

CALIFORNIA HIGH-SPEED TRAIN

Project Environmental Impact Report/Environmental Impact Statement

DRAFT

Merced to Fresno Section
Draft EIR-EIS

Volume III:

Section D – Alignment Plans

BNSF Alternative with Ave 21 Wye

August 2011



CALIFORNIA
High-Speed Rail Authority



U.S. Department of Transportation
Federal Railroad Administration



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SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
	T0010-A	BNSF ALIGNMENT	AVENUE 21	INDEX OF DRAWINGS	SHEET 1 OF 2
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	TJ7903	BNSF ALIGNMENT	AVENUE 21	TRACK GEOMETRY DATA	
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	T0150-A	BNSF ALIGNMENT	AVENUE 21	TRACK GEOMETRY DATA	SHEET 1 OF 1
	TJ3401A	MERCED TO FRESNO	AVENUE 24/SR152/AVENUE 21	TYPICAL SECTIONS	
	TJ3402A	MERCED TO FRESNO	AVENUE 24/SR152/AVENUE 21	TYPICAL SECTIONS	
	TJ3902	MERCED TO FRESNO	AVENUE 21	TYPICAL SECTIONS	SHEET 2 OF 3
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	T3000-A	MERCED TO FRESNO		TYPICAL SECTION LIMITS	
	T3001-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 1 OF 17
	T3002-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 2 OF 17
	T3003-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 3 OF 17
	T3004-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 4 OF 17
	T3005-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 5 OF 17
	T3006-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 6 OF 17
	T3007-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 7 OF 17
	T3008-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 8 OF 17
	T3009-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 9 OF 17
	T3010-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 10 OF 17
	T3011-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 11 OF 17
	T3012-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 12 OF 17
	T3013-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 13 OF 17
	T3014-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 14 OF 17
	T3015-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 15 OF 17
	T3016-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 16 OF 17
	T3017-A	MERCED TO FRESNO		TYPICAL SECTIONS	SHEET 17 OF 17
	T3018-A	FRESNO SUBSECTION	ALIGNMET F1	CROSS SECTIONS	
	T3019-A	FRESNO SUBSECTION	ALIGNMET F1	CROSS SECTIONS	
	T3020-A	FRESNO SUBSECTION	ALIGNMET F1	CROSS SECTIONS	
	T3021-A	FRESNO SUBSECTION	ALIGNMET F1	CROSS SECTIONS	
	T3022-A	FRESNO SUBSECTION	ALIGNMET F1	CROSS SECTIONS	
	T3023-A	FRESNO SUBSECTION	ALIGNMET F1	CROSS SECTIONS	
	T3024-A	FRESNO SUBSECTION	ALIGNMET F1	CROSS SECTIONS	
	T3025-A	FRESNO SUBSECTION	ALIGNMET F1	CROSS SECTIONS	
	T2086-A	BNSF MAIN LINE	AVENUE 24/SR152/AVENUE 21	PLAN AND PROFILE	STA 6152+00 TO STA 6208+00
	T2087-A	BNSF MAIN LINE	AVENUE 24/SR152/AVENUE 21	PLAN AND PROFILE	STA 6208+00 TO STA 6264+00
	T2088-A	BNSF MAIN LINE	AVENUE 24/SR152/AVENUE 21	PLAN AND PROFILE	STA 6264+00 TO STA 6320+00
	T2089-A	BNSF MAIN LINE	AVENUE 24/SR152/AVENUE 21	PLAN AND PROFILE	STA 6320+00 TO STA 6376+00
	T2090-A	BNSF MAIN LINE	AVENUE 24/SR152/AVENUE 21	PLAN AND PROFILE	STA 6376+00 TO STA 6432+00
	T2091-A	BNSF MAIN LINE	AVENUE 24/SR152/AVENUE 21	PLAN AND PROFILE	STA 6342+00 TO STA 6488+00
	T2092-A	BNSF MAIN LINE	AVENUE 24/SR152/AVENUE 21	PLAN AND PROFILE	STA 6488+00 TO STA 6542+00
	T2093-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 6146+00 TO STA 6202+00
	T2094-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 6202+00 TO STA 6258+00
	T2095-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 6258+00 TO STA 6314+00
	T2096-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 6314+00 TO STA 6370+00
	T2097-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 6370+00 TO STA 6426+00
	T2098-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 6426+00 TO STA 6482+00
	T2099-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 6482+00 TO STA 6538+00
	T1100-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 267+40.72 TO STA 315+00
	T1101-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 315+00 TO STA 370+00
	T1102-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 370+00 TO STA 425+00
	T1103-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 425+00 TO STA 480+00
	T1104-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 480+00 TO STA 535+00
	T1105-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 535+00 TO STA 590+00
	T1106-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 590+00 TO STA 645+00

SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
	T1107-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 645+00 TO STA 700+00
	T1108-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 700+00 TO STA 755+00
	T1109-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 755+00 TO STA 810+00
	T1110-A	BNSF MAIN LINE	AVENUE 21	PLAN AND PROFILE	STA 810+00 TO STA 865+00
	T1111-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 865+00 TO STA 920+00
	T1112-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 920+00 TO STA 975+00
	T1113-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 975+00 TO STA 1030+00
	T1114-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1030+00 TO STA 1085+00
	T1115-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1085+00 TO STA 1140+00
	T1116-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1140+00 TO STA 1195+00
	T1117-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1195+00 TO STA 1250+00
	T1118-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1250+00 TO STA 1305+00
	T1119-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1305+00 TO STA 1360+00
	T1120-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1360+00 TO STA 1415+00
	T1121-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1415+00 TO STA 1470+00
	T1122-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1470+00 TO STA 1525+00
	T1123-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1525+00 TO STA 1580+00
	T1124-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1580+00 TO STA 1635+00
	T1125-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1635+00 TO STA 1690+00
	T1126-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1690+00 TO STA 1740+55.75
	T1127-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1713+98 TO STA 1748+00
	T1128-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1748+00 TO STA 1803+00
	T1129-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1803+00 TO STA 1858+00
	T1130-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1858+00 TO STA 1913+00
	T1131-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1913+00 TO STA 1968+00
	T1132-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 1968+00 TO STA 2023+00
	T1133-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 2023+00 TO STA 2072+36.08
	T2133-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 100+00 TO STA 128+00
	T2134-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 128+00 TO STA 156+00
	T2135-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 156+00 TO STA 184+00
	T2136-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 184+00 TO STA 212+00
	T2137-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 212+00 TO STA 240+00
	T2138-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 240+00 TO STA 268+00
	T2139-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 268+00 TO STA 282+00
	T2140-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 282+00 TO STA 296+00
	T2141-A	BNSF MAIN LINE		PLAN AND PROFILE	STA 296+00 TO STA 310+00
	T2142-A	FRESNO SUBSECTION - MARIPOSA STATION	ALIGNMET F1	PLAN AND PROFILE	STA 310+00 TO STA 324+00
	T2143-A	FRESNO SUBSECTION - MARIPOSA STATION	ALIGNMET F1	PLAN AND PROFILE	STA 324+00 TO STA 338+00
	T1200-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4302+03.01 TO STA 4345+00
	T1201-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4345+00 TO STA 4400+00
	T1202-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4400+00 TO STA 4455+00
	T1203-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4455+00 TO STA 4510+00
	T1204-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4510+00 TO STA 4565+00
	T1205-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4565+00 TO STA 4620+00
	T1206-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4620+00 TO STA 4675+00
	T1207-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4675+00 TO STA 4730+00
	T1208-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4730+00 TO STA 4785+00
	T1209-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4785+00 TO STA 4840+00
	T1210-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4840+00 TO STA 4895+00
	T1211-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4895+00 TO STA 4950+00
	T1212-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4950+00 TO STA 5005+00
	T1213-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5005+00 TO STA 5060+00
	T1214-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5060+00 TO STA 5115+00
	T1215-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5115+00 TO STA 5170+00
	T1216-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5170+00 TO STA 5225+00
	T1217-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5225+00 TO STA 5280+00
	T1218-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5280+00 TO STA 5335+00
	T1219-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5335+00 TO STA 5390+00
	T1220-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5390+00 TO STA 5445+00
	T1221-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5445+00 TO STA 5500+00
	T1222-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5500+00 TO STA 5555+00
	T1223-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5555+00 TO STA 5610+00
	T1224-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5610+00 TO STA 5665+00
	T1225-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5665+00 TO STA 5720+00
	T1226-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5720+00 TO STA 5775+00
	T1227-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5775+00 TO STA 5830+00
	T1228-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5830+00 TO STA 5885+00
	T1229-A	BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5885+00 TO STA 5940+00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
T. WALTZ
CHECKED BY
A. SHIELDS
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

BNSF ALIGNMENT
AVENUE 21
INDEX OF DRAWINGS
SHEET 1 OF 2

CONTRACT NO.
HSR06-007
DRAWING NO.
T0010-A
SCALE
NONE
SHEET NO.
OF ###

ABBREVIATIONS

ALIGNMENT

<u>HORIZONTAL</u>	
BC	BEGINNING OF CURVE
CS	CURVE TO SPIRAL
EC	END OF CURVE
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CIRCULAR CURVES
PCS	POINT OF CURVE TO SPIRAL
PF	POINT OF FROG
PI	POINT OF INTERSECTION OF TWO TANGENTS
PITO	POINT OF INTERSECTION OF TURNOUT
POC	POINT ON CURVE
POS	POINT ON SPIRAL
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVES
PS	POINT OF SWITCH
PSC	POINT OF SPIRAL TO CURVE
PT	POINT OF TANGENCY
R	RADIUS OF CURVATURE IN FEET
SC	SPIRAL TO CURVE
SPO	POINT OF ORIGIN OF COMPOUND SPIRAL
SS	POINT OF SPIRAL TO SPIRAL
ST	SPIRAL TO TANGENT
TS	TANGENT TO SPIRAL
V	DESIGN VELOCITY IN MILES PER HOUR

<u>VERTICAL</u>	
PVC	POINT OF VERTICAL CURVE (BEGINNING OF CURVE)
PVI	POINT OF VERTICAL INTERSECTION (OF TANGENTS)
PVT	POINT OF VERTICAL TANGENCY (ENDING OF CURVE)
VC	VERTICAL CURVE

MISCELLANEOUS

BEG	BEGIN
BLVD	BOULEVARD
CL	CENTER LINE
CL	CENTERLINE, CLASS
CLR	CLEAR
COL	COLUMN
DWG	DRAWING
EQ	EQUATION
EXIST(E)	EXISTING
IN	INCH
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NB	NORTH BOUND
NTS	NOT TO SCALE
OG	ORIGINAL GROUND
O/H OH	OVER HEAD
PG&E	PACIFIC GAS & ELECTRIC
PGL	PROFILE GRADE LINE
RR	RAILROAD
RD	ROAD
R/W ROW	RIGHT OF WAY
RT	RIGHT
SS	SANITARY SEWER
SHT	SHEET
ST	STREET
STD	STANDARD
SD	STORM DRAIN
STRUCT	STRUCTURE
T	TELEPHONE
	(OH) OVERHEAD LINE
	(UG) UNDERGROUND LINE
TOR	TOP OF RAIL
TK	TRACK
TO	TURNOUT
TYP	TYPICAL
TBD	TO BE DETERMINED
TF	TELECOMMUNICATIONS FIBER
	OPTIC
V VERT	VERTICAL
W	WATER, WEST

SYMBOLS

	MATCH LINE
	HST TRACK
	PROPOSED HST RIGHT-OF-WAY
	FREIGHT/PASSENGER TRACK - EXISTING
	EXISTING RIGHT-OF-WAY
	EXISTING BRIDGE FEATURES
	RETAINING WALLS
	ORIGINAL GROUND
	GAS LINE (16")
	COMMUNICATION LINE
	WATER LINE
	FIBER OPTIC LINE
	ELECTRICAL LINE
	ELECTRICAL TOWER
	SEWER LINE
	STORM DRAIN LINE
	FUEL LINE
	TELEPHONE LINE
	PETROLEUM LINE (12")
	OVERHEAD
	NORTH ARROW
	PVI
	POTENTIAL NOISE BARRIER

NOTES:

- EXISTING ROADS TO BE GRADE SEPARATED OVER THE HIGH SPEED TRAIN (HST) RIGHT OF WAY ARE INDICATED IN THE ALIGNMENT PROFILE. ALL OTHER ROADS CROSSING THE PROPOSED HST TRACKS WILL BE CLOSED OR RELOCATED. SEE ROADWAY PLANS FOR ADDITIONAL INFORMATION.
- SEE STRUCTURE PLANS FOR LIMITS AND DETAILS OF VIADUCTS, STREAM CROSSINGS, RETAINING WALLS AND OTHER HST STRUCTURES.
- SEE ROADWAY PLANS FOR ROADWAY RELOCATIONS, GRADE SEPARATIONS, AND MODIFICATIONS TO STATE HIGHWAY FACILITIES.
- UTILITIES INDICATED ON THE PLANS ARE FOR REFERENCE ONLY. SEE "UTILITIES CONFLICT MEMO" FOR ADDITIONAL INFORMATION AND PROPOSED RELOCATION CONCEPTS.
- ROAD/LOCAL ACCESS DELINEATED FOR FURTHER EVALUATION. ADDITIONAL STUDIES WILL BE CONDUCTED DURING PRELIMINARY ENGINEERING PHASE (30% DESIGN) TO SUBSTANTIATE ITS INCLUSION OR EXCLUSION FROM THE PROPOSED IMPROVEMENTS.

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY B. CHAN
DRAWN BY S. LEONG
CHECKED BY V. CHIO
IN CHARGE J. VALSECCHI
DATE 07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

AECOM
Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811

CH2M HILL



CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

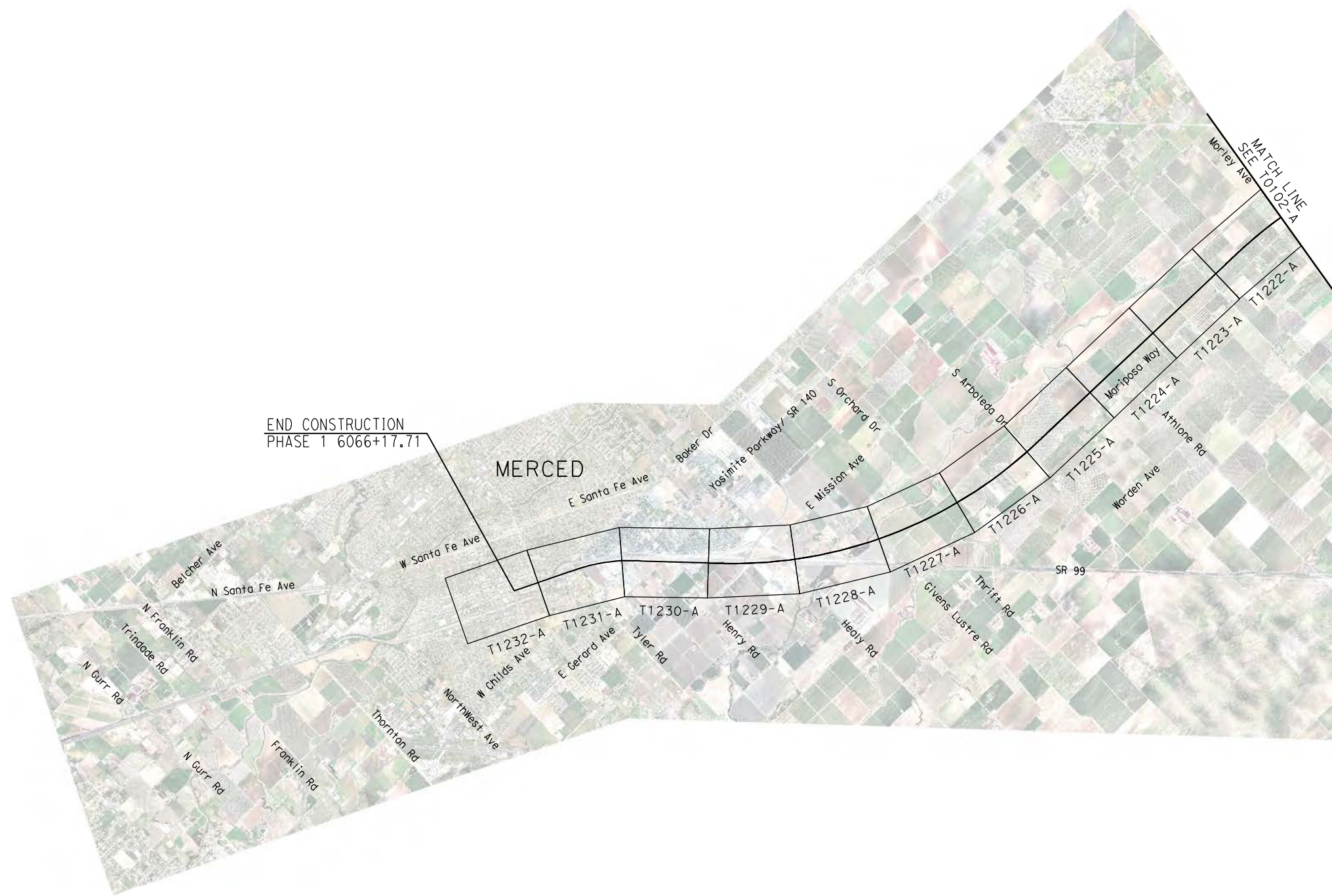
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

GENERAL

ABBREVIATIONS, SYMBOLS AND NOTES

CONTRACT NO. HSR06-007
DRAWING NO. T0100-A
SCALE NO SCALE
SHEET NO. ### OF ###

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END CONSTRUCTION
PHASE 1 6066+17.71

MERCED

MATCH LINE
SEE T0102-A

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

AECOM
Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811

CH2MHILL



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

BNSF ALIGNMENT
AVENUE 21
KEY MAP
SHEET 1 OF 6

CONTRACT NO.
HSR06-007

DRAWING NO.
T0101-A

SCALE
NO SCALE

SHEET NO.
OF

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF ALIGNMENT
AVENUE 21
KEY MAP
SHEET 2 OF 6

CONTRACT NO.
HSR06-007
DRAWING NO.
T0102-A
SCALE
NO SCALE
SHEET NO.
OF

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3520+04.54 BNSF MERCED CONNECTION
MISSION AVE EAST OF LE GRAND=
1327+27.47 BNSF MERCED
CONNECTION MISSION AVE

PT 1740+00 BNSF MERCED
CONNECTION MISSION AVE=
6042+22.46 BNSF MERCED
CONNECTION AVE 21/AVE 24

END CONSTRUCTION
PHASE 1 6066+17.71

MATCH LINE
SEE T0105-A

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

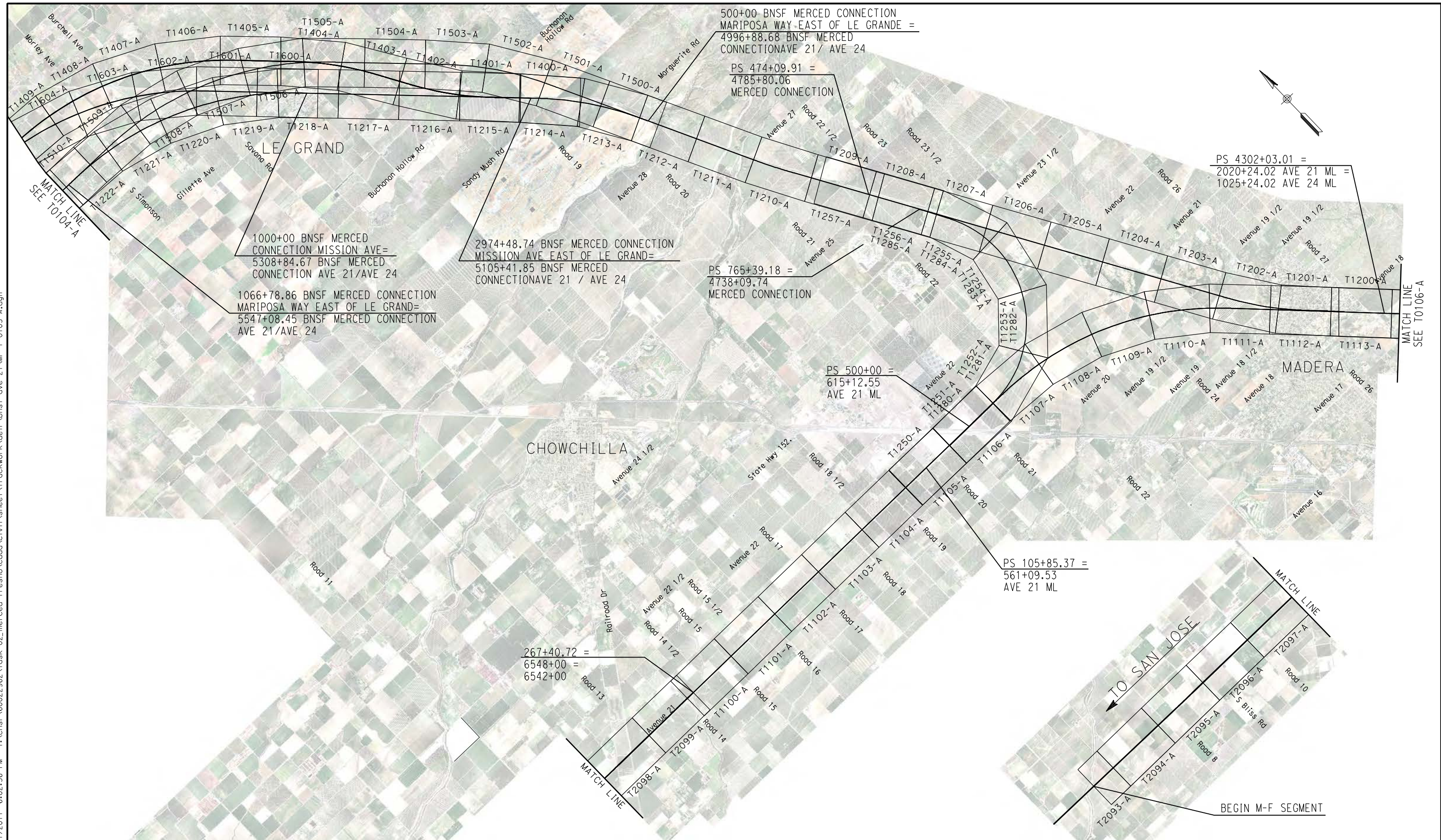
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
BNSF ALIGNMENT
DESIGN OPTIONS AROUND LE GRAND
KEY MAP
SHEET 4 OF 6

CONTRACT NO.
HSR06-007
DRAWING NO.
T0104-A
SCALE
NO SCALE
SHEET NO.
OF

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF ALIGNMENT
DESIGN OPTIONS AROUND LE GRAND

KEY MAP
SHEET 5 OF 6

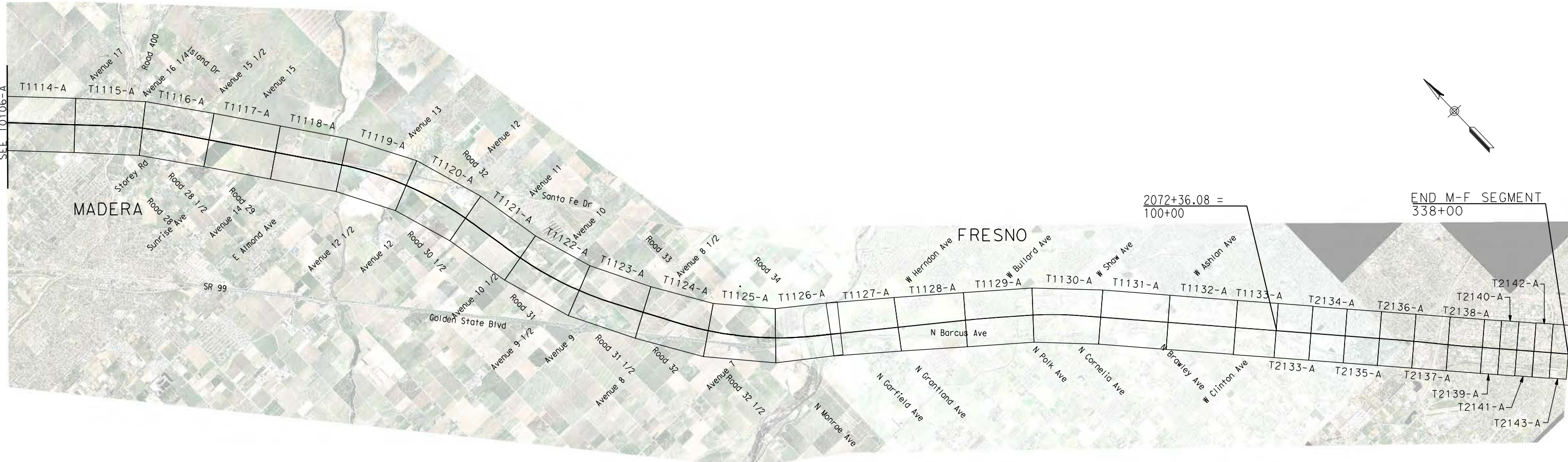
CONTRACT NO.
HSR06-007

DRAWING NO.
T0105-A

SCALE
NO SCALE

SHEET NO.
OF

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TRACK ALIGNMENT DATA SUMMARY TABLE - SOUTHBOUND TRACK

CURVE	ELEMENT	POINT TYPE	STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA)(IN)	UNBALANCED SUPERELEVATION (EA)(IN)	WCB (0°00'00") (TANGENT)	WCB (0°00'00")		
				NORTHING	EASTING										START ANGLE	END ANGLE	
	TANGENT	POB	5367+74.09	1858039.02	6512080.45		10097.07							S 89°46'01" E			
	TANGENT	TS	5468+71.16	1857997.95	6522177.45												
SR-1-SB	CLOTHOID	TS	5468+71.16	1857997.95	6522177.45												
	CLOTHOID	SPI	5479+71.18	1857993.48	6523277.46		1650.00	1°03'02"	824.99	2.52					S 89°46'01" E	S 88°43'00" E	
	CLOTHOID	SC	5485+21.16	1857981.16	6523827.34												
	ARC	SC	5485+21.16	1857981.16	6523827.34												
	ARC	PI	5543+57.72	1857850.43	6529662.42	45000.00	11608.30	14°46'49"			250	4.00	1.56		S 88°43'00" E	S 73°56'11" E	
	ARC	CC		1812992.45	6522819.41												
	ARC	CS	5601+29.47	1856235.43	6535271.09												
	CLOTHOID	CS	5601+29.47	1856235.43	6535271.09												
	CLOTHOID	SPI	5606+79.48	1856083.24	6535799.63		1650.00	1°03'02"	824.99	2.52					S 73°56'11" E	S 72°53'10" E	
	CLOTHOID	ST	5617+79.47	1855759.53	6536850.94												
	TANGENT	ST	5617+79.47	1855759.53	6536850.94		3900.12							S 72°53'10" E			
	TANGENT	TS	5656+79.58	1854611.83	6540578.37												
SR-2-SB	CLOTHOID	TS	5656+79.58	1854611.83	6540578.37												
	CLOTHOID	SPI	5667+79.60	1854288.12	6541629.68		1650.00	1°03'00"	824.99	2.52					S 72°53'10" E	S 73°56'10" E	
	CLOTHOID	SC	5673+29.58	1854135.93	6542158.22												
	ARC	SC	5673+29.58	1854135.93	6542158.22												
	ARC	PI	5732+61.69	1852494.45	6547858.7	45016.50	11796.24	15°00'50"			250	4.00	1.55		S 73°56'10" E	S 88°57'00" E	
	ARC	CC		1897394.68	6554614.76												
	ARC	CS	5791+25.83	1852385.74	6553789.81												
	CLOTHOID	CS	5791+25.83	1852385.74	6553789.81												
	CLOTHOID	SPI	5796+75.84	1852375.66	6554339.73		1650.00	1°03'00"	824.99	2.52					S 88°57'00" E	S 90°00'00" E	
	CLOTHOID	ST	5807+75.83	1852375.66	6554339.75												
	TANGENT	ST	5807+75.83	1852375.66	6554339.75		28794.12							S 90°00'00" E			
	TANGENT	TS	6095+69.95	1852375.66	6584233.87												
SR-3-SB	CLOTHOID	TS	6095+69.95	1852375.66	6584233.87												
	CLOTHOID	SPI	6106+69.97	1852375.66	6585333.89		1650.00	1°03'02"	824.99	2.52					S 90°00'00" E	S 88°56'58" E	
	CLOTHOID	SC	6112+19.95	1852365.58	6585883.81												
	ARC	SC	6112+19.95	1852365.58	6585883.81												
	ARC	PI	6204+28.65	1852196.76	6595090.97	45000.00	18166.59	23°07'50"			250	4.00	1.56		S 88°56'58" E	S 65°49'09" E	
	ARC	CC		1807373.14	6585058.86												
	ARC	CS	6293+86.54	1848424.71	6603491.68												
	CLOTHOID	CS	6293+86.54	1848424.71	6603491.68												
	CLOTHOID	SPI	6299+36.56	1848199.41	6603993.44		1650.00	1°03'02"	824.99	2.52					S 65°49'09" E	S 64°46'07" E	
	CLOTHOID	ST	6310+36.54	1847730.5	6604988.51												
	TANGENT	ST	6310+36.54	1847730.5	6604988.51		1353.50							S 64°46'07" E			
	TANGENT	TS	6323+90.04	1847153.54	6606212.88												

7/21/2011 9:32:50 AM c:\pw_working\ptgwiseb\p0039764\dms66816\JM-TJ-7401A.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE
AVENUE 24/SR 152/AVENUE 21
TRACK GEOMETRY DATA

CONTRACT NO.
HSR08-05

DRAWING NO.
TJ7401A

SCALE
NO SCALE

SHEET NO.

TRACK ALIGNMENT DATA SUMMARY TABLE - SOUTHBOUND TRACK

CURVE	ELEMENT	POINT TYPE	STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA)(IN)	UNBALANCED SUPERELEVATION (EA)(IN)	WCB (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
SR-4-SB	CLOTHOID	TS	6323+90.04	1847153.54	6606212.88											
	CLOTHOID	SPI	6334+90.06	1846684.64	6607207.95		1650.00	1°03'00"	824.99	2.52					S 64°46'07" E	S 65°49'08" E
	CLOTHOID	SC	6340+40.04	1846459.33	6607709.7											
	ARC	SC	6340+40.04	1846459.33	6607709.7											
	ARC	PI	6434+27.70	1842613.92	6616273.64	45016.50	18510.04	23°33'33"			250	4.00	1.55		S 65°49'08" E	S 89°22'40" E
	ARC	CC		1887525.83	6626149.55											
	ARC	CS	6525+50.08	1842511.99	6625660.74											
	CLOTHOID	CS	6525+50.08	1842511.99	6625660.74											
	CLOTHOID	SPI	6531+00.10	1842506.01	6626210.73		1650.00	1°03'00"	824.99	2.52					S 89°22'40" E	N 89°34'20" E
	CLOTHOID	ST	6542+00.08	1842514.23	6627310.72											

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
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BNSF MAIN LINE
AVENUE 24/SR 152/AVENUE 21
TRACK GEOMETRY DATA

CONTRACT NO.
HSR08-05

DRAWING NO.
TJ7402A

SCALE
NO SCALE

SHEET NO.

TRACK ALIGNMENT DATA SUMMARY TABLE - NORTHBOUND TRACK

CURVE	ELEMENT	POINT TYPE	STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA)(IN)	UNBALANCED SUPERELEVATION (EA)(IN)	WCB (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	5367+74.09	1858055.52	6512080.52		10096.92							S 89°46'01" E		
	TANGENT	TS	5468+71.01	1858014.45	6522177.36											
SR-1-NB	CLOTHOID	TS	5468+71.01	1858014.45	6522177.36											
	CLOTHOID	SPI	5479+71.23	1858009.98	6523277.57		1650.30	1°03'01"	825.14	2.52					S 89°46'01" E	S 88°43'00" E
	CLOTHOID	SC	5485+21.31	1857997.66	6523827.55											
	ARC	SC	5485+21.31	1857997.66	6523827.55											
	ARC	PI	5543+60.16	1857866.9	6529664.94	45016.50	11612.86	14°46'50"			250	4.00	1.55		S 88°43'00" E	S 73°56'10" E
	ARC	CC		1812992.45	6522819.41											
	ARC	CS	5601+34.18	1856251.25	6535275.8											
	CLOTHOID	CS	5601+34.18	1856251.25	6535275.8											
	CLOTHOID	SPI	5606+84.30	1856099.02	6535804.44		1650.30	1°03'01"	825.14	2.52					S 73°56'10" E	S 72°53'10" E
	CLOTHOID	ST	5617+84.48	1855775.26	6536855.94											
	TANGENT	ST	5617+84.48	1855775.26	6536855.94		3900.12							S 72°53'10" E		
	TANGENT	TS	5656+84.59	1854627.56	6540583.37											
SR-2-NB	CLOTHOID	TS	5656+84.59	1854627.56	6540583.37											
	CLOTHOID	SPI	5667+84.41	1854303.91	6541634.49		1649.70	1°03'01"	824.84	2.52					S 72°53'10" E	S 73°56'10" E
	CLOTHOID	SC	5673+34.29	1854151.74	6542162.93											
	ARC	SC	5673+34.29	1854151.74	6542162.93											
	ARC	PI	5732+64.07	1852510.93	6547861.18	45000.00	11791.62	15°00'49"			250	4.00	1.56		S 73°56'10" E	S 88°56'59" E
	ARC	CC		1897394.68	6554614.76											
	ARC	CS	5791+25.91	1852402.24	6553789.96											
	CLOTHOID	CS	5791+25.91	1852402.24	6553789.96											
	CLOTHOID	SPI	5796+75.83	1852392.16	6554339.78		1649.70	1°03'01"	824.84	2.52					S 88°56'59" E	S 90°00'00" E
	CLOTHOID	ST	5807+75.61	1852392.16	6555439.6											
	TANGENT	ST	5807+75.61	1852392.16	6555439.6		28794.12							S 90°00'00" E		
	TANGENT	TS	6095+69.73	1852392.16	6584233.72											
SR-3-NB	CLOTHOID	TS	6095+69.73	1852392.16	6584233.72											
	CLOTHOID	SPI	6106+69.95	1852392.16	6585333.94		1650.30	1°03'01"	825.14	2.52					S 90°00'00" E	S 88°56'59" E
	CLOTHOID	SC	6112+20.03	1852382.08	6585883.96											
	ARC	SC	6112+20.03	1852382.08	6585883.96											
	ARC	PI	6204+32.27	1852213.23	6595094.66	45016.50	18173.56	23°07'51"			250	4.00	1.55		S 88°56'59" E	S 65°49'08" E
	ARC	CC		1807373.14	6585058.86											
	ARC	CS	6293+93.59	1848439.7	6603498.58											
	CLOTHOID	CS	6293+93.59	1848439.7	6603498.58											
	CLOTHOID	SPI	6299+43.71	1848214.36	6604000.42		1650.30	1°03'01"	825.14	2.52					S 65°49'08" E	S 64°46'07" E
	CLOTHOID	ST	6310+43.89	1847745.37	6604995.68											
	TANGENT	ST	6310+43.89	1847745.37	6604995.68		1353.50							S 64°46'07" E		
	TANGENT	TS	6323+97.39	1847168.41	6606220.04											

7/21/2011 9:33:09 AM c:\pw_working\ptgwiseb\p0039764\dms66816\JM-TJ-7403A.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
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USE ONLY**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE
AVENUE 24/SR 152/AVENUE 21
TRACK GEOMETRY DATA

CONTRACT NO.
HSR08-05

DRAWING NO.
TJ7403A

SCALE
NO SCALE

SHEET NO.

TRACK ALIGNMENT DATA SUMMARY TABLE - SOUTHBOUND TRACK

CURVE	ELEMENT	POINT TYPE	STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA)(IN)	UNBALANCED SUPERELEVATION (EA)(IN)	WCB (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	ST	A 6085+46.45	1842427.27	6581100.50		16,264.68							S 89°45'06" E		
	TANGENT	TS	A 6248+11.13	1842356.80	6597365.02											
V21-8	CLOTHOID	TS	A 6248+11.13	1842356.80	6597365.02			0°06'46"							S 89°45'06" E	
	CLOTHOID	SPI	A 6252+57.79	1842354.87	6597811.69		670.00		335	0.11						S 89°51'53" E
	CLOTHOID	SC	A 6254+81.13	1842354.34	6598035.02											
	ARC	SC	A 6254+81.13	1842354.34	6598035.02			0°14'53"								S 89°51'53" E
	ARC	PI	A 6258+49.28	1842353.47	6598403.17	170,000.00	736.31				250	1.00	0.47			N 89°53'14" E
	ARC	CC		2012353.87	6598436.51											
	ARC	CS	A 6262+17.43	1842354.20	6598771.32											
	CLOTHOID	CS	A 6262+17.43	1842354.20	6598771.32			0°06'46"								N 89°53'14" E
	CLOTHOID	SPI	A 6264+40.77	1842354.64	6598994.66		670.00		335	0.11						N 89°46'27" E
CLOTHOID	ST	A 6268+87.43	1842356.40	6599441.32												
	TANGENT	ST	A 6268+87.43	1842356.40	6599441.32		12,106.35								N 89°46'27" E	
	TANGENT	TS	A 6389+93.79	1842404.10	6611547.58											
V21-9	CLOTHOID	TS	A 6389+93.79	1842404.10	6611547.58			0°02'53"							N 89°46'27" E	
	CLOTHOID	SPI	A 6394+40.45	1842405.86	6611994.24		670.00		335	0.05						N 89°43'35" E
	CLOTHOID	SC	A 6396+63.79	1842406.92	6612217.57											
	ARC	SC	A 6396+63.79	1842406.92	6612217.57			0°07'59"								N 89°43'35" E
	ARC	PI	A 6401+27.95	1842409.14	6612681.73	400,000.00	928.33				250	0.50	0.13			N 89°35'36" E
	ARC	CC		2242402.36	6610306.54											
	ARC	CS	A 6405+92.12	1842412.43	6613145.89											N 89°35'36" E
	CLOTHOID	CS	A 6405+92.12	1842412.43	6613145.89			0°02'53"	335							N 89°32'43" E
	CLOTHOID	SPI	A 6408+15.45	1842414.02	6613369.22		670.00			0.05						
CLOTHOID	ST	A 6412+62.12	1842417.56	6613815.87												
	TANGENT	ST	A 6412+62.12	1842417.56	6613815.87		6,891.32								N 89°32'43" E	
	TANGENT	TS	A 6481+53.44	1842472.25	6620706.97											
V21-10								0°04'36"							N 89°32'43" E	
	CLOTHOID	TS	A 6481+53.44	1842472.25	6620706.97				335							
	CLOTHOID	SPI	A 6486+00.11	1842475.80	6621153.63		670.00			0.07						N 89°37'19" E
	CLOTHOID	SC	A 6488+23.44	1842477.27	6621376.96											N 89°37'19" E
	ARC	SC	A 6488+23.44	1842477.27	6621376.96	250,000.00										
	ARC	PI	A 6488+29.38	1842477.31	6621382.90		11.89				250	0.25	0.25			N 89°37'29" E
	ARC	CC		1592482.71	6623025.93											
	ARC	CS	A 6488+35.33	1842477.35	6621388.84											N 89°37'29" E
	CLOTHOID	CS	A 6488+35.33	1842477.35	6621388.84				335							
CLOTHOID	SPI	A 6490+58.66	1842478.81	6621612.17		670.00			0.07						N 89°42'06" E	
CLOTHOID	ST	A 6495+05.33	1842481.14	6622058.83												
	TANGENT	ST	A 6495+05.33	1842481.14	6622058.83		1,126.57								N 89°42'06" E	
	TANGENT	POE	A 6506+31.89	1842487.01	6623185.38											

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

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. GURA
 DRAWN BY
J. PAZ
 CHECKED BY
S. GOOLLA
 IN CHARGE
D. WEMMER
 DATE
4/15/2011

**15% DRAFT
 SUBMITTAL
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 USE ONLY**

**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 AVENUE 21
 TRACK GEOMETRY DATA

CONTRACT NO.
 HSR08-05
 DRAWING NO.
 TJ7903
 SCALE
 NO SCALE
 SHEET NO.

TRACK ALIGNMENT DATA SUMMARY TABLE - NORTHBOUND TRACK

CURVE	ELEMENT	POINT TYPE	STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA)(IN)	UNBALANCED SUPERELEVATION (EA)(IN)	WCB (0°00'00") (TANGENT)	WCB (0°00'00")		
				NORTHING	EASTING										START ANGLE	END ANGLE	
V21-7	CLOTHOID	TS	6053+64.47	1842448.23	6579090.93												
	CLOTHOID	SPI	6058+04.48	1842448.18	6579530.95		660.02	0°03'33"	330.01	0.06					S 89°59'36" E	S 89°56'04" E	
	CLOTHOID	SC	6060+24.49	1842447.93	6579750.95												
	ARC	SC	6060+24.49	1842447.93	6579750.95												
	ARC	PI	6063+69.30	1842447.54	6580095.76	320,016.50	689.61	0°07'24"				250	0.50	0.28		S 89°56'04" E	S 89°48'39" E
	ARC	CC		1522431.64	6579384.17												
	ARC	CS	6067+14.10	1842446.4	6580440.56												
	CLOTHOID	CS	6067+14.10	1842446.4	6580440.56												
	CLOTHOID	SPI	6069+34.11	1842445.67	6580660.57		660.02	0°03'33"	330.01	0.06					S 89°48'39" E	S 89°45'06" E	
	CLOTHOID	ST	6073+74.12	1842443.77	6581100.58												
	TANGENT	ST	6073+74.12	1842443.77	6581100.58		16,264.69							S 89°45'06" E			
	TANGENT	TS	6236+38.81	1842373.30	6597365.11												
V21-8	CLOTHOID	TS	6236+38.81	1842373.30	6597365.11												
	CLOTHOID	SPI	6240+85.45	1842371.37	6597811.75		669.97	0°06'46"	334.98	0.11					S 89°45'06" E	S 89°51'53" E	
	CLOTHOID	SC	6243+08.78	1842370.84	6598035.07												
	ARC	SC	6243+08.78	1842370.84	6598035.07												
	ARC	PI	6246+76.88	1842369.97	6598403.17	169,983.50	736.20	0°14'53"				250	1.00	0.47		S 89°51'53" E	N 89°53'14" E
	ARC	CC		2012353.87	6598436.51												
	ARC	CS	6250+44.98	1842370.70	6598771.28												
	CLOTHOID	CS	6250+44.98	1842370.70	6598771.28												
	CLOTHOID	SPI	6252+68.30	1842371.14	6598994.60		669.97	0°06'46"	334.98	0.11					N 89°53'14" E	N 89°46'27" E	
	CLOTHOID	ST	6257+14.95	1842372.90	6599441.24												
	TANGENT	ST	6257+14.95	1842372.90	6599441.24		12,106.38							N 89°46'27" E			
	TANGENT	TS	6378+21.32	1842420.60	6611547.52												
V21-9	CLOTHOID	TS	6378+21.32	1842420.60	6611547.52												
	CLOTHOID	SPI	6382+67.98	1842422.36	6611994.17		669.99	0°02'53"	334.99	0.05					N 89°46'27" E	N 89°43'35" E	
	CLOTHOID	SC	6384+91.31	1842423.42	6612217.50												
	ARC	SC	6384+91.31	1842423.42	6612217.50												
	ARC	PI	6389+55.45	1842425.64	6612681.64	399,983.50	928.28	0°07'59"				250	0.50	0.13		N 89°43'35" E	N 89°35'36" E
	ARC	CC		2242402.36	6610306.54												
	ARC	CS	6394+19.59	1842428.93	6613145.76												
	CLOTHOID	CS	6394+19.59	1842428.93	6613145.76												
	CLOTHOID	SPI	6396+42.92	1842430.52	6613369.09		669.99	0°02'53"	334.99	0.05					N 89°35'36" E	N 89°32'43" E	
	CLOTHOID	ST	6400+89.57	1842434.06	6613815.73												
	TANGENT	ST	6400+89.57	1842434.06	6613815.73		6,550.38							N 89°32'43" E			
	TANGENT	TS	6466+39.96	1842486.05	6620365.91												
V21-10	CLOTHOID	TS	6466+39.96	1842486.05	6620365.91												
	CLOTHOID	SPI	6470+86.63	1842489.59	6620812.57		670.01	0°02'18"	335.01	0.04					N 89°32'43" E	N 89°37'19" E	
	CLOTHOID	SC	6473+09.97	1842491.21	6621035.90												
	ARC	SC	6473+09.97	1842491.21	6621035.90												
	ARC	PI	6476+56.87	1842493.74	6621382.79	500,016.50	693.81	0°04'46"				250	0.25	0.25		N 89°37'19" E	N 89°37'29" E
	ARC	CC		1342487.91	6624668.96												
	ARC	CS	6480+03.77	1842495.77	6621729.69												
	CLOTHOID	CS	6480+03.77	1842495.77	6621729.69												
	CLOTHOID	SPI	6482+27.11	1842497.09	6621953.02		670.01	0°02'18"	335.01	0.04					N 89°37'29" E	N 89°42'06" E	
	CLOTHOID	ST	6486+73.79	1842499.41	6622399.69												
	TANGENT	ST	6486+73.79	1842499.41	6622399.69		785.62							N 89°42'06" E			
	TANGENT	POE	6494+59.40	1842503.51	6623185.30												

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P0037225

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. GURA
DRAWN BY
J. PAZ
CHECKED BY
S. GOOLLA
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 21
TRACK GEOMETRY DATA
SHEET 6 OF 6

CONTRACT NO.
HSR08-05
DRAWING NO.
TJ7906
SCALE
NO SCALE
SHEET NO.

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MAIN LINE AVE 21 SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF201	250	28000	6.00	2.93	2000	646+46.52	890+17.44	T1107-A

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MAIN LINE SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF202	250	28000	6.00	2.93	2000	1106+38.05	1169+50.77	T1115-A
BNSF203	250	28000	6.00	2.93	2000	1288+03.95	1432+77.00	T1118-A
BNSF204	250	28016.5	6.00	2.93	2000	1452+42.23	1566+35.87	T1121-A
BNSF205	250	28016.5	6.00	2.93	2000	1599+58.86	1731+68.17	T1124-A
BNSF206	250	42995.5	3.25	2.56	1199.87	1708+55.57	1748+44.15	T1127-A
BNSF207	250	43000	3.25	2.56	1200	1852+76.45	1927+63.38	T1130-A

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MERCED CONNECTION SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF109	150	32000			220	4302+03.01	4313+11.12	T1200-A
BNSF110	150	24000	1.25	2.50	220	4313+11.12	4323+70.19	T1200-A
BNSF111	250	28000	6.00	2.93	2000	4363+79.98	4453+67.52	T1201-A
BNSF112	250	43016.5	3.00	2.81	1100	4586+00.90	4897+66.79	T1210-A
BNSF113	250	28000	6.00	2.93	2000	4996+88.68	5109+38.05	T2212-A
BNSF114	250	28000	6.00	2.93	2000	5308+84.67	5547+08.45	T1218-A
BNSF115	250	28016.5	6.00	2.93	2000	5071+78.02	5942+55.78	T1225-A
BNSF116	150	10000	6.00	3.00	1000	5982+81.29	6029+03.10	T1230-A

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - BNSF WYE - SB CONNECTION AVE 24

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF118	150	32000			220	500+00	510+14.35	T1280-A
BNSF119	150	24000	1.25	2.50	220	510+14.35	518+63.11	T1280-A
BNSF220	150	10000	6.00	3.00	1200	523+90.92	742+78.44	T1280-A
BNSF221	150	32000			220	755+87.78	765+39.18	T1285-A

BNSF WYE MERCED CONNECTION MISSION AVENUE EAST OF LE GRAND - SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSFMC110	250	28000	6.00	2.93	2000	3000+00	3094+36.12	T1401-A
BNSFMC111	250	28000	6.00	2.93	2000	3108+39.34	3202+95.57	T1403-A
BNSFMC112	250	28000	6.00	2.93	2000	3238+21.87	3520+04.54	T1405-A

BNSF WYE MERCED CONNECTION MARIPOSA WAY EAST OF LE GRAND - SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSFMC120	250	28000	6.00	2.93	2000	588+15.35	701+33.86	T1501-A
BNSFMC121	250	28000	6.00	2.93	2000	788+14.79	1026+01.27	T1505-A

BNSF MERCED CONNECTION MISSION AVENUE - SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSFMC130	250	28000	6.00	2.93	2000	1085+29.65	1327+27.47	T1601-A
BNSFMC131	175	15000	5.20	2.97	1200	1530+38.15	1662+58.93	T1609-A
BNSFMC132	150	10000	6.00	3.00	1000	1680+58.80	1726+80.61	T1612-A

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MAIN LINE AVE 21 NB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF101	250	28016.50	6.00	2.93	2000	646+46.22	890+30.92	T-1107-A

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MAIN LINE NB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF102	250	28016.5	6.00	2.93	2000	1106+50.94	1169+66.78	T1115-A
BNSF103	250	28016.5	6.00	2.93	2000	1288+19.38	1433+00.37	T1118-A
BNSF104	250	28000	6.00	2.93	2000	1452+65.60	1566+53.12	T1121-A
BNSF105	250	28000	6.00	2.93	2000	1593+78.25	1734+18.05	T1124-A
BNSF106	250	43012	3.25	2.56	1200	1708+55.57	1748+44.15	T1127-A
BNSF107	250	43016.5	3.25	2.56	1200	1852+76.45	1927+63.38	T1130-A

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MERCED CONNECTION NB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF209	150	32000			220	4302+03.01	4313+11.12	T1200-A
BNSF210	150	24000	1.25	2.50	220	4313+11.12	4323+70.19	T1201-A
BNSF211	250	28000	6.00	2.93	2000	4366+51.75	4456+39.30	T1201-A
BNSF212	250	43000	3.00	2.81	2000	4855+88.42	4897+53.13	T1210-A
BNSF213	250	28016.5	6.00	2.93	2000	4996+75.02	5109+29.85	T2212-A
BNSF214	250	28016.5	6.00	2.93	2000	5308+76.46	5547+13.11	T1218-A
BNSF215	250	28000	6.00	2.93	2000	4701+82.68	4942+47.44	T1225-A
BNSF216	150	10016.5	6.00	3.00	1000	4971+57.33	5039+96.02	T1230-A

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - BNSF WYE - NB CONNECTION AVE 24

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF228	150	32000			220	105+85.37	117+72.80	T1250-A
BNSF229	150	24020.25	1.25	2.50	220	117+72.80	127+52.23	T1250-A
BNSF230	150	10150	6.00	2.87	1200	182+87.46	407+30.99	T1251-A
BNSF231	150	24020.23	1.25	2.50	220	452+43.25	462+22.68	T1256-A
BNSF232	150	32000			220	462+22.68	474+09.91	T1257-A

BNSF WYE MERCED CONNECTION MISSION AVENUE EAST OF LE GRAND - NB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSFMC210	250	27983.5	6.00	2.93	2000	3000+00	3094+36.12	T1401-A
BNSFMC211	250	28016.5	6.00	2.93	2000	3108+39.34	3202+95.57	T1403-A
BNSFMC212	250	28016.5	6.00	2.93	2000	3238+21.87	3520+04.54	T1405-A

BNSF WYE MERCED CONNECTION MARIPOSA WAY EAST OF LE GRAND - NB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSFMC220	250	28016.5	6.00	2.93	2000	588+15.35	701+33.86	T1501-A
BNSFMC221	250	28000	6.00	2.93	2000	788+14.79	1026+01.27	T1505-A

BNSF MERCED CONNECTION MISSION AVENUE - NB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSFMC230	250	28016.5	6.00	2.93	2000	1085+29.65	1327+27.47	T1601-A
BNSFMC231	175	14983.5	5.20	2.97	1200	1530+38.15	1662+58.93	T1609-A
BNSFMC232	150	10016.5	6.00	3.00	1000	1680+58.80	1726+80.61	T1612-A

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY T. WALTZ
CHECKED BY A. SHIELDS
IN CHARGE A. BOONE
DATE 07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

**NOT FOR
CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF ALIGNMENT
AVENUE 21
TRACK GEOMETRY DATA
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. T0150-A
SCALE NO SCALE
SHEET NO. ### OF ###

GENERAL NOTES:

1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
3. SEE STRUCTURES, VIADUCT AND TUNNEL PLANS FOR DETAILED CROSS SECTIONS OF STRUCTURES.
4. BALLASTED OR UNBALLASTED TRACK STRUCTURE TO BE DETERMINED.

**SECTION A-A
TANGENT**

STATION 5367+74.09 TO 5468+71.16

SUPERELEVATED

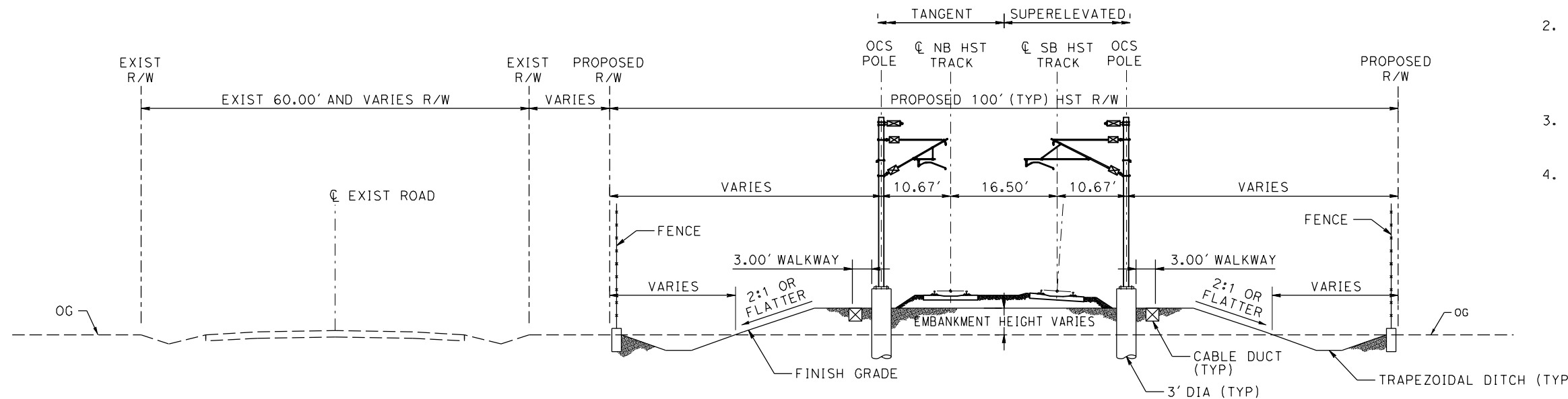
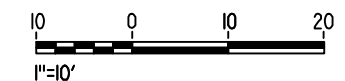
STATION 5468+71.16 TO 5494+50.00

**SECTION B-B
TANGENT**

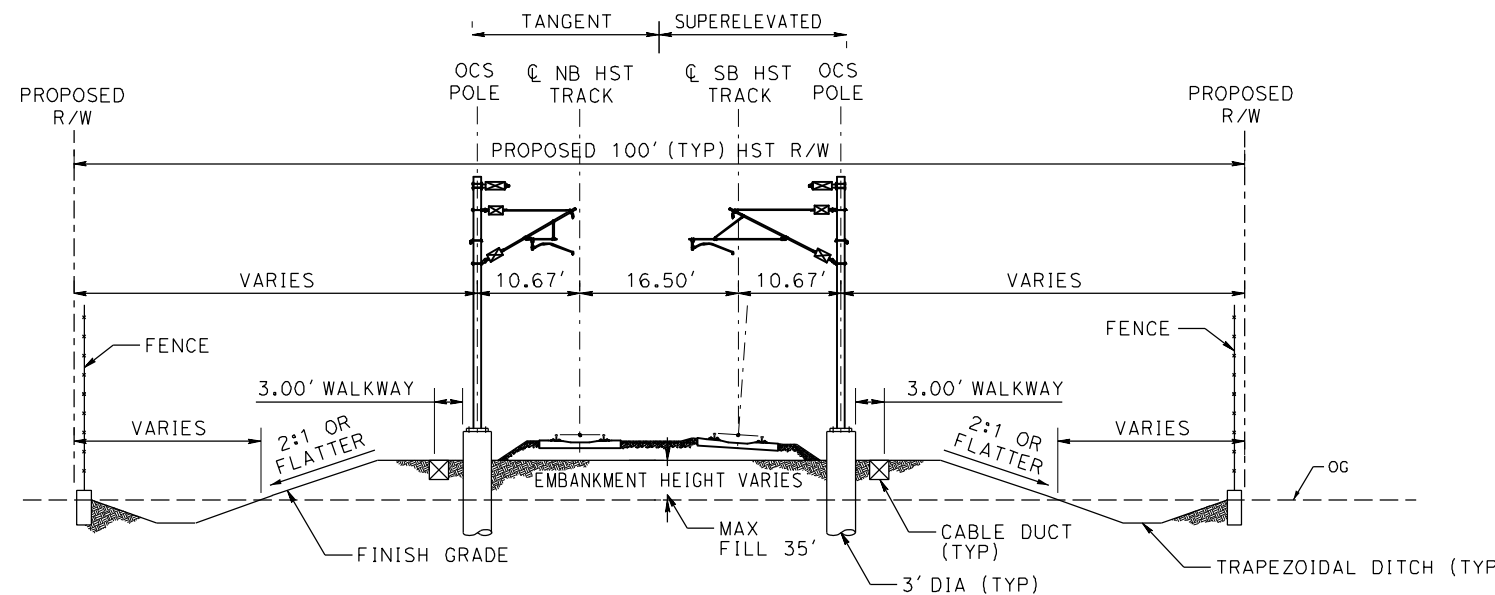
STATION 5944+30.06 TO 6095+69.95
STATION 6310+36.54 TO 6323+90.04

SUPERELEVATED

STATION 5494+50.00 TO 5582+51.76
STATION 6095+69.95 TO 6147+15.51
STATION 6277+56.72 TO 6310+30.54
STATION 6323+90.04 TO 6542+00.08



**SECTION A-A
TRACK ON EMBANKMENT WITH ADJACENT ROAD**



**SECTION B-B
TRACK ON EMBANKMENT WITH ADJACENT ROAD**

NOTE:
POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE
AVENUE 24/SR152/AVENUE 21
TYPICAL SECTION

CONTRACT NO.
HSR08-05

DRAWING NO.
TJ3401A

SCALE
1"=10'

SHEET NO.

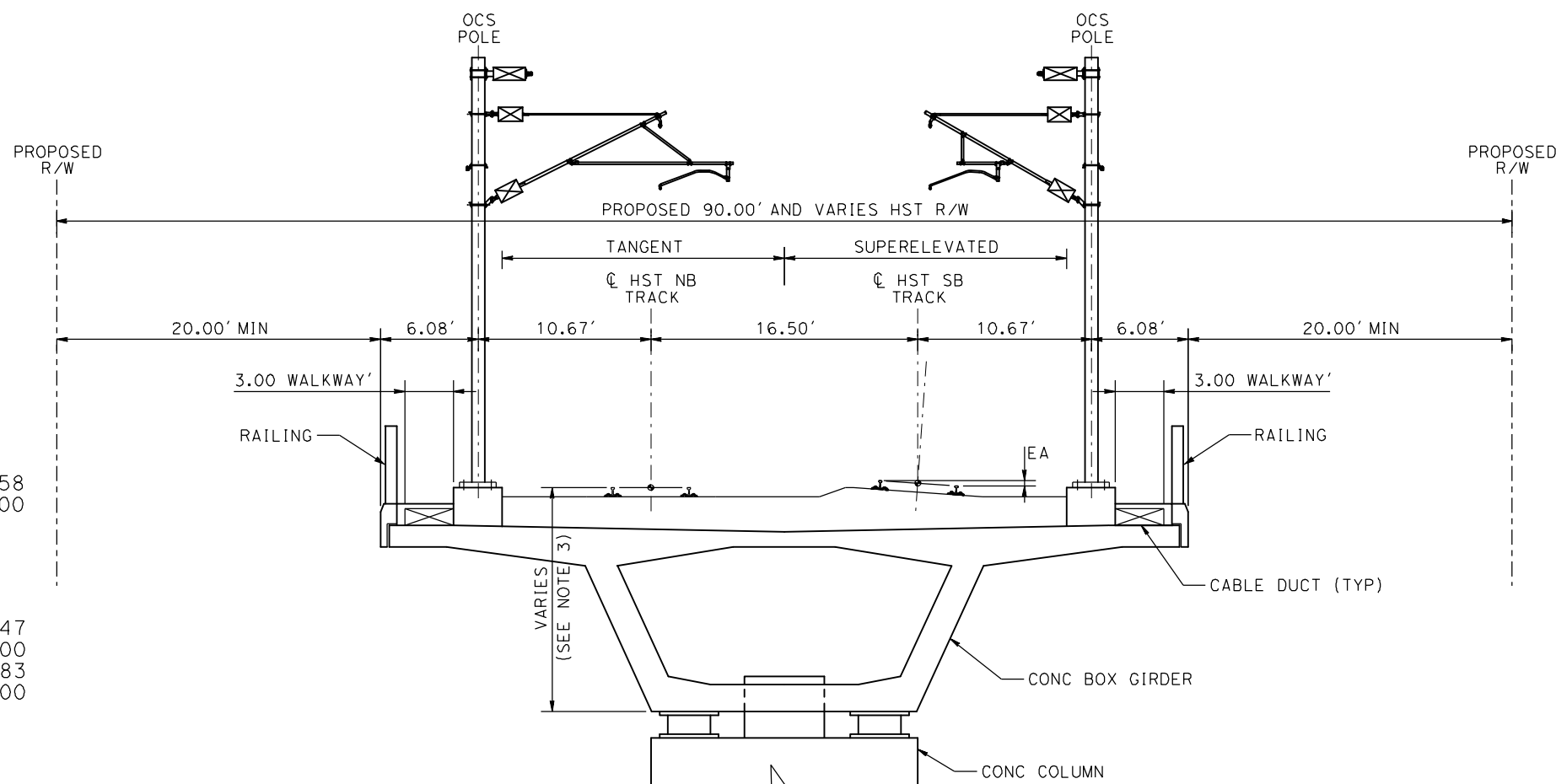
NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS

SECTION A-A
 TANGENT

STATION 5617+79.47 TO 5656+79.58
 STATION 5807+75.83 TO 5906+50.00

SUPERELEVATED

STATION 5617+00.00 TO 5617+79.47
 STATION 5656+79.58 TO 5703+50.00
 STATION 5764+00.00 TO 5807+75.83
 STATION 6178+00.00 TO 6248+00.00



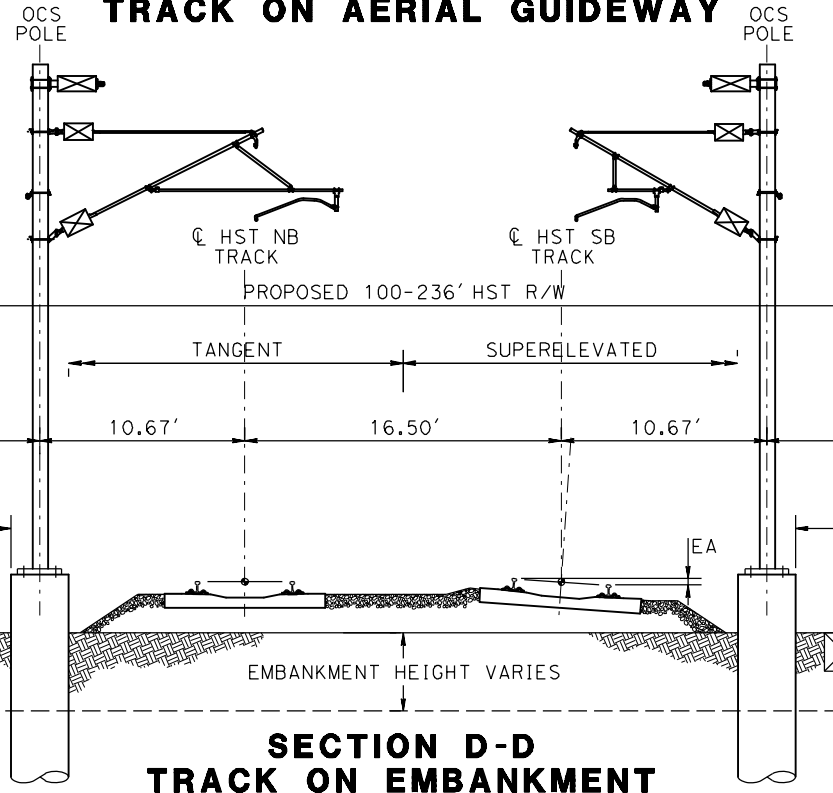
SECTION B-B
 TANGENT

STATION 5906+50.00 TO 5944+30.06

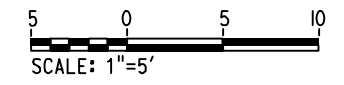
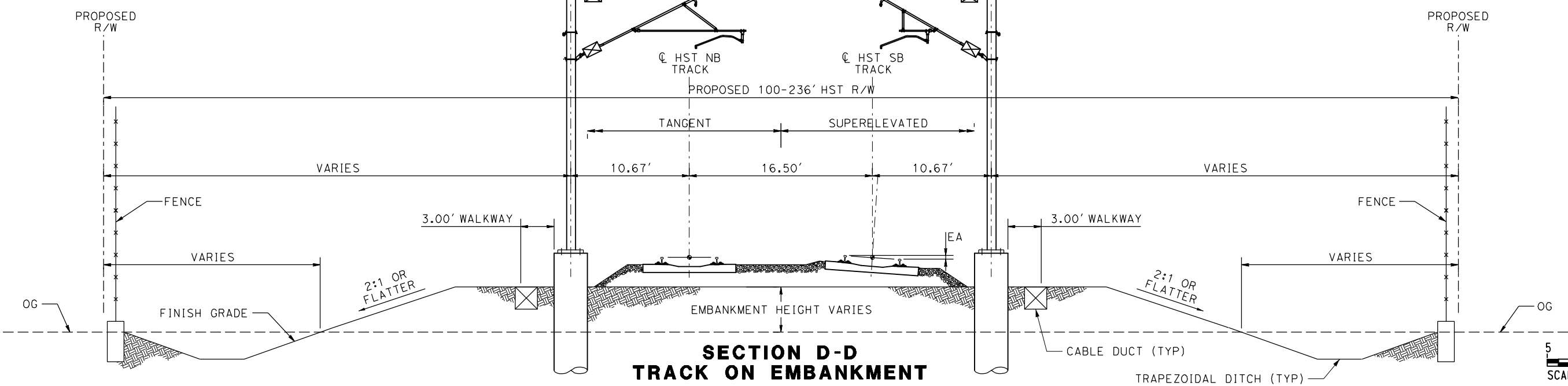
SUPERELEVATED

STATION 5582+51.76 TO 5617+00.00
 STATION 5703+50.00 TO 5764+00.00
 STATION 6147+15.51 TO 6178+00.00
 STATION 6248+00.00 TO 6277+56.72

SECTION C-C
 TRACK ON AERIAL GUIDEWAY



SECTION D-D
 TRACK ON EMBANKMENT



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
P. JACOBY
 DRAWN BY
ALBERT S.
 CHECKED BY
RESHMA C.
 IN CHARGE
D. WEMMER
 DATE
4/15/2011

**15% DRAFT
 SUBMITTAL
 FOR INTERNAL
 USE ONLY**

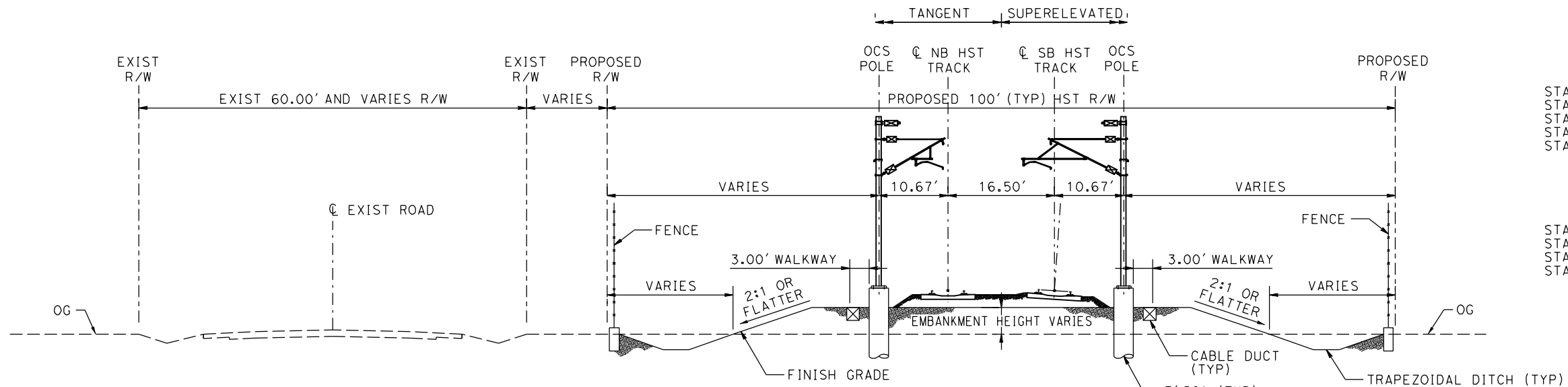
**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 AVENUE 24/SR152/AVENUE 21
 TYPICAL SECTION

CONTRACT NO.
HSR08-05
 DRAWING NO.
TJ3402A
 SCALE
1"=5'
 SHEET NO.

NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN
 CROSS SECTIONS. FOR THE EXTENT OF
 POTENTIAL SOUND BARRIERS, SEE ALIGNMENT
 PLAN AND PROFILE SHEETS



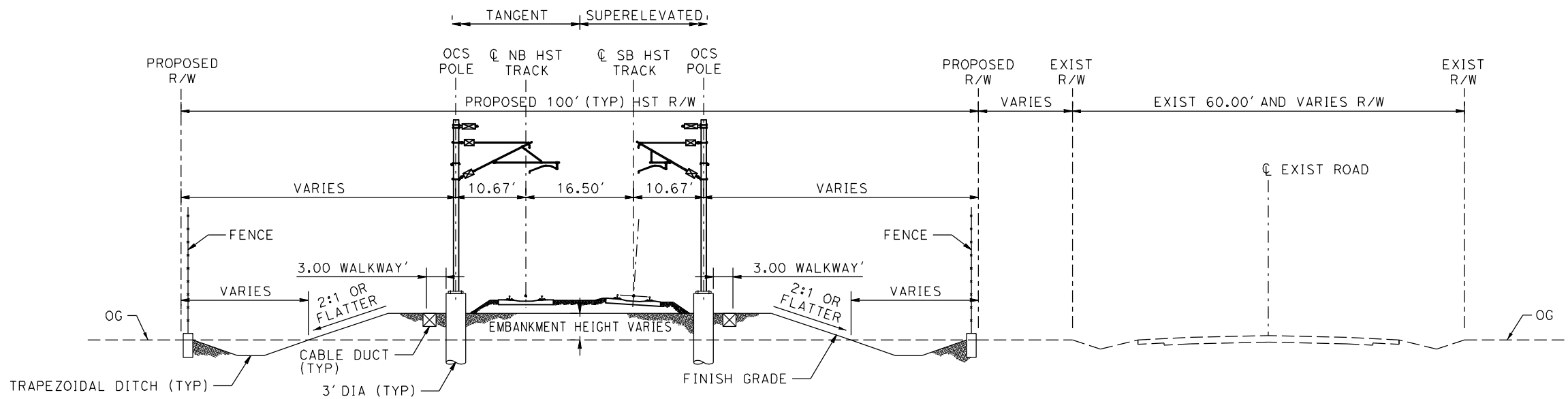
**SECTION C-C
 TRACK ON EMBANKMENT WITH ADJACENT ROAD**

**SECTION C
 TANGENT**

STATION A 4695+35.55 TO A 4697+25.00
 STATION A 4782+00.00 TO A 4821+82.78
 STATION A 4842+01.13 TO A 4956+10.00
 STATION A 5038+90.00 TO A 5254+31.95
 STATION A 5289+21.13 TO A 5367+74.09

SUPERELEVATED

STATION A 4663+00.00 TO A 4695+35.55
 STATION A 4821+82.78 TO A 4842+01.13
 STATION A 5254+31.95 TO A 5289+21.13
 STATION A 5367+74.09 TO A 5400+00.00



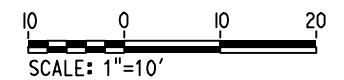
**SECTION D-D
 TRACK ON EMBANKMENT WITH ADJACENT ROAD**

**SECTION D
 TANGENT**

STATION A 5953+15.11 TO A 6065+36.88
 STATION A 6085+46.45 TO A 6097+25.00
 STATION A 6163+75.00 TO A 6248+11.13
 STATION A 6268+87.43 TO A 6389+93.79
 STATION A 6412+62.12 TO A 6748+12.50
 STATION A 6498+46.27 TO A 6506+31.89

SUPERELEVATED

STATION A 4639+00.00 TO A 4663+00.00
 STATION A 5900+95.00 TO A 5953+15.11
 STATION A 6065+36.88 TO A 6085+46.45
 STATION A 6248+11.13 TO A 6268+87.43
 STATION A 6389+93.79 TO A 6412+62.12
 STATION A 6748+12.50 TO A 6498+46.27

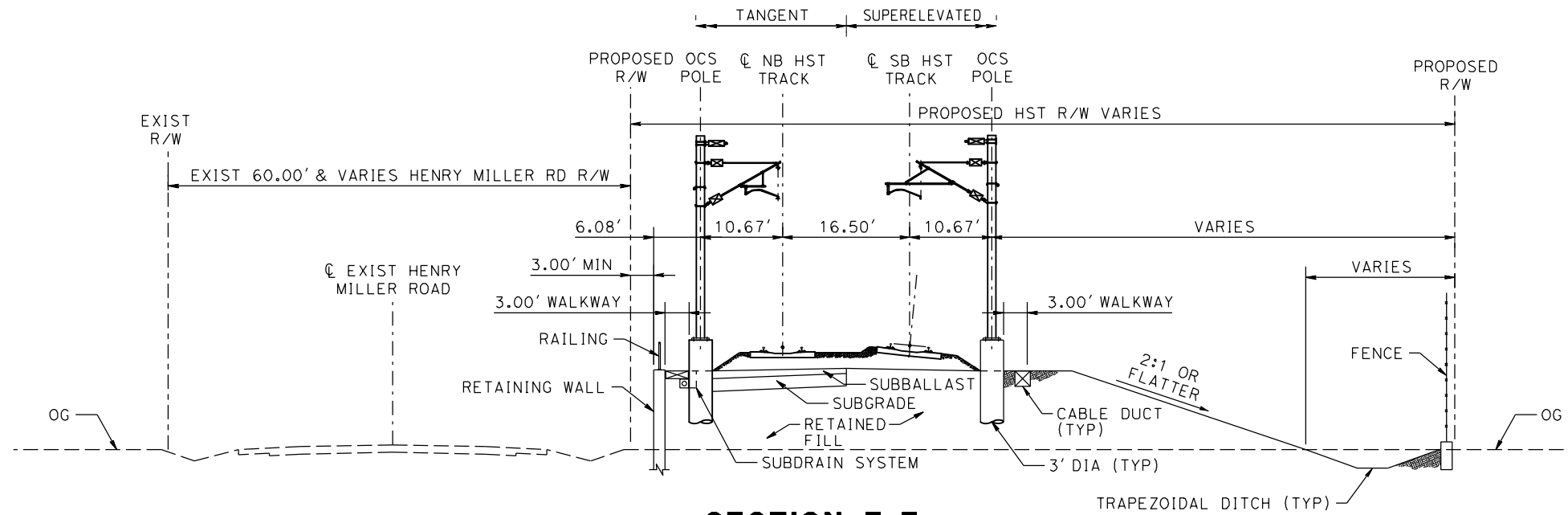


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DESIGNED BY A. GURA	15% DRAFT SUBMITTAL FOR INTERNAL USE ONLY NOT FOR CONSTRUCTION			CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MAIN LINE AVENUE 21 TYPICAL SECTIONS SHEET 2 OF 3	CONTRACT NO. HSR08-05
DRAWN BY S. HICKS					DRAWING NO. TJ3902
CHECKED BY S. GOOLLA					SCALE 1"=10'
IN CHARGE D. WEMMER					SHEET NO.
DATE 4/15/2011					

REV	DATE	BY	CHK	APP	DESCRIPTION
	4/15/11				DRAFT 15% SUBMITTAL

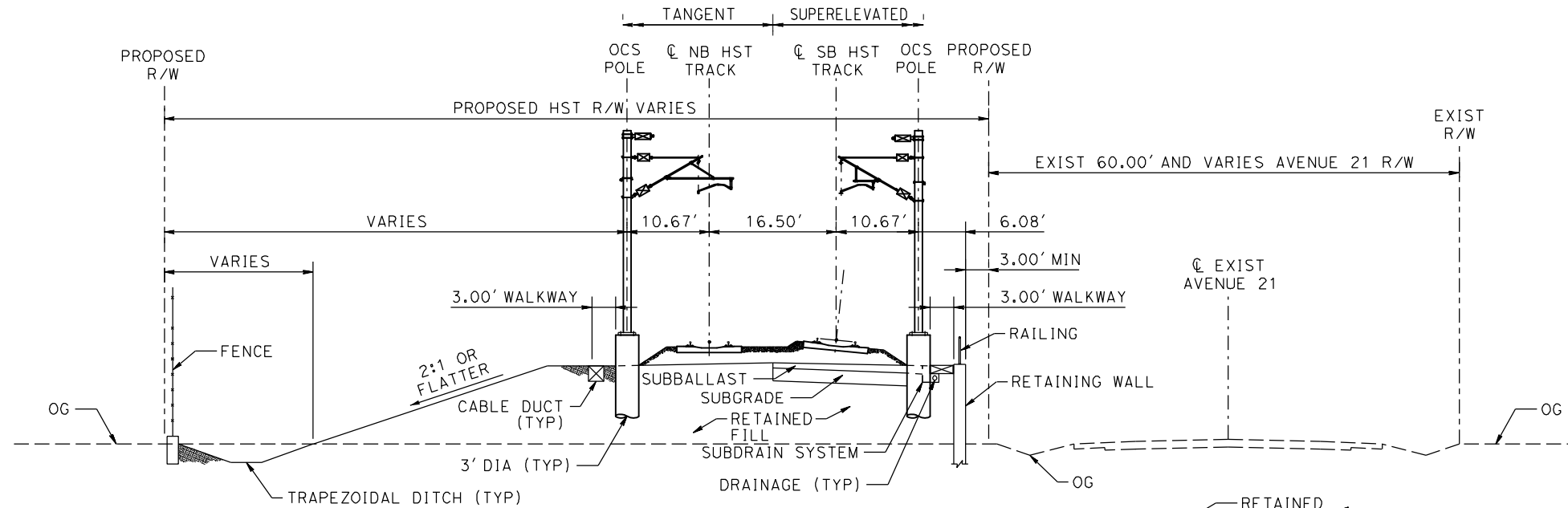
NOTE: POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS



**SECTION E-E
TYPICAL SECTION WITH RETAINED FILL ON LEFT**

TANGENT
STATION A 4697+25 TO A 4723+88
STATION A 4767+88 TO A 4782+00

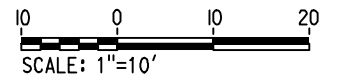
SUPERELEVATED
N/A



**SECTION E-E
TYPICAL SECTION WITH RETAINED FILL ON RIGHT**

TANGENT
STATION A 6097+25 TO A 6116+75
STATION A 6142+00 TO A 6163+75

SUPERELEVATED
N/A



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

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. GURA
DRAWN BY
A. GURA
CHECKED BY
S. GOOLLA
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE
AVENUE 21
TYPICAL SECTIONS
SHEET 3 OF 3

CONTRACT NO.
HSR08-05
DRAWING NO.
TJ3903
SCALE
1" = 10'
SHEET NO.

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ALTERNATIVE HYBRID AVENUE 24				
ALIGNMENT	BEGIN STATION	END STATION	SECTION	
HYBRID 24	892+90	926+80	AG2	
	926+80	1020+00	WYE1	
	1020+00	1185+00	AG2	
	1185+00	1230+00	WYE1	
	1230+00	1360+00	AG2	
	1360+00	1375+00	RF2	
	1375+00	1435+00	EL1	
	1435+00	1443+00	RF2	
	1443+00	2681+00	AG2	
	2681+00	2695+00	RF2	
	2695+00	2731+50	EL1	
	2731+50	2740+55	EL5	
	HYBRID-FR	1713+98	1737+00	EL6
		1737+00	1764+78	EL7
1764+78		1767+00	EL8	
1767+00		1788+84	RF3	
1788+84		1843+35	AG6	
1843+35		1893+95	RF3	
1893+95		1958+00	AG6	
1958+00		2072+36	AG7	
UPRR/SR 99 WCDO/HYBRID MC SB	5061+66	5015+00	WYE1	
	5015+00	5235+00	AG4	
	5235+00	5285+00	WYE 1	
	5288+00	5556+91	AG2	
UPRR/SR 99 WCDO/HYBRID MC NB	5058+80	5110+00	WYE1	
	5110+00	5121+00	EL2	
	5121+00	5127+00	RF2	
	5127+00	5235+00	AG4	
	5235+00	5285+00	WYE1	
	5285+00	5597+00	AG2	
UPRR/SR 99-21MC	5556+98	5910+00	AG1	
	5910+00	5916+50	TR2	
	5916+50	5917+60	CC1	
	5917+60	5925+00	TR2	
	5925+00	5977+70	AG1	
	5977+70	5989+20	TR2	
	5989+20	5990+20	CC1	
	5990+20	6003+00	TR2	
	6003+00	6022+00	AG1	
	6022+00	6040+60	TR2	
	6040+60	6042+90	CC1	
	6042+90	6052+50	TR1	
	6052+50	6066+20	AG5	
	UPRR/SR 99 WCDO/HYBRID WC NB	148+82	205+00	WYE1
205+00		211+00	EL2	
211+00		219+00	RF2	
219+00		313+50	AG4	
313+50		320+00	RF2	
320+00		330+00	EL2	
330+00		382+25	WYE1	
UPRR/SR 99 WCDO/HYBRID WC SB		524+67	570+00	WYE1
	570+00	695+00	AG4	
	695+00	738+88	WYE1	

ALTERNATIVE HYBRID AVENUE 21				
ALIGNMENT	BEGIN STATION	END STATION	SECTION	
HYBRID 21	892+90	330+00	AG2	
	330+00	430+00	WYE1	
	430+00	565+00	AG2	
	565+00	580+00	RF2	
	580+00	630+00	EL1	
	630+00	640+00	RF2	
	640+00	680+00	WYE1	
	680+00	868+87=	AG2	
	868+87=	1865+00	AG2	
	1865+00	2681+00	AG2	
	2681+00	2695+00	RF2	
	2695+00	2731+50	EL1	
	2731+50	2740+55	EL5	
	HYBRID-FR	1713+98	1737+00	EL6
1737+00		1764+78	EL7	
1764+78		1767+00	EL8	
1767+00		1788+84	RF3	
1788+84		1843+35	AG6	
1843+35		1893+95	RF3	
1893+95		1958+00	AG6	
1958+00		2072+36	AG7	
HYBRID MC SB - 21	200+20	250+00	WYE1	
	250+00	290+00	EL2	
	290+00	377+99	EL1	
HYBRID MC NB - 21	500+00	550+00	WYE1	
	550+00	590+00	EL2	
	590+00	677+40	EL1	
UPRR/SR 99-21MC	4907+27	4975+00	EL1	
	4975+00	5045+00	WYE2	
	5045+00	5385+00	EL1	
	5385+00	5425+00	RF2	
	5425+00	5910+00	AG1	
	5910+00	5915+50	TR2	
	5915+50	5916+60	CC1	
	5916+60	5924+00	TR2	
	5924+00	5977+70	AG1	
	5977+70	5989+30	TR2	
UPRR/SR 99-21WC NB	505+00	610+00	WYE1	
	610+00	619+50	EL2	
	619+50	628+35	RF1	
	628+35	714+80	AG4	
	714+80	724+20	RF1	
	724+20	780+00	EL2	
	780+00	846+94	WYE2	
	UPRR/SR 99-21WC SB	105+00	180+00	WYE1
		180+00	298+80	AG4
		298+80	313+21	RF1
		313+21	340+00	EL2
		340+00	397+52	WYE2

ALTERNATIVE BNSF AVENUE 21				
ALIGNMENT	BEGIN STATION	END STATION	SECTION	
BNSF-21ML	267+41	562+00	AG2	
	562+00	582+61	RF2	
	582+61	634+76	EL1	
	634+76	665+80	RF2	
	665+80	859+40	AG2	
	859+40	881+05	RF2	
	881+05	925+00	EL1	
	925+00	985+00	WYE1	
	985+00	1042+75	EL1	
	1042+75	1060+00	RF2	
	1060+00	1305+00	AG1	
	1305+00	1685+00	AG2	
	1685+00	1696+00	RF2	
	1696+00	1731+50	EL1	
	1731+50	1741+00	EL5	
	BNSF-FR	1713+98	1737+00	EL6
		1737+00	1764+78	EL7
		1764+78	1767+00	EL8
1767+00		1788+84	RF3	
1788+84		1843+35	AG6	
1843+35		1893+95	RF3	
BNSF-21WC NB	105+85	205+00	WYE2	
	205+00	220+66	EL2	
	220+66	230+00	RF1	
	230+00	357+00	AG4	
	357+00	371+02	RF1	
	371+02	383+00	EL2	
	383+00	474+09	WYE1	
BNSF-21WC SB	500+00	550+00	WYE2	
	550+00	720+00	AG4	
	720+00	765+39	WYE1	
BNSF-MC	4302+03	4345+02	EL2	
	4345+02	4351+00	RF1	
	4351+00	4405+00	WYE1	
	4405+00	5296+45	AG1	
	5296+45	5266+88	RF2	
	5266+88	5352+88	EL3	
	5352+88	5371+50	RF2	
	5371+50	5850+85	AG1	
	5850+85	5866+57	RF2	
	5866+57	5960+00	EL1	
	5960+00	5967+00	RF2	
	5967+00	5977+70	AG1	
	5977+70	5989+20	TR2	
	5989+20	5990+20	CC1	
5990+20	6003+00	TR2		
6003+00	6022+00	AG1		
6022+00	6040+60	TR2		
6040+60	6042+90	CC1		
6042+90	6052+50	TR1		
6052+50	6066+20	AG5		

ALTERNATIVE BNSF AVENUE 24				
ALIGNMENT	BEGIN STATION	END STATION	SECTION	
BNSF-24ML	892+90	1185+00	AG2	
	1185+00	1235+00	WYE1	
	1235+00	1332+20	AG2	
	1332+20	1350+84	RF2	
	1350+84	1430+00	WYE2	
	1430+00	1431+49	EL1	
	1431+49	1451+90	RF2	
	1451+90	1864+25	AG2	
	1864+25	1881+05	RF2	
	1881+05	1890+17	EL1	
	BNSF-24WC NB	104+65	195+00	WYE2
		195+00	220+66	EL2
		220+66	227+55	RF1
		227+55	400+70	AG4
400+70		438+00	RF1	
438+00		450+00	EL2	
450+00		477+55	WYE1	
477+55		508+20	RF1	
BNSF-24WC SB	500+00	582+14	WYE2	
	582+14	592+75	RF1	
	592+75	840+00	AG4	
	840+00	896+06	WYE1	

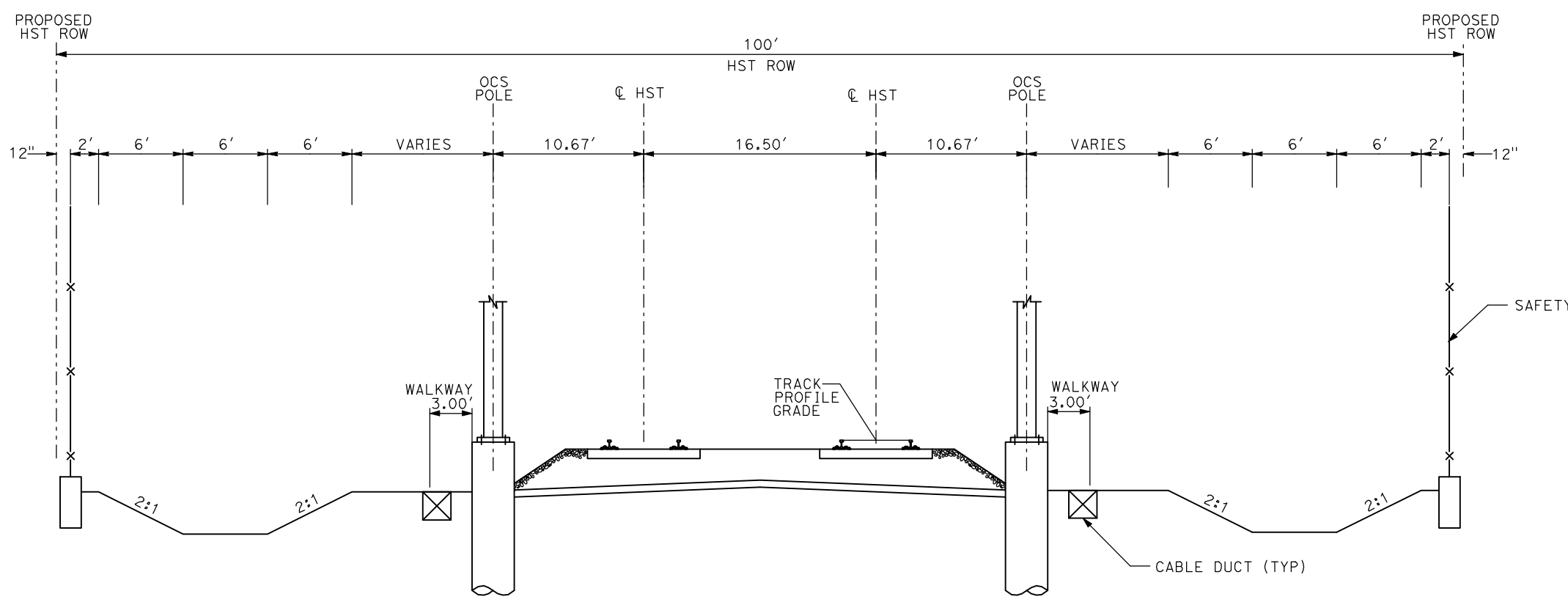
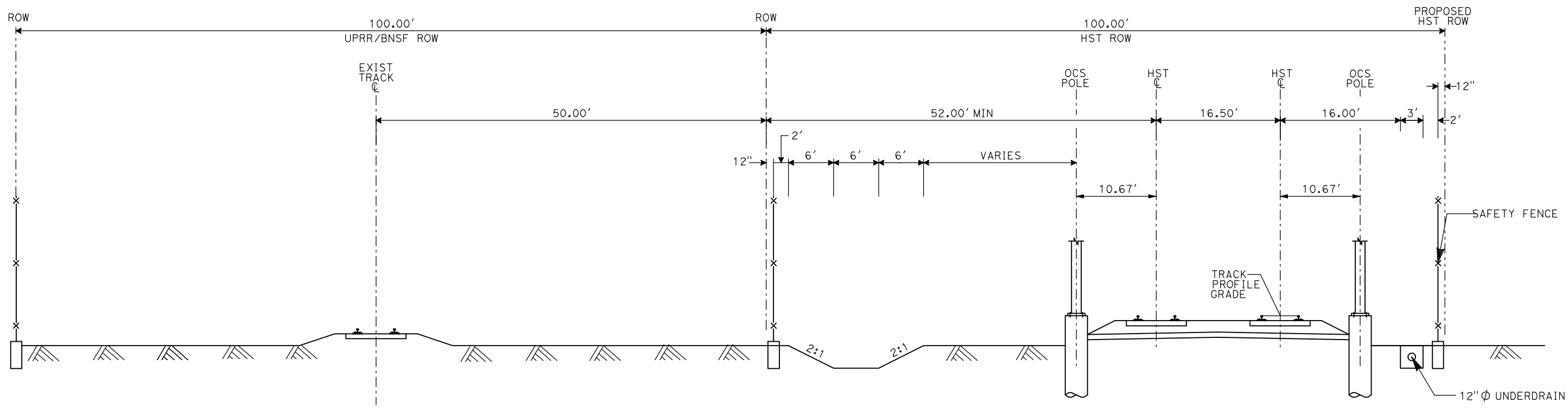
ALTERNATIVE UPRR/SR 99 AVENUE 21				
ALIGNMENT	BEGIN STATION	END STATION	SECTION	
UPRR/SR 99-21ML	270+60	604+70	AG2	
	604+70	626+28	RF2	
	626+28	715+00	EL1	
	715+00	805+00	WYE1	
	805+00	1294+33	EL1	
	1294+33	1305+00	RF2	
	1305+00	1570+00	AG1	
	1570+00	1593+20	TR2	
	1593+20	1594+10	CC1	
	1594+10	1610+00	TR2	
	1610+00	1615+00	AG1	
	1615+00	1622+00	RF2	
	1622+00	1635+00	EL1	
	1635+00	1633+24	EL5	
	UPRR/SR 99-FR	1713+98	1737+00	EL6
		1737+00	1764+78	EL7
		1764+78	1767+00	EL8
		1767+00	1788+84	RF3
1788+84		1843+35	AG6	
1843+35		1893+95	RF3	
1893+95		1958+00	AG6	
1958+00		2072+36	AG7	
UPRR/SR 99-21WC NB	505+00	610+00	WYE1	
	610+00	619+50	EL2	
	619+50	628+35	RF1	
	628+35	714+80	AG4	
	714+80	724+20	RF1	
	724+20	780+00	EL2	
	780+00	846+94	WYE2	
UPRR/SR 99-21WC SB	105+00	180+00	WYE1	
	180+00	298+80	AG4	
	298+80	313+21	RF1	
	313+21	340+00	EL2	
	340+00	397+52	WYE2	
UPRR/SR 99-21MC	4586+50	4670+00	WYE1	
	4670+00	4796+00	AG1	
	4796+00	4810+00	RF2	
	4810+00	4975+00	EL1	
	4975+00	5045+00	WYE2	
	5045+00	5385+00	EL1	
	5385+00	5425+00	RF2	
	5425+00	5910+00	AG1	
	5910+00	5915+50	TR2	
	5915+50	5916+60	CC1	
	5916+60	5924+00	TR2	
	5924+00	5977+70	AG1	
	5977+70	5989+30	TR2	
	5989+30	5990+40	CC1	
5990+40	6003+00	TR2		
6003+00	6022+00	AG1		
6022+00	6040+60	TR2		
6040+60	6042+90	CC1		
6042+90	6052+50	TR1		
6052+50	6066+20	AG5		

ALTERNATIVE UPRR/SR 99 AVENUE 24				
ALIGNMENT	BEGIN STATION	END STATION	SECTION	
UPRR/SR 99-24ML	917+20	965+00	AG2	
	965+00	1030+00	WYE1	
	1030+00	1330+00	AG2	
	1330+00	1380+00	RF2	
	1380+00	1515+00	EL1	
	1515+00	1590+00	EL5	
	UPRR/SR 99-24WC NB	1590+00	1753+40	EL1
		105+00	205+00	WYE1
		205+00	220+00	EL2
220+00		227+00	RF1	
227+00		349+90	AG4	
UPRR/SR 99-24WC SB	349+90	494+12	AG2	
	494+12	521+00	AG4	
	521+00	527+00	RF1	
	527+00	555+00	EL2	
	555+00	626+90	WYE1	
UPRR/SR 99-24MC	705+00	775+00	WYE1	
	775+00	921+72	AG4	
	921+72	1062+85	AG2	
	1062+85	1130+00	AG4	
	1130+00	1191+24	WYE 1	
UPRR/SR 99-24MC	4760+15	4845+00	WYE2	
	4845+00	4907+25	EL1	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
A. SHIELDS
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

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- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

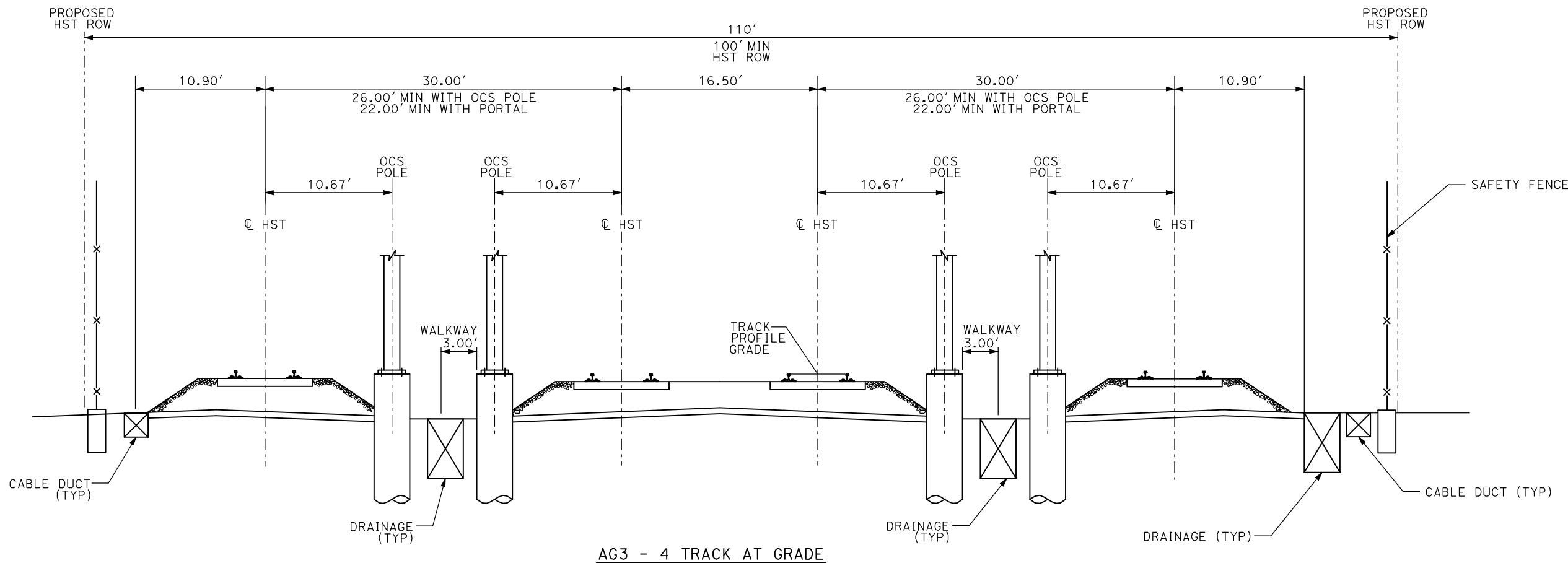
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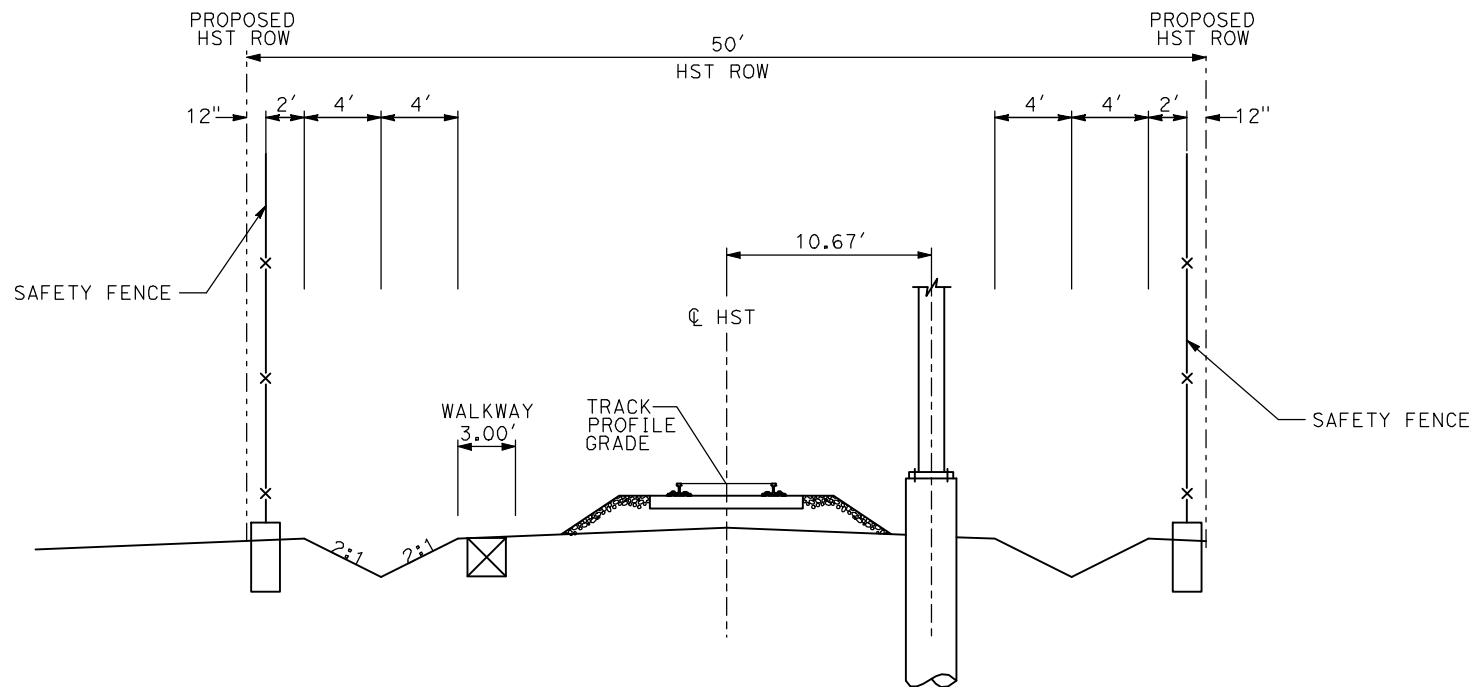
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

TYPICAL SECTIONS
SHEET 1 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3001-A
SCALE
NO SCALE
SHEET NO.
OF ###



AG3 - 4 TRACK AT GRADE



AG4 - SINGLE TRACK AT GRADE

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

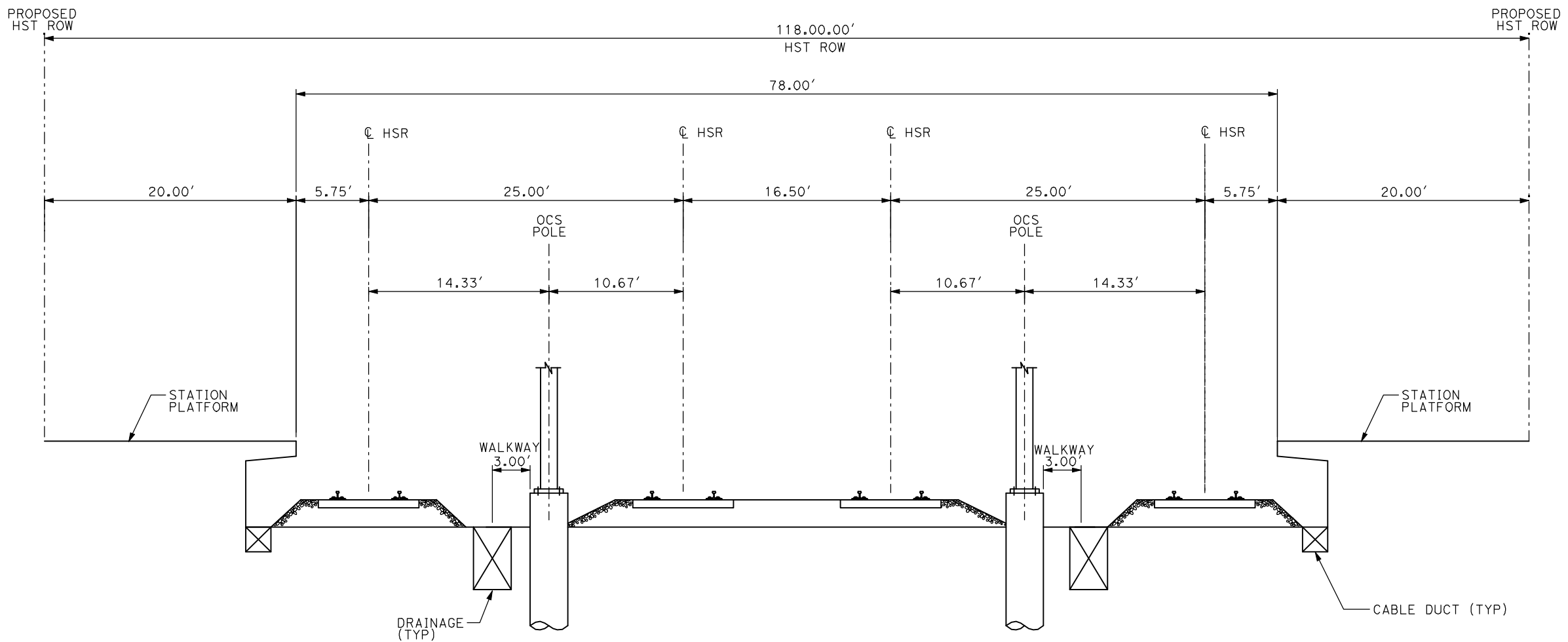
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CONSTRUCTION**



