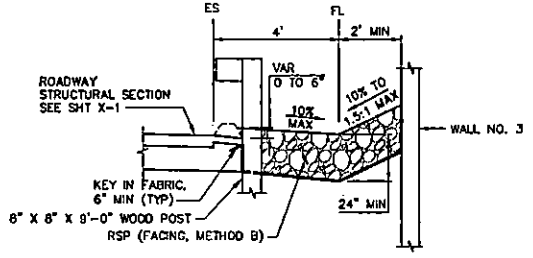
ORIGINAL SCALE: AS SHOWN

DATE: 05/28/15

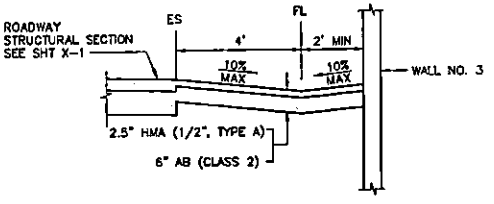
SHEET 10 OF 57



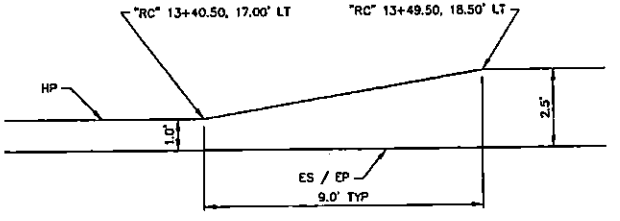
HMA VALLEY GUTTER DETAIL
SCALE: 1"=2'



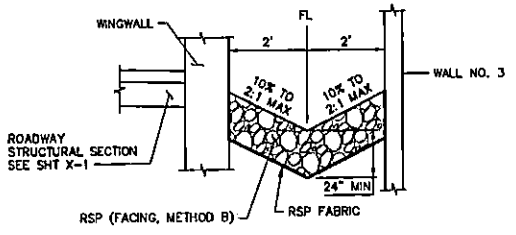
HMA VALLEY GUTTER SECTION A - A
NO SCALE



HMA VALLEY GUTTER SECTION B - B
NO SCALE



HINGE POINT TRANSITION TYPICAL DETAIL
SCALE" 1"=2'



ROCK SLOPE PROTECTION V-DITCH SECTION C - C
NO SCALE

NOTES:

1. FOR HMA VALLEY GUTTER AND ROCK SLOPE PROTECTION V-DITCH FLOW LINE ELEVATIONS NOT SHOWN HERE, SEE SHEET D-1.
2. FOR SOLDIER PILE WALL DETAILS, SEE BRIDGE PLANS.

GRAPHIC SCALE: 1"=2'

REVISION	DESCRIPTION	DATE

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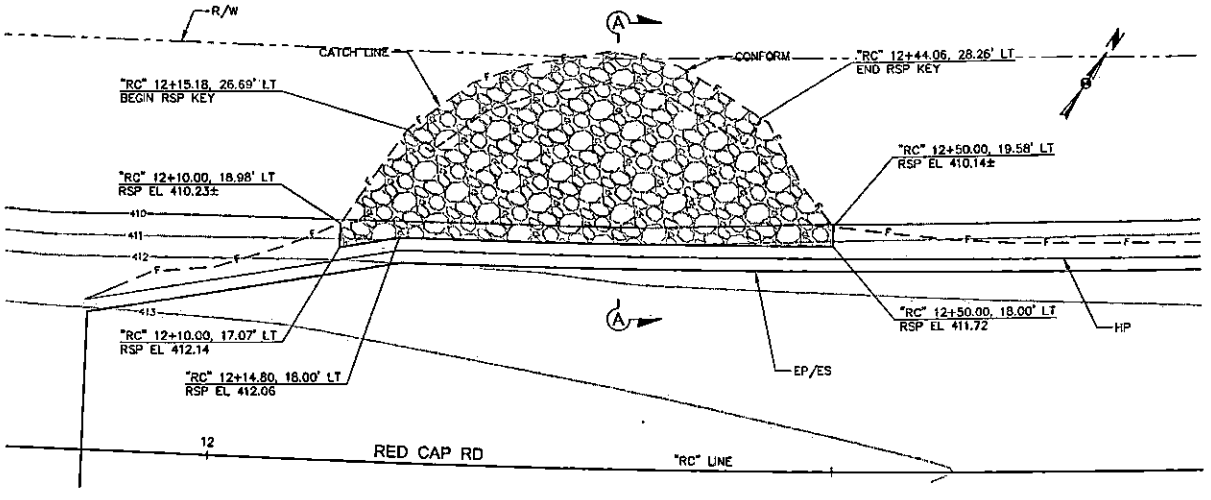
SPEC. NO.
PROJ. NO.

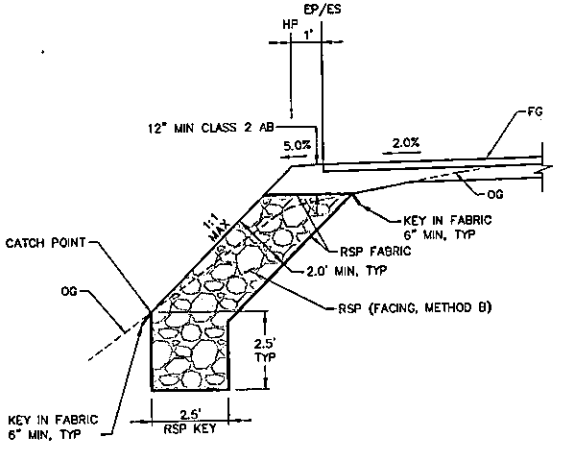
RED CAP ROAD BRIDGE REPLACEMENT
OVER BIG ROCK GULCH

CONSTRUCTION DETAILS NO. 4

CD-4
ORIGINAL SCALE: AS SHOWN
DATE: 05/26/15
SHEET 11 OF 57



ROCK SLOPE PROTECTION DETAIL
SCALE: 1"=5'



ROCK SLOPE PROTECTION SECTION A - A
NO SCALE

5 2.5 0 5 10
GRAPHIC SCALE: 1"=5'

REVISION	DESCRIPTION	DATE

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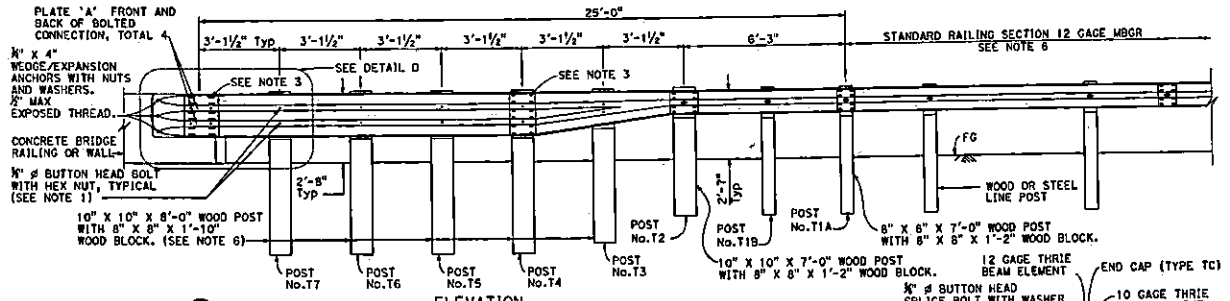
SPEC. NO.
PROJ. NO.

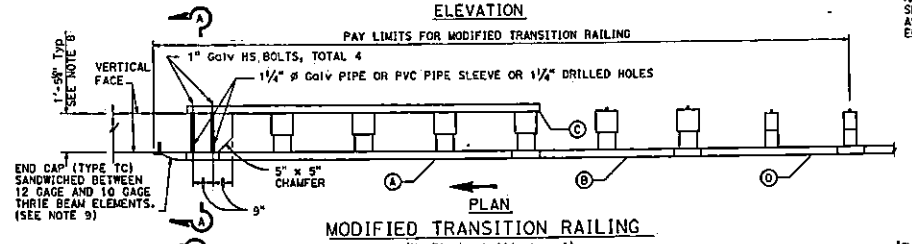
RED CAP ROAD BRIDGE REPLACEMENT
OVER BIG ROCK GULCH

CONSTRUCTION DETAILS NO. 5

CD-5
ORIGINAL SCALE: AS SHOWN
DATE: 05/28/15
SHEET 12 OF 57



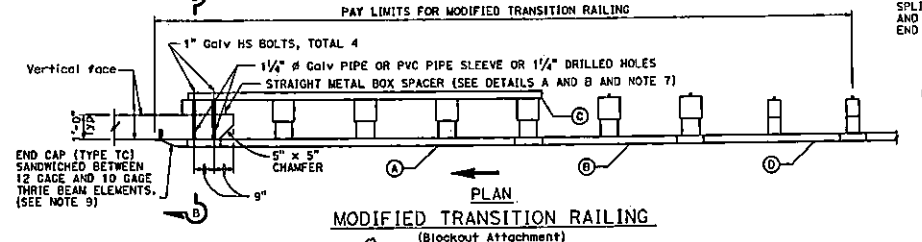
ELEVATION



PLAN

MODIFIED TRANSITION RAILING

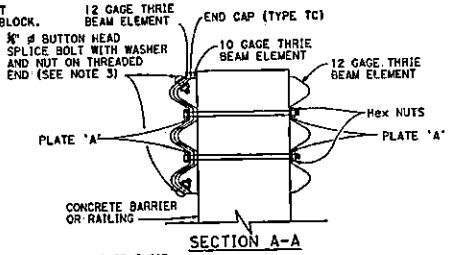
(No Blockout Attachment)



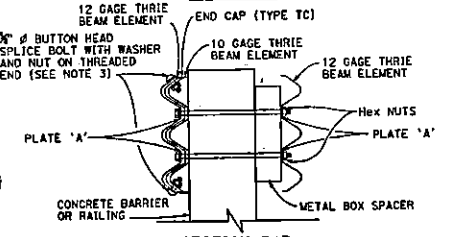
PLAN

MODIFIED TRANSITION RAILING

(Blockout Attachment)



SECTION A-A



SECTION B-B

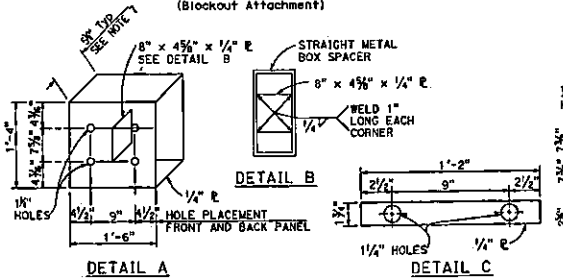
NOTES:

1. USE ⅝" ø BUTTON HEAD BOLTS AND HEX NUTS FOR CONNECTIONS TO POSTS. NO WASHER ON RAIL FACE FOR BOLTED CONNECTIONS TO POST.
2. THE NESTED RAIL ELEMENTS, END CAP, AND 'W' BEAM TO THRIE BEAM ELEMENT MAY BE SPLICED TOGETHER PRIOR TO BOLTING THE ELEMENTS TO THE WOOD POST AND CONCRETE BARRIER OR RAILING.
3. EXTERIOR SPLICE BOLT HOLES FOR RAIL ELEMENT SPLICES AT POST No.T4 AND THE CONNECTION TO THE CONCRETE BARRIER OR RAILING SHALL BE THE STANDARD ⅝" X 1⅛" SLOT SIZE. INTERIOR SPLICE BOLT HOLES AT THESE LOCATIONS MAY BE INCREASED UP TO 1⅛" ø. ONLY THE TOP 2 AND THE BOTTOM 2 SPLICE BOLTS WITH WASHERS AND NUTS ARE REQUIRED FOR RAIL SPLICES AT POST No.T4 AND THE CONNECTION TO THE CONCRETE BARRIER OR RAILING.
4. DIRECTION OF ADJACENT TRAFFIC INDICATED BY ⟶.
5. THE TOP ELEVATION OF POST No.T2 THROUGH T7 SHALL NOT PROJECT MORE THAN 1" ABOVE THE TOP ELEVATION OF THE RAIL ELEMENT.
6. TYPICALLY, THE RAILING CONNECTED TO TRANSITION RAILING (TYPE WB) WILL BE EITHER STANDARD RAILING SECTION OF METAL BEAM GUARD RAILING OR AN APPROVED CALTRANS END TREATMENT ATTACHED TO POST No.T1.
7. THE DEPTH OF THE METAL BOX SPACER VARIES FROM THE 5¾" TO 1½" AND IS DEPENDENT ON THE WIDTH OF THE CONCRETE RAILING OR WALL. THE COMBINED DIMENSION FOR THE DEPTH OF THE METAL BOX SPACER PLUS THE WIDTH OF RAILING OR WALL IS TYPICALLY 17¾". WHERE THE SPACE BETWEEN THE BACKSIDE OF THE CONCRETE RAILING OR WALL AND THE REAR THRIE BEAM ELEMENT IS LESS THAN 1½", METAL PLATES SIMILAR TO PLATE 'A' ARE TO BE USED AS SPACERS.
8. WHERE THE WIDTH OF THE CONCRETE RAILING OR WALL IS GREATER THAN 17¾", WOOD BLOCKS ARE TO BE USED TO FILL THE SPACE CREATED BETWEEN THE BACKSIDE OF POSTS No.4 THROUGH No.7 AND THE REAR THRIE BEAM ELEMENT. THESE WOOD BLOCKS SHALL BE 8" IN WIDTH AND 1'-2" IN LENGTH. THE DIMENSION BETWEEN THE FRONT THRIE BEAM ELEMENT AND THE REAR THRIE BEAM ELEMENT IS TO MATCH THE WIDTH OF THE CONCRETE RAILING OR WALL.
9. END CAP MAY BE INSTALLED OVER 12 GAUGE AND 10 GAUGE THRIE BEAM ELEMENTS WHERE TRANSITION RAILING IS INSTALLED ON THE DEPARTURE END OF BRIDGE RAILING.

LEGEND

- (A) NESTED THRIE BEAM ELEMENTS (ONE 12 GAGE ELEMENT NESTED OVER ONE 10 GAGE ELEMENT).
- (B) ONE ASYMMETRICAL 10 GAGE "W" BEAM TO THRIE BEAM ELEMENT.
- (C) ONE 12 GAGE THRIE BEAM ELEMENT.
- (D) ONE 10 GAGE "W" BEAM RAIL ELEMENT (7'-3⅛" LENGTH)

10 GAGE = 0.138" THICK
12 GAGE = 0.108" THICK



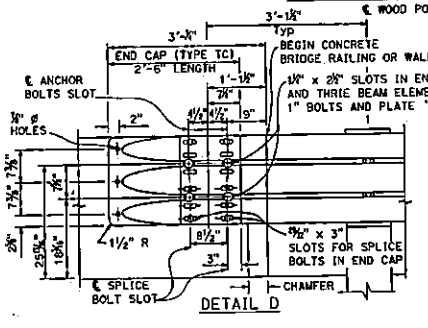
DETAIL A

STRAIGHT METAL BOX SPACER

DETAIL B

DETAIL C

PLATE 'A'



DETAIL D

MIDWEST GUARDRAIL SYSTEM MODIFIED TRANSITION RAILING

NO SCALE

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
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11080 White Rock Road, Suite 200
Rancho Cordova, CA 95670

SPEC. NO.

PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

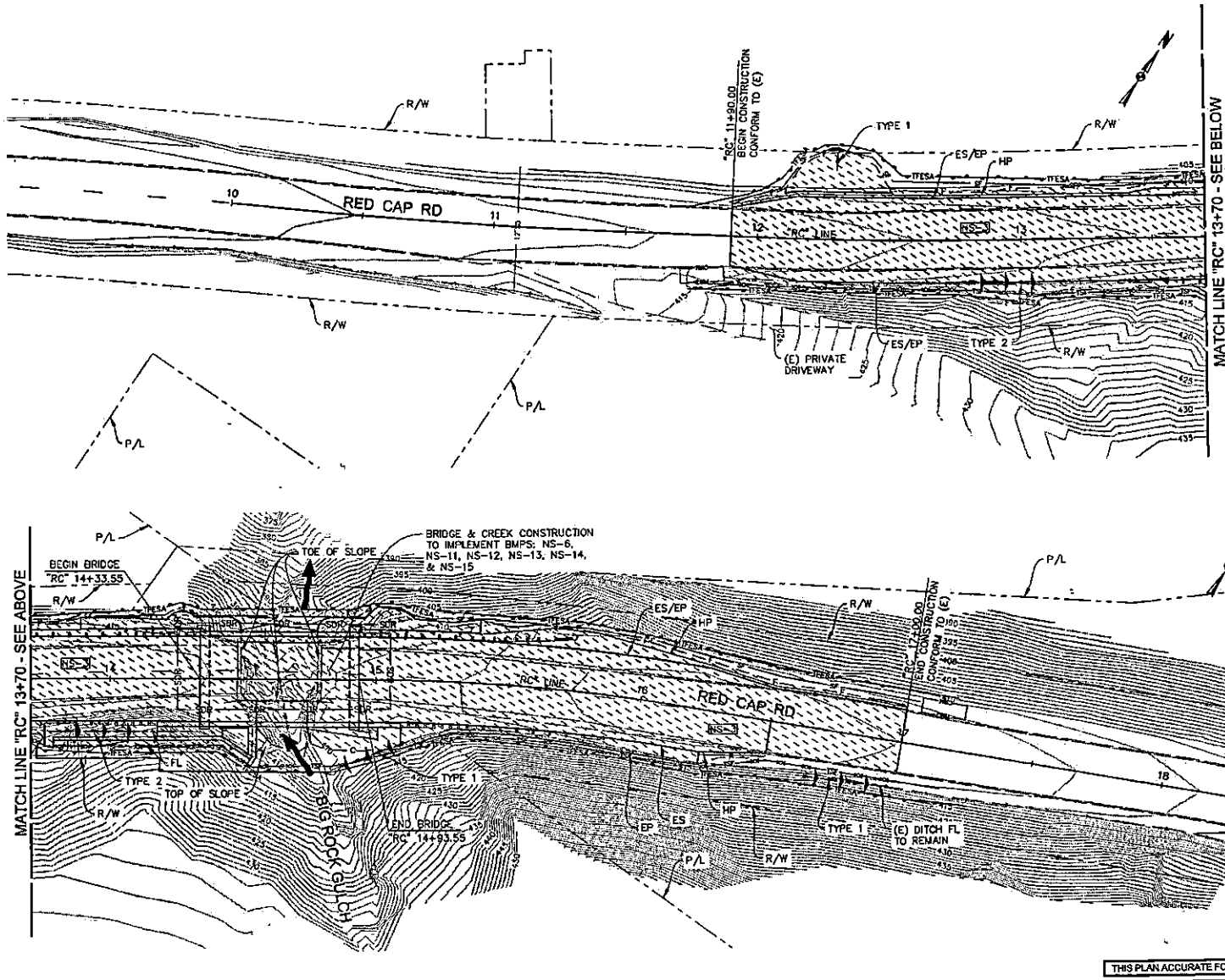
CONSTRUCTION DETAILS NO. 6

CD-6

ORIGINAL SCALE: AS SHOWN

DATE: 05/28/15

SHEET 13 OF 57



LEGEND

- WE-1: WIND EROSION CONTROL
- NS-3: PAVING AND GRINDING OPERATIONS
- NS-15: STRUCTURE DEMOLITION/REMOVAL OVER OR ADJACENT TO WATER
- TEMPORARY FENCE (TYPE ENVIRONMENTALLY SENSITIVE AREA)
- SC-4: TEMPORARY CHECK DAM (TYPE PER PLAN)
- SC-1: TEMPORARY SILT FENCE
- SC-1: TEMPORARY REINFORCED SILT FENCE (TYPE 2 PER CALTRANS STD PLAN T-60)
- WM-8: TEMPORARY CONCRETE WASHOUT

WATER POLLUTION CONTROL NOTES:

1. THE INFORMATION ON THESE PLANS IS INTENDED TO BE USED AS A GUIDELINE FOR THE CONTRACTOR AND SUBCONTRACTORS TO INSTALL WATER POLLUTION CONTROL DEVICES AT GENERAL LOCATIONS THROUGHOUT THE SITE. THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE NARRATIVE SECTION OF THE WATER POLLUTION CONTROL PROGRAM (WPCP).
2. FIELD CONDITIONS MAY NECESSITATE MODIFICATIONS TO THESE DRAWINGS.
3. INSTALL PERMANENT EROSION CONTROL AS AREAS ARE DETERMINED TO BE SUBSTANTIALLY COMPLETE. SEE EROSION CONTROL PLAN FOR DETAILS.
4. SEE LAYOUTS FOR LOCATION AND LIMITS OF CONSTRUCTION.
5. CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE/EXIT AT STAGING AREA. CONSTRUCT ADDITIONAL ENTRANCES/EXITS AS NEEDED. LIMIT CONSTRUCTION ACTIVITY TO AND FROM THE PROJECT TO THESE STABILIZED CONSTRUCTION ENTRANCES/EXITS.
6. DESIGNATE A STAGING AREA AT THE PROJECT SITE TO BE APPROVED BY THE ENGINEER. BMPS SELECTED FOR THE CONSTRUCTION SITE WILL ALSO BE IMPLEMENTED IN THE STAGING AREA. SPECIAL ATTENTION TO THE FOLLOWING BMPS WILL BE TAKEN AT THE STAGING AREA: TC-1, WE-1, NS-8, NS-9, NS-10, WM-1, WM-2, WM-3, WM-4, WM-5, WM-6, WM-8, AND WM-9. VEHICLE AND EQUIPMENT CLEANING, FUELING AND MAINTENANCE ARE PROHIBITED WITH CONSTRUCTION AREA.
7. LOCATE ANY STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CONCENTRATED FLOWS OF STORM WATER AND DRAINAGE COURSES. ALL STOCKPILES MUST BE BERMED. ADDITIONALLY, COVER STOCKPILES AT ALL TIMES (TO PROTECT THEM FROM THE WIND AND RAIN) WHEN THEY ARE NOT ACTIVELY BEING USED. SPRAY STOCKPILES THAT ARE DESTABILIZED DURING CONSTRUCTION ACTIVITIES WITH WATER AS NEEDED FOR DUST CONTROL.
8. CONSTRUCT OR PLACE AN ABOVE GRADE OR MOBILE CONCRETE WASHOUT AT THE STAGING AREA IF CONCRETE TRUCKS OR CONCRETE EQUIPMENT WILL BE WASHED ON-SITE. LOCATE THE WASHOUT A MINIMUM 50 FEET AWAY FROM CONCENTRATED FLOWS OF STORM WATER AND DRAINAGE COURSES. UTILIZE ADDITIONAL WASHOUTS AS NEEDED.
9. UTILIZE A LICENSED SERVICE TO DELIVER AND MAINTAIN PORTABLE RESTROOMS TO THE PROJECT AREA IF NEEDED. LOCATE THE RESTROOMS AWAY FROM DRAINAGE FACILITIES ON LEVEL HARD-PACKED OR PAVED SURFACES.
10. INSTALL TEMPORARY FENCE (TYPE ESA) AS DIRECTED BY COUNTY'S CONSULTING ARCHAEOLOGIST AND ENGINEER. CONTRACTOR SHALL NOTIFY COUNTY 48 HOURS PRIOR TO ESA FENCE INSTALLATION.

THIS PLAN ACCURATE FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

20 10 0 20 40
GRAPHIC SCALE: 1"=20'

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
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APPROVED: K. ROSS

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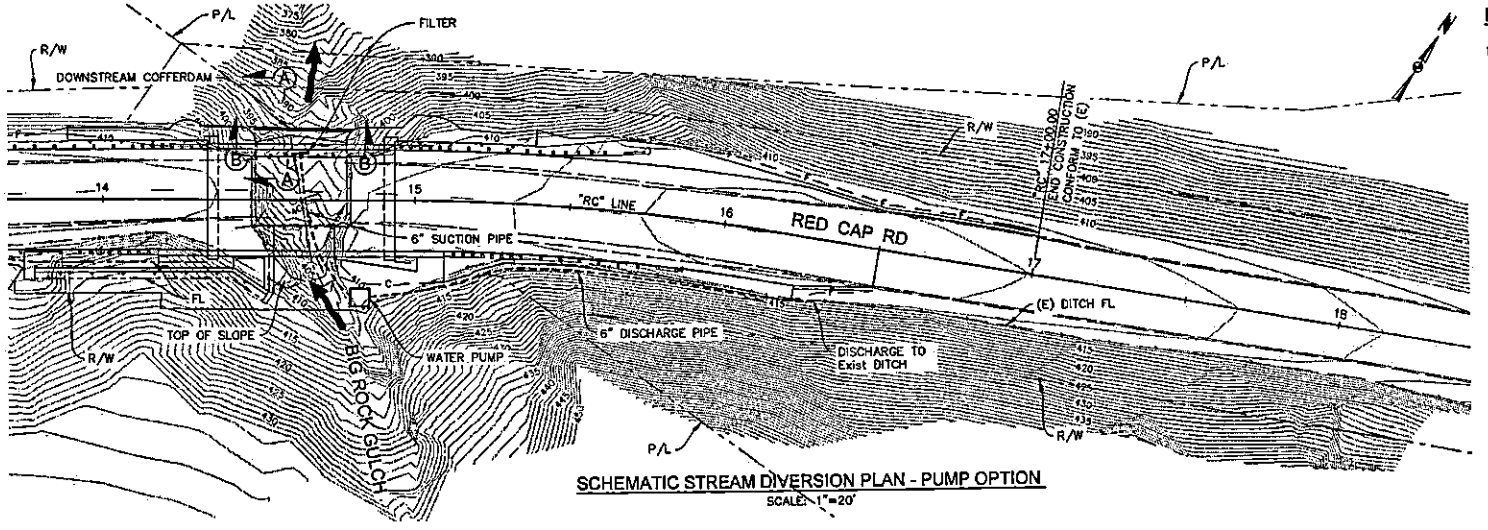
Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH
TEMPORARY WATER POLLUTION CONTROL PLAN

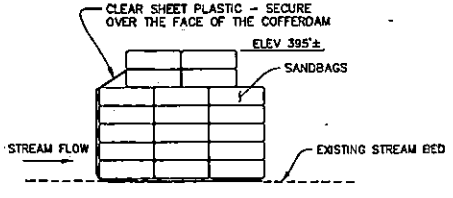
WPC-1
ORIGINAL SCALE: AS SHOWN
DATE: 05/26/15
SHEET 14 OF 57



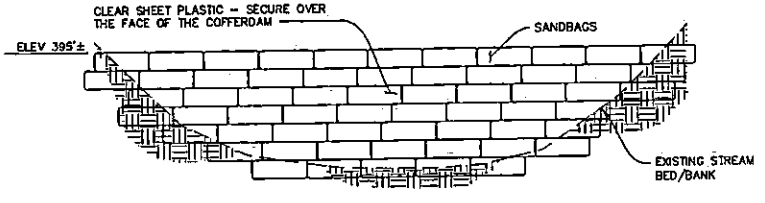
SCHEMATIC STREAM DIVERSION PLAN - PUMP OPTION
SCALE: 1"=20'

NOTES:

1. THE INFORMATION ON THIS PLAN IS INTENDED TO BE USED AS A GUIDELINE FOR THE CONTRACTOR AND SUBCONTRACTORS TO INSTALL TEMPORARY STREAM DIVERSION DEVICES AT GENERAL LOCATIONS THROUGHOUT THE SITE. THIS DRAWING IS TO BE USED IN CONJUNCTION WITH THE NARRATIVE SECTION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL PREPARE A STREAM DIVERSION PLAN INCLUDING THE CONSTRUCTION SEQUENCE, EQUIPMENT, MEANS AND METHODS REQUIRED ERECTION AND REMOVAL OF THE DIVERSION SYSTEM. THE PLAN SHALL BE PREPARED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA AND THE PLAN SHALL BE SUBMITTED FOR ACCEPTANCE BY THE ENGINEER AND REGULATORY AGENCIES.
2. THE INTENT OF THE DIVERSION PLAN IS TO DIVERT MINIMAL FLOWS DURING THE DRY WORK SEASON. THE SCHEMATIC PLAN IS NOT DESIGNED FOR STORM WATER FLOWS EXPECTED IN THE WET SEASON. THE CONTRACTOR IS RESPONSIBLE FOR ANY DIVERSION CONTINGENCIES IN THE EVENT OF A STORM.



COFFERDAM DETAIL SECTION A - A
NO SCALE



COFFERDAM DETAIL SECTION B - B
NO SCALE

THIS PLAN ACCURATE FOR TEMPORARY STREAM DIVERSION WORK ONLY

20 10 0 20 40
GRAPHIC SCALE: 1"=20'

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
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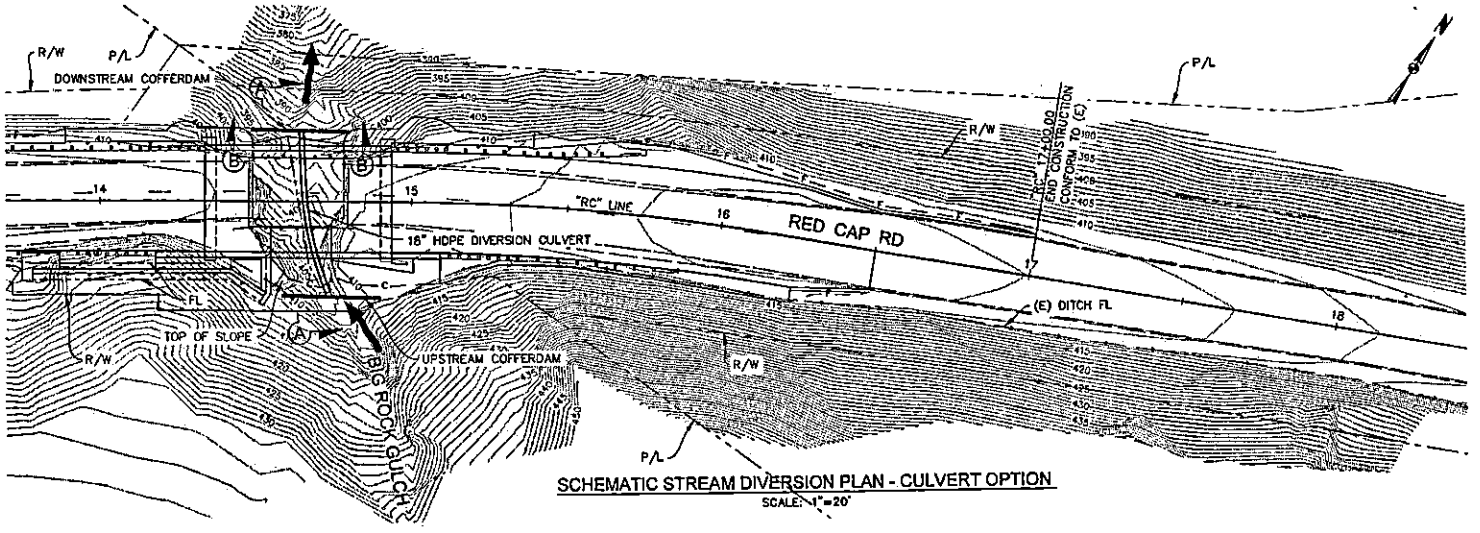
APPROVED: K. ROSS

drake haglan AND ASSOCIATES
11080 White Rock Road, Suite 200
Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH
TEMPORARY STREAM DIVERSION PLAN - PUMP OPTION

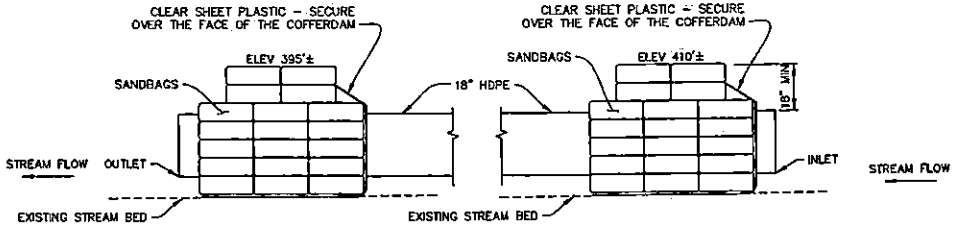
WPC-2
ORIGINAL SCALE: AS SHOWN
DATE: 05/28/15
SHEET 15 OF 57



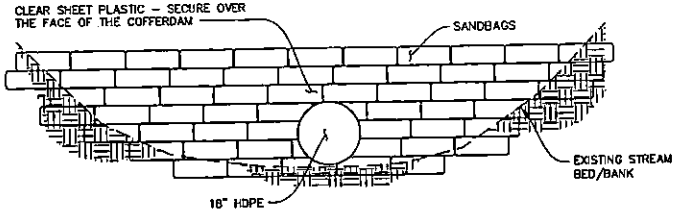
SCHEMATIC STREAM DIVERSION PLAN - CULVERT OPTION
SCALE: 1"=20'

NOTES:

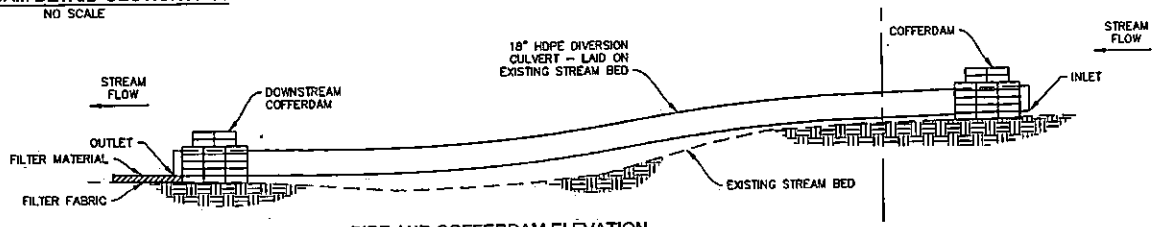
1. THE INFORMATION ON THIS PLAN IS INTENDED TO BE USED AS A GUIDELINE FOR THE CONTRACTOR AND SUBCONTRACTORS TO INSTALL TEMPORARY STREAM DIVERSION DEVICES AT GENERAL LOCATIONS THROUGHOUT THE SITE. THIS DRAWING IS TO BE USED IN CONJUNCTION WITH THE NARRATIVE SECTION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL PREPARE A STREAM DIVERSION PLAN INCLUDING THE CONSTRUCTION SEQUENCE, EQUIPMENT, MEANS AND METHODS REQUIRED ERECTION AND REMOVAL OF THE DIVERSION SYSTEM. THE PLAN SHALL BE PREPARED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA AND THE PLAN SHALL BE SUBMITTED FOR ACCEPTANCE BY THE ENGINEER AND REGULATORY AGENCIES.
2. THE INTENT OF THE DIVERSION PLAN IS TO DIVERT MINIMAL FLOWS DURING THE DRY WORK SEASON. THE SCHEMATIC PLAN IS NOT DESIGNED FOR STORM WATER FLOWS EXPECTED IN THE WET SEASON. THE CONTRACTOR IS RESPONSIBLE FOR ANY DIVERSION CONTINGENCIES IN THE EVENT OF A STORM.



