

CONTRACT C19222

I-280/Foothill Expressway Off-Ramp Improvements

Volume 3
Contract Plans

PROJECT ADMINISTERED BY:



DESIGNED BY:

Jacobs Engineering Group, Inc.

Address

300 Frank Ogawa Plaza, Suite 600

Oakland, CA 94612

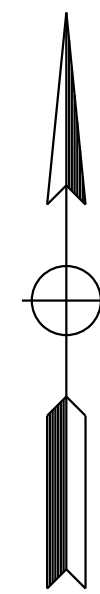
Issued for Bid
December 12, 2019



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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SANTA CLARA COUNTY
IN AND NEAR LOS ALTOS AND CUPERTINO
FROM FOOTHILL EXPRESSWAY UNDERCROSSING
TO 0.4 MILE NORTH OF ROUTE 85/280 SEPARATION

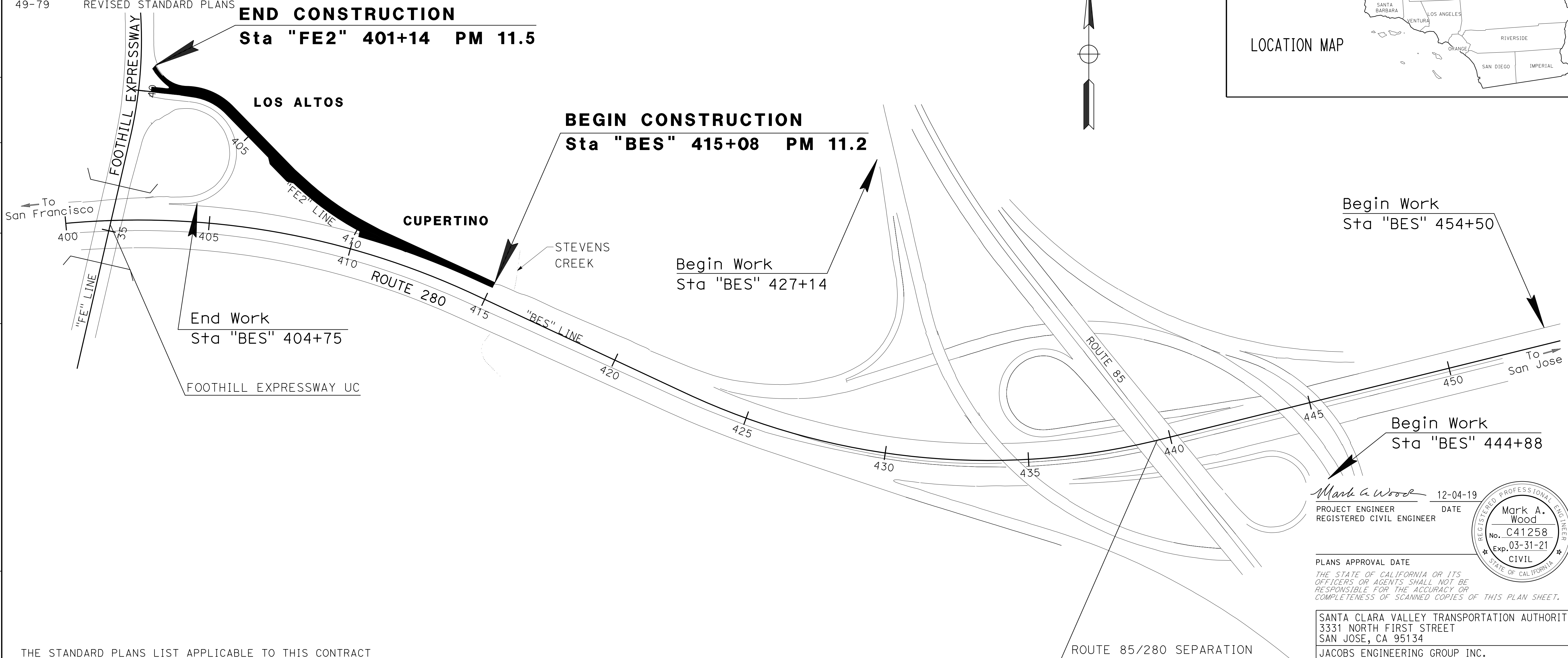
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2018



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	1	79

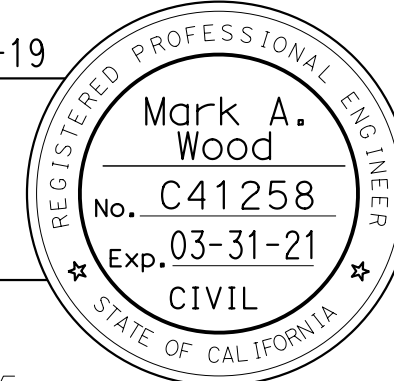
LOCATION MAP

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	TYPICAL CROSS SECTIONS
4	PROJECT CONTROL
5	LAYOUT
6	PROFILE AND SUPERELEVATION DIAGRAM
7-11	CONSTRUCTION DETAILS
12-13	TEMPORARY WATER POLLUTION CONTROL PLANS
14-17	DRAINAGE PLANS, PROFILES AND DETAILS
18	UTILITY
19	CONSTRUCTION AREA SIGNS
20-31	STAGE CONSTRUCTION AND TRAFFIC HANDLING PLANS
32	DETOUR PLAN
33-34	PAVEMENT DELINEATION AND SIGN PLANS
35-37	SIGN DETAILS AND QUANTITIES
38-39	SUMMARY OF QUANTITIES
40-41	RETAINING WALL PLANS
42	IRRIGATION PLAN
43-45	EROSION CONTROL PLANS
46-48	ELECTRICAL PLANS
49-79	REVISED STANDARD PLANS



NO SCALE

Mark A. Wood 12-04-19
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER



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

SANTA CLARA VALLEY TRANSPORTATION AUTHORITY
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134

JACOBS ENGINEERING GROUP INC.
 155 GRAND AVENUE, SUITE 800
 OAKLAND, CA 94612

CONTRACT No.	04-4G6804
PROJECT ID	0413000086

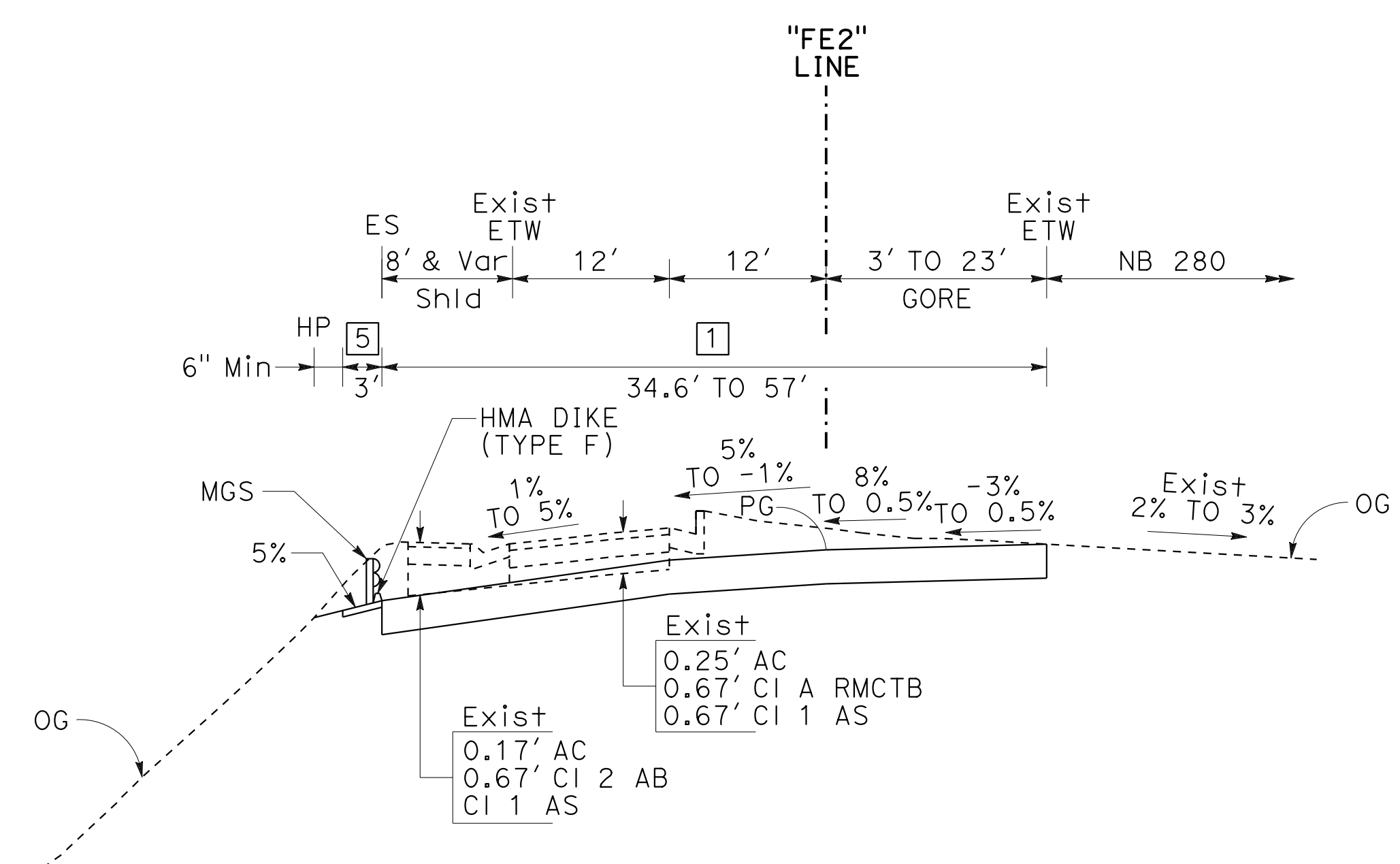
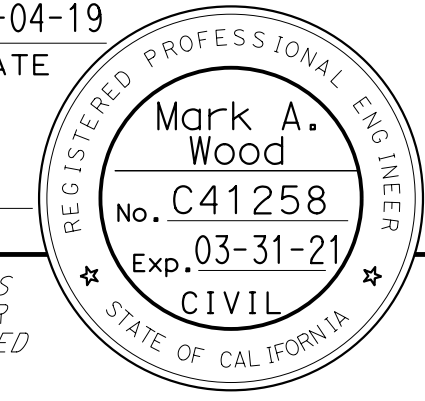
APPROVED AS TO IMPACT ON STATE FACILITIES AND CONFORMANCE WITH APPLICABLE STATE STANDARDS AND PRACTICES AND THAT TECHNICAL OVERSIGHT WAS PERFORMED.
 DATE SIGNED: 12-31-19
 LICENSE EXP. DATE: 12-31-19
 REGISTRATION No.: 74922
 CALTRANS DESIGN OVERSIGHT APPROVAL: OUYNH NGUYEN
 CONSULTANT DESIGN MANAGER: MARK WOOD

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

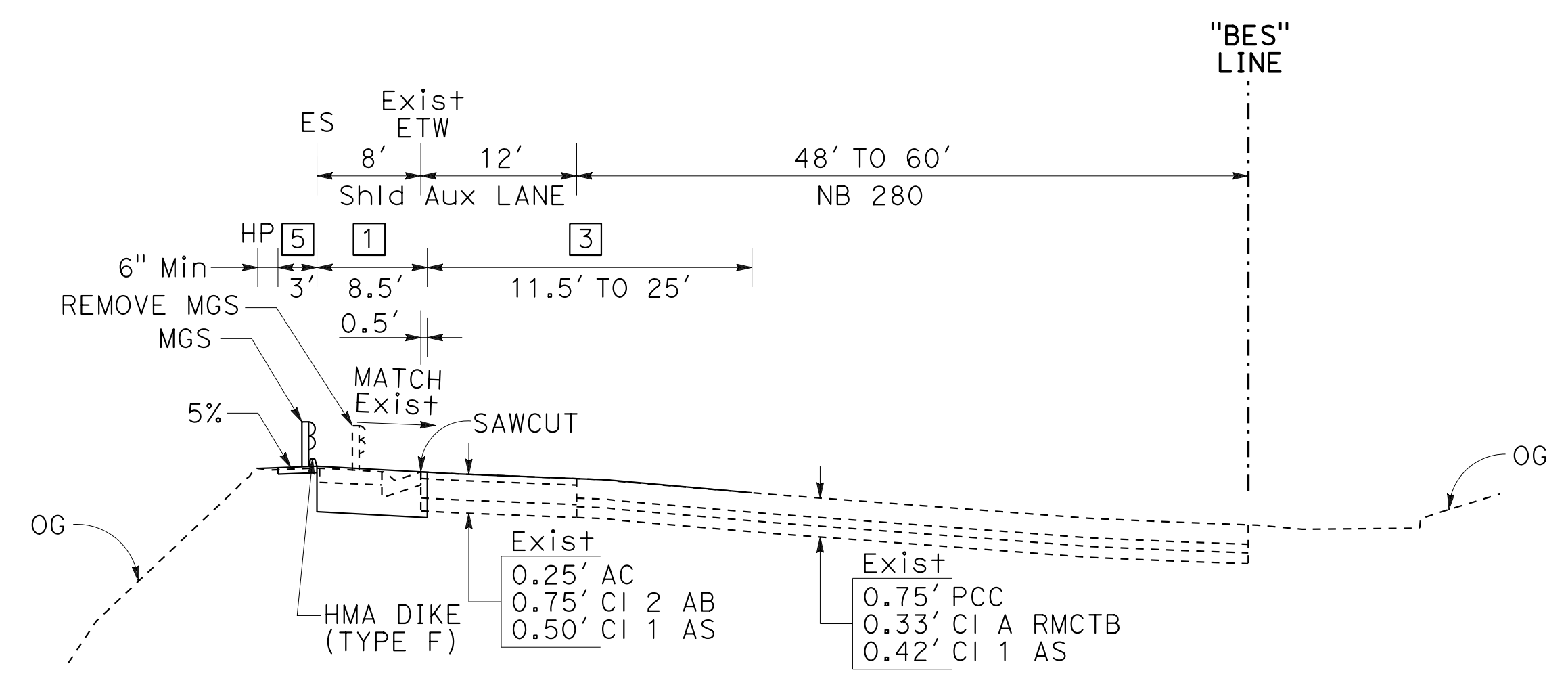
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

LAST REVISION: 12-04-19 TIME PLOTTED => 12:07

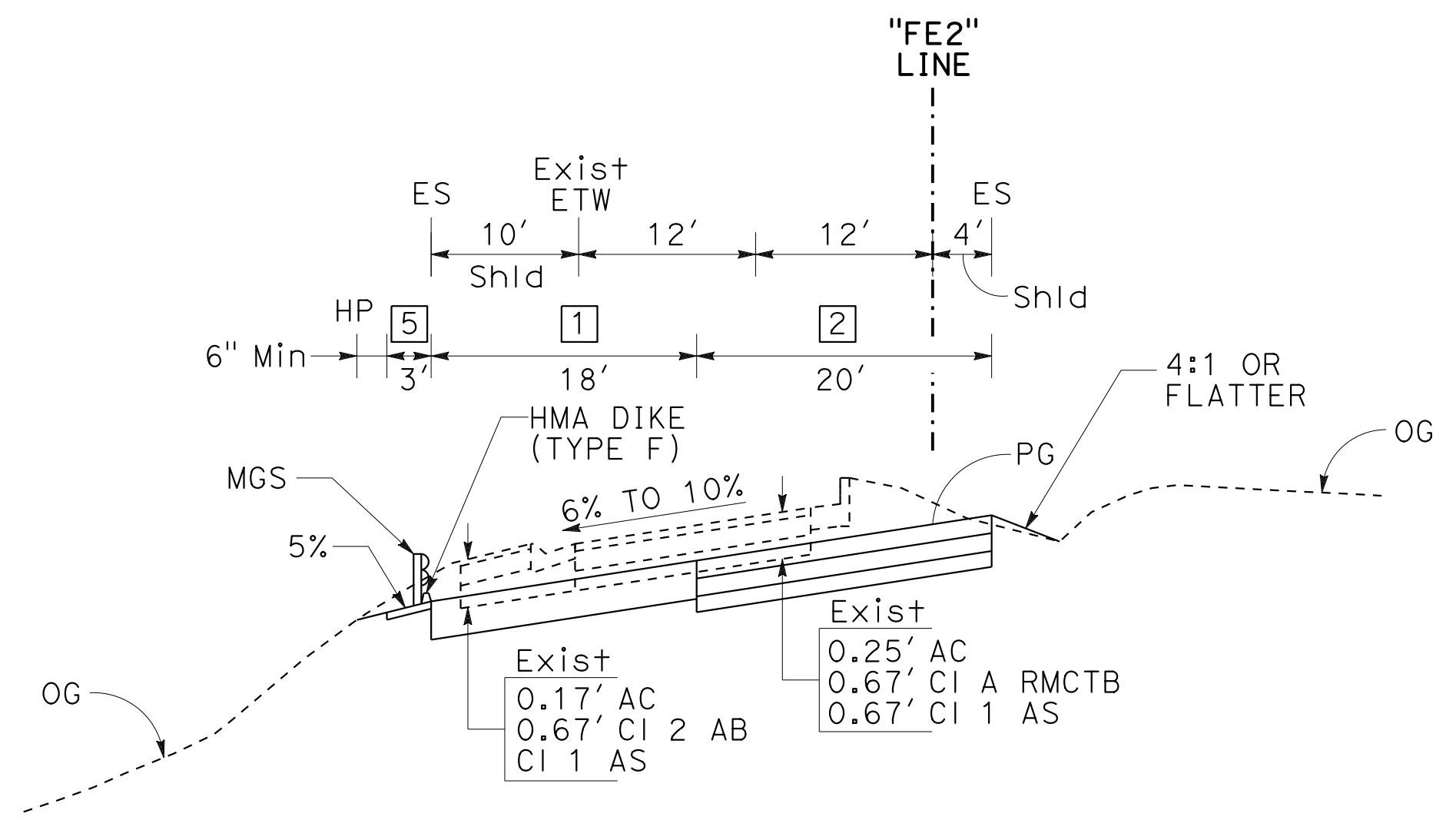
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	3	79
<i>Mark A. Wood</i> REGISTERED CIVIL ENGINEER			12-04-19 DATE		
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		



NORTHBOUND DIAGONAL OFF-RAMP
"FE2" Sta 410+11 TO 411+60



NORTHBOUND ROUTE 280
"FE2" Sta 411+60 TO "BES" 415+08



NORTHBOUND DIAGONAL OFF-RAMP
"FE2" Sta 407+80 TO 410+11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PHILIP CHEUNG	REVISOR
<i>Caltrans</i>	MARK WOOD	DATE
CONSULTANT FUNCTIONAL SUPERVISOR		
DARRELL VICE		
CALCULATED/DESIGNED BY		
CHECKED BY		

TYPICAL CROSS SECTION
NO SCALE

X-2



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT: FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: SCOTT SHORTLIDGE
 CHECKED BY: MARK WOOD
 REVISED BY: DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	4	79

PROFESSIONAL LAND SURVEYOR: *Scott A. Shortlidge*
 DATE: 12-04-19
 No. 6441
 Exp. 12-31-20

PLANS APPROVAL DATE: _____

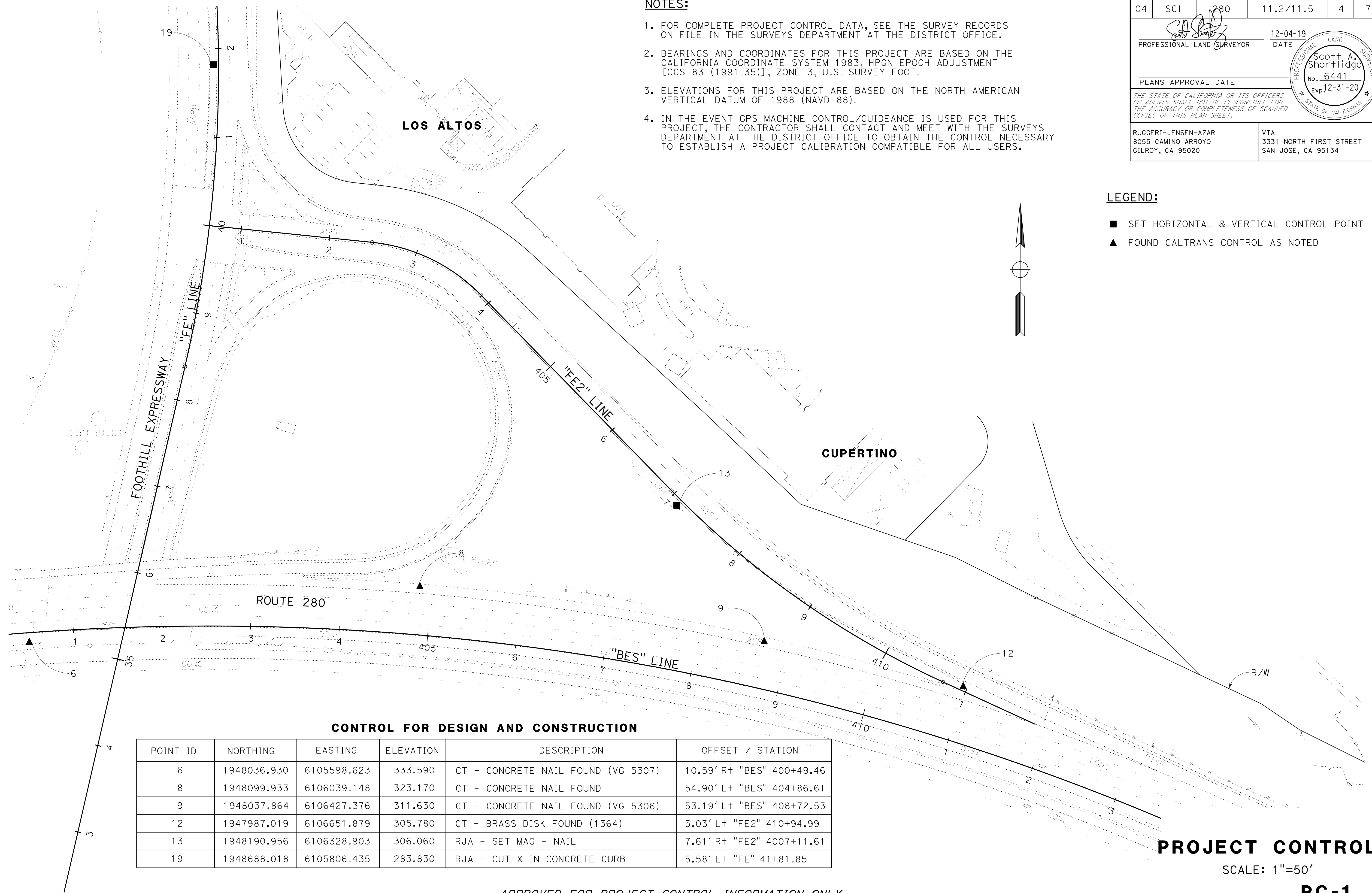
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

RUGGERI-JENSEN-AZAR
 8055 CAMINO ARROYO
 GILROY, CA 95020

VTA
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134

- NOTES:**
- FOR COMPLETE PROJECT CONTROL DATA, SEE THE SURVEY RECORDS ON FILE IN THE SURVEYS DEPARTMENT AT THE DISTRICT OFFICE.
 - BEARINGS AND COORDINATES FOR THIS PROJECT ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM 1983, HPGN EPOCH ADJUSTMENT [CCS 83 (1991.35)], ZONE 3, U.S. SURVEY FOOT.
 - ELEVATIONS FOR THIS PROJECT ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
 - IN THE EVENT GPS MACHINE CONTROL/GUIDEANCE IS USED FOR THIS PROJECT, THE CONTRACTOR SHALL CONTACT AND MEET WITH THE SURVEYS DEPARTMENT AT THE DISTRICT OFFICE TO OBTAIN THE CONTROL NECESSARY TO ESTABLISH A PROJECT CALIBRATION COMPATIBLE FOR ALL USERS.

- LEGEND:**
- SET HORIZONTAL & VERTICAL CONTROL POINT
 - ▲ FOUND CALTRANS CONTROL AS NOTED



CONTROL FOR DESIGN AND CONSTRUCTION

POINT ID	NORTHING	EASTING	ELEVATION	DESCRIPTION	OFFSET / STATION
6	1948036.930	6105598.623	333.590	CT - CONCRETE NAIL FOUND (VG 5307)	10.59' Rt "BES" 400+49.46
8	1948099.933	6106039.148	323.170	CT - CONCRETE NAIL FOUND	54.90' Lt "BES" 404+86.61
9	1948037.864	6106427.376	311.630	CT - CONCRETE NAIL FOUND (VG 5306)	53.19' Lt "BES" 408+72.53
12	1947987.019	6106651.879	305.780	CT - BRASS DISK FOUND (1364)	5.03' Lt "FE2" 410+94.99
13	1948190.956	6106328.903	306.060	RJA - SET MAG - NAIL	7.61' Rt "FE2" 4007+11.61
19	1948688.018	6105806.435	283.830	RJA - CUT X IN CONCRETE CURB	5.58' Lt "FE" 41+81.85

APPROVED FOR PROJECT CONTROL INFORMATION ONLY

PROJECT CONTROL
 SCALE: 1"=50'
PC-1

LAST REVISION: DATE PLOTTED => 03-DEC-2019 TIME PLOTTED => 12:39

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	5	79

Mark A. Wood
 REGISTERED CIVIL ENGINEER
 DATE 12-04-19
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA

PLANS APPROVAL DATE

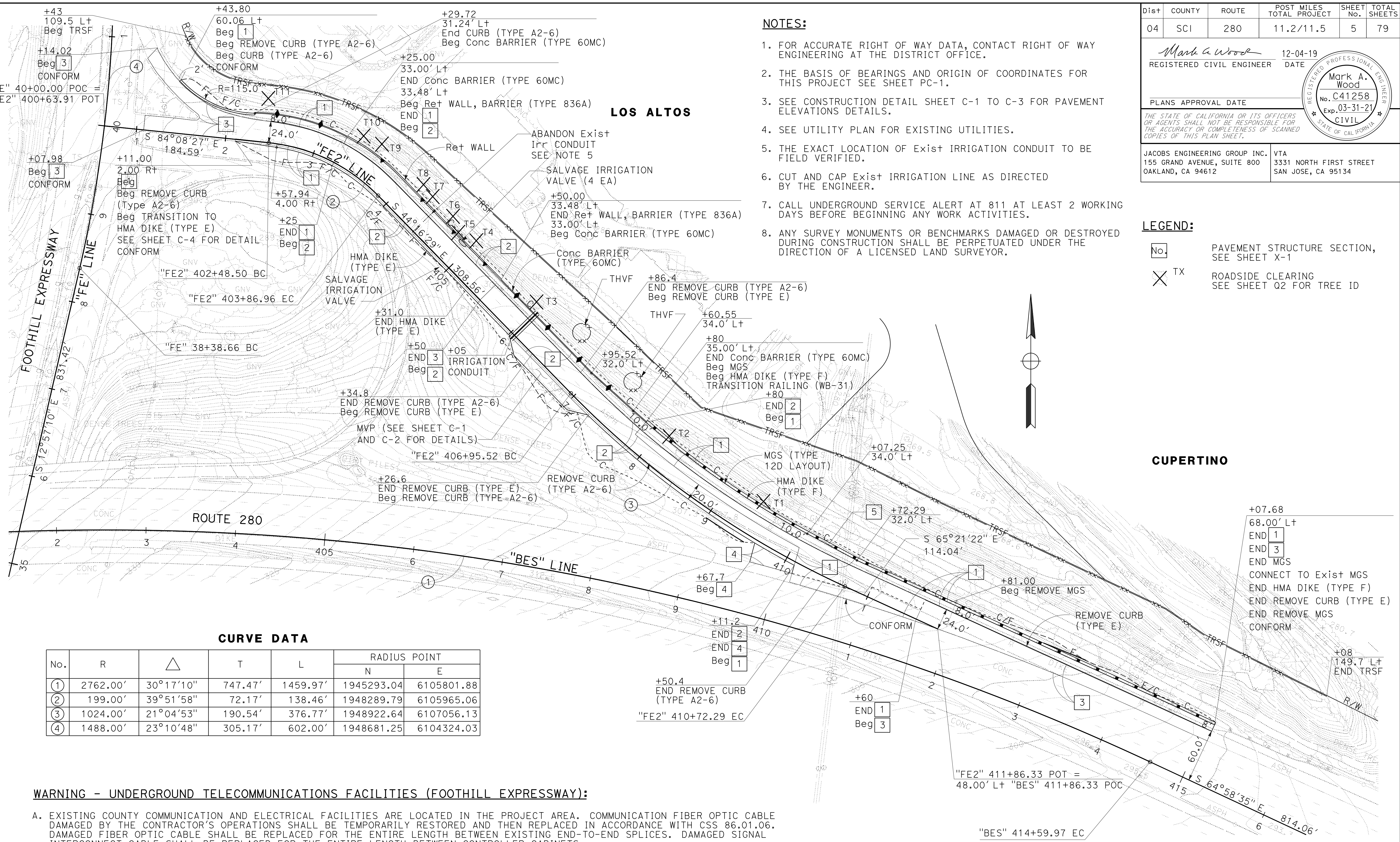
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

JACOBS ENGINEERING GROUP INC.
155 GRAND AVENUE, SUITE 800
OAKLAND, CA 94612

VTA
3331 NORTH FIRST STREET
SAN JOSE, CA 95134

- NOTES:**
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 - THE BASIS OF BEARINGS AND ORIGIN OF COORDINATES FOR THIS PROJECT SEE SHEET PC-1.
 - SEE CONSTRUCTION DETAIL SHEET C-1 TO C-3 FOR PAVEMENT ELEVATIONS DETAILS.
 - SEE UTILITY PLAN FOR EXISTING UTILITIES.
 - THE EXACT LOCATION OF EXIST IRRIGATION CONDUIT TO BE FIELD VERIFIED.
 - CUT AND CAP EXIST IRRIGATION LINE AS DIRECTED BY THE ENGINEER.
 - CALL UNDERGROUND SERVICE ALERT AT 811 AT LEAST 2 WORKING DAYS BEFORE BEGINNING ANY WORK ACTIVITIES.
 - ANY SURVEY MONUMENTS OR BENCHMARKS DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE PERPETUATED UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR.

- LEGEND:**
- No. [] PAVEMENT STRUCTURE SECTION, SEE SHEET X-1
 - X TX ROADSIDE CLEARING SEE SHEET Q2 FOR TREE ID



CURVE DATA

No.	R	Δ	T	L	RADIUS POINT	
					N	E
①	2762.00'	30°17'10"	747.47'	1459.97'	1945293.04	6105801.88
②	199.00'	39°51'58"	72.17'	138.46'	1948289.79	6105965.06
③	1024.00'	21°04'53"	190.54'	376.77'	1948922.64	6107056.13
④	1488.00'	23°10'48"	305.17'	602.00'	1948681.25	6104324.03

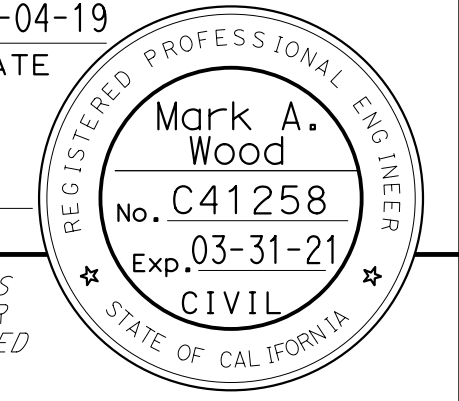
WARNING - UNDERGROUND TELECOMMUNICATIONS FACILITIES (FOOTHILL EXPRESSWAY):

- EXISTING COUNTY COMMUNICATION AND ELECTRICAL FACILITIES ARE LOCATED IN THE PROJECT AREA. COMMUNICATION FIBER OPTIC CABLE DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE TEMPORARILY RESTORED AND THEN REPLACED IN ACCORDANCE WITH CSS 86.01.06. DAMAGED FIBER OPTIC CABLE SHALL BE REPLACED FOR THE ENTIRE LENGTH BETWEEN EXISTING END-TO-END SPLICES. DAMAGED SIGNAL INTERCONNECT CABLE SHALL BE REPLACED FOR THE ENTIRE LENGTH BETWEEN CONTROLLER CABINETS.
- ANY DAMAGE TO EXISTING ELECTRICAL OR COMMUNICATION SYSTEM SUCH AS LOOP DETECTORS AND FIBER OPTICS SHALL BE TEMPORARILY RESTORED TO FULL OPERATION OR VIA MICROWAVE DETECTION IMMEDIATELY AND REPLACED PRIOR TO PROJECT CLOSURE.
- APPLICANT TO NOTIFY COUNTY FOR ANY PROPOSED MODIFICATIONS TO COUNTY-MAINTAINED SIGNAL OPERATIONS AND PHASING AT (408) 494-1342. NO MODIFICATION SHALL BE ALLOWED UNLESS APPROVED BY COUNTY IN WRITING. UPON APPROVAL, APPLICANT TO SCHEDULE APPOINTMENT WITH SIGNAL MAINTENANCE AT (408) 494-2700 PRIOR TO PERFORMING WORK.

LAYOUT
SCALE: 1"=50'
L-1

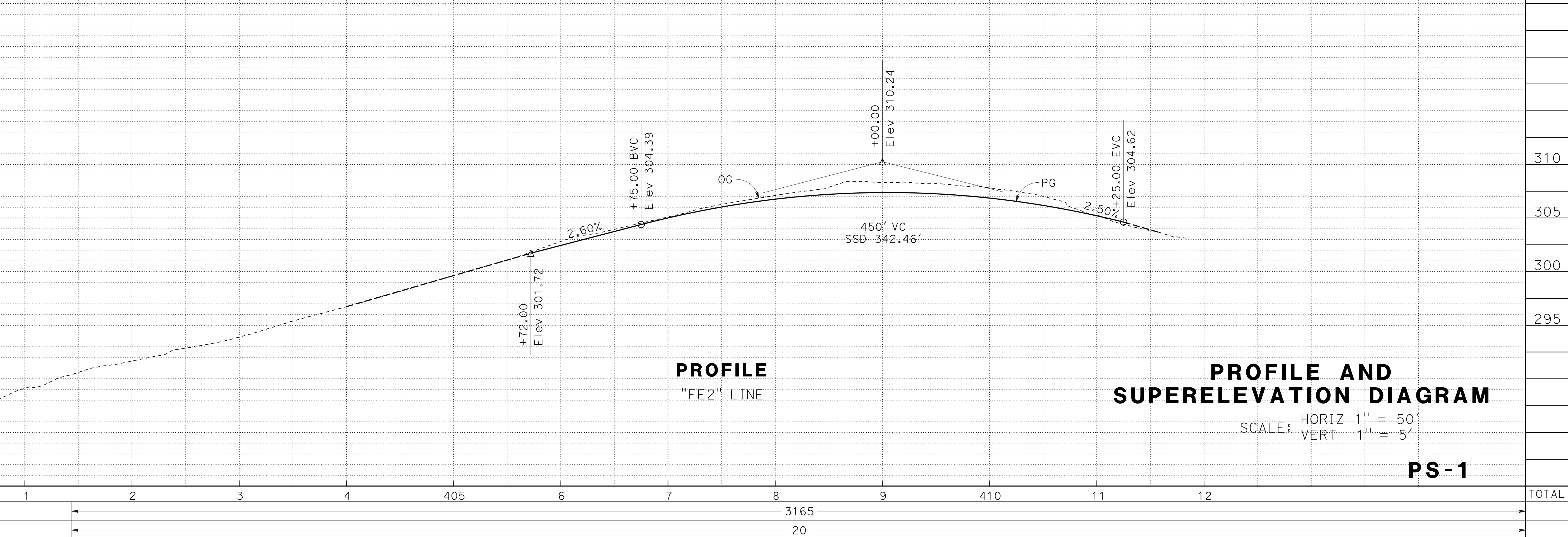
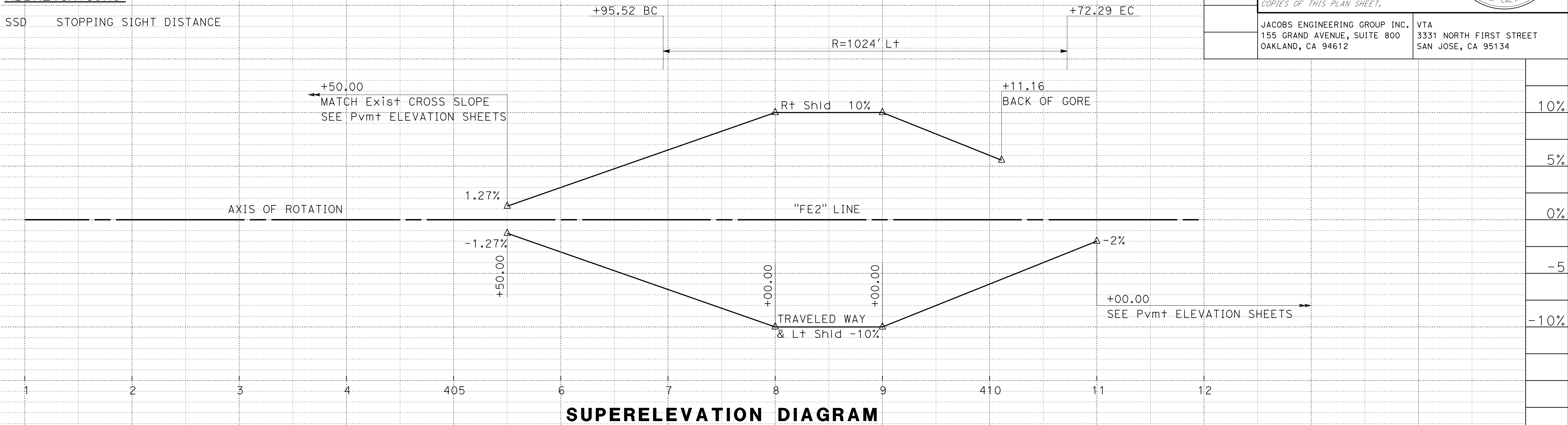
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 PHILIP CHEUNG
 MARK WOOD
 DARRELL VICE
 Et Caltrans

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	6	79
<i>Mark A. Wood</i> REGISTERED CIVIL ENGINEER			12-04-19 DATE		
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		



NOTE:
FOR VERTICAL CONTROL AND BENCHMARK ELEVATIONS,
SEE SHEET PC-1

ABBREVIATIONS:
SSD STOPPING SIGHT DISTANCE



PROFILE AND SUPERELEVATION DIAGRAM

SCALE: HORIZ 1" = 50'
VERT 1" = 5'

PS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR	DATE								
	DARRELL VICE	PHILIP CHEUNG	MARK WOOD	PHILIP CHEUNG	DATE								
STATION	1	2	3	4	405	6	7	8	9	410	11	12	TOTAL
CY													
Exc													
Emb													

USERNAME => PerezBR
DGN FILE => 0413000861fa001.dgn

RELATIVE BORDER SCALE 1" = 20'

UNIT 0712

PROJECT NUMBER & PHASE

0413000861

BORDER LAST REVISED 7/2/2010

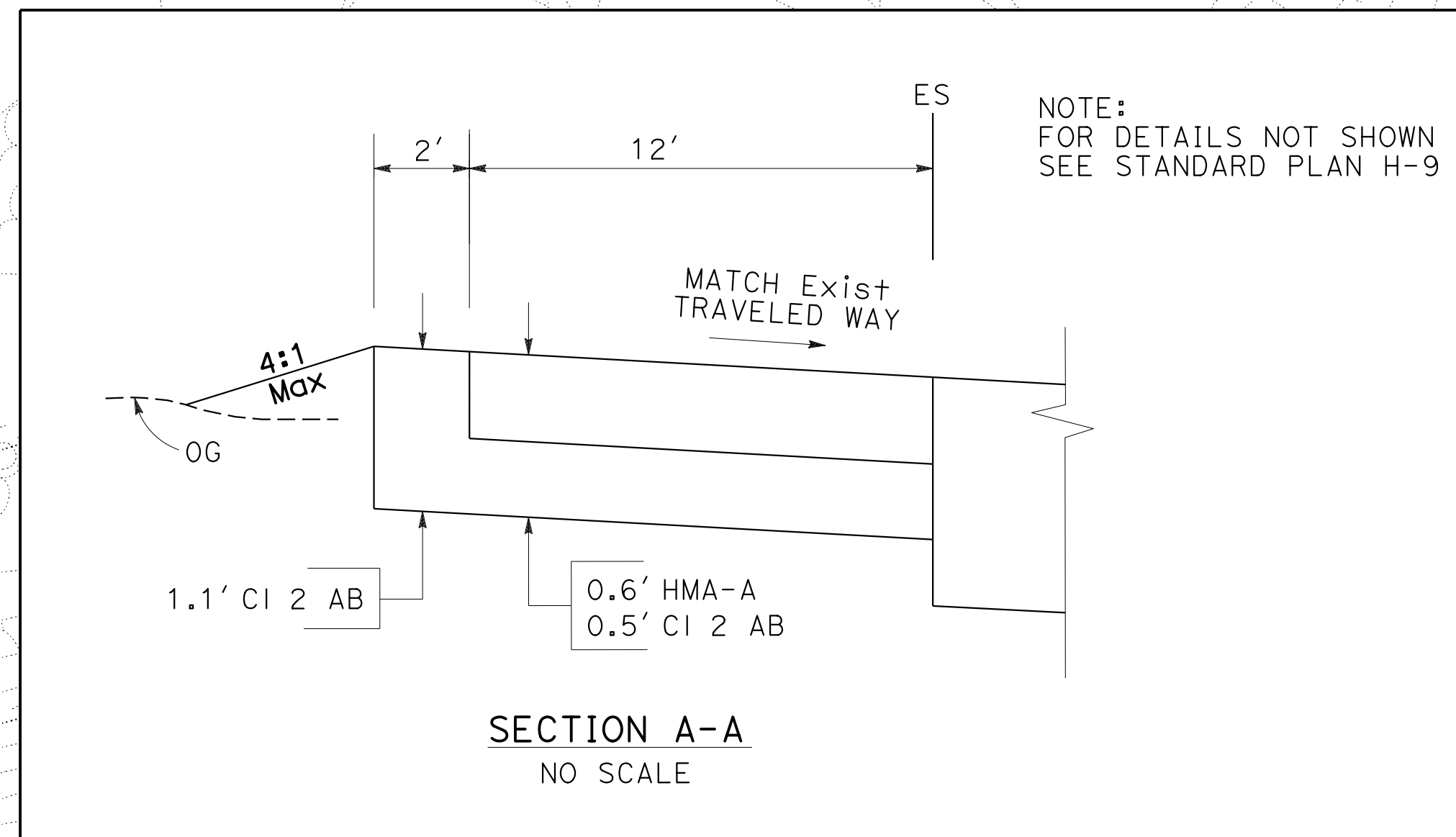
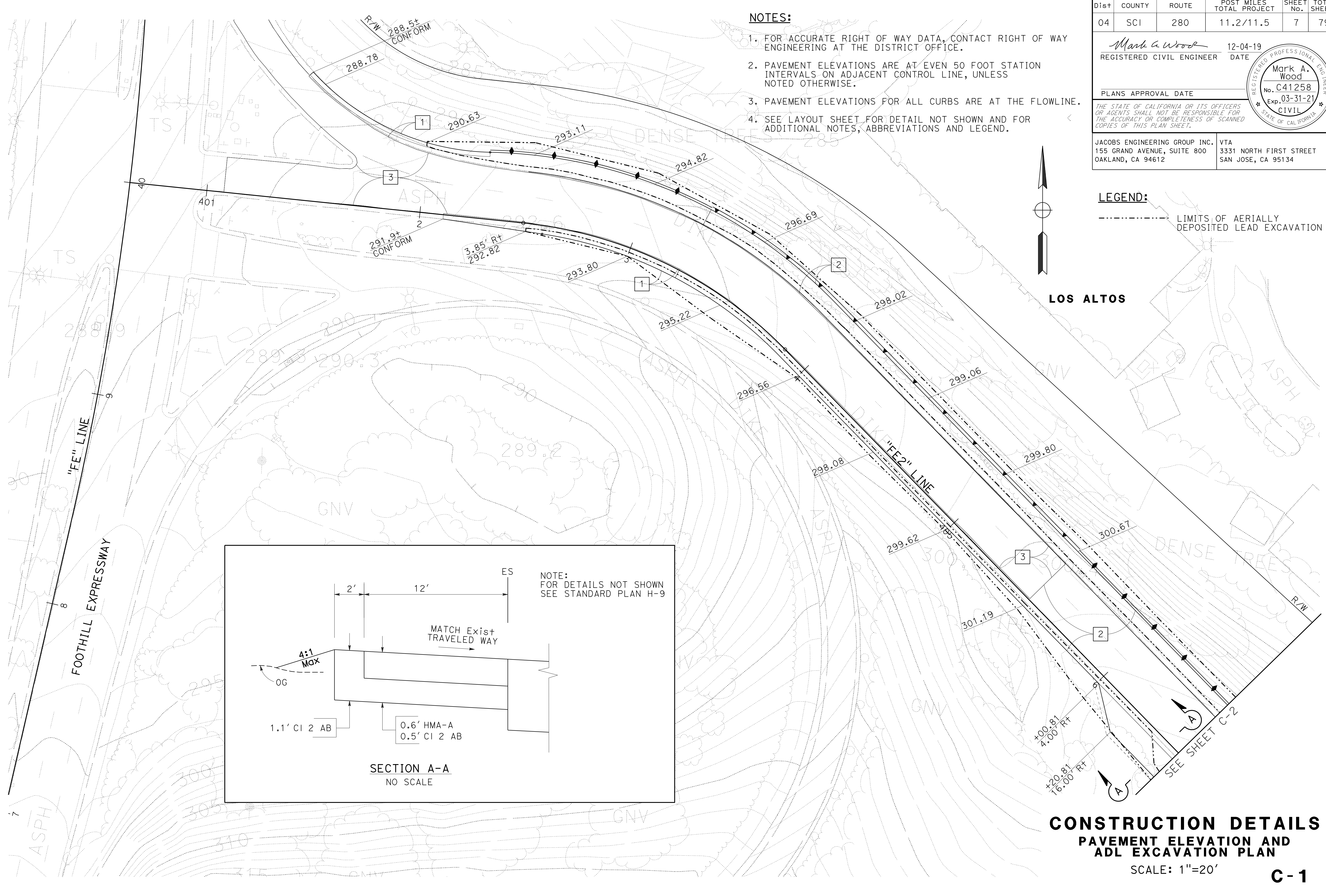
LAST REVISION DATE PLOTTED => 03-DEC-2019
12-04-19 TIME PLOTTED => 12:43

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT: FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISED BY: PHILIP CHEUNG
 DATE REVISED: []

- NOTES:**
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 2. PAVEMENT ELEVATIONS ARE AT EVEN 50 FOOT STATION INTERVALS ON ADJACENT CONTROL LINE, UNLESS NOTED OTHERWISE.
 3. PAVEMENT ELEVATIONS FOR ALL CURBS ARE AT THE FLOWLINE.
 4. SEE LAYOUT SHEET FOR DETAIL NOT SHOWN AND FOR ADDITIONAL NOTES, ABBREVIATIONS AND LEGEND.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	7	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.
 JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612
 VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134



CONSTRUCTION DETAILS
PAVEMENT ELEVATION AND
ADL EXCAVATION PLAN
 SCALE: 1"=20'
C-1

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

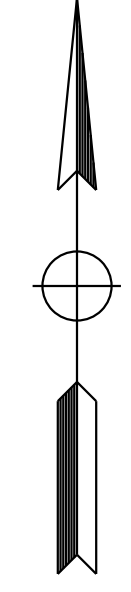
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	8	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
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JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612
 VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134



FOR NOTES, ABBREVIATIONS
AND/OR LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
PAVEMENT ELEVATION AND
ADL EXCAVATION PLAN
SCALE: 1"=20'
C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Et Caltrans	DARRELL VICE	PHILIP CHEUNG MARK WOOD	PHILIP CHEUNG MARK WOOD
		CHECKED BY	DATE REVISED

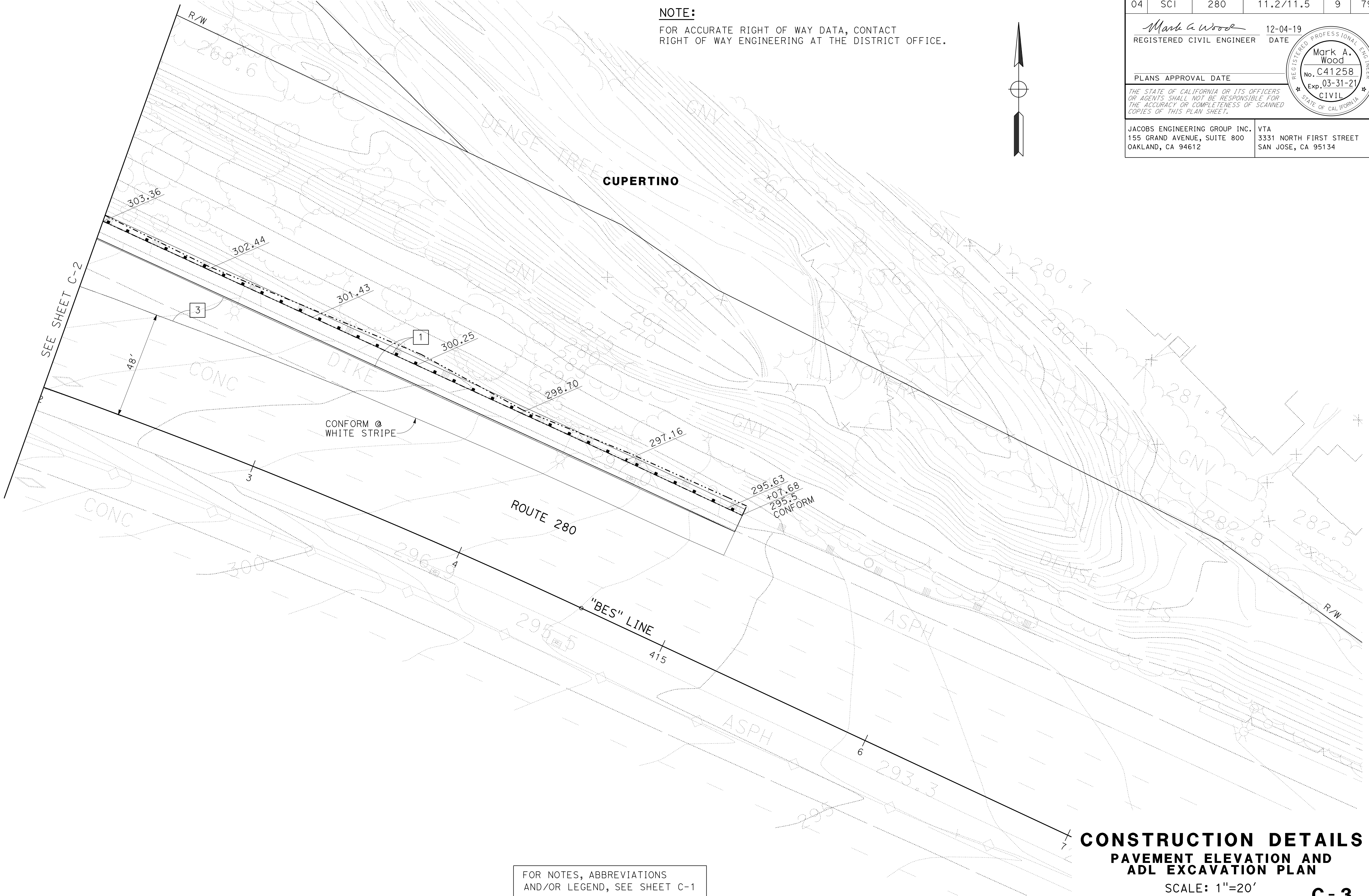
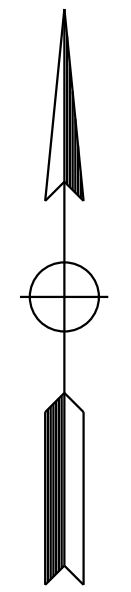
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISED BY: PHILIP CHEUNG
 DATE REVISED: MARK WOOD

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	9	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
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 JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612
 VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



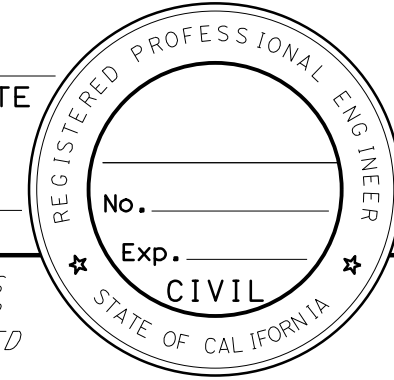
FOR NOTES, ABBREVIATIONS AND/OR LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
PAVEMENT ELEVATION AND
ADL EXCAVATION PLAN
 SCALE: 1"=20'
C-3

LAST REVISION DATE PLOTTED => 03-DEC-2019 12-04-19 TIME PLOTTED => 12:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	11	79

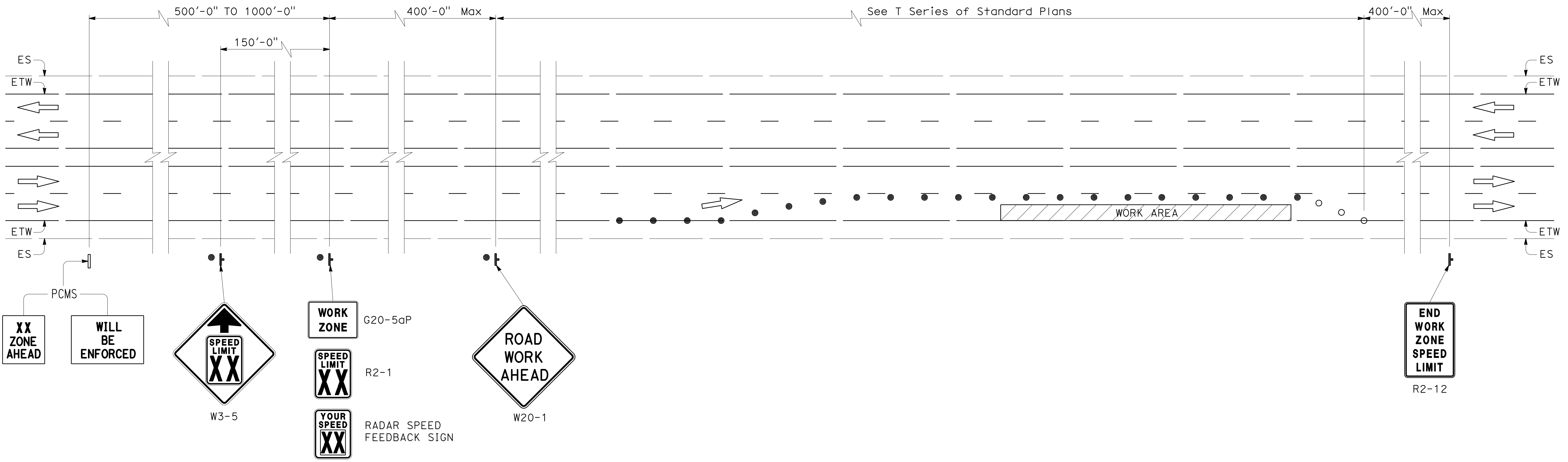
REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	



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

NOTES:

1. Set speed limit, "xx", to 10 mph below the posted speed limit, but not less than 25 mph.
2. W20-1 sign from T series of Standard Plans is shown as reference. For all other signs, see appropriate T-sheets.
3. Duplicate sign installations on opposite shoulders are required on divided roadways with 3 or more lanes in one direction when at least 1/2 of the available lanes are closed to traffic and the opposite shoulder is 8' or wider to allow placement of signs.
4. Cover existing R2-1 signs within 1 mile of the PCMS shown and within the reduced speed zone limits when the speed reduction signs are in place. Remove or cover reduced speed signage and uncover existing R2-1 signs when lane closure is complete.
5. Additional temporary signs may be installed on main line, ramp and other locations as determined by the Engineer.
6. Work Zone Speed Reduction plan may be implemented without radar speed feedback signs if unavailable. Radar speed feedback must be used as soon as practicable.



**TYPICAL TRAFFIC CONTROL SYSTEM FOR
LANE AND/OR SHOULDER CLOSURES
WORK ZONE SPEED REDUCTION**

CONSTRUCTION DETAILS
NO SCALE
C-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

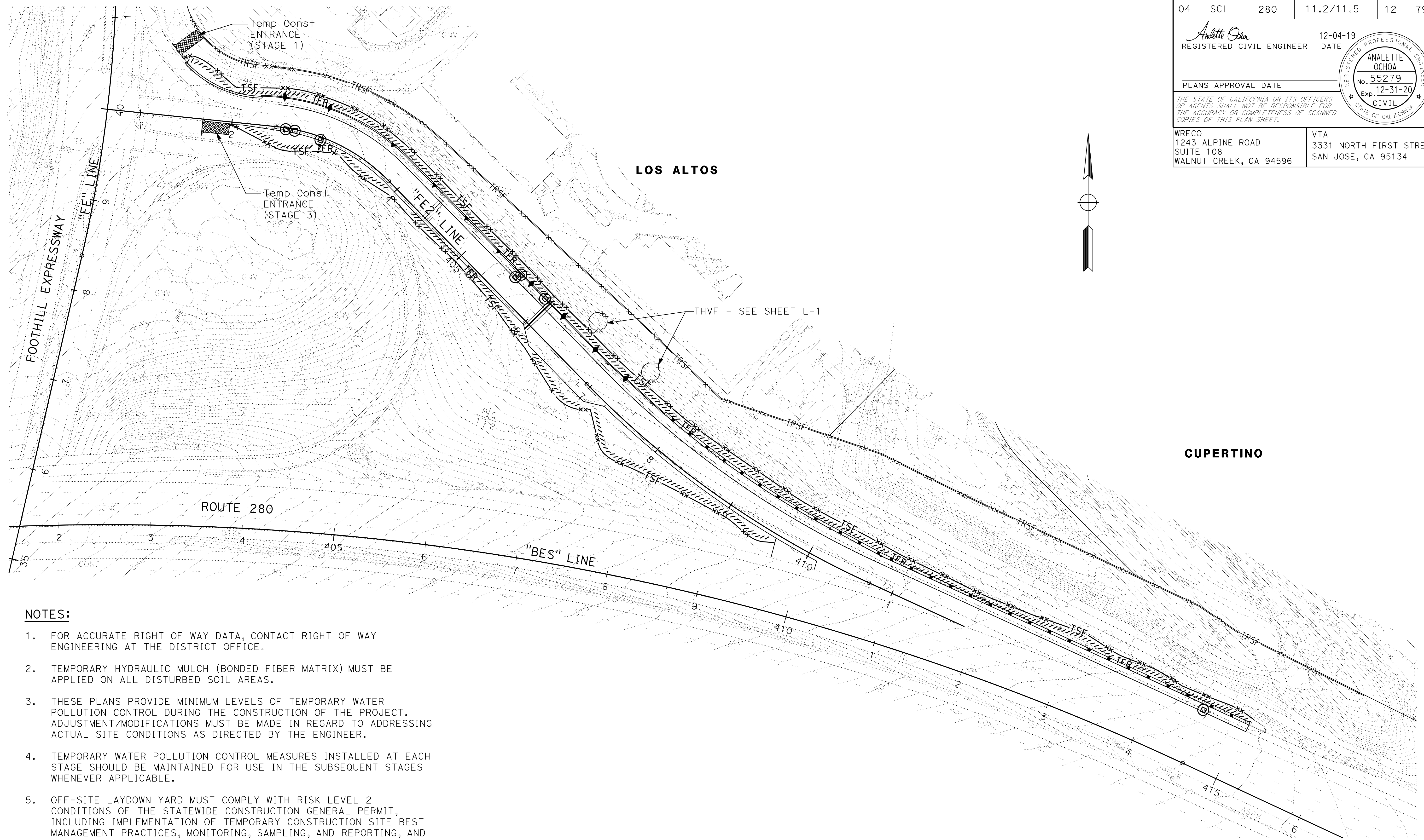
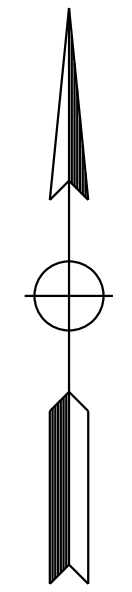
REVISOR: [blank] DATE: [blank]
 CHECKED BY: [blank]
 FUNCTIONAL SUPERVISOR: [blank]
 DESIGNED BY: [blank]

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	12	79

Annette Ochoa
 REGISTERED CIVIL ENGINEER
 12-04-19
 DATE
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



WRECO
 1243 ALPINE ROAD
 SUITE 108
 WALNUT CREEK, CA 94596
 VTA
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134



NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX) MUST BE APPLIED ON ALL DISTURBED SOIL AREAS.
3. THESE PLANS PROVIDE MINIMUM LEVELS OF TEMPORARY WATER POLLUTION CONTROL DURING THE CONSTRUCTION OF THE PROJECT. ADJUSTMENT/MODIFICATIONS MUST BE MADE IN REGARD TO ADDRESSING ACTUAL SITE CONDITIONS AS DIRECTED BY THE ENGINEER.
4. TEMPORARY WATER POLLUTION CONTROL MEASURES INSTALLED AT EACH STAGE SHOULD BE MAINTAINED FOR USE IN THE SUBSEQUENT STAGES WHENEVER APPLICABLE.
5. OFF-SITE LAYDOWN YARD MUST COMPLY WITH RISK LEVEL 2 CONDITIONS OF THE STATEWIDE CONSTRUCTION GENERAL PERMIT, INCLUDING IMPLEMENTATION OF TEMPORARY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES, MONITORING, SAMPLING, AND REPORTING, AND ANY OTHER CONDITIONS RELATED TO STAGING AREAS.

TEMPORARY WATER POLLUTION CONTROL PLAN

SCALE: 1"=50'

WPC-1

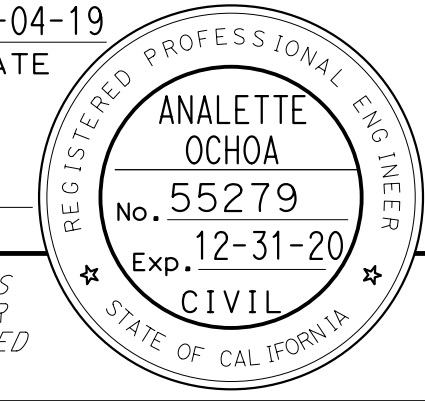
APPROVED FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans®
 CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG
 CHECKED BY: ANALETTE OCHOA
 DESIGNED BY: ANDREW CHIN
 REVISIONS: (None listed)
 REVISED BY: (None listed)
 DATE REVISED: (None listed)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR
 HAN-BIN LIANG
 CALCULATED-DESIGNED BY
 CHECKED BY
 ANDREW CHIN
 ANALETTE OCHOA
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	13	79

Analette Ochoa 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE



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

WRECO 1243 ALPINE ROAD SUITE 108 WALNUT CREEK, CA 94596	VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134
--	--

TEMPORARY WATER POLLUTION CONTROL QUANTITIES

LOCATION	TEMPORARY FIBER ROLL	TEMPORARY SILT FENCE	TEMPORARY DRAINAGE INLET PROTECTION	TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)	TEMPORARY CONSTRUCTION ENTRANCE*
	LF	LF	EA	SQYD	EA
L+ "FE2" 401+40 TO L+ "BES" 415+10	1,398	1,400	4	1,562	1
R+ "FE2" 402+05 TO R+ "FE2" 409+65	781	786	3	1,141	1
GRAND TOTAL	2,179	2,186	7	2,703	4

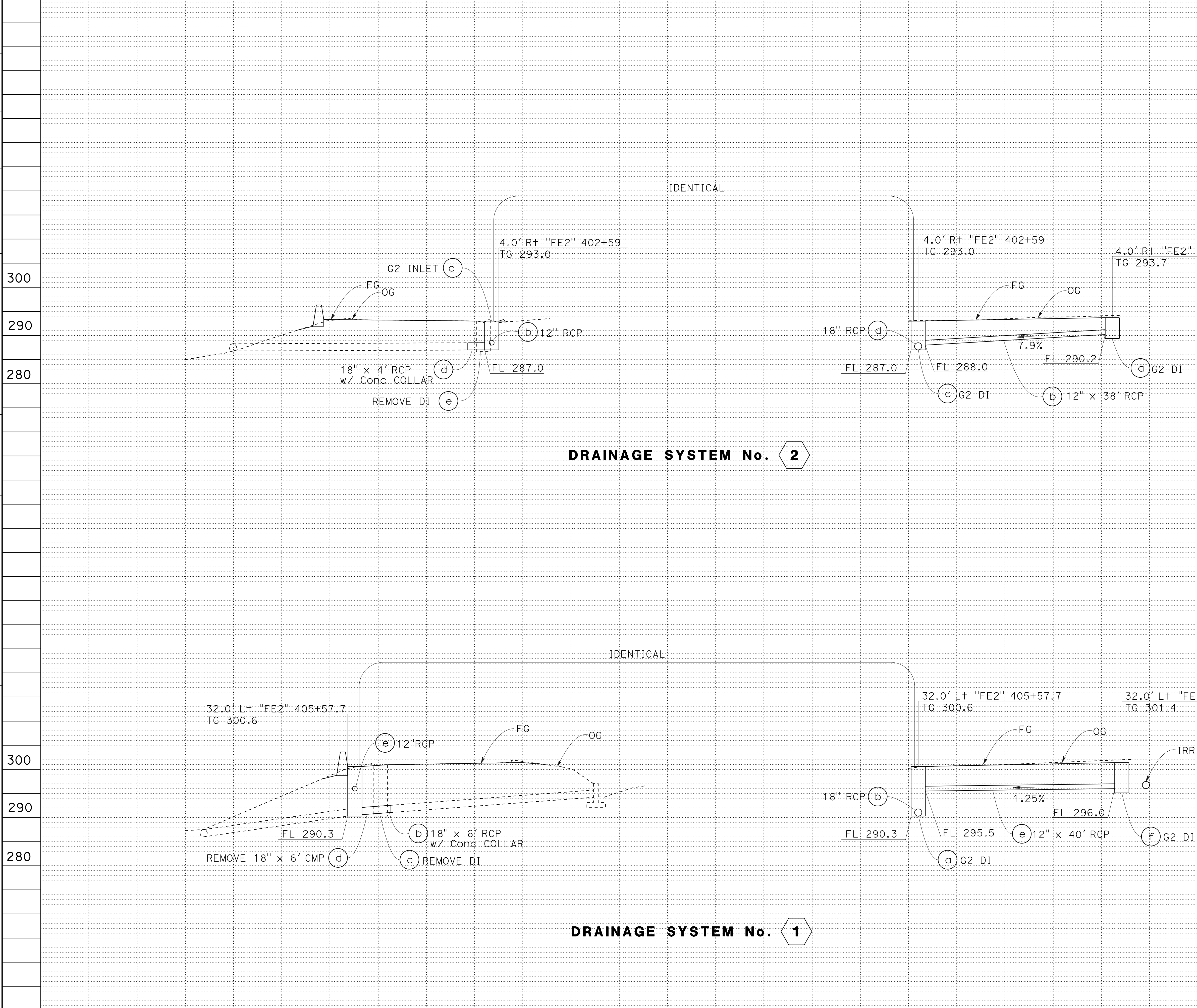
*MINIMUM 2 TEMPORARY CONSTRUCTION ENTRANCE ASSUMED TO BE USED AT OFF-SITE STAGING LOCATION

TEMPORARY WATER POLLUTION CONTROL QUANTITIES

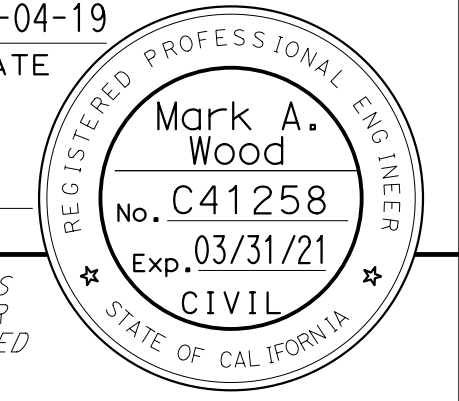
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LAST REVISION | DATE PLOTTED => 03-DEC-2019
 12-04-19 | TIME PLOTTED => 12:57

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR
 PHILIP CHEUNG
 REVISOR
 PHILIP CHEUNG
 CALCULATED-DESIGNED BY
 CHECKED BY
 DARRELL VICE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	15	79
Mark A. Wood REGISTERED CIVIL ENGINEER			12-04-19 DATE		
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		



DRAINAGE PROFILES
 SCALE: HORIZ 1" = 10'
 VERT 1" = 10'
DP-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	17	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Mark A. Wood
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA

JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612	VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134
---	--

DRAINAGE QUANTITIES

DRAINAGE SYSTEM No.	DRAINAGE UNIT	REMOVE INLET	REMOVE PIPE	G2 INLET	HEIGHT OF STRUCTURE	STRUCTURAL CONCRETE, DRAINAGE INLET	Misc. IRON AND STEEL (TYPE 24-9 FRAME AND GRATE)	RCP		DESCRIPTION	STATION	DRAINAGE SYSTEM No.	DRAINAGE UNIT
								12"	18"				
		EA	LF			CY	LB		LF				
1	a			1	10.3	3.14	263			G2 INLET	"FE2" 405+57.7	1	a
	b							6		18" RCP	"FE2" 405+57.7		b
	c	1								REMOVE INLET	"FE2" 405+57.7		c
	d		6							REMOVE 18" CMP	"FE2" 405+57.7		d
	e							40		12" RCP	"FE2" 405+57.7 TO 406+00		e
	f			1	5.4	1.86	263			G2 INLET	"FE2" 406+00		f
2	a			1	3.5	1.38	263			G2 INLET	"FE2" 403+00	2	a
	b							38		12" RCP	"FE2" 402+59 TO 403+00		b
	c			1	6.0	2.02	263			G2 INLET	"FE2" 402+59		c
	d							4		18" RCP	"FE2" 402+59		d
	e	1								REMOVE INLET	"FE2" 402+59		e
		2	6			8.40	1052	78	10	SHEET TOTAL			

(N) = NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

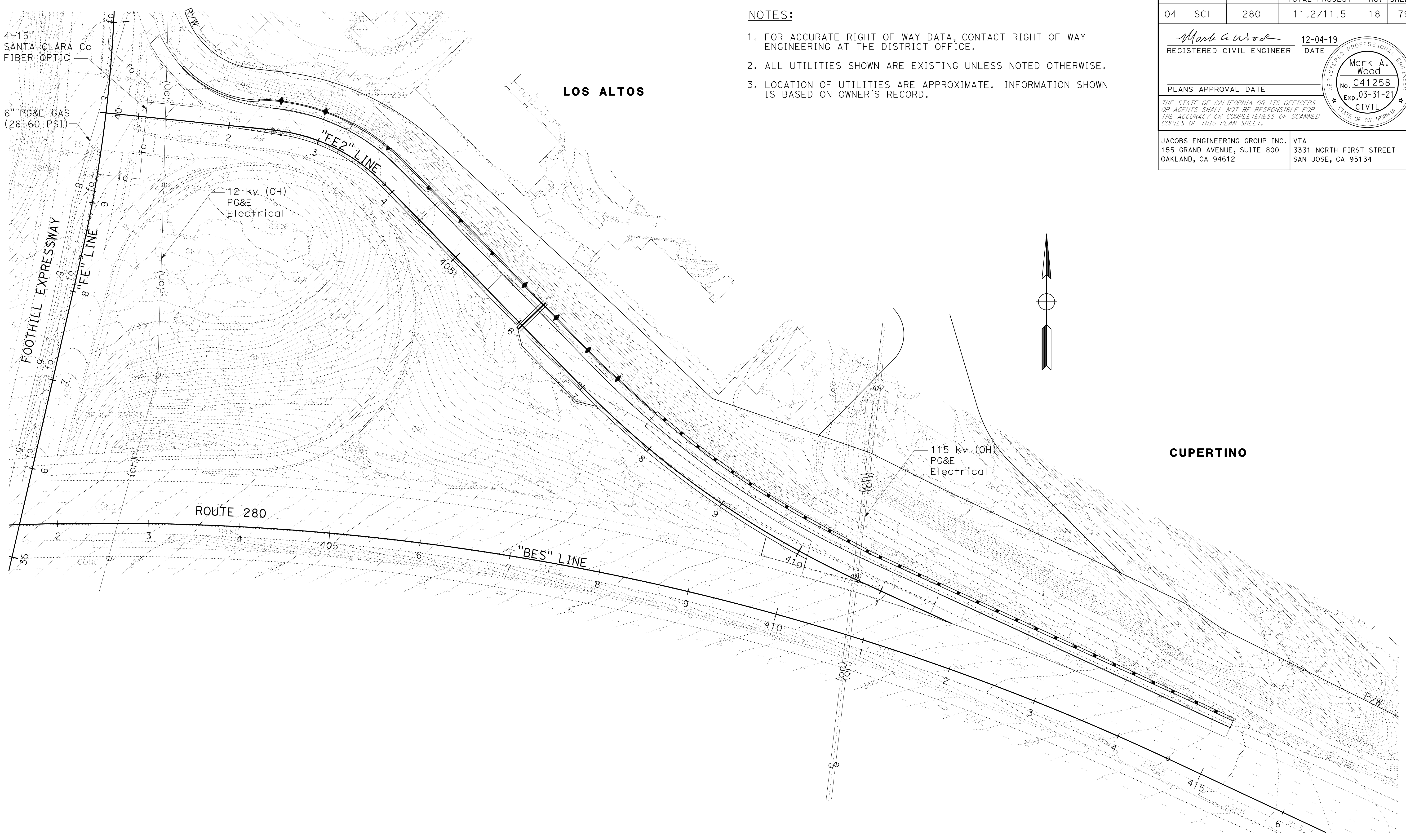
DRAINAGE QUANTITIES

NO SCALE

DQ-1

LAST REVISION DATE PLOTTED => 03-DEC-2019
 12-04-19 TIME PLOTTED => 1:3:08

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT: FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISED BY: PHILIP CHEUNG
 DATE: REVISIONS



- NOTES:**
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 2. ALL UTILITIES SHOWN ARE EXISTING UNLESS NOTED OTHERWISE.
 3. LOCATION OF UTILITIES ARE APPROXIMATE. INFORMATION SHOWN IS BASED ON OWNER'S RECORD.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	18	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Mark A. Wood
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA

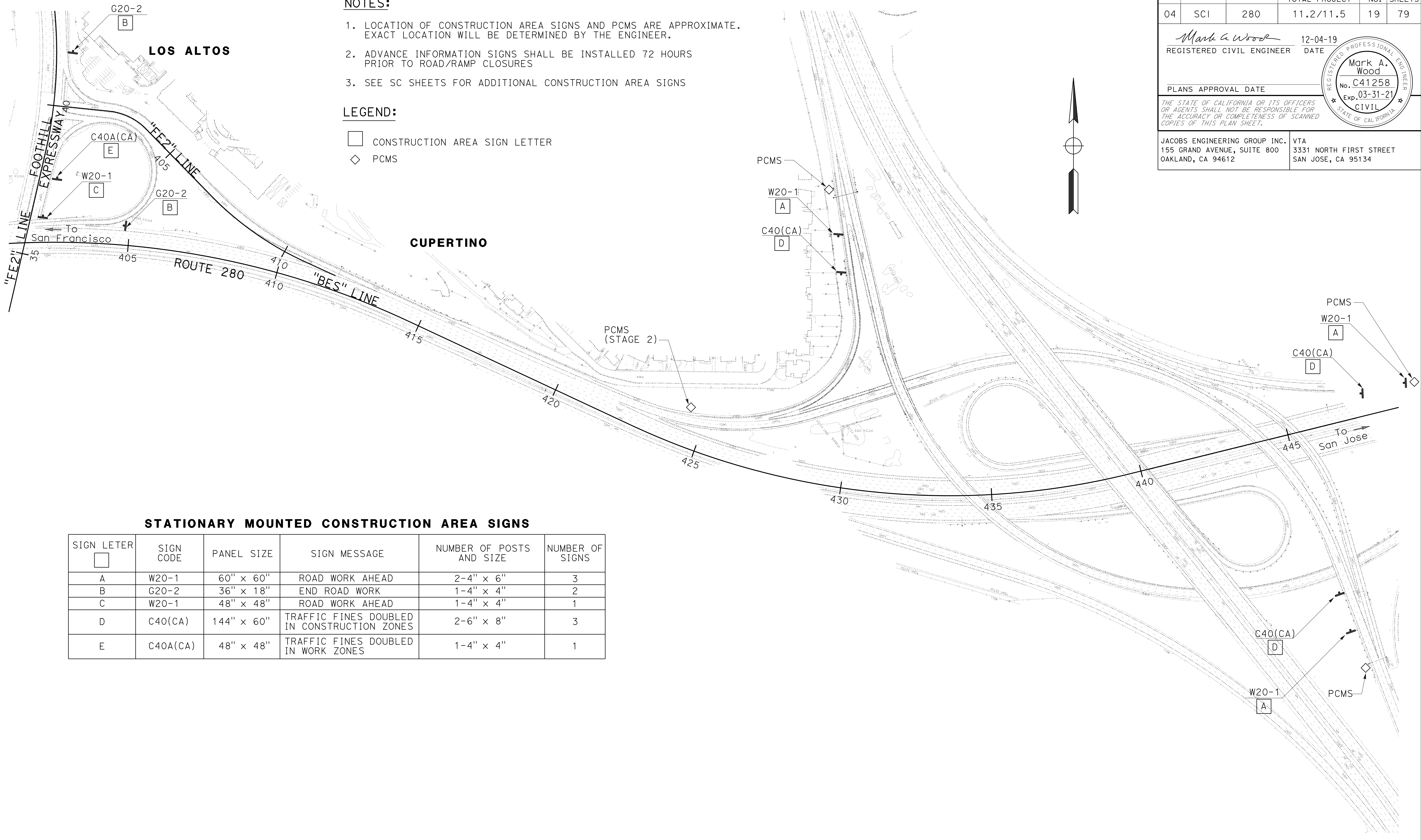
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612	VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134
---	--

UTILITY PLAN
 SCALE: 1"=50'
U-1

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

LAST REVISION DATE PLOTTED => 03-DEC-2019
 12-04-19 TIME PLOTTED => 13:10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISIONS: x x x x x



- NOTES:**
1. LOCATION OF CONSTRUCTION AREA SIGNS AND PCMS ARE APPROXIMATE. EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.
 2. ADVANCE INFORMATION SIGNS SHALL BE INSTALLED 72 HOURS PRIOR TO ROAD/RAMP CLOSURES
 3. SEE SC SHEETS FOR ADDITIONAL CONSTRUCTION AREA SIGNS

- LEGEND:**
- CONSTRUCTION AREA SIGN LETTER
 - ◇ PCMS

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
A	W20-1	60" x 60"	ROAD WORK AHEAD	2-4" x 6"	3
B	G20-2	36" x 18"	END ROAD WORK	1-4" x 4"	2
C	W20-1	48" x 48"	ROAD WORK AHEAD	1-4" x 4"	1
D	C40(CA)	144" x 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2-6" x 8"	3
E	C40A(CA)	48" x 48"	TRAFFIC FINES DOUBLED IN WORK ZONES	1-4" x 4"	1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	19	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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

JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612
 VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134

Mark A. Wood
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA

CONSTRUCTION AREA SIGNS
 NO SCALE
CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

LAST REVISION: 12-04-19 DATE PLOTTED => 03-DEC-2019 TIME PLOTTED => 1:3:16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	20	79
<i>Mark A. Wood</i> REGISTERED CIVIL ENGINEER			12-04-19 DATE		
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		

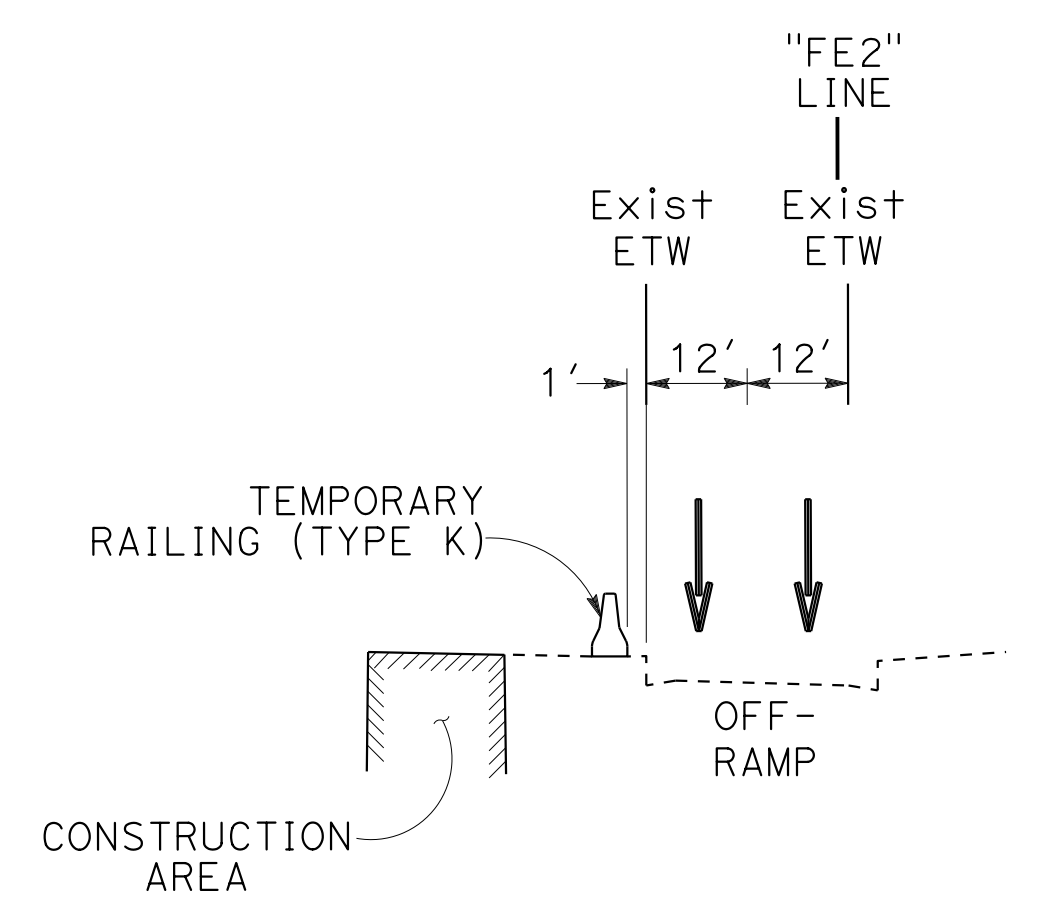
NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER.
2. PLACE WHITE REFLECTORS ON TOP OF TEMPORARY RAILING (TYPE K) @ 20' INTERVALS WHERE TRAFFIC STRIPE DETAIL 27B IS SPECIFIED AND WHERE OTHERWISE SHOWN.
3. PLACE YELLOW REFLECTORS ON TOP OF TEMPORARY RAILING (TYPE K) @ 20' INTERVALS WHERE TRAFFIC STRIPE DETAIL 25 IS SPECIFIED AND WHERE OTHERWISE SHOWN.
4. ANCHOR TEMPORARY RAILING (TYPE K) TO PAVEMENT WHERE THE SPACE BETWEEN THE RAILING AND CONSTRUCTION AREA IS LESS THAN 2'. SEE STANDARD PLAN T3B, SECTION J-J FOR DETAILS.
5. CONFLICTING SIGNAGE SHALL BE TEMPORARILY COVERED WHEN NOT IN USE AS DIRECTED BY THE ENGINEER.
6. CONFLICTING STRIPING, PAVEMENT MARKINGS AND PAVEMENT MARKERS ARE TO BE REMOVED BEFORE ROADWAY IS OPENED TO TRAFFIC.
7. SEE CS SHEET FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
8. UNDERGROUND DRAINAGE AND ELECTRICAL WORK TO BE COMPLETED AHEAD OF THE ROADWAY WORK IN EACH STAGE.

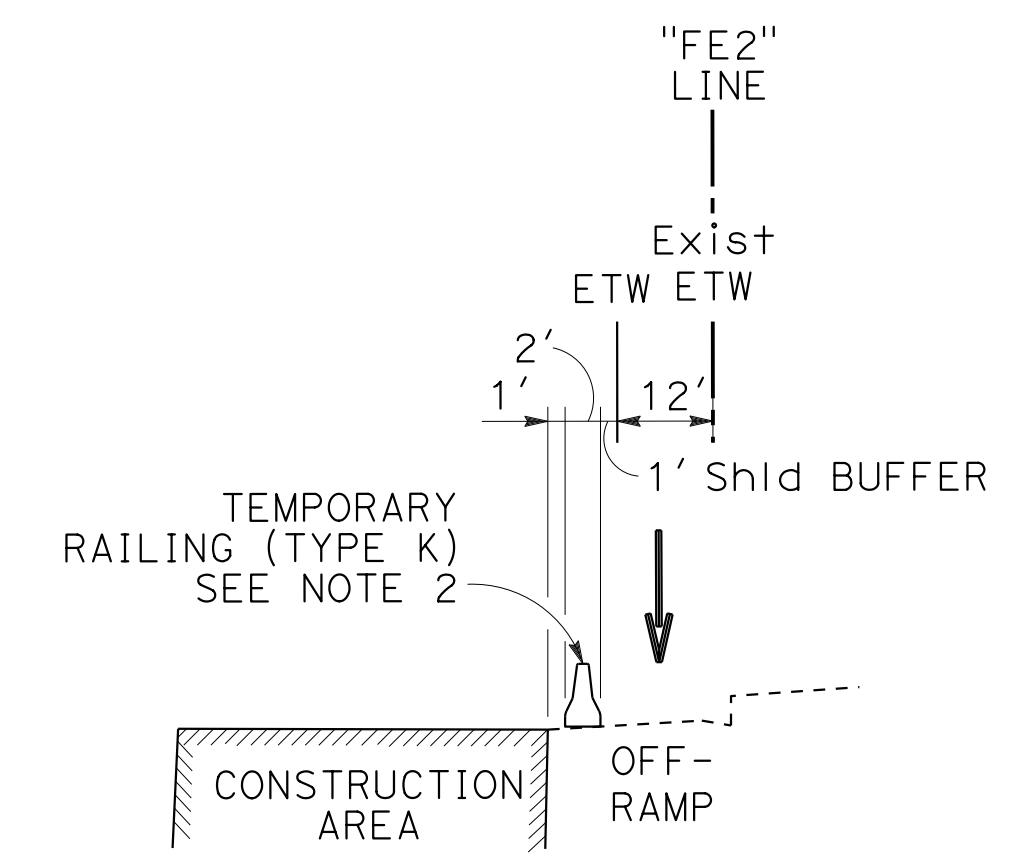
LEGEND:

- PERMANENT CONSTRUCTION
- CONSTRUCTION ITEM NUMBER
- PORTABLE DELINEATOR
- CONSTRUCTION AREA SIGN
- REMOVE ROADSIDE SIGN
- RELOCATE ROADSIDE SIGN
- CONSTRUCTION AREA SIGN No.

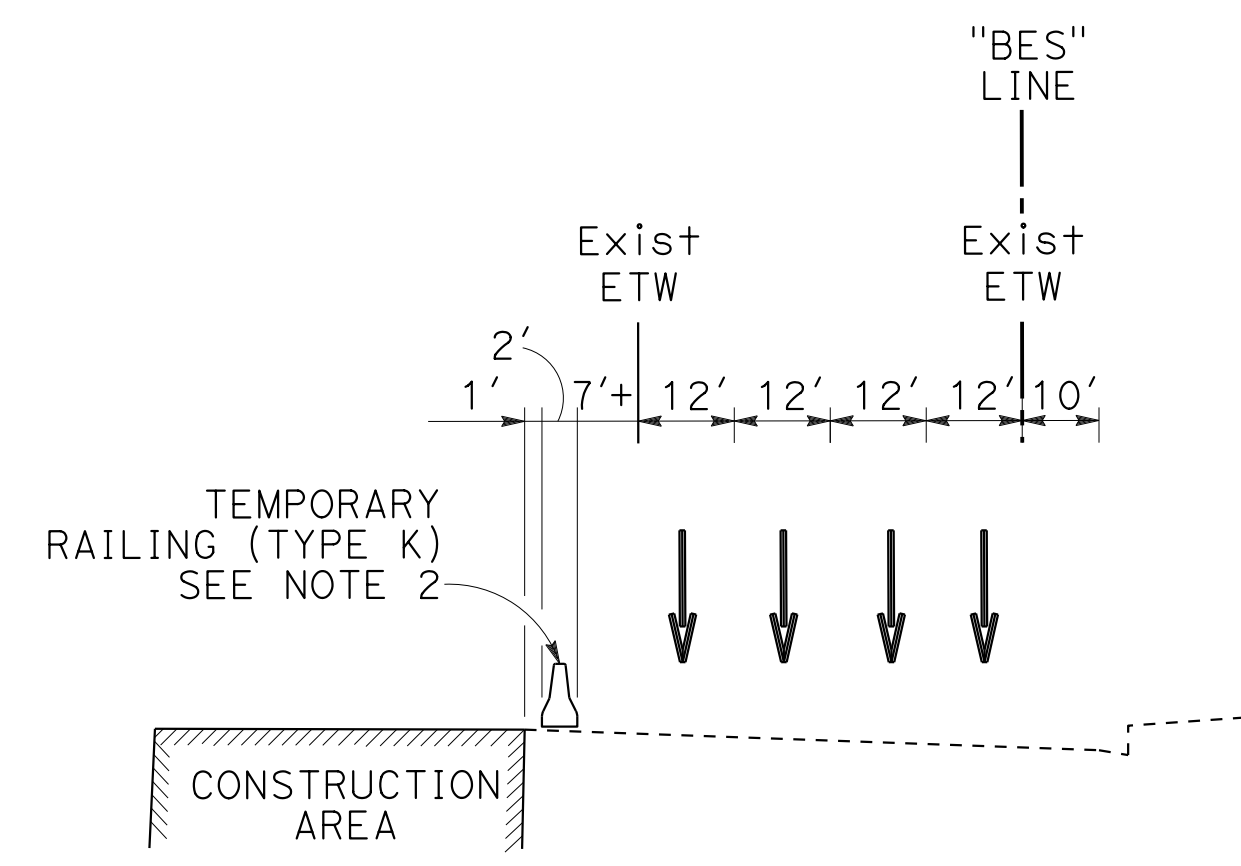
- DIRECTION OF TRAFFIC
- TEMPORARY CRASH CUSHION, SAND FILLED ARRAY (TS14)
- TEMPORARY CRASH CUSHION, SAND FILLED ARRAY (TU21)
- CHANNELIZER
- Temp TRAFFIC STRIPE DETAIL
- FOR INFORMATION ONLY. THESE SIGNS ARE SHOWN ON SIGN SHEETS



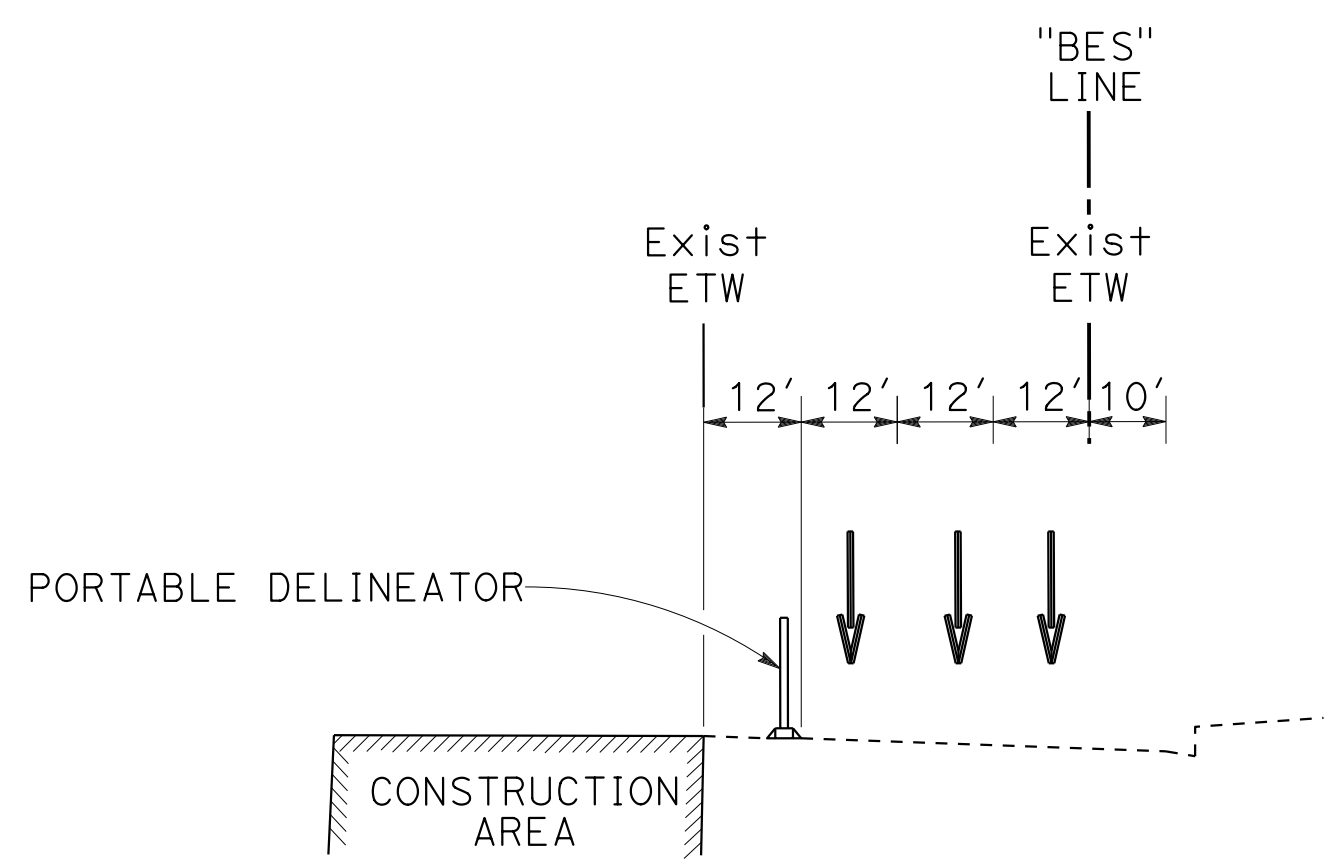
**TYPICAL SECTION A-A
NB OFF-RAMP**



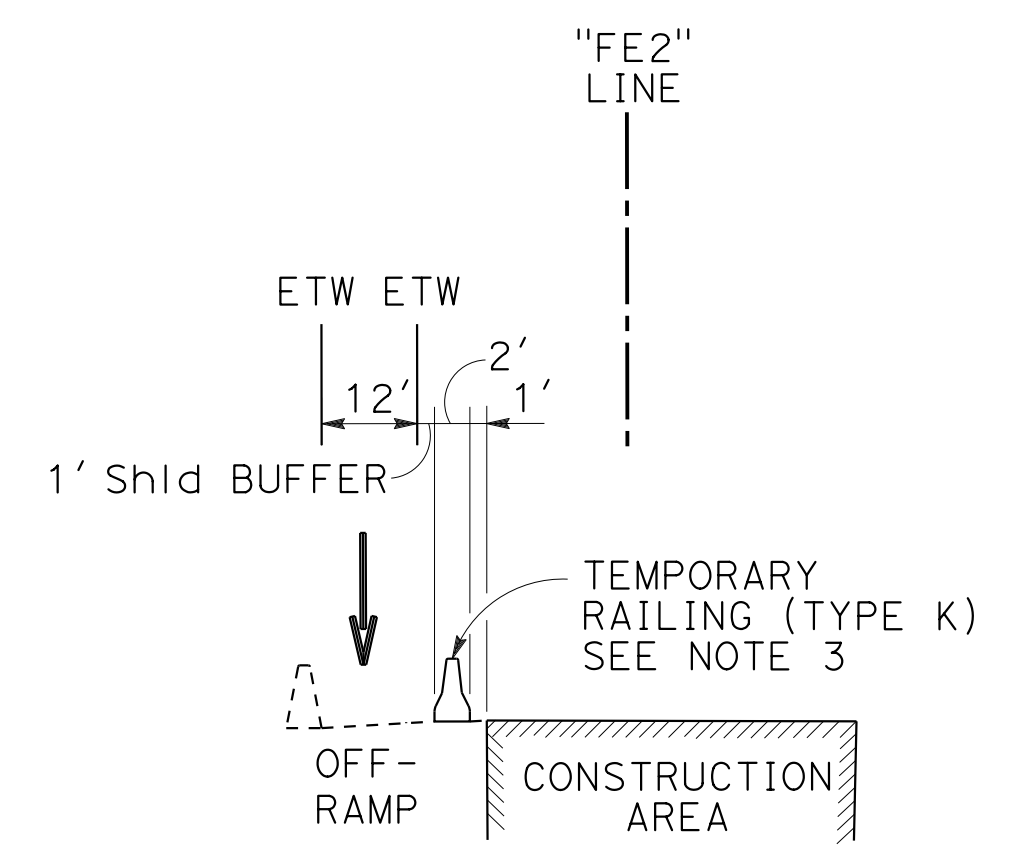
**TYPICAL SECTION B-B
NB OFF-RAMP**



**TYPICAL SECTION C-C
NB ROUTE 280**



**TYPICAL SECTION D-D
NB ROUTE 280**



**TYPICAL SECTION E-E
NB OFF-RAMP**

**STAGE CONSTRUCTION
AND TRAFFIC HANDLING
(LEGEND, SECTIONS)**

NO SCALE

SC-1

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 PHILIP CHEUNG
 MARK WOOD
 DARRELL VICE
 Caltrans

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	21	79

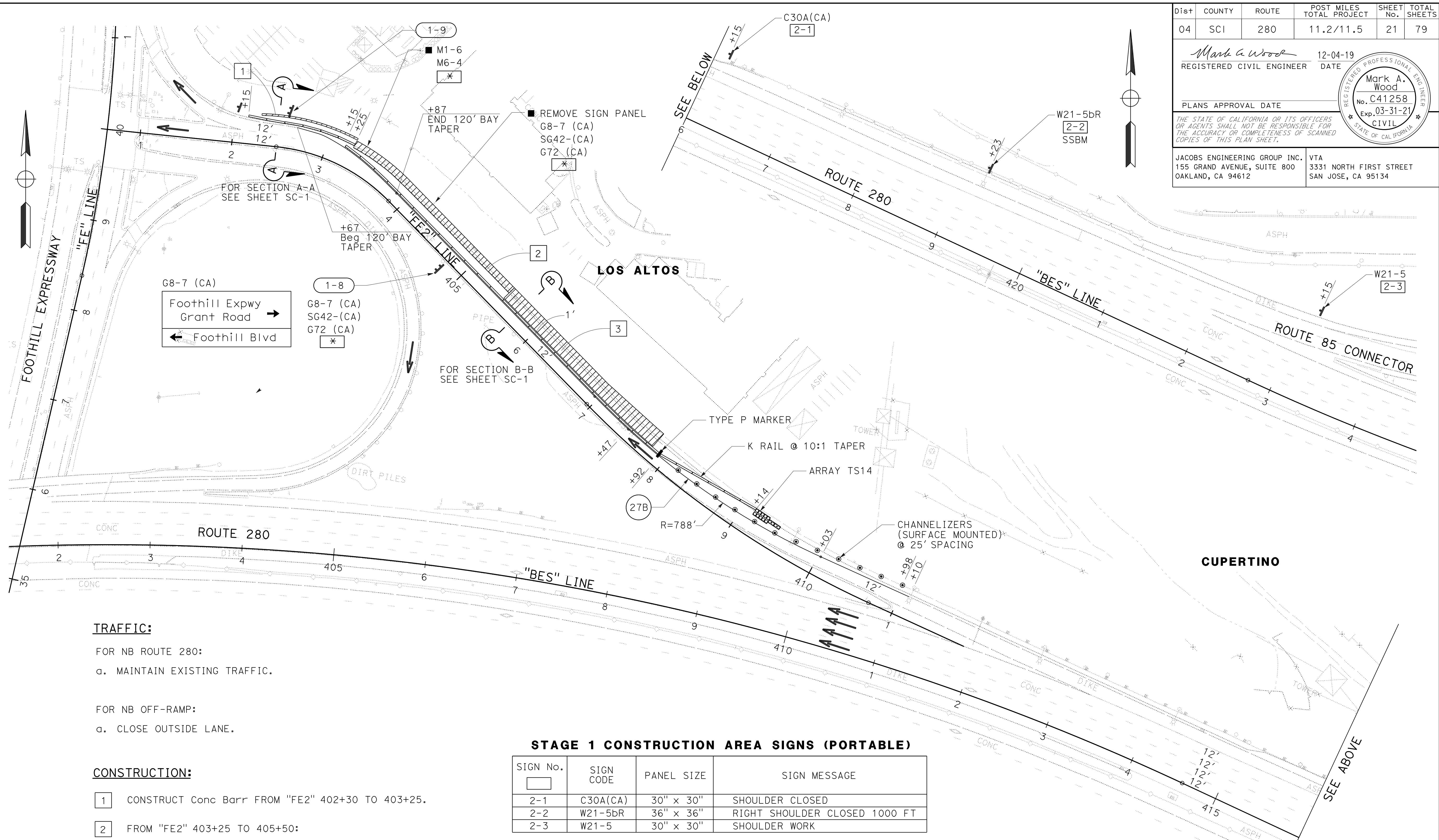
Mark A. Wood
 REGISTERED CIVIL ENGINEER
 DATE 12-04-19

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

JACOBS ENGINEERING GROUP INC.
 155 GRAND AVENUE, SUITE 800
 OAKLAND, CA 94612

VTA
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134

Mark A. Wood
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA



- TRAFFIC:**
- FOR NB ROUTE 280:
- a. MAINTAIN EXISTING TRAFFIC.
- FOR NB OFF-RAMP:
- a. CLOSE OUTSIDE LANE.