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

TYPICAL SECTIONS
SHEET 2 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3002-A
SCALE
NO SCALE
SHEET NO.
OF ###



AG5 - 4 TRACK AT GRADE MERCED STATION

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

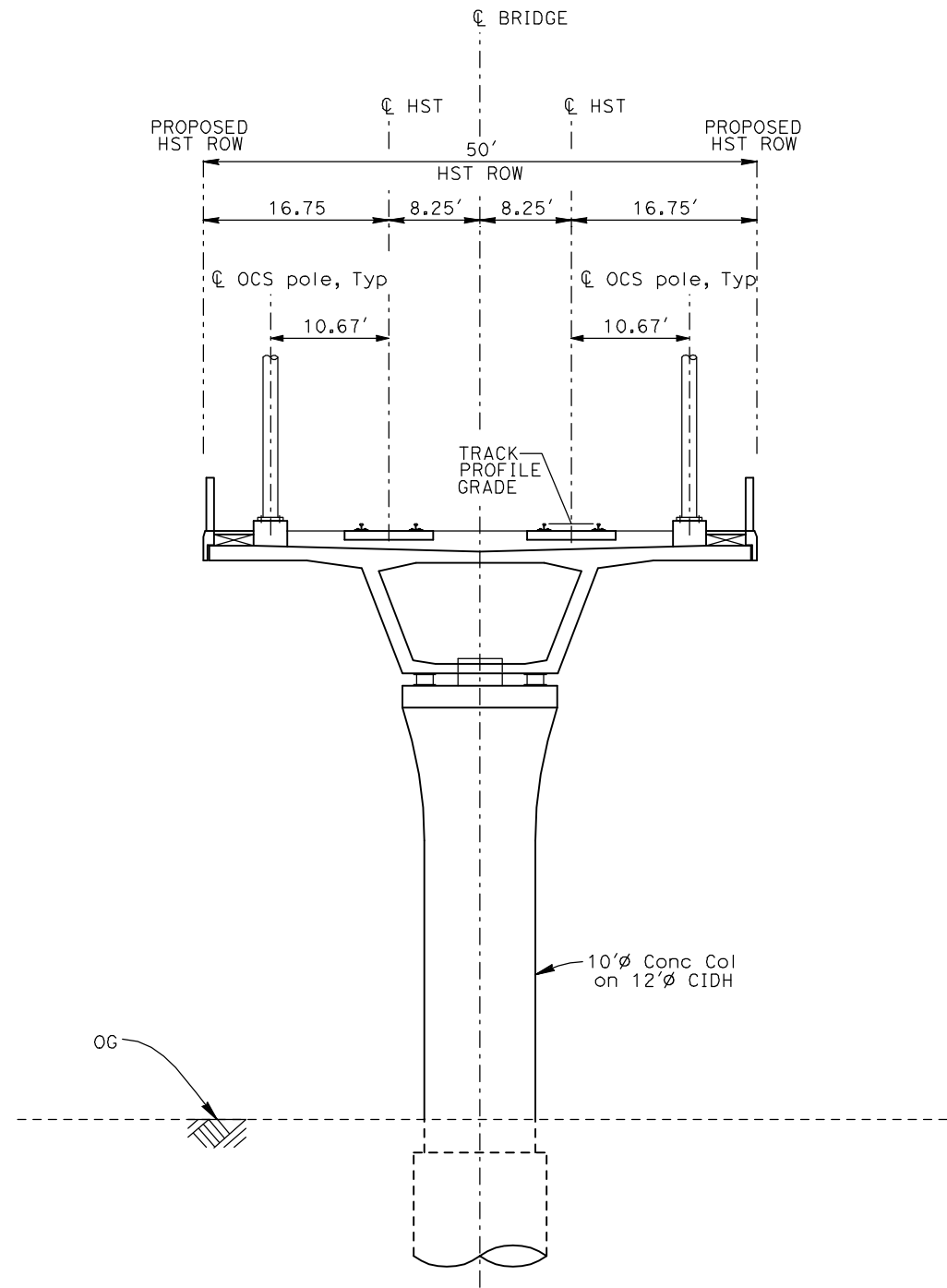
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CONSTRUCTION**



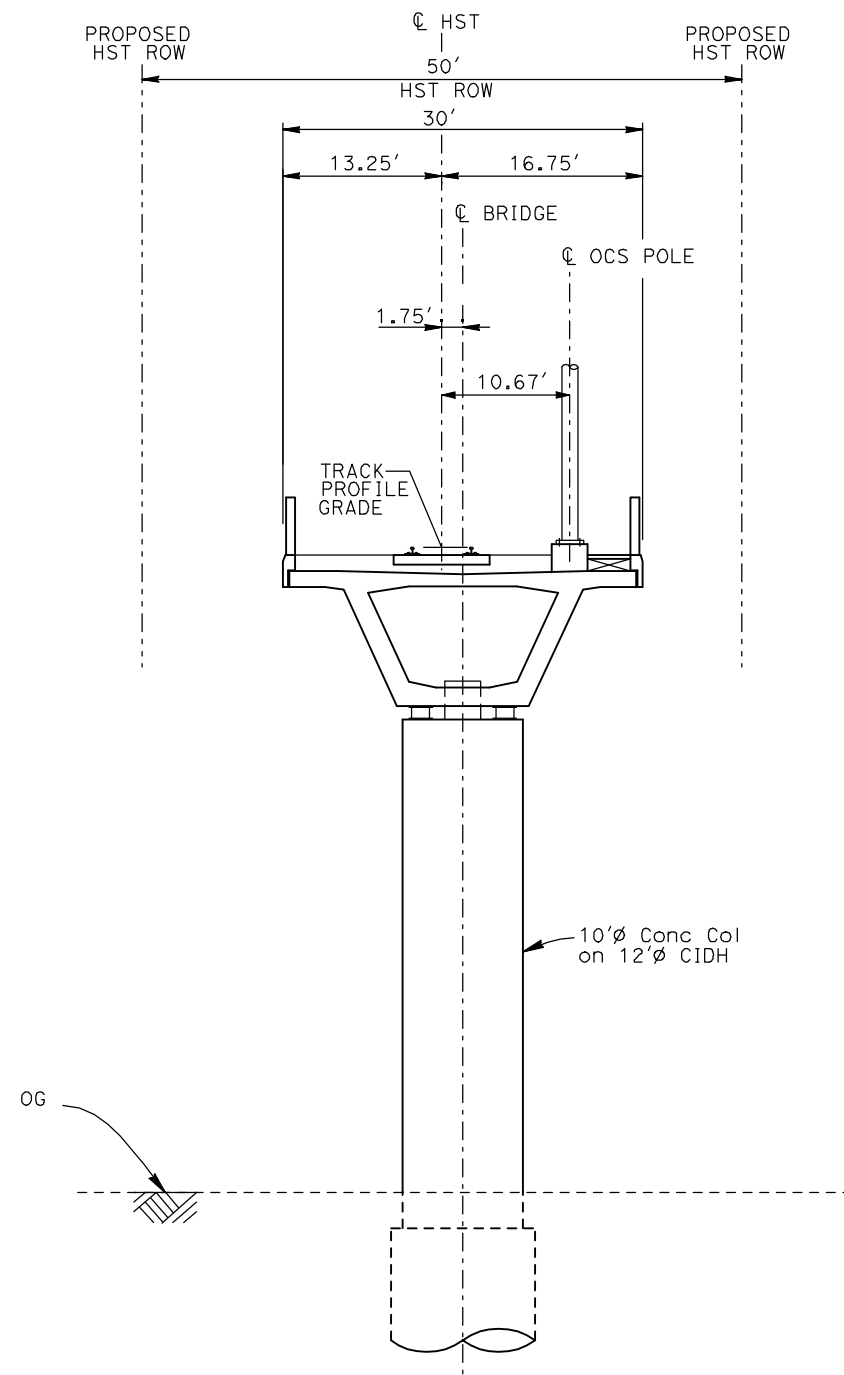
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTIONS
SHEET 3 OF 17

CONTRACT NO.	HSR06-007
DRAWING NO.	T3003-A
SCALE	NO SCALE
SHEET NO.	OF ###



EL1 - DOUBLE TRACK ELEVATED



EL2 - SINGLE TRACK ELEVATED

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. BACK-TO-BACK CANTILEVERS ON A SINGLE POLE MAY BE PERMITTED AT PASSENGER STATIONS.
 3. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

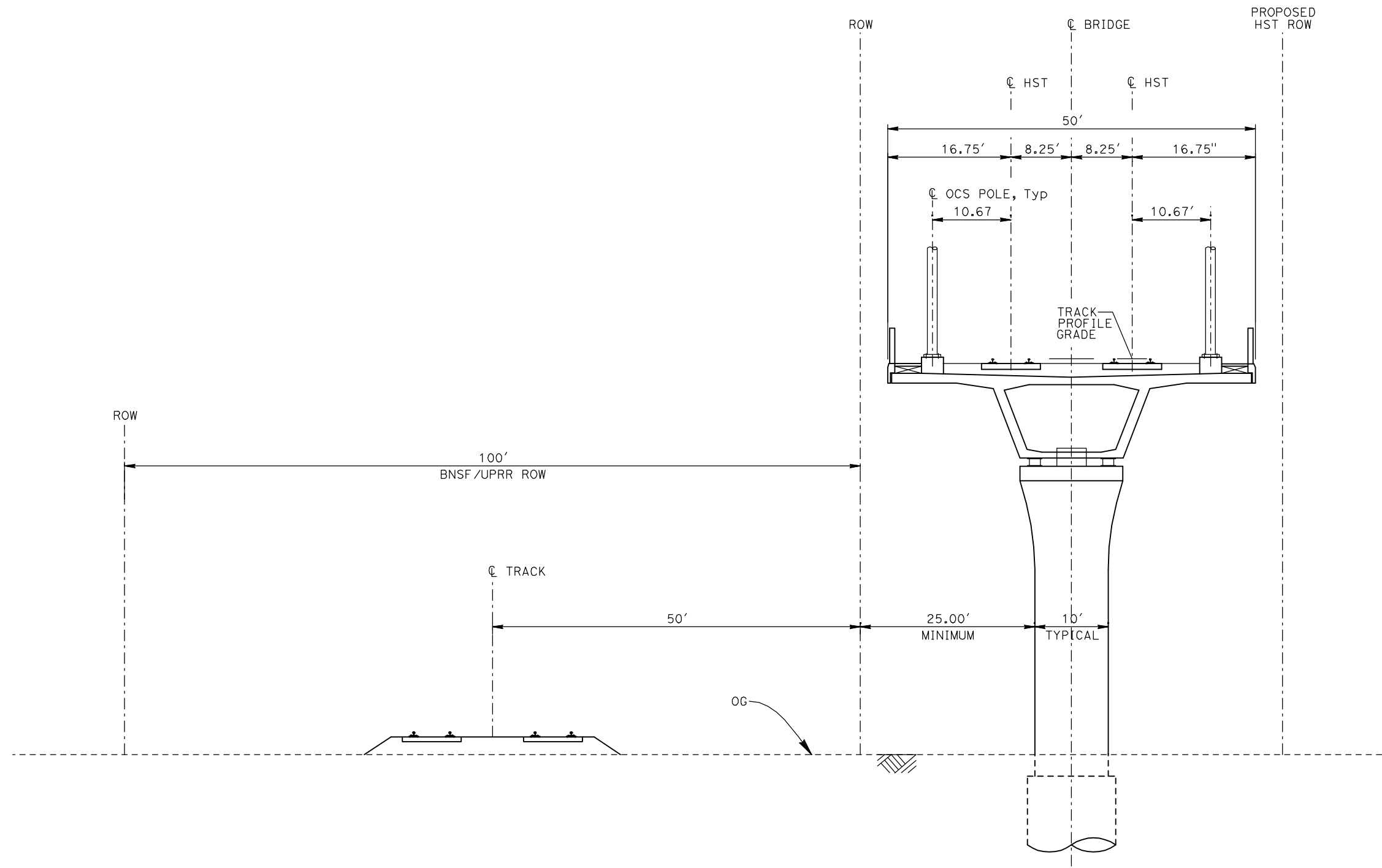


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTIONS
SHEET 4 OF 17

CONTRACT NO. HSR06-007
DRAWING NO. T3004-A
SCALE NO SCALE
SHEET NO. OF ###

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EL3 - DOUBLE TRACK ELEVATED ADJACENT TO UPRR/BNSF

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

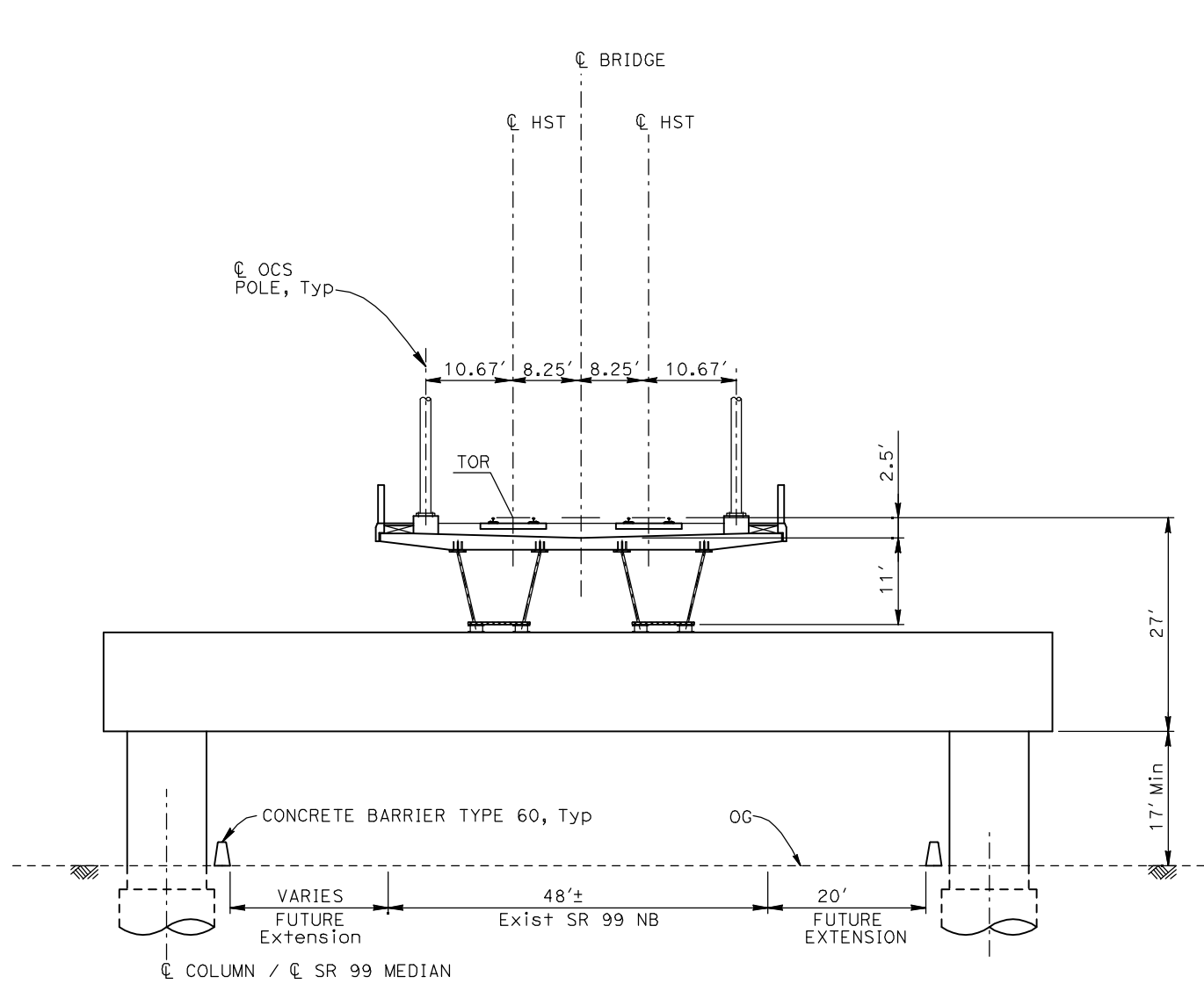


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

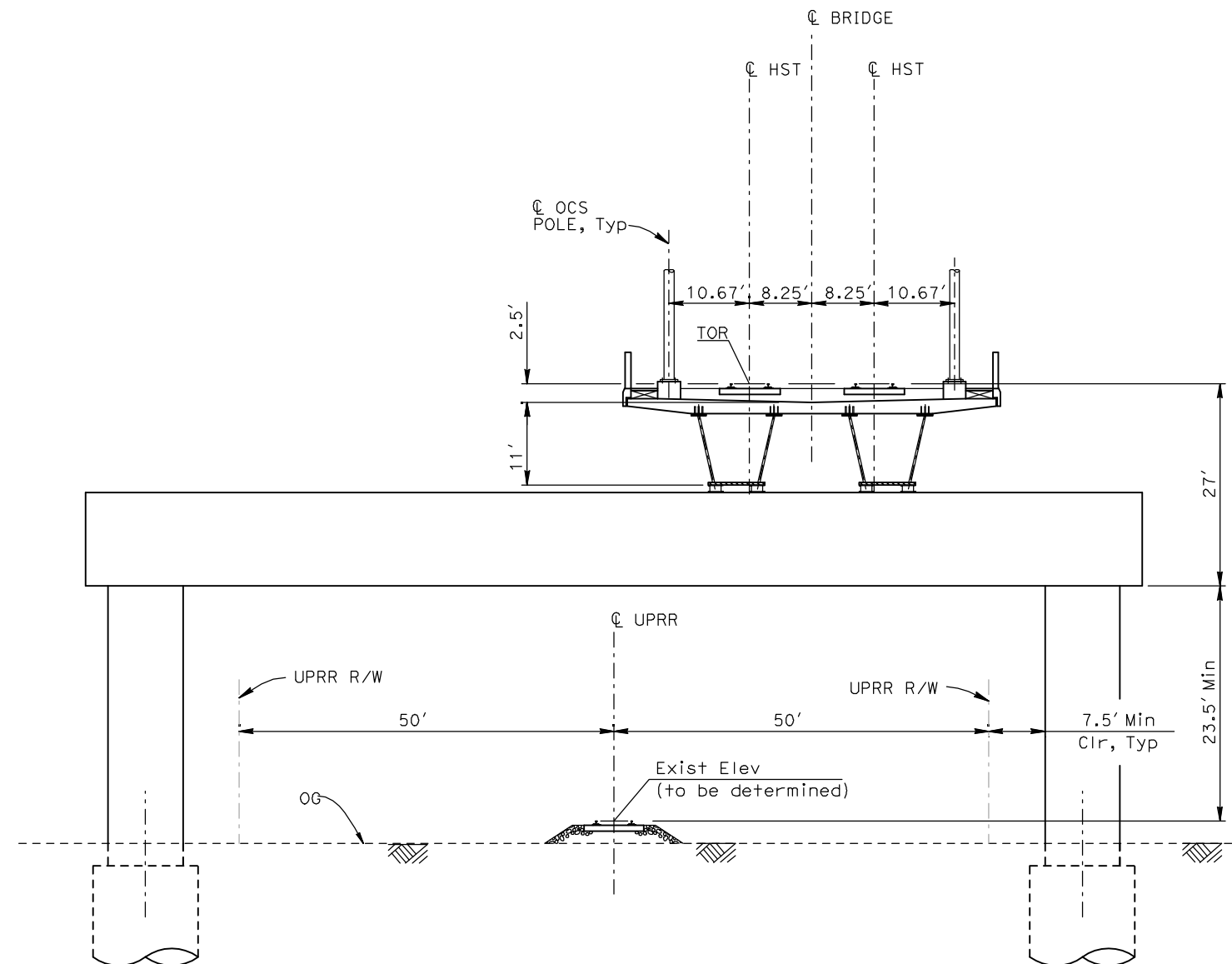
TYPICAL SECTIONS
SHEET 5 OF 17

CONTRACT NO.	HSR06-007
DRAWING NO.	T3005-A
SCALE	NO SCALE
SHEET NO.	OF ###

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EL4 - DOUBLE TRACK ELEVATED CROSSING SR99



EL5 - DOUBLE TRACK ELEVATED CROSSING UPRR/BNSF

- NOTES:**
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

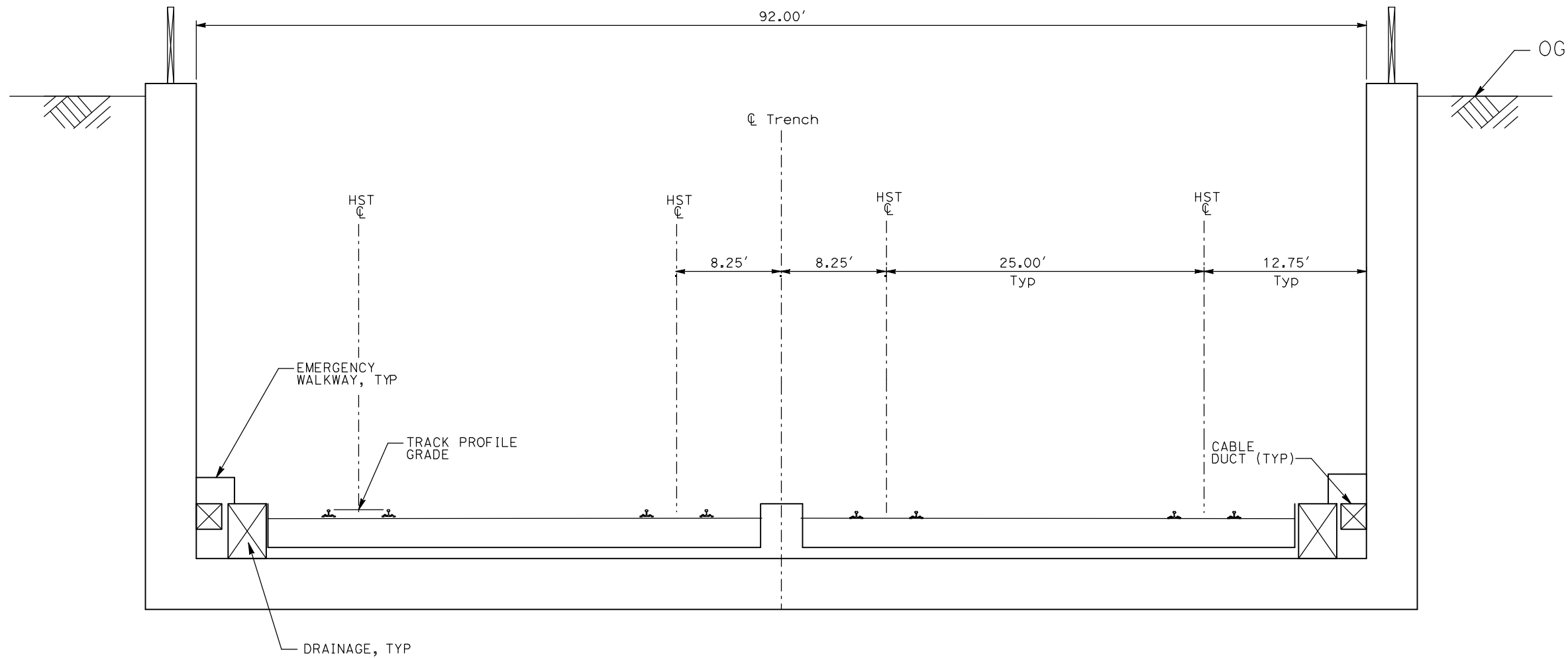


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTIONS
SHEET 6 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3006-A
SCALE
NO SCALE
SHEET NO.
OF ###

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TR1 - 4 TRACK TRENCH STATION APPROACH

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

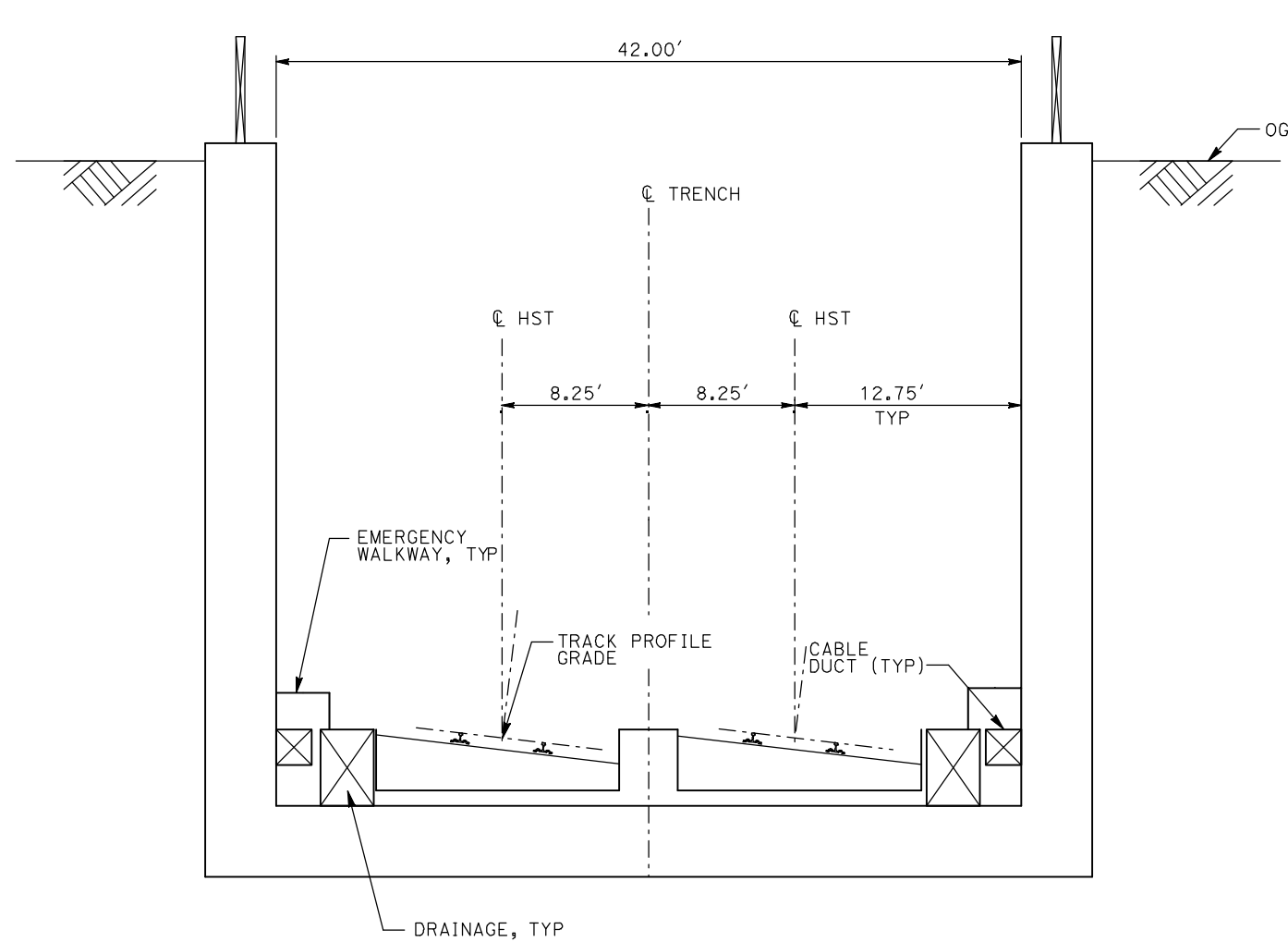


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

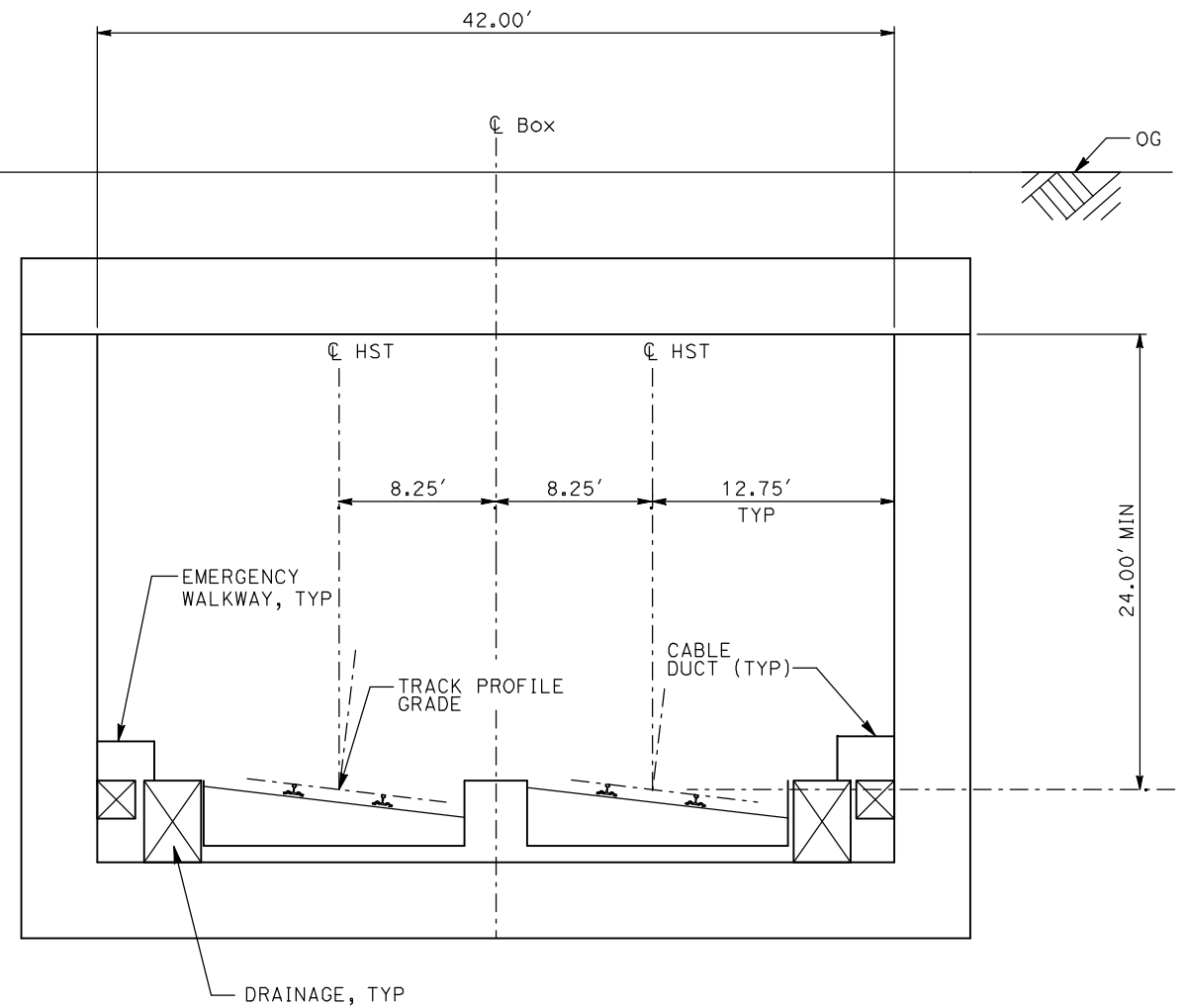
TYPICAL SECTIONS
SHEET 7 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3007-A
SCALE
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SHEET NO.
OF ###

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TR2 - 2 TRACK TRENCH



CC1 - 2 TRACK CUT AND COVER CLOSED BOX

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

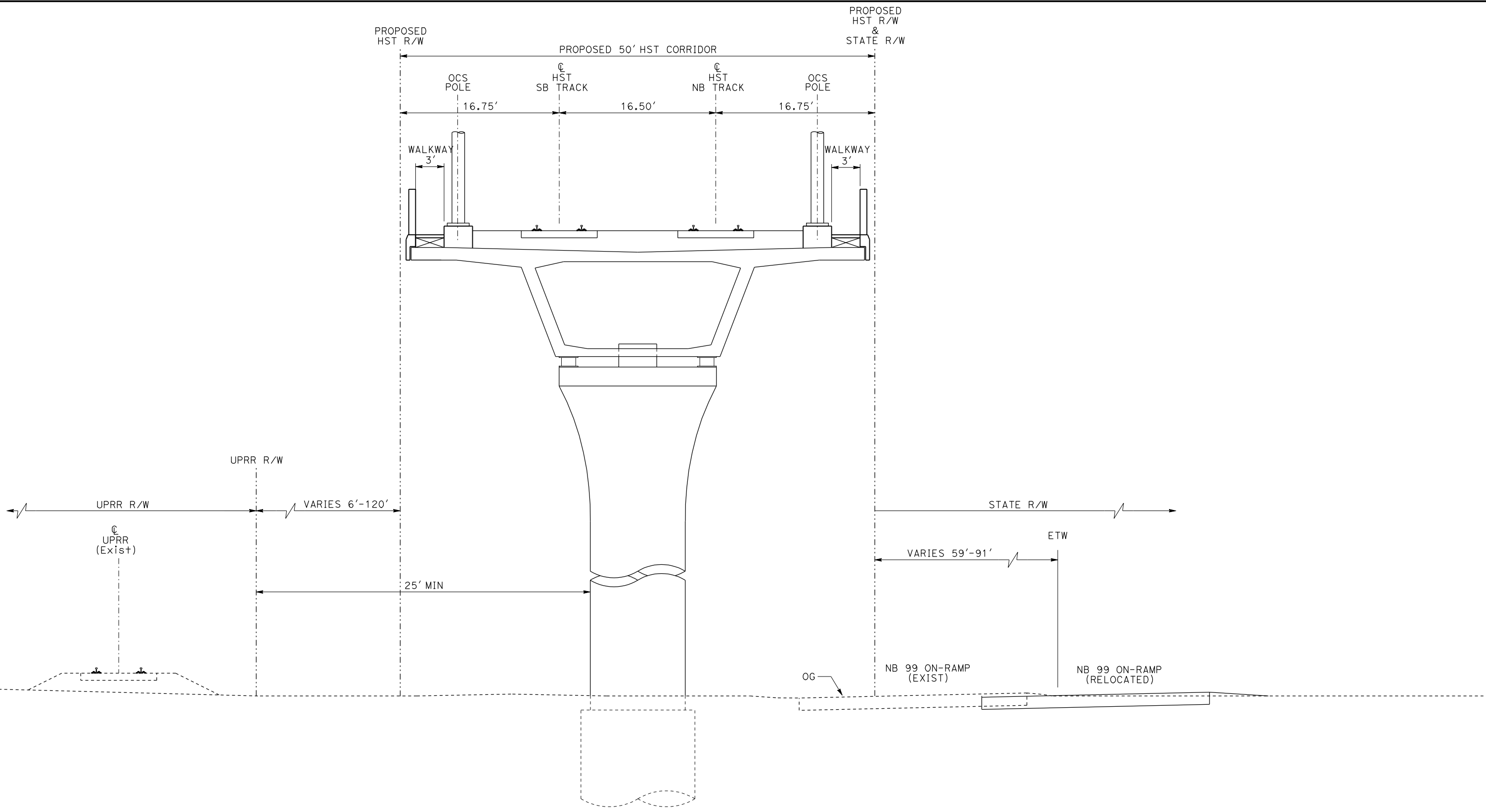
**NOT FOR
CONSTRUCTION**



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

TYPICAL SECTIONS
SHEET 8 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3008-A
SCALE
NO SCALE
SHEET NO.
OF ###



EL6 - DOUBLE TRACK ELEVATED ADJACENT TO UPRR

NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.
 FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE
 ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
 L. PROCTOR
 DRAWN BY
 S. LEONG
 CHECKED BY
 V. CHIO
 IN CHARGE
 J. VALSECCHI
 DATE
 JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

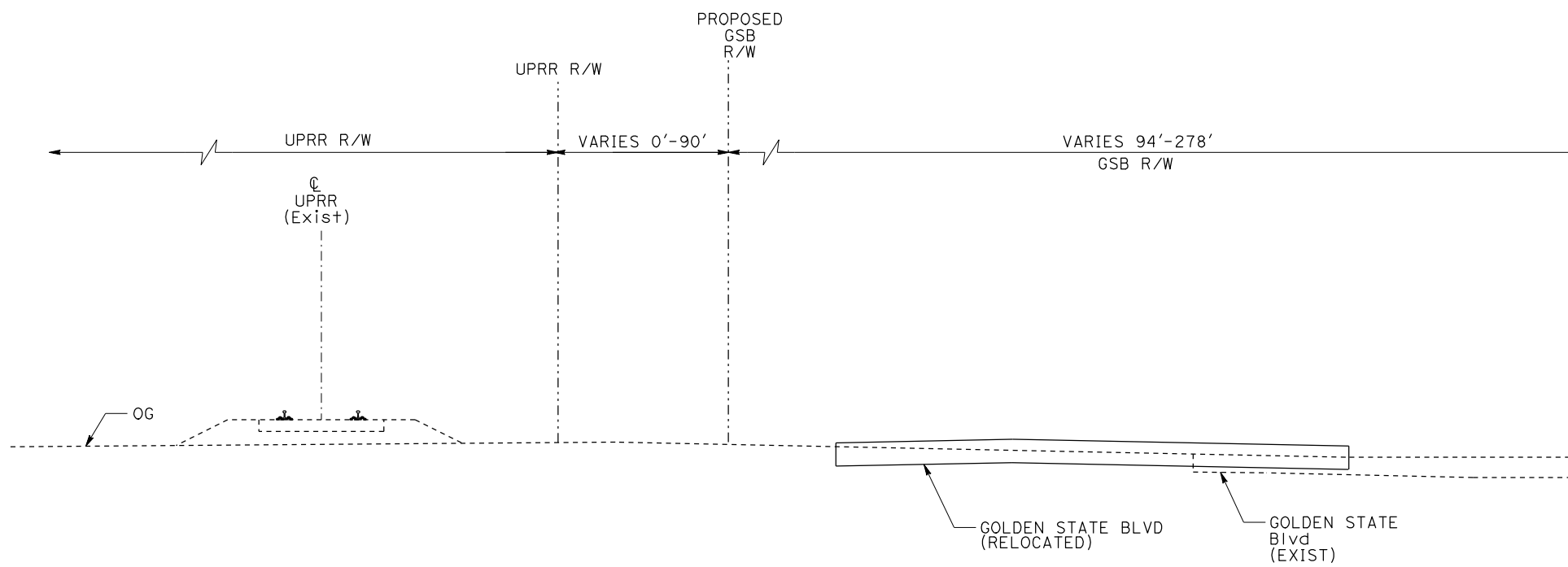
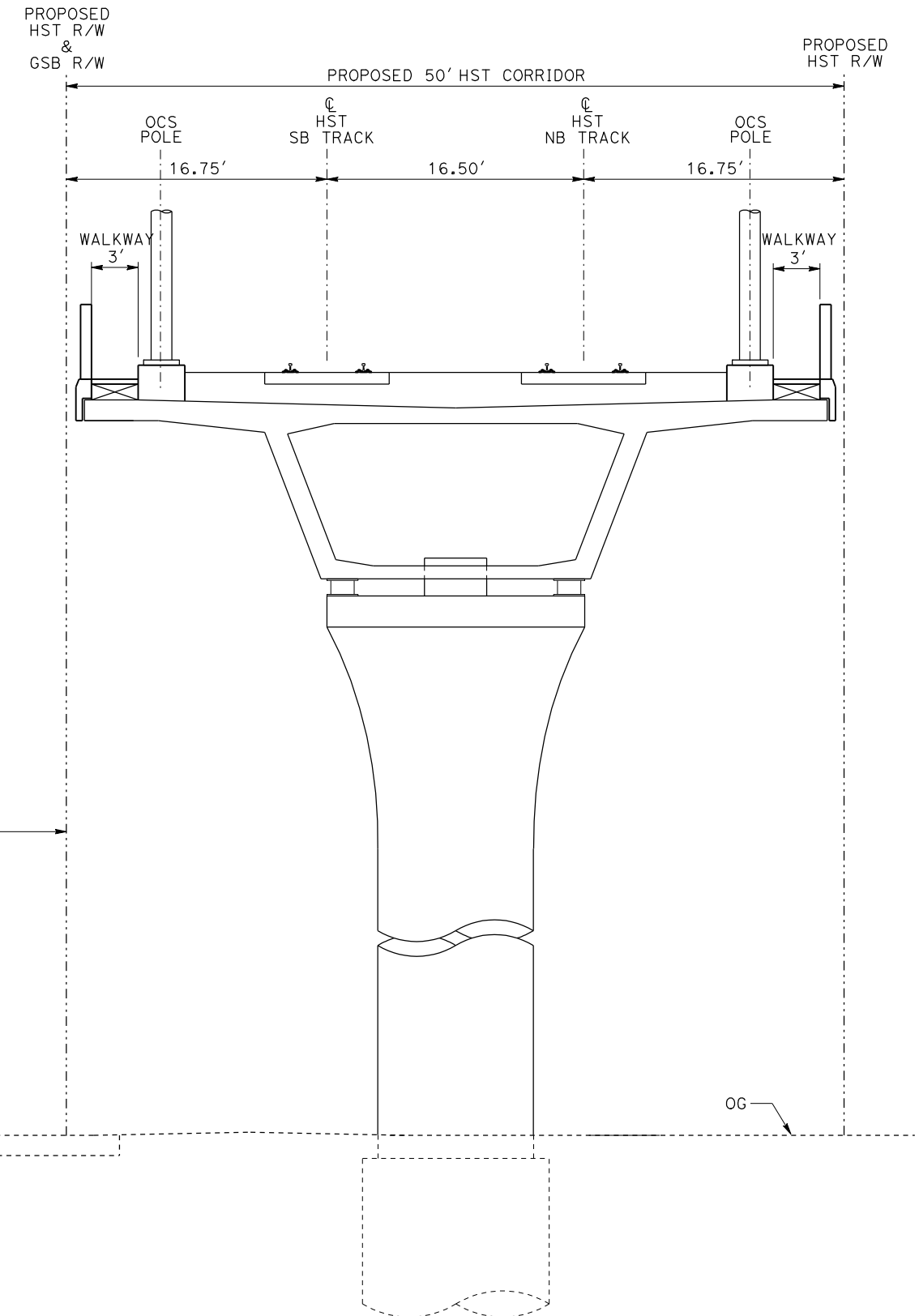
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

TYPICAL SECTIONS
 SHEET 9 OF 17

CONTRACT NO.
 HSR06-007
 DRAWING NO.
 T3009-A
 SCALE
 NO SCALE
 SHEET NO.



EL7 - DOUBLE TRACK ELEVATED ADJACENT TO GOLDEN STATE BOULEVARD

NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.
 FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE
 ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
L. PROCTOR
 DRAWN BY
S. LEONG
 CHECKED BY
V. CHIO
 IN CHARGE
J. VALSECCHI
 DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

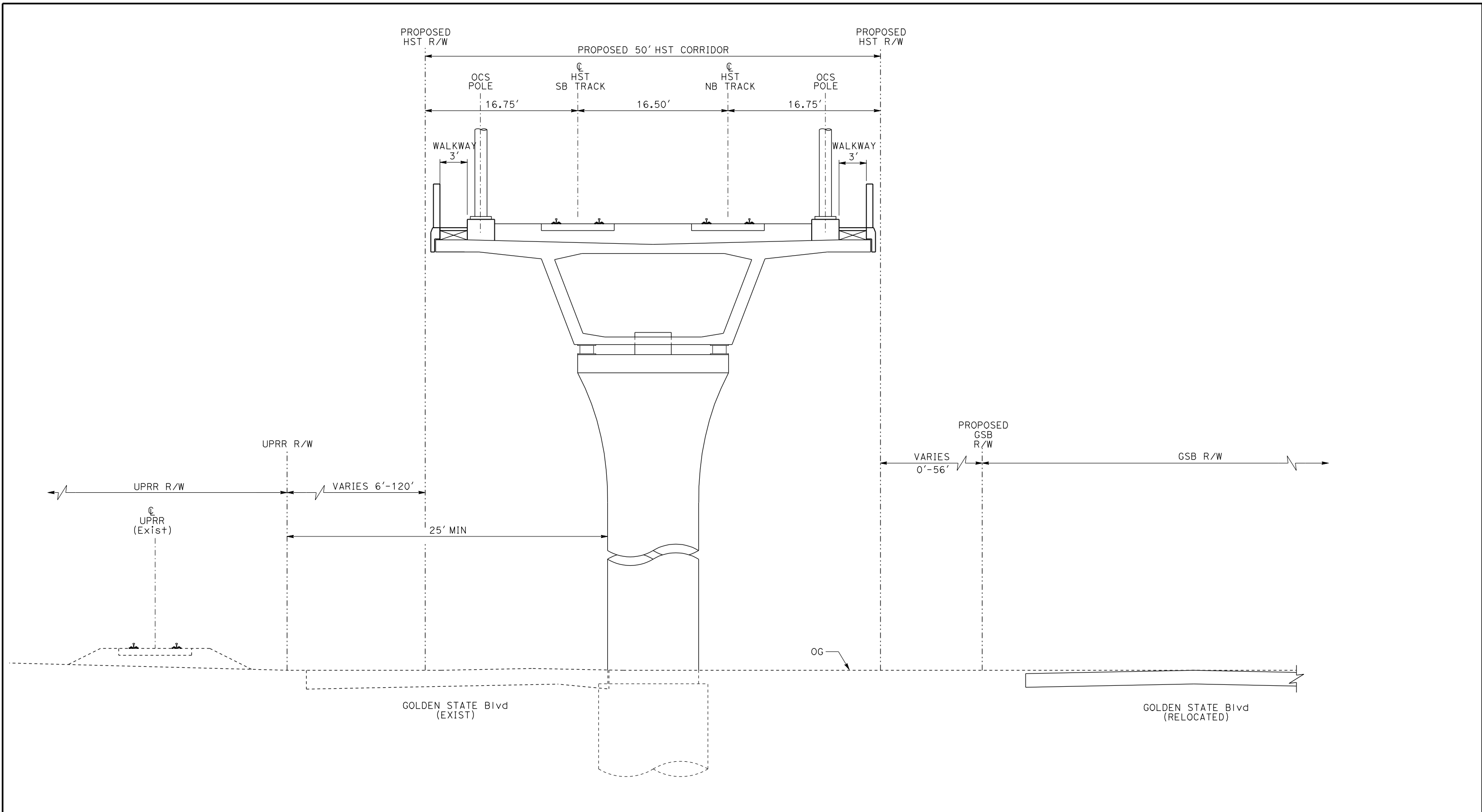


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

 TYPICAL SECTIONS
 SHEET 10 OF 17

CONTRACT NO.
HSR06-007
 DRAWING NO.
T3010-A
 SCALE
NO SCALE
 SHEET NO.

DATE PLOTTED => 21-JUL-2011
 TIME PLOTTED => 12:44



EL8 - DOUBLE TRACK ELEVATED BETWEEN UPRR AND GOLDEN STATE BOULEVARD

NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.
 FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE
 ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
L. PROCTOR
 DRAWN BY
S. LEONG
 CHECKED BY
V. CHIO
 IN CHARGE
J. VALSECCHI
 DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

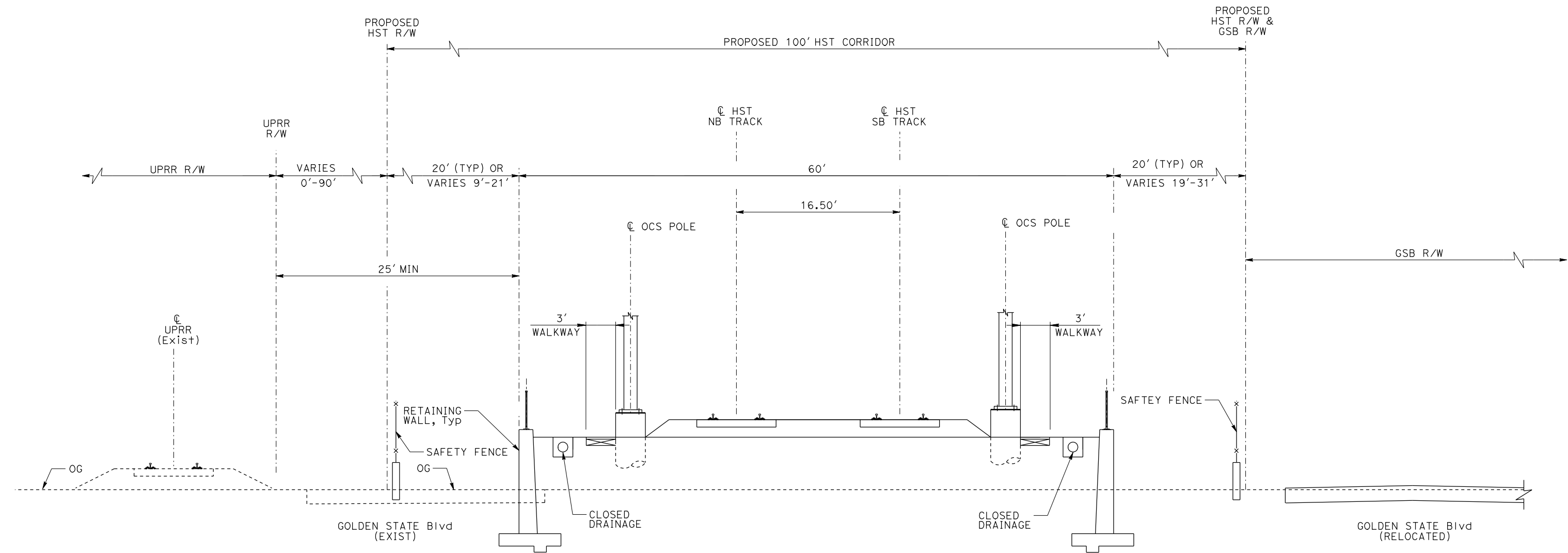


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

 TYPICAL SECTIONS
 SHEET 11 OF 17

CONTRACT NO.	HSR06-007
DRAWING NO.	T3011-A
SCALE	NO SCALE
SHEET NO.	

DATE PLOTTED => 21-JUL-2011
 TIME PLOTTED => 12:45



RF3 - DOUBLE TRACK BETWEEN UPRR AND GOLDEN STATE BOULEVARD

NOTE:

POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
L. PROCTOR
DRAWN BY
S. LEONG
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

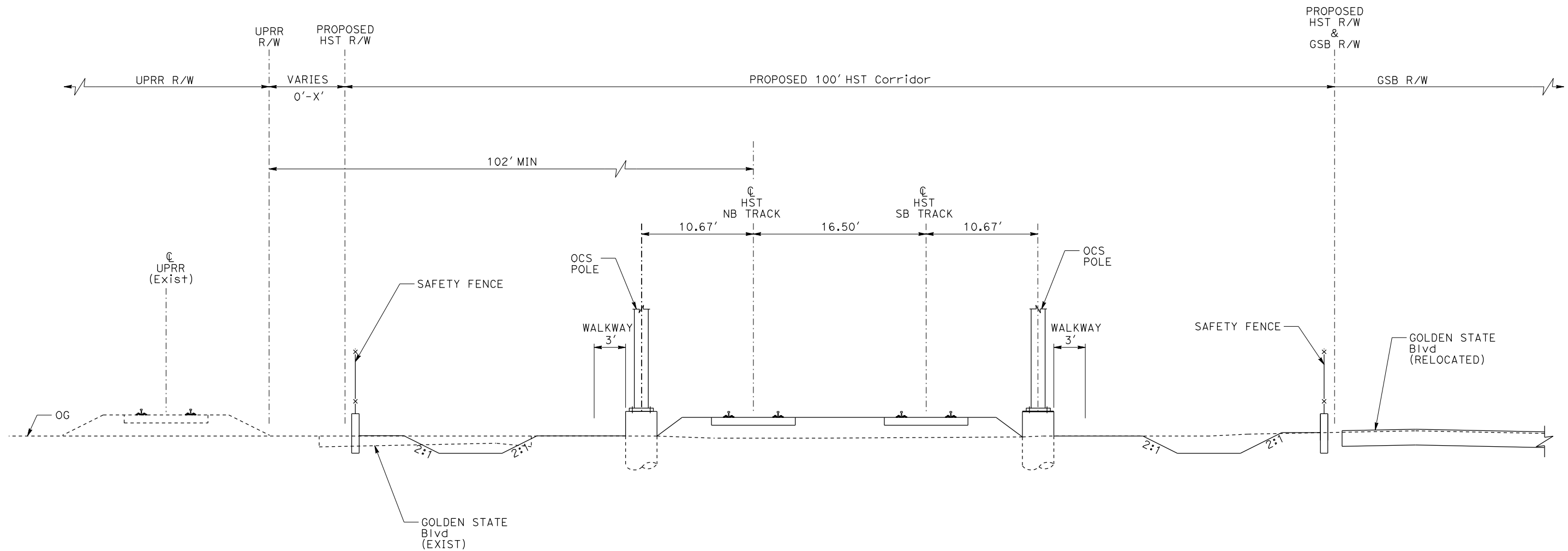


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTION
SHEET 12 OF 17

CONTRACT NO. HSR06-007
DRAWING NO. T3012-A
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 21-JUL-2011
TIME PLOTTED => 12:47



AG6 - DOUBLE TRACK BETWEEN UPRR AND GOLDEN STATE BOULEVARD

NOTE:

POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
L. PROCTOR

DRAWN BY
S. LEONG

CHECKED BY
V. CHIO

IN CHARGE
J. VALSECCHI

DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

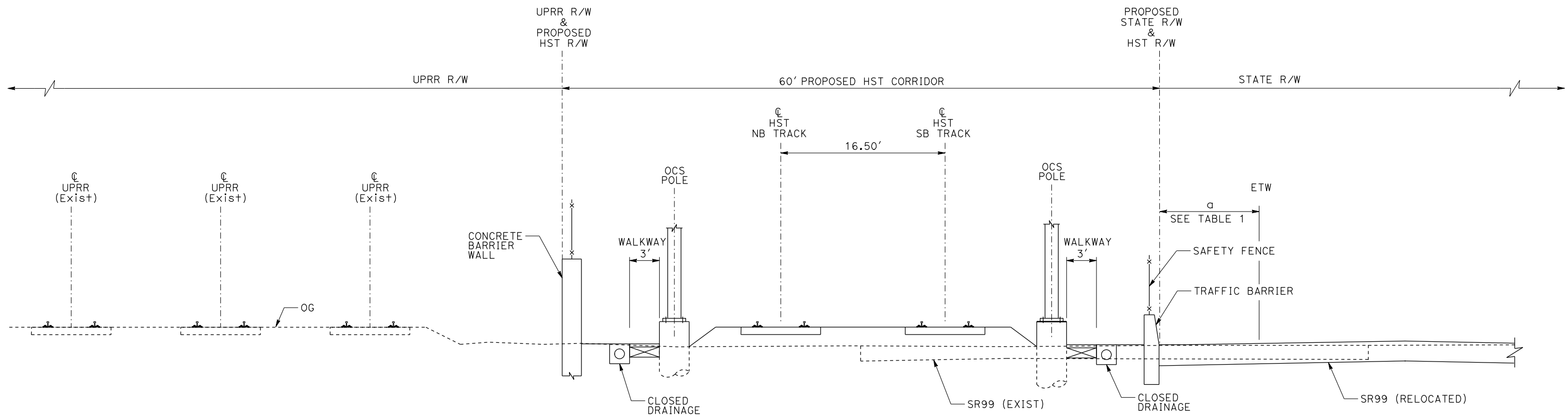
TYPICAL SECTION
SHEET 13 OF 17

CONTRACT NO.	HSR06-007
DRAWING NO.	T3013-A
SCALE	NO SCALE
SHEET NO.	

DATE PLOTTED => 21-JUL-2011
TIME PLOTTED => 12:49

TABLE 1

$a > 30'$	NO TRAFFIC BARRIER
$4' < a < 30'$	TRAFFIC BARRIER



AG7 - DOUBLE TRACK BETWEEN UPRR AND STATE ROUTE 99

NOTE:

POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
L. PROCTOR
DRAWN BY
S. LEONG
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



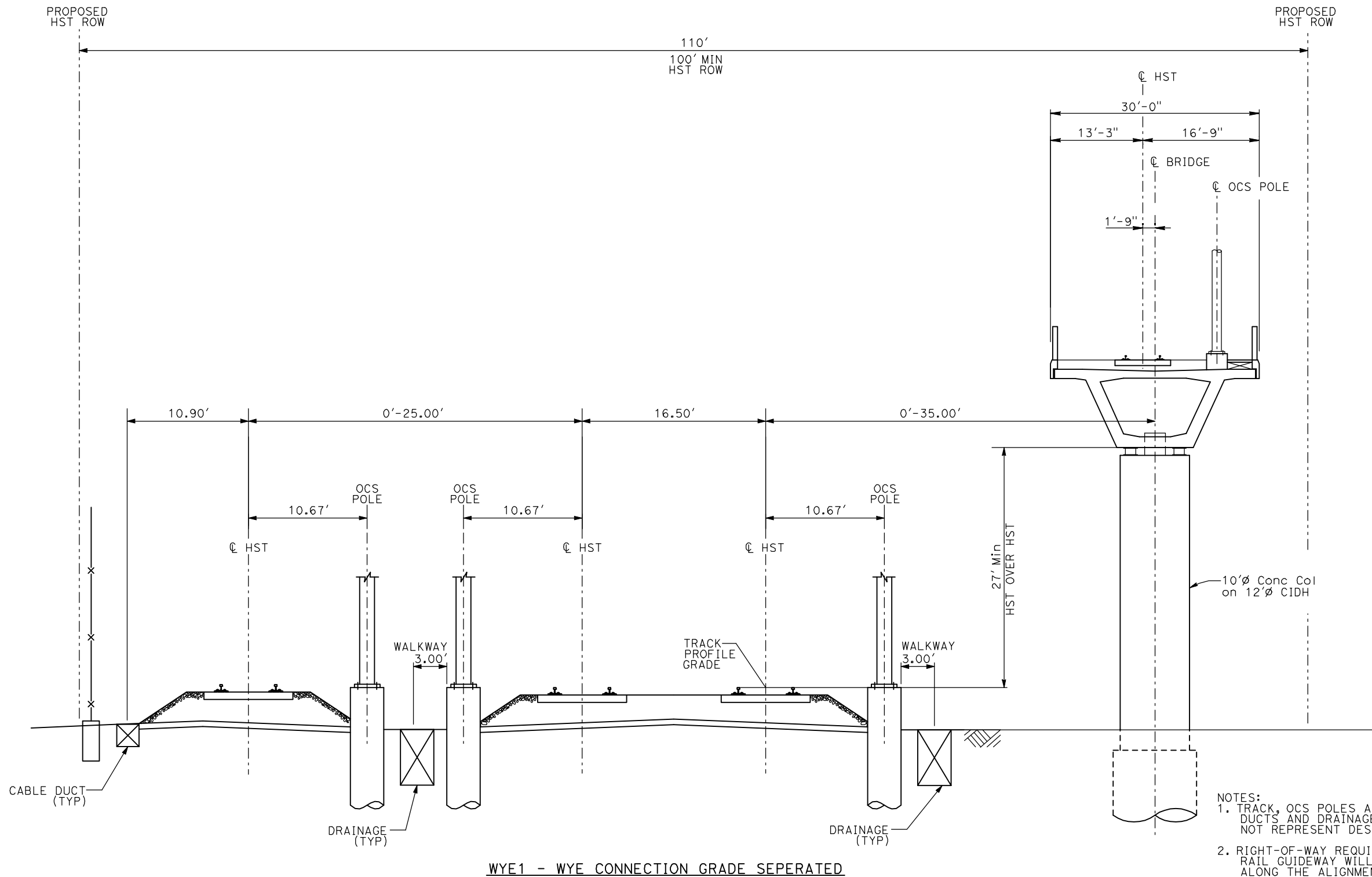
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

TYPICAL SECTION
SHEET 14 OF 17

CONTRACT NO.	HSR06-007
DRAWING NO.	T3014-A
SCALE	NO SCALE
SHEET NO.	

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TIME PLOTTED => 12:56

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WYE1 - WYE CONNECTION GRADE SEPERATED

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

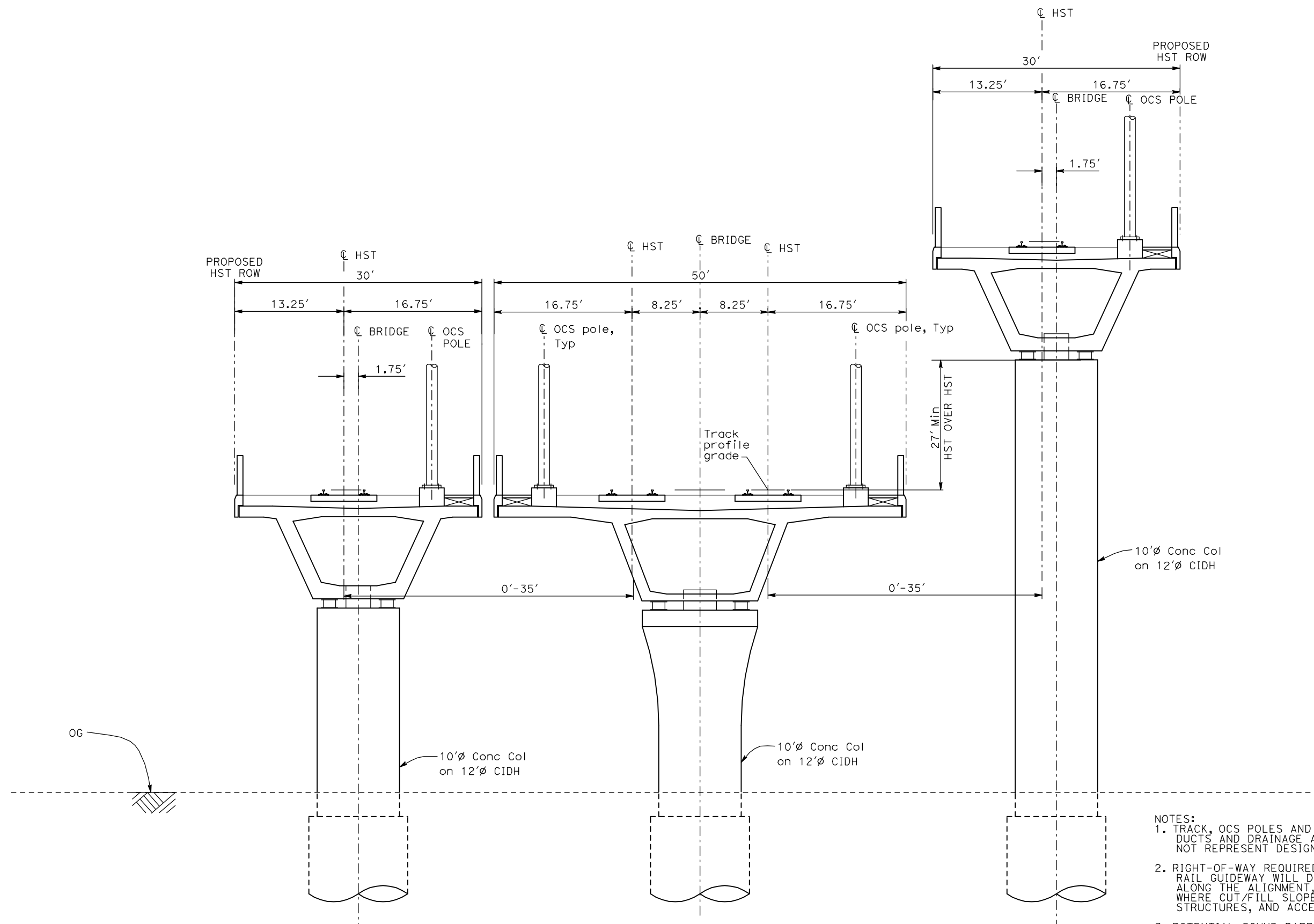


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTIONS
SHEET 15 OF 17

CONTRACT NO. HSR06-007
DRAWING NO. T3015-A
SCALE NO SCALE
SHEET NO. OF ###

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WYE2 - WYE CONNECTION GRADE SEPERATED

- NOTES:**
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

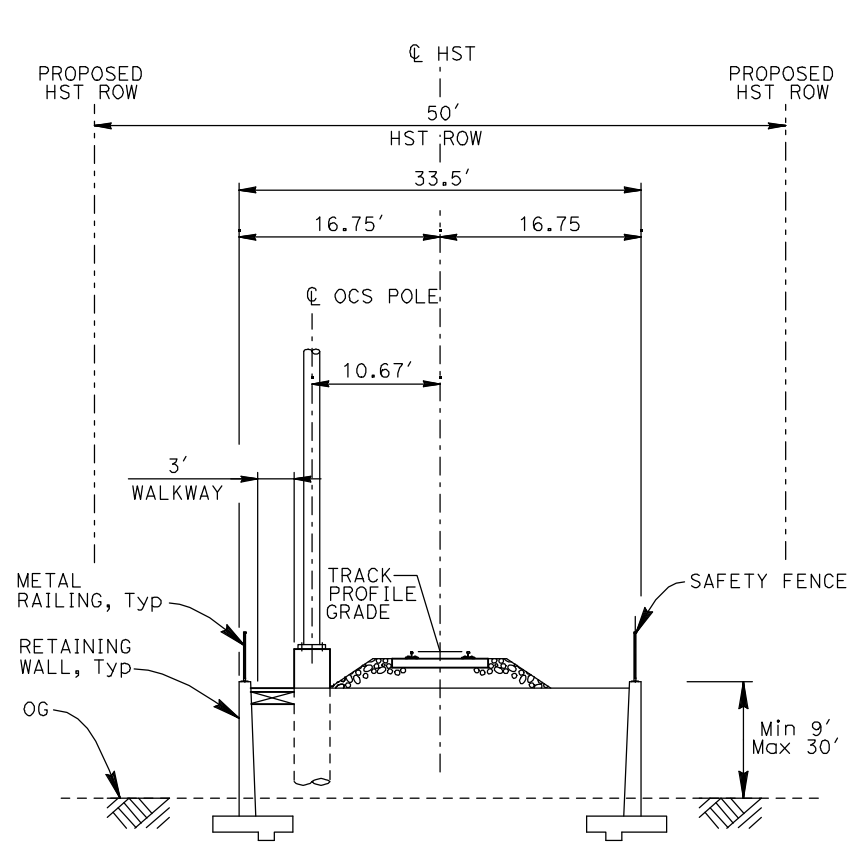


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

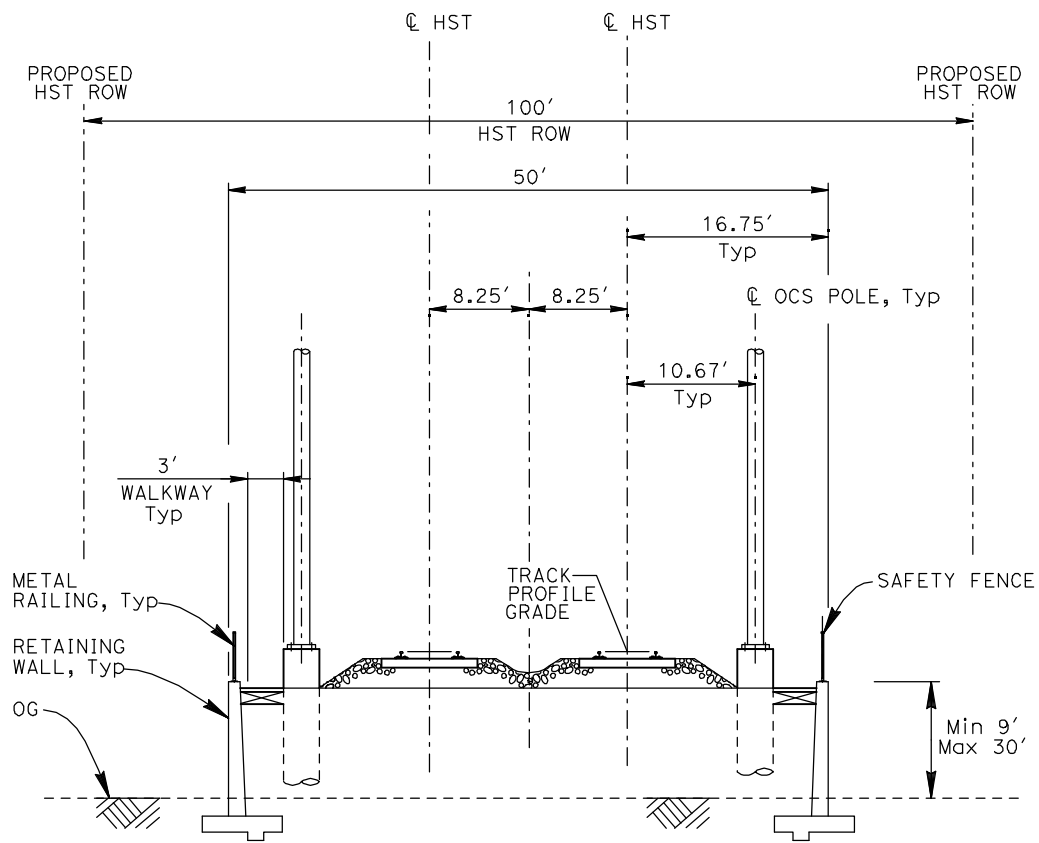
TYPICAL SECTIONS
SHEET 16 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3016-A
SCALE
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OF ###

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RF1 - SINGLE TRACK RETAINED FILL



RF2 - DOUBLE TRACK RETAINED FILL

- NOTES:**
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

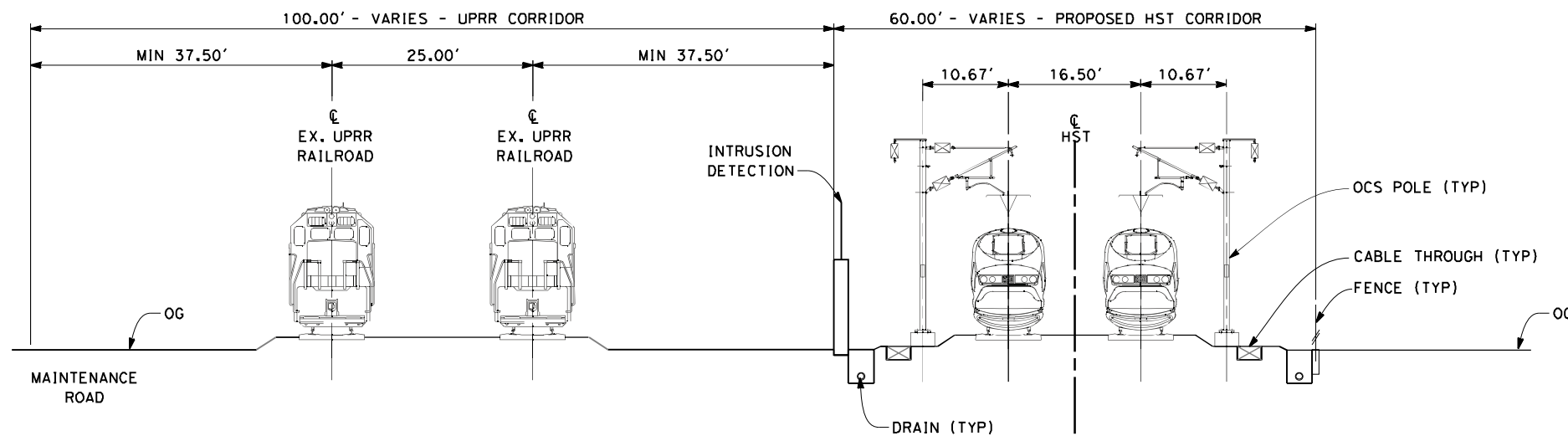


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTIONS
SHEET 17 OF 17

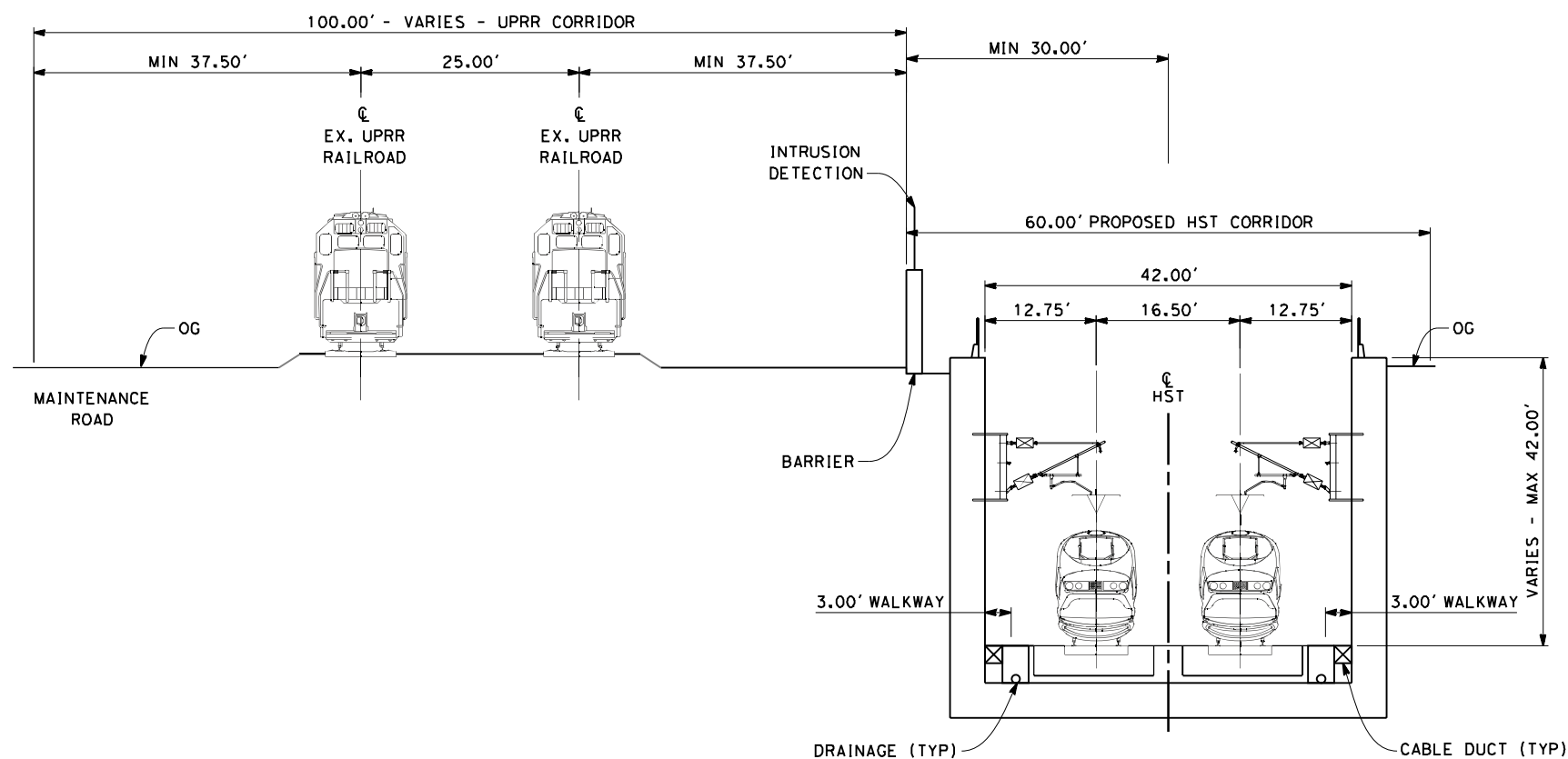
CONTRACT NO.
HSR06-007
DRAWING NO.
T3017-A
SCALE
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SHEET NO.
OF ###

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SECTION 1

TWIN TRACK AT GRADE 60FT ROW ADJACENT TO UPRR
 STA 100+00 THROUGH STA 182+00

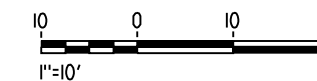


SECTION 2

TWIN TRACK IN TRENCH
 STA 196+00 THROUGH STA 260+00

NOTES:

1. TRACKFORM SHOWN IS INDICATIVE
2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 05/13/11

**RECORD SET 15%
 DESIGN SUBMISSION**

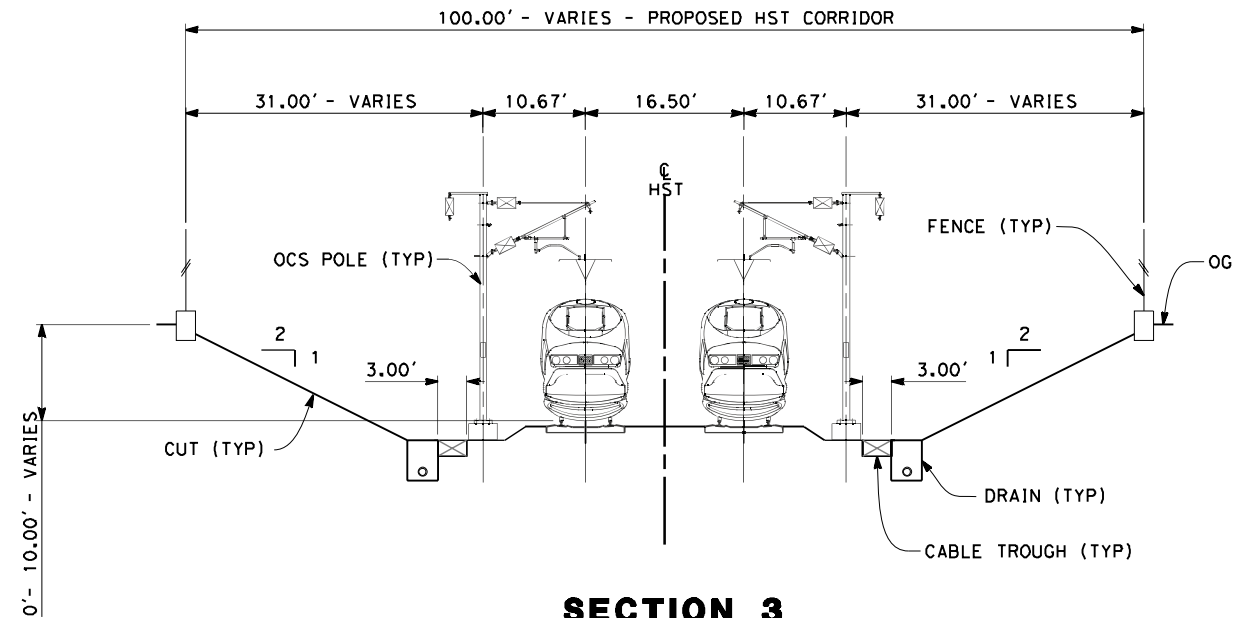
**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

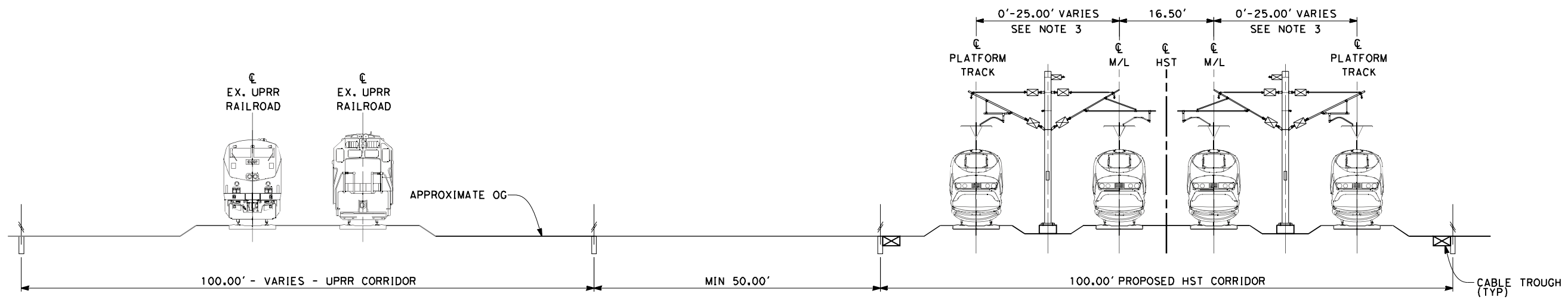
CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T3018-A
 SCALE
 AS SHOWN
 SHEET NO.
 XX OF XX

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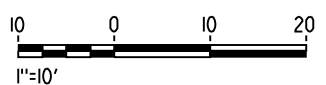


SECTION 3
 TWIN TRACK IN OPEN CUT
 STA 260+00 THROUGH STA 264+25
 STA 260+00 THROUGH STA 270+74 (KERN OPTION)

- NOTES:**
1. TRACKFORM SHOWN IS INDICATIVE
 2. SUPERELEVATION IS NOT SHOWN THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 3. DISTANCE BETWEEN TRACKS VARIES FROM 0-25.00' THROUGH TURNOUTS AND REVERSE TO PARALLEL.
 4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



SECTION 4
 4 TRACK AT GRADE STATION APPROACH
 STA 264+25 THROUGH STA 285+84
 STA 286+84 THROUGH STA 287+20
 STA 301+30 THROUGH STA 302+00
 STA 320+25 THROUGH STA 324+25
 STA 270+74 THROUGH STA 285+84 (KERN OPTION)
 STA 286+84 THROUGH STA 293+70 (KERN OPTION)
 STA 307+80 THROUGH STA 308+50 (KERN OPTION)
 STA 326+75 THROUGH STA 334+00 (KERN OPTION)



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

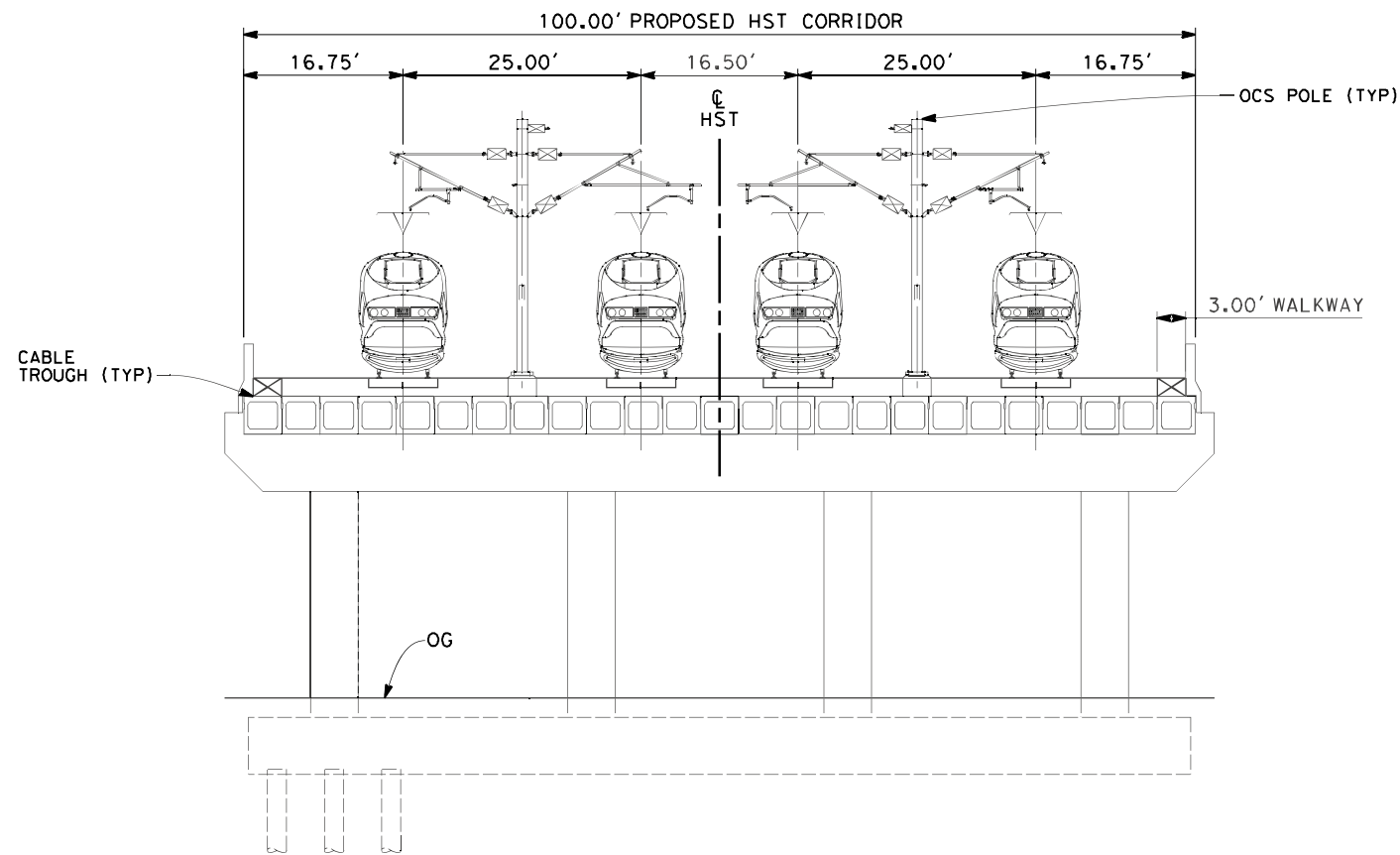
**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T3019-A
 SCALE
 AS SHOWN
 SHEET NO.
 XX OF XX

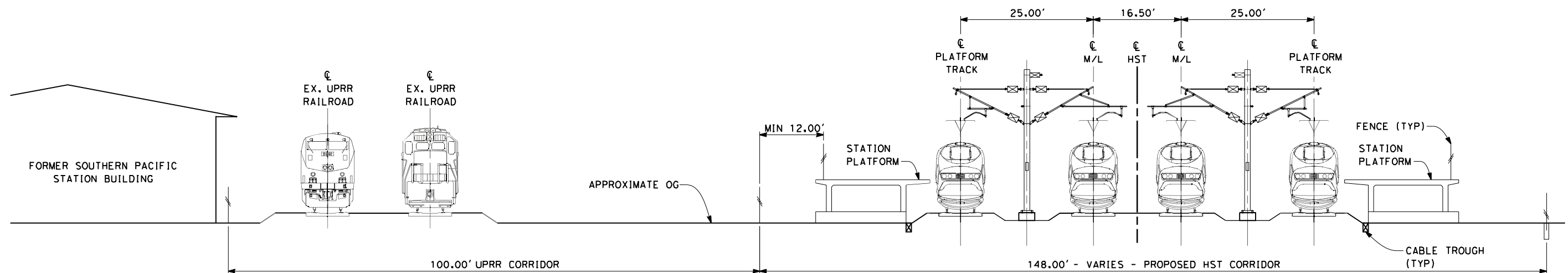
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SECTION 5

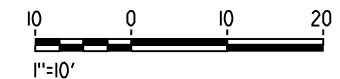
TWIN TRACK - BOX GIRDER BRIDGE
 STA 285+84 THROUGH STA 286+84

- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



SECTION 6

4 TRACK AT GRADE PLATFORMS
 STA 287+20 THROUGH STA 301+30
 STA 293+70 THROUGH STA 307+80 (KERN OPTION)



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

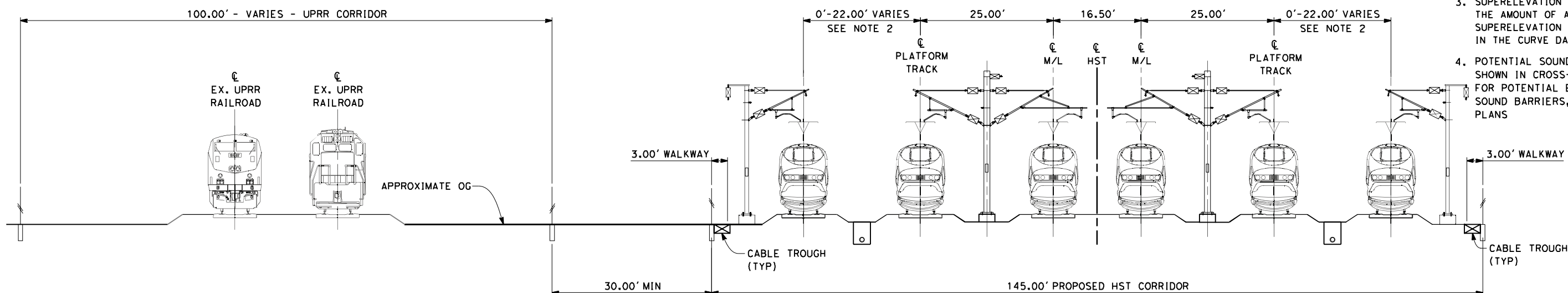
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T3020-A
 SCALE
 AS SHOWN
 SHEET NO.
 XX OF XX

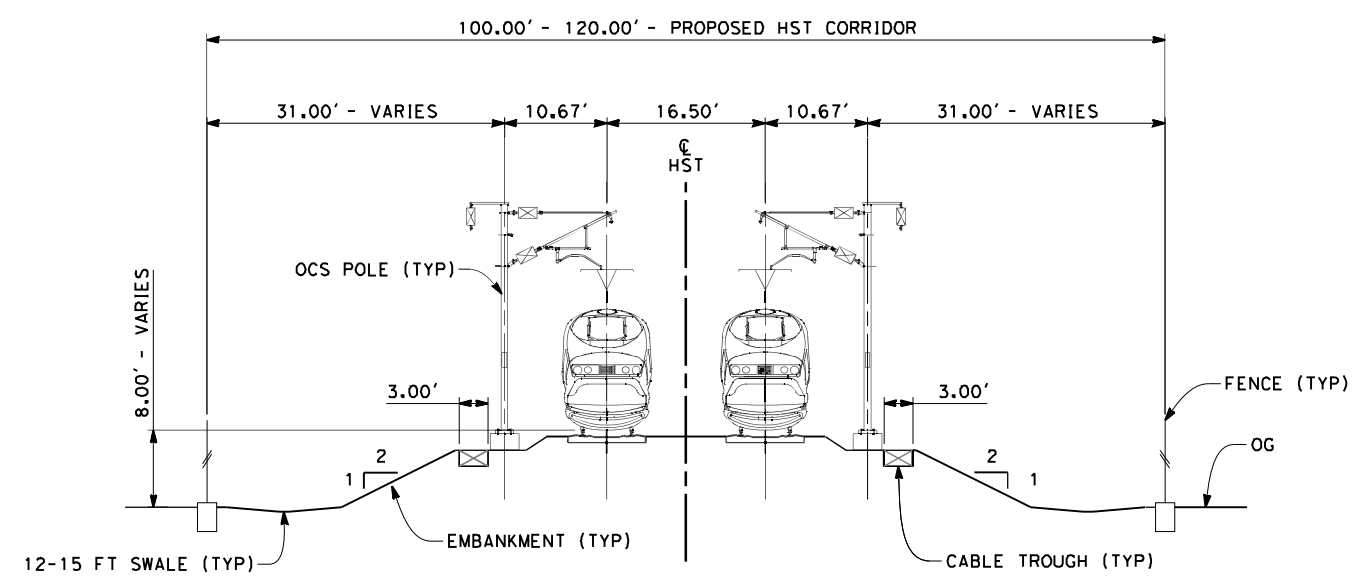
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- NOTES:**
1. TRACKFORM SHOWN IS INDICATIVE
 2. DISTANCE BETWEEN TRACKS VARIES FROM 0-22.00' THROUGH TURNOUTS AND REVERSE TO PARALLEL.
 3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS

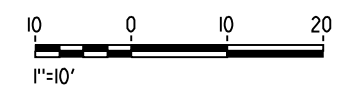
SECTION 7

6 TRACK AT GRADE INCLUDING STORAGE TRACKS
 STA 302+00 THROUGH STA 320+25
 STA 308+50 THROUGH STA 326+75 (KERN OPTION)



SECTION 8

TWIN TRACK AT GRADE 100FT ROW
 STA 324+25 THROUGH STA 338+50



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
K. SEYMOUR
 DRAWN BY
E. CAQUIAS
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

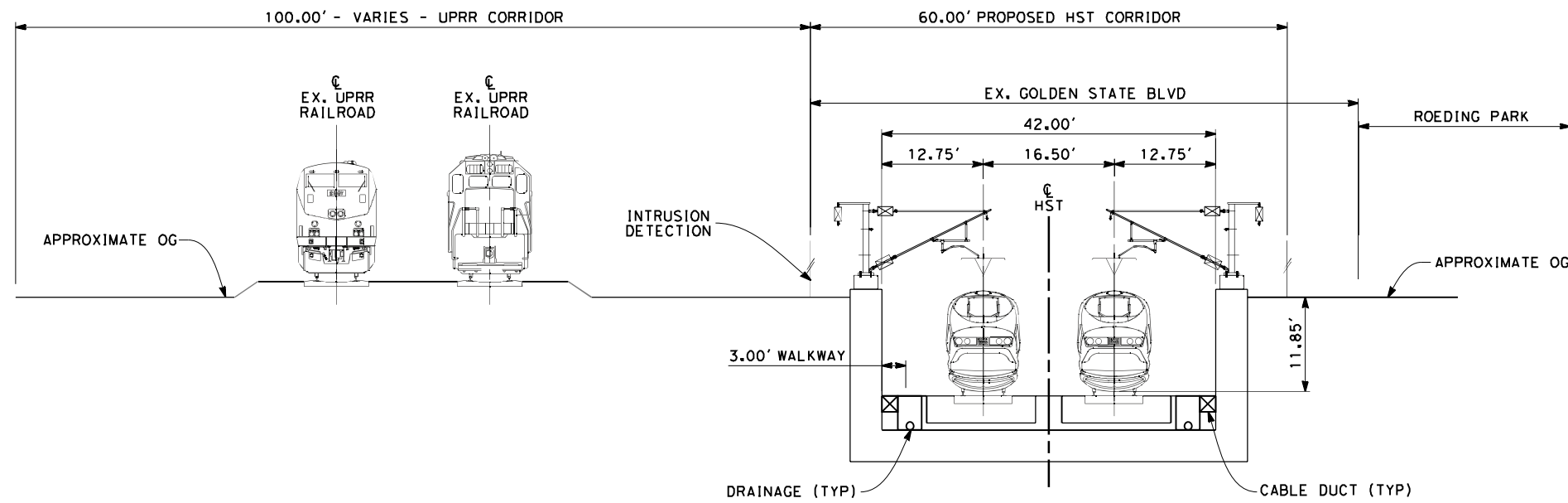
**RECORD SET 15%
 DESIGN SUBMISSION**
 NOT FOR
 CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

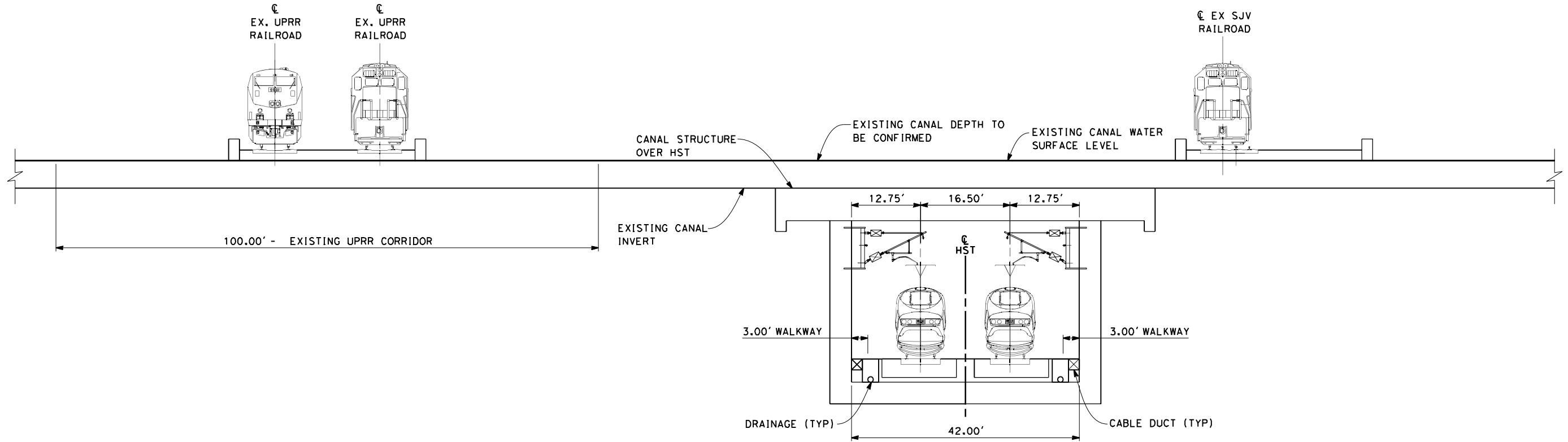
CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T3021-A
 SCALE
AS SHOWN
 SHEET NO.
XX OF XX

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SECTION 13

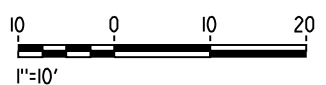
TWIN TRACK IN TRENCH ADJACENT TO UPRR AND ROEDING PARK STA 195+00



SECTION 14

TWIN TRACK IN TRENCH UNDER CANAL STA 228+30

- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
 3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
K. SEYMOUR
 DRAWN BY
E. CAQUIAS
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
05/13/11

**RECORD SET 15%
DESIGN SUBMISSION**

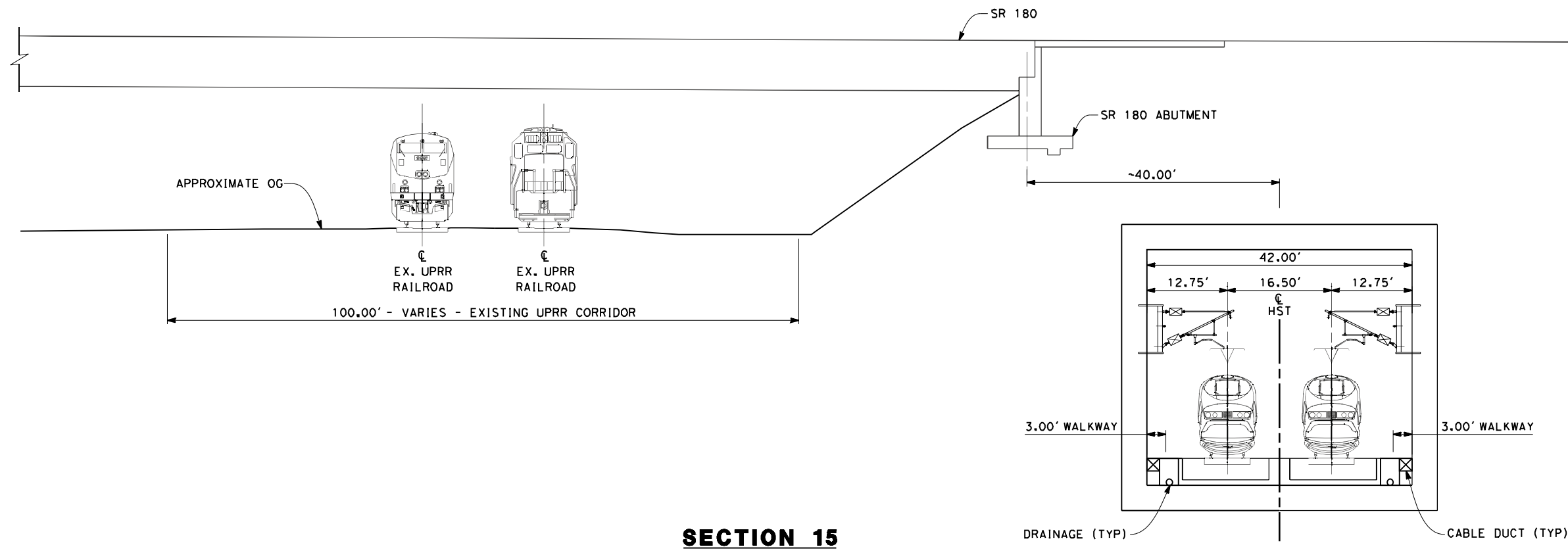
**NOT FOR
CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T3022-A
 SCALE
AS SHOWN
 SHEET NO.
XX OF XX

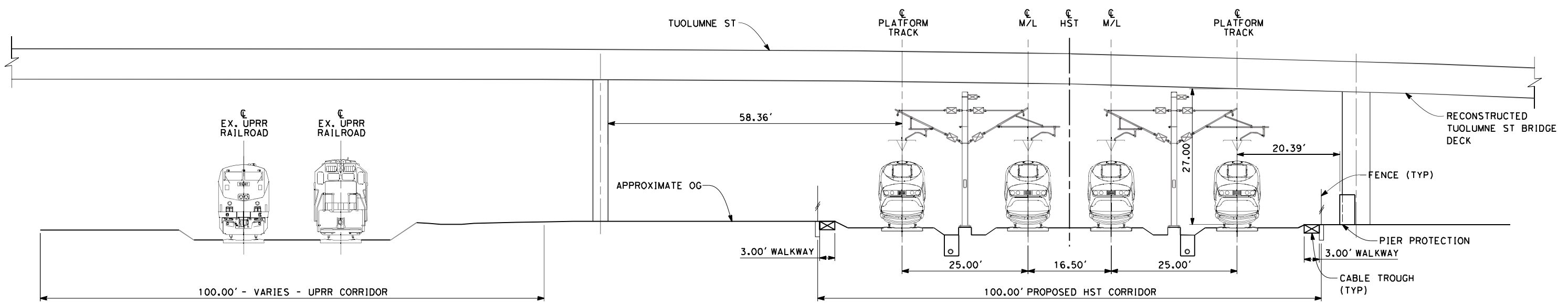
7/21/2011 11:13:11 AM O:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\BNSF Alignment - Ave 21\FB-T3023-A-F1.dgn
 frank.palermo



SECTION 15

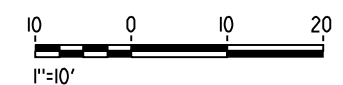
TWIN TRACK IN BOX ADJACENT TO SR-180 ABUTMENT
 STA 232+00

- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
 3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 4. FOR SECTION 16 OCS POLES TO BE SPACED BEFORE & AFTER BRIDGE. POSITIONS ARE INDICATIVE
 5. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



SECTION 16

4 TRACK AT GRADE STATION APPROACH UNDER TUOLUMNE ST
 STA 276+50
 STA 276+50 (KERN OPTION)



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 05/13/11

**RECORD SET 15%
 DESIGN SUBMISSION**

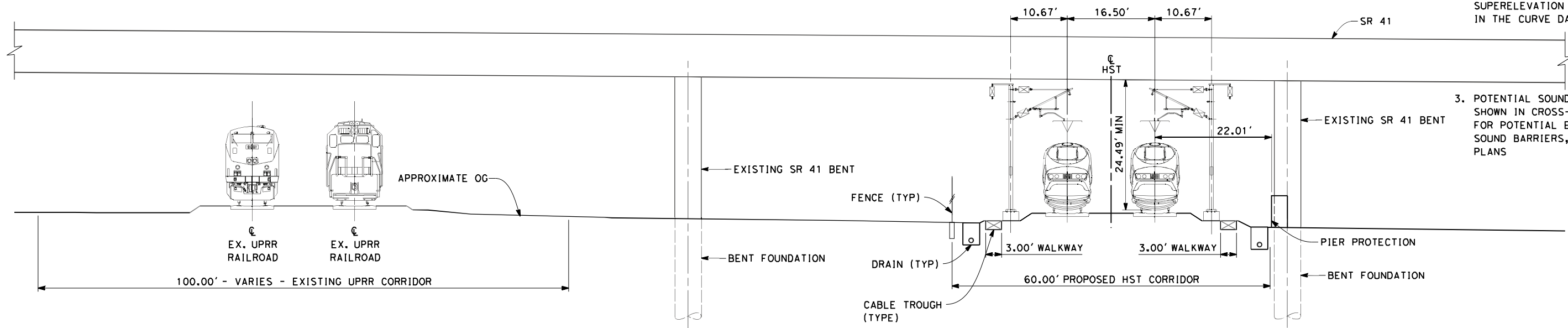
**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

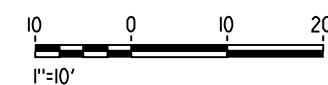
CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T3023-A
 SCALE
 AS SHOWN
 SHEET NO.
 XX OF XX

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- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS

SECTION 17
 TWIN TRACK UNDER SR-41
 STA 333+00
 STA 333+00 (KERN OPTION)



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

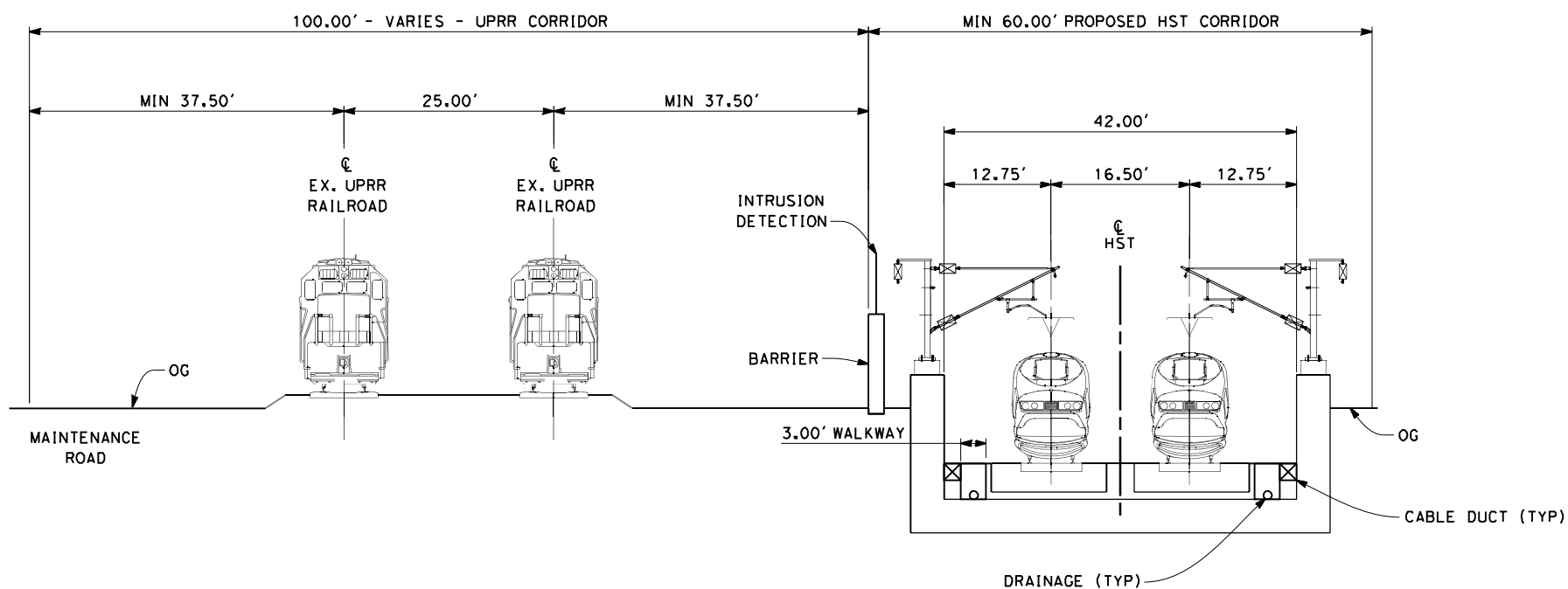
**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

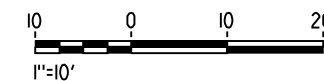
CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T3024-A
 SCALE
 AS SHOWN
 SHEET NO.
 XX OF XX

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SECTION 19
 TWIN TRACK IN TRENCH
 STA 182+00 THROUGH STA 196+00

- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

**NOT FOR
 CONSTRUCTION**



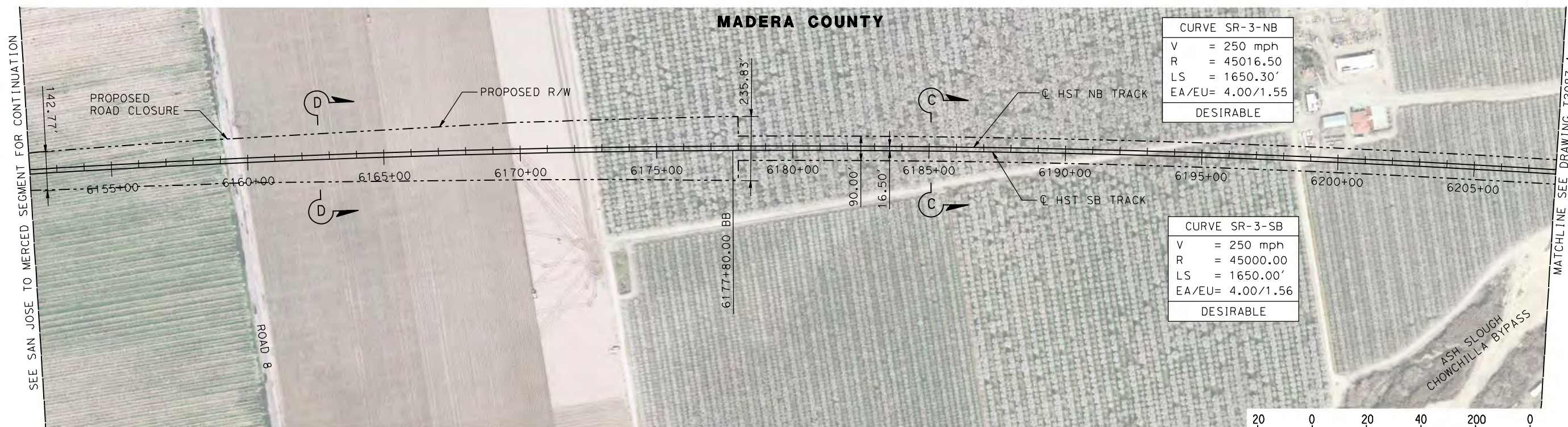
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T3025-A
 SCALE
 AS SHOWN
 SHEET NO.
 XX OF XX

MADERA COUNTY

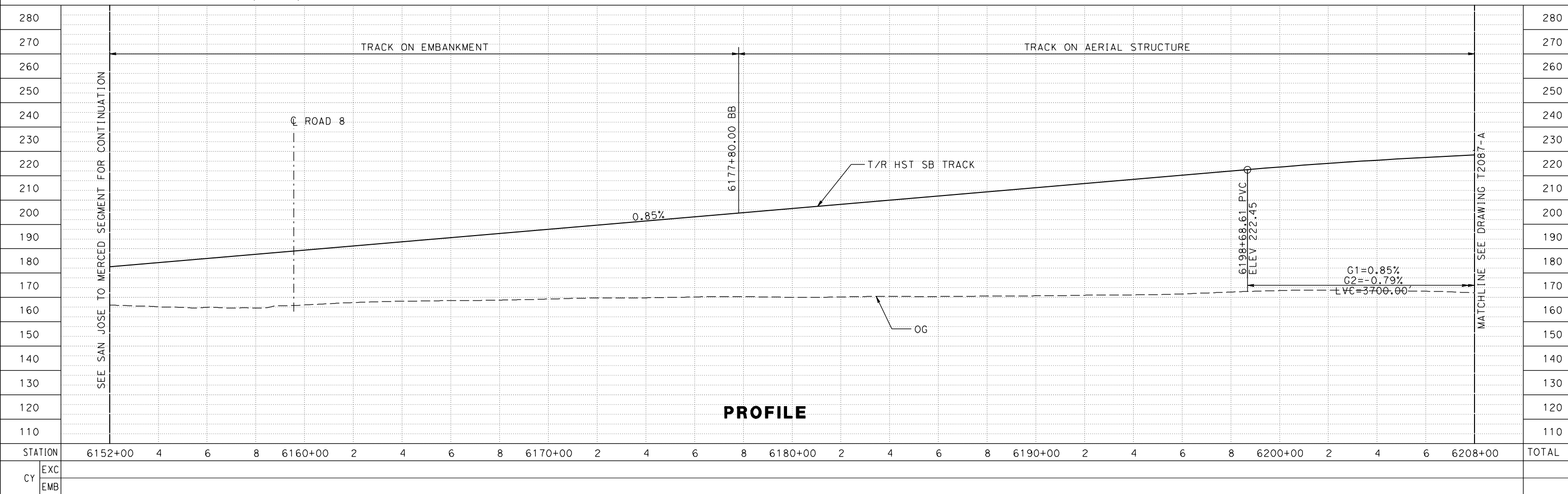
CURVE SR-3-NB	
V	= 250 mph
R	= 45016.50
LS	= 1650.30'
EA/EU	= 4.00/1.55
DESIRABLE	

CURVE SR-3-SB	
V	= 250 mph
R	= 45000.00
LS	= 1650.00'
EA/EU	= 4.00/1.56
DESIRABLE	



NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

STATION	6152+00	4	6	8	6160+00	2	4	6	8	6170+00	2	4	6	8	6180+00	2	4	6	8	6190+00	2	4	6	8	6200+00	2	4	6	6208+00	TOTAL
EXC																														
EMB																														

7/20/2011 6:31:01 PM c:\pw_working\ptg\pwiseb\p0039764\dms66816\JM-T-2086-A.dgn

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6152+00 TO STA 6208+00

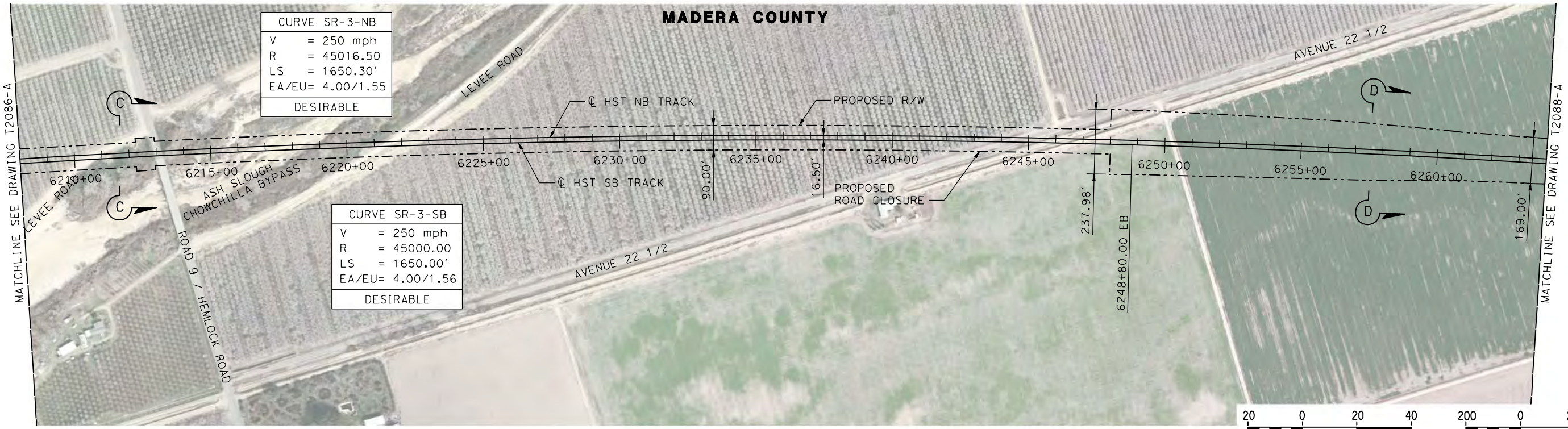
CONTRACT NO.
HSR08-05

DRAWING NO.
T2086-A

SCALE
AS SHOWN

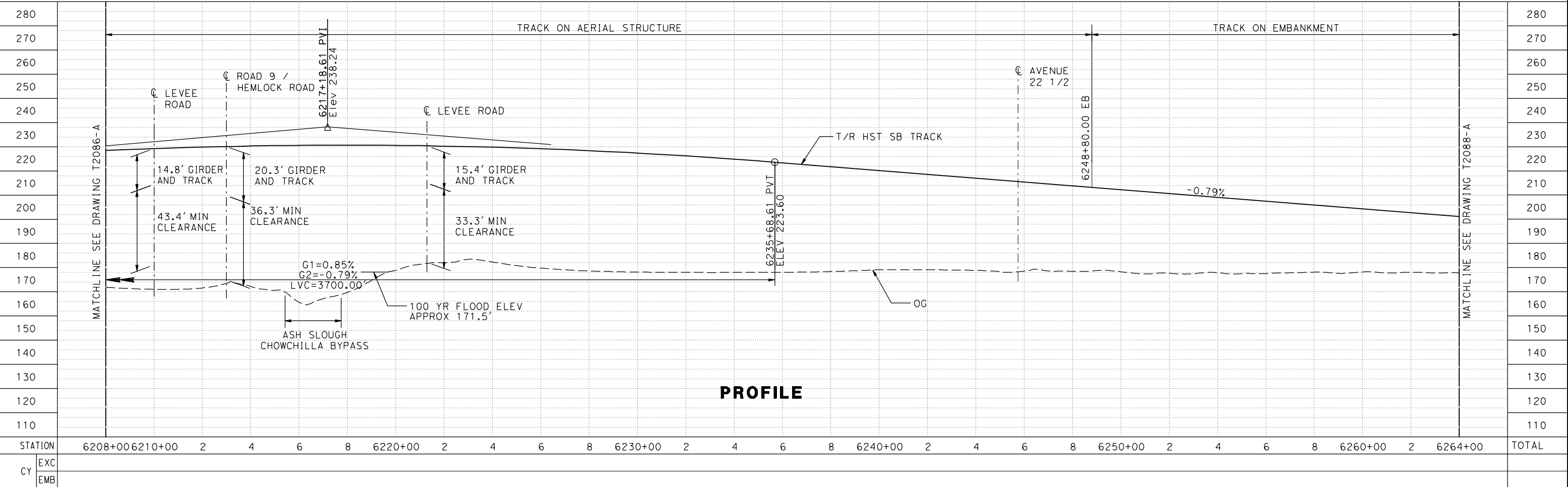
SHEET NO.

