

INDEX TO PLANS		
SHEET NO.	PAGE NO.	DESCRIPTION
T-1	1	TITLE SHEET
ROADWAY PLANS		
TX-1	2	TYPICAL SECTIONS
SC-1	3	HORIZONTAL (SURVEY) CONTROL
DM-1	4	DEMOLITION PLAN
PP-1	5	PLAN AND PROFILE
WPC-1	6	TEMPORARY WATER POLLUTION CONTROL
G-1	7	GRADING PLAN
D-1	8	DRAINAGE PLAN
DP-1	9	DRAINAGE PROFILES No. 1
PD-1	10	PAVEMENT DELINEATION
DE-1	11	DETOUR ROUTE
TC-1	12	ROAD CLOSURE PLAN

BRIDGE PLANS		
S-1	10	GENERAL PLAN
S-2	11	GENERAL NOTES
S-3	12	DECK CONTOURS
S-4	13	FOUNDATION PLAN
S-5	14	DEMOLITION PLAN
S-6	15	ABUTMENT-1 LAYOUT
S-7	16	ABUTMENT-3 LAYOUT
S-8	17	ABUTMENT LAYOUT No.1
S-9	18	ABUTMENT LAYOUT No.2
S-10	19	ABUTMENT DETAILS No.1
S-11	20	ABUTMENT DETAILS No.2
S-12	21	ABUTMENT DETAILS No.3
S-13	22	ABUTMENT DETAILS No.4
S-14	23	ABUTMENT DETAILS No.5
S-15	24	BENT 2 LAYOUT
S-16	25	BENT 2 DETAILS No.1
S-17	26	TYPICAL SECTION
S-18	27	PRESTRESSING DETAILS
S-19	28	DECK REINFORCEMENT DETAILS
S-20	29	RETAINING WALL KEY PLAN
S-21	30	RETAINING WALL No.1 GENERAL PLAN
S-22	31	RETAINING WALL No.2 GENERAL PLAN
S-23	32	RETAINING WALL No.3 GENERAL PLAN
S-24	33	RETAINING WALL No.4 GENERAL PLAN
S-25	34	RETAINING WALL No.1 LAYOUT
S-26	35	RETAINING WALL No.2 LAYOUT
S-27	36	RETAINING WALL No.3 LAYOUT
S-28	37	RETAINING WALL No.4 LAYOUT
S-29	38	RETAINING WALL PILE DATA TABLE
S-30	39	SOLDIER PILE WALL DETAILS No.1
S-31	40	SOLDIER PILE WALL DETAILS No.2
S-32	41	LOGS OF TESTING BORINGS No.1

NOTES:

- THE STANDARD PLANS APPLICABLE TO THE CONTRACT ARE INCLUDED IN THE SPECIAL PROVISIONS BOOK.
- DESIGN CRITERIA FOR THIS PROJECT IS ON FILE WITH THE NAPA COUNTY PUBLIC WORKS DEPARTMENT.
- THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS" ON PAGE 2 OF THE SPECIAL PROVISIONS.
- CONTRACTOR SHALL VERIFY ACTUAL DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CALL "UNDERGROUND SERVICE ALERT" (USA) (TOLL FREE 811) PRIOR TO TRENCHING, GRADING, EXCAVATION, DRILLING, PIPE PUSHING, PLANTING TREES, DIGGING POST HOLES FOR FENCES, ETC. (USA) WILL SUPPLY INFORMATION OR LOCATE AND MARK ALL UNDERGROUND FACILITIES.
- UNDERGROUND FACILITIES SHOWN WERE LOCATED BASED ON INFORMATION PROVIDED BY UTILITY COMPANIES AND BY MEASURING SURFACE FEATURES. NO ATTEMPT WAS MADE TO LOCATE OTHER UNDERGROUND FACILITIES THAT WERE NOT READILY APPARENT FROM A VISUAL INSPECTION OF SURFACE FEATURES.
- THE ENGINEER ASSUMES NO LIABILITY FOR THE ACCURACY OR COMPLETENESS OF THE EXISTING FACILITIES SHOWN HEREON OR FOR THE EXISTENCE OF OTHER UNDERGROUND UTILITIES OR OBJECTS WHICH THE CONTRACTOR MAY DISCOVER, BUT ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING FACILITIES AND IMMEDIATELY NOTIFY THE ENGINEER IF ANY SUCH FACILITIES INTERFERE WITH THE CONSTRUCTION OF IMPROVEMENTS.

BASIS OF BEARING AND ELEVATIONS

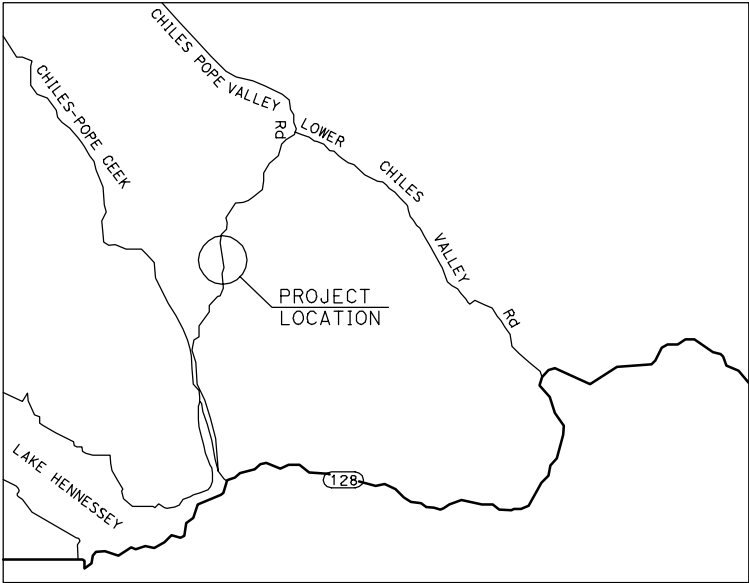
SEE "CONTROL FOR DESIGN AND CONSTRUCTION" BELOW. HORIZONTAL CONTROL IS BAASED ON GPS CALIBRATION USING BENCH MARKS SHOWN AND DESCRIBED FROM RECORD OF SURVEY 34 RS 50. VERTICAL DATUM IS ASSUMED. DUE TO THE REMOTE NATURE OF THE SITE, THE LISTED COORDINATE VALUES AND CONTROL ARE BASED OFF AN ASSUMED COORDINATE SYSTEM AND NOT TO ANY ESTABLISHED AND/OR DERIVED SYSTEM.

STATE OF CALIFORNIA
COUNTY OF NAPA

PROJECT PLANS FOR CONSTRUCTION OF
CHILES-POPE VALEY ROAD BRIDGE (REPLACE
OVER CHILES-POPE CREEK

BRIDGE NO. 46C-0470
(OLD BRIDGE NO. 21C-0075)
FEDERAL PROJECT NO. BRLS-5921(074)
HIGHWAY BRIDGE PROGRAM (HBP)

TO BE SUPPLEMENTED BY STANDARD PLANS AND STANDARD SPECIFICATIONS OF
THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DATED 2018



VICINITY MAP



CONTROL FOR DESIGN AND CONSTRUCTION					
No.	POINT No.	COORDINATES		ELEV	DESCRIPTION
		NORTHING	EASTING		
1	4	14,195.04	11,980.11	999.76	MAG
2	5	14,409.12	11,912.01	1005.18	MAG
3	6	14,357.62	11,919.04	1004.44	MAG
4	10	13,763.44	12,038.78	996.29	MAG
5	11	13,612.05	12,043.81	990.53	MAG

NOTE: DUE TO THE REMOTE NATURE OF THE SITE, THE ABOVE LISTED COORDINATE VALUES AND CONTROL IS BASED OFF AN ASSUMED COORDINATE SYSTEM AND NOT TO ANY ESTABLISHED AND/OR DERIVED SURVEY COORDINATES. IF MONUMENTS ARE DISTURBED DURING CONSTRUCTION, REPAIR AT YOUR EXPENSE.



LOCATION MAP

APPROVED BY: DATE:

STEVE WORTHLEY, CHAIRMAN
COUNTY OF TULARE BOARD OF SUPERVISORS

APPROVED BY: DATE:

REED SCHENKE, P.E., DIRECTOR - PUBLIC WORKS
COUNTY OF TULARE RESOURCE MANAGEMENT AGENCY

SIGNED BY: DATE:

RONALD L. OEN, P.E., ASSOCIATE
BIGGS CARDOSA ASSOCIATES, INC.

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/23/19)



Know what's below.
Call before you dig.
Contractor shall call
Underground Service Alert at
811 two working days prior
to excavation

REVISION TABLE		
REV	DESCRIPTION	DATE



**BIGGS CARDOSA
ASSOCIATES INC**
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 10/5/17

SCALE: AS SHOWN

FILE NAME: 2015260AT1.dwg

SURVEY NOTE:



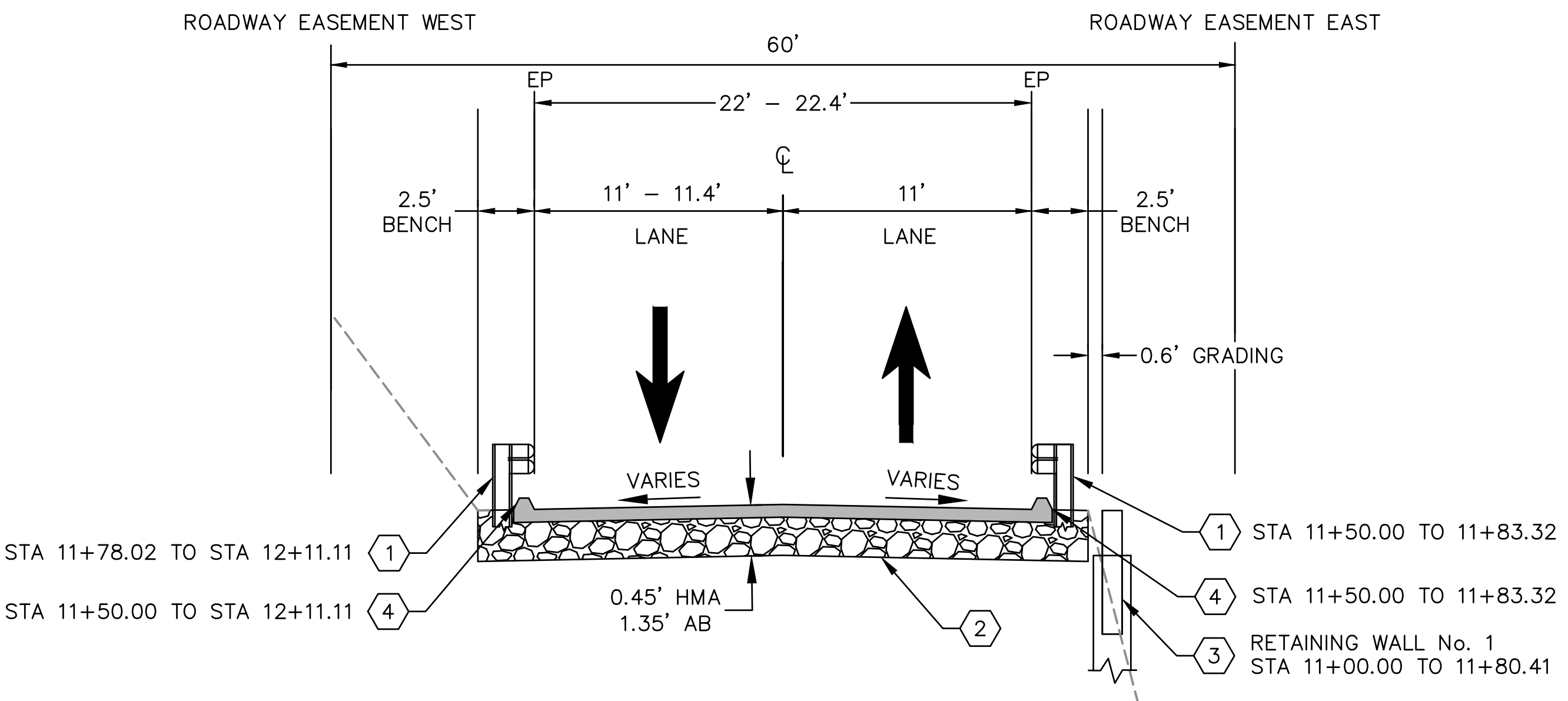
DESIGN: RKY

DRAWN: SMH

CHKD:

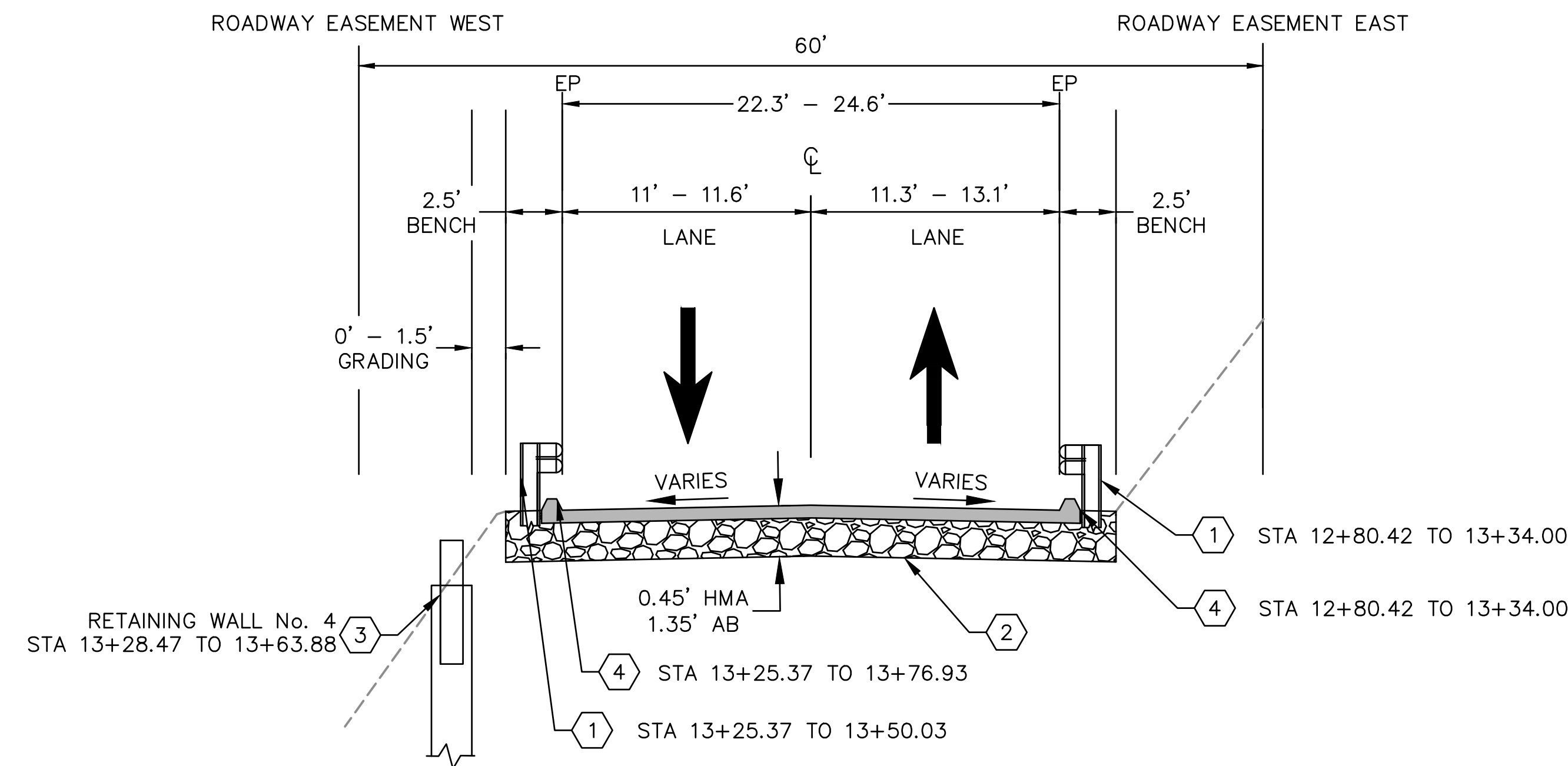
SHEET TITLE	
TITLE SHEET	
PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(060)	
T-1 SHEET OF	

2015260A (2015260AT1)



CHILES-POPE VALLEY ROAD

"CP" 11+50.00 TO "CP" 11+96.27



CHILES-POPE VALLEY ROAD

"CP" 13+00.85 TO "CP" 13+50.00

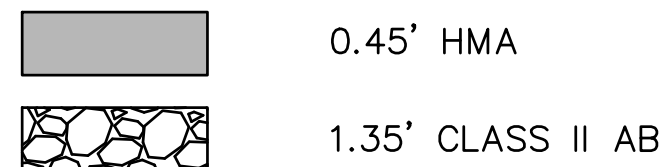
KEY NOTES:

1. INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLAN A77L2 (W6X9 STEEL POST AND WOOD BLOCK)
2. CONSTRUCT PAVEMENT SECTION, T.I=9.0, 0.45' HMA OVER 1.35' CLASS II AGGREGATE BASE PER NAPA COUNTY ROAD AND STREET STANDARDS.
3. RETAINING WALL (SEE STRUCTURAL PLANS)
4. INSTALL HMA DIKE TYPE A PER CALTRANS STANDARD PLAN A87B (SEE NOTE 2).

NOTES:

1. SEE PP-1 FOR MIDWEST GUARDRAIL SYSTEM LOCATIONS.
2. HMA DIKE POSITIONING WITH GUARDRAIL SHALL BE INSTALLED PER CALTRANS STANDARD PLAN A77N4.

LEGEND:



ABBREVIATIONS:

AB	AGGREGATE BASE
BB	BEGIN BRIDGE
AC	AGGREGATE CONCRETE
BC	BEGIN CURVE
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
CL	CENTERLINE
E	EXISTING
EB	END BRIDGE
EC	END CURVE
EP	EDGE OF PAVEMENT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
FG	FINISHED GRADE
GB	GRADE BREAK
HMA	HOT-MIXED ASPHALT
HP	HINGE POINT
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
MGS	MIDWEST GUARDRAIL SYSTEM
OG	ORIGINAL GRADE
PRC	POINT OF REVERSE CURVE
PVI	POINT OF VERTICAL INTERSECTION
RT	RIGHT
STA	STATION
TP	TOP OF PAVEMENT
WSE	WATER SURFACE ELEVATION

65% - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE



300 Frank H. Ogawa Plaza, Suite 380

Oakland, CA 94612

TEL. 510.899.7300

DATE:	12/17/2019	DESIGN:	E.MOHNEY
SCALE:	NTS	DRAWN:	J.LOK
FILE NAME:	01_TX-1.DWG	CHKD:	E.EHSANI
SURVEY NOTE:			

SHEET TITLE

TYPICAL SECTIONS

"CP" 11+50 TO 13+50

PROJECT TITLE

CHILES-POPE VALLEY ROAD

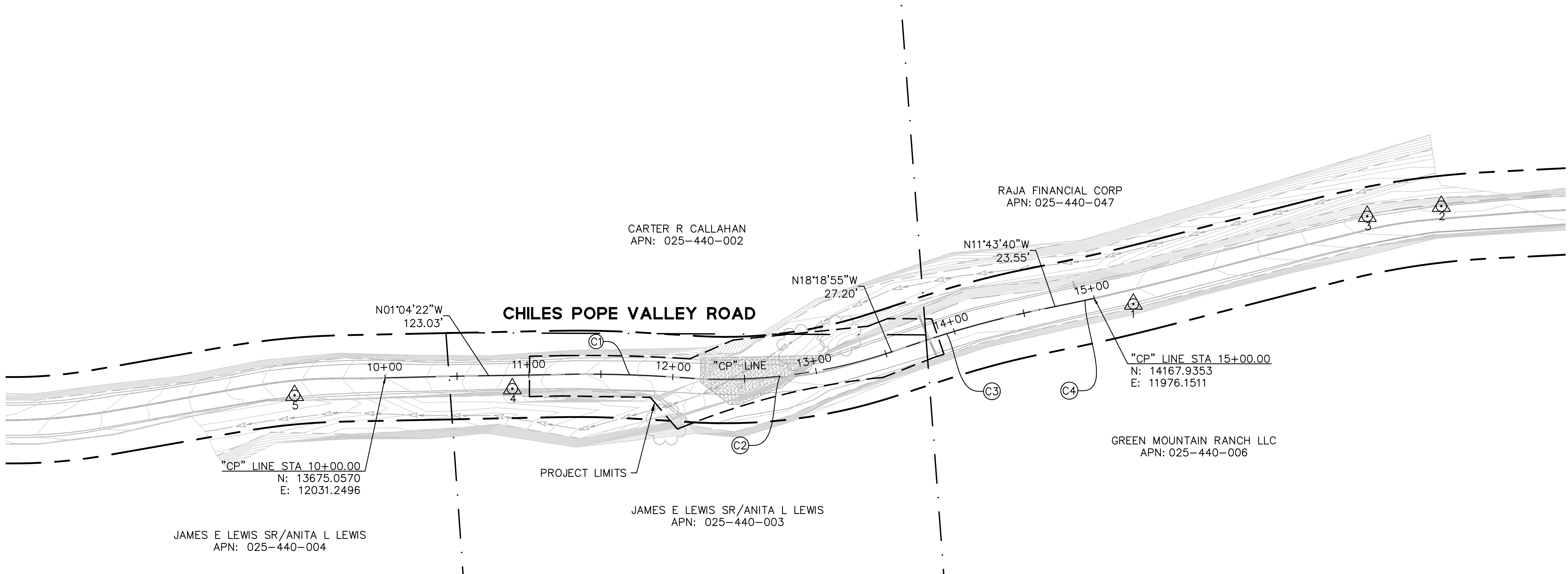
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

PROJECT NUMBER

20141065-12

TX-1

SHEET **01** OF **13**



BASIS OF BEARINGS AND ELEVATIONS

HORIZONTAL CONTROL IS BASED ON GPS CALIBRATION USING BENCHMARKS SHOWN AND DESCRIBED FROM RECORD OF SURVEY 34 RS 50. VERTICAL DATUM IS ASSUMED. DUE TO THE REMOTE NATURE OF THE SITE, THE LISTED COORDINATE VALUES AND CONTROL ARE BASED OFF AN ASSUMED COORDINATE SYSTEM AND NOT TO ANY ESTABLISHED AND/OR DERIVED SURVEY COORDINATES.

COORDINATES ARE SHOWN IN THE U.S. SURVEY FOOT.

CONTROL FOR DESIGN AND CONSTRUCTION

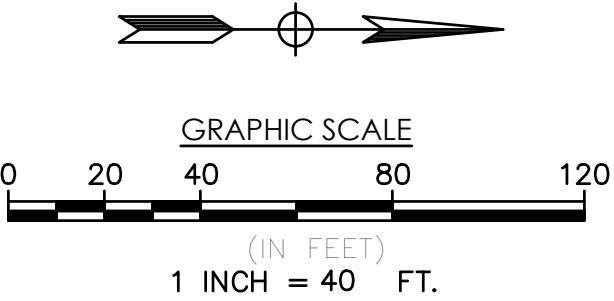
No.	POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	4	14195.04	11980.11	999.76	MAG
2	5	14409.12	11912.01	1005.18	MAG
3	6	14357.62	11919.04	1004.44	MAG
4	10	13763.44	12038.78	996.29	MAG
5	11	13612.05	12043.81	990.53	MAG

LEGENDS:

- ROADWAY EASEMENT
- (E) PARCEL LINE
- PROJECT LIMIT LINE
- (No.)

CURVE DATA
- SURVEY BENCHMARK

ALIGNMENT: CURVE TABLE			
CURVE NO.	RADIUS	LENGTH	DELTA
C1	900.00	84.09	005°21'11"
C2	371.00	146.31	022°35'44"
C3	700.00	80.48	006°35'15"
C4	1300.00	15.35	000°40'36"



65% - NOT FOR CONSTRUCTION

REV	REVISION TABLE	DATE
	DESCRIPTION	





300 Frank H. Ogawa Plaza, Suite 380
Oakland, CA 94612
TEL. 510.899.7300

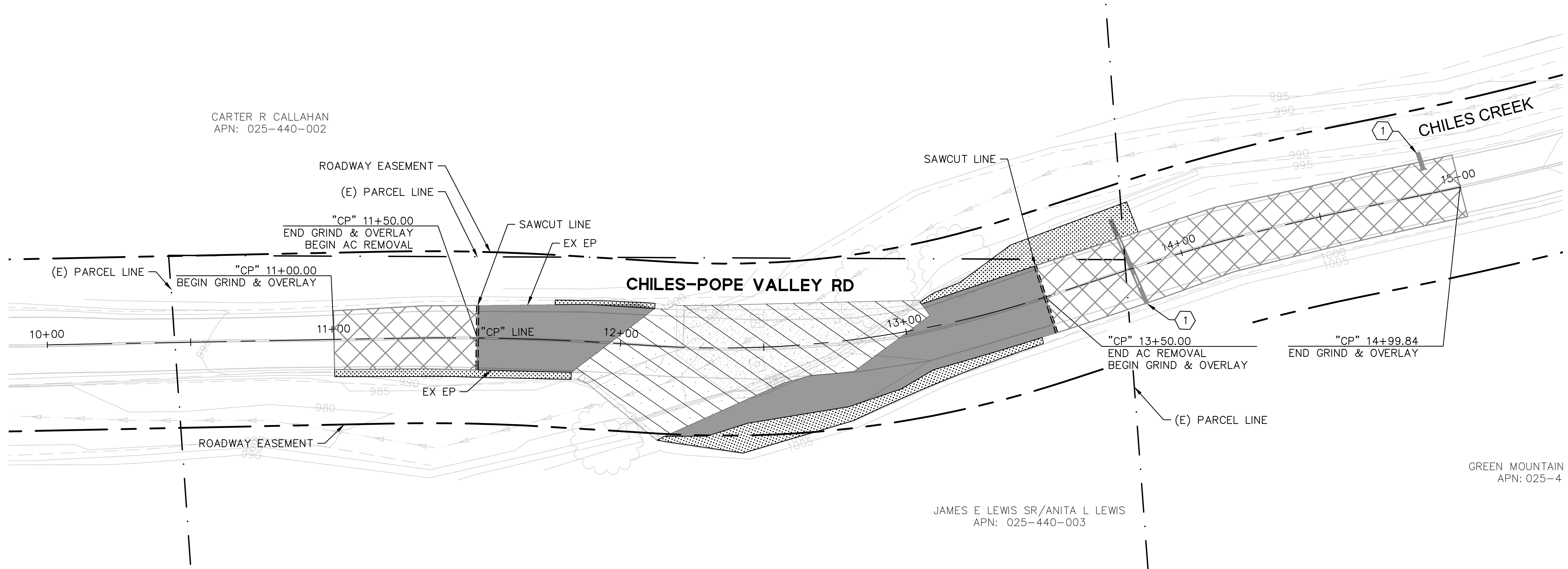
DATE:	12/17/2019	DESIGN:	E.MOHNEY
SCALE:	1:50	DRAWN:	J.LOK
FILE NAME:	02_SC-1.DWG	CHKD:	E.EHSANI
SURVEY NOTE:			

SHEET TITLE
HORIZONTAL (SURVEY) CONTROL
"CP" 11+50 TO 13+50

PROJECT TITLE
CHILES-POPE VALLEY ROAD
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

PROJECT NUMBER
20141065-12

SC-2
SHEET **02** OF **13**



NOTES

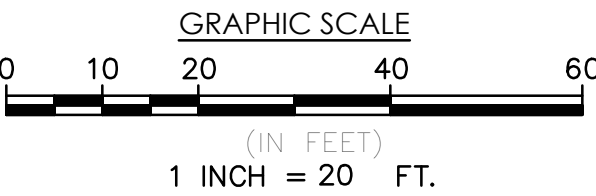
- CONTRACTOR SHALL CLEAR AND GRUB AS NECESSARY FOR IMPROVEMENTS. THIS MAY INCLUDE TREES, SHRUBS, ROOTS, ETC.
- FOR ADDITIONAL INFORMATION ON STRUCTURAL REMOVAL INCLUDING EXISTING BRIDGE, WALLS, AND BRIDGE BARRIERS SEE STRUCTURAL PLANS.
- FOR INFORMATION ON SIGN REMOVAL SEE PD-1.
- GRIND AND OVERLAY UPON PROJECT COMPLETION WITHIN AREAS OF CONSTRUCTION STAGING.

KEY NOTES:

1 PROTECT IN PLACE

LEGENDS:

- ROADWAY EASEMENT
- (E) PARCEL LINE
- (E) PAVEMENT EXCAVATION
- 2" GRIND AND OVERLAY (SEE NOTE 4)
- (E) STRUCTURE TO BE REMOVED (SEE STRUCTURAL DRAWINGS)
- CLEAR AND GRUB ALONG SLOPE
- SAWCUT LINE



65% - NOT FOR CONSTRUCTION

REV	REVISION TABLE	DATE
DESCRIPTION		



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TEL. 510.899.7300

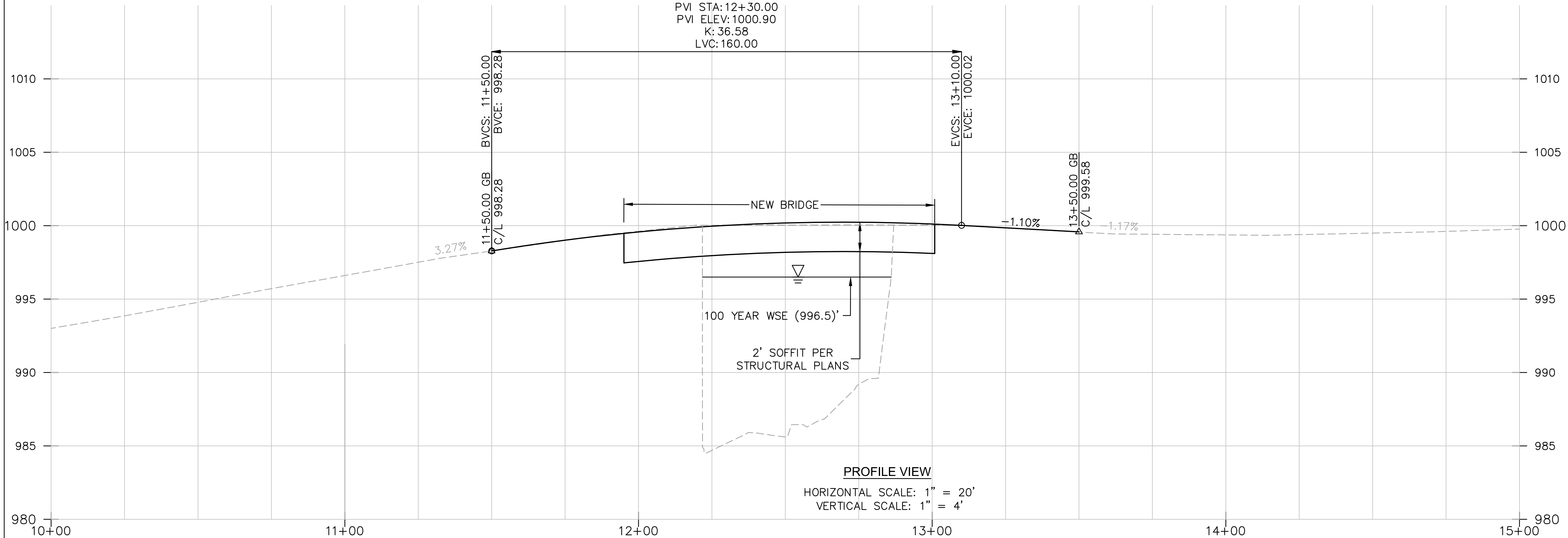
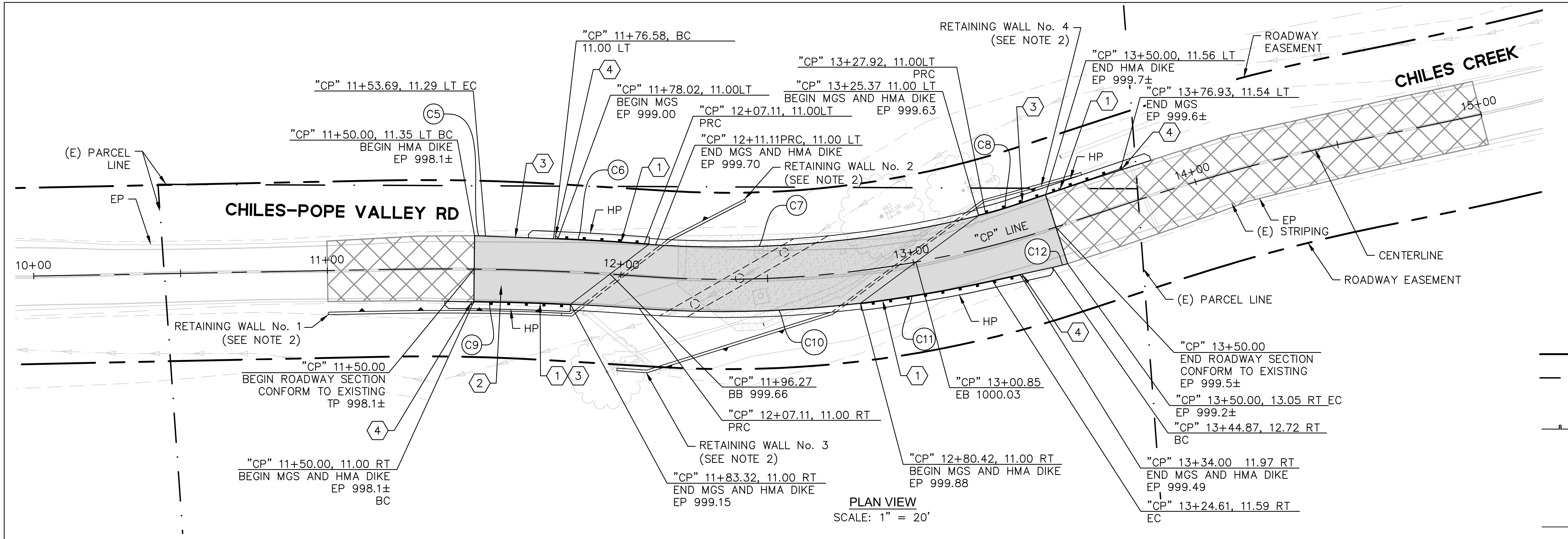
DATE:	12/17/2019	DESIGN:	E.MOHNEY
SCALE:	1" = 20'	DRAWN:	J.LOK
FILE NAME:	03_DM-1.DWG	CHKD:	E.EHSANI
SURVEY NOTE:			

SHEET TITLE
DEMOLITION PLAN
"CP" 10+00 TO 15+00

PROJECT TITLE
CHILES-POPE VALLEY ROAD
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

PROJECT NUMBER
20141065-12

DM-1
SHEET **03** OF **13**



KEY NOTES:

- 1 INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLAN A77L2. (W6x9 STEEL POST AND WOOD BLOCK)
- 2 CONSTRUCT PAVEMENT SECTION, T.I.=9.0, 0.45' HMA OVER 1.35' CLASS II AGGREGATE BASE.
- 3 INSTALL HMA DIKE TYPE A PER CALTRANS STANDARD PLAN A87B.
- 4 INSTALL MAXTENSION TL-3 CRASH CUSHION.

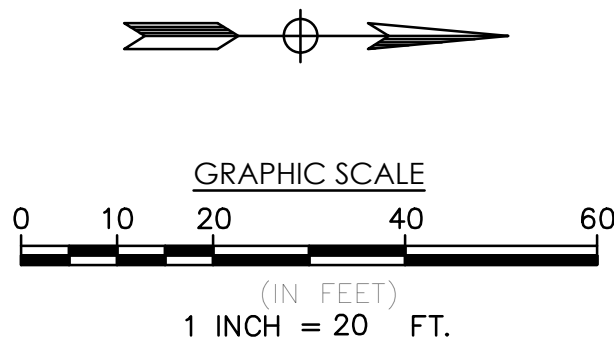
NOTES:

1. FOR CHILES-POPE VALLEY ROAD SECTION, SEE SHEET TX-1.0.
2. SEE STRUCTURAL DRAWINGS FOR BRIDGE AND RETAINING WALL DESIGN.