- CONSTRUCTION:**
- 1 CONSTRUCT Conc Barr FROM "FE2" 402+30 TO 403+25.
 - 2 FROM "FE2" 403+25 TO 405+50:
 - a. RECONSTRUCT AND WIDEN OUTSIDE Shld.
 - b. CONSTRUCT Ret WALL.
 - 3 FROM "FE2" 405+50 TO 407+80:
 - a. RECONSTRUCT PORTION OF OUTSIDE LANE PAVEMENT.
 - b. RECONSTRUCT AND WIDEN OUTSIDE Shld.
 - c. CONSTRUCT Conc Barr TYPE 60MC.

STAGE 1 CONSTRUCTION AREA SIGNS (PORTABLE)

SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE
2-1	C30A(CA)	30" x 30"	SHOULDER CLOSED
2-2	W21-5bR	36" x 36"	RIGHT SHOULDER CLOSED 1000 FT
2-3	W21-5	30" x 30"	SHOULDER WORK

FOR NOTES AND LEGEND SEE SHEET SC-1

STAGE CONSTRUCTION AND TRAFFIC HANDLING
STAGE 1
 SCALE: 1"=50'
SC-2

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT: FUNCTIONAL SUPERVISOR: DARRELL VICE

DESIGNED BY: PHILIP CHEUNG

CHECKED BY: MARK WOOD

REVISOR: PHILIP CHEUNG

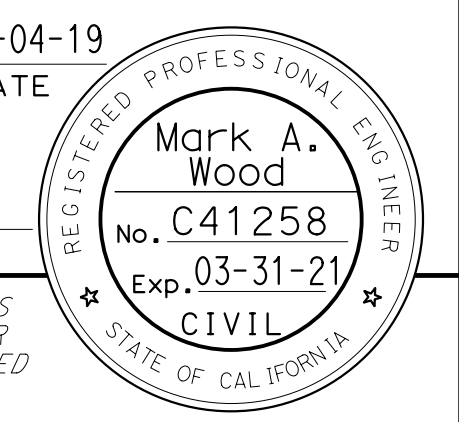
DATE: 7/2/2010

REVISION: 12-04-19

TIME PLOTTED: 13:38

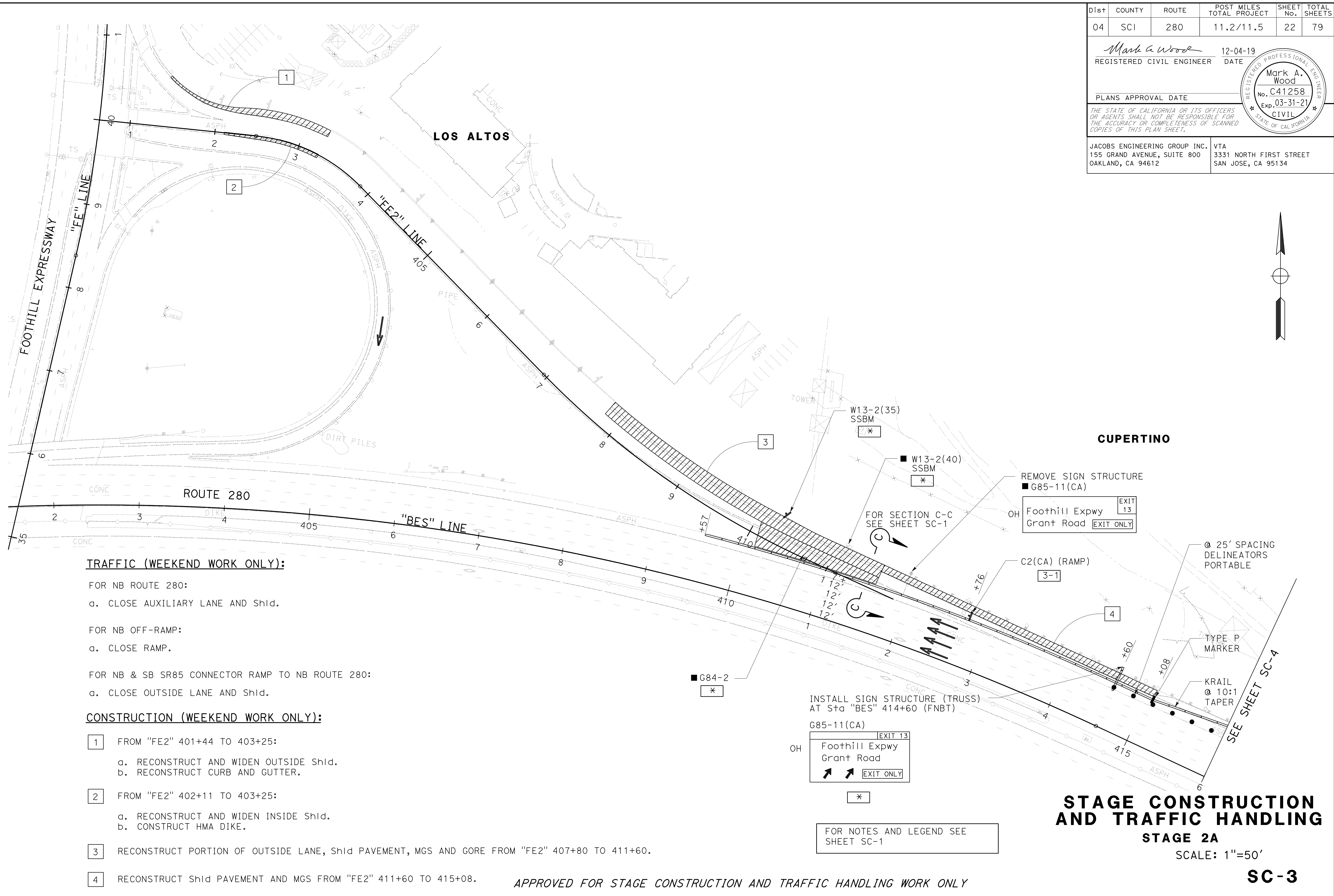
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	22	79

Mark A. Wood
 REGISTERED CIVIL ENGINEER
 DATE 12-04-19
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



JACOBS ENGINEERING GROUP INC.
 155 GRAND AVENUE, SUITE 800
 OAKLAND, CA 94612
 VTA
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT SUPERVISOR	DESIGNED BY	REVISOR
Et Caltrans	DARRELL VICE	PHILIP CHEUNG	PHILIP CHEUNG
		MARK WOOD	MARK WOOD



TRAFFIC (WEEKEND WORK ONLY):

- FOR NB ROUTE 280:
 - a. CLOSE AUXILIARY LANE AND Shld.
- FOR NB OFF-RAMP:
 - a. CLOSE RAMP.
- FOR NB & SB SR85 CONNECTOR RAMP TO NB ROUTE 280:
 - a. CLOSE OUTSIDE LANE AND Shld.

CONSTRUCTION (WEEKEND WORK ONLY):

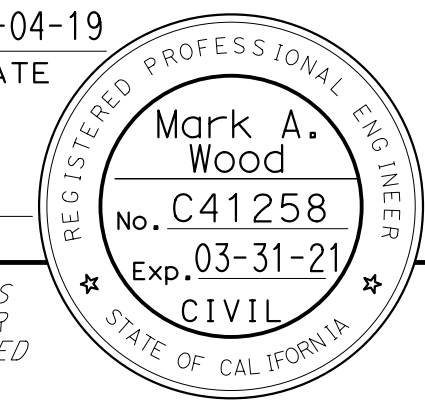
- 1 FROM "FE2" 401+44 TO 403+25:
 - a. RECONSTRUCT AND WIDEN OUTSIDE Shld.
 - b. RECONSTRUCT CURB AND GUTTER.
- 2 FROM "FE2" 402+11 TO 403+25:
 - a. RECONSTRUCT AND WIDEN INSIDE Shld.
 - b. CONSTRUCT HMA DIKE.
- 3 RECONSTRUCT PORTION OF OUTSIDE LANE, Shld PAVEMENT, MGS AND GORE FROM "FE2" 407+80 TO 411+60.
- 4 RECONSTRUCT Shld PAVEMENT AND MGS FROM "FE2" 411+60 TO 415+08.

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STAGE CONSTRUCTION AND TRAFFIC HANDLING
STAGE 2A
 SCALE: 1"=50'
SC-3

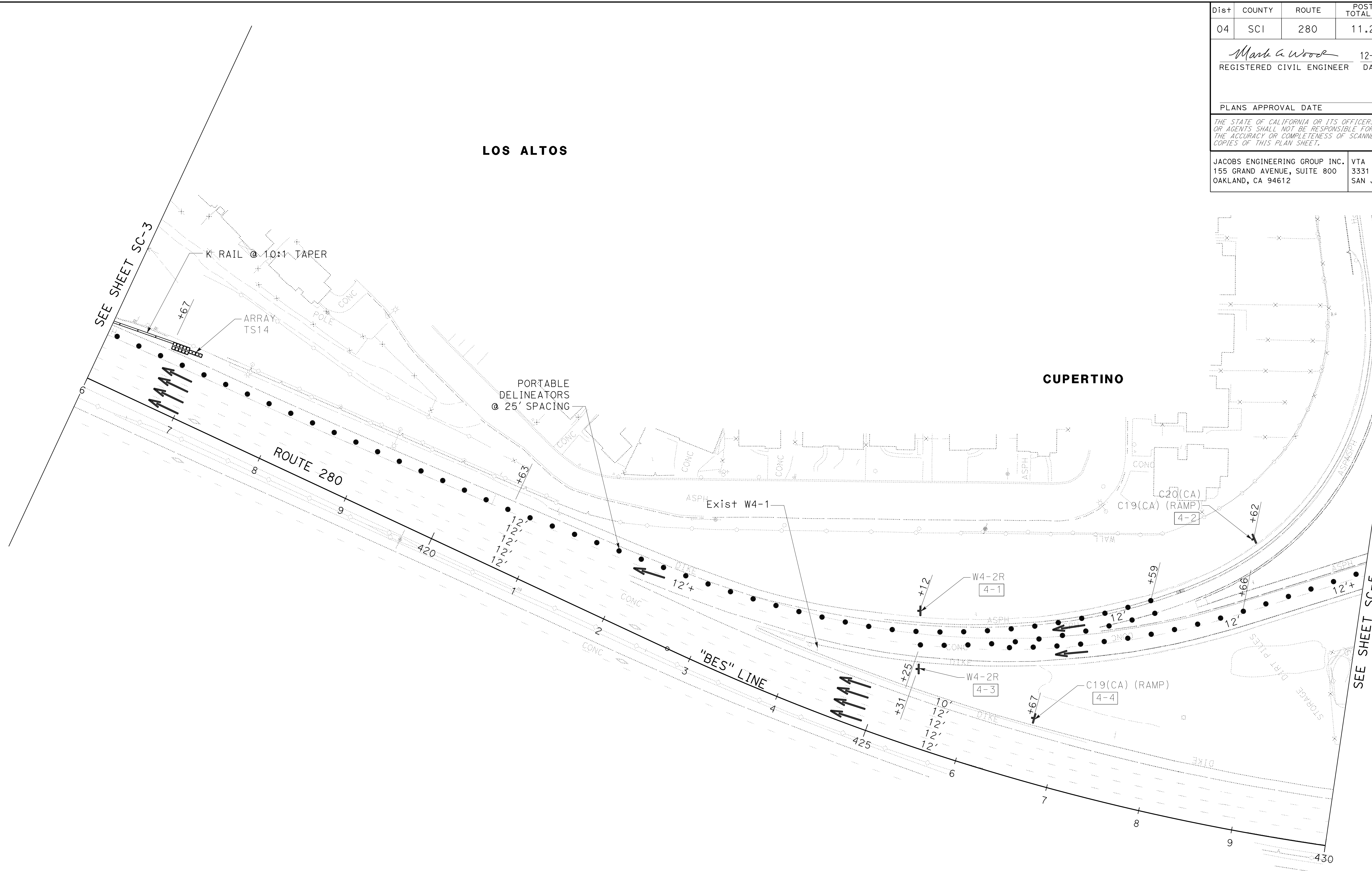
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	23	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612
 VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PHILIP CHEUNG	REVISOR
Caltrans	MARK WOOD	DATE
CONSULTANT FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY
DARRELL VICE		



FOR NOTES AND LEGEND SEE SHEET SC-1

STAGE CONSTRUCTION AND TRAFFIC HANDLING
STAGE 2A
 SCALE: 1"=50'
SC-4

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISED BY: PHILIP CHEUNG
 DATE REVISED: MARK WOOD

STAGE 2A, 2B CONSTRUCTION AREA SIGNS (PORTABLE)

SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE
3-1	C2(CA) (RAMP)	36" x 24"	RAMP CLOSED
4-1	W4-2R	30" x 30"	LANE ENDS SYMBOL
4-2	C20(CA)	36" x 36"	RIGHT LANE CLOSED AHEAD
4-3	C19(CA) (RAMP)	36" x 36"	RAMP CLOSED AHEAD
4-4	W4-2R	30" x 30"	LANE ENDS SYMBOL
5-1	C19(CA) (RAMP)	36" x 36"	RAMP CLOSED AHEAD
5-2	W4-2R	30" x 30"	LANE ENDS SYMBOL
5-3	C20(CA)	36" x 36"	RIGHT LANE CLOSED AHEAD
5-4	C19(CA) (RAMP)	36" x 36"	RAMP CLOSED AHEAD

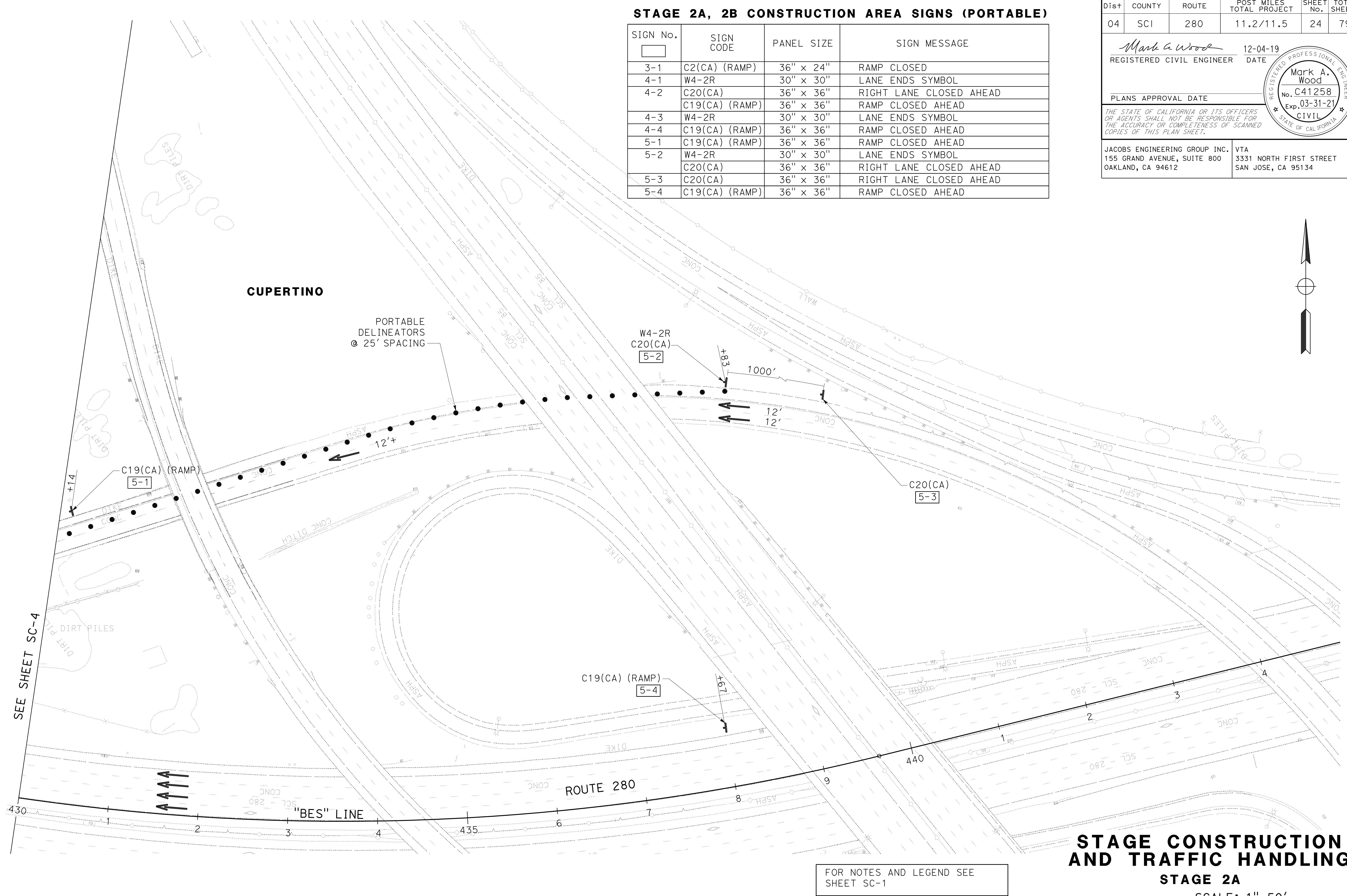
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	24	79

Mark A. Wood
 REGISTERED CIVIL ENGINEER
 DATE: 12-04-19
 PLANS APPROVAL DATE:

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

JACOBS ENGINEERING GROUP INC.
 155 GRAND AVENUE, SUITE 800
 OAKLAND, CA 94612

VTA
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134



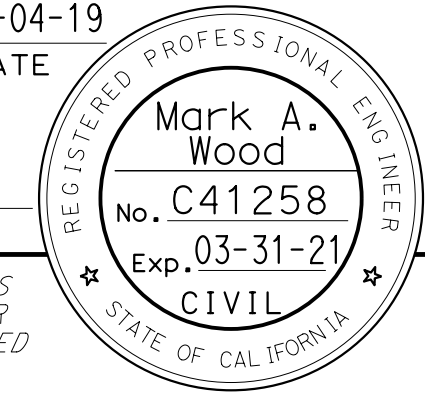
FOR NOTES AND LEGEND SEE SHEET SC-1

STAGE CONSTRUCTION AND TRAFFIC HANDLING
STAGE 2A
 SCALE: 1"=50'
SC-5

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	25	79

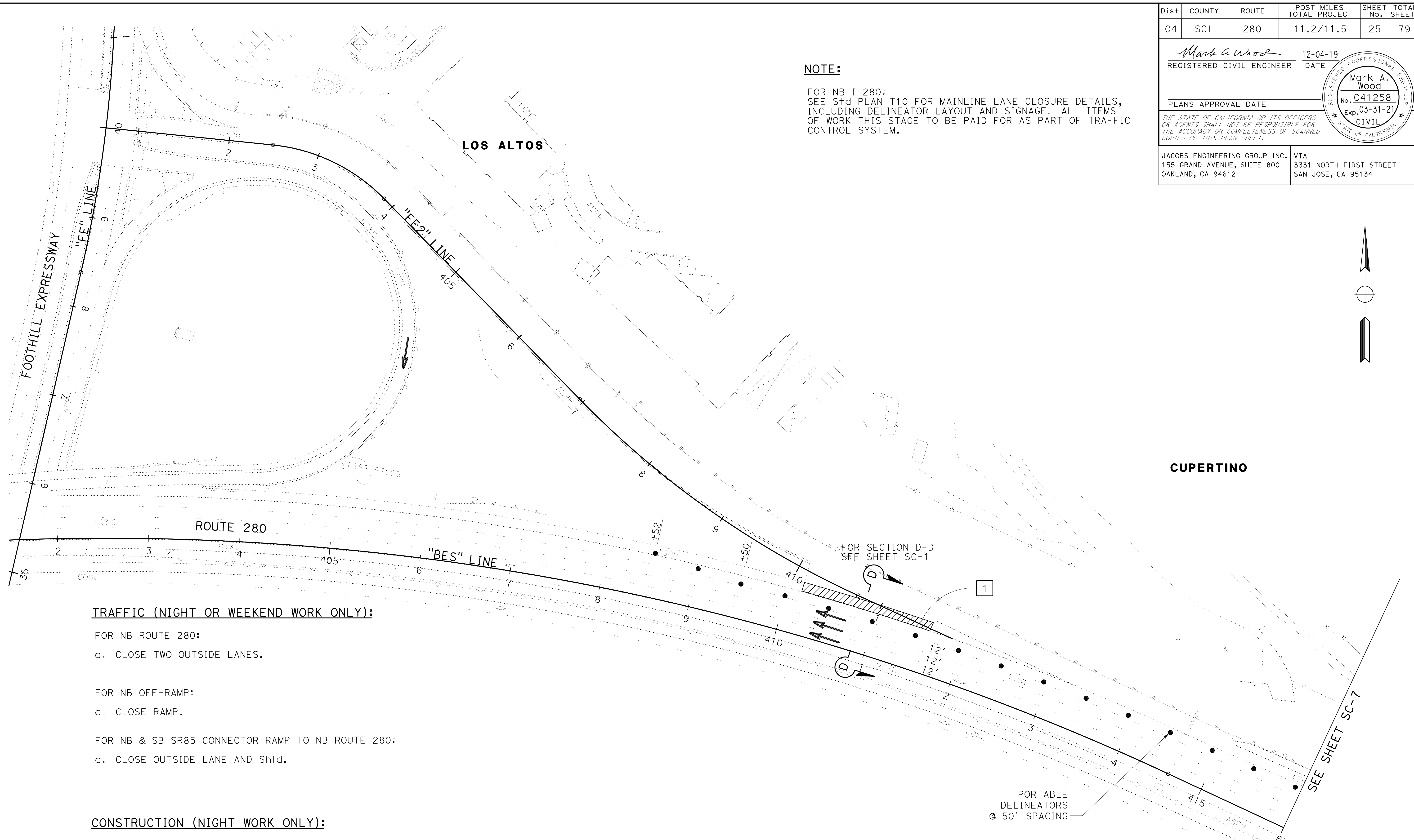
Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
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JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612
 VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134

NOTE:

FOR NB I-280:
 SEE S+D PLAN T10 FOR MAINLINE LANE CLOSURE DETAILS, INCLUDING DELINEATOR LAYOUT AND SIGNAGE. ALL ITEMS OF WORK THIS STAGE TO BE PAID FOR AS PART OF TRAFFIC CONTROL SYSTEM.



TRAFFIC (NIGHT OR WEEKEND WORK ONLY):

- FOR NB ROUTE 280:
 - a. CLOSE TWO OUTSIDE LANES.
- FOR NB OFF-RAMP:
 - a. CLOSE RAMP.
- FOR NB & SB SR85 CONNECTOR RAMP TO NB ROUTE 280:
 - a. CLOSE OUTSIDE LANE AND Shld.

CONSTRUCTION (NIGHT WORK ONLY):

- 1 RECONSTRUCT MAINLINE OUTSIDE Shld FROM "BES" 410+16 TO 411+60.

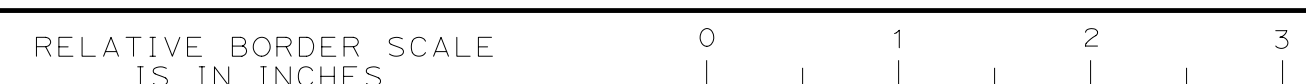
FOR NOTES AND LEGEND SEE SHEET SC-1

STAGE CONSTRUCTION AND TRAFFIC HANDLING
STAGE 2B
 SCALE: 1"=50'
SC-6

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PHILIP CHEUNG	REVISOR
Caltrans	MARK WOOD	DATE
CONSULTANT SUPERVISOR	CHECKED BY	DESIGNED BY
DARRELL VICE		
FUNCTIONAL SUPERVISOR		

USERNAME => PerezBR
 DGN FILE => 0413000861ma007.dgn



UNIT 0712

PROJECT NUMBER & PHASE

0413000861

LAST REVISION: DATE PLOTTED => 03-DEC-2019
 TIME PLOTTED => 13:49

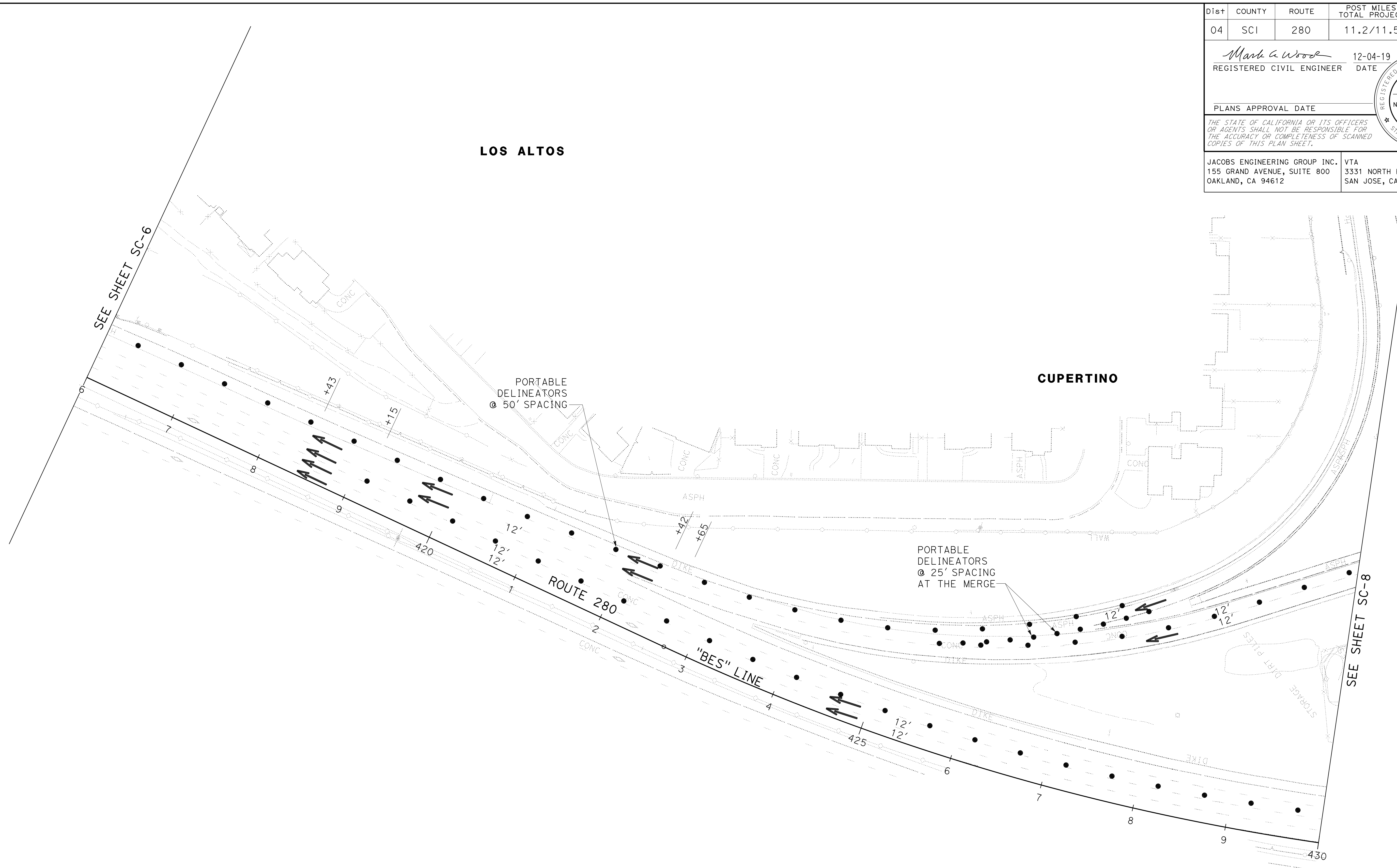
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISED BY: PHILIP CHEUNG
 DATE REVISIED: []

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	26	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Mark A. Wood
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA

JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612	VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134
---	--



FOR NOTES AND LEGEND SEE SHEET SC-1

STAGE CONSTRUCTION AND TRAFFIC HANDLING
STAGE 2B
 SCALE: 1"=50'
SC-7

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

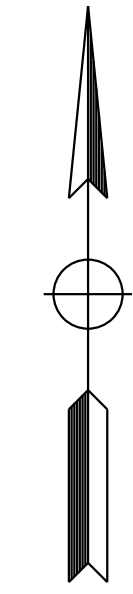
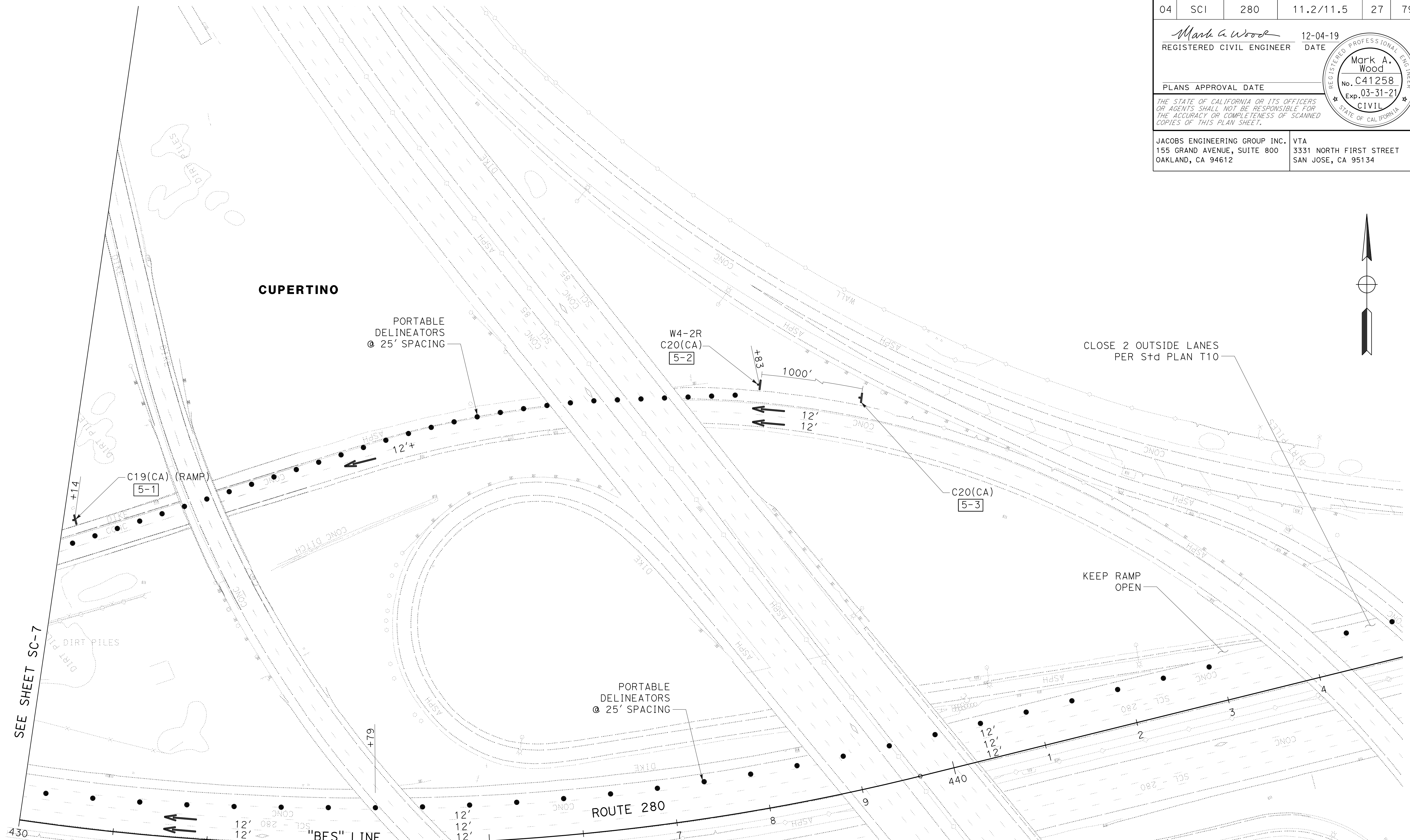
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISED BY: PHILIP CHEUNG
 DATE: []
 REVISED BY: []
 DATE: []

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	27	79

Mark A. Wood
 REGISTERED CIVIL ENGINEER
 DATE: 12-04-19
 PLANS APPROVAL DATE: []
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA

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

JACOBS ENGINEERING GROUP INC.
 155 GRAND AVENUE, SUITE 800
 OAKLAND, CA 94612
 VTA
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134



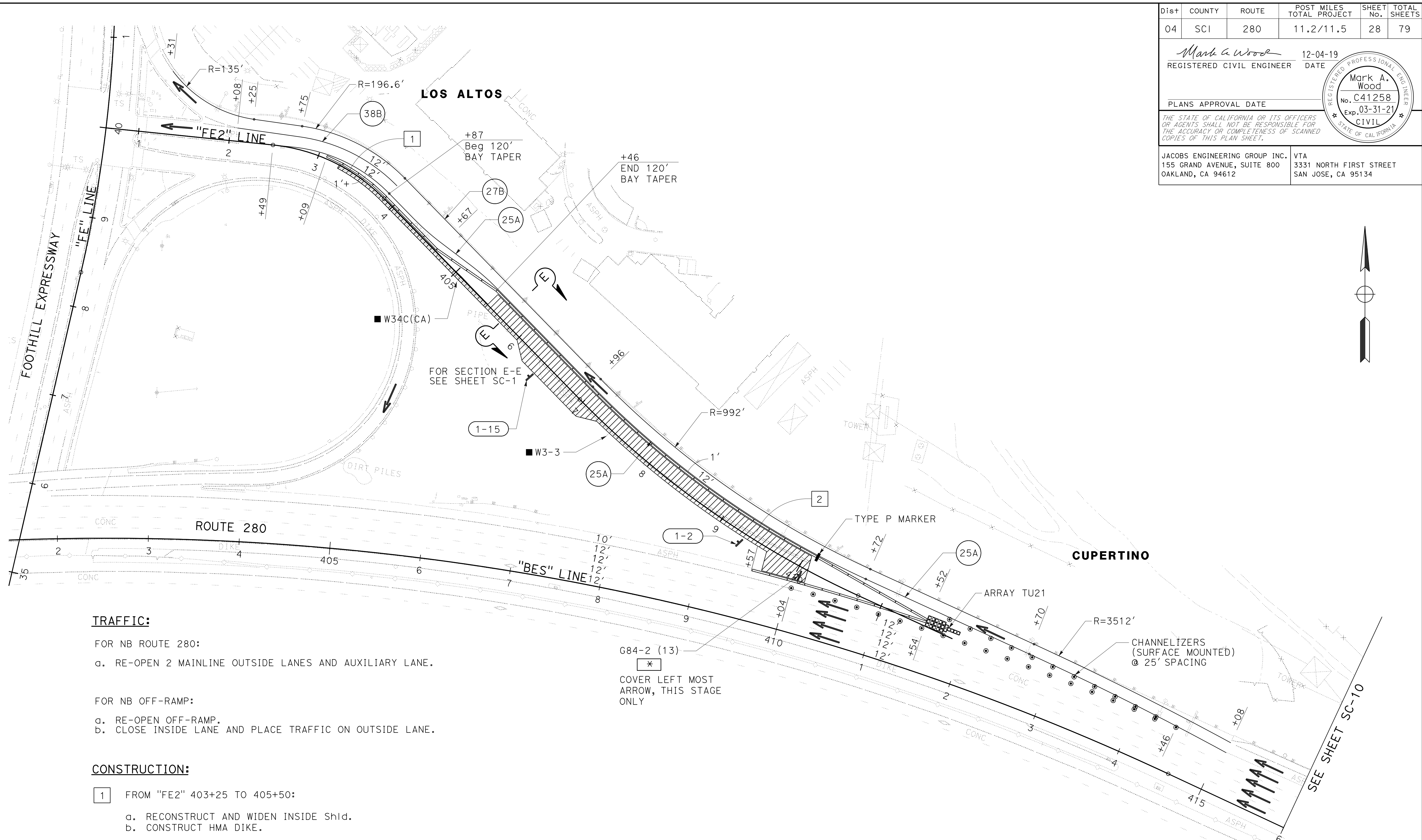
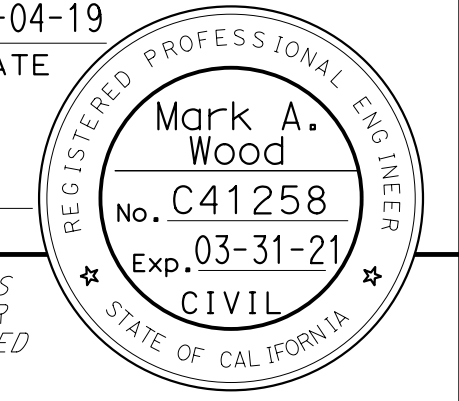
STAGE CONSTRUCTION AND TRAFFIC HANDLING
STAGE 2B
 SCALE: 1"=50'
SC-8

FOR NOTES AND LEGEND SEE SHEET SC-1

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

LAST REVISION: DATE PLOTTED => 03-DEC-2019
 TIME PLOTTED => 14:02

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	28	79
<i>Mark A. Wood</i> REGISTERED CIVIL ENGINEER			12-04-19 DATE		
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		



TRAFFIC:

- FOR NB ROUTE 280:
- a. RE-OPEN 2 MAINLINE OUTSIDE LANES AND AUXILIARY LANE.
- FOR NB OFF-RAMP:
- a. RE-OPEN OFF-RAMP.
 - b. CLOSE INSIDE LANE AND PLACE TRAFFIC ON OUTSIDE LANE.

CONSTRUCTION:

- 1 FROM "FE2" 403+25 TO 405+50:
 - a. RECONSTRUCT AND WIDEN INSIDE SHld.
 - b. CONSTRUCT HMA DIKE.
- 2 FROM "FE2" 405+50 TO 410+16:
 - a. RECONSTRUCT INSIDE LANE PAVEMENT AND REMAINDER OF OUTSIDE LANE PAVEMENT.
 - b. RECONSTRUCT AND WIDEN INSIDE SHld.
 - c. RECONSTRUCT MVP.
 - d. RECONSTRUCT EXTENDED GORE AREA TEXTURED PAVING.

G84-2 (13)
 *
 COVER LEFT MOST
 ARROW, THIS STAGE
 ONLY

FOR NOTES AND LEGEND SEE
 SHEET SC-1

**STAGE CONSTRUCTION
 AND TRAFFIC HANDLING**
STAGE 3
 SCALE: 1"=50'
SC-9

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	REVISOR	DATE
	DARRELL VICE	PHILIP CHEUNG	MARK WOOD		

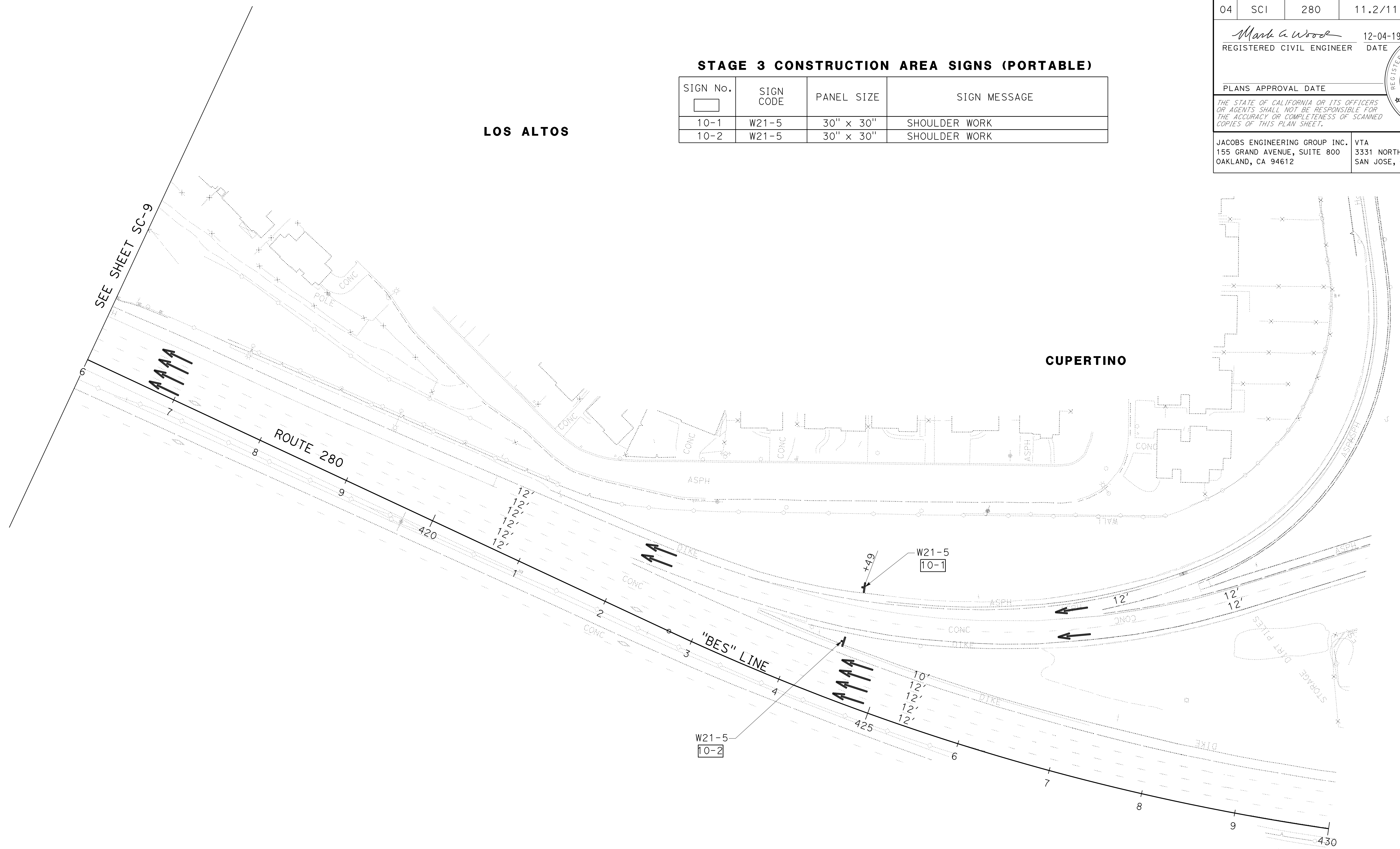
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISED BY: PHILIP CHEUNG
 DATE REVISED: MARK WOOD

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	29	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.
 JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612
 VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134

STAGE 3 CONSTRUCTION AREA SIGNS (PORTABLE)

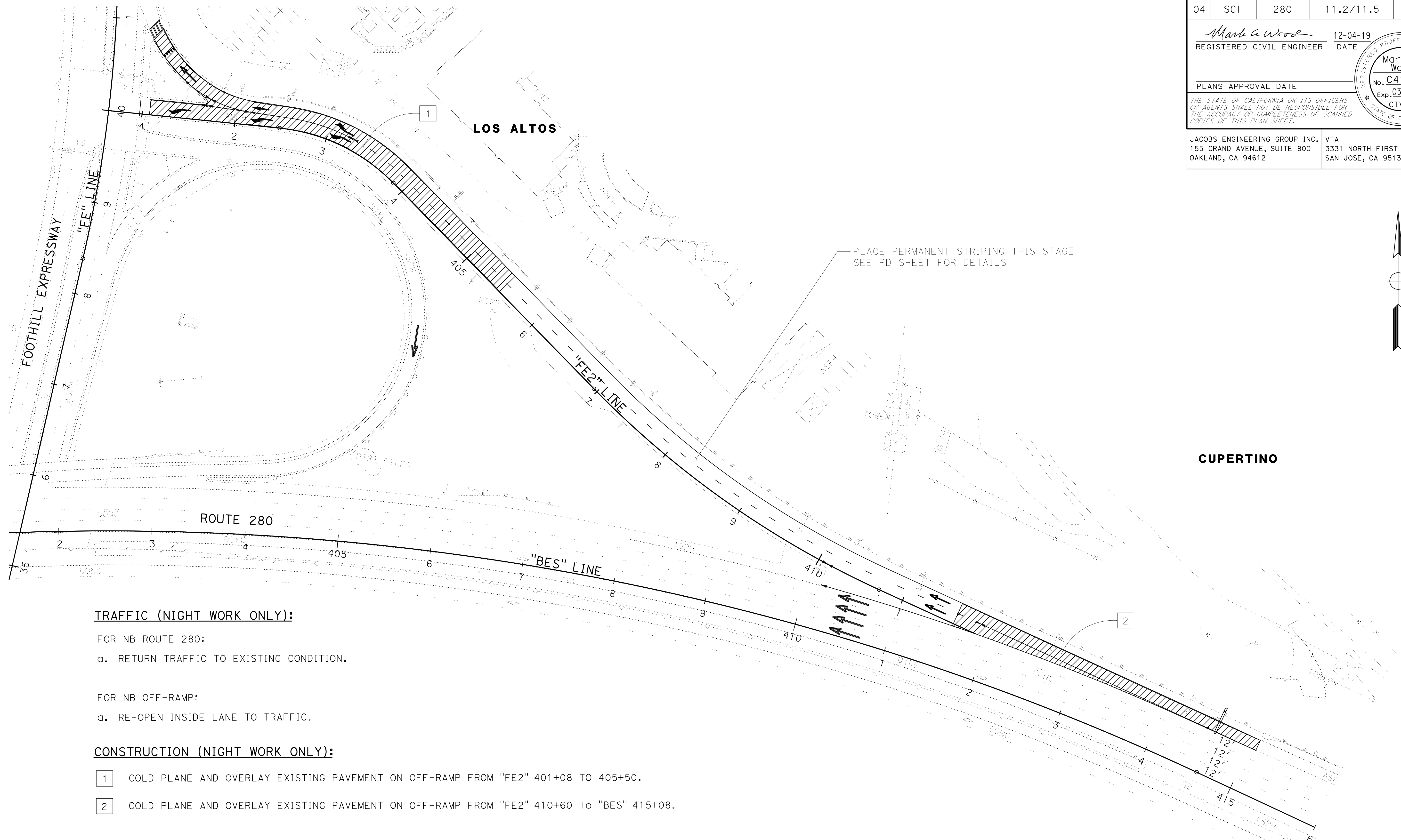
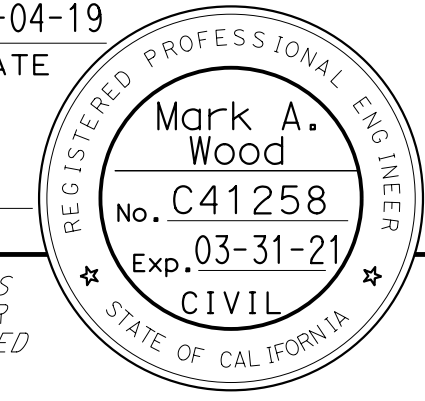
SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE
10-1	W21-5	30" x 30"	SHOULDER WORK
10-2	W21-5	30" x 30"	SHOULDER WORK



FOR NOTES AND LEGEND SEE SHEET SC-1

STAGE CONSTRUCTION AND TRAFFIC HANDLING
STAGE 3
 SCALE: 1"=50'
SC-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	30	79
<i>Mark A. Wood</i> REGISTERED CIVIL ENGINEER			12-04-19 DATE		
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		



TRAFFIC (NIGHT WORK ONLY):

- FOR NB ROUTE 280:
- a. RETURN TRAFFIC TO EXISTING CONDITION.
- FOR NB OFF-RAMP:
- a. RE-OPEN INSIDE LANE TO TRAFFIC.

CONSTRUCTION (NIGHT WORK ONLY):

- 1 COLD PLANE AND OVERLAY EXISTING PAVEMENT ON OFF-RAMP FROM "FE2" 401+08 TO 405+50.
- 2 COLD PLANE AND OVERLAY EXISTING PAVEMENT ON OFF-RAMP FROM "FE2" 410+60 to "BES" 415+08.

FOR NOTES AND LEGEND SEE SHEET SC-1

STAGE CONSTRUCTION AND TRAFFIC HANDLING
STAGE 4
 SCALE: 1"=50'
SC-11

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PHILIP CHEUNG	REVISOR
Caltrans	MARK WOOD	DATE
CONSULTANT FUNCTIONAL SUPERVISOR	CHECKED BY	DATE
DARRELL VICE		
CALCULATED/DESIGNED BY		

LAST REVISION DATE PLOTTED => 03-DEC-2019 12-04-19 TIME PLOTTED => 14:16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR - DARRELL VICE
 CALCULATED/DESIGNED BY - CHECKED BY
 PHILIP CHEUNG - MARK WOOD
 REVISED BY - DATE REVISED

TEMPORARY PAVEMENT DELINEATION

SHEET No.	STATION	SIDE	DETAIL No.	TEMPORARY TRAFFIC STRIPE (PAINT)	TEMPORARY PAVEMENT MARKER
				LF	EA
SC-2	FE2 402+67 TO 411+10	L+	27B	849	
SC-9	FE2 402+49 TO BES 415+08	L+	25A	1261	53
SC-9	FE2 402+08 TO 403+87	L+	38	191	4
SC-9	FE2 401+31 TO BES 415+08	L+	27B	1403	
TOTAL				3704	57

CHANNELIZERS AND PORTABLE DELINEATORS

SHEET No.	STATION	SIDE	CHANNELIZER (SURFACE MOUNTED)	(N) PORTABLE DELINEATOR
			EA	EA
SC-2	FE2 407+92 TO 410+98	L+	12	
SC-3/4	BES 414+60 TO 427+59	L+		53
SC-4/5	BES 425+25 TO 438+83	L+		58
SC-6/7/8	BES 408+52 TO 445+00	L+		140
SC-9	BES 410+04 TO 414+46	L+	30	
TOTAL			42	251

(N) = NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

PAVEMENT DELINEATION REMOVAL

SHEET No.	STATION	REMOVE THERMOPLASTIC WHITE TRAFFIC STRIPE	REMOVE PAVEMENT MARKER	REMOVE PAVEMENT MARKING
		LF	EA	SQFT
SC-2	FE2 402+67 TO 407+17	457	11	
SC-2	FE2 402+67 TO 403+25	65		
SC-2	FE2 408+56 TO 411+10	249		
SC-3	FE2 401+08			35
SC-3	FE2 401+14			30
SC-9	BES 411+60 TO 413+32	347	16	
SC-9	BES 413+32 TO 415+08	178	18	
TOTAL		1296	45	65


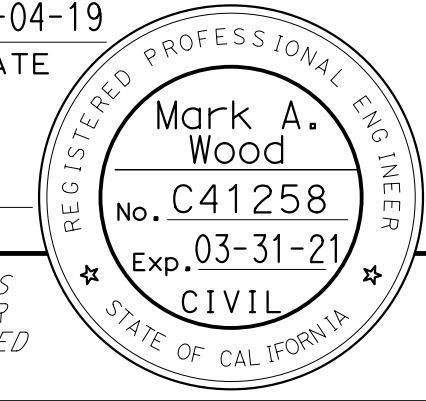
TEMPORARY RAILING (TYPE K)

SHEET No.	STATION	SIDE	LF
SC-2	FE2 402+15 TO 403+25	L+	120
SC-2	FE2 403+15 TO 409+14	L+	600
SC-3	BES 409+57 TO 416+67	L+	720
SC-9	FE2 403+09 TO 411+52	L+	840
SC-9	BES 409+57 TO 411+54	L+	200
TOTAL			2480

TRAFFIC HANDLING DEVICES

STAGE	TEMPORARY CRASH CUSHION MODULE	(N) OBJECT MARKER (TYPE P)	PORTABLE CHANGEABLE MESSAGE SIGN
	EA	EA	EA
STAGE 1	14	1	4
STAGE 2A	14	1	
STAGE 2B			
STAGE 3	21	1	
STAGE 4			
TOTAL	49	3	4

(N) = NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	31	79
			12-04-19		
REGISTERED CIVIL ENGINEER			DATE		
			PLANS APPROVAL DATE		
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JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		

STAGE CONSTRUCTION AND TRAFFIC HANDLING QUANTITIES

SCQ-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	32	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612
 VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134

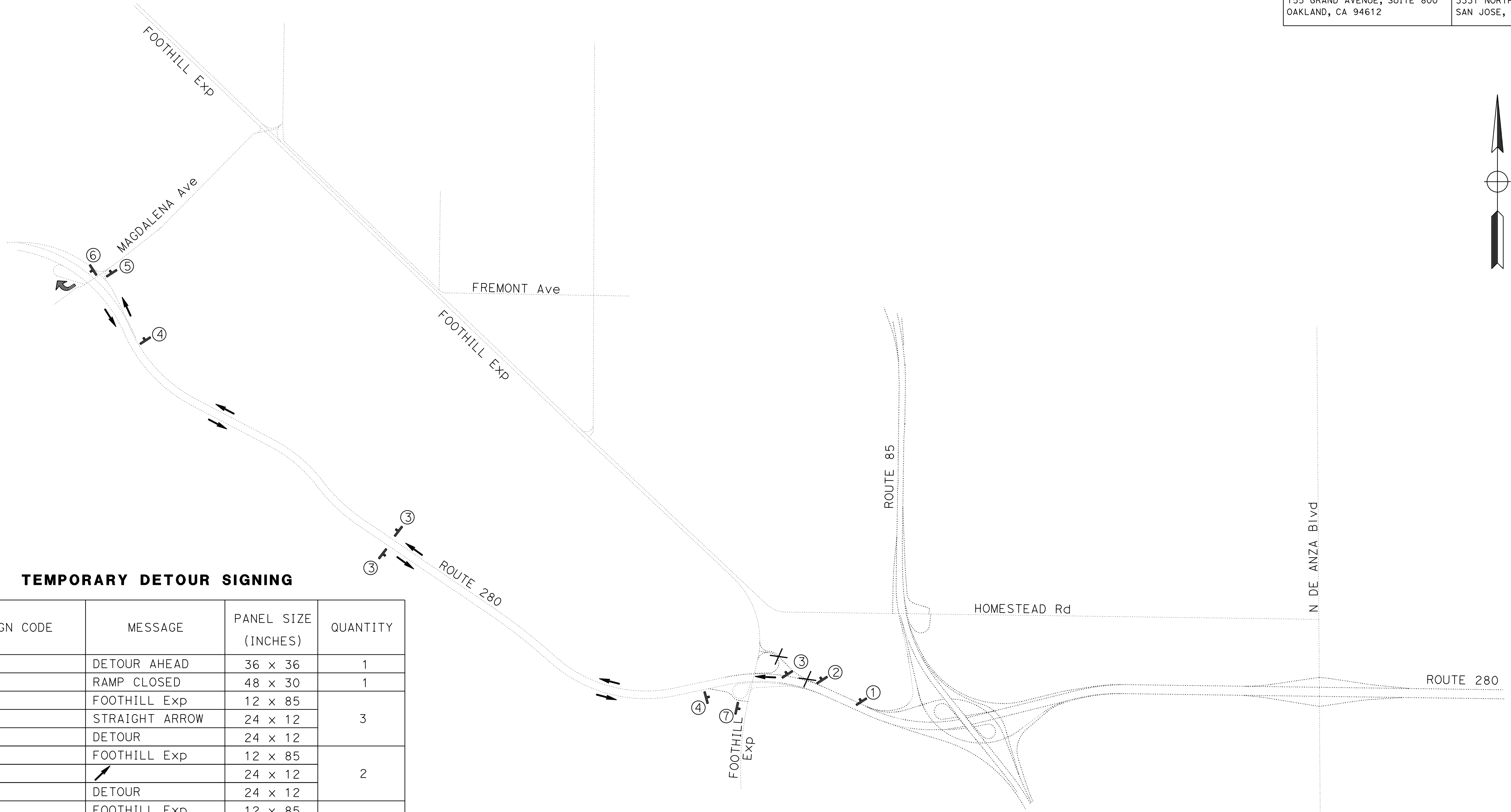
NOTES:

1. This plan shows detour signing only. For complete details of ramp closure signing and traffic control devices, see Stage Construction and Traffic Handling plans and Standard Plan T14.
2. Existing guide signs which direct traffic to the closed ramp shall be temporarily covered when not in use as directed by the Engineer.
3. Location of signs shown are approximate. Exact location to be determined by the Engineer.
4. Unless otherwise shown, detour signs shall have black legend and border on orange background.
5. See Specifications for ramp closure time restrictions.

LEGEND:

- ✕ Ramp Closed
- ⊗ Sign Number
- ↑ Detour Route
- † Detour Sign

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Et Caltrans®
 CONSULTANT - FUNCTIONAL SUPERVISOR
 PHILIP CHEUNG
 MARK WOOD
 REVISOR BY
 DATE
 CHECKED BY
 DARRELL VICE



TEMPORARY DETOUR SIGNING

SIGN No.	SIGN CODE	MESSAGE	PANEL SIZE (INCHES)	QUANTITY
1	W20-2	DETOUR AHEAD	36 x 36	1
2	R11-2	RAMP CLOSED	48 x 30	1
3	D3-1	FOOTHILL Exp	12 x 85	3
	M6-3	STRAIGHT ARROW	24 x 12	
	M4-8	DETOUR	24 x 12	
4	D3-1	FOOTHILL Exp	12 x 85	2
	M6-2	↖	24 x 12	
	M4-8	DETOUR	24 x 12	
5	D3-1	FOOTHILL Exp	12 x 85	1
	M6-1 (L+)	LEFT ARROW	24 x 12	
	M4-8	DETOUR	24 x 12	
6	D3-1	FOOTHILL Exp	12 x 85	1
	M5-2	↗	24 x 12	
	M4-8	DETOUR	24 x 12	
7	M4-8a	END DETOUR	24 x 18	1

DETOUR PLAN No. 1

DETOUR: VIA NB ROUTE 280
 OFF-RAMP TO WB MAGDALENA Ave
 FROM WB MAGDALENA Ave ON-RAMP TO SB ROUTE 280
 OFF-RAMP TO EB OR WB FOOTHILL Exp

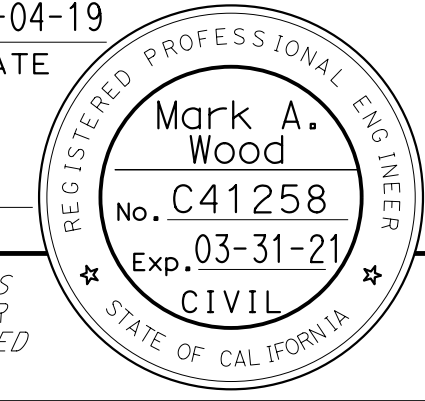
DETOUR PLAN
NO SCALE
DE-1

LAST REVISION DATE PLOTTED => 03-DEC-2019 12-04-19 TIME PLOTTED => 14:19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISED BY: PHILIP CHEUNG
 DATE REVISED: MARK WOOD

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	34	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE



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JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612	VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134
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PAVEMENT DELINEATION QUANTITIES

STATION	LOCATION	DETAIL No. OR PAVEMENT MARKING	PAVEMENT MARKER		THERMOPLASTIC TRAFFIC STRIPE			THERMOPLASTIC PAVEMENT MARKING SQFT
			RETROREFLECTIVE		6 INCH SOLID LF	8 INCH SOLID LF	6 INCH BROKEN (17'-7') LF	
			TYPE G EA	TYPE H EA				
FE2 401+15	L+	TYPE V ARROW						33
FE2 401+28	L+	TYPE III (L+) ARROW						42
FE2 402+15	L+	TYPE III (L+) ARROW						42
FE2 402+15	L+	TYPE I (R+) ARROW						31
FE2 403+00	L+	TYPE III (L+ & R+) ARROWS						84
FE2 411+24	L+	TYPE V ARROWS						66
FE2 401+08 TO 410+11	C	25A		38	903			
FE2 410+11 TO 411+87	C & R+	36	15			352		
FE2 401+08 TO 401+69	L+	27B			61			
FE2 401+05 TO 401+70	L+	25A		4	89			
FE2 401+69 TO 402+15	L+	36				92		
FE2 402+15 TO 403+30	L+	38B	12			115		
FE2 403+30 TO 411+87	L+	9	18				860	
BES 411+87 TO 415+08	L+	38B	28			325		
FE2 401+14 TO BES 415+08	L+	27B			1431			
FE2 401+08	L+	CROSSWALK						35
FE2 401+14	L+	LADDER CROSSWALK						71
FE2 401+58	L+	YIELD PAVEMENT MARKING						24
FE2 401+23	L+	YIELD LINE						8
TOTAL			77	42	2484	884	860	436

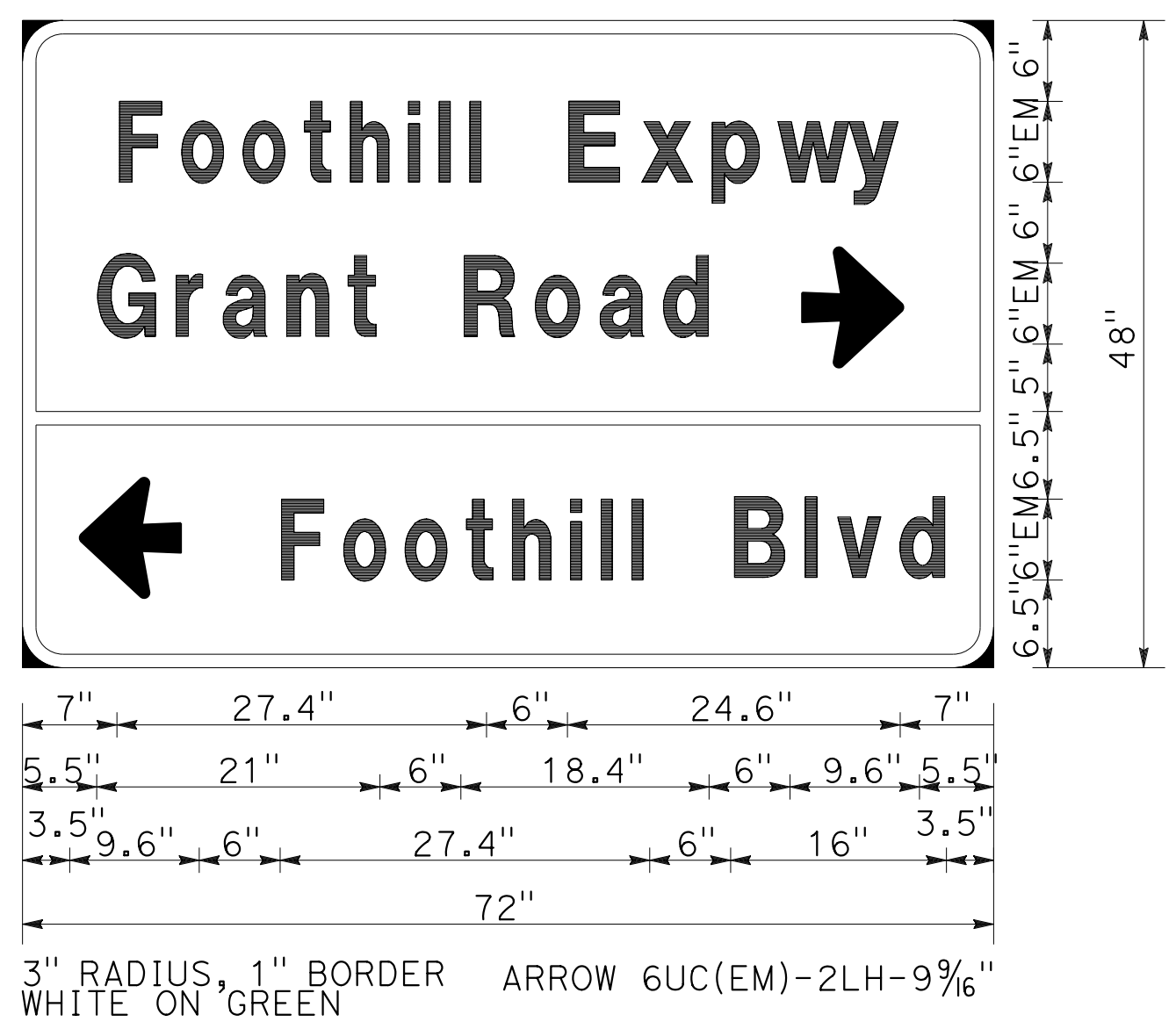
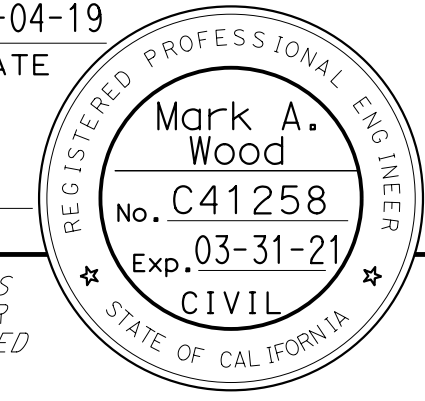
PAVEMENT DELINEATION QUANTITIES

NO SCALE

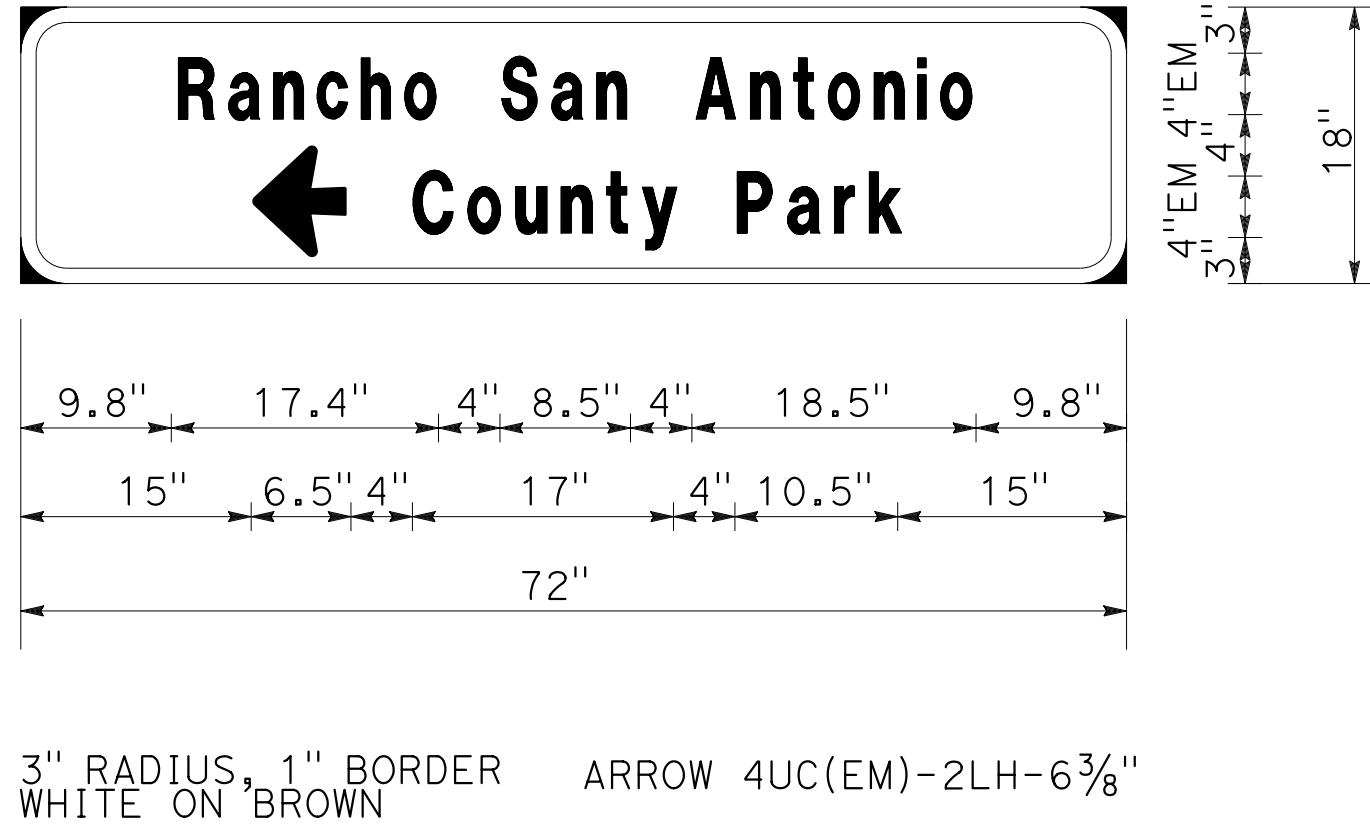
PDQ-1

LAST REVISION DATE PLOTTED => 05-DEC-2019 12-04-19 16:37

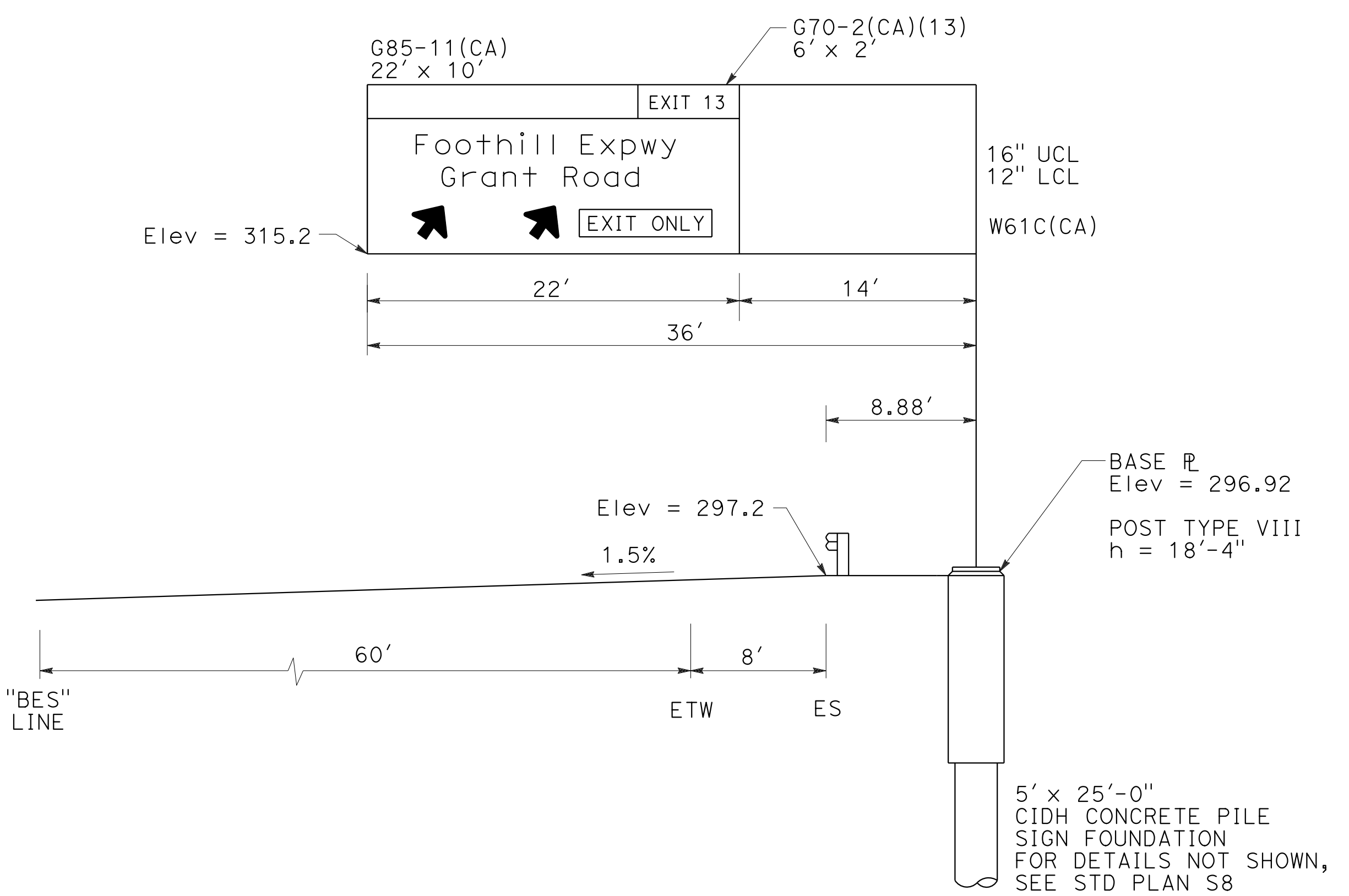
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	35	79
<i>Mark A. Wood</i> REGISTERED CIVIL ENGINEER			12-04-19 DATE		
PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		



SIGN 1-8
G8-7(CA)

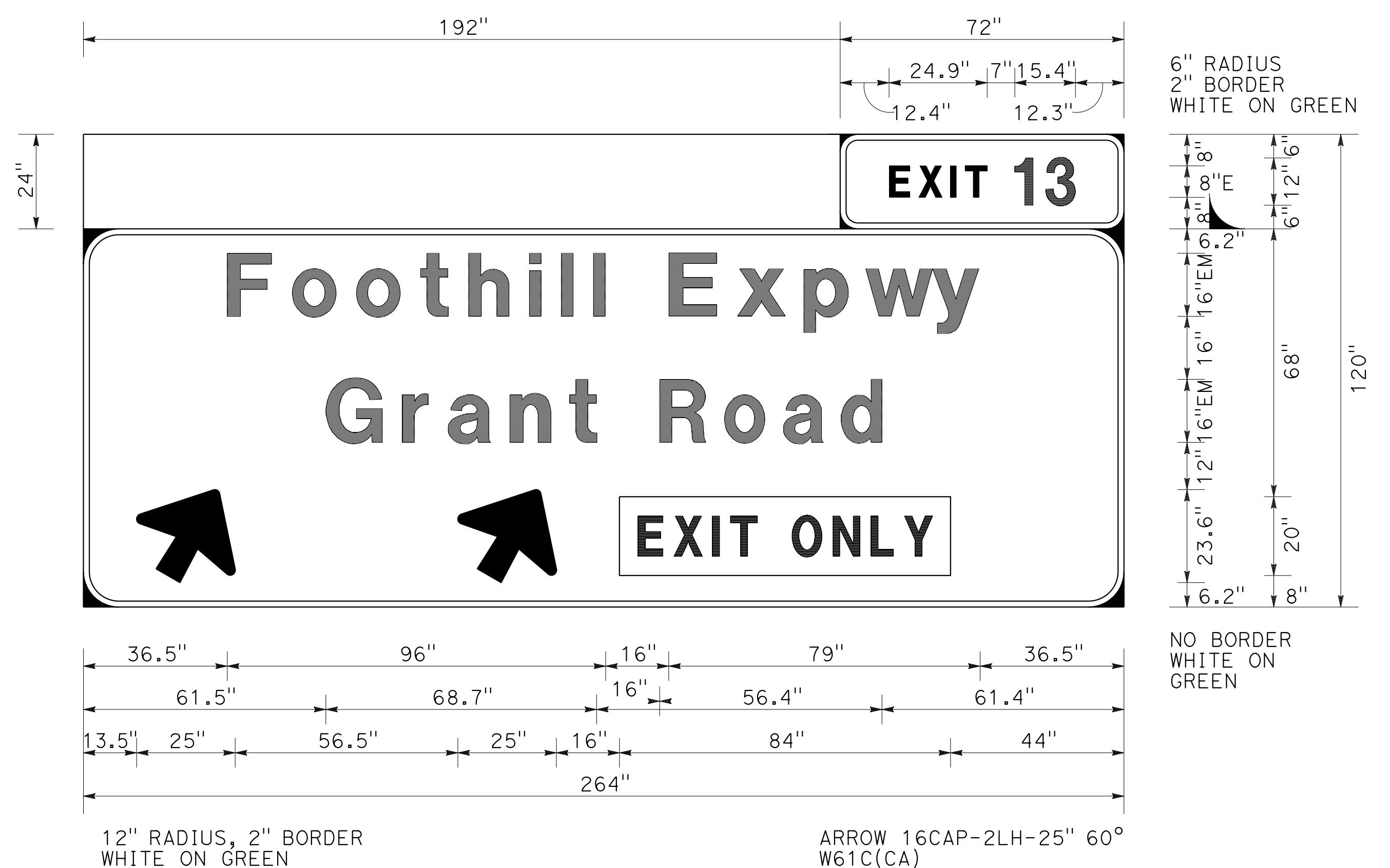


SIGN 1-14
G72(CA)



INSTALL SIGN STRUCTURE (TRUSS)
AT "BES" 414+60 (FNBT)

NOTE:
OVERHEAD SIGN DOES NOT INCLUDE WALKWAY OR LIGHTING



SIGN B
G85-11(CA)

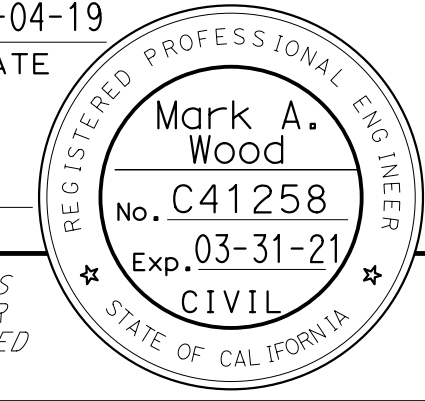
SIGN DETAILS
NO SCALE

SD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT - FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
Caltrans	DARRELL VICE	PHILIP CHEUNG	PHILIP CHEUNG
		CHECKED BY	DATE REVISED
		MARK WOOD	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	37	79

Mark A. Wood 12-04-19
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JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612	VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134
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SIGN PANEL SUMMARY

OVERHEAD SIGN QUANTITIES


SHEET No.	NUMBERS/LETTERS	SIGN CODE	SIGN SIZE	SIGN AREA [N]	SINGLE FACED	BACKGROUND		LEGEND		GRAPHIC FILM	ROADSIDE SIGNS		OVERHEAD SIGN	
						SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE		PREMIUM	SINGLE SHEET		FORMED PANEL
												UNFRAMED ALUMINUM		
						0.063 IN	0.080 IN			SQFT				
PD-1	1-2	E1-5a	78x60	33.0	X	GREEN	XI	WHITE	XI	X		33.0		
	1-5	W13-2(35)	36x48	12.0	X	YELLOW	XI	BLACK	PLAIN	X	12.0			
	1-8	G8-7(CA)	72x48	24.0	X	GREEN	XI	WHITE	XI	X		24.0		
		D9-7	30x30	6.3	X	BLUE	XI	WHITE	XI	X	6.3			
		G33-1(CA)	30x8	2.0	X	BLUE	XI	WHITE	XI	X	2.0			
		D9-8	30x30	6.3	X	BLUE	XI	WHITE	XI	X	6.3			
		G33-1(CA)	30x8	2.0	X	BLUE	XI	WHITE	XI	X	2.0			
	1-9	M1-6	36x36	9.0	X	BLUE	XI	YELLOW	XI	X	9.0			
		M6-4	30x21	5.0	X	BLUE	XI	YELLOW	XI	X	5.0			
	1-10	R1-2	36x36	9.0	X	RED	XI	WHITE	PLAIN	X	9.0			
	1-11	R1-5	36x36	9.0	X	WHITE	XI	BLACK	PLAIN	X	9.0			
	1-12	W3-3	36x36	9.0	X	YELLOW	XI	BLACK	PLAIN	X	9.0			
	1-14	G72(CA)	72x18	9.0	X	BROWN	XI	CREAM	XI	X		9.0		
	1-15	W34C(CA)	36x54	13.5	X	YELLOW	XI	BLACK	PLAIN	X	13.5			
	1-16	R1-5	36x36	9.0	X	WHITE	XI	BLACK	PLAIN	X	9.0			
	1-17	W11-2	36x36	9.0	X	YELLOW	XI	BLACK	PLAIN	X	9.0			
		W16-7P	24X12	2.0	X	YELLOW	XI	BLACK	PLAIN	X	2.0			
		W11-2	36X36	9.0	X	YELLOW	XI	BLACK	PLAIN	X	9.0			
	W16-7P	24X12	2.0	X	YELLOW	XI	BLACK	PLAIN	X	2.0				
TOTAL											114.1	66.0		
PD-1	B	G85-11(CA)	264x120	220.0	X	GREEN	XI	WHITE	XI	X			220.0	
TOTAL													220.0	

SHEET No.	SIGN No.	LOCATION	FURNISH SIGN STRUCTURE (TRUSS)	INSTALL SIGN STRUCTURE (TRUSS)	REMOVE SIGN STRUCTURE	60" CIDH CONCRETE PILE	REMARKS
			LB	LB	EA	LF	
PD-1	A	BES 412+00			1		
PD-1	B	BES 414+60	21000	21000		25	
TOTAL			21000	21000	1	25	

SIGN QUANTITIES

SQ-2

LAST REVISION DATE PLOTTED => 05-DEC-2019 12-04-19 TIME PLOTTED => 16:51

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

 CONSULTANT - FUNCTIONAL SUPERVISOR
 DARRELL VICE
 CALCULATED-DESIGNED BY
 CHECKED BY
 PHILIP CHEUNG
 MARK WOOD
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	39	79

Mark A. Wood 12-04-19
 REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
 Mark A. Wood
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA

PLANS APPROVAL DATE

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

JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612	VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134
---	--

IRRIGATION CONDUIT AND VALVES

SHEET No.	IRRIGATION CONDUIT	LOCATION		SIDE		WELDED STEEL PIPE (CONDUIT)	PLASTIC PIPE SUPPLY LINE (CLASS 315)	(N)	REMOTE CONTROL VALVE
		LINE	STATION	L+	R+	8"	2"	2"	2"
				LF	LF	LF	EA		
IP-1	1	FE2	406+05	X	X	48	58	58	1
IP-1	2	FE2	404+41 TO 406+05		X		164	164	
TOTAL						48	222	222	1

* = DENOTES REQUIREMENT
 (N) = NOT A SEPARATE PAY ITEM

SALVAGE IRRIGATION FACILITIES

STATION	SIDE	SALVAGE IRRIGATION VALVE
FE2 404+90	L+	4
FE2 404+92	R+	1
TOTAL		5

ROADSIDE CLEARING

TREE ID	LOCATION	STATION	TREE TRUNK CALIPER* (dbh) (in) (N)			TREE NAME	
			1"-12"	12"-24"	>24"	COMMON NAME	
T1	L+	409+44	X			OAK	NATIVE
T2	L+	408+10	X			OAK	NATIVE
T3	L+	405+95	X			OAK, 2-10" TRUNKS WITH COMMON ROOT	NATIVE
T4	L+	404+96	X			BUCKEYE	
T5	L+	404+78	X			OAK	NATIVE
T6	L+	404+63	X			OAK, 2-4" TRUNKS WITH COMMON ROOT	NATIVE
T7	L+	404+28	X			OAK, 5-10" TRUNKS WITH COMMON ROOT	NATIVE
T8	L+	404+13	X			PISTACHE, 2-6" TRUNKS WITH COMMON ROOT	
T9	L+	403+54	X			OAK	NATIVE
T10	L+	403+39	X			OAK	NATIVE
T11	L+	402+42	X			OAK	NATIVE
TOTAL			11				

* = TREE TRUNK CALIPER (dbh) IS DIAMETER AT BREAST HEIGHT (40"-42")
 (N) = NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

TREATED WOOD WASTE

	WEIGHT
	LB
REMOVE MGS POSTS AND BLOCKS	1230
REMOVE SIGN POSTS	20
TOTAL	1250

SUMMARY OF QUANTITIES

Q-2



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	40	79

Mark A. Wood
 REGISTERED CIVIL ENGINEER DATE 12-04-19
 PLANS APPROVAL DATE
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA

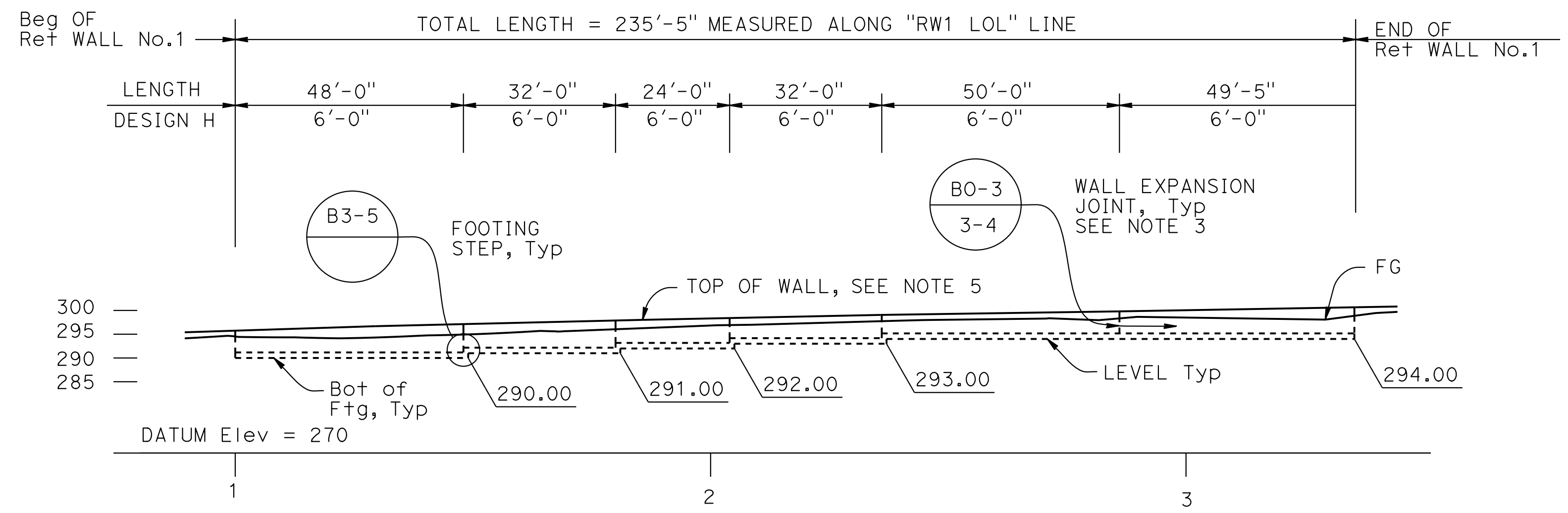
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JACOBS ENGINEERING GROUP INC.
 155 GRAND AVENUE, SUITE 800
 OAKLAND, CA 94612

VTA
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134

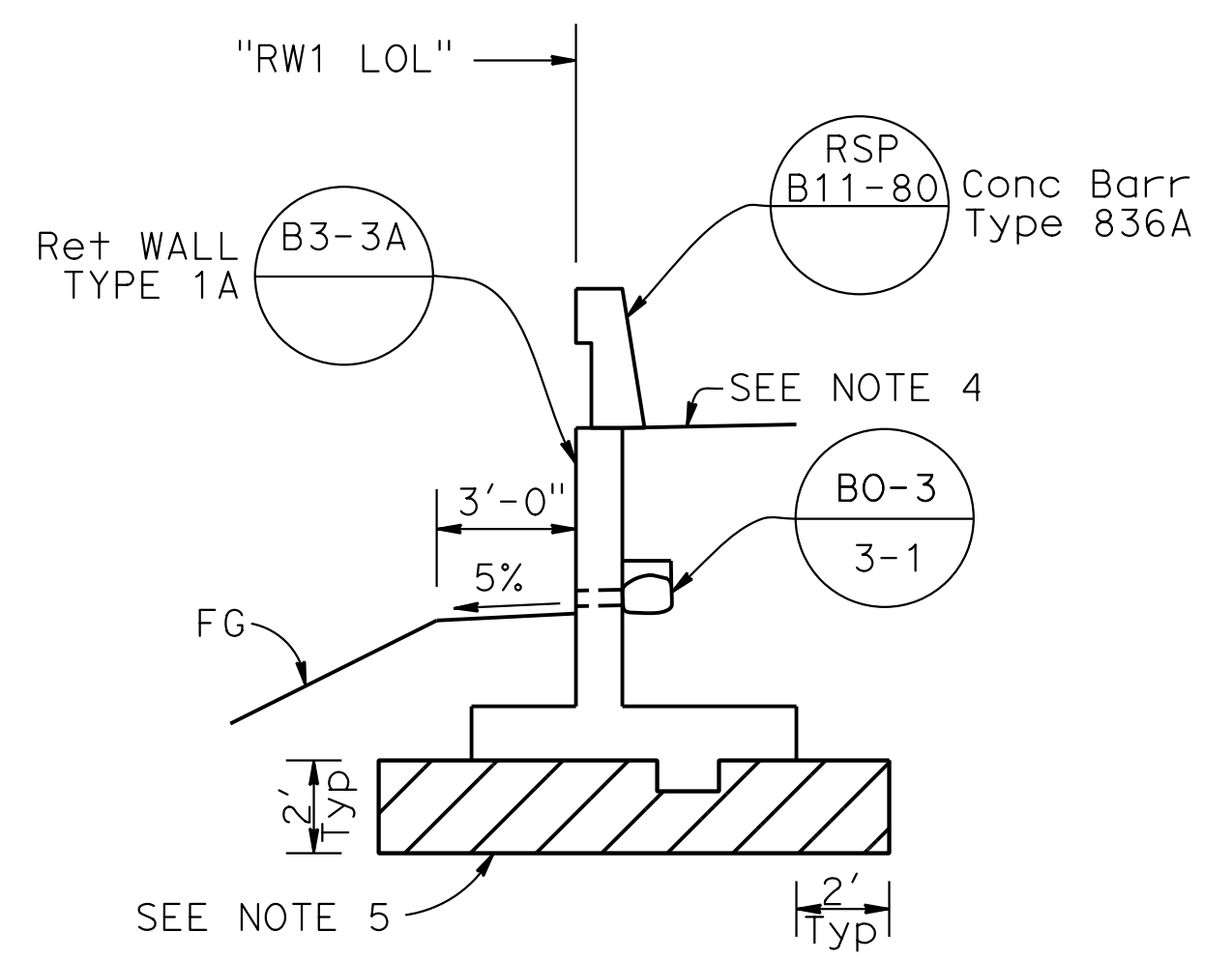
NOTES:

- FOR WEEP-HOLE AND WEAKENED PLANE LOCATIONS AND DETAILS SEE BO-3.
- PLACE WATERSTOP AS SHOWN ON REVISED Std PLAN B3-3A.
- SEE SHEET C-1 FOR "FE-2" LINE EP ELEVATIONS.
- Conc Barr NOT SHOWN FOR CLARITY.
- OVER-EXCAVATE AND BACKFILL WITH CLASS 3 AB.



