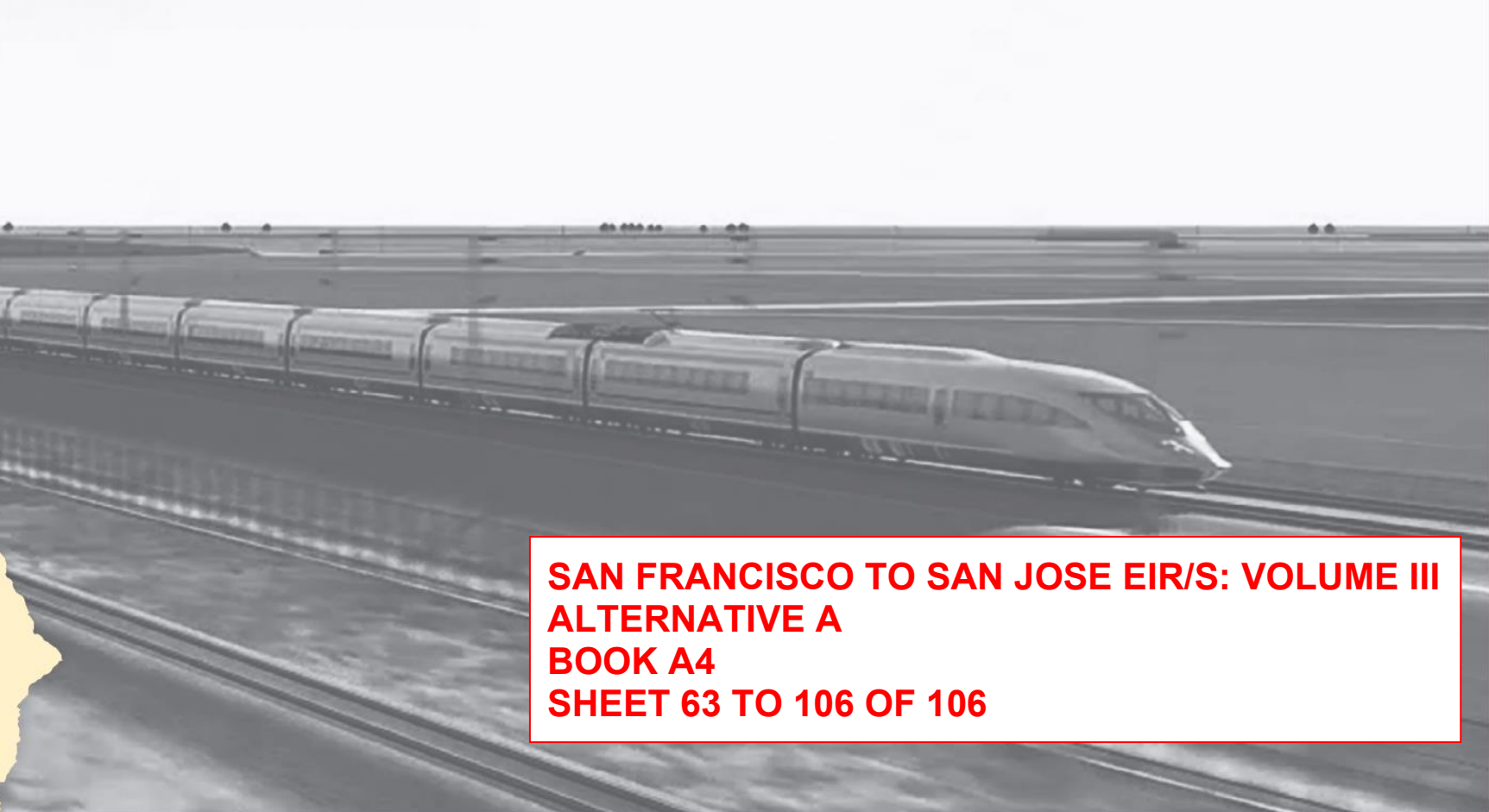
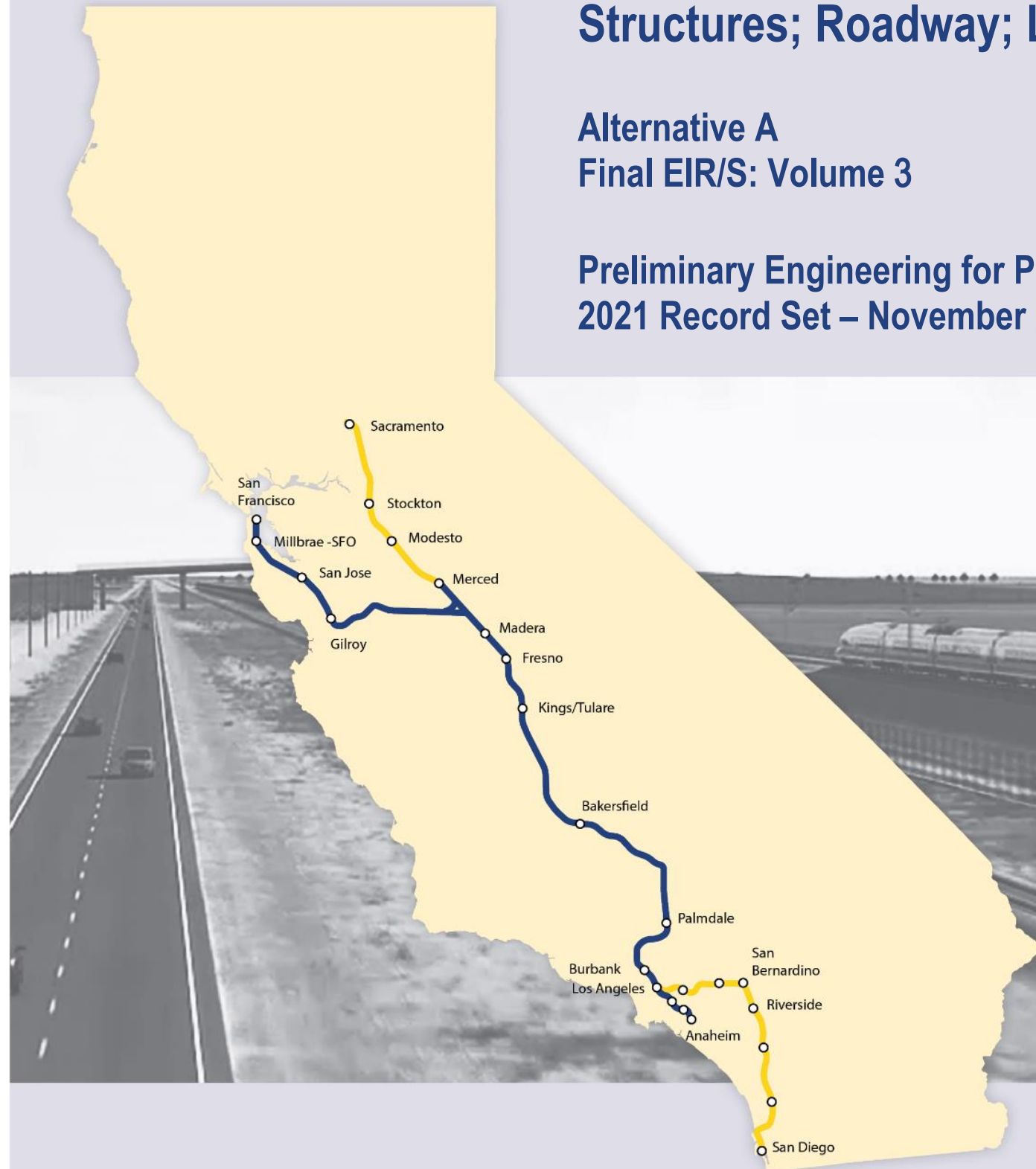


San Francisco to San Jose Project Section

Structures; Roadway; Light Maintenance Facility; Alignment Data Table

Alternative A
Final EIR/S: Volume 3

Preliminary Engineering for Project Definition
2021 Record Set – November 2021



**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 63 TO 106 OF 106**

ALTERNATIVE A - SAN FRANCISCO TO SAN JOSE

| BOOK | SHEET NO | DRAWING NO | SUBSECTION | GEOGRAPHIC LOCATION OR FEATURE | ALIGNMENT OR FEATURE | SHEET DESCRIPTION | ADDITIONAL DESCRIPTION |
|---|----------|------------|---|---|--|--|---------------------------------------|
| COVER, INDEX OF DRAWING AND KEY MAPS | | | | | | | |
| BOOK A4 | A | COVER | | 4TH & KING TO W. ALMA | ALTERNATIVE A | ALTERNATIVE A | |
| BOOK A4 | B | GE-A1104 | SAN FRANCISCO TO SOUTH SAN FRANCISCO, SAN JOSE DIRIDON STATION APPROACH | COMPLEX STRUCTURES, GRADE SEPARATED AND MAINTENANCE | INDEX OF DRAWINGS | SHEET 4 OF 5 | |
| BOOK A4 | C | GE-A1105 | ENTIRE ALTERNATIVE | ALIGNMENT DATA TABLE | INDEX OF DRAWINGS | SHEET 5 OF 5 | |
| BOOK A4 | D | GE-D1101 | GENERAL | ENTIRE ALTERNATIVE | KEY MAP | COMPOSITE PLAN | SHEET 1 OF 3 |
| BOOK A4 | E | GE-D1102 | GENERAL | ENTIRE ALTERNATIVE | KEY MAP | COMPOSITE PLAN | SHEET 2 OF 3 |
| BOOK A4 | F | GE-D1103 | GENERAL | ENTIRE ALTERNATIVE | KEY MAP | COMPOSITE PLAN | SHEET 3 OF 3 |
| BOOK A4 | G | GE-D1104 | GENERAL | ENTIRE ALTERNATIVE | KEY MAP | SYSTEM SITES | |
| STRUCTURES | | | | | | | |
| BOOK A4 | 63 | ST-T0101 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | | OVERPASSES AND UNDERPASSES | TUNNEL AVE AND HILLCREST BLVD BRIDGES |
| BOOK A4 | 64 | ST-T4001 | SAN JOSE DIRIDON STATION APPROACH | N/A | | UNDERPASSES | GENERAL PLAN 1 OF 4 |
| BOOK A4 | 65 | ST-T4002 | SAN JOSE DIRIDON STATION APPROACH | N/A | | UNDERPASSES | GENERAL PLAN 2 OF 4 |
| BOOK A4 | 66 | ST-T4003 | SAN JOSE DIRIDON STATION APPROACH | N/A | | UNDERPASSES | GENERAL PLAN 3 OF 4 |
| BOOK A4 | 67 | ST-V0101 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | COMPLEX STRUCTURES | LMF LEAD TRACK PERGOLA | GENERAL PLAN |
| ROADWAY | | | | | | | |
| BOOK A4 | 68 | CV-T0101 | ALTERNATIVE A | N/A | GRADE SEPARATED ROADWAY | PLAN, PROFILE AND TYPICAL SECTIONS | TUNNEL AVENUE |
| LIGHT MAINTENANCE FACILITY | | | | | | | |
| BOOK A4 | 69 | MY-C0101 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | BRISBANE LIGHT MAINTENANCE FACILITY EAST | COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | |
| BOOK A4 | 70 | MY-C0102 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | BRISBANE LIGHT MAINTENANCE FACILITY EAST | COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | |
| BOOK A4 | 71 | MY-C0103 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | BRISBANE LIGHT MAINTENANCE FACILITY EAST | COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | |
| BOOK A4 | 72 | MY-C0104 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | BRISBANE LIGHT MAINTENANCE FACILITY EAST | COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | |
| BOOK A4 | 73 | MY-C0105 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | BRISBANE LIGHT MAINTENANCE FACILITY EAST | COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | |
| BOOK A4 | 74 | MY-C0106 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | BRISBANE LIGHT MAINTENANCE FACILITY EAST | COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | |
| BOOK A4 | 75 | MY-C0107 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | BRISBANE LIGHT MAINTENANCE FACILITY EAST | COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | |
| BOOK A4 | 76 | MY-C0108 | SAN FRANCISCO TO SOUTH SAN FRANCISCO | N/A | BRISBANE LIGHT MAINTENANCE FACILITY EAST | COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | |

**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET B**

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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE**
ALTERNATIVE A
INDEX OF DRAWINGS
SHEET 4 OF 5

| | |
|--------------|----------|
| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | GE-A1104 |
| SCALE | NONE |
| SHEET NO. | |

ALTERNATIVE A - SAN FRANCISCO TO SAN JOSE

| BOOK | SHEET NO | DRAWING NO | SUBSECTION | GEOGRAPHIC LOCATION OR FEATURE | ALIGNMENT OR FEATURE | SHEET DESCRIPTION | ADDITIONAL DESCRIPTION |
|---|----------|------------|---------------|--------------------------------|--------------------------------|---|------------------------|
| TRACK GUIDEWAY HORIZONTAL ALIGNMENT DATA TABLE | | | | | | | |
| BOOK A4 | 77 | TT-B0001 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C103 TO C106 | |
| BOOK A4 | 78 | TT-B0002 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C107 TO C109 | |
| BOOK A4 | 79 | TT-B0003 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C110 TO C112 | |
| BOOK A4 | 80 | TT-B0004 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C113 TO C117 | |
| BOOK A4 | 81 | TT-B0005 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C118 TO C120 | |
| BOOK A4 | 82 | TT-B0006 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C121 TO C124 | |
| BOOK A4 | 83 | TT-B0007 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C125 TO C128 | |
| BOOK A4 | 84 | TT-B0008 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C129 TO C131 | |
| BOOK A4 | 85 | TT-B0009 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C132 | |
| BOOK A4 | 86 | TT-B0010 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C133 TO C137 | |
| BOOK A4 | 87 | TT-B0011 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C138 TO C141 | |
| BOOK A4 | 88 | TT-B0012 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C142 TO C145 | |
| BOOK A4 | 89 | TT-B0013 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C146 TO C149 | |
| BOOK A4 | 90 | TT-B0014 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C150 TO C153 | |
| BOOK A4 | 91 | TT-B0015 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C154 TO C156 | |
| BOOK A4 | 92 | TT-B0016 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C157 TO C160 | |
| BOOK A4 | 93 | TT-B0017 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C161 TO C163 | |
| BOOK A4 | 94 | TT-B0018 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C164 TO C167 | |
| BOOK A4 | 95 | TT-B0019 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C168 TO C171 | |
| BOOK A4 | 96 | TT-B0020 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C173 TO C175 | |
| BOOK A4 | 97 | TT-B0021 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C176 TO C179 | |
| BOOK A4 | 98 | TT-B0022 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C180 TO C183 | |
| BOOK A4 | 99 | TT-B0023 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C184 TO C187 | |
| BOOK A4 | 100 | TT-B0024 | ALTERNATIVE A | N/A | B2 TRACK ALIGNMENT DATA TABLE | CURVE NO. C188 | |
| BOOK A4 | 101 | TT-B4001 | ALTERNATIVE 4 | N/A | MT3 TRACK ALIGNMENT DATA TABLE | CURVE NO. C401 TO C404 | |
| BOOK A4 | 102 | TT-B4002 | ALTERNATIVE 4 | N/A | MT3 TRACK ALIGNMENT DATA TABLE | CURVE NO. C405 TO C408 | |
| BOOK A4 | 103 | TT-B4002A | ALTERNATIVE 4 | N/A | MT3 TRACK ALIGNMENT DATA TABLE | CURVE NO. C405 TO C408 - DIRIDON DESIGN VARIANT | |
| BOOK A4 | 104 | TT-B4003 | ALTERNATIVE 4 | N/A | MT3 TRACK ALIGNMENT DATA TABLE | CURVE NO. C409 TO C414 | |
| BOOK A4 | 105 | TT-B4003A | ALTERNATIVE 4 | N/A | MT3 TRACK ALIGNMENT DATA TABLE | CURVE NO. C409 TO C414 - DIRIDON DESIGN VARIANT | |
| BOOK A4 | 106 | TT-B4004 | ALTERNATIVE 4 | N/A | MT3 TRACK ALIGNMENT DATA TABLE | CURVE NO. C415 TO C418 | |

**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET C**

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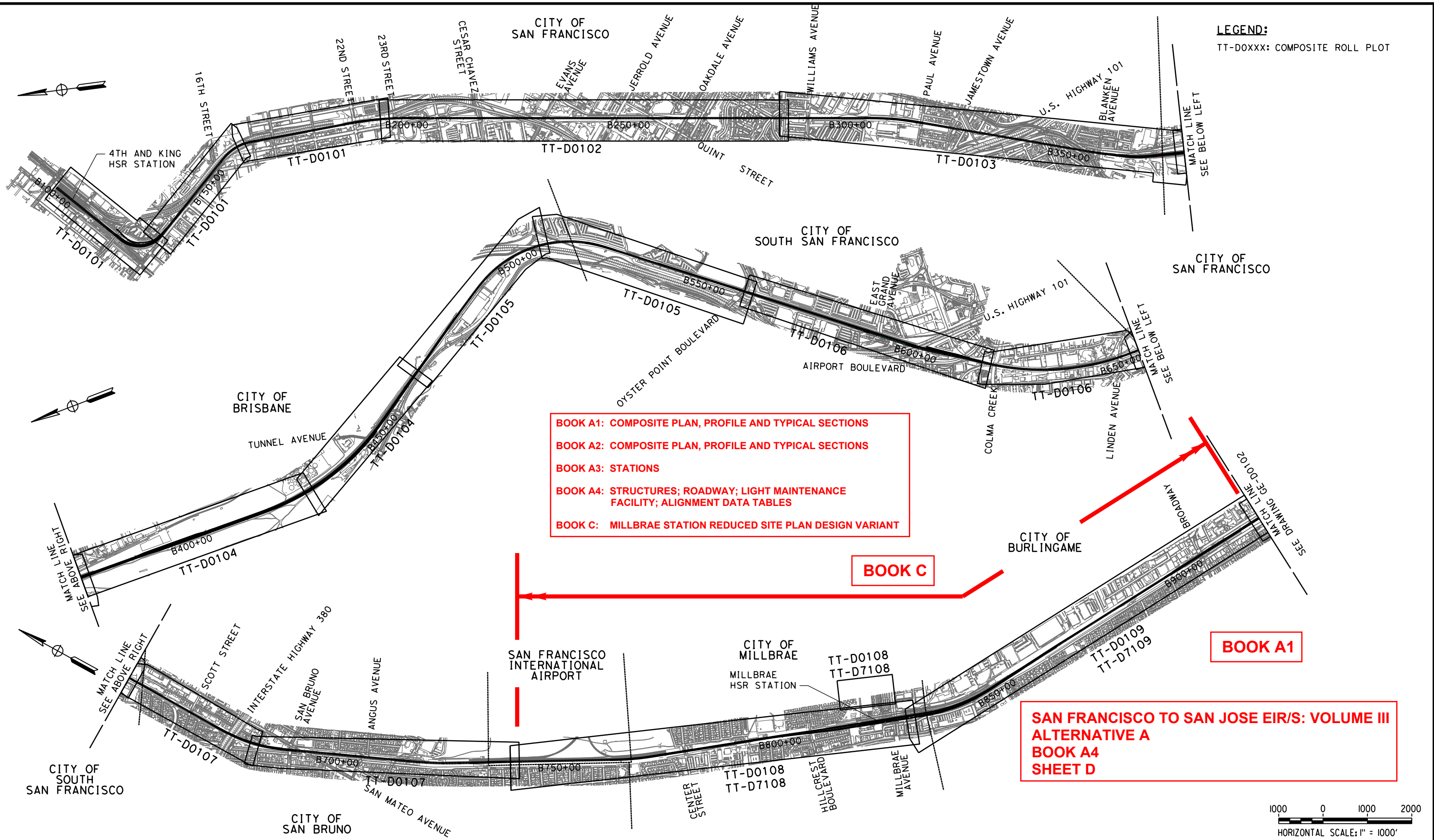


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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE**
ALTERNATIVE A
INDEX OF DRAWINGS
SHEET 5 OF 5

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | GE-A1105 |
| SCALE | NONE |
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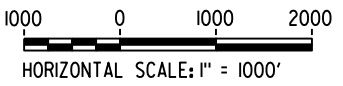
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TT-DOXXX: COMPOSITE ROLL PLOT

BOOK A1: COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS
BOOK A2: COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS
BOOK A3: STATIONS
BOOK A4: STRUCTURES; ROADWAY; LIGHT MAINTENANCE FACILITY; ALIGNMENT DATA TABLES
BOOK C: MILLBRAE STATION REDUCED SITE PLAN DESIGN VARIANT

BOOK C

BOOK A1

**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
 ALTERNATIVE A
 BOOK A4
 SHEET D**



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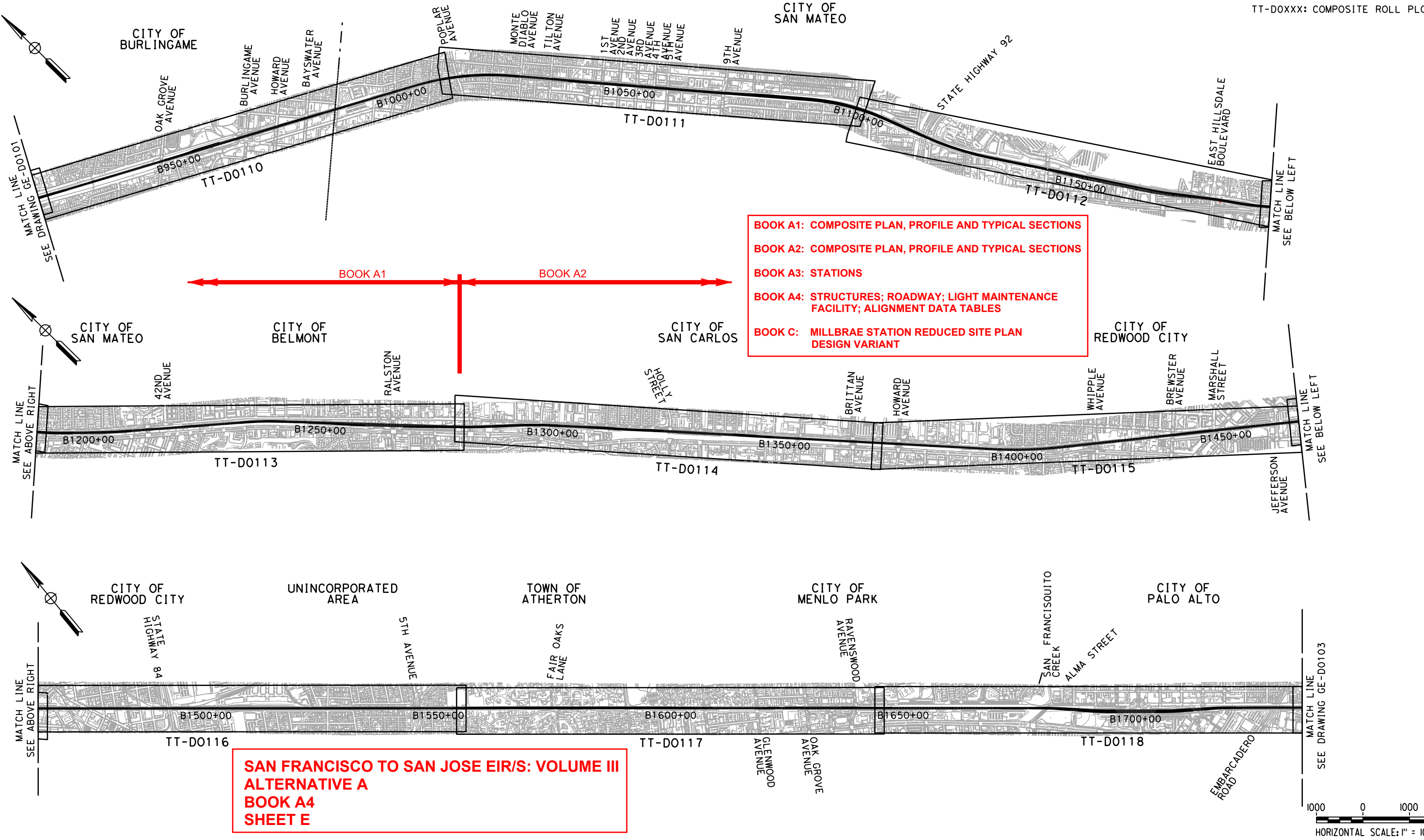
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 KEY MAP
 COMPOSITE PLAN
 SHEET 1 OF 3

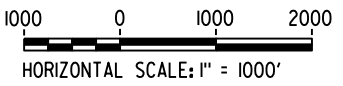
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| DRAWING NO. | GE-D1101 |
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LEGEND:
TT-D0XXX: COMPOSITE ROLL PLOT



BOOK A1: COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS
BOOK A2: COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS
BOOK A3: STATIONS
BOOK A4: STRUCTURES; ROADWAY; LIGHT MAINTENANCE FACILITY; ALIGNMENT DATA TABLES
BOOK C: MILLBRAE STATION REDUCED SITE PLAN DESIGN VARIANT

**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
 ALTERNATIVE A
 BOOK A4
 SHEET E**



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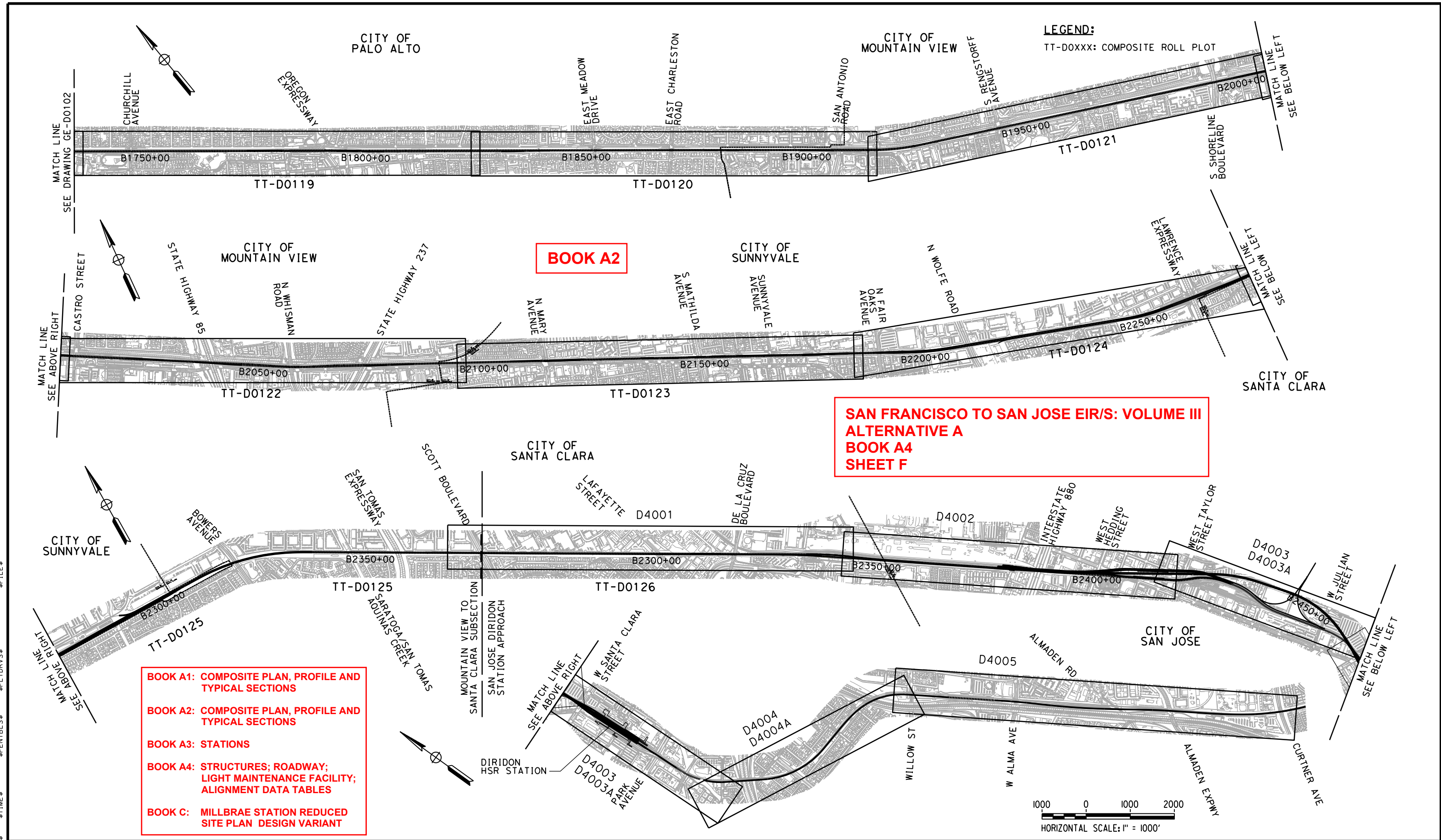
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 KEY MAP
 COMPOSITE PLAN
 SHEET 2 OF 3

CONTRACT NO.
HSR15-34
 DRAWING NO.
GE-D1102
 SCALE
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 SHEET NO.

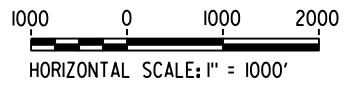


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TT-DOXXX: COMPOSITE ROLL PLOT

BOOK A2

**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET F**

- BOOK A1: COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS**
- BOOK A2: COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS**
- BOOK A3: STATIONS**
- BOOK A4: STRUCTURES; ROADWAY; LIGHT MAINTENANCE FACILITY; ALIGNMENT DATA TABLES**
- BOOK C: MILLBRAE STATION REDUCED SITE PLAN DESIGN VARIANT**



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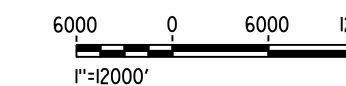
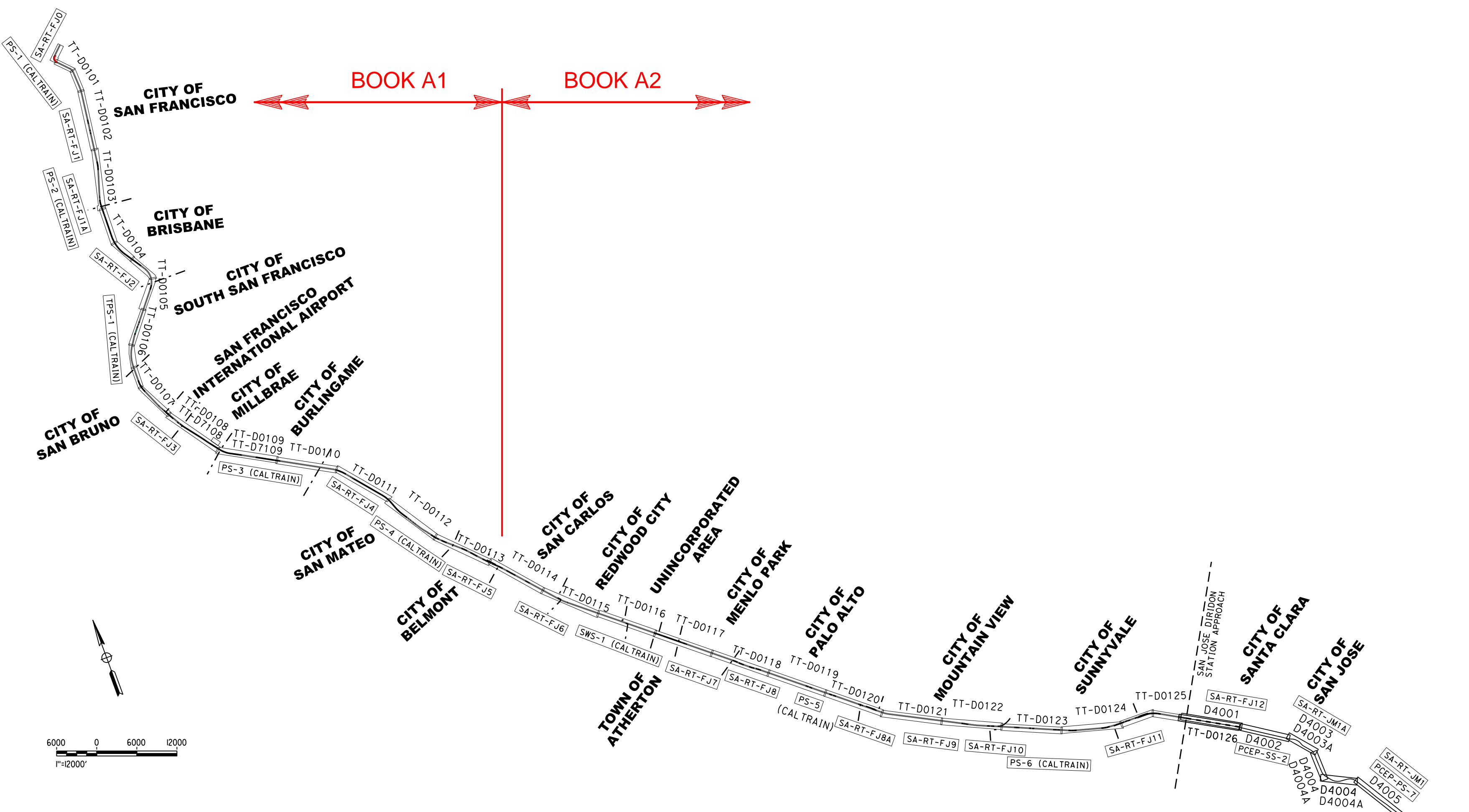
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High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
ALTERNATIVE A
KEY MAP
COMPOSITE PLAN
SHEET 3 OF 3

CONTRACT NO. HSR15-34
DRAWING NO. GE-D1103
SCALE AS SHOWN
SHEET NO.