COFFERDAM DETAIL SECTION A - A
NO SCALE



COFFERDAM DETAIL SECTION B - B
NO SCALE



PIPE AND COFFERDAM ELEVATION
NO SCALE

THIS PLAN ACCURATE FOR TEMPORARY STREAM DIVERSION WORK ONLY

GRAPHIC SCALE: 1"=20'

REVISION	DESCRIPTION	DATE

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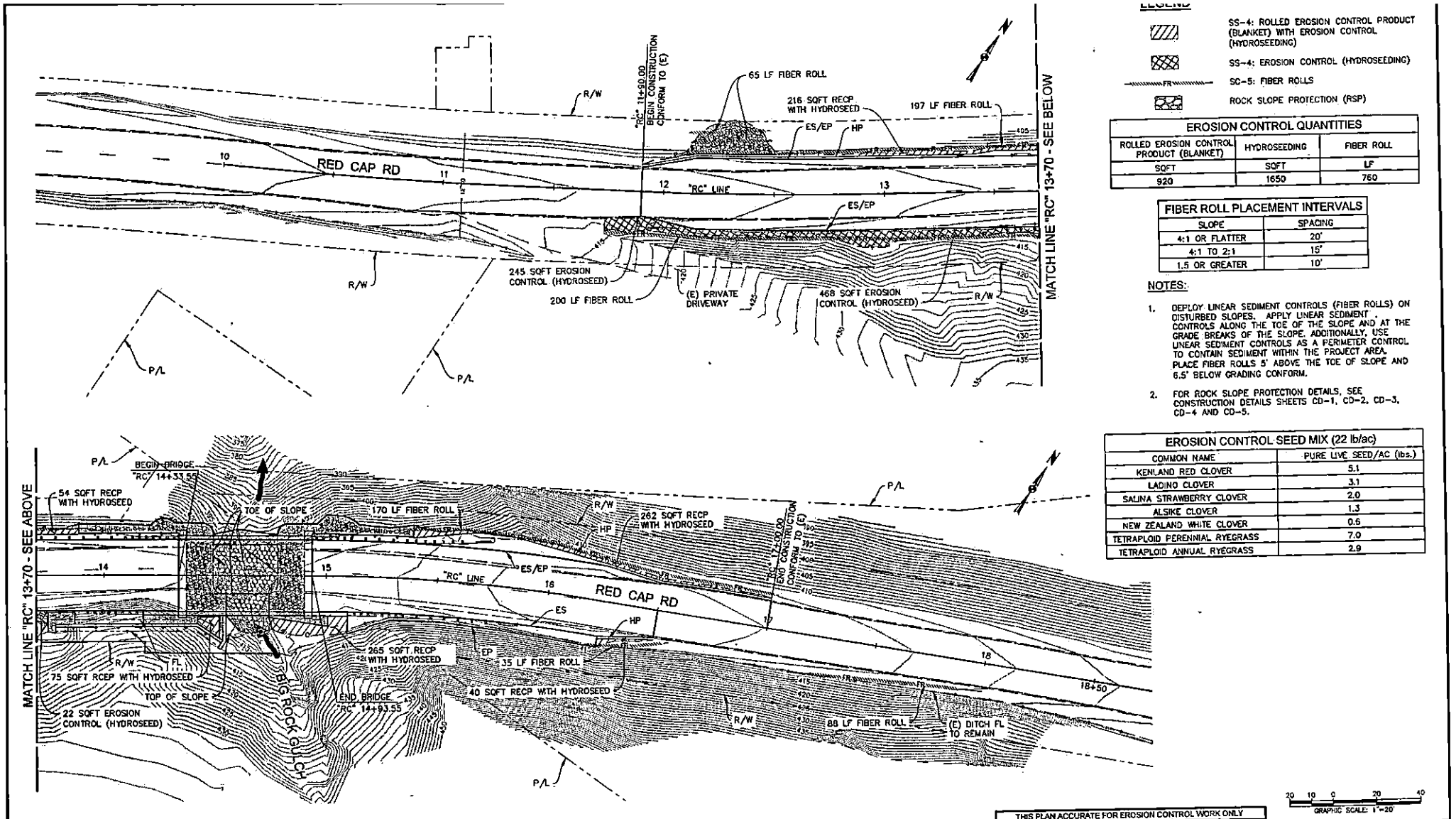
SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH
TEMPORARY STREAM DIVERSION PLAN - CULVERT OPTION

WPC-3
ORIGINAL SCALE: AS SHOWN
DATE: 05/28/15
SHEET 16 OF 57



LEGEND

- SS-4: ROLLED EROSION CONTROL PRODUCT (BLANKET) WITH EROSION CONTROL (HYDROSEEDING)
- SS-4: EROSION CONTROL (HYDROSEEDING)
- SC-5: FIBER ROLLS
- ROCK SLOPE PROTECTION (RSP)

EROSION CONTROL QUANTITIES		
ROLLED EROSION CONTROL PRODUCT (BLANKET)	HYDROSEEDING	FIBER ROLL
SQFT	SQFT	LF
920	1650	760

FIBER ROLL PLACEMENT INTERVALS	
SLOPE	SPACING
4:1 OR FLATTER	20'
4:1 TO 2:1	15'
1.5 OR GREATER	10'

NOTES:

1. DEPLOY LINEAR SEDIMENT CONTROLS (FIBER ROLLS) ON DISTURBED SLOPES. APPLY LINEAR SEDIMENT CONTROLS ALONG THE TOE OF THE SLOPE AND AT THE GRADE BREAKS OF THE SLOPE. ADDITIONALLY, USE LINEAR SEDIMENT CONTROLS AS A PERIMETER CONTROL TO CONTAIN SEDIMENT WITHIN THE PROJECT AREA. PLACE FIBER ROLLS 5' ABOVE THE TOE OF SLOPE AND 6.5' BELOW GRADING CONFORM.
2. FOR ROCK SLOPE PROTECTION DETAILS, SEE CONSTRUCTION DETAILS SHEETS CD-1, CD-2, CD-3, CD-4 AND CD-5.

EROSION CONTROL SEED MIX (22 lb/ac)	
COMMON NAME	PURE LIVE SEED/AC (lbs.)
KENLAND RED CLOVER	5.1
LADINO CLOVER	3.1
SALINA STRAWBERRY CLOVER	2.0
ALSIKE CLOVER	1.3
NEW ZEALAND WHITE CLOVER	0.6
TETRAPLOID PERENNIAL RYEGRASS	7.0
TETRAPLOID ANNUAL RYEGRASS	2.9

20 10 0 20 40
GRAPHIC SCALE: 1"=20'

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
TEL (707) 445-7491
FAX (707) 445-7409

DESIGNED: K. LI
DRAWN: K. LI
CHECKED: J. SILVA
APPROVED: K. ROSS

dh drakehaglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

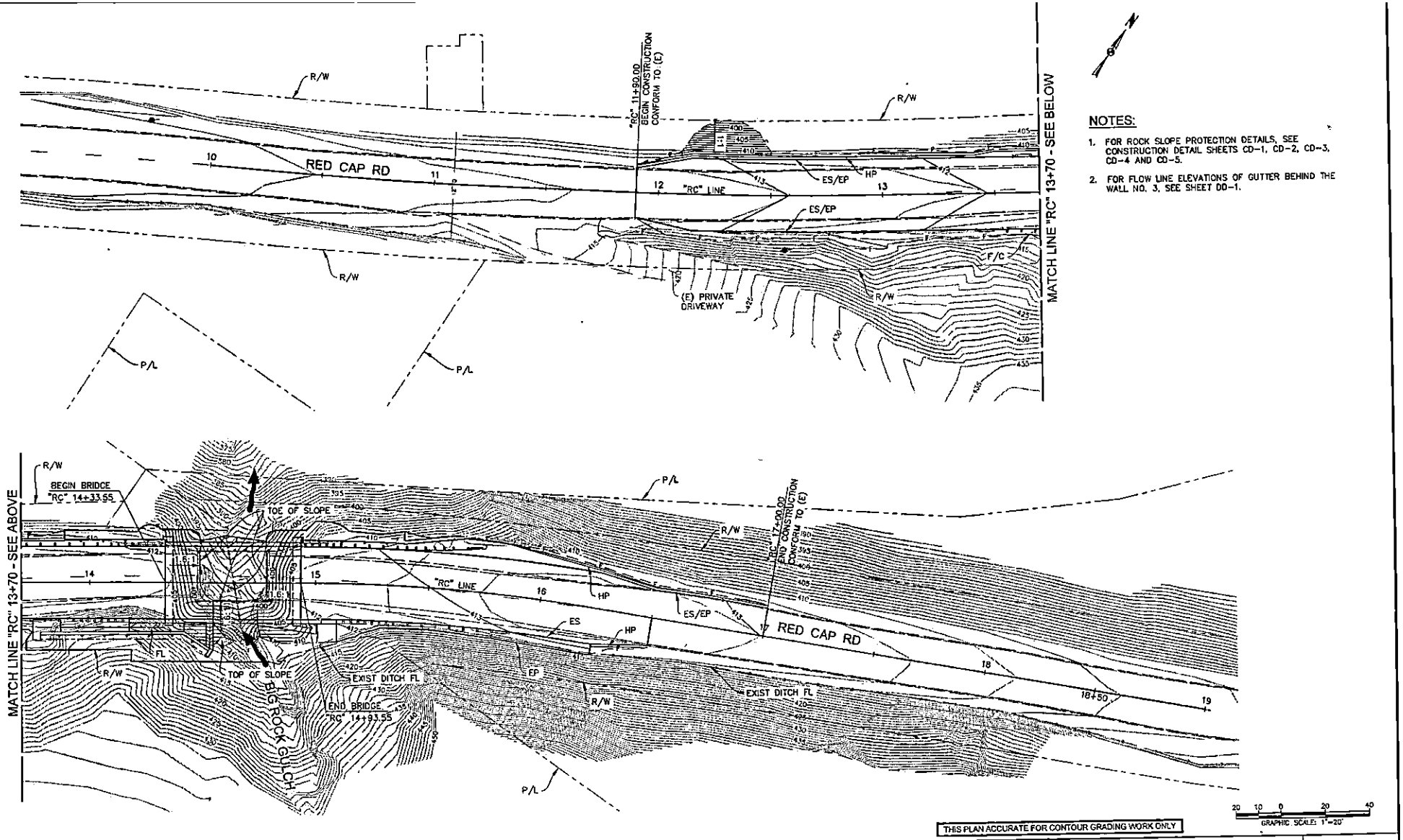
SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

EROSION CONTROL PLAN

EC-1

ORIGINAL SCALE: AS SHOWN
DATE: 05/28/15
SHEET 17 OF 57



NOTES:

1. FOR ROCK SLOPE PROTECTION DETAILS, SEE CONSTRUCTION DETAIL SHEETS CD-1, CD-2, CD-3, CD-4 AND CD-5.
2. FOR FLOW LINE ELEVATIONS OF GUTTER BEHIND THE WALL NO. 3, SEE SHEET DD-1.

GRAPHIC SCALE: 1"=20'

THIS PLAN ACCURATE FOR CONTOUR GRADING WORK ONLY

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
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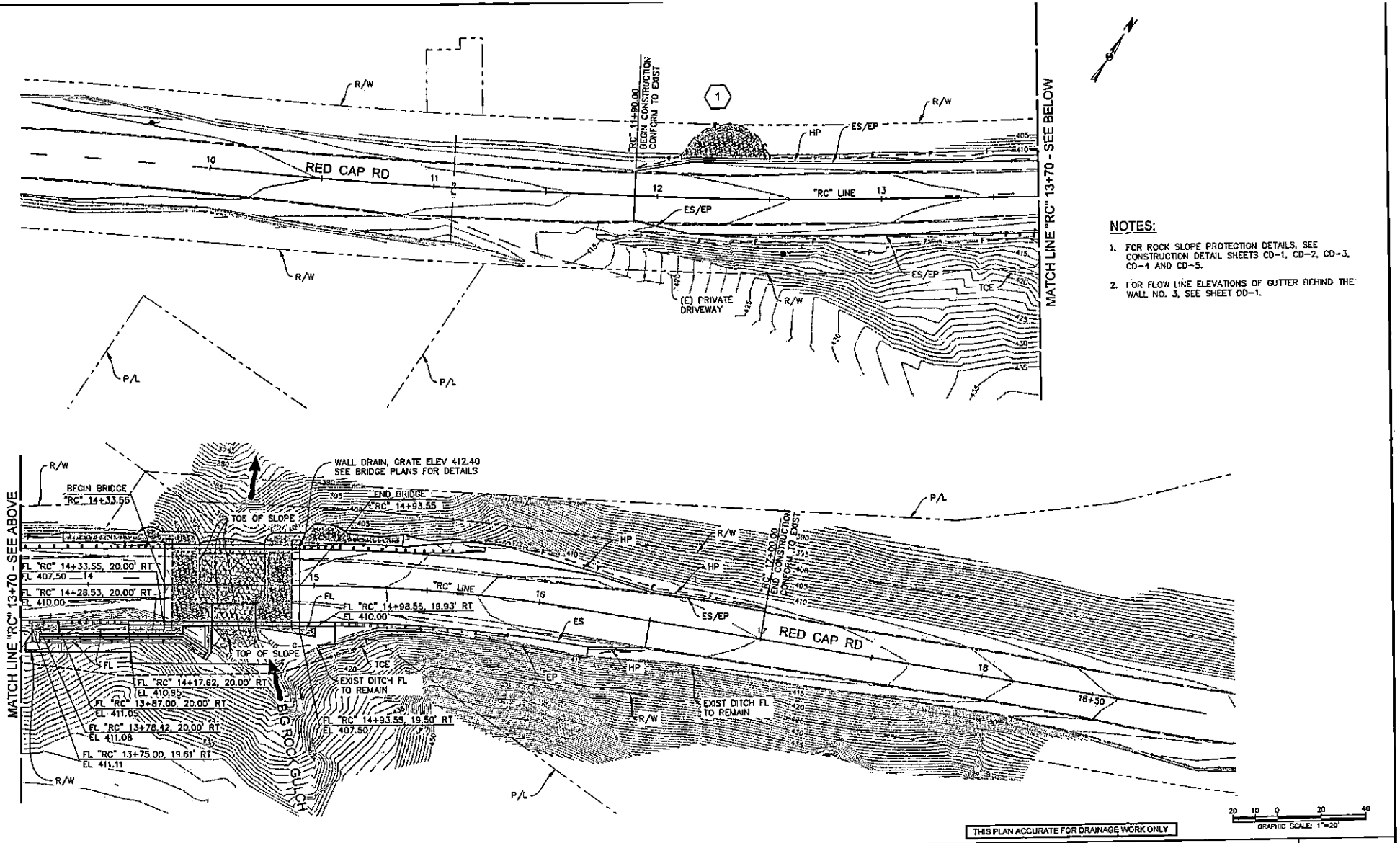
SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

CONTOUR GRADING

CG-1

ORIGINAL SCALE: AS SHOWN
DATE: 05/28/15
SHEET 18 OF 57



NOTES:

1. FOR ROCK SLOPE PROTECTION DETAILS, SEE CONSTRUCTION DETAIL SHEETS CD-1, CD-2, CD-3, CD-4 AND CD-5.
2. FOR FLOW LINE ELEVATIONS OF GUTTER BEHIND THE WALL NO. 3, SEE SHEET DD-1.

GRAPHIC SCALE: 1"=20'

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
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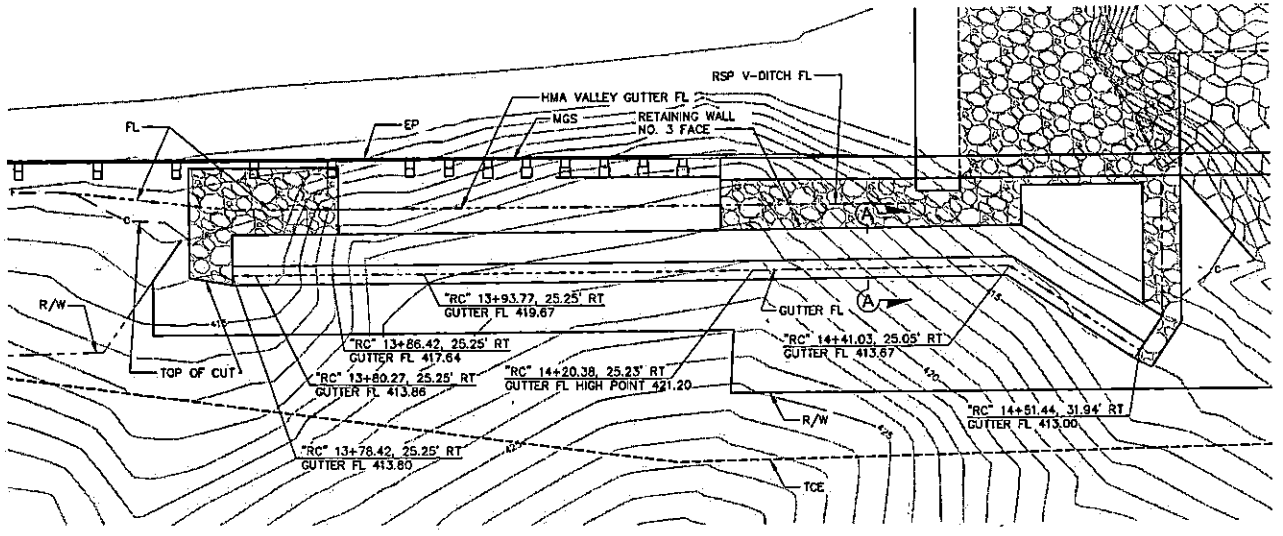
SPEC. NO.
PROJ. NO.

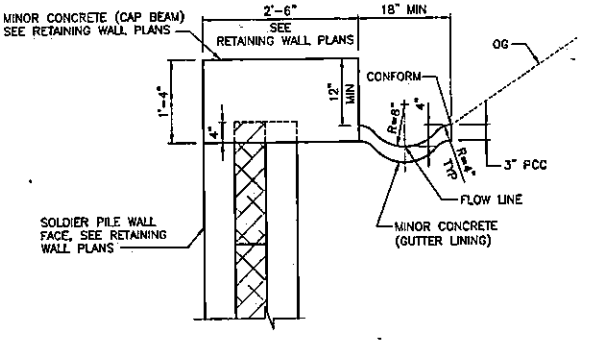
RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

DRAINAGE PLAN

D-1
ORIGINAL SCALE: AS SHOWN
DATE: 05/28/15
SHEET 19 OF 57



GUTTER BEHIND RETAINING WALL NO. 3
SCALE: 1"=5'



GUTTER DETAIL
NO SCALE

NOTES:

1. FOR SOLDIER PILE WALL DETAILS, SEE RETAINING WALL PLANS.
2. FOR HMA VALLEY GUTTER AND RSP V-DITCH FLOW LINE ELEVATIONS NOT SHOWN HERE, SEE SHEET D-1.

5 2.5 0 5 10
GRAPHIC SCALE: 1"=5'

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
TEL (707) 445-7491
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Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT
OVER BIG ROCK GULCH

DRAINAGE DETAILS

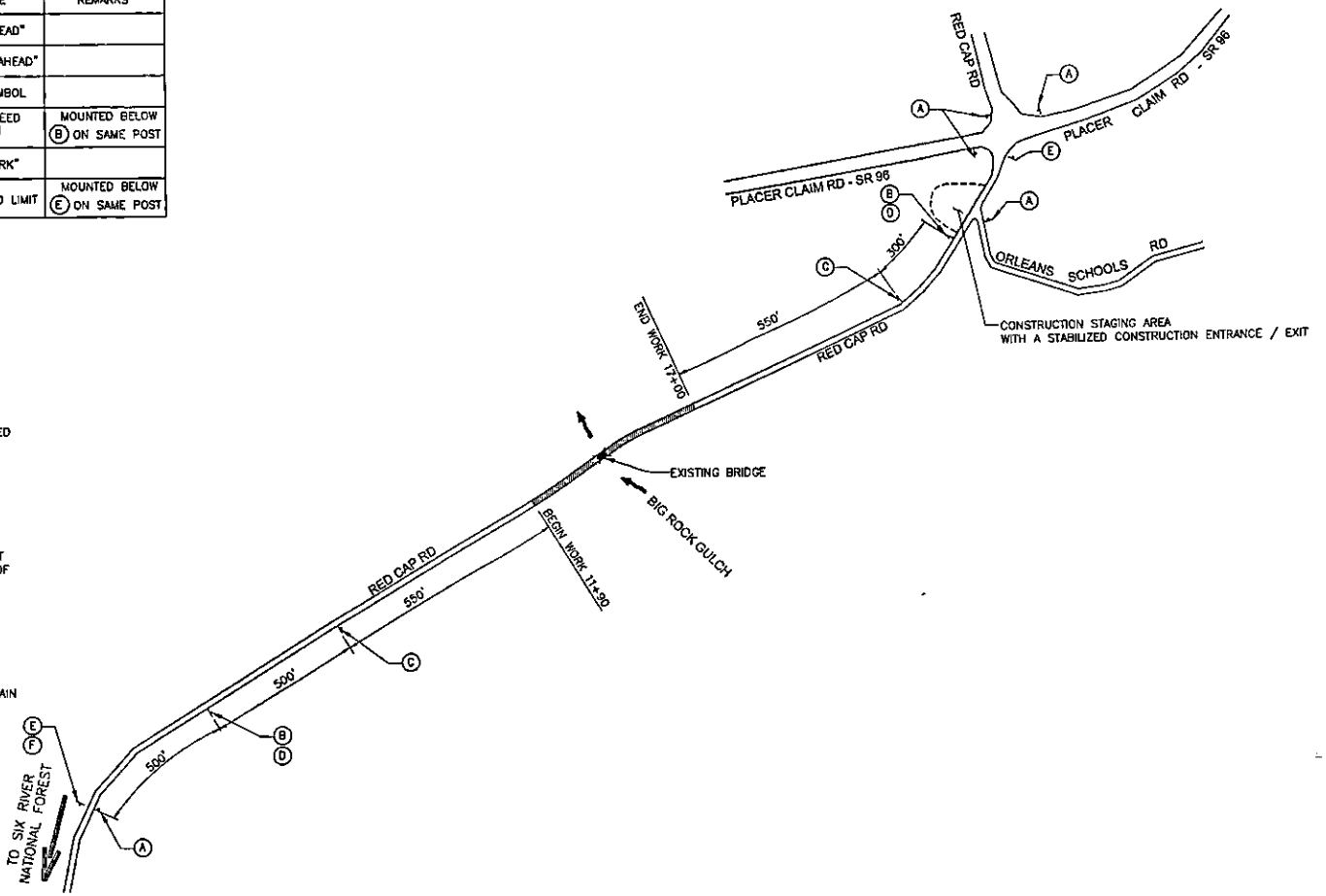
DD-1
ORIGINAL SCALE: AS SHOWN
DATE: 05/26/15
SHEET 20 OF 57

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	CA MUTCD SIGN CODE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS	SIGN MESSAGE	REMARKS
(A)	W20-1	36" x 36"	1 – 4" x 4"	5	"ROAD WORK AHEAD"	
(B)	W20-4	36" x 36"	1 – 4" x 4"	2	"ONE LANE ROAD AHEAD"	
(C)	W3-1	36" x 36"	1 – 4" x 4"	2	STOP AHEAD SYMBOL	
(D)	C17 (CA) FRONT	24" x 24"	–	2	ROAD WORK SPEED LIMIT 25MPH	MOUNTED BELOW (B) ON SAME POST
(E)	G20-2	18" x 36"	1 – 4" x 4"	2	"END ROAD WORK"	
(F)	C17 (CA) BACK	24" x 24"	–	1	END 25MPH SPEED LIMIT	MOUNTED BELOW (E) ON SAME POST

NOTES:

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. ALL SIGNS SHALL HAVE TYPE B HIGH-INTENSITY FLASHING WARNING LIGHTS.
3. FEDERAL MUTCD SIGN CODES ARE USED UNLESS DESIGNATED BY (CA). INDICATING STANDARD CALIFORNIA SIGN SPECIFICATIONS ARE USED.
4. CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSION ON SITE. LOCATION OF CONSTRUCTION AREA SIGNS SHOWN ARE BASED ON THE 2012 CALIFORNIA MUTCD AND THE 2010 CALTRANS STANDARD PLANS. ANY ADJUSTMENT REQUIRED DUE TO PHYSICAL OBSTRUCTIONS MUST BE APPROVED BY THE ENGINEER.
5. CONSTRUCTION AREA SIGNS ARE TO REMAIN FOR THE DURATION OF THE PROJECT.
6. ALL CONSTRUCTION AREA SIGNING AND DELINEATION SHALL CONFORM TO THE 2012 CALIFORNIA MUTCD.
7. EXISTING UTILITIES ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR MUST VERIFY LOCATIONS OF EXISTING UTILITIES AND ADJUST THE FIELD LOCATIONS OF THE SIGN POST IN CONSULTATION WITH THE ENGINEER.
8. CONTRACTOR MUST COVER EXISTING SIGNS WHERE THEY CONFLICT WITH CONSTRUCTION SIGNING.
9. SIGNS NOT LISTED AS CONSTRUCTION AREA SIGNS SHALL BE CONSIDERED AS INCLUDED IN TRAFFIC CONTROL SYSTEM.
10. INSTALL TEMPORARY RAILING (TYPE K) DURING BRIDGE CONSTRUCTION, MAINTAIN ACCESS TO RESIDENCE.



CONSTRUCTION AREA SIGNS

APPROXIMATE SCALE 1" = 200'

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
TEL (707) 445-7491
FAX (707) 445-7409

DESIGNED: K. U
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CHECKED: J. SILVA
APPROVED: K. ROSS

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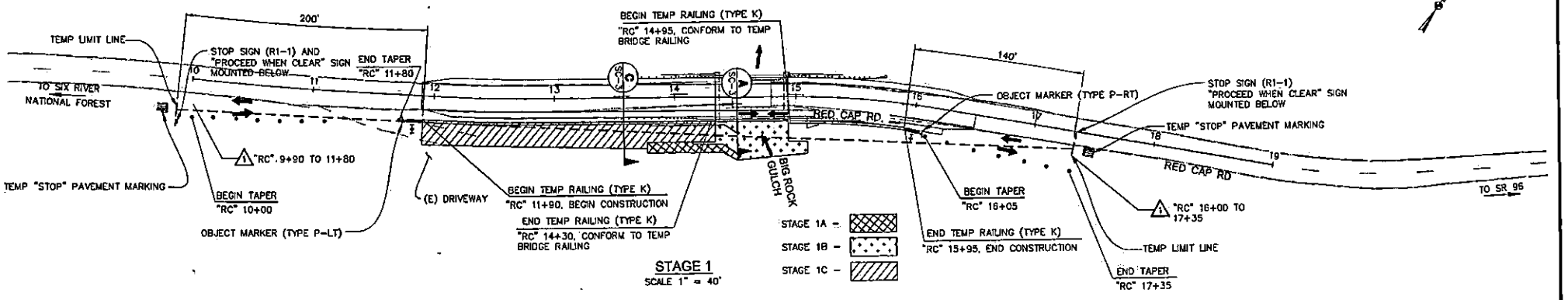
Rancho Cordova, CA 95670

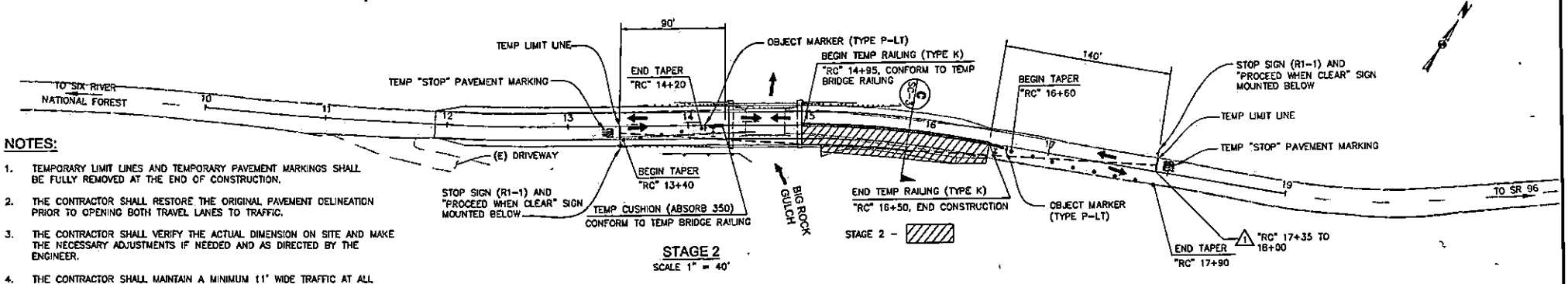
SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH

CONSTRUCTION AREA SIGNS

CS-1
ORIGINAL SCALE: AS SHOWN
DATE: 05/26/15
SHEET 21 OF 57





NOTES:

1. TEMPORARY LIMIT LINES AND TEMPORARY PAVEMENT MARKINGS SHALL BE FULLY REMOVED AT THE END OF CONSTRUCTION.
2. THE CONTRACTOR SHALL RESTORE THE ORIGINAL PAVEMENT DELINEATION PRIOR TO OPENING BOTH TRAVEL LANES TO TRAFFIC.
3. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSION ON SITE AND MAKE THE NECESSARY ADJUSTMENTS IF NEEDED AND AS DIRECTED BY THE ENGINEER.
4. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 11' WIDE TRAFFIC AT ALL TIMES.
5. PLACE TRAFFIC DRUMS AT A MAXIMUM CENTER TO CENTER SPACING OF 20' ALONG THE TAPER. MOUNT TYPE B HIGH-INTENSITY FLASHING WARNING LIGHT ON TOP.
6. ALL REFERENCES TO TEMPORARY RAILING (TYPE K) REFER TO THE RAILING CENTERLINE.
7. INSTALL TEMPORARY RAILING (TYPE K) DURING BRIDGE CONSTRUCTION. MAINTAIN ACCESS TO RESIDENCE AT ALL TIMES.
8. TEMPORARY RAILING (TYPE K), TEMPORARY CRASH CUSHION (ABSORB 350), AND TYPE III BARRICADES TO BE REPOSITIONED AS SHOWN ON PLANS.
9. INSTALL TYPE III BARRICADES IN A MANNER THAT DOESN'T RESTRICT RESIDENT ACCESS.
10. CONTRACTOR SHALL MAINTAIN ONE-LANE OF TRAFFIC BY USING REVERSIBLE TRAFFIC CONTROL DURING CONSTRUCTION HOURS. TO PROVIDE CLEAR LINE OF SIGHT FOR STAGE 1 AND 2, CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE KEPT OUT OF CONSTRUCTION ZONE AND MOVED TO ASSIGNED CONSTRUCTION STAGING AREA WHENEVER REVERSIBLE TRAFFIC CONTROL IS NOT USED.