LEGEND:

- ROADWAY EASEMENT
- (E) PARCEL LINE
- CURVE DATA
- MGS (CALTRANS STD PLAN A77L2)
- 0.45' HMA, 1.35' AB (CLASS II) ROADWAY (SEE KEY NOTE)
- 2" GRIND AND OVERLAY (SEE DM-1)
- RETAINING WALL (SEE STRUCTURAL DRAWINGS)

CURVE TABLE			
CURVE NO.	LENGTH	RADIUS	DELTA
C5	3.73	150.00	001°25'33"
C6	30.91	911.00	001°56'39"
C7	117.22	360.00	018°39'24"
C8	11.40	150.00	004°21'14"
C9	56.42	889.00	003°38'10"
C10	76.42	382.00	011°27'46"
C11	44.59	495.00	005°09'39"
C12	5.32	100.00	003°02'52"



REVISION TABLE		
REV	DESCRIPTION	DATE

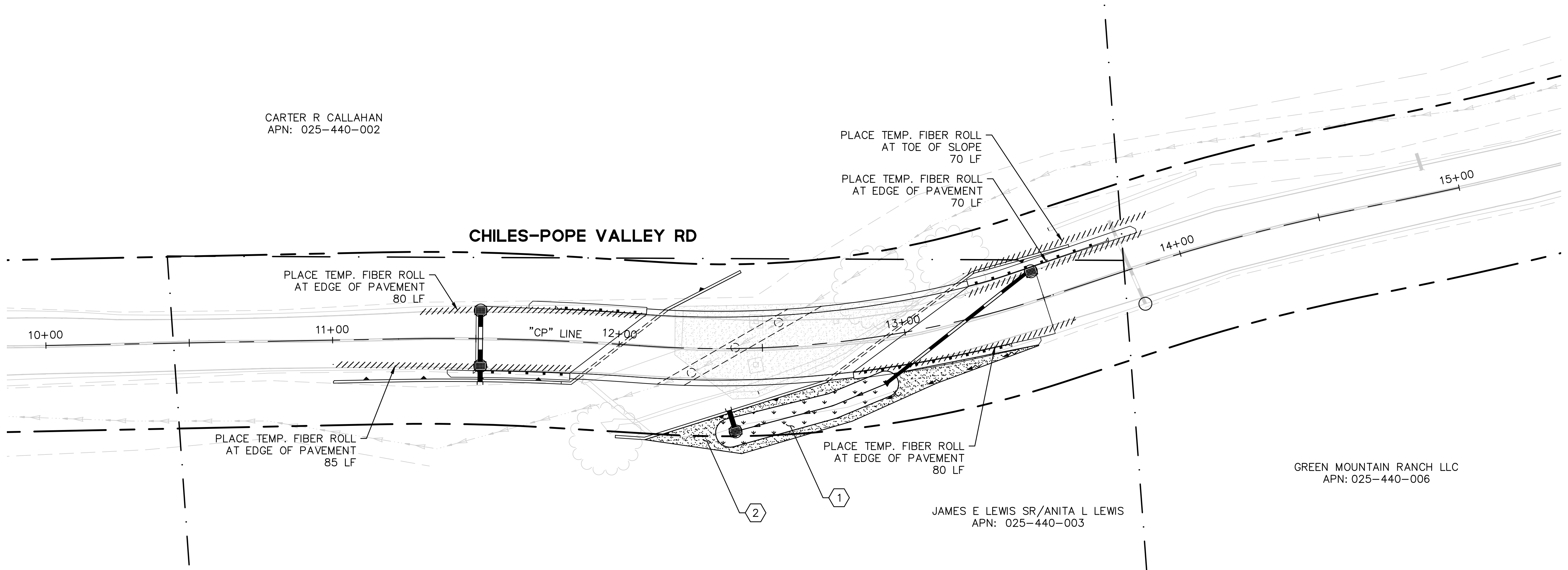


300 Frank H. Ogawa Plaza, Suite 380
Oakland, CA 94612
TEL. 510.899.7300

DATE:	12/17/2019	DESIGN:	E.MOHNEY
SCALE:	1" = 20'	DRAWN:	J.LOK
FILE NAME:	04_PP-1.DWG	CHKD:	E.EHSANI
SURVEY NOTE:			

SHEET TITLE PLAN AND PROFILE "CP" 11+50 TO 13+50	
PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
PROJECT NUMBER 20141065-12	PP-1 SHEET 04 OF 13

65% - NOT FOR CONSTRUCTION



NOTES:

- 1. SEE DRAINAGE SHEET D-1 FOR ALL DRAINAGE INLET AND PIPE LOCATIONS
- 2. TEMPORARY FIBER ROLLS TYPE A TO BE INSTALLED PER CALTRANS STANDARD PLANS H51.
- 3. TEMPORARY DRAINAGE INLET PROTECTION TYPE 1 TO BE INSTALLED PER CALTRANS STANDARD PLANS T61.

KEY NOTES:

- 1 INSTALL BIOSWALE DITCH (SEE DRAINAGE SHEET D-1)
- 2 INSTALL HYDROSEED

LEGEND:

ROADWAY EASEMENT

(E) PARCEL LINE

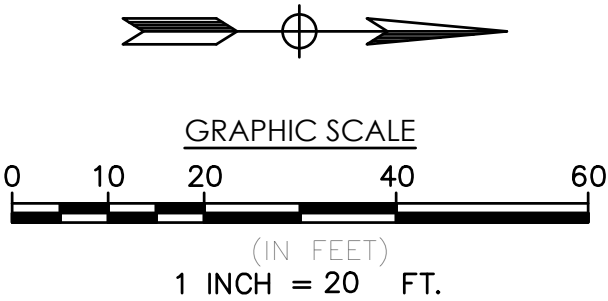
PROPOSED BIOSWALE DITCH (SEE SHEET D-1)

PROPOSED HYDROSEED

TEMPORARY DRAINAGE INLET PROTECTION (SEE NOTE 3)

TEMPORARY FIBER ROLL (SEE NOTE 2)

PROPOSED STORM DRAIN DRAINAGE INLET



65% - NOT FOR CONSTRUCTION

REVISION TABLE		
REV	DESCRIPTION	DATE





ENGINEERS / SURVEYORS / PLANNERS

300 Frank H. Ogawa Plaza, Suite 380
Oakland, CA 94612
TEL. 510.899.7300

DATE:	12/17/2019	DESIGN:	E.MOHNEY
SCALE:	1:20	DRAWN:	J.LOK
FILE NAME:	06_EC-2.DWG	CHKD:	E.EHSANI
SURVEY NOTE:			

SHEET TITLE

TEMPORARY WATER POLLUTION CONTROL

PROJECT TITLE

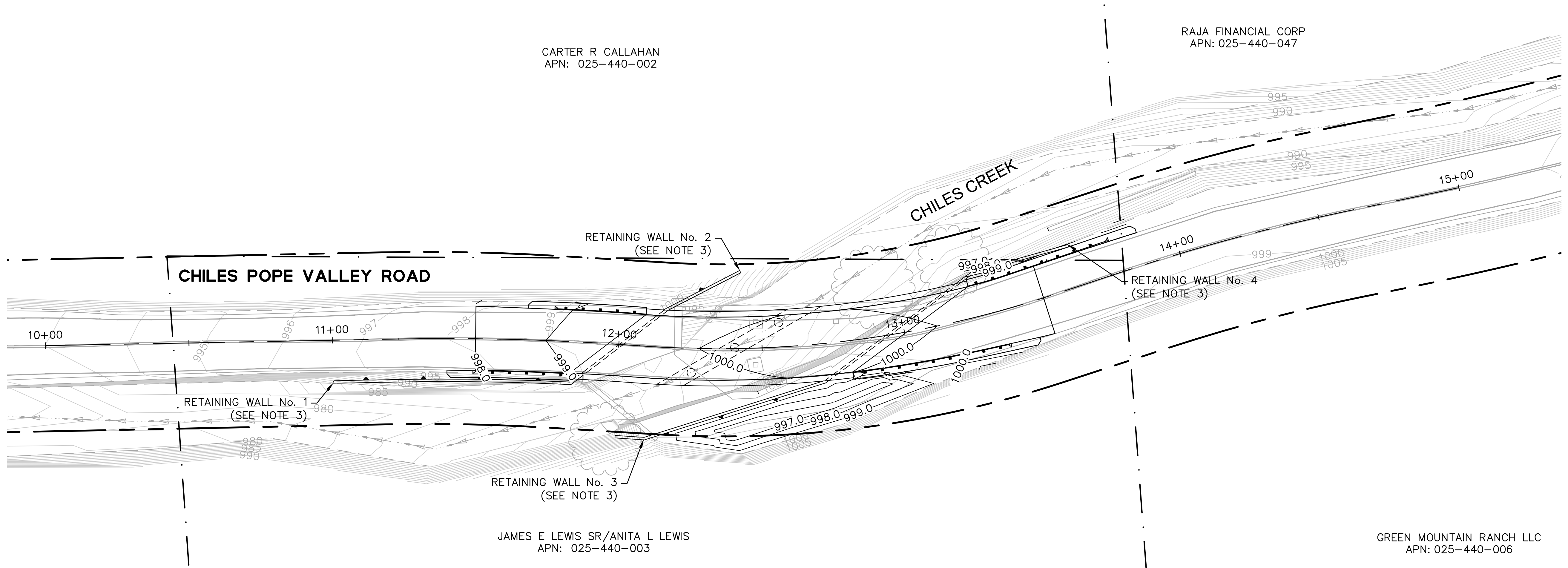
CHILES-POPE VALLEY ROAD
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

PROJECT NUMBER

20141065-12

WPC-1

SHEET 6 OF 13

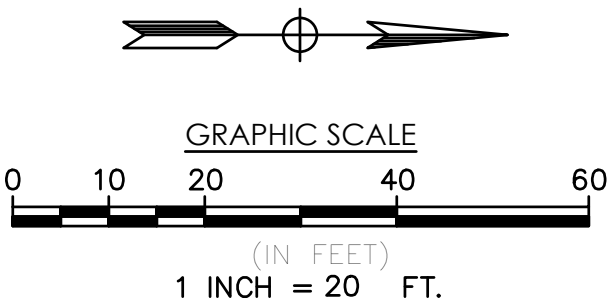


NOTES:

- 1. SEE PP SHEET FOR DETAILED ROADWAY GRADING. SEE D AND DP SHEET FOR STORM DRAIN INFORMATION.
- 2. MATCH EXISTING GRADES AT CONFORM POINTS.
- 3. SEE STRUCTURAL PLANS FOR RETAINING WALL HEIGHTS AND DETAILS.
- 4. GRADING TO ACCOMMODATE FOR WALLS WILL BE PROVIDED AT 95% DESIGN.

LEGEND:

- ROADWAY EASEMENT
- (E) PARCEL LINE
- (E) CONTOUR
- PR CONTOUR



65% - NOT FOR CONSTRUCTION

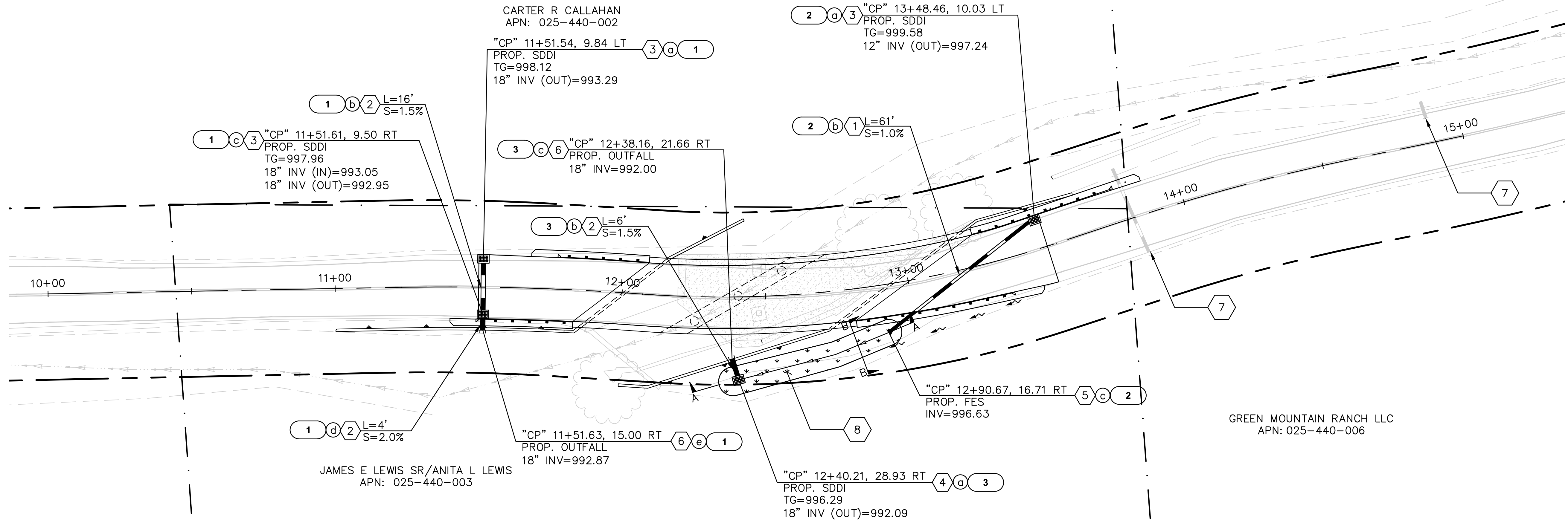
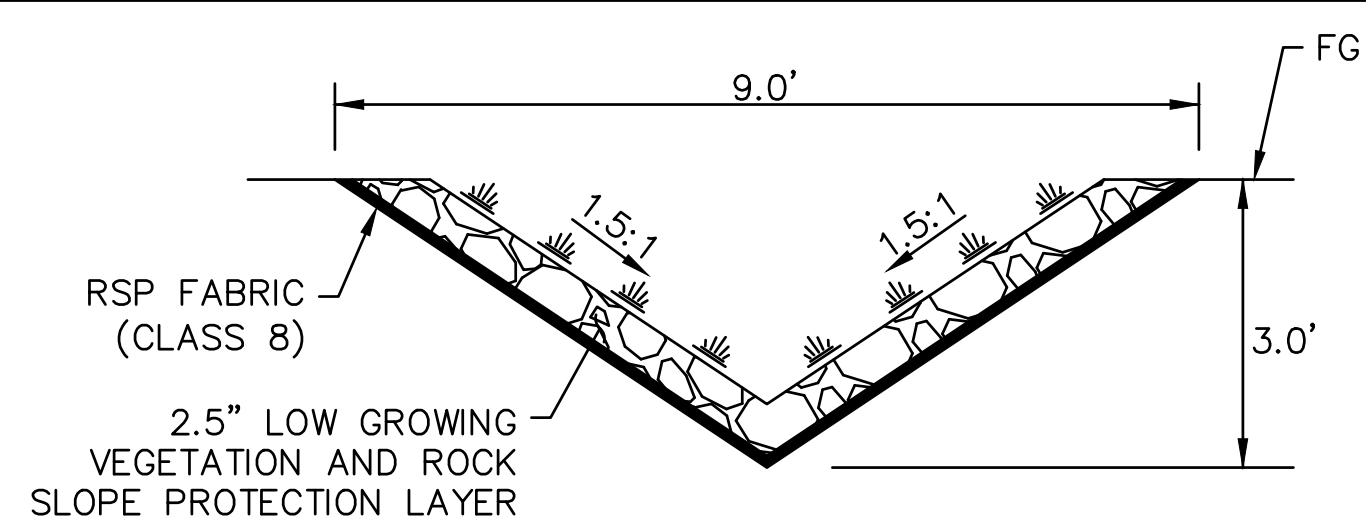
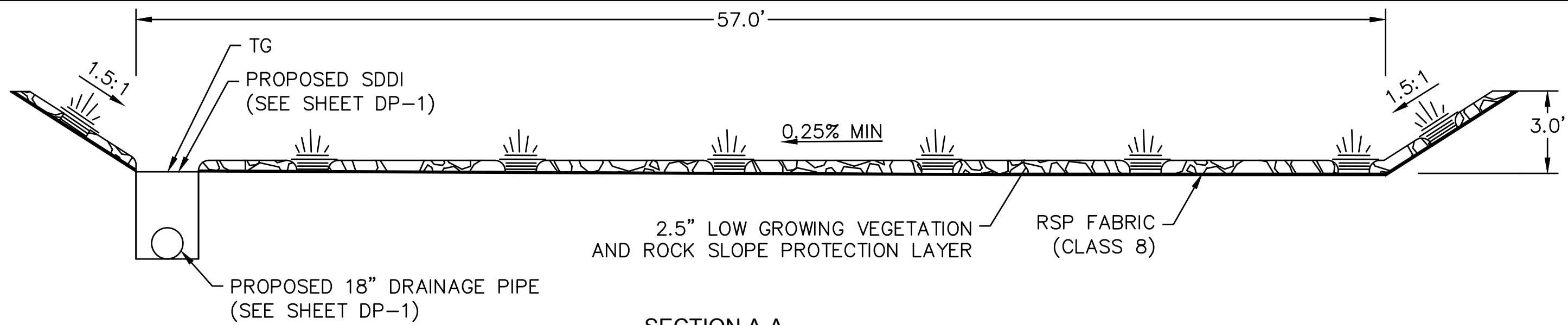
REVISION TABLE		
REV	DESCRIPTION	DATE



300 Frank H. Ogawa Plaza, Suite 380
Oakland, CA 94612
TEL. 510.899.7300

DATE:	12/17/2019	DESIGN:	E.MOHNEY
SCALE:	1:20	DRAWN:	J.LOK
FILE NAME:	07_G-1.DWG	CHKD:	E.EHSANI
SURVEY NOTE:			

SHEET TITLE	
GRADING PLAN	
PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
PROJECT NUMBER 20141065-12	G-1 SHEET 7 OF 13



NOTES:

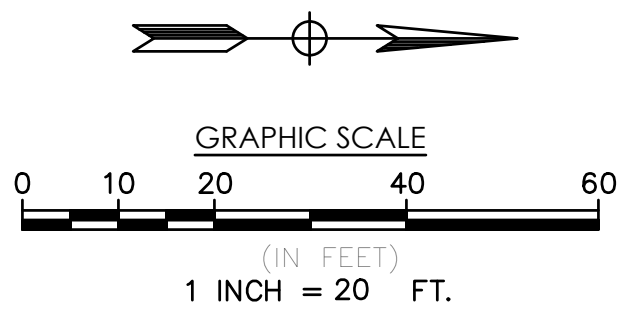
- CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- FOR LIMITS OF REMOVAL/ABANDONMENT, SEE UTILITY PLANS.

KEY NOTES:

- INSTALL 12" STORM DRAIN (RCP)
- INSTALL 18" STORM DRAIN (RCP)
- INSTALL STORM DRAIN INLET TYPE G1 WITH TYPE 24-12X GRATE PER CALTRANS STD PLANS D73B AND D77B
- INSTALL STORM DRAIN INLET TYPE G1 WITH TYPE 24-9 GRATE PER CALTRANS STD PLANS D73B AND D77A
- INSTALL 12" CONCRETE FLARED END SECTION PER CALTRANS STD PLAN D94B
- INSTALL DRAINAGE OUTFALL THROUGH RETAINING WALL (SEE STRUCTURAL DRAWINGS)
- DRAINAGE SYSTEM TO REMAIN (PROTECT IN PLACE)
- INSTALL BIOSWALE DITCH

LEGEND:

- | | | | |
|--|--|--|--|
| | DRAINAGE STRUCTURE NUMBER | | PROPOSED DRAINAGE OUTFALL |
| | DRAINAGE SYSTEM NUMBER | | PROPOSED BIOSWALE DITCH |
| | PROPOSED XX" STORM DRAIN | | LOW GROWING VEGETATION AND ROCK SLOPE PROTECTION LAYER |
| | PROPOSED STORM DRAIN DRAINAGE INLET | | |
| | PROPOSED CONCRETE FLARED END SECTION (FES) | | |
| | RUNOFF FLOW DIRECTION | | |



REVISION TABLE		
REV	DESCRIPTION	DATE

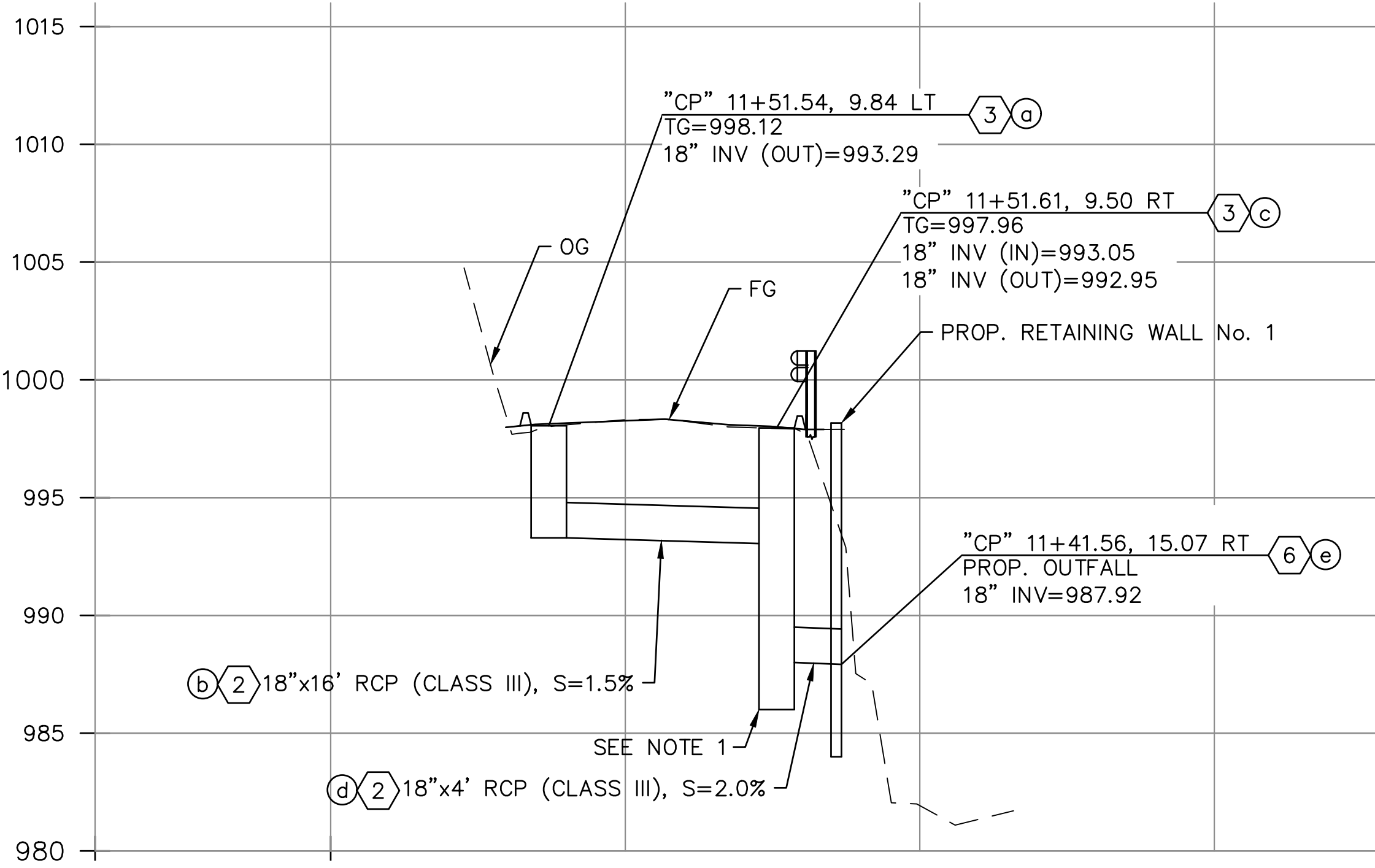


300 Frank H. Ogawa Plaza, Suite 380
Oakland, CA 94612
TEL. 510.899.7300

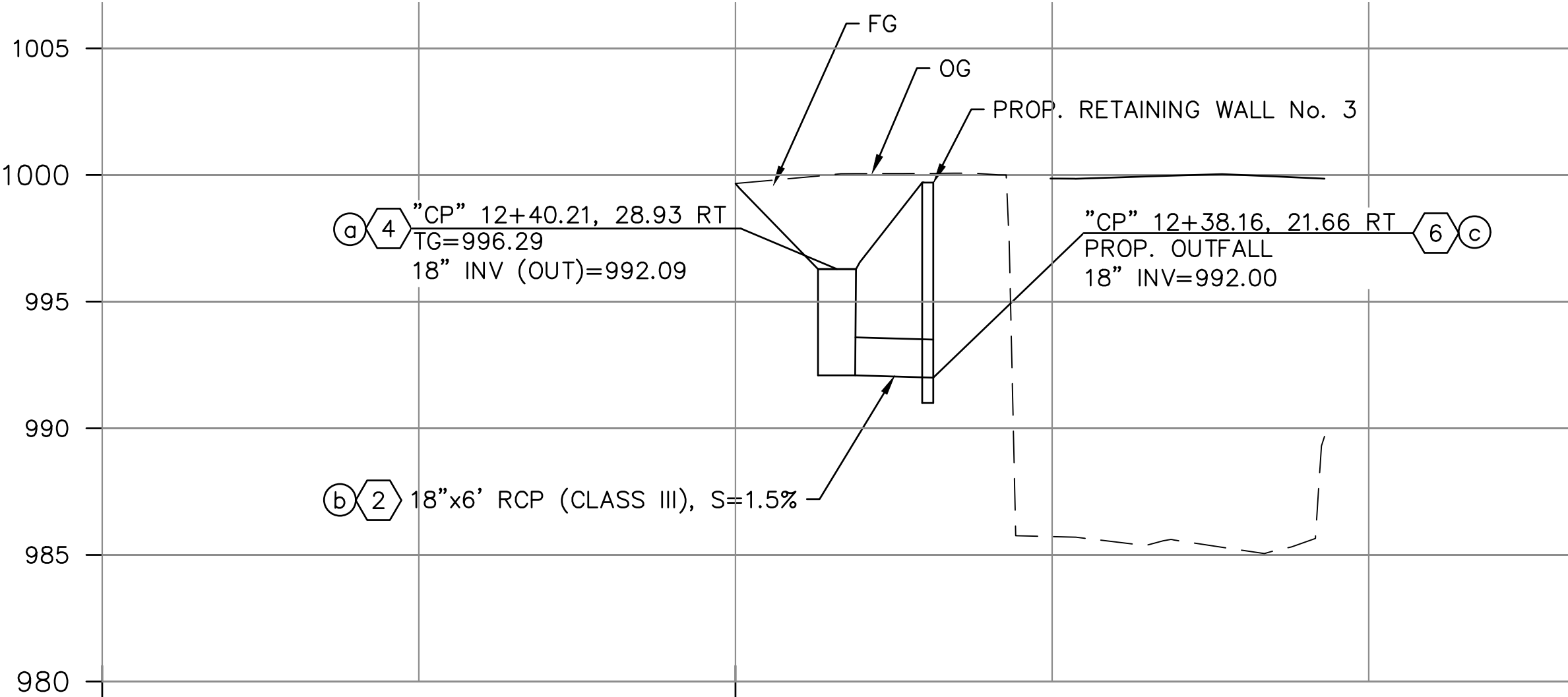
DATE:	12/17/2019	DESIGN:	E.MOHNEY
SCALE:	1:20	DRAWN:	J.LOK
FILE NAME:	09_D-1.DWG	CHKD:	E.EHSANI
SURVEY NOTE:			

SHEET TITLE	
DRAINAGE PLAN No. 1	
PROJECT TITLE	
CHILES-POPE VALLEY ROAD BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
PROJECT NUMBER	
20141065-12	
SHEET	D-1 9 OF 13

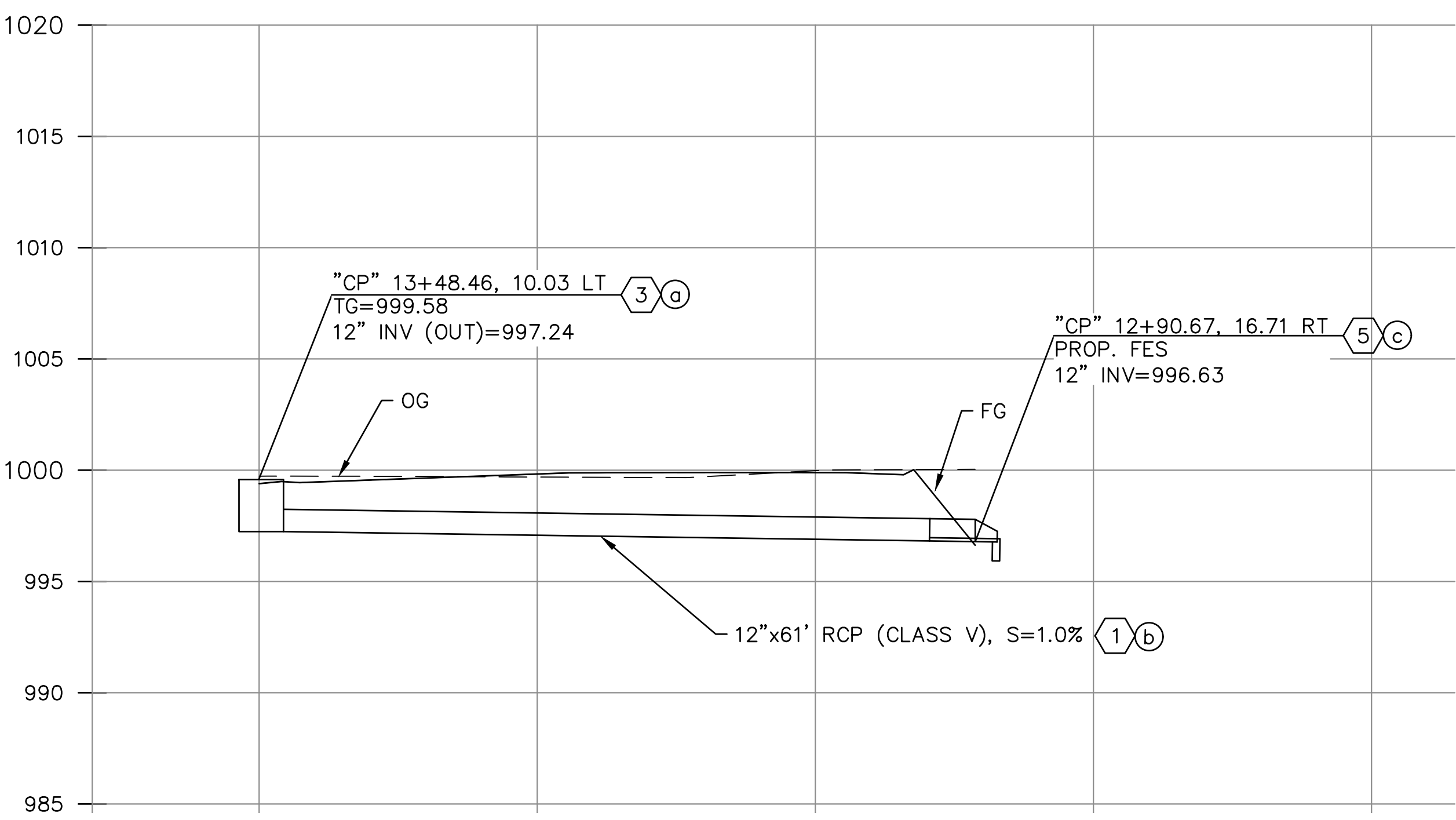
65% - NOT FOR CONSTRUCTION



DRAINAGE SYSTEM 1
SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 10'



DRAINAGE SYSTEM 3
SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 10'



DRAINAGE SYSTEM 2
SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 10'

- NOTES:**
1. STORM DRAIN DRAINAGE INLET DEEPENED 2' PER REQUEST OF COUNTY.
- KEY NOTES:**
- 1) INSTALL 12" STORM DRAIN (RCP)
 - 2) INSTALL 18" STORM DRAIN (RCP)
 - 3) INSTALL STORM DRAIN INLET TYPE G1 WITH TYPE 24-12X GRATE PER CALTRANS STD PLANS D73B AND D77B
 - 4) INSTALL STORM DRAIN INLET TYPE G1 WITH TYPE 24-9 GRATE PER CALTRANS STD PLANS D73B AND D77A
 - 5) INSTALL 12" CONCRETE FLARED END SECTION PER CALTRANS STD PLAN D94B
 - 6) INSTALL DRAINAGE OUTFALL THROUGH RETAINING WALL (SEE STRUCTURAL DRAWINGS)

65% - NOT FOR CONSTRUCTION

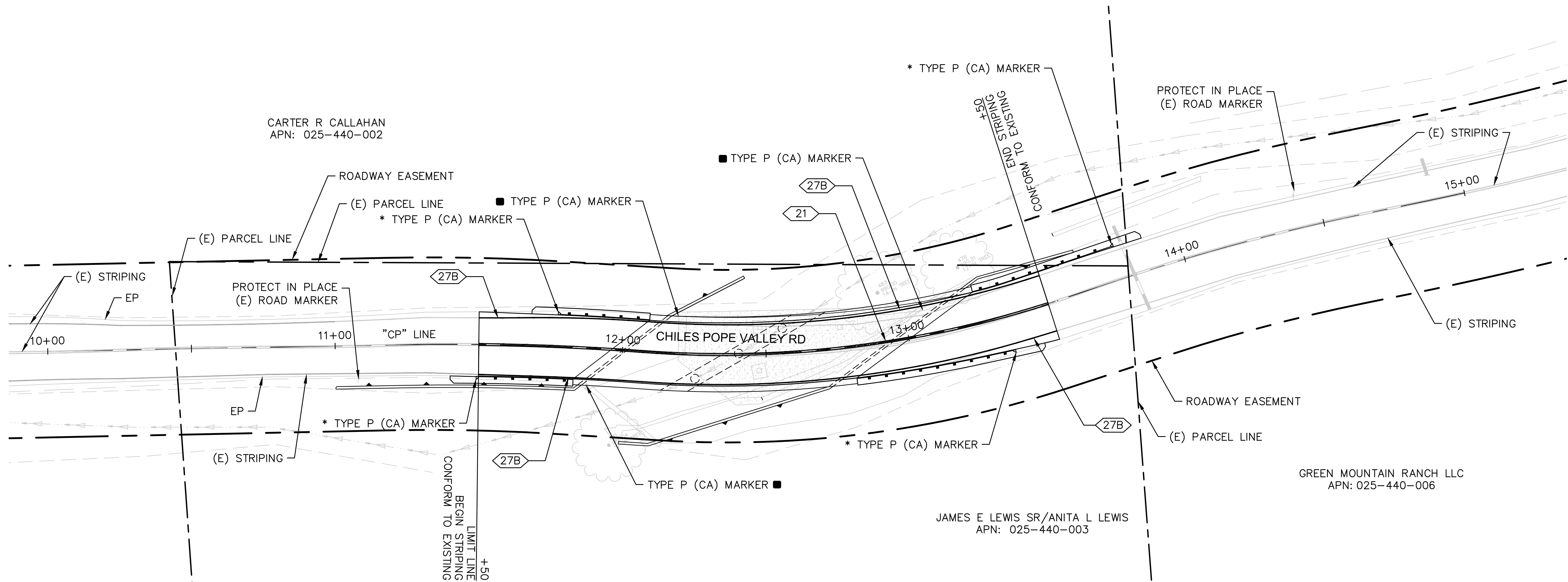
REV	REVISION TABLE	DATE
DESCRIPTION		



300 Frank H. Ogawa Plaza, Suite 380
Oakland, CA 94612
TEL. 510.899.7300

DATE:	12/17/2019	DESIGN:	E.MOHNEY
SCALE:		DRAWN:	J.LOK
FILE NAME:	10_DP-1.DWG	CHKD:	E.EHSANI
SURVEY NOTE:			

SHEET TITLE	
DRAINAGE PROFILES No. 1	
PROJECT TITLE	
CHILES-POPE VALLEY ROAD BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
PROJECT NUMBER	DP-1
20141065-12	SHEET 10 OF 13

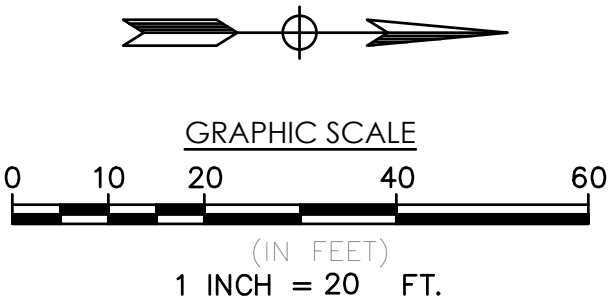


NOTES

- 1. ALL SIGNS ARE BASED ON THE CALIFORNIA 2014 MUTCD.
- 2. ALL PAVEMENT STRIPING AND MARKINGS SHALL BE THERMOPLASTIC.
- 3. REFLECTORS SHALL BE INSTALLED ON EVERY THIRD POST.

LEGEND:

- ROADWAY EASEMENT
- (E) PARCEL LINE
- (E) ROADSIDE MARKER
- (E) ROADSIDE MARKER TO BE REMOVED
- PROPOSED PAVEMENT DELINEATION DETAIL PER CALTRANS STANDARD PLANS 2015
- PROPOSED ROADSIDE MARKER
- INSTALL NEW ROADSIDE MARKER



65% - NOT FOR CONSTRUCTION

REVISION TABLE		
REV	DESCRIPTION	DATE



300 Frank H. Ogawa Plaza, Suite 380
Oakland, CA 94612
TEL. 510.899.7300

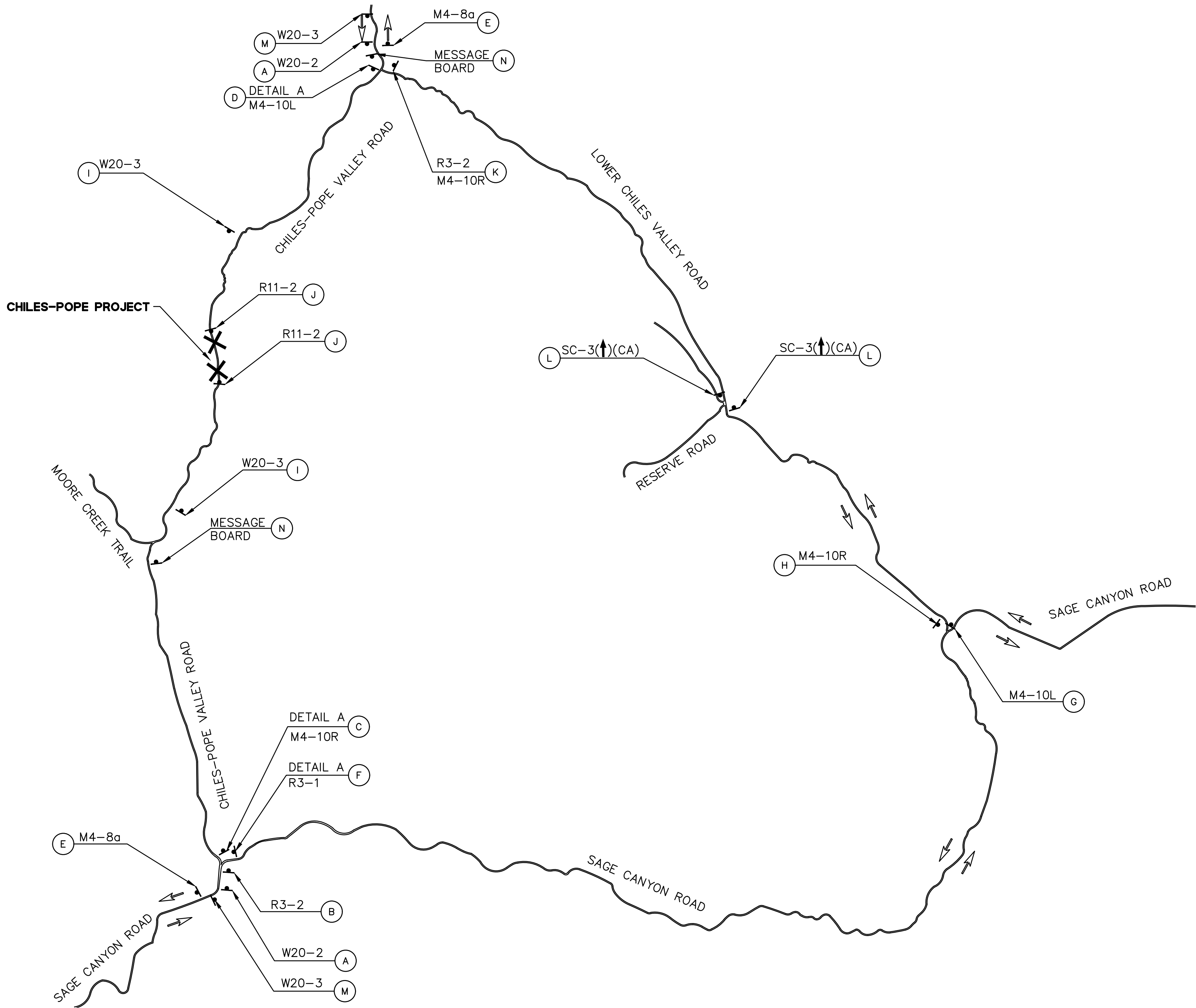
DATE:	12/17/2019	DESIGN:	E.MOHNEY
SCALE:	1" = 20'	DRAWN:	K.MAI
FILE NAME:	11_PD-1.DWG	CHKD:	E.EHSANI
SURVEY NOTE:			

SHEET TITLE
PAVEMENT DELINEATION
"CP" 13+00 TO 16+50

PROJECT TITLE
CHILES-POPE VALLEY ROAD
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

PROJECT NUMBER
20141065-12

PD-1
SHEET **11** OF **13**



- NOTES:**
- 1. ALL SIGNS ARE BASED ON THE CALIFORNIA 2014 MUTCD REVISION 2.
 - 2. FOR DETAILS REGARDING ROAD CLOSURE, SEE ROAD CLOSURE PLAN TC-1.

