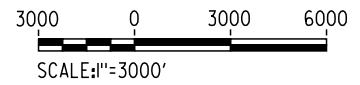
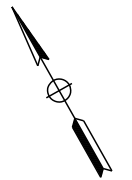




**STREET CLOSURE**

STREET NAME	HST ALIGNMENT STA	LOCAL STANDARD
WASCO AVE	5662+75.00 TO 5716+50.00	KERN COUNTY
MADERA AVE	5883+50.00	KERN COUNTY
METTER AVE	5920+00.00	KERN COUNTY
ORANGE AVE	6104+00.00	KERN COUNTY
REINA RD	6443+50.00	KERN COUNTY



\$USER \$ DATE \$ TIME \$ FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY / GRADE SEPARATION  
 KEY MAP

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CB0170  
 SCALE  
AS SHOWN  
 SHEET NO.  
1 OF 67

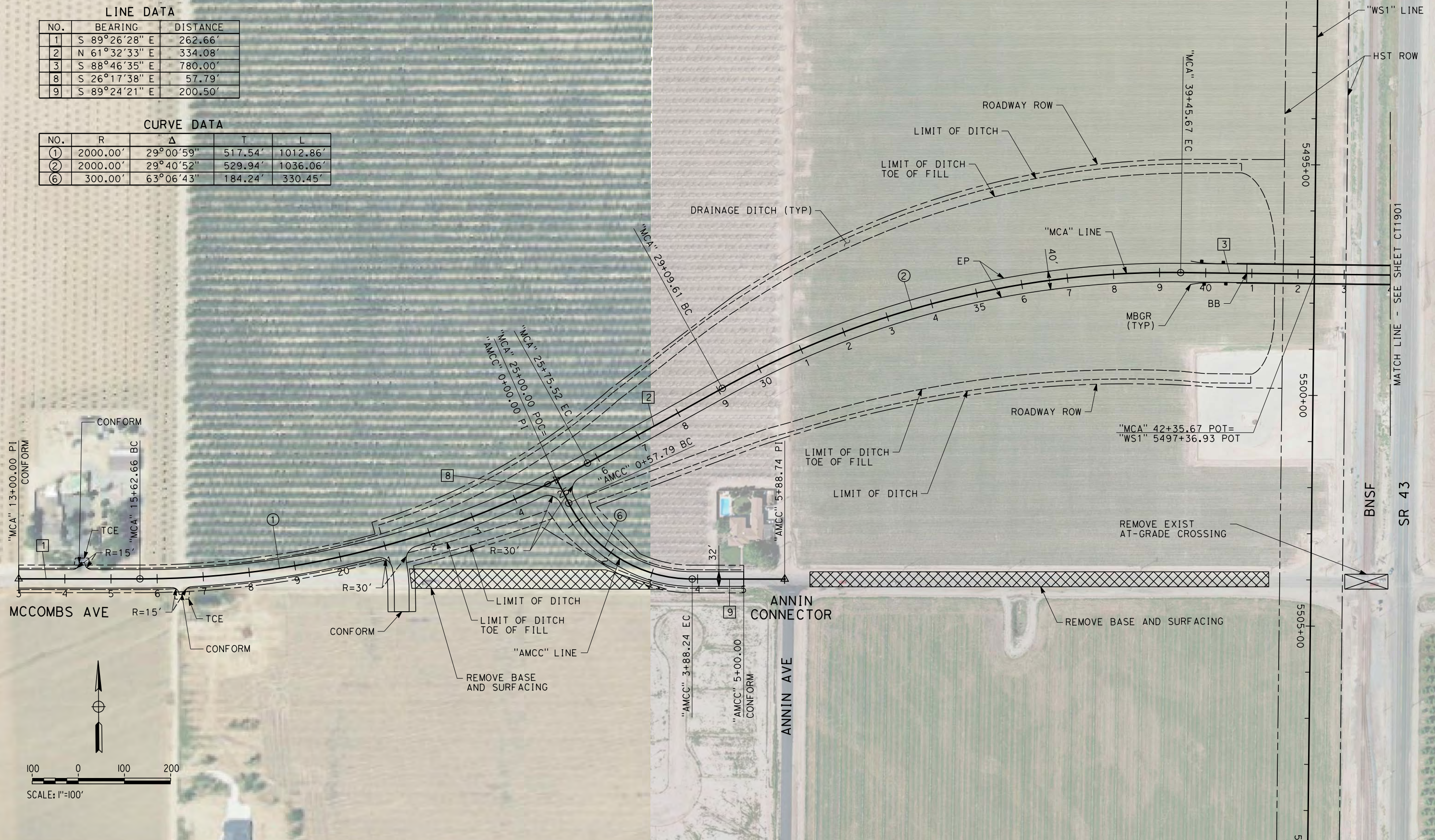


LINE DATA

NO.	BEARING	DISTANCE
1	S 89°26'28" E	262.66'
2	N 61°32'33" E	334.08'
3	S 88°46'35" E	780.00'
8	S 26°17'38" E	57.79'
9	S 89°24'21" E	200.50'

CURVE DATA

NO.	R	Δ	T	L
①	2000.00'	29°00'59"	517.54'	1012.86'
②	2000.00'	29°40'52"	529.94'	1036.06'
⑥	300.00'	63°06'43"	184.24'	330.45'



\$USER \$ DATE \$ TIME \$ FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



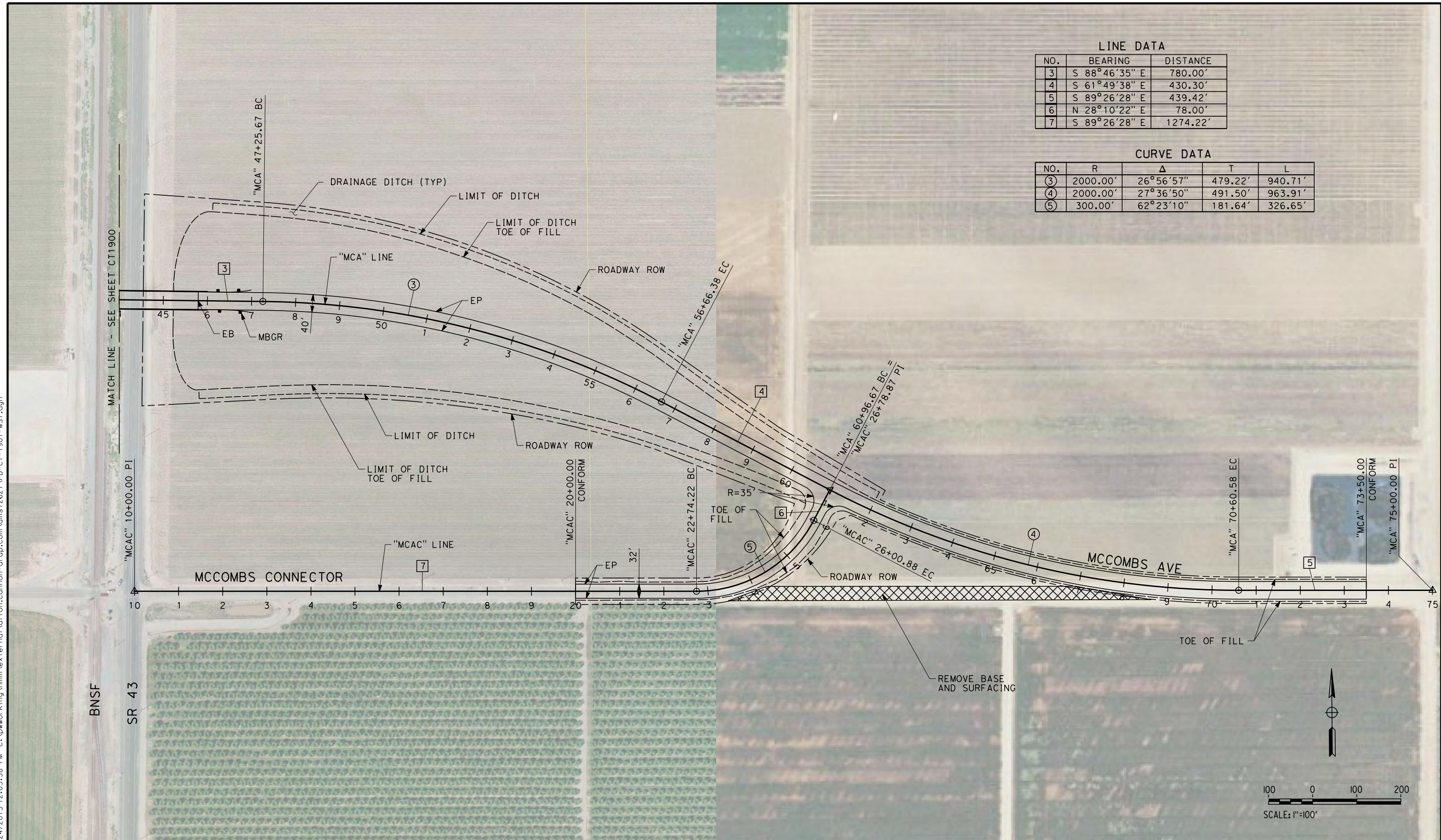
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION LAYOUT  
 MCCOMBS AVE

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CT1900  
 SCALE  
AS SHOWN  
 SHEET NO.  
2 OF 67



LINE DATA		
NO.	BEARING	DISTANCE
3	S 88°46'35" E	780.00'
4	S 61°49'38" E	430.30'
5	S 89°26'28" E	439.42'
6	N 28°10'22" E	78.00'
7	S 89°26'28" E	1274.22'

CURVE DATA				
NO.	R	Δ	T	L
③	2000.00'	26°56'57"	479.22'	940.71'
④	2000.00'	27°36'50"	491.50'	963.91'
⑤	300.00'	62°23'10"	181.64'	326.65'



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
MCCOMBS AVE

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1901  
SCALE  
AS SHOWN  
SHEET NO.  
3 OF 67



LINE DATA

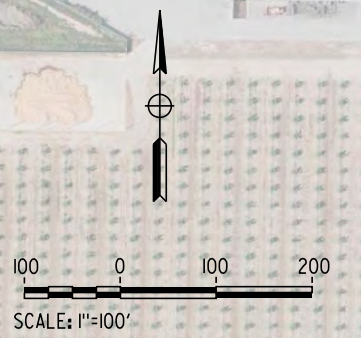
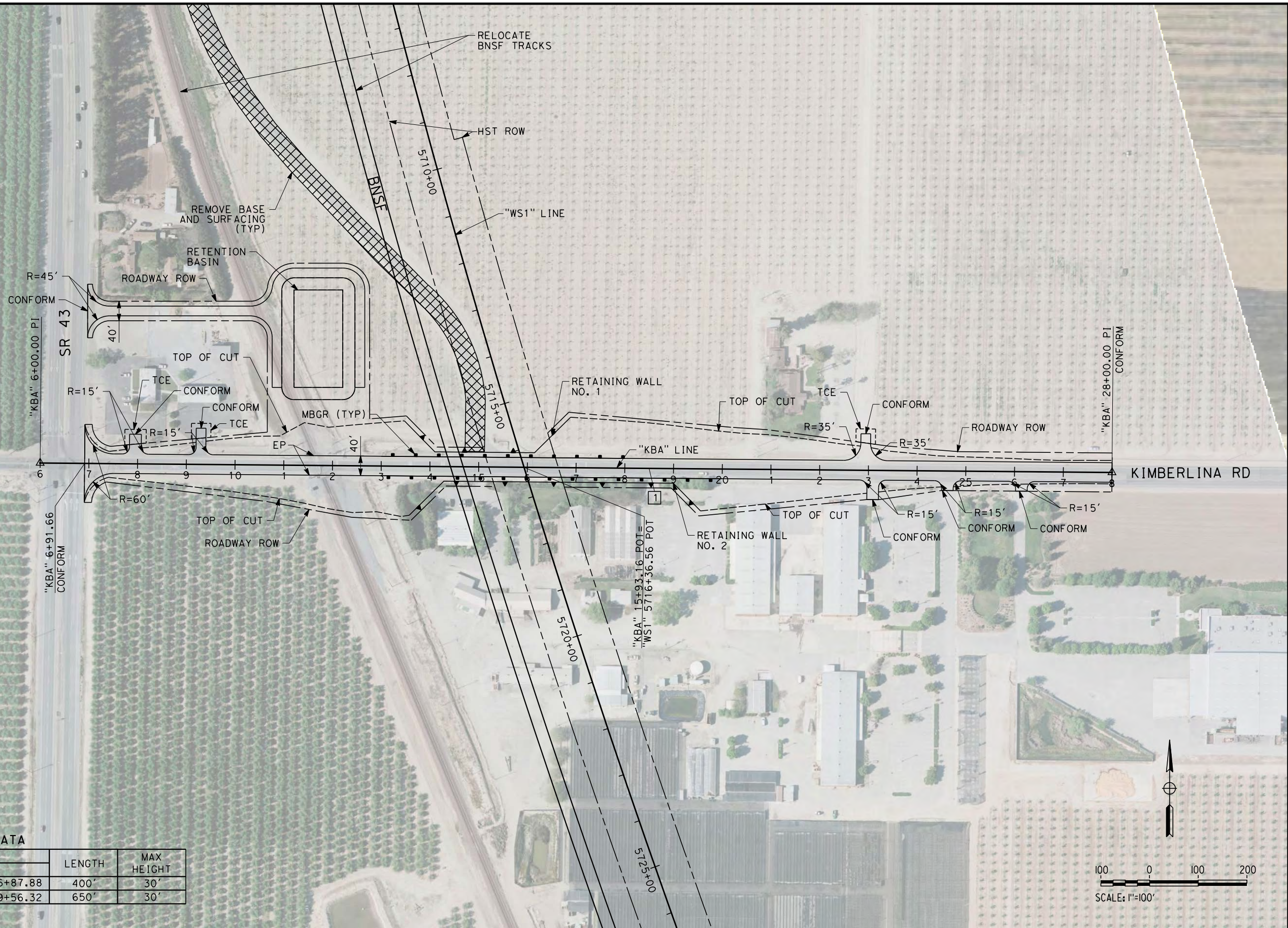
NO.	BEARING	DISTANCE
1	S 89°29'37" E	2200.00'

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	93.05' LT 13+47.00	103.46' LT 16+87.88	400'	30'
2	100.52' RT 13+58.35	86.32' RT 19+56.32	650'	30'

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al\ton.cannon



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
KIMBERLINA RD

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1903  
SCALE  
AS SHOWN  
SHEET NO.  
4 OF 67

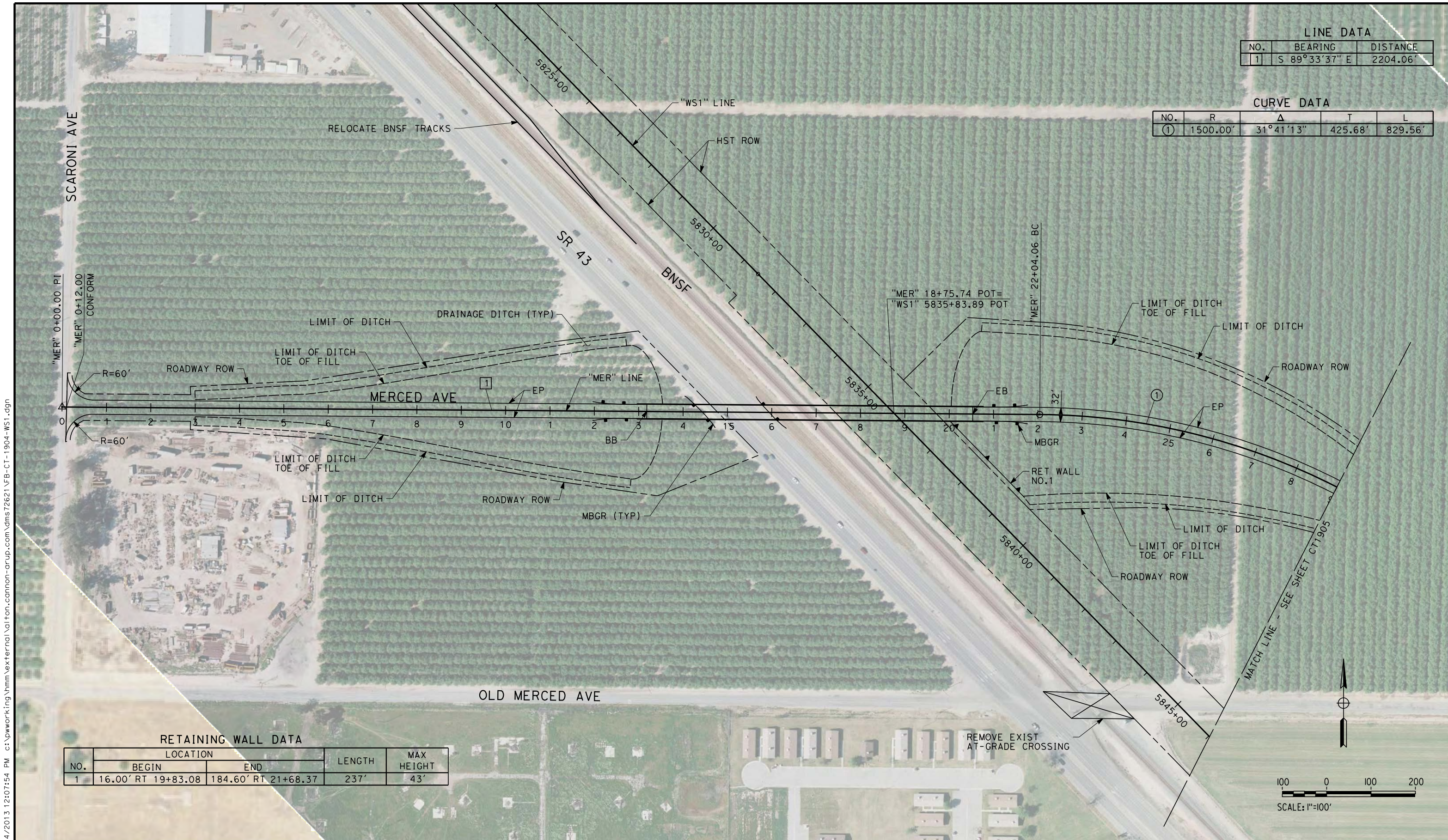


LINE DATA

NO.	BEARING	DISTANCE
1	S 89°33'37" E	2204.06'

CURVE DATA

NO.	R	Δ	T	L
(1)	1500.00'	31°41'13"	425.68'	829.56'



RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	16.00' RT 19+83.08	184.60' RT 21+68.37	237'	43'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
MERCED AVE

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1904  
SCALE  
AS SHOWN  
SHEET NO.  
5 OF 67

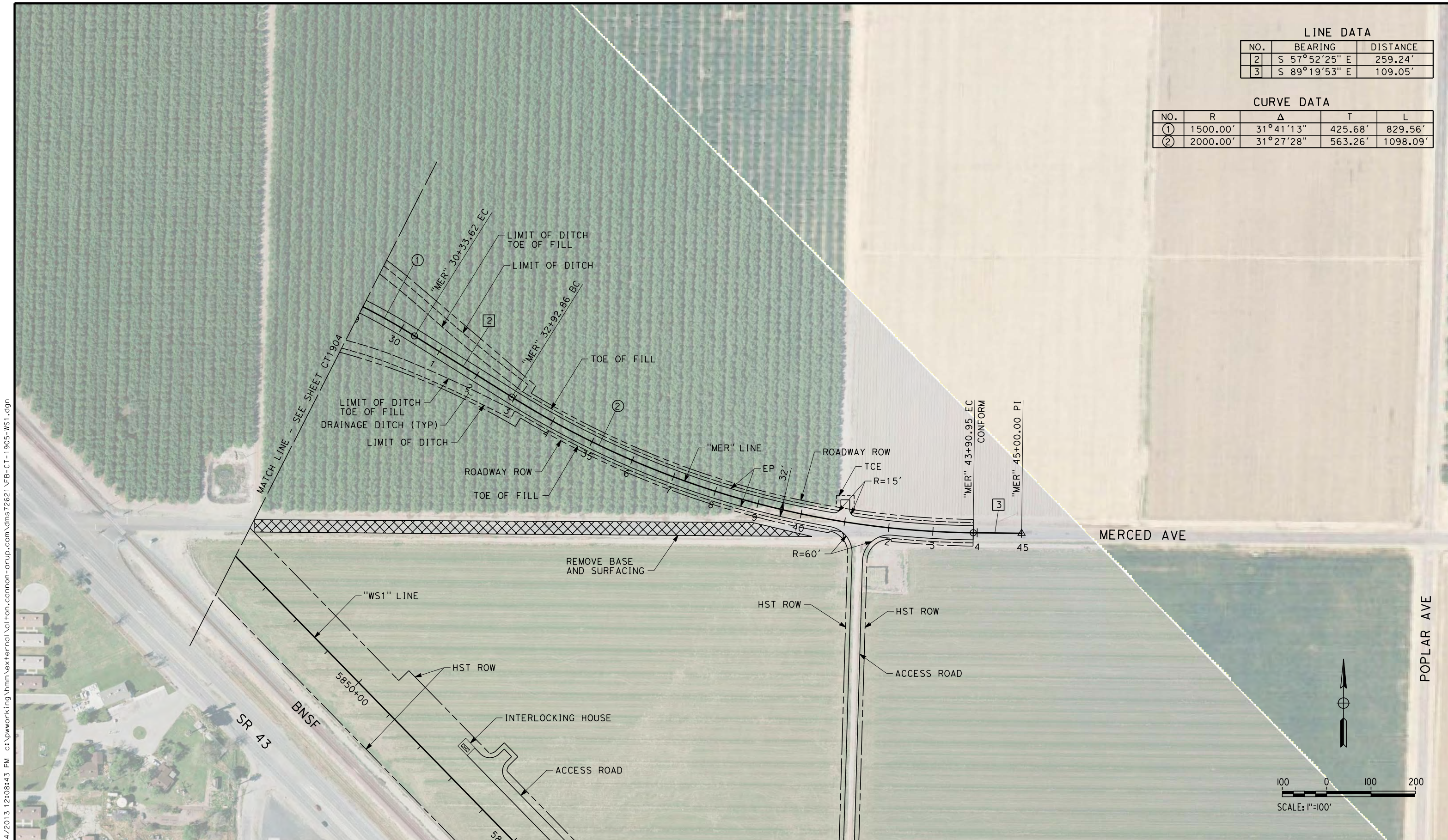


LINE DATA

NO.	BEARING	DISTANCE
2	S 57°52'25" E	259.24'
3	S 89°19'53" E	109.05'

CURVE DATA

NO.	R	Δ	T	L
①	1500.00'	31°41'13"	425.68'	829.56'
②	2000.00'	31°27'28"	563.26'	1098.09'



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**

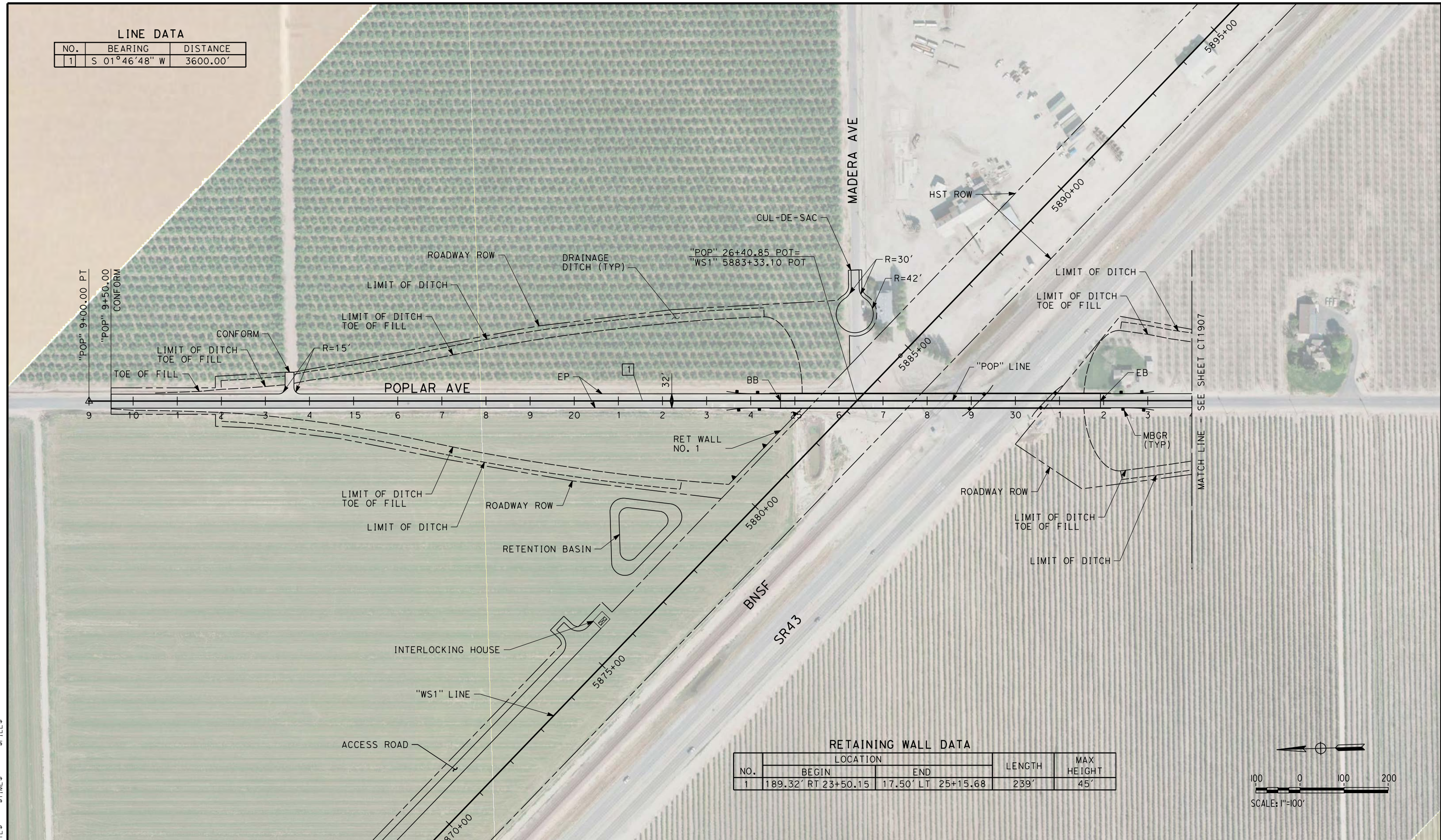


**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
MERCED AVE

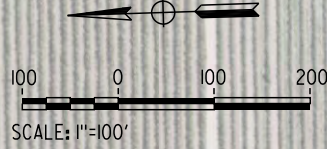
CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1905  
SCALE  
AS SHOWN  
SHEET NO.  
6 OF 67



LINE DATA		
NO.	BEARING	DISTANCE
1	S 01°46'48" W	3600.00'



NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	189.32' RT 23+50.15	17.50' LT 25+15.68	239'	45'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
POPLAR AVE

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1906  
SCALE  
AS SHOWN  
SHEET NO.  
7 OF 67

\$USER \$ DATE \$ TIME \$ FILE \$



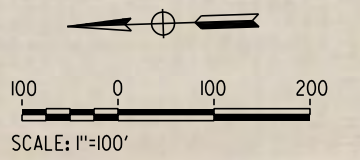
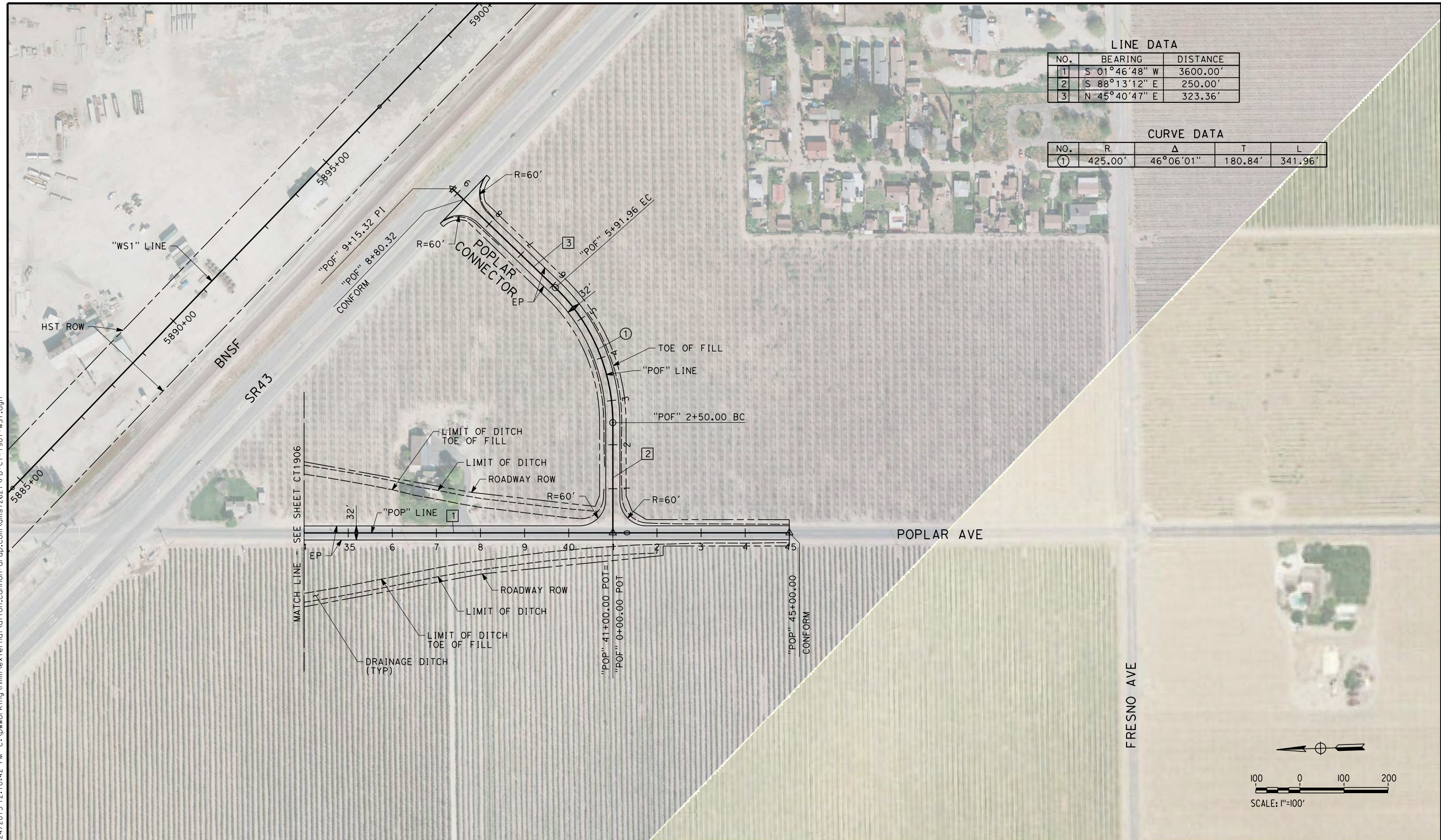
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LINE DATA

NO.	BEARING	DISTANCE
1	S 01°46'48" W	3600.00'
2	S 88°13'12" E	250.00'
3	N 45°40'47" E	323.36'

CURVE DATA

NO.	R	Δ	T	L
①	425.00'	46°06'01"	180.84'	341.96'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**

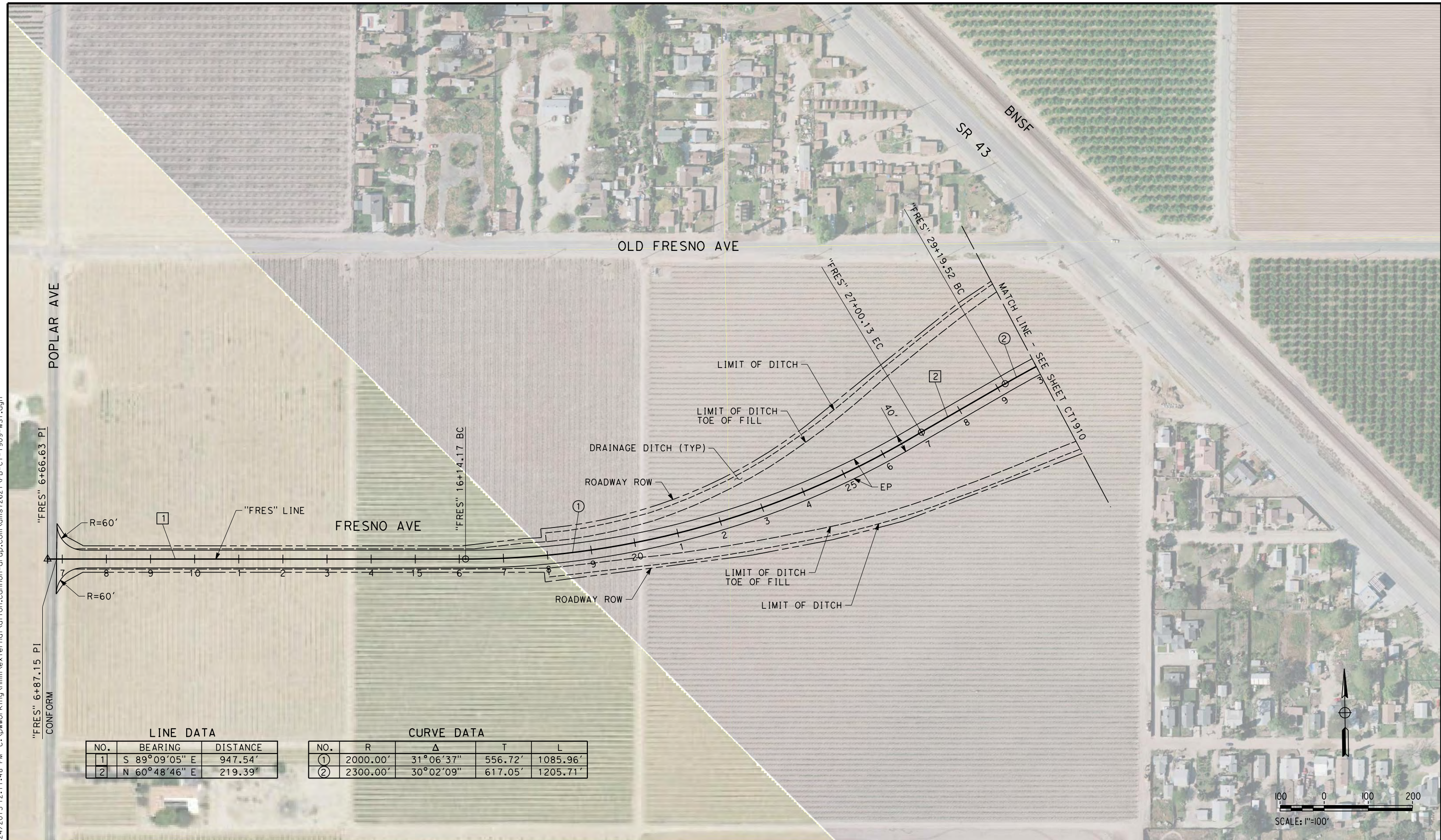


**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
POPLAR AVE

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1907  
SCALE  
AS SHOWN  
SHEET NO.  
8 OF 67