LEGEND

- TEMPORARY RAILING (TYPE K)
- TEMPORARY CUSHION (ABSORB 350)
- REMOVE EXISTING CENTERLINE STRIPE (CALTRANS DETAIL 1)
- ONE POST SIGN
- TRAFFIC PLASTIC DRUMS, SPACING 20'
- TYPE III BARRICADE
- DIRECTION OF TRAFFIC
- CONSTRUCT ROADWAY AND MISC
- CONSTRUCT SOLDIER PILE WALL
- CONSTRUCT BRIDGE STRUCTURE AND CREEK CHANNEL WIDENING
- LINE OF SIGHT BETWEEN TEMPORARY STOP CONTROLS

GRAPHIC SCALE: 1"=40'

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
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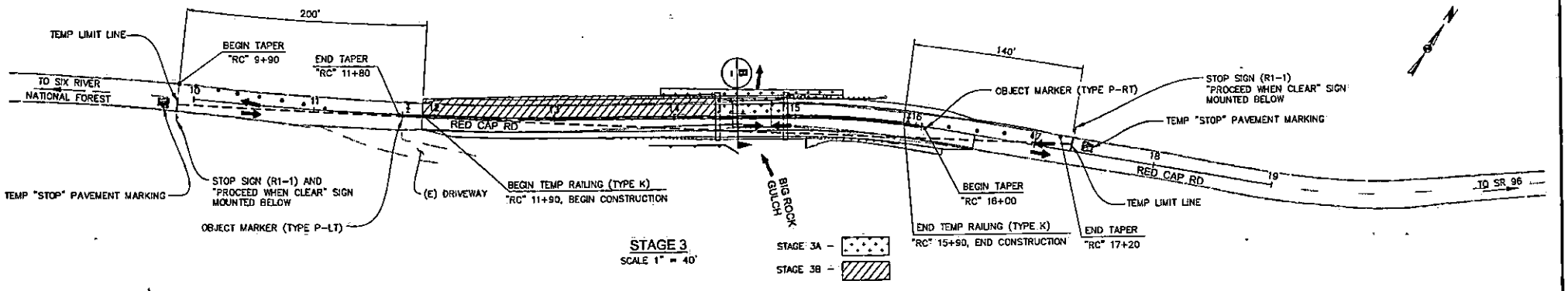
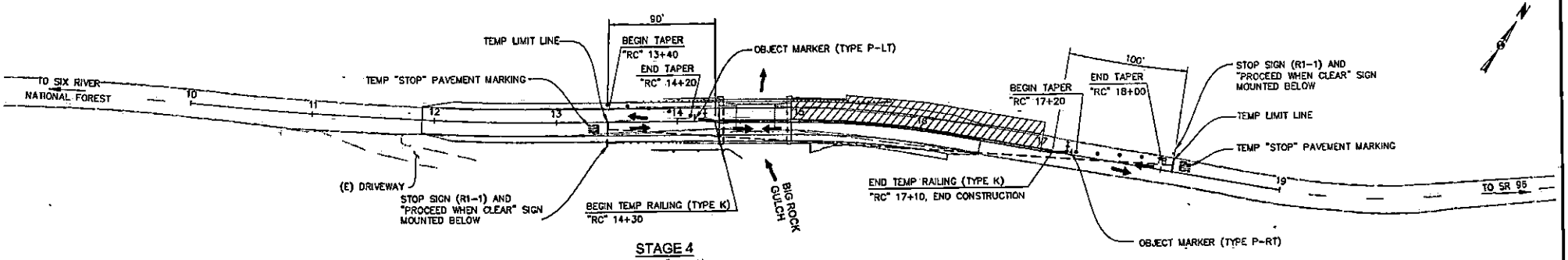
Rancho Cordova, CA 95670

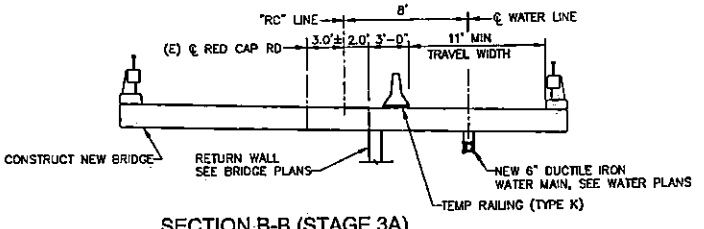
SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH
STAGE CONSTRUCTION AND TRAFFIC HANDLING NO. 1

SC-1
ORIGINAL SCALE: AS SHOWN
DATE: 11/26/18
SHEET 22 OF 57







SECTION B-B (STAGE 3A)
NOT TO SCALE

GRAPHIC SCALE: 1"=40'

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
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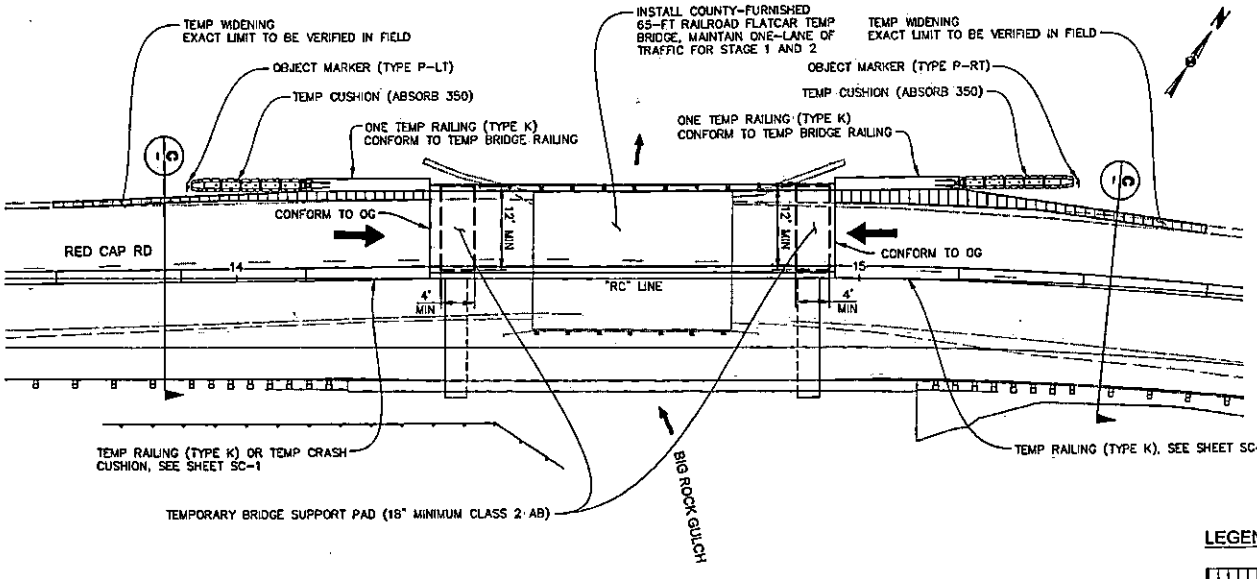
Rancho Cordova, CA 95670

SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT
OVER BIG ROCK GULCH
STAGE CONSTRUCTION AND
TRAFFIC HANDLING NO. 2

SC-2
ORIGINAL SCALE: AS SHOWN
DATE: 11/28/16
SHEET 23 OF 57

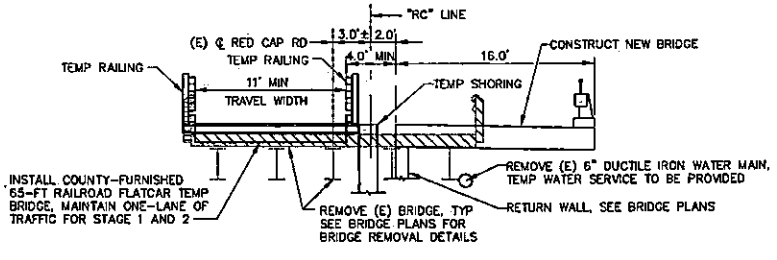


TEMPORARY BRIDGE (RAILROAD FLATCAR) PLAN (STAGE 1 & 2)

SCALE 1" = 10'

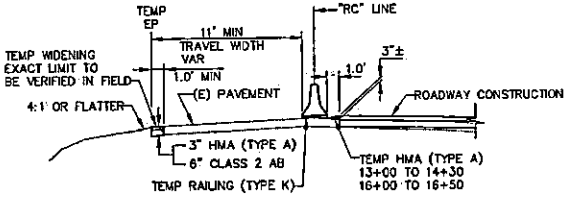
LEGEND

- TEMP WIDENING EXACT LIMIT TO BE VERIFIED IN FIELD
- REMOVE (E) BRIDGE, TYP SEE BRIDGE PLANS FOR BRIDGE REMOVAL DETAILS
- DIRECTION OF TRAFFIC



SECTION A-A (STAGE 1 & 2)

NOT TO SCALE



SECTION C-C (STAGE 1C & 2)

NOT TO SCALE

10 5 0 10 20
GRAPHIC SCALE: 1"=10'

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
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APPROVED: K. ROSS

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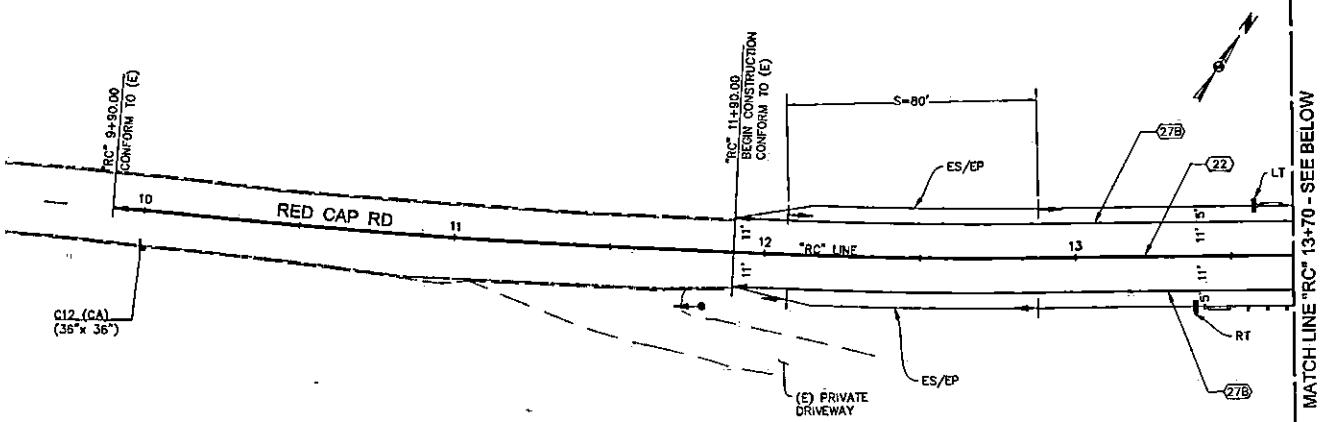
SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT
OVER BIG ROCK GULCH
STAGE CONSTRUCTION AND
TRAFFIC HANDLING NO. 3

SC-3
ORIGINAL SCALE: AS SHOWN
DATE: 11/28/18
SHEET 24 OF 57



LEGEND

- XX — STRIPING DETAIL NUMBER
- BEGIN OR END OF STRIPING DETAIL
- OBJECT MARKER TYPE L-1 (CA)
- OBJECT MARKER TYPE P (CA) (MOUNTED TO GUARDRAIL NOSE OF IN-LINE TERMINAL SYSTEM)
- DELINEATOR CLASS 2 - TYPE F
- DELINEATOR CLASS 1 - TYPE F (MOUNTED TO GUARDRAIL WOOD BLOCK)
- S= DELINEATOR SPACING

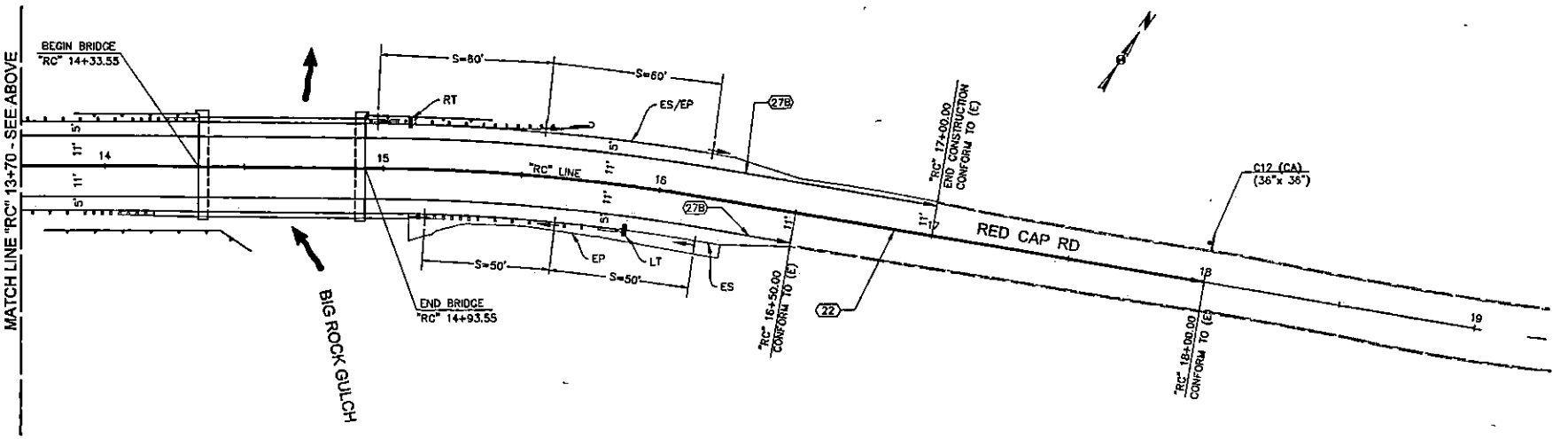
NOTES:

1. FOR ALL PAVEMENT STRIPING DETAILS, REFER TO CALTRANS STANDARD PLANS DATED 2010.
2. FOR ROADSIDE SIGN DETAILS REFER TO 2012 VERSION OF THE CALIFORNIA MUTCD.

NEW ROADSIDE SIGNS

SIGN CODE	SIGN MESSAGE	PANEL SIZE	NO OF POSTS AND SIZE*	QUANTITIES	FURNISH SINGLE SHEET ALUMINUM (0.080"-UNFRAMED) SQFT	REMARKS
C12 (CA)	"NARROW LANE"	36" x 36"	1 - 2"ø STEEL PIPE, GALVANIZED	2	18	

* FOR INFORMATION ONLY, NOT A SEPARATE PAY ITEM.



20 10 0 20 40
GRAPHIC SCALE: 1"=20'

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGNAGE WORK ONLY

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
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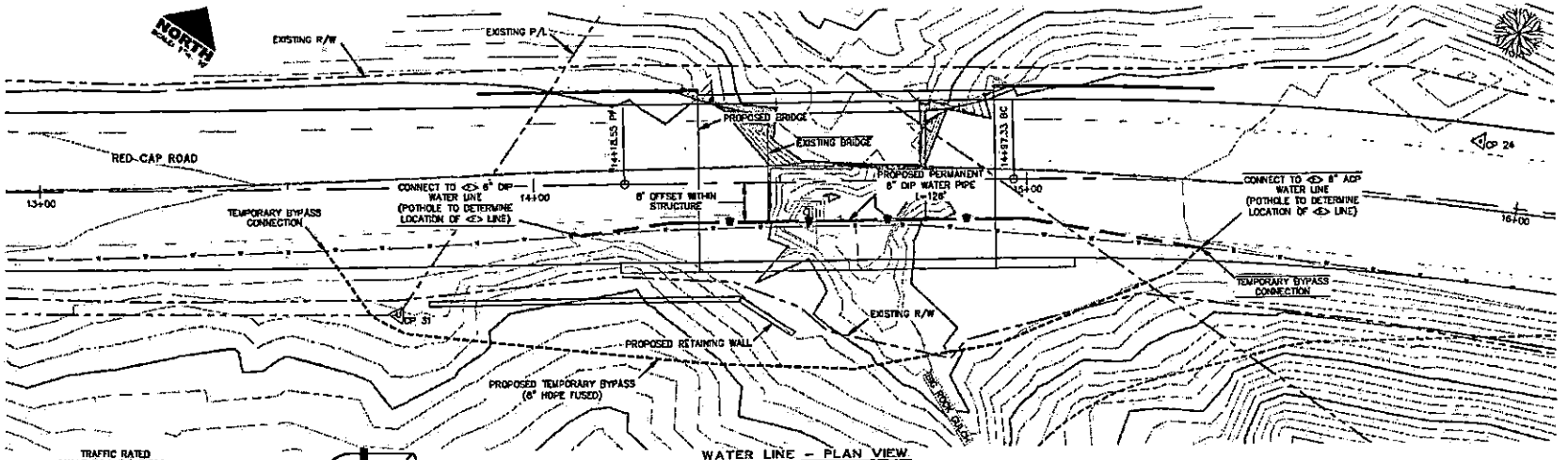
Rancho Cordova, CA 95670

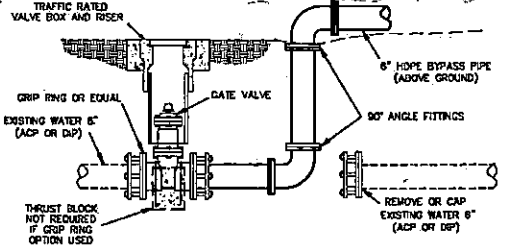
SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT
OVER BIG ROCK GULCH
PAVEMENT DELINEATION AND SIGNAGE PLAN

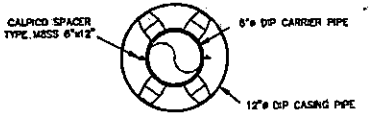
PD-1
ORIGINAL SCALE: AS SHOWN
DATE: 05/28/15
SHEET 25 OF 57



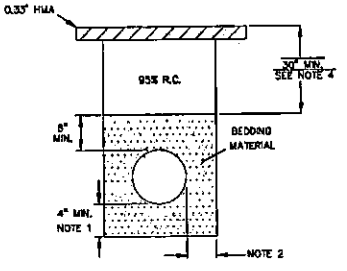
WATER LINE - PLAN VIEW
1"=10'



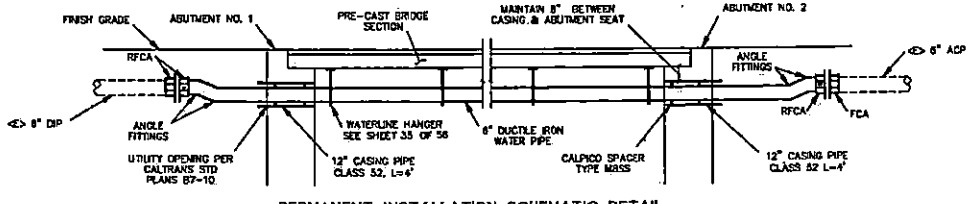
TEMPORARY BYPASS CONNECTION DETAIL
NTS



CASING PIPE DETAIL
SCALE: 2"=1'



TRENCH DETAIL
NTS



PERMANENT INSTALLATION SCHEMATIC DETAIL
NTS

NOTES:

1. 1/4 PIPE O.D. OR 4" MIN. WHEN EXCAVATION IS IN ROCKY GROUND.
2. PIPE DIAMETER 15" OR LESS: 6" MIN., 9" MAX & PIPE DIA. GREATER THAN 15": 9" MIN., 12" MAX.
3. RELATIVE COMPACTION DESIGNATED R.C.
4. NEW STREETS AND SHOULDER AREAS UNDER CONSTRUCTION SHALL BE COMPACTED TO 95% RELATIVE COMPACTION FOR A MINIMUM DEPTH OF 30" PER CALTRANS SECTION 19-5.03.

REVISION	DESCRIPTION	DATE

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 2ND STREET EUREKA, CA 95501
TEL (707) 445-7491
FAX (707) 445-7409

DESIGNED: JEFF BALL
DRAWN:
CHECKED:
APPROVED:

SPEC. NO.
PROJ. NO.

RED CAP ROAD BRIDGE REPLACEMENT OVER BIG ROCK GULCH
TEMPORARY WATER BYPASS PLAN AND WATER PLAN

W-1
ORIGINAL SCALE: AS SHOWN
DATE: 05/26/15
SHEET 26 OF 57

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO.	SHEETS
1	HUM	C.R.	0.3	27	57

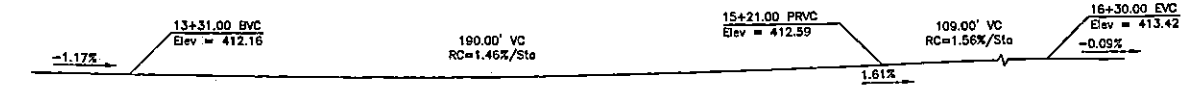
JENNIFER GRANT — 6-08-15
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JENNIFER A. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

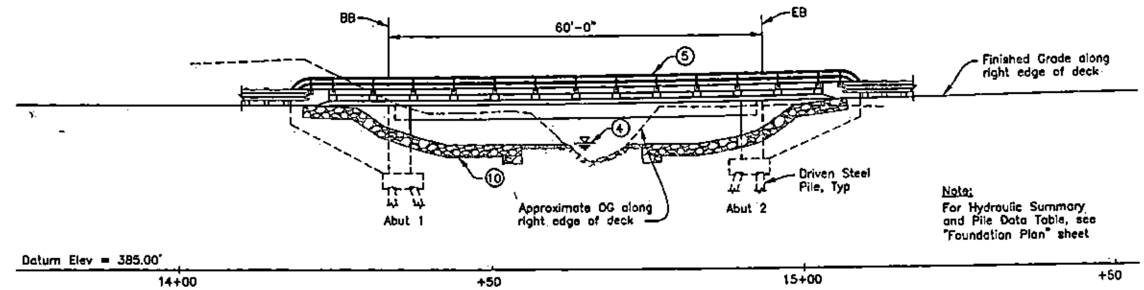
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670



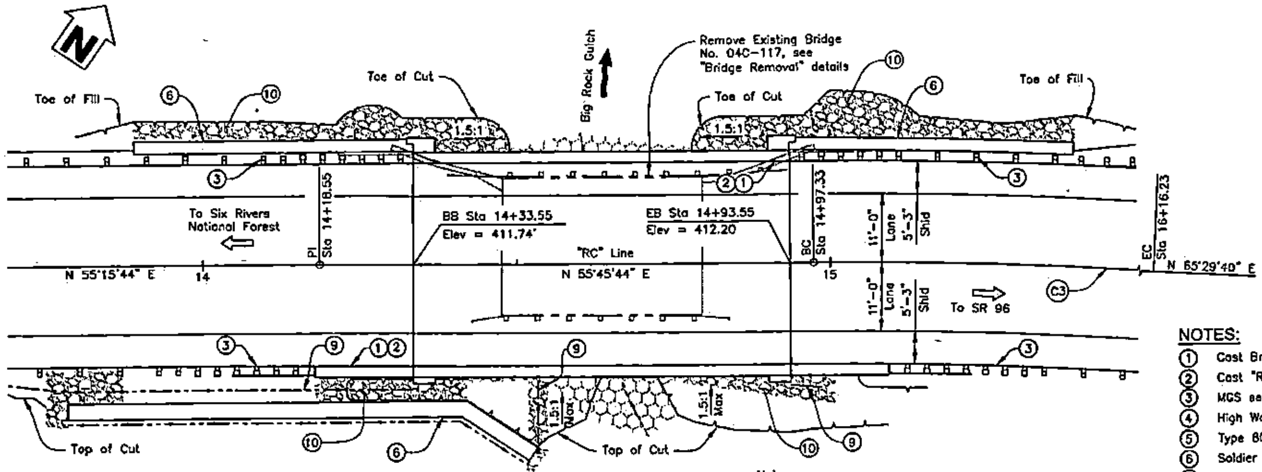
PROFILE GRADE
No Scale

CURVE DATA

No.	R	Δ	T	L
C3	700.00'	9°43'56"	59.59'	118.90'

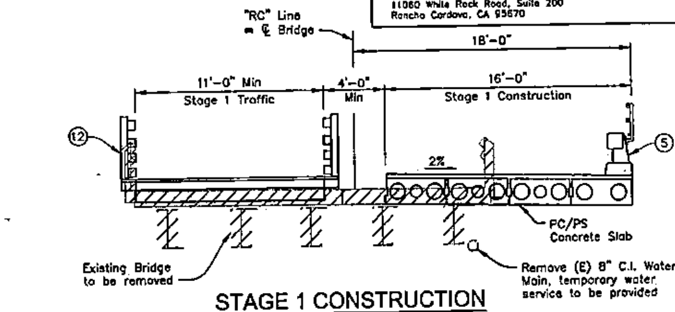


ELEVATION
1"=10'

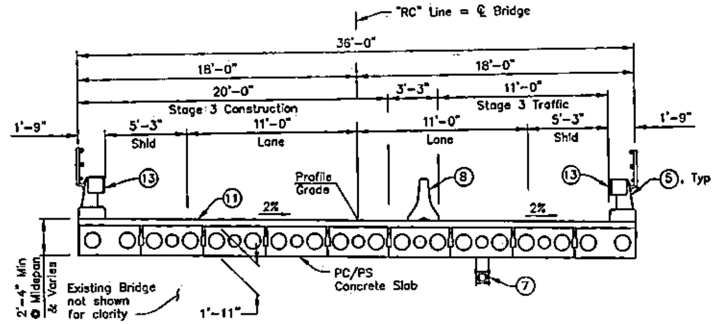


Remove Existing Bridge No. 04C-117, see "Bridge Removal" details
Big Rock Gulch
Toe of Fill
Toe of Cut
1.5:1
To Six Rivers National Forest
BB Sta 14+33.55
Elev = 411.74'
EB Sta 14+93.55
Elev = 412.20
PI Sta 14+18.55
BC Sta 14+97.33
EC Sta 16+23
"RC" Line
N 55°15'44" E
N 55°45'44" E
N 65°29'40" E
To SR 96
11'-0" Lane
5'-3" Shld
Top of Cut
1.5:1 Max
Note:
For General Notes and Index to Plans, see "Deck Contours" sheet

PLAN
1"=10'



STAGE 1 CONSTRUCTION
1/4"=1'-0"



STAGE 3 TRAFFIC AND CONSTRUCTION
1/4"=1'-0"

For Stage 2 Traffic and Construction, see "Road Plans"

NOTES:

1. Cast Bridge No. "04C-0259"
2. Cast "Red Cap Road Bridge"
3. MGS see "Road Plans"
4. High Water Elevation = 405.60' (NAVD29)
5. Type 80 Barrier (Mod) with Tubular Metal Railing
6. Soldier Pile Wall, see "Retaining Wall Plans", for details
7. 6" Waterline (Orleans Community Services District)
8. K-Rail, see "Road Plans"
9. Drainage Ditch Flow Line, see "Road Plans"
10. For Rock Slope Protection and Grading details, see "Road Plans"
11. Reinforced Concrete Overlay
12. Temporary Railroad Car Bridge provided by County
13. Concrete Surface Texture (Tribal Pattern)

LEGEND:

- ⇨ Indicates direction of traffic
- ➡ Indicates direction of water flow
- - - - - Indicates Existing Structure
- —— Indicates New Construction

S-1

DESIGN OVERSIGHT	DESIGN	BY J. GRANT	CHECKED M. BURGARD	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN VEHICLE	
SIGN OFF DATE	DETAILS	BY K. ORESBACH	CHECKED M. BURGARD	LAYOUT	BY J. GRANT	CHECKED M. BURGARD
	QUANTITIES	BY J. GRANT	CHECKED L. MINER	SPECIFICATIONS	BY K. ROSS	PLANS AND SPECS COMPARED K. ROSS

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT
PROJECT ENGINEER

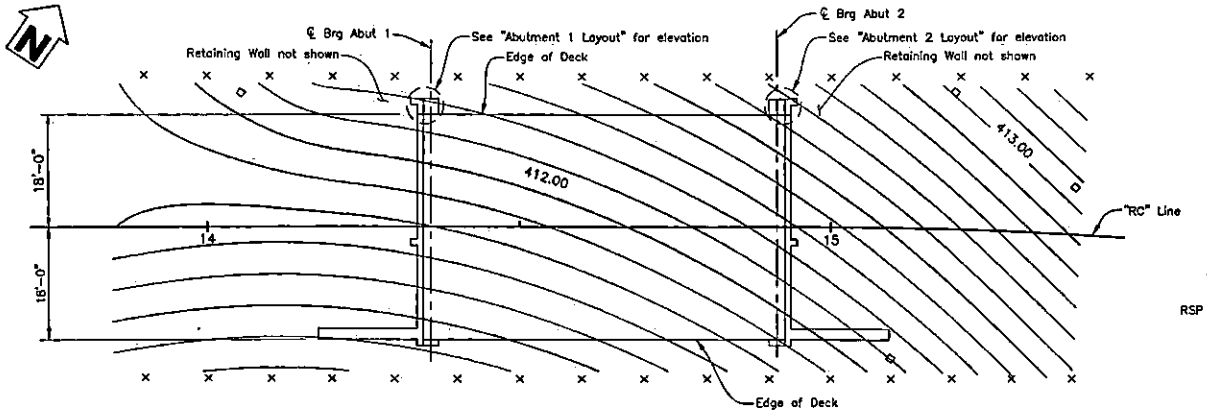
CU
EA

BRIDGE NO. 04C-0259
POST MILE 0.3

RED CAP ROAD BRIDGE REPLACEMENT
GENERAL PLAN

DISREGARD PRINTS BEARING EARLIER REVISION DATES

SHEET 1 OF 20



PLAN
1"=10'

NOTES:

1. Contours do not include camber.
2. Contour interval is 0.10'.
3. □ Indicates whole foot contours.
4. × Indicates 10' increments along station line.
5. Contours shown are at the top of the Reinforced Concrete Overlay.

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO	SHEETS
1	HUM	C.R.	0.3	28	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER L. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11050 White Rock Road, Suite 200
Rancho Cordova, CA 95670

CALTRANS STANDARD PLANS DATED 2010

A10A	Abbreviations (Sheet 1 of 2)
RSP A10B	Abbreviations (Sheet 2 of 2)
A10C	Lines and Symbols (Sheet 1 of 3)
A10D	Lines and Symbols (Sheet 2 of 3)
A10E	Lines and Symbols (Sheet 3 of 3)
A62A	Excavation and Backfill Miscellaneous Details
A62C	Limits of Payment for Excavation and Backfill-Bridge
B0-1	Bridge Details
B0-3	Bridge Details
B0-13	Bridge Details
B6-10	Utility Openings, T-Beam
B6-21	Joint Seals (Maximum Movement Rating = 2")
RSP B11-60	Concrete Barrier Type 80
T3A	Temporary Railing (Type K)

Standard Plan Sheet No.
Detail No.

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition and the Caltrans Amendments, preface dated November 2011.

SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC), Version 1.7 April 2013.

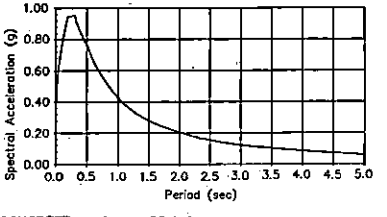
DEAD LOAD: Includes 35 psf for future wearing surface and 100 plf for future utilities.

LIVE LOADING: HL93 and permit design load.

SEISMIC LOADING: Soil profile: V_{s30} = 400 m/s

Moment Magnitude: 8.3

Peak Ground Acceleration = 0.41g



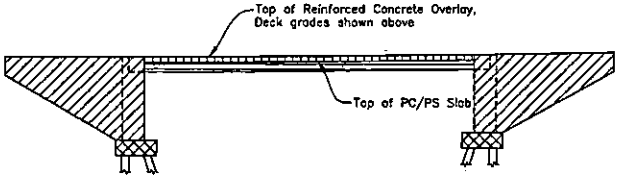
CONCRETE: fy = 60 ksi
f'c = 3.6 ksi
n = 8

PRESTRESSED CONCRETE: See "Prestressing Notes" on "Precast Slab Details No. 2" sheet

STRUCTURAL STEEL: fy = ASTM A709 Grade 50

ANCHOR ROD: F1554 Grade 105

INDEX TO PLANS



CONCRETE STRENGTH AND TYPE LIMITS

No Scale

- Precast Prestressed Concrete Slab (See "Precast Slab Details No. 2" sheet for required strength)
- Structural Concrete, Bridge (f'c = 3600 psi @ 28 Days)
- Structural Concrete, Bridge (f'c = 4000 psi @ 28 Days)
- Structural Concrete, Bridge Footing (f'c = 3600 psi @ 28 Days)

QUANTITIES

Bridge Removal	LS	1
Structure Excavation (Bridge)	CY	263
Structure Excavation (Rock)	CY	75
Structure Backfill (Bridge)	CY	96
Furnish Steel Piling (HP 12x74)	LF	902
Drive Steel Piling (HP 12x74)	EA	24
Structural Concrete (Bridge Footing)	CY	51
Structural Concrete (Bridge)	CY	154
Architectural Treatment (Stained Concrete)	SQFT	244
Concrete Surface Texture (Tribal Pattern)	SQFT	140
Furnish Precast Prestressed Concrete Slab	SQFT	2,082
Erect Precast Concrete Girder	EA	9
Joint Seal (MR ½")	LF	67
Bar Reinforcing Steel (Bridge)	LB	11,683
Bar Reinforcing Steel (Epoxy Coated) (Bridge)	LB	8,698
Headed Bar Reinforcement	EA	16
Miscellaneous Metal (Bridge)	LB	493
Tubular Handrailing	LF	152
Concrete Barrier (Type 80) (Mod)	LF	152

S-2

DESIGN OVERSIGHT
SIGN OFF DATE

DESIGN BY J. GRANT CHECKED M. BURGARD
DETAILS BY K. ORESBACH CHECKED M. BURGARD
QUANTITIES BY J. GRANT CHECKED L. MINER

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT
PROJECT ENGINEER

CU
EA

BRIDGE NO. 04C-0259
POST MILE 0.3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES

RED CAP ROAD BRIDGE REPLACEMENT
DECK CONTOURS

SHEET 2 OF 20

1	HUM	C.R.	0.3	29	57

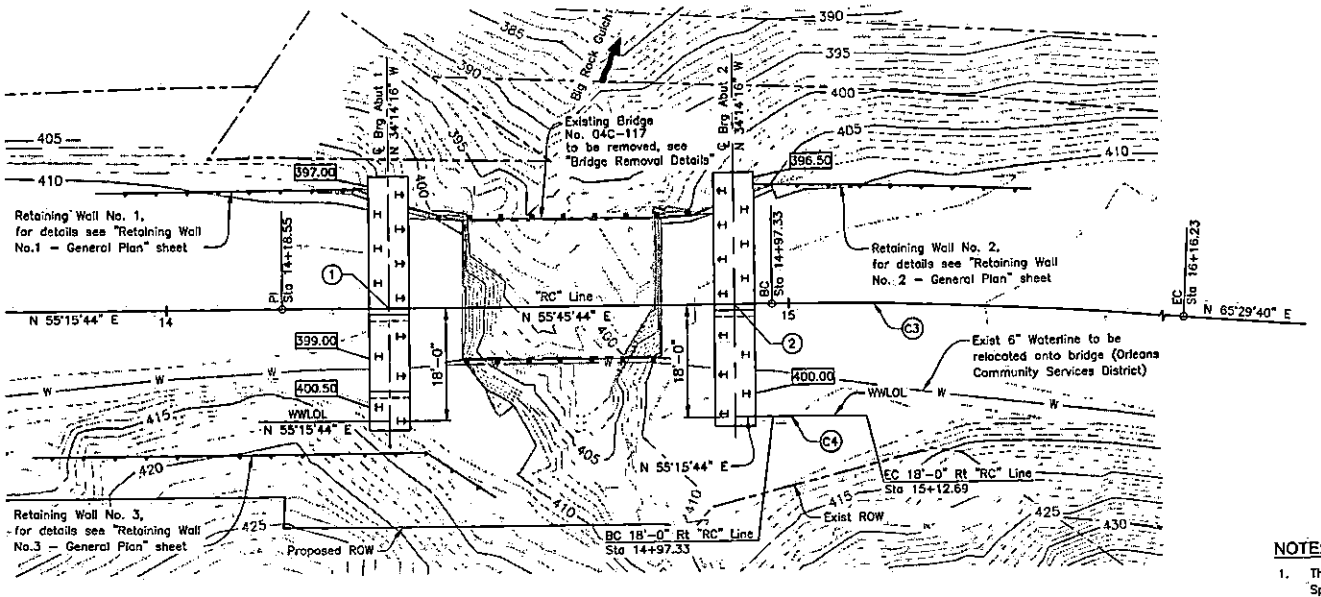
JENNIFER GRANT
REGISTERED CIVIL ENGINEER
6-08-15
DATE

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER L. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670



PLAN
1"=10'

PILE DATA TABLE

Location	Pile Type	Design Loading (K)	Nominal Resistance (Kips)	Design Tip Elevation (Ft)	Specified Tip Elevation (Ft)	Cut-off Elevation (Ft)	No. of Piles	Nominal Driving Resistance (Kips)
		Compression	Tension					
Abut 1	HP 12x74	140	0	(A)360.0; (B)372.0; (C)380.0;	360	397.42	7	280
						399.42	3	300
						400.92	2	300
Abut 2	HP 12x74	140	0	(A)364.0; (B)375.0; (C)380.0;	364	396.92	7	280
						400.42	5	300

Design Tip Elevations are controlled by the following demands:
(A) Compression, (B) Settlement and (C) Lateral Loads

	Northing	Easting
(1) ℄ Brg Abut 1 Sta 14+35.80	13245.0427	21893.2918
(2) ℄ Brg Abut 2 Sta 14+91.30	13276.2682	21939.1738

HYDROLOGIC SUMMARY TABLE

Drainage Area = 0.29 Square Miles

Frequency (Years)	Design Flood	Base Flood	Overtopping Flood
	50	100	>>500
Dishcharge (Cubic Feet per Second)	156	160	>>600
Water Surface Elevation, ft (NAVD29) Immediately Upstream of Bridge	405.50'	405.60'	>>406.06

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

CURVE DATA

No.	R	Δ	T	L
C3	700.00'	9°43'56"	59.59'	118.90'
C4	682.00'	1°15'27"	7.48'	14.97'

NOTE:

1. There is limited headroom beneath overhead lines. Splices may be required in driven HP Piles.
2. Retaining Wall No. 3 must be constructed prior to Abutment 1 Stage 1 Construction.

