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STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

PLANS FOR THE BRIDGE REPLACEMENT OF SANTA FE AVENUE BRIDGE OVER TUOLUMNE RIVER (STATE BRIDGE NO. 38C-0003)

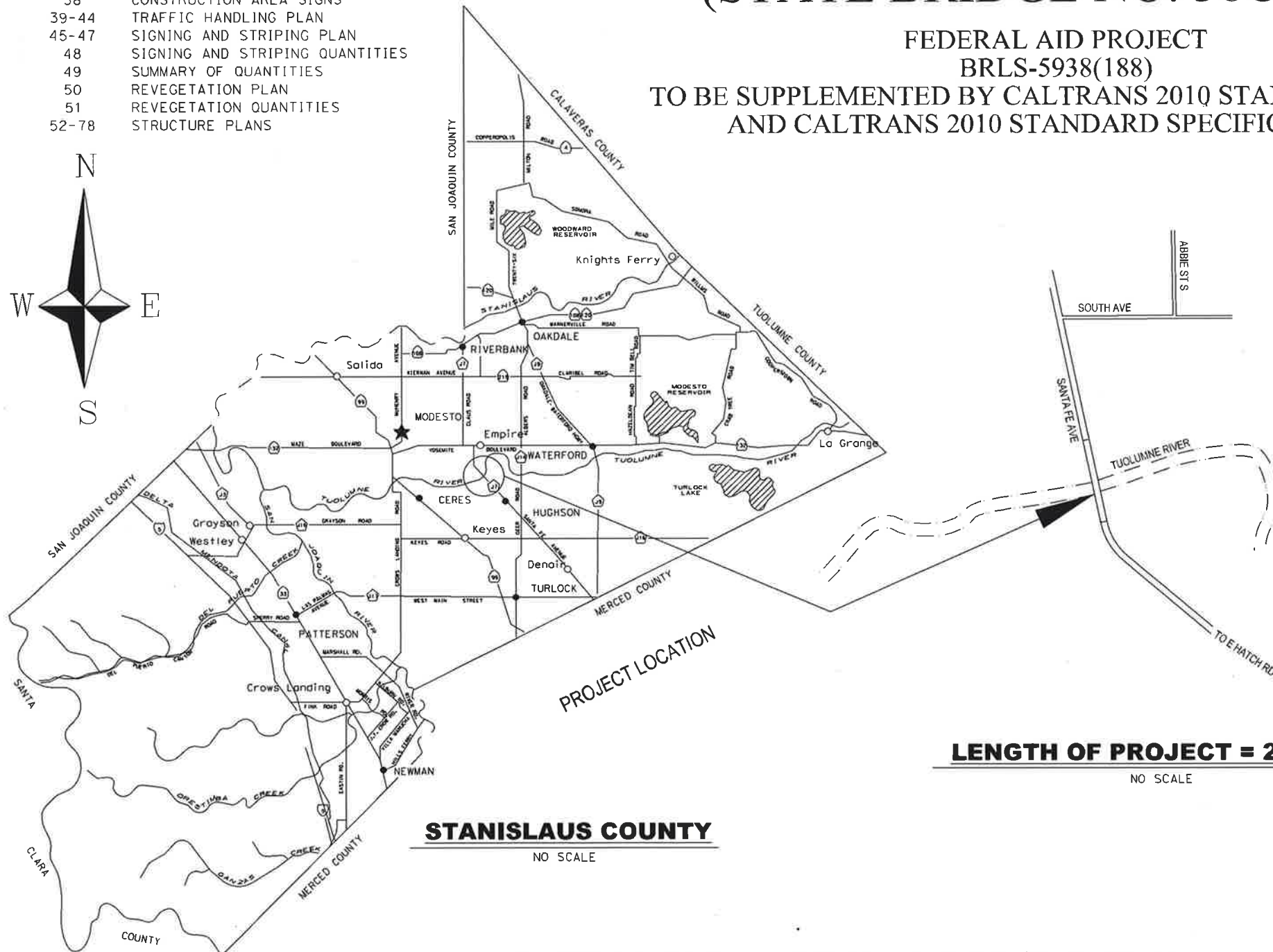
FEDERAL AID PROJECT
BRLS-5938(188)
TO BE SUPPLEMENTED BY CALTRANS 2010 STANDARD PLANS
AND CALTRANS 2010 STANDARD SPECIFICATIONS



STATE OF CALIFORNIA

DESIGN DESIGNATION

ADT (2005) = 9631
TI = 10
V = 55 MPH



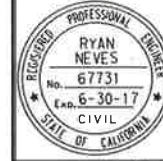
STANISLAUS COUNTY
NO SCALE

LENGTH OF PROJECT = 2500 L.F.

NO SCALE

COUNTY OF STANISLAUS

[Signature] 4/4/17
MATT MACHADO, PE
DIRECTOR OF PUBLIC WORKS



NO.	REVISIONS	DATE	APPROVED
1	DATE	10/27/16	
2	DATE		
3	DATE		
4	DATE		
5	DATE		
6	DATE		
7	DATE		
8	DATE		
9	DATE		
10	DATE		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



TITLE SHEET
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

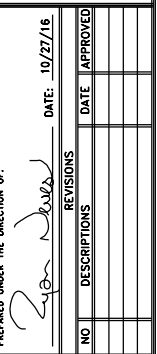
JOB NO 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE NO SCALE

SHEET
NUMBER
1
OF 78 SHEETS

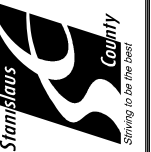
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES)
OF LICENSE AS SPECIFIED IN THE "NOTICE TO CONTRACTORS"

$$\boxed{5} = \begin{bmatrix} 6'' \text{ HMA (TYPE A)} \\ 6'' \text{ CLASS 2 AB} \end{bmatrix}$$

1. FOR MGS AND HMA DIKE LIMITS, SEE LAYOUT SHEETS.
2. EXISTING STRUCTURAL SECTION WAS FOUND FROM BORING SAMPLES.



STANISLAUS COUNTY
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ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



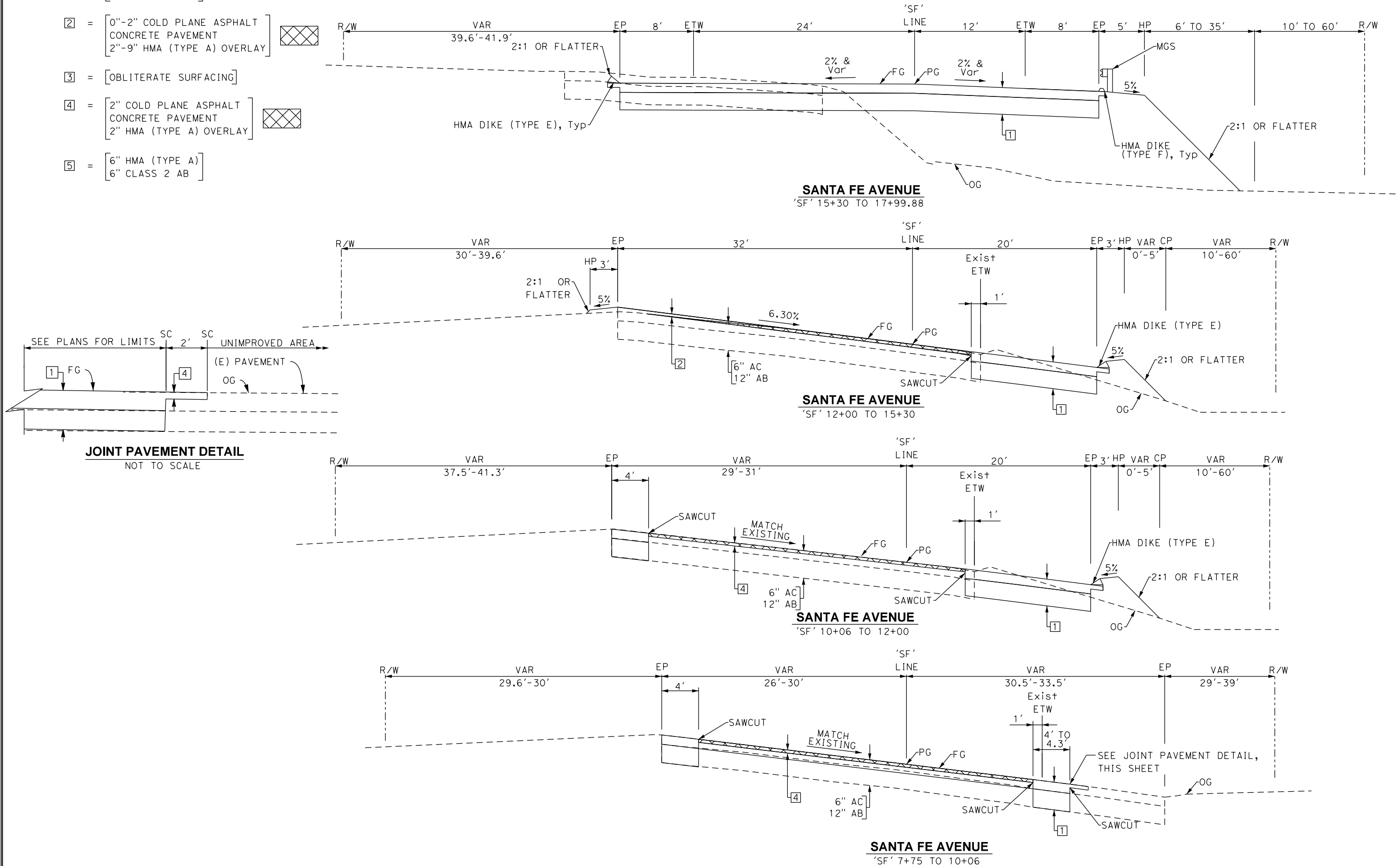
**TYPICAL SECTIONS
X-1**

**PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA**

OB NO 1986
DATE 3/13/16
R BY J. KOZAK
K BY R. NEVES
SCALE NO SCALE

2

OF 78 SHEETS



STRUCTURAL SECTIONS:

- 1

=

6" HMA (TYPE A)

12" CLASS 2 AB
- 2

=

0"-2" COLD PLANE ASPHALT

CONCRETE PAVEMENT

2"-9" HMA (TYPE A) OVERLAY
- 3

=

OBLITERATE SURFACING
- 4

=

2" COLD PLANE ASPHALT

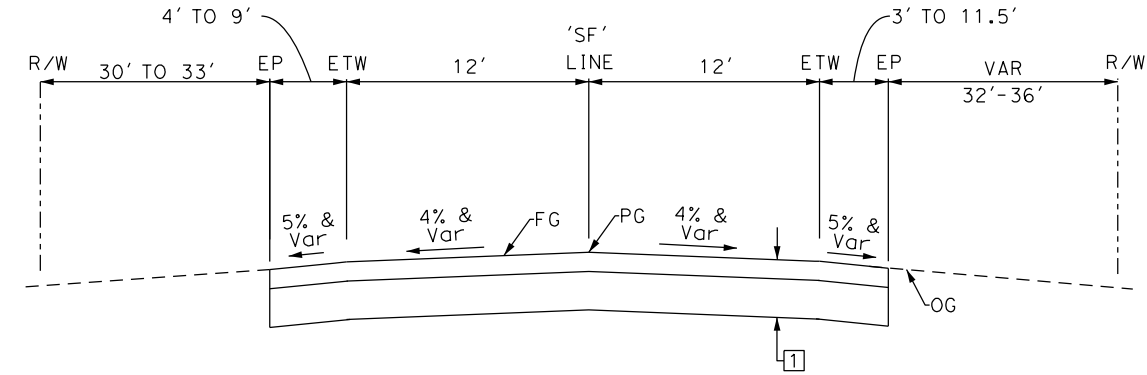
CONCRETE PAVEMENT

2" HMA (TYPE A) OVERLAY
- 5

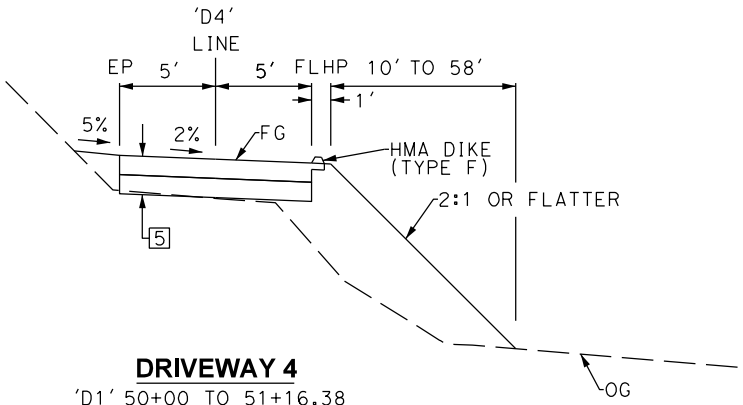
=

6" HMA (TYPE A)

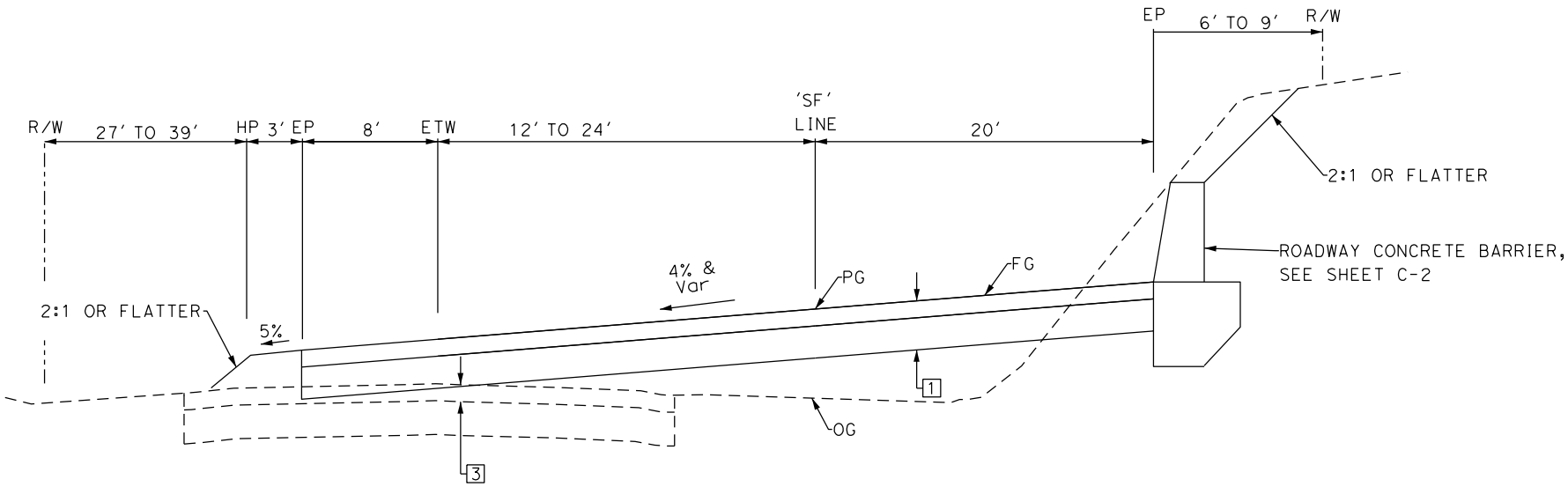
6" CLASS 2 AB



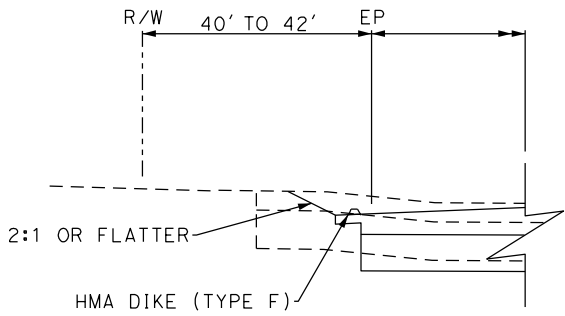
SANTA FE AVENUE
'SF' 29+00 TO 31+98.22



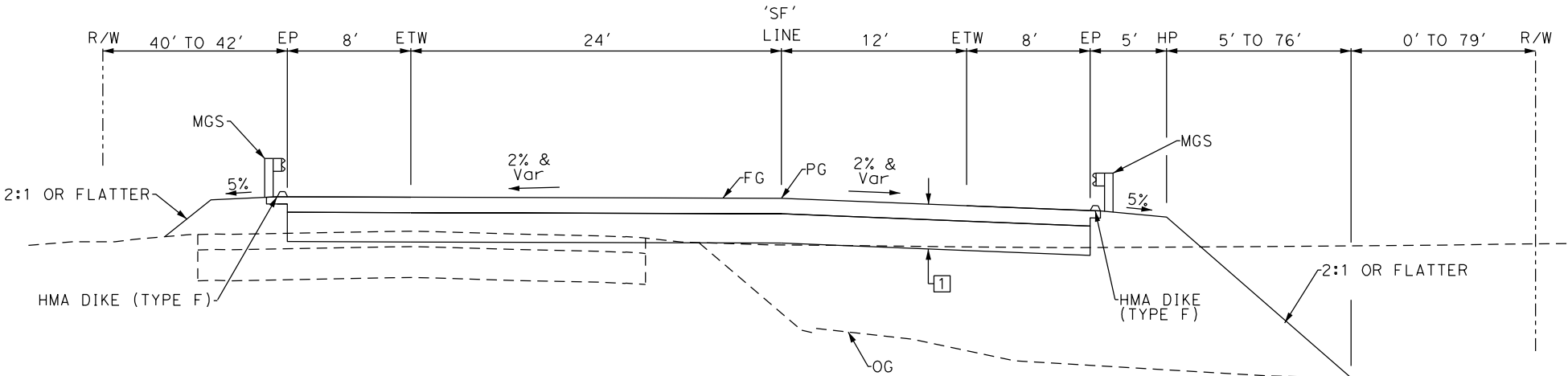
DRIVEWAY 4
'D1' 50+00 TO 51+16.38



SANTA FE AVENUE
'SF' 25+25 TO 29+00



SANTA FE AVENUE
'SF' 24+76.63 TO 25+25.00



SANTA FE AVENUE
'SF' 23+79.88 TO 25+25



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NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

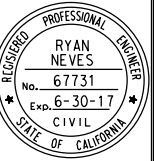
STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



TYPICAL SECTIONS
X-2
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE NO SCALE

SHEET
NUMBER
3
OF 78 SHEETS



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NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
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1716 MORGAN ROAD - MODESTO, CA 95358



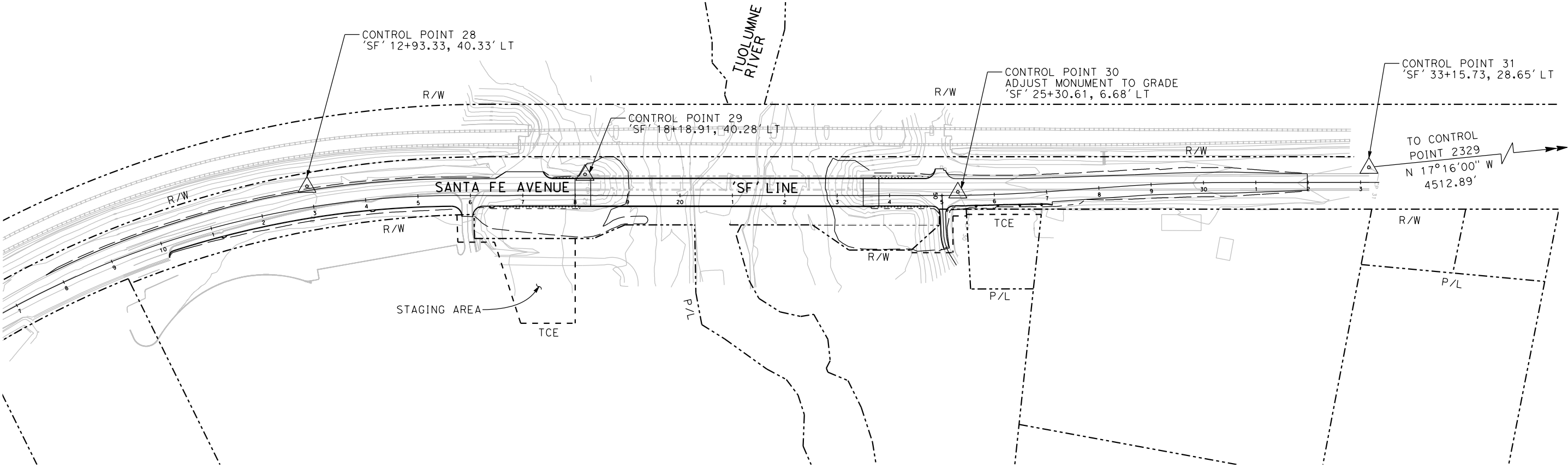
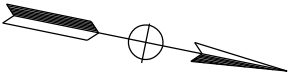
SURVEY CONTROL DATA
CD-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=100'

SHEET
NUMBER
4
OF 78 SHEETS

LEGEND:

△ CONTROL POINT

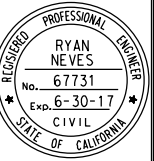


SURVEY CONTROL TABLE

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
28	2048772.256	6446197.656	95.06	1/2" IRON PIPE
29	2049287.863	6446069.796	94.24	1/2" IRON PIPE
30	2049991.913	6445960.978	93.98	MAG NAIL
31	2050751.353	6445758.988	106.00	1/2" IRON PIPE
2329	2055060.865	6444419.484	117.42	USC&GS "EMPIRE" BRASS DISK

HORIZONTAL DATUM: NAD83 (2007) - CA ZONE 3 - SURVEY FEET
VERTICAL DATUM: NAVD88 (GEOID09)





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NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

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ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



DEMOLITION PLAN
DE-1

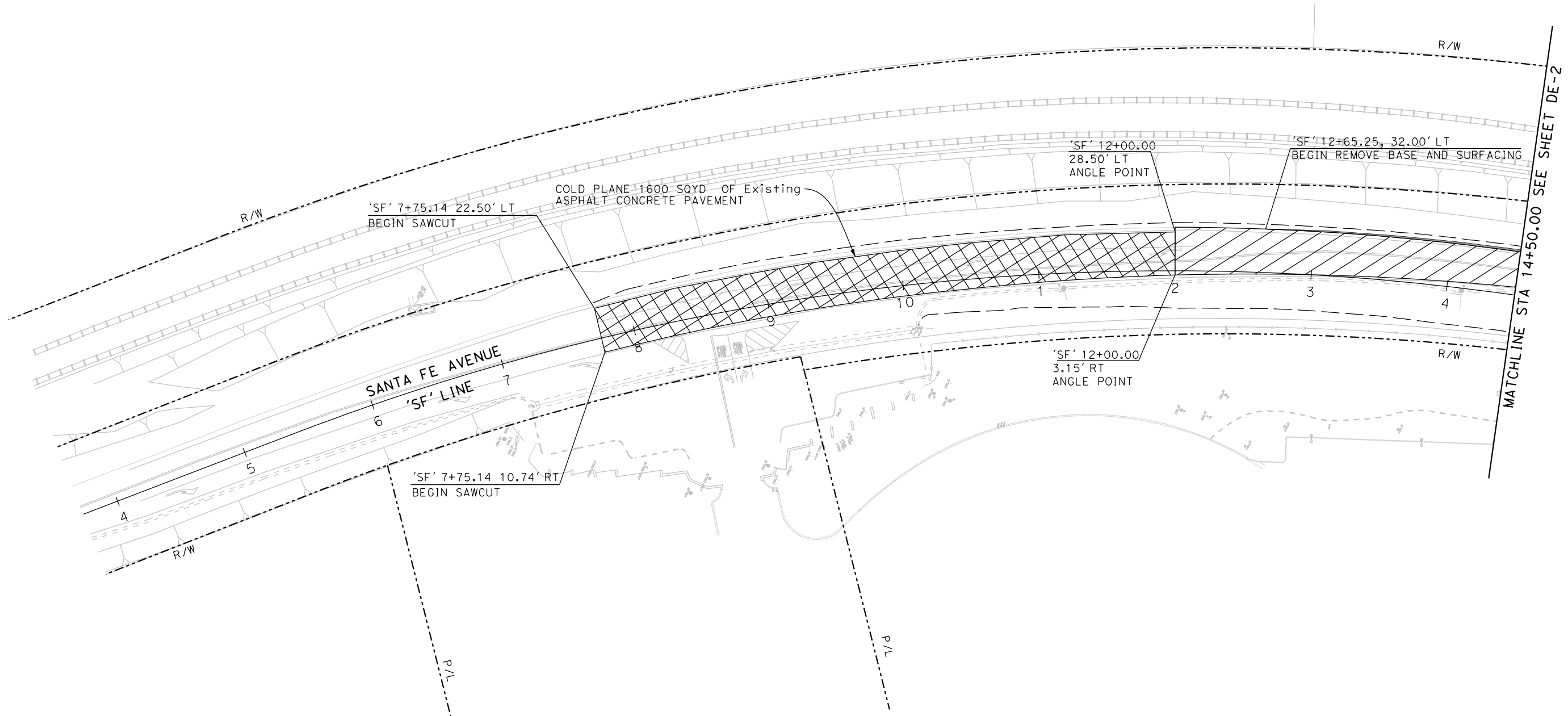
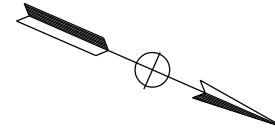
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
5
OF 78 SHEETS

LEGEND:

- 2" COLD PLANE AND OVERLAY
- 2" COLD PLANE WITH VARIABLE OVERLAY
- OBLITERATE SURFACING
- REMOVE BASE AND SURFACING

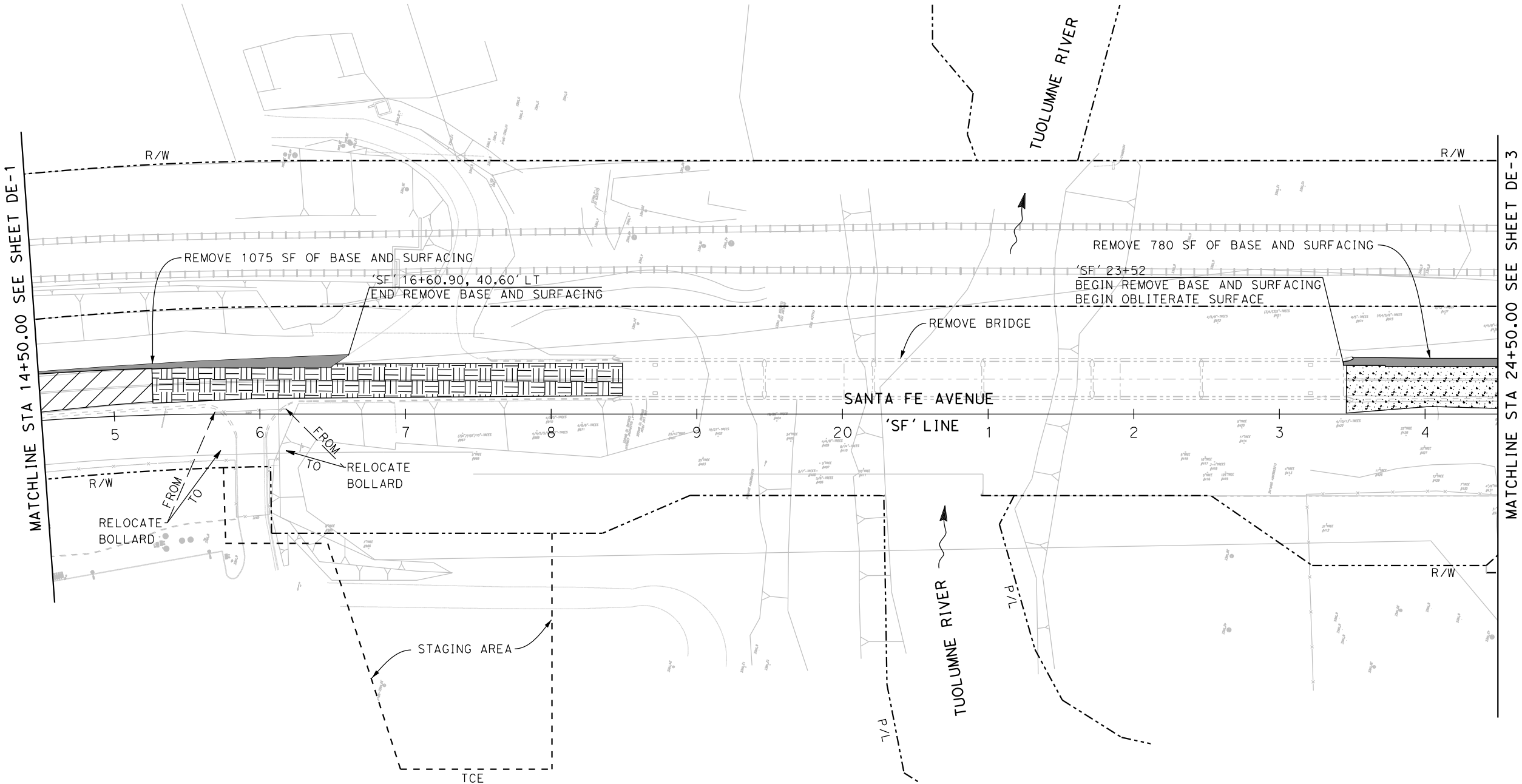


NOTES:

1. STRUCTURAL SECTION REMOVAL AREA IS INCLUDED AS ROADWAY EXCAVATION.

LEGEND:

- 2" COLD PLANE AND OVERLAY
- 2" COLD PLANE WITH VARIABLE OVERLAY
- OBLITERATE SURFACING
- REMOVE BASE AND SURFACING
- REMOVE STRUCTURAL SECTION (SEE NOTE 1)



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NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

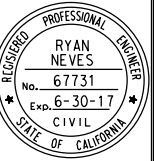


DEMOLITION PLAN
DE-2
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
6
OF 78 SHEETS





PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
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	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



DEMOLITION PLAN
DE-3

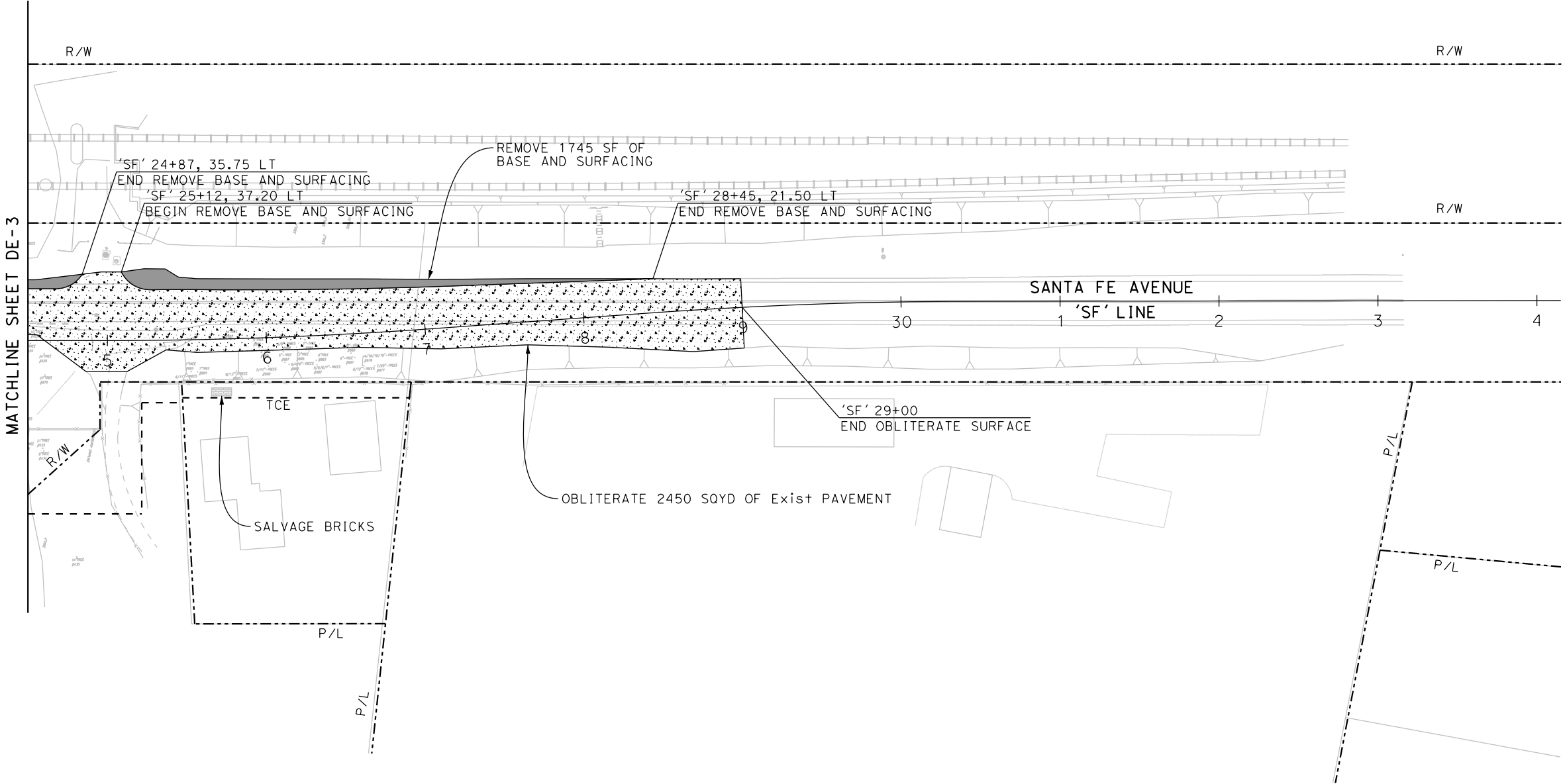
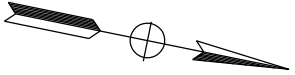
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
7
OF 78 SHEETS

LEGEND:

- 2" COLD PLANE AND OVERLAY
- 2" COLD PLANE WITH VARIABLE OVERLAY
- OBLITERATE SURFACING
- REMOVE BASE AND SURFACING

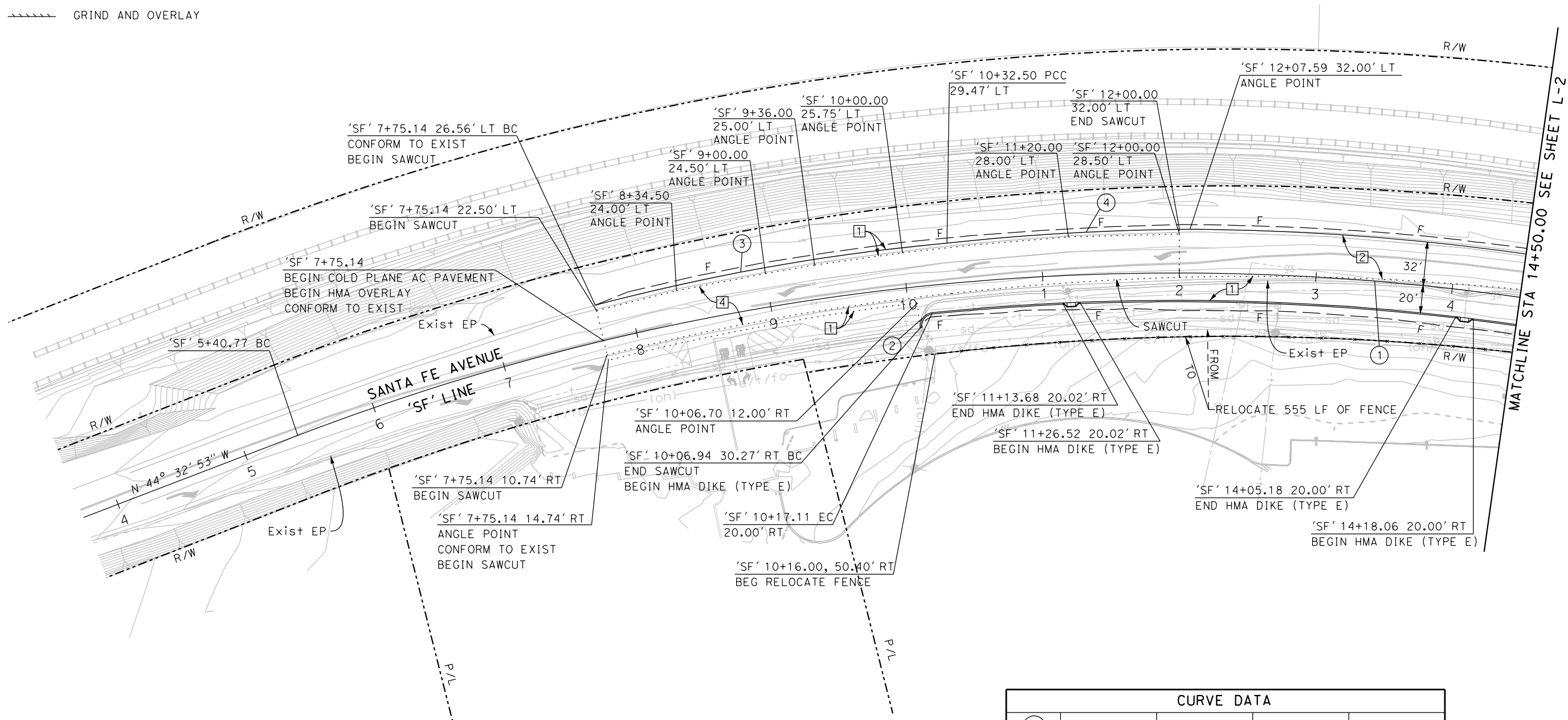


LEGEND:

- ① CURVE NUMBER
R/W, P/L RIGHT OF WAY/PROPERTY LINE
ICE TEMPORARY CONSTRUCTION EASEMENT
— MIDWEST GUARDRAIL SYSTEM
--- C, CUT
— F, FILL
..... SAWCUT
===== GRIND AND OVERLAY

STRUCTURAL SECTION:

- ① = [6" HMA (TYPE A)
12" CLASS 2 AB]
② = [0"-2" COLD PLANE ASPHALT
CONCRETE PAVEMENT
2"-9" HMA (TYPE A) OVERLAY]
③ = [OBLITERATE SURFACING]
④ = [2" COLD PLANE ASPHALT
CONCRETE PAVEMENT
2" HMA (TYPE A) OVERLAY]
⑤ = [6" HMA (TYPE A)
6" CLASS 2 AB]



CURVE DATA

No	RADIUS (ft)	DELTA	TANGENT (ft)	LENGTH (ft)
①	1794.00	33° 04' 19"	532.63	1035.52
②	10.00	91° 43' 44"	10.31	16.01
③	1549.96	9° 39' 57"	131.05	261.48
④	1772.85	5° 45' 22"	89.13	178.11



DATE	10/27/16
DATE	APPROVED
NO	REVISIONS
NO	DESCRIPTIONS

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



LAYOUT
L-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
8
OF 78 SHEETS

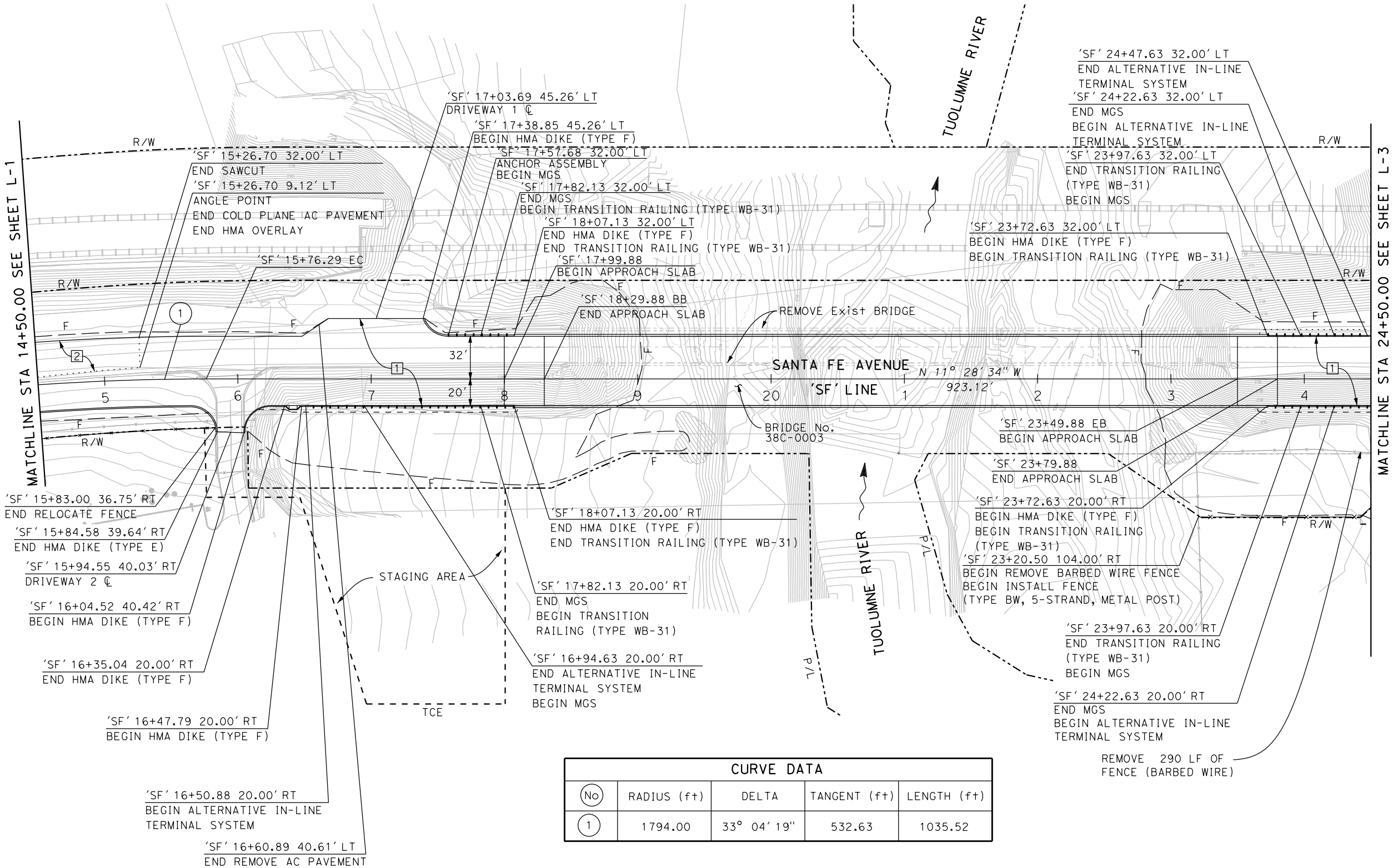


NOTES:

1. FOR DRIVEWAY DESIGN, SEE SHEET C-1.
2. FOR BRIDGE BARRIER, SEE STRUCTURE PLANS.
3. FOR BRIDGE, SEE STRUCTURE PLANS.

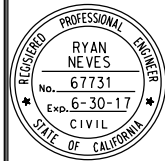
STRUCTURAL SECTION:

- ① = 6" HMA (TYPE A)
12" CLASS 2 AB
- ② = 0"-2" COLD PLANE ASPHALT
CONCRETE PAVEMENT
2"-9" HMA (TYPE A) OVERLAY
- ③ = [OBLITERATE SURFACING]
- ④ = 2" COLD PLANE ASPHALT
CONCRETE PAVEMENT
2" HMA (TYPE A) OVERLAY
- ⑤ = 6" HMA (TYPE A)
6" CLASS 2 AB



CURVE DATA

NO	RADIUS (ft)	DELTA	TANGENT (ft)	LENGTH (ft)
1	1794.00	33° 04' 19"	532.63	1035.52



DATE	10/27/16
APPROVED	
NO	
DESCRIPTIONS	
REVISIONS	

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



LAYOUT L-2
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET NUMBER
9
OF 78 SHEETS

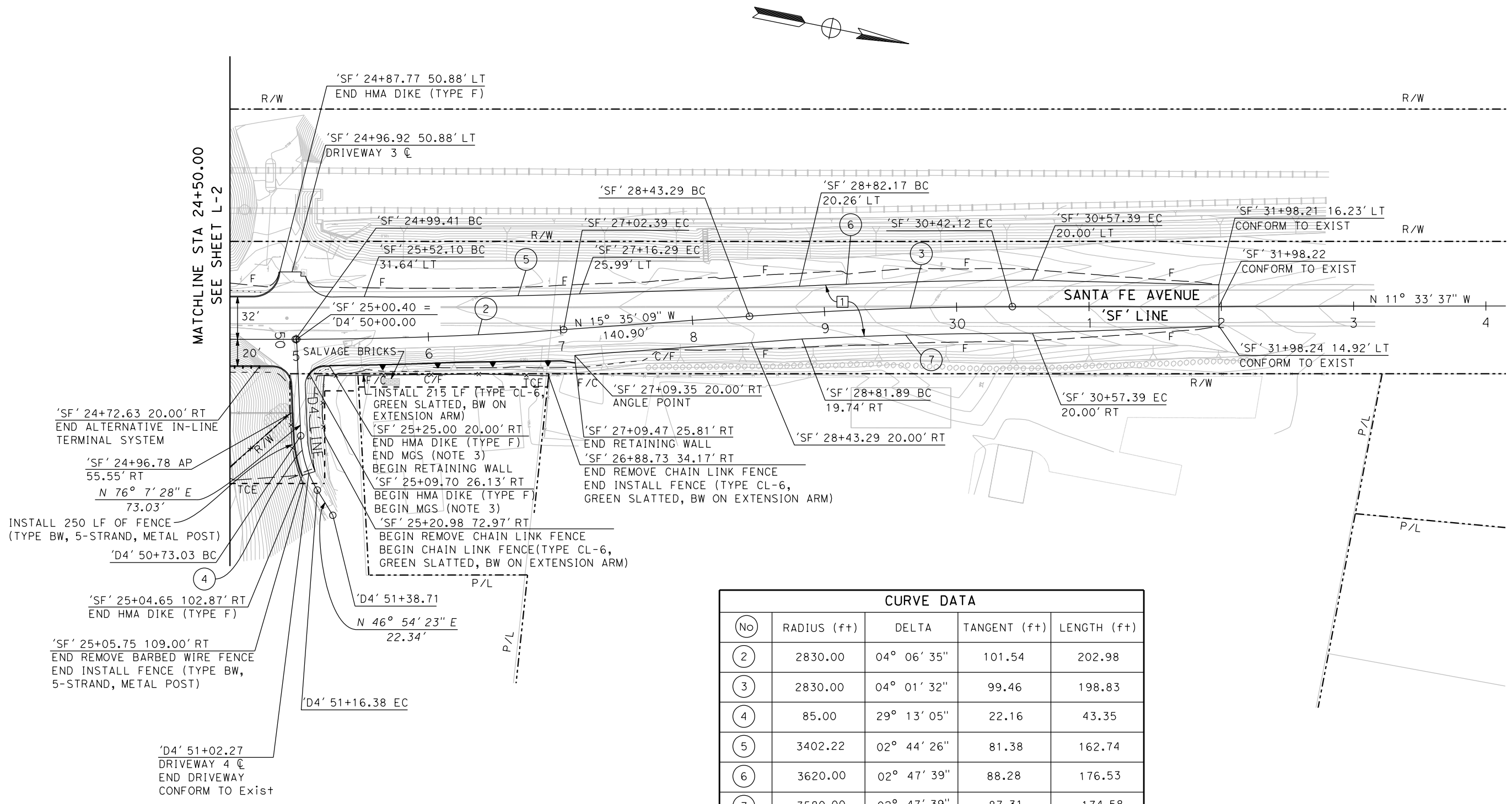


NOTES:

1. FOR RETAINING WALL, SEE SHEETS C-2 AND C-3.
2. FOR DRIVEWAY DESIGN, SEE SHEET C-1.
3. FOR MGS LAYOUT AT DRIVEWAY 4, SEE SHEET C-1.