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NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



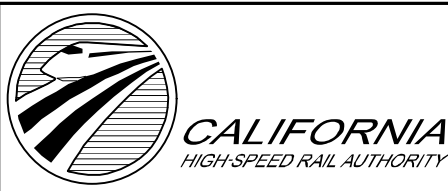
PROFILE

STATION	6208+00	6210+00	2	4	6	8	6220+00	2	4	6	8	6230+00	2	4	6	8	6240+00	2	4	6	8	6250+00	2	4	6	8	6260+00	2	6264+00	TOTAL
EXC																														
EMB																														

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



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

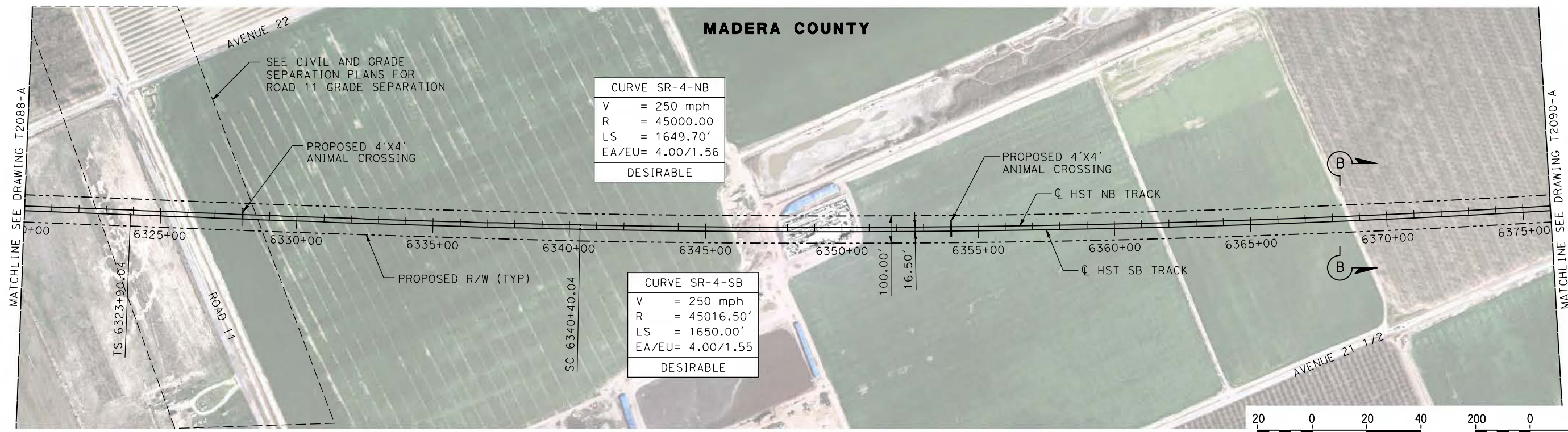
BNSF MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6208+00 TO STA 6264+00

CONTRACT NO.
HSR08-05

DRAWING NO.
T2087-A

SCALE
AS SHOWN

SHEET NO.

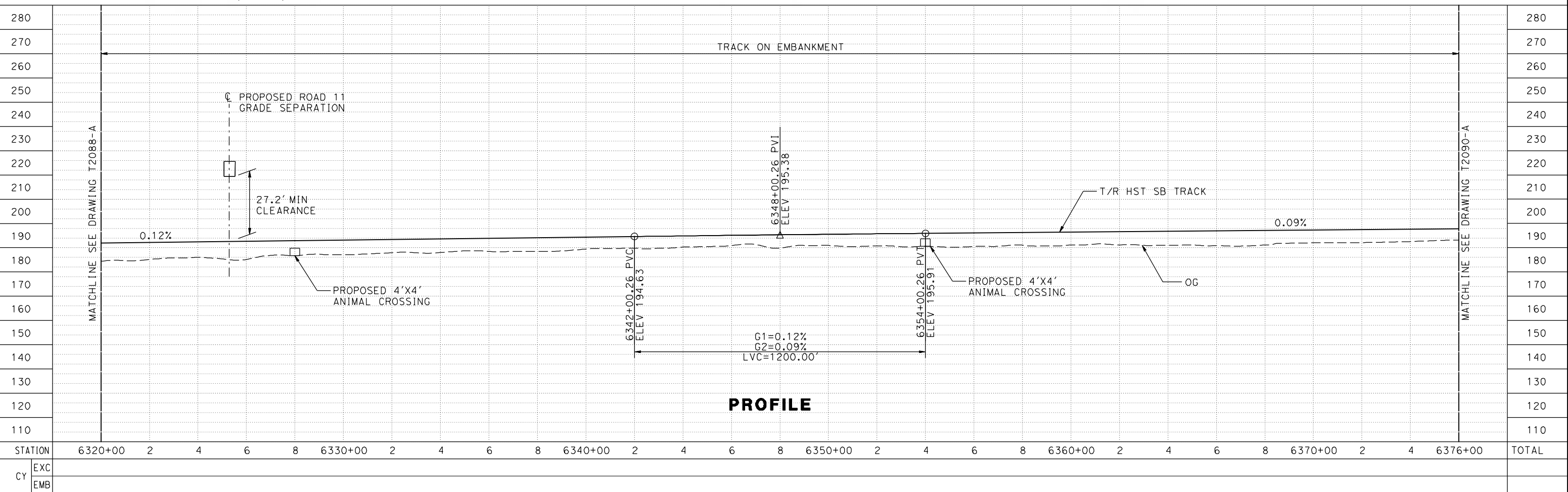


CURVE SR-4-NB	
V	= 250 mph
R	= 45000.00
LS	= 1649.70'
EA/EU	= 4.00/1.56
DESIRABLE	

CURVE SR-4-SB	
V	= 250 mph
R	= 45016.50'
LS	= 1650.00'
EA/EU	= 4.00/1.55
DESIRABLE	

NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

STATION	6320+00	2	4	6	8	6330+00	2	4	6	8	6340+00	2	4	6	8	6350+00	2	4	6	8	6360+00	2	4	6	8	6370+00	2	4	6376+00	TOTAL
EXC																														
EMB																														

7/20/2011 6:33:30 PM c:\pwworking\ptg\pwiseb\p0039764\dms66816\JM-T-2089-A.dgn

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6320+00 TO STA 6376+00

CONTRACT NO.
HSR08-05

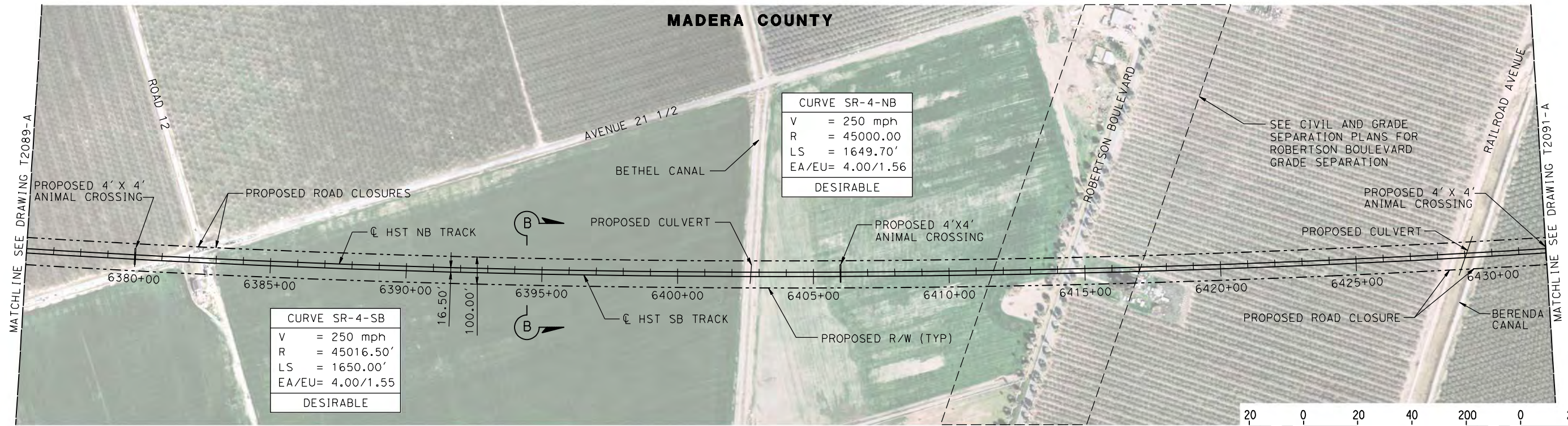
DRAWING NO.
T2089-A

SCALE
AS SHOWN

SHEET NO.

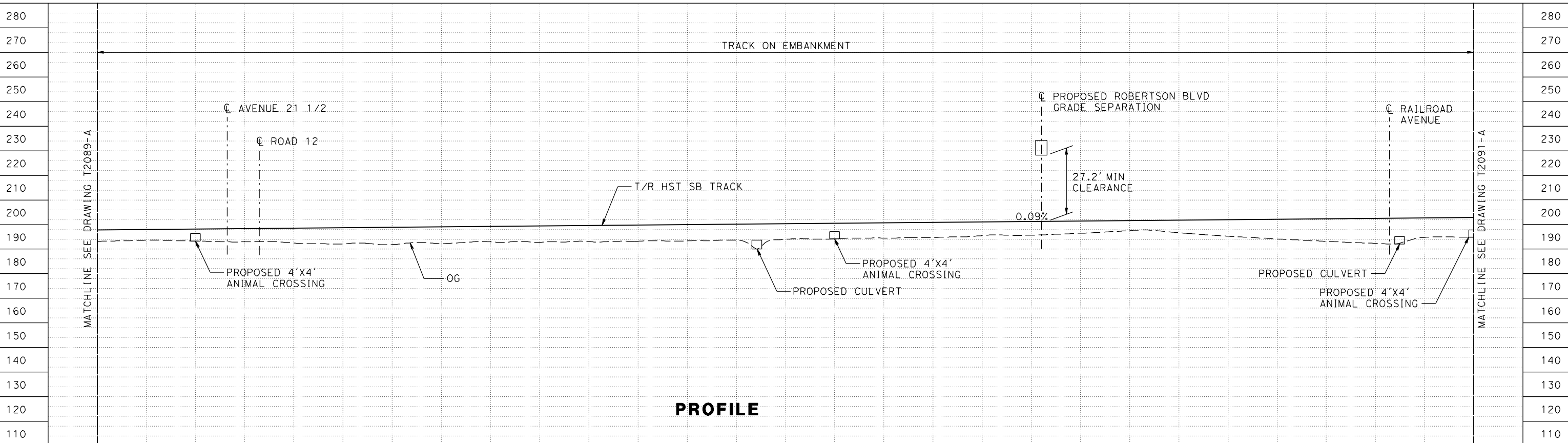
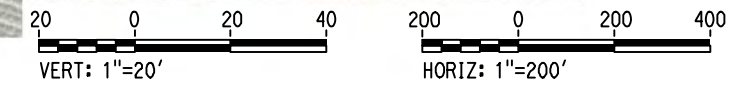
REV	DATE	BY	CHK	APP	DESCRIPTION

MADERA COUNTY



NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

STATION	6376+00	8	6380+00	2	4	6	8	6390+00	2	4	6	8	6400+00	2	4	6	8	6410+00	2	4	6	8	6420+00	2	4	6	8	6430+00	6432+00	TOTAL	
EXC																															
EMB																															

7/20/2011 6:34:40 PM c:\pw_working\ptg\pwiseb\p0039764\dms66816\JM-T-2090-A.dgn

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6376+00 TO STA 6432+00

CONTRACT NO.
HSR08-05

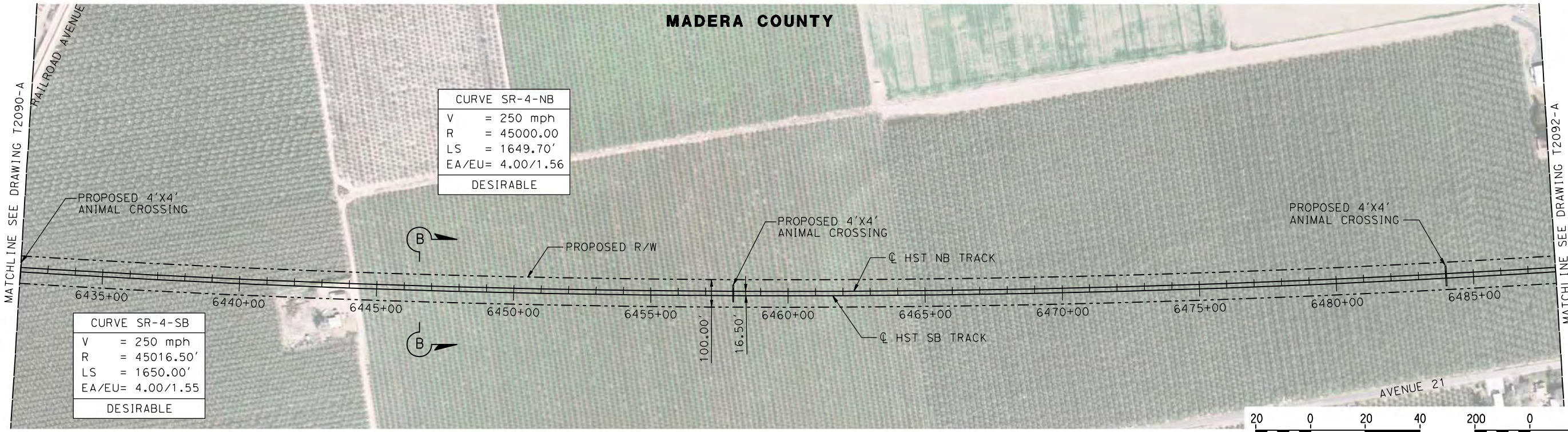
DRAWING NO.
T2090-A

SCALE
AS SHOWN

SHEET NO.

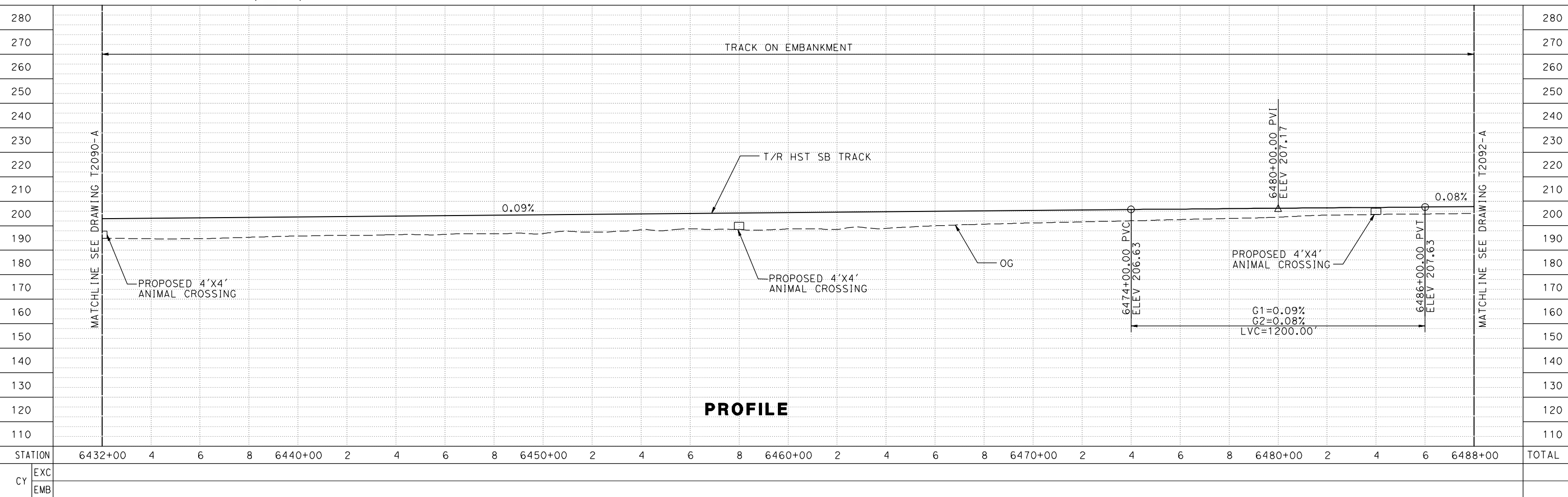
REV	DATE	BY	CHK	APP	DESCRIPTION

MADERA COUNTY



PLAN

NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PROFILE

7/20/2011 6:35:54 PM c:\pw_working\ptg\pwiseb\p0039764\dms66816\JM-T-2091-A.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**

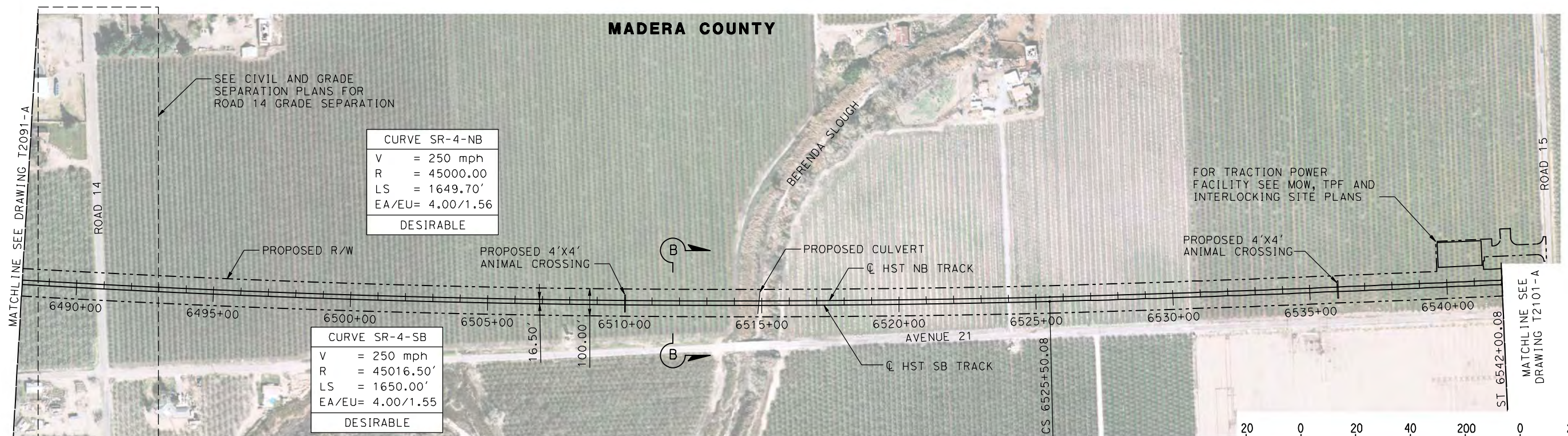


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6432+00 TO STA 6488+00

CONTRACT NO.
HSR08-05
DRAWING NO.
T2091-A
SCALE
AS SHOWN
SHEET NO.

MADERA COUNTY



CURVE SR-4-NB

V = 250 mph

R = 45000.00

LS = 1649.70'

EA/EU= 4.00/1.56

DESIRABLE

CURVE SR-4-SB

V = 250 mph

R = 45016.50'

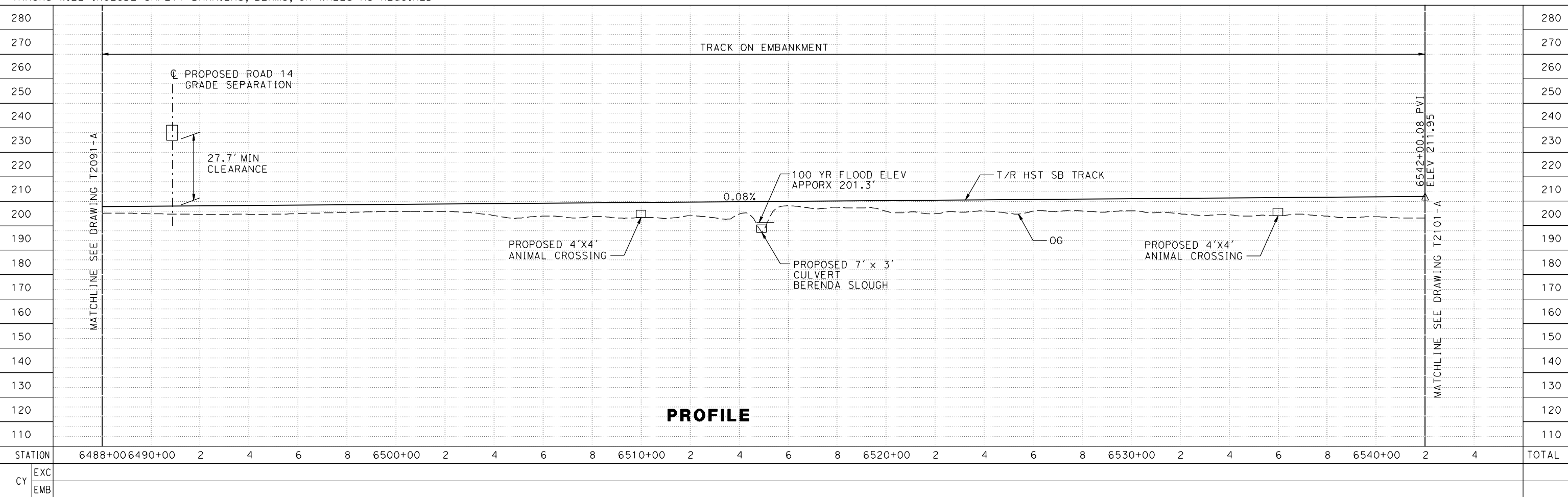
LS = 1650.00'

EA/EU= 4.00/1.55

DESIRABLE

NOTE: TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

7/20/2011 6:37:06 PM c:\pw_working\ptg\pwiseb\p0039764\dms66816\JM-T-2092-A.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
P. JACOBY

DRAWN BY
ALBERT S.

CHECKED BY
RESHMA C.

IN CHARGE
D. WEMMER

DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT

MERCED TO FRESNO

BNSF MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
6488+00 TO STA 6542+00

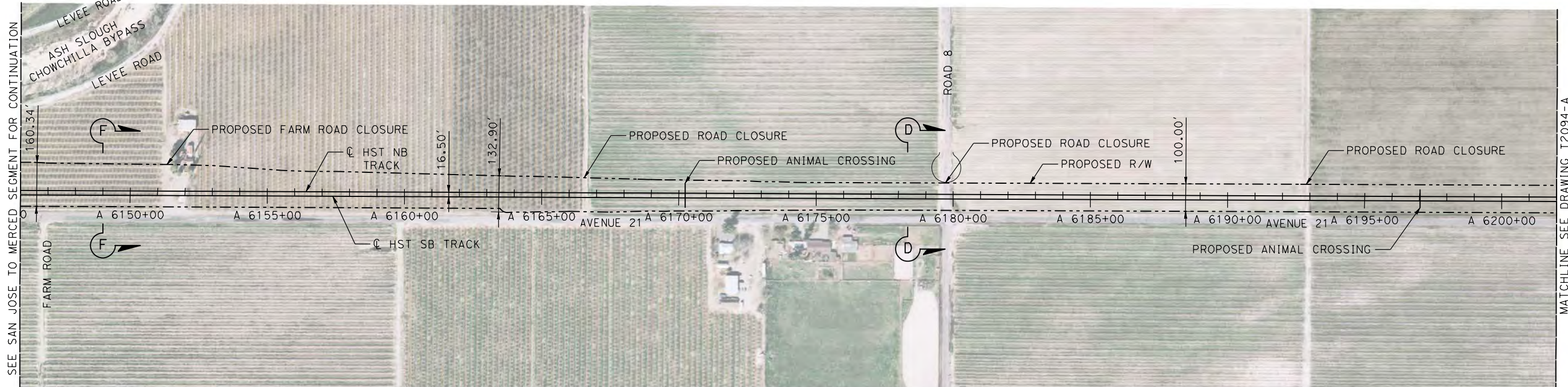
CONTRACT NO.
HSR08-05

DRAWING NO.
T2092-A

SCALE
AS SHOWN

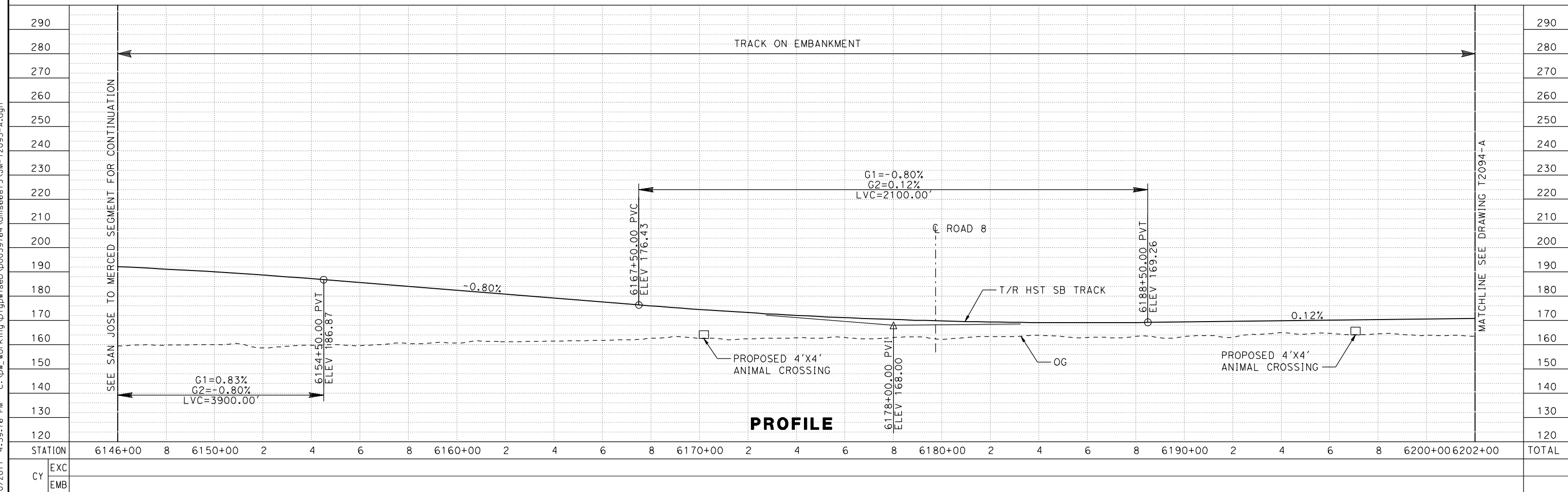
SHEET NO.

MADERA COUNTY



NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. GURA
DRAWN BY
A. GURA
CHECKED BY
S. GOOLLA
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**

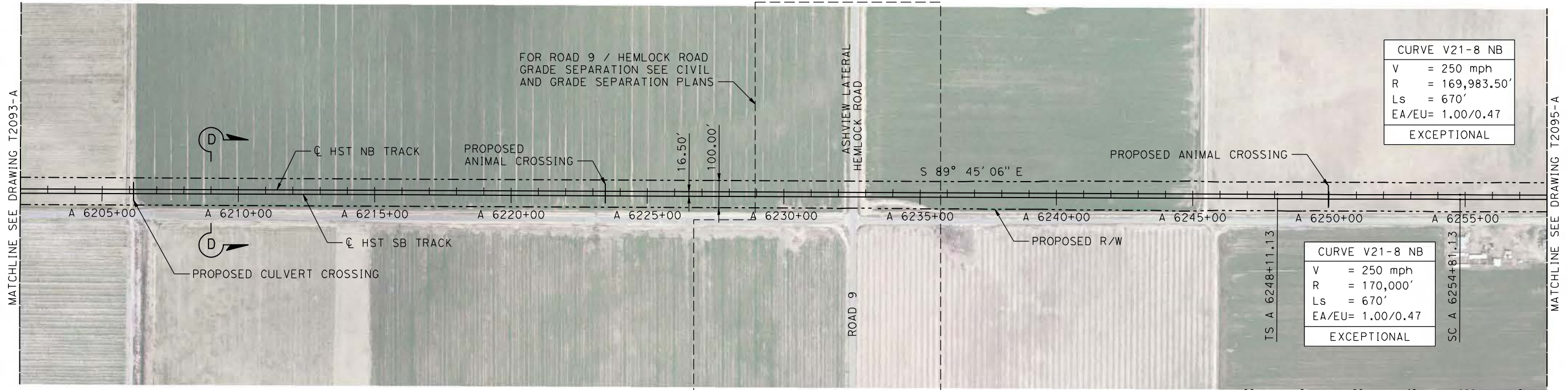


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
BNSF MAIN LINE
AVENUE 21
TRACK PLAN AND PROFILE
STA A 6146+00 TO STA A 6202+00

CONTRACT NO.
HSR08-05
DRAWING NO.
T2093-A
SCALE
AS SHOWN
SHEET NO.

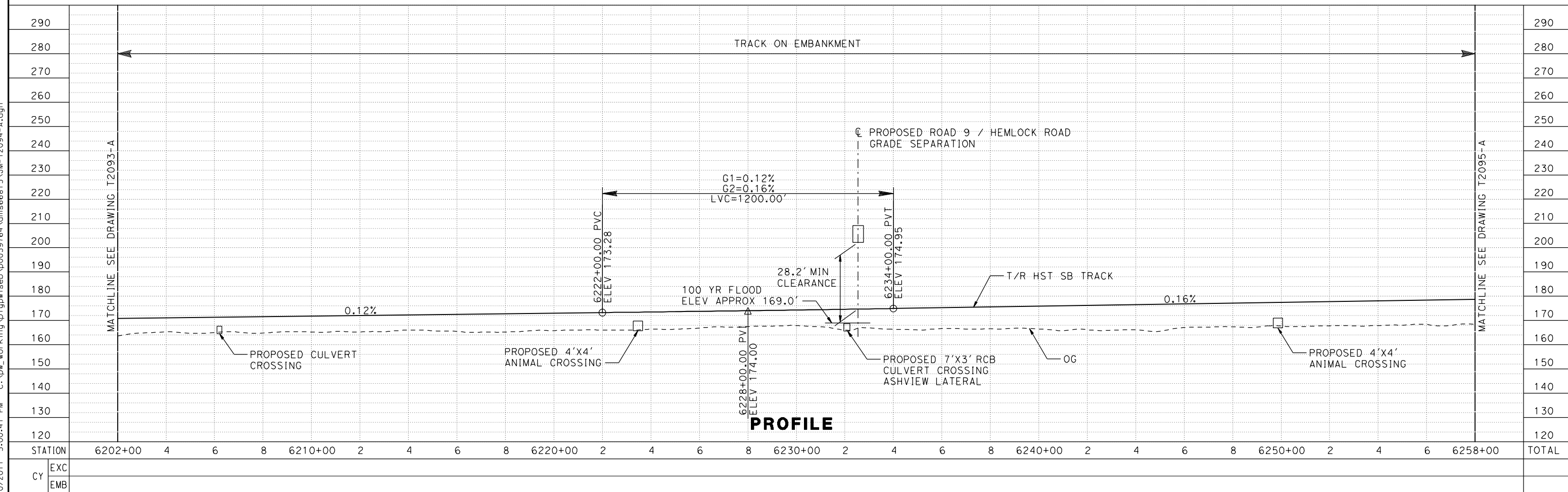
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MADERA COUNTY



NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT
TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



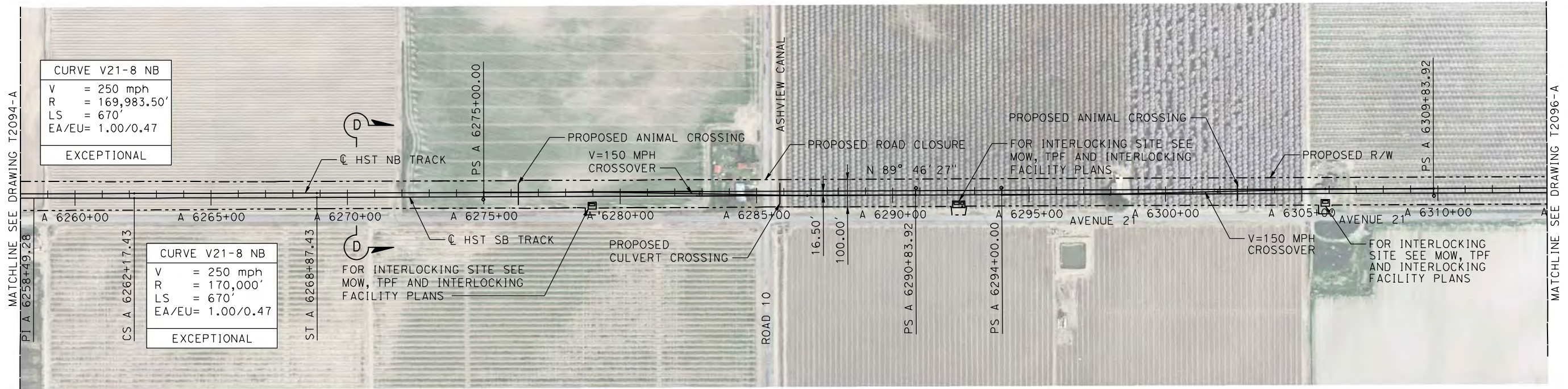
PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. GURA	15% DRAFT SUBMITTAL FOR INTERNAL USE ONLY	NOT FOR CONSTRUCTION			CALIFORNIA HIGH-SPEED TRAIN PROJECT	CONTRACT NO. HSR08-05
DRAWN BY A. GURA					MERCED TO FRESNO	DRAWING NO. T2094-A
CHECKED BY S. GOOLLA					BNSF MAIN LINE AVENUE 21	SCALE AS SHOWN
IN CHARGE D. WEMMER					TRACK PLAN AND PROFILE STA A 6202+00 TO STA A 6258+00	SHEET NO.
DATE 4/15/2011						

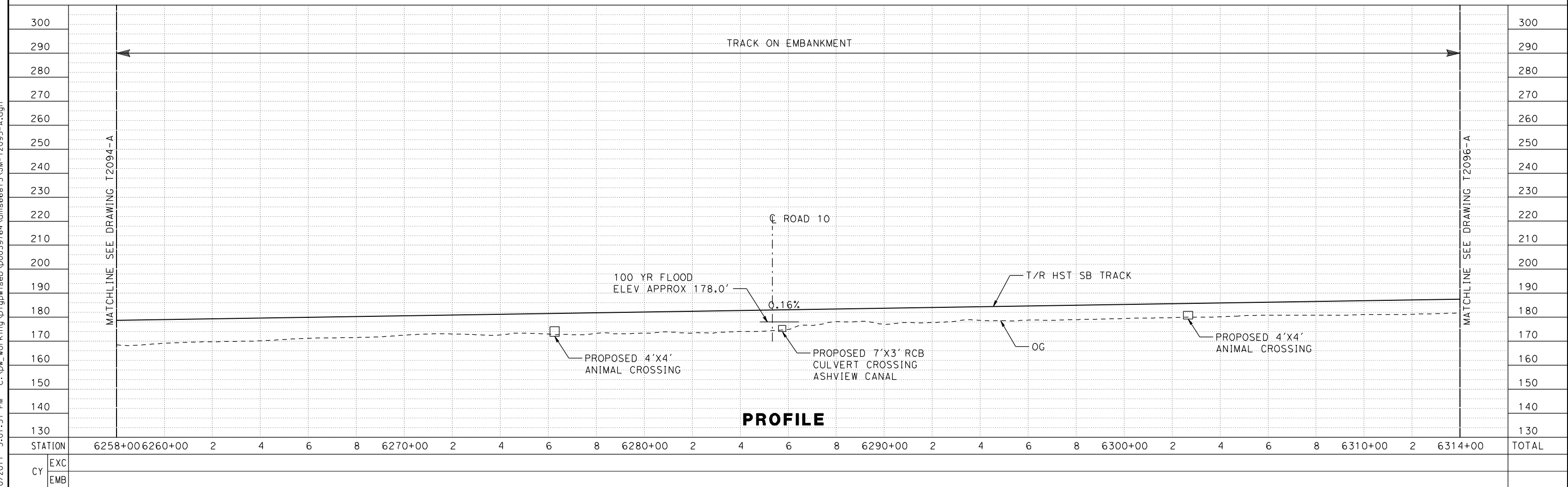
7/20/2011 5:00:41 PM c:\pw_working\ptg\wiseb\p0039764\dms66815\JM-T2094-A.dgn

MADERA COUNTY



NOTE:
 TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT
 TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



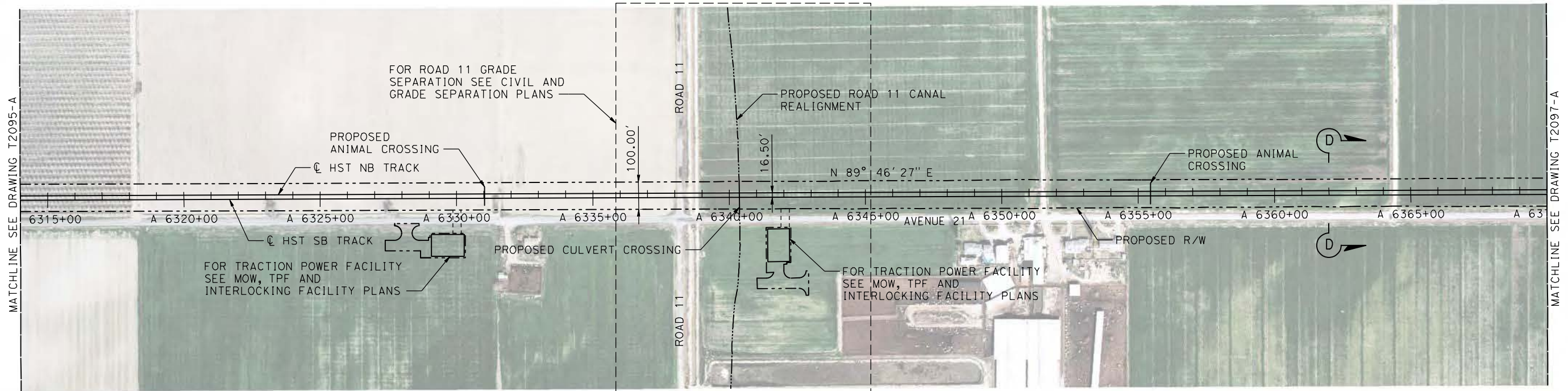
PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. GURA DRAWN BY A. GURA CHECKED BY S. GOOLLA IN CHARGE D. WEMMER DATE 4/15/2011	15% DRAFT SUBMITTAL FOR INTERNAL USE ONLY NOT FOR CONSTRUCTION			CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MAIN LINE AVENUE 21 TRACK PLAN AND PROFILE STA A 6258+00 TO STA A 6314+00	CONTRACT NO. HSR08-05 DRAWING NO. T2095-A SCALE AS SHOWN SHEET NO.
--	---	--	--	--	--

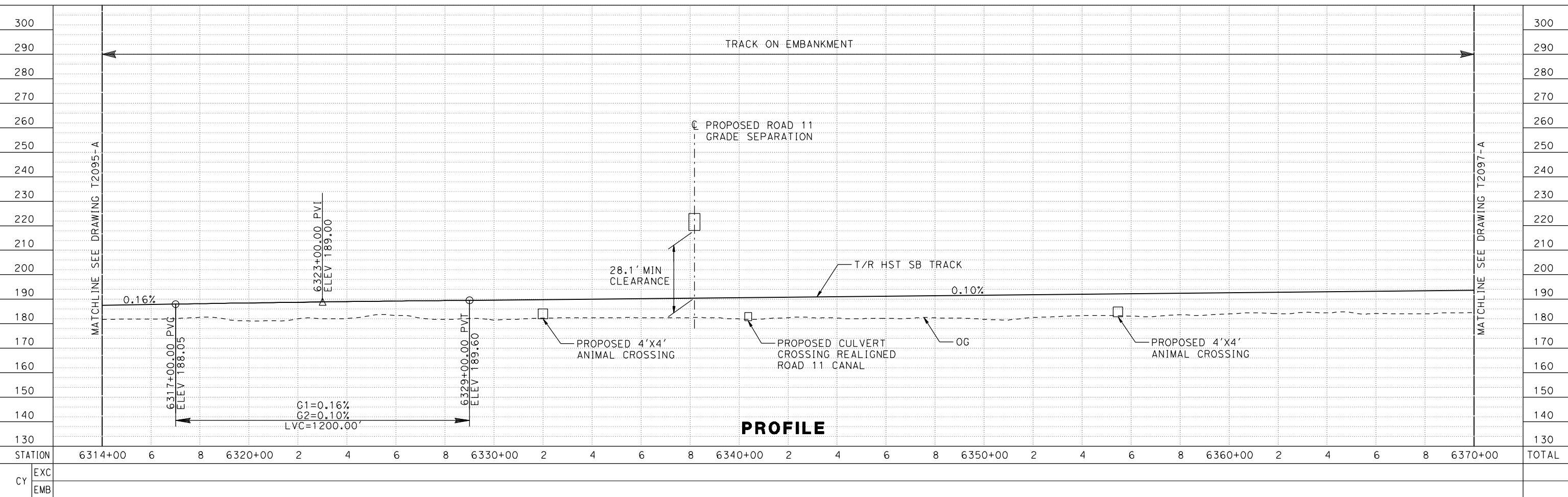
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MADERA COUNTY



PLAN

NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT
TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PROFILE

7/20/2011 5:02:58 PM c:\pw_working\ptg\wiseb\p0039764\dms66815\JM-T2096-A.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. GURA
DRAWN BY
A. GURA
CHECKED BY
S. GOOLLA
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

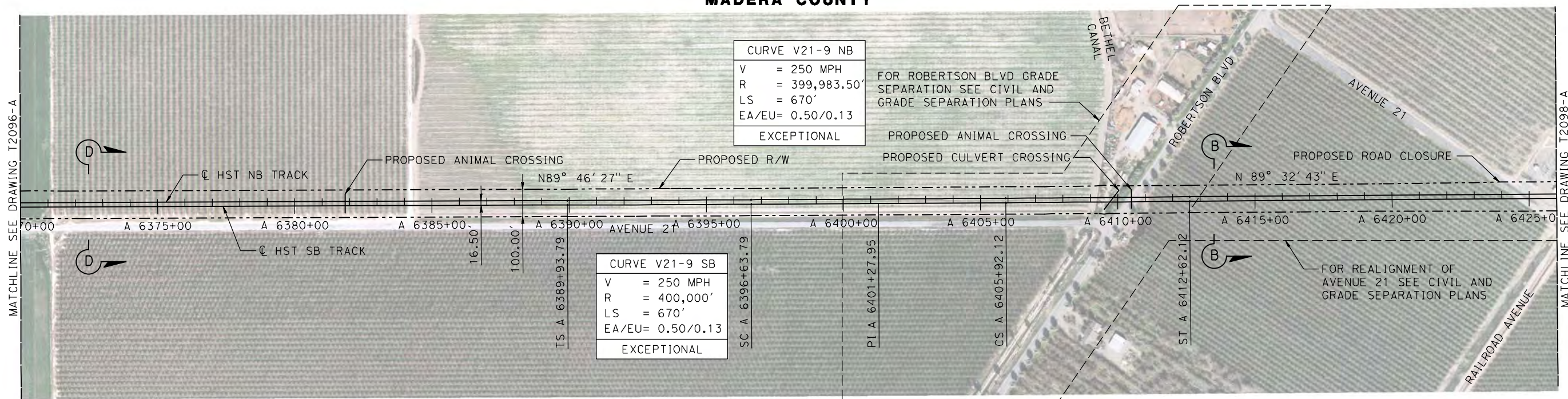
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
BNSF MAIN LINE
AVENUE 21
TRACK PLAN AND PROFILE
STA A 6314+00 TO STA A 6370+00

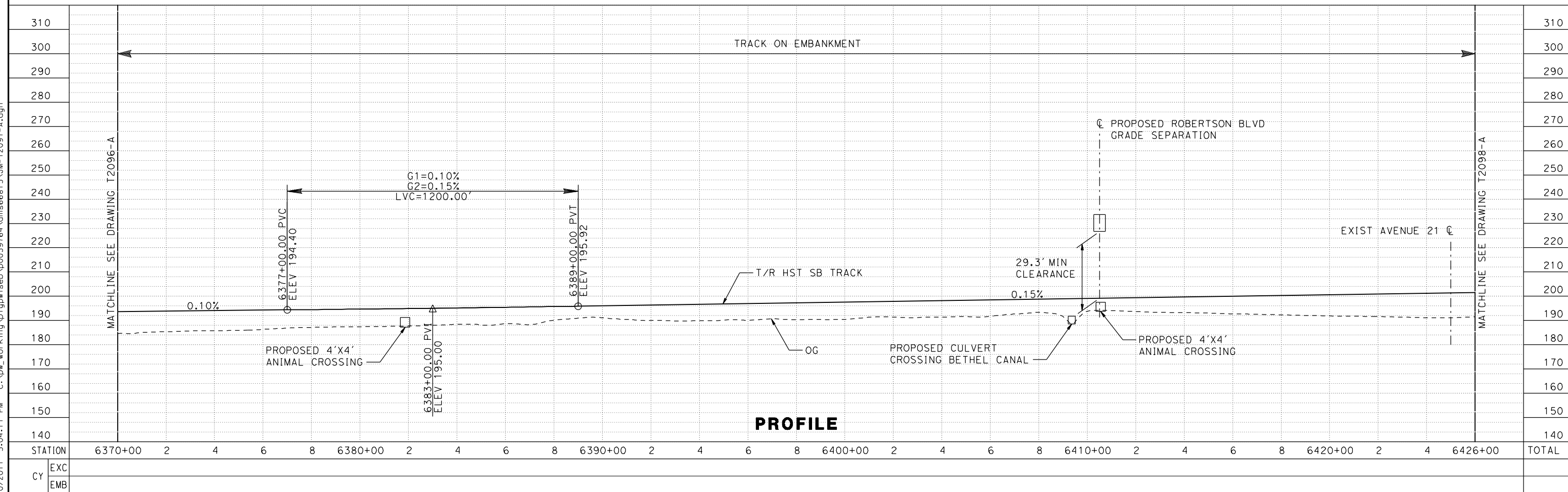
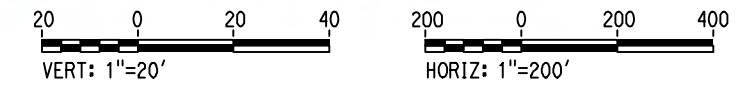
CONTRACT NO.
HSR08-05
DRAWING NO.
T2096-A
SCALE
AS SHOWN
SHEET NO.

MADERA COUNTY



PLAN

NOTE: TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

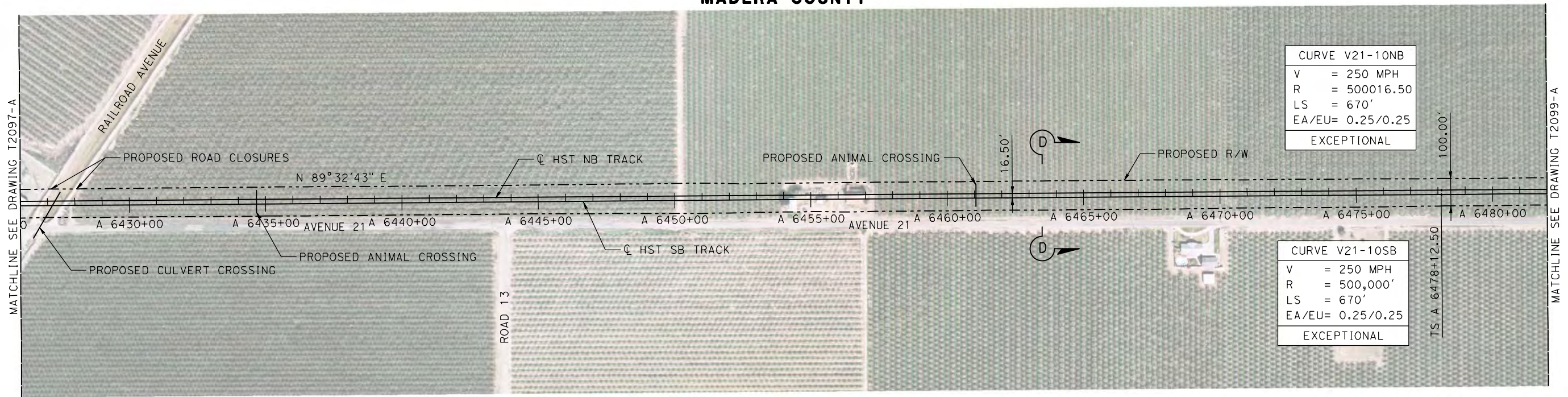
DESIGNED BY A. GURA	15% DRAFT SUBMITTAL FOR INTERNAL USE ONLY NOT FOR CONSTRUCTION
DRAWN BY A. GURA	
CHECKED BY S. GOOLLA	
IN CHARGE D. WEMMER	
DATE 4/15/2011	

--	--	--	--

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MAIN LINE AVENUE 21 TRACK PLAN AND PROFILE STA A 6370+00 TO STA A 6426+00		CONTRACT NO. HSR08-05 DRAWING NO. T2097-A SCALE AS SHOWN SHEET NO.
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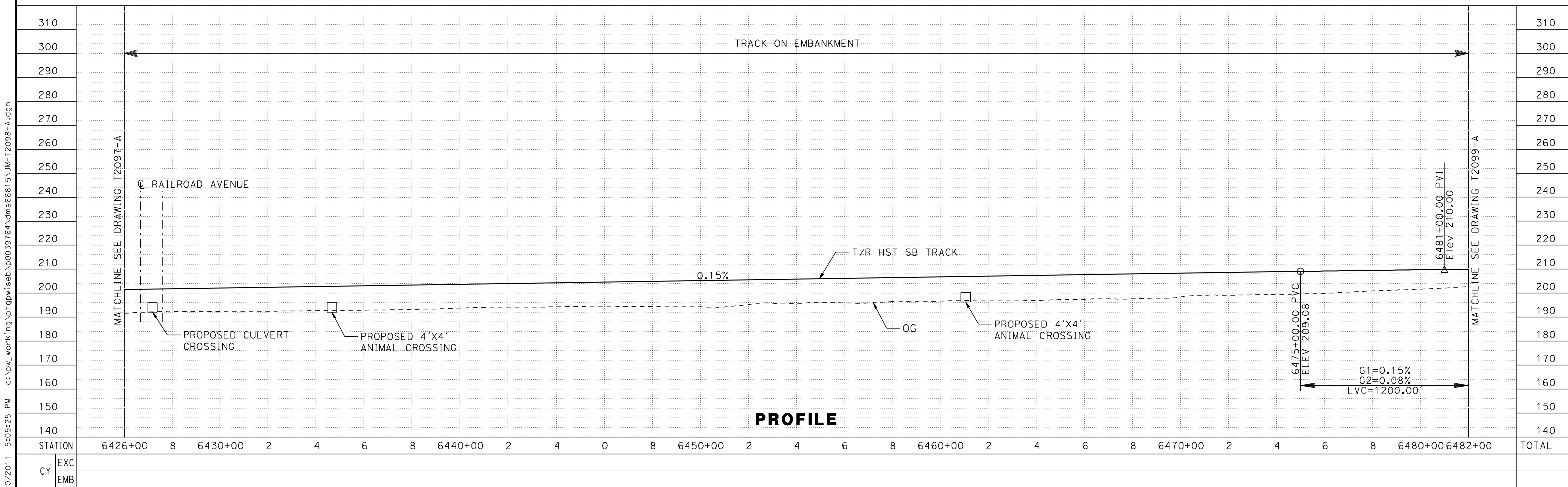
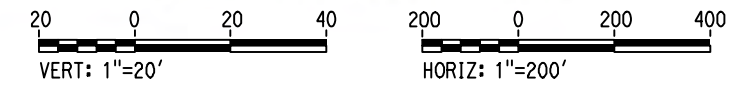
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MADERA COUNTY



NOTE:
 TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT
 TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

STATION	6426+00	8	6430+00	2	4	6	8	6440+00	2	4	0	8	6450+00	2	4	6	8	6470+00	2	4	6	8	6480+00	6482+00	TOTAL
EXC																									
EMB																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. GURA
 DRAWN BY
A. GURA
 CHECKED BY
S. GOOLLA
 IN CHARGE
D. WEMMER
 DATE
4/15/2011

**15% DRAFT
 SUBMITTAL
 FOR INTERNAL
 USE ONLY**

**NOT FOR
 CONSTRUCTION**

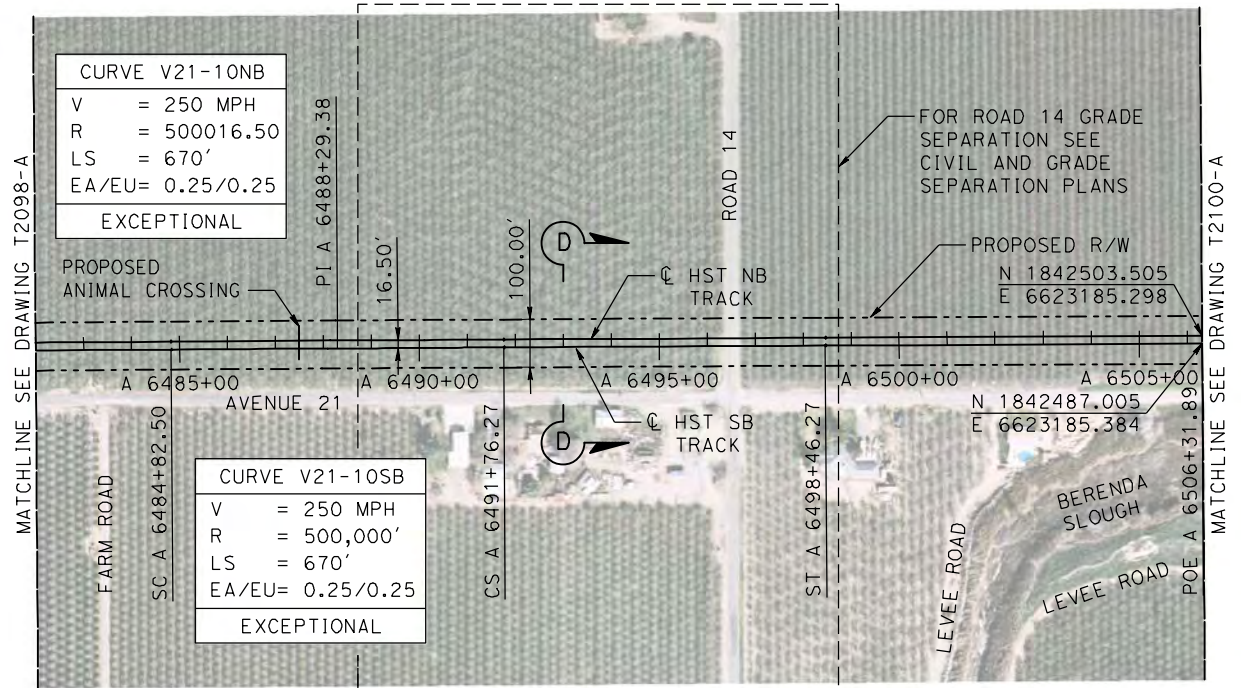


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 AVENUE 21
 TRACK PLAN AND PROFILE
 STA A 6426+00 TO STA A 6482+00

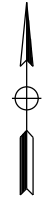
CONTRACT NO.
 HSR08-05
 DRAWING NO.
 T2098-A
 SCALE
 AS SHOWN
 SHEET NO.

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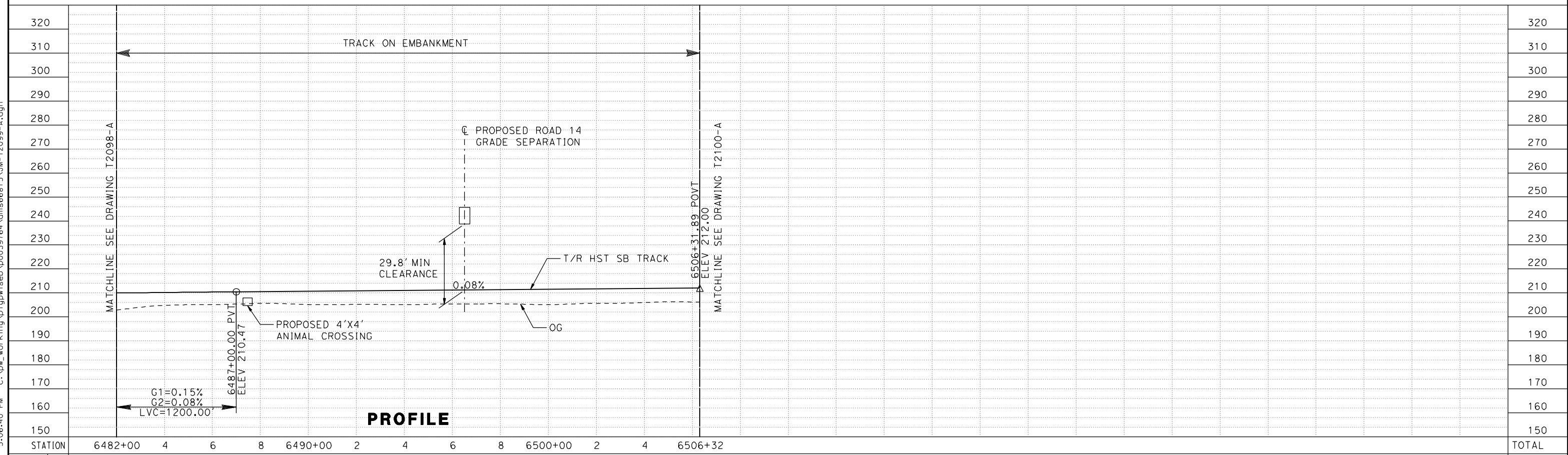
MADERA COUNTY



NOTE:
 TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PLAN



PROFILE

STATION	6482+00	4	6	8	6490+00	2	4	6	8	6500+00	2	4	6506+32	TOTAL
EXC														
EMB														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. GURA
 DRAWN BY
A. GURA
 CHECKED BY
S. GOOLLA
 IN CHARGE
D. WEMMER
 DATE
4/15/2011

15% DRAFT SUBMITTAL FOR INTERNAL USE ONLY

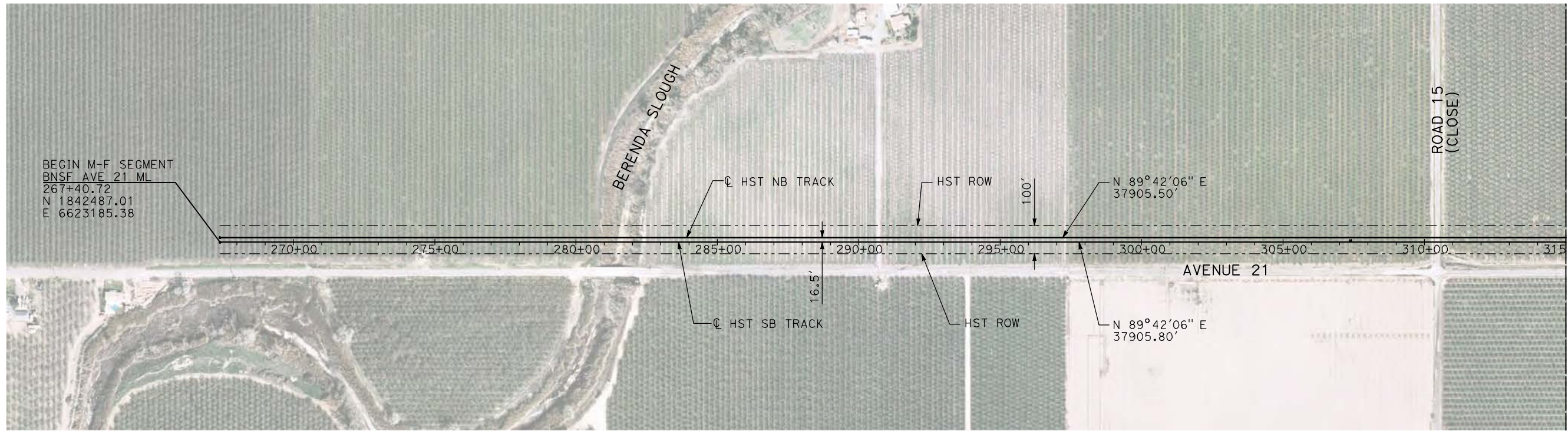
NOT FOR CONSTRUCTION



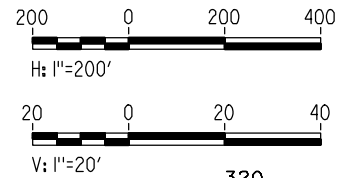
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 AVENUE 21
 TRACK PLAN AND PROFILE
 STA A 6482+00 TO STA A 6506+32

CONTRACT NO.
HSR08-05
 DRAWING NO.
T2099-A
 SCALE
AS SHOWN
 SHEET NO.

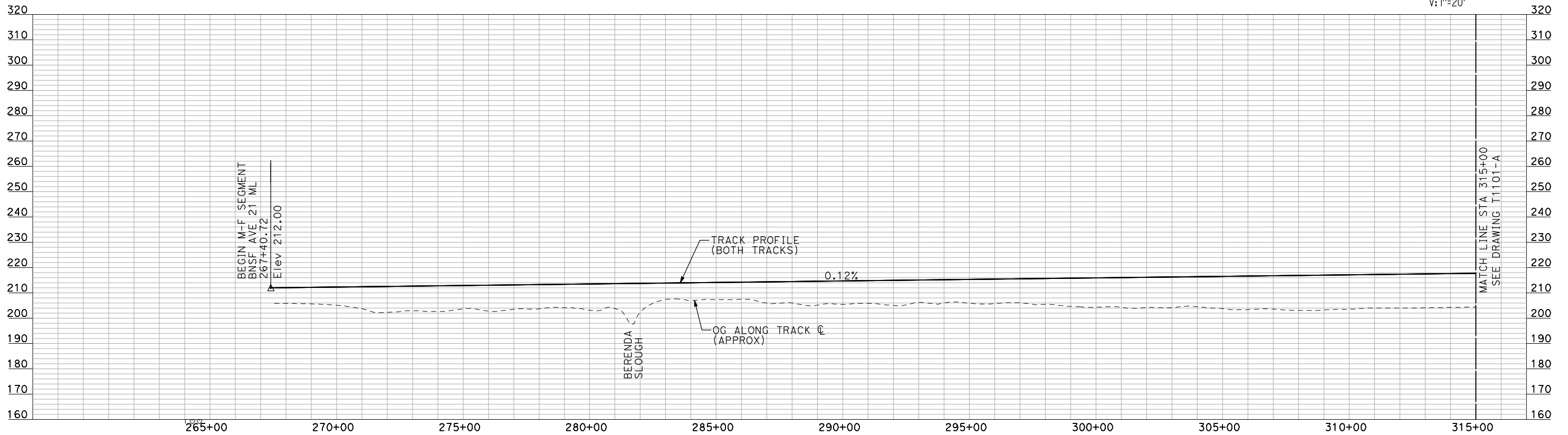
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PLAN



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

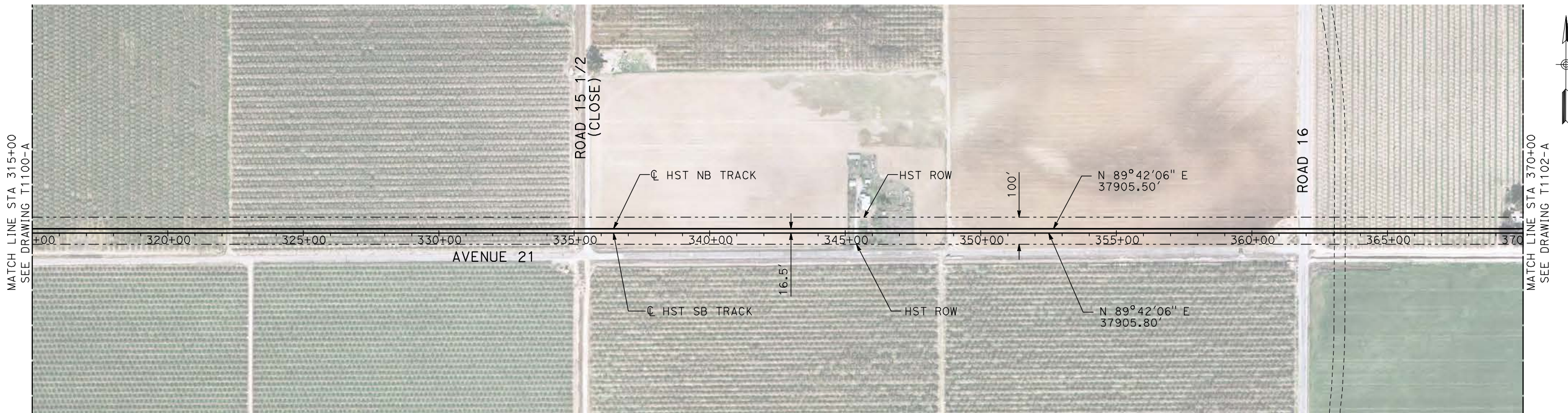
**NOT FOR
CONSTRUCTION**



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

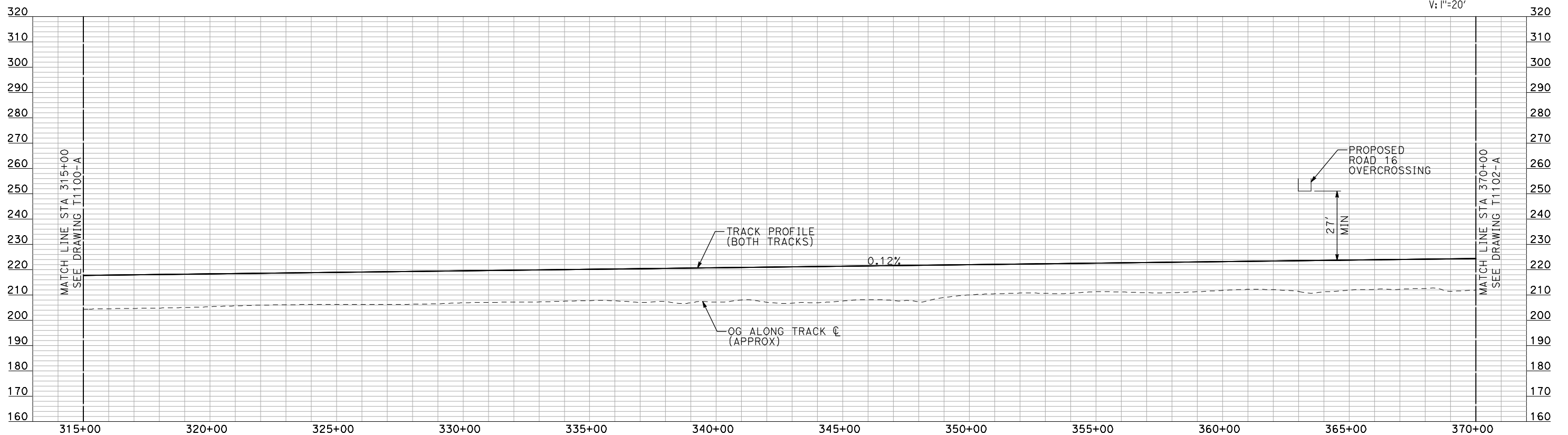
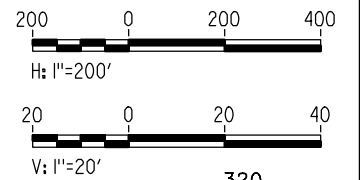
BNSF MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 267+40.72 TO STA 315+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1100-A
SCALE
AS SHOWN
SHEET NO.
OF



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

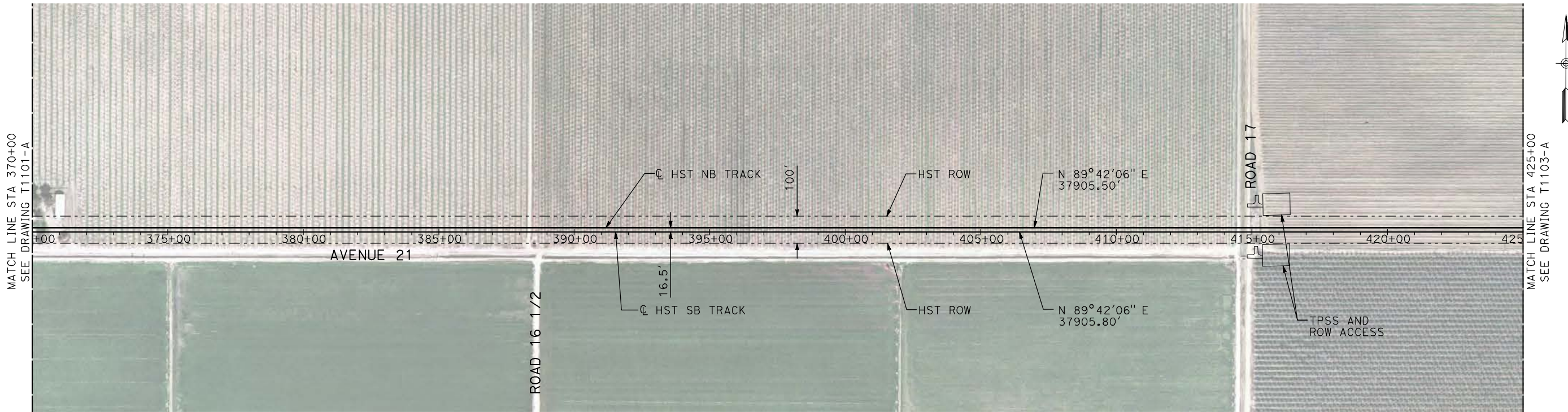


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 315+00 TO STA 370+00

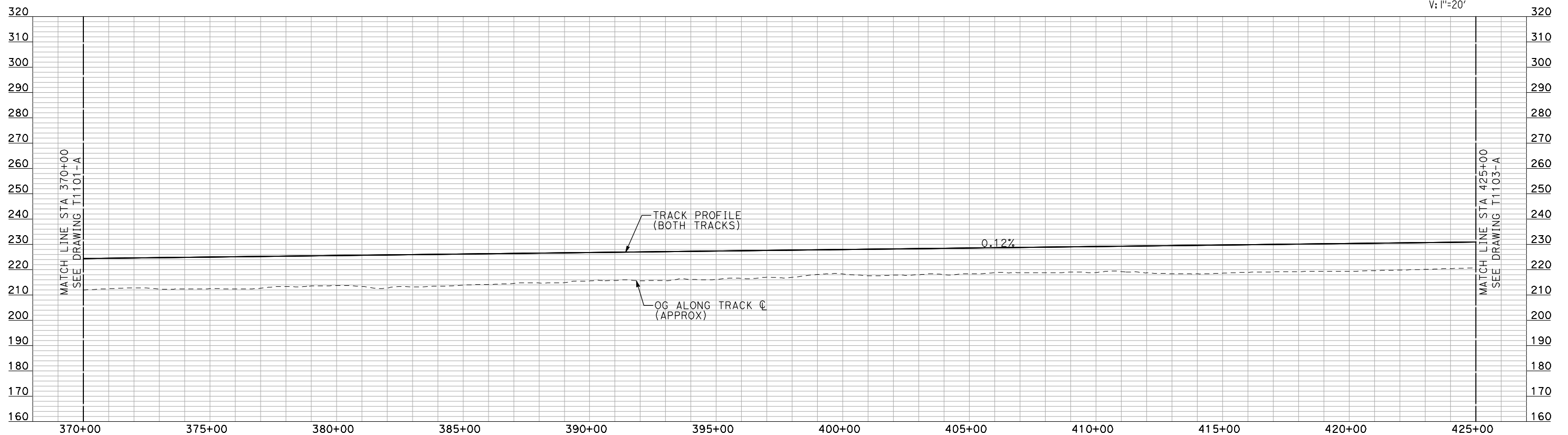
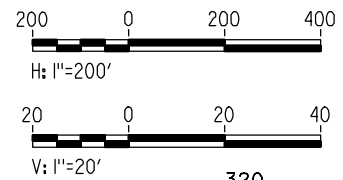
CONTRACT NO.
HSR06-007
DRAWING NO.
T1101-A
SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

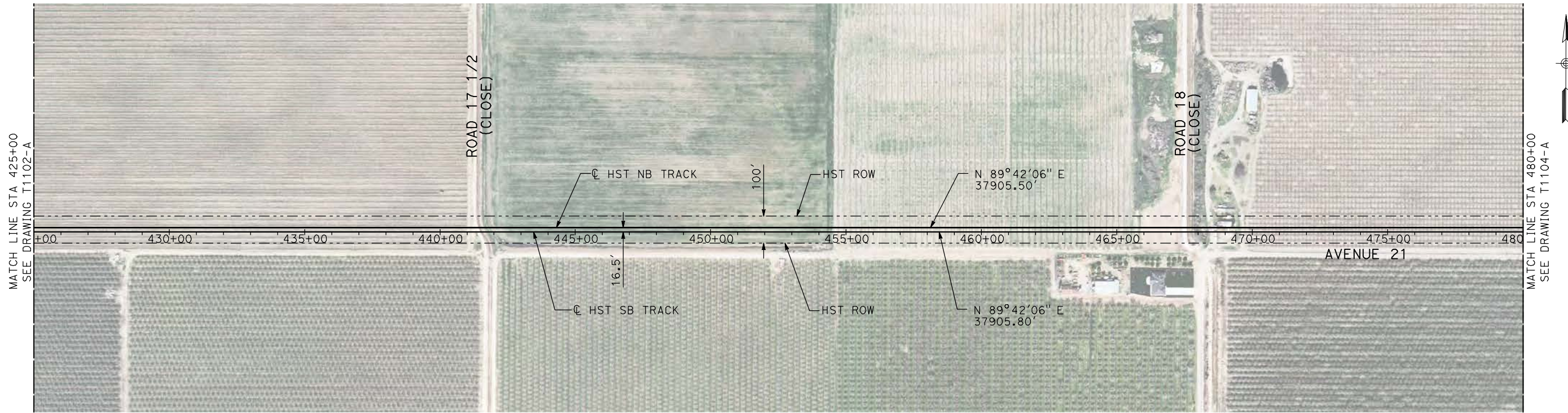


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 370+00 TO STA 425+00

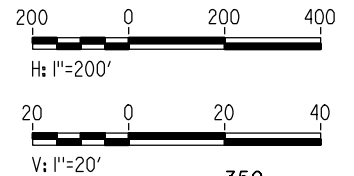
CONTRACT NO.
HSR06-007
DRAWING NO.
T1102-A
SCALE
AS SHOWN
SHEET NO.
OF

REV	DATE	BY	CHK	APP	DESCRIPTION



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



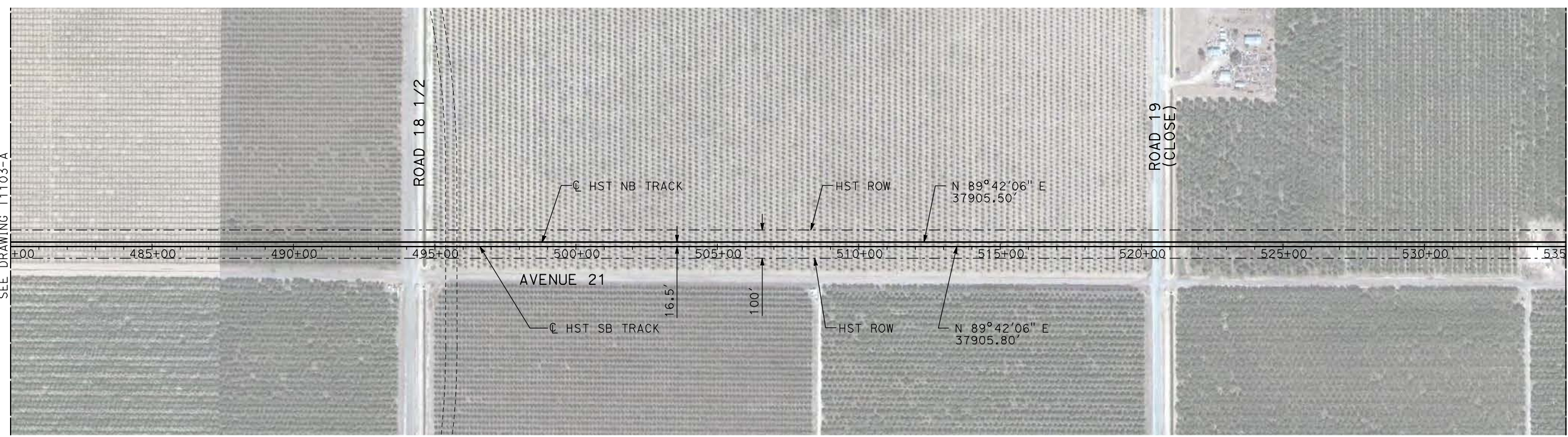
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 425+00 TO STA 480+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1103-A
SCALE
AS SHOWN
SHEET NO.
OF

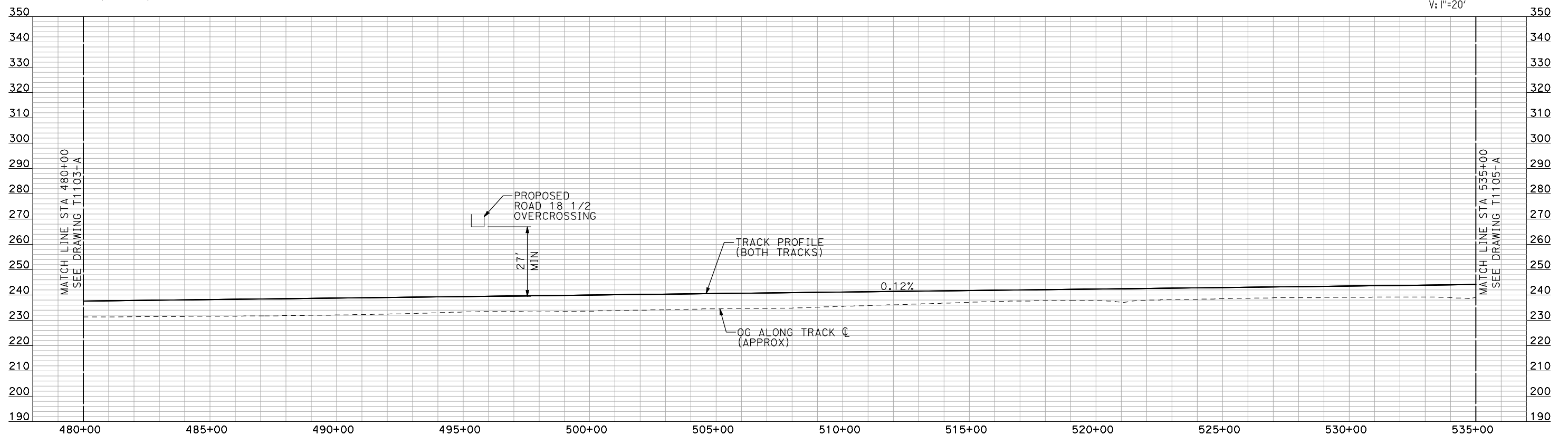
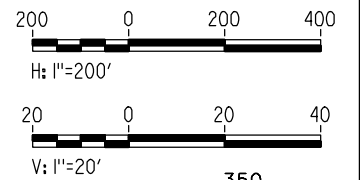
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REV	DATE	BY	CHK	APP	DESCRIPTION



PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

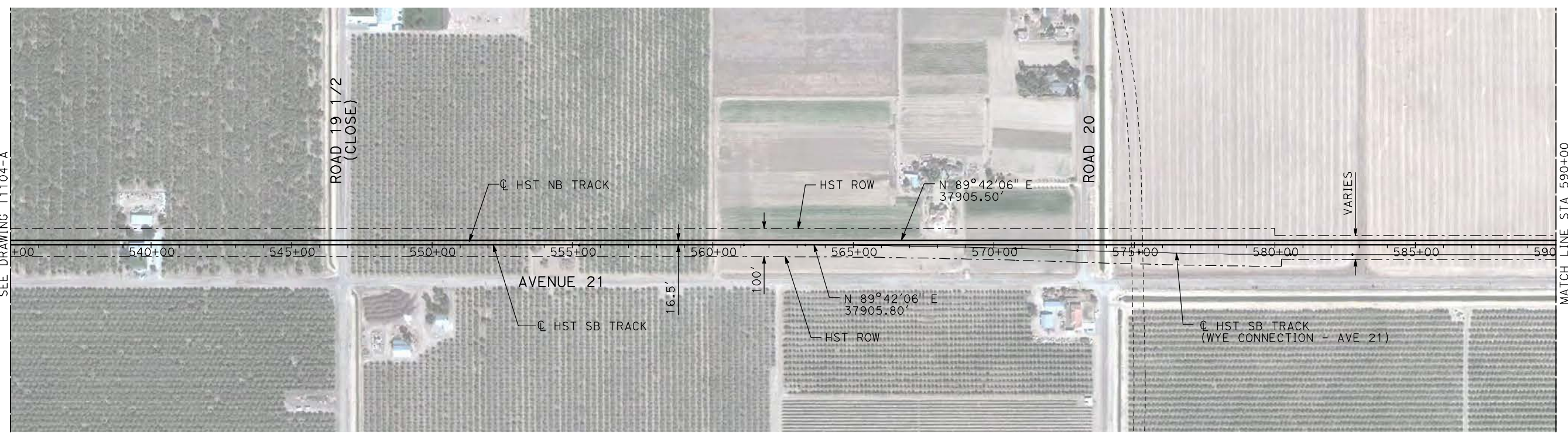
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CONSTRUCTION**



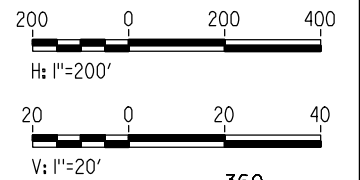
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 480+00 TO STA 535+00

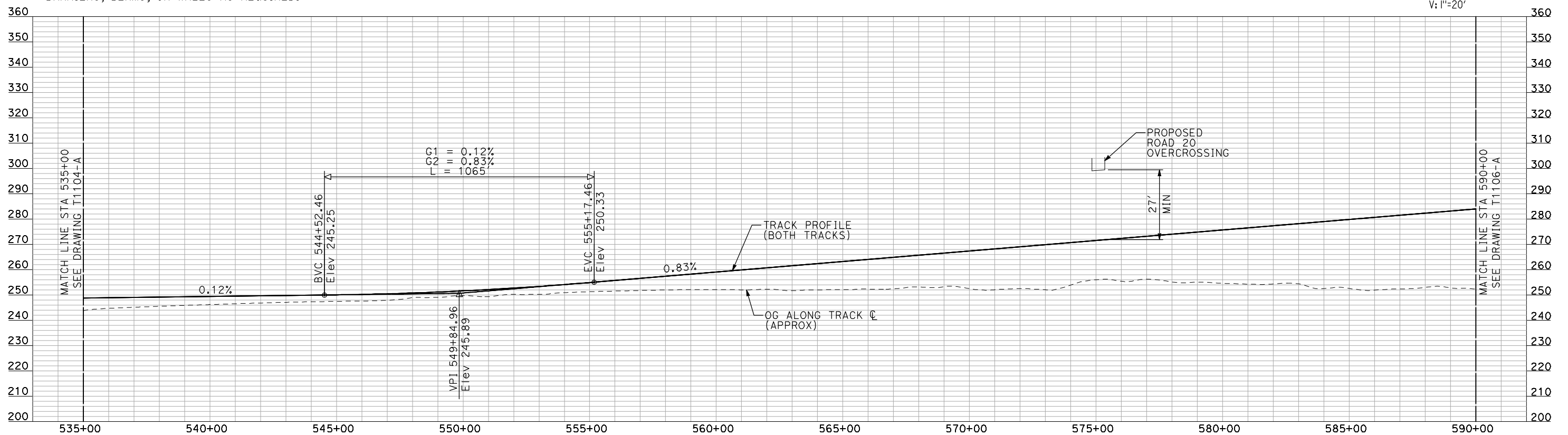
CONTRACT NO.
HSR06-007
DRAWING NO.
T1104-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

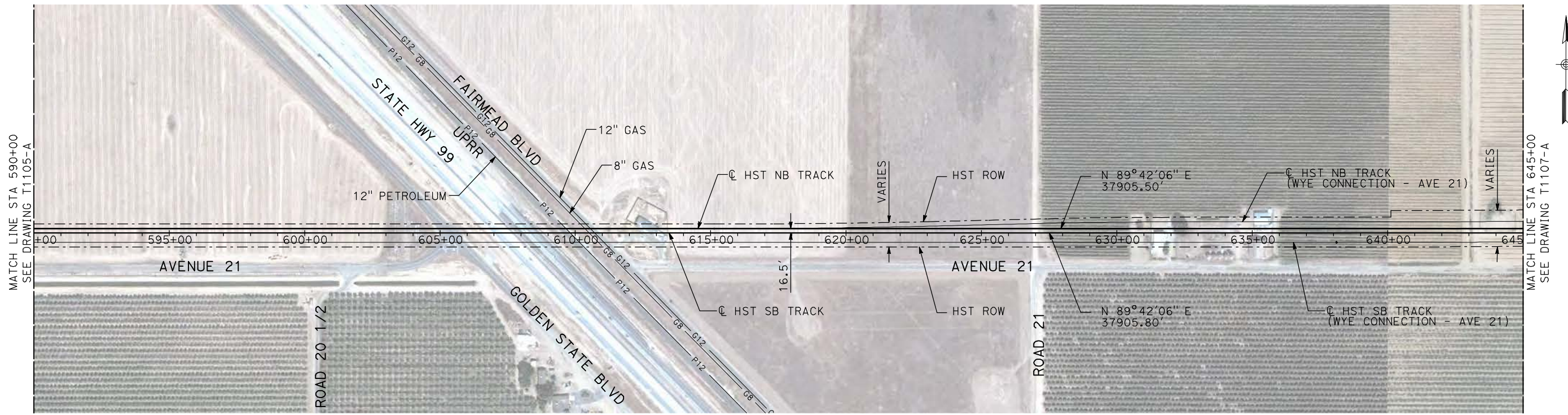
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

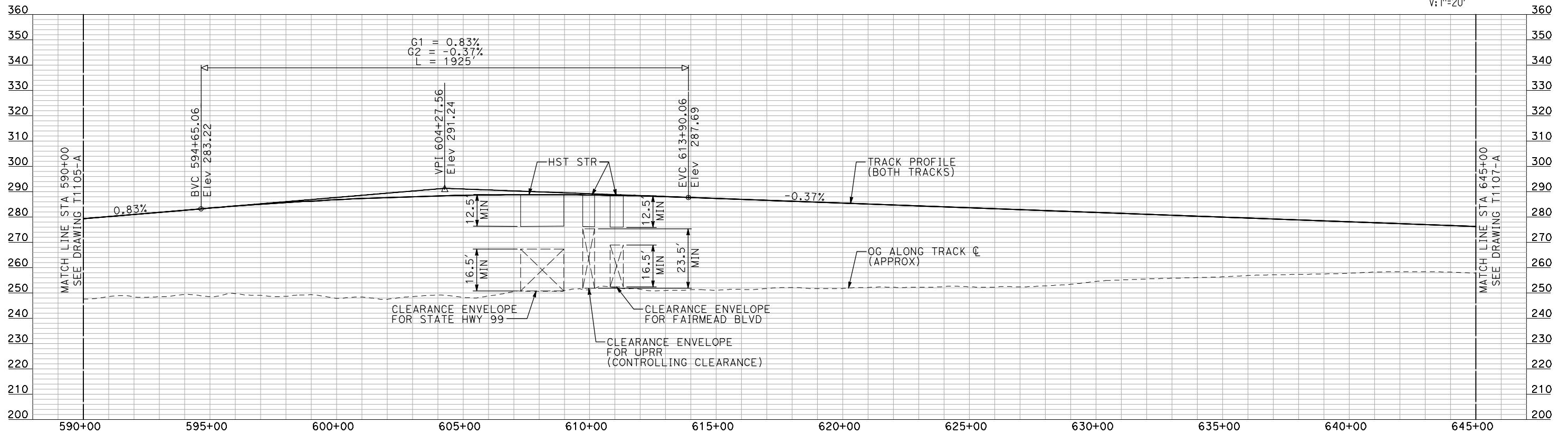
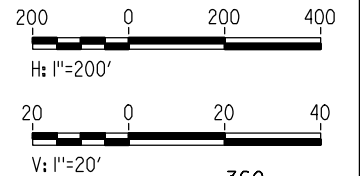
BNSF MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 535+00 TO STA 590+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1105-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



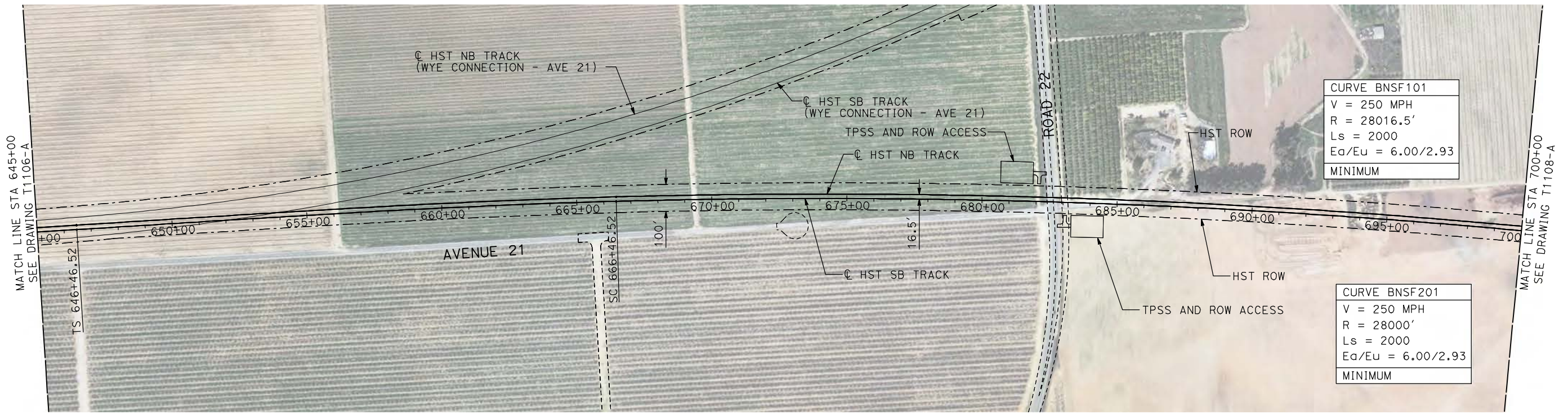
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 590+00 TO STA 645+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1106-A
SCALE
AS SHOWN
SHEET NO.
OF

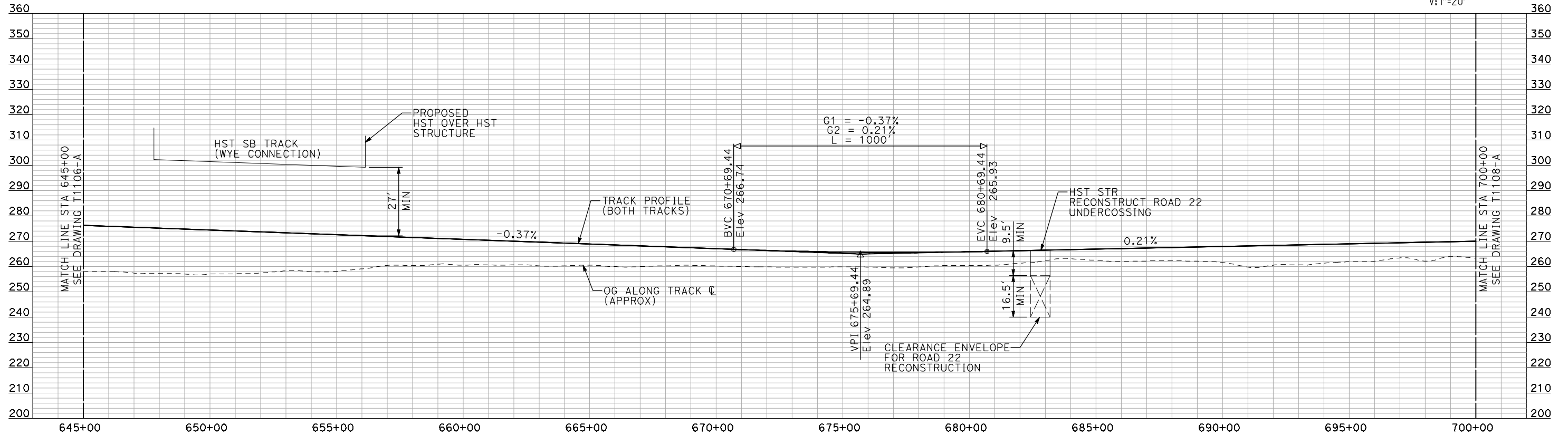
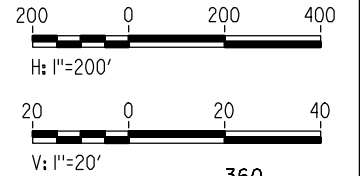
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REV	DATE	BY	CHK	APP	DESCRIPTION