LEGEND:

H — Indicates HP 12x74 Steel Pile (Vertical)

H — Indicates HP 12x74 Steel Pile (Battered)

Indicates bottom of footing elevation

BENCHMARK:

For Benchmark Data, see "Road Plans"

S-3

DESIGN OVERSIGHT	SCALED	VERT. DATUM NGVD-29	HORIZ. DATUM N	DESIGN BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	BRIDGE NO. 04C-0259
	PHOTOGRAMMETRY AS OF:	ALIGNMENT TIES		DETAILS BY K. DRESBACH	CHECKED M. BURGARD		POST MILE 0.3
	QUANTITIES BY	DRAFTED BY		QUANTITIES BY J. GRANT	CHECKED L. MINER	JENNIFER GRANT PROJECT ENGINEER	CU X EA X
SIGN OFF DATE	FIELD CHECKED BY	CHECKED BY					

RED CAP ROAD BRIDGE REPLACEMENT

FOUNDATION PLAN

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 02-09-15 | 05-29-15 | 06-08-15 | 05-28-15

SHEET 3 OF 20

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO	SHEETS
1	HUM	C.R.	0.3	30	57

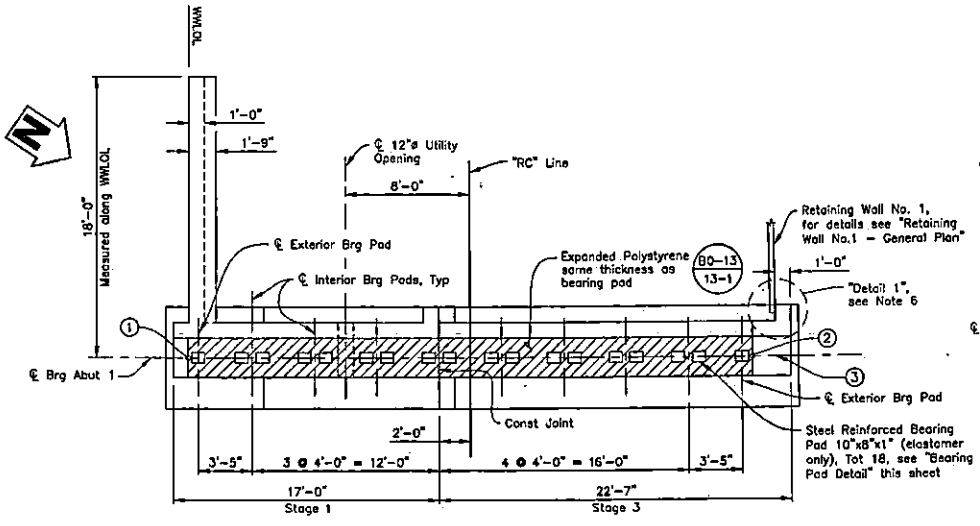
JENNIFER GRANT — REGISTERED CIVIL ENGINEER — DATE 6-08-15

PLANS APPROVAL DATE

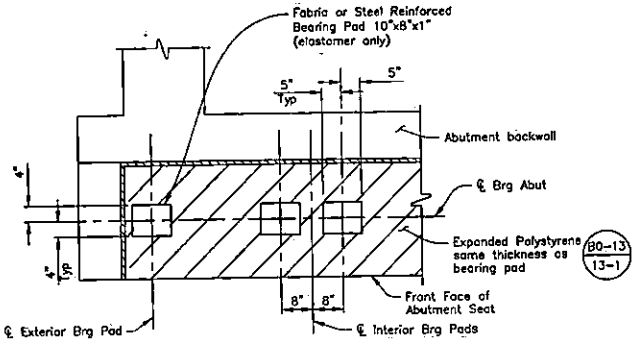
DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER K. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

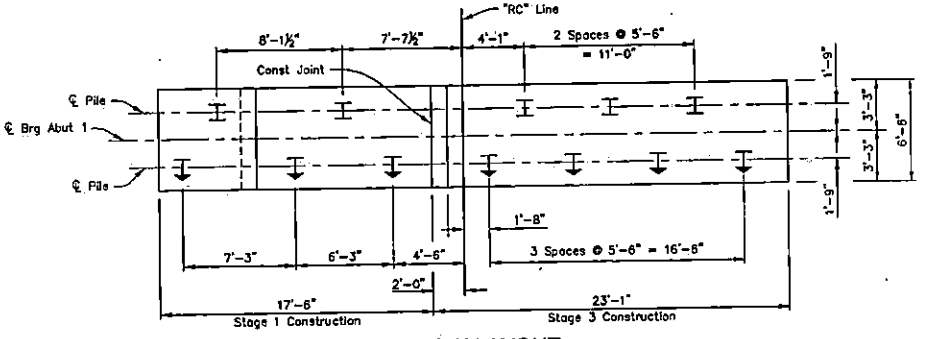


PLAN
1/4"=1'-0"

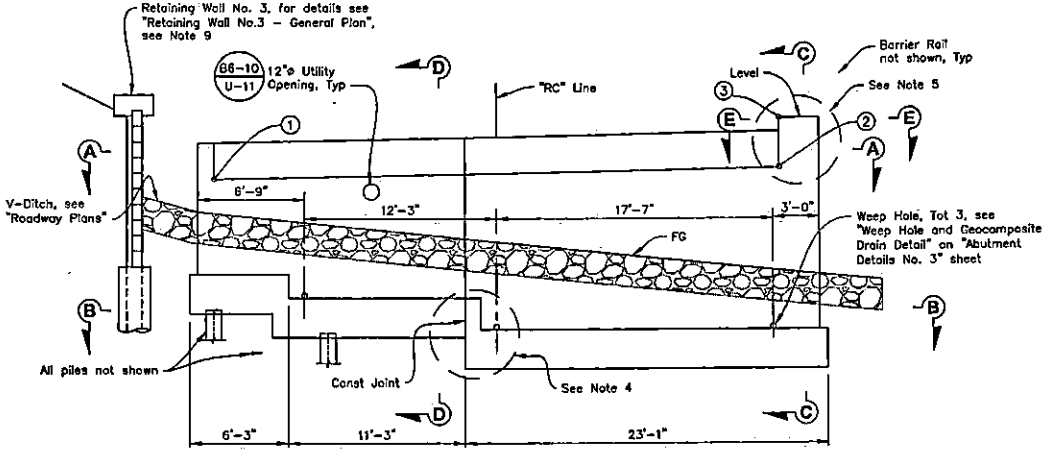


BEARING PAD DETAIL
3/4"=1'-0"

ABUTMENT 1 SEAT ELEVATIONS AT ℄ BRG (See Note 7)	
Location	Elevation
①	408.77'
②	409.49'
③	413.00'



PILE LAYOUT
1/4"=1'-0"



ELEVATION
1/4"=1'-0"

NOTES:

1. For "Abutment Section", see "Abutment Details No. 1" sheet.
2. For "Section A-A", "Section B-B" and "Section E-E", see "Abutment Details No. 2" sheet.
3. For "Section C-C" and "Section D-D", see "Abutment Details No. 3" sheet.
4. See "Footing Step Detail" on "Abutment Details No. 2" sheet.
5. See "Abutment Shear Key Detail" on "Abutment Details No. 2 sheet.
6. For "Detail 1", see "Abutment Details No. 3" sheet.
7. Abutment Seat Elevations are measured at the top of the bearing pad. Elevations provided are for information only. Contractor to verify elevations.
8. Abutment Seat parallel to the bottom of the PC\PS voided slab in the direction parallel to the slab.
9. Retaining Wall No. 3 must be constructed prior to Abutment 1 Stage 1 Construction.

LEGEND:

- Indicates Vertical Pile
- Indicates Battered Pile 3:1

S-4

DESIGN OVERSIGHT
SIGN OFF DATE

DESIGN BY J. GRANT — CHECKED M. BURGARD
DETAILS BY K. DRESBACH — CHECKED M. BURGARD
QUANTITIES BY J. GRANT — CHECKED L. MINER

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT — PROJECT ENGINEER

CU
EA

BRIDGE NO. 04C-0259
POST MILE 0.3

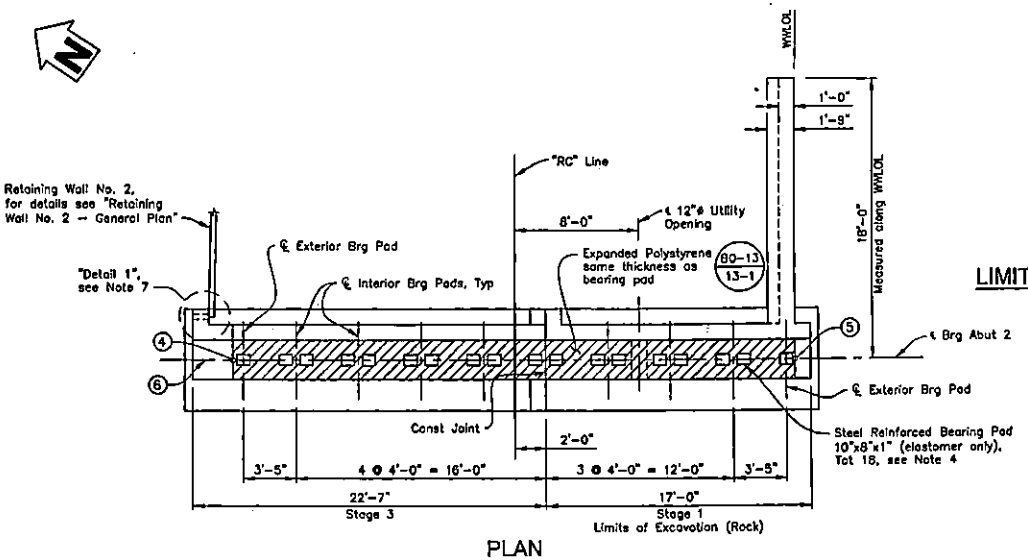
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 07-08-15 | 03-26-14 | 08-19-14 | 05-31-15

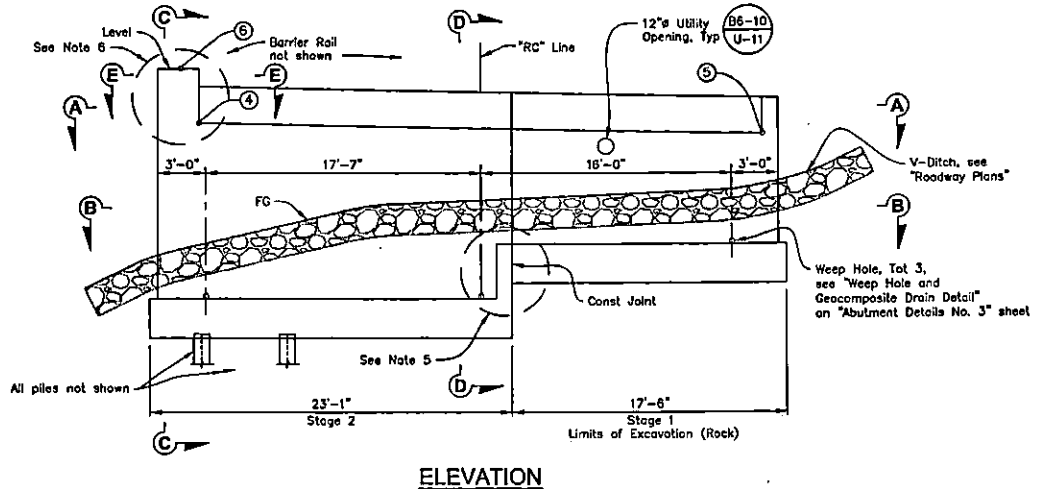
RED CAP ROAD BRIDGE REPLACEMENT

ABUTMENT 1 LAYOUT

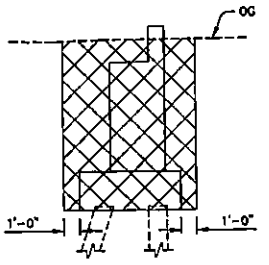
SHEET 4 OF 20



PLAN
1/4"=1'-0"

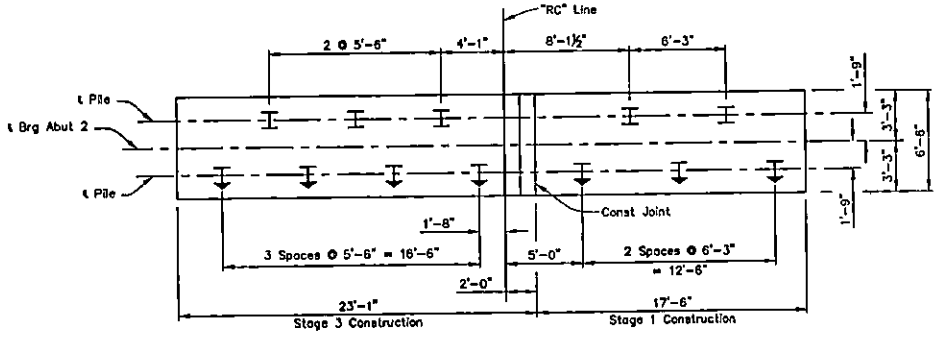


ELEVATION
1/4"=1'-0"



LIMITS OF STRUCTURE EXCAVATION (ROCK)
1/4"=1'-0"

ABUTMENT 2 SEAT ELEVATIONS AT ℄ BRG (See Note 8)	
Location	Elevation
④	409.92'
⑤	409.20'
⑥	413.40



PILE LAYOUT
1/4"=1'-0"

NOTES:

1. For "Abutment Section", see "Abutment Details No. 1" sheet.
2. For "Section A–A", "Section B–B" and "Section E–E", see "Abutment Details No. 2" sheet.
3. For "Section C–C" and "Section D–D", see "Abutment Details No. 3" sheet.
4. For Bearing Pad details, see "Bearing Pad Detail" on "Abutment 1 Layout" sheet.
5. See "Footing Step Detail" on "Abutment Details No. 2" sheet.
6. See "Abutment Shear Key Detail" on "Abutment Details No. 2" sheet
7. For "Detail 1", see "Abutment Details No. 3" sheet.
8. Abutment Seat Elevations are measured at the top of the bearing pad. Elevations provided are for information only. Contractor to verify elevations.
9. Abutment seat parallel to the bottom of the PC/PS voided slab in the direction parallel to the slab.

LEGEND:

- Indicates Vertical Pile
- Indicates Battered Pile 3:1

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO	SHEETS
1	HUM	C.R.	0.3	31	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — DATE 6-08-15

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

PROFESSIONAL ENGINEER — JENNIFER K. GRANT — No. C77687 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95870

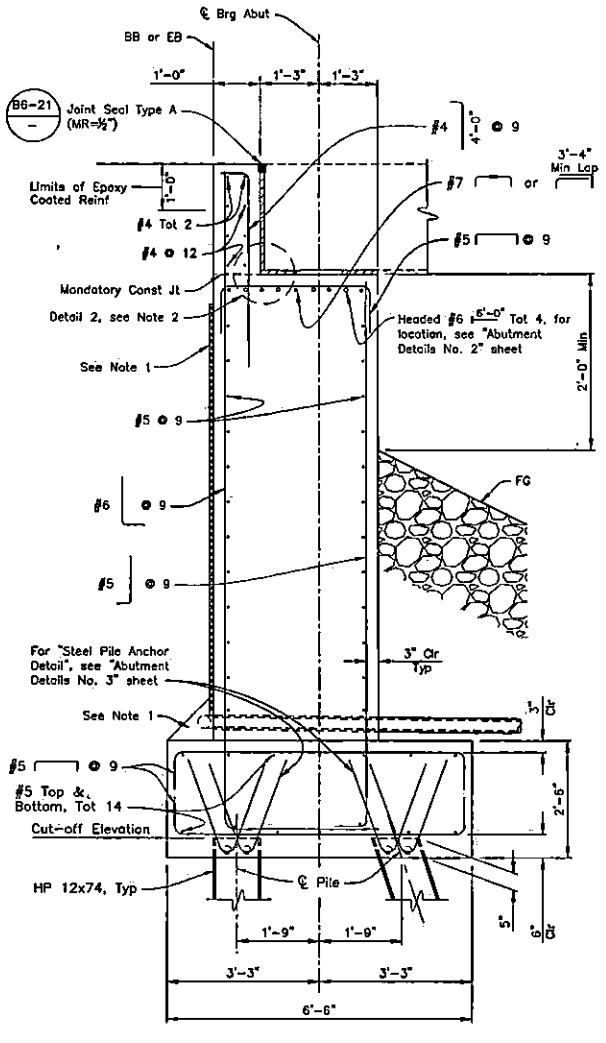
S-5

DESIGN OVERSIGHT		DESIGN	BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER	BRIDGE NO. 04C-0259
SIGN OFF DATE		DETAILS	BY K. DRESBACH	CHECKED M. BURGARD			POST MILE 0.3
		QUANTITIES	BY J. GRANT	CHECKED L. MINER		CU EA	DISREGARD PRINTS BEARING EARLIER REVISION DATES

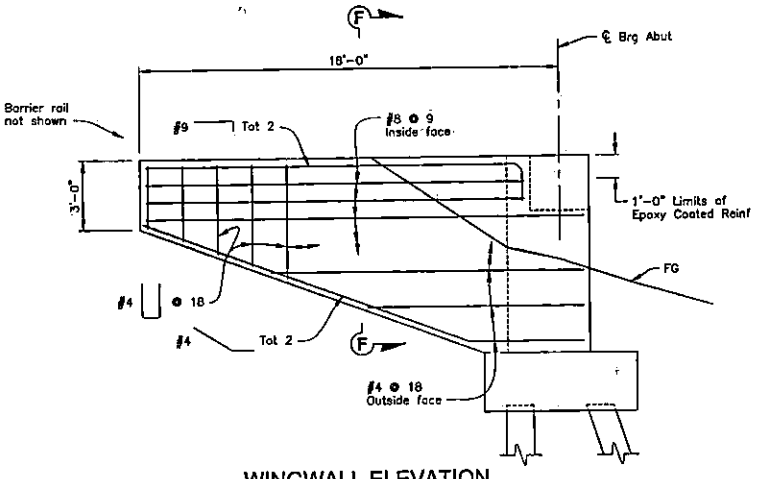
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS (0 1 2 3)

RED CAP ROAD BRIDGE REPLACEMENT
ABUTMENT 2 LAYOUT

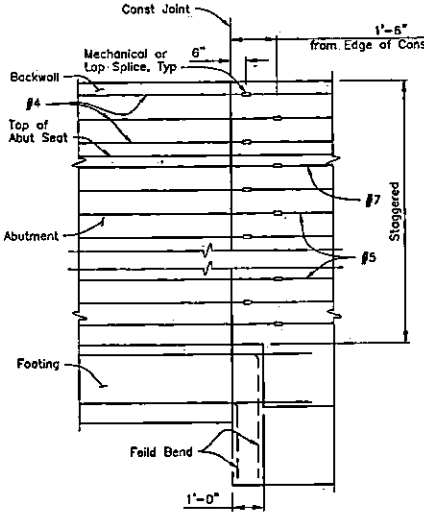
REVISION DATES								SHEET	OF
8-31-15								5	20



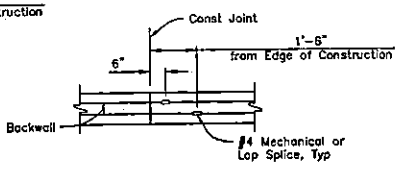
ABUTMENT SECTION
3/4"=1'-0"



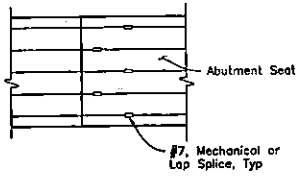
WINGWALL ELEVATION
3/8"=1'-0"
Abutment 1 right shown, Abutment 2 right similar



ABUTMENT - ELEVATION

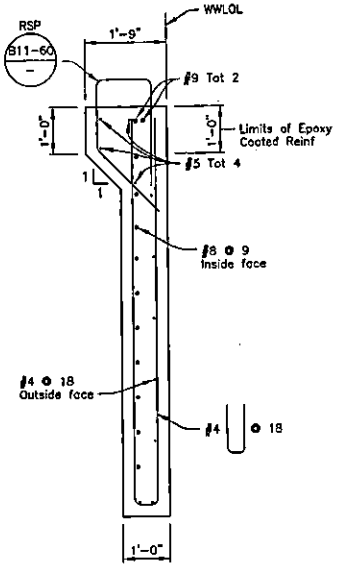


ABUTMENT BACKWALL - PLAN



ABUTMENT SEAT- PLAN

CONSTRUCTION JOINT DETAILS
No Scale



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

NOTES:

1. For "Weep Hole and Geocomposite Drain Detail", see "Abutment Details No. 3" sheet.
2. For "Detail 2", see "Abutment Details No.3" sheet.
3. Abutment back wall must be constructed after PC/PS voided slabs are placed.

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO	SHEETS
1	HUM	C.R.	0.3	32	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 5-08-15 DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — JENNIFER M. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11080 White Rock Road, Suite 200
Rancho Cordova, CA 95670

S-6

DESIGN OVERSIGHT		DESIGN	BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER	BRIDGE NO. 04C-0259
SIGN OFF DATE		DETAILS	BY K. GRESBACH	CHECKED M. BURGARD			POST MILE 0.3
		QUANTITIES	BY J. GRANT	CHECKED L. MINER		CU EA	DISREGARD PRINTS BEARING EARLIER REVISION DATES

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

RED CAP ROAD BRIDGE REPLACEMENT

ABUTMENT DETAILS NO. 1

REVISION DATES | SHEET 6 | OF 20

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO.	SHEETS
1	HUM	C.R.	0.3	33	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JENNIFER K. GRANT — No. C77867 — Exp 06/30/17 — CIVIL — STATE OF CALIFORNIA

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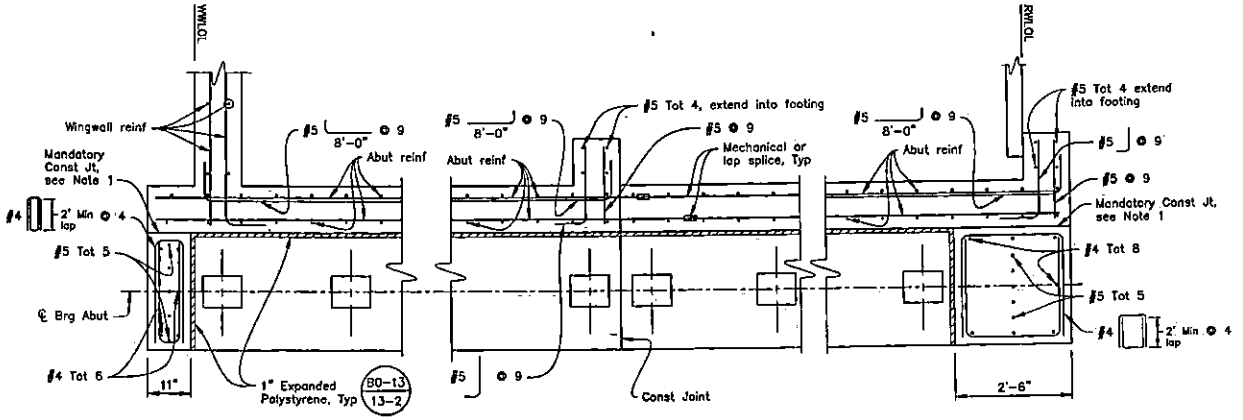
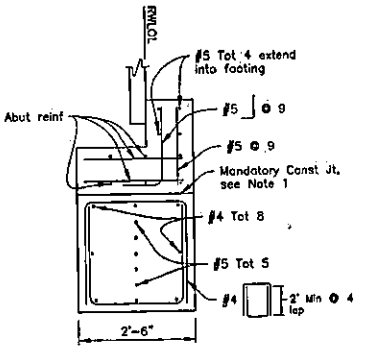


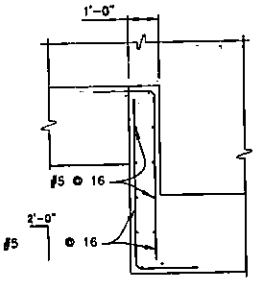
SECTION A-A
3/4"=1'-0"

NOTE:

1. Mandatory construction joint shall be smooth finish and lined with 15 pound construction paper



SECTION E-E
No Scale
Abutment 1 shown, Abutment 2 similar



FOOTING STEP DETAIL
No Scale
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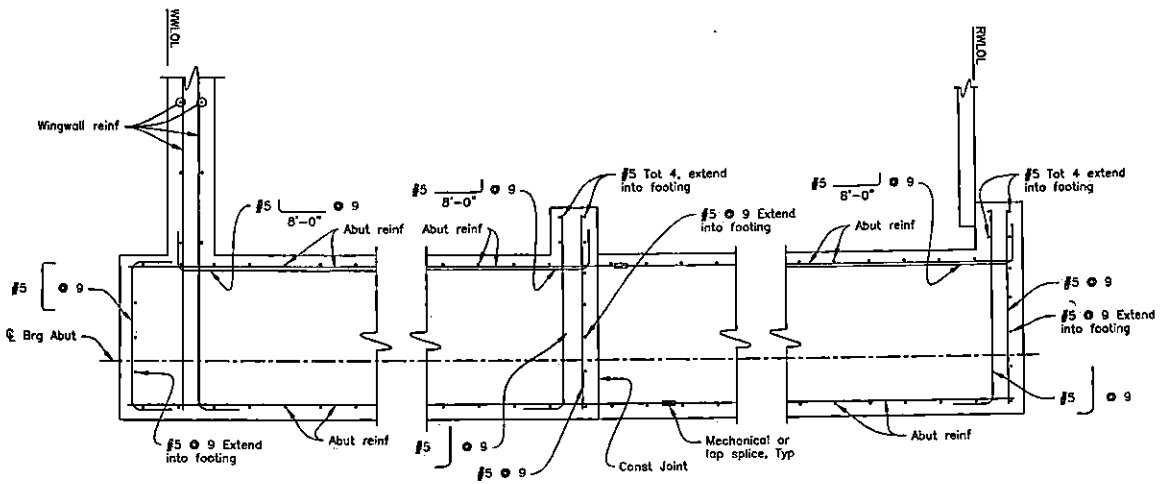
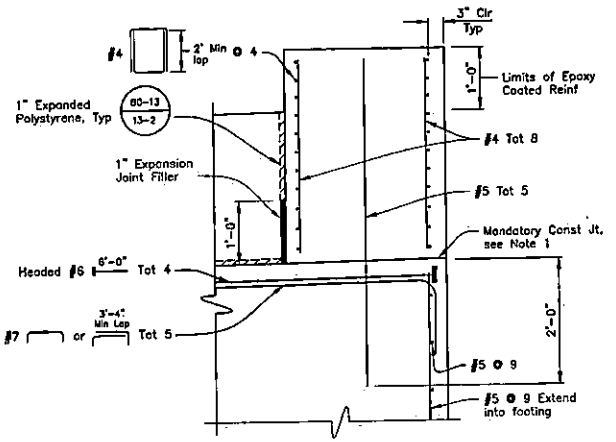


SECTION B-B
3/4"=1'-0"



ABUTMENT SHEAR KEY DETAIL
1"=1'-0"

S-7

DESIGN OVERSIGHT	DESIGN BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT, PROJECT ENGINEER	BRIDGE NO. 04C-0259
SIGN OFF DATE	DETAILS BY K. DRESBACH	CHECKED M. BURGARD			POST MILE 0.3
	QUANTITIES BY J. GRANT	CHECKED L. MINER		CU EA	

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

RED CAP ROAD BRIDGE REPLACEMENT

ABUTMENT DETAILS NO. 2

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 12-8-10 | 12-23-14 | 12-15-15 | 12-31-15

SHEET 7 OF 20

1	HUM	C.R.	0.3	34	57

JENNIFER GRANT 6-08-15
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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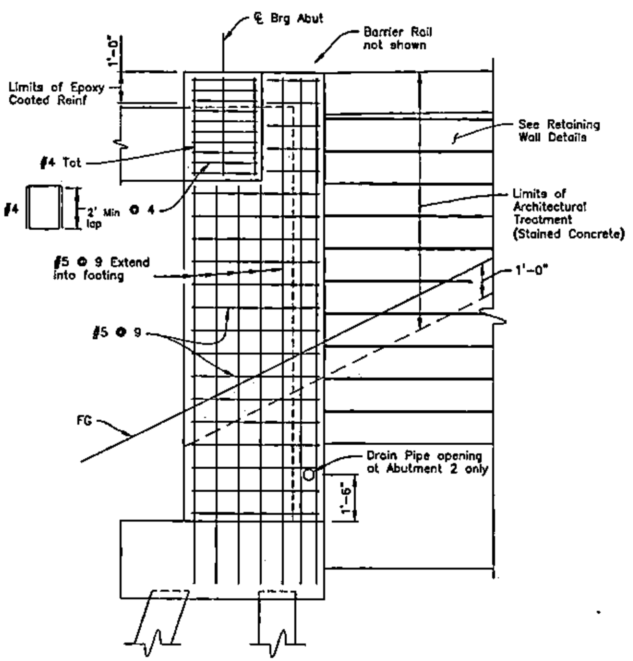
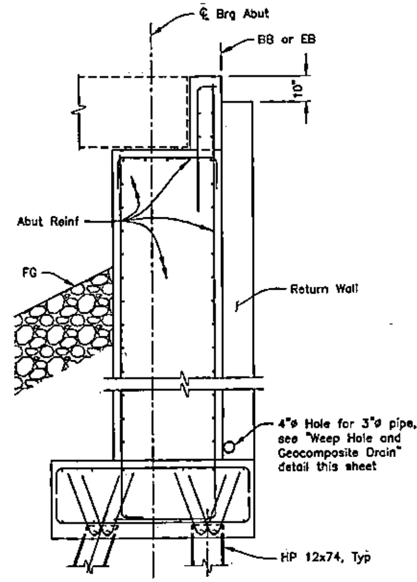
REGISTERED PROFESSIONAL ENGINEER JENNIFER A. GRANT No. C77667 Exp. 06/30/17 CIVIL STATE OF CALIFORNIA

drake haglan AND ASSOCIATES 11050 White Rock Road, Suite 200 Rancho Cordova, CA 95670



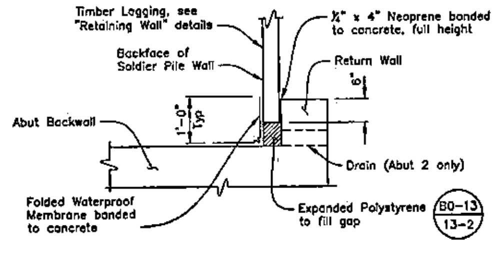
SECTION C-C

1/2"=1'-0"
Abut 1 shown, Abut 2 similar



SECTION D-D

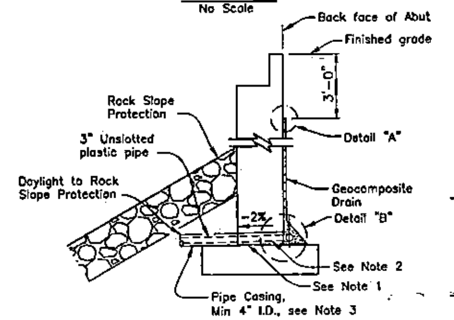
1/2"=1'-0"
Abut 1 shown, Abut 2 similar



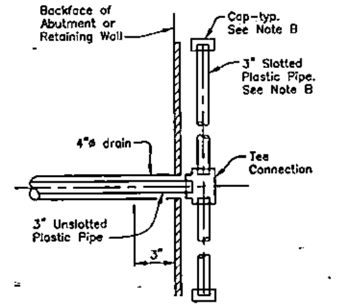
Timber Logging, see "Retaining Wall" details
½" x 4" Neoprene bonded to concrete, full height
Backface of Soldier Pile Wall
Return Wall
6"
Abut Backwall
1'-0" Typ
Drain (Abut 2 only)
Folded Waterproof Membrane bonded to concrete
Expanded Polystyrene to fill gap
B0-13
13-2

DETAIL 1

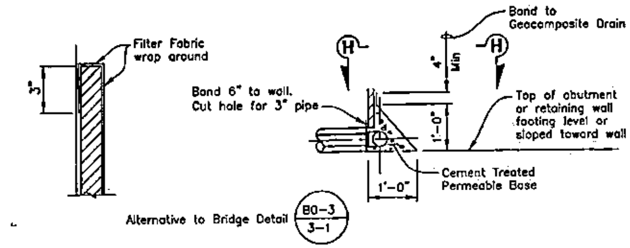
No Scale



WALL SECTION



SECTION H-H

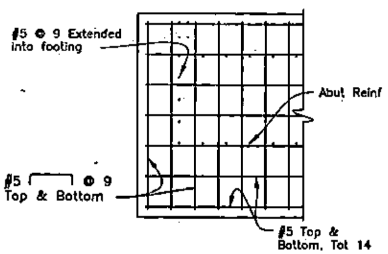


DETAIL "A"

DETAIL "B"

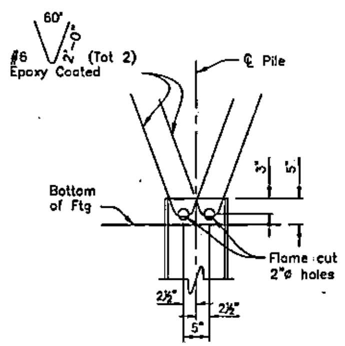
WEEP HOLE AND GEOCOMPOSITE DRAIN DETAIL

No Scale



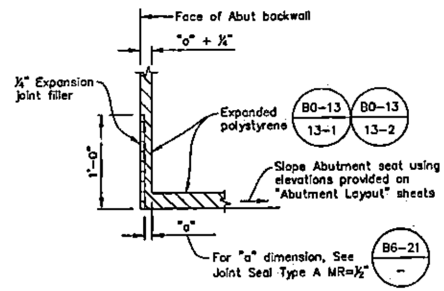
FOOTING CORNER DETAIL

No Scale



STEEL PILE ANCHOR DETAIL

No Scale



DETAIL 2

No Scale

NOTES:

1. Geocomposite drain, cement treated permeable base, and 3"ø slotted plastic pipe continuous behind retaining wall, wingwall, or abutment. Cap ends of pipe. Provide "Tee" connection at connection of each 4"ø drain.
2. Connect the low end of plastic pipe to the main outlet pipe as applicable.
3. Weephole casing to be Galvanized.