STRUCTURAL SECTION:

- 1 = 6" HMA (TYPE A)
12" CLASS 2 AB
- 2 = 0"-2" COLD PLANE ASPHALT
CONCRETE PAVEMENT
2"-9" HMA (TYPE A) OVERLAY
- 3 = [OBLITERATE SURFACING]
- 4 = 2" COLD PLANE ASPHALT
CONCRETE PAVEMENT
2" HMA (TYPE A) OVERLAY
- 5 = 6" HMA (TYPE A)
6" CLASS 2 AB



CURVE DATA				
No	RADIUS (ft)	DELTA	TANGENT (ft)	LENGTH (ft)
2	2830.00	04° 06' 35"	101.54	202.98
3	2830.00	04° 01' 32"	99.46	198.83
4	85.00	29° 13' 05"	22.16	43.35
5	3402.22	02° 44' 26"	81.38	162.74
6	3620.00	02° 47' 39"	88.28	176.53
7	3580.00	02° 47' 39"	87.31	174.58



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NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

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ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

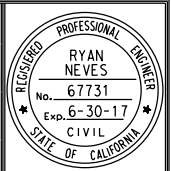
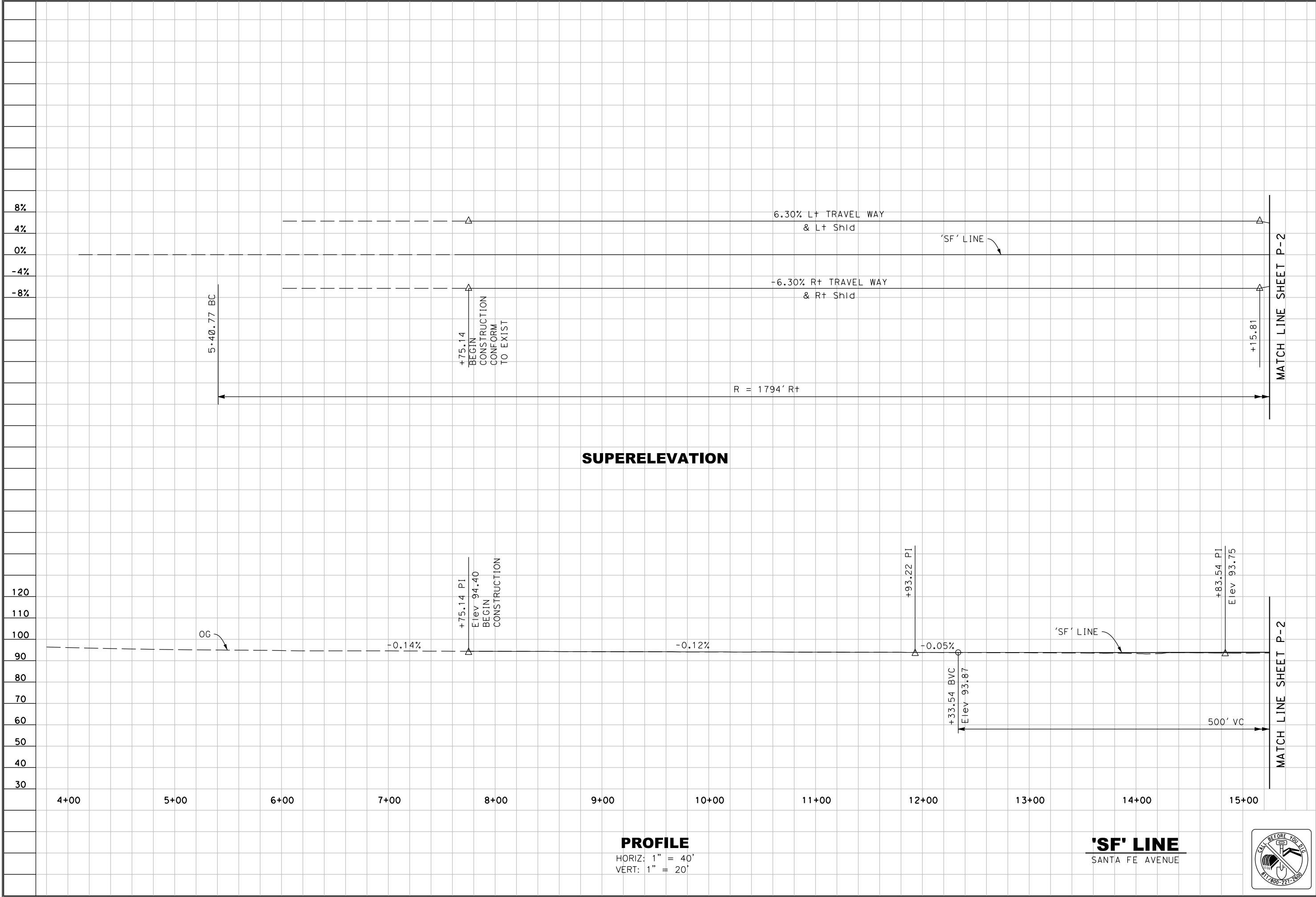


LAYOUT
L-3
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
10
OF 78 SHEETS





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NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

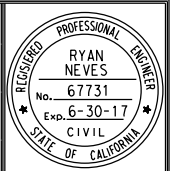
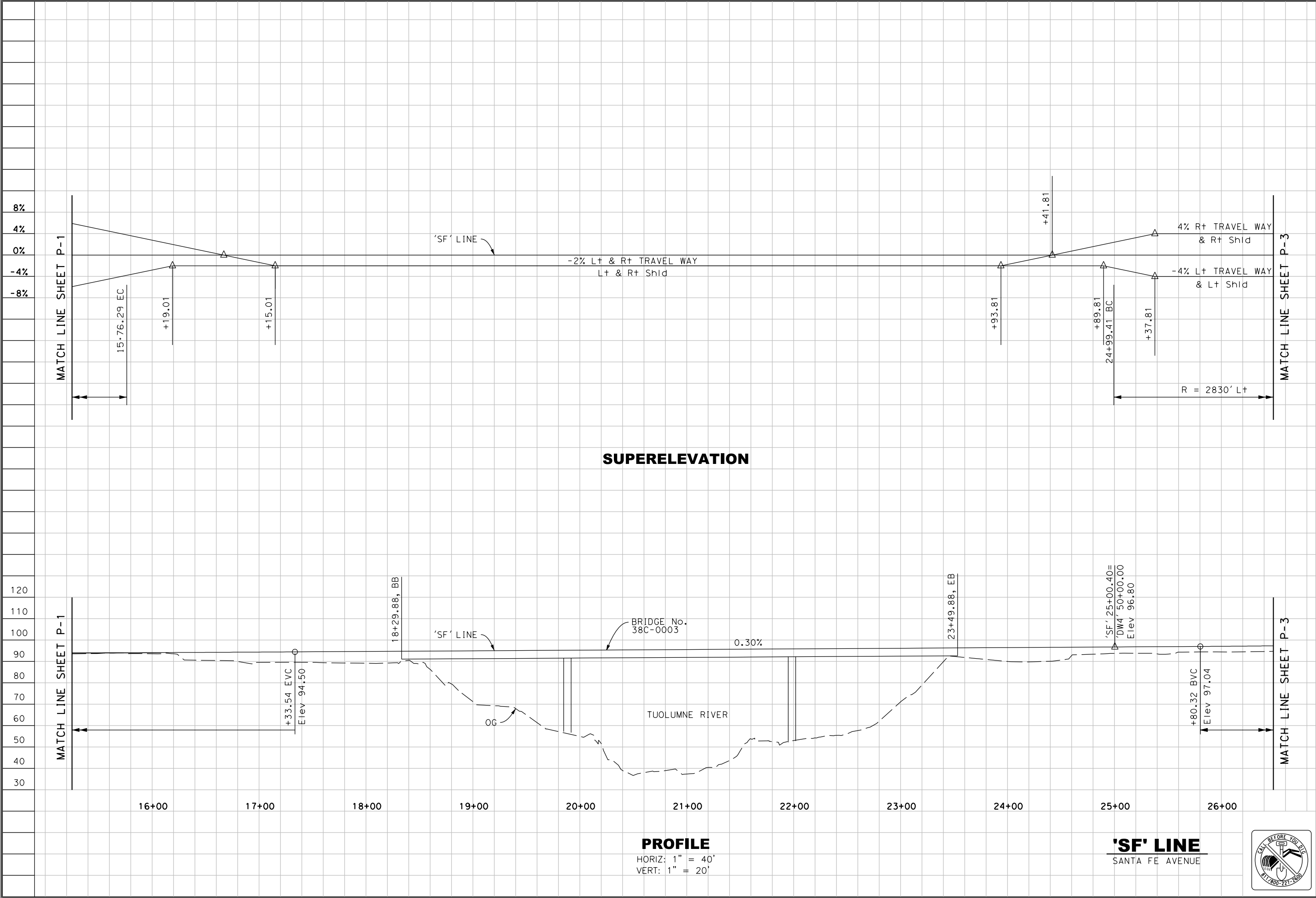


PROFILE AND SUPERELEVATION
PS-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO.	1986
DATE	3/13/16
DR BY	J. KOZAK
CK BY	R. NEVES
SCALE	AS SHOWN

SHEET
NUMBER
11
OF 78 SHEETS





PREPARED UNDER THE DIRECTION OF:		DATE: 10/27/16
NO	REVISIONS	DATE
	DESCRIPTIONS	APPROVED

STANISLAUS COUNTY

DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

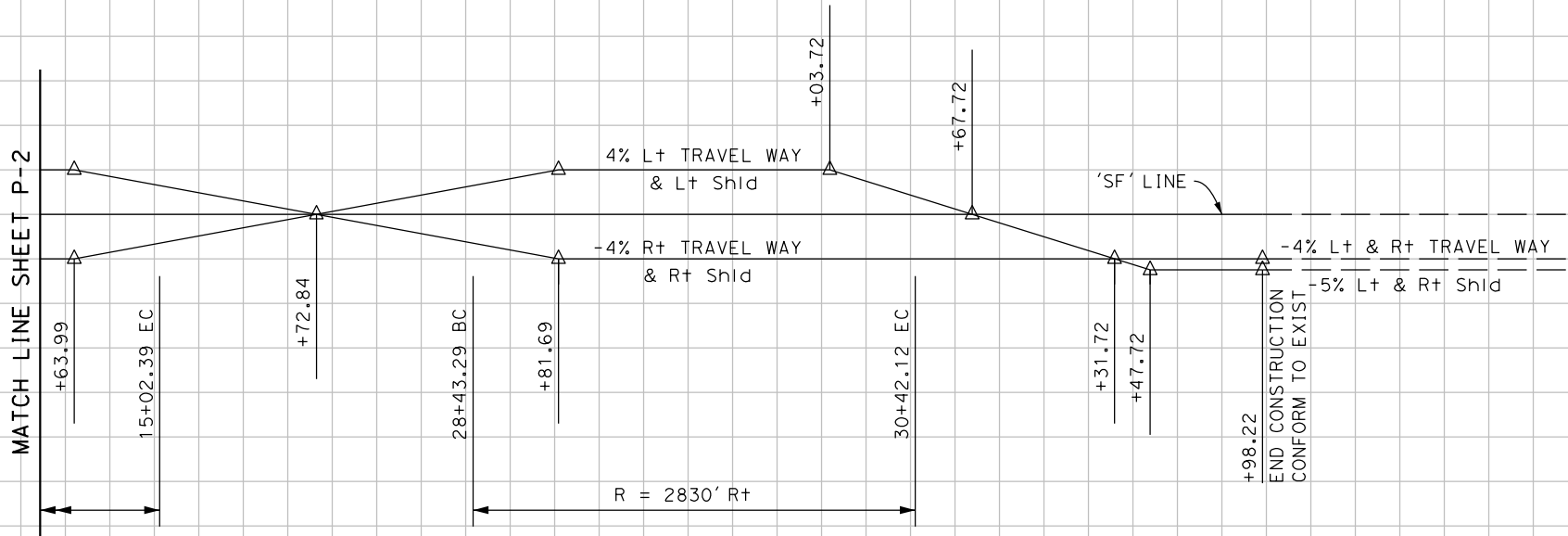


PROFILE AND SUPERELEVATION PS-2

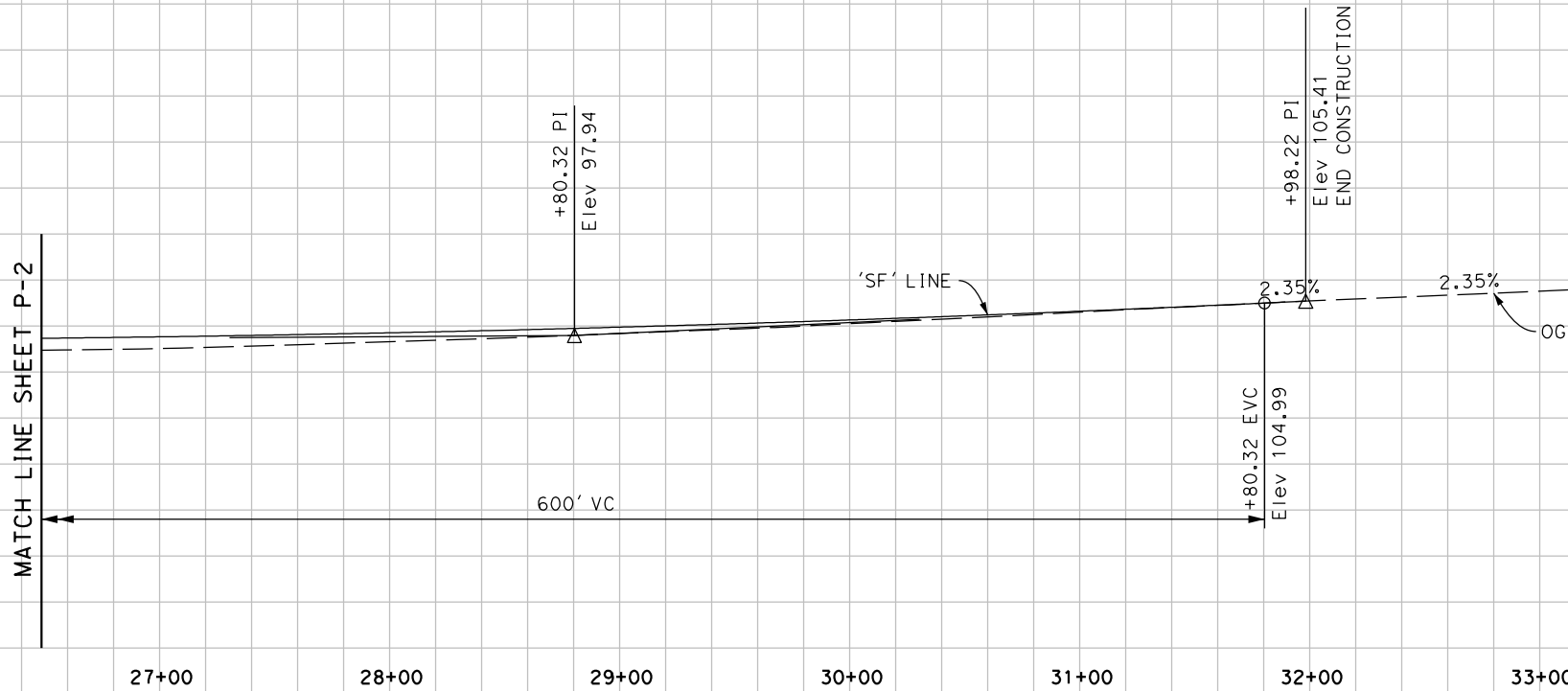
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE AS SHOWN

SHEET NUMBER
12
OF 78 SHEETS



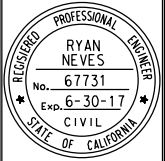
SUPERELEVATION



PROFILE

HORIZ: 1" = 40'
VERT: 1" = 20'

'SF' LINE
SANTA FE AVENUE



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
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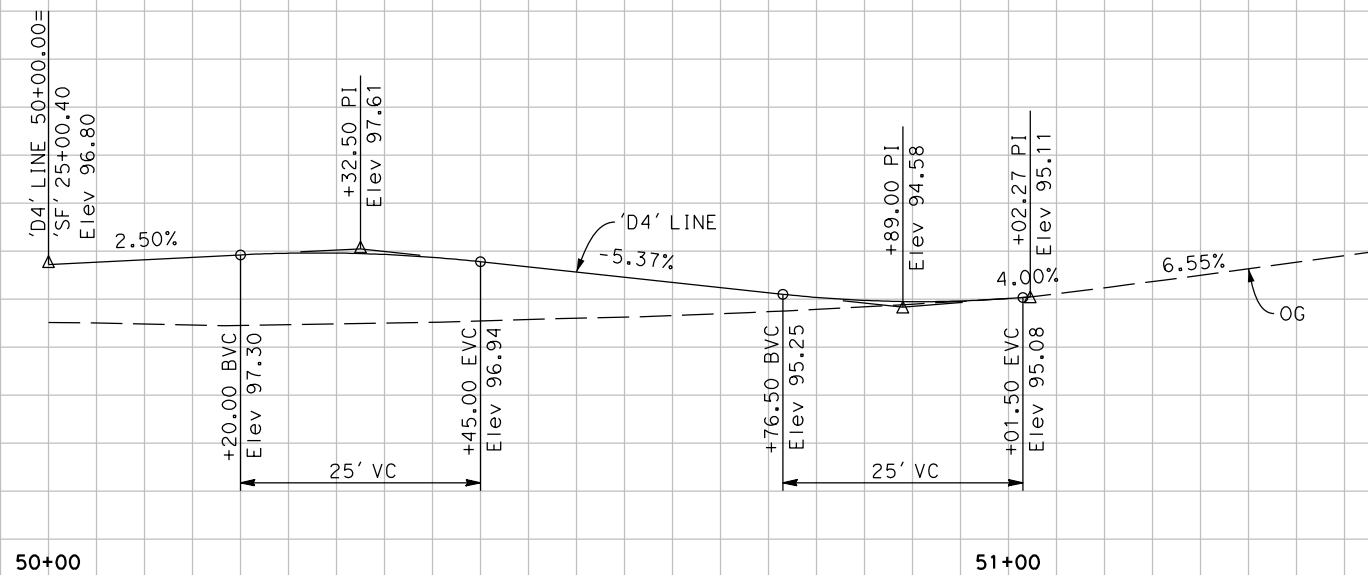
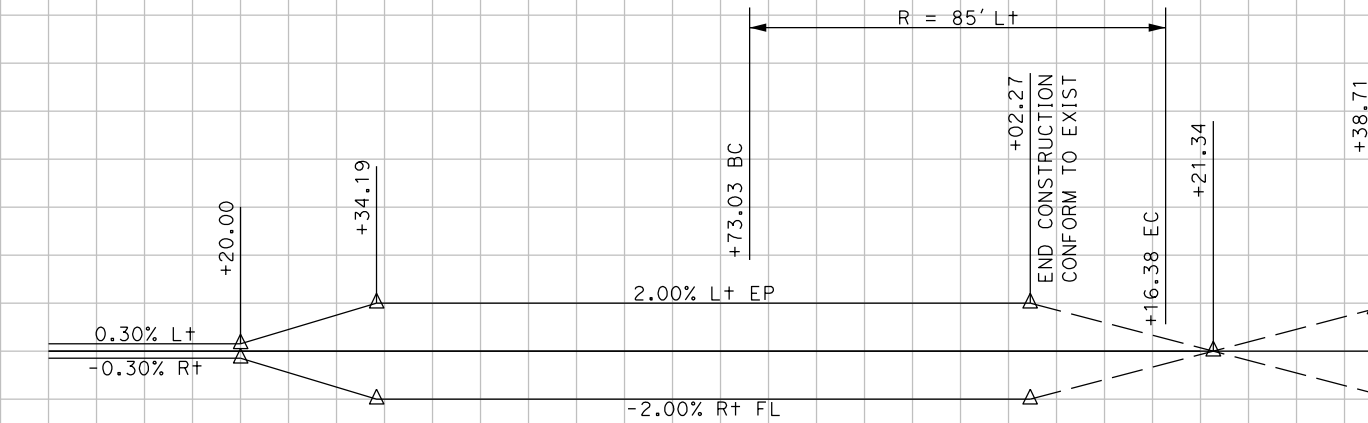
STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



PROFILE AND SUPERELEVATION PS-3
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO	1986
DATE	3/13/16
DR BY	J. KOZAK
CK BY	R. NEVES
SCALE	AS SHOWN

SHEET NUMBER
13
OF 78 SHEETS



PROFILE

HORIZ: 1" = 10'
VERT: 1" = 5'

'D4' LINE
DRIVEWAY 1

[illegible]

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODesto, CA 95358

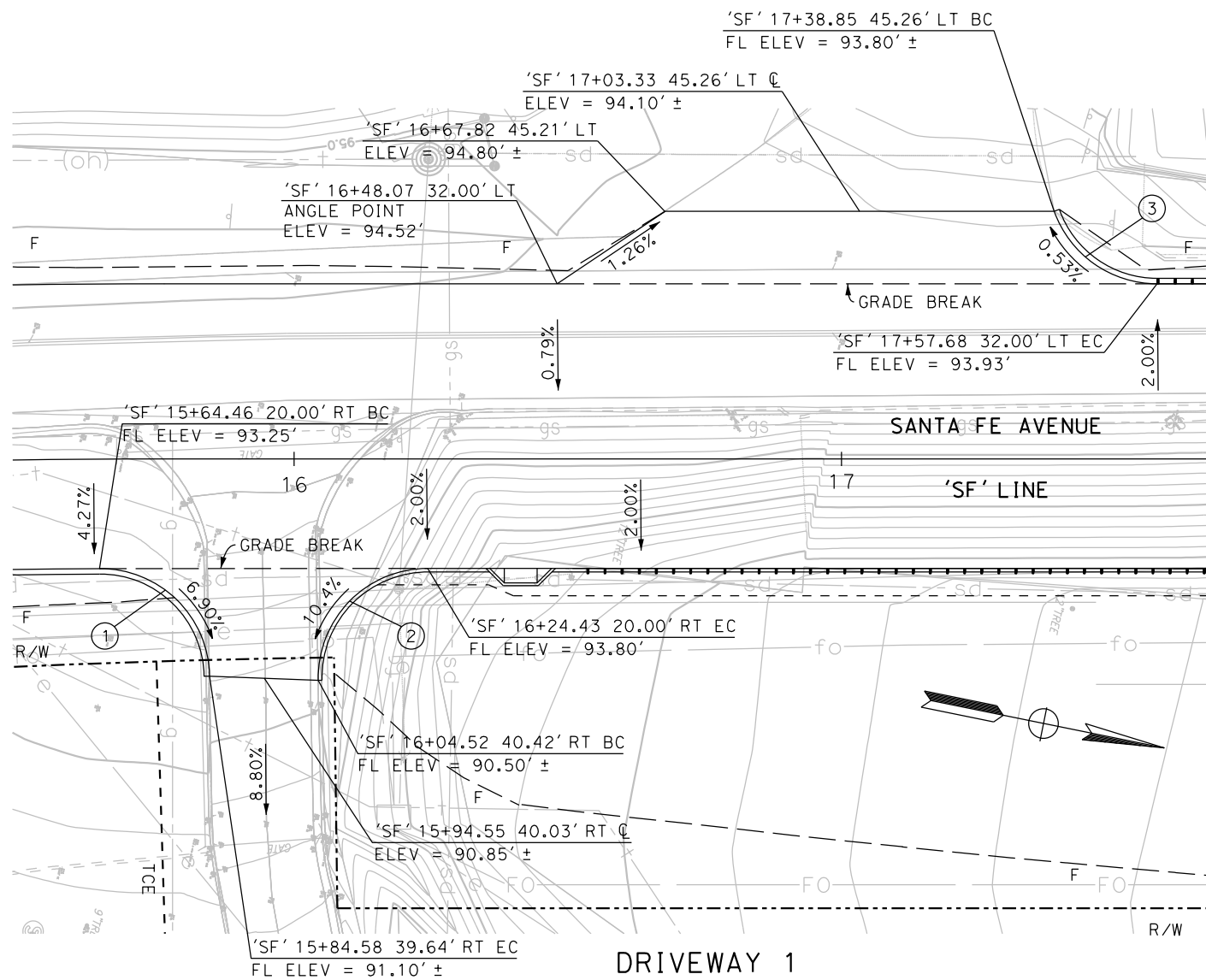


**PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA**

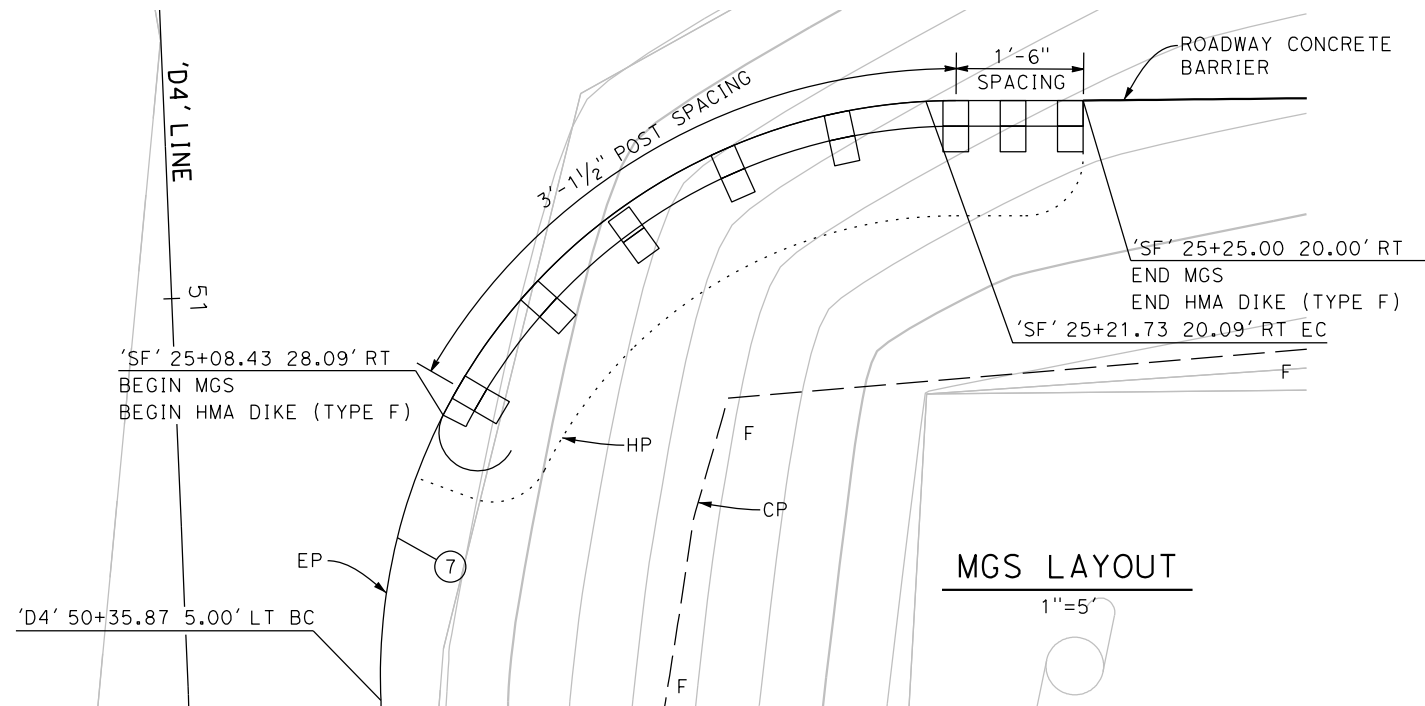
NO 1986
ATE 3/13/16
BY J. KOZAK
BY R. NEVES
ALE AS SHOWN

SHEET
NUMBER
14
78 SHEETS

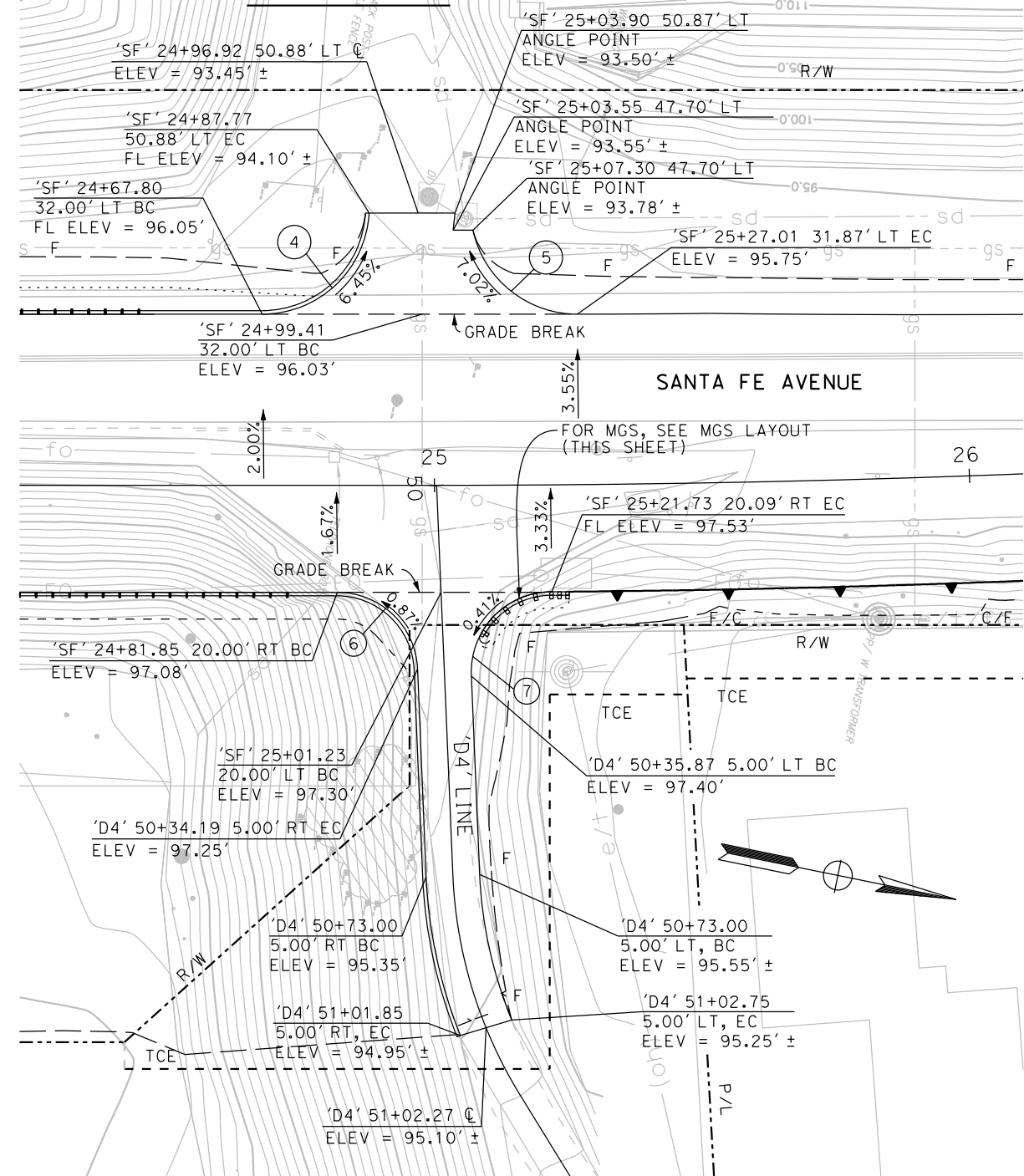
DRIVEWAY 2



DRIVEWAY 1



DRIVEWAY 3



DRIVEWAY 4

CURVE DATA				
(No)	RADIUS (ft)	DELTA	TANGENT (ft)	LENGTH (ft)
1	20.00	88° 57' 51"	19.64	31.05
2	20.00	91° 12' 52"	20.43	31.84
3	20.00	70° 18' 35"	14.08	24.54
4	20.00	86° 46' 43"	18.91	30.29
5	20.00	86° 46' 43"	18.91	30.29
6	15.00	87° 36' 02"	14.38	22.93
7	15.00	92° 23' 36"	15.64	24.19



REVISIONS		DATE	APPROVED
NO	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



CONSTRUCTION DETAILS
C-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

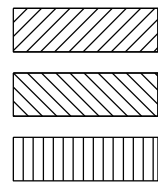
JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=15'

SHEET NUMBER
15
OF 78 SHEETS

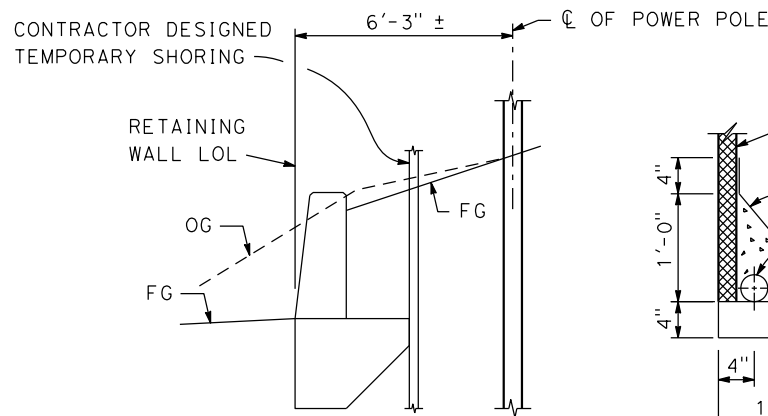


PAY LIMITS OF STRUCTURAL CONCRETE (RETAINING WALL)

NO SCALE



STRUCTURAL CONCRETE (RETAINING WALL)
STRUCTURE EXCAVATION
STRUCTURE BACKFILL

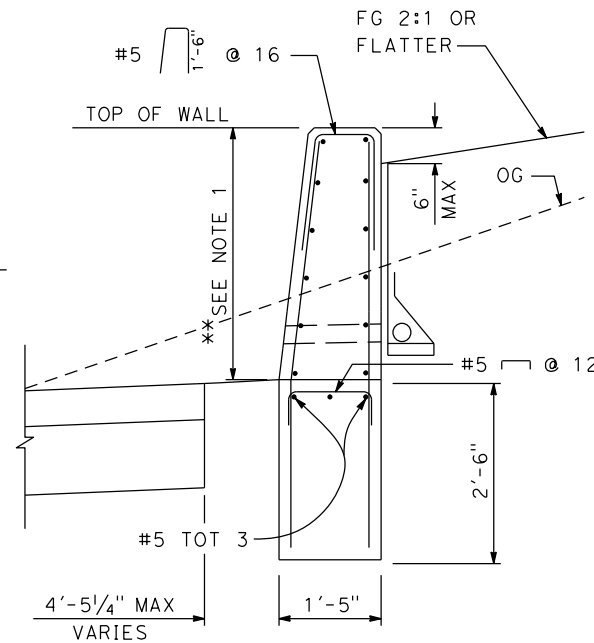
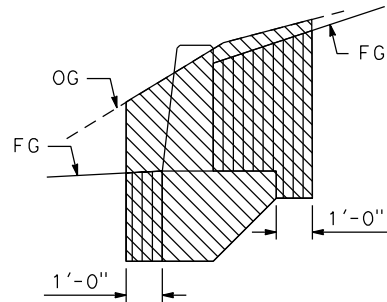


DETAIL C

NO SCALE

PAY LIMITS OF STRUCTURE EXCAVATION AND STRUCTURE BACKFILL

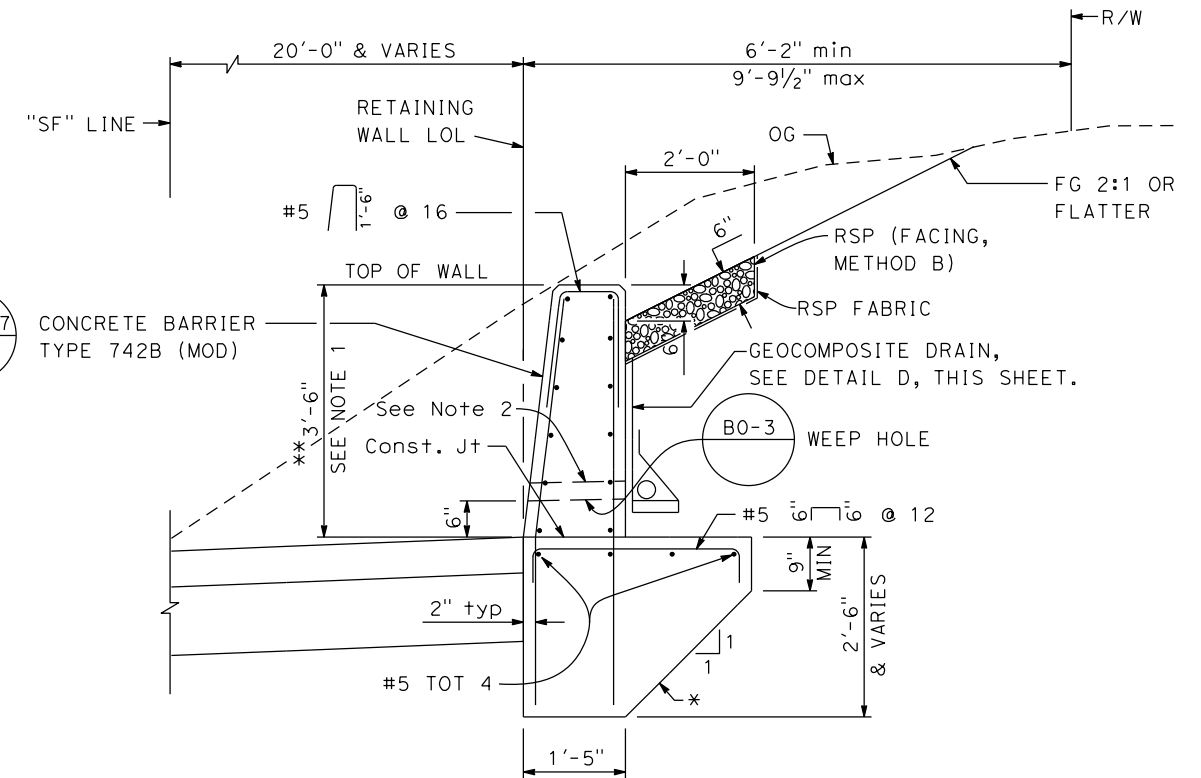
NO SCALE



SECTION A-A

3/4" = 1'-0"

FROM STATION 11+76.00 TO 11+86.00
FOR DETAILS NOT SHOWN, SEE "TYPICAL SECTION"



TYPICAL SECTION

3/4" = 1'-0"

FROM STATION 10+00.00 TO 11+76.00

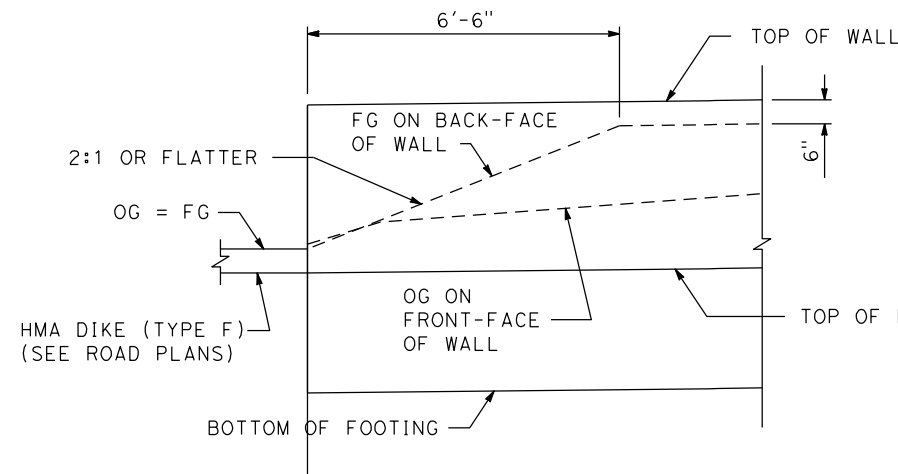
SPREAD FOOTING DATA TABLE

Load And Resistance Factor Design (LRFD)		
Service Permissible Net Contact Stress (Settlement) (ksf)	Strength Factored Gross Nominal Bearing Resistance $\phi_b = X$ (ksf)	Extreme Event Factored Gross Nominal Bearing Resistance $\phi_b = 1.00$ (ksf)
2.0	3.0	3.0

NOTES:

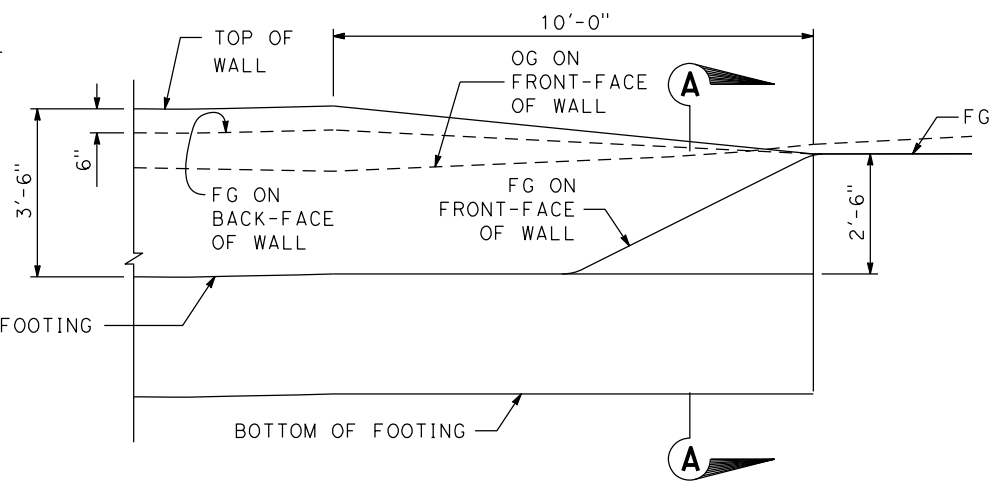
1. FROM Sta 11+76.00 TO 11+86.00 TRANSITION
RETAINING WALL HEIGHT FROM 3'-6" TO 2'-6"
2. 3" ϕ Drains @ 24'-0" maximum center to center

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



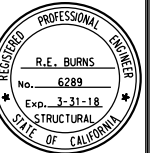
DETAIL A

1/2" = 1'-0"



DETAIL B

1/2" = 1'-0"



DATE: 10/26/16	DATE: 10/26/16
REVISIONS	REVISIONS
NO. DESCRIPTIONS	NO. DESCRIPTIONS
1	1

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



CONSTRUCTION DETAILS
C-3
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 1/26/15
DR BY F. Enriquez
CK BY R. Burns
SCALE

SHEET
NUMBER

17

OF 78 SHEETS



LEGEND:

----- CUT AND FILL LIMITS



HYDROSEED 1



HYDROSEED 2



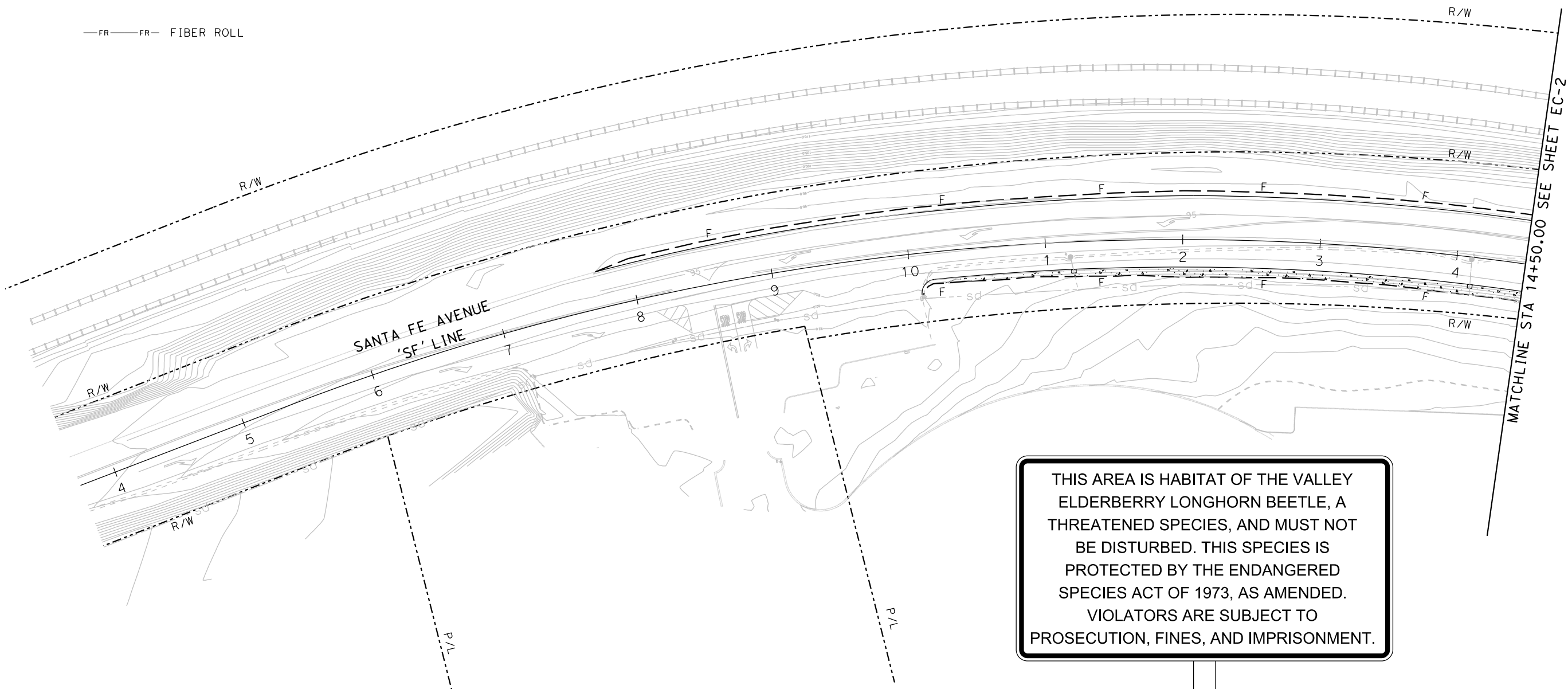
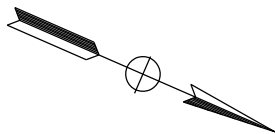
HYDROSEED 3

—ESA— TEMPORARY ESA FENCE WITH ENVIRONMENTAL SIGN 50' O.C.
(SEE DETAIL, THIS SHEET)

—FR—FR— FIBER ROLL

NOTES:

1. TEMPORARY FENCE (TYPE ESA) TO BE INSTALLED PRIOR TO INITIATING STAGE 1 WORK.
2. ALL EROSION CONTROL WORK TO BE COMPLETED NO LATER THAN COMPLETION OF STAGE 2 CONSTRUCTION.
3. PLACE HYDROSEED AND TEMPORARY HYDRAULIC MULCH UPON COMPLETION OF GROUND DISTURBING ACTIVITIES.
4. FOR TEMPORARY BMP, SEE TEMPORARY WATER POLLUTION CONTROL PLANS IN THE SWPPP.

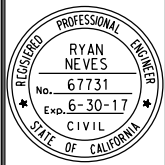


THIS AREA IS HABITAT OF THE VALLEY ELDERBERRY LONGHORN BEETLE, A THREATENED SPECIES, AND MUST NOT BE DISTURBED. THIS SPECIES IS PROTECTED BY THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED. VIOLATORS ARE SUBJECT TO PROSECUTION, FINES, AND IMPRISONMENT.

ATTACH TO ESA "T POST"

OG

ENVIRONMENTAL SIGN



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED

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DEPARTMENT OF PUBLIC WORKS
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1716 MORGAN ROAD - MODESTO, CA 95358

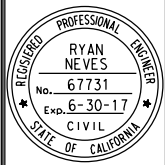
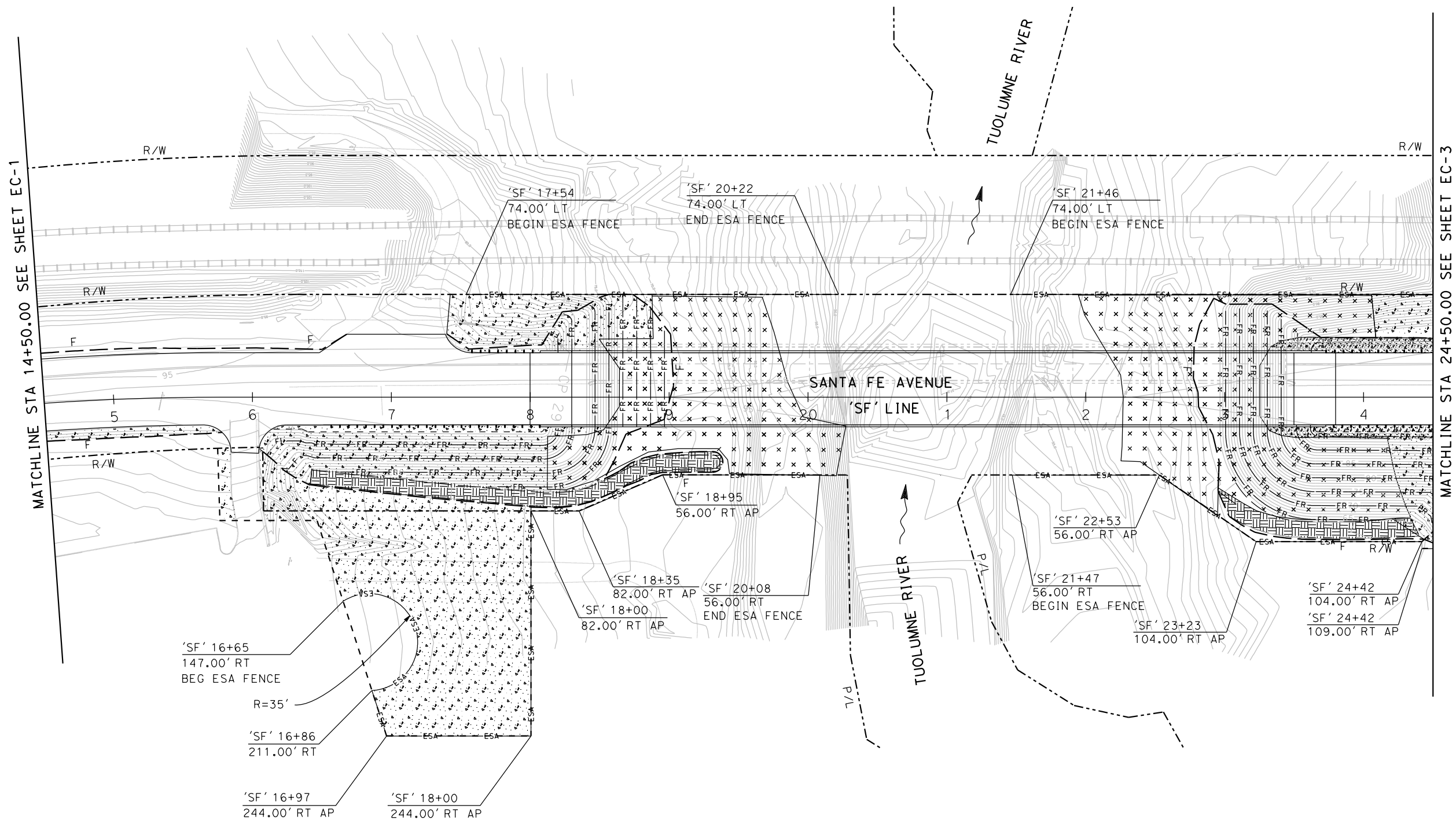


EROSION CONTROL EC-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET NUMBER
18
OF 78 SHEETS





PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



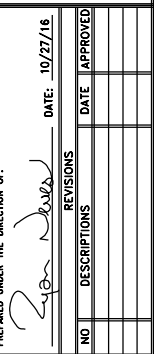
EROSION CONTROL
EC-2

PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
19
OF 78 SHEETS





STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD – MODESTO, CA 95358

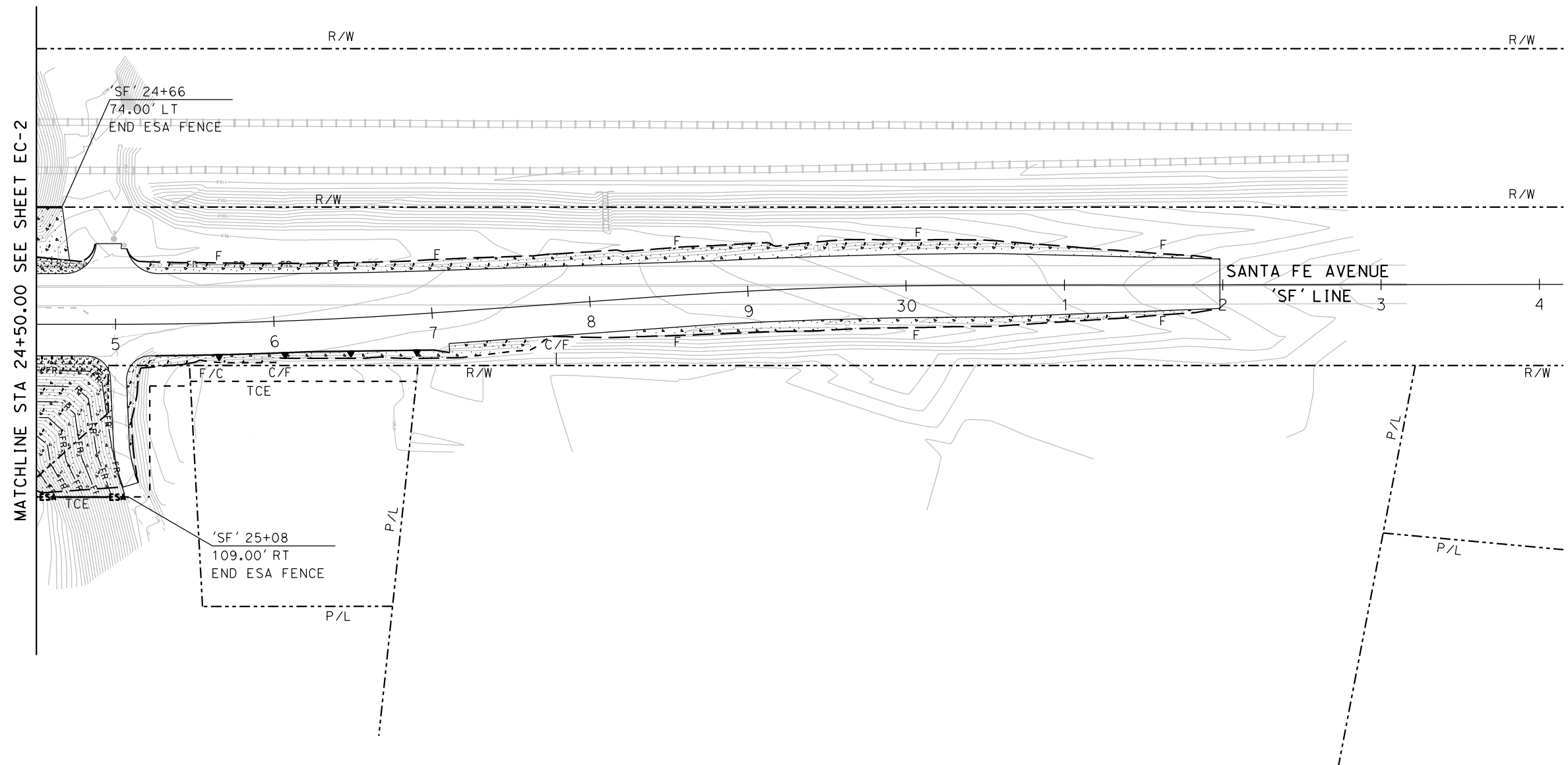


EROSION CONTROL EC-3

**PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA**

JOB NO 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
20
OF 78 SHEETS



EROSION CONTROL QUANTITIES

ITEM	QUANTITY
HYDROSEED 1	62,000 SQFT
HYDROSEED 2	6,000 SQFT
HYDROSEED 3	42,000 SQFT
TEMPORARY ESA FENCE WITH ENVIRONMENTAL SIGN	1,600 LF
FIBER ROLL	3,500 LF



NOTES:

1. FIBER MUST BE WOOD FIBER, CELLULOSE FIBER OR A COMBINATION OF THESE FIBERS.
2. TACKIFIER MUST BE A PLANT BASED PRODUCT.
3. SEED MUST BE FROM NATIVE, LOCAL PARENT MATERIAL SOURCED FROM THE TUOLUMNE RIVER WATERSHED AND BE PRODUCED IN CALIFORNIA.