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LINE DATA

NO.	BEARING	DISTANCE
1	S 89°09'05" E	947.54'
2	N 60°48'46" E	219.39'

CURVE DATA

NO.	R	Δ	T	L
①	2000.00'	31°06'37"	556.72'	1085.96'
②	2300.00'	30°02'09"	617.05'	1205.71'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

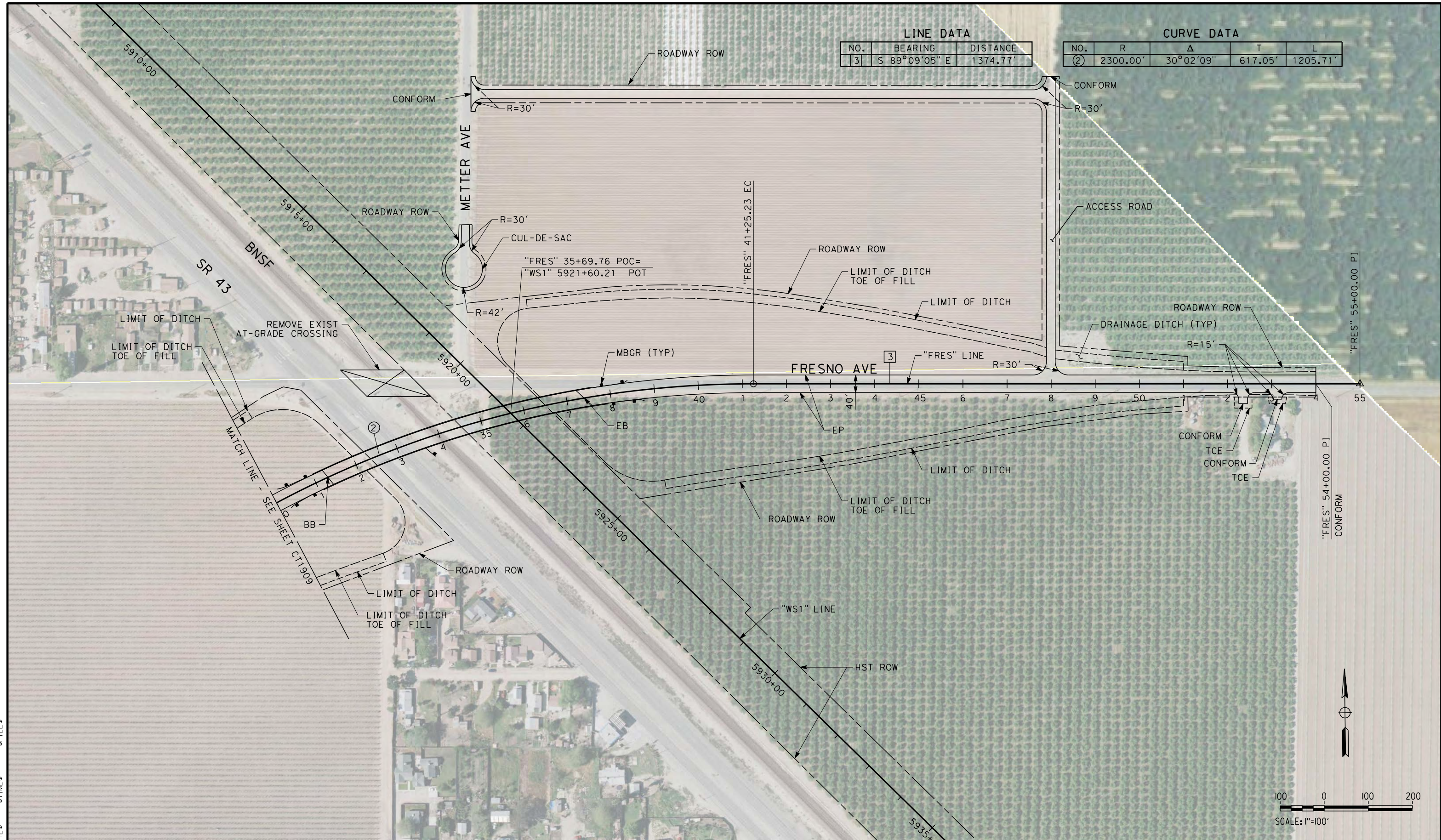
**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
FRESNO AVE

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1909  
SCALE  
AS SHOWN  
SHEET NO.  
9 OF 67





LINE DATA		
NO.	BEARING	DISTANCE
3	S 89°09'05" E	1374.77'

CURVE DATA				
NO.	R	Δ	T	L
2	2300.00'	30°02'09"	617.05'	1205.71'

\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**

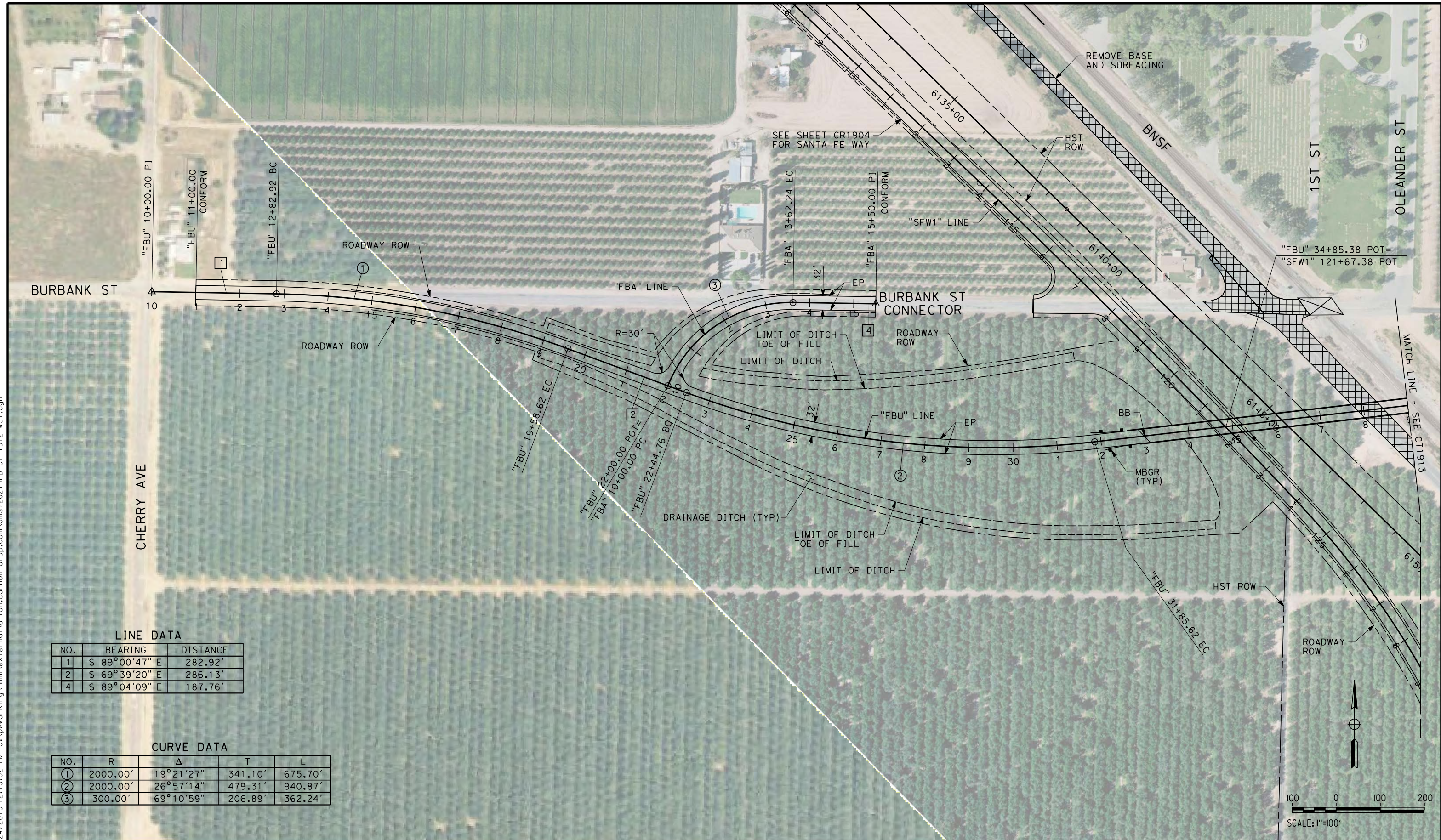


**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION LAYOUT  
 FRESNO AVE

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CT1910  
 SCALE  
AS SHOWN  
 SHEET NO.  
10 OF 67



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LINE DATA

NO.	BEARING	DISTANCE
1	S 89°00'47" E	282.92'
2	S 69°39'20" E	286.13'
4	S 89°04'09" E	187.76'

CURVE DATA

NO.	R	Δ	T	L
①	2000.00'	19°21'27"	341.10'	675.70'
②	2000.00'	26°57'14"	479.31'	940.87'
③	300.00'	69°10'59"	206.89'	362.24'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
BURBANK ST

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1912  
SCALE  
AS SHOWN  
SHEET NO.  
11 OF 67

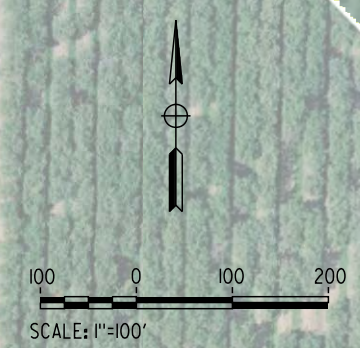
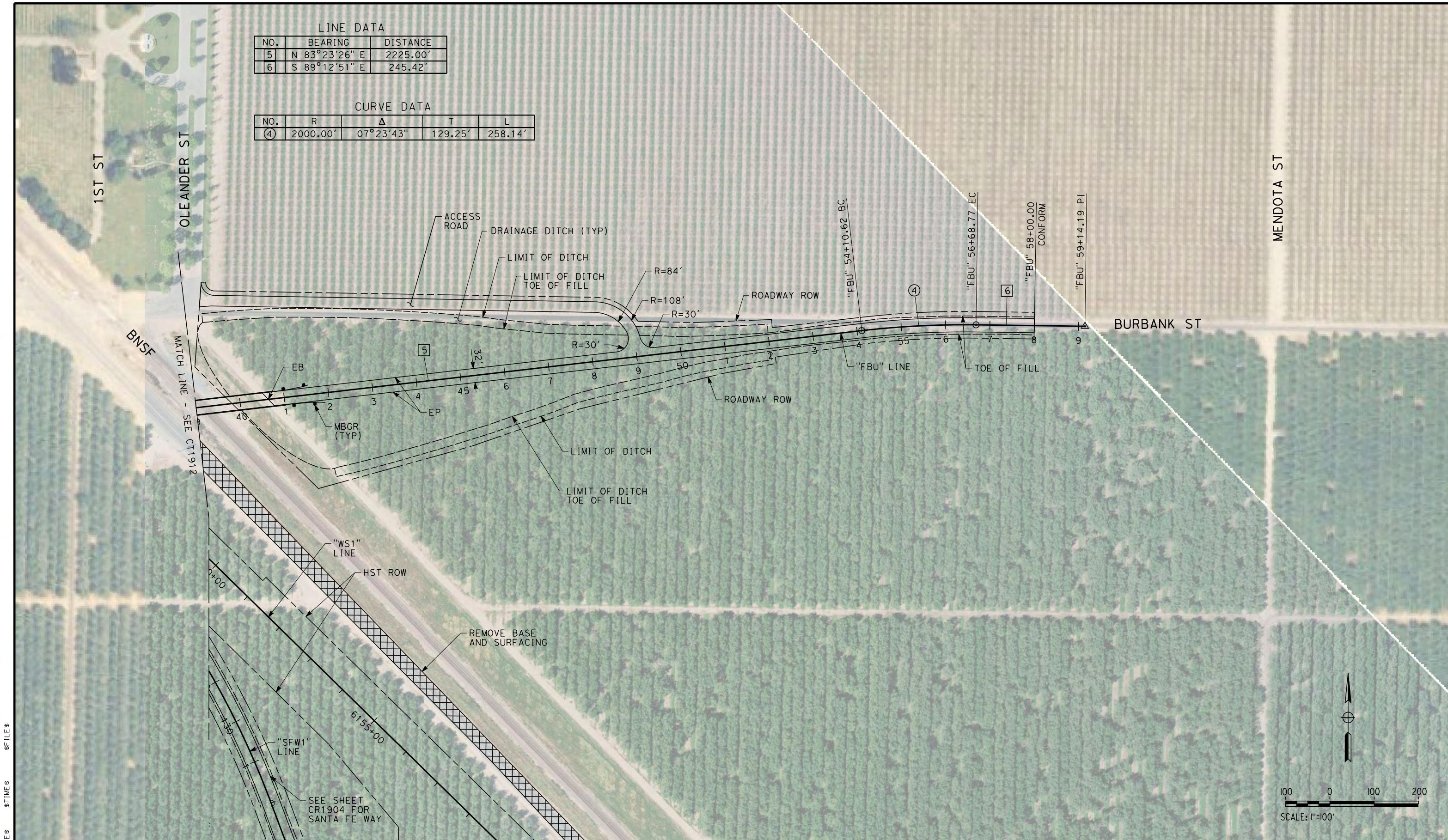


LINE DATA

NO.	BEARING	DISTANCE
5	N 83°23'26" E	2225.00'
6	S 89°12'51" E	245.42'

CURVE DATA

NO.	R	Δ	T	L
(4)	2000.00'	07°23'43"	129.25'	258.14'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

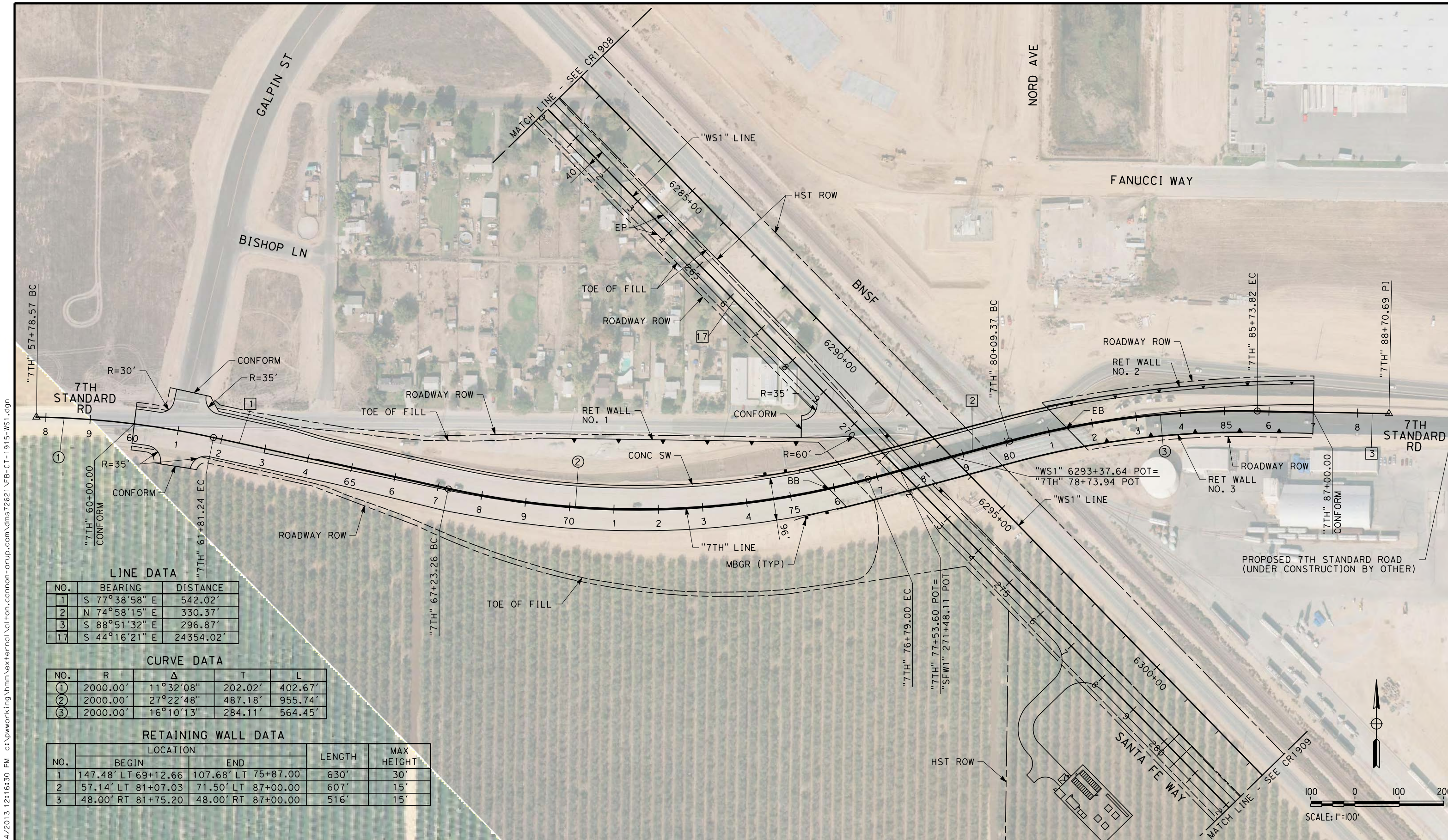
**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
BURBANK ST

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1913  
SCALE  
AS SHOWN  
SHEET NO.  
12 OF 67





**LINE DATA**

NO.	BEARING	DISTANCE
1	S 77°38'58" E	542.02'
2	N 74°58'15" E	330.37'
3	S 88°51'32" E	296.87'
17	S 44°16'21" E	24354.02'

**CURVE DATA**

NO.	R	Δ	T	L
①	2000.00'	11°32'08"	202.02'	402.67'
②	2000.00'	27°22'48"	487.18'	955.74'
③	2000.00'	16°10'13"	284.11'	564.45'

**RETAINING WALL DATA**

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	147.48' LT 69+12.66	107.68' LT 75+87.00	630'	30'
2	57.14' LT 81+07.03	71.50' LT 87+00.00	607'	15'
3	48.00' RT 81+75.20	48.00' RT 87+00.00	516'	15'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
**A. CANNON**

DRAWN BY  
**E. SUDHAUSEN**

CHECKED BY  
**S. BROWN**

IN CHARGE  
**R. COFFIN**

DATE  
**12/31/13**

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**

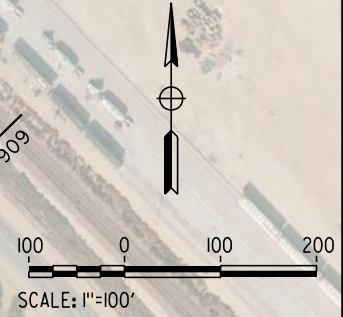
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
7TH STANDARD RD

CONTRACT NO.  
HSR 06-0003

DRAWING NO.  
CT1915

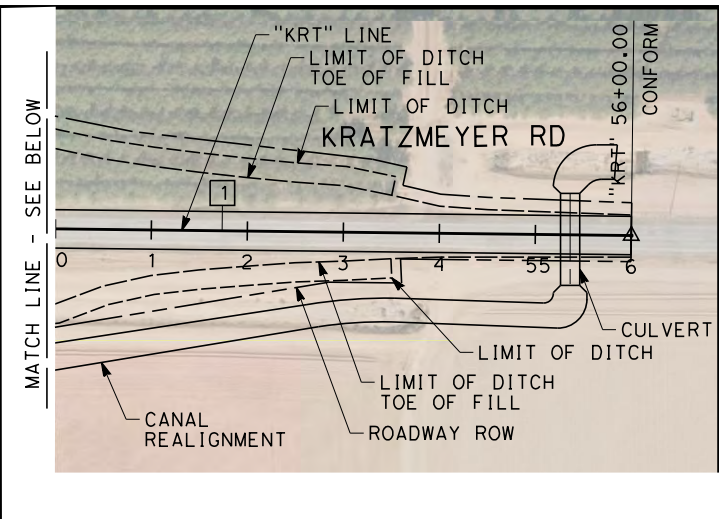
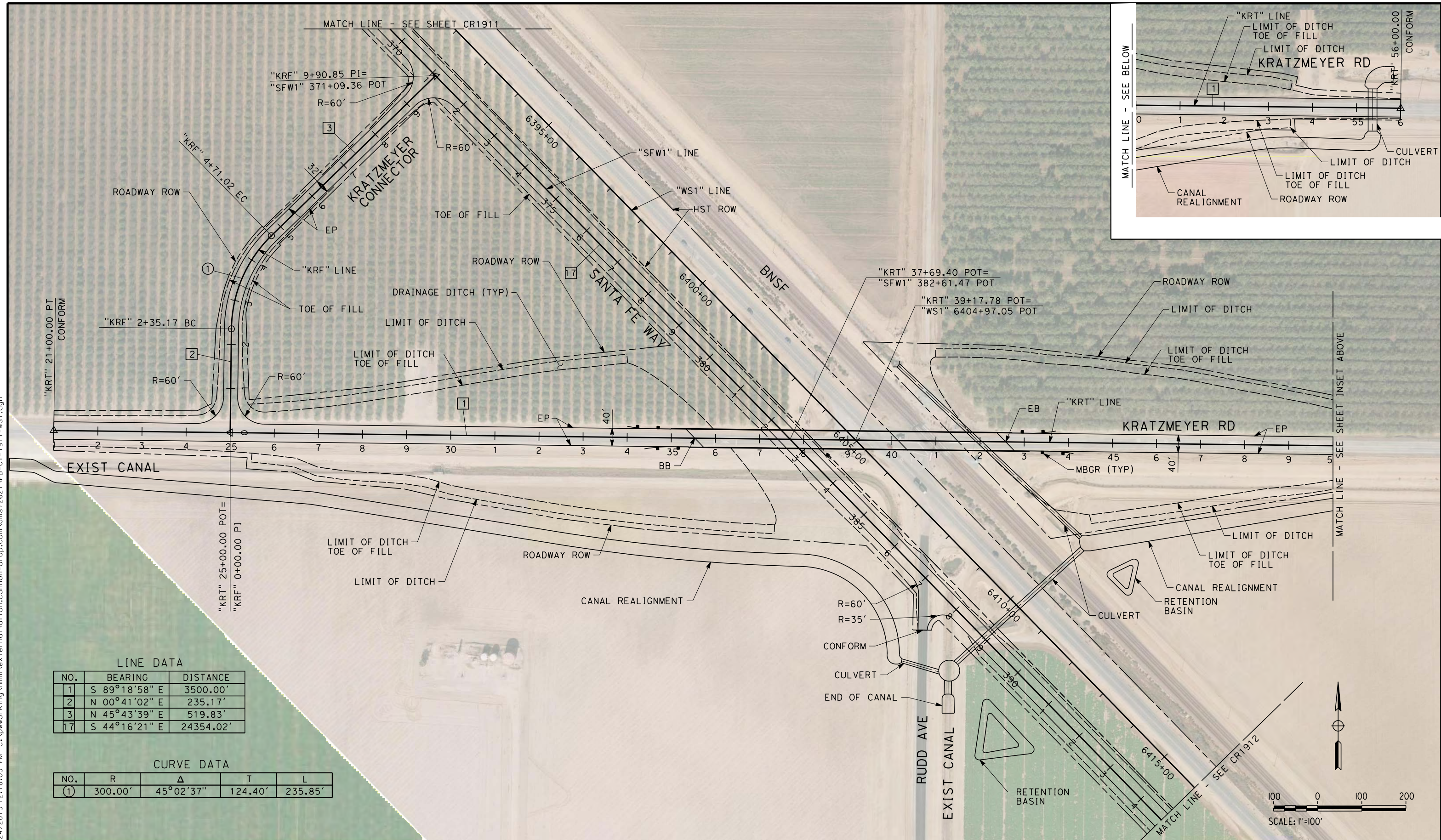
SCALE  
AS SHOWN

SHEET NO.  
13 OF 67





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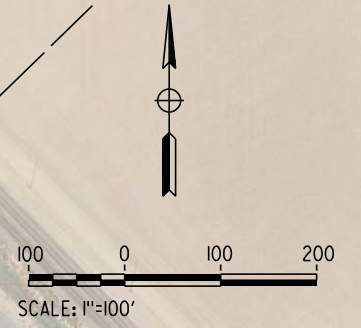


LINE DATA

NO.	BEARING	DISTANCE
1	S 89°18'58" E	3500.00'
2	N 00°41'02" E	235.17'
3	N 45°43'39" E	519.83'
17	S 44°16'21" E	24354.02'

CURVE DATA

NO.	R	Δ	T	L
①	300.00'	45°02'37"	124.40'	235.85'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON

DRAWN BY  
E. SUDHAUSEN

CHECKED BY  
S. BROWN

IN CHARGE  
R. COFFIN

DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION LAYOUT  
 KRATZMEYER RD

CONTRACT NO.  
HSR 06-0003

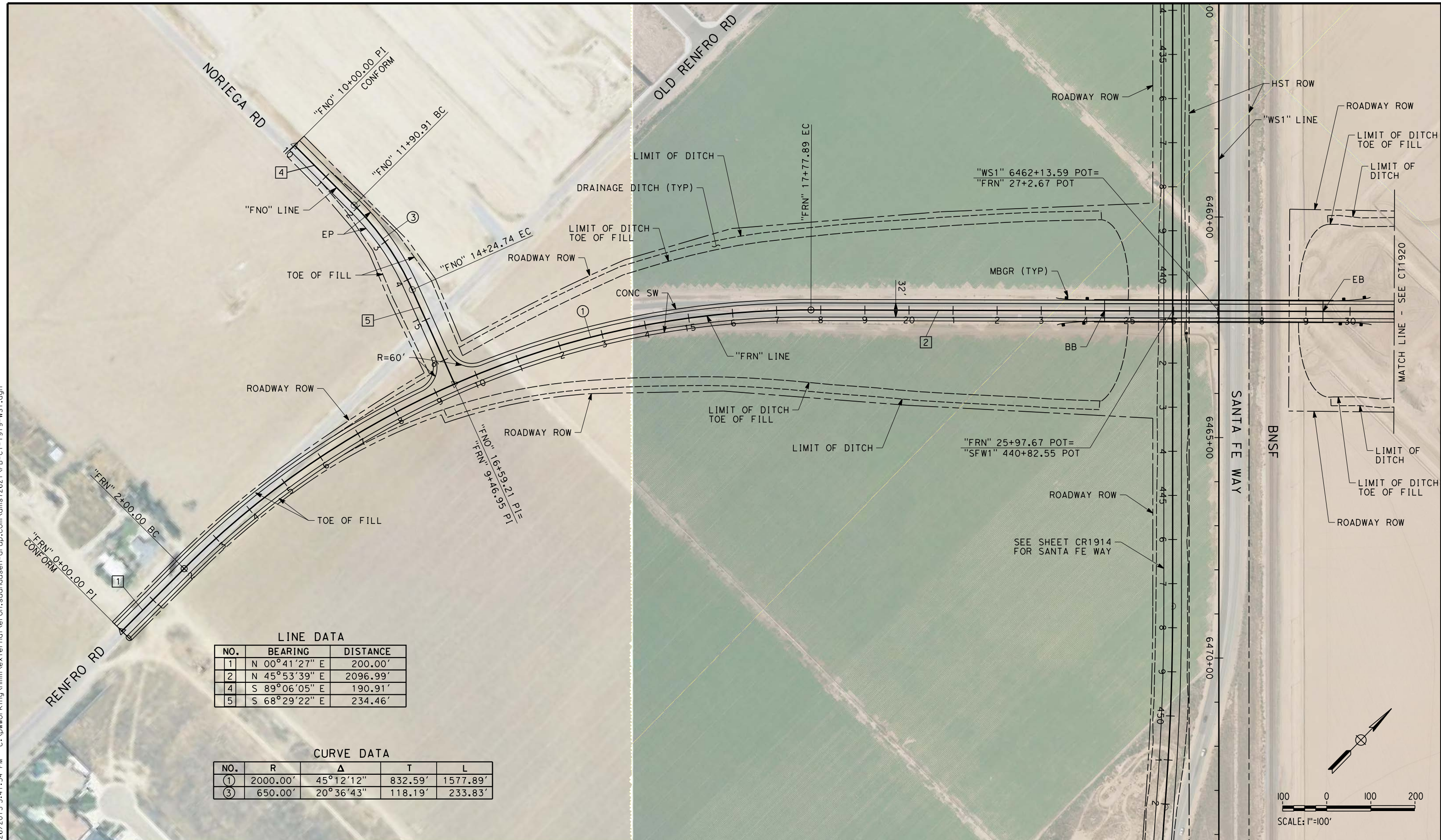
DRAWING NO.  
CT1917

SCALE  
AS SHOWN

SHEET NO.  
14 OF 67



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LINE DATA

NO.	BEARING	DISTANCE
1	N 00°41'27" E	200.00'
2	N 45°53'39" E	2096.99'
4	S 89°06'05" E	190.91'
5	S 68°29'22" E	234.46'

CURVE DATA

NO.	R	Δ	T	L
①	2000.00'	45°12'12"	832.59'	1577.89'
③	650.00'	20°36'43"	118.19'	233.83'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
RENFRO RD

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1919  
SCALE  
AS SHOWN  
SHEET NO.  
15 OF 67



LINE DATA

NO.	BEARING	DISTANCE
3	N 00°43'03" E	1796.40'

CURVE DATA

NO.	R	Δ	T	L
②	2000.00'	45°10'36"	832.04'	1576.96'



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
J. MONG  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



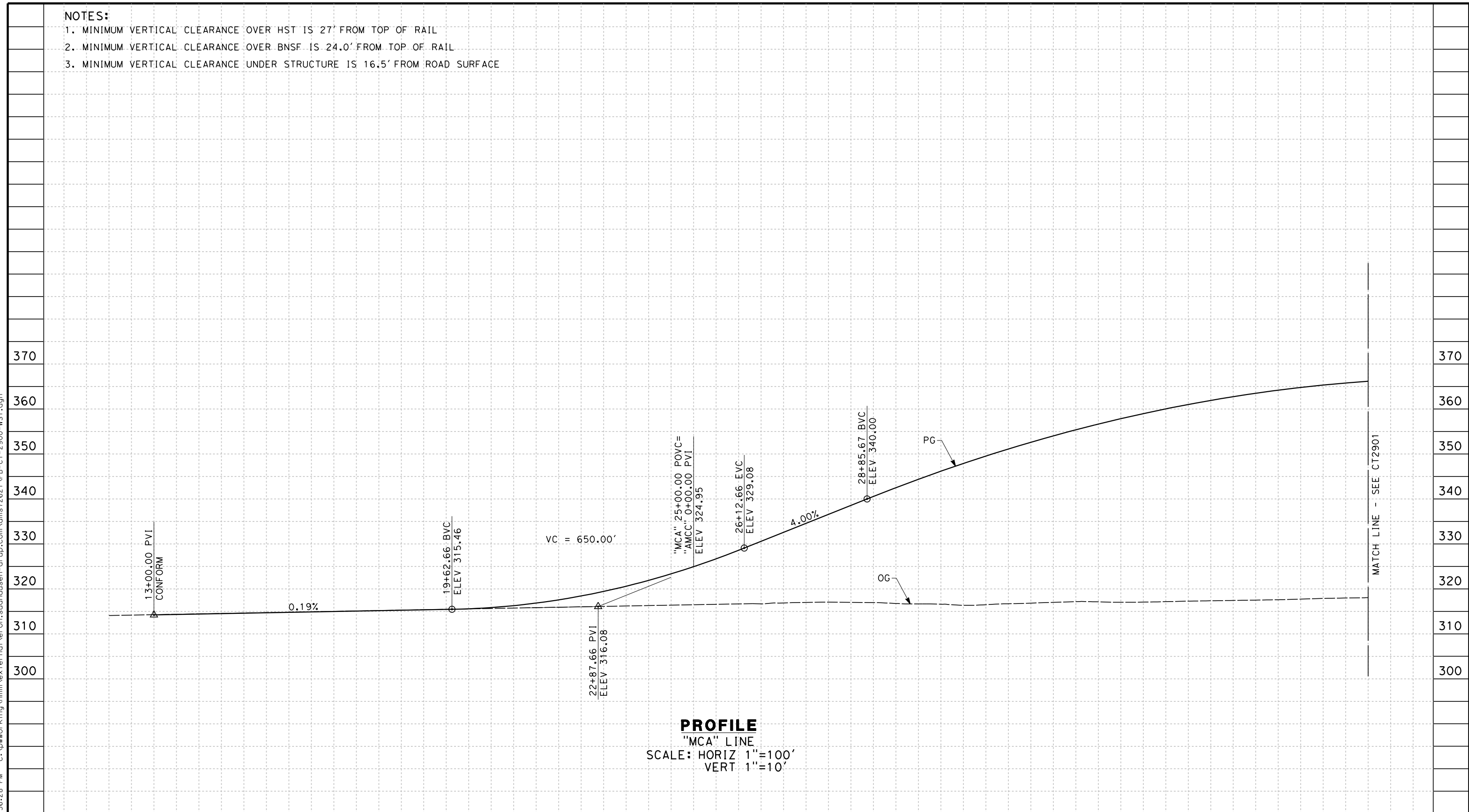
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION LAYOUT  
RENFRO RD

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT1920  
SCALE  
AS SHOWN  
SHEET NO.  
16 OF 67