- LEGEND:**
- ROADWAY CLOSURE
 - DIRECTION OF TRAFFIC
 - INSTALL ROADSIDE SIGN

TEMPORARY DETOUR SIGNING

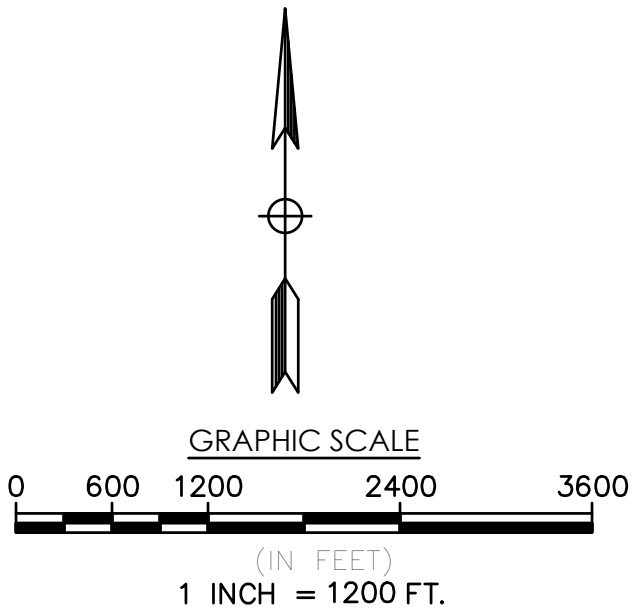
TYPE	EACH	REMARK
(A) W20-2	2	
(B) R3-2	1	
(C) DETAIL A M4-10R	1 1	SIGNS SHALL BE MOUNTED ON BARRICADE
(D) DETAIL A M4-10L	1 1	SIGNS SHALL BE MOUNTED ON BARRICADE
(E) M4-8a	2	
(F) DETAIL A R3-1	1	
(G) M4-10L	1	
(H) M4-10R	1	
(I) W20-3	2	
(J) R11-2	2(3 SIGNS)	SIGNS SHALL BE MOUNTED ON 3 BARRICADES (1 EACH) ALONG CHILES-POPE VALLEY ROAD
(K) R3-2 M4-10R	1	
(L) SC-3(↑)(CA)	2	
(M) W20-3	2	
(N) MESSAGE BOARD	2	MESSAGE SHALL INFORM DRIVERS OF ROAD CLOSURE IN ADVANCE OF DETOUR DURATION

ROAD CLOSED
LOCAL TRAFFIC ONLY

60" x 30"

6" UC
4" UC

DETAIL A



65% - NOT FOR CONSTRUCTION

REVISION TABLE		
REV	DESCRIPTION	DATE



Bkf
ENGINEERS / SURVEYORS / PLANNERS

300 Frank H. Ogawa Plaza, Suite 380
Oakland, CA 94612
TEL. 510.899.7300

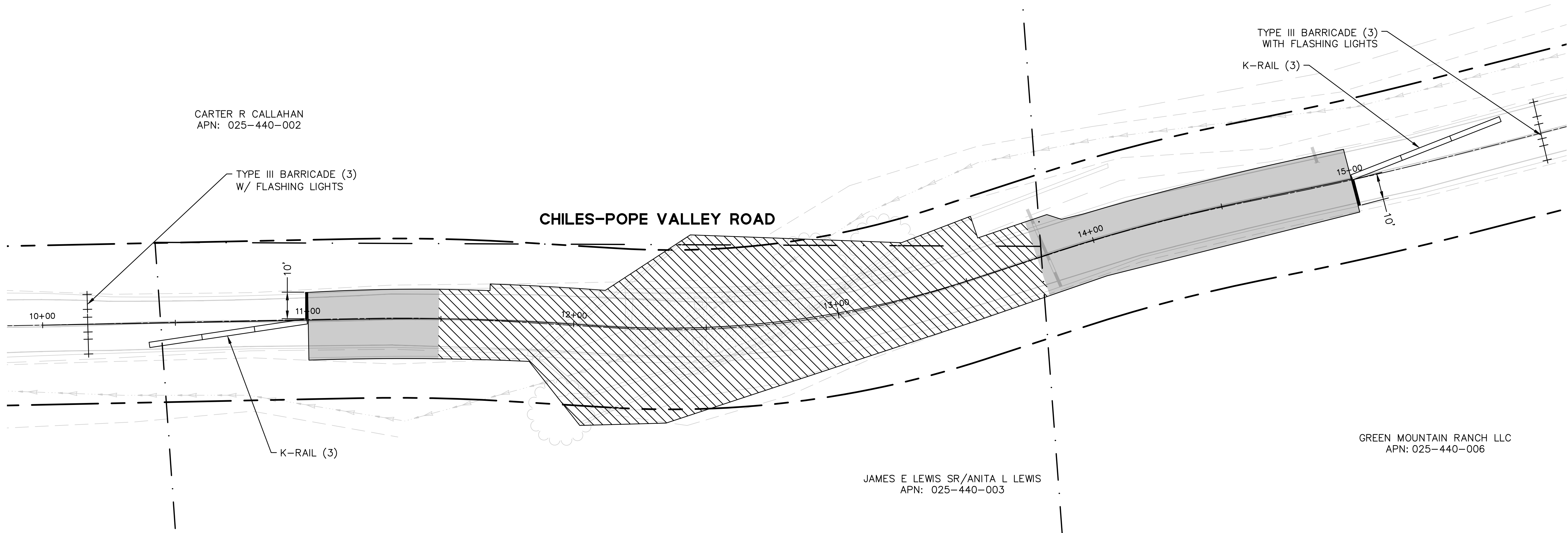
DATE: 12/17/2019		DESIGN: E.MOHNEY	
SCALE: 1:1200		DRAWN: J.LOK	
FILE NAME: 12_DE-1.DWG		CHKD: E.EHSANI	
SURVEY NOTE:			

SHEET TITLE
DETOUR ROUTE

PROJECT TITLE
CHILES-POPE VALLEY ROAD
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

PROJECT NUMBER
20141065-12

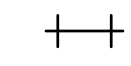
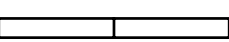
DE-1
SHEET 12 OF 13



NOTES:

1. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT DELINEATION WHICH CONFLICT WITH THIS PLAN.
2. LOCATIONS OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. DIMENSIONS GIVEN ARE TO THE FACE OF K-RAIL FACING THE TRAVELED WAY.
4. SEE DE-1 FOR DETOUR PLANS.
5. BARRICADES SHALL BE INSTALLED WITH ROAD CLOSURE SIGN (R11-2) AND FLASHING WARNING LIGHTS PER CA MUTCD 2014.

LEGEND:

-  TYPE III BARRICADE (SEE NOTE 5)
-  CONSTRUCTION LIMITS
-  ADDITIONAL STAGE CONSTRUCTION AREA
-  TEMPORARY RAILING (TYPE K)
-  CONSTRUCTION ACCESS GATE

65% - NOT FOR CONSTRUCTION

REVISION TABLE		
REV	DESCRIPTION	DATE





BKF
ENGINEERS / SURVEYORS / PLANNERS

300 Frank H. Ogawa Plaza, Suite 380
Oakland, CA 94612
TEL. 510.899.7300

DATE: 12/17/2019		DESIGN: E.MOHNEY	
SCALE: 1:20		DRAWN: J.LOK	
FILE NAME: 13_TC-1.DWG		CHKD: E.EHSANI	
SURVEY NOTE:			

SHEET TITLE

ROAD CLOSURE PLAN

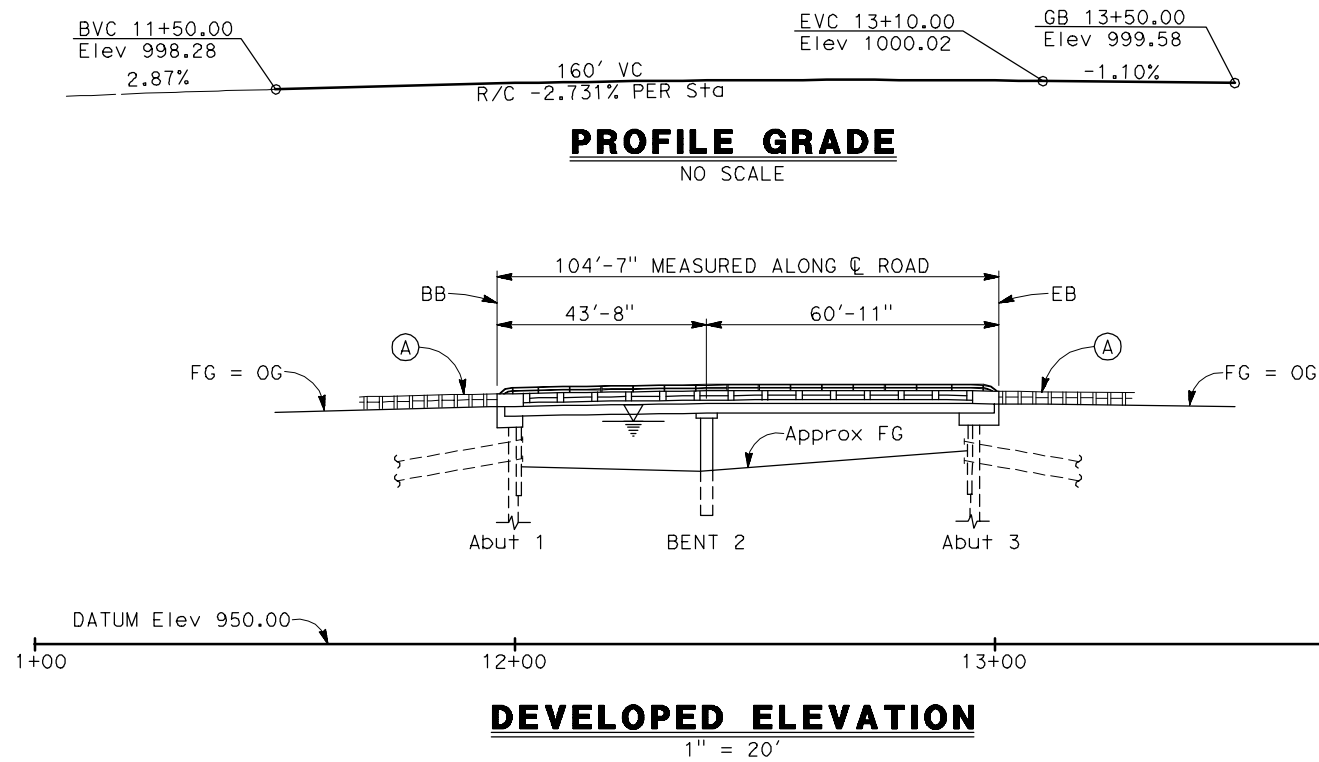
PROJECT TITLE

CHILES-POPE VALLEY ROAD
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

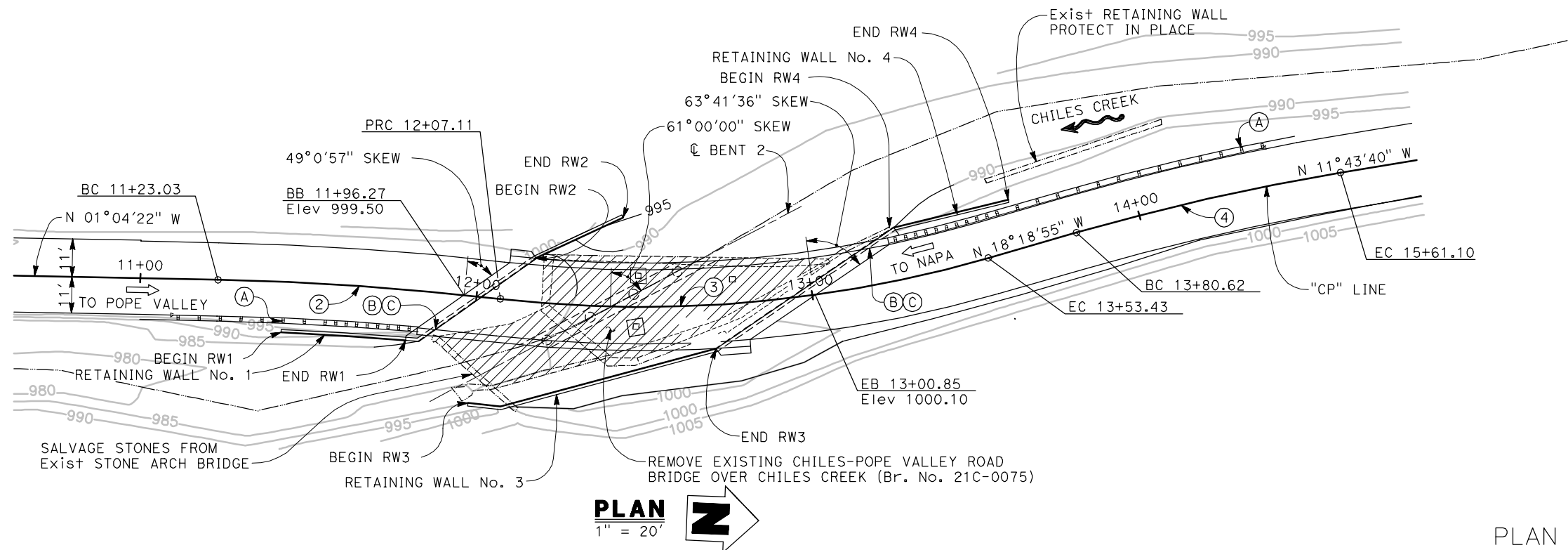
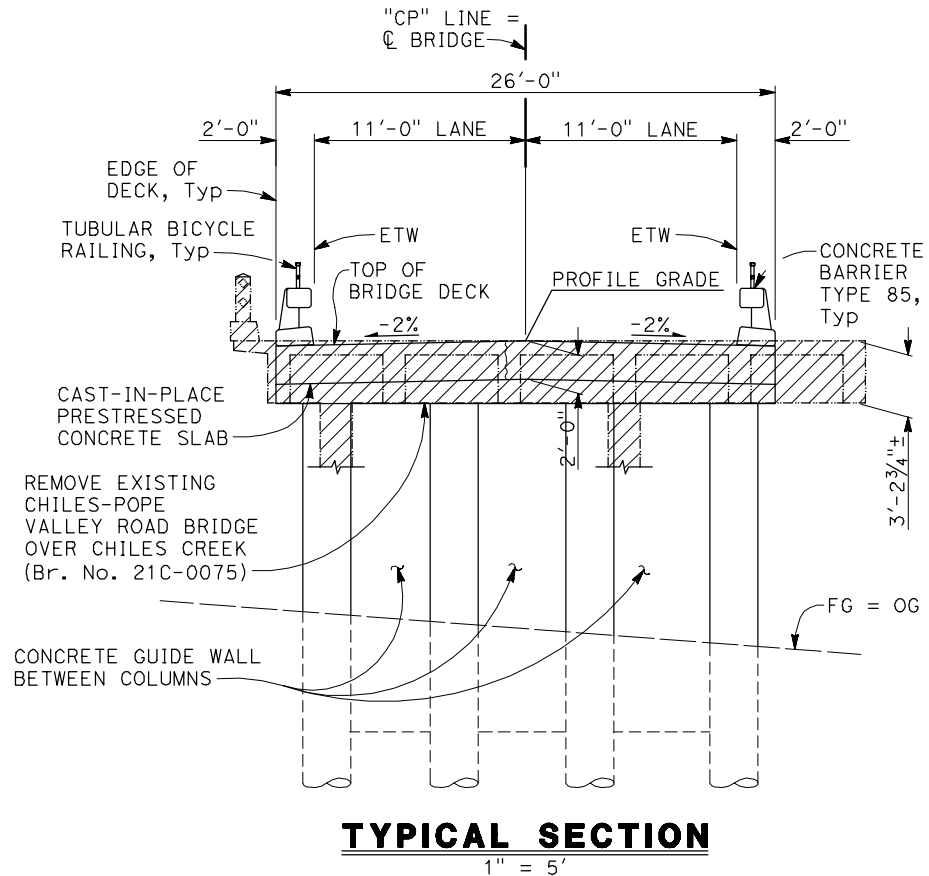
PROJECT NUMBER

20141065-12

TC-1
SHEET **13** OF **13**



- VEHICULAR TRAFFIC**
1. New alignment. No traffic at the site.
 2. Traffic will be detoured away from the site.
 3. Traffic will be carried on the structure. Stage construction will/will not be required.
 4. Traffic will pass under the structure on _____ (Name of St. or Hwy.)
- A. No falsework allowed over traffic.
- B. Falsework opening(s) required:
- | | Temporary Vertical Clearance | Width of Traffic Opening |
|-----------|------------------------------|--------------------------|
| — Bnd | _____ | _____ |
| — Bnd | _____ | _____ |
| — Two-way | _____ | _____ |
- C. Temporary traffic lane reduction needed for footing excavation.
- PEDESTRIAN TRAFFIC:** N/A



- LEGEND:**
- Indicates Bridge Removal
 - Indicates Existing Structure
 - Indicates Traffic Direction
 - Indicates Direction of Flow

- NOTES:**
- (A) Midwest Guardrail System, see "ROADWAY PLANS"
 - (B) Point "Bridge No. xx-xxxx"
 - (C) Point "Chiles-Pope Valley Road Bridge Over Chiles Creek"

CURVE ALIGNMENT DATA				
No.	R	Δ	TANGENT	LENGTH
②	900.00'	05°21'11"	42.07'	84.09'
③	371.00'	22°35'44"	74.12'	146.31'
④	700.00'	06°35'15"	40.28'	80.48'

PLAN CHECK SET/NOT FOR CONSTRUCTION (1/3/20)

REV	DESCRIPTION	DATE

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 6/15/18
SCALE: AS SHOWN
FILE NAME: 2015260AS1.dwg
SURVEY NOTE:

DESIGN: NBP
DRAWN: SMH
CHKD:

SHEET TITLE
GENERAL PLAN

PROJECT TITLE
CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

LOP 3-15

S-1
SHEET 1 OF XX



2015260A (2015260AS1)

2018 CALTRANS STANDARD PLANS

A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A10A	LEGEND - LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LEGEND - LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGEND - LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGEND - LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGEND - LINES AND SYMBOLS (SHEET 5 OF 5)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOLID (SHEET 2 OF 2)
A10H	ROCK
A62B	LIMITS OF PAVEMENT EXCAVATION AND BACKFILL BRIDGE SURCHARGE AND WALL
A62C	LIMITS OF PAVEMENT EXCAVATION AND BACKFILL BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 1")

INDEX TO BRIDGE PLANS

SHEET	TITLE
S-1	GENERAL PLAN
S-2	GENERAL NOTES
S-3	DECK CONTOURS
S-4	FOUNDATION PLAN
S-5	DEMOLITION PLAN
S-6	ABUTMENT-1 LAYOUT
S-7	ABUTMENT-3 LAYOUT
S-8	ABUTMENT LAYOUT No.1
S-9	ABUTMENT LAYOUT No.2
S-10	ABUTMENT DETAILS No.1
S-11	ABUTMENT DETAILS No.2
S-12	ABUTMENT DETAILS No.3
S-13	ABUTMENT DETAILS No.4
S-14	ABUTMENT DETAILS No.5
S-15	BENT 2 LAYOUT
S-16	BENT 2 DETAILS No.1
S-17	TYPICAL SECTION
S-18	PRESTRESSING DETAILS
S-19	DECK REINFORCEMENT DETAILS
S-20	RETAINING WALL KEY PLAN
S-21	RETAINING WALL No.1 GENERAL PLAN
S-22	RETAINING WALL No.2 GENERAL PLAN
S-23	RETAINING WALL No.3 GENERAL PLAN
S-24	RETAINING WALL No.4 GENERAL PLAN
S-25	RETAINING WALL No.1 LAYOUT
S-26	RETAINING WALL No.2 LAYOUT
S-27	RETAINING WALL No.3 LAYOUT
S-28	RETAINING WALL No.4 LAYOUT
S-29	RETAINING WALL PILE DATA TABLE
S-30	SOLDIER PILE WALL DETAILS No.1
S-31	SOLDIER PILE WALL DETAILS No.2
S-32	LOGS OF TESTING BORINGS No.1

LEGEND:

B7-11

U42

Indicates Standard Plan sheet No.

A

S5

Indicates Section No.

1

S6

Indicates Detail No.

1

S6

Indicates sheet No. shown on

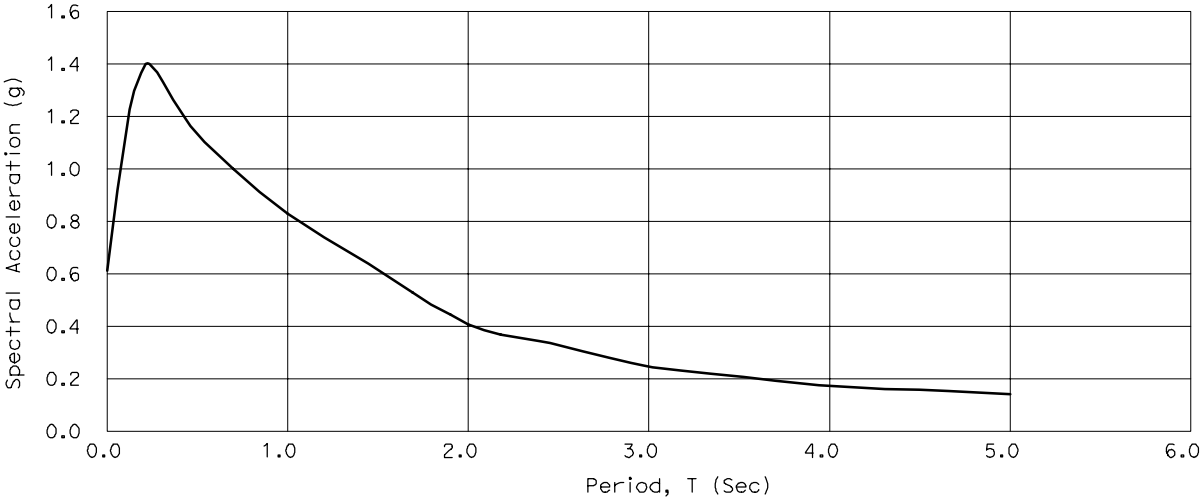
ABBREVIATIONS

Eq EQUAL

GENERAL NOTES

LOAD & RESISTANCE FACTOR DESIGN

DESIGN:	AASHTO LRFD Bridge Design Specifications, 8th Edition with California Amendments, preface dated August 2019 Geotechnical Report by Parikh Consultant Inc., dated xxx
SEISMIC DESIGN:	Caltrans Seismic Design Criteria (SDC) Version 2.0
DEAD LOAD:	Includes 35 psf for future wearing surface.
LIVE LOAD:	HL93 and permit design load
SEISMIC LOAD:	Soil profile: Type D Vs30 = 1150 FPS Moment magnitude: MMax = 7.4 Peak ground acceleration: 0.611g



ARS DESIGN CURVE

NO SCALE

CONCRETE & REINF:	ASTM Designation: A706 fy = 60,000 psi f'c = 3600 psi (except as shown on "CONCRETE STRENGTH & TYPE LIMITS" diagram) n = 8
-------------------	---

PRESTRESSED CONCRETE: See "Prestressing Notes" on "PRESTRESSING DETAILS" sheet

STRUCTURAL STEEL:	Steel Piles ASTM Designation: A572/A, A572M Grade 50 Min or A992/A992M GRADE 50
	Steel Plates ASTM Designation: ASTM A572/A572M Grade 50
	Welded Studs ASTM Designation: A108, AASHTO/AWS D1.5
	Welding AWS D1.1

PRESTRESSING STEEL:

Bars - ASTM Designation: A722 Type II (150 ksi)
Strand Tendons-ASTM Designation: A416 (270 Ksi Low Relaxation steel)

FDL = Factored Design Load on Ground Anchor (kips)
FTL = Factored Test Load per anchor (Kips) = 1.0 FDL
LL = Lock-off Load (Kips) = 0.55 FDL
fpu = Minimum tensile strength of prestressing steel
As = Minimum cross sectional area of prestressing steel in ground anchor (square inch)

$$As(\text{Min}) = \frac{1.0 \text{ FTL}}{0.75 \text{ fpu}} \text{ (Strands)}$$

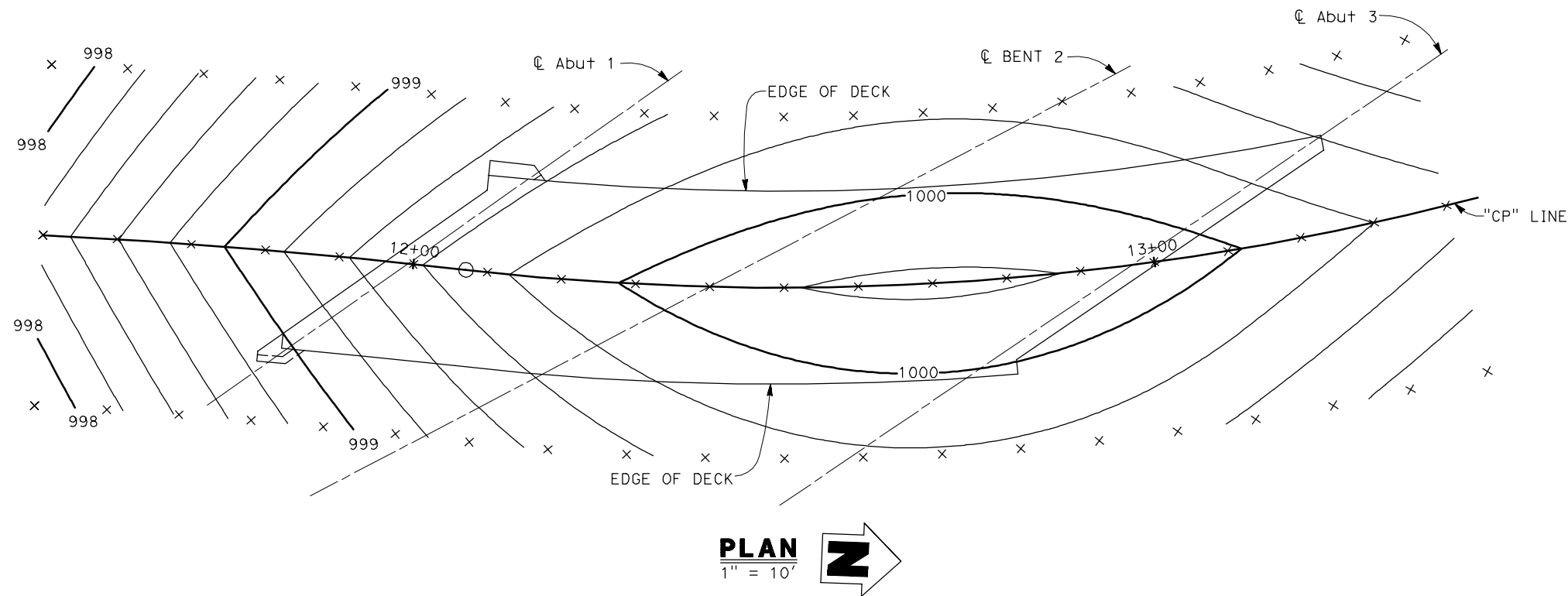
$$As(\text{Min}) = \frac{1.0 \text{ FTL}}{0.80 \text{ fpu}} \text{ (Bars)}$$

For FDL, see "GROUND ANCHOR DATA TABLE" on "RETAINING WALL LAYOUT No. 2" sheet

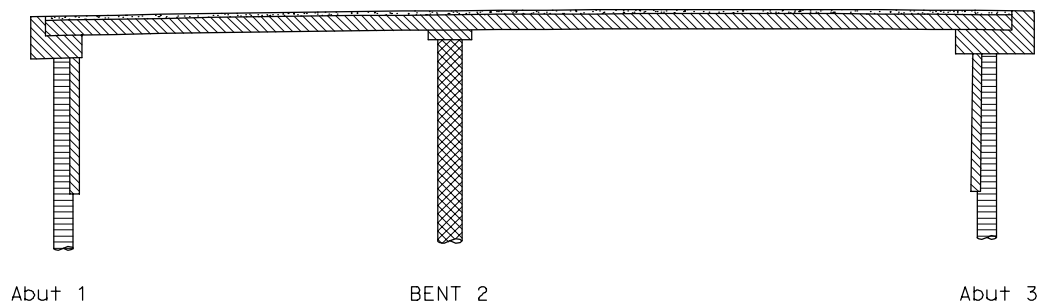
PLAN CHECK SET/NOT FOR CONSTRUCTION (1/3/20)

	REVISION TABLE				BIGGS CARDOSA ASSOCIATES INC STRUCTURAL ENGINEERS 865 The Alameda San Jose, California 95128 408-296-5515	SHEET TITLE	
REV	DESCRIPTION	DATE				GENERAL NOTES	
						PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK	
						BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
						LOP 3-15	S-2
						SHEET 2 OF XX	

2015260A (2015260AS2)



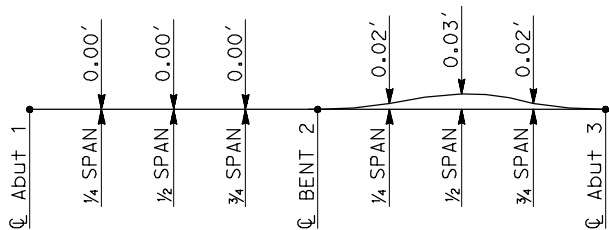
- NOTES:
1. Contours indicate top of deck elevation.
 2. x Indicates 10 foot intervals measured along "CP" Line.
 3. Contour interval = 0.2'
 4. Contours do not include camber or falsework settlement.



- STRUCTURAL CONCRETE, BRIDGE ($f'_c = 3.6$ ksi)
- STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER) ($f'_c = 4$ ksi)
- CAST-IN-PLACE PRESTRESSED CONCRETE SLAB, SEE "PRESTRESSING NOTES" ON "PRESTRESSING DETAILS" SHEET ($f'_c = 6,5$ ksi)
- STRUCTURAL CONCRETE BRIDGE FOOTING ($f'_c = 3.6$ ksi)
- CIDH CONCRETE ($f'_c = 3.6$ ksi)

CONCRETE STRENGTH AND TYPE LIMITS

NO SCALE



CAMBER DIAGRAM

NO SCALE

PLAN CHECK SET/NOT FOR CONSTRUCTION (1/3/20)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 10/5/17
SCALE: AS SHOWN
FILE NAME: 2015260AS3.dwg
SURVEY NOTE:



DESIGN: RKY
DRAWN: SMH
CHKD:

SHEET TITLE	
DECK CONTOURS	
PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(060)	
S-3	
SHEET 3 OF	

2015260A-S3

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

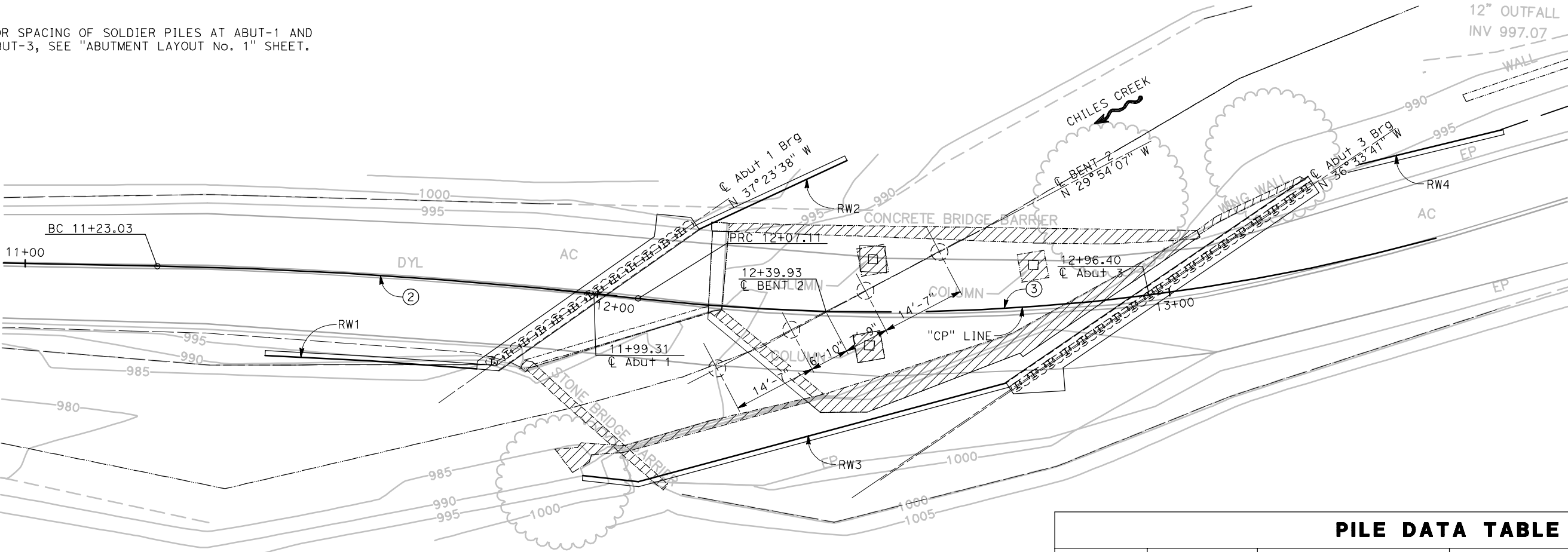
- LEGEND:
- × 445.1 INDICTAES SPOT ELEVATION
 - INDICATES BRIDGE REMOVAL
 - INDICATES EXISTING STRUCTURE
 - INDICATES DIRECTION OF FLOW
 - INDICATES STEEL SOLDIER PILE
 - INDICATES CIDH PILE EXTENSION

NOTE:
1. FOR SPACING OF SOLDIER PILES AT ABUT-1 AND ABUT-3, SEE "ABUTMENT LAYOUT No. 1" SHEET.

SCOUR DATA TABLE		
SUPPORT No.	LONG TERM (DEGRADATION AND CONTRACTION SCOUR DEPTH ELEVATION (ft))	SHORT TERM (LOCAL) SCOUR DEPTH ELEVATION (ft)
ABUTMENT 1	N/A	983.5
BENT 2	N/A	982
ABUTMENT 3	N/A	983.5

*HYDROLOGIC SUMMARY

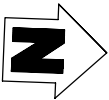
	DESIGN FLOOD	BASE FLOOD
FREQUENCY (YEARS)	50	100
DISCHARGE (CUBIC FEET PER SECOND)	2,400	2,780
WATER SURFACE (ELEVATION IN FEET AT UPSTREAM FACE OF BRIDGE)	995.4	996.5



CURVE ALIGNMENT DATA				
No.	R	Δ	TANGENT	LENGTH
②	900.00'	05°21'11"	42.07'	84.09'
③	371.00'	22°35'44"	74.12'	146.31'
④	700.00'	06°35'15"	40.28'	80.48'

FOUNDATION PLAN

1" = 10'



PILE DATA TABLE

Location	Pile Type	Nominal Resistance (kips)		Design Tip Elev (ft)	Specified Tip Elev (ft)
		Compression	Tension		
Abut 1	W14x74 (WITHIN 24" Dia CIDH)	270	-	967.0(a); -- (b); 978.00(c)	967.0
BENT 2	36" CIDH	930	-	953.0(a); -- (b); 962.00 (c)	953.0
Abut 3	W14x74 (WITHIN 24" Dia CIDH)	400	-	962.0(a); -- (b); 980.00 (c)	962.0

- NOTES:
- Design tip elevations for Abutments and Bents are controlled by:
(a) Compression, (b) Tension, (c) Lateral load.
 - The specified tip elevation shall not be raised.