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

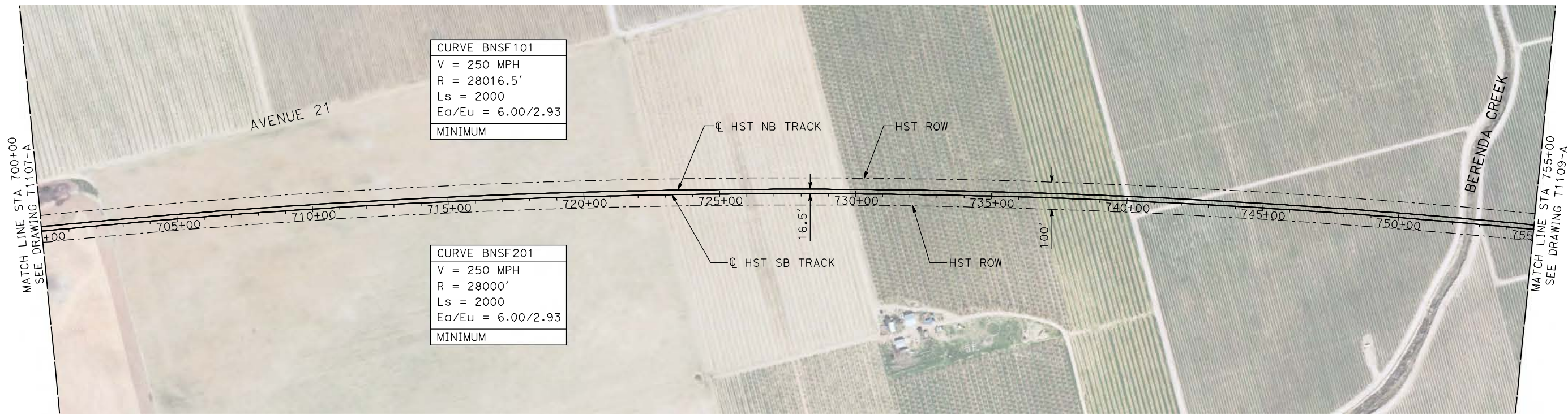
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION			
DRAWN BY H. SULLIVAN		<small>Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811</small>		
CHECKED BY A. BOONE				
IN CHARGE A. BOONE		CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO		
DATE 07/20/2011		CONTRACT NO. HSR06-007 DRAWING NO. T1107-A SCALE AS SHOWN SHEET NO. ### OF ###		

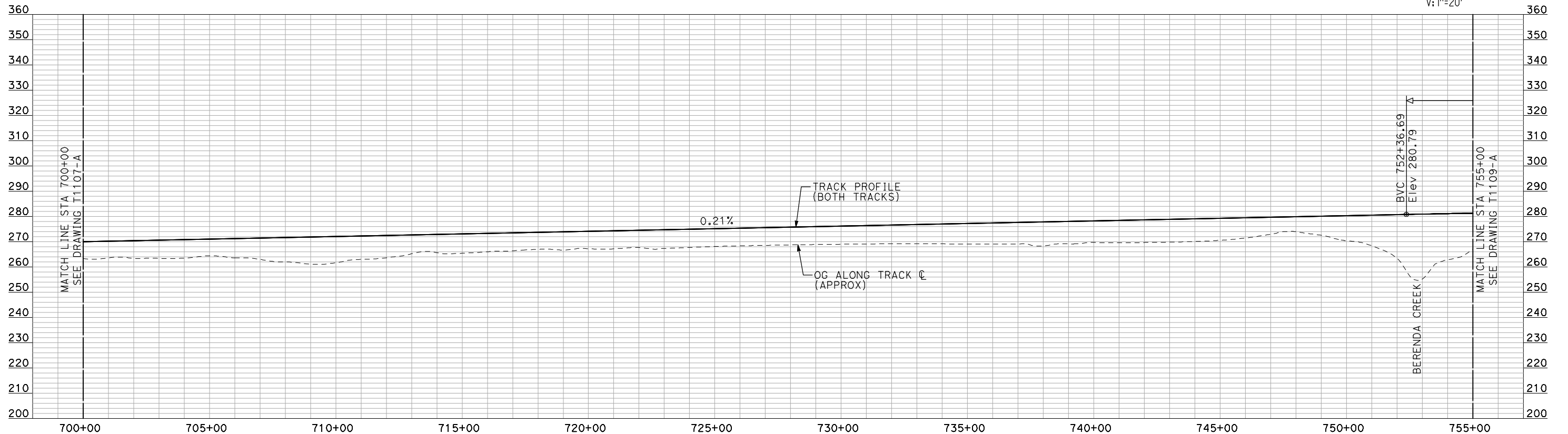
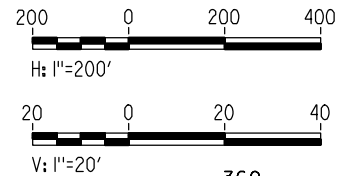
REV	DATE	BY	CHK	APP	DESCRIPTION
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CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MAIN LINE AVENUE 21 PLAN AND PROFILE STA 645+00 TO STA 700+00					
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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

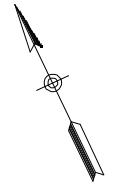
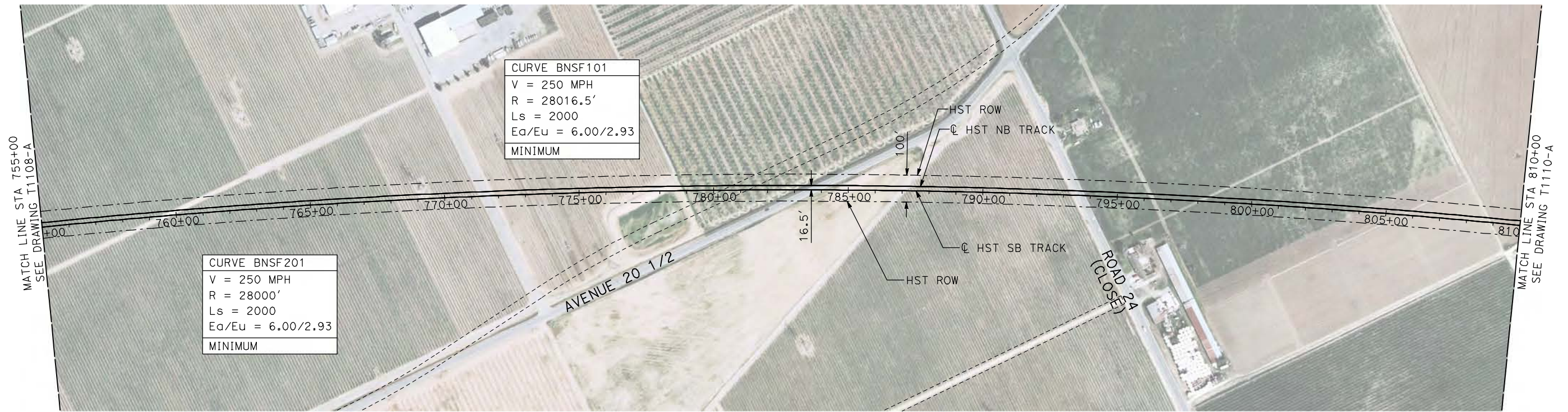
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

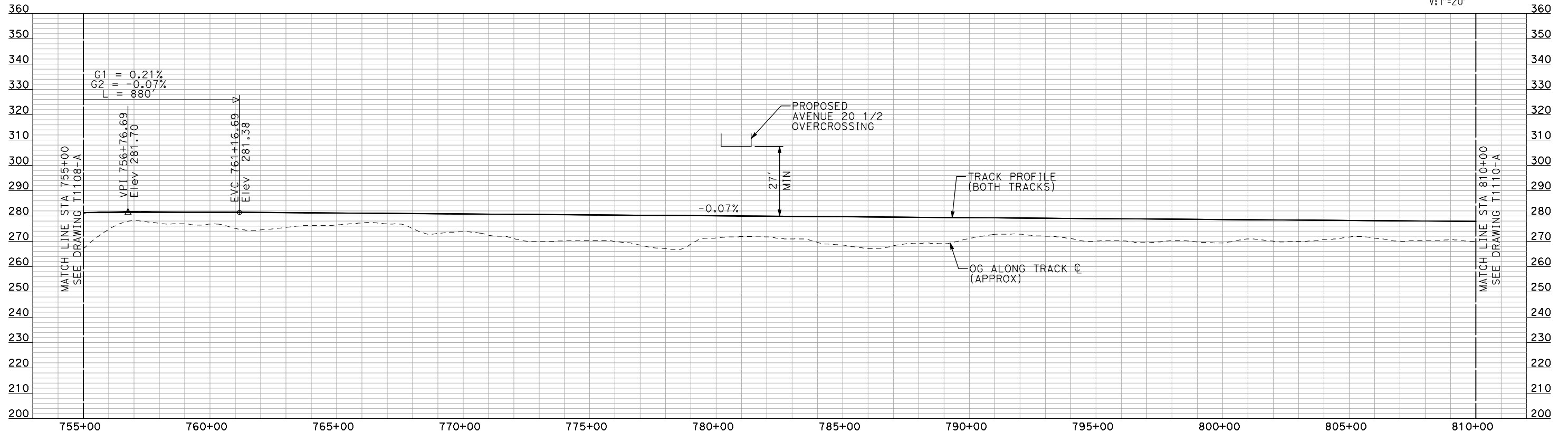
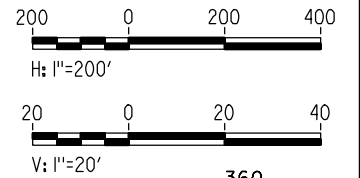
BNSF MAIN LINE
 AVENUE 21
 PLAN AND PROFILE
 STA 700+00 TO STA 755+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T1108-A
 SCALE
AS SHOWN
 SHEET NO.
OF



- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

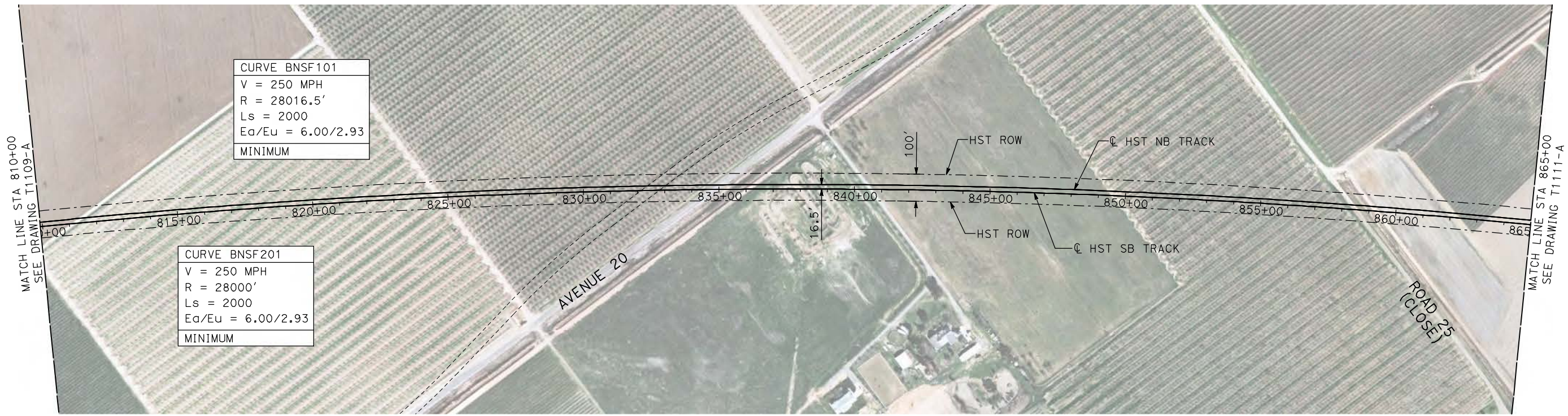


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 755+00 TO STA 810+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1109-A
SCALE
AS SHOWN
SHEET NO.
OF

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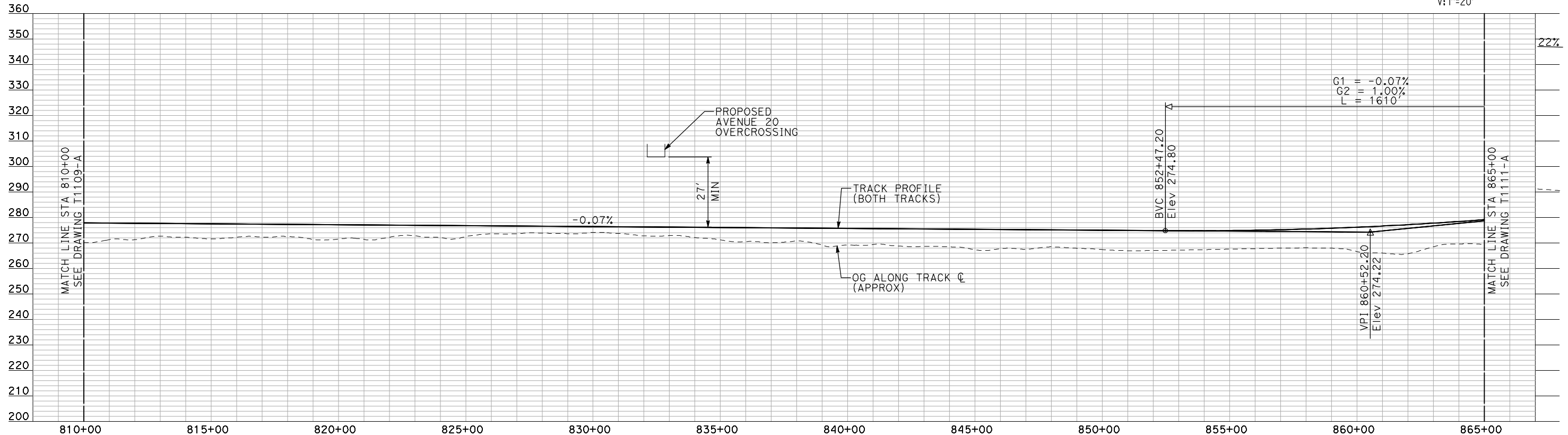
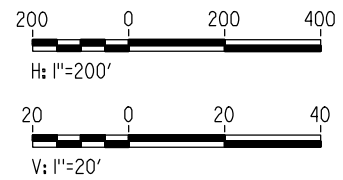


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 R = 28016.5'
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 Ea/Eu = 6.00/2.93
 MINIMUM

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 R = 28000'
 Ls = 2000
 Ea/Eu = 6.00/2.93
 MINIMUM

- NOTES:
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

**RECORD SET
 15% DESIGN
 SUBMITTAL**

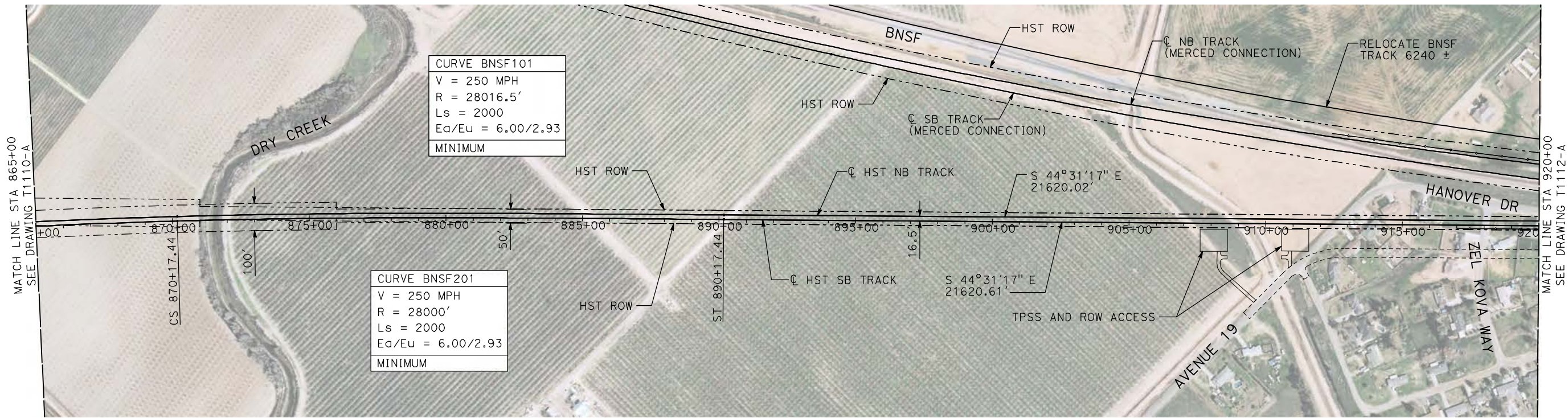
**NOT FOR
 CONSTRUCTION**



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

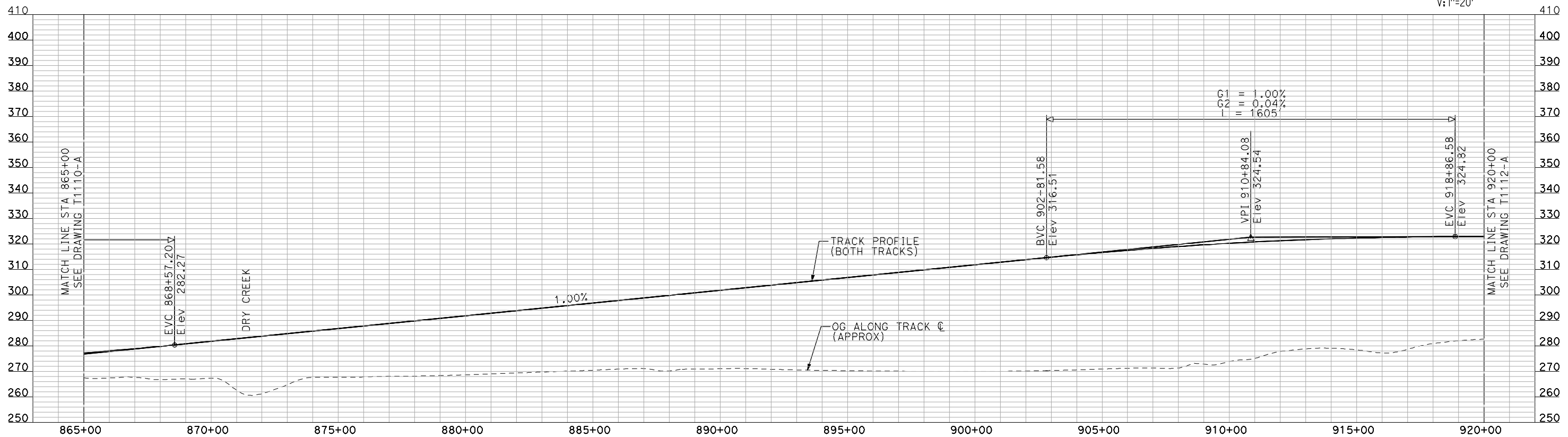
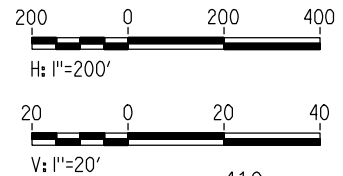
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 AVENUE 21
 PLAN AND PROFILE
 STA 810+00 TO STA 865+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T1110-A
 SCALE
AS SHOWN
 SHEET NO.
OF



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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 3. FOR CONTROLLING CLEARANCE ENVELOPE SEE T-1112-A.

PLAN



"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

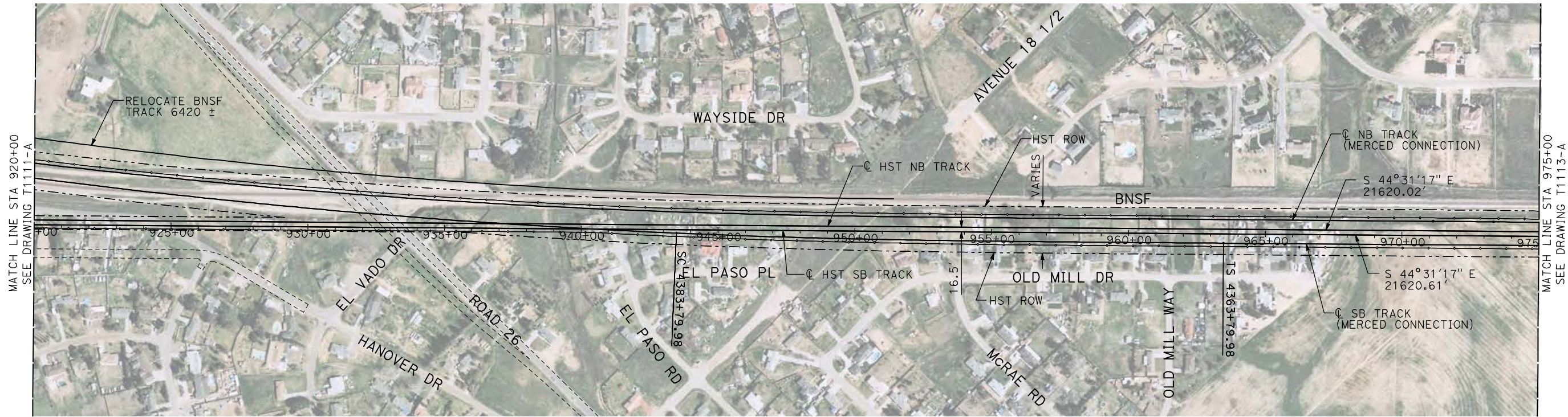
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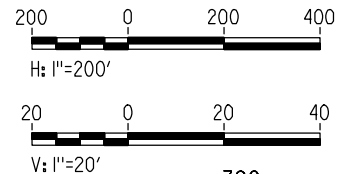


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 PLAN AND PROFILE
 STA 865+00 TO STA 920+00

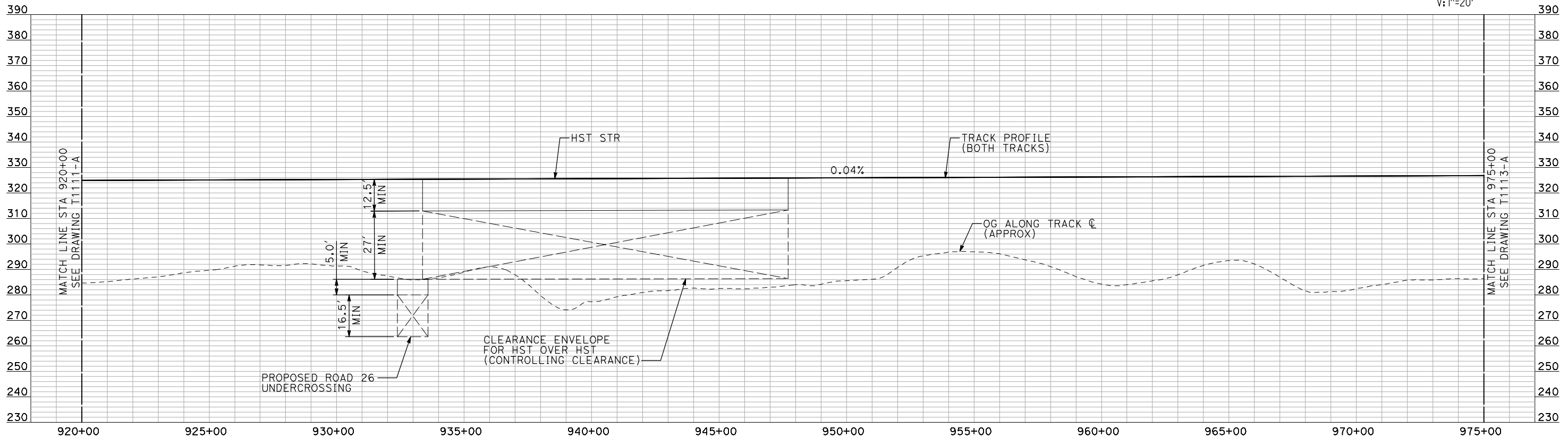
CONTRACT NO.
HSR06-007
 DRAWING NO.
T1111-A
 SCALE
AS SHOWN
 SHEET NO.
OF



PLAN



- NOTES:
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 3. FOR CONTROLLING CLEARANCE ENVELOPE SEE T-1112-A.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011



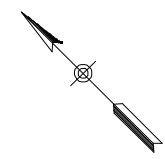
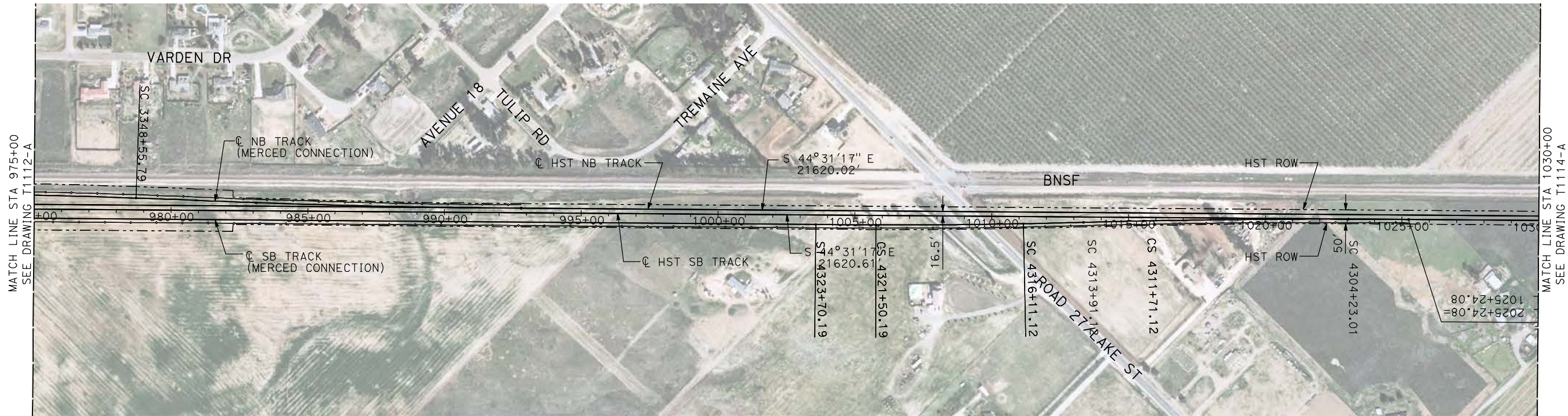
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MAIN LINE

PLAN AND PROFILE
STA 920+00 TO STA 975+00

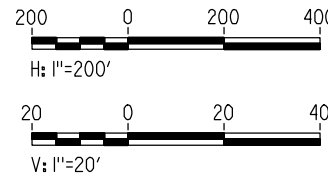
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SCALE
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OF

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- NOTES:
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 3. FOR CONTROLLING CLEARANCE ENVELOPE, SEE T-1112-A.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

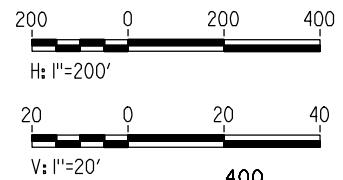
BNSF MAIN LINE

PLAN AND PROFILE
STA 975+00 TO STA 1030+00

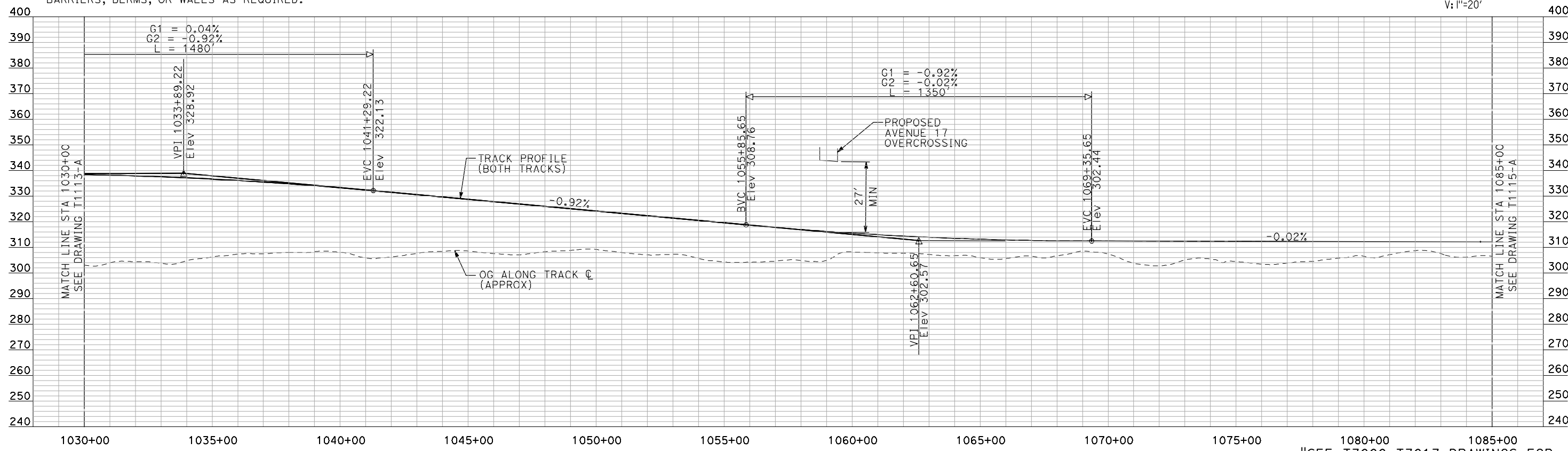
CONTRACT NO.
HSR06-007
DRAWING NO.
T1113-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN



- NOTES:**
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

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DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

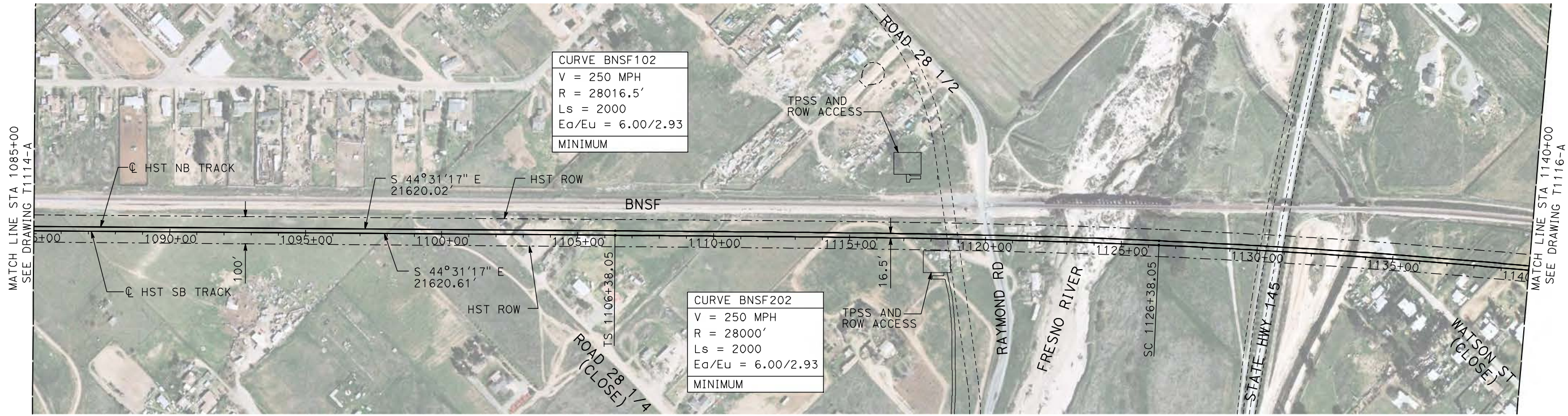
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SUBMITTAL

NOT FOR
CONSTRUCTION



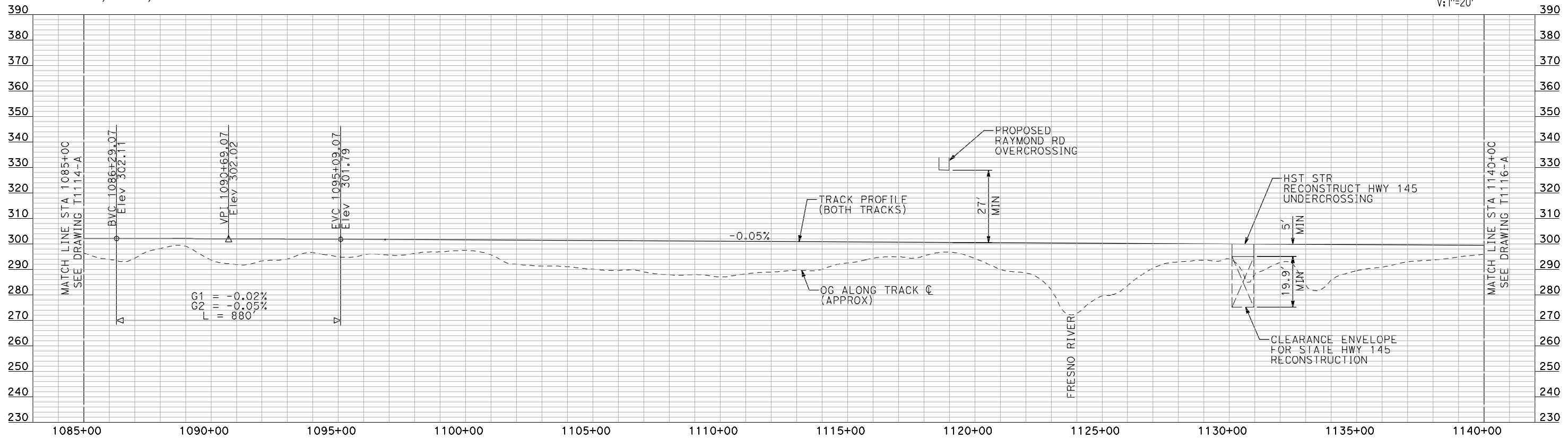
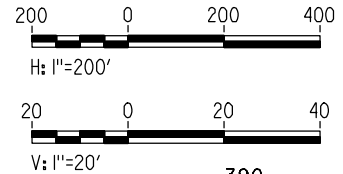
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE
PLAN AND PROFILE
STA 1030+00 TO STA 1085+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1114-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

- NOTES:
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

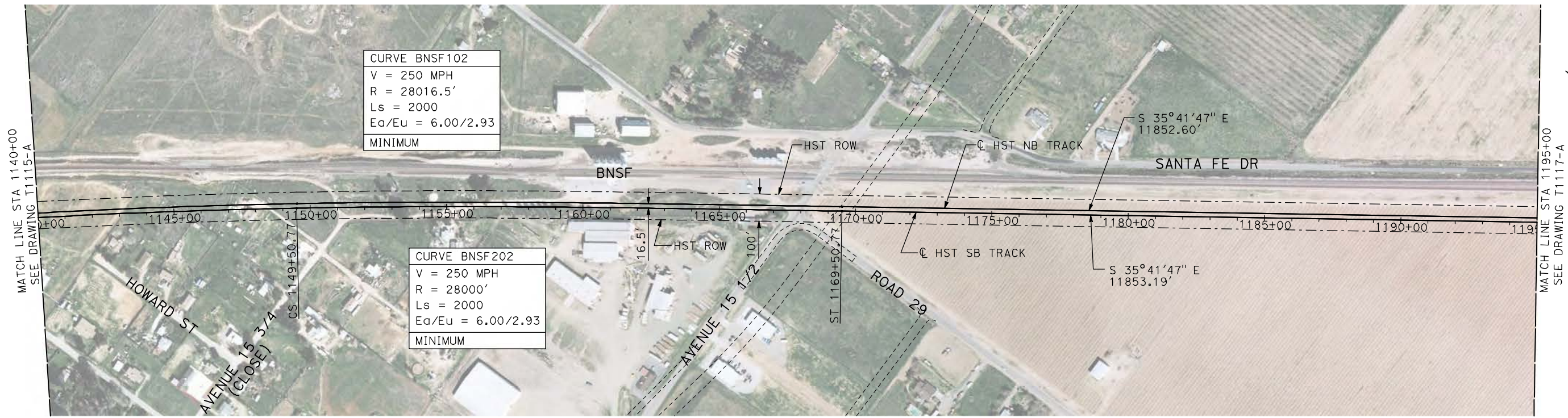
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
PLAN AND PROFILE
STA 1085+00 TO STA 1140+00

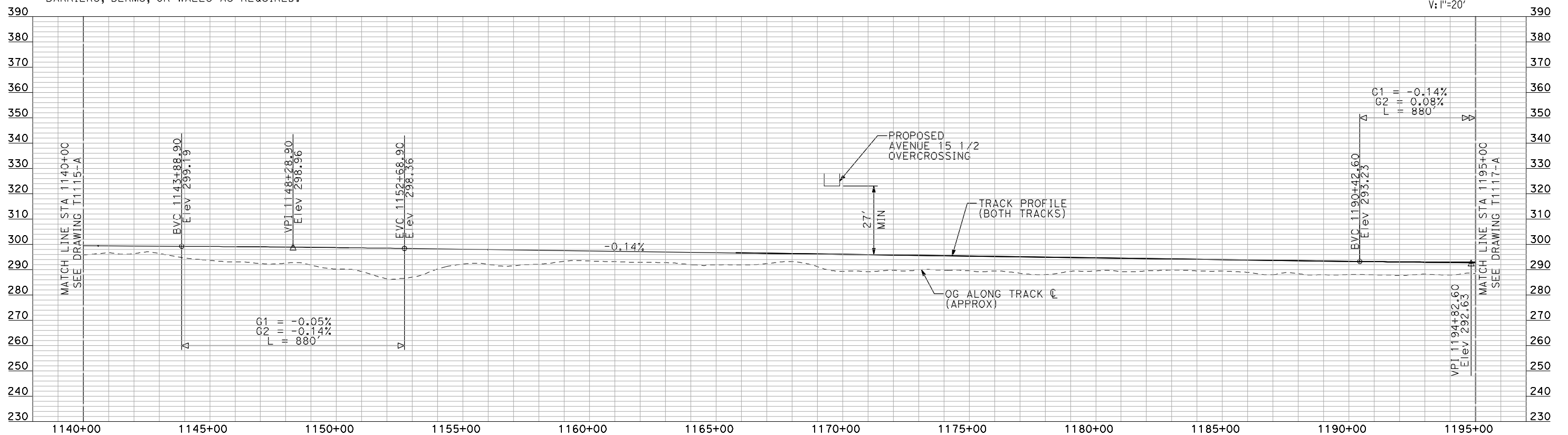
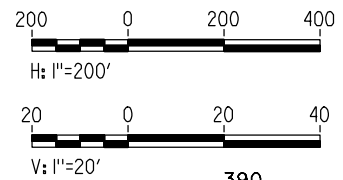
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DRAWING NO.
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SCALE
AS SHOWN
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OF

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PLAN

- NOTES:**
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE

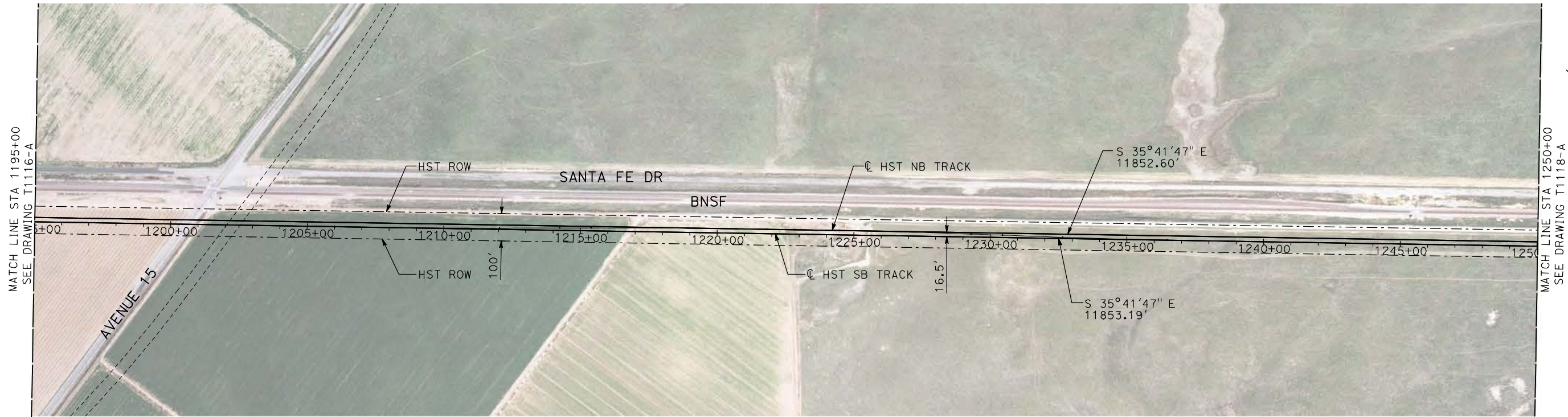
PLAN AND PROFILE
STA 1140+00 TO STA 1195+00

CONTRACT NO.
HSR06-007

DRAWING NO.
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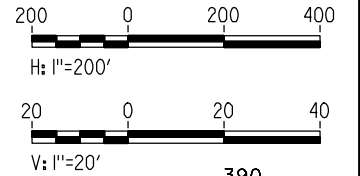
SCALE
AS SHOWN

SHEET NO.
OF



- NOTES:
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

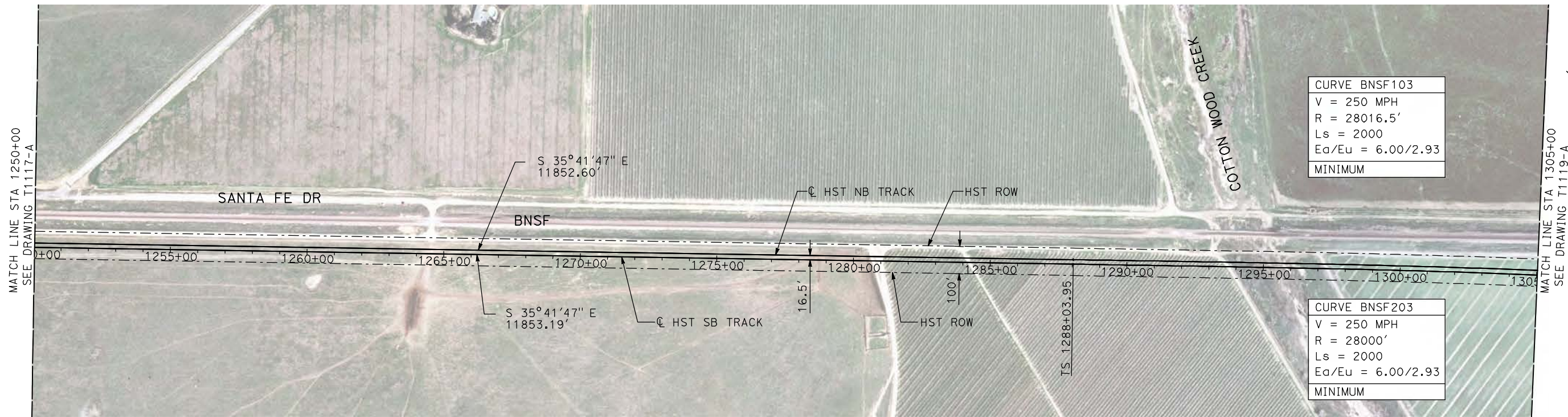


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

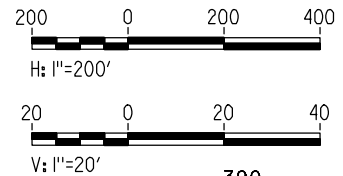
BNSF MAIN LINE

PLAN AND PROFILE
STA 1195+00 TO STA 1250+00

CONTRACT NO. HSR06-007
DRAWING NO. T1117-A
SCALE AS SHOWN
SHEET NO. ### OF ###



PLAN



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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
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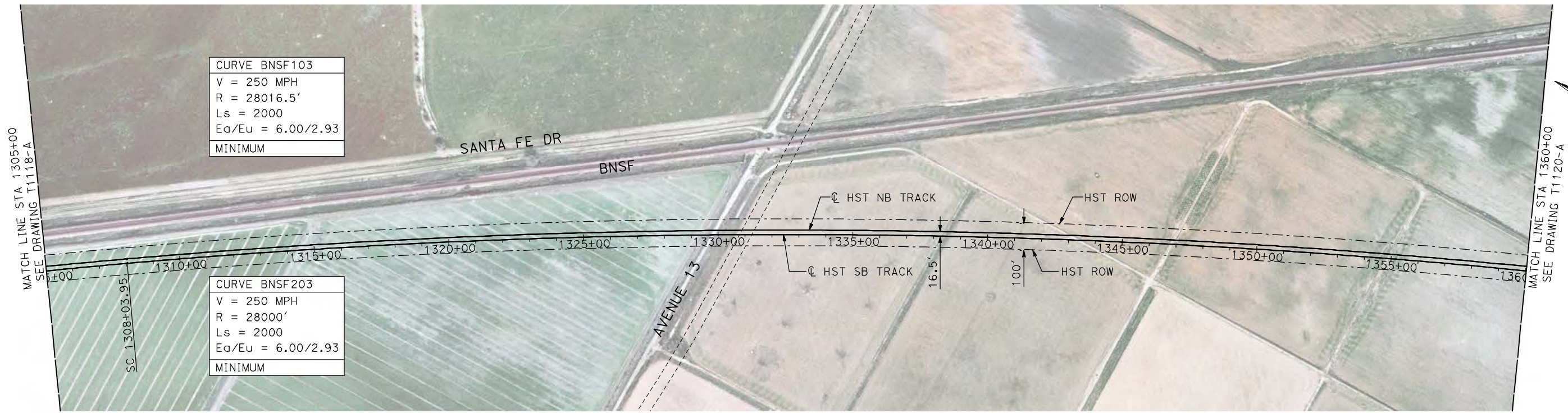
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 PLAN AND PROFILE
 STA 1250+00 TO STA 1305+00

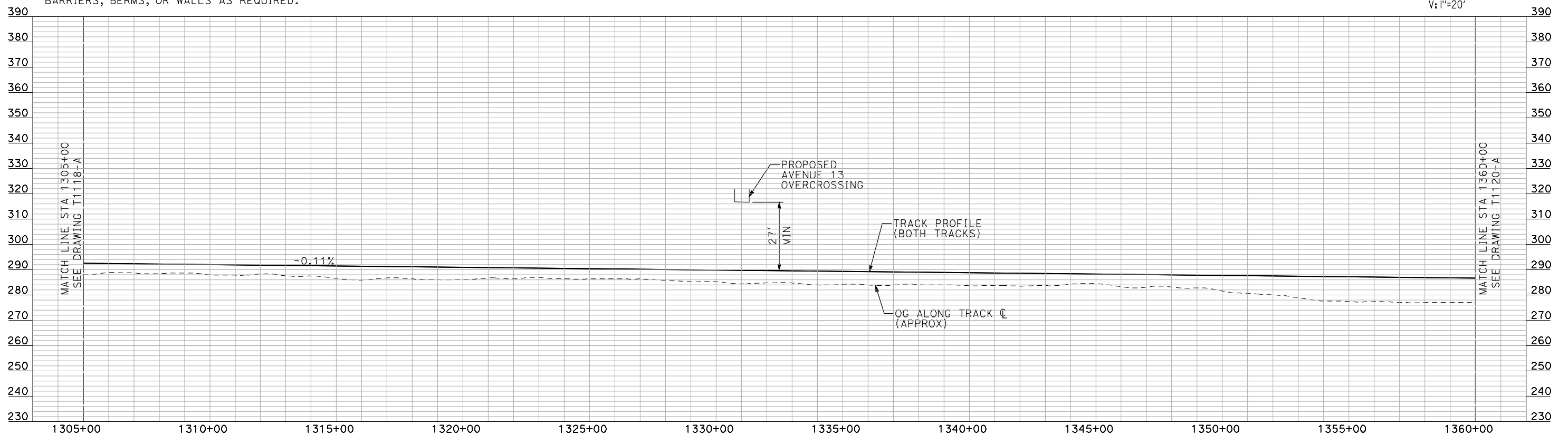
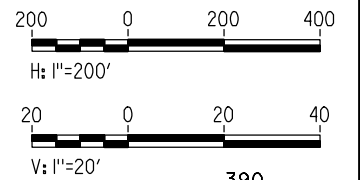
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AS SHOWN
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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07/20/2011

**RECORD SET
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SUBMITTAL**

**NOT FOR
CONSTRUCTION**



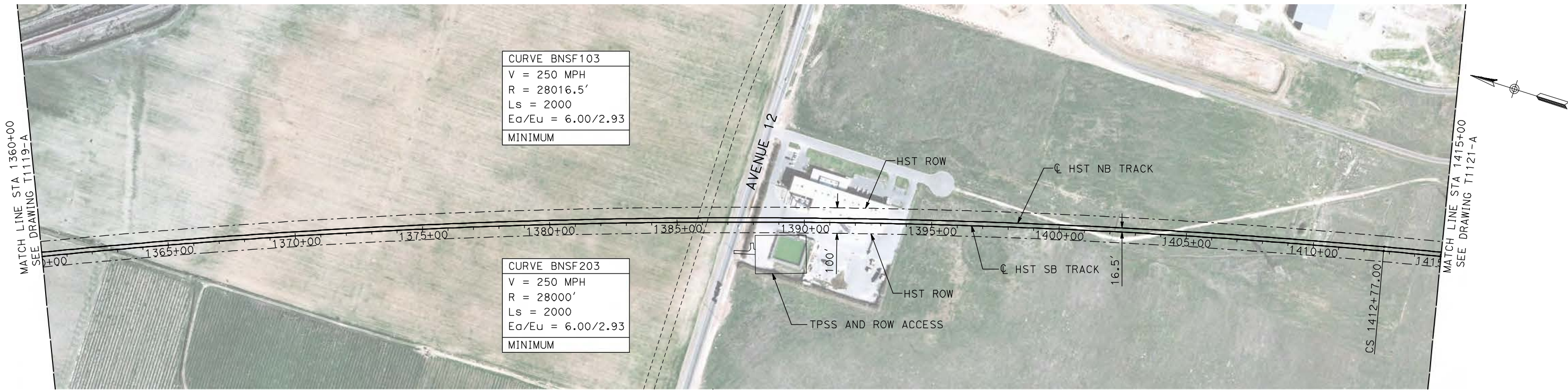
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MAIN LINE

PLAN AND PROFILE
STA 1305+00 TO STA 1360+00

CONTRACT NO. HSR06-007
DRAWING NO. T1119-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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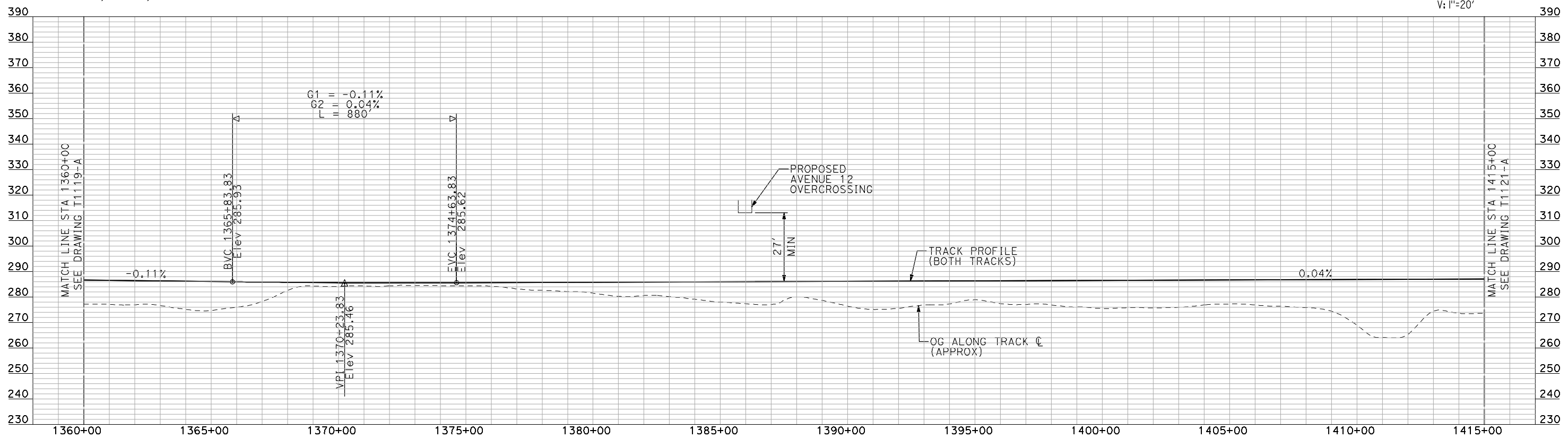
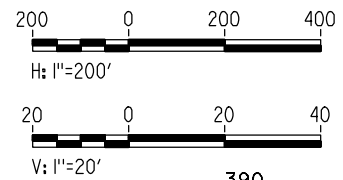


CURVE BNSF103
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 Ls = 2000
 Ea/Eu = 6.00/2.93
 MINIMUM

CURVE BNSF203
 V = 250 MPH
 R = 28000'
 Ls = 2000
 Ea/Eu = 6.00/2.93
 MINIMUM

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PLAN



PROFILE

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A. BOONE
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07/20/2011

RECORD SET
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SUBMITTAL

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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 PLAN AND PROFILE
 STA 1360+00 TO STA 1415+00

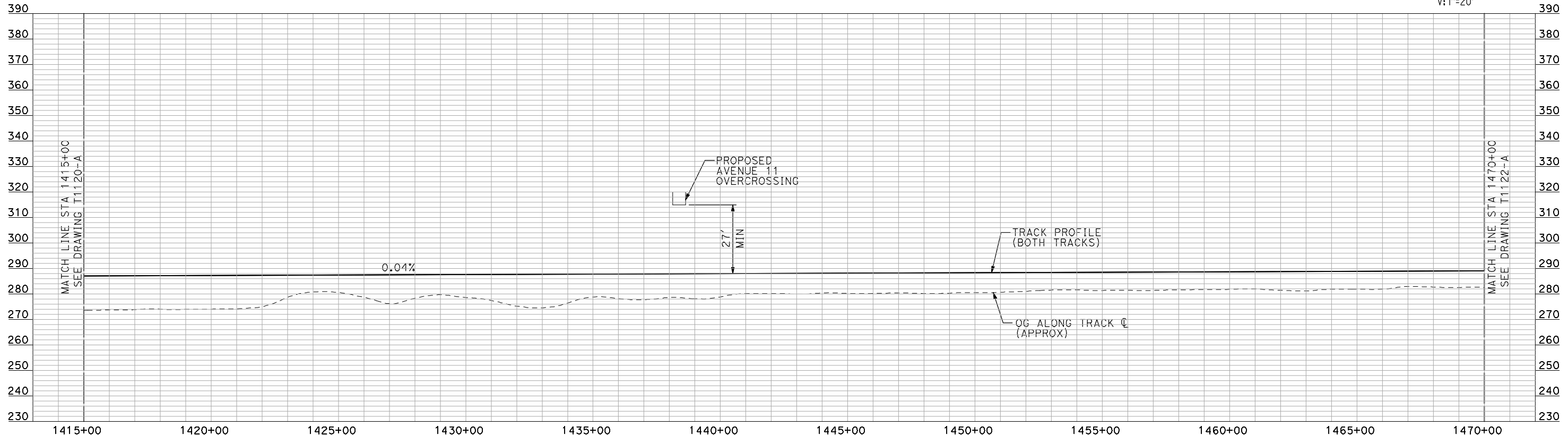
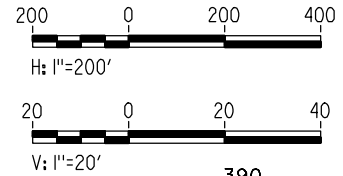
CONTRACT NO.
HSR06-007
 DRAWING NO.
T1120-A
 SCALE
AS SHOWN
 SHEET NO.
OF

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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE

PLAN AND PROFILE
STA 1415+00 TO STA 1470+00

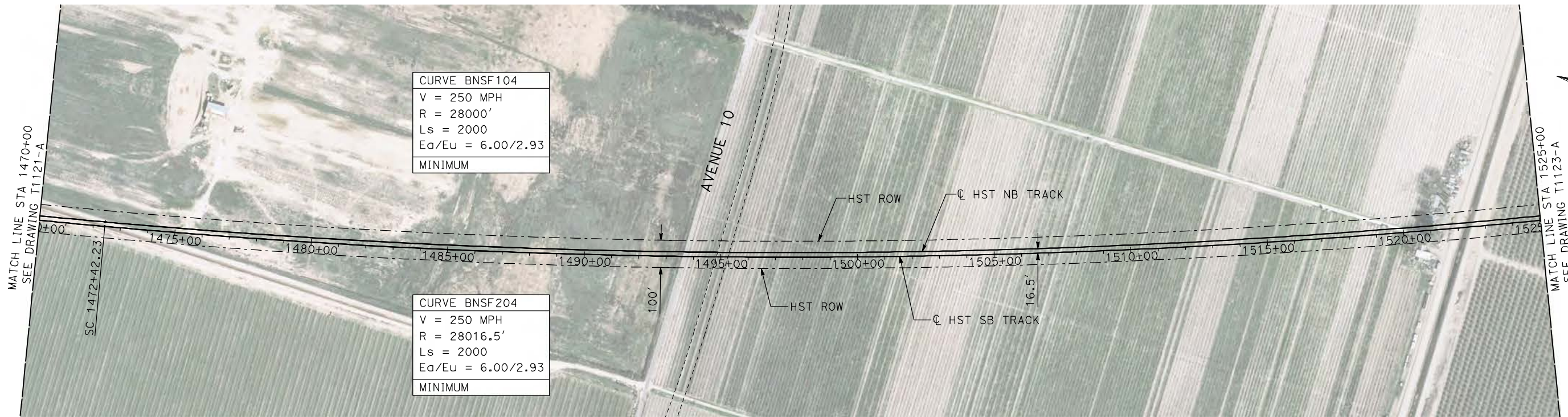
CONTRACT NO.
HSR06-007

DRAWING NO.
T1121-A

SCALE
AS SHOWN

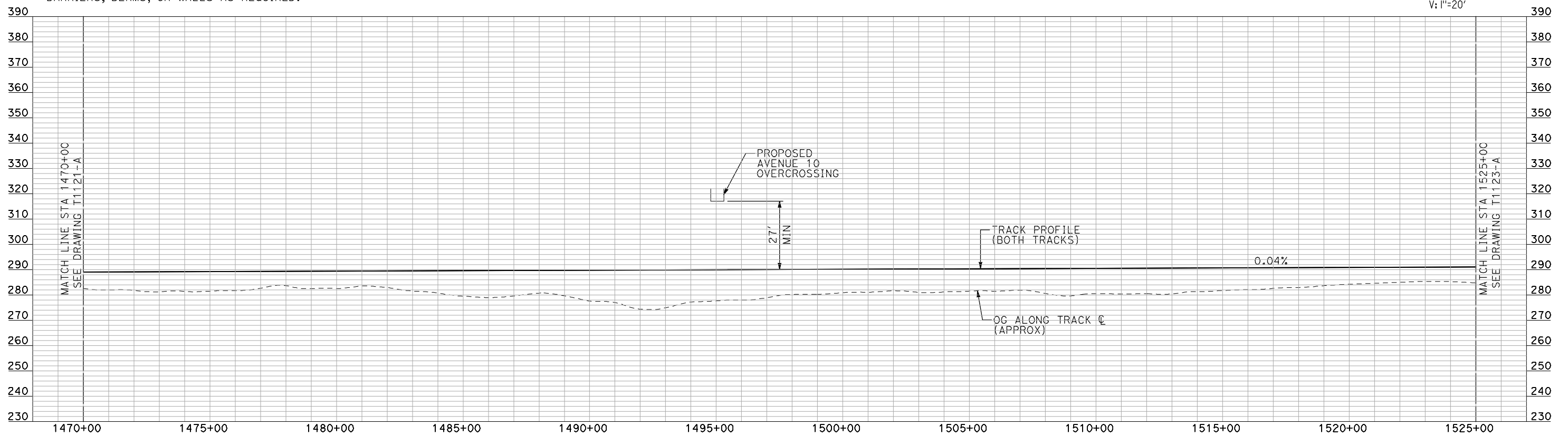
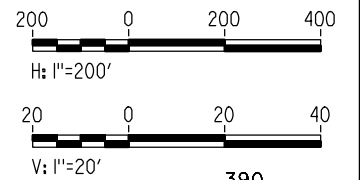
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OF

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PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

BNSF MAIN LINE

PLAN AND PROFILE
STA 1470+00 TO STA 1525+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T1122-A

SCALE
AS SHOWN

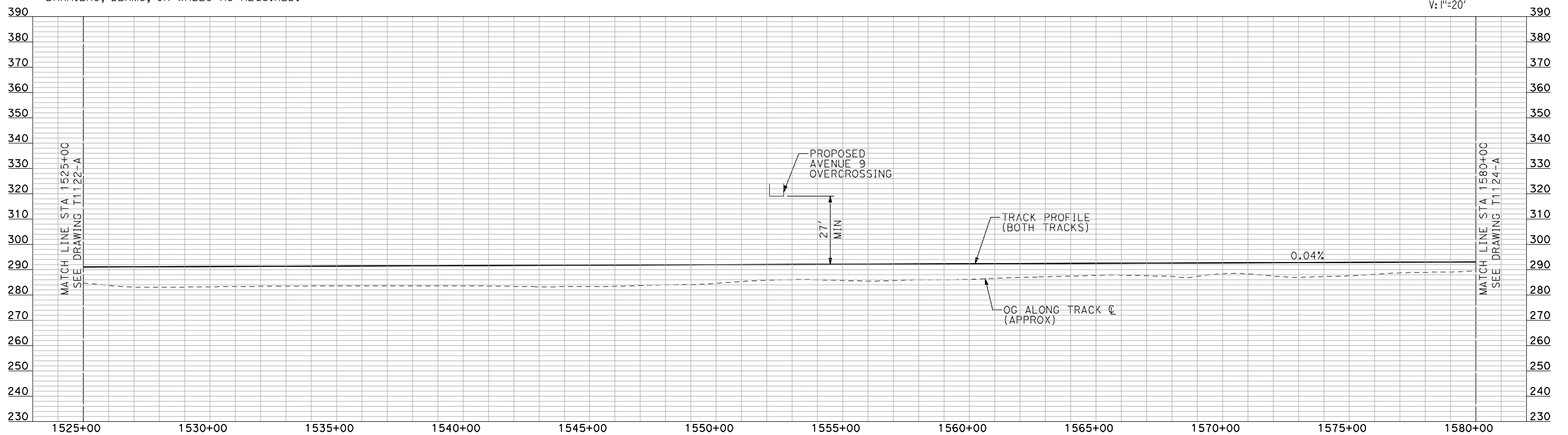
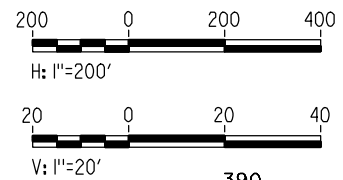
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PLAN

- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

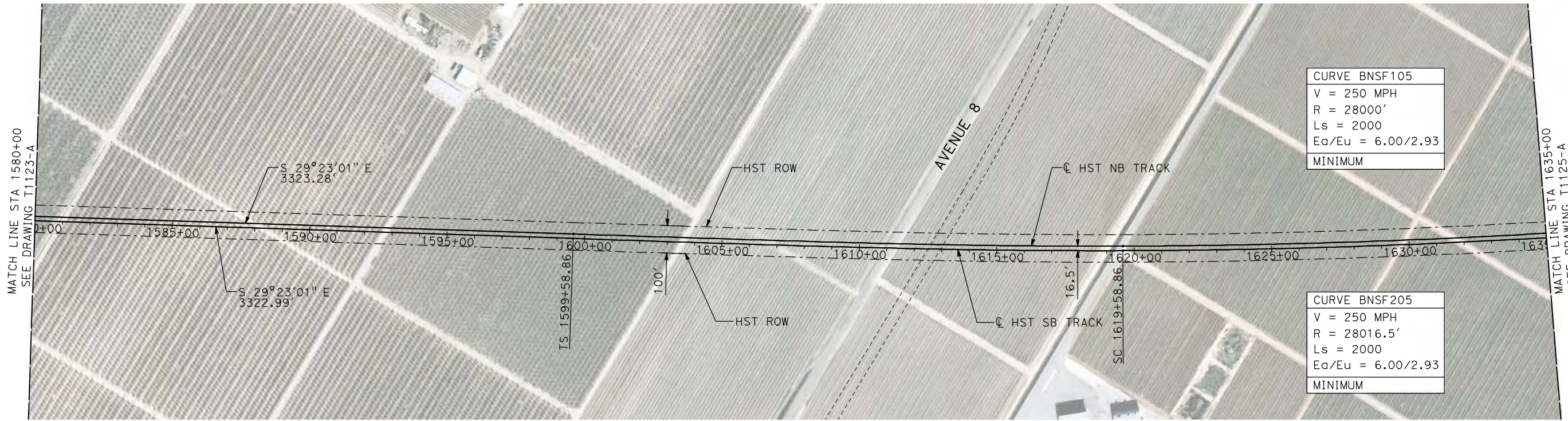
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



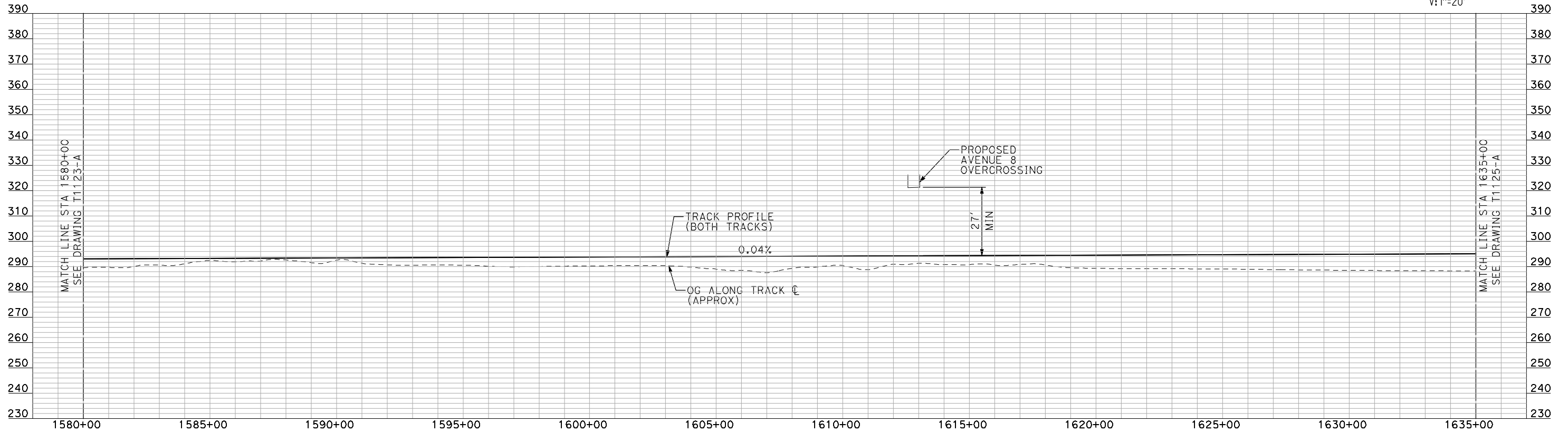
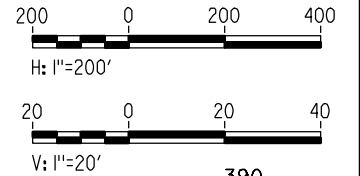
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
PLAN AND PROFILE
STA 1525+00 TO STA 1580+00

CONTRACT NO. HSR06-007
DRAWING NO. T1123-A
SCALE AS SHOWN
SHEET NO. ### OF ###



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

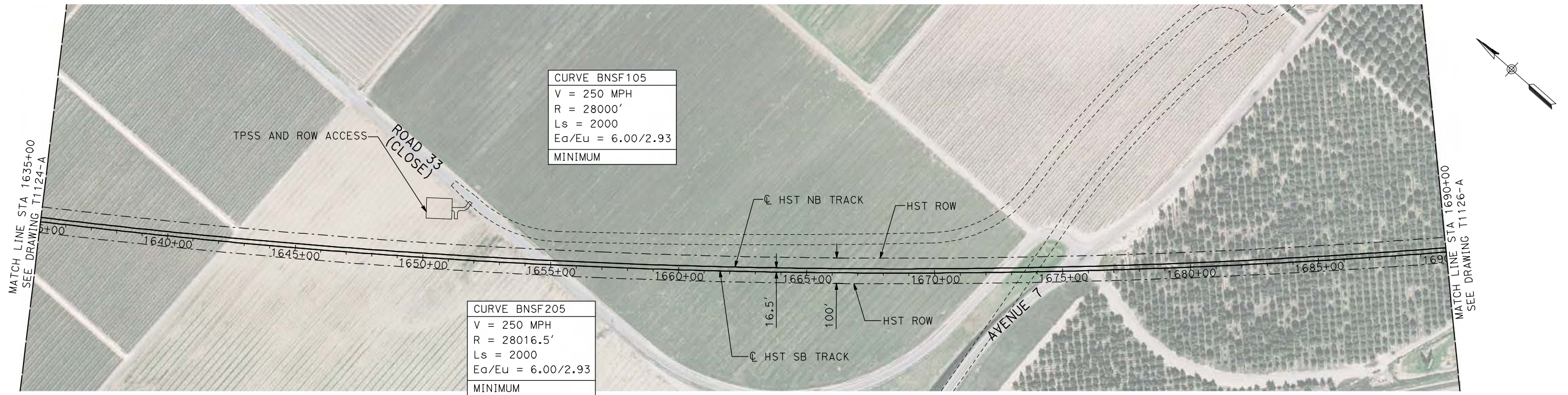
BNSF MAIN LINE

PLAN AND PROFILE
STA 1580+00 TO STA 1635+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1124-A
SCALE
AS SHOWN
SHEET NO.
OF

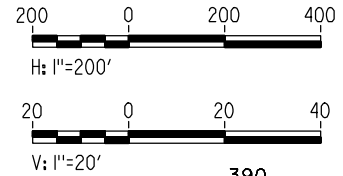
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- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



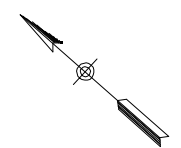
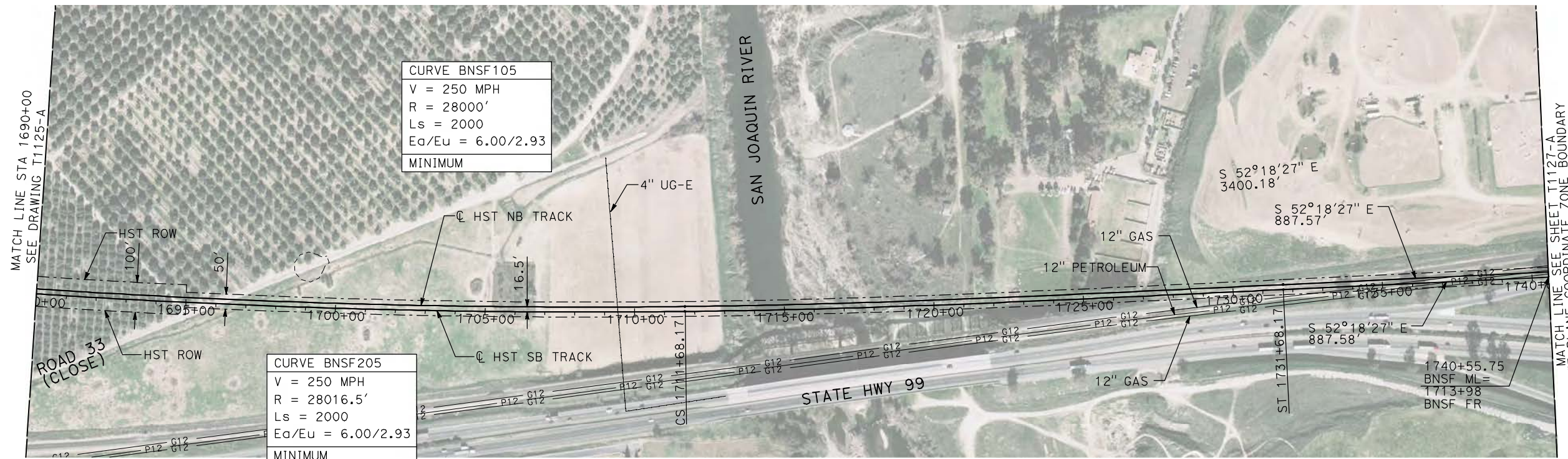
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MAIN LINE

PLAN AND PROFILE
STA 1635+00 TO STA 1690+00

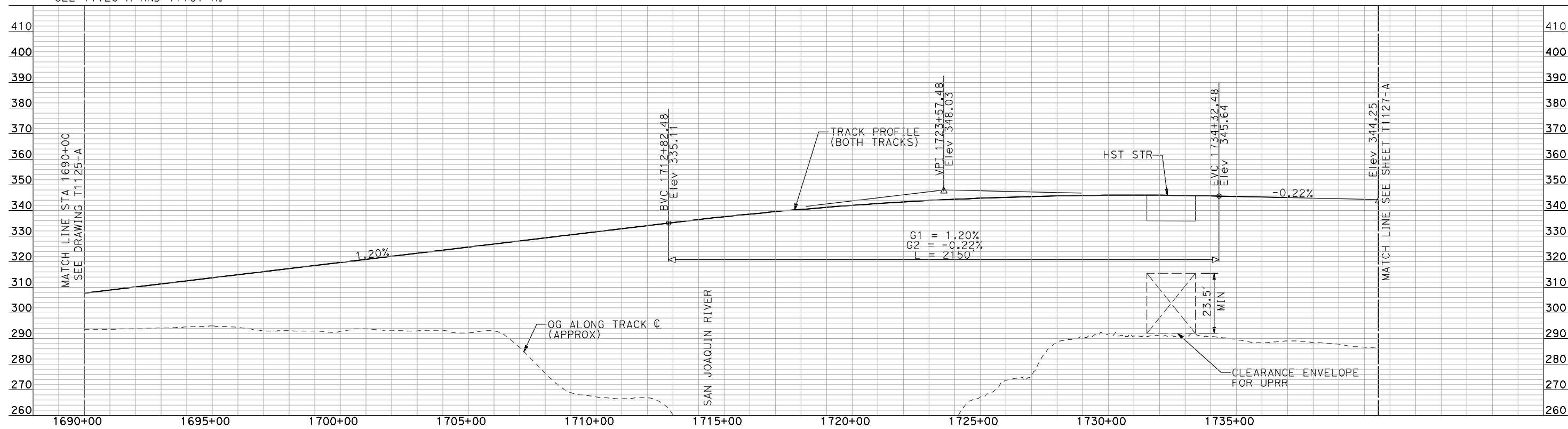
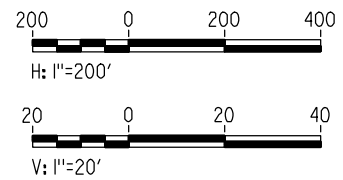
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DRAWING NO.
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SCALE
AS SHOWN
SHEET NO.
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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.
 3. FOR CONTROLLING CLEARANCE ENVELOPE, SEE T1128-A AND T1131-A.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

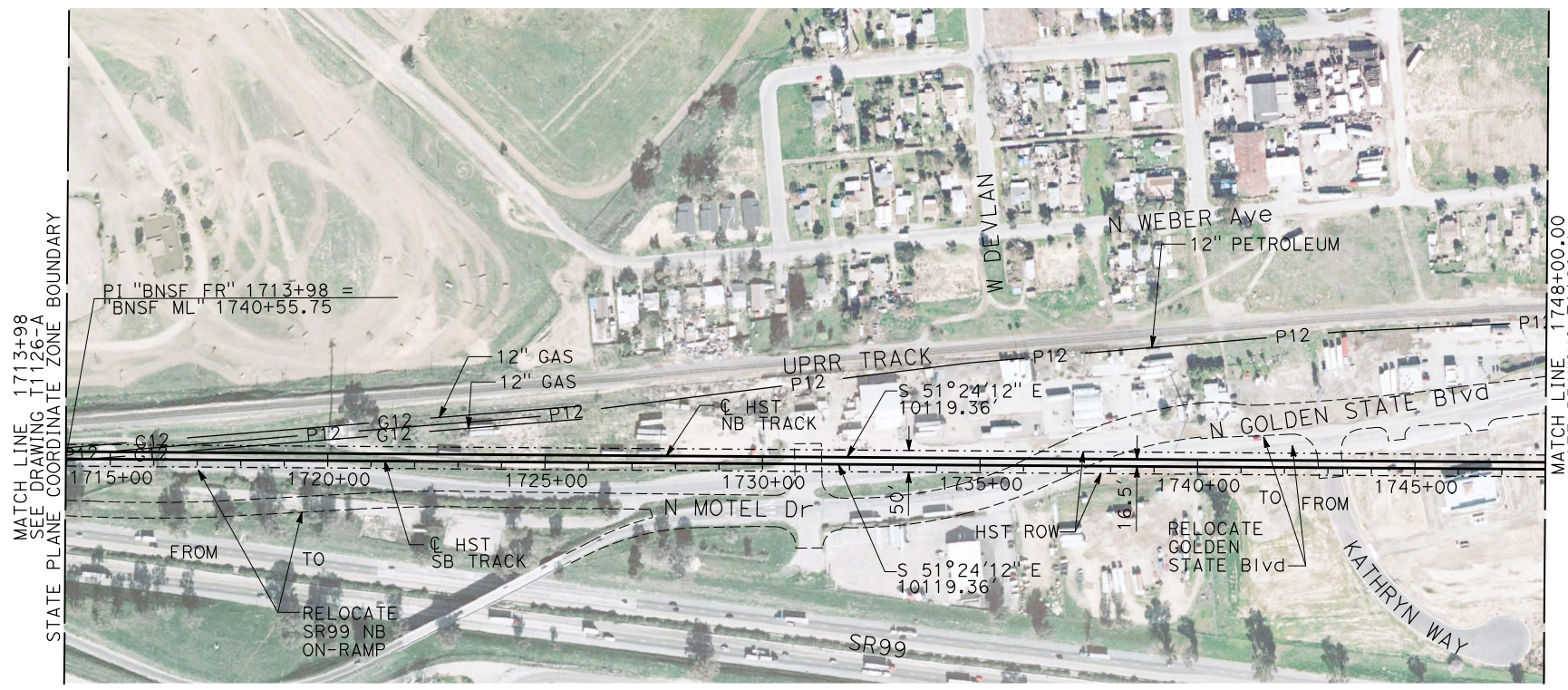
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
PLAN AND PROFILE
STA 1690+00 TO STA 1740+55.75

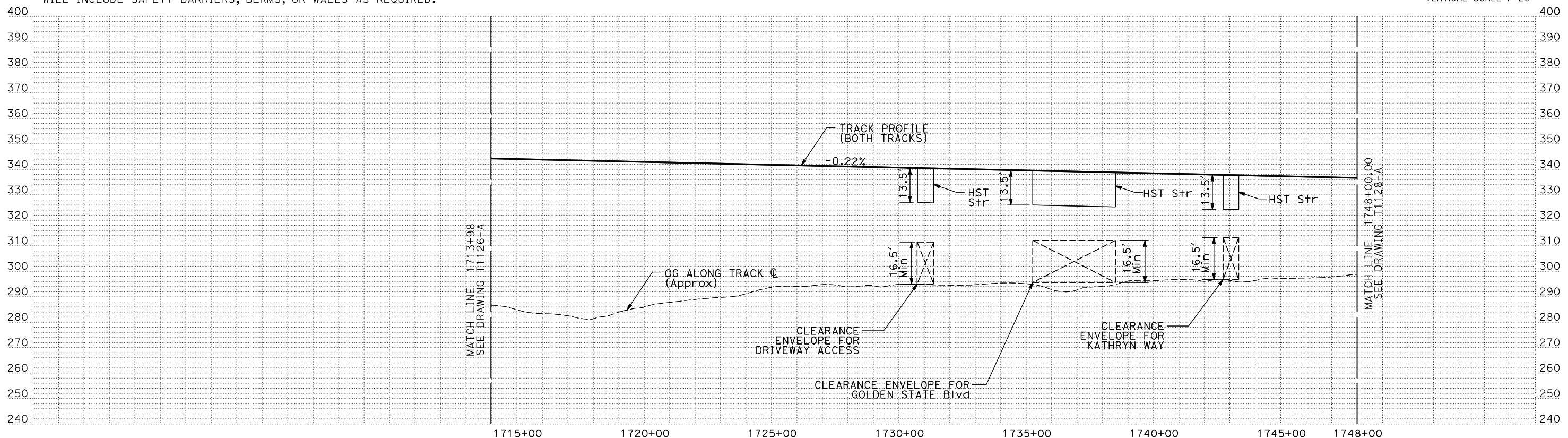
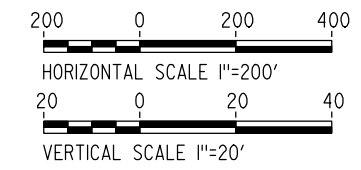
CONTRACT NO.
HSR06-007
DRAWING NO.
T1126-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
C. CHIU
DRAWN BY
M. McKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

AECOM
Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811

CH2MHILL



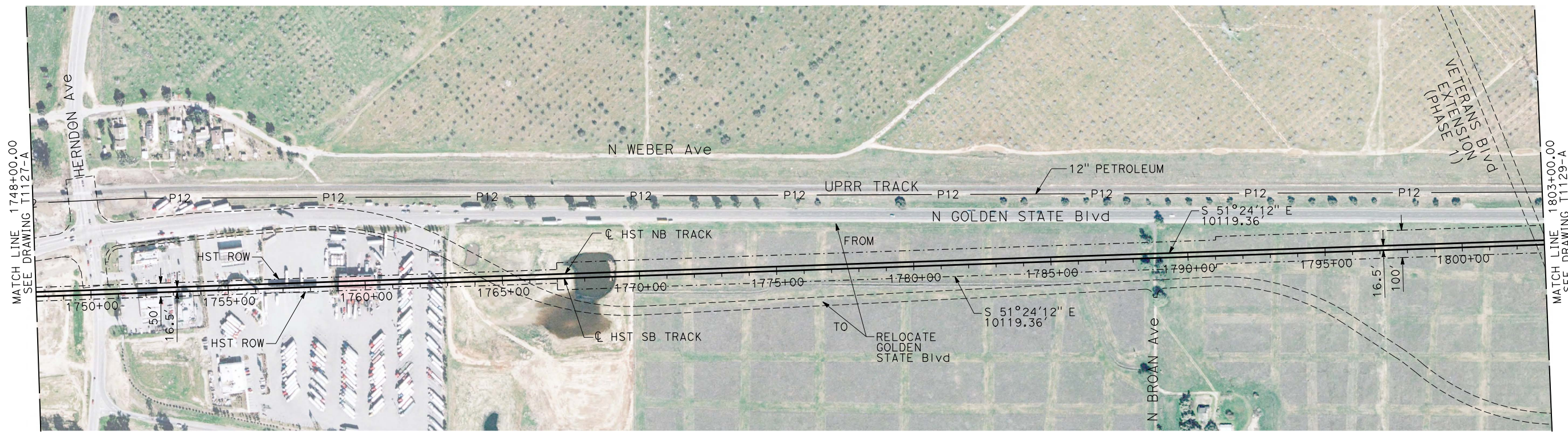
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE

PLAN AND PROFILE
STA 1713+98 TO STA 1748+00

CONTRACT NO.	HSR06-007
DRAWING NO.	T1127-A
SCALE	AS SHOWN
SHEET NO.	

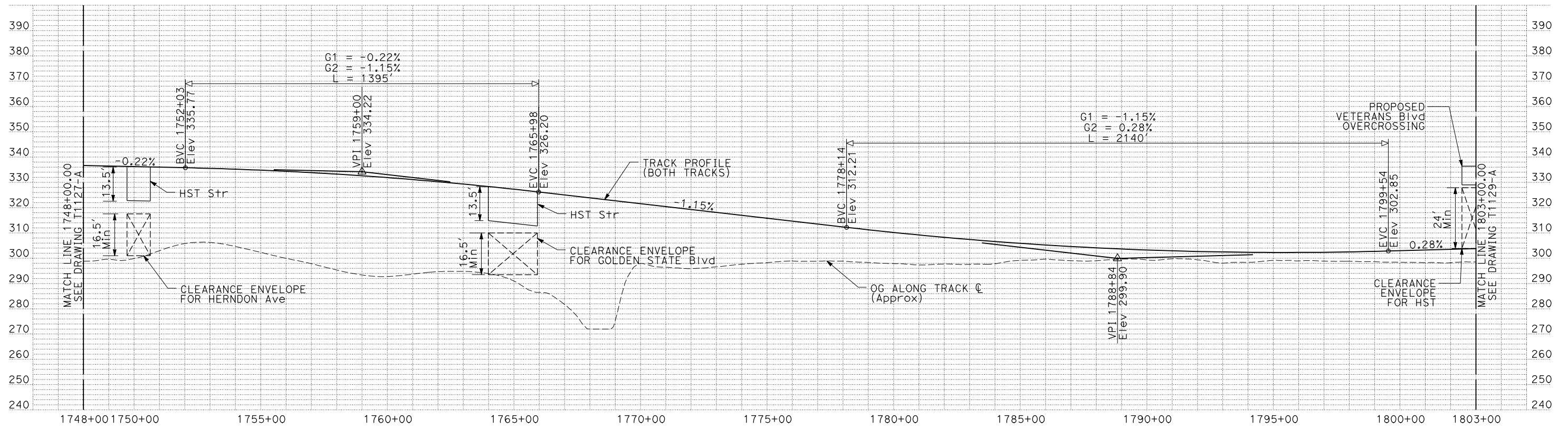
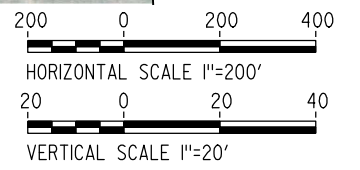
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
C. CHIU

DRAWN BY
M. MCKEON

CHECKED BY
V. CHIO

IN CHARGE
J. VALSECCHI

DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

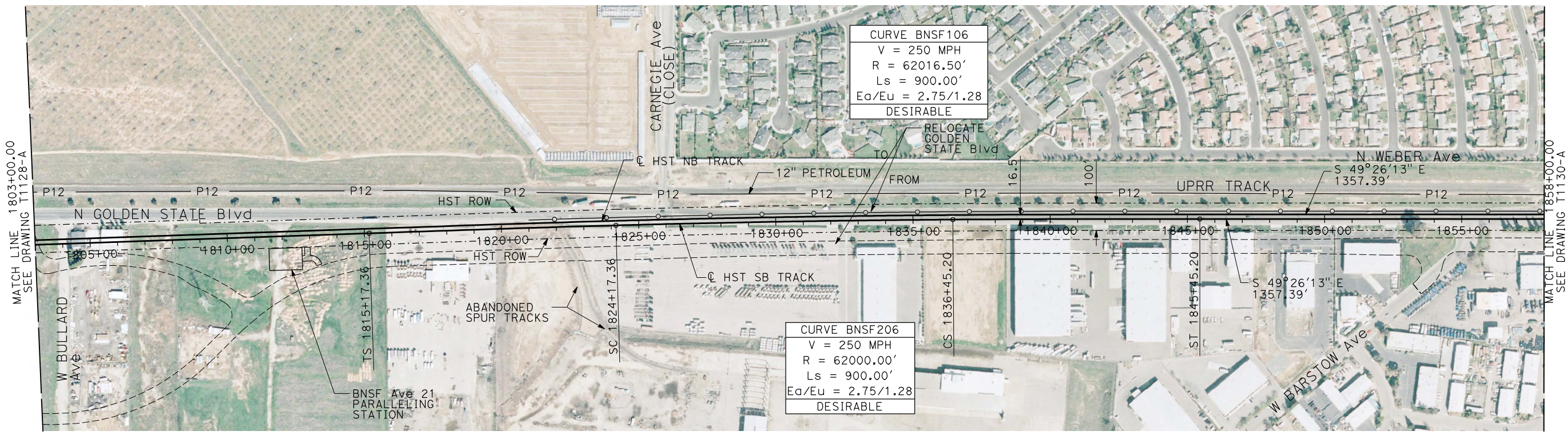
BNSF MAIN LINE

PLAN AND PROFILE
STA 1748+00 TO STA 1803+00

CONTRACT NO. HSR06-007
DRAWING NO. T1128-A
SCALE AS SHOWN
SHEET NO.

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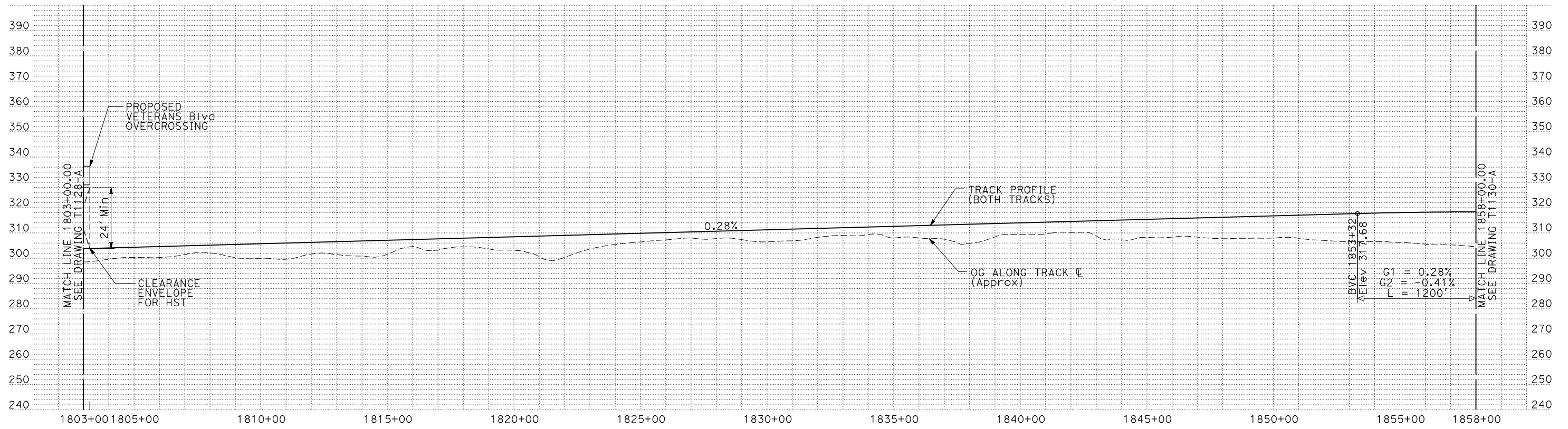
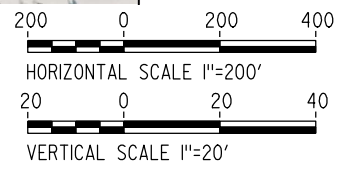
USERNAME => lwebster
DGN FILE => MF-T-1128-A1-E



PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
C. CHIU
DRAWN BY
M. McKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

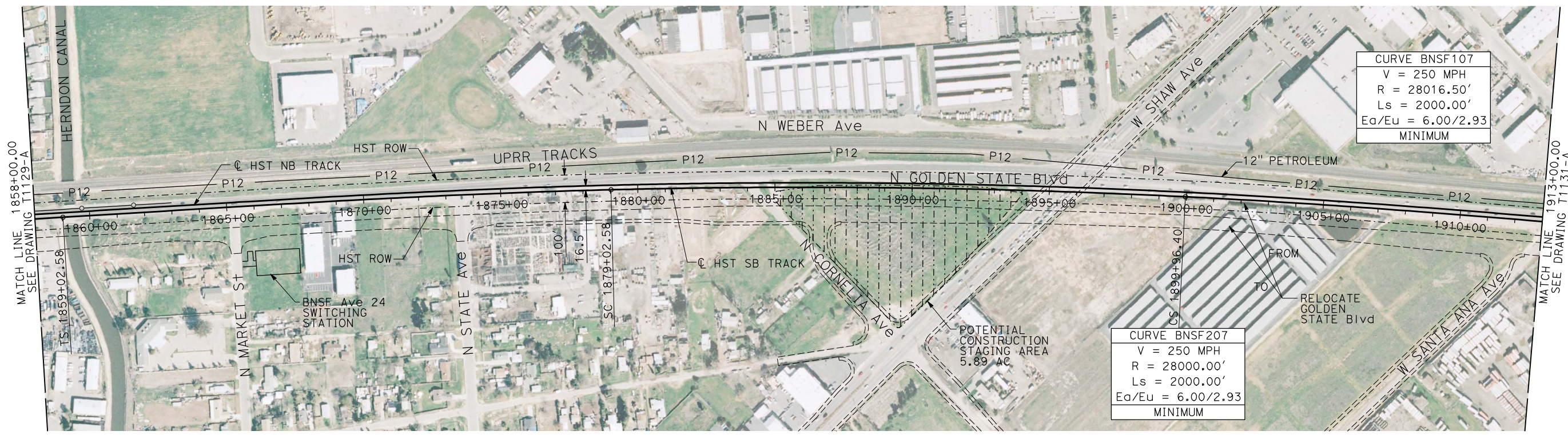
BNSF MAIN LINE

PLAN AND PROFILE
STA 1803+00 TO STA 1858+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1129-A
SCALE
AS SHOWN
SHEET NO.

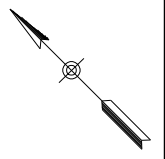
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TIME PLOTTED => 13:35

USERNAME => lwebster
DGN FILE => MF-T-1129-A1-E



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 R = 28016.50'
 Ls = 2000.00'
 Ea/Eu = 6.00/2.93
 MINIMUM

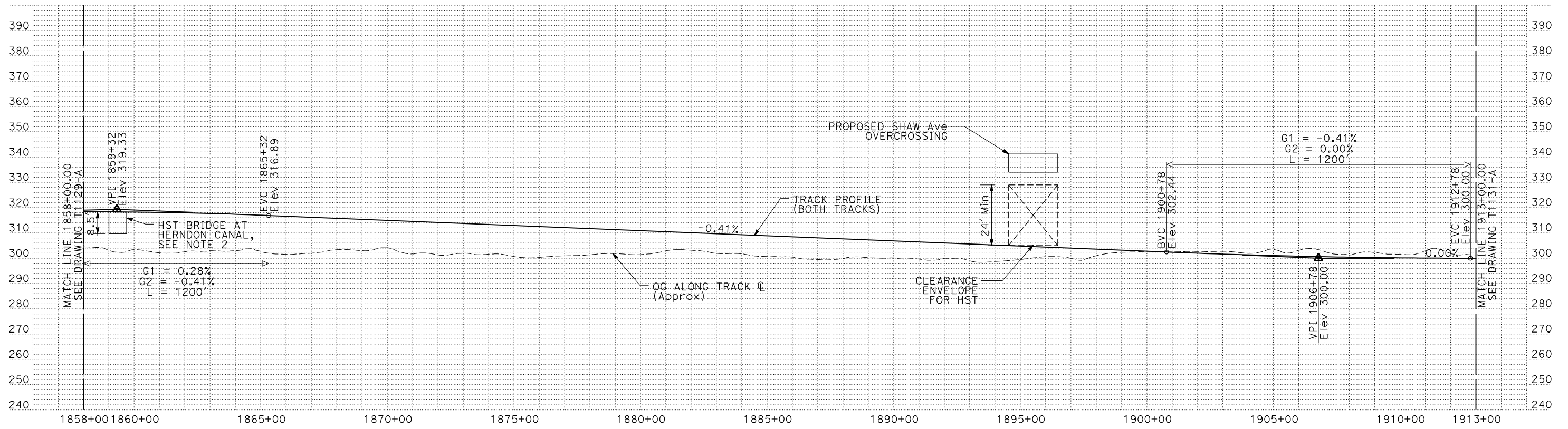
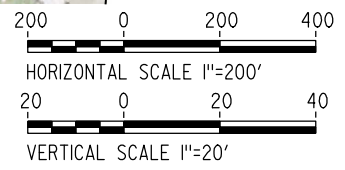
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 Ea/Eu = 6.00/2.93
 MINIMUM



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.
3. A MINIMUM OF 2 FEET OF FREEBOARD ABOVE THE LEVEE TOP IS ASSUMED AT HERNDON CANAL.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
C. CHIU
 DRAWN BY
M. MCKEON
 CHECKED BY
V. CHIO
 IN CHARGE
J. VALSECCHI
 DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

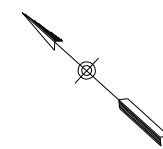
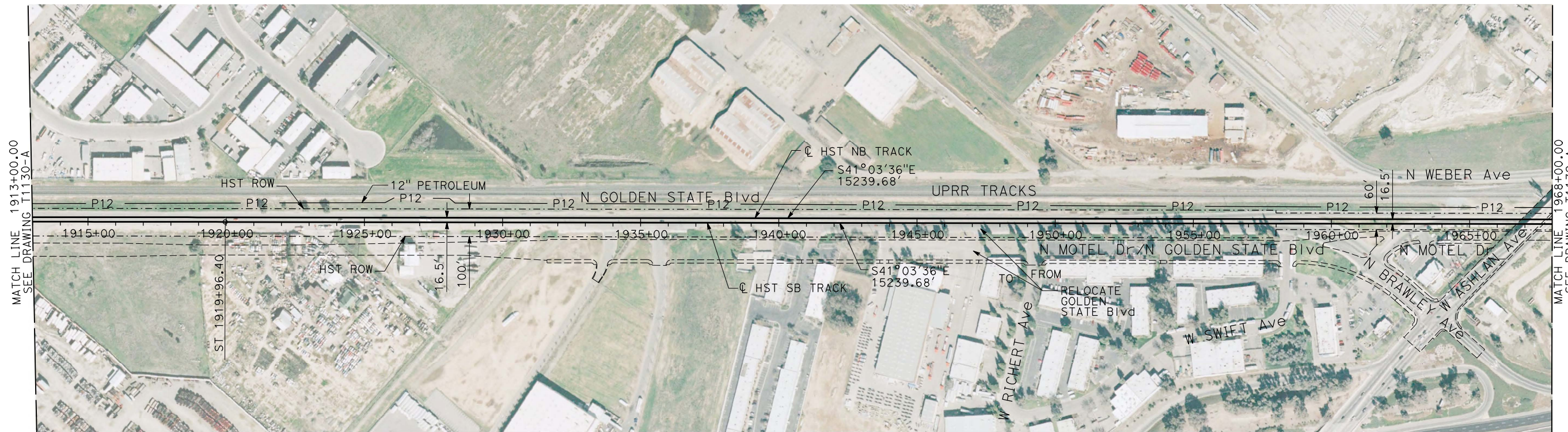


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 PLAN AND PROFILE
 STA 1858+00 TO STA 1913+00

CONTRACT NO.	HSR06-007
DRAWING NO.	T1130-A
SCALE	AS SHOWN
SHEET NO.	

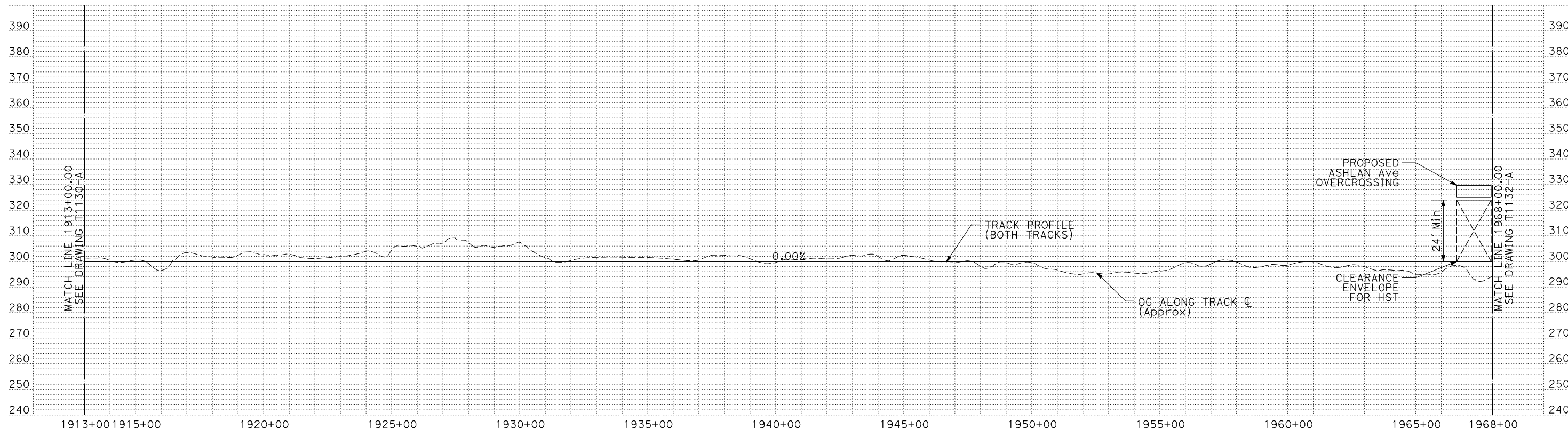
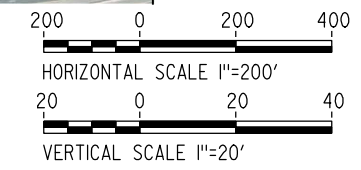
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 DGN FILE => MF-T-1130-A1-E



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
C. CHIU
DRAWN BY
M. MCKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



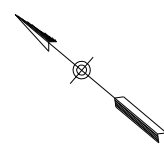
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE
PLAN AND PROFILE
STA 1913+00 TO STA 1968+00

CONTRACT NO.	HSR06-007
DRAWING NO.	T1131-A
SCALE	AS SHOWN
SHEET NO.	

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TIME PLOTTED => 14:30

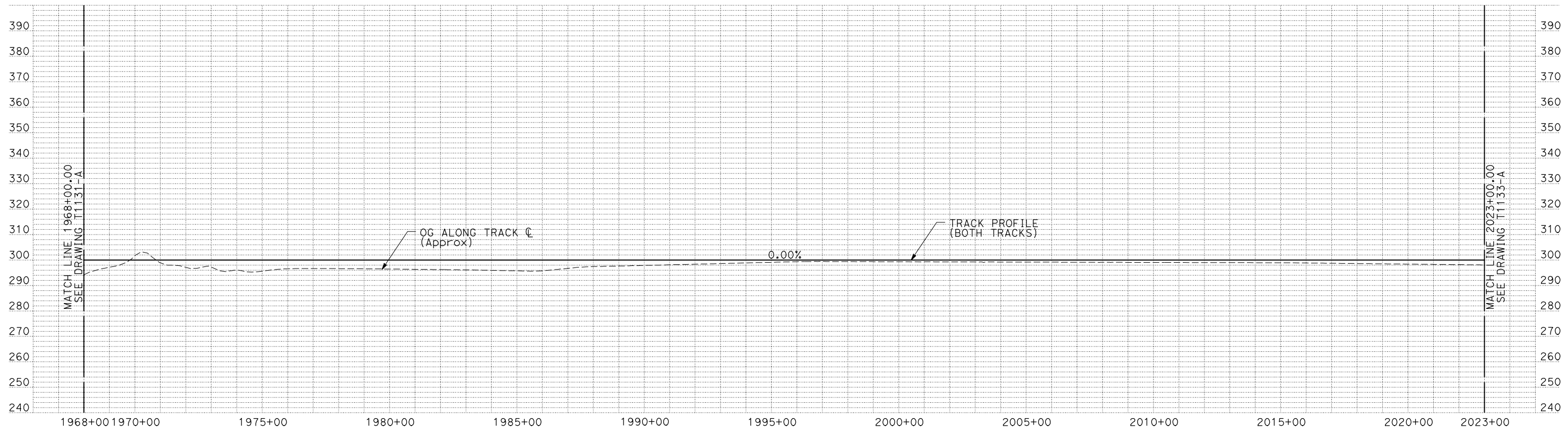
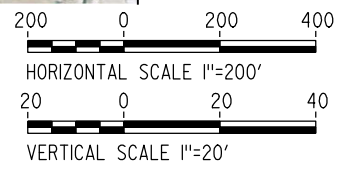
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
C. CHIU
DRAWN BY
M. MCKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

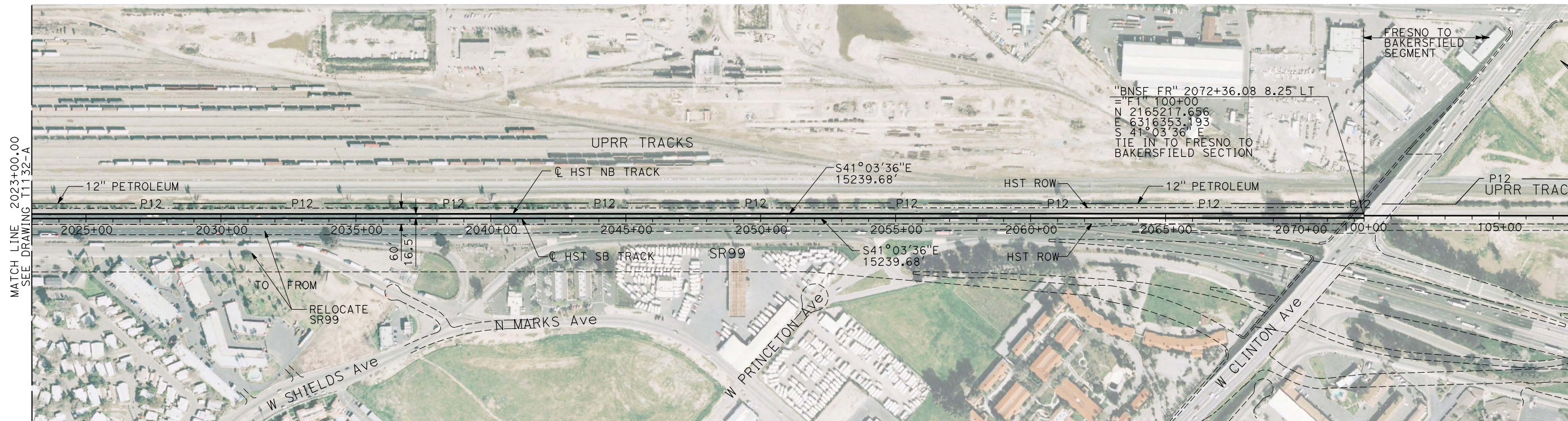
BNSF MAIN LINE

PLAN AND PROFILE
STA 1968+00 TO STA 2023+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1132-A
SCALE
AS SHOWN
SHEET NO.