**NOTES:**

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE



**PROFILE**  
 "MCA" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

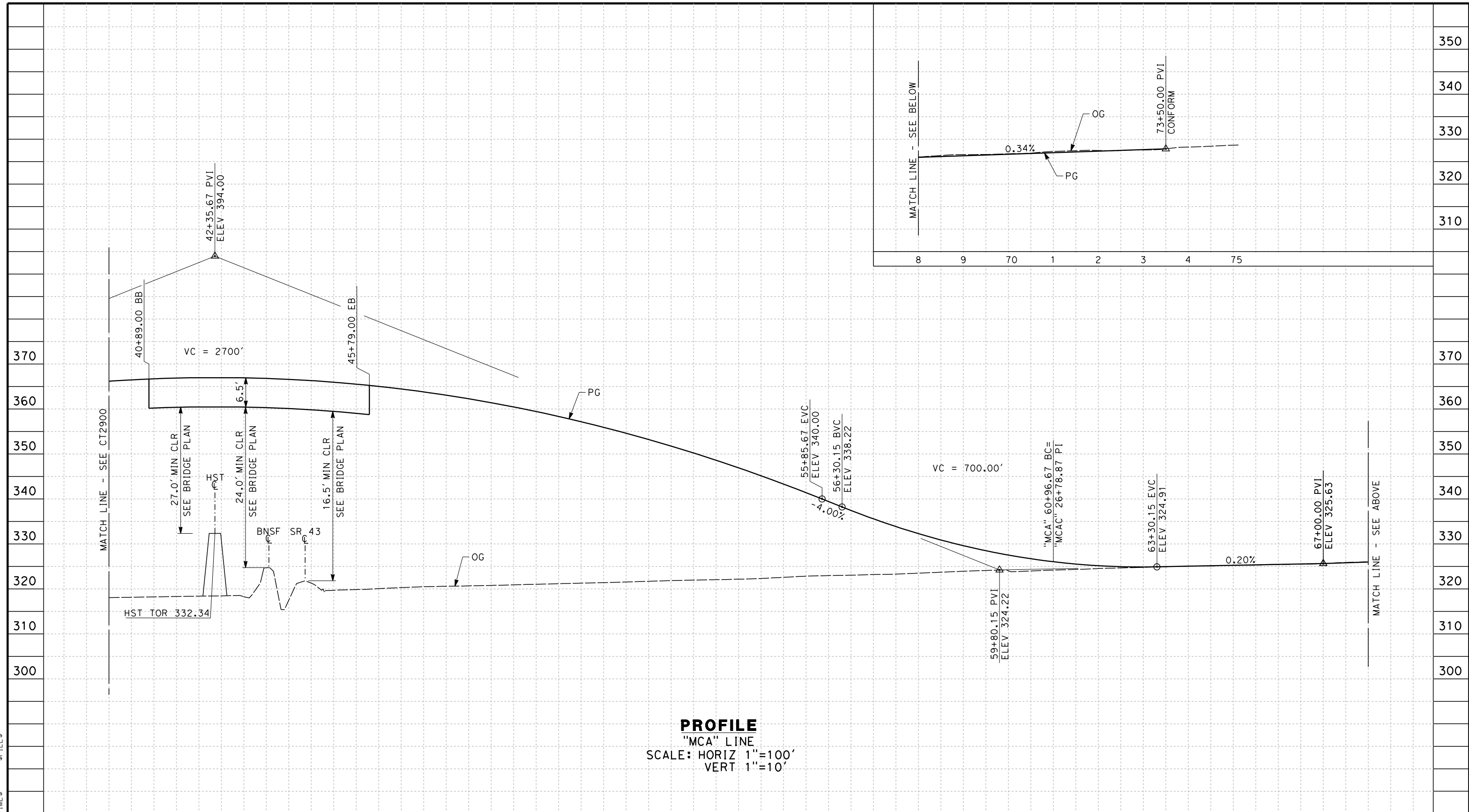
STATION	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	TOTAL
Exc																														
Emb																														

DESIGNED BY A. CANNON	<b>RECORD SET 15% DESIGN SUBMISSION</b>  <b>NOT FOR CONSTRUCTION</b>			<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT</b> <b>FRESNO TO BAKERSFIELD</b> THROUGH WASCO-SHAFTER SUBSECTION ALIGNMENT WS1 GRADE SEPARATION PROFILE MCCOMBS AVE		CONTRACT NO. HSR 06-003
DRAWN BY E. SUDHAUSEN				DRAWING NO. CT2900		
CHECKED BY J. MONG		SCALE AS SHOWN				
IN CHARGE R. COFFIN		SHEET NO. 17 OF 67				
DATE 12/31/13						

REV	DATE	BY	CHK	APP	DESCRIPTION

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 eron.sudhausen





STATION	40	1	2	3	4	45	6	7	8	9	50	1	2	3	4	55	6	7	8	9	60	1	2	3	4	65	6	7	8	TOTAL
Exc																														
Emb																														

DESIGNED BY	A. CANNON
DRAWN BY	E. SUDHAUSEN
CHECKED BY	S. BROWN
IN CHARGE	R. COFFIN
DATE	12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**

**NOT FOR  
 CONSTRUCTION**



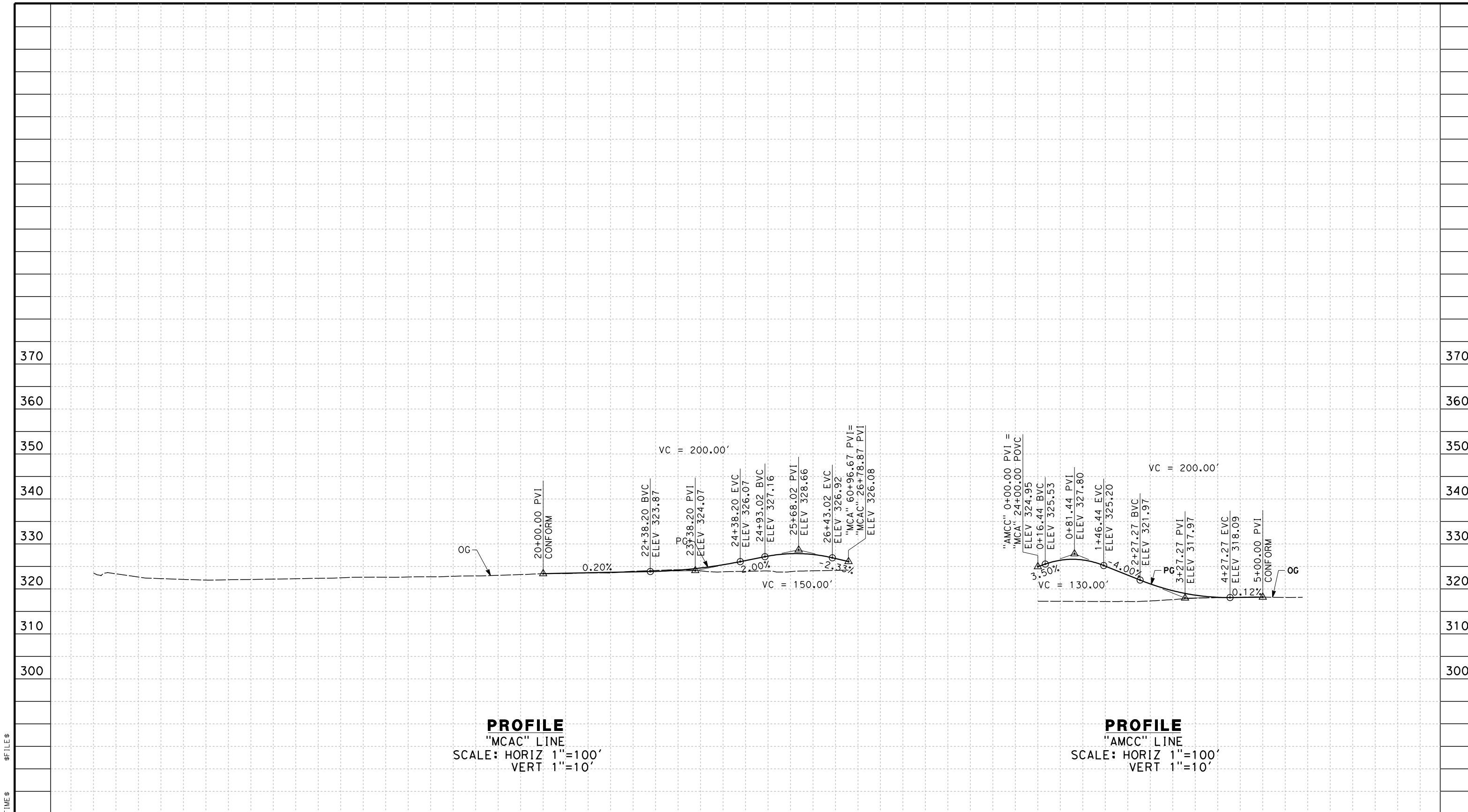
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**

THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 MCCOMBS AVE

CONTRACT NO.	HSR 06-003
DRAWING NO.	CT2901
SCALE	AS SHOWN
SHEET NO.	18 OF 67

\$USER \$ DATE \$ TIME \$ FILE \$





**PROFILE**  
 "MCAC" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

**PROFILE**  
 "AMCC" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	0	1	2	3	4	5	6	7	TOTAL
Exc																											
Emb																											

DESIGNED BY	A. CANNON
DRAWN BY	E. SUDHAUSEN
CHECKED BY	J. MONG
IN CHARGE	R. COFFIN
DATE	12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**

**NOT FOR  
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**

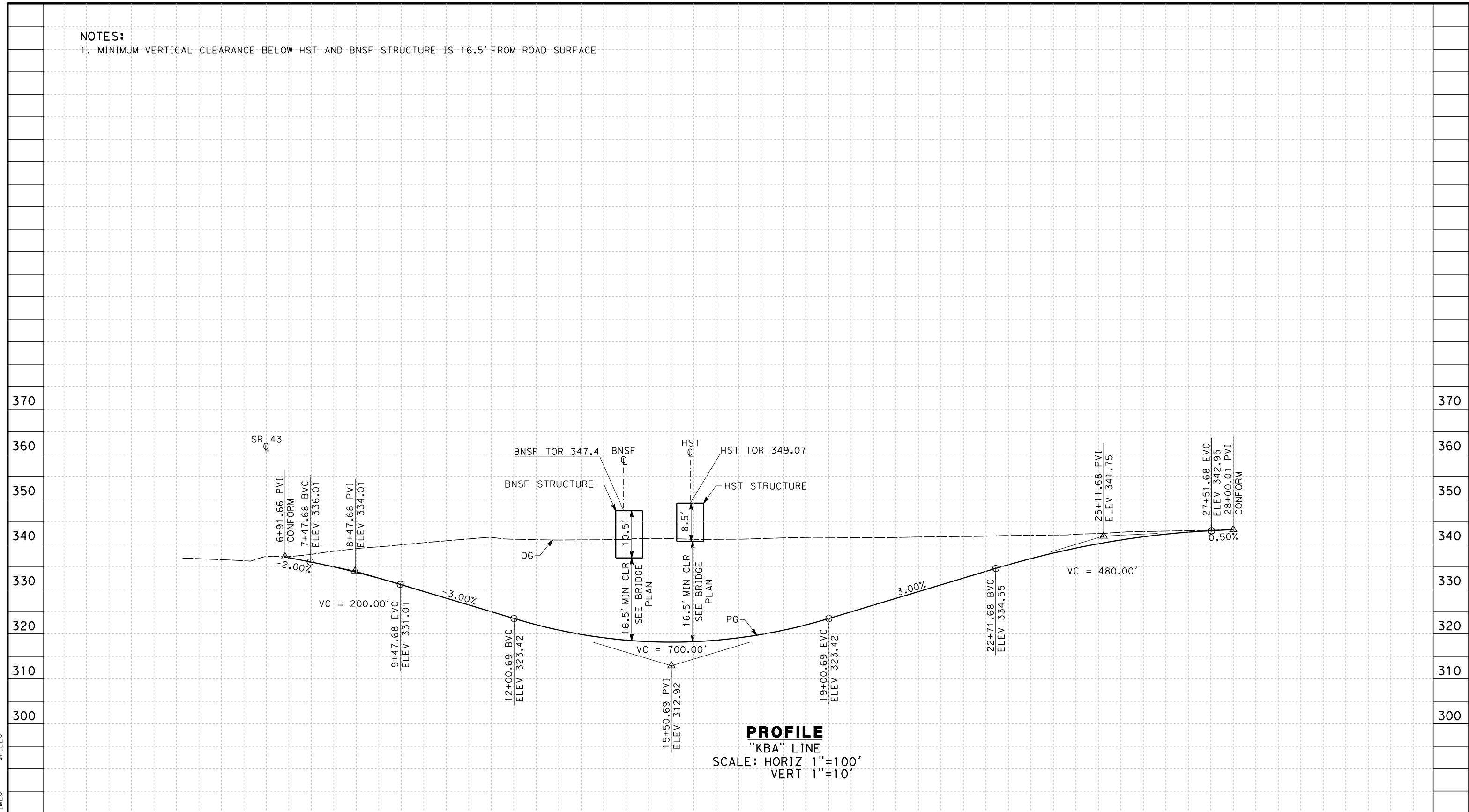
THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 ANNIN CONNECTOR AND MCCOMBS CONNECTOR

CONTRACT NO.	HSR 06-003
DRAWING NO.	CT2902
SCALE	AS SHOWN
SHEET NO.	19 OF 67



**NOTES:**

1. MINIMUM VERTICAL CLEARANCE BELOW HST AND BNSF STRUCTURE IS 16.5' FROM ROAD SURFACE



**PROFILE**  
 "KBA" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	TOTAL	
Exc																									
Emb																									

DESIGNED BY	A. CANNON
DRAWN BY	E. SUDHAUSEN
CHECKED BY	S. BROWN
IN CHARGE	R. COFFIN
DATE	12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**

**NOT FOR  
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**

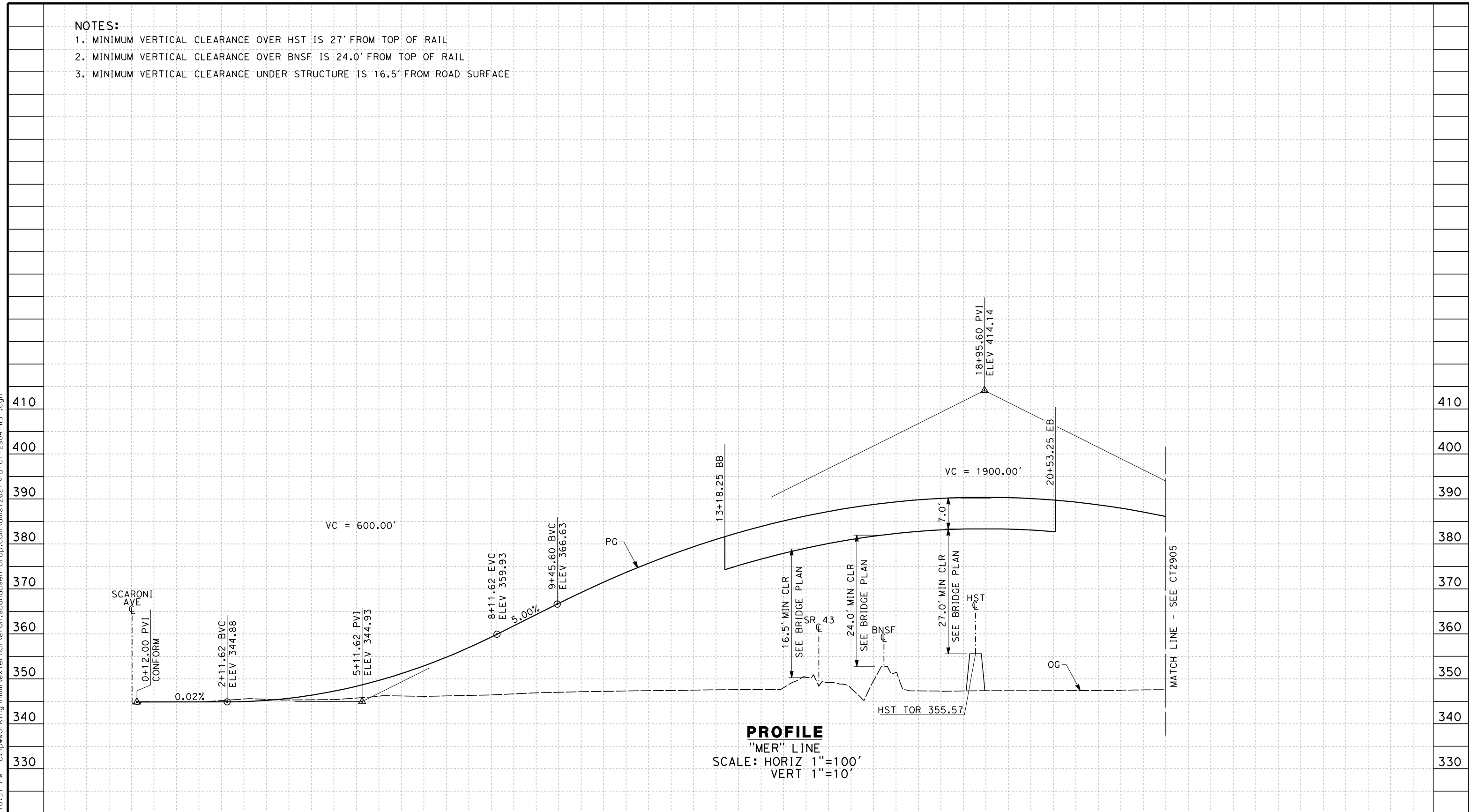
THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 KIMBERLINA RD

CONTRACT NO.	HSR 06-003
DRAWING NO.	CT2903
SCALE	AS SHOWN
SHEET NO.	20 OF 67



**NOTES:**

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE



**PROFILE**  
 "MER" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	TOTAL
Exc																									
Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**



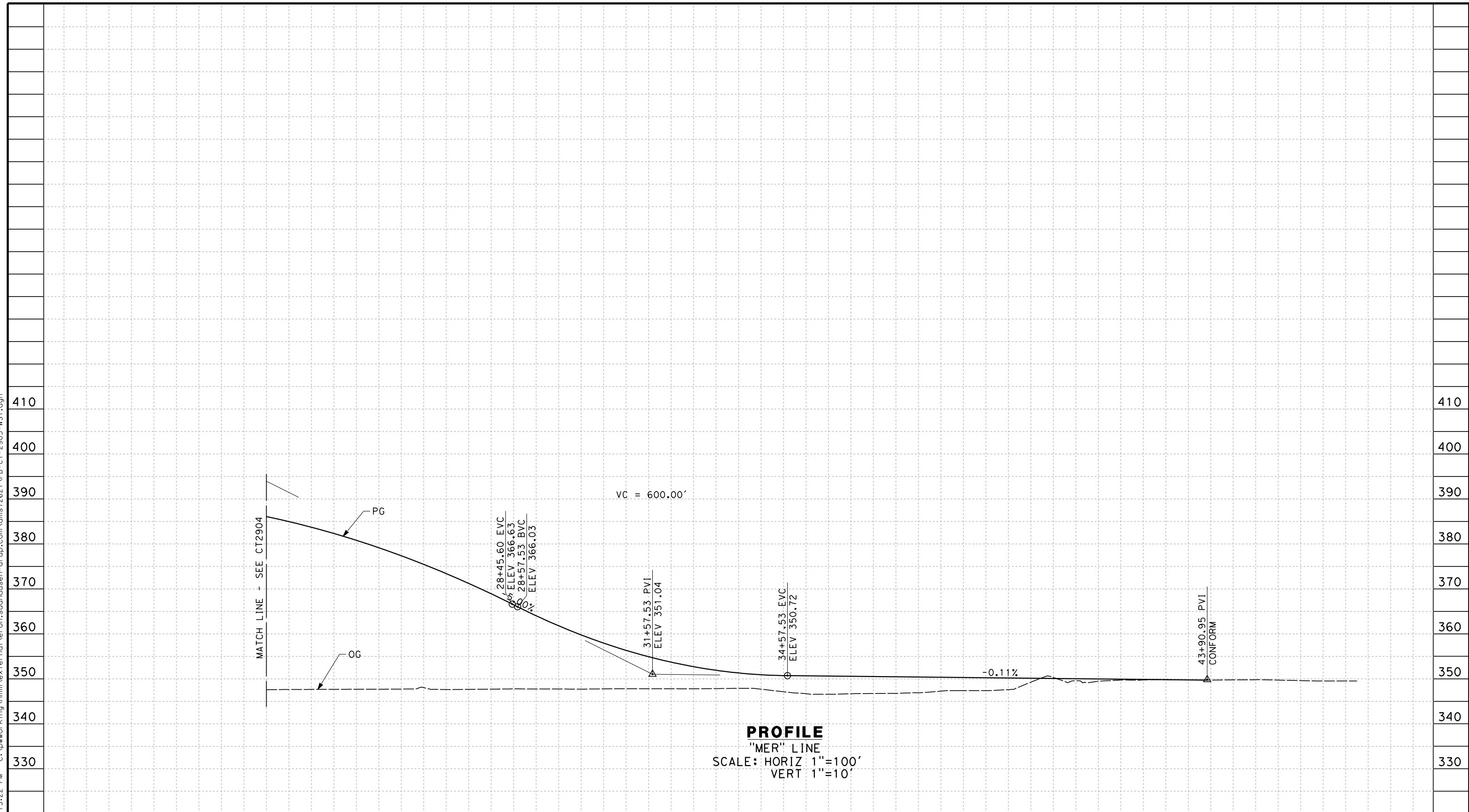
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 MERCED AVE

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CT2904  
 SCALE  
AS SHOWN  
 SHEET NO.  
21 OF 67

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STATION	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	TOTAL
Exc																											
Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON

DRAWN BY  
E. SUDHAUSEN

CHECKED BY  
J. MONG

IN CHARGE  
R. COFFIN

DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**

**NOT FOR  
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**

THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 MERCED AVE

CONTRACT NO.  
HSR 06-003

DRAWING NO.  
CT2905

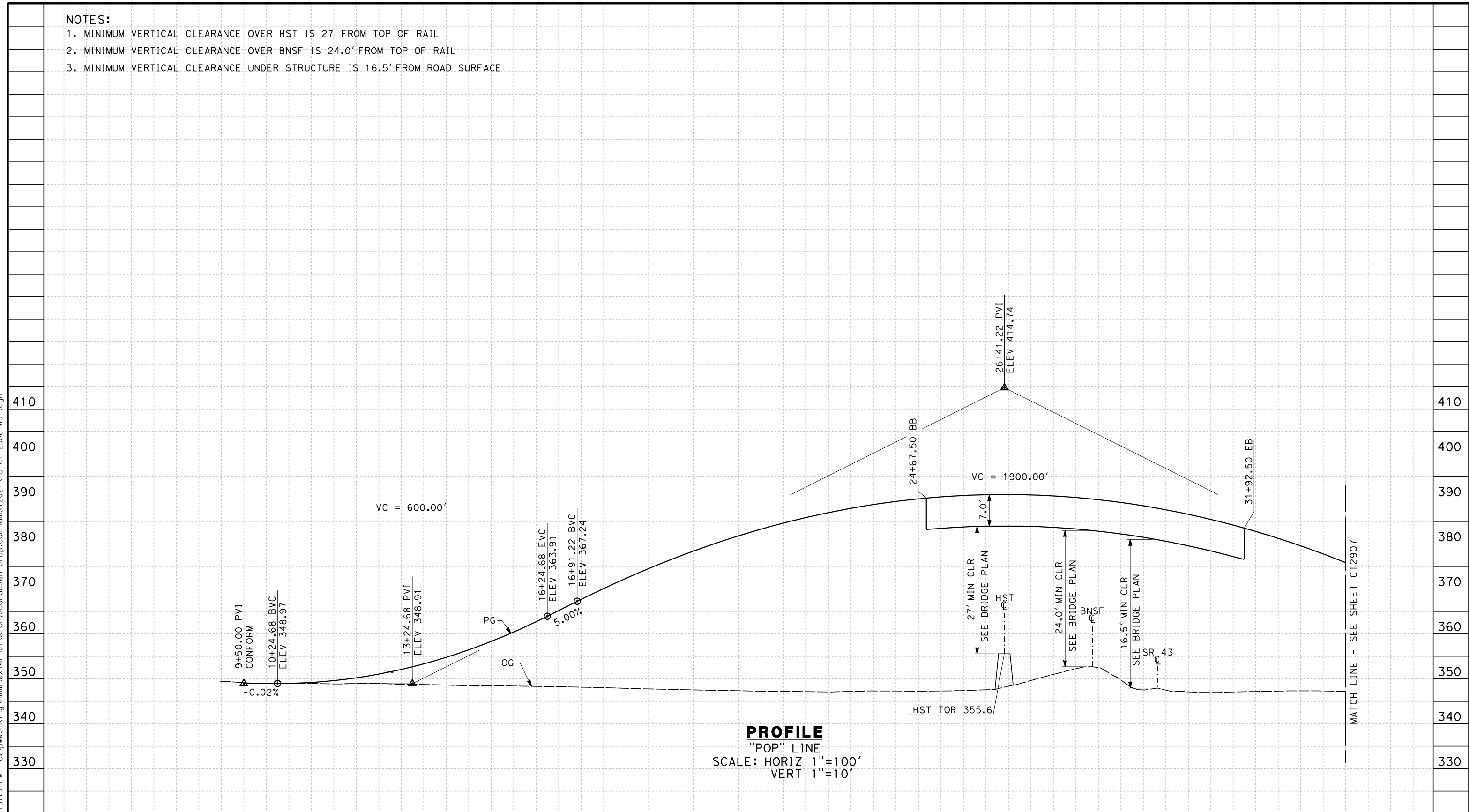
SCALE  
AS SHOWN

SHEET NO.  
22 OF 67



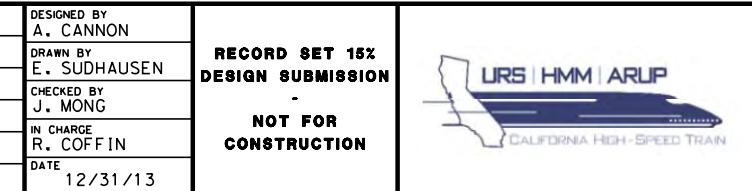
**NOTES:**

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE



STATION	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	TOTAL
Exc																											
Emb																											

DESIGNED BY A. CANNON	<b>RECORD SET 15% DESIGN SUBMISSION</b>  <b>NOT FOR CONSTRUCTION</b>				
DRAWN BY E. SUDHAUSEN					
CHECKED BY J. MONG					
IN CHARGE R. COFFIN					
DATE 12/31/13					
REV	DATE	BY	CHK	APP	DESCRIPTION



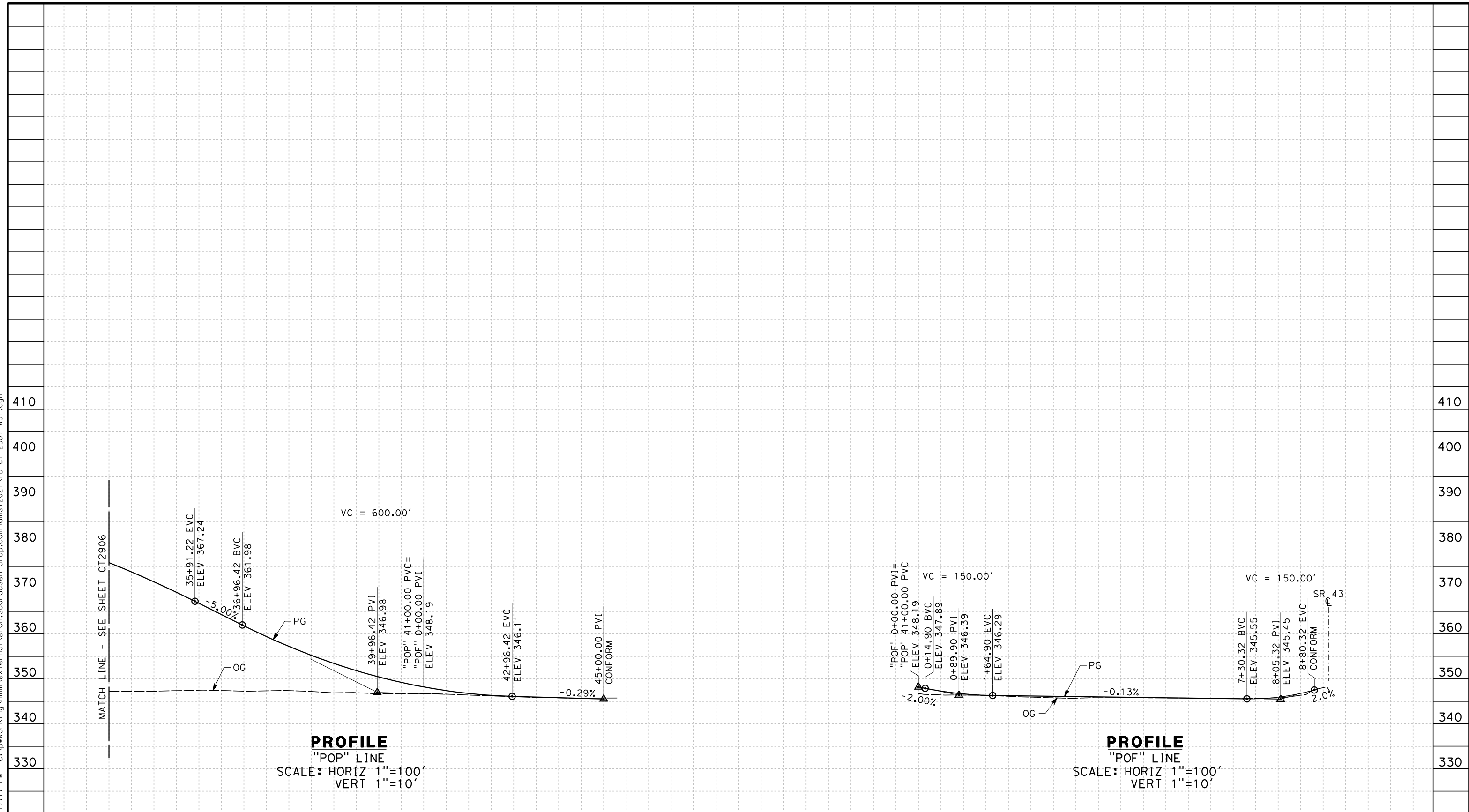
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 POPLAR AVE

CONTRACT NO. HSR 06-003
DRAWING NO. CT2906
SCALE AS SHOWN
SHEET NO. 23 OF 67

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STATION	4	35	6	7	8	9	40	1	2	3	4	45	0	1	2	3	4	5	6	7	8	9	TOTAL	
Exc																								
Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON

DRAWN BY  
E. SUDHAUSEN

CHECKED BY  
J. MONG

IN CHARGE  
R. COFFIN

DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**

THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION PROFILE  
POPLAR AVE AND POPLAR CONNECTOR

CONTRACT NO.  
HSR 06-003

DRAWING NO.  
CT2907

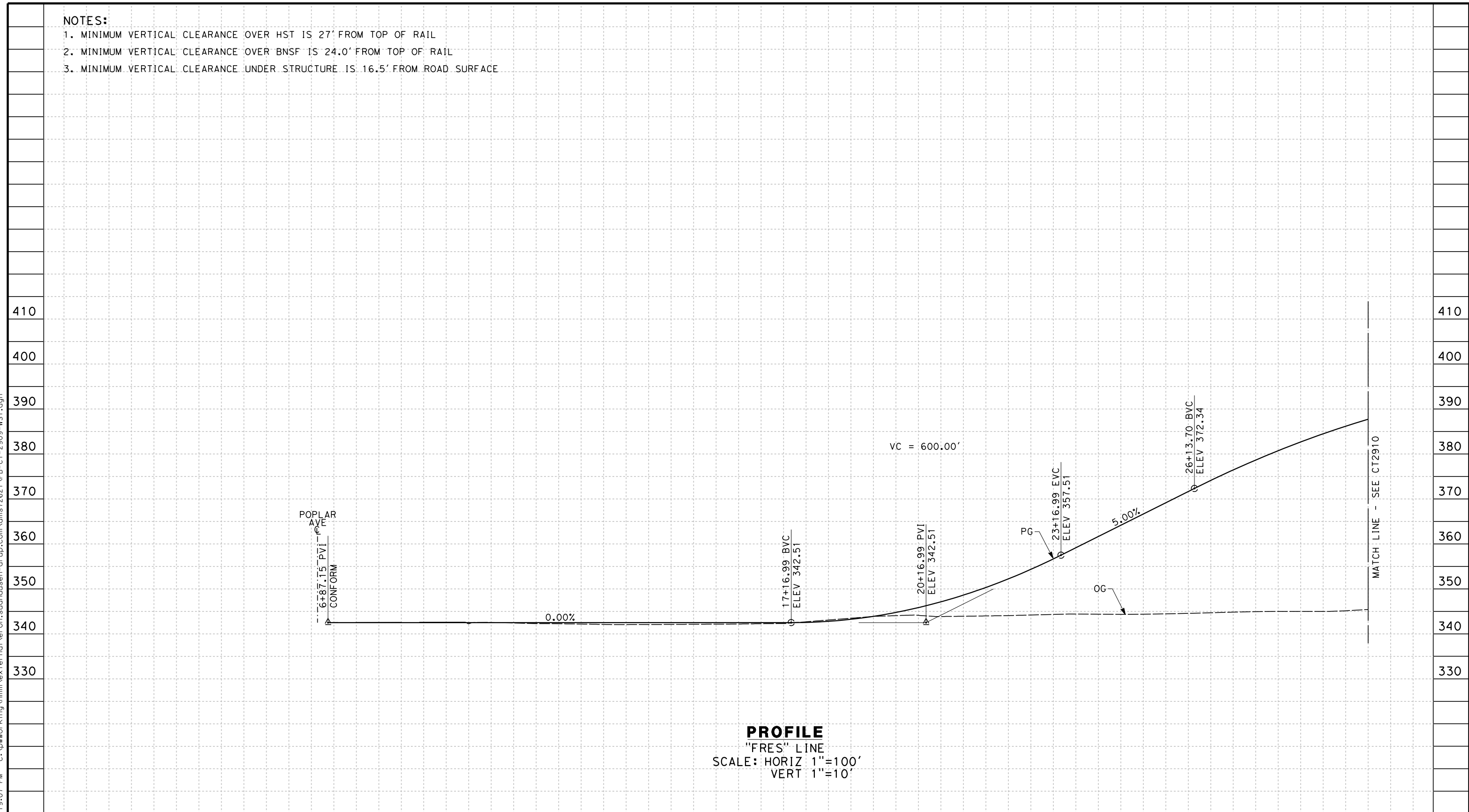
SCALE  
AS SHOWN

SHEET NO.  
24 OF 67



**NOTES:**

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE



**PROFILE**  
 "FRES" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	TOTAL	
Exc																											
Emb																											

DESIGNED BY A. CANNON	<b>RECORD SET 15% DESIGN SUBMISSION</b>  <b>NOT FOR CONSTRUCTION</b>
DRAWN BY E. SUDHAUSEN	
CHECKED BY J. MONG	
IN CHARGE R. COFFIN	
DATE 12/31/13	