DEVELOPED MIRROR ELEVATION

SCALE: 1"=20'



TYPICAL SECTION

Scale: 1/4"=1'-0"

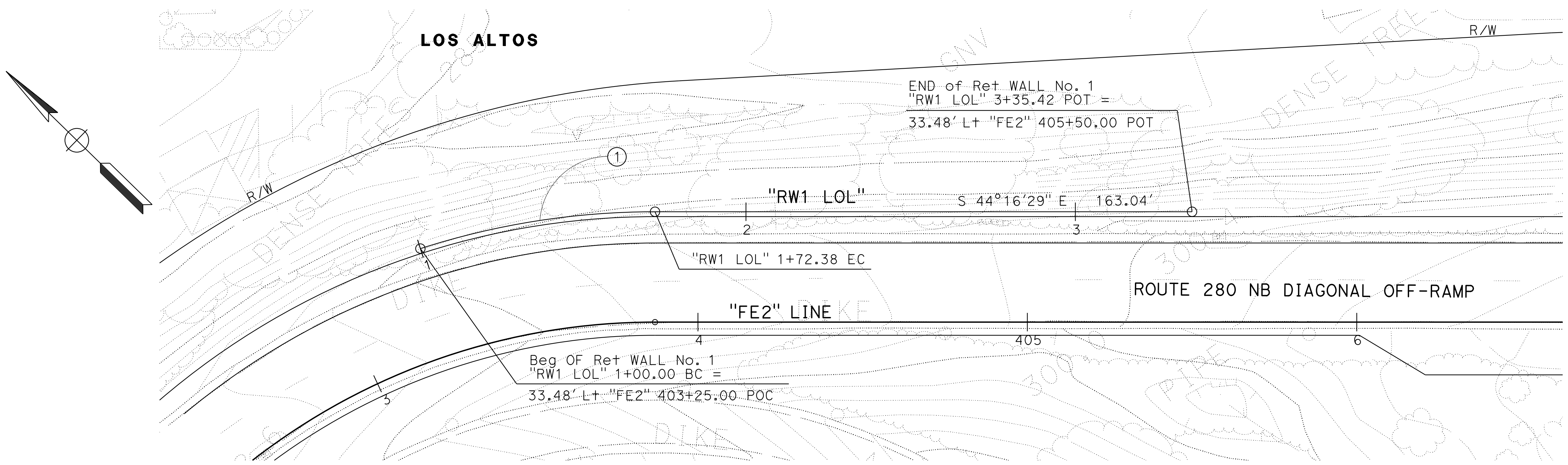
CURVE DATA

No.	R	Δ	T	L
①	232.48'	17°50'21"	36.49'	72.38'

RETAINING WALL QUANTITIES

DESCRIPTION	QUANTITY
STRUCTURE EXCAVATION (RETAINING WALL)	235 CY
STRUCTURE EXCAVATION (TYPE Z-2)	301 CY
STRUCTURE BACKFILL (RETAINING WALL)	64 CY
AGGREGATE BASE (CLASS 3)	185 CY*
STRUCTURAL CONCRETE (RETAINING WALL)	122 CY
BAR REINFORCING STEEL (RETAINING WALL)	16950 LB
CONCRETE BARRIER (TYPE 836A)	236 LF

* SEE ROADWAY QUANTITIES FOR GRAND TOTAL



PLAN

SCALE: 1"=20'

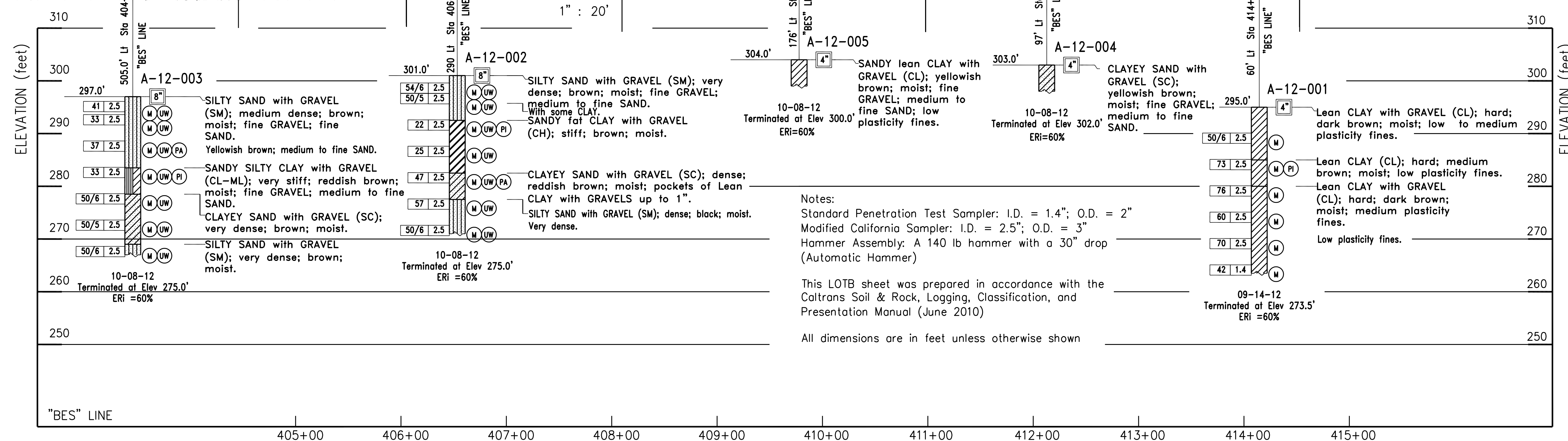
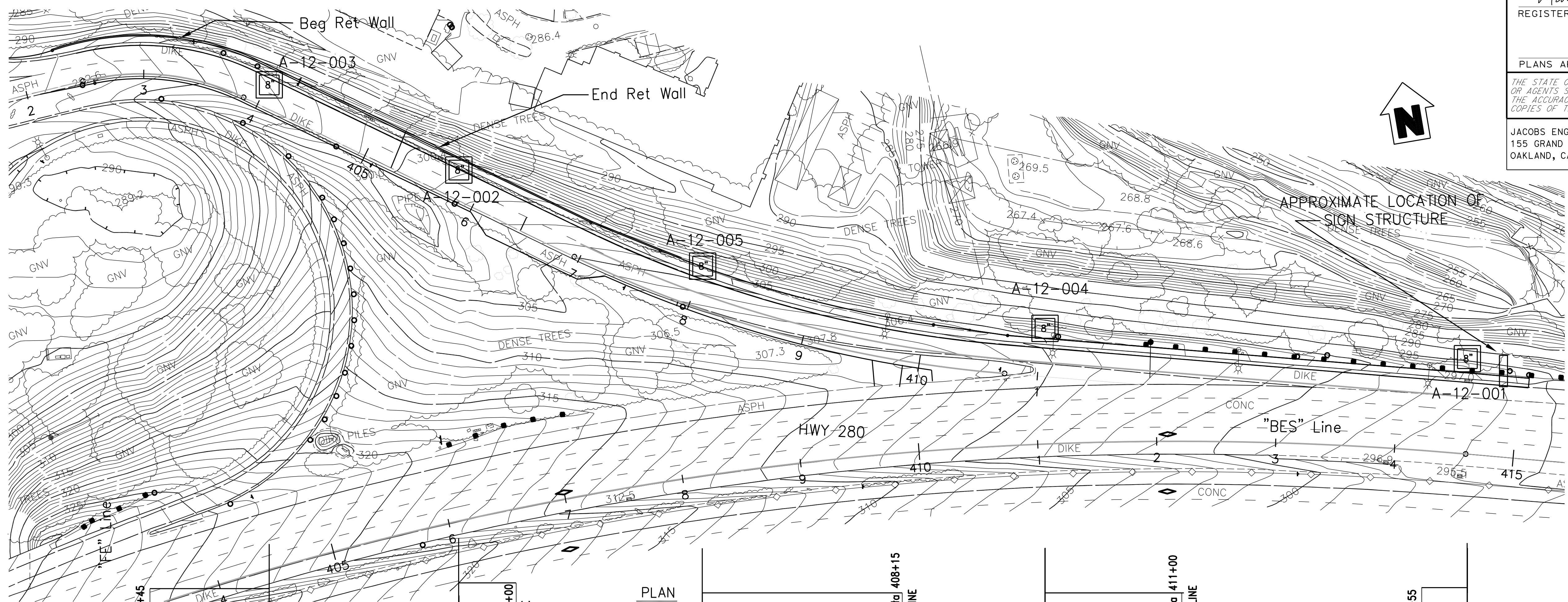
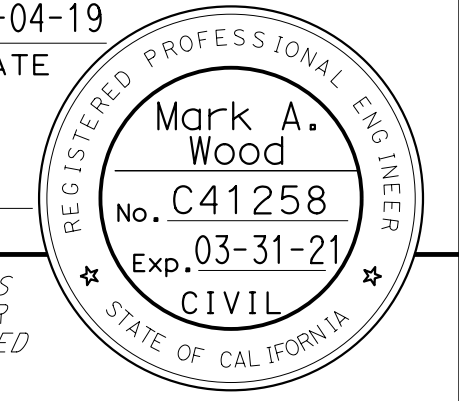
RETAINING WALL PLAN

SCALE: AS SHOWN

R-1

REVISIONS:
 PHILIP CHEUNG
 MARK WOOD
 DARRELL VICE
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	41	79
<i>Mark A. Wood</i> REGISTERED CIVIL ENGINEER			12-04-19 DATE		
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		



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 (June 2010)

All dimensions are in feet unless otherwise shown

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 CONSULTANT: PHILIP CHEUNG, MARK WOOD, DARRELL VICE
 REVISIONS: [Grid]



LOG OF TEST BORINGS

SCALE: NONE

R-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT: FUNCTIONAL SUPERVISOR: DARRELL VICE
 CALCULATED/DESIGNED BY: PHILIP CHEUNG
 CHECKED BY: MARK WOOD
 REVISED BY: PHILIP CHEUNG
 DATE REVISIED: MARK WOOD

- NOTES:**
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 2. ALL UTILITIES SHOWN ARE EXISTING UNLESS NOTED OTHERWISE.
 3. LOCATION OF UTILITIES ARE APPROXIMATE. INFORMATION SHOWN IS BASED ON OWNER'S RECORD.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	42	79

Mark A. Wood
 REGISTERED CIVIL ENGINEER
 12-04-19
 DATE

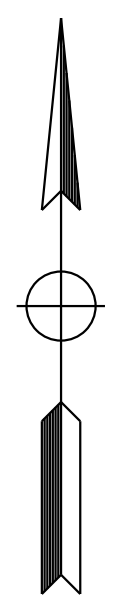
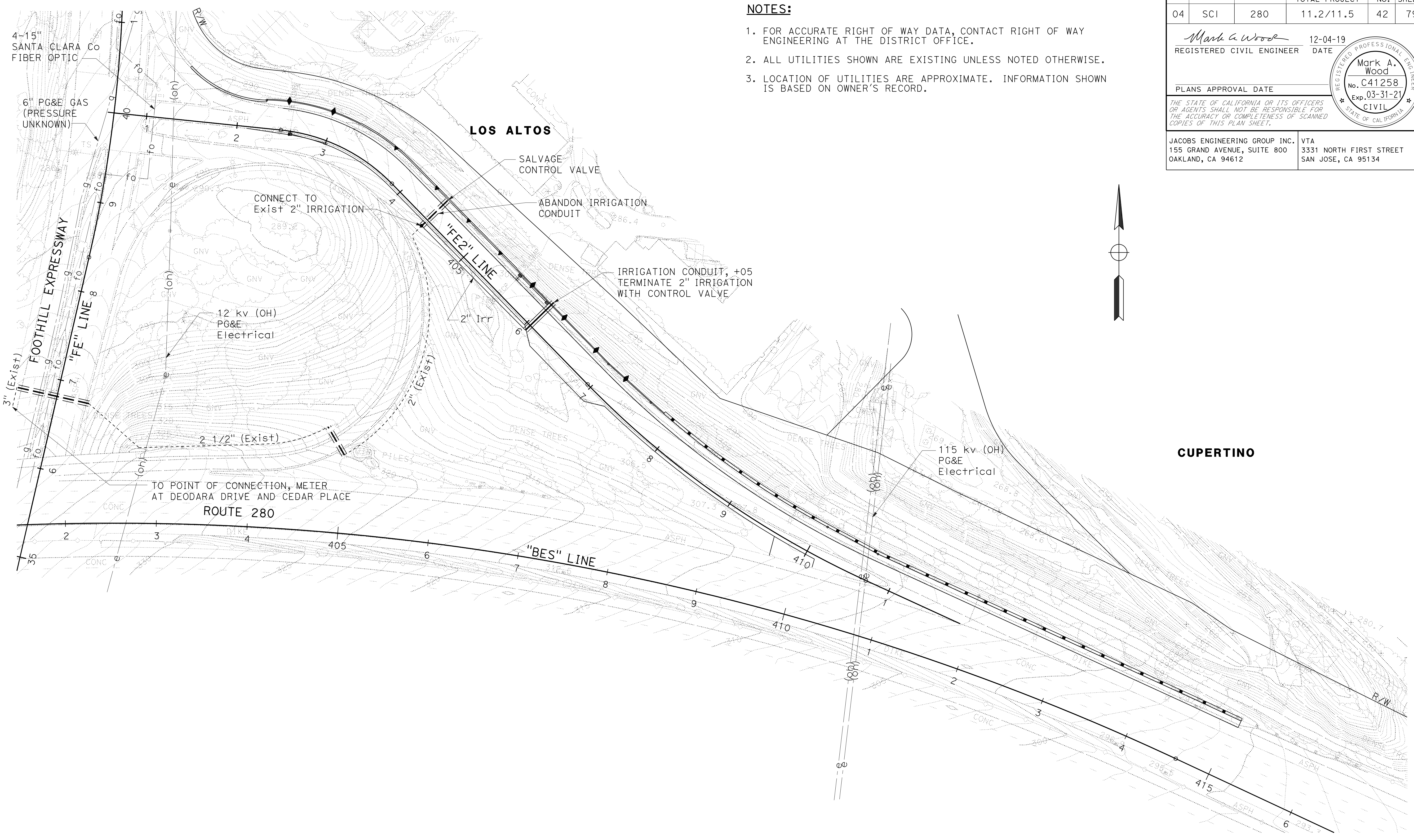
Mark A. Wood
 No. C41258
 Exp. 03-31-21
 CIVIL
 STATE OF CALIFORNIA

PLANS APPROVAL DATE

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JACOBS ENGINEERING GROUP INC.
 155 GRAND AVENUE, SUITE 800
 OAKLAND, CA 94612

VTA
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134



IRRIGATION PLAN
 SCALE: 1"=50'
IP-1

APPROVED FOR IRRIGATION WORK ONLY

LAST REVISION: DATE PLOTTED => 03-DEC-2019
 12-04-19 TIME PLOTTED => 14:41

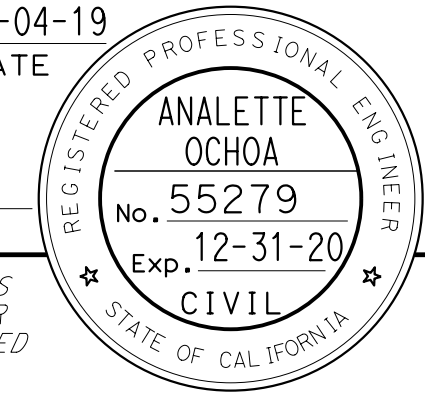
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	43	74

Analette Ochoa 12-04-19
 REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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WRECO 1243 ALPINE ROAD SUITE 108 WALNUT CREEK, CA 94596	VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134
--	--



EROSION CONTROL TYPE 1

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	DEPTH	REMARKS
		DESCRIPTION	TYPE			
STEP 1	COMPOST	COMPOST	FINE	135 CY/ACRE	1"	
STEP 2	STRAW	STRAW	RICE	1.75 TONS/ACRE	-	
STEP 3	INCORPORATE MATERIALS	COMPOST/STRAW	-	-	2" TO 4"	
STEP 4	FIBER ROLLS	RICE STRAW FILLED AND JUTE COVERED	8 TO 10 INCHES IN Dia	-	-	INSTALLATION TYPE 1 (SEE NOTES ON EC-1)
STEP 5	HYDROSEED	SEED	MIX	57 LB/ACRE	-	
		FIBER	COMBINATION	1000 LB/ACRE		
		FERTILIZER	ORGANIC	600 LB/ACRE		
STEP 6	HYDROMULCH	FIBER	COMBINATION	2000 LB/ACRE	-	
		TACKIFIER	PLANT BASED	200 LB/ACRE		

SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
BROMUS CARINATUS (CALIFORNIA BROME)	40	10
ESCHSCHOLZIA CALIFORNICA (CALIFORNIA POPPY)	35	1
FESTUCA MICROSTACHYS (THREE WEEKS FESCUE)	35	6
FESTUCA RUBRA (RED FESCUE)	40	6
HORDEUM BRACHYANTHERUM (BARLEY)	40	8
LEYMUS TRITICOIDES (CREEPING WILD RYE)	40	9
LUPINUS NANUS (SKY LUPINE)	40	3
MELICA CALIFORNICA (CALIFORNIA ONIONGRASS)	30	4
STIPA PULCHRA (PURPLE NEEDLEGRASS)	35	10

EROSION CONTROL LEGEND

ECL-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR: HAN-BIN LIANG
 CALCULATED/DESIGNED BY: ANDREW CHIN
 CHECKED BY: ANALETTE OCHOA
 REVISED BY: [] DATE: []
 REVISIONS: []

LAST REVISION: 12-04-19 DATE PLOTTED => 03-DEC-2019 TIME PLOTTED => 14:43

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	44	74

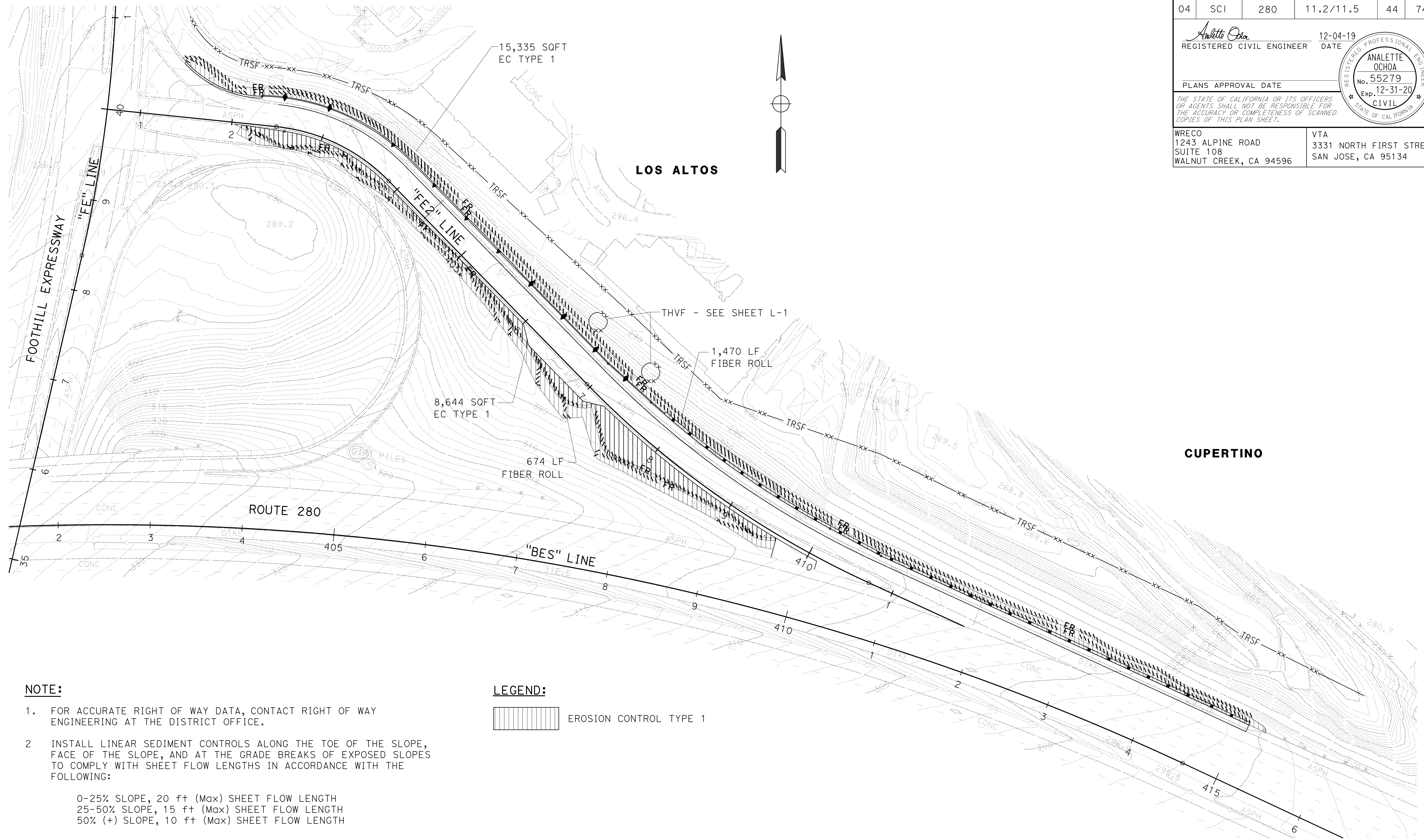
Analette Ochoa
 REGISTERED CIVIL ENGINEER
 DATE 12-04-19
 PLANS APPROVAL DATE

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WRECO
 1243 ALPINE ROAD
 SUITE 108
 WALNUT CREEK, CA 94596

VTA
 3331 NORTH FIRST STREET
 SAN JOSE, CA 95134

ANALETTE OCHOA
 No. 55279
 Exp. 12-31-20
 CIVIL
 STATE OF CALIFORNIA



NOTE:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- INSTALL LINEAR SEDIMENT CONTROLS ALONG THE TOE OF THE SLOPE, FACE OF THE SLOPE, AND AT THE GRADE BREAKS OF EXPOSED SLOPES TO COMPLY WITH SHEET FLOW LENGTHS IN ACCORDANCE WITH THE FOLLOWING:
 0-25% SLOPE, 20 ft (Max) SHEET FLOW LENGTH
 25-50% SLOPE, 15 ft (Max) SHEET FLOW LENGTH
 50% (+) SLOPE, 10 ft (Max) SHEET FLOW LENGTH

LEGEND:



EROSION CONTROL PLAN

SCALE: 1"=50'

EC-1

APPROVED FOR EROSION CONTROL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT: HAN-BIN LIANG
 CHECKED BY: ANALETTE OCHOA
 DESIGNED BY: ANDREW CHIN
 REVISIONS: (None listed)

LAST REVISION: DATE PLOTTED => 03-DEC-2019
 TIME PLOTTED => 14:45

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR
 HAN-BIN LIANG
 CALCULATED/DESIGNED BY
 CHECKED BY
 ANDREW CHIN
 ANALETTE OCHOA
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	45	74

Analette Ochoa 12-04-19
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE

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WRECO 1243 ALPINE ROAD SUITE 108 WALNUT CREEK, CA 94596	VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134
--	--

EROSION CONTROL QUANTITIES

SHEET No.	DESCRIPTION	FIBER ROLLS	COMPOST (CY)	STRAW	INCORPORATE MATERIALS	HYDROSEED	HYDROMULCH
		LF	CY	SQFT	SQFT	SQFT	SQFT
EC-1	EC TYPE 1	2,144	74.0	8,644	8,644	23,979	23,979

EROSION CONTROL QUANTITIES

ECQ-1

LAST REVISION | DATE PLOTTED => 03-DEC-2019
 12-04-19 | TIME PLOTTED => 14:47

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR
 DARRELL VICE
 CALCULATED-DESIGNED BY
 CHECKED BY
 ANTONINO GENEOESE
 MARK WOOD
 REVISED BY
 DATE REVISED

GENERAL NOTES:

- ALL WORK SHALL CONFORM TO THE 2018 EDITION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD PLANS AND STANDARD SPECIFICATIONS, THE LATEST REVISION OF THE 2014 CALIFORNIA MUTCD, SIGN SPECIFICATION SHEETS, AND THE PROJECT SPECIAL PROVISIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UNDERGROUND UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THESE ELECTRICAL PLANS. THE CONTRACTOR SHALL CONTACT USA (811/1-800-227-2600) AT LEAST 48 HOURS BEFORE BEGINNING WORK. FOR APPROVAL OF PROPOSED EQUIPMENT LOCATIONS WHERE MARKINGS ARE NEAR PROPOSED FOUNDATIONS, THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES BY POTHOLING PRIOR TO EXCAVATING.
- ALL EXISTING ELECTRICAL EQUIPMENT, INCLUDING SUBSTRUCTURES, FOUNDATIONS, CONDUITS AND PULL BOXES ARE TO REMAIN IN PLACE AND BE PROTECTED, UNLESS OTHERWISE NOTED.
- ALL ELECTRICAL EQUIPMENT, INCLUDING CONDUIT AND PULL BOXES, IS SHOWN IN APPROXIMATE LOCATIONS ONLY. PROPOSED FINAL LOCATIONS ARE TO BE APPROVED IN THE FIELD. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE FOR APPROVAL OF PROPOSED EQUIPMENT LOCATIONS.
- ALL PULL BOXES SHALL BE No. 5 UNLESS OTHERWISE NOTED ON THE PLANS. ALL ELECTRICAL EQUIPMENT, INCLUDING PULL BOXES, SHALL NOT BE LOCATED IN CURB RAMPS.
- THE CONTRACTOR SHALL CONTACT VTA AND CALTRANS FOR APPROVAL 5 DAYS PRIOR TO ANTICIPATED ENERGIZING OF THE LIGHTING EQUIPMENT.
- MINIMUM CONDUIT SIZE SHALL BE 2" FOR ALL NEW INSTALLATIONS, UNLESS OTHERWISE NOTED ON THE PLANS.
- WHEN PULL BOXES ARE INSTALLED ON THE FREEWAY SHOULDER ADJACENT TO A POLE, THE LOCATION OF THE PULL BOX SHALL BE DOWNSTREAM OF TRAFFIC.
- NO ABOVE GROUND ELECTRICAL WORK SHALL BE PERFORMED ON ANY SYSTEM WITHIN THE PROJECT SITE UNTIL ALL CONTRACTOR-FURNISHED ELECTRICAL MATERIALS FOR THAT INDIVIDUAL SYSTEM HAVE BEEN TESTED AND DELIVERED TO THE CONTRACTOR.


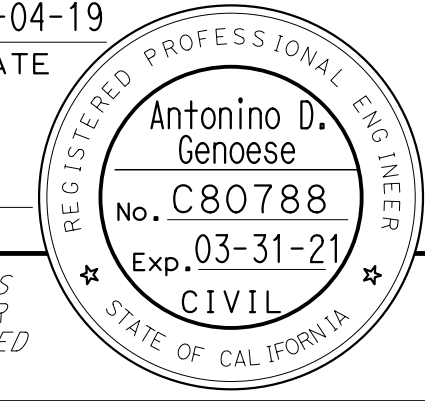
INDEX OF ELECTRICAL PLANS:

SHEET NUMBER	TITLE
E-1	GENERAL NOTES, ABBREVIATIONS, AND INDEX OF ELECTRICAL PLANS
E-2	LIGHTING AND SIGN ILLUMINATION
E-3	MODIFYING EXISTING ELECTRICAL SYSTEM

ABBREVIATIONS:

(SEE ALSO RSP ES-1A, RSP ES-1B, AND RSP ES-1C)

EXISTING	PROPOSED	
-	PG&E	PACIFIC GAS AND ELECTRIC
+ou	TOU	"TIME OF USE" METER

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	46	79
 REGISTERED CIVIL ENGINEER			12-04-19	DATE	
PLANS APPROVAL DATE					
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JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		

**GENERAL NOTES,
 ABBREVIATIONS, AND
 INDEX OF ELECTRICAL PLANS
 E-1**

LAST REVISION DATE PLOTTED => 03-DEC-2019 12-04-19 TIME PLOTTED => 14:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	47	79

12-04-19
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

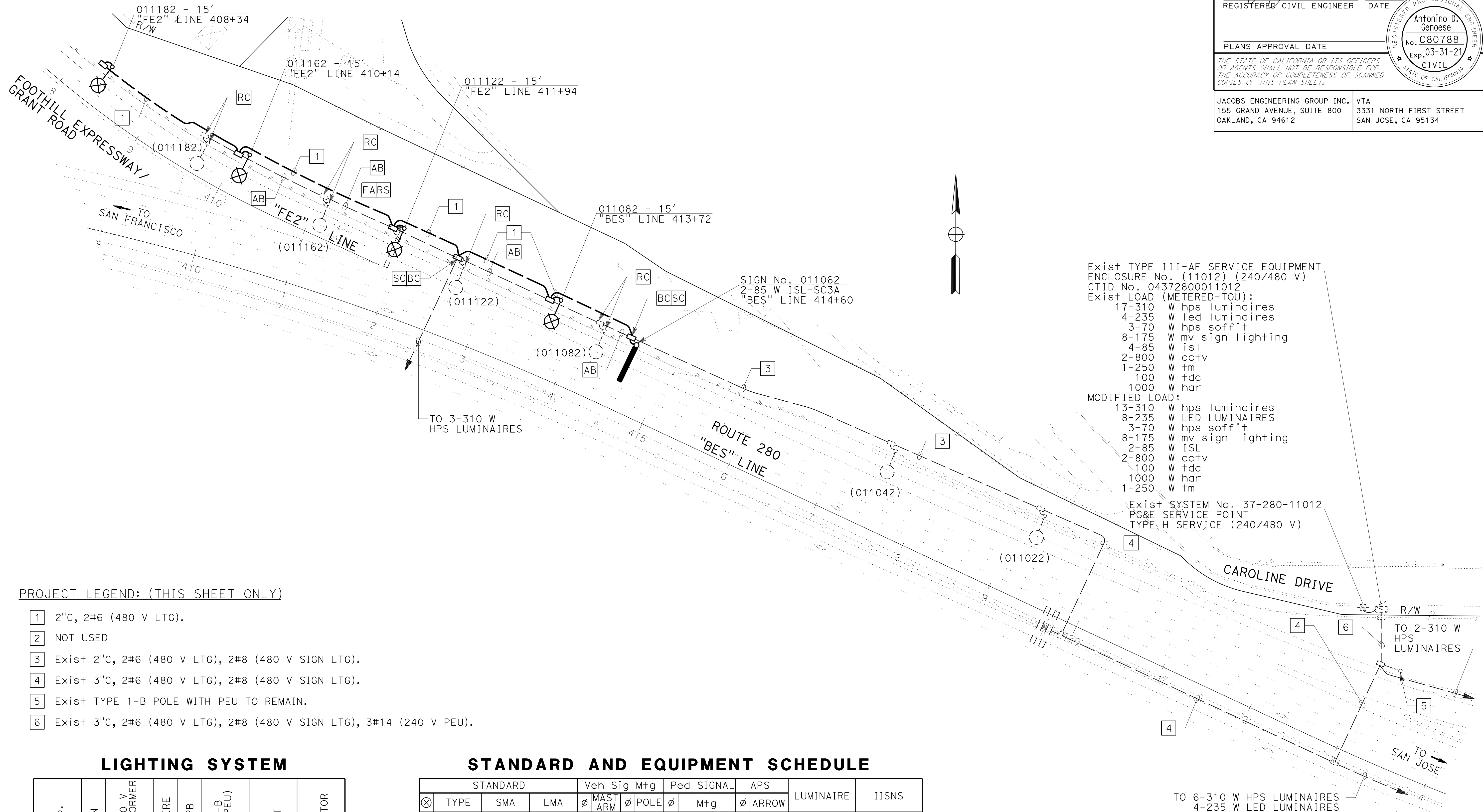
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JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612

VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134

Antoniino D. Genese
No. C80788
Exp. 03-31-21
CIVIL

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



PROJECT LEGEND: (THIS SHEET ONLY)

- 1 2"C, 2#6 (480 V LTG).
- 2 NOT USED
- 3 Exist 2"C, 2#6 (480 V LTG), 2#8 (480 V SIGN LTG).
- 4 Exist 3"C, 2#6 (480 V LTG), 2#8 (480 V SIGN LTG).
- 5 Exist TYPE 1-B POLE WITH PEU TO REMAIN.
- 6 Exist 3"C, 2#6 (480 V LTG), 2#8 (480 V SIGN LTG), 3#14 (240 V PEU).

LIGHTING SYSTEM

SHEET No.	LOCATION	240/120 V TRANSFORMER		LUMINAIRE	No. 5 PB	TYPE 1-B POLE (PEU)	2" CONDUIT	No. 6 CONDUCTOR
		EA	LF					
E-2		4	6				650	1300

STANDARD AND EQUIPMENT SCHEDULE

TYPE	STANDARD		Veh Sig Mtg		Ped SIGNAL		APS	LUMINAIRE	IISNS
	SMA	LMA	MAST ARM	POLE	Mtg	ARROW			
30		15'						235W	

LIGHTING AND SIGN ILLUMINATION

SCALE: 1" = 50'

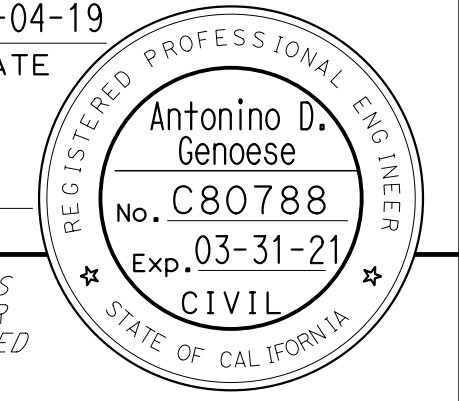
E-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ANTONINO GENESE
MARK WOOD
DARRELL VICE
Caltrans

LAST REVISION DATE PLOTTED => 03-DEC-2019
12-04-19 TIME PLOTTED => 14:51

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT - FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	ANTONINO GENESE	REVISED BY	
Caltrans	DARRELL VICE	CHECKED BY	MARK WOOD	DATE REVISED	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	48	79
REGISTERED CIVIL ENGINEER			DATE	12-04-19	
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
JACOBS ENGINEERING GROUP INC. 155 GRAND AVENUE, SUITE 800 OAKLAND, CA 94612			VTA 3331 NORTH FIRST STREET SAN JOSE, CA 95134		

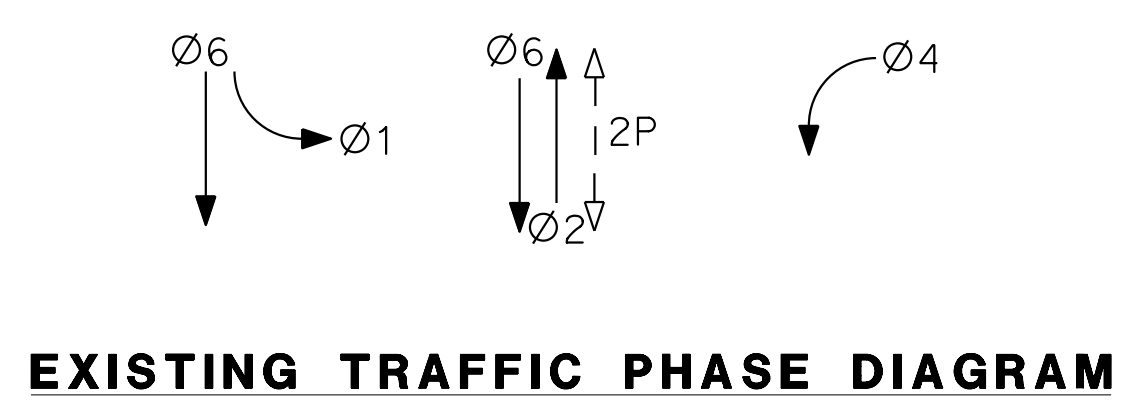
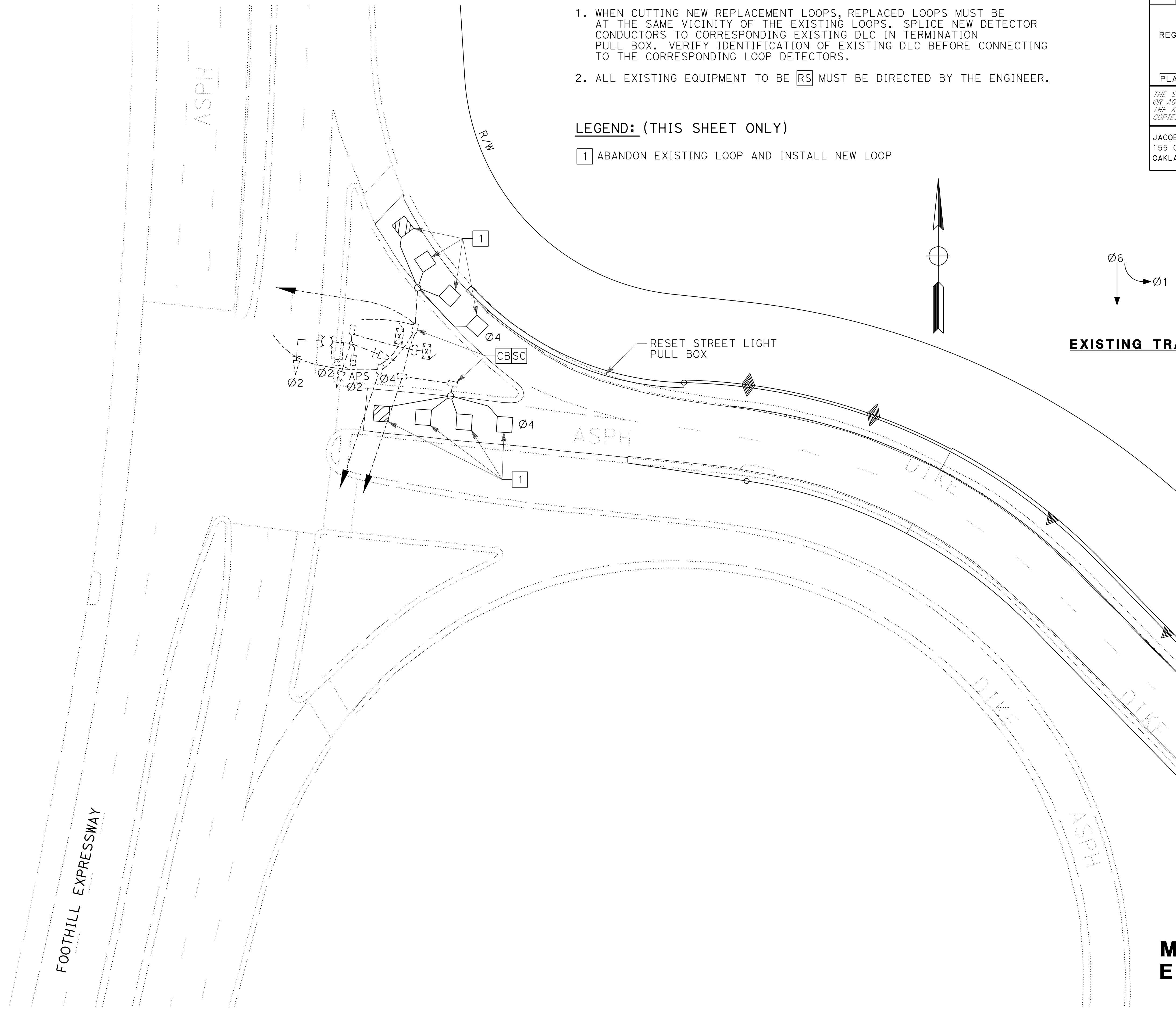


NOTES: (THIS SHEET ONLY)

1. WHEN CUTTING NEW REPLACEMENT LOOPS, REPLACED LOOPS MUST BE AT THE SAME VICINITY OF THE EXISTING LOOPS. SPLICE NEW DETECTOR CONDUCTORS TO CORRESPONDING EXISTING DLC IN TERMINATION PULL BOX. VERIFY IDENTIFICATION OF EXISTING DLC BEFORE CONNECTING TO THE CORRESPONDING LOOP DETECTORS.
2. ALL EXISTING EQUIPMENT TO BE **RS** MUST BE DIRECTED BY THE ENGINEER.

LEGEND: (THIS SHEET ONLY)

- 1** ABANDON EXISTING LOOP AND INSTALL NEW LOOP



MODIFYING EXISTING ELECTRICAL SYSTEM

SCALE: 1"=20'

E-3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	49	79

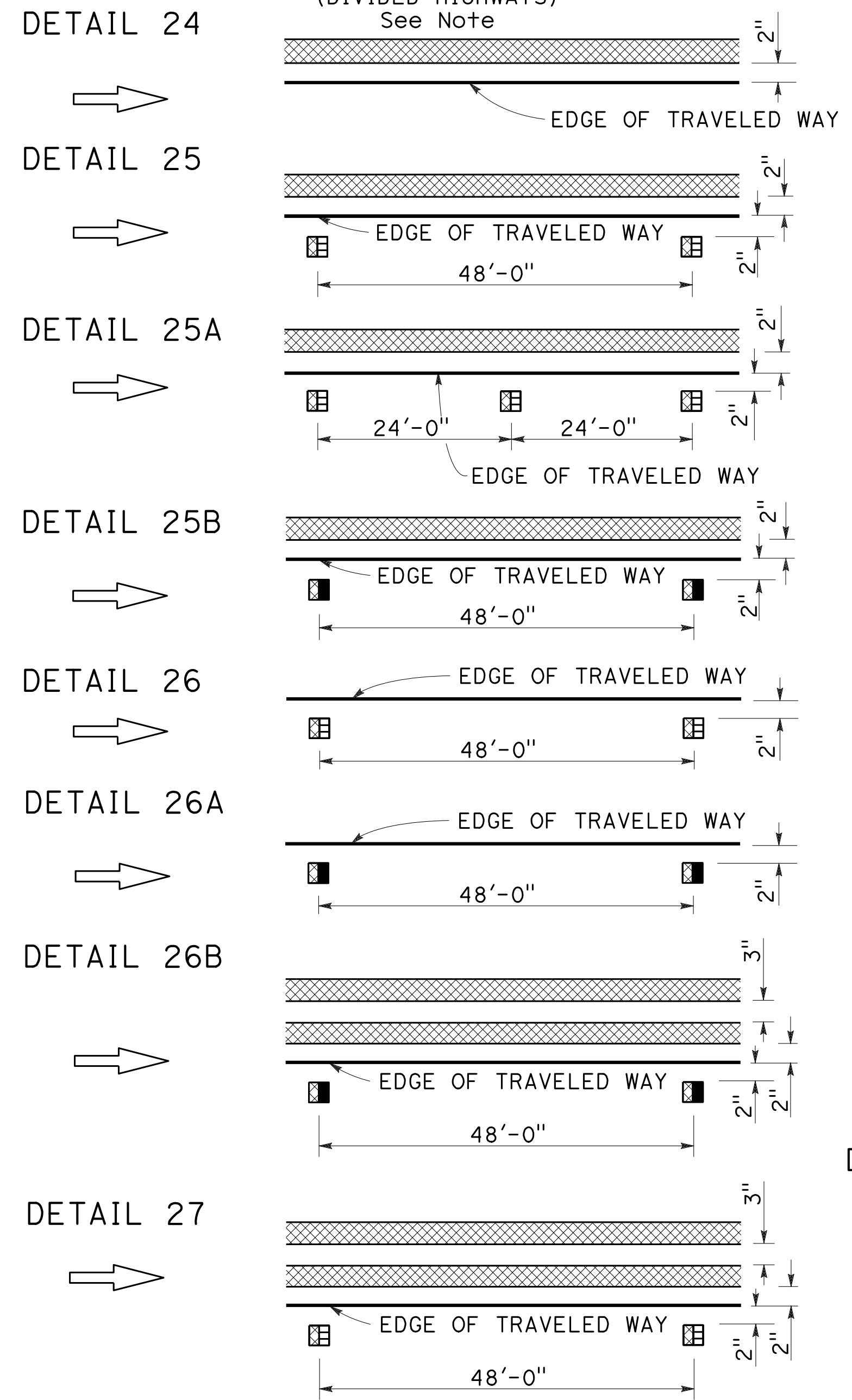
Atifa Ferouz
REGISTERED CIVIL ENGINEER

April 19, 2019
PLANS APPROVAL DATE

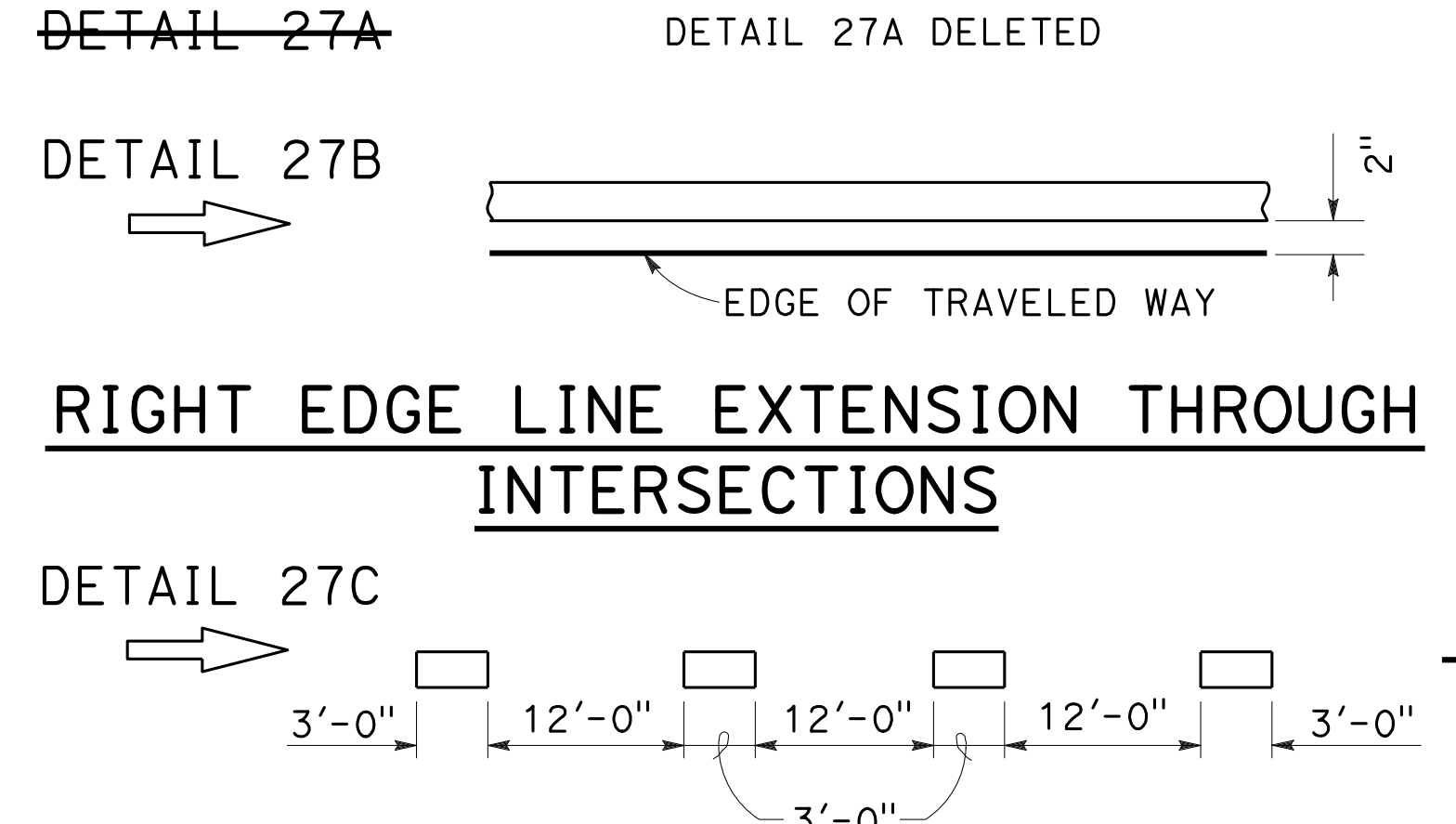
Atifa Ferouz
No. C80402
Exp. 3-31-21
CIVIL
STATE OF CALIFORNIA

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LEFT EDGE LINES

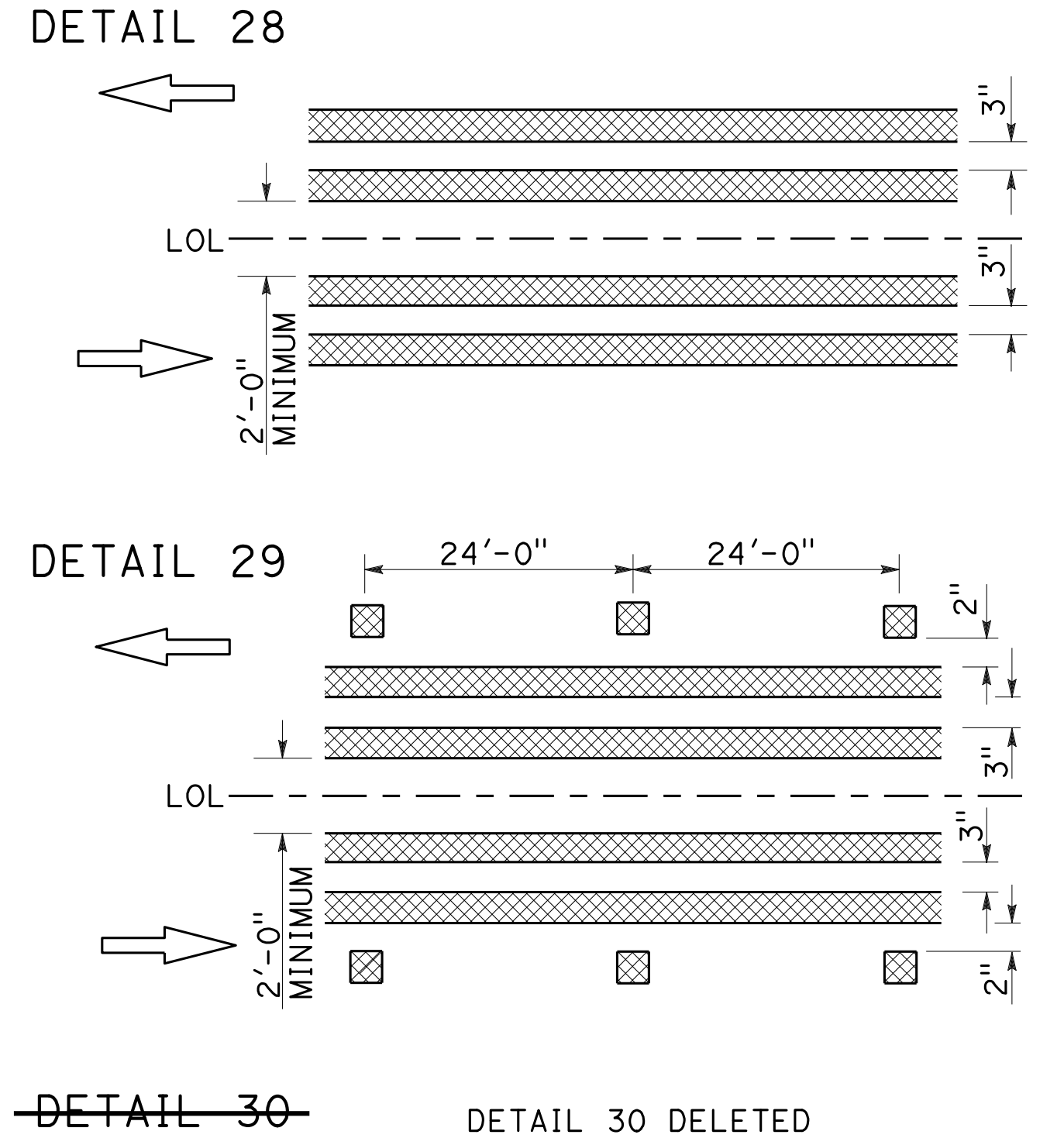


RIGHT EDGE LINES

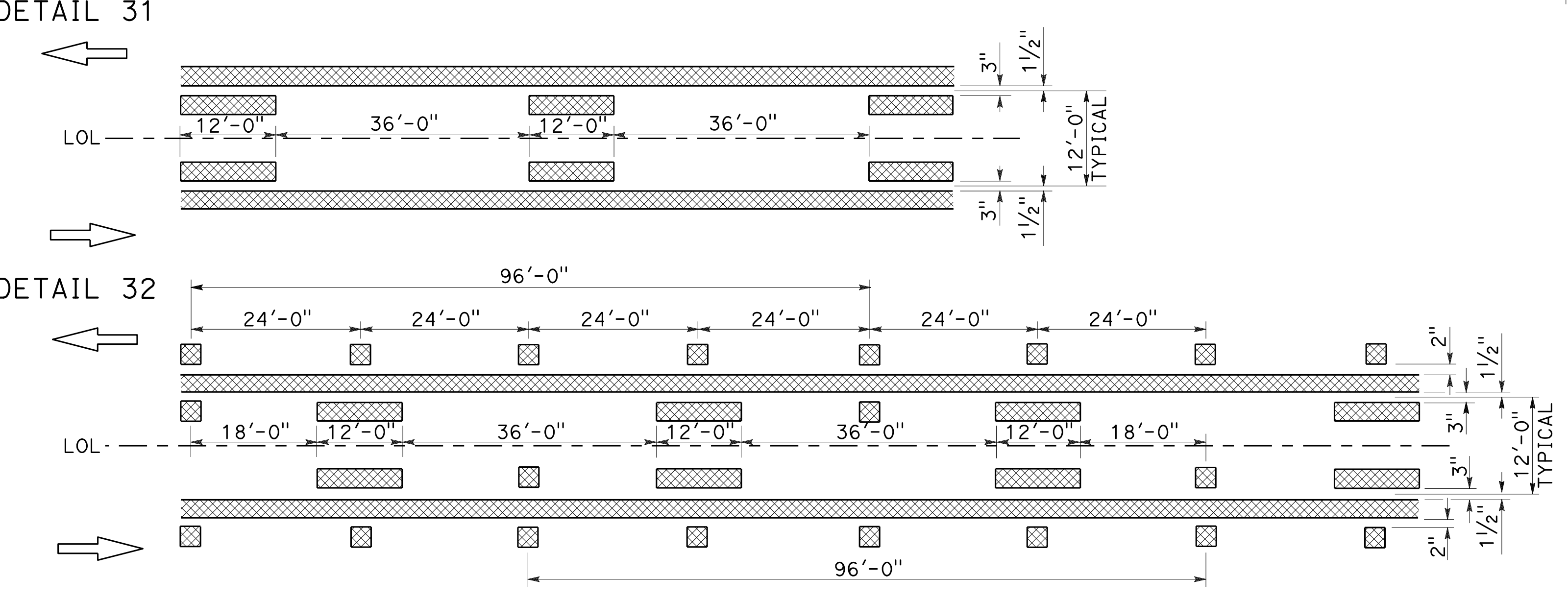


LEFT EDGE LINES NOTE:
On freeways use traffic stripe details with Type RY markers.

MEDIAN ISLANDS



TWO-WAY LEFT TURN LANES



~~DETAIL 33~~ ~~DETAIL 33 DELETED~~

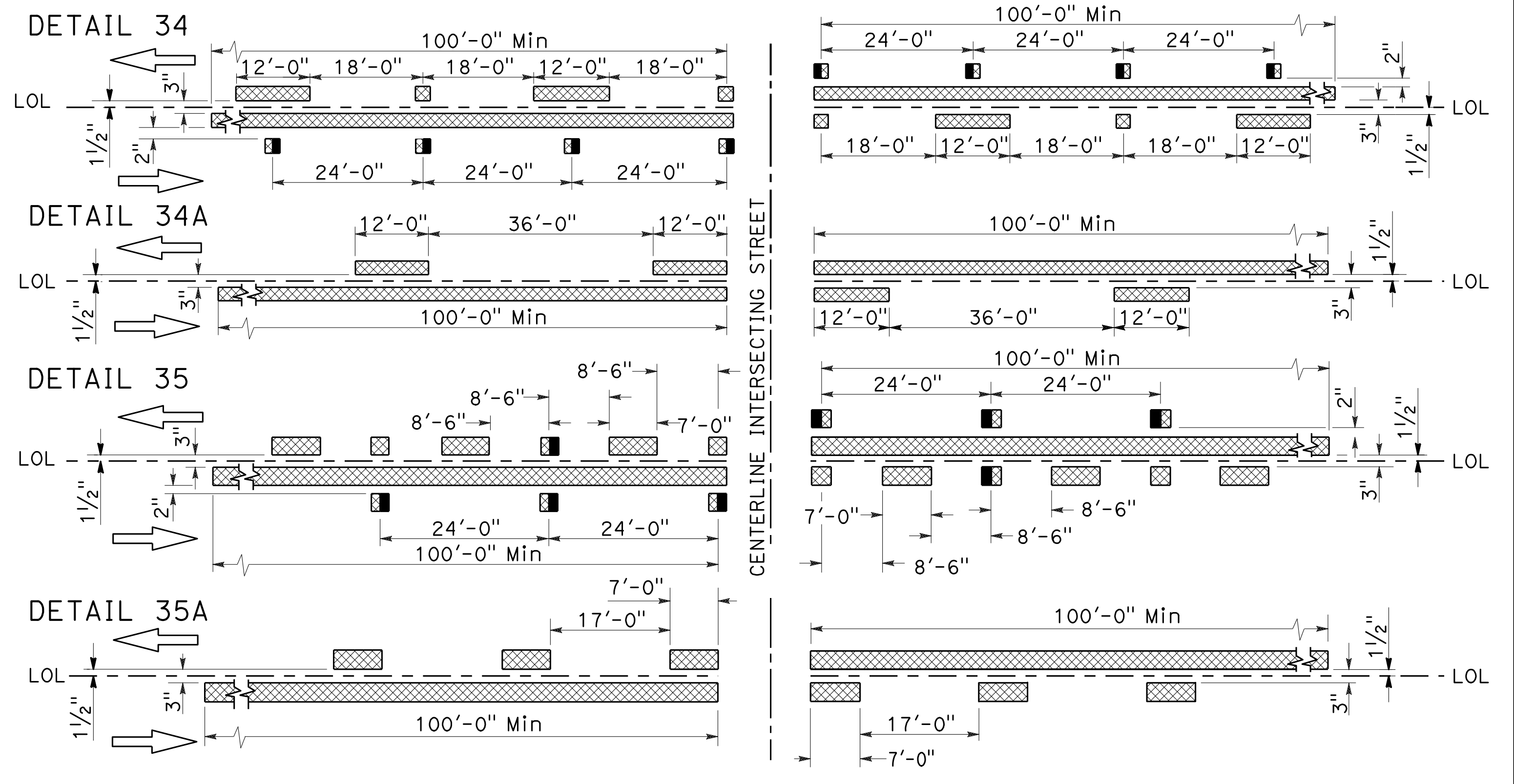
LEGEND

- MARKERS
- TYPE D TWO-WAY YELLOW RETROREFLECTIVE
 - TYPE H ONE-WAY YELLOW RETROREFLECTIVE
 - TYPE RY RED-YELLOW RETROREFLECTIVE

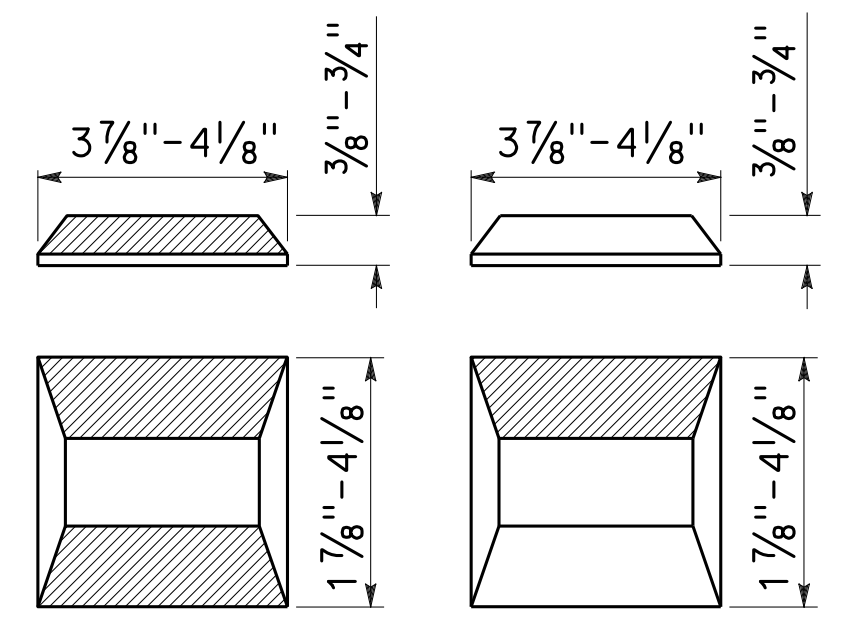
LINES

- 6" WHITE
- 6" YELLOW

INTERSECTION TREATMENTS



MARKER DETAILS



TYPE RY AND TYPE D

TYPE H

RETROREFLECTIVE FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

RSP A20B DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN A20B
DATED MAY 31, 2018 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A20B

2018 REVISED STANDARD PLAN RSP A20B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	50	79

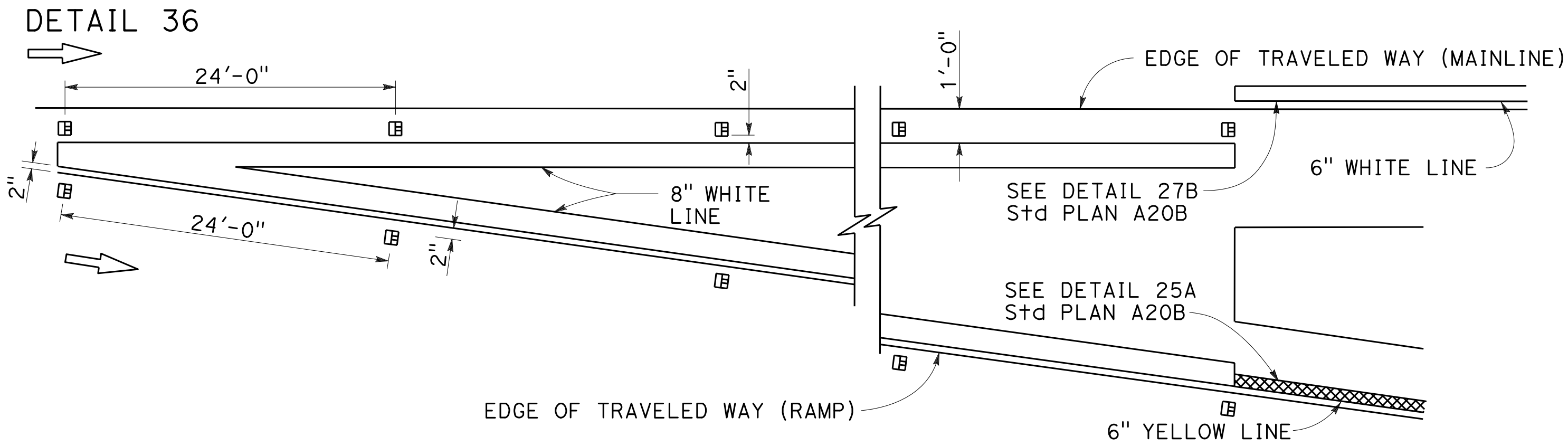
Atifa Ferouz
REGISTERED CIVIL ENGINEER

October 19, 2018
PLANS APPROVAL DATE

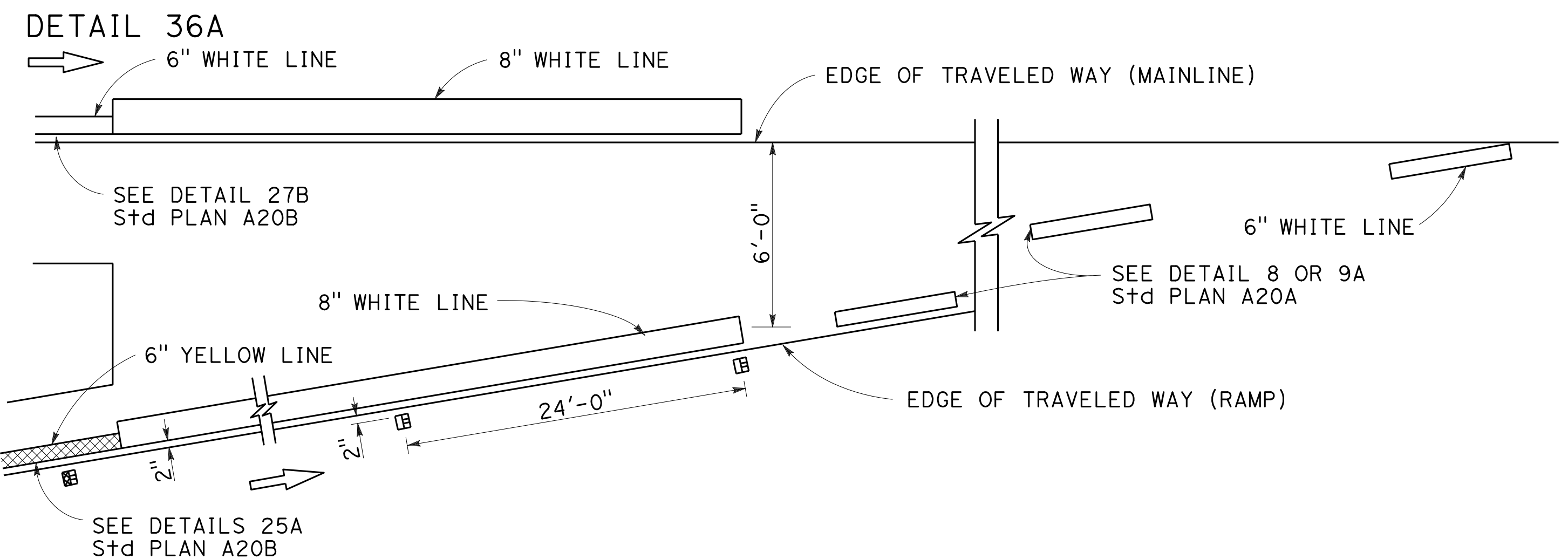
Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

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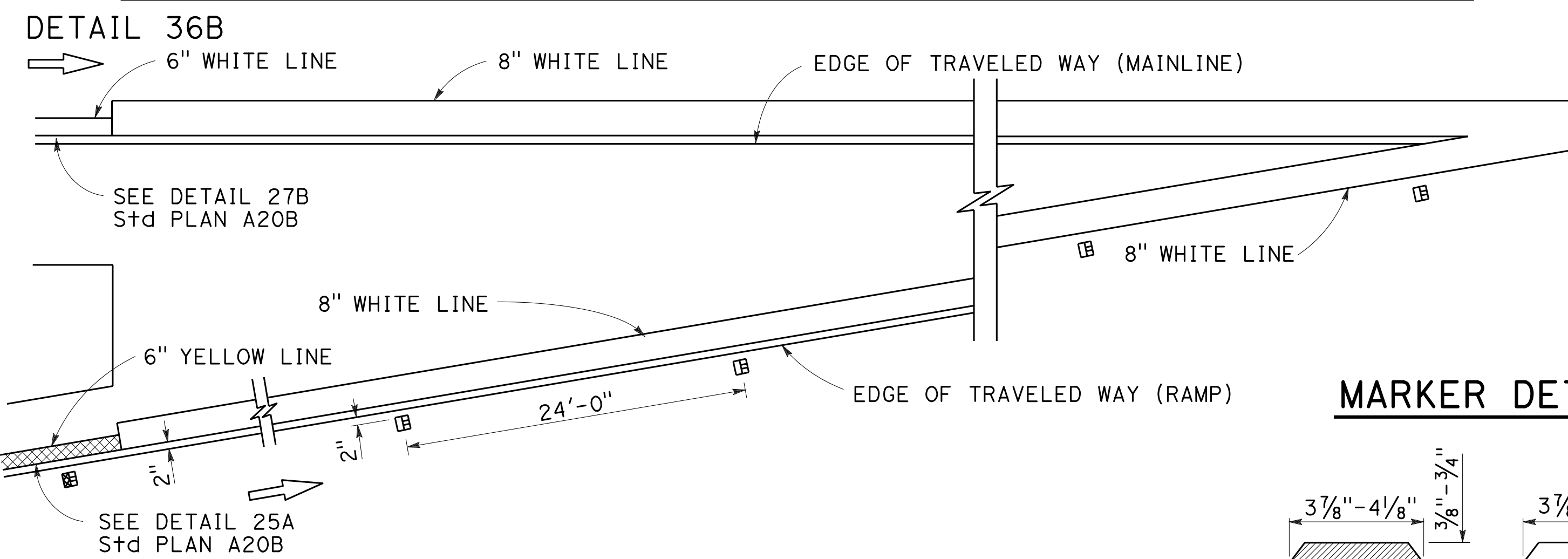
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



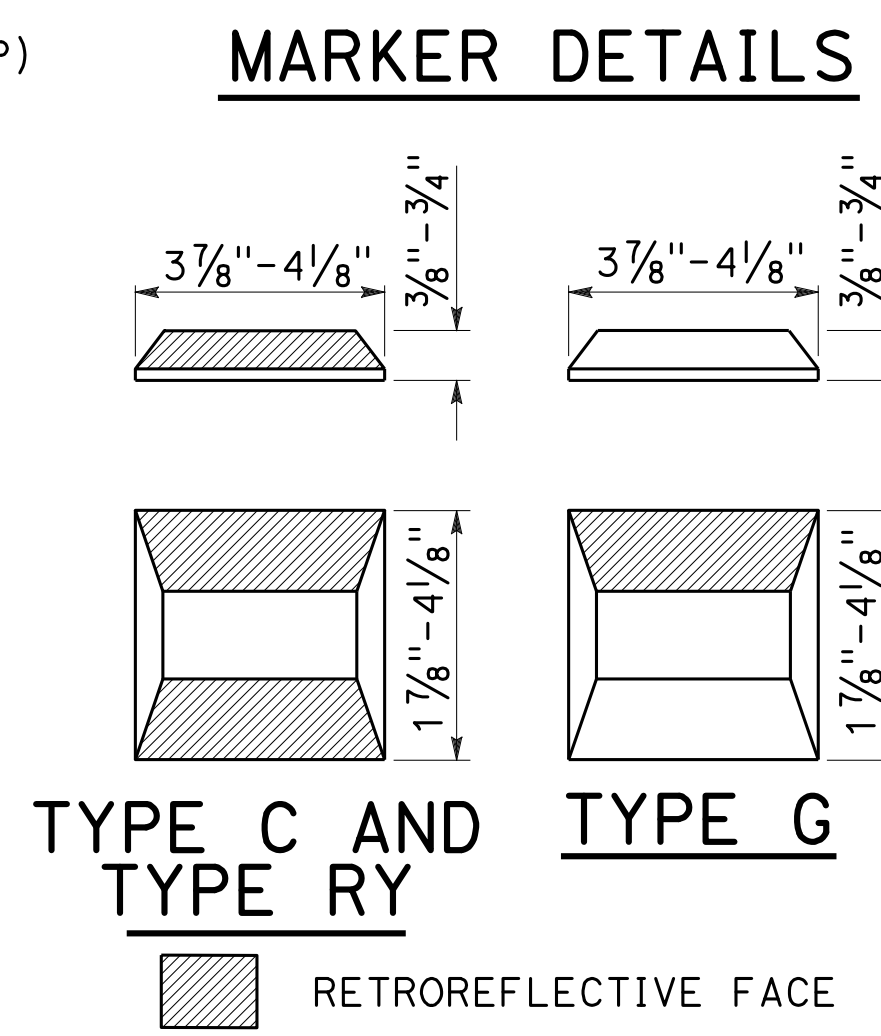
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



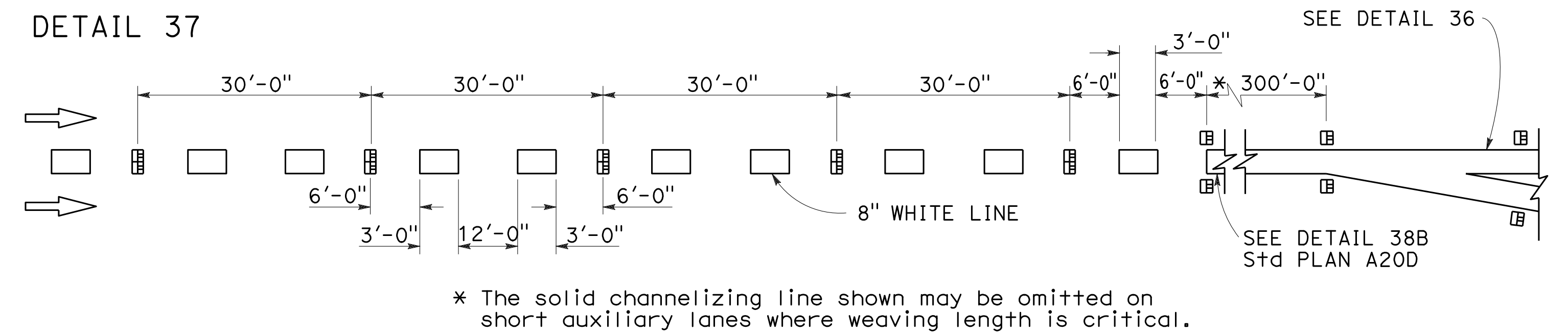
ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT



- LEGEND:**
- MARKERS**
- TYPE C RED-CLEAR RETROREFLECTIVE
 - TYPE G ONE-WAY CLEAR RETROREFLECTIVE
 - TYPE RY RED-YELLOW RETROREFLECTIVE

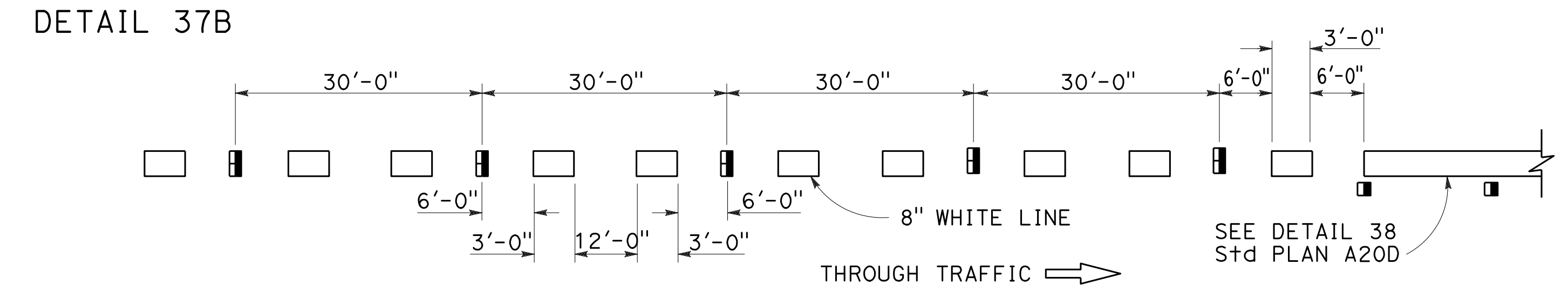


LANE DROP AT EXIT RAMP



~~DETAIL 37A~~ DETAIL 37A DELETED

LANE DROP AT INTERSECTIONS



~~DETAIL 37C~~ DETAIL 37C DELETED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKERS
AND TRAFFIC LINES
TYPICAL DETAILS**

NO SCALE

RSP A20C DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN A20C
DATED MAY 31, 2018 - PAGE 14 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A20C

2018 REVISED STANDARD PLAN RSP A20C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	51	79

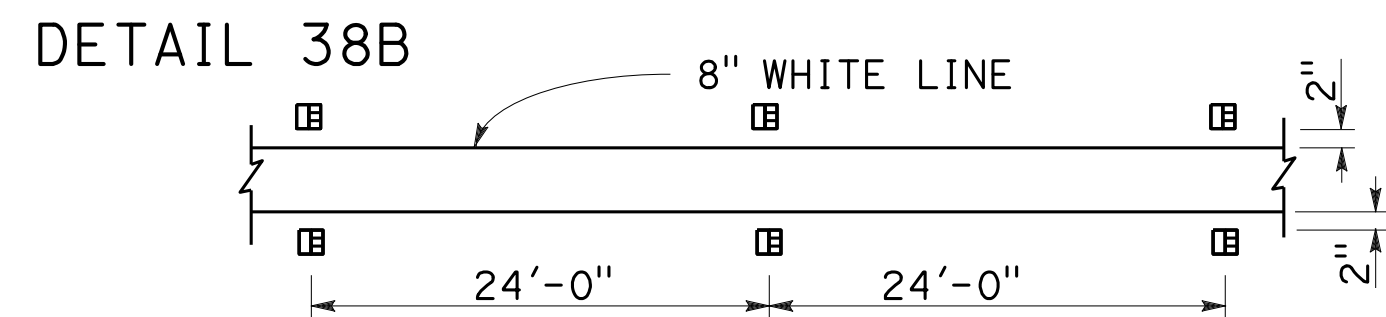
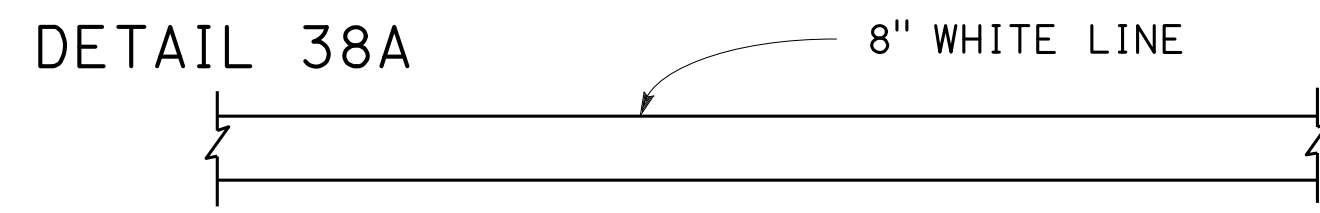
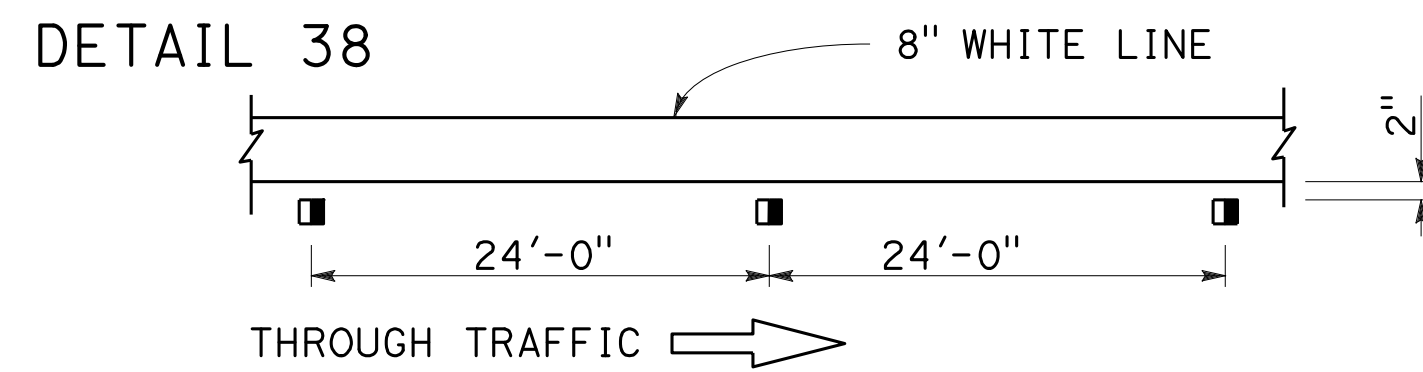
Atifa Ferouz
REGISTERED CIVIL ENGINEER

October 19, 2018
PLANS APPROVAL DATE

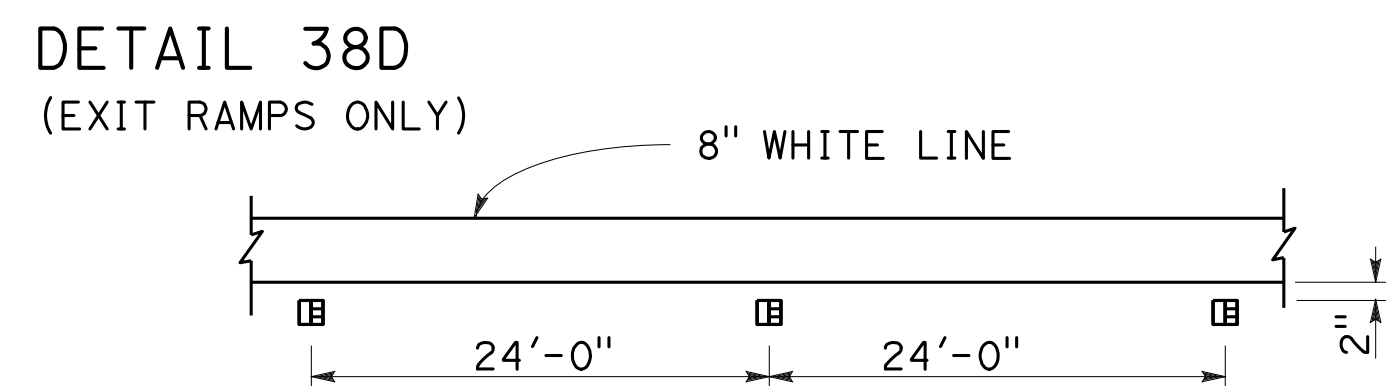
Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

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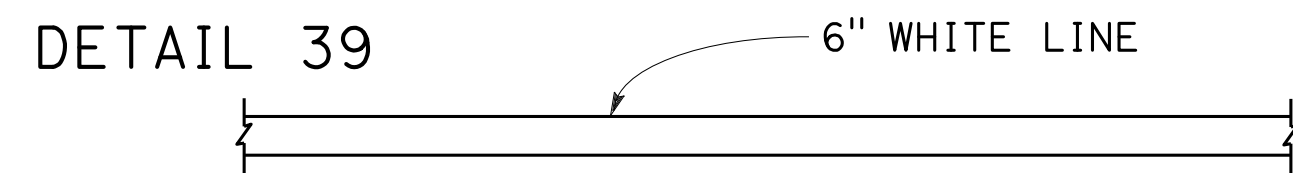
CHANNELIZING LINE



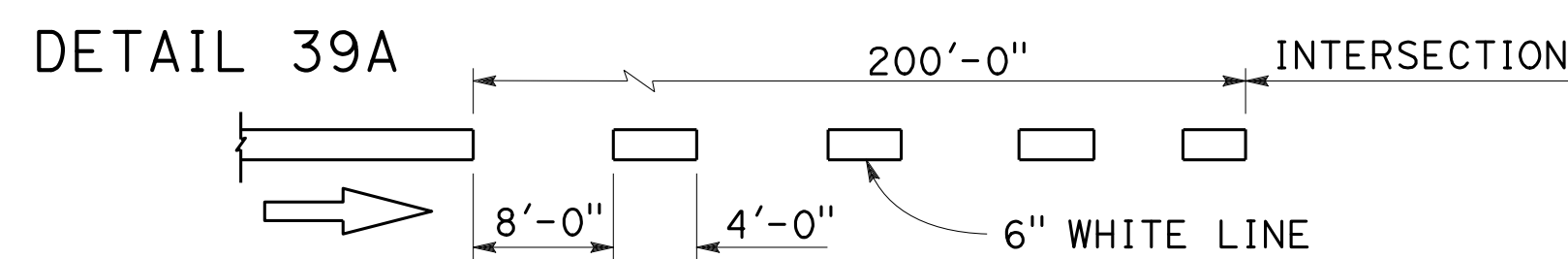
DETAIL 38C DETAIL 38C DELETED



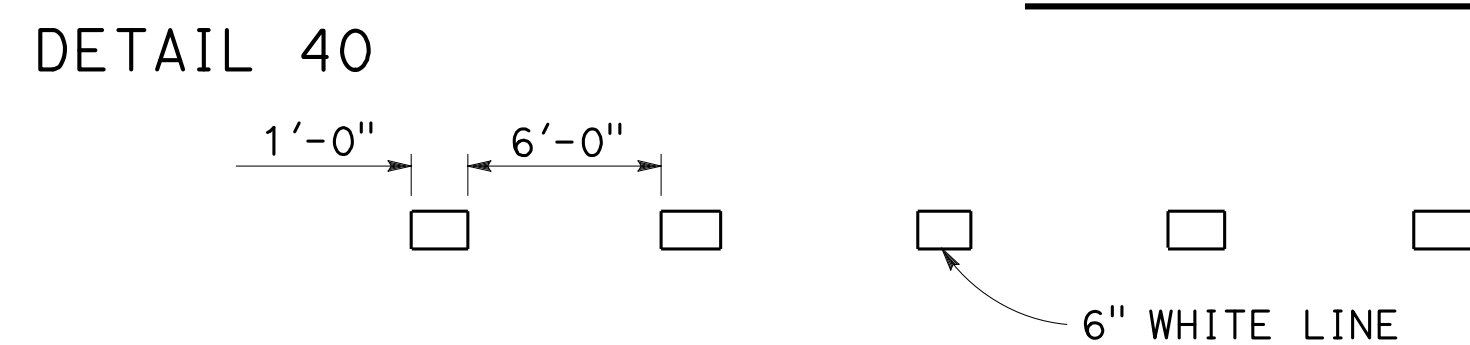
BIKE LANE LINE



INTERSECTION LINE BIKE LANE

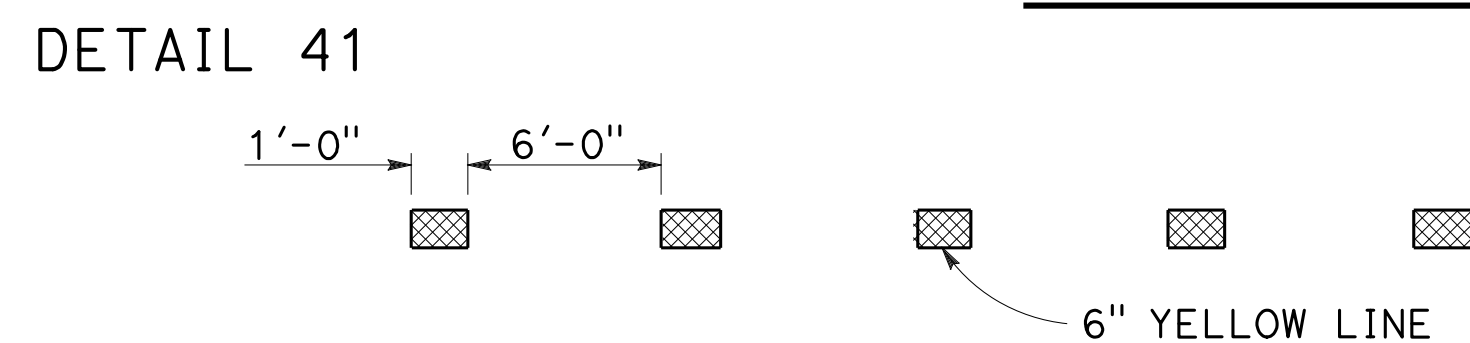


LANE LINE EXTENSIONS THROUGH INTERSECTIONS






DETAIL 40A DETAIL 40A DELETED

CENTER LINE EXTENSIONS THROUGH INTERSECTIONS

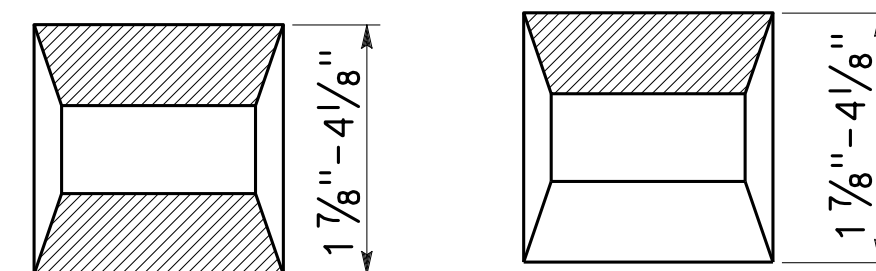
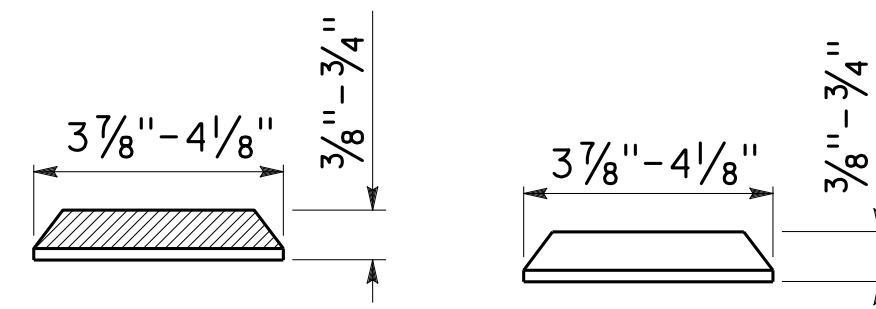


LEGEND

MARKERS

-  TYPE C RED-CLEAR RETROREFLECTIVE
-  TYPE G ONE-WAY CLEAR RETROREFLECTIVE
-  6" YELLOW LINE

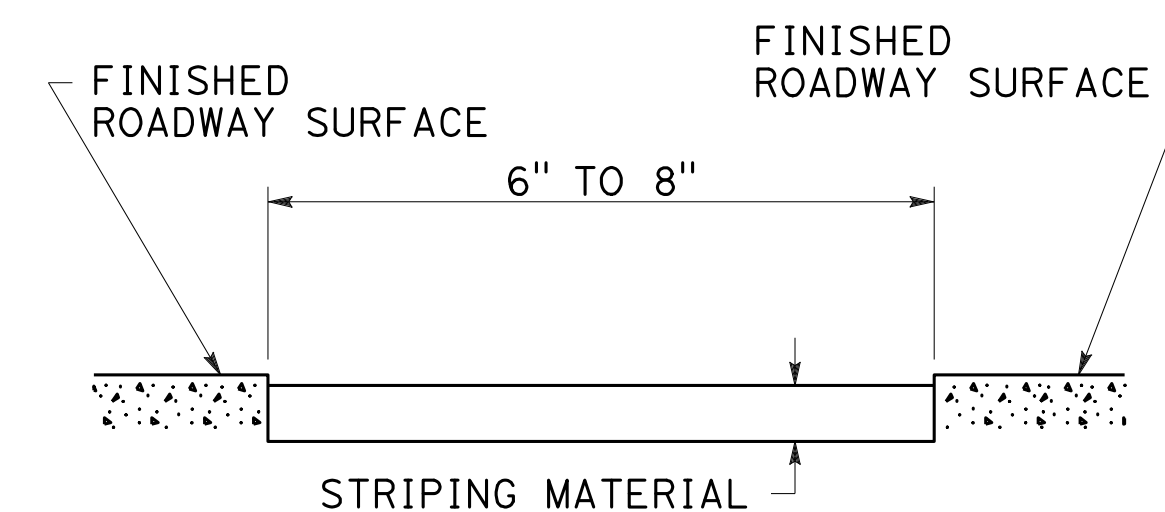
MARKER DETAILS



TYPE C

TYPE G

 RETROREFLECTIVE FACE

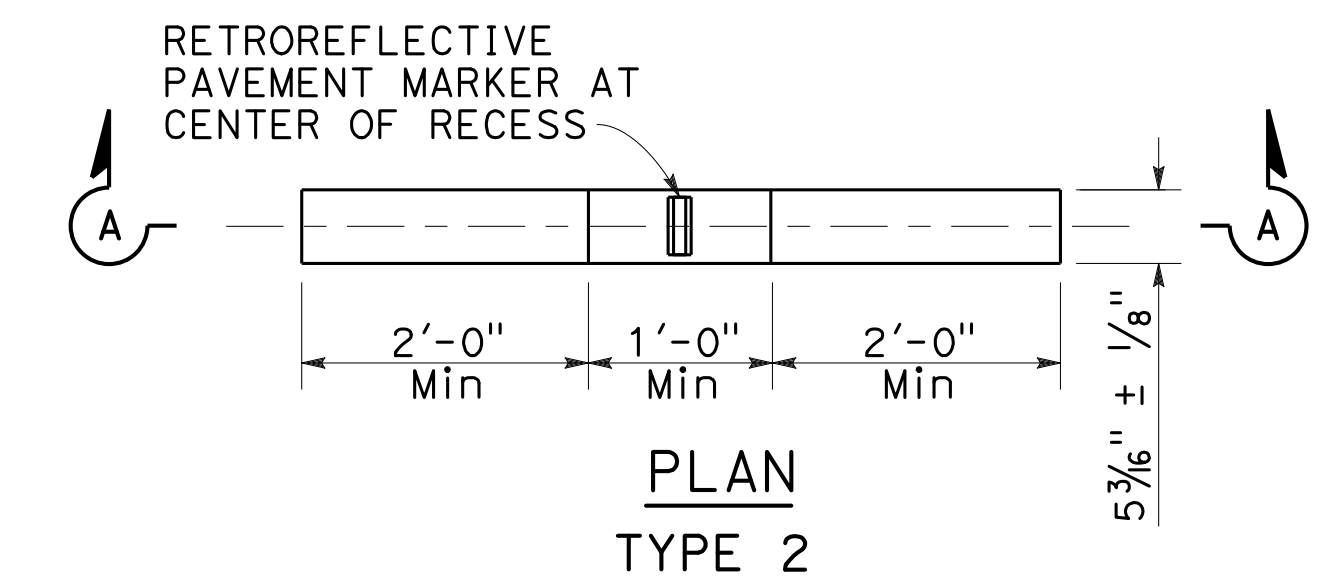
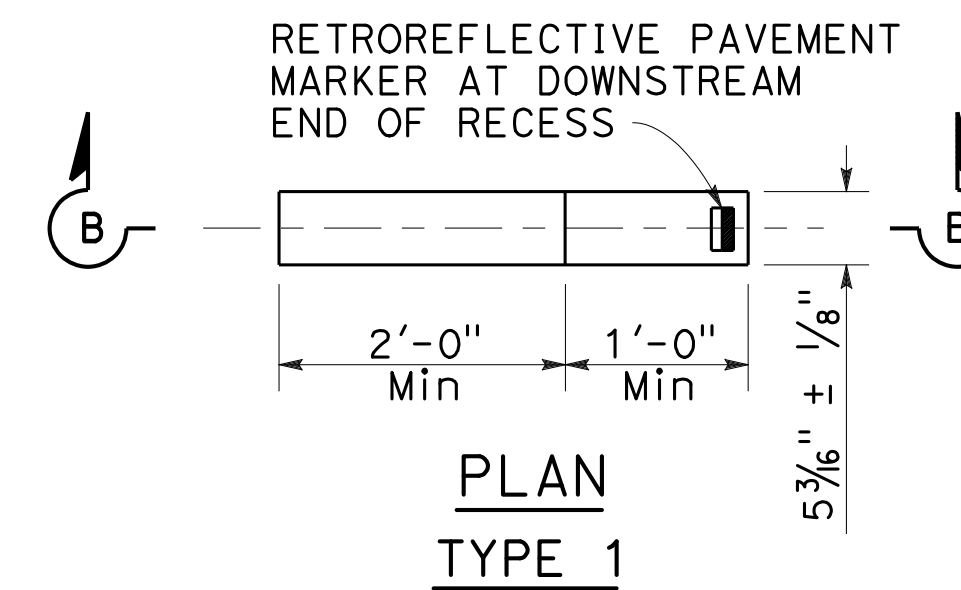
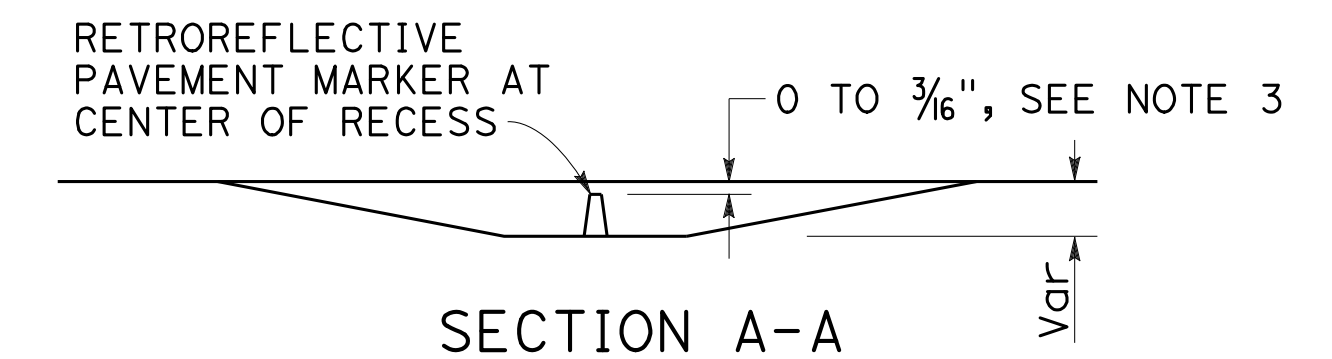
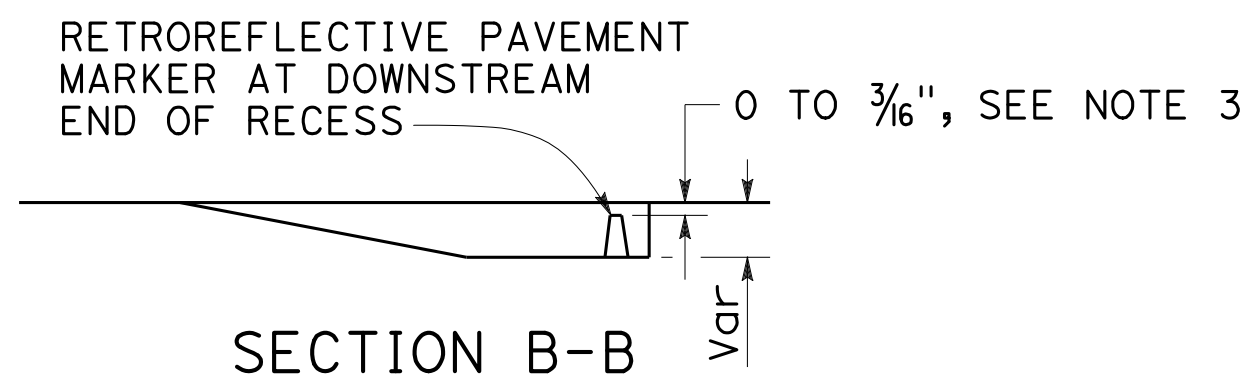


DETAIL FOR RECESSED TRAFFIC STRIPE

See Notes A and B.