ALTERNATIVE A

| Station (SB TRK) | Traction Power Facility (TPF) | TPF ID | Dist. to Prev. TPF (mi) | Automatic Train Control Sites | Dist. to Prev. ATC-D (mi) | Communications Radio Tower | Dist. to Prev. RT (mi) | Cross Street |
|--|--------------------------------------|------------|-------------------------|-------------------------------|---------------------------|-------------------------------------|------------------------|--------------------|
| 104+63 | 4th & King Passenger Station | | | | | Radio Tower 4th & King Sta | | 4th St |
| 133+15 | | | | | | | | |
| STATION EQUATION STA B133+15.12 = STA B139+00.00 | | | | | | | | |
| 139+00 | | | | | | | | |
| 162+58 | Mariposa PS-1 (Caltrain) | PCEP-PS-1 | 3.86 | | | Radio Tower PS-1 (Caltrain) | 0.99 | Mariposa St |
| 167+09 | To Caltrain PS-2 | | | | | | | |
| 185+27 | | | | | | | | |
| 198+80 | | | | | | | | |
| 209+69 | | | | | | | | |
| 245+49 | | | | | | Stand Alone Radio Tower FJ1 - Alt 1 | | Jerrold Ave |
| 258+78 | | | | | | to RT 4th & King Sta | 2.56 | |
| | | | | | | to RT PS-1 | 1.57 | |
| | | | | | | Stand Alone Radio Tower FJ1 - Alt 2 | | Newcomb Ave |
| | | | | | | to RT 4th & King Sta | 2.81 | |
| | | | | | | to RT PS-1 | 1.82 | |
| 264+92 | | | | | | | | |
| 288+52 | | | | | | | | |
| 322+20 | | | | | | | | |
| 357+57 | | | | | | | | |
| 358+50 | | | | | | Stand Alone Radio Tower FJ1A | | Blanken Ave |
| | | | | | | to SA-RT FJ1 - Alt 1 | 2.14 | |
| | | | | | | to SA-RT FJ1 - Alt 2 | 1.89 | |
| 366+50 | Bayshore PS-2 (Caltrain) | PCEP-PS-2 | 3.86 | | | | | Recycle Road |
| | To Caltrain PS-1 | | 4.09 | | | | | |
| 467+30 | | | | | | Stand Alone Radio Tower FJ2 - Alt 1 | | Bayshore Boulevard |
| | | | | | | to SA-RT FJ1A | 2.06 | |
| 476+65 | | | | | | Stand Alone Radio Tower FJ2 - Alt 2 | | Bayshore Boulevard |
| | | | | | | to SA-RT FJ1A | 2.24 | |
| 540+00 | | | | | | | | |
| STATION EQUATION STA B540+00.02 = STA B542+50.00 | | | | | | | | |
| 542+50 | | | | | | | | |
| 585+00 | South San Francisco TSP-1 (Caltrain) | PCEP-TSP-1 | 4.09 | | | Radio Tower TSP-1 (Caltrain) | | Grand Ave |
| | To Caltrain PS-2 | | 5.73 | | | to SA-RT FJ2 - Alt 1 | 2.18 | |
| | To Caltrain PS-3 | | 36.21 | | | to SA-RT FJ2 - Alt 2 | 2.00 | |
| 662+50 | | | | | | | | |
| STATION EQUATION STA B662+50.02 = STA B665+00.00 | | | | | | | | |

ALTERNATIVE A (CONTINUED)

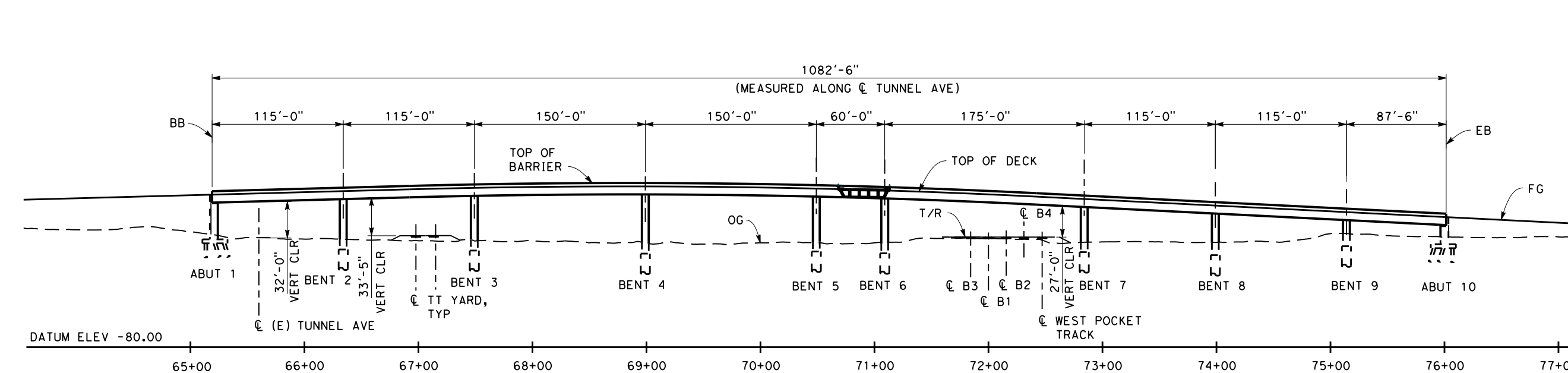
| Station (SB TRK) | Traction Power Facility (TPF) | TPF ID | Dist. to Prev. TPF (mi) | Automatic Train Control Sites | Dist. to Prev. ATC-D (mi) | Communications Radio Tower | Dist. to Prev. RT (mi) | Cross Street |
|--|-----------------------------------|------------|-------------------------|-------------------------------|---------------------------|--------------------------------------|------------------------|-------------------------------|
| 665+00 | | | | | | | | |
| 741+43 | | | | | | Stand Alone Radio Tower FJ3 - Alt 1 | | San Marco Ave |
| | | | | | | to RT TSP-1 | 2.92 | |
| 745+23 | | | | | | Stand Alone Radio Tower FJ3 - Alt 2 | | Santa Lucia Ave |
| | | | | | | to RT TSP-1 | 2.99 | |
| 890+00 | Broadway PS-3 (Caltrain) | PCEP-PS-3 | 5.73 | | | Radio Tower PS-3 (Caltrain) | | Lincoln Ave |
| | To Caltrain TSP-1 | | 5.48 | | | | | |
| 1038+91 | | | | | | Stand Alone Radio Tower FJ4 - Alt 1 | | Cypress Avenue |
| | | | | | | to RT PS-3 | 2.82 | |
| 1046+13 | | | | | | Stand Alone Radio Tower FJ4 - Alt 2 | | 2nd Avenue |
| | | | | | | to RT PS-3 | 2.96 | |
| 1179+32 | Hillsdale PS-4 (Caltrain) | PCEP-PS-4 | 5.48 | | | Radio Tower PS-4 (Caltrain) | | E. Hillsdale Boulevard |
| | To Caltrain PS-3 | | 5.89 | | | | | |
| | To Caltrain SWS-1 | | | | | to SA-RT FJ4 - Alt 1 | 2.66 | |
| | | | | | | to SA-RT FJ4 - Alt 2 | 2.52 | |
| 1257+62 | | | | | | Stand Alone Radio Tower FJ5 - Alt 1 | | Middle Road |
| | | | | | | to RT PS-4 | 1.48 | |
| 1269+19 | | | | | | Stand Alone Radio Tower FJ5 - Alt 2 | | Ralston Avenue |
| | | | | | | to RT PS-4 | 1.70 | |
| 1383+23 | | | | | | Stand Alone Radio Tower FJ6 - Alt 2 | | El Camino Real/Central Avenue |
| | | | | | | to SA-RT FJ5 - Alt 1 | 2.38 | |
| | | | | | | to SA-RT FJ5 - Alt 2 | 2.16 | |
| 1387+77 | | | | | | Stand Alone Radio Tower FJ6 - Alt 1 | | Center Street |
| | | | | | | to SA-RT FJ5 - Alt 1 | 2.46 | |
| | | | | | | to SA-RT FJ5 - Alt 2 | 2.25 | |
| 1420+00 | | | | | | | | |
| STATION EQUATION STA B1419+99.97 = STA B1425+00.00 | | | | | | | | |
| 1425+00 | | | | | | | | |
| 1495+25 | Redwood Junction SWS-1 (Caltrain) | PCEP-SWS-1 | 5.89 | | | Radio Tower SWS-1 (Caltrain) | | SR 84 |
| | To Caltrain PS-4 | | 5.81 | | | to SA-RT FJ6 - Alt 2 | 2.03 | |
| | To Caltrain TSP-1 | | 17.10 | | | to SA-RT FJ6 - Alt 1 | 1.94 | |
| | To Caltrain TSP-2 | | 19.11 | | | | | |
| 1627+06 | | | | | | Stand Alone Radio Tower FJ7 - Alt 1 | | Derby Lane |
| | | | | | | to RT SWS-1 | 2.50 | |
| 1638+84 | | | | | | Stand Alone Radio Tower FJ7 - Alt 2 | | Ravenswood Avenue |
| | | | | | | to RT SWS-1 | 2.72 | |
| 1725+76 | | | | | | Stand Alone Radio Tower FJ8 - Alt 1 | | Addison Avenue |
| | | | | | | to SA-RT FJ7 - Alt 1 | 1.87 | |
| | | | | | | to SA-RT FJ7 - Alt 2 | 1.65 | |
| 1728+64 | | | | | | Stand Alone Radio Tower FJ8 - Alt 2 | | Embarcadero Road |
| | | | | | | to SA-RT FJ7 - Alt 1 | 1.92 | |
| | | | | | | to SA-RT FJ7 - Alt 2 | 1.70 | |
| 1801+90 | West Meadow PS-5 (Caltrain) | PCEP-PS-5 | 5.81 | | | | | |
| | To Caltrain SWS-1 | | 6.69 | | | | | |
| 1861+61 | | | | | | Stand Alone Radio Tower FJ8A - Alt 2 | | E. Charleston Road |
| | | | | | | to SA-RT FJ8 - Alt 1 | 2.57 | |
| | | | | | | to SA-RT FJ8 - Alt 2 | 2.52 | |
| 1865+41 | | | | | | Stand Alone Radio Tower FJ8A - Alt 1 | | Park Boulevard |
| | | | | | | to SA-RT FJ8 - Alt 1 | 2.64 | |
| | | | | | | to SA-RT FJ8 - Alt 2 | 2.59 | |
| 1991+97 | | | | | | Stand Alone Radio Tower FJ9 - Alt 1 | | N. Shoreline Boulevard |
| | | | | | | to SA-RT FJ8A - Alt 2 | 2.47 | |
| | | | | | | to SA-RT FJ8A - Alt 1 | 2.40 | |
| 1998+51 | | | | | | Stand Alone Radio Tower FJ9 - Alt 2 | | N. Shoreline Boulevard |
| | | | | | | to SA-RT FJ8A - Alt 1 | 2.52 | |
| | | | | | | to SA-RT FJ8A - Alt 2 | 2.59 | |
| 2091+76 | | | | | | Stand Alone Radio Tower FJ10 - Alt 1 | | E. Bernardo Avenue |
| | | | | | | to SA-RT FJ9 - Alt 1 | 1.89 | |
| | | | | | | to SA-RT FJ9 - Alt 2 | 1.77 | |
| 2093+59 | | | | | | Stand Alone Radio Tower FJ10 - Alt 2 | | E. Bernardo Avenue |
| | | | | | | to SA-RT FJ9 - Alt 1 | 1.92 | |
| | | | | | | to SA-RT FJ9 - Alt 2 | 1.80 | |
| 2154+99 | Sunnyvale PS-6 (Caltrain) | PCEP-PS-6 | 6.62 | | | Radio Tower PS-6 (Caltrain) | | Mathilda Avenue |
| | To Caltrain TSP-2 | | | | | to SA-RT FJ10 - Alt 1 | 1.20 | |
| | | | | | | to SA-RT FJ10 - Alt 2 | 1.16 | |
| 2268+87 | | | | | | Stand Alone Radio Tower FJ11 - Alt 1 | | Lawrence Expressway |
| | | | | | | to RT PS-6 | 2.57 | |
| 2290+53 | | | | | | Stand Alone Radio Tower FJ11 - Alt 2 | | Lawrence Expressway |
| | | | | | | to RT PS-6 | 2.16 | |
| 2375+19 | | | | | | | | |

ALTERNATIVE A (CONTINUED)

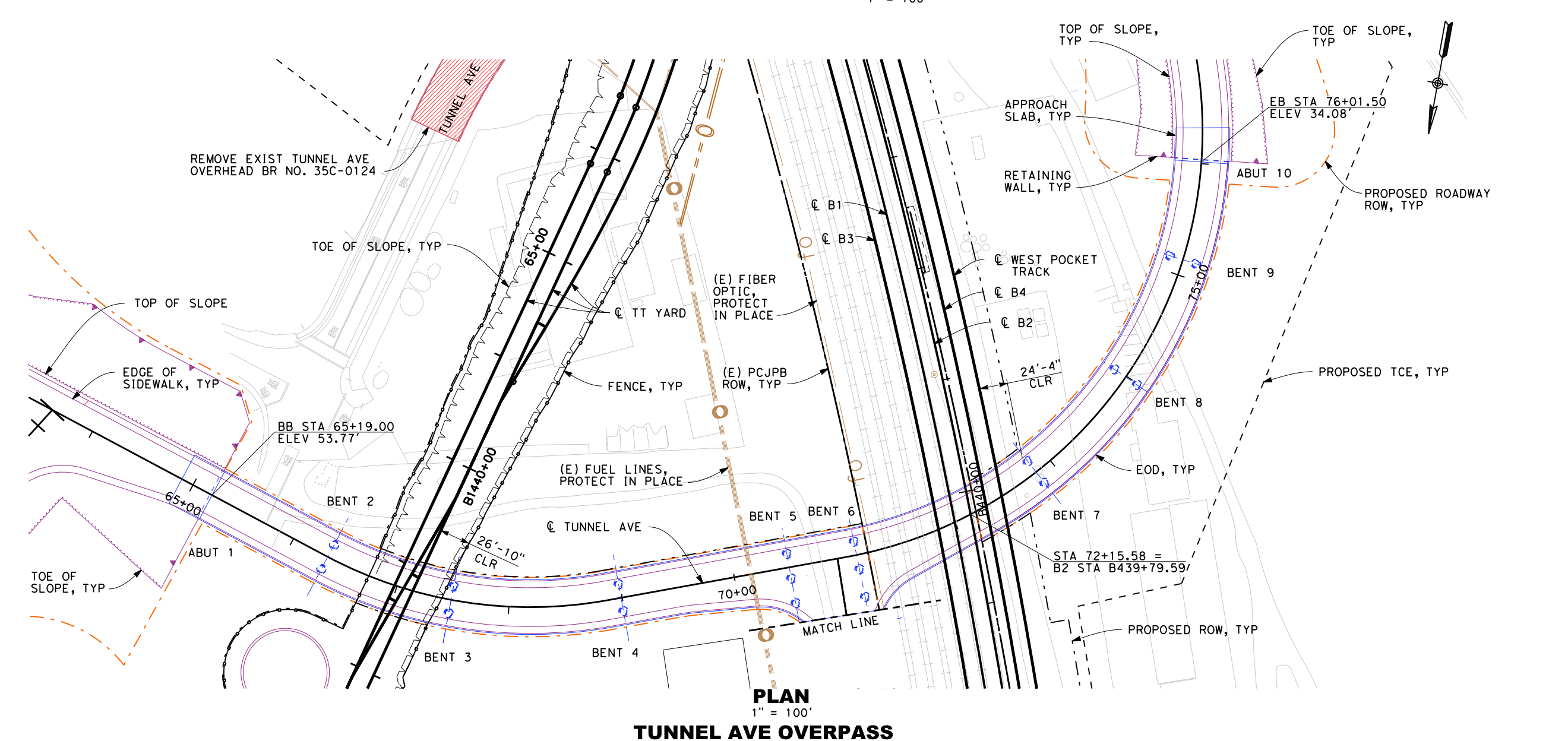
| Station (SB TRK) | Traction Power Facility (TPF) | TPF ID | Dist. to Prev. TPF (mi) | Automatic Train Control Sites | Dist. to Prev. ATC-D (mi) | Communications Radio Tower | Dist. to Prev. RT (mi) | Cross Street |
|---|-------------------------------|------------|-------------------------|-------------------------------|---------------------------|--------------------------------------|------------------------|------------------|
| SCOTT BOULEVARD | | | | | | | | |
| Station Equation FJ - ALT. A POE (SB) B2375+19.10 = ALT. 4 POB (SB) B2872+66.56 POB | | | | | | | | |
| 2872+87 | | | | | | | | |
| 2874+71 | | | | | | | | |
| Beginning of San Jose to Merced Section (JM) - CP Coast to CP Lick Subsection | | | | | | | | |
| | | | | | | Stand Alone Radio Tower FJ12 - Alt 1 | | Scott Boulevard |
| | | | | | | to SA-RT FJ11 - Alt 1 | 2.05 | |
| 2899+66 | | | | | | Stand Alone Radio Tower FJ12 - Alt 2 | | Lafayette Street |
| | | | | | | to SA-RT FJ11 - Alt 2 | 2.52 | |
| | | | | | | to SA-RT FJ11 - Alt 1 | 2.11 | |
| 3002+00 | Caltrain PCEP TSP-2 | PCEP-TSP-2 | 36.35 | | | Radio Tower PCEP TSP-2 | | 1880 |
| | To Caltrain TSP-1 | | 28.81 | | | to SA-RT FJ12 - Alt 1 | 2.41 | |
| | To SS-B - Alt 1 | | 29.09 | | | to SA-RT FJ12 - Alt 2 | 1.94 | |
| | To Caltrain SWS-1 | | 19.11 | | | | | |
| | To SWS-A - Alt 2 | | 15.89 | | | | | |
| | To SWS-A - Alt 1 | | 15.98 | | | | | |
| | To Caltrain PS-6 | | 6.82 | | | | | |
| | To Caltrain PS-7 | | 3.73 | | | | | |
| 3078+42 | | | | | | Stand Alone Radio Tower JM1A | | |
| | | | | | | to RT PCEP TSP-2 | 1.47 | |
| 3085+00 | Dividon Passenger Station | | | | | | | |
| 3141+50 | | | | | | | | |
| 3196+50 | | | | | | | | |
| 3199+00 | Caltrain PCEP PS-7 | PCEP-PS-7 | | | | | | Almaden Road |

SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET G

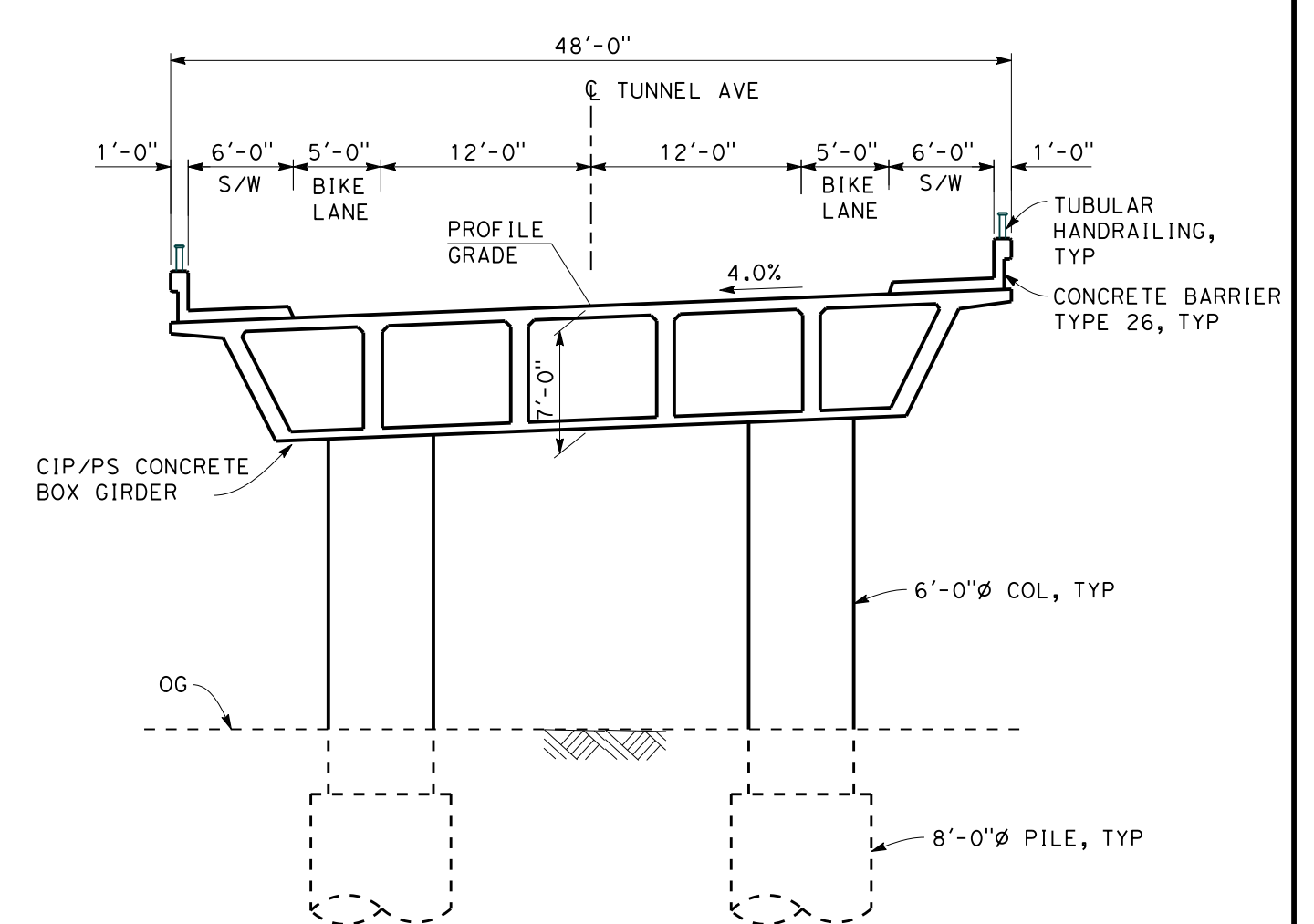
| | | | | | |
|---|--|---|--|--|--|
| 2021 RECORD SET PEPD NOVEMBER 30, 2021 NOT FOR CONSTRUCTION | | 1111 Broadway 9th Floor Oakland, CA 94607 | | CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN FRANCISCO TO SAN JOSE ALTERNATIVE A KEY MAP SYSTEM SITES | CONTRACT NO. HSR15-34 DRAWING NO. CE-D1104 SCALE AS SHOWN SHEET NO. |
|---|--|---|--|--|--|



DEVELOPED ELEVATION
1" = 100'

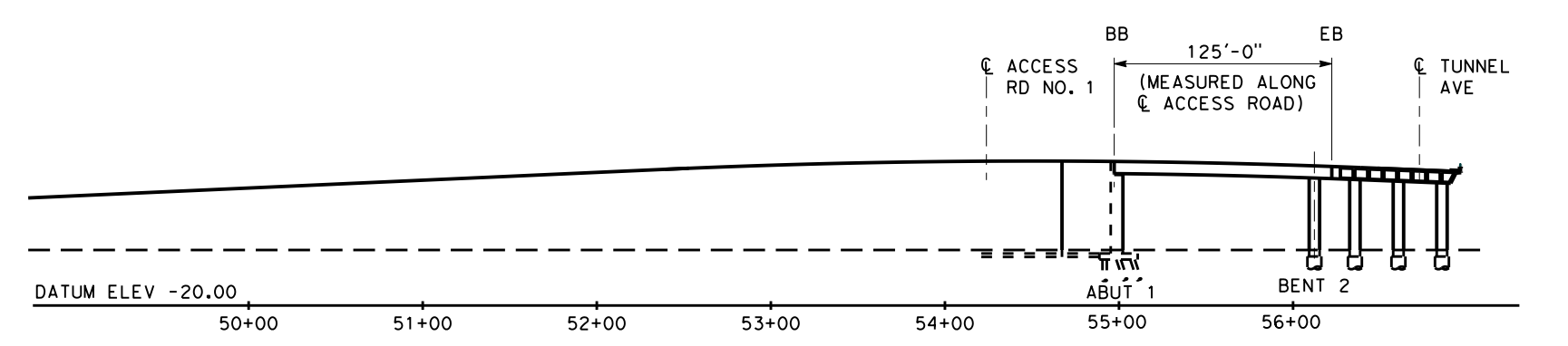
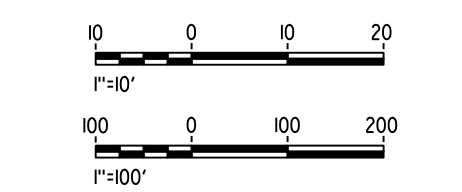


PLAN
1" = 100'

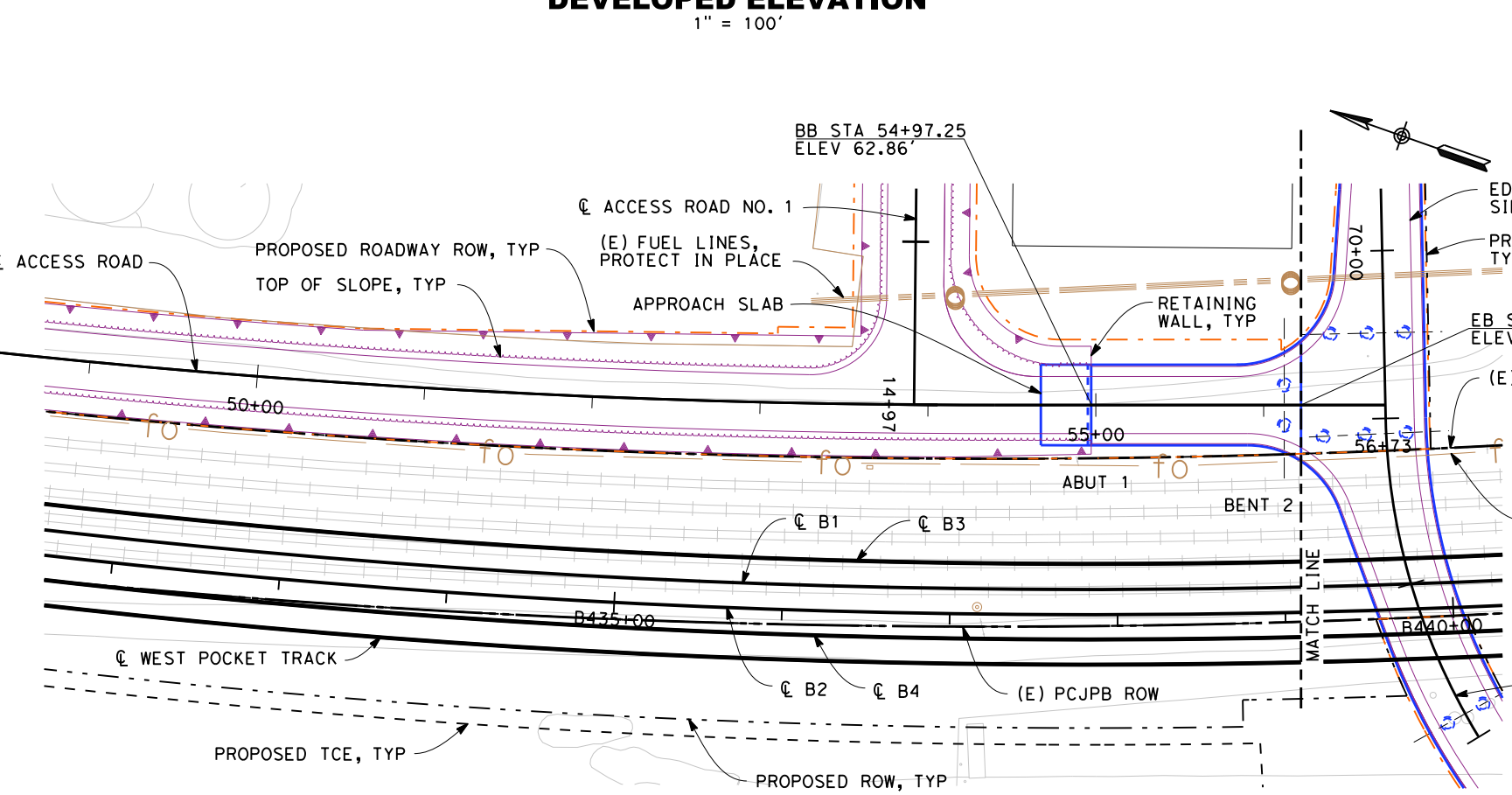


TYPICAL SECTION
1" = 10'

LEGEND:
 EXIST BRIDGE TO BE REMOVED

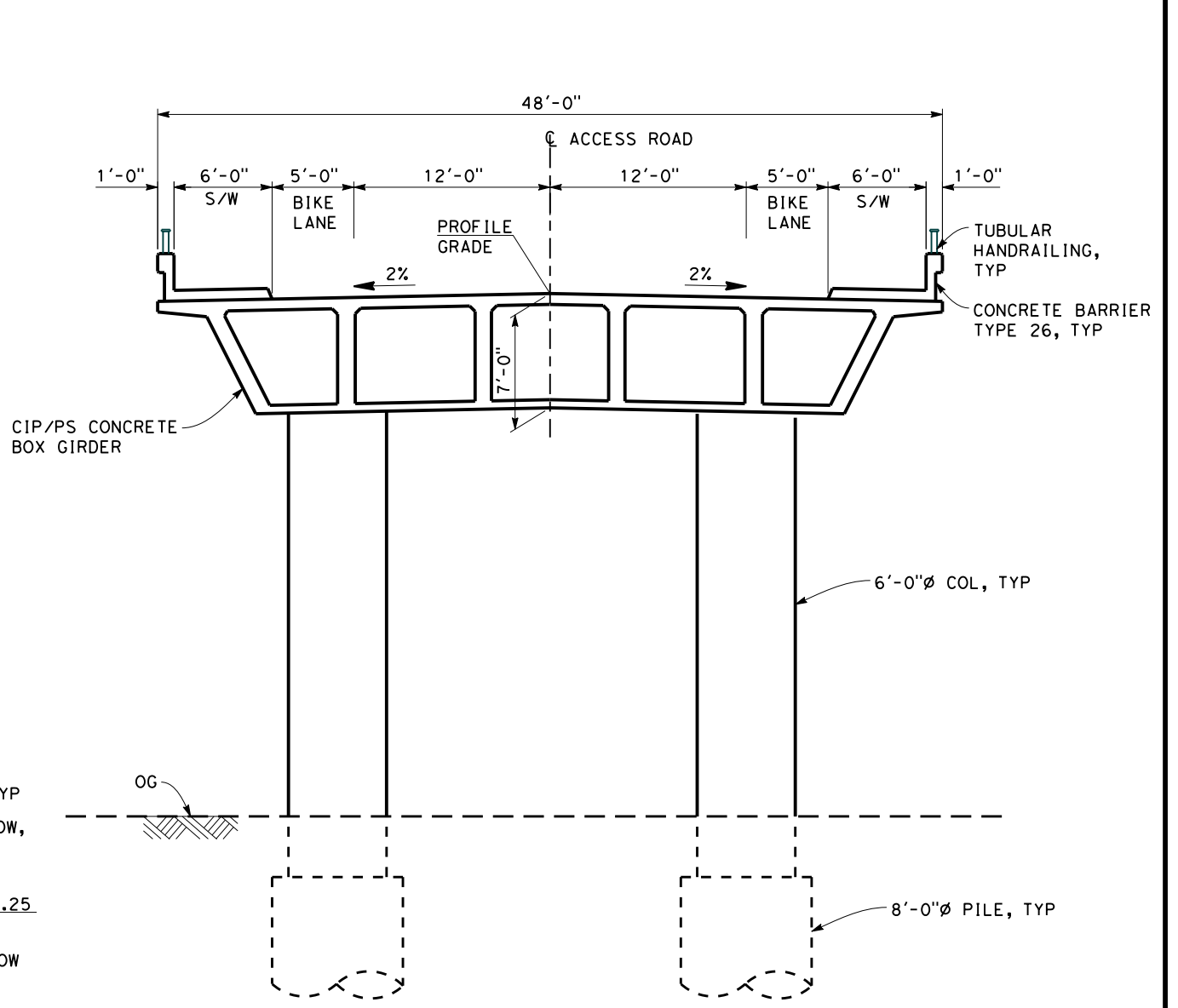


DEVELOPED ELEVATION
1" = 100'

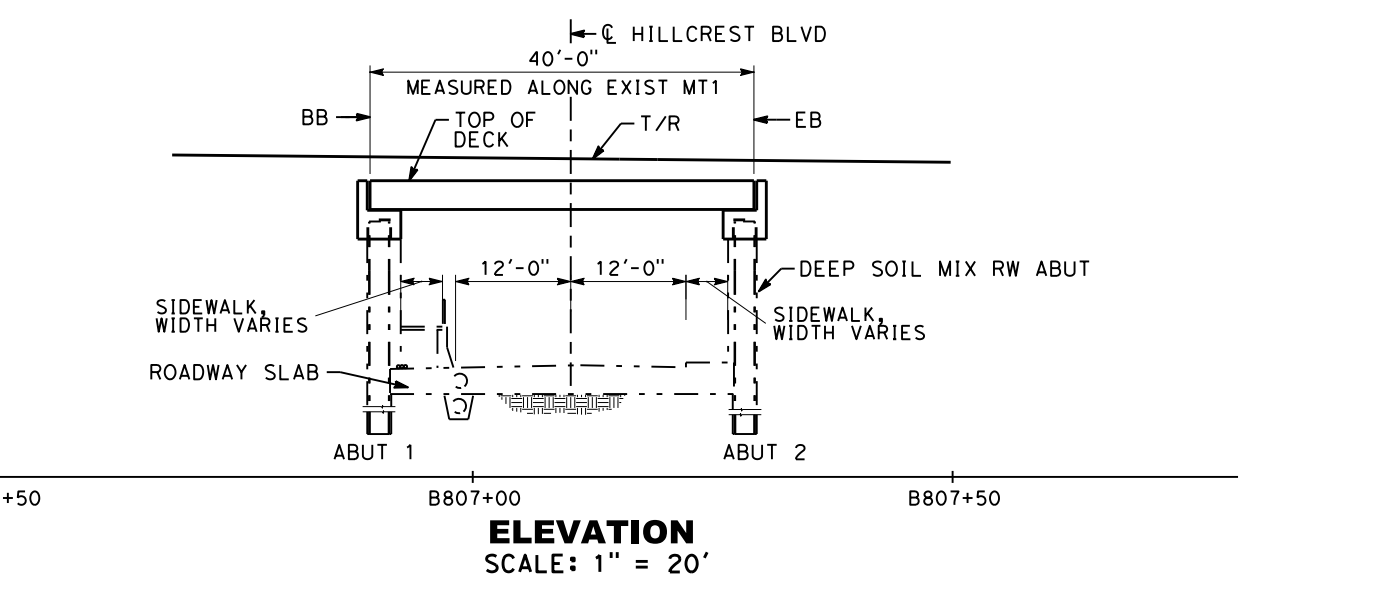
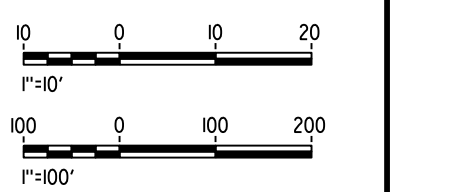


PLAN
1" = 100'

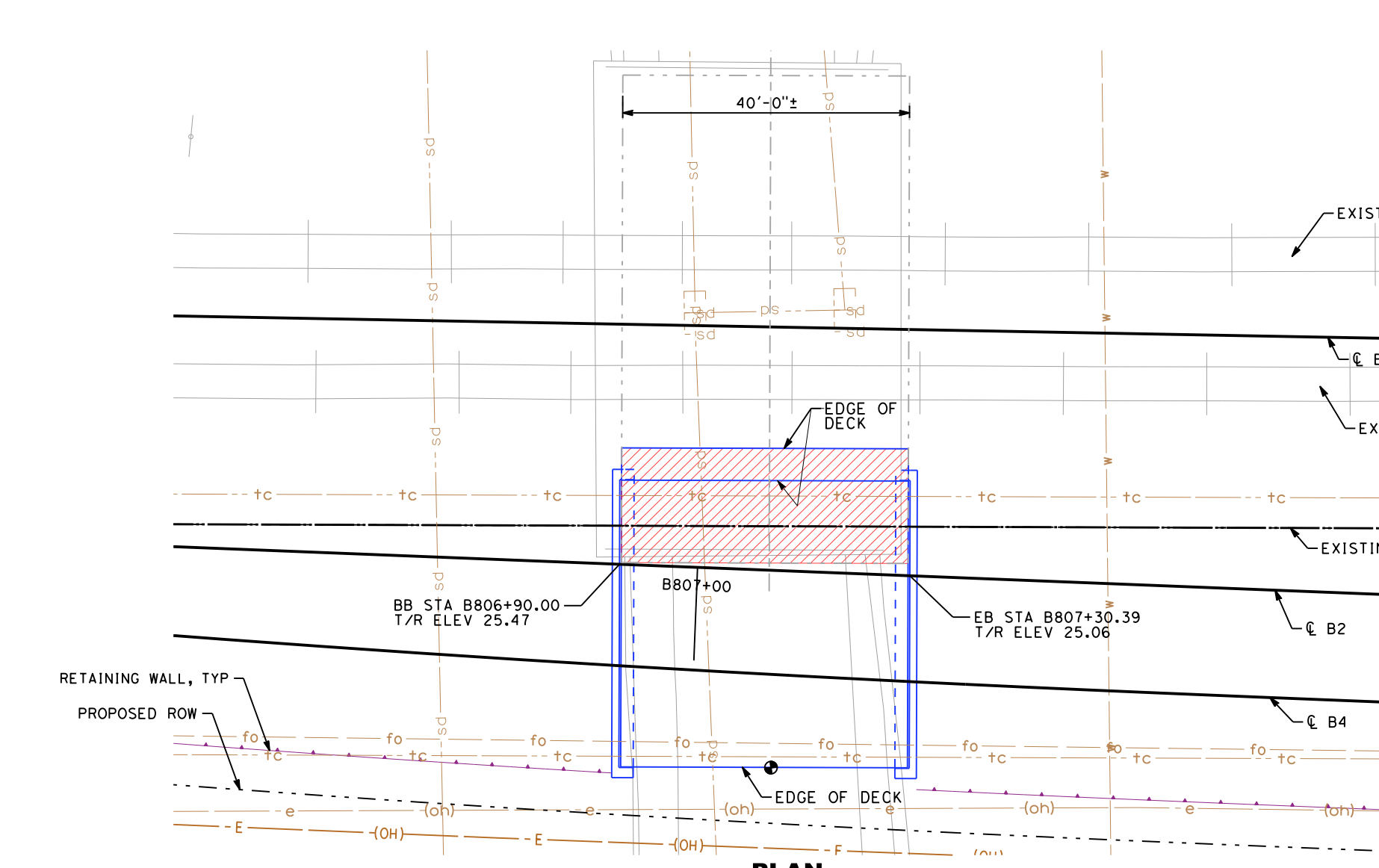
TUNNEL AVE ACCESS ROAD BRIDGE



TYPICAL SECTION
1" = 10'

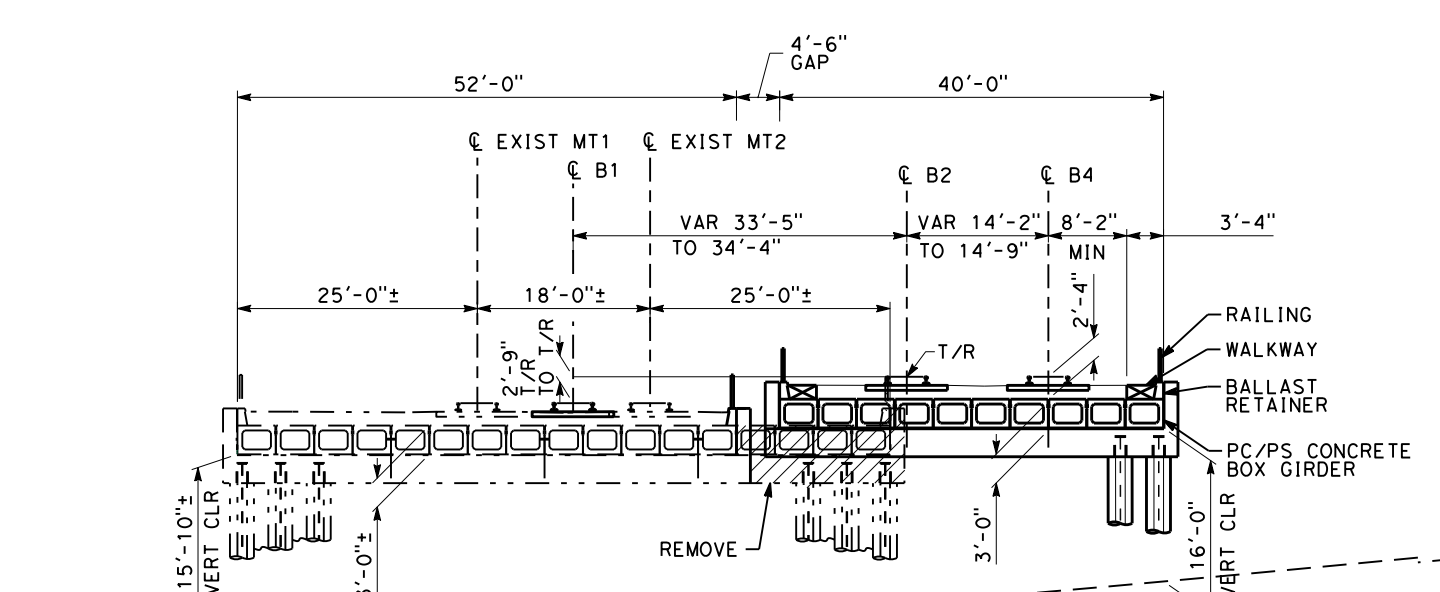


ELEVATION
SCALE: 1" = 20'



PLAN
1" = 20'

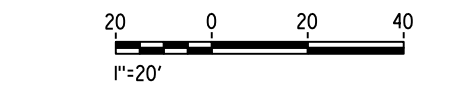
HILLCREST BLVD UNDERPASS



TYPICAL SECTION
SCALE: 1" = 20'

**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 63 OF 106**

LEGEND:
 POINT OF MINIMUM VERTICAL CLEARANCE
 EXIST STRUCTURE REMOVAL (PORTION)



2021 RECORD SET PERD
 NOVEMBER 30, 2021
 NOT FOR CONSTRUCTION

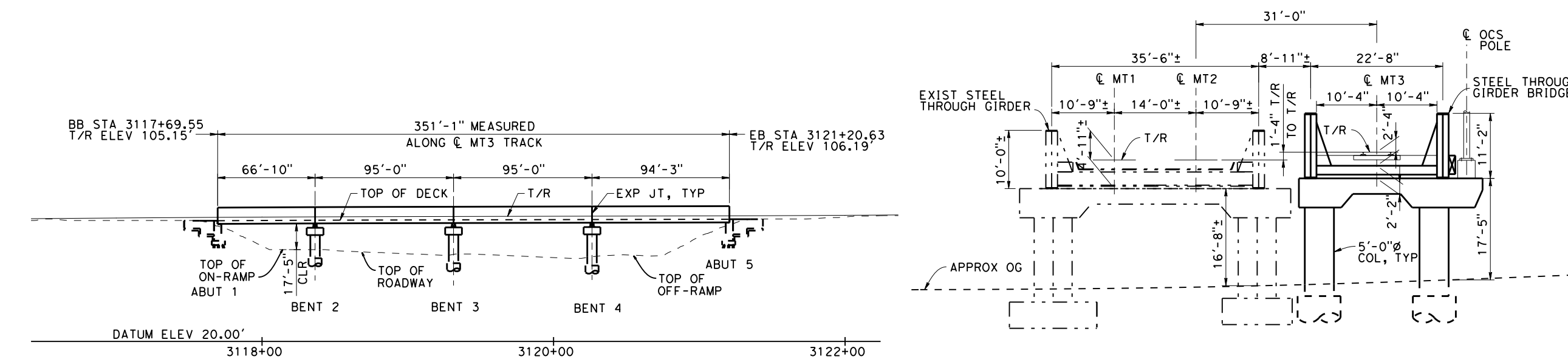
HNTB

1111 Broadway
 9th Floor
 Oakland, CA 94607

CALIFORNIA
 High-Speed Rail Authority

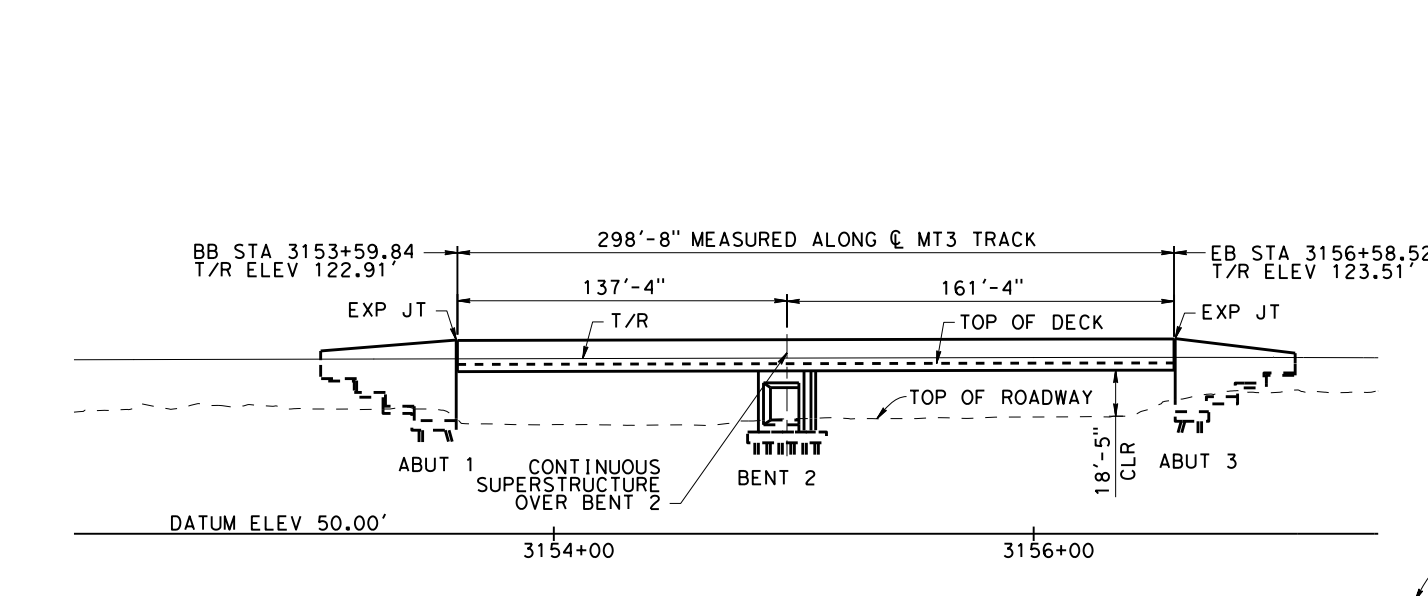
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
 SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A**
 OVERPASSES AND UNDERPASSES
 TUNNEL AVE AND HILLCREST BLVD BRIDGES

CONTRACT NO. HSR15-34
 DRAWING NO. ST-T0101
 SCALE AS SHOWN
 SHEET NO.



