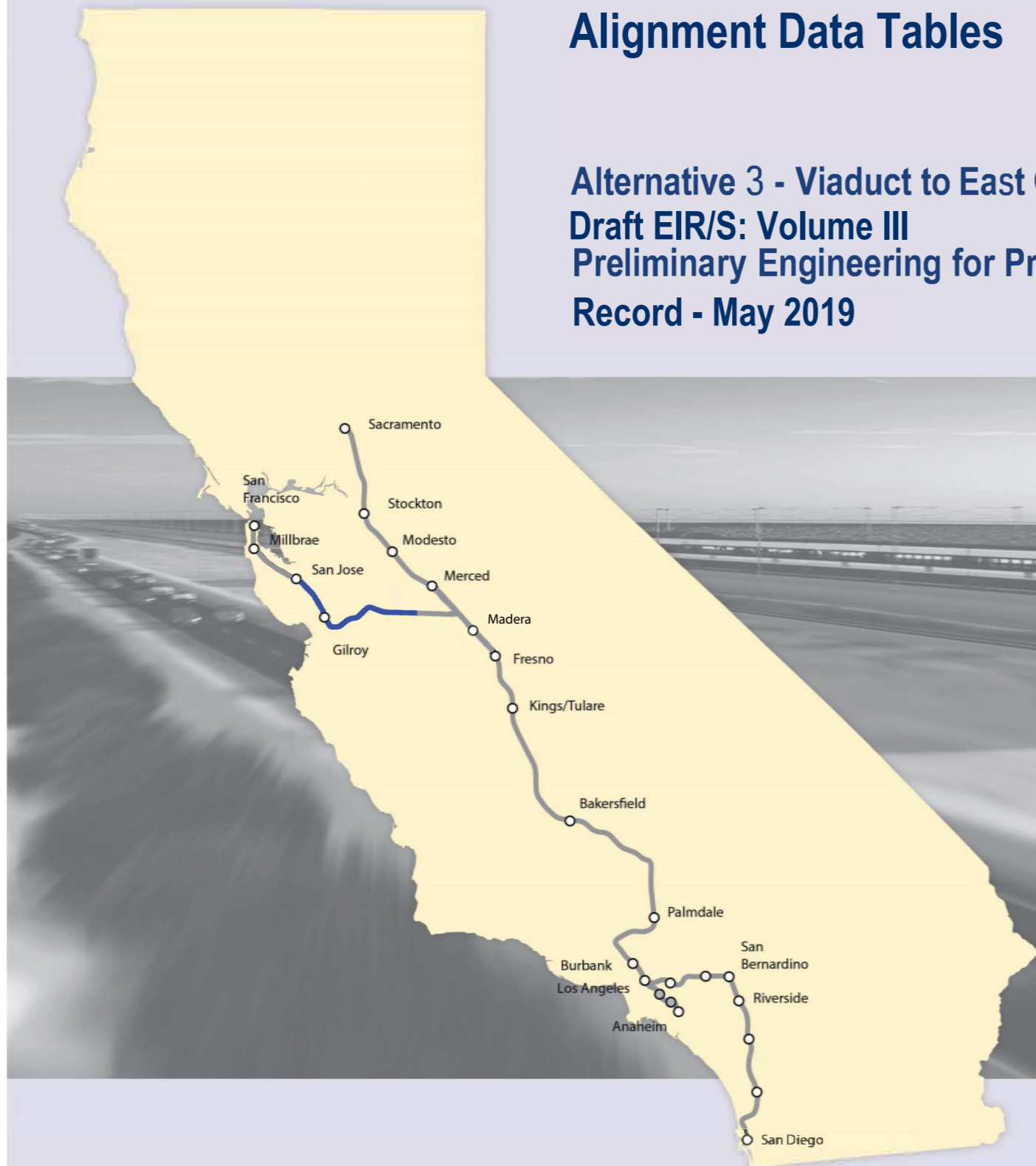


San Jose to Merced Section: San Jose to Central Valley Wye

Alignment Data Tables

Alternative 3 - Viaduct to East Gilroy
Draft EIR/S: Volume III
Preliminary Engineering for Project Definition
Record - May 2019



**SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 178 - 216 of 216**

ALTERNATIVE 3 - VIADUCT TO EAST GILROY

BOOK	SHEET NO	DRAWING NO	SUBSECTION	GEOGRAPHIC LOCATION	ALIGNMENT OR FEATURE	SHEET DESCRIPTION	ADDITIONAL DESCRIPTION
------	----------	------------	------------	---------------------	----------------------	-------------------	------------------------

COVER, INDEX OF DRAWING AND KEY MAPS

BOOK 3F	A	COVER	SAN JOSE TO MERCED SECTION	N/A	SAN JOSE TO CENTRAL VALLEY WYE	ALTERNATIVE 3	VIADUCT TO EAST GILROY
BOOK 3F	B	GE-A0307	ENTIRE ALTERNATIVE	ALIGNMENT DATA TABLES	INDEX OF DRAWING	SHEET 7 OF 7	
BOOK 3F	C	GE-D0301	GENERAL	ENTIRE ALTERNATIVE	KEY MAP	COMPOSITE PLAN	
BOOK 3F	D	GE-D0302	GENERAL	ENTIRE ALTERNATIVE	KEY MAP	SYSTEMS SITES	

TRACK GUIDEWAY HORIZONTAL ALIGNMENT DATA TABLE

BOOK 3F	178	TT-B0101-JM	SAN JOSE DIRIDON STATION APPROACH	N/A	VIADUCT TO I-880	TRACK ALIGNMENT DATA TABLE	CURVE NO. C189 AND C190
BOOK 3F	179	TT-B0102-JM	SAN JOSE DIRIDON STATION APPROACH	N/A	VIADUCT TO I-880	TRACK ALIGNMENT DATA TABLE	CURVE NO. C191 AND C192
BOOK 3F	180	TT-B0103-JM	SAN JOSE DIRIDON STATION APPROACH	N/A	VIADUCT TO I-880	TRACK ALIGNMENT DATA TABLE	CURVE NO. C193
BOOK 3F	181	TT-B0104	SAN JOSE DIRIDON STATION APPROACH	N/A	VIADUCT TO I-880	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C101 AND C102
BOOK 3F	182	TT-B0105	MONTEREY CORRIDOR	N/A	VIADUCT TO I-880	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C103 AND C104
BOOK 3F	183	TT-B0106	MONTEREY CORRIDOR	N/A	VIADUCT/AT-GRADE	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C105 AND C106
BOOK 3F	184	TT-B0107	MONTEREY CORRIDOR	N/A	VIADUCT/AT-GRADE	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C107
BOOK 3F	185	TT-B0108	MONTEREY CORRIDOR	N/A	VIADUCT	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C108 AND C109
BOOK 3F	186	TT-B0109	MONTEREY CORRIDOR	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C110 AND C111
BOOK 3F	187	TT-B0110	MONTEREY CORRIDOR	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C112
BOOK 3F	188	TT-B0111	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C113 AND C114
BOOK 3F	189	TT-B0112	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C115 AND C116
BOOK 3F	190	TT-B0113	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C117 AND C118
BOOK 3F	191	TT-B0114	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C119 AND C120
BOOK 3F	192	TT-B0115	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C121
BOOK 3F	193	TT-B0116	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C122
BOOK 3F	194	TT-B0117	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C123
BOOK 3F	195	TT-B0118	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C124 AND C125
BOOK 3F	196	TT-B0119	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C126
BOOK 3F	197	TT-B0120	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C127 AND C128
BOOK 3F	198	TT-B0121	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C129
BOOK 3F	199	TT-B0122	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C130
BOOK 3F	200	TT-B0123	PACHECO PASS	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C131
BOOK 3F	201	TT-B0124	PACHECO PASS	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C132 AND C133
BOOK 3F	202	TT-B0125	PACHECO PASS	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C134 AND C135
BOOK 3F	203	TT-B0126	PACHECO PASS	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C136
BOOK 3F	204	TT-B0127	SAN JOAQUIN VALLEY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C137
BOOK 3F	205	TT-B0128	SAN JOAQUIN VALLEY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C138 AND C139
BOOK 3F	206	TT-B0129	SAN JOAQUIN VALLEY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C140
BOOK 3F	207	TT-B0130	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B1 TRACK ALIGNMENT DATA TABLE	CURVE NO. C230
BOOK 3F	208	TT-B0131	MORGAN HILL AND GILROY	N/A	TRACK GUIDEWAY	B1 TRACK ALIGNMENT DATA TABLE	CURVE NO. C231 AND C231A
BOOK 3F	209	TT-B0132	PACHECO PASS	N/A	TRACK GUIDEWAY	B1 TRACK ALIGNMENT DATA TABLE	CURVE NO. C232 AND C233
BOOK 3F	210	TT-B0133	PACHECO PASS	N/A	TRACK GUIDEWAY	B1 TRACK ALIGNMENT DATA TABLE	CURVE NO. C234 AND C235
BOOK 3F	211	TT-B0134	PACHECO PASS	N/A	TRACK GUIDEWAY	B1 TRACK ALIGNMENT DATA TABLE	CURVE NO. C236
BOOK 3F	212	TT-B0301	DOWNTOWN GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C501 AND C502
BOOK 3F	213	TT-B0302	DOWNTOWN GILROY	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C503
BOOK 3F	214	TT-B0303	GILROY TO PACHECO	N/A	TRACK GUIDEWAY	B2 TRACK ALIGNMENT DATA TABLE	CURVE NO. C504
BOOK 3F	215	TT-B0304	GILROY TO PACHECO	N/A	TRACK GUIDEWAY	B1 TRACK ALIGNMENT DATA TABLE	CURVE NO. C604

ROADWAY HORIZONTAL ALIGNMENT DATA TABLE

BOOK 3F	216	CV-B0101	MONTEREY CORRIDOR	N/A	VIADUCT	ALIGNMENT DATA TABLE	
---------	-----	----------	-------------------	-----	---------	----------------------	--

**SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET B**

1/2/2020 12:06:44 PM CAHSRP.tbl CHSR_Full_black.plt P:\575 HSR JM Civi\in_progress_JM\JM-GE-A0307.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**RECORD PEPD
SUBMITTAL**

MAY 3, 2019

**NOT FOR
CONSTRUCTION**

HNTB 1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT

SAN JOSE TO MERCED

ALTERNATIVE 3
INDEX OF DRAWING
SHEET 7 OF 7

CONTRACT NO.	HSR15-34
DRAWING NO.	GE-A0307
SCALE	NONE
SHEET NO.	

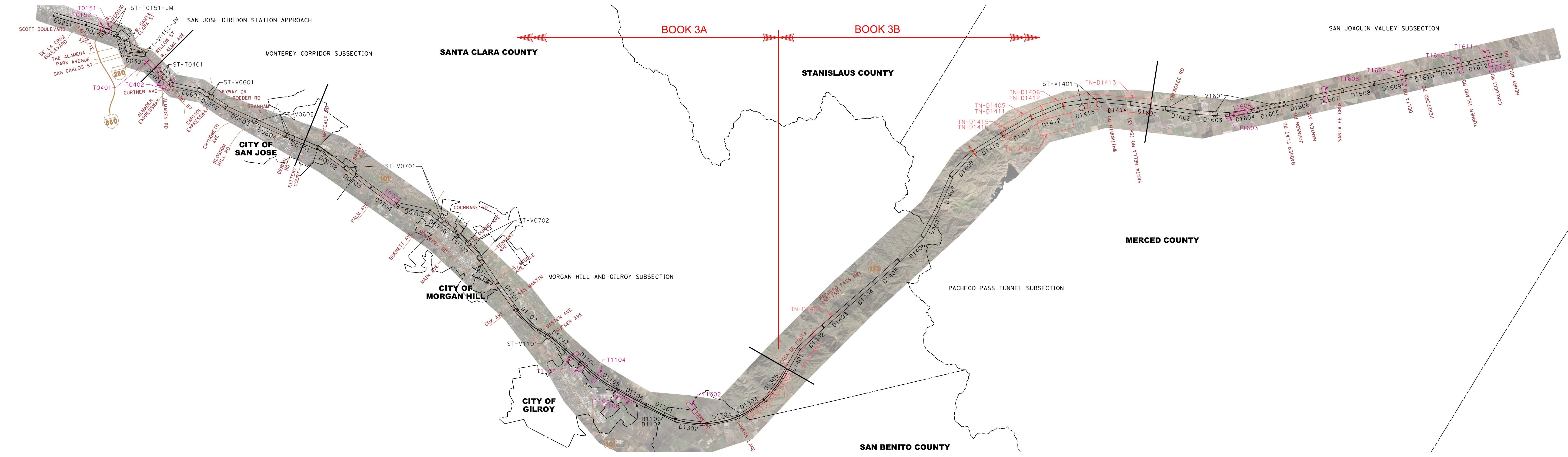
NOTE:
ALTERNATIVE KEY MAP SHOWN SIDE BY SIDE FOR CLARITY.