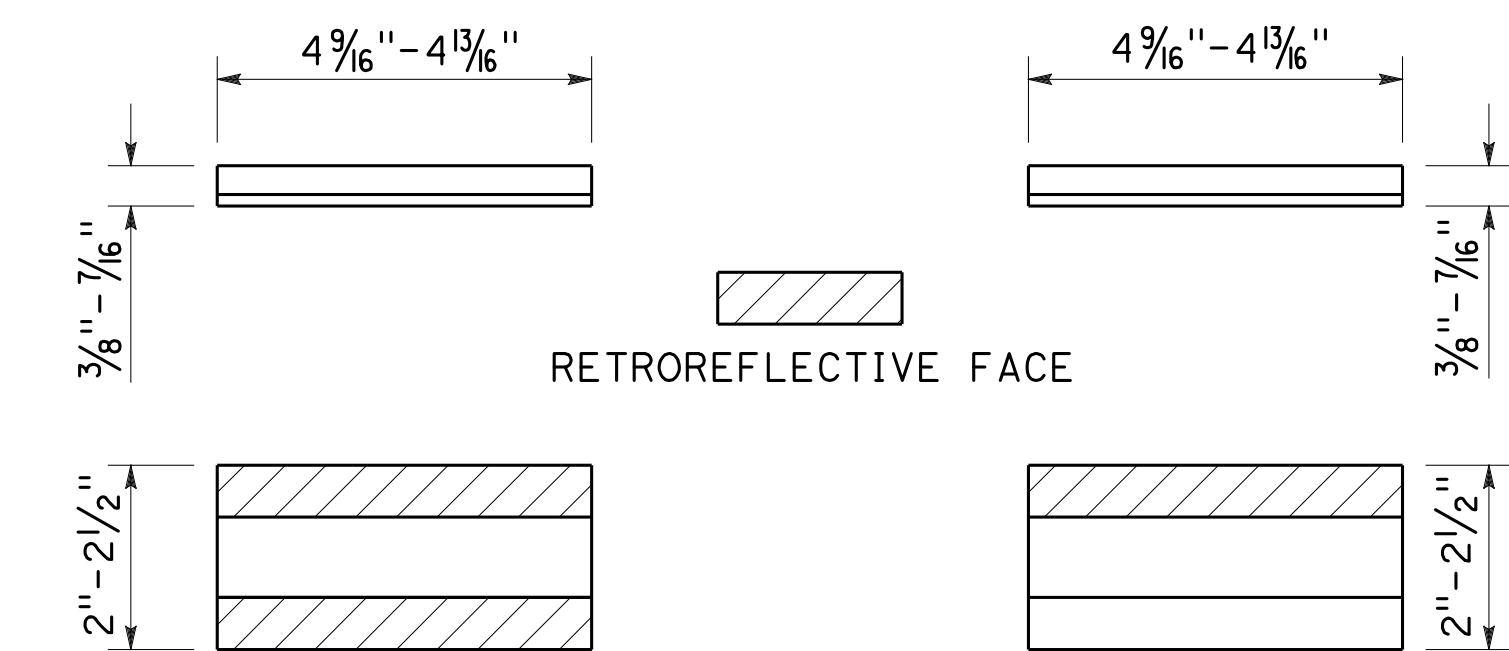
RECESSED NOTES:

- A. See typical traffic line details for pavement marking patterns.
- B. See standard specifications for recess depth and recess striping material thickness.



RECESS DETAIL FOR RETROREFLECTIVE PAVEMENT MARKER

See Note 4



TYPE C, TYPE RY,
AND TYPE D

TYPE G, TYPE R,
AND TYPE H

RETROREFLECTIVE PAVEMENT MARKER FOR RECESSED INSTALLATION

See Notes 1 and 2.

RECESSED MARKER NOTES:

1. See typical traffic line details for marker patterns to be used with recessed pavement markers.
2. The retroreflective pavement markers shown for recessed installations are not to be used for non-recessed installations.
3. The top of pavement markers installed in recesses shall be 0 to 3/16 inch below the pavement surface.
4. Use Type 1 recess for pavement markers with one-way retroreflective face. Use Type 2 recess for pavement markers with two-way retroreflective face.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

RSP A20D DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN A20D
DATED MAY 31, 2018 - PAGE 15 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A20D

2018 REVISED STANDARD PLAN RSP A20D

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	52	79

Atifa Ferouz
REGISTERED CIVIL ENGINEER

April 19, 2019
PLANS APPROVAL DATE

Atifa Ferouz
No. C80402
Exp. 3-31-21
CIVIL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 10-16-19

NOTE:

1. See Standard Plans A20A, A20B, A20C, A20D, and A20F for pavement markers and traffic lines typical details.



TYPICAL LANE LINE OR RIGHT EDGE LINE CONTRAST DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKERS
AND TRAFFIC LINES**

TYPICAL DETAIL FOR CONTRAST STRIPING

NO SCALE

RSP A20E DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN A20E
DATED MAY 31, 2018 - PAGE 16 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A20E

2018 REVISED STANDARD PLAN RSP A20E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	53	79

Atifa Ferouz
REGISTERED CIVIL ENGINEER

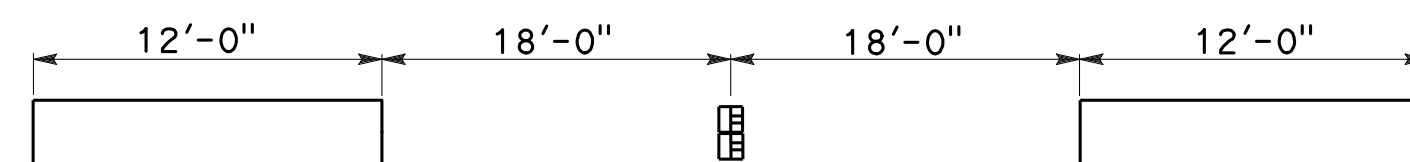
April 19, 2019
PLANS APPROVAL DATE

Atifa Ferouz
No. C80402
Exp. 3-31-21
CIVIL
STATE OF CALIFORNIA

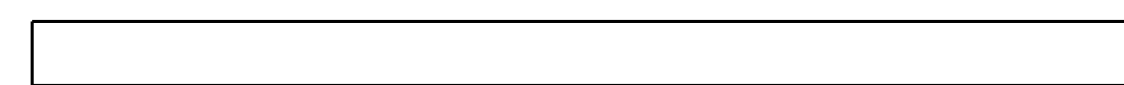
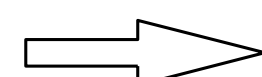
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PREFERENTIAL LANE LINES

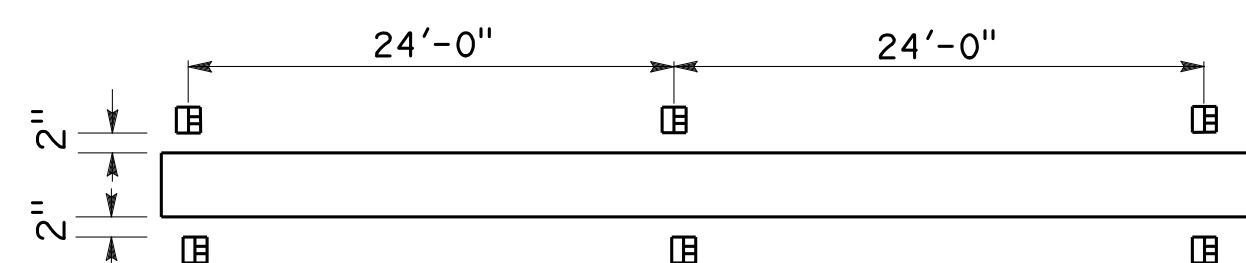
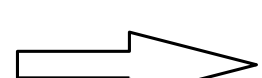
DETAIL 42



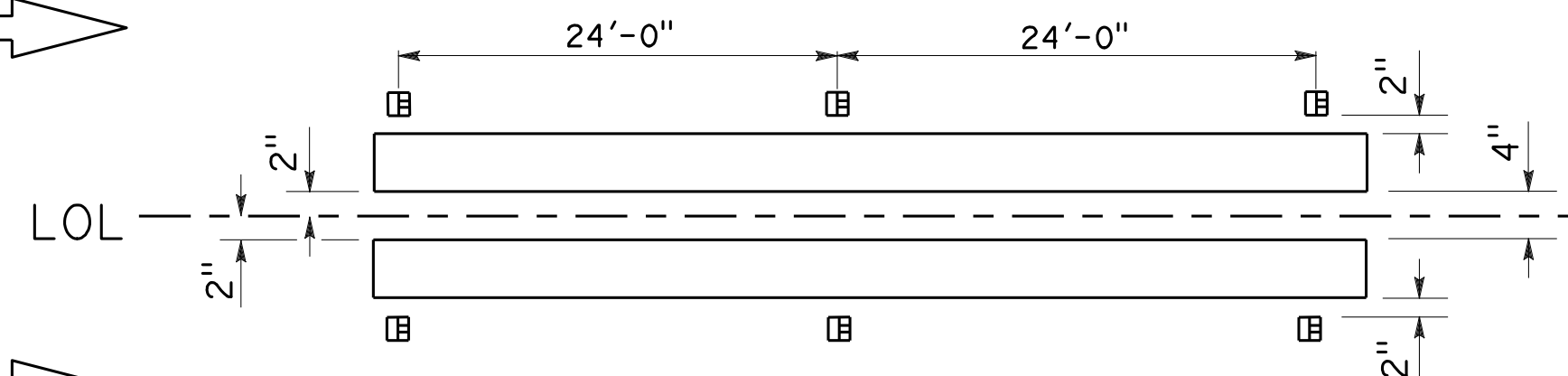
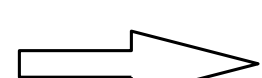
DETAIL 43



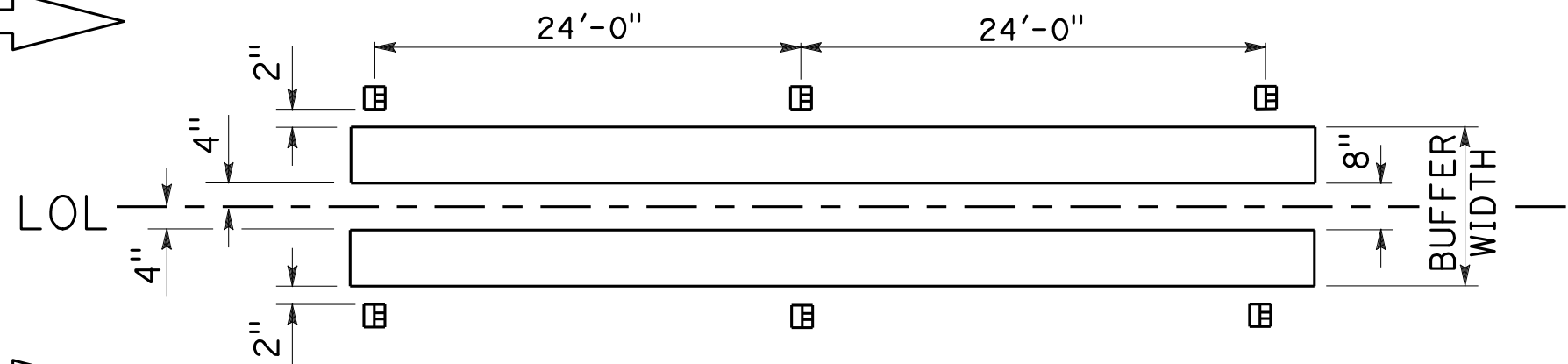
DETAIL 43A



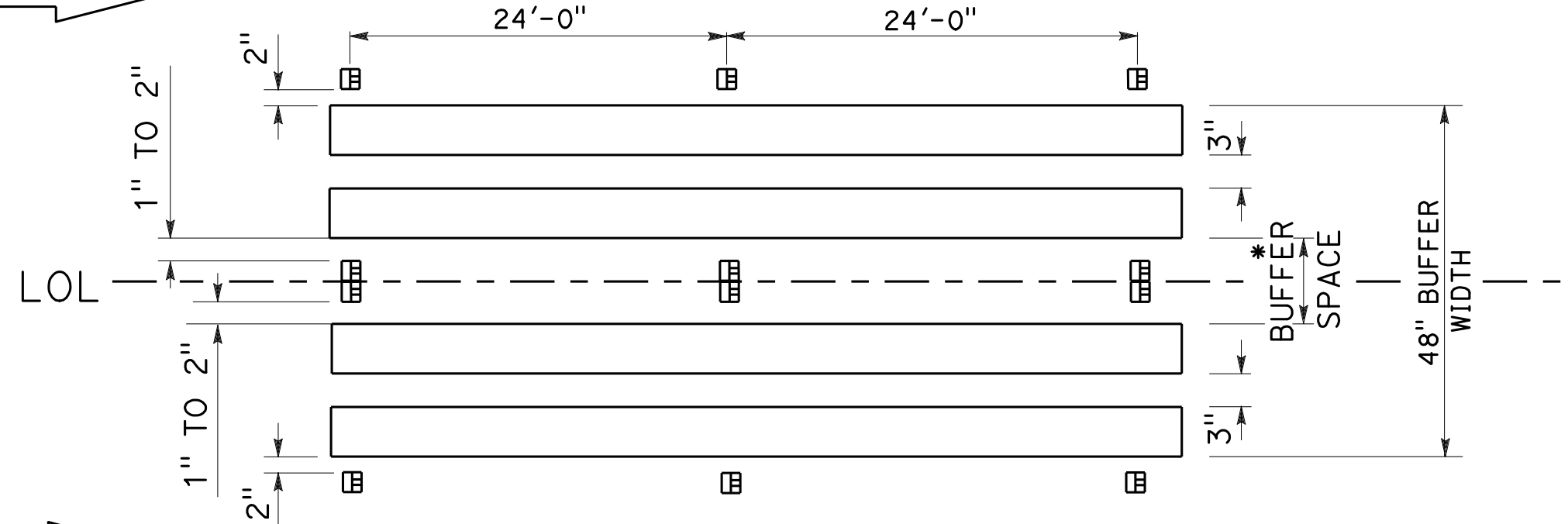
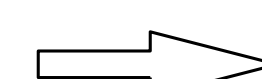
DETAIL 44A



DETAIL 44B



DETAIL 45



* If buffer space is wider than 4 feet use chevron markings.

LEGEND

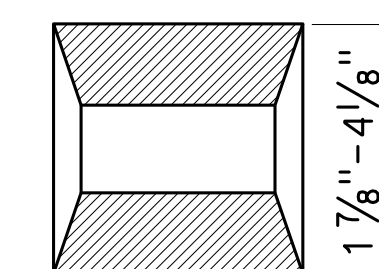
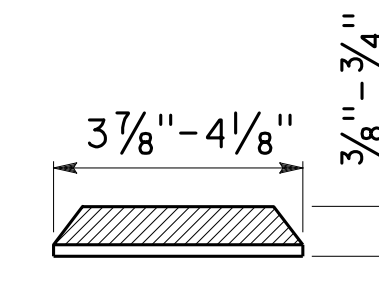
MARKERS

TYPE C RED-CLEAR RETROREFLECTIVE

LINES

8" WHITE LINE

MARKER DETAILS



TYPE C

RETROREFLECTIVE FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

RSP A20F DATED APRIL 19, 2019 SUPERSEDES RSP A20F
DATED OCTOBER 19, 2018 THAT SUPPLEMENTS TO THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A20F

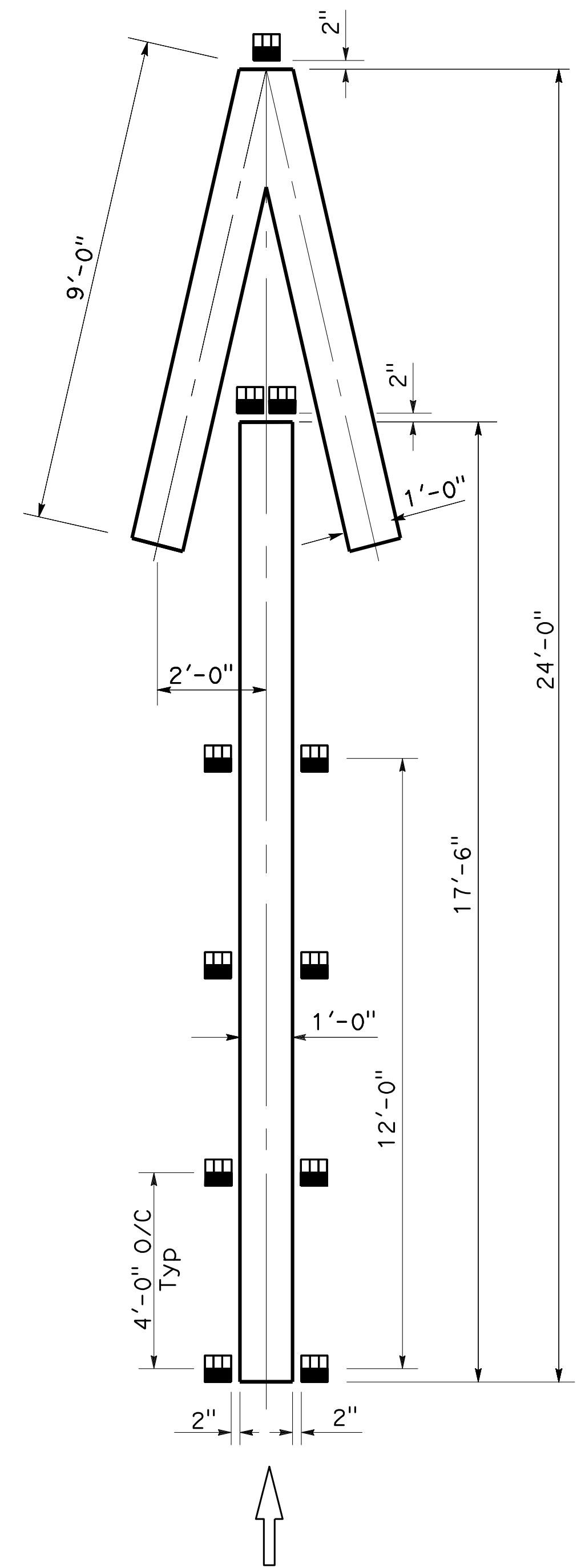
2018 REVISED STANDARD PLAN RSP A20F

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	54	79

Atifa Ferouz
 REGISTERED CIVIL ENGINEER
 October 19, 2018
 PLANS APPROVAL DATE
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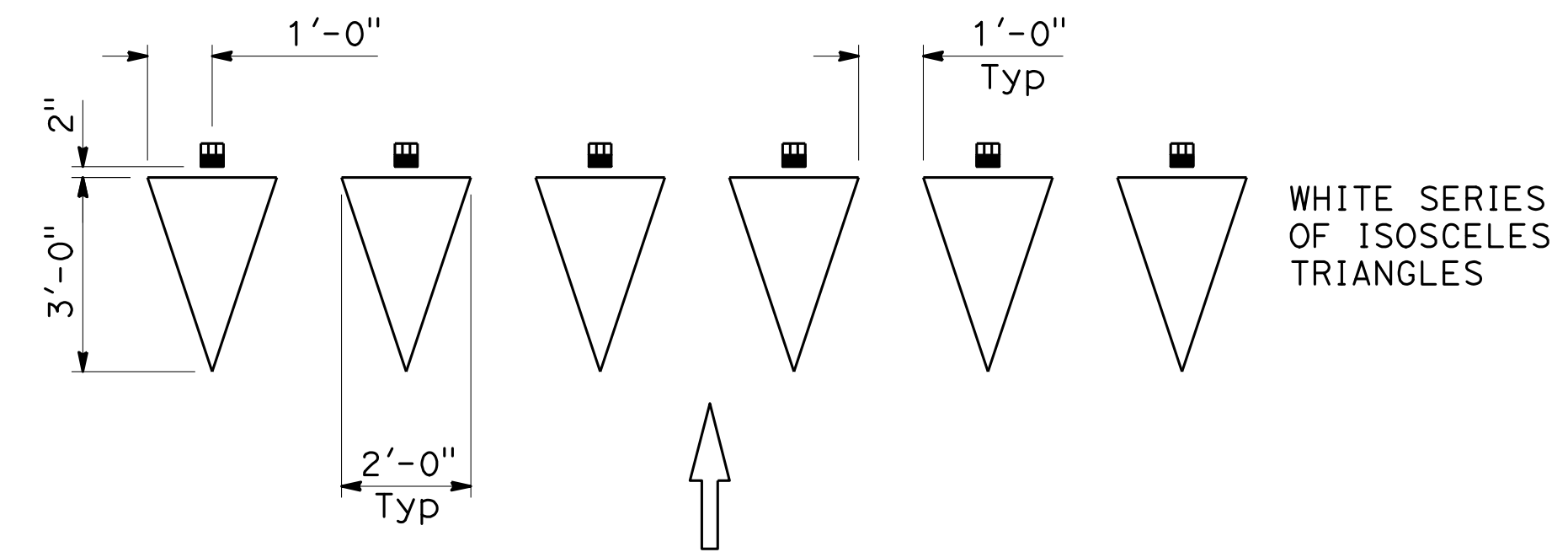
REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
 No. C80402
 Exp. 3-31-19
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 10-16-19

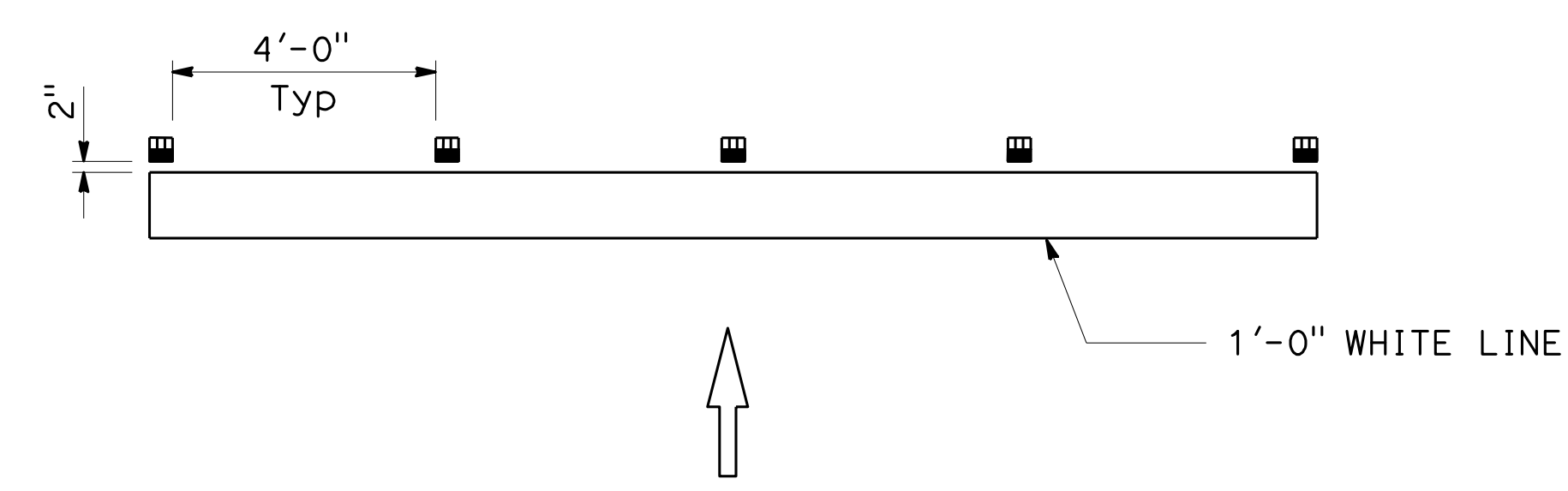


$A=33 ft^2$

TYPE V ARROW AT EXIT RAMP



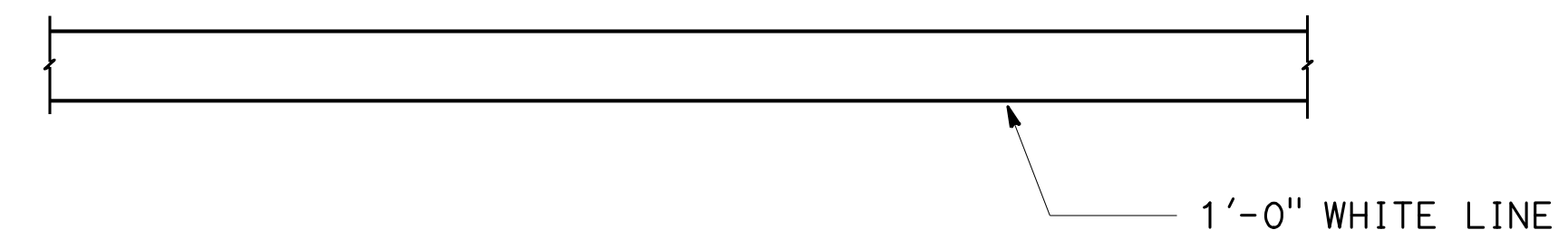
YIELD LINE AT EXIT RAMP



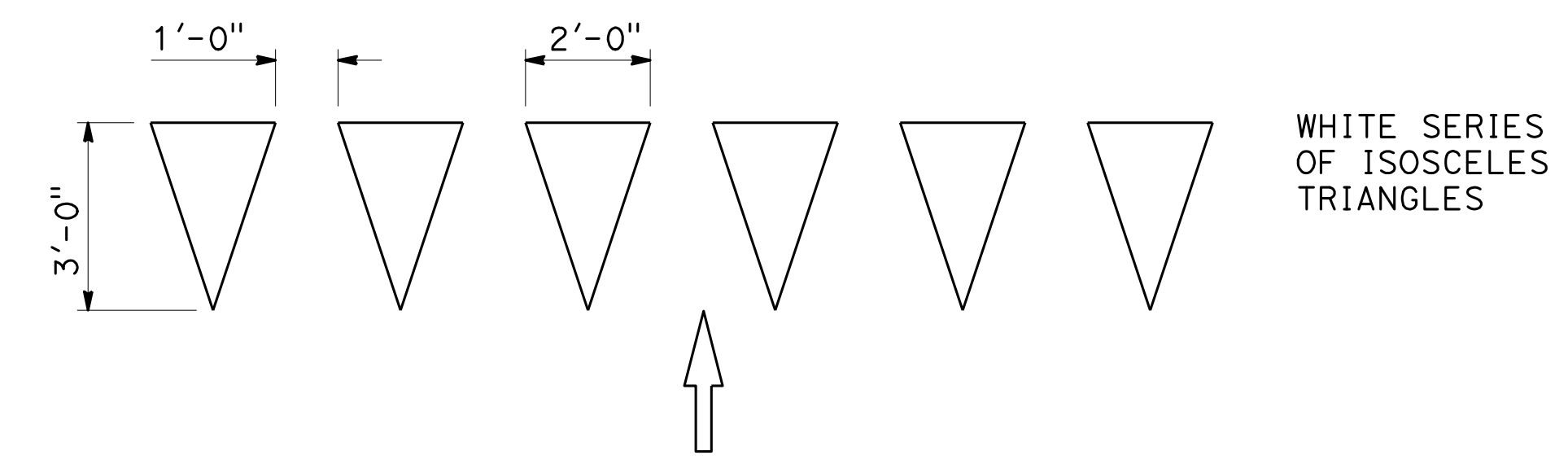
LIMIT LINE (STOP LINE) AT EXIT RAMP

NOTE:

1. If there is crosswalk at the end of the exit ramp, place Type R markers in front of the first line for wrong way vehicle that travels up the ramp with the red reflective side facing the intersection.



LIMIT LINE (STOP LINE)



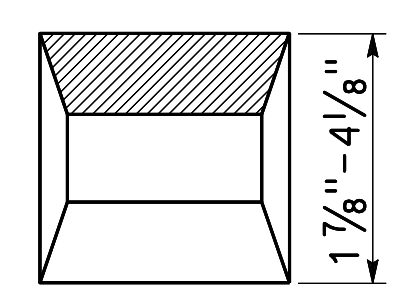
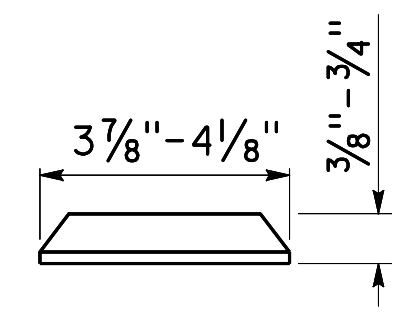
YIELD LINE

LEGEND

MARKERS

TYPE R ONE-WAY RED RETROREFLECTIVE

MARKER DETAILS



TYPE R

RETROREFLECTIVE FACE ON BACKSIDE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS
YIELD LINES, LIMIT LINES,
AND WRONG WAY DETAILS**

NO SCALE

RSP A24G DATED OCTOBER 19, 2018 SUPPLEMENT TO THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A24G

2018 REVISED STANDARD PLAN RSP A24G

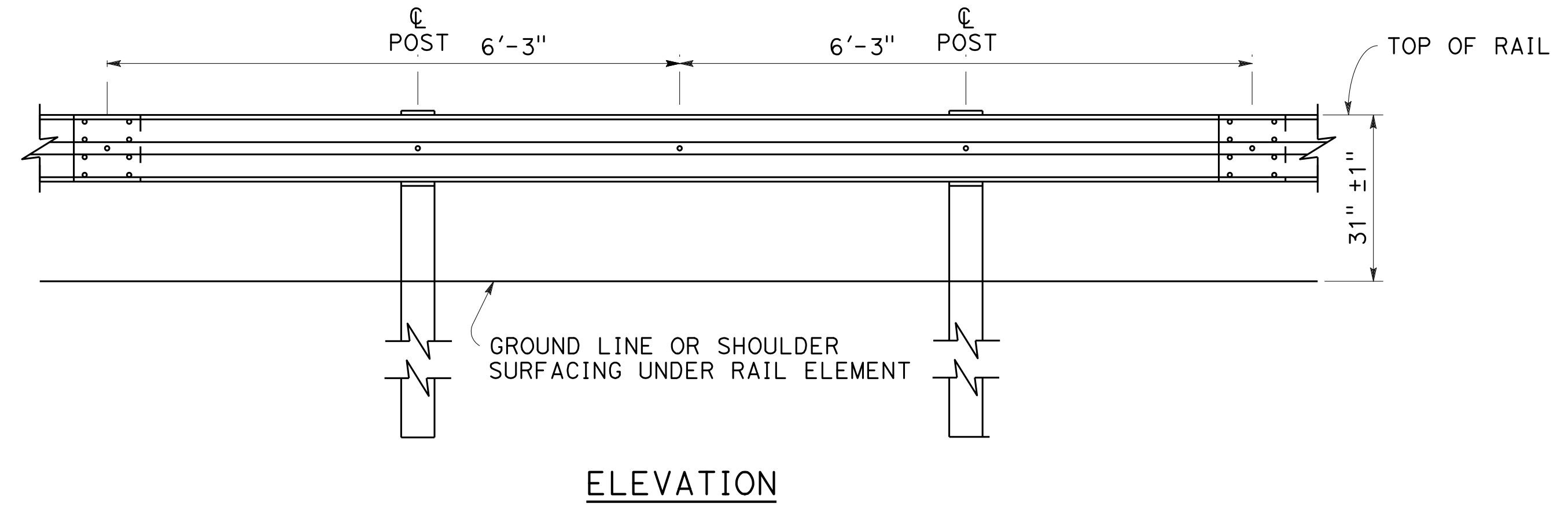
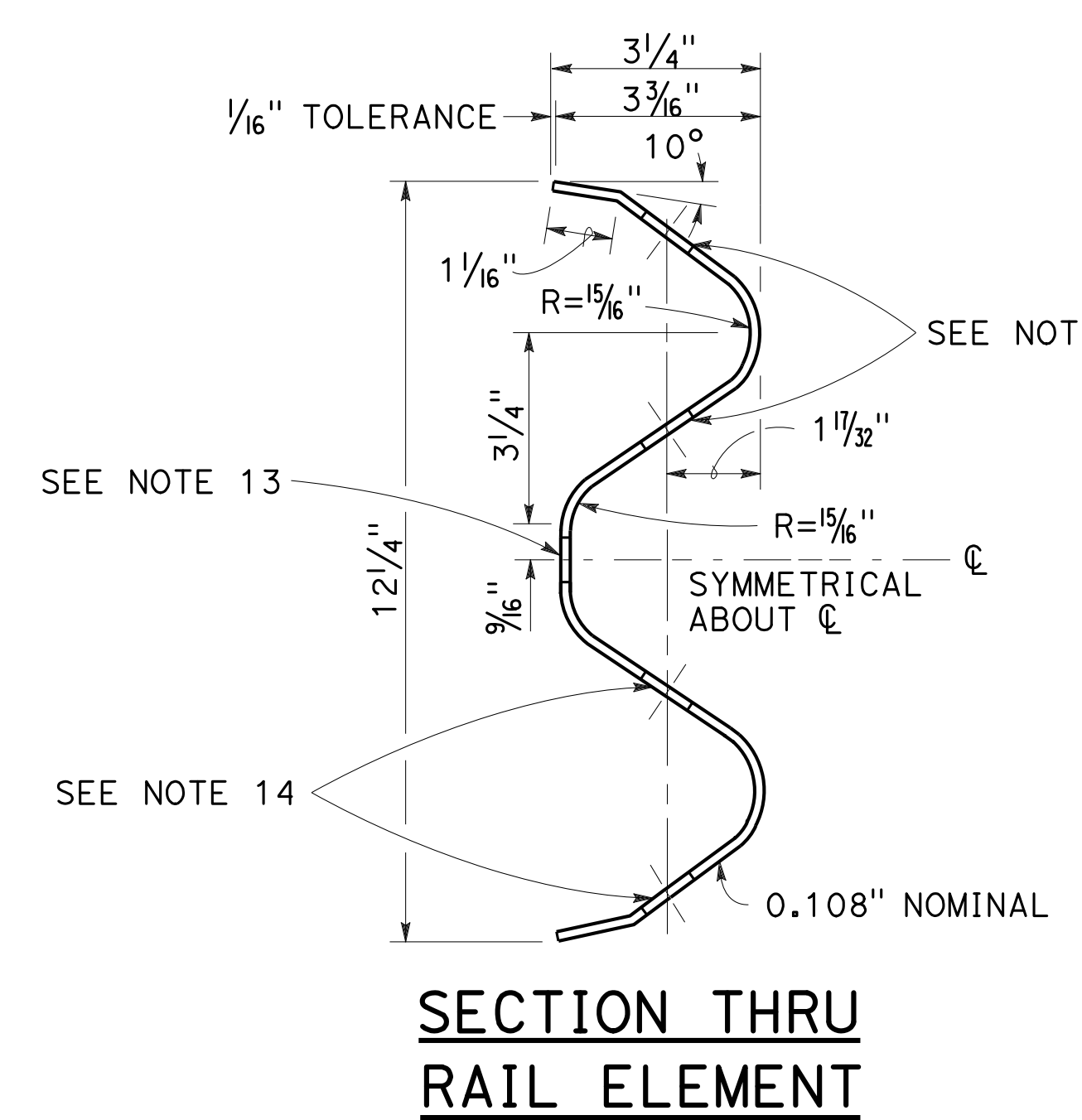
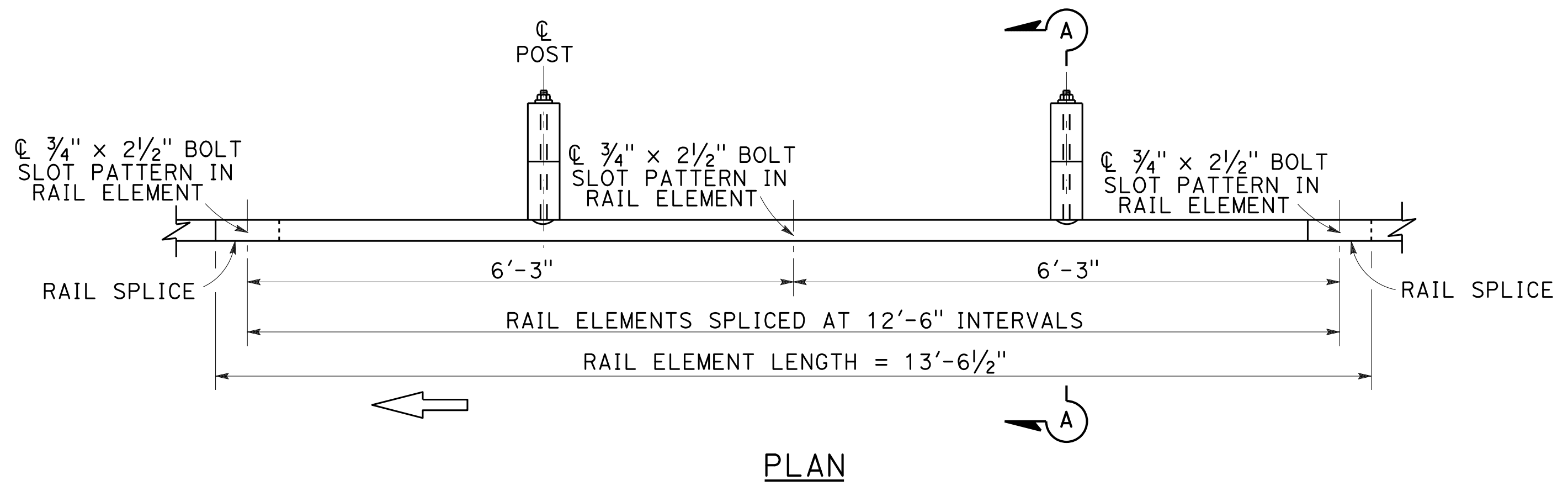
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	55	79

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

April 19, 2019
PLANS APPROVAL DATE

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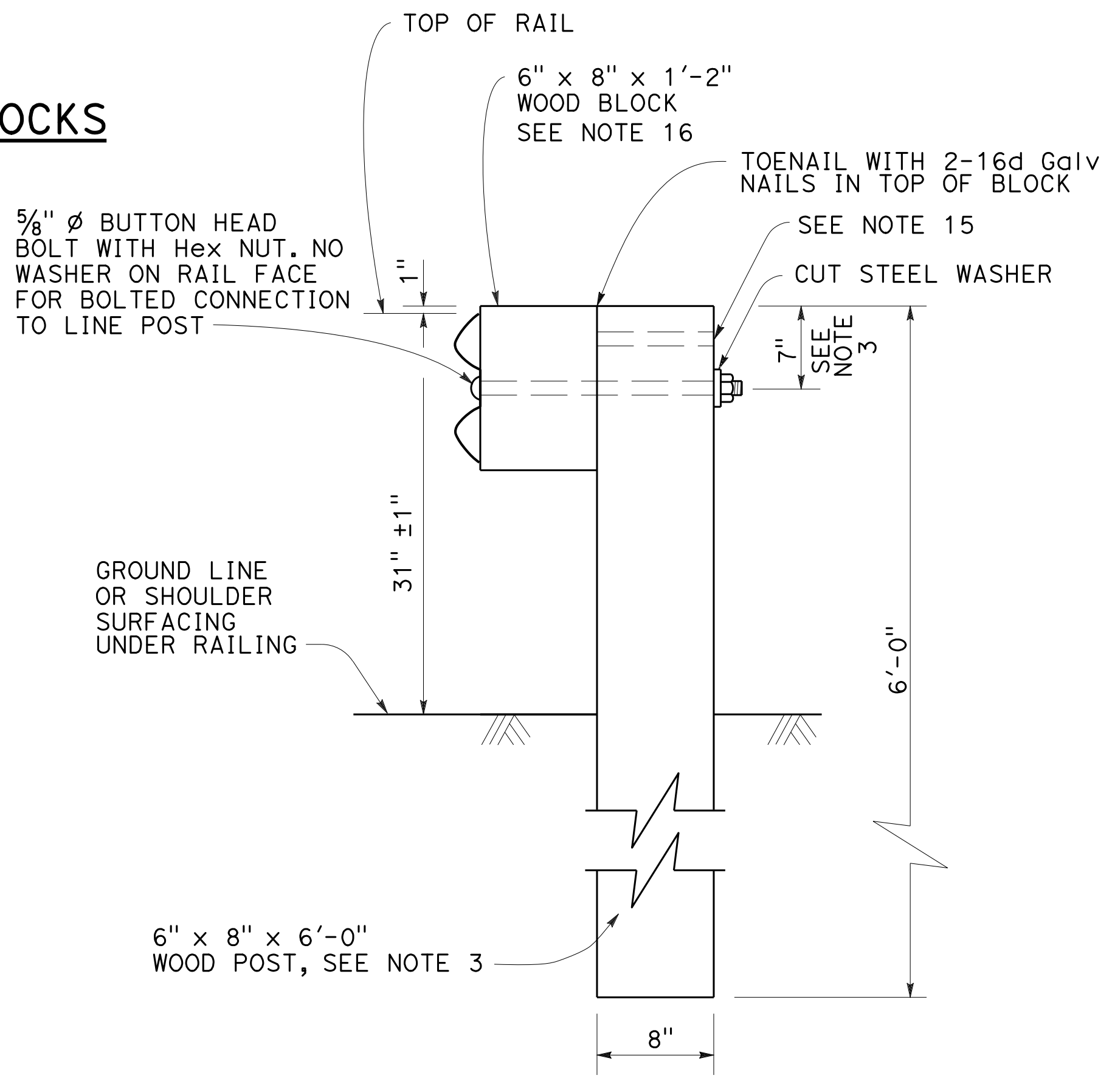
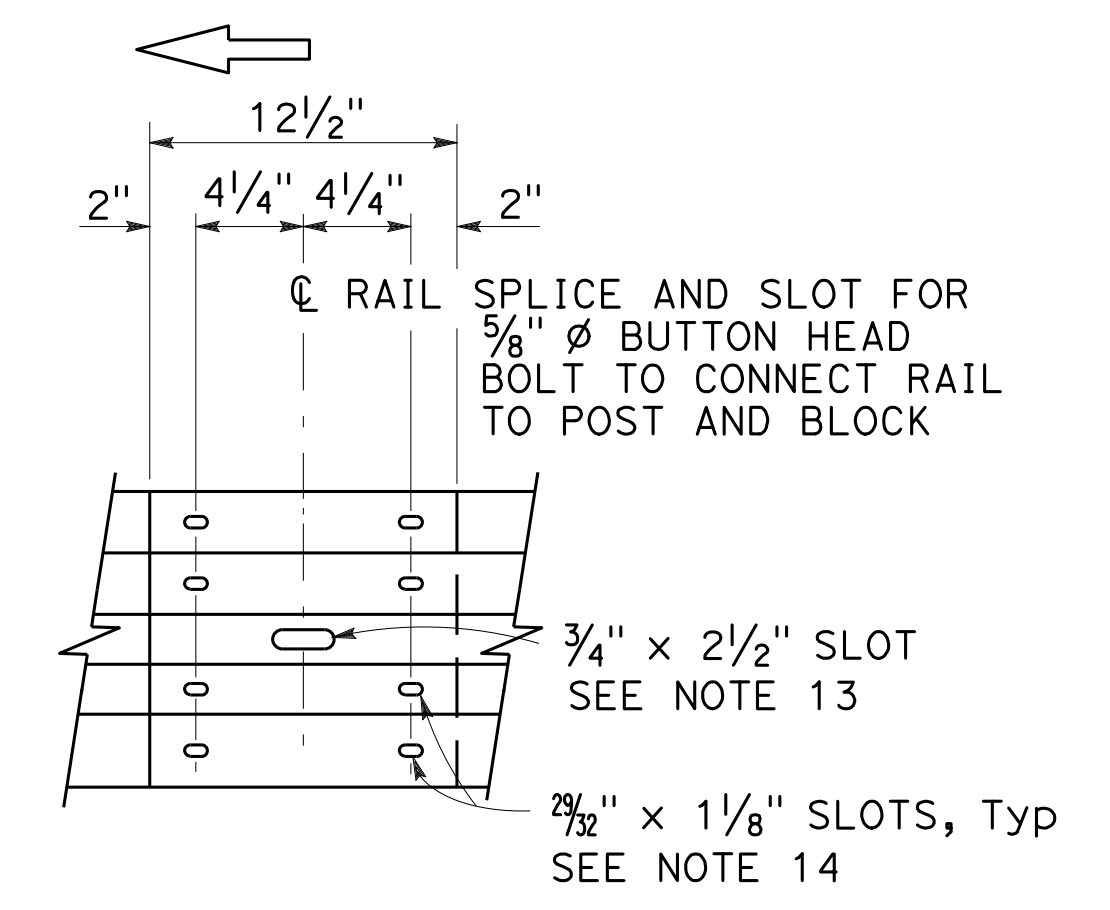
NO. C50200
Exp. 6-30-19
CIVIL
STATE OF CALIFORNIA



NOTES:

- For details of steel post installations, see Revised Standard Plan RSP A77L2.
- For details of standard hardware used to construct MGS, see Standard Plan A77M1.
- For details of wood posts and wood blocks used to construct MGS, see Standard Plan A77N1.
- For additional installation details, see Standard Plan A77N3.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- For MGS typical layouts, see the A77P, A77Q and A77R Series of Standard Plans.
- If railing is connected to terminal system end treatment, use 31" height terminal system end treatment.
- For MGS end anchor details, see Standard Plans A77S1 and A77T2.
- For details of MGS transition to bridge railing, see Revised Standard Plan RSP A77U4.
- For additional details of MGS connection to bridge railing, see Standard Plans A77U1, A77U2 and A77V1.
- For MGS connection details to abutments and walls, see Standard Plan A77U3.
- For typical MGS delineation and dike positioning details, see Revised Standard Plan RSP A77N4.
- Slotted hole for bolted connection of rail element to block and post.
- Slotted holes for splice bolts to overlap ends of rail element.
- Additional hole in uppermost portion of line post is for potential future adjustments of railing height. See Standard Plan A77N1.
- 6" x 12" x 1'-2" block must be used with 6" dike.
- Install posts in soil.

MIDWEST GUARDRAIL SYSTEM WITH WOOD POST AND BLOCKS



- Connect the overlapped end of the rail elements with 5/8" Ø x 1 3/8" button head oval shoulder splice bolts inserted into the 7/32" x 1 1/8" slots and bolted together with 5/8" Ø recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STANDARD RAILING SECTION
(WOOD POST WITH
WOOD BLOCK)**

NO SCALE

RSP A77L1 DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN A77L1
DATED MAY 31, 2018 - PAGE 57 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A77L1

2018 REVISED STANDARD PLAN RSP A77L1

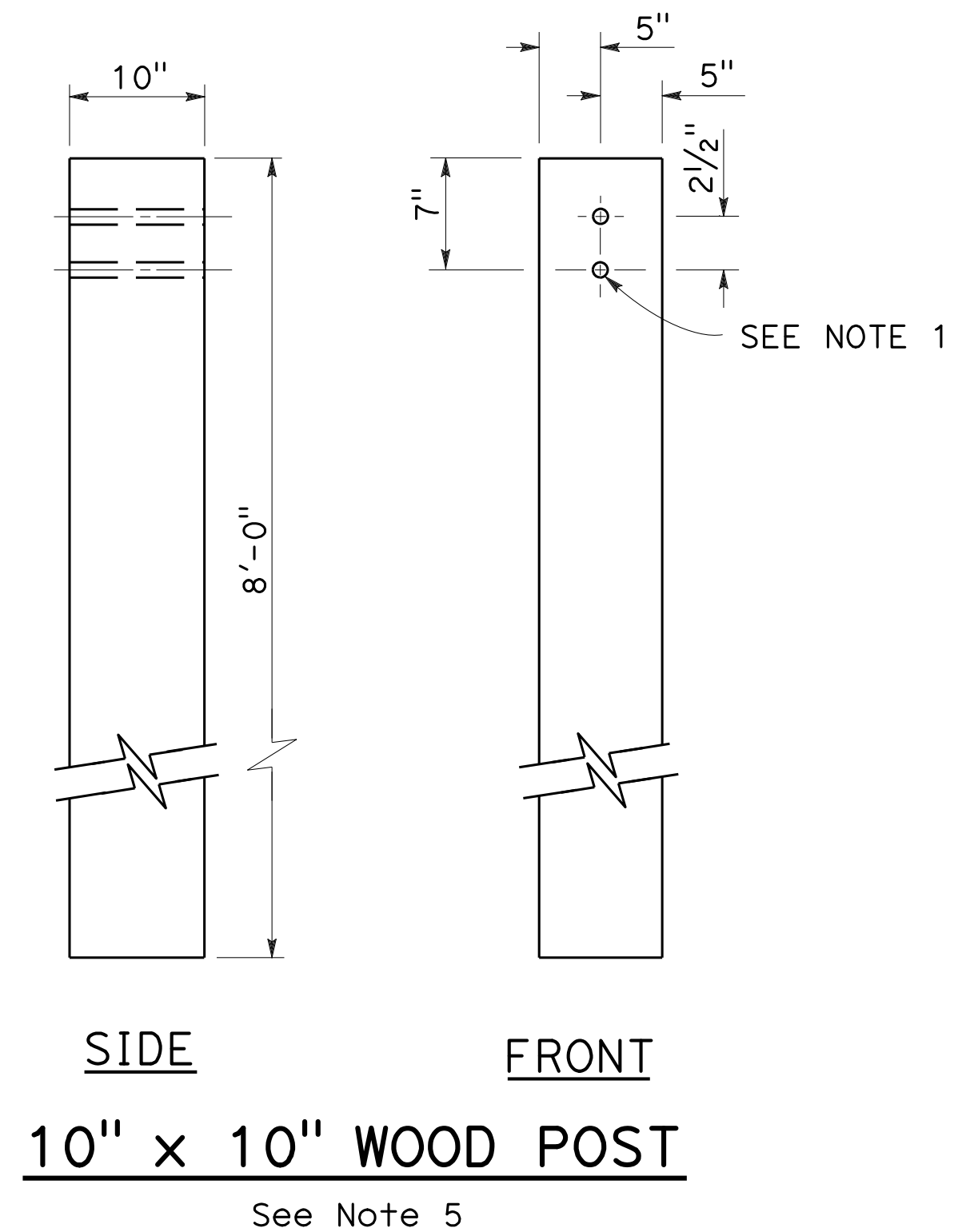
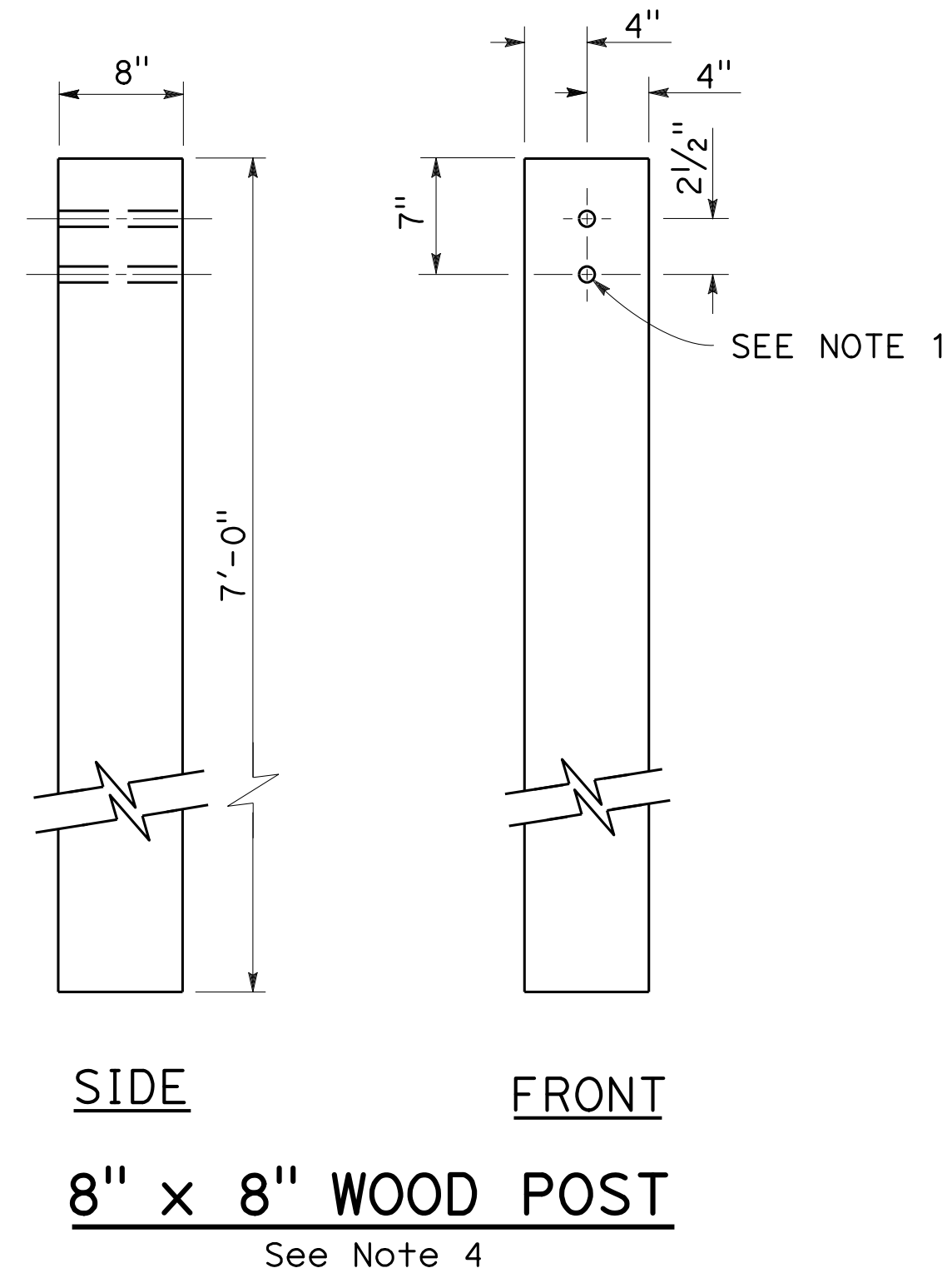
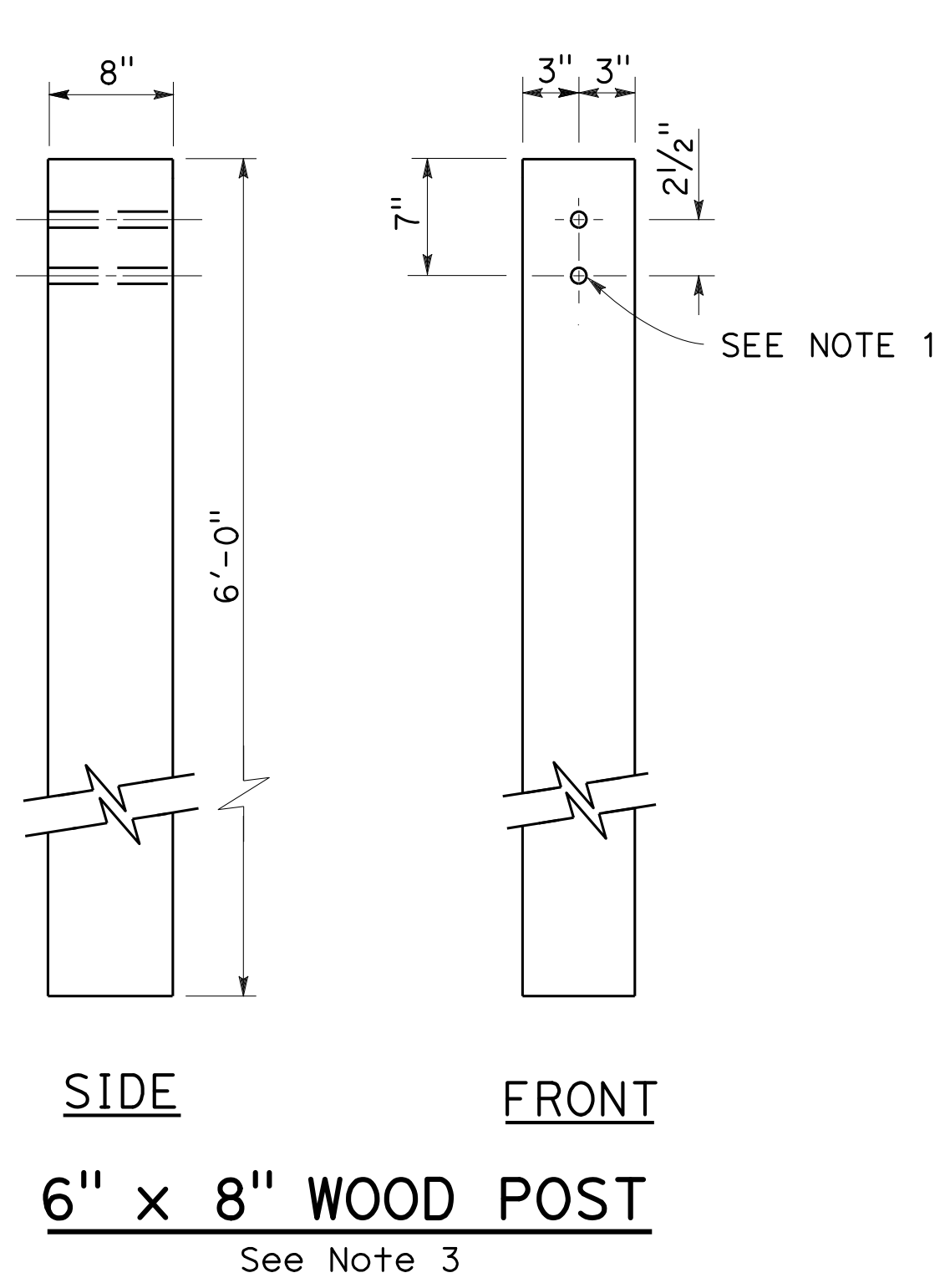
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	56	79

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

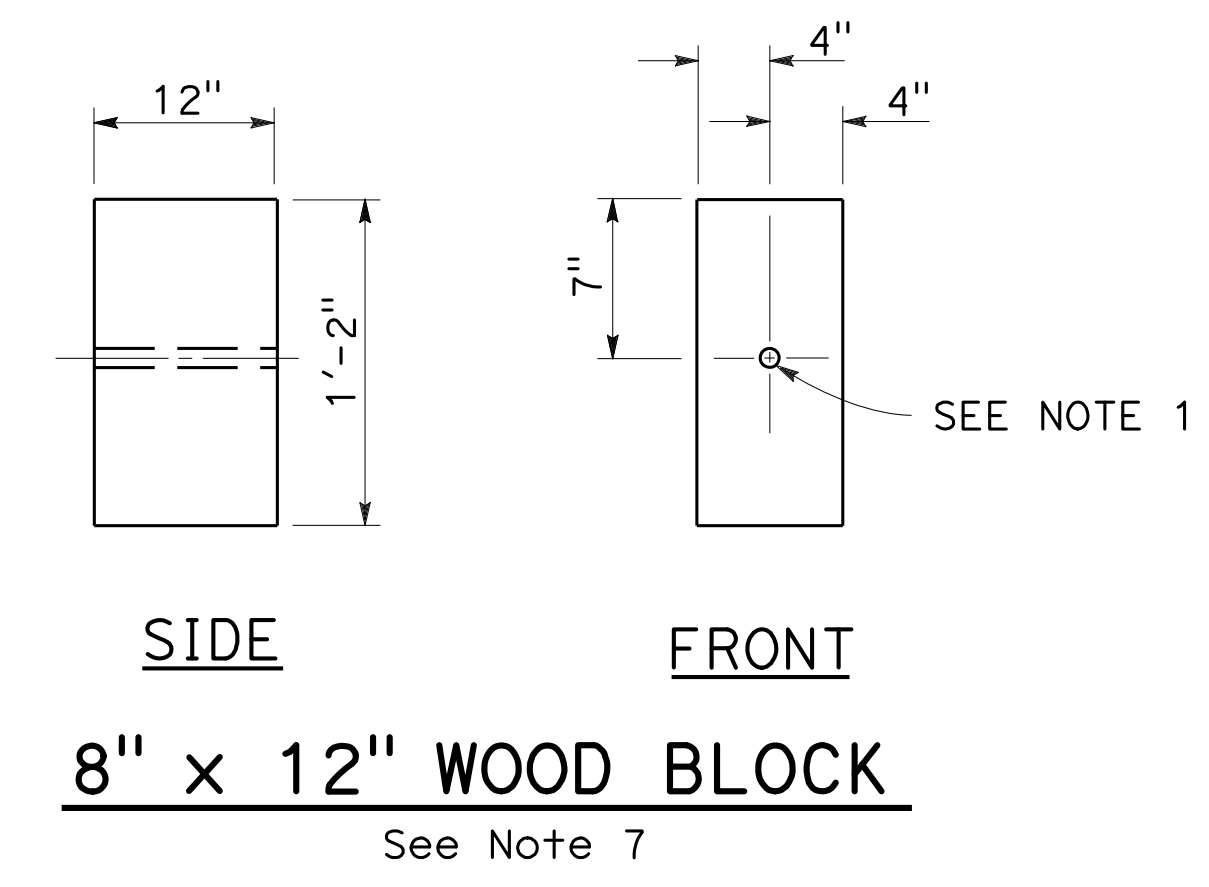
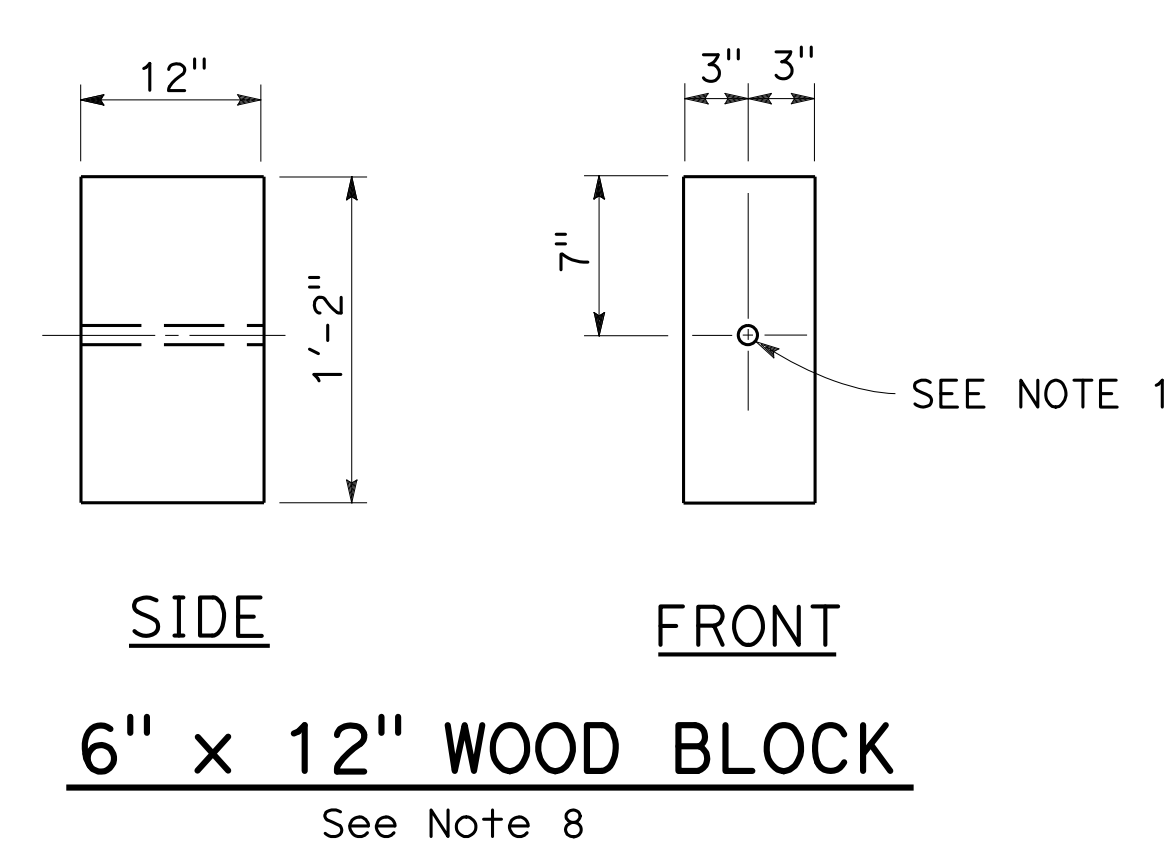
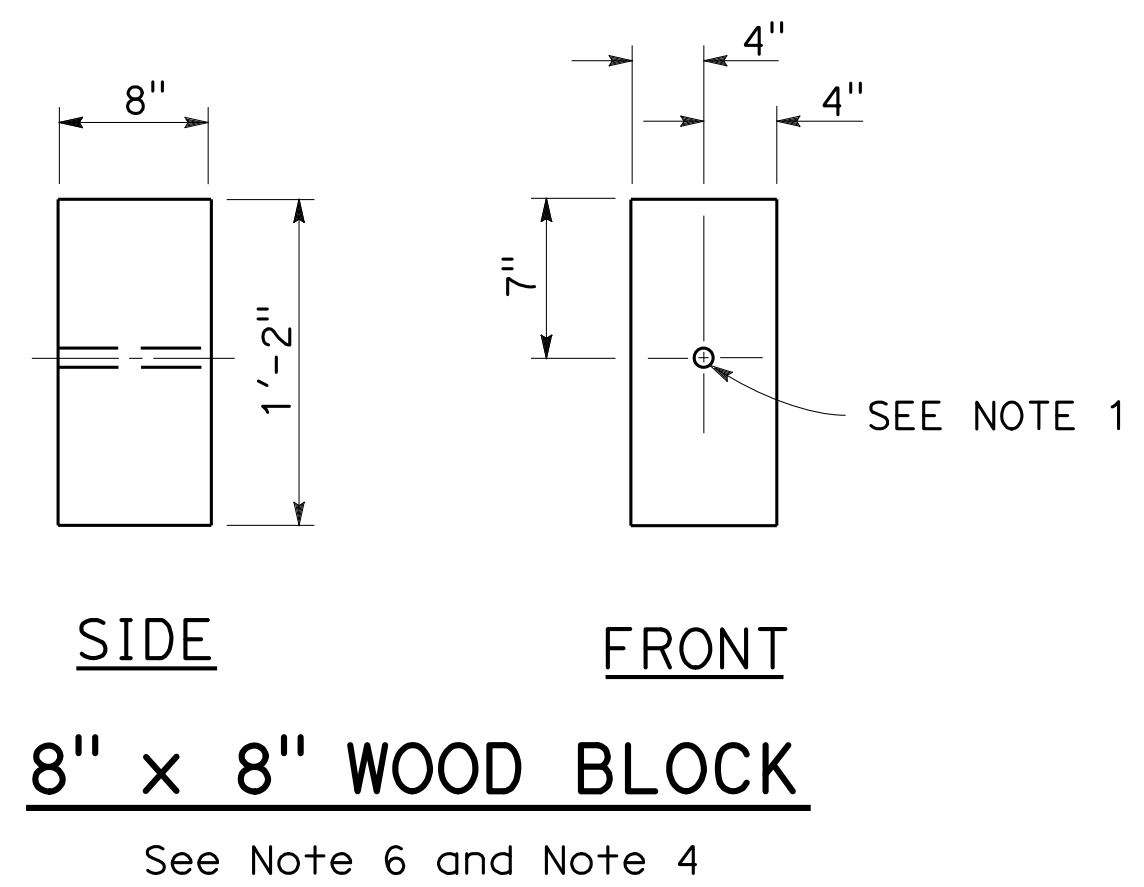
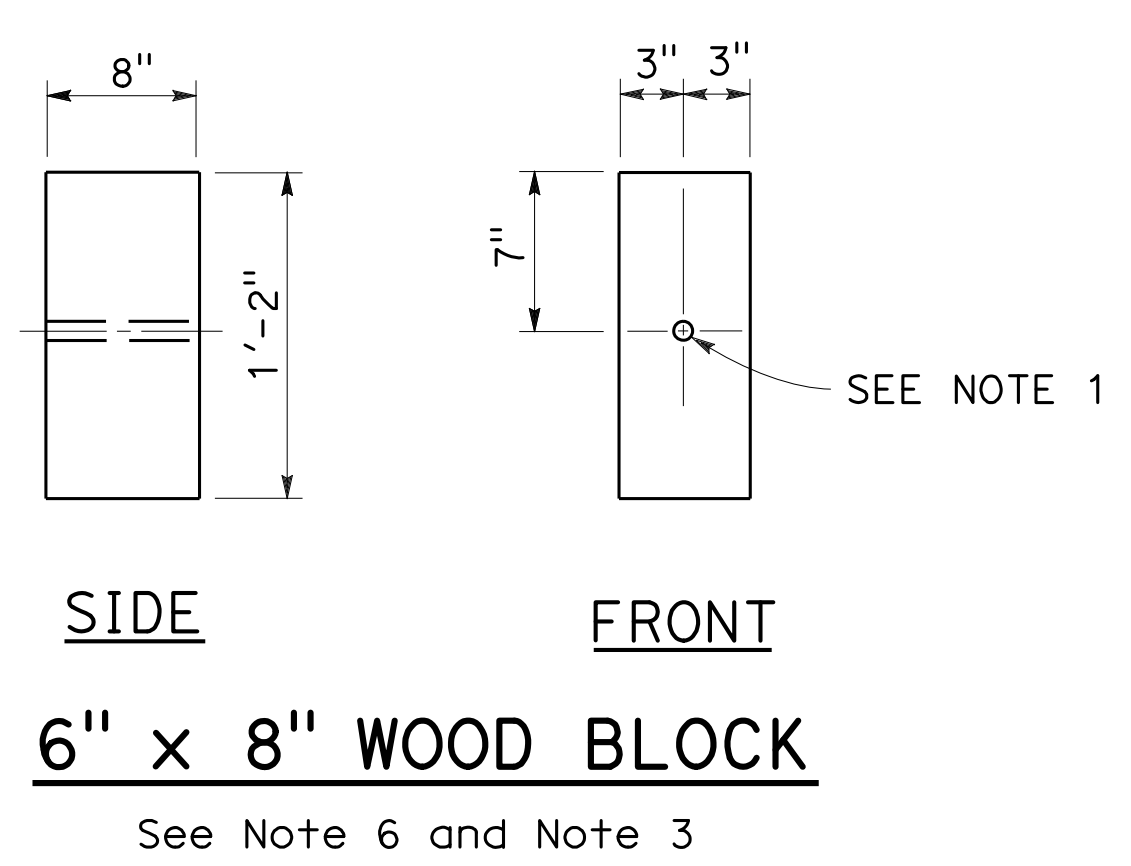
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-19
CIVIL
STATE OF CALIFORNIA

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NOTES:

1. All holes in wood posts and blocks shall be $\frac{3}{4}$ " Dia \pm $\frac{1}{16}$ ".
2. Dimensions shown for wood post are nominal.
3. This post and block combination used for standard line post sections of MGS.
4. This post and 8" x 12" block combination used for line post sections of MGS on narrow roadways.
5. This post and 8" x 12" block combination is typically used where strengthened line post sections of MGS are warranted to shield fixed objects.
6. See Standard Plan A77L3 for use of 6" x 8" and 8" x 8" wood blocks.
7. To be used with 8" x 8" x 7'-0" wood post if installed with 6" height dike.
8. To be used with 6" x 8" x 6'-0" wood post if installed with 6" height dike.



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**MIDWEST GUARDRAIL SYSTEM
WOOD POST AND
WOOD BLOCK DETAILS**

NO SCALE

A77N1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	57	79

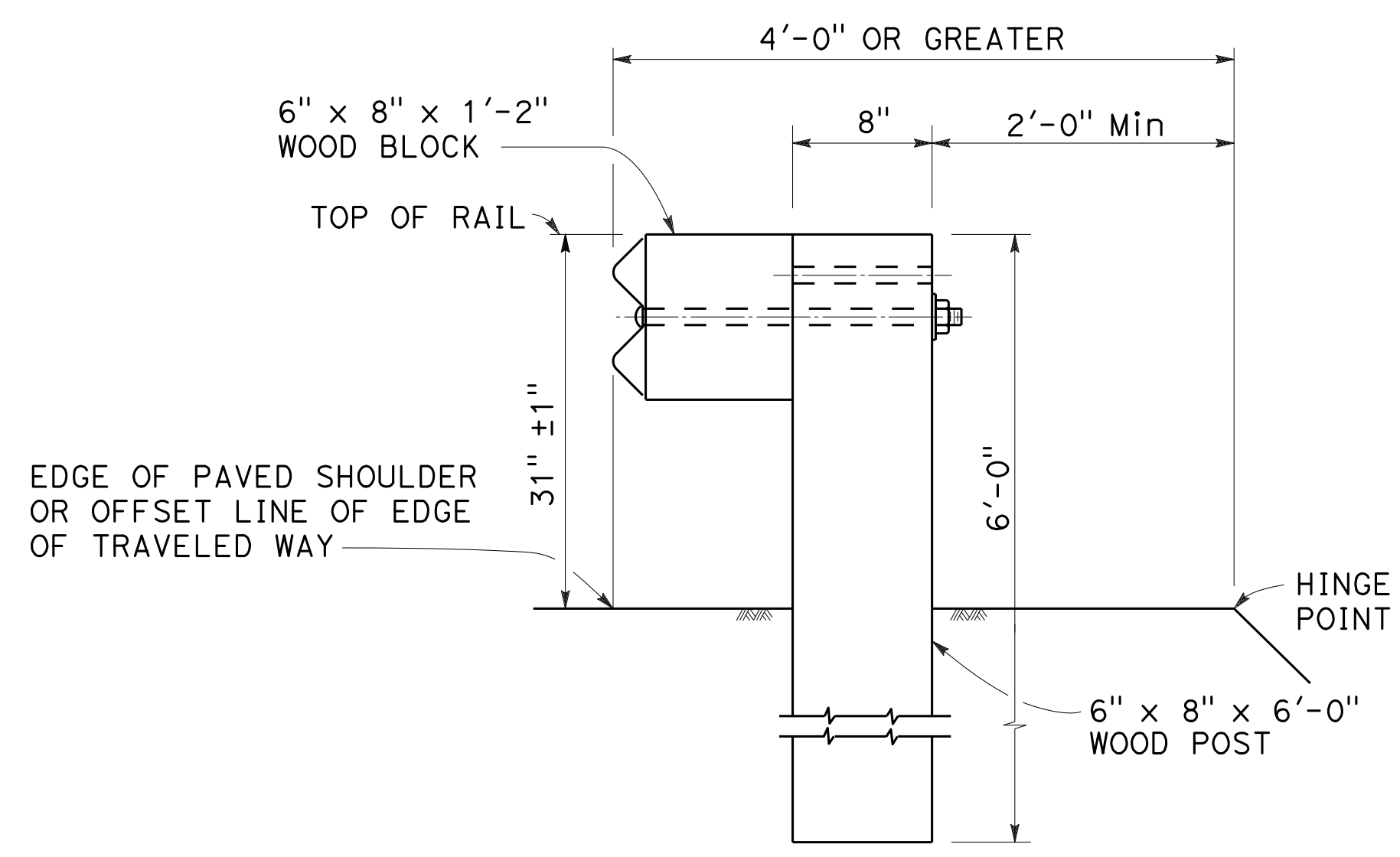
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 19, 2018
PLANS APPROVAL DATE

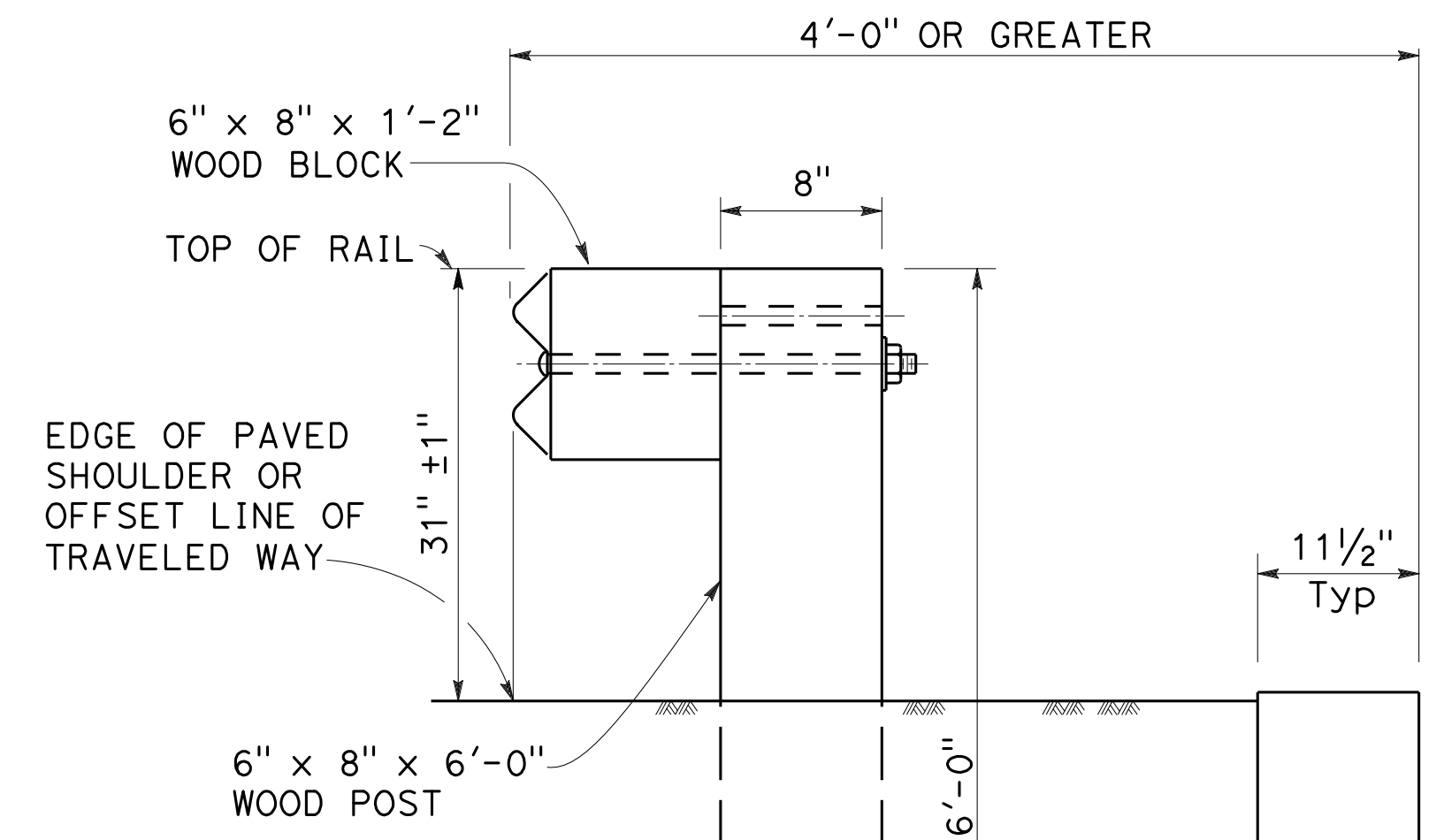
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-19
CIVIL
STATE OF CALIFORNIA

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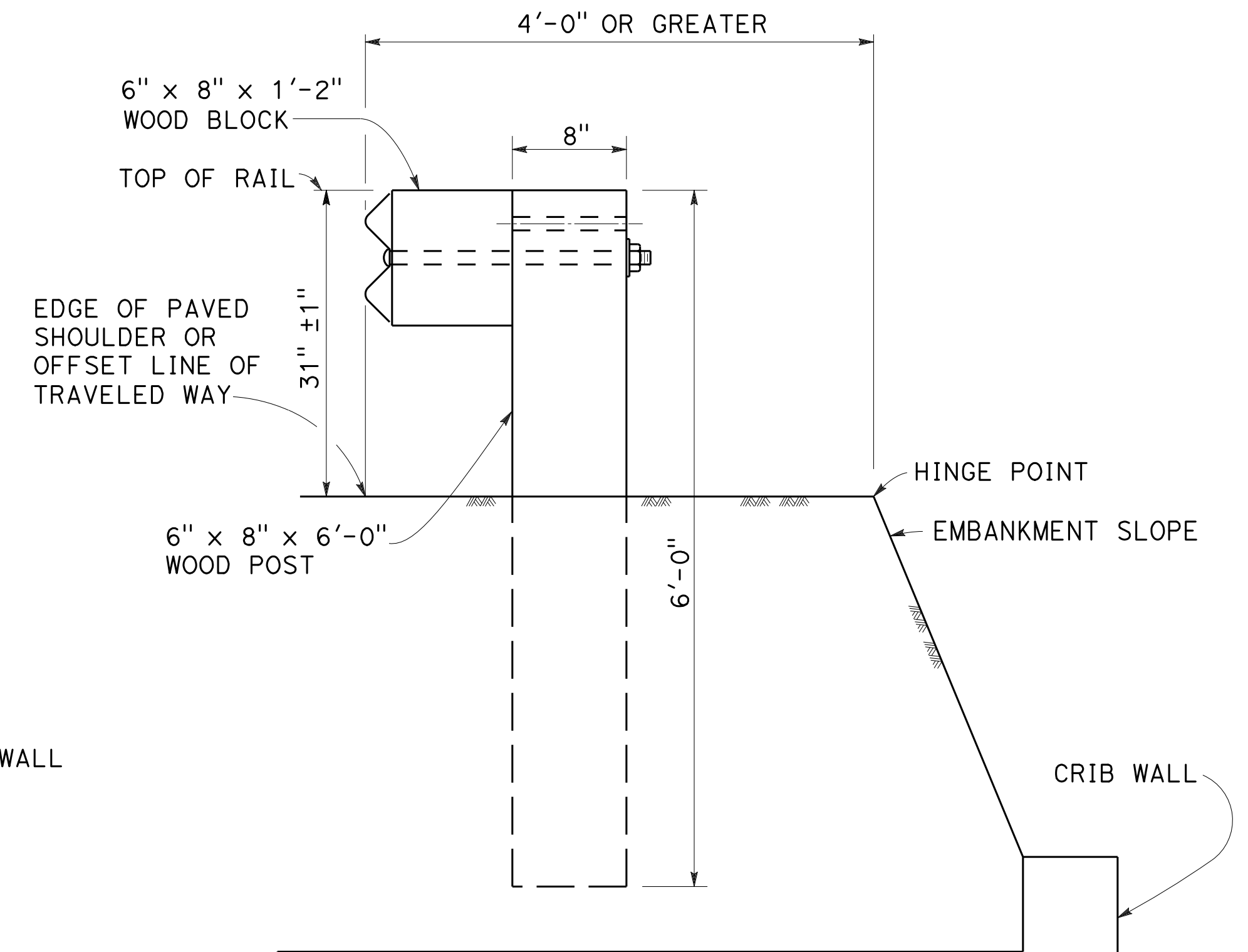
TO ACCOMPANY PLANS DATED 10-16-19



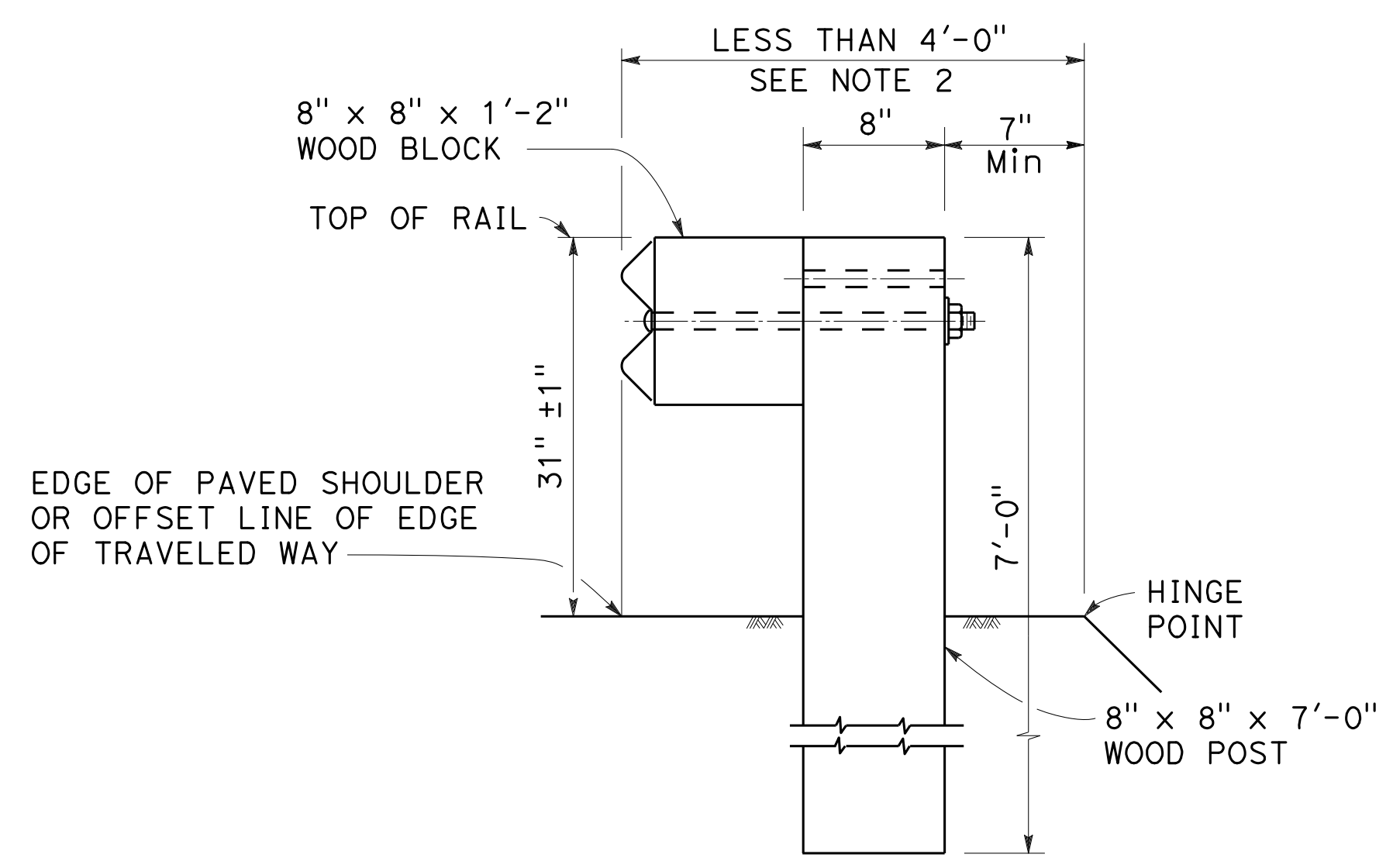
DETAIL A
TYPICAL ROADWAY
INSTALLATION
See Note 1



DETAIL C



DETAIL D



DETAIL B
NARROW ROADWAY
INSTALLATION
See Note 1

POST EMBEDMENT

INSTALLATION AT EARTH RETAINING WALLS

NOTES:

1. These installation details also applicable to steel line post installations. For Detail A, C, and D, where steel line post installations are constructed, W6 x 8.5 or W6 x 9 steel post, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For Detail B, where steel line post installations are constructed, W6 x 8.5 or W6 x 9 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of the wood post and wood block shown. For additional installation details, see Standard Plans A77L1 and A77L2.
2. Where the distance between the back of the post and the hinge point is less than 7", see the Project Plans for special details.
3. For dike positioning with MGS installations, see Standard Plan A77N4.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWEST GUARDRAIL SYSTEM
TYPICAL LINE POST
EMBEDMENT AND
HINGE POINT OFFSET DETAILS

NO SCALE

RSP A77N3 DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN A77N3
DATED MAY 31, 2018 - PAGE 63 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A77N3

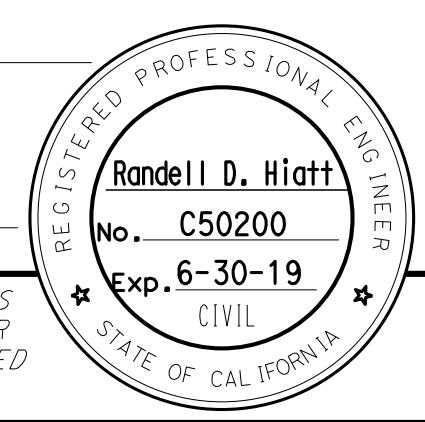
2018 REVISED STANDARD PLAN RSP A77N3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	58	79

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

April 19, 2019
PLANS APPROVAL DATE

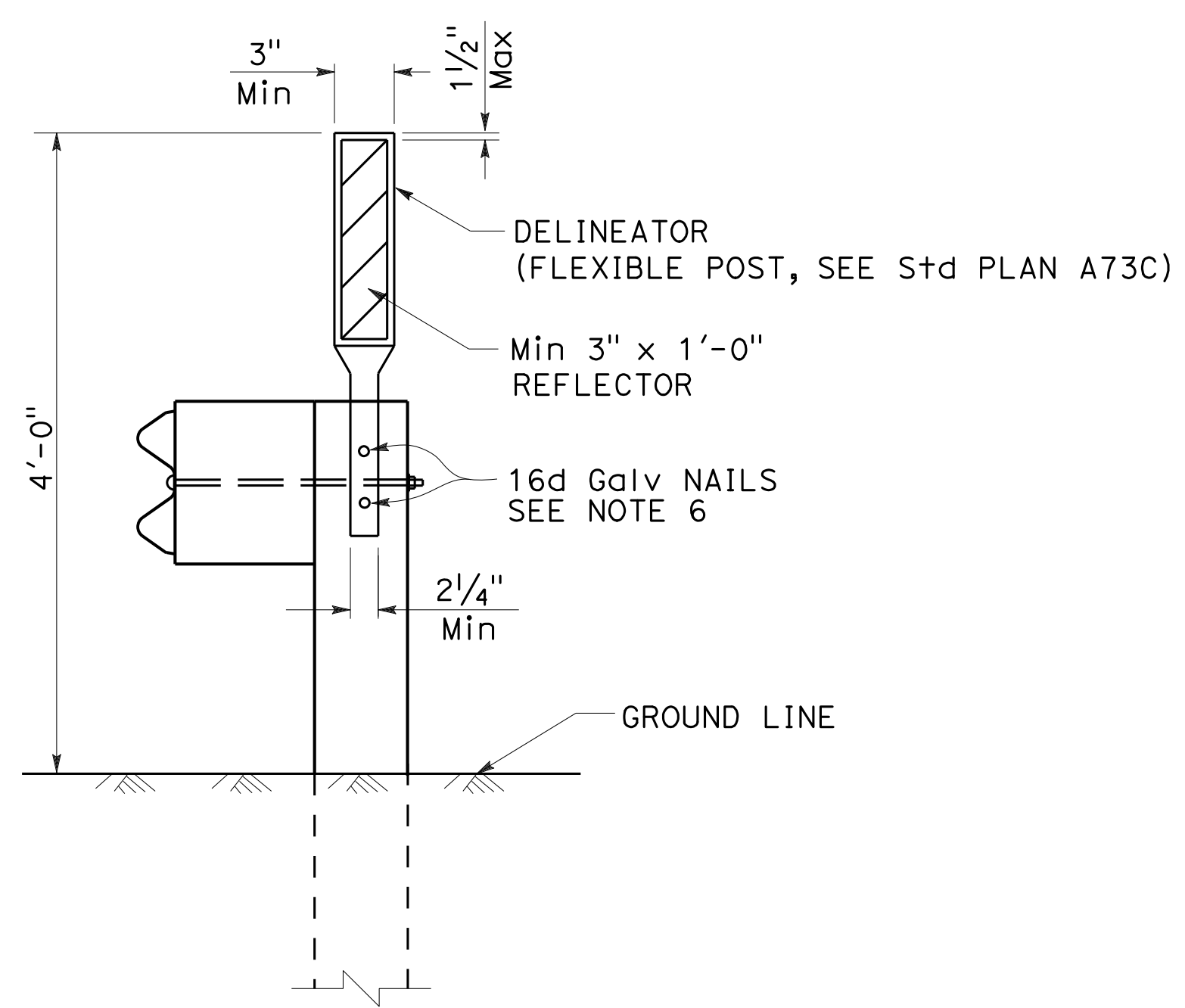
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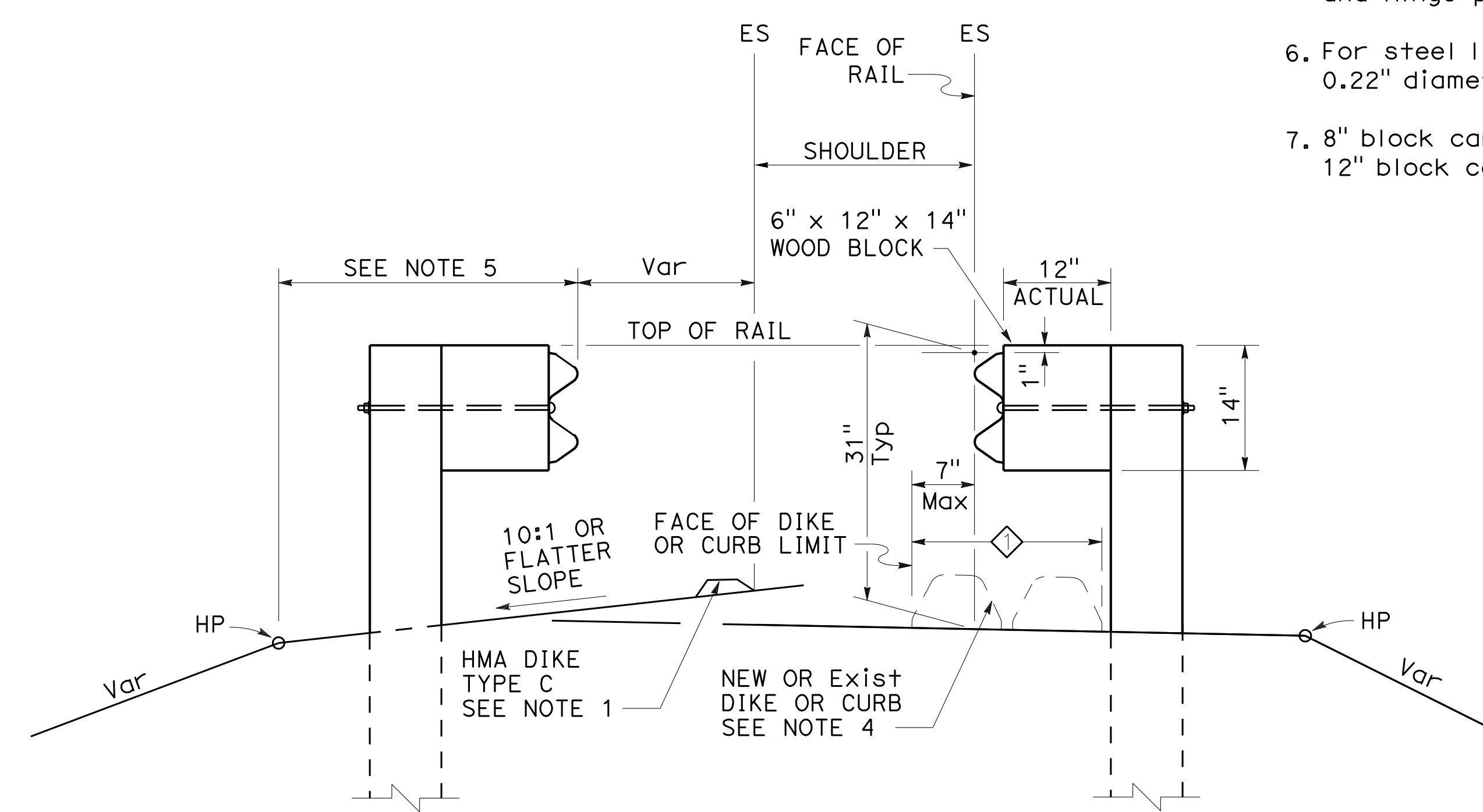
TO ACCOMPANY PLANS DATED 10-16-19

NOTES:

1. When necessary to place dike more than 7" in front of face of MGS, only Type C dike may be used. For dike details, see Standard Plan A87B.
2. For standard railing post embedment, see Standard Plan A77N3.
3. MGS delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under MGS, the maximum height of the dike or curb shall be 6". Mountable dike should not be used. For dike and curb details, see Standard Plans A87A and A87B.
5. For details of typical distance between the face of rail and hinge point, see Standard Plan A77N3.
6. For steel line posts, use 1/4" - 20 self-tapping screws in 0.22" diameter holes or 1/4" bolts in 3/32" diameter holes.
7. 8" block can be used with 4" or lower dike, or no dike. 12" block can be used with 6" or lower dike, or no dike.