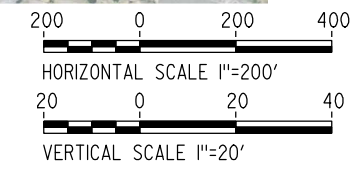
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USERNAME => lwebster
DGN FILE => MF-T-1132-A1-E



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 E 6316353.193
 S 41°03'36" E
 TIE IN TO FRESNO TO BAKERSFIELD SECTION

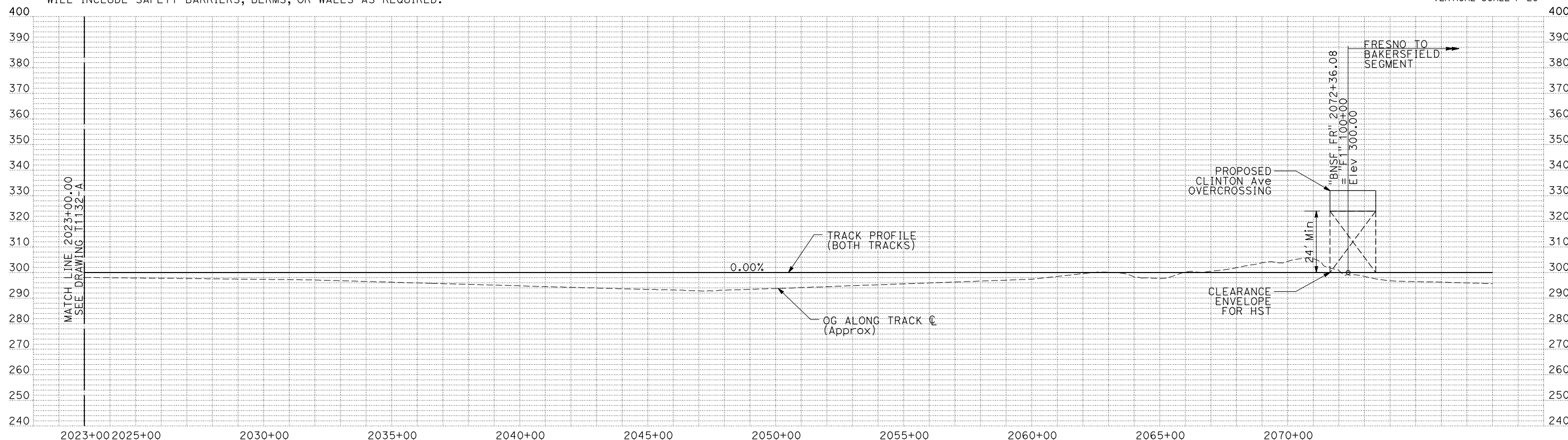
MATCH LINE 2023+00.00
SEE DRAWING T1132-A



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
C. CHIU
 DRAWN BY
M. MCKEON
 CHECKED BY
V. CHIO
 IN CHARGE
J. VALSECCHI
 DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

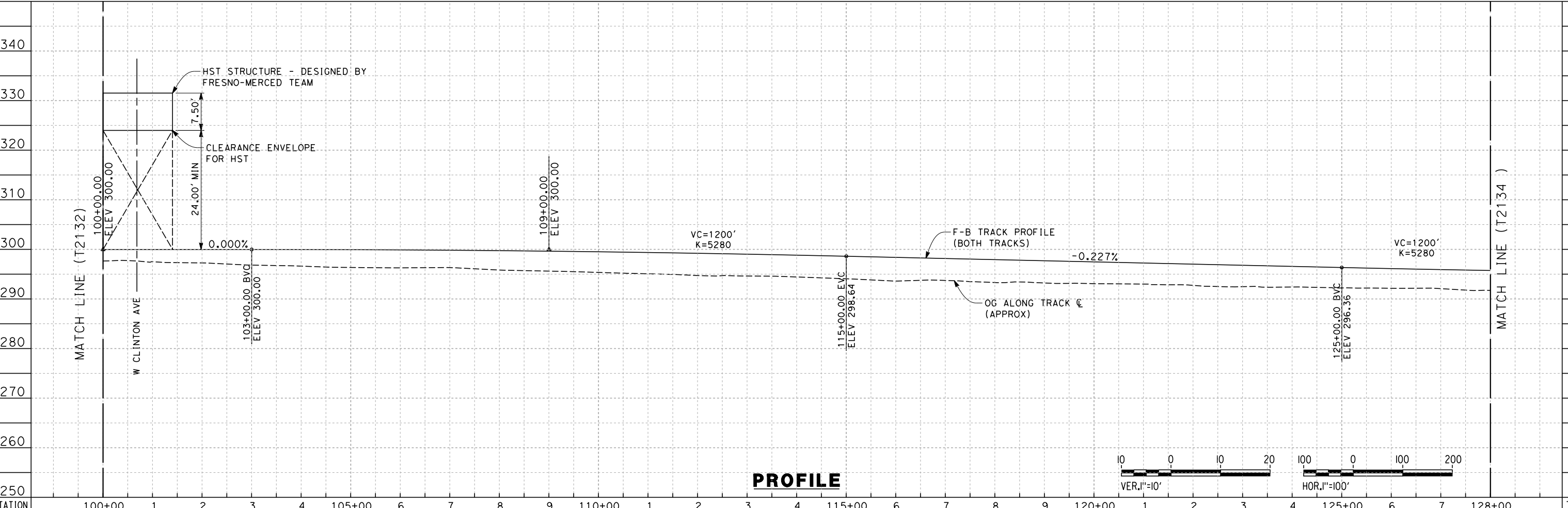
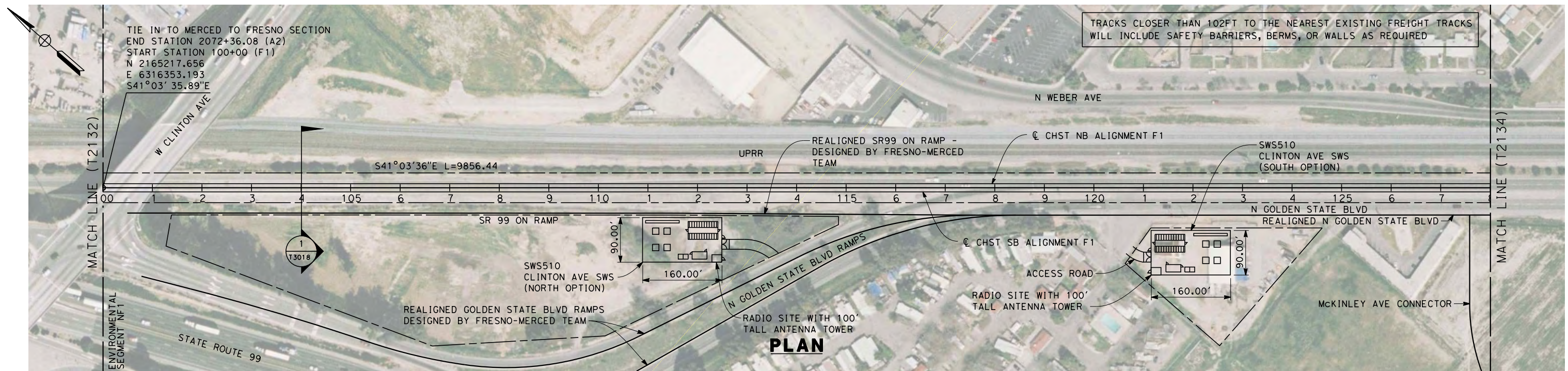


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 PLAN AND PROFILE
 STA 2023+00 TO STA 2072+36.08

CONTRACT NO.	HSR06-007
DRAWING NO.	T1133-A
SCALE	AS SHOWN
SHEET NO.	

DATE PLOTTED => 20-JUL-2011
TIME PLOTTED => 16:07

7/22/2011 10:33:40 AM 0:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\BNSF Alignment - Ave 21\FB-T2133-A-F1.dgn
 frank.palermo



STATION	100+00	1	2	3	4	105+00	6	7	8	9	110+00	1	2	3	4	115+00	6	7	8	9	120+00	1	2	3	4	125+00	6	7	128+00	TOTAL
Exc																														
Emb																														

DESIGNED BY K. SEYMOUR	RECORD SET 15% DESIGN SUBMISSION NOT FOR CONSTRUCTION				
DRAWN BY P. TONKIN					
CHECKED BY D. HUNT					
IN CHARGE A. LUFT					
DATE 06/30/11					
REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

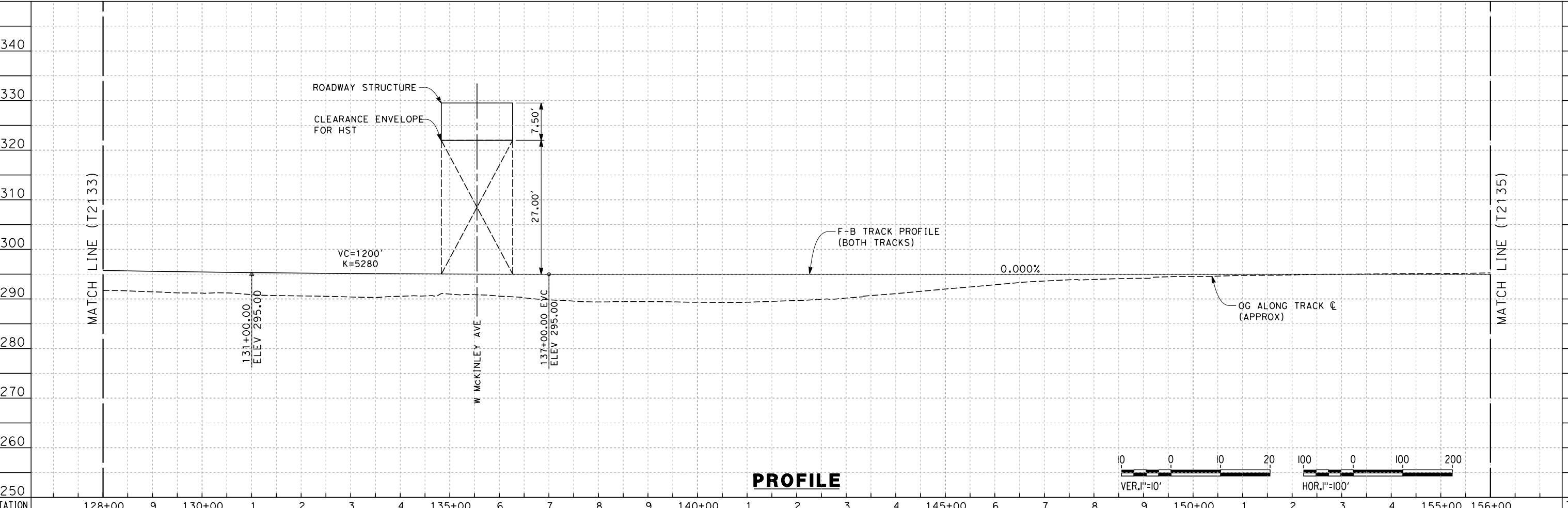
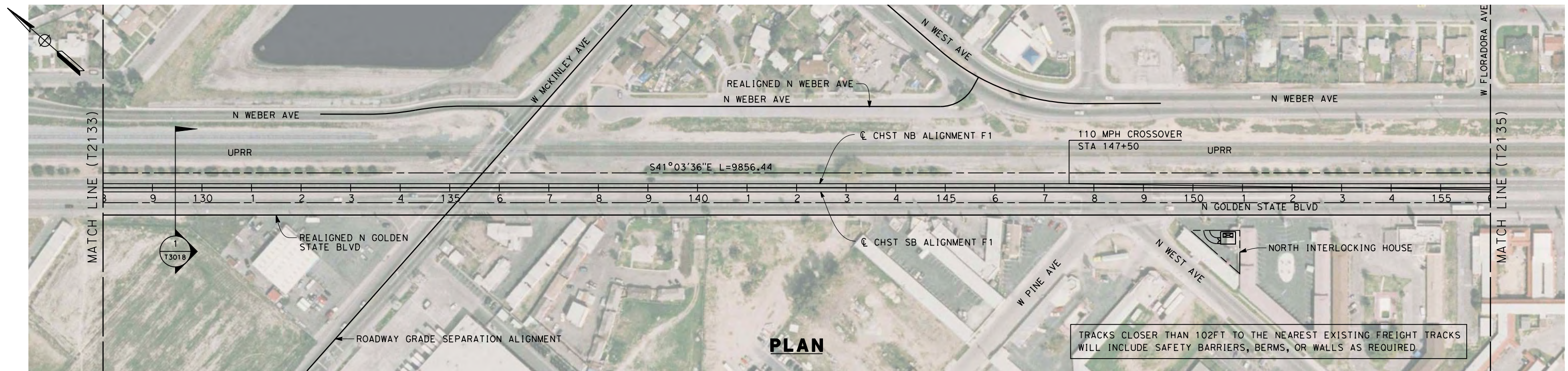
**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE
 PLAN AND PROFILE
 STA. 100+00 TO 128+00

CONTRACT NO. HSR 06-0003
DRAWING NO. T2133-A
SCALE AS SHOWN
SHEET NO. ### OF ###

7/22/2011 10:33:43 AM 0:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\BNSF Alignment - Ave 21\FB-T2134-A-F1.dgn
 frank.palermo



STATION	128+00	9	130+00	1	2	3	4	135+00	6	7	8	9	140+00	1	2	3	4	145+00	6	7	8	9	150+00	1	2	3	4	155+00	156+00	TOTAL
Exc																														
Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 P. TONKIN
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

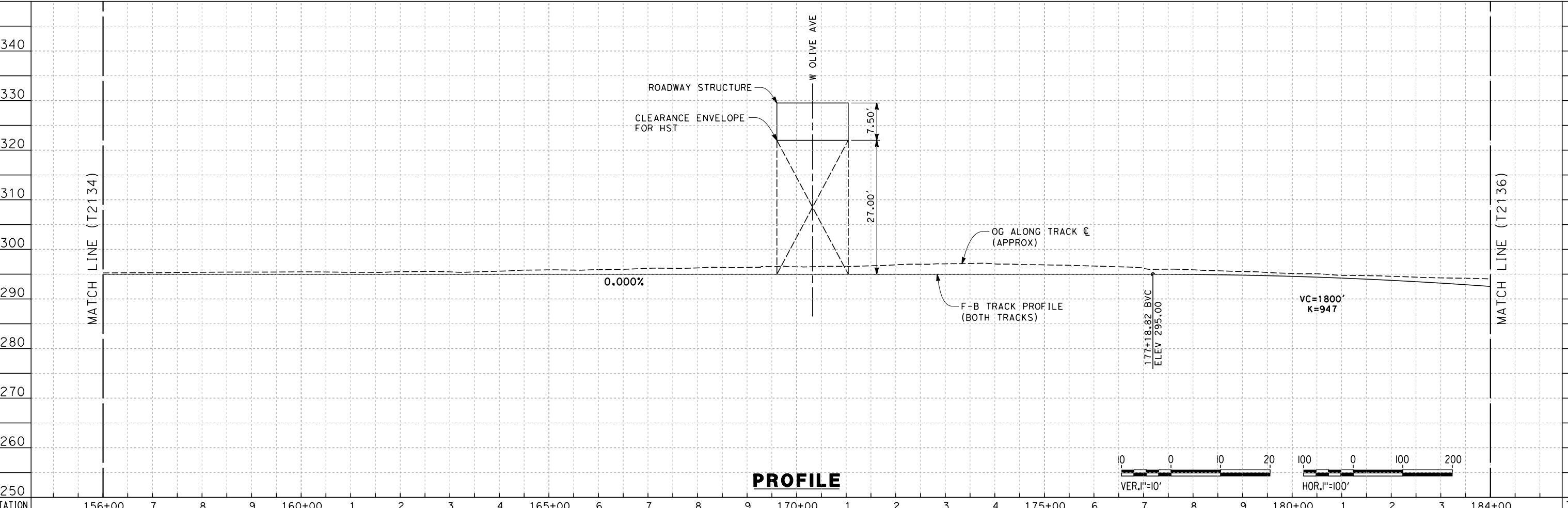
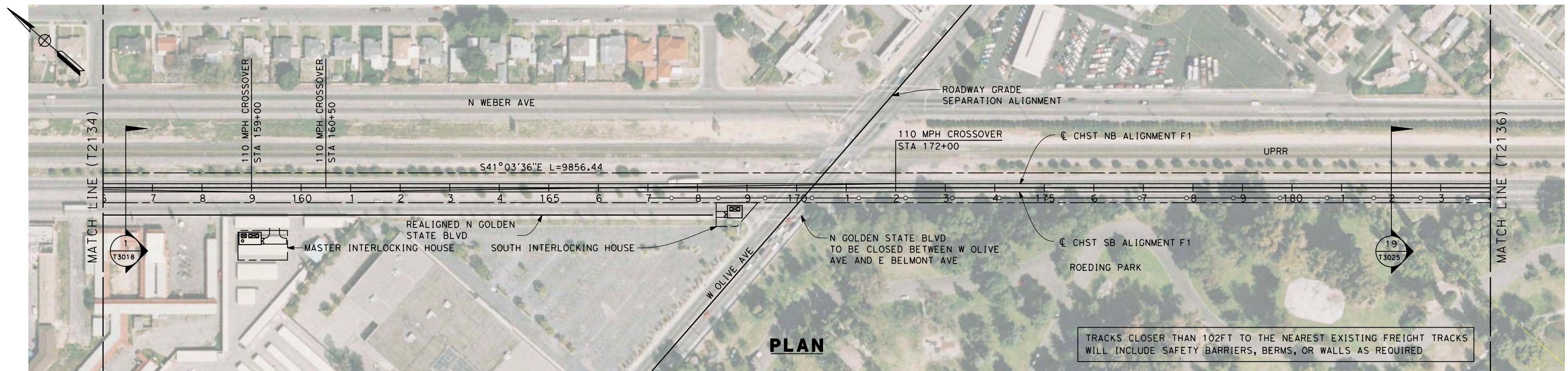
**NOT FOR
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
 MERCED TO FRESNO**
 BNSF MAIN LINE
 PLAN AND PROFILE
 STA. 128+00 TO 156+00

CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T2134-A
 SCALE
 AS SHOWN
 SHEET NO.
 ### OF ###

7/22/2011 10:33:46 AM O:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\NSR 15% Design\AECOM\BNSF Alignment - Ave 21\FB-T2135-A-F1.dgn
 frank.palermo



STATION	156+00	7	8	9	160+00	1	2	3	4	165+00	6	7	8	9	170+00	1	2	3	4	175+00	6	7	8	9	180+00	1	2	3	184+00	TOTAL
Exc																														
Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

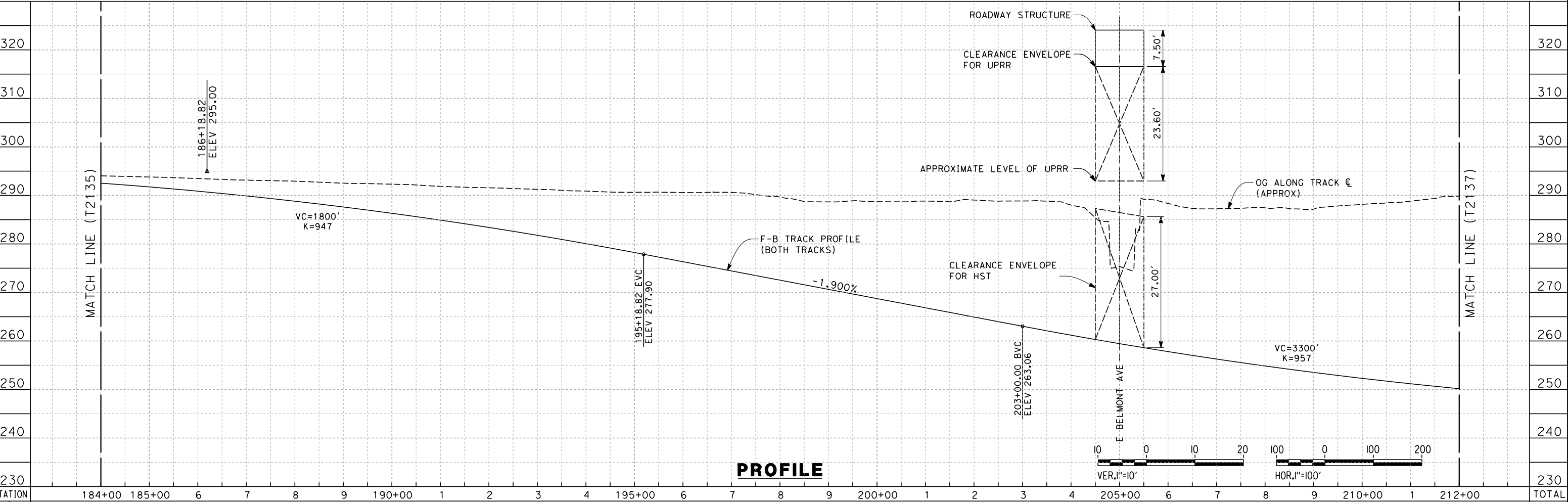
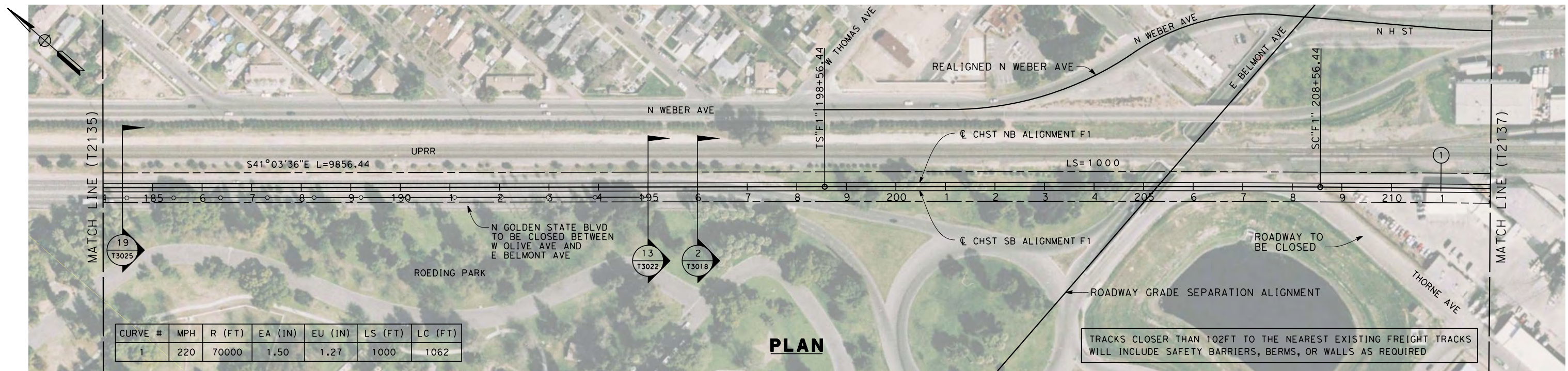


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE

 PLAN AND PROFILE
 STA. 156+00 TO 184+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2135-A
 SCALE
AS SHOWN
 SHEET NO.
OF

7/22/2011 10:33:49 AM O:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\NSR 15% Design\AECOM\BNSF Alignment - Ave 21\FB-T2136-A-F1.dgn
 frank.palermo



STATION	184+00	185+00	6	7	8	9	190+00	1	2	3	4	195+00	6	7	8	9	200+00	1	2	3	4	205+00	6	7	8	9	210+00	1	212+00	TOTAL
Exc																														
Emb																														

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

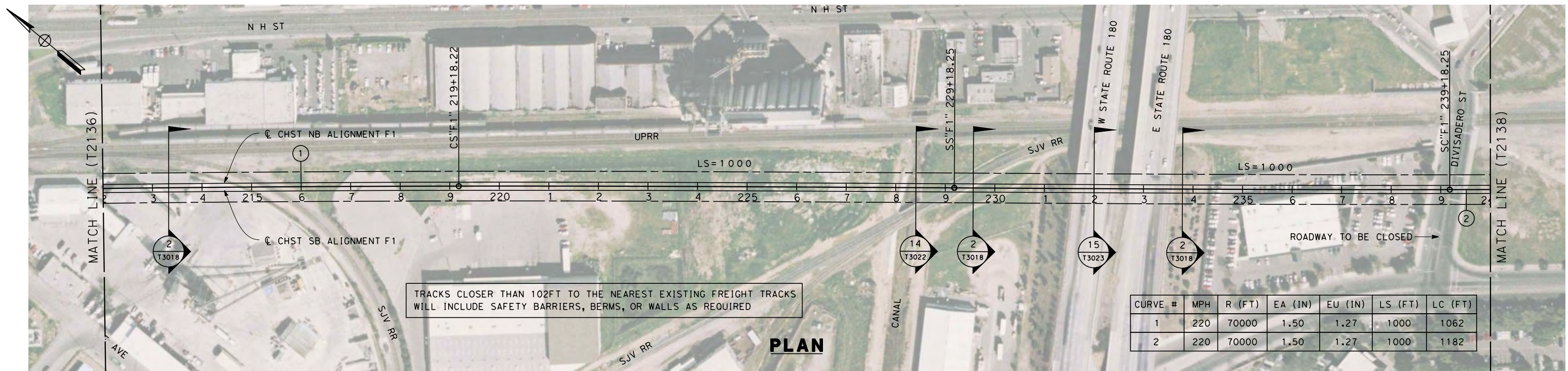


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE

 PLAN AND PROFILE
 STA. 184+00 TO 212+00

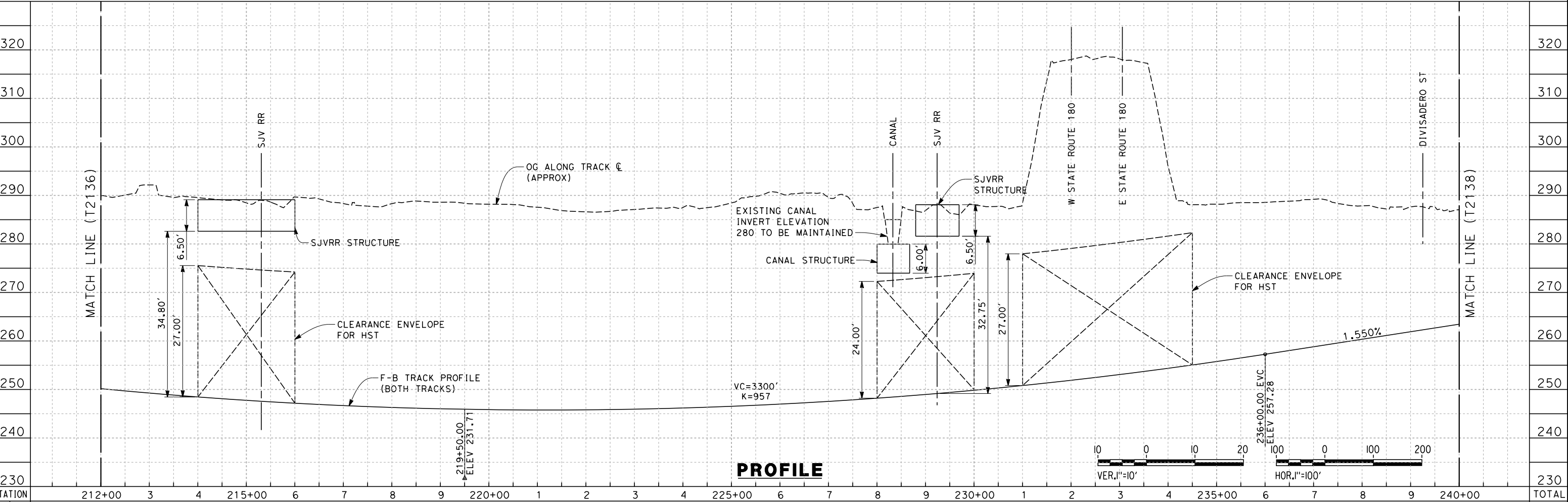
CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2136-A
 SCALE
AS SHOWN
 SHEET NO.
OF

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 frank.palermo



TRACKS CLOSER THAN 102FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

STATION	212+00	3	4	215+00	6	7	8	9	220+00	1	2	3	4	225+00	6	7	8	9	230+00	1	2	3	4	235+00	6	7	8	9	240+00	TOTAL
Exc																														
Emb																														

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

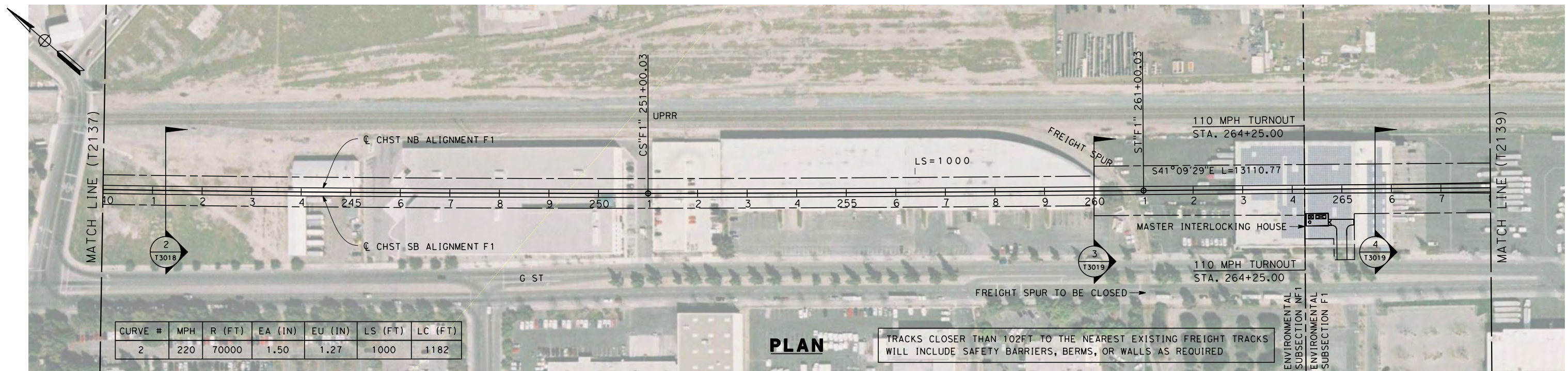


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE

 PLAN AND PROFILE
 STA. 212+00 TO 240+00

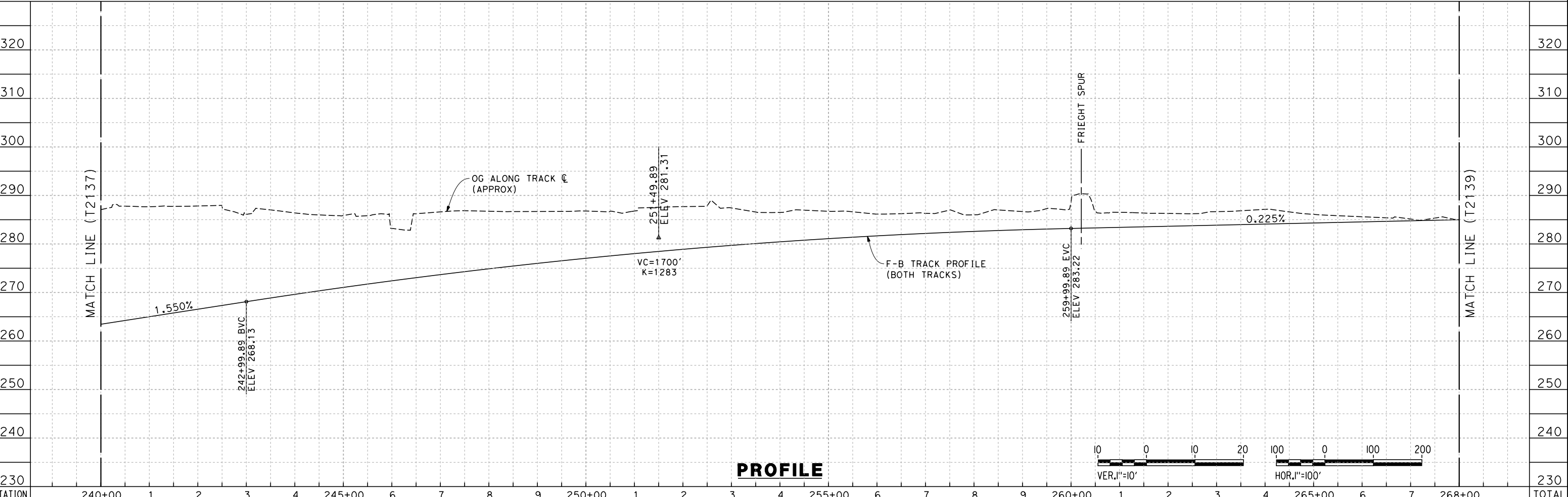
CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2137-A
 SCALE
AS SHOWN
 SHEET NO.
OF

7/22/2011 10:33:54 AM O:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\BNSF Alignment - Ave 21\FB-T2138-A-F1.dgn

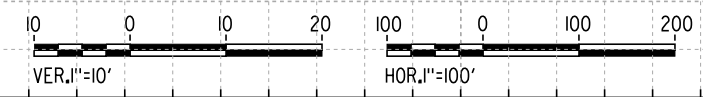


PLAN

TRACKS CLOSER THAN 102FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PROFILE



STATION	240+00	1	2	3	4	245+00	6	7	8	9	250+00	1	2	3	4	255+00	6	7	8	9	260+00	1	2	3	4	265+00	6	7	268+00	TOTAL
Exc																														
Emb																														

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**



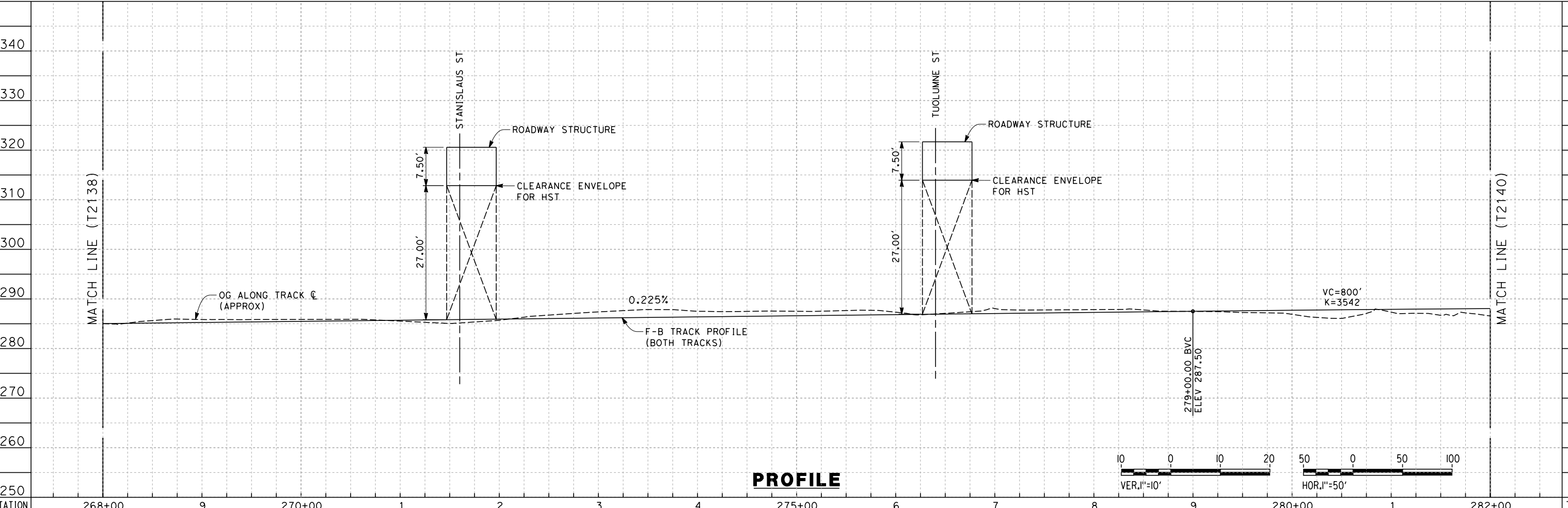
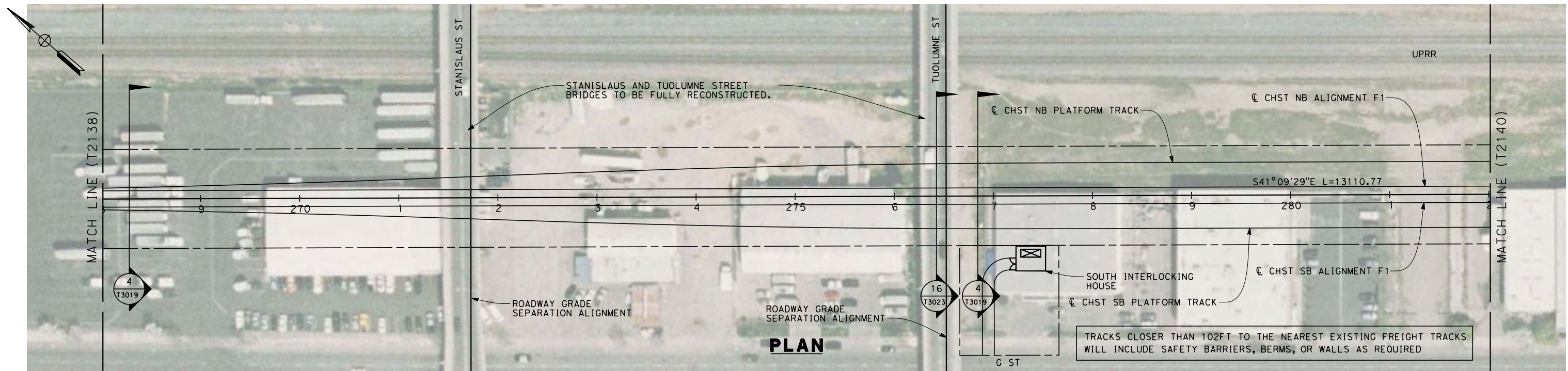
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE

 PLAN AND PROFILE
 STA. 240+00 TO 268+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2138-A
 SCALE
AS SHOWN
 SHEET NO.
OF

REV	DATE	BY	CHK	APP	DESCRIPTION

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 frank.palermo



STATION	268+00	9	270+00	1	2	3	4	275+00	6	7	8	9	280+00	1	282+00	TOTAL
Exc																
Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

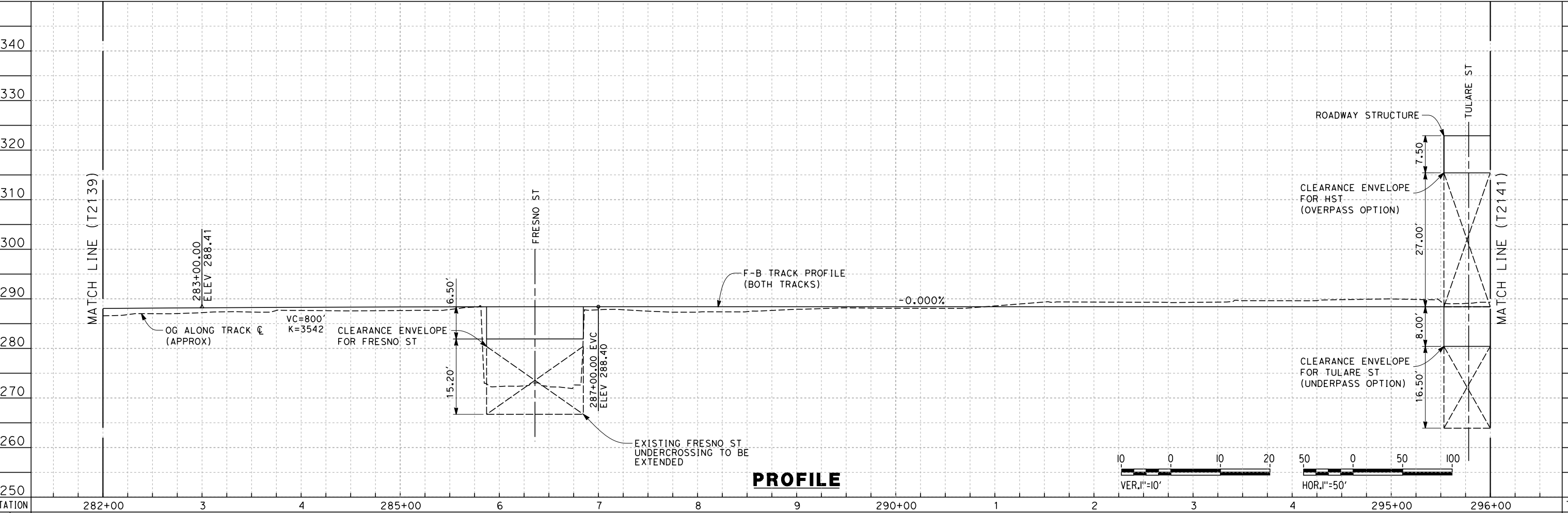
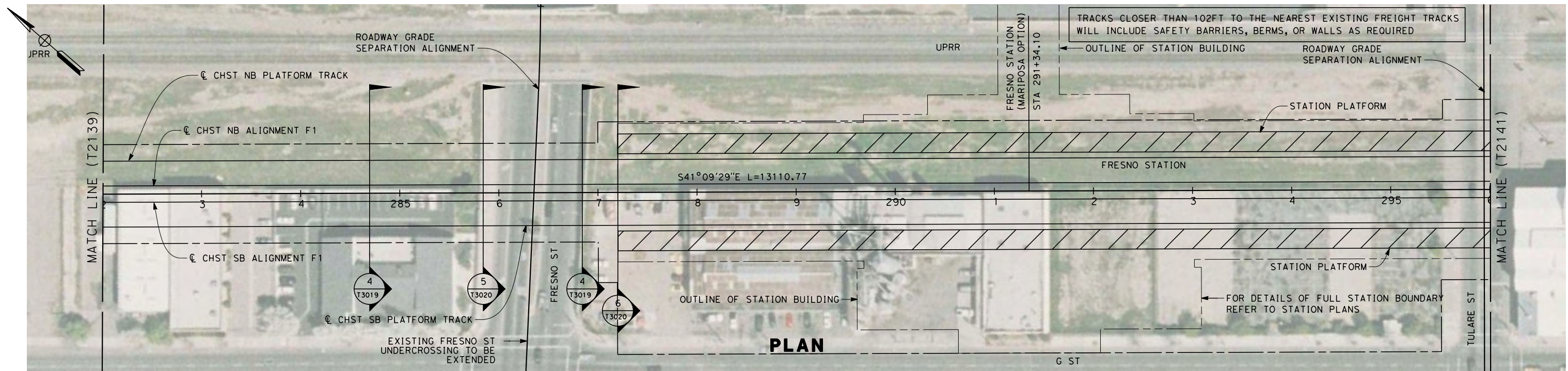


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
 BNSF MAIN LINE

 PLAN AND PROFILE
 STA. 268+00 TO 282+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2139-A
 SCALE
AS SHOWN
 SHEET NO.
OF

7/22/2011 10:34:00 AM 0:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR Alignment - Ave 21\FB-T2140-A-F1.m.dgn



STATION	282+00	3	4	285+00	6	7	8	9	290+00	1	2	3	4	295+00	296+00	TOTAL
Exc																
Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
K. SEYMOUR
DRAWN BY
P. TONKIN
CHECKED BY
D. HUNT
IN CHARGE
A. LUFT
DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

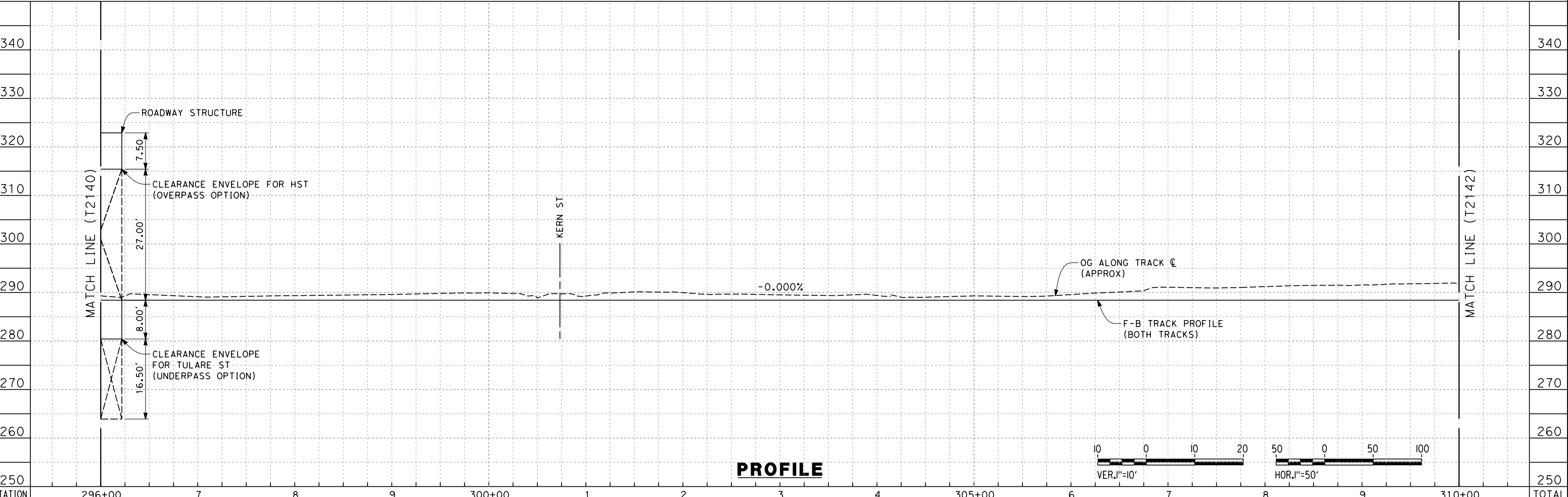
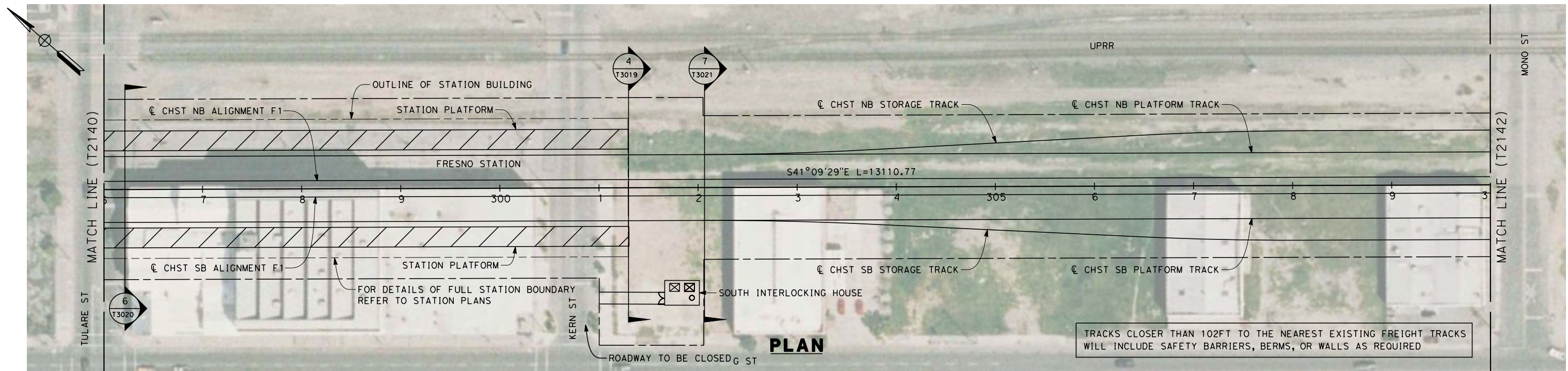


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
BNSF MAIN LINE

PLAN AND PROFILE
STA. 282+00 TO 296+00

CONTRACT NO.
HSR 06-0003
DRAWING NO.
T2140-A
SCALE
AS SHOWN
SHEET NO.
OF

7/22/2011 10:34:02 AM 0:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\BNSF Alignment - Ave 21\FB-T2141-A-F1.mxd
 frank.palermo



STATION	296+00	7	8	9	300+00	1	2	3	4	305+00	6	7	8	9	310+00	TOTAL
Exc																
Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

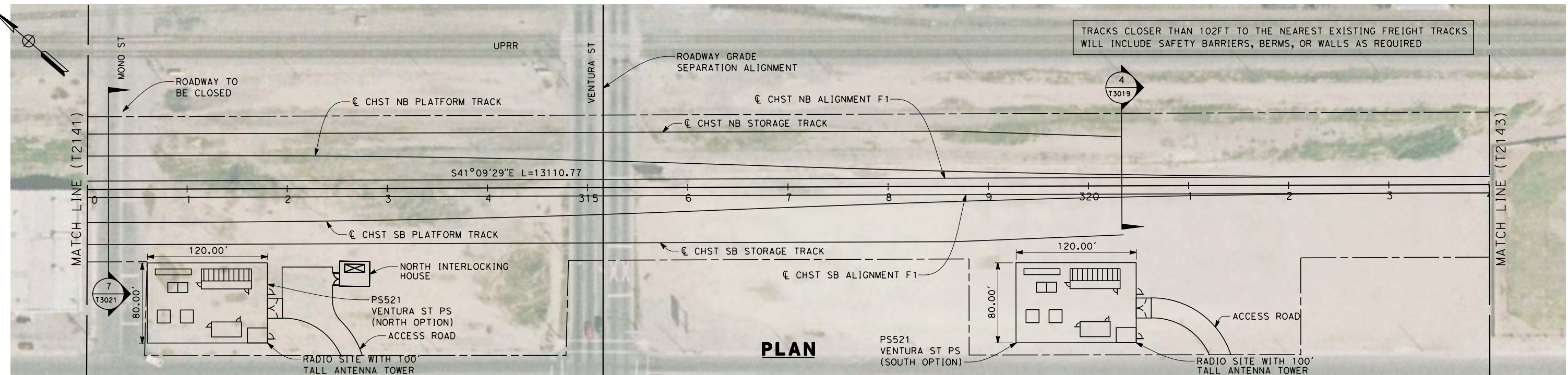


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
 BNSF MAIN LINE

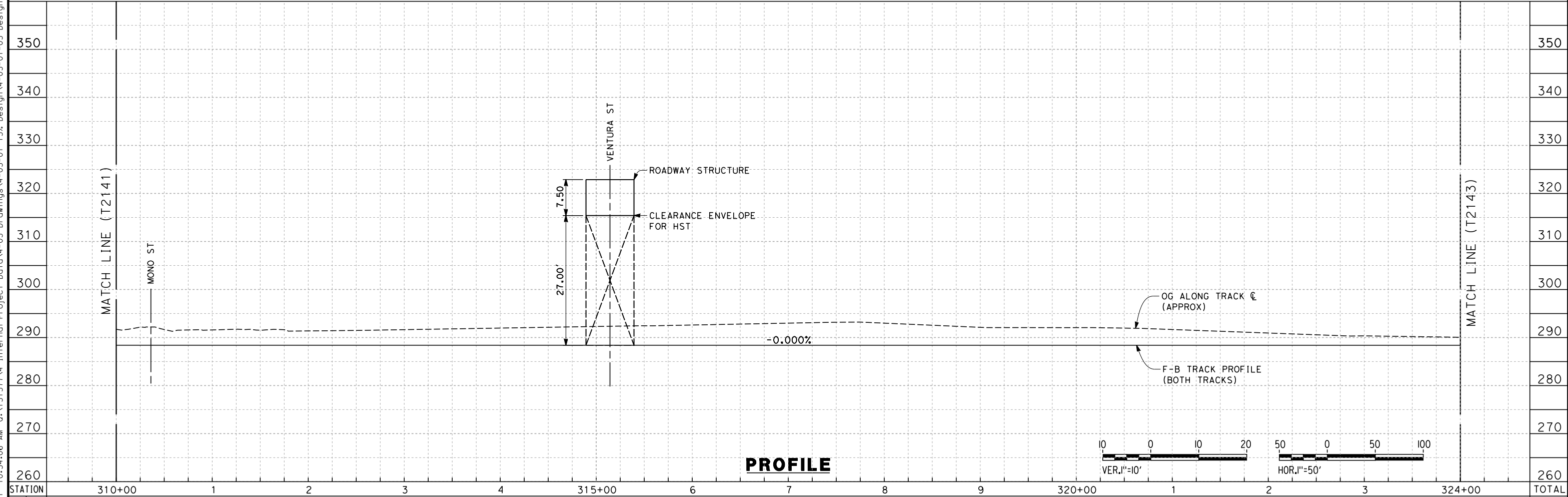
 PLAN AND PROFILE
 STA. 296+00 TO 310+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2141-A
 SCALE
AS SHOWN
 SHEET NO.
OF

7/22/2011 10:34:06 AM 0:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\BNSF Alignment - Ave 21\FB-T2142-A-F1.m.dgn



PLAN



PROFILE

STATION	310+00	1	2	3	4	315+00	6	7	8	9	320+00	1	2	3	324+00	TOTAL
Exc																
Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
05/13/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

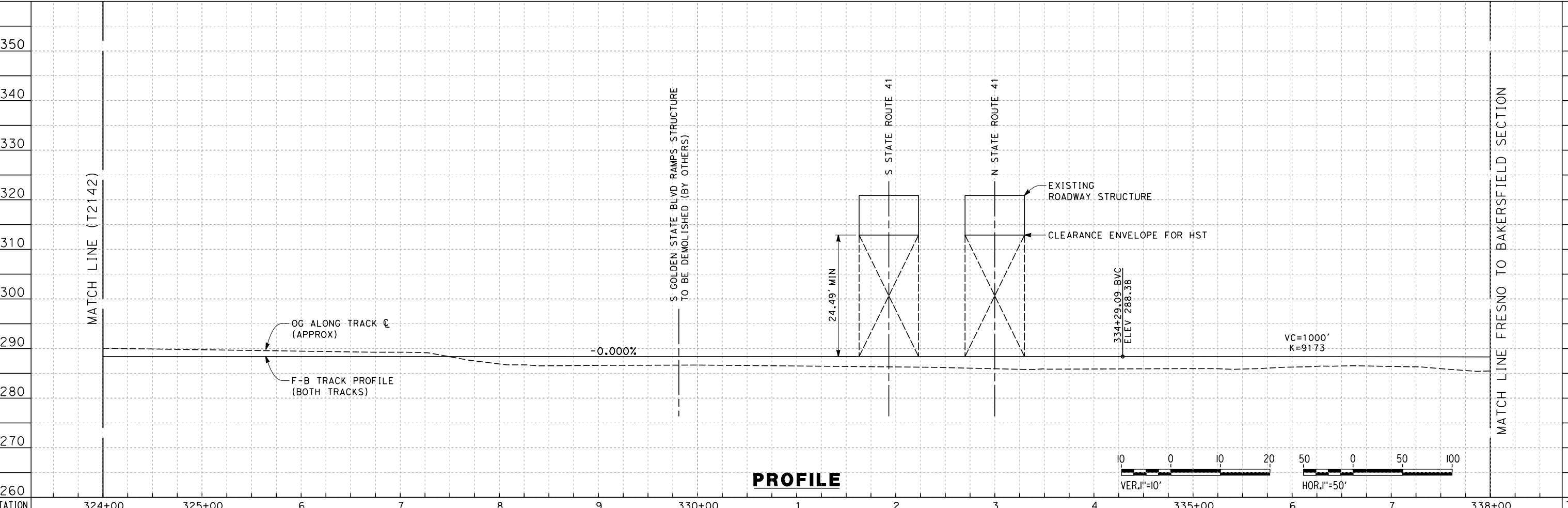
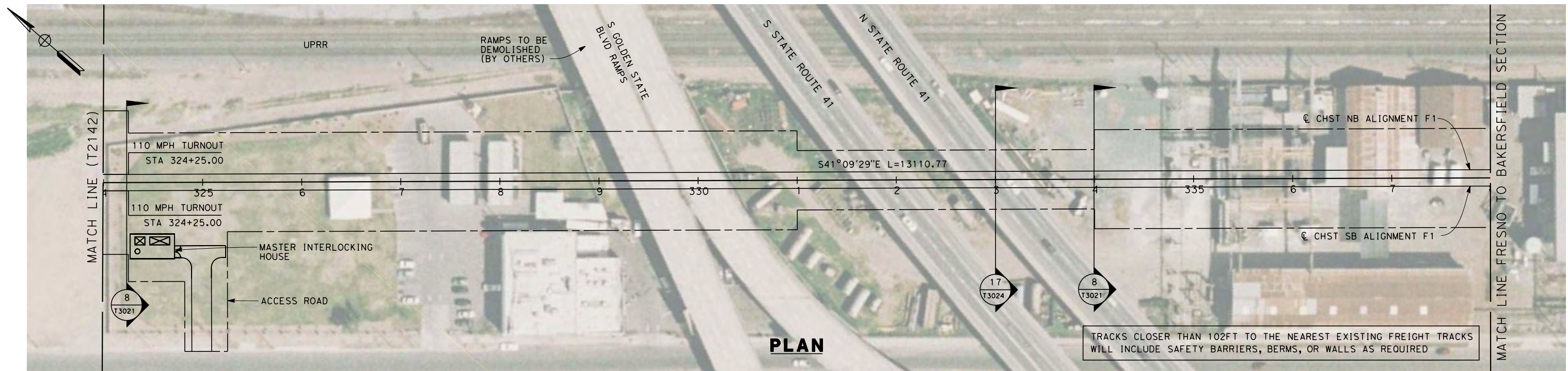


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MAIN LINE

 PLAN AND PROFILE
 STA. 310+00 TO 324+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2142-A
 SCALE
AS SHOWN
 SHEET NO.
XX OF XX

7/22/2011 10:34:08 AM 0:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\NSR 15% Design\AECOM\BNSF Alignment - Ave 21\FB-T2143-A-F1.mxd
 frank.palermo



STATION	324+00	325+00	6	7	8	9	330+00	1	2	3	4	335+00	6	7	338+00	TOTAL
CY																
	Exc															
	Emb															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 P. TONKIN
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 05/13/11

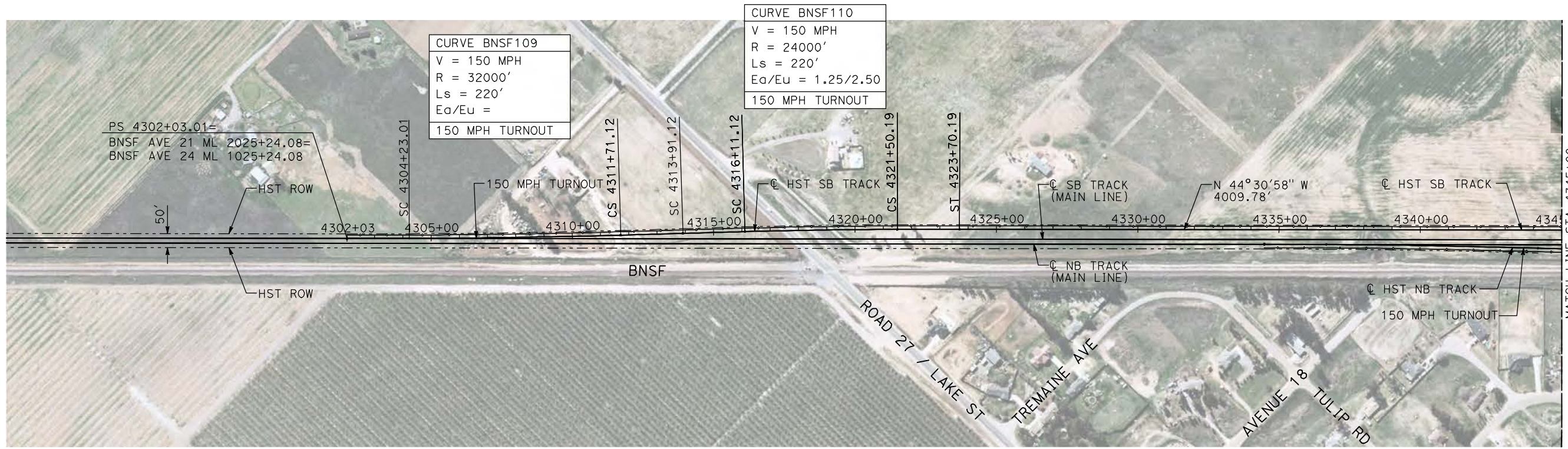
**RECORD SET 15%
 DESIGN SUBMISSION**

**NOT FOR
 CONSTRUCTION**



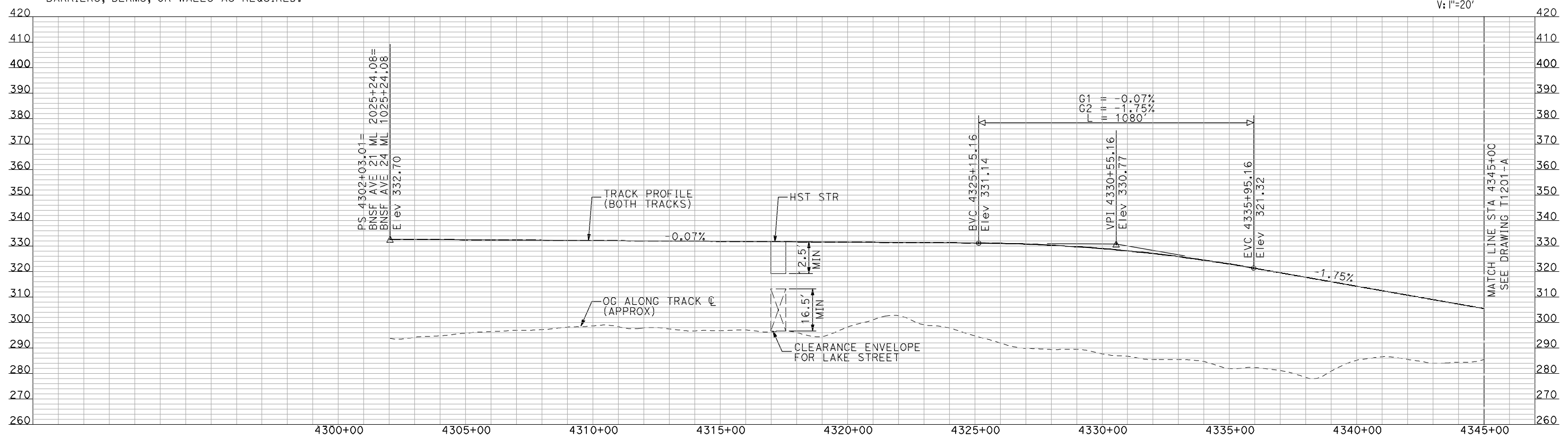
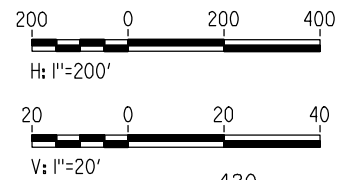
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
 MERCED TO FRESNO**
 BNSF MAIN LINE
 PLAN AND PROFILE
 STA. 324+00 TO 338+00

CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T2143-A
 SCALE
 AS SHOWN
 SHEET NO.
 XX OF XX



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PLAN



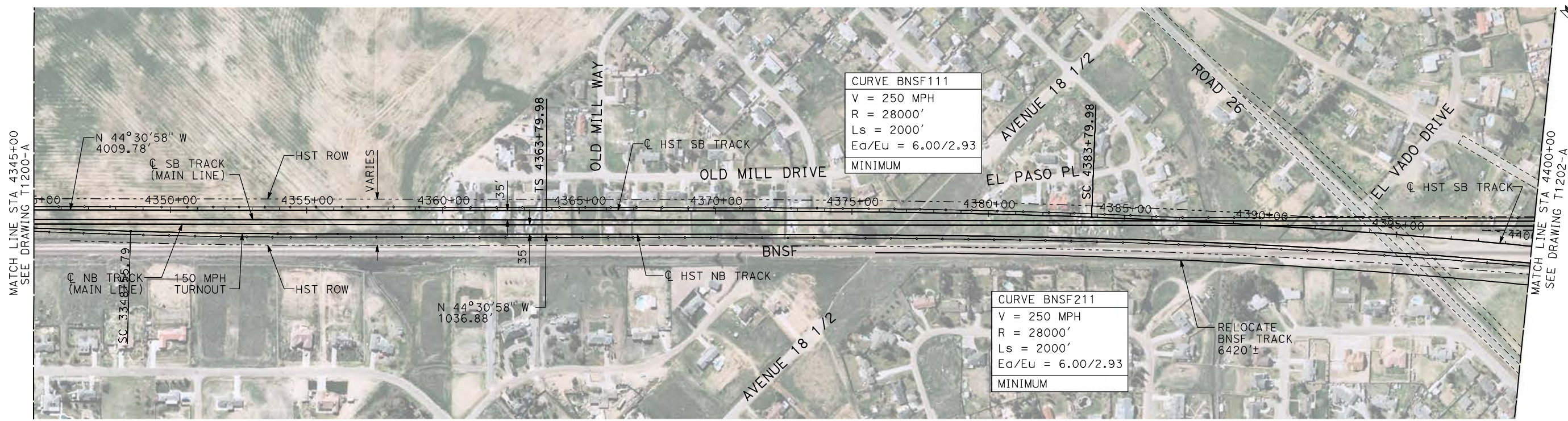
PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/21/2011 10:16:47 AM I:\CHSR\60022962\Task-02_Merced-Fresno\cadd\Civil\Sheet\TRACKWORK\DEIR\BNSF_AVE_21\WF-T-1200-A.dgn

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION	 <small>Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811</small>		CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 4302+03.01 TO STA 4345+00	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN					DRAWING NO. T1200-A
CHECKED BY A. BOONE					SCALE AS SHOWN
IN CHARGE A. BOONE					SHEET NO. ### OF ###
DATE 07/20/2011					

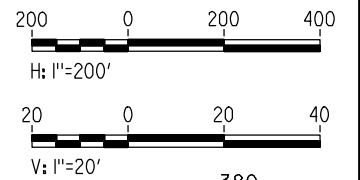
REV	DATE	BY	CHK	APP	DESCRIPTION
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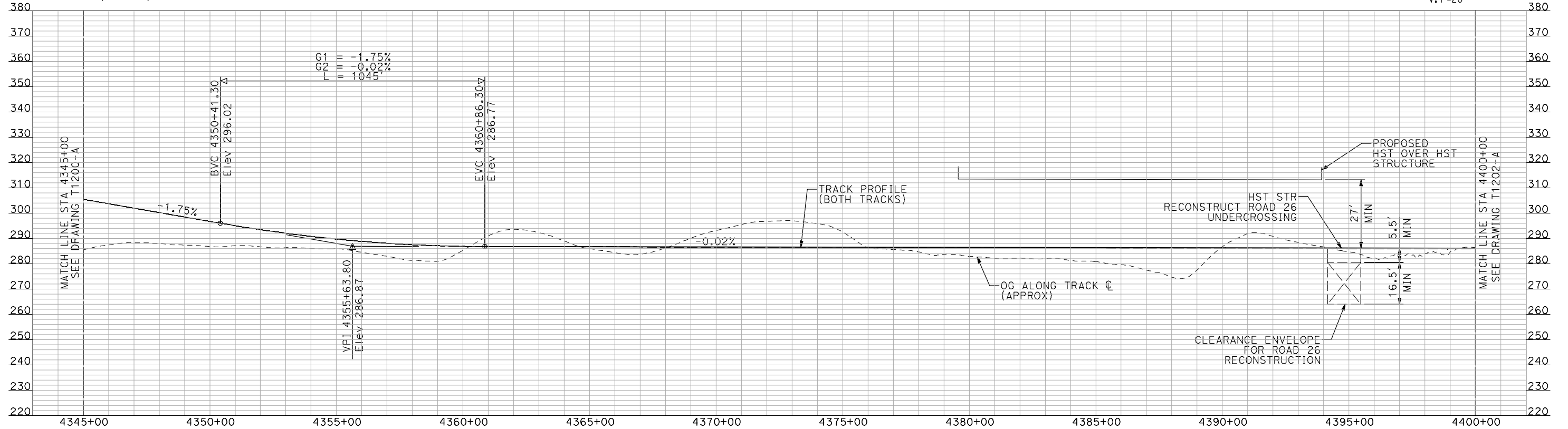
CURVE BNSF111
 V = 250 MPH
 R = 28000'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

CURVE BNSF211
 V = 250 MPH
 R = 28000'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

PLAN



- NOTES:
 1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

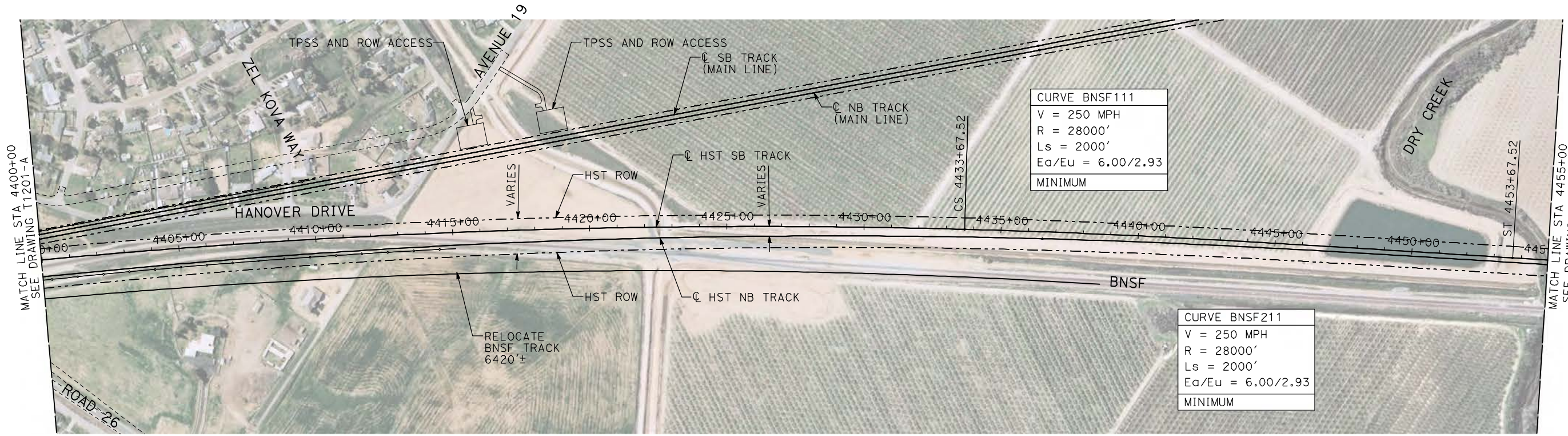
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/21/2011 10:17:32 AM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\trackwork\deir\bnsf_ave 21\MF-T-1201-A.dgn machadoe

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION	 <small>Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811</small> 	 CALIFORNIA <small>HIGH-SPEED RAIL AUTHORITY</small>	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 4345+00 TO STA 4400+00	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN					DRAWING NO. T1201-A
CHECKED BY A. BOONE					SCALE AS SHOWN
IN CHARGE A. BOONE					SHEET NO. ### OF ###
DATE 07/20/2011					

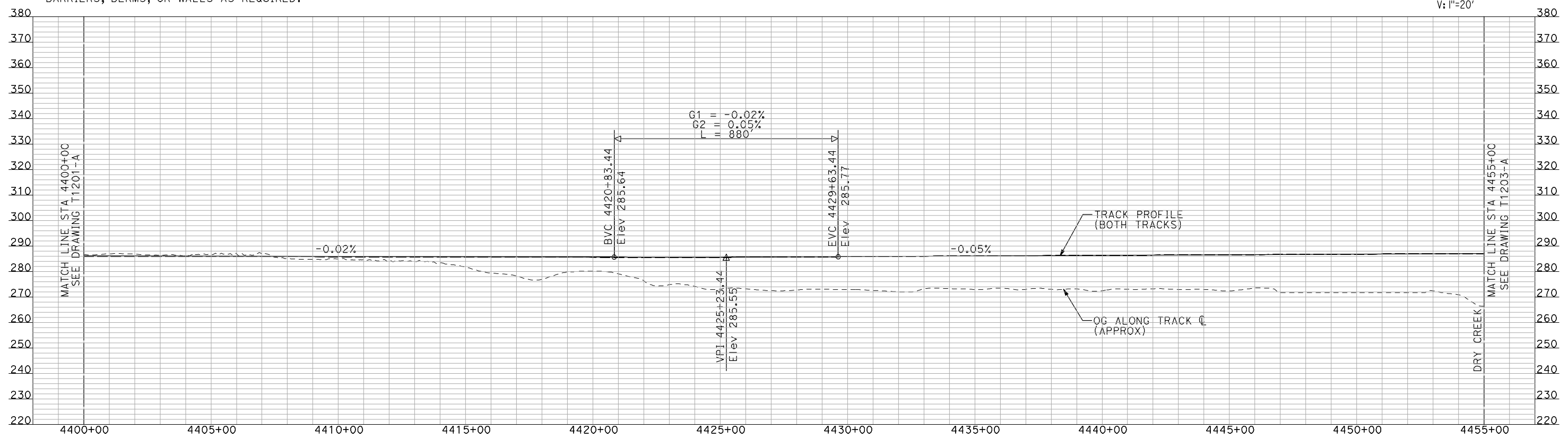
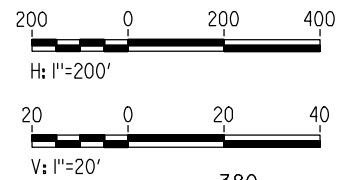
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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

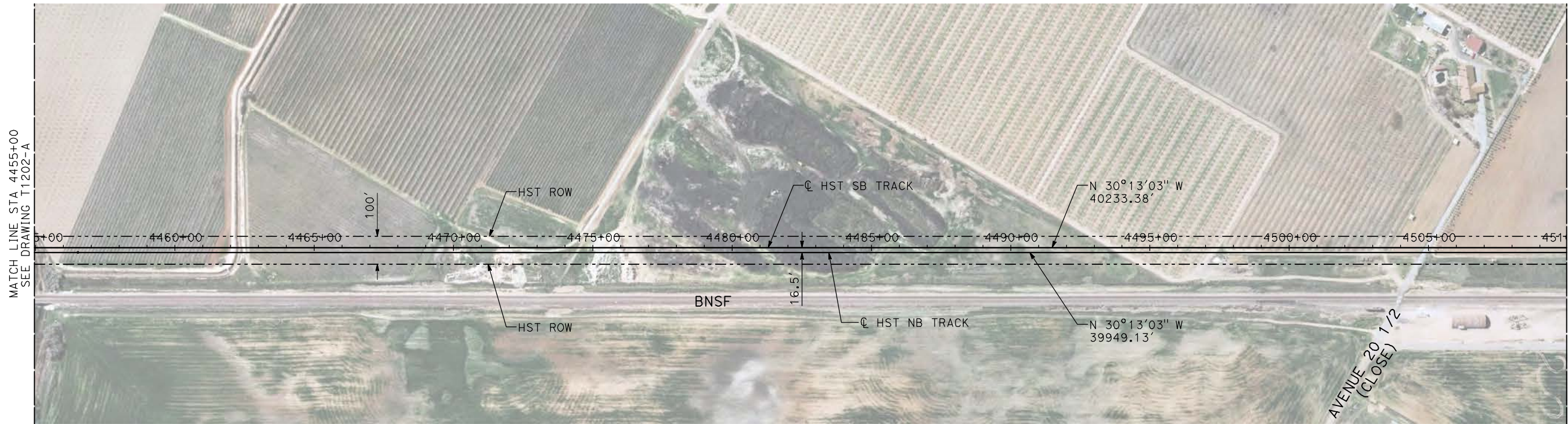
**NOT FOR
CONSTRUCTION**



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

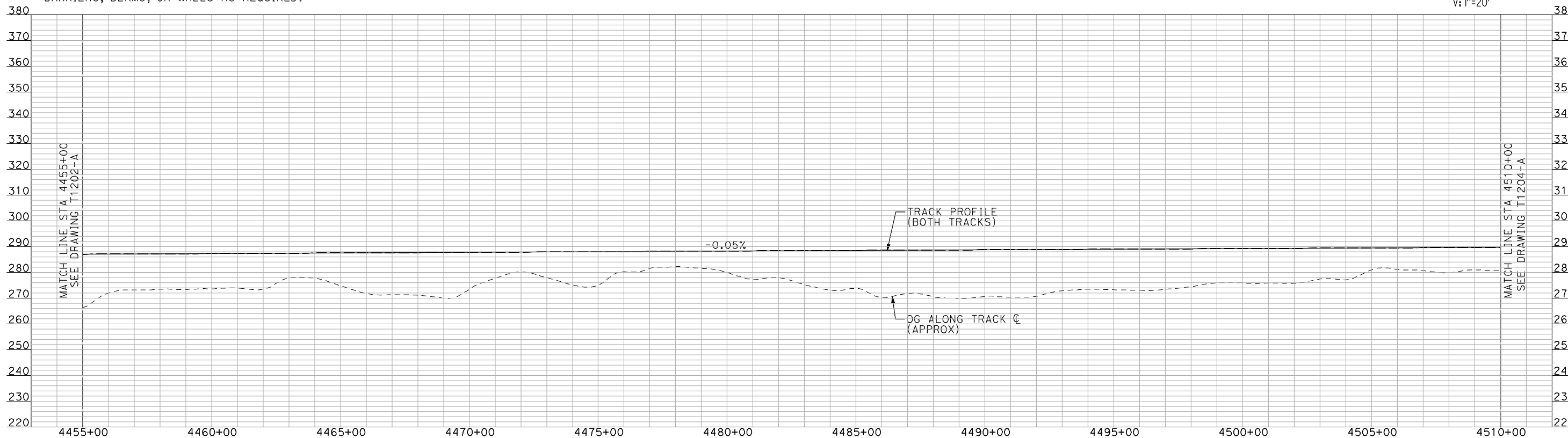
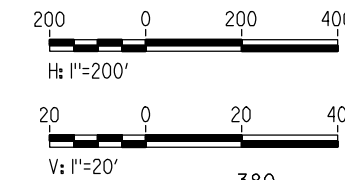
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 4400+00 TO STA 4455+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1202-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/21/2011 10:19:04 AM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\trackwork\deir\bnsf_ave 21\MF-T-1203-A.dgn machadoe

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

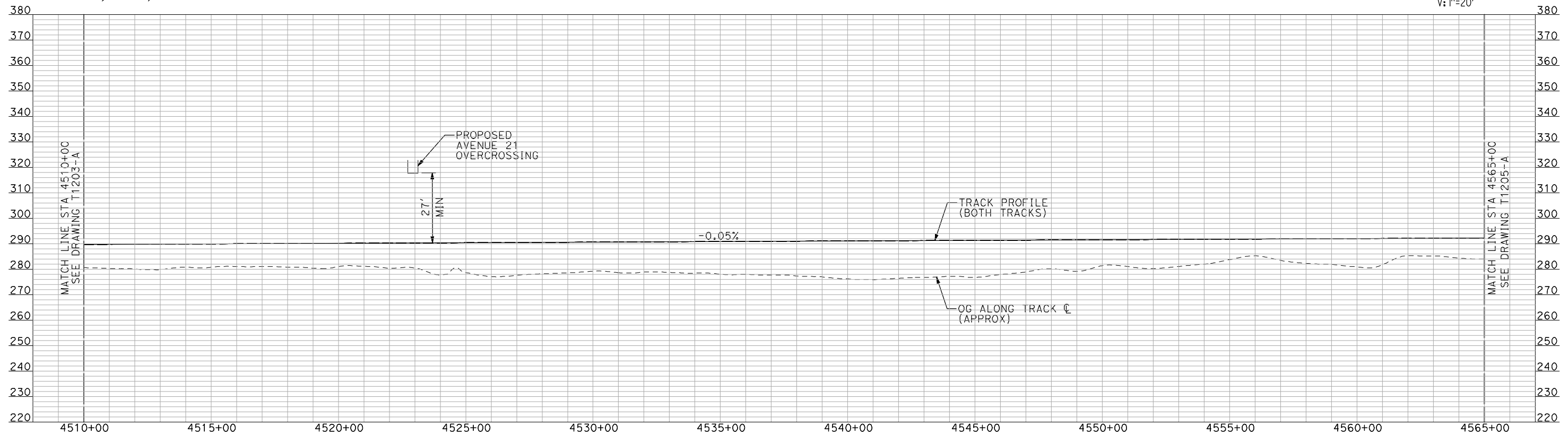
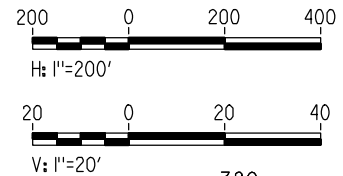
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 4455+00 TO STA 4510+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1203-A
SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

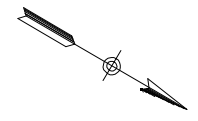
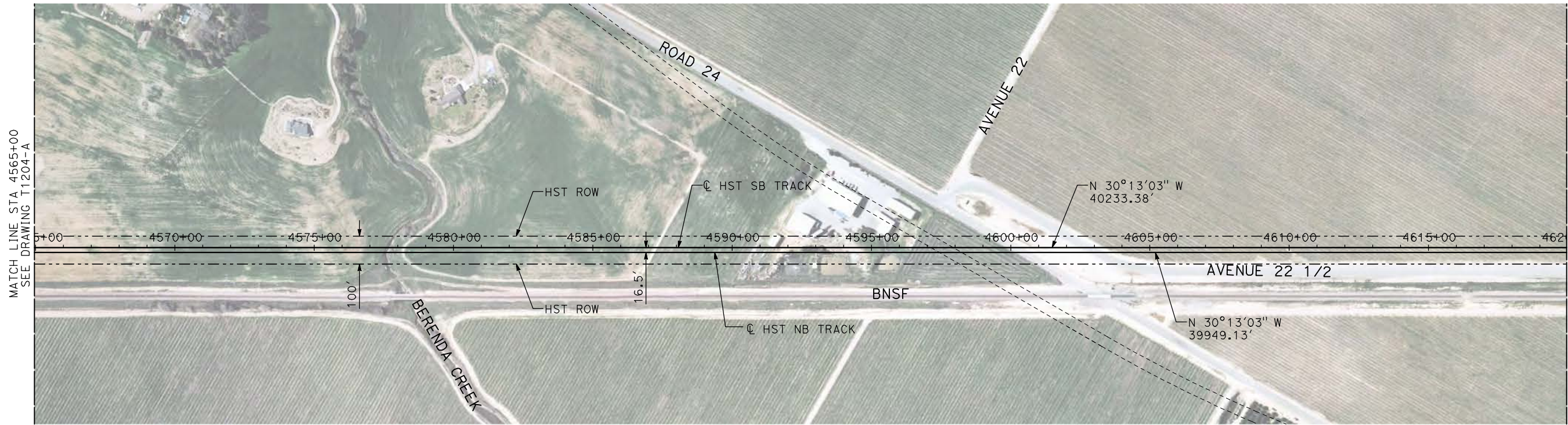
**NOT FOR
CONSTRUCTION**



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

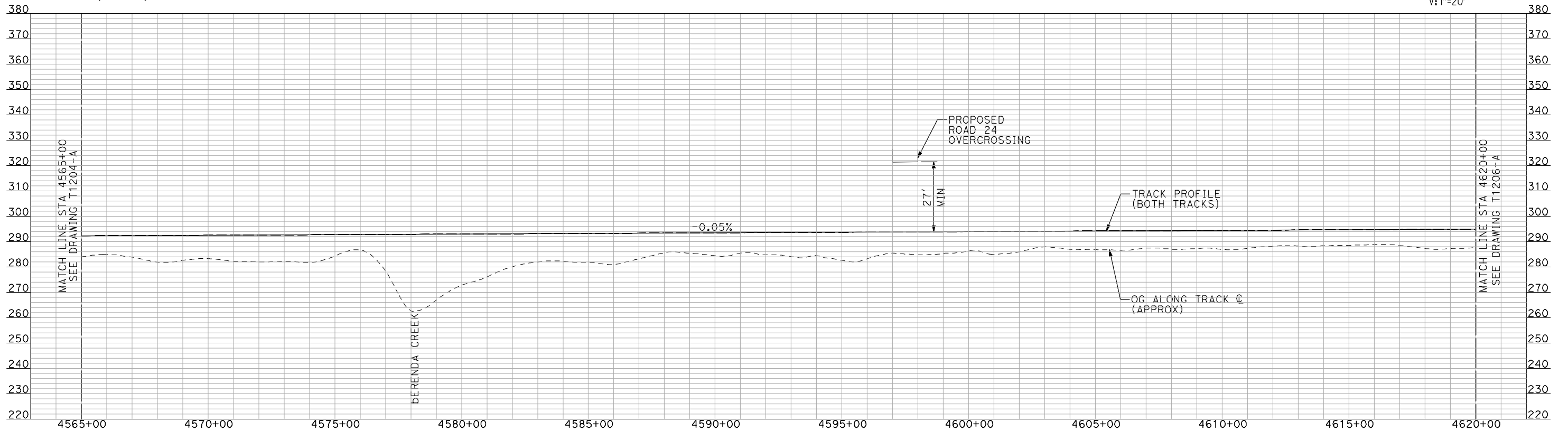
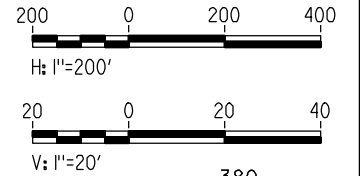
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 4510+00 TO STA 4565+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1204-A
SCALE
AS SHOWN
SHEET NO.
OF



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

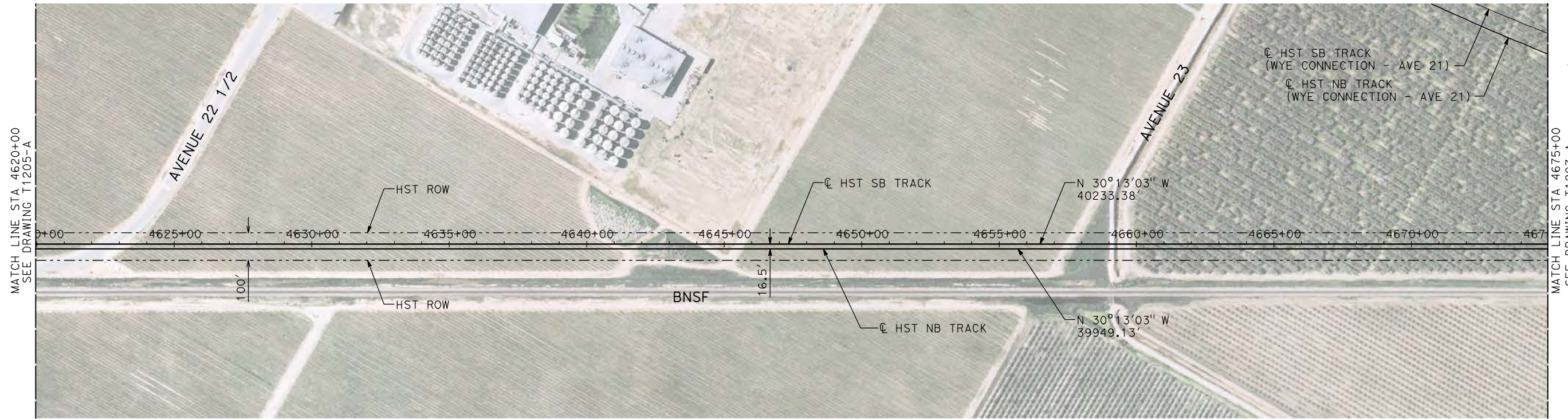
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AVE 21 / AVE 24
PLAN AND PROFILE
STA 4565+00 TO STA 4620+00

CONTRACT NO.
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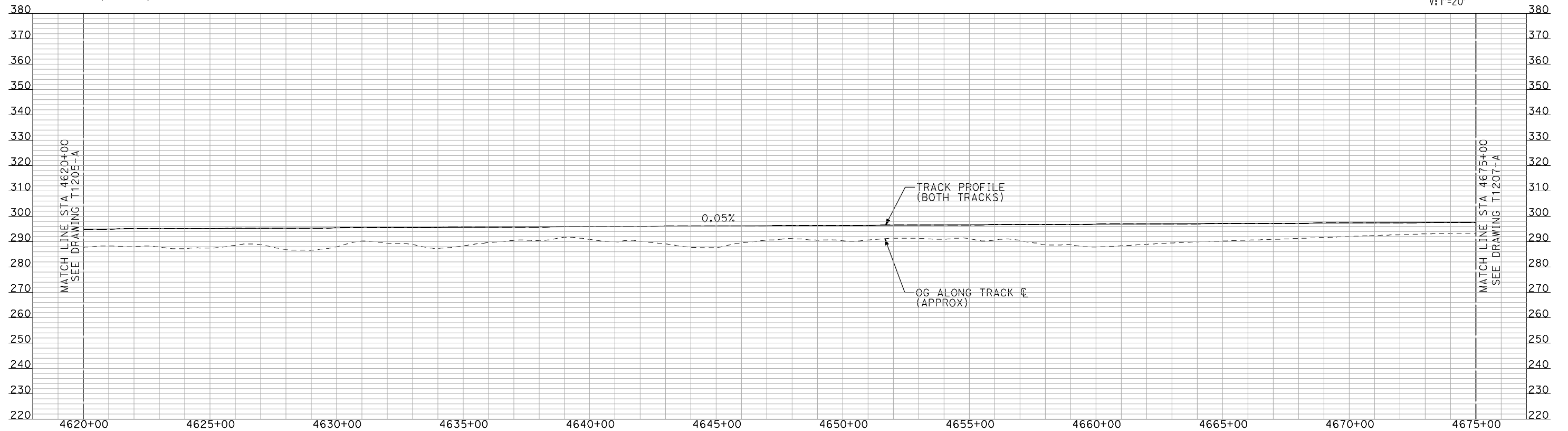
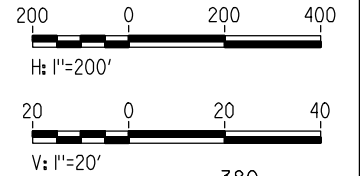
SCALE
AS SHOWN

SHEET NO.
OF



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



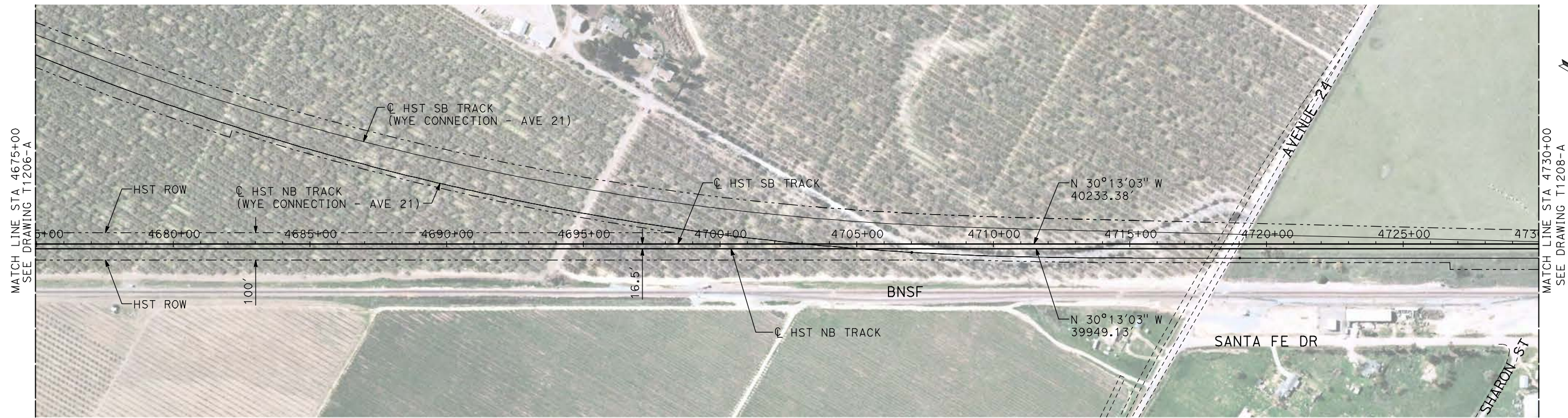
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 4620+00 TO STA 4675+00

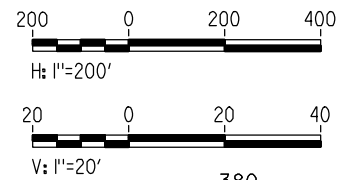
CONTRACT NO.
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DRAWING NO.
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SCALE
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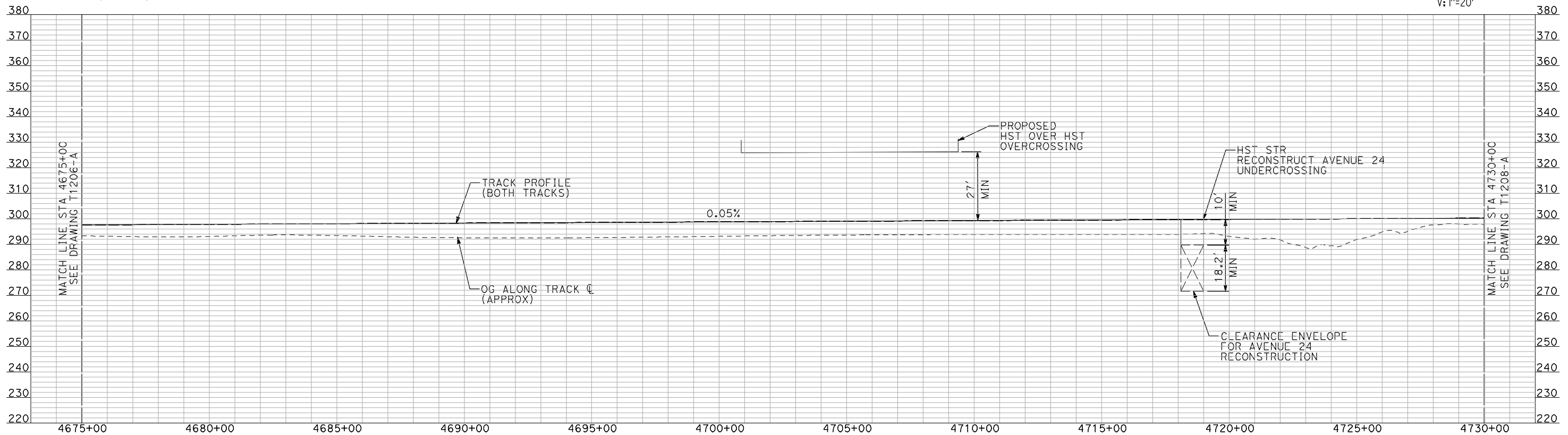
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PLAN



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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
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A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

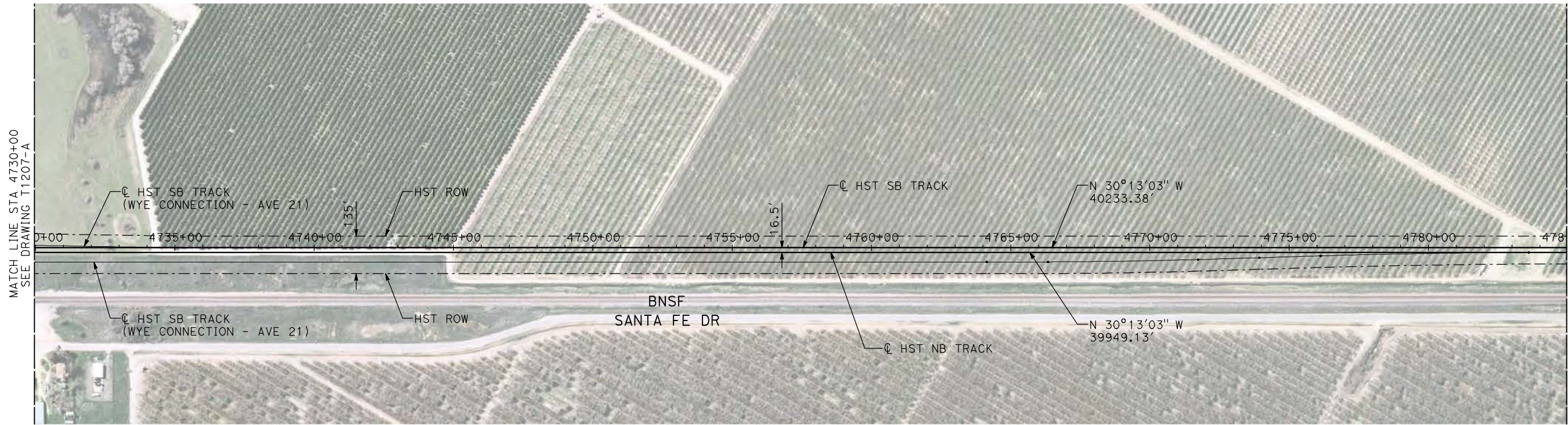
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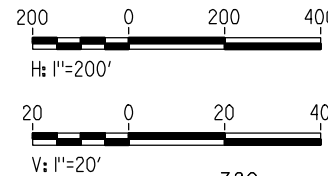
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
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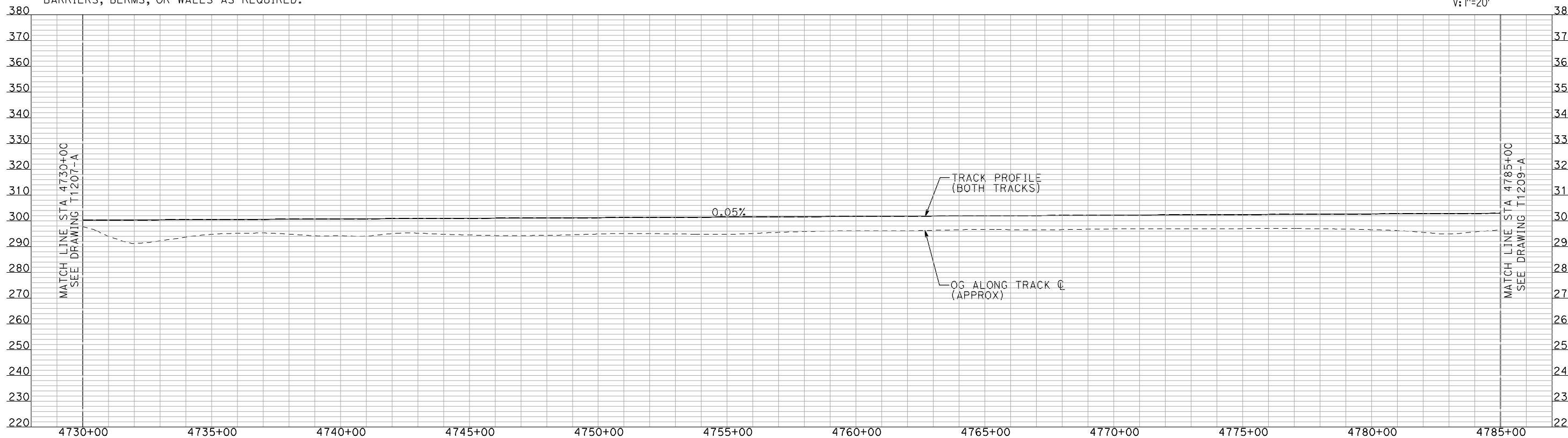
CONTRACT NO.
HSR06-007
DRAWING NO.
T1207-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN



- NOTES:**
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

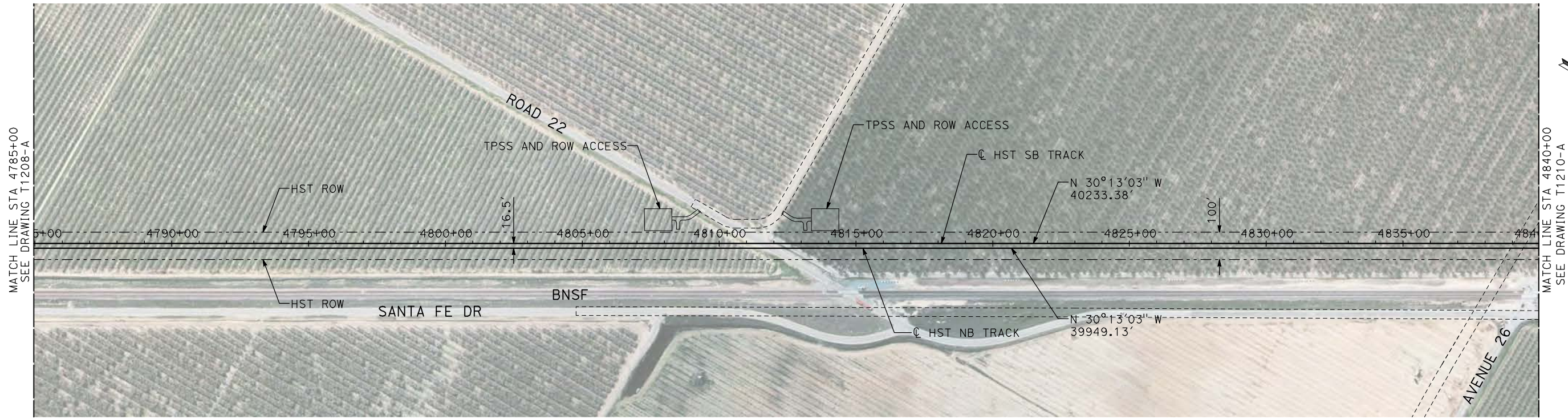
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CONSTRUCTION



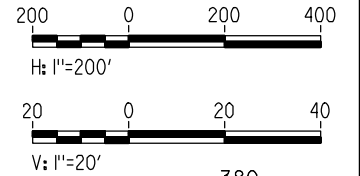
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
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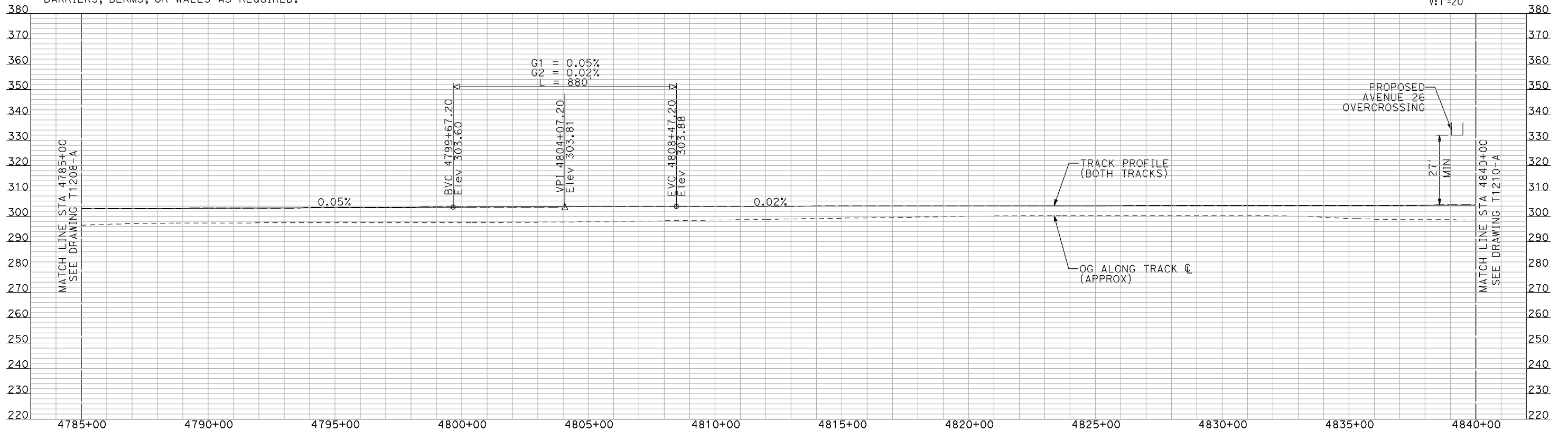
CONTRACT NO.
HSR06-007
DRAWING NO.
T1208-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



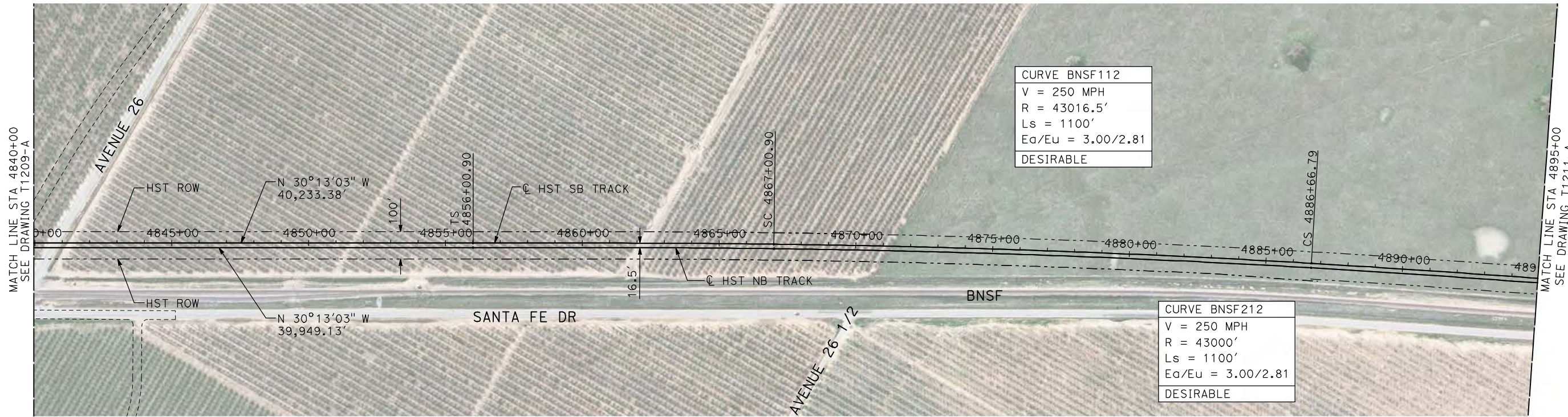
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 4785+00 TO STA 4840+00