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/23/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

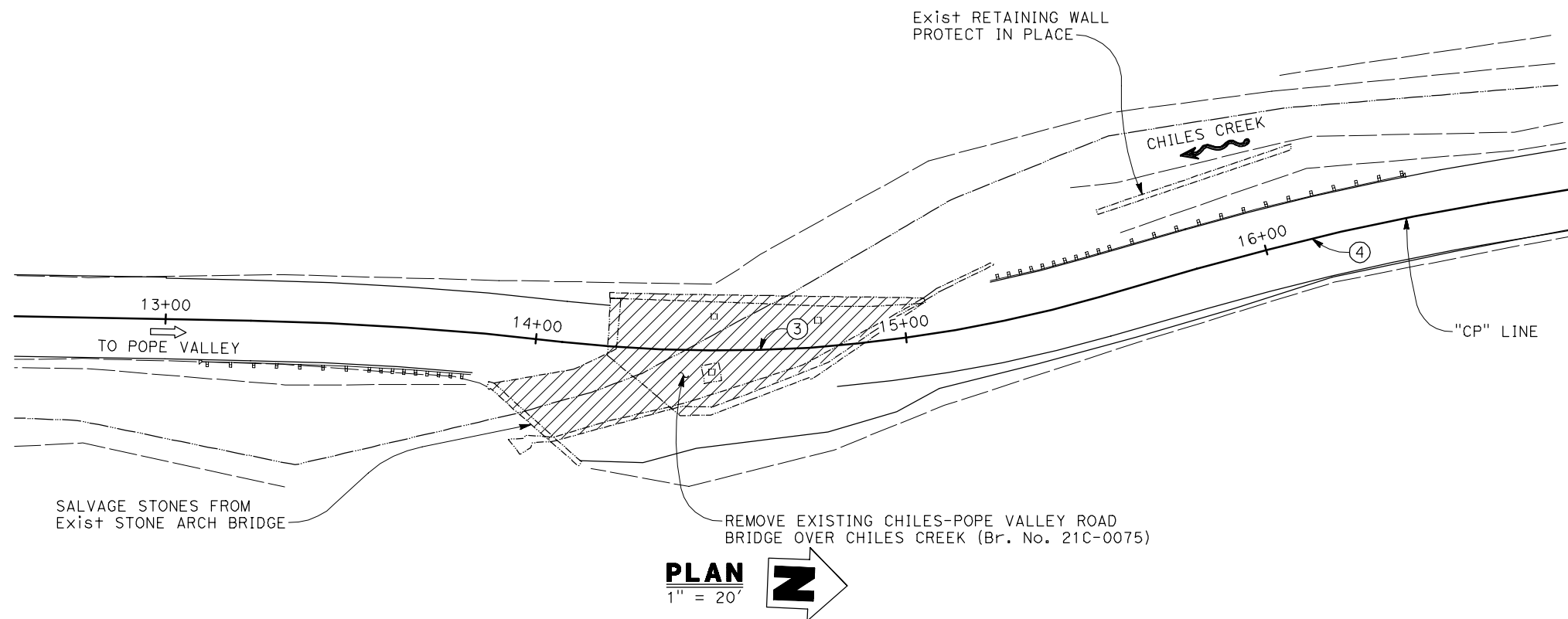
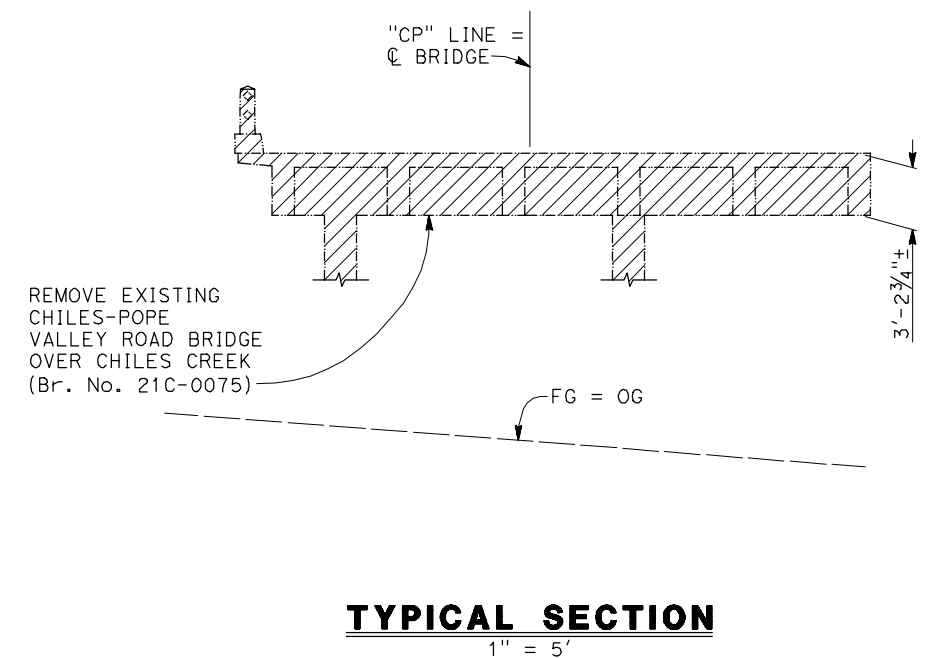
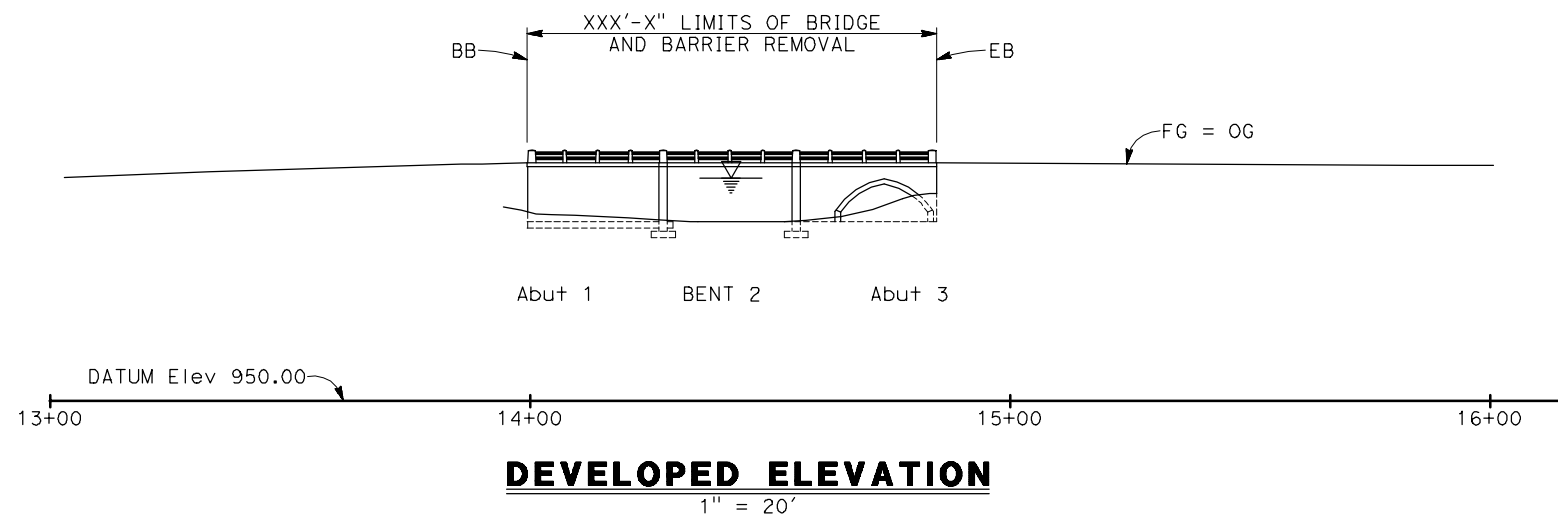
865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 6/15/18
SCALE: AS SHOWN
FILE NAME: 2015260AS4.dwg
SURVEY NOTE:



DESIGN: NBP
DRAWN: SMH
CHKD:

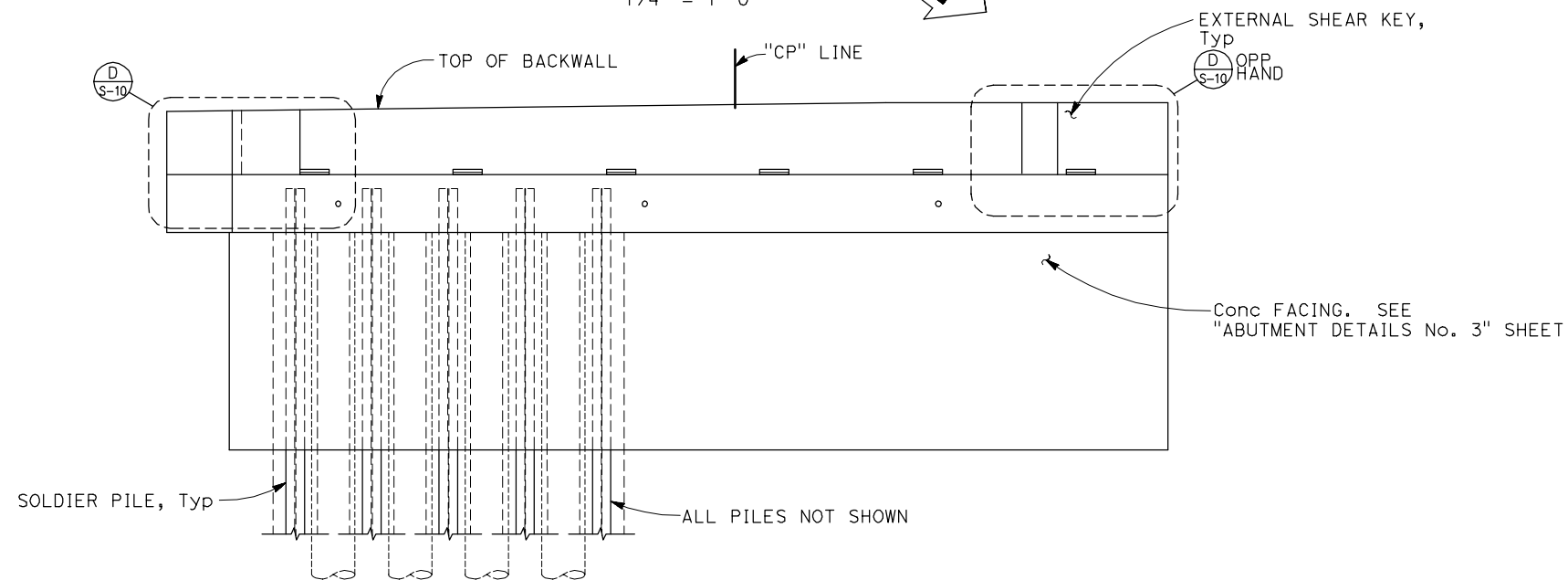
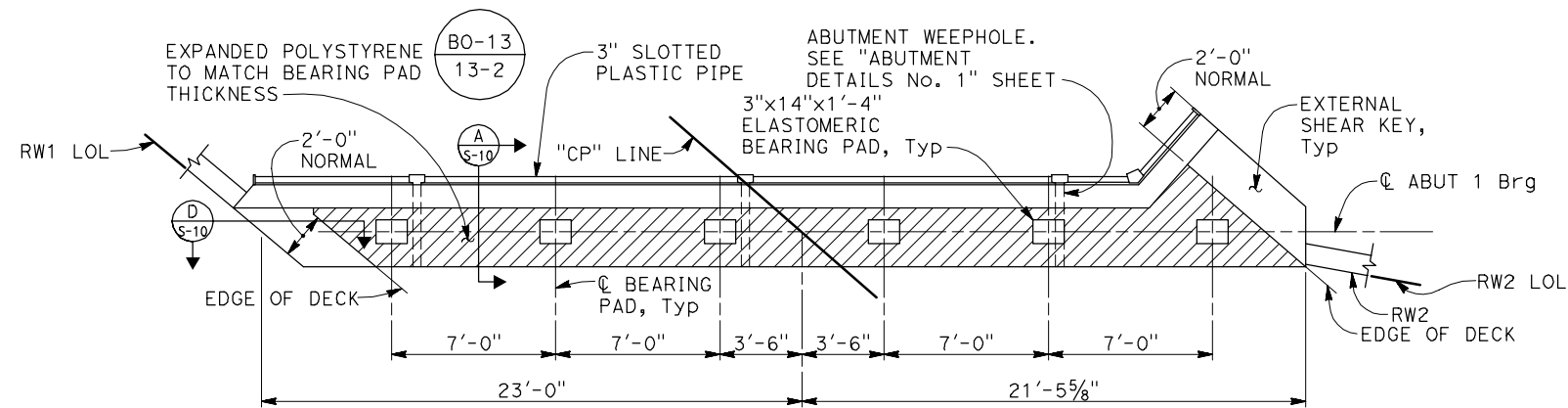
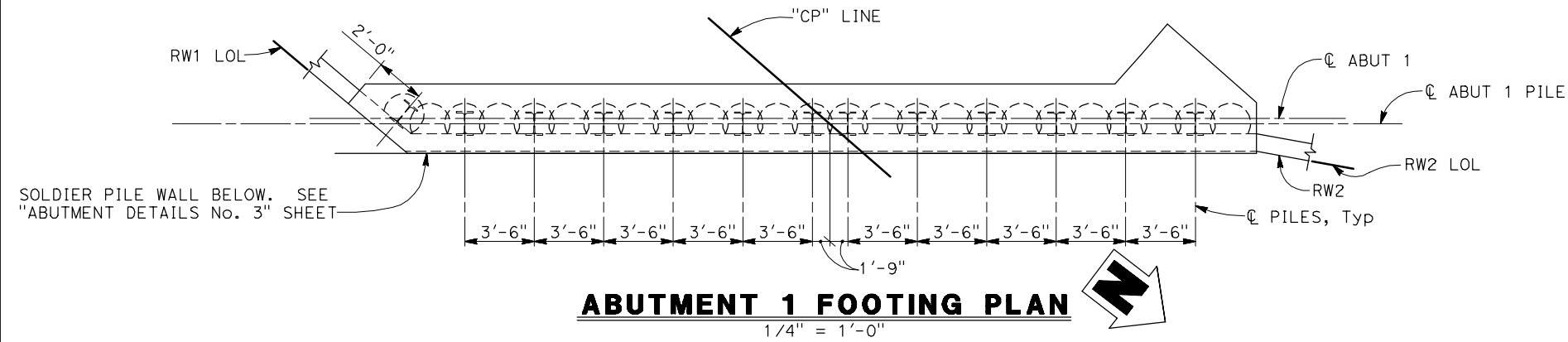
SHEET TITLE	
FOUNDATION PLAN	
PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-4
SHEET 4 OF XX	



- LEGEND:
- Indicates Bridge Removal
 - Indicates Existing Structure
 - Indicates Direction of Flow

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/4/19)

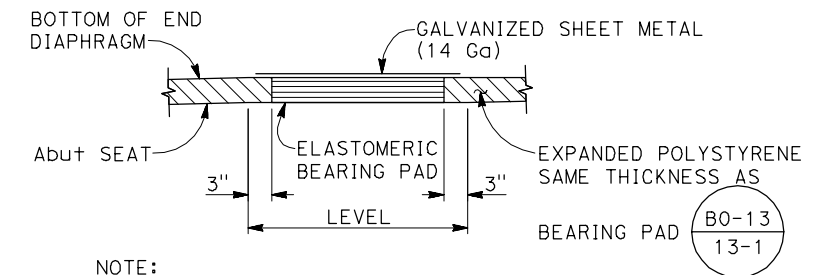
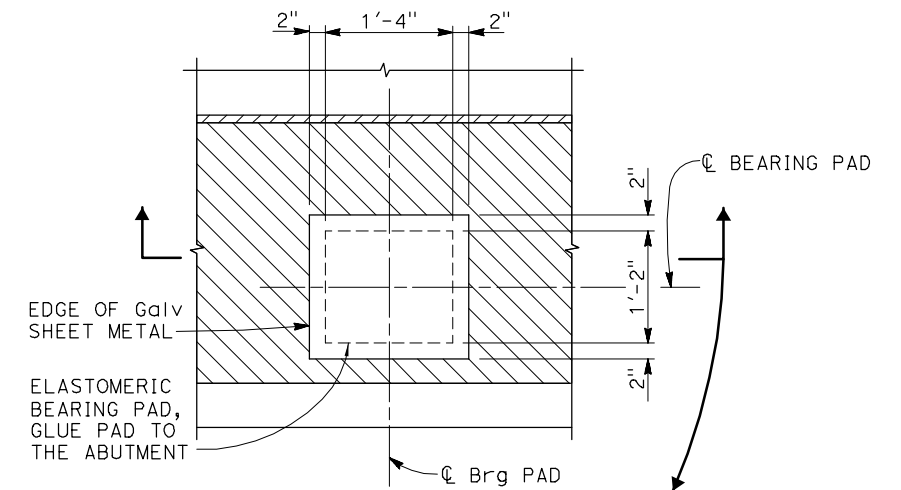
	REVISION TABLE				BIGGS CARDOSA ASSOCIATES INC STRUCTURAL ENGINEERS			SHEET TITLE	
REV	DESCRIPTION	DATE			865 The Alameda San Jose, California 95126 408-296-5515			DEMOLITION PLAN	
					DATE: 5/23/19			DESIGN: NBP	
					SCALE: AS SHOWN			DRAWN: AR	
					FILE NAME: 2015260AS.dwg			CHKD:	
					SURVEY NOTE:				
					PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)		LOP 3-15		S-5 SHEET 5 OF XX



- NOTE:
- For soldier pile, see "ABUTMENT DETAILS No. 3" sheet.
 - For geocomposite drain, see sheet "ABUTMENT 3 LAYOUT" sheet.
 - For pile tip elevation see "PILE DATA TABLE" on "FOUNDATION PLAN" sheet.

LEGEND:

Indicates Vertical Pile



NOTE:

Coat top of bearing pad w/ silicon grease.

DETAIL 1
1" = 1'-0"

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/17/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 5/24/18

SCALE: AS SHOWN

FILE NAME: 2015260AS6.dwg

SURVEY NOTE:

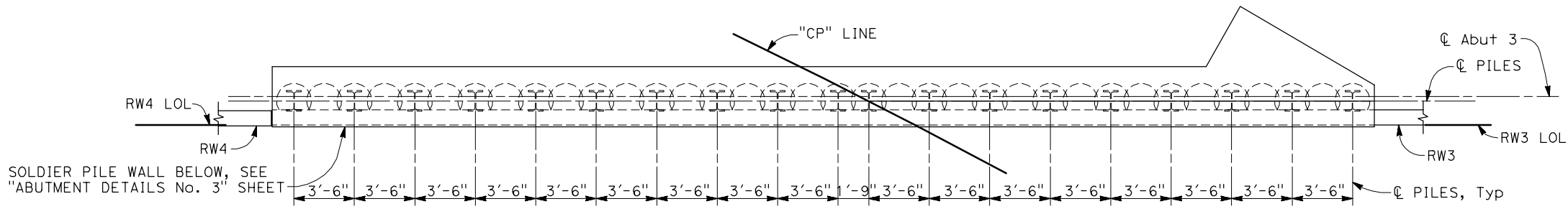
BCA

DESIGN: NBP

DRAWN: AR

CHKD:

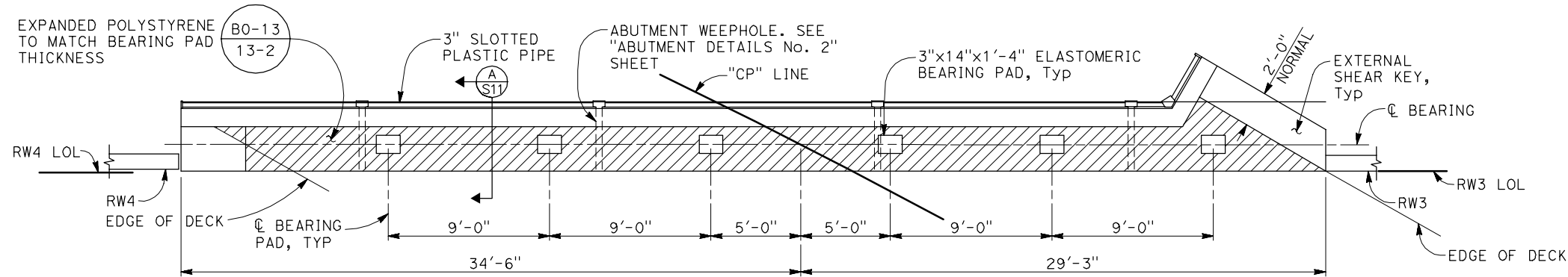
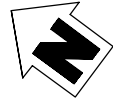
SHEET TITLE	
ABUTMENT 1 LAYOUT	
PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-6
SHEET 6 OF XX	



SOLDIER PILE WALL BELOW, SEE "ABUTMENT DETAILS No. 3" SHEET

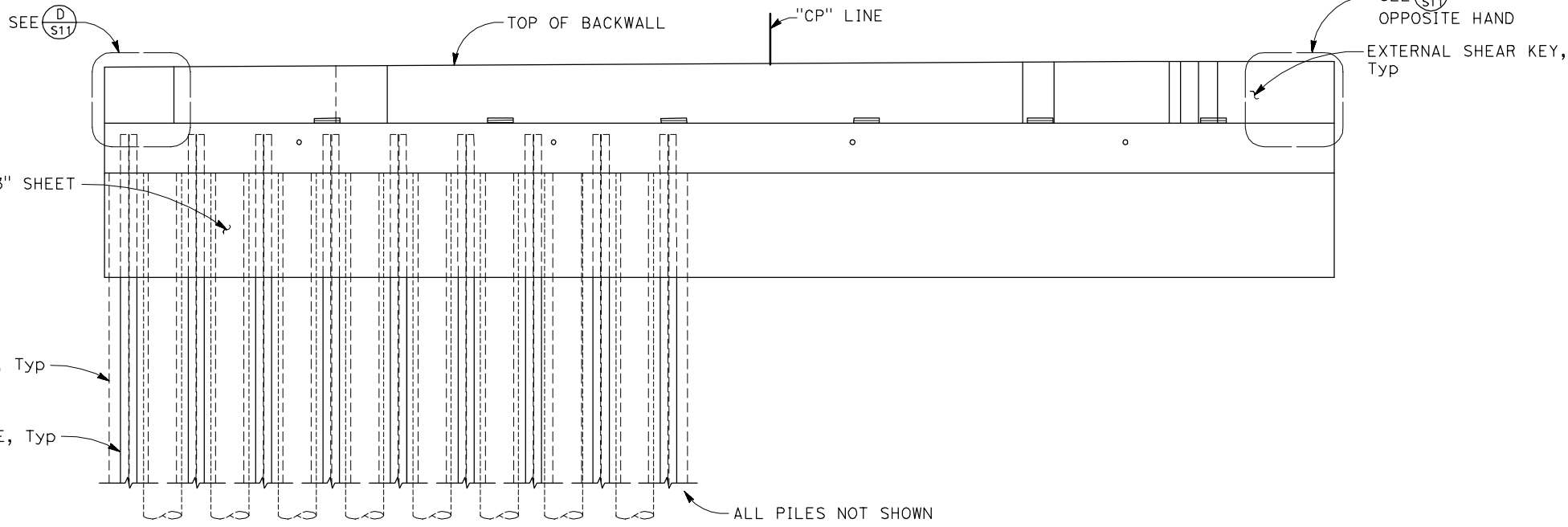
ABUTMENT 3 FOOTING PLAN

1/4" = 1'-0"



ABUTMENT 3 PLAN

1/4" = 1'-0"



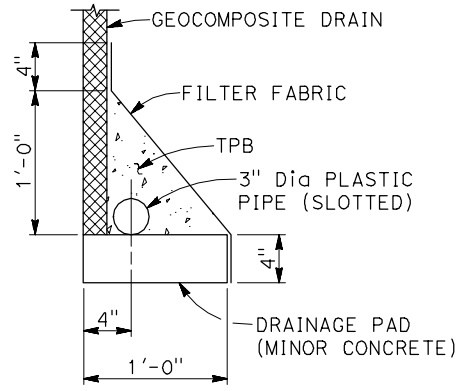
ABUTMENT 3 ELEVATION

1/4" = 1'-0"

- NOTES:
1. For soldier pile, see "ABUTMENT DETAILS No. 3" sheet.
 2. For elastomeric bearing pad, see sheet "ABUTMENT 1 LAYOUT" sheet.

LEGEND:

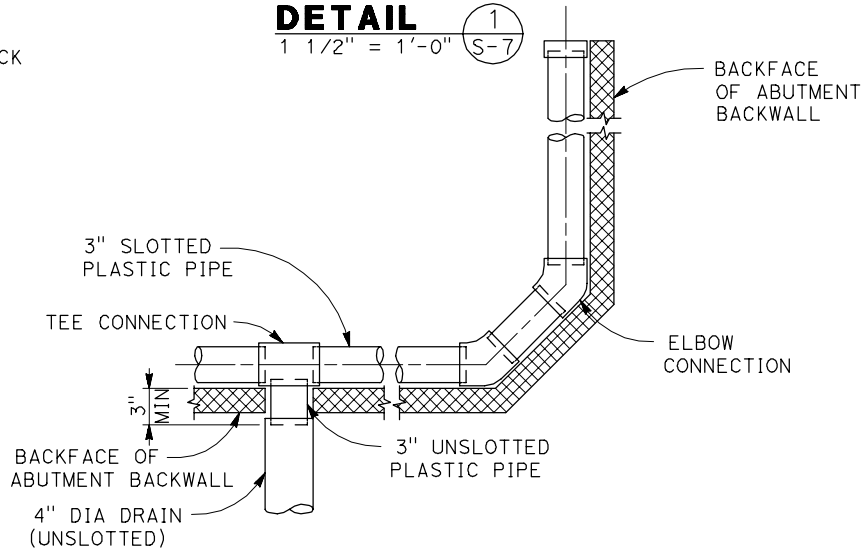
(T) Indicates Vertical Pile



DETAIL 1

1 1/2" = 1'-0"

S-7



DETAIL 2

1 1/2" = 1'-0"

S-7

NOTE:
GEOCOMPOSITE DRAIN, TREATED PERMEABLE BASE, AND 3"Ø SLOTTED PLASTIC PIPE CONTINUOUS BEHIND ABUTMENT AND WINGWALLS. CAP ENDS OF PIPE. PROVIDE 'TEE' CONNECTION AT EACH 4"Ø DRAIN.

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/31/19)

REVISION TABLE		
REV	DESCRIPTION	DATE

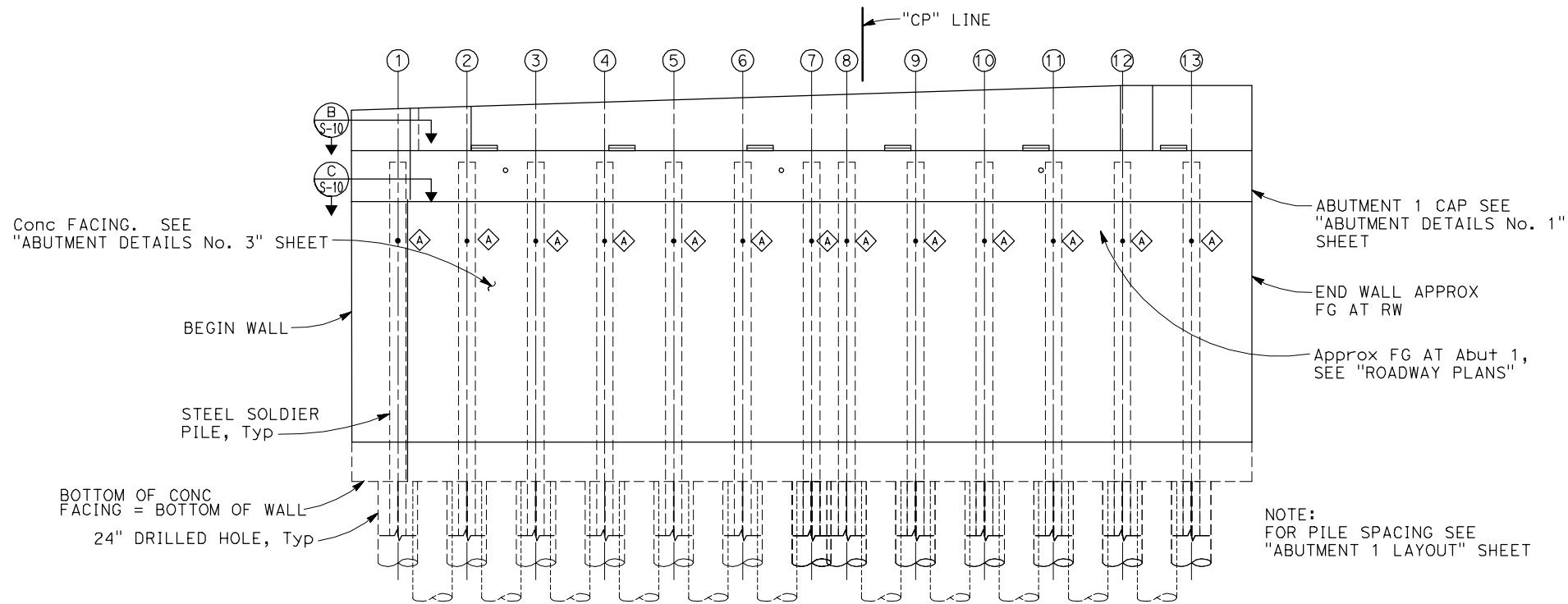


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San Jose, California 95128
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DATE: 5/24/18
SCALE: AS SHOWN
FILE NAME: 2015260AS7.dwg
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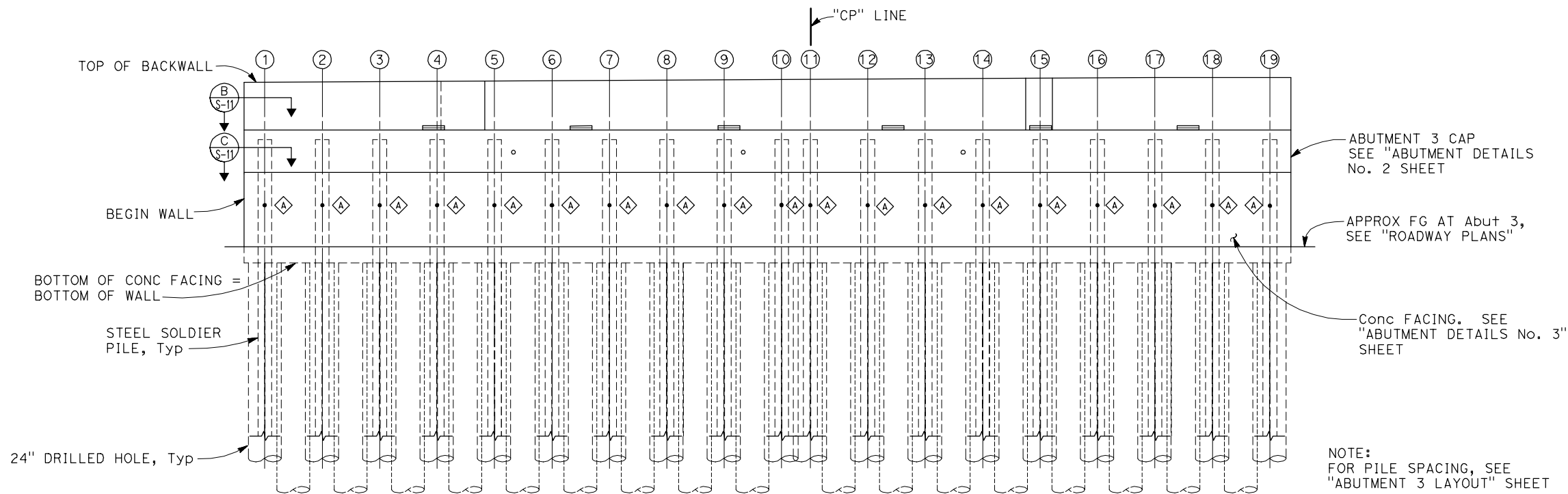


SHEET TITLE	
ABUTMENT 3 LAYOUT	
PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-7
SHEET 7 OF XX	

2015260A (2015260AS7)



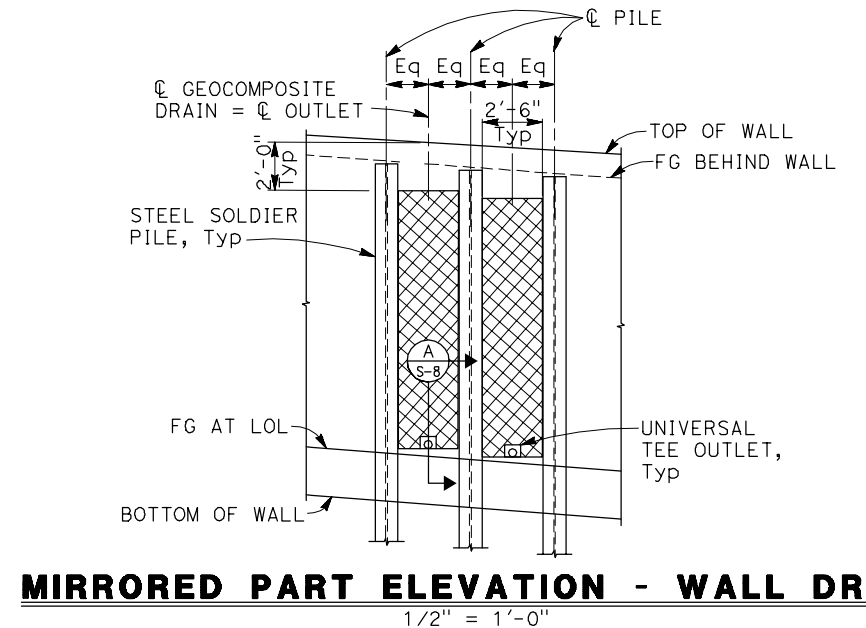
ABUTMENT 1 ELEVATION - PILE LAYOUT
1/4" = 1'-0"



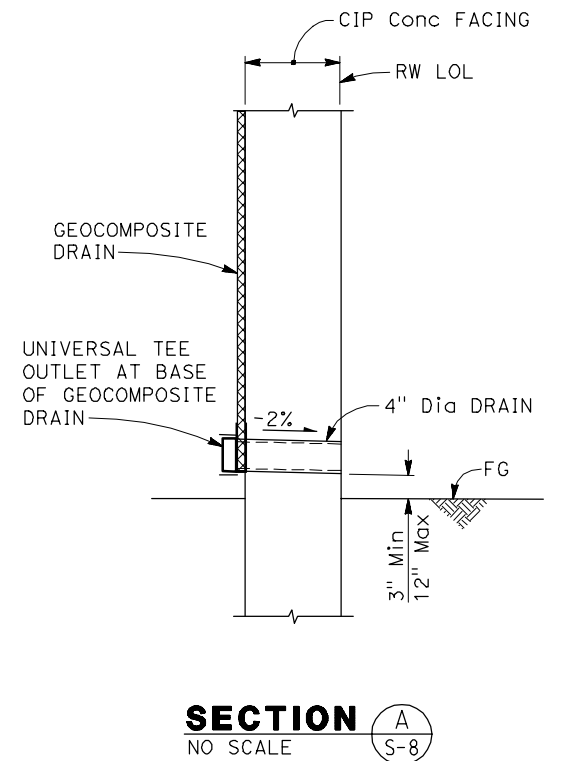
ABUTMENT 3 ELEVATION - PILE LAYOUT

LEGEND:

- ① INDICATES SOLDIER PILE NUMBER, SEE "ABUTMENT LAYOUT No. 2" SHEET.
 - ⬡ INDICATES GROUND ANCHOR TYPE, SEE "GROUND ANCHOR DATA TABLE"
 - INDICATES GROUND ANCHOR LOCATION
- NOTE:
- SEE "PILE DATA TABLES" ON ABUTMENT LAYOUT" No. 2 SHEET.



MIRRORED PART ELEVATION - WALL DRAIN
1/2" = 1'-0"



SECTION A
NO SCALE

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/31/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
865 The Alameda
San Jose, California 95128
408-296-5515
DATE: 5/24/18
SCALE: AS SHOWN
FILE NAME: 2015260AS8.dwg
SURVEY NOTE:



SHEET TITLE	
ABUTMENT LAYOUT No. 1	
PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-8
SHEET 9 OF XX	

2015260A (2015260AS8)

ABUTMENT - 1 PILE DATA TABLE					
Pile No.	Pile Section	Top of Wall Elevation	Drilled Hole Size (in)	Pile Cut-Off Elevation	Bottom of Wall Elevation
1	W14x74	993.89	24	995.97	984.00
2	W14x74	993.89	24	995.97	984.00
3	W14x74	993.89	24	995.97	984.00
4	W14x74	993.89	24	995.97	984.00
5	W14x74	993.89	24	995.97	984.00
6	W14x74	993.89	24	995.97	984.00
7	W14x74	993.89	24	995.97	984.00
8	W14x74	993.89	24	995.97	984.00
9	W14x74	993.89	24	995.97	984.00
10	W14x74	993.89	24	995.97	984.00
11	W14x74	993.89	24	995.97	984.00
12	W14x74	993.89	24	995.97	984.00
13	W14x74	993.89	24	995.97	984.00

GROUND ANCHOR DATA TABLE		
Pile No.	Factored Design Load, FDL (Kips)	Unbonded Length (ft) See note below
◊	45	15'-0"

NOTE:
Minimum unbonded length into rock layer.