HYDROSEED 1				
COMMON NAME	SCIENTIFIC NAME	PLS LB/ACRE	% PURITY	% GERM.
ANNUAL LUPINE	LUPINUS BICOLOR	2.00	98	85
CALIFORNIA BARLEY	HORDEUM BRACHYANTHERUM SSP. CALIFORNICUM	1.00	90	80
CALIFORNIA BROME	BROMUS CARINATUS	8.00	95	90
CALIFORNIA POPPY	ESCHSCHOLZIA CALIFORNICA SSP. MEXICANA	1.00	98	80
CHICK LUPINE	LUPINUS MICROCARPUS SSP. MICROCARPUS	2.00	98	85
NARROW LEAF MILKWEED	ASCLEPSIAS FASCICULARIS	1.00	90	65
PURPLE NEEDLE GRASS	STIPA PULCHRA	2.00	90	75
REGREEN/QUICKGUARD		20.00	98	85
SMALL FESCUE	VULPIA MICROSTACHYS	7.00	90	80
SPANISH LOTUS	ACMISPON AMERICANUS	2.00	98	75
WESTERN YARROW	ACHILLEA MILLEFOLIUM SPP. LANULOSA	0.10	98	85

HYDROSEED 2				
COMMON NAME	SCIENTIFIC NAME	PLS LB/ACRE	% PURITY	% GERM.
BEARDLESS WILD-RYE	ELYMUS TRITICOIDES	7.00	90	80
CALIFORNIA BARLEY	HORDEUM BRACHYANTHERUM SSP. CALIFORNICUM	3.50	90	80
CALIFORNIA BROME	BROMUS CARINATUS	9.00	95	90
CALIFORNIA POPPY	ESCHSCHOLZIA CALIFORNICA SSP. MEXICANA	1.00	98	80
PURPLE NEEDLE GRASS	STIPA PULCHRA	3.00	90	75
REGREEN/QUICKGUARD		20.00	98	85
VALLEY SEDGE	CAREX BARBARAE	0.75	95	70
WESTERN YARROW	ACHILLEA MILLEFOLIUM SPP. LANULOSA	0.10	98	85

HYDROSEED 3				
COMMON NAME	SCIENTIFIC NAME	PLS LB/ACRE	% PURITY	% GERM.
BEARDLESS WILD-RYE	ELYMUS TRITICOIDES	5.00	90	80
CALIFORNIA BARLEY	HORDEUM BRACHYANTHERUM SSP. CALIFORNICUM	1.00	90	80
CALIFORNIA BROME	BROMUS CARINATUS	8.00	95	90
CALIFORNIA POPPY	ESCHSCHOLZIA CALIFORNICA SSP. MEXICANA	1.00	98	80
MUGWORT	ARTEMISIA DOUGLASIANA	0.25	15	40
MULEFAT	BACCHARIS SALICIFOLIA	0.15	10	20
NARROW LEAF MILKWEED	ASCLEPSIAS FASCICULARIS	1.00	90	65
PURPLE NEEDLE GRASS	STIPA PULCHRA	2.00	90	75
REGREEN/QUICKGUARD		20.00	98	85
SPANISH LOTUS	ACMISPON AMERICANUS	2.00	98	75
VALLEY SEDGE	CAREX BARBARAE	0.50	95	70
WESTERN YARROW	ACHILLEA MILLEFOLIUM SPP. LANULOSA	0.10	98	85

HYDROSEED 1				
SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	HYDROSEED	SEED	HYDROSEED 1	46.10 LB/ACRE
		FIBER	WOOD	500 LB/ACRE
STEP 2	HYDROMULCH	FIBER	WOOD	1,500 LB/ACRE
		TRACKIFIER	ORGANIC	PER MANUFACTURER

HYDROSEED 2				
SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	HYDROSEED	SEED	HYDROSEED 2	44.35 LB/ACRE
		FIBER	WOOD	500 LB/ACRE
STEP 2	HYDROMULCH	FIBER	WOOD	1,500 LB/ACRE
		TRACKIFIER	ORGANIC	PER MANUFACTURER

HYDROSEED 3				
SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	HYDROSEED	SEED	HYDROSEED 3	41.00 LB/ACRE
		FIBER	WOOD	500 LB/ACRE
STEP 2	HYDROMULCH	FIBER	WOOD	1,500 LB/ACRE
		TRACKIFIER	ORGANIC	PER MANUFACTURER



PREPARED UNDER THE DIRECTION OF:

DATE: 10/27/16

NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY

DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD – MODESTO, CA 95358

Stanislaus County
Serving to the Best

EROSION CONTROL
EC-4

PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986

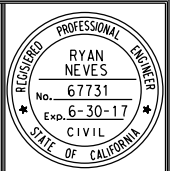
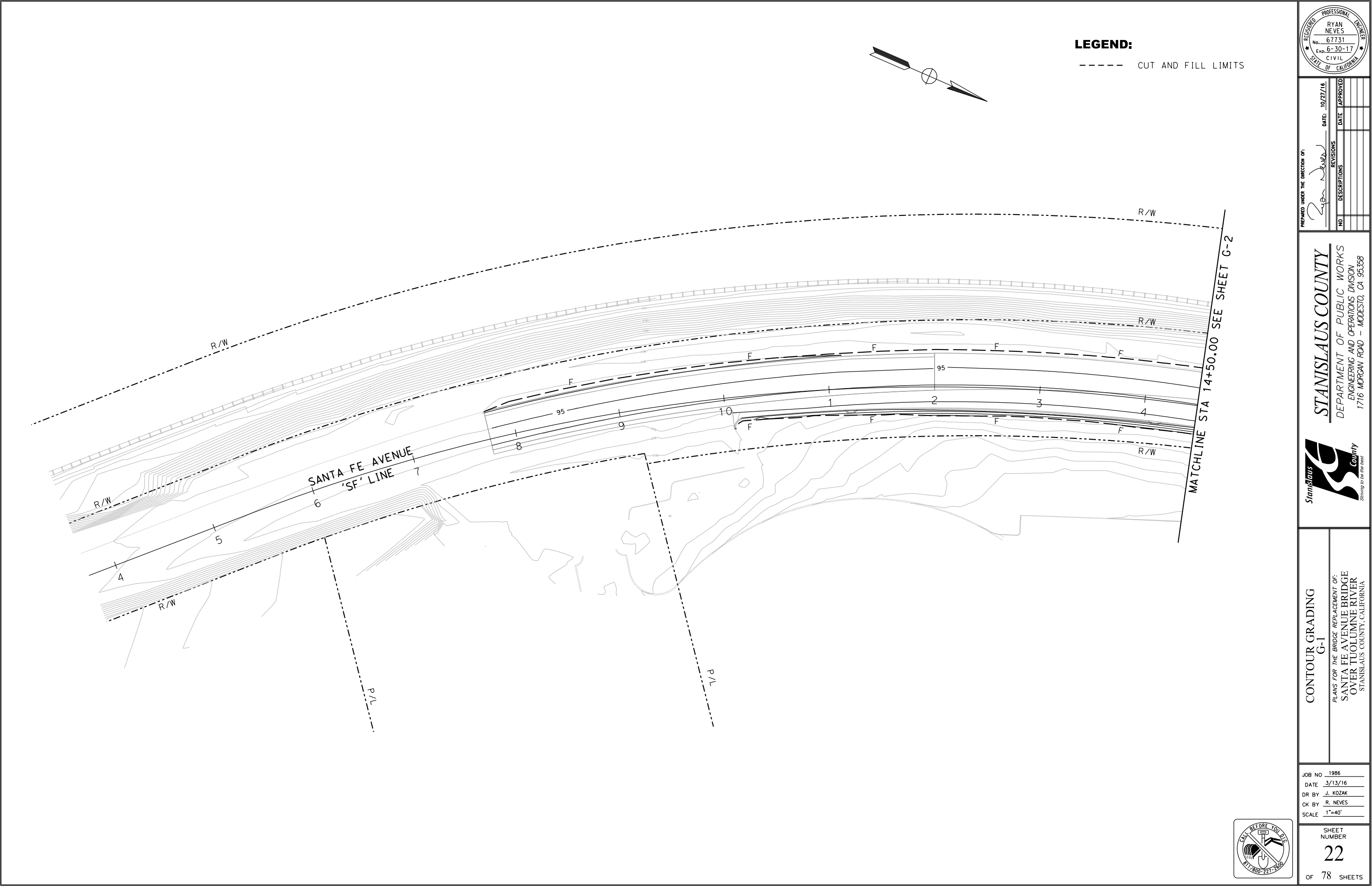
DATE 3/13/16

DR BY J. KOZAK

CK BY R. NEVES

SCALE





PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	DESCRIPTIONS	DATE	APPROVED
	REVISIONS		



STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

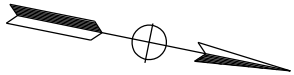
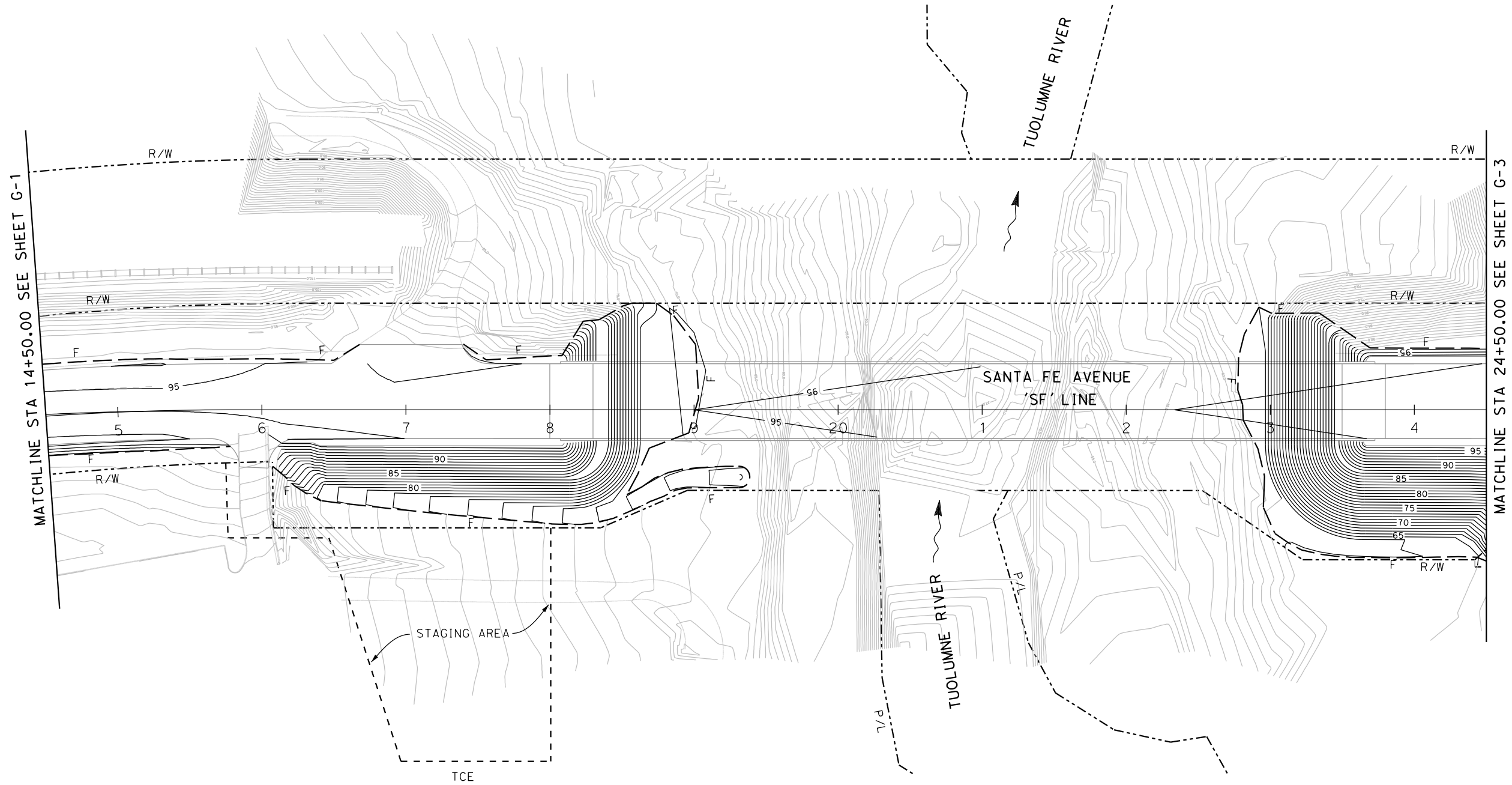
CONTOUR GRADING
G-1

PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'



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9:21:12 PM



PREPARED UNDER THE DIRECTION OF:		DATE: 10/27/16	
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



CONTOUR GRADING
G-2

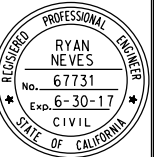
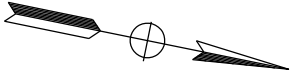
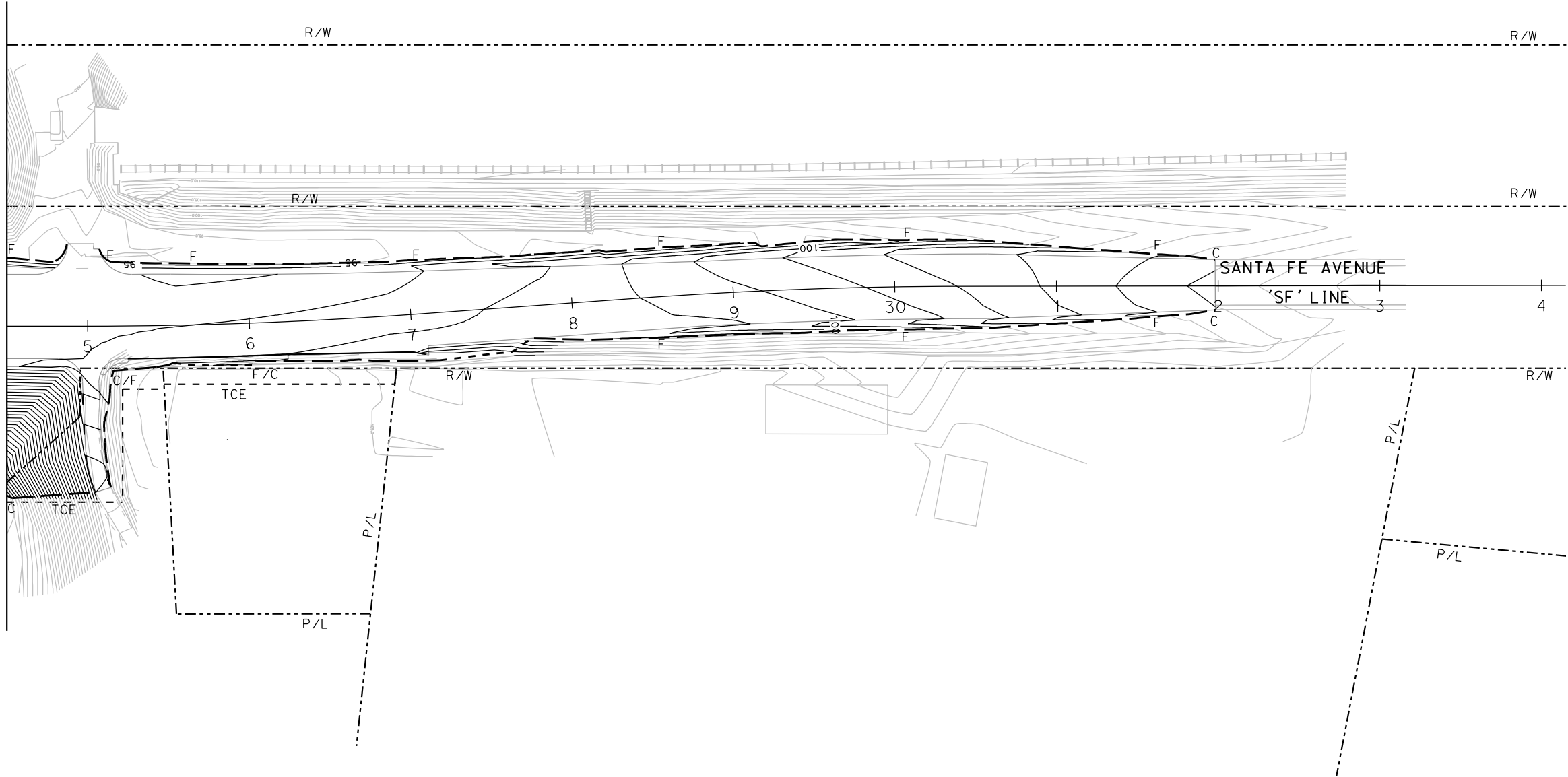
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
23
OF 78 SHEETS



MATCHLINE STA 24+50.00 SEE SHEET G-2



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	DESCRIPTIONS	REVISIONS	DATE
	APPROVED		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



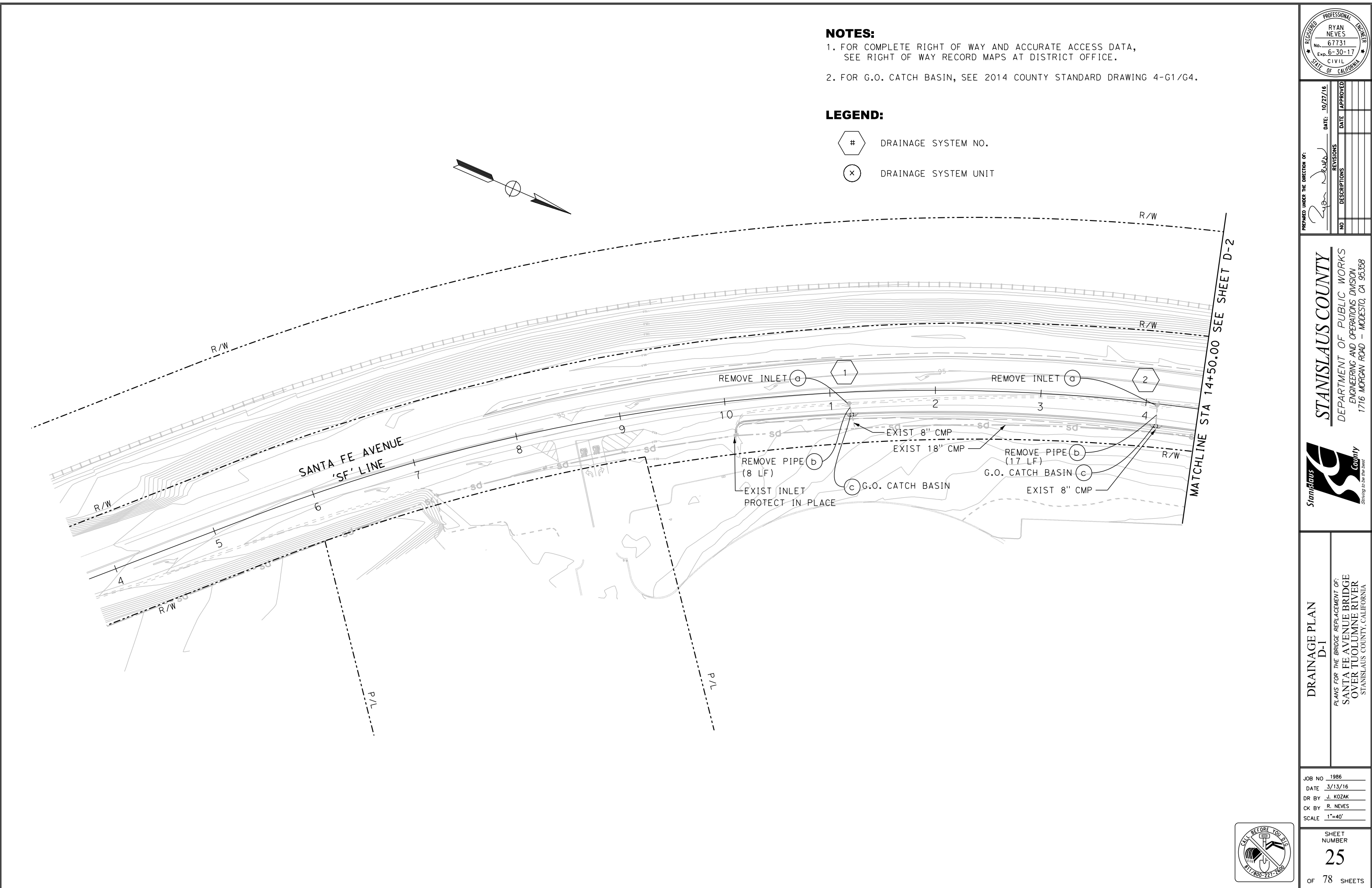
CONTOUR GRADING
G-3

PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

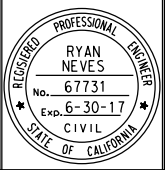
SHEET
NUMBER
24
OF 78 SHEETS





- NOTES:**
- 1. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
 - 2. FOR G.O. CATCH BASIN, SEE 2014 COUNTY STANDARD DRAWING 4-G1/G4.

- LEGEND:**
- # DRAINAGE SYSTEM NO.
 - x DRAINAGE SYSTEM UNIT



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

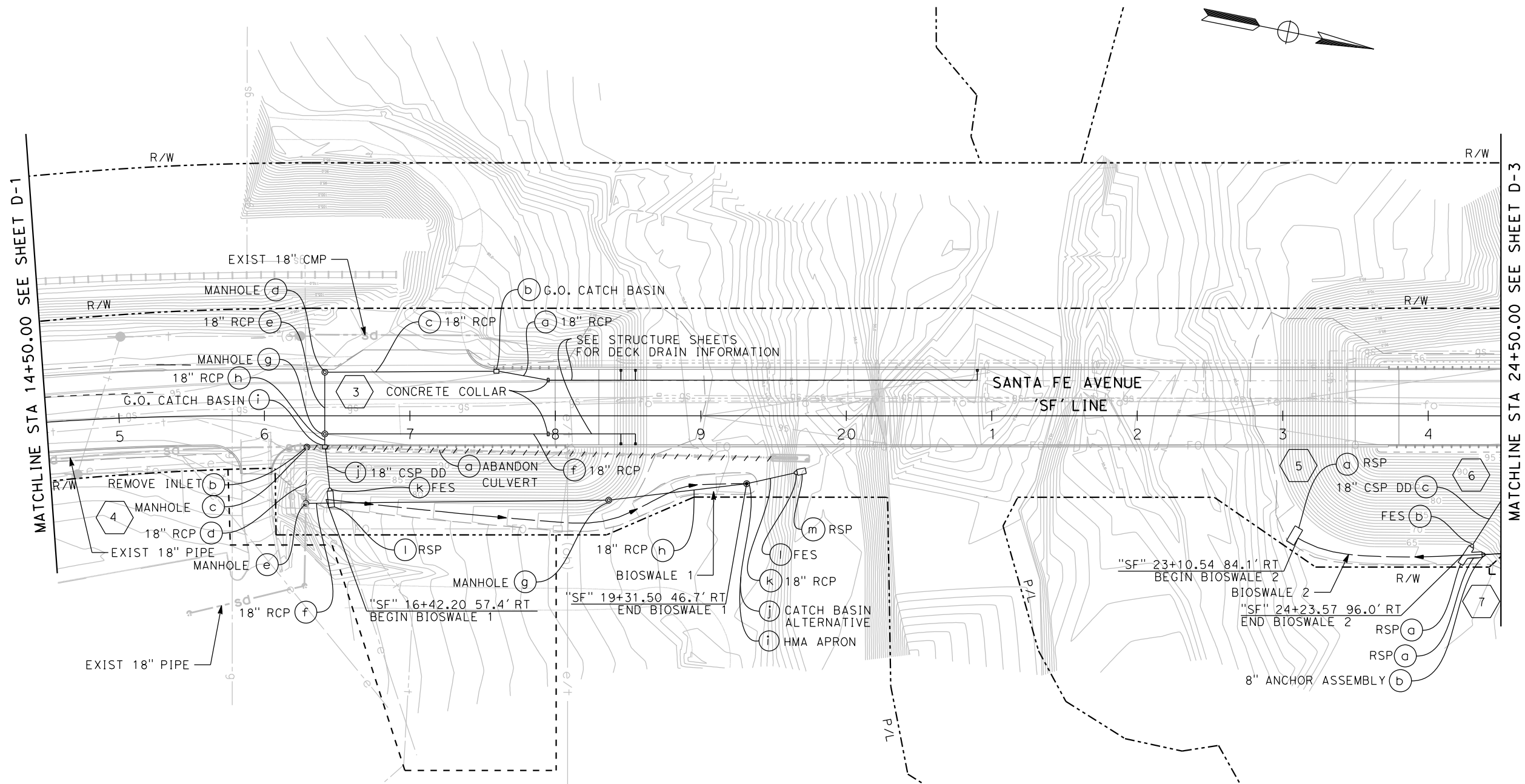


DRAINAGE PLAN D-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

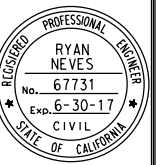
SHEET NUMBER
25
OF 78 SHEETS





NOTES:

1. FOR MANHOLE, CATCH BASIN ALTERNATIVE AND G.O. CATCH BASIN, SEE 2014 COUNTY STANDARD DRAWINGS 4-F1, 4-G2 AND 4-G1/G4.
2. FOR RSP, BIOSWALE AND HMA APRON, SEE DRAINAGE DETAILS.



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



**DRAINAGE PLAN
D-2**

PLANS FOR THE BRIDGE REPLACEMENT OF:
**SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER**
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER

26

OF 78 SHEETS





PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
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STANISLAUS COUNTY
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1716 MORGAN ROAD - MODESTO, CA 95358



DRAINAGE PLAN
D-3

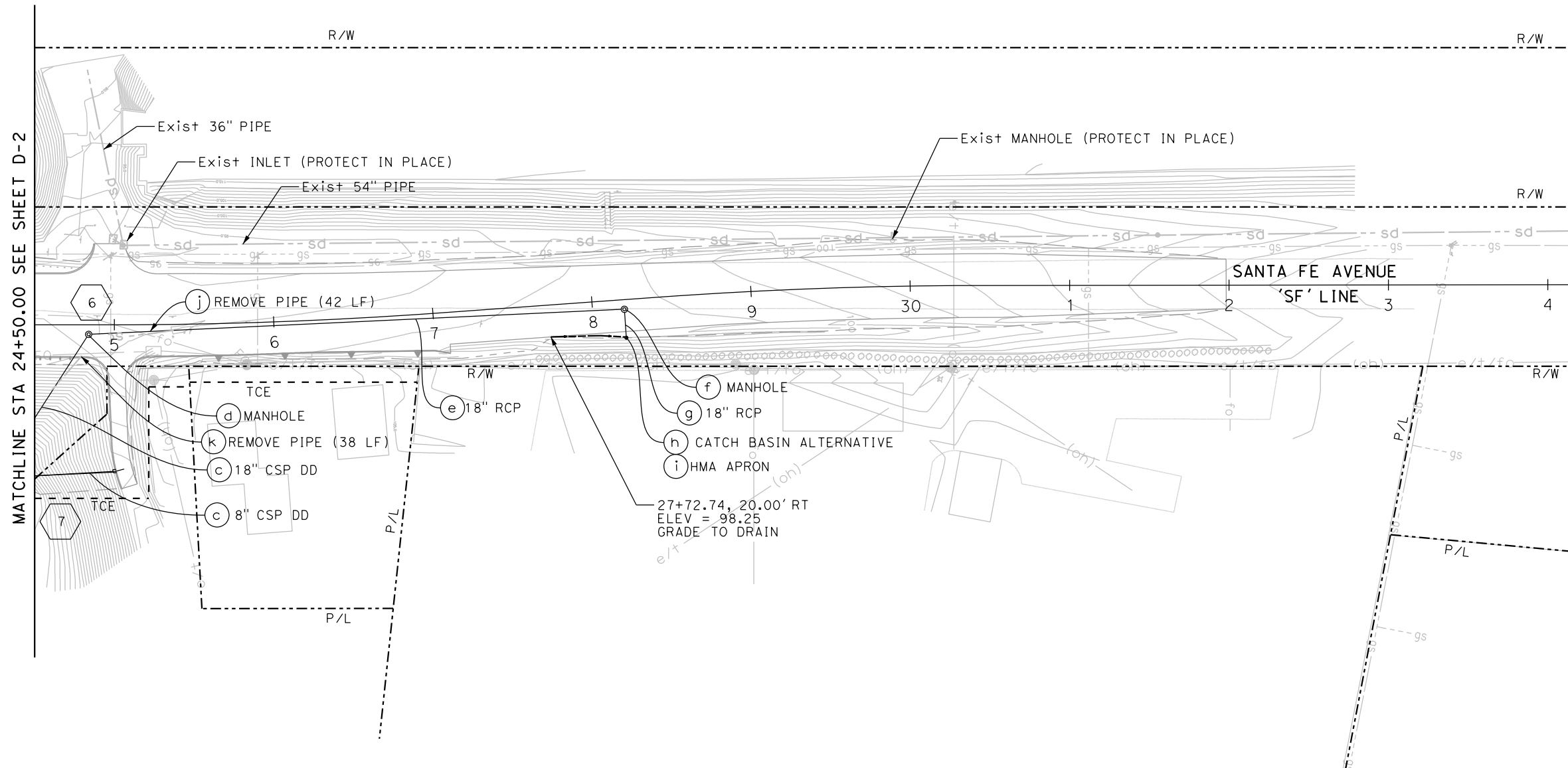
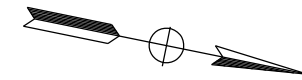
PLANS FOR THE BRIDGE REPLACEMENT OF:
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JOB NO. 1986
DATE 3/13/16
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SCALE 1"=40'

SHEET
NUMBER
27
OF 78 SHEETS

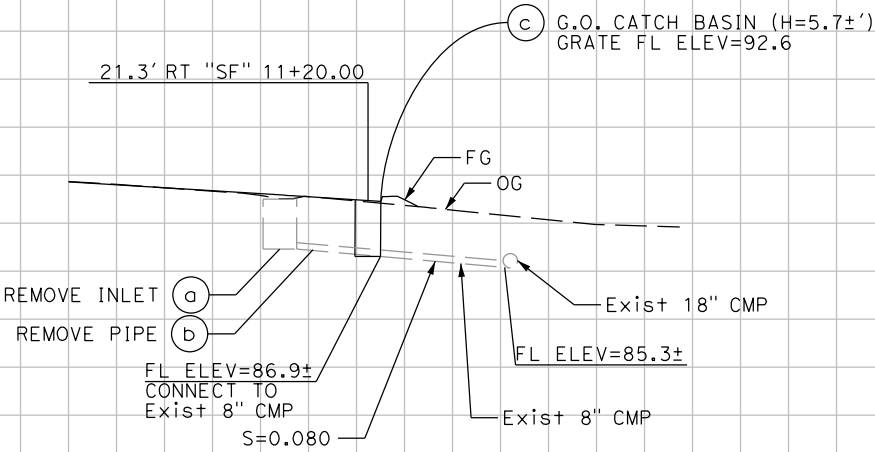
NOTES:

1. FOR MANHOLE AND CATCH BASIN ALTERNATIVE, SEE 2014 COUNTY STANDARD DRAWINGS 4-F1 AND 4-G5.
2. FOR HMA APRON, SEE DRAINAGE DETAILS.

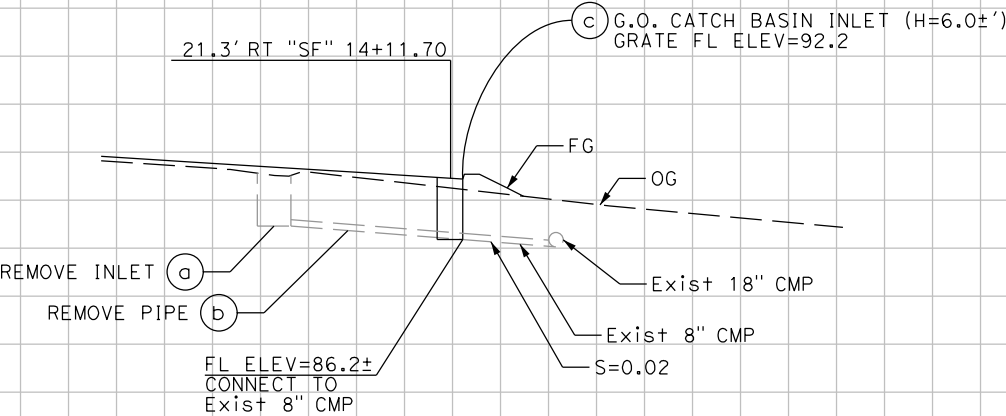


NOTES:

1. FOR TYPE G.O. CATCH BASINS, SEE
2014 COUNTY STANDARD DRAWING 4-G1/G4.
2. STA/OFFSET FOR G.O. CATCH BASINS ARE GIVEN
TO THE CENTER OF GRATE AT
FLOWLINE.



DRAINAGE SYSTEM 1



DRAINAGE SYSTEM 2



PREPARED UNDER THE DIRECTION OF:		DATE: 10/27/16	DATE: 10/27/16
Ryan Neves		REVISIONS	APPROVED
NO	DESCRIPTIONS	DATE	

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

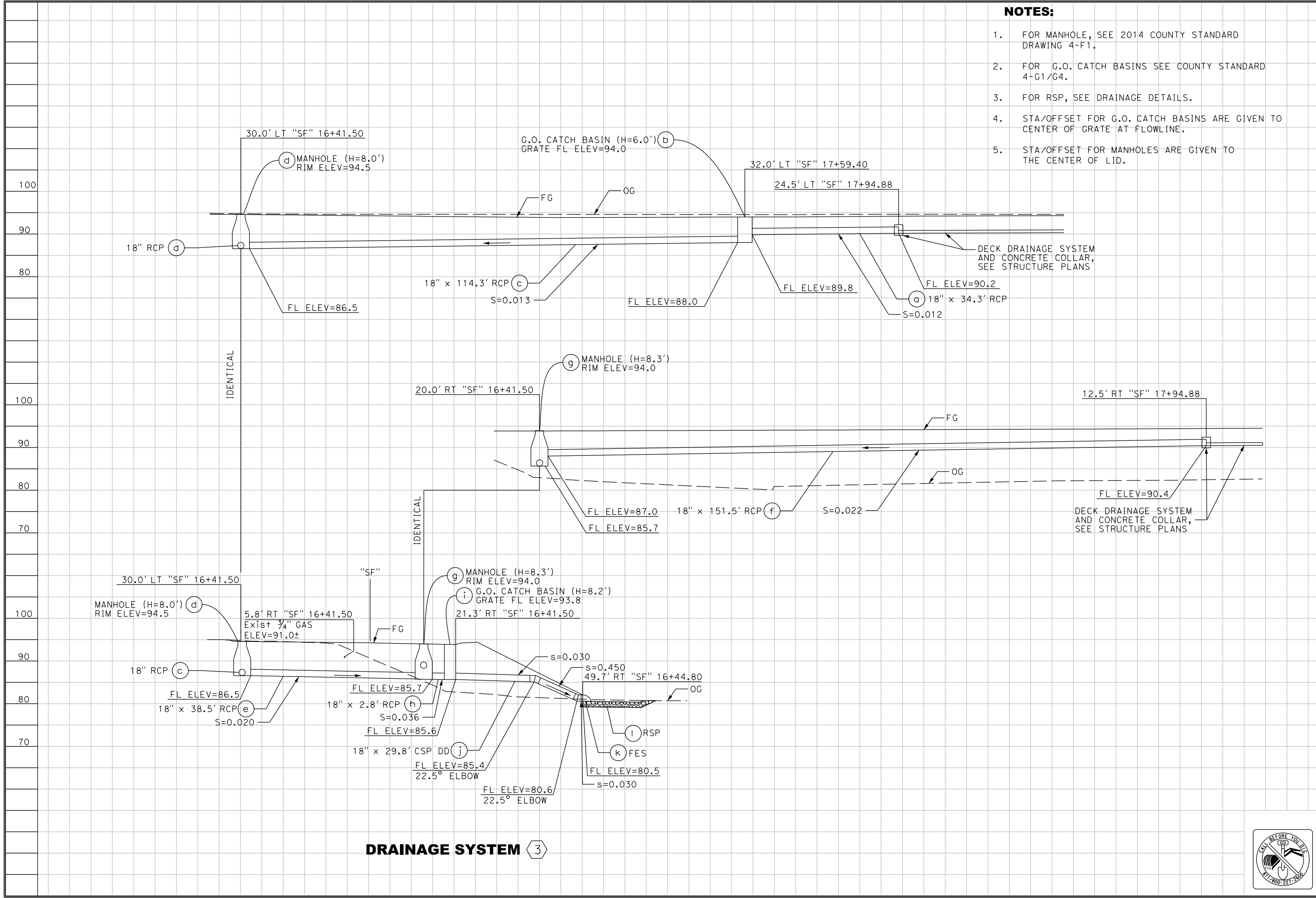


DRAINAGE PROFILES
DP-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=10'

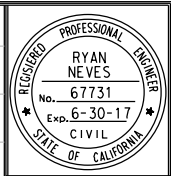
SHEET
NUMBER
28
OF 78 SHEETS





NOTES:

1. FOR MANHOLE, SEE 2014 COUNTY STANDARD DRAWING 4-F1.
2. FOR G.O. CATCH BASINS SEE COUNTY STANDARD 4-G1/G4.
3. FOR RSP, SEE DRAINAGE DETAILS.
4. STA/OFFSET FOR G.O. CATCH BASINS ARE GIVEN TO CENTER OF GRATE AT FLOWLINE.
5. STA/OFFSET FOR MANHOLES ARE GIVEN TO THE CENTER OF LID.



PREPARED UNDER THE DIRECTION OF:	DATE:	10/27/16
APPROVED:	DATE:	
NO.	REVISIONS	
	DESCRIPTIONS	

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



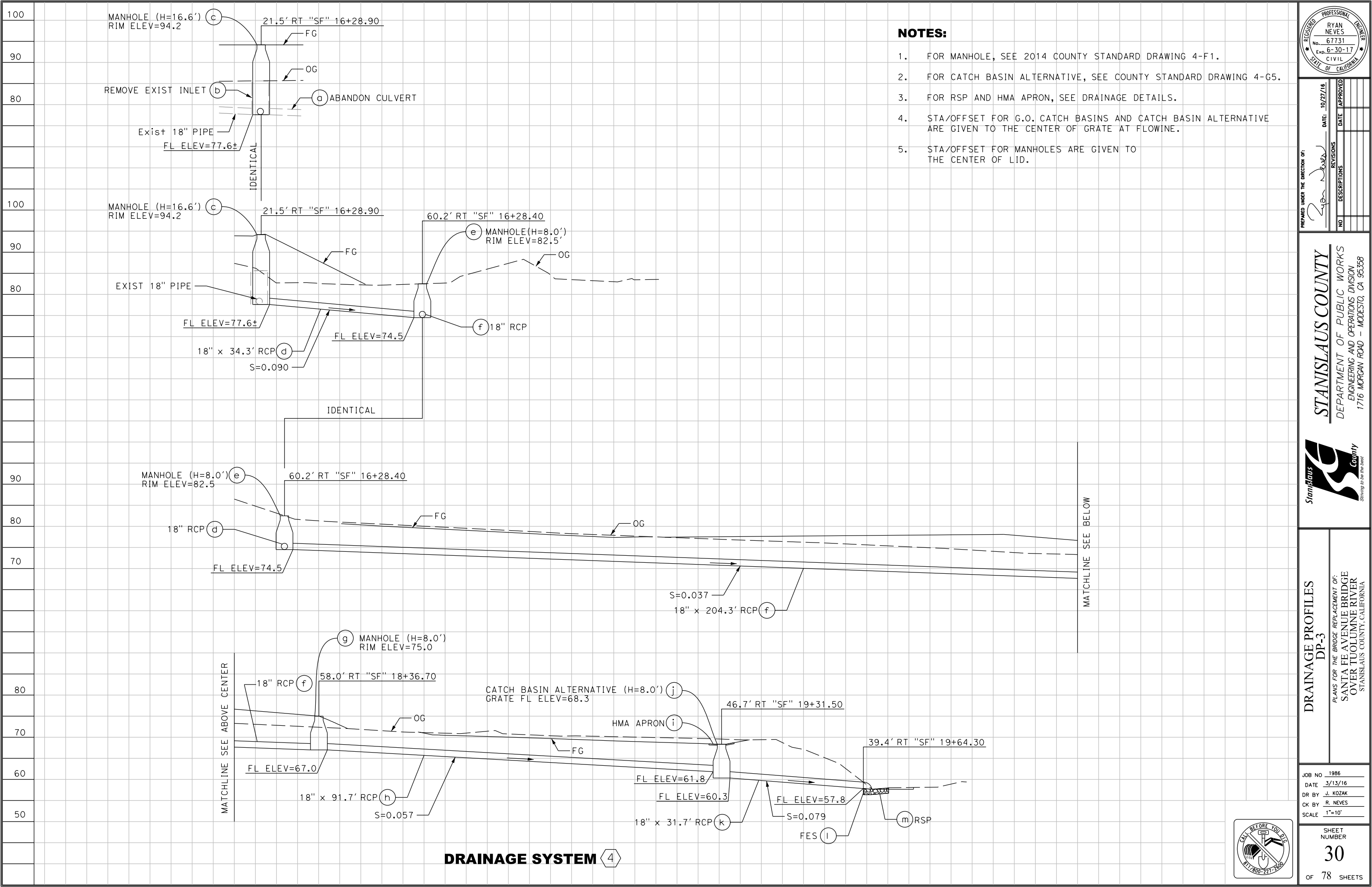
DRAINAGE PROFILES
DP-2
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

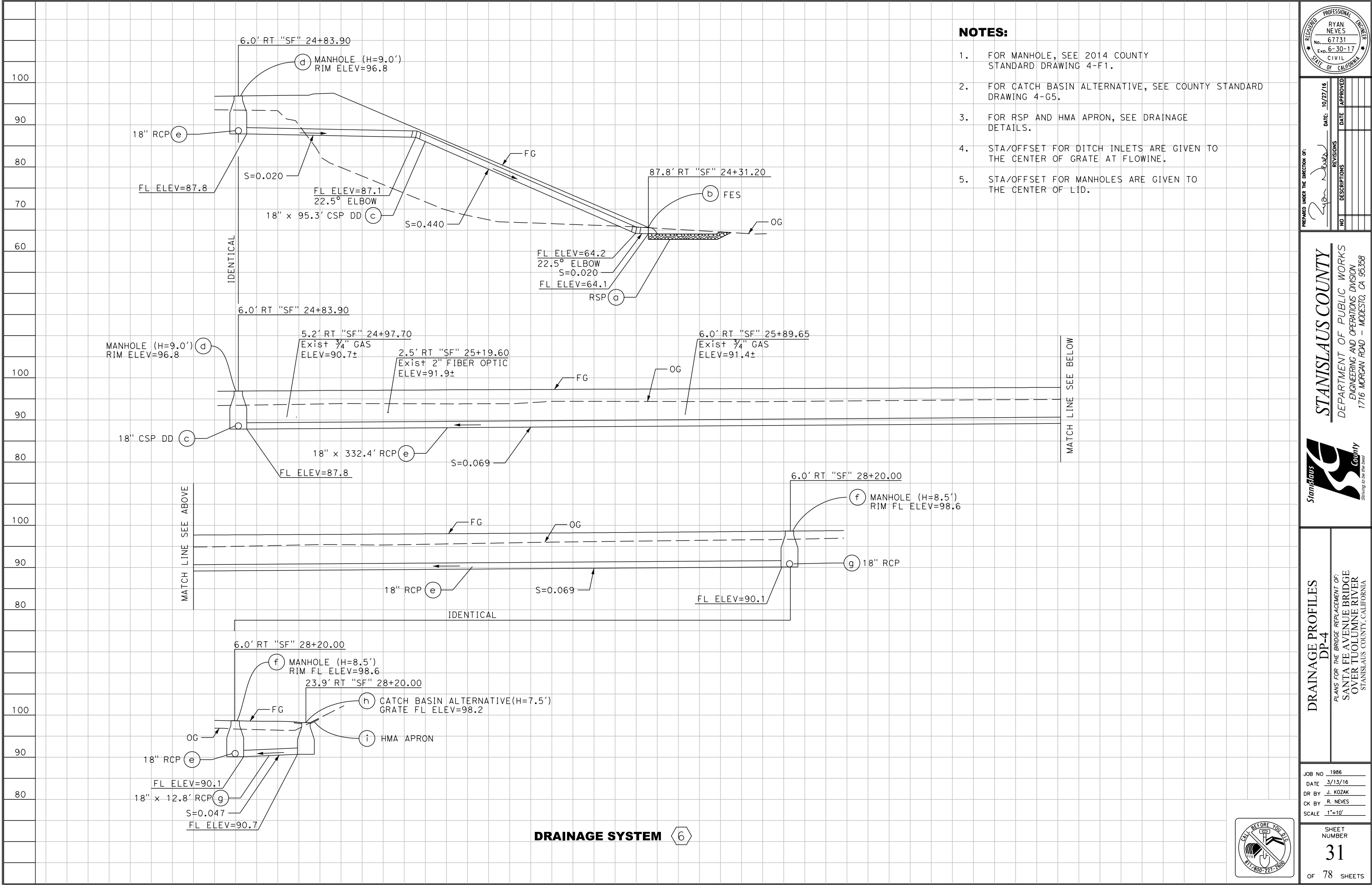
JOB NO.	1986
DATE	3/13/16
DR BY	J. KOZAK
CK BY	R. NEVES
SCALE	1"=10'

SHEET
NUMBER
29
OF 78 SHEETS



DRAINAGE SYSTEM 3





PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO.	REVISIONS	DATE	APPROVED
		NO.	DESCRIPTIONS

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

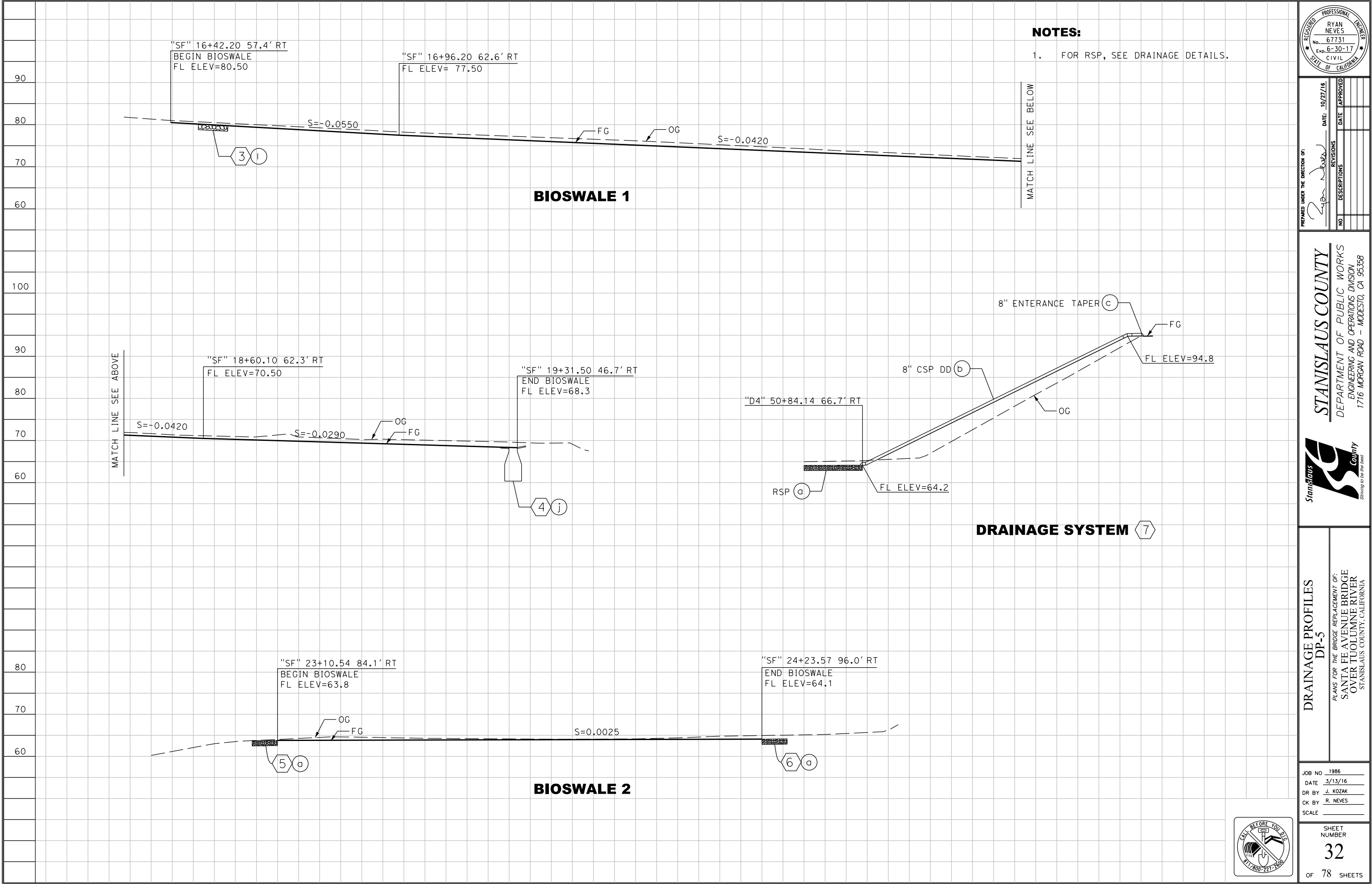


DRAINAGE PROFILES
DP-4
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

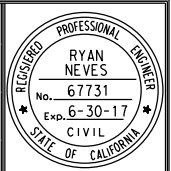
JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=10'

SHEET NUMBER
31
OF 78 SHEETS





NOTES:
1. FOR RSP, SEE DRAINAGE DETAILS.