LEGEND
KEY MAP LEGEND

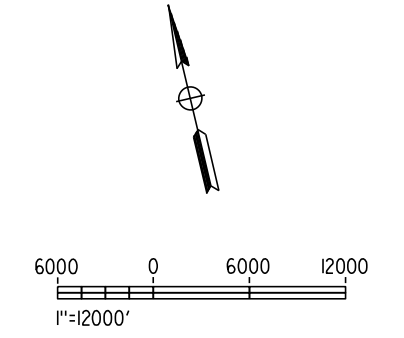
SID-XX	AERIAL ORTHO-PHOTO
DXXXX	COMPOSITE ROLL PLOTS
TXXXX	GRADE SEPARATION ROLL PLOTS
TN-DXXXX	TUNNEL ROLL PLOTS
ST-TXXXX	STRUCTURES ROLL PLOTS
—	SECTION BREAK
- - -	CITY LIMITS
- - - - -	COUNTY LINE
ALMADEN RD	EXISTING ROAD

ALTERNATIVE 3 BOOK INDEX

- BOOK 3A: COMPOSITE PLAN, PROFILE AND CROSS SECTIONS
- BOOK 3B: COMPOSITE PLAN, PROFILE AND CROSS SECTIONS, STATIONS
- BOOK 3C: STRUCTURES, ROADWAY
- BOOK 3D: ROADWAY, MAINTENANCE OF WAY, TUNNELS - PACHECO PASS
- BOOK 3E: CONSTRUCTION STAGING
- BOOK 3F: ALIGNMENT DATA TABLES



SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET C



RECORD PERIOD SUBMITTAL MAY 3, 2019 NOT FOR CONSTRUCTION	HNTB 1111 Broadway 9th Floor Oakland, CA 94607		CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN JOSE TO MERCED ALTERNATIVE 3 KEY MAP COMPOSITE PLAN	CONTRACT NO. HSR15-34 DRAWING NO. CE-D0301 SCALE AS SHOWN SHEET NO.
---	--	--	---	--

1/17/2019 8:52:28 AM c:\p02\1\con\alt1\ce-d0301.tbl c:\p02\1\con\alt1\ce-d0301.tbl 2:57:55 PM alt1\ce-d0301-key-map-3f.dwg hntb\p02\1\con\alt1\ce-d0301.tbl

SAN MATEO COUNTY

SANTA CRUZ COUNTY

SAN JOSE DIRIDON STATION APPROACH

MONTEREY CORRIDOR SUBSECTION

SANTA CLARA COUNTY

MORGAN HILL AND GILROY SUBSECTION

CITY OF GILROY

STANISLAUS COUNTY

MERCED COUNTY

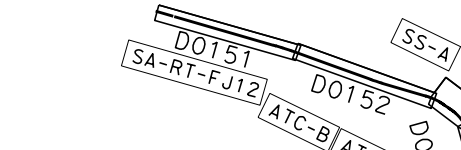
SAN JOAQUIN VALLEY SUBSECTION

SAN BENITO COUNTY

PACHECO PASS TUNNEL SUBSECTION

BOOK 3A

BOOK 3B



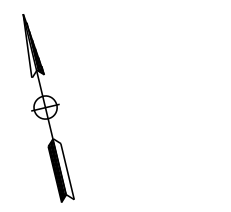
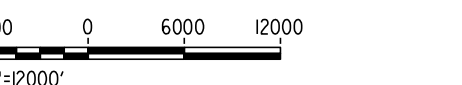
CITY OF SAN JOSE

CITY OF MORGAN HILL

CITY OF GILROY

FOR ALIGNMENT LOCATION SEE KEP MAP DRAWING GE-D0301

ALTERNATIVE 3 - VIADUCT TO EAST GILROY



ALTERNATIVE 3

Table with columns: Station, Track Power Facility (TPF), TPO, PS, ATC, SWS, and Communications Radio Tower. Rows include stations like D1301, D1302, D1303, D1304, D1305, D1306, D1307, D1308, D1309, D1310, D1311, D1312, D1313, D1314, D1315, D1316, D1317, D1318, D1319, D1320, D1321, D1322, D1323, D1324, D1325, D1326, D1327, D1328, D1329, D1330, D1331, D1332, D1333, D1334, D1335, D1336, D1337, D1338, D1339, D1340, D1341, D1342, D1343, D1344, D1345, D1346, D1347, D1348, D1349, D1350, D1351, D1352, D1353, D1354, D1355, D1356, D1357, D1358, D1359, D1360, D1361, D1362, D1363, D1364, D1365, D1366, D1367, D1368, D1369, D1370, D1371, D1372, D1373, D1374, D1375, D1376, D1377, D1378, D1379, D1380, D1381, D1382, D1383, D1384, D1385, D1386, D1387, D1388, D1389, D1390, D1391, D1392, D1393, D1394, D1395, D1396, D1397, D1398, D1399, D1400.

ALTERNATIVE 3 (CONTINUED)

Continuation of Table 1 for Alternative 3, covering stations from D1401 to D1600.

ALTERNATIVE 3 (CONTINUED)

Continuation of Table 1 for Alternative 3, covering stations from D1601 to D1900.

ALTERNATIVE 3 (CONTINUED)

Continuation of Table 1 for Alternative 3, covering stations from D1901 to D2200.

SAN JOSE TO CVY EIRIS: VOLUME III
ALTERNATIVE 3
BOOK 3B
SHEET D

RECORD PREP SUBMITTAL MAY 3, 2019 NOT FOR CONSTRUCTION

HNTB 1111 Broadway 9th Floor Oakland, CA 94607

CALIFORNIA High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN JOSE TO MERCED

GENERAL KEY MAP SYSTEMS SITES

CONTRACT NO. HSR15-34 DRAWING NO. GE-D0302 SCALE AS SHOWN SHEET NO.

ct:\cadd\1b\pwr\del\leon\46037_cahsr\dms\18473\FJ-TT-B0101-JM.dgn

c:\cadd\1b\pwr\del\leon\46037_cahsr\dms\18473\FJ-TT-B0101-JM.dgn

CAHSR-r.tbl

4/30/2019 5:23:04 PM

rdeleon

CURVE	ELEMENT	POINT TYPE	MT2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EA) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Tangent	POB	2260+30.01	1958137.752	6137507.790									S 60°29'13" E		
	Tangent	PI	2301+23.27	1956121.329	6141069.924											
	Tangent	PI	2301+23.27	1956121.329	6141069.924									S 60°29'51" E		
	Tangent	TS	2324+15.29	1954992.594	6143064.748											
	Clothoid	TS	2324+15.29	1954992.594	6143064.748										S 60°29'51" E	S 60°27'06" E
	Clothoid	SPI	2324+68.63	1954966.330	6143111.166		80	0°02'45"	40	0.01						
	Clothoid	SC	2324+95.29	1954953.179	6143134.365											
	Arc	SC	2324+95.29	1954953.179	6143134.365											
C189	Arc	PI	2325+54.25	1954924.102	6143185.656	50000	117.92	0°08'06"			110	0.75	0.22			
	Arc	CC		1911456.208	6118476.435											
	Arc	CS	2326+13.21	1954894.905	6143236.878											
	Clothoid	CS	2326+13.21	1954894.905	6143236.878										S 60°18'59" E	S 60°16'14" E
	Clothoid	SPI	2326+39.88	1954881.699	6143260.046		80	0°02'45"	40	0.01						
	Clothoid	ST	2326+93.21	1954855.251	6143306.359											
	Tangent	ST	2326+93.21	1954855.251	6143306.359									S 60°16'14" E		
	Tangent	TS	2329+56.62	1954724.625	6143535.098											
	Clothoid	TS	2329+56.62	1954724.625	6143535.098										S 60°16'14" E	S 59°41'38" E
	Clothoid	SPI	2330+86.62	1954660.157	6143647.988		195	0°34'37"	97.5	0.16						
	Clothoid	SC	2331+51.62	1954627.357	6143704.106											
	Arc	SC	2331+51.62	1954627.357	6143704.106											
C190	Arc	PI	2333+47.66	1954528.430	6143873.356	9683.84	392.03	2°19'10"			110	2.25	2.75			
	Arc	CC		1946266.904	6138817.431											
	Arc	CS	2335+43.65	1954422.735	6144038.463											
	Clothoid	CS	2335+43.65	1954422.735	6144038.463										S 57°22'27" E	S 56°47'51" E
	Clothoid	SPI	2336+08.65	1954387.690	6144093.207		195	0°34'37"	97.5	0.16						
	Clothoid	ST	2337+38.65	1954316.502	6144201.984											

**SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 178 OF 216**

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP SUBMITTAL

MAY 3, 2019

NOT FOR CONSTRUCTION



1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED

SAN JOSE DIRIDON STATION APPROACH
VIADUCT TO I-880
TRACK ALIGNMENT DATA TABLE
CURVE NO. C189 AND C190

CONTRACT NO. HSR15-34
DRAWING NO. TT-B0101-JM
SCALE NONE
SHEET NO.

4/30/2019 5:23:14 PM CAHSRP.tbl cvd_paf_bw.pltcfgr fdeleon c:\cadd\lib\pwr\deleon\46037_cahsr\dms18473\FJ-TT-B0102-JM.dgn

CURVE	ELEMENT	POINT TYPE	MT2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EA) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Tangent	ST	2337+38.65	1954316.502	6144201.984									S 56°47'51" E		
	Tangent	PI	2363+76.23	1952872.160	6146408.951											
	Tangent	PI	2363+76.23	1952872.160	6146408.951									S 56°48'33" E		
	Tangent	TS	2388+65.23	1951509.611	6148491.882											
	Clothoid	TS	2388+65.23	1951509.611	6148491.882										S 56°48'33" E	S 57°19'49" E
	Clothoid	SPI	2389+98.57	1951436.620	6148603.463		200	0°31'15"	100	0.15						
	Clothoid	SC	2390+65.23	1951400.634	6148659.583											
	Arc	SC	2390+65.23	1951400.634	6148659.583											
C191	Arc	PI	2392+92.09	1951278.175	6148850.552	11000	453.65	2°21'47"			110	2.00	2.40			
	Arc	CC		1960660.379	6154597.352											
	Arc	CS	2395+18.89	1951163.695	6149046.408											
	Clothoid	CS	2395+18.89	1951163.695	6149046.408										S 59°41'35" E	S 60°12'50" E
	Clothoid	SPI	2395+85.55	1951130.053	6149103.964		200	0°31'15"	100	0.15						
	Clothoid	ST	2397+18.89	1951063.817	6149219.682											
	Tangent	ST	2397+18.89	1951063.817	6149219.682									S 60°12'50" E		
	Tangent	TS	2424+18.11	1949722.946	6151562.302											
	Cosine	TS	2424+18.11	1949722.946	6151562.302										S 60°12'50" E	S 56°36'41" E
	Cosine	SPI	2427+09.75	1949578.067	6151815.418		415	3°36'10"	207.49	1.24						
	Cosine	SC	2428+33.11	1949510.131	6151918.493											
	Arc	SC	2428+33.11	1949510.131	6151918.493											
C192	Arc	PI	2431+48.33	1949336.657	6152181.693	3300	628.54	10°54'47"			75	3.50	3.32			
	Arc	CC		1946754.775	6150102.450											
	Arc	CS	2434+61.63	1949116.492	6152407.291											
	Cosine	CS	2434+61.63	1949116.492	6152407.291										S 45°41'54" E	S 42°05'44" E
	Cosine	SPI	2435+85.08	1949030.271	6152495.640		415	3°36'10"	207.49	1.24						
	Cosine	ST	2438+76.63	1948813.861	6152691.151											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 179 OF 216

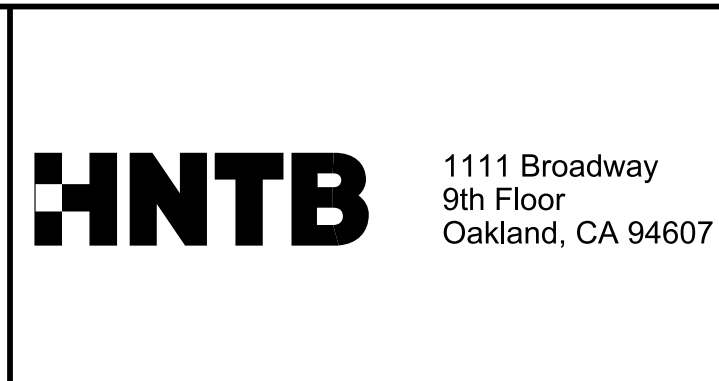
REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**RECORD PEPP
 SUBMITTAL**

MAY 3, 2019

**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 SAN JOSE DIRIDON STATION APPROACH
 VIADUCT TO I-880
 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C191 AND C192

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0102-JM
SCALE	NONE
SHEET NO.	