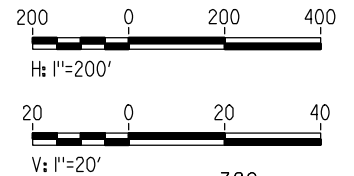
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DRAWING NO.
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SCALE
AS SHOWN
SHEET NO.
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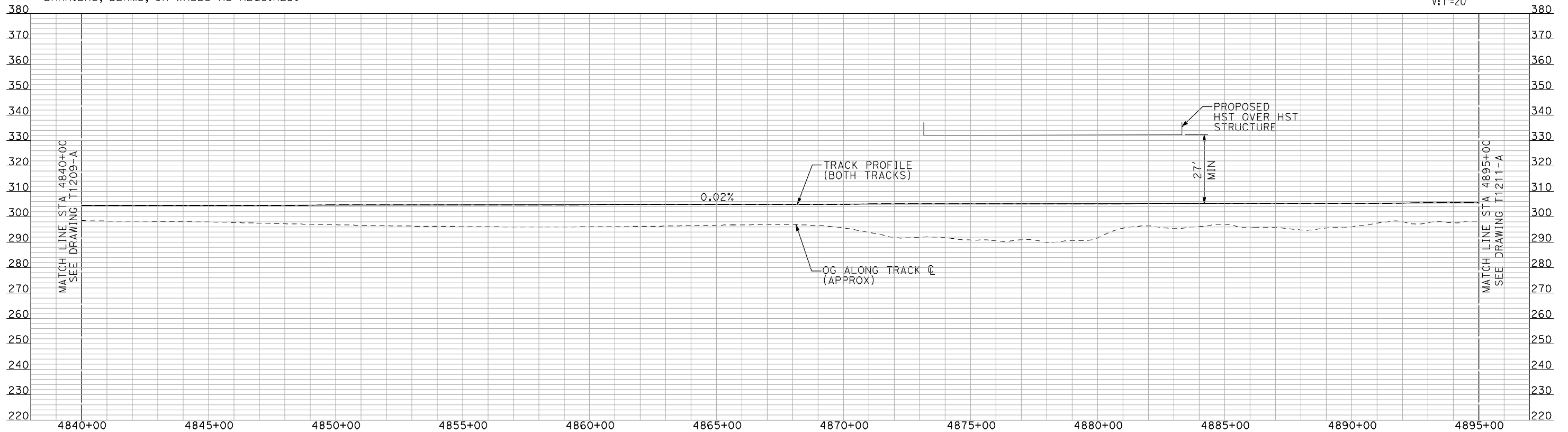
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PLAN



- NOTES:**
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/21/2011 10:24:21 AM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\trackwork\deir\bnsf_ave 21\MF-T-1210-A.dgn machadoe

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

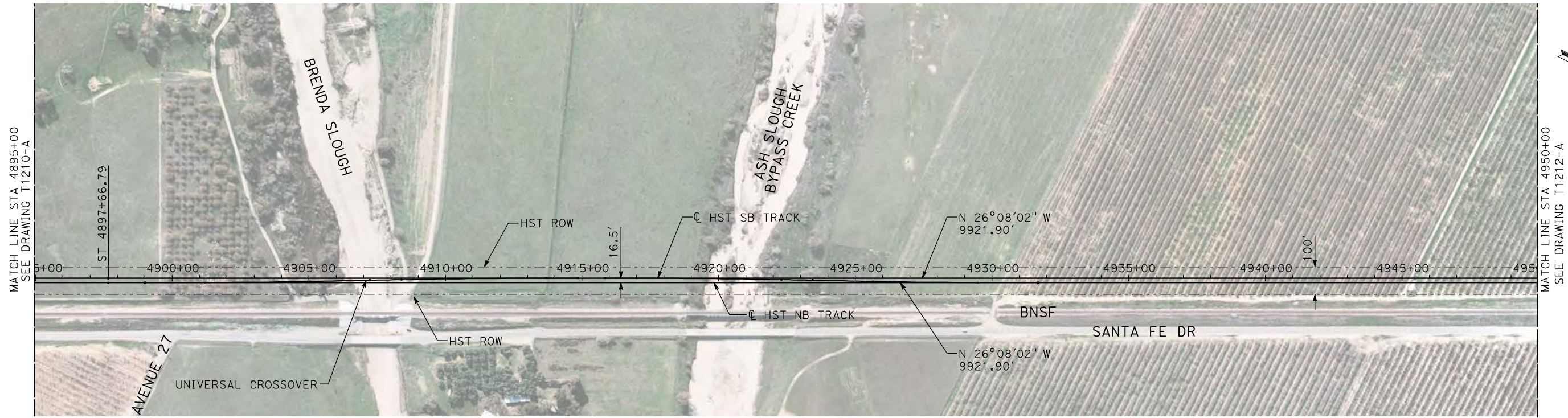
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 4840+00 TO STA 4895+00

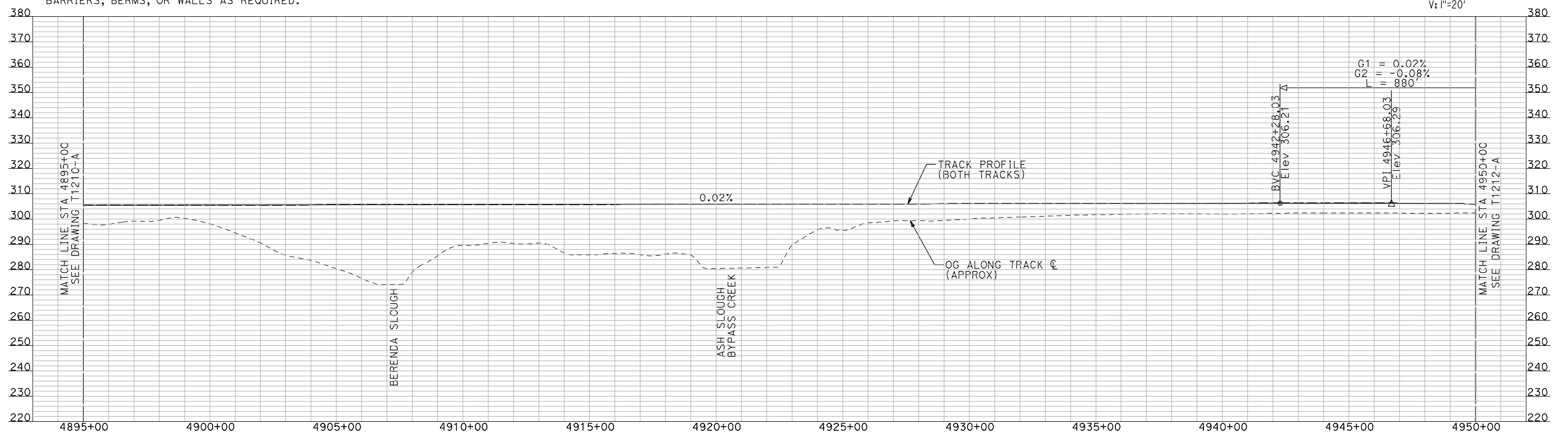
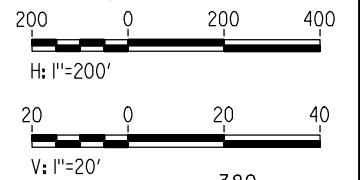
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DRAWING NO.
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SCALE
AS SHOWN
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OF

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PLAN

- NOTES:
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

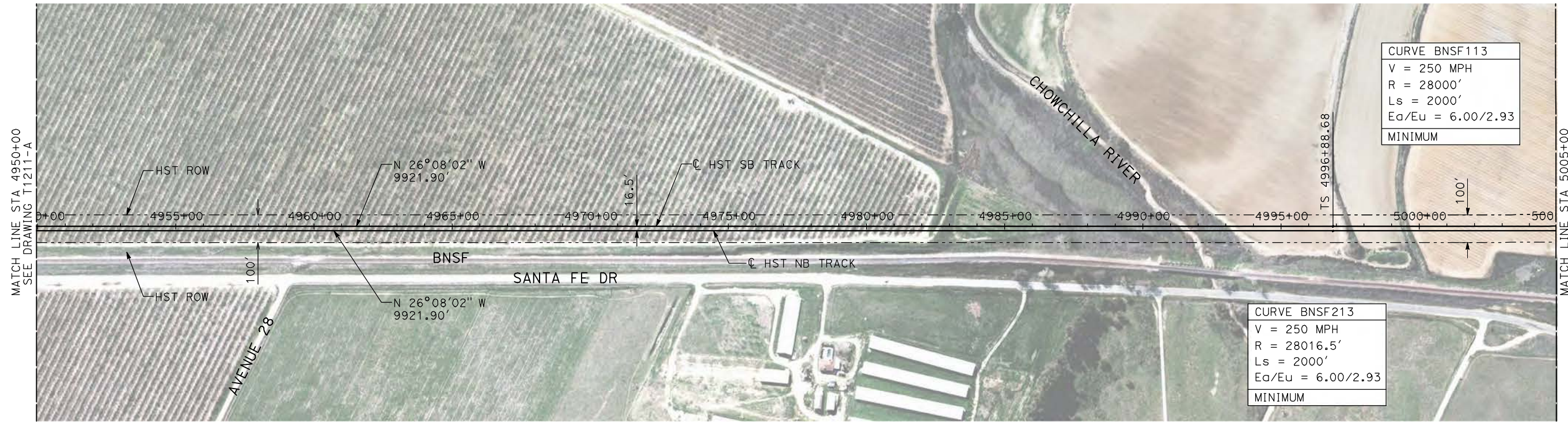
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AVE 21 / AVE 24
PLAN AND PROFILE
STA 4895+00 TO STA 4950+00

CONTRACT NO.
HSR06-007

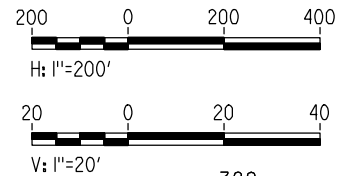
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SCALE
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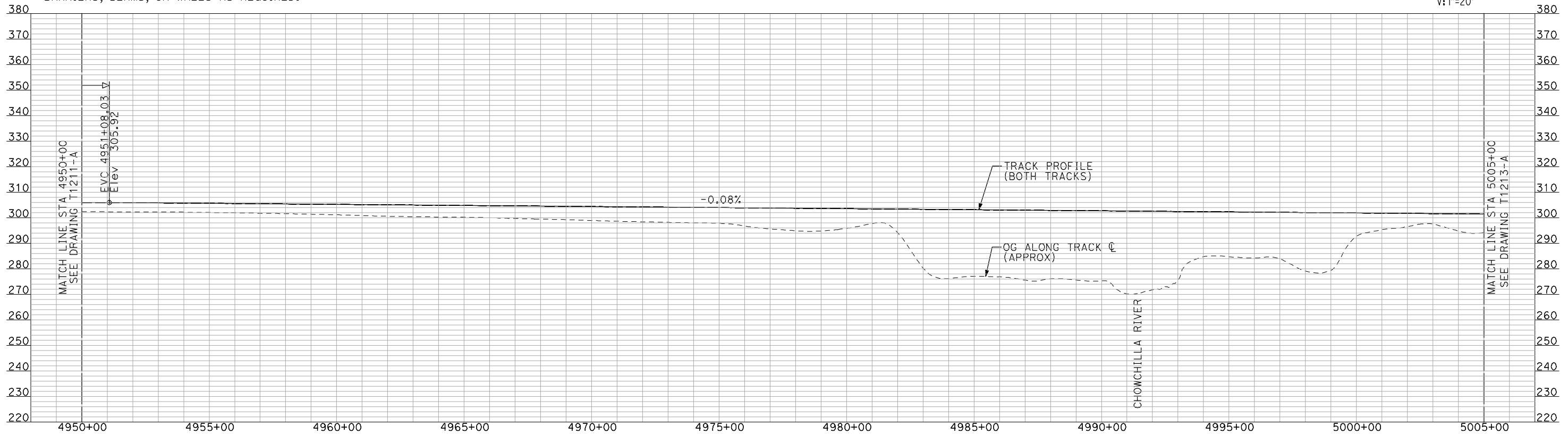
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OF



PLAN



- NOTES:**
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



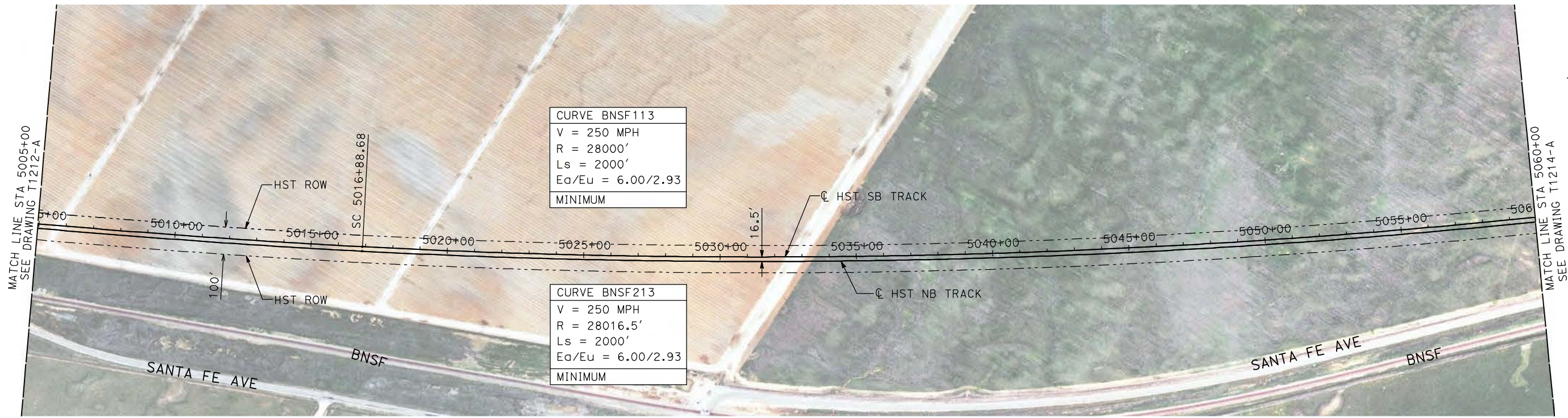
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 4950+00 TO STA 5005+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1212-A
SCALE
AS SHOWN
SHEET NO.
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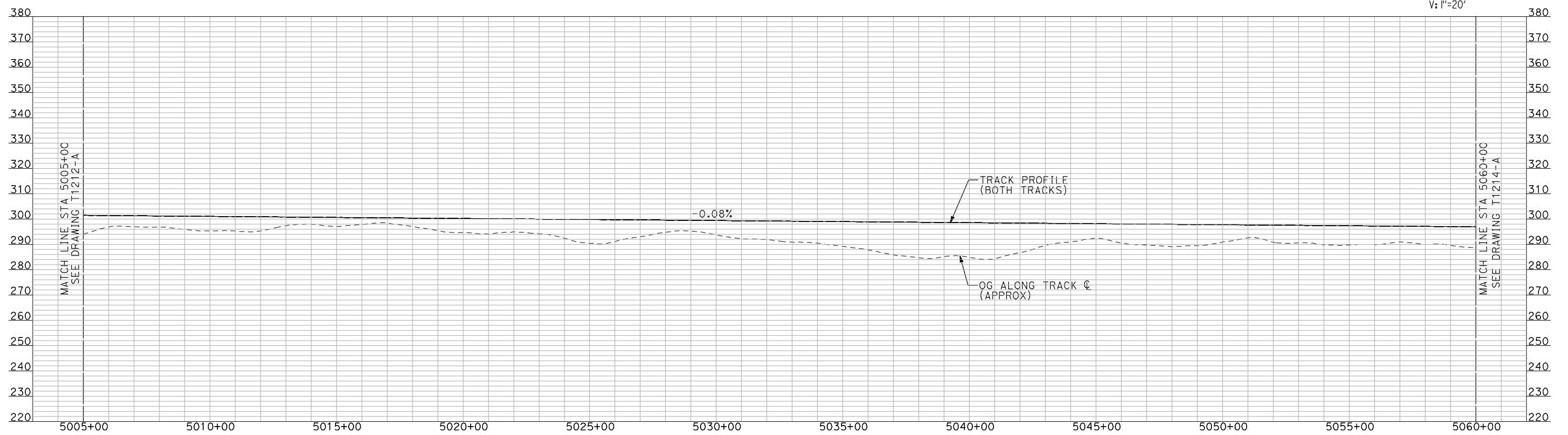
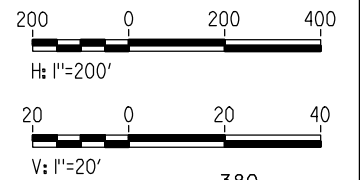
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- NOTES:
 1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

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A. BOONE
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07/20/2011

RECORD SET
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SUBMITTAL

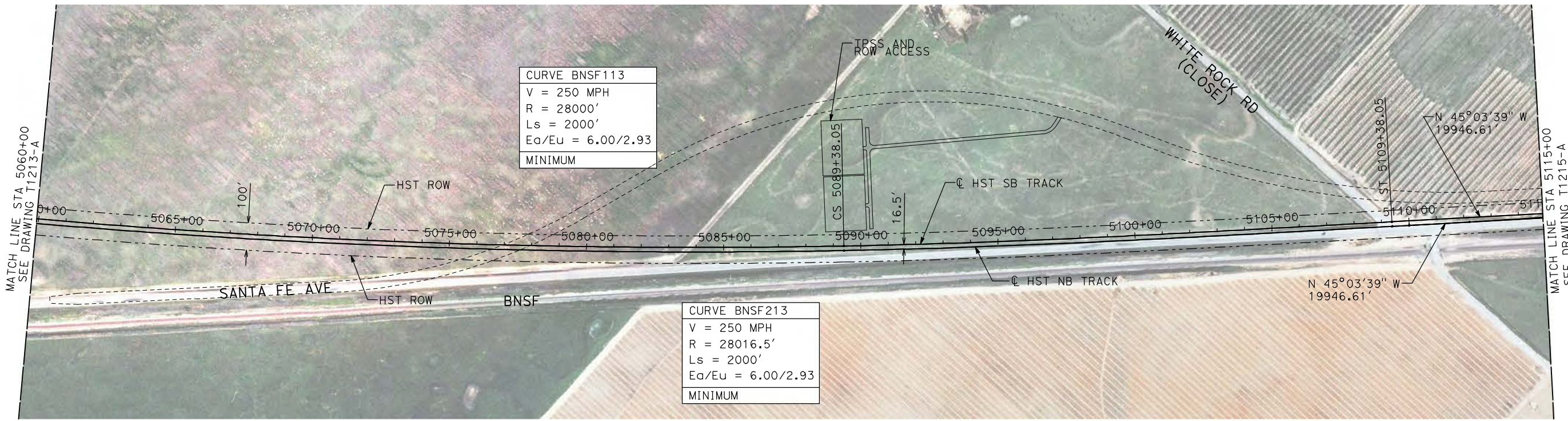
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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MERCED CONNECTION
 AVE 21 / AVE 24
 PLAN AND PROFILE
 STA 5005+00 TO STA 5060+00

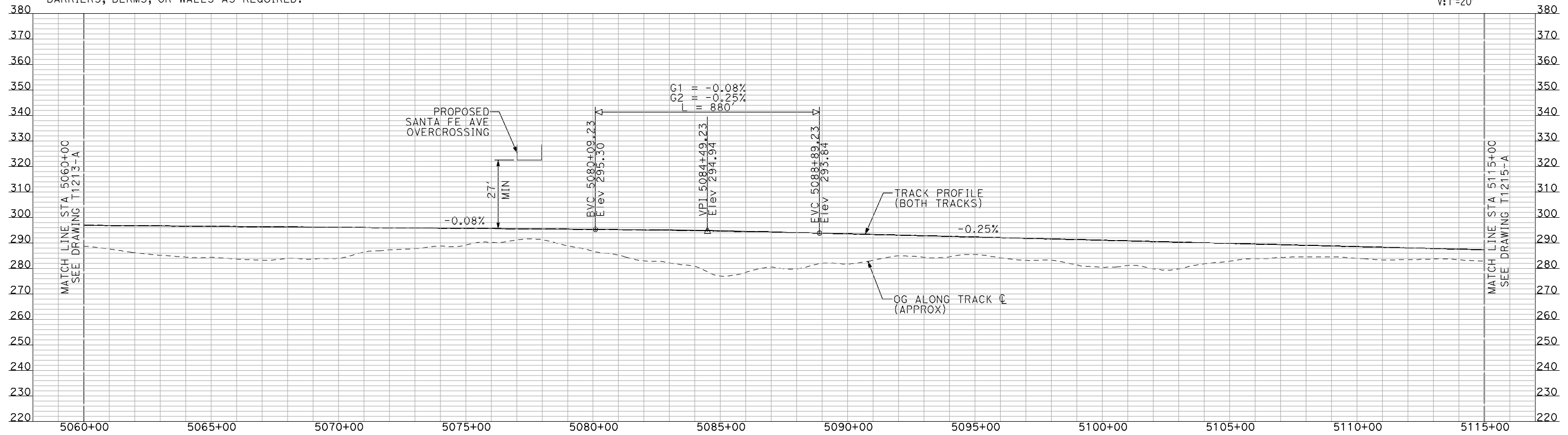
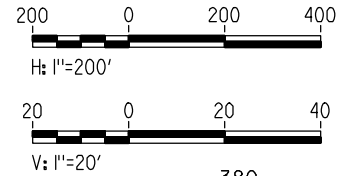
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AS SHOWN
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OF

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PLAN

- NOTES:
 1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

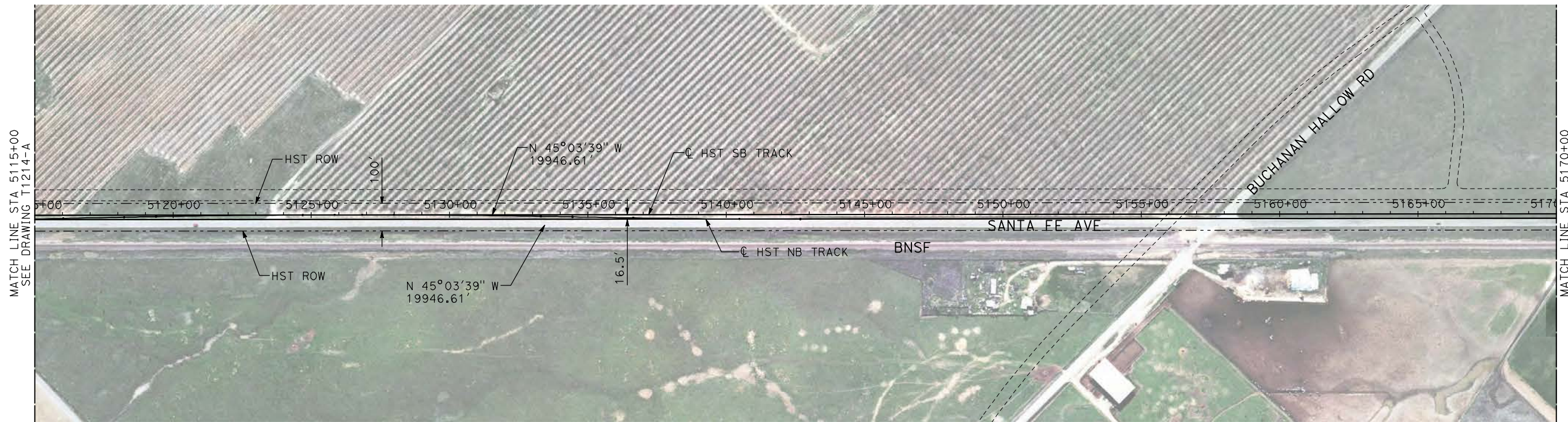
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



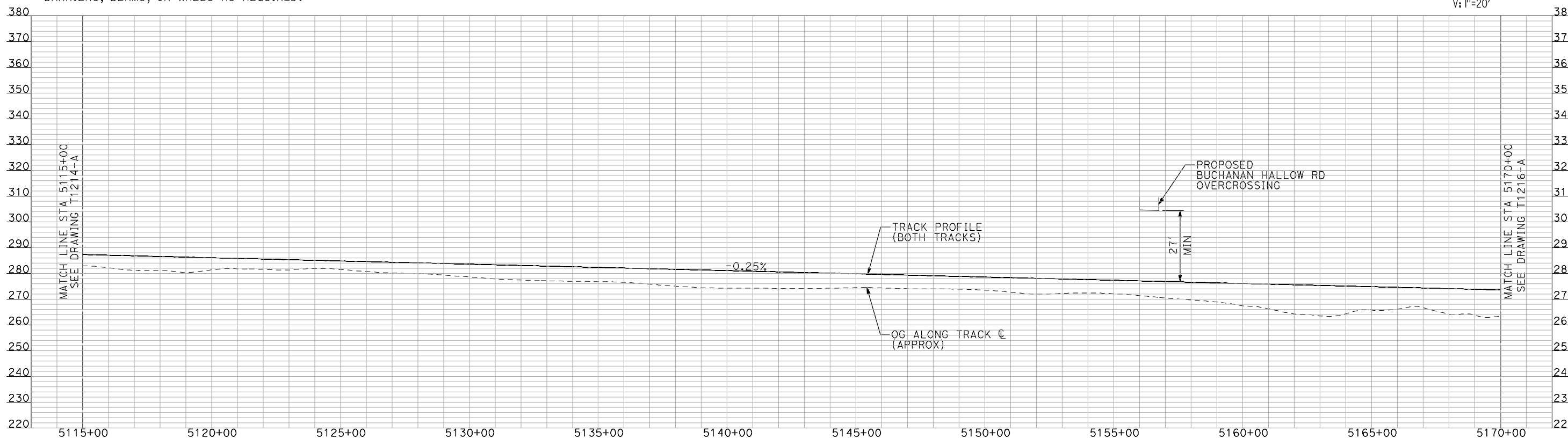
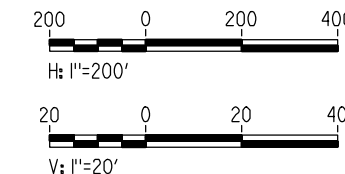
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MERCED CONNECTION
 AVE 21 / AVE 24
 PLAN AND PROFILE
 STA 5060+00 TO STA 5115+00

CONTRACT NO. HSR06-007
DRAWING NO. T1214-A
SCALE AS SHOWN
SHEET NO. ### OF ###



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/21/2011 10:29:41 AM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\trackwork\deir\bnsf_ave_21\MF-T-1215-A.dgn machadoe

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

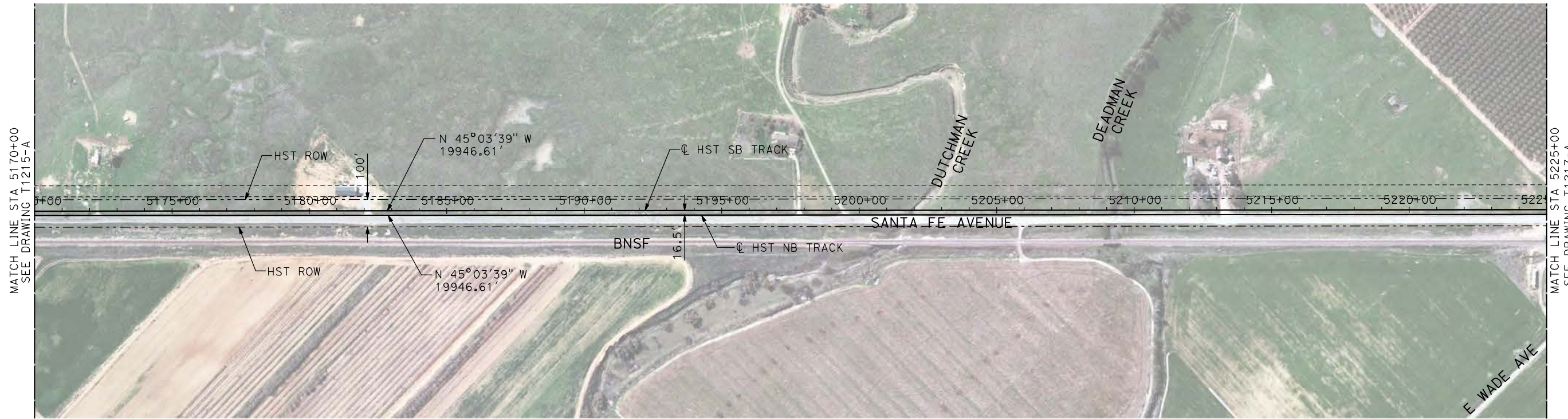
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15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

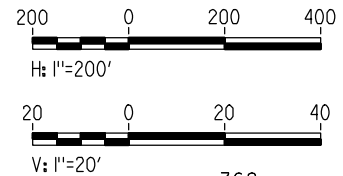


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5115+00 TO STA 5170+00

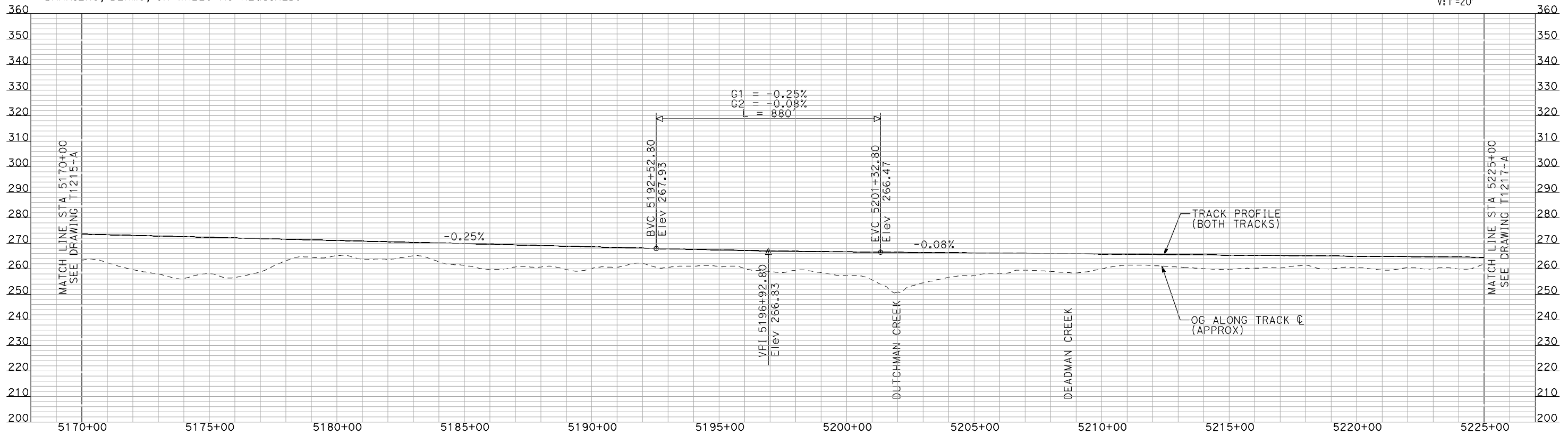
CONTRACT NO.
HSR06-007
DRAWING NO.
T1215-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

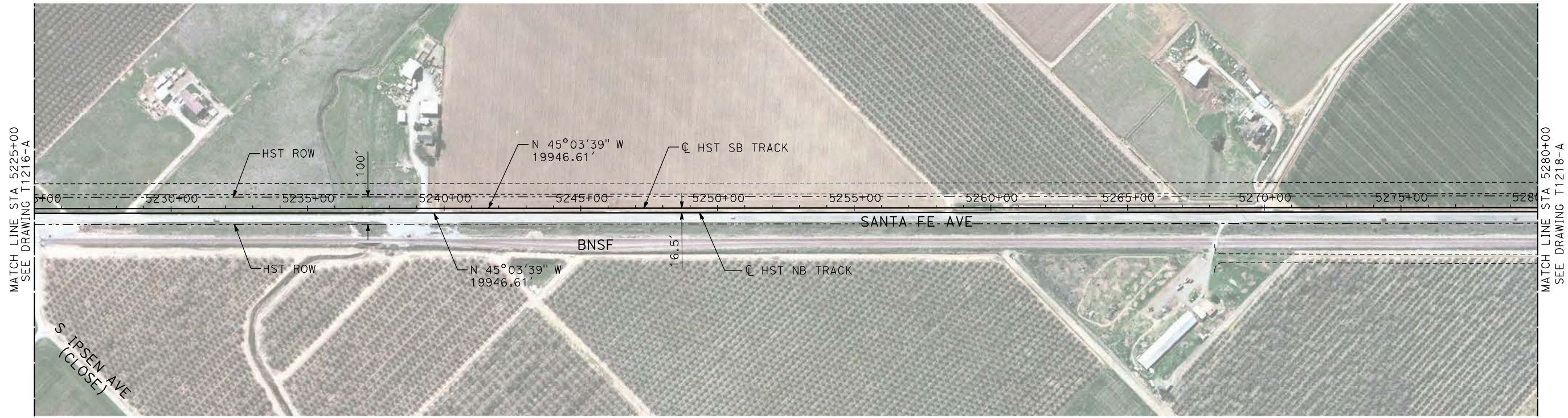


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5170+00 TO STA 5225+00

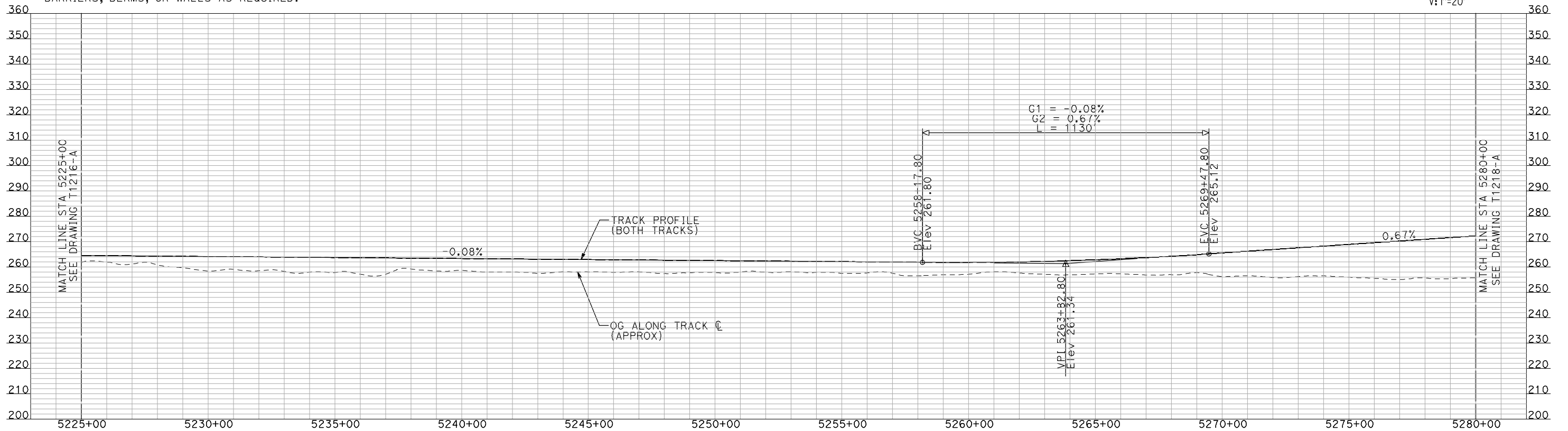
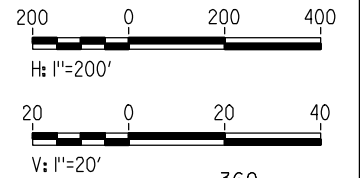
CONTRACT NO.	HSR06-007
DRAWING NO.	T1216-A
SCALE	AS SHOWN
SHEET NO.	### OF ###

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PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

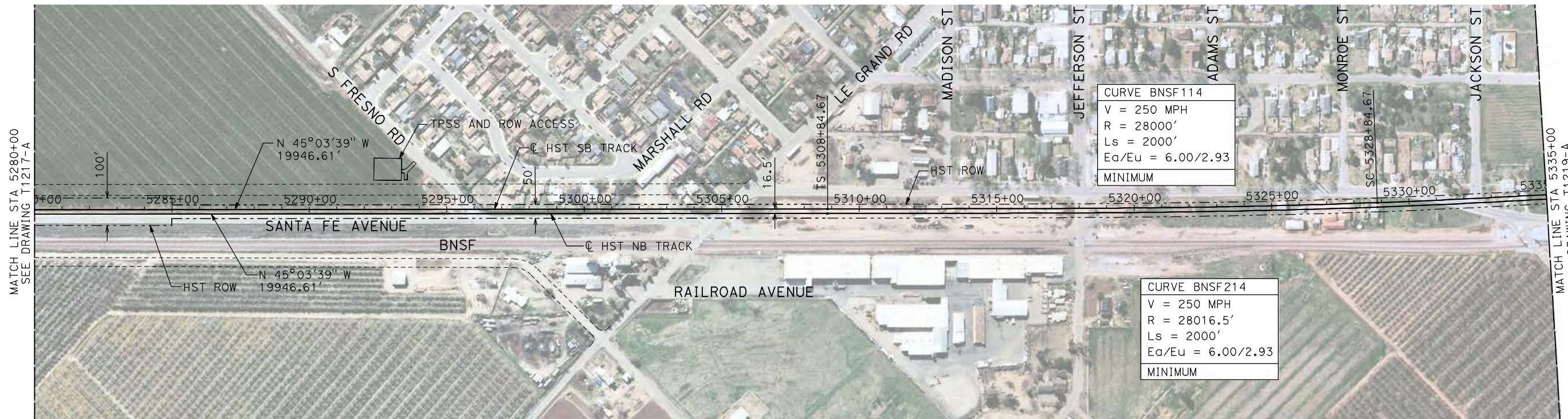
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15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

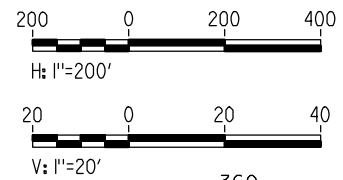


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5225+00 TO STA 5280+00

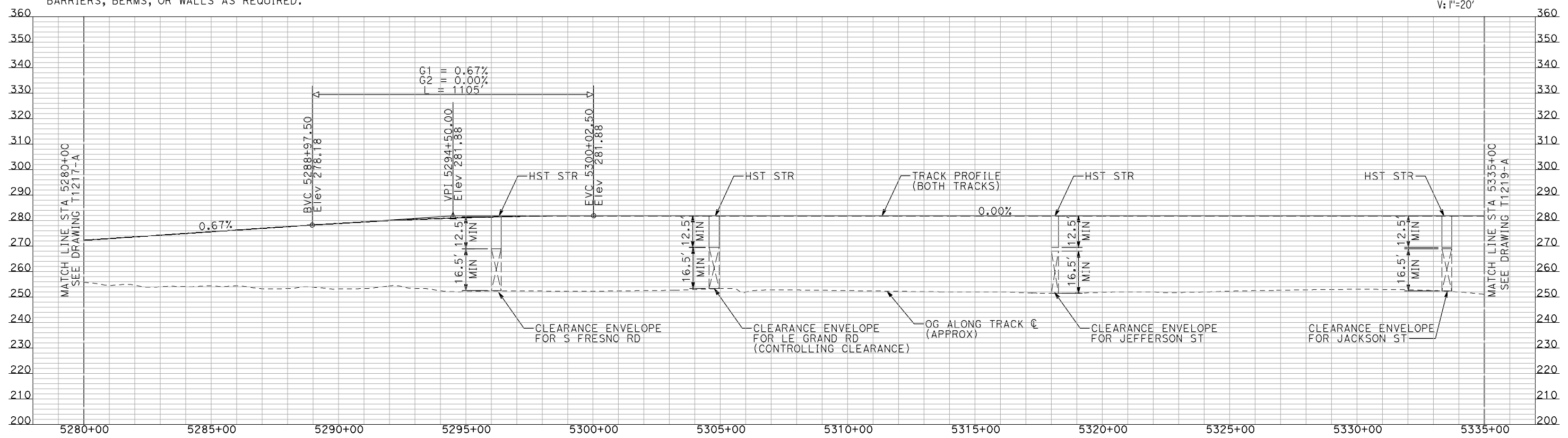
CONTRACT NO.
HSR06-007
DRAWING NO.
T1217-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



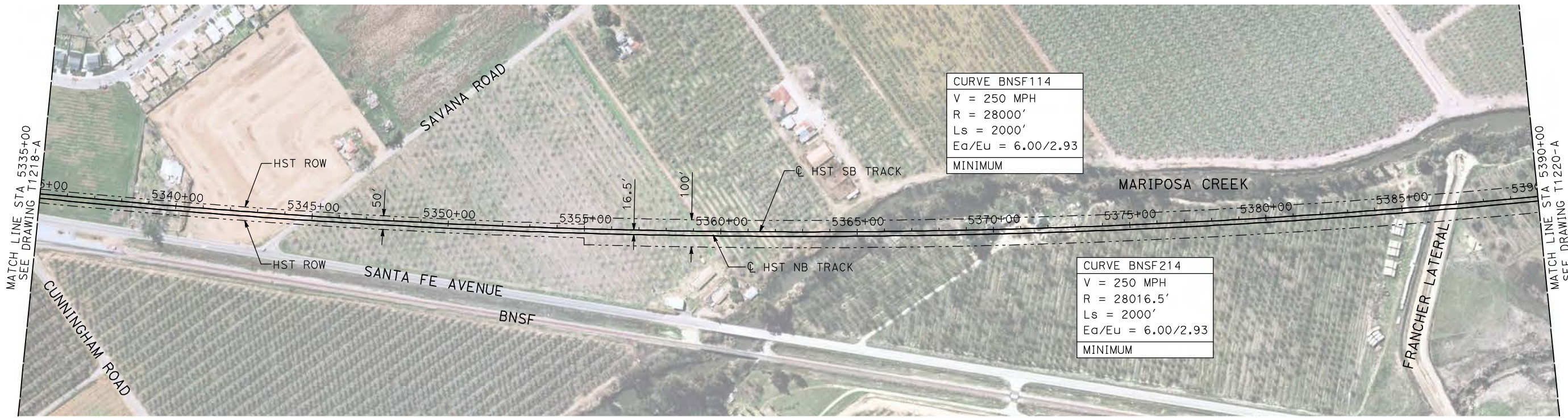
PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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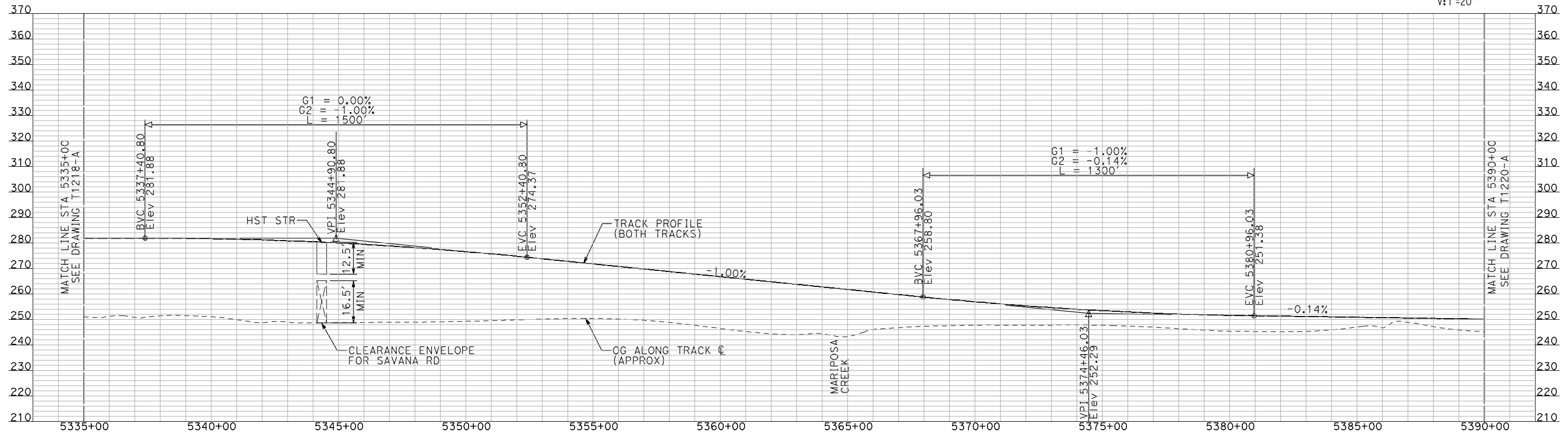
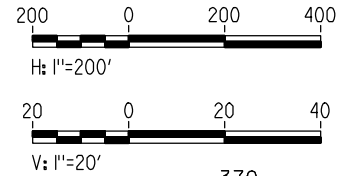
DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION					
DRAWN BY H. SULLIVAN		<small>Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811</small>				
CHECKED BY A. BOONE						
IN CHARGE A. BOONE		CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 5280+00 TO STA 5335+00				
DATE 07/20/2011		CONTRACT NO. HSR06-007 DRAWING NO. T1218-A SCALE AS SHOWN SHEET NO. ### OF ###				
REV	DATE	BY	CHK	APP	DESCRIPTION	

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- NOTES:**
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 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.
 3. FOR CONTROLLING CLEARANCE, SEE T1218-A.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5335+00 TO STA 5390+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1219-A
SCALE
AS SHOWN
SHEET NO.
OF

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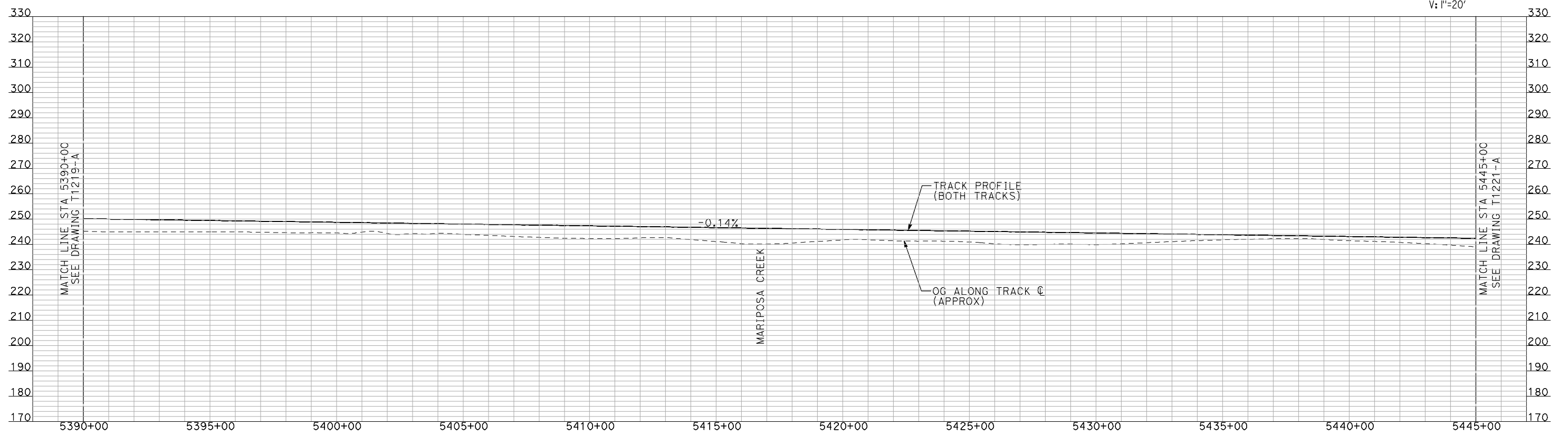
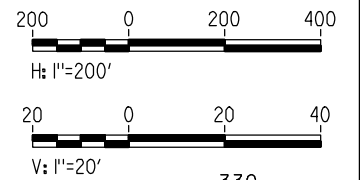


CURVE BNSF114
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R = 28000'
Ls = 2000'
Ea/Eu = 6.00/2.93
MINIMUM

CURVE BNSF214
V = 250 MPH
R = 28016.5'
Ls = 2000'
Ea/Eu = 6.00/2.93
MINIMUM

- NOTES:
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 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

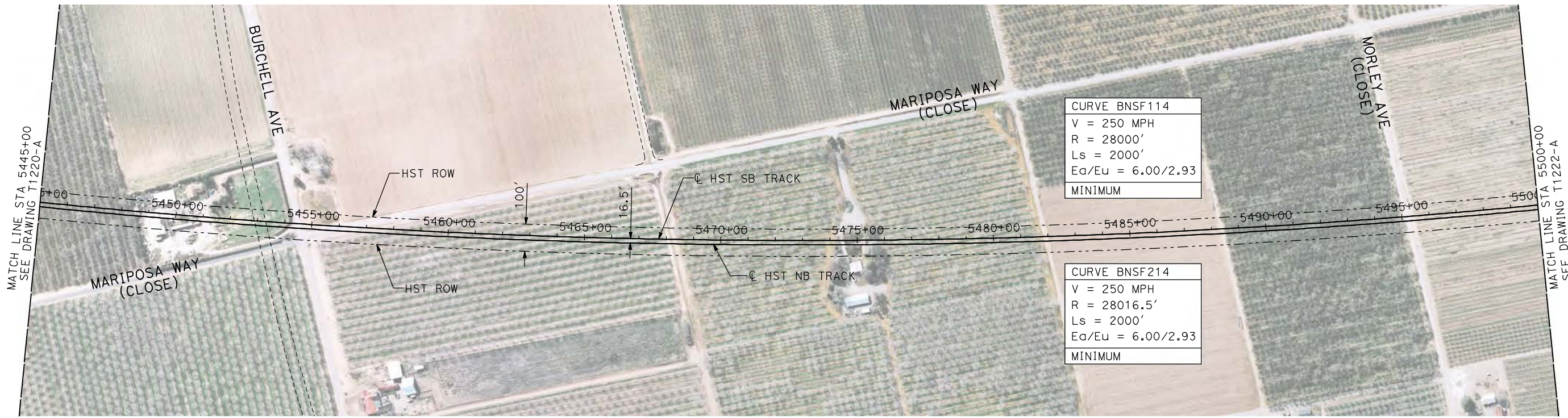


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5390+00 TO STA 5445+00

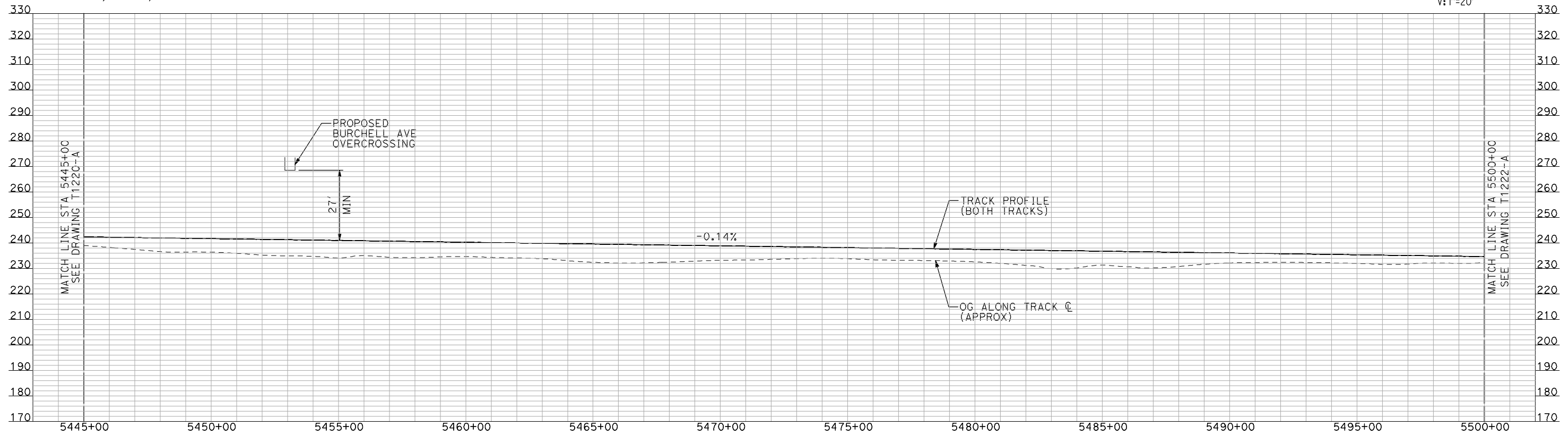
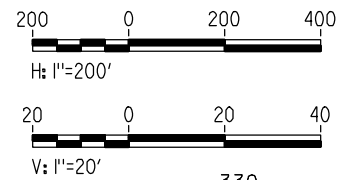
CONTRACT NO.
HSR06-007
DRAWING NO.
T1220-A
SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5445+00 TO STA 5500+00

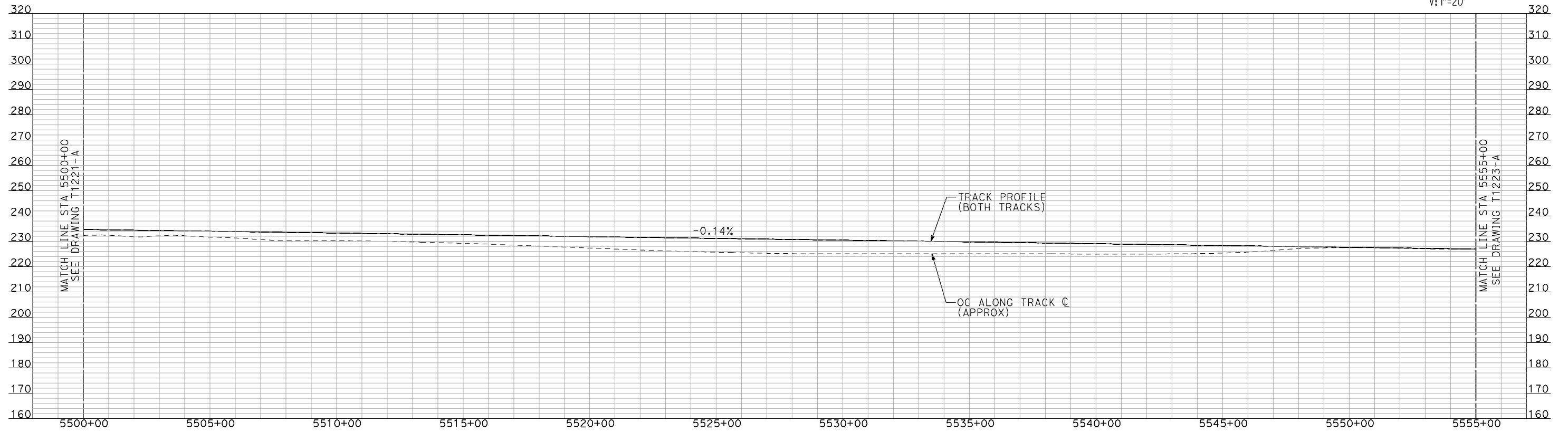
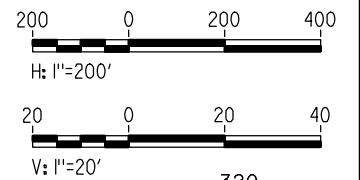
CONTRACT NO. HSR06-007
DRAWING NO. T1221-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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- NOTES:**
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

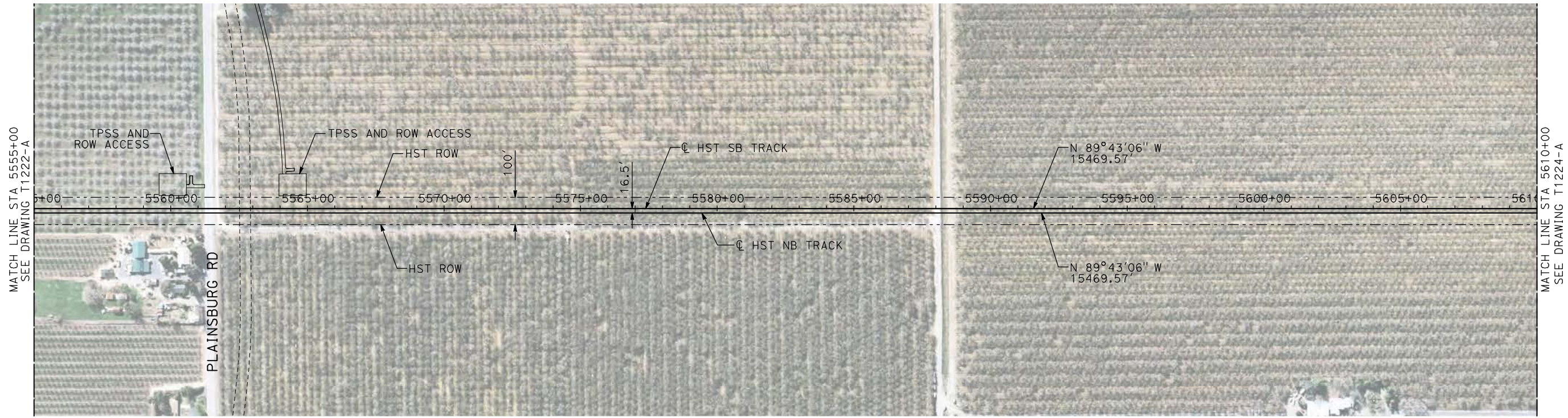
**NOT FOR
CONSTRUCTION**



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

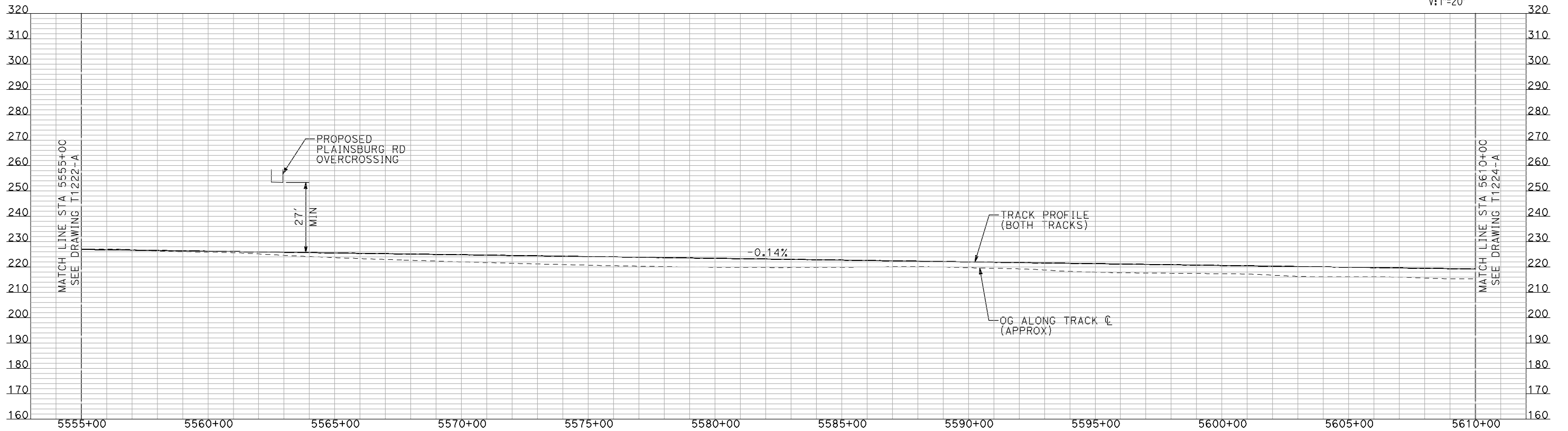
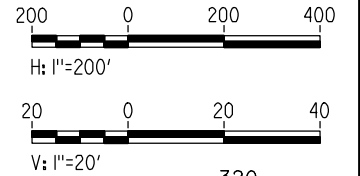
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5500+00 TO STA 5555+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1222-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

- NOTES:
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

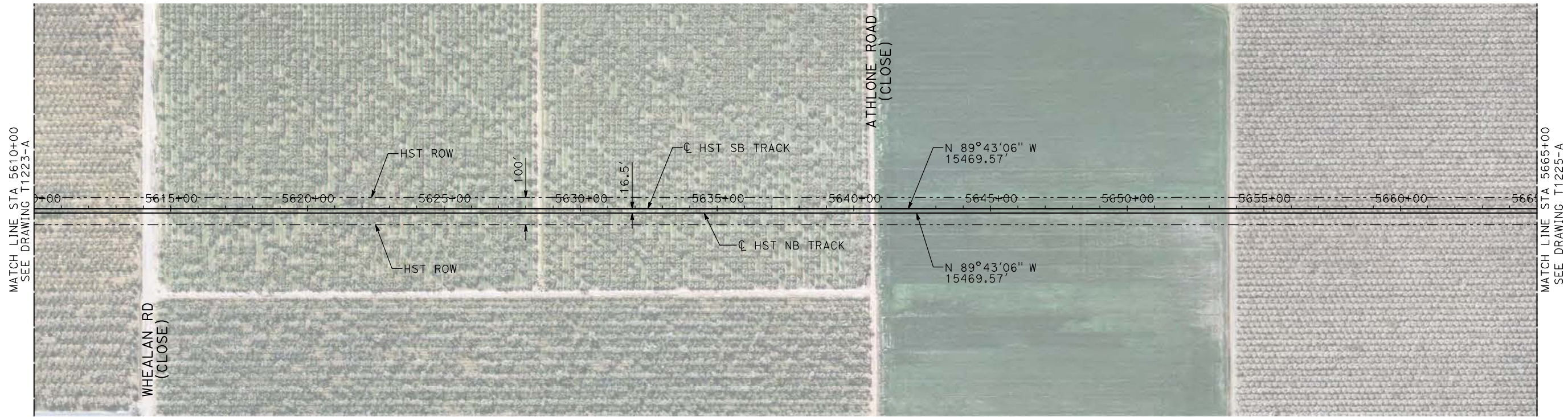


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5555+00 TO STA 5610+00

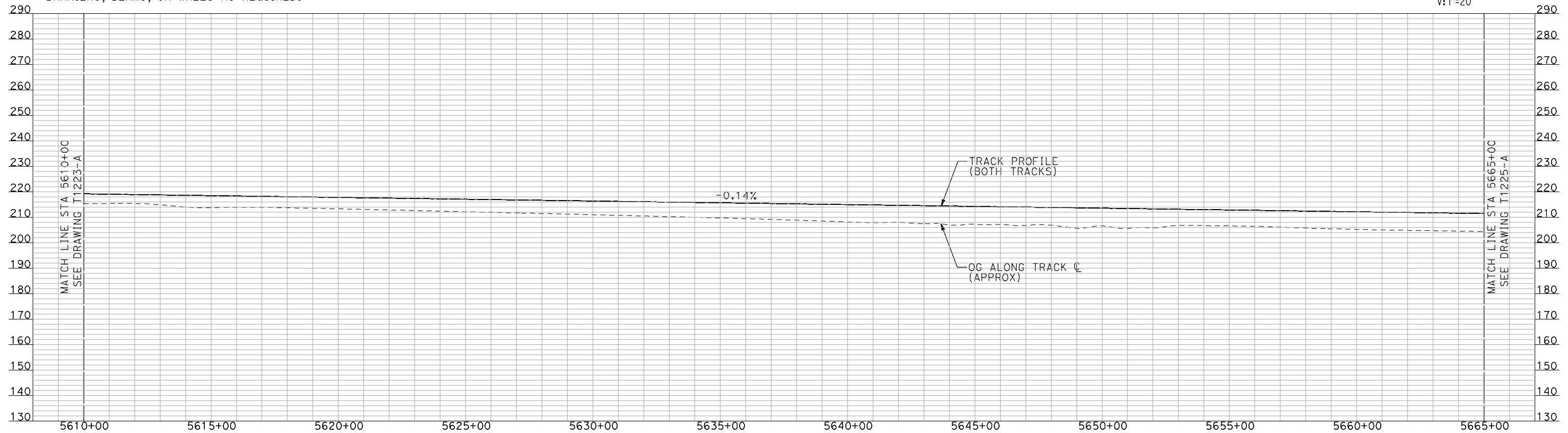
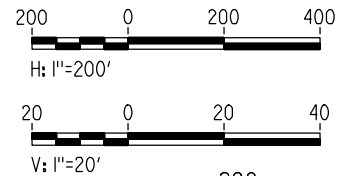
CONTRACT NO.
HSR06-007
DRAWING NO.
T1223-A
SCALE
AS SHOWN
SHEET NO.
OF

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PLAN

- NOTES:
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
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SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

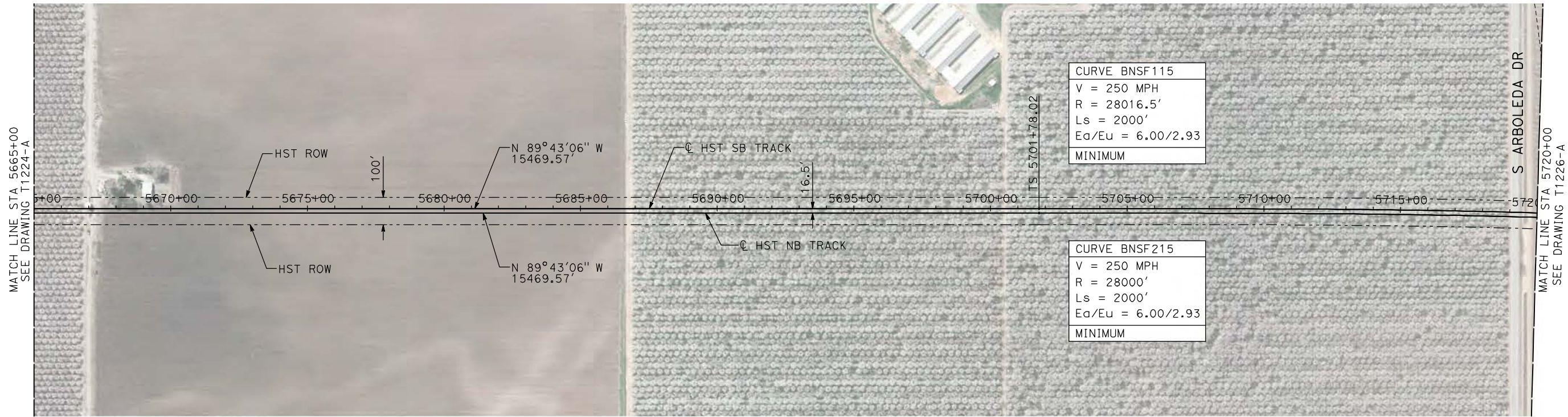
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AVE 21 / AVE 24
PLAN AND PROFILE
STA 5610+00 TO STA 5665+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T1224-A

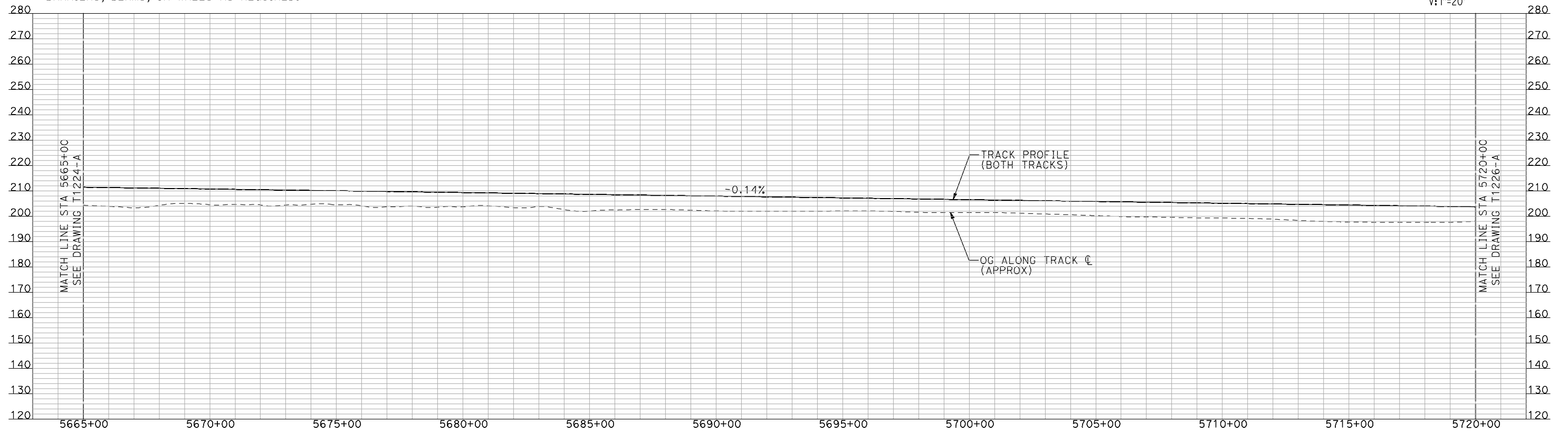
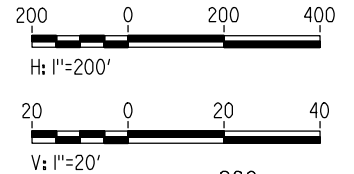
SCALE
AS SHOWN

SHEET NO.
OF



- NOTES:
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

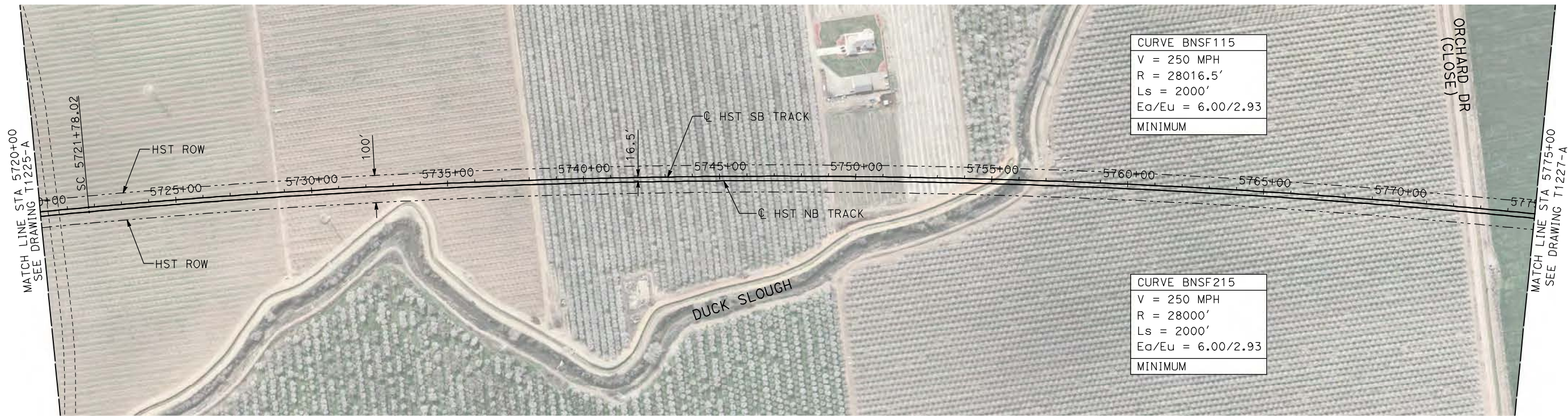
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5665+00 TO STA 5720+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1225-A
SCALE
AS SHOWN
SHEET NO.
OF

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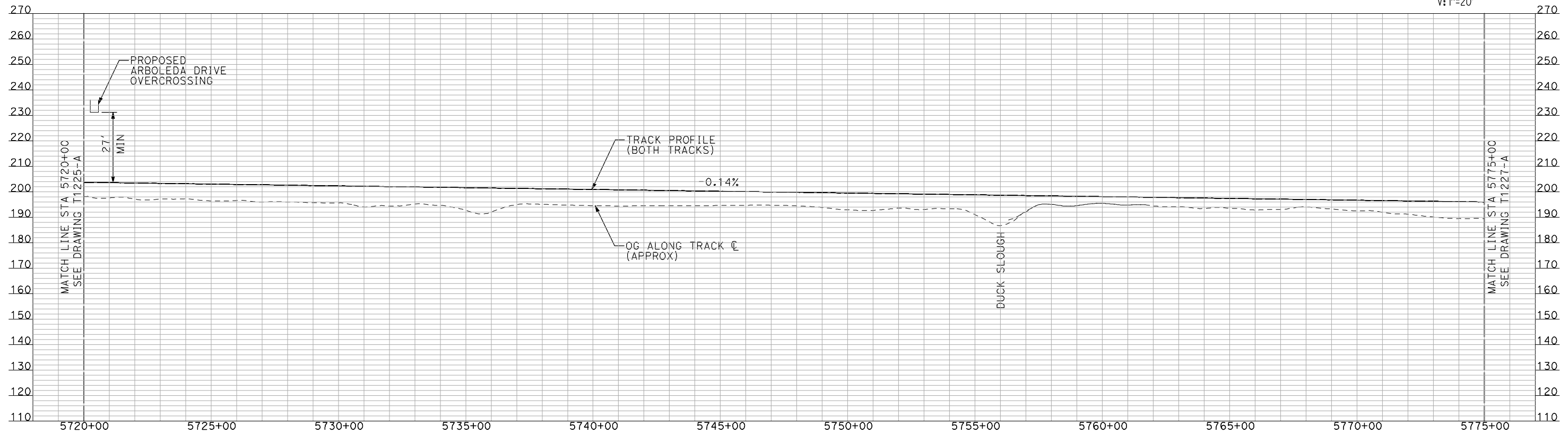
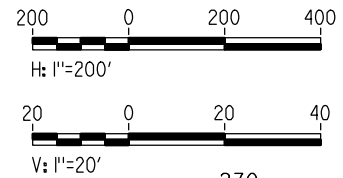
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- NOTES:
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
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SUBMITTAL

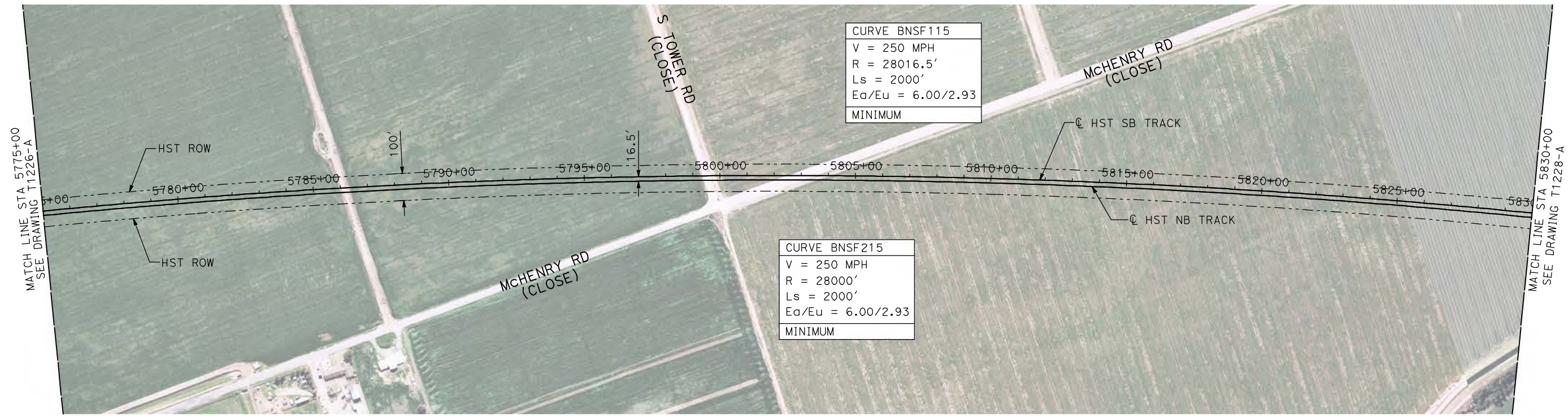
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5720+00 TO STA 5775+00

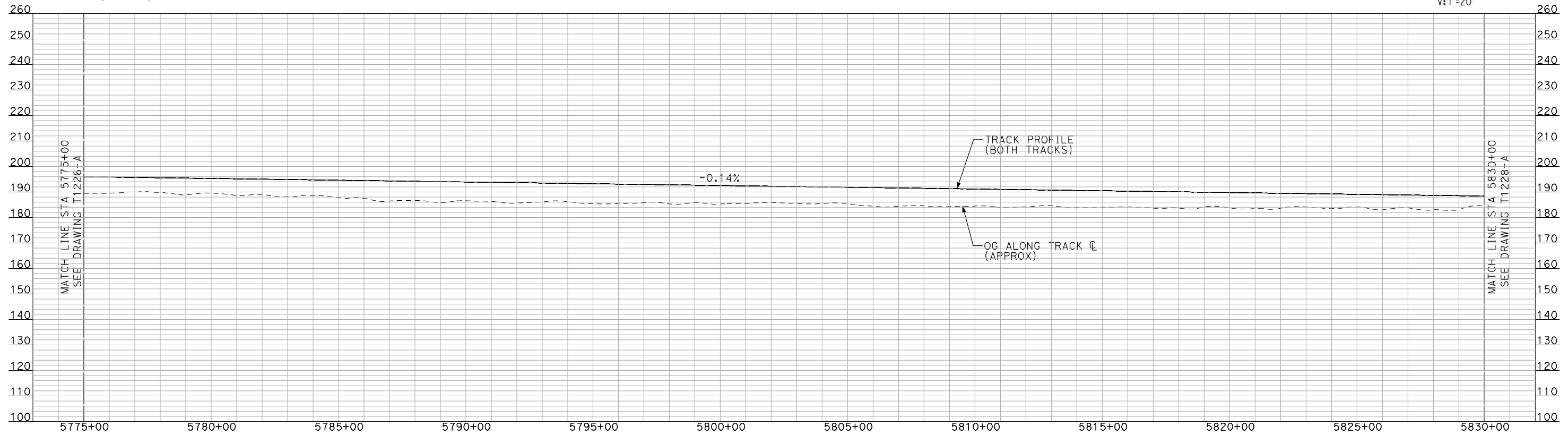
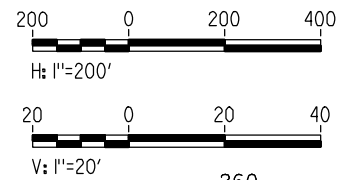
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HSR06-007
DRAWING NO.
T1226-A
SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

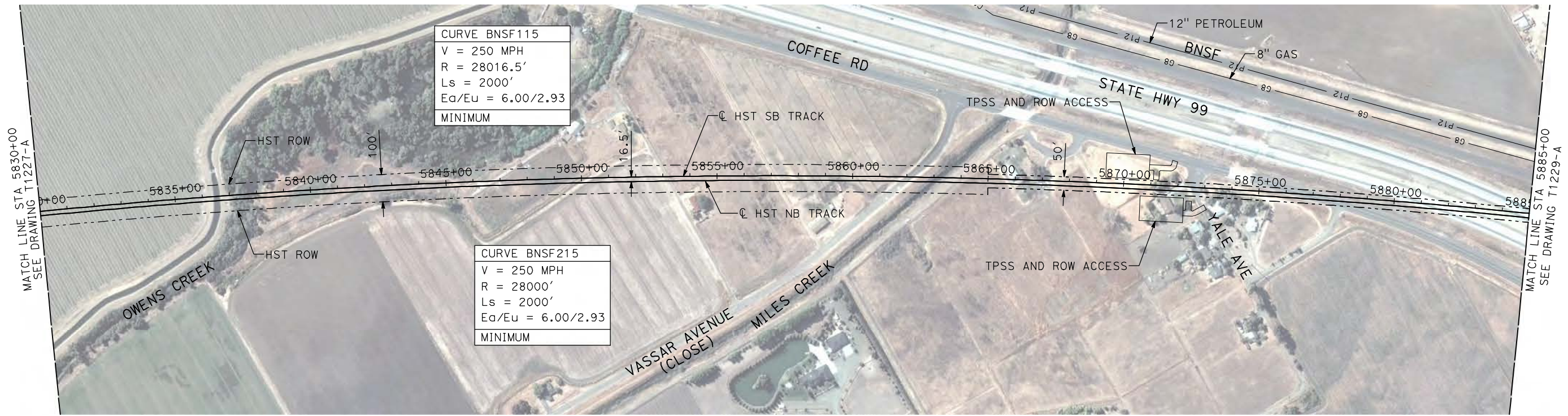


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5775+00 TO STA 5830+00

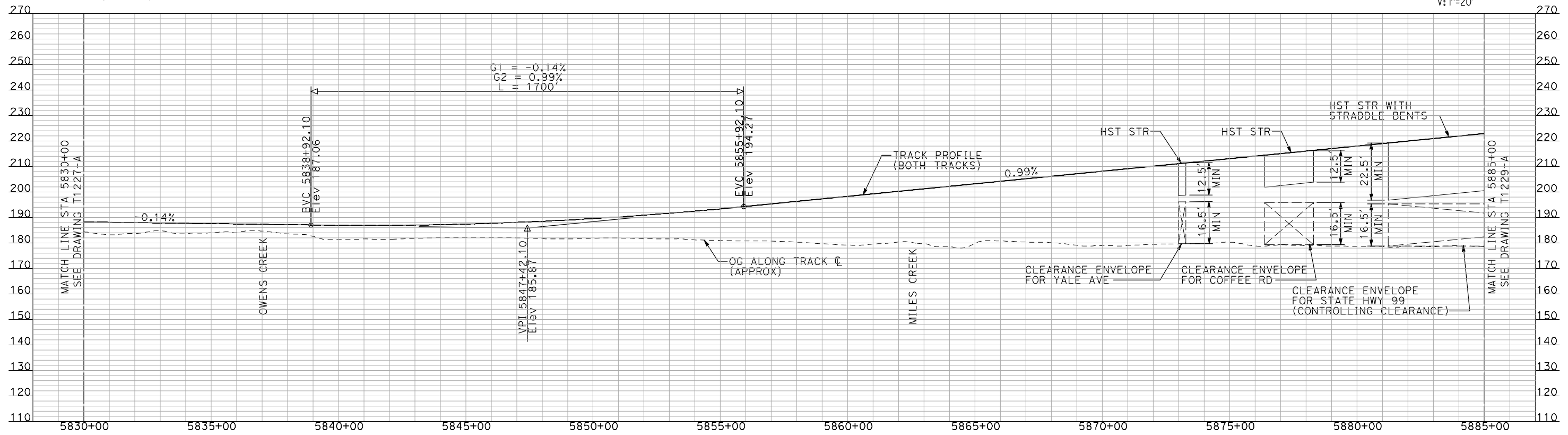
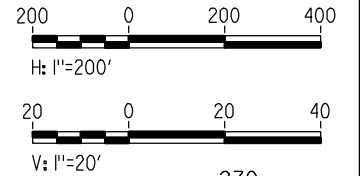
CONTRACT NO.
HSR06-007
DRAWING NO.
T1227-A
SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

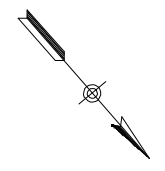
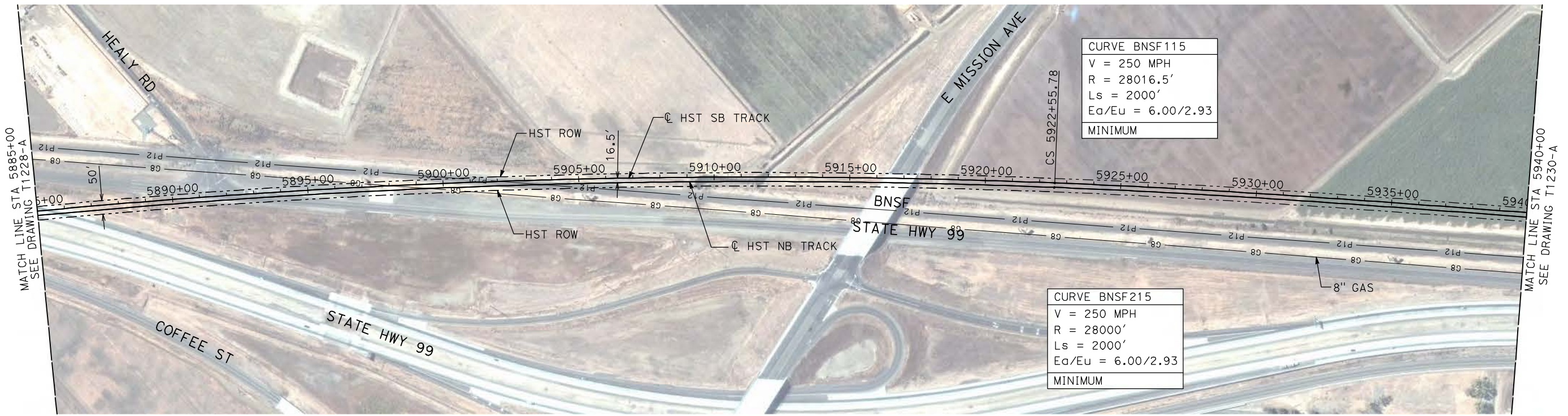
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



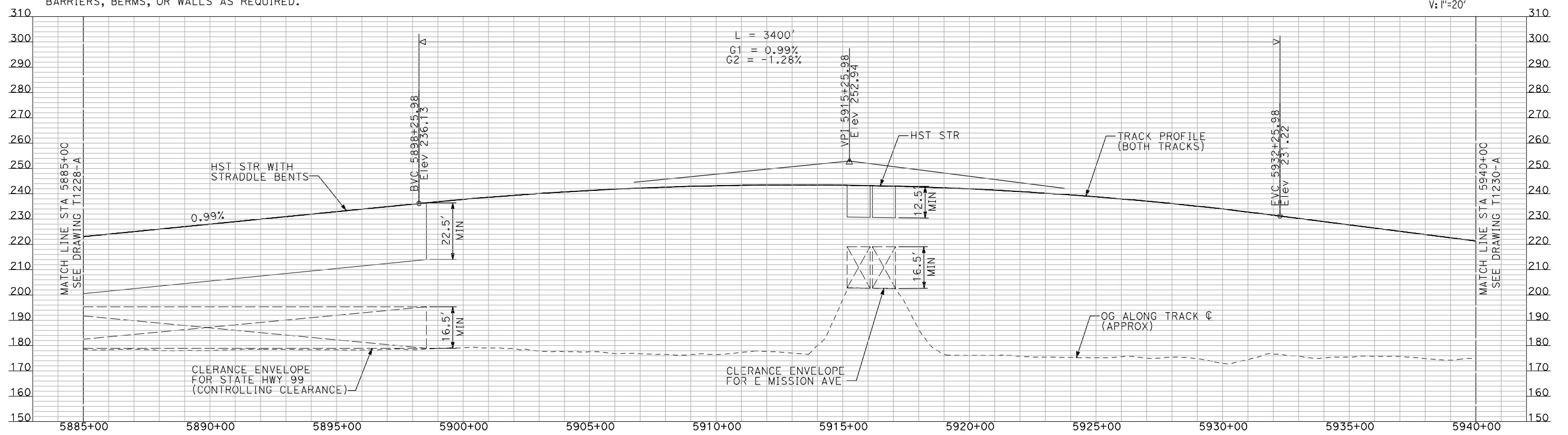
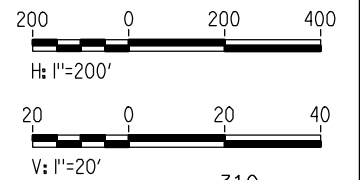
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 5830+00 TO STA 5885+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1228-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

- NOTES:
 1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

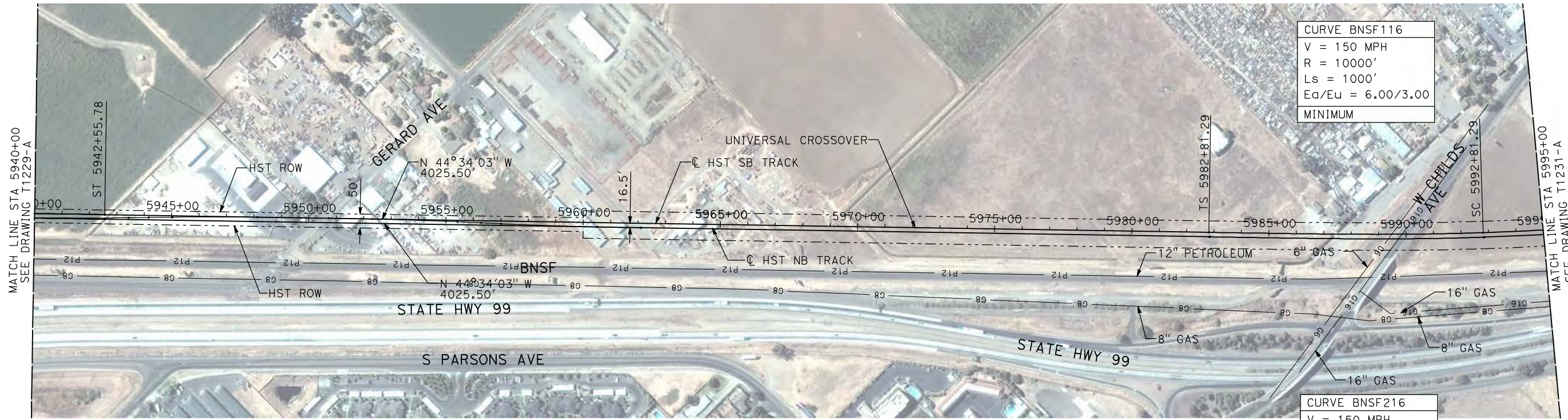
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MERCED CONNECTION
 AVE 21 / AVE 24
 PLAN AND PROFILE
 STA 5885+00 TO STA 5940+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T1229-A
 SCALE
AS SHOWN
 SHEET NO.
OF

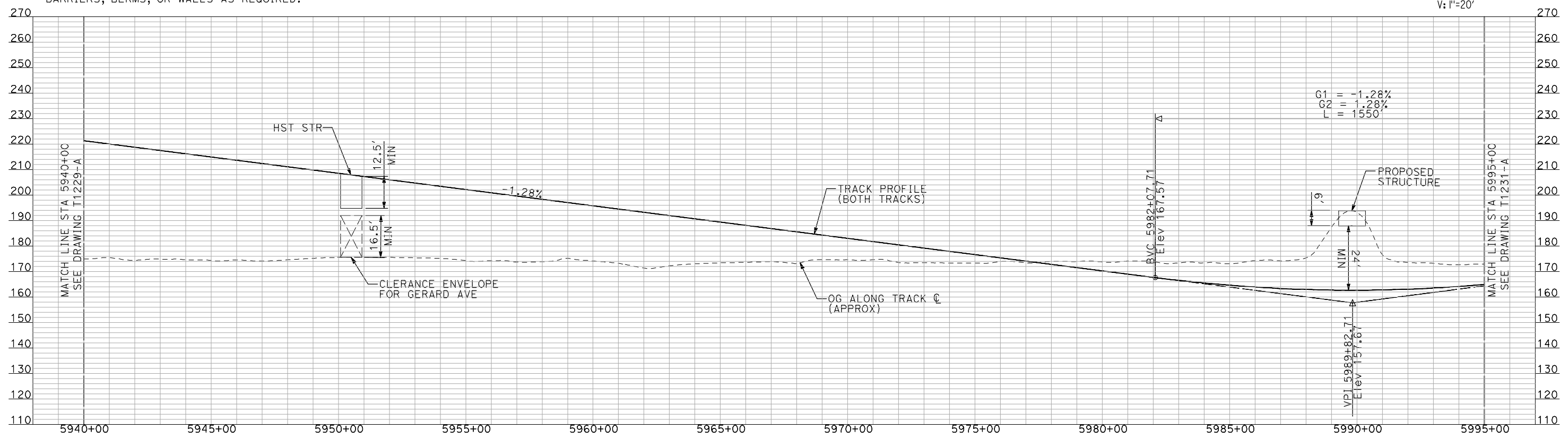
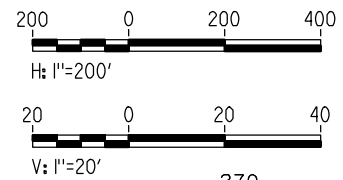


CURVE BNSF116
 V = 150 MPH
 R = 10000'
 Ls = 1000'
 Ea/Eu = 6.00/3.00
 MINIMUM

CURVE BNSF216
 V = 150 MPH
 R = 10016.5'
 Ls = 1000'
 Ea/Eu = 6.00/3.00
 MINIMUM

PLAN

- NOTES:
 1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/21/2011 10:41:22 AM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\trackwork\deir\bnsf_ave 21\MF-T-1230-A.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

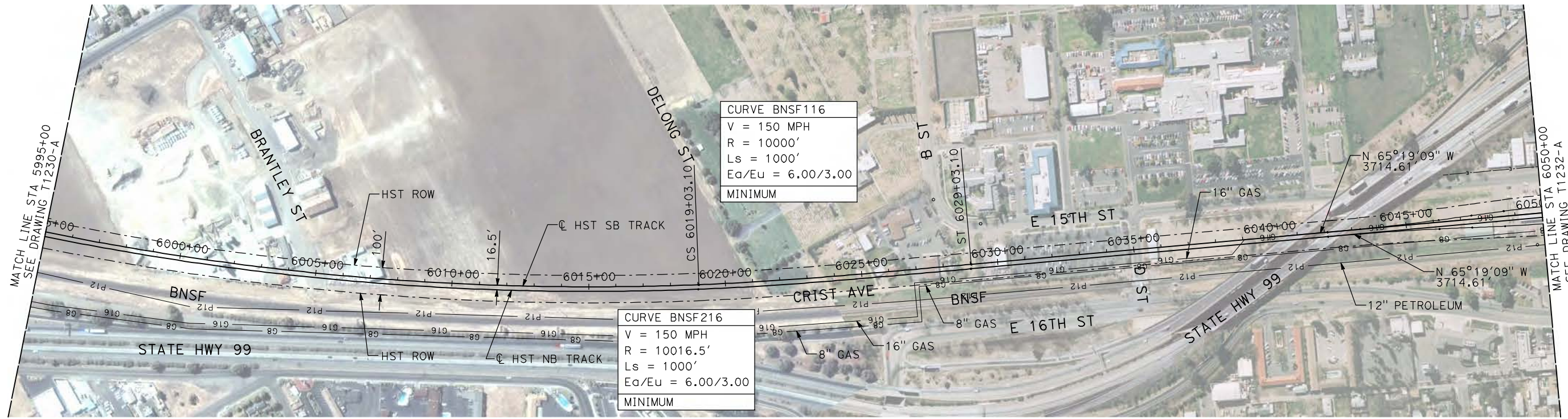
**NOT FOR
CONSTRUCTION**



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

BNSF MERCED CONNECTION
 AVE 21 / AVE 24
 PLAN AND PROFILE
 STA 5940+00 TO STA 5995+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T1230-A
 SCALE
AS SHOWN
 SHEET NO.
OF

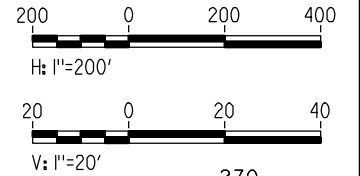


CURVE BNSF116
 V = 150 MPH
 R = 10000'
 Ls = 1000'
 Ea/Eu = 6.00/3.00
 MINIMUM

CURVE BNSF216
 V = 150 MPH
 R = 10016.5'
 Ls = 1000'
 Ea/Eu = 6.00/3.00
 MINIMUM

- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

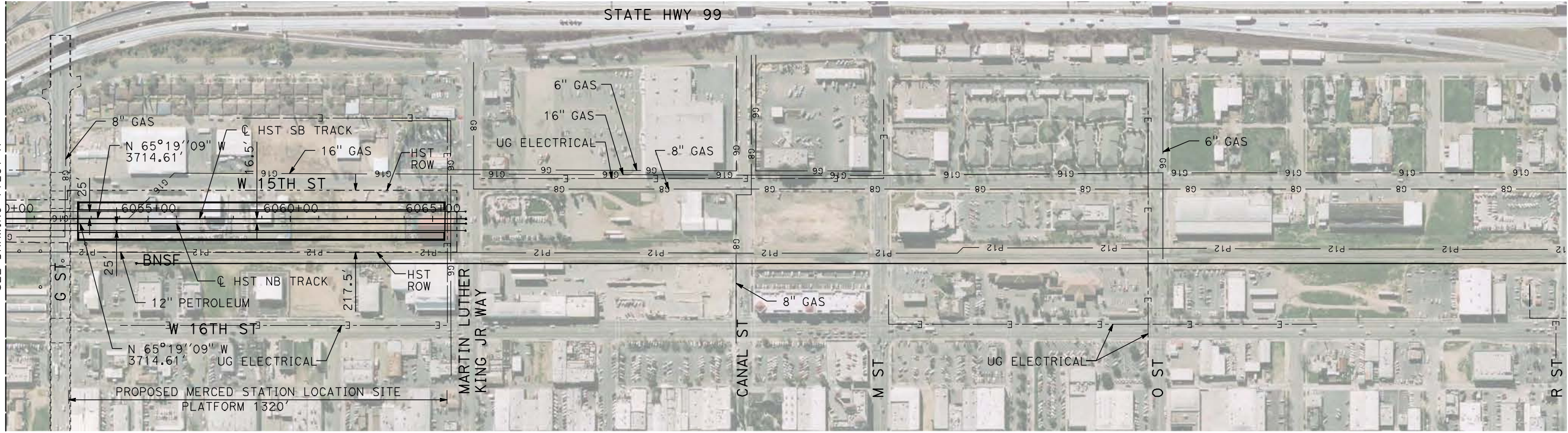
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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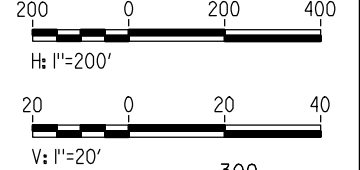
DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION	 <small>Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811</small> 	 CALIFORNIA <small>HIGH-SPEED RAIL AUTHORITY</small>
DRAWN BY H. SULLIVAN			
CHECKED BY A. BOONE			
IN CHARGE A. BOONE			
DATE 07/20/2011			

REV	DATE	BY	CHK	APP	DESCRIPTION

CALIFORNIA HIGH-SPEED TRAIN PROJECT		CONTRACT NO. HSR06-007
MERCED TO FRESNO		DRAWING NO. T1231-A
BNSF MERCED CONNECTION		SCALE AS SHOWN
AVE 21 / AVE 24		SHEET NO. ### OF ###
PLAN AND PROFILE		
STA 5995+00 TO STA 6050+00		



PLAN



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

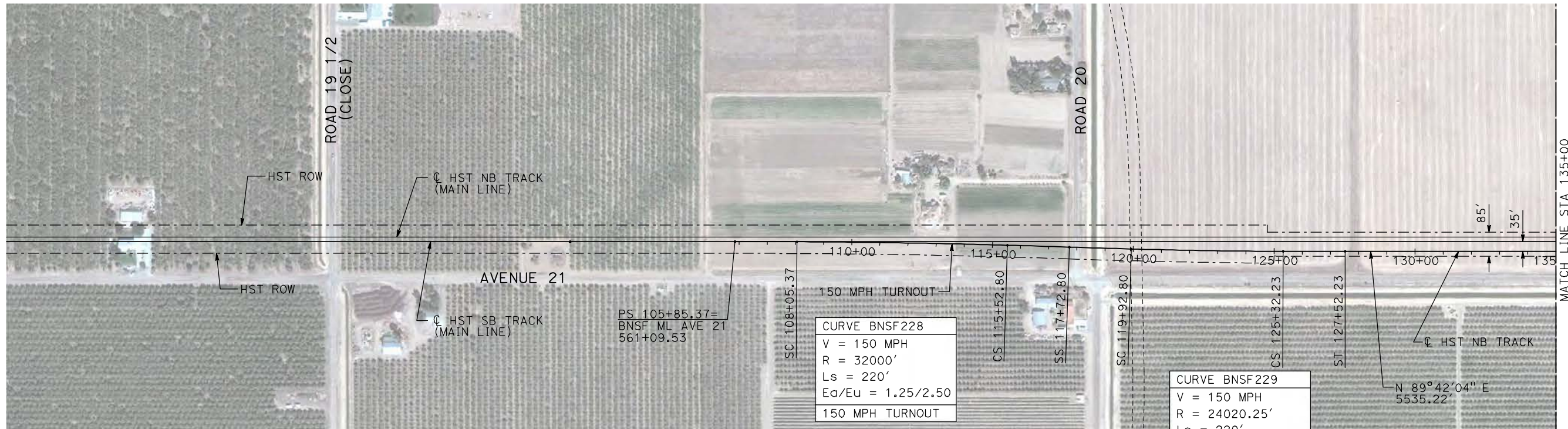
BNSF MERCED CONNECTION
AVE 21 / AVE 24
PLAN AND PROFILE
STA 6050+00 TO STA 6066+17.71

CONTRACT NO.
HSR06-007

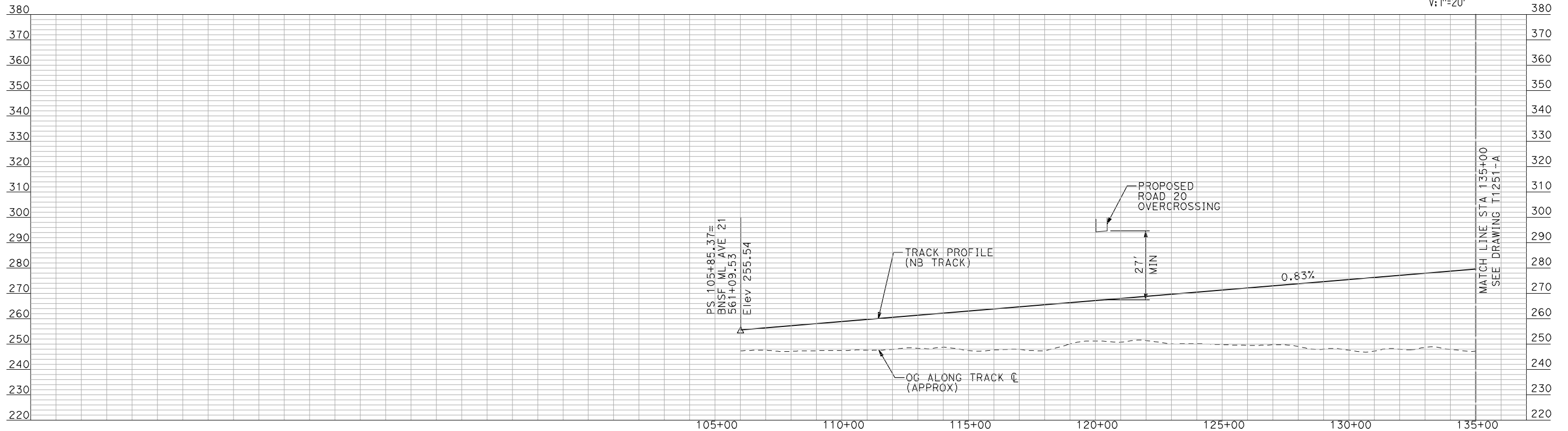
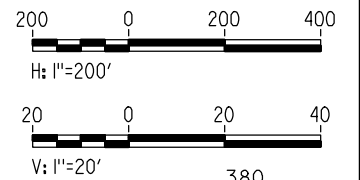
DRAWING NO.
T1232-A

SCALE
AS SHOWN

SHEET NO.
OF



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS

DRAWN BY
H. SULLIVAN

CHECKED BY
A. BOONE

IN CHARGE
A. BOONE

DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 105+85.37 TO STA 135+00

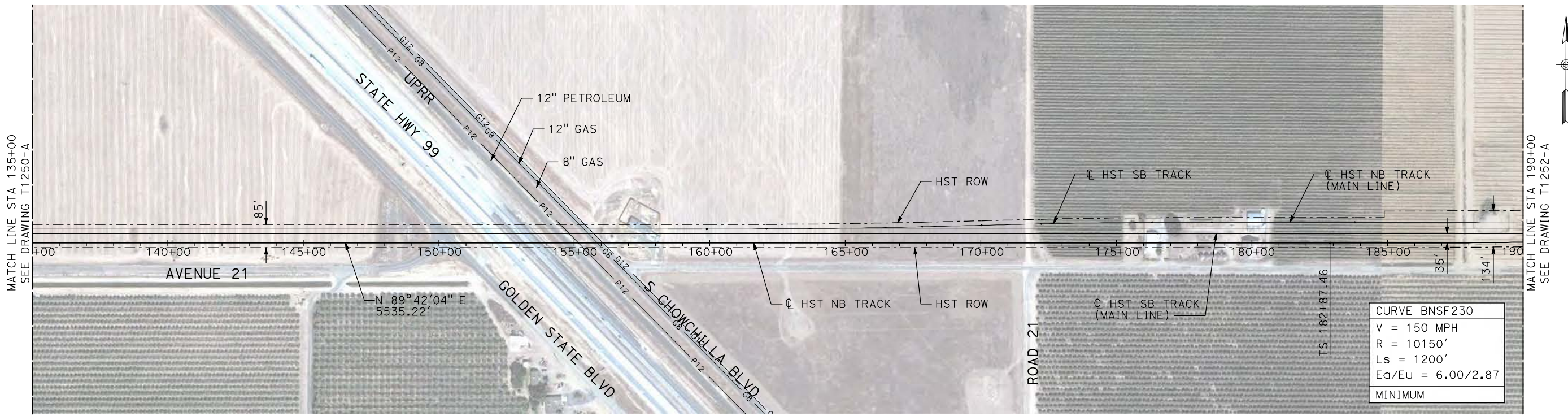
CONTRACT NO.
HSR06-007

DRAWING NO.
T1250-A

SCALE
AS SHOWN

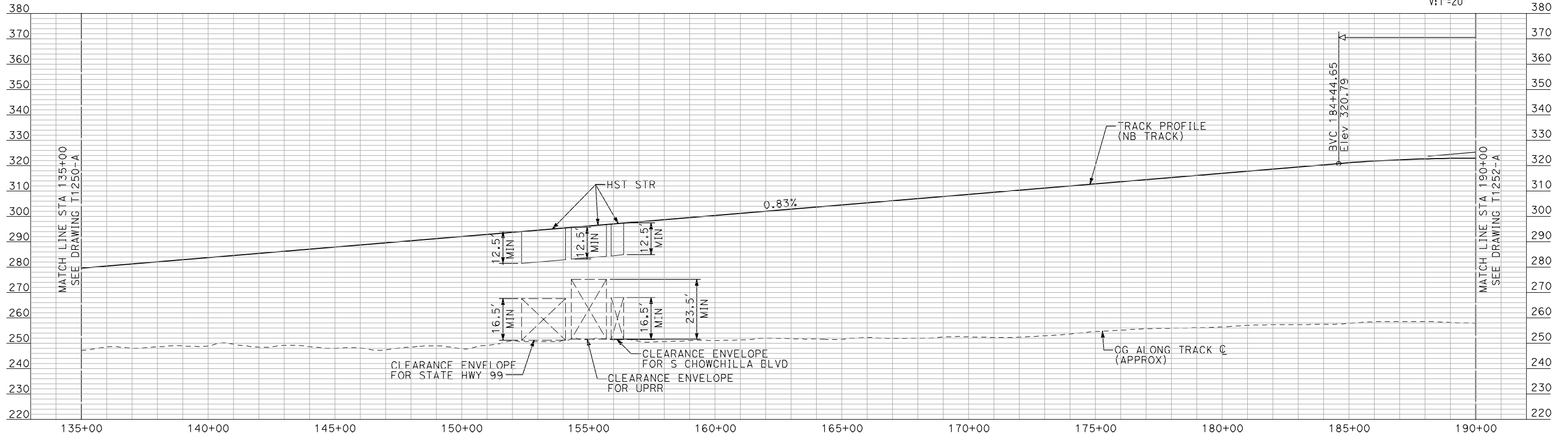
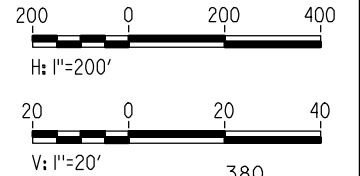
SHEET NO.
OF