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		



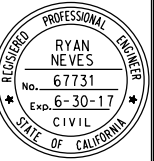
STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

DRAINAGE PROFILES
DP-5

PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE





APPROVED	DATE	10/27/16
	DATE	
REVISIONS	NO	DESCRIPTIONS

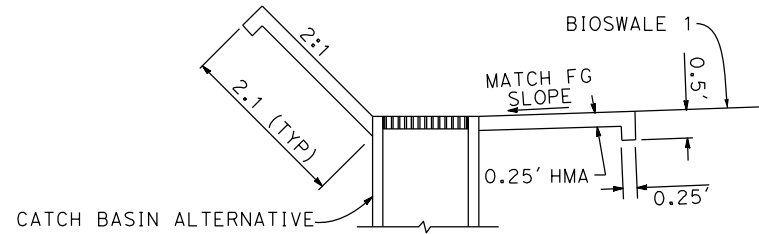
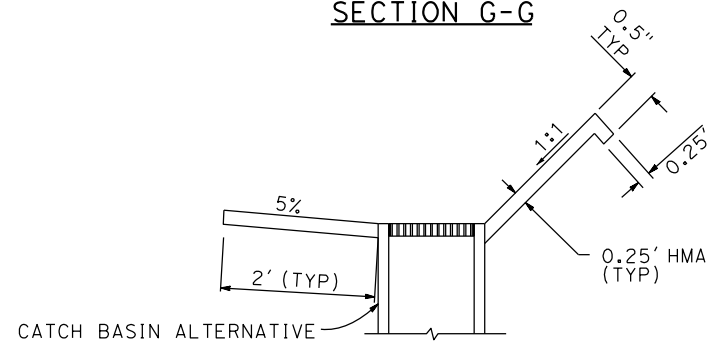
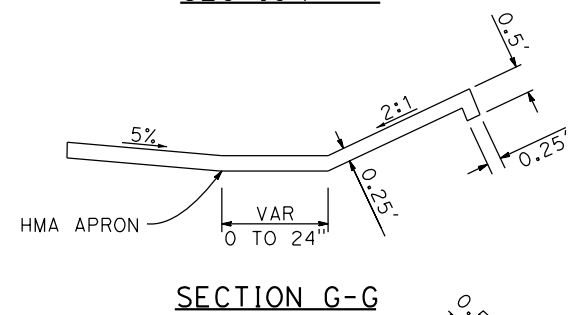
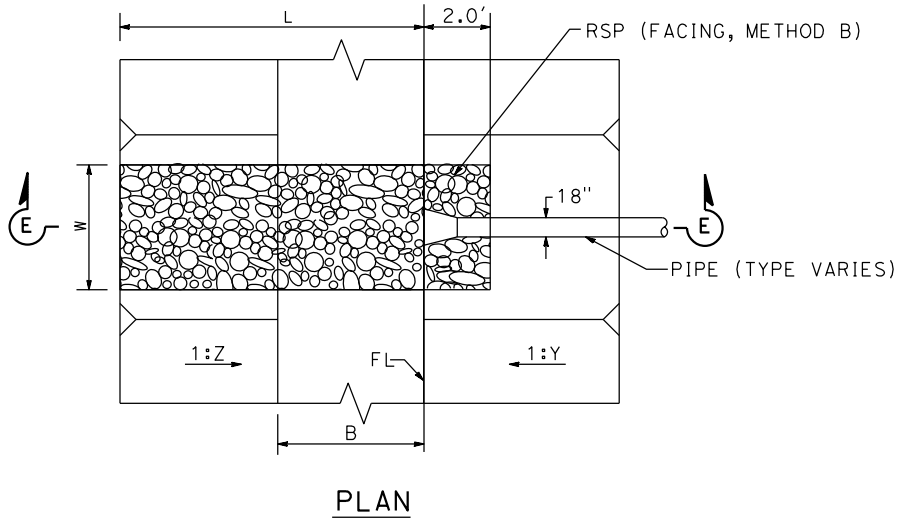
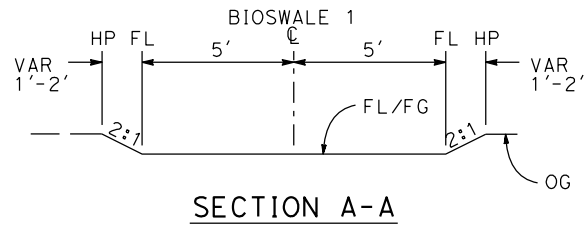
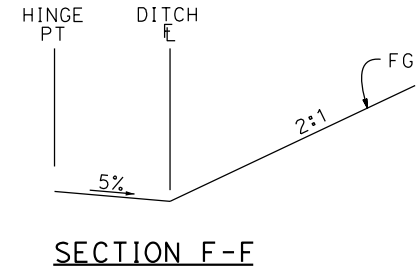
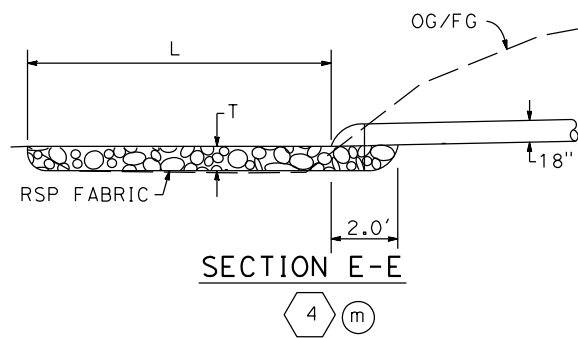
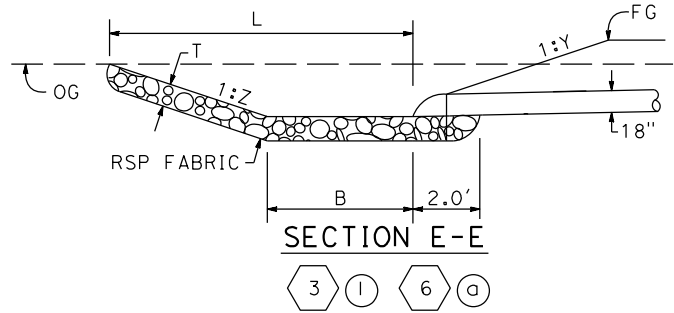
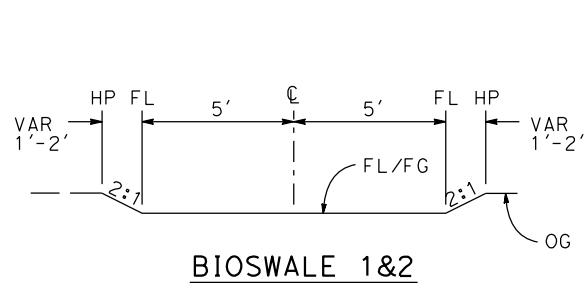
STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



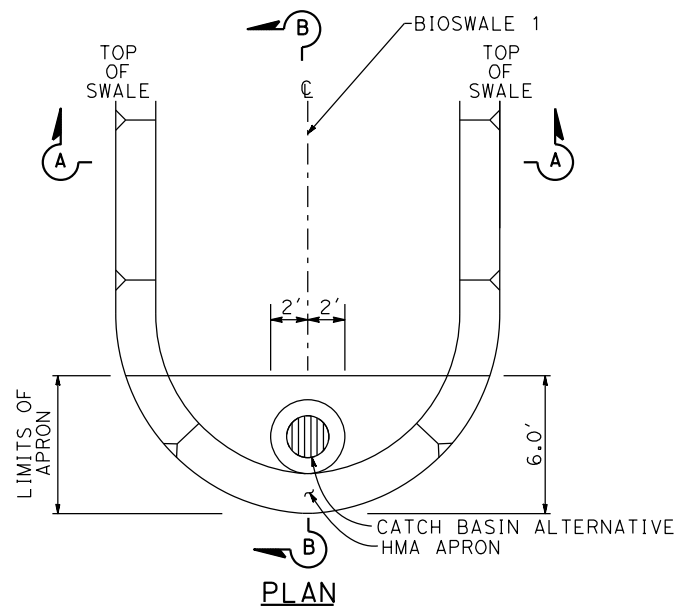
DRAINAGE DETAILS
DD-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE

SHEET
NUMBER
33
OF 78 SHEETS

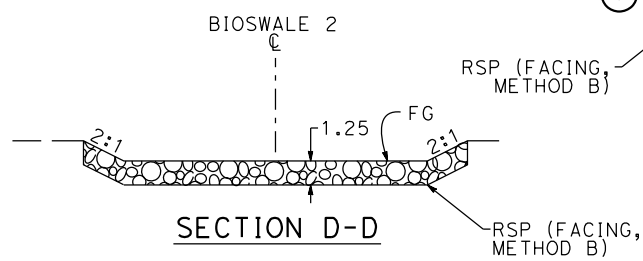
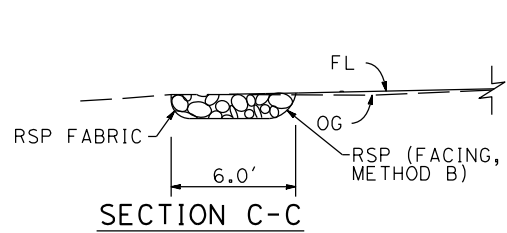


SECTION B-B



HMA APRON 4 i

SYSTEM/UNIT	T	B	W	L	Z	Y
3l	1.25	10.0	4.5	13.0	2	3
4m	1.25	-	4.5	6.0	20	2
6a	1.25	10.0	4.5	12.0	2	2



RSP 5 a

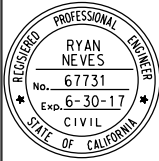
NOTES:
1. FOR CATCH BASIN ALTERNATIVE, SEE COUNTY STANDARD DRAWING 4-G5.

NOTES:
1. FOR CATCH BASIN ALTERNATIVE, SEE COUNTY STANDARD DRAWING 4-G5.



DRAINAGE PLAN SHEET NO.	DRAINAGE SYSTEM NO. 	DRAINAGE UNIT NO. 	REMOVE PIPE	ABANDON CULVERT	REMOVE INLET	HMA MISCELLANEOUS AREAS	MINOR CONCRETE (MINOR STRUCTURE)	18" REINFORCED CONCRETE PIPE	8" CSP DD (0.079" THICK)	8" ENTRANCE ASSEMBLY	18" CSP DD (0.079" THICK)	18" FES	G.O. CATCH BASIN (N)	CATCH BASIN ALTERNATIVE (N)	RSP		MISC IRON & STEEL	FRAME AND COVER (N)	TYPE 24-12 GRATE (N)	24" STEEL GRATE	ELBOW (N)	PIPE JOINT CLASSIFICATION (N)	MAXIMUM COVER (N)	HEIGHT OF INLET/MANHOLE 'H' (N)	DESCRIPTION	STATION	DRAINAGE PLAN SHEET NO.	DRAINAGE SYSTEM NO. 	DRAINAGE UNIT NO. 	
															FACING, METHOD B	RSP FABRIC (CLASS 8)														
D-1	1	a	LF	EA	EA	SQYD	CY	LF	LF	EA	LF	EA	EA	EA	CY	SQYD	LBS	EA	EA	EA	EA		FT	FT			D-1	1	a	
D-1	1	b	8		1								1				215		1						5.7	REMOVE INLET REMOVE PIPE G.O. CATCH BASIN'	"SF" 11+17.9/11.0 RT "SF" 11+17.9/11.0 RT TO "SF" 11+19.5/20.0 RT "SF" 11+19.5/20.0 RT	D-1	1	b
D-1	1	c					2.5						1						1								D-1	1	c	
D-1	2	a			1																					REMOVE INLET REMOVE PIPE	"SF" 14+10.8/2.0 RT "SF" 14+10.8/2.0 RT TO "SF" 14+11.5/20.0 RT	D-1	2	a
D-1	2	b	17										1				215		1						6.0	G.O. CATCH BASIN'	"SF" 14+10.8/2.0 RT TO "SF" 14+11.5/20.0 RT "SF" 14+11.5/20.0 RT	D-1	2	b
D-1	2	c					2.6						1				215		1								D-1	2	c	
D-2	3	a						34.3																		18" RCP	"SF" 17+94.9/24.5 LT TO "SF" 17+59.4/32.0 LT	D-2	3	a
D-2	3	b					2.0						1				215		1						6.0	G.O. CATCH BASIN	"SF" 17+59.4/32.0 LT	D-2	3	b
D-2	3	c					3.6	114.3									435	1				S	6.5		8.0	18" RCP MANHOLE	"SF" 17+59.4/32.0 LT TO "SF" 16+41.5/30.0 LT "SF" 16+41.5/30.0 LT	D-2	3	c
D-2	3	d																									D-2	3	d	
D-2	3	e					38.5															S	6.7			18" RCP	"SF"16+41.5/30.0 LT TO "SF"16+41.5/12.5 RT	D-2	3	e
D-2	3	f					151.5															S	2.5			18" RCP	"SF"17+94.9/12.5 LT TO "SF"16+41.5/20.0 RT	D-2	3	f
D-2	3	g					3.6										435	1							8.3	MANHOLE	"SF"16+41.5/12.5 RT	D-2	3	g
D-2	3	h					2.8															S	2.5			18" RCP	"SF"16+41.5/12.5 RT TO "SF"16+41.5/20.0 RT	D-2	3	h
D-2	3	i					3.1						1				215		1						8.2	G.O. CATCH BASIN'	"SF"16+41.5/20.0 RT	D-2	3	i
D-2	3	j								27.2											2	D	7.2			18" CSP DD	"SF"16+41.5/20.0 RT TO "SF"16+44.8/49.7 RT	D-2	3	j
D-2	3	k										1														FES	"SF"16+44.8/49.7 RT	D-2	3	k
D-2	3	l												3.3	9.8											RSP	"SF"16+44.8/49.7 RT	D-2	3	l
D-2	4	a		1																						ABANDON PIPE	"SF"16+28.9/21.5 RT TO "SF"19+48.5/29.0 RT	D-2	4	a
D-2	4	b			1																					REMOVE INLET	"SF"16+28.9/21.5 RT	D-2	4	b
D-2	4	c					5.8										435	1							16.5	MANHOLE	"SF"16+28.9/21.5 RT	D-2	4	c
D-2	4	d						34.3														S	14.7			18" RCP	"SF"16+29.1/21.5 RT TO "SF"16+28.4/60.2 RT	D-2	4	d
D-2	4	e					3.6										435	1							8.0	MANHOLE	"SF"16+28.4/60.2 RT	D-2	4	e
D-2	4	f						204.3														S	8.2			18" RCP	"SF"16+28.4/60.2 RT TO "SF"18+36.7/58.0 RT	D-2	4	f
D-2	4	g					3.6										435	1							8.0	MANHOLE	"SF"18+36.7/58.0 RT	D-2	4	g
D-2	4	h						91.7														S	6.7			18" RCP	"SF"18+36.7/58.0 RT TO "SF"19+31.5/46.7 RT	D-2	4	h
D-2	4	i				4.89																				HMA APRON	"SF"19+31.5/46.7 RT	D-2	4	i
D-2	4	j					3.6						1				115		1						8.0	CATCH BASIN ALTERNATIVE	"SF"19+31.5/46.7 RT	D-2	4	j
D-2	4	k						31.7														S	8.3			18" RCP	"SF"19+31.5/46.7 RT TO "SF"19+64.3/39.4 RT	D-2	4	k
D-2	4	l										1														FES	"SF"19+64.3/39.4 RT	D-2	4	l
D-2	4	m																								RSP	"SF"19+64.3/39.4 RT	D-2	4	m
D-2	5	a																								RSP	"SF"23+05.3/81.2 RT	D-2	5	a
D-2	6	a																								RSP	"SF"24+31.2/87.8 RT	D-2	6	a
D-2	6	b										1														RSP	"SF"24+31.2/87.8 RT	D-2	6	b
D-2	6	c							96.3											2	D	7.6				18" CSP DD	"SF"24+31.2/87.8 RT TO "SF"24+83.9/6.0 RT	D-2	6	c
D-3	6	d					3.6										435	1							8.0	MANHOLE	"SF"24+83.9/6.0 RT	D-3	6	d
D-3	6	e						332.6														S	5.6			18" RCP	"SF"24+83.9/6.0 RT TO "SF"28+20.0/6.0 RT	D-3	6	e
D-3	6	f					3.6										435	1							8.0	MANHOLE	"SF"28+20.0/6.0 RT	D-3	6	f
D-3	6	g						12.8																		18" RCP	"SF"28+20.0/6.0 RT TO "SF"28+20.0/23.9 RT	D-3	6	g
D-3	6	h					3.3						1				115		1						7	CATCH BASIN ALTERNATIVE	"SF"28+20.0/23.9 RT	D-3	6	h
D-3	6	i				2.17																				HMA APRON	"SF"28+20.0/23.9 RT	D-3	6	i
D-3	6	j	42																							REMOVE PIPE	"SF"25+96.43/9.0 RT TO "SF"25+37.24/3.7 RT	D-3	6	j
D-3	6	k	38																							REMOVE PIPE	"SF"24+55.63/46.8 RT TO "SF"24+79.65/19.4 RT	D-3	6	k
D-2	7	a													1.6	6.7										RSP	"D4"50+84.05/68.7 RT TO "D4"50+83.5/76.8 RT	D-2	7	a
D-2	7	b							70.0																	8" ANCHOR ASSEMBLY	"D4"50+84.14/134.4 RT	D-2	7	b
D-3	7	c								1																8" CSP DD	"D4"50+91.00/5.0 RT TO "D4"50+84.14/134.4 RT	D-3	7	c
TOTAL			105.0	1	3	7.06	44.5	1055.9	70.0	1	123.5	3	4	2	12.7	55.0	4135	7	4	2	4	-	-	-						

*THIS QUANTITY INCLUDES CURB AND APRON PER STANISLAUS COUNTY STD. 4-G4



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



DRAINAGE QUANTITIES
DQ-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

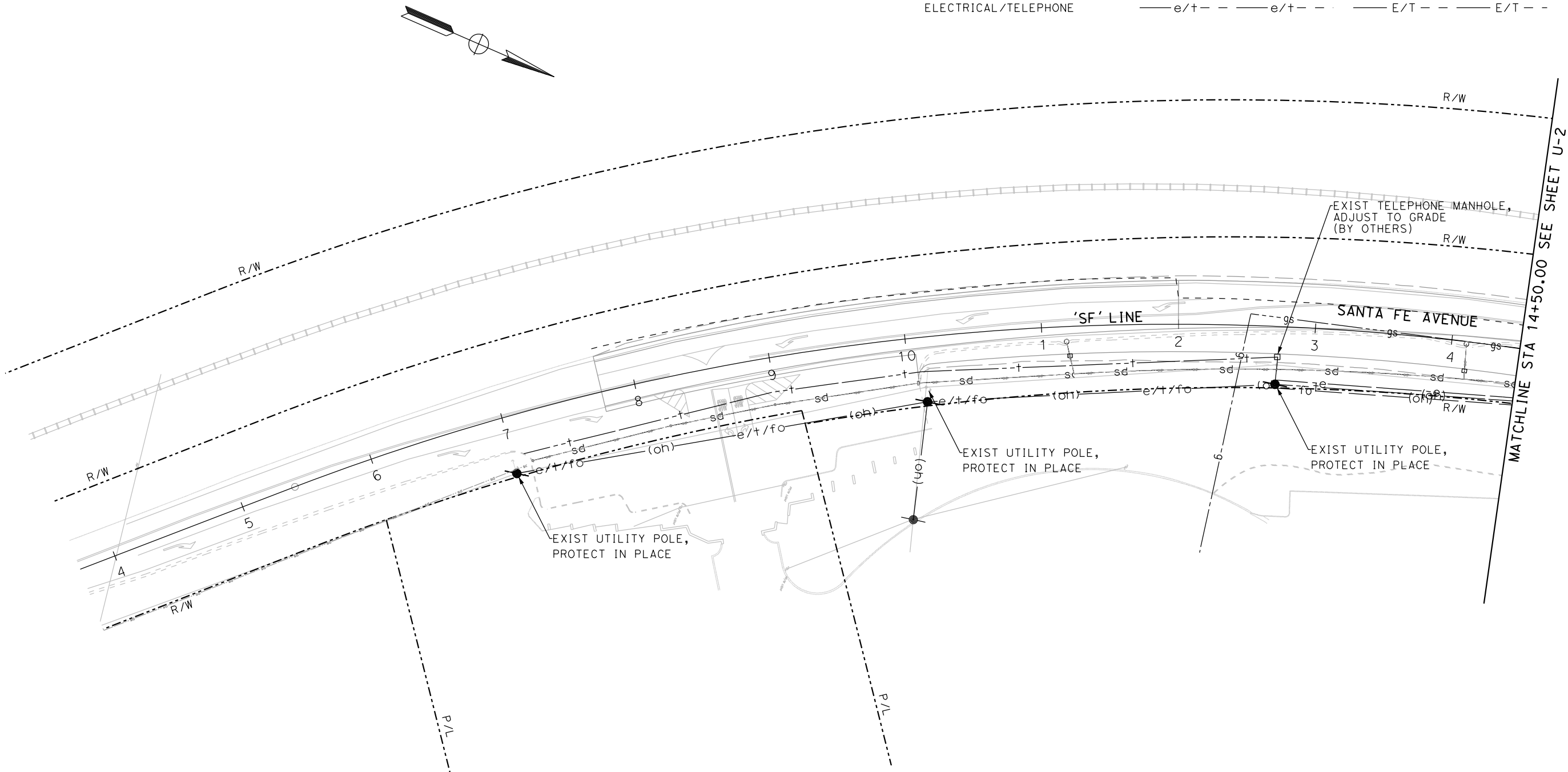
JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE



SHEET
NUMBER
34
OF 78 SHEETS

LEGEND:

UTILITY	EXISTING	PROPOSED
GAS (PG&E)	---gs---	---GS---
UG TELEPHONE	---t---	---T---
STORM DRAIN	---sd---	---SD---
ELEC/TELEVISION/FIBER OPTIC	---e/t/fo---	---E/T/FO---
ELEC/TELEVISION	---e/tv---	---E/TV---
ELECTRICAL/TELEPHONE	---e/t---	---E/T---



NOTE:

1. LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES WITHIN THE CONSTRUCTION LIMITS.



PREPARED UNDER THE DIRECTION OF:	DATE: 10/27/16	APPROVED
NO	REVISIONS	DATE
	DESCRIPTIONS	

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



UTILITY PLAN
U-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

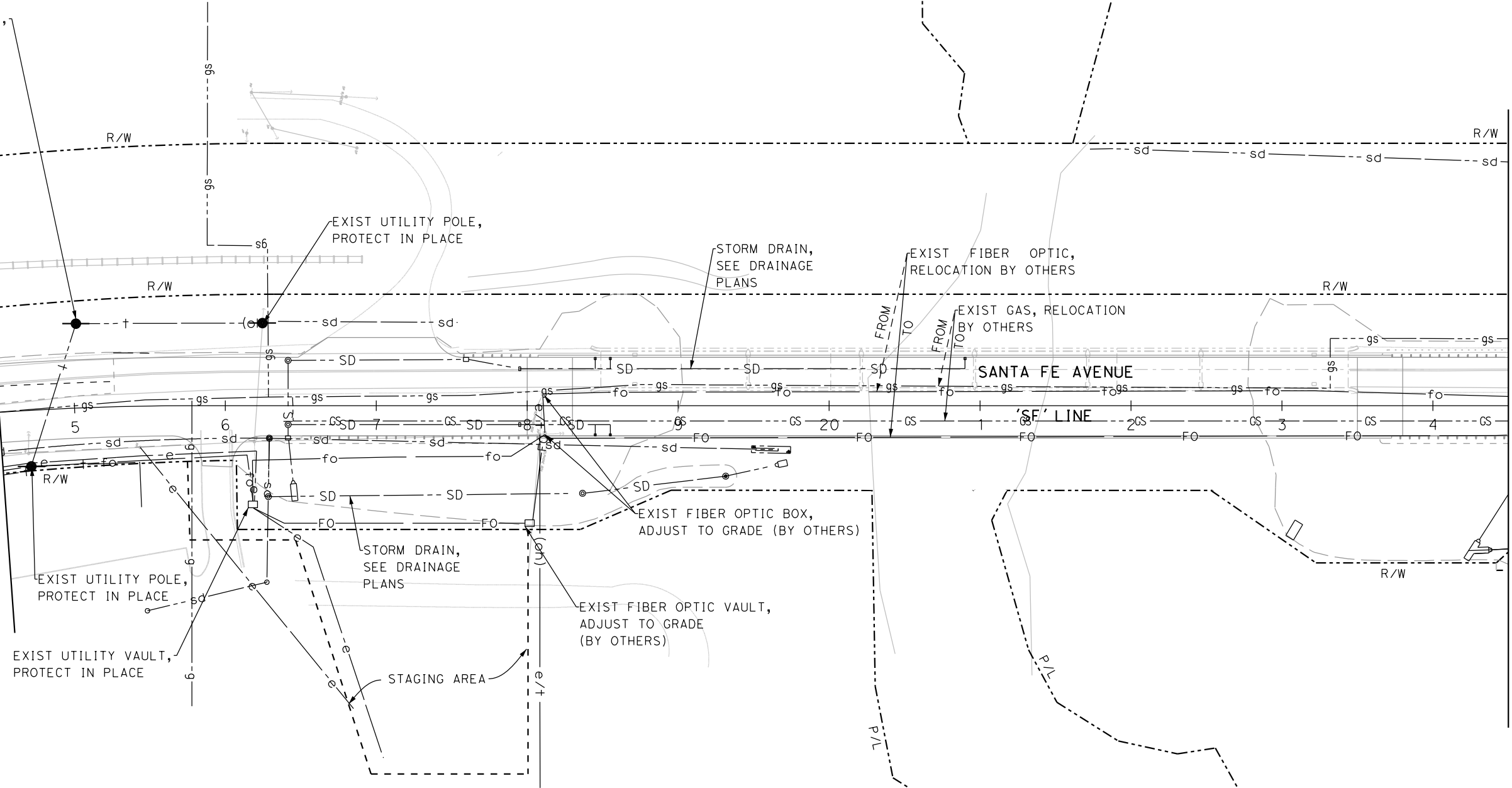
JOB NO.	1986
DATE	3/13/16
DR BY	J. KOZAK
CK BY	R. NEVES
SCALE	1"=40'

SHEET
NUMBER
35
OF 78 SHEETS



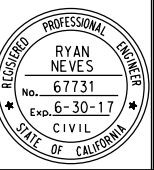
EXIST UTILITY POLE,
PROTECT IN PLACE

MATCHLINE STA 14+50.00 SEE SHEET U-1



LEGEND:

UTILITY	EXISTING	PROPOSED
GAS (PG&E)	---gs---	---GS---
UG TELEPHONE	---t---	---T---
STORM DRAIN	---sd---	---SD---
ELEC/TELEVISION/FIBER OPTIC	---e/t/fo---	---E/T/FO---
ELEC/TELEVISION	---e/tv---	---E/TV---
ELECTRICAL/TELEPHONE	---e/t---	---E/T---



DATE	10/27/16
APPROVED	
REVISIONS	
NO	DESCRIPTIONS

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



UTILITY PLAN
U-2
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
36
OF 78 SHEETS



LEGEND:

UTILITY

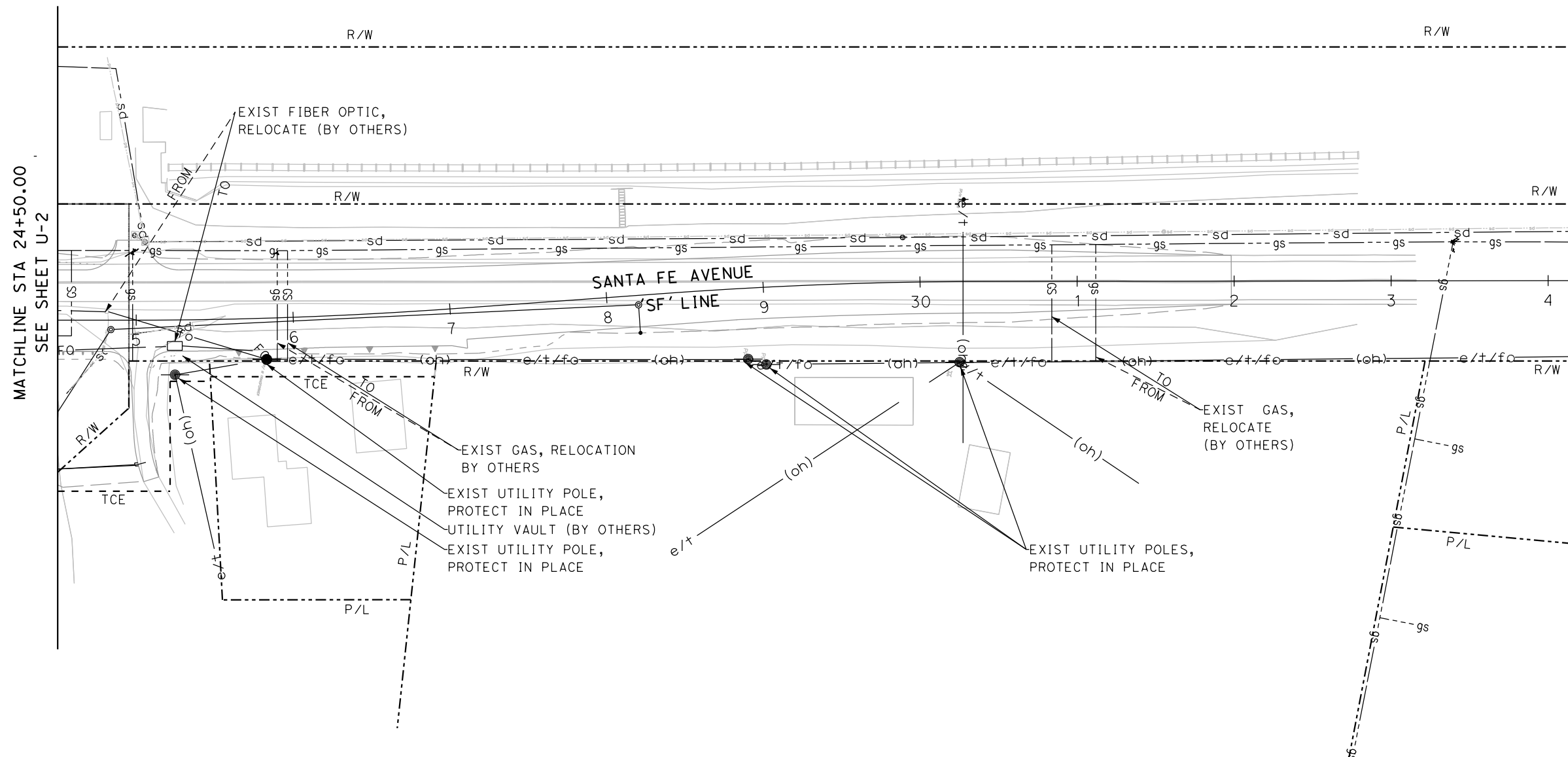
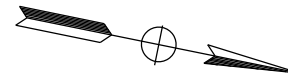
GAS (PG&E)
UG TELEPHONE
STORM DRAIN
ELEC/TELEVISION/FIBER OPTIC
ELEC/TELEVISION
ELECTRICAL/TELEPHONE

EXISTING

gs
t
sd
e/t/fo (oh)
e/tv
e/t

PROPOSED

GS
T
SD
E/T/FO (OH)
E/TV
E/T



DATE	10/27/16
APPROVED	
REVISIONS	
NO	DESCRIPTIONS

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



UTILITY PLAN
U-3
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

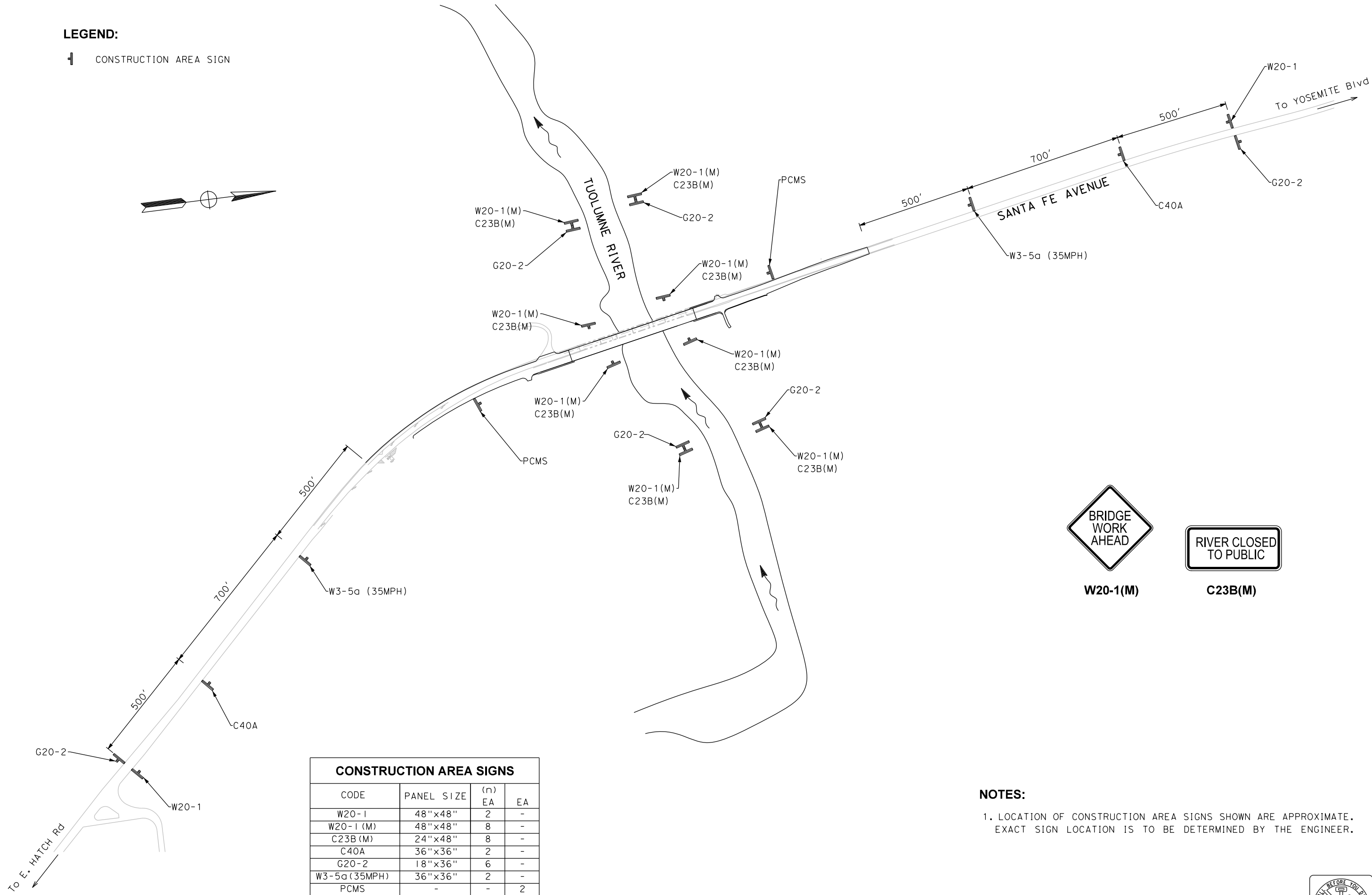
JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
37
OF 78 SHEETS



LEGEND:

CONSTRUCTION AREA SIGN

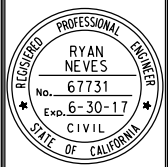


CONSTRUCTION AREA SIGNS			
CODE	PANEL SIZE	(n) EA	EA
W20-1	48"x48"	2	-
W20-1 (M)	48"x48"	8	-
C23B (M)	24"x48"	8	-
C40A	36"x36"	2	-
G20-2	18"x36"	6	-
W3-5a (35MPH)	36"x36"	2	-
PCMS	-	-	2

(n) - NOT A PAY ITEM, FOR INFORMATION ONLY.

NOTES:

1. LOCATION OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE.
EXACT SIGN LOCATION IS TO BE DETERMINED BY THE ENGINEER.



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



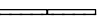
CONSTRUCTION AREA SIGNS
CS-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO.	1986
DATE	3/13/16
DR BY	J. KOZAK
CK BY	R. NEVES
SCALE	NO SCALE

SHEET
NUMBER
38
OF 78 SHEETS

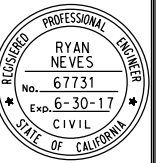
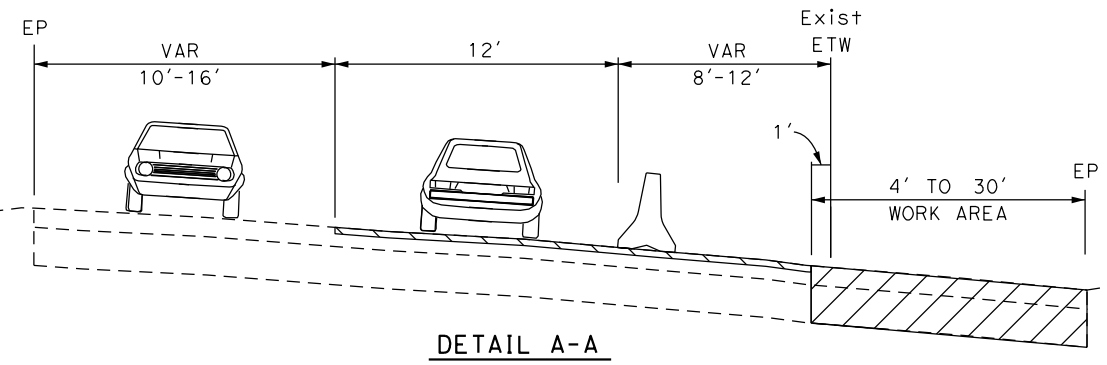
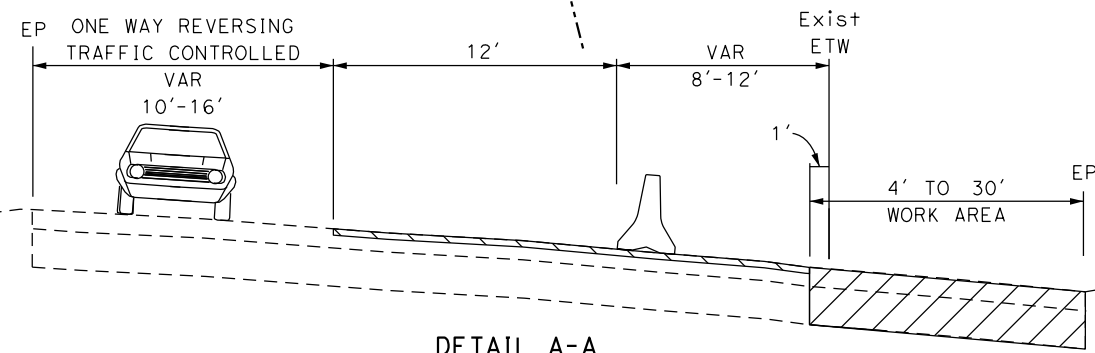
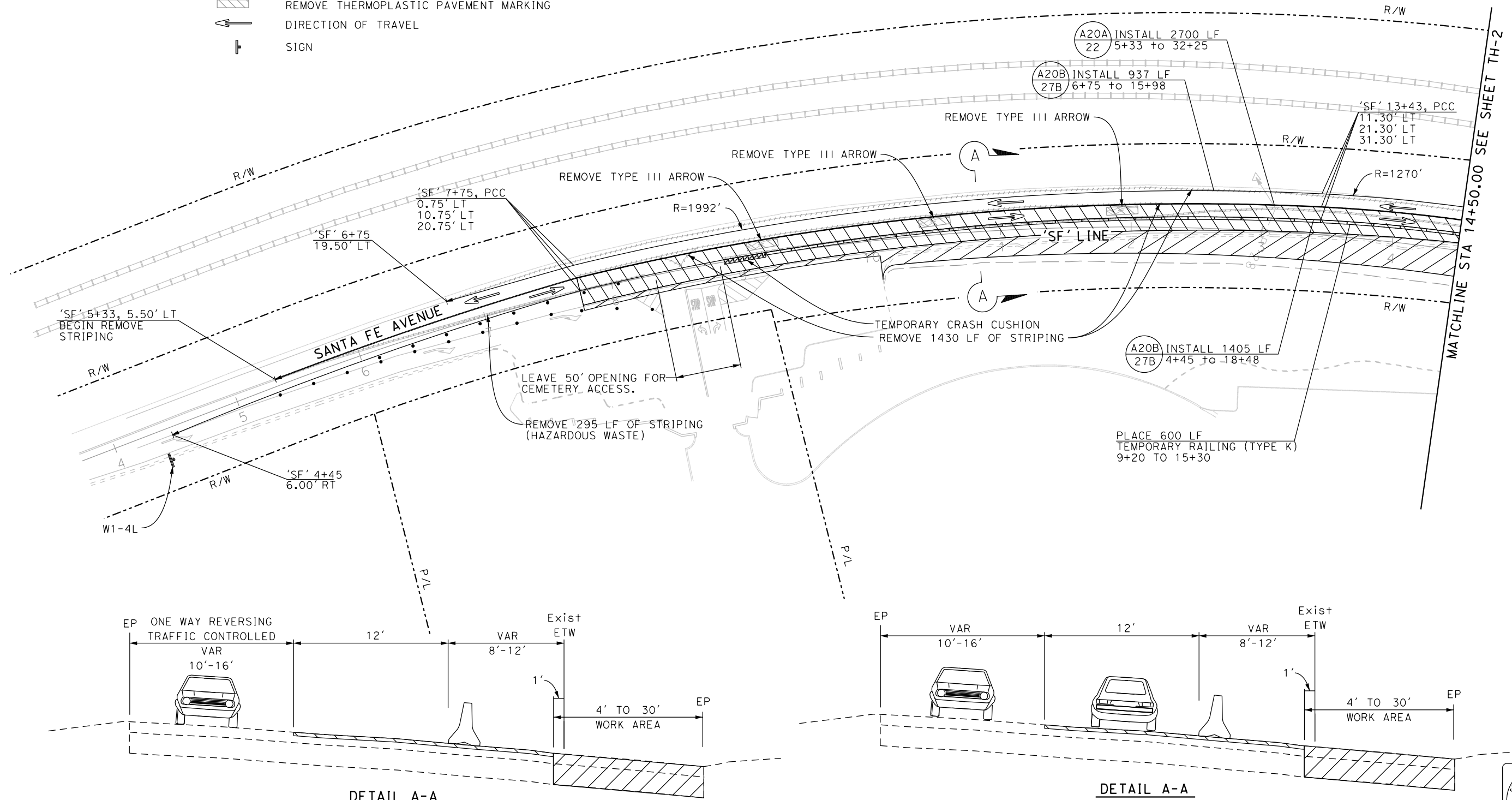


LEGEND:

-  CONSTRUCTION - THIS STAGE
-  CONSTRUCTION- NIGHT WORK
-  PORTABLE DELINEATORS
-  TEMPORARY RAILING (TYPE K)
-  TEMPORARY TRAFFIC STRIPE (PAINT)
-  REMOVE THERMOPLASTIC TRAFFIC STRIPE
-  REMOVE THERMOPLASTIC PAVEMENT MARKING
-  DIRECTION OF TRAVEL
-  SIGN

NOTES:

1. DRIVEWAY ACCESS MUST BE MAINTAINED THROUGHOUT CONSTRUCTION.



NO	DESCRIPTIONS	DATE	APPROVED
1	PREPARED UNDER THE DIRECTION OF:	DATE: 10/27/16	
2			
3			
4			
5			
6			
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10			

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

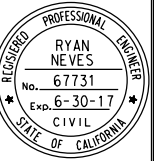
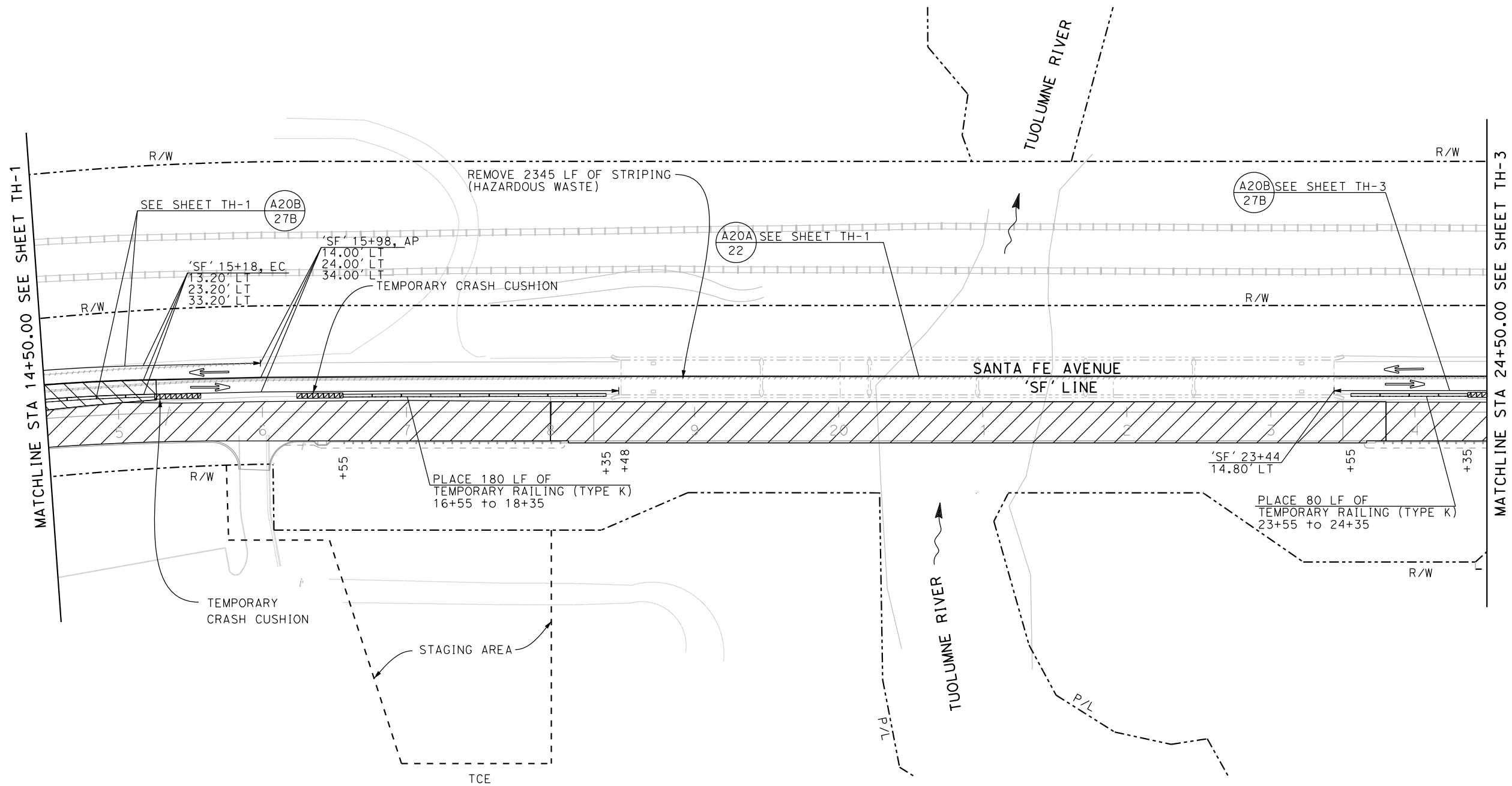


TRAFFIC HANDLING - STAGE 1
TH-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET NUMBER
39
OF 78 SHEETS





PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

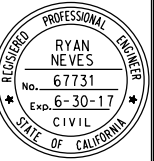


TRAFFIC HANDLING - STAGE 1
TH-2
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
40
OF 78 SHEETS





DATE: 10/27/16	
DATE	APPROVED
NO	DESCRIPTIONS
NO	REVISIONS

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



TRAFFIC HANDLING - STAGE 1
TH-3
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