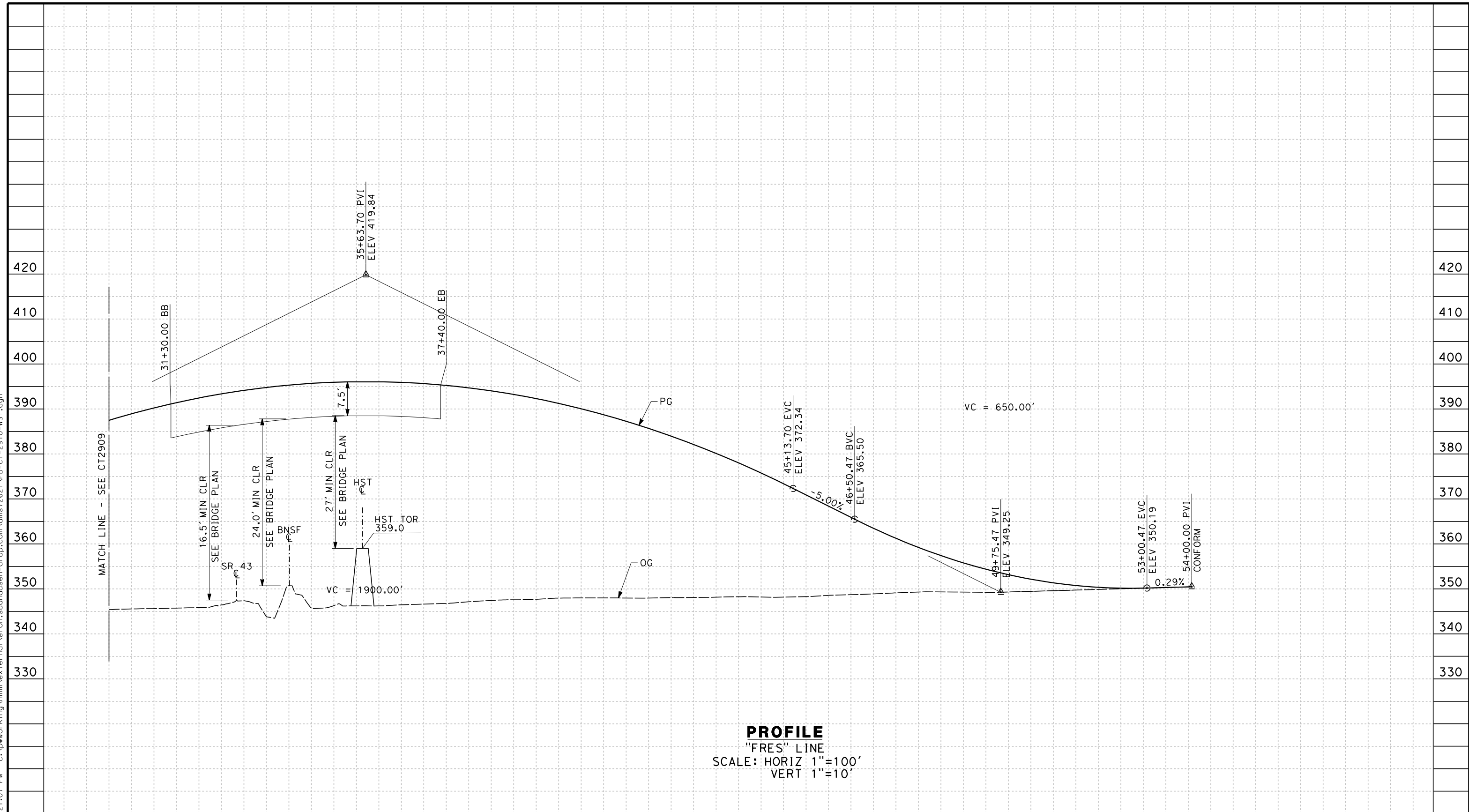
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 FRESNO AVE

CONTRACT NO. HSR 06-003
DRAWING NO. CT2909
SCALE AS SHOWN
SHEET NO. 25 OF 67

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**PROFILE**  
 "FRES" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	4	55	TOTAL
Exc																											
Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**



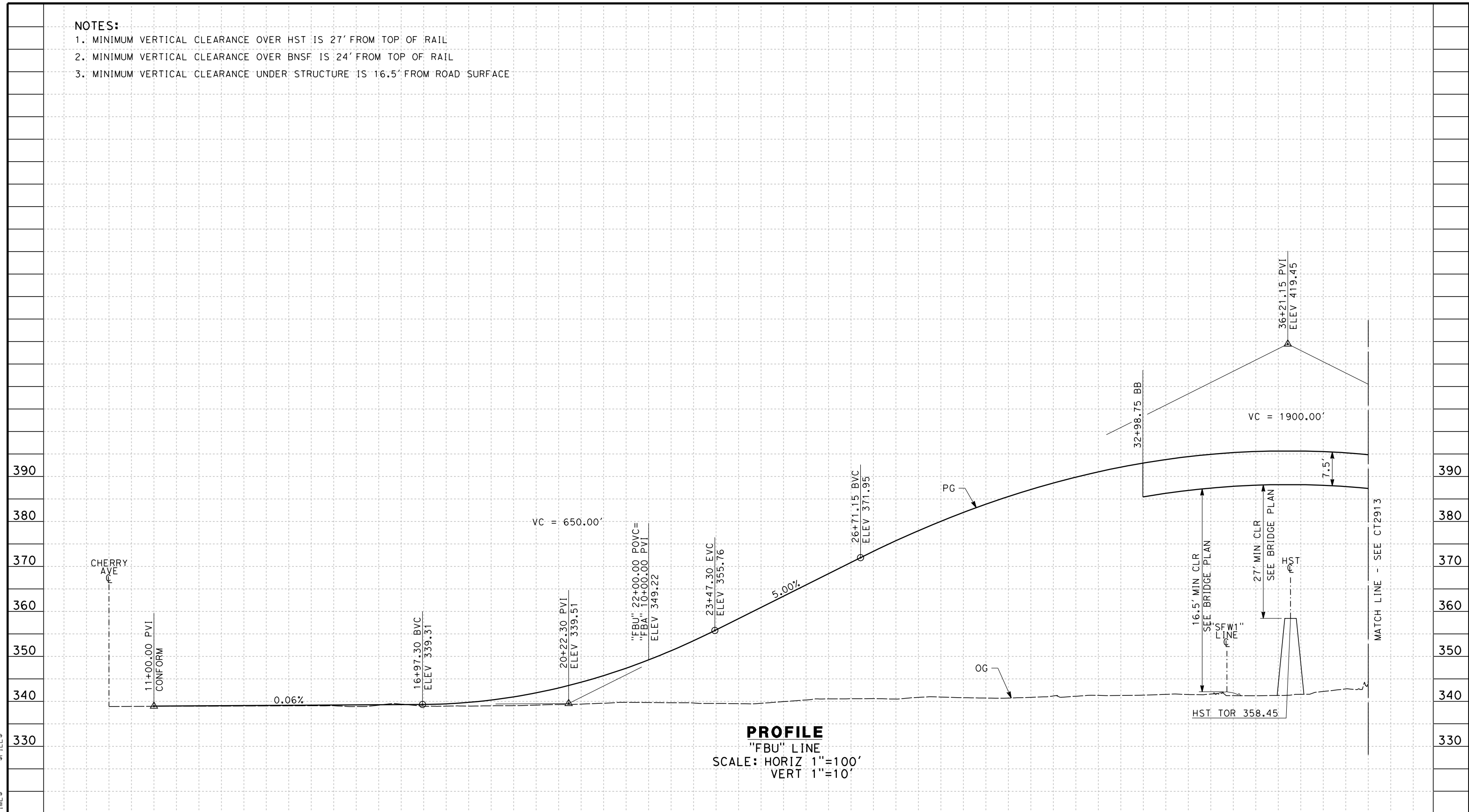
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 FRESNO AVE

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CT2910  
 SCALE  
AS SHOWN  
 SHEET NO.  
26 OF 67



**NOTES:**

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE



STATION	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	TOTAL
Exc																														
Emb																														

DESIGNED BY	A. CANNON
DRAWN BY	E. SUDHAUSEN
CHECKED BY	J. MONG
IN CHARGE	R. COFFIN
DATE	12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**

**NOT FOR  
 CONSTRUCTION**



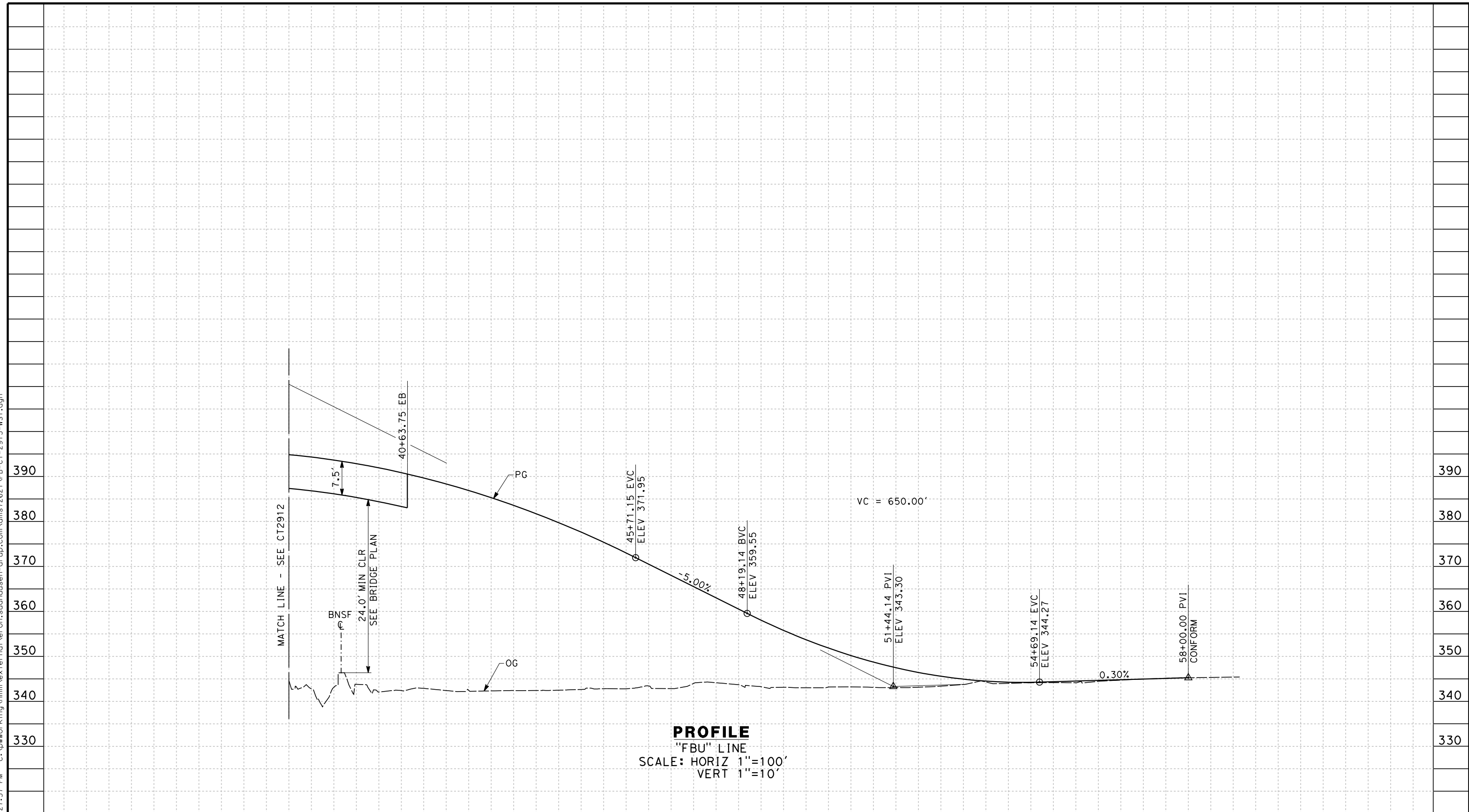
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**

THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 BURBANK ST & CHERRY AVE

CONTRACT NO.	HSR 06-003
DRAWING NO.	CT2912
SCALE	AS SHOWN
SHEET NO.	27 OF 67



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STATION	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	4	55	6	7	8	9	60	TOTAL
Exc																								
Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
 NOT FOR  
 CONSTRUCTION

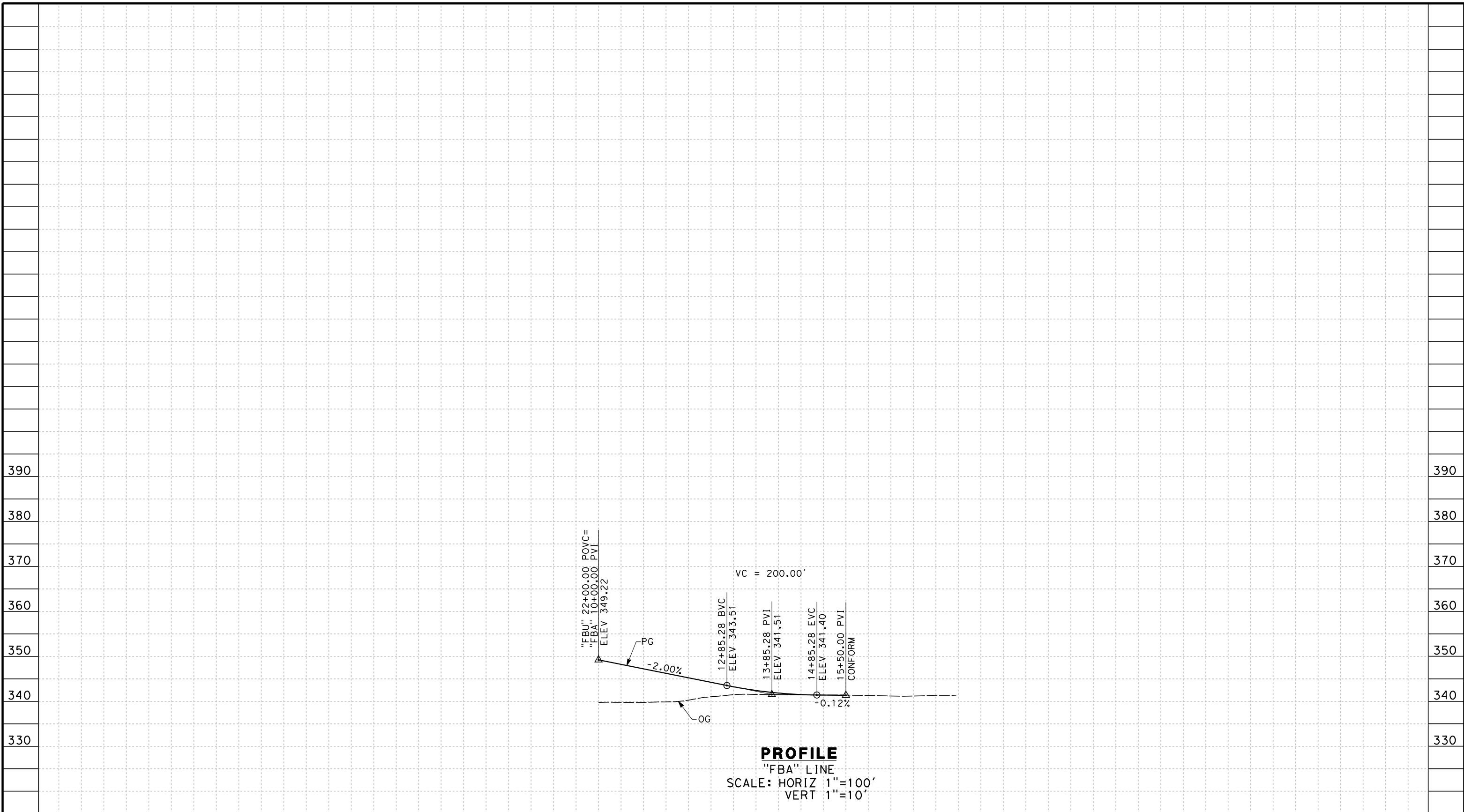


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 BURBANK ST

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CT2913  
 SCALE  
AS SHOWN  
 SHEET NO.  
28 OF 67



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**PROFILE**  
 "FBA" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	10	1	2	3	4	15	TOTAL
Exc							
Emb							

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 BURBANK CONNECTOR

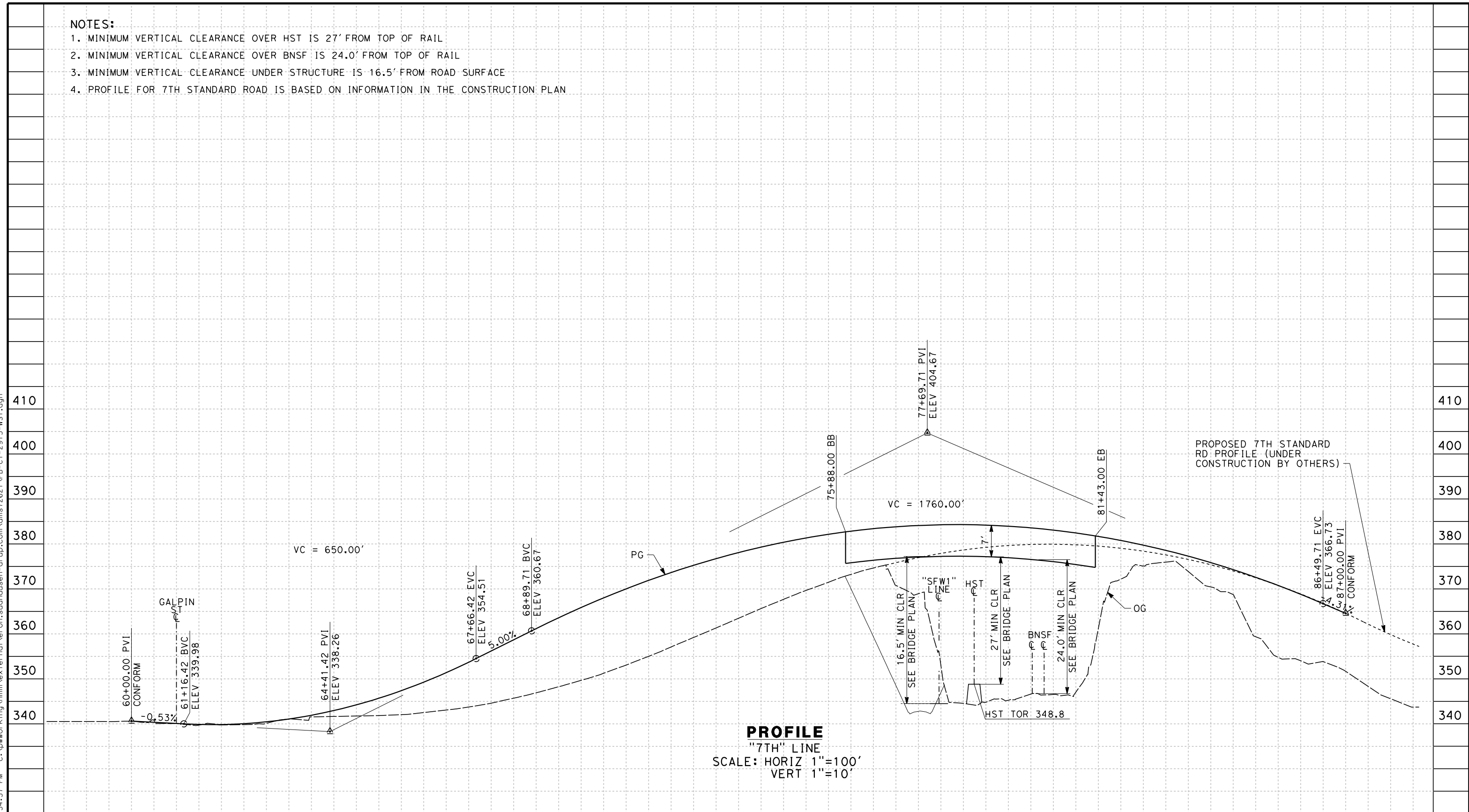
CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CT2914  
 SCALE  
AS SHOWN  
 SHEET NO.  
29 OF 67



**NOTES:**

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE
4. PROFILE FOR 7TH STANDARD ROAD IS BASED ON INFORMATION IN THE CONSTRUCTION PLAN

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**PROFILE**  
 "7TH" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	9	60	1	2	3	4	65	6	7	8	9	70	1	2	3	4	75	6	7	8	9	80	1	2	3	4	85	6	7	8	TOTAL
Exc																															
Emb																															

DESIGNED BY A. CANNON	<b>RECORD SET 15% DESIGN SUBMISSION</b>  <b>NOT FOR CONSTRUCTION</b>
DRAWN BY E. SUDHAUSEN	
CHECKED BY J. MONG	
IN CHARGE R. COFFIN	
DATE 12/31/13	

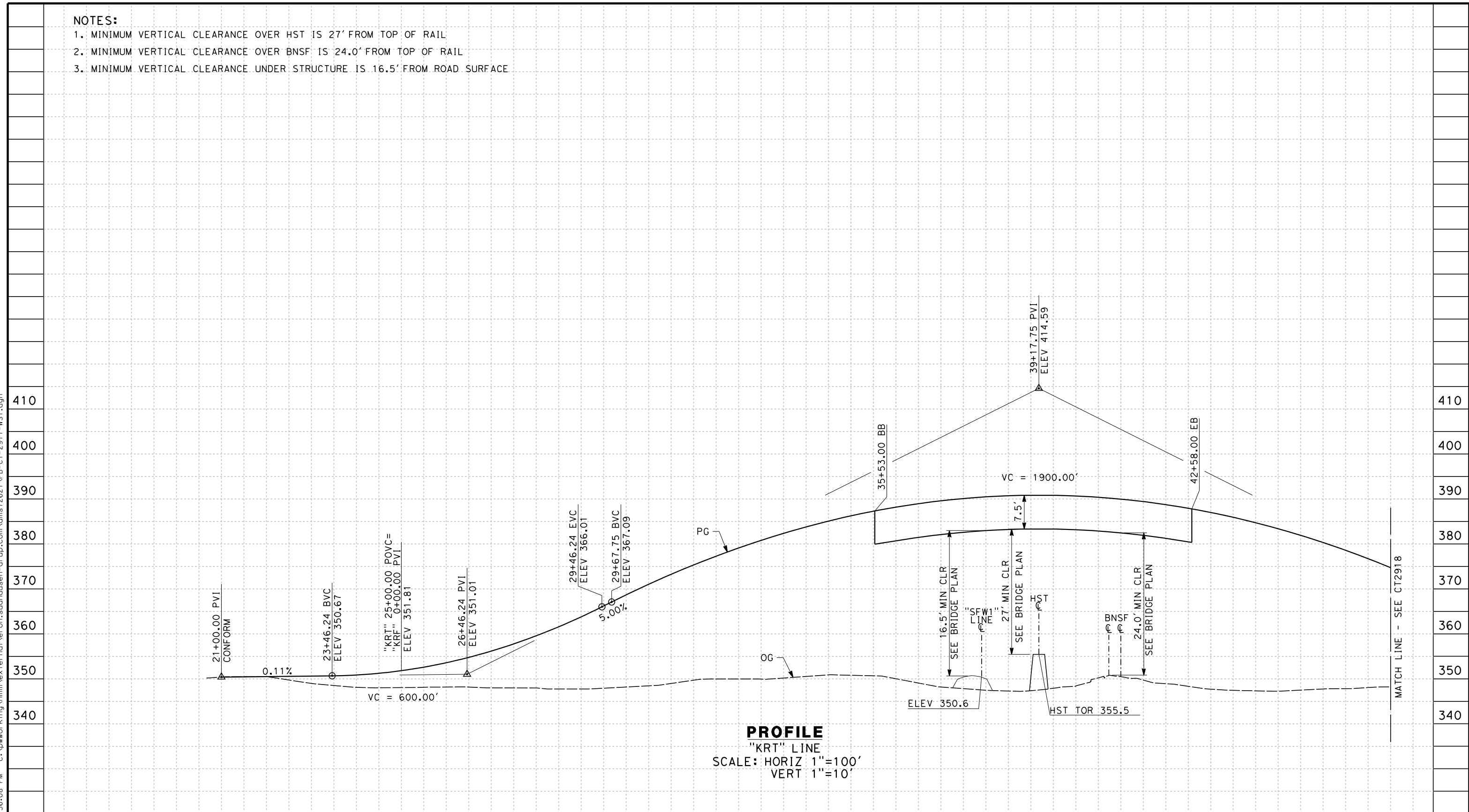
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 7TH STANDARD RD

CONTRACT NO. HSR 06-003
DRAWING NO. CT2915
SCALE AS SHOWN
SHEET NO. 30 OF 67



**NOTES:**

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE



**PROFILE**

'KRT' LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	TOTAL	
Exc																													
Emb																													

DESIGNED BY	A. CANNON
DRAWN BY	E. SUDHAUSEN
CHECKED BY	J. MONG
IN CHARGE	R. COFFIN
DATE	12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**

**NOT FOR  
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**

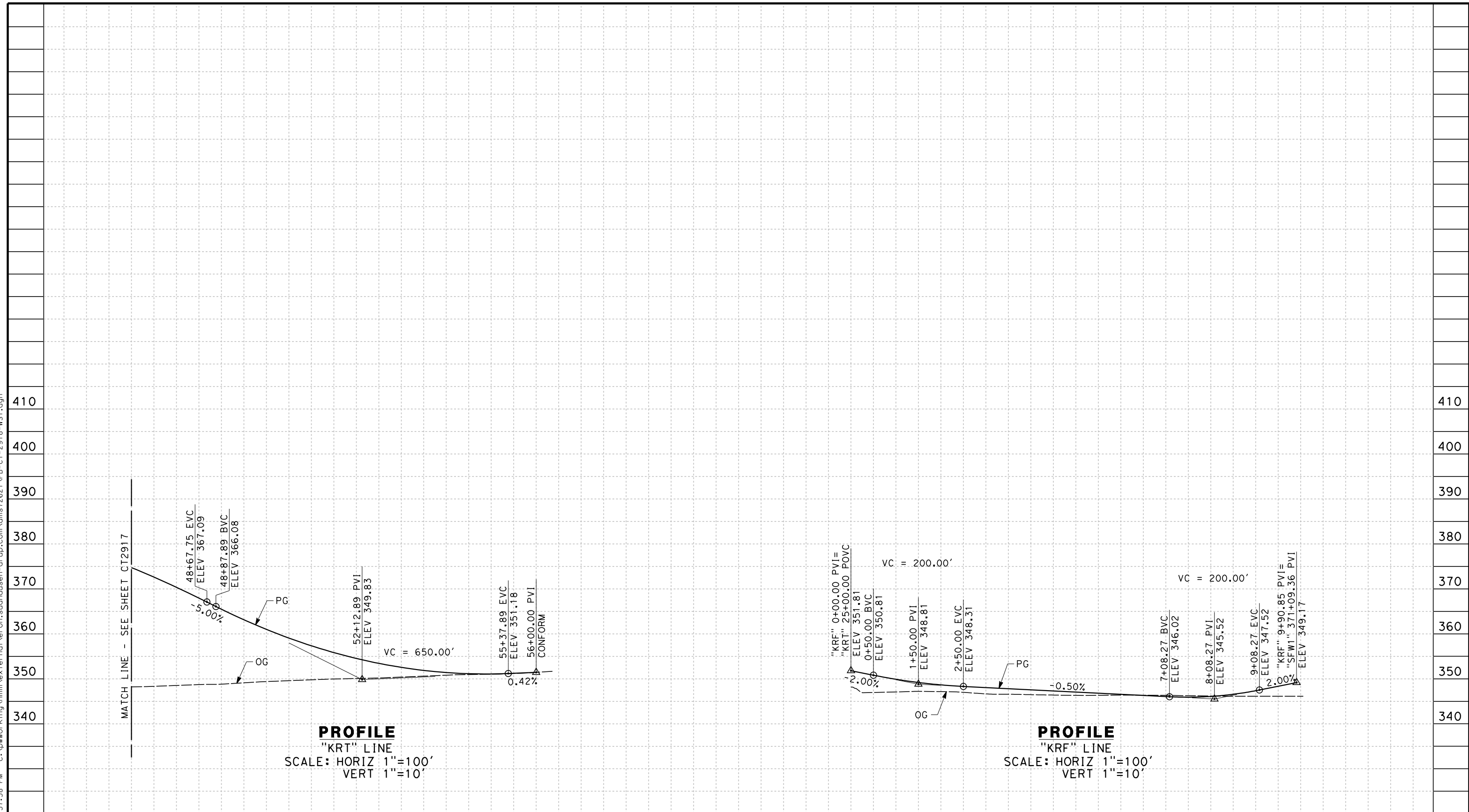
THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 KRATZMEYER RD

CONTRACT NO.	HSR 06-003
DRAWING NO.	CT2917
SCALE	AS SHOWN
SHEET NO.	31 OF 67

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 eron.sudhausen



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STATION	7	8	9	50	1	2	3	4	55	6	0	1	2	3	4	5	6	7	8	9	10	TOTAL
Exc																						
Emb																						

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
J. MONG  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



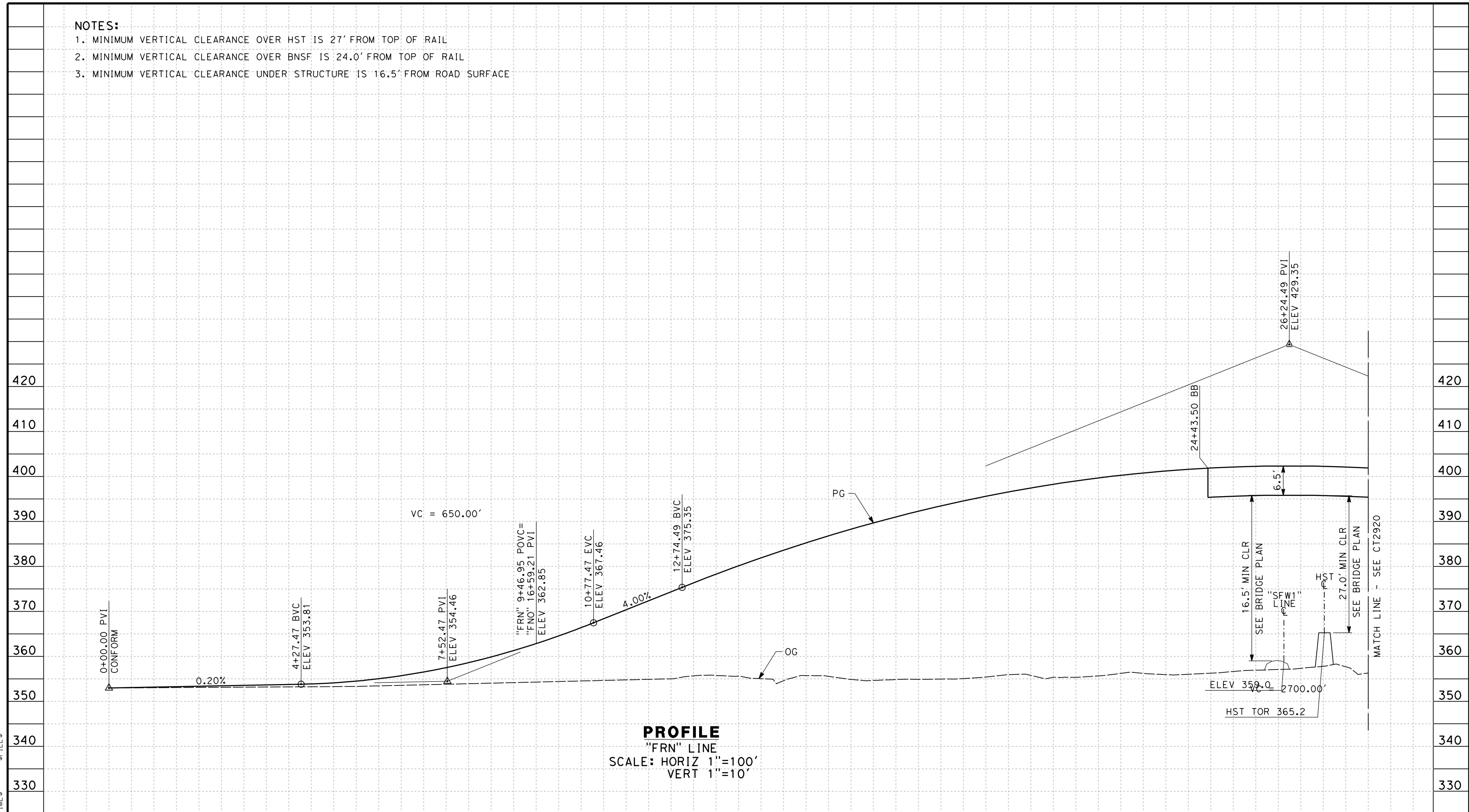
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
GRADE SEPARATION PROFILE  
KRATZMEYER RD AND KRATZMEYER CONNECTOR

CONTRACT NO.  
HSR 06-003  
DRAWING NO.  
CT2918  
SCALE  
AS SHOWN  
SHEET NO.  
32 OF 67



**NOTES:**

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE



STATION	0	1	2	3	4	5	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	TOTAL	
Exc																															
Emb																															

DESIGNED BY	A. CANNON
DRAWN BY	E. SUDHAUSEN
CHECKED BY	J. MONG
IN CHARGE	R. COFFIN
DATE	12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**