4/30/2019 5:23:25 PM CAHSRP.tbl cvd_pdf_bw.plt cfdg c:\cadd\lib\pwr\del\leon\46037_cahsr\dms18473\FJ-TT-B0103-JM.dgn

CURVE	ELEMENT	POINT TYPE	MT2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EA) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Tangent	ST	2438+76.63	1948813.861	6152691.151									S 42°05'44" E		
	Tangent	TS	2441+29.45	1948626.259	6152860.635											
	Cosine	TS	2441+29.45	1948626.259	6152860.635										S 42°05'44" E	S 35°00'43" E
	Cosine	SPI	2445+26.71	1948331.485	6153126.943		565	7°05'01"	282.44	3.31						
	Cosine	SC	2446+94.45	1948193.686	6153223.474											
	Arc	SC	2446+94.45	1948193.686	6153223.474											
C193	Arc	PI	2451+97.72	1947781.493	6153512.224	2285	990.72	24°50'31"			65	4.75	2.65			
	Arc	CC		1946882.673	6151351.986											
	Arc	CS	2456+85.09	1947286.131	6153601.085											
	Cosine	CS	2456+85.09	1947286.131	6153601.085										S 10°10'12" E	S 3°05'11" E
	Cosine	SPI	2458+53.34	1947120.528	6153630.792		565	7°05'01"	282.44	3.31						
	Cosine	ST	2462+50.09	1946723.849	6153652.180											
	Tangent	ST	2462+50.09	1946723.849	6153652.180									S 3°05'11" E		
	Tangent	POE	2481+32.12	1944844.556	6153753.509											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 180 OF 216


REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD SUBMITTAL

MAY 3, 2019

NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 SAN JOSE DIRIDON STATION APPROACH
 VIADUCT TO I-880
 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C193

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0103-JM
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	52+90.53	1944844.556	6153753.509									S 3°05'10.7" E		
	TANGENT	TS	56+04.15	1944531.398	6153770.394											
	CLOTHOID	TS	56+04.15	1944531.398	6153770.394										S 3°05'10.7" E	S 14°17'46.9" E
	CLOTHOID	SPI	59+04.75	1944231.231	6153786.579		450	11°12'36.2"	224.71	7.33						
	CLOTHOID	SC	60+54.15	1944085.344	6153823.755											
C101	ARC	SC	60+54.15	1944085.344	6153823.755											
	ARC	PI	67+04.25	1943455.376	6153984.289	1150	1183.02	58°57'33.7"			50	6.00	2.70			
	ARC	CC		1944369.322	6154938.141											
	ARC	CS	72+37.16	1943268.082	6154606.825											
	CLOTHOID	CS	72+37.16	1943268.082	6154606.825										S 73°15'20.6" E	S 84°27'56.8" E
	CLOTHOID	SPI	73+87.71	1943224.709	6154750.991		450	11°12'36.2"	224.71	7.33						
	CLOTHOID	ST	76+87.16	1943195.718	6155050.194											
	TANGENT	ST	76+87.16	1943195.718	6155050.194									S 84°27'56.8" E		
	TANGENT	TS	89+72.12	1943071.797	6156329.158											
	CLOTHOID	TS	89+72.12	1943071.797	6156329.158										S 84°27'56.8" E	S 73°15'20.6" E
	CLOTHOID	SPI	92+72.72	1943042.806	6156628.360		450	11°12'36.2"	224.71	7.33						
	CLOTHOID	SC	94+22.12	1942999.433	6156772.526											
C102	ARC	SC	94+22.12	1942999.433	6156772.526											
	ARC	PI	99+88.42	1942836.280	6157314.821	1150	1052.11	52°26'05.9"			50	6.00	2.70			
	ARC	CC		1941898.193	6156441.211											
	ARC	CS	104+74.22	1942306.955	6157516.112											
	CLOTHOID	CS	104+74.22	1942306.955	6157516.112										S 20°49'14.7" E	S 9°36'38.5" E
	CLOTHOID	SPI	106+24.77	1942166.238	6157569.624		450	11°12'36.2"	224.71	7.33						
	CLOTHOID	ST	109+24.22	1941869.853	6157619.811											
	TANGENT	ST	109+24.22	1941869.853	6157619.811									S 9°36'38.5" E		
	TANGENT	TS	111+48.03	1941649.186	6157657.176											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 181 OF 216

\$FILE \$ \$PLTDRVS\$ \$PENTBLS\$ \$TIME\$ \$DATE\$ \$USER\$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPD
 SUBMITTAL

 MAY 3, 2019

 NOT FOR
 CONSTRUCTION

HNTB

1111 Broadway
 9th Floor
 Oakland, CA 94607

CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
 SAN JOSE TO MERCED
 SAN JOSE DIRIDON STATION APPROACH
 VIADUCT TO I-880
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C101 AND C102

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0104
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	CLOTHOID	TS	111+48.03	1941649.186	6157657.176										S 9°36'38.5" E	S 17°34'06.4" E
	CLOTHOID	SPI	114+81.70	1941320.199	6157712.883		500	7°57'27.9"	249.84	5.78						
	CLOTHOID	SC	116+48.03	1941161.013	6157763.284											
C103	ARC	SC	116+48.03	1941161.013	6157763.284											
	ARC	PI	117+96.77	1941019.211	6157808.180	1800	296.77	9°26'51.3"			58	6.00	1.48			
	ARC	CC		1941704.334	6159479.326											
	ARC	CS	119+44.80	1940886.702	6157875.743											
	CLOTHOID	CS	119+44.80	1940886.702	6157875.743										S 27°00'57.8" E	S 34°58'25.7" E
	CLOTHOID	SPI	121+11.77	1940737.949	6157951.589		500	7°57'27.9"	249.84	5.78						
	CLOTHOID	ST	124+44.80	1940464.534	6158142.850											
	TANGENT	ST	124+44.80	1940464.534	6158142.850									S 34°58'25.7" E		
	TANGENT	TS	127+17.50	1940241.081	6158299.162											
	COSINE	TS	127+17.50	1940241.081	6158299.162										S 34°58'25.7" E	S 34°03'45.1" E
	COSINE	SPI	129+52.18	1940048.776	6158433.684		334	0°54'40.6"	167	0.25						
	COSINE	SC	130+51.50	1939966.497	6158489.312											
C104	ARC	SC	130+51.50	1939966.497	6158489.312											
	ARC	PI	132+06.20	1939838.336	6158575.962	10500	309.38	1°41'17.7"			95	2.00	1.44			
	ARC	CC		1934085.477	6149790.830											
	ARC	CS	133+60.88	1939707.678	6158658.797											
	COSINE	CS	133+60.88	1939707.678	6158658.797										S 32°22'27.4" E	S 31°27'46.8" E
	COSINE	SPI	134+60.20	1939623.796	6158711.978		334	0°54'40.6"	167	0.25						
	COSINE	ST	136+94.88	1939423.615	6158834.471											
	TANGENT	ST	136+94.88	1939423.615	6158834.471									S 31°27'46.8" E		
	TANGENT	POE	149+99.26 = 150+00.00	1938311.012	6159515.287											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 182 OF 216

\$FILE\$ \$PLTDRVS\$ \$PENTBLS\$ \$TIME\$ \$DATE\$ \$USER\$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607

CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MONTEREY CORRIDOR
 VIADUCT TO I-880
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C103 AND C104

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0105
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	149+99.26 =	1938311.012	6159515.287									S 31°27'46.8" E		
	TANGENT	TS	163+92.19	1937123.505	6160241.939											
	COSINE	TS	163+92.19	1937123.505	6160241.939										S 31°27'46.8" E	S 32°08'52.2" E
	COSINE	SPI	165+68.56	1936973.070	6160333.992		251	0°41'05.4"	125.5	0.14						
	COSINE	SC	166+43.19	1936909.876	6160373.707											
C105	ARC	SC	166+43.19	1936909.876	6160373.707											
	ARC	PI	168+12.04	1936766.911	6160463.555	10500	337.68	1°50'33.4"			95	2.00	1.44			
	ARC	CC		1942496.984	6169263.826											
	ARC	CS	169+80.87	1936626.909	6160557.953											
	COSINE	CS	169+80.87	1936626.909	6160557.953										S 33°59'25.6" E	S 34°40'31.0" E
	COSINE	SPI	170+55.51	1936565.025	6160599.680		251	0°41'05.4"	125.5	0.14						
	COSINE	ST	172+31.87	1936419.985	6160700.018											
	TANGENT	ST	172+31.87	1936419.985	6160700.018									S 34°40'31.0" E		
	TANGENT	TS	178+67.70	1935897.083	6161061.759											
	COSINE	TS	178+67.70	1935897.083	6161061.759										S 34°40'31.0" E	S 33°59'25.6" E
	COSINE	SPI	180+44.06	1935752.042	6161162.097		251	0°41'05.4"	125.5	0.14						
	COSINE	SC	181+18.70	1935690.158	6161203.823											
C106	ARC	SC	181+18.70	1935690.158	6161203.823											
	ARC	PI	182+45.22	1935585.260	6161274.553	10500	253.02	1°22'50.4"			95	2.00	1.44			
	ARC	CC		1929820.083	6152497.950											
	ARC	CS	183+71.72	1935478.688	6161342.734											
	COSINE	CS	183+71.72	1935478.688	6161342.734										S 32°36'35.2" E	S 31°55'29.9" E
	COSINE	SPI	184+46.36	1935415.816	6161382.957		251	0°41'05.4"	125.5	0.14						
	COSINE	ST	186+22.72	1935266.128	6161476.220											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 183 OF 216

\$FILE\$ \$PLTDRVS\$ \$PENTBLS\$ \$DATE\$ \$TIME\$ \$USER\$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MONTEREY CORRIDOR
 VIADUCT/AT-GRADE
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C105 AND C106

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0106
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	ST	186+22.72	1935266.128	6161476.220									S 31°55'29.9" E		
	TANGENT	TS	192+65.45	1934720.615	6161816.102											
	COSINE	TS	192+65.45	1934720.615	6161816.102										S 31°55'29.9" E	S 36°11'49.3" E
	COSINE	SPI	198+62.84	1934213.586	6162132.007		850	4°16'19.4"	424.97	3.00						
	COSINE	SC	201+15.45	1934009.510	6162281.351											
C107	ARC	SC	201+15.45	1934009.510	6162281.351											
	ARC	PI	214+06.61	1932967.553	6163043.865	5700	2539.44	25°31'35.3"			110	5.75	2.74			
	ARC	CC		1937375.723	6166881.200											
	ARC	CS	226+54.89	1932355.895	6164180.955											
	COSINE	CS	226+54.89	1932355.895	6164180.955										S 61°43'24.6" E	S 65°59'44.0" E
	COSINE	SPI	229+07.77	1932236.096	6164403.664		850	4°16'19.4"	424.97	3.00						
	COSINE	ST	235+04.89	1931993.074	6164949.387											
	TANGENT	ST	235+04.89	1931993.074	6164949.387									S 65°59'44.0" E		
	TANGENT	POE	250+03.17 = 249+05.70	1931383.561	6166318.089											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 184 OF 216

\$USER \$ \$DATE \$ \$TIME \$ \$PENTBL \$ \$PLTDRVS \$ \$FILE \$


REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD SUBMITTAL

MAY 3, 2019

NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MONTEREY CORRIDOR
 VIADUCT/AT-GRADE
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C107

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0107
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	250+03.17 = 249+05.70	1931383.561	6166318.089									S 65°59'44.0" E		
	TANGENT	TS	273+09.32	1930405.750	6168513.830											
	COSINE	TS	273+09.32	1930405.750	6168513.830										S 65°59'44.0" E	S 62°32'27.4" E
	COSINE	SPI	280+29.64	1930112.717	6169171.854		1025	3°27'16.6"	512.47	2.93						
	COSINE	SC	283+34.32	1929972.126	6169442.399											
	ARC	SC	283+34.32	1929972.126	6169442.399											
C108	ARC	PI	298+88.81	1929255.329	6170821.760	8500	3074.89	20°43'39.2"			125	4.75	2.60			
	ARC	CC		1922429.731	6165522.926											
	ARC	CS	314+09.30	1928096.737	6171858.148											
	COSINE	CS	314+09.30	1928096.737	6171858.148										S 41°48'48.2" E	S 38°21'31.6" E
	COSINE	SPI	317+14.19	1927869.493	6172061.423		1025	3°27'16.6"	512.47	2.93						
	COSINE	ST	324+34.30	1927304.660	6172508.443											
	TANGENT	ST	324+34.30	1927304.660	6172508.443									S 38°21'31.6" E		
	TANGENT	TS	341+27.95	1925976.595	6173559.500											
	COSINE	TS	341+27.95	1925976.595	6173559.500										S 38°21'31.6" E	S 40°43'22.6" E
	COSINE	SPI	347+25.24	1925508.236	6173930.168		850	2°21'50.9"	424.99	1.66						
	COSINE	SC	349+77.95	1925316.651	6174095.091											
	ARC	SC	349+77.95	1925316.651	6174095.091											
C109	ARC	PI	354+05.38	1924992.714	6174373.946	10300	854.36	4°45'09.3"			125	3.75	2.32			
	ARC	CC		1932036.389	6181901.186											
	ARC	CS	358+32.31	1924692.996	6174678.681											
	COSINE	CS	358+32.31	1924692.996	6174678.681										S 45°28'31.8" E	S 47°50'22.8" E
	COSINE	SPI	360+85.11	1924515.733	6174858.911		850	2°21'50.9"	424.99	1.66						
	COSINE	ST	366+82.31	1924114.827	6175301.664											
	TANGENT	ST	366+82.31	1924114.827	6175301.664									S 47°50'22.8" E		
	TANGENT	TS	386+34.97	1922804.189	6176749.109											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 185 OF 216