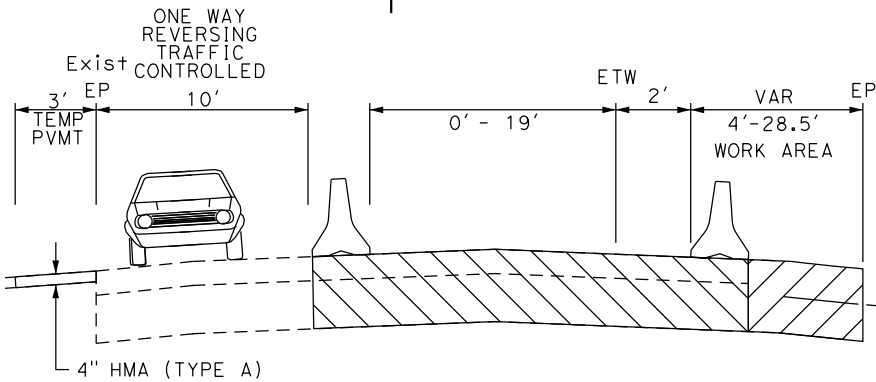
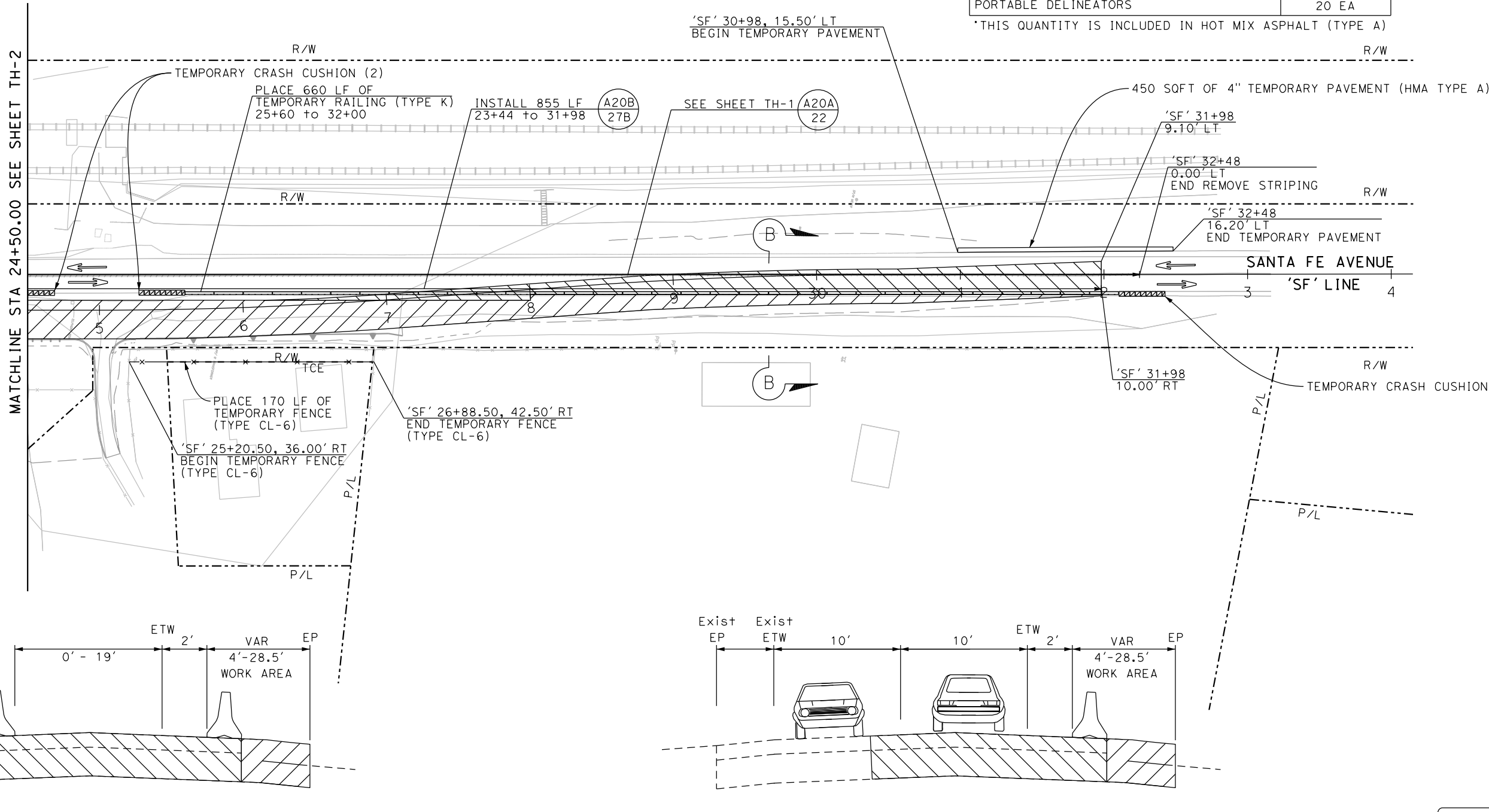
JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET NUMBER
41
OF 78 SHEETS

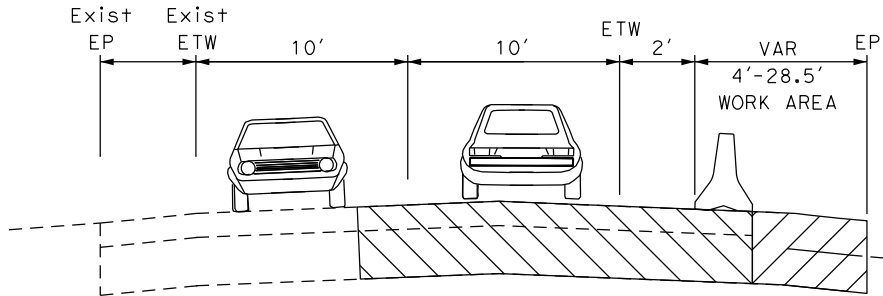
TRAFFIC HANDLING - STAGE 1

ITEM	QUANTITY
6' TEMPORARY FENCE (CHAIN LINK)	170 LF
TEMPORARY TRAFFIC STRIPE (PAINT)	8600 LF
TEMPORARY TRAFFIC MARKER	226 EA
TEMPORARY TYPE K RAILING	1520 LF
REMOVE THERMOPLASTIC TRAFFIC STRIPE	1430 LF
REMOVE TRAFFIC STRIPE (HAZARDOUS WASTE)	2640 LF
REMOVE THERMOPLASTIC PAVEMENT MARKING	435 SQFT
TEMPORARY CRASH CUSHION	6 EA
TEMPORARY PAVEMENT (HMA TYPE A)*	12 TON
PORTABLE DELINEATORS	20 EA

*THIS QUANTITY IS INCLUDED IN HOT MIX ASPHALT (TYPE A)



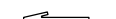
DETAIL B-B
NIGHT WORK ONLY
NO SCALE



DETAIL B-B
NO SCALE

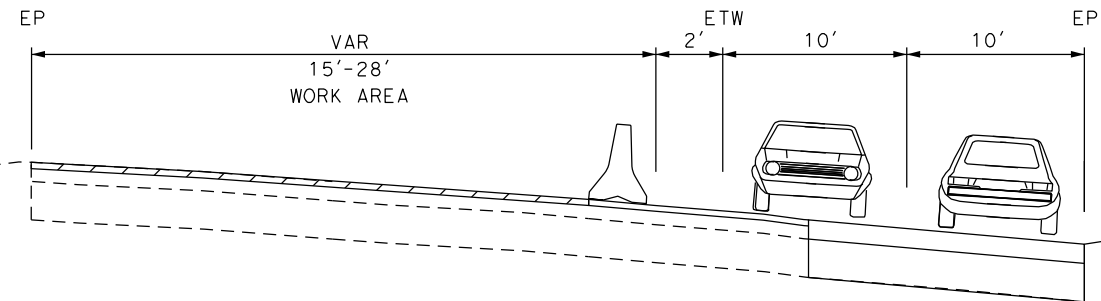
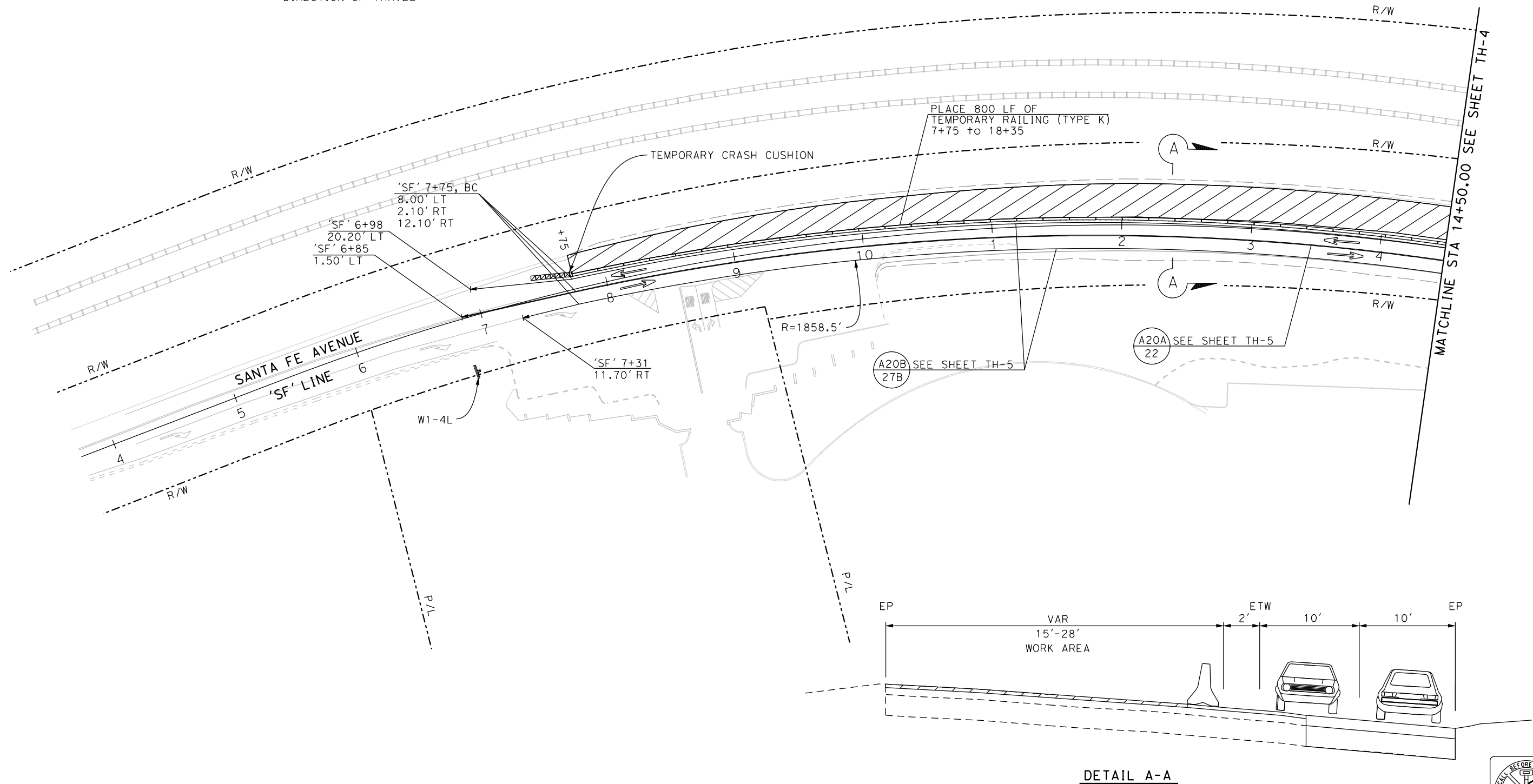


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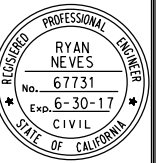
-  CONSTRUCTION - THIS STAGE
-  CONSTRUCTION- NIGHT WORK
-  TEMPORARY RAILING (TYPE K)
-  TEMPORARY TRAFFIC STRIPE (PAINT)
-  REMOVE THERMOPLASTIC TRAFFIC STRIPE
-  REMOVE THERMOPLASTIC PAVEMENT MARKING
-  DIRECTION OF TRAVEL

NOTES:

1. DRIVEWAY ACCESS MUST BE MAINTAINED THROUGHOUT CONSTRUCTION.



DETAIL A-A



REVISIONS		DATE	APPROVED
NO	DESCRIPTIONS		
1		10/27/16	

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

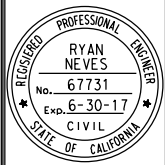
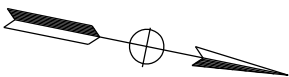
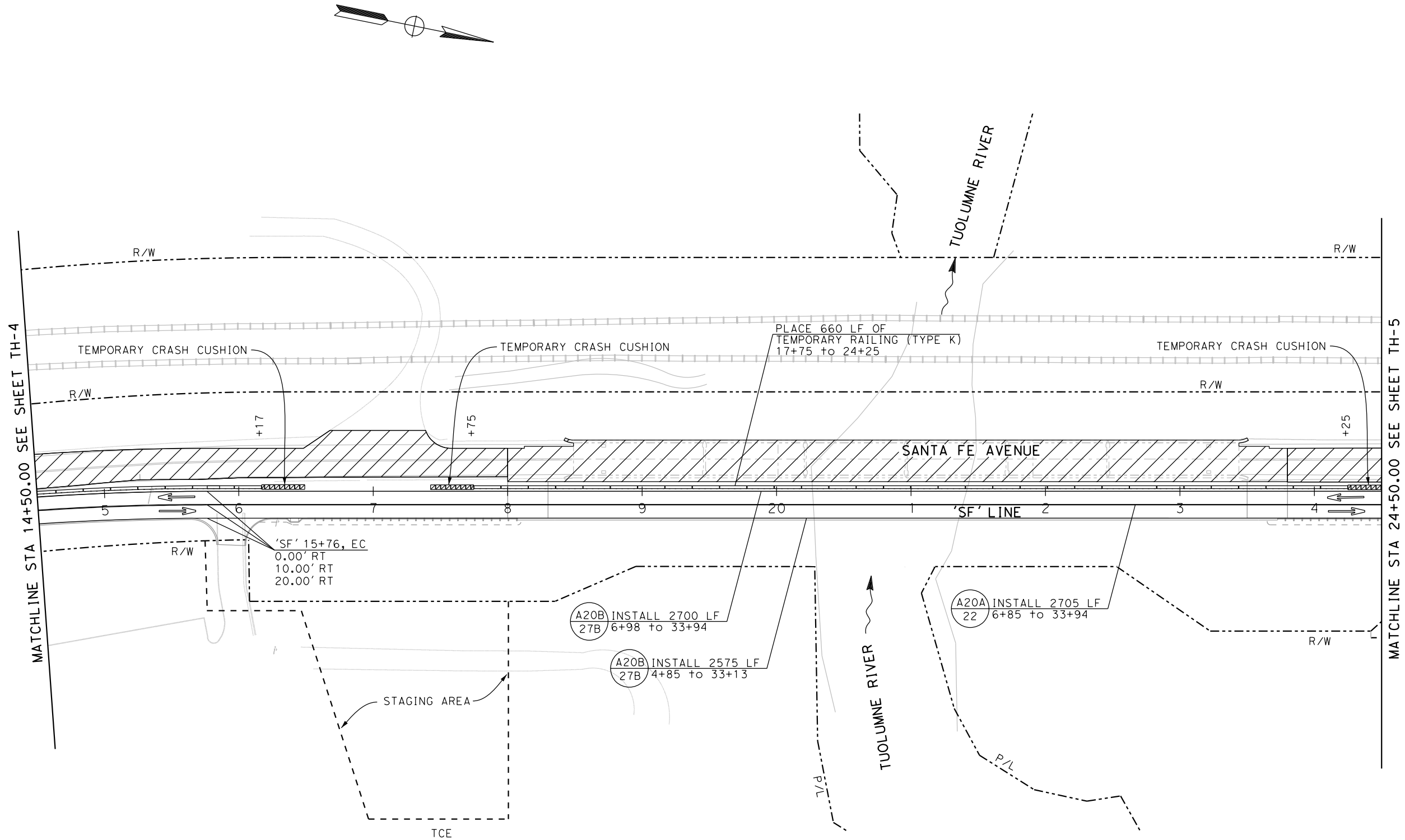


TRAFFIC HANDLING - STAGE 2
TH-4
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
42
OF 78 SHEETS





PREPARED UNDER THE DIRECTION OF: *Ryan Neves* DATE: 10/27/16

NO	DESCRIPTIONS	DATE	APPROVED

STANISLAUS COUNTY
 DEPARTMENT OF PUBLIC WORKS
 ENGINEERING AND OPERATIONS DIVISION
 1716 MORGAN ROAD - MODESTO, CA 95358

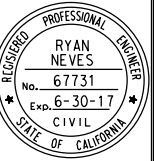


TRAFFIC HANDLING - STAGE 2
TH-5
 PLANS FOR THE BRIDGE REPLACEMENT OF:
 SANTA FE AVENUE BRIDGE
 OVER TUOLUMNE RIVER
 STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
 DATE 3/13/16
 DR BY J. KOZAK
 CK BY R. NEVES
 SCALE 1"=40'



SHEET NUMBER
43
 OF 78 SHEETS



DATE: 10/27/16	
DATE	APPROVED
NO	REVISIONS
NO	DESCRIPTIONS

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



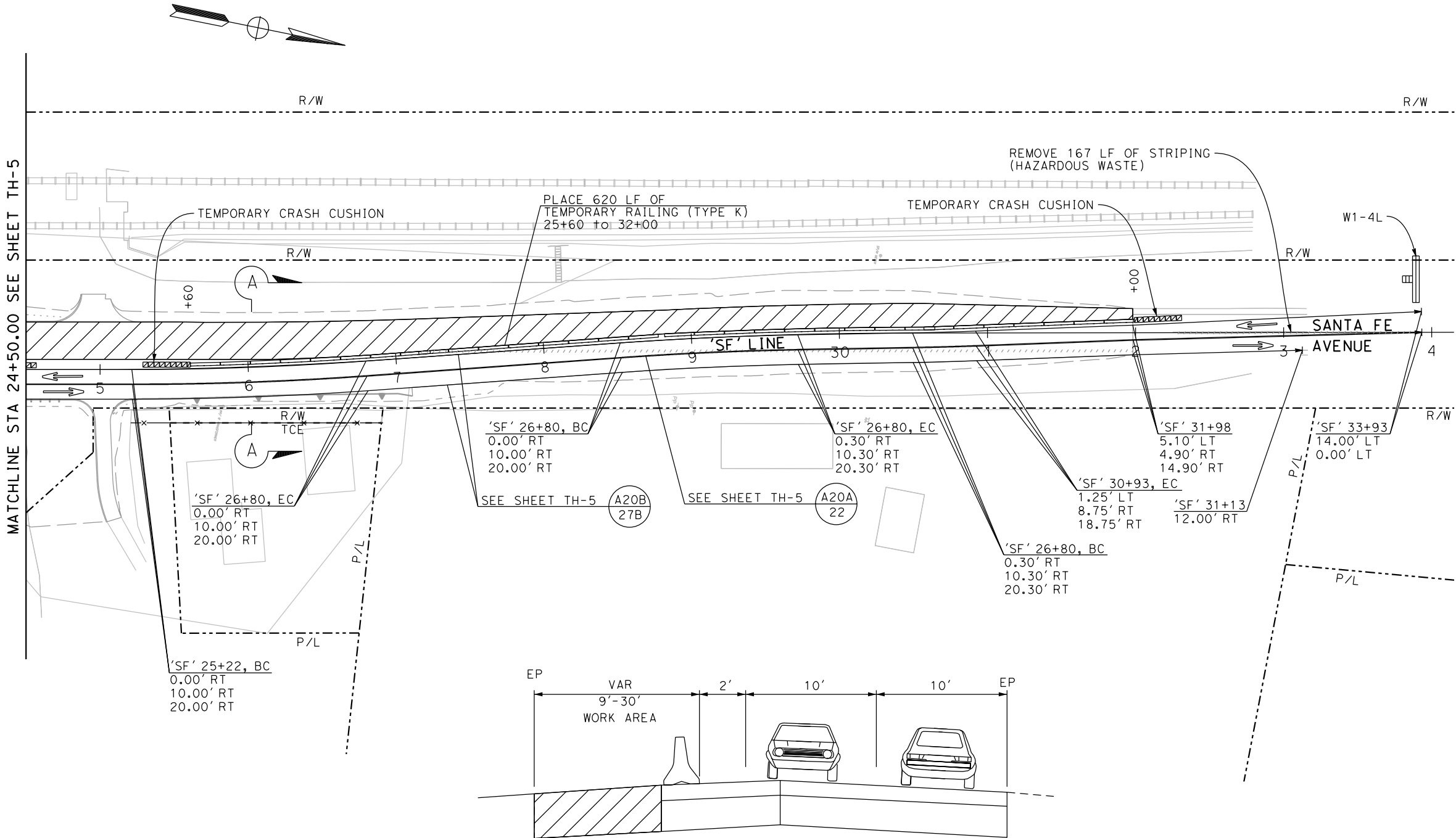
TRAFFIC HANDLING - STAGE 2
TH-6
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

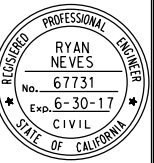
SHEET
NUMBER
44
OF 78 SHEETS

TRAFFIC HANDLING - STAGE 2

ITEM	QUANTITY
TEMPORARY TRAFFIC STRIPE (PAINT)	10685 LF
TEMPORARY TRAFFIC STRIPE (MARKERS)	228 EA
TEMPORARY TYPE K RAILING	2080 LF
REMOVE THERMOPLASTIC TRAFFIC STRIPE	485 LF
REMOVE PAINTED TRAFFIC STRIPE	10685 LF
TEMPORARY CRASH CUSHION	6 EA



DETAIL A-A
NO SCALE



PREPARED UNDER THE DIRECTION OF:	
DATE	10/27/16
APPROVED	
NO	REVISIONS
NO	DESCRIPTIONS

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



SIGNING AND STRIPING PLAN
S-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER

45

OF 78 SHEETS

A20A
27B SEE SHEET S-2

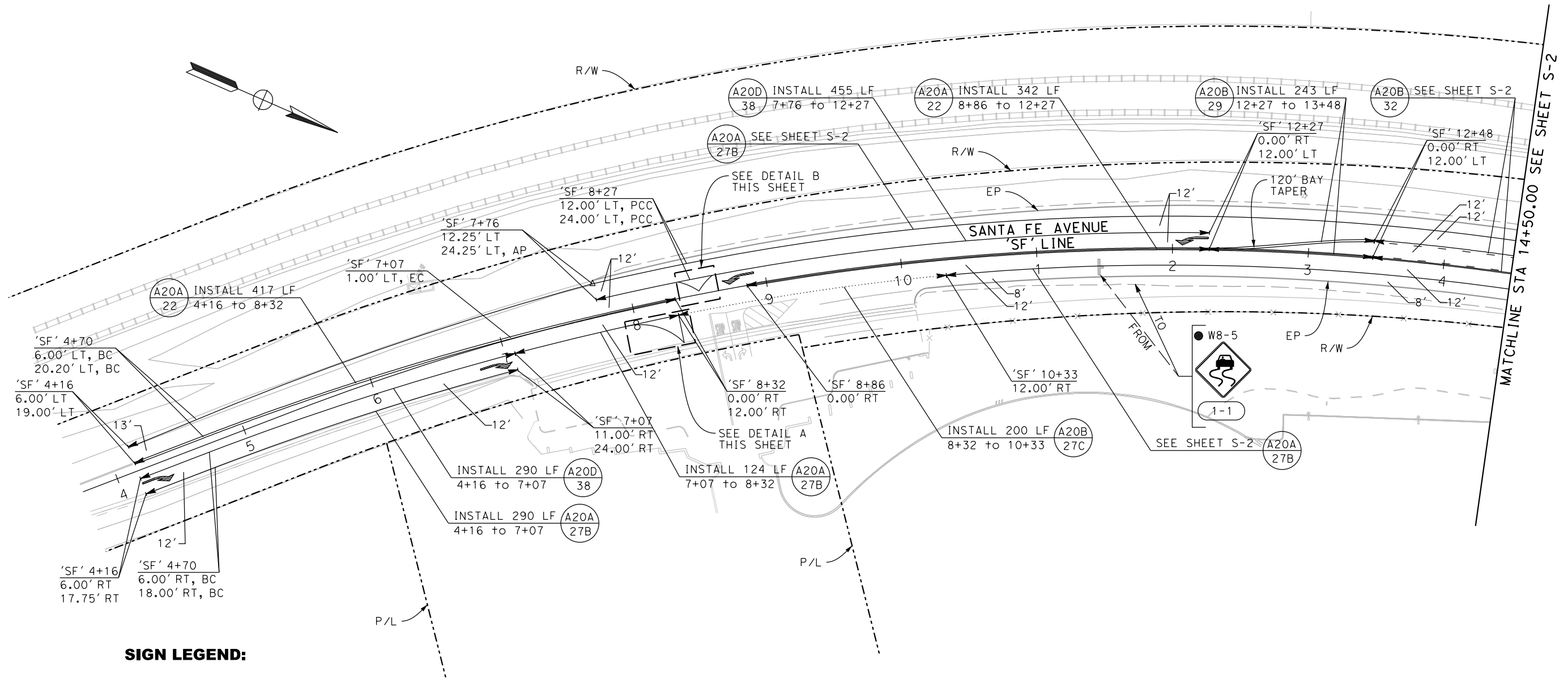
A20D
38A INSTALL 67 LF
7+93 to 8+32

DETAIL A

A20D
38A INSTALL 17 LF
8+34 to 8+48

DETAIL B

'SF' 8+34
12.00' LT
'SF' 8+48
2.40' LT
'SF' 8+85
12.00' LT
INSTALL 16 LF
8+48 to 8+85
A20D
38A



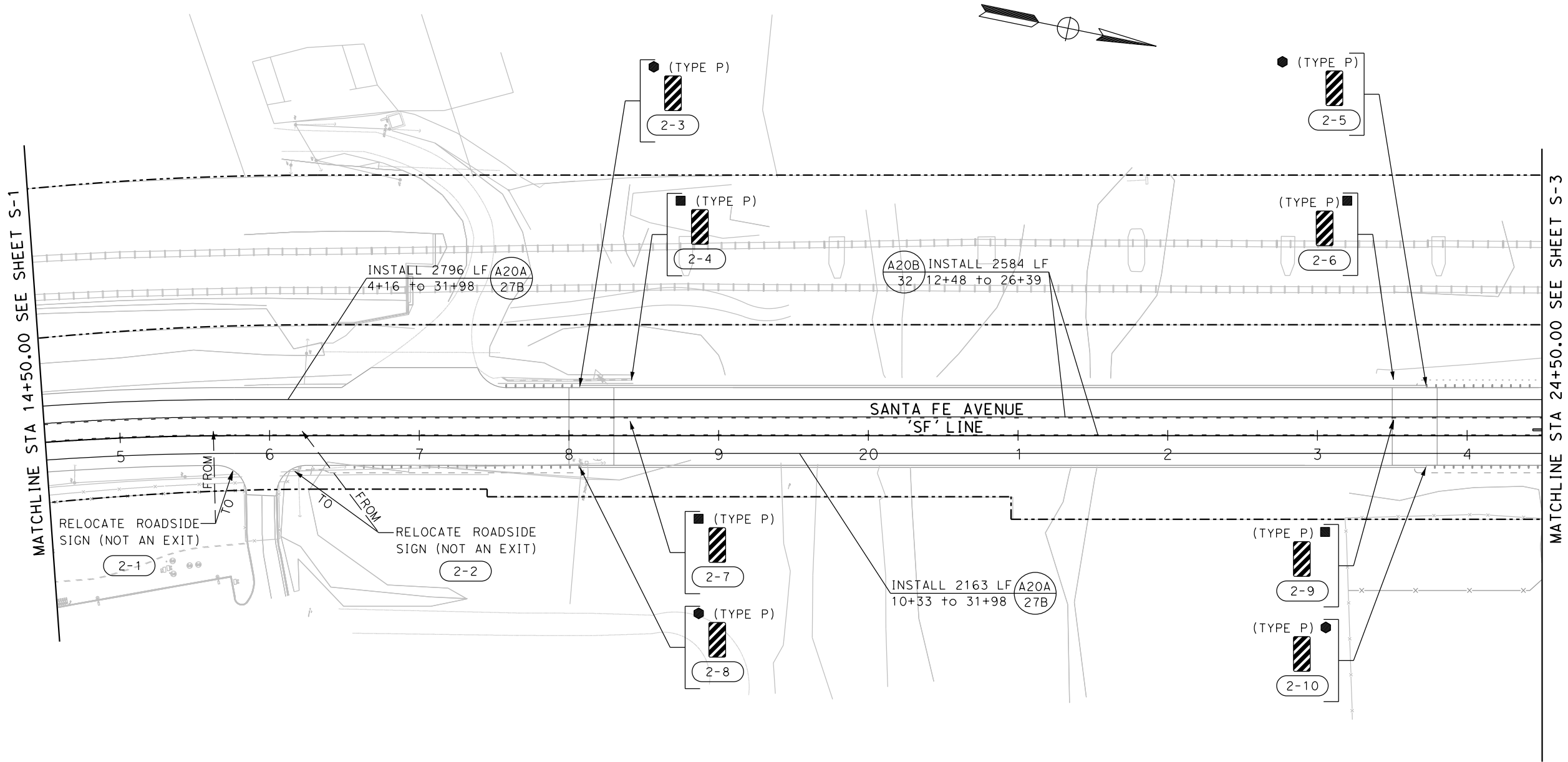
SIGN LEGEND:

- ▲ EXISTING SIGN TO REMAIN
- RELOCATE / RESET ROADSIDE SIGN
- REMOVE ROADSIDE SIGN / MARKER
- ◆ FURNISH ROADSIDE SIGN
- R/W OR P/L
- 'SF' LINE
- ROADSIDE SIGN (ONE POST)
- 1-1 ROADSIDE SIGN (WITH NUMBER)

STRIPE LEGEND:

- LENGTH TO BE INSTALLED
DENOTES STD PLAN SHEET
- LIMITS
- DENOTES DETAIL NO.
- LL LIMIT LINE PER STD PLAN A24E
- TYPE III (L OR R) ARROW PER STD PLAN A24B
- PAVEMENT MARKINGS WORDS PER STD PLAN A24D
- BEGIN/END OF STRIPE AND OR DETAIL





MATCHLINE STA 14+50.00 SEE SHEET S-1

MATCHLINE STA 24+50.00 SEE SHEET S-3



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO.	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

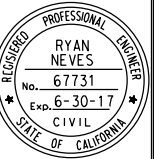
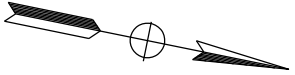
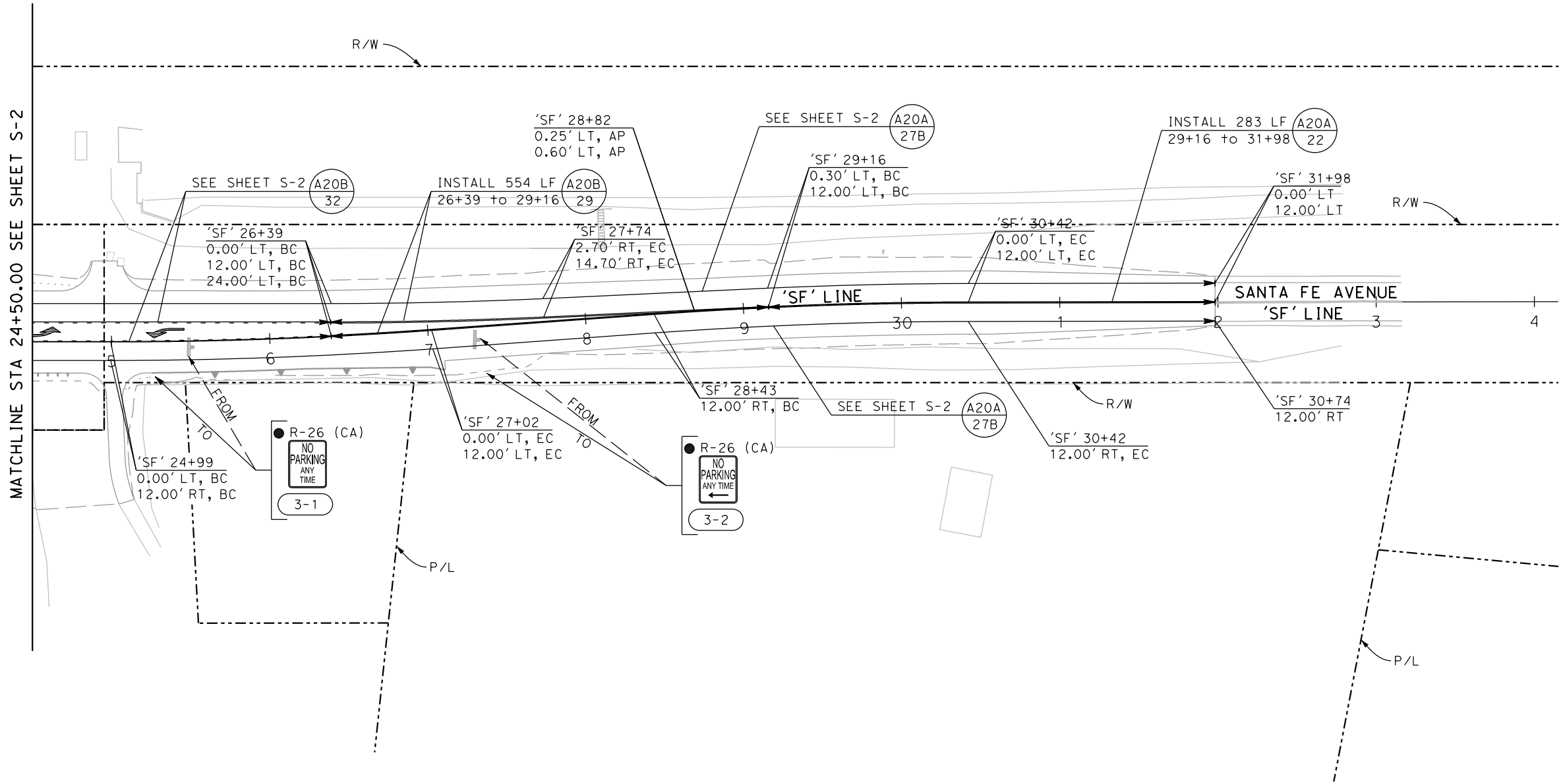


SIGNING AND STRIPING PLAN
S-2
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
46
OF 78 SHEETS





PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



SIGNING AND STRIPING PLAN
S-3
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

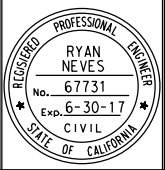
SHEET
NUMBER
47
OF 78 SHEETS



PAVEMENT DELINEATION QUANTITIES								
DETAIL NO.	FROM	TO	THERMOPLASTIC (FT)			PAVEMENT MARKER (EA) RETROREFLECTIVE		REMARKS
			4" WHITE	8" WHITE	4" YELLOW	TYPE D	TYPE G	
22	"SF" 4+16	"SF" 8+32			834	36		2 @ 417
22	"SF" 8+86	"SF" 12+27			684	30		2 @ 342
22	"SF" 29+16	"SF" 31+98			566	26		2 @ 283
27B	"SF" 4+16	"SF" 7+07	290					
27B	"SF" 7+07	"SF" 8+32	124					
27B	"SF" 4+16	"SF" 31+98	2796					
27B	"SF" 10+33	"SF" 31+98	2163					
27C	"SF" 8+32	"SF" 10+33	200					
29	"SF" 12+27	"SF" 13+48			488	22		2 @ 244
29	"SF" 26+39	"SF" 29+16			1108	48		2 @ 554
32	"SF" 12+48	"SF" 26+39			5168	320		2 @ 2584
38	"SF" 4+16	"SF" 7+07		290			13	
38	"SF" 7+76	"SF" 12+27		455			20	
38A	"SF" 7+93	"SF" 8+32		67				
38A	"SF" 8+40	"SF" 8+54		17				
38A	"SF" 8+54	"SF" 8+66		16				
TOTAL			5573	845	8848	482	33	

PAVEMENT MARKING QUANTITIES				
DESCRIPTION	THERMOPLASTIC (WHITE)(SQFT)	DETAIL	STANDARD PLANS	REMARKS
TYPE III ARROW	252	TYPE III ARROW	A24B	6 @ 42 SQFT
TOTAL=	252			

SIGN QUANTITIES				
SIGN NO.	SIGN	RELOCATE ROADSIDE SIGN	REMOVE MARKER (TYPE P)	FURNISH MARKER (TYPE P)
		(EA)	(EA)	(EA)
1-1	W8-5	1		
2-1	NOT AN EXIT	1		
2-2	NOT AN EXIT	1		
2-3	TYPE P(CA)			1
2-4	TYPE P(CA)		1	
2-5	TYPE P(CA)			1
2-6	TYPE P(CA)		1	
2-7	TYPE P(CA)		1	
2-8	TYPE P(CA)			1
2-9	TYPE P(CA)		1	
2-10	TYPE P(CA)			1
3-1	R26 (CA)	1		
3-2	R26 (CA)	1		
SPECIALTY - ENVIRONMENTAL*				
TOTAL		5	4	4



PREPARED UNDER THE DIRECTION OF: <i>Ryan Neves</i>		DATE: 10/27/16	DATE	APPROVED
		REVISIONS	DATE	
NO		DESCRIPTIONS		

STANISLAUS COUNTY

DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

Stanislaus County
Serving to the Best

SIGNING AND STRIPING QUANTITIES

SQ-1

PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

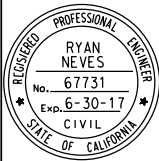
JOB NO.	1986
DATE	3/13/16
DR BY	J. KOZAK
CK BY	R. NEVES
SCALE	NO SCALE

SHEET NUMBER

48

OF 78 SHEETS





PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
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	DESCRIPTIONS		



STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

SUMMARY OF QUANTITIES
Q-1

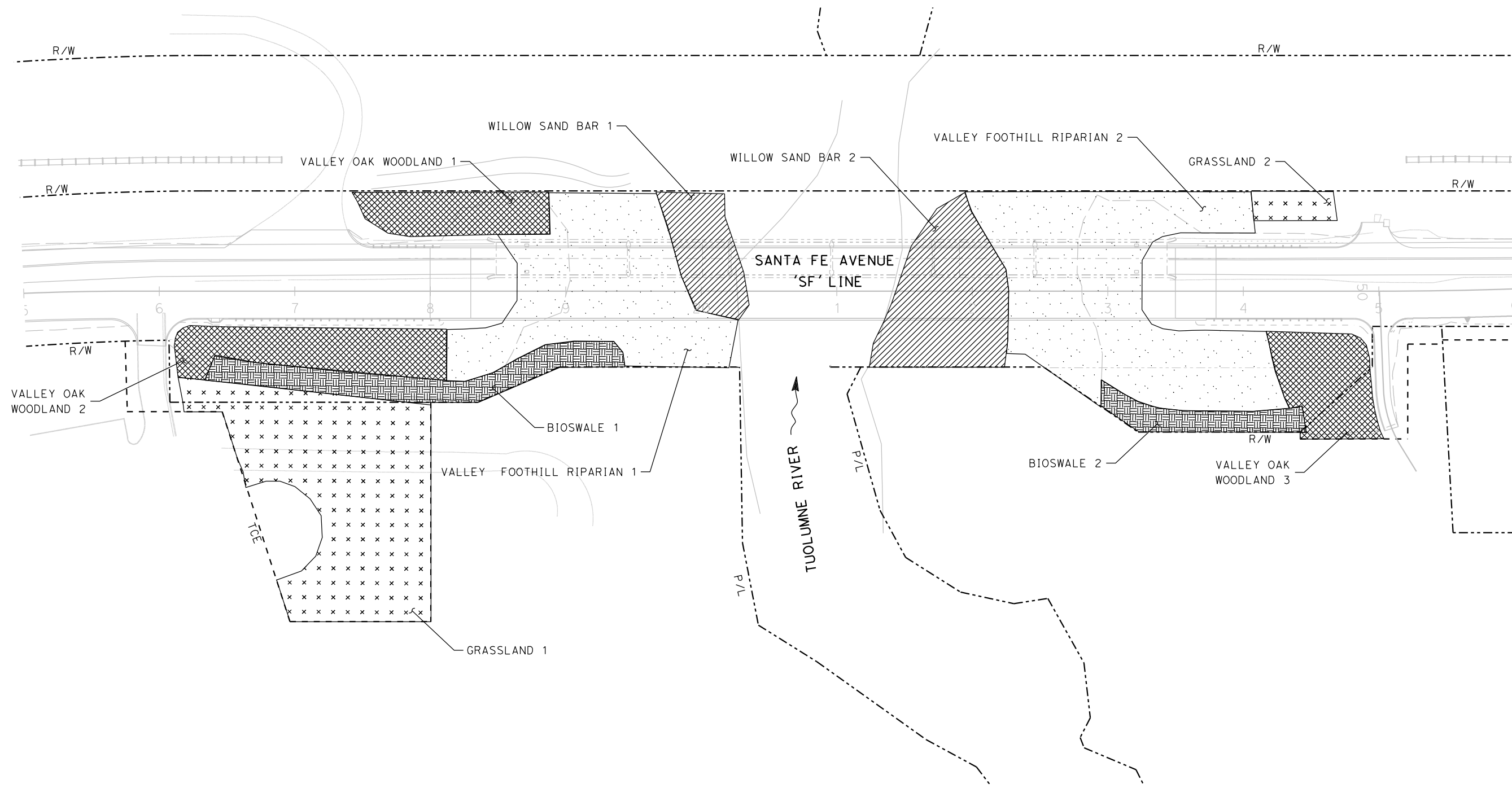
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE NO SCALE

ROADWAY QUANTITIES													
LOCATION	HOT MIX ASPHALT (TYPE A)	CLASS 2 AGGREGATE BASE	COLD PLANE ASPHALT CONCRETE PAVEMENT	HMA DIKE (TYPE E)	HMA DIKE (TYPE F)	REMOVE BASE AND SURFACING	OBLITERATE SURFACING	IMPORTED BORROW	ROADWAY EXCAVATION	TRANSITION RAILING (TYPE WB-31)	MIDWEST GUARDRAIL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	ADJUST SURVEY MONUMENT TO GRADE
UNIT	TON	CY	SQYD	LF	LF	CY	SQYD	CY	CY	EA	LF	EA	EA
'SF' 7+75 TO 18+00	1610	1135	1600	565	277	60	-	2500	2020	2	112.5	1	-
'SF' 23+80 TO 31+98.22	1490	1465	-	-	348	140	2450	7500	1480	2	50.0	2	1
TOTAL	3100	2600	1600	565	625	200	2450	10000	3500	4	162.5	3	1

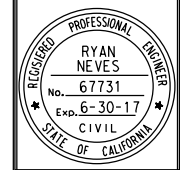
BOLLARD & FENCE QUANTITIES							
LOCATION	RELOCATE BOLLARD	RELOCATE FENCE (WROUGHT IRON)	REMOVE FENCE (CHAIN LINK)	REMOVE FENCE (BW)	FENCE (BW)	FENCE (CHAIN LINK)	TEMPORARY FENCE (CHAIN LINK)
UNIT	EA	LF	LF	LF	LF	LF	LF
'SF' 7+75 TO 18+00	2	555	-	-	-	-	-
'SF' 23+80 TO 31+98.22	-	-	215	290	250	215	170
TOTAL	2	555	215	290	250	215	170





LEGEND:

- GRASSLAND
- BIOSWALE
- VALLEY OAK WOODLAND
- VALLEY FOOTHILL RIPARIAN
- WILLOW SAND BAR



PREPARED UNDER THE DIRECTION OF:		DATE:	10/27/16
NO	REVISIONS	DATE	APPROVED
	DESCRIPTIONS		

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358



REVEGETATION PLAN
RV-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE 1"=40'

SHEET
NUMBER
50
OF 78 SHEETS



REVEGETATION QUANTITY											
COMMON NAME	SCIENTIFIC NAME	PLANT SPACING (SQFT O.C.)	VALLEY FOOTHILL RIPRARIAN		VALLEY OAK WOODLAND			WILLOW SAND BAR		BIOSWALE	
			1	2	1	2	3	1	2	1	2
			(EA)	(EA)	(EA)	(EA)	(EA)	(EA)	(EA)	(EA)	(EA)
BLACK/BLUE ELDERBERRY	<i>SAMBUCUS SP.</i>	25	28	39							
BOX ELDER	<i>ACER NEGUNDO</i>	30	19	28							
CALIFORNIA BUCKEYE	<i>AESCULUS CALIFORNIA</i>	30	19	28	5	7	6				
CALIFORNIA MUGWORT	<i>ARTEMISIA DOUGLASIANA</i>	20	42	58	11	16	13			14	7
CALIFORNIA WILD ROSE	<i>ROSA CALIFORNICA</i>	25	28	39							
COMMON BUTTONBUSH	<i>CEPHALANTHUS OCCIDENTALIS</i>	25						7	14		
COMMON RUSH	<i>JUNCUS EFFUSUS</i>	20	42	58				10	21	14	7
COYOTE BRUSH	<i>BACCHARIS PILULARIS</i>	25			7	10	8				
FREMONT COTTONWOOD	<i>POPULUS FREMONTII</i>	30	19	28							
NARROW-LEAVED WILLOW	<i>SALIX EXIGUA</i>	30						7	14		
NORTHERN CALIFORNIA BLACK WALNUT	<i>JUGLANS HINDSII</i>	30	19	28							
OREGON ASH	<i>FRAXINUS LATIFOLIA</i>	30	19	28							
TALL FLATSEDGE	<i>CYPERUS ERAGROSTIS</i>	20	42	58				10	21	14	7
VALLEY OAK	<i>QUERCUS LOBATA</i>	30	19	28	5	7	6				
VALLEY SEDGE	<i>CAREX BARBARAE</i>	20	42	58				10	21	14	7
WHITE ALDER	<i>ALNUS RHOMBIFOLIA</i>	30	19	28							

NOTES:

1. FOR HYDROSEED SEE EROSION CONTROL PLANS.
2. REVEGETATION AREA ARE TO BE REPLANTED POST CONSTRUCTION WITH THE NATIVE PLANT SPECIES SPECIFIED IN THE REVEGETATION QUANTITY TABLE.
3. INDIVIDUALS OF EACH SPECIES ARE TO BE EVENLY DISTRIBUTED THROUGHOUT PLANTING AREAS.
4. PLANT MATERIALS USED IN REVEGETATION MUST BE SOURCED WITHIN 100 MILES OF THE PROJECT AREA.
5. ALL PLANTS MUST BE WELL ROOTED IN THEIR CONTAINERS AND IN GOOD HEALTH PRIOR TO PLANTING.
6. TREES MUST BE IN A 4"x14" TREE POT OR EQUIVALENT CONTAINER.
7. SHRUBS AND HERBS MUST BE A 2.5"x10" D40 DEEPOT OR EQUIVALENT CONTAINER.
8. PLANTING METHODS MUST BE CONSISTENT WITH THE 2010 CALTRANS STANDARD SPECIFICATIONS.