S-8

DESIGN OVERSIGHT	DESIGN BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER
SIGN OFF DATE	DETAILS BY K. DRESBACH	CHECKED M. BURGARD		
	QUANTITIES BY J. GRANT	CHECKED L. MINER		CU EA

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

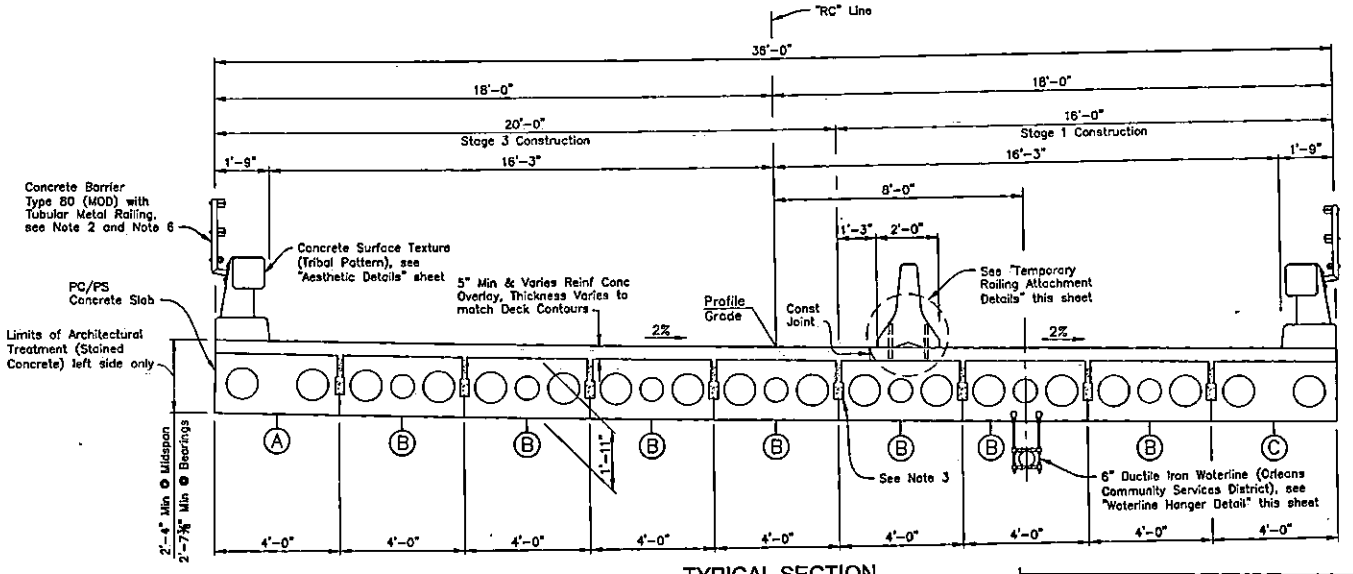
BRIDGE NO. 04C-0259
POST MILE 0.3

RED CAP ROAD BRIDGE REPLACEMENT

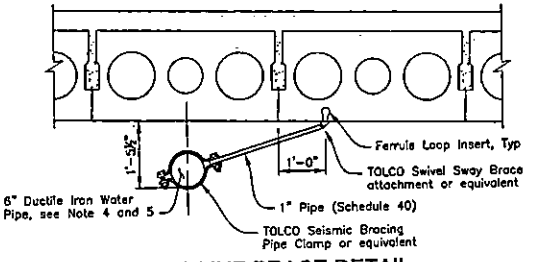
ABUTMENT DETAILS NO. 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

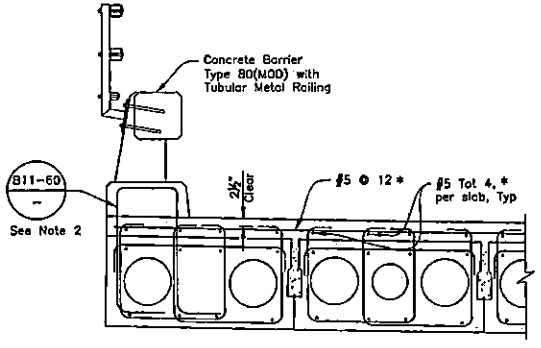
SHEET 8 OF 20



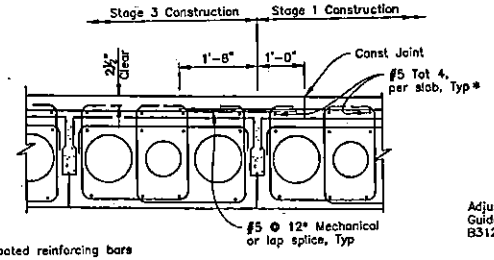
TYPICAL SECTION
1/2"=1'-0"



WATERLINE BRACE DETAIL
3/4"=1'-0"

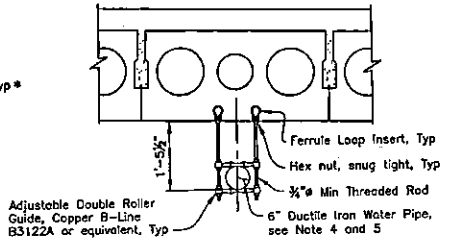


PART TYPICAL SECTION (MID SPAN OF BRIDGE)
3/4"=1'-0"



CLOSURE POUR
3/4"=1'-0"

* Use prefabricated epoxy coated reinforcing bars



WATERLINE HANGER DETAIL
3/4"=1'-0"

1	HUM	C.R.	0.3	35	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JENNIFER L. GRANT — No. C77667 — Exp. 08/30/17 — CIVIL — STATE OF CALIFORNIA

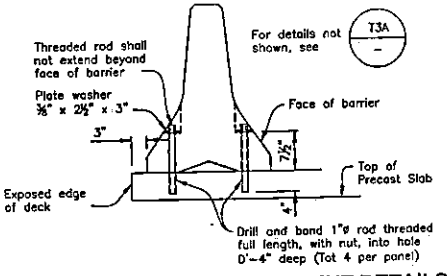
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

LEGEND:

- (A) Precast Prestressed Concrete Slab
- (B) Precast Prestressed Concrete Slab
- (C) Precast Prestressed Concrete Slab

NOTES:

1. For precast prestressed concrete slab reinforcement details not shown, see "Precast Details No. 2" sheet.
2. All barrier reinforcement will be pre-fabricated epoxy coated reinforcing bars.
3. Keyways to be filled with non-shrink grout.
4. Waterline hanger and brace spacing not to exceed 8'-0".
5. Space ductile iron pipe gaskets to miss waterline hanger and brace.
6. All surfaces of Concrete Barrier Type 80 (Mod) to have Architectural Treatment (Stained Concrete).
7. Waterline Hanger and Waterline Brace components must be Galvanized.



TEMPORARY RAILING ATTACHMENT DETAILS
1 1/4"=1'-0"

S-9

DESIGN OVERSIGHT		DESIGN BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER
SIGN OFF DATE		DETAILS BY K. DRESBACH	CHECKED M. BURGARD		
		QUANTITIES BY J. GRANT	CHECKED L. MINER		
		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		CU EA	

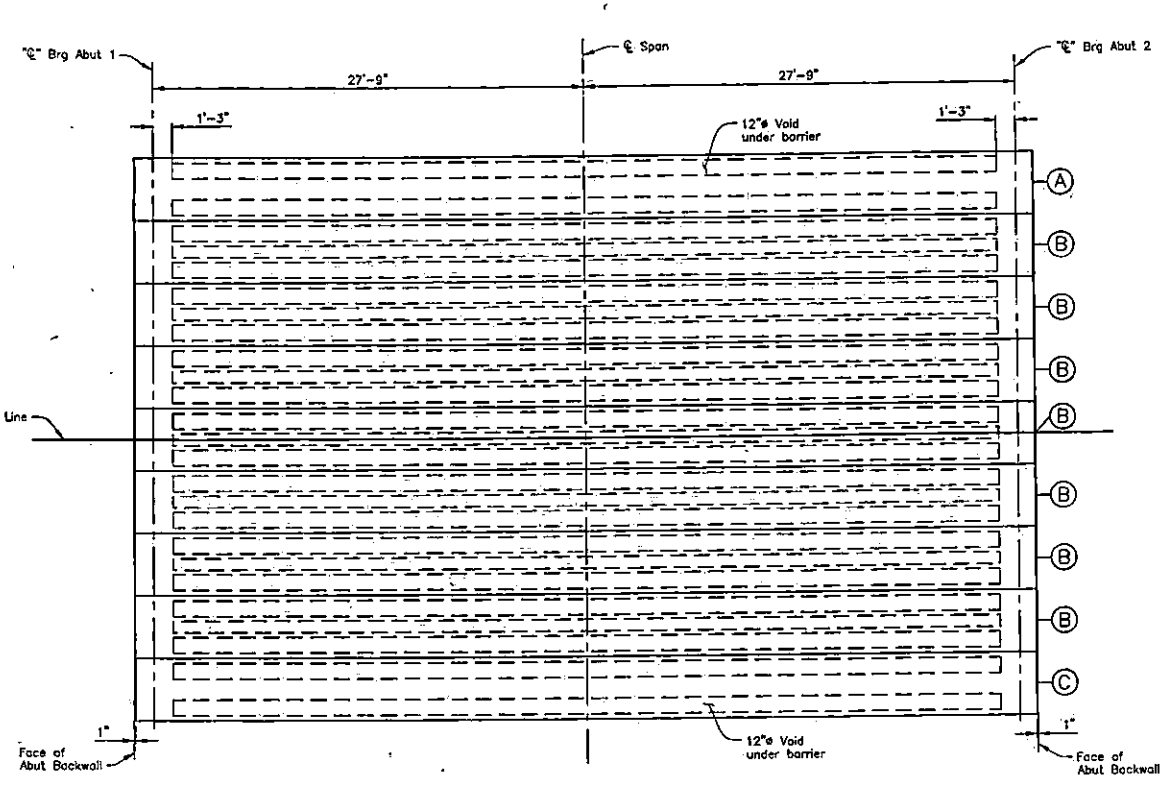
BRIDGE NO.	RED CAP ROAD BRIDGE REPLACEMENT
04C-0259	TYPICAL SECTION
POST MILE 0.3	
DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 05-07-15 05-20-15 08-28-15 09-3-15
	SHEET 9 OF 20

JENNIFER GRANT
REGISTERED CIVIL ENGINEER
6-08-15
DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JENNIFER GRANT
No. C77667
Exp. 06/30/17
CIVIL
STATE OF CALIFORNIA

drake haglan
AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670



PLAN
1/4"=1'-0"

LEGEND:

- (A) Precast Prestressed Concrete Slab
- (B) Precast Prestressed Concrete Slab
- (C) Precast Prestressed Concrete Slab

S-10

DESIGN OVERSIGHT	DESIGN BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER	BRIDGE NO. 04C-0259
SIGN OFF DATE	DETAILS BY K. DRESBACH	CHECKED M. BURGARD			POST MILE 0.3
	QUANTITIES BY J. GRANT	CHECKED L. MINER		CU EA	DISREGARD PRINTS BEARING EARLIER REVISION DATES

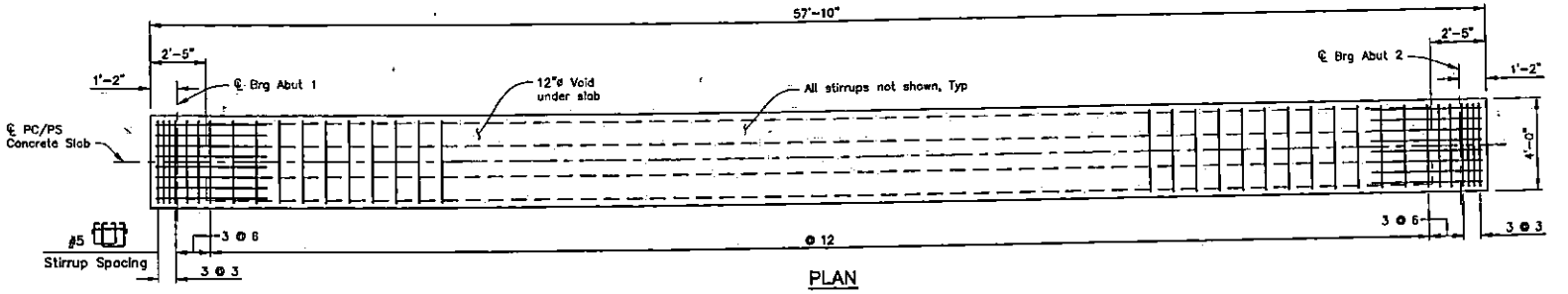
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

RED CAP ROAD BRIDGE REPLACEMENT

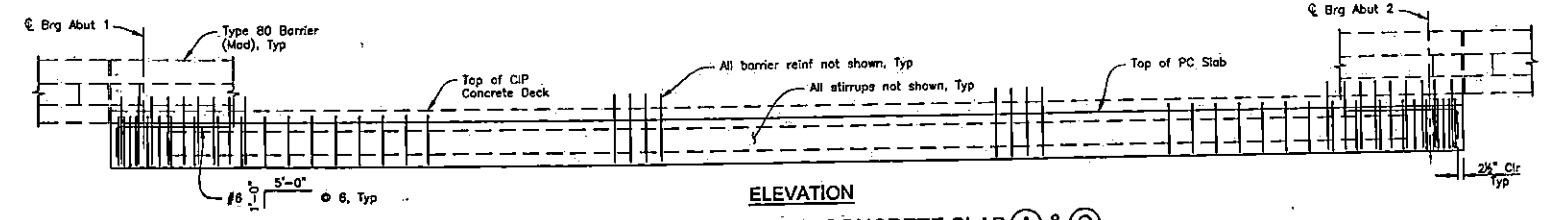
PRECAST SLAB LAYOUT

REVISION DATES: 6-4-13 | 12-18-13 | 10-14-14 | 05-31-15

SHEET 10 OF 20



PLAN

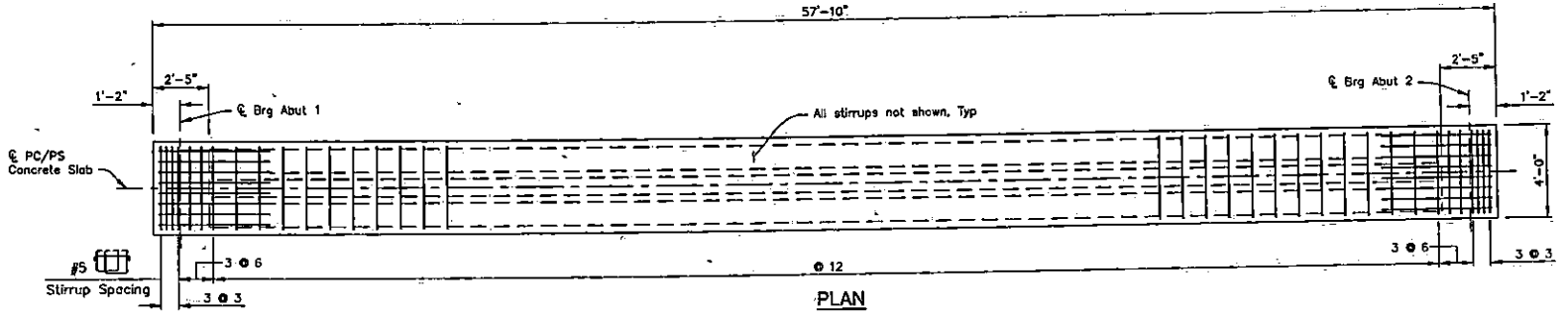


ELEVATION

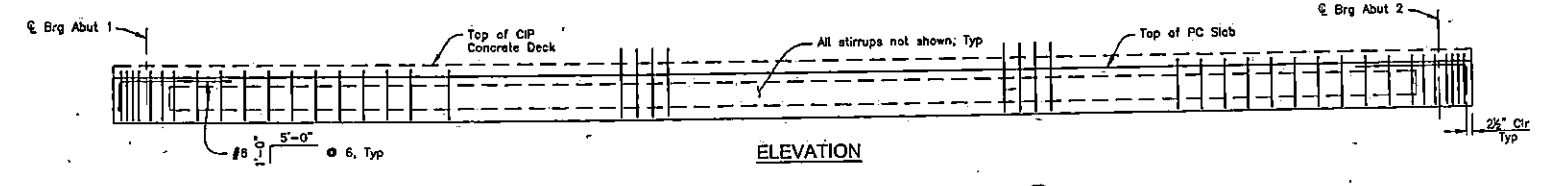
PRECAST PRESTRESSED CONCRETE SLAB (A) & (C)

3/8"=1'-0"

Girder (A) shown, girder (C) similar



PLAN



ELEVATION

PRECAST PRESTRESSED CONCRETE SLAB (B)

3/8"=1'-0"

NOTE:

1. Coarse broom finish shall be applied to top of all Precast Concrete Slab Units.
2. For details not shown see "Precast Slab Details No. 2"

1	HUM	C.R.	0.3	37	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — JENNIFER K. GRANT — No. C77667 — Exp. 08/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

S-11

DESIGN OVERSIGHT / SIGN OFF DATE		DESIGN BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT, PROJECT ENGINEER
		DETAILS BY K. DRESBACH	CHECKED M. BURGARD		
		QUANTITIES BY J. GRANT	CHECKED L. MINER		
		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			CU EA

BRIDGE NO.	RED CAP ROAD BRIDGE REPLACEMENT
04C-0259	PRECAST SLAB DETAILS NO. 1
POST MILE 0.3	
DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES: 12-18-13

SHEET 11 OF 20

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — DATE 6-08-15

PLANS APPROVAL DATE

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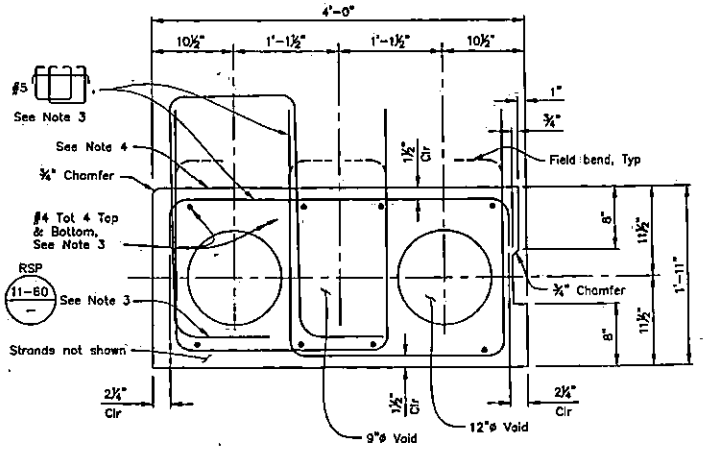
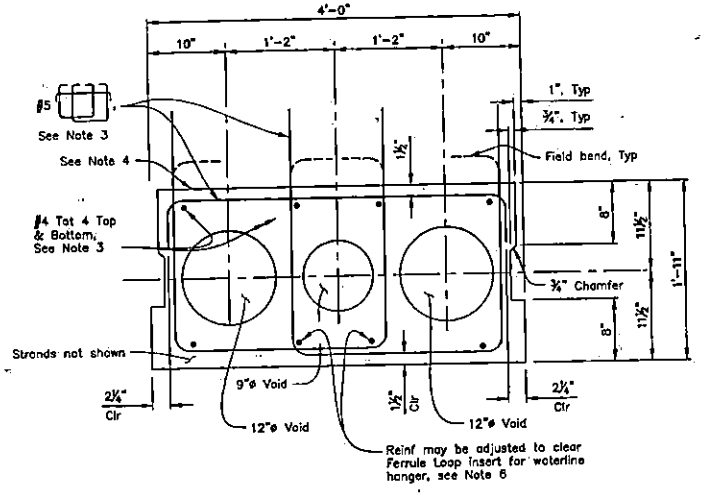
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670



TYPICAL SECTION (A) & (C)

1 1/2"=1'-0"

Girder (A) shown, girder (C) similar



TYPICAL SECTION (B)

1 1/2"=1'-0"

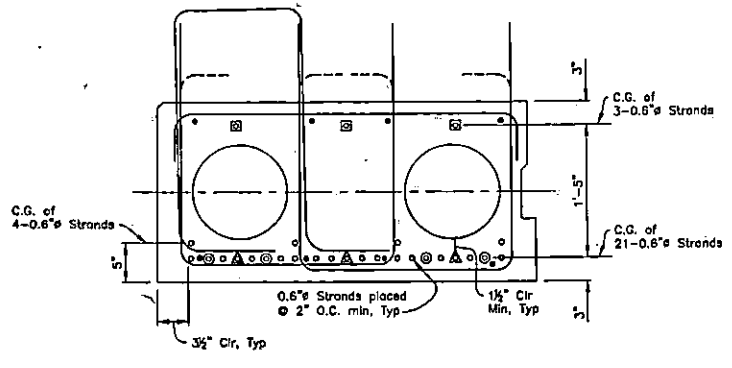
PRESTRESSING NOTES:

270 ksi Low Relaxation Strands

1. Pj is the total Prestress Force required in one Precast Prestressed Concrete Slab at time of stressing prior to release (initial pull corresponding to 0.75fpu).
2. Concrete Strength: f'ci is at time of initial Prestressing f'c is at 28 days.
3. Deflection Components at midspan: Informational – to be used in Screed Line Elevations
4. Design Details shown are for Pretensioned Units.
5. Contractor may adjust location of strands as approved by the Engineer.

Slab	Jacking Force (P), kips	C.G., in *	Concrete Strength (ksi) f'ci	Concrete Strength (ksi) f'c	Deflection Components in feet Deck DL	Deflection Components in feet Barrier DL
(A),(B)&(C)	1100	3 3/16"	4.5	5.0	0.03'	0.00'
L = 57'-10"	130	1'-8"				

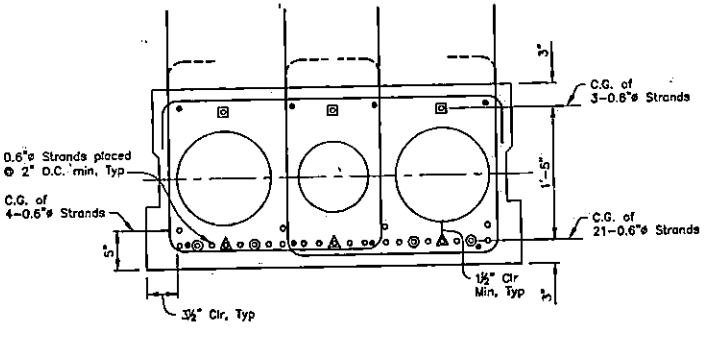
* C.G. is measured from bottom of slab



STRAND PATTERN DETAILS (A) & (C)

1 1/2"=1'-0"

Girder (A) shown, girder (C) similar



STRAND PATTERN DETAILS (B)

1 1/2"=1'-0"

LEGEND:

- (A) Denotes Strand to be debonded 10' each end.
- (◎) Denotes Strand to be debonded 8' each end.
- (⊡) Denotes middle 38' of Strand to be debonded and cut at ℄ span. The debonded section of strand is centered on ℄ Span.

NOTES:

1. Strands should be placed symmetrically about ℄ slab and uniformly spaced.
2. Strand spacing shall not be less than 2" O/C.
3. All reinforcement will be prefabricated epoxy coated reinforcing bars
4. Top surface of precast voided slabs will be intentionally roughened to an amplitude of 0.25 in.
5. The Contractor is responsible for managing differential deflection of girders.
6. See "Typical Section" for location of waterline hangers.

S-12

DESIGN OVERSIGHT

SIGN OFF DATE

DESIGN	J. GRANT	CHECKED	M. BURGARD
DETAILS	K. DRESBACH	CHECKED	M. BURGARD
QUANTITIES	J. GRANT	CHECKED	L. MINER

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT — PROJECT ENGINEER

CU
EA

BRIDGE NO. 04C-0259
POST MILE 0.3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 8-24-15 | 8-26-15 | 8-31-15

RED CAP ROAD BRIDGE REPLACEMENT

PRECAST SLAB DETAILS NO. 2

SHEET 12 OF 20

1	HUM	C.R.	0.3	39	57

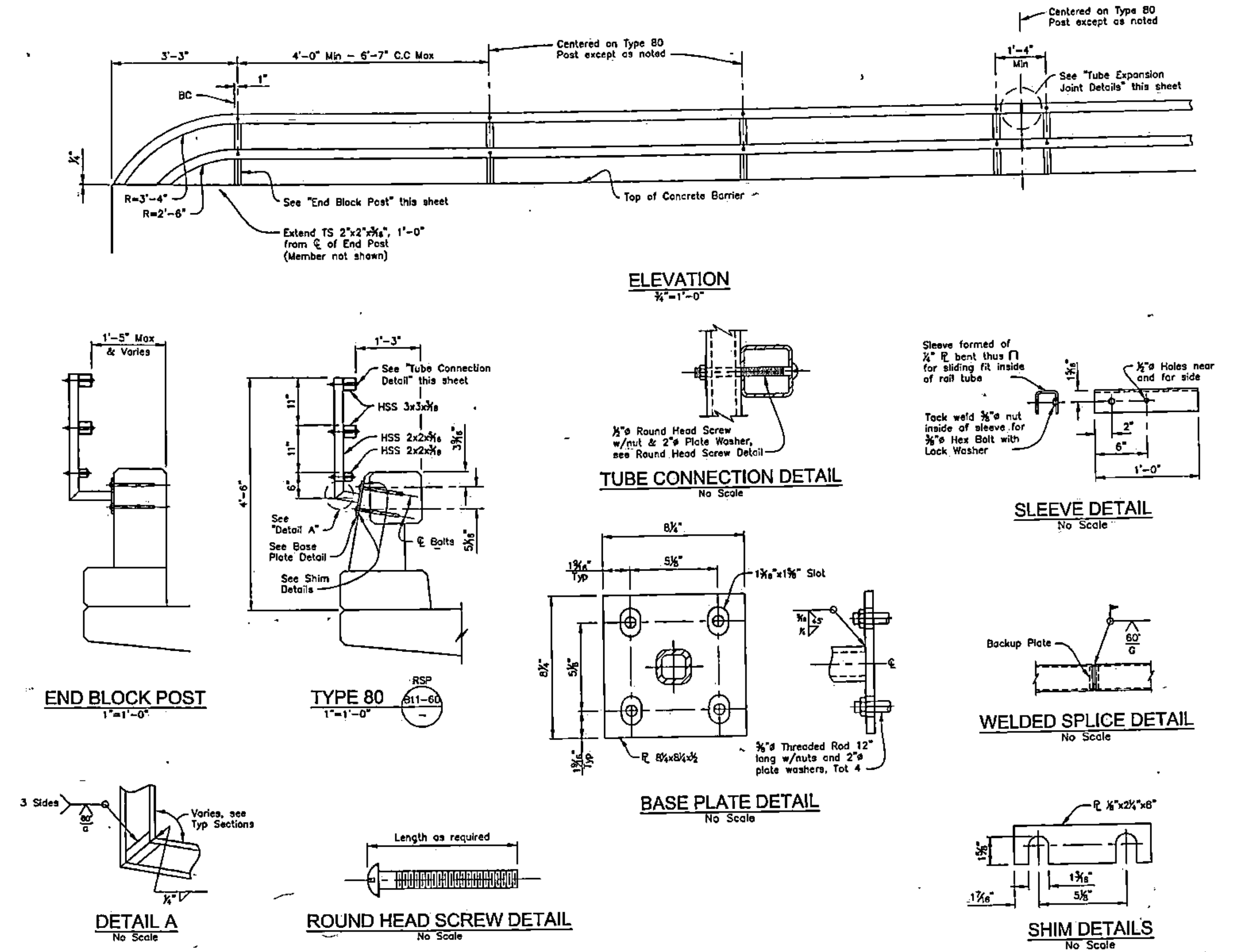
JENNIFER GRANT 6-08-15
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

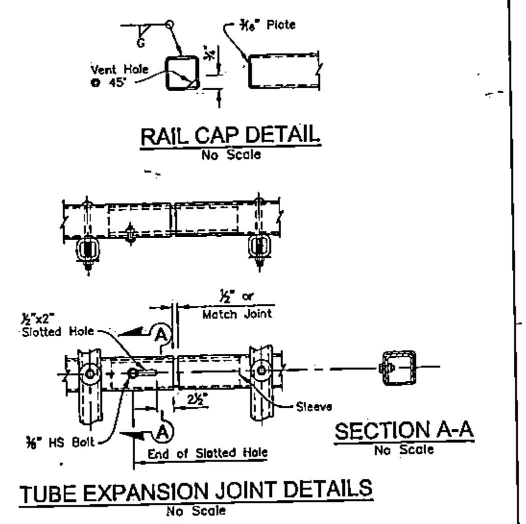
DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER A. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670



3'-3"
4'-0" Min – 6'-7" C.C Max
Centered on Type 80 Post except as noted
1'-4" Min
See "Tube Expansion Joint Details" this sheet
BC
R=3'-4"
R=2'-6"
See "End Block Post" this sheet
Top of Concrete Barrier
Extend TS 2"x2"x3/16", 1'-0" from ℄ of End Post (Member not shown)
ELEVATION
3/4"=1'-0"
1'-5" Max & Varies
END BLOCK POST
1"=1'-0"
1'-3"
See "Tube Connection Detail" this sheet
HSS 3x3x3/16
HSS 2x2x3/16
HSS 2x2x3/16
See "Detail A"
See Base Plate Detail
See Shim Details
℄ Bolts
4'-6"
TYPE 80
1"=1'-0"
RSP B11-60
1/2"ø Round Head Screw w/nut & 2"ø Plate Washer, see Round Head Screw Detail
TUBE CONNECTION DETAIL
No Scale
8 1/4"
5 1/8"
1 9/16" Typ
1 9/16"x1 9/16" Slot
℄ 8 1/4x8 1/4x1/2
5/8"ø Threaded Rod 12" long w/nuts and 2"ø plate washers, Tot 4
BASE PLATE DETAIL
No Scale
Sleeve formed of 1/4" ℄ bent thus for sliding fit inside of rail tube
Tack weld 5/8"ø nut inside of sleeve for 5/8"ø Hex Bolt with Lock Washer
1/2"ø Holes near and far side
2"
6"
1'-0"
SLEEVE DETAIL
No Scale
Backup Plate
WELDED SPLICE DETAIL
No Scale
℄ 1/8"x2 1/4"x6"
1 3/8"
5 1/8"
1 7/16"
SHIM DETAILS
No Scale
3 Sides
Varies, see Typ Sections
DETAIL A
No Scale
Length as required
ROUND HEAD SCREW DETAIL
No Scale



NOTES:

1. Posts shall be normal to railing.
2. Rail tubes shall be shop bent or fabricated to fit horizontal curve when radius is less than 12'.
3. Tube expansion joints shall be located in the tubes spanning deck or wall joints. Increase joint width in tubes to match expansion joint width and increase sleeve length correspondingly.
4. Top rail tube shall be continuous over not less than two posts except a short post spacing is permitted near deck or wall joints or other rail discontinuities as noted.
5. See Project Plans for limits of tubular hand railing.
6. Tubular Metal Railing must be powder coated

S-13

DESIGN OVERSIGHT			
SIGN OFF DATE			
DESIGN	BY J. GRANT	CHECKED M. BURGARD	
DETAILS	BY K. DRESBACH	CHECKED M. BURGARD	
QUANTITIES	BY J. GRANT	CHECKED L. MINER	