MGS DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

◇ PERMISSIBLE DIKE OR CURB
PLACEMENT AREA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL RAILING DELINEATION
AND DIKE POSITIONING DETAILS**

NO SCALE

RSP A77N4 DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN A77N4
DATED MAY 31, 2018 - PAGE 64 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A77N4

2018 REVISED STANDARD PLAN RSP A77N4

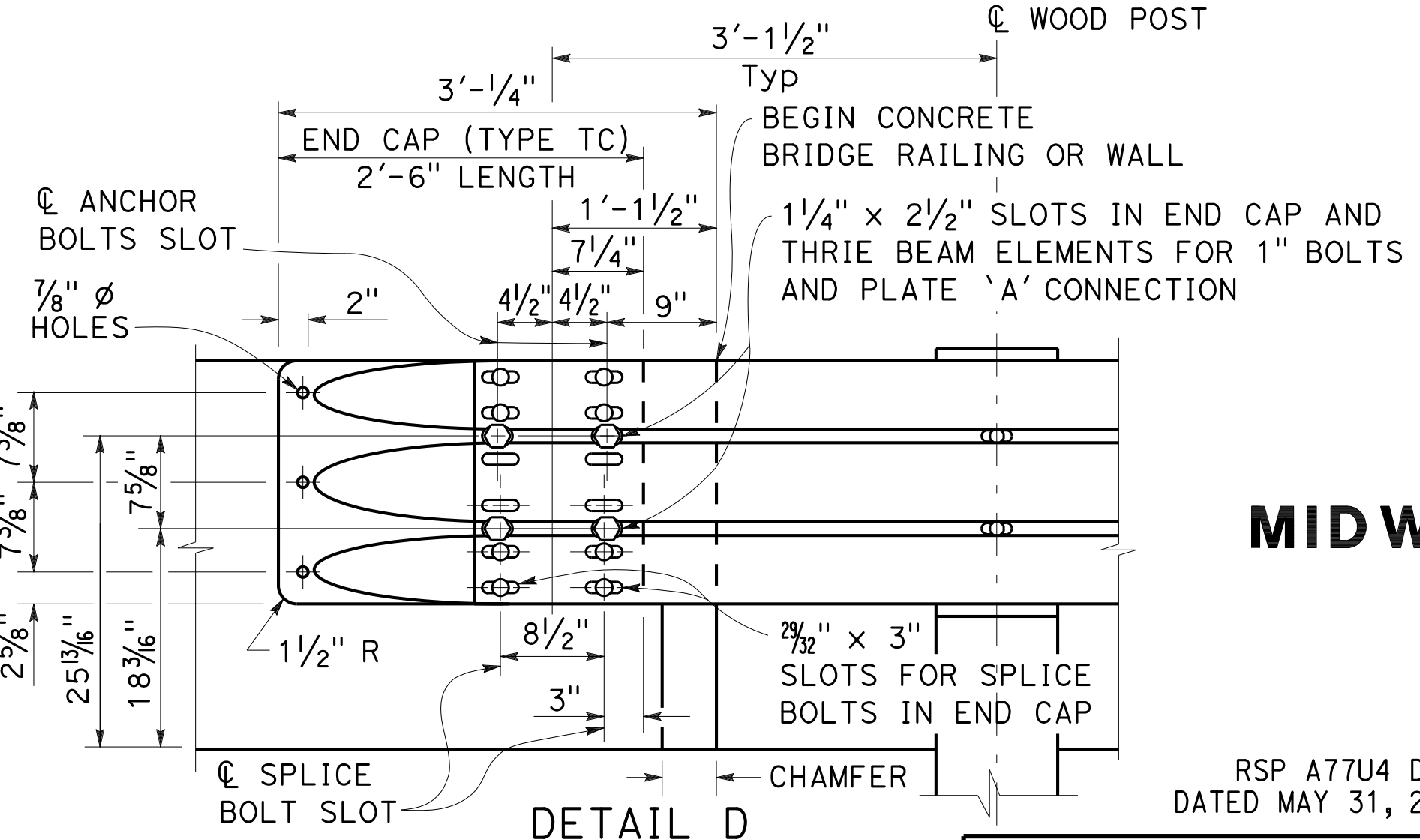
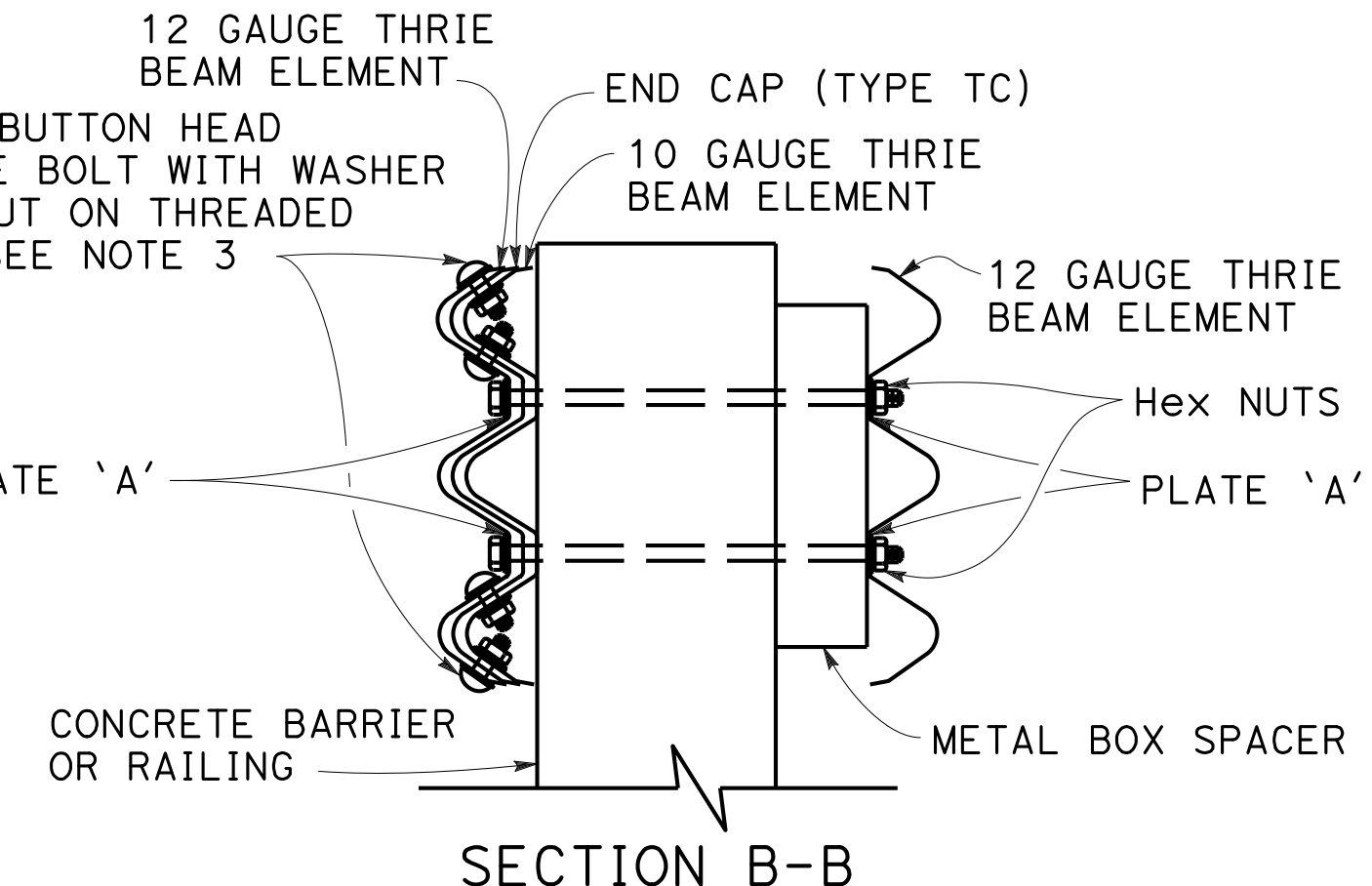
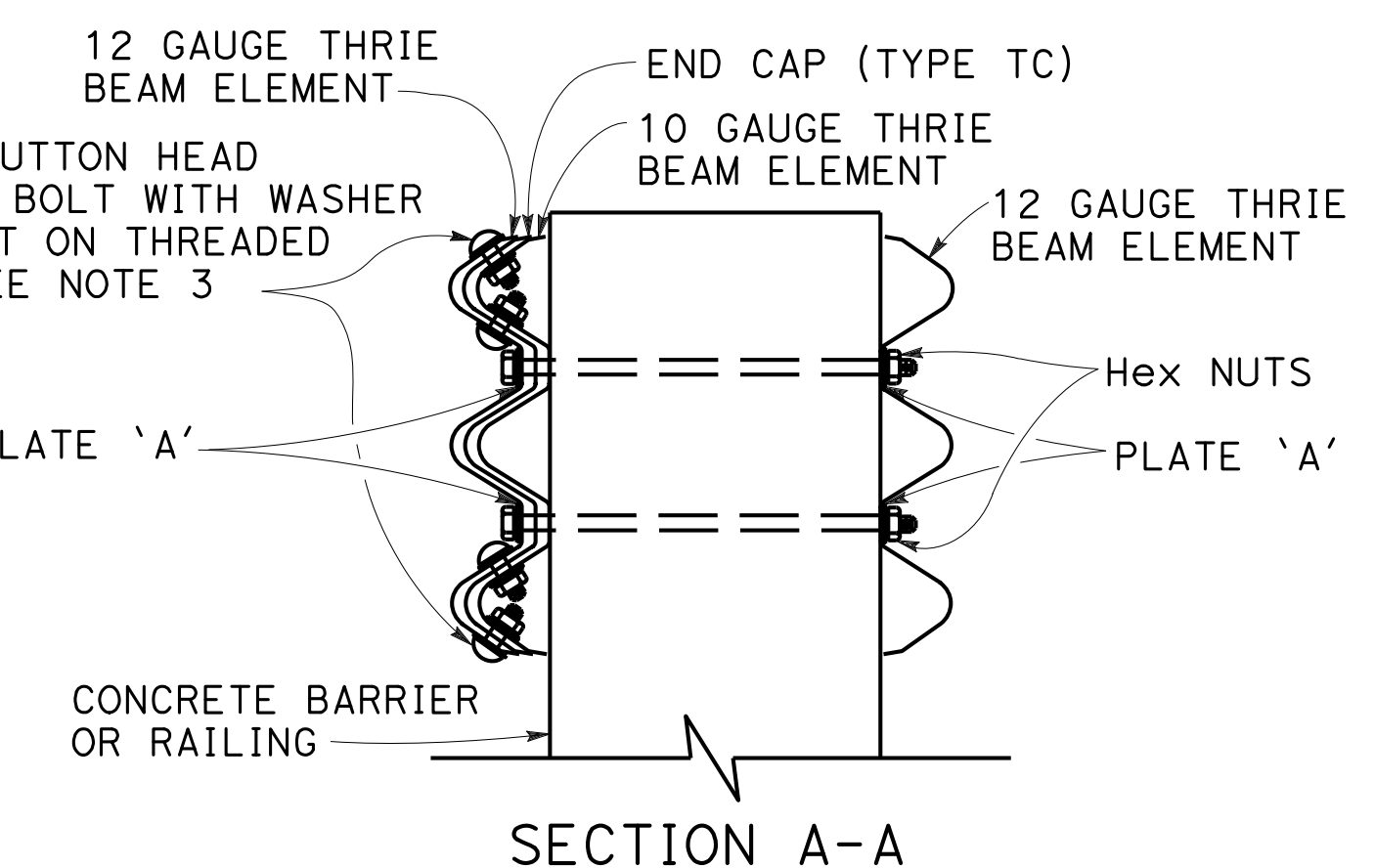
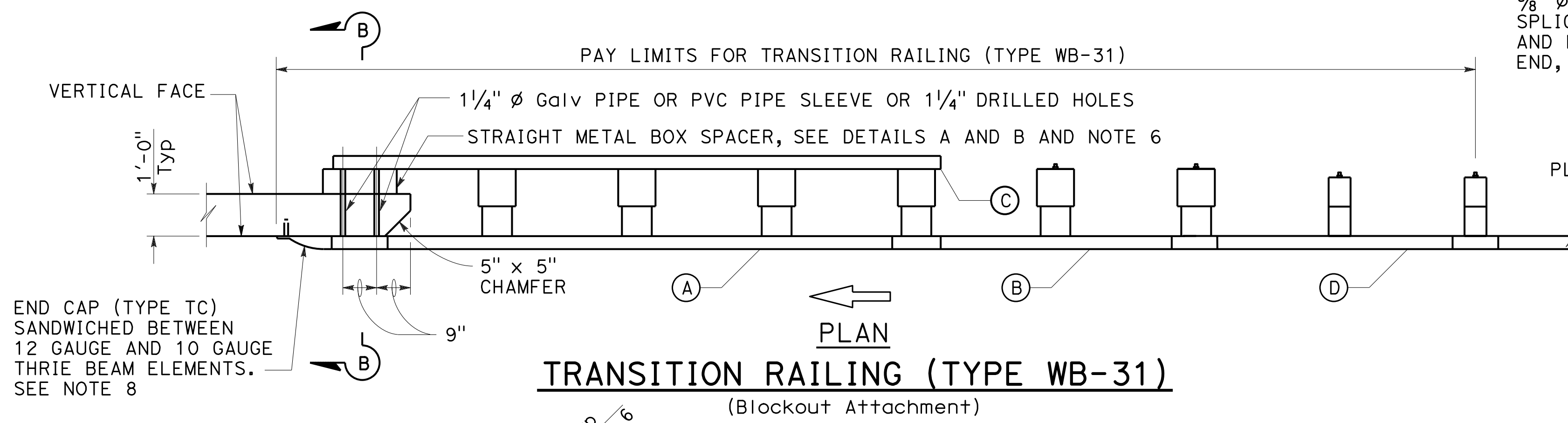
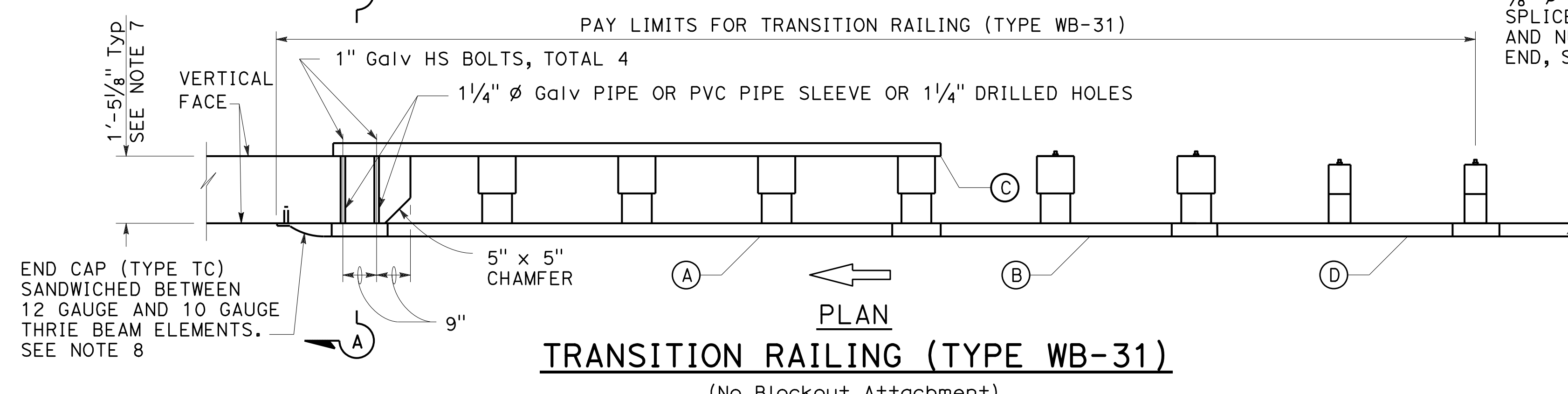
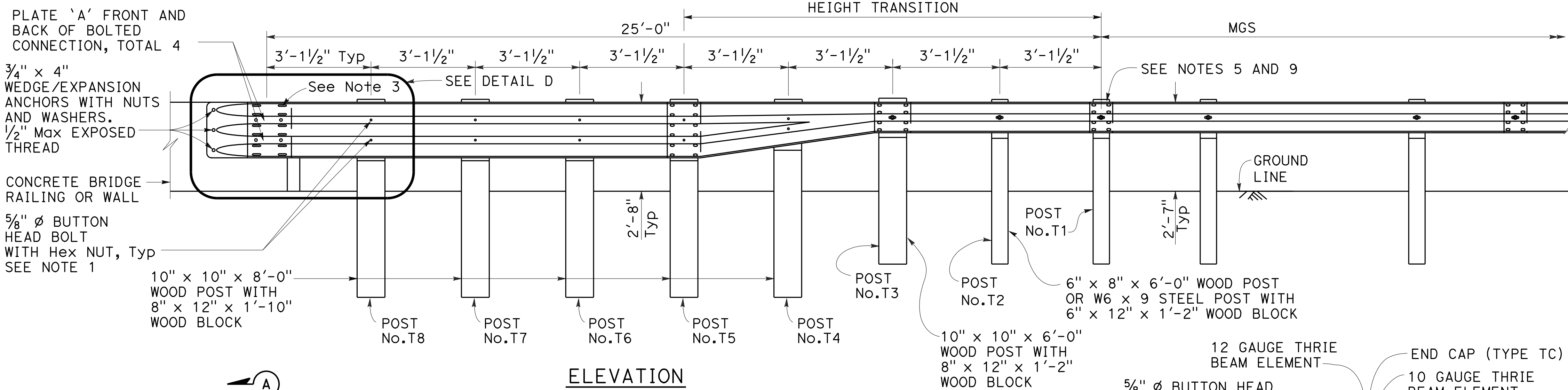
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	59	79

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

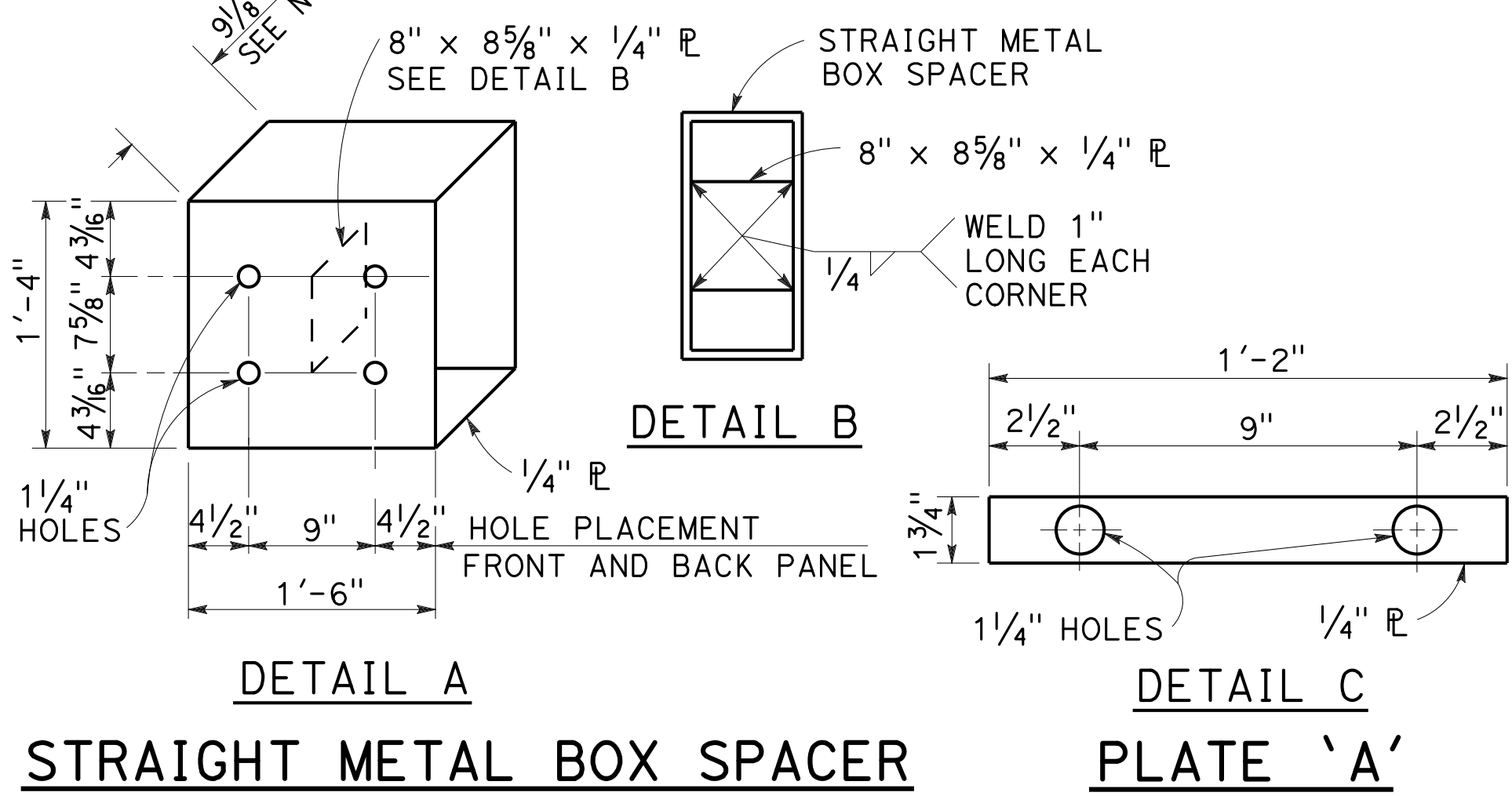
April 19, 2019
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-19
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- LEGEND:**
- (A) NESTED THRIE BEAM ELEMENTS (ONE 12 GAUGE ELEMENT NESTED OVER ONE 10 GAUGE ELEMENT).
 - (B) ONE ASYMMETRICAL 10 GAUGE "W" BEAM TO THRIE BEAM ELEMENT.
 - (C) ONE 12 GAUGE THRIE BEAM ELEMENT.
 - (D) ONE 10 GAUGE "W" BEAM RAIL ELEMENT (7'-3/2" LENGTH)
- 10 GAUGE = 0.138" THICK
12 GAUGE = 0.108" THICK



- NOTES:**
1. Use 5/8" 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. T5 and the connection to the concrete barrier or railing shall be the standard 7/32" x 1/8" slot size. Interior splice bolt holes at these locations may be increased up to 1/4" ø. Only the top 4 and the bottom 4 splice bolts with washers and nuts are required for rail splices at Post No. T5 and the connection to the concrete barrier or railing.
 4. The top elevation of Posts No. T2 through No. T7 shall not project more than 1" above the top elevation of the rail element.
 5. Typically, the railing connected to Transition Railing (Type WB-31) will be either standard railing section of MGS with height transition ratio of 150:1 or a Caltrans approved 31" end treatment attached to Post No. T1.
 6. The depth of the metal box spacer varies from the 9/8" to 1/2" 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 2 1/8". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1 1/2", metal plates similar to Plate 'A' are to be used as spacers.
 7. Where the width of the concrete railing or wall is greater than 1 7/8", wood blocks are to be used to fill the space created between the backside of Posts No. T5 through No. T8 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.
 8. 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.
 9. Conform standard railing section height to 31" at Post No. T1 using height transition ratio of 150:1. MGS tolerance at post No. T1 is ± 1".


STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**MIDWEST GUARDRAIL SYSTEM
TRANSITION RAILING
(TYPE WB-31)**
NO SCALE

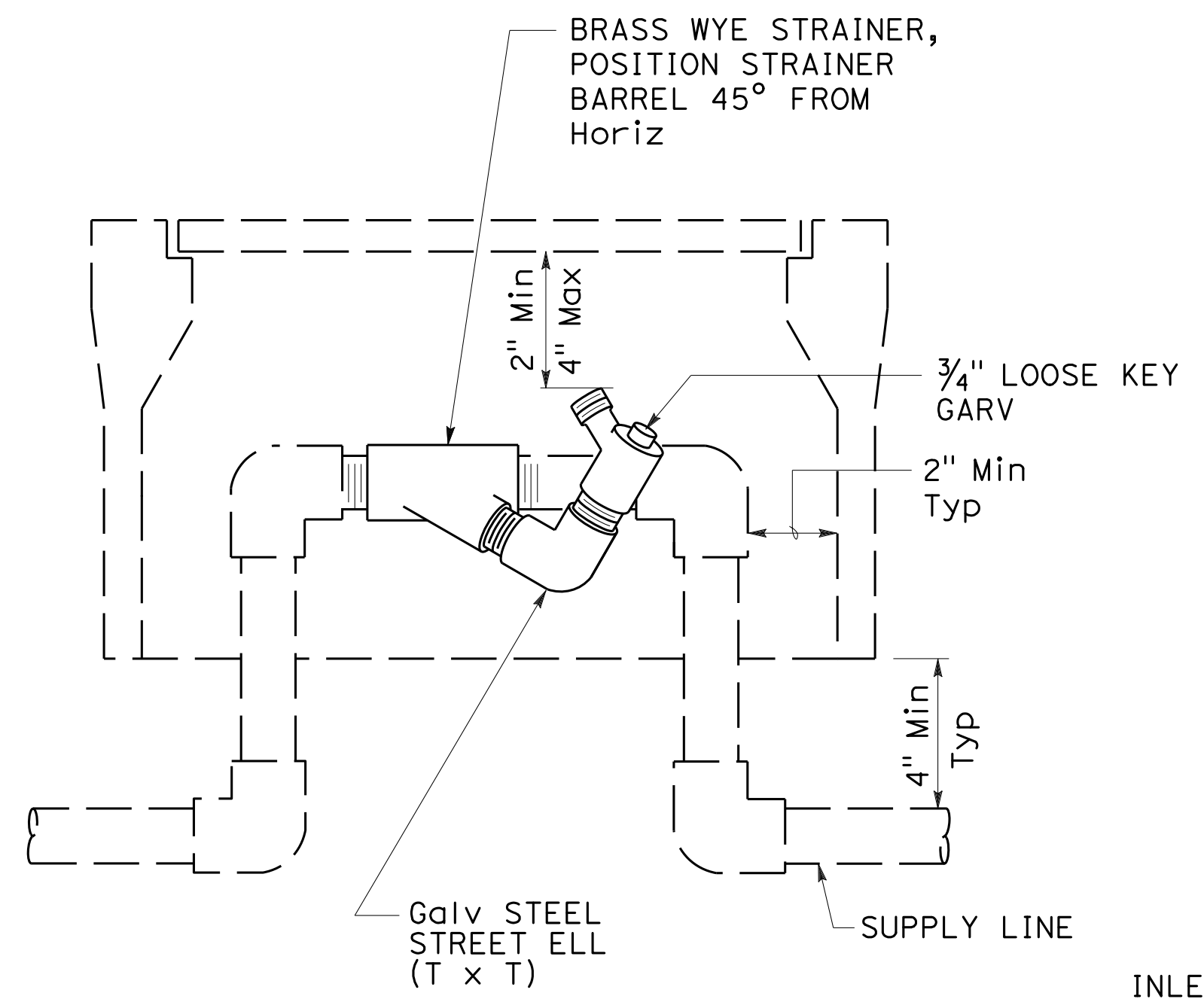
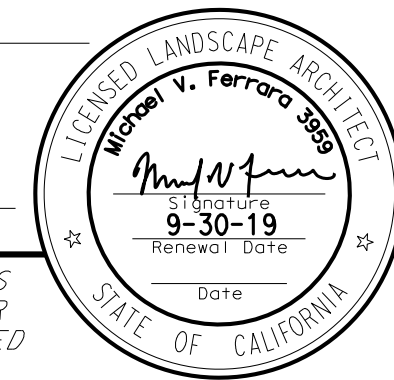
RSP A77U4 DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN A77U4
DATED MAY 31, 2018 - PAGE 107 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A77U4

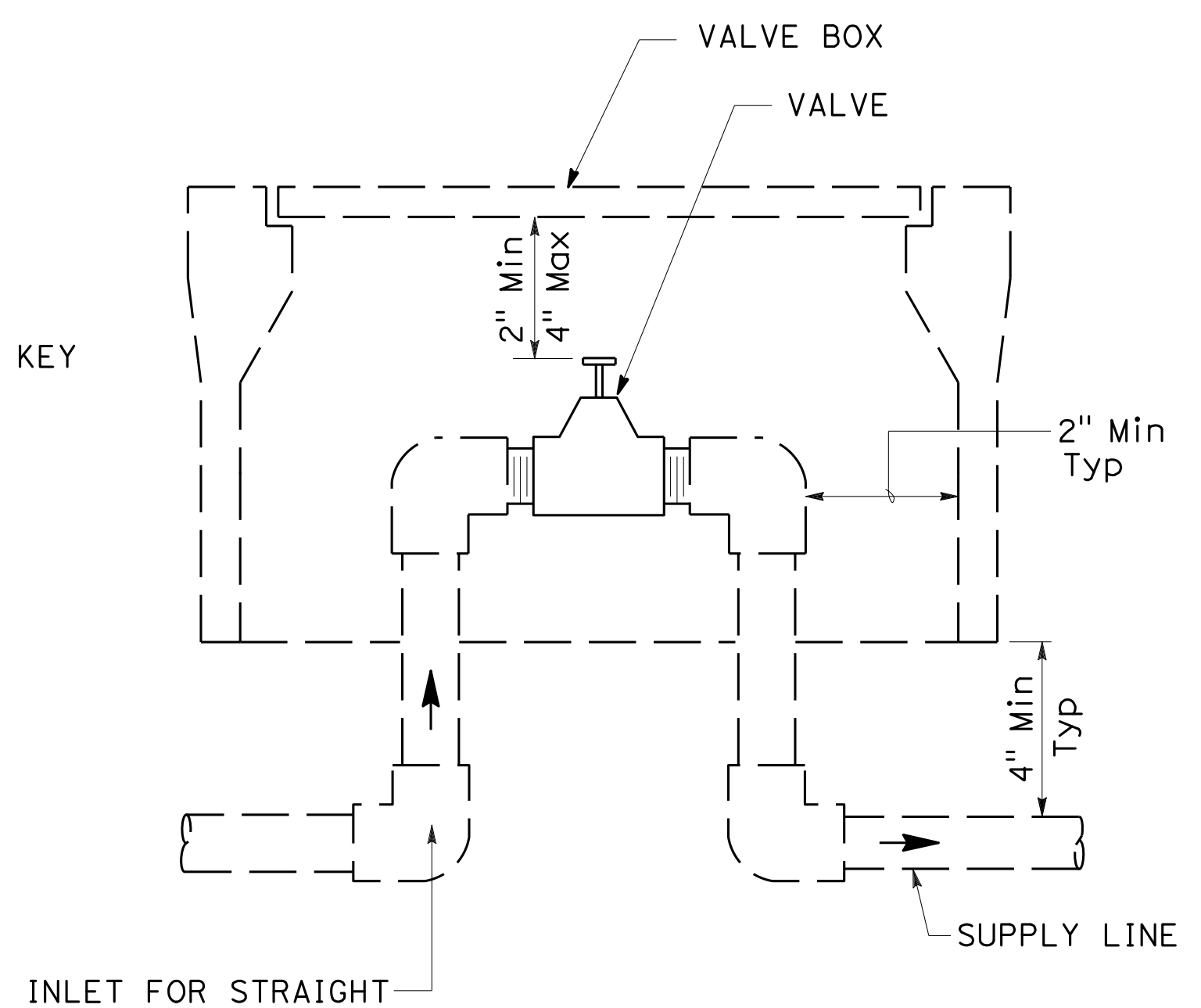
2018 REVISED STANDARD PLAN RSP A77U4

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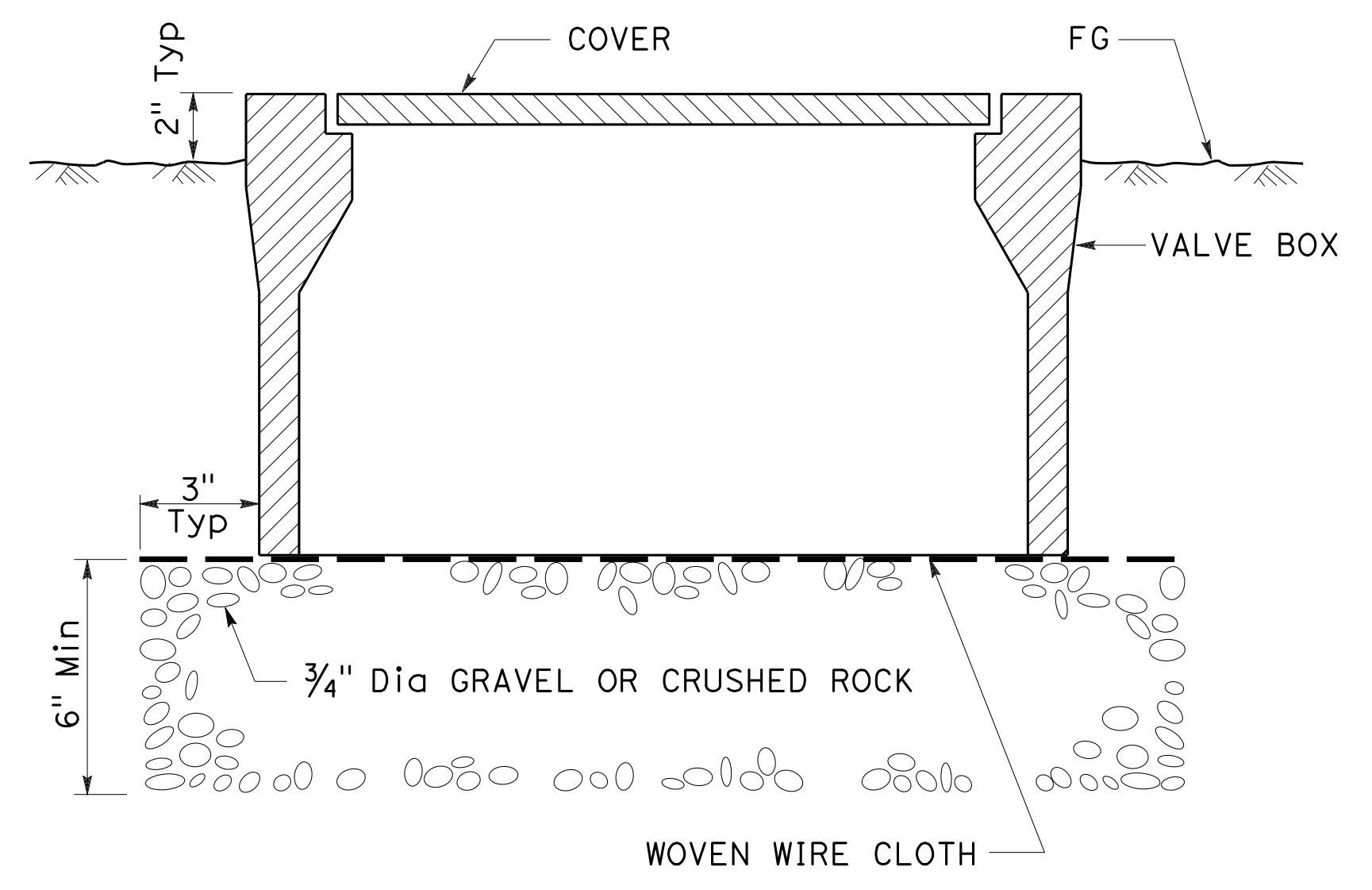

 LICENSED LANDSCAPE ARCHITECT
 April 19, 2019
 PLANS APPROVAL DATE
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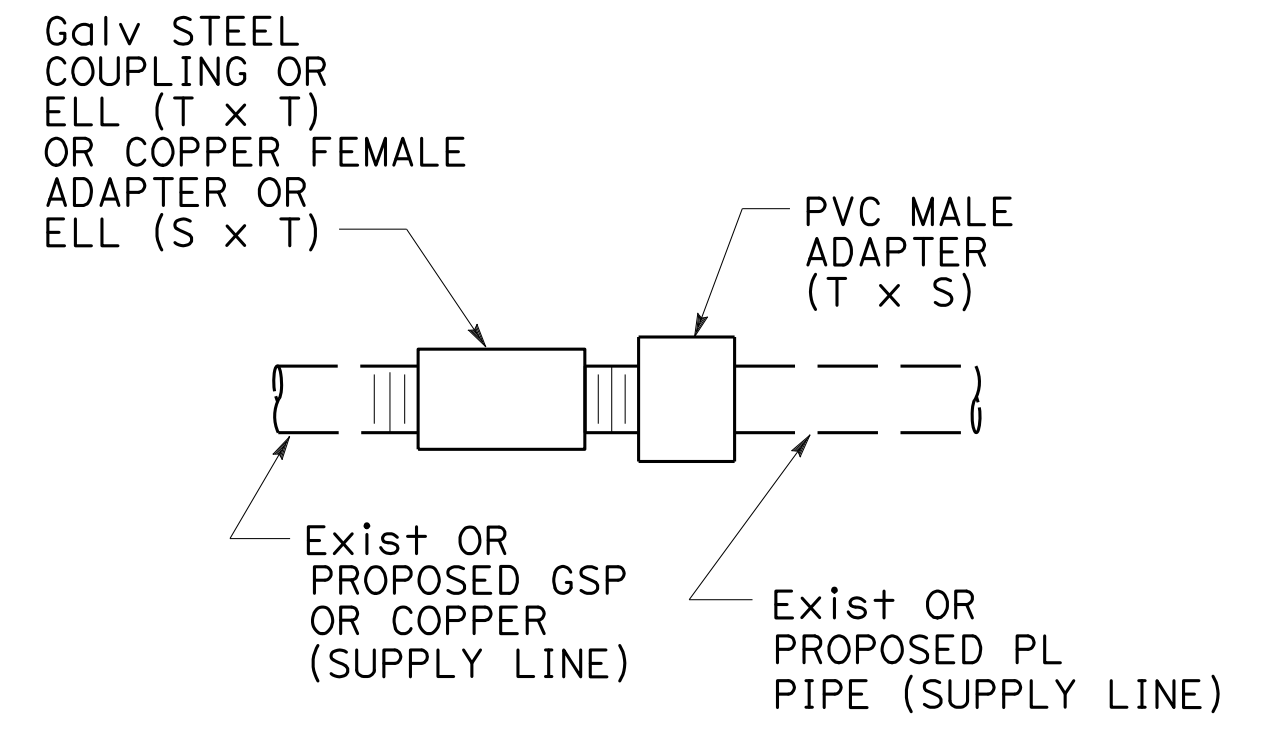
ELEVATION
WYE STRAINER ASSEMBLY



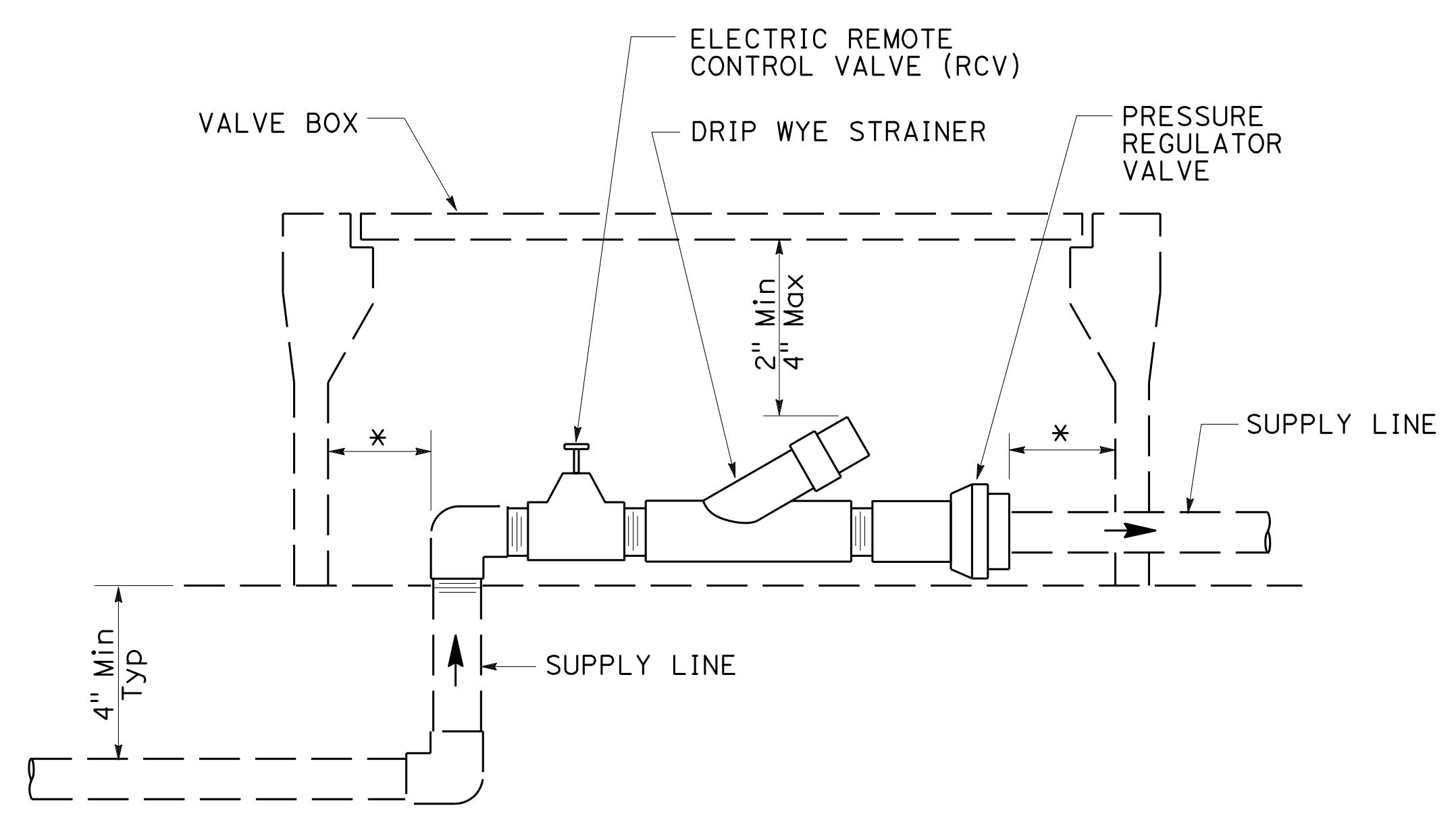
ELEVATION
VALVE



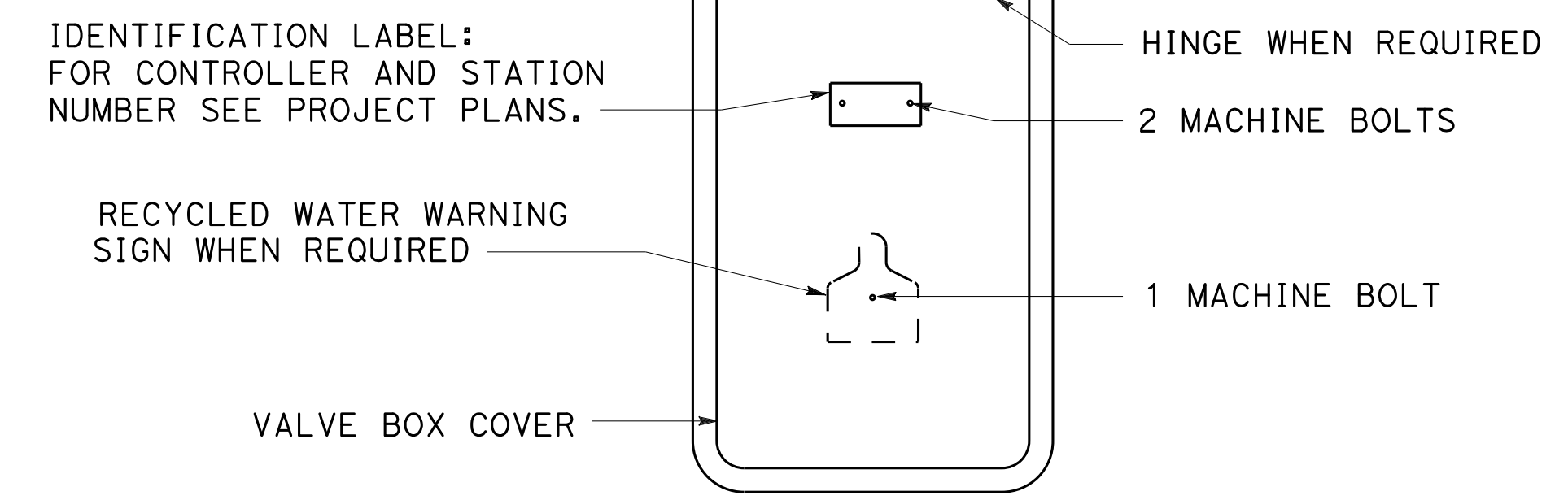
SECTION
VALVE BOX



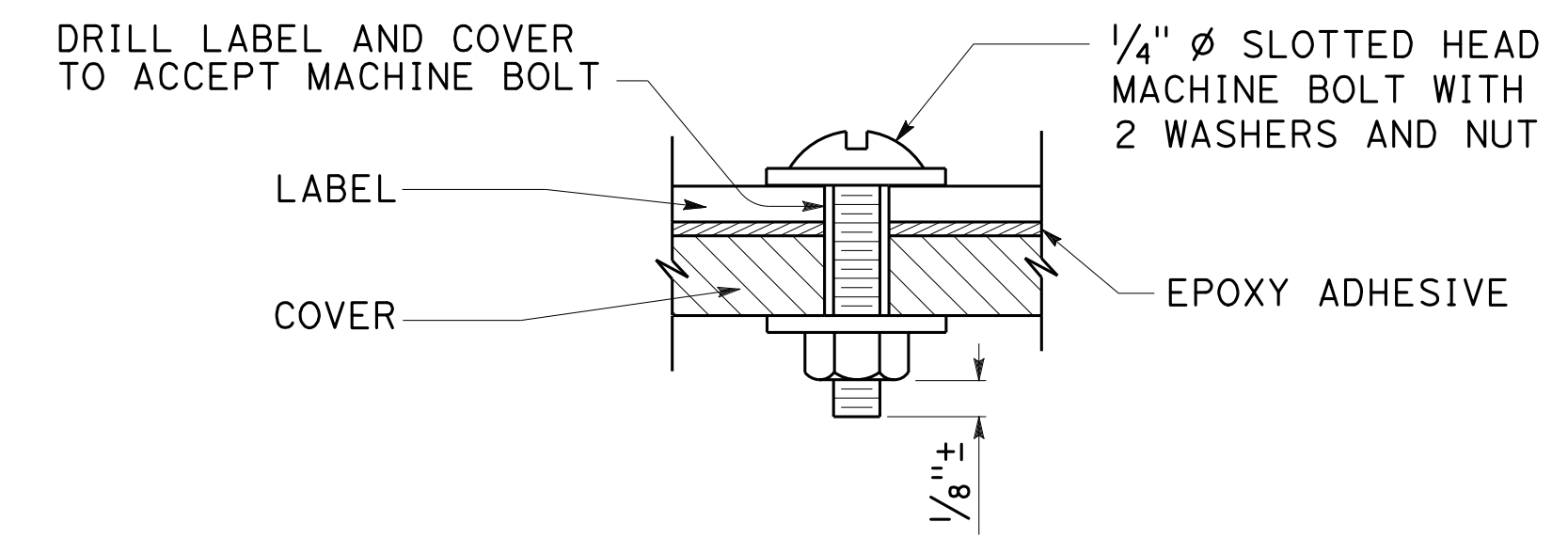
GALVANIZED OR COPPER PIPE CONNECTION TO PLASTIC PIPE



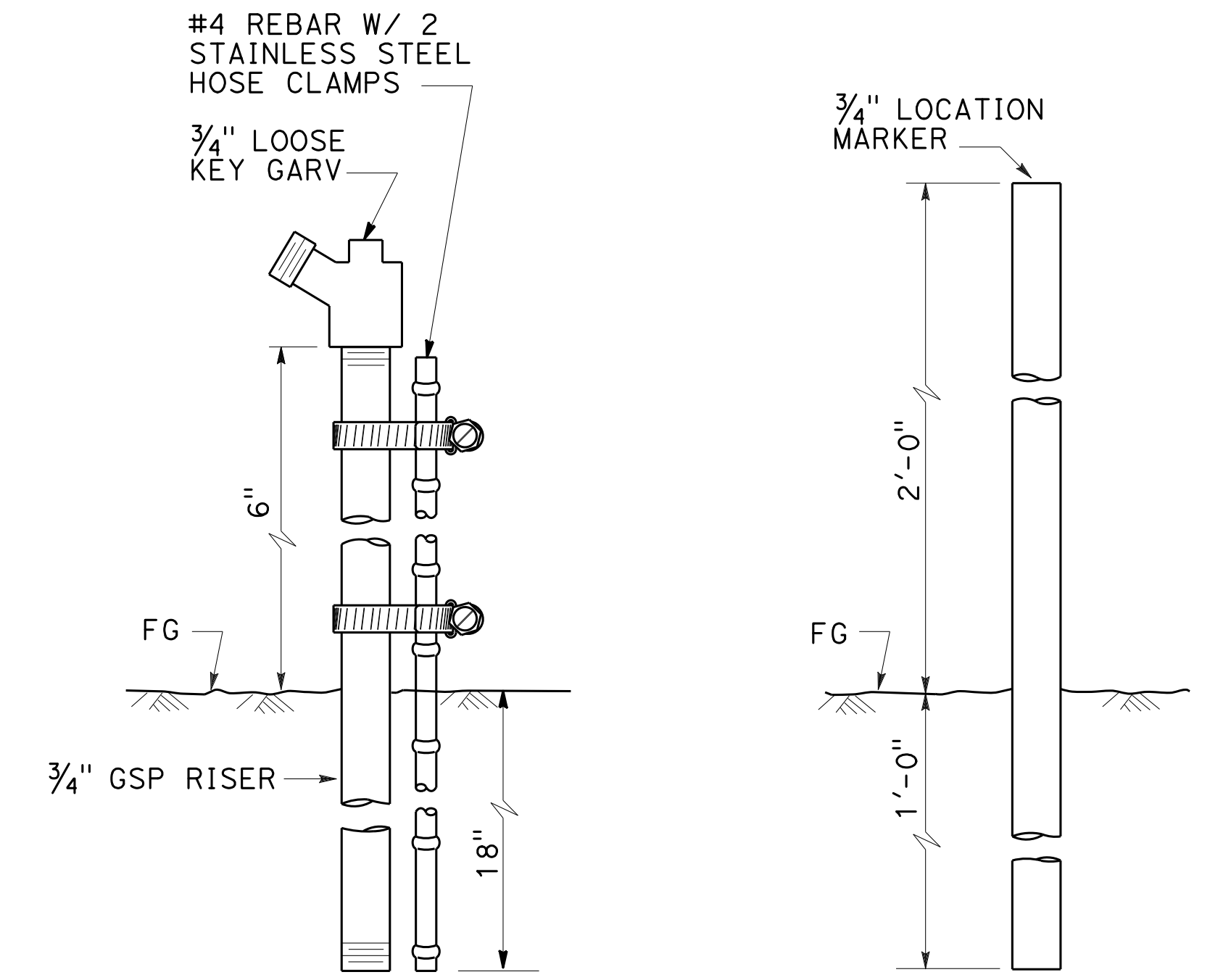
ELEVATION
DRIP VALVE ASSEMBLY



PLAN



SECTION
VALVE BOX IDENTIFICATION



ELEVATION
GARDEN VALVE ASSEMBLY

ELEVATION
LOCATION MARKER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS

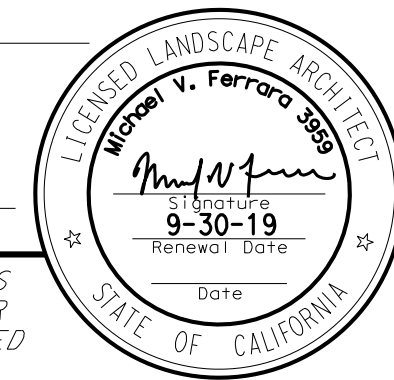
NO SCALE
RSP H6 DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN H6
DATED MAY 31, 2018 - PAGE 271 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP H6

2018 REVISED STANDARD PLAN RSP H6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	61	79

April 19, 2019
 PLANS APPROVAL DATE
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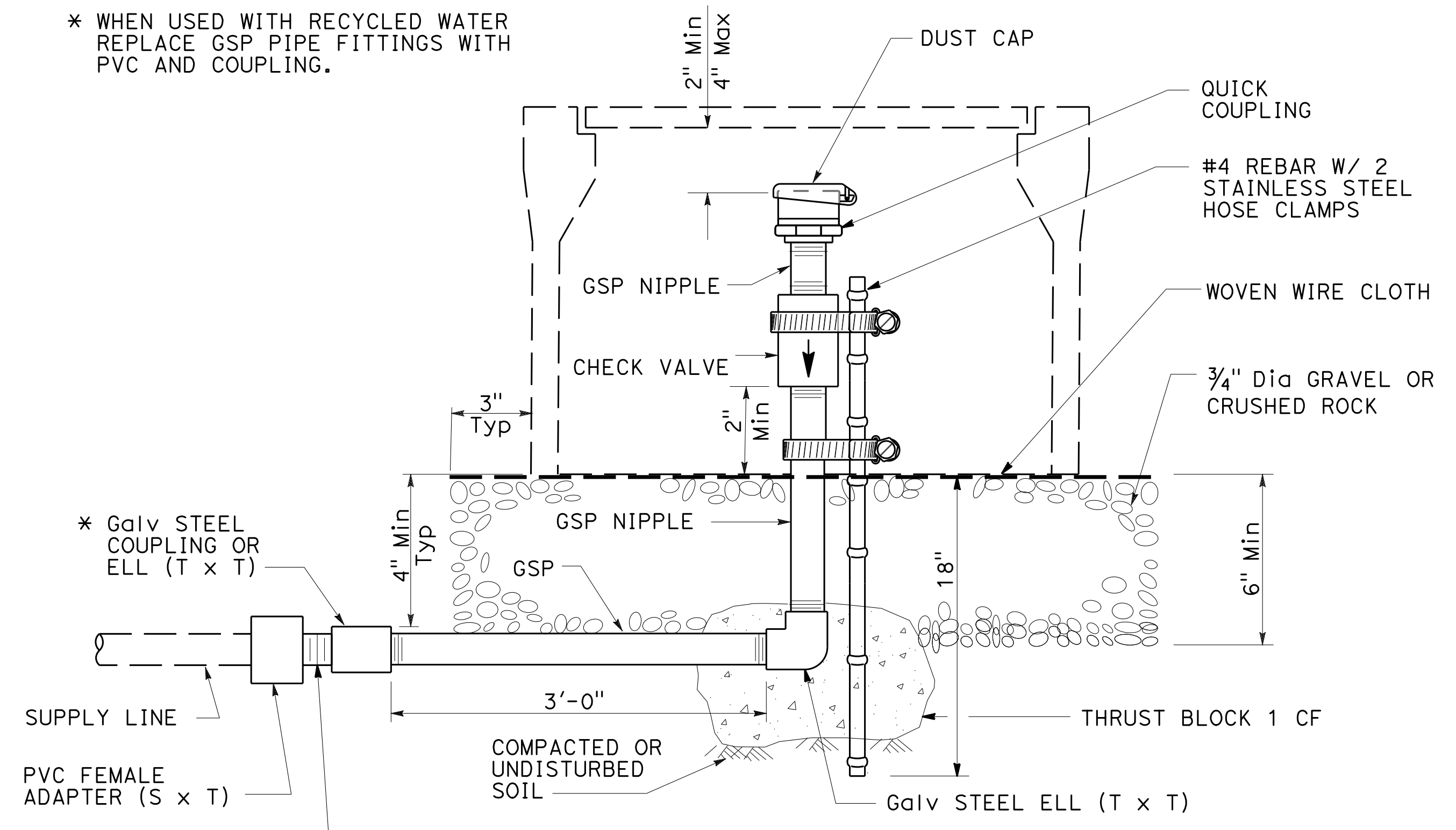


TO ACCOMPANY PLANS DATED 10-16-19

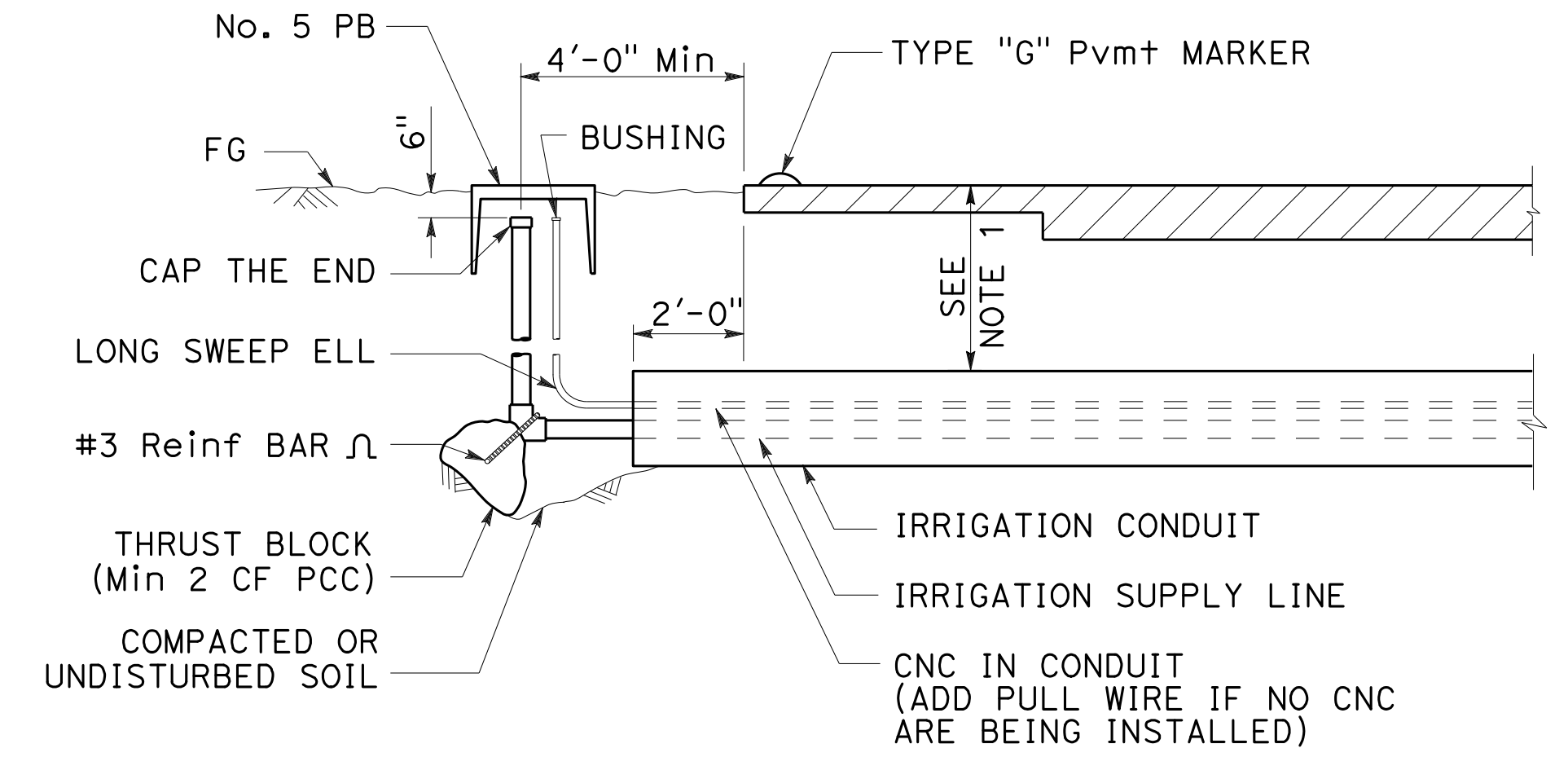
NOTES:

- 40" - 50"
- 12" downstream of RCV
18" upstream of RCV

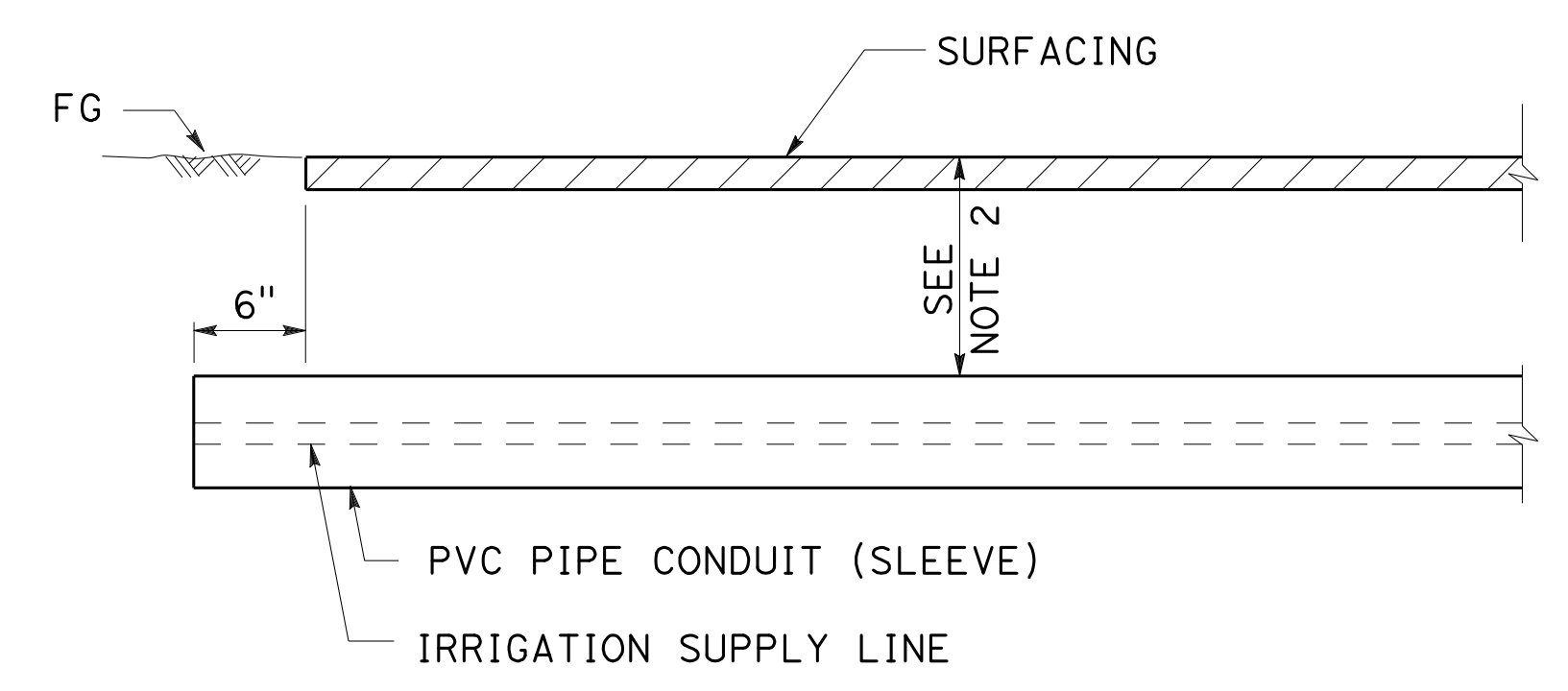
* WHEN USED WITH RECYCLED WATER REPLACE GSP PIPE FITTINGS WITH PVC AND COUPLING.



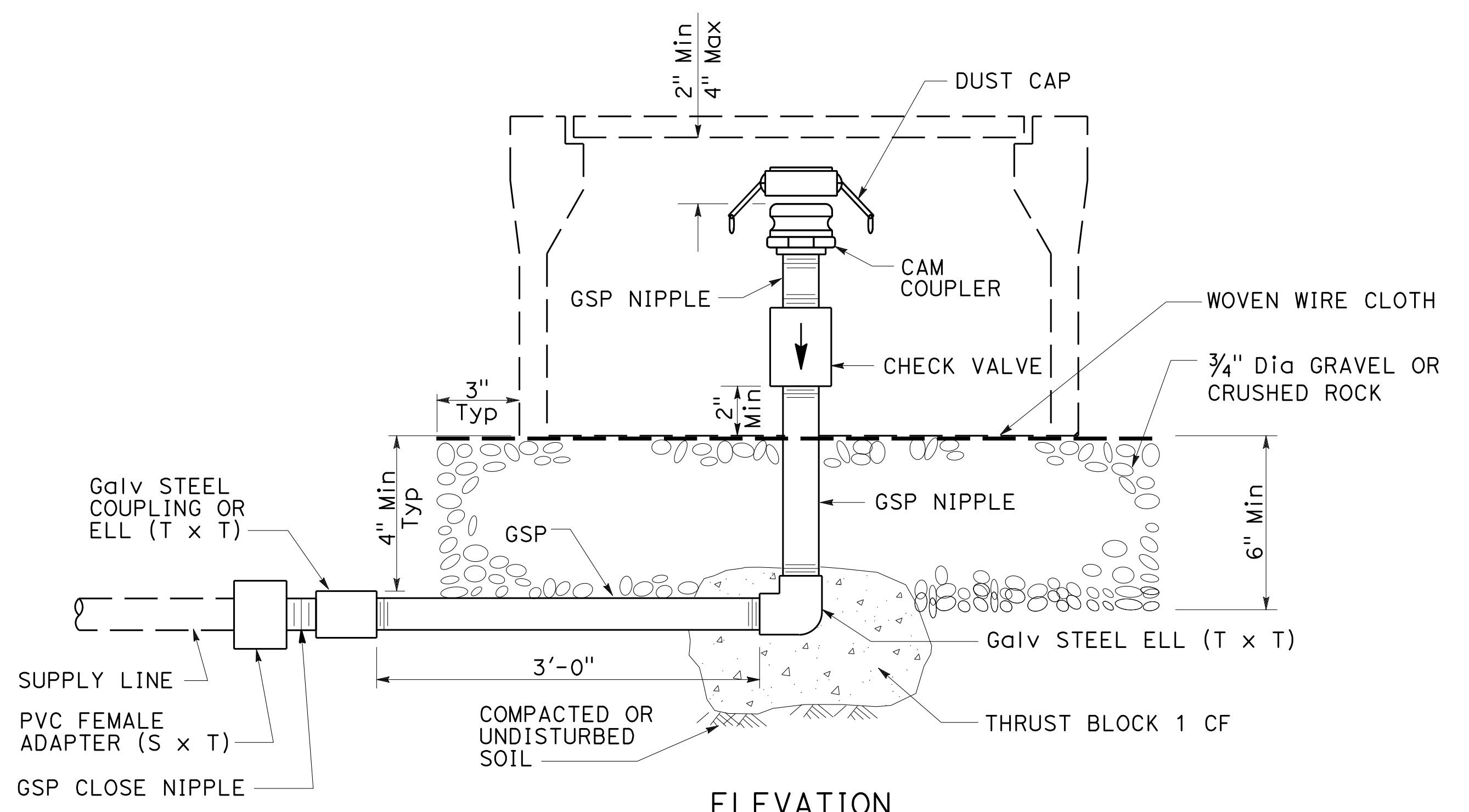
**ELEVATION
QUICK COUPLING VALVE**



**SECTION
IRRIGATION CONDUIT
UNDER TRAVELED WAY**



**SECTION
PVC PIPE CONDUIT (SLEEVE)
UNDER SIDEWALKS, DRIVEWAYS PAVEMENT, SLOPE PAVING, PAVED DITCHES AND PATHS**



**ELEVATION
CAM COUPLER ASSEMBLY**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS

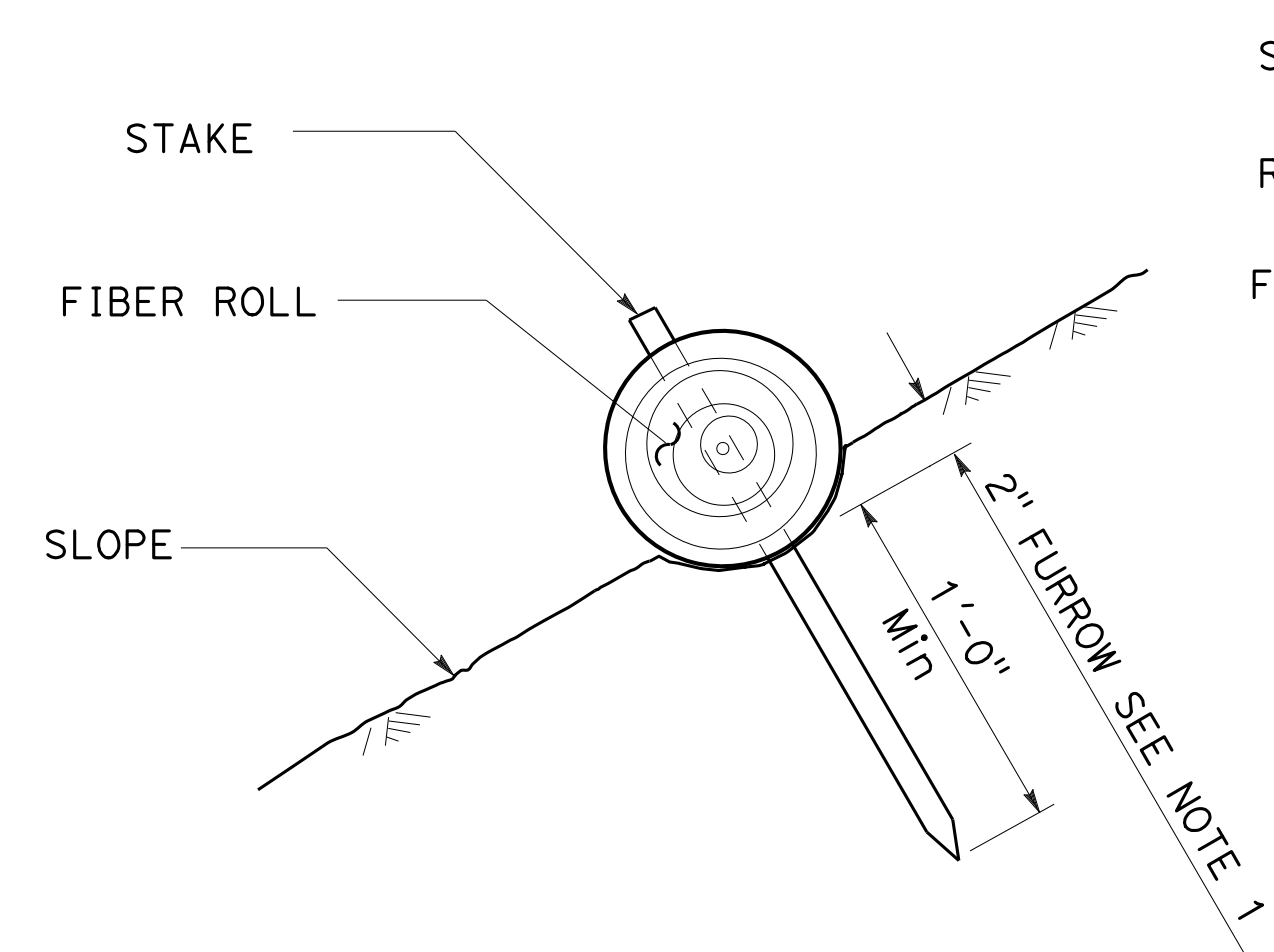
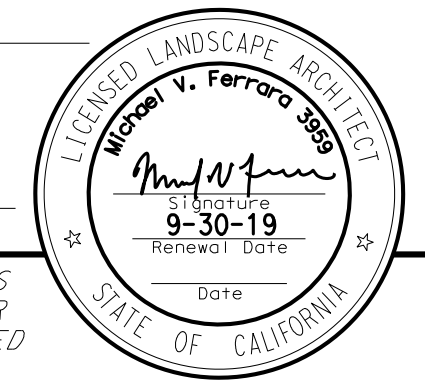
NO SCALE

RSP H8 DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN H8
DATED MAY 31, 2018 - PAGE 273 OF THE STANDARD PLANS BOOK DATED 2018.

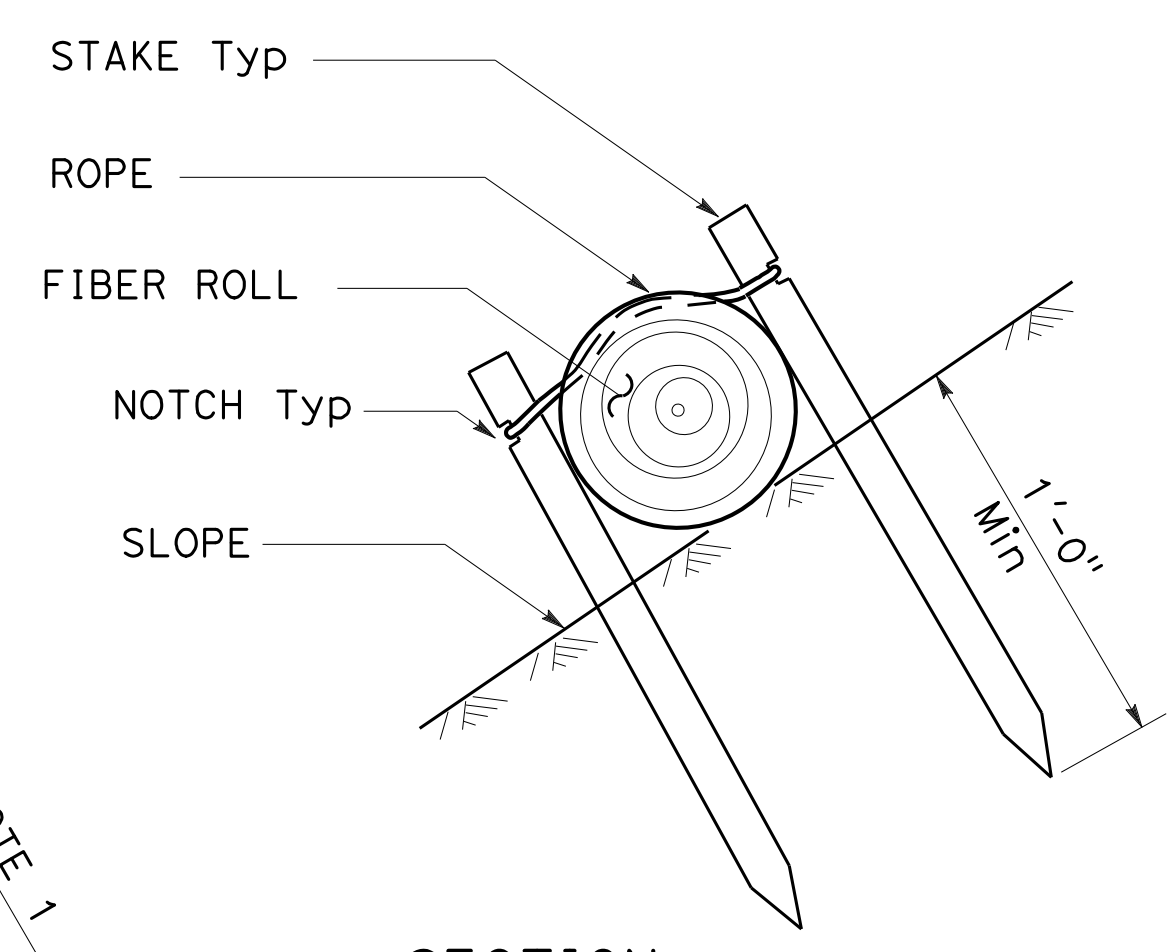
2018 REVISED STANDARD PLAN RSP H8

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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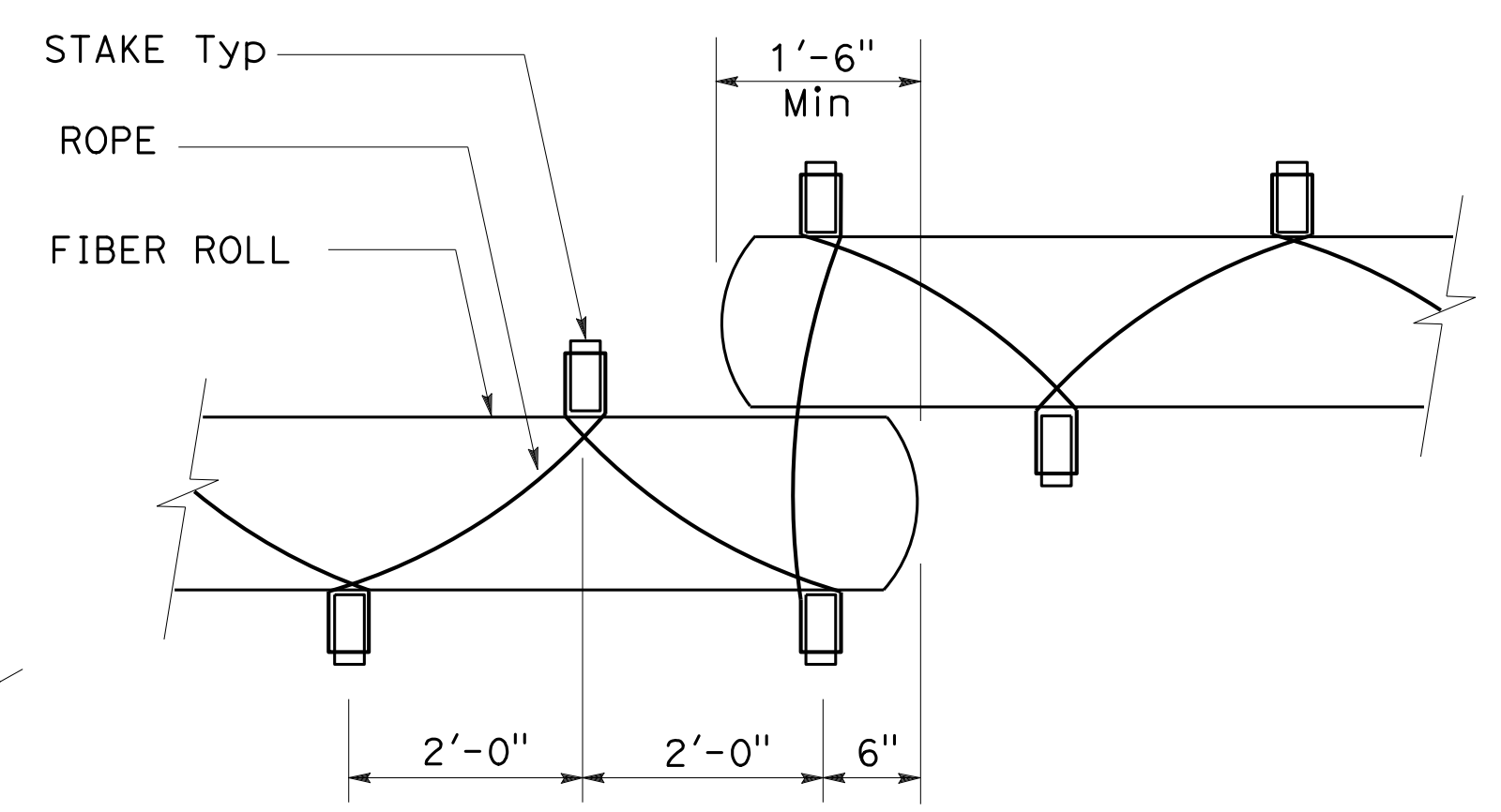
May 31, 2018
 PLANS APPROVAL DATE
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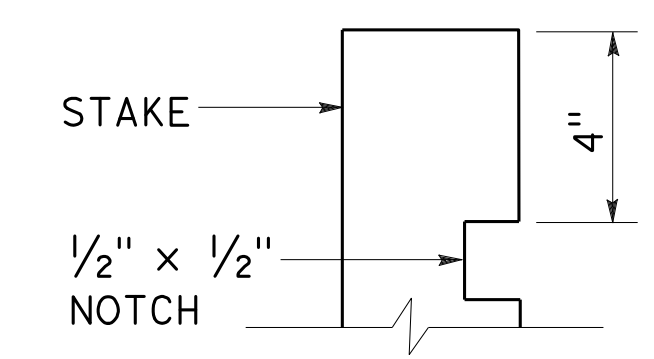
SECTION
FIBER ROLL (TYPE 1)



SECTION
FIBER ROLL (TYPE 2)



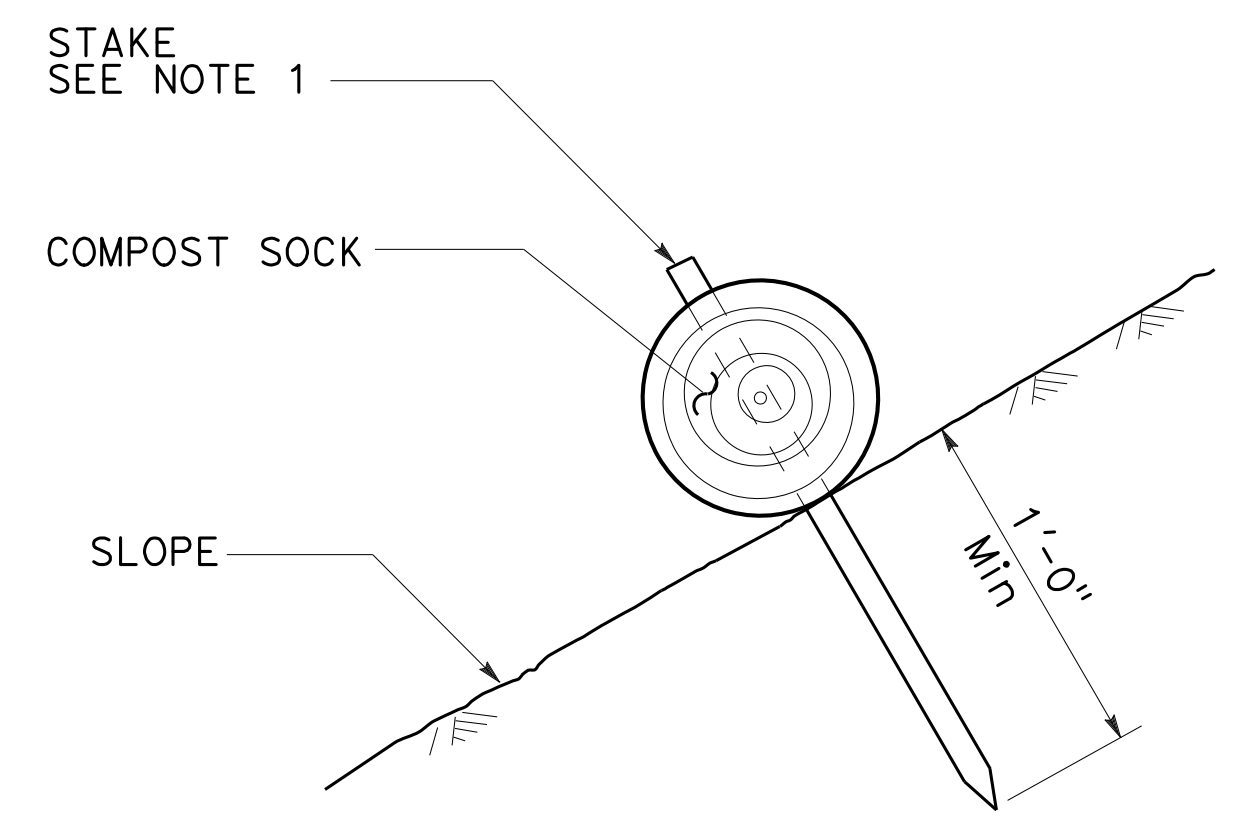
PLAN



ELEVATION

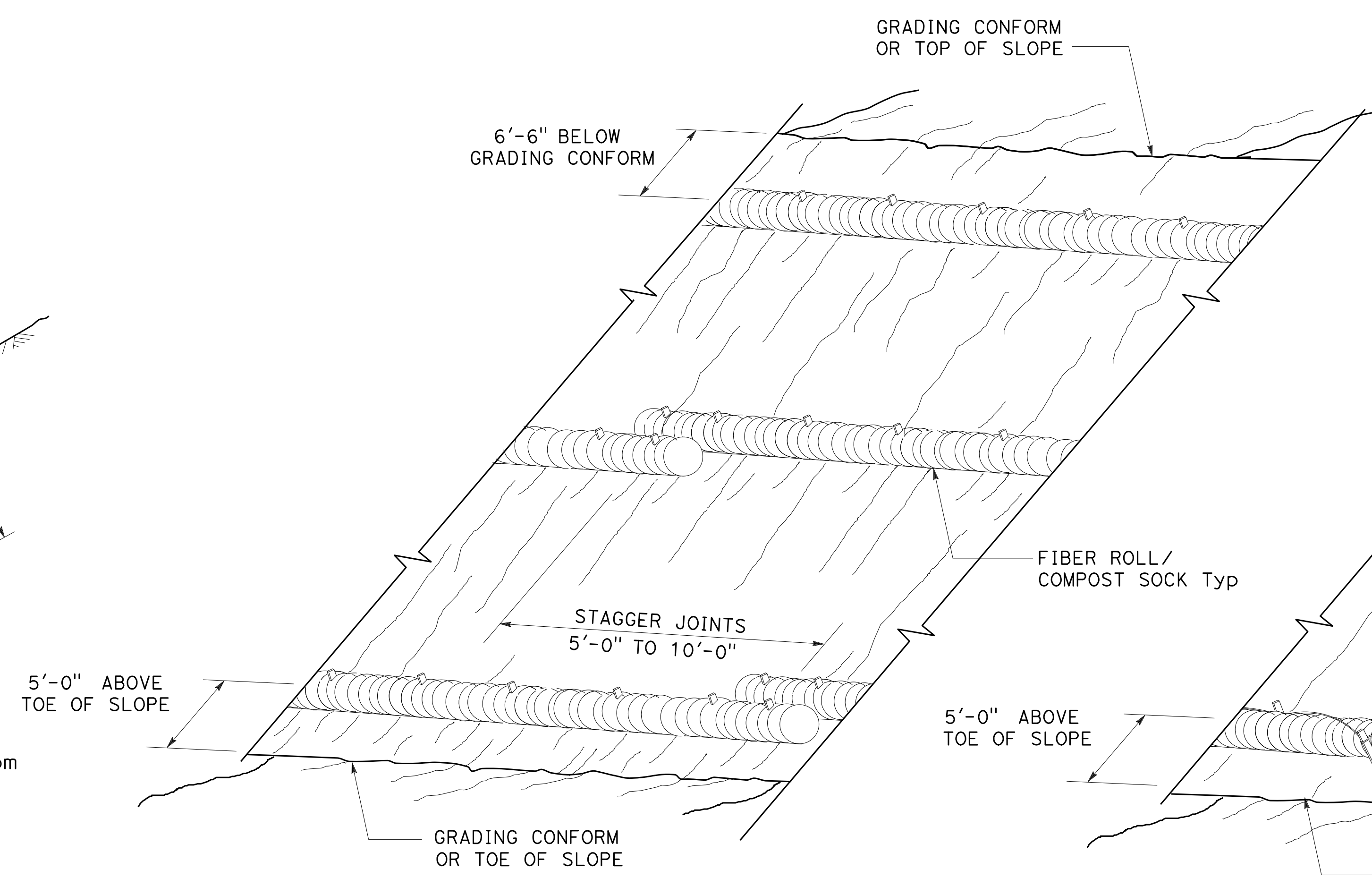
STAKE NOTCH DETAIL

NOTE:
1. Installations shown in the perspectives are for slope inclination of 10:1 (Horiz:Vert) and steeper.