\$FILE\$ \$PLTDRVS\$ \$PENTBLS\$ \$TIME\$ \$DATE\$ \$USER\$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MONTEREY CORRIDOR
 VIADUCT
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C108 AND C109

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0108
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	COSINE	TS	386+34.97	1922804.189	6176749.109										S 47°50'22.8" E	S 48°56'45.8" E
	COSINE	SPI	390+28.46	1922540.078	6177040.788		560	1°06'23.0"	280	0.51						
	COSINE	SC	391+94.97	1922430.709	6177166.364											
	ARC	SC	391+94.97	1922430.709	6177166.364											
C110	ARC	PI	394+91.27	1922236.107	6177389.802	14500	592.52	2°20'28.7"			130	3.00	1.66			
	ARC	CC		1933365.037	6186689.518											
	ARC	CS	397+87.49	1922050.796	6177621.003											
	COSINE	CS	397+87.49	1922050.796	6177621.003										S 51°17'14.5" E	S 52°23'37.5" E
	COSINE	SPI	399+54.02	1921946.649	6177750.942		560	1°06'23.0"	280	0.51						
	COSINE	ST	403+47.49	1921706.531	6178062.671											
	TANGENT	ST	403+47.49	1921706.531	6178062.671									S 52°23'37.5" E		
	TANGENT	TS	465+63.39	1917913.396	6182987.048											
	COSINE	TS	465+63.39	1917913.396	6182987.048										S 52°23'37.5" E	S 52°21'23.8" E
	COSINE	SPI	468+09.31	1917763.325	6183181.875		350	0°02'13.7"	175	0.01						
	COSINE	SC	469+13.39	1917699.761	6183264.285											
	ARC	SC	469+13.39	1917699.761	6183264.285											
C111	ARC	PI	470+90.64	1917591.502	6183404.642	270000	354.52	0°04'30.8"			130	0.00	0.25			
	ARC	CC		1703906.337	6018363.189											
	ARC	CS	472+67.90	1917483.059	6183544.858											
	COSINE	CS	472+67.90	1917483.059	6183544.858										S 52°16'53.0" E	S 52°14'39.3" E
	COSINE	SPI	473+71.98	1917419.387	6183627.184		350	0°02'13.7"	175	0.01						
	COSINE	ST	476+17.90	1917268.808	6183821.619											
	TANGENT	ST	476+17.90	1917268.808	6183821.619									S 52°14'39.3" E		
	TANGENT	TS	574+51.50	1911247.731	6191596.338											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 186 OF 216

\$FILE \$ \$PLTDRVS \$ \$PENTBLS \$ \$TIME \$ \$DATE \$ \$USER \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MONTEREY CORRIDOR
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C110 AND C111

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0109
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
C112	COSINE	TS	574+51.50	1911247.731	6191596.338										S 52°14'39.3" E	S 53°09'26.7" E
	COSINE	SPI	578+09.85	1911028.313	6191879.661		510	0°54'47.3"	255	0.38						
	COSINE	SC	579+61.50	1910937.377	6192001.029											
	ARC	SC	579+61.50	1910937.377	6192001.029											
C112	ARC	PI	583+21.82	1910721.320	6192289.392	16000	720.53	2°34'48.7"			130	3.00	1.23			
	ARC	CC		1923741.951	6201594.928											
	ARC	CS	586+82.03	1910518.463	6192587.189											
	COSINE	CS	586+82.03	1910518.463	6192587.189										S 55°44'15.4" E	S 56°39'02.7" E
	COSINE	SPI	588+33.68	1910433.083	6192712.528		510	0°54'47.3"	255	0.38						
	COSINE	ST	591+92.03	1910236.082	6193011.872											
	TANGENT	ST	591+92.03	1910236.082	6193011.872									S 56°39'02.7" E		
	TANGENT	POE	603+87.40 = 604+03.88	1909578.936	6194010.410											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 187 OF 216

\$USER \$ DATE \$ \$TIME \$ \$PENTBL \$ \$PLTDRVS \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MONTEREY CORRIDOR
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C112

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0110
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
C113	TANGENT	POB	603+87.40 = 604+03.88	1909578.936	6194010.410									S 56°39'02.7" E		
	TANGENT	TS	606+97.88	1909417.312	6194255.999											
C113	COSINE	TS	606+97.88	1909417.312	6194255.999										S 56°39'02.7" E	S 56°56'14.1" E
	COSINE	SPI	610+14.07	1909243.490	6194520.123		450	0°17'11.3"	225	0.11						
	COSINE	SC	611+47.88	1909170.488	6194632.267											
C113	ARC	SC	611+47.88	1909170.488	6194632.267											
	ARC	PI	613+16.03	1909078.753	6194773.189	45000	336.30	0°25'41.5"			125	0.25	1.14			
	ARC	CC		1946883.795	6219182.348											
	ARC	CS	614+84.18	1908988.073	6194914.793											
C114	COSINE	CS	614+84.18	1908988.073	6194914.793										S 57°21'55.5" E	S 57°39'06.9" E
	COSINE	SPI	616+17.99	1908915.911	6195027.479		450	0°17'11.3"	225	0.11						
	COSINE	ST	619+34.18	1908746.730	6195294.600											
C114	TANGENT	ST	619+34.18	1908746.730	6195294.600									S 57°39'06.9" E		
	TANGENT	TS	631+80.35	1908079.955	6196347.376											
C114	COSINE	TS	631+80.35	1908079.955	6196347.376										S 57°39'06.9" E	S 54°44'26.0" E
	COSINE	SPI	637+51.66	1907774.268	6196830.028		813	2°54'40.8"	406.48	1.96						
	COSINE	SC	639+93.35	1907634.676	6197027.477											
C114	ARC	SC	639+93.35	1907634.676	6197027.477											
	ARC	PI	647+56.52	1907194.112	6197650.643	8000	1521.73	10°53'55.2"			125	5.00	2.81			
	ARC	CC		1901102.304	6192409.240											
	ARC	CS	655+15.08	1906643.671	6198179.271											
C114	COSINE	CS	655+15.08	1906643.671	6198179.271										S 43°50'30.9" E	S 40°55'50.0" E
	COSINE	SPI	657+56.89	1906469.265	6198346.765		813	2°54'40.8"	406.48	1.96						
	COSINE	ST	663+28.08	1906037.636	6198721.057											
C114	TANGENT	ST	663+28.08	1906037.636	6198721.057									S 40°55'50.0" E		
	TANGENT	TS	694+10.95	1903708.516	6200740.780											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 188 OF 216

\$FILE \$ \$PLTDRVS\$ \$PENTBLS\$ \$DATE\$ \$TIME\$ \$USER\$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C113 AND C114

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0111
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
C115	COSINE	TS	694+10.95	1903708.516	6200740.780										S 40°55'50.0" E	S 40°42'27.9" E
	COSINE	SPI	696+56.87	1903522.719	6200901.896		350	0°13'22.1"	175	0.06						
	COSINE	SC	697+60.95	1903443.825	6200969.774											
C115	ARC	SC	697+60.95	1903443.825	6200969.774											
	ARC	PI	702+29.12	1903088.926	6201275.118	45000	936.32	1°11'31.8"			125	0.25	1.14			
	ARC	CC		1874094.785	6166857.696											
	ARC	CS	706+97.26	1902727.751	6201573.013											
C116	COSINE	CS	706+97.26	1902727.751	6201573.013										S 39°30'56.1" E	S 39°17'34.0" E
	COSINE	SPI	708+01.34	1902647.462	6201639.235		350	0°13'22.1"	175	0.06						
	COSINE	ST	710+47.26	1902457.136	6201794.975											
C116	TANGENT	ST	710+47.26	1902457.136	6201794.975									S 39°17'34.0" E		
	TANGENT	TS	726+28.14	1901233.666	6202796.116											
C116	COSINE	TS	726+28.14	1901233.666	6202796.116										S 39°17'34.0" E	S 39°07'05.7" E
	COSINE	SPI	729+06.38	1901018.325	6202972.325		396	0°10'28.3"	198	0.06						
	COSINE	SC	730+24.14	1900926.967	6203046.618											
C116	ARC	SC	730+24.14	1900926.967	6203046.618											
	ARC	PI	733+17.28	1900699.535	6203231.567	65000	586.28	0°31'00.4"			150	0.25	1.13			
	ARC	CC		1859916.983	6152616.654											
	ARC	CS	736+10.42	1900470.444	6203414.457											
C116	COSINE	CS	736+10.42	1900470.444	6203414.457										S 38°36'05.2" E	S 38°25'36.9" E
	COSINE	SPI	737+28.17	1900378.419	6203487.924		396	0°10'28.3"	198	0.06						
	COSINE	ST	740+06.42	1900160.440	6203660.859											
C116	TANGENT	ST	740+06.42	1900160.440	6203660.859									S 38°25'36.9" E		
	TANGENT	TS	782+19.74	1896859.715	6206279.508											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 189 OF 216

\$USER \$ DATE \$ \$TIME \$ \$ \$PLTDRVS \$ \$ \$PENTBLS \$ \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C115 AND C116

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0112
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	COSINE	TS	782+19.74	1896859.715	6206279.508										S 38°25'36.9" E	S 38°30'40.2" E
	COSINE	SPI	785+71.06	1896584.489	6206497.860		500	0°05'03.3"	250	0.03						
	COSINE	SC	787+19.74	1896468.150	6206590.437											
C117	ARC	SC	787+19.74	1896468.150	6206590.437											
	ARC	PI	791+28.86	1896148.022	6206845.180	170000	818.23	0°16'32.8"			175	0.00	0.72			
	ARC	CC		2002321.594	6339613.173											
	ARC	CS	795+37.97	1895829.123	6207101.461											
	COSINE	CS	795+37.97	1895829.123	6207101.461										S 38°47'13.0" E	S 38°52'16.4" E
	COSINE	SPI	796+86.65	1895713.231	6207194.598		500	0°05'03.3"	250	0.03						
	COSINE	ST	800+37.97	1895439.707	6207415.077											
	TANGENT	ST	800+37.97	1895439.707	6207415.077									S 38°52'16.4" E		
	TANGENT	TS	865+65.97	1890357.281	6211511.863											
	COSINE	TS	865+65.97	1890357.281	6211511.863										S 38°52'16.4" E	S 43°10'06.2" E
	COSINE	SPI	876+20.19	1889536.509	6212173.462		1500	4°17'49.9"	749.94	5.33						
	COSINE	SC	880+65.97	1889211.024	6212478.775											
C118	ARC	SC	880+65.97	1889211.024	6212478.775											
	ARC	PI	902+17.05	1887642.138	6213950.429	10000	4237.58	24°16'46.7"			150	6.00	3.00			
	ARC	CC		1896052.472	6219772.237											
	ARC	CS	923+03.55	1886817.151	6215937.026											
	COSINE	CS	923+03.55	1886817.151	6215937.026										S 67°26'53.0" E	S 71°44'42.8" E
	COSINE	SPI	927+49.82	1886645.997	6216349.170		1500	4°17'49.9"	749.94	5.33						
	COSINE	ST	938+03.55	1886315.770	6217350.334											
	TANGENT	ST	938+03.55	1886315.770	6217350.334									S 71°44'42.8" E		
	TANGENT	TS	942+14.75	1886186.965	6217740.840											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 190 OF 216

\$FILE \$ \$PLTDRVS \$ \$PENTBLS \$ \$TIME \$ \$DATE \$ \$USER \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

**RECORD PEPP
SUBMITTAL**

MAY 3, 2019

**NOT FOR
CONSTRUCTION**

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C117 AND C118

CONTRACT NO. HSR15-34
DRAWING NO. TT-B0113
SCALE NONE
SHEET NO.