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PLAN

- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

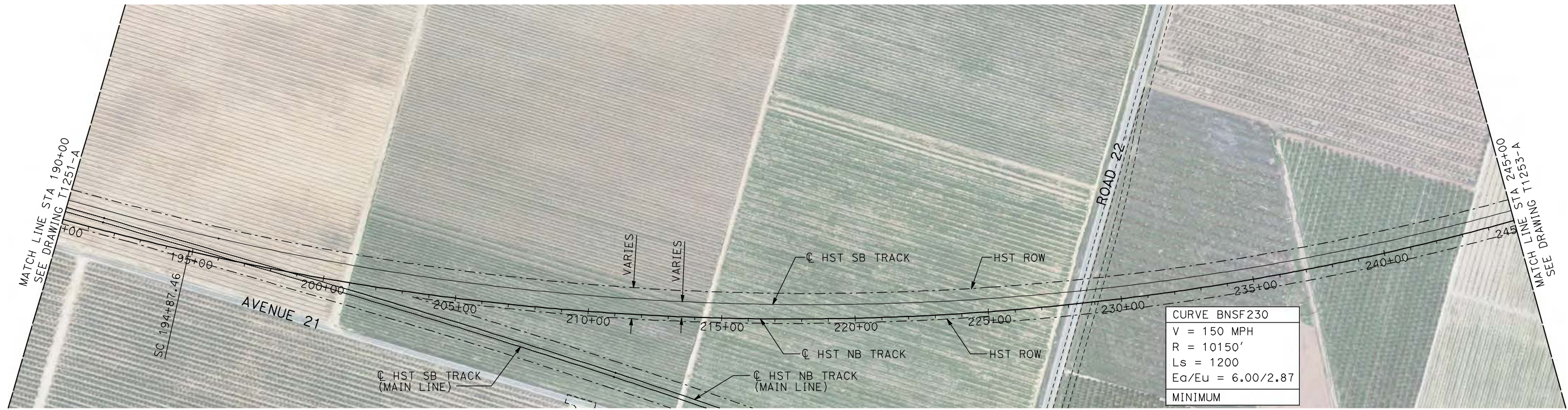
**NOT FOR
CONSTRUCTION**



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

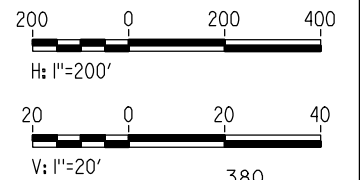
BNSF WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 135+00 TO STA 190+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1251-A
SCALE
AS SHOWN
SHEET NO.
OF



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

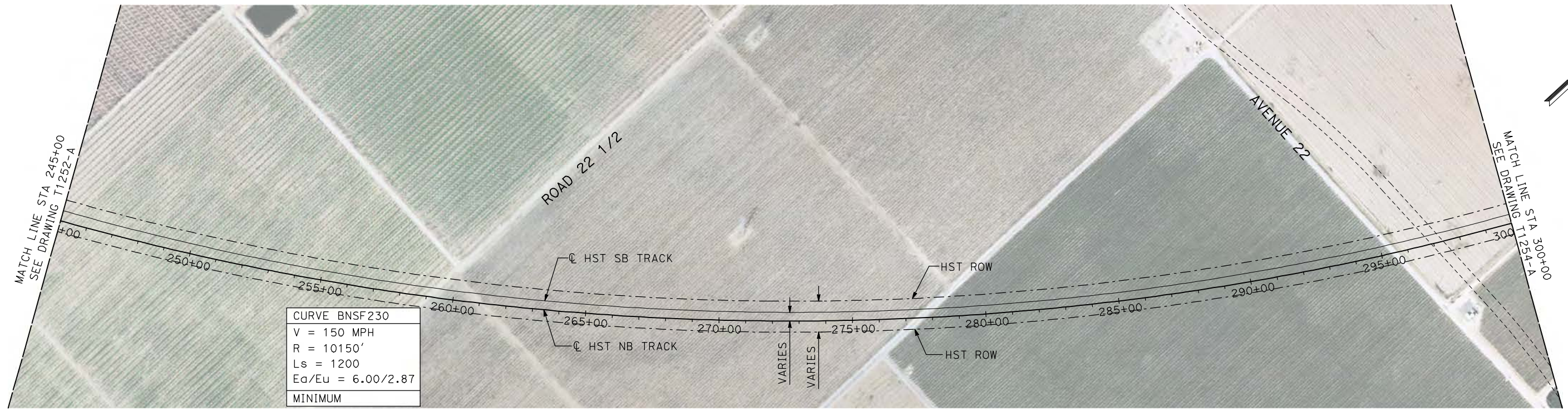


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 190+00 TO STA 245+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1252-A
SCALE
AS SHOWN
SHEET NO.
OF

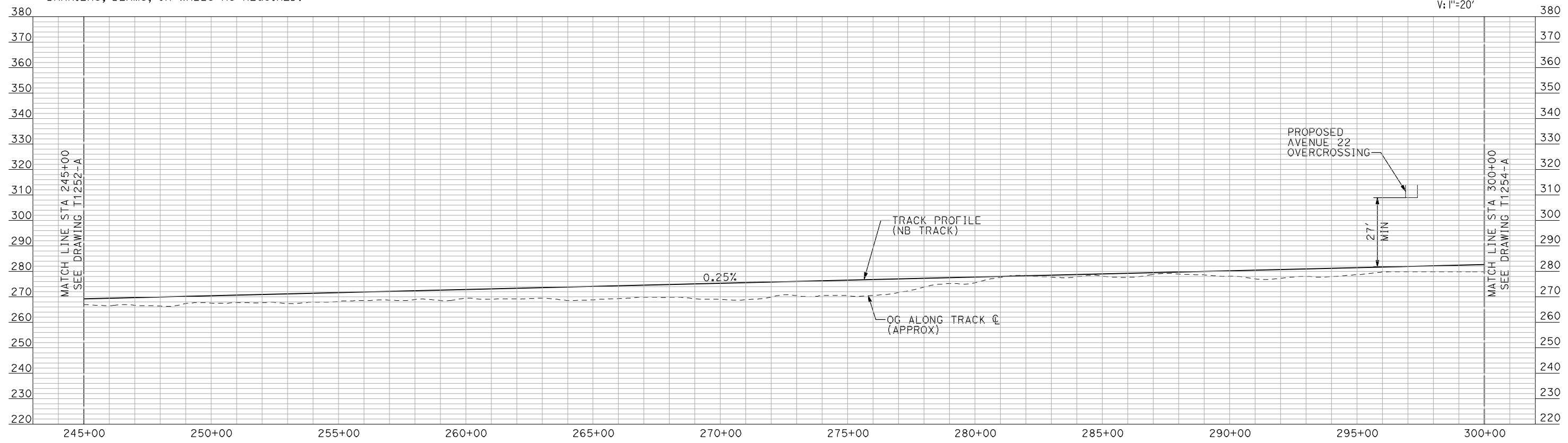
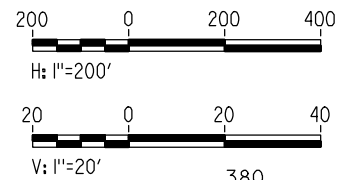
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- NOTES:**
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 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS

DRAWN BY
H. SULLIVAN

CHECKED BY
A. BOONE

IN CHARGE
A. BOONE

DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

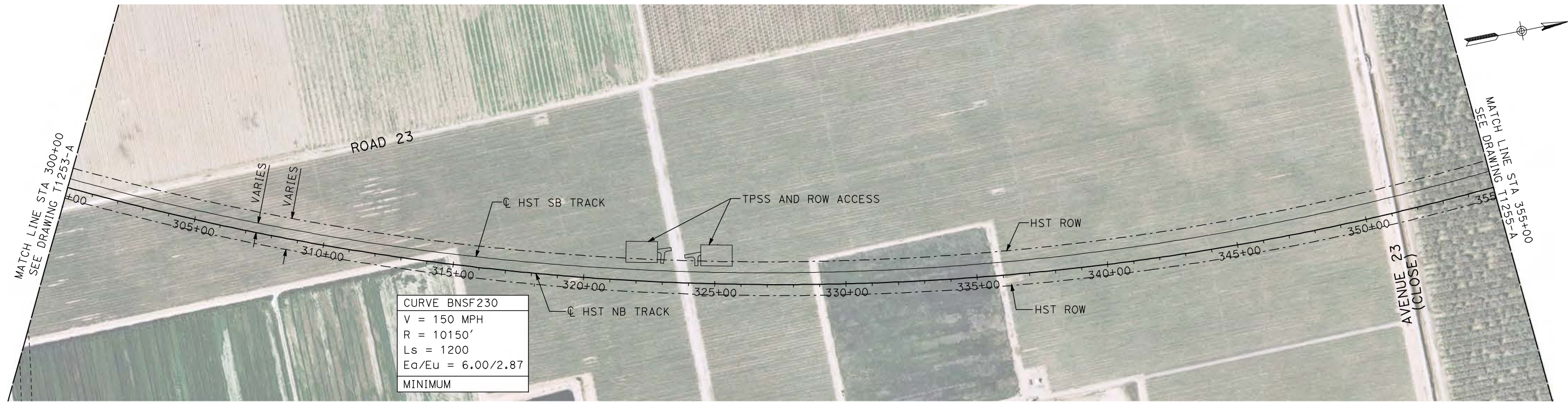
BNSF WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 245+00 TO STA 300+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T1253-A

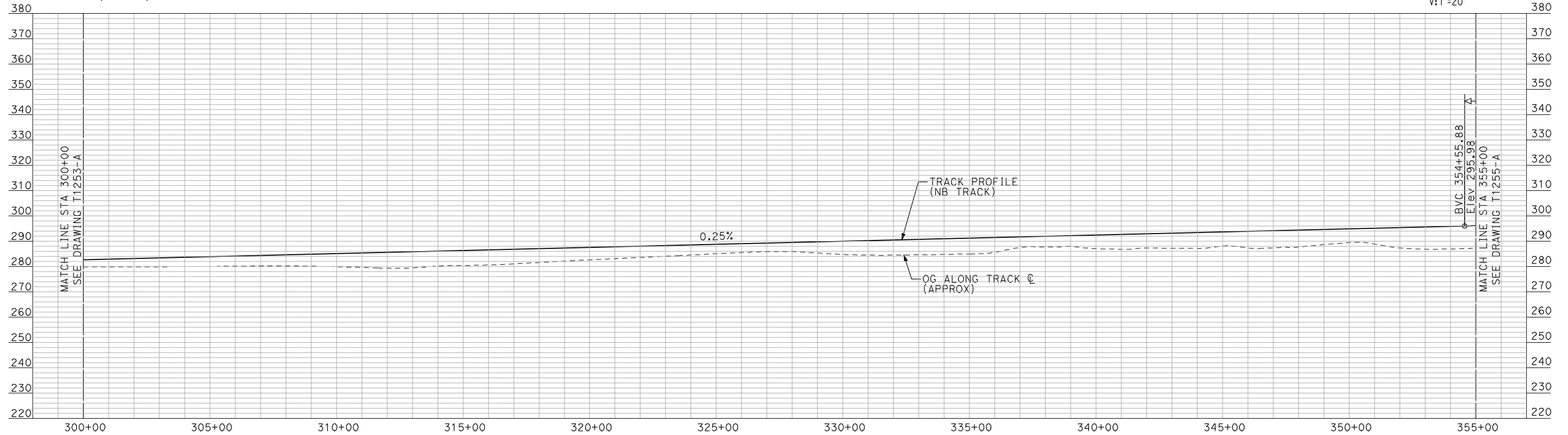
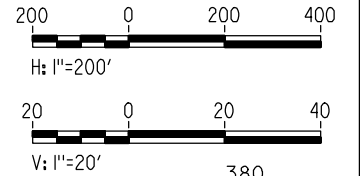
SCALE
AS SHOWN

SHEET NO.
OF



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

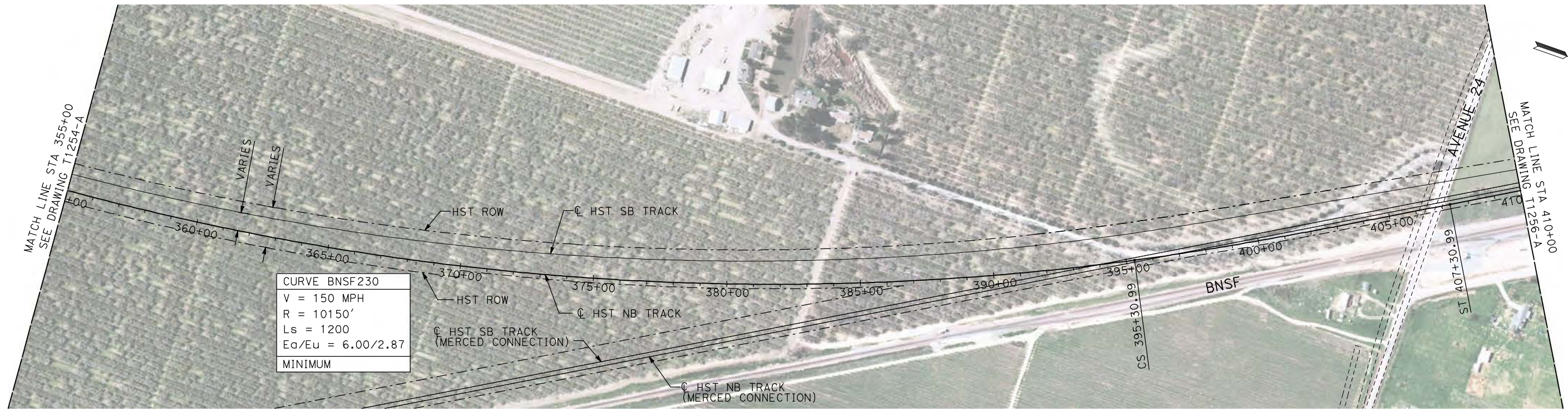
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 300+00 TO STA 355+00

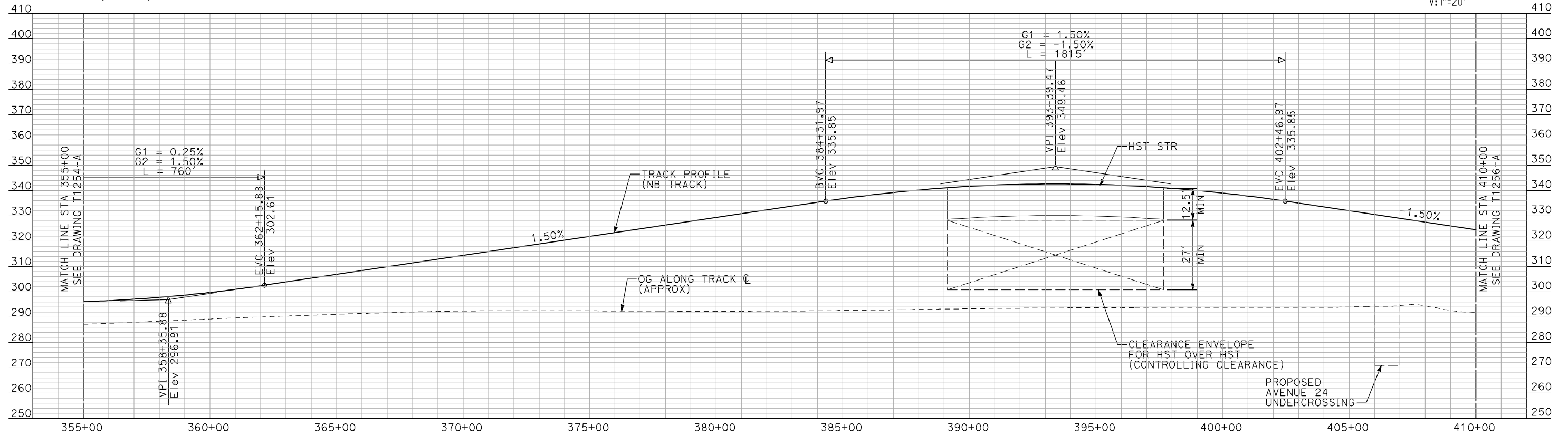
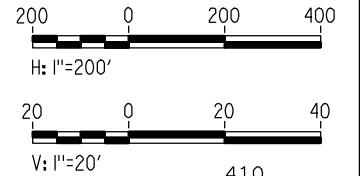
CONTRACT NO.
HSR06-007
DRAWING NO.
T1254-A
SCALE
AS SHOWN
SHEET NO.
OF



CURVE BNSF230
 V = 150 MPH
 R = 10150'
 Ls = 1200
 Ea/Eu = 6.00/2.87
 MINIMUM

- NOTES:
 1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

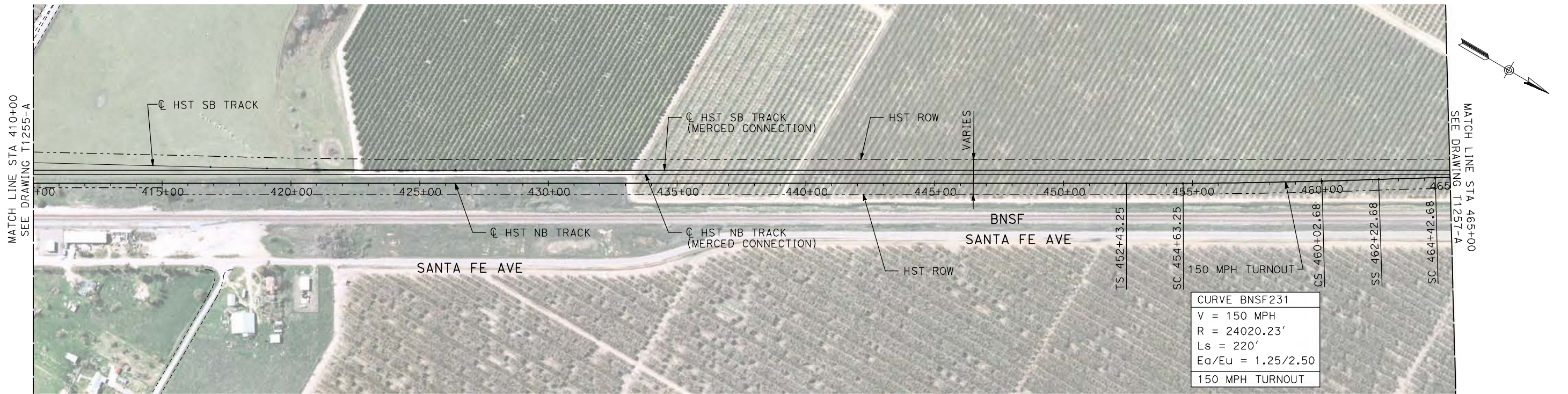
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

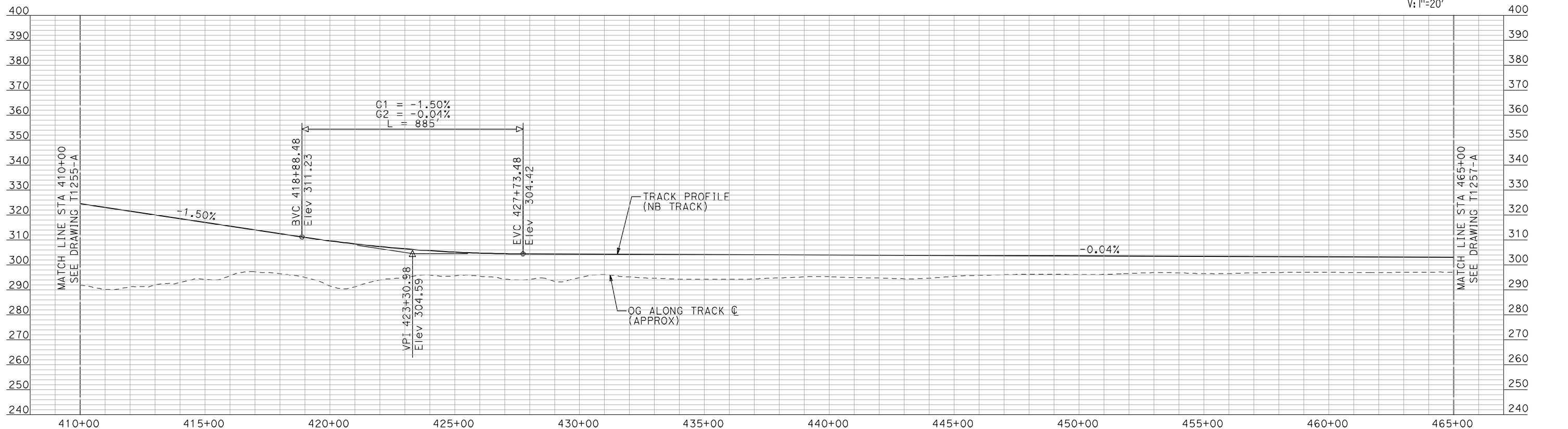
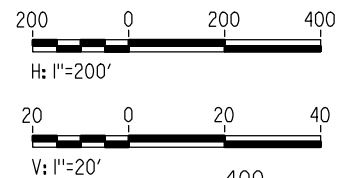


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF WYE - NB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 355+00 TO STA 410+00

CONTRACT NO.	HSR06-007
DRAWING NO.	T1255-A
SCALE	AS SHOWN
SHEET NO.	### OF ###



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/21/2011 10:54:30 AM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\trackwork\deir\bnsf_ave 21\MF-T-1256-A.dgn machadoe

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS

DRAWN BY
H. SULLIVAN

CHECKED BY
A. BOONE

IN CHARGE
A. BOONE

DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

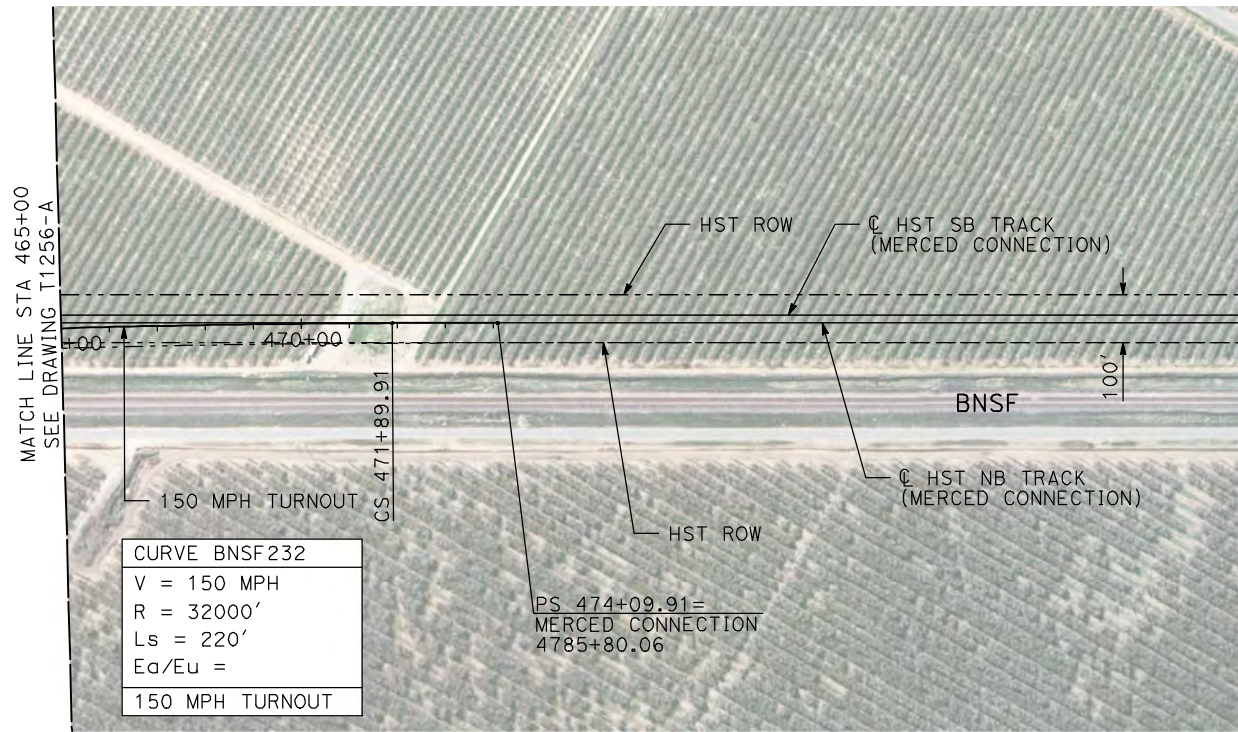
BNSF WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 410+00 TO STA 465+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T1256-A

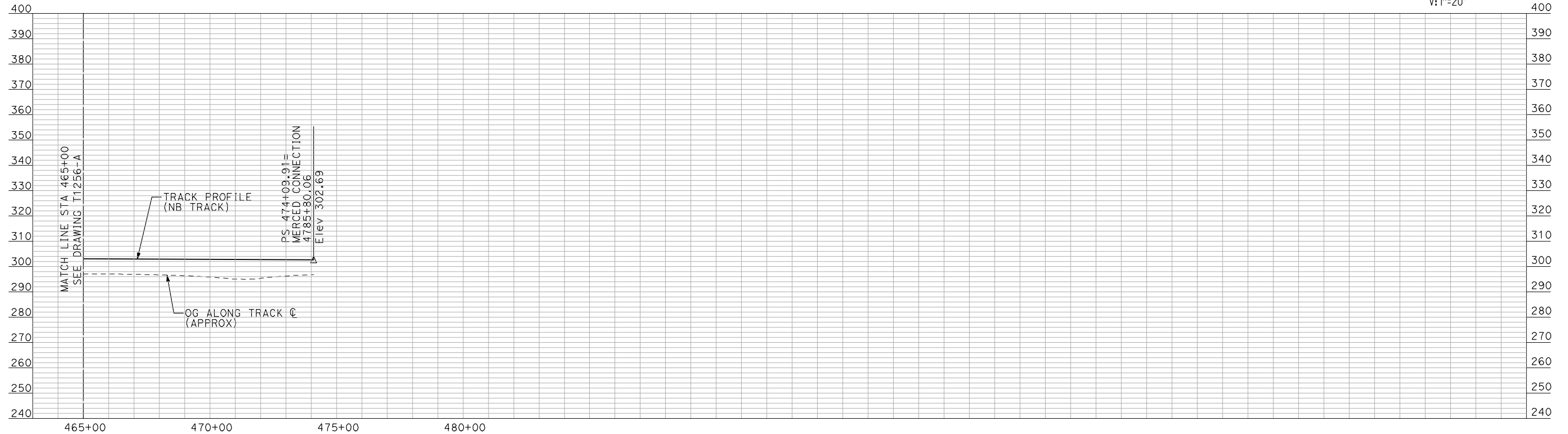
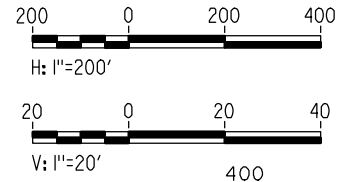
SCALE
AS SHOWN

SHEET NO.
OF



PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR
TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

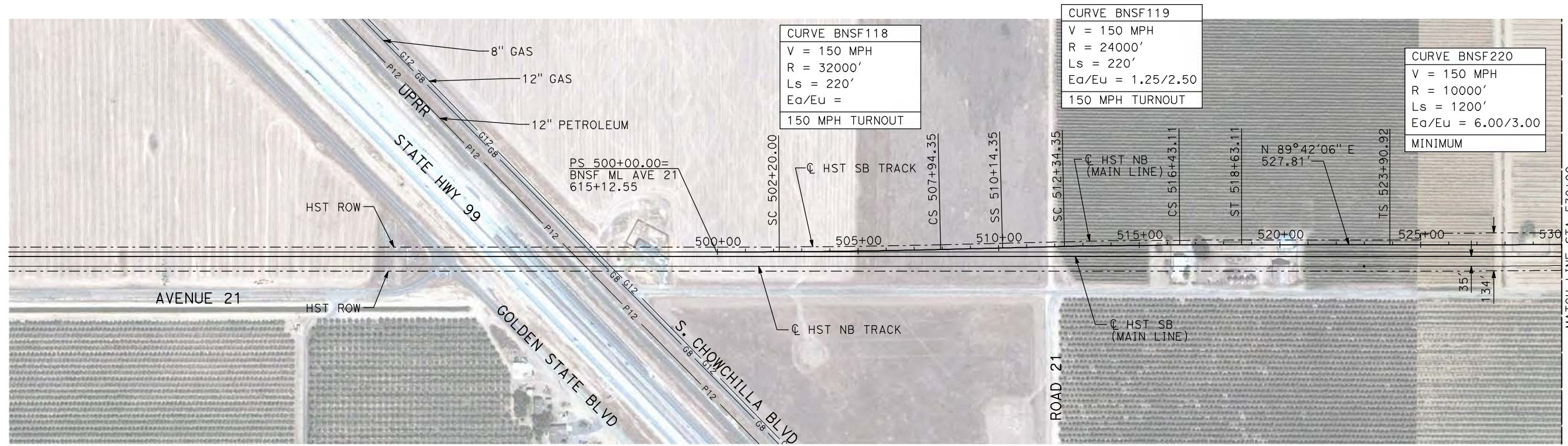


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 465+00 TO STA 474+09.91

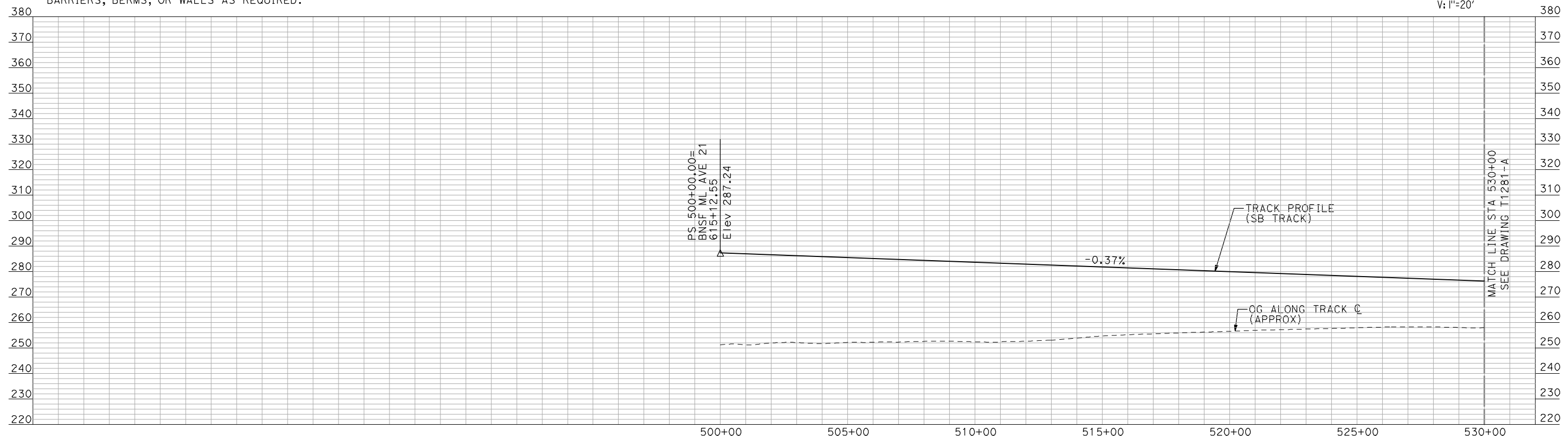
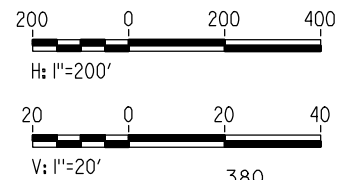
CONTRACT NO. HSR06-007
DRAWING NO. T1257-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

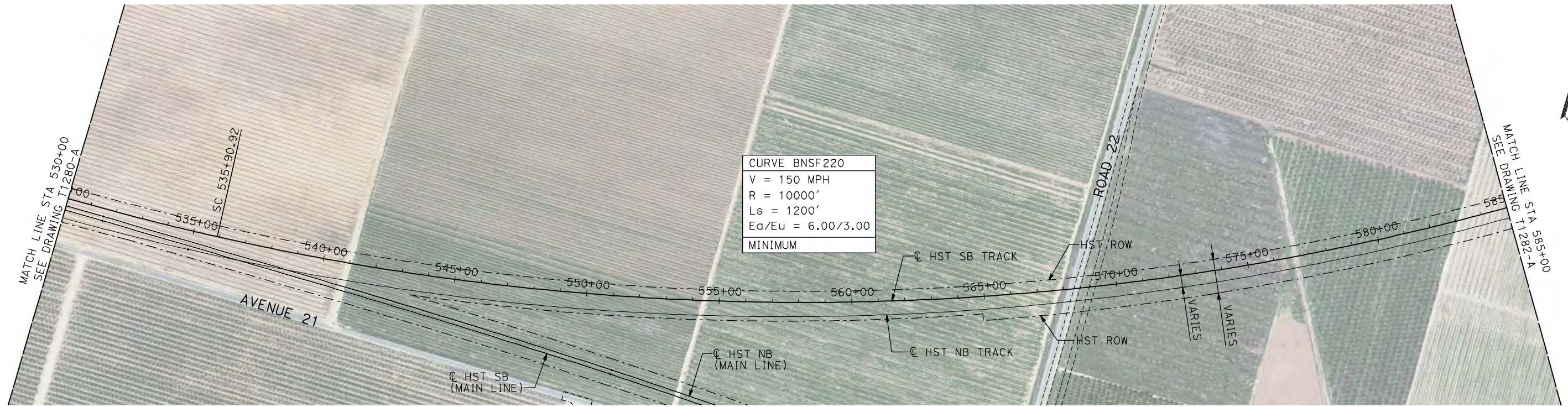
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 500+00 TO STA 530+00

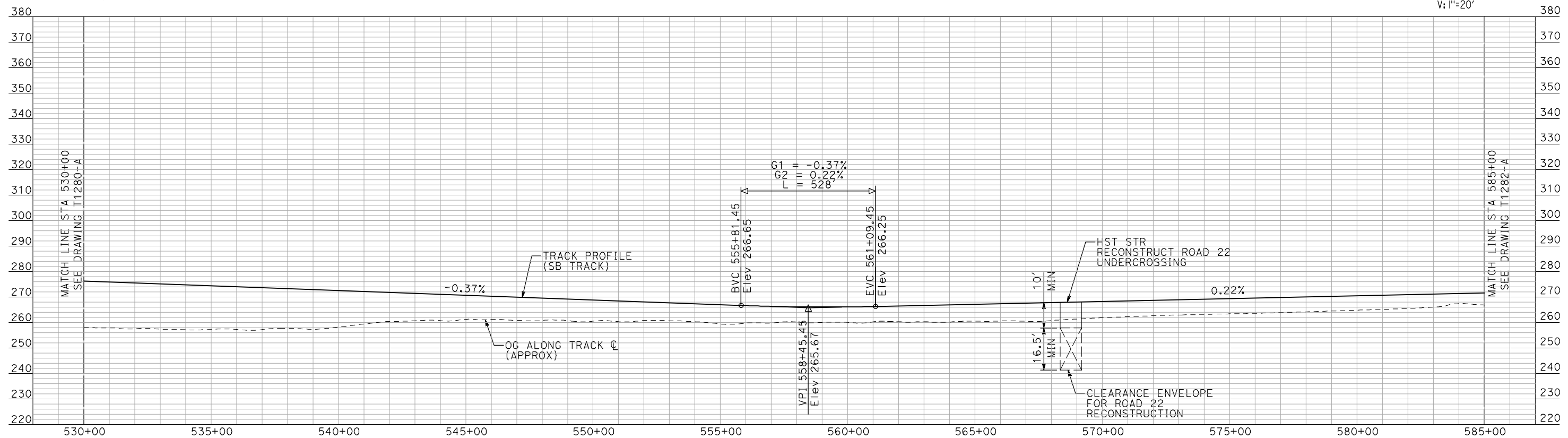
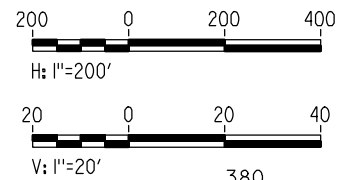
CONTRACT NO.
HSR06-007
DRAWING NO.
T1280-A
SCALE
AS SHOWN
SHEET NO.
OF



CURVE BNSF220
 V = 150 MPH
 R = 10000'
 Ls = 1200'
 Ea/Eu = 6.00/3.00
 MINIMUM

- NOTES:
 1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

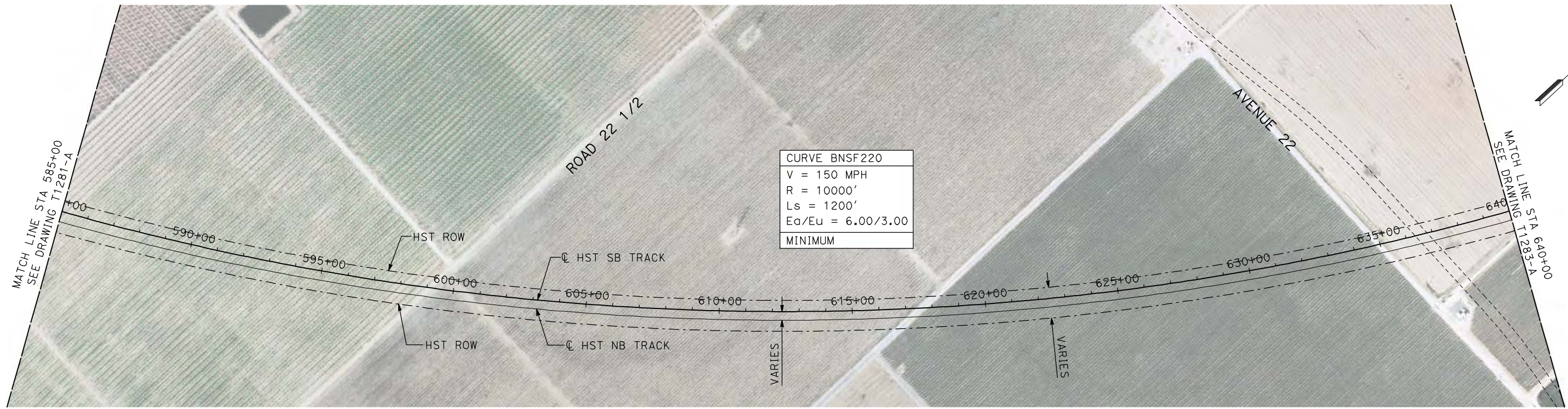
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



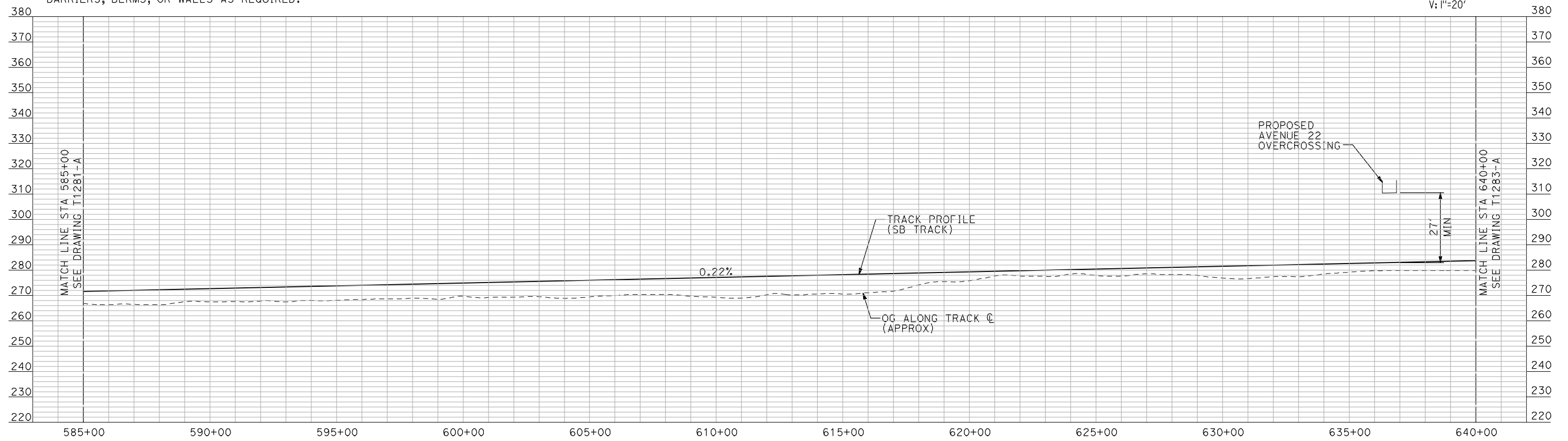
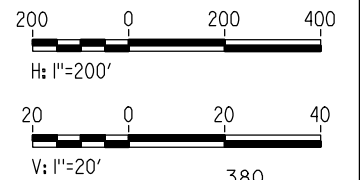
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF WYE - SB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 530+00 TO STA 585+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T1281-A
 SCALE
AS SHOWN
 SHEET NO.
OF



PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

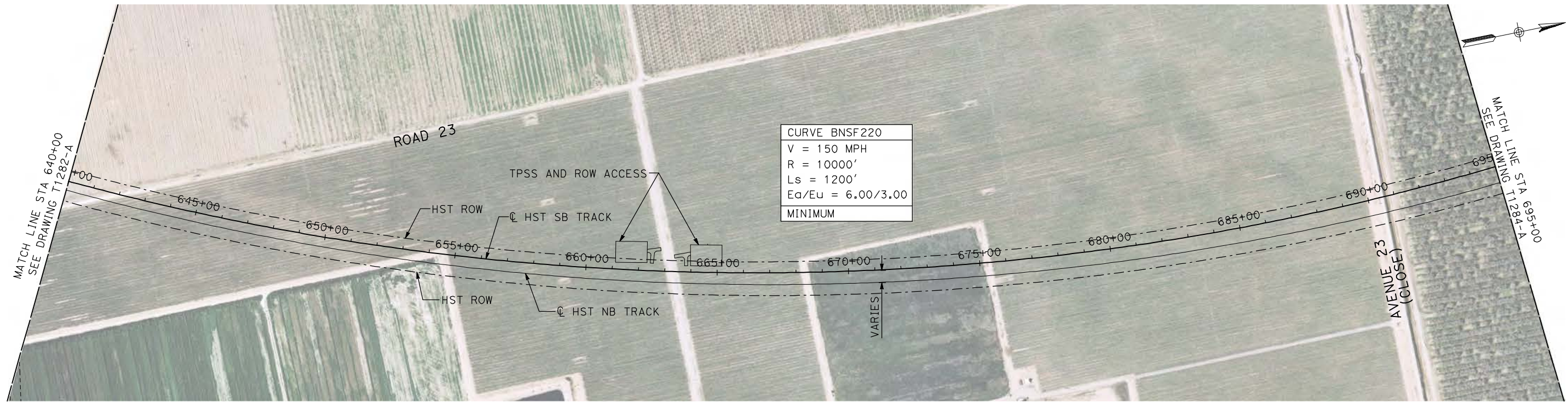


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 585+00 TO STA 640+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1282-A
SCALE
AS SHOWN
SHEET NO.
OF

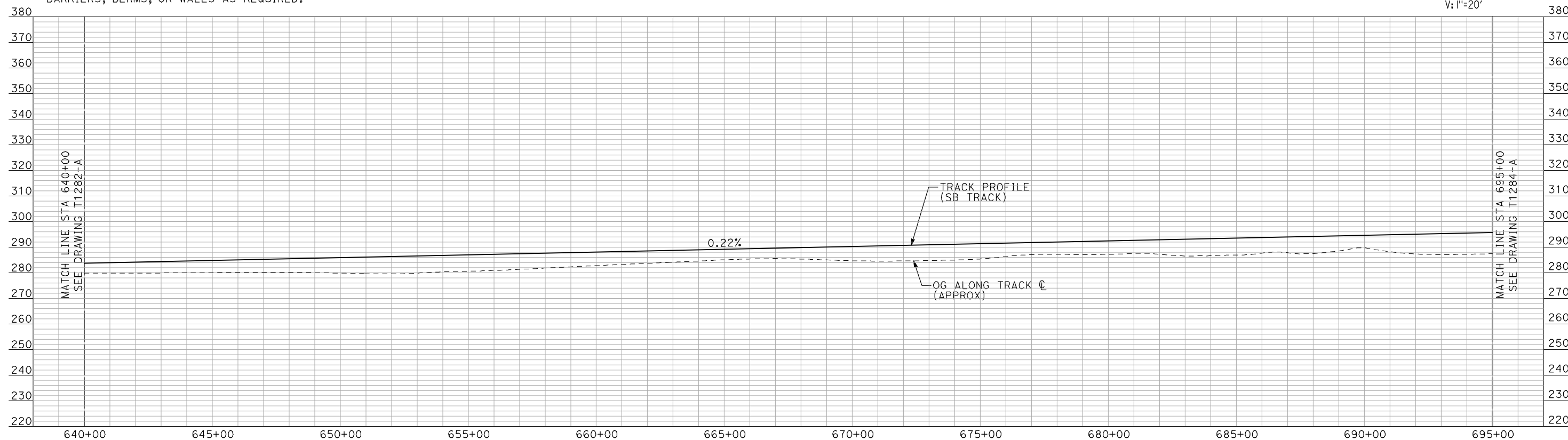
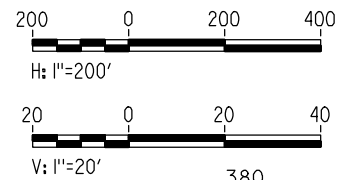
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CURVE BNSF220
V = 150 MPH
R = 10000'
Ls = 1200'
Ed/Eu = 6.00/3.00
MINIMUM

- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

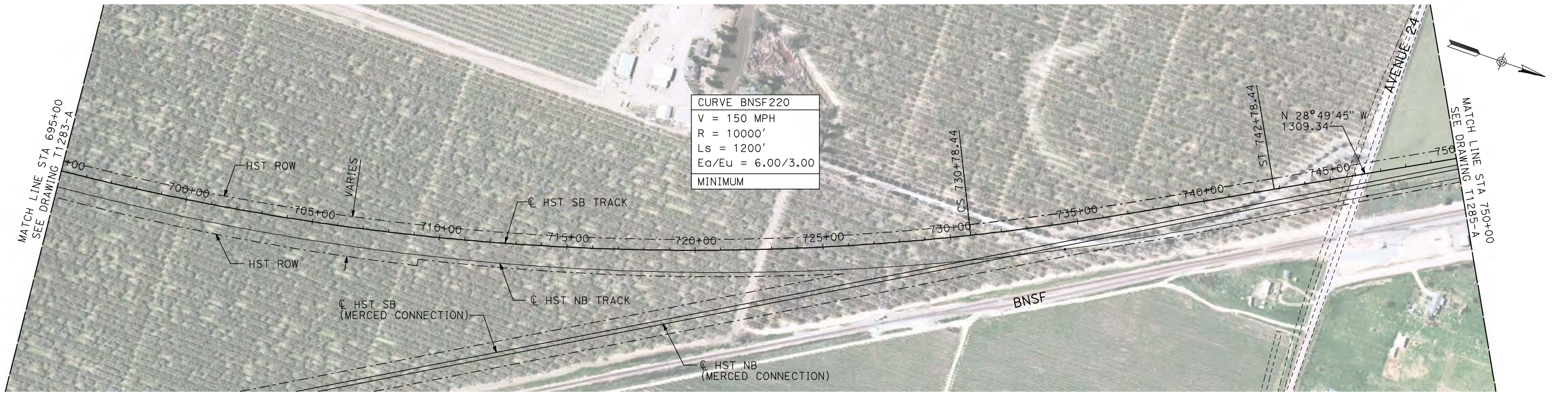
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF WYE - SB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 640+00 TO STA 695+00

CONTRACT NO.	HSR06-007
DRAWING NO.	T1283-A
SCALE	AS SHOWN
SHEET NO.	### OF ###

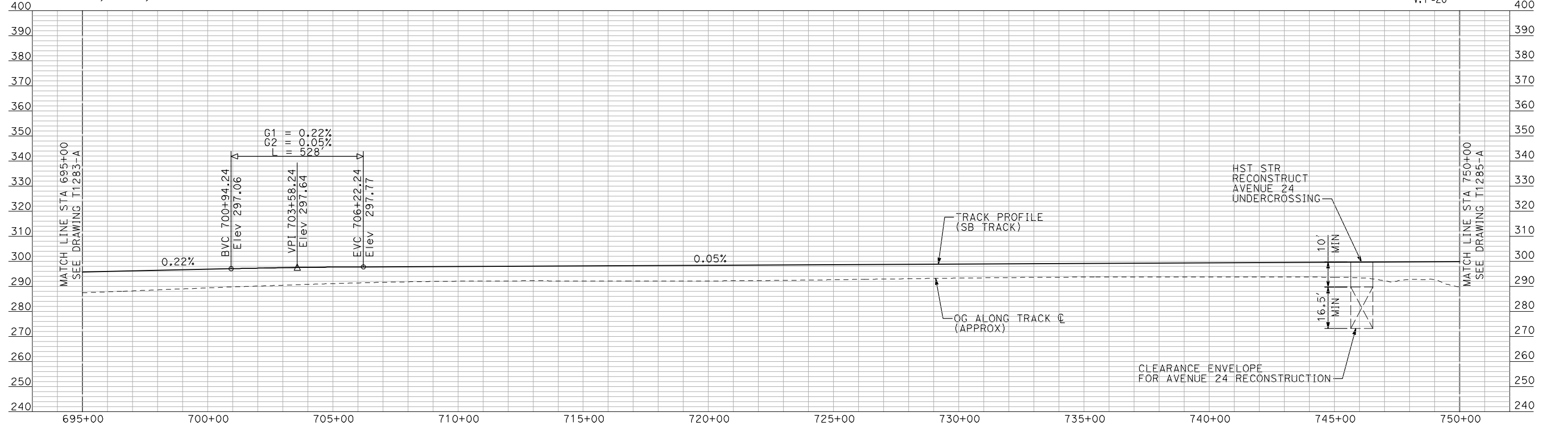
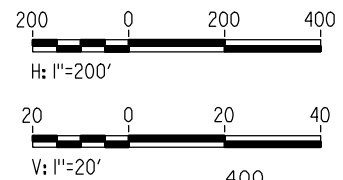
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CURVE BNSF220
V = 150 MPH
R = 10000'
Ls = 1200'
Ea/Eu = 6.00/3.00
MINIMUM

PLAN

- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

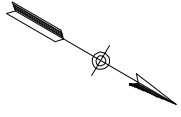
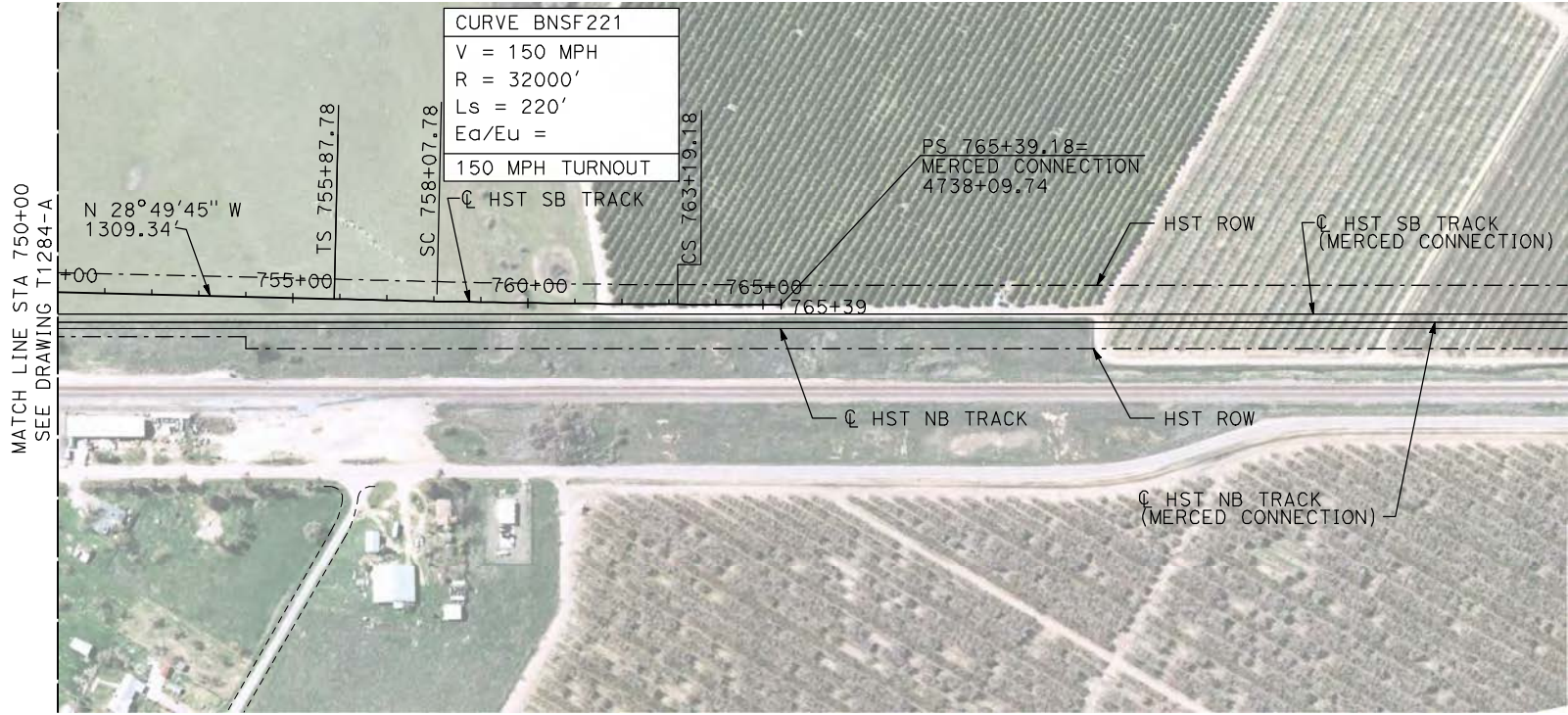
**NOT FOR
CONSTRUCTION**



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

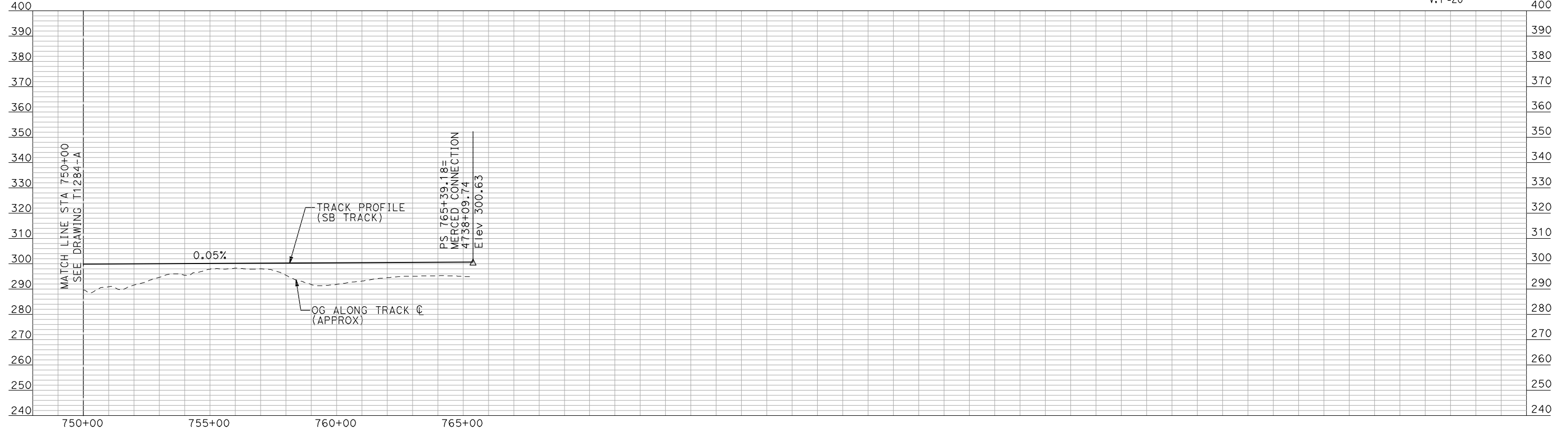
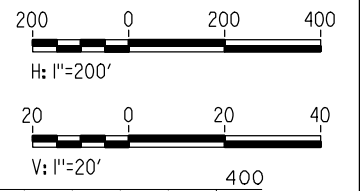
BNSF WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 695+00 TO STA 750+00

CONTRACT NO.	HSR06-007
DRAWING NO.	T1284-A
SCALE	AS SHOWN
SHEET NO.	### OF ###



PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS

DRAWN BY
H. SULLIVAN

CHECKED BY
A. BOONE

IN CHARGE
A. BOONE

DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

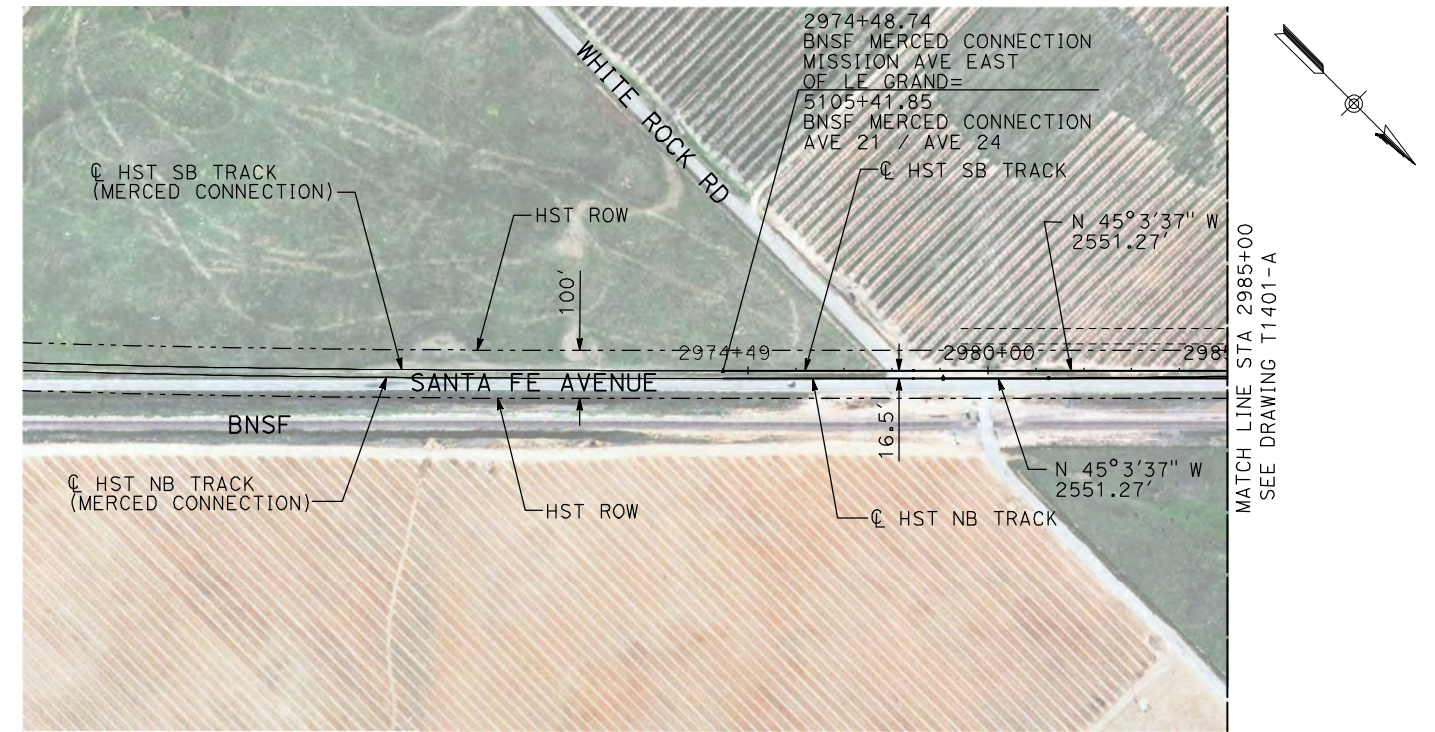


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

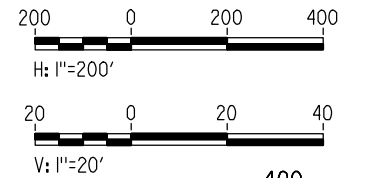
BNSF WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 750+00 TO STA 765+39.18

CONTRACT NO. HSR06-007
DRAWING NO. T1285-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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PLAN



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR
TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS

DRAWN BY
H. SULLIVAN

CHECKED BY
A. BOONE

IN CHARGE
A. BOONE

DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

BNSF MERCED CONNECTION
MISSION AVENUE EAST OF LE GRAND
PLAN AND PROFILE
STA 2974+48.74 TO STA 2985+00

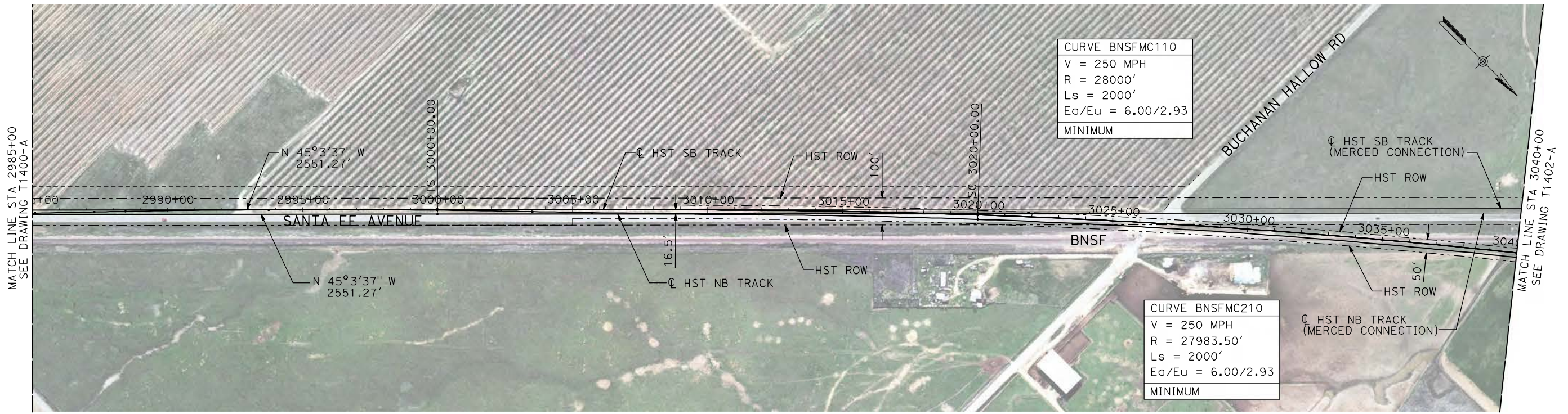
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HSR06-007

DRAWING NO.
T1400-A

SCALE
AS SHOWN

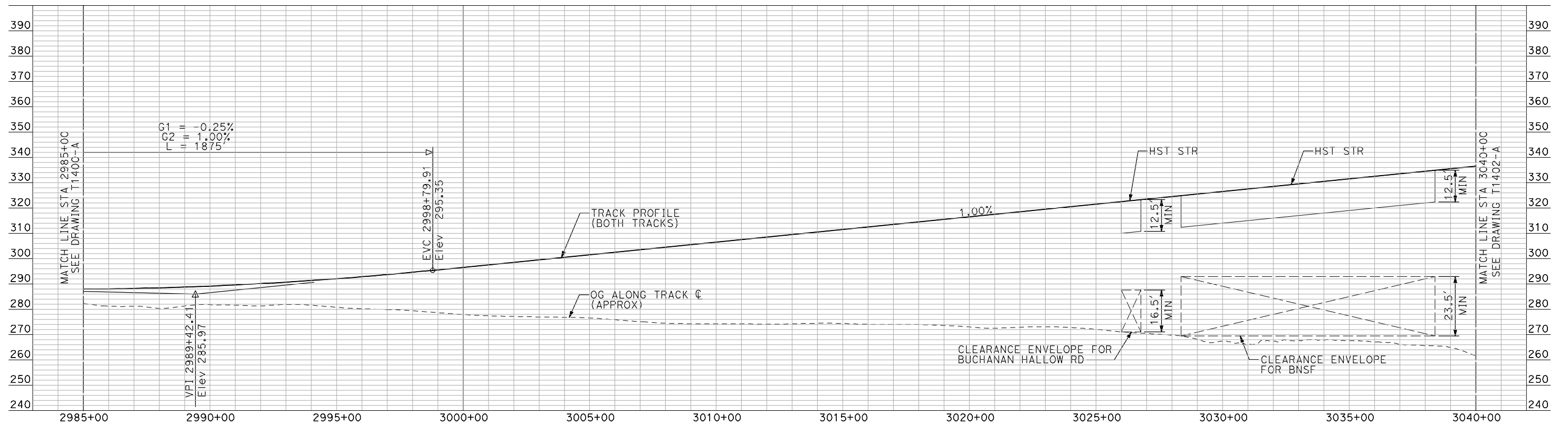
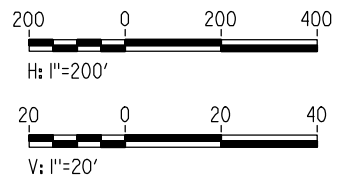
SHEET NO.
OF

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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

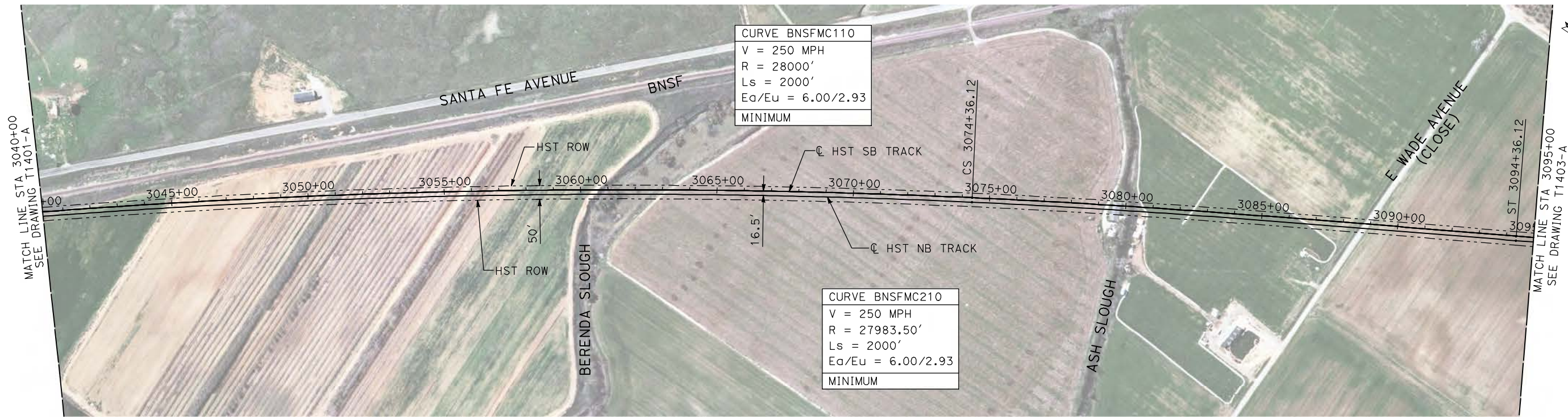


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MISSION AVENUE EAST OF LE GRAND
PLAN AND PROFILE
STA 2985+00 TO STA 3040+00

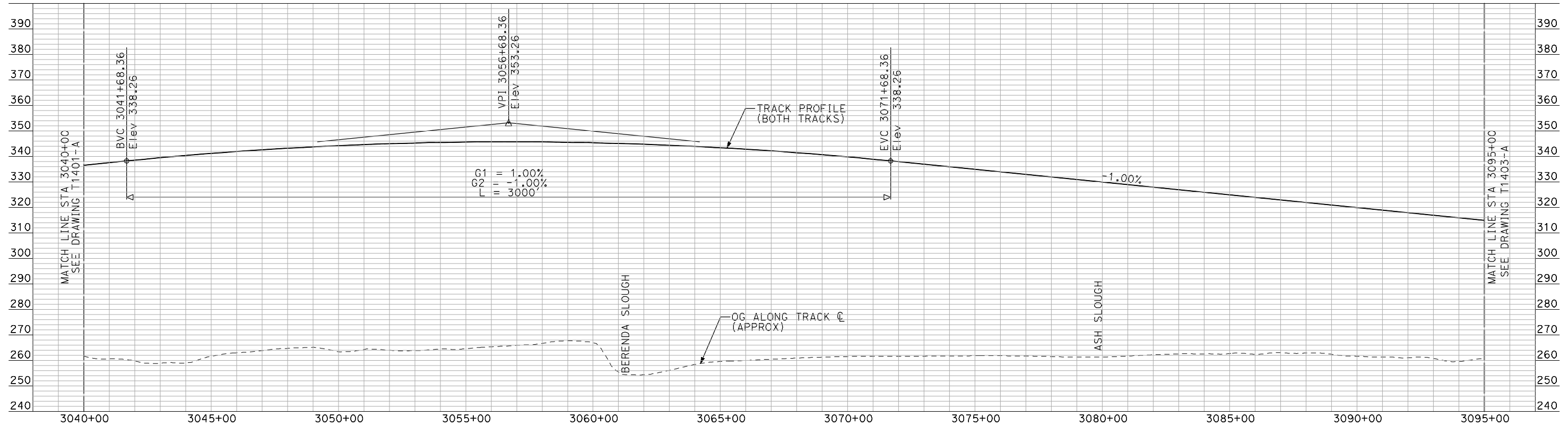
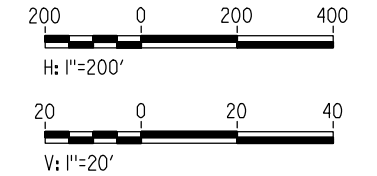
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HSR06-007
DRAWING NO.
T1401-A
SCALE
AS SHOWN
SHEET NO.
OF

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PLAN

- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

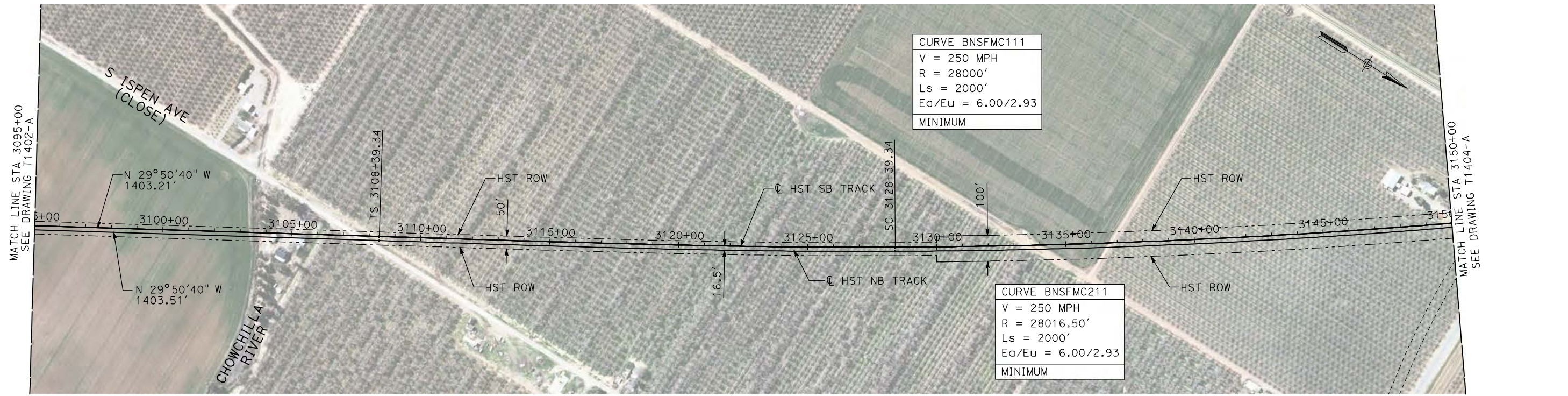


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

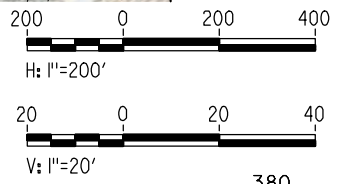
BNSF MERCED CONNECTION
MISSION AVENUE EAST OF LE GRAND
PLAN AND PROFILE
STA 3040+00 TO STA 3095+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1402-A
SCALE
AS SHOWN
SHEET NO.
OF

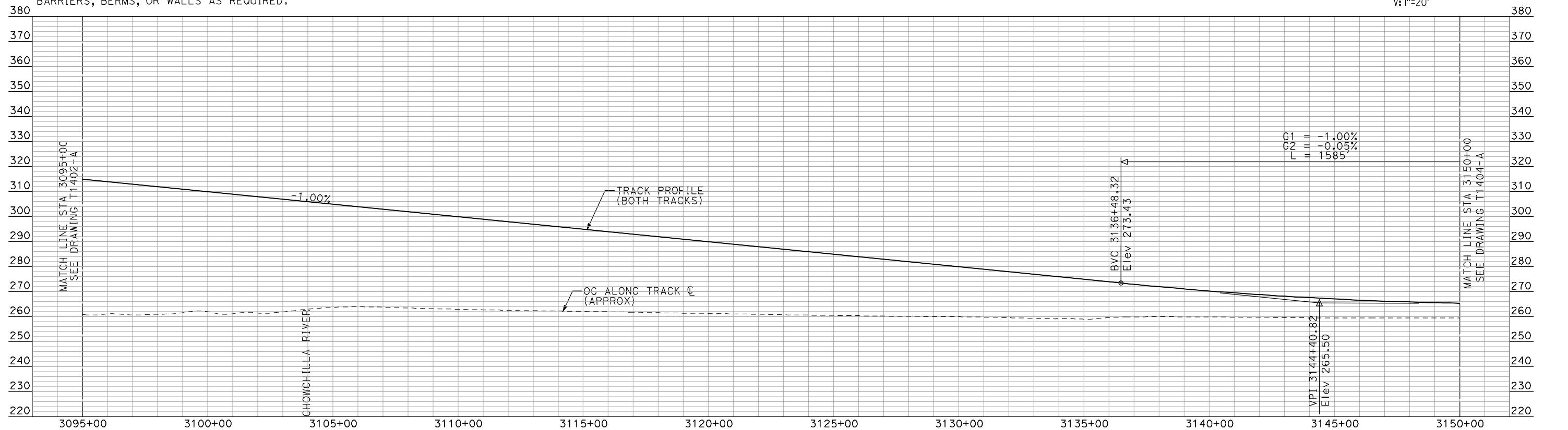
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PLAN



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

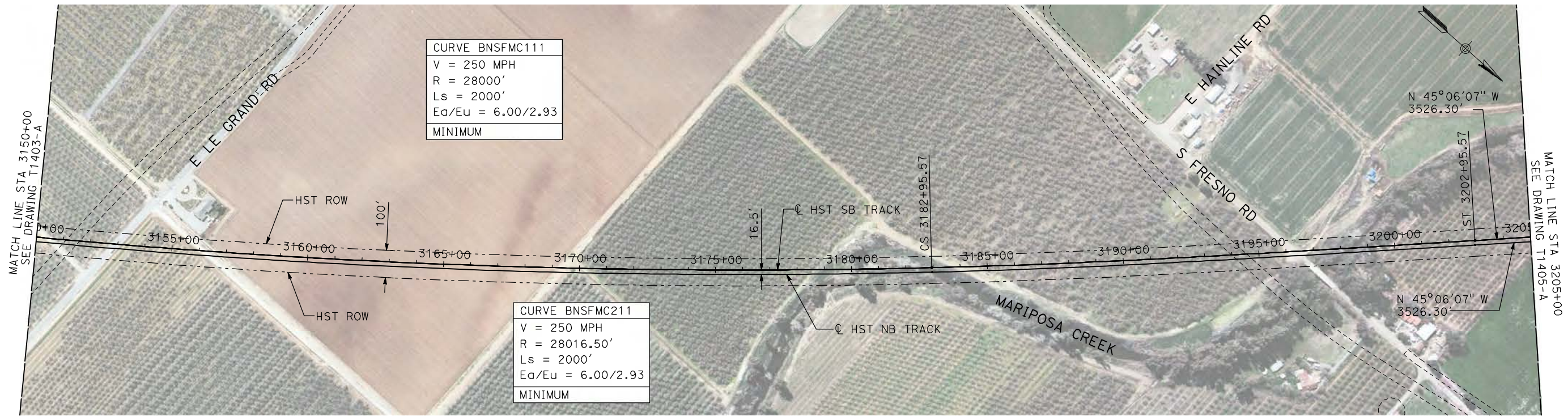
**NOT FOR
CONSTRUCTION**



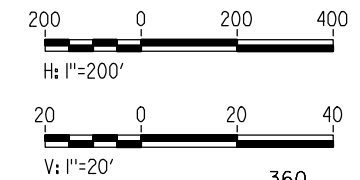
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MISSION AVENUE EAST OF LE GRAND
PLAN AND PROFILE
STA 3095+00 TO STA 3150+00

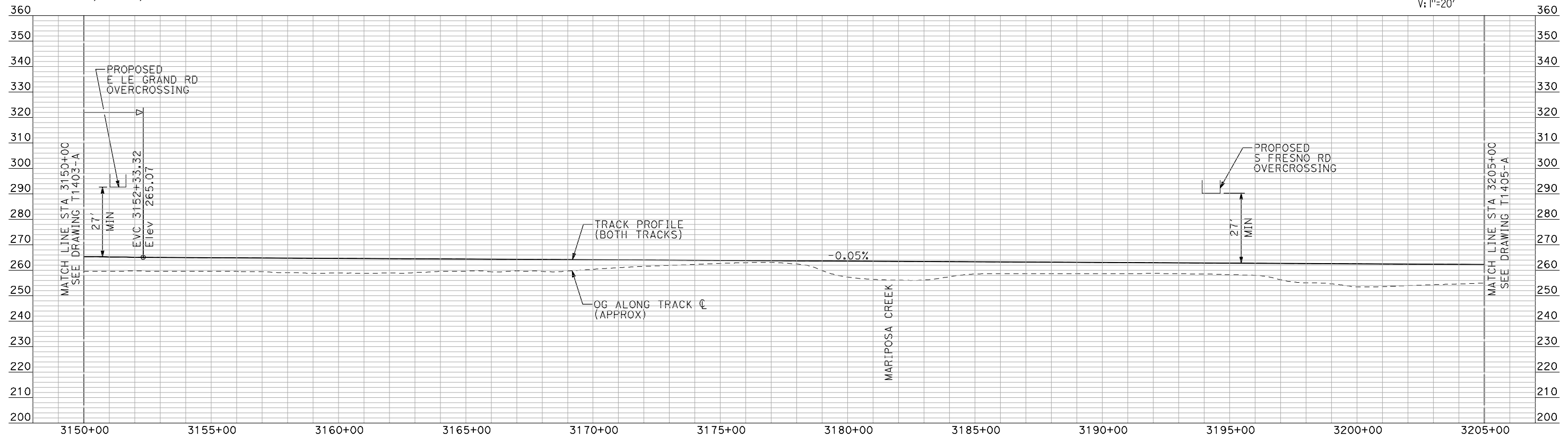
CONTRACT NO.
HSR06-007
DRAWING NO.
T1403-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/21/2011 11:03:00 AM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\trackwork\deir\bnsf_ave 21\MF-T-1404-A.dgn machadoe

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
MISSION AVENUE EAST OF LE GRAND
PLAN AND PROFILE
STA 3150+00 TO STA 3205+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T1404-A

SCALE
AS SHOWN

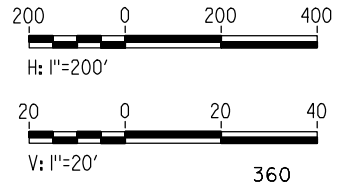
SHEET NO.
OF



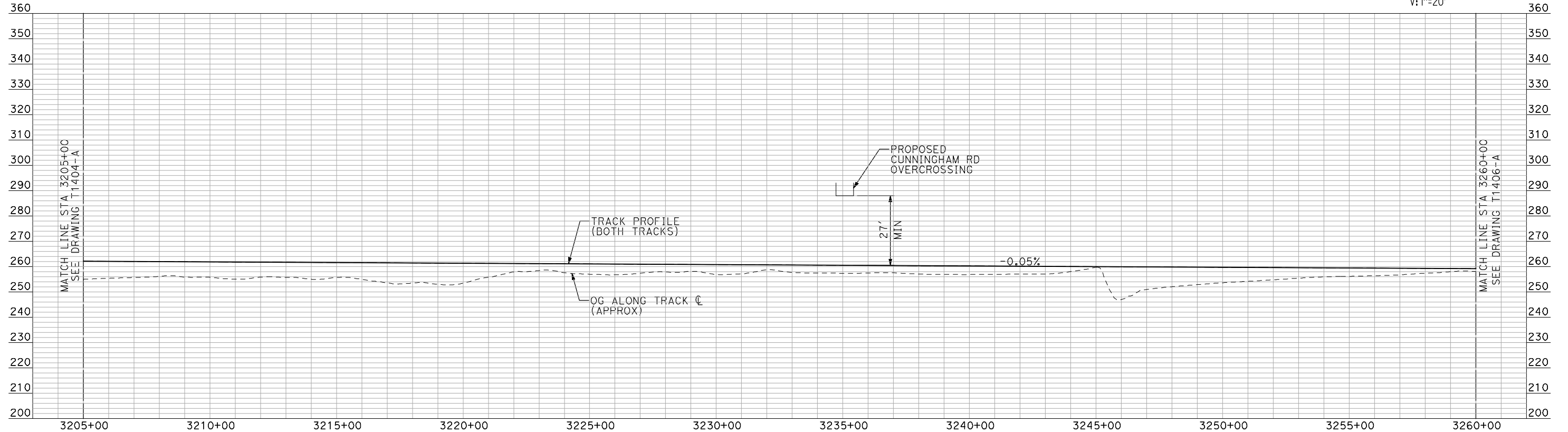
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 V = 250 MPH
 R = 28000'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

CURVE BNSFMC212
 V = 250 MPH
 R = 28016.50'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

PLAN



- NOTES:
 1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

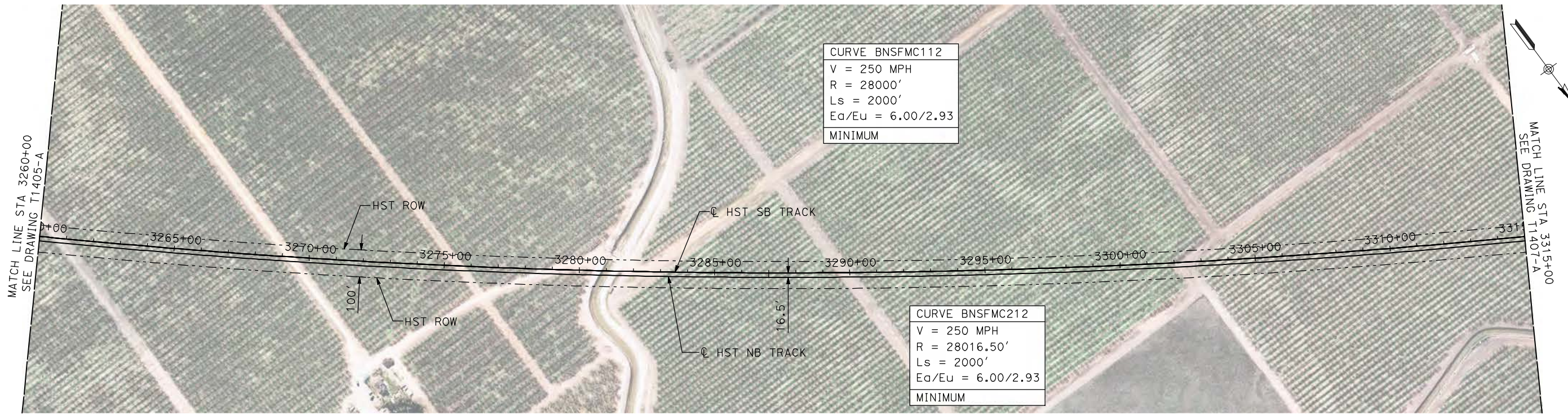
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION	 <small>Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811</small> 		CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MERCED CONNECTION MISSION AVENUE EAST OF LE GRAND PLAN AND PROFILE STA 3205+00 TO STA 3260+00	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN					DRAWING NO. T1405-A
CHECKED BY A. BOONE					SCALE AS SHOWN
IN CHARGE A. BOONE					SHEET NO. ### OF ###
DATE 07/20/2011					

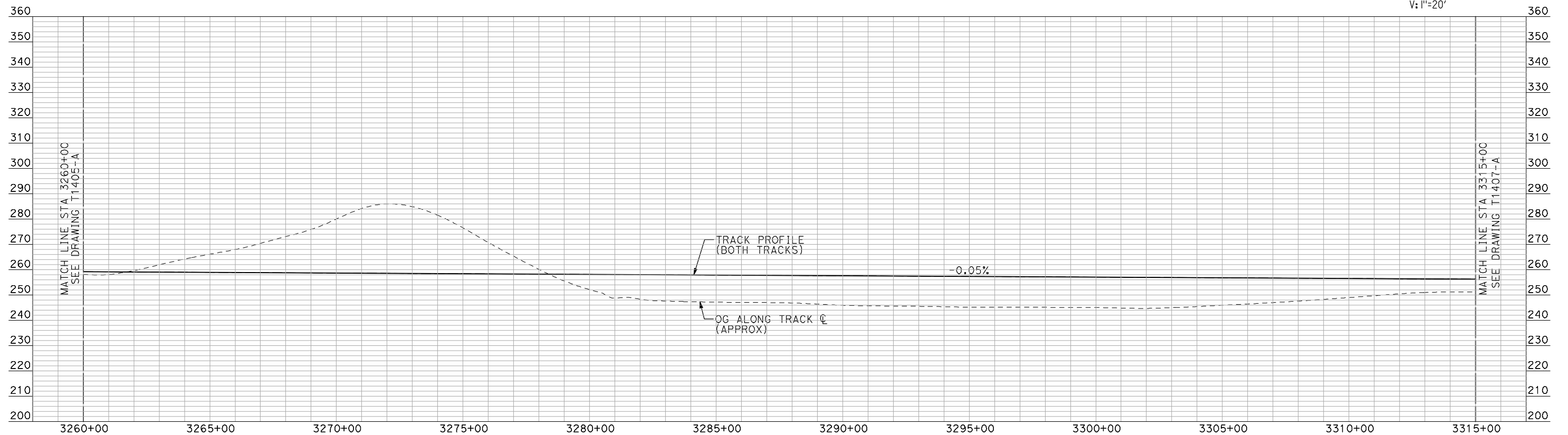
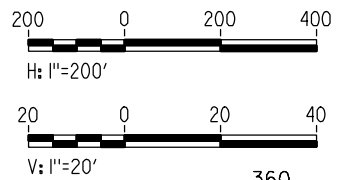
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PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



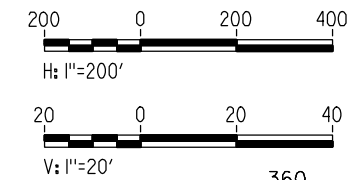
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MISSION AVENUE EAST OF LE GRAND
PLAN AND PROFILE
STA 3260+00 TO STA 3315+00

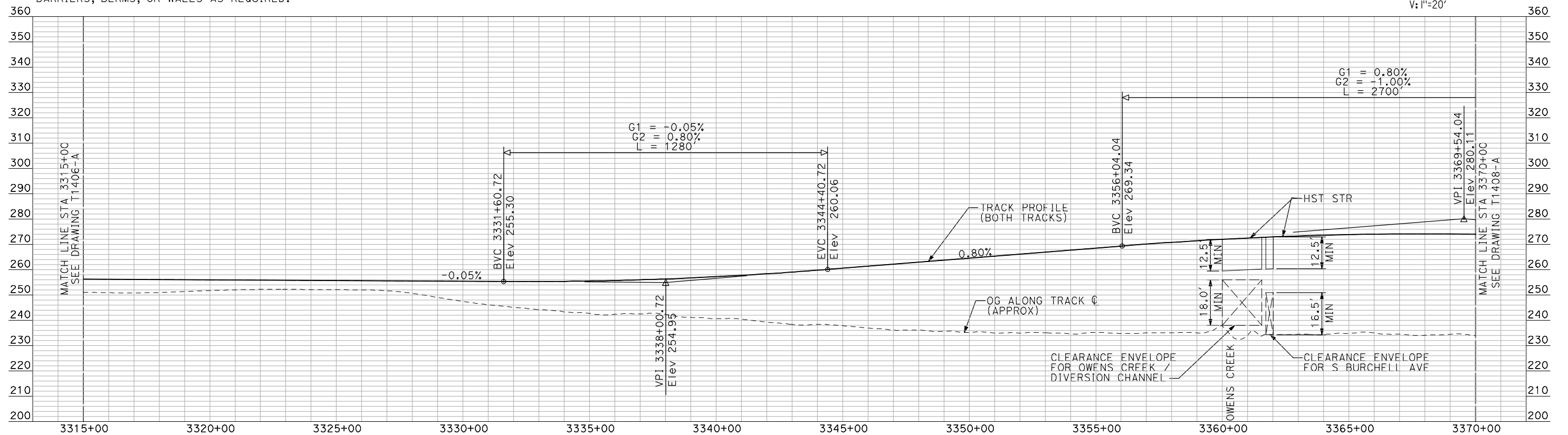
CONTRACT NO.
HSR06-007
DRAWING NO.
T1406-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

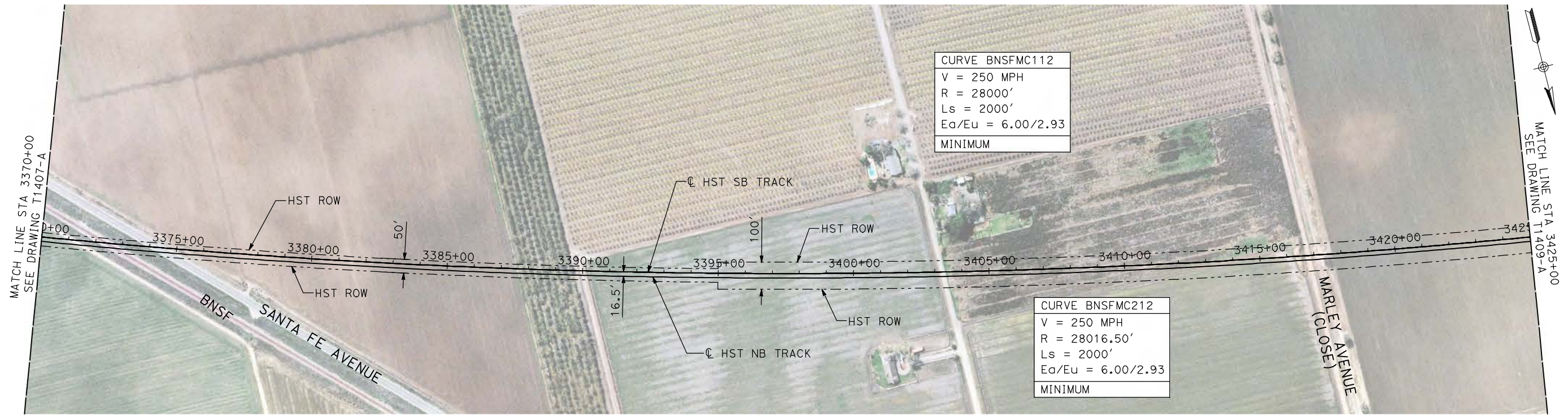
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DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION	 <small>Technical Services, Inc.</small> 2020 L Street, Suite 300 Sacramento, CA 95811	 CALIFORNIA <small>HIGH-SPEED RAIL AUTHORITY</small>
DRAWN BY H. SULLIVAN			
CHECKED BY A. BOONE			
IN CHARGE A. BOONE			
DATE 07/20/2011			

CONTRACT NO.	HSR06-007
DRAWING NO.	T1407-A
SCALE	AS SHOWN
SHEET NO.	### OF ###

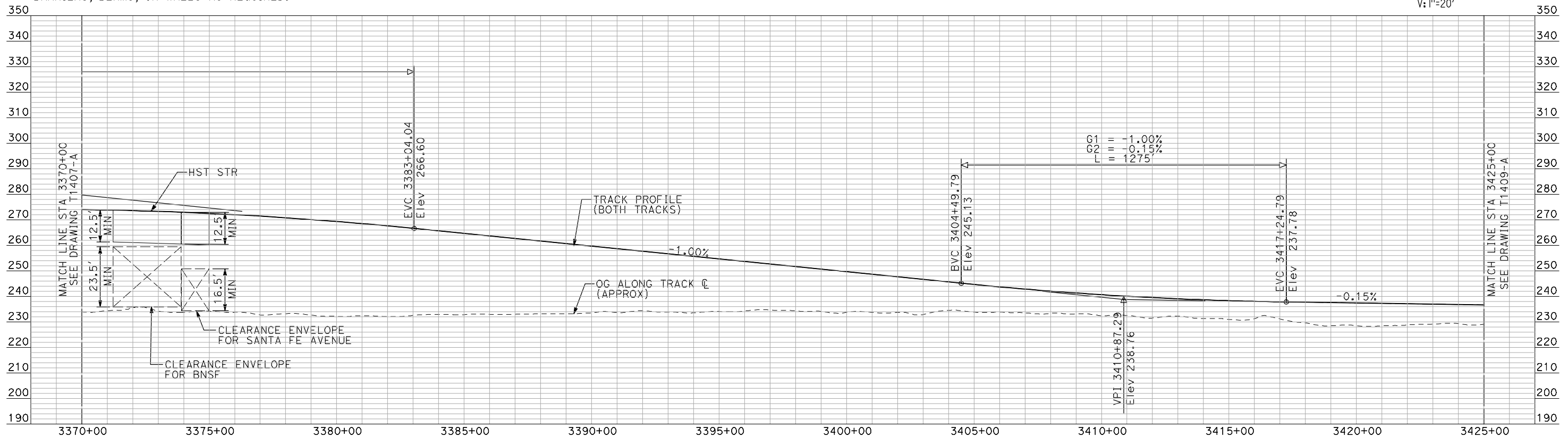
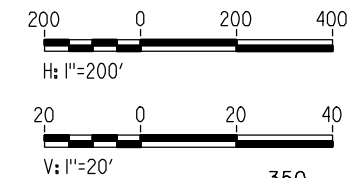
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 BNSF MERCED CONNECTION
 MISSION AVENUE EAST OF LE GRAND
 PLAN AND PROFILE
 STA 3315+00 TO STA 3370+00

REV	DATE	BY	CHK	APP	DESCRIPTION



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/21/2011 11:04:03 AM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\trackwork\deir\bnsf_ave 21\MF-T-1408-A.dgn machadoc

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

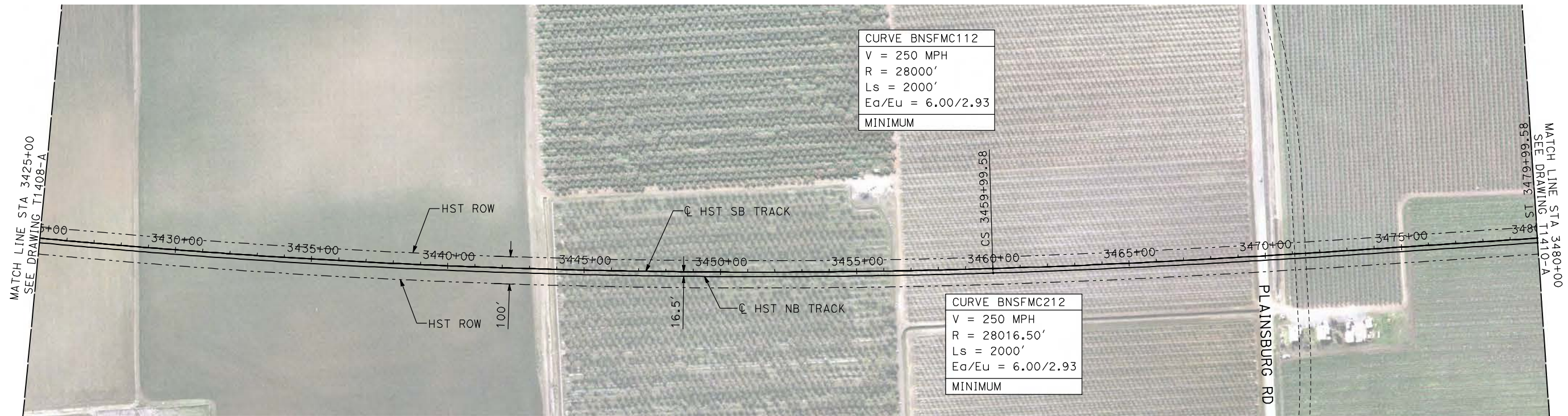
NOT FOR
CONSTRUCTION



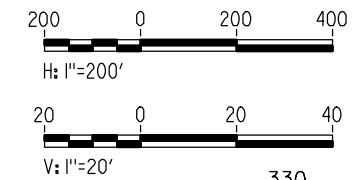
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
 MISSION AVENUE EAST OF LE GRAND
 PLAN AND PROFILE
 STA 3370+00 TO STA 3425+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T1408-A
 SCALE
AS SHOWN
 SHEET NO.
OF



PLAN



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

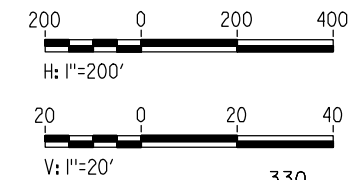
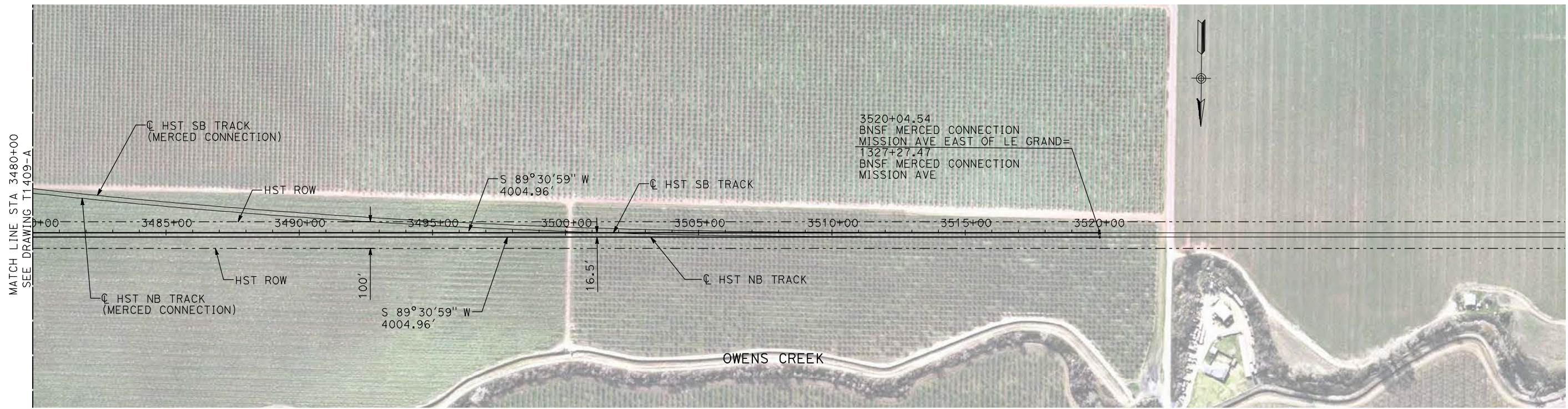


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

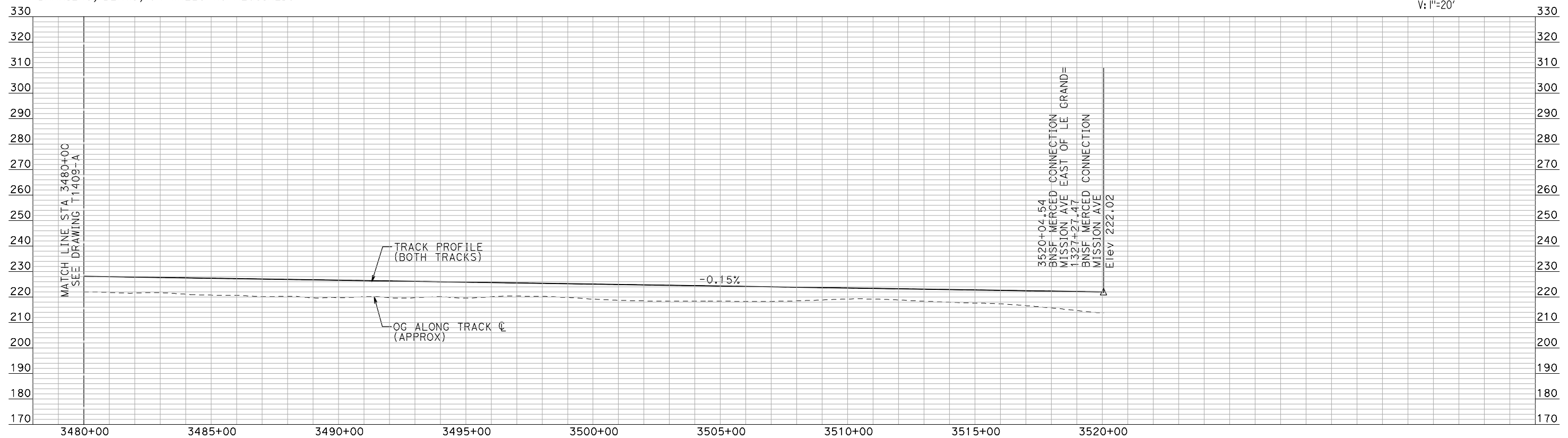
BNSF MERCED CONNECTION
MISSION AVENUE EAST OF LE GRAND
PLAN AND PROFILE
STA 3425+00 TO STA 3480+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1409-A
SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

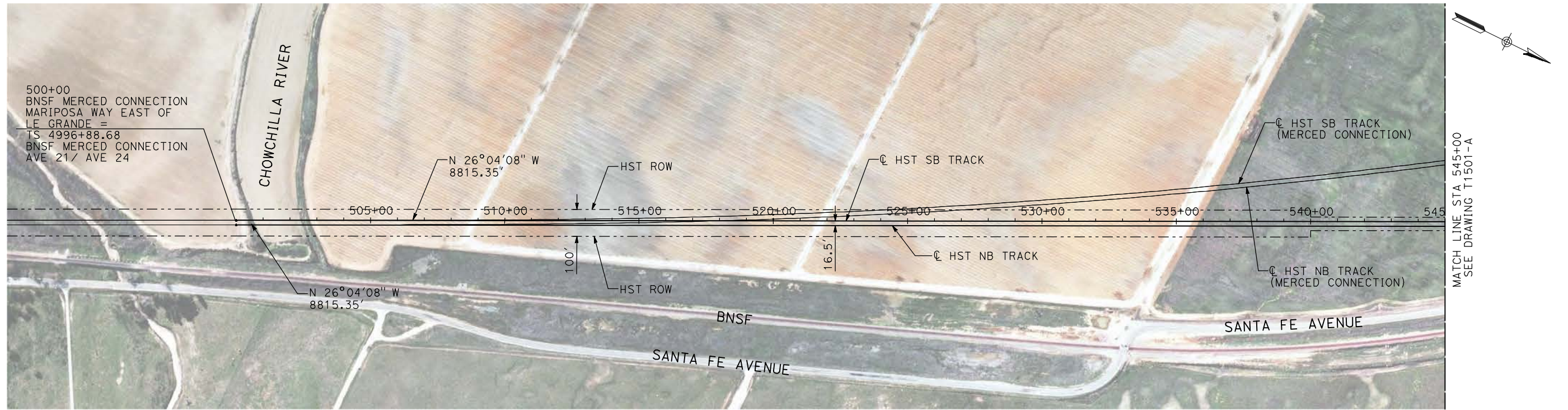
**NOT FOR
CONSTRUCTION**



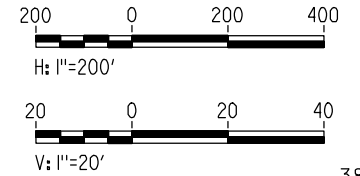
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MISSION AVENUE EAST OF LE GRAND
PLAN AND PROFILE
STA 3480+00 TO STA 3520+04.54