ABUTMENT - 3 PILE DATA TABLE					
Pile No.	Pile Section	Top of Wall Elevation	Drilled Hole Size (in)	Pile Cut-Off Elevation	Bottom of Wall Elevation
1	W14x74	994.52	24	996.60	989.00
2	W14x74	994.52	24	996.60	989.00
3	W14x74	994.52	24	996.60	989.00
4	W14x74	994.52	24	996.60	989.00
5	W14x74	994.52	24	996.60	989.00
6	W14x74	994.52	24	996.60	989.00
7	W14x74	994.52	24	996.60	989.00
8	W14x74	994.52	24	996.60	989.00
9	W14x74	994.52	24	996.60	989.00
10	W14x74	994.52	24	996.60	989.00
11	W14x74	994.52	24	996.60	989.00
12	W14x74	994.52	24	996.60	989.00
13	W14x74	994.52	24	996.60	989.00
14	W14x74	994.52	24	996.60	989.00
15	W14x74	994.52	24	996.60	989.00
16	W14x74	994.52	24	996.60	989.00
17	W14x74	994.52	24	996.60	989.00
18	W14x74	994.52	24	996.60	989.00
19	W14x74	994.52	24	996.60	989.00

- NOTE:
1. See "ABUTMENT 1 ELEVATION-PILE LAYOUT" & "ABUTMENT 3 ELEVATION-PILE LAYOUT" ON " ABUTMENTS LAYOUT No. 1" SHEET.
 2. For pile tip elevation see "PILE DATA TABLE" ON "FOUNDATION PLAN" SHEET

	REVISION TABLE	
REV	DESCRIPTION	DATE

REGISTERED PROFESSIONAL ENGINEER

RONALD L. OEN

No. 46945

Exp. 9/30/21

CIVIL

STATE OF CALIFORNIA

NAPA COUNTY

CALIFORNIA

BIGGS CARDOSA ASSOCIATES INC

STRUCTURAL ENGINEERS

865 The Alameda

San Jose, California 95128

408-296-5515

DATE: 5/24/18

SCALE: AS SHOWN

FILE NAME: 2015260AS9.dwg

SURVEY NOTE:

DESIGN: NBP

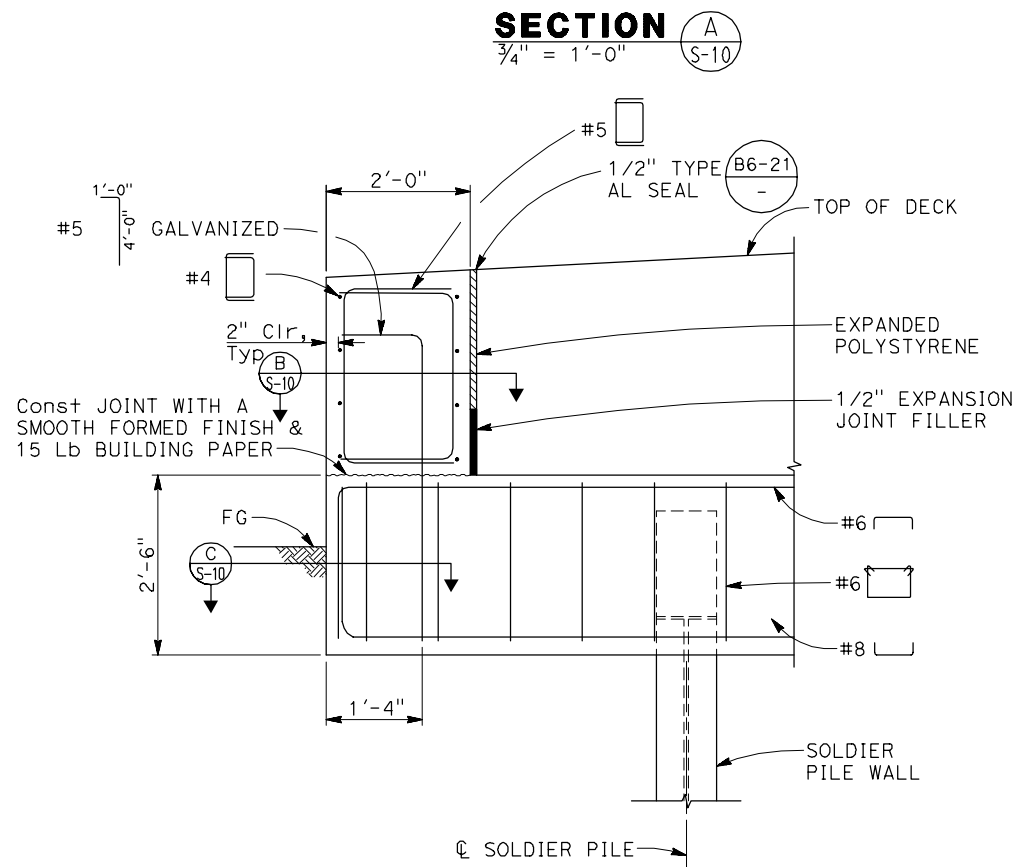
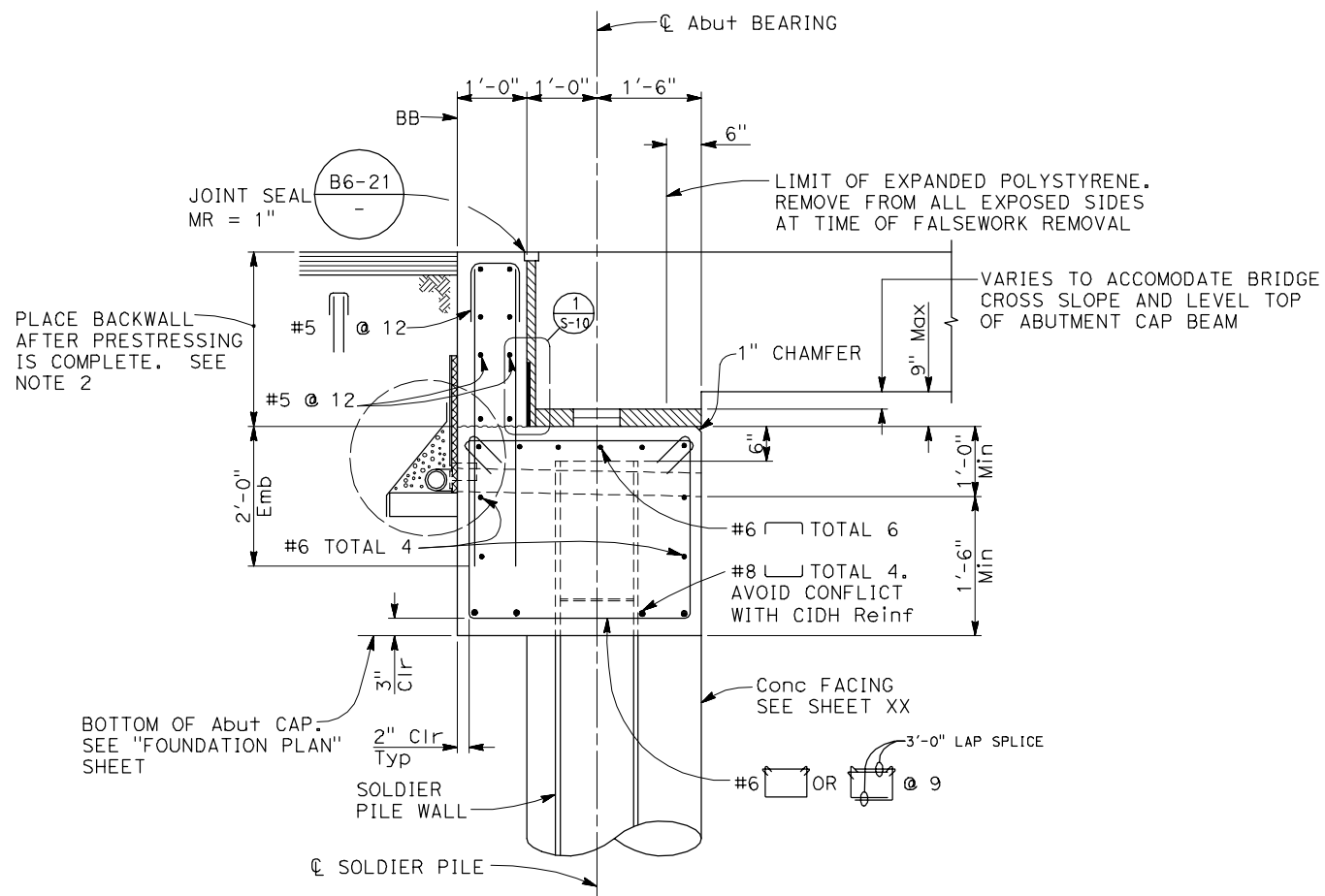
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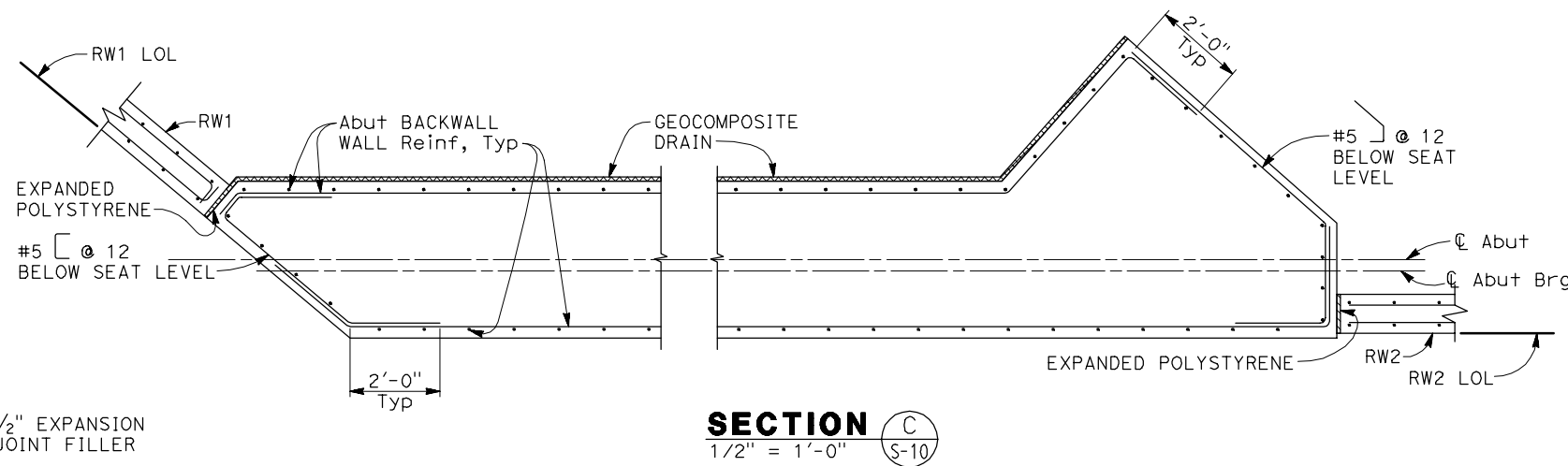
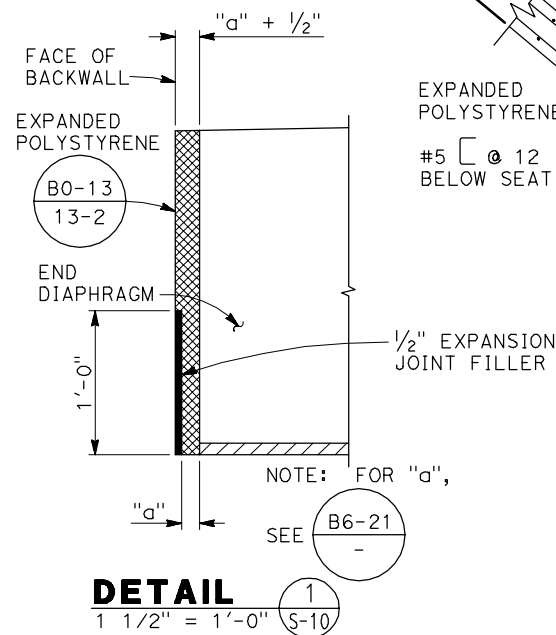
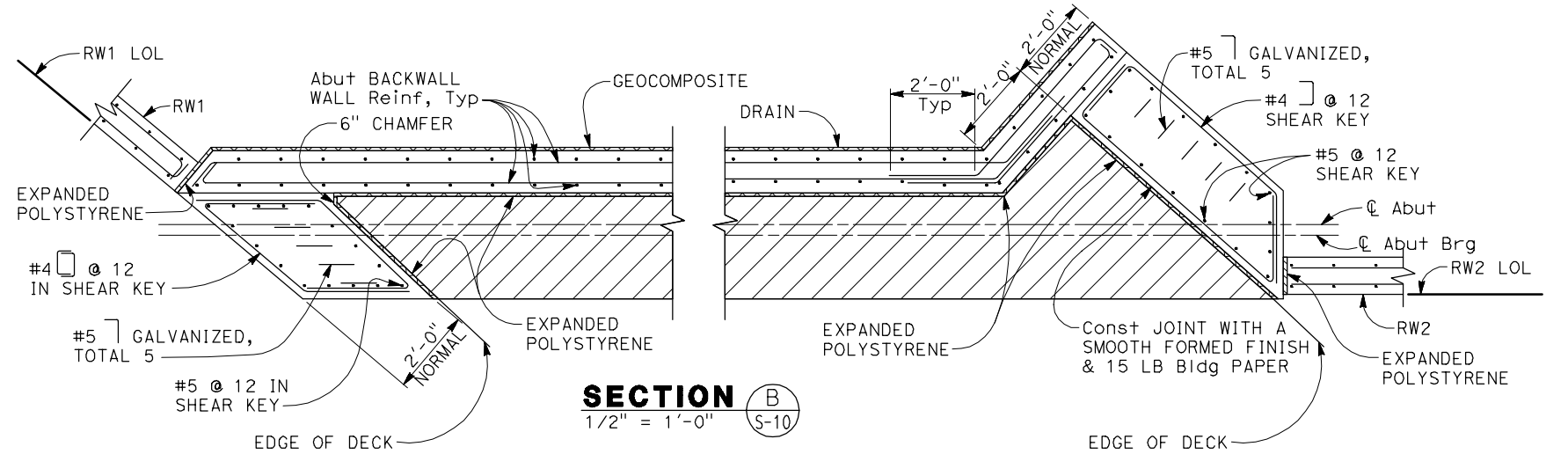
SHEET TITLE	
ABUTMENT LAYOUT No. 2	
PROJECT TITLE	
CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK	
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-9
SHEET 9 OF XX	

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/27/19)

2015260A (2015260AS9)



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



- NOTE:
- Concrete barrier Type 85 not shown for clarity.
 - Backwall concrete strength and type must match concrete used for the cast-in-place prestressed concrete slab, as shown on "CONCRETE STRENGTH AND TYPE LIMITS" on "DECK CONTOUR" sheet.
 - For geocomposite drain, see sheet "ABUTMENT 3 LAYOUT" sheet.

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/26/19)

REVISION TABLE		
REV	DESCRIPTION	DATE

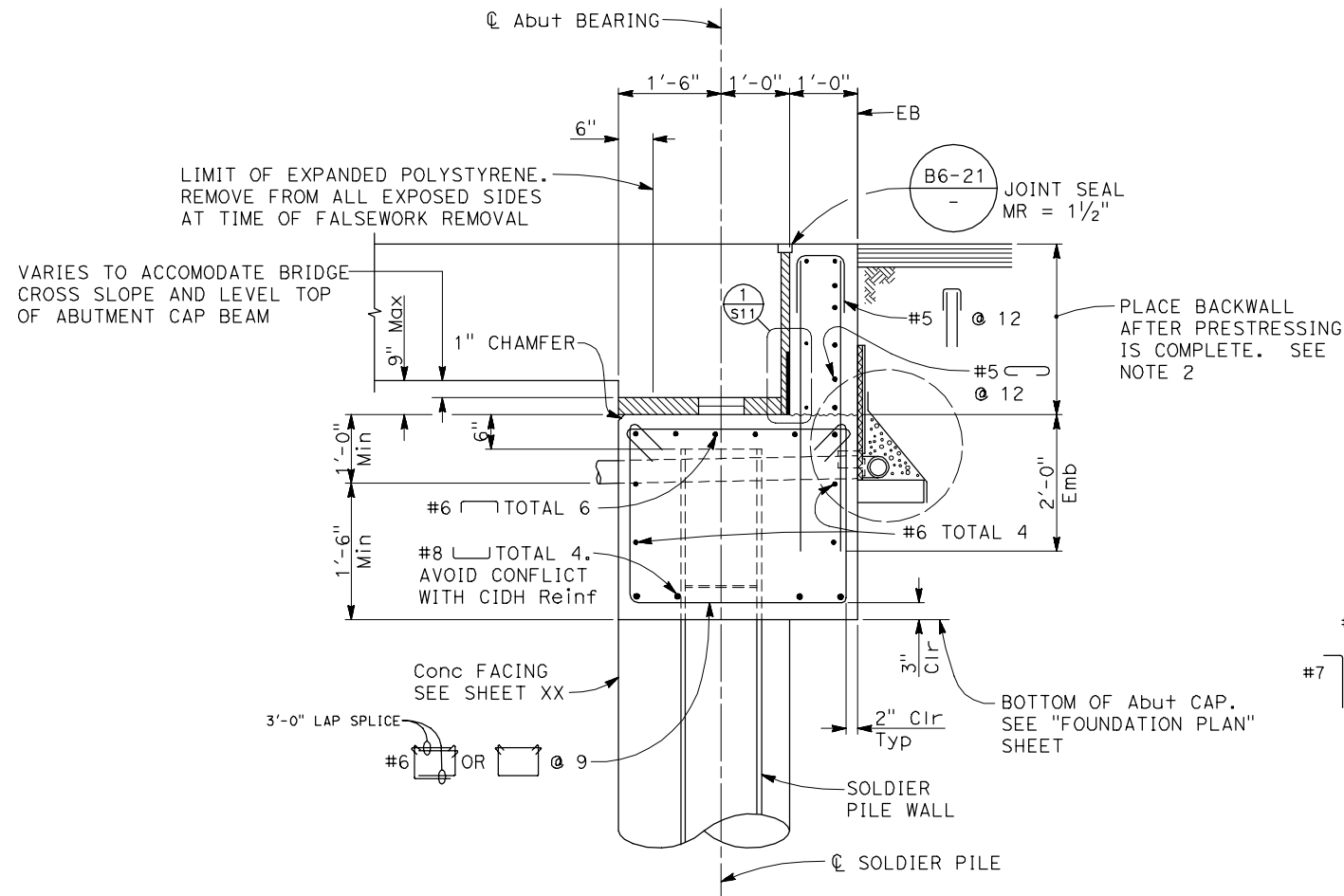


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865 The Alameda
San Jose, California 95128
408-296-5515
DATE: 5/24/18
SCALE: AS SHOWN
FILE NAME: 2015260AS10.dwg
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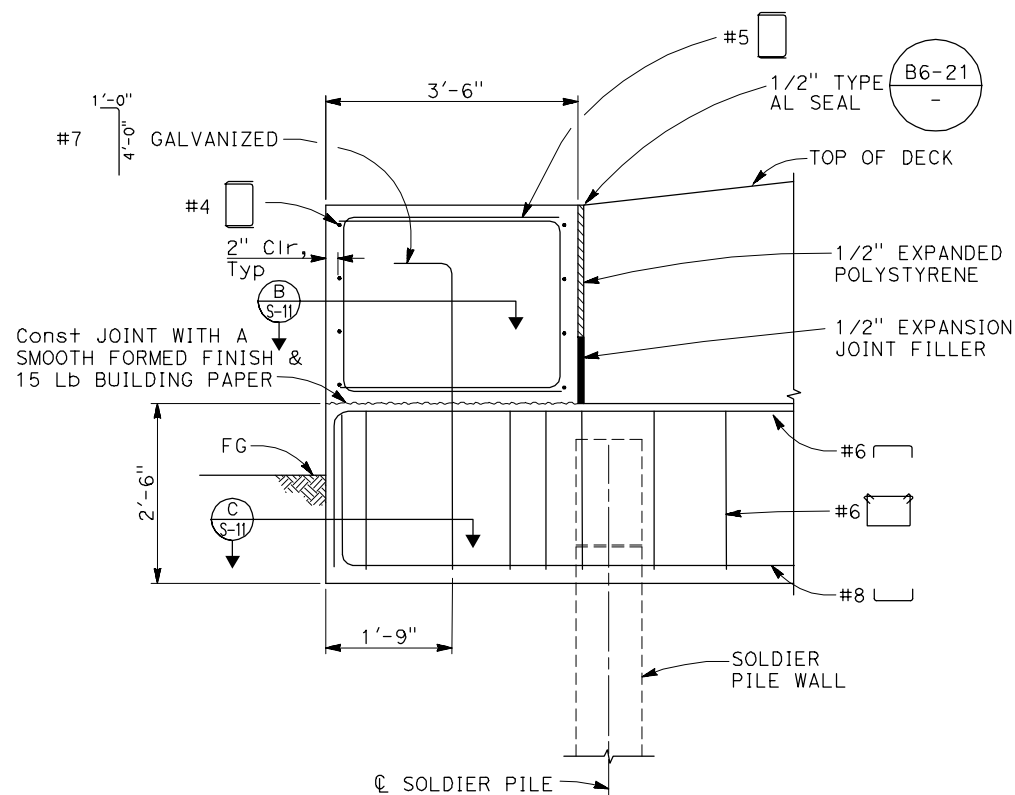


SHEET TITLE	
ABUTMENT DETAILS No. 1	
PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-10
SHEET 5 OF XX	

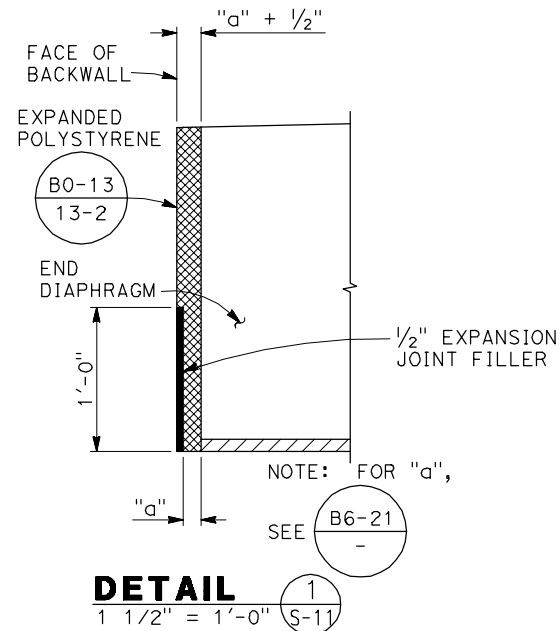
2015260A (2015260AS10)



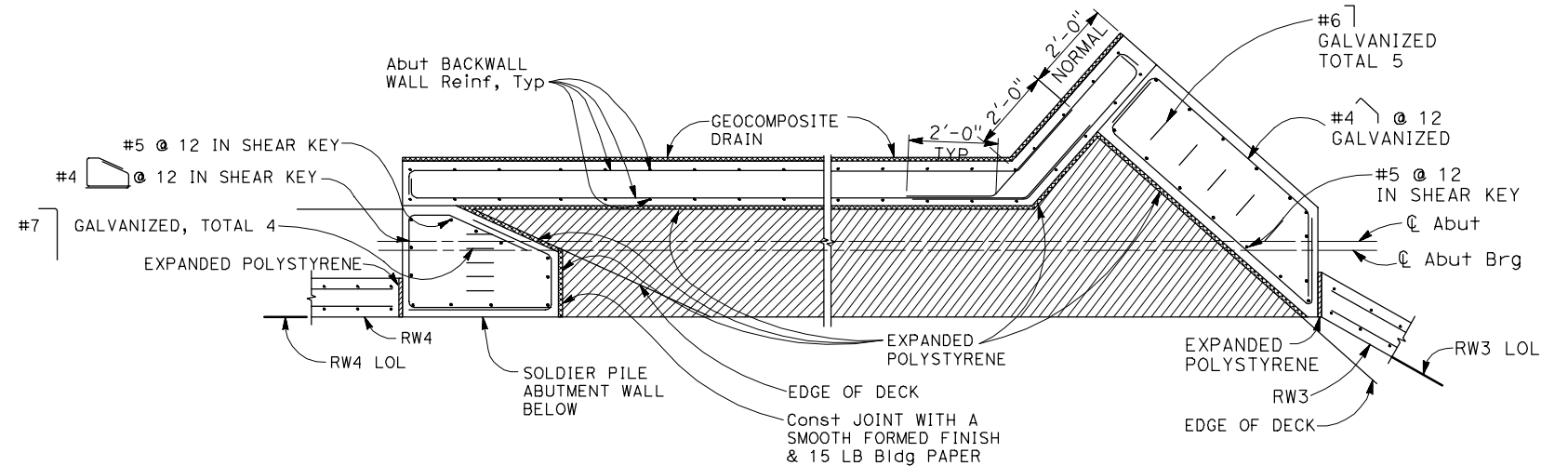
SECTION A
3/4" = 1'-0"



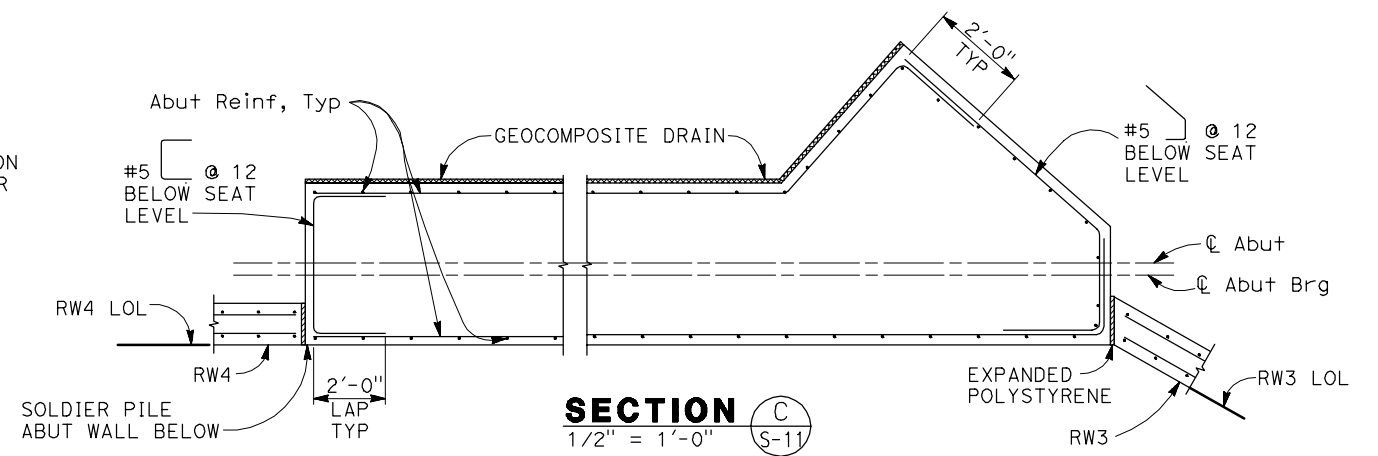
SECTION D
3/4" = 1'-0"



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



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



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

- NOTE:
- Concrete barrier Type 85 not shown for clarity.
 - Backwall concrete strength and type must match concrete used for the cast-in-place prestressed concrete slab, as shown on "CONCRETE STRENGTH AND TYPE LIMITS" on "DECK CONTOUR" sheet.
 - For geocomposite drain, see "ABUTMENT 3 LAYOUT" sheet.

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/26/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 5/24/18
SCALE: AS SHOWN
FILE NAME: 2015260AS11.dwg
SURVEY NOTE:

BCA

DESIGN: NBP
DRAWN: AR
CHKD:

SHEET TITLE
ABUTMENT DETAILS No. 2

PROJECT TITLE
CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

LOP 3-15

S-11

SHEET 9 OF XX

2015260A (2015260AS11)



**BIGGS CARDOSA
ASSOCIATES INC**
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95126
408-296-5515

DATE: 10/21/19

SCALE: AS SHOWN

FILE NAME: 2015260AS12.dwg

SURVEY NOTE:



DRAWN: AR

CHKD:

SHEET TITLE

ABUTMENT DETAILS No. 3

PROJECT TITLE	CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK
BRIDGE No.	21C-0075, RDS 15-23, BRLS-5921(074)

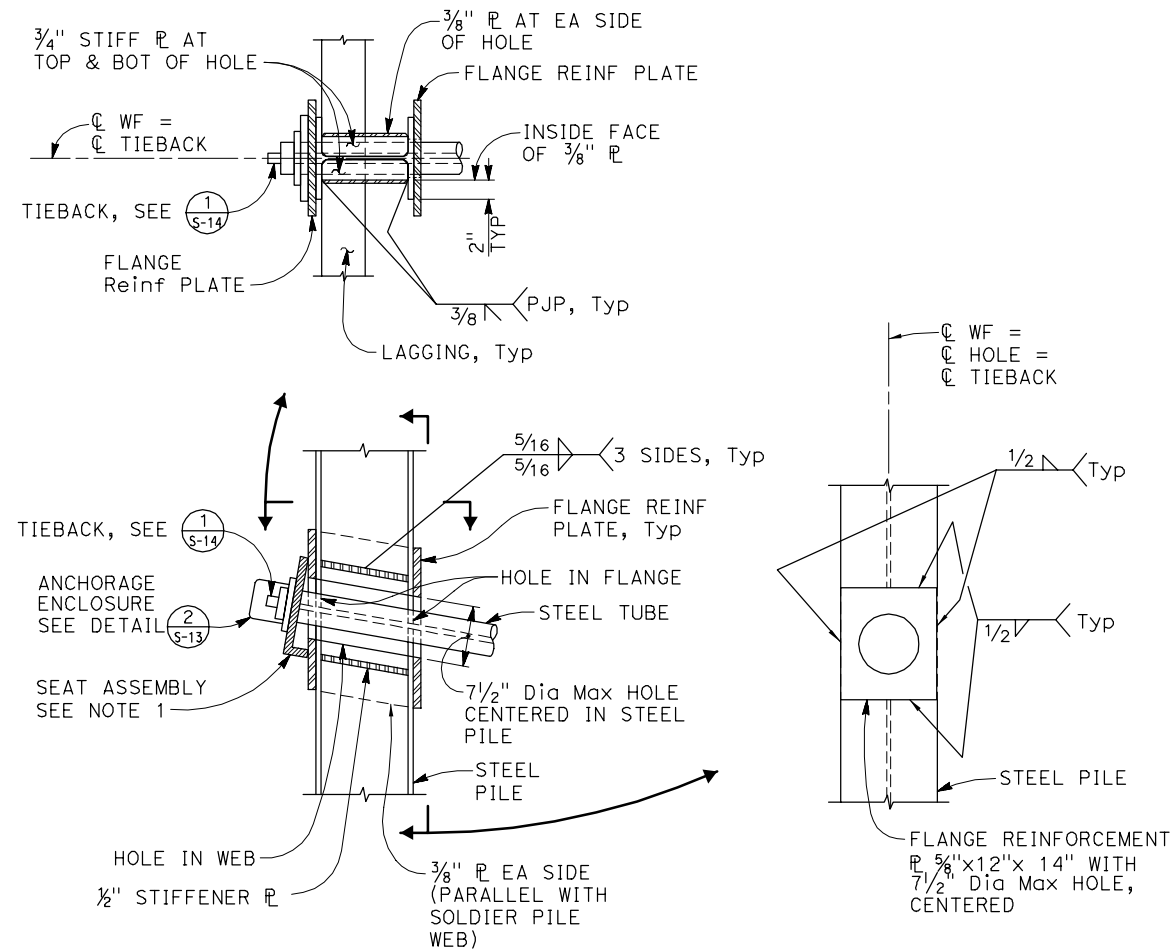
LOP 3-15

S-12

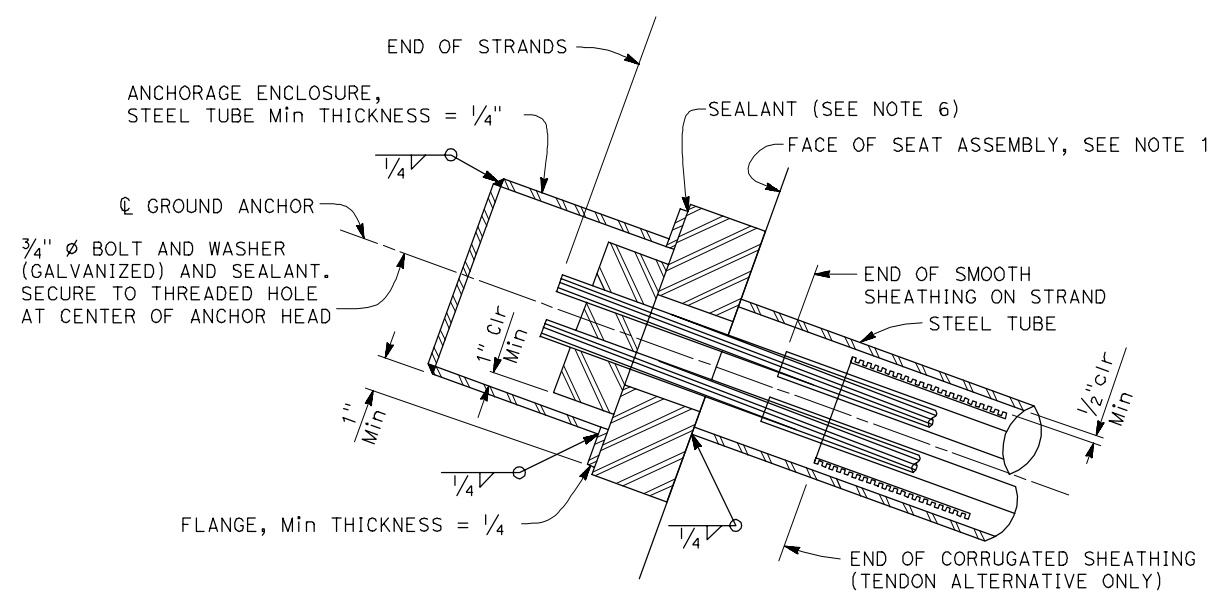
SHEET 12 OF XX

	REVISION TABLE	
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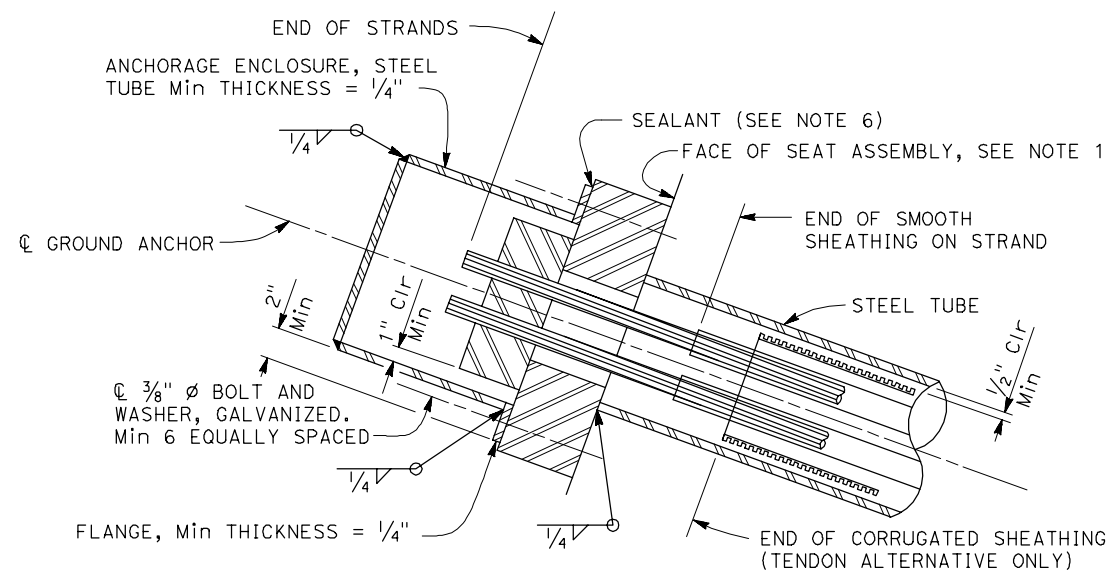




TIEBACK CONNECTION DETAIL (1) S-13
1" = 1'-0"



ALTERNATIVE X



ALTERNATIVE Y

ANCHORAGE ENCLOSURE DETAILS

NOTE:
1. Seat assembly per tie back manufacturer. Contractor shall coordinate hole size, tieback seat assembly and stiffener plate locations such that seat assembly bearing points align w/ stiffener plates.