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	COSINE	TS	942+14.75	1886186.965	6217740.840										S 71°44'42.8" E	S 69°06'02.9" E
	COSINE	SPI	950+58.00	1885922.823	6218541.651		1200	2°38'39.9"	599.98	2.62						
	COSINE	SC	954+14.75	1885795.508	6218875.070											
	ARC	SC	954+14.75	1885795.508	6218875.070											
C119	ARC	PI	987+57.00	1884603.242	6221997.437	13000	6542.79	28°50'11.7"			150	4.25	2.67			
	ARC	CC		1873650.785	6214237.646											
	ARC	CS	1019+57.54	1882052.861	6224157.582											
	COSINE	CS	1019+57.54	1882052.861	6224157.582										S 40°15'51.2" E	S 37°37'11.3" E
	COSINE	SPI	1023+14.44	1881780.520	6224388.251		1200	2°38'39.9"	599.98	2.62						
	COSINE	ST	1031+57.54	1881112.601	6224902.986											
	TANGENT	ST	1031+57.54	1881112.601	6224902.986									S 37°37'11.3" E		
	TANGENT	TS	1100+36.02	1875664.302	6229101.743											
	COSINE	TS	1100+36.02	1875664.302	6229101.743										S 37°37'11.3" E	S 35°41'05.9" E
	COSINE	SPI	1106+52.98	1875175.629	6229478.341		878	1°56'05.4"	438.99	1.40						
	COSINE	SC	1109+14.02	1874963.548	6229630.653											
	ARC	SC	1109+14.02	1874963.548	6229630.653											
C120	ARC	PI	1120+47.74	1874042.700	6230291.983	13000	2261.71	9°58'05.6"			150	4.50	2.42			
	ARC	CC		1867380.281	6219071.578											
	ARC	CS	1131+75.74	1873021.275	6230783.930											
	COSINE	CS	1131+75.74	1873021.275	6230783.930										S 25°43'00.3" E	S 23°46'54.9" E
	COSINE	SPI	1134+36.84	1872786.030	6230897.230		878	1°56'05.4"	438.99	1.40						
	COSINE	ST	1140+53.74	1872221.467	6231146.020											
	TANGENT	ST	1140+53.74	1872221.467	6231146.020									S 23°46'54.9" E		
	TANGENT	TS	1193+31.52	1867391.832	6233274.323											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 191 OF 216

\$FILE\$ \$PLTDRVS\$ \$PENTBLS\$ \$TIME\$ \$DATE\$ \$USER\$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD SUBMITTAL

MAY 3, 2019

NOT FOR CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C119 AND C120

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0114
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	ST	1140+53.74	1872221.467	6231146.020									S 23°46'54.9" E		
	TANGENT	TS	1193+31.52	1867391.832	6233274.323											
	COSINE	TS	1193+31.52	1867391.832	6233274.323										S 23°46'54.9" E	S 22°36'23.9" E
	COSINE	SPI	1204+55.77	1866363.047	6233727.683		1600	1°10'31.1"	800	1.55						
	COSINE	SC	1209+31.52	1865923.813	6233910.578											
	ARC	SC	1209+31.52	1865923.813	6233910.578											
C121	ARC	PI	1220+19.58	1864919.357	6234328.829	39000	2175.55	3°11'46.1"			250	4.00	2.41			
	ARC	CC		1850932.131	6197907.113											
	ARC	CS	1231+07.07	1863893.144	6234690.427											
	COSINE	CS	1231+07.07	1863893.144	6234690.427										S 19°24'37.7" E	S 18°14'06.7" E
	COSINE	SPI	1235+82.86	1863444.396	6234848.548		1600	1°10'31.1"	800	1.55						
	COSINE	ST	1247+07.07	1862376.608	6235200.346											
	TANGENT	ST	1247+07.07	1862376.608	6235200.346									S 18°14'06.7" E		
	TANGENT	TS	1257+60.81	1861375.788	6235530.080											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 192 OF 216

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

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C121

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0115
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	COSINE	TS	1257+60.81	1861375.788	6235530.080										S 18°14'06.7" E	S 20°13'49.1" E
	COSINE	SPI	1271+31.03	1860074.376	6235958.848		1950	1°59'42.4"	974.98	3.22						
	COSINE	SC	1277+10.81	1859530.238	6236159.378											
C122	ARC	SC	1277+10.81	1859530.238	6236159.378											
	ARC	PI	1282+69.38	1859006.125	6236352.529	28000	1117.00	2°17'08.5"			250	6.00	2.93			
	ARC	CC		1869212.485	6262432.066											
	ARC	CS	1288+27.80	1858490.132	6236566.430											
	COSINE	CS	1288+27.80	1858490.132	6236566.430										S 22°30'57.6" E	S 24°30'40" E
	COSINE	SPI	1294+07.72	1857954.424	6236788.502		1950	1°59'42.4"	974.98	3.22						
	COSINE	ST	1307+77.80	1856707.683	6237356.966											
	TANGENT	ST	1307+77.80	1856707.683	6237356.966									S 24°30'40.0" E		
	TANGENT	POE	1337+44.13 = 1410+00.00	1854008.683	6238587.604											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 193 OF 216

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

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C122

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0116
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	1337+44.13 = 1410+00.00	1854008.683	6238587.604									S 24°30'40.0" E		
	TANGENT	TS	1444+41.62	1850877.221	6240015.426											
	COSINE	TS	1444+41.62	1850877.221	6240015.426										S 24°30'40.0" E	S 24°11'04.3" E
	COSINE	SPI	1452+42.63	1850148.393	6240347.743		1140	0°19'35.7"	570	0.31						
	COSINE	SC	1455+81.62	1849839.158	6240486.618											
	ARC	SC	1455+81.62	1849839.158	6240486.618											
C123	ARC	PI	1462+12.82	1849263.357	6240745.206	100000	1262.39	0°43'23.9"			250	0.50	2.00			
	ARC	CC		1808871.499	6149263.535											
	ARC	CS	1468+44.00	1848684.337	6240996.505											
	COSINE	CS	1468+44.00	1848684.337	6240996.505										S 23°27'40.4" E	S 23°08'04.7" E
	COSINE	SPI	1471+82.99	1848373.374	6241131.466		1140	0°19'35.7"	570	0.31						
	COSINE	ST	1479+84.00	1847636.774	6241446.179											
	TANGENT	ST	1479+84.00	1847636.774	6241446.179									S 23°08'04.7" E		
	TANGENT	TS	1502+44.32	1845558.226	6242334.241											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 194 OF 216

\$USER \$ DATE \$ \$TIME \$ \$PENTBL \$ \$PLTDRVS \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C123

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0117
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	COSINE	TS	1502+44.32	1845558.226	6242334.241										S 23°08'04.7" E	S 22°46'18.4" E
	COSINE	SPI	1510+45.33	1844821.626	6242648.954		1140	0°21'46.3"	570	0.34						
	COSINE	SC	1513+84.32	1844509.060	6242780.163											
	ARC	SC	1513+84.32	1844509.060	6242780.163											
C124	ARC	PI	1519+62.56	1843975.888	6243003.979	90000	1156.47	0°44'10.4"			250	0.80	1.98			
	ARC	CC		1809673.544	6159795.304											
	ARC	CS	1525+40.79	1843439.884	6243220.925											
	COSINE	CS	1525+40.79	1843439.884	6243220.925										S 22°02'07.9" E	S 21°40'21.6" E
	COSINE	SPI	1528+79.78	1843125.657	6243348.108		1140	0°21'46.3"	570	0.34						
	COSINE	ST	1536+80.79	1842381.268	6243643.925											
	TANGENT	ST	1536+80.79	1842381.268	6243643.925									S 21°40'21.6" E		
	TANGENT	TS	1608+35.25	1835732.566	6246286.091											
	COSINE	TS	1608+35.25	1835732.566	6246286.091										S 21°40'21.6" E	S 22°26'46.2" E
	COSINE	SPI	1614+04.39	1835203.655	6246496.278		810	0°46'24.6"	405	0.52						
	COSINE	SC	1616+45.25	1834981.039	6246588.243											
	ARC	SC	1616+45.25	1834981.039	6246588.243											
C125	ARC	PI	1621+16.34	1834545.635	6246768.114	30000	942.11	1°47'57.5"			190	3.25	1.56			
	ARC	CC		1846435.490	6274315.406											
	ARC	CS	1625+87.36	1834116.093	6246961.568											
	COSINE	CS	1625+87.36	1834116.093	6246961.568										S 24°14'43.6" E	S 25°01'08.2" E
	COSINE	SPI	1628+28.22	1833896.475	6247060.478		810	0°46'24.6"	405	0.52						
	COSINE	ST	1633+97.36	1833380.734	6247301.179											
	TANGENT	ST	1633+97.36	1833380.734	6247301.179									S 25°01'08.2" E		
	TANGENT	TS	1652+66.24	1831687.214	6248091.563											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 195 OF 216

\$FILE \$ \$PLTDRVS \$ \$PENTBLS \$ \$TIME \$ \$DATE \$ \$USER \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C124 AND C125

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0118
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	COSINE	TS	1652+66.24	1831687.214	6248091.563										S 25°01'08.2" E	S 23°45'21.0" E
	COSINE	SPI	1659+47.82	1831069.590	6248379.814		970	1°15'47.2"	485	1.01						
	COSINE	SC	1662+36.24	1830805.580	6248496.013											
	ARC	SC	1662+36.24	1830805.580	6248496.013											
C126	ARC	PI	1668+18.74	1830272.439	6248730.666	22000	1164.72	3°02'00.0"			150	3.00	1.09			
	ARC	CC		1821943.101	6228360.064											
	ARC	CS	1674+00.96	1829727.627	6248936.778											
	COSINE	CS	1674+00.96	1829727.627	6248936.778										S 20°43'21.0" E	S 19°27'33.8" E
	COSINE	SPI	1676+89.41	1829457.838	6249038.844		970	1°15'47.2"	485	1.01						
	COSINE	ST	1683+70.96	1828815.194	6249265.903											
	TANGENT	ST	1683+70.96	1828815.194	6249265.903									S 19°27'33.8" E		
	TANGENT	TS	1736+84.96	1823804.741	6251036.202											

NOTE:

1. THE VERTICAL CURVE CONTROLS THE SPEED AT 80MPH BETWEEN STATION B1734+00.23 TO B1739+00.23.

**SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 196 OF 216**

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

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

**RECORD PEPD
SUBMITTAL**

MAY 3, 2019

**NOT FOR
CONSTRUCTION**

HNTB 1111 Broadway
9th Floor
Oakland, CA 94607



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED**

MORGAN HILL AND GILROY
TRACK GUIDEWAY
B2 TRACK ALIGNMENT DATA TABLE
CURVE NO. C126

CONTRACT NO. HSR15-34
DRAWING NO. TT-B0119
SCALE NONE
SHEET NO.

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	COSINE	TS	1736+84.96	1823804.741	6251036.202										S 19°27'33.8" E	S 21°34'56.3" E
	COSINE	SPI	1743+38.46	1823188.574	6251253.906		930	2°07'22.5"	464.99	1.63						
	COSINE	SC	1746+14.96	1822931.387	6251355.642											
	ARC	SC	1746+14.96	1822931.387	6251355.642											
C127	ARC	PI	1766+98.51	1820993.916	6252122.048	12550	4129.42	18°51'09.0"			150	4.75	2.42			
	ARC	CC		1827547.744	6263025.764											
	ARC	CS	1787+44.38	1819408.035	6253473.401											
	COSINE	CS	1787+44.38	1819408.035	6253473.401										S 40°26'05.3" E	S 42°33'27.8" E
	COSINE	SPI	1790+20.96	1819197.520	6253652.784		930	2°07'22.5"	464.99	1.63						
	COSINE	ST	1796+74.38	1818716.157	6254094.765											
	TANGENT	ST	1796+74.38	1818716.157	6254094.765									S 42°33'27.8" E		
	TANGENT	TS	1843+65.65	1815260.587	6257267.620											
	COSINE	TS	1843+65.65	1815260.587	6257267.620										S 42°33'27.8" E	S 44°57'00.7" E
	COSINE	SPI	1854+51.31	1814460.891	6258001.890		1545	2°23'32.9"	772.48	3.06						
	COSINE	SC	1859+10.65	1814135.698	6258326.518											
	ARC	SC	1859+10.65	1814135.698	6258326.518											
C128	ARC	PI	1901+39.08	1811143.147	6261313.872	18500	8314.04	25°44'57.1"			200	5.75	2.90			
	ARC	CC		1827205.799	6271419.358											
	ARC	CS	1942+24.69	1809745.546	6265304.656											
	COSINE	CS	1942+24.69	1809745.546	6265304.656										S 70°41'57.8" E	S 73°05'30.8" E
	COSINE	SPI	1946+84.18	1809593.673	6265738.324		1545	2°23'32.9"	772.48	3.06						
	COSINE	ST	1957+69.69	1809277.920	6266777.057											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 197 OF 216

\$FILE \$ \$PLTDRVS \$ \$PENTBLS \$ \$DATE \$ \$TIME \$ \$USER \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C127 AND C128

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0120
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	ST	1957+69.69	1809277.920	6266777.057									S 73°05'30.8" E		
	TANGENT	TS	1971+66.98	1808871.535	6268113.949											
	COSINE	TS	1971+66.98	1808871.535	6268113.949										S 73°05'30.8" E	S 75°29'03.7" E
	COSINE	SPI	1982+52.64	1808555.782	6269152.682		1545	2°23'32.9"	772.48	3.06						
	COSINE	SC	1987+11.98	1808440.613	6269597.507											
	ARC	SC	1987+11.98	1808440.613	6269597.507											
C129	ARC	PI	2026+00.20	1807466.053	6273361.612	18500	7664.87	23°44'19.2"			200	5.75	2.90			
	ARC	CC		1826350.080	6274234.425											
	ARC	CS	2063+76.85	1808089.249	6277199.565											
	COSINE	CS	2063+76.85	1808089.249	6277199.565										N 80°46'37.1" E	N 78°23'04.2" E
	COSINE	SPI	2068+36.34	1808162.895	6277653.116		1545	2°23'32.9"	772.48	3.06						
	COSINE	ST	2079+21.85	1808381.486	6278716.547											
	TANGENT	ST	2079+21.85	1808381.486	6278716.547									N 78°23'04.2" E		
	TANGENT	POE	2160+00.00	1810007.966	6286629.265											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 198 OF 216