PREPARED UNDER THE DIRECTION OF:		DATE: 10/27/16	
NO	DESCRIPTIONS	REVISIONS	DATE
			APPROVED

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND OPERATIONS DIVISION
1716 MORGAN ROAD - MODESTO, CA 95358

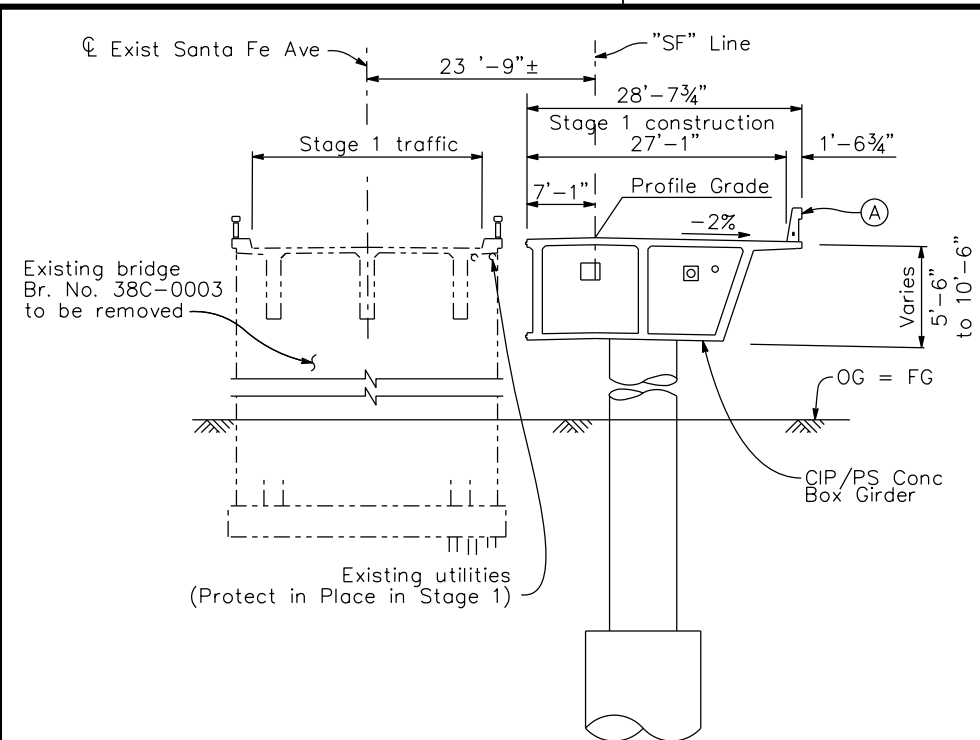


REVEGETATION QUANTITIES
RQ-1
PLANS FOR THE BRIDGE REPLACEMENT OF:
SANTA FE AVENUE BRIDGE
OVER TUOLUMNE RIVER
STANISLAUS COUNTY, CALIFORNIA

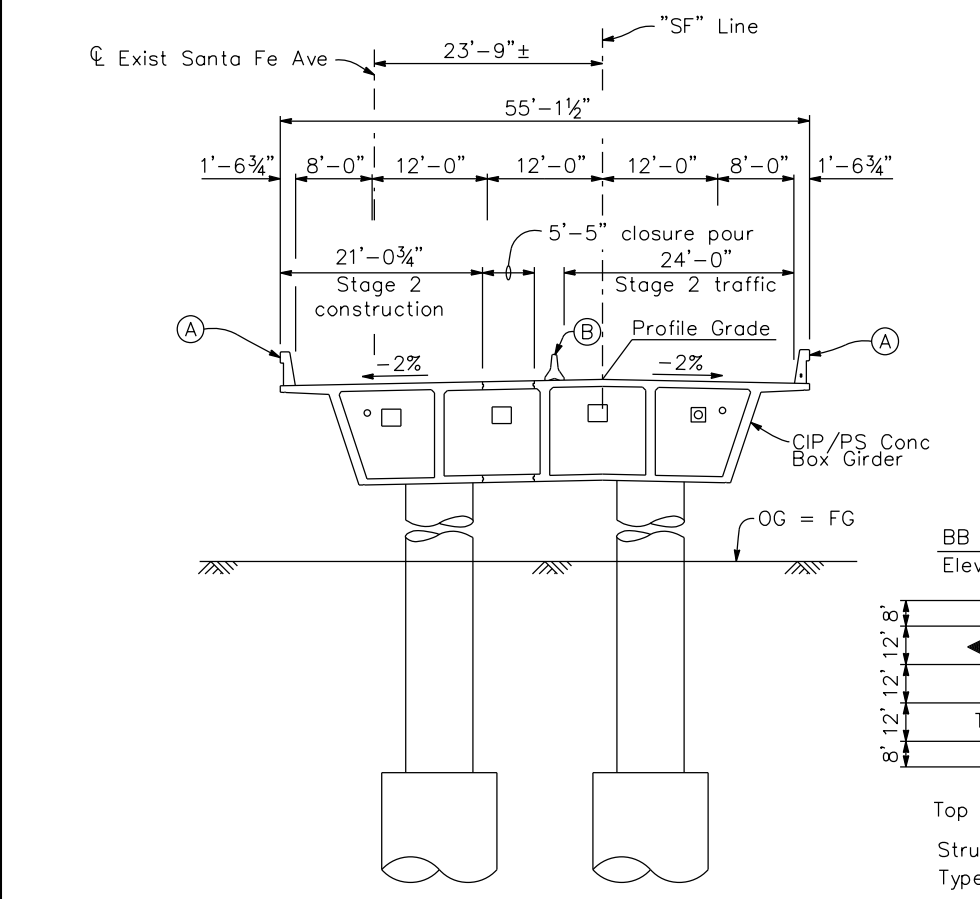
JOB NO. 1986
DATE 3/13/16
DR BY J. KOZAK
CK BY R. NEVES
SCALE

SHEET
NUMBER
51
OF 78 SHEETS



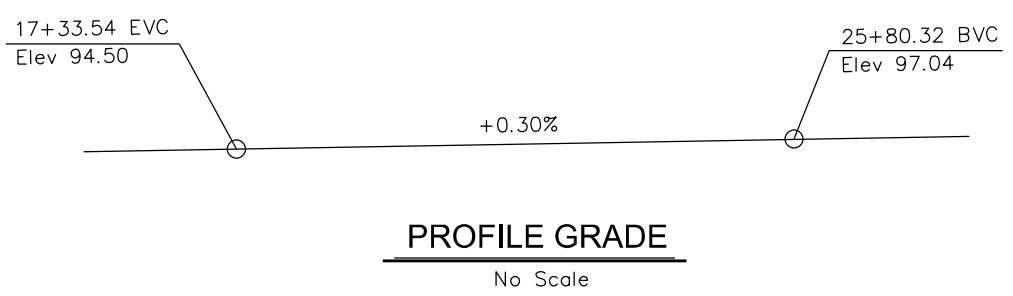


TYPICAL SECTION - STAGE 1
1"=10'

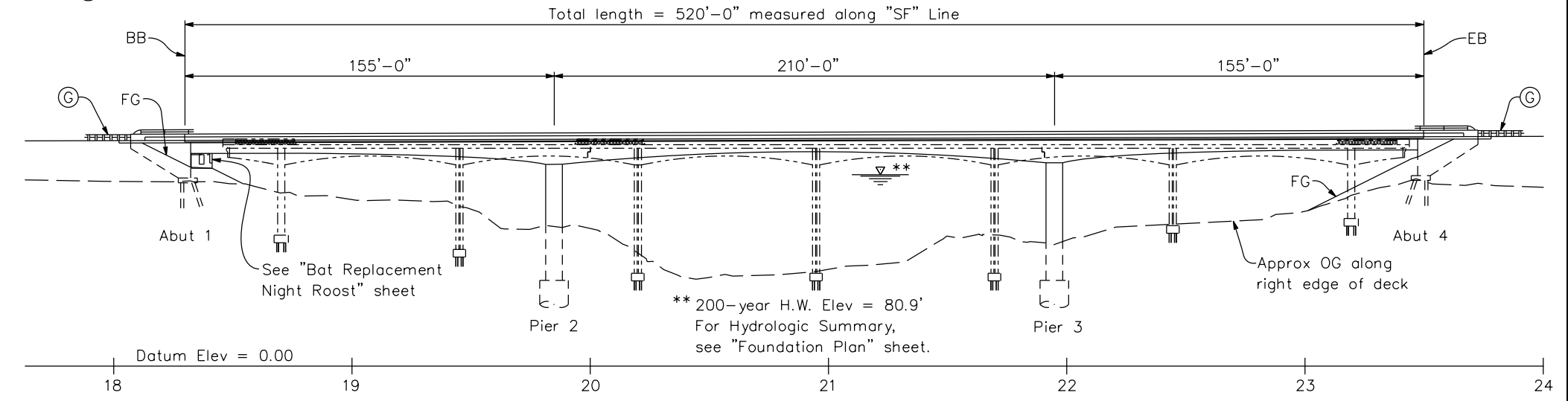


TYPICAL SECTION
1"=10'

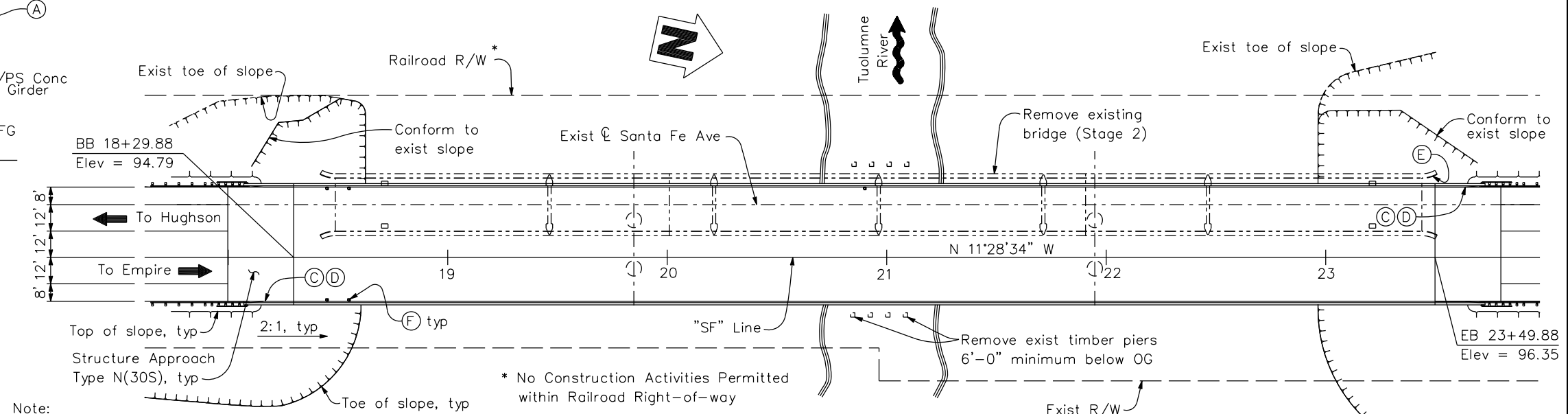
- LEGEND**
- Denotes existing structure
 - (A) Concrete Barrier Type 742
 - (B) Temporary Railing Type K
 - (C) Paint "Tuolumne River Bridge"
 - (D) Paint "Br. No. 38C-0003" and date completed
 - (E) Salvage existing plaque
 - (F) Deck drain
 - (G) MGS, see "Road Plans"



PROFILE GRADE
No Scale



ELEVATION
1"=30'



PLAN
1"=30'

Note:
For Index To Plans, Standard Plans, General Notes and Quantities, see "Index To Plans" sheet.
For utilities through bridge, see "Typical Section" sheet.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	52	78

REGISTERED STRUCTURAL ENGINEER
3/28/17
PLANS APPROVAL DATE

ROBERT E. BURNS
No. 6289
Exp. 3-31-18
STATE OF CALIFORNIA

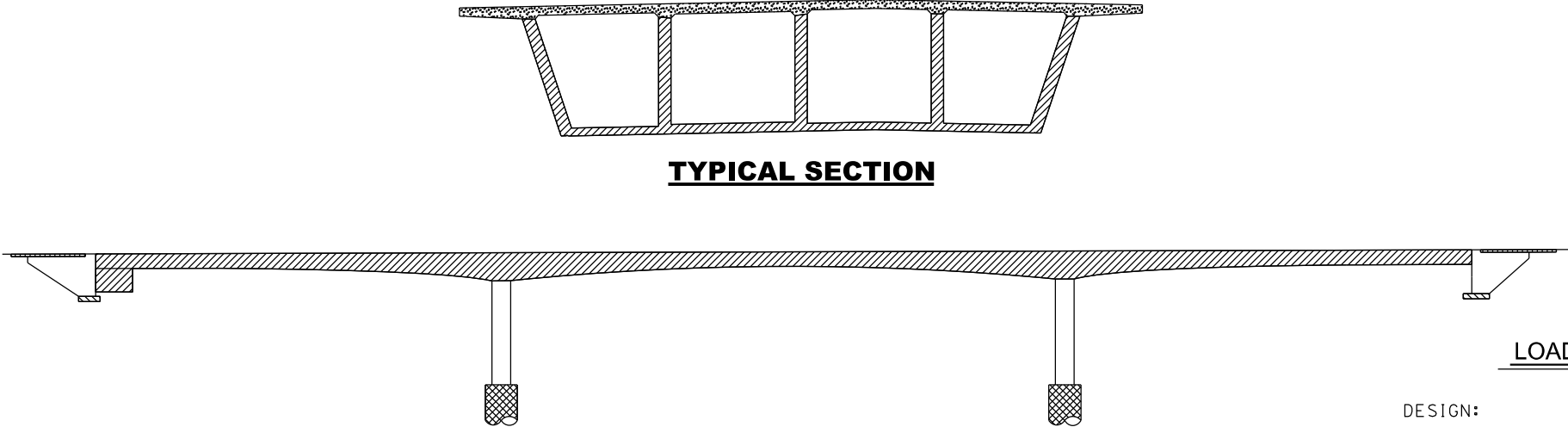
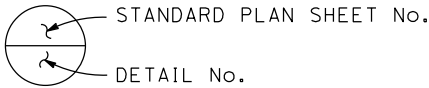
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630

INDEX TO PLANS

Sheet No.	Title
1	General Plan
2	Index To Plan
3	Deck Contours
4	Soffit Contours
5	Foundation Plan
6	Abutment 1 Layout
7	Abutment 4 Layout
8	Abutment Details No. 1
9	Abutment Details No. 2
10	Pier Details No. 1
11	Pier Details No. 2
12	Pier Details No. 3
13	Typical Section
14	Girder Layout
15	Girder Details
16	Girder Reinforcement
17	Deck Drainage Layout
18	Utility Details No. 1
19	Utility Details No. 2
20	Bat Replacement Night Roost
21	Strip Joint Seal Assembly
Maximum Movement Rating = 4"	
22	Structure Approach Type N(30S)
23	Structure Approach Drainage Details
24	Log Of Test Borings No. 1
25	Log Of Test Borings No. 2
26	Log Of Test Borings No. 3
27	Log Of Test Borings No. 4

STANDARD PLANS DATED 2010

Sheet No.	Title
A10A	Abbreviations (Sheet 1 Of 2)
RSP A10B	Abbreviations (Sheet 2 Of 2)
A10C	Lines And Symbols (Sheet 1 Of 3)
A10D	Lines And Symbols (Sheet 2 Of 3)
A10E	Lines And Symbols (Sheet 3 Of 3)
A10F	Legend – Soil (Sheet 1 Of 2)
A10G	Legend – Soil (Sheet 2 Of 2)
A10H	Legend – Rock
A62C	Limits Of Payment For Excavation And Backfill Bridge
T3A	Temporary Railing (Type K)
B0–1	Bridge Details
B0–3	Bridge Details
B0–5	Bridge Details
B0–13	Bridge Details
B2–5	Pile Details Class 90 And Class 140
B7–1	Box Girder Details
B7–6	Deck Drains Types D–1 and D–2
B7–8	Deck Drainage Details
B7–10	Utility Opening Box Girder
RSP B8–5	Cast–In–Place Post–Tensioned Girder Details
RSP B11–57	Concrete Barrier Type 742
B14–5	Water Supply Line (Details) (Pipe Sizes Less Than 4")



TYPICAL SECTION

ELEVATION

- Structural Concrete, Bridge (f'c = 3.60 ksi)
- Structural Concrete, Approach Slab (f'c = 3.60 ksi)
- Structural Concrete, Bridge Footing (f'c = 3.60 ksi)
- Prestressed Concrete, see "Prestressing Notes" on "Girder Layout" sheet
- Structure Concrete, Bridge (Polymer Fiber)
(See "Prestressing Notes" on "Girder Layout" sheet)
- Cast–In–Drilled–Hole Piles (f'c = 3.60 ksi)

CONCRETE STRENGTH AND TYPE LIMITS

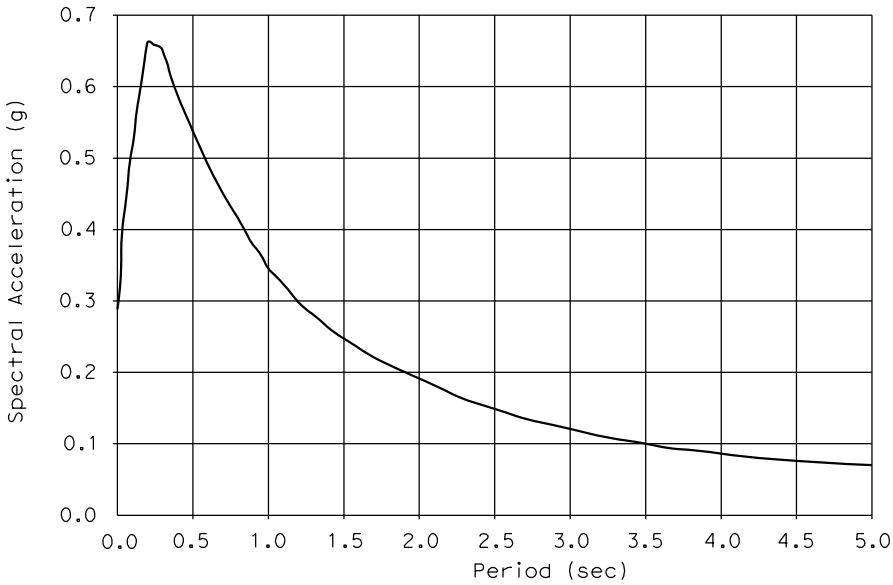
No Scale

QUANTITIES

Item	Total
BRIDGE REMOVAL	1 LS
STRUCTURE EXCAVATION (BRIDGE)	555 CY
STRUCTURE EXCAVATION (TYPE D)	469 CY
STRUCTURE BACKFILL (BRIDGE)	330 CY
144" CAST-IN-DRILLED-HOLE CONCRETE PILING	478 LF
FURNISH PILING (CLASS 140)	2,324 LF
DRIVE PILE (CLASS 140)	44 EA
PRESTRESSING CAST-IN-PLACE CONCRETE	1 LS
STRUCTURAL CONC, BRIDGE FOOTING	85 CY
STRUCTURAL CONCRETE, BRIDGE	2,869 CY
STRUCTURAL CONCRETE, APPROACH SLAB	153 CY
JOINT SEAL ASSEMBLY (MR 4")	110 LF
BAR REINFORCING STEEL (BRIDGE)	836,587 LBS
WELDED STEEL PIPE CASING (BRIDGE)	160 LF
WELDED STEEL PIPE CASING (GAS)	590 LF
ROCK SLOPE PROTECTION (FACING, METHOD B)	1 CUYD
BRIDGE DECK DRAINAGE SYSTEM	9,080 LB
CONCRETE BARRIER (TYPE 742)	1,130 LF

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

- DESIGN: AASHTO LRFD Bridge Design Specifications, 6th Edition with Caltrans Amendments, dated January 2014
- SEISMIC DESIGN: CALTRANS SEISMIC DESIGN CRITERIA (SDC) Version 1.7, April 2013
- DEAD LOAD: Includes 0.035 ksf for future wearing surface
- LIVE LOAD: HL-93, Caltrans' "Low Boy" and CA P-15 Permit, design vehicular loads.
- SEISMIC LOAD: Soil Type D
Soil profile : Vs30 = 260 M/S
Peak Rock Acceleration = 0.29g
Site is susceptible to liquefaction.



- REINFORCED CONCRETE: fy = 60 ksi
f'c = 3.6 ksi
n = 8
- PRESTRESSED CONCRETE: See "Prestressing Notes" on "Girder Layout" sheet.

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

PREPARED FOR
STANISLAUS COUNTY

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
INDEX TO PLAN

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS



UNIT:
PROJECT NUMBER & PHASE:

CONTRACT NO.:

DISREGARD PRINTS BEARING
EARLIER REVISION DATES

REVISION DATES				SHEET	OF
8/28/15				2	27

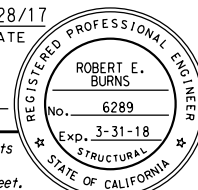
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	55	78


REGISTERED STRUCTURAL ENGINEER

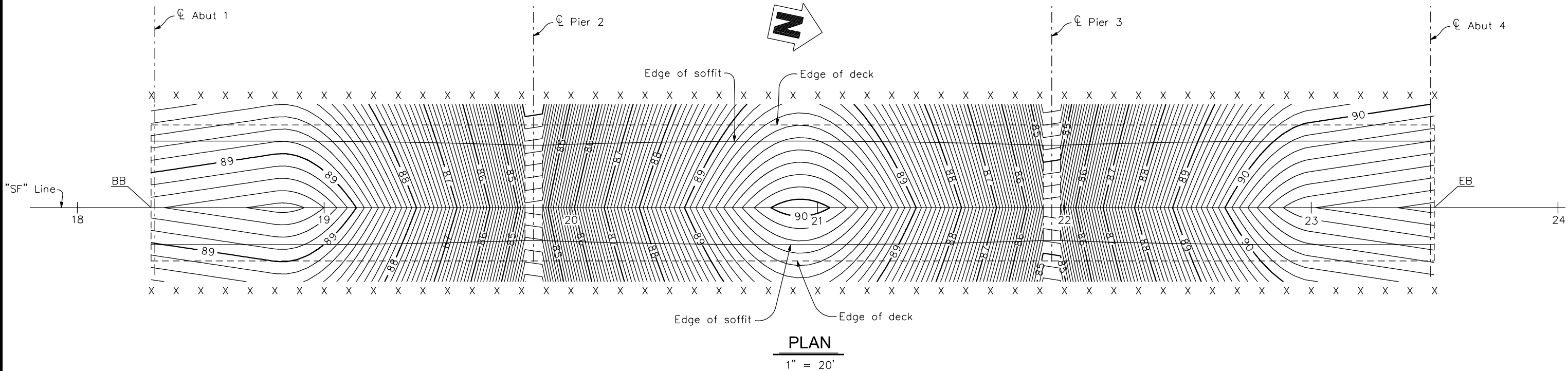
3/28/17
DATE

3/28/17
PLANS APPROVAL DATE



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DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630



Notes:

Contours do not include camber.

Contour interval is 0.10'

X Denotes 10' interval along "SF" Line

Form work must be true to the Soffit Grade shown.

PILE DATA TABLE							
Location	Pile Type	Nominal Resistance		Cut-off Elevation	Design Tip Elevation	Specified Tip Elevation	Nominal Driving Resistance
		Compression	Tension				
Abut 1	Class 140 Alt "W"	300 kip	0 kip	77.42'	28.0 (a); N/A (b); 59.0 (c); N/A (d)	28.0	300 kip
Pier 2	144" CIDH	7200 kip	0 kip	36.00'	-88.0 (a); N/A (b); -17.0 (c); -58.0 (d)	-88.0	N/A
Pier 3	144" CIDH	7200 kip	0 kip	36.00'	-79.0 (a); N/A (b); -8.0 (c); -49.0 (d)	-79.0	N/A
Abut 4	Class 140 Alt "W"	300 kip	0 kip	78.42'	25.0 (a); N/A (b); 59.0 (c); N/A (d)	25.0	300 kip

Pile tip elevation is controlled by the following demands:
(a) Compression; (b) Tension ; (c) Settlement ; (d) Lateral Loads

SCOUR DATA TABLE		
Location	Long-Term Scour Elevation (Degradation and Contraction) (feet)	Short-Term Scour Elevation (Local) (feet)
Abut 1	None	None
Pier 2	36.0'	25.5'
Pier 3	36.0'	24.8'
Abut 4	None	None

HYDROLOGIC SUMMARY

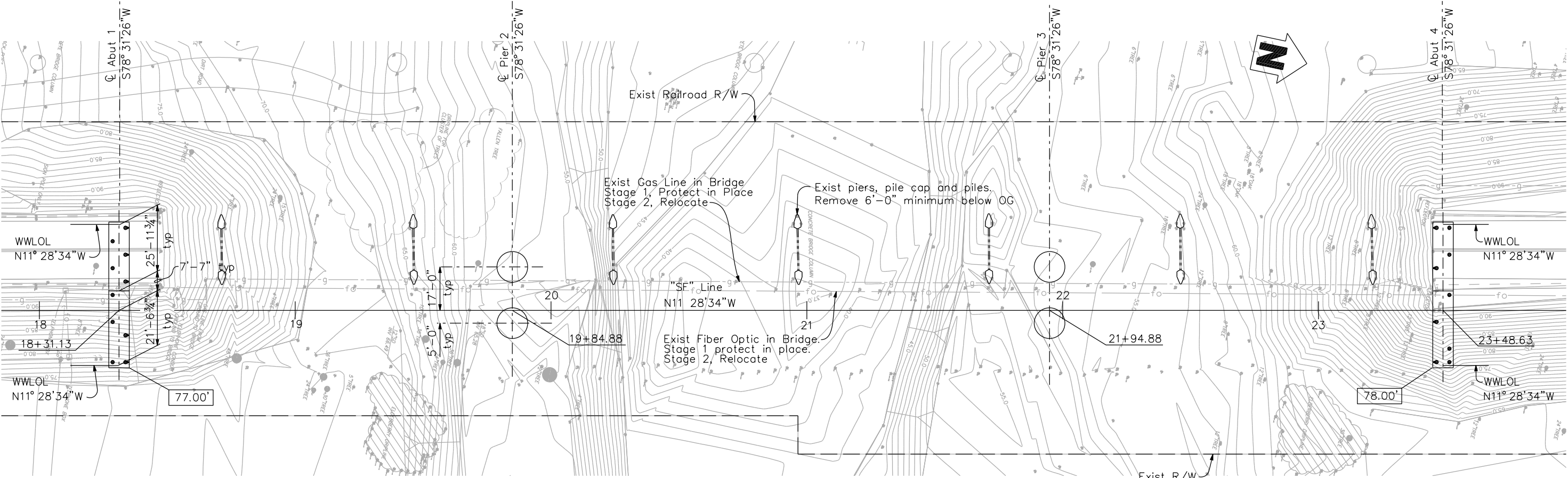
DRAINAGE AREA: 1,884 square miles

FREQUENCY (Years)	10 year	100 year	200 year
DISCHARGE (Cubic feet per second)	17,168	49,600	64,600
WATER SURFACE (Elevation at bridge)	65.5'	77.6'	80.9'

Flood plain data are based upon information available when the plans were prepared and are shown to meet Federal requirements. The accuracy of said information is not warranted by the State, County, or consultants and interested or affected parties should make their own investigations.

LEGEND

- ⊕ Denotes vertical pile. All piles not shown.
- ⊕ Denotes pile battered 3:1. All piles not shown.
- Denotes bottom of footing elev.
- Denotes 144" Φ CIDH pile.
- Denotes existing structure



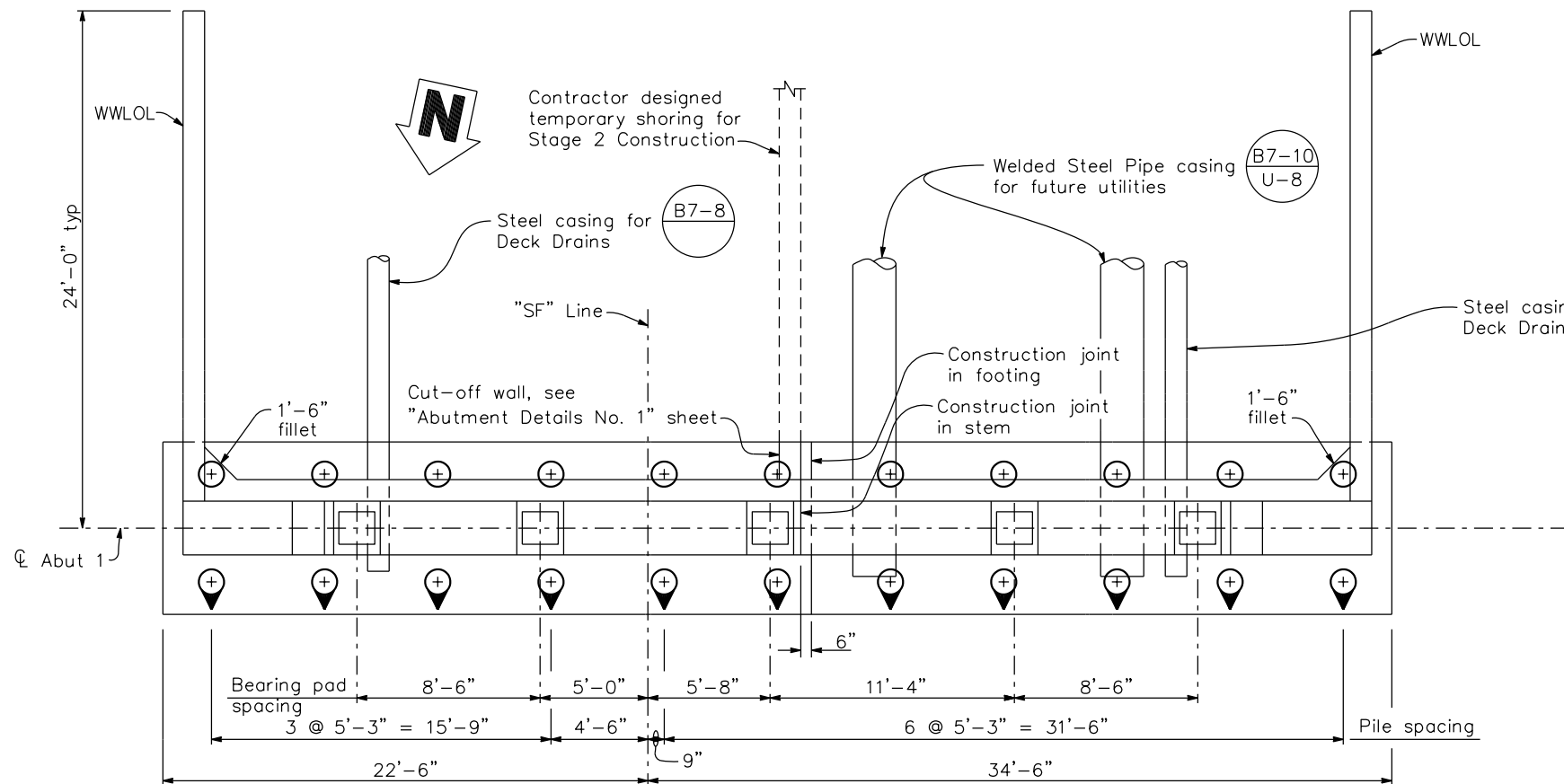
BENCH MARK

USC & GS "Empire" brass disk
Northing : 2055060.865
Easting : 6444419.484
Elev : 117.42

PLAN

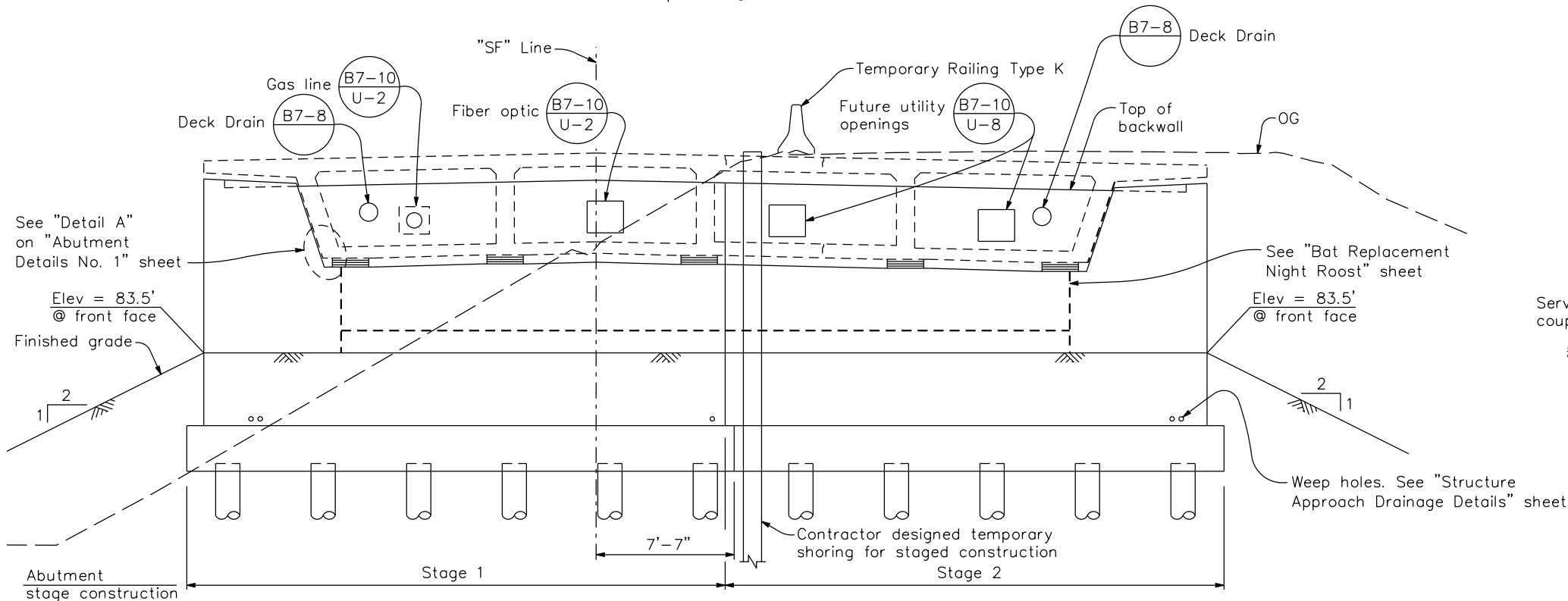
1" = 20'

	SCALE: As Noted		VERT.DATUM - NAVD88		HORZ.DATUM - NAD83		DESIGN	BY R. BURNS	CHECKED MAI / KG	PREPARED FOR STANISLAUS COUNTY	R. BURNS PROJECT ENGINEER	BRIDGE NO.	SANTA FE AVE BRIDGE AT TUOLUMNE RIVER				
	PHOTOGRAMMETRY AS OF: 2007		ALIGNMENT TIES			DETAILS	BY K. DANG	CHECKED MAI / KG	38C-0003								
	SURVEYED BY NorthStar		DRAFTED BY NorthStar						POST MILES								
	FIELD CHECKED BY NorthStar		CHECKED BY NorthStar			QUANTITIES	BY	CHECKED MAI / KG	N/A								
FOUNDATION PLAN SHEET (ENGLISH) (REV. 03/14/12)																	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS										UNIT: PROJECT NUMBER & PHASE:		CONTRACT NO.:		DISREGARD PRINTS BEARING EARLIER REVISION DATES			
0 1 2 3												8/28/15		REVISION DATES		SHEET 5 OF 27	



ABUTMENT 1 PLAN

1/4" = 1'-0"



ABUTMENT 1 ELEVATION

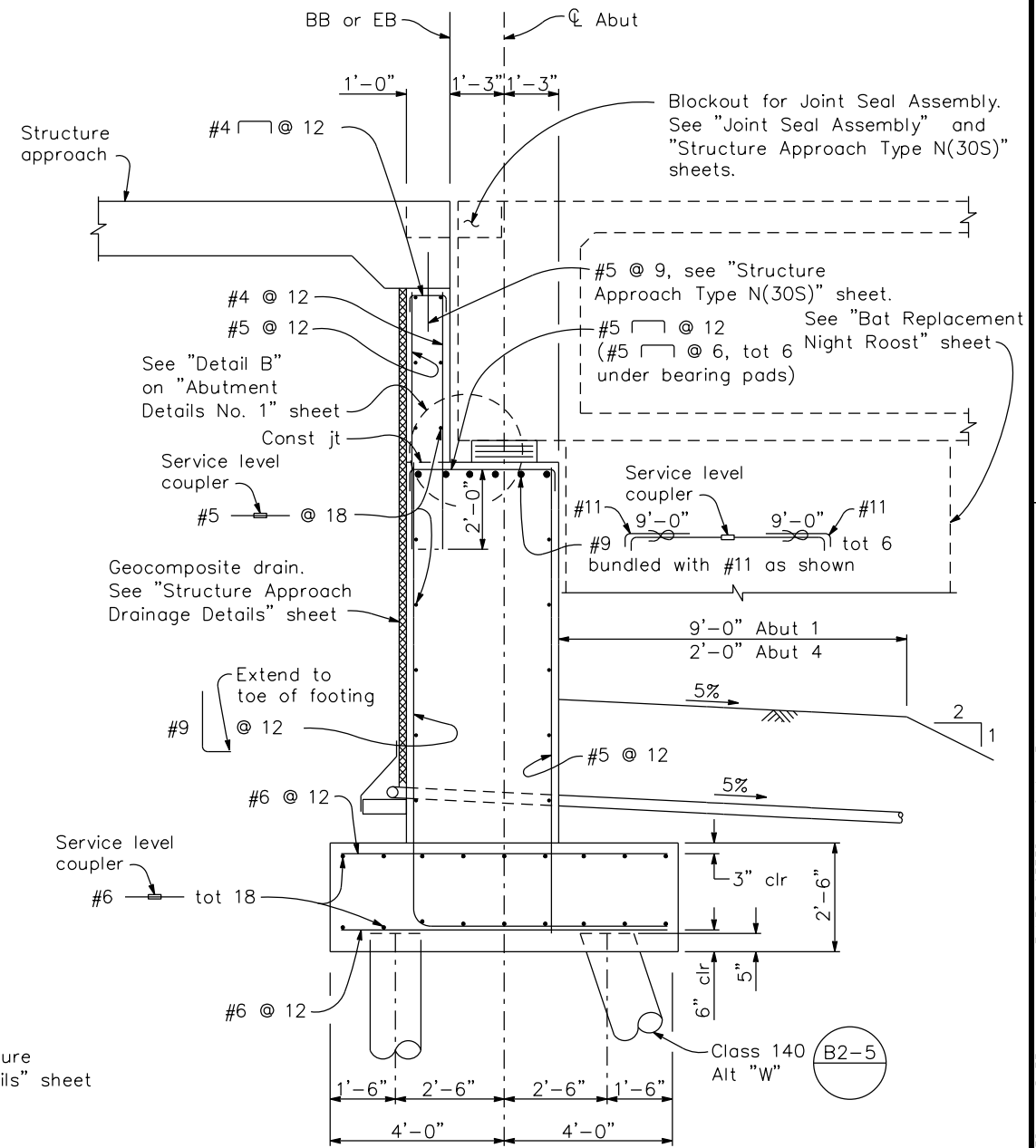
1/4" = 1'-0"

LEGEND

- ⊕ Denotes vertical pile
- ⊕ Denotes 3:1 battered pile

NOTE:

For bearing details, see
"Abutment Details No. 1" sheet.



TYPICAL ABUTMENT SECTION

1/2" = 1'-0"

* Abut 4 similar

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	57	78

REGISTERED STRUCTURAL ENGINEER
3/28/17
DATE
3/28/17
PLANS APPROVAL DATE

ROBERT E. BURNS
No. 6289
Exp. 3-31-18
STRUCTURAL
STATE OF CALIFORNIA

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

PREPARED FOR
STANISLAUS COUNTY

BRIDGE NO.	38C-0003
POST MILES	N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
ABUTMENT 1 LAYOUT

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	58	78

REGISTERED STRUCTURAL ENGINEER

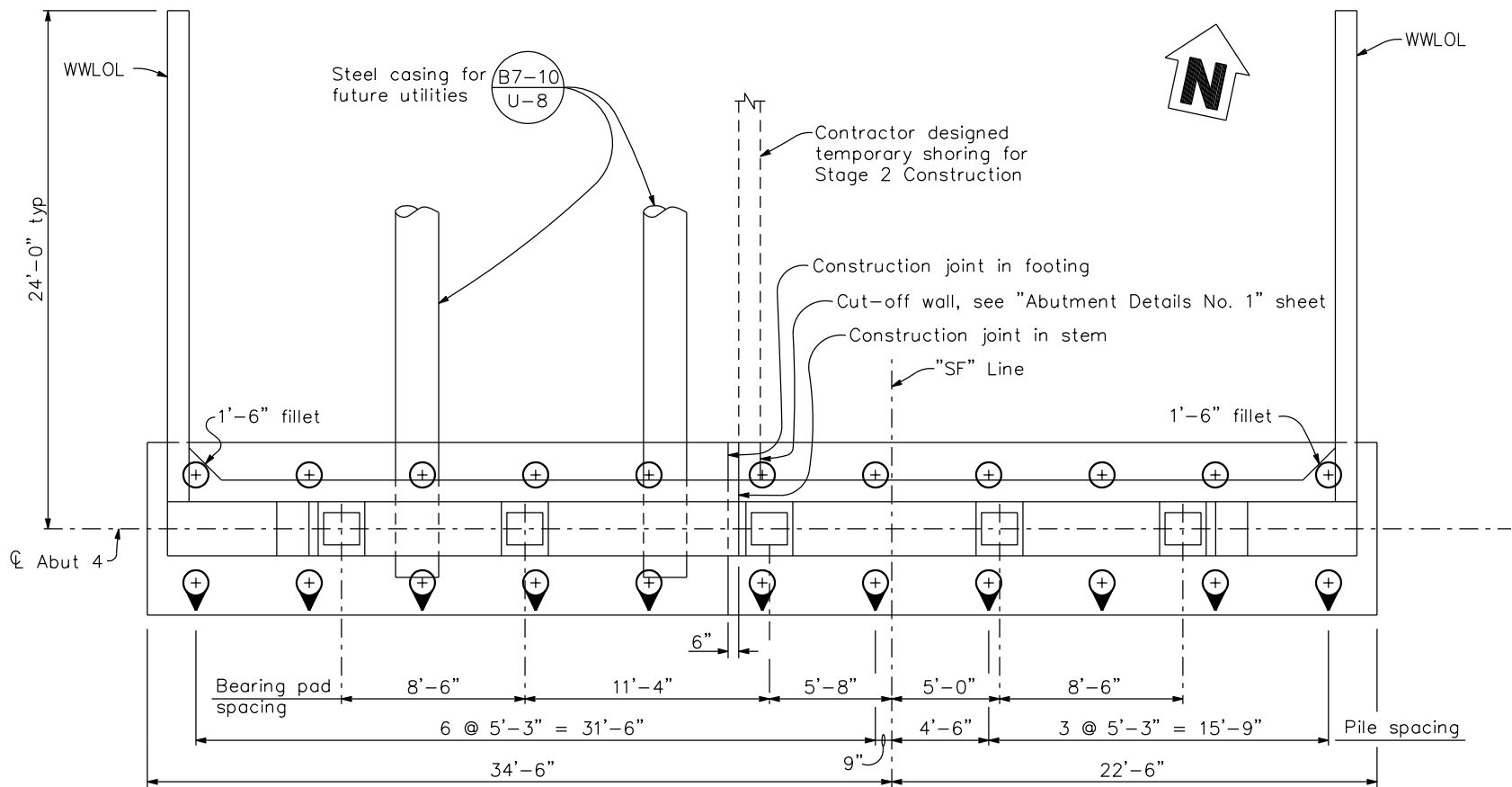
DATE

3/28/17

PLANS APPROVAL

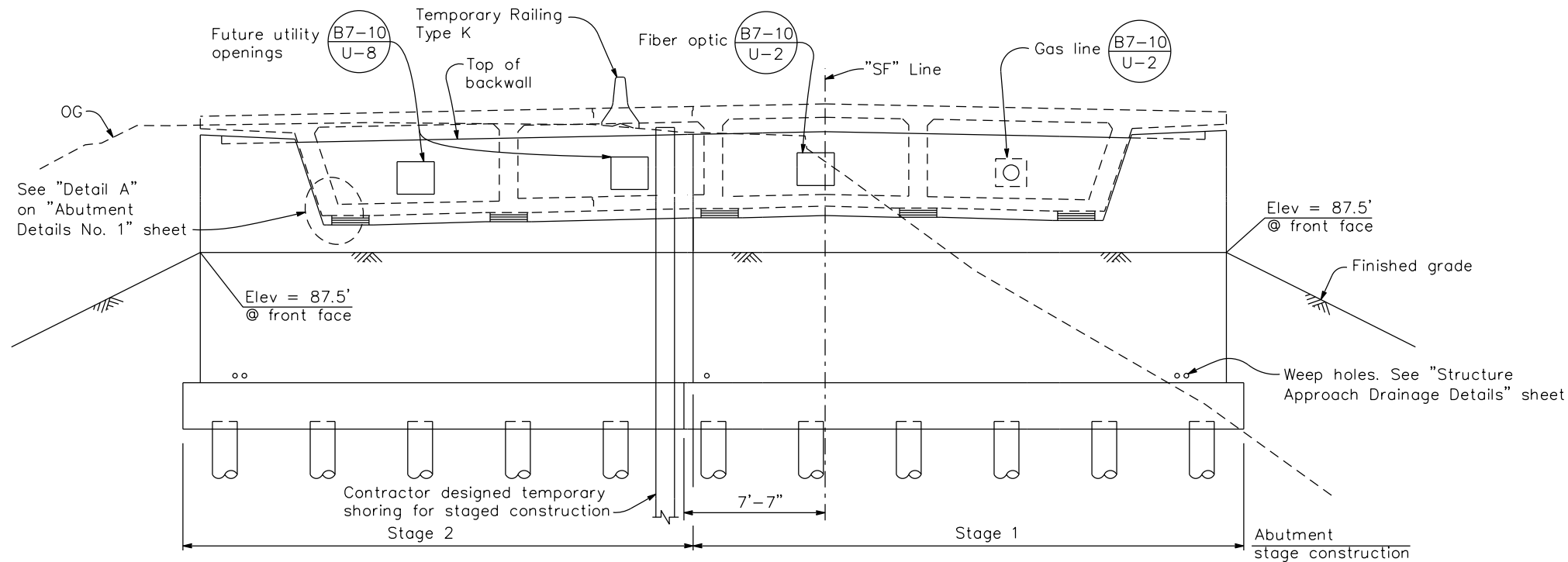
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110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630



ABUTMENT 4 PLAN

1/4" = 1'-0"



ABUTMENT 4 ELEVATION

1/4" = 1'-0"

LEGEND

- ⊕ Denotes vertical pile
- ⊕ Denotes 1:3 batter pile

NOTE:

For bearing details, see
"Abutment Details No. 1" sheet.

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

PREPARED FOR
STANISLAUS COUNTY

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
ABUTMENT 4 LAYOUT

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS

0 1 2 3

UNIT:
PROJECT NUMBER & PHASE:

CONTRACT NO.:

DISREGARD PRINTS BEARING
EARLIER REVISION DATES

REVISION DATES	SHEET	OF
8/28/15	7	27

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	59	78

REGISTERED STRUCTURAL ENGINEER

3/28/17

DATE

3/28/17

PLANS APPROVAL DATE

ROBERT E. BURNS

No. 6289

Exp. 3-31-18

REGISTERED PROFESSIONAL ENGINEER

STRUCTURAL

STATE OF CALIFORNIA

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DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630

BB or EB
Structure approach
3'-0"
#9 @ 6 IF
2-#9
Shear key reinf
Mandatory joint. Surface to be smooth finished
#4 @ 18
2-#4
#4 @ 18 OF
FG
Typical abut reinf

TYPICAL WINGWALL ELEVATION

3/8" = 1'-0"

Barrier not shown
Structure approach
WWL
#9 1 tot 2
#4 @ 18
#9 @ 6 IF
FG
#4 tot 2
1'-0"

SECTION A-A

3/4" = 1'-0"

Level
3"
3"
3"
3"
3"
3"
Abut backwall
Level
Abut
Galv sheet metal
6" x 1'-6" x 1'-8" steel reinforced elastomeric bearing pad

PLAN

0.079" thick galv sheet metal over elastomeric brg pad. Coat top of pad with silicone grease prior to placing galv sheet metal.
3"
Brg pad
3"
Level
Each Direction
6" Expanded Polystyrene
B0-13 13-1

SECTION

BEARING DETAILS

No Scale

1/8" min hardboard B0-13 13-2
2" expanded polystyrene
1'-0" min
1 1/2" expanded polystyrene
Expanded Polystyrene (Match Brg Pad Thickness)
See "Bearing Pad Detail"
1/2" exp jt filler
Abutment seat

DETAIL A

No Scale

Expanded polystyrene
"a" + 1/2"
1'-6"
1/2" exp jt filler
Const jt
Expanded polystyrene match brg pad thickness
B0-13 13-1
For dimension "a" see "Strip Joint Seal Assembly Maximum Movement Rating = 4"" sheet.

DETAIL B

No Scale

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

PREPARED FOR
STANISLAUS COUNTY

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
ABUTMENT DETAILS NO. 1

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS

0 1 2 3

UNIT:
PROJECT NUMBER & PHASE:

CONTRACT NO.:

DISREGARD PRINTS BEARING
EARLIER REVISION DATES

REVISION DATES
8/28/15

SHEET OF
8 27

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DIST10COUNTYS+ROUTECRPOST MILESTOTAL PROJECTN/ASHEET No60TOTAL SHEETS78

REGISTERED STRUCTURAL ENGINEER

3/28/17

DATE

3/28/17

PLANS APPROVAL DATE

ROBERT E. BURNS

No. 6289

Exp. 3-31-18

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DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630

REGISTERED PROFESSIONAL ENGINEER

STATE OF CALIFORNIA

Remove outer 6" of expanded polystyrene after concrete cures

Barrier not shown

#4 tot 5

#5 tot 5

5-#5

Mandatory joint to be smooth finished. level both directions

2-#5 tot 12

Service level coupler

#11 9'-0" 9'-0" #11

6-#9

5'-0"

5-#10 8'-0"

6" 4'-0"

Structure approach

3" bonding on Smooth finish

Alternative 1, temporary bumper with inserts

3" bonding

3" bonding on Smooth finish

Geocomposite drain

Abutment backwall

1" chamfer

1/8" x 12" neoprene strip place prior to backfilling the abutment backwall and installing the temporary bumper. (fold neoprene into chamfer)

JOINT PROTECTION DETAIL

No Scale

Typical wingwall reinf

Edge of footing

#5

#6 @ 6

#5 @ 12 extend to bottom of footing

#6 x 10'-0" @ 6

#4 tot 5

⊘ Brg Abut

5-#5

#5 tot 5

#10 tot 5

Mandatory joint to be smooth finished

Typical abut backwall reinf

SECTION B-B

3/4" = 1'-0"

Typical wingwall reinf

Edge of footing

#5

#6 @ 6

#5 @ 12 extend to bottom of footing

#5 @ 12 extend to bottom of footing

⊘ Brg Abut

#5 extend to bottom of footing

SECTION C-C

3/4" = 1'-0"

#5 tot 4. Extend to bottom of footing

Footing

Typical abutment reinf

#5 @ 12

Stage 1

Stage 2

CUT-OFF WALL

3/4" = 1'-0"

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

PREPARED FOR
STANISLAUS COUNTY

BRIDGE NO.	38C-0003
POST MILES	N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
ABUTMENT DETAILS NO. 2

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS

0 1 2 3

UNIT:
PROJECT NUMBER & PHASE:

CONTRACT NO.:

DISREGARD PRINTS BEARING
EARLIER REVISION DATES

REVISION DATES	SHEET	OF
8/28/15	9	27

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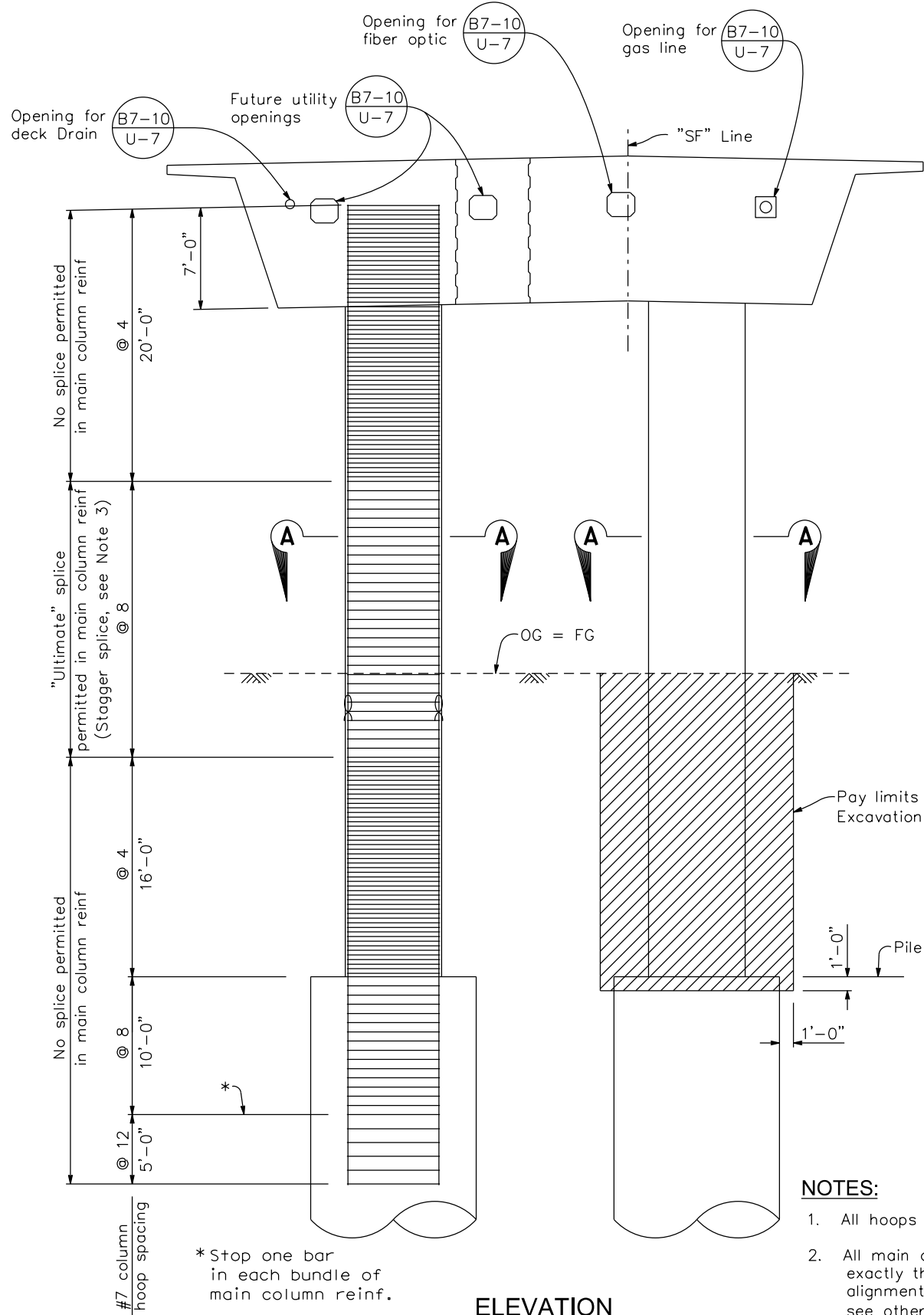
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	61	78

REGISTERED STRUCTURAL ENGINEER
3/28/17
PLANS APPROVAL DATE
DATE

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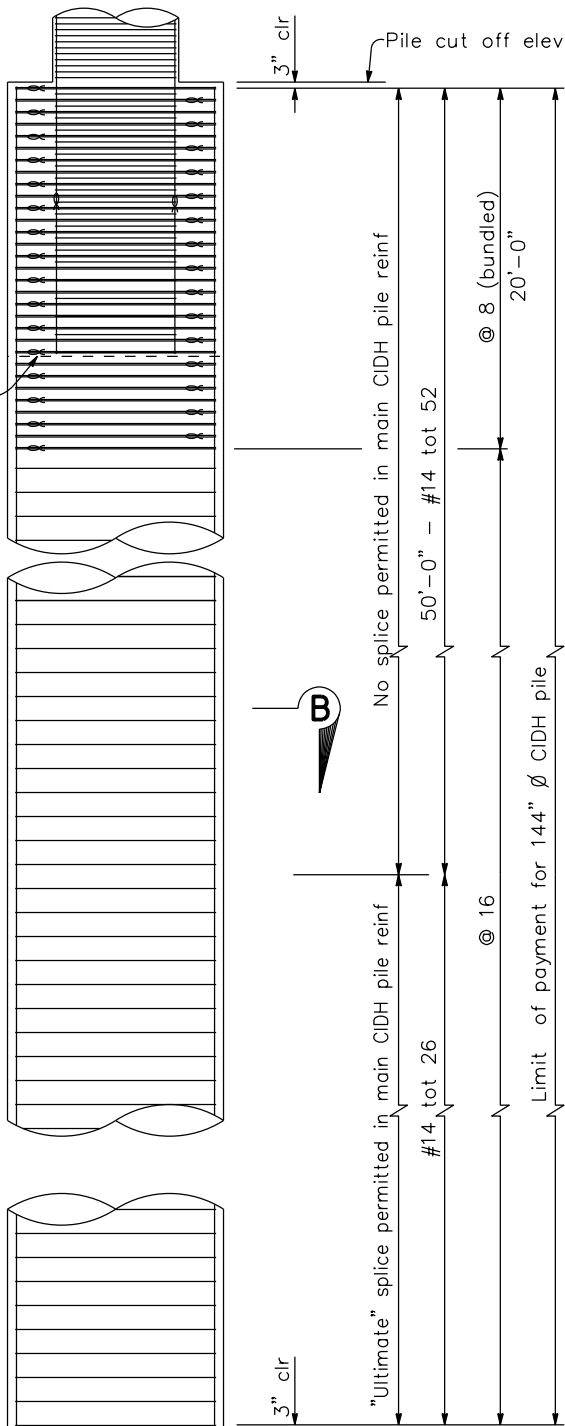
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630



ELEVATION
 $\frac{3}{16}'' = 1'-0''$

Optional const jt, see Note 3

B



CIDH ELEVATION
 $\frac{3}{16}'' = 1'-0''$

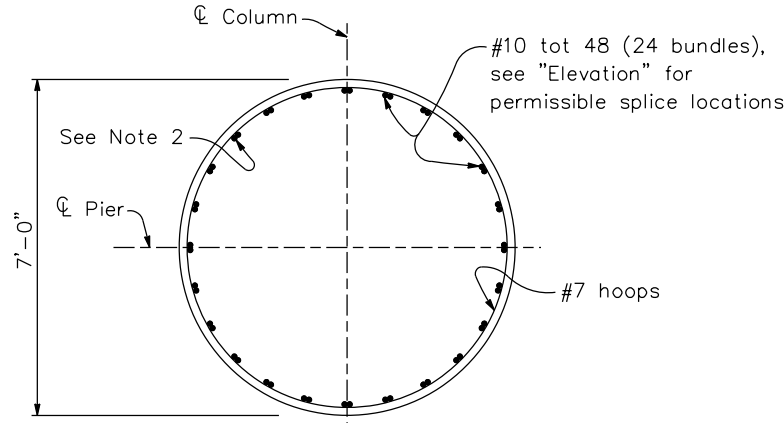
NOTES:

1. All hoops to use ultimate butt splices.
2. All main column reinf must be oriented exactly the same to provide proper alignment for the service splice couplers, see other "Pier Details" sheets.
3. If optional construction joint is not used, main column reinf must be spliced where shown to maintain column alignment.