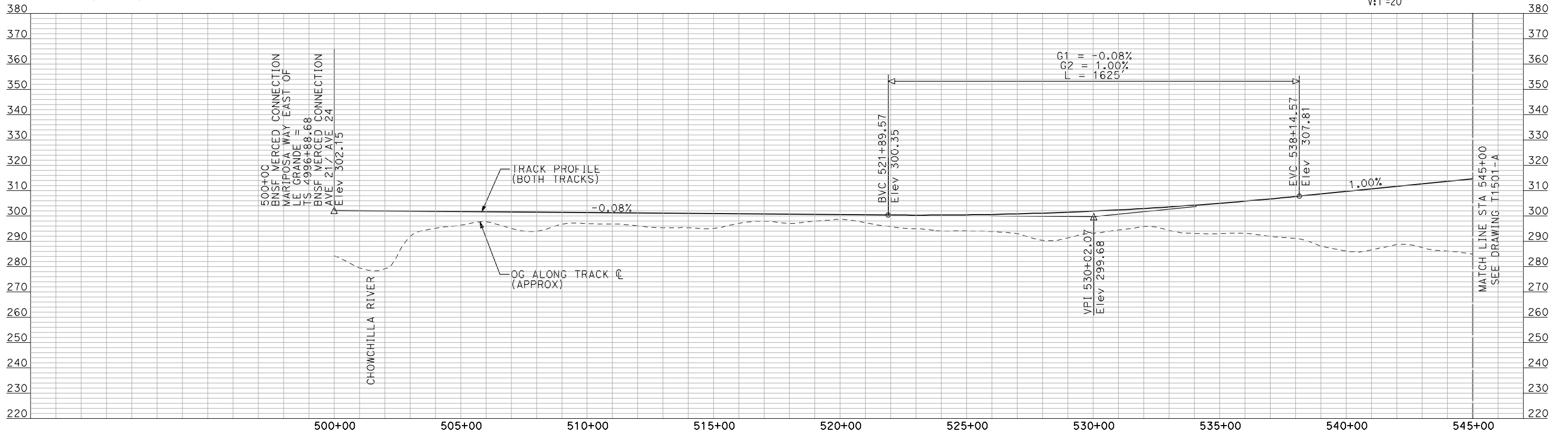
CONTRACT NO. HSR06-007
DRAWING NO. T1410-A
SCALE AS SHOWN
SHEET NO. ### OF ###



PLAN



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

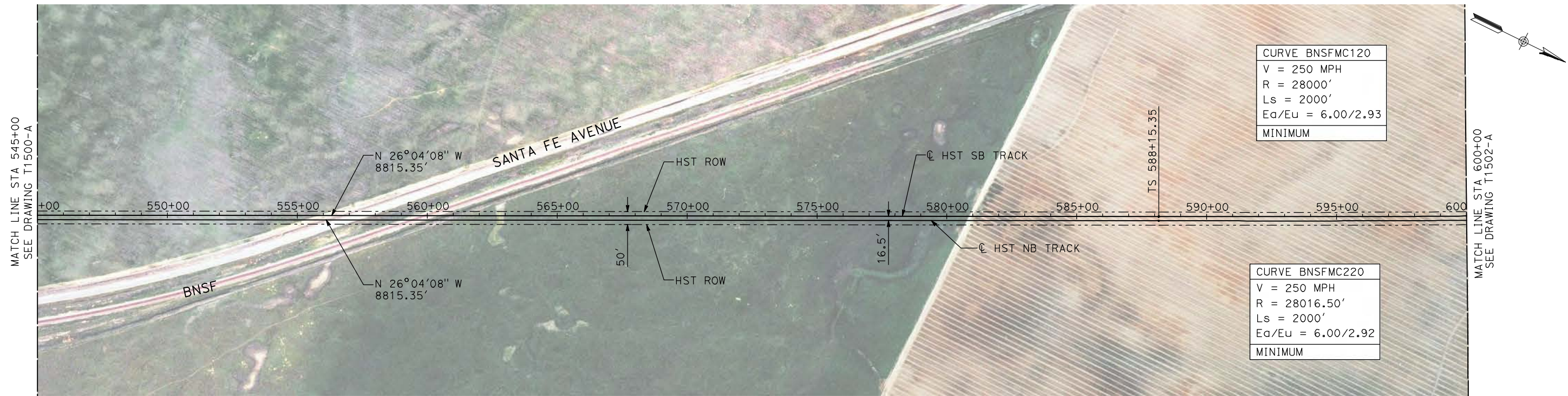


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
MARIPOSA WAY EAST OF LE GRAND
PLAN AND PROFILE
STA 500+00 TO STA 545+00

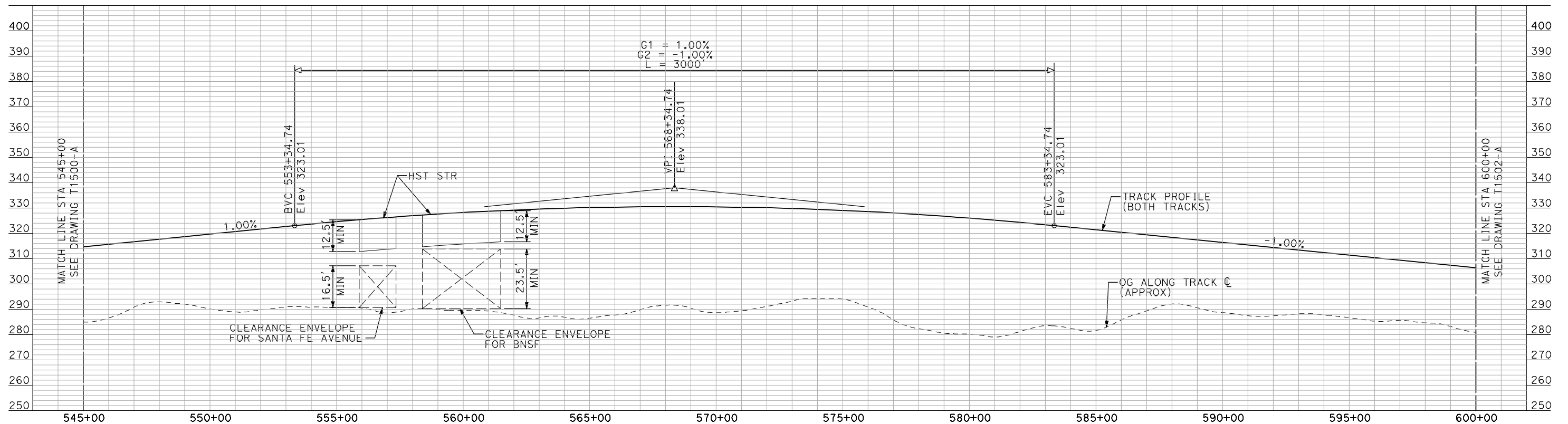
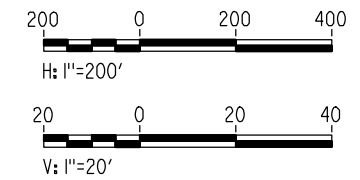
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DRAWING NO.
T1500-A
SCALE
AS SHOWN
SHEET NO.
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PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
MARIPOSA WAY EAST OF LE GRAND
PLAN AND PROFILE
STA 545+00 TO STA 600+00

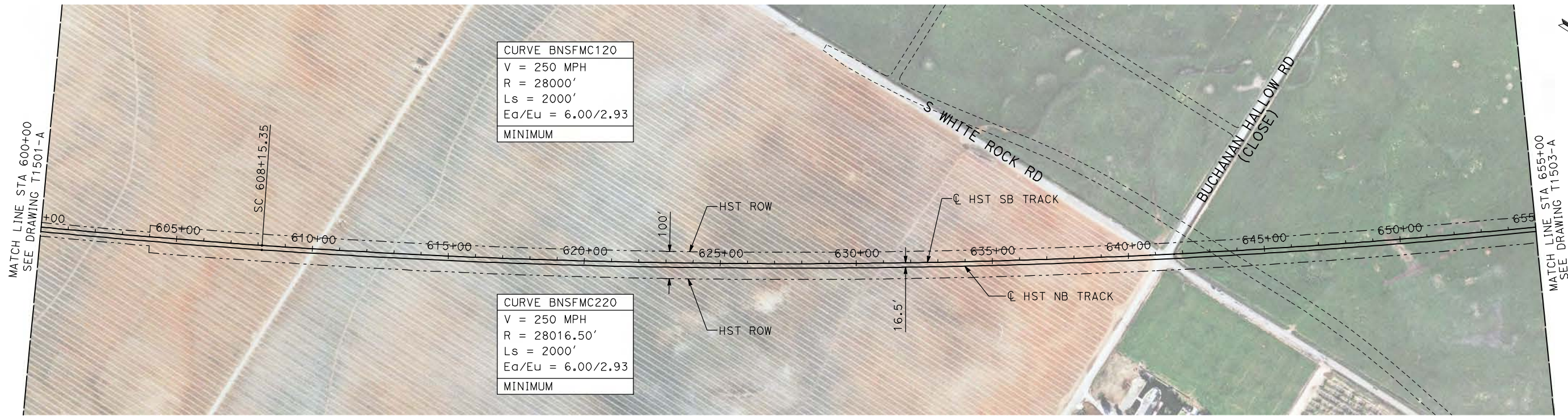
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HSR06-007

DRAWING NO.
T1501-A

SCALE
AS SHOWN

SHEET NO.
OF

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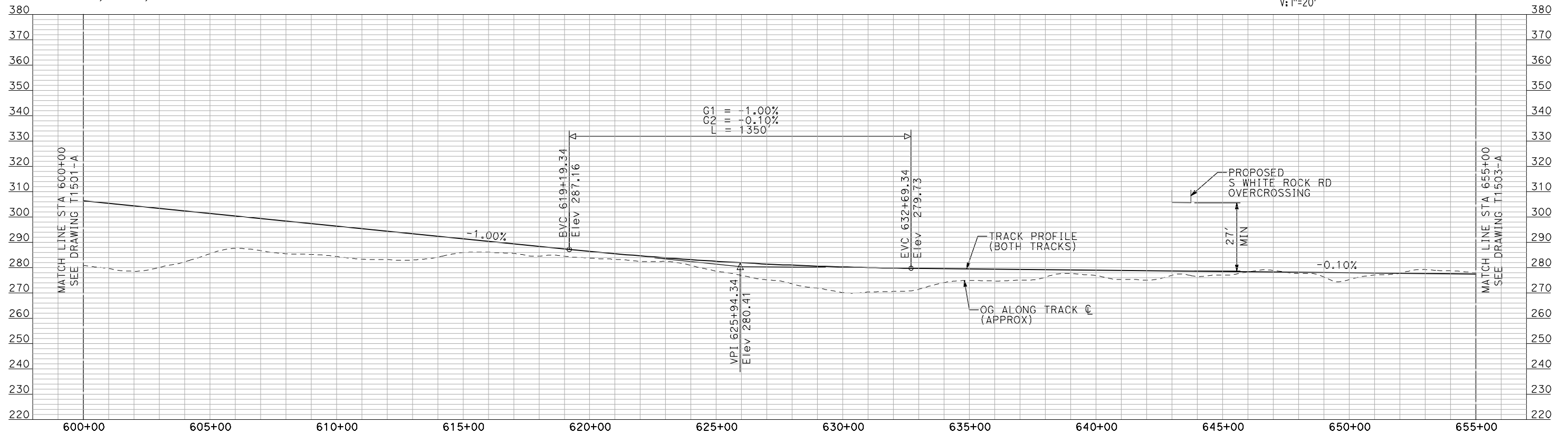
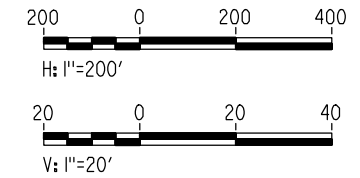


CURVE BNSFMC120
 V = 250 MPH
 R = 28000'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

CURVE BNSFMC220
 V = 250 MPH
 R = 28016.50'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

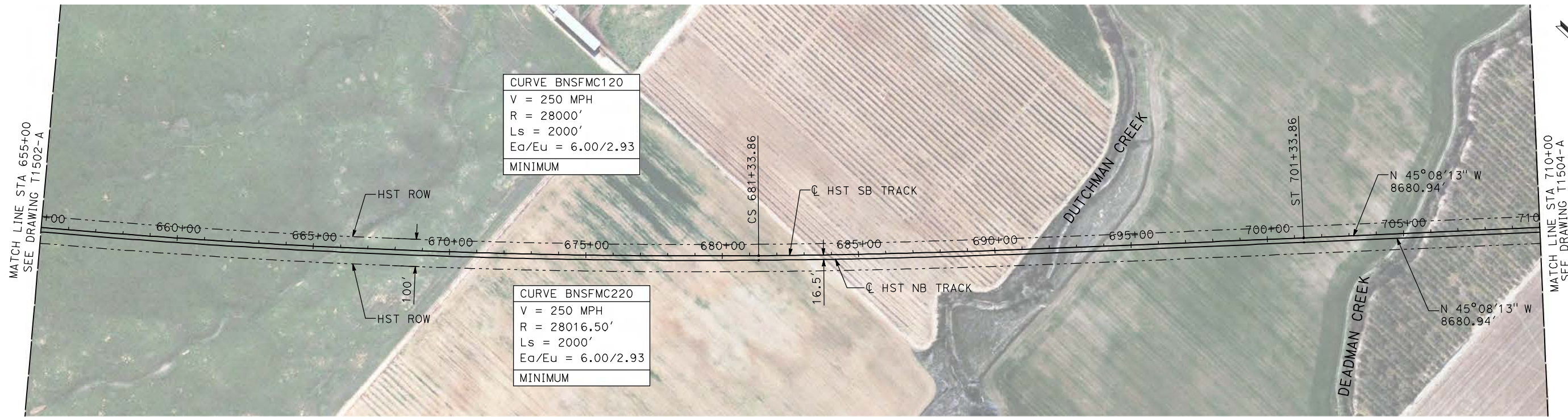


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
 MARIPOSA WAY EAST OF LE GRAND
 PLAN AND PROFILE
 STA 600+00 TO STA 655+00

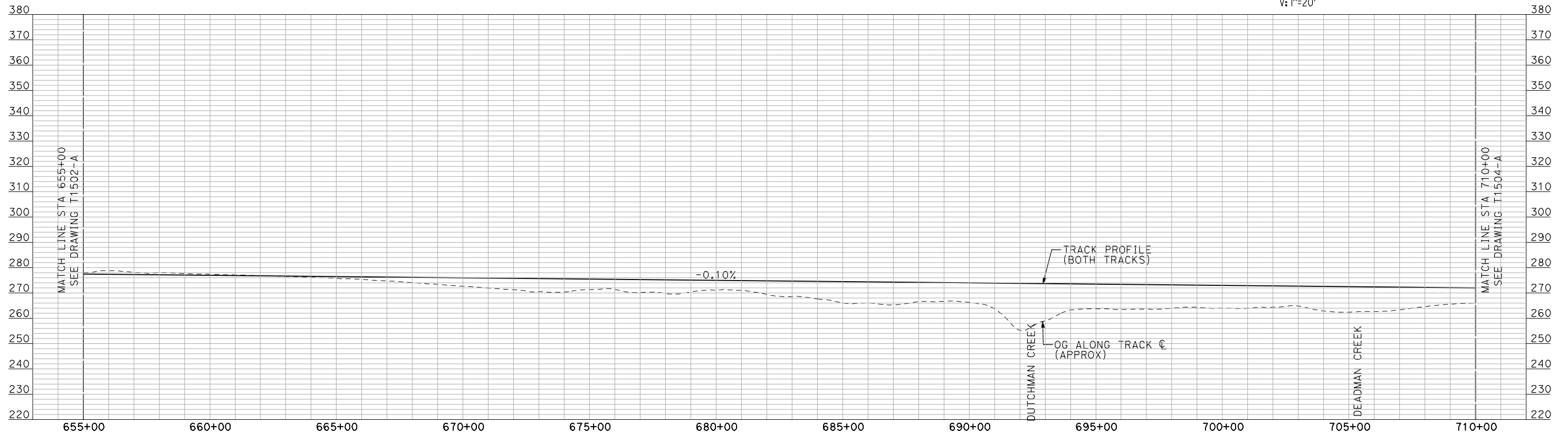
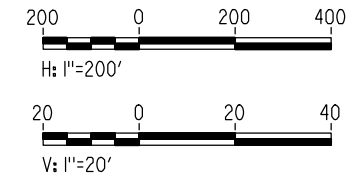
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 DRAWING NO.
T1502-A
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AS SHOWN
 SHEET NO.
OF

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- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

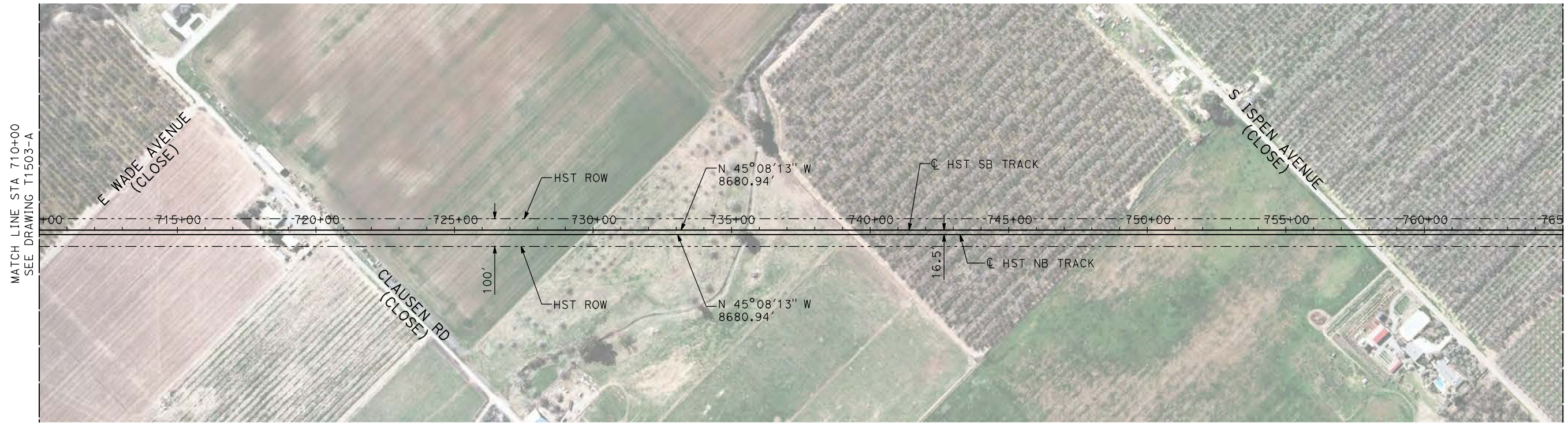


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MARIPOSA WAY EAST OF LE GRAND
PLAN AND PROFILE
STA 655+00 TO STA 710+00

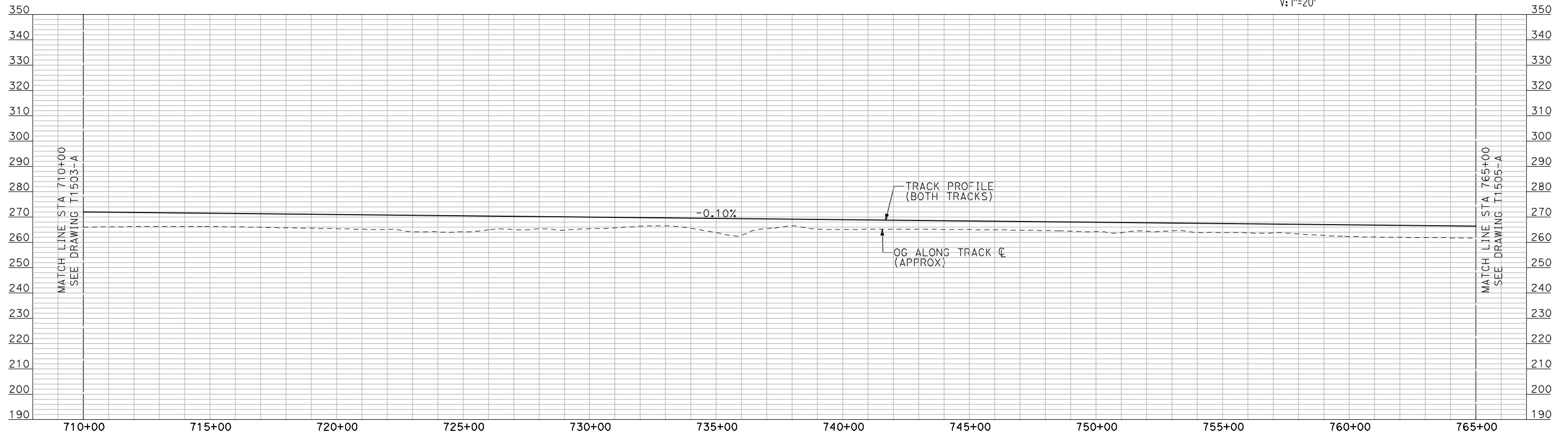
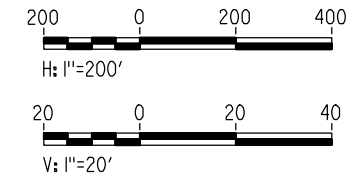
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HSR06-007
DRAWING NO.
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SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

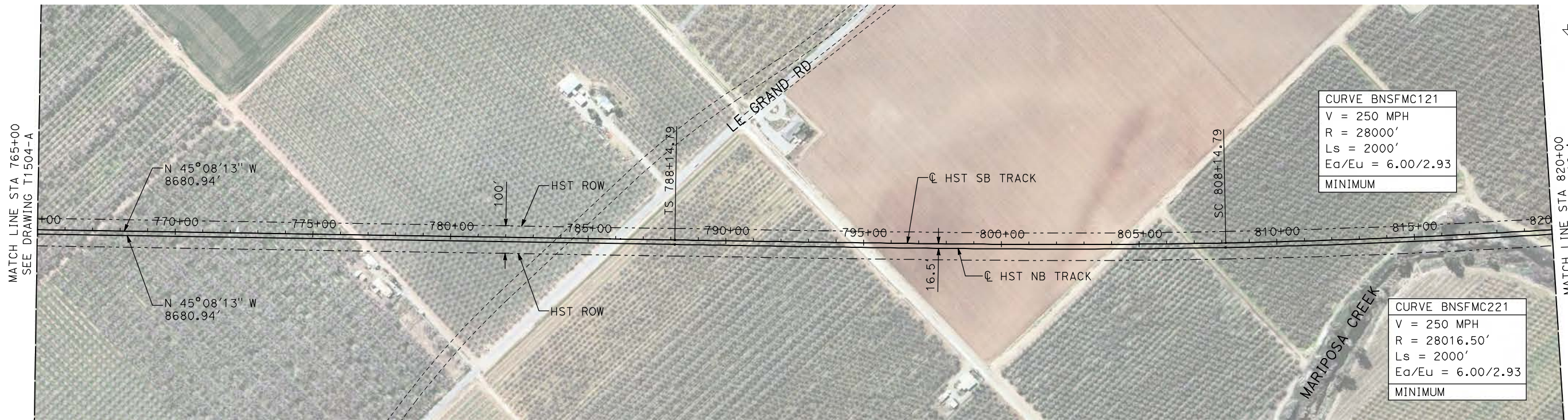


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MARIPOSA WAY EAST OF LE GRAND
PLAN AND PROFILE
STA 710+00 TO STA 765+00

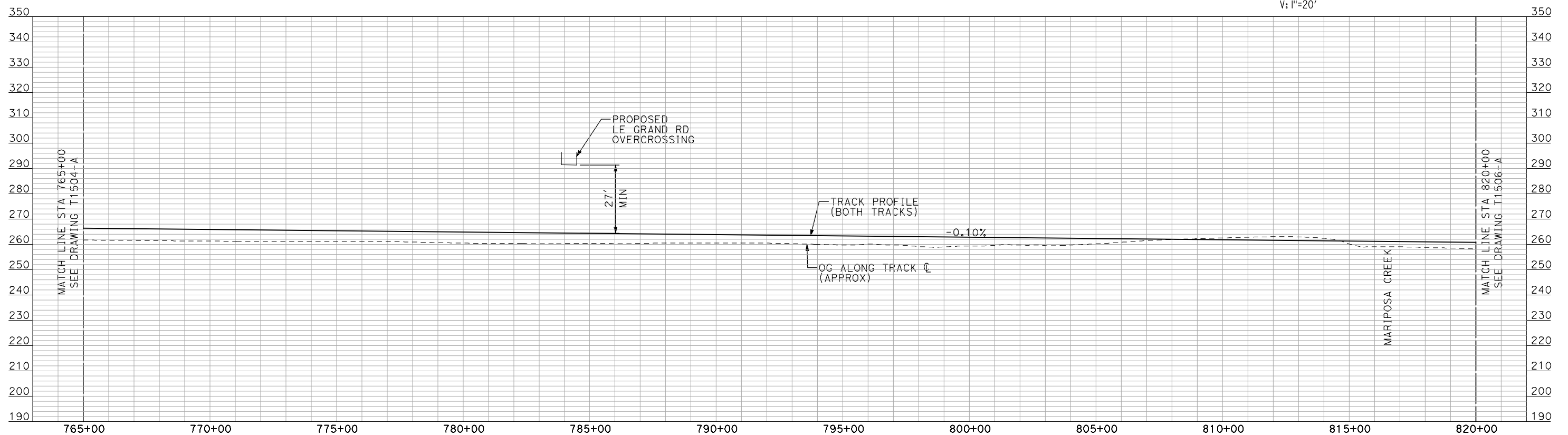
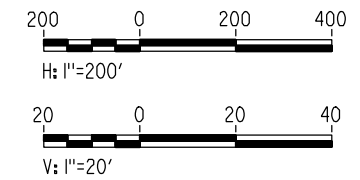
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HSR06-007
DRAWING NO.
T1504-A
SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

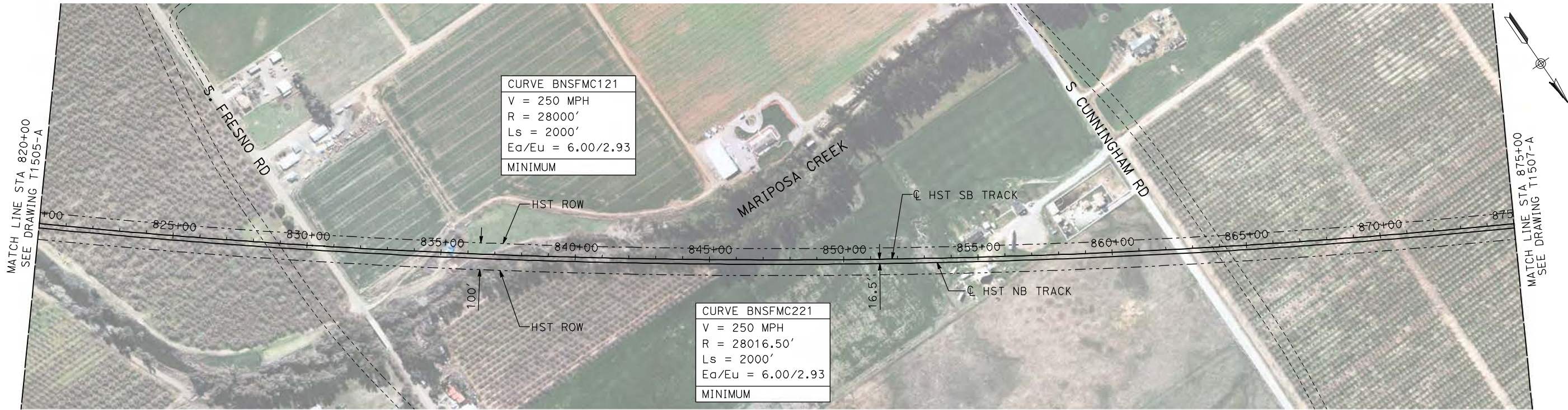


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MARIPOSA WAY EAST OF LE GRAND
PLAN AND PROFILE
STA 765+00 TO STA 820+00

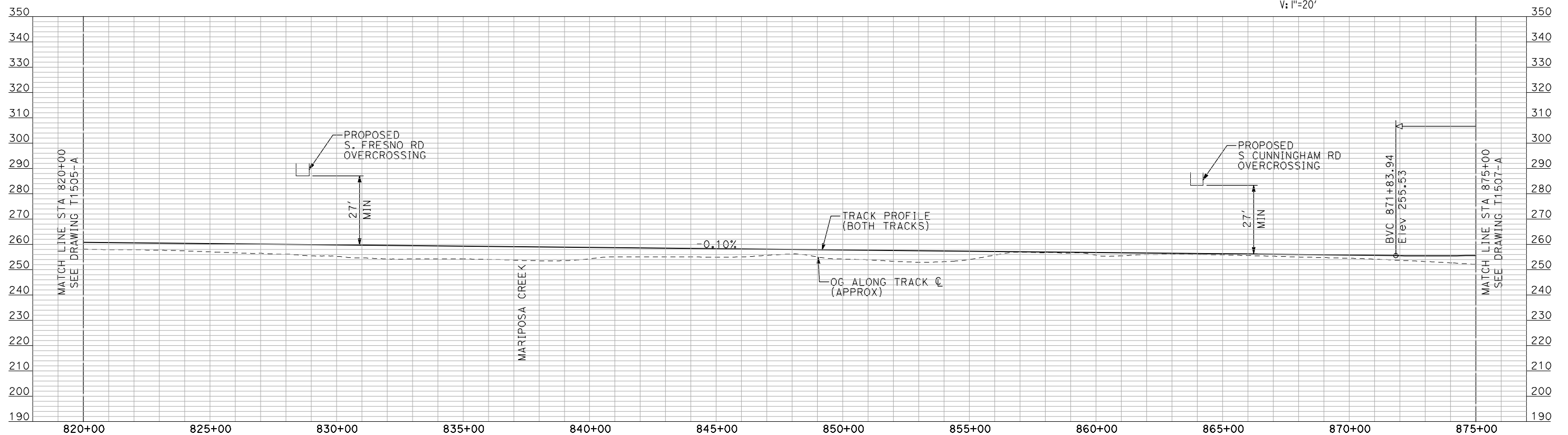
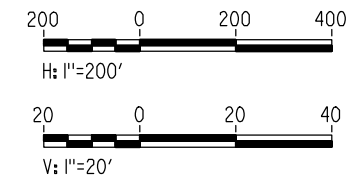
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HSR06-007
DRAWING NO.
T1505-A
SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

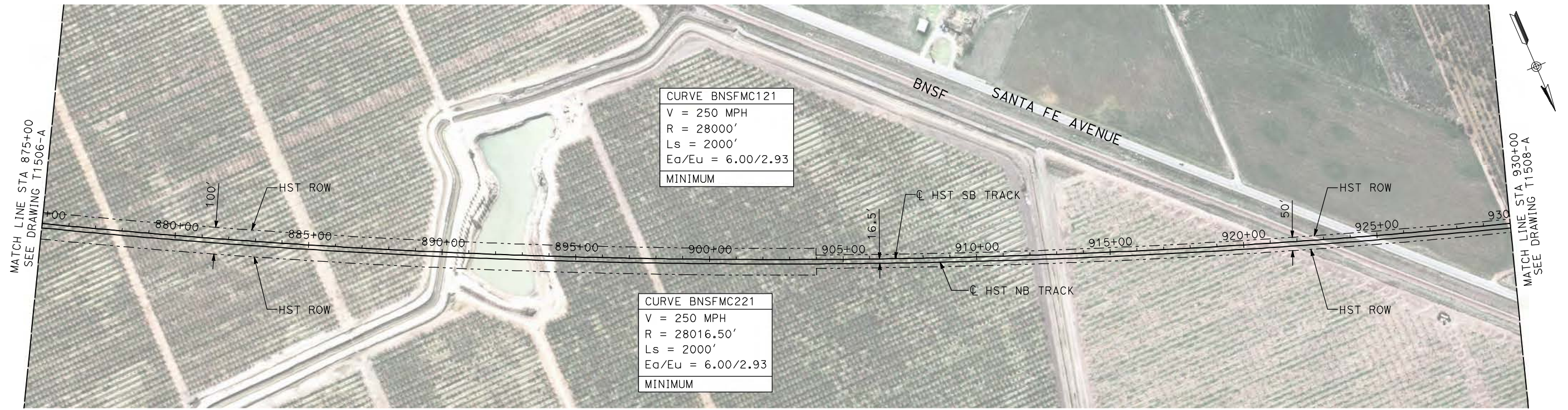
BNSF MERCED CONNECTION
MARIPOSA WAY EAST OF LE GRAND
PLAN AND PROFILE
STA 820+00 TO STA 875+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T1506-A

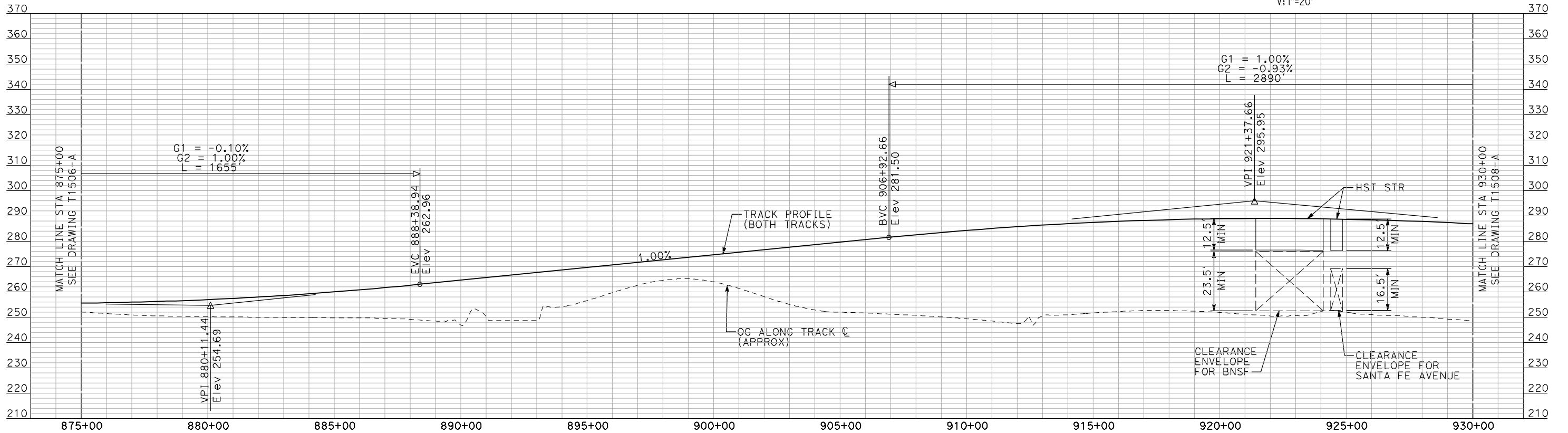
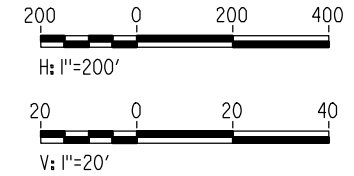
SCALE
AS SHOWN

SHEET NO.
OF



- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

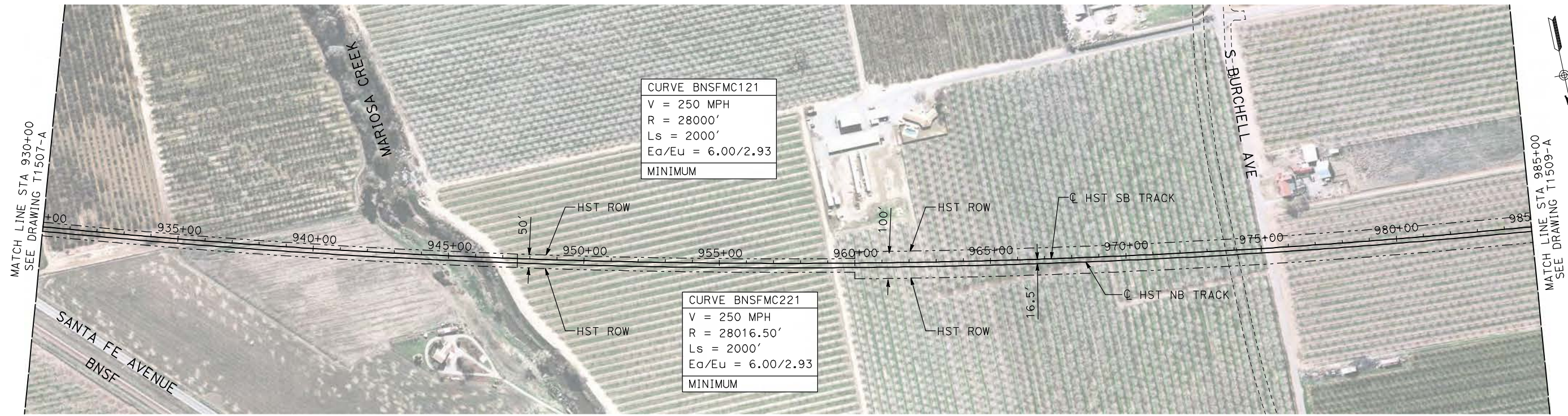
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION
MARIPOSA WAY EAST OF LE GRAND
PLAN AND PROFILE
STA 875+00 TO STA 930+00

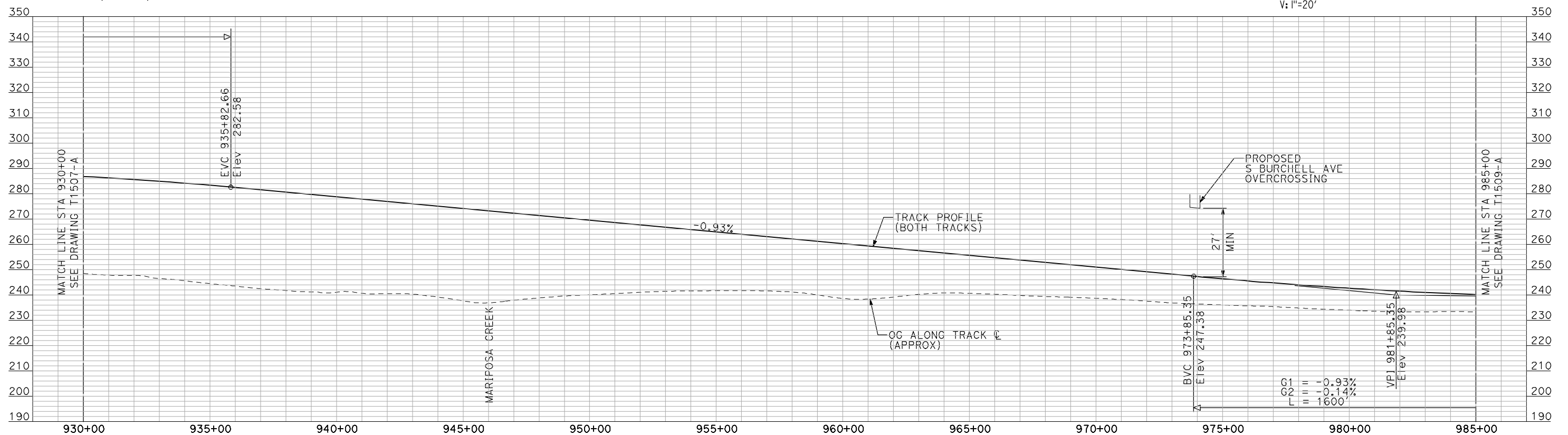
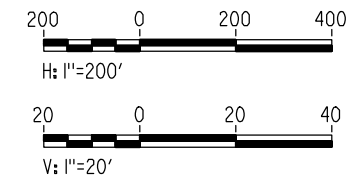
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HSR06-007
DRAWING NO.
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SCALE
AS SHOWN
SHEET NO.
OF

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PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

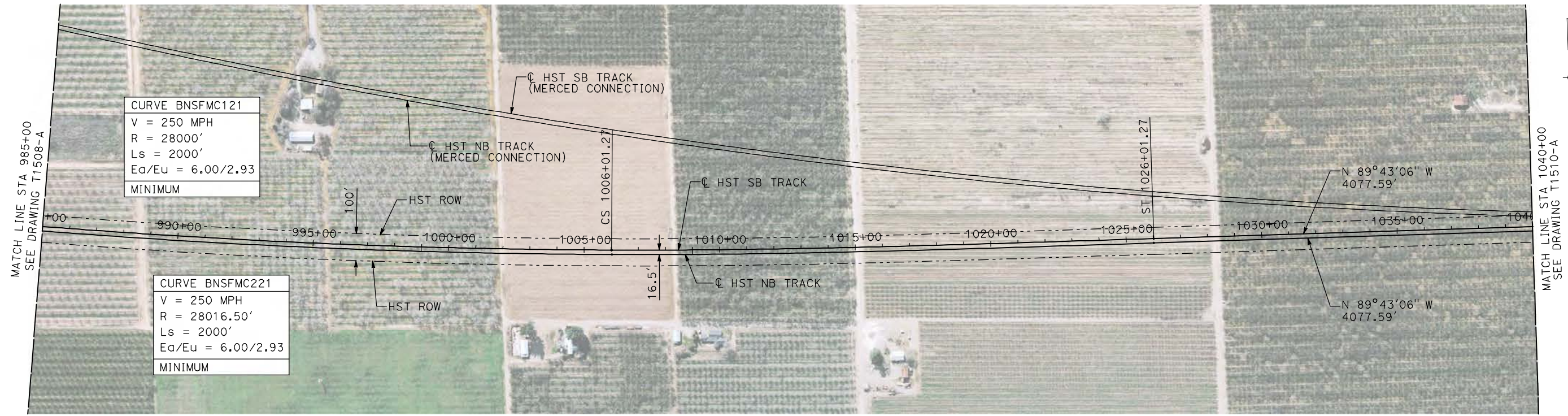


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MARIPOSA WAY EAST OF LE GRAND
PLAN AND PROFILE
STA 930+00 TO STA 985+00

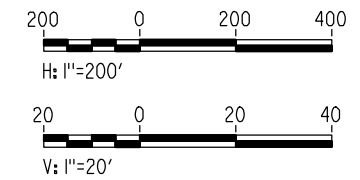
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DRAWING NO.
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SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

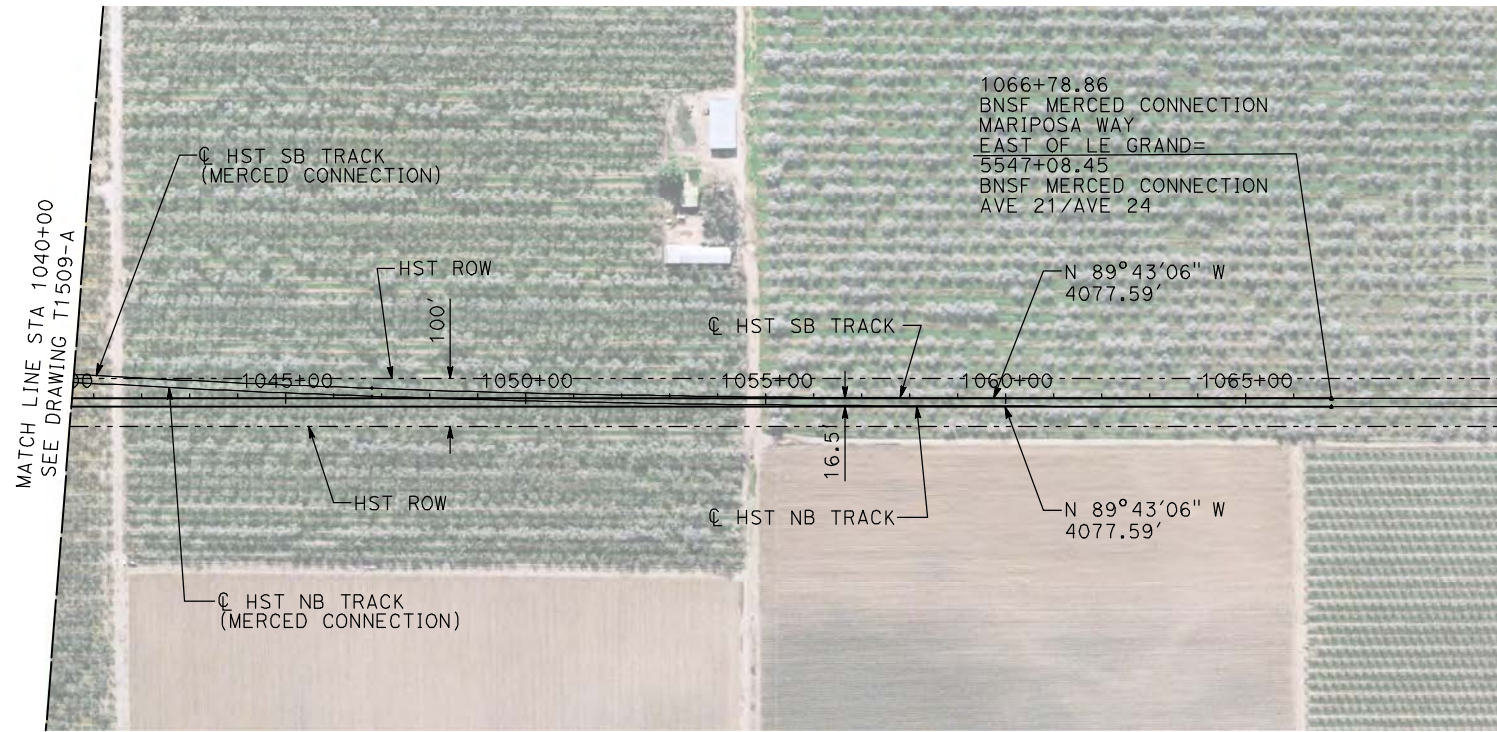
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



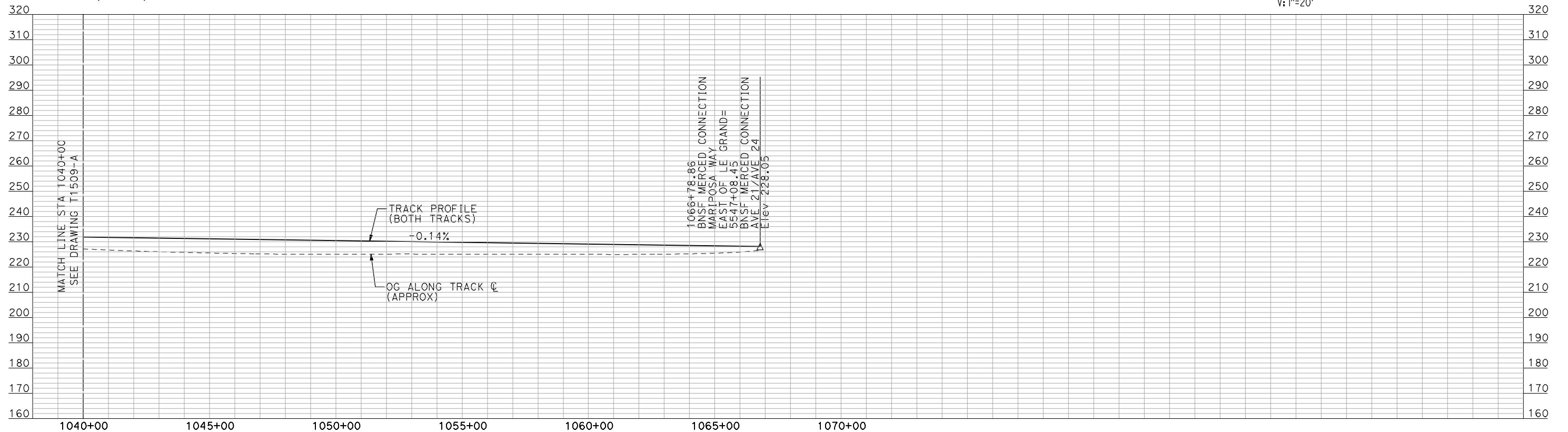
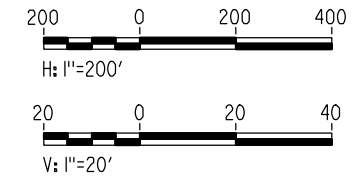
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCEDES TO FRESNO
 BNSF MERCED CONNECTION
 MARIPOSA WAY EAST OF LE GRAND
 PLAN AND PROFILE
 STA 985+00 TO STA 1040+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T1509-A
 SCALE
AS SHOWN
 SHEET NO.
OF



PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

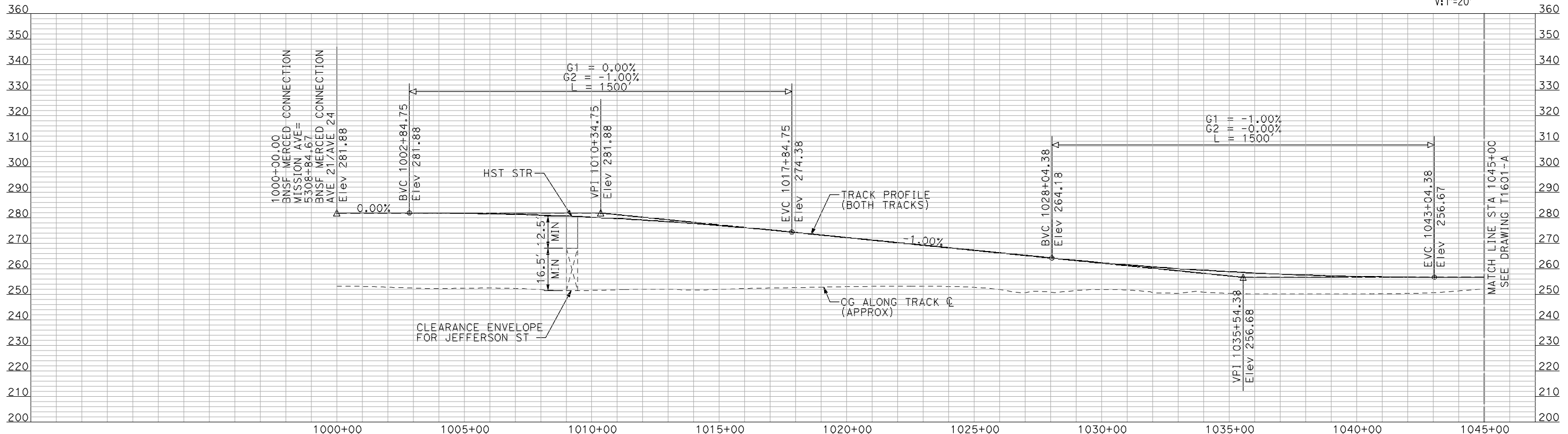
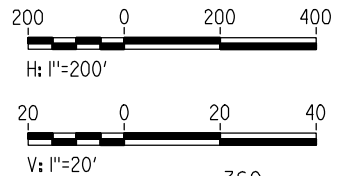
BNSF MERCED CONNECTION
MARIPOSA WAY EAST OF LE GRAND
PLAN AND PROFILE
STA 1040+00 TO STA 1066+78.86

CONTRACT NO.	HSR06-007
DRAWING NO.	T1510-A
SCALE	AS SHOWN
SHEET NO.	### OF ###



- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

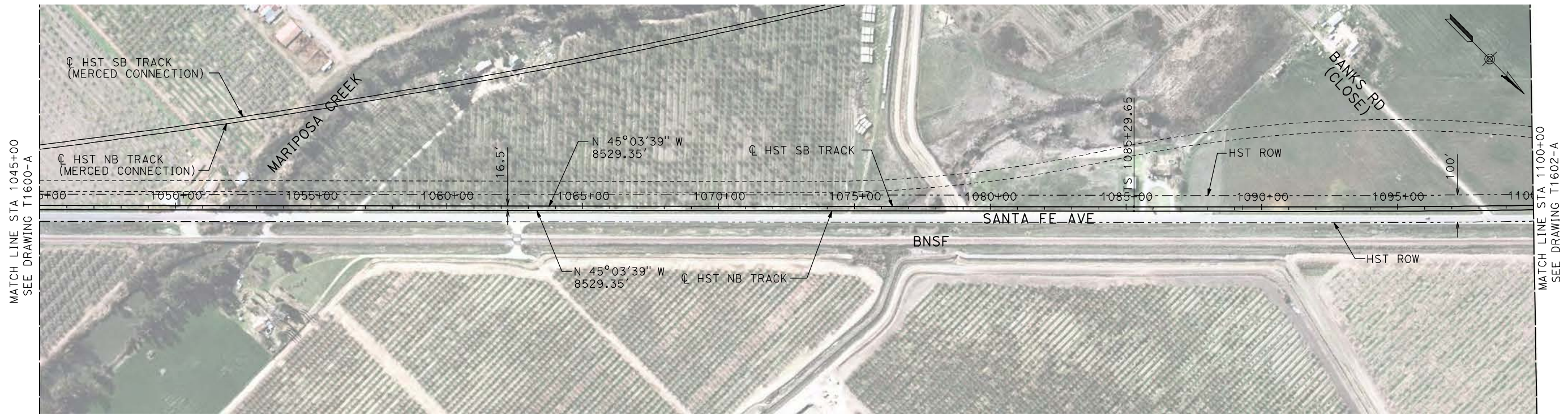
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SUBMITTAL

NOT FOR
CONSTRUCTION



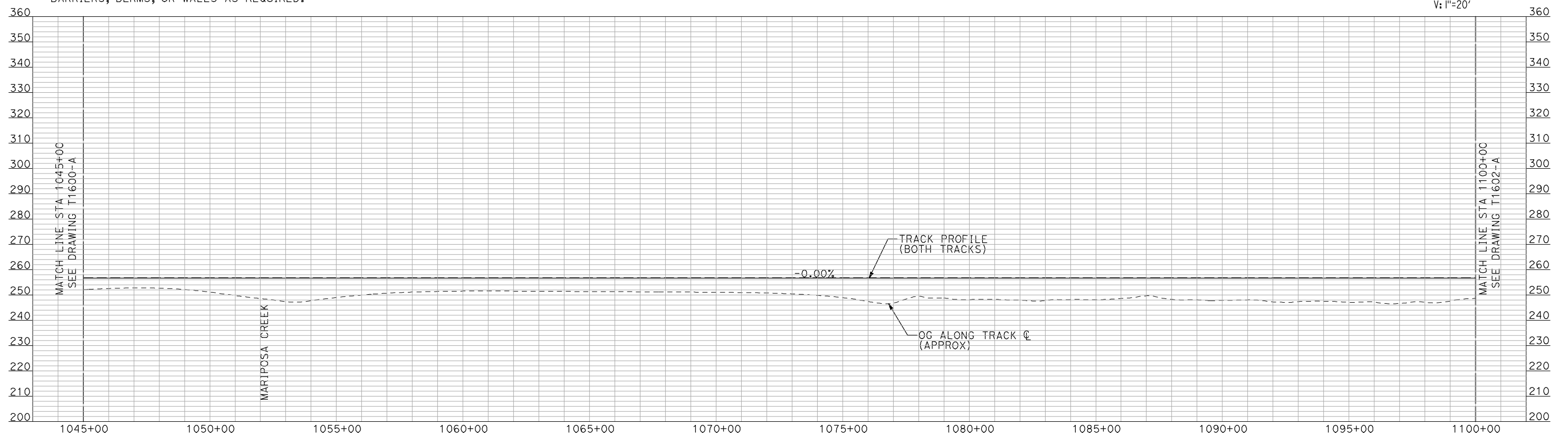
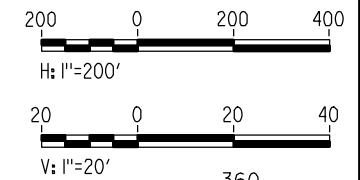
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1000+00 TO STA 1045+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1600-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

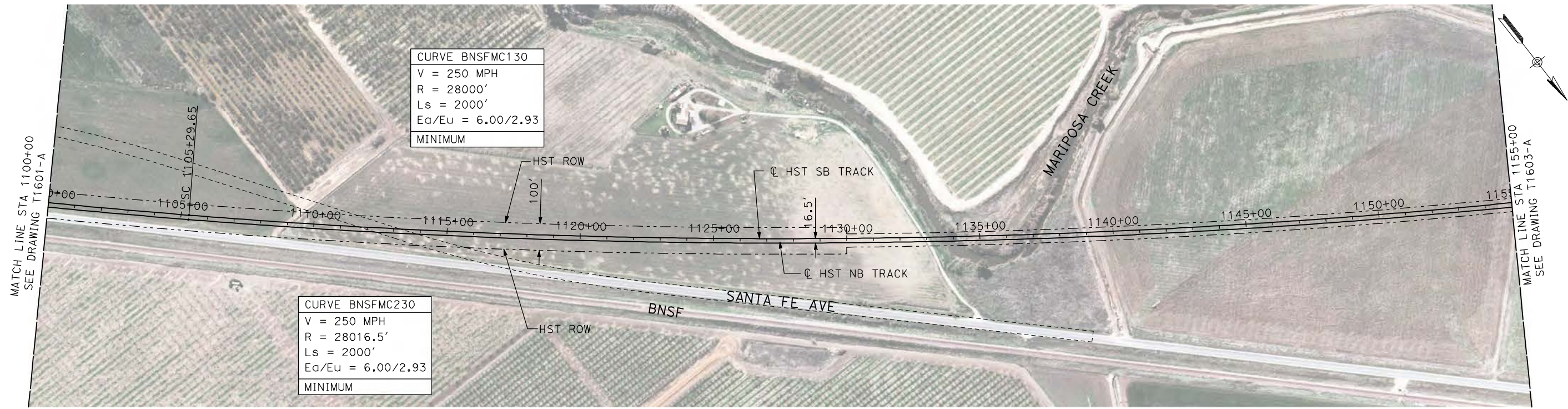


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1045+00 TO STA 1100+00

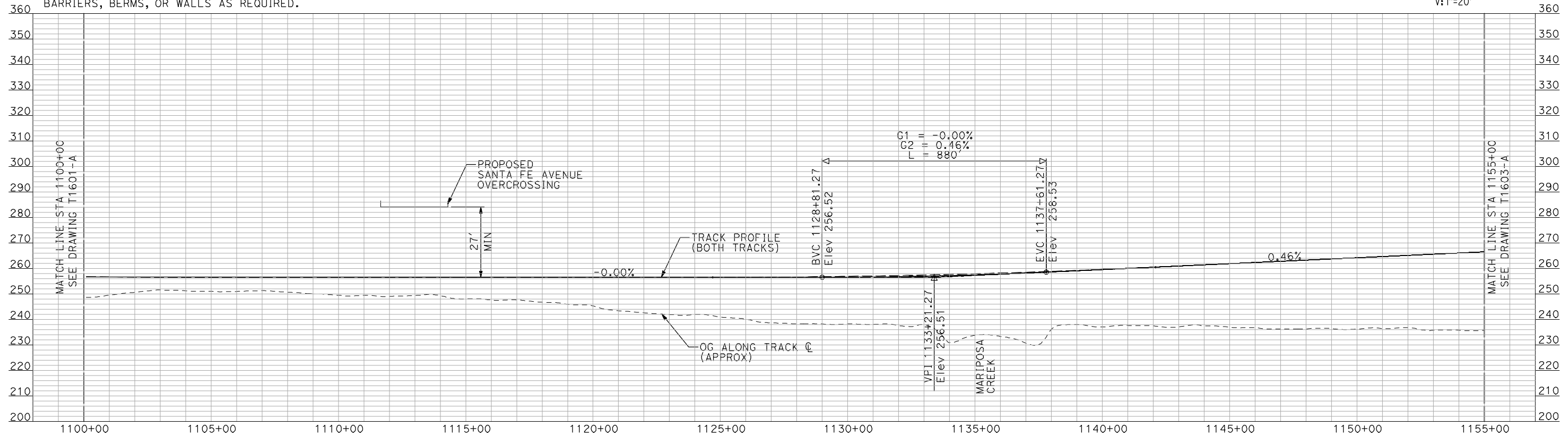
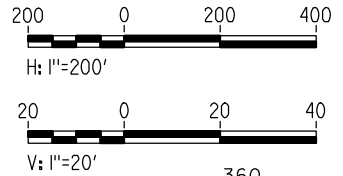
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PLAN

- NOTES:**
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 - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS

DRAWN BY
H. SULLIVAN

CHECKED BY
A. BOONE

IN CHARGE
A. BOONE

DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
 MISSION AVENUE
 PLAN AND PROFILE
 STA 1100+00 TO STA 1155+00

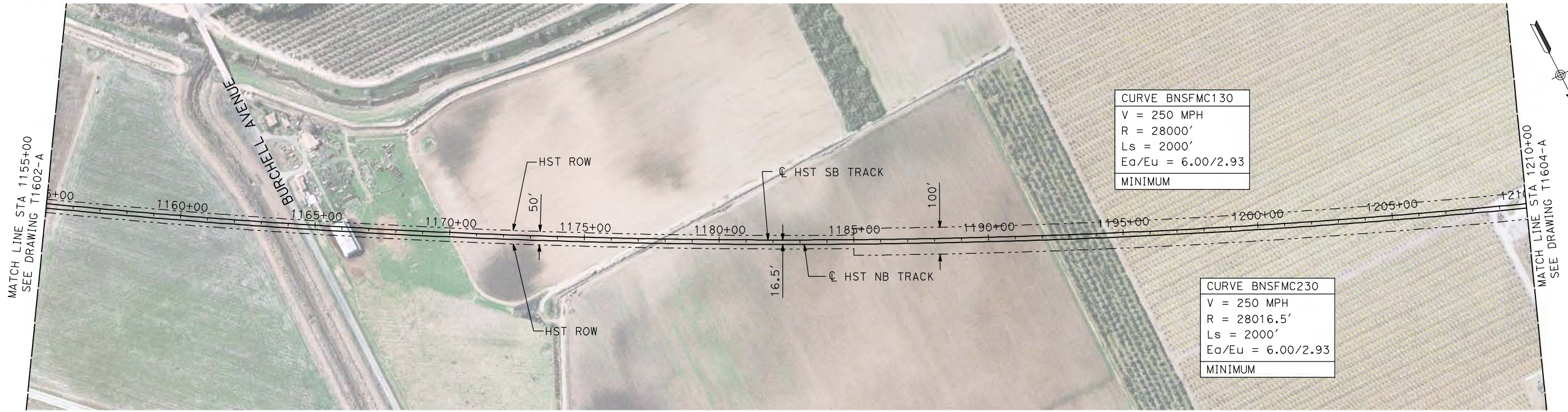
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DRAWING NO.
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SCALE
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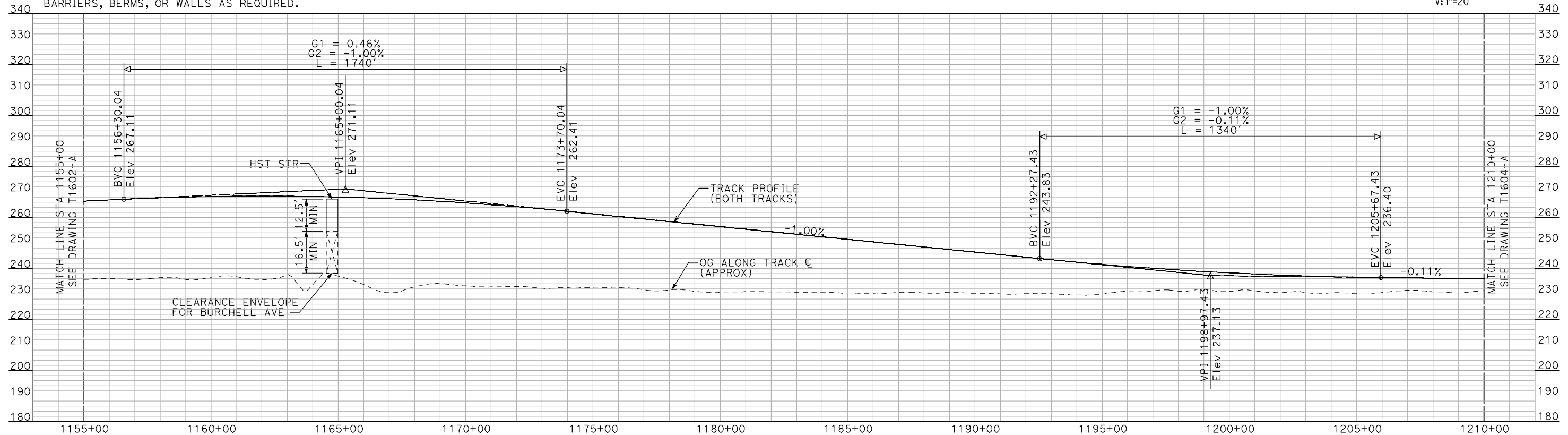
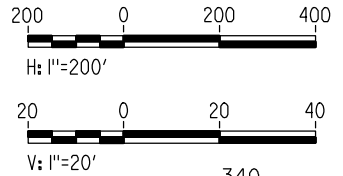
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PLAN

- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

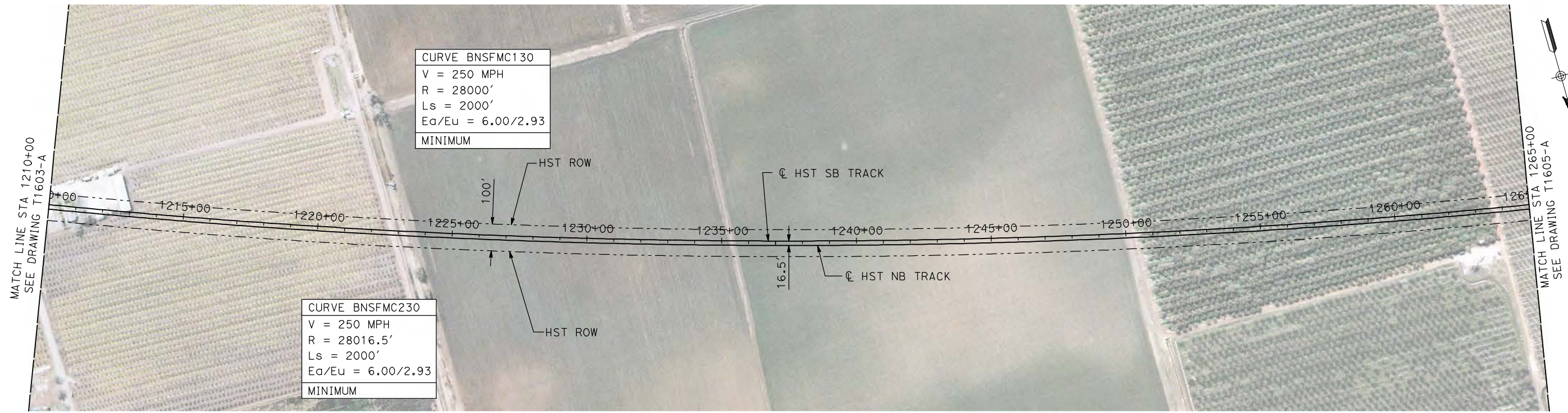
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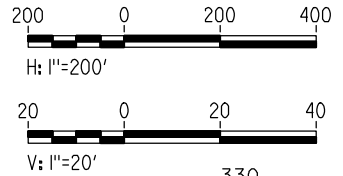
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1155+00 TO STA 1210+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1603-A
SCALE
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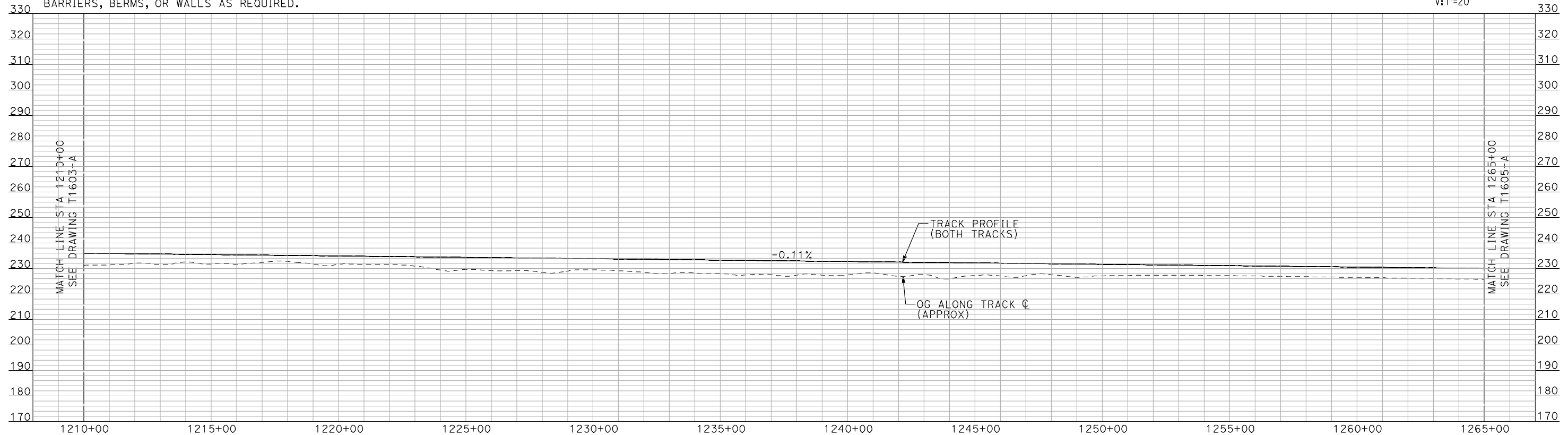
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PLAN



- NOTES:**
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 - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

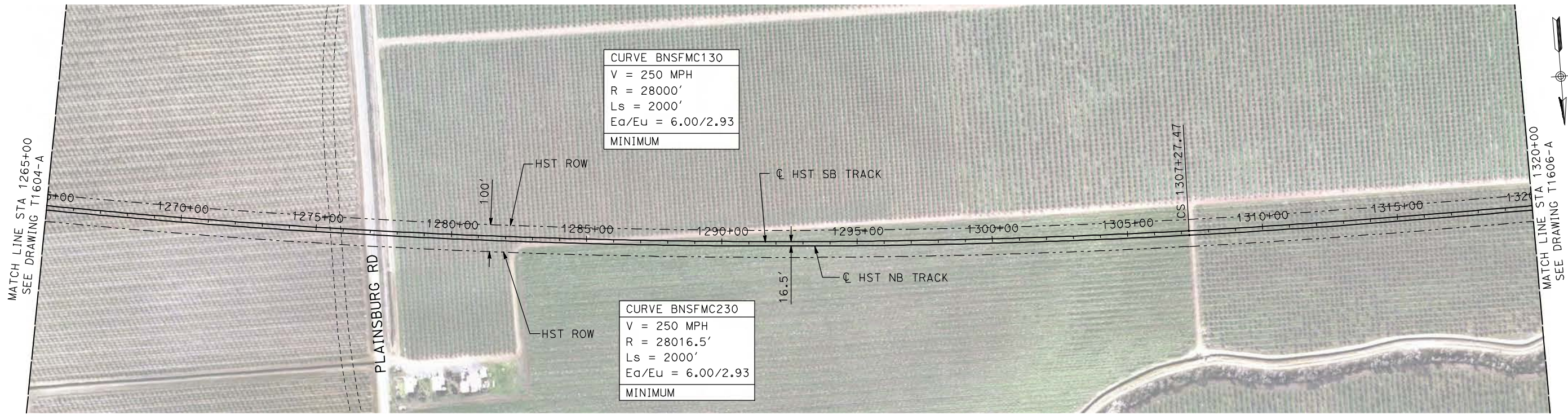


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1210+00 TO STA 1265+00

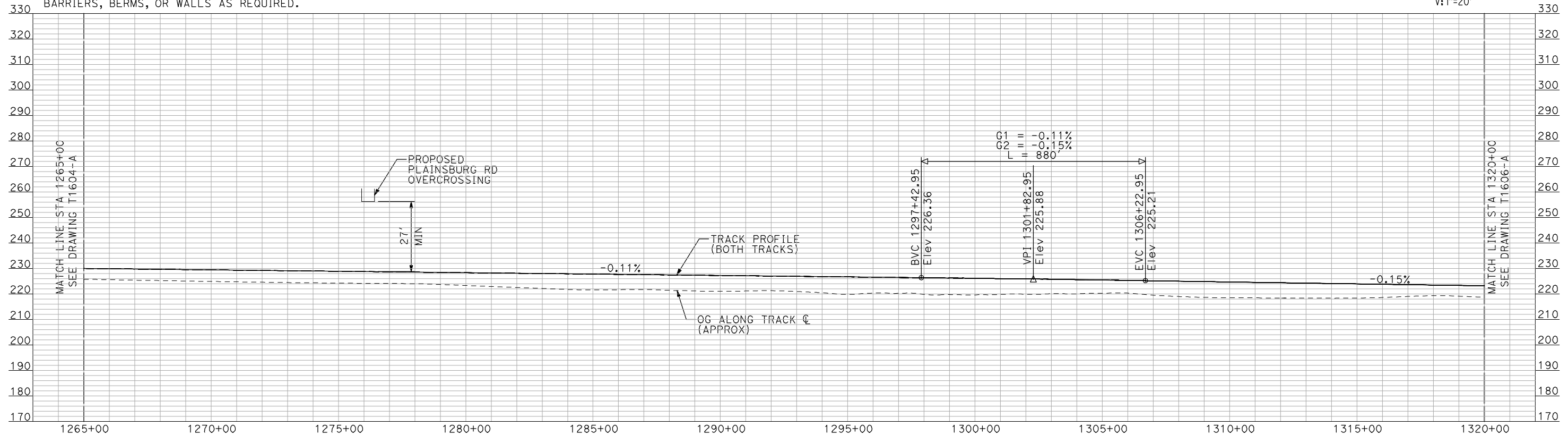
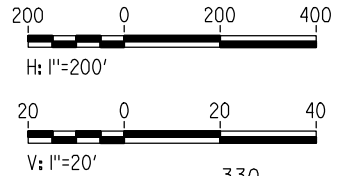
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PLAN

- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
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A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

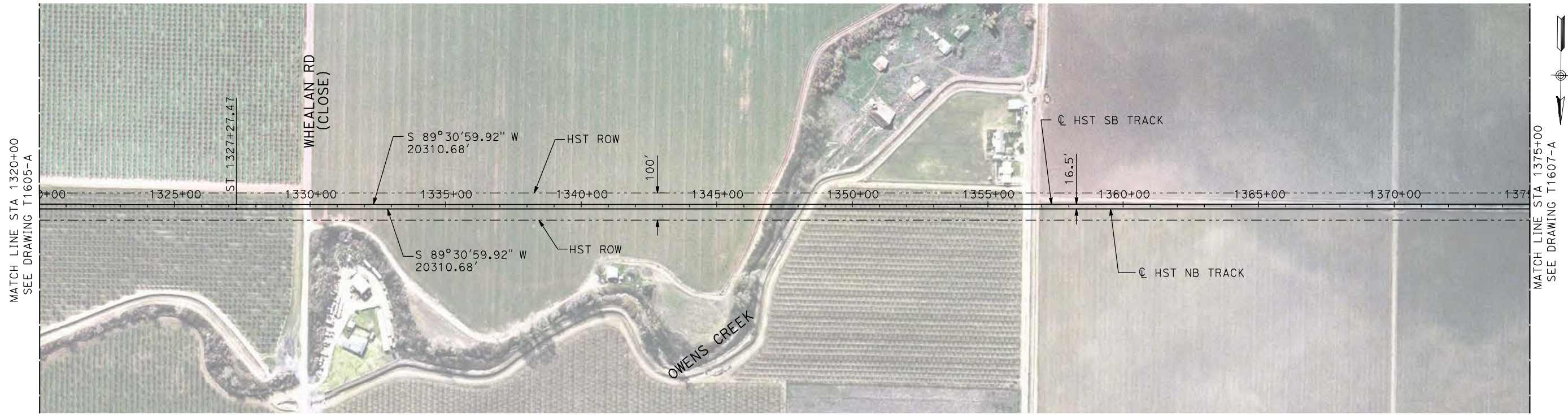


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

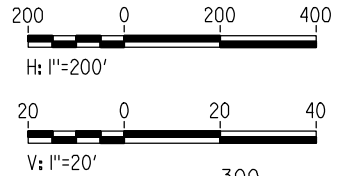
BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1265+00 TO STA 1320+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1605-A
SCALE
AS SHOWN
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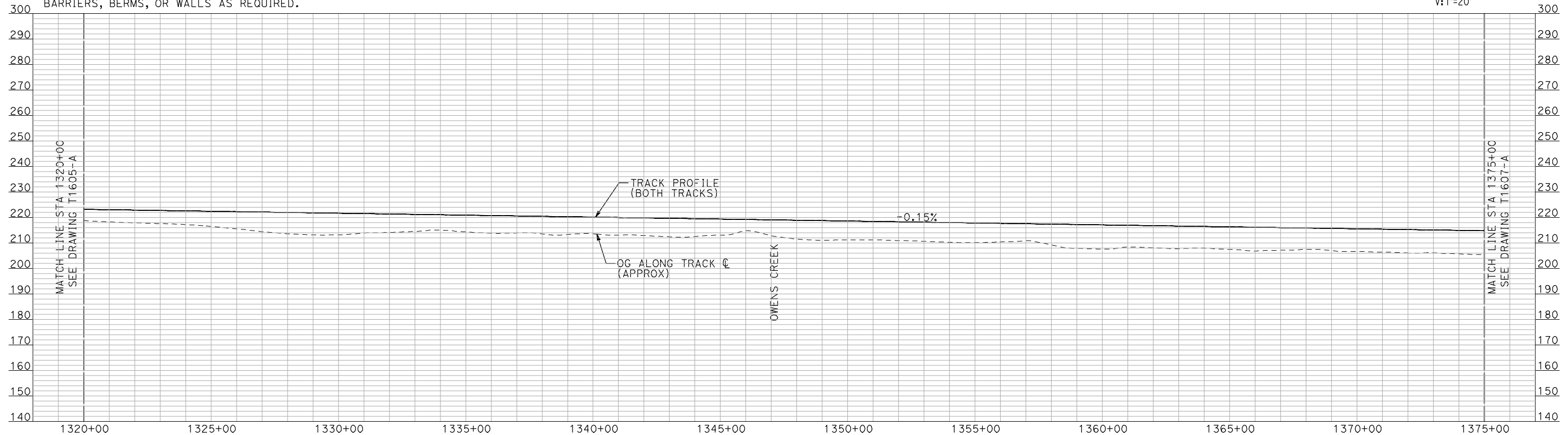
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PLAN



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

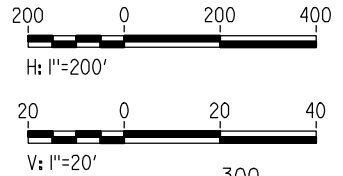
BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1320+00 TO STA 1375+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1606-A
SCALE
AS SHOWN
SHEET NO.
OF

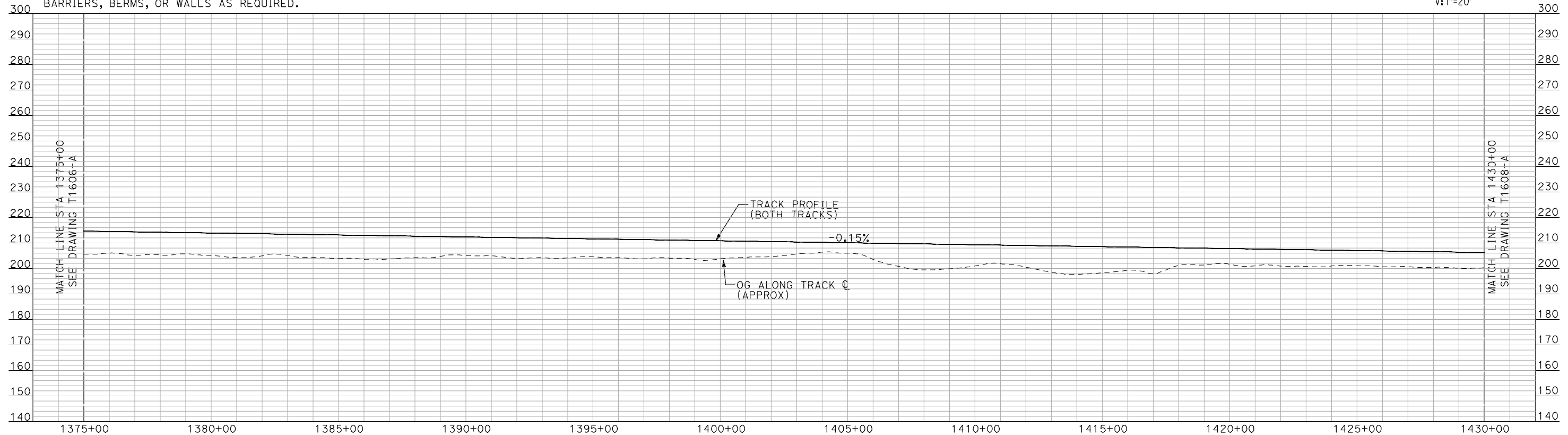
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PLAN



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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

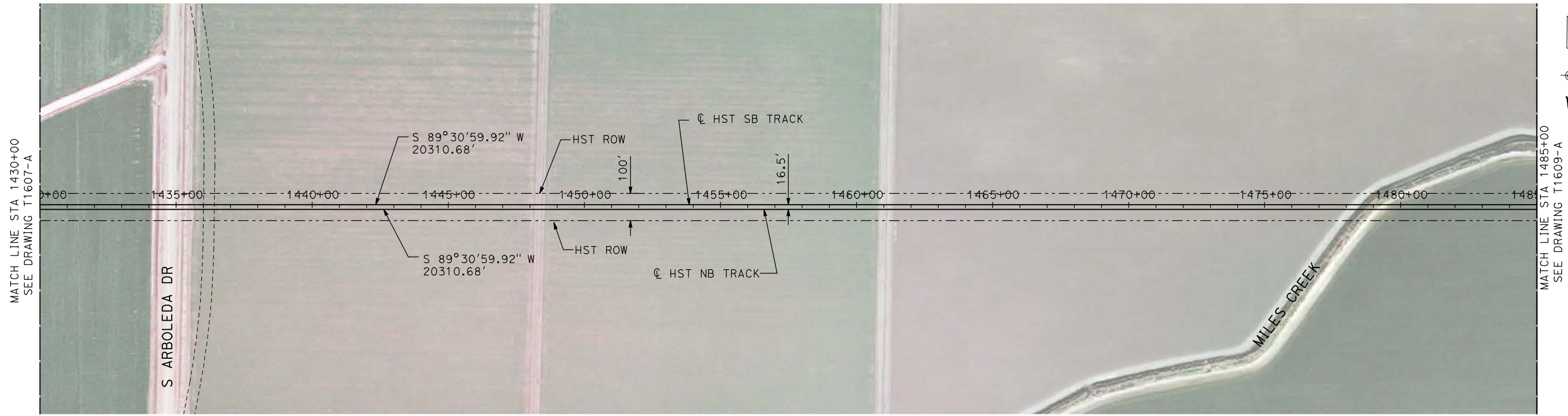


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

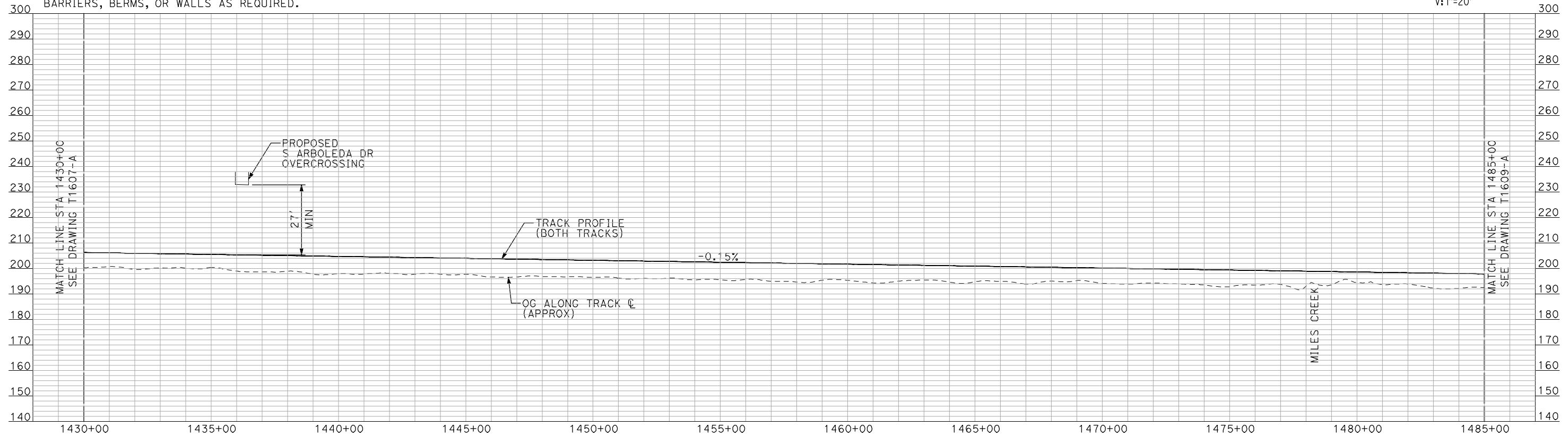
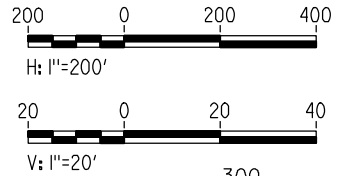
BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1375+00 TO STA 1430+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T1607-A
SCALE
AS SHOWN
SHEET NO.
OF

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- NOTES:
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"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

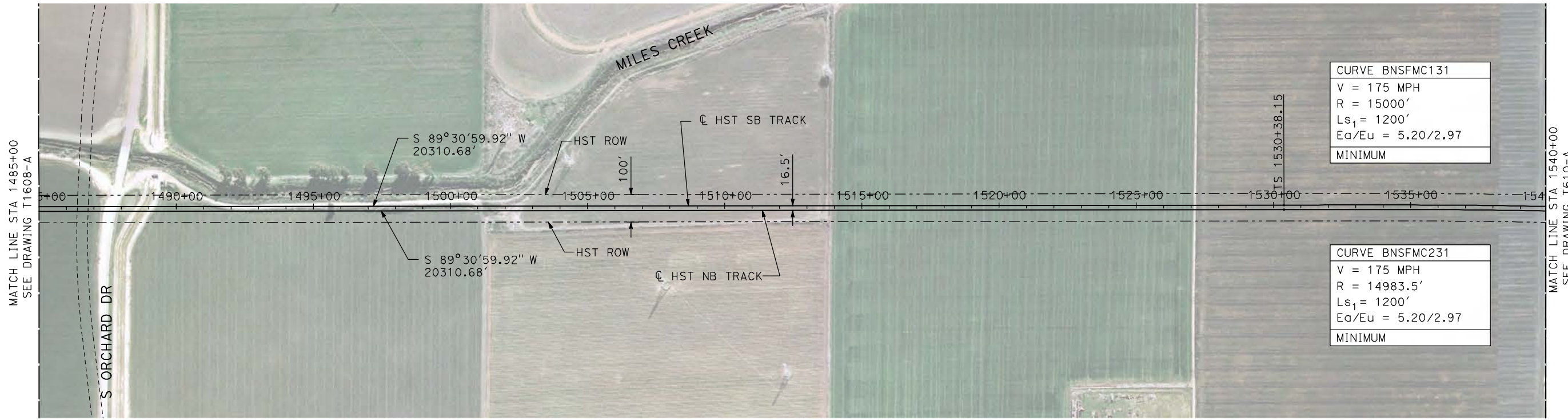
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CONSTRUCTION



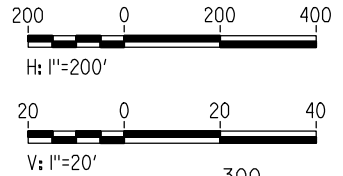
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1430+00 TO STA 1485+00

CONTRACT NO.
HSR06-007
DRAWING NO.
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SCALE
AS SHOWN
SHEET NO.
OF

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PLAN



- NOTES:**
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
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A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

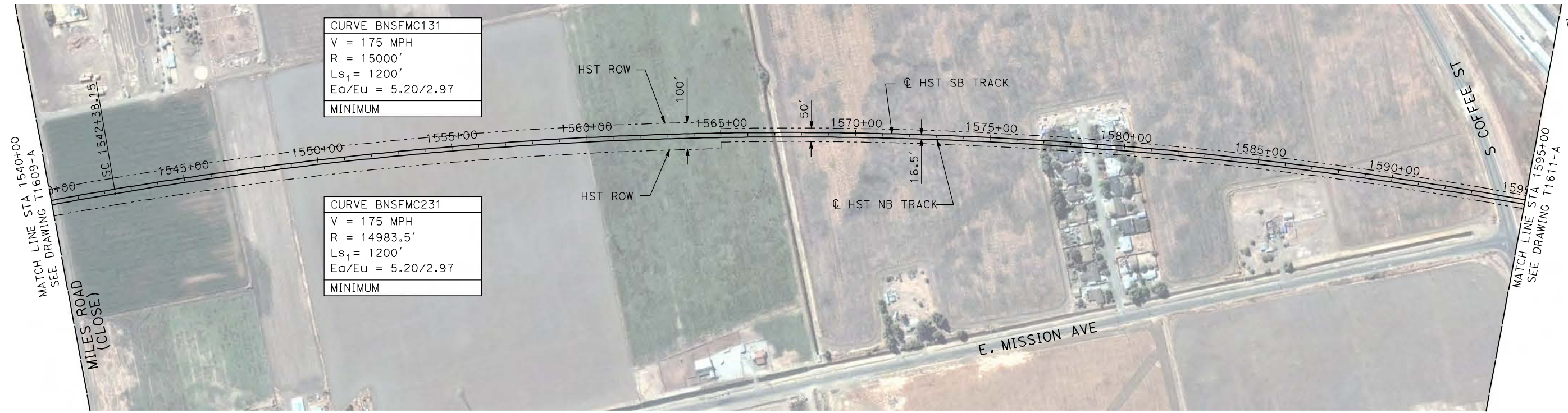


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

BNSF MERCED CONNECTION
 MISSION AVENUE
 PLAN AND PROFILE
 STA 1485+00 TO STA 1540+00

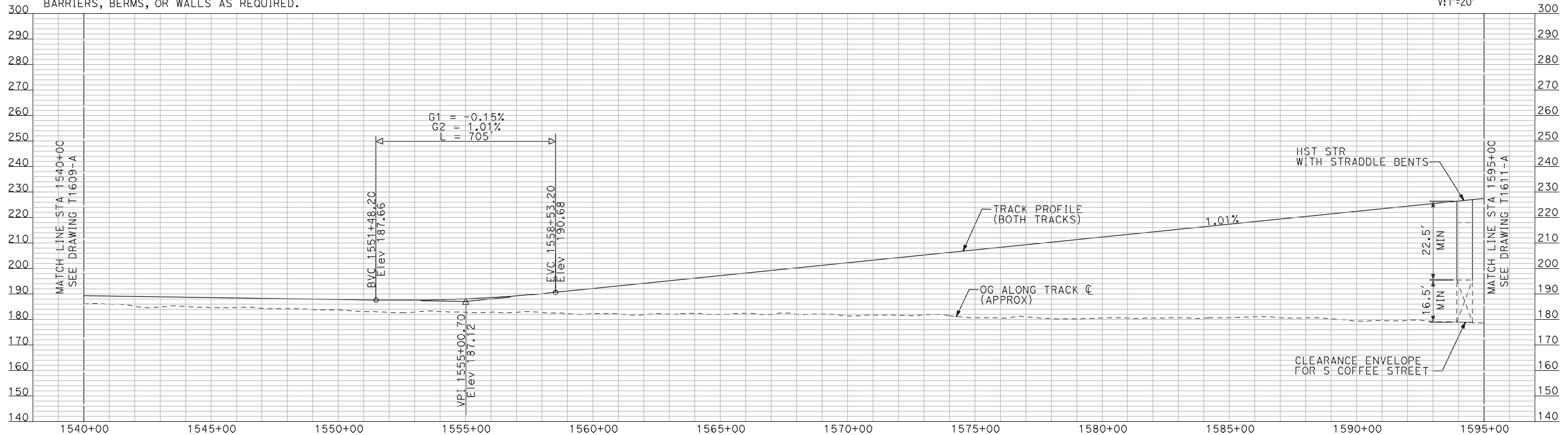
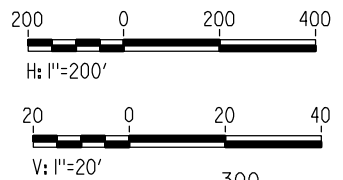
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HSR06-007
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T1609-A
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AS SHOWN
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PLAN

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



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

BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1540+00 TO STA 1595+00

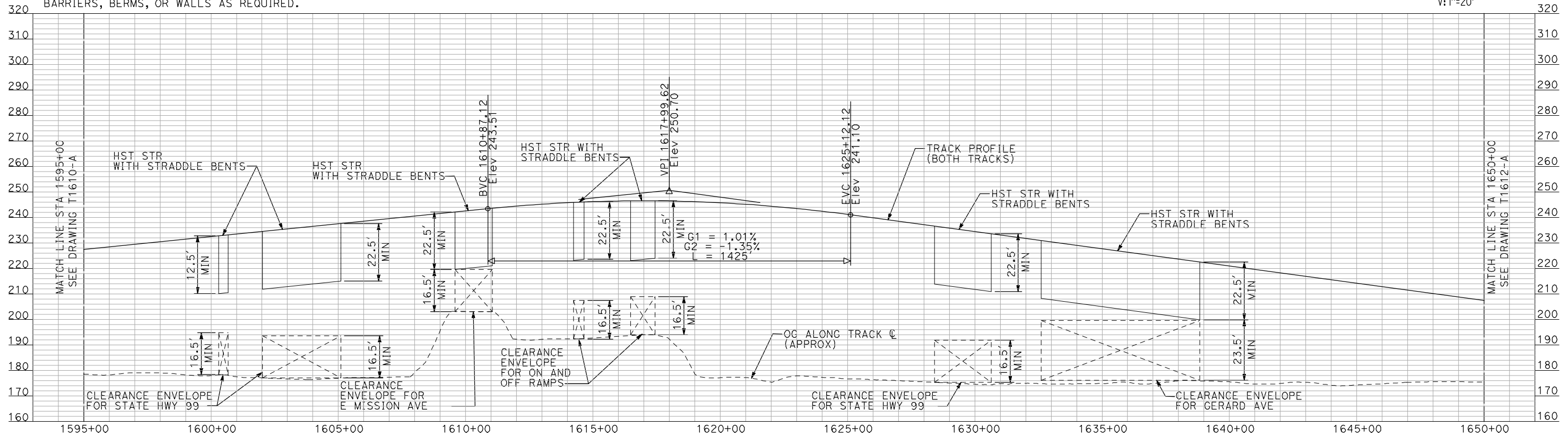
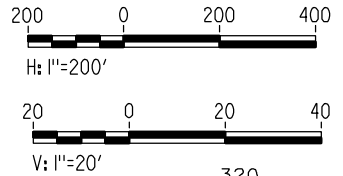
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HSR06-007
DRAWING NO.
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AS SHOWN
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PLAN

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
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IN CHARGE
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
 MISSION AVENUE
 PLAN AND PROFILE
 STA 1595+00 TO STA 1650+00

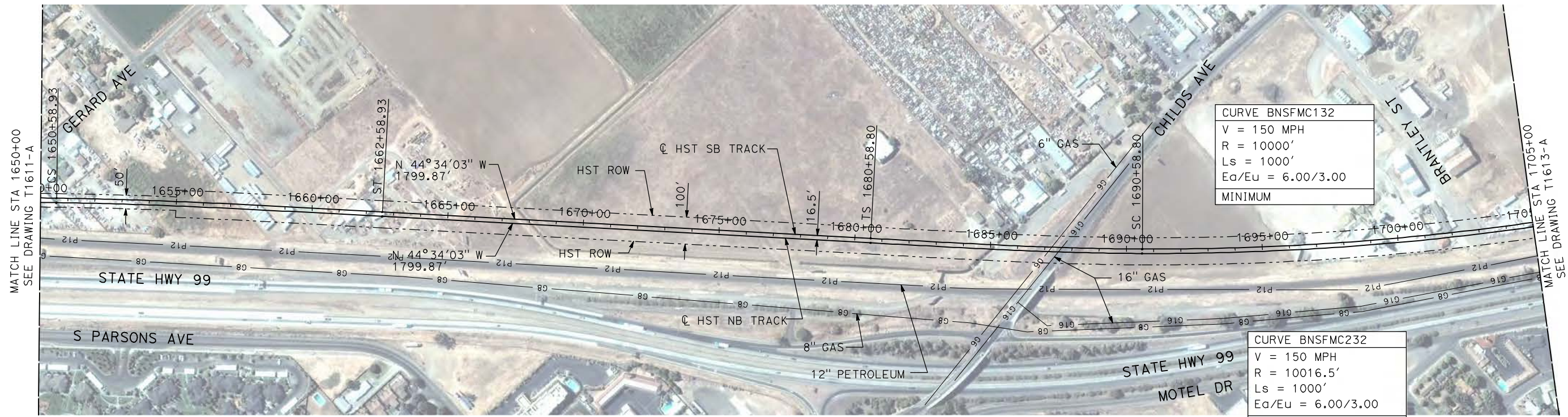
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DRAWING NO.
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SCALE
AS SHOWN

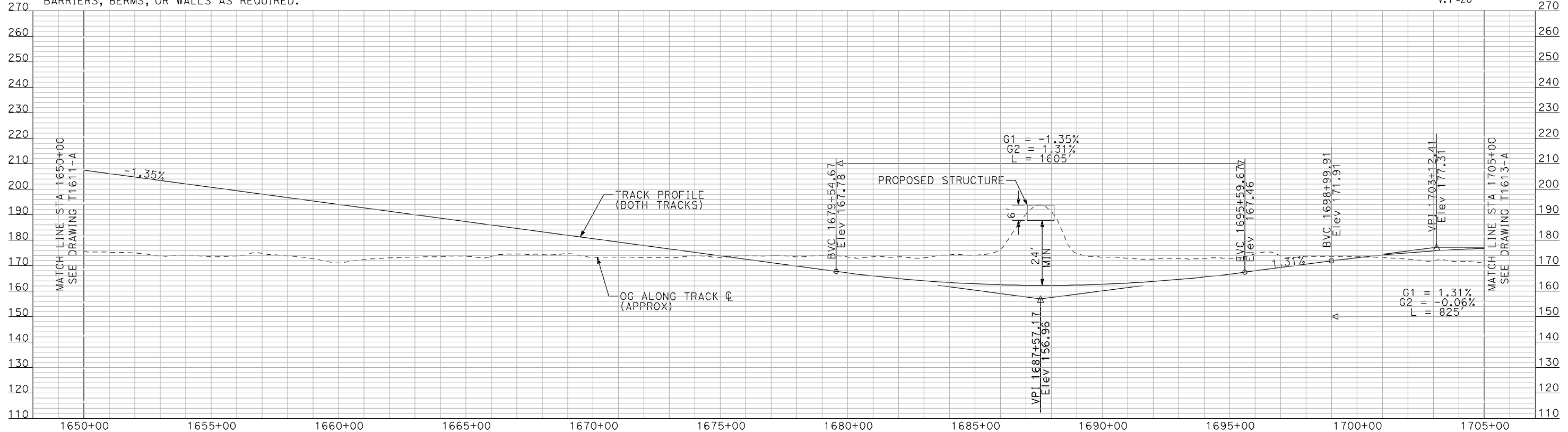
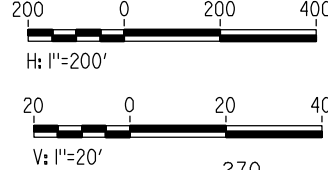
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PLAN

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IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1650+00 TO STA 1705+00

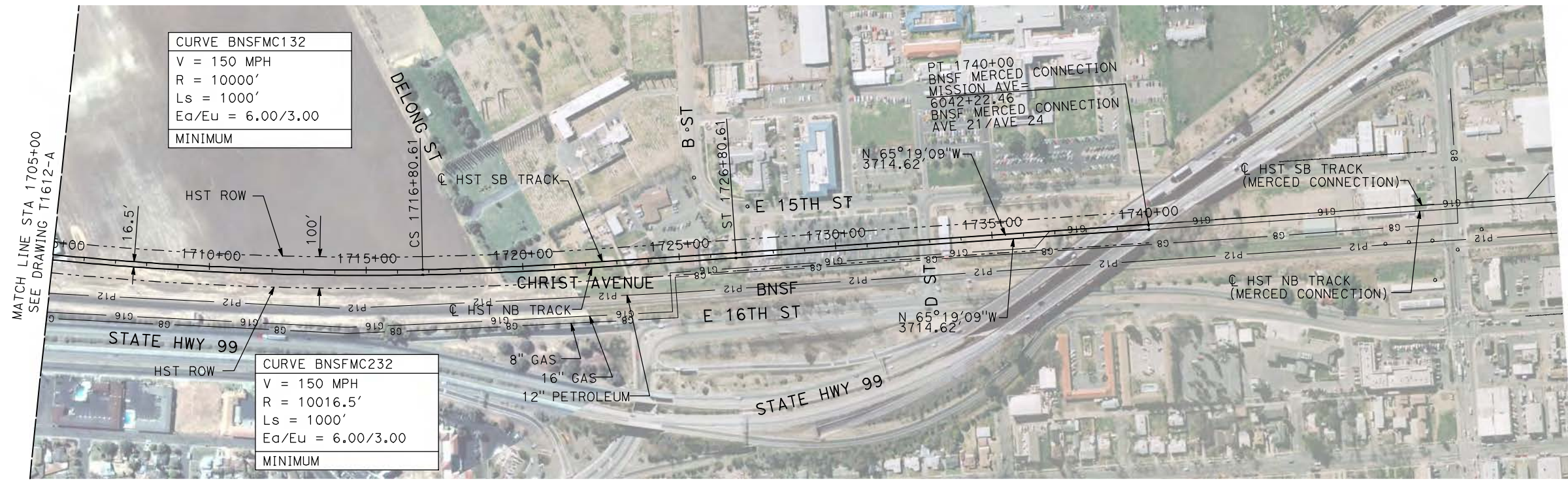
CONTRACT NO.
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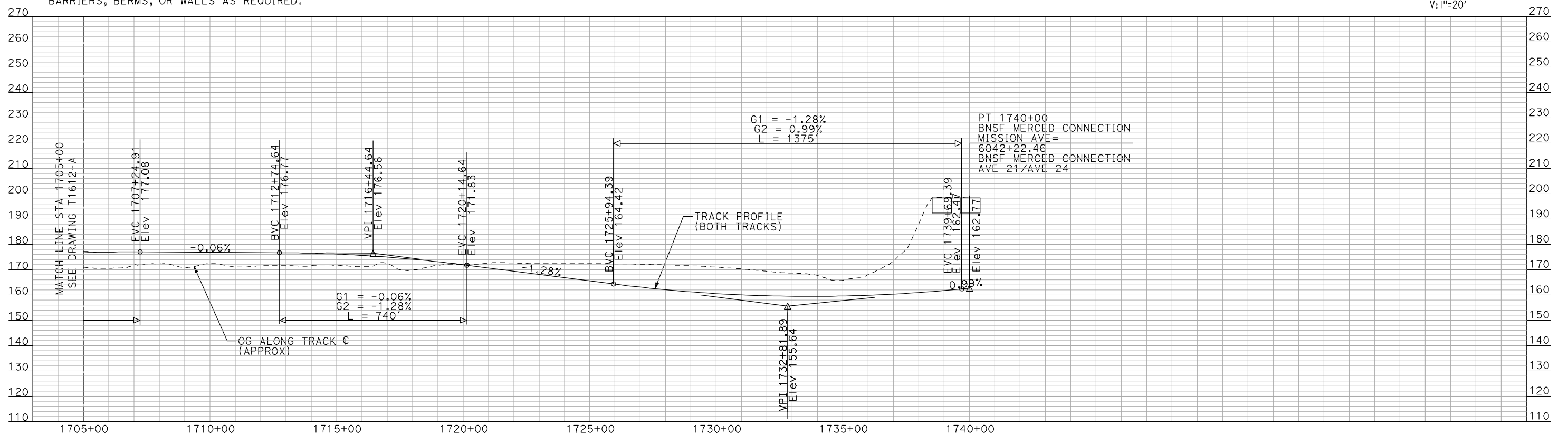
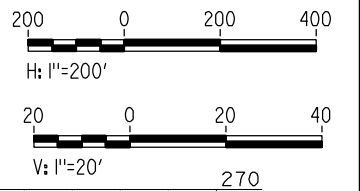
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DESIGNED BY
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A. BOONE
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MERCED CONNECTION
MISSION AVENUE
PLAN AND PROFILE
STA 1705+00 TO STA 1740+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T1613-A

SCALE
AS SHOWN

SHEET NO.
OF