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

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C129

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0121
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	2160+00.00	1810007.966	6286629.265									N 78°23'04.2" E		
	TANGENT	TS	2182+25.40	1810456.034	6288809.090											
	COSINE	TS	2182+25.40	1810456.034	6288809.090										N 78°23'04.2" E	N 75°49'57.6" E
	COSINE	SPI	2199+82.16	1810809.745	6290529.870		2500	2°33'06.6"	1249.96	5.27						
	COSINE	SC	2207+25.40	1810991.728	6291250.786											
	ARC	SC	2207+25.40	1810991.728	6291250.786											
C130	ARC	PI	2284+49.03	1812882.124	6298739.506	28066	15074.12	30°46'23.9"			200	4.50	1.20			
	ARC	CC		1838204.101	6284381.500											
	ARC	CS	2357+99.52	1818337.898	6304206.594											
	COSINE	CS	2357+99.52	1818337.898	6304206.594										N 45°03'33.6" E	N 42°30'27.0" E
	COSINE	SPI	2365+43.05	1818863.109	6304732.894		2500	2°33'06.6"	1249.96	5.27						
	COSINE	ST	2382+99.52	1820158.170	6305919.911											
	TANGENT	ST	2382+99.52	1820158.170	6305919.911									N 42°30'27.0" E		
	TANGENT	POE	2387+88.85 = 3144+59.57	1820518.898	6306250.545											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 199 OF 216

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

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

**RECORD PEPD
SUBMITTAL**

MAY 3, 2019

**NOT FOR
CONSTRUCTION**

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C130

CONTRACT NO. HSR15-34
DRAWING NO. TT-B0122
SCALE NONE
SHEET NO.

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Tangent	POB	2387+88.85 = 3144+59.57	1820518.898	6306250.545									N 42°30'27.0" E		
	Tangent	TS	3148+52.15	1820808.304	6306515.806											
	Cosine	TS	3148+52.15	1820808.304	6306515.806										N 42°30'27.0" E	N 45°03'55.3" E
	Cosine	SPI	3166+08.91	1822103.366	6307702.824		2500	2°33'28.3"	1249.96	5.29						
	Cosine	SC	3173+52.15	1822628.522	6308229.180											
	Arc	SC	3173+52.15	1822628.522	6308229.180											
C131	Arc	PI	3209+88.88	1825197.141	6310803.666	28000	7232.96	14°48'02.3"			200	3.00	2.71			
	Arc	CC		1802806.960	6328005.572											
	Arc	CS	3245+85.11	1827022.865	6313948.902											
	Cosine	CS	3245+85.11	1827022.865	6313948.902										N 59°51'57.6" E	N 62°25'25.9" E
	Cosine	SPI	3253+28.64	1827396.136	6314591.948		2500	2°33'28.3"	1249.96	5.29						
	Cosine	ST	3270+85.11	1828209.386	6316149.132											
	Tangent	ST	3270+85.11	1828209.386	6316149.132									N 62°25'25.9" E		
	Tangent	TS	3473+31.90	1837582.173	6334095.815											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 200 OF 216

\$USER \$ DATE \$ \$TIME \$ \$PENTBL \$ \$PLTDRVS \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 PACHECO PASS
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C131

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0123
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Cosine	TS	3473+31.90	1837582.173	6334095.815										N 62°25'25.9" E	N 62°09'43.8" E
	Cosine	SPI	3481+75.07	1837972.500	6334843.199		1200	0°15'42.1"	600	0.26						
	Cosine	SC	3485+31.90	1838139.129	6335158.734											
	Arc	SC	3485+31.90	1838139.129	6335158.734											
C132	Arc	PI	3493+91.00	1838540.304	6335918.414	131366	1718.18	0°44'57.8"			200	0.00	1.22			
	Arc	CC		1954302.509	6273814.663											
	Arc	CS	3502+50.08	1838951.381	6336672.783											
	Cosine	CS	3502+50.08	1838951.381	6336672.783										N 61°24'46.0" E	N 61°09'03.9" E
	Cosine	SPI	3506+06.91	1839122.123	6336986.111		1200	0°15'42.1"	600	0.26						
	Cosine	ST	3514+50.08	1839528.955	6337724.642											
	Tangent	ST	3514+50.08	1839528.955	6337724.642									N 61°09'03.9" E		
	Tangent	TS	3599+46.45	1843628.466	6345166.567											
	Cosine	TS	3599+46.45	1843628.466	6345166.567										N 61°09'03.9" E	N 58°48'44.9" E
	Cosine	SPI	3613+51.83	1844306.567	6346397.537		2000	2°20'19.0"	999.98	3.87						
	Cosine	SC	3619+46.45	1844614.582	6346906.381											
	Arc	SC	3619+46.45	1844614.582	6346906.381											
C133	Arc	PI	3660+91.36	1846760.988	6350452.261	24500	8212.07	19°12'17.2"			200	5.50	1.03			
	Arc	CC		1865573.770	6334219.284											
	Arc	CS	3701+58.51	1849954.345	6353094.759											
	Cosine	CS	3701+58.51	1849954.345	6353094.759										N 39°36'27.7" E	N 37°16'08.8" E
	Cosine	SPI	3707+53.32	1850412.601	6353473.965		2000	2°20'19.0"	999.98	3.87						
	Cosine	ST	3721+58.51	1851531.007	6354325.009											
	Tangent	ST	3721+58.51	1851531.007	6354325.009									N 37°16'08.8" E		
	Tangent	TS	3796+87.11	1857522.263	6358884.019											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 201 OF 216

\$FILE \$ \$PLTDRVS \$ \$PENTBLS \$ \$TIME \$ \$DATE \$ \$USER \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 PACHECO PASS
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C132 AND C133

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0124
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Cosine	TS	3796+87.11	1857522.263	6358884.019										N 37°16'08.8" E	N 40°59'45.3" E
	Cosine	SPI	3816+98.44	1859122.880	6360101.999		2862	3°43'36.6"	1430.91	8.82						
	Cosine	SC	3825+49.11	1859765.459	6360660.504											
	Arc	SC	3825+49.11	1859765.459	6360660.504											
C134	Arc	PI	3880+36.23	1863906.901	6364260.087	22000	10754.82	28°00'33.7"			200	6.00	1.27			
	Arc	CC		1845333.340	6377265.140											
	Arc	CS	3933+03.92	1865872.838	6369382.942											
	Cosine	CS	3933+03.92	1865872.838	6369382.942										N 69°00'19" E	N 72°43'55.6" E
	Cosine	SPI	3941+55.29	1866177.869	6370177.795		2862	3°43'36.6"	1430.91	8.82						
	Cosine	ST	3961+65.92	1866774.911	6372098.469											
	Tangent	ST	3961+65.92	1866774.911	6372098.469									N 72°43'55.6" E		
	Tangent	TS	4047+25.00	1869315.585	6380271.771											
	Cosine	TS	4047+25.00	1869315.585	6380271.771										N 72°43'55.6" E	N 73°28'41.4" E
	Cosine	SPI	4056+03.31	1869576.302	6381110.493		1250	0°44'45.7"	625	0.77						
	Cosine	SC	4059+75.00	1869682.008	6381466.848											
	Arc	SC	4059+75.00	1869682.008	6381466.848											
C135	Arc	PI	4066+40.04	1869871.133	6382104.431	48000	1330	1°35'15.2"			250	3.50	1.71			
	Arc	CC		1823663.860	6395117.127											
	Arc	CS	4073+05.00	1870042.521	6382747.009											
	Cosine	CS	4073+05.00	1870042.521	6382747.009										N 75°03'56.6" E	N 75°48'42.4" E
	Cosine	SPI	4076+76.70	1870138.313	6383106.156		1250	0°44'45.7"	625	0.77						
	Cosine	ST	4085+55.00	1870353.594	6383957.674											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 202 OF 216

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

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 PACHECO PASS
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C134 AND C135

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0125
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Tangent	ST	4085+55.00	1870353.594	6383957.674									N 75°48'42.4" E		
	Tangent	TS	4098+14.81	1870662.385	6385179.059											
	Cosine	TS	4098+14.81	1870662.385	6385179.059										N 75°48'42.4" E	N 77°01'45.5" E
	Cosine	SPI	4110+09.33	1870955.170	6386337.137		1700	1°13'03.1"	849.99	1.71						
	Cosine	SC	4115+14.81	1871068.638	6386829.767											
	Arc	SC	4115+14.81	1871068.638	6386829.767											
C136	Arc	PI	4233+20.38	1873718.430	6398334.115	40000	22959.31	32°53'12.4"			250	4.00	2.25			
	Arc	CC		1832089.239	6395807.876											
	Arc	CS	4344+74.12	1869696.938	6409433.621											
	Cosine	CS	4344+74.12	1869696.938	6409433.621										S 70°05'02.1" E	S 68°51'58.9" E
	Cosine	SPI	4349+79.65	1869524.733	6409908.916		1700	1°13'03.1"	849.99	1.71						
	Cosine	ST	4361+74.12	1869094.057	6411023.091											
	Tangent	ST	4361+74.12	1869094.057	6411023.091									S 68°51'58.9" E		
	Tangent	POE	4432+13.18 =4410+00.00	1866556.165	6417588.715											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 203 OF 216

\$USER \$ DATE \$ \$TIME \$ \$PENTBL \$ \$PLTDRVS \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

**RECORD PEPD
SUBMITTAL**

MAY 3, 2019

**NOT FOR
CONSTRUCTION**

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 PACHECO PASS
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C136

CONTRACT NO. HSR15-34
DRAWING NO. TT-B0126
SCALE NONE
SHEET NO.

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	4426+12.16 = 4410+00.00	1866556.165	6417588.715									S 68°51'58.9" E		
	TANGENT	TS	4522+81.61	1862488.645	6428111.548											
	COSINE	TS	4522+81.61	1862488.645	6428111.548										S 68°51'58.9" E	S 69°52'35.0" E
	COSINE	SPI	4534+40.99	1862070.639	6429192.946		1650	1°00'36"	825	1.38						
	COSINE	SC	4539+31.61	1861901.831	6429653.647											
	ARC	SC	4539+31.61	1861901.831	6429653.647											
C137	ARC	PI	4615+71.14	1859273.478	6436826.800	46800	15145.47	18°32'32"			250	4.00	1.34			
	ARC	CC		1905844.811	6445755.027											
	ARC	CS	4690+77.08	1859062.638	6444463.416											
	COSINE	CS	4690+77.08	1859062.638	6446113.202										S 88°25'06.7" E	S 89°25'42.8" E
	COSINE	SPI	4695+67.73	1859049.097	6444953.884		1650	1°00'36"	825	1.38						
	COSINE	ST	4707+27.08	1859037.534	6446113.202											
	TANGENT	ST	4707+27.08	1859037.534	6446113.200									S 89°25'42.8" E		
	TANGENT	TS	4816+47.36	1858928.618	6457032.942											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 204 OF 216

\$USER \$ DATE \$ \$TIME \$ \$PENTBL \$ \$PLTDRVS \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 SAN JOAQUIN VALLEY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C137

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0127
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	COSINE	TS	4816+47.36	1858928.618	6457032.942										S 89°25'42.8" E	S 89°21'23.5" E
	COSINE	SPI	4822+65.69	1858922.451	6457651.237		880	0°04'19"	440	0.05						
	COSINE	SC	4825+27.36	1858919.513	6457912.895											
	ARC	SC	4825+27.36	1858919.513	6457912.895											
C138	ARC	PI	4831+20.89	1858912.847	6458506.388	350000	1187.06	0°11'40"			250	0.00	0.71			
	ARC	CC		1508941.586	6453982.139											
	ARC	CS	4837+14.42	1858904.168	6459099.854											
	COSINE	CS	4837+14.42	1858904.168	6459099.854										S 89°09'43.9" E	S 89°05'24.6" E
	COSINE	SPI	4839+76.09	1858900.342	6459361.500		880	0°04'19"	440	0.05						
	COSINE	ST	4845+94.42	1858890.524	6459979.748											
	TANGENT	ST	4845+94.42	1858890.524	6459979.748									S 89°05'24.6" E		
	TANGENT	TS	4977+06.47	1858682.317	6473090.146											
	COSINE	TS	4977+06.47	1858682.317	6473090.146										S 89°05'24.6" E	S 89°01'12.5" E
	COSINE	SPI	4983+24.80	1858672.498	6473708.394		880	0°04'12"	440	0.05						
	COSINE	SC	4985+86.47	1858668.023	6473970.030											
	ARC	SC	4985+86.47	1858668.023	6473970.030											
C139	ARC	PI	4990+27.67	1858660.478	6474411.165	360000	882.4	0°08'26"			250	0.00	0.69			
	ARC	CC		1498720.668	6467813.635											
	ARC	CS	4994+68.87	1858651.852	6474852.281											
	COSINE	CS	4994+68.87	1858651.852	6474852.281										S 88°52'46.9" E	S 88°48'34.8" E
	COSINE	SPI	4997+30.55	1858646.736	6475113.906		880	0°04'12"	440	0.05						
	COSINE	ST	5003+48.87	1858633.891	6475732.098											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 205 OF 216

\$USER \$ DATE \$ \$TIME \$ \$PENTBL \$ \$PLTDRV \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
 SUBMITTAL

 MAY 3, 2019

 NOT FOR
 CONSTRUCTION

HNTB

1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
 SAN JOSE TO MERCED
 SAN JOAQUIN VALLEY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C138 AND C139

CONTRACT NO. HSR15-34
DRAWING NO. TT-B0128
SCALE NONE
SHEET NO.