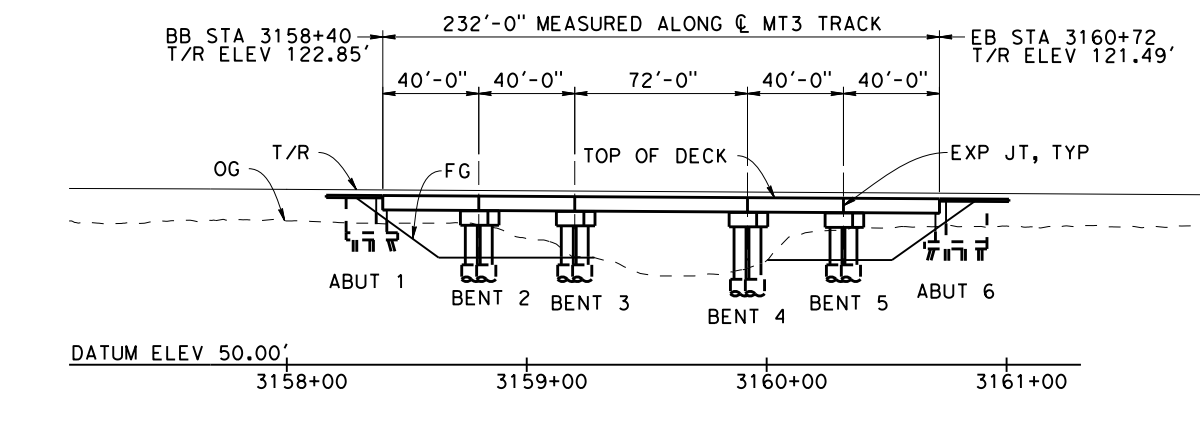
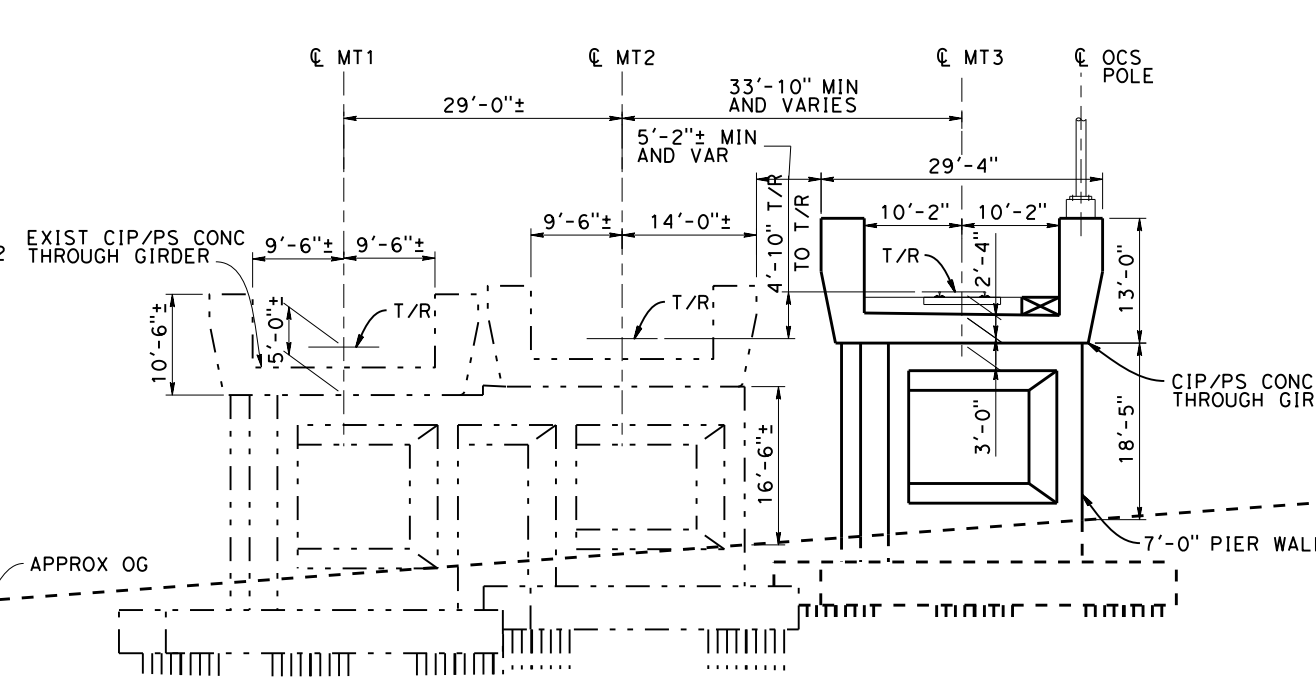
ELEVATION - I-280
SCALE: 1"=80'

TYPICAL SECTION AT BENT 2
SCALE: 1"=20'



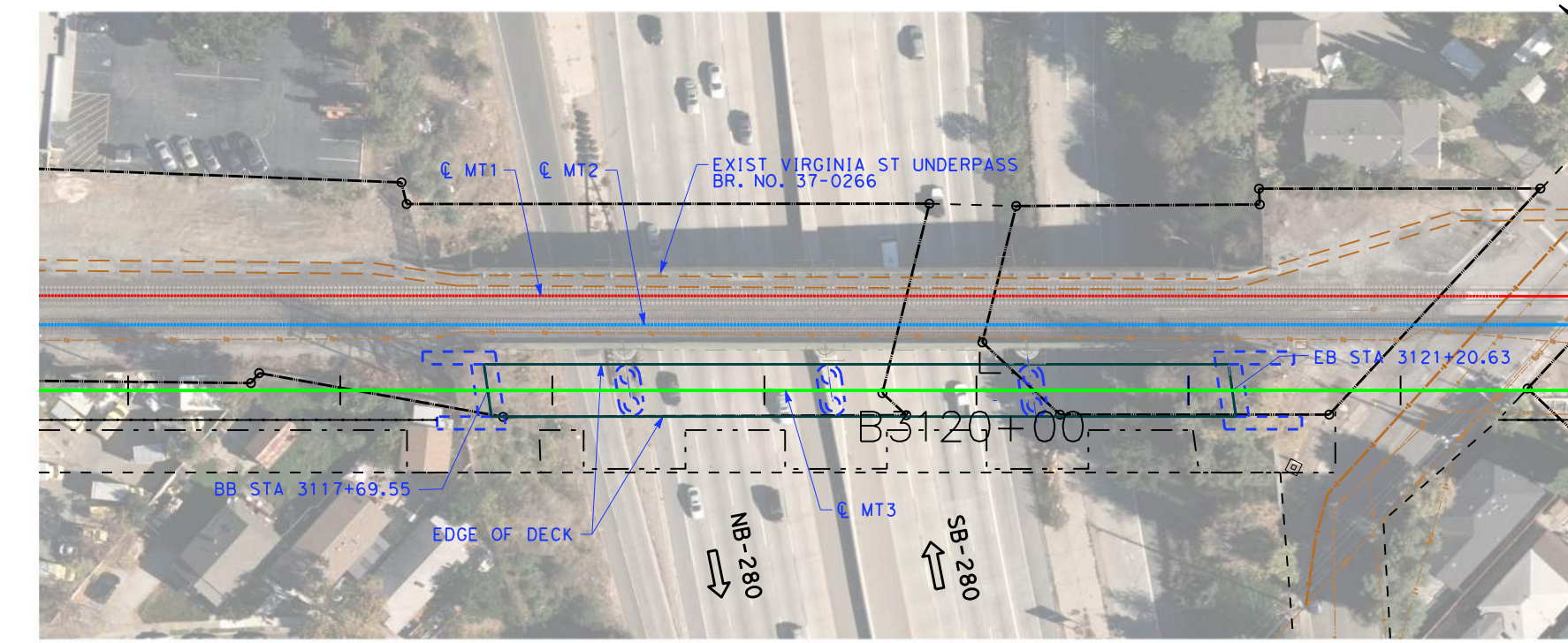
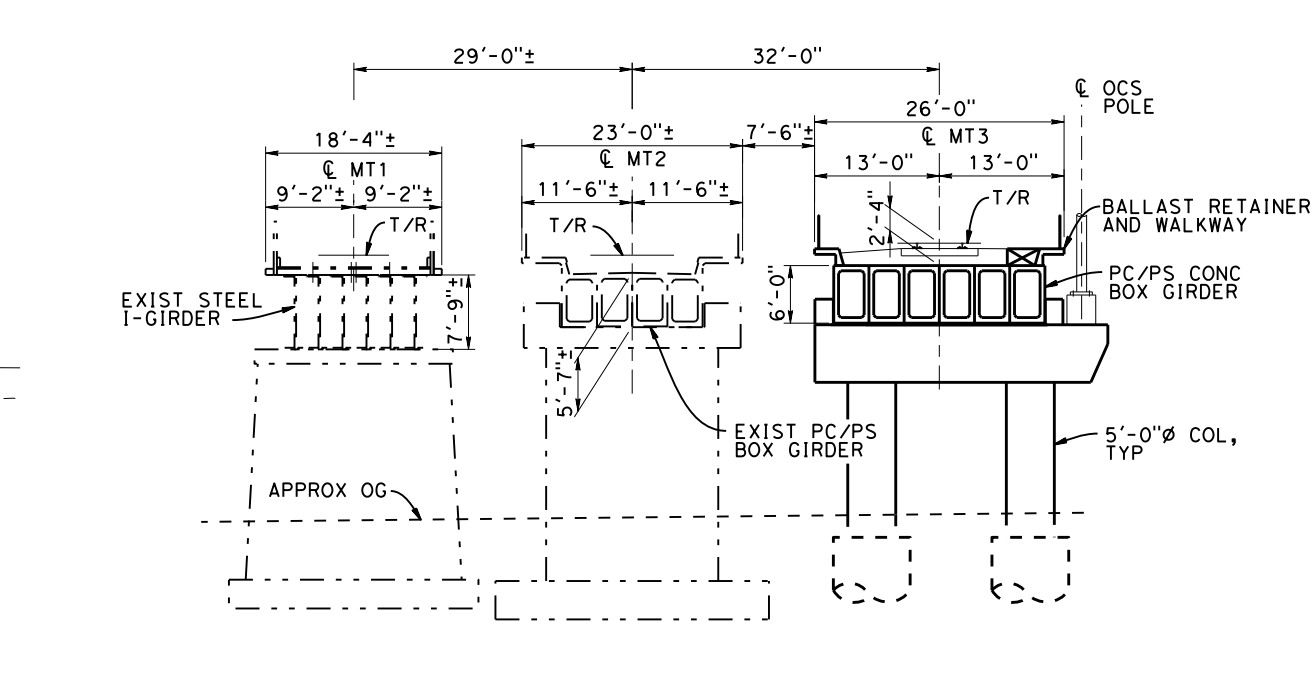
ELEVATION - SR-87
SCALE: 1"=80'

TYPICAL SECTION AT BENT 2
SCALE: 1"=20'

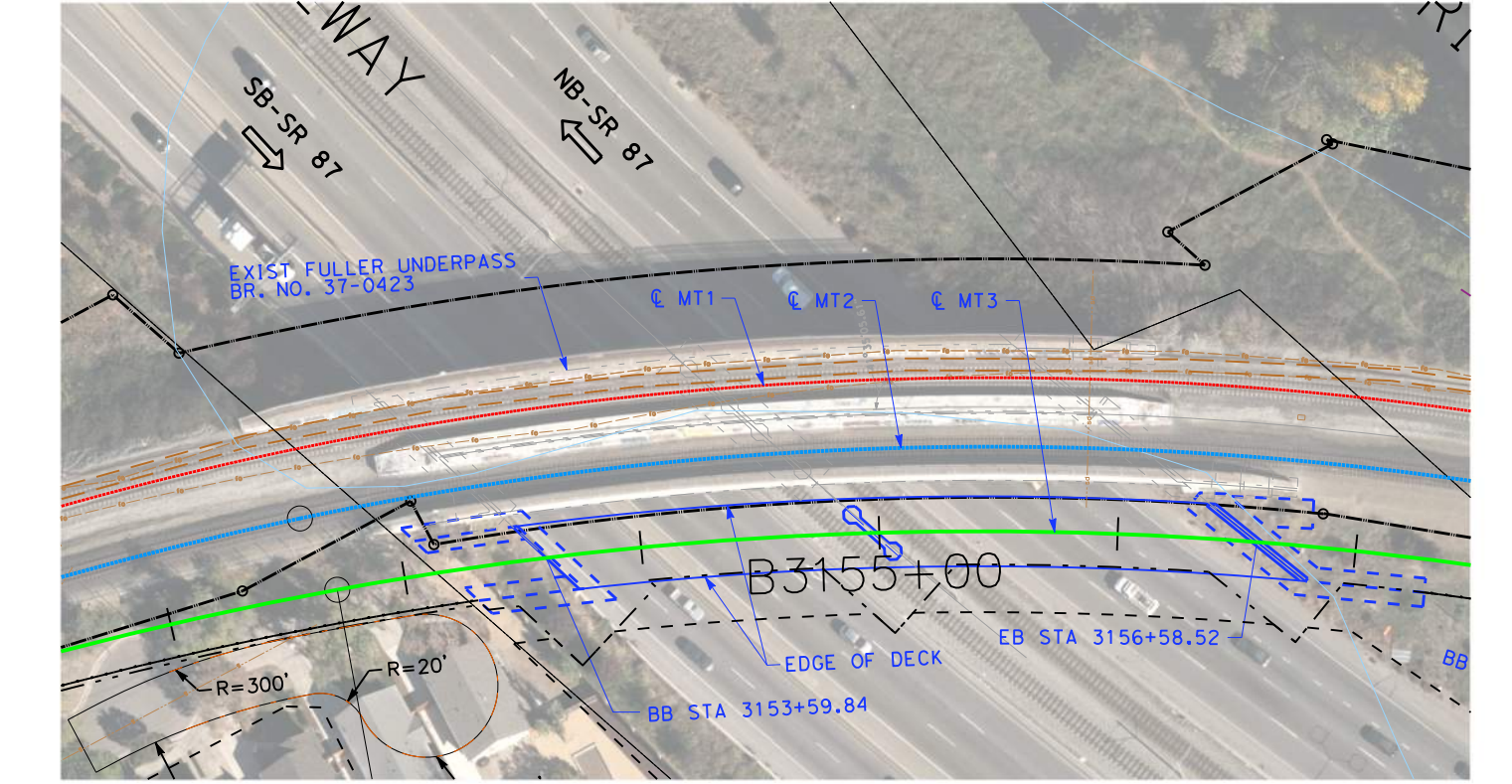
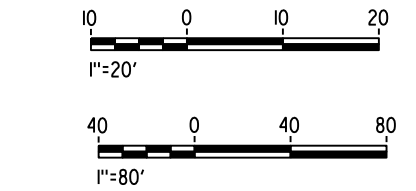


ELEVATION - GUADALUPE RIVER
SCALE: 1"=80'

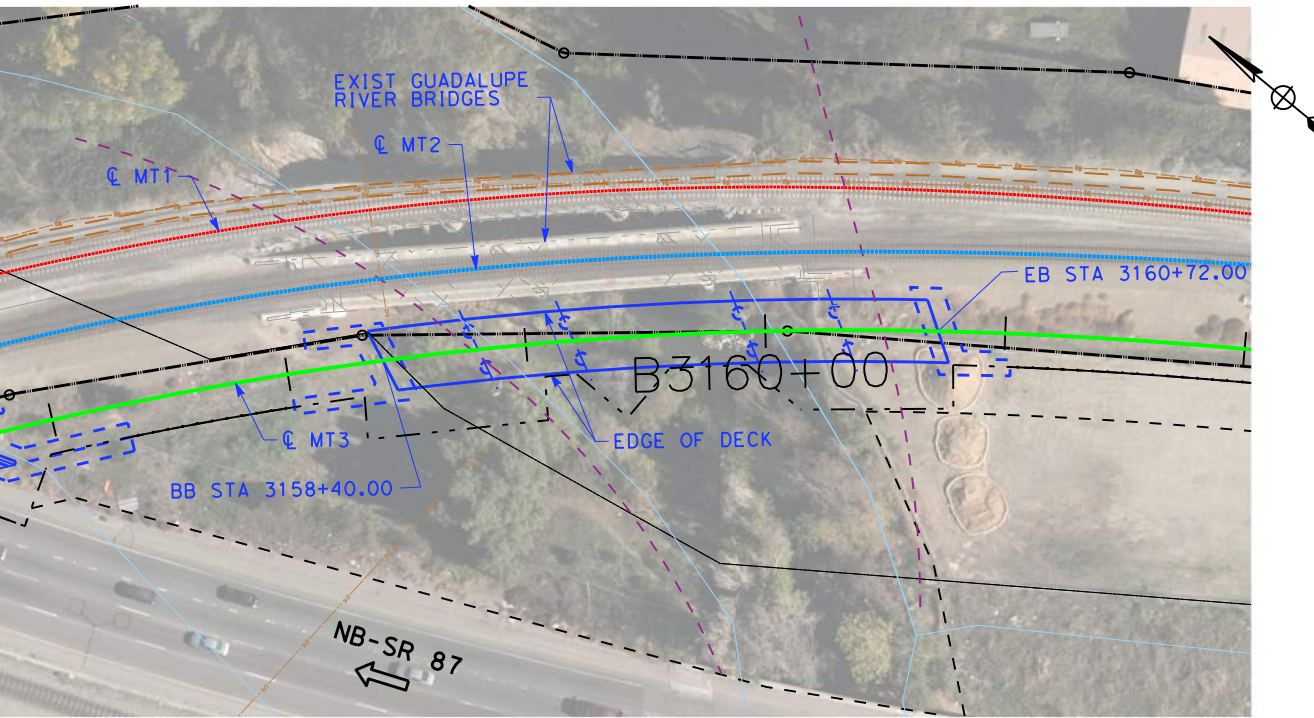
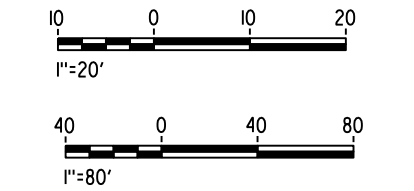
TYPICAL SECTION AT BENT 4
SCALE: 1"=20'



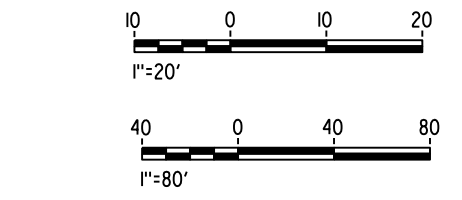
PLAN - I-280
SCALE: 1"=80'



PLAN - SR-87
SCALE: 1"=80'



PLAN - GUADALUPE RIVER
SCALE: 1"=80'



**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 64 OF 106**

2021 RECORD SET PERD
NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

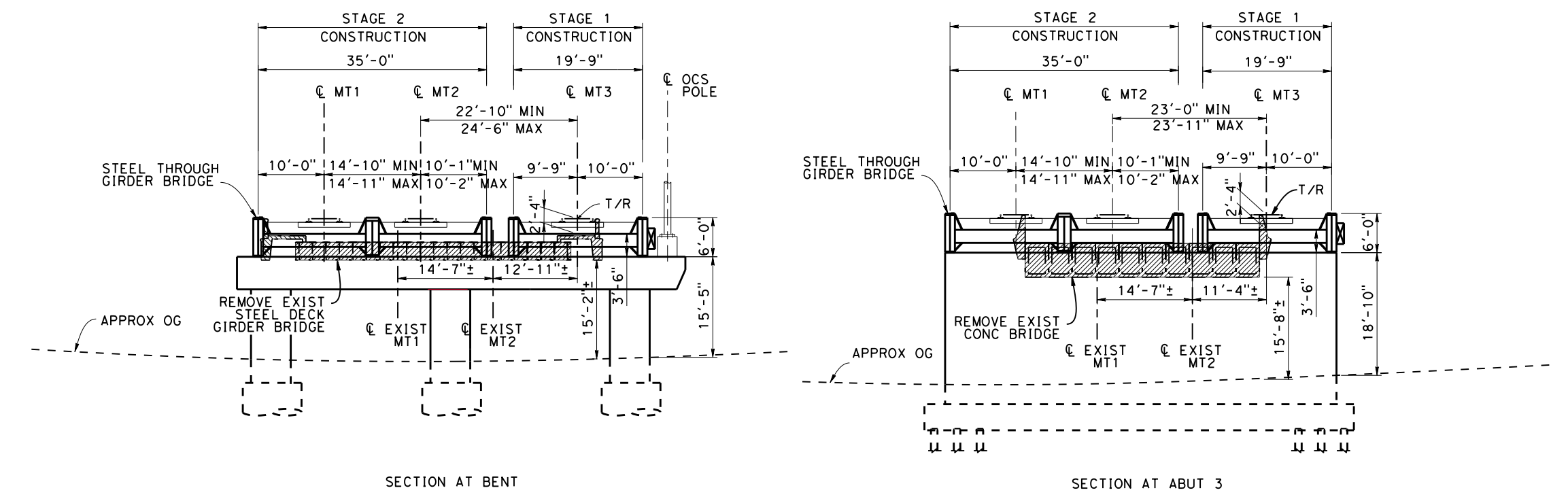
HNTB
1111 Broadway
9th Floor
Oakland, CA 94607

CALIFORNIA
High-Speed Rail Authority

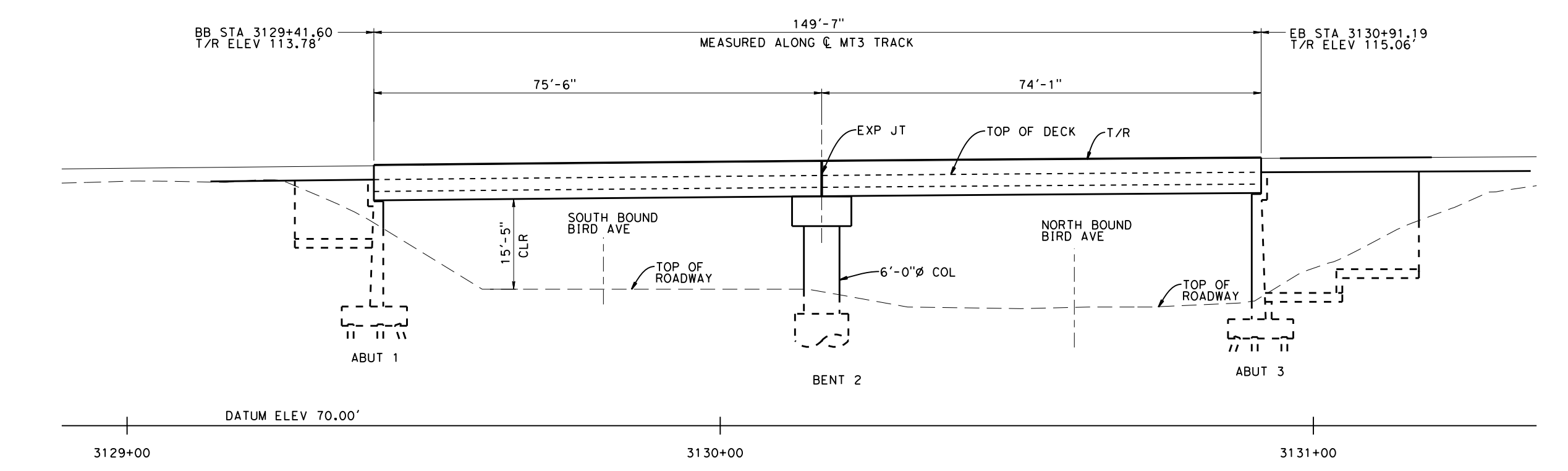
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
CP COAST TO GILROY
BLENDED AT-GRADE ALTERNATIVE
UNDERPASSES
GENERAL PLAN 1 OF 4**

CONTRACT NO. HSR15-34
DRAWING NO. ST-T4001
SCALE AS SHOWN
SHEET NO.

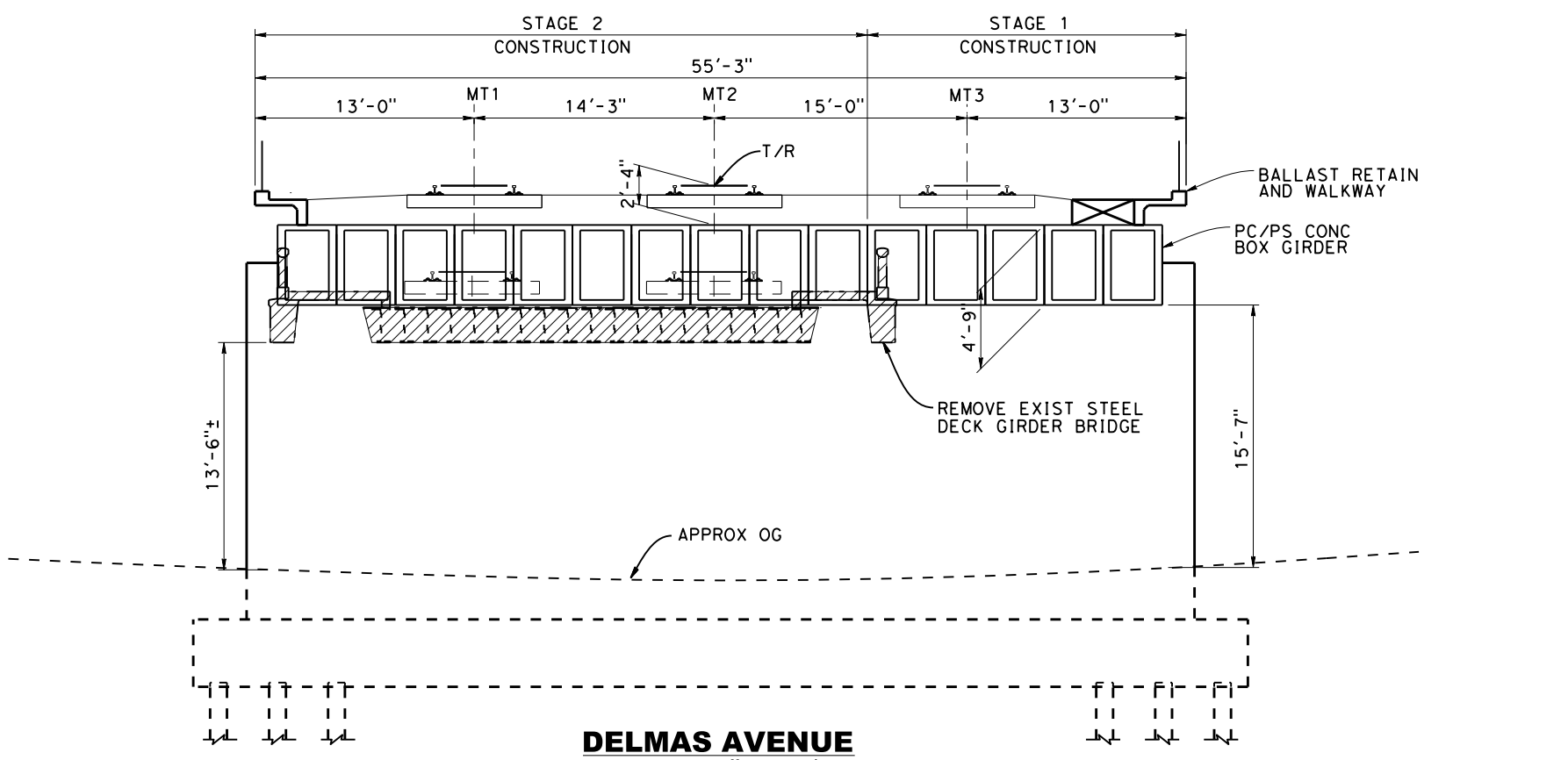
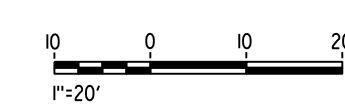
5/22/2021 10:54:56 AM c:\pds\hntb\work\hntb\311\31100\31100.dwg 31100.dwg
 5/22/2021 10:54:56 AM c:\pds\hntb\work\hntb\311\31100\31100.dwg 31100.dwg
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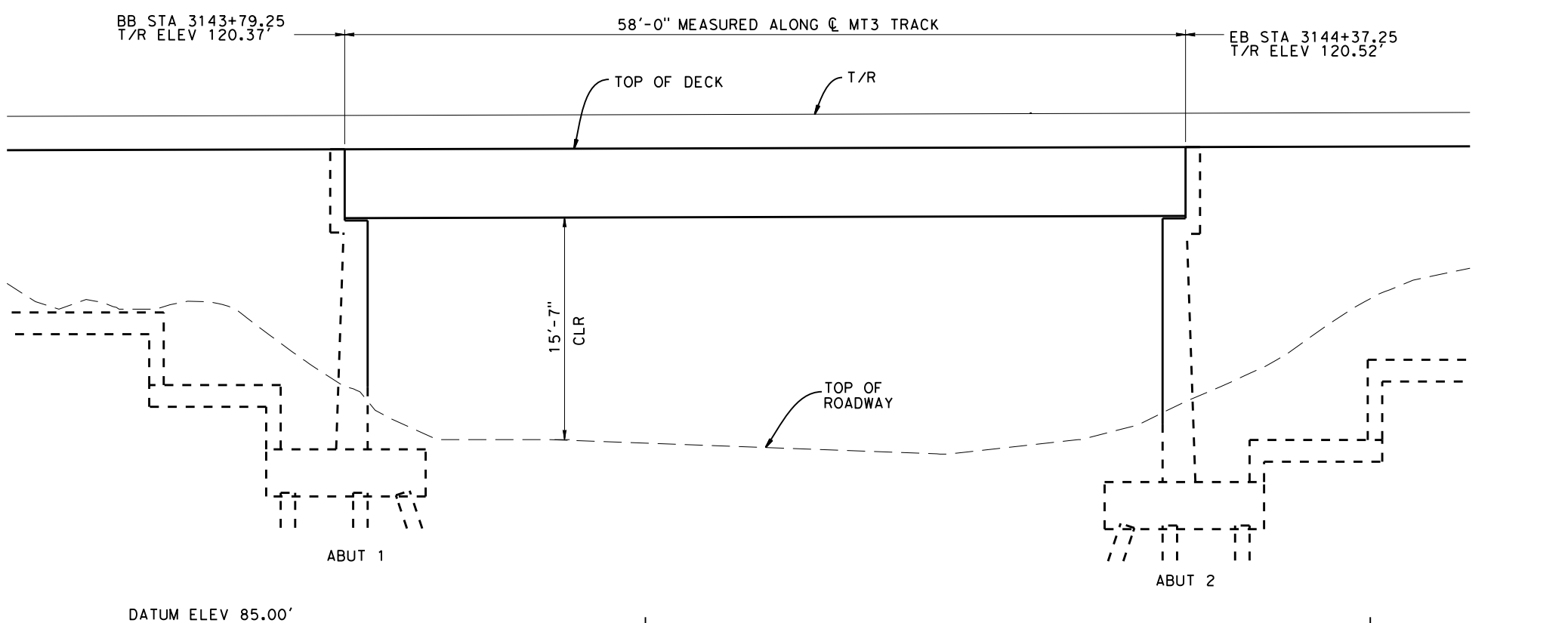
BIRD AVENUE
SCALE: 1" = 20'



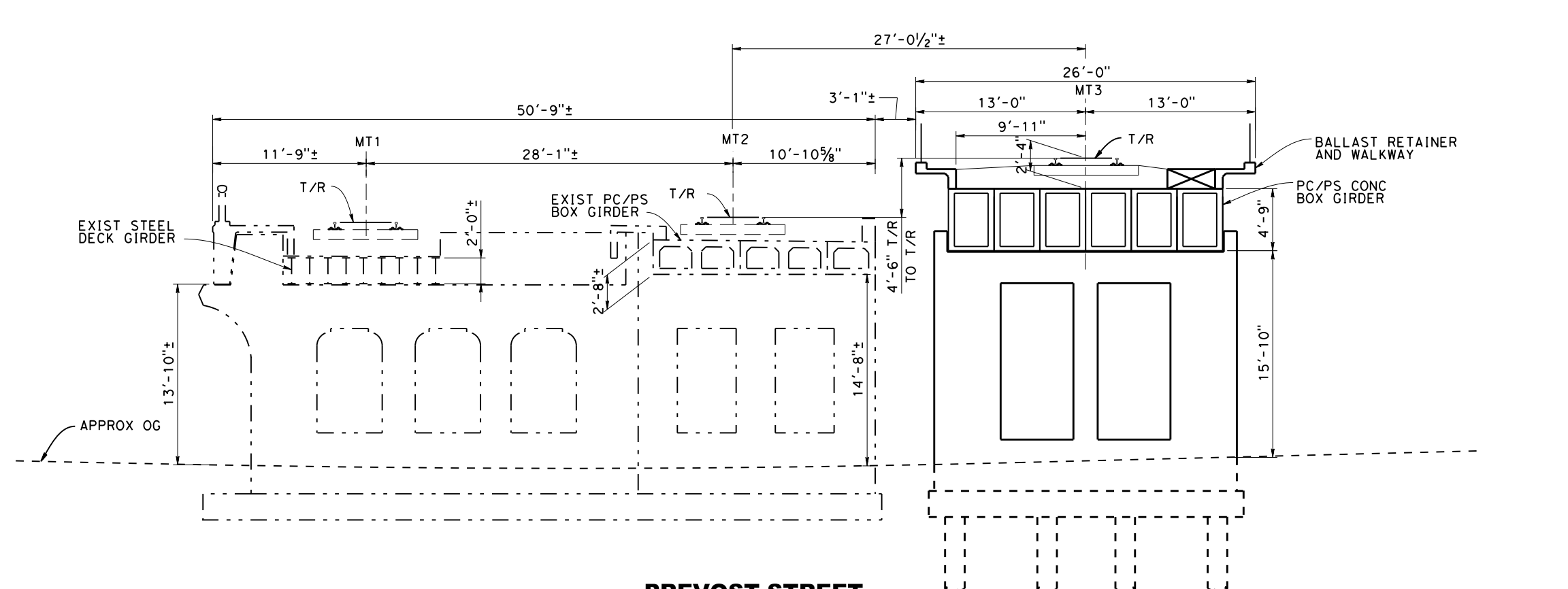
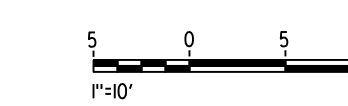
ELEVATION
SCALE: 1" = 20'