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT
PROJECT ENGINEER

CU
EA

BRIDGE NO. 04C-0259
POST MILE 0.3

RED CAP ROAD BRIDGE REPLACEMENT
TUBULAR METAL RAILING

DISREGARD PRINTS BEARING EARLIER REVISION DATES

SHEET 13 OF 20

JENNIFER GRANT
REGISTERED CIVIL ENGINEER
6-08-15
DATE

PLANS APPROVAL DATE

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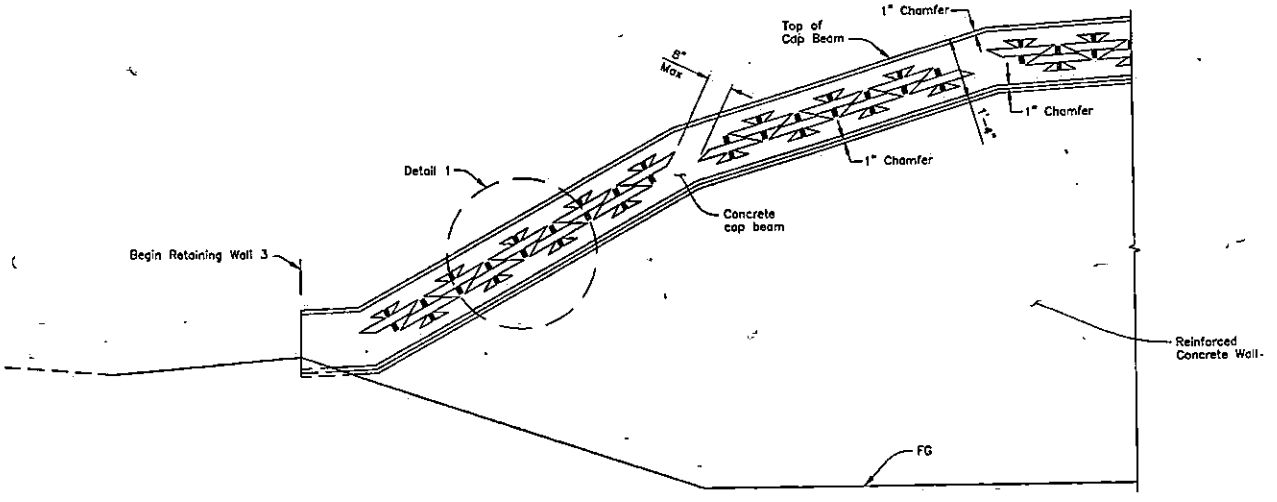
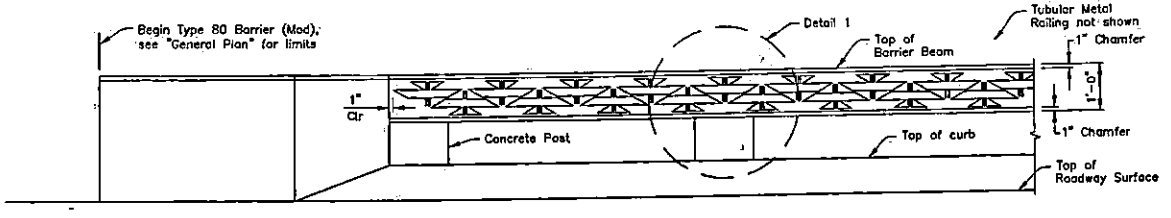
REGISTERED PROFESSIONAL ENGINEER
JENNIFER G. GRANT
No. C77867
Exp. 06/30/17
CIVIL
STATE OF CALIFORNIA

drake haglan
AND ASSOCIATES
11000 White Rock Road, Suite 200
Rancho Cordova, CA 95670



RETAINING WALL 3 - PART ELEVATION

For details not shown, see "Retaining Wall Details"
Begin Concrete Surface Texture (Tribal Pattern) "RW-3" Sta 0+1.25 and end at "RW-3" Sta 0+74.83



TYPE 80 BARRIER (MOD) - ELEVATION

NO SCALE

For details not shown, see B11-60

NOTE:

1. For "Detail 1", see "Aesthetic Details No. 2" sheet.

S-14

DESIGN OVERSIGHT	DESIGN BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER	BRIDGE NO. 04C-0259
SIGN OFF DATE	DETAILS BY K. DRESBACH	CHECKED M. BURGARD			POST MILE 0.3
	QUANTITIES BY J. GRANT	CHECKED L. MINER		CU EA	DISREGARD PRINTS BEARING EARLIER REVISION DATES

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

RED CAP ROAD BRIDGE REPLACEMENT

AESTHETIC DETAILS NO. 1

REVISION DATES: 05-07-15 | 05-26-15 | 06-04-15 | 06-08-15

SHEET 14 OF 20

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO	SHEETS
1	HUM	C.R.	0.3	41	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — DATE 6-08-15

PLANS APPROVAL DATE

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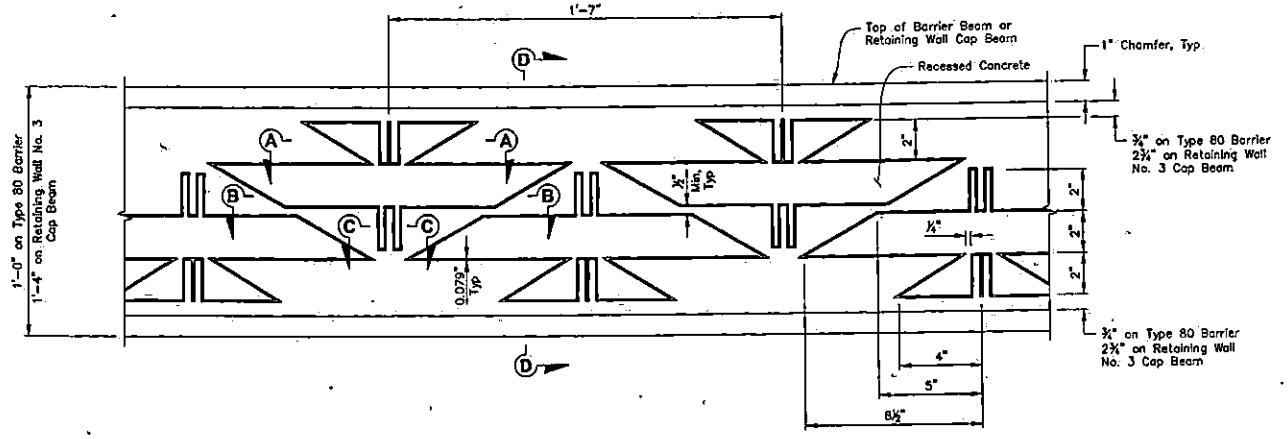
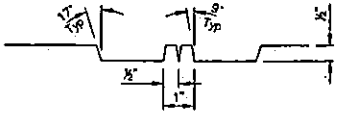
JENNIFER N. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

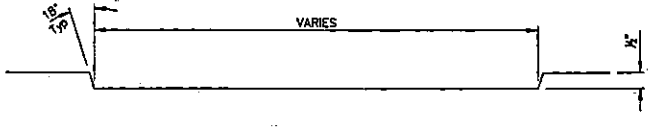
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670



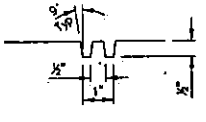
DETAIL 1
NO SCALE



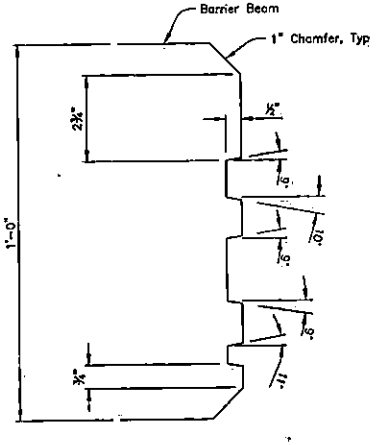
SECTION A-A
NO SCALE



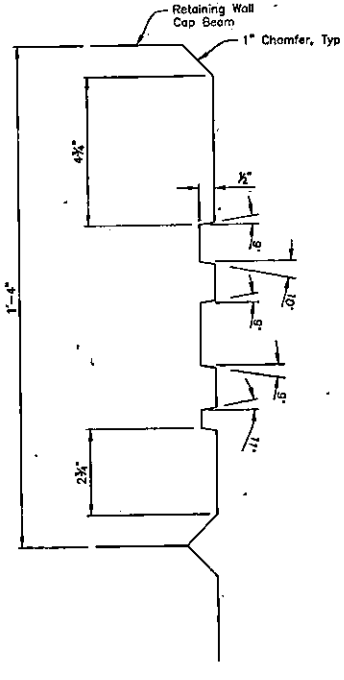
SECTION B-B
NO SCALE



SECTION C-C
NO SCALE



SECTION D-D - CONCRETE BARRIER TYPE 80 (MOD)
NO SCALE



SECTION D-D - RETAINING WALL NO. 3
NO SCALE

S-15

DESIGN OVERSIGHT		DESIGN BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER	BRIDGE NO. 04C-0259	RED CAP ROAD BRIDGE REPLACEMENT
SIGN OFF DATE		DETAILS BY K. DRESBACH	CHECKED M. BURGARD			POST MILE 0.3	AESTHETIC DETAILS NO. 2
		QUANTITIES BY J. GRANT	CHECKED L. MINER		CU EA	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 6-8-15 — SHEET 15 OF 20

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

1	HUM	C.R.	0.3	42	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — DATE 6-08-15

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JENNIFER A. GRANT — No. C77667 — Exp 08/30/17 — CIVIL — STATE OF CALIFORNIA

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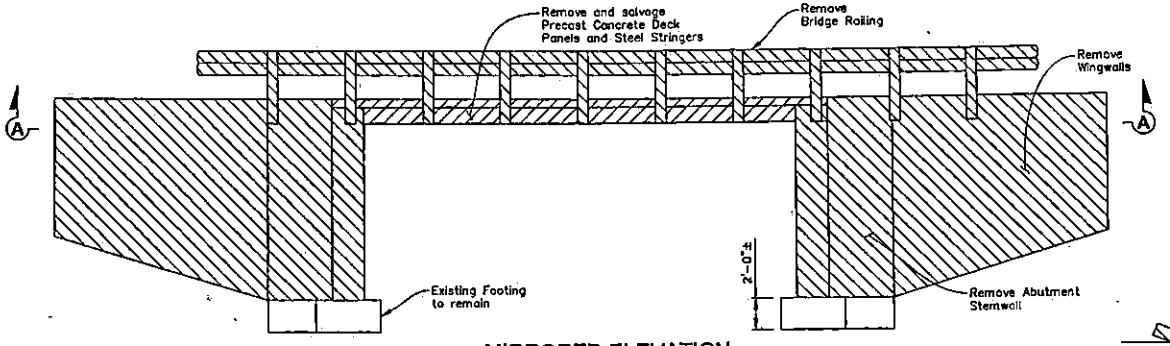
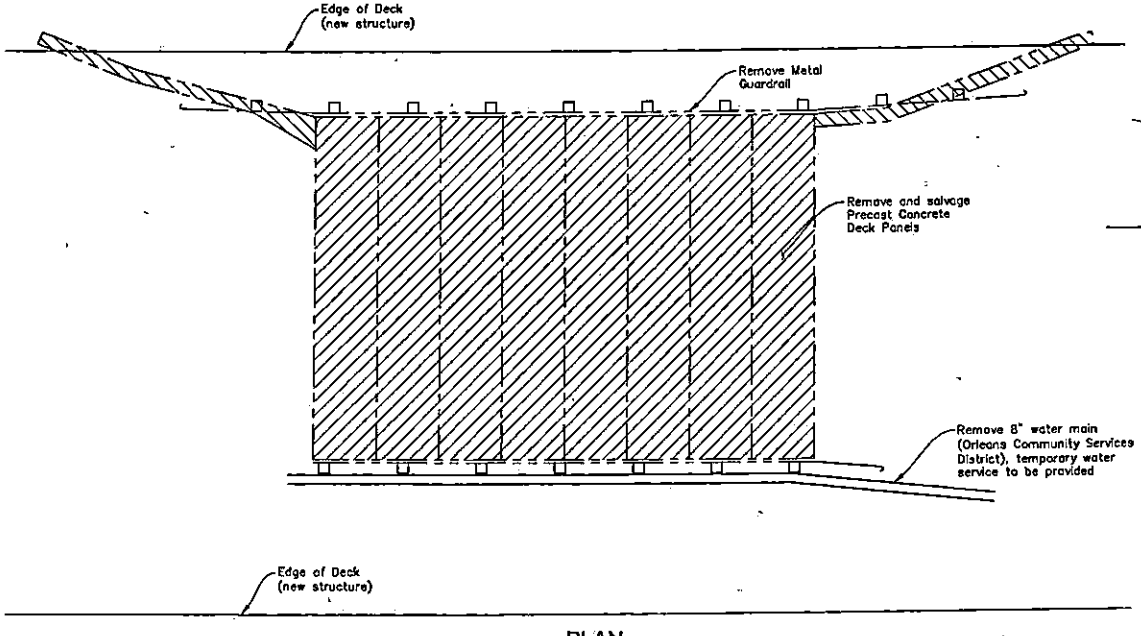
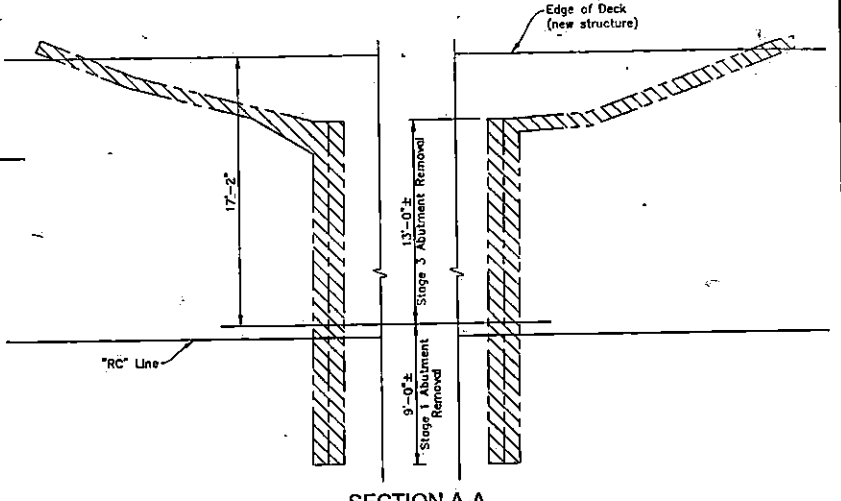
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670



MIRRORED ELEVATION
No Scale



PLAN
No Scale



SECTION A-A
No Scale

LEGEND:

Indicates Bridge Removal

Indicates Limits of Remove and Salvage Precast Concrete Deck Panels and Steel Stringers

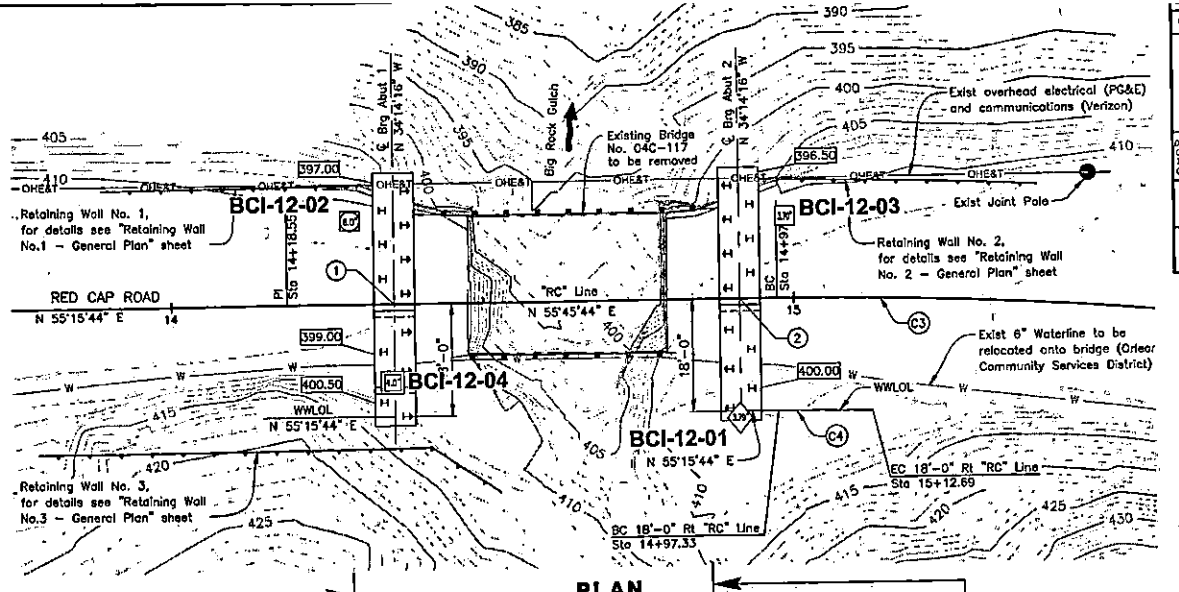
S-16

DESIGN OVERSIGHT		DESIGN BY J. GRANT	CHECKED M. BURGARD	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT, PROJECT ENGINEER
SIGN OFF DATE		DETAILS BY K. DRESBACH	CHECKED M. BURGARD		
		QUANTITIES BY J. GRANT	CHECKED L. MINER		
		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		CU EA	

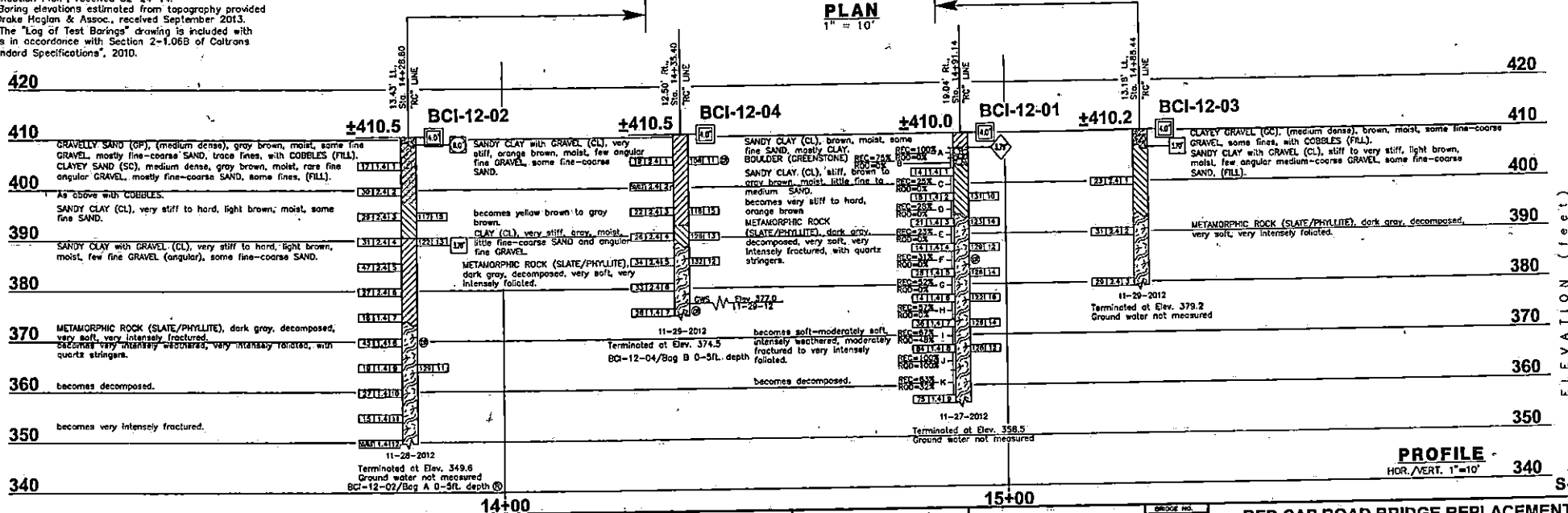
BRIDGE NO.	RED CAP ROAD BRIDGE REPLACEMENT	
04C-0259	BRIDGE REMOVAL DETAILS	
POST MILE 0.3		SHEET 16 OF 20
DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	

NOTES:

1. Field classification of soils was in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010). See Log of Test Borings 2 of 4 and 3 of 4, "Soil Legend" and 4 of 4 "Rock Legend".
2. Standard Penetration tests were performed in accordance with ASTM D 1586 using a hammer operated with an automated drop system. Drill rods were 1 5/8-inch diameter "A"-rods; sampler was driven with brass liners.
3. "2.4 inch sampler": ID=2.4 inch, OD=2.9 inch. Driven in same manner as SPT ("1.4 inch") sampler.
4. The length of each sampled interval is shown graphically on the boring log. Whole number blow counts ("N") represent the "standard penetration resistance" interval in accordance with ASTM D1586. Where less than 1 foot of penetration is achieved, the blow count shown is for that fraction of the "standard penetration resistance" interval actually penetrated.
5. Where indicated by an asterisk (*) the number of blows shown is for only that fraction of the initial 0.5 ft. "seating drive" interval penetrated.
6. If laboratory tests are not shown as being performed, the soil descriptions presented in the LOTB are based solely on the visual practices described in the before mentioned Manuals.
7. Consistency of soils shown in ( ) where estimated.
8. Ground water surface (GWS) elevations in the borings indicated on the Log of Test Boring Sheets reflect the fluid level in the borings on the specified date.
9. Ground water surface elevations are subject to seasonal fluctuations and may occur at higher or lower elevations depending on the conditions at any particular time.
10. Electronic media for plan view provided by Drake Haglan and Assoc., "Foundation Plan", received 02-24-14.
11. Boring elevations estimated from topography provided by Drake Haglan & Assoc., received September 2013.
13. The "Log of Test Borings" drawing is included with plans in accordance with Section 2-1.06B of Caltrans "Standard Specifications", 2010.



PLAN
1" = 10'



PROFILE
HOR./VERT. 1"=10'

S-17

BENCHMARK:

For Benchmark Data, see "Road Plans"

H Indicates HP 12x74 Steel Pile (Vertical)
H Indicates HP 12x74 Steel Pile (Battered)
Indicates bottom of footing elevation

01	HUM	C.R.	0.3	43	57

REGISTERED CIVIL ENGINEER — DATE 05/09/14
PLANS APPROVAL DATE
Patrick F. Fischer No. 60392 Exp. 03/31/17 CIVIL STATE OF CALIFORNIA
DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

BLACKBURN CONSULTING
11521 BLOCKER DRIVE, SUITE 110
AUBURN, CA 95603
FILE No. 2395.1

DRAKE HAGLAN & ASSOCIATES
11060 WHITE ROCK ROAD, SUITE 200
RANCHO CORDOVA, CA 95670

DESIGN OVERSIGHT	DRAWN BY	M. ROBERTSON	W. E. NICHOLS
SIGN OFF DATE	CHECKED BY	R. SOWERS	FIELD INVESTIGATION BY: DATE: NOVEMBER 2012

PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS

PROJECT ENGINEER

BRIDGE NO. 04C-0259 POST MILE

UNIT: PROJECT NUMBER & PHASE: CONTRACT NO.:

RED CAP ROAD BRIDGE REPLACEMENT

LOG OF TEST BORINGS 1 OF 4

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES | SHEET 17 | OF 20

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

8/29/2015 2395.1 Red Cap Road LOTB.dwg

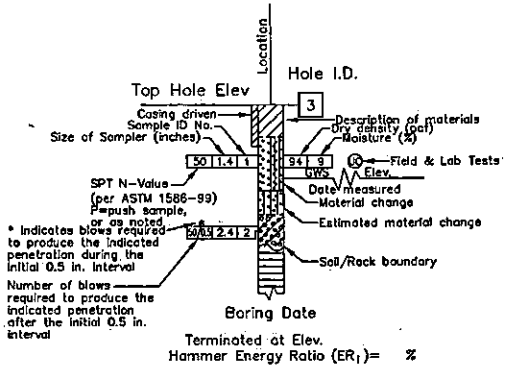
C3 CIVIL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/18/10)

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

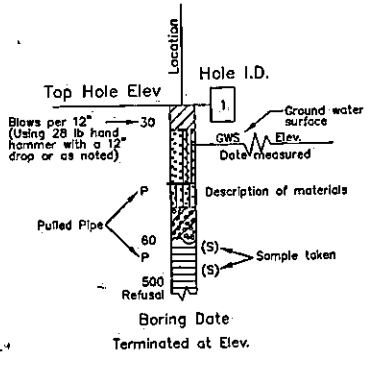
CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

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

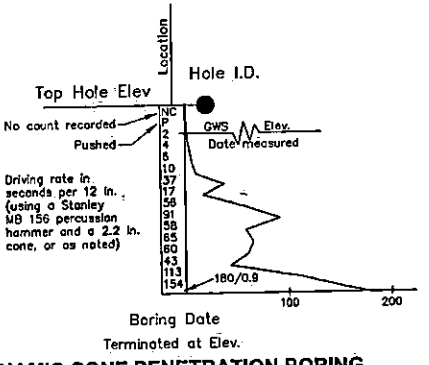
CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 – 0.25	0.25 – 0.50	0.12 – 0.25	0.12 – 0.25
Medium Stiff	0.25 – 0.5	0.50 – 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 4	Greater than 4



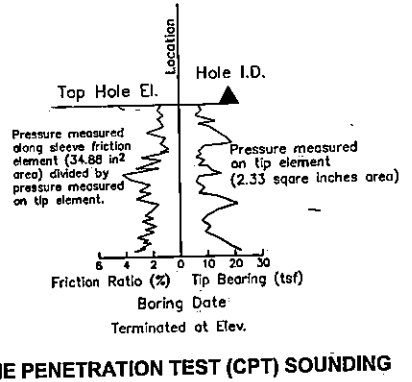
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

S-18

01 | HUM | C.R. | 0.3

REGISTERED CIVIL ENGINEER — DATE 05/09/14

Patrick F. Fischer No. 80392 Exp. 03/31/17 CIVIL STATE OF CALIFORNIA

PLANS APPROVAL DATE

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BLACKBURN CONSULTING
11521 BLOCKER DRIVE, SUITE 110
AUBURN, CA 95603
FILE No. 2395.1

DRAKE HAGLAN & ASSOCIATES
11060 WHITE ROCK ROAD, SUITE 200
RANCHO CORDOVA, CA 95670

DESIGN OVERSIGHT
SIGN OFF DATE
DRAWN BY M. ROBERTSON
CHECKED BY R. SOWERS
W. E. NICHOLS
FIELD INVESTIGATION BY:
DATE: NOVEMBER 2012

PREPARED FOR THE
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

PROJECT ENGINEER

BRIDGE NO. 04C-0259
POST MILE

UNIT:
PROJECT NUMBER & PHASE:
CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES

SHEET 18 OF 20

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

SOIL LEGEND

RED CAP ROAD BRIDGE REPLACEMENT

LOG OF TEST BORINGS 2 OF 4

05 CIVIL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 7/16/12)

6/29/2015 2395.1 Red Cap Road LOTB.dwg

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

GROUP SYMBOLS AND NAMES

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

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90)
Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (PP) Pocket Penetrometer
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (TV) Pocket Torvane
- (UC) Unconfined Compression-Soil (ASTM D 2166)
Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 2937)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60}-Value (Blows / 12 inches)
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	Visable 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
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	Less than 1/300"

S-19

01 | HUM | C.R. | 0.3 | 45 | 57

Patrick Fischer 05/09/14
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER Patrick F. Fischer No. 80392 Exp. 03/31/17 CIVIL STATE OF CALIFORNIA

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

BLACKBURN CONSULTING
11521 BLOCKER DRIVE, SUITE 110
AUBURN, CA 95603 FILE No. 2395.1

DRAKE HAGLAN & ASSOCIATES
11080 WHITE ROCK ROAD, SUITE 200
RANCHO CORDOVA, CA 95670

SOIL LEGEND

RED CAP ROAD BRIDGE REPLACEMENT

LOG OF TEST BORINGS 3 OF 4

DESIGN OVERSIGHT
SIGN OFF DATE
DRAWN BY M. ROBERTSON
CHECKED BY R. SOWERS
W. E. NICHOLS
FIELD INVESTIGATION BY:
DATE: NOVEMBER 2012

PREPARED FOR THE
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

PROJECT ENGINEER

BRIDGE NO. 04C-0259
POST MILE

UNIT:
PROJECT NUMBER & PHASE:
CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES | SHEET 19 | OF 20

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

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

6/29/2015 2395.1 Red Cap Road LOTB.dgn

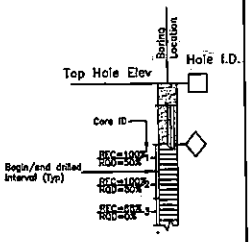
REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

PERCENT CORE RECOVERY (REC) & ROCK QUALITY DESIGNATION (RQD)

$$REC = \frac{\Sigma \text{ Length of the recovered core pieces (inches)}}{\text{Total length of core run (inches)}} \times 100\%$$

$$RQD = \frac{\Sigma \text{ Length of the intact core pieces} \geq 4 \text{ inches}}{\text{Total length of core run (inches)}} \times 100\%$$

RQD* Indicates soundness criteria not met.



BEDDING SPACING

Description	Thickness / Spacing
Massive	Greater than 10'
Very thickly bedded	3 – 10'
Thickly bedded	1 – 3'
Moderately bedded	4" – 1'
Thinly bedded	1" – 4"
Very thinly bedded	1/4" – 1"
Laminated	Less than 1/4"

LEGEND OF ROCK MATERIALS

- IGNEOUS ROCK
- SEDIMENTARY ROCK
- METAMORPHIC ROCK

01	HUM	C.R.	0.3	46	57

06/09/14
REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER — Patrick F. Fischer — No. 80392 — Exp. 03/31/17 — CIVIL — STATE OF CALIFORNIA

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

BLACKBURN CONSULTING
11521 BLOCKER DRIVE, SUITE 110
AUBURN, CA 95603
FILE No. 2395.1

DRAKE HAGLAN & ASSOCIATES
11060 WHITE ROCK ROAD, SUITE 200
RANCHO CORDOVA, CA 95670

ROCK HARDNESS

Description	Criteria
Extremely Hard	Cannot be scratched with a pocketknife or sharp pick, can only be chipped with repeated heavy hammer blows.
Very Hard	Cannot be scratched with a pocketknife or sharp pick, breaks with repeated heavy hammer blows.
Hard	Can be scratched with a pocketknife or sharp pick with difficulty (heavy pressure). Breaks with heavy hammer blows.
Moderately Hard	Can be scratched with a pocket knife or sharp pick with light or moderate pressure, breaks with moderate hammer blows.
Moderately Soft	Can be grooved 1/16 inch deep with a pocketknife of sharp pick with moderate or heavy pressure. Breaks with light hammer blow or heavy manual pressure.
Soft	Can be grooved or gouged easily by a pocketknife or sharp pick with light pressure, can be scratched with fingernail, breaks with light to moderate pressure.
Very Soft	Can be readily indented, grooved or gouged with fingernail, or carved with a pocketknife, breaks with light manual pressure.

FRACTURE DENSITY

Description	Observed Fracture Density
Unfractured	No fractures.
Very slightly fractured	Core lengths greater than 3 ft.
Slightly fractured	Core lengths mostly from 1 to 3 ft.
Moderately fractured	Core lengths mostly from 4 inches to 1 ft.
Intensely fractured	Core lengths mostly from 1 inches to 4 inches.
Very intensely fractured	Mostly chips and fragments.

WEATHERING DESCRIPTORS FOR INTACT ROCK

Description	Diagnostic features: Chemical weathering–Discoloration and/or oxidation: Body of rock	Chemical weathering–Discoloration and/or oxidation: Fracture Surfaces	Mechanical Weathering–Grain boundary conditions (disaggregation) primarily for granitics and some coarse-grained sediments	Texture and leaching: Texture	Texture and leaching: Leaching	General Characteristics
Fresh	No discoloration, not oxidized.	No discoloration or oxidation.	No separation, intact (tight).	No change.	No leaching.	Hammer rings when crystalline rocks are struck.
Slightly Weathered	Discoloration or oxidation is limited to surface of, or short distance from, fractures; some feldspar crystals are dull.	Minor to complete discolorization or oxidation of most surfaces.	No visible separation, intact (tight).	Preserved.	Minor leaching of some soluble minerals.	Hammer rings when crystalline rocks are struck. Body of rock not weakened.
Moderately Weathered	Discoloration or oxidation extends from fractures usually throughout; Fe–Mg minerals are "rusty," feldspar crystals are "cloudy".	All fracture surfaces are discolored or oxidized.	Partial separation of boundaries visible.	Generally preserved.	Soluble minerals may be mostly leached.	Hammer does not ring when rock is struck. Body of rock is slightly weakened.
Intensely Weathered	Discoloration or oxidation throughout; all feldspars and Fe–Mg minerals are altered to clay to some extent; or chemical alteration produces in–situ disaggregation, see grain boundary conditions.	All fracture surfaces are discolored or oxidized, surfaces friable.	Partial separation, rock is friable; in semiarid conditions granitics are disaggregated.	Texture altered by chemical disintegration (hydration, argillation).	Leaching of soluble minerals may be complete.	Dull sound when struck with hammer, usually can be broken with moderate to heavy manual pressure or by light hammer blow without reference to planes of weakness such as incipient or hairline fractures, or veinlets. Rock is significantly weakened.
Decomposed	Discolored or oxidized throughout, but resistant minerals such as quartz may be unaltered; all feldspars and Fe–Mg minerals are completely altered to clay.		Complete separation of grain boundaries (disaggregated).	Resembles a soil, partial or complete remnant rock structure may be preserved; leaching of soluble minerals usually complete.		Can be granulated by hand. Resistant minerals such as quartz may be present as "stringers" or "dikes".