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	ST	5003+48.87	1858633.891	6475732.098									S 88°48'34.8" E		
	TANGENT	TS	5253+61.39	1858114.287	6500739.223											
	COSINE	TS	5253+61.39	1858114.287	6500739.223										S 88°48'34.8" E	S 89°02'41.9" E
	COSINE	SPI	5261+69.43	1858097.501	6501547.089		1150	0°14'07"	575	0.22						
	COSINE	SC	5265+11.39	1858091.801	6501889.002											
	ARC	SC	5265+11.39	1858091.801	6501889.002											
C140	ARC	PI	5271+05.93	1858081.892	6502483.461	140000	1189.07	0°29'12"			250	0.75	1.04			
	ARC	CC		1998072.354	6504222.431											
	ARC	CS	5277+00.47	1858077.032	6503077.982											
	COSINE	CS	5277+00.47	1858077.032	6503077.982										S 89°31'53.8" E	S 89°46'01.0" E
	COSINE	SPI	5280+42.43	1858074.236	6503419.932		1150	0°14'07"	575	0.22						
	COSINE	ST	5288+50.47	1858070.949	6504227.965											
	TANGENT	ST	5288+50.47	1858070.949	6504227.965									S 89°46'01.0" E		
	TANGENT	POE	5337+28.93	1858051.106	6509106.386											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 206 OF 216

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

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 SAN JOAQUIN VALLEY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C140

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0129
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B1 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	2159+87.24	1810024.197	6286625.928									N 78°23'03.1" E		
	TANGENT	TS	2176+93.64	1810367.778	6288297.384											
	COSINE	TS	2176+93.64	1810367.778	6288297.384										N 78°23'03.1" E	N 76°03'04.7" E
	COSINE	SPI	2194+50.38	1810721.493	6290018.137		2500	2°19'58.4"	1249.97	4.82						
	COSINE	SC	2201+93.64	1810900.718	6290739.721											
	ARC	SC	2201+93.64	1810900.718	6290739.721											
	ARC	PI	2222+48.39	1811396.022	6292733.882	30700	4103.38	7°39'29.5"			200	4.00	1.21			
	ARC	CC		1840695.435	6283339.395											
	ARC	CS	2242+97.02	1812152.655	6294644.250											
	COMPOUND COSINE	CS	2242+97.02	1812152.655	6294644.250										N 68°23'35.2" E	N 66°02'44.0" E
C230	COMPOUND COSINE	SPI	2249+08.29	1812377.747	6295212.566		1200	2°20'51.2"	52.76	0.11						
	COMPOUND COSINE	SC	2254+97.02	1812616.846	6295750.742											
	ARC	SC	2254+97.02	1812616.846	6295750.742											
	ARC	PI	2306+81.51	1814721.801	6300488.684	28000	10252.86	20°58'48.7"			200	4.00	1.71			
	ARC	CC		1838205.166	6284382.460											
	ARC	CS	2357+49.88	1818383.604	6304158.851											
	COSINE	CS	2357+49.88	1818383.604	6304158.851										N 45°03'55.3" E	N 42°30'27.0" E
	COSINE	SPI	2364+93.41	1818908.760	6304685.207		2500	2°33'28.3"	1249.96	5.29						
	COSINE	ST	2382+49.88	1820203.822	6305872.225											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 207 OF 216

\$FILE \$ \$PLTDRVS \$ \$PENTBLS \$ \$TIME \$ \$DATE \$ \$USER \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B1 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C230

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0130
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B1 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Tangent	POB	2387+88.85 = 3144+59.57	1820563.494	6306201.890									N 42°30'27.0" E		
	Tangent	TS	3155+25.93	1821349.600	6306922.413											
	Cosine	TS	3155+25.93	1821349.600	6306922.413										N 42°30'27.0" E	N 44°13'38.9" E
	Cosine	SPI	3166+50.20	1822178.400	6307682.069		1600	1°43'11.8"	799.99	2.27						
	Cosine	SC	3171+25.93	1822519.356	6308013.952											
	Arc	SC	3171+25.93	1822519.356	6308013.952											
C231	Arc	PI	3207+71.14	1825131.428	6310556.517	26650	7245.46	15°34'38.2"			200	3.50	2.50			
	Arc	CC		1803930.752	6327110.713											
	Arc	CS	3243+71.38	1826964.781	6313707.132											
	Cosine	CS	3243+71.38	1826964.781	6313707.132										N 59°48'17.0" E	N 61°31'28.8" E
	Cosine	SPI	3248+47.19	1827204.090	6314118.384		1600	1°43'11.8"	799.99	2.27						
	Cosine	ST	3259+71.38	1827740.121	6315106.644											
	Tangent	ST	3259+71.38	1827740.121	6315106.644									N 61°31'28.8" E		
	Tangent	TS	3288+23.11	1829099.770	6317613.380											
	Cosine	TS	3288+23.11	1829099.770	6317613.380										N 61°31'28.8" E	N 61°45'32.6" E
	Cosine	SPI	3294+55.49	1829401.275	6318169.256		900	0°14'03.8"	450	0.17						
	Cosine	SC	3297+23.11	1829527.909	6318405.021											
	Arc	SC	3297+23.11	1829527.909	6318405.021											
C231A	Arc	PI	3301+36.26	1829723.404	6318768.994	110000	826.3	0°25'49.4"			200	0.00	1.45			
	Arc	CC		1732621.688	6370454.847											
	Arc	CS	3305+49.41	1829916.160	6319134.425											
	Cosine	CS	3305+49.41	1829916.160	6319134.425										N 62°11'22.1" E	N 62°25'25.9" E
	Cosine	SPI	3308+17.03	1830041.019	6319371.135		900	0°14'03.8"	450	0.17						
	Cosine	ST	3314+49.41	1830333.764	6319931.674											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 208 OF 216

\$FILE\$ \$PLTDRVS\$ \$PENTBLS\$ \$TIME\$ \$DATE\$ \$USER\$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MORGAN HILL AND GILROY
 TRACK GUIDEWAY
 B1 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C231 AND C231A

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0131
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B1 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Tangent	ST	3314+49.41	1830333.764	6319931.674									N 62°25'25.9" E		
	Tangent	TS	3473+59.21	1837698.838	6334034.058											
	Cosine	TS	3473+59.21	1837698.838	6334034.058										N 62°25'25.9" E	N 62°09'43.3" E
	Cosine	SPI	3482+02.38	1838089.165	6334781.443		1200	0°15'42.6"	600	0.26						
	Cosine	SC	3485+59.21	1838255.794	6335096.977											
	Arc	SC	3485+59.21	1838255.794	6335096.977											
C232	Arc	PI	3494+17.58	1838656.629	6335856.009	131300	1716.71	0°44'56.9"			200	0.00	1.22			
	Arc	CC		1954360.672	6273783.460											
	Arc	CS	3502+75.92	1839067.354	6336609.735											
	Cosine	CS	3502+75.92	1839067.354	6336609.735										N 61°24'46.5" E	N 61°09'03.9" E
	Cosine	SPI	3506+32.75	1839238.094	6336923.063		1200	0°15'42.6"	600	0.26						
	Cosine	ST	3514+75.92	1839644.926	6337661.593											
	Tangent	ST	3514+75.92	1839644.926	6337661.593									N 61°09'03.9" E		
	Tangent	TS	3599+57.59	1843737.348	6345090.649											
	Cosine	TS	3599+57.59	1843737.348	6345090.649										N 61°09'03.9" E	N 58°48'22.2" E
	Cosine	SPI	3613+62.98	1844415.449	6346321.620		2000	2°20'41.7"	999.98	3.88						
	Cosine	SC	3619+57.59	1844723.521	6346830.431											
	Arc	SC	3619+57.59	1844723.521	6346830.431											
C233	Arc	PI	3660+88.57	1846863.100	6350364.152	24434	8184.56	19°11'31.7"			200	5.50	1.05			
	Arc	CC		1865624.853	6334175.206											
	Arc	CS	3701+42.15	1850045.429	6352998.115											
	Cosine	CS	3701+42.15	1850045.429	6352998.115										N 39°36'50.5" E	N 37°16'08.8" E
	Cosine	SPI	3707+36.96	1850503.643	6353377.372		2000	2°20'41.7"	999.98	3.88						
	Cosine	ST	3721+42.15	1851622.050	6354228.417											
	Tangent	ST	3721+42.15	1851622.050	6354228.417									N 37°16'08.8" E		
	Tangent	TS	3796+77.89	1857618.997	6358791.757											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 209 OF 216

\$FILE \$ \$PLTDRVS\$ \$PENTBLS\$ \$TIME\$ \$DATE\$ \$USER\$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 PACHECO PASS
 TRACK GUIDEWAY
 B1 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C232 AND C233

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0132
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B1 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Cosine	TS	3796+77.89	1857618.997	6358791.757										N 37°16'08.8" E	N 40°59'05.2" E
	Cosine	SPI	3816+89.22	1859219.613	6360009.736		2862	3°42'56.5"	1430.91	8.79						
	Cosine	SC	3825+39.89	1859862.298	6360568.114											
	Arc	SC	3825+39.89	1859862.298	6360568.114											
C234	Arc	PI	3880+48.04	1864020.309	6364180.680	22066	10795.67	28°01'54.0"			200	6.00	1.25			
	Arc	CC		1845390.124	6377225.380											
	Arc	CS	3933+35.56	1865992.777	6369323.544											
	Cosine	CS	3933+35.56	1865992.777	6369323.544										N 69°00'59.2" E	N 72°43'55.6" E
	Cosine	SPI	3941+86.93	1866297.653	6370118.454		2862	3°42'56.5"	1430.91	8.79						
	Cosine	ST	3961+97.56	1866894.695	6372039.126											
	Tangent	ST	3961+97.56	1866894.695	6372039.126								N 72°43'55.6" E			
	Tangent	TS	4025+52.66	1868781.141	6378107.789											
	Cosine	TS	4025+52.66	1868781.141	6378107.789										N 72°43'55.6" E	N 73°28'37.1" E
	Cosine	SPI	4034+66.10	1869052.287	6378980.060		1300	0°44'41.4"	650	0.8						
	Cosine	SC	4038+52.66	1869162.228	6379350.668											
	Arc	SC	4038+52.66	1869162.228	6379350.668											
C235	Arc	PI	4045+46.46	1869359.543	6380015.811	50000	1387.5	1°35'23.8"			250	3.50	1.50			
	Arc	CC		1821226.954	6393570.706											
	Arc	CS	4052+40.16	1869538.327	6380686.173											
	Cosine	CS	4052+40.16	1869538.327	6380686.173										N 75°04'00.9" E	N 75°48'42.4" E
	Cosine	SPI	4056+26.73	1869637.943	6381059.689		1300	0°44'41.4"	650	0.8						
	Cosine	ST	4065+40.16	1869861.835	6381945.267											
	Tangent	ST	4065+40.16	1869861.835	6381945.267								N 75°48'42.4" E			
	Tangent	TS	4098+71.53	1870678.382	6385175.015											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 210 OF 216

\$FILE\$ \$PLTDRVS\$ \$PENTBLS\$ \$TIME\$ \$DATE\$ \$USER\$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 PACHECO PASS
 TRACK GUIDEWAY
 B1 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C234 AND C235

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0133
SCALE	NONE
SHEET NO.	