**NOT FOR  
 CONSTRUCTION**

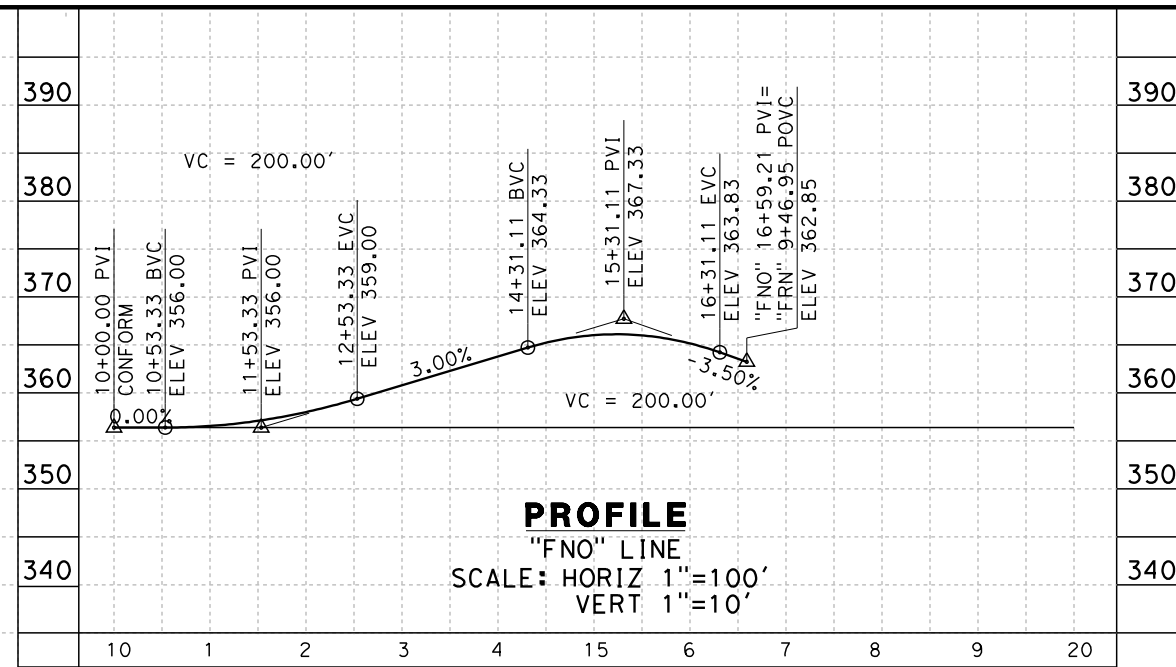
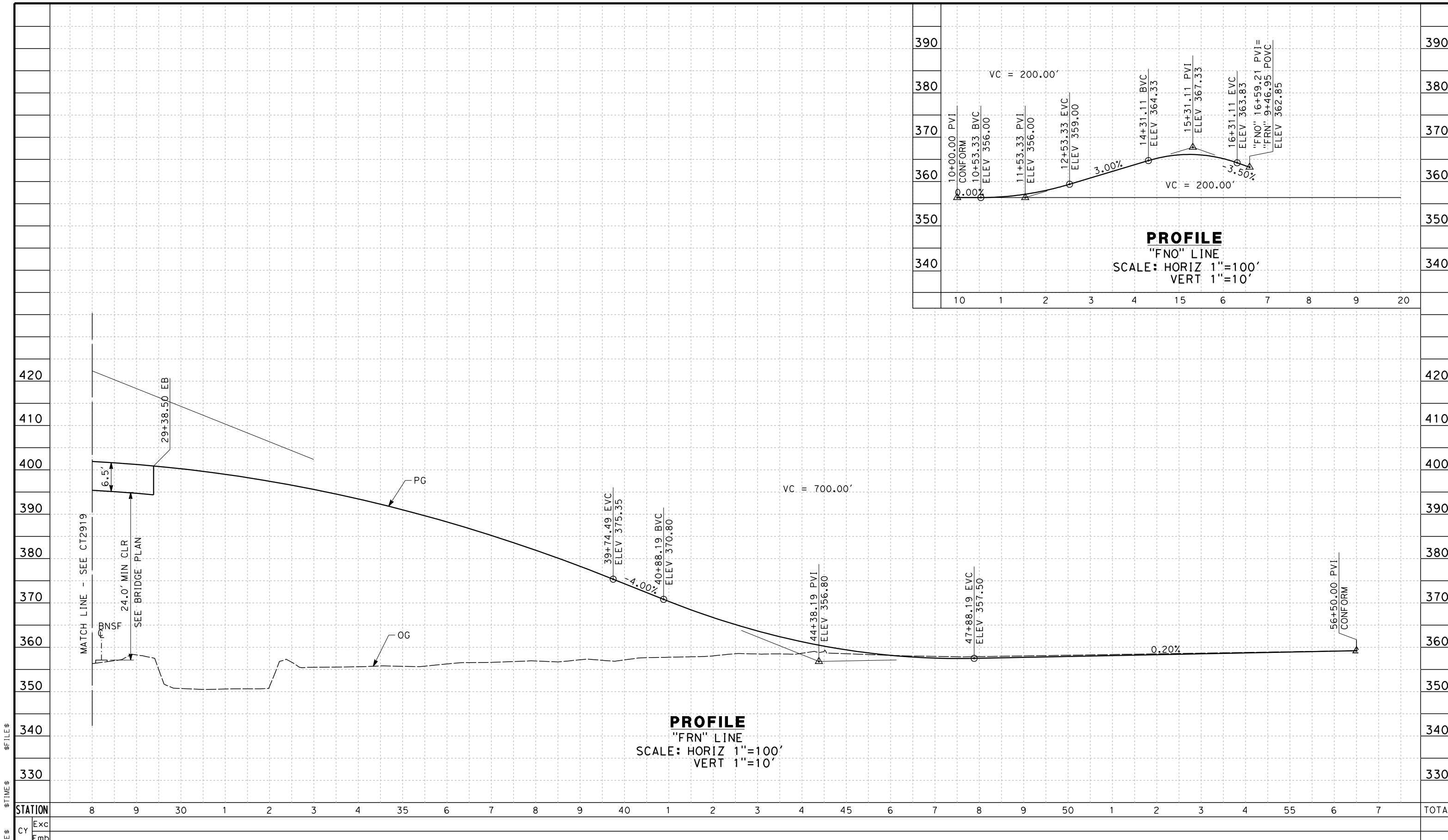


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**

THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 RENFRO RD

CONTRACT NO.	HSR 06-003
DRAWING NO.	CT2919
SCALE	AS SHOWN
SHEET NO.	33 OF 67





**PROFILE**  
 "FRN" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

**PROFILE**  
 "FNO" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 GRADE SEPARATION PROFILE  
 RENFRO RD

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CT2920  
 SCALE  
AS SHOWN  
 SHEET NO.  
34 OF 67

STATION	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	4	55	6	7	TOTAL
Exc																															
Emb																															

\$USER \$ DATE \$ TIME \$ FILE \$

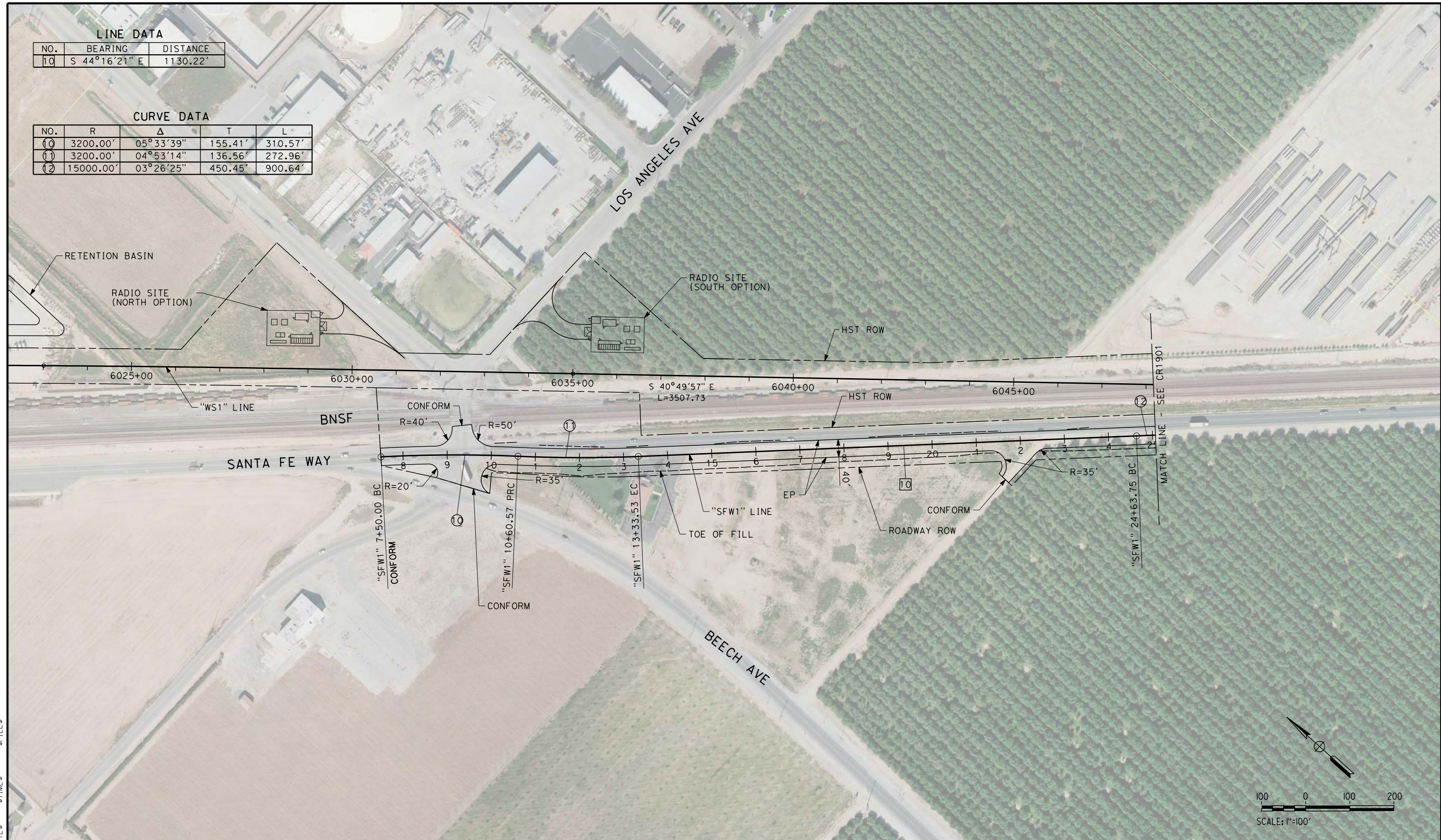


LINE DATA

NO.	BEARING	DISTANCE
10	S 44°16'21" E	1130.22'

CURVE DATA

NO.	R	Δ	T	L
10	3200.00'	05°33'39"	155.41'	310.57'
11	3200.00'	04°53'14"	136.56'	272.96'
12	15000.00'	03°26'25"	450.45'	900.64'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CR1900  
 SCALE  
AS SHOWN  
 SHEET NO.  
35 OF 67

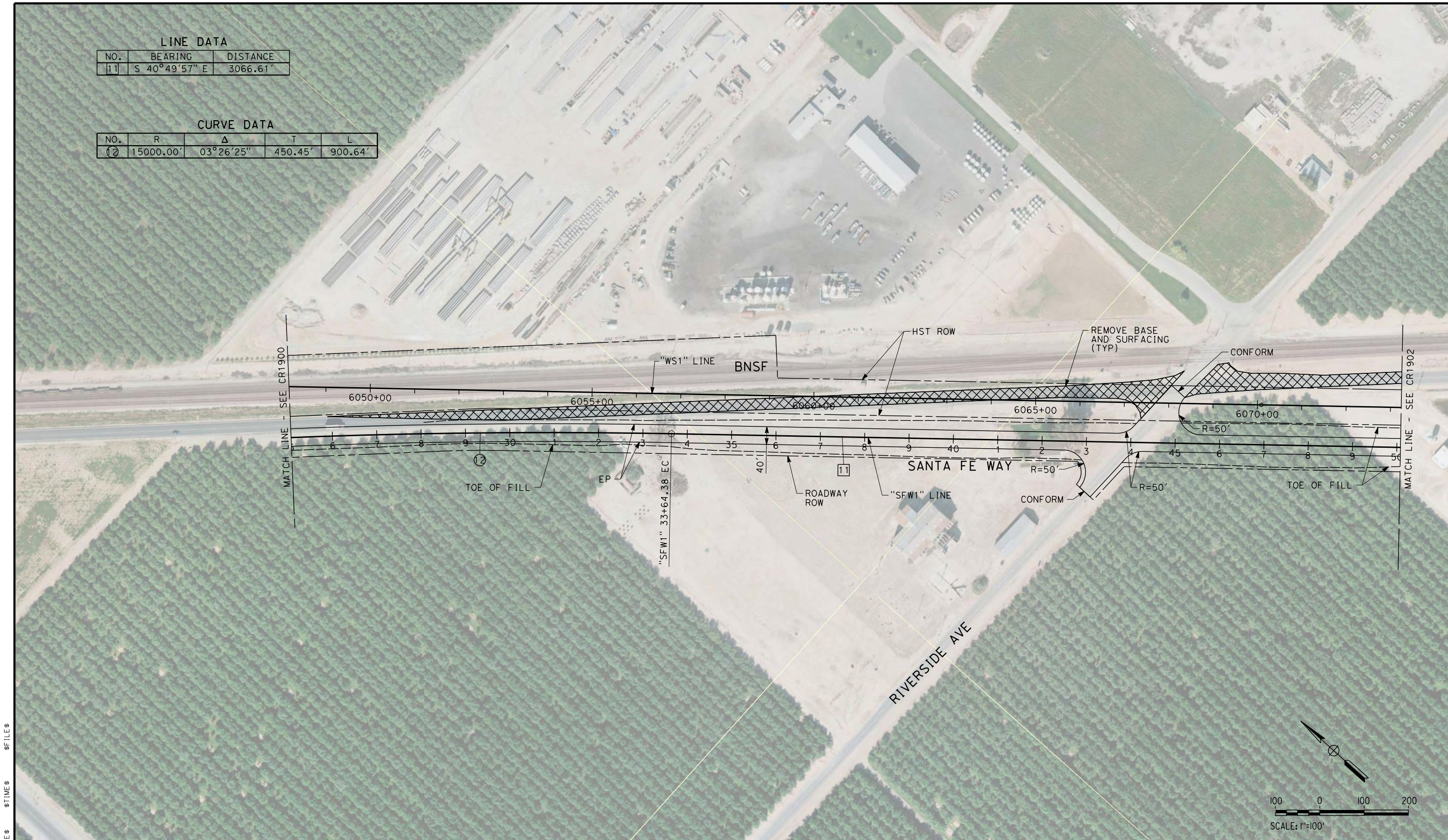


LINE DATA

NO.	BEARING	DISTANCE
11	S 40°49'57" E	3066.61'

CURVE DATA

NO.	R	Δ	T	L
2	15000.00'	03°26'25"	450.45'	900.64'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
**A. CANNON**  
 DRAWN BY  
**E. SUDHAUSEN**  
 CHECKED BY  
**S. BROWN**  
 IN CHARGE  
**R. COFFIN**  
 DATE  
**12/31/13**

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
 HSR 06-0003  
 DRAWING NO.  
 CR1901  
 SCALE  
 AS SHOWN  
 SHEET NO.  
 36 OF 67

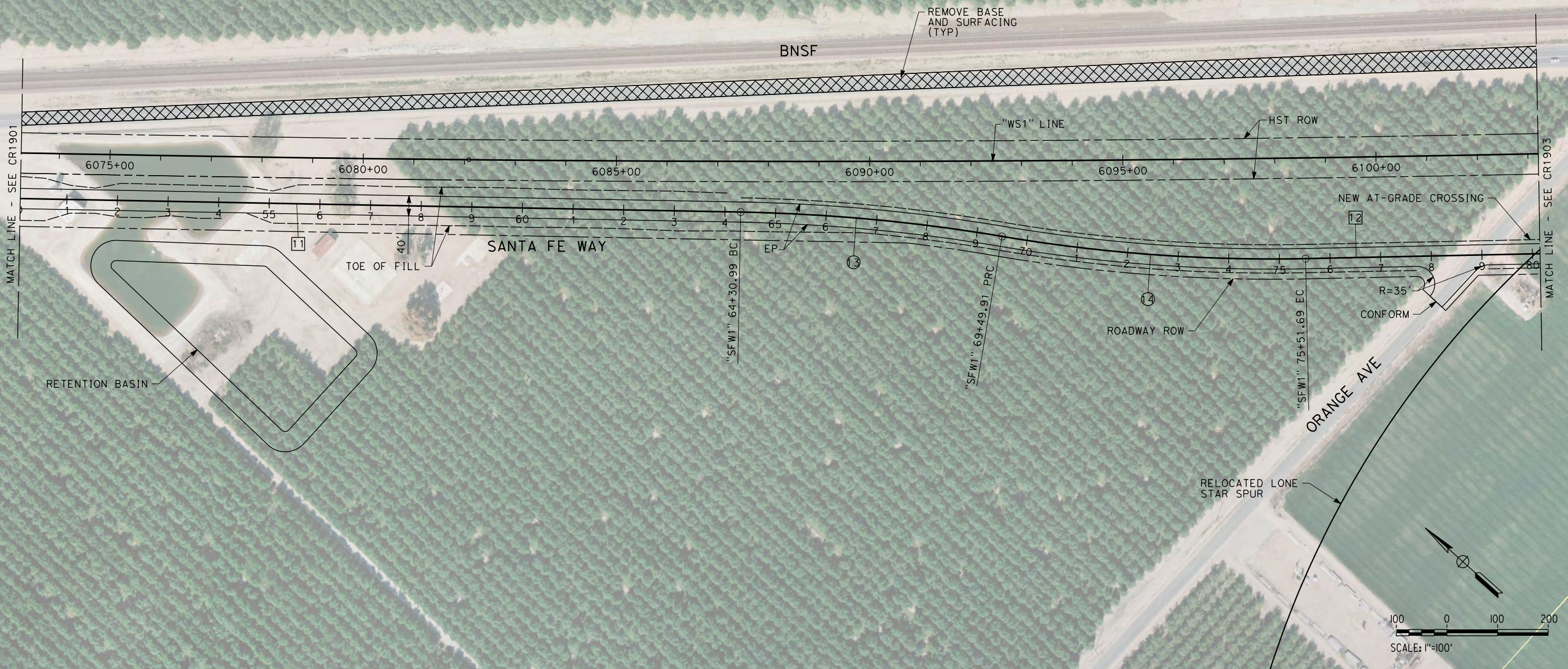


LINE DATA

NO.	BEARING	DISTANCE
11	S 40°49'57" E	3066.61'
12	S 43°06'45" E	1651.19'

CURVE DATA

NO.	R	Δ	T	L
13	3500.00'	08°29'41"	259.93'	518.92'
14	3200.00'	10°46'30"	301.78'	601.78'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CR1902  
 SCALE  
AS SHOWN  
 SHEET NO.  
37 OF 67

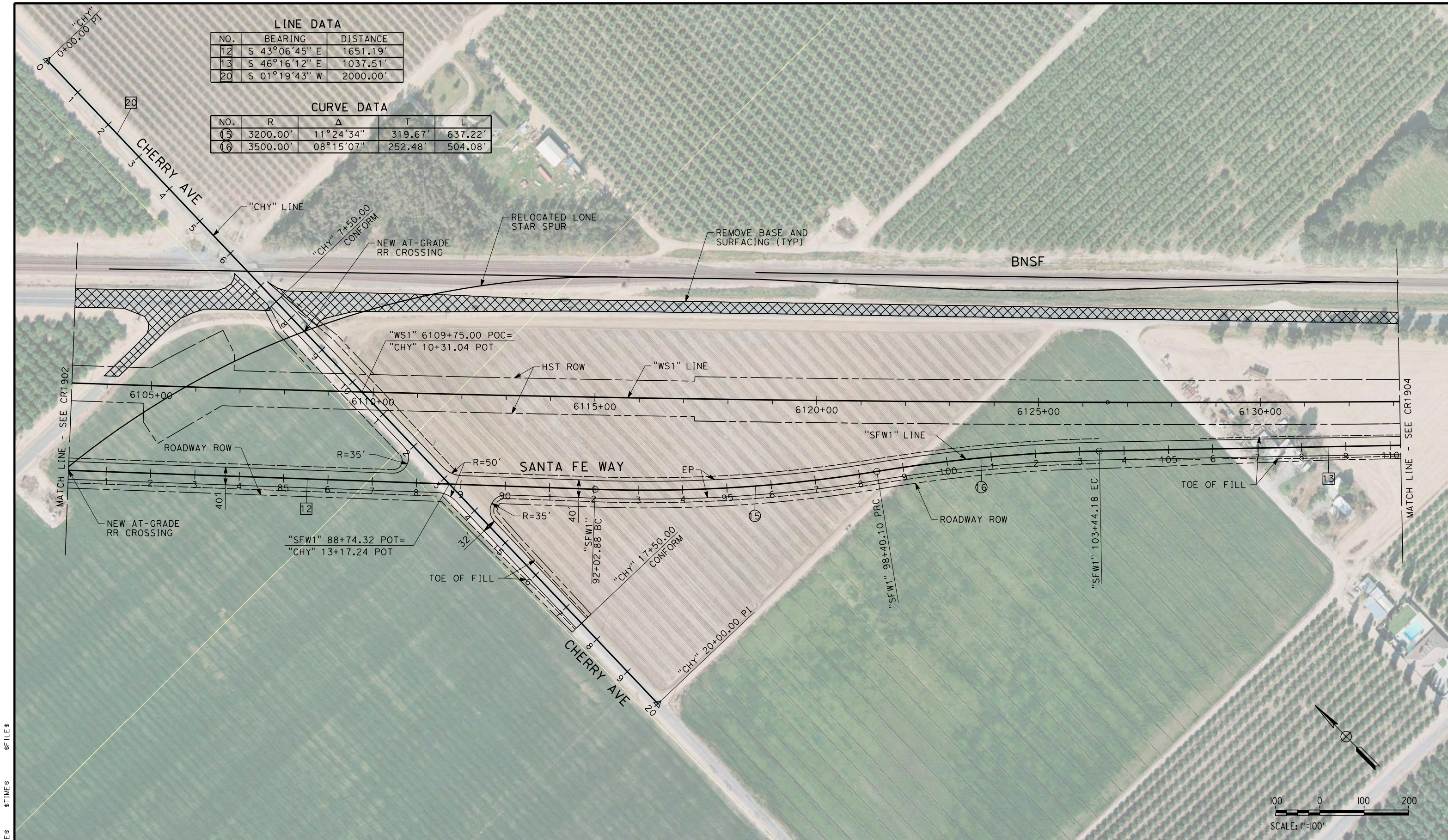


**LINE DATA**

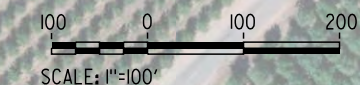
NO.	BEARING	DISTANCE
12	S 43°06'45" E	1651.19'
13	S 46°16'12" E	1037.51'
20	S 01°19'43" W	2000.00'

**CURVE DATA**

NO.	R	Δ	T	L
15	3200.00'	11°24'34"	319.67'	637.22'
16	3500.00'	08°15'07"	252.48'	504.08'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CR1903  
 SCALE  
AS SHOWN  
 SHEET NO.  
38 OF 67

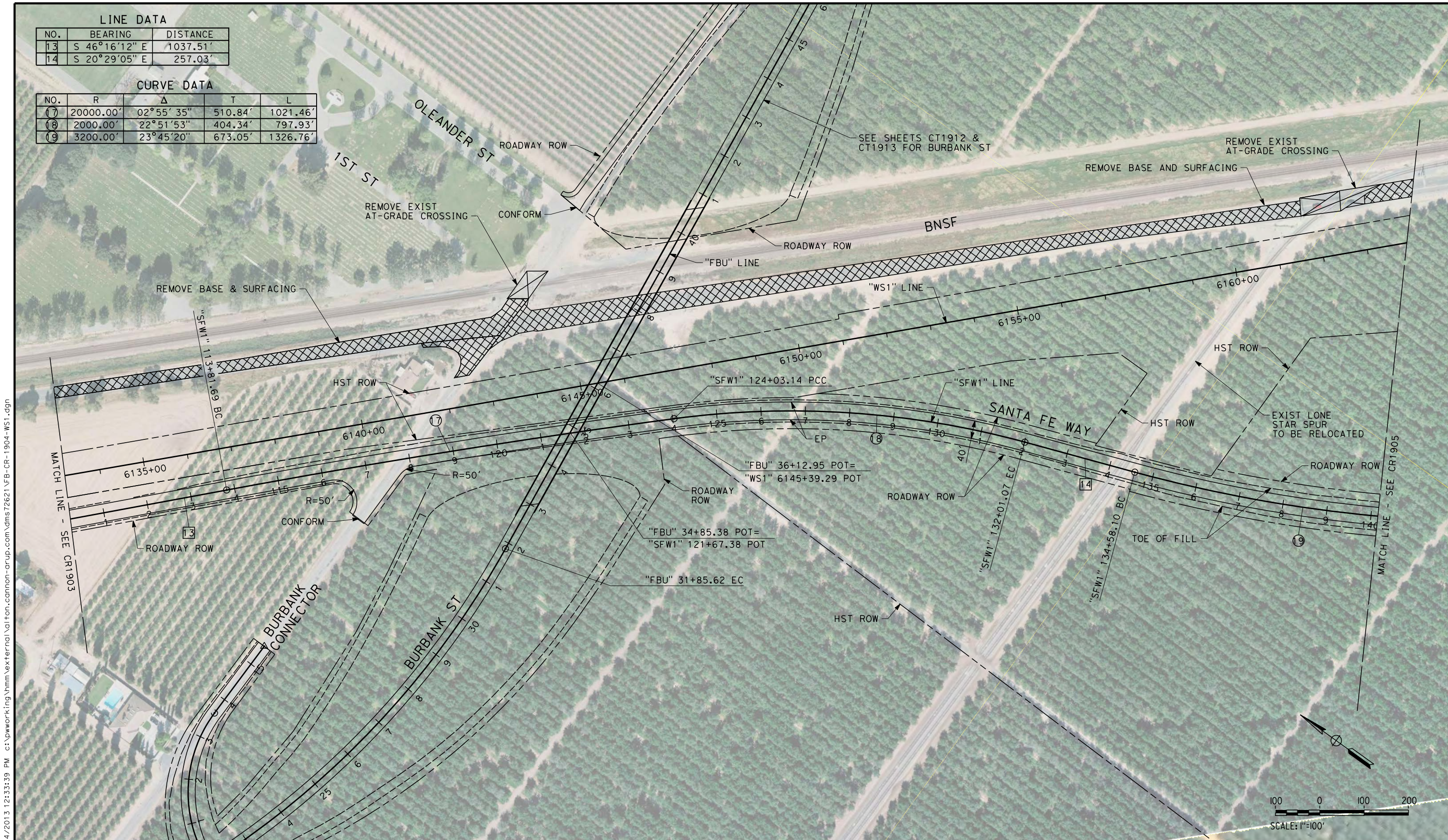


LINE DATA

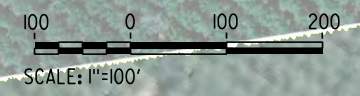
NO.	BEARING	DISTANCE
13	S 46°16'12" E	1037.51'
14	S 20°29'05" E	257.03'

CURVE DATA

NO.	R	Δ	T	L
7	20000.00'	02°55'35"	510.84'	1021.46'
8	2000.00'	22°51'53"	404.34'	797.93'
9	3200.00'	23°45'20"	673.05'	1326.76'



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
ROADWAY LAYOUT  
SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CR1904  
SCALE  
AS SHOWN  
SHEET NO.  
39 OF 67



c:\pwworking\hmm\external\alton.cannon-ar-up.com\dms72621\FB-CR-1905-WS1.dgn

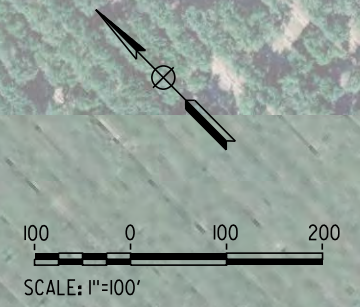


LINE DATA

NO.	BEARING	DISTANCE
15	S 44°14'25" E	1230.60'
16	S 61°22'26" E	1175.20'

CURVE DATA

NO.	R	Δ	T	L
19	3200.00'	23°45'20"	673.05'	1326.76'
20	3200.00'	17°08'01"	482.06'	956.92'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



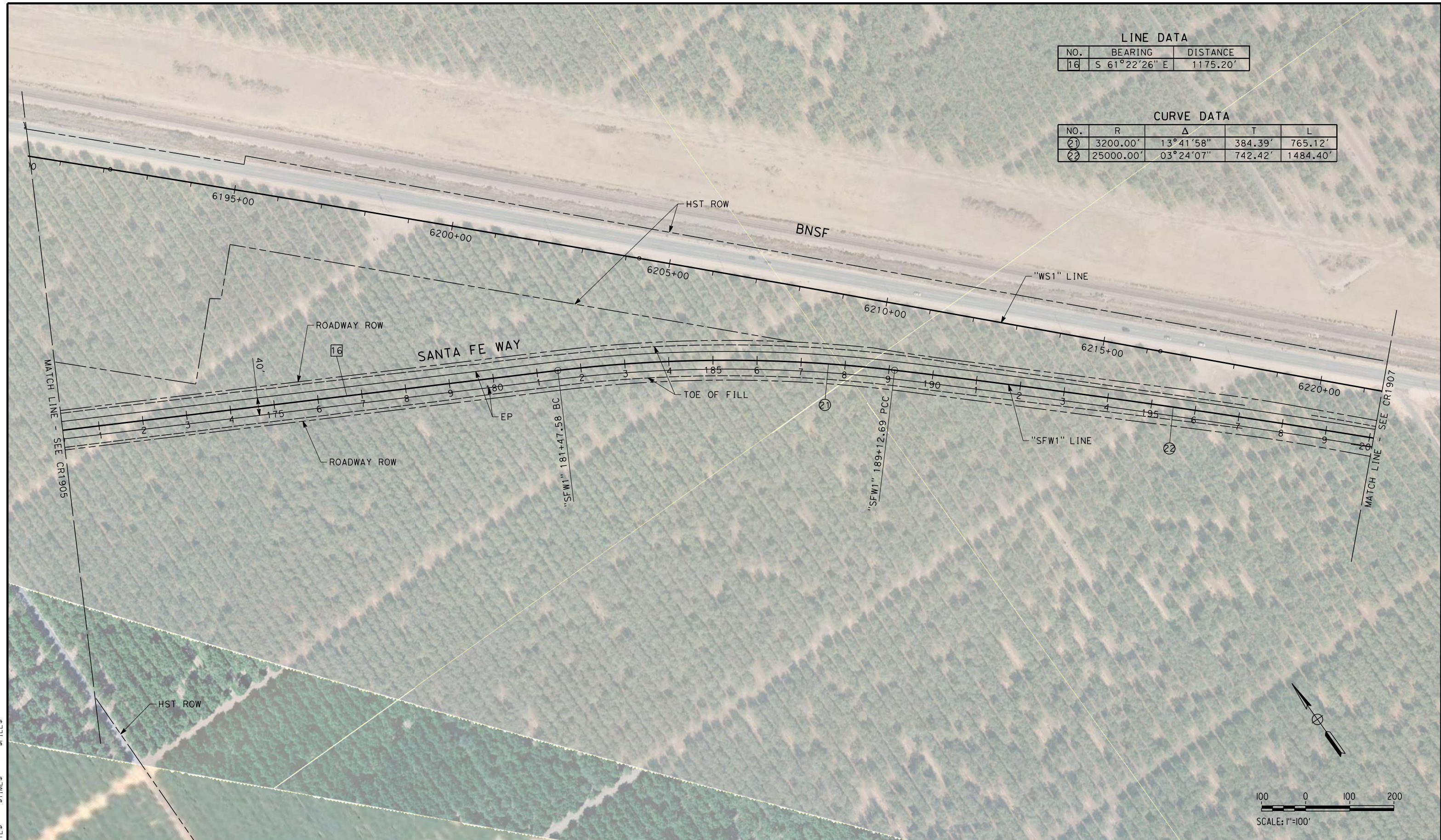
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
ROADWAY LAYOUT  
SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CR1905  
SCALE  
AS SHOWN  
SHEET NO.  
40 OF 67



LINE DATA		
NO.	BEARING	DISTANCE
16	S 61°22'26" E	1175.20'

CURVE DATA				
NO.	R	Δ	T	L
21	3200.00'	13°41'58"	384.39'	765.12'
22	25000.00'	03°24'07"	742.42'	1484.40'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



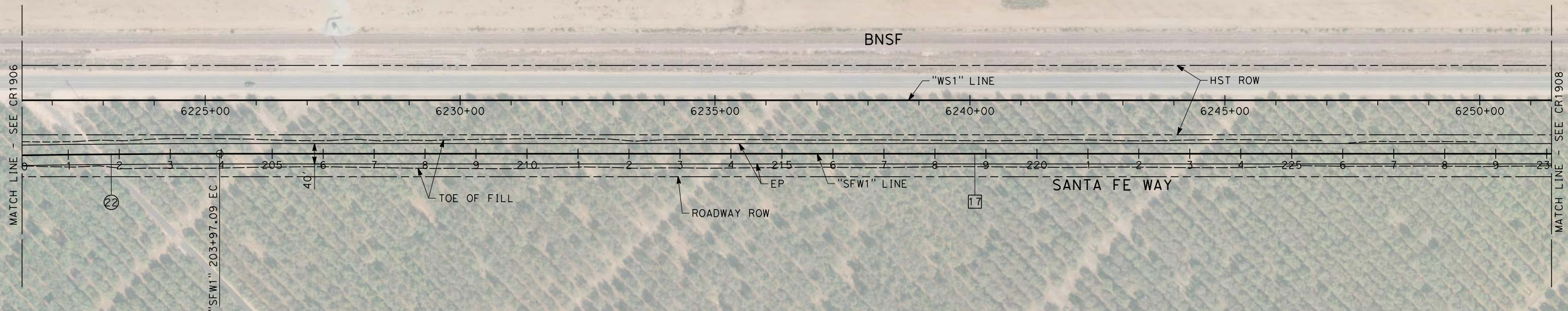
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CR1906  
 SCALE  
AS SHOWN  
 SHEET NO.  
41 OF 67



LINE DATA		
NO.	BEARING	DISTANCE
17	S 44°16'21" E	24354.02'