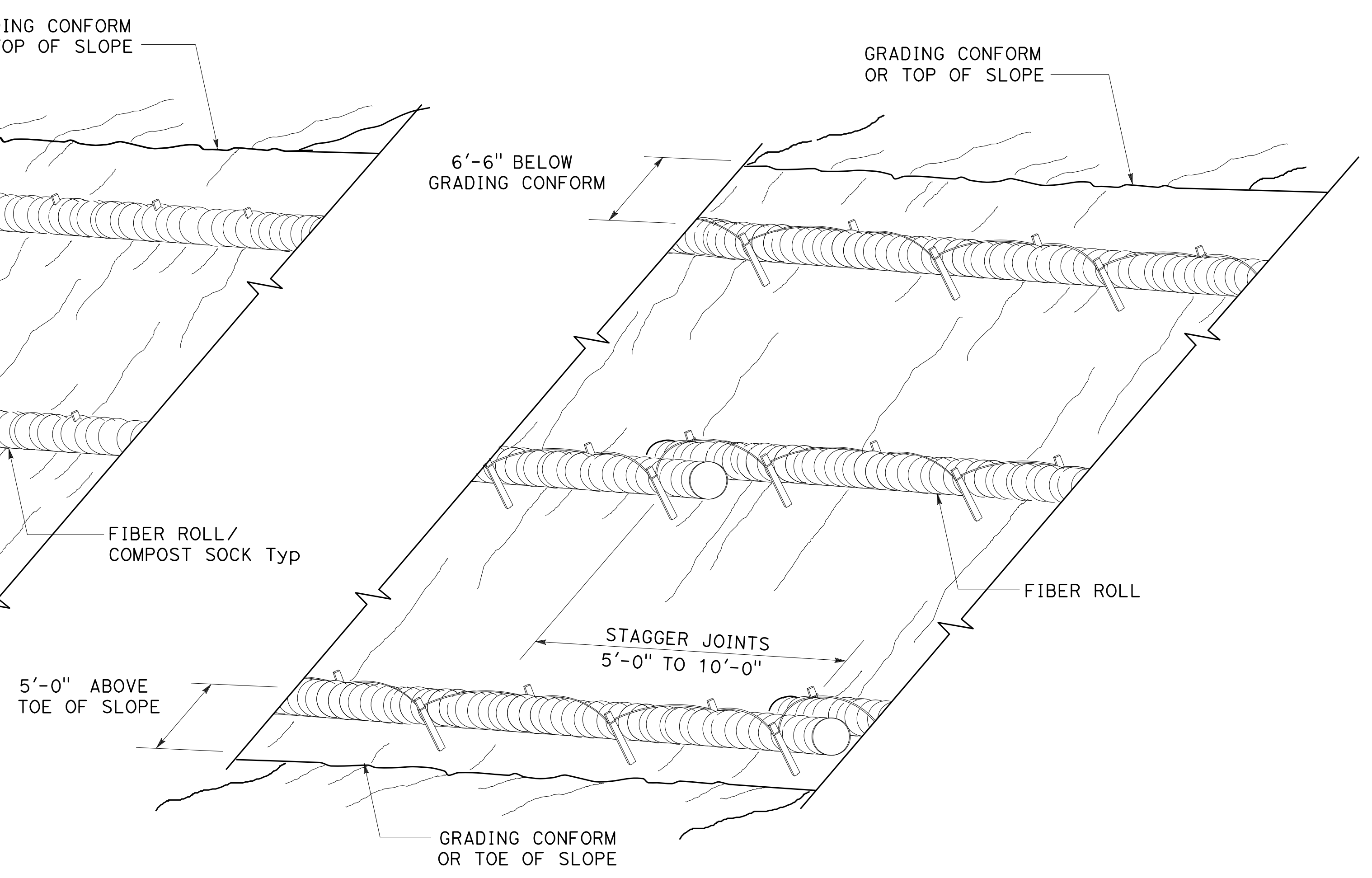


SECTION
COMPOST SOCK

NOTE:
1. May install stake adjacent to bottom edge of compost sock.



PERSPECTIVE
FIBER ROLL (TYPE 1)
COMPOST SOCK



PERSPECTIVE
FIBER ROLL (TYPE 2)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
EROSION CONTROL DETAILS
FIBER ROLL AND COMPOST SOCK
NO SCALE

276

2018 STANDARD PLAN H51

INSTRUCTIONS TO FABRICATOR

PROJECT PLANS SHOW:

1. Sign structure location.
2. Length of structure frame.
3. Panel size and locations on structure.
4. Walkway length for two post signs.
5. Post type and height to bottom of frame.
6. Base plate elevation.
7. Footing elevation or location of pile foundation.
8. Photoelectric unit location if required.

REFER TO THE FOLLOWING STANDARD PLANS FOR DETAILS NOT SHOWN ON PROJECT PLANS:

Sheet No. SHEET NAME

- S1 Overhead Signs-Truss, Instructions and Examples
- S2 Overhead Signs-Truss, Single Post Type, Post Types II to IX
- S3 Overhead Signs-Truss, Single Post Type, Base Plate and Anchorage Details
- S4 Overhead Signs-Truss, Single Post Type, Structural Frame Members Details No. 1
- S5 Overhead Signs-Truss, Single Post Type, Structural Frame Members Details No. 2
- S6 Overhead Signs-Truss, Gusset Plate Details
- S8 Overhead Signs-Truss, Single Post Type, Round Pedestal Pile Foundation
- S9 Overhead Signs-Truss, Two Post Type, Post Types I-S through VII-S
- S10 Overhead Signs-Truss, Two Post Type, Base Plate and Anchorage Details
- S11 Overhead Signs-Truss, Two Post Type, Structural Frame Members
- S12 Overhead Signs-Truss, Structural Frame Details
- S13 Overhead Signs-Truss, Frame Juncture Details
- S15 Overhead Signs-Truss, Two Post Type, Round Pedestal Pile Foundation
- S16 Overhead Signs, Walkway Details No. 1
- S17 Overhead Signs, Walkway Details No. 2
- S17A Overhead Signs, Walkway Details No. 3
- S18 Overhead Signs, Walkway Safety Railing Details
- S19 Overhead Signs-Truss, Sign Mounting Details, Laminated Panel-Type A
- S20 Overhead Signs, Steel Frames, Removable Sign Panel Frames
- S21 Overhead Signs, Removable Sign Panel Frames, Mounting Details
- S22 Overhead Signs-Truss, Removable Sign Panel Frames, 9'-2" and 10'-0" Sign Panels

WALKWAY BRACKETS:

Space all walkway brackets maintaining uniform spacing where possible. Maximum spacing shall not exceed 5'-6".

OVERHEAD SIGN LUMINAIRE MOUNTING CHANNELS:

Where distance from walkway bracket to end of sign panel exceeds 1'-4", extend overhead sign luminaire mounting channels to next walkway bracket. See Example No. 2.

WALKWAY AND SAFETY RAILING:

Walkway to be continuous for entire length of frame for single post signs. For two post signs, see Project Plans. Safety railing to protect entire walkway, but continuous for no more than 11'-0" in one unit.

GENERAL NOTES:

LOADING:

WIND LOADING:

Normal to face of sign: 40.3 psf on 100% Truss surface area (i.e. 100% panel coverage).
Transverse to face of sign: 20% of normal force.

WALKWAY LOADING:

Dead load +500 LB concentrated live load.

UNIT STRESSES:

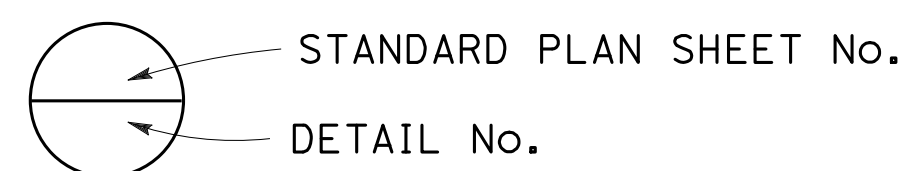
STRUCTURAL STEEL: $f_y = 36,000$ psi
REINFORCED CONCRETE: $f_y = 60,000$ psi
 $f'_c = 3600$ psi
FOOTING SOIL PRESSURE: 2.5 ksf (spread footing)

MINIMUM CLEARANCE

Vertical roadway clearance 18'-0" (bottom of walkway system)

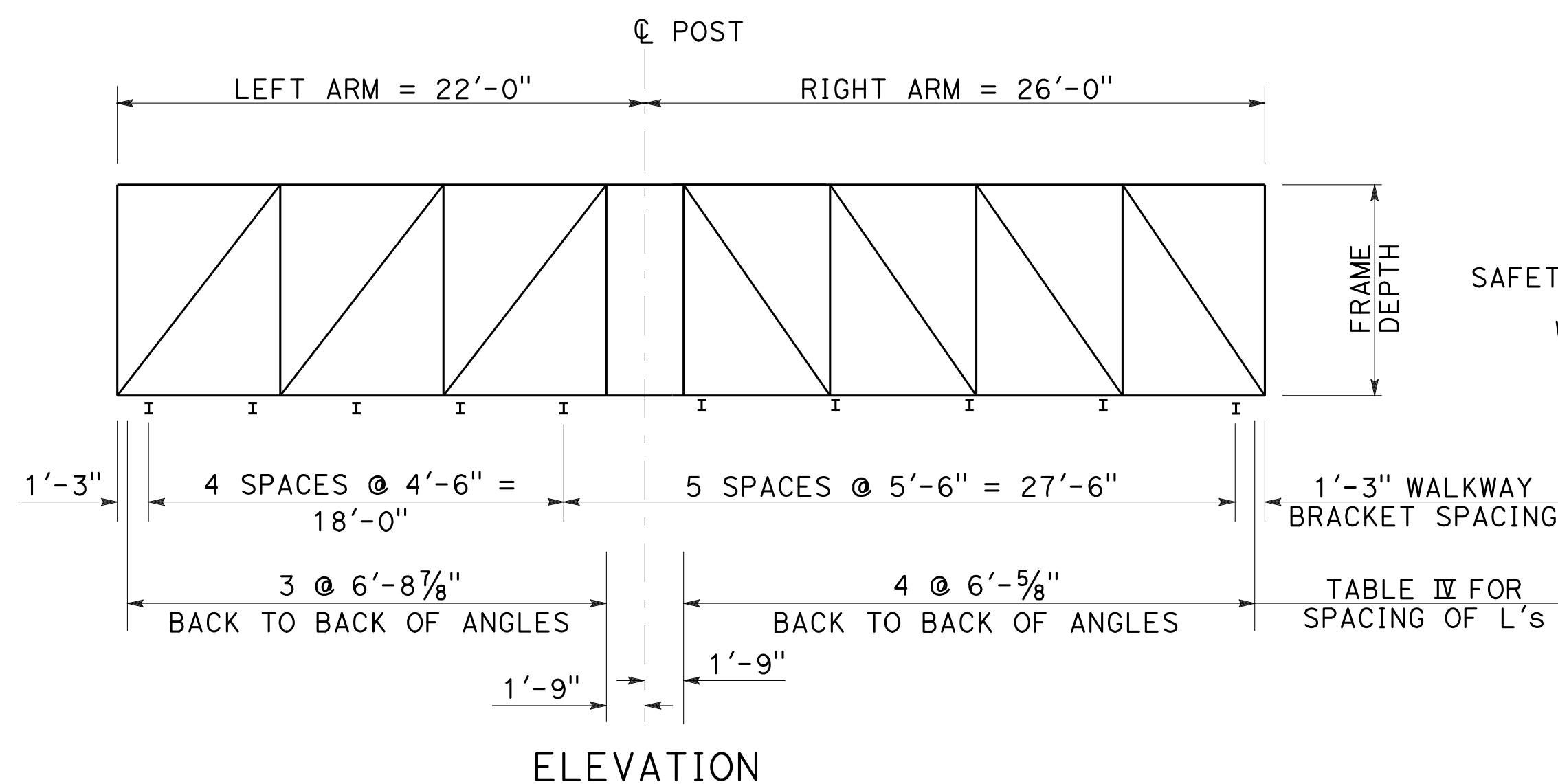
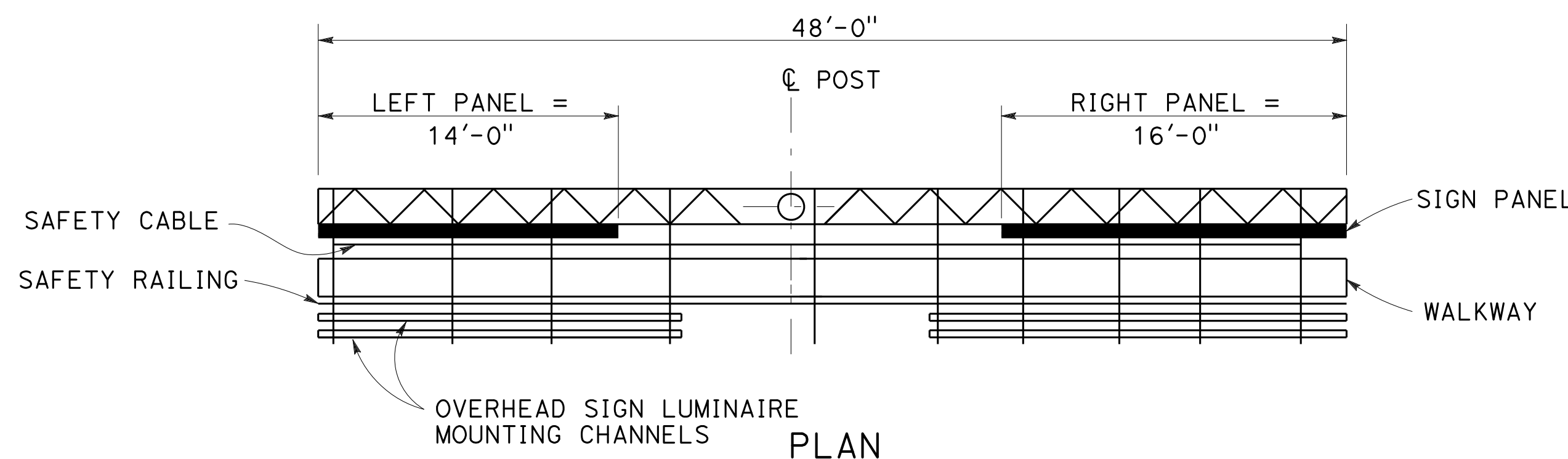
WELDING:

All welding continuous unless otherwise noted on the plans.



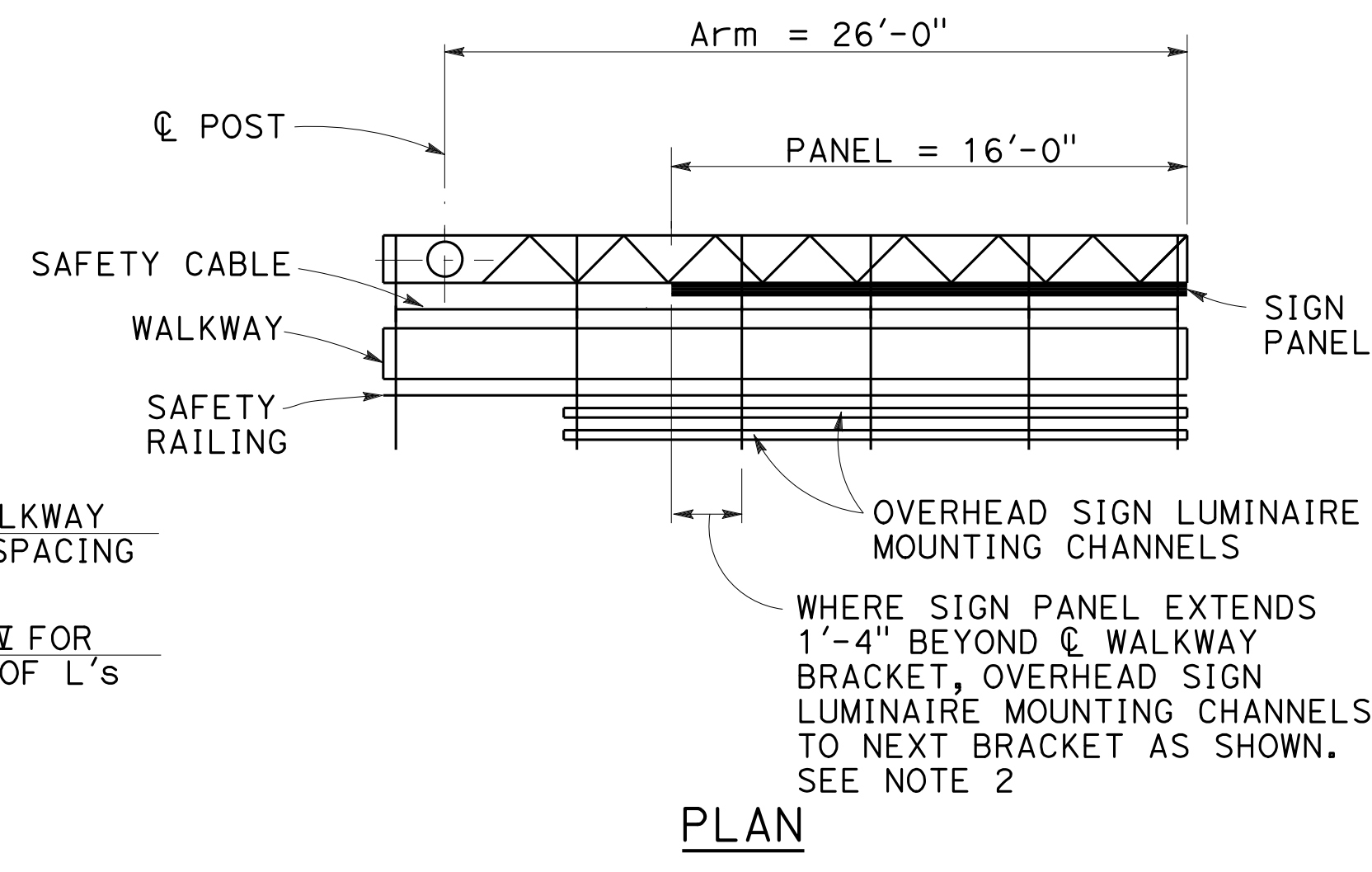
NOTES:

1. Signs are shown and dimensioned looking in the direction of traffic. Double faced signs are shown and dimensioned looking ahead along stationing.
2. Mandatory dimension limit.



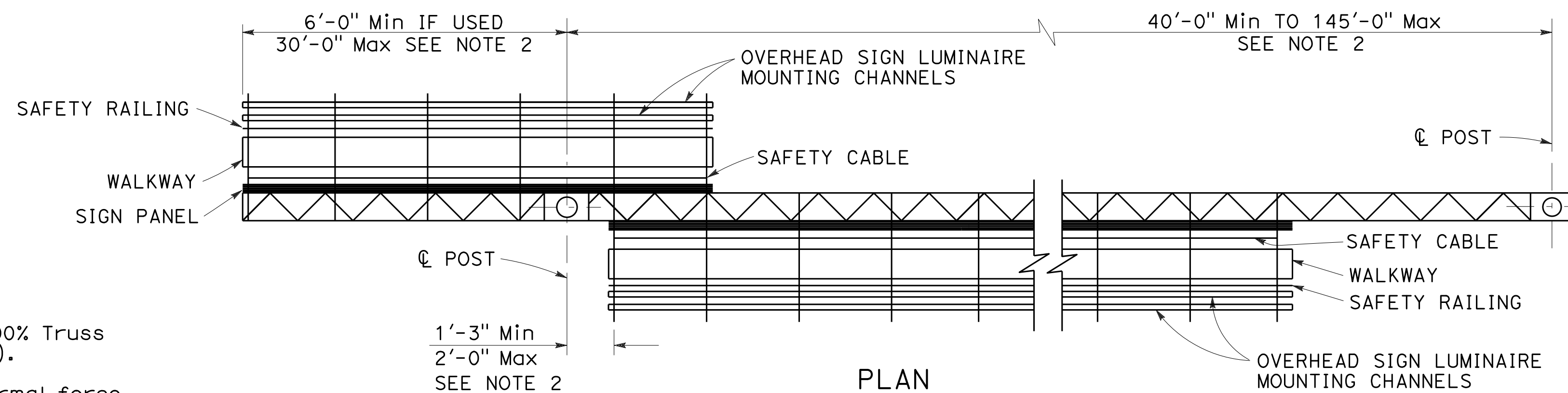
UNBALANCED SINGLE POST TYPE

Example No. 1



CANTILEVER SINGLE POST TYPE

Example No. 2



TWO POST TYPE WITH CANTILEVER (PART DOUBLE-FACED)

Example No. 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGNS-TRUSS INSTRUCTIONS AND EXAMPLES

NO SCALE

RSP S1 DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN S1
DATED MAY 31, 2018 - PAGE 409 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP S1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	65	79

REGISTERED CIVIL ENGINEER
 No. C63939
 Exp. 9-30-20
 CIVIL
 STATE OF CALIFORNIA

October 19, 2018
 PLANS APPROVAL DATE

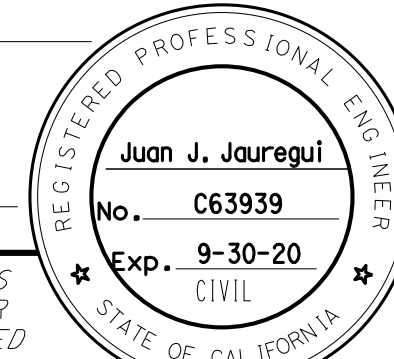
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TO ACCOMPANY PLANS DATED 10-16-19

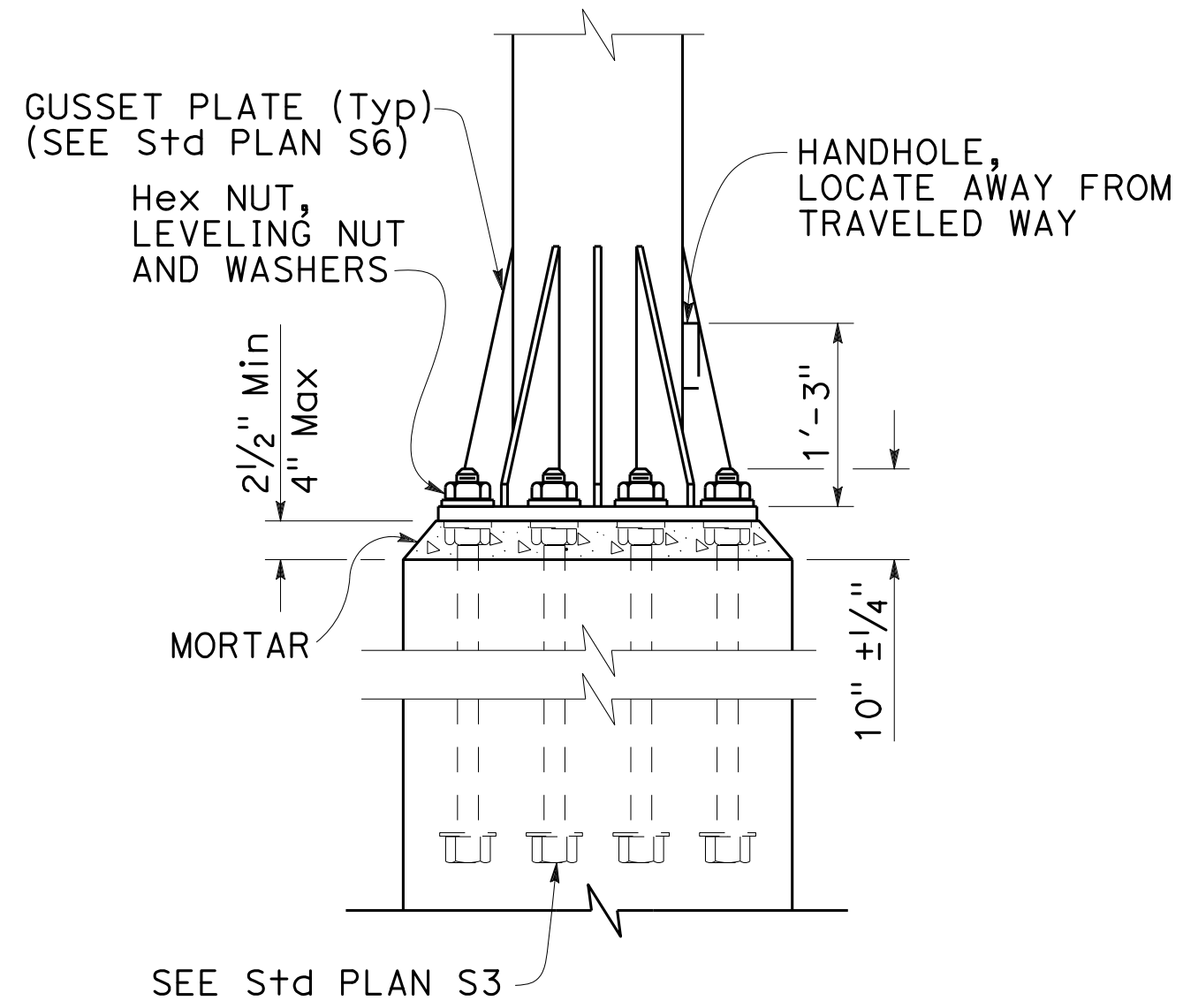
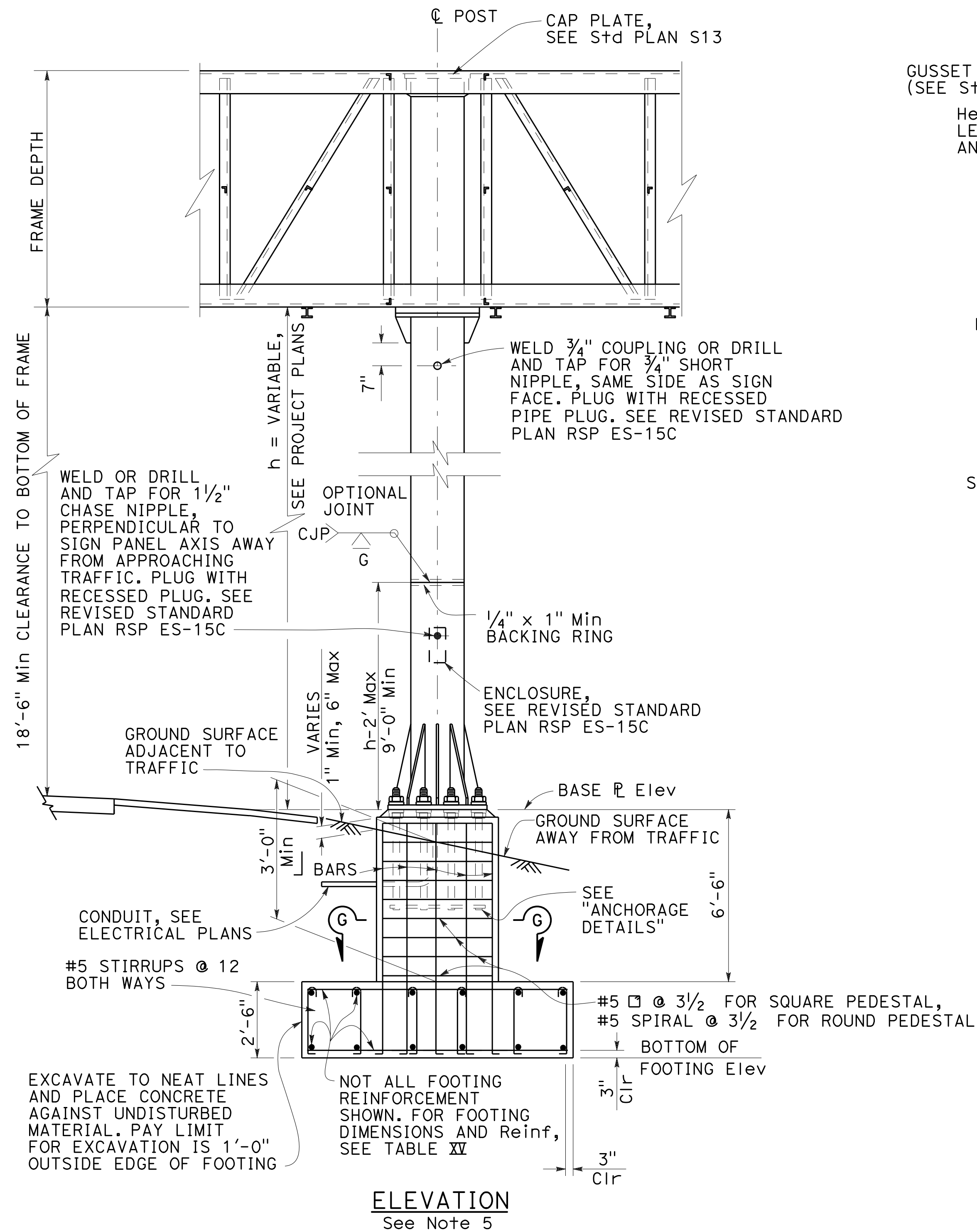
TABLE XV

POST TYPE	PIPE		CAP PLATE SIZE FOR CHORD L's 5 x 5	CAP PLATE SIZE FOR CHORD L's 6 x 6	ROUND PEDESTAL					SQUARE PEDESTAL					SPREAD FOOTING						
	NPS	THICKNESS			PEDESTAL SIZE Dia	VERTICAL EQUALLY SPACED TOTAL	J-BARS BAR SIZE	SPIRAL BAR SIZE	PITCH	PEDESTAL SIZE SQUARE	VERTICAL EQUALLY SPACED TOTAL	J-BARS BAR SIZE	# OF BARS EA FACE	HOOP BAR SIZE	SPACING	(SEE NOTE 2)					
	REINFORCEMENT		WIDTH													LONGITUDINAL		FOOTING STIRRUPS			
II	14	1/2"	2'-0" x 2'-0" x 1"	2'-2" x 2'-2" x 1"	5'-3"	16	#10	#5	3 1/2"	5'-3"	16	#10	5	#5	3 1/2"	12'-0" x 14'-0" x 2'-6"	14-#6		14-#7	13-#9	13-#9
III	16		2'-2" x 2'-2" x 1"	2'-4" x 2'-4" x 1"												12'-0" x 14'-0" x 2'-6"	15-#6	15-#7			
IV	18		2'-4" x 2'-4" x 1"	2'-6" x 2'-6" x 1"												12'-0" x 14'-0" x 2'-6"	15-#6	15-#7			
V	20		2'-6" x 2'-6" x 1"	2'-8" x 2'-8" x 1"												13'-0" x 14'-0" x 2'-6"	15-#6	15-#7	14-#9	14-#9	
VI	24		2'-10" x 2'-10" x 1"	3'-0" x 3'-0" x 1"	5'-9"		#11			5'-9"		#11				13'-0" x 16'-0" x 2'-6"	17-#7	17-#7		14-#11	
VII	24	3/4"														13'-0" x 17'-0" x 2'-6"	18-#7	18-#7			
VIII	24	3/32"														13'-0" x 18'-0" x 2'-6"	19-#7	19-#7			
IX	24	3/32"														13'-0" x 18'-0" x 2'-6"	19-#7	19-#7			

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	66	79

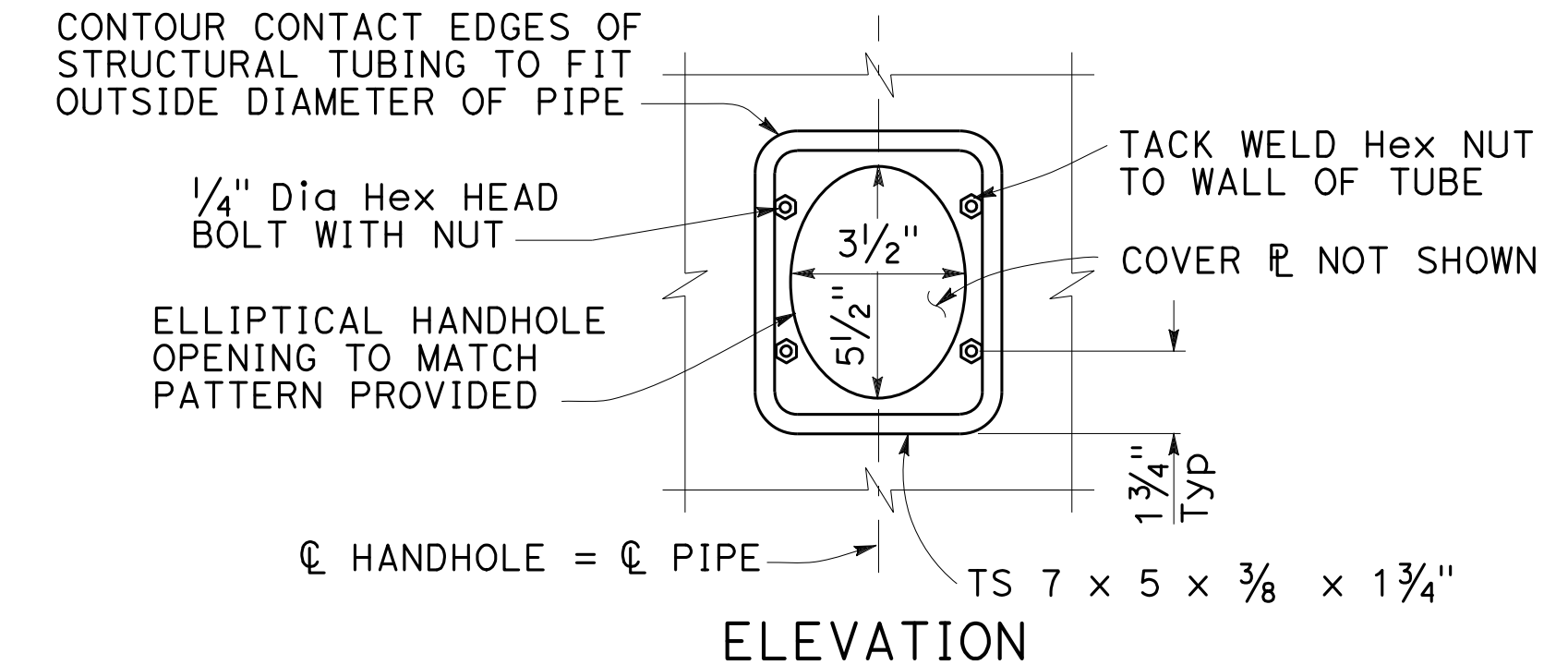
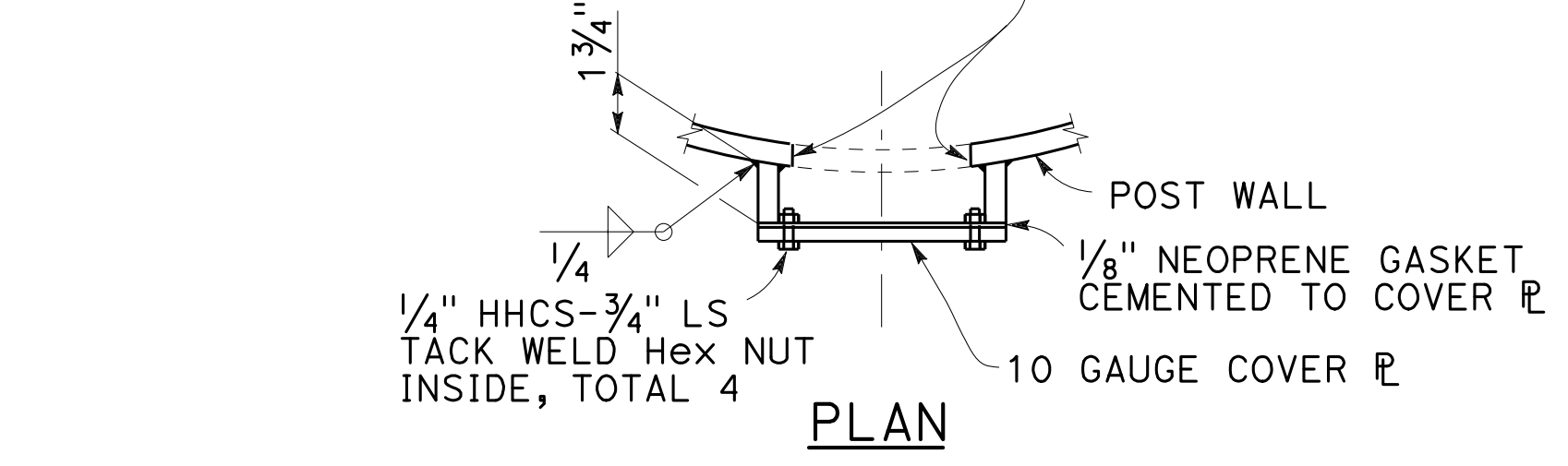

 REGISTERED CIVIL ENGINEER
 October 19, 2018
 PLANS APPROVAL DATE
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TO ACCOMPANY PLANS DATED 10-16-19



ELEVATION ANCHORAGE DETAILS

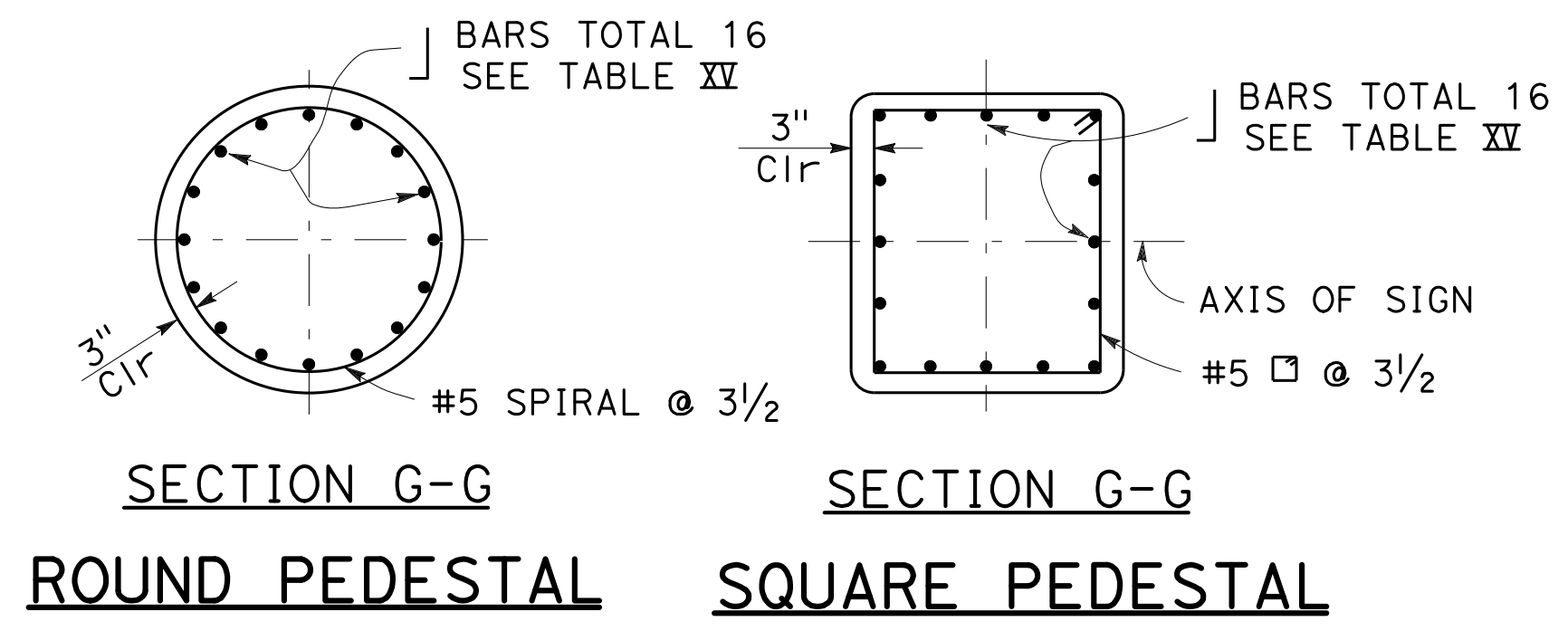
GRIND EDGES SMOOTH, ROUGHNESS OF EDGES NO GREATER THAN 1000 MICROINCHES



TYPICAL DETAILS OF HANDHOLE AND COVER

NOTES:

- For "General Notes", see Revised Standard Plan RSP S1.
- Longer side of footing (longitudinal) shall be normal to axis of sign.
- Backfill shall be in place prior to erection of post.
- Thread upper 10" of anchor bolts and galvanize upper 1'-0".
- Spread footing with square pedestal foundation shown, use Pile Foundation when shown on the Project Plans. For pile foundation details, see Standard Plan S8.
- Anchor plates may be retained with hexagon nut or formed head as alternatives to details shown.
- On single post structures, the post shall be raked out of plumb, with the use of the leveling nuts to make the bottom of the sign frame level.
- At final position of post all top and bottom nuts shall be tightened against base plate.
- When foundation is located on a steep slope with exposed face of concrete adjacent to traffic, see "Detail C" on Standard Plan S8, as applicable.
- Slope protection required when indicated on the Project Plans.



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
OVERHEAD SIGNS-TRUSS SINGLE POST TYPE
POST TYPES II THROUGH IX
 NO SCALE

RSP S2 DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN S2 DATED MAY 31, 2018 - PAGE 410 OF THE STANDARD PLANS BOOK DATED 2018.

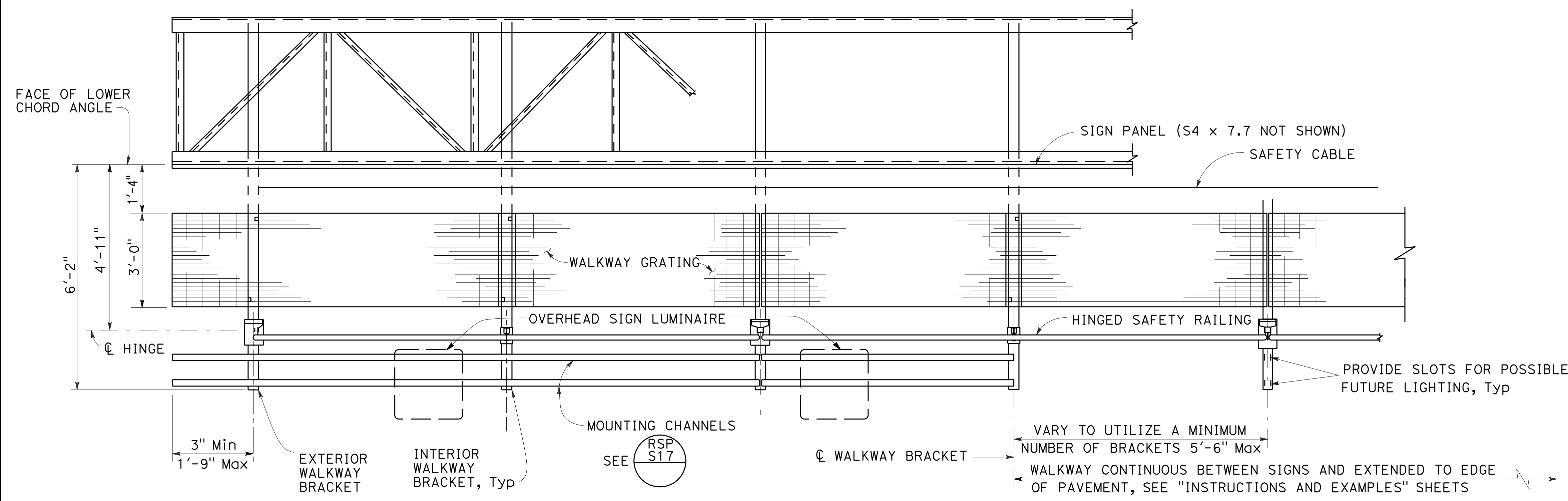
2018 REVISED STANDARD PLAN RSP S2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	67	79

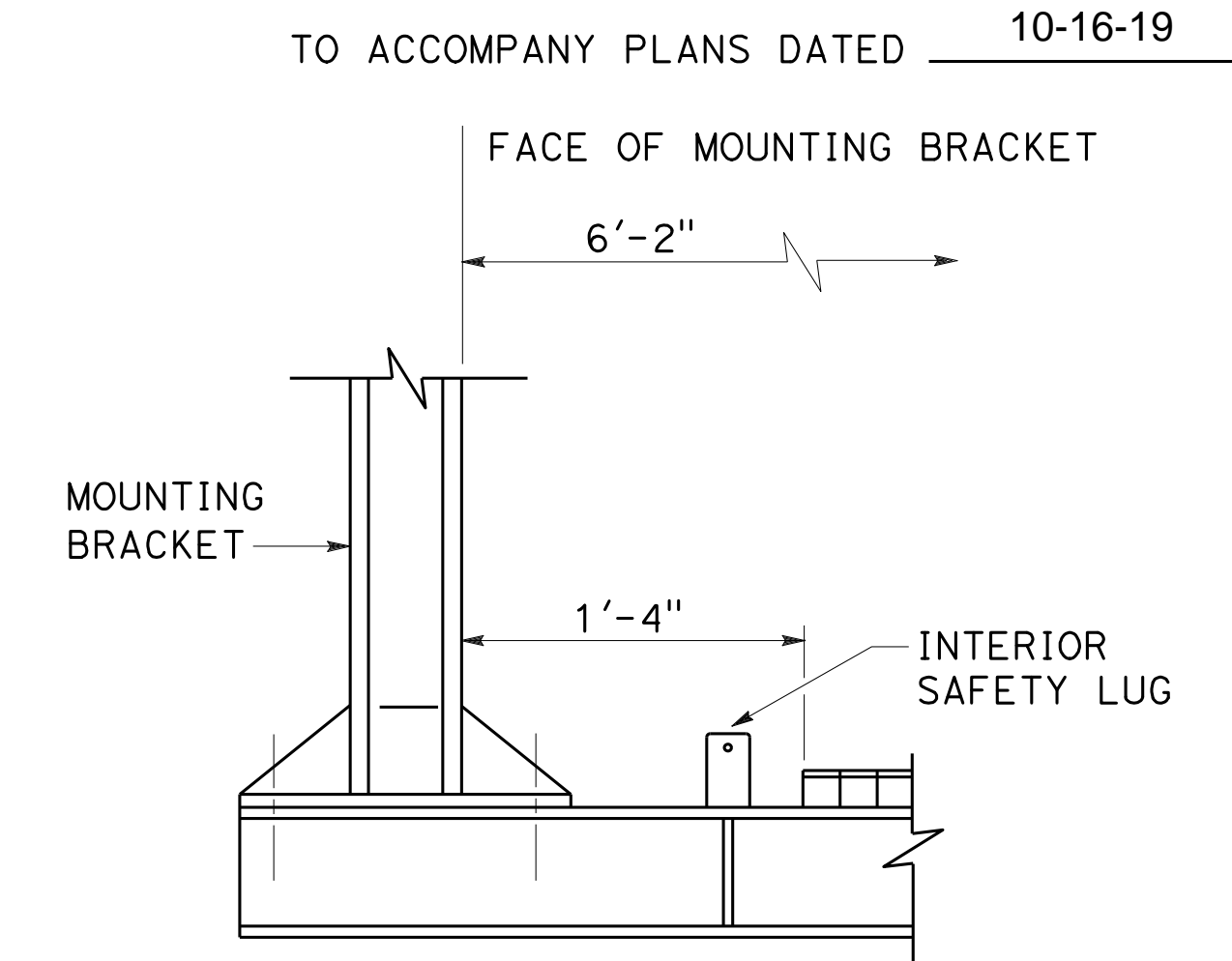
REGISTERED CIVIL ENGINEER
 Juan J. Jauregui
 No. C63939
 Exp. 9-30-20
 CIVIL
 STATE OF CALIFORNIA

October 19, 2018
 PLANS APPROVAL DATE

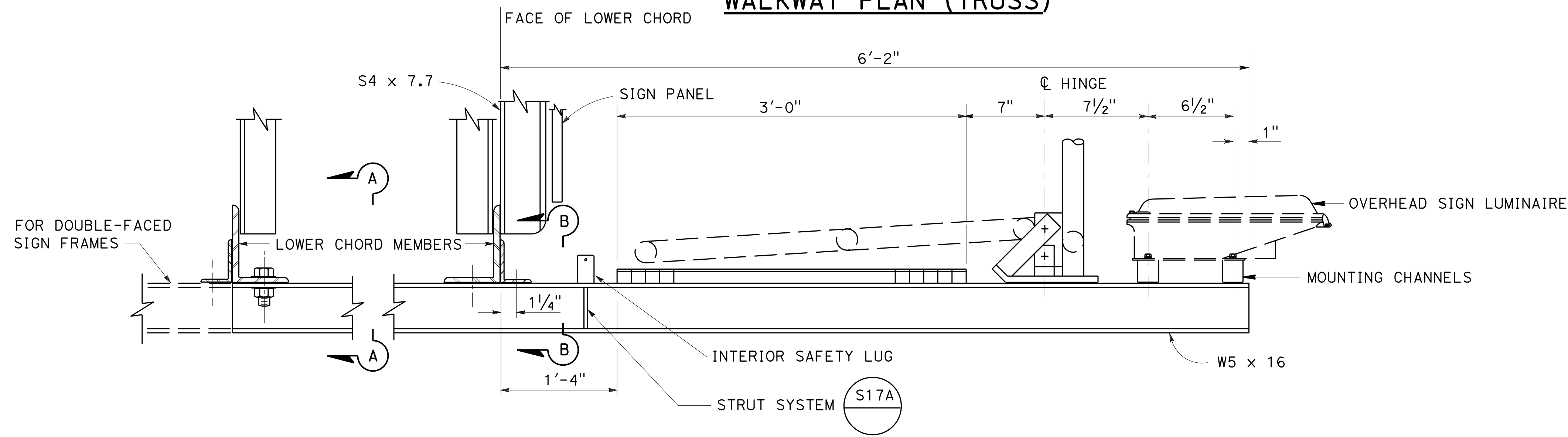
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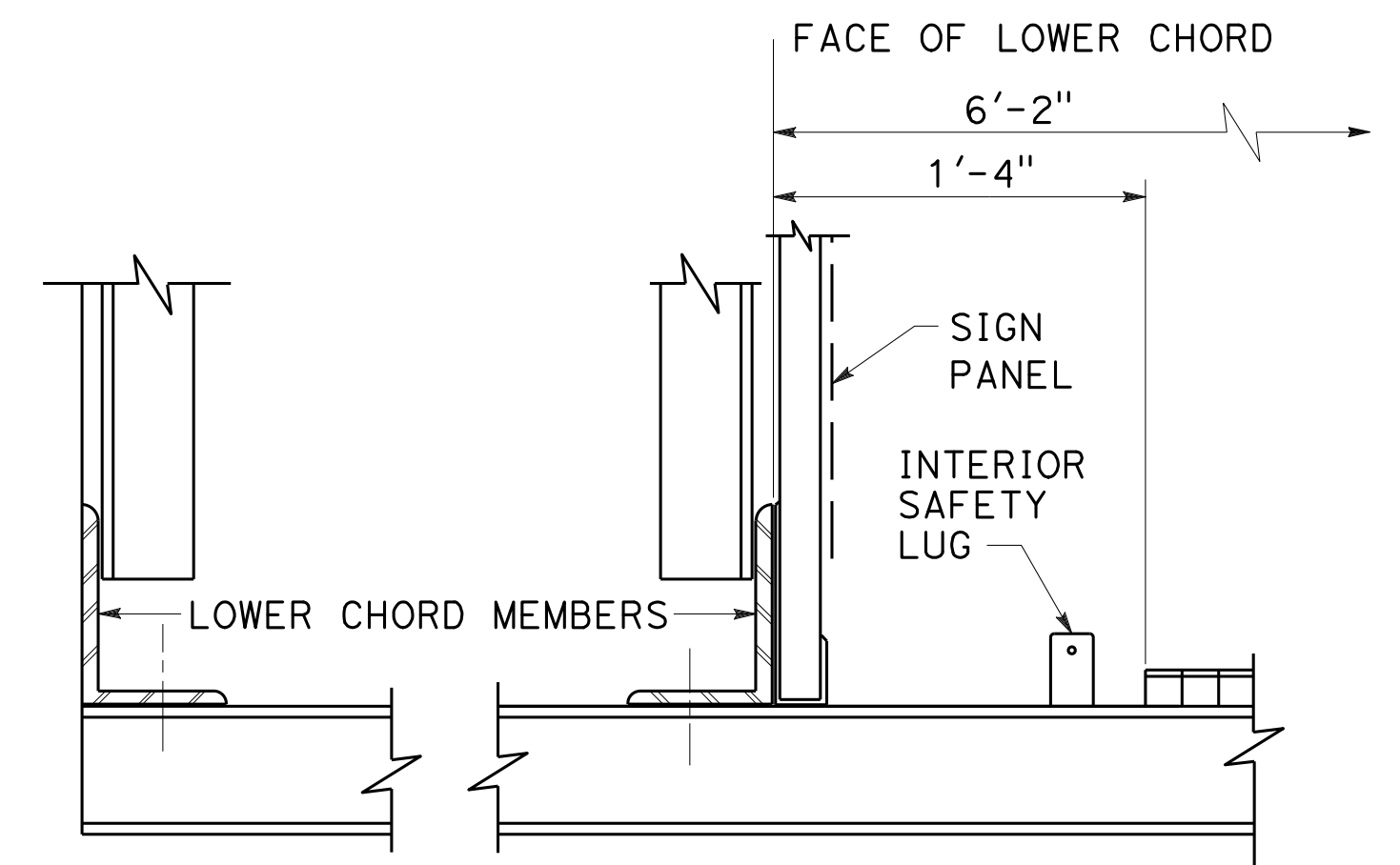
WALKWAY PLAN (TRUSS)



TUBULAR AND BRIDGE MOUNTED

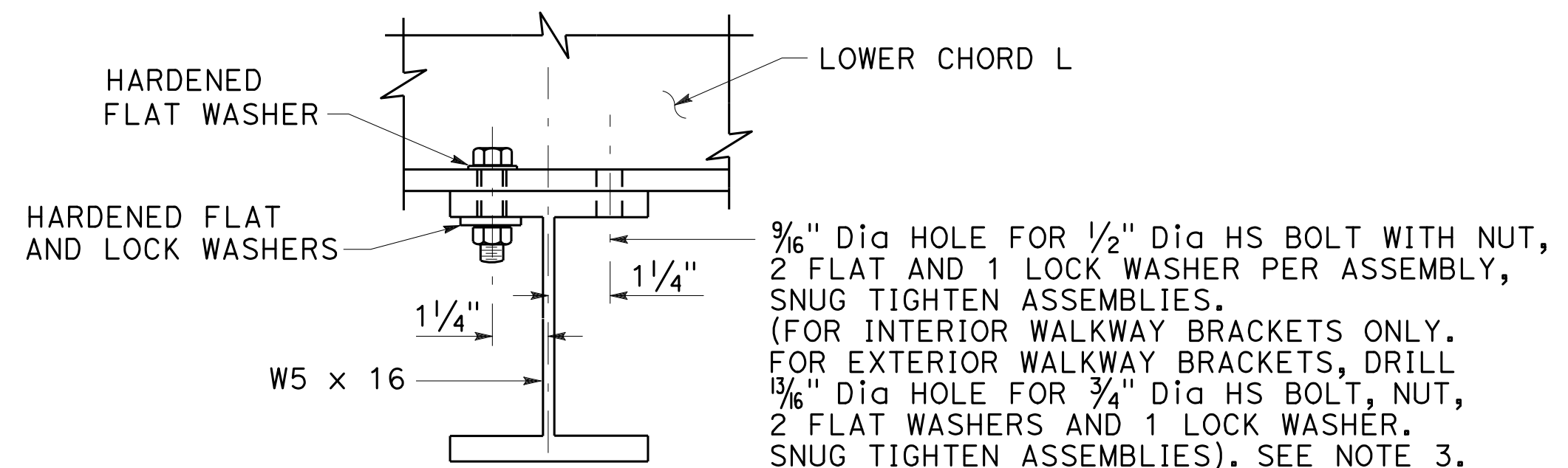


TYPICAL WALKWAY SECTION

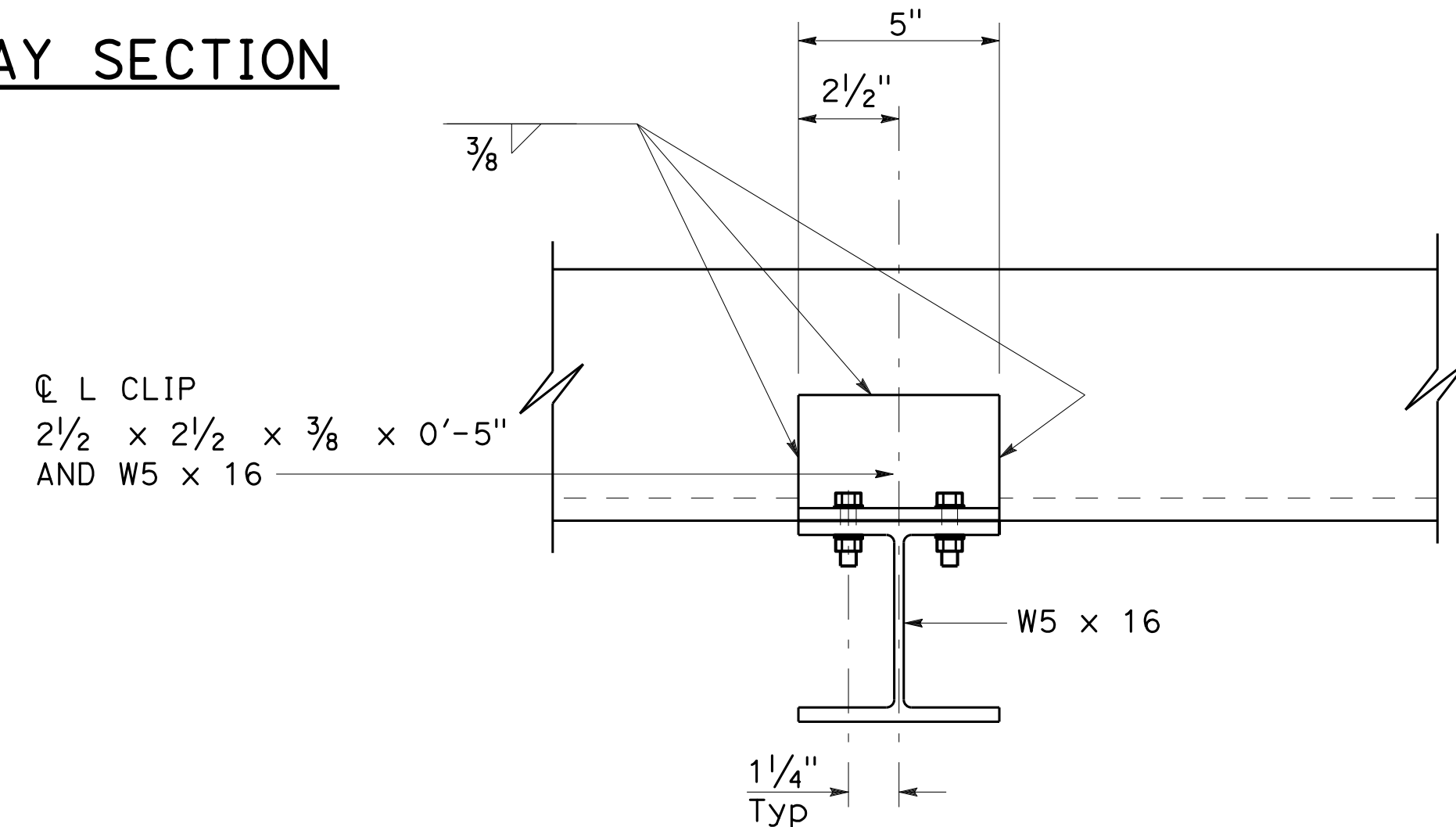


BOX BEAM CLOSED TRUSS

TRUSS



SECTION A-A



SECTION B-B

NOTES:

1. For spacing of overhead sign luminaire, see Revised Standard Plan RSP ES-15A.
2. For safety lug details, see Revised Standard Plan RSP S17.
3. For double faced sign frames with double walkways, use a total 8 bolt assemblies per bracket.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**OVERHEAD SIGNS
 WALKWAY DETAILS No. 1**
 NO SCALE

RSP S16 DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN S16
 DATED MAY 31, 2018 - PAGE 422 OF THE STANDARD PLANS BOOK DATED 2018.

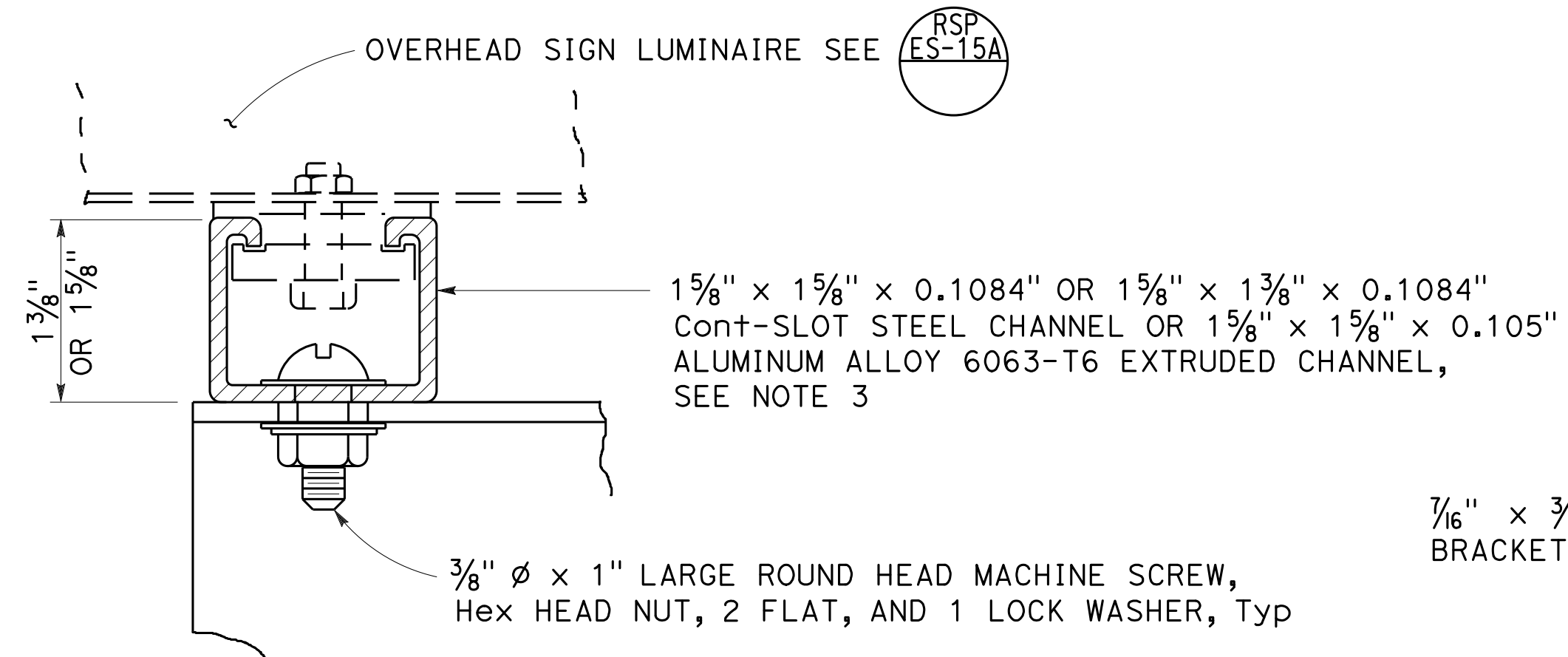
2018 REVISED STANDARD PLAN RSP S16

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	68	79

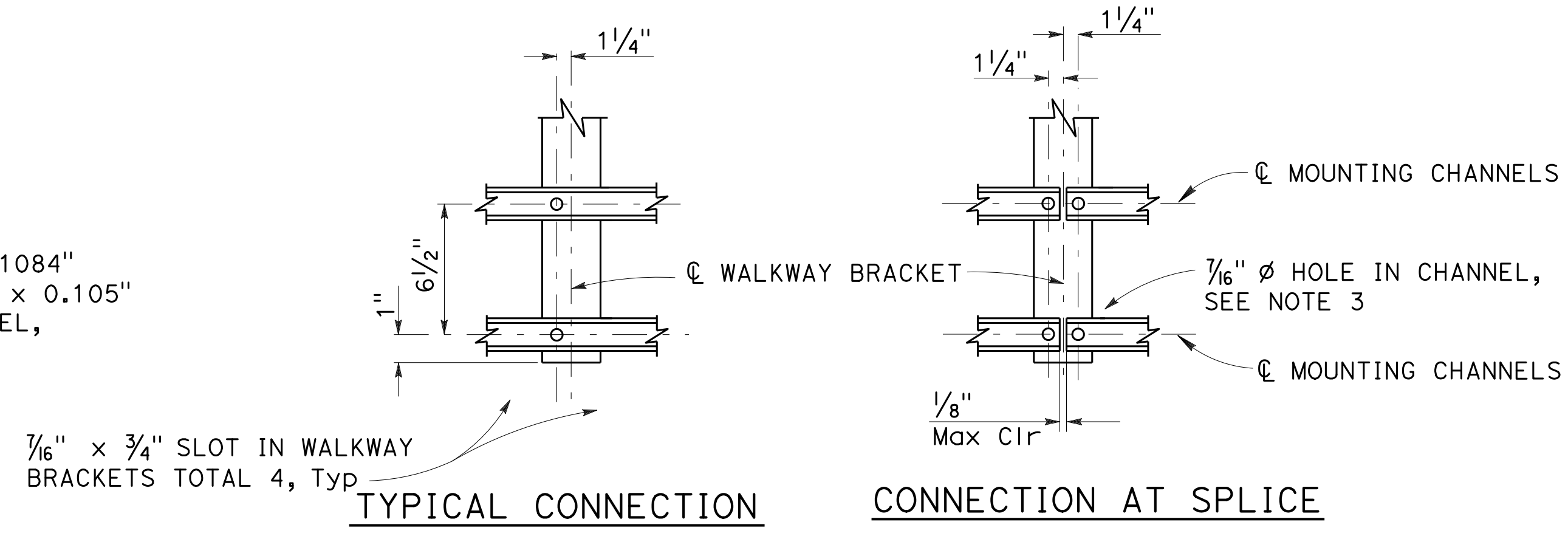
REGISTERED CIVIL ENGINEER
 Juan J. Jauregui
 No. C63939
 Exp. 9-30-20
 CIVIL
 STATE OF CALIFORNIA

October 19, 2018
 PLANS APPROVAL DATE

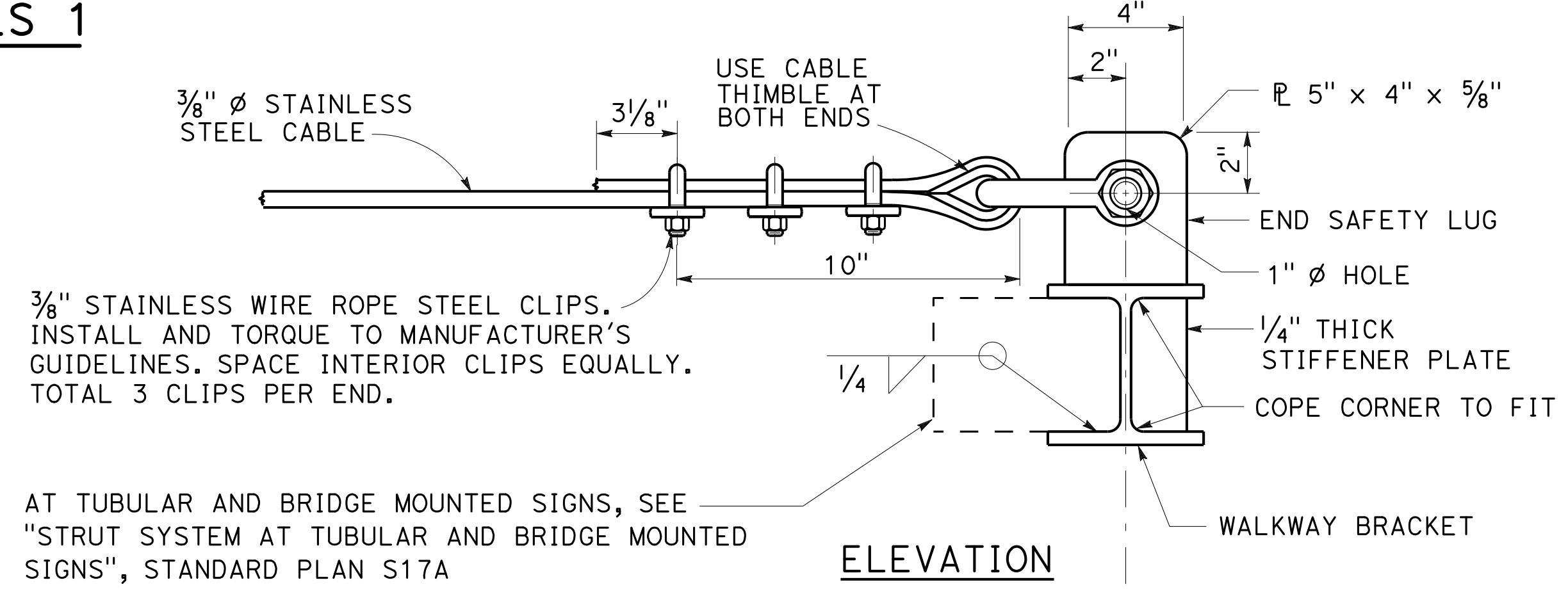
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OVERHEAD SIGN LUMINAIRE MOUNTING CHANNEL DETAILS 1

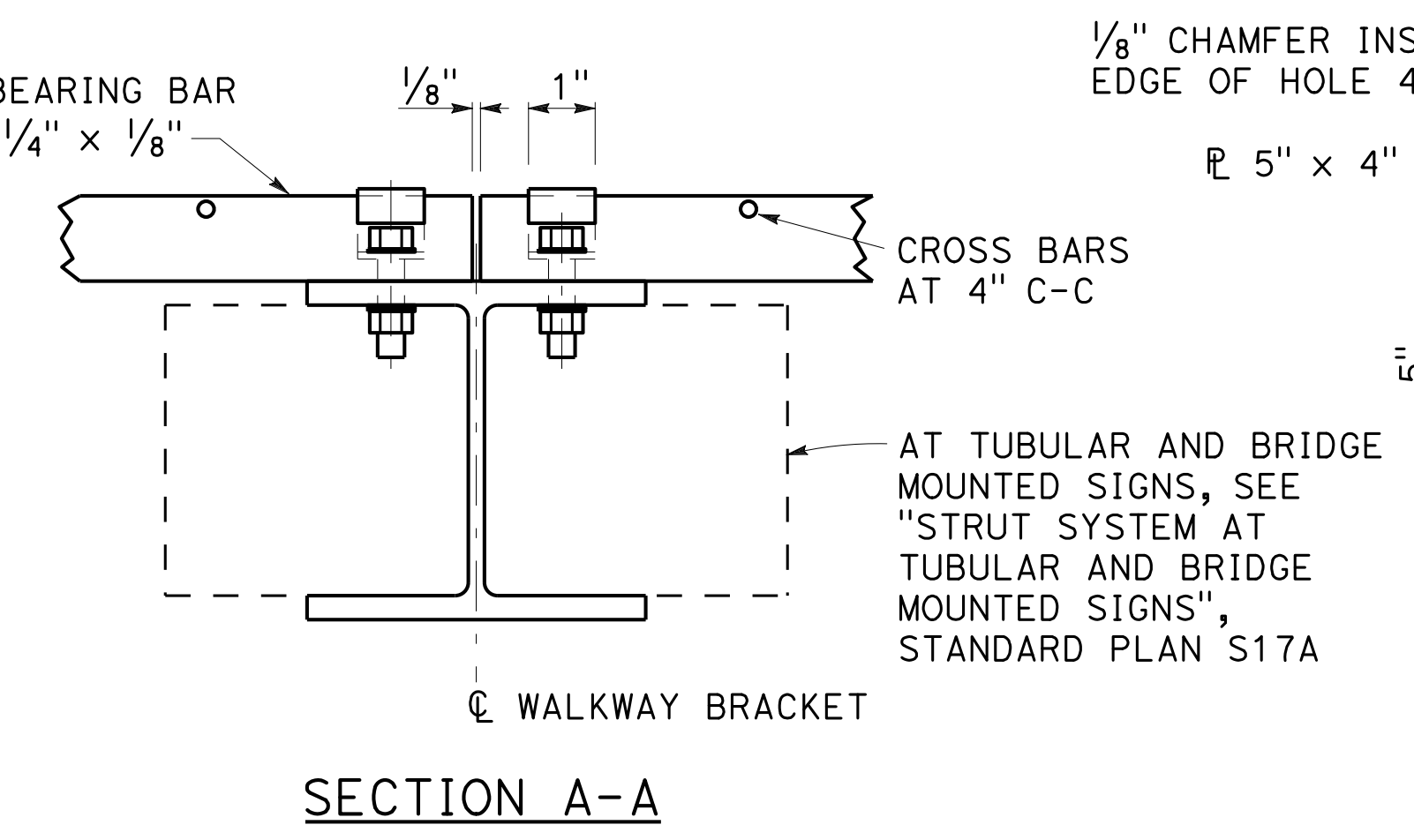
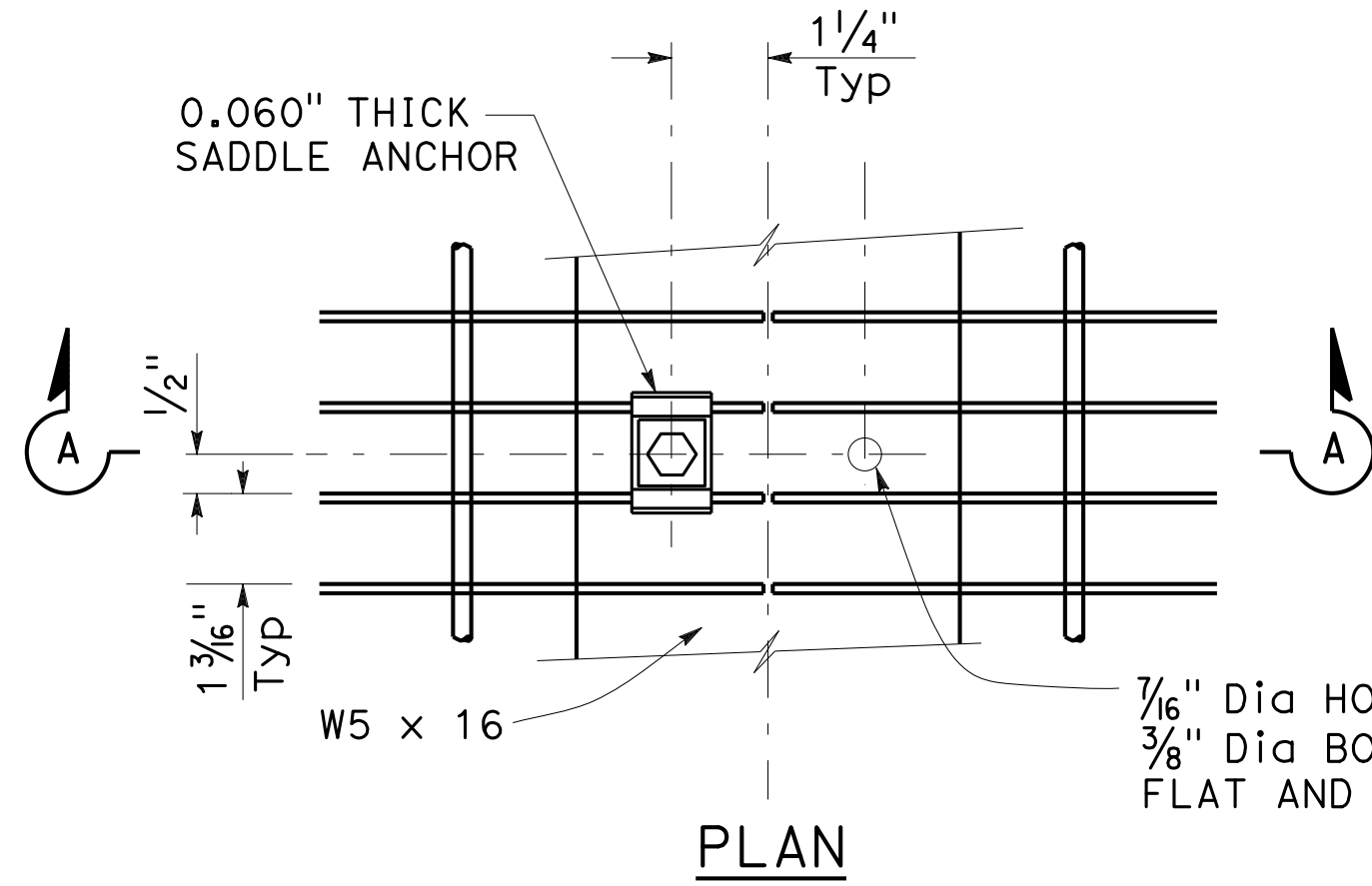


OVERHEAD SIGN LUMINAIRE MOUNTING CHANNEL DETAILS 2

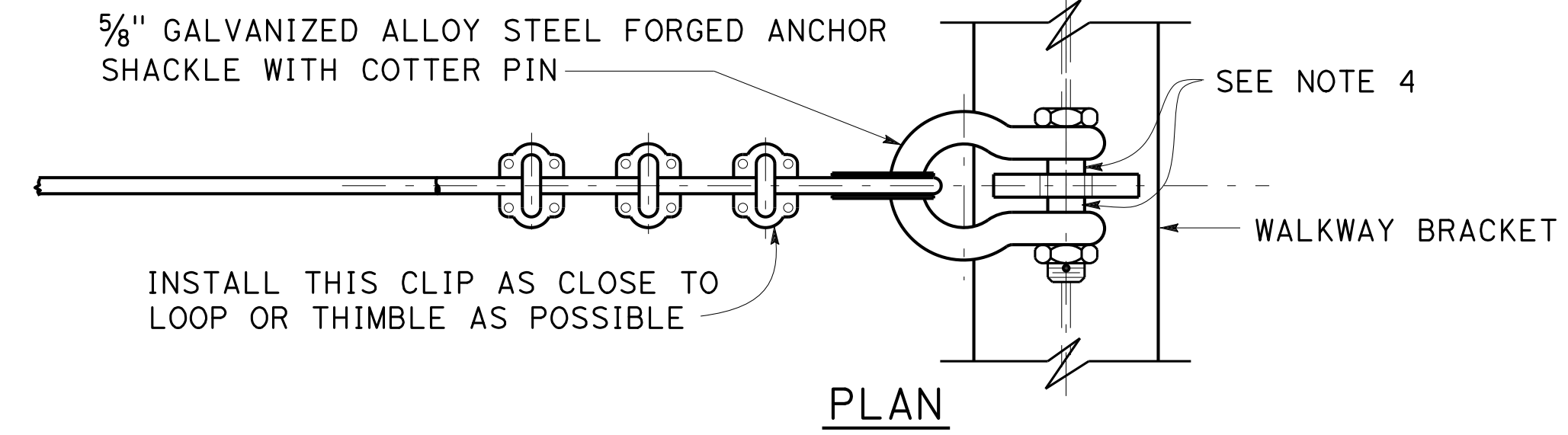


NOTES:

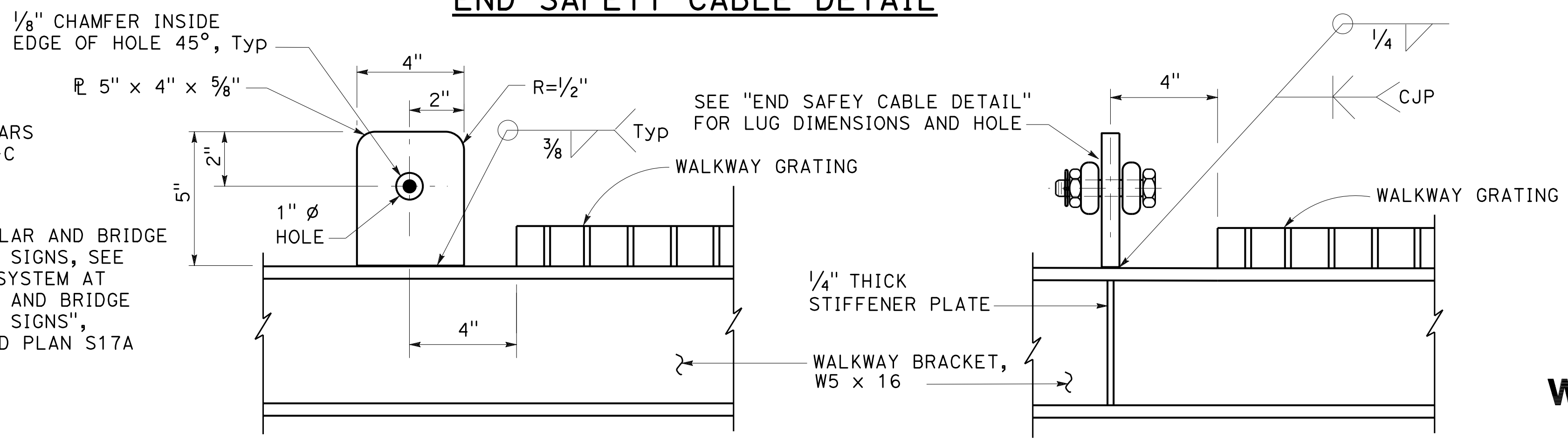
1. Welded type grating shall have 1/4" x 1/8" bearing bars at 1 3/16" centers with 1/4" diameter (or equal) cross bars at 4" centers. If mechanical lock grating is used, it shall be equal in strength to the welded type. Alternate hold-down clips may be submitted for approval.
2. Walkway grating and overhead sign luminaire mounting channels to be continuous (no splices) over as many walkway brackets as practical and consistent with fabrication, ease of handling and assembly.
3. Contractor may substitute 1 5/8" x 1 5/8" x .1084" cont-slot steel channel with pre-punched slots not larger than 1/2" x 3". Slots shall be at bottom of channel and shall be parallel to channel. Slots shall be spaced not closer than 4" center to center.
4. Place an equal amount of washers on each side to align cable with end lug without restricting shackle bolt rotation or contacting cable.



WALKWAY GRATING DETAILS
Shown at splice



END SAFETY CABLE DETAIL



INTERIOR SAFETY LUG DETAIL
(At every walkway bracket between exterior walkway brackets)

END SAFETY LUG DETAIL
(At exterior walkway brackets)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGNS WALKWAY DETAILS No. 2

NO SCALE

RSP S17 DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN S17 DATED MAY 31, 2018 - PAGE 423 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP S17

2018 REVISED STANDARD PLAN RSP S17

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	280	11.2/11.5	69	79

H.R.F.
REGISTERED ELECTRICAL ENGINEER

October 19, 2018
PLANS APPROVAL DATE

Hamid Zolfaghari
No. E15636
Exp. 12-31-19
REGISTERED PROFESSIONAL ENGINEER
ELECTRICAL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 10-16-19

ANNOTATION

SYMBOL	DESCRIPTION
AB	ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS
BC	INSTALL PULL BOX IN EXISTING CONDUIT RUN
BP	PEDESTRIAN BARRICADE, TYPE AS INDICATED ON PLAN
CB	INSTALL CONDUIT INTO EXISTING PULL BOX
CC	CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED
CF	CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS. INSTALL PULL TAPE
DH	DETECTOR HANDHOLE
FA	FOUNDATION TO BE ABANDONED
IS	INSTALL SIGN ON SIGNAL MAST ARM
NS	NO SLIP BASE ON STANDARD
PEC	PHOTOELECTRIC CONTROL
PEU	PHOTOELECTRIC UNIT
RC	EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
RL	RELOCATE EQUIPMENT
RR	REMOVE AND REUSE EQUIPMENT
RS	REMOVE AND SALVAGE EQUIPMENT
SC	SPLICE NEW TO EXISTING CONDUCTORS
SD	SERVICE DISCONNECT
TSP	TELEPHONE SERVICE POINT
9	SPECIFIC PROJECT NOTES

STANDARD

NEW	EXISTING	TYPE
		15
		15D
		15 STRUCTURE
		15D STRUCTURE
		21
		21D
		21 STRUCTURE
		21D STRUCTURE
		30
		31
		32

SOFFIT AND WALL-MOUNTED LUMINAIRES

SYMBOL	DESCRIPTION
	PENDANT SOFFIT LUMINAIRE
	FLUSH-MOUNTED SOFFIT LUMINAIRE
	WALL-MOUNTED LUMINAIRE
	EXISTING SOFFIT OR WALL-MOUNTED LUMINAIRE TO REMAIN UNMODIFIED
	EXISTING SOFFIT OR WALL-MOUNTED LUMINAIRE TO BE MODIFIED AS SPECIFIED

NOTE:
Arrow indicates "street side" of luminaire.

MISCELLANEOUS ELECTROLIERS

NEW	EXISTING	DESCRIPTION
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT LEGEND)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

NOTE:
1. Luminaires shall be Roadway 2 when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. Luminaires shall be Roadway 1 when installed on other type standards or poles, unless otherwise specified.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (LEGEND)
NO SCALE

RSP ES-1A DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 31, 2018 - PAGE 475 OF THE STANDARD PLANS BOOK DATED 2018.