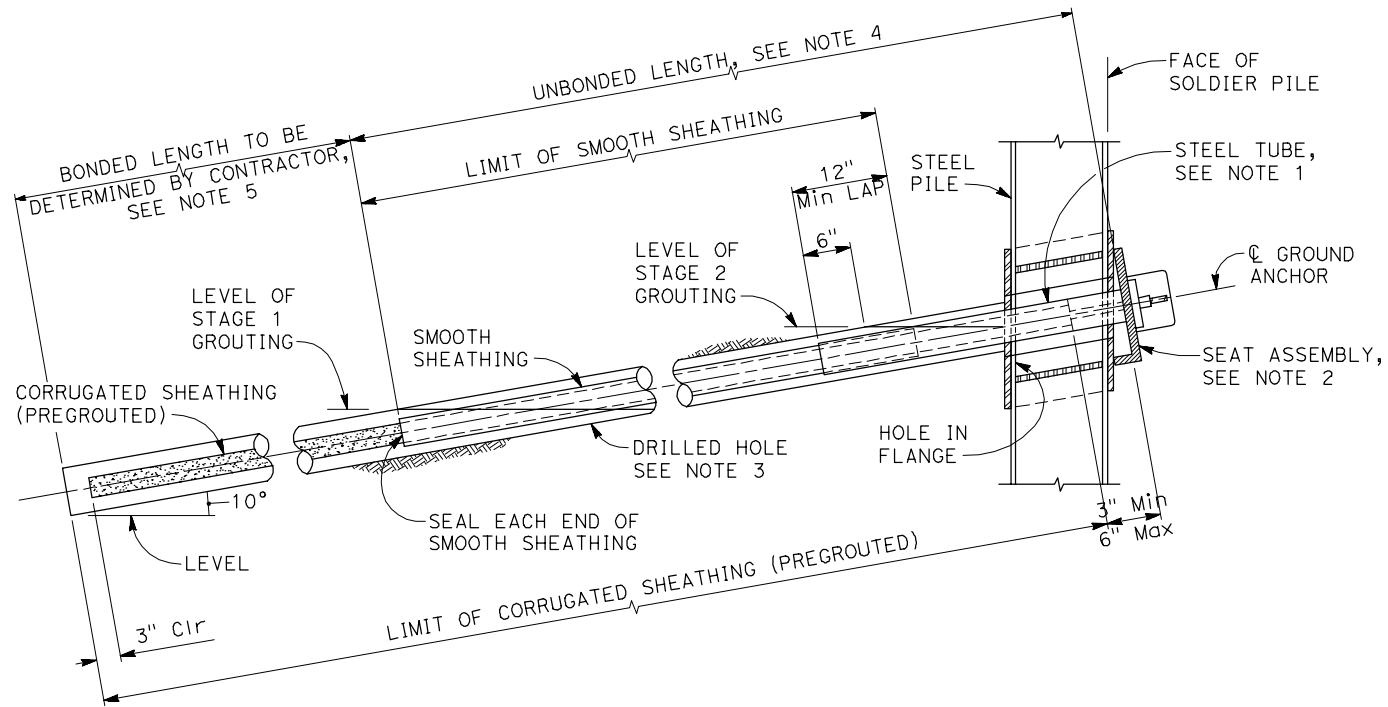
REVISION TABLE		
REV	DESCRIPTION	DATE



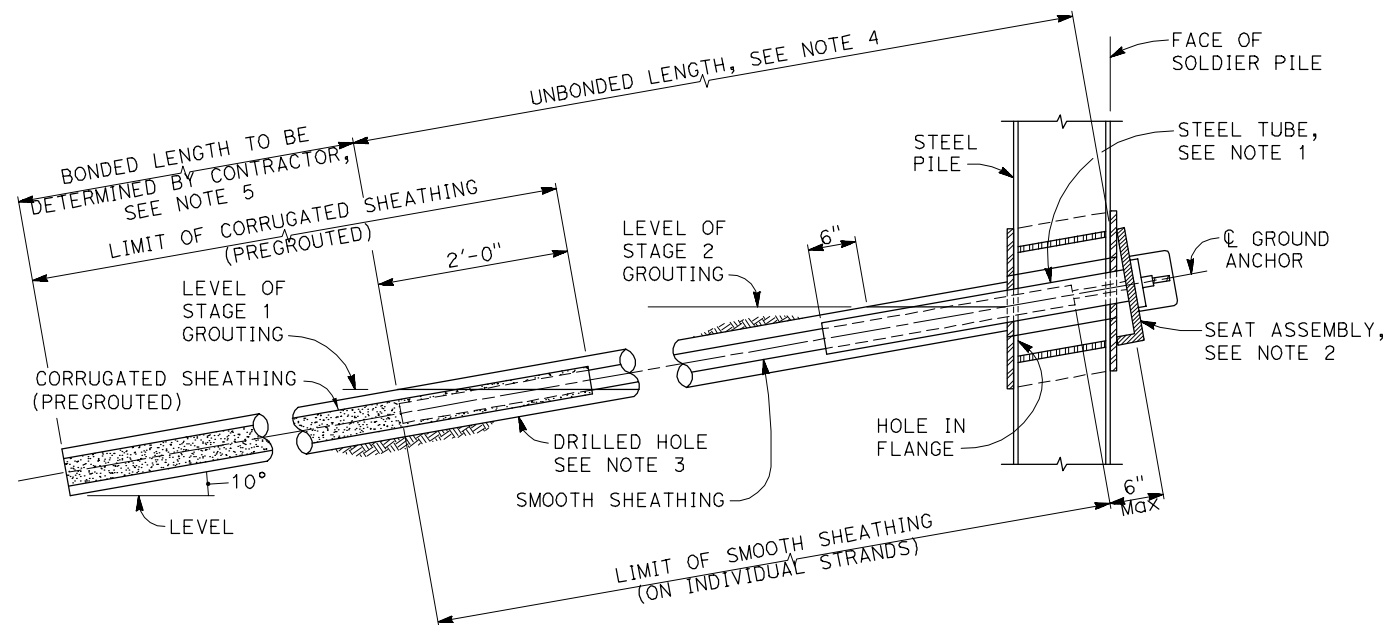
BIGGS CARDOSA ASSOCIATES INC STRUCTURAL ENGINEERS 865 The Alameda San Jose, California 95128 408-296-5515		SHEET TITLE ABUTMENT DETAILS No. 4	
DATE: 10/31/19 SCALE: AS SHOWN FILE NAME: 2015260AS13.dwg SURVEY NOTE:		PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
DESIGN: NBP DRAWN: RLQ CHKD:		LOP 3-15	S-13 SHEET 12 OF XX

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/31/19)

2015260A (2015260AS13)



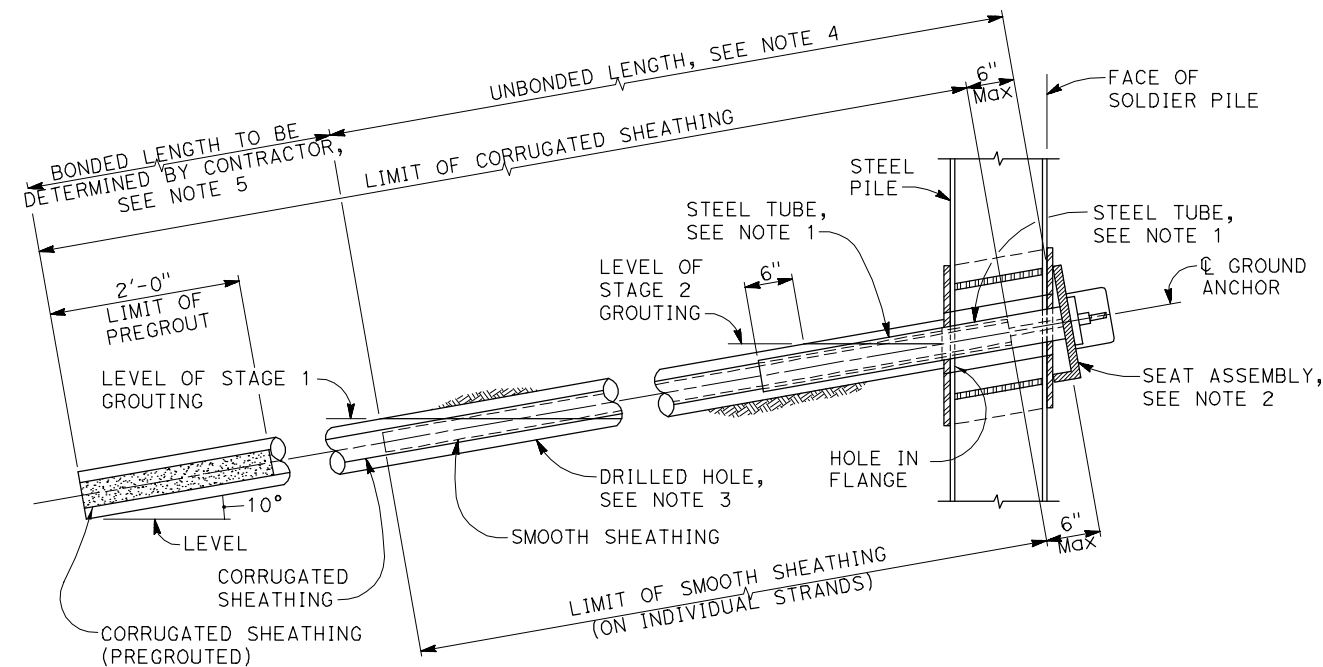
TIEBACK DETAIL (BAR)



TIEBACK DETAIL (STRAND) ALTERNATIVE A

- TIE-BACK ANCHOR NOTES:**
1. Steel tube welded to bearing plate (min length = 3.0', min thickness = 0.25" min diameter = 1" greater than smooth/corrugated sheathing OD) galvanize assembly after fabrication.
 2. Seat assembly by tieback manufacturer.
 3. Drilled hole diameter by contractor (diameter shall be greater than 6").
 4. For unbonded length, see "ground anchor data table" on "ABUTMENT LAYOUT No. 2" Sheet.
 5. For tie back anchorage enclosure detail, see (2) S-13.
 6. Silicone sealant to cover full width of flange.

- GROUT PLACEMENT NOTES:**
- STAGE 1
Grout bonded length.
- STAGE 2
Grout 6" into the steel tube after stressing and locking of tendon against structure.
- STAGE 3
Grout to fill remaining void in steel tube. Two foot head of grout shall be maintained until grout has set.
- Grout for all stages shall be injected at low end of void being grouted.
- After placing STAGE 1 grout, anchor shall remain undisturbed until grout has reached a strength sufficient to provide anchorage during testing operations.
- STAGE 2 grouting must be completed for a minimum of 24 hours before stage 3 grouting may begin.



TIEBACK DETAIL (STRAND) ALTERNATIVE B

TIE-BACK DETAIL (1)
1" = 1'-0" S-14

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/3/19)

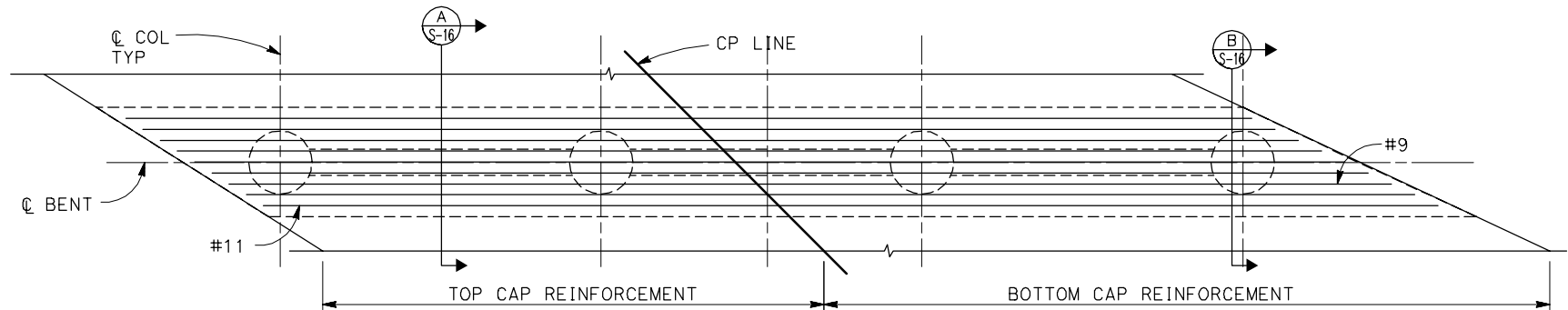
REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
865 The Alameda
San Jose, California 95128
408-296-5515
DATE: 10/31/19
SCALE: AS SHOWN
FILE NAME: 2015260AS14.dwg
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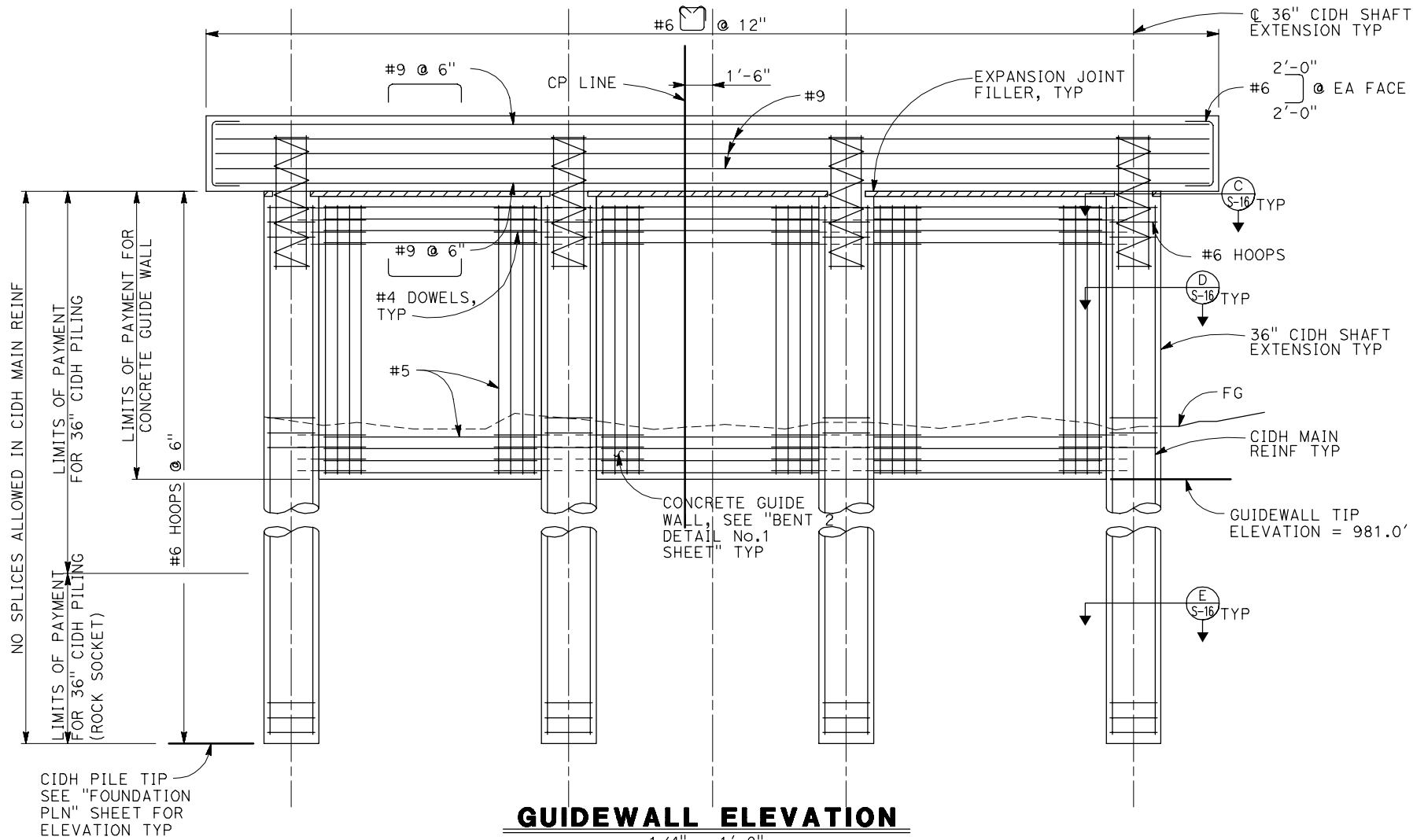
SHEET TITLE	
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PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-14
SHEET 13 OF XX	



BENT 2 PLAN

1/4" = 1'-0"

- NOTES:
- 1. For pile data table, see "FOUNDATION PLAN" sheet.
 - 2. Adjust spiral spacing to clear abutment cap.
 - 3. Slab reinf. not shown for clarity.



GUIDEWALL ELEVATION

1/4" = 1'-0"

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/26/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 5/24/18
SCALE: AS SHOWN
FILE NAME: 2015260AS15.dwg
SURVEY NOTE:

DESIGN: NBP
DRAWN: AR
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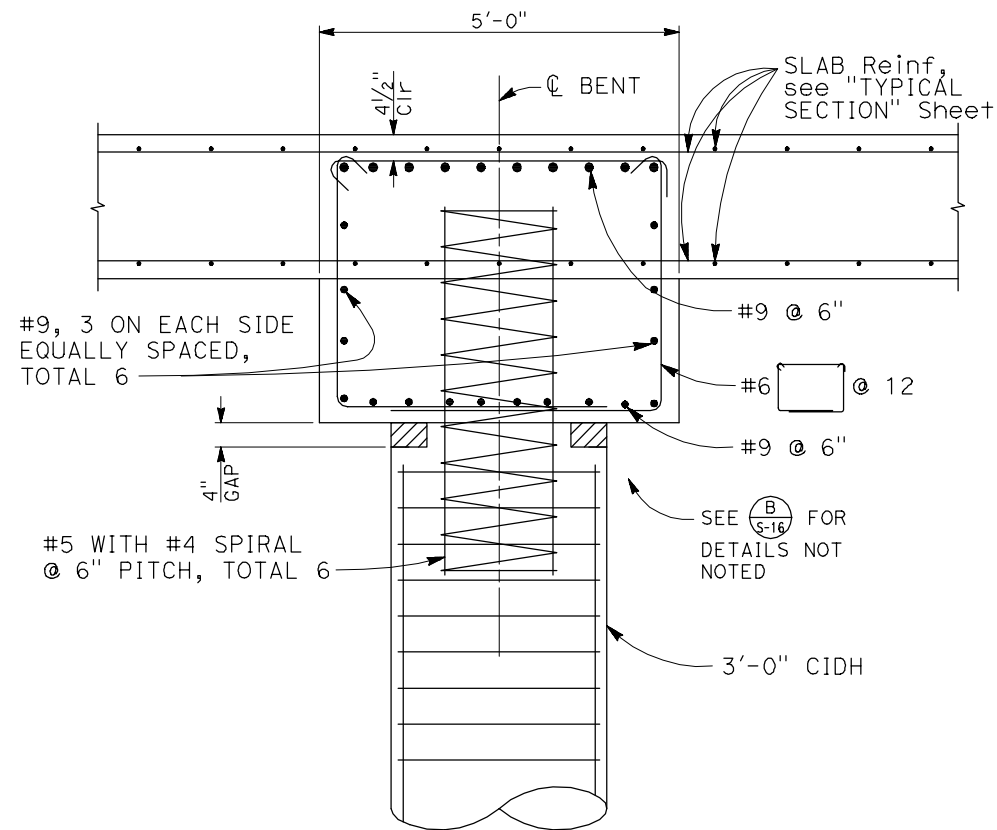
BCA

SHEET TITLE
BENT 2 LAYOUT

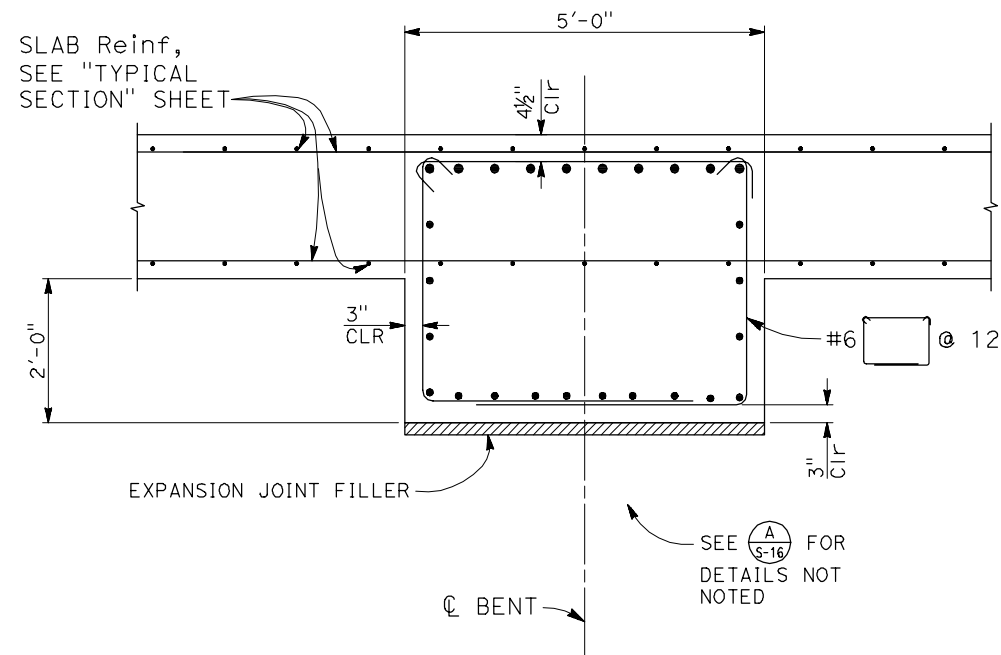
PROJECT TITLE
CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

LOP 3-15	S-15
SHEET 7 OF XX	

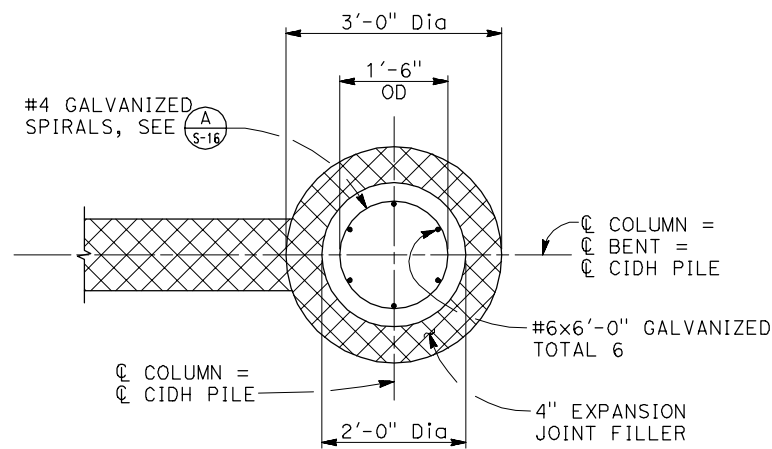
2015260A (2015260AS15)



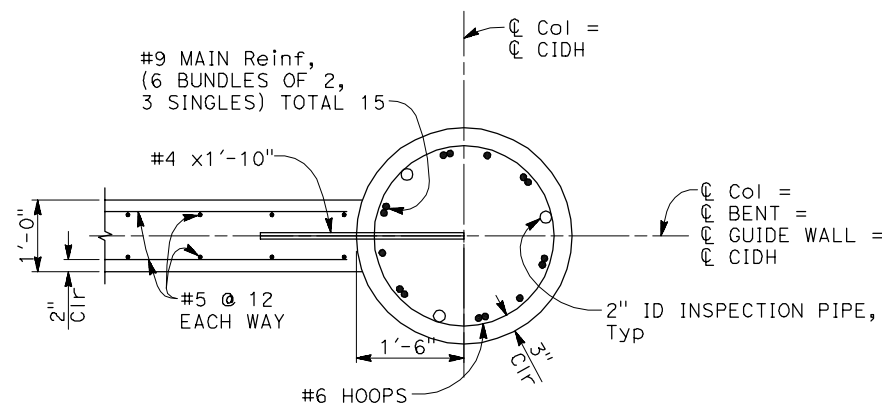
SECTION A
3/4" = 1'-0"



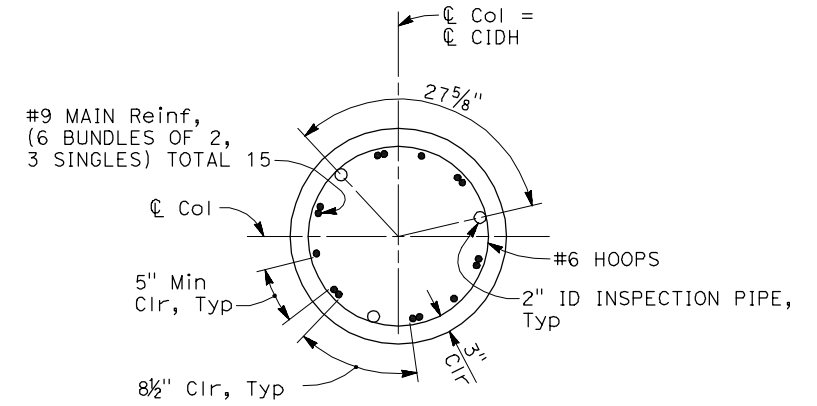
SECTION B
3/4" = 1'-0"



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



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



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

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/26/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 10/31/19
SCALE: AS SHOWN
FILE NAME: 2015260AS16.dwg
SURVEY NOTE:



DESIGN: NBP
DRAWN: RLQ
CHKD:

SHEET TITLE	
BENT 2 DETAILS No. 1	
PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-16
SHEET XX OF XX	

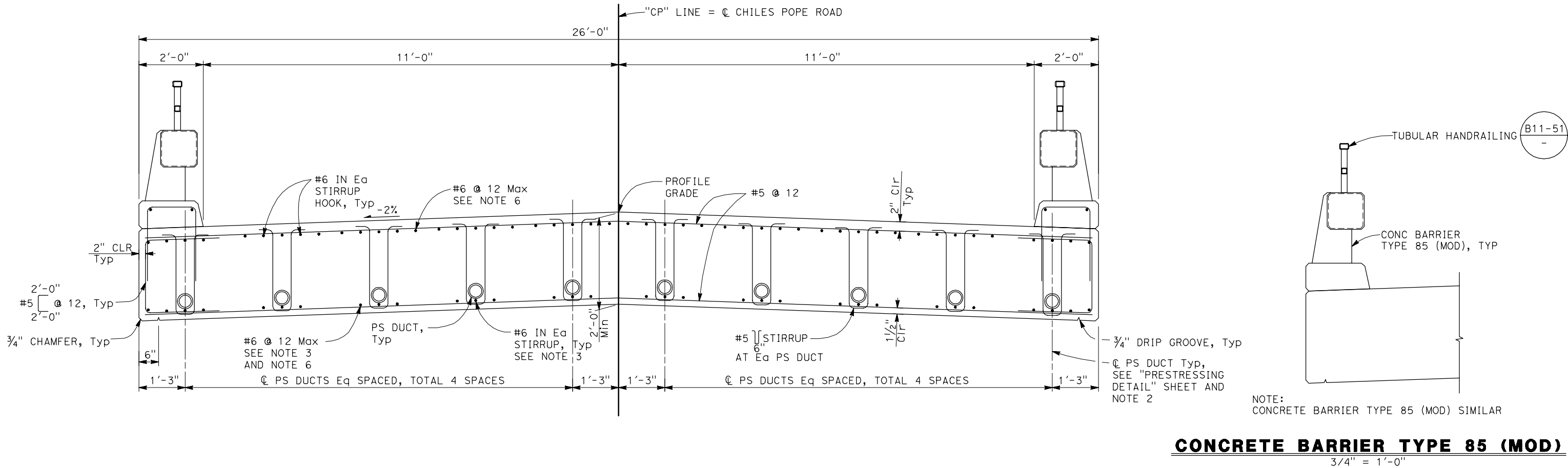
2015260A (2015260AS16)

FALSEWORK RELEASE NOTES:

ALTERNATIVE 1:
Falsework must be released as soon as permitted by the specifications.

ALTERNATIVE 2:
Falsework must not be released less than 28 days after the last concrete has been placed. When falsework release alternative is used, camber values are 0.75 times those shown.

- NOTES:
1. Place transverse reinforcement perpendicular to the "CP" line.
 2. PS ducts shall be placed parallel to "CP" line, unless noted otherwise.
 3. Bottom mat longitudinal reinforcement must not be spliced within 10'-0" on each side of C span.
 4. Reinforcement may be adjusted as required to avoid conflict with prestressing ducts.
 5. For slab prestressing, see "PRESTRESSING DETAILS" sheet.
 6. Longitudinal reinforcing must be placed parallel with "CP" line.
 7. Cont reinf must be spliced with "SERVICE LEVEL" splices staggered at 4'-0" minimum. Lap splices equal to two times the standard lap splices may be substituted for the "SERVICE LEVEL SPLICES"



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

CONCRETE BARRIER TYPE 85 (MOD)
3/4" = 1'-0"

PLAN CHECK SET/NOT FOR CONSTRUCTION (1/3/20)

REVISION TABLE			SHEET TITLE	
REV	DESCRIPTION	DATE	TYPICAL SECTION	
			PROJECT TITLE	
			CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK	
			BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
			LOP 3-15	S-17
			SHEET 10 OF XX	

REGISTERED PROFESSIONAL ENGINEER
RONALD L. OEN
No. 46945
Exp. 9/30/21
CIVIL
STATE OF CALIFORNIA

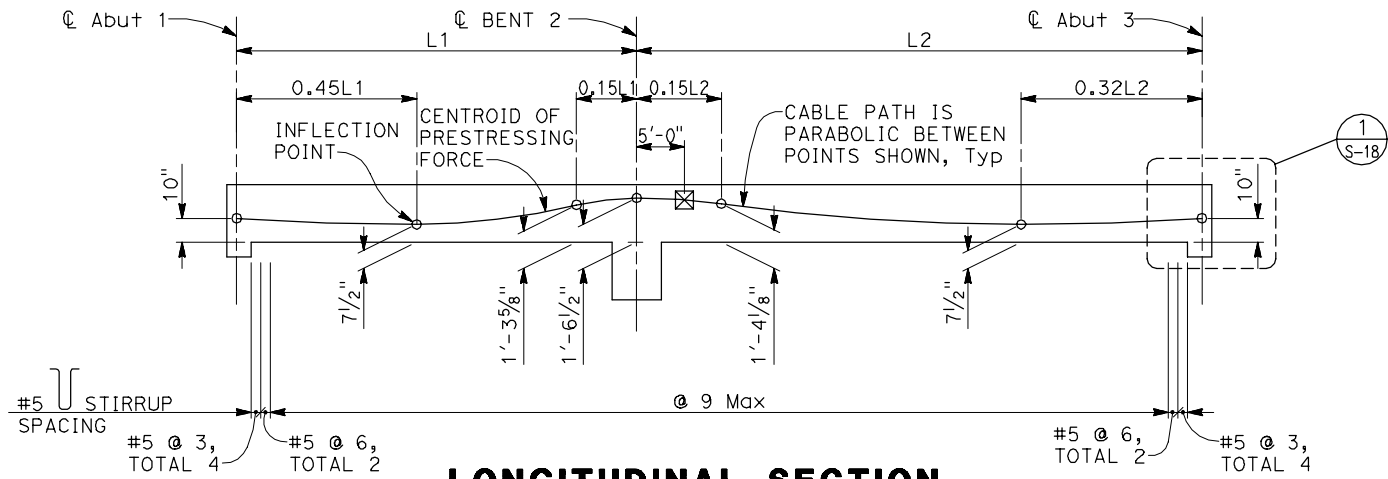
NAPA COUNTY
CALIFORNIA

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
865 The Alameda
San Jose, California 95128
408-296-5515

BCA

DATE: 10/21/19	DESIGN: NBP
SCALE: AS SHOWN	DRAWN: AR
FILE NAME: 2015260AS17.dwg	CHKD:
SURVEY NOTE:	

2015260A (2015260AS17)



LONGITUDINAL SECTION

NO SCALE

PRESTRESSING NOTES

270 ksi Low Relaxation Strand:

Pjack = 900 kips
Anchor set = 3/8 in

Distribution of prestress force (Pjack): The prestressing force, Pjack, must be uniformly distributed across the slab. At no time during the prestressing operations will more than 1/6 of the prestressing force, Pjack, be applied eccentrically about the centerline of the structure for each stage. Bar reinforcement interfering with the prestressing duct alignment must be adjusted, as approved by the Engineer.

Concrete: f'c = 6500 psi @ 28 days
f'ci = 3500 psi @ time of stressing

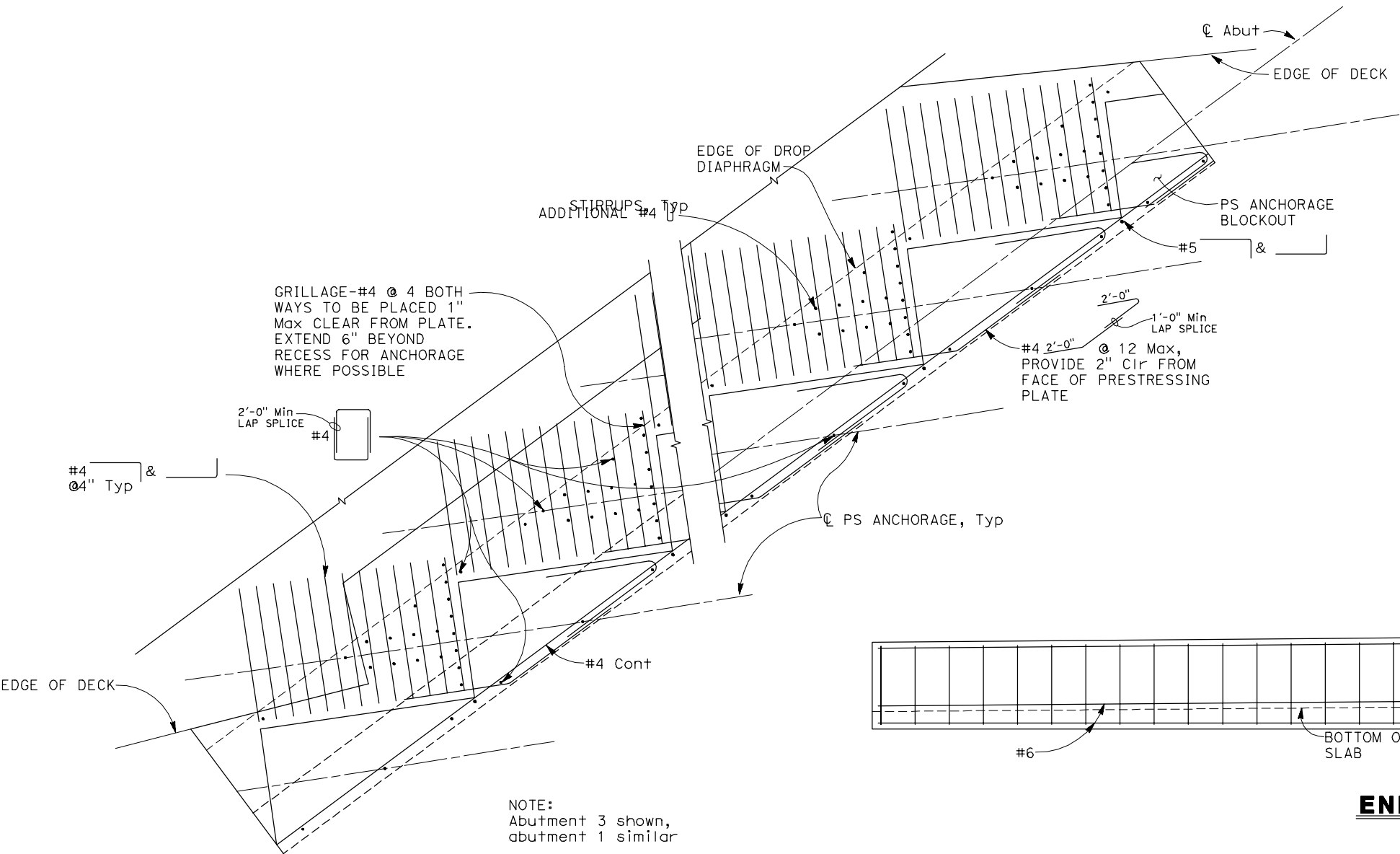
Contractor shall submit elongation calculations based on initial stress at $\square$ = 0.926 times jacking stress

$\square$ Denotes theoretical point of no movement

Stressing shall be performed from both ends

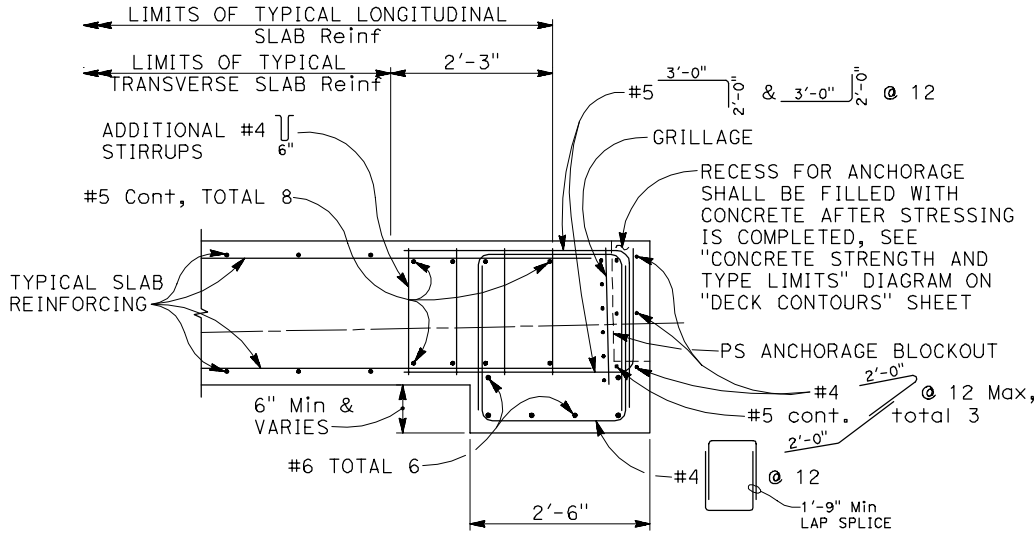
Prestress force design is based on friction coefficient μ = 0.15 and friction wobble coefficient k=0.0002/ft and modified for curvature

For Grillage details, see $\frac{A}{S18}$ & $\frac{1}{S18}$



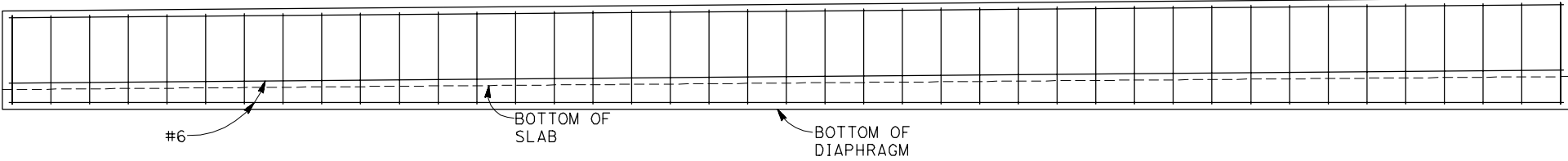
PRESTRESSING PLAN

3/4" = 1'-0"



END DIAPHRAGM DETAIL

3/4" = 1'-0"



END DIAPHRAGM ELEVATION

NO SCALE

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/17/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



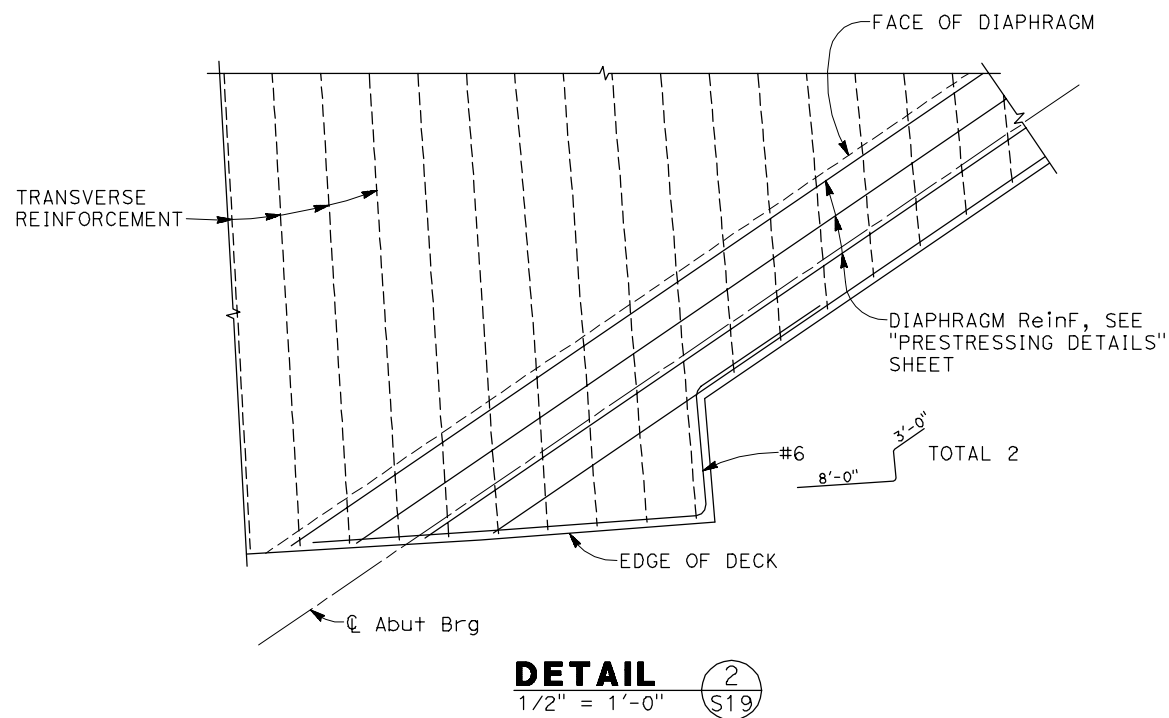
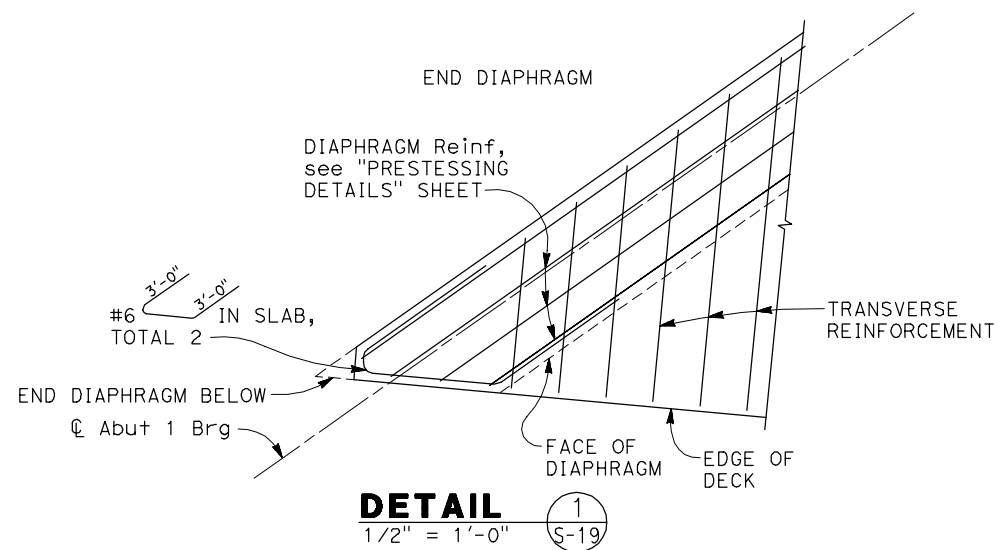
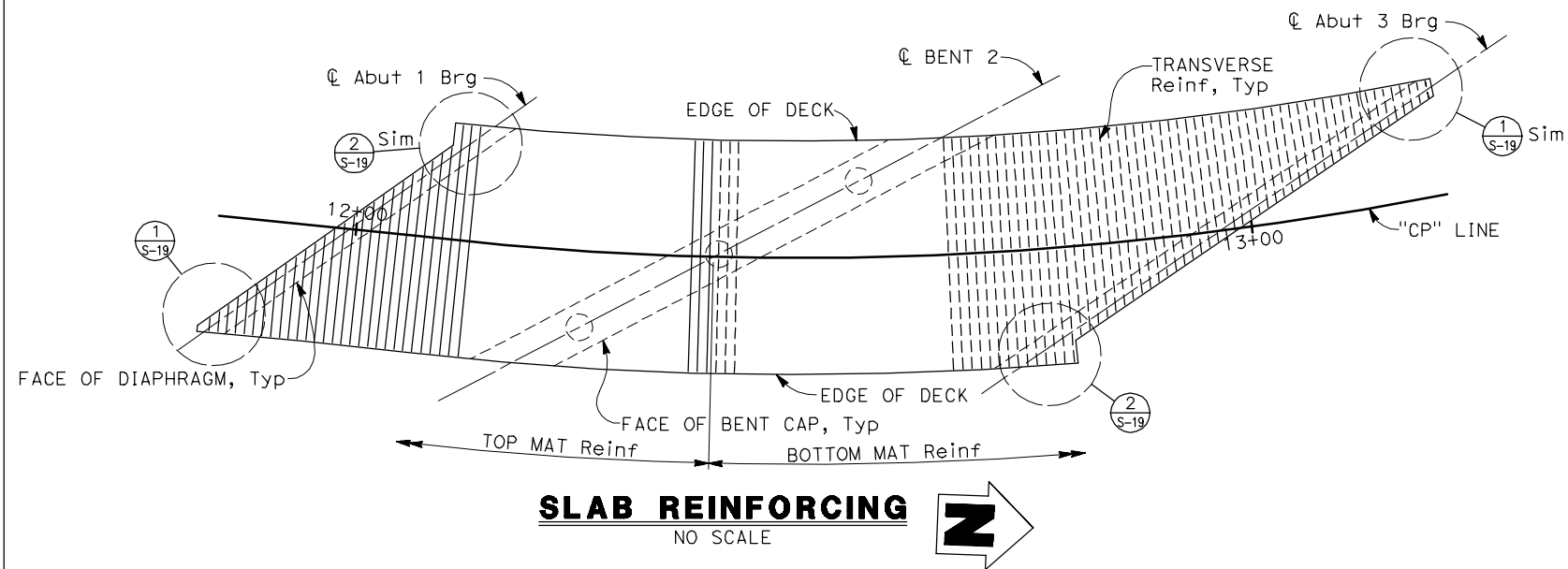
BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
865 The Alameda
San Jose, California 95128
408-296-5515
DATE: 10/31/19
SCALE: AS SHOWN
FILE NAME: 2015260AS18.dwg
SURVEY NOTE:



DESIGN: NBP
DRAWN: RLQ
CHKD:

SHEET TITLE	
PRESTRESSING DETAILS	
PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-18
SHEET XX OF XX	

2015260A (2015260AS18)



PLAN CHECK SET/NOT FOR CONSTRUCTION (12/26/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 10/20/19

SCALE: AS SHOWN

FILE NAME: 2015260AS19.dwg

SURVEY NOTE:



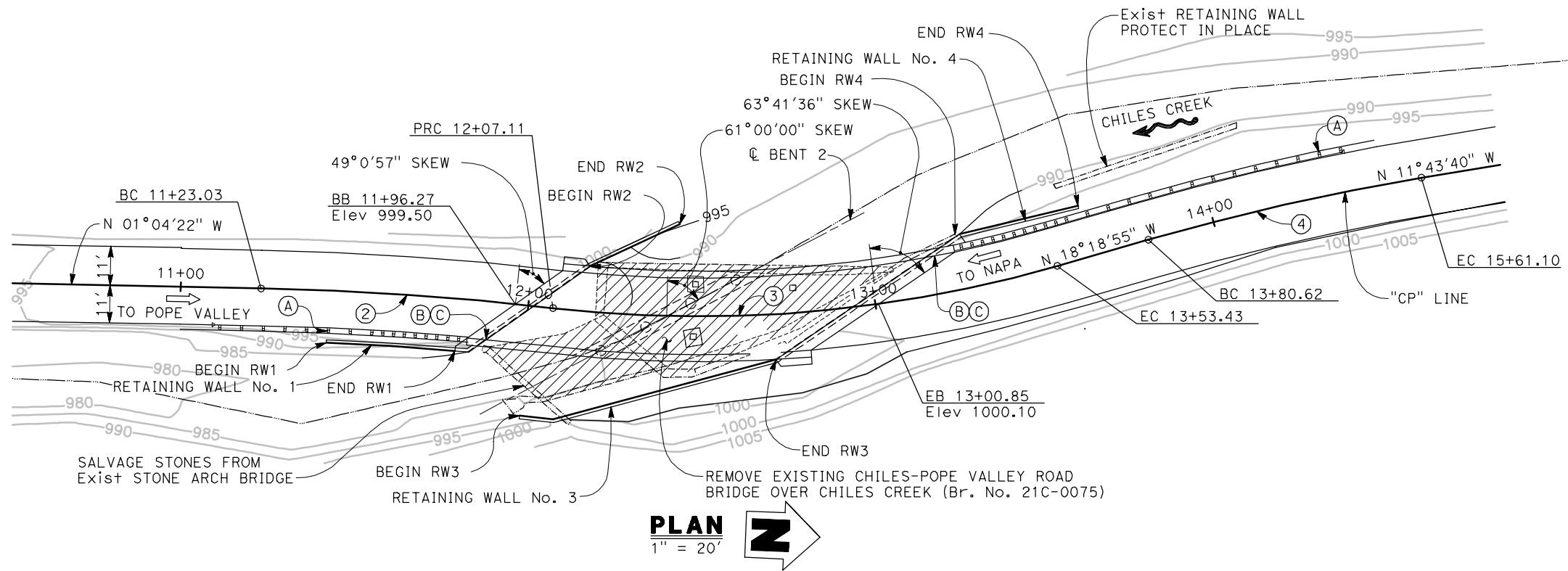
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DRAWN: SMH

CHKD:

SHEET TITLE	
DECK REINFORCEMENT DETAILS	
PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK	
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-19
SHEET 19 OF XX	

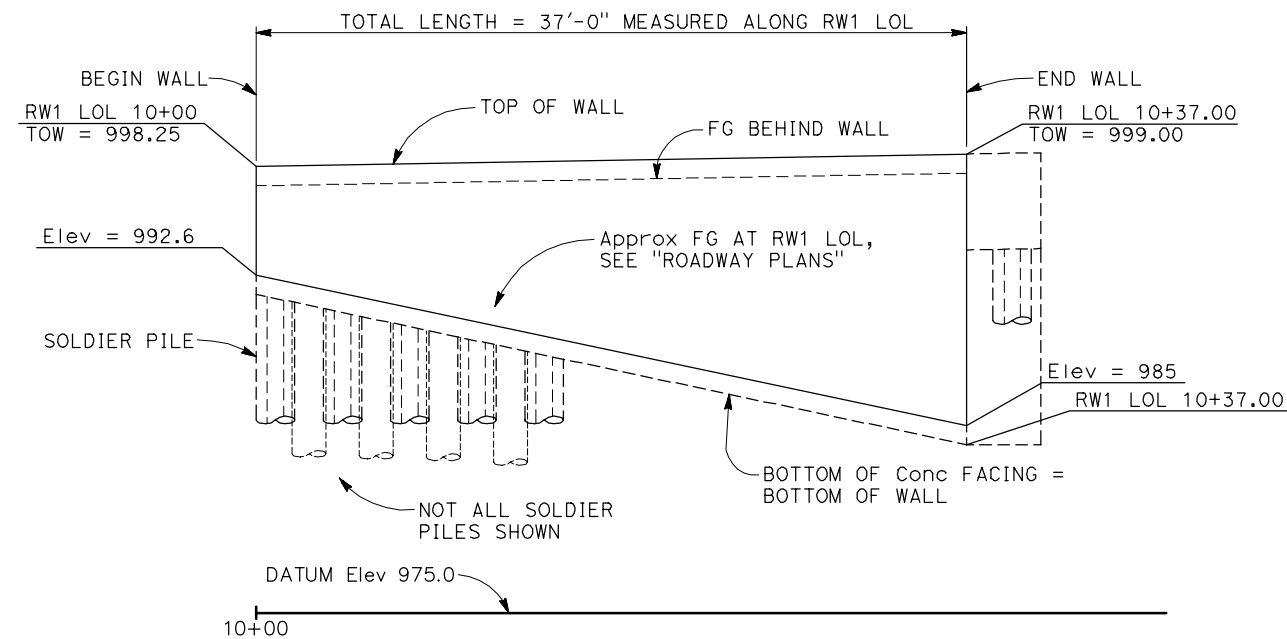
2015260A (2015260AS19)



PLAN CHECK SET/NOT FOR CONSTRUCTION (12/26/19)

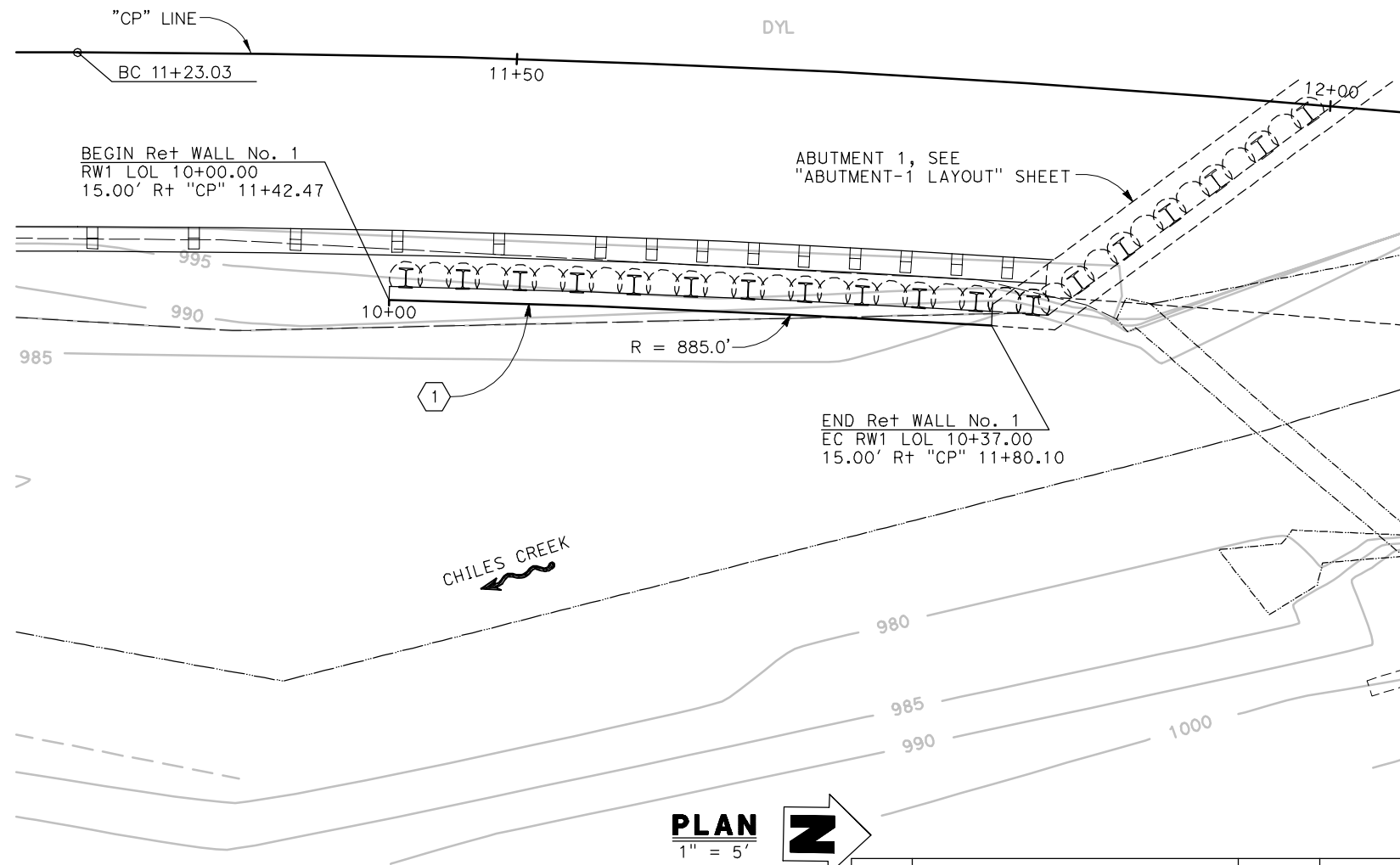
REVISION TABLE			 		BIGGS CARDOSA ASSOCIATES INC STRUCTURAL ENGINEERS 865 The Alameda San Jose, California 95128 408-296-5515		SHEET TITLE	
REV	DESCRIPTION	DATE					RETAINING WALL KEY PLAN	
							PROJECT TITLE	
							CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK	
							BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
							LOP 3-15	S-20
							SHEET 5 OF XX	

2015260A (2015260AS20)



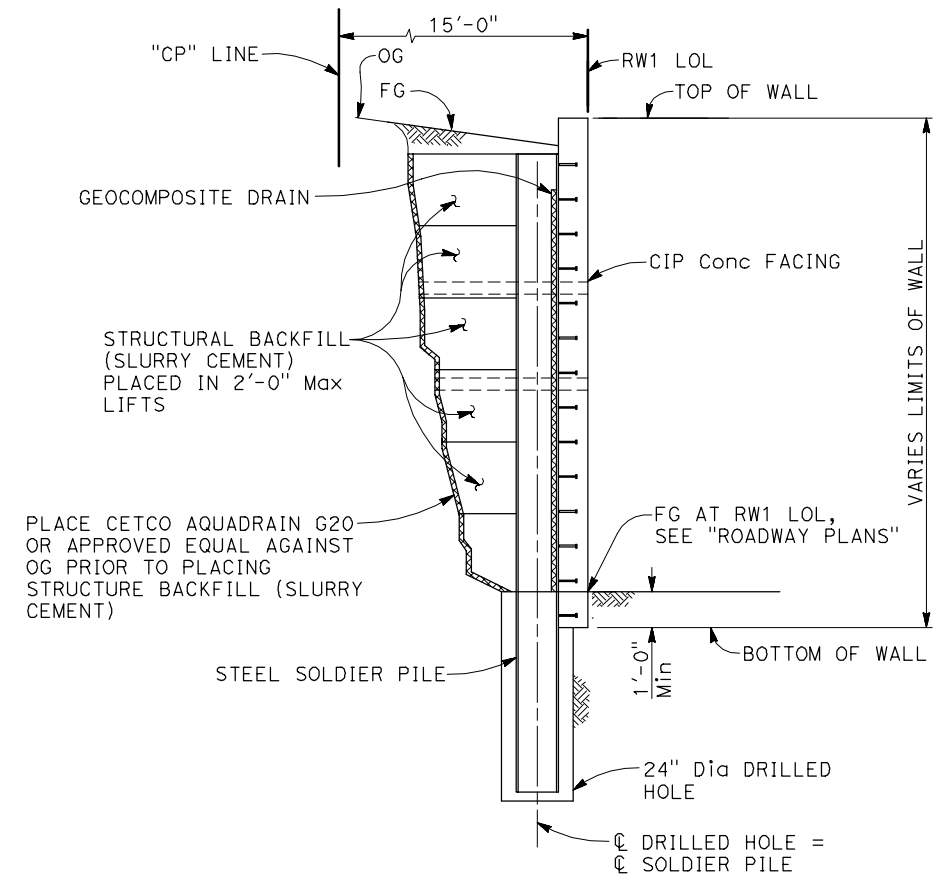
DEVELOPED ELEVATION

1" = 5'



PLAN

1" = 5'



TYPICAL SECTION

3/8" = 1'-0"

NOTES:

1. Top of wall elevations shown are based on "ROADWAY PLANS". Verify elevations with "ROADWAY PLANS" prior to construction.
2. See "ROADWAY PLANS" for right-of-way, utility, drainage, roadway and layout information not noted.
3. "CP" line layout information shown is for informational purposes only, see "ROADWAY PLANS" for "CP" line.

CURVE ALIGNMENT DATA				
No.	R	Δ	TANGENT	LENGTH
1	885'	--	--	--

PLAN CHECK SET/NOT FOR CONSTRUCTION (1/3/20)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 10/20/19

SCALE: AS SHOWN

FILE NAME: 2015260AS21.dwg

SURVEY NOTE:

BCA

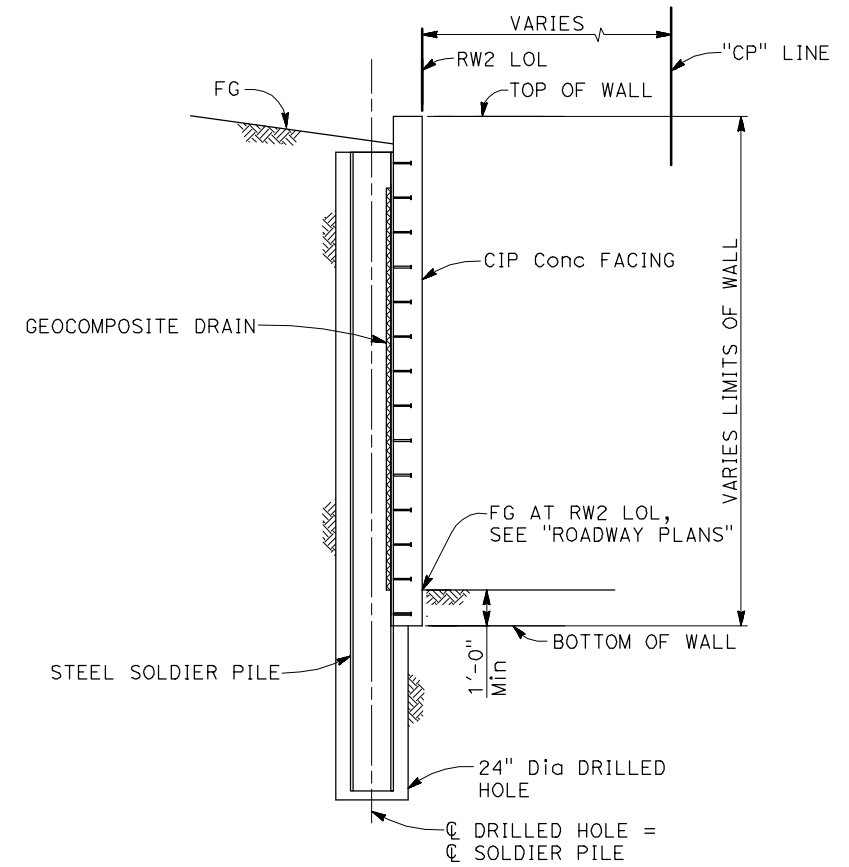
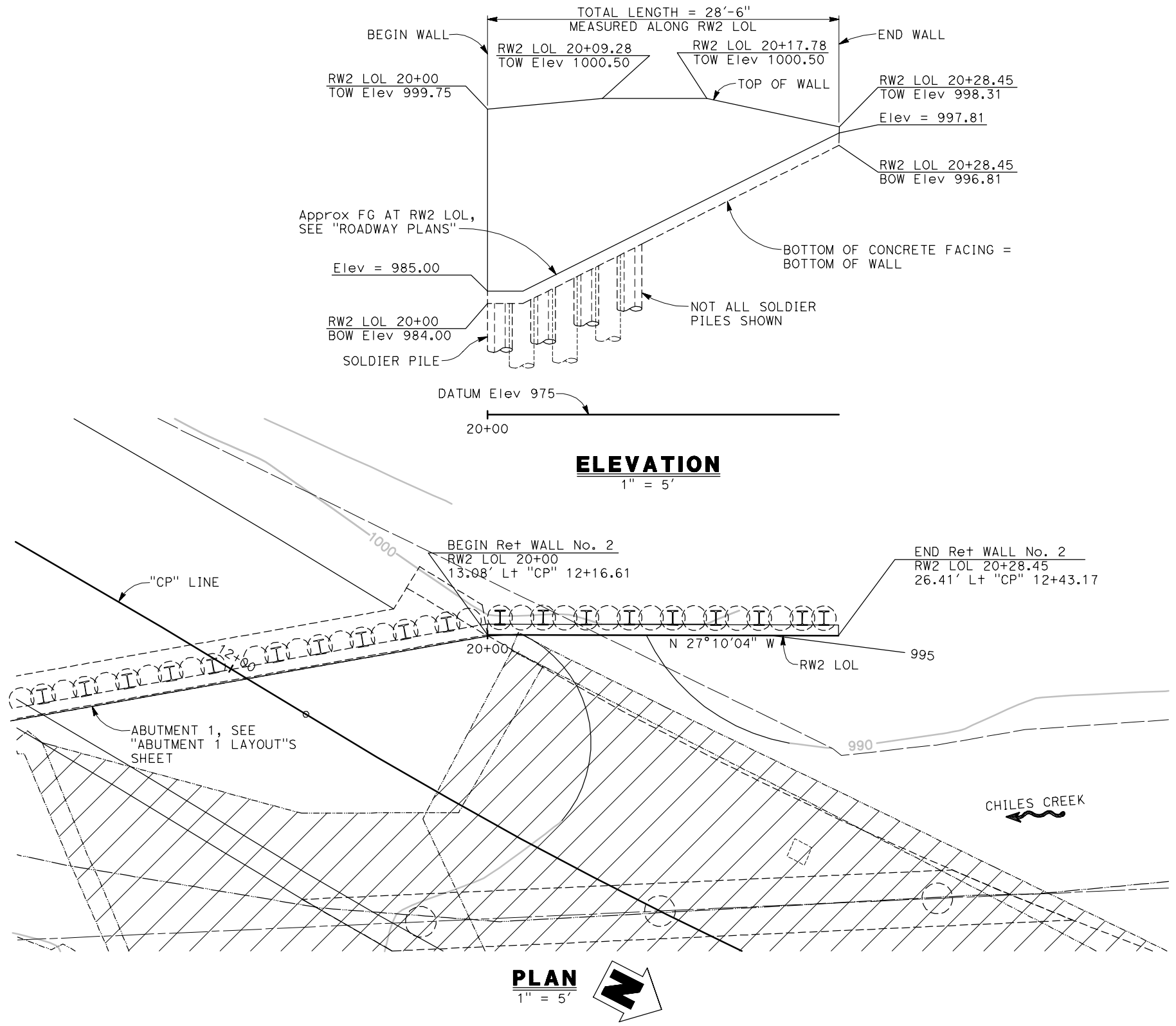
DESIGN: NBP

DRAWN: SMH

CHKD:

SHEET TITLE	
RETAINING WALL No. 1 LAYOUT	
PROJECT TITLE	
CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK	
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-21
SHEET 21 OF XX	

2015260A (2015260AS21)



- NOTES:
- Top of wall elevations shown are based on "ROADWAY PLANS". Verify elevations with "ROADWAY PLANS" prior to construction.
 - See "ROADWAY PLANS" for right-of-way, utility, drainage, roadway and layout information not noted.
 - "CP" line layout information shown is for informational purposes only, see "ROADWAY PLANS" for "CP" line.

PLAN CHECK SET/NOT FOR CONSTRUCTION (1/3/20)

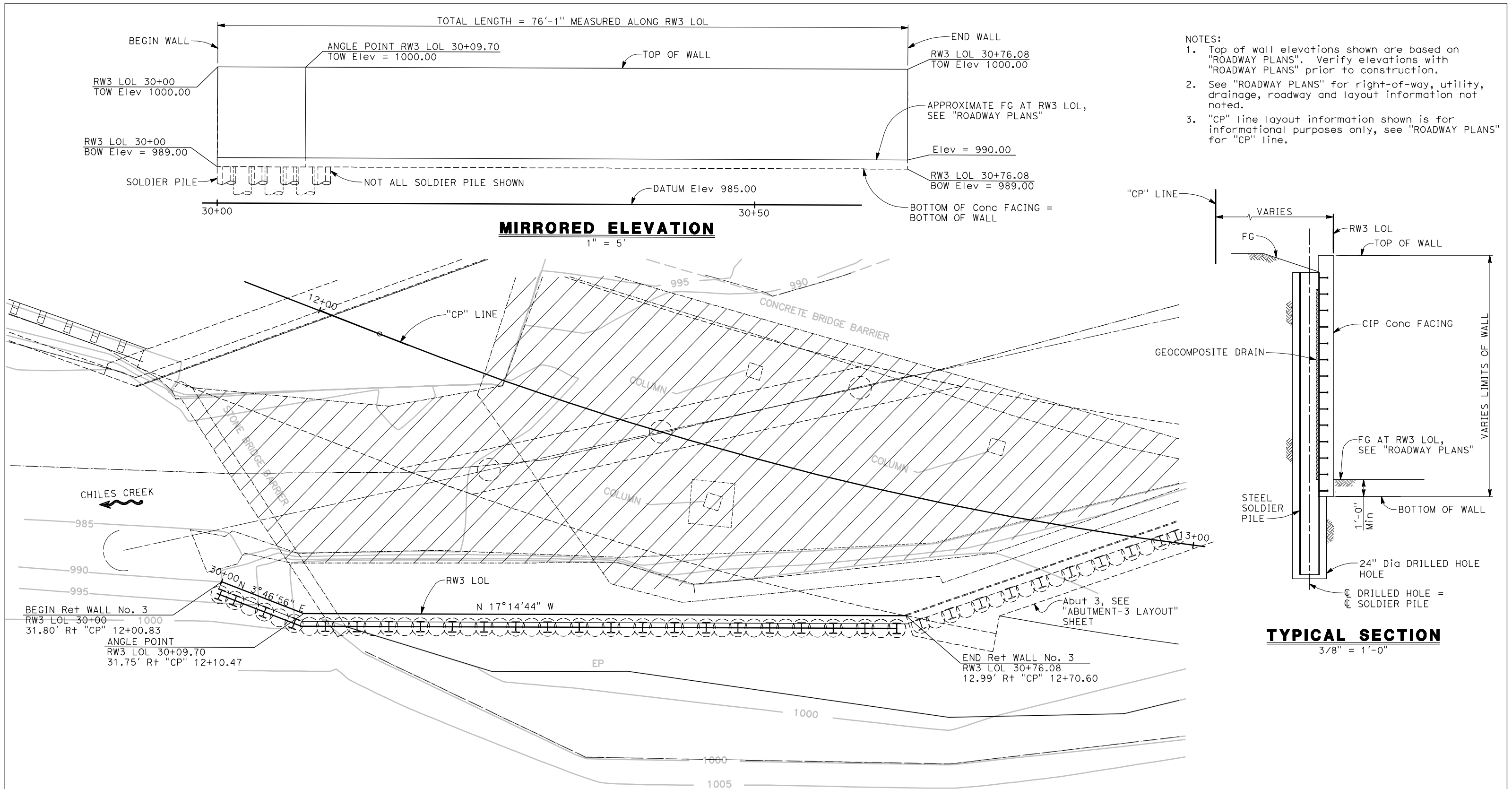
REVISION TABLE		
REV	DESCRIPTION	DATE

BIGGS CARDOSA ASSOCIATES INC
 STRUCTURAL ENGINEERS
 865 The Alameda
 San Jose, California 95128
 408-296-5515

DATE: 10/20/19	DESIGN: NBP
SCALE: AS SHOWN	DRAWN: SMH
FILE NAME: 2015260AS22.dwg	CHKD:
SURVEY NOTE:	

SHEET TITLE RETAINING WALL No. 2 GENERAL PLAN	
PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-22
SHEET 22 OF XX	

2015260A (2015260AS22)



- NOTES:
1. Top of wall elevations shown are based on "ROADWAY PLANS". Verify elevations with "ROADWAY PLANS" prior to construction.
 2. See "ROADWAY PLANS" for right-of-way, utility, drainage, roadway and layout information not noted.
 3. "CP" line layout information shown is for informational purposes only, see "ROADWAY PLANS" for "CP" line.

MIRRORED ELEVATION
1" = 5'

TYPICAL SECTION
3/8" = 1'-0"

PLAN
1" = 5'

PLAN CHECK SET/NOT FOR CONSTRUCTION (1/3/20)

REVISION TABLE		
REV	DESCRIPTION	DATE

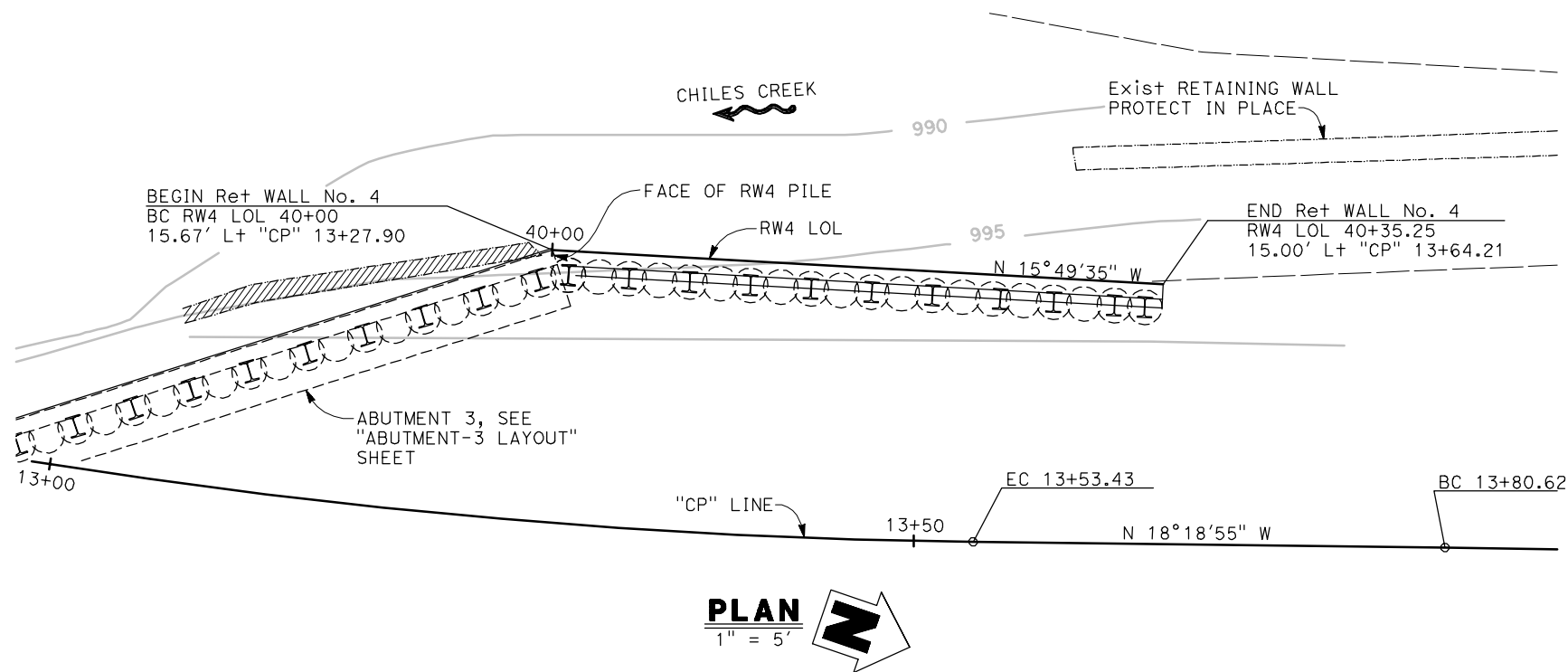
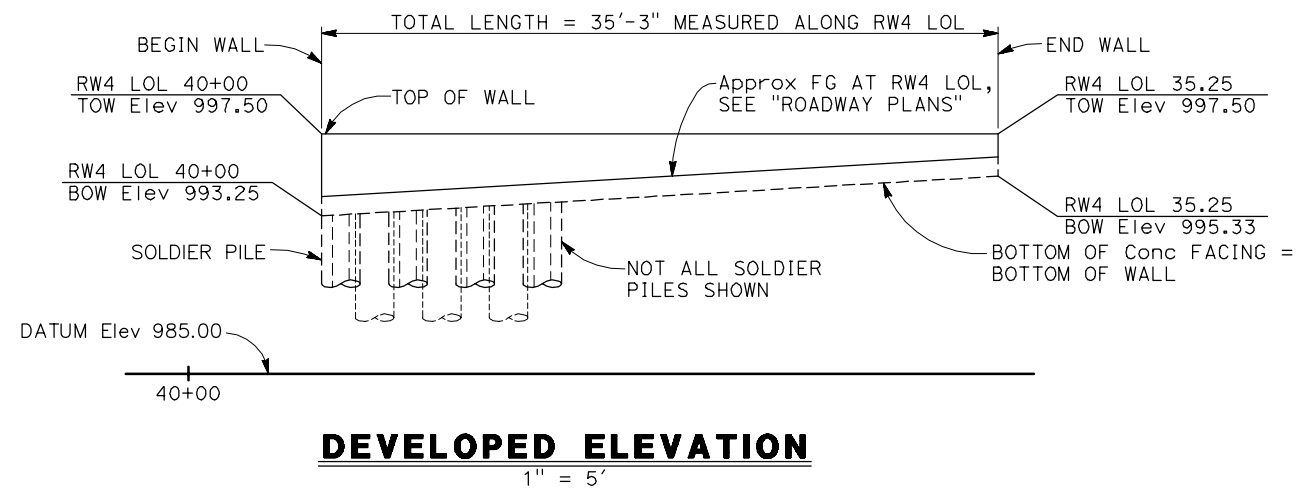


BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
865 The Alameda
San Jose, California 95128
408-296-5515
DATE: 10/20/19
SCALE: AS SHOWN
FILE NAME: 2015260AS23.dwg
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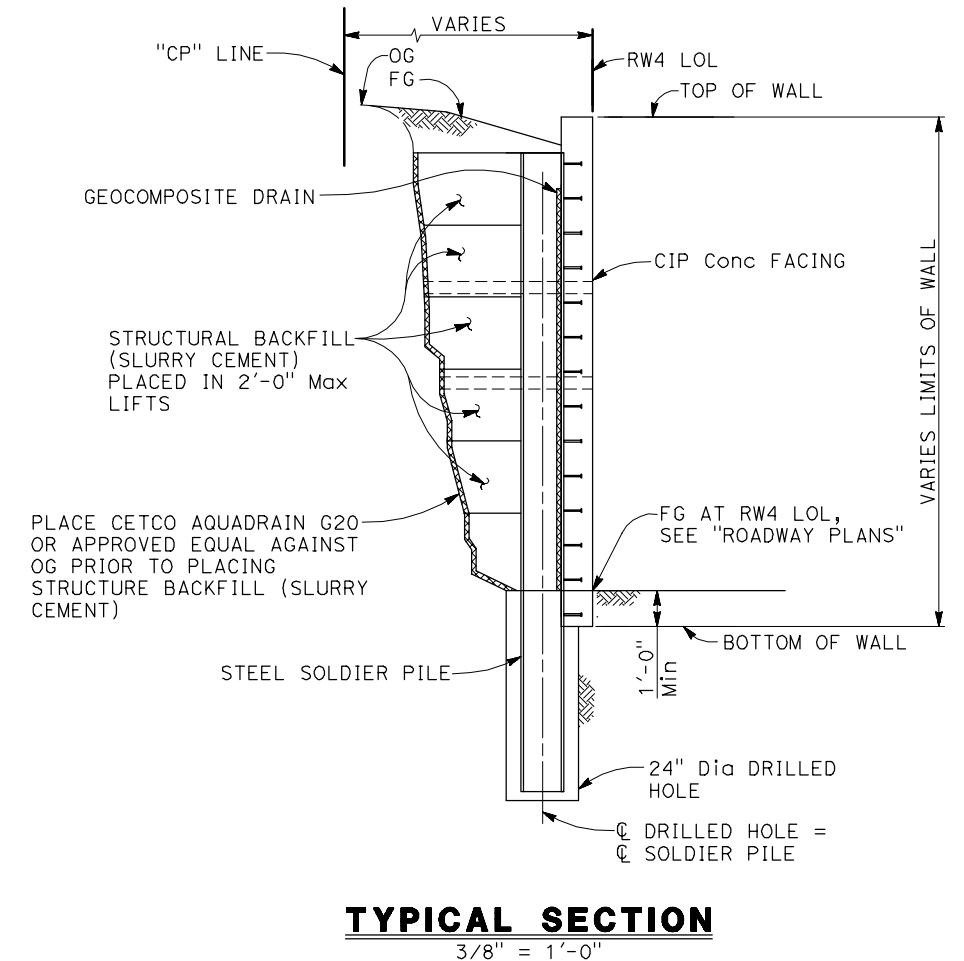


SHEET TITLE	
RETAINING WALL No. 3 LAYOUT	
PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-23
SHEET 21 OF XX	

2015260A (2015260AS23)



- NOTES:
1. Top of wall elevations shown are based on "ROADWAY PLANS". Verify elevations with "ROADWAY PLANS" prior to construction.
 2. See "ROADWAY PLANS" for right-of-way, utility, drainage, roadway and layout information not noted.
 3. "CP" line layout information shown is for informational purposes only, see "ROADWAY PLANS" for "CP" line.