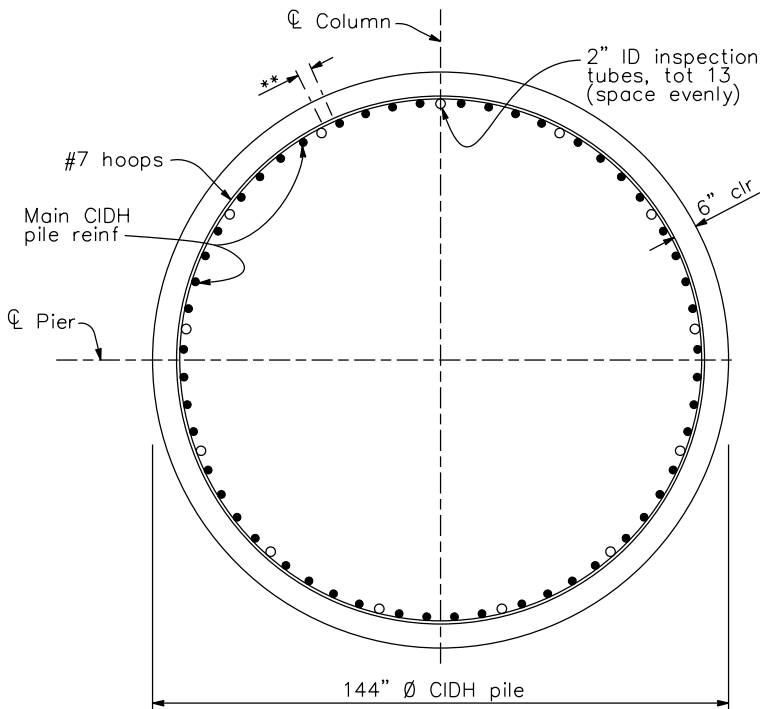
LEGEND

Denotes bundled reinf.

Denotes Structure Excavation (Type D)



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



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

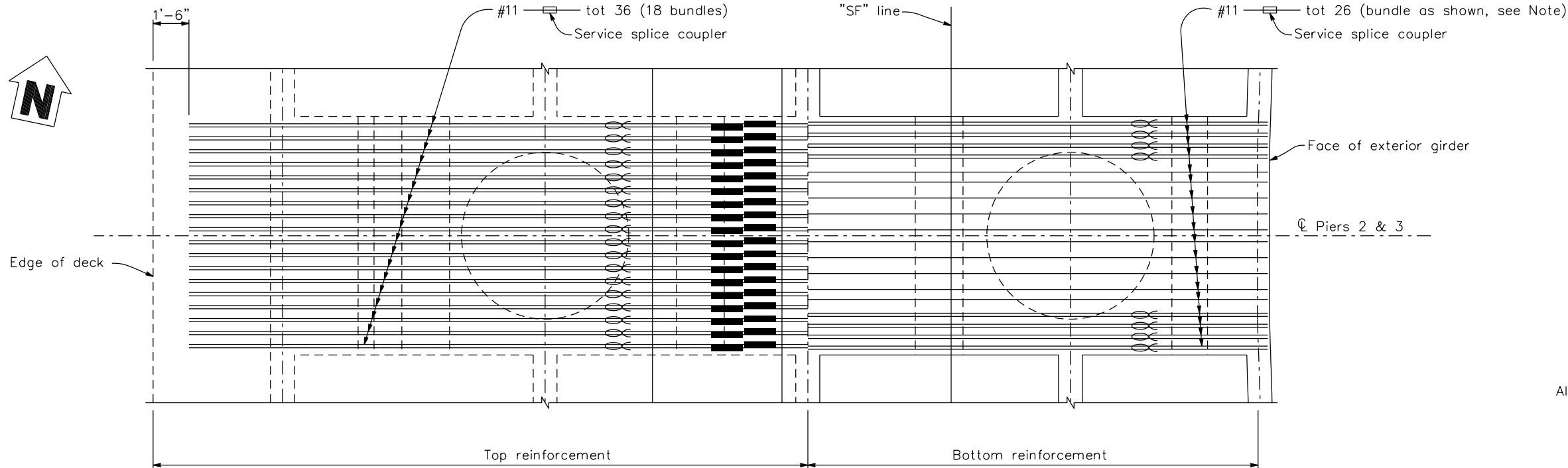
** 3" min clr to inspection tubes, typ.
Adjust spacing in main CIDH pile reinf.

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

PREPARED FOR
STANISLAUS COUNTY

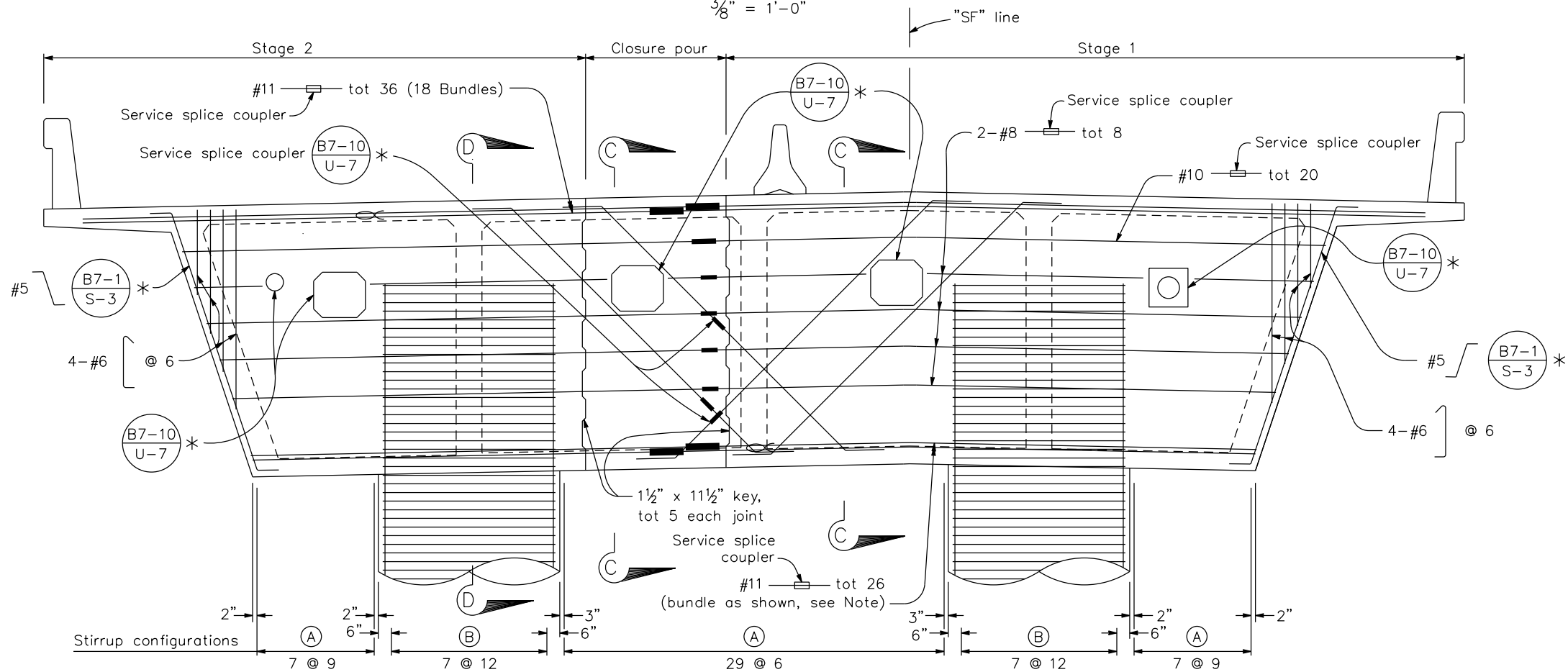
R. BURNS	BRIDGE NO. 38C-0003
PROJECT ENGINEER	POST MILES N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
PIER DETAILS NO. 1



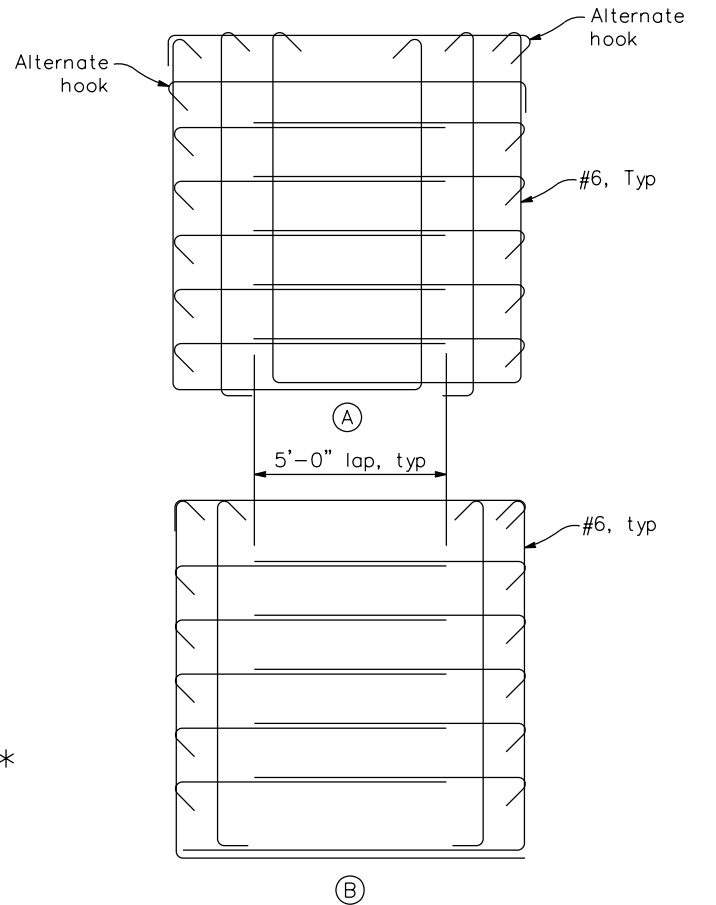
PIER CAP PLAN

3/8" = 1'-0"



PIER CAP ELEVATION

3/8" = 1'-0"



CAP STIRRUP CONFIGURATIONS

NOTE:

For Sections C-C and D-D,
see "Pier Details No. 3" sheet.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	62	78

R. Burns
REGISTERED STRUCTURAL ENGINEER
DATE 3/28/17

3/28/17
PLANS APPROVAL DATE

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DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630

REGISTERED PROFESSIONAL ENGINEER
ROBERT E. BURNS
No. 6289
Exp. 3-31-18
STATE OF CALIFORNIA

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

PREPARED FOR
STANISLAUS COUNTY

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE

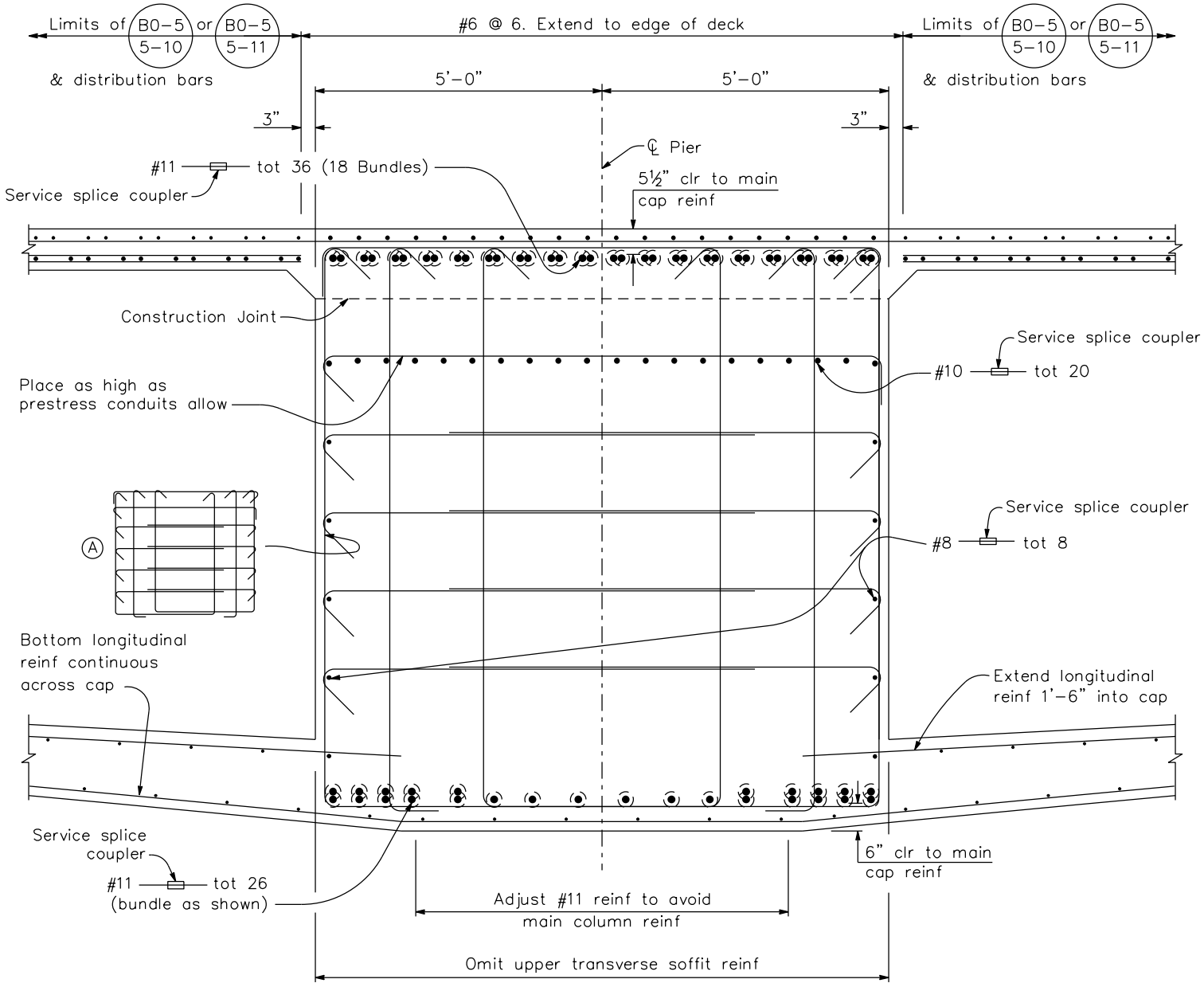
PIER DETAILS NO. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	63	78

REGISTERED STRUCTURAL ENGINEER
3/28/17
PLANS APPROVAL DATE

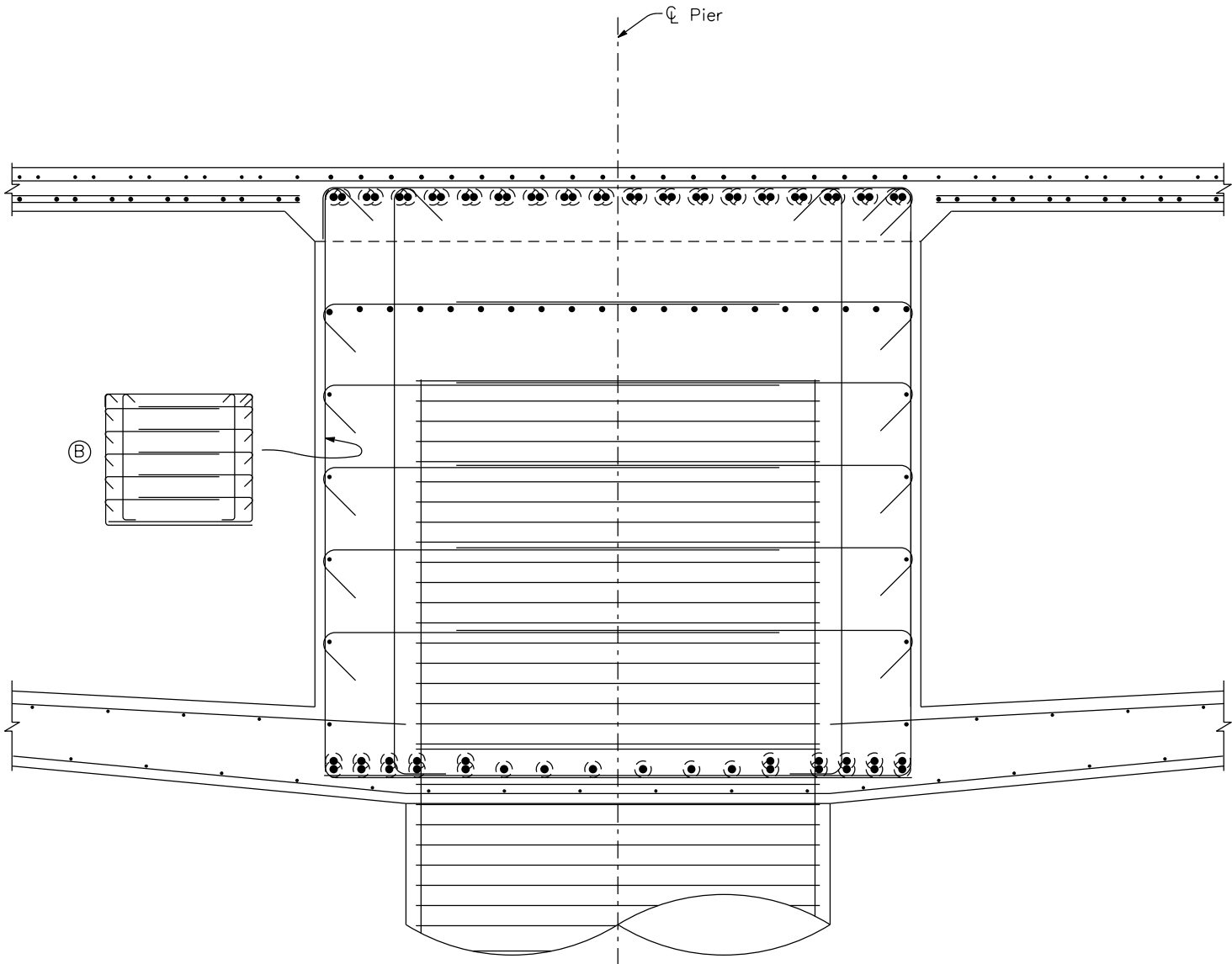
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FOLSOM, CA 95630



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

NOTE:
For location of Sections C-C and D-D and size and spacing of (A) and (B) stirrups, see "Pier Details No. 2" sheet.



SECTION D-D
3/4" = 1'-0"
For details not shown, see "Section C-C".

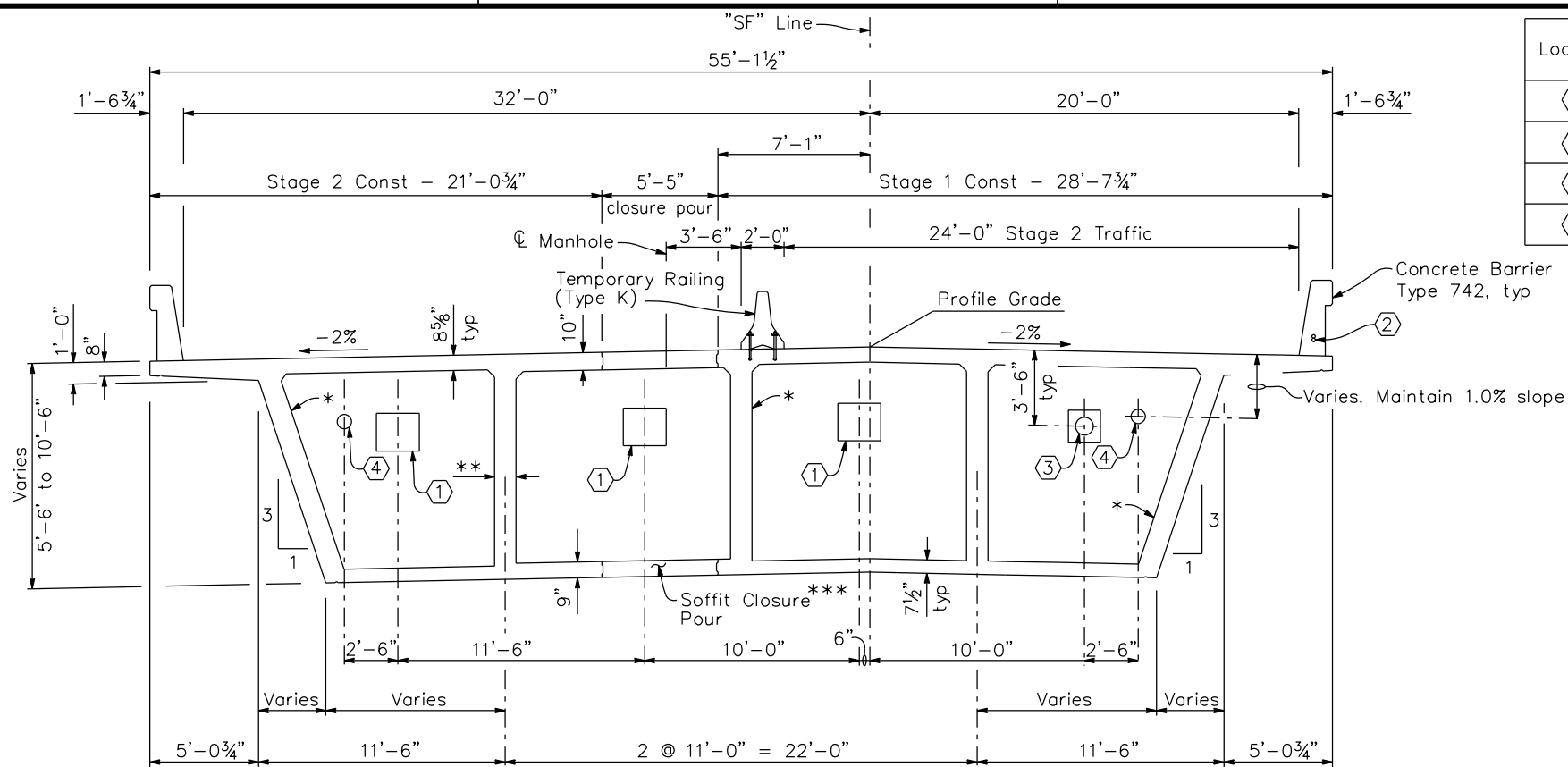
DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

PREPARED FOR
STANISLAUS COUNTY

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
PIER DETAILS NO. 3



FALSEWORK RELEASE

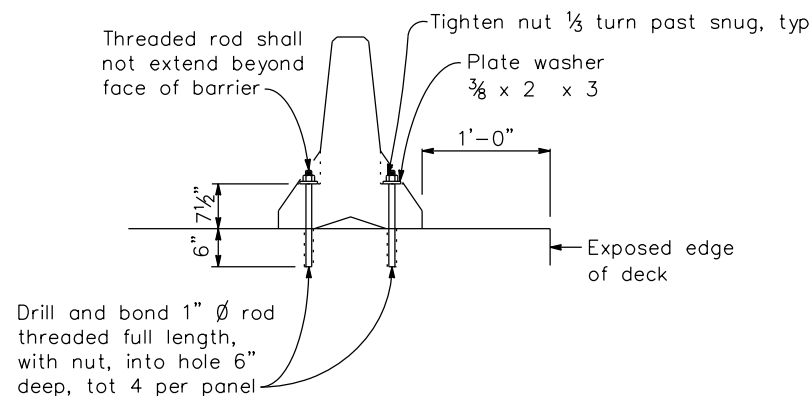
Alternative 1:

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

Alternative 2:

Falsework shall not be released less than 28 days after the last concrete has been placed. Closure pour shall not be placed sooner than 14 days after the falsework has been released.

When Falsework Release Alternative 2 is used, camber values are 0.75 times those shown.



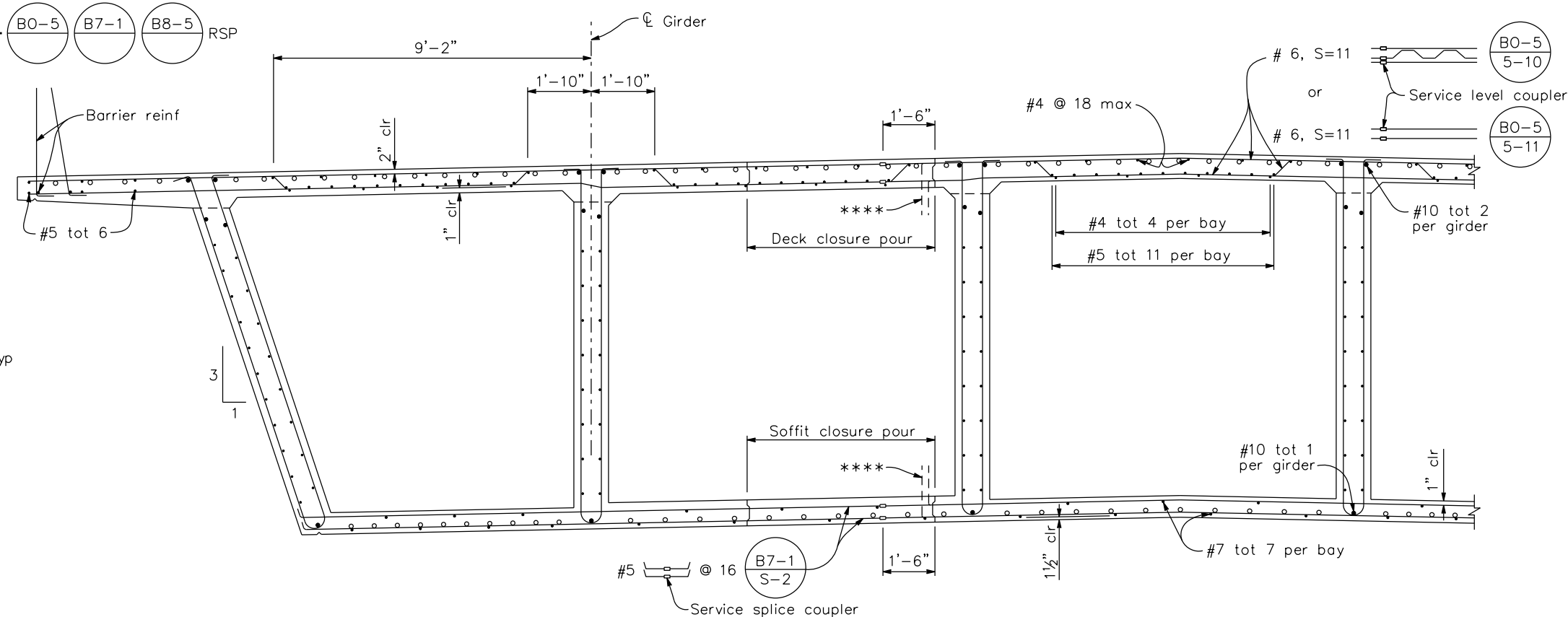
TYPE K RAILING ATTACHMENT DETAILS

No Scale

TYPICAL SECTION

1/4" = 1'-0"

B0-5 B7-1 B8-5 RSP



LEGEND

Denote additional deck and soffit reinforcement, see "Girder Reinforcement" sheet.

PART TYPICAL SECTION

1/2" = 1'-0"

Location	Utility	Owner	Pier cap & diaphragm opening Size
①	Future	Future	2'-0" x 1'-9"
②	Fiber optic line	Charter Communications	2-2" Conduits
③	10" Casing	PG & E	1'-6" x 1'-9"
④	Deck Drain	-	1'-0" Ø

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	64	78

REGISTERED STRUCTURAL ENGINEER

3/28/17

PLANS APPROVAL DATE

3/28/17

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DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630

REGISTERED PROFESSIONAL ENGINEER

ROBERT E. BURNS

No. 6289

Exp. 3-31-18

STATE OF CALIFORNIA

- * Reinf at prestress anchorage shall be the same as exterior girder shown on See "Girder Layout" sheet
- ** 1'-0" typ, except as shown on "Girder Layout" sheet.
- *** Provide soffit opening in closure pour. See "Girder Layout" and "Girder Details" sheets.
- **** At the contractor option, transverse deck & soffit reinf may be temporarily bent to allow for falsework removal

RSP
B8-5

B0-5
5-10
or
B0-5
5-11

PRESTRESSING NOTES

270 KSI low Relaxation Strand:

	Stage 1	Stage 2	Total
Pjack	= 7,380 kips	4,920 kips	12,300 kips
Anchor Set	= $\frac{3}{8}$ "	$\frac{3}{8}$ "	$\frac{3}{8}$ "
Total No of girders	= 3	2	5

Distribution of prestress force (Pjack) between girders shall be equal.

Concrete: $f_c' = 5,000$ psi @ 28 days

$f_{ci} = 3,500$ psi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at $\Delta = 0.906$ times jacking stress.

$\mu = 0.15$ $k = .0002$

Both ends shall be stressed.

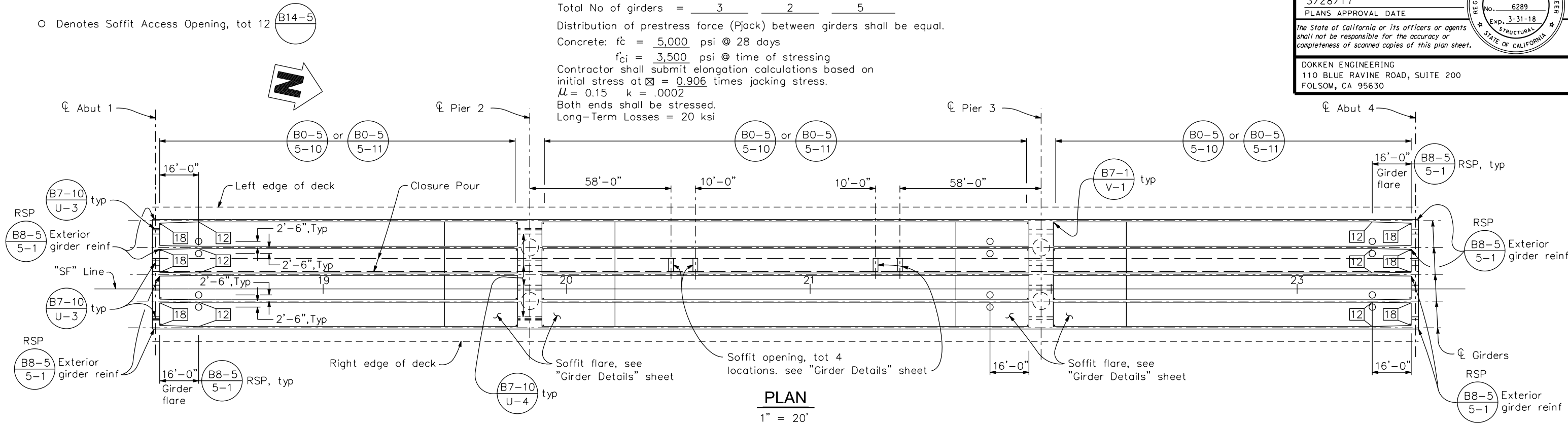
Long-Term Losses = 20 ksi

Notes:

Denotes girder stem width in inches

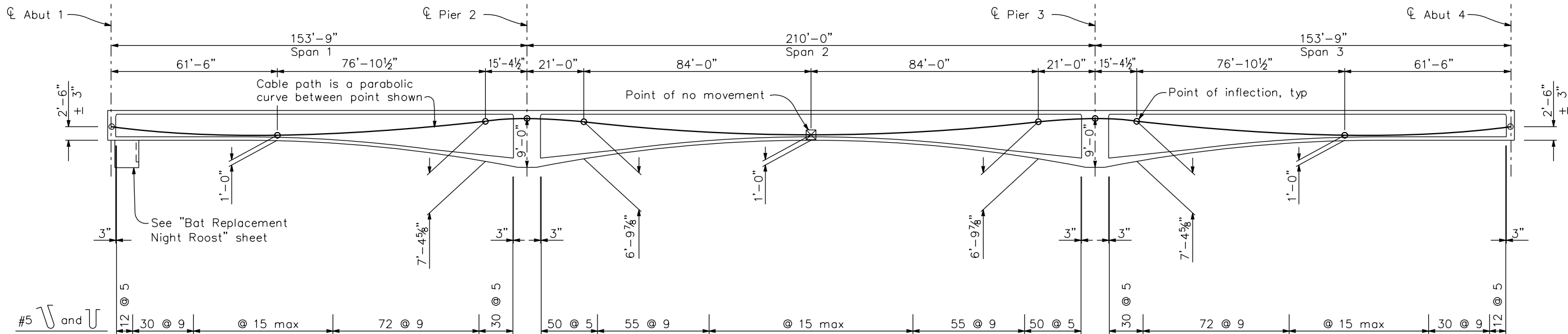
Soffit opening (2'-0" x 5'-5")

Denotes Soffit Access Opening, tot 12



PLAN

1" = 20'



LONGITUDINAL SECTION

Vert Scale : 1" = 10'

Horiz Scale : 1" = 20'

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

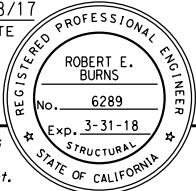
PREPARED FOR
STANISLAUS COUNTY

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
GIRDER LAYOUT

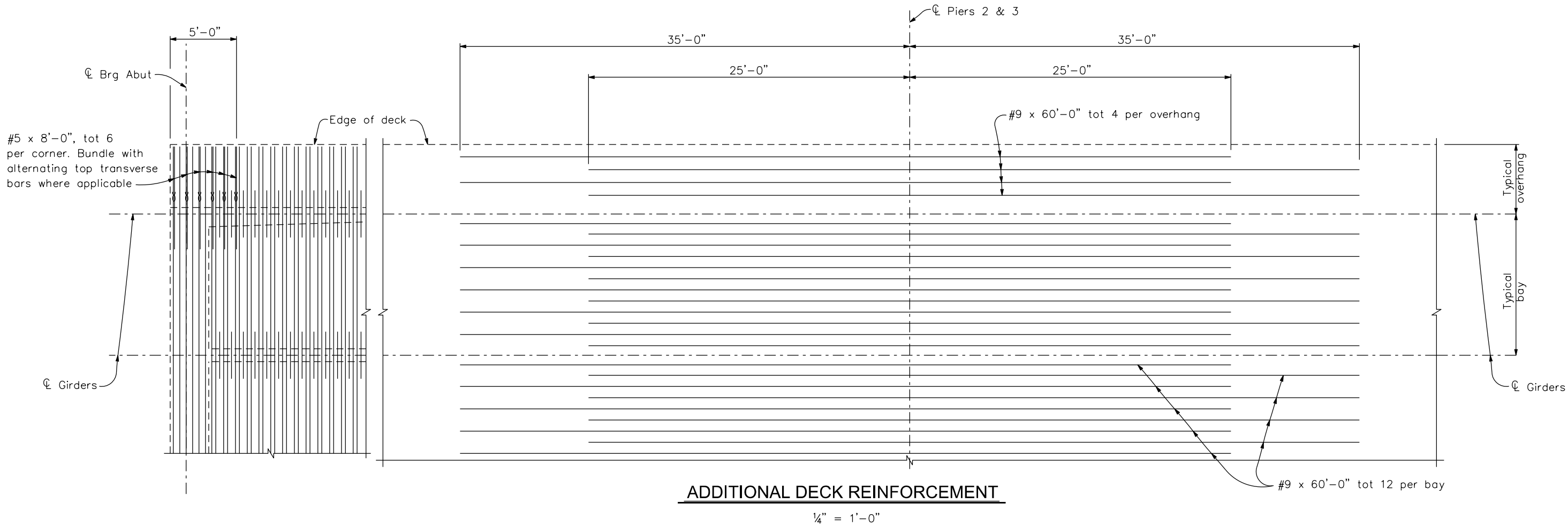
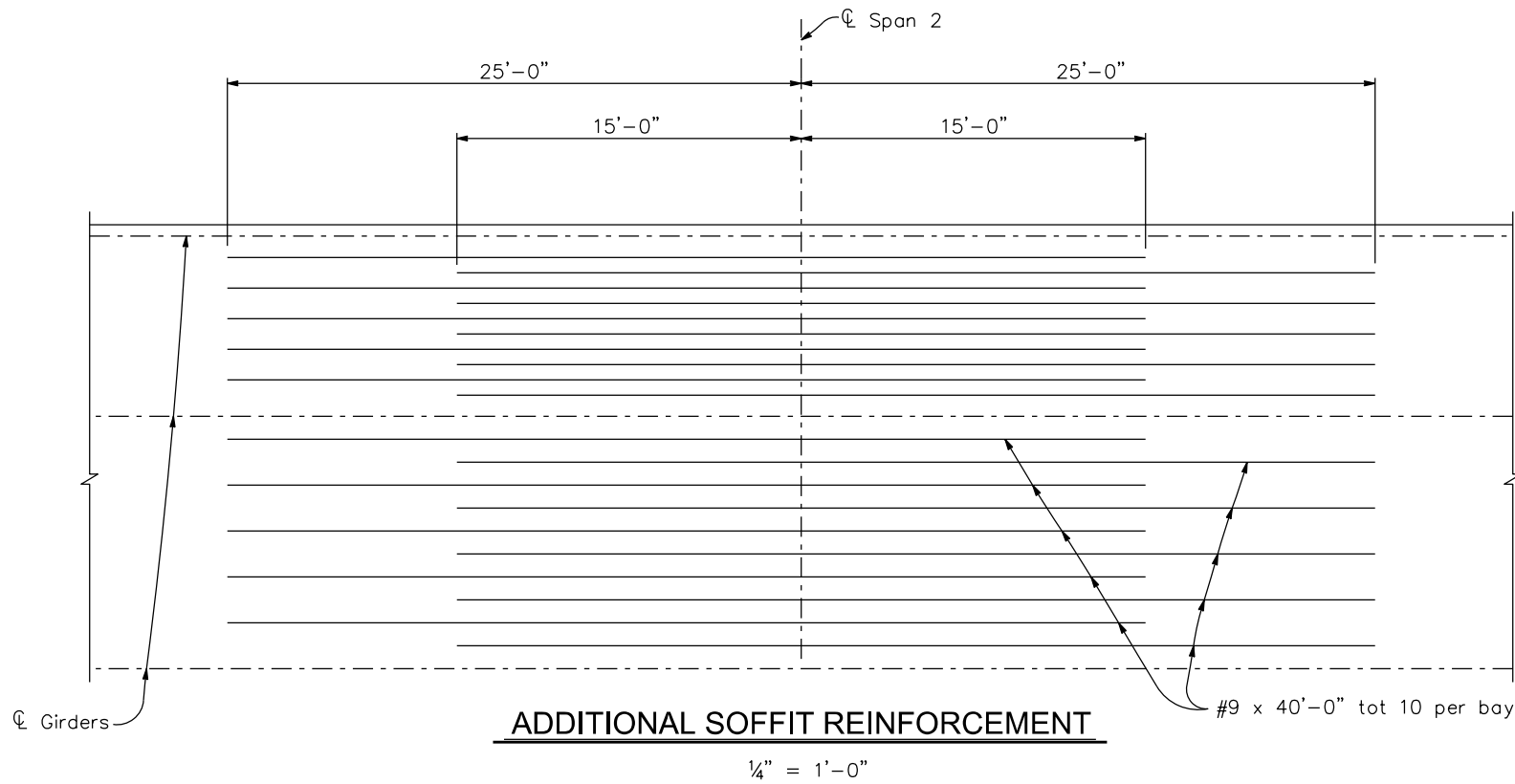
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	67	78



3/28/17
REGISTERED STRUCTURAL ENGINEER DATE
3/28/17
PLANS APPROVAL DATE

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DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630



		DESIGN	BY R. BURNS	CHECKED MAI / KG	PREPARED FOR STANISLAUS COUNTY	R. BURNS PROJECT ENGINEER	BRIDGE NO. 38C-0003	TUOLUMNE RIVER BRIDGE AT SANTA FE AVE							
		DETAILS	BY K. DANG	CHECKED MAI / KG			POST MILES N/A								
		QUANTITIES	BY R. BURNS	CHECKED MAI / KG			GIRDER REINFORCEMENT								
DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: PROJECT NUMBER & PHASE:	CONTRACT NO.:	DISREGARD PRINTS BEARING EARLIER REVISION DATES	8/28/15				SHEET 16	OF 27
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DATE PLOTTED => 9:41:22 AM USERNAME => rob

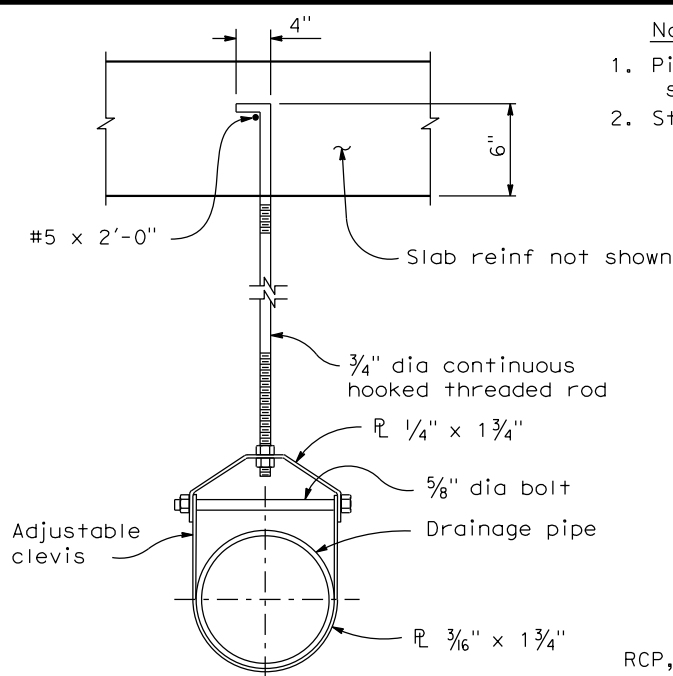
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	68	78

3/28/17
REGISTERED STRUCTURAL ENGINEER DATE

3/28/17
PLANS APPROVAL DATE

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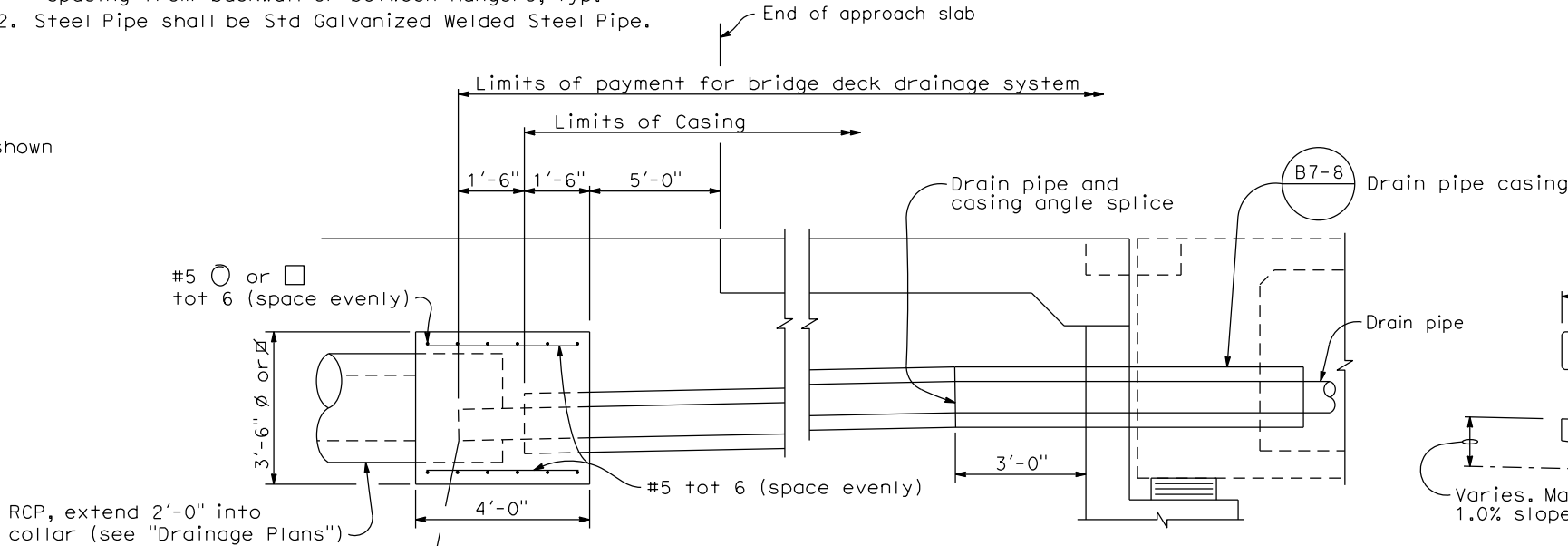
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630



DRAINAGE PIPE SUPPORT

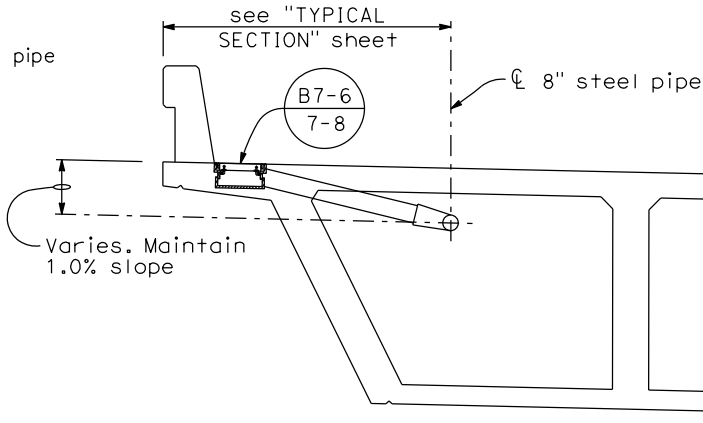
No Scale
(All Components shall be Galvanized)

- Notes:
- Pipe hangers to be provided at 12' max spacing from backwall or between hangers, typ.
 - Steel Pipe shall be Std Galvanized Welded Steel Pipe.