S-20

ROCK LEGEND

RED CAP ROAD BRIDGE REPLACEMENT

LOG OF TEST BORINGS 4 OF 4

DESIGN OVERSIGHT	DRAWN BY	M. ROBERTSON	W. E. NICHOLS
SIGN OFF DATE	CHECKED BY	R. SOWERS	FIELD INVESTIGATION BY: DATE: NOVEMBER 2012

PREPARED FOR THE COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

PROJECT ENGINEER

BRIDGE NO. 04C-0259
POST MILE

UNIT: PROJECT NUMBER & PHASE: CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
03/27/15 KAM	20	20

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

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

8/29/2015 2395.1 Red Cap Road LOTB.dwg

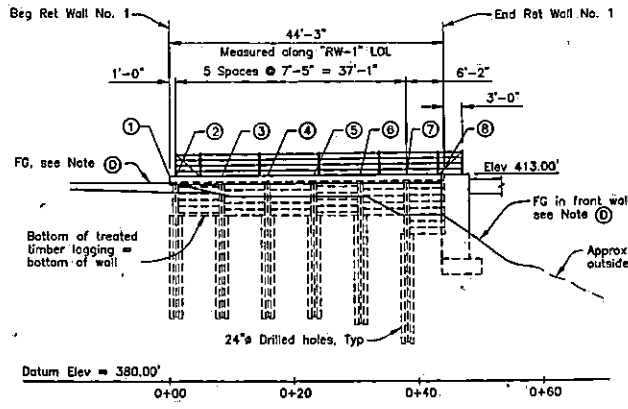
JENNIFER GRANT
REGISTERED CIVIL ENGINEER
6-09-15
DATE

PLANS APPROVAL DATE

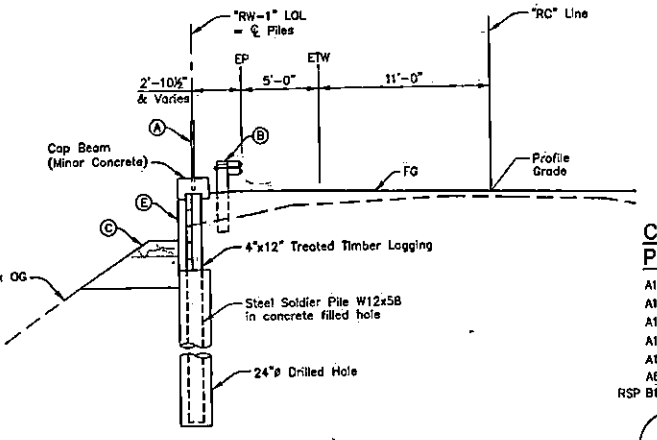
DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
JENNIFER K. GRANT
No. C57667
Exp. 06/30/17
CIVIL
STATE OF CALIFORNIA

drake haglan
AND ASSOCIATES
11080 White Rock Road, Suite 200
Rancho Cordova, CA 95670



MIRRORED ELEVATION
1"=10'



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

CALTRANS STANDARD PLANS DATED 2010

A10A	Abbreviations (Sheet 1 of 2)
A10B	Abbreviations (Sheet 2 of 2)
A10C	Lines and Symbols (Sheet 1 of 3)
A10D	Lines and Symbols (Sheet 2 of 3)
A10E	Lines and Symbols (Sheet 3 of 3) -
A62A	Excavation and Backfill Miscellaneous Detail
RSP B11-47	Cable Railing

Standard Plan Sheet No.
Detail No.

TOP OF CAP BEAM ELEVATIONS

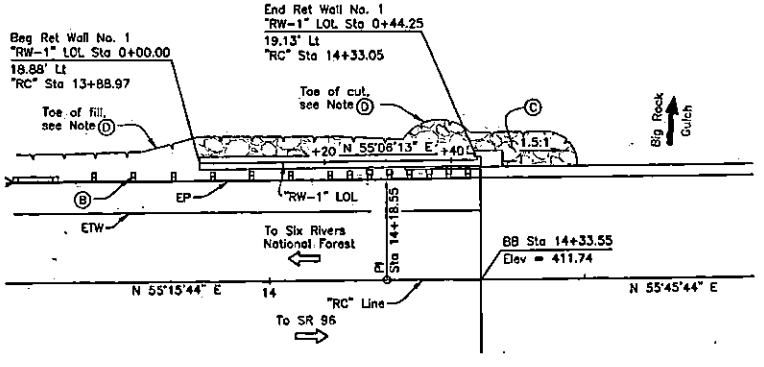
No.	"RW-1" Sta	Elev	No.	"RW-1" Sta	Elev
①	0+00.00	412.80'	⑤	0+23.25	412.90'
②	0+01.00	412.80'	⑥	0+30.67	413.00'
③	0+08.42	412.80'	⑦	0+38.08	413.00'
④	0+15.83	412.90'	⑧	0+44.25	413.00'

QUANTITIES

Structural Excavation (Soldier Pile Wall)	CY	9.7
Structural Backfill (Soldier Pile Wall)	CY	7.6
Concrete Backfill (Soldier Pile Wall)	CY	11.6
Lean Concrete Backfill	CY	2.4
Steel Soldier Piling (W 12x58)	LF	133
24"ø Drilled Hole	LF	120
Structural Concrete (Retaining Wall)	CY	4.5
Minor Concrete (Cap Beam)	CY	4.2
Architectural Treatment (Stained Concrete)	SQFT	351
Bar Reinforcing Steel (Retaining Wall)	LB	561
Bar Reinforcing Steel (Epoxy Coated) (Bridge)	LB	435
Timber Lagging	MFBM	0.96
Clean and Paint Soldier Piling	LS	1
Geocomposite Drain	SQFT	215
Cable Railing	LF	47

INDEX TO PLANS

SHEET NO.	TITLE
1	RETAINING WALL NO. 1 – GENERAL PLAN
2	RETAINING WALL NO. 2 – GENERAL PLAN
3	RETAINING WALL NO. 3 – GENERAL PLAN
4	RETAINING WALL NO. 1 – FOUNDATION PLAN
5	RETAINING WALL NO. 2 – FOUNDATION PLAN
6	RETAINING WALL NO. 3 – FOUNDATION PLAN
7	RETAINING WALL DETAILS NO. 1
8	RETAINING WALL DETAILS NO. 2
9	RETAINING WALL DETAILS NO. 3
10	RETAINING WALL DETAILS NO. 4
11	RETAINING WALL DETAILS NO. 5



PLAN
1"=10'

NOTES:

RSP B11-47

(A) Cable Railing
(B) MGS, see "Road Plans"
(C) Rock Slope Protection, see "Road Plans"
(D) For limits of RSP & Grading Details, see "Road Plans"
(E) Reinf Concrete Wall

LEGEND:

Indicates direction of traffic
Indicates direction of water flow

GENERAL NOTES

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition and the Caltrans Amendments, preface dated November 2011.

LIVE LOAD: Live Load Surcharge (Vertical) = 260 psf

SOIL PARAMETERS: (For determination of Design Lateral Earth Pressures)
Backfill Soil Unit Weight = 130 pcf
Backfill Soil Ka = 0.31
Foundation Soil Unit Weight = 135 psf
Foundation Soil Su = 2 ksf

STEEL SOLDIER PILES: fy = 50 ksi

REINFORCED CONCRETE: f'c = 4000 psi
fy = 60 ksi

STRUCTURAL TIMBER: Treated Douglas Fir Grade No. 1 or better. Timber to be full sawn.

RW-1

DESIGN OVERSIGHT	DESIGN	J. GRANT	K. ROSS	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN VEHICLE	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER
	DETAILS	K. DRESBACH	K. ROSS	LAYOUT	J. GRANT / K. ROSS		CU EA
SIGN OFF DATE	QUANTITIES	J. GRANT	R. BAUTISTA	SPECIFICATIONS	K. ROSS / K. ROSS		

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/23/03)

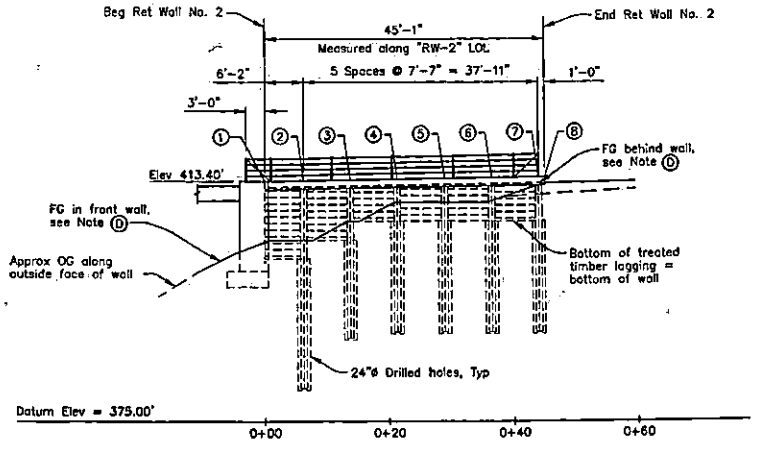
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

BRIDGE NO. 04C-0259
POST MILE 0.3

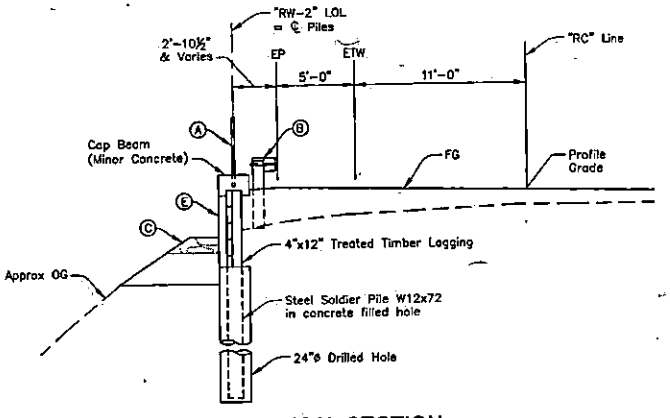
RED CAP ROAD BRIDGE REPLACEMENT
RETAINING WALL NO. 1 - GENERAL PLAN

DISREGARD PRINTS BEARING EARLIER REVISION DATES

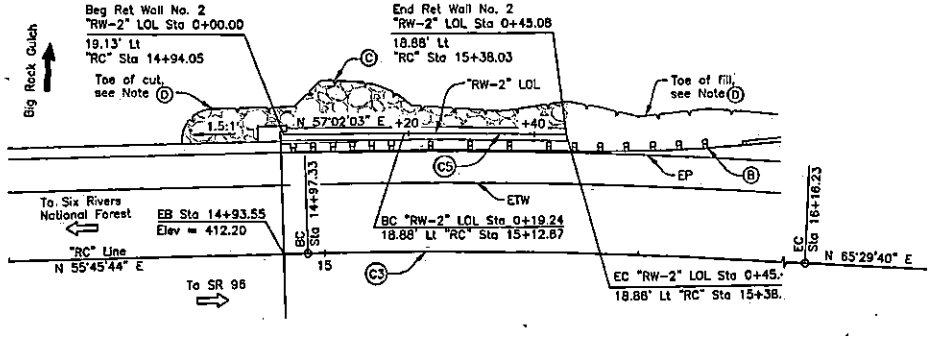
REVISION DATES	SHEET	OF
05-30-11 08-15-11	1	11



DEVELOPED MIRRORED ELEVATION
1"=10'



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



PLAN
1"=10'

CURVE DATA

No.	R	Δ	T	L
C3	700.00'	9°43'56"	59.59'	118.90'
C5	718.88'	2°03'34"	12.92'	25.84'

GENERAL NOTES

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition and the Caltrans Amendments, preface dated November 2011.

LIVE LOAD: Live Load Surcharge (Vertical) = 260 psf

SOIL PARAMETERS: (For determination of Design Lateral Earth Pressures)
- Backfill Soil Unit Weight = 130 pcf
- Backfill Soil Ka = 0.31
- Foundation Soil Unit Weight = 135 psf
- Foundation Soil Su = 2 ksf

STEEL SOLDIER PILES: fy = 50 ksi

REINFORCED CONCRETE: f'c = 4000 psi, fy = 60 ksi

STRUCTURAL TIMBER: Treated Douglas Fir Grade No. 1 or better. Timber to be full sawn.

TOP OF CAP BEAM ELEVATIONS

No.	"RW-1" Sta	Elev	No.	"RW-1" Sta	Elev
①	0+00.00	413.40'	⑤	0+28.92	413.80'
②	0+06.17	413.50'	⑥	0+36.50	413.90'
③	0+13.75	413.60'	⑦	0+44.08	414.10'
④	0+21.33	413.70'	⑧	0+45.08	414.10'

QUANTITIES

Structural Excavation (Soldier Pile Wall)	CY	11.5
Structural Backfill (Soldier Pile Wall)	CY	9.8
Concrete Backfill (Soldier Pile Wall)	CY	12.8
Lean Concrete Backfill	CY	2.3
Steel Soldier Piling (W 12x72)	LF	153
24"ø Drilled Hole	LF	130
Structural Concrete (Retaining Wall)	CY	5.6
Minor Concrete (Cap Beam)	CY	4.3
Architectural Treatment (Stained Concrete)	SQFT	424
Bar Reinforcing Steel (Retaining Wall)	LB	746
Bar Reinforcing Steel (Epoxy Coated) (Bridge)	LB	444
Timber Lagging	MFBM	1.18
Clean and Paint Soldier Piling	LS	1
Geocomposite Drain	SQFT	267
Cable Railing	LF	48

NOTES:

RSP 811-47

Ⓐ Cable Railing.

Ⓑ MGS, see "Road Plans"

Ⓒ Rock Slope Protection, see "Road Plans"

Ⓓ For limits of RSP & Grading Details, see "Road Plans"

Ⓔ Reinf Concrete Wall

LEGEND:

Indicates direction of traffic

Indicates direction of water flow

RW-2

1	HUM	C.R.	0.3	48	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER L. GRANT — No. C57867 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

dh drake haglan AND ASSOCIATES
11080 White Rock Road, Suite 200
Rancho Cordova, CA 95670

DESIGN OVERSIGHT	DESIGN	BY J. GRANT	CHECKED K. ROSS	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN VEHICLE	
	DETAILS	BY K. DRESBACH	CHECKED K. ROSS	LAYOUT	BY J. GRANT	CHECKED K. ROSS
SIGN OFF DATE	QUANTITIES	BY J. GRANT	CHECKED R. BAUTISTA	SPECIFICATIONS	BY K. ROSS	PLANS AND SPECS COMPLIANCE K. ROSS

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT — PROJECT ENGINEER

CU EA

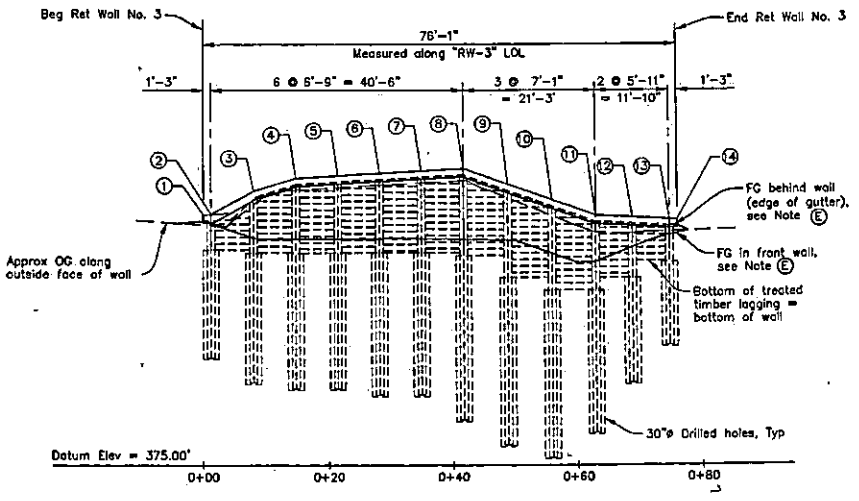
BRIDGE NO. 04C-0259 — POST MILE 0.3

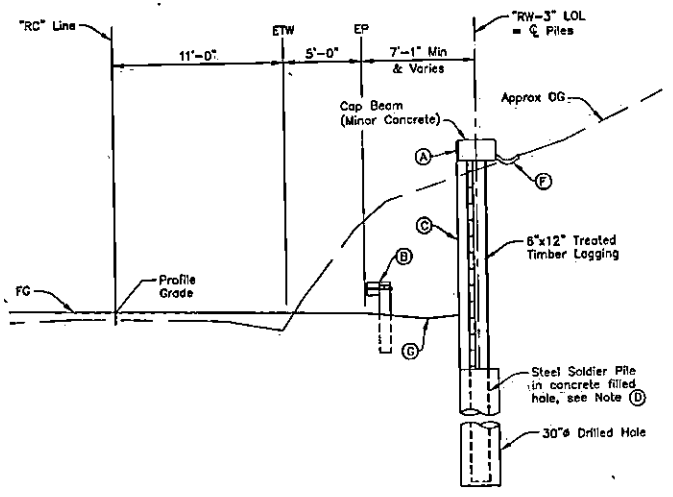
DISREGARD PRINTS BEARING EARLIER REVISION DATES

RED CAP ROAD BRIDGE REPLACEMENT
RETAINING WALL NO. 2 - GENERAL PLAN

REVISION DATES: 6-08-15 | 08-30-16 | 08-18-16

SHEET 2 OF 11



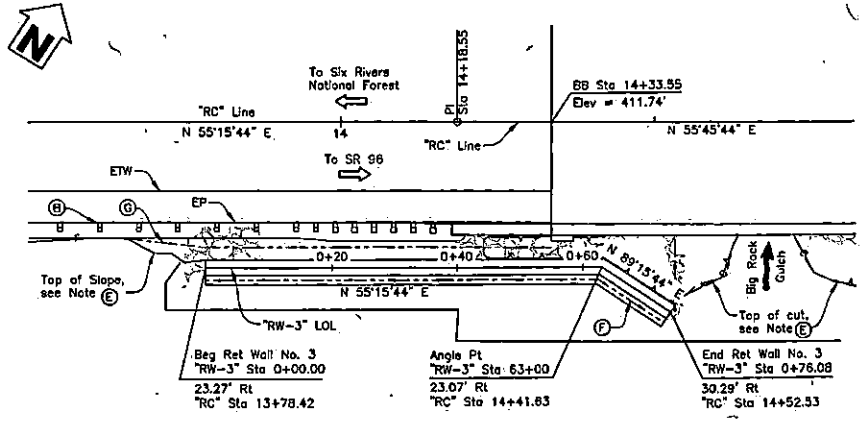


TYPICAL SECTION
1/4"=1'-0"

TOP OF CAP BEAM ELEVATIONS

No.	"RW-4" Sta	Elev	No.	"RW-4" Sta	Elev
①	0+00.00	415.10'	⑧	0+41.75	422.50'
②	0+01.25	415.20'	⑨	0+48.83	420.00'
③	0+08.00	419.00	⑩	0+55.92	417.50'
④	0+14.75	421.00'	⑪	0+63.00	415.00'
⑤	0+21.50	421.40'	⑫	0+68.92	414.70'
⑥	0+28.25	421.80	⑬	0+74.83	414.30'
⑦	0+35.00	422.20'	⑭	0+76.08	414.30'

DEVELOPED MIRRORED ELEVATION
1"=10'



PLAN
1"=10'

GENERAL NOTES

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition and the Caltrans Amendments, preface dated November 2011.

LIVE LOAD: Live Load Surcharge (Vertical) = 270 psf

SOIL PARAMETERS: (For determination of Design Lateral Earth Pressures)
Backfill Soil Unit Weight = 135 pcf
Backfill Soil Ka = 0.45
Foundation Soil Unit Weight = 135 pcf
Foundation Soil Su = 3 ksf

STEEL SOLDIER PILES: fy = 50 ksi

REINFORCED CONCRETE: f'c = 4000 psi
fy = 60 ksi

STRUCTURAL TIMBER: Treated Douglas Fir Grade No. 1 or better. Timber to be full sawn.

QUANTITIES

Structural Excavation (Soldier Pile Wall)	CY	57
Structural Backfill (Soldier Pile Wall)	CY	11.6
Concrete Backfill (Soldier Pile Wall)	CY	48
Lean Concrete Backfill	CY	21
Steel Soldier Piling (W 14x145)	LF	266
Steel Soldier Piling (W 14x233)	LF	121
30"ø Drilled Hole	LF	376
Structural Concrete (Retaining Wall)	CY	16.8
Minor Concrete (Cap Beam)	CY	9
Architectural Treatment (Stained Concrete)	SQFT	1,009
Concrete Surface Texture (Tribal Pattern)	SQFT	102
Bar Reinforcing Steel (Retaining Wall)	LB	4,738
Timber Lagging	MFBM	4.3
Clean and Paint Soldier Piling	LS	1
Geocomposite Drain	SQFT	624

NOTES:

Ⓐ Concrete Surface Texture (Tribal Pattern), for details see "Bridge Plans"
Ⓑ MGS, see "Road Plans"
Ⓒ Reinf Concrete Wall with Architectural Treatment (Stained Concrete)
Ⓓ For size, see "Retaining Wall No. 4 – Foundation Plan"
Ⓔ For limits of RSP & Grading Details, see "Road Plans"
Ⓕ For Gutter details, see "Road Plans"
Ⓖ Drainage Ditch, see "Road Plans"

LEGEND:

⇨ Indicates direction of traffic
➡ Indicates direction of water flow

1	HUM	C.R.	0.3	49	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — DATE 6-08-15

PLANS APPROVAL DATE

GRANT HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER L. GRANT — No. C77682 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11050 White Rock Road, Suite 200
Rancho Cordova, CA 95670

RW-3

DESIGN OVERSIGHT	DESIGN	J. GRANT	K. ROSS	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN VEHICLE	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	BRIDGE NO. 04C-0259
	DETAILS	K. DRESBACH	K. ROSS	LAYOUT	J. GRANT / K. ROSS	JENNIFER GRANT, PROJECT ENGINEER	POST MILE 0.3
SIGN OFF DATE	QUANTITIES	J. GRANT	R. BAUTISTA	SPECIFICATIONS	K. ROSS / K. ROSS	CU EA	DISREGARD PRINTS BEARING EARLIER REVISION DATES

RED CAP ROAD BRIDGE REPLACEMENT

RETAINING WALL NO. 3 - GENERAL PLAN

REVISION DATES: 8-9-11 | 8-15-11

SHEET 3 OF 11

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/15/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

			TOTAL PROJECT		
1	HUM	C.R.	0.3	50	57

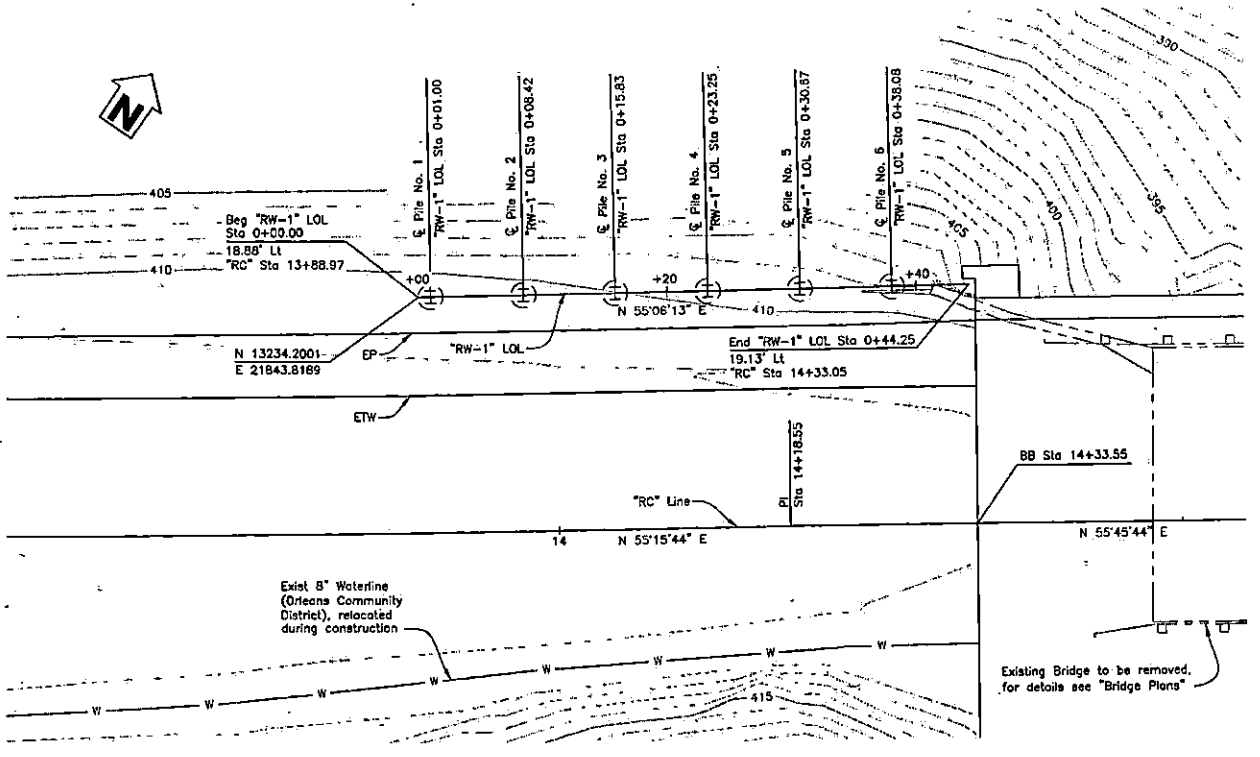
JENNIFER GRANT
REGISTERED CIVIL ENGINEER
6-08-15
DATE

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER K. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11080 White Rock Road, Suite 200
Rancho Cordova, CA 95670



PLAN
1"=5'

LEGEND:

( ) Indicates 24"ø Drilled Hole

I Indicates Steel Soldier Pile

NOTE:

There is limited headroom beneath overhead lines. Splices may be required in Steel Soldier Piling.

BENCHMARK:

For Bench Mark data, see "Road Plans"

PILE DATA TABLE

Pile No.	1	2	3	4	5	6
Cut-off Elev (ft)	406.50	406.50	406.50	406.50	406.50	403.50
Tip Elev (ft)	390.00	390.00	390.00	390.00	390.00	387.00
Steel Section	W12x58					

RW-4

DESIGN OVERSIGHT	SCALE: ·	VERT. DATUM NGVD-29	HORIZ. DATUM X	DESIGN BY J. GRANT	CHECKED K. ROSS	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER
	PHOTOGRAMMETRY AS OF	ALIGNMENT TIES		DETAILS BY K. DRESBACH	CHECKED K. ROSS		CU X EA X
SIGN OFF DATE	QUANTITIES BY	DRAFTED BY		QUANTITIES BY J. GRANT	CHECKED R. BAUTISTA		
	FIELD CHECKED BY	CHECKED BY					

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

BRIDGE NO.	RED CAP ROAD BRIDGE REPLACEMENT
04C-0259	
POST MILE 0.3	RETAINING WALL NO. 1 - FOUNDATION PLAN

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 12-16-13 | 10-16-14 | 08-28-15 | 05-22-15

SHEET 4 OF 11

DIST	COUNTY	ROUTE	TOTAL PROJECT	No.	SHEETS
1	HUM	C.R.	0.3	51	57

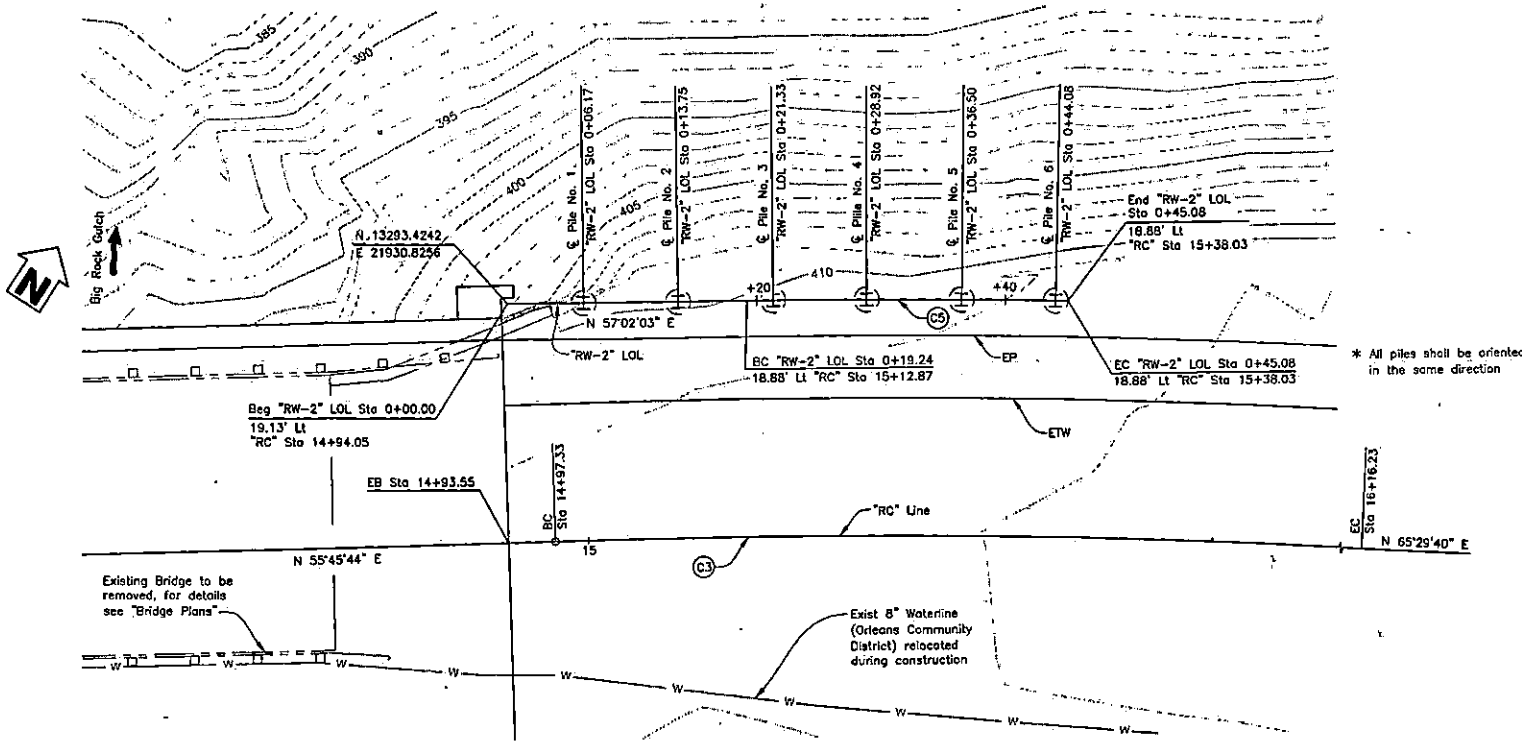
JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER A. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11050 White Rock Road, Suite 200
Rancho Cordova, CA 95670



385
390
395
400
405
410
Big Rock Gulch
N
N 13293.4242
E 21930.8256
℄ Pile No. 1 "RW-2" LOL Sta 0+06.17
℄ Pile No. 2 "RW-2" LOL Sta 0+13.75
℄ Pile No. 3 "RW-2" LOL Sta 0+21.33
℄ Pile No. 4 "RW-2" LOL Sta 0+28.92
℄ Pile No. 5 "RW-2" LOL Sta 0+36.50
℄ Pile No. 6 "RW-2" LOL Sta 0+44.08
End "RW-2" LOL Sta 0+45.08
18.88' Lt
"RC" Sta 15+38.03
+20
+40
N 57°02'03" E
C5
"RW-2" LOL
BC "RW-2" LOL Sta 0+19.24
18.88' Lt "RC" Sta 15+12.87
EP
EC "RW-2" LOL Sta 0+45.08
18.88' Lt "RC" Sta 15+38.03
* All piles shall be oriented in the same direction
Beg "RW-2" LOL Sta 0+00.00
19.13' Lt
"RC" Sta 14+94.05
ETW
EB Sta 14+93.55
BC Sta 14+97.33
"RC" Line
EC Sta 16+16.23
N 65°29'40" E
15
N 55°45'44" E
C3
Existing Bridge to be removed, for details see "Bridge Plans"
Exist 8" Waterline (Orleans Community District) relocated during construction
W

PLAN
1"=5'

LEGEND:

- ◯ Indicates 24"ø Drilled Hole
- I Indicates Steel Soldier Pile

NOTE:

There is limited headroom beneath overhead lines. Splices may be required in Steel Soldier Piling.