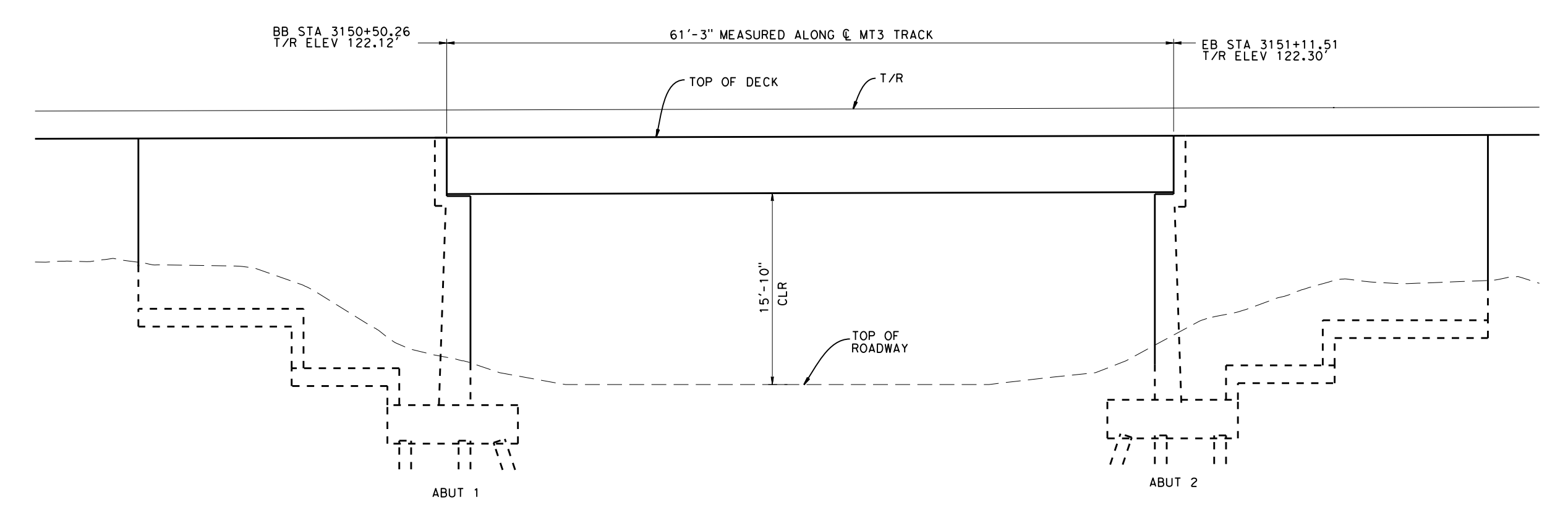
DELMAS AVENUE
SCALE: 1" = 10'



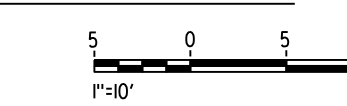
ELEVATION
SCALE: 1" = 10'



PREVOST STREET
SCALE: 1" = 10'



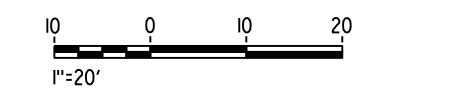
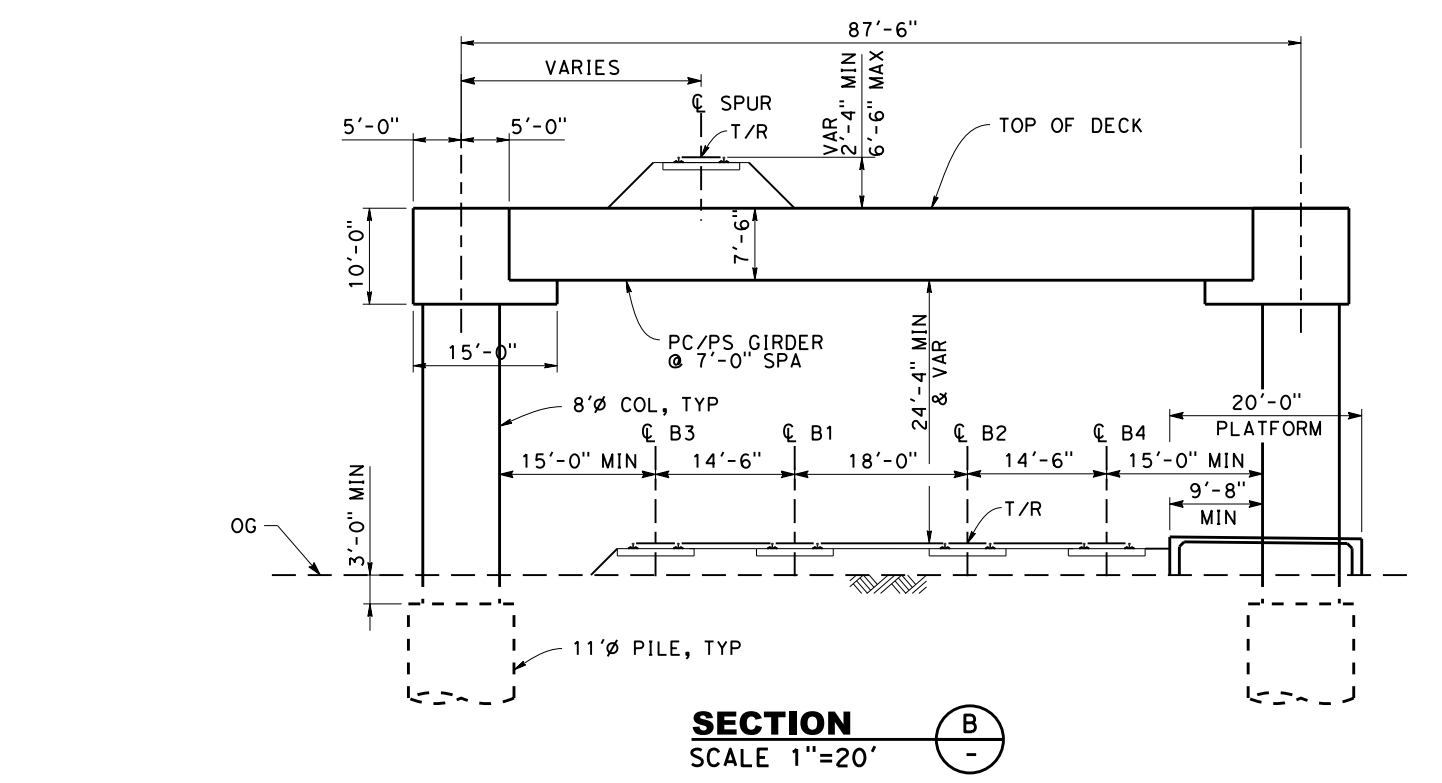
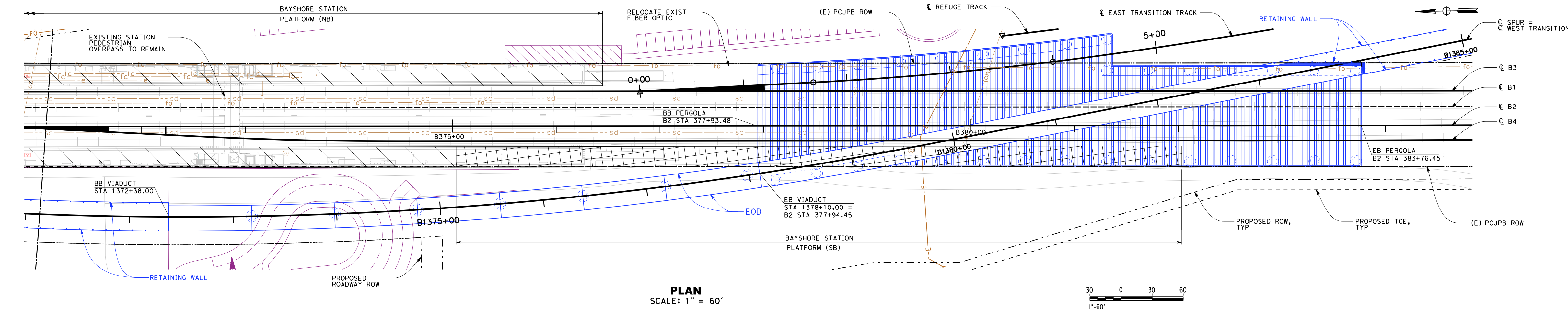
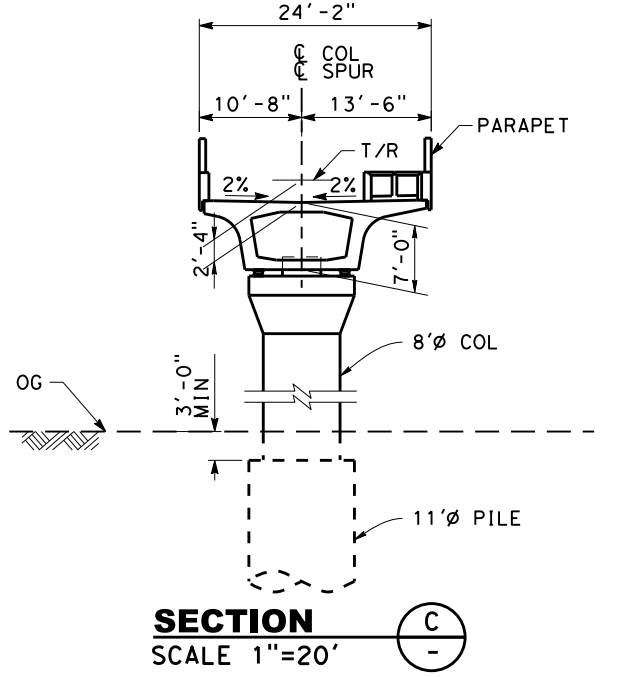
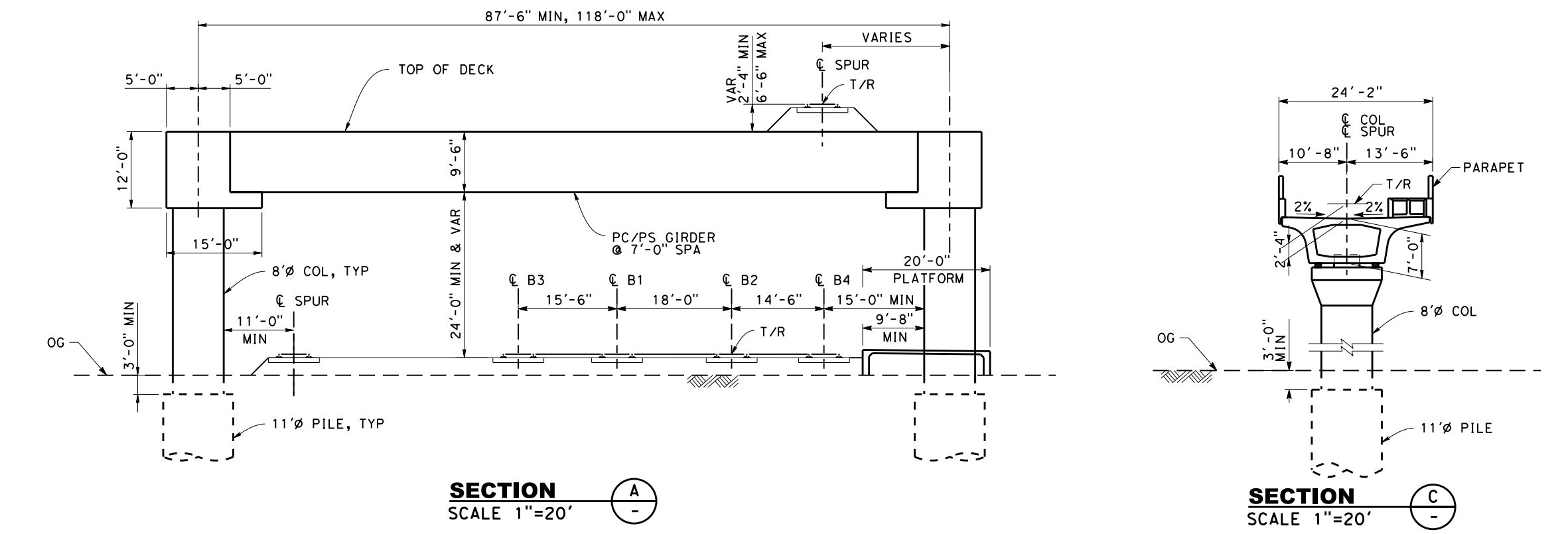
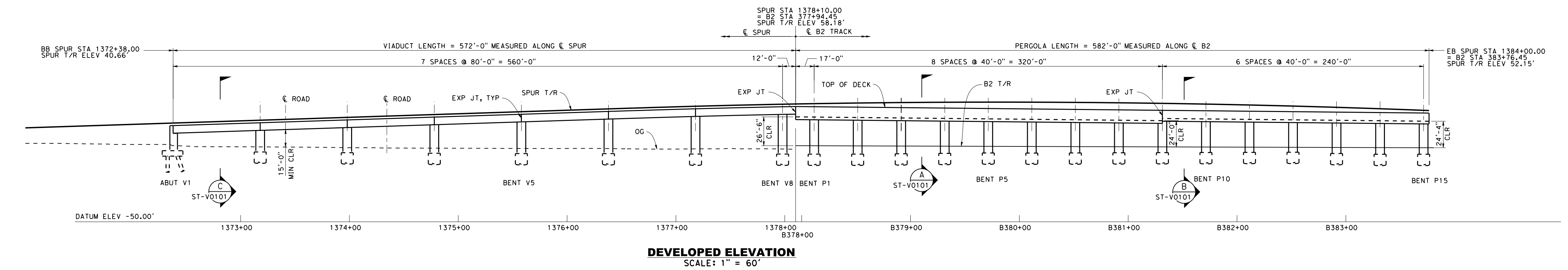
ELEVATION
SCALE: 1" = 10'



SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 65 OF 106

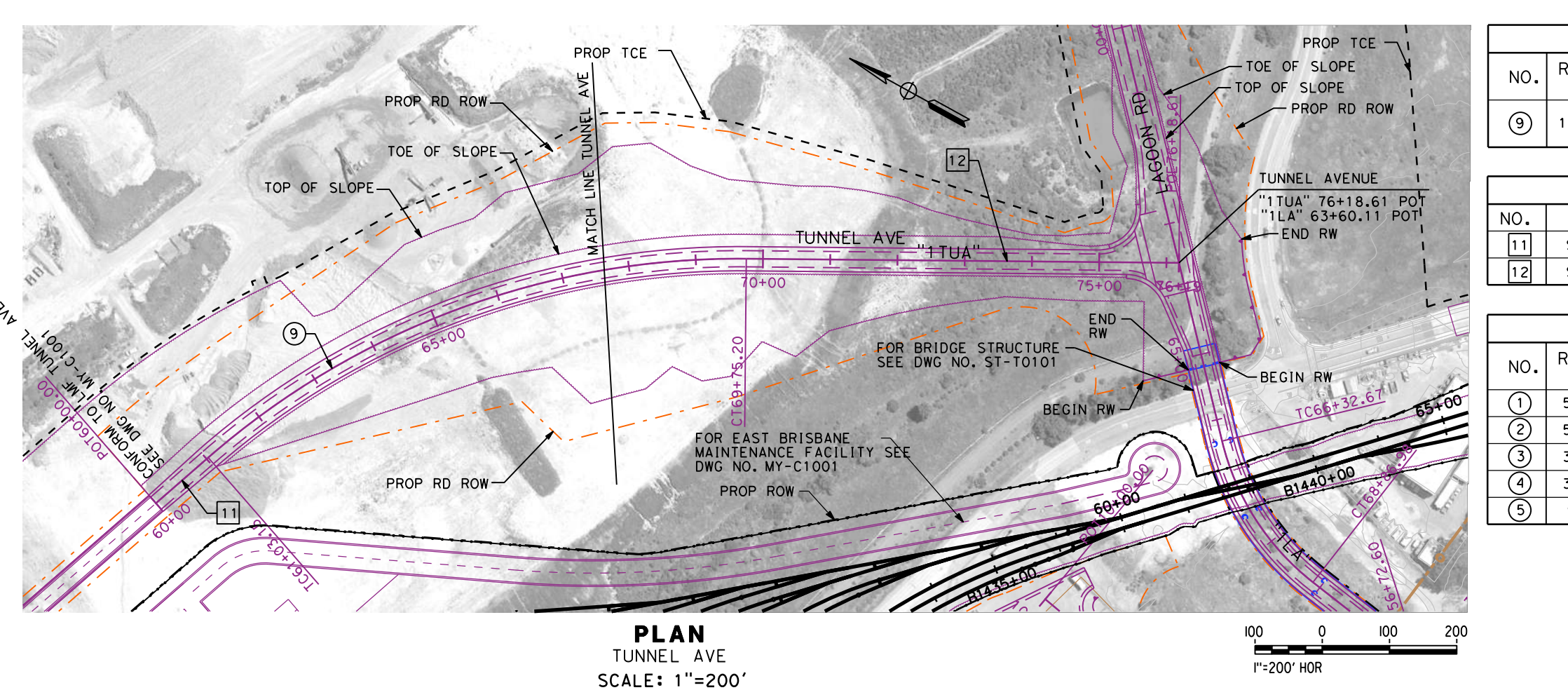
| | | | | | |
|---|--|---|--|---|--|
| 2021 RECORD SET PERD NOVEMBER 30, 2021 NOT FOR CONSTRUCTION | | 1111 Broadway 9th Floor Oakland, CA 94607 | | CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN JOSE TO MERCED CP COAST TO GILROY BLENDED AT-GRADE ALTERNATIVE UNDERPASSES GENERAL PLAN 2 OF 4 | CONTRACT NO. HSR15-34 DRAWING NO. ST-14002 SCALE AS SHOWN SHEET NO. |
|---|--|---|--|---|--|

NOTE:
 1. REFER TO GENERAL NOTES DRAWING NO. GE-B0101 FOR NOTES.



SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 67 OF 106

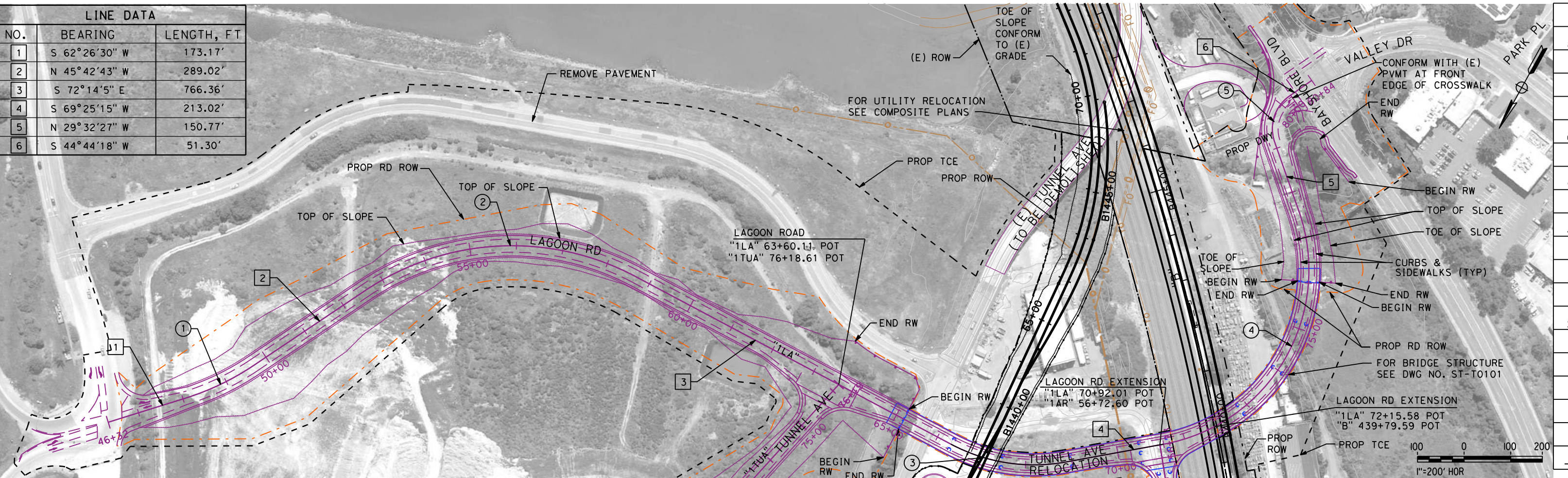
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|---|--|--|---|--|
| 2021 RECORD SET PERD NOVEMBER 30, 2021 NOT FOR CONSTRUCTION | HNTB 1111 Broadway 9th Floor Oakland, CA 94607 | CALIFORNIA High-Speed Rail Authority | CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN FRANCISCO TO SAN JOSE ALTERNATIVE A COMPLEX STRUCTURES LMF LEAD TRACK PERGOLA GENERAL PLAN | CONTRACT NO. HSR15-34 DRAWING NO. ST-V0101 SCALE AS SHOWN SHEET NO. |
|---|--|--|---|--|



| CURVE DATA | | | | |
|------------|-------------|-----------|--------------|-------------|
| NO. | RADIUS (FT) | DELTA | TANGENT (FT) | LENGTH (FT) |
| 9 | 1200.00 | 41°38'14" | 456.28' | 872.05' |

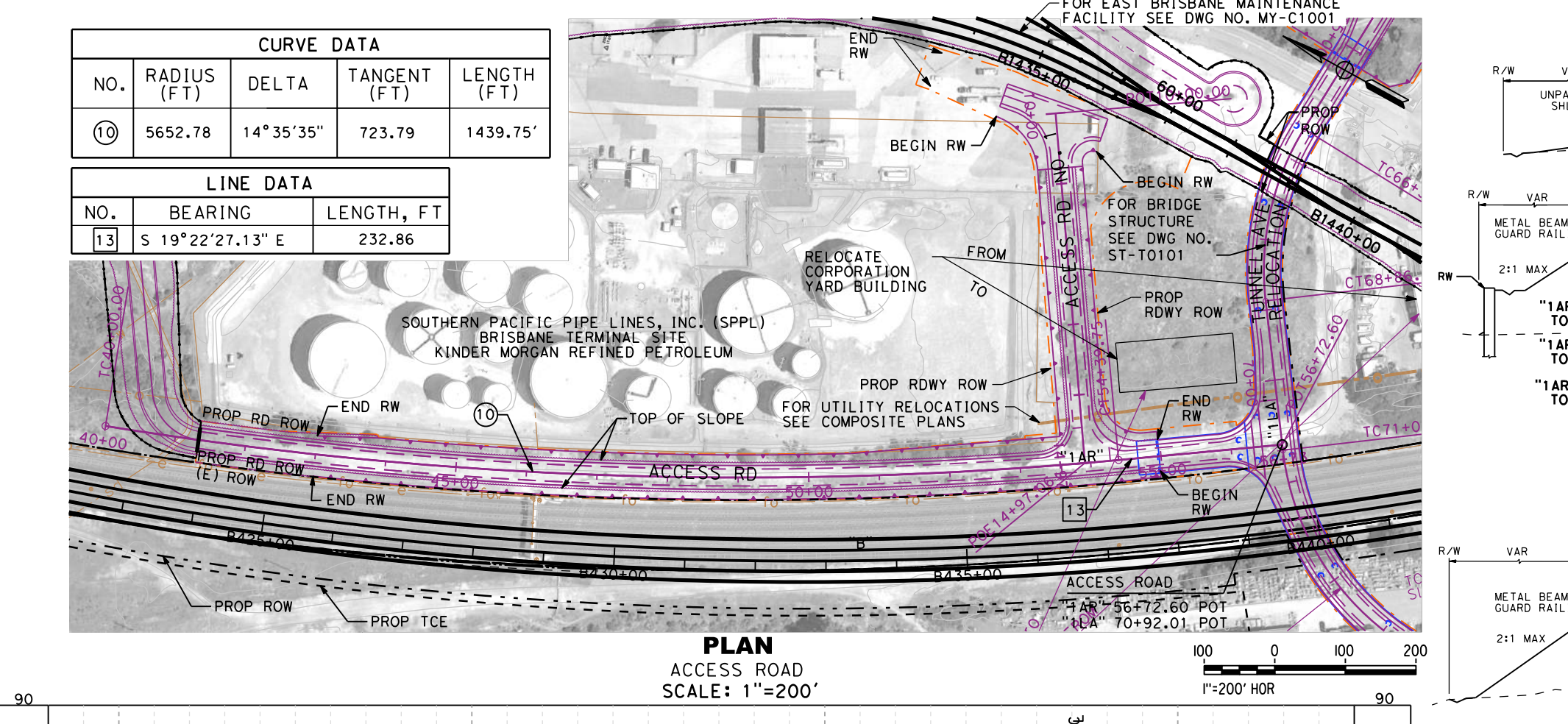
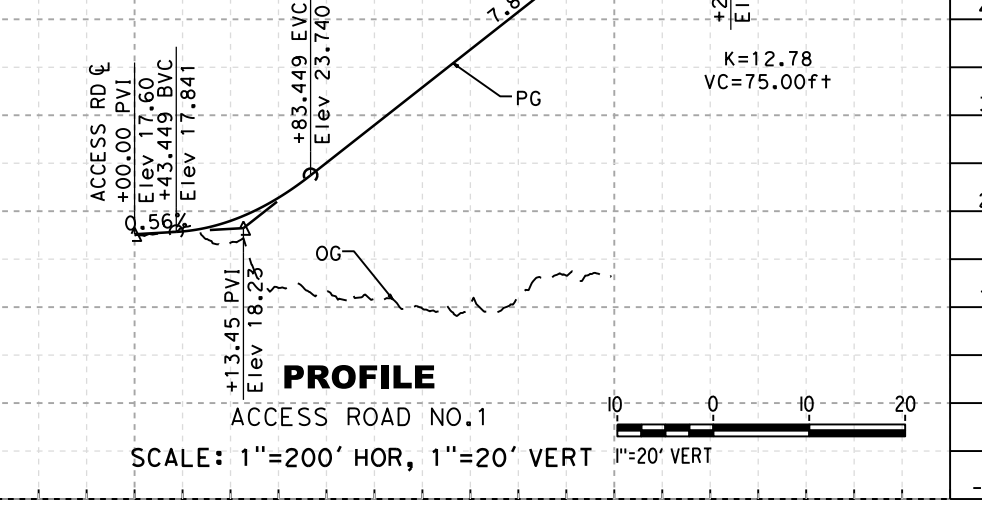
| LINE DATA | | |
|-----------|---------------|------------|
| NO. | BEARING | LENGTH, FT |
| 11 | S 09°43'19" E | 103.15' |
| 12 | S 31°54'54" E | 643.41' |

| CURVE DATA | | | |
|------------|-------------|-----------|-------------|
| NO. | RADIUS (FT) | DELTA | LENGTH (FT) |
| 1 | 564.00 | 16°33'47" | 82.09' |
| 2 | 564.00 | 61°53'11" | 338.12' |
| 3 | 380.00 | 38°20'40" | 132.12' |
| 4 | 380.00 | 98°57'42" | 444.62' |
| 5 | 95.00 | 74°16'46" | 225.06' |



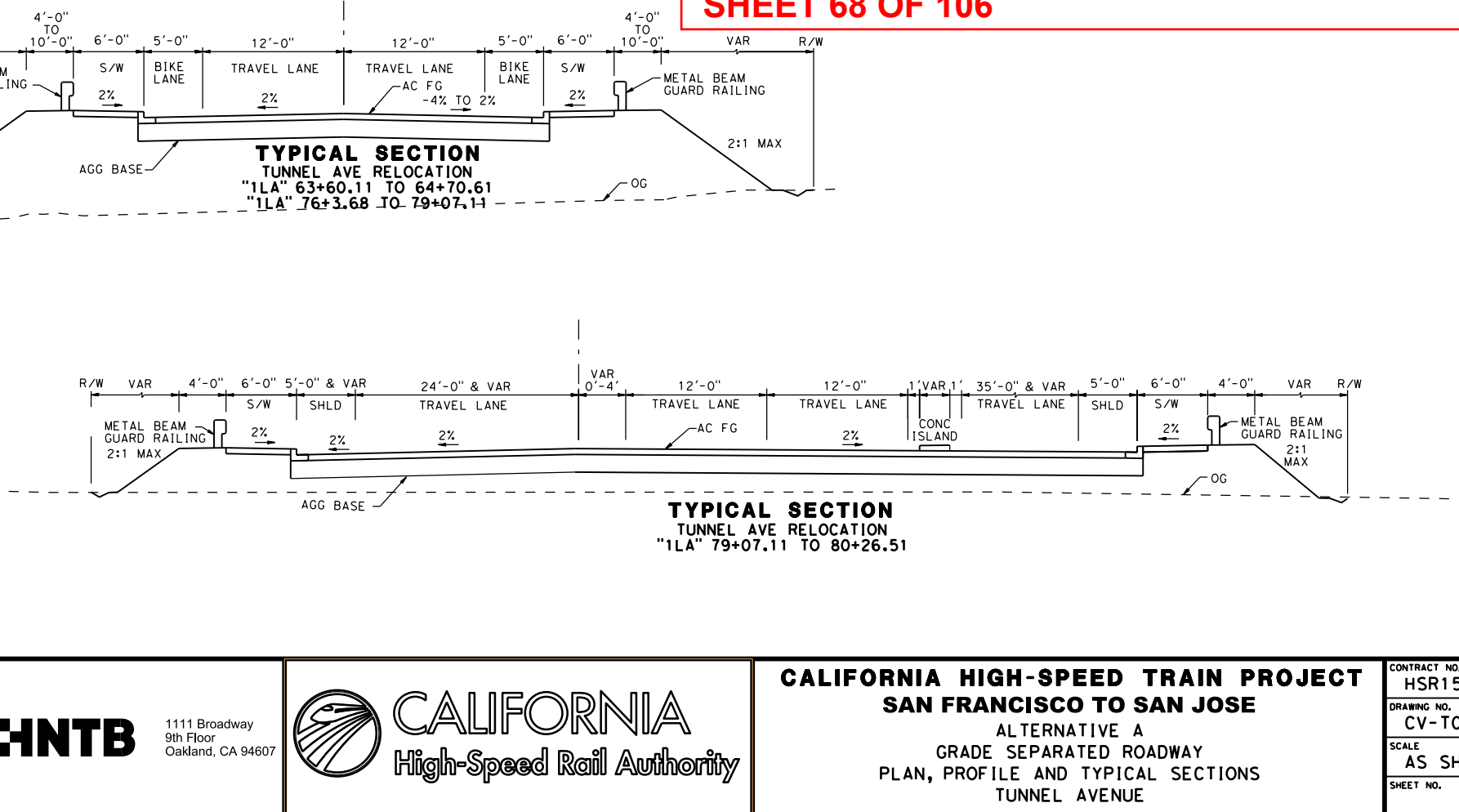
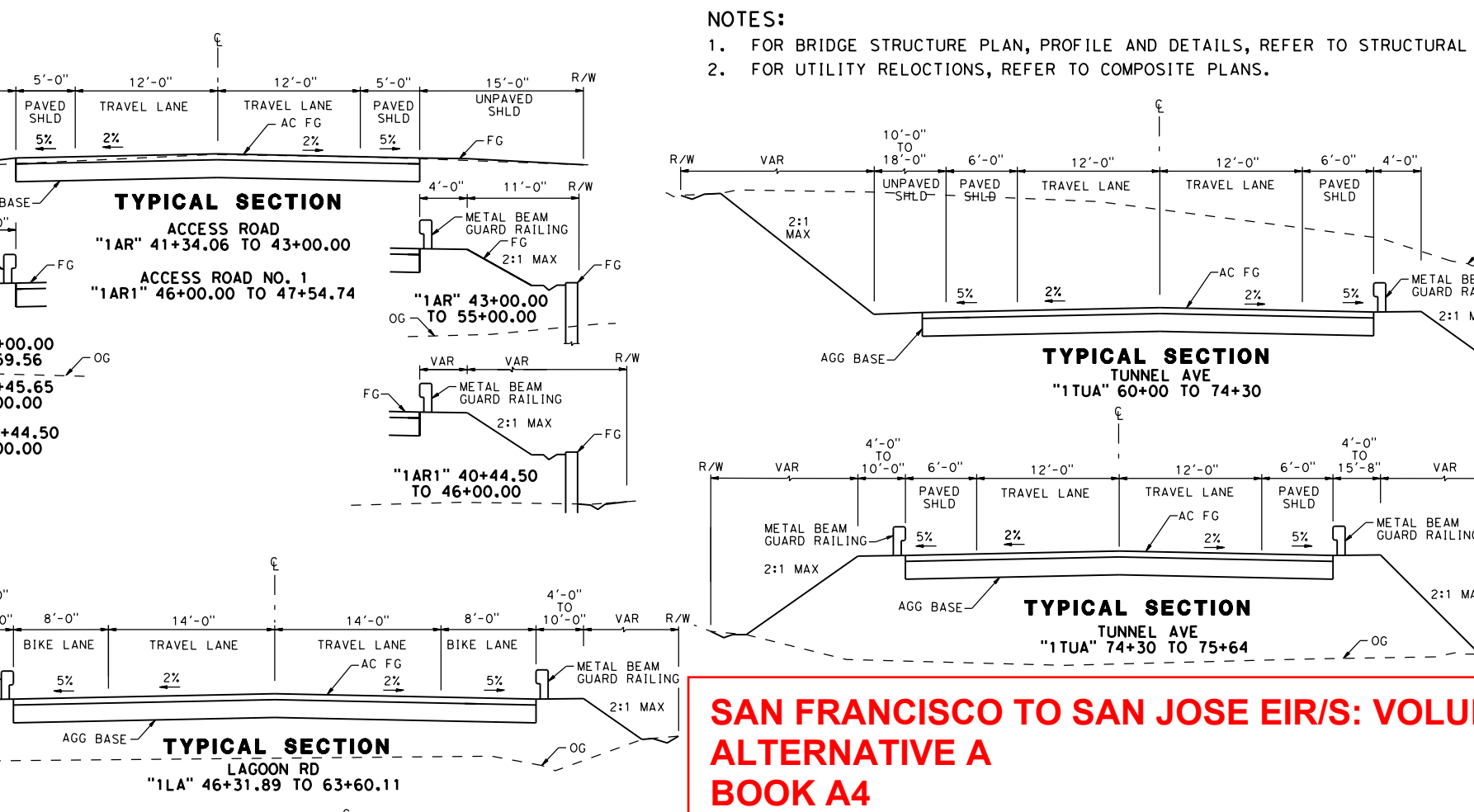
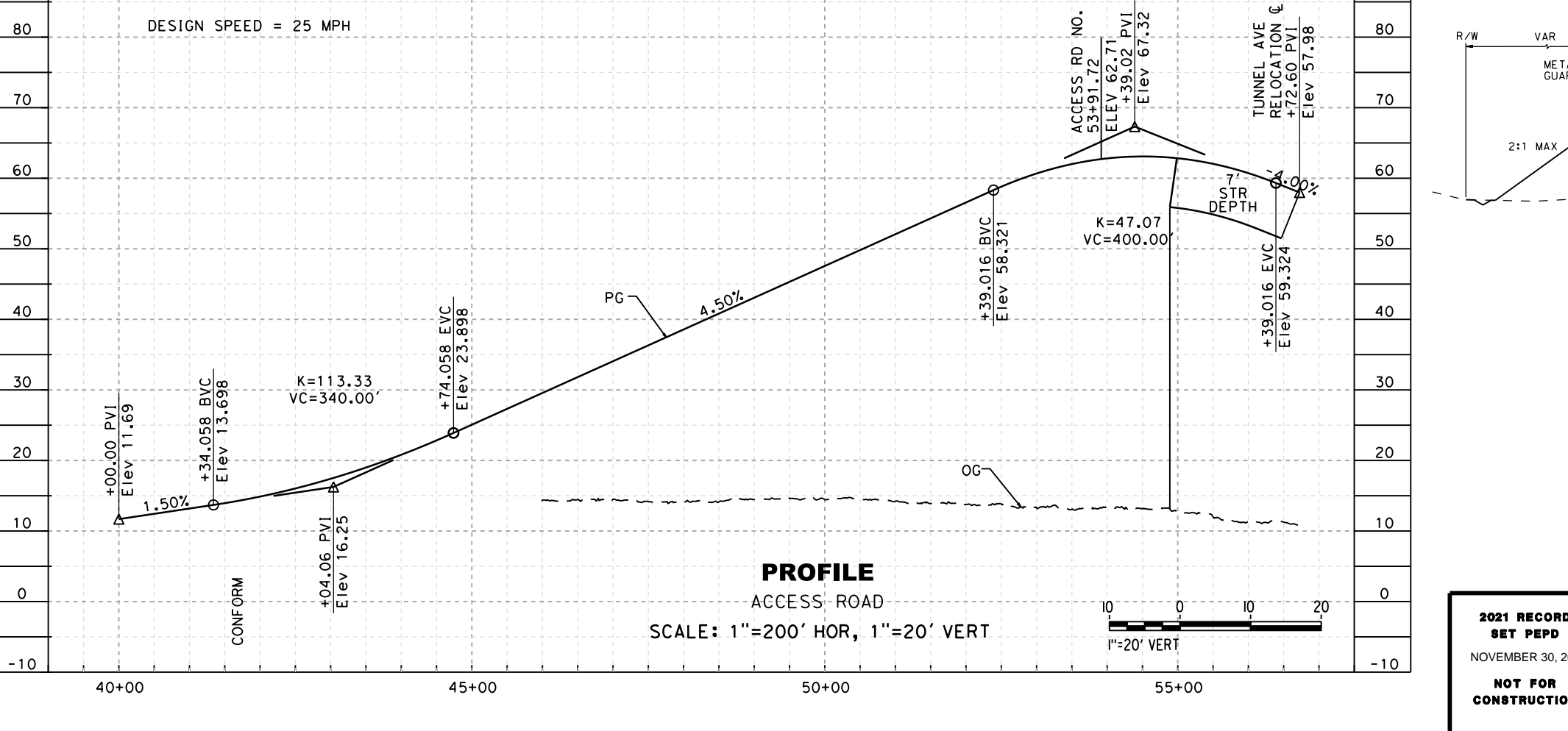
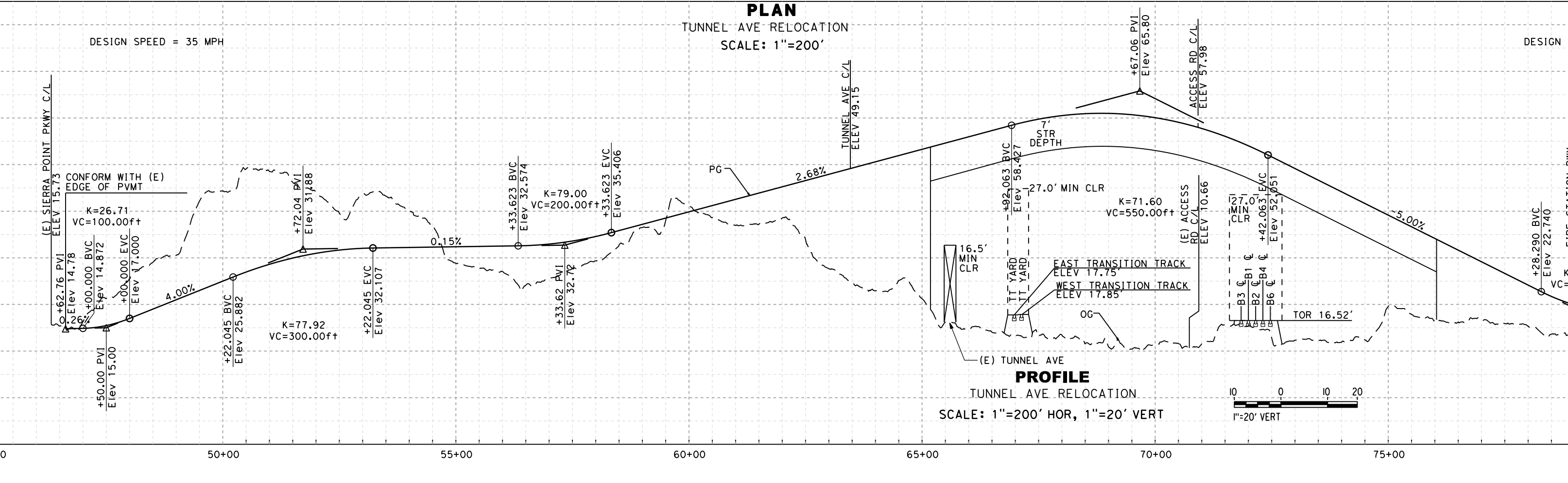
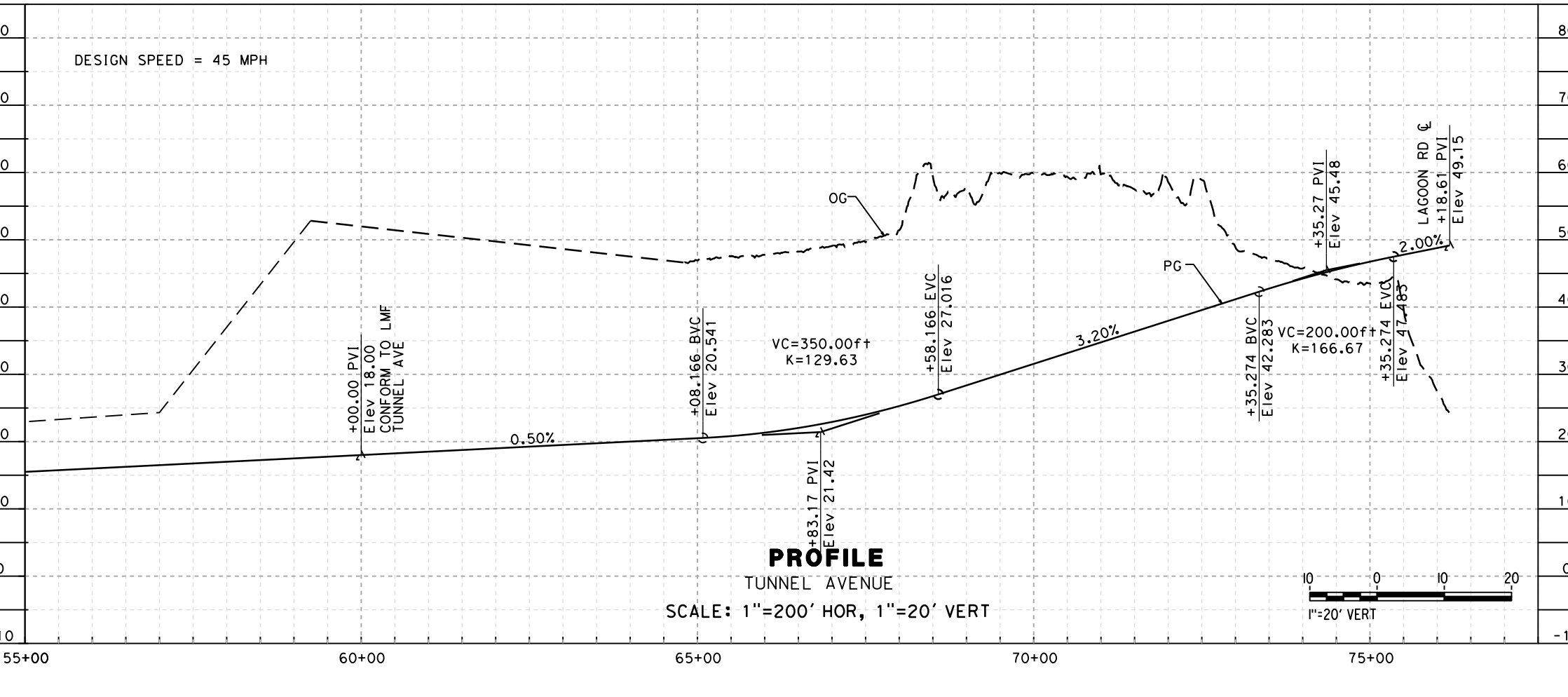
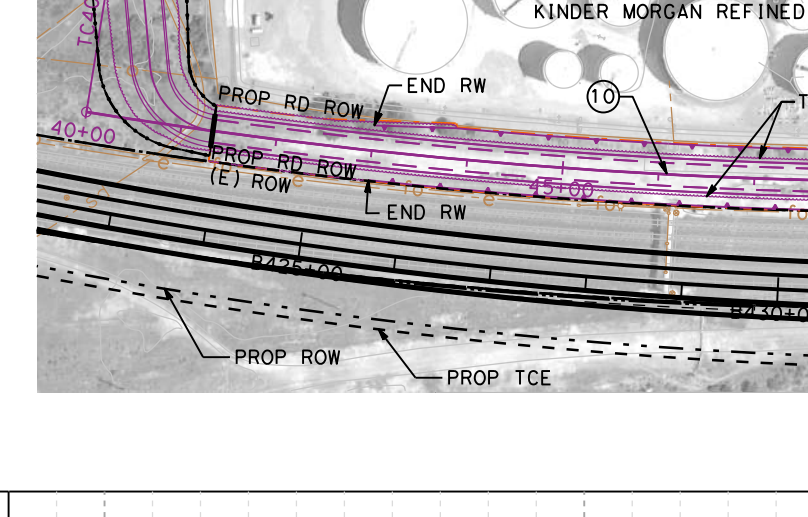
| CURVE DATA | | | | |
|------------|-------------|-----------|--------------|-------------|
| NO. | RADIUS (FT) | DELTA | TANGENT (FT) | LENGTH (FT) |
| 10 | 5652.78 | 14°35'35" | 723.79 | 1439.75' |