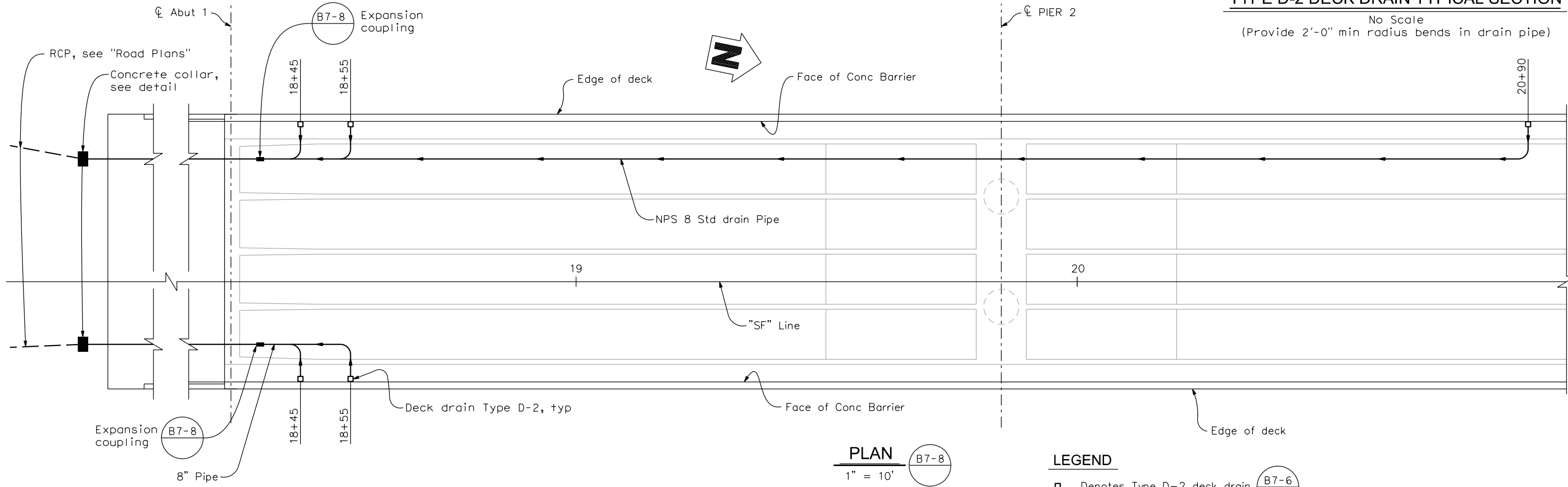
CONCRETE COLLAR AND DRAINAGE PROFILE

No Scale



TYPE D-2 DECK DRAIN TYPICAL SECTION

No Scale
(Provide 2'-0" min radius bends in drain pipe)



PLAN

1" = 10'

B7-8

LEGEND

□ Denotes Type D-2 deck drain

B7-6

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

**PREPARED FOR
STANISLAUS COUNTY**

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

**TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
DECK DRAINAGE LAYOUT**

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS

0 1 2 3

UNIT:
PROJECT NUMBER & PHASE:

CONTRACT NO.:

DISREGARD PRINTS BEARING
EARLIER REVISION DATES

REVISION DATES

8/28/15

SHEET

17

OF

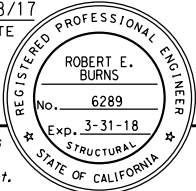
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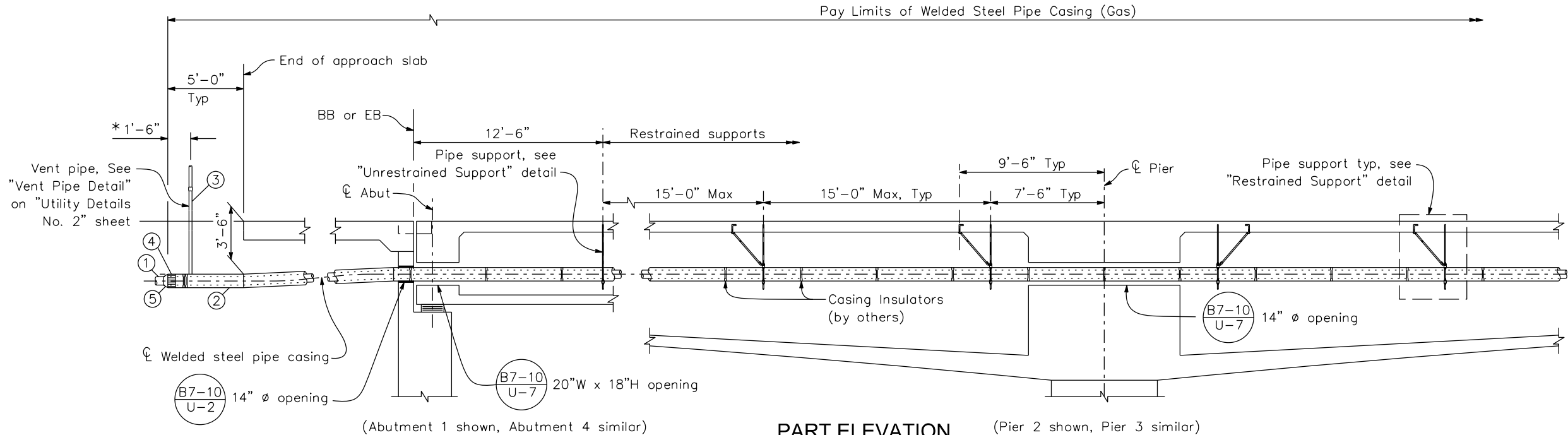
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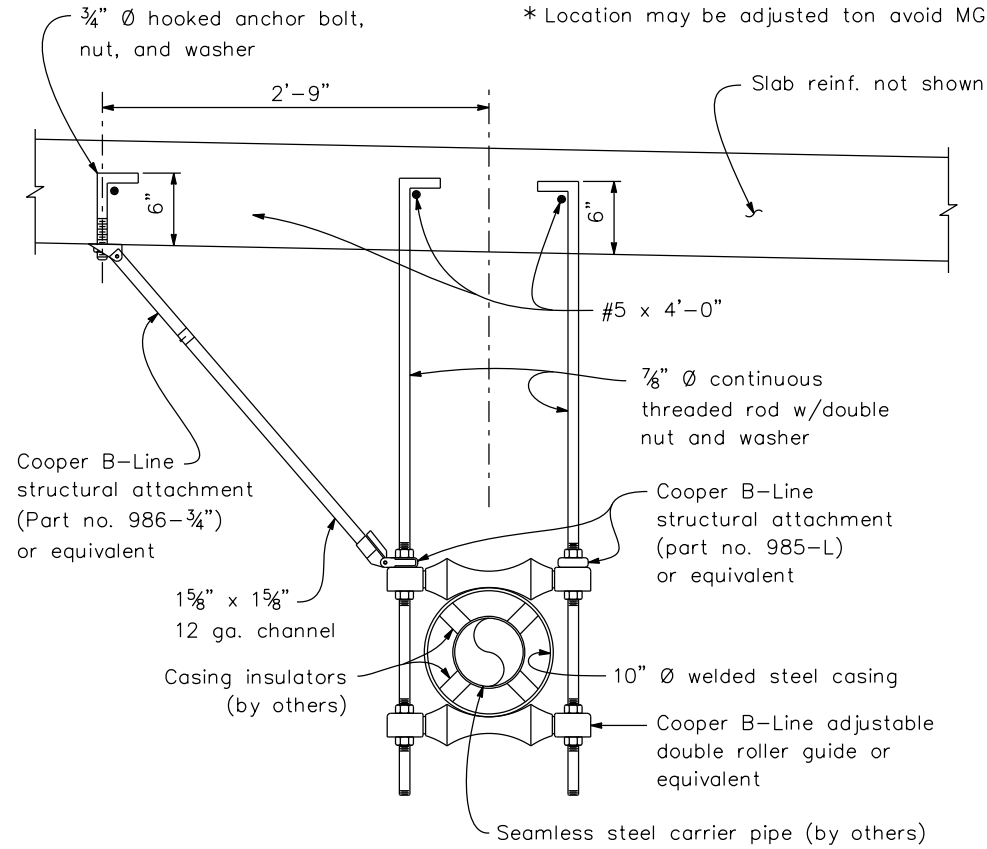


3/28/17
REGISTERED STRUCTURAL ENGINEER
DATE
3/28/17
PLANS APPROVAL DATE
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110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630



PART ELEVATION

1/4" = 1'-0"

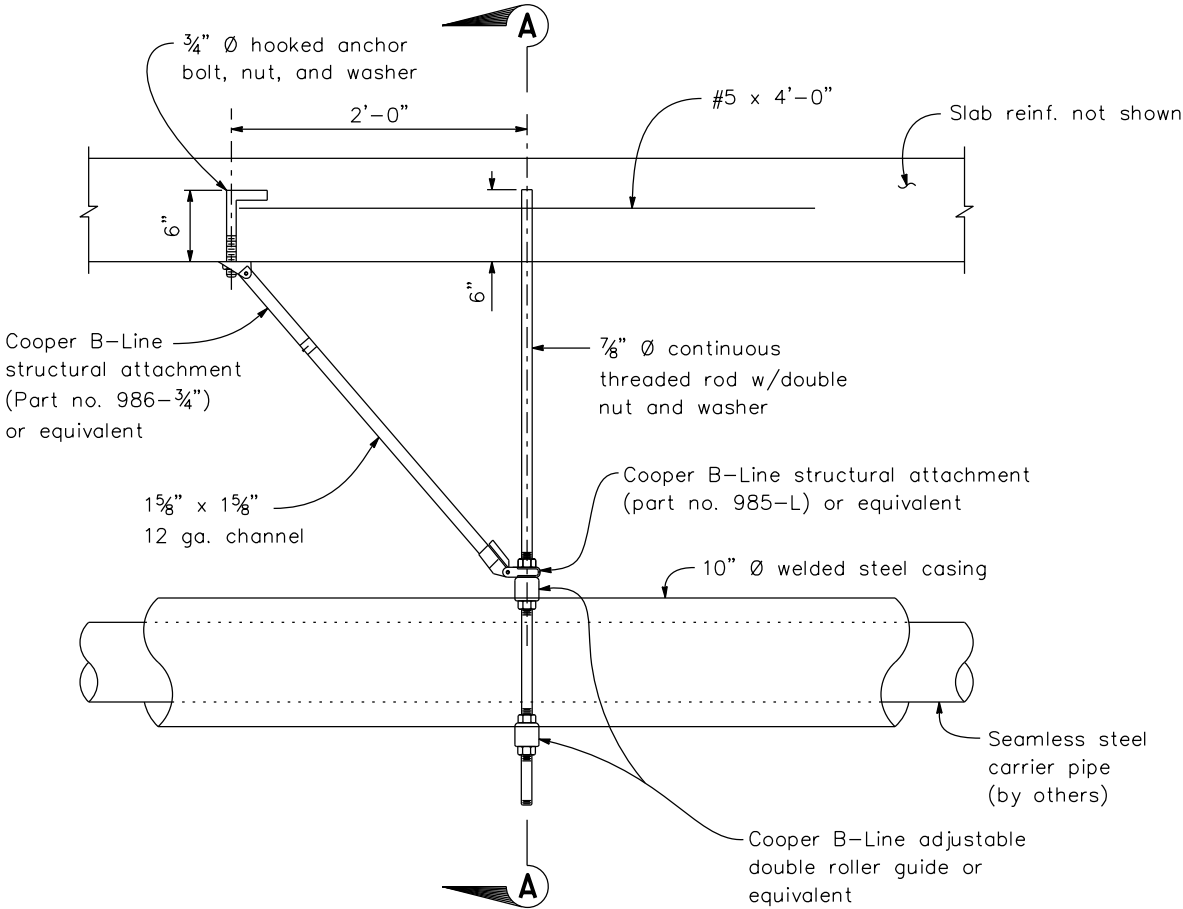


SECTION A-A

1 1/2" = 1'-0"

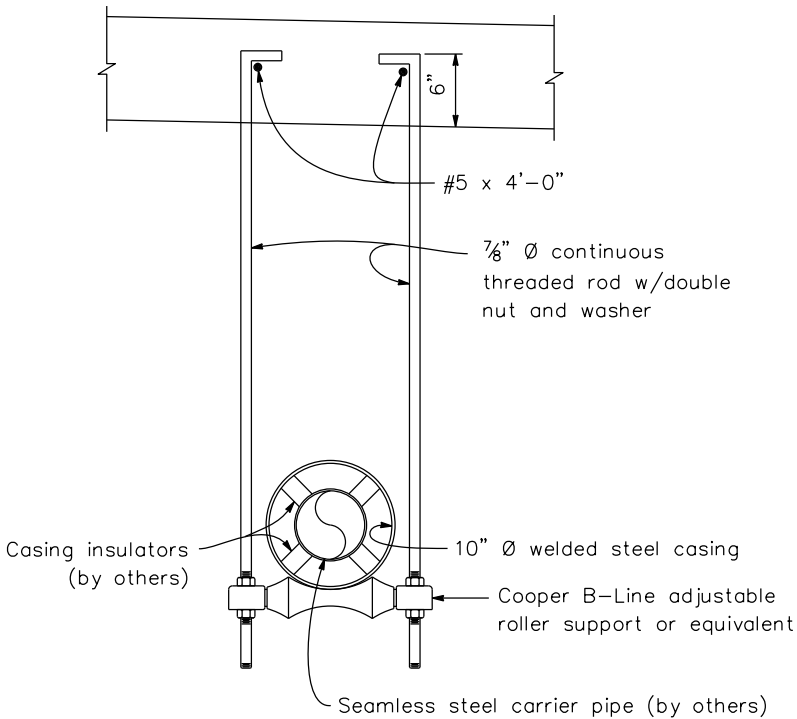
NOTE:

1. All steel components, hardware, casings, and conduits must be galvanized



RESTRAINED SUPPORT

1 1/2" = 1'-0"



UNRESTRAINED SUPPORT

1 1/2" = 1'-0"

DESIGN	BY R. BURNS	CHECKED F. ENRIQUEZ
DETAILS	BY K. DANG	CHECKED F. ENRIQUEZ
QUANTITIES	BY R. BURNS	CHECKED F. ENRIQUEZ

PREPARED FOR
STANISLAUS COUNTY

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
UTILITY DETAILS NO. 1

Robert E. Burns
REGISTERED STRUCTURAL ENGINEER

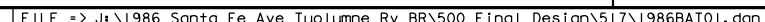
3/28/17
DATE

3/28/17
PLANS APPROVAL DATE

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FOLSOM, CA 95630

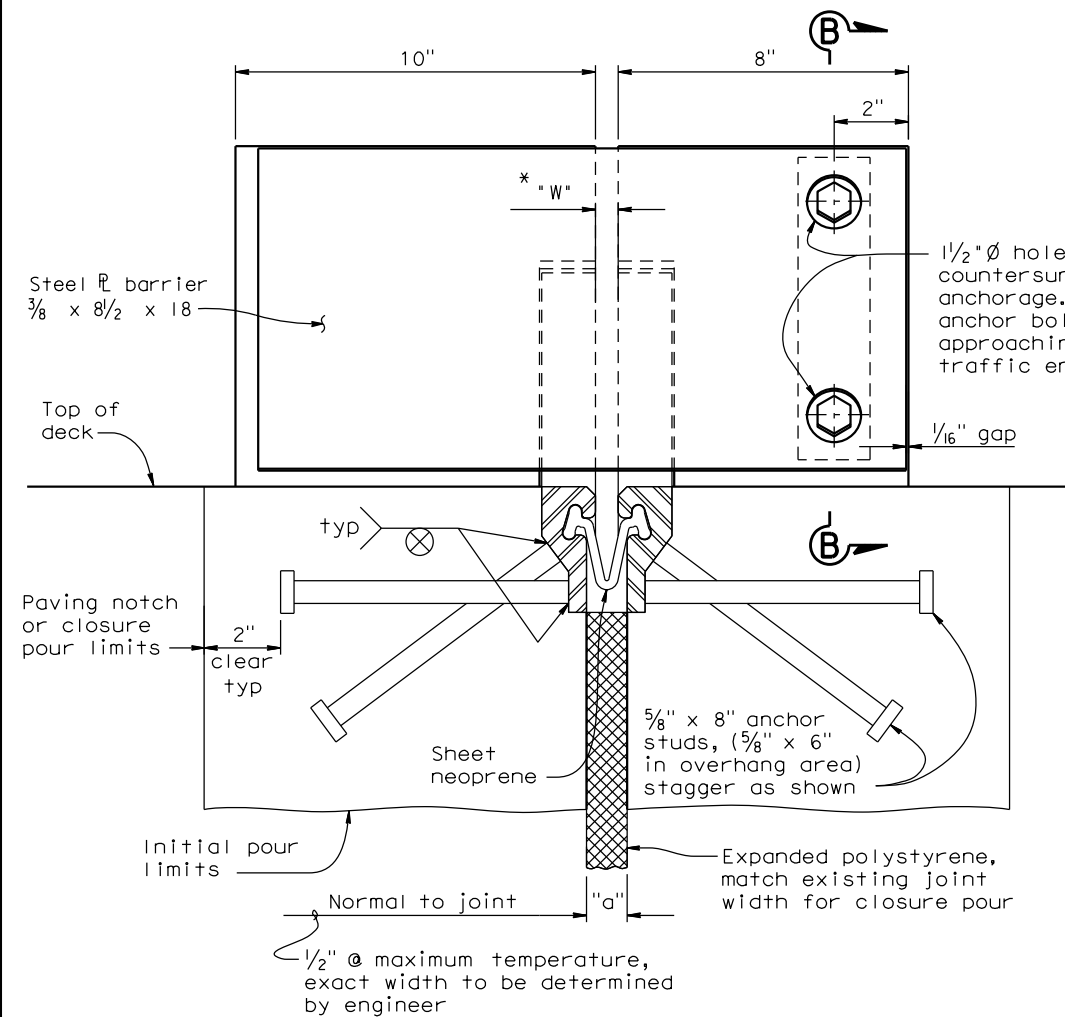
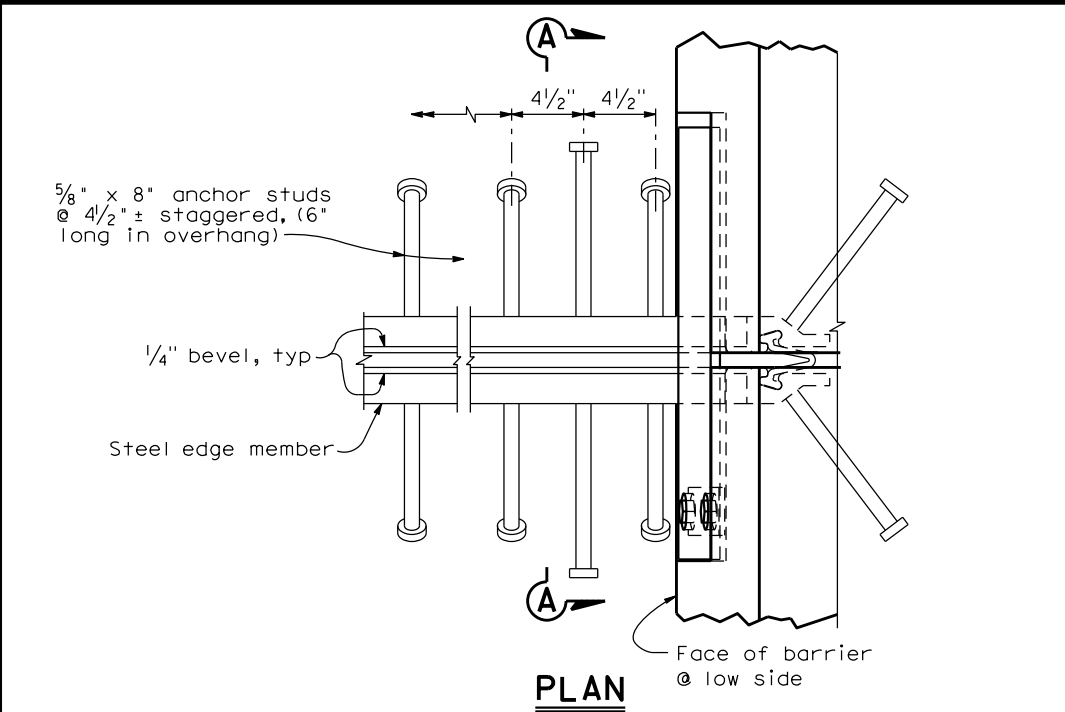
REGISTERED PROFESSIONAL ENGINEER
ROBERT E. BURNS
No. 6289
Exp. 3-31-18
STRUCTURAL
STATE OF CALIFORNIA



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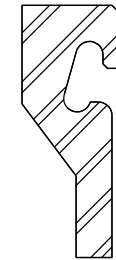
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SECTION A-A

JOINT INFORMATION			"a" DIMENSIONS		
Location	Movement Rating (MR)	Skew	Winter	Spring & fall	Summer
Abut 1	4"	0°	2 1/2"	2"	1 1/2"
Abut 4	4"	0°	2 1/2"	2"	1 1/2"



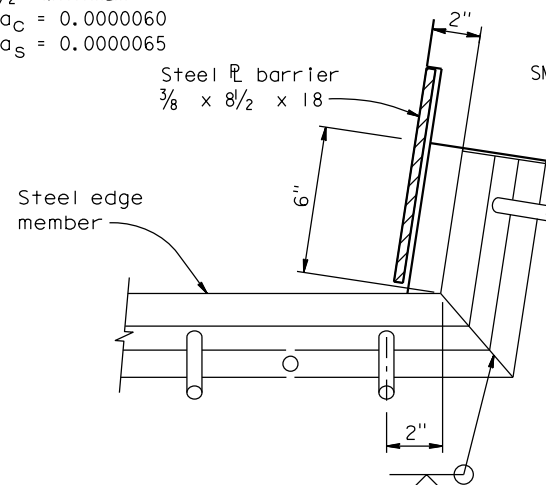
SCHEMATIC STEEL EDGE MEMBER

NOTES:

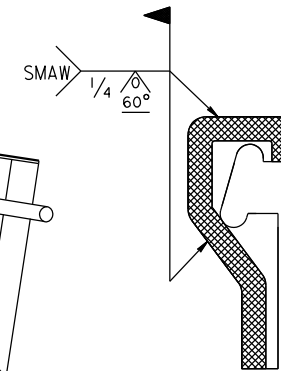
- Alternatively, fillet or complete penetration welds may be used at anchor studs.
- Alternate types of anchor studs may be permitted subject to the authorization by the Engineer.
- Joint seal assembly to be used in conjunction with closure pour. (See other sheets for limits). Closure pour shall not be placed until final deck surface is within the tolerances specified.
- Use joint at crown of roadway, at any change in traverse slope in deck and at changes in horizontal direction. Place other joints at or near lanes. All metal parts to be painted or galvanized after fabrication.
- Sheet Neoprene shall be fabricated in one continuous piece and shall be fabricated to bend around corners. Field splices of the neoprene are not allowed.
- Insert assembly or expansion anchorage for 5/8" x 1 3/4" bolts. Use installation bolts extended 1/2" minimum past nut and coat with bond breaker, after concrete has cured, remove installation bolts, install HS bolts and sheet neoprene.
- a_c , a_s , are the thermal expansion coefficients for concrete and steel respectively.
- Anchor studs shall conform to ASTM 108.

* To set minimum joint opening "W"

$$*W = \begin{cases} \frac{1}{2} * [(\text{Max Str temperature in } ^\circ\text{F}) - (\text{actual Str temperature in } ^\circ\text{F})] * (a_c \text{ or } a_s) (12) (\text{contributory L in feet}) \\ \frac{1}{2} \text{ " Minimum} \\ a_c = 0.0000060 \\ a_s = 0.0000065 \end{cases}$$

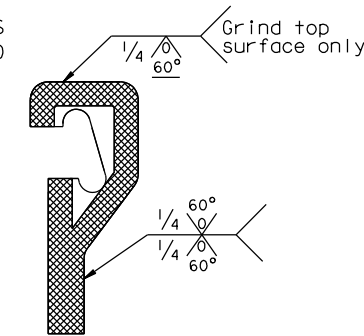


BARRIER DETAIL

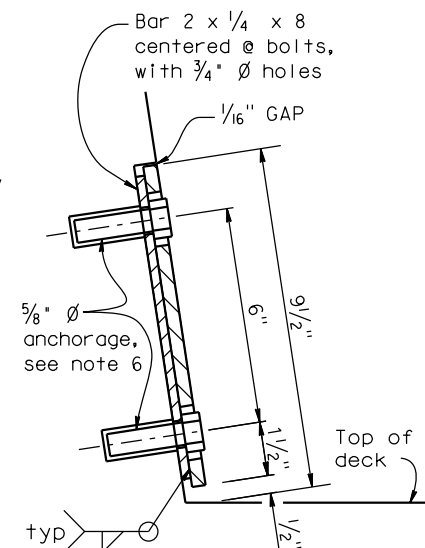


SCHEMATIC FIELD WELD DETAIL

NOTE:
SHADED AREAS
TO BE WELDED



SCHEMATIC SHOP WELD DETAIL



SECTION B-B

NO SCALE

SANTA FE AVE BRIDGE AT TUOLUMNE RIVER

STRIP JOINT SEAL ASSEMBLY

MAXIMUM MOVEMENT RATING = 4"

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

**PREPARED FOR
STANISLAUS COUNTY**

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

UNIT:
PROJECT NUMBER & PHASE:

CONTRACT NO.:

DISREGARD PRINTS BEARING
EARLIER REVISION DATES

REVISION DATES		SHEET	OF
8/28/15		21	27

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DIST10COUNTYS+ROUTECRPOST MILESTOTAL PROJECTN/A

SHEET No73TOTAL SHEETS78

REGISTERED STRUCTURAL ENGINEER

3/28/17

DATE

3/28/17

PLANS APPROVAL DATE

ROBERT E. BURNS

No. 6289

Exp. 3-31-18

REGISTERED PROFESSIONAL ENGINEER

STRUCTURAL

STATE OF CALIFORNIA

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DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630

NOTES:

1. For drainage details, see "STRUCTURE APPROACH DRAINAGE DETAILS" sheet.
2. Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines
3. For joint protection details, blackout dimensions for joint seal assembly, and other details not shown, see other plan sheets. Haunch reinforcement placed for joint seal assembly blackout must be normal to BB or EB and spaced to avoid joint seal assembly anchorage.

Remove all polystyrene

DESIGN	BY R. BURNS	CHECKED MAI / KG	PREPARED FOR STANISLAUS COUNTY	R. BURNS PROJECT ENGINEER	BRIDGE NO. 38C-0003	TUOLUMNE RIVER BRIDGE AT SANTA FE AVE STRUCTURE APPROACH TYPE N(30S)
DETAILS	BY K. DANG	CHECKED MAI / KG			POST MILES N/A	
QUANTITIES	BY R. BURNS	CHECKED MAI / KG				

DESIGN DETAIL SHEET (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

UNIT: PROJECT NUMBER & PHASE: CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES

8/28/15

REVISION DATES

SHEET 22 OF 27

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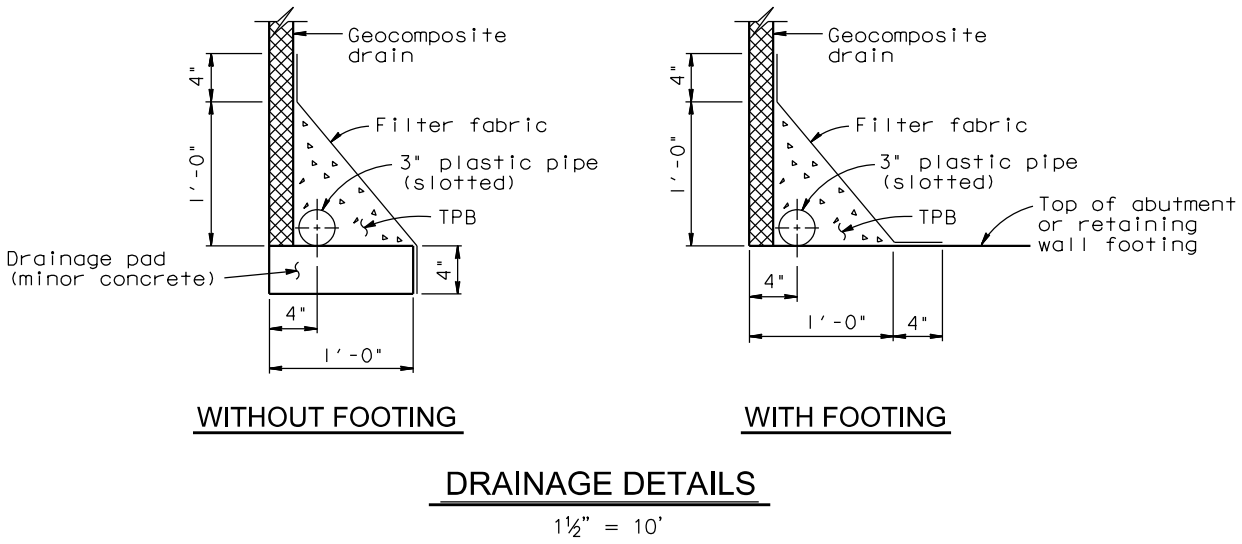
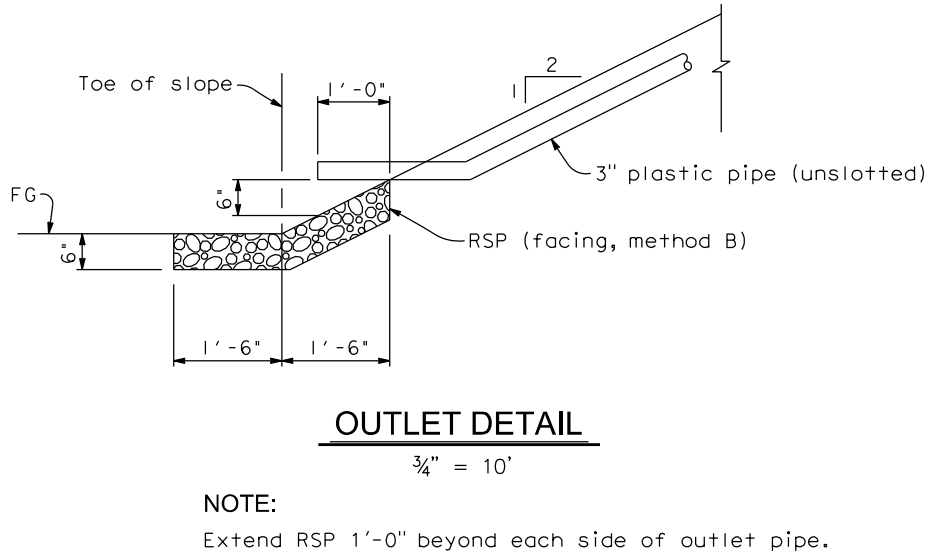
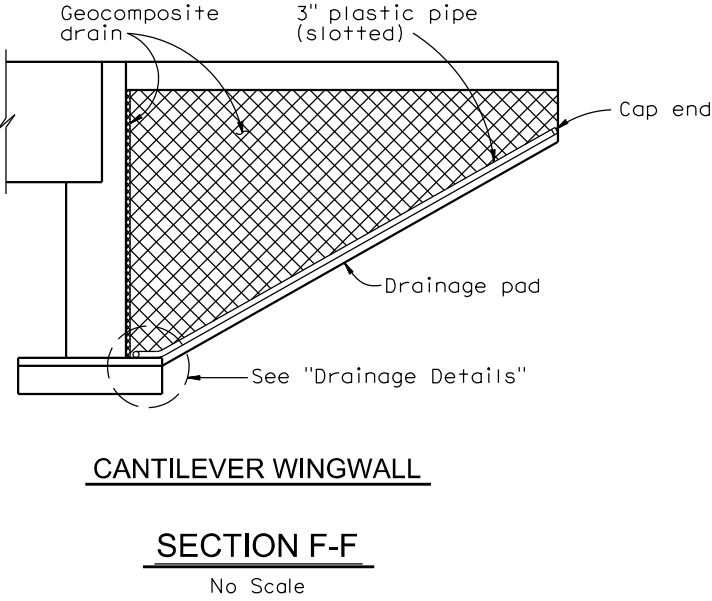
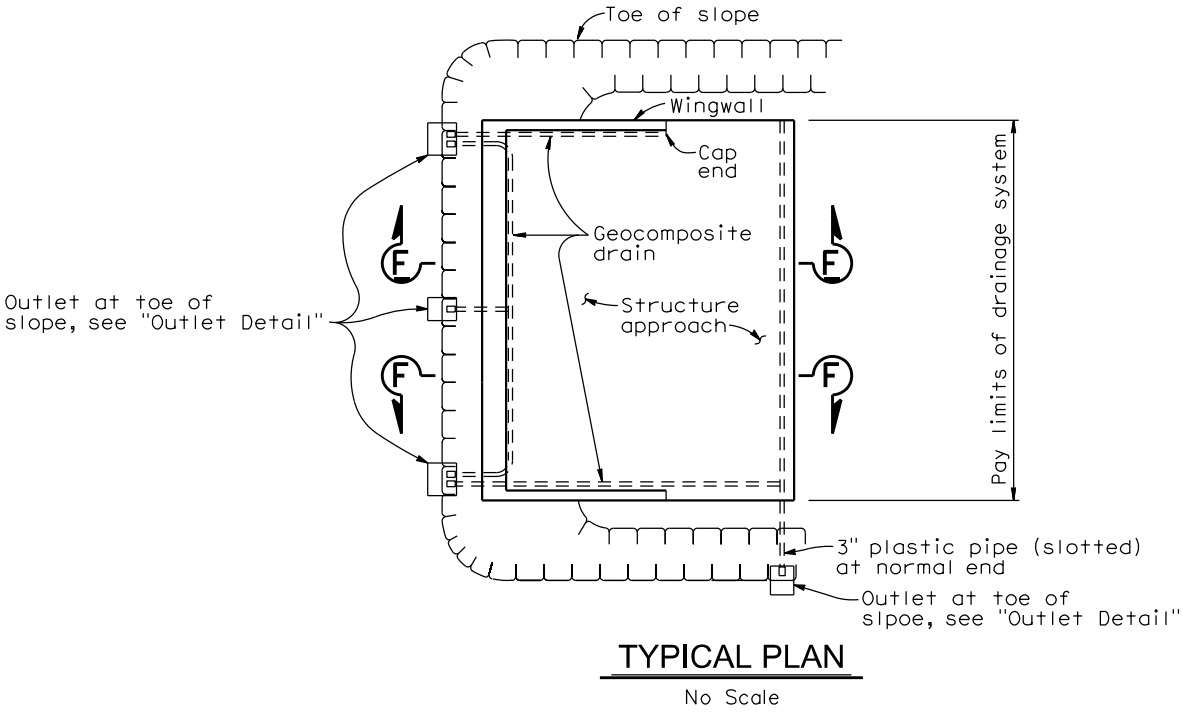
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	S+a	CR	N/A	74	78

REGISTERED STRUCTURAL ENGINEER
DATE 3/28/17
PLANS APPROVAL DATE 3/28/17

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DOKKEN ENGINEERING
110 BLUE RAVINE ROAD, SUITE 200
FOLSOM, CA 95630



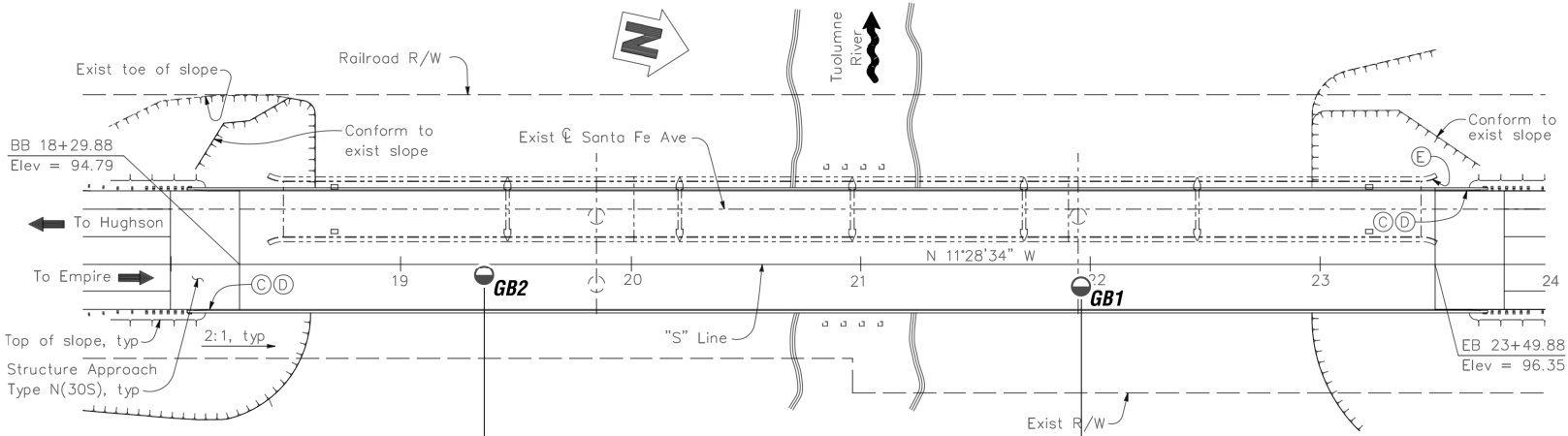
DESIGN	BY R. BURNS	CHECKED MAI / KG
DETAILS	BY K. DANG	CHECKED MAI / KG
QUANTITIES	BY R. BURNS	CHECKED MAI / KG

PREPARED FOR
STANISLAUS COUNTY

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

TUOLUMNE RIVER BRIDGE AT SANTA FE AVE
STRUCTURE APPROACH DRAINAGE DETAILS



BENCH MARK

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	STA	CR	N/A	75	78

3/28/17

REGISTERED GEOTECHNICAL ENGINEER

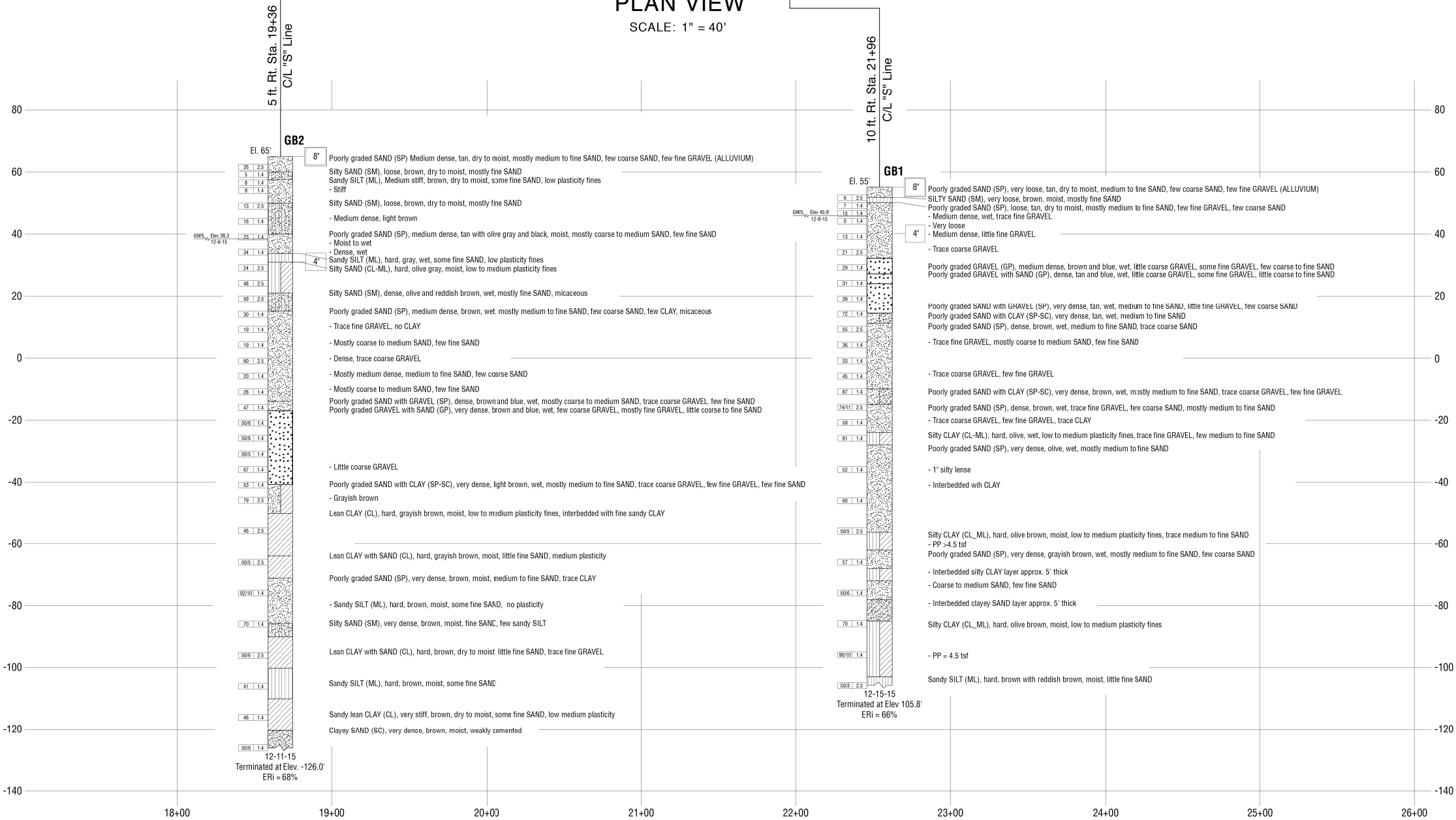
3/28/17

PLANS APPROVAL DATE

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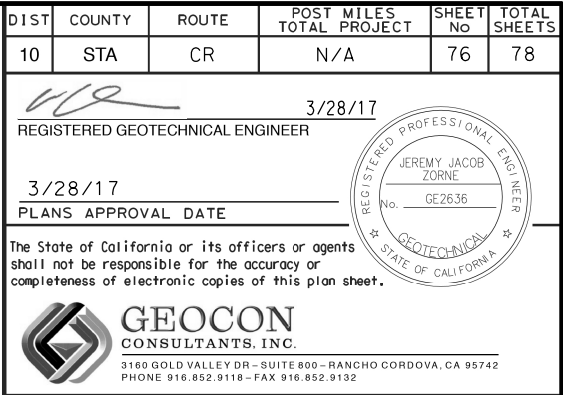
GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

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

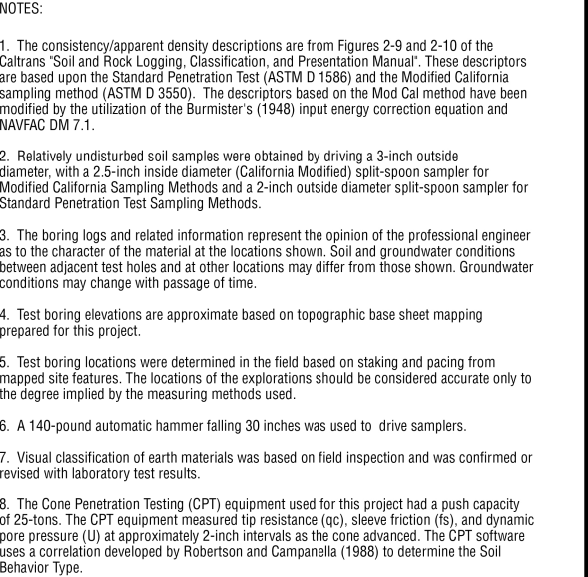


- NOTES:
- The consistency/apparent density descriptions are from Figures 2-9 and 2-10 of the Caltrans 'Soil and Rock Logging, Classification, and Presentation Manual'. These descriptors are based upon the Standard Penetration Test (ASTM D 1586) and the Modified California sampling method (ASTM D 3550). The descriptors based on the Mod Cal method have been modified by the utilization of the Burmister's (1948) input energy correction equation and NAVFAC DM 7.1.
 - Relatively undisturbed soil samples were obtained by driving a 3-inch outside diameter, with a 2.5-inch inside diameter (California Modified) split-spoon sampler for Modified California Sampling Methods and a 2-inch outside diameter split-spoon sampler for Standard Penetration Test Sampling Methods.
 - The boring logs and related information represent the opinion of the professional engineer as to the character of the material at the locations shown. Soil and groundwater conditions between adjacent test holes and at other locations may differ from those shown. Groundwater conditions may change with passage of time.
 - Test boring elevations are approximate based on topographic base sheet mapping prepared for this project.
 - Test boring locations were determined in the field based on staking and pacing from mapped site features. The locations of the explorations should be considered accurate only to the degree implied by the measuring methods used.
 - A 140-pound automatic hammer falling 30 inches was used to drive samplers.
 - Visual classification of earth materials was based on field inspection and was confirmed or revised with laboratory test results.
 - The Cone Penetration Testing (CPT) equipment used for this project had a push capacity of 25-tons. The CPT equipment measured tip resistance (qc), sleeve friction (fs), and dynamic pore pressure (U) at approximately 2-inch intervals as the cone advanced. The CPT software uses a correlation developed by Robertson and Campanella (1988) to determine the Soil Behavior Type.

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO. 38C-0003	SANTA FE AVE BRIDGE AT TUOLUMNE RIVER LOG OF TEST BORINGS NO. 1		
FUNCTIONAL SUPERVISOR		DRAWN BY: D. HANSEN				POST MILES			
NAME:		CHECKED BY: J. ZORNE							
OCS CIVIL LOG OF TEST BORINGS SHEET				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU EA	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 24	OF 27



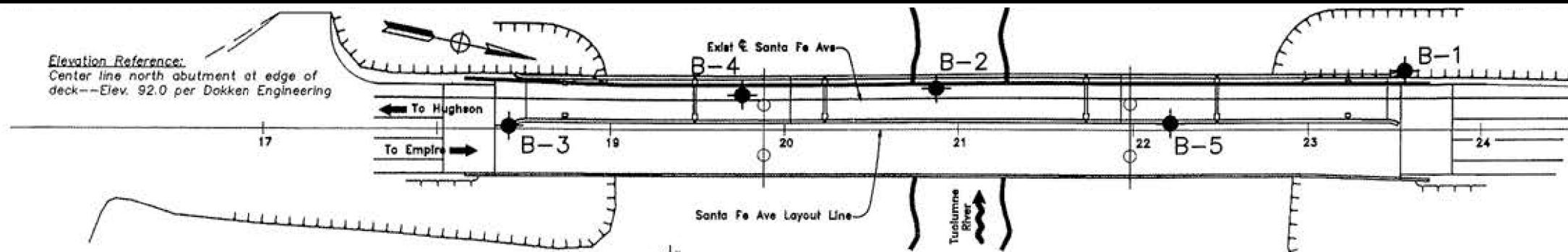
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010).



PROFILE VIEW
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'

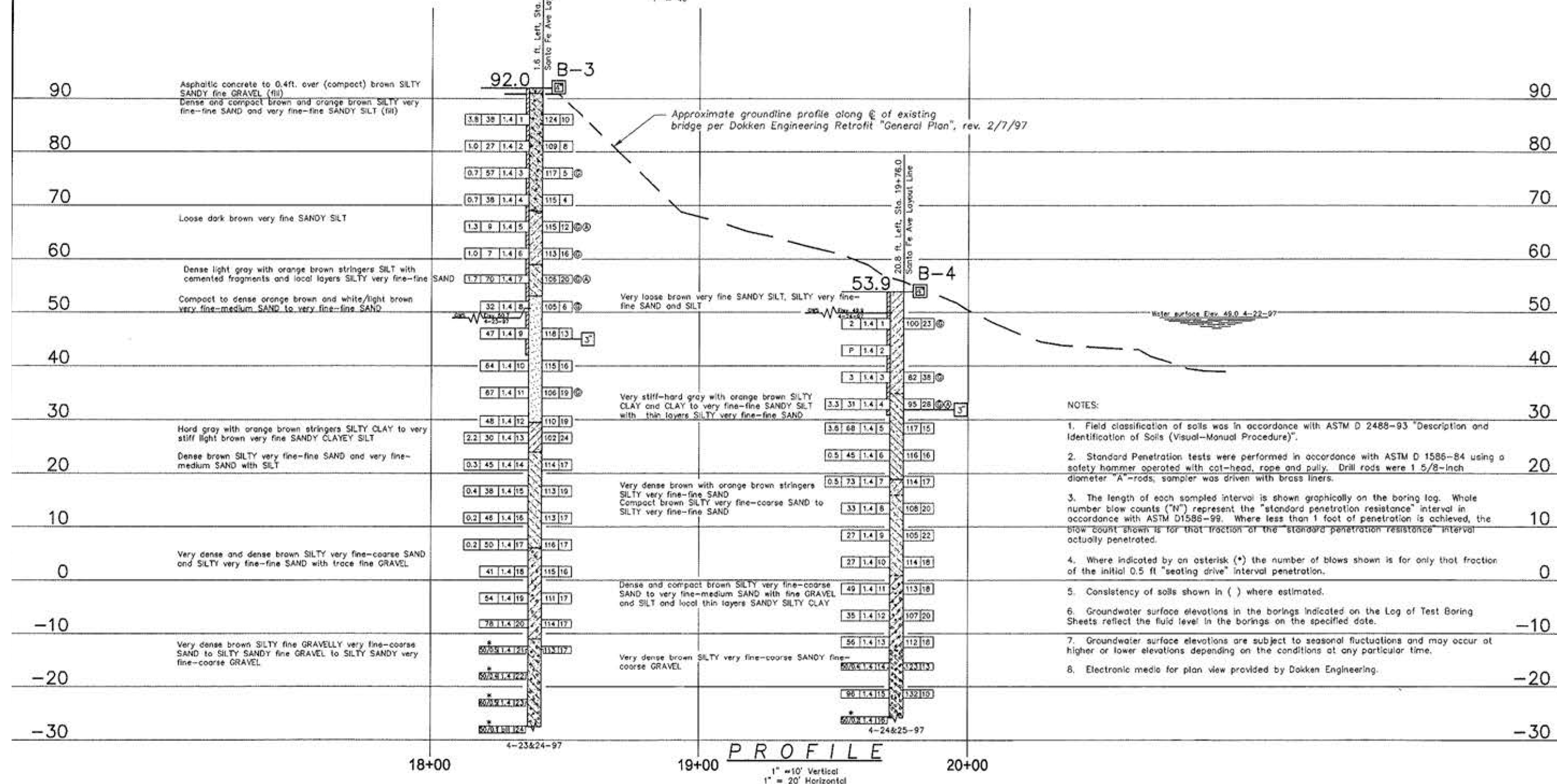
ENGINEERING SERVICES			GEOTECHNICAL SERVICES			STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH		BRIDGE NO. 38C-0003		SANTA FE AVE BRIDGE AT TUOLUMNE RIVER									
FUNCTIONAL SUPERVISOR		DRAWN BY: D. HANSEN		FIELD INVESTIGATION BY: J. LEWIS						POST MILES											
										NAME:		CHECKED BY: J. ZORNE									
OGS CIVIL LOG OF TEST BORINGS SHEET						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU EA		DISREGARD PRINTS BEARING EARLIER REVISION DATES											

Elevation Reference:
Center line north abutment at edge of
deck--Elev. 92.0 per Dokken Engineering



PLAN

1" = 40'



PROFILE

1" = 10' Vertical
1" = 20' Horizontal

DRAWN BY
K. DANG

CHECKED BY
R. BURNS

FIELD INVESTIGATION BY:
DATE:

PREPARED FOR THE
STANISLAUS COUNTY

R. BURNS
PROJECT ENGINEER

BRIDGE NO.
38C-0003
POST MILES
N/A

SANTA FE AVE BRIDGE AT TUOLUMNE RIVER
LOG OF TEST BORINGS NO. 4