PLAN CHECK SET/NOT FOR CONSTRUCTION (1/3/20)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
865 The Alameda
San Jose, California 95128
408-296-5515
DATE: 10/20/19
SCALE: AS SHOWN
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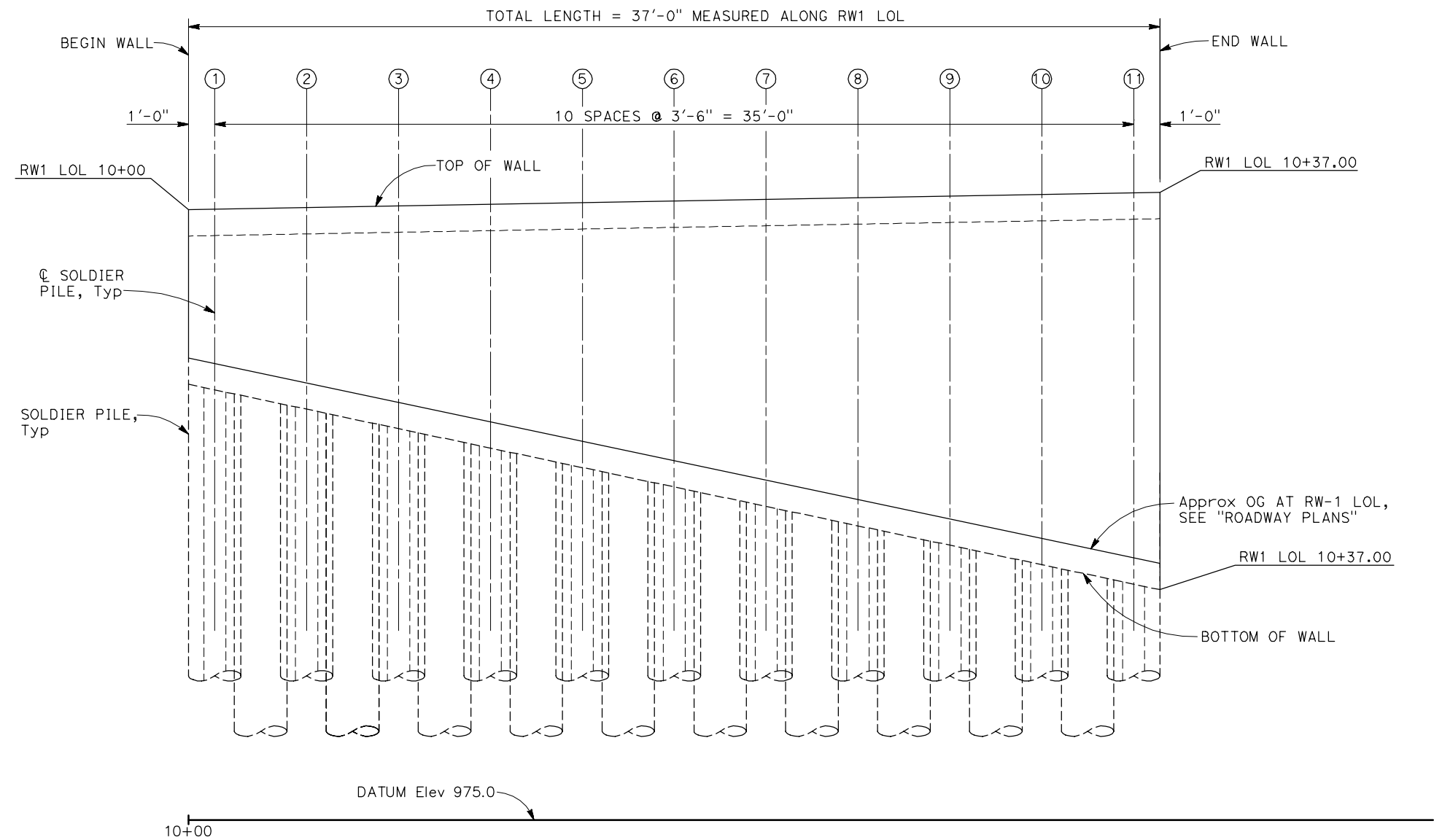
SHEET TITLE	
RETAINING WALL No. 4 GENERAL PLAN	
PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-24
SHEET 22 OF XX	

2015260A (2015260AS24)

- NOTES:
1. See "RETAINING WALL 1 PILE DATA TABLE" on "RETAINING WALL PILE DATA TABLE" sheet.
 2. For Top of Wall and Bottom of Wall elevations see "RETAINING WALL No. 1 GENERAL PLAN" sheet.

LEGEND:

① Indicates Soldier Pile No., see "RETAINING WALL PILE DATA TABLE" sheet.

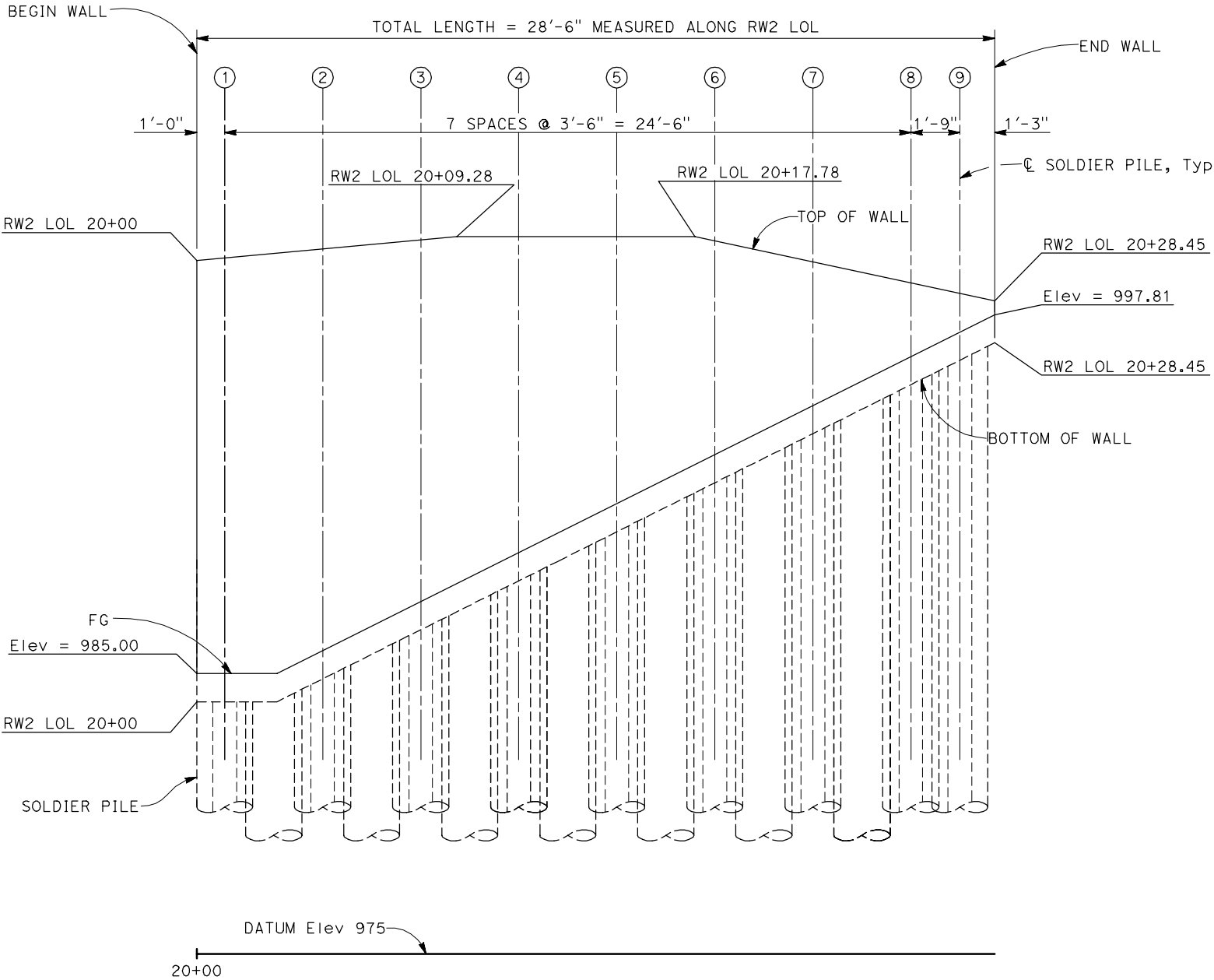


DEVELOPED ELEVATION-PILE LAYOUT
3/8" = 1'-0"

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/16/19)

<table><tr><th colspan="3">REVISION TABLE</th></tr><tr><th>REV</th><th>DESCRIPTION</th><th>DATE</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>			REVISION TABLE			REV	DESCRIPTION	DATE													 BIGGS CARDOSA ASSOCIATES INC STRUCTURAL ENGINEERS 865 The Alameda San Jose, California 95128 408-296-5515 <table><tr><td>DATE: 10/20/19</td><td>DESIGN: NBP</td></tr><tr><td>SCALE: AS SHOWN</td><td>DRAWN: SMH</td></tr><tr><td>FILE NAME: 2015260AS25.dwg</td><td>CHKD:</td></tr><tr><td>SURVEY NOTE:</td><td></td></tr></table>	DATE: 10/20/19	DESIGN: NBP	SCALE: AS SHOWN	DRAWN: SMH	FILE NAME: 2015260AS25.dwg	CHKD:	SURVEY NOTE:		<table><tr><td colspan="2">SHEET TITLE</td></tr><tr><td colspan="2">RETAINING WALL No. 1 LAYOUT</td></tr><tr><td colspan="2">PROJECT TITLE</td></tr><tr><td colspan="2">CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK</td></tr><tr><td colspan="2">BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)</td></tr><tr><td>LOP 3-15</td><td>S-25</td></tr><tr><td colspan="2">SHEET 19 OF XX</td></tr></table>		SHEET TITLE		RETAINING WALL No. 1 LAYOUT		PROJECT TITLE		CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK		BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)		LOP 3-15	S-25	SHEET 19 OF XX	
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BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)																																													
LOP 3-15	S-25																																												
SHEET 19 OF XX																																													

2015260A (2015260AS25)



ELEVATION-PILE LAYOUT

3/8" = 1'-0"

- NOTES:
- See "RETAINING WALL 2 PILE DATA TABLE" on "RETAINING WALL PILE DATA TABLE" sheet.
 - For Top of Wall and Bottom of Wall elevations see "RETAINING WALL No. 2 GENERAL PLAN" sheet.

LEGEND:

① Indicates Soldier Pile No., see "RETAINING WALL PILE DATA TABLE" sheet.

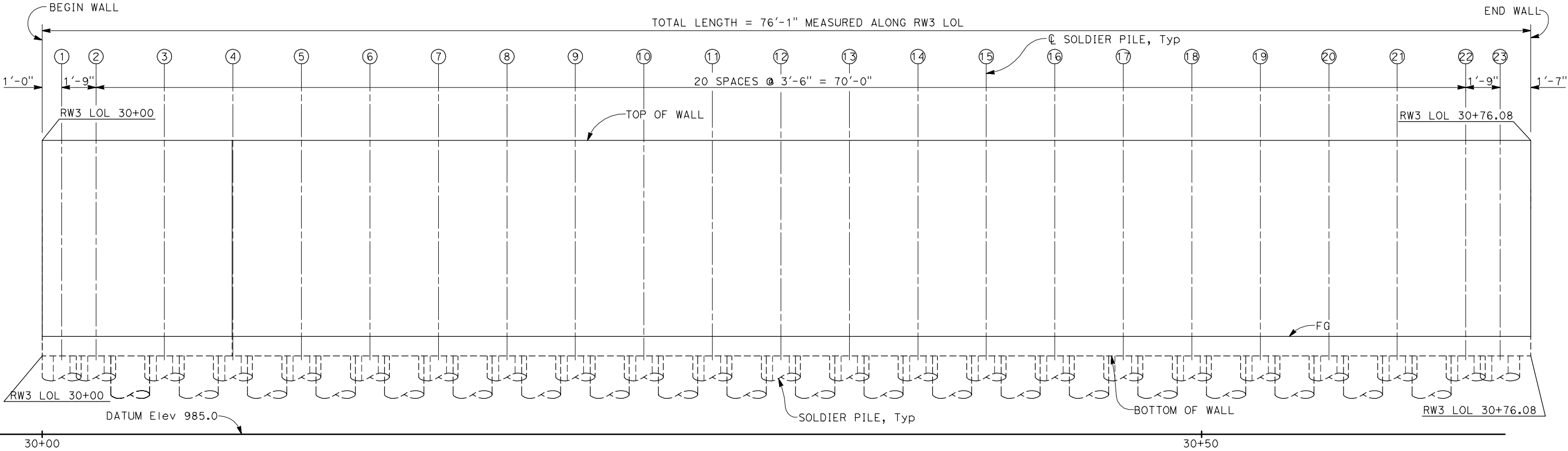
PLAN CHECK SET/NOT FOR CONSTRUCTION (12/27/19)

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REVISION TABLE																																						
REV	DESCRIPTION	DATE																																				
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RETAINING WALL No. 2 LAYOUT																																						
PROJECT TITLE																																						
CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK																																						
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)																																						
LOP 3-15	S-26																																					
SHEET 20 OF XX																																						

2015260A (2015260AS26)

- NOTES:
1. See "RETAINING WALL 3 PILE DATA TABLE" on "RETAINING WALL PILE DATA TABLE" sheet.
 2. For Top of Wall and Bottom of Wall elevations see "RETAINING WALL No. 3 GENERAL PLAN" sheet.

- LEGEND:
- ① Indicates Soldier Pile No., see "RETAINING WALL PILE DATA TABLE" sheet.



MIRRORED ELEVATION-PILE LAYOUTS
3/8" = 1'-0"

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/16/19)

REVISION TABLE			SHEET TITLE		
REV	DESCRIPTION	DATE			
			RETAINING WALL No.3 LAYOUT		
			PROJECT TITLE CHILES POPE VALLEY ROAD BRIDGE OVER CHILES CREEK		
			BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)		
			LOP 3-15		S-27
					SHEET XX OF XX

REGISTERED PROFESSIONAL ENGINEER
RONALD L. OEN
No. 46945
Exp. 9/30/21
CIVIL
STATE OF CALIFORNIA

NAPA COUNTY
CALIFORNIA

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 10/31/19

SCALE: AS SHOWN

FILE NAME: 2015260AS27.dwg

SURVEY NOTE:

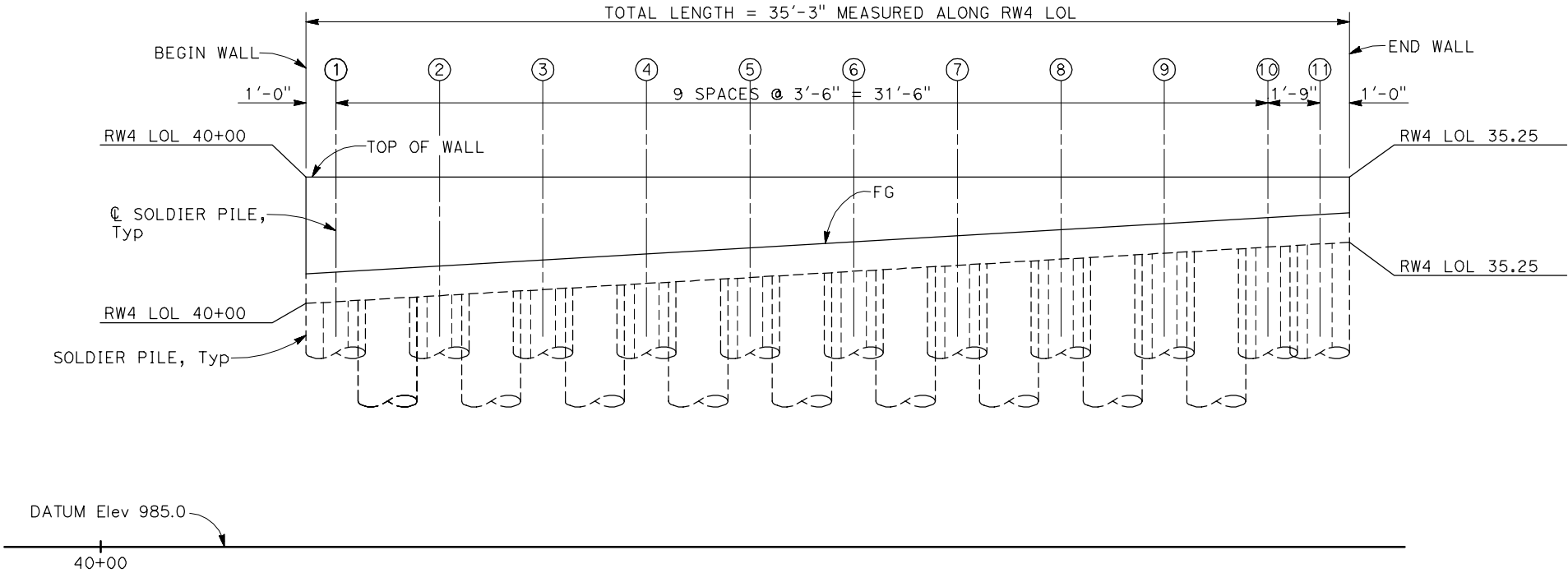
DESIGN: NBP

DRAWN: RLQ

CHKD:

- NOTES:
1. See "RETAINING WALL 4 PILE DATA TABLE" on "RETAINING WALL PILE DATA TABLE" sheet.
 2. For Top of Wall and Bottom of Wall elevations see "RETAINING WALL No. 4 GENERAL PLAN" sheet.

- LEGEND:
- ① Indicates Soldier Pile No., see "RETAINING WALL PILE DATA TABLE" sheet.



DEVELOPED ELEVATION-PILE LAYOUT

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/16/19)

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REVISION TABLE																													
REV	DESCRIPTION	DATE																											
865 The Alameda San Jose, California 95128 408-296-5515																													
DATE: 10/20/19		DESIGN: NBP		LOP 3-15		S-28 SHEET 22 OF XX																							
SCALE: AS SHOWN		DRAWN: SMH																											
FILE NAME: 2015260AS28.dwg		CHKD:																											
SURVEY NOTE:																													

2015260A (2015260AS28)

RETAINING WALL - 1 PILE DATA TABLE						
Pile No.	Pile Section	Drilled Hole Size (in)	Top of Wall Elevation	Pile Cut-Off Elevation	Bottom of Wall Elevation	Pile Tip Elevation
1	W14x74	24	998.27	997.27	991.39	959.00
2	W14x74	24	998.34	997.34	990.68	959.00
3	W14x74	24	998.41	997.41	989.96	959.00
4	W14x74	24	998.48	997.48	989.24	959.00
5	W14x74	24	998.55	997.55	988.52	959.00
6	W14x74	24	998.63	997.63	987.80	959.00
7	W14x74	24	998.70	997.70	987.08	959.00
8	W12x106	24	998.77	997.77	986.36	950.00
9	W12x106	24	998.84	997.84	985.64	950.00
10	W12x106	24	998.91	997.91	984.92	950.00
11	W12x106	24	998.98	997.98	984.21	950.00

RETAINING WALL - 2 PILE DATA TABLE						
Pile No.	Pile Section	Drilled Hole Size (in)	Top of Wall Elevation	Pile Cut-Off Elevation	Bottom of Wall Elevation	Pile Tip Elevation
1	W12x106	24	999.92	999.92	984.00	954.00
2	W12x106	24	1000.53	1000.53	984.82	954.00
3	W12x106	24	1001.14	1001.14	986.57	954.00
4	W12x106	24	1001.75	1001.75	988.32	960.00
5	W12x106	24	1000.29	1000.29	990.07	960.00
6	W12x106	24	999.42	999.42	991.82	960.00
7	W12x106	24	998.55	998.55	993.57	965.00
8	W12x106	24	997.68	997.68	995.32	965.00
9	W12x106	24	997.24	997.24	996.19	965.00

RETAINING WALL - 3 PILE DATA TABLE						
Pile No.	Pile Section	Drilled Hole Size (in)	Top of Wall Elevation	Pile Cut-Off Elevation	Bottom of Wall Elevation	Pile Tip Elevation
1	W14x74	24	1000.00	999.00	989.00	960.00
2	W14x74	24	1000.00	999.00	989.00	960.00
3	W14x74	24	1000.00	999.00	989.00	960.00
4	W14x74	24	1000.00	999.00	989.00	960.00
5	W14x74	24	1000.00	999.00	989.00	960.00
6	W14x74	24	1000.00	999.00	989.00	960.00
7	W14x74	24	1000.00	999.00	989.00	960.00
8	W14x74	24	1000.00	999.00	989.00	960.00
9	W14x74	24	1000.00	999.00	989.00	960.00
10	W14x74	24	1000.00	999.00	989.00	960.00
11	W14x74	24	1000.00	999.00	989.00	960.00
12	W14x74	24	1000.00	999.00	989.00	960.00
13	W14x74	24	1000.00	999.00	989.00	960.00
14	W14x74	24	1000.00	999.00	989.00	960.00
15	W14x74	24	1000.00	999.00	989.00	960.00
16	W14x74	24	1000.00	999.00	989.00	960.00
17	W14x74	24	1000.00	999.00	989.00	960.00
18	W14x74	24	1000.00	999.00	989.00	960.00
19	W14x74	24	1000.00	999.00	989.00	960.00
20	W14x74	24	1000.00	999.00	989.00	960.00
21	W14x74	24	1000.00	999.00	989.00	960.00
22	W14x74	24	1000.00	999.00	989.00	960.00
23	W14x74	24	1000.00	999.00	989.00	960.00

RETAINING WALL - 4 PILE DATA TABLE						
Pile No.	Pile Section	Drilled Hole Size (in)	Top of Wall Elevation	Pile Cut-Off Elevation	Bottom of Wall Elevation	Pile Tip Elevation
1	W14x74	24	997.50	996.50	993.30	970.00
2	W14x74	24	997.50	996.50	993.50	970.00
3	W14x74	24	997.50	996.50	993.70	970.00
4	W14x74	24	997.50	996.50	993.90	970.00
5	W14x74	24	997.50	996.50	994.10	970.00
6	W14x74	24	997.50	996.50	994.30	970.00
7	W14x74	24	997.50	996.50	994.50	970.00
8	W14x74	24	997.50	996.50	994.70	970.00
9	W14x74	24	997.50	996.50	994.90	970.00
10	W14x74	24	997.50	996.50	995.10	970.00
11	W14x74	24	997.50	996.50	995.20	970.00

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/31/19)

	REVISION TABLE	
REV	DESCRIPTION	DATE



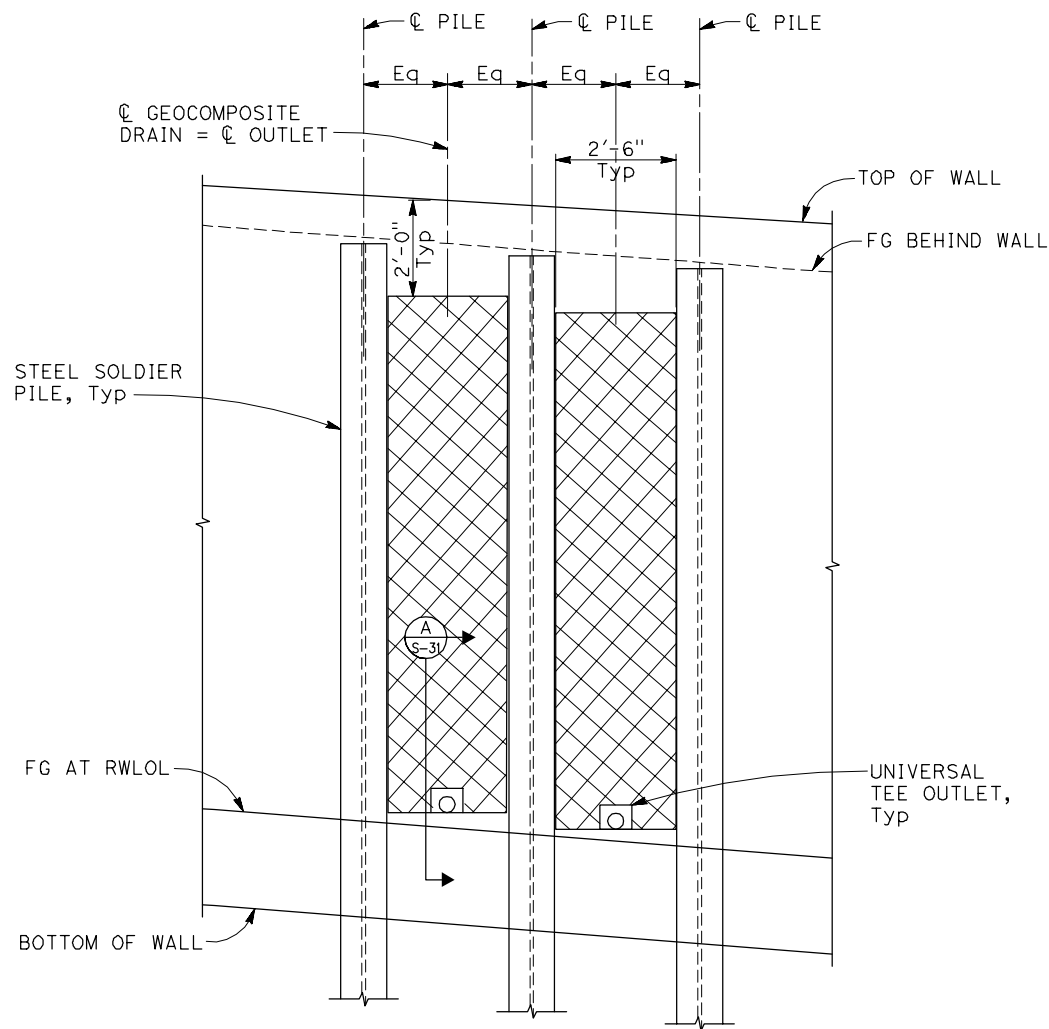
BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
865 The Alameda
San Jose, California 95128
408-296-5515



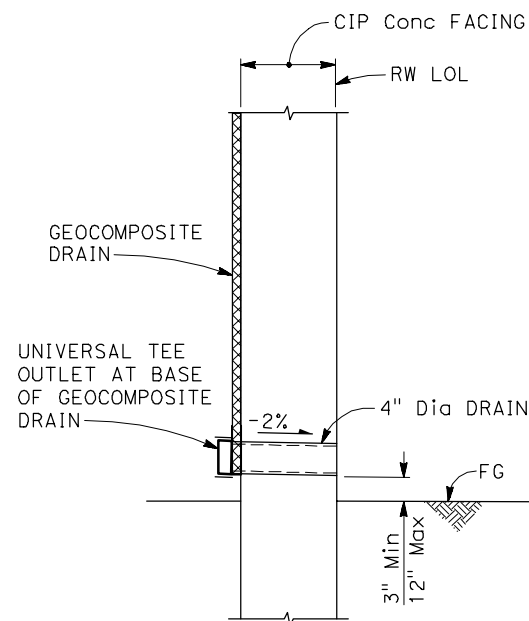
DATE: 10/31/19	DESIGN: NBP
SCALE: AS SHOWN	DRAWN: RLQ
FILE NAME: 2015260AS29.dwg	CHKD:
SURVEY NOTE:	

SHEET TITLE RETAINING WALL PILE DATA TABLE	
PROJECT TITLE CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)	
LOP 3-15	S-29 SHEET XX OF XX

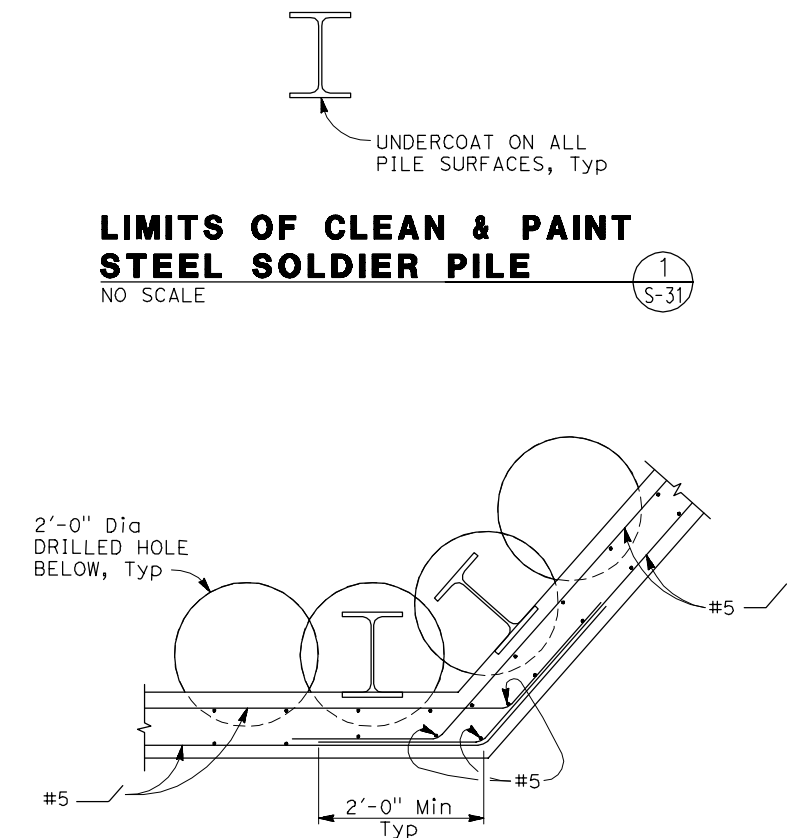
2015260A (2015260AS29)



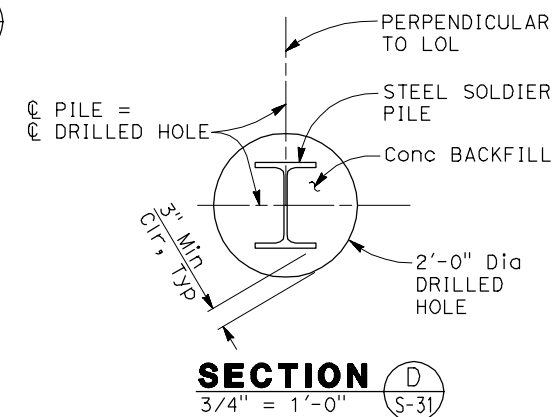
MIRRORED PART ELEVATION - WALL DRAIN
1/2" = 1'-0"



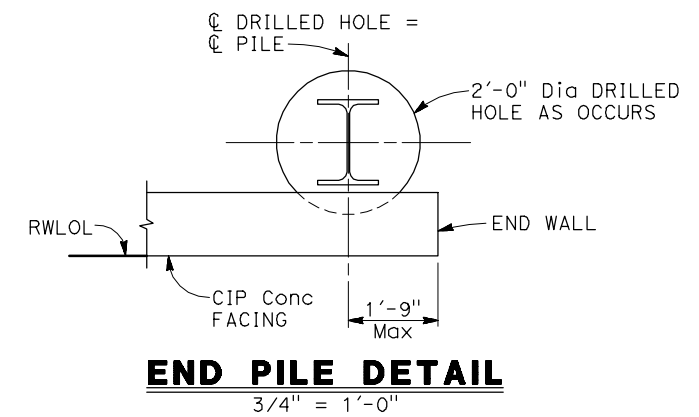
SECTION A
NO SCALE



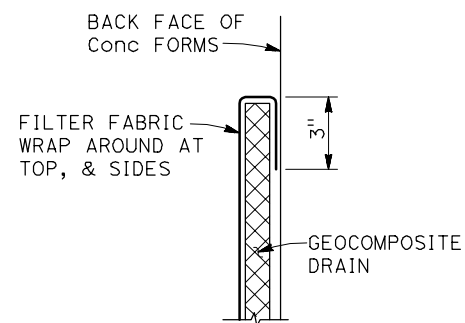
SECTION C
3/4" = 1'-0"



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



END PILE DETAIL
3/4" = 1'-0"



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

PLAN CHECK SET/NOT FOR CONSTRUCTION (12/26/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
865 The Alameda
San Jose, California 95128
408-296-5515
DATE: 10/31/19
SCALE: AS SHOWN
FILE NAME: 2015260AS31.dwg
SURVEY NOTE:



SHEET TITLE
SOLDIER PILE WALL DETAILS No.2
PROJECT TITLE
CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK
BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)
LOP 3-15
S-31
SHEET XX OF XX

2015260A (2015260AS31)

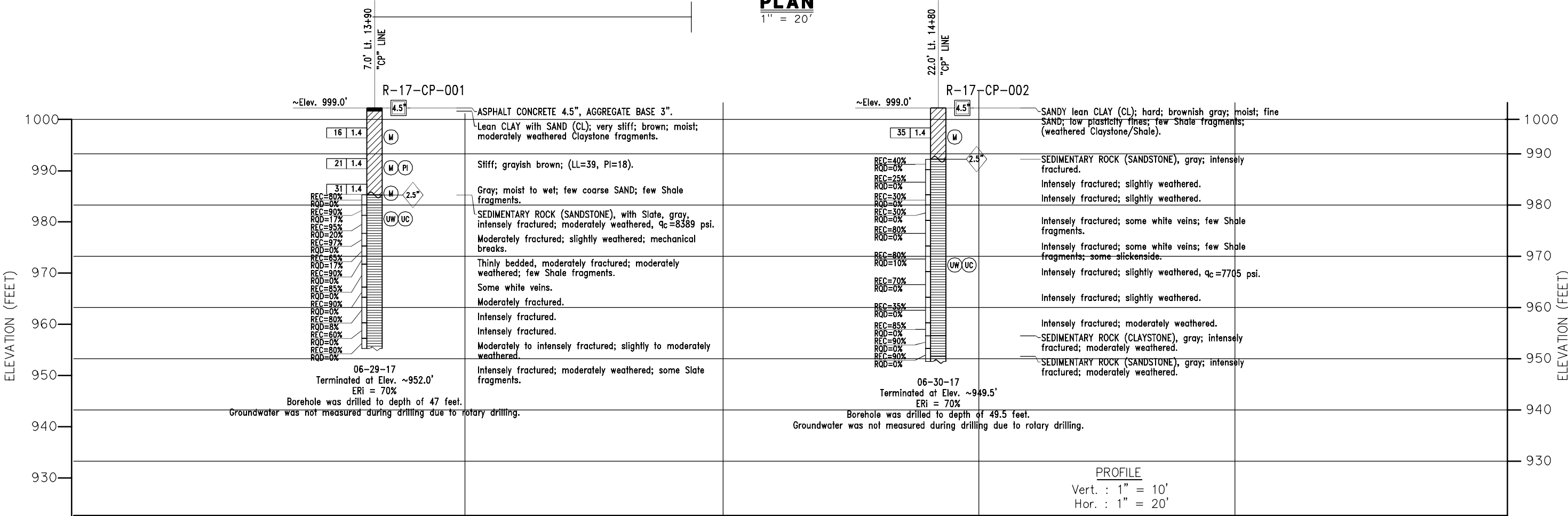
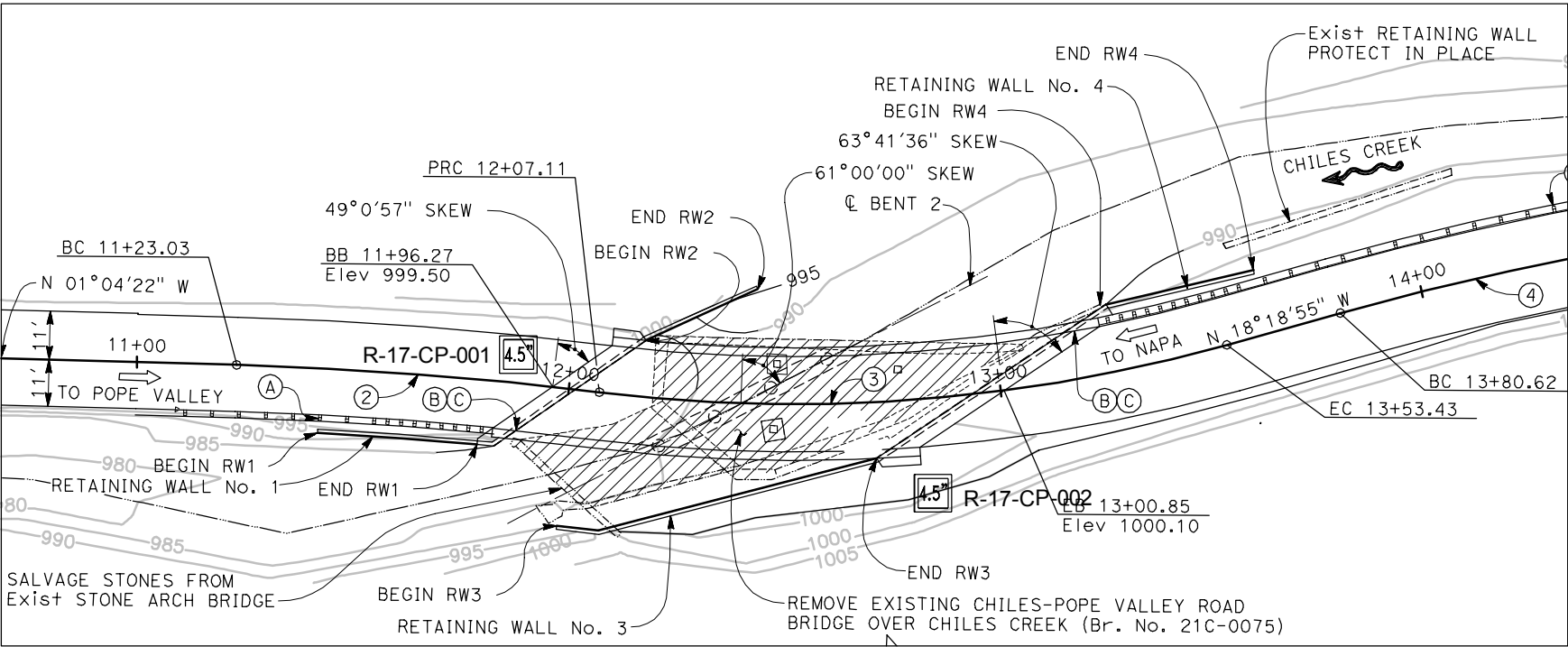
NOTES:
Standard Penetration Test Sampler: I.D. = 1.4"; O.D. = 2"
Modified California Sampler: I.D. = 2.5"; O.D. = 3"
Hammer Assembly: A 140 lb hammer with a 30" drop
(Automatic Hammer)

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

See Caltrans 2018 Standard Plans A10F, A10G and
A10H for Soil and Rock Legends.

All dimensions are in feet unless otherwise shown.

Base map is provided by Biggs Cardosa Associates
Inc July 2018.



13+00 14+00 15+00 16+00 PLAN CHECK SET/NOT FOR CONSTRUCTION (12/18/19)

REVISION TABLE		
REV	DESCRIPTION	DATE



BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS

865 The Alameda
San Jose, California 95128
408-296-5515

DATE: 10/31/19

SCALE: AS SHOWN

FILE NAME: 2015260AS32.dwg

SURVEY NOTE:



DESIGN: NBP

DRAWN: RLQ

CHKD:

SHEET TITLE
LOG OF TEST BORING No. 1

PROJECT TITLE
CHILES-POPE VALLEY ROAD BRIDGE OVER CHILES CREEK

BRIDGE No. 21C-0075, RDS 15-23, BRLS-5921(074)

LOP 3-15

S-32

SHEET XX OF XX

2015260A (2015260AS32)