| LINE DATA | |
|-----------|------------------|
| NO. | BEARING |
| 13 | S 19°22'27.13" E |

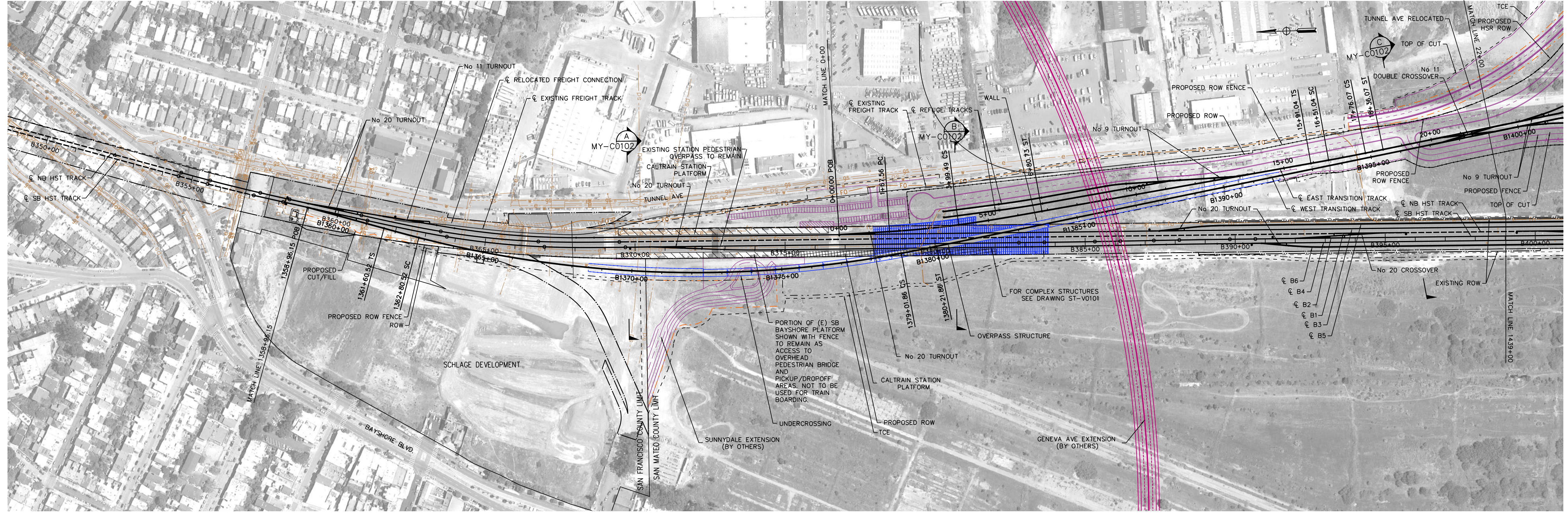


| CURVE DATA | | | | |
|------------|-------------|-----------|--------------|-------------|
| NO. | RADIUS (FT) | DELTA | TANGENT (FT) | LENGTH (FT) |
| 10 | 5652.78 | 14°35'35" | 723.79 | 1439.75' |

| LINE DATA | |
|-----------|------------------|
| NO. | BEARING |
| 13 | S 19°22'27.13" E |

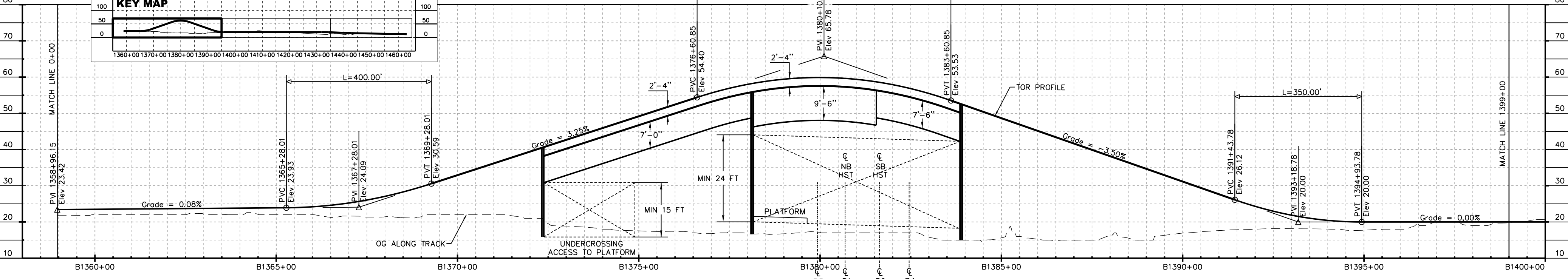


SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 68 OF 106

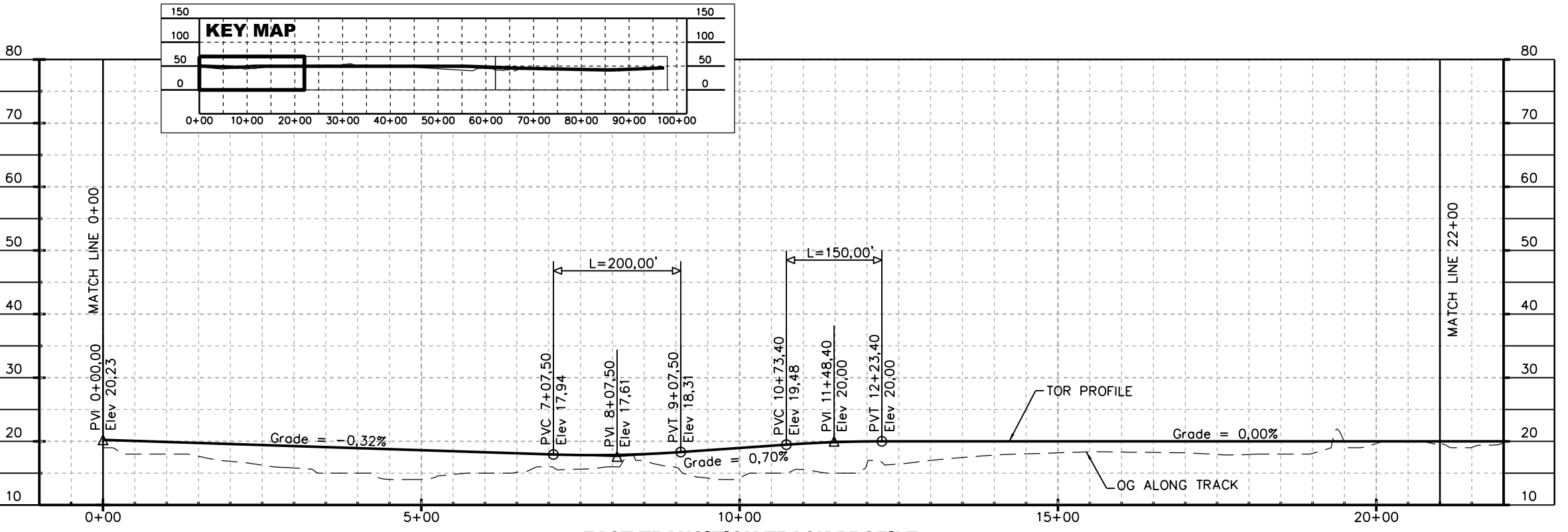


PLAN
SCALE: 1"=100'
1"=100' HOR
SCALE APPLICABLE FOR FULL SIZE ONLY

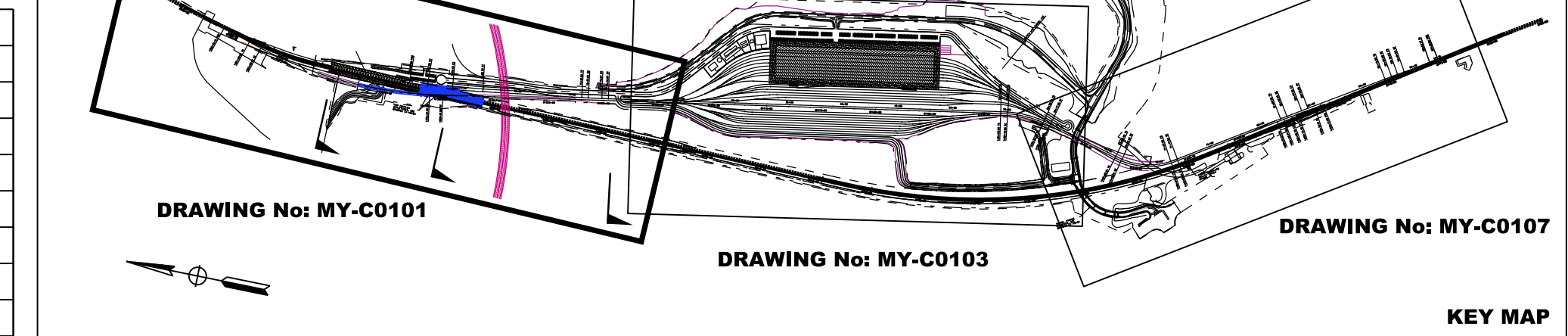
NOTES:
1. FOR UTILITY IMPACTS, ROADWAYS, STRUCTURES AND MAINLINE TRACK DESIGN, SEE COMPOSITE DRAWINGS FOR DETAIL.



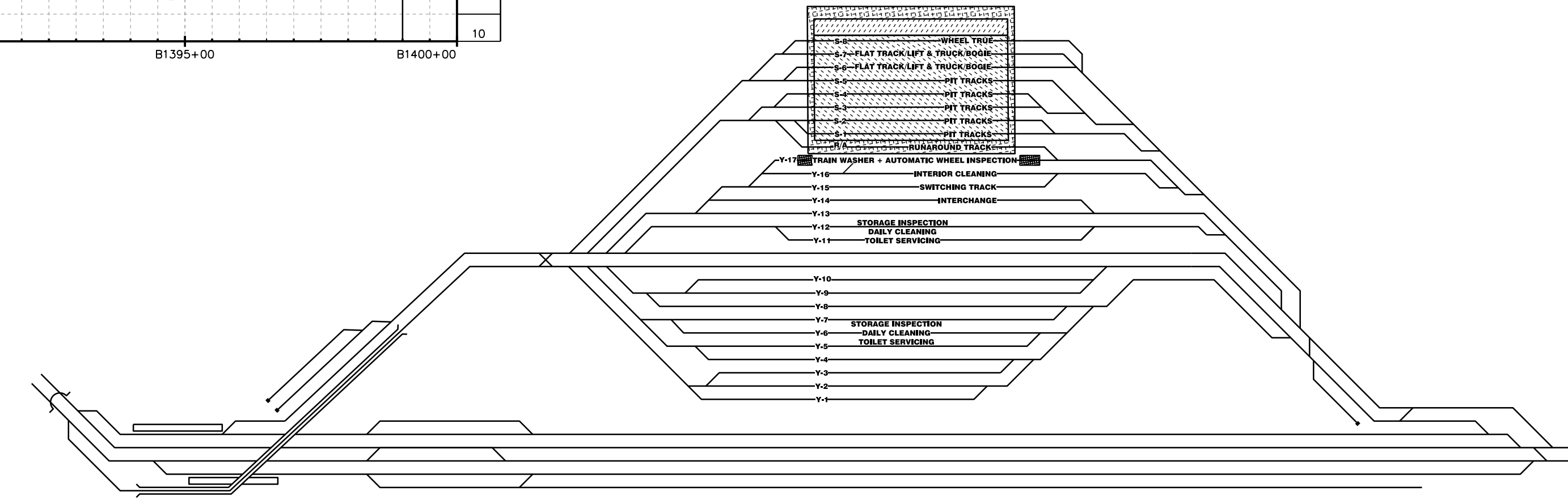
WEST TRANSITION TRACK PROFILE
SCALE: 1"=100' HOR, 1"=10' VERT
1"=10' VERT
SCALE APPLICABLE FOR FULL SIZE ONLY



EAST TRANSITION TRACK PROFILE
SCALE: 1"=100' HOR, 1"=10' VERT
1"=10' VERT
SCALE APPLICABLE FOR FULL SIZE ONLY



DRAWING No: MY-C0101
DRAWING No: MY-C0103
DRAWING No: MY-C0107
KEY MAP



SCHEME

SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 69 OF 106

2021 RECORD SET PERD
NOVEMBER 30, 2021
NOT FOR CONSTRUCTION



1111 Broadway
9th Floor
Oakland, CA 94607

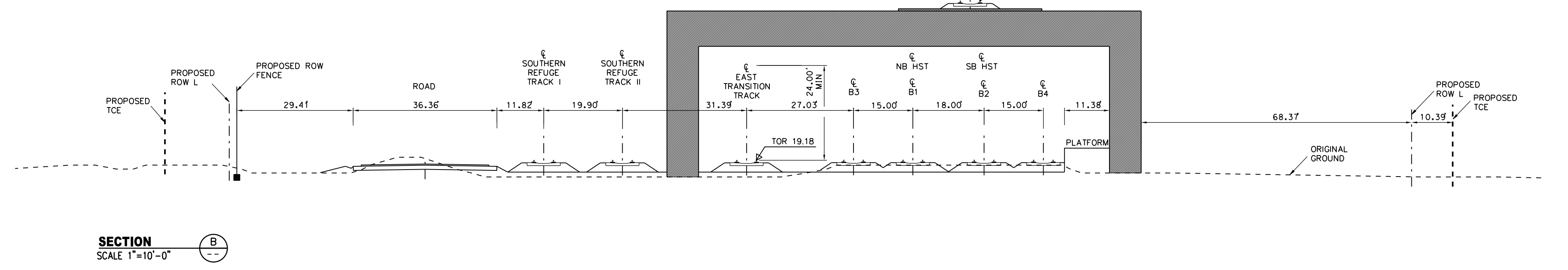
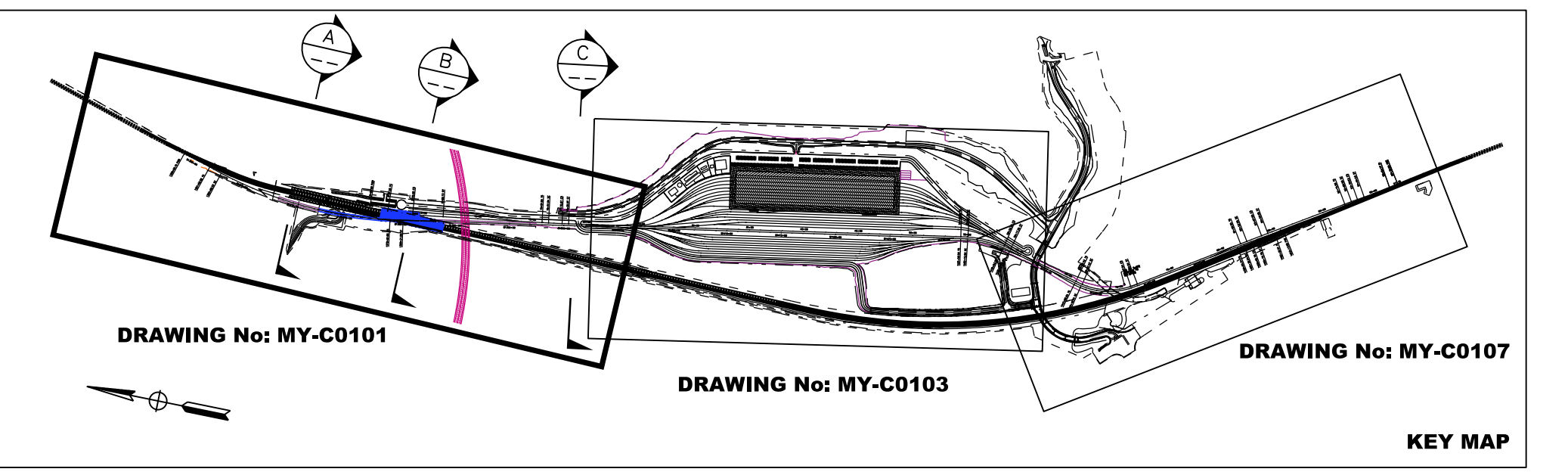


CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
ALTERNATIVE A FACILITY EAST
COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS

CONTRACT NO. HSR15-34
DRAWING NO. MY-C0101
SCALE AS SHOWN
SHEET NO.

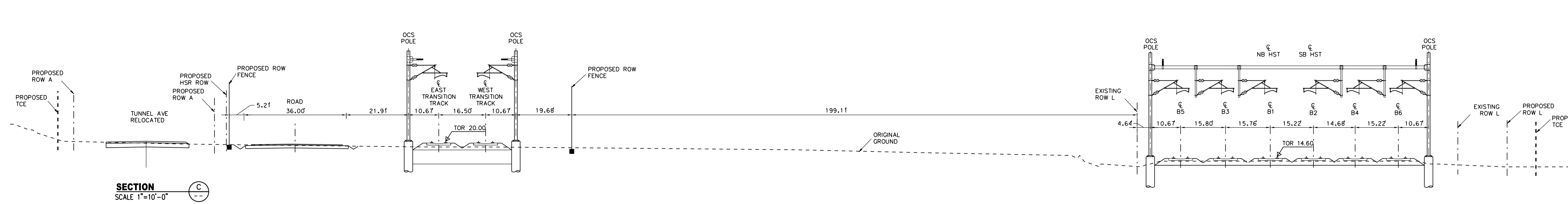
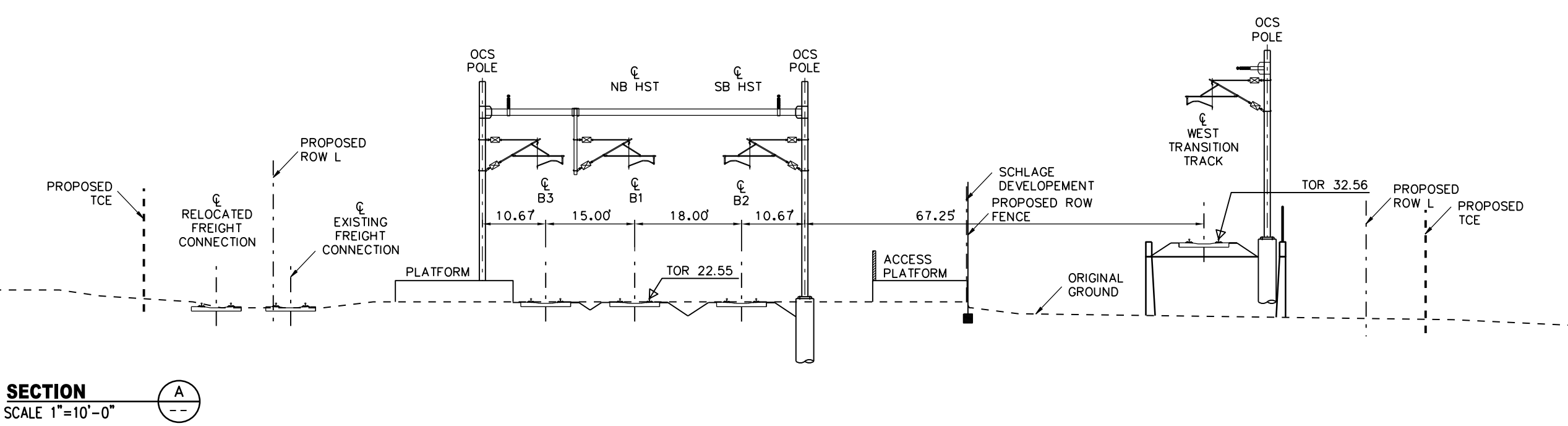
WEST TRANSITION TRACK GEOMETRY DATA

| CURVE | ELEMENT | POINT TYPE | B2 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, A | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EU)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | |
|----------|----------|------------|------------------|-------------|------------|-------------|-------------|----------|------|----|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| 1 | Tangent | POB | 1358+96.15 | 2087104.17 | 6011706.00 | | | | | | | | | S 17°14'37" W | | |
| | Tangent | TS | 1361+60.52 | 2088951.68 | 6011627.63 | | | | | | | | | | | |
| | Clothoid | TS | 1361+60.52 | 2088951.68 | 6011627.63 | | | | | | | | | | S 17°14'37" W | S 16°18'52" W |
| | | SPI | 1362+40.52 | 2086775.29 | 6011603.92 | 120 | 0°55'45" | 60 | 0.16 | | | | | | | |
| | | SC | 1362+80.52 | 2086736.89 | 6011592.68 | | | | | | | | | | | |
| | Arc | SC | 1362+80.52 | 2086736.89 | 6011592.68 | | | | | | | | | | S 16°18'52" W | S 8°47'35" E |
| | | PI | 1371+04.44 | 2084946.14 | 6011361.24 | 3700 | 29°06'28" | | | 45 | 1.25 | 0.939 | | | | |
| | | CC | 1379+01.86 | 2085131.91 | 6011487.19 | | | | | | | | | | | |
| | | CS | 1379+01.86 | 2085131.91 | 6011487.19 | | | | | | | | | | | |
| | Clothoid | CS | 1379+01.86 | 2085131.91 | 6011487.19 | | | | | | | | | | S 8°47'35" E | S 9°43'20" E |
| | | SPI | 1379+41.86 | 2085092.38 | 6011493.30 | 120 | 0°55'45" | 60 | 0.16 | | | | | | | |
| | | ST | 1380+21.86 | 2085013.53 | 6011506.81 | | | | | | | | | | | |
| Tangent | ST | 1380+21.86 | 2085013.53 | 6011506.81 | | | | | | | | | S 9°43'20" E | | | |
| Tangent | TS | 1431+50.50 | 2079958.54 | 6012372.90 | | | | | | | | | | | | |
| Clothoid | TS | 1431+50.50 | 2079958.54 | 6012372.90 | | | | | | | | | | S 9°43'20" E | S 7°45'44" E | |
| | SPI | 1431+93.83 | 2079911.83 | 6012380.21 | 65 | 1°57'36" | 32.5 | 0.19 | | | | | | | | |
| | SC | 1432+15.50 | 2079894.36 | 6012383.14 | | | | | | | | | | | | |
| Arc | SC | 1432+15.50 | 2079894.36 | 6012383.14 | | | | | | | | | | S 7°45'44" E | S 12°37'12" W | |
| | PI | 1433+86.28 | 2079726.14 | 6012406.21 | 950 | 20°22'56" | | | 22 | 1 | 1.038 | | | | | |
| | CC | 1435+53.29 | 2079558.49 | 6012368.89 | | | | | | | | | | | | |
| | CS | 1435+53.29 | 2079558.49 | 6012368.89 | | | | | | | | | | | | |
| Clothoid | CS | 1435+53.29 | 2079558.49 | 6012368.89 | | | | | | | | | | S 12°37'12" W | S 14°34'48" W | |
| | SPI | 1435+74.96 | 2079537.35 | 6012364.16 | 65 | 1°57'36" | 32.5 | 0.19 | | | | | | | | |
| | ST | 1436+18.29 | 2079495.40 | 6012353.25 | | | | | | | | | | | | |
| Tangent | ST | 1436+18.29 | 2079495.40 | 6012353.25 | | | | | | | | | S 14°34'48" W | | | |
| Tangent | TS | 1442+86.94 | 2078848.29 | 6012184.93 | | | | | | | | | | | | |
| Clothoid | TS | 1442+86.94 | 2078848.29 | 6012184.93 | | | | | | | | | | S 14°34'48" W | S 11°49'58" W | |
| | SPI | 1443+28.29 | 2078808.29 | 6012170.29 | 62 | 2°44'51" | 31 | 0.25 | | | | | | | | |
| | SC | 1443+48.94 | 2078788.05 | 6012170.29 | | | | | | | | | | | | |
| Arc | SC | 1443+48.94 | 2078788.05 | 6012170.29 | | | | | | | | | | S 30°06'09" E | S 30°06'09" E | |
| | PI | 1445+96.69 | 2078545.57 | 6012119.48 | 646.5 | 41°56'07" | | | 18 | 1 | 1.005 | | | | | |
| | CC | 1448+21.64 | 2078331.23 | 6012243.74 | | | | | | | | | | | | |
| | CS | 1448+21.64 | 2078331.23 | 6012243.74 | | | | | | | | | | | | |
| Clothoid | CS | 1448+21.64 | 2078331.23 | 6012243.74 | | | | | | | | | | S 30°06'09" E | S 32°51'00" E | |
| | SPI | 1448+42.31 | 2078313.35 | 6012254.11 | 62 | 2°44'51" | 31 | 0.25 | | | | | | | | |
| | ST | 1448+83.64 | 2078278.62 | 6012276.53 | | | | | | | | | | | | |



EAST TRANSITION TRACK GEOMETRY DATA

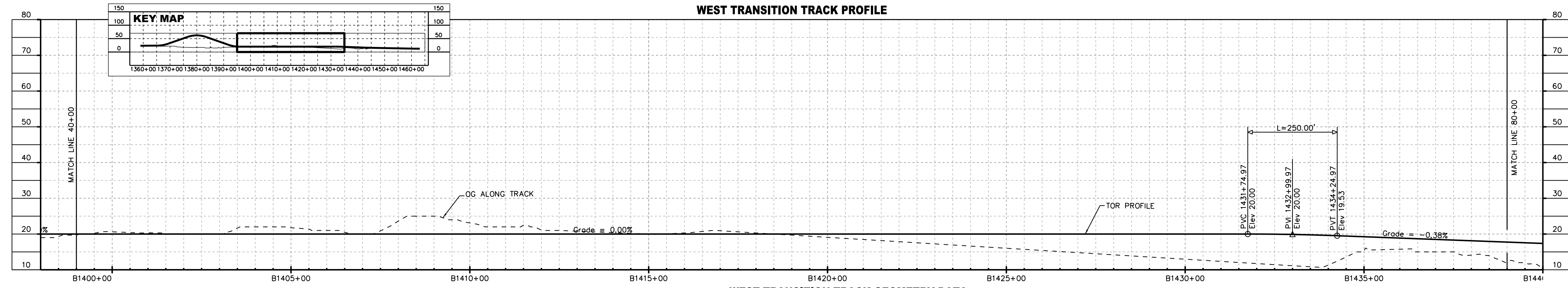
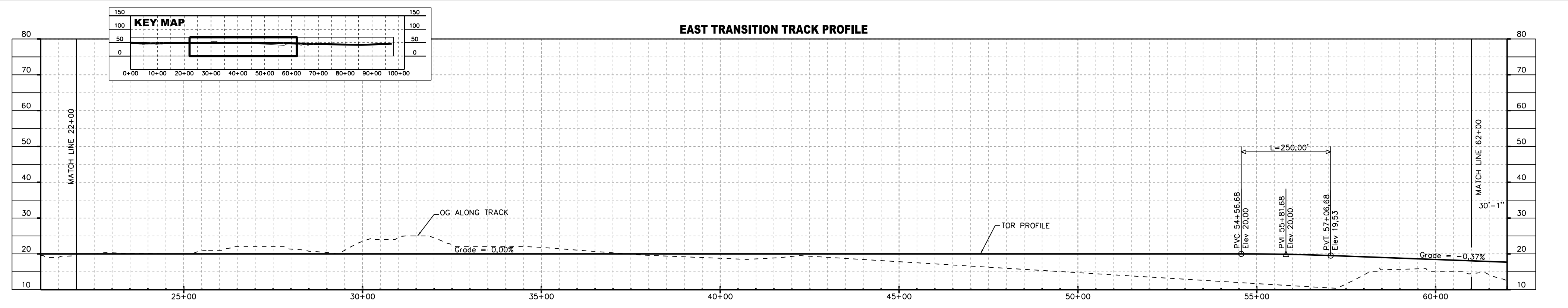
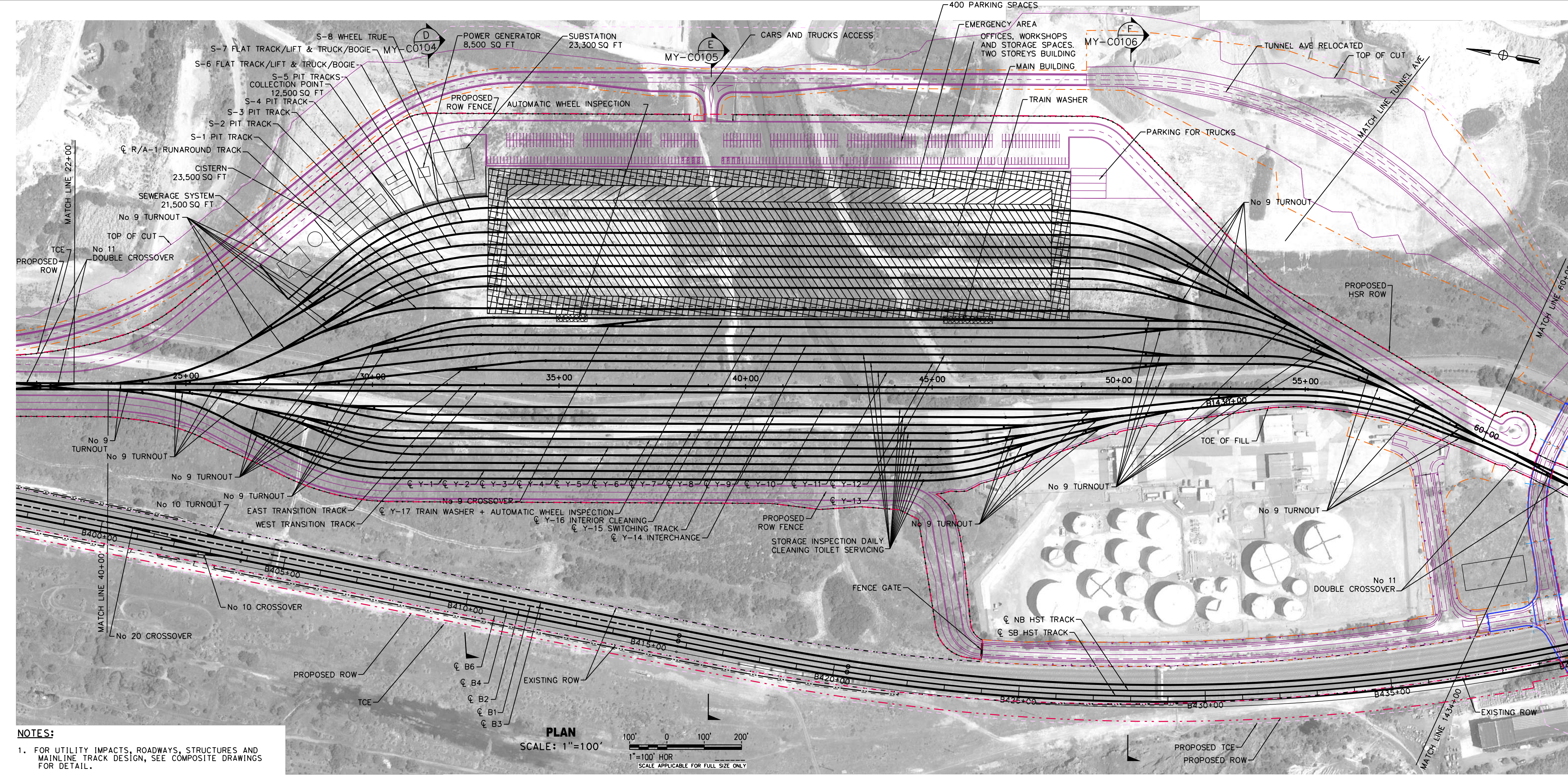
| CURVE | ELEMENT | POINT TYPE | B2 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, A | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EU)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | |
|----------|----------|------------|------------------|-------------|------------|-------------|-------------|----------|------|-------|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|--------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| 1 | Tangent | POB | 0+00.00 | 2085169.06 | 6011561.61 | | | | | | | | | S 1°38'24" E | | |
| | Tangent | TS | 1+67.56 | 2085169.06 | 6011561.61 | | | | | | | | | | | |
| | Arc | TS | 1+67.56 | 2085169.06 | 6011561.61 | | | | | | | | | | S 1°38'24" E | S 5°43'43" E |
| | | PI | 2+83.58 | 2085053.1 | 6011564.32 | 3250 | 231.93 | 4°05'20" | | 49 | 0.000 | 2.955 | | | | |
| | | CC | 3+99.49 | 2084931.66 | 6011575.9 | | | | | | | | | | | |
| | Clothoid | CC | 3+99.49 | 2084931.66 | 6011575.9 | | | | | | | | | | S 5°43'43" E | S 8°12'28" E |
| | | SPI | 4+93.25 | 2084844.37 | 6011585.26 | 281.24 | 2°28'45" | 140.61 | 1.01 | | | | | | | |
| | | SC | 6+80.73 | 2084658.78 | 6011612.03 | | | | | | | | | | | |
| | | ST | 6+80.73 | 2084658.78 | 6011612.03 | | | | | | | | | | | |
| | Tangent | ST | 6+80.73 | 2084658.78 | 6011612.03 | | | | | | | | | S 8°12'28" E | | |
| | Tangent | TS | 15+91.04 | 2083757.79 | 6011741.98 | | | | | | | | | | | |
| | Clothoid | TS | 15+91.04 | 2083757.79 | 6011741.98 | | | | | | | | | | S 8°12'28" E | S 8°27'12" E |
| SPI | | 16+51.04 | 2083717.79 | 6011741.98 | 60 | 0°14'44" | 30 | 0.02 | | | | | | | | |
| SC | | 16+51.04 | 2083698.42 | 6011750.64 | | | | | | | | | | | | |
| Arc | SC | 16+51.04 | 2083698.42 | 6011750.64 | | | | | | | | | | S 8°27'12" E | S 9°28'36" E | |
| | PI | 17+13.56 | 2083636.58 | 6011759.83 | 7000 | 125.03 | 1°01'24" | | 49 | 0.750 | 0.622 | | | | | |
| | CC | 17+76.07 | 2083574.92 | 6011770.12 | | | | | | | | | | | | |
| | CS | 17+76.07 | 2083574.92 | 6011770.12 | | | | | | | | | | | | |
| Clothoid | CS | 17+76.07 | 2083574.92 | 6011770.12 | | | | | | | | | | S 9°28'36" E | S 9°43'20" E | |
| | SPI | 17+96.07 | 2083551.77 | 6011780.17 | 60 | 0°14'44" | 30 | 0.02 | | | | | | | | |
| | ST | 18+36.07 | 2083515.77 | 6011780.17 | | | | | | | | | | | | |