2018 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	280	11.2/11.5	70	79

H.R. J. [Signature]
REGISTERED ELECTRICAL ENGINEER

October 19, 2018
PLANS APPROVAL DATE

Hamid Zolfaghari
No. E15636
Exp. 12-31-19
ELECTRICAL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 10-16-19

CONDUIT

NEW	EXISTING	DESCRIPTION
---	---	LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
---	---	TRAFFIC SIGNAL CONDUIT
-C-	-c-	COMMUNICATION CONDUIT
-T-	-t-	TELEPHONE CONDUIT
-F-	-f-	FIRE ALARM CONDUIT
-FO-	-fo-	FIBER OPTIC CONDUIT
---	---	CONDUIT TERMINATION
		CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

SIGNAL EQUIPMENT

NEW	EXISTING	DESCRIPTION
		PEDESTRIAN SIGNAL HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)
		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD, PEDESTRIAN SIGNAL HEAD, AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD, PEDESTRIAN SIGNAL HEAD, AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN

NOTES:

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

SERVICE EQUIPMENT

NEW	EXISTING	DESCRIPTION
OH	oh	OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
T	t	TELEPHONE DEMARCATION CABINET

POLE-MOUNTED SERVICE DESIGNATION

SYMBOL	DESCRIPTION
	TYPE H SERVICE, 28'-10" TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE

FLASHING BEACON

NEW	EXISTING	DESCRIPTION
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

OVERHEAD SIGN

NEW	EXISTING	DESCRIPTION
		SINGLE POST, SINGLE SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE SIGN
		SINGLE SIGN MOUNTED ON STRUCTURE
		SINGLE POST, SINGLE SIGN, FULL CANTILEVER WITH ELECTROLIER
		DOUBLE POST, SINGLE SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (LEGEND)
NO SCALE

RSP ES-1B DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 31, 2018 - PAGE 476 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP ES-1B

2018 REVISED STANDARD PLAN RSP ES-1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	280	11.2/11.5	71	79

H.R. J.
REGISTERED ELECTRICAL ENGINEER

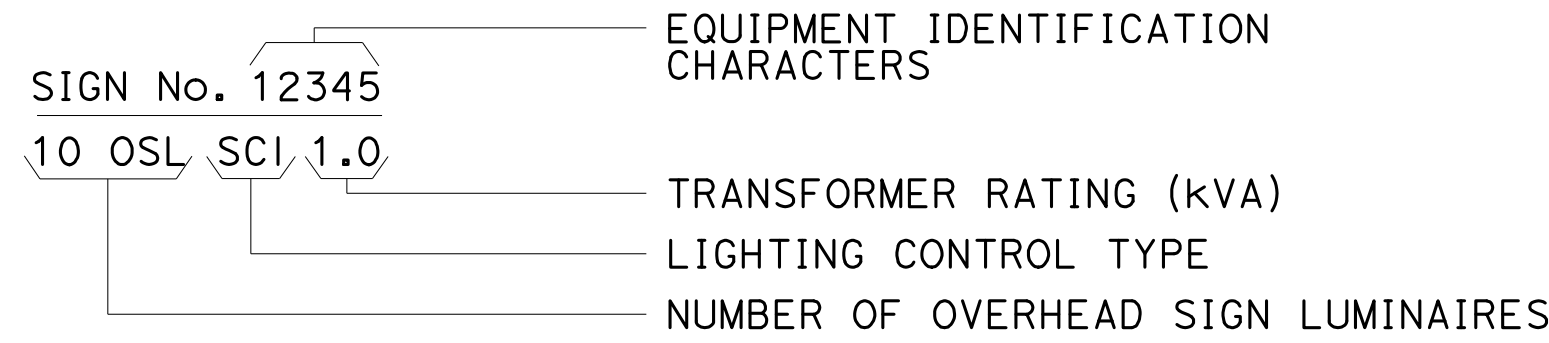
October 19, 2018
PLANS APPROVAL DATE

Hamid Zolfaghari
No. E15636
Exp. 12-31-19
ELECTRICAL
STATE OF CALIFORNIA

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EQUIPMENT DESIGNATION

SIGN:



LIGHTING STANDARD, SIGNAL AND LIGHTING STANDARD:



SOFFIT:



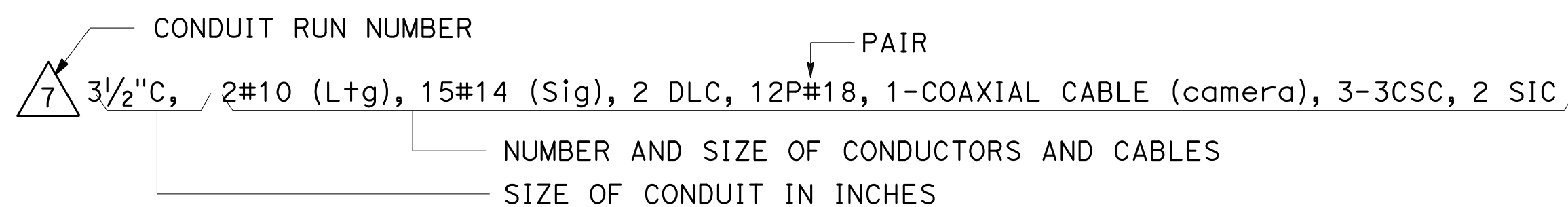
NOTE:

EXISTING EQUIPMENT IDENTIFICATION CHARACTERS ARE SHOWN IN PARENTHESIS

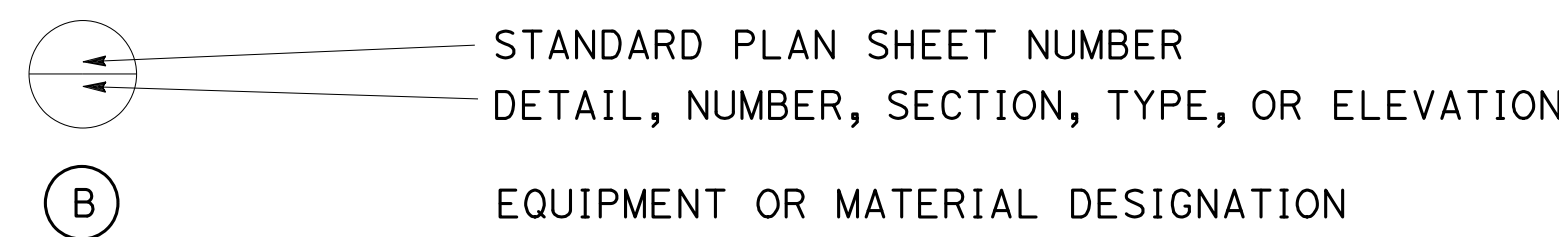
MISCELLANEOUS EQUIPMENT

NEW	EXISTING	DESCRIPTION
		CHANGEABLE MESSAGE SIGN
		CAMERA
		HIGHWAY ADVISORY RADIO POLE AND ANTENNA
		EXTINGUISHABLE MESSAGE SIGN
		DETECTION DEVICE M = MICROWAVE SENSOR V = VIDEO IMAGE SENSOR

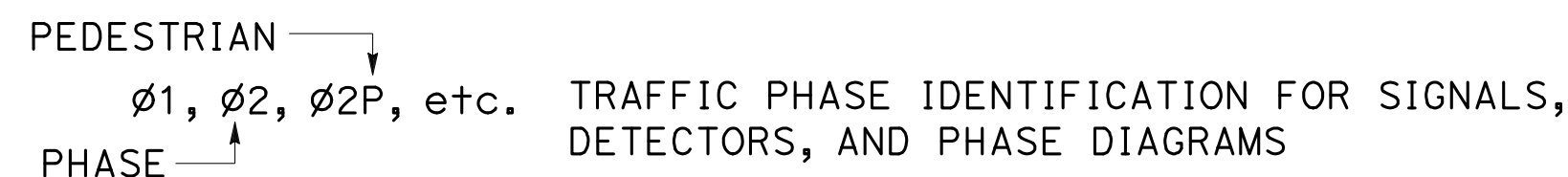
CONDUIT AND CONDUCTORS



DETAILS



PHASE



WIRING COMPONENTS

SYMBOL	DESCRIPTION
	EXTERNAL CONDUCTOR
	CONDUCTOR OR BUS
	TIE POINT
	CONTACTOR COIL
	CONTACTOR, NO CONTACT
	TERMINAL BLOCKS
	CONTACTOR, NC CONTACT
	ENCLOSURE BOND
	GROUNDING ELECTRODE
	CIRCUIT BREAKER
	RECEPTACLE

HANDHOLES, PULL BOXES, AND VAULTS

NEW	EXISTING	DESCRIPTION
		DETECTOR HANDHOLE
		PULL BOX, No. 5 UNLESS OTHERWISE INDICATED
		VAULT

DESIGNATION: 6(E) TYPE: (T)

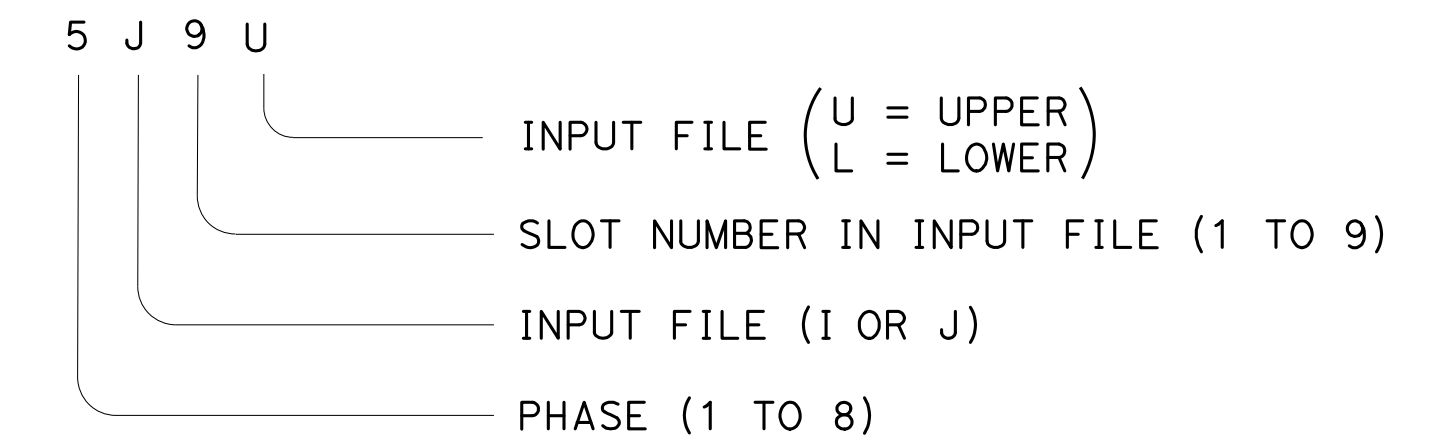
DESIGNATIONS:

- 3 No. 3 PULL BOX
- 5 No. 5 PULL BOX
- 6 No. 6 PULL BOX
- 7 No. 7 PULL BOX (CEILING)
- 8 No. 8 PULL BOX
- 9 No. 9 PULL BOX (STRUCTURE)
- 9A No. 9A PULL BOX (STRUCTURE)

TYPE:

- (E) PULL BOX WITH EXTENSION
- (T) TRAFFIC PULL BOX
- (TR) TAMPER-RESISTANT PULL BOX

VEHICLE DETECTOR DESIGNATION



DETECTORS

NEW	EXISTING	DESCRIPTION
		TYPE A LOOP DETECTOR. OUTLINE OF SAW CUT SHOWN
		TYPE B LOOP DETECTOR. OUTLINE OF SAW CUT SHOWN
		TYPE C LOOP DETECTOR. OUTLINE OF SAW CUT SHOWN
		TYPE D LOOP DETECTOR. OUTLINE OF SAW CUT SHOWN
		TYPE E LOOP DETECTOR. OUTLINE OF SAW CUT SHOWN
		TYPE F LOOP DETECTOR. OUTLINE OF SAW CUT SHOWN
		TYPE Q LOOP DETECTOR. OUTLINE OF SAW CUT SHOWN
		MICROWAVE OR VIDEO DETECTION ZONE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND)

NO SCALE

RSP ES-1C DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN ES-1C
DATED MAY 31, 2018 - PAGE 477 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP ES-1C

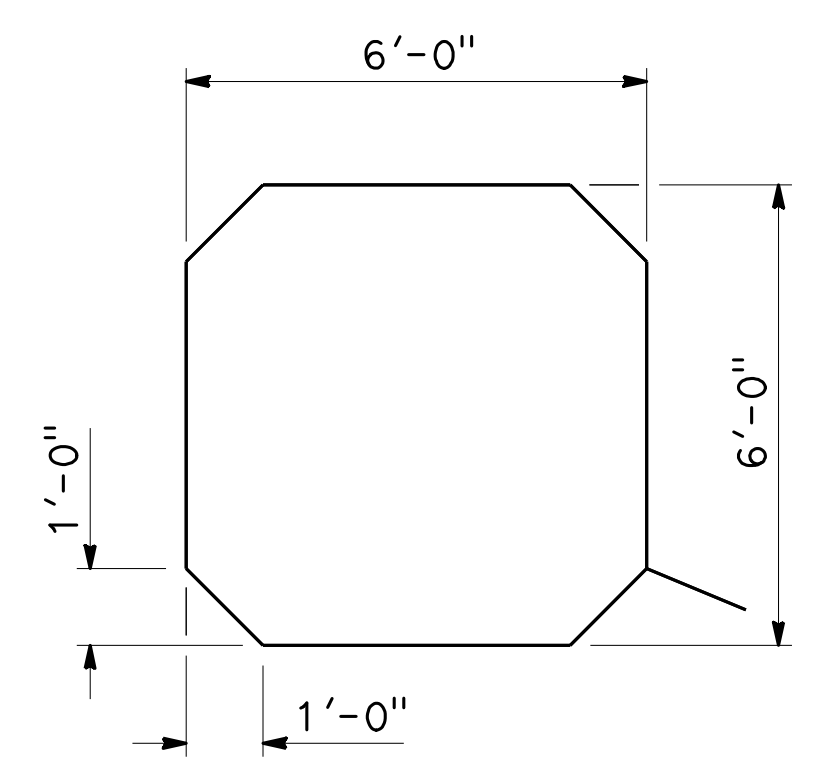
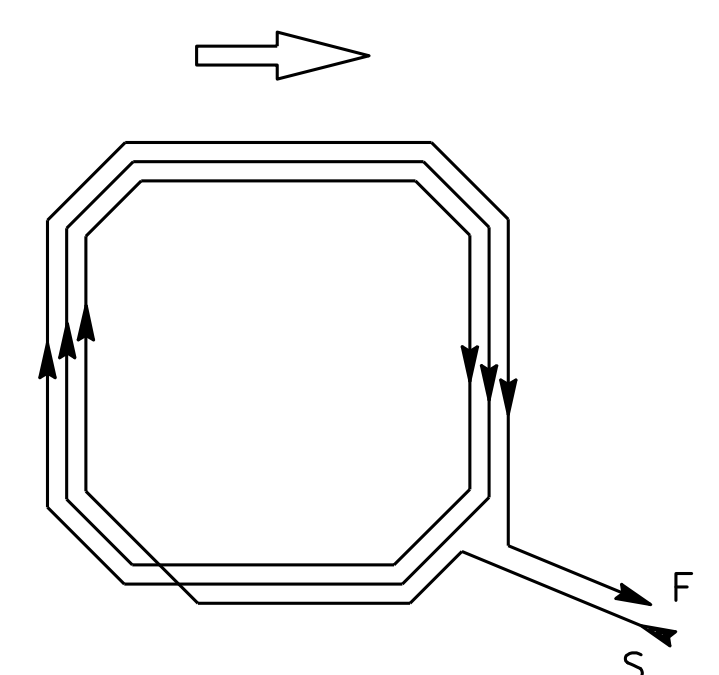
2018 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	280	11.2/11.5	72	79

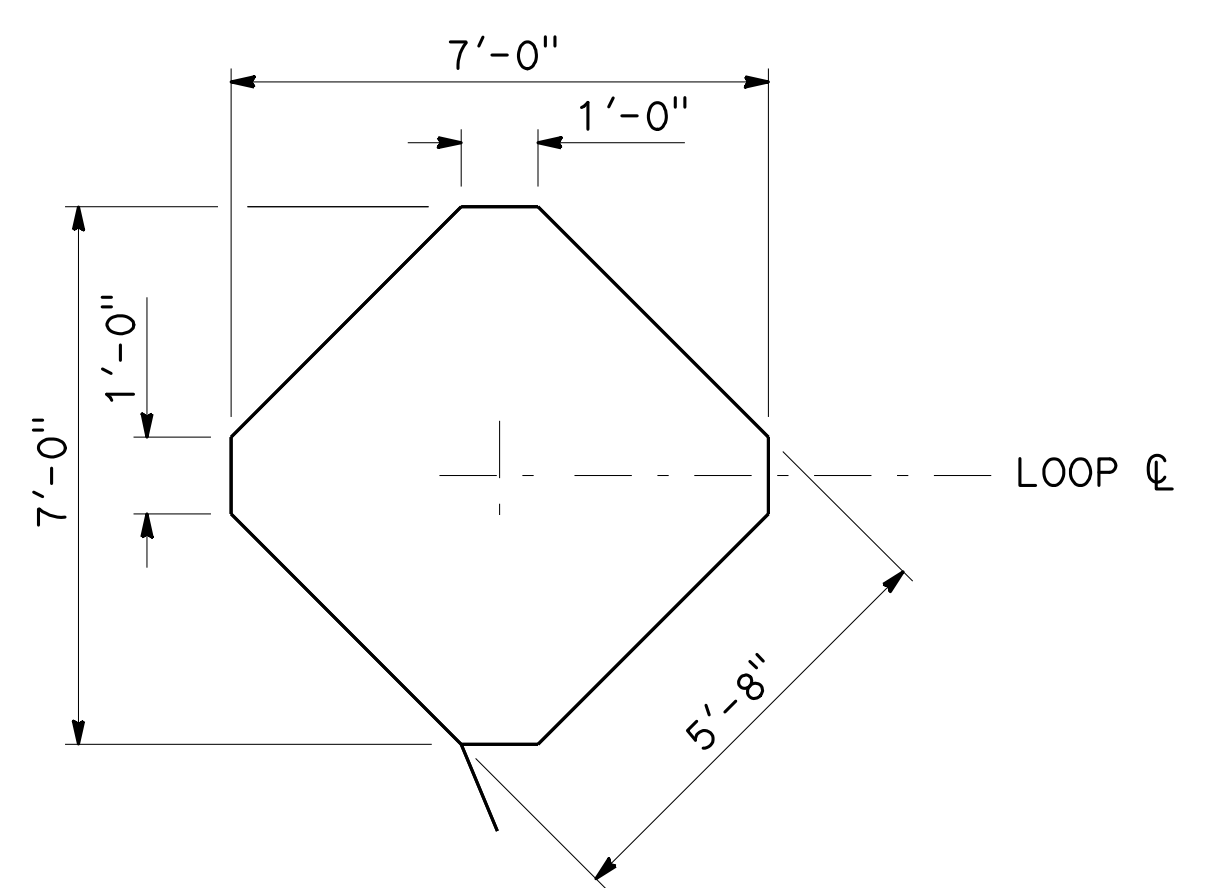
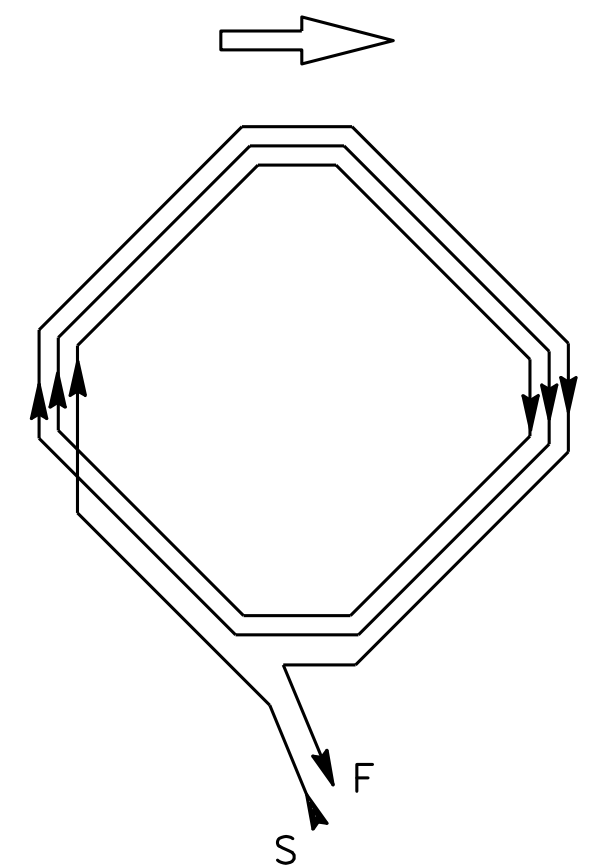
H.R.F.
 REGISTERED ELECTRICAL ENGINEER
 October 19, 2018
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
Hamid Zolfaghari
 No. E15636
 Exp. 12-31-19
 ELECTRICAL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 10-16-19

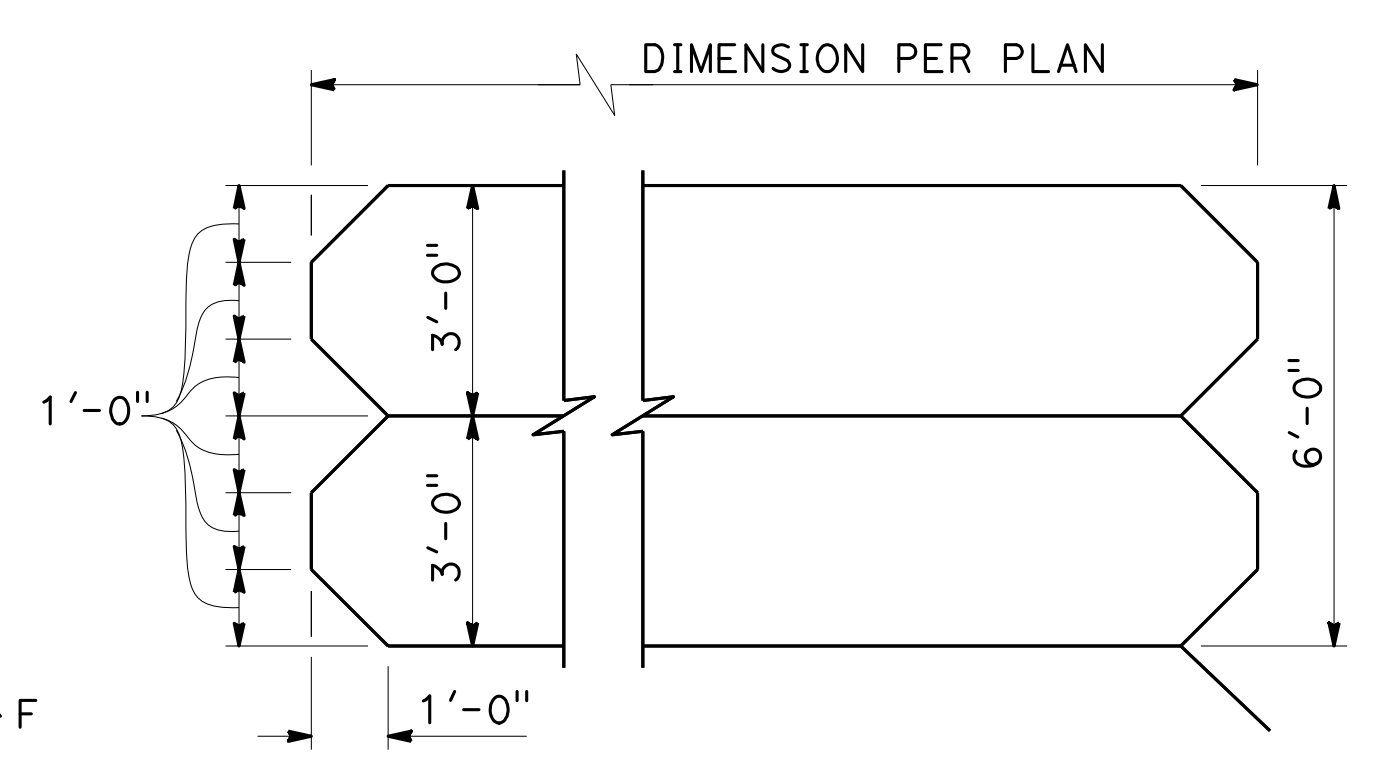
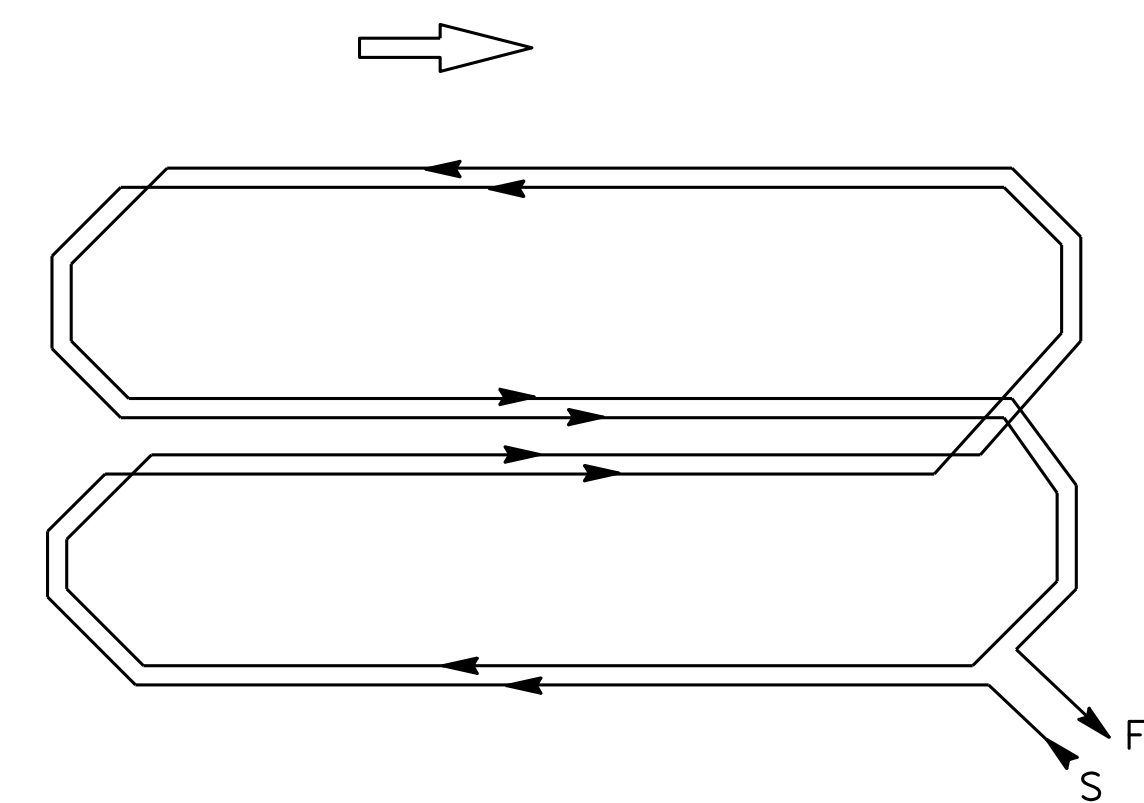


WINDING DETAIL
TYPE A LOOP DETECTOR CONFIGURATION

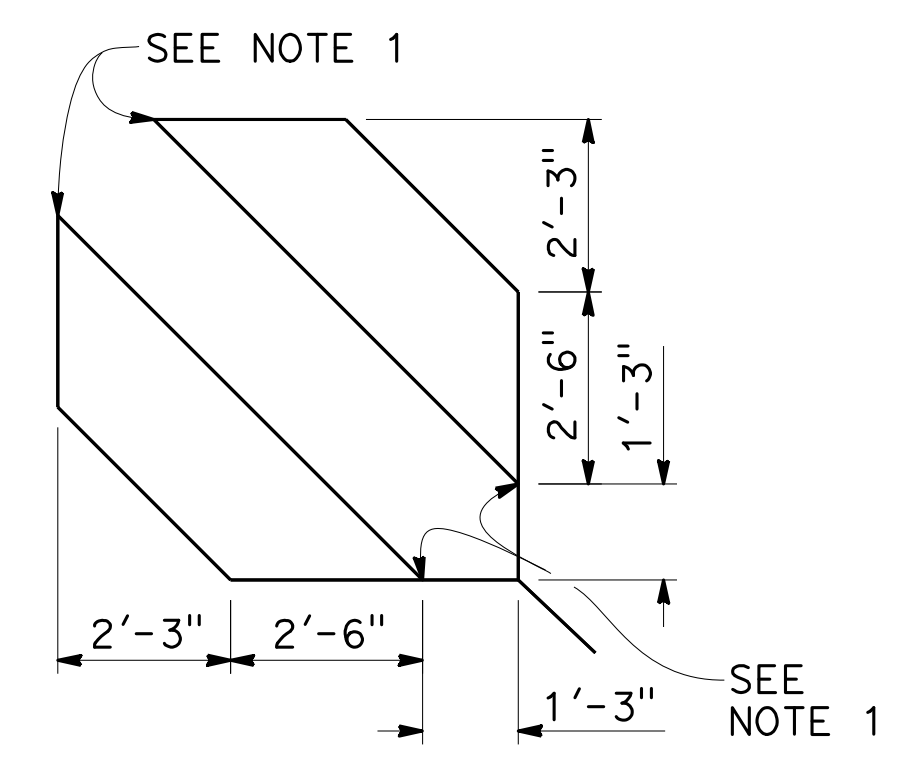
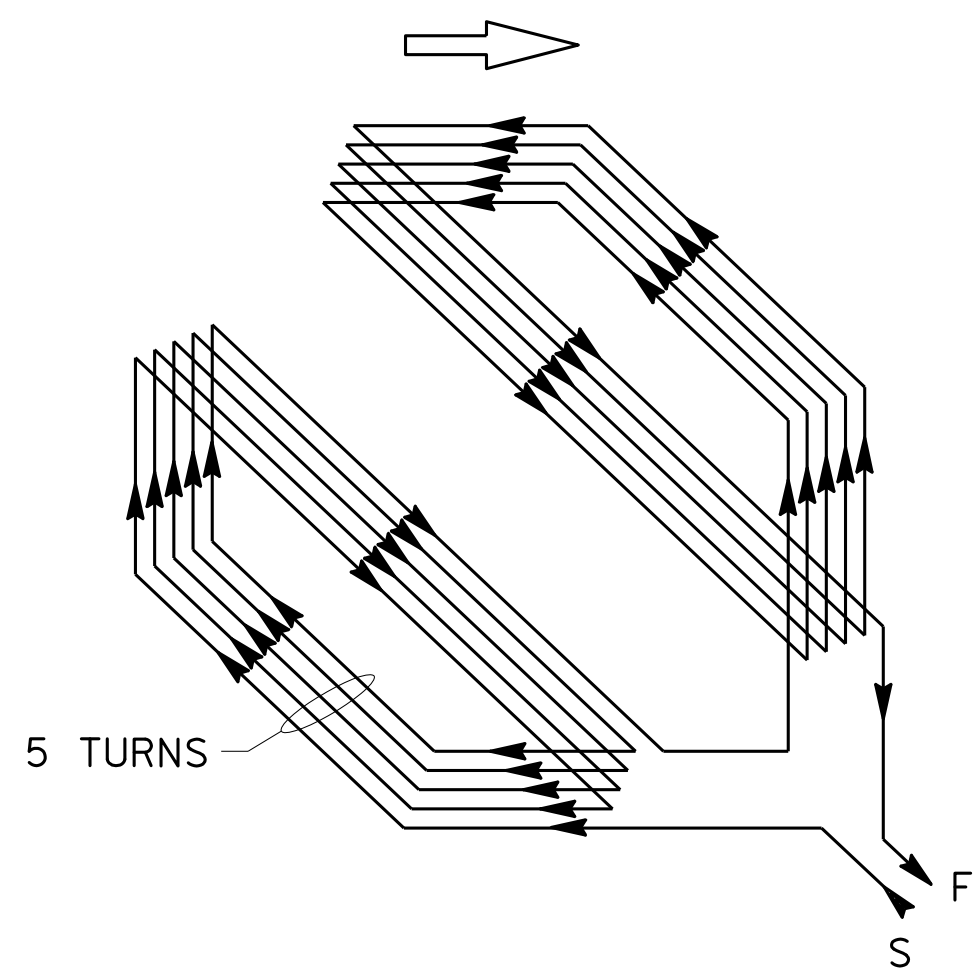


WINDING DETAIL
TYPE B LOOP DETECTOR CONFIGURATION

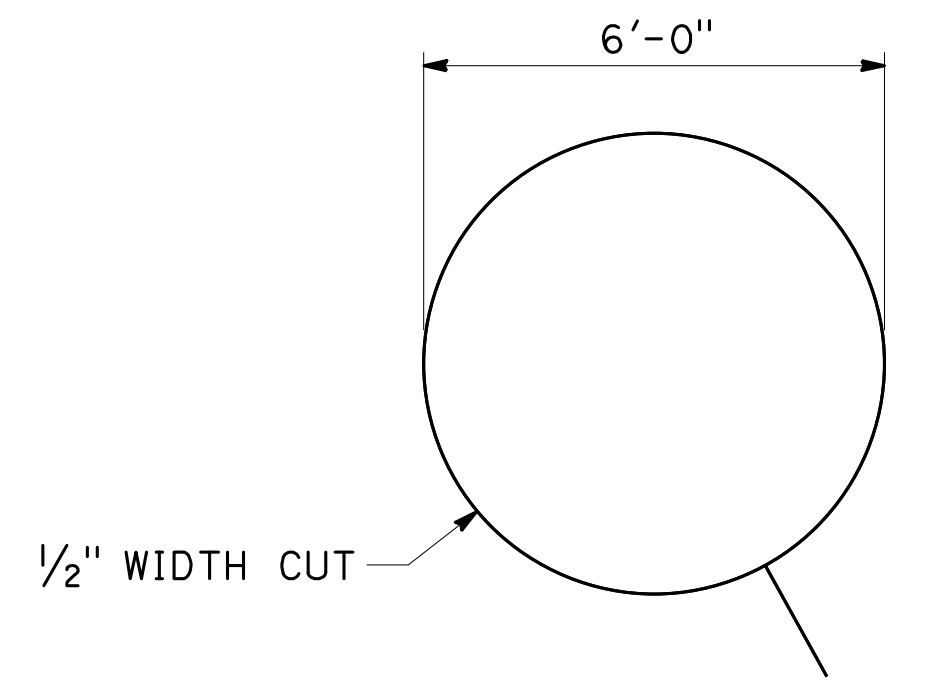
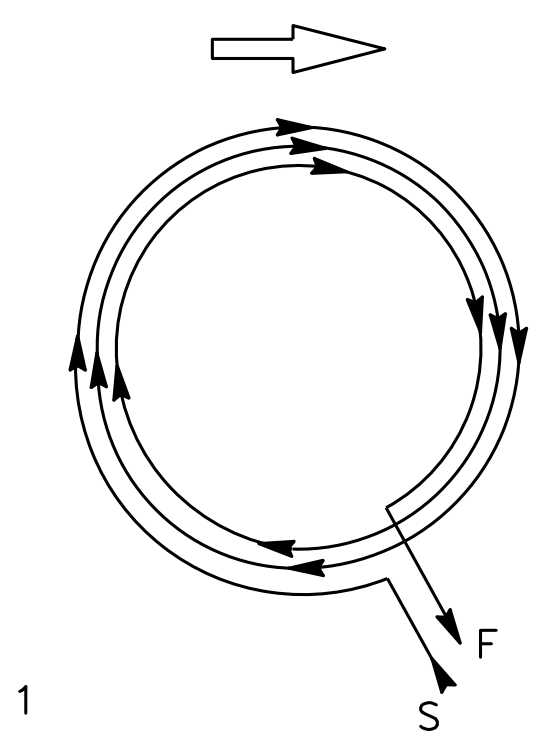
- NOTES:**
1. Round corners of acute angle saw cuts to prevent damage to conductors.
 2. Typical distance separating loops from edge to edge is 10' for Type A, B, D, E, and F installation in single lane.
 3. Use Type D and F loops for limit line detection and bicycle lanes.



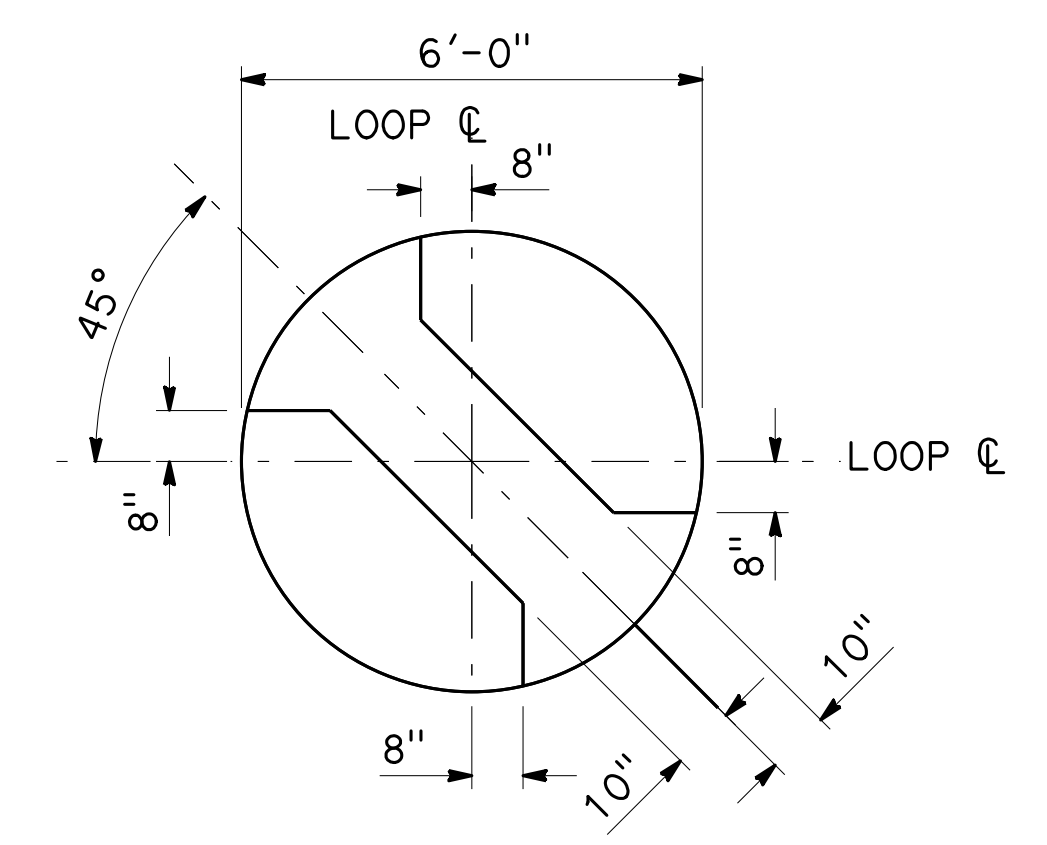
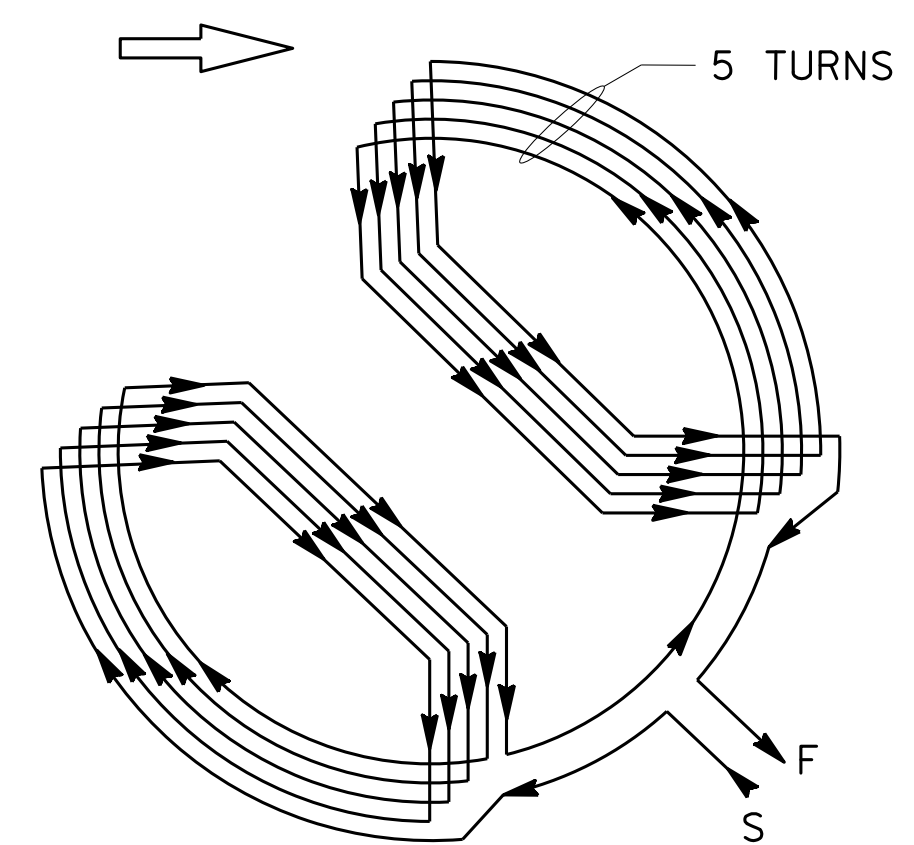
WINDING DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



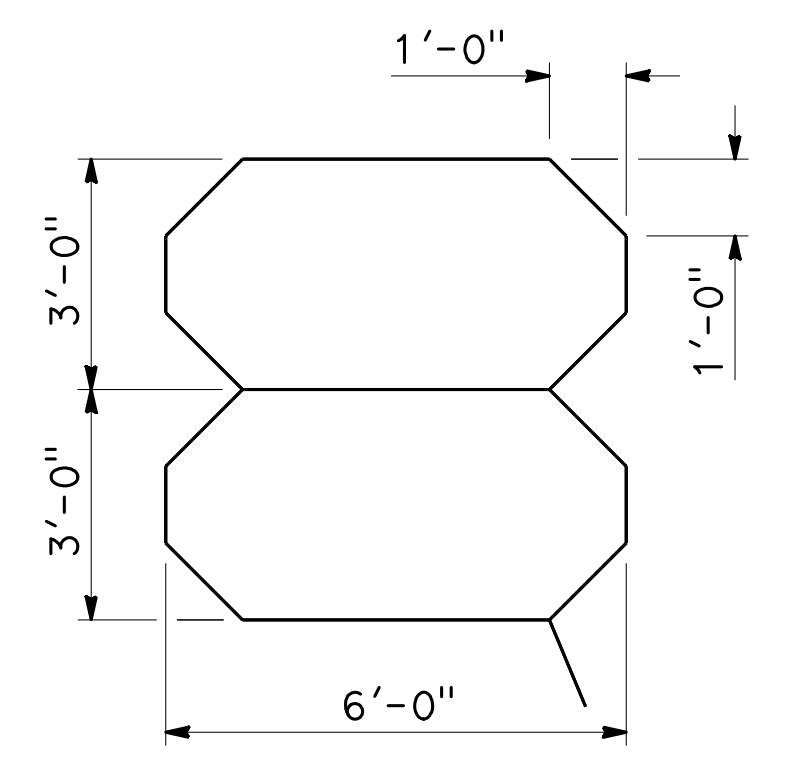
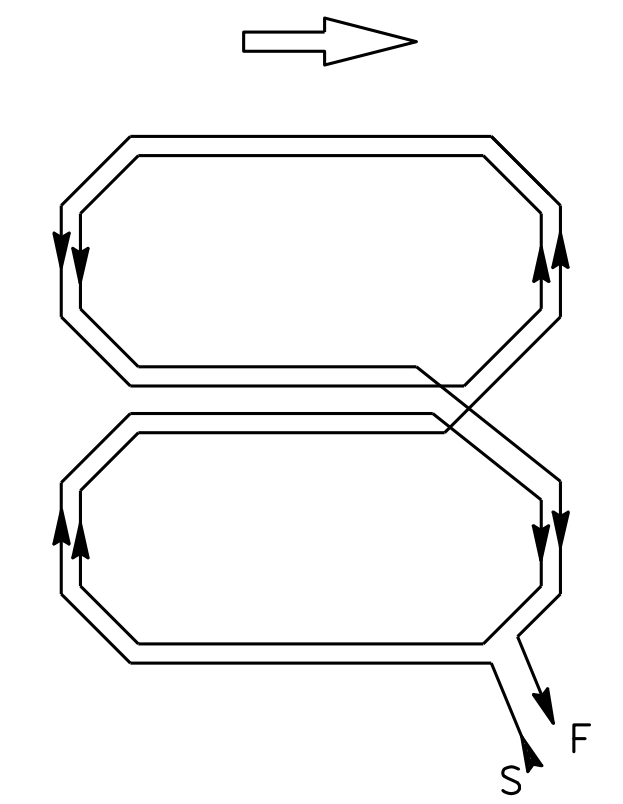
WINDING DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



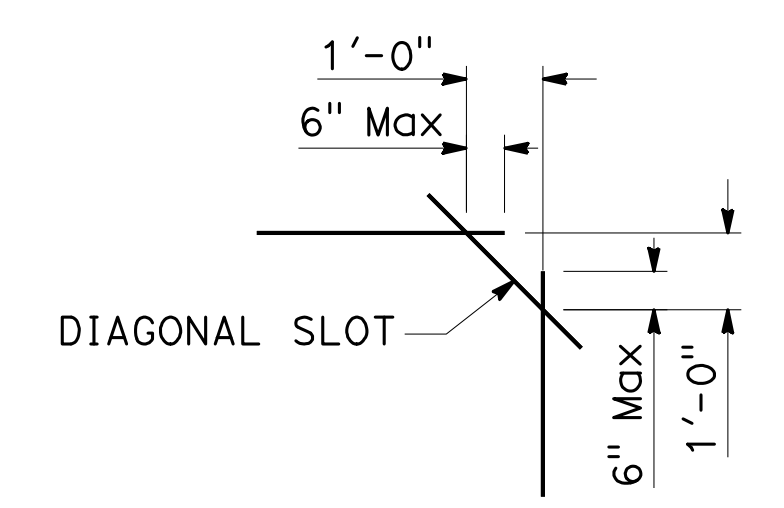
WINDING DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL
TYPE F LOOP DETECTOR CONFIGURATION



WINDING DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION



PLAN VIEW OF DIAGONAL SLOT AT CORNERS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (DETECTORS)


NO SCALE

RSP ES-5B DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN ES-5B DATED MAY 31, 2018- PAGE 505 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP ES-5B

2018 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	73	79

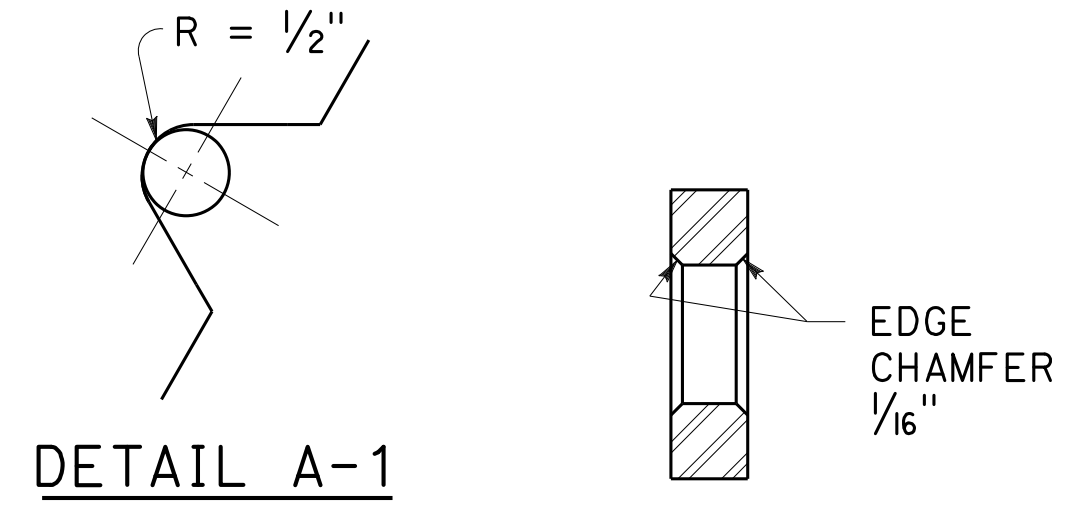
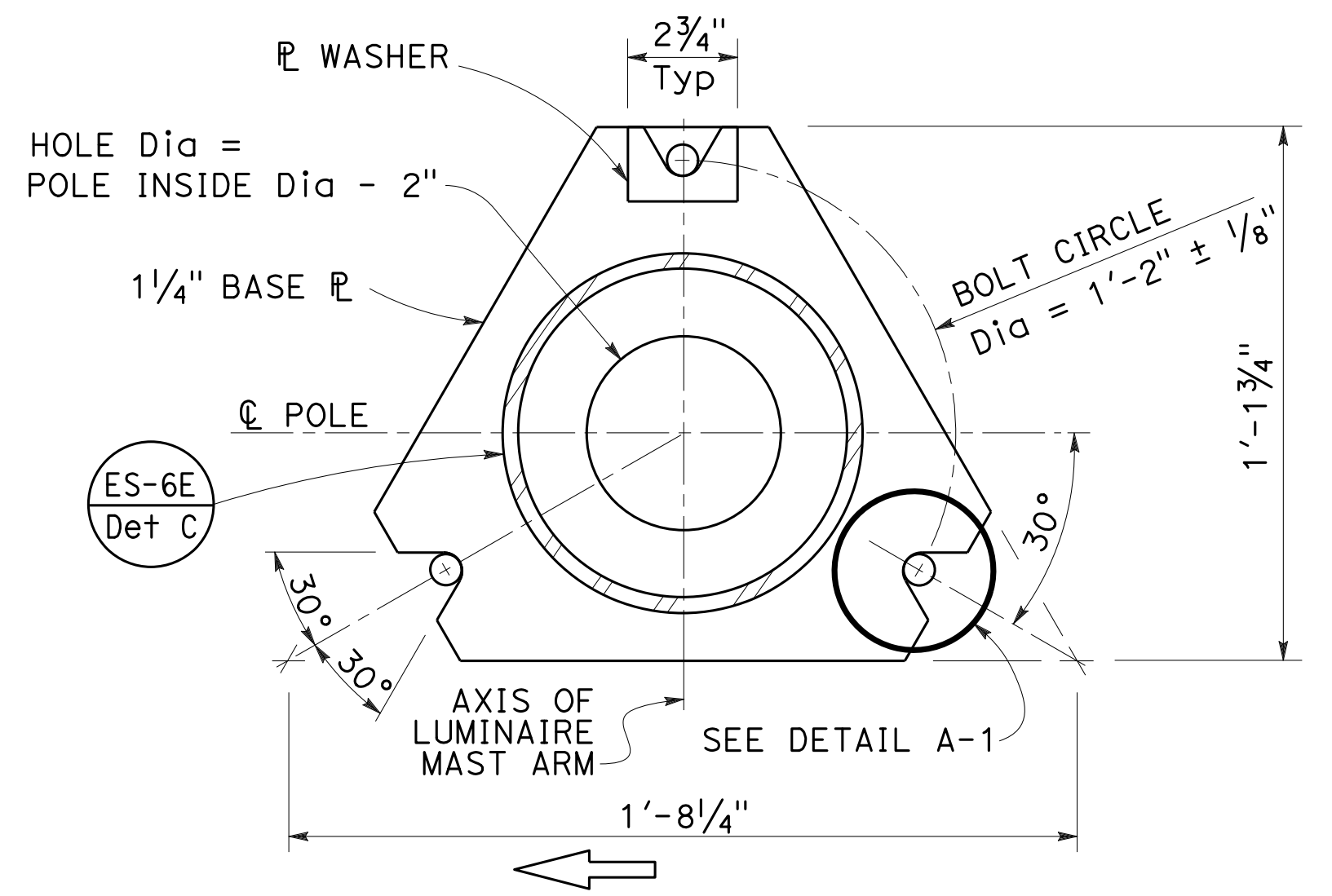

 REGISTERED CIVIL ENGINEER
 October 19, 2018
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Stanley P. Johnson
 No. C57793
 Exp. 3-31-20
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 10-16-19

NOTES:

- 1" ϕ HS anchor bolts. For clamp bolts, see specifications.
- Conduit shall not protrude more than 2" above top of foundation.
- Handhole shall be located on the downstream side of traffic.
- For Type 30 fixed base and for Type 31 fixed base, see Notes 2 and 3 on Standard Plan ES-6E.



SECTION A-A

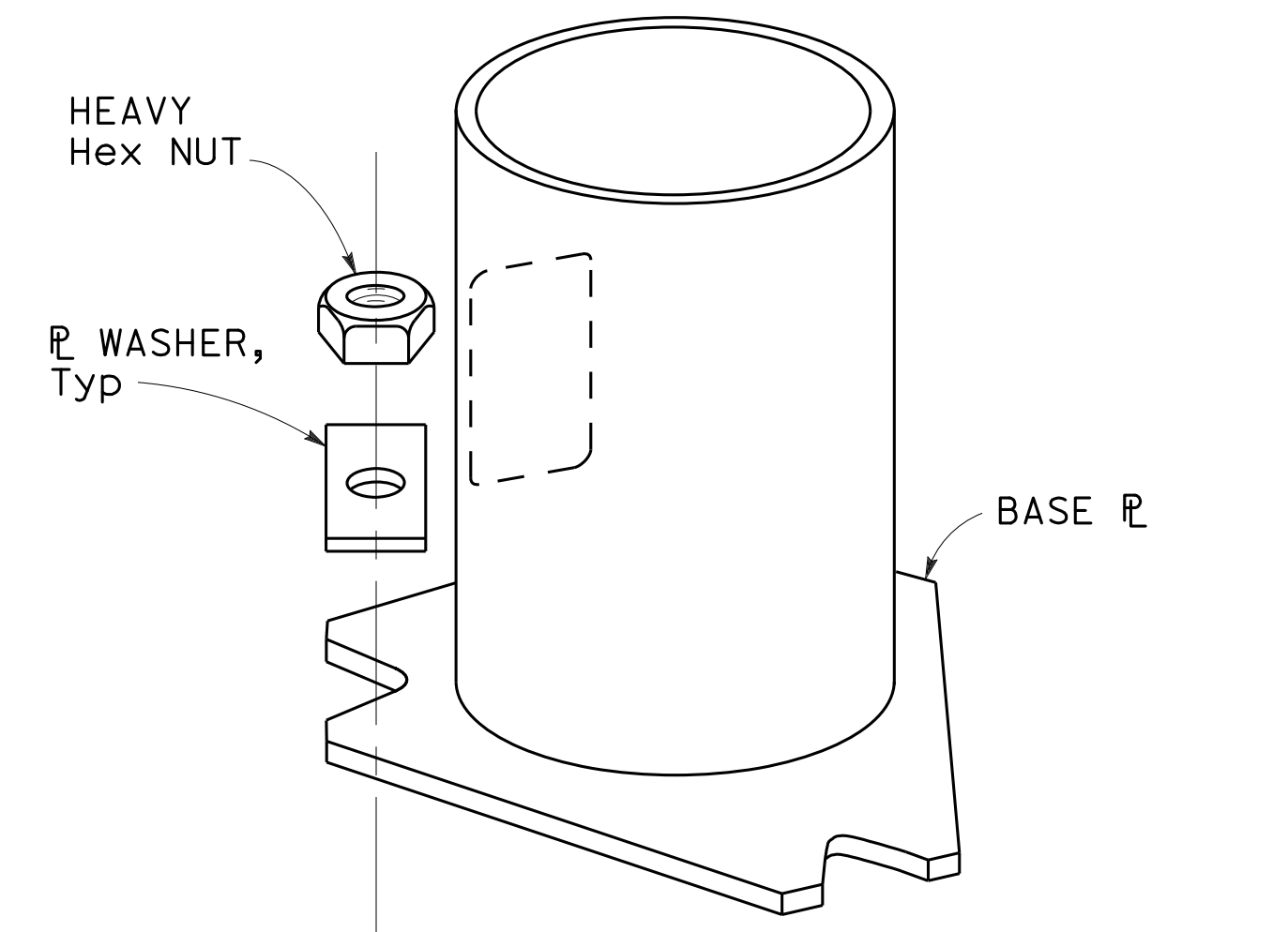
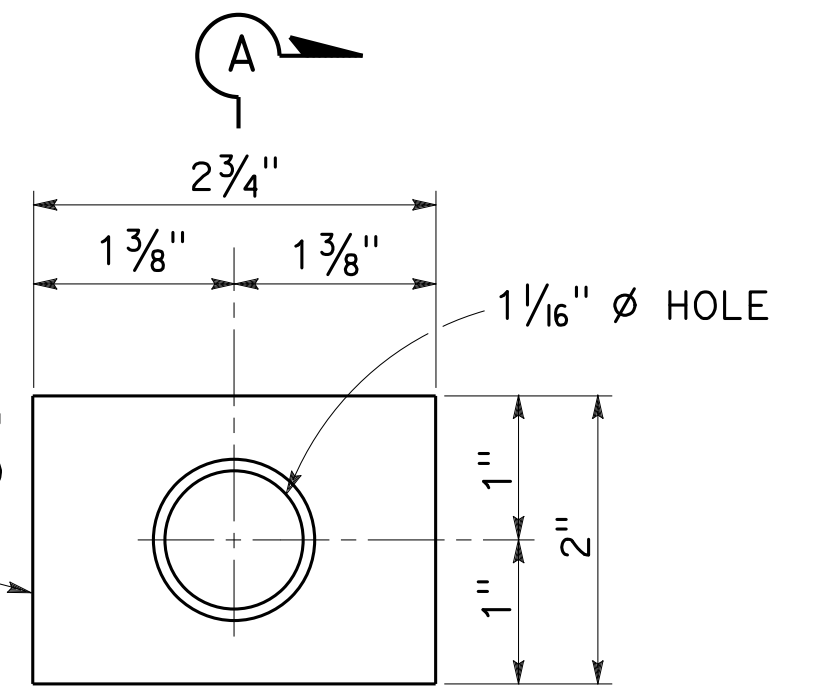
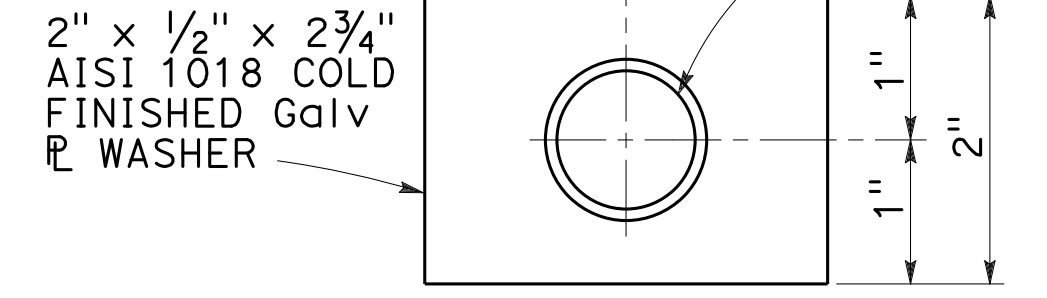
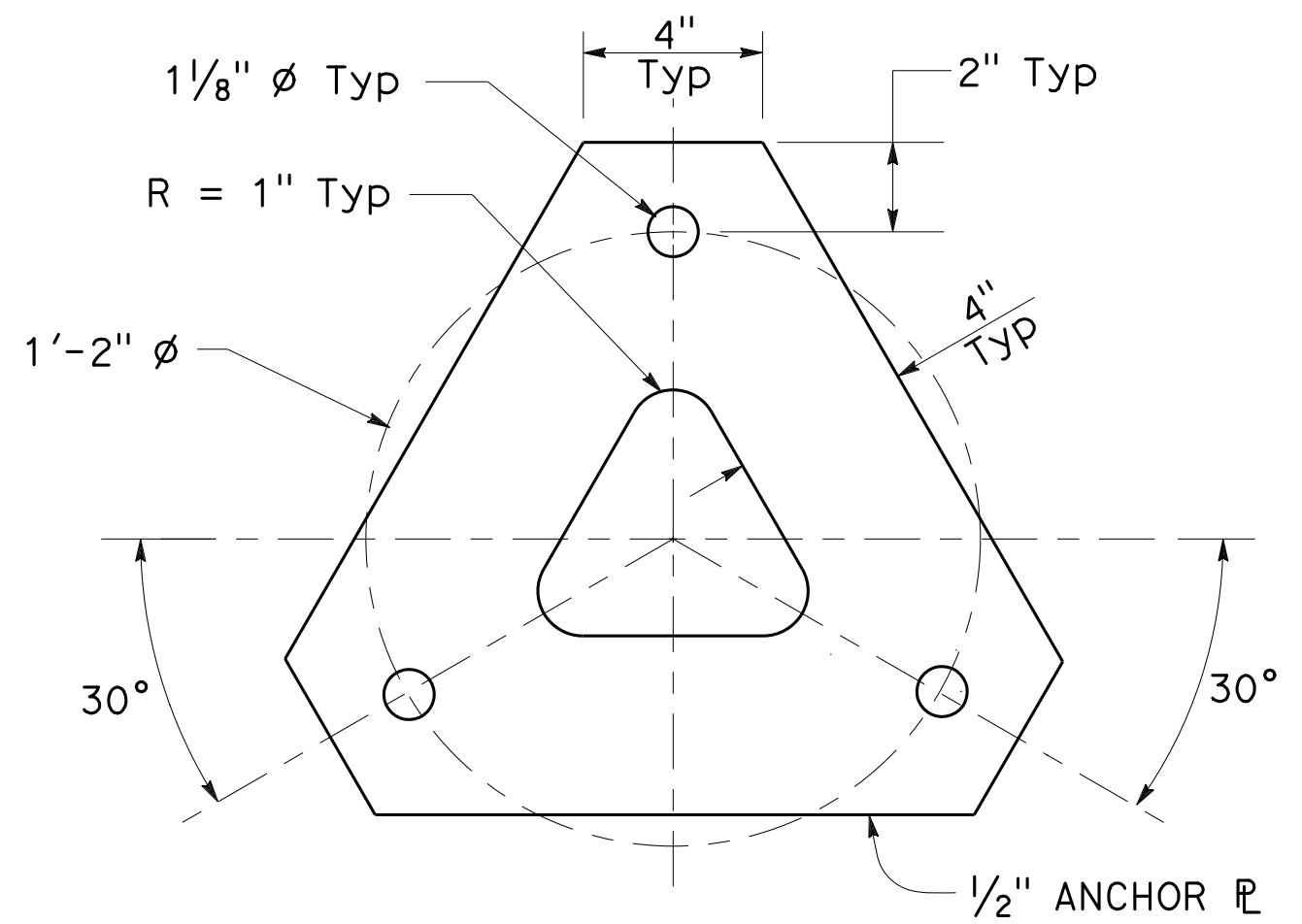


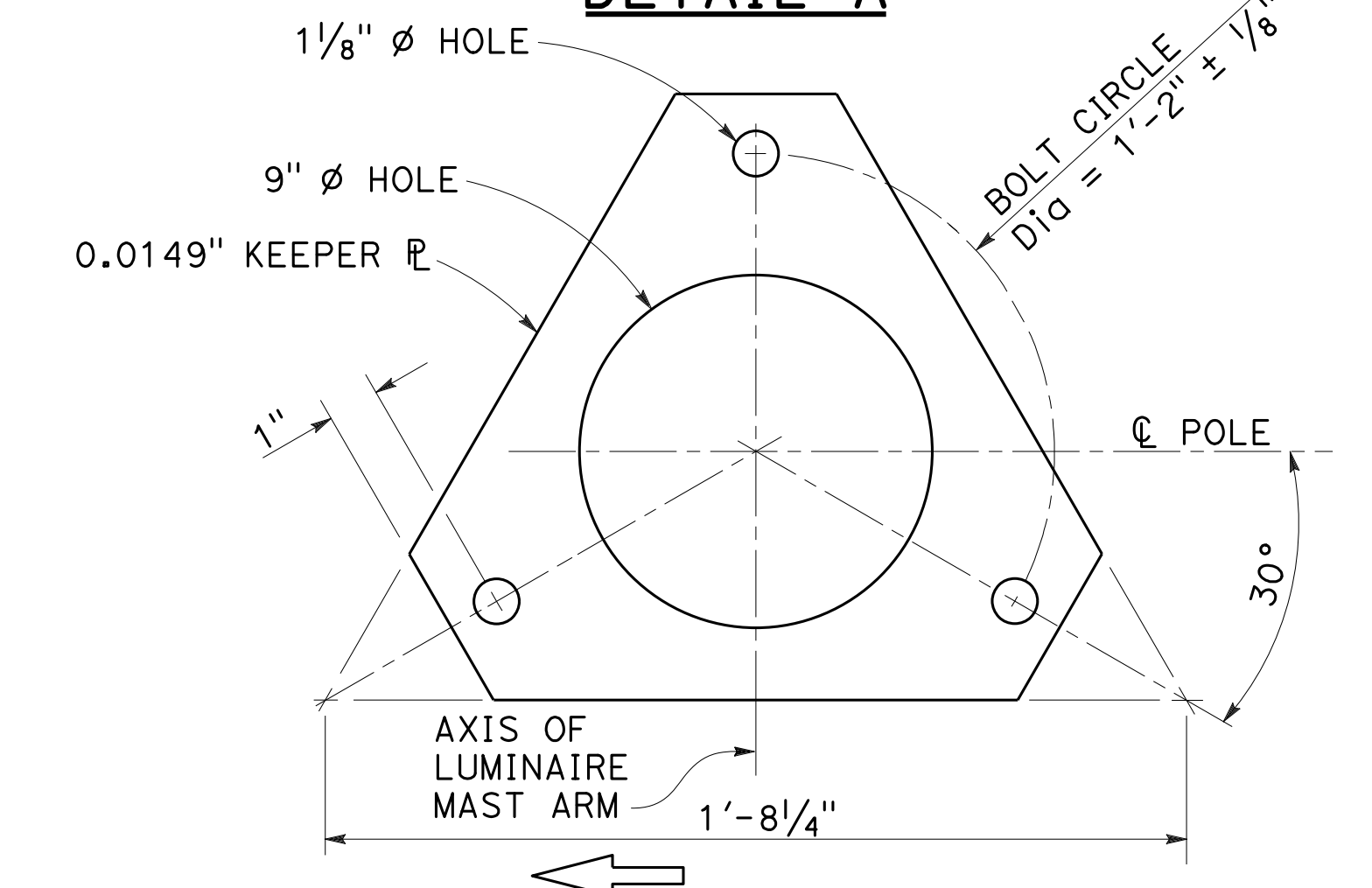
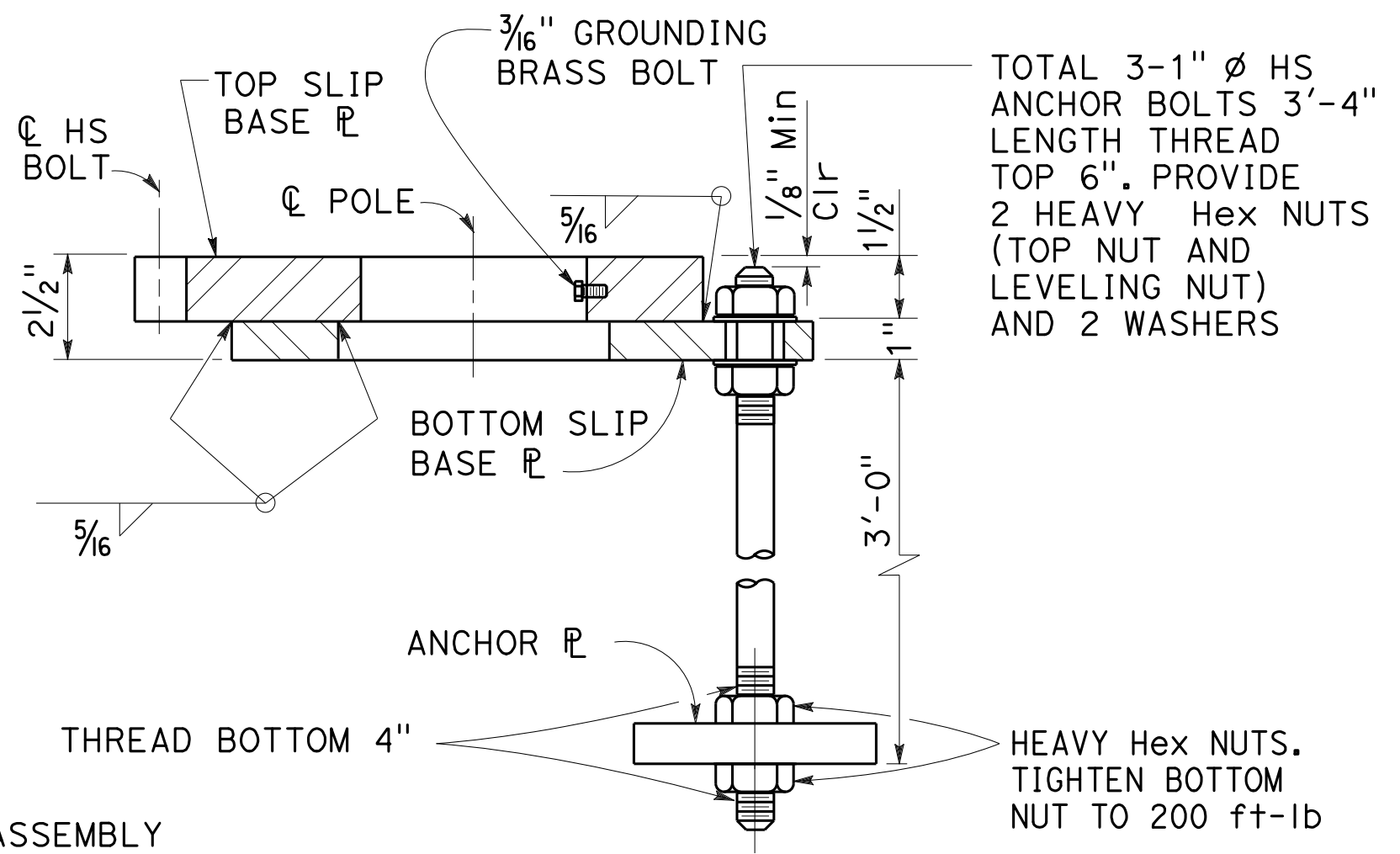
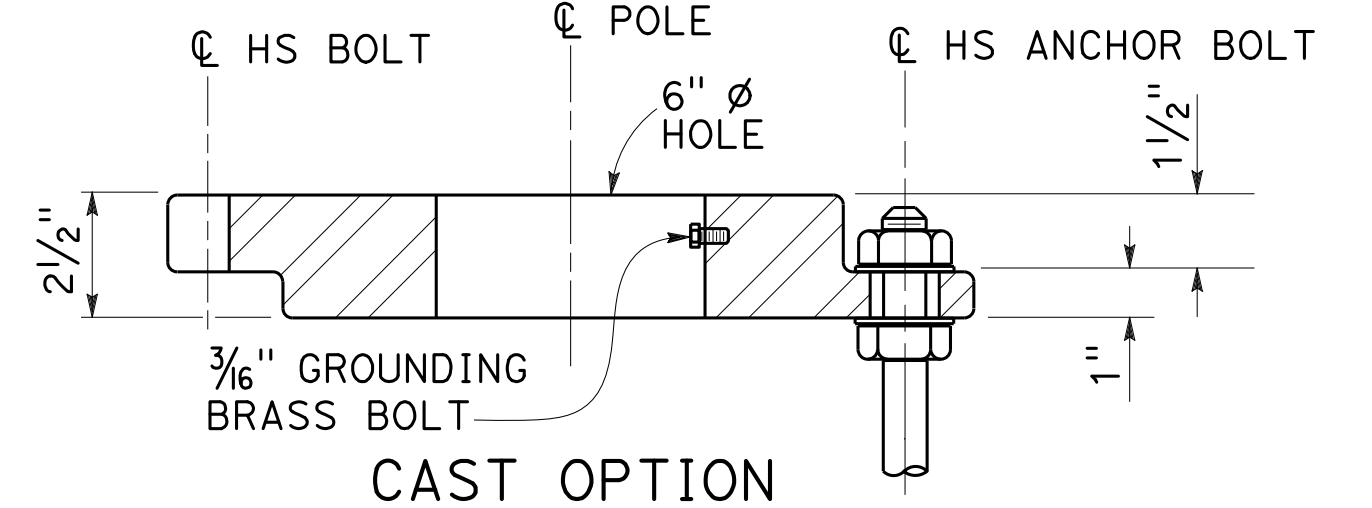
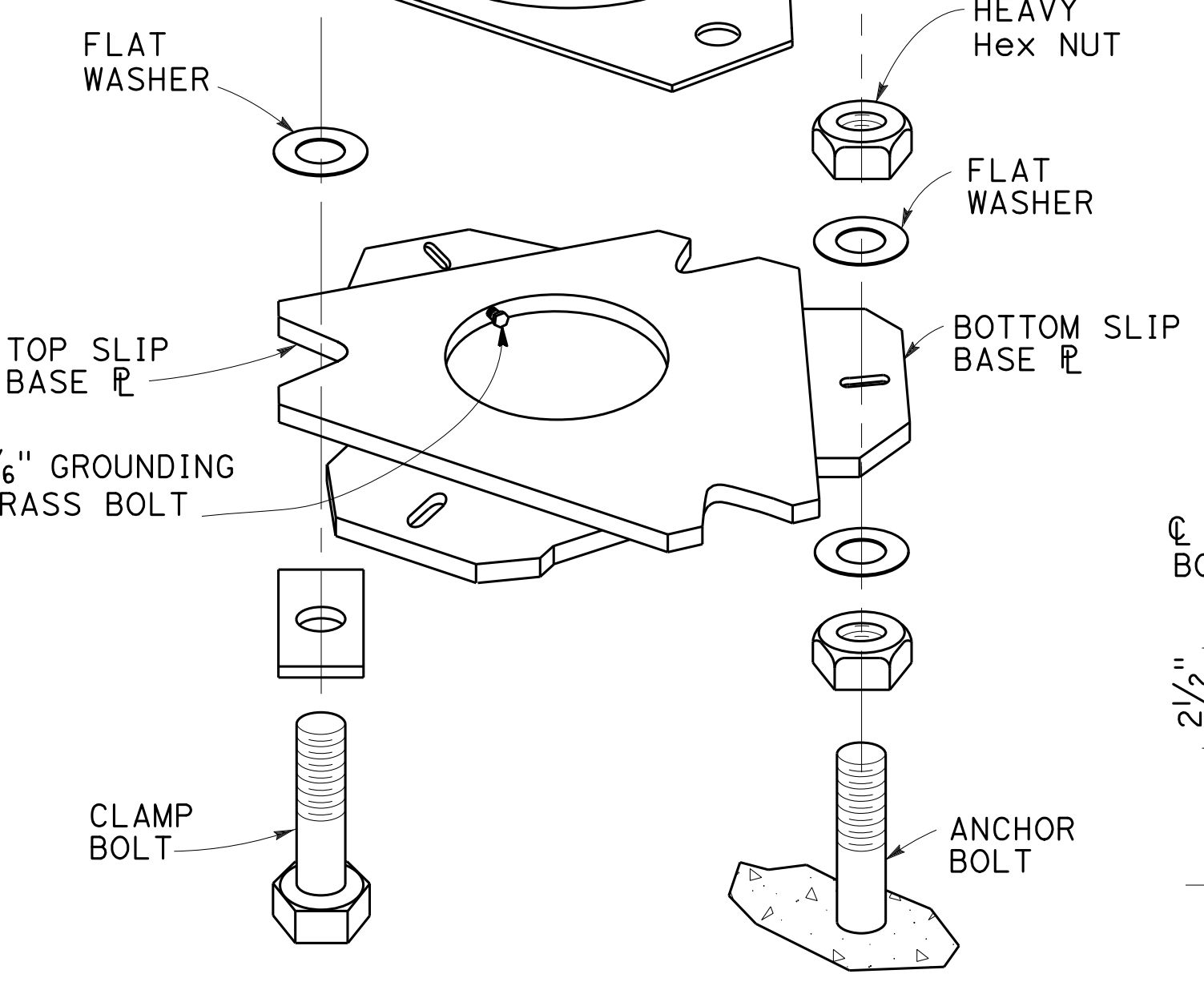
PLATE WASHER DETAIL D



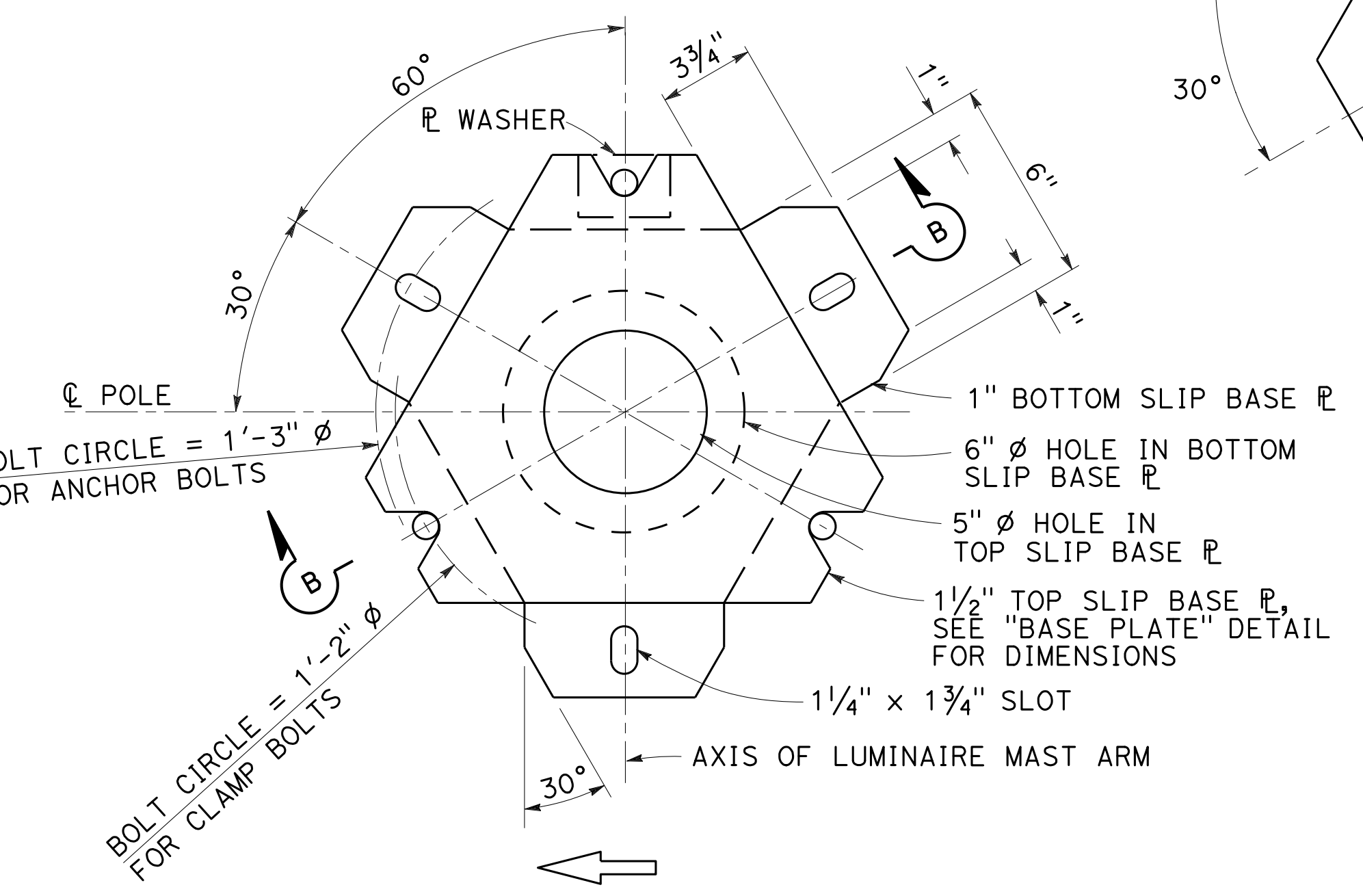
ANCHOR PLATE DETAIL E



SLIP BASE DETAIL DETAIL F

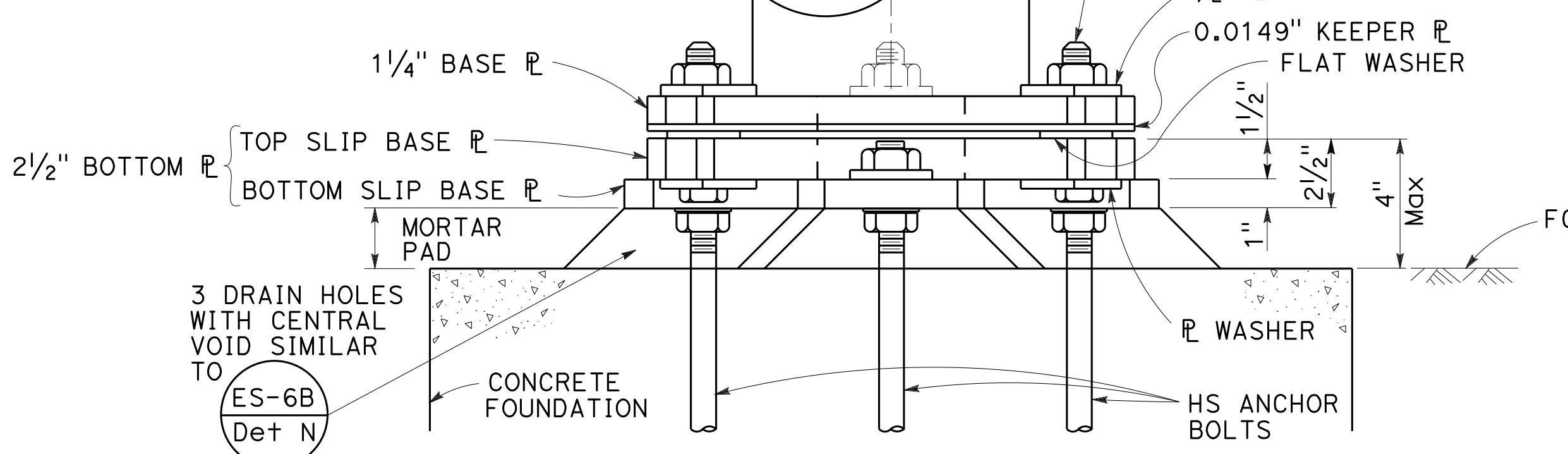


KEEPER PLATE DETAIL B



BOTTOM PLATE DETAIL C

ANCHOR PLATE DETAIL E



SLIP BASE ELEVATION A

ELECTRICAL SYSTEMS (LIGHTING STANDARD, SLIP BASE PLATE)

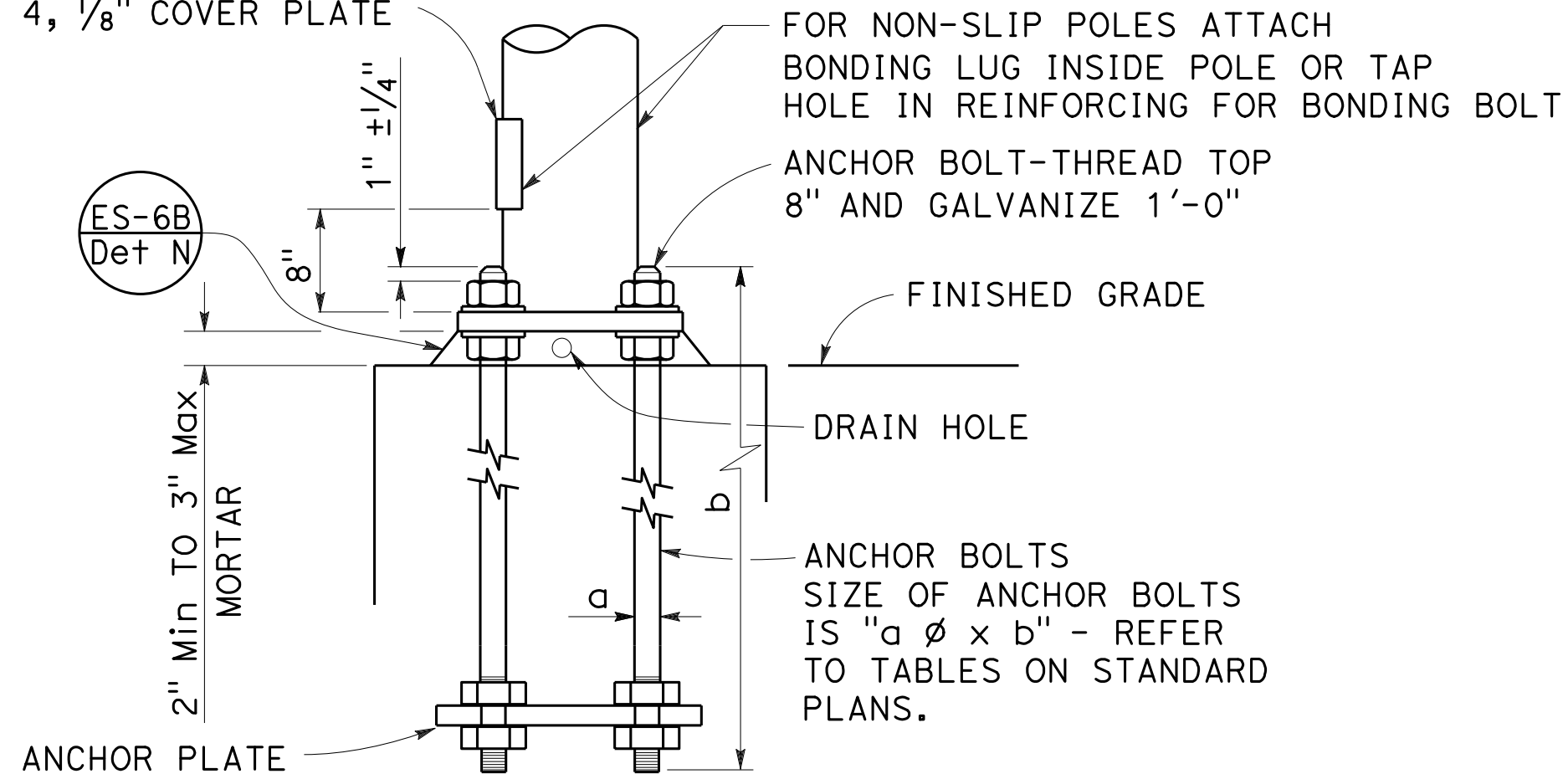
NO SCALE

RSP ES-6F DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN ES-6F DATED MAY 31, 2018 - PAGE 513 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP ES-6F

2018 REVISED STANDARD PLAN RSP ES-6F

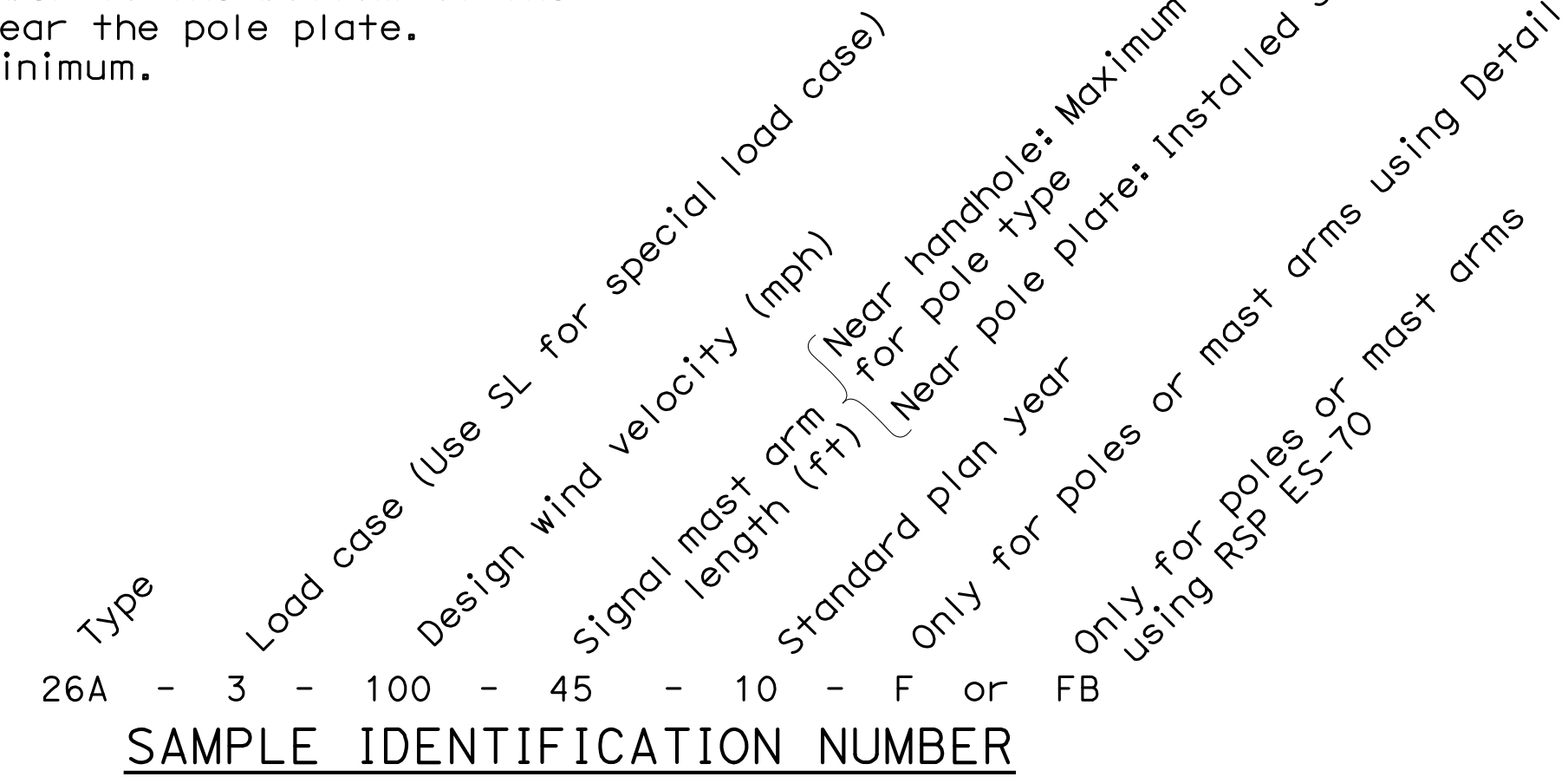
4" x 6 1/2" ROUNDED RECTANGLE HANDHOLE REINFORCED WITH RING WELDED TO OUTSIDE OF POLE. SEE NOTE 4, 1/8" COVER PLATE



HANDHOLE AND ANCHORAGE
DETAIL A

IDENTIFICATION NUMBER

1. Attach a stamped metal tag with pole's identification number above the handhole. 1/4" high number, minimum.
2. Attach a stamped metal tag with mast arm's identification number to the bottom of the signal mast arm near the pole plate. 1/4" high number, minimum.



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	74	79

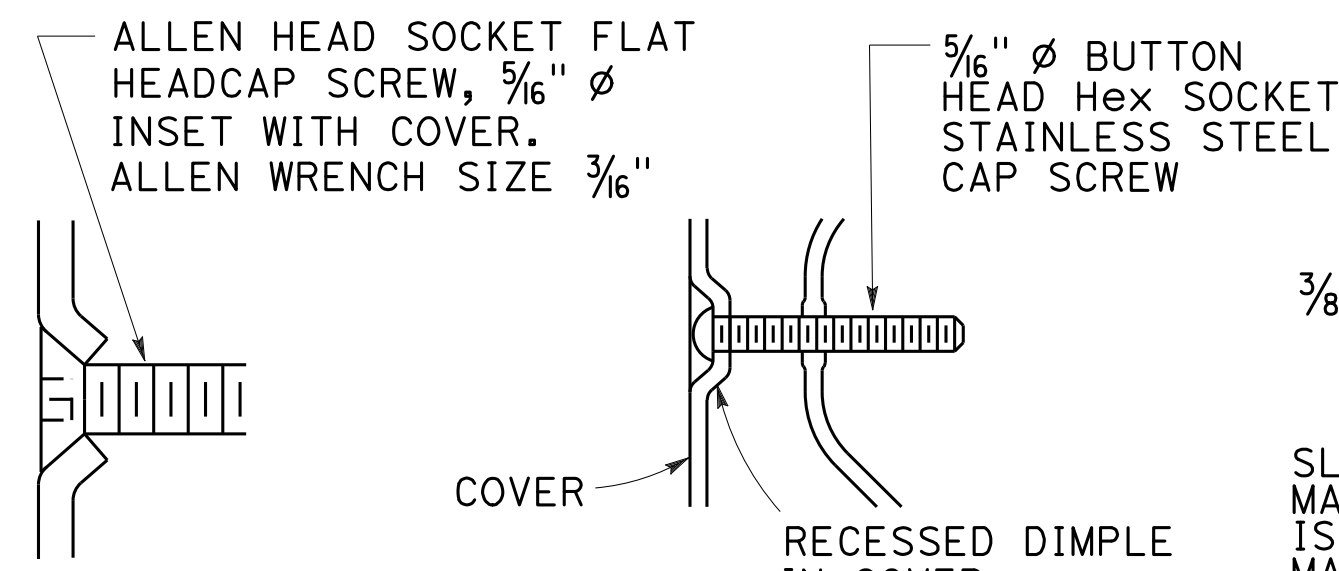
Stanley P. Johnson
REGISTERED CIVIL ENGINEER

October 19, 2018
PLANS APPROVAL DATE

Stanley P. Johnson
No. C57793
Exp. 3-31-20
CIVIL
STATE OF CALIFORNIA

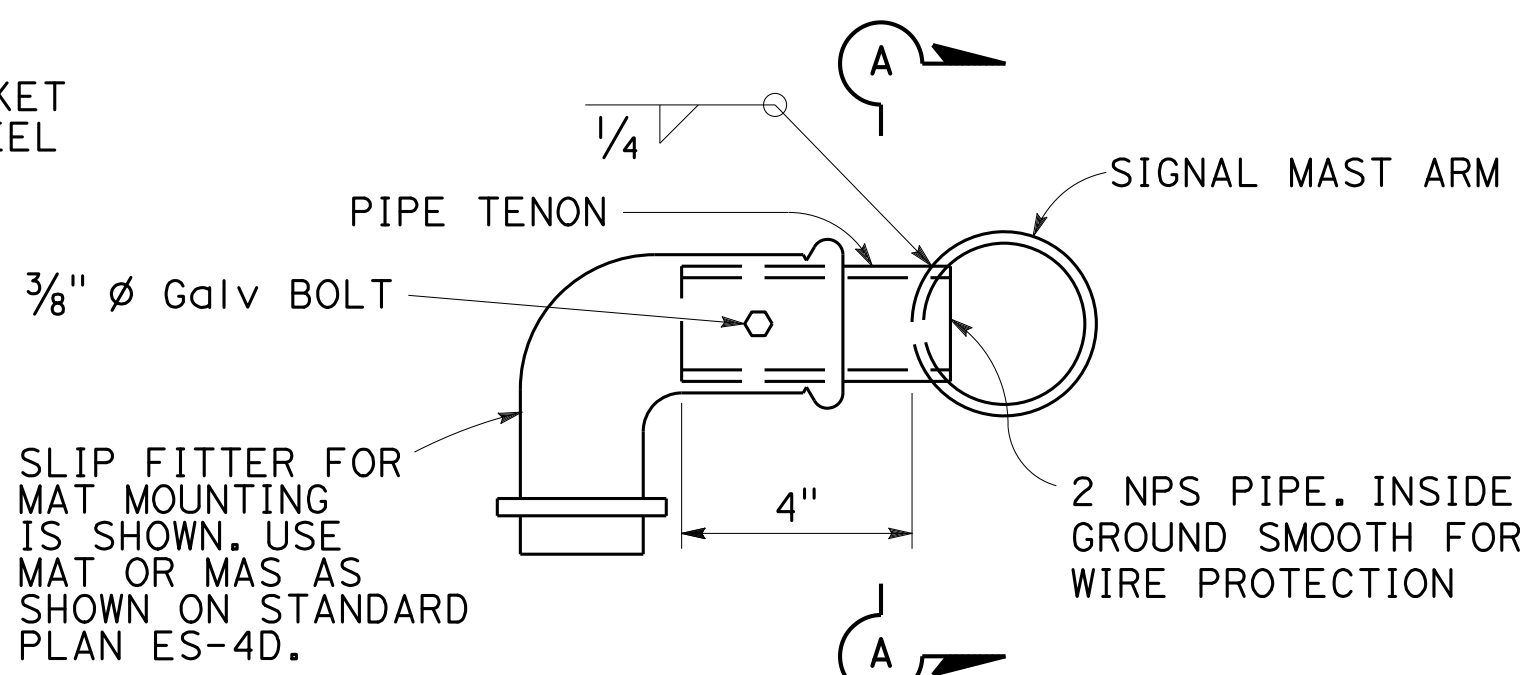
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TO ACCOMPANY PLANS DATED 10-16-19

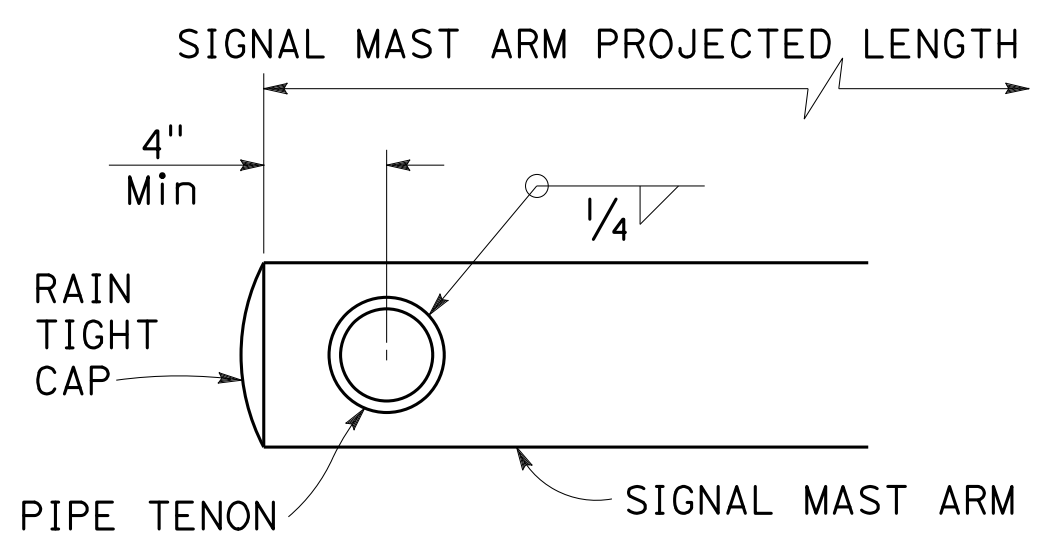


TYPICAL DETAIL
DETAIL B-1

ALTERNATIVE DETAIL
DETAIL B-2



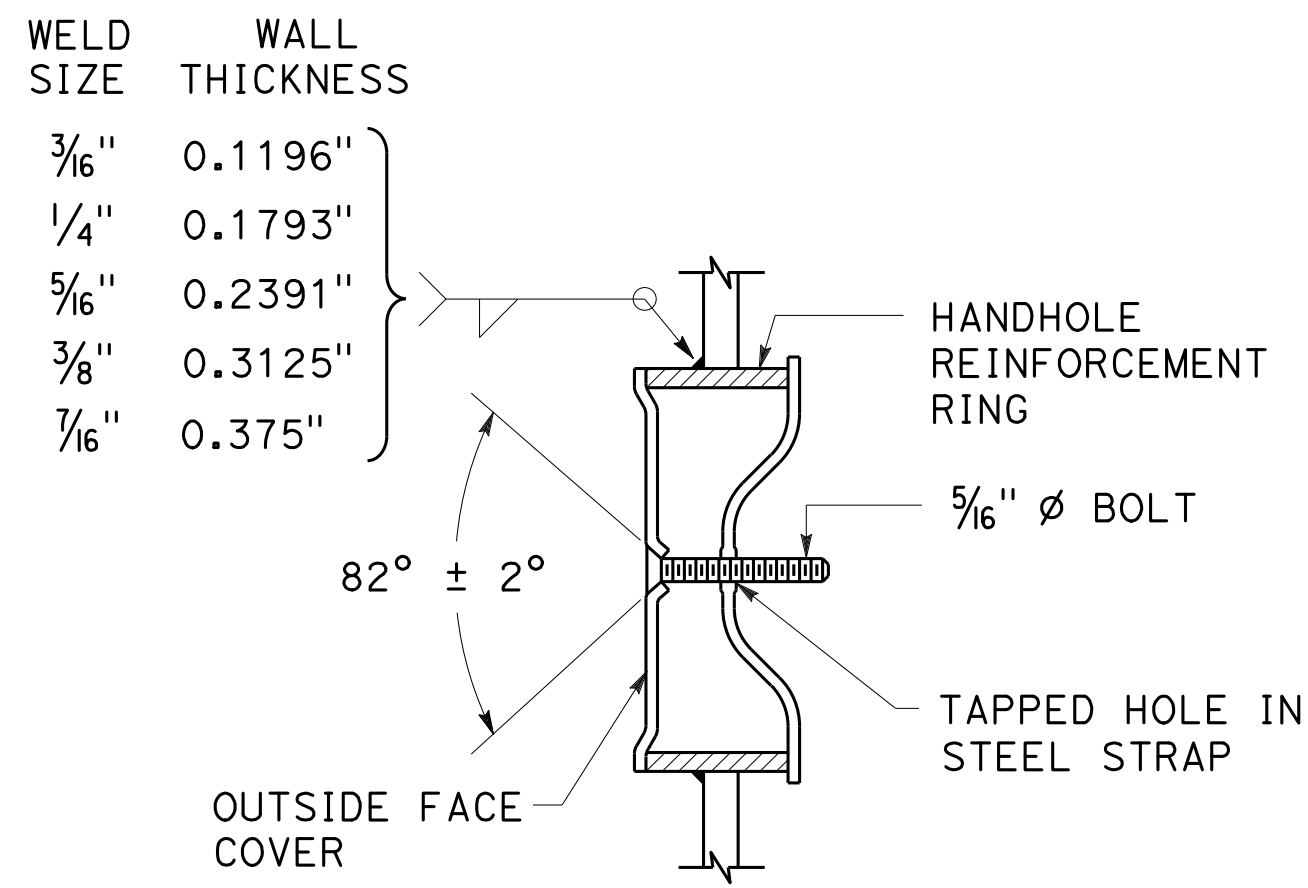
SIDE TENON
DETAIL S-1



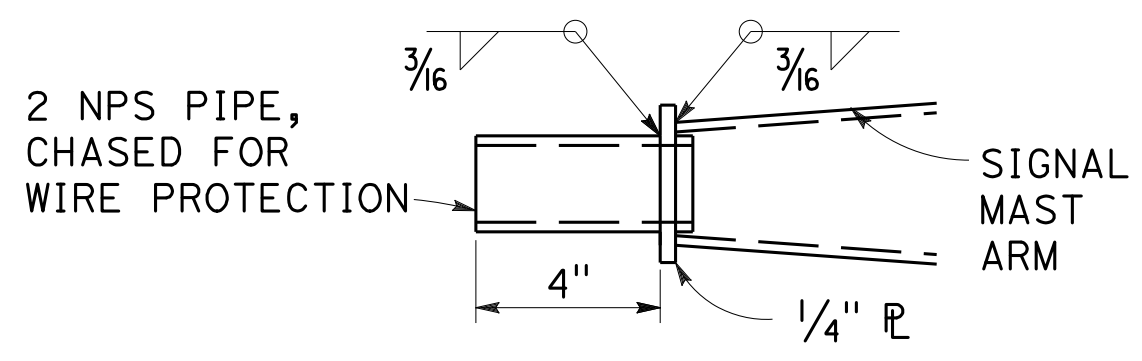
SECTION A-A

NOTES:

1. Provide a Hex nut, leveling nut and 2 washers for each bolt.
2. Luminaire mast arms shall be round, tapered steel tubes, taper of 0.1375" to 0.143-inch per foot with an end section 2 3/8" OD for mounting hardware. Extensions of 2 NPS Standard pipe and 7" long may be used at the option of the manufacturer. When low pressure sodium luminaires are required, the extension shall be 1'-3".
3. Signal mast arms shall be round, tapered steel tubes, maximum taper 0.143-inch per foot.
4. Handhole reinforcement ring shall be 1/4" x 2" for 0.1196" to 0.2391" thick poles, 3/8" x 2" for 0.3125" to 0.375" thick poles.
5. Handholes shall be located on the downstream side of traffic.
6. Detail F, fatigue resistant weld, is required at socket welded signal mast arm plate and pole base plate.
7. Cap screws shall be tightened by the turn-of-nut method 1/3 turn from a snug tight condition. No washer will be required.
8. Outside diameter, wall thickness, and corresponding section properties of poles and mast arms as shown in the Standard Plans are minimums. Unless otherwise specified, alternative sections shall require approval by the Engineer.
9. Design: AASHTO Standard Specifications for Structural Support for Highway Signs, Luminaires, and Traffic Signals, 6th Edition. Basic Wind Speed = 100 mph (3 seconds gust). Yearly Mean Wind Velocity = 15.6 mph.
10. Materials (Structural steel):
fy = 55,000 psi (tapered steel tube and anchor bolts)
fy = 50,000 psi (unless otherwise noted)
11. Materials (Reinforced concrete):
f'c = 3,625 psi
fy = 60,000 psi

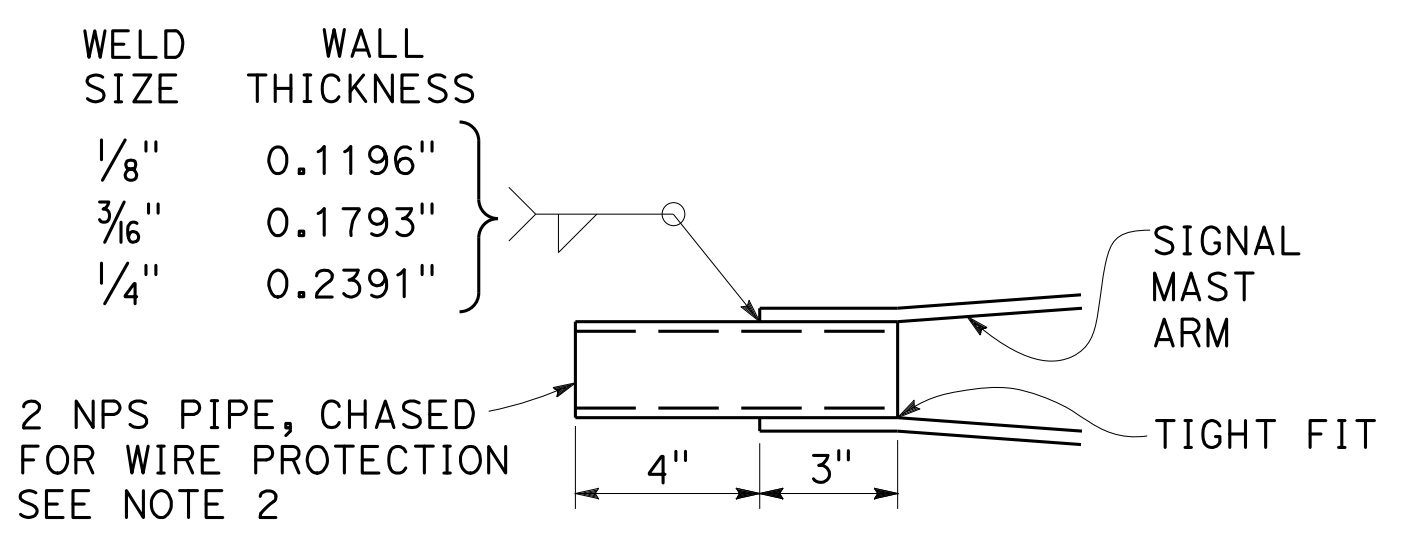


TAMPER RESISTANT HANDHOLE COVER
DETAIL B

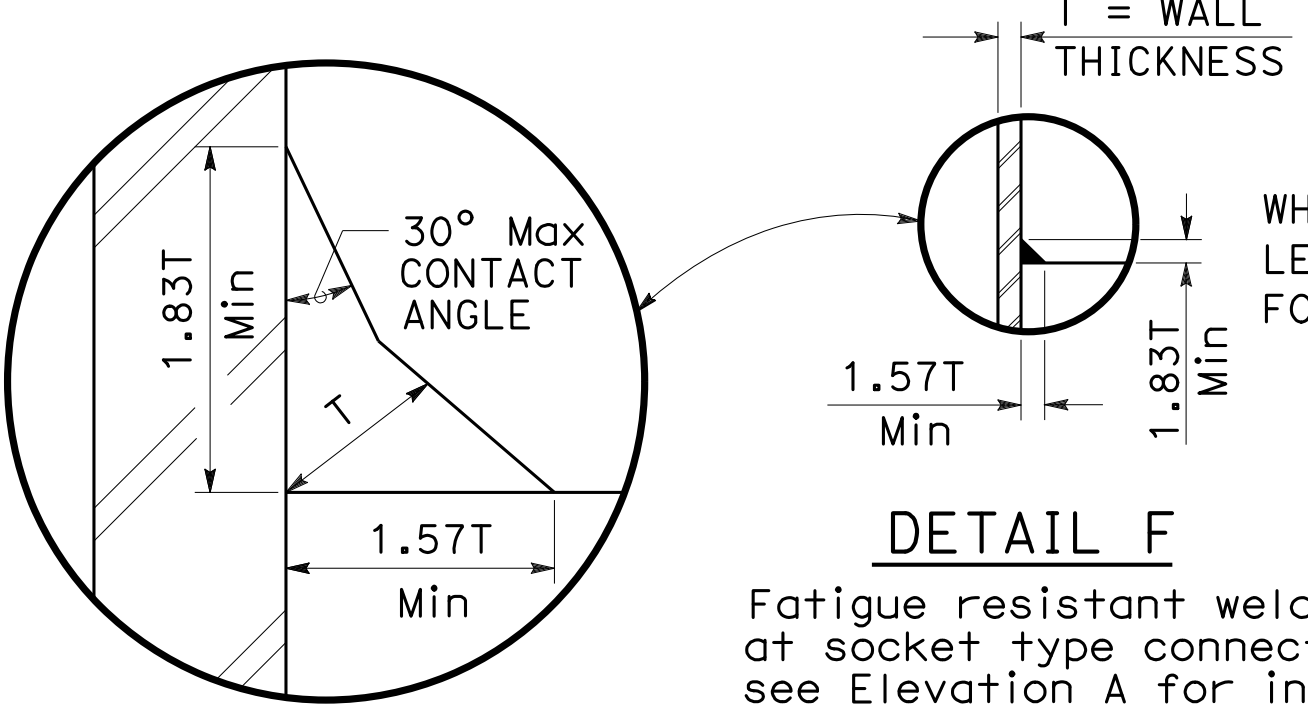


TIP TENON
DETAIL TL
This detail supersedes Detail S when so designated

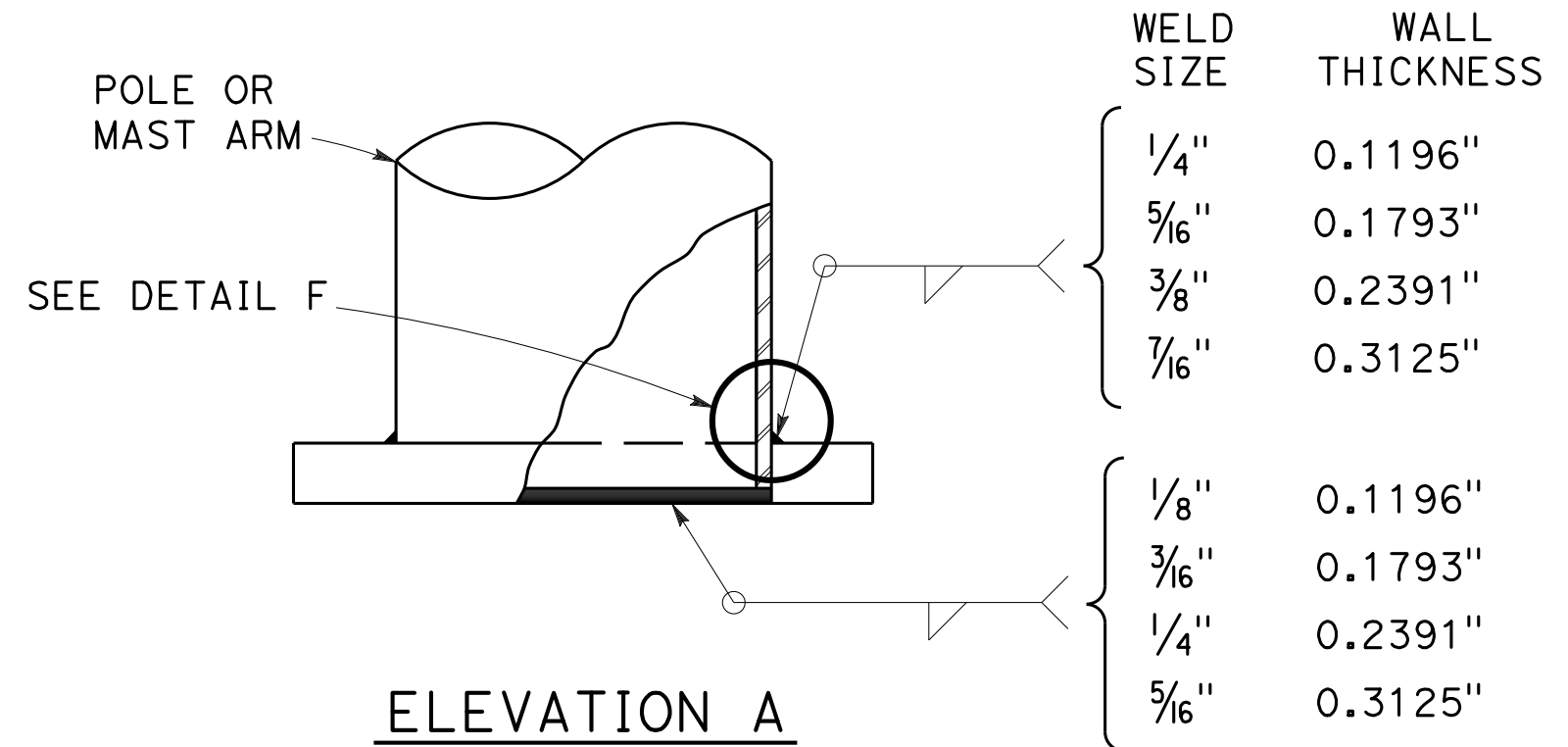
PIPE TENONS
DETAIL S



TIP TENON
DETAIL TS



DETAIL F
Fatigue resistant weld at socket type connection see Elevation A for inner weld



ELEVATION A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD,
DETAIL No. 1)

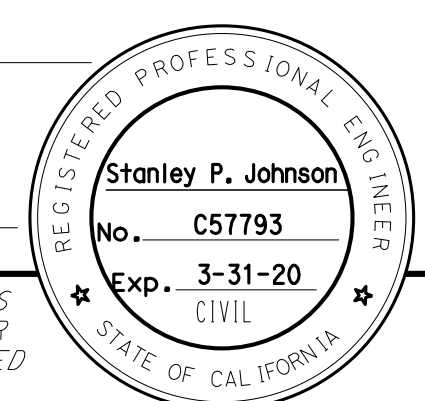
NO SCALE

RSP ES-7M DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN ES-7M
DATED MAY 31, 2018 - PAGE 526 OF THE STANDARD PLANS BOOK DATED 2018.