CURVE	ELEMENT	POINT TYPE	B1 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	Cosine	TS	4098+71.53	1870678.382	6385175.015										N 75°48'42.4" E	N 77°01'43.7" E
	Cosine	SPI	4110+66.04	1870971.167	6386333.093		1700	1°13'01.3"	849.99	1.71						
	Cosine	SC	4115+71.53	1871084.639	6386825.722											
	Arc	SC	4115+71.53	1871084.639	6386825.722											
C236	Arc	PI	4233+82.35	1873735.710	6398335.164	40016.5	22969.48	32°53'16.1"			250	4.00	2.25			
	Arc	CC		1832089.239	6395807.876											
	Arc	CS	4345+41.01	1869712.333	6409439.572											
	Cosine	CS	4345+41.01	1869712.333	6409439.572										S 70°05'00.3" E	S 68°51'58.9" E
	Cosine	SPI	4350+46.54	1869540.123	6409914.865		1700	1°13'01.3"	849.99	1.71						
	Cosine	ST	4362+41.01	1869109.447	6411029.040											
	Tangent	ST	4362+41.01	1869109.447	6411029.040									S 68°51'58.9" E		
	Tangent	POE	4432+80.06= 4410+00.00	1866571.556	6417594.664											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 211 OF 216

\$USER \$ DATE \$ \$TIME \$ \$PENTBL \$ \$PLTDRVS \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
 SUBMITTAL

 MAY 3, 2019

 NOT FOR
 CONSTRUCTION

HNTB

1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
 SAN JOSE TO MERCED
 PACHECO PASS
 TRACK GUIDEWAY
 B1 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C236

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0134
SCALE	NONE
SHEET NO.	

c:\voaddd1b\pw\icar-son\46037_cahsr\dms18492\JM-TT-B0301.dgn
 cvd_pdf_bw.pltcfgr
 CAHSRP.tbl
 4/29/2019 3:33:10 PM

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	1337+44.13 =											S 24°30'40.0" E		
	TANGENT	TS	1409+75.10	1854008.683	6238587.604											
	TANGENT	TS	1433+10.06	1851884.147	6239556.308											
	COSINE	TS	1433+10.06	1851884.147	6239556.308										S 24°30'40" E	S 28°01'04.8" E
	COSINE	SPI	1445+57.45	1850749.169	6240073.813		1775	3°30'25"	887.45	5.1						
	COSINE	SC	1450+85.06	1850283.056	6240321.837											
	ARC	SC	1450+85.06	1850283.056	6240321.837											
C501	ARC	PI	1469+33.91	1848650.891	6241190.333	14500	3677.86	14°31'58"			180	6	2.94			
	ARC	CC		1857094.416	6253122.438											
	ARC	CS	1487+62.91	1847288.883	6242440.607											
	COSINE	CS	1487+62.91	1847288.883	6242440.607										S 42°33'02.9" E	S 46°03'27.7" E
	COSINE	SPI	1492+90.90	1846899.922	6242797.659		1775	3°30'25"	887.45	5.1						
	COSINE	ST	1505+37.91	1846034.314	6243695.830											
	TANGENT	ST	1505+37.91	1846034.314	6243695.830									S 46°03'27.7" E		
	TANGENT	TS	1523+08.51	1844805.635	6244970.732											
	COSINE	TS	1523+08.51	1844805.635	6244970.732										S 46°03'27.7" E	S 43°08'53.3" E
	COSINE	SPI	1534+50.43	1844013.218	6245792.959		1625	2°54'34"	812.47	3.9						
	COSINE	SC	1539+33.51	1843660.592	6246123.497											
	ARC	SC	1539+33.51	1843660.592	6246123.497											
C502	ARC	PI	1545+50.47	1843210.462	6246545.431	16000	1233.32	4°24'59"			185	5.75	2.81			
	ARC	CC		1832718.398	6234450.092											
	ARC	CS	1551+66.82	1842729.177	6246931.450											
	COSINE	CS	1551+66.82	1842729.177	6246931.450										S 38°43'54.0" E	S 35°49'19.6" E
	COSINE	SPI	1556+50.14	1842352.145	6247233.851		1625	2°54'34"	812.47	3.9						
	COSINE	ST	1567+91.82	1841426.232	6247902.184											

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 212 OF 216

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

RECORD PEPP
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
 9th Floor
 Oakland, CA 94607

CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 EAST GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C501 AND C502

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0301
SCALE	NONE
SHEET NO.	

4/29/2019 3:33:18 PM CAHSRP.tbl cvd_pdf_bw.plt c:\cadd\lib\pwc\carson\46037_cahsr\dms18492\JM-TT-B0302.dgn

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	ST	1567+91.82	1841426.232	6247902.184									S 35°49'19.6" E		
	TANGENT	TS	1687+74.67	1831710.083	6254915.391											
	COSINE	TS	1687+74.67	1831710.083	6254915.391										S 35°49'19.6" E	S 37°21'21.3" E
	COSINE	SPI	1698+28.67	1830855.463	6255532.264		1500	1°32'02"	749.99	1.9						
	COSINE	SC	1702+74.67	1830500.893	6255802.921											
	ARC	SC	1702+74.67	1830500.893	6255802.921											
C503	ARC	PI	1724+88.49	1828741.166	6257146.189	28016.5	4418.46	9°02'10"			220	5	1.91			
	ARC	CC		1847500.305	6278072.727											
	ARC	CS	1746+93.13	1827214.248	6258749.162											
	COSINE	CS	1746+93.13	1827214.248	6258749.162										S 46°23'31.1" E	S 47°55'32.8" E
	COSINE	SPI	1751+39.20	1826906.586	6259072.148		1500	1°32'02"	749.99	1.9						
	COSINE	ST	1761+93.13	1826200.311	6259854.506											
	TANGENT	ST	1761+93.13	1826200.311	6259854.506									S 47°55'32.8" E		
	TANGENT		1880+08.48													
	TANGENT	POE	= 1890+30.82	1818282.934	6268624.773											

**SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 213 OF 216**

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

**RECORD PEPD
 SUBMITTAL**

MAY 3, 2019

**NOT FOR
 CONSTRUCTION**

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA

High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 EAST GILROY
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C503

CONTRACT NO. HSR15-34
DRAWING NO. TT-B0302
SCALE NONE
SHEET NO.

4/29/2019 3:33:26 PM CAHSRP.tbl cvd_pdf_bw.plt c:\cadd\lib\pwc\carson\46037_cahsr\dms18492\JM-TT-B0303.dgn

CURVE	ELEMENT	POINT TYPE	B2 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT		1880+08.48 =													
		POB	1890+30.82	1818282.934	6268624.773									S 47°55'32.8" E		
	TANGENT	TS	1897+72.54	1817785.914	6269175.334											
	COSINE	TS	1897+72.54	1817785.914	6269175.334										S 47°55'32.8" E	S 50°29'28.8" E
	COSINE	SPI	1913+18.48	1816749.986	6270322.855		2200	2°33'56.0"	1099.97	4.66						
	COSINE	SC	1919+72.54	1816333.718	6270827.673											
	ARC	SC	1919+72.54	1816333.718	6270827.673											
C504	ARC	PI	2142+61.54	1802153.573	6288024.269	24566	36202.38	84°26'08.1"			220	5.00	2.88			
	ARC	CC		1835287.086	6286456.436											
	ARC	CS	2281+74.92	1817894.164	6303805.055											
	COSINE	CS	2281+74.92	1817894.164	6303805.055										N 45°04'23.0" E	N 42°30'27.0" E
	COSINE	SPI	2288+29.22	1818356.240	6304268.311		2200	2°33'56.0"	1099.97	4.66						
	COSINE	ST	2303+74.92	1819495.894	6305312.887											
	TANGENT	ST	2303+74.92	1819495.894	6305312.887									N 42°30'27.0" E		
	TANGENT	POE	2317+62.62	1820518.898	6306250.545											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 214 OF 216


REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

**RECORD PEPP
 SUBMITTAL**

MAY 3, 2019

**NOT FOR
 CONSTRUCTION**


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 GILROY TO PACHECO
 TRACK GUIDEWAY
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C504

CONTRACT NO.	HSR15-34
DRAWING NO.	TT-B0303
SCALE	NONE
SHEET NO.	

4/29/2019 3:33:32 PM CAHSR.tbl cvd_pdf_bw.plt c:\voad\lib\pww\icars\son\46037_cahsr\dms18492\JM-TT-B0304.dgn

CURVE	ELEMENT	POINT TYPE	B1 TRACK STATION	COORDINATES		RADIUS (FT)	LENGTH (FT)	DELTA, Δ	K	P	DESIGN SPEED (MPH)	ACTUAL SUPERELEVATION (EA) (IN)	UNBALANCED SUPERELEVATION (EU) (IN)	BEARING (0°00'00") (TANGENT)	WCB (0°00'00")	
				NORTHING	EASTING										START ANGLE	END ANGLE
	TANGENT	POB	1880+07.82 = 1890+30.82	1818295.181	6268635.830									S 47°55'32.8" E		
	TANGENT	TS	1896+85.67	1817856.371	6269121.911											
	COSINE	TS	1896+85.67	1817856.371	6269121.911										S 47°55'32.8" E	S 50°29'17.9" E
	COSINE	SPI	1912+31.62	1816820.443	6270269.432		2200	2°33'45.1"	1099.97	4.66						
	COSINE	SC	1918+85.67	1816404.149	6270774.228											
	ARC	SC	1918+85.67	1816404.149	6270774.228											
	ARC	PI	2067+30.54	1806959.313	6282226.970	24595	26712.24	62°13'41.1"			220	5.00	2.87			
	ARC	CC		1835379.065	6286422.442											
	ARC	CS	2185+97.91	1812691.956	6295920.290											
	COMPOUND CURVE	CS	2185+97.91	1812691.956	6295920.290										N 67°17'01.0" E	N 64°28'57.7" E
C604	COMPOUND CURVE	SPI	2191+98.50	1812923.886	6296474.291		1200	2°48'03.3"	2.32	0.01						
	COMPOUND CURVE	SC	2197+97.91	1813182.205	6297015.448											
	ARC	SC	2197+97.91	1813182.205	6297015.448											
	ARC	PI	2239+86.37	1814986.525	6300795.348	24500	8296.71	19°24'09.8"			220	5.00	2.90			
	ARC	CC		1835292.360	6286461.252											
	ARC	CS	2280+94.62	1817944.079	6303761.170											
	COSINE	CS	2280+94.62	1817944.079	6303761.170										N 45°04'47.9" E	N 42°30'27.0" E
	COSINE	SPI	2287+48.93	1818406.099	6304224.482		2200	2°34'20.9"	1099.97	4.68						
	COSINE	ST	2302+94.62	1819545.755	6305269.059											
	TANGENT	ST	2302+94.62	1819545.755	6305269.059									N 42°30'27.0" E		
	TANGENT	POE	2316+75.19	1820563.494	6306201.890											

SAN JOSE TO CVY EIR/S: VOLUME III
 ALTERNATIVE 3
 BOOK 3F
 SHEET 215 OF 216

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD SUBMITTAL

MAY 3, 2019

NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 GILROY TO PACHECO
 TRACK GUIDEWAY
 B1 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C604

CONTRACT NO. HSR15-34
DRAWING NO. TT-B0304
SCALE NONE
SHEET NO.

CURVE DATA "MT1"				
NO.	R	Δ	L	T
1	1500	2°40'31.66"	70.043	35.028
2	7492	1°28'49.82"	193.591	96.801
3	4992	0°46'50.72"	68.025	34.013
4	2000	2°59'05.04"	104.187	52.105
5	1500	2°14'07.07"	58.52	29.264
6	10927.785	9°28'51.14"	1808.247	906.192
7	15141.05	4°33'14.77"	1203.473	602.053
8	286586.687	0°08'58.21"	747.796	373.898
9	27359.087	0°28'18.34"	225.269	112.635
10	15991.75	3°32'12.08"	987.121	493.717
11	31958.682	0°23'52.99"	222.028	111.014
12	48356.342	1°00'04.13"	844.946	422.484
13	12073.291	1°27'55.75"	308.805	154.411
14	6008.25	12°35'38.91"	1320.669	663.006
15	12491.93	1°25'02.58"	309.025	154.52
16	62043.721	0°06'56.66"	125.331	62.665
17	31008.25	0°50'40.18"	457.038	228.523
18	62037.731	0°06'56.70"	125.331	62.665
19	90962.02	0°05'45.41"	152.326	76.163
20	45008.25	1°36'47.75"	1267.288	633.686
21	90036.298	0°05'48.95"	152.318	76.159
22	130046.935	0°04'31.28"	171.036	85.518
23	65008.25	0°38'06.33"	720.582	360.294
24	155094.437	0°03'50.50"	173.317	86.658
25	339976.234	0°02'12.03"	217.622	108.811
26	169991.75	0°16'46.41"	829.425	414.713
27	339943.293	0°02'12.04"	217.622	108.811
28	10000	0°25'12.98"	73.351	36.676

SAN JOSE TO CVY EIR/S: VOLUME III
ALTERNATIVE 3
BOOK 3F
SHEET 216 OF 216

\$USER \$ \$DATE \$ \$TIME \$ \$PENTBL \$ \$PLTDRVS \$ \$FILE \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

RECORD PEPD
SUBMITTAL

MAY 3, 2019

NOT FOR
CONSTRUCTION

HNTB

1111 Broadway
9th Floor
Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 MONTEREY CORRIDOR
 VIADUCT
 ALIGNMENT DATA TABLE

CONTRACT NO.	HSR15-34
DRAWING NO.	CV-B0101
SCALE	AS SHOWN
SHEET NO.	