**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 70 OF 106**

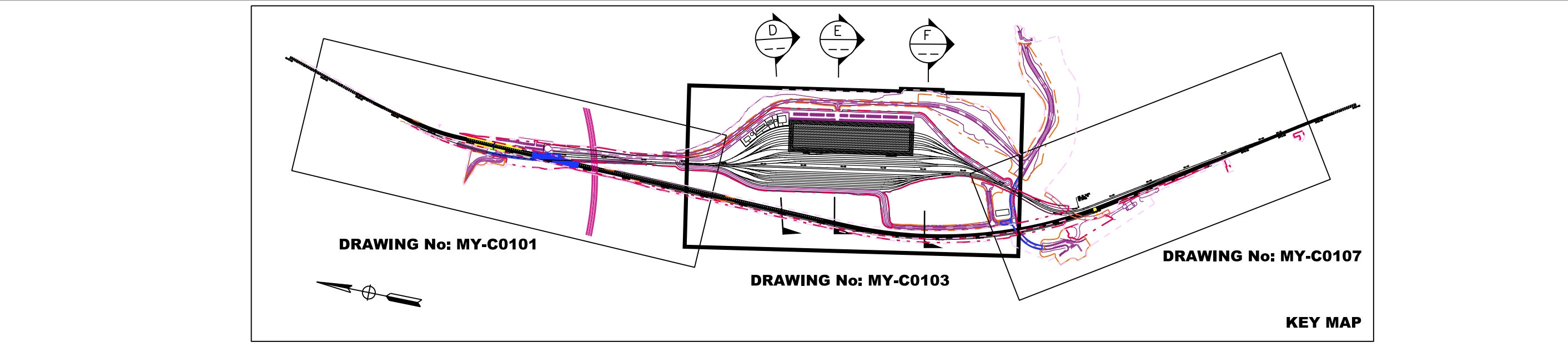
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|---|--|--------------------------------------|---|--|
| 2021 RECORD SET PERD NOVEMBER 30, 2021 NOT FOR CONSTRUCTION | HNTB 1111 Broadway 9th Floor Oakland, CA 94607 | CALIFORNIA High-Speed Rail Authority | CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN FRANCISCO TO SAN JOSE ALTERNATIVE A BRISBANE LIGHT MAINTENANCE FACILITY EAST COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | CONTRACT NO. HSR15-34 DRAWING NO. MY-C0102 SCALE AS SHOWN SHEET NO. |
|---|--|--------------------------------------|---|--|

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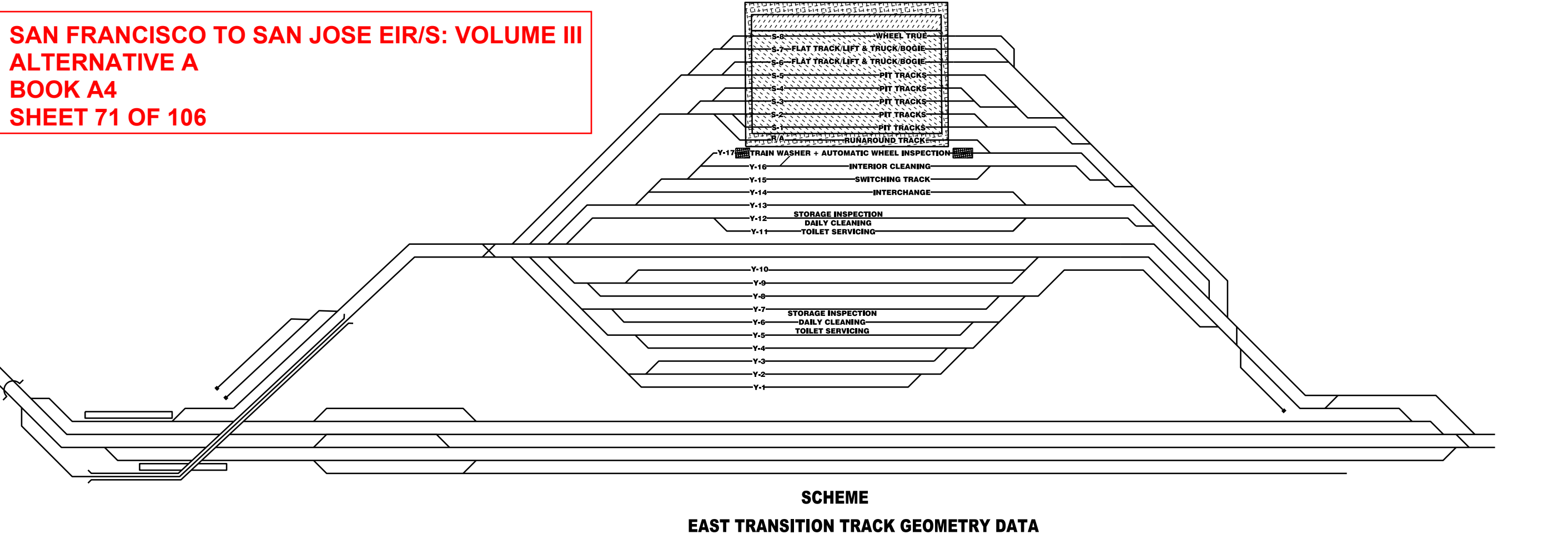


WEST TRANSITION TRACK GEOMETRY DATA

| CURVE | ELEMENT | POINT TYPE | B2 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, A | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EU)(IN) | WCB (0°00'00") (TANGENT) | | |
|-------|----------|------------|------------------|-------------|------------|-------------|-------------|----------|------|----|--------------------|--------------------------------|------------------------------------|--------------------------|---------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | START ANGLE | END ANGLE | |
| 3 | Tangent | TS | 18+36.07 | 208315.77 | 6011780.17 | | | | | | | | | | | |
| | Tangent | TS | 54+42.30 | 207996.33 | 6012389.16 | | | | | | | | | | | |
| 3 | Clothoid | TS | 54+42.30 | 207996.33 | 6012389.16 | 65 | 0°26'17" | 32.5 | 0.04 | | | | | | S 32°51'00" E | S 32°24'43" E |
| | Clothoid | SPI | 54+85.64 | 207998.63 | 6012396.48 | | | | | | | | | | | |
| 4 | Clothoid | SC | 1459+30.24 | 2077399.29 | 6012844.11 | | | | | | | | | | | |
| | Arc | SC | 1459+30.24 | 2077399.29 | 6012844.11 | 4250 | 75.55 | 1°01'07" | | 46 | 1 | 0.992 | | | S 32°24'43" E | S 31°23'36" E |
| 4 | Arc | PI | 1459+68.01 | 2077367.40 | 6012864.36 | | | | | | | | | | | |
| | Arc | CS | 1460+05.78 | 2077335.16 | 6012884.03 | | | | | | | | | | | |
| 4 | Clothoid | CS | 1460+05.78 | 2077335.16 | 6012884.03 | | | | | | | | | | | |
| | Clothoid | SPI | 1460+27.45 | 2077316.66 | 6012895.32 | 65 | 0°26'17" | 32.5 | 0.04 | | | | | | S 31°23'36" E | S 30°57'19" E |
| 4 | Clothoid | SI | 1460+70.78 | 2077279.50 | 6012917.61 | | | | | | | | | | | |



**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 71 OF 106**



EAST TRANSITION TRACK GEOMETRY DATA

| CURVE | ELEMENT | POINT TYPE | B2 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, A | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EU)(IN) | WCB (0°00'00") (TANGENT) | | |
|-------|----------|------------|------------------|-------------|------------|-------------|-------------|----------|------|---|--------------------|--------------------------------|------------------------------------|--------------------------|---------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | START ANGLE | END ANGLE | |
| 3 | Tangent | ST | 18+36.07 | 208315.77 | 6011780.17 | | | | | | | | | | | |
| | Tangent | TS | 54+42.30 | 207996.33 | 6012389.16 | | | | | | | | | | | |
| 3 | Clothoid | TS | 54+42.30 | 207996.33 | 6012389.16 | 65 | 0°26'17" | 32.5 | 0.18 | | | | | | S 32°51'00" E | S 32°24'43" E |
| | Clothoid | SPI | 54+85.64 | 207998.63 | 6012396.48 | | | | | | | | | | | |
| 3 | Clothoid | SC | 55+07.30 | 2079997.15 | 6012399.42 | | | | | | | | | | | |

NOTES:
1. FOR UTILITY IMPACTS, ROADWAYS, STRUCTURES AND MAINLINE TRACK DESIGN, SEE COMPOSITE DRAWINGS FOR DETAIL.

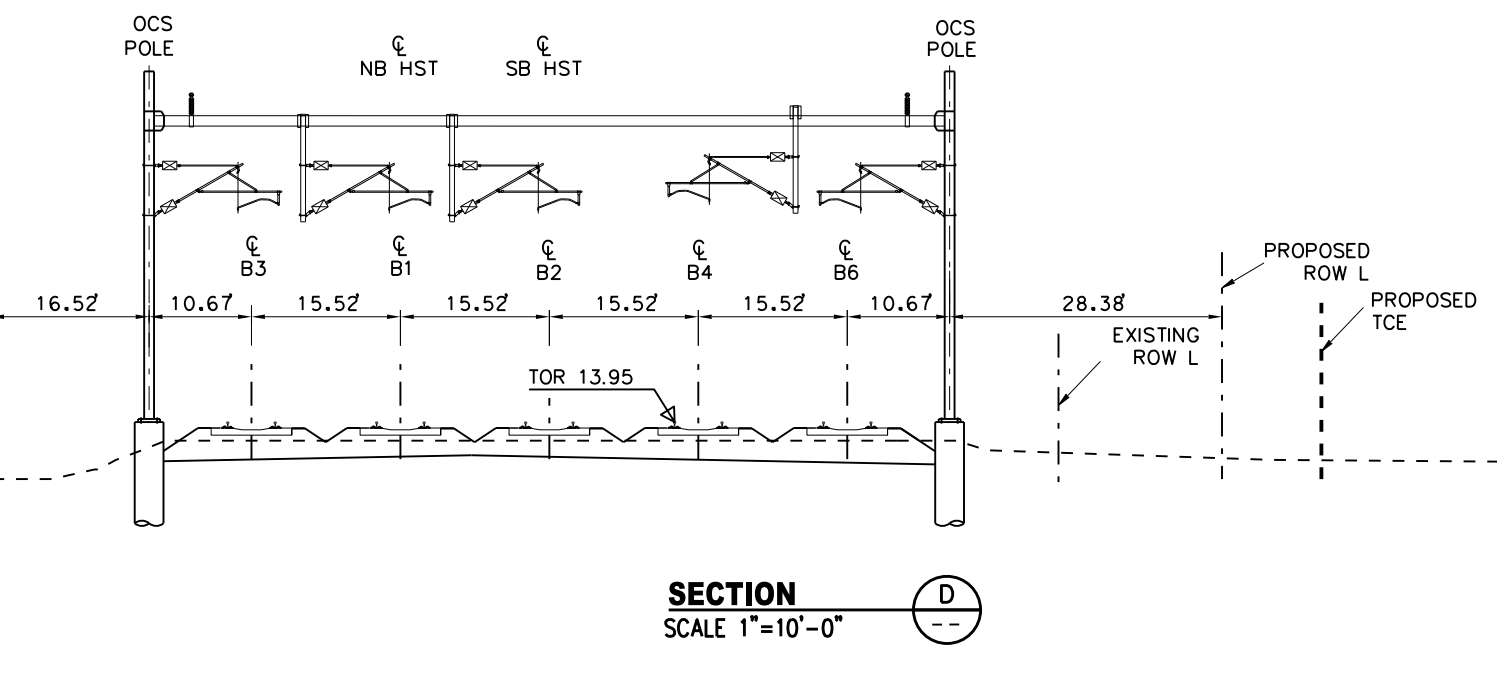
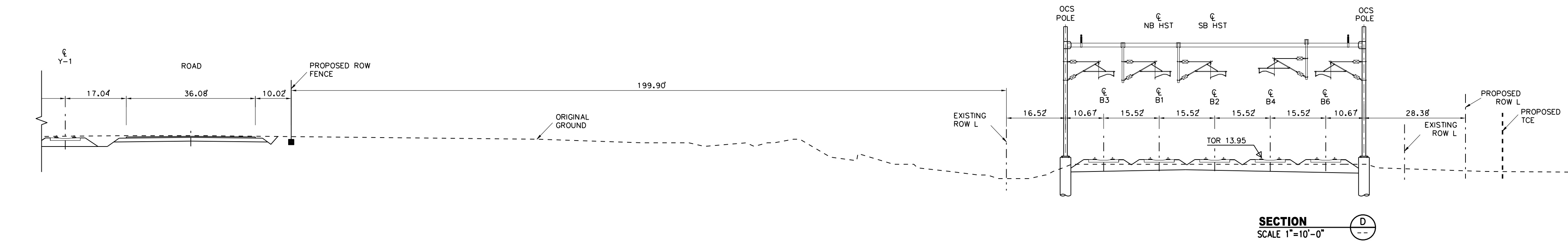
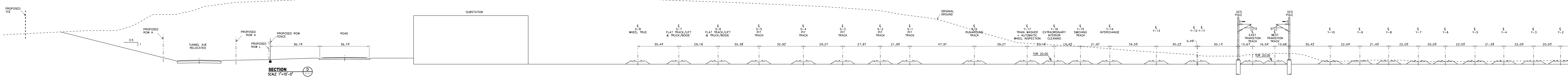
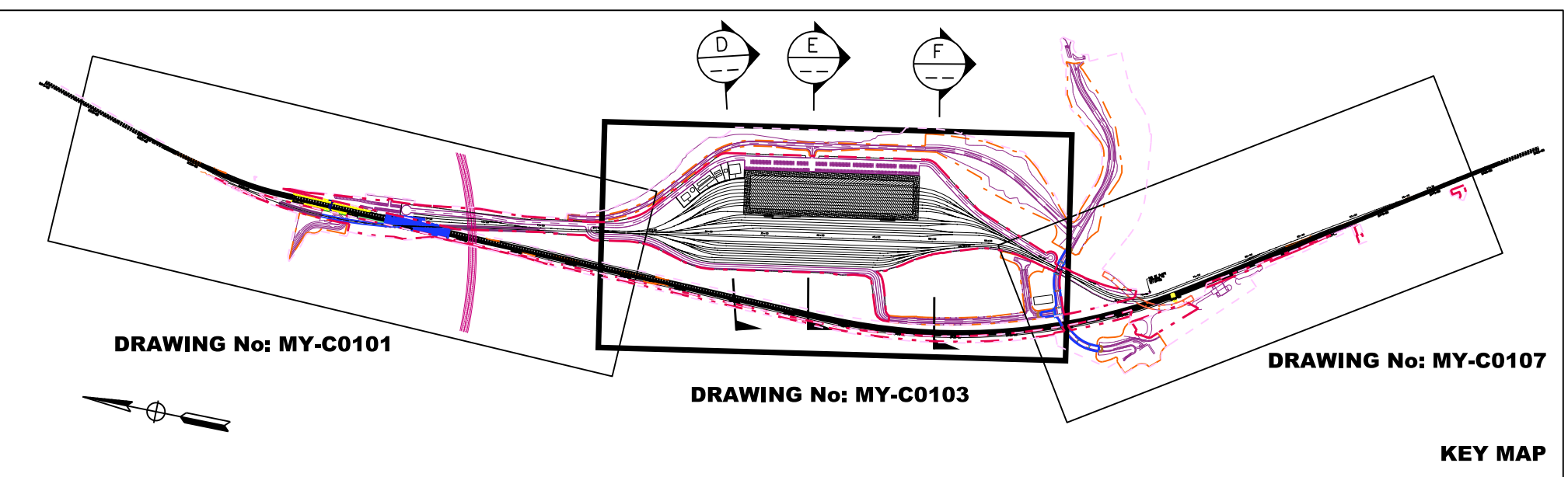
2021 RECORD SET PERD NOVEMBER 30, 2021 NOT FOR CONSTRUCTION

HNTB 1111 Broadway 9th Floor Oakland, CA 94607

CALIFORNIA High-Speed Rail Authority

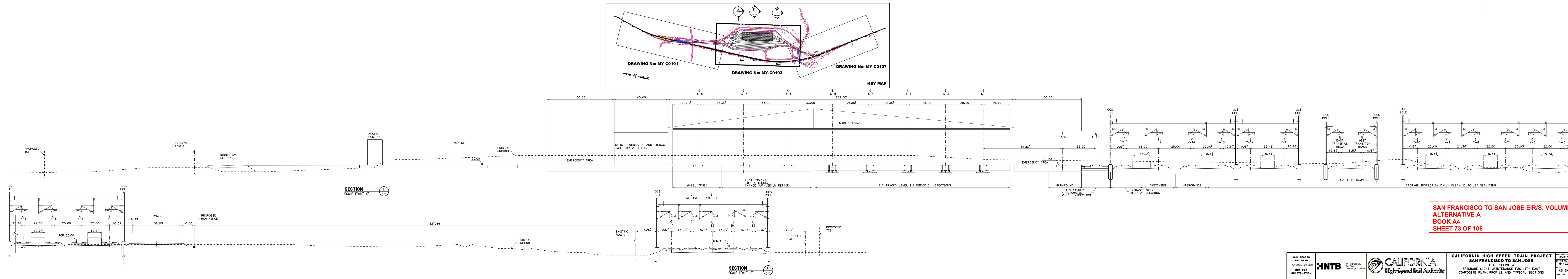
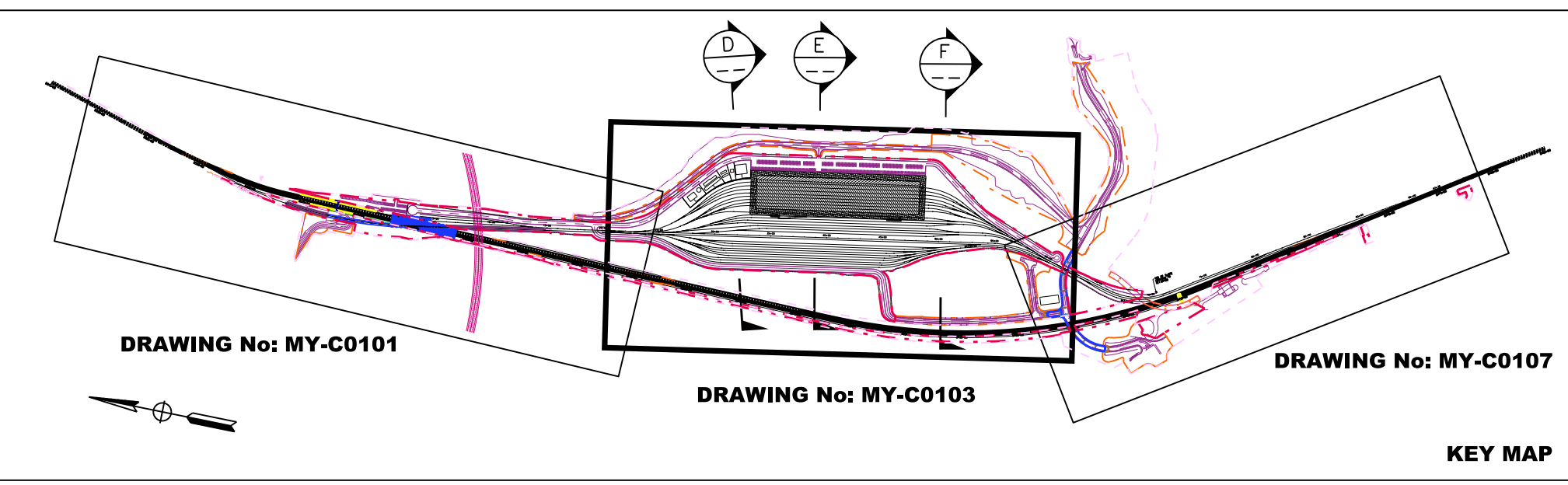
CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN FRANCISCO TO SAN JOSE
ALTERNATIVE A FACILITY EAST
BRISBANE LIGHT MAINTENANCE FACILITY EAST
COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS

CONTRACT NO. HSR15-34
DRAWING NO. MY-C0103
SCALE AS SHOWN
SHEET NO.



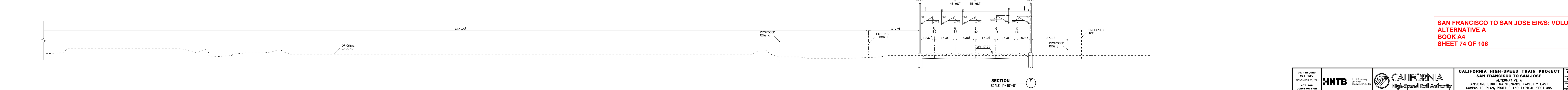
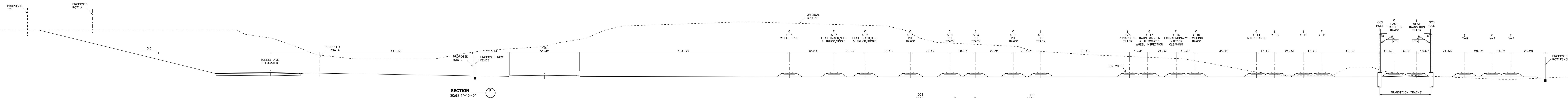
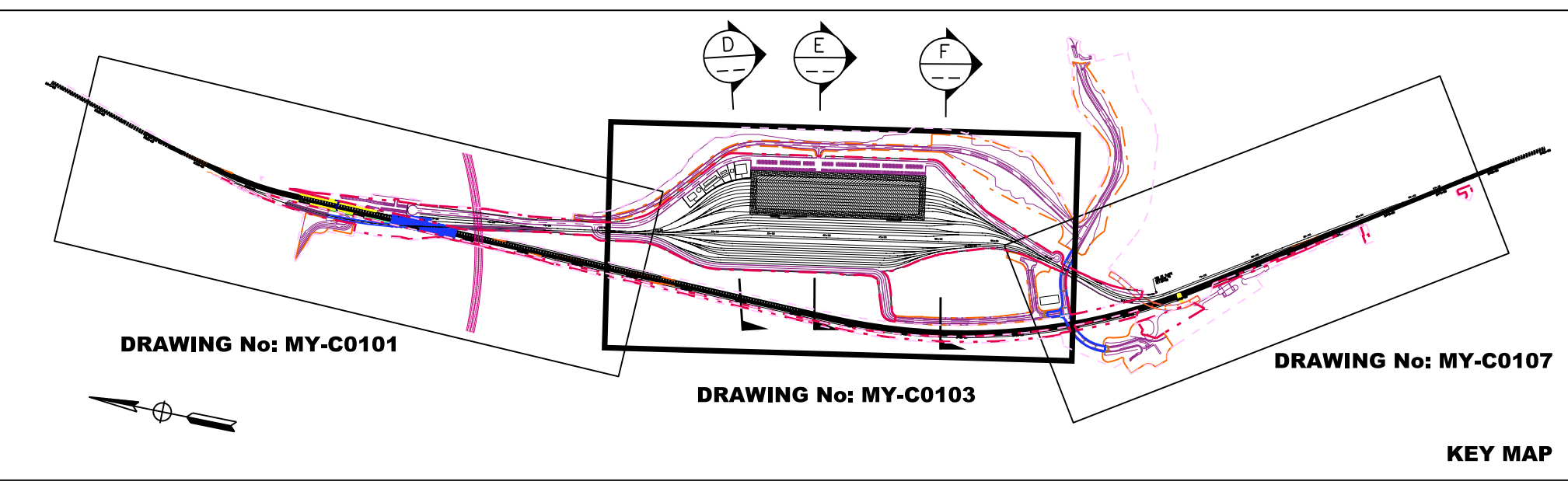
SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 72 OF 106

| | | | | |
|---|--|--|---|---|
| 2021 RECORD SET PERD NOVEMBER 30, 2021 NOT FOR CONSTRUCTION | HNTB 1111 Broadway 9th Floor Oakland, CA 94607 | | CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN FRANCISCO TO SAN JOSE ALTERNATIVE A BRISBANE LIGHT MAINTENANCE FACILITY EAST COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | CONTRACT NO. HSR15-34 DRAWING NO. MY-C0104 SCALE AS SHOWN SHEET NO. |
|---|--|--|---|---|



SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 73 OF 106

| | | | | |
|---|--|--|---|--|
| 2021 RECORD SET PERD NOVEMBER 30, 2021 NOT FOR CONSTRUCTION | HNTB 1111 Broadway 9th Floor Oakland, CA 94607 | | CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN FRANCISCO TO SAN JOSE ALTERNATIVE A BRISBANE LIGHT MAINTENANCE FACILITY EAST COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | CONTRACT NO. HSR15-34 DRAWING NO. MY-C0105 SCALE AS SHOWN SHEET NO. |
|---|--|--|---|--|



SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 74 OF 106

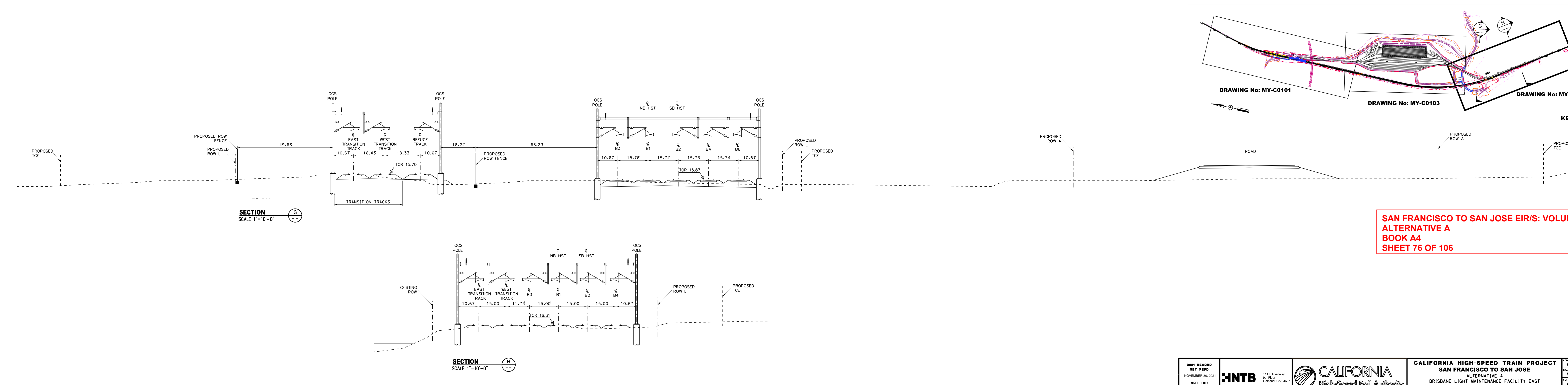
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|---|--|--|---|--|
| 2021 RECORD SET PERD NOVEMBER 30, 2021 NOT FOR CONSTRUCTION | HNTB 1111 Broadway 9th Floor Oakland, CA 94607 | | CALIFORNIA HIGH-SPEED TRAIN PROJECT SAN FRANCISCO TO SAN JOSE ALTERNATIVE A BRISBANE LIGHT MAINTENANCE FACILITY EAST COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS | CONTRACT NO. HSR15-34 DRAWING NO. MY-C0106 SCALE AS SHOWN SHEET NO. |
|---|--|--|---|--|

EAST TRANSITION TRACK GEOMETRY DATA

| CURVE | ELEMENT | POINT TYPE | B2 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, A | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EU)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | |
|----------|----------|------------|------------------|-------------|------------|-------------|-------------|-----------|----|---|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| 3 | Arc | SC | 55+07.30 | 2079897.15 | 6012393.42 | 966.5 | 344.95 | 20°26'57" | | | 22 | 1 | 1.003 | | S 7°47'44" E | S 12°39'12" W |
| | Arc | PI | 56+81.63 | 2079724.43 | 6012423.06 | | | | | | | | | | | |
| | Arc | SC | 57+16.05 | 2079766.05 | 6011441.85 | | | | | | | | | | | |
| | Arc | CS | 58+52.25 | 2079554.33 | 6012384.88 | | | | | | | | | | | |
| | Clothoid | CS | 58+52.25 | 2079554.33 | 6012384.88 | | | | | | | | | | | |
| | Clothoid | SPI | 58+73.92 | 2079533.19 | 6012380.13 | | | | | | | | | | | |
| | Clothoid | ST | 59+11.25 | 2079491.25 | 6012369.22 | | | | | | | | | | | |
| | Tangent | ST | 59+11.25 | 2079491.25 | 6012369.22 | | | | | | | | | | | |
| | Tangent | TS | 2078843.63 | 6012200.77 | | | | | | | | | | | | |
| | Clothoid | TS | 65+86.42 | 2078843.63 | 6012200.77 | | | | | | | | | | | |
| Clothoid | SPI | 66+29.76 | 2078801.49 | 6012189.86 | | | | | | | | | | | | |
| Clothoid | SC | 66+51.42 | 2078780.46 | 6012185.49 | | | | | | | | | | | | |
| Arc | SC | 66+51.42 | 2078780.46 | 6012185.49 | 630 | 456.52 | 41°31'07" | | 17 | 1 | 0.835 | | S 11°37'28" W | S 29°53'39" E | | |
| Arc | PI | 68+90.22 | 2078546.55 | 6012137.37 | | | | | | | | | | | | |
| Arc | CC | 2078653.52 | 6012262.57 | | | | | | | | | | | | | |
| Arc | CS | 71+07.94 | 2078339.52 | 6012256.39 | | | | | | | | | | | | |
| Clothoid | CS | 71+07.94 | 2078339.52 | 6012256.39 | | | | | | | | | | | | |
| Clothoid | SPI | 71+29.61 | 2078320.74 | 6012267.19 | | | | | | | | | | | | |
| Clothoid | ST | 71+72.94 | 2078284.33 | 6012290.7 | | | | | | | | | | | | |
| Tangent | ST | 71+72.94 | 2078284.33 | 6012290.7 | | | | | | | | | | | | |
| Tangent | TS | 81+90.55 | 2077429.44 | 6012842.70 | | | | | | | | | | | | |
| Clothoid | TS | 81+90.55 | 2077429.44 | 6012842.70 | | | | | | | | | | | | |
| Clothoid | SPI | 82+31.49 | 2077394.71 | 6012864.12 | | | | | | | | | | | | |
| Clothoid | SC | 82+52.55 | 2077377.34 | 6012876.31 | | | | | | | | | | | | |
| Arc | SC | 82+52.55 | 2077377.34 | 6012876.31 | 25000 | 144.49 | 0°19'52" | | 79 | 0 | 0.999 | | S 32°46'44" E | S 32°26'52" E | | |
| Arc | PI | 83+24.80 | 2077316.59 | 6012915.42 | | | | | | | | | | | | |
| Arc | CC | 2063842.35 | 5991851.17 | | | | | | | | | | | | | |
| Arc | CS | 83+97.05 | 2077295.63 | 6012946.19 | | | | | | | | | | | | |
| Clothoid | CS | 83+97.05 | 2077295.63 | 6012946.19 | | | | | | | | | | | | |
| Clothoid | SPI | 84+11.32 | 2077238.19 | 6012965.27 | | | | | | | | | | | | |
| Clothoid | ST | 84+59.05 | 2077203.28 | 6012987.41 | | | | | | | | | | | | |
| Tangent | ST | 84+59.05 | 2077203.28 | 6012987.41 | | | | | | | | | | | | |
| Tangent | TS | 92+15.58 | 2076564.35 | 6013392.52 | | | | | | | | | | | | |
| Clothoid | TS | 92+15.58 | 2076564.35 | 6013392.52 | | | | | | | | | | | | |
| Clothoid | SPI | 92+58.91 | 2076527.76 | 6013419.72 | | | | | | | | | | | | |
| Clothoid | SC | 92+80.58 | 2076509.38 | 6013427.21 | | | | | | | | | | | | |
| Arc | SC | 92+80.58 | 2076509.38 | 6013427.21 | 5000 | 75.36 | 0°40'36" | | | 1 | 1.040 | | S 32°00'16" E | S 31°19'40" E | | |
| Arc | PI | 93+10.11 | 2076484.34 | 6013442.85 | | | | | | | | | | | | |
| Arc | CC | 2073859.47 | 6009181.16 | | | | | | | | | | | | | |
| Arc | CS | 93+39.63 | 2076459.12 | 6013458.20 | | | | | | | | | | | | |
| Clothoid | CS | 93+39.63 | 2076459.12 | 6013458.20 | | | | | | | | | | | | |
| Clothoid | SPI | 93+61.30 | 2076440.62 | 6013469.47 | | | | | | | | | | | | |
| Clothoid | ST | 94+04.63 | 2076403.45 | 6013491.76 | | | | | | | | | | | | |
| Tangent | ST | 94+04.63 | 2076403.45 | 6013491.76 | | | | | | | | | | | | |
| Tangent | PI | 96+54.17 | 2076189.46 | 6013620.11 | | | | | | | | | | | | |
| Tangent | POE | 97+36.04 | 2076121.44 | 6013665.68 | | | | | | | | | | | | |

WEST TRANSITION TRACK GEOMETRY DATA

| CURVE | ELEMENT | POINT TYPE | B2 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, A | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EU)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|---------|------------|------------------|-------------|------------|-------------|-------------|----------|---|---|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|-----------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | Tangent | ST | 146+70.78 | 2077279.50 | 6012911.61 | | | | | | | | | S 30°57'19" E | | |
| | Tangent | PI | 146+32.01 | 2077141.24 | 6013000.54 | | | | | | | | | | | |
| | Tangent | PI | 146+32.01 | 2077141.24 | 6013000.54 | | | | | | | | | S 33°49'10" E | | |
| | Tangent | POE | 146+13.88 | 2077073.22 | 6013046.11 | | | | | | | | | | | |