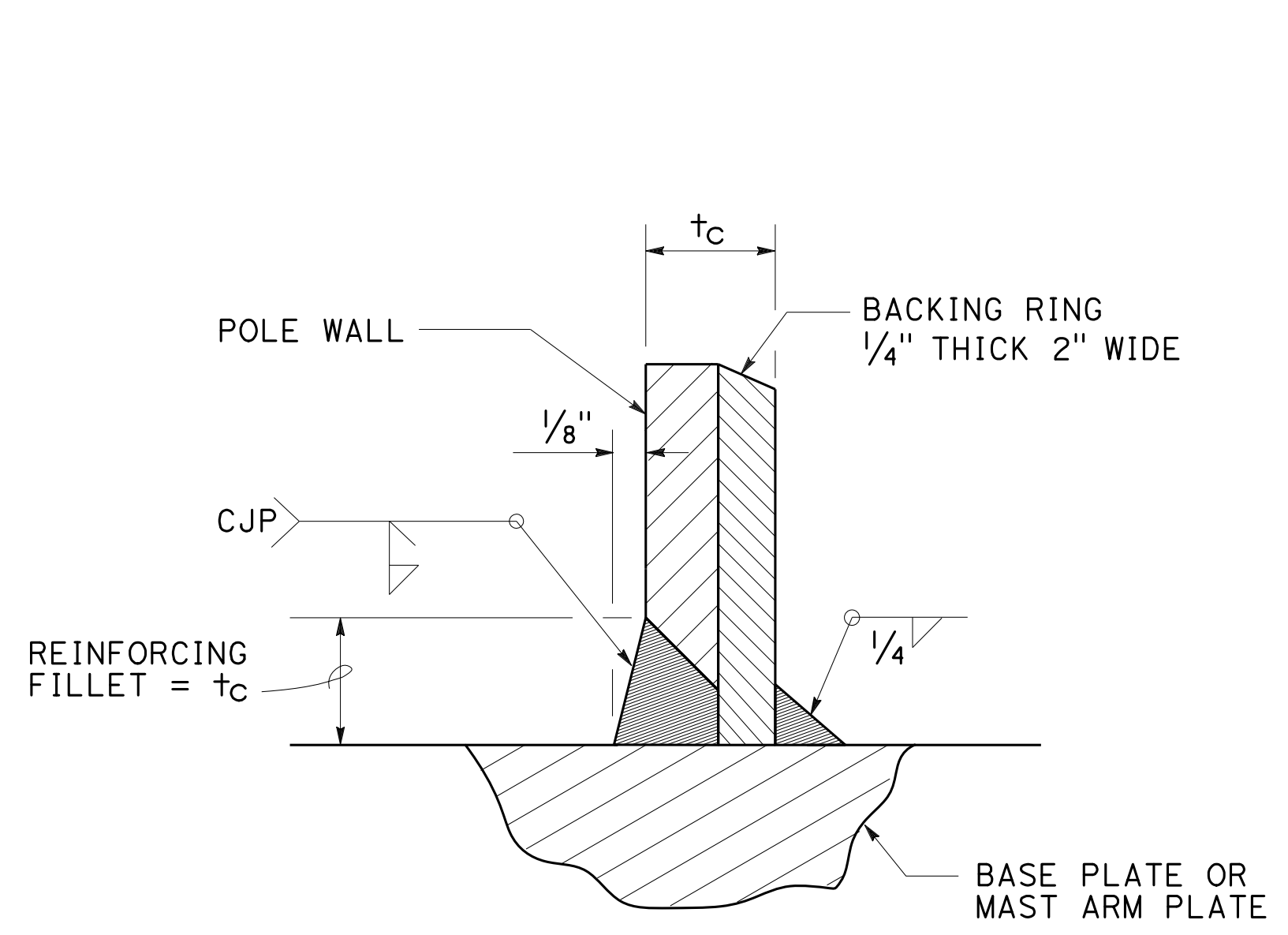
2018 REVISED STANDARD PLAN RSP ES-7M

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	75	79

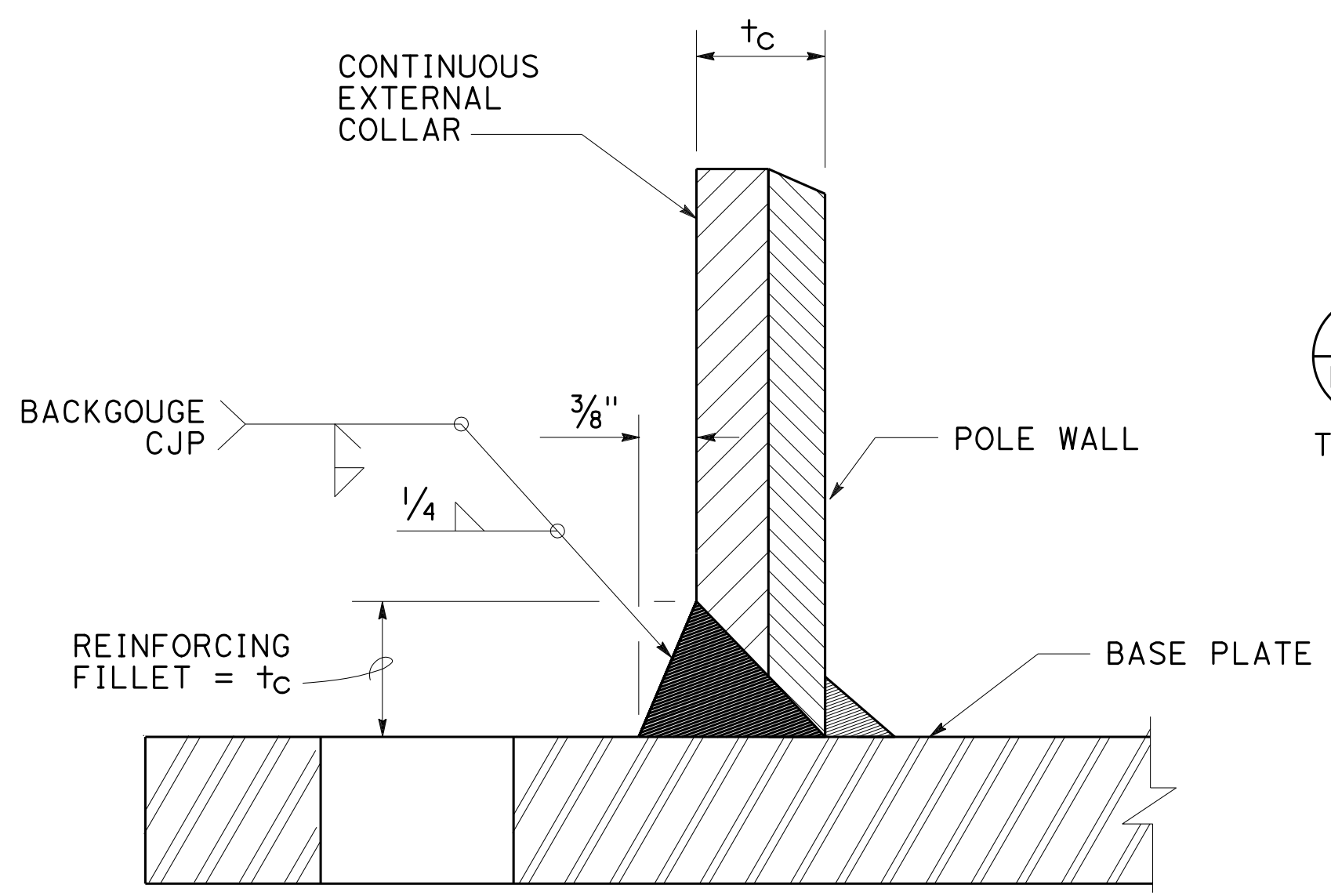
Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 19, 2018
 PLANS APPROVAL DATE
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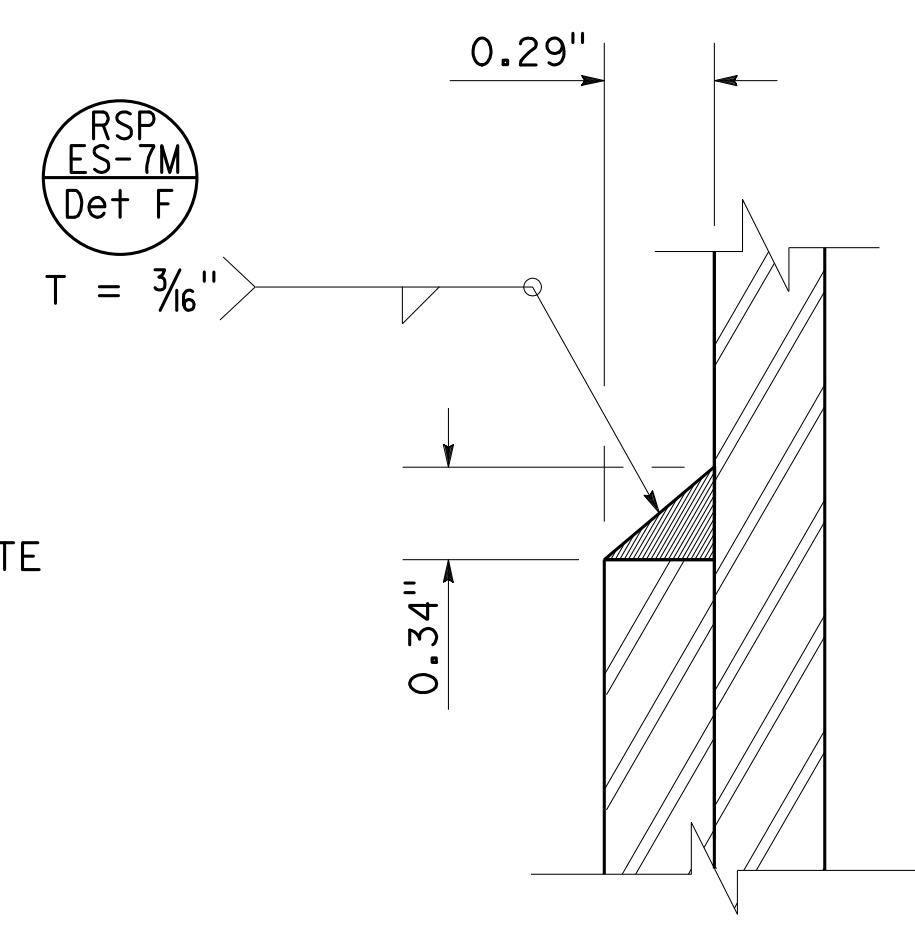
TO ACCOMPANY PLANS DATED 10-16-19



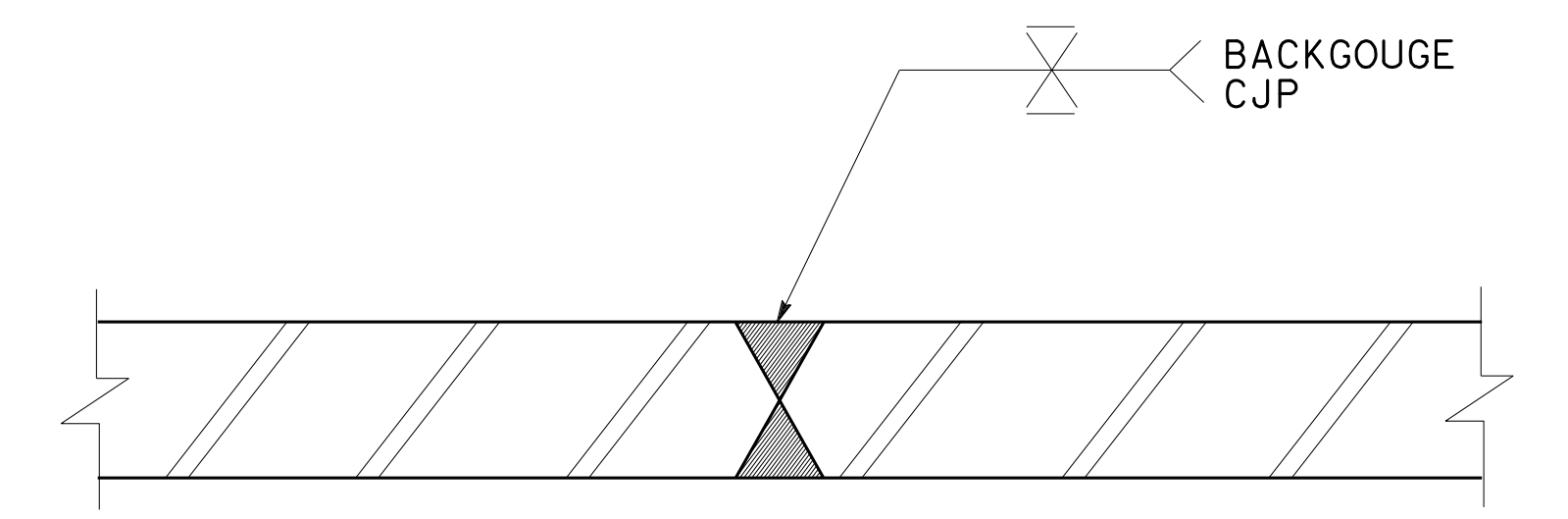
DETAIL B



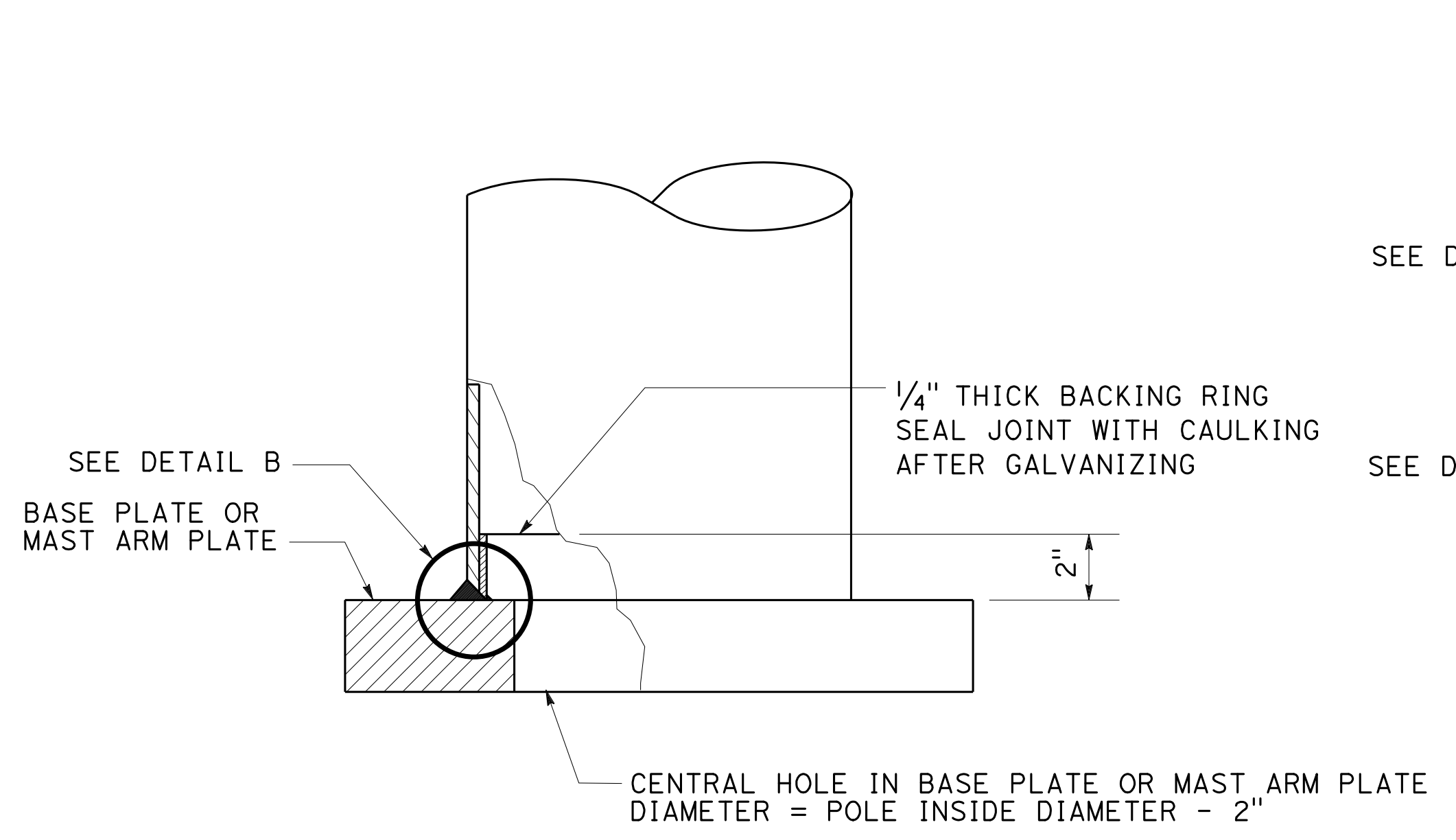
DETAIL C1



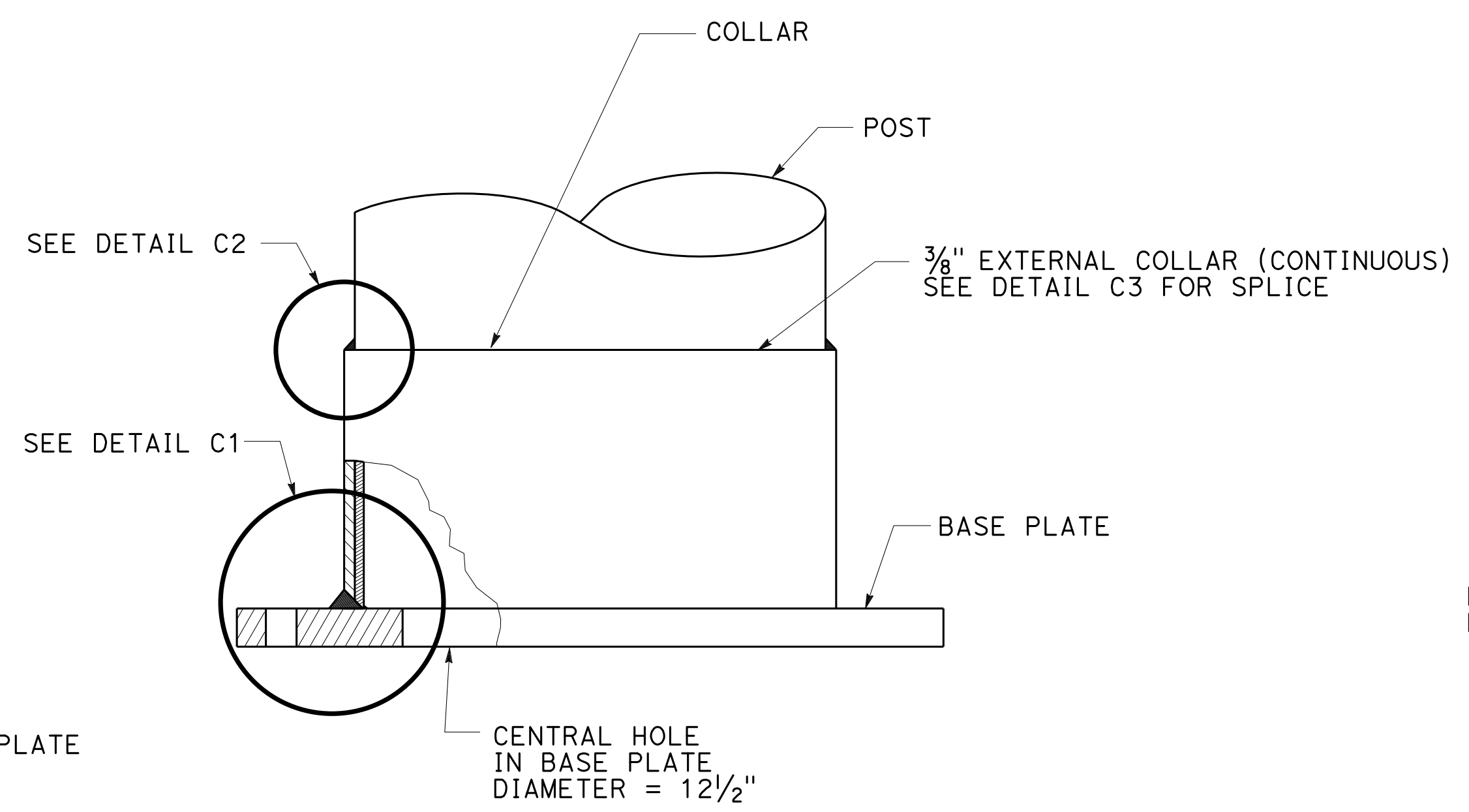
DETAIL C2



DETAIL C3

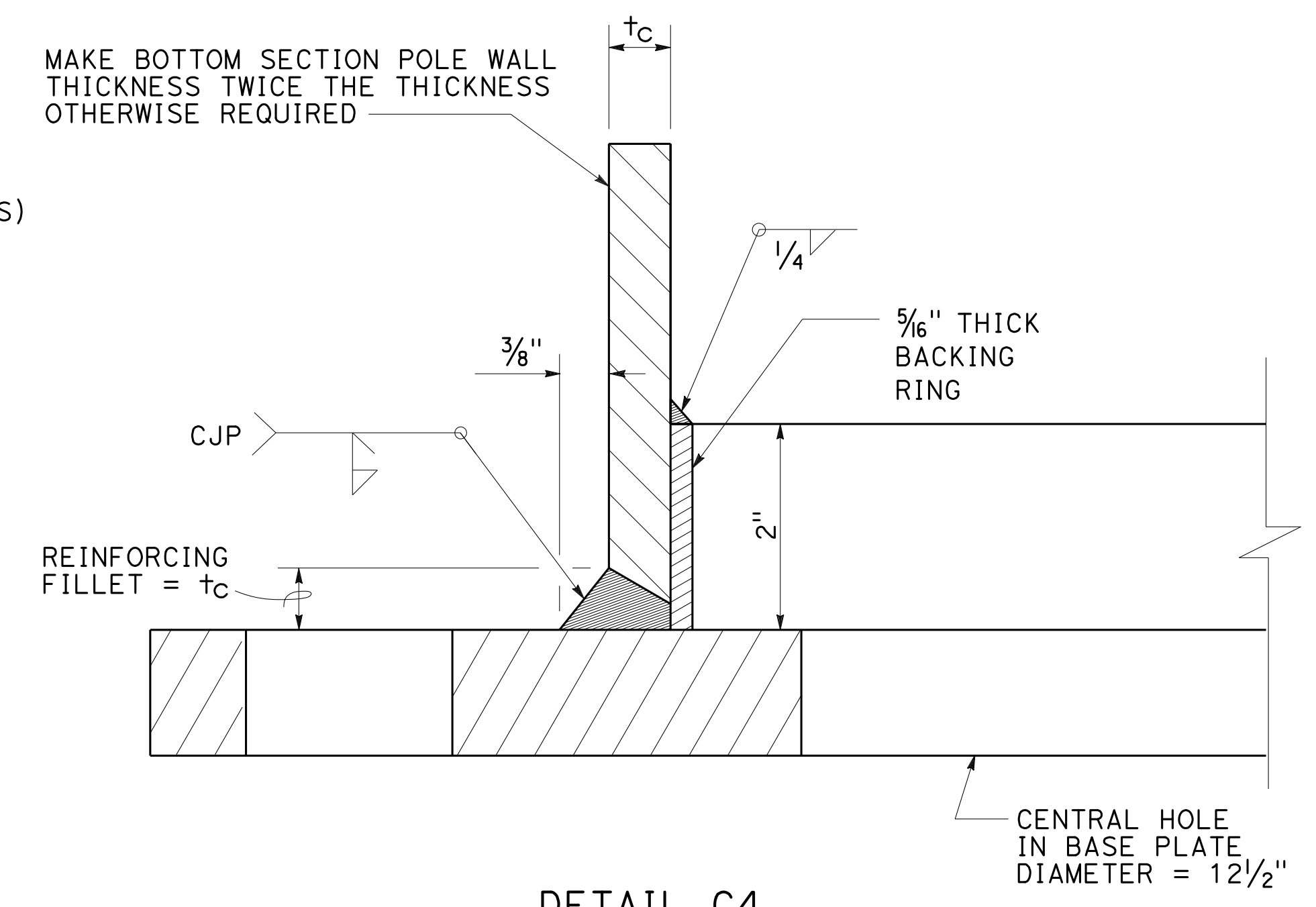


ELEVATION B



ELEVATION C

For alternative base, see Detail C4



DETAIL C4

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD,
DETAIL No. 3)**

NO SCALE

RSP ES-70 DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN ES-70
DATED MAY 31, 2018 - PAGE 528 OF THE STANDARD PLANS BOOK DATED 2018.

2018 REVISED STANDARD PLAN RSP ES-70

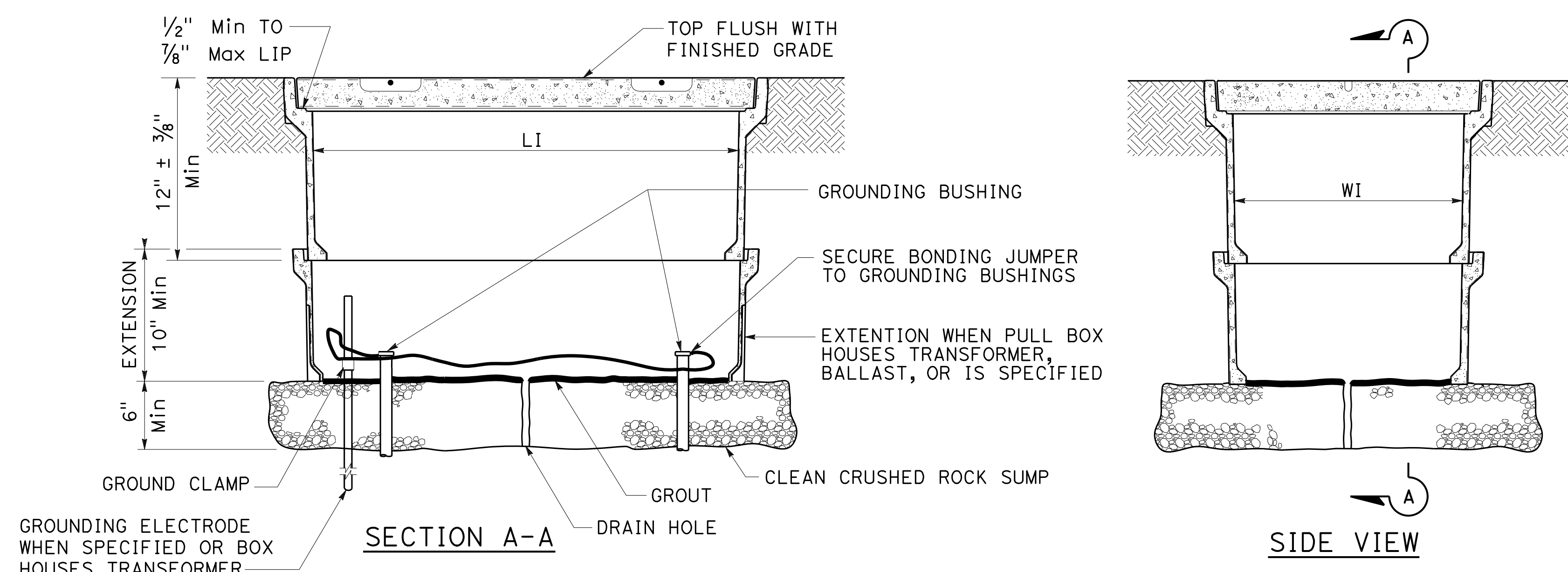
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	76	79

H.R.J.
REGISTERED ELECTRICAL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

Hamid Zolfaghari
No. E15636
Exp. 12-31-19
ELECTRICAL
STATE OF CALIFORNIA

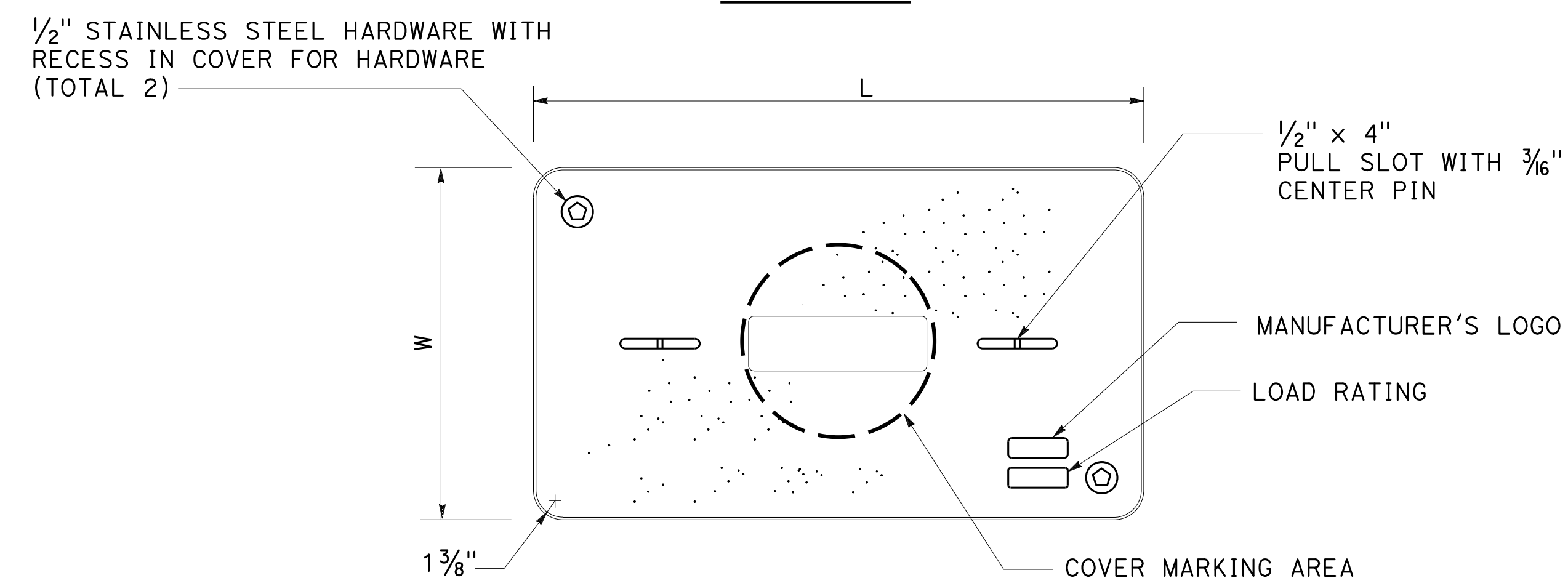
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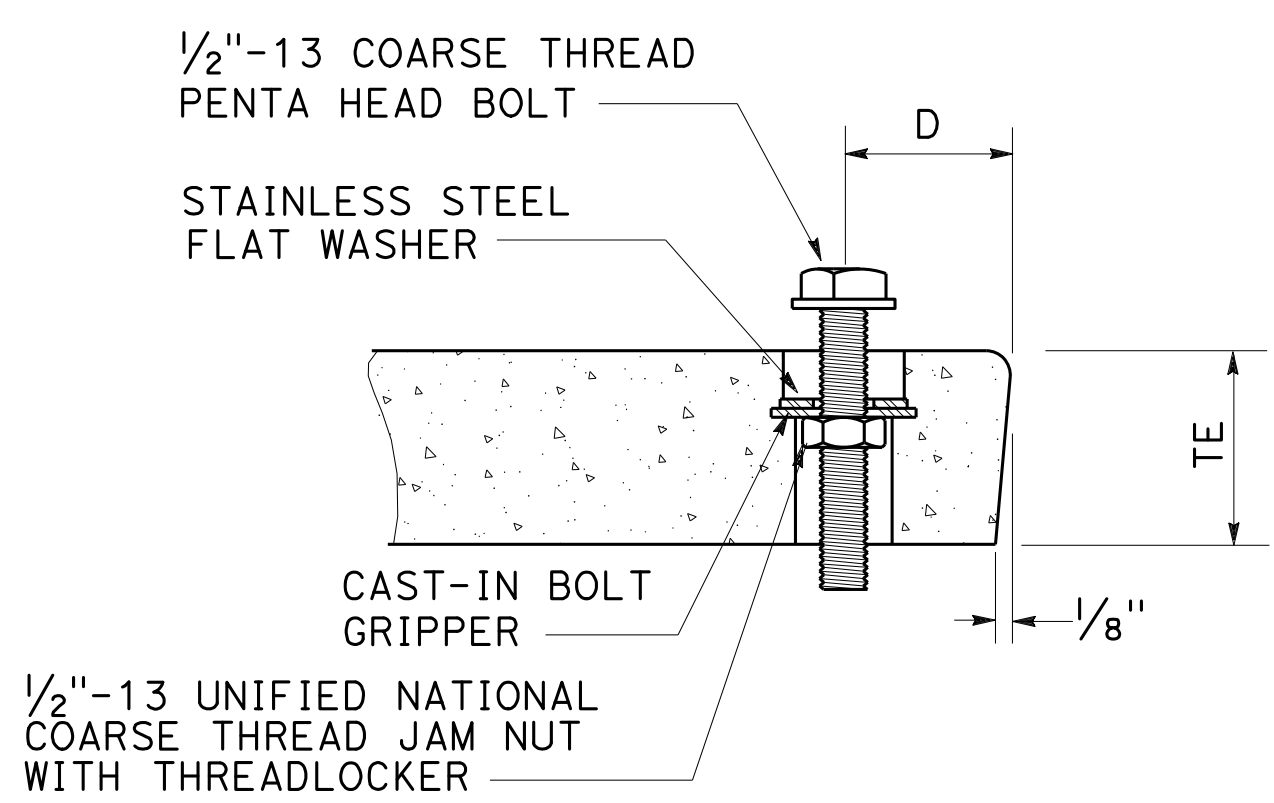
INSTALLATION DETAILS
DETAIL A

NOTES:

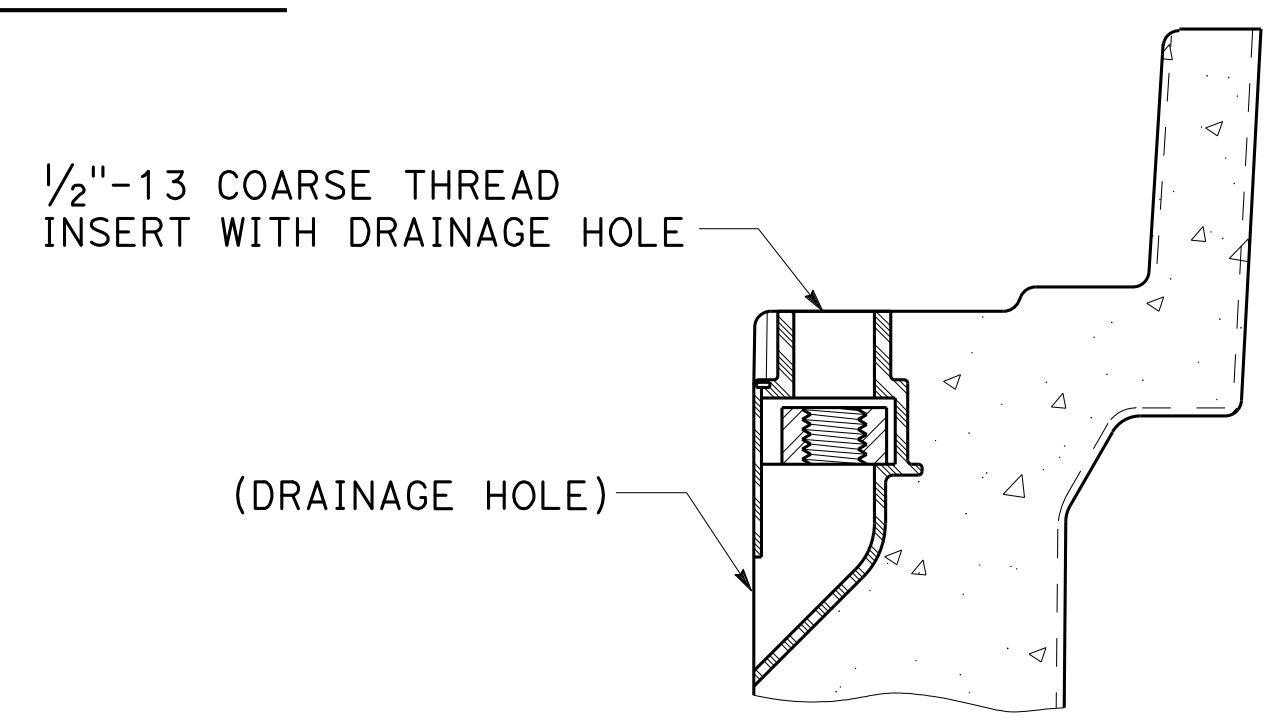
1. The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
2. Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8". Top outside radius of covers and pull boxes shall have a 1/8" radius.
3. Dimensions for the cover for non-traffic pull box are nominal values.



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT
OR SIMILAR



TYPICAL THREADED INSERT
OR SIMILAR

DIMENSION TABLE										
PULL BOX	PULL BOX				COVER					
	MINIMUM DEPTH BOX	MINIMUM DEPTH EXTENSION	MINIMUM WEIGHT	LI Min	WI Min	TE	D	L	W	MINIMUM WEIGHT
No. 3 1/2	12"	N/A	40 lb	1' - 3"	9"	1 3/4"	1 3/4"	1' - 3 1/4" - 1' - 3 3/8"	10" - 10 1/8"	30 lb
No. 5	12"	10"	55 lb	1' - 8"	11"	2"	1 3/4"	1' - 11 1/4"	1' - 1 3/4"	60 lb
No. 6	12"	10"	70 lb	2' - 4 1/4"	1' - 3 1/4"	2"	2"	2' - 6 1/2"	1' - 5 1/2"	85 lb

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(NON-TRAFFIC PULL BOX)

NO SCALE

ES-8A

532

2018 STANDARD PLAN ES-8A

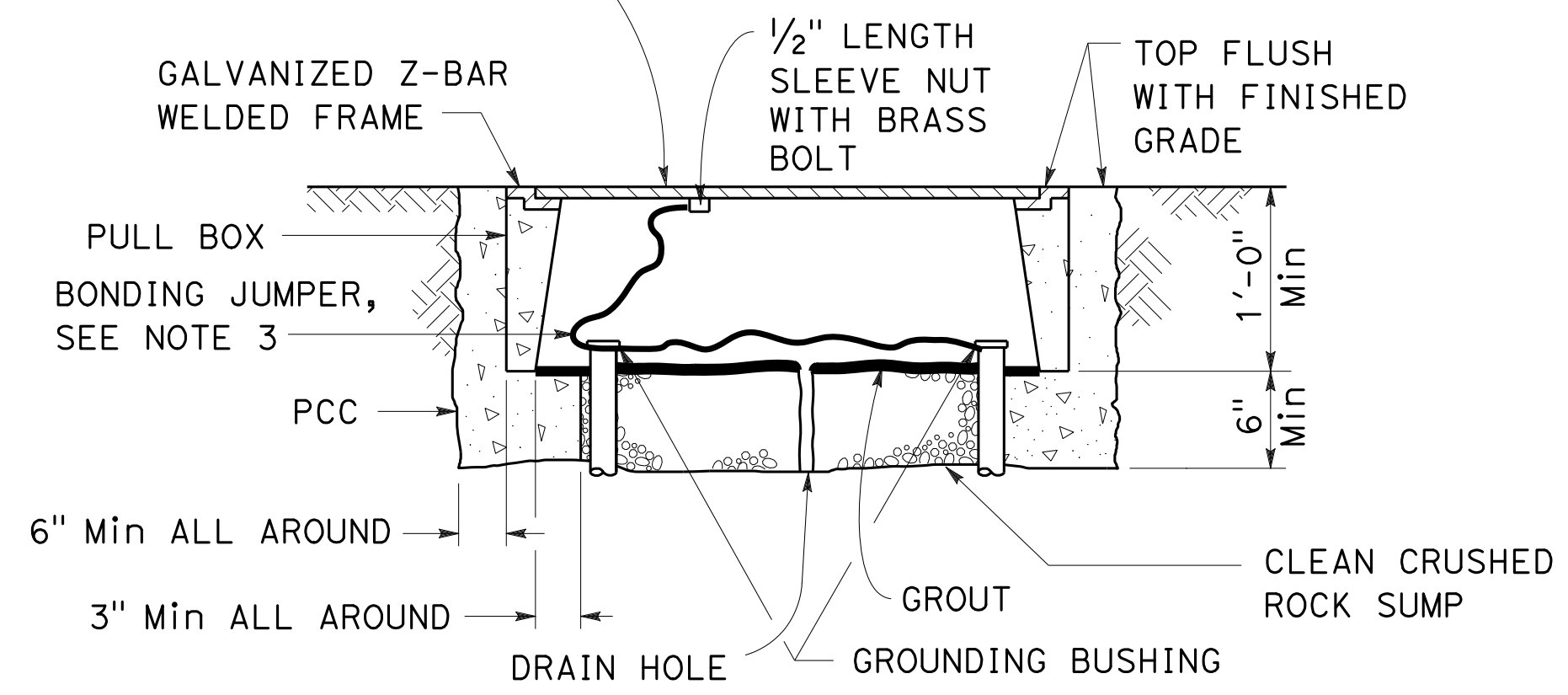
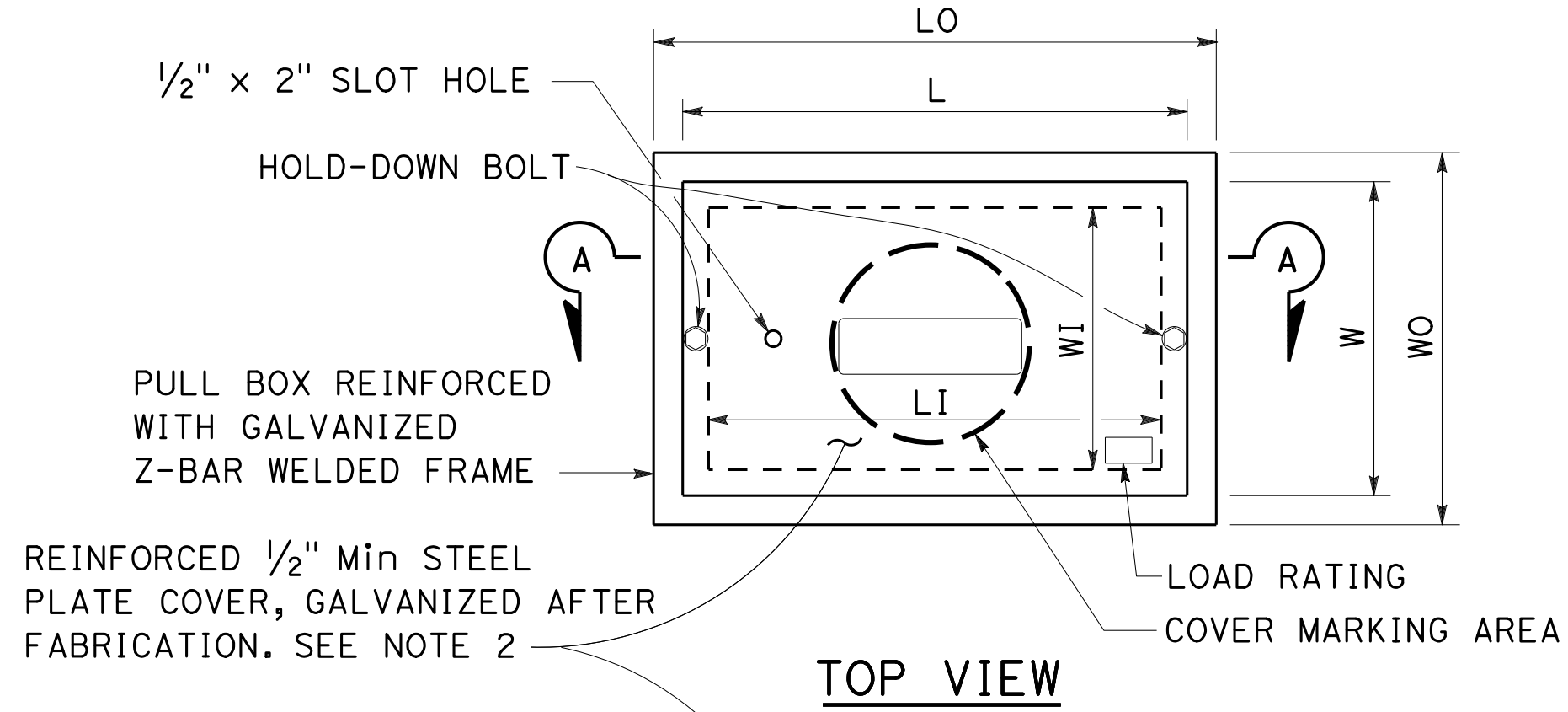
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI	280	11.2/11.5	77	79

H.R.F.
REGISTERED ELECTRICAL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Hamid Zolfaghar
No. E15636
Exp. 12-31-19
ELECTRICAL
STATE OF CALIFORNIA

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

NOTES:

- Traffic pull box shall be provided with steel cover and special concrete footing. Steel cover shall have embossed non-skid pattern.
- Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
- Bonding jumper for metal covers shall be 3' long, minimum.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8".

DIMENSION TABLE								
PULL BOX	PULL BOX						COVER	
	MINIMUM * THICKNESS	MINIMUM DEPTH BOX AND EXTENSION	LO	LI	WO	WI	L **	W **
No. 3 1/2(T)	1 1/2"	1'-0"	1'-10" - 1'-11"	1'-5" - 1'-6 1/2"	1'-3" - 1'-4"	10" - 1'-0"	1'-8" - 1'-8 1/2"	1'-1" - 1'-2"
No. 5(T)	1 3/4"	1'-0"	2'-5" - 2'-6"	2'-0" - 2'-1"	1'-6" - 1'-7"	1'-1" - 1'-2"	2'-3" - 2'-3 1/2"	1'-4" - 1'-4 1/2"
No. 6(T)	2"	1'-0"	2'-11" - 3'-1"	2'-6" - 2'-7"	1'-10" - 2'-0"	1'-5" - 1'-6"	2'-9" - 2'-9 1/2"	1'-8" - 1'-8 1/2"

* EXCLUDING CONDUIT WEB ** TOP DIMENSION

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

533

2018 STANDARD PLAN ES-8B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	78	79

H.R.F.
REGISTERED ELECTRICAL ENGINEER

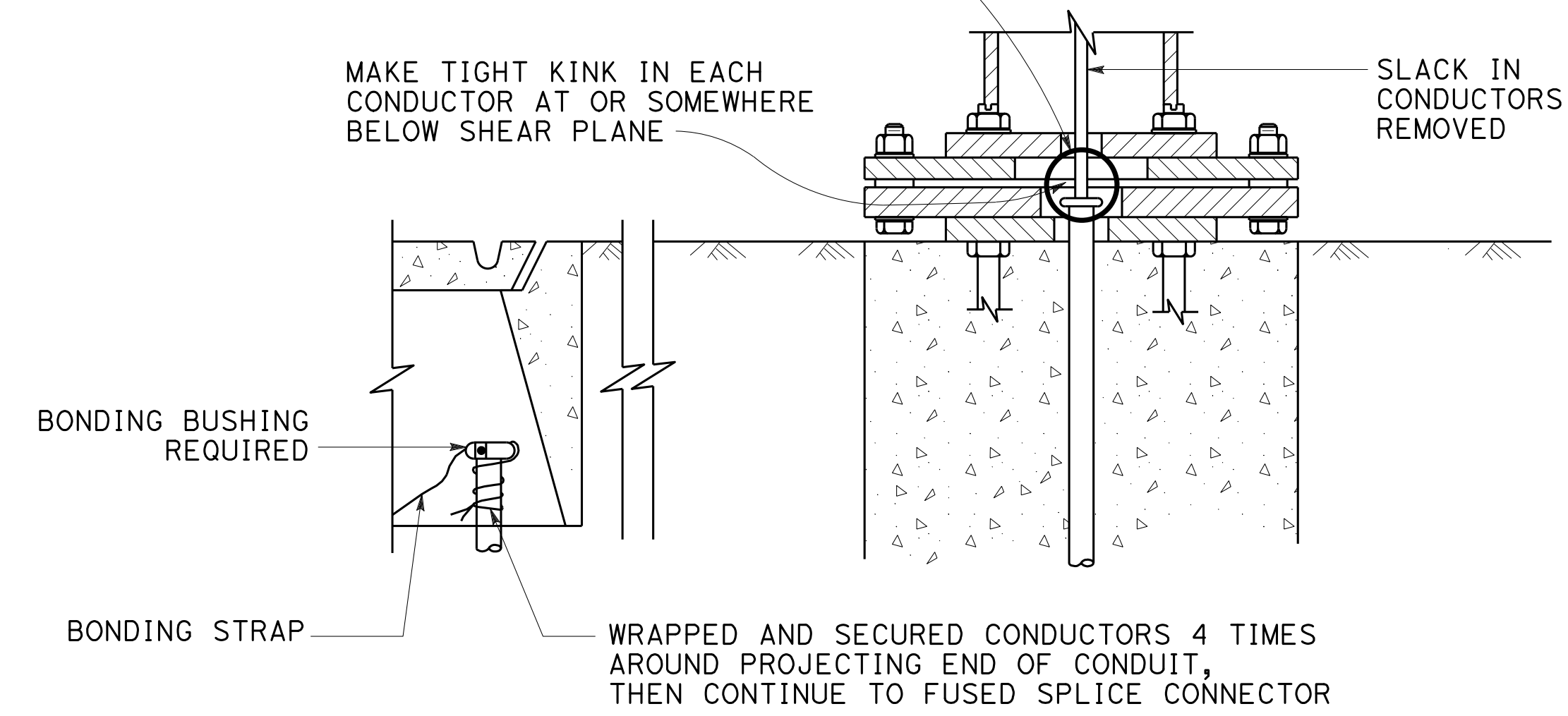
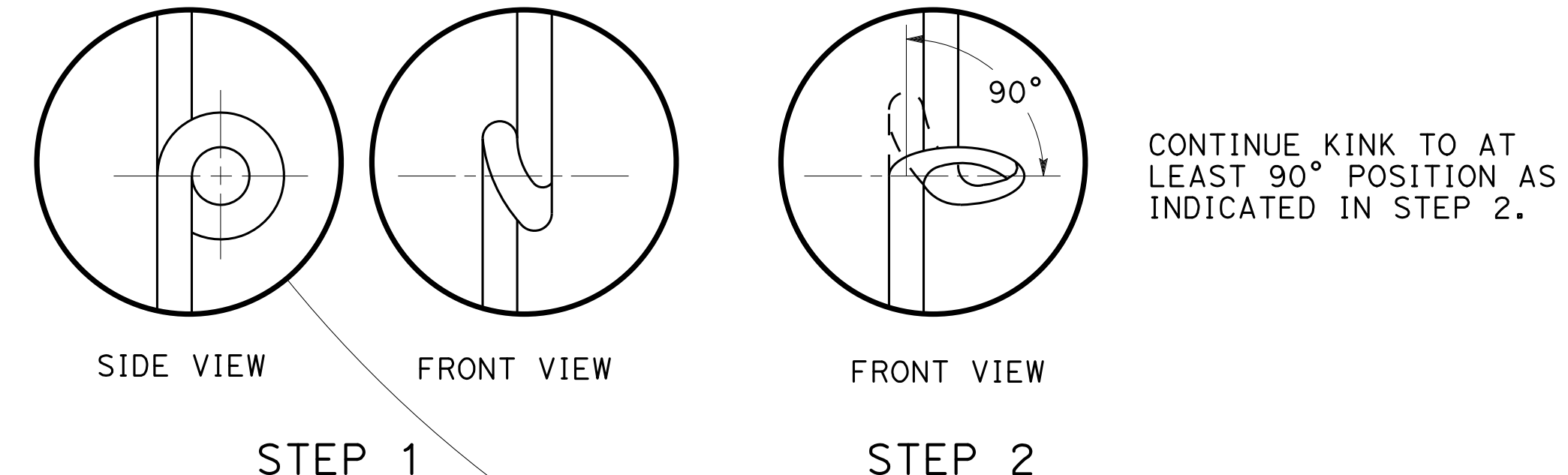
October 19, 2018
PLANS APPROVAL DATE

Hamid Zolfaghari
No. E15636
Exp. 12-31-19
REGISTERED PROFESSIONAL ENGINEER
ELECTRICAL
STATE OF CALIFORNIA

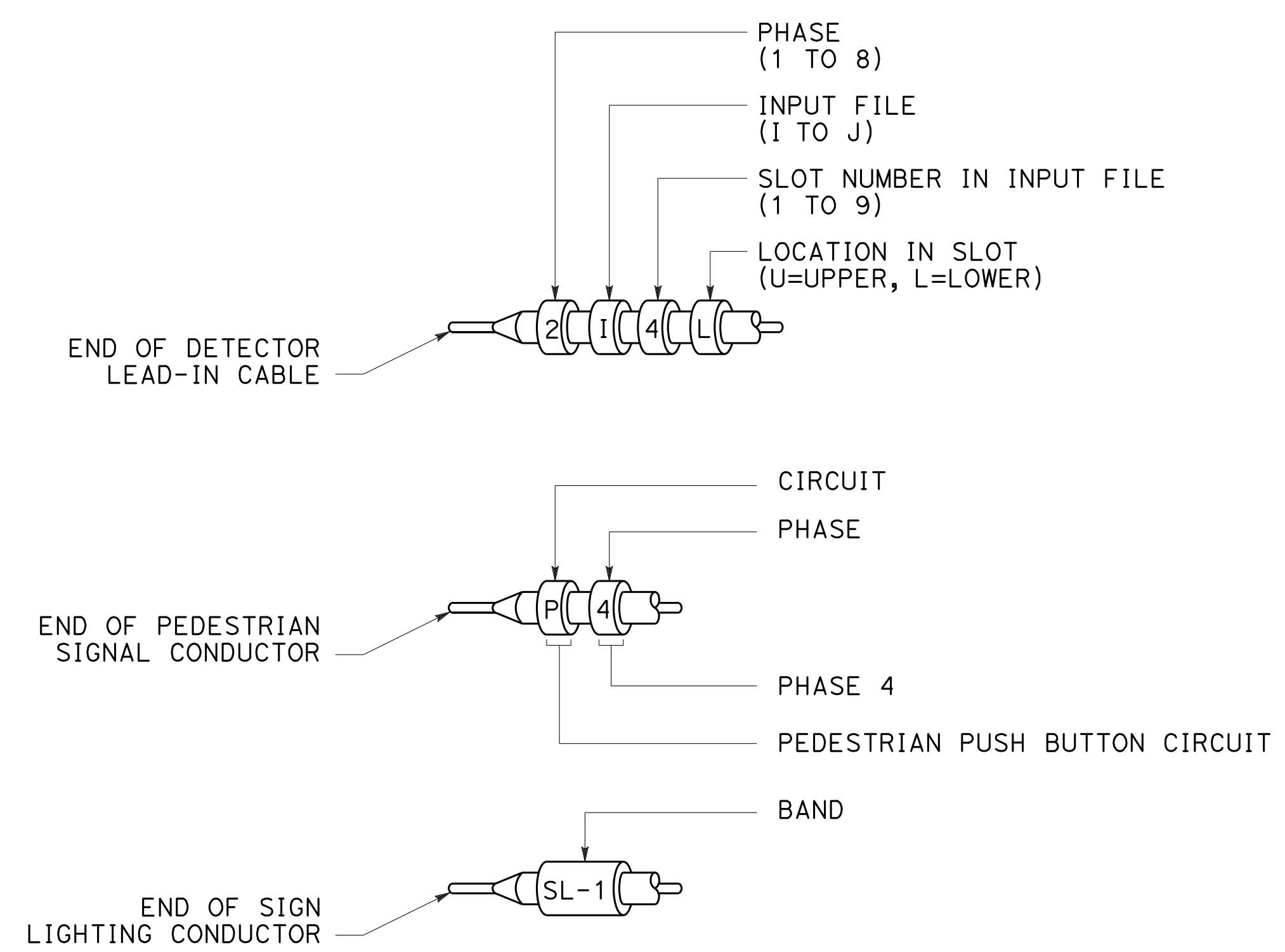
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TO ACCOMPANY PLANS DATED 10-16-19

2018 REVISED STANDARD PLAN RSP ES-13B



**KINKING DETAIL FOR
SLIP BASE STANDARDS**
DETAIL A



TYPICAL BANDING DETAILS
DETAIL B

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(KINKING AND BANDING DETAIL)**

NO SCALE

RSP ES-13B DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN ES-13B
DATED MAY 31, 2018 - PAGE 545 OF THE STANDARD PLANS BOOK DATED 2018.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	280	11.2/11.5	79	79

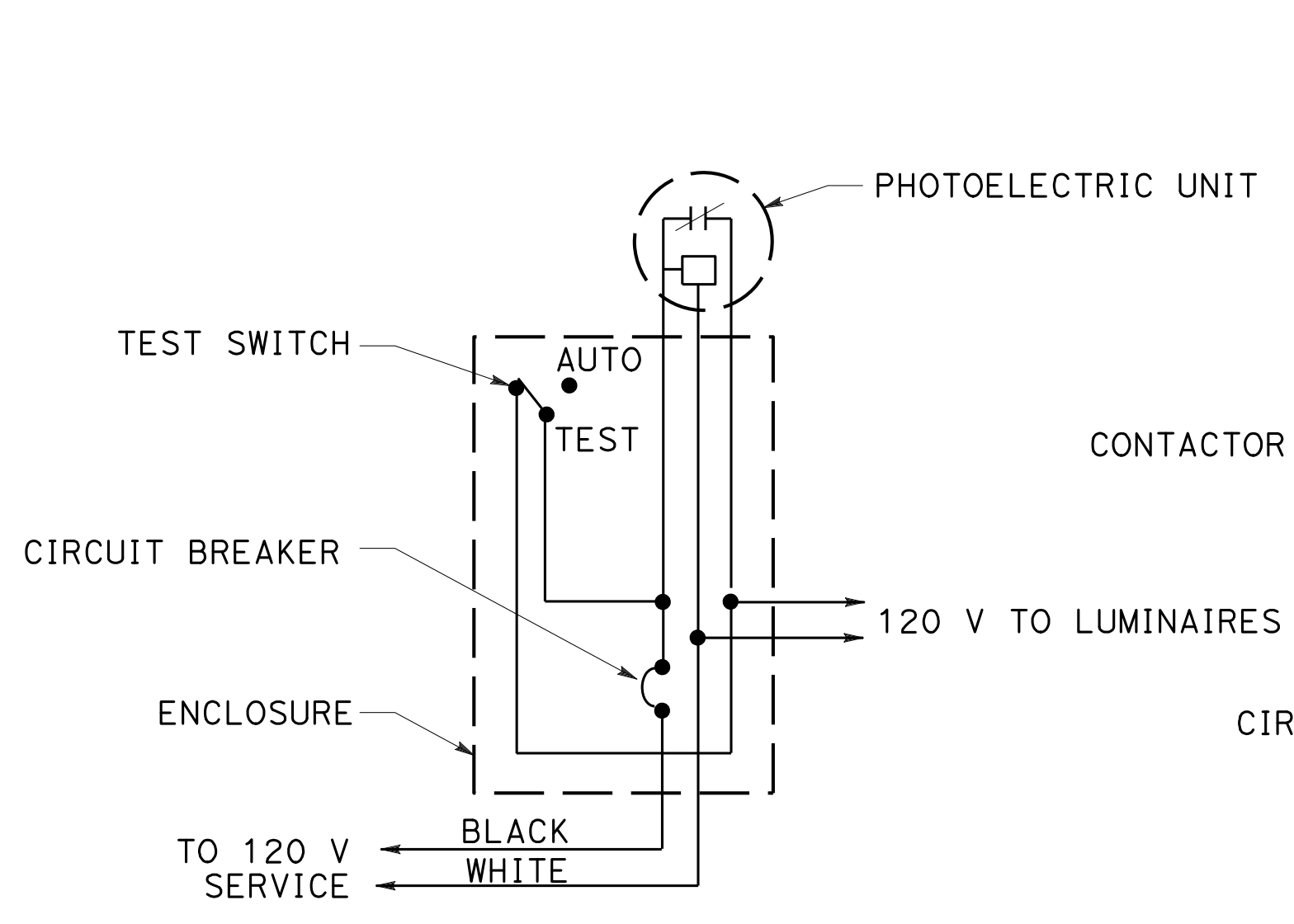
H.R.J.
 REGISTERED ELECTRICAL ENGINEER
 October 19, 2018
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
Hamid Zolfaghari
 No. E15636
 Exp. 12-31-19
 ELECTRICAL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 10-16-19

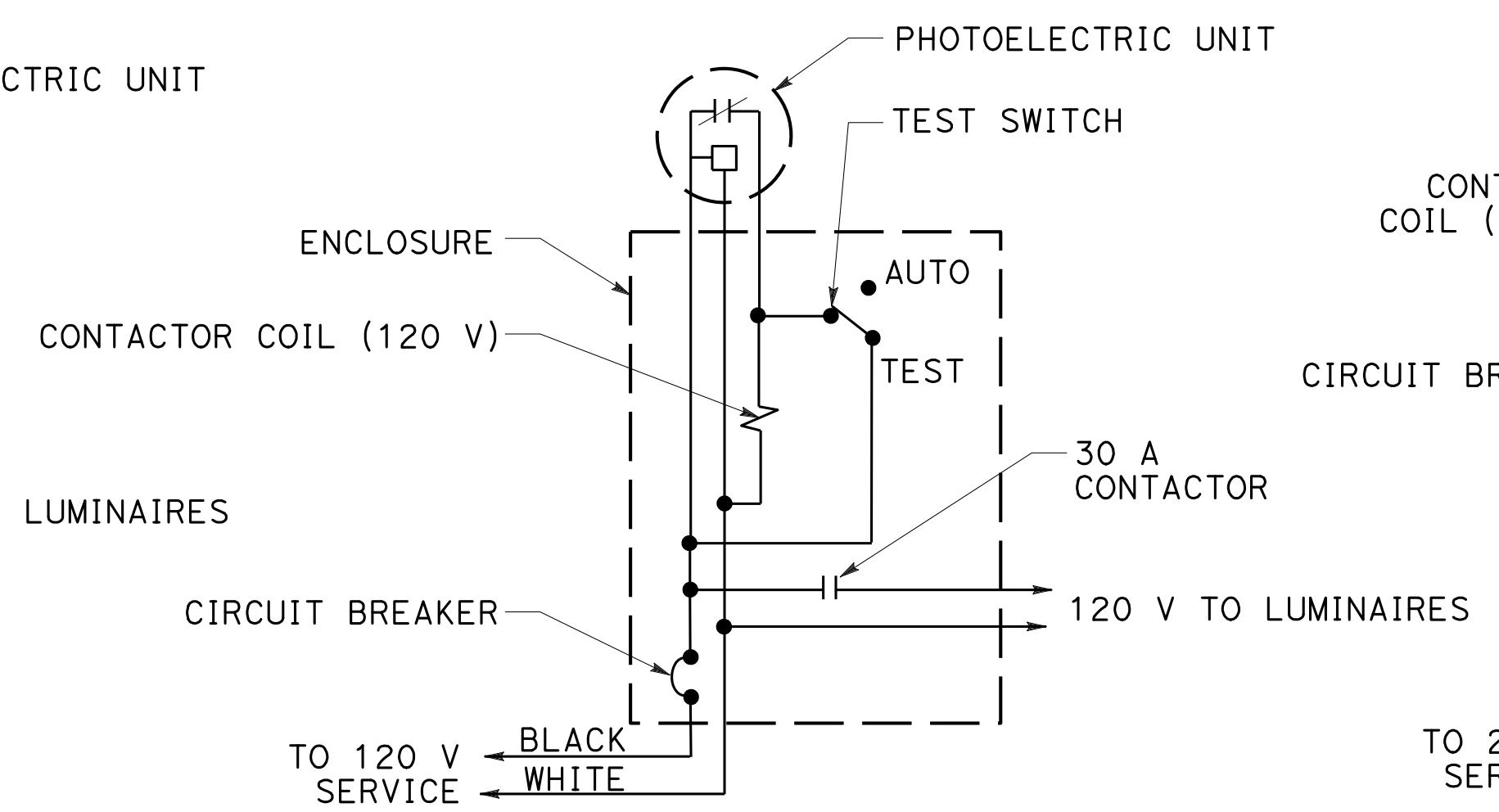
NOTE:

1. Type SC1A, SC2A, SC3A controls are similar to Types SC1, SC2 and SC controls respectively except test switch and wiring are not required.



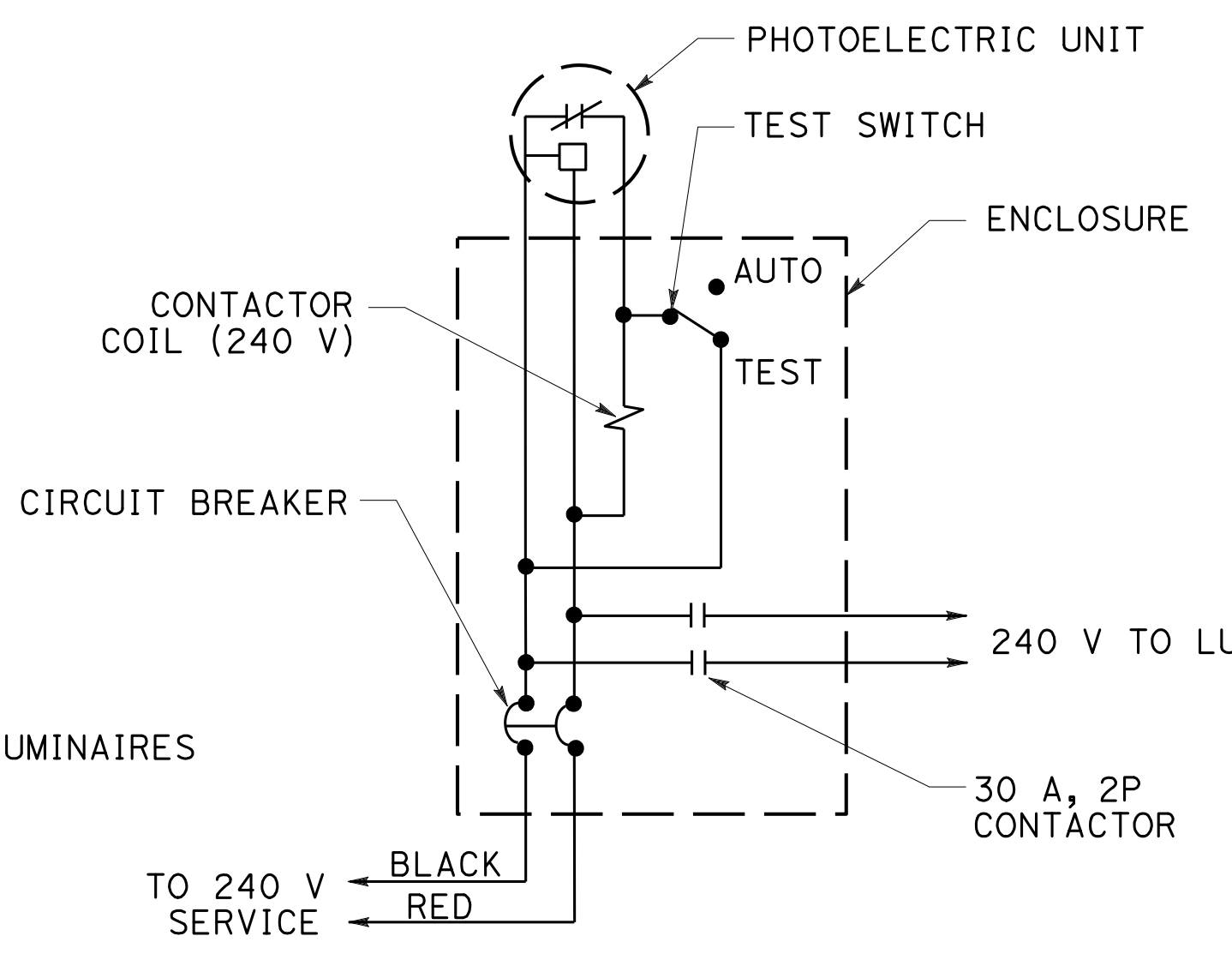
TYPE LC1 CONTROL

For 120 V unswitched circuit with no more than 1000 W load.



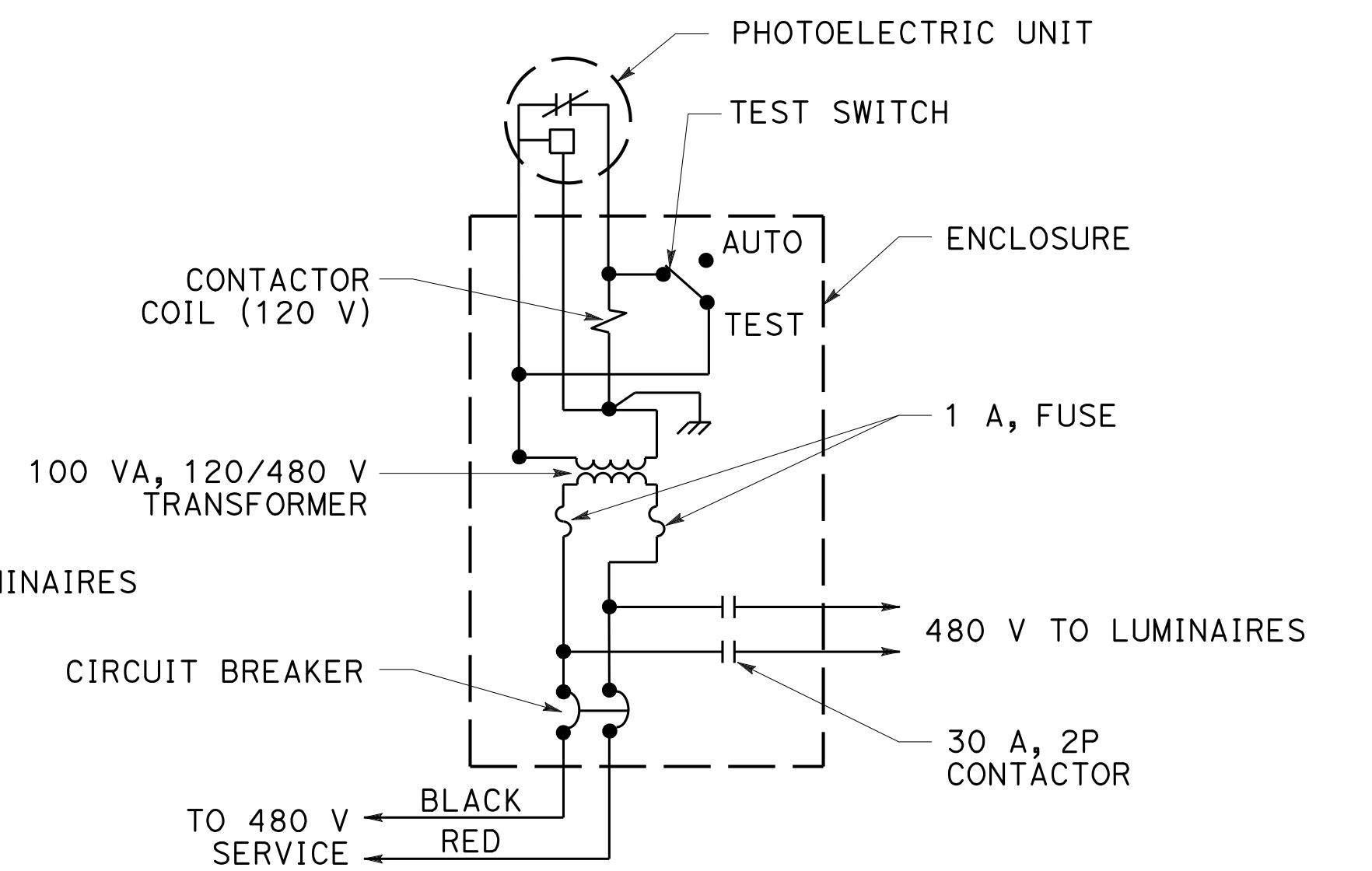
TYPE LC2 CONTROL

For 120 V unswitched circuit



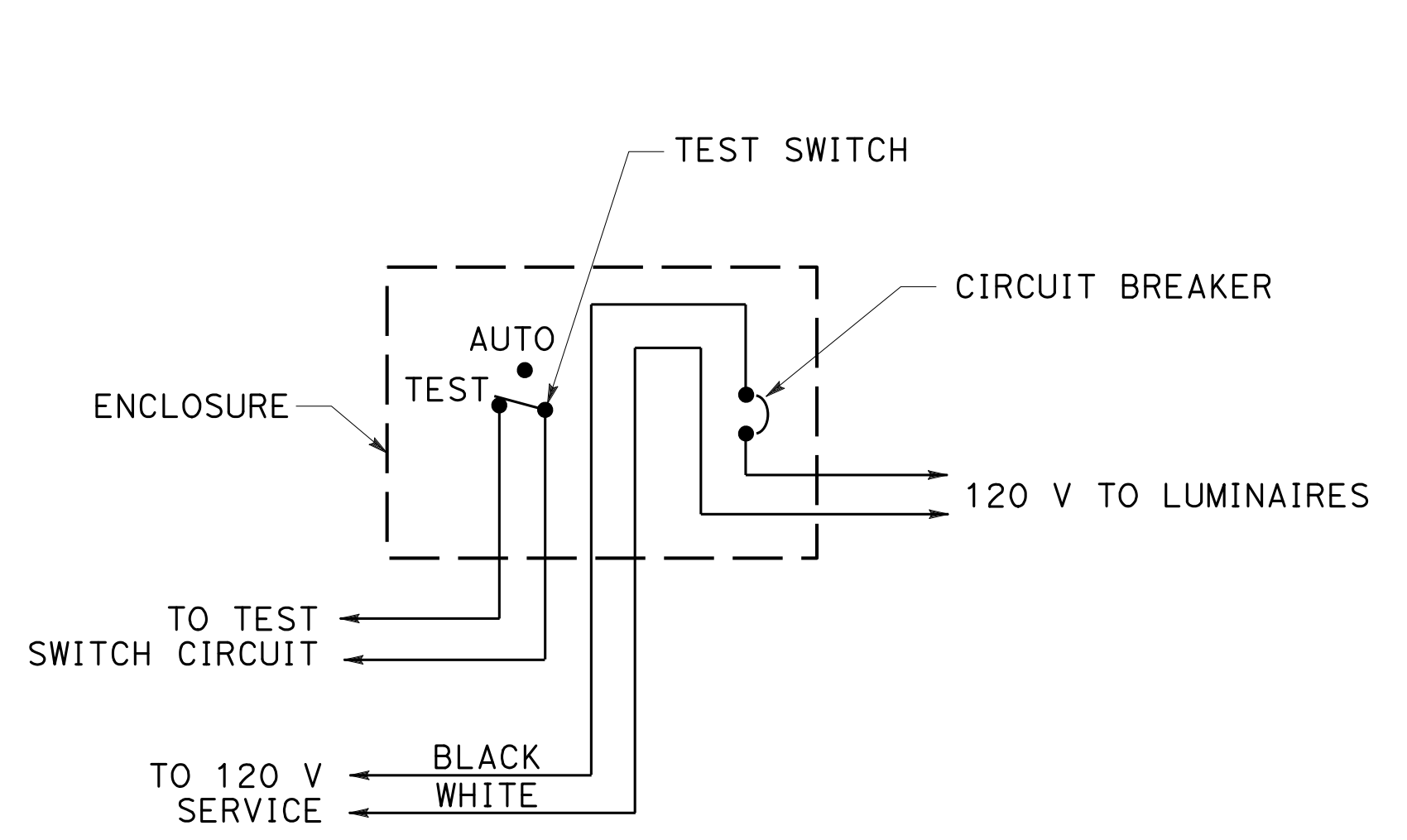
TYPE LC3 CONTROL

For 240 V unswitched circuits



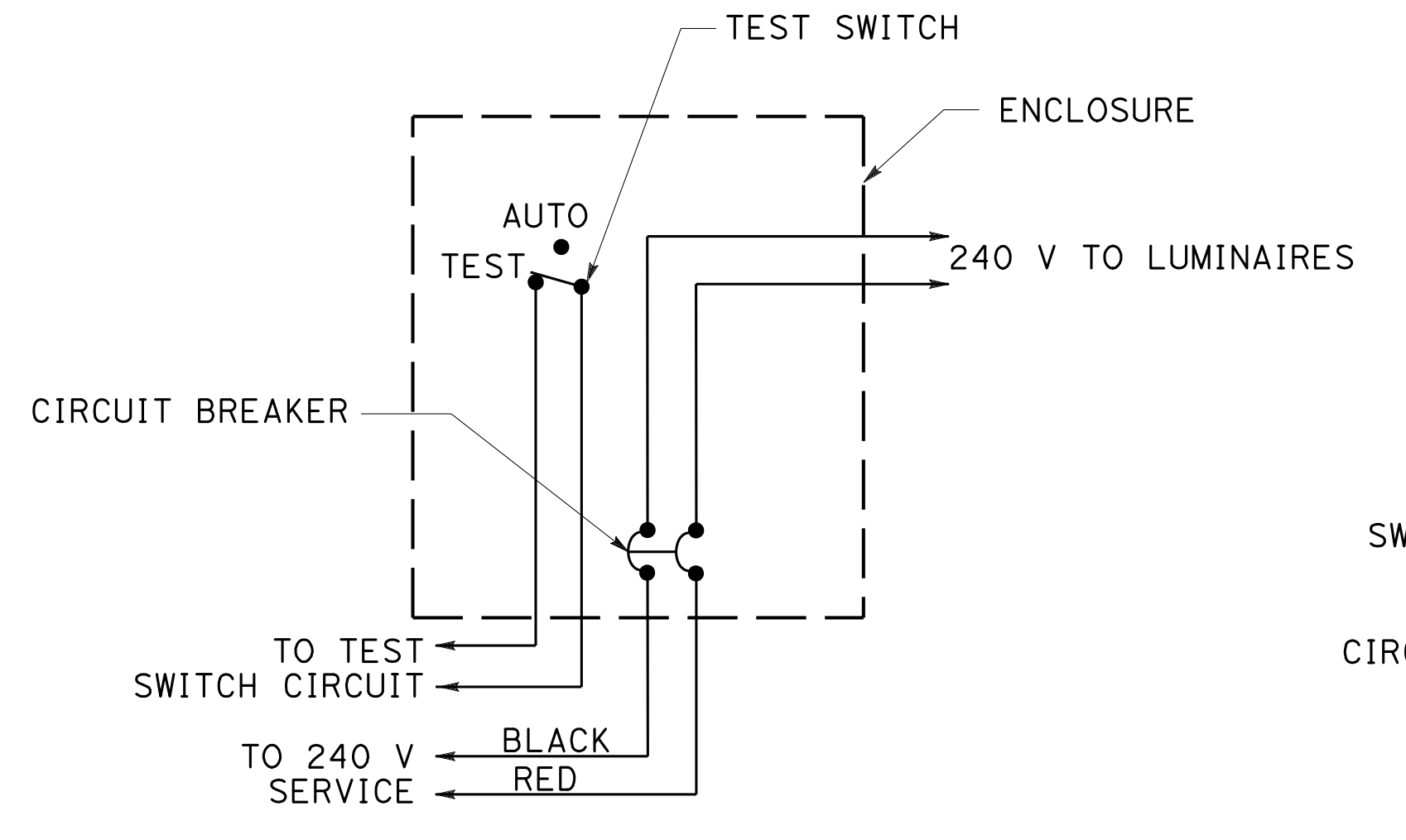
TYPE LC4 CONTROL

For 480 V unswitched circuits



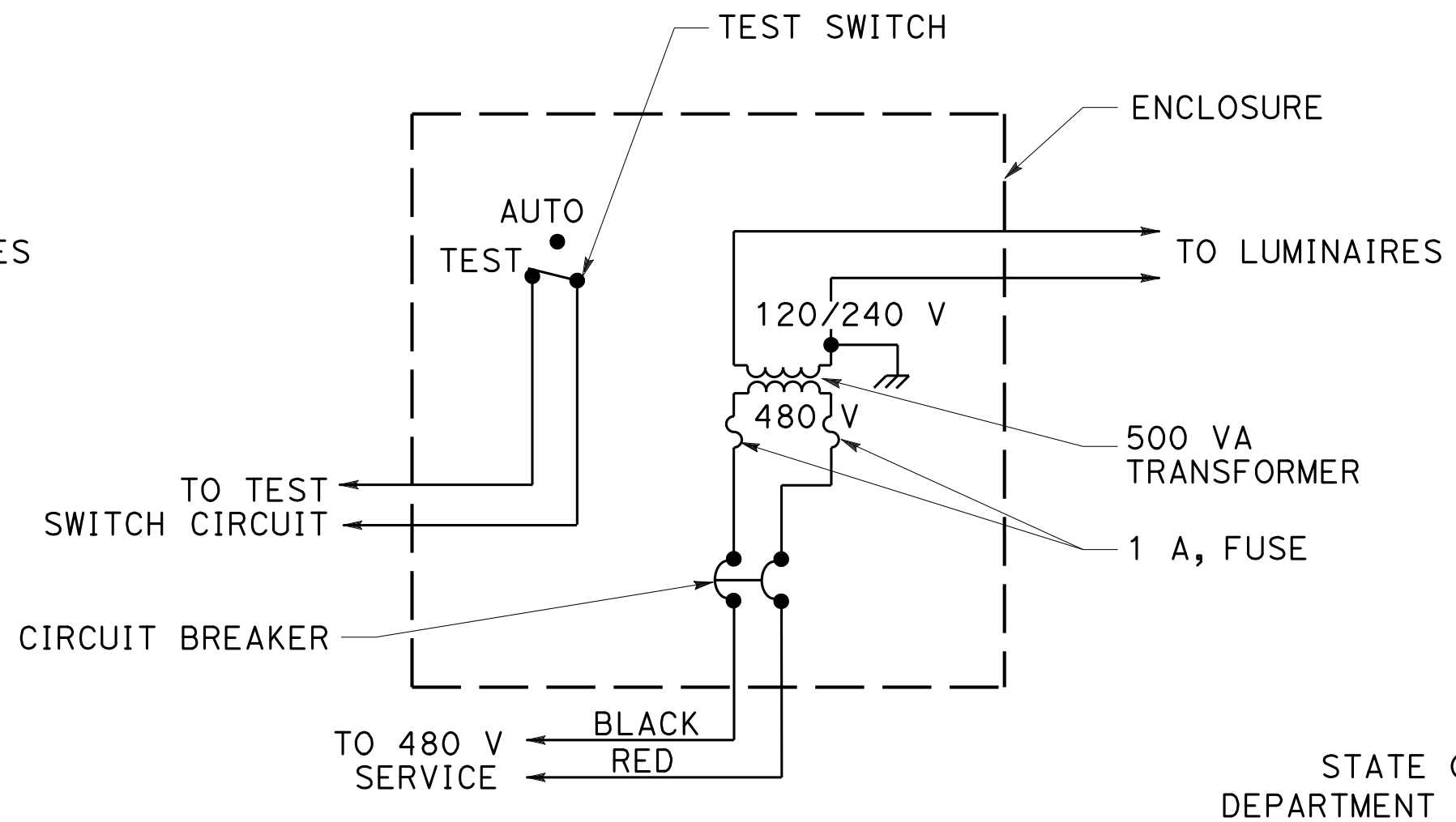
TYPE SC1 CONTROL

For 120 V switched circuit, see Note 1 for Type SC1A



TYPE SC2 CONTROL

For 240 V switched circuit, see Note 1 for Type SC2A



TYPE SC3 CONTROL

For 480 V switched sign circuit, see Note 1 for Type SC3A

**ELECTRICAL SYSTEMS
(LIGHTING AND SIGN
ILLUMINATION CONTROL)**

NO SCALE

RSP ES-15D DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN ES-15D DATED MAY 31, 2018 - PAGE 551 OF THE STANDARD PLANS BOOK DATED 2018.

2018 REVISED STANDARD PLAN RSP ES-15D