CURVE DATA				
NO.	R	Δ	T	L
21	3200.00'	13°41'58"	384.39'	765.12'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



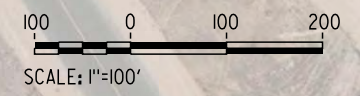
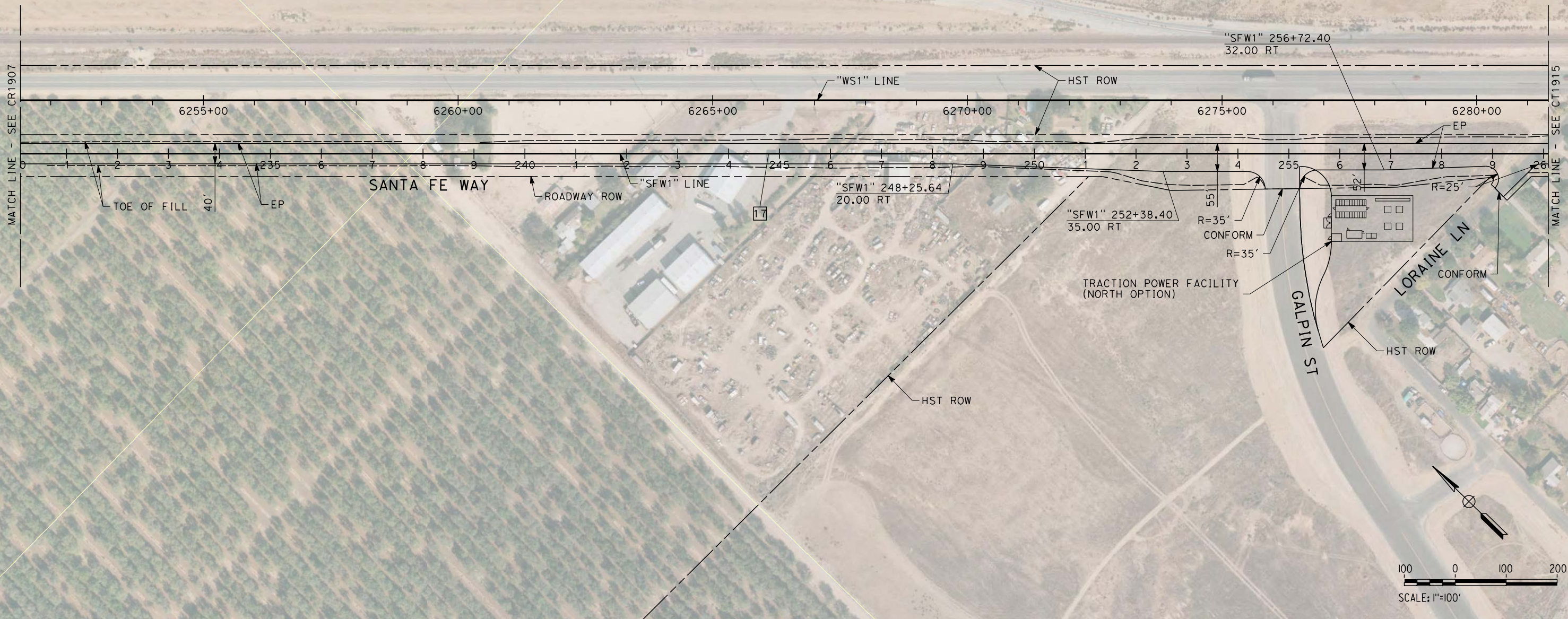
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CR1907  
 SCALE  
AS SHOWN  
 SHEET NO.  
42 OF 67



LINE DATA

NO.	BEARING	DISTANCE
17	S 44°16'21" E	24354.02'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



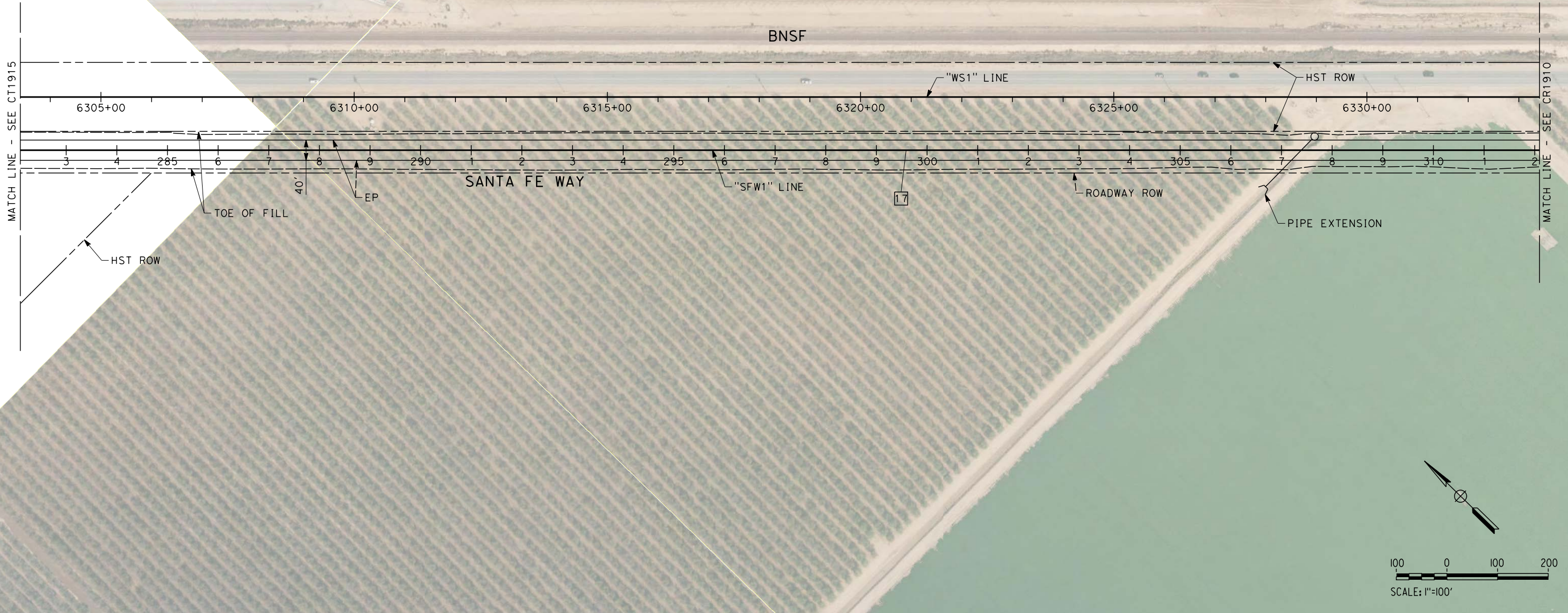
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CR1908  
 SCALE  
AS SHOWN  
 SHEET NO.  
43 OF 67



LINE DATA

NO.	BEARING	DISTANCE
17	S 44°16'21" E	24354.02'



\$USER \$ DATE \$ TIME \$ FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



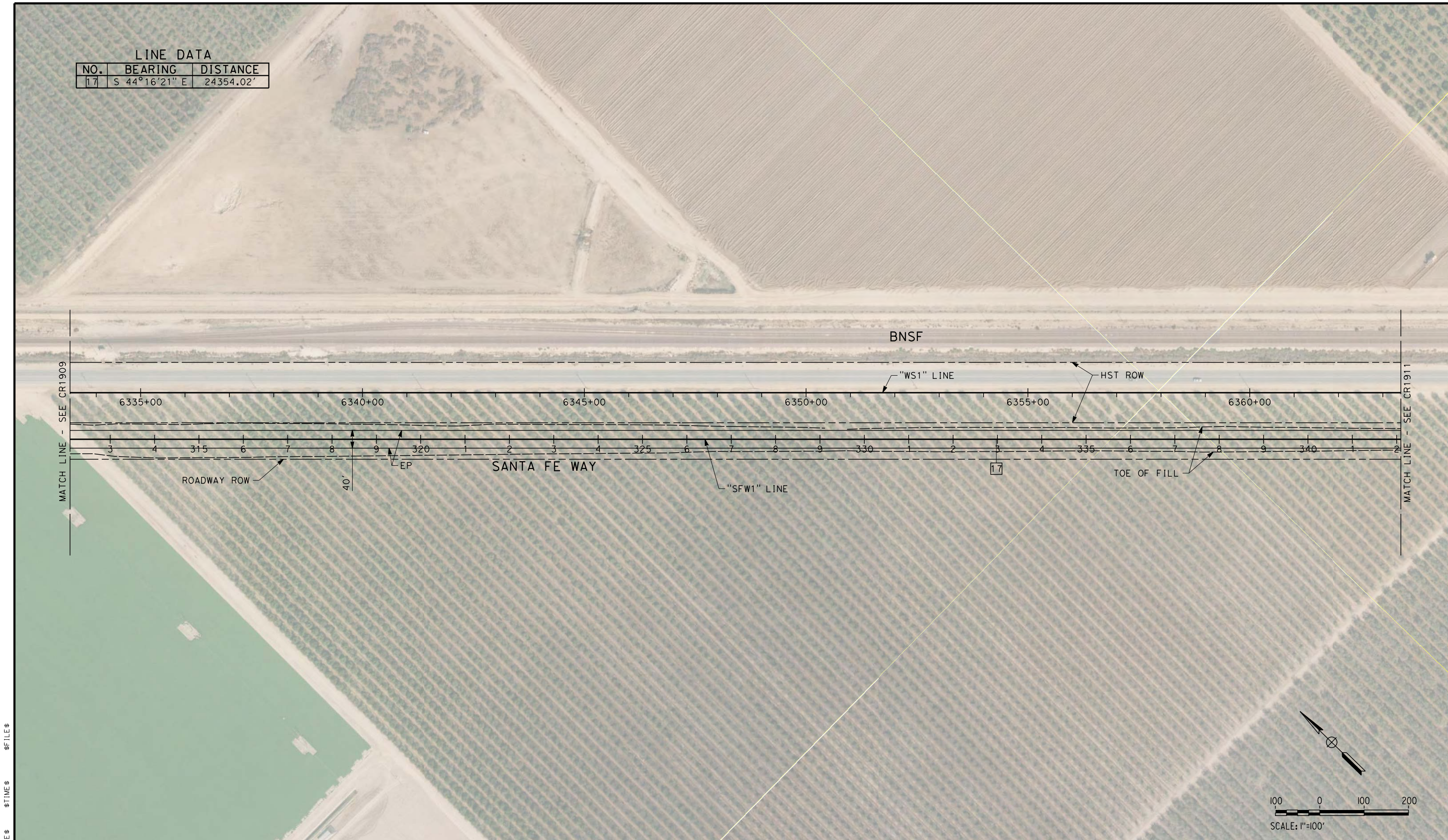
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CR1909  
 SCALE  
AS SHOWN  
 SHEET NO.  
44 OF 67



LINE DATA

NO.	BEARING	DISTANCE
17	S 44°16'21" E	24354.02'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
 A. CANNON  
 DRAWN BY  
 E. SUDHAUSEN  
 CHECKED BY  
 S. BROWN  
 IN CHARGE  
 R. COFFIN  
 DATE  
 12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**



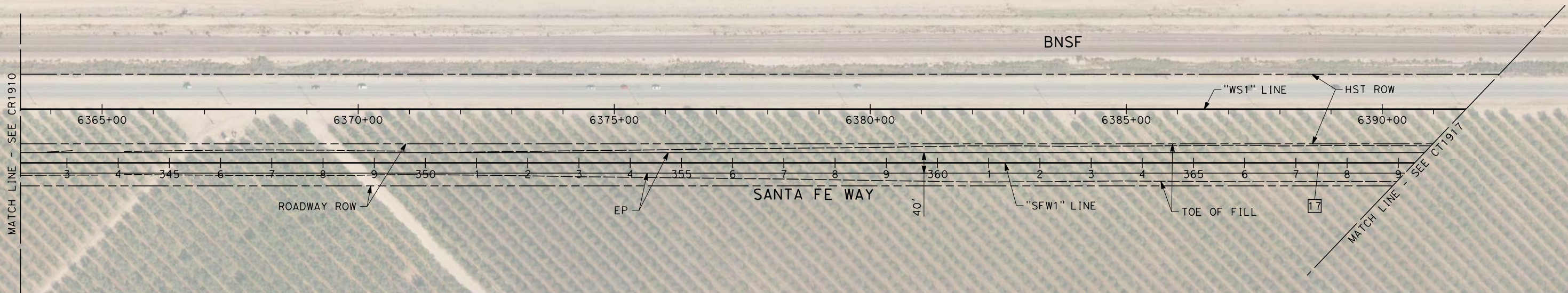
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
 HSR 06-0003  
 DRAWING NO.  
 CR1910  
 SCALE  
 AS SHOWN  
 SHEET NO.  
 45 OF 67



LINE DATA

NO.	BEARING	DISTANCE
17	S 44°16'21" E	24354.02'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CR1911  
 SCALE  
AS SHOWN  
 SHEET NO.  
46 OF 67



LINE DATA

NO.	BEARING	DISTANCE
17	S 44°16'21" E	24354.02'



\$USER \$ DATE \$ \$TIME \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**

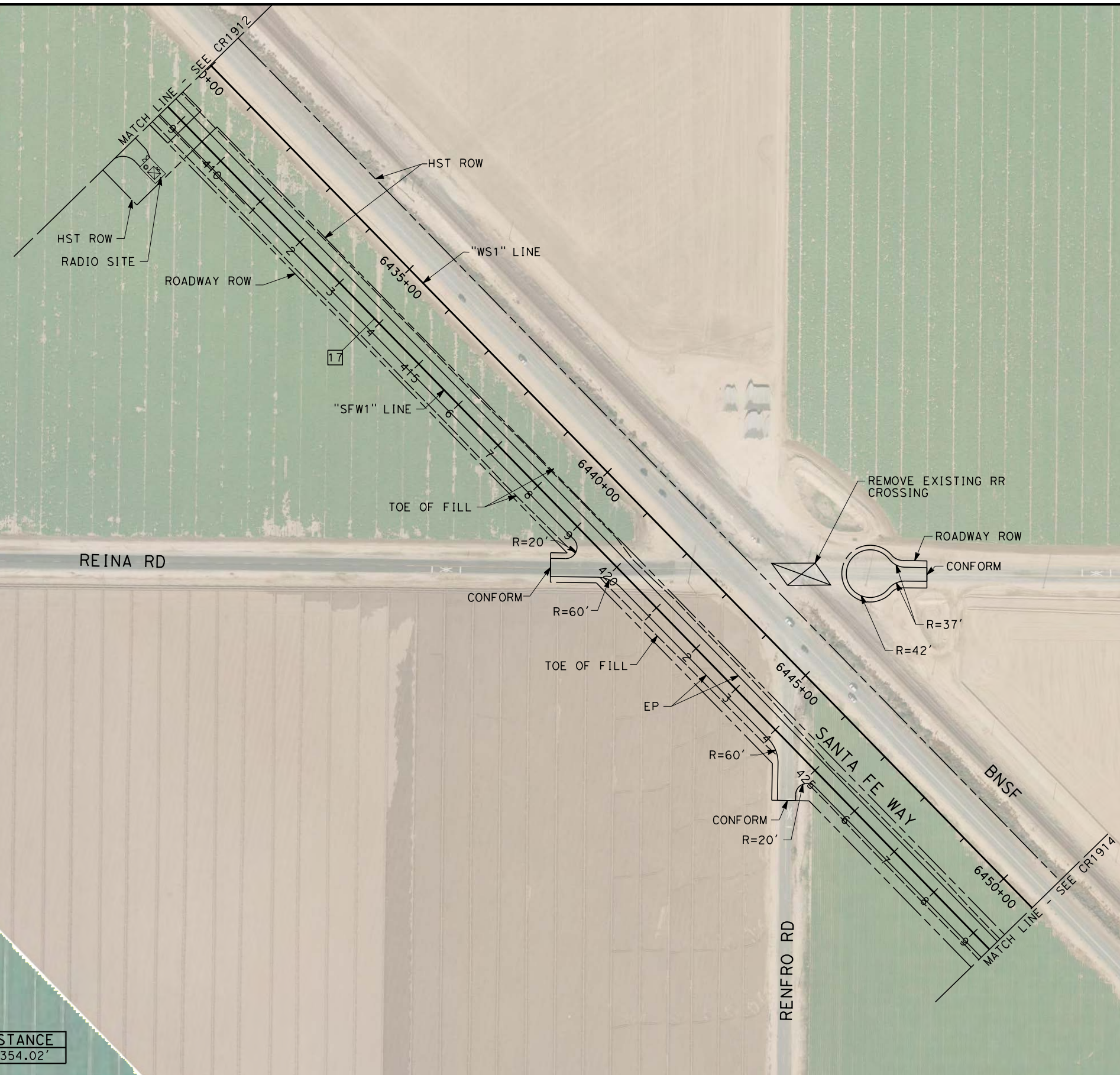


**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY LAYOUT  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CR1912  
 SCALE  
AS SHOWN  
 SHEET NO.  
47 OF 67



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LINE DATA

NO.	BEARING	DISTANCE
17	S 44°16'21" E	24354.02'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
ROADWAY LAYOUT  
SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CR1913  
SCALE  
AS SHOWN  
SHEET NO.  
48 OF 67



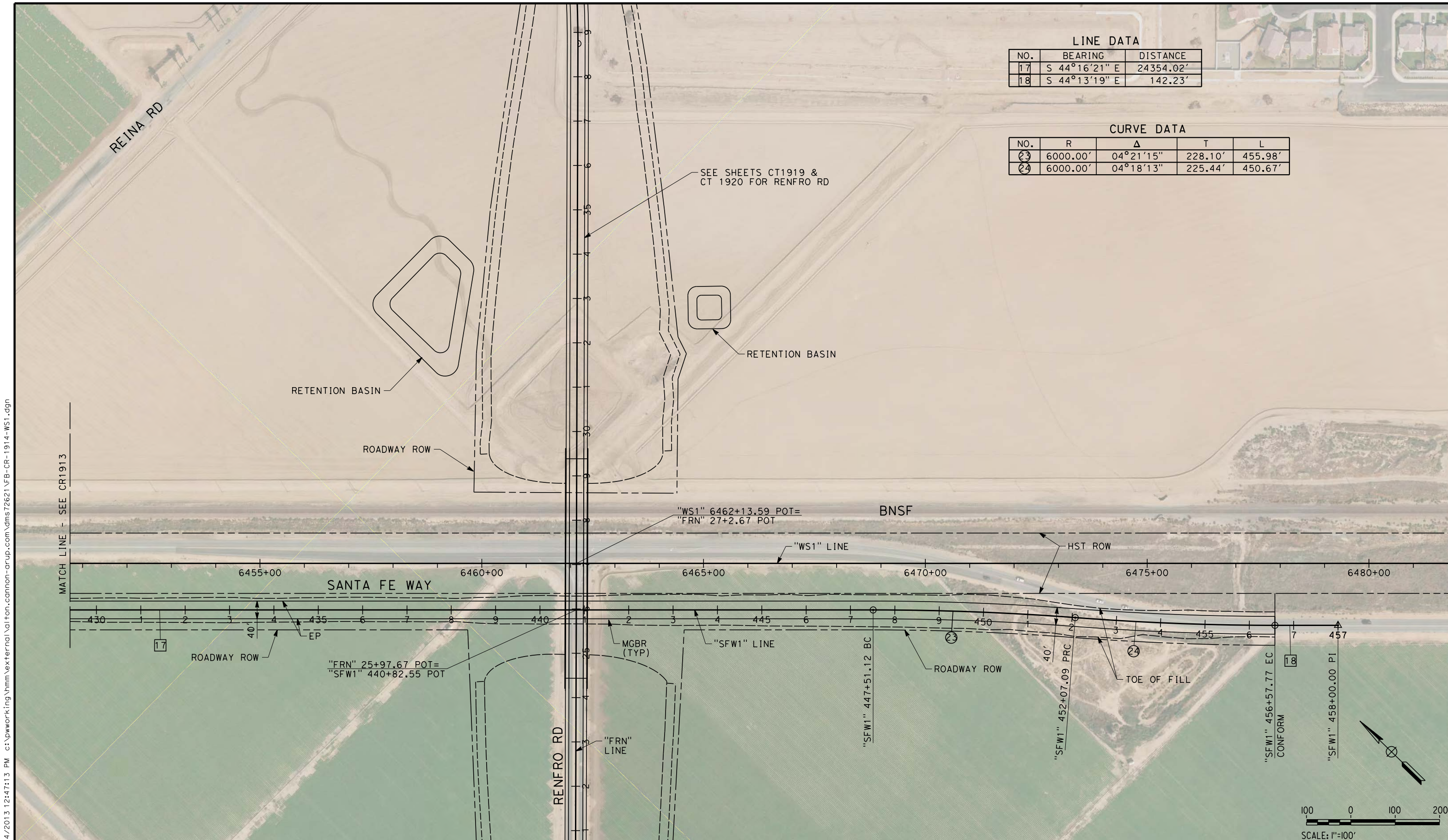
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LINE DATA

NO.	BEARING	DISTANCE
17	S 44°16'21" E	24354.02'
18	S 44°13'19" E	142.23'

CURVE DATA

NO.	R	Δ	T	L
23	6000.00'	04°21'15"	228.10'	455.98'
24	6000.00'	04°18'13"	225.44'	450.67'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**

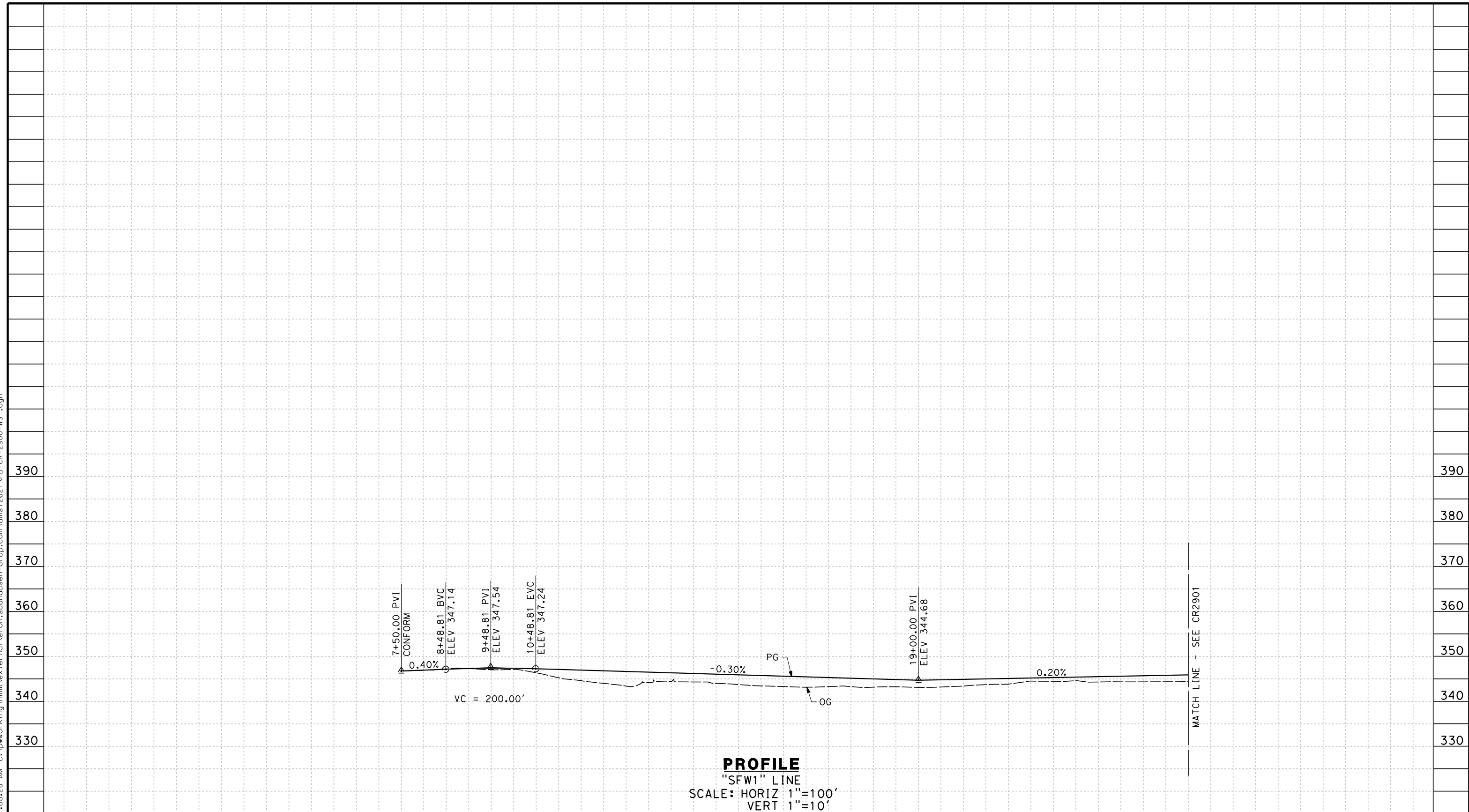


**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
ROADWAY LAYOUT  
SANTA FE WAY

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CR1914  
SCALE  
AS SHOWN  
SHEET NO.  
49 OF 67



c:\pwworking\hmm\external\eron.sudhausen-arup.com\dms72621\FB-CR-2900-WS1.dgn 12/26/2013 11:08:28 AM



**PROFILE**  
 "SFW1" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	TOTAL
Exc																				
Emb																				

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**

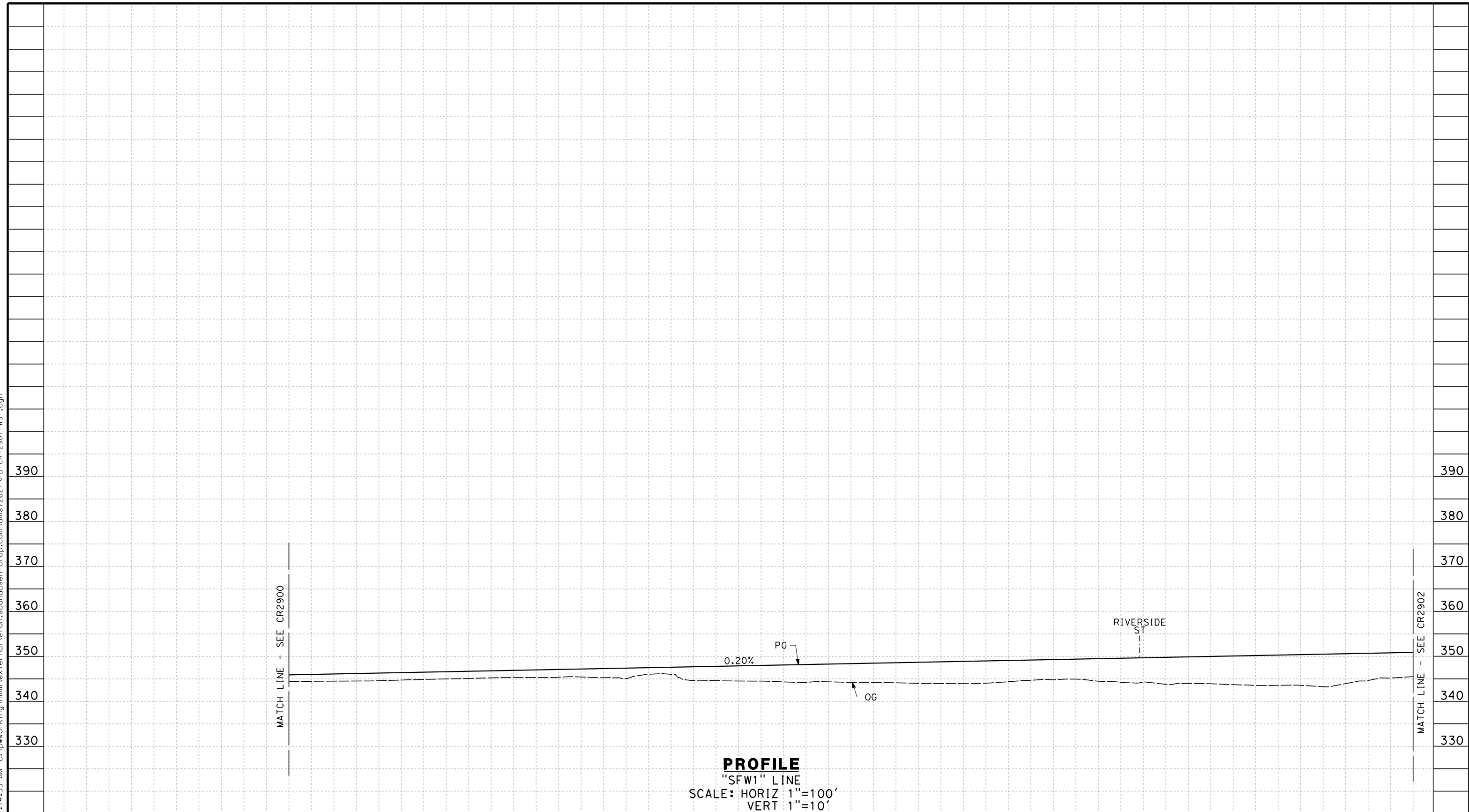


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2900  
 SCALE  
AS SHOWN  
 SHEET NO.  
50 OF 67



c:\pwworking\hmm\external\eron.sudhausen-arup.com\dms72621\FB-CR-2901-WS1.dgn 12/26/2013 11:14:53 AM



**PROFILE**  
 "SFW1" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	TOTAL	
Exc																												
Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**

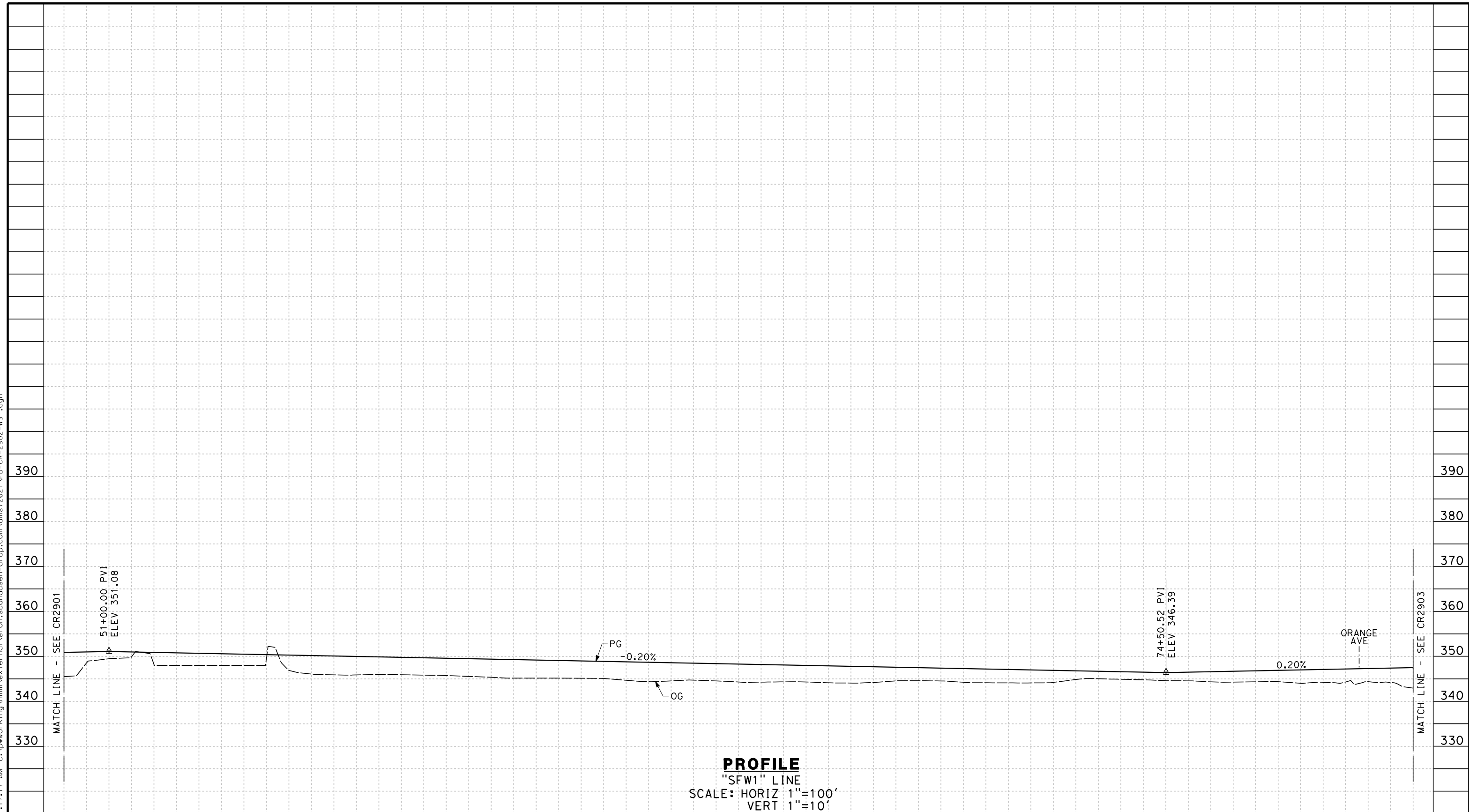


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2901  
 SCALE  
AS SHOWN  
 SHEET NO.  
51 OF 67



12/26/2013 11:17:17 AM c:\pwworking\hmm\external\eron.sudhausen-arup.com\dms72621\FB-CR-2902-WS1.dgn



**PROFILE**  
 "SFW1" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	50	1	2	3	4	55	6	7	8	9	60	1	2	3	4	65	6	7	8	9	70	1	2	3	4	75	6	7	8	9	80	TOTAL
Exc																																
Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
S. BROWN  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**