**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 76 OF 106**

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | TNGT BEARING/ CHRD DEG. CV. (0°00'00") | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|------|--------------------|---------------------------------|-------------------------------------|--|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | POB | 100+00.00 | 2110730.839 | 6014026.793 | | 231.94 | | | | | | | S 46°19'23" W | | |
| | TANGENT | PI | 102+31.94 | 2110570.663 | 6013859.043 | | | | | | | | | | | |
| | TANGENT | PI | 102+31.94 | 2110570.663 | 6013859.043 | | 1610.23 | | | | | | | S 46°16'23" W | | |
| | TANGENT | TS | 118+42.17 | 2109457.634 | 6012695.419 | | | | | | | | | | | |
| | CLOTHOID | TS | 118+42.17 | 2109457.634 | 6012695.419 | | | | | | | | | | S 46°16'23" W | S 44°04'10" W |
| | CLOTHOID | SPI | 118+75.51 | 2109434.592 | 6012671.330 | | 50.00 | 2°12'13" | 25.00 | 0.16 | | | | | | |
| | CLOTHOID | SC | 118+92.17 | 2109422.615 | 6012659.736 | | | | | | | | | | | |
| | ARC | SC | 118+92.17 | 2109422.615 | 6012659.736 | | | | | | | | | | | |
| C103 | ARC | PI | 124+93.95 | 2108990.242 | 6012241.184 | 650.00 | 970.00 | 85°35'15" | | | 25 | 0.50 | 3.36 | 8°49'24" | | |
| | ARC | CC | | 2108970.521 | 6013126.759 | | | | | | | | | | | |
| | ARC | CS | 128+62.17 | 2108539.665 | 6012640.073 | | | | | | | | | | | |
| | CLOTHOID | CS | 128+62.17 | 2108539.665 | 6012640.073 | | | | | | | | | | S 41°31'05" E | S 43°43'18" E |
| | CLOTHOID | SPI | 128+78.84 | 2108527.185 | 6012651.122 | | 50.00 | 2°12'13" | 25.00 | 0.16 | | | | | | |
| | CLOTHOID | ST | 129+12.17 | 2108503.092 | 6012674.163 | | | | | | | | | | | |
| | TANGENT | ST | 129+12.17 | 2108503.092 | 6012674.163 | | 2115.74 | | | | | | | S 43°43'18" E | | |
| EON | | BK | 133+15.12 | 2108211.880 | 6012952.662 | | | | | | | | | | | |
| EON | | AHD | 139+00.00 | | | | | | | | | | | | | |
| | TANGENT | TS | 156+12.79 | 2106974.035 | 6014136.468 | | | | | | | | | | | |
| | CLOTHOID | TS | 156+12.79 | 2106974.035 | 6014136.468 | | | | | | | | | | S 43°43'18" E | S 36°53'12" E |
| | CLOTHOID | SPI | 157+69.58 | 2106860.726 | 6014244.830 | | 235.00 | 6°50'06" | 117.44 | 2.33 | | | | | | |
| | CLOTHOID | SC | 158+47.79 | 2106797.988 | 6014291.912 | | | | | | | | | | | |
| | ARC | SC | 158+47.79 | 2106797.988 | 6014291.912 | | | | | | | | | | | |
| C104 | ARC | PI | 160+83.06 | 2106609.813 | 6014433.130 | 984.98 | 461.69 | 26°52'04" | | | 45 | 2.75 | 5.50 | 5°49'10" | | |
| | ARC | CC | | 2106206.768 | 6013504.101 | | | | | | | | | | | |
| | ARC | CS | 163+09.48 | 2106378.131 | 6014474.061 | | | | | | | | | | | |
| | CLOTHOID | CS | 163+09.48 | 2106378.131 | 6014474.061 | | | | | | | | | | S 10°01'09" E | S 3°11'03" E |
| | CLOTHOID | SPI | 163+87.92 | 2106300.887 | 6014487.708 | | 235.00 | 6°50'06" | 117.44 | 2.33 | | | | | | |
| | CLOTHOID | ST | 165+44.48 | 2106144.346 | 6014496.416 | | | | | | | | | | | |
| | TANGENT | ST | 165+44.48 | 2106144.346 | 6014496.416 | | 2067.46 | | | | | | | S 3°11'03" E | | |
| | TANGENT | TS | 186+11.94 | 2104080.075 | 6014611.254 | | | | | | | | | | | |
| | CLOTHOID | TS | 186+11.94 | 2104080.075 | 6014611.254 | | | | | | | | | | S 3°11'03" E | S 2°16'30" E |
| | CLOTHOID | SPI | 187+55.28 | 2103936.961 | 6014619.216 | | 215.00 | 0°54'33" | 107.50 | 0.28 | | | | | | |
| | CLOTHOID | SC | 188+26.94 | 2103865.349 | 6014622.061 | | | | | | | | | | | |
| | ARC | SC | 188+26.94 | 2103865.349 | 6014622.061 | | | | | | | | | | | |
| C105 | ARC | PI | 193+48.54 | 2103344.159 | 6014642.765 | 6773.95 | 1041.14 | 8°48'23" | | | 100 | 2.50 | 3.42 | 0°50'45" | | |
| | ARC | CC | | 2103596.465 | 6007853.452 | | | | | | | | | | | |
| | ARC | CS | 198+68.08 | 2102825.943 | 6014583.434 | | | | | | | | | | | |
| | CLOTHOID | CS | 198+68.08 | 2102825.943 | 6014583.434 | | | | | | | | | | S 6°31'53" W | S 7°26'26" W |
| | CLOTHOID | SPI | 199+39.75 | 2102754.740 | 6014575.282 | | 215.00 | 0°54'33" | 107.50 | 0.28 | | | | | | |
| | CLOTHOID | ST | 200+83.08 | 2102612.611 | 6014556.720 | | | | | | | | | | | |
| | TANGENT | ST | 200+83.08 | 2102612.611 | 6014556.720 | | 2986.98 | | | | | | | S 7°26'26" W | | |
| | TANGENT | PI* | 230+70.06 | 2099650.782 | 6014169.908 | | | | | | | | | | | |
| | TANGENT | PI* | 230+70.06 | 2099650.782 | 6014169.908 | | 839.49 | | | | | | | S 7°25'02" W | | |
| | TANGENT | TS | 239+09.55 | 2098818.320 | 6014061.535 | | | | | | | | | | | |
| | CLOTHOID | TS | 239+09.55 | 2098818.320 | 6014061.535 | | | | | | | | | | S 7°25'02" W | S 7°29'06" W |
| | CLOTHOID | SPI | 239+66.22 | 2098762.127 | 6014054.220 | | 85.00 | 0°04'04" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | SC | 239+94.55 | 2098734.036 | 6014050.529 | | | | | | | | | | | |
| | ARC | SC | 239+94.55 | 2098734.036 | 6014050.529 | | | | | | | | | | | |
| C106 | ARC | PI | 240+48.06 | 2098680.978 | 6014043.558 | 36000.00 | 107.03 | 0°10'13" | | | 110 | 1.00 | 0.35 | 0°09'33" | | |
| | ARC | CC | | 2103423.548 | 5978357.274 | | | | | | | | | | | |
| | ARC | CS | 241+01.58 | 2098627.942 | 6014036.430 | | | | | | | | | | | |
| | CLOTHOID | CS | 241+01.58 | 2098627.942 | 6014036.430 | | | | | | | | | | S 7°39'19" W | S 7°43'22" W |

* NOTE: ANGLE POINTS ARE NOT INTENDED FOR CONSTRUCTION. THEY ARE A "BEST FIT" REPRESENTATION OF THE EXISTING ALIGNMENT OVER LONG TANGENTS.

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
ALTERNATIVE A
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SHEET 77 OF 106

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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607

CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C103 TO C106

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0001 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|-------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|--------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | CLOTHOID | SPI | 241+29.91 | 2098599.861 | 6014032.655 | | 85.00 | 0°04'04" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | ST | 241+86.58 | 2098543.708 | 6014025.040 | | | | | | | | | | | |
| | TANGENT | ST | 241+86.58 | 2098543.708 | 6014025.040 | | 100.28 | | | | | | | S 7°43'22" W | | |
| | TANGENT | TS | 242+86.85 | 2098444.342 | 6014011.565 | | | | | | | | | | | |
| | CLOTHOID | TS | 242+86.85 | 2098444.342 | 6014011.565 | | | | | | | | | | S 7°43'22" W | S 7°40'07" W |
| | CLOTHOID | SPI | 243+43.52 | 2098388.189 | 6014003.950 | | 85.00 | 0°03'15" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | SC | 243+71.85 | 2098360.109 | 6014000.169 | | | | | | | | | | | |
| | ARC | SC | 243+71.85 | 2098360.109 | 6014000.169 | | | | | | | | | | | |
| C107 | ARC | PI | 244+23.04 | 2098309.384 | 6013993.339 | 45000.00 | 102.37 | 0°07'49" | | | 110 | 1.00 | 0.08 | 0°07'38" | | |
| | ARC | CC | | 2092355.072 | 6058597.698 | | | | | | | | | | | |
| | ARC | CS | 244+74.22 | 2098258.642 | 6013986.624 | | | | | | | | | | | |
| | CLOTHOID | CS | 244+74.22 | 2098258.642 | 6013986.624 | | | | | | | | | | S 7°32'18" W | S 7°29'03" W |
| | CLOTHOID | SPI | 245+02.55 | 2098230.554 | 6013982.907 | | 85.00 | 0°03'15" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | ST | 245+59.22 | 2098174.370 | 6013975.526 | | | | | | | | | | | |
| | TANGENT | ST | 245+59.22 | 2098174.370 | 6013975.526 | | 255.20 | | | | | | | S 7°29'03" W | | |
| | TANGENT | PI* | 248+14.42 | 2097921.341 | 6013942.285 | | | | | | | | | | | |
| | TANGENT | PI* | 248+14.42 | 2097921.341 | 6013942.285 | | 613.51 | | | | | | | S 7°27'38" W | | |
| | TANGENT | TS | 254+27.93 | 2097313.024 | 6013862.624 | | | | | | | | | | | |
| | CLOTHOID | TS | 254+27.93 | 2097313.024 | 6013862.624 | | | | | | | | | | S 7°27'38" W | S 7°23'41" W |
| | CLOTHOID | SPI | 254+84.60 | 2097256.837 | 6013855.266 | | 85.00 | 0°03'57" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | SC | 255+12.93 | 2097228.740 | 6013851.619 | | | | | | | | | | | |
| | ARC | SC | 255+12.93 | 2097228.740 | 6013851.619 | | | | | | | | | | | |
| C108 | ARC | PI | 255+64.50 | 2097177.602 | 6013844.982 | 37000.00 | 103.13 | 0°09'35" | | | 110 | 1.00 | 0.31 | 0°09'17" | | |
| | ARC | CC | | 2092466.615 | 6050543.882 | | | | | | | | | | | |
| | ARC | CS | 256+16.07 | 2097126.445 | 6013838.488 | | | | | | | | | | | |
| | CLOTHOID | CS | 256+16.07 | 2097126.445 | 6013838.488 | | | | | | | | | | S 7°14'06" W | S 7°10'10" W |
| | CLOTHOID | SPI | 256+44.40 | 2097098.338 | 6013834.919 | | 85.00 | 0°03'57" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | ST | 257+01.07 | 2097042.114 | 6013827.847 | | | | | | | | | | | |
| | TANGENT | ST | 257+01.07 | 2097042.114 | 6013827.847 | | 142.32 | | | | | | | S 7°10'10" W | | |
| | TANGENT | TS | 258+43.39 | 2096900.902 | 6013810.085 | | | | | | | | | | | |
| | CLOTHOID | TS | 258+43.39 | 2096900.902 | 6013810.085 | | | | | | | | | | S 7°10'10" W | S 7°14'00" W |
| | CLOTHOID | SPI | 259+00.06 | 2096844.678 | 6013803.013 | | 85.00 | 0°03'51" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | SC | 259+28.39 | 2096816.570 | 6013799.445 | | | | | | | | | | | |
| | ARC | SC | 259+28.39 | 2096816.570 | 6013799.445 | | | | | | | | | | | |
| C109 | ARC | PI | 259+78.80 | 2096766.562 | 6013793.098 | 38000.00 | 100.82 | 0°09'07" | | | 110 | 1.00 | 0.28 | 0°09'03" | | |
| | ARC | CC | | 2101601.203 | 5976101.868 | | | | | | | | | | | |
| | ARC | CS | 260+29.21 | 2096716.571 | 6013786.618 | | | | | | | | | | | |
| | CLOTHOID | CS | 260+29.21 | 2096716.571 | 6013786.618 | | | | | | | | | | S 7°23'07" W | S 7°26'58" W |
| | CLOTHOID | SPI | 260+57.54 | 2096688.472 | 6013782.976 | | 85.00 | 0°03'51" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | ST | 261+14.21 | 2096632.284 | 6013775.629 | | | | | | | | | | | |
| | TANGENT | ST | 261+14.21 | 2096632.284 | 6013775.629 | | 147.73 | | | | | | | S 7°26'58" W | | |
| | TANGENT | PI* | 262+61.95 | 2096485.796 | 6013756.475 | | | | | | | | | | | |
| | TANGENT | PI* | 262+61.95 | 2096485.796 | 6013756.475 | | 213.04 | | | | | | | S 7°23'09" W | | |
| | TANGENT | PI* | 264+74.99 | 2096274.524 | 6013729.089 | | | | | | | | | | | |
| | TANGENT | PI* | 264+74.99 | 2096274.524 | 6013729.089 | | 1523.11 | | | | | | | S 7°26'44" W | | |

* NOTE: ANGLE POINTS ARE NOT INTENDED FOR CONSTRUCTION. THEY ARE A "BEST FIT" REPRESENTATION OF THE EXISTING ALIGNMENT OVER LONG TANGENTS.

**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 78 OF 106**

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2021 RECORD SET PEPP
NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

HNTB
1111 Broadway
9th Floor
Oakland, CA 94607



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE**
ALTERNATIVE A
B2 TRACK ALIGNMENT DATA TABLE
CURVE NO. C107 TO C109

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0002 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | PI* | 279+98.10 | 2094764.251 | 6013531.720 | | | | | | | | | | | |
| | TANGENT | PI* | 279+98.10 | 2094764.251 | 6013531.720 | | 2319.10 | | | | | | | S 7°26'17" W | | |
| | TANGENT | TS | 303+17.20 | 2092464.665 | 6013231.498 | | | | | | | | | | | |
| | CLOTHOID | TS | 303+17.20 | 2092464.665 | 6013231.498 | | | | | | | | | | S 7°26'17" W | S 9°13'32" W |
| | CLOTHOID | SPI | 305+53.88 | 2092229.978 | 6013200.858 | | 355.00 | 1°47'14" | 177.49 | 0.92 | | | | | | |
| | CLOTHOID | SC | 306+72.20 | 2092113.165 | 6013181.885 | | | | | | | | | | | |
| C110 | ARC | SC | 306+72.20 | 2092113.165 | 6013181.885 | | | | | | | | | | | |
| | ARC | PI | 309+77.35 | 2091811.962 | 6013132.964 | 5690.14 | 609.71 | 6°08'22" | | | 110 | 4.25 | 4.28 | 1°00'25" | | |
| | ARC | CC | | 2093025.409 | 6007565.347 | | | | | | | | | | | |
| | ARC | CS | 312+81.91 | 2091517.718 | 6013052.109 | | | | | | | | | | | |
| | CLOTHOID | CS | 312+81.91 | 2091517.718 | 6013052.109 | | | | | | | | | | S 15°21'54" W | S 17°09'08" W |
| | CLOTHOID | SPI | 314+00.25 | 2091403.604 | 6013020.752 | | 355.00 | 1°47'14" | 177.49 | 0.92 | | | | | | |
| | CLOTHOID | ST | 316+36.91 | 2091177.452 | 6012950.953 | | | | | | | | | | | |
| | TANGENT | ST | 316+36.91 | 2091177.452 | 6012950.953 | | 1819.16 | | | | | | | S 17°09'08" W | | |
| | TANGENT | PI* | 334+56.07 | 2089439.201 | 6012414.463 | | | | | | | | | | | |
| | TANGENT | TS | 354+54.58 | 2087529.849 | 6011824.176 | | 1998.52 | | | | | | | S 17°10'45" W | | |
| | CLOTHOID | TS | 354+54.58 | 2087529.849 | 6011824.176 | | | | | | | | | | S 17°10'45" W | S 16°38'16" W |
| | CLOTHOID | SPI | 355+21.25 | 2087466.156 | 6011804.485 | | 100.00 | 0°32'30" | 50.00 | 0.08 | | | | | | |
| | CLOTHOID | SC | 355+54.58 | 2087434.218 | 6011794.941 | | | | | | | | | | | |
| C111 | ARC | SC | 355+54.58 | 2087434.218 | 6011794.941 | | | | | | | | | | | |
| | ARC | PI | 356+33.81 | 2087358.305 | 6011772.256 | 5288.92 | 158.45 | 1°42'59" | | | 65 | 1.00 | 2.20 | 1°05'00" | | |
| | ARC | CC | | 2085919.906 | 6016862.438 | | | | | | | | | | | |
| | ARC | CS | 357+13.03 | 2087281.747 | 6011751.855 | | | | | | | | | | | |
| | CLOTHOID | CS | 357+13.03 | 2087281.747 | 6011751.855 | | | | | | | | | | S 14°55'16" W | S 14°22'46" W |
| | CLOTHOID | SPI | 357+46.36 | 2087249.537 | 6011743.272 | | 100.00 | 0°32'30" | 50.00 | 0.08 | | | | | | |
| | CLOTHOID | ST | 358+13.03 | 2087184.959 | 6011726.716 | | | | | | | | | | | |
| | TANGENT | ST | 358+13.03 | 2087184.959 | 6011726.716 | | 287.91 | | | | | | | S 14°22'46" W | | |
| | TANGENT | TS | 361+00.94 | 2086906.064 | 6011655.214 | | | | | | | | | | | |
| | CLOTHOID | TS | 361+00.94 | 2086906.064 | 6011655.214 | | | | | | | | | | S 14°22'46" W | S 11°24'16" W |
| | CLOTHOID | SPI | 362+80.97 | 2086731.678 | 6011610.506 | | 270.00 | 2°58'30" | 134.99 | 1.17 | | | | | | |
| | CLOTHOID | SC | 363+70.94 | 2086643.432 | 6011592.705 | | | | | | | | | | | |
| C112 | ARC | SC | 363+70.94 | 2086643.432 | 6011592.705 | | | | | | | | | | | |
| | ARC | PI | 365+34.64 | 2086482.969 | 6011560.337 | 2600.00 | 326.94 | 7°12'19" | | | 75 | 3.25 | 5.43 | 2°12'14" | | |
| | ARC | CC | | 2086129.322 | 6014141.370 | | | | | | | | | | | |
| | ARC | CS | 366+97.88 | 2086319.713 | 6011548.350 | | | | | | | | | | | |
| | CLOTHOID | CS | 366+97.88 | 2086319.713 | 6011548.350 | | | | | | | | | | S 4°11'58" W | S 1°13'28" W |
| | CLOTHOID | SPI | 367+87.91 | 2086229.932 | 6011541.758 | | 270.00 | 2°58'30" | 134.99 | 1.17 | | | | | | |
| | CLOTHOID | ST | 369+67.88 | 2086049.947 | 6011537.911 | | | | | | | | | | | |
| | TANGENT | ST | 369+67.88 | 2086049.947 | 6011537.911 | | 1311.17 | | | | | | | S 1°13'28" W | | |
| | TANGENT | TS | 382+79.05 | 2084739.078 | 6011509.894 | | | | | | | | | | | |
| | CLOTHOID | TS | 382+79.05 | 2084739.078 | 6011509.894 | | | | | | | | | | S 1°13'28" W | S 1°09'37" W |
| | CLOTHOID | SPI | 383+35.72 | 2084682.425 | 6011508.683 | | 85.00 | 0°03'51" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | SC | 383+64.05 | 2084654.097 | 6011508.109 | | | | | | | | | | | |

**SAN FRANCISCO TO SAN JOSE EIR/S: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 79 OF 106**

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NOT FOR CONSTRUCTION

HNTB
1111 Broadway
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Oakland, CA 94607



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE**
ALTERNATIVE A
B2 TRACK ALIGNMENT DATA TABLE
CURVE NO. C110 TO C112

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0003 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | | | | | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|--------------|--------------|---------------|---------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE | | | | |
| C113 | ARC | SC | 383+64.05 | 2084654.097 | 6011508.109 | 38000.00 | 168.41 | 0°15'14" | | | 110 | 1.00 | 0.28 | 0°09'03" | | | | | | |
| | ARC | PI | 384+48.26 | 2084569.908 | 6011506.404 | | | | | | | | | | | | | | | |
| | ARC | CC | | 2083884.603 | 6049500.317 | | | | | | | | | | | | | | | |
| | ARC | CS | 385+32.46 | 2084485.712 | 6011505.072 | | | | | | | | | | | | | | | |
| | CLOTHOID | CS | 385+32.46 | 2084485.712 | 6011505.072 | | | | | | | | | | | S 0°54'23" W | S 0°50'32" W | | | |
| | CLOTHOID | SPI | 385+60.80 | 2084457.382 | 6011504.624 | | 85.00 | 0°03'51" | 42.50 | 0.01 | | | | | | | | | | |
| | CLOTHOID | ST | 386+17.46 | 2084400.722 | 6011503.791 | | | | | | | | | | | | | | | |
| | TANGENT | ST | 386+17.46 | 2084400.722 | 6011503.791 | | | | | | | | | | | | | S 0°50'32" W | | |
| | TANGENT | TS | 387+28.91 | 2084289.285 | 6011502.153 | | | | | | | | | | | | | | | |
| | CLOTHOID | TS | 387+28.91 | 2084289.285 | 6011502.153 | | | | | | | | | | | | | S 0°50'32" W | S 0°54'23" W | |
| | CLOTHOID | SPI | 387+85.58 | 2084232.624 | 6011501.320 | | 85.00 | 0°03'51" | 42.50 | 0.01 | | | | | | | | | | |
| | CLOTHOID | SC | 388+13.91 | 2084204.294 | 6011500.871 | | | | | | | | | | | | | | | |
| C114 | ARC | SC | 388+13.91 | 2084204.294 | 6011500.871 | 38000.00 | 168.41 | 0°15'14" | | | 110 | 1.00 | 0.28 | 0°09'03" | | | | | | |
| | ARC | PI | 388+98.12 | 2084120.098 | 6011499.539 | | | | | | | | | | | | | | | |
| | ARC | CC | | 2084805.403 | 5973505.626 | | | | | | | | | | | | | | | |
| | ARC | CS | 389+82.33 | 2084035.909 | 6011497.834 | | | | | | | | | | | | | | | |
| | CLOTHOID | CS | 389+82.33 | 2084035.909 | 6011497.834 | | | | | | | | | | | | | S 1°09'37" W | S 1°13'28" W | |
| | CLOTHOID | SPI | 390+10.66 | 2084007.582 | 6011497.260 | | 85.00 | 0°03'51" | 42.50 | 0.01 | | | | | | | | | | |
| | CLOTHOID | ST | 390+67.33 | 2083950.928 | 6011496.050 | | | | | | | | | | | | | | | |
| | TANGENT | ST | 390+67.33 | 2083950.928 | 6011496.050 | | | | | | | | | | | | | S 1°13'28" W | | |
| | TANGENT | TS | 415+76.49 | 2081442.341 | 6011442.434 | | 2509.16 | | | | | | | | | | | | | |
| | CLOTHOID | TS | 415+76.49 | 2081442.341 | 6011442.434 | | | | | | | | | | | | | | S 1°13'28" W | S 1°10'18" E |
| | CLOTHOID | SPI | 418+83.18 | 2081135.716 | 6011435.880 | | 460.00 | 2°23'46" | 229.99 | 1.60 | | | | | | | | | | |
| | CLOTHOID | SC | 420+36.49 | 2080982.389 | 6011439.016 | | | | | | | | | | | | | | | |
| C115 | ARC | SC | 420+36.49 | 2080982.389 | 6011439.016 | 5500.00 | 2903.92 | 30°15'06" | | | 110 | 4.50 | 4.33 | 1°02'30" | | | | | | |
| | ARC | PI | 435+23.17 | 2079496.019 | 6011469.414 | | | | | | | | | | | | | | | |
| | ARC | CC | | 2081094.848 | 6016937.866 | | | | | | | | | | | | | | | |
| | ARC | CS | 449+40.41 | 2078227.378 | 6012244.507 | | | | | | | | | | | | | | | |
| | CLOTHOID | CS | 449+40.41 | 2078227.378 | 6012244.507 | | | | | | | | | | | | | S 31°25'24" E | S 33°49'10" E | |
| | CLOTHOID | SPI | 450+93.77 | 2078096.511 | 6012324.462 | | 460.00 | 2°23'46" | 229.99 | 1.60 | | | | | | | | | | |
| | CLOTHOID | ST | 454+00.41 | 2077841.711 | 6012495.162 | | | | | | | | | | | | | | | |
| | TANGENT | ST | 454+00.41 | 2077841.711 | 6012495.162 | | | | | | | | | | | | | S 33°49'10" E | | |
| | TANGENT | TS | 476+86.90 | 2075942.100 | 6013767.772 | | 2286.49 | | | | | | | | | | | | | |
| | CLOTHOID | TS | 476+86.90 | 2075942.100 | 6013767.772 | | | | | | | | | | | | | | S 33°49'10" E | S 33°37'14" E |
| | CLOTHOID | SPI | 477+70.24 | 2075872.867 | 6013814.153 | | 125.00 | 0°11'56" | 62.50 | 0.04 | | | | | | | | | | |
| | CLOTHOID | SC | 478+11.90 | 2075838.170 | 6013837.224 | | | | | | | | | | | | | | | |
| C116 | ARC | SC | 478+11.90 | 2075838.170 | 6013837.224 | 18000.00 | 260.02 | 0°49'40" | | | 110 | 1.50 | 1.19 | 0°19'06" | | | | | | |
| | ARC | PI | 479+41.92 | 2075729.904 | 6013909.211 | | | | | | | | | | | | | | | |
| | ARC | CC | | 2065871.769 | 5998848.199 | | | | | | | | | | | | | | | |
| | ARC | CS | 480+71.93 | 2075620.610 | 6013979.627 | | | | | | | | | | | | | | | |
| | CLOTHOID | CS | 480+71.93 | 2075620.610 | 6013979.627 | | | | | | | | | | | | | | S 32°47'34" E | S 32°35'38" E |
| | CLOTHOID | SPI | 481+13.59 | 2075585.584 | 6014002.194 | | 125.00 | 0°11'56" | 62.50 | 0.04 | | | | | | | | | | |
| | CLOTHOID | ST | 481+96.93 | 2075515.375 | 6014047.084 | | | | | | | | | | | | | | | |
| | TANGENT | ST | 481+96.93 | 2075515.375 | 6014047.084 | | 406.68 | | | | | | | | | | | S 32°35'38" E | | |
| | TANGENT | TS | 486+03.60 | 2075172.744 | 6014266.153 | | | | | | | | | | | | | | | |
| | CLOTHOID | TS | 486+03.60 | 2075172.744 | 6014266.153 | | | | | | | | | | | | | | S 32°35'38" E | S 26°13'43" E |
| | CLOTHOID | SPI | 489+85.18 | 2074851.259 | 6014471.703 | | 572.00 | 6°21'55" | 285.88 | 5.29 | | | | | | | | | | |
| | CLOTHOID | SC | 491+75.60 | 2074680.022 | 6014556.067 | | | | | | | | | | | | | | | |
| C117 | ARC | SC | 491+75.60 | 2074680.022 | 6014556.067 | 2574.34 | 2508.34 | 55°49'49" | | | 85 | 6.00 | 5.26 | 2°13'33" | | | | | | |
| | ARC | PI | 505+39.52 | 2073456.537 | 6015158.852 | | | | | | | | | | | | | | | |
| | ARC | CC | | 2073542.285 | 6012246.780 | | | | | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C113 TO C117

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0004 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | ARC | PCC | 516+83.94 | 2072270.640 | 6014485.122 | | | | | | | | | | | |
| | ARC | PCC | 516+83.94 | 2072270.640 | 6014485.122 | | | | | | | | | | | |
| | ARC | PI | 517+78.35 | 2072188.558 | 6014438.489 | 2753.29 | 188.72 | 3°55'39" | | | 85 | 6.00 | 4.52 | 2°04'52" | | |
| | ARC | CC | | 2073630.678 | 6012091.191 | | | | | | | | | | | |
| | ARC | CS | 518+72.67 | 2072109.863 | 6014386.344 | | | | | | | | | | | |
| | CLOTHOID | CS | 518+72.67 | 2072109.863 | 6014386.344 | | | | | | | | | | S 33°31'45" W | S 38°43'54" W |
| | CLOTHOID | SPI | 520+39.46 | 2071970.820 | 6014294.211 | | 500.00 | 5°12'09" | 249.93 | 3.78 | | | | | | |
| | CLOTHOID | ST | 523+72.67 | 2071710.680 | 6014085.563 | | | | | | | | | | | |
| | TANGENT | ST | 523+72.67 | 2071710.680 | 6014085.563 | | 1138.13 | | | | | | | S 38°43'54" W | | |
| | TANGENT | PI* | 535+10.80 | 2070822.840 | 6013373.461 | | | | | | | | | | | |
| | TANGENT | PI* | 535+10.80 | 2070822.840 | 6013373.461 | | 3899.25 | | | | | | | S 38°42'58" W | | |
| EON | | BK | 540+00.32 | 2070440.888 | 6013067.284 | | | | | | | | | | | |
| EON | | AHD | 542+50.00 | | | | | | | | | | | | | |
| | TANGENT | TS | 576+59.73 | 2067780.429 | 6010934.627 | | | | | | | | | | | |
| | CLOTHOID | TS | 576+59.73 | 2067780.429 | 6010934.627 | | | | | | | | | | S 38°42'58" W | S 39°17'58" W |
| | CLOTHOID | SPI | 577+76.40 | 2067689.399 | 6010861.657 | | 175.00 | 0°35'00" | 87.50 | 0.15 | | | | | | |
| | CLOTHOID | SC | 578+34.73 | 2067644.258 | 6010824.709 | | | | | | | | | | | |
| C118 | ARC | SC | 578+34.73 | 2067644.258 | 6010824.709 | | | | | | | | | | | |
| | ARC | PI | 578+95.96 | 2067596.872 | 6010785.925 | 8594.42 | 122.47 | 0°48'59" | | | 100 | 2.00 | 2.67 | 0°40'00" | | |
| | ARC | CC | | 2073087.731 | 6004173.946 | | | | | | | | | | | |
| | ARC | CS | 579+57.20 | 2067550.044 | 6010746.470 | | | | | | | | | | | |
| | CLOTHOID | CS | 579+57.20 | 2067550.044 | 6010746.470 | | | | | | | | | | S 40°06'57" W | S 40°41'57" W |
| | CLOTHOID | SPI | 580+15.53 | 2067505.433 | 6010708.884 | | 175.00 | 0°35'00" | 87.50 | 0.15 | | | | | | |
| | CLOTHOID | ST | 581+32.20 | 2067416.983 | 6010632.806 | | | | | | | | | | | |
| | TANGENT | ST | 581+32.20 | 2067416.983 | 6010632.806 | | 183.13 | | | | | | | S 40°41'57" W | | |
| | TANGENT | TS | 583+15.33 | 2067278.143 | 6010513.389 | | | | | | | | | | | |
| | CLOTHOID | TS | 583+15.33 | 2067278.143 | 6010513.389 | | | | | | | | | | S 40°41'57" W | S 40°06'57" W |
| | CLOTHOID | SPI | 584+31.99 | 2067189.692 | 6010437.312 | | 175.00 | 0°35'00" | 87.50 | 0.15 | | | | | | |
| | CLOTHOID | SC | 584+90.33 | 2067145.082 | 6010399.725 | | | | | | | | | | | |
| C119 | ARC | SC | 584+90.33 | 2067145.082 | 6010399.725 | | | | | | | | | | | |
| | ARC | PI | 585+53.29 | 2067096.932 | 6010359.157 | 8594.42 | 125.92 | 0°50'22" | | | 100 | 2.00 | 2.67 | 0°40'00" | | |
| | ARC | CC | | 2061607.394 | 6016972.249 | | | | | | | | | | | |
| | ARC | CS | 586+16.25 | 2067048.193 | 6010319.298 | | | | | | | | | | | |
| | CLOTHOID | CS | 586+16.25 | 2067048.193 | 6010319.298 | | | | | | | | | | S 39°16'35" W | S 38°41'35" W |
| | CLOTHOID | SPI | 586+74.58 | 2067003.037 | 6010282.369 | | 175.00 | 0°35'00" | 87.50 | 0.15 | | | | | | |
| | CLOTHOID | ST | 587+91.25 | 2066911.977 | 6010209.434 | | | | | | | | | | | |
| | TANGENT | ST | 587+91.25 | 2066911.977 | 6010209.434 | | 699.54 | | | | | | | S 38°41'35" W | | |
| | TANGENT | TS | 594+90.79 | 2066365.983 | 6009772.119 | | | | | | | | | | | |
| | CLOTHOID | TS | 594+90.79 | 2066365.983 | 6009772.119 | | | | | | | | | | S 38°41'35" W | S 37°13'50" W |
| | CLOTHOID | SPI | 596+70.79 | 2066225.487 | 6009659.588 | | 270.00 | 1°27'45" | 135.00 | 0.57 | | | | | | |
| | CLOTHOID | SC | 597+60.79 | 2066153.824 | 6009605.133 | | | | | | | | | | | |
| C120 | ARC | SC | 597+60.79 | 2066153.824 | 6009605.133 | | | | | | | | | | | |
| | ARC | PI | 599+35.39 | 2066014.805 | 6009499.495 | 5288.92 | 349.07 | 3°46'54" | | | 100 | 3.25 | 4.33 | 1°05'00" | | |
| | ARC | CC | | 2062953.900 | 6013816.209 | | | | | | | | | | | |
| | ARC | CS | 601+09.86 | 2065869.122 | 6009403.256 | | | | | | | | | | | |
| | CLOTHOID | CS | 601+09.86 | 2065869.122 | 6009403.256 | | | | | | | | | | S 33°26'56" W | S 31°59'11" W |
| | CLOTHOID | SPI | 601+99.86 | 2065794.023 | 6009353.645 | | 270.00 | 1°27'45" | 135.00 | 0.57 | | | | | | |
| | CLOTHOID | ST | 603+79.86 | 2065641.347 | 6009258.293 | | | | | | | | | | | |
| | TANGENT | ST | 603+79.86 | 2065641.347 | 6009258.293 | | 119.05 | | | | | | | S 31°59'11" W | | |
| | TANGENT | TS | 604+98.91 | 2065540.373 | 6009195.230 | | | | | | | | | | | |
| | CLOTHOID | TS | 604+98.91 | 2065540.373 | 6009195.230 | | | | | | | | | | S 31°59'11" W | S 32°38'49" W |
| | CLOTHOID | SPI | 606+22.24 | 2065435.764 | 6009129.897 | | 185.00 | 0°39'38" | 92.50 | 0.18 | | | | | | |
| | CLOTHOID | SC | 606+83.91 | 2065383.840 | 6009096.630 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C118 TO C120