BENCHMARK:

For Bench Mark data, see "Road Plans"

PILE DATA TABLE

Pile No.	1	2	3	4	5	6
Cut-off Elev (ft)	401.00	404.00	407.00	407.00	407.00	407.00
Tip Elev (ft)	380.00	387.00	389.00	389.00	389.00	389.00
Steel Section	W12x72					

CURVE DATA

No.	R	Δ	T	L
C3	700.00'	9°43'56"	59.59'	118.90'
C5	718.88'	1.3313	20.90'	40.88'

RW-5

DESIGN	BY J. GRANT	CHECKED K. ROSS	
DETAILS	BY K. DRESBACH	CHECKED K. ROSS	
QUANTITIES	BY J. GRANT	CHECKED R. BAUTISTA	

DESIGN OVERSIGHT — SIGN OFF DATE — SCALE — VERT. DATUM NGVD-29 — HORIZ. DATUM X — PHOTOGRAMMETRY AS OF: — ALIGNMENT TIES — QUANTITIES — DRAFTED — FIELD CHECKED — CHECKED

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/03)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT
PROJECT ENGINEER

CU X
EA X

BRIDGE NO. 04C-0259
POST MILE 0.3

RED CAP ROAD BRIDGE REPLACEMENT
RETAINING WALL NO. 2 - FOUNDATION PLAN

DISREGARD PRINTS BEARING EARLIER REVISION DATES

SHEET 5 OF 11

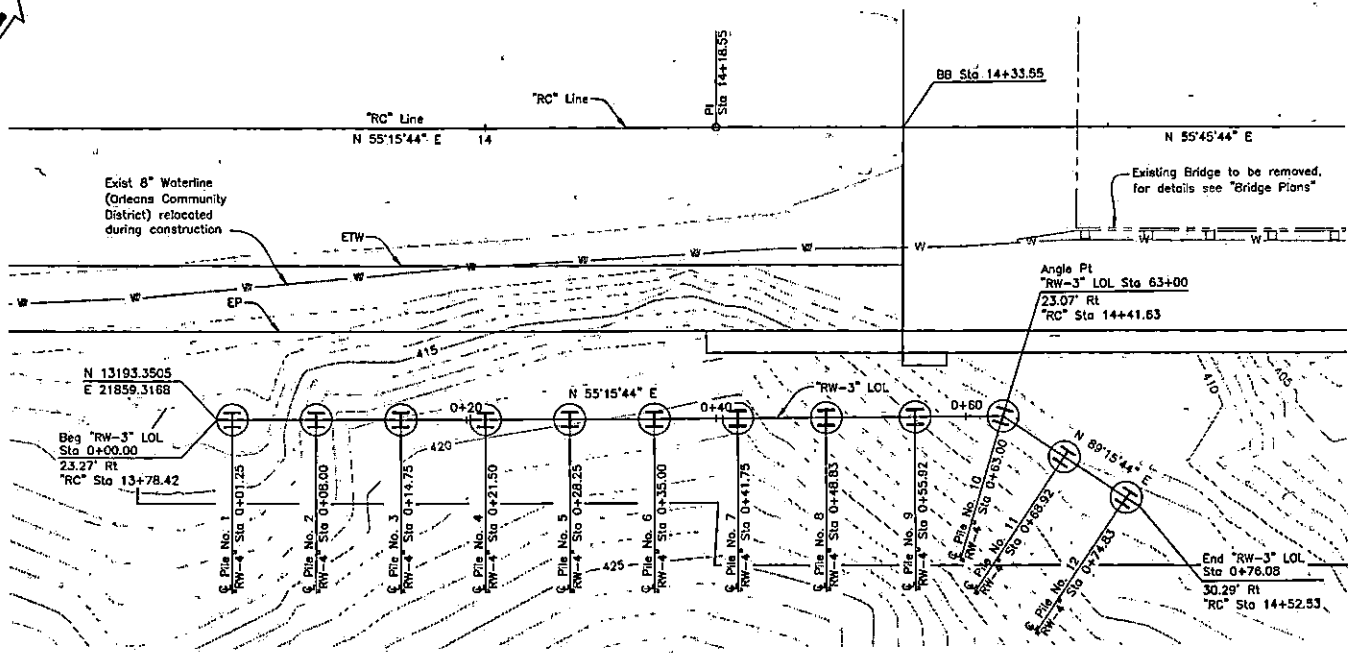
DIST	COUNTY	ROUTE	TOTAL PROJECT	No	SHEETS
1	HUM	C.R.	0.3	52	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JENNIFER K. GRANT — No. C77867 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11080 White Rock Road, Suite 200
Rancho Cordova, CA 95670



PLAN
1"=5'

LEGEND:

( ) Indicates 30"ø Drilled Hole

I Indicates Steel Soldier Pile

PILE DATA TABLE

Pile No.	1	2	3	4	5	6	7	8	9	10	11	12
Cut-off Elev (ft)	409.50	409.00	409.00	409.00	409.00	409.00	407.00	405.00	403.00	403.00	405.00	407.50
Tip Elev (ft)	392.00	388.00	387.00	387.00	386.00	386.00	382.00	378.00	376.00	380.00	388.00	394.00
Steel Section	W14x145						W14x233			W14x145		

BENCHMARK:
For Bench Mark data, see "Road Plans"

RW-6

DESIGN OVERSIGHT	SCALE:	VERT. DATUM: NGVD-29	HORIZ. DATUM: N	DESIGN BY J. GRANT	CHECKED K. ROSS	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER	BRIDGE NO. 04C-0259	RED CAP ROAD BRIDGE REPLACEMENT
	PHOTOGRAMMETRY AS OF:	ALIGNMENT TIES		DETAILS BY K. GRESBACH	CHECKED K. ROSS			POST MILE 0.3	RETAINING WALL NO. 3 - FOUNDATION PLAN
SIGN OFF DATE	QUANTITIES BY	DRAFTED BY		QUANTITIES BY J. GRANT	CHECKED R. BAUTISTA		CU X EA X	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 12-JAN-15 05-JAN-15 09-JAN-15 05-15-15 SHEET 6 OF 11
STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/23/05)	FIELD CHECKED BY	CHECKED BY		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3					

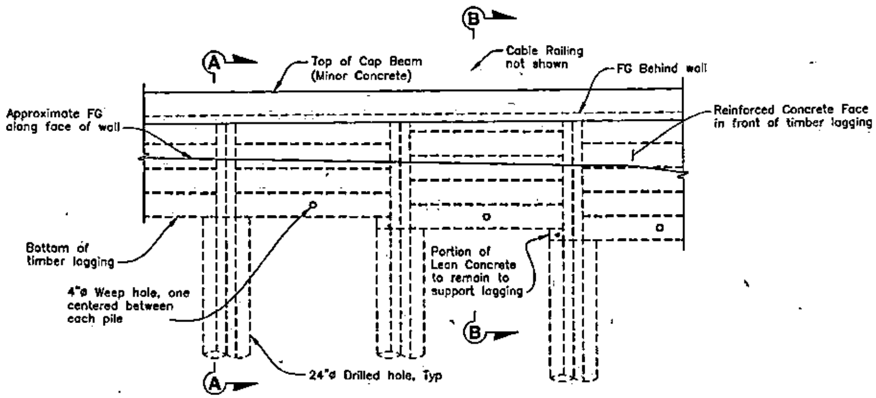
DIST	COUNTY	ROUTE	TOTAL PROJECT	NO	SHEETS
1	HUM	C.R.	0.3	53	57

JENNIFER GRANT — 6-08-15
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JENNIFER A. GRANT — No. C77667 — Exp. 08/30/17 — CIVIL — STATE OF CALIFORNIA

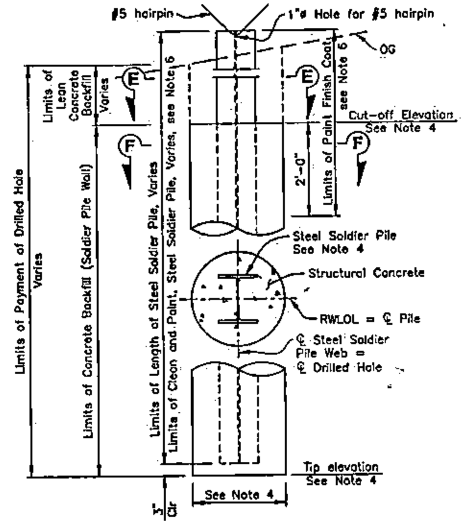
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670


A
B
Top of Cap Beam (Minor Concrete)
Cable Railing not shown
FG Behind wall
Approximate FG along face of wall
Reinforced Concrete Face in front of timber lagging
Bottom of timber lagging
Portion of Lean Concrete to remain to support lagging
4"ø Weep hole, one centered between each pile
24"ø Drilled hole, Typ

PART MIRRORED TYPICAL ELEVATION - RETAINING WALL NO. 1 AND NO. 2

3/8"=1'-0"

Retaining Wall No. 1 shown, Retaining Wall No. 2 similar

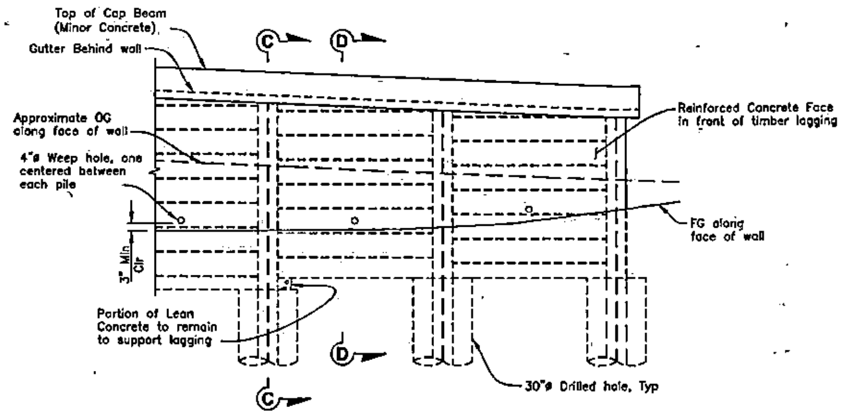

#5 hairpin
1"ø Hole for #5 hairpin
OG
E
F
Limits of Payment of Drilled Hole Varies
Limits of Lean Concrete Backfill Varies
Limits of Concrete Backfill (Soldier Pile Wall)
Limits of Length of Steel Soldier Pile, Varies
Limits of Clean and Paint, Steel Soldier Pile, Varies, see Note 6
Limits of Paint Finish Coat, see Note 6
Cut-off Elevation See Note 4
2'-0"
Steel Soldier Pile See Note 4
Structural Concrete
RWLOL = ℄ Pile
℄ Steel Soldier Pile Web = ℄ Drilled Hole
Tip elevation See Note 4
See Note 4
5" Clr

SOLDIER PILE DETAILS

3/4"=1'-0"

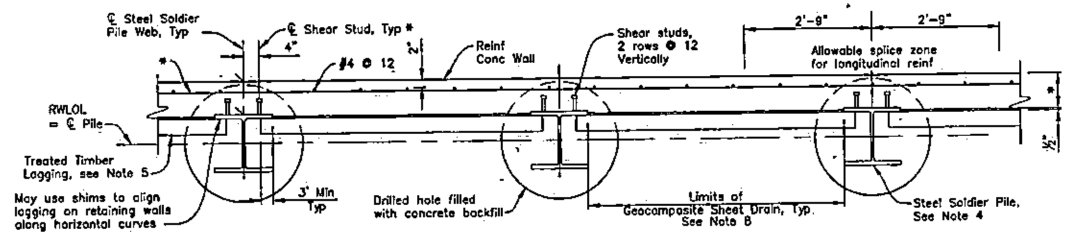
NOTES:

1. For "Section A-A" and "Section B-B", see "Retaining Wall Details No. 2" sheet.
2. For "Section C-C" and "Section D-D", see "Retaining Wall Details No. 3" sheet.
3. For "Section E-E" and "Section F-F", see "Retaining Wall Details No. 4" sheet.
4. For Steel Soldier Pile section, Cut-off elevation, Tip elevation, and Drilled Hole diameter, see "Retaining Wall Foundation Plan" sheets.
5. For Timber Lagging size, see "Retaining Wall General Plan" sheets.
6. For additional Clean & Paint Steel Soldier Pile and Finish Coat details see "Retaining Wall Details No. 4" sheet.
7. For Pile Welding detail see "Retaining Wall Details No. 5" sheet.
8. See "Retaining Wall Details No. 5" sheet.


Top of Cap Beam (Minor Concrete)
Gutter Behind wall
C
D
Approximate OG along face of wall
Reinforced Concrete Face in front of timber lagging
4"ø Weep hole, one centered between each pile
FG along face of wall
3" Min Clr
Portion of Lean Concrete to remain to support lagging
30"ø Drilled hole, Typ

PART TYPICAL ELEVATION - RETAINING WALL NO. 3

3/8"=1'-0"


℄ Steel Soldier Pile Web, Typ
℄ Shear Stud, Typ *
4"
2"
#4 @ 12
Reinf Conc Wall
Shear studs, 2 rows @ 12 Vertically
2'-9"
2'-9"
Allowable splice zone for longitudinal reinf
RWLOL = ℄ Pile
Treated Timber Lagging, see Note 5
May use shims to align lagging on retaining walls along horizontal curves
3" Min Typ
Drilled hole filled with concrete backfill
Limits of Geocomposite Sheet Drain, Typ. See Note 8
Steel Soldier Pile, See Note 4
½"

* See "Retaining Wall Details No. 2 and No. 3" sheets for reinf concrete face thickness, longitudinal wall reinforcement and shear stud details

PART TYPICAL SECTION

3/4"=1'-0"

RW-7

DESIGN	BY J. GRANT	CHECKED K. ROSS	
DETAILS	BY K. DRESBACH	CHECKED K. ROSS	
QUANTITIES	BY J. GRANT	CHECKED R. BAUTISTA	

DESIGN OVERSIGHT

SIGN OFF DATE

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT
PROJECT ENGINEER

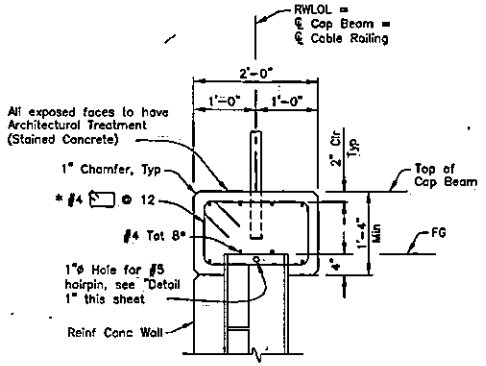
CU
EA

BRIDGE NO. 04C-0259
POST MILE 0.3

RED CAP ROAD BRIDGE REPLACEMENT
RETAINING WALL DETAILS NO. 1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

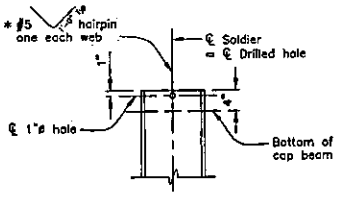
SHEET 7 OF 11



CONCRETE CAP BEAM TYPICAL SECTION FOR RETAINING WALL NO. 1 AND NO. 2

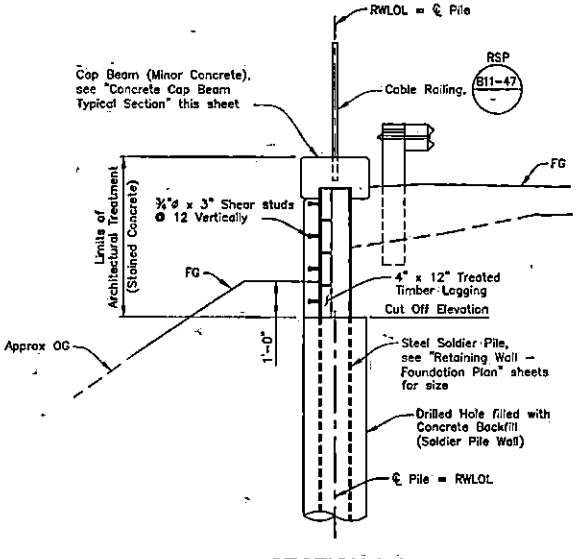
1"=1'-0"

* Use epoxy coated reinforcement



DETAIL 1

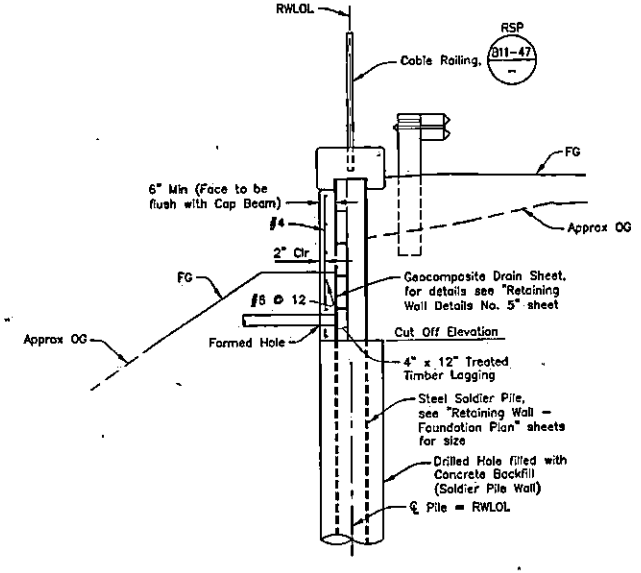
1"=1'-0"



SECTION A-A

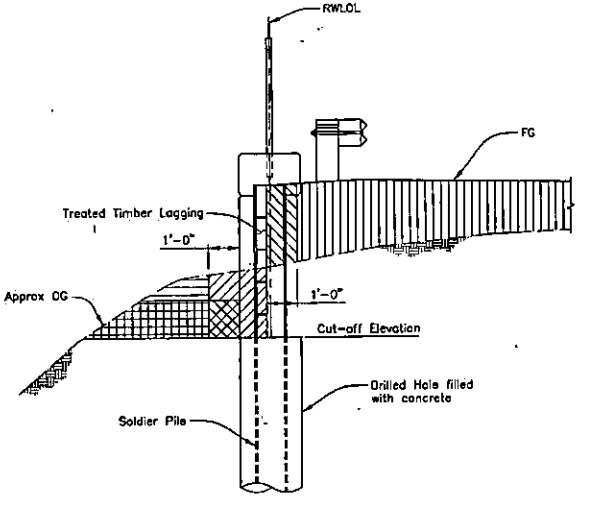
No Scale

For reinforcement not shown, see "Section B-B"



SECTION B-B

No Scale



LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - RETAINING WALL NO. 1 AND NO. 2

No Scale

LEGEND:

- Structural Excavation (Soldier Pile Wall)
- Structural Backfill (Soldier Pile Wall)
- Roadway Fill, see "Road Plans"
- Roadway Excavation, see "Road Plans"

1	HUM	C.R.	0.3	54	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

PLANS APPROVAL DATE

DONOT HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER L. GRANT — No. C71667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11050 White Rock Road, Suite 200
Rancho Cordova, CA 95670

RW-8

DESIGN OVERSIGHT		DESIGN BY J. GRANT	CHECKED K. ROSS	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	JENNIFER GRANT PROJECT ENGINEER
SIGN OFF DATE		DETAILS BY K. DRESBACH	CHECKED K. ROSS		
		QUANTITIES BY J. GRANT	CHECKED R. BAUTISTA		
		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			CU EA

BRIDGE NO.	RED CAP ROAD BRIDGE REPLACEMENT
04C-0259	
POST MILE 0.3	RETAINING WALL DETAILS NO. 2
DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES: 05-30-13, 05-30-14, 05-29-15
	SHEET 8 OF 11

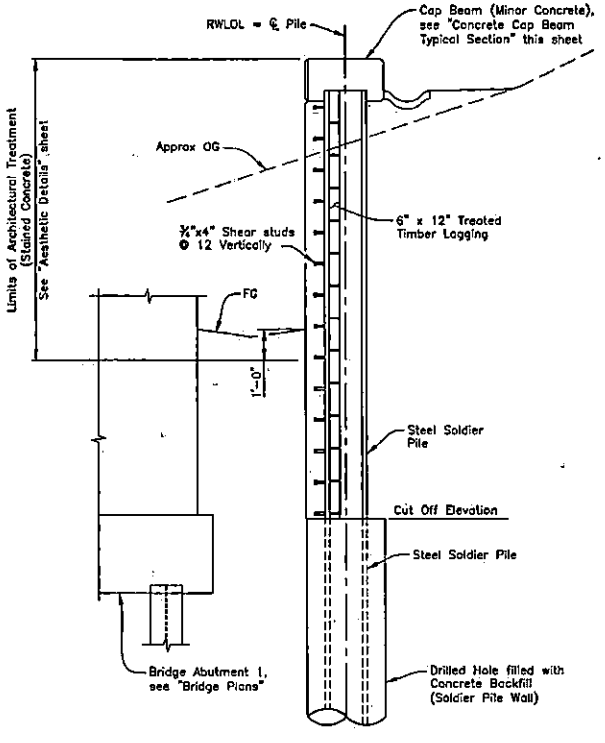
1	HUM	C.R.	0.3	55	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

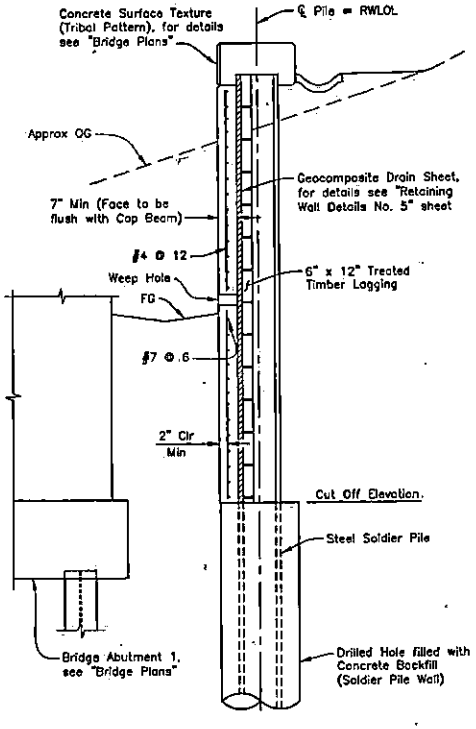
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JENNIFER K. GRANT — No. C77667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

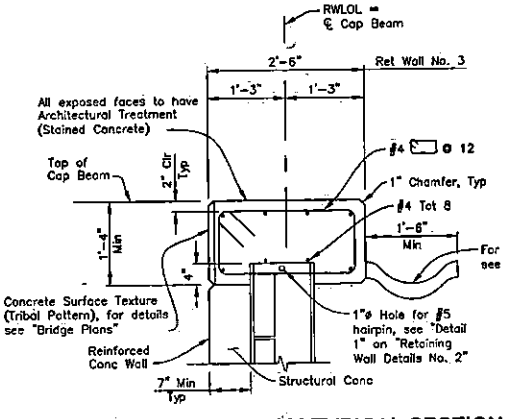
drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670



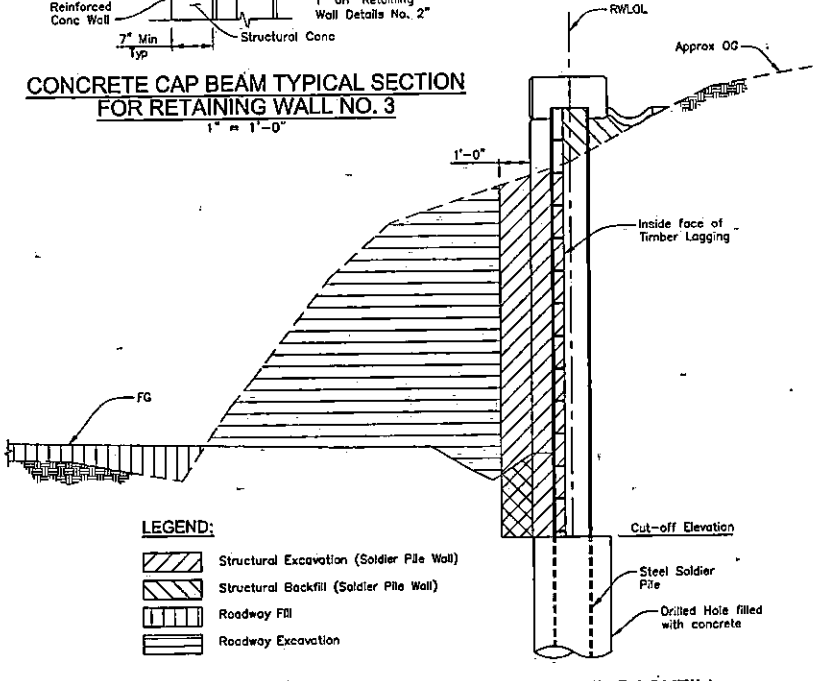
SECTION C-C
No Scale
For reinforcement not shown, see "Section D-D"



SECTION D-D
No Scale



CONCRETE CAP BEAM TYPICAL SECTION FOR RETAINING WALL NO. 3
1" = 1'-0"



LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - RETAINING WALL NO. 3
No Scale

RW-9

DESIGN OVERSIGHT		DESIGN	J. GRANT	K. ROSS	PREPARED FOR THE COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
SIGN OFF DATE		DETAILS	K. DRESBACH	K. ROSS	JENNIFER GRANT, PROJECT ENGINEER
		QUANTITIES	J. GRANT	R. BAUTISTA	CU EA

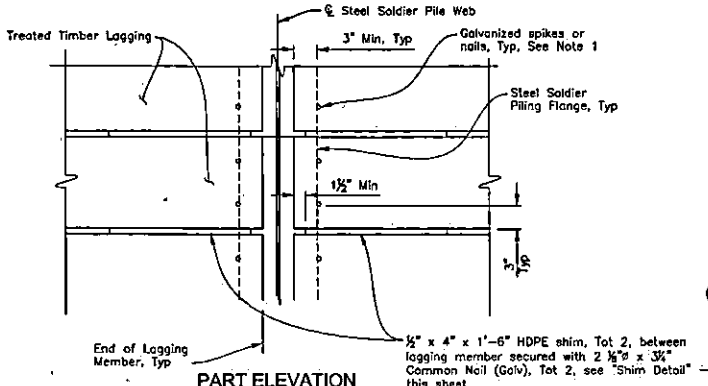
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

BRIDGE NO. 04C-0259 | POST MILE 0.3

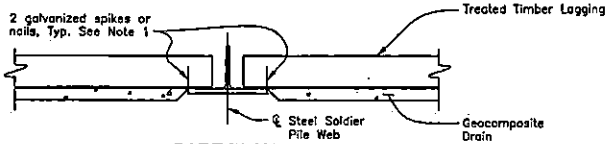
DISREGARD PRINTS BEARING EARLIER REVISION DATES

RED CAP ROAD BRIDGE REPLACEMENT
RETAINING WALL DETAILS NO. 3

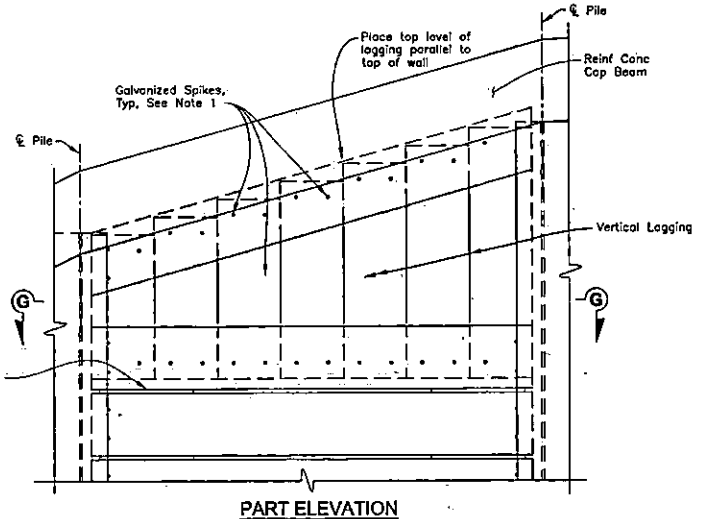
REVISION DATES						SHEET	OF
12-31-13	12-31-14	12-31-15				9	11



PART ELEVATION
ALTERNATIVE 1
1 1/2" = 1'-0"



PART PLAN
1 1/2" = 1'-0"

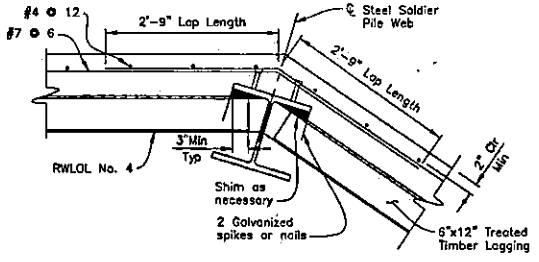


PART ELEVATION
ALTERNATIVE 2
1" = 1'-0"

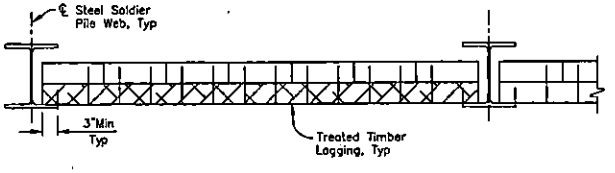
LAGGING DETAILS

NOTES:

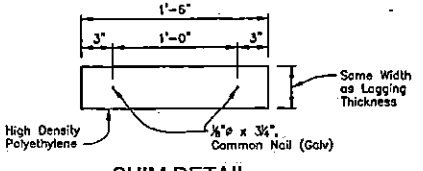
1. Use 16d Galv wire spikes for 4x12 lagging
   Use 20d Galv wire spikes for 6x12 lagging
2. Spikes shall not be bent
3. No clipping of timber lagging corners allowed



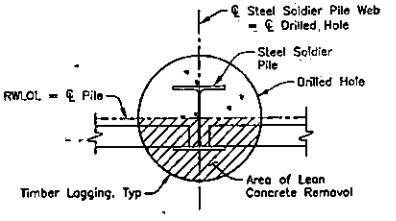
RETAINING WALL NO. 3 -
HINGE POINT DETAIL
1"=1'-0"



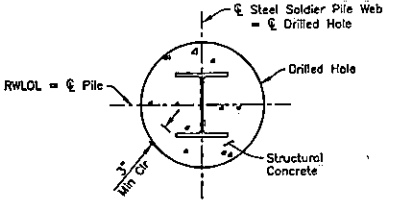
SECTION G-G
1"=1'-0"



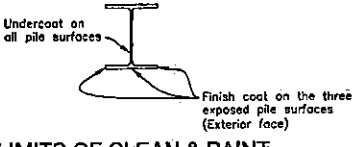
SHIM DETAIL
No Scale



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



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



LIMITS OF CLEAN & PAINT
STEEL SOLDIER PILE
1"=1'-0"

RW-10

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET No.	TOTAL SHEETS
1	HUM	C.R.	0.3	56	57

JENNIFER GRANT — REGISTERED CIVIL ENGINEER — 6-08-15 DATE

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JENNIFER K. GRANT — No. 57667 — Exp. 06/30/17 — CIVIL — STATE OF CALIFORNIA

drake haglan AND ASSOCIATES
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

DESIGN OVERSIGHT
SIGN OFF DATE

	BY	CHECKED
DESIGN	J. GRANT	K. ROSS
DETAILS	K. DRESBACH	K. ROSS
QUANTITIES	J. GRANT	R. BAUTISTA

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT
PROJECT ENGINEER

CU
EA

BRIDGE NO. 04C-0259
POST MILE 0.3

RED CAP ROAD BRIDGE REPLACEMENT

RETAINING WALL DETAILS NO. 4

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 10-26-15

SHEET 10 OF 11

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO.	SHEETS
1	HUM	C.R.	0.3	57	57

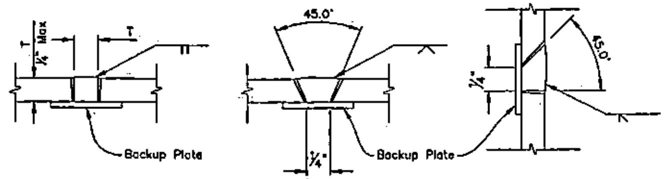
JENNIFER GRANT — 6-08-15
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

DRAKE HAGLAN AND ASSOCIATES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER JENNIFER J. GRANT No. C77667 Exp. 06/30/17 CIVIL STATE OF CALIFORNIA

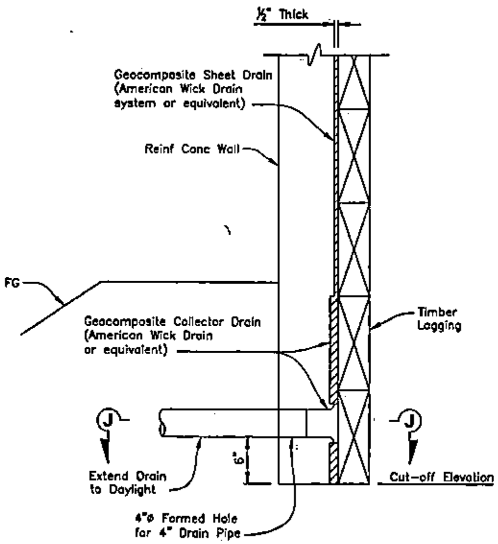
drake haglan AND ASSOCIATES
11050 White Rock Road, Suite 200
Rancho Cordova, CA 95670



PILE WELDING DETAIL - BUTT JOINTS
1 1/2" = 1'-0"

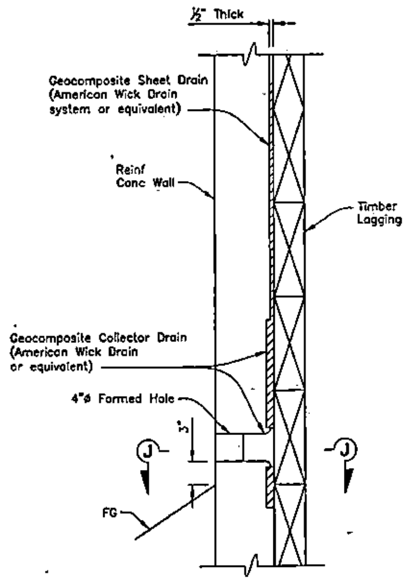
NOTES:

1. Single vee-groove and square groove permitted for all positions
2. Single bevel-groove permitted for horizontal joints only

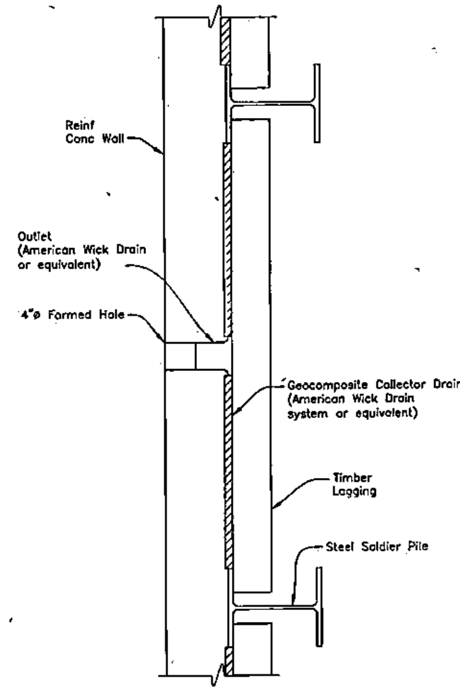


½" Thick
Geocomposite Sheet Drain (American Wick Drain system or equivalent)
Reinf Conc Wall
FG
Geocomposite Collector Drain (American Wick Drain or equivalent)
Timber Lagging
J
J
6"
Extend Drain to Daylight
Cut-off Elevation
4"ø Formed Hole for 4" Drain Pipe

BOTTOM DETAIL -
RETAINING WALL NO. 1 AND NO. 2



BOTTOM DETAIL -
RETAINING WALL NO. 3



SECTION J-J

WEEP HOLE AND GEOCOMPOSITE DRAIN SHEET
1 1/2" = 1'-0"

RW-11

DESIGN	BY J. GRANT	CHECKED K. ROSS
DETAILS	BY K. DRESBACH	CHECKED K. ROSS
QUANTITIES	BY J. GRANT	CHECKED R. BAUTISTA

DESIGN OVERSIGHT

SIGN OFF DATE

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

JENNIFER GRANT
PROJECT ENGINEER

CU
EA

BRIDGE NO. 04C-0259
POST MILE 0.3

RED CAP ROAD BRIDGE REPLACEMENT

RETAINING WALL DETAILS NO. 5

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES

SHEET 11 OF 11