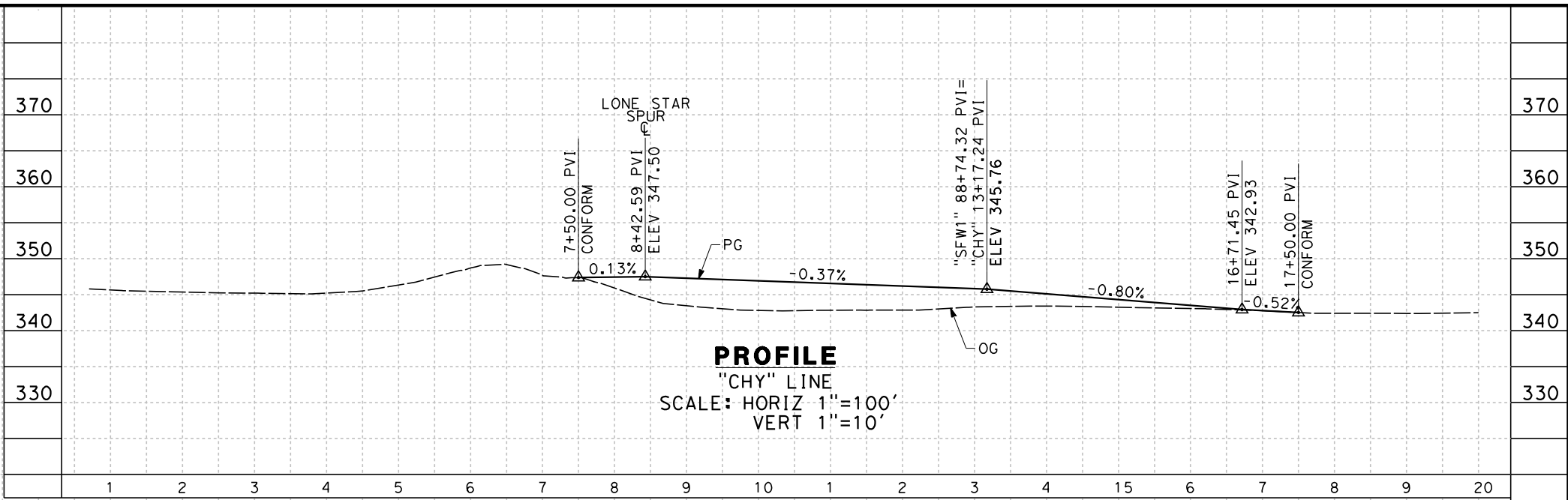


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2902  
 SCALE  
AS SHOWN  
 SHEET NO.  
52 OF 67



12/26/2013 11:32:25 AM c:\pwworking\hmm\external\eron.sudhausen-arup.com\dms72621\FB-CR-2903-WS1.dgn



**PROFILE**  
"CHY" LINE  
SCALE: HORIZ 1"=100'  
VERT 1"=10'



**PROFILE**  
"SFW1" LINE  
SCALE: HORIZ 1"=100'  
VERT 1"=10'

STATION	80	1	2	3	4	85	6	7	8	9	90	1	2	3	4	95	6	7	8	9	100	1	2	3	4	105	6	7	8	9	110	TOTAL
Exc																																
Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
S. BROWN  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**

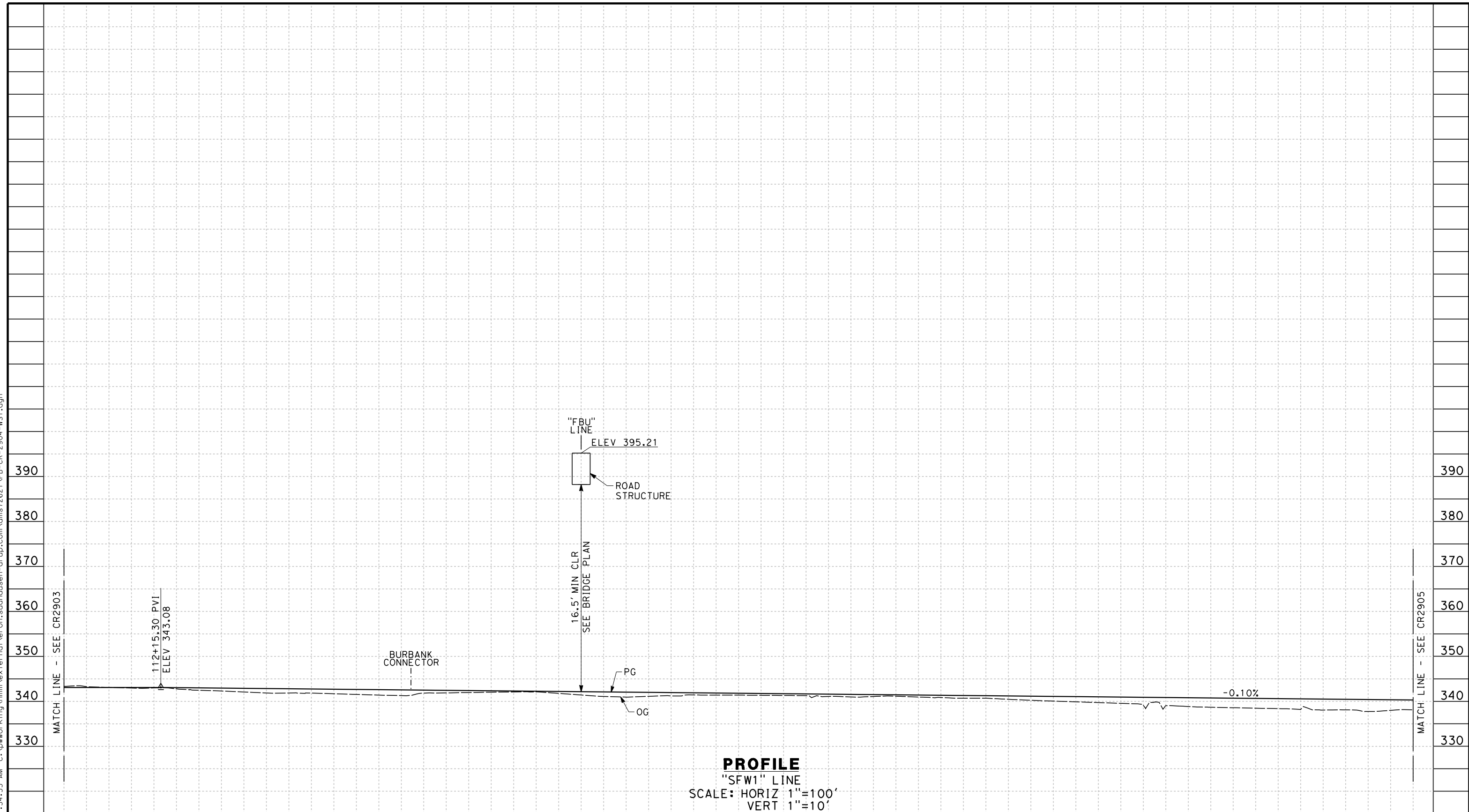


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
ROADWAY PROFILE  
SANTA FE WAY & W CHERRY AVE

CONTRACT NO.  
HSR 06-003  
DRAWING NO.  
CR2903  
SCALE  
AS SHOWN  
SHEET NO.  
53 OF 67



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**PROFILE**  
 "SFW1" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	110	1	2	3	4	115	6	7	8	9	120	1	2	3	4	125	6	7	8	9	130	1	2	3	4	135	6	7	8	9	140	TOTAL
Exc																																
Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

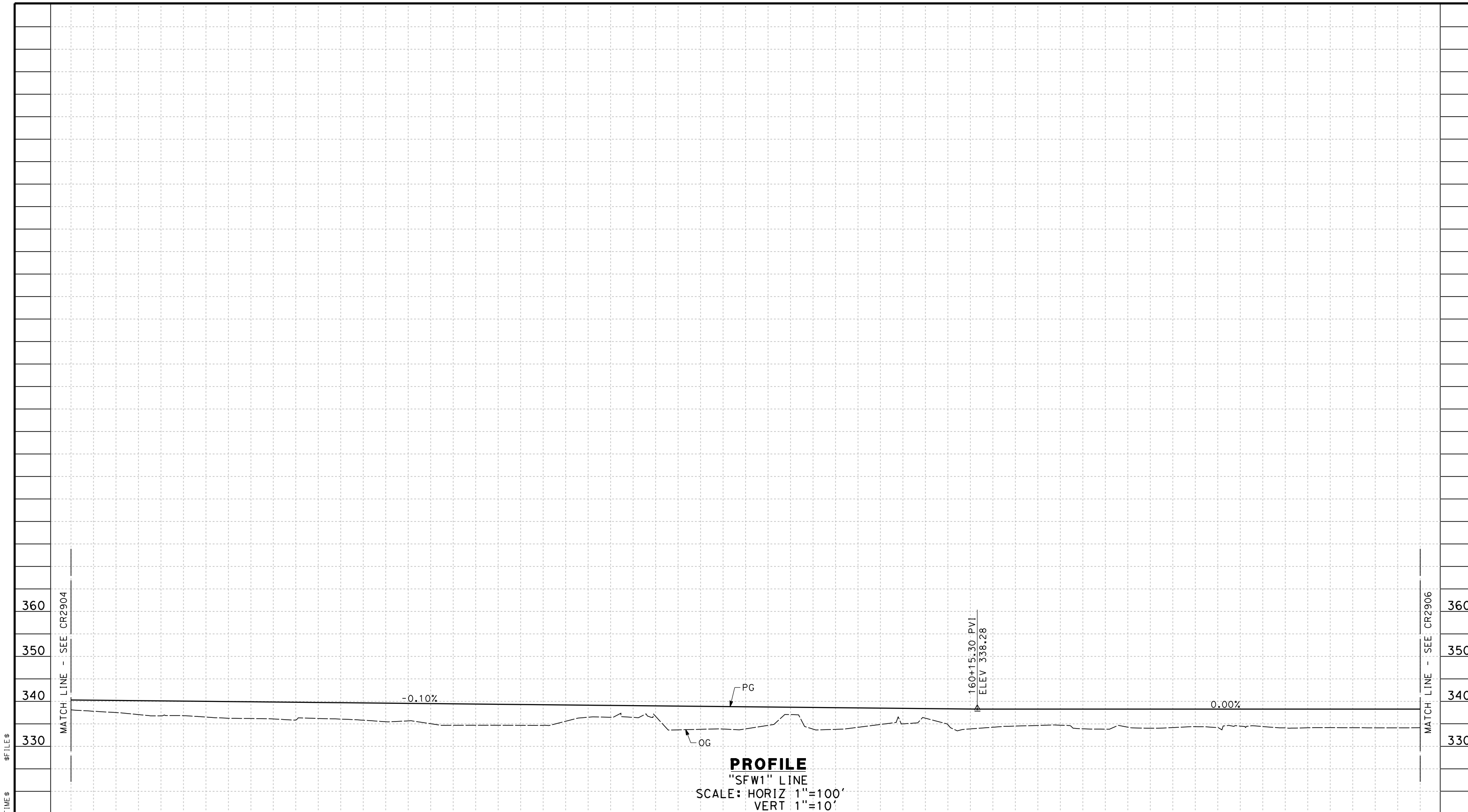
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**NOT FOR  
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2904  
 SCALE  
AS SHOWN  
 SHEET NO.  
54 OF 67





**PROFILE**  
 "SFW1" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	140	1	2	3	4	145	6	7	8	9	150	1	2	3	4	155	6	7	8	9	160	1	2	3	4	165	6	7	8	9	170	TOTAL	
Exc																																	
Emb																																	

DESIGNED BY	A. CANNON
DRAWN BY	E. SUDHAUSEN
CHECKED BY	J. MONG
IN CHARGE	R. COFFIN
DATE	12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**

**NOT FOR  
 CONSTRUCTION**



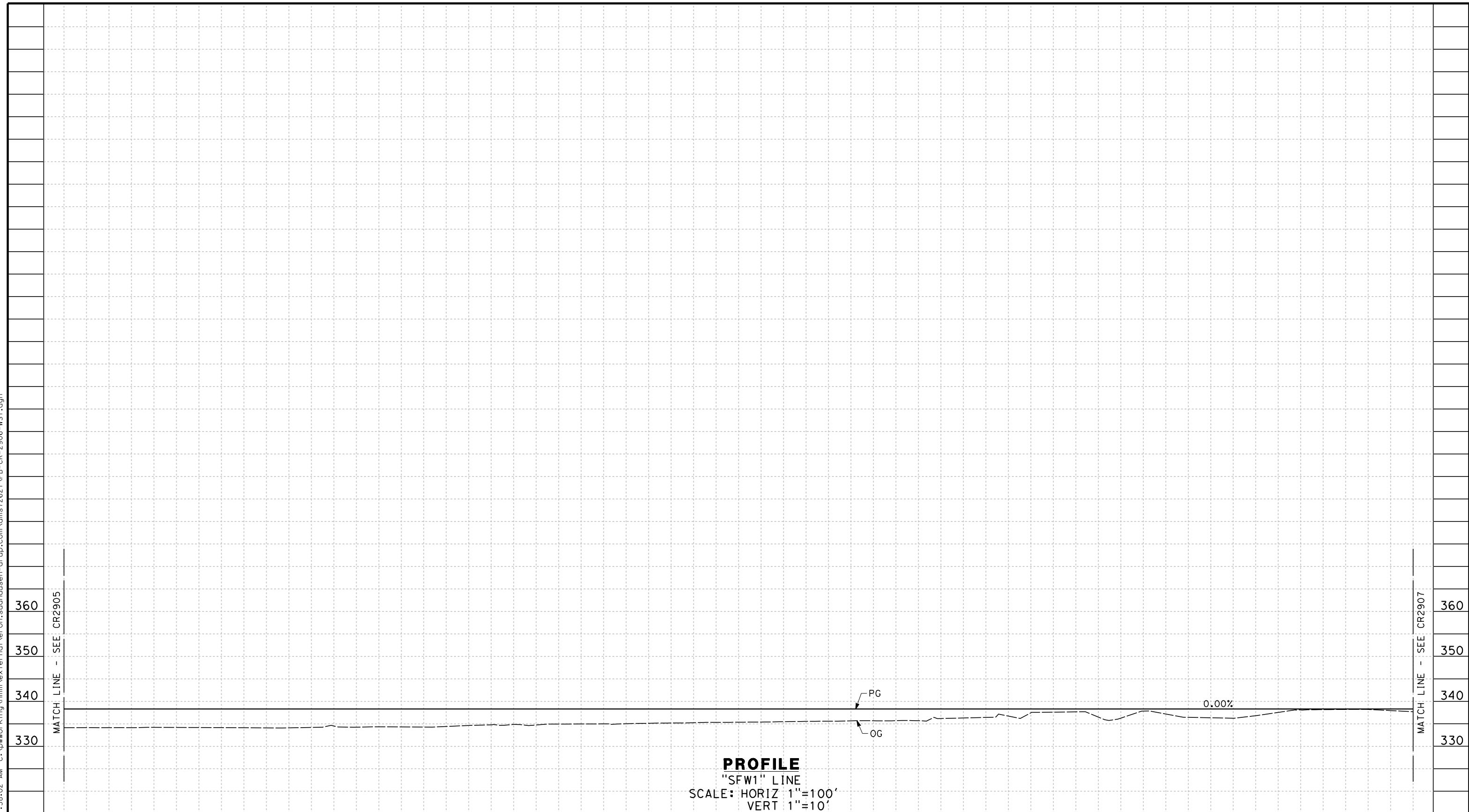
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**

THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.	HSR 06-003
DRAWING NO.	CR2905
SCALE	AS SHOWN
SHEET NO.	55 OF 67



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STATION	170	1	2	3	4	175	6	7	8	9	180	1	2	3	4	185	6	7	8	9	190	1	2	3	4	195	6	7	8	9	200	TOTAL
Exc																																
Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON

DRAWN BY  
E. SUDHAUSEN

CHECKED BY  
J. MONG

IN CHARGE  
R. COFFIN

DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**

THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
ROADWAY PROFILE  
SANTA FE WAY

CONTRACT NO.  
HSR 06-003

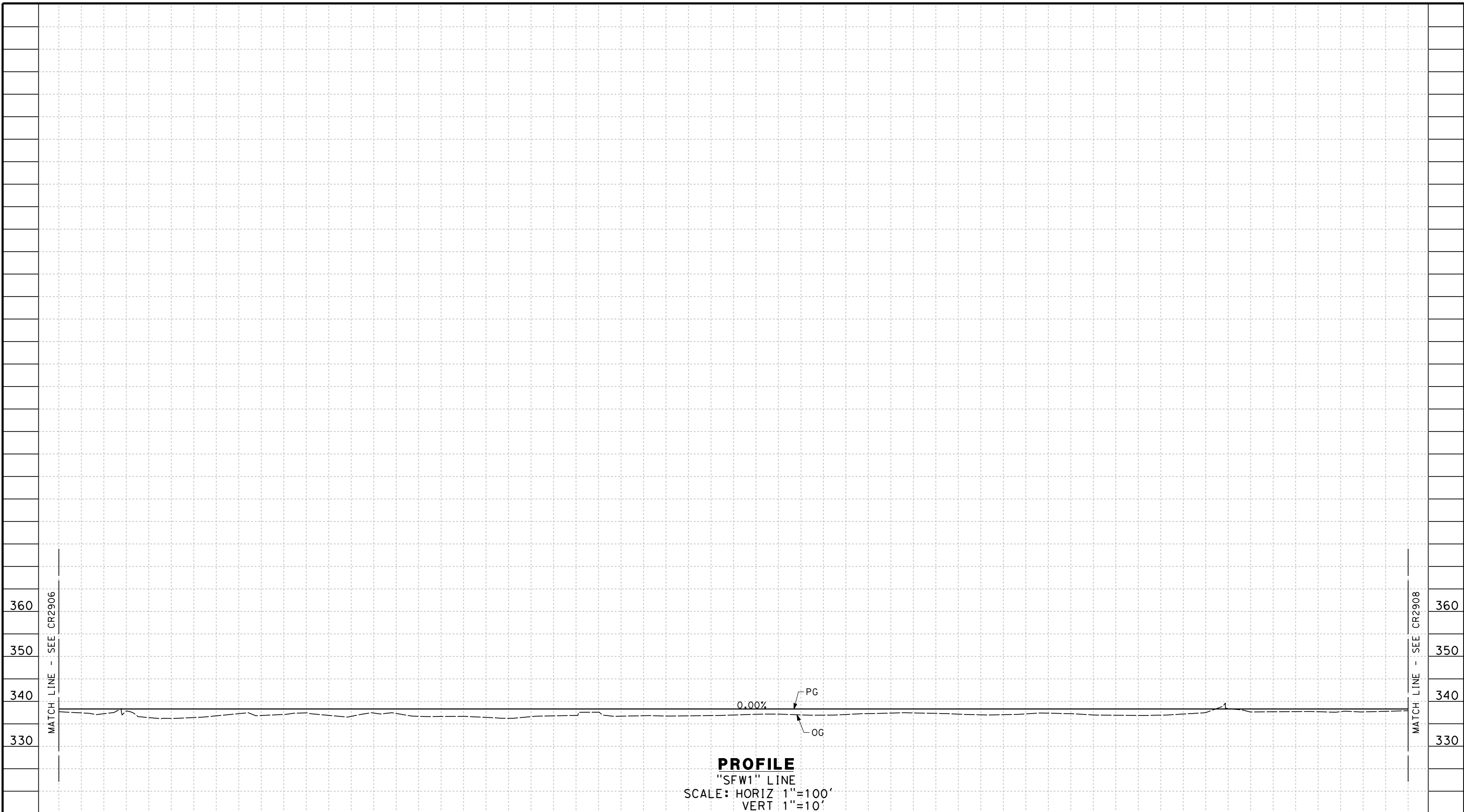
DRAWING NO.  
CR2906

SCALE  
AS SHOWN

SHEET NO.  
56 OF 67



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**PROFILE**  
"SFW1" LINE  
SCALE: HORIZ 1"=100'  
VERT 1"=10'

STATION	200	1	2	3	4	205	6	7	8	9	210	1	2	3	4	215	6	7	8	9	220	1	2	3	4	225	6	7	8	9	230	TOTAL
Exc																																
Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
J. MONG  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**

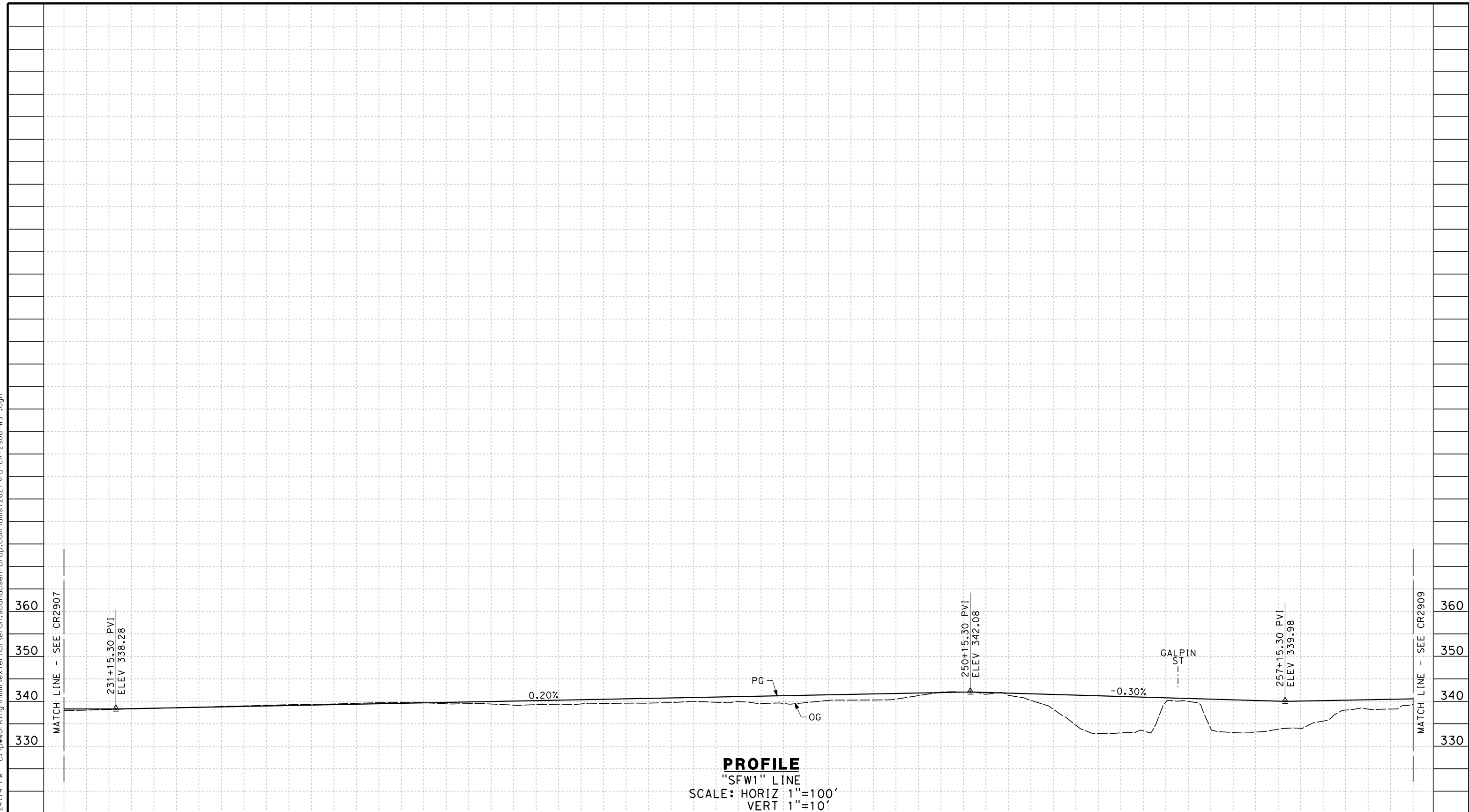


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
ROADWAY PROFILE  
SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
DRAWING NO.  
CR2907  
SCALE  
AS SHOWN  
SHEET NO.  
57 OF 67



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STATION	230	1	2	3	4	235	6	7	8	9	240	1	2	3	4	245	6	7	8	9	250	1	2	3	4	255	6	7	8	9	260	TOTAL
Exc																																
Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**

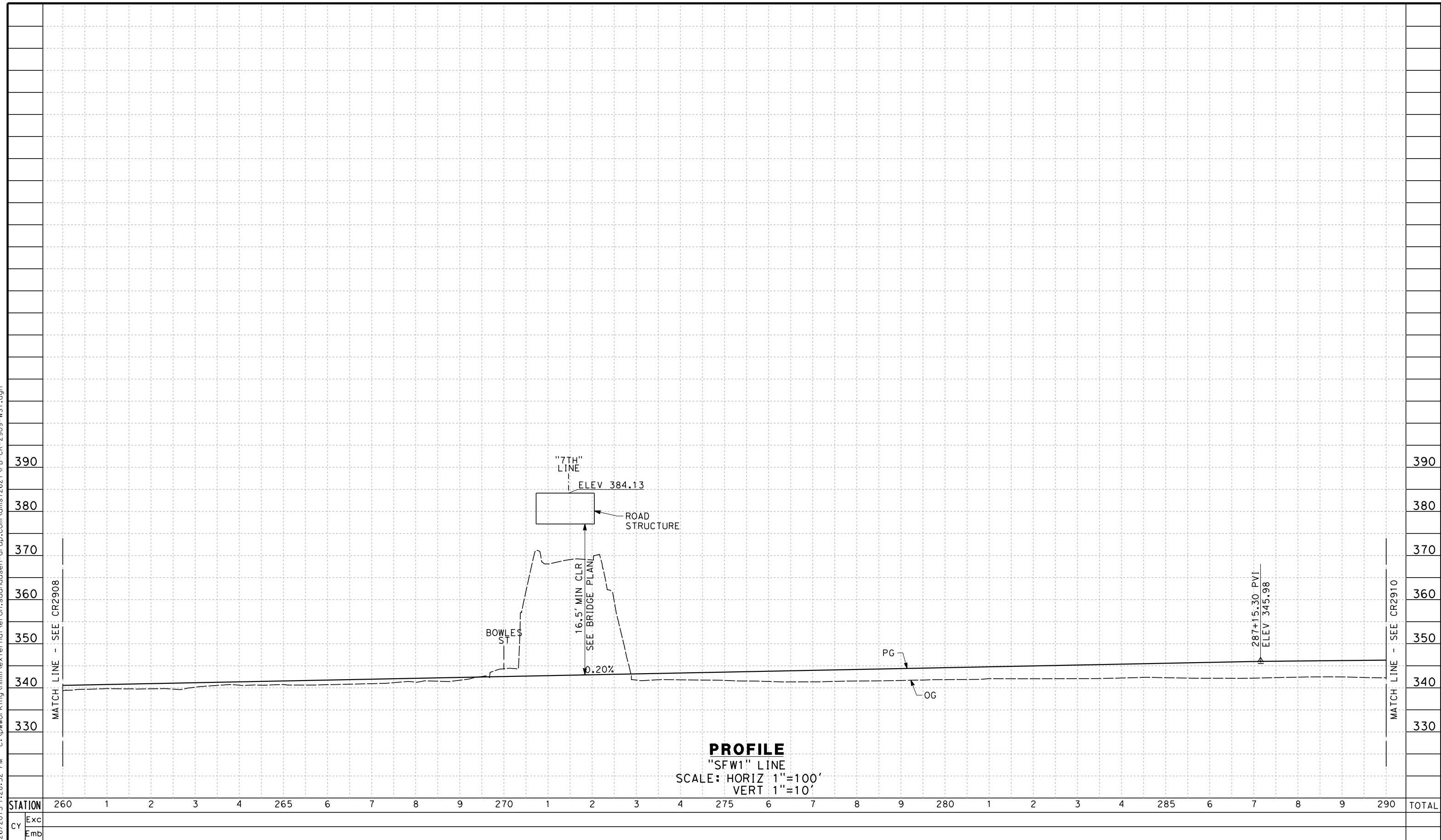


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2908  
 SCALE  
AS SHOWN  
 SHEET NO.  
58 OF 67



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
 NOT FOR  
 CONSTRUCTION

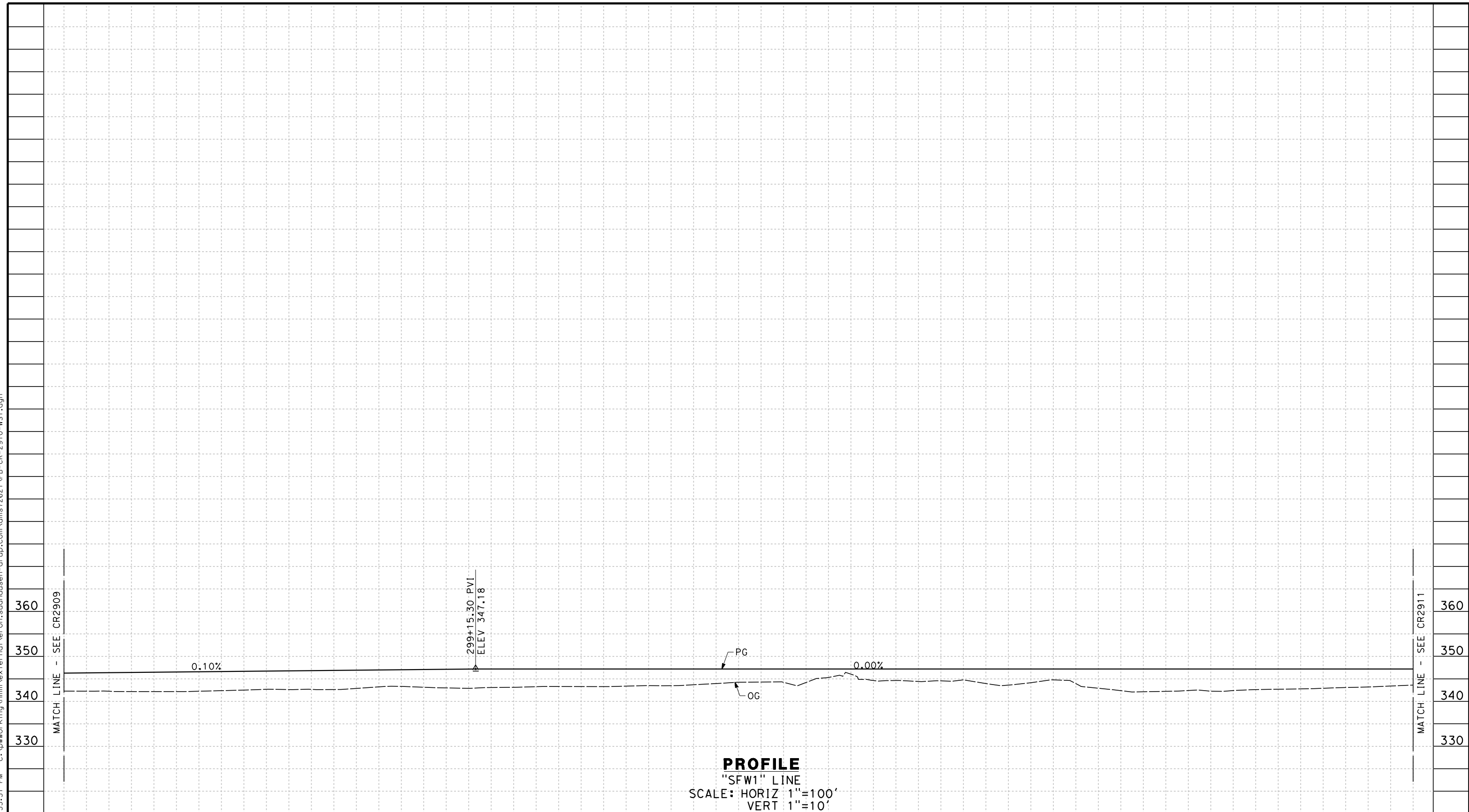


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2909  
 SCALE  
AS SHOWN  
 SHEET NO.  
59 OF 67



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STATION	290	1	2	3	4	295	6	7	8	9	300	1	2	3	4	305	6	7	8	9	310	1	2	3	4	315	6	7	8	9	320	TOTAL
Exc																																
Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
 NOT FOR  
 CONSTRUCTION

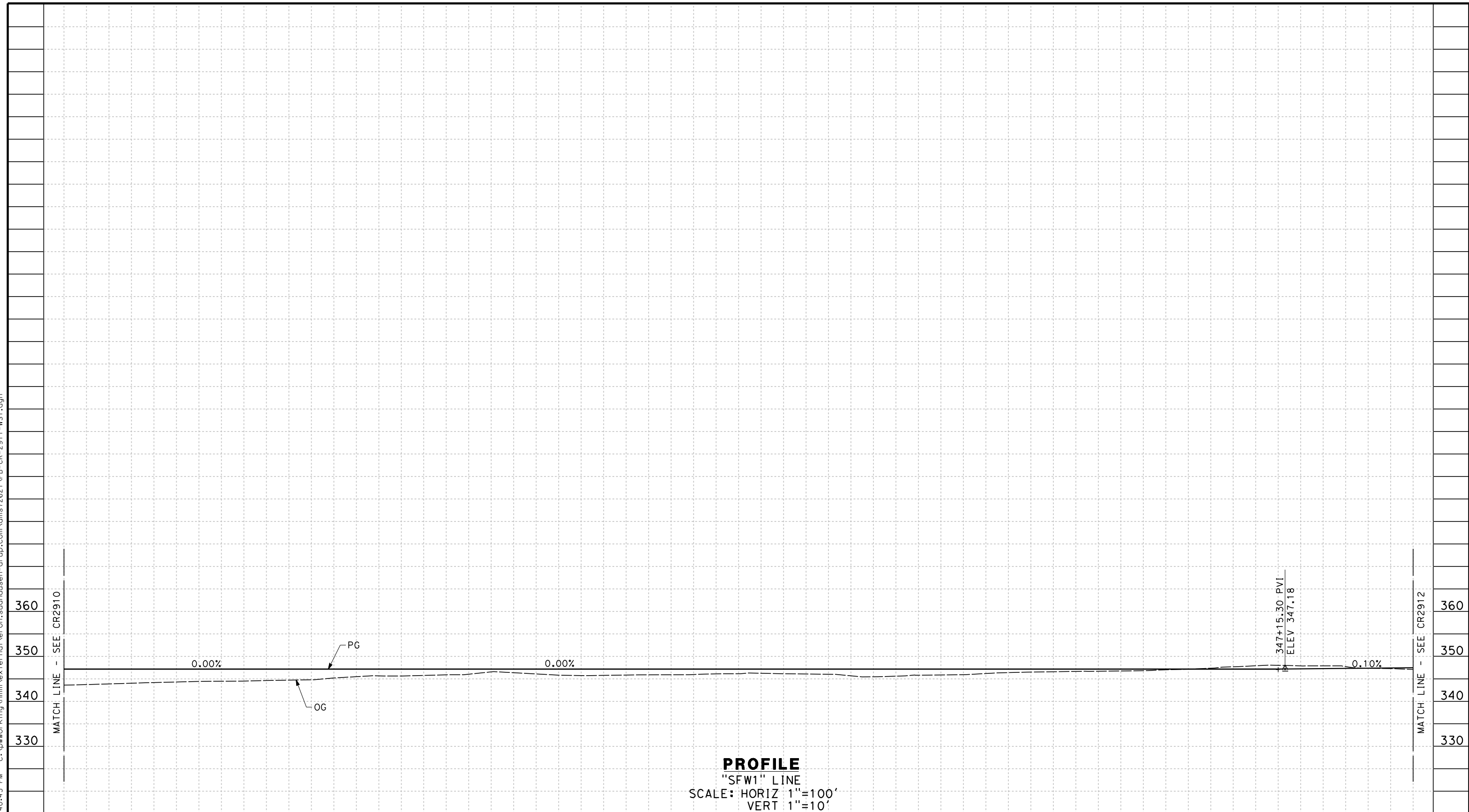


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2910  
 SCALE  
AS SHOWN  
 SHEET NO.  
60 OF 67



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**PROFILE**  
 "SFW1" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	320	1	2	3	4	325	6	7	8	9	330	1	2	3	4	335	6	7	8	9	340	1	2	3	4	345	6	7	8	9	350	TOTAL
Exc																																
Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
**NOT FOR  
 CONSTRUCTION**

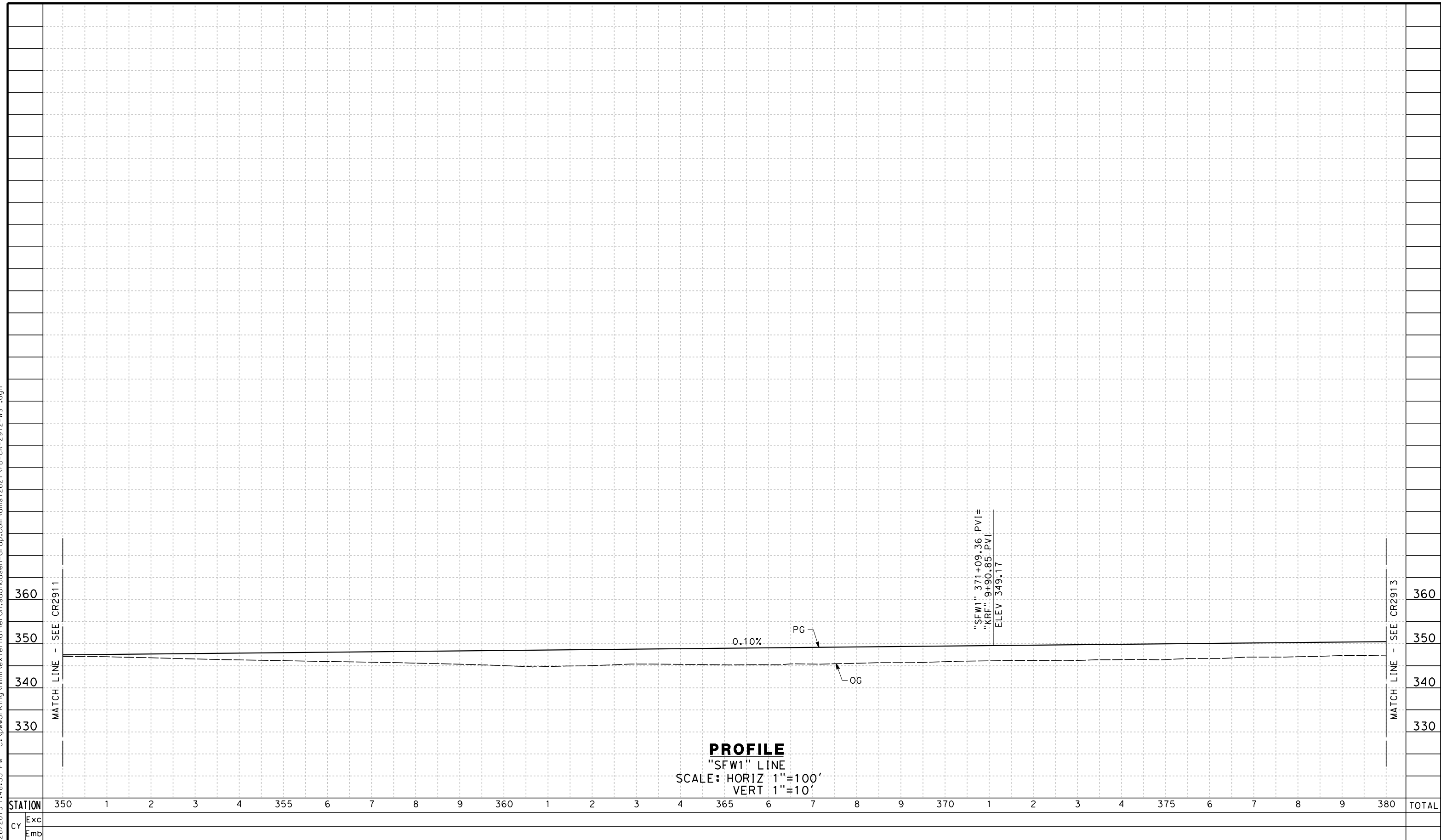


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2911  
 SCALE  
AS SHOWN  
 SHEET NO.  
61 OF 67



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
 NOT FOR  
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**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

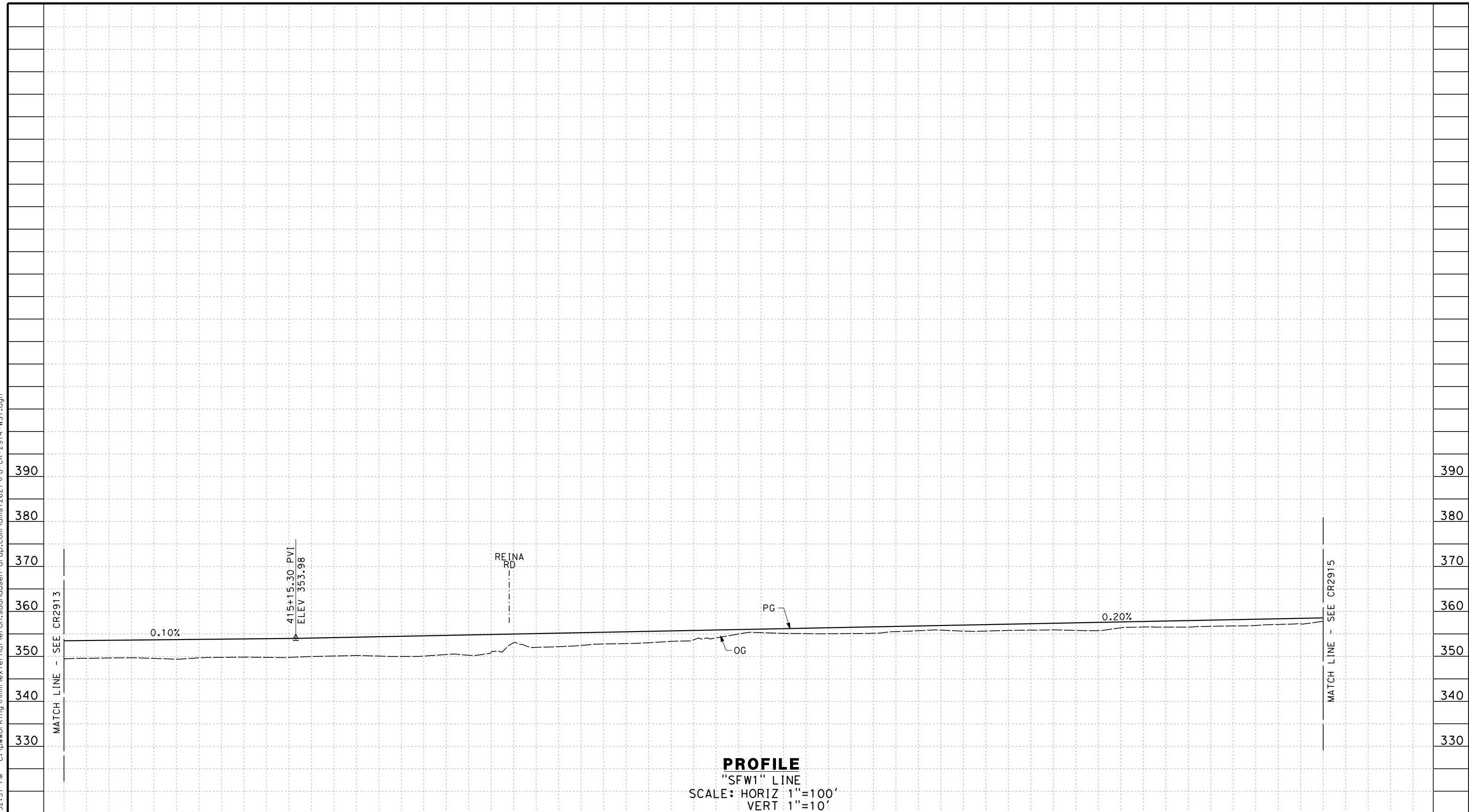
CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2912  
 SCALE  
AS SHOWN  
 SHEET NO.  
62 OF 67







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**PROFILE**  
 "SFW1" LINE  
 SCALE: HORIZ 1"=100'  
 VERT 1"=10'

STATION	410	1	2	3	4	415	6	7	8	9	420	1	2	3	4	425	6	7	8	9	430	1	2	3	4	435	6	7	8	TOTAL
Exc																														
Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
 DESIGN SUBMISSION**  
  
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 CONSTRUCTION**

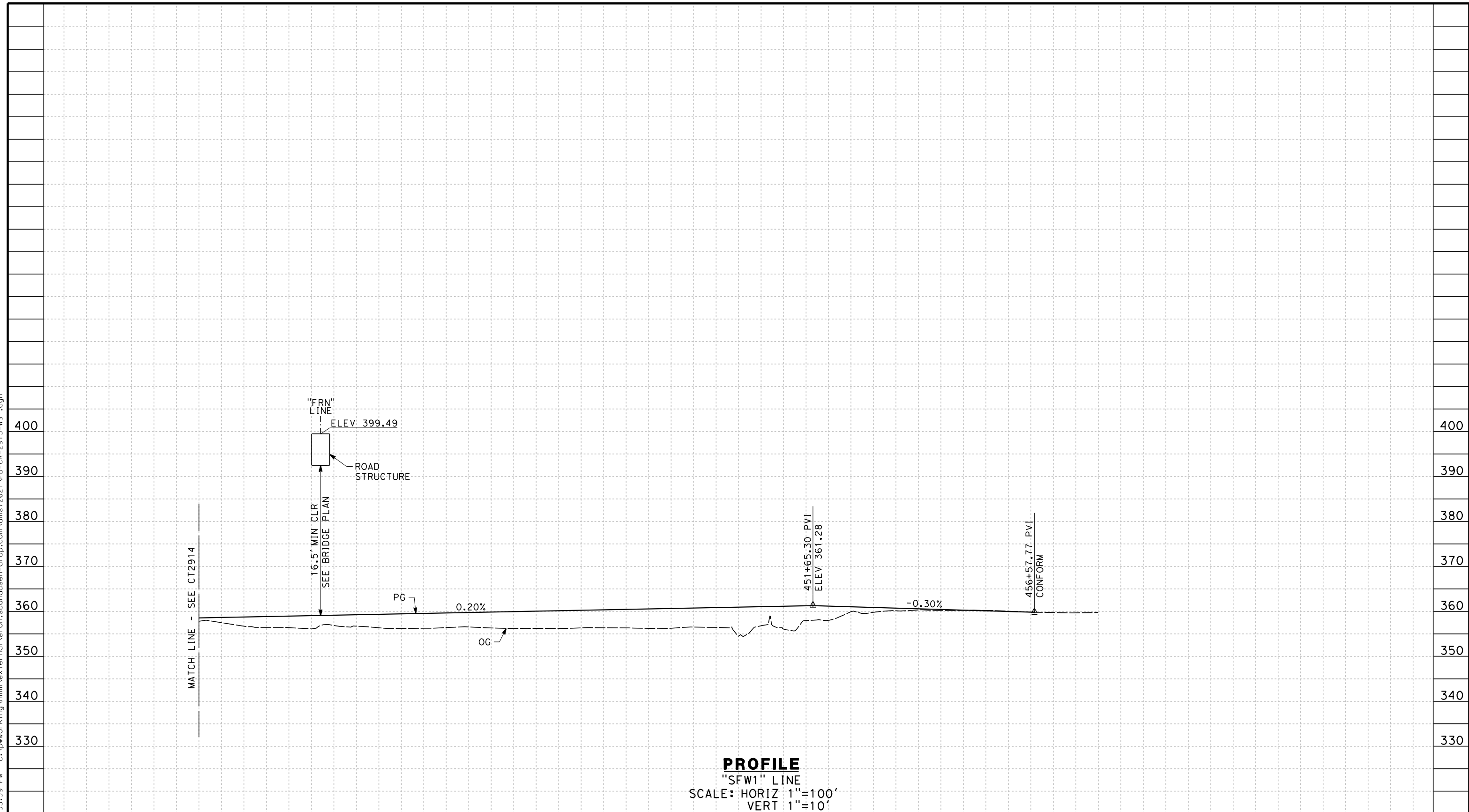


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2914  
 SCALE  
AS SHOWN  
 SHEET NO.  
64 OF 67



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STATION	8	9	440	1	2	3	4	445	6	7	8	9	450	1	2	3	4	455	6	7	TOTAL	
Exc																						
Emb																						

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
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 NOT FOR  
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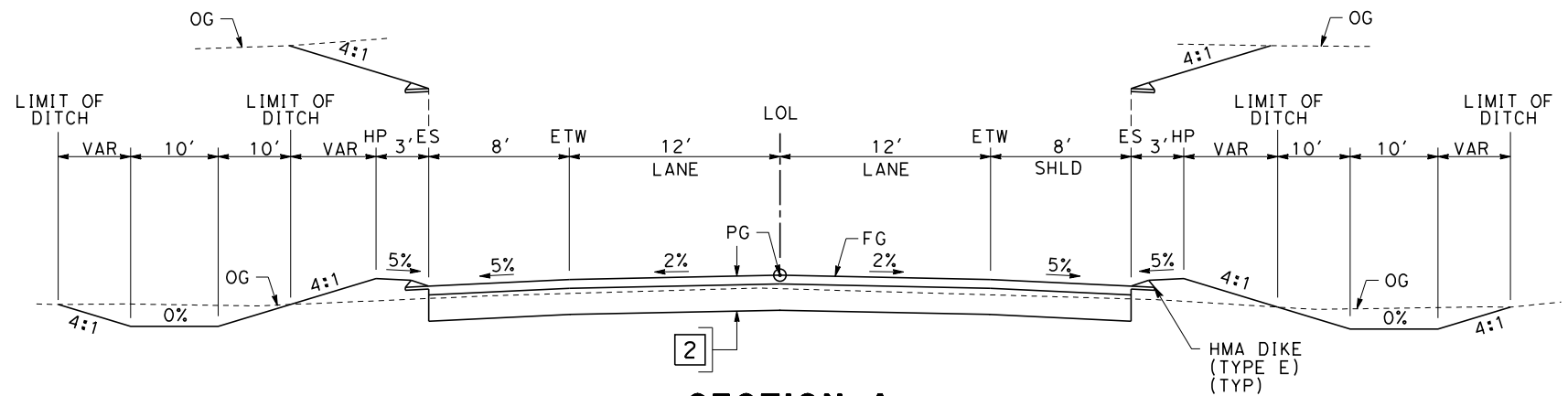
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
 FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY PROFILE  
 SANTA FE WAY

CONTRACT NO.  
HSR 06-003  
 DRAWING NO.  
CR2915  
 SCALE  
AS SHOWN  
 SHEET NO.  
65 OF 67



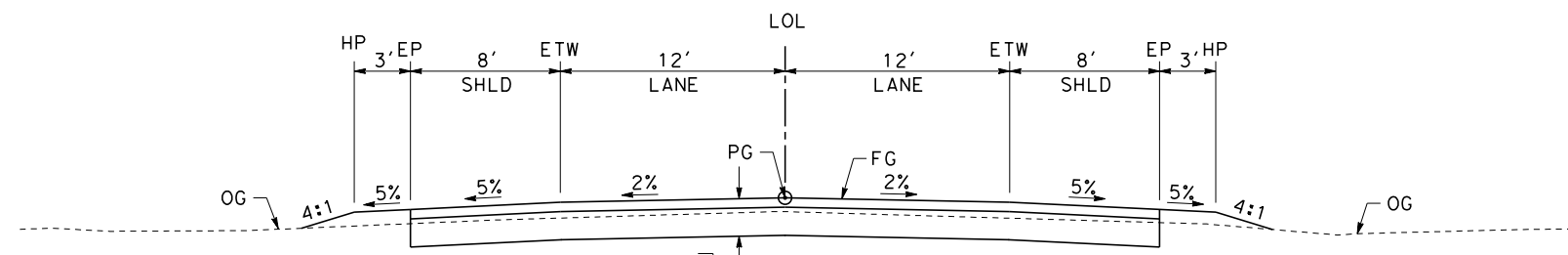
TABLE OF DESIGN SPEEDS

STREET NAME	ALIGNMENT DESIGNATION	DESIGN SPEED	CRITERIA/JURISDICTION
MCCOMBS AVE	MCA	65	KERN COUNTY/KERN COUNTY
ANNIN CONNECTOR AND MCCOMBS CONNECTOR	AMCC / MCAC	25	KERN COUNTY/KERN COUNTY
KIMBERLINA RD	KBA	55	KERN COUNTY/KERN COUNTY
MERCED AVE	MER	55	CITY OF SHAFTER/CITY OF SHAFTER
POPLAR AVE	POP	55	CITY OF SHAFTER/CITY OF SHAFTER
POPLAR CONNECTOR	POF	35	CITY OF SHAFTER/CITY OF SHAFTER
FRESNO AVE	FRES	55	CITY OF SHAFTER/CITY OF SHAFTER
BURBANK AVE	FBU	55	CITY OF SHAFTER/CITY OF SHAFTER
BURBANK CONNECTOR	FBA	25	CITY OF SHAFTER/CITY OF SHAFTER
7TH STANDARD RD	7TH	55	KERN COUNTY/KERN COUNTY
KRATZMEYER RD	KRT	55	CITY OF BAKERSFIELD/CITY OF BAKERSFIELD
KRATZMEYER CONNECTOR	KRF	30	CITY OF BAKERSFIELD/CITY OF BAKERSFIELD
RENFRO RD	FRN	65	KERN COUNTY/KERN COUNTY
NORIEGA RD	FNO	30	KERN COUNTY/KERN COUNTY
SANTA FE WAY	SFW1	65	KERN CO AND BAKERSFIELD/KERN CO AND BAKERSFIELD
CHERRY AVE	FMV	65	KERN COUNTY/KERN COUNTY



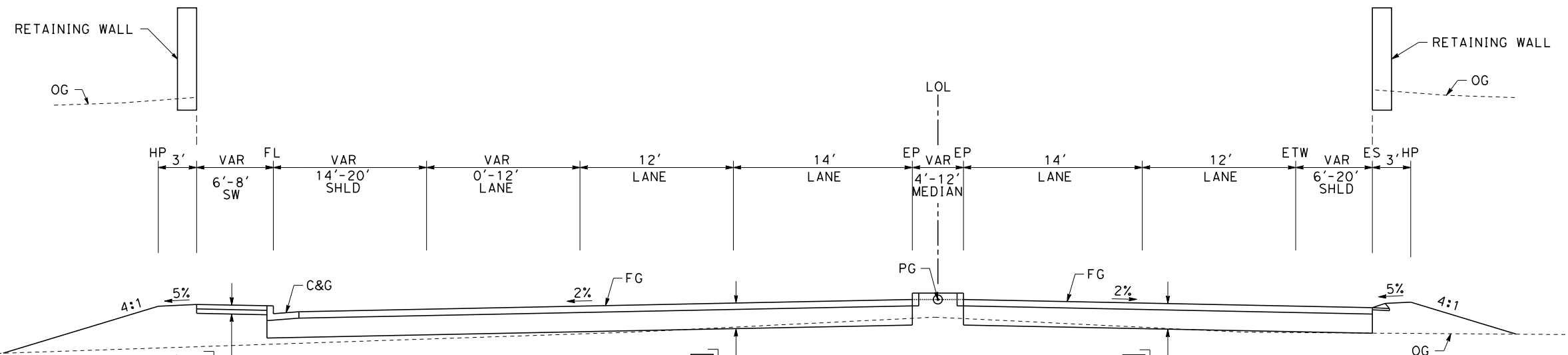
**SECTION A**

"MCA" 21+00.00 TO 40+89.00 "FRES" 37+40.00 TO 51+00.00  
 "MCA" 45+79.00 TO 62+00.00 "KRT" 25+50.00 TO 35+53.00  
 "FRES" 18+00.00 TO 31+30.00 "KRT" 42+58.00 TO 53+50.00



**SECTION B**

"MCA" 13+00.00 TO 21+00.00 "FRES" 51+00.00 TO 54+00.00  
 "MCA" 62+00.00 TO 73+50.00 "KRT" 21+00.00 TO 25+50.00  
 "FRES" 6+87.15 TO 18+00.00 "KRT" 53+50.00 TO 56+00.00



**SECTION C**

"7TH" 60+00.00 TO 75+88.00  
 "7TH" 81+43.00 TO 87+00.00

**STRUCTURAL SECTIONS**

**TYPICAL ROADWAY**

- 1 0.30' HMA (TYPE A)  
1.40' CL 2 AB
- 2 0.50' HMA (TYPE A)  
1.50' CL 2 AB

0.35' PCC  
0.35' CL 2 AB

12/24/2013 12:54:06 PM c:\pwworking\hmm\external\alton.cannon-arup.com\dms72621\FB-CT-3130-WS1.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
 DRAWN BY  
E. SUDHAUSEN  
 CHECKED BY  
J. MONG  
 IN CHARGE  
R. COFFIN  
 DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



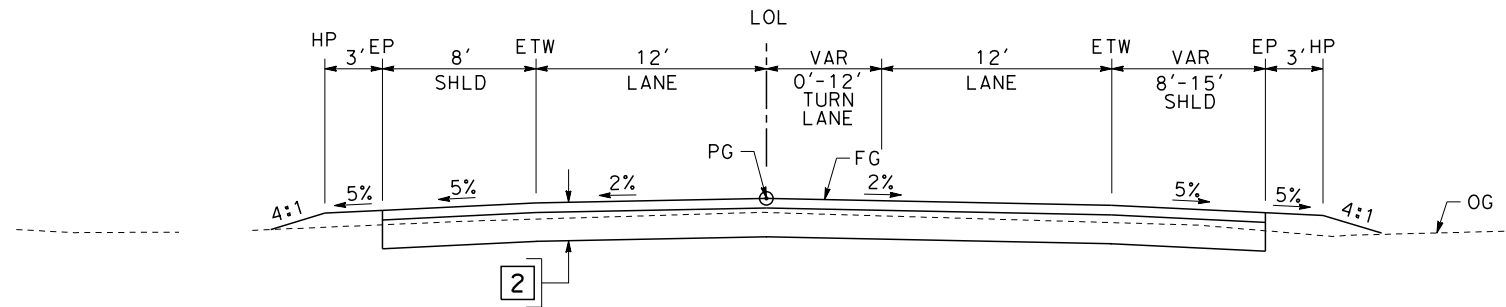
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**FRESNO TO BAKERSFIELD**  
 THROUGH WASCO-SHAFTER SUBSECTION  
 ALIGNMENT WS1  
 ROADWAY / GRADE SEPARATION  
 TYPICAL CROSS SECTIONS

CONTRACT NO.  
HSR 06-0003  
 DRAWING NO.  
CT3130  
 SCALE  
NO SCALE  
 SHEET NO.  
66 OF 67

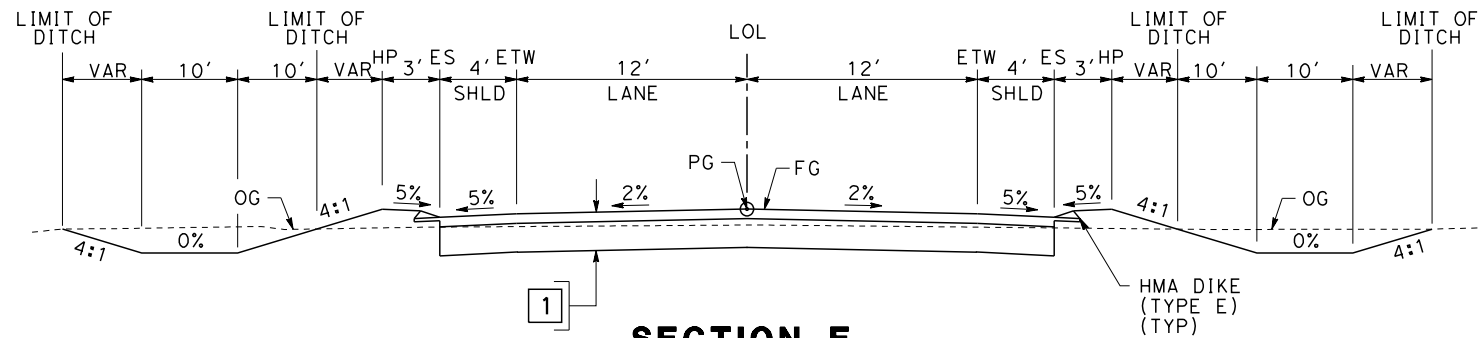


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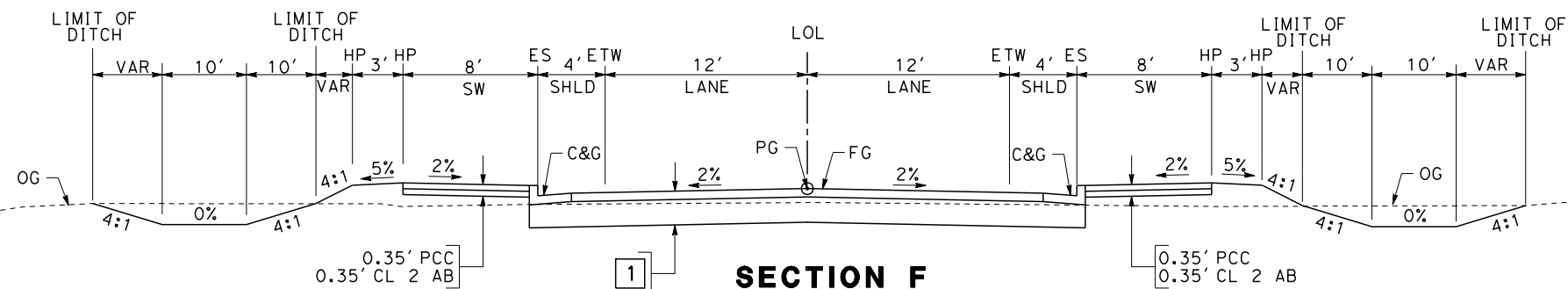
1. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. PAVEMENT SECTIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. EXACT DIMENSIONS AND MATERIAL OF THE PAVEMENT SECTION TO BE CONFIRMED.
3. PEDESTRIAN FACILITIES WILL BE DESIGNED TO COMPLY WITH ADA REQUIREMENTS.



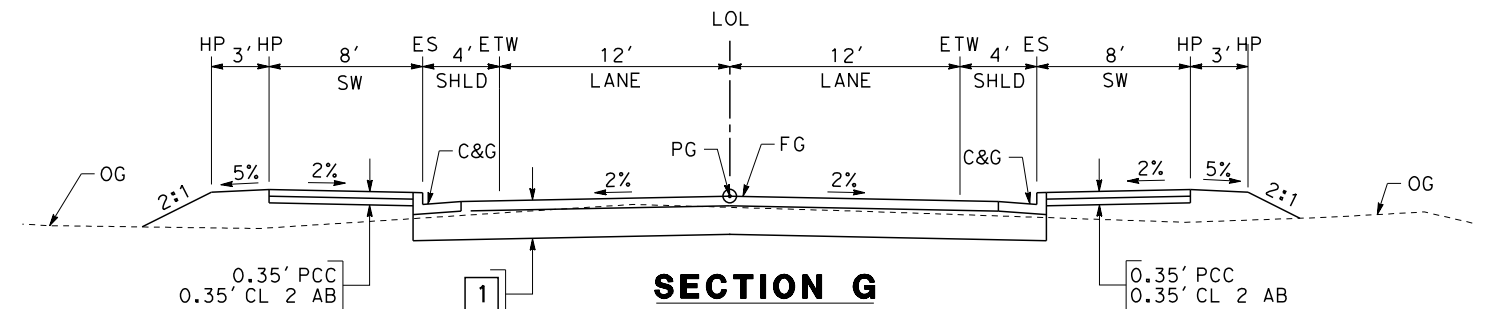
**SECTION D**  
"SFW1" 7+50.00 TO 456+57.77



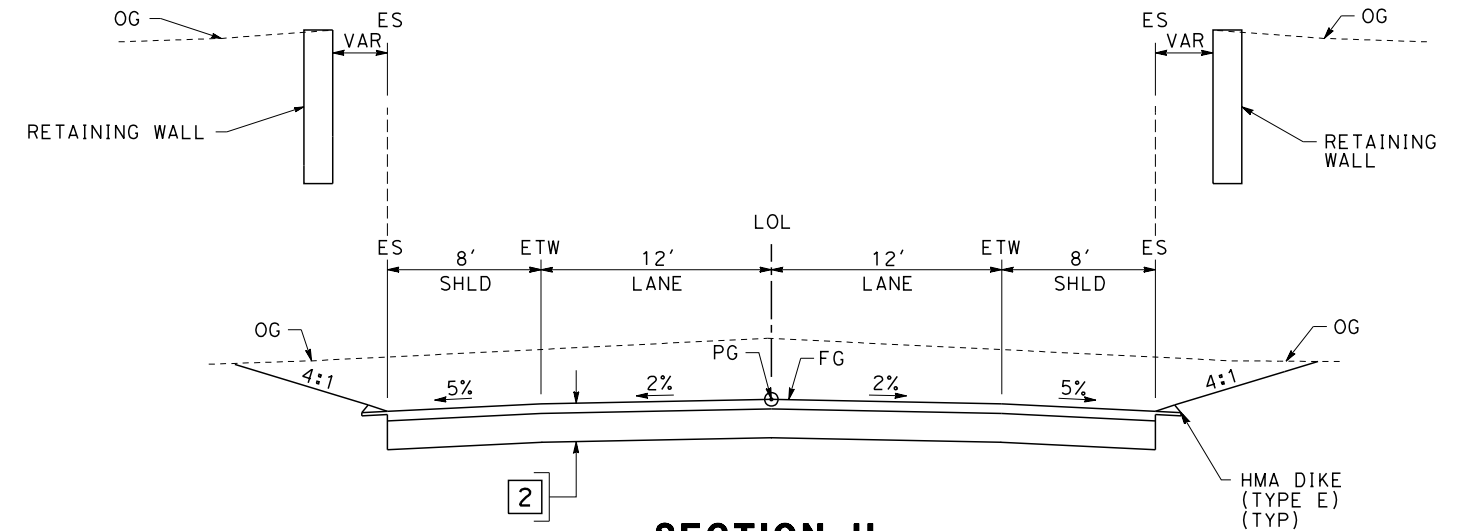
**SECTION E**  
"MER" 3+00.00 TO 13+18.25 "FBU" 19+00.00 TO 32+98.75  
"MER" 20+53.25 TO 33+15.00 "FBU" 40+63.75 TO 52+00.00  
"POP" 12+00.00 TO 24+67.50  
"POP" 31+92.50 TO 42+00.00



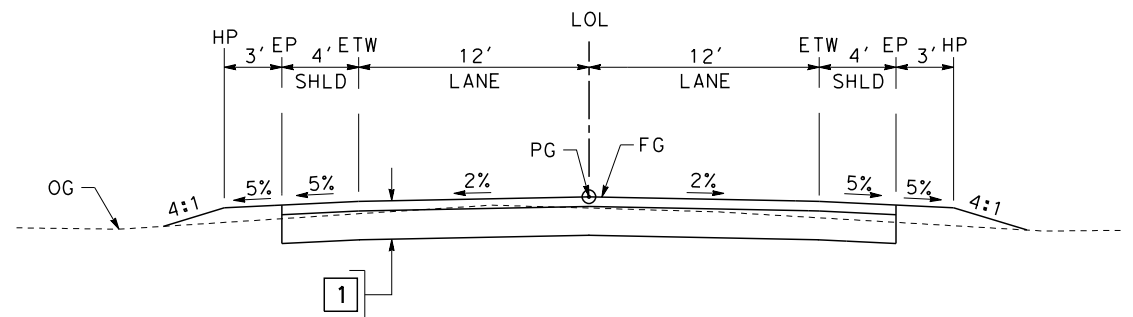
**SECTION F**  
"FRN" 9+00.00 TO 24+43.50  
"FRN" 29+38.50 TO 44+20.00



**SECTION G**  
"FRN" 0+00.00 TO 9+00.00  
"FRN" 44+20.00 TO 56+50.00



**SECTION H**  
"KBA" 6+91.66 TO 28+00.00



**SECTION I**  
"MER" 0+12.00 TO 3+00.00 "FBU" 11+00.00 TO 19+00.00  
"MER" 33+15.00 TO 43+90.95 "FBU" 52+00.00 TO 58+00.00  
"POP" 9+50.00 TO 12+00.00 "MCAC" 20+00.00 TO 26+78.87  
"POP" 42+00.00 TO 45+00.00 "CHY" 7+50.00 TO 17+50.00  
"POF" 0+00.00 TO 8+80.32 "AMCC" 0+00.00 TO 5+00.00  
"KRF" 0+00.00 TO 9+90.85 "FNO" 10+00.00 TO 16+59.21  
"FBA" 10+00.00 TO 15+50.00

\$USER \$ DATE \$ TIME \$ FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. CANNON  
DRAWN BY  
E. SUDHAUSEN  
CHECKED BY  
J. MONG  
IN CHARGE  
R. COFFIN  
DATE  
12/31/13

**RECORD SET 15%  
DESIGN SUBMISSION**  
  
**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**  
THROUGH WASCO-SHAFTER SUBSECTION  
ALIGNMENT WS1  
ROADWAY / GRADE SEPARATION  
TYPICAL CROSS SECTIONS

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CT3131  
SCALE  
NO SCALE  
SHEET NO.  
67 OF 67