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0005 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| C121 | ARC | SC | 606+83.91 | 2065383.840 | 6009096.630 | | | | | | | | | | | |
| | ARC | PI | 607+40.60 | 2065336.104 | 6009066.047 | 8025.00 | 113.38 | 0°48'34" | | | 100 | 2.00 | 3.00 | 0°42'50" | | |
| | ARC | CC | | 2069713.011 | 6002339.493 | | | | | | | | | | | |
| | ARC | CS | 607+97.29 | 2065288.806 | 6009034.793 | | | | | | | | | | | |
| | CLOTHOID | CS | 607+97.29 | 2065288.806 | 6009034.793 | | | | | | | | | | S 33°27'23" W | S 34°07'01" W |
| | CLOTHOID | SPI | 608+58.95 | 2065237.356 | 6009000.795 | | 185.00 | 0°39'38" | 92.50 | 0.18 | | | | | | |
| | CLOTHOID | ST | 609+82.29 | 2065135.248 | 6008931.619 | | | | | | | | | | | |
| | TANGENT | ST | 609+82.29 | 2065135.248 | 6008931.619 | | 248.31 | | | | | | | S 34°07'01" W | | |
| | TANGENT | TS | 612+30.60 | 2064929.674 | 6008792.347 | | | | | | | | | | | |
| | CLOTHOID | TS | 612+30.60 | 2064929.674 | 6008792.347 | | | | | | | | | | S 34°07'01" W | S 32°16'28" W |
| | CLOTHOID | SPI | 614+57.74 | 2064741.621 | 6008664.945 | | 340.70 | 1°50'33" | 170.34 | 0.91 | | | | | | |
| | CLOTHOID | SC | 615+71.30 | 2064645.591 | 6008604.297 | | | | | | | | | | | |
| C122 | ARC | SC | 615+71.30 | 2064645.591 | 6008604.297 | | | | | | | | | | | |
| | ARC | PI | 622+01.73 | 2064112.562 | 6008267.664 | 5297.23 | 1254.94 | 13°34'26" | | | 110 | 3.50 | 5.66 | 1°04'54" | | |
| | ARC | CC | | 2061817.010 | 6013083.113 | | | | | | | | | | | |
| | ARC | PCC | 628+26.24 | 2063515.414 | 6008065.535 | | | | | | | | | | | |
| | ARC | PCC | 628+26.24 | 2063515.414 | 6008065.535 | | | | | | | | | | | |
| | ARC | PI | 633+41.45 | 2063027.398 | 6007900.347 | 5531.07 | 1027.45 | 10°38'36" | | | 110 | 3.50 | 5.27 | 1°02'09" | | |
| | ARC | CC | | 2061742.037 | 6013304.607 | | | | | | | | | | | |
| | ARC | PCC | 638+53.69 | 2062517.269 | 6007828.134 | | | | | | | | | | | |
| | ARC | PCC | 638+53.69 | 2062517.269 | 6007828.134 | | | | | | | | | | | |
| | ARC | PI | 641+57.98 | 2062215.981 | 6007785.485 | 5854.43 | 608.03 | 5°57'03" | | | 110 | 3.50 | 4.79 | 0°58'43" | | |
| | ARC | CC | | 2061696.715 | 6013624.771 | | | | | | | | | | | |
| | ARC | CS | 644+61.72 | 2061911.894 | 6007774.301 | | | | | | | | | | | |
| | CLOTHOID | CS | 644+61.72 | 2061911.894 | 6007774.301 | | | | | | | | | | S 2°06'23" W | S 0°38'58" W |
| | CLOTHOID | SPI | 645+60.96 | 2061812.717 | 6007770.653 | | 297.71 | 1°27'25" | 148.85 | 0.63 | | | | | | |
| | CLOTHOID | ST | 647+59.43 | 2061614.247 | 6007768.403 | | | | | | | | | | | |
| | TANGENT | ST | 647+59.43 | 2061614.247 | 6007768.403 | | 2025.56 | | | | | | | S 0°38'58" W | | |
| EON | | BK | 662+50.02 | 2060123.753 | 6007751.505 | | | | | | | | | | | |
| EON | | AHD | 665+00.00 | | | | | | | | | | | | | |
| | TANGENT | TS | 670+34.97 | 2059588.813 | 6007745.440 | | | | | | | | | | | |
| | CLOTHOID | TS | 670+34.97 | 2059588.813 | 6007745.440 | | | | | | | | | | S 0°38'58" W | S 3°20'05" E |
| | CLOTHOID | SPI | 673+68.39 | 2059255.417 | 6007741.660 | | 500.00 | 3°59'04" | 249.96 | 2.90 | | | | | | |
| | CLOTHOID | SC | 675+34.97 | 2059088.956 | 6007751.360 | | | | | | | | | | | |
| C123 | ARC | SC | 675+34.97 | 2059088.956 | 6007751.360 | | | | | | | | | | | |
| | ARC | PI | 680+44.12 | 2058580.670 | 6007780.978 | 3595.00 | 1011.54 | 16°07'19" | | | 100 | 6.00 | 5.16 | 1°35'38" | | |
| | ARC | CC | | 2059298.082 | 6011340.272 | | | | | | | | | | | |
| | ARC | CS | 685+46.51 | 2058100.598 | 6007950.574 | | | | | | | | | | | |
| | CLOTHOID | CS | 685+46.51 | 2058100.598 | 6007950.574 | | | | | | | | | | S 19°27'25" E | S 23°26'29" E |
| | CLOTHOID | SPI | 687+13.25 | 2057943.377 | 6008006.115 | | 500.00 | 3°59'04" | 249.96 | 2.90 | | | | | | |
| | CLOTHOID | ST | 690+46.51 | 2057637.477 | 6008138.752 | | | | | | | | | | | |
| | TANGENT | ST | 690+46.51 | 2057637.477 | 6008138.752 | | 2571.51 | | | | | | | S 23°26'29" E | | |
| | TANGENT | TS | 716+18.02 | 2055278.202 | 6009161.719 | | | | | | | | | | | |
| | CLOTHOID | TS | 716+18.02 | 2055278.202 | 6009161.719 | | | | | | | | | | S 23°26'29" E | S 25°00'14" E |
| | CLOTHOID | SPI | 718+68.03 | 2055048.826 | 6009261.176 | | 375.00 | 1°33'45" | 187.50 | 0.85 | | | | | | |
| | CLOTHOID | SC | 719+93.02 | 2054935.533 | 6009314.014 | | | | | | | | | | | |
| C124 | ARC | SC | 719+93.02 | 2054935.533 | 6009314.014 | | | | | | | | | | | |
| | ARC | PI | 721+88.09 | 2054758.738 | 6009396.469 | 6875.55 | 390.05 | 3°15'01" | | | 110 | 3.00 | 4.06 | 0°50'00" | | |
| | ARC | CC | | 2057841.674 | 6015545.188 | | | | | | | | | | | |
| | ARC | CS | 723+83.06 | 2054586.904 | 6009488.815 | | | | | | | | | | | |
| | CLOTHOID | CS | 723+83.06 | 2054586.904 | 6009488.815 | | | | | | | | | | S 28°15'15" E | S 29°49'00" E |
| | CLOTHOID | SPI | 725+08.07 | 2054476.789 | 6009547.992 | | 375.00 | 1°33'45" | 187.50 | 0.85 | | | | | | |
| | CLOTHOID | ST | 727+58.06 | 2054259.875 | 6009672.303 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C121 TO C124

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|--------------|----------|
| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0006 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 727+58.06 | 2054259.875 | 6009672.303 | | 231.30 | | | | | | | S 29°49'00" E | | |
| | TANGENT | TS | 729+89.36 | 2054059.191 | 6009787.313 | | | | | | | | | | | |
| | CLOTHOID | TS | 729+89.36 | 2054059.191 | 6009787.313 | | | | | | | | | | S 29°49'00" E | S 30°04'02" E |
| | CLOTHOID | SPI | 730+82.70 | 2053978.213 | 6009833.721 | | 140.00 | 0°15'02" | 70.00 | 0.05 | | | | | | |
| | CLOTHOID | SC | 731+29.36 | 2053937.826 | 6009857.102 | | | | | | | | | | | |
| C125 | ARC | SC | 731+29.36 | 2053937.826 | 6009857.102 | | | | | | | | | | | |
| | ARC | PI | 732+05.67 | 2053871.785 | 6009895.334 | 16000.00 | 152.62 | 0°32'47" | | | 110 | 1.50 | 1.53 | 0°21'29" | | |
| | ARC | CC | | 2061954.094 | 6023704.103 | | | | | | | | | | | |
| | ARC | CS | 732+81.98 | 2053806.112 | 6009934.194 | | | | | | | | | | | |
| | CLOTHOID | CS | 732+81.98 | 2053806.112 | 6009934.194 | | | | | | | | | | S 30°36'50" E | S 30°51'52" E |
| | CLOTHOID | SPI | 733+28.65 | 2053765.950 | 6009957.959 | | 140.00 | 0°15'02" | 70.00 | 0.05 | | | | | | |
| | CLOTHOID | ST | 734+21.98 | 2053685.834 | 6010005.840 | | | | | | | | | | | |
| | TANGENT | ST | 734+21.98 | 2053685.834 | 6010005.840 | | 110.16 | | | | | | | S 30°51'52" E | | |
| | TANGENT | TS | 735+32.14 | 2053591.275 | 6010062.353 | | | | | | | | | | | |
| | CLOTHOID | TS | 735+32.14 | 2053591.275 | 6010062.353 | | | | | | | | | | S 30°51'52" E | S 30°36'50" E |
| | CLOTHOID | SPI | 736+25.47 | 2053511.159 | 6010110.234 | | 140.00 | 0°15'02" | 70.00 | 0.05 | | | | | | |
| | CLOTHOID | SC | 736+72.14 | 2053470.997 | 6010133.999 | | | | | | | | | | | |
| C126 | ARC | SC | 736+72.14 | 2053470.997 | 6010133.999 | | | | | | | | | | | |
| | ARC | PI | 737+46.74 | 2053406.796 | 6010171.988 | 16000.00 | 149.19 | 0°32'03" | | | 110 | 1.50 | 1.53 | 0°21'29" | | |
| | ARC | CC | | 2045323.015 | 5996364.090 | | | | | | | | | | | |
| | ARC | CS | 738+21.33 | 2053342.245 | 6010209.376 | | | | | | | | | | | |
| | CLOTHOID | CS | 738+21.33 | 2053342.245 | 6010209.376 | | | | | | | | | | S 30°04'46" E | S 29°49'44" E |
| | CLOTHOID | SPI | 738+68.00 | 2053301.863 | 6010232.766 | | 140.00 | 0°15'02" | 70.00 | 0.05 | | | | | | |
| | CLOTHOID | ST | 739+61.33 | 2053220.895 | 6010279.191 | | | | | | | | | | | |
| | TANGENT | ST | 739+61.33 | 2053220.895 | 6010279.191 | | 2187.15 | | | | | | | S 29°49'44" E | | |
| | TANGENT | TS | 761+48.49 | 2051323.509 | 6011367.104 | | | | | | | | | | | |
| | CLOTHOID | TS | 761+48.49 | 2051323.509 | 6011367.104 | | | | | | | | | | S 29°49'44" E | S 31°07'44" E |
| | CLOTHOID | SPI | 763+21.82 | 2051173.136 | 6011453.324 | | 260.00 | 1°18'00" | 130.00 | 0.49 | | | | | | |
| | CLOTHOID | SC | 764+08.49 | 2051098.945 | 6011498.130 | | | | | | | | | | | |
| C127 | ARC | SC | 764+08.49 | 2051098.945 | 6011498.130 | | | | | | | | | | | |
| | ARC | PI | 766+78.29 | 2050867.991 | 6011637.608 | 5730.00 | 539.20 | 5°23'30" | | | 100 | 2.75 | 4.25 | 1°00'00" | | |
| | ARC | CC | | 2054061.145 | 6016403.053 | | | | | | | | | | | |
| | ARC | CS | 769+47.69 | 2050651.165 | 6011798.171 | | | | | | | | | | | |
| | CLOTHOID | CS | 769+47.69 | 2050651.165 | 6011798.171 | | | | | | | | | | S 36°31'14" E | S 37°49'13" E |
| | CLOTHOID | SPI | 770+34.36 | 2050581.513 | 6011849.750 | | 260.00 | 1°18'00" | 130.00 | 0.49 | | | | | | |
| | CLOTHOID | ST | 772+07.69 | 2050444.587 | 6011956.039 | | | | | | | | | | | |
| | TANGENT | ST | 772+07.69 | 2050444.587 | 6011956.039 | | 2410.79 | | | | | | | S 37°49'13" E | | |
| | TANGENT | TS | 796+18.47 | 2048540.216 | 6013434.305 | | | | | | | | | | | |
| | CLOTHOID | TS | 796+18.47 | 2048540.216 | 6013434.305 | | | | | | | | | | S 37°49'13" E | S 37°21'06" E |
| | CLOTHOID | SPI | 797+38.47 | 2048445.424 | 6013507.887 | | 180.00 | 0°28'08" | 90.00 | 0.12 | | | | | | |
| | CLOTHOID | SC | 797+98.47 | 2048397.728 | 6013544.290 | | | | | | | | | | | |
| C128 | ARC | SC | 797+98.47 | 2048397.728 | 6013544.290 | | | | | | | | | | | |
| | ARC | PI | 799+08.41 | 2048310.340 | 6013610.986 | 11000.00 | 219.85 | 1°08'43" | | | 110 | 2.00 | 2.41 | 0°31'15" | | |
| | ARC | CC | | 2041723.979 | 6004800.087 | | | | | | | | | | | |
| | ARC | CS | 800+18.33 | 2048221.638 | 6013675.921 | | | | | | | | | | | |
| | CLOTHOID | CS | 800+18.33 | 2048221.638 | 6013675.921 | | | | | | | | | | S 36°12'23" E | S 35°44'16" E |
| | CLOTHOID | SPI | 800+78.33 | 2048173.224 | 6013711.363 | | 180.00 | 0°28'08" | 90.00 | 0.12 | | | | | | |
| | CLOTHOID | ST | 801+98.33 | 2048075.819 | 6013781.453 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C125 TO C128

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0007 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 801+98.33 | 2048075.819 | 6013781.453 | | 644.56 | | | | | | | S 35°44'16" E | | |
| | TANGENT | TS | 808+42.89 | 2047552.629 | 6014157.924 | | | | | | | | | | | |
| | CLOTHOID | TS | 808+42.89 | 2047552.629 | 6014157.924 | | | | | | | | | | S 35°44'16" E | S 36°12'23" E |
| | CLOTHOID | SPI | 809+62.89 | 2047455.225 | 6014228.014 | | 180.00 | 0°28'08" | 90.00 | 0.12 | | | | | | |
| | CLOTHOID | SC | 810+22.89 | 2047406.811 | 6014263.456 | | | | | | | | | | | |
| C129 | ARC | SC | 810+22.89 | 2047406.811 | 6014263.456 | | | | | | | | | | | |
| | ARC | PI | 811+32.82 | 2047318.108 | 6014328.391 | 11000.00 | 219.85 | 1°08'43" | | | 110 | 2.00 | 2.41 | 0°31'15" | | |
| | ARC | CC | | 2053904.470 | 6023139.290 | | | | | | | | | | | |
| | ARC | CS | 812+42.74 | 2047230.721 | 6014395.087 | | | | | | | | | | | |
| | CLOTHOID | CS | 812+42.74 | 2047230.721 | 6014395.087 | | | | | | | | | | S 37°21'06" E | S 37°49'13" E |
| | CLOTHOID | SPI | 813+02.74 | 2047183.025 | 6014431.490 | | 180.00 | 0°28'08" | 90.00 | 0.12 | | | | | | |
| | CLOTHOID | ST | 814+22.74 | 2047088.232 | 6014505.072 | | | | | | | | | | | |
| | TANGENT | ST | 814+22.74 | 2047088.232 | 6014505.072 | | 1576.46 | | | | | | | S 37°49'13" E | | |
| | TANGENT | TS | 829+99.21 | 2045842.926 | 6015471.741 | | | | | | | | | | | |
| | CLOTHOID | TS | 829+99.21 | 2045842.926 | 6015471.741 | | | | | | | | | | S 37°49'13" E | S 41°24'05" E |
| | CLOTHOID | SPI | 833+32.61 | 2045579.559 | 6015676.179 | | 500.00 | 3°34'52" | 249.97 | 2.60 | | | | | | |
| | CLOTHOID | SC | 834+99.21 | 2045454.497 | 6015786.441 | | | | | | | | | | | |
| C130 | ARC | SC | 834+99.21 | 2045454.497 | 6015786.441 | | | | | | | | | | | |
| | ARC | PI | 840+95.11 | 2045007.514 | 6016180.529 | 4000.00 | 1183.07 | 16°56'48" | | | 105 | 6.00 | 5.05 | 1°25'57" | | |
| | ARC | CC | | 2048099.816 | 6018786.823 | | | | | | | | | | | |
| | ARC | CS | 846+82.28 | 2044694.810 | 6016687.791 | | | | | | | | | | | |
| | CLOTHOID | CS | 846+82.28 | 2044694.810 | 6016687.791 | | | | | | | | | | S 58°20'53" E | S 61°55'45" E |
| | CLOTHOID | SPI | 848+49.01 | 2044607.317 | 6016829.719 | | 500.00 | 3°34'52" | 249.97 | 2.60 | | | | | | |
| | CLOTHOID | ST | 851+82.28 | 2044450.430 | 6017123.902 | | | | | | | | | | | |
| | TANGENT | ST | 851+82.28 | 2044450.430 | 6017123.902 | | 1040.80 | | | | | | | S 61°55'45" E | | |
| | TANGENT | TS | 862+23.08 | 2043960.668 | 6018042.266 | | | | | | | | | | | |
| | CLOTHOID | TS | 862+23.08 | 2043960.668 | 6018042.266 | | | | | | | | | | S 61°55'45" E | S 61°48'31" E |
| | CLOTHOID | SPI | 862+93.08 | 2043927.728 | 6018104.032 | | 105.00 | 0°07'13" | 52.50 | 0.02 | | | | | | |
| | CLOTHOID | SC | 863+28.08 | 2043911.193 | 6018134.880 | | | | | | | | | | | |
| C131 | ARC | SC | 863+28.08 | 2043911.193 | 6018134.880 | | | | | | | | | | | |
| | ARC | PI | 864+69.30 | 2043844.478 | 6018259.350 | 25000.00 | 282.44 | 0°38'50" | | | 110 | 1.25 | 0.69 | 0°13'45" | | |
| | ARC | CC | | 2021876.809 | 6006324.465 | | | | | | | | | | | |
| | ARC | CS | 866+10.52 | 2043776.360 | 6018383.058 | | | | | | | | | | | |
| | CLOTHOID | CS | 866+10.52 | 2043776.360 | 6018383.058 | | | | | | | | | | S 61°09'41" E | S 61°02'28" E |
| | CLOTHOID | SPI | 866+45.52 | 2043759.478 | 6018413.718 | | 105.00 | 0°07'13" | 52.50 | 0.02 | | | | | | |
| | CLOTHOID | ST | 867+15.52 | 2043725.585 | 6018474.965 | | | | | | | | | | | |
| | TANGENT | ST | 867+15.52 | 2043725.585 | 6018474.965 | | 222.94 | | | | | | | S 61°02'28" E | | |
| | TANGENT | PI* | 869+38.46 | 2043617.641 | 6018670.031 | | | | | | | | | | | |
| | TANGENT | PI* | 869+38.46 | 2043617.641 | 6018670.031 | | 1082.63 | | | | | | | S 61°01'30" E | | |
| | TANGENT | PI* | 880+21.09 | 2043093.187 | 6019617.148 | | | | | | | | | | | |
| | TANGENT | PI* | 880+21.09 | 2043093.187 | 6019617.148 | | 393.23 | | | | | | | S 60°59'05" E | | |
| | TANGENT | PI* | 884+14.32 | 2042902.454 | 6019961.025 | | | | | | | | | | | |
| | TANGENT | PI* | 884+14.32 | 2042902.454 | 6019961.025 | | 345.09 | | | | | | | S 61°04'33" E | | |
| | TANGENT | PI* | 887+59.41 | 2042735.549 | 6020263.072 | | | | | | | | | | | |
| | TANGENT | PI* | 887+59.41 | 2042735.549 | 6020263.072 | | 1691.72 | | | | | | | S 61°02'16" E | | |
| | TANGENT | PI* | 904+51.13 | 2041916.359 | 6021743.224 | | | | | | | | | | | |
| | TANGENT | PI* | 904+51.13 | 2041916.359 | 6021743.224 | | 1162.95 | | | | | | | S 61°01'49" E | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
ALTERNATIVE A
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C129 TO C131

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|--------------|----------|
| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0008 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | PI* | 916+14.08 | 2041353.090 | 6022760.659 | | | | | | | | | | | |
| | TANGENT | PI* | 916+14.08 | 2041353.090 | 6022760.659 | | 898.08 | | | | | | | S 61°02'27" E | | |
| | TANGENT | PI* | 925+12.16 | 2040918.251 | 6023546.450 | | | | | | | | | | | |
| | TANGENT | PI* | 925+12.16 | 2040918.251 | 6023546.450 | | 1093.77 | | | | | | | S 61°02'10" E | | |
| | TANGENT | PI* | 936+05.93 | 2040388.586 | 6024503.412 | | | | | | | | | | | |
| | TANGENT | PI* | 936+05.93 | 2040388.586 | 6024503.412 | | 1199.85 | | | | | | | S 61°01'50" E | | |
| | TANGENT | PI* | 948+05.78 | 2039807.446 | 6025553.137 | | | | | | | | | | | |
| | TANGENT | PI* | 948+05.78 | 2039807.446 | 6025553.137 | | 977.51 | | | | | | | S 61°02'27" E | | |
| | TANGENT | PI* | 957+83.29 | 2039334.148 | 6026408.423 | | | | | | | | | | | |
| | TANGENT | PI* | 957+83.29 | 2039334.148 | 6026408.423 | | 1445.58 | | | | | | | S 61°01'34" E | | |
| | TANGENT | PI* | 972+28.87 | 2038633.893 | 6027673.071 | | | | | | | | | | | |
| | TANGENT | PI* | 972+28.87 | 2038633.893 | 6027673.071 | | 450.63 | | | | | | | S 60°59'57" E | | |
| | TANGENT | PI* | 976+79.49 | 2038415.420 | 6028067.194 | | | | | | | | | | | |
| | TANGENT | PI* | 976+79.49 | 2038415.420 | 6028067.194 | | 992.35 | | | | | | | S 61°01'27" E | | |
| | TANGENT | PI* | 986+71.85 | 2037934.684 | 6028935.329 | | | | | | | | | | | |
| | TANGENT | PI* | 986+71.85 | 2037934.684 | 6028935.329 | | 508.62 | | | | | | | S 61°00'50" E | | |
| | TANGENT | PI* | 991+80.46 | 2037688.210 | 6029380.234 | | | | | | | | | | | |
| | TANGENT | PI* | 991+80.46 | 2037688.210 | 6029380.234 | | 267.25 | | | | | | | S 61°03'31" E | | |
| | TANGENT | PI* | 994+47.71 | 2037558.883 | 6029614.110 | | | | | | | | | | | |
| | TANGENT | PI* | 994+47.71 | 2037558.883 | 6029614.110 | | 326.03 | | | | | | | S 61°00'22" E | | |
| | TANGENT | PI* | 997+73.74 | 2037400.851 | 6029899.280 | | | | | | | | | | | |
| | TANGENT | PI* | 997+73.74 | 2037400.851 | 6029899.280 | | 330.57 | | | | | | | S 60°58'32" E | | |
| | TANGENT | TS | 1001+04.31 | 2037240.466 | 6030188.331 | | | | | | | | | | | |
| | CLOTHOID | TS | 1001+04.31 | 2037240.466 | 6030188.331 | | | | | | | | | | | |
| | CLOTHOID | SPI | 1004+66.36 | 2037064.804 | 6030504.917 | | 543.00 | 3°04'45" | 271.47 | 2.43 | | | | | S 60°58'32" E | S 57°53'47" E |
| | CLOTHOID | SC | 1006+47.31 | 2036968.584 | 6030658.282 | | | | | | | | | | | |
| | ARC | SC | 1006+47.31 | 2036968.584 | 6030658.282 | | | | | | | | | | | |
| C132 | ARC | PI | 1007+72.04 | 2036902.295 | 6030763.942 | 5051.85 | 249.41 | 2°49'44" | | | 100 | 3.50 | 4.44 | 1°08'03" | | |
| | ARC | CC | 1007+72.04 | 2032689.222 | 6027973.469 | | | | | | | | | | | |
| | ARC | PCC | 1008+96.72 | 2036830.872 | 6030866.202 | | | | | | | | | | | |
| | ARC | PCC | 1008+96.72 | 2036830.872 | 6030866.202 | | | | | | | | | | | |
| | ARC | PI | 1010+12.64 | 2036764.495 | 6030961.236 | 6250.52 | 231.81 | 2°07'30" | | | 100 | 3.50 | 2.92 | 0°55'00" | | |
| | ARC | CC | 1010+12.64 | 2031706.516 | 6027287.099 | | | | | | | | | | | |
| | ARC | PCC | 1011+28.53 | 2036694.641 | 6031053.744 | | | | | | | | | | | |
| | ARC | PCC | 1011+28.53 | 2036694.641 | 6031053.744 | | | | | | | | | | | |
| | ARC | PI | 1017+08.81 | 2036344.954 | 6031516.829 | 5690.88 | 1156.56 | 11°38'40" | | | 100 | 3.50 | 3.55 | 1°00'25" | | |
| | ARC | CC | 1017+08.81 | 2032153.128 | 6027624.345 | | | | | | | | | | | |
| | ARC | CS | 1022+85.09 | 2035908.997 | 6031899.805 | | | | | | | | | | | |
| | CLOTHOID | CS | 1022+85.09 | 2035908.997 | 6031899.805 | | | | | | | | | | | |
| | CLOTHOID | SPI | 1023+81.76 | 2035836.368 | 6031963.607 | | 290.00 | 1°27'35" | 145.00 | 0.62 | | | | | S 41°17'54" E | S 39°50'19" E |
| | CLOTHOID | ST | 1025+75.09 | 2035687.912 | 6032087.466 | | | | | | | | | | | |
| | TANGENT | ST | 1025+75.09 | 2035687.912 | 6032087.466 | | 748.74 | | | | | | | S 39°50'19" E | | |
| | TANGENT | TS | 1033+23.83 | 2035112.986 | 6032567.131 | | | | | | | | | | | |
| | CLOTHOID | TS | 1033+23.83 | 2035112.986 | 6032567.131 | | | | | | | | | | | |
| | CLOTHOID | SPI | 1033+57.16 | 2035087.391 | 6032588.486 | | 50.00 | 0°11'15" | 25.00 | 0.01 | | | | | S 39°50'19" E | S 39°39'04" E |
| | CLOTHOID | SC | 1033+73.83 | 2035074.558 | 6032599.121 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
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 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C132

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0009 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| C133 | ARC | SC | 1033+73.83 | 2035074.558 | 6032599.121 | 7639.49 | 151.03 | 1°07'58" | | | 79 | 0.50 | 2.78 | 0°45'00" | | |
| | ARC | PI | 1034+49.35 | 2035016.415 | 6032647.309 | | | | | | | | | | | |
| | ARC | CC | | 2030199.725 | 6026717.131 | | | | | | | | | | | |
| | ARC | CS | 1035+24.86 | 2034957.330 | 6032694.338 | | | | | | | | | | | |
| | CLOTHOID | CS | 1035+24.86 | 2034957.330 | 6032694.338 | | | | | | | | | | S 38°31'06" E | S 38°19'51" E |
| | CLOTHOID | SPI | 1035+41.52 | 2034944.290 | 6032704.717 | | 50.00 | 0°11'15" | 25.00 | 0.01 | | | | | | |
| | CLOTHOID | ST | 1035+74.86 | 2034918.142 | 6032725.390 | | | | | | | | | | | |
| | TANGENT | ST | 1035+74.86 | 2034918.142 | 6032725.390 | | 97.11 | | | | | | | | S 38°19'51" E | |
| | TANGENT | TS | 1036+71.97 | 2034841.963 | 6032785.619 | | | | | | | | | | | |
| | CLOTHOID | TS | 1036+71.97 | 2034841.963 | 6032785.619 | | | | | | | | | | S 38°19'51" E | S 38°34'26" E |
| | CLOTHOID | SPI | 1037+05.30 | 2034815.815 | 6032806.292 | | 50.00 | 0°14'35" | 25.00 | 0.02 | | | | | | |
| | CLOTHOID | SC | 1037+21.97 | 2034802.785 | 6032816.684 | | | | | | | | | | | |
| C134 | ARC | SC | 1037+21.97 | 2034802.785 | 6032816.684 | 5894.42 | 107.86 | 1°02'55" | | | 79 | 0.50 | 3.75 | 0°58'19" | | |
| | ARC | PI | 1037+75.90 | 2034760.619 | 6032850.313 | | | | | | | | | | | |
| | ARC | CC | | 2038478.089 | 6037424.974 | | | | | | | | | | | |
| | ARC | CS | 1038+29.83 | 2034719.076 | 6032884.708 | | | | | | | | | | | |
| | CLOTHOID | CS | 1038+29.83 | 2034719.076 | 6032884.708 | | | | | | | | | | S 39°37'20" E | S 39°51'55" E |
| | CLOTHOID | SPI | 1038+46.50 | 2034706.238 | 6032895.337 | | 50.00 | 0°14'35" | 25.00 | 0.02 | | | | | | |
| | CLOTHOID | ST | 1038+79.83 | 2034680.653 | 6032916.703 | | | | | | | | | | | |
| | TANGENT | ST | 1038+79.83 | 2034680.653 | 6032916.703 | | 4781.43 | | | | | | | | S 39°51'55" E | |
| | TANGENT | TS | 1086+61.26 | 2031010.652 | 6035981.528 | | | | | | | | | | | |
| | CLOTHOID | TS | 1086+61.26 | 2031010.652 | 6035981.528 | | | | | | | | | | S 39°51'55" E | S 37°11'29" E |
| | CLOTHOID | SPI | 1089+64.63 | 2030777.801 | 6036175.982 | | 455.00 | 2°40'26" | 227.48 | 1.77 | | | | | | |
| | CLOTHOID | SC | 1091+16.26 | 2030656.955 | 6036267.681 | | | | | | | | | | | |
| C135 | ARC | SC | 1091+16.26 | 2030656.955 | 6036267.681 | 4875.00 | 1191.33 | 14°00'07" | | | 110 | 5.50 | 4.45 | 1°10'31" | | |
| | ARC | PI | 1097+14.92 | 2030180.053 | 6036629.558 | | | | | | | | | | | |
| | ARC | CC | | 2027710.109 | 6032384.161 | | | | | | | | | | | |
| | ARC | CS | 1103+07.59 | 2029629.764 | 6036865.294 | | | | | | | | | | | |
| | CLOTHOID | CS | 1103+07.59 | 2029629.764 | 6036865.294 | | | | | | | | | | S 23°11'23" E | S 20°30'57" E |
| | CLOTHOID | SPI | 1104+59.29 | 2029490.322 | 6036925.029 | | 455.00 | 2°40'26" | 227.48 | 1.77 | | | | | | |
| | CLOTHOID | ST | 1107+62.59 | 2029206.195 | 6037031.349 | | | | | | | | | | | |
| | TANGENT | ST | 1107+62.59 | 2029206.195 | 6037031.349 | | 624.40 | | | | | | | | S 20°30'57" E | |
| | TANGENT | TS | 1113+86.99 | 2028621.397 | 6037250.180 | | | | | | | | | | | |
| | CLOTHOID | TS | 1113+86.99 | 2028621.397 | 6037250.180 | | | | | | | | | | S 20°30'57" E | S 21°33'42" E |
| | CLOTHOID | SPI | 1115+54.33 | 2028464.674 | 6037308.826 | | 251.00 | 1°02'45" | 125.50 | 0.38 | | | | | | |
| | CLOTHOID | SC | 1116+37.99 | 2028386.859 | 6037339.574 | | | | | | | | | | | |
| C136 | ARC | SC | 1116+37.99 | 2028386.859 | 6037339.574 | 6875.00 | 1235.71 | 10°17'54" | | | 110 | 3.00 | 4.06 | 0°50'00" | | |
| | ARC | PI | 1122+57.52 | 2027810.683 | 6037567.253 | | | | | | | | | | | |
| | ARC | CC | | 2030913.444 | 6043733.477 | | | | | | | | | | | |
| | ARC | CS | 1128+73.70 | 2027284.493 | 6037894.270 | | | | | | | | | | | |
| | CLOTHOID | CS | 1128+73.70 | 2027284.493 | 6037894.270 | | | | | | | | | | S 31°51'36" E | S 32°54'22" E |
| | CLOTHOID | SPI | 1129+57.37 | 2027213.429 | 6037938.435 | | 251.00 | 1°02'45" | 125.50 | 0.38 | | | | | | |
| | CLOTHOID | ST | 1131+24.70 | 2027072.940 | 6038029.343 | | | | | | | | | | | |
| | TANGENT | ST | 1131+24.70 | 2027072.940 | 6038029.343 | | 744.08 | | | | | | | | S 32°54'22" E | |
| | TANGENT | TS | 1138+68.78 | 2026448.237 | 6038433.574 | | | | | | | | | | | |
| | CLOTHOID | TS | 1138+68.78 | 2026448.237 | 6038433.574 | | | | | | | | | | S 32°54'22" E | S 32°16'52" E |
| | CLOTHOID | SPI | 1140+35.45 | 2026308.309 | 6038524.119 | | 250.00 | 0°37'30" | 125.00 | 0.23 | | | | | | |
| | CLOTHOID | SC | 1141+18.78 | 2026237.855 | 6038568.625 | | | | | | | | | | | |
| C137 | ARC | SC | 1141+18.78 | 2026237.855 | 6038568.625 | 11459.19 | 108.38 | 0°32'31" | | | 110 | 3.00 | 1.24 | 0°30'00" | | |
| | ARC | PI | 1141+72.97 | 2026192.042 | 6038597.566 | | | | | | | | | | | |
| | ARC | CC | | 2020117.816 | 6028880.584 | | | | | | | | | | | |
| | ARC | CS | 1142+27.16 | 2026145.958 | 6038626.072 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C133TO C137

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0010 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | CLOTHOID | SPI | 1143+10.49 | 2026075.086 | 6038669.910 | | 250.00 | 0°37'30" | 125.00 | 0.23 | | | | | | |
| | CLOTHOID | ST | 1144+77.16 | 2025932.395 | 6038756.035 | | | | | | | | | | | |
| | TANGENT | ST | 1144+77.16 | 2025932.395 | 6038756.035 | | 276.54 | | | | | | | S 31°06'51" E | | |
| | TANGENT | TS | 1147+53.70 | 2025695.636 | 6038898.937 | | | | | | | | | | | |
| | CLOTHOID | TS | 1147+53.70 | 2025695.636 | 6038898.937 | | | | | | | | | | S 31°06'51" E | S 31°44'21" E |
| | CLOTHOID | SPI | 1149+20.37 | 2025552.945 | 6038985.062 | | 250.00 | 0°37'30" | 125.00 | 0.23 | | | | | | |
| | CLOTHOID | SC | 1150+03.70 | 2025482.074 | 6039028.900 | | | | | | | | | | | |
| C138 | ARC | SC | 1150+03.70 | 2025482.074 | 6039028.900 | | | | | | | | | | | |
| | ARC | PI | 1150+57.88 | 2025435.996 | 6039057.401 | 11459.19 | 108.36 | 0°32'30" | | | 110 | 3.00 | 1.24 | 0°30'00" | | |
| | ARC | CC | | 2031510.215 | 6048774.388 | | | | | | | | | | | |
| | ARC | CS | 1151+12.06 | 2025390.191 | 6039086.337 | | | | | | | | | | | |
| | CLOTHOID | CS | 1151+12.06 | 2025390.191 | 6039086.337 | | | | | | | | | | S 32°16'51" E | S 32°54'21" E |
| | CLOTHOID | SPI | 1151+95.39 | 2025319.737 | 6039130.843 | | 250.00 | 0°37'30" | 125.00 | 0.23 | | | | | | |
| | CLOTHOID | ST | 1153+62.06 | 2025179.809 | 6039221.387 | | | | | | | | | | | |
| | TANGENT | ST | 1153+62.06 | 2025179.809 | 6039221.387 | | 821.69 | | | | | | | S 32°54'21" E | | |
| | TANGENT | TS | 1161+83.75 | 2024489.947 | 6039667.780 | | | | | | | | | | | |
| | CLOTHOID | TS | 1161+83.75 | 2024489.947 | 6039667.780 | | | | | | | | | | S 32°54'21" E | S 34°09'44" E |
| | CLOTHOID | SPI | 1164+07.09 | 2024302.440 | 6039789.112 | | 335.00 | 1°15'22" | 167.50 | 0.61 | | | | | | |
| | CLOTHOID | SC | 1165+18.75 | 2024210.037 | 6039851.820 | | | | | | | | | | | |
| C139 | ARC | SC | 1165+18.75 | 2024210.037 | 6039851.820 | | | | | | | | | | | |
| | ARC | PI | 1167+60.11 | 2024010.318 | 6039987.357 | 7639.49 | 482.57 | 3°37'09" | | | 110 | 4.00 | 2.35 | 0°45'00" | | |
| | ARC | CC | | 2028499.897 | 6046173.126 | | | | | | | | | | | |
| | ARC | CS | 1170+01.32 | 2023819.552 | 6040135.230 | | | | | | | | | | | |
| | CLOTHOID | CS | 1170+01.32 | 2023819.552 | 6040135.230 | | | | | | | | | | S 37°46'53" E | S 39°03'47" E |
| | CLOTHOID | SPI | 1171+15.25 | 2023729.505 | 6040205.032 | | 341.78 | 1°16'54" | 170.89 | 0.64 | | | | | | |
| | CLOTHOID | SS | 1173+43.10 | 2023552.582 | 6040348.624 | | | | | | | | | | | |
| | CLOTHOID | SS | 1173+43.10 | 2023552.582 | 6040348.624 | | | | | | | | | | S 39°03'47" E | S 37°46'53" E |
| | CLOTHOID | SPI | 1175+70.96 | 2023375.659 | 6040492.217 | | 341.78 | 1°16'54" | 170.89 | 0.64 | | | | | | |
| | CLOTHOID | SC | 1176+84.88 | 2023285.611 | 6040562.018 | | | | | | | | | | | |
| C140 | ARC | SC | 1176+84.88 | 2023285.611 | 6040562.018 | | | | | | | | | | | |
| | ARC | PI | 1177+81.43 | 2023209.306 | 6040621.167 | 7639.49 | 193.08 | 1°26'53" | | | 110 | 4.00 | 2.35 | 0°45'00" | | |
| | ARC | CC | | 2018605.267 | 6034524.123 | | | | | | | | | | | |
| | ARC | CS | 1178+77.96 | 2023131.531 | 6040678.368 | | | | | | | | | | | |
| | CLOTHOID | CS | 1178+77.96 | 2023131.531 | 6040678.368 | | | | | | | | | | S 36°20'00" E | S 35°04'38" E |
| | CLOTHOID | SPI | 1179+89.63 | 2023041.570 | 6040744.532 | | 335.00 | 1°15'22" | 167.50 | 0.61 | | | | | | |
| | CLOTHOID | ST | 1182+12.96 | 2022858.794 | 6040872.880 | | | | | | | | | | | |
| | TANGENT | ST | 1182+12.96 | 2022858.794 | 6040872.880 | | 68.27 | | | | | | | S 35°04'38" E | | |
| | TANGENT | TS | 1182+81.23 | 2022802.924 | 6040912.113 | | | | | | | | | | | |
| | CLOTHOID | TS | 1182+81.23 | 2022802.924 | 6040912.113 | | | | | | | | | | S 35°04'38" E | S 36°43'27" E |
| | CLOTHOID | SPI | 1185+04.58 | 2022620.144 | 6041040.464 | | 335.00 | 1°38'49" | 167.50 | 0.80 | | | | | | |
| | CLOTHOID | SC | 1186+16.23 | 2022530.634 | 6041107.242 | | | | | | | | | | | |
| C141 | ARC | SC | 1186+16.23 | 2022530.634 | 6041107.242 | | | | | | | | | | | |
| | ARC | PI | 1189+66.14 | 2022250.178 | 6041316.471 | 5826.76 | 698.96 | 6°52'23" | | | 110 | 4.00 | 4.33 | 0°59'00" | | |
| | ARC | CC | | 2026014.825 | 6045777.525 | | | | | | | | | | | |
| | ARC | CS | 1193+15.19 | 2021996.776 | 6041557.760 | | | | | | | | | | | |
| | CLOTHOID | CS | 1193+15.19 | 2021996.776 | 6041557.760 | | | | | | | | | | S 43°35'50" E | S 45°14'40" E |
| | CLOTHOID | SPI | 1194+26.87 | 2021915.900 | 6041634.769 | | 335.00 | 1°38'49" | 167.50 | 0.80 | | | | | | |
| | CLOTHOID | ST | 1196+50.19 | 2021758.648 | 6041793.369 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C138 TO C141

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0011 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 1196+50.19 | 2021758.648 | 6041793.369 | | 398.01 | | | | | | | S 45°14'40" E | | |
| | TANGENT | TS | 1200+48.21 | 2021478.413 | 6042076.005 | | | | | | | | | | | |
| | CLOTHOID | TS | 1200+48.21 | 2021478.413 | 6042076.005 | | | | | | | | | | S 45°14'40" E | S 45°40'01" E |
| | CLOTHOID | SPI | 1201+60.87 | 2021399.086 | 6042156.011 | | 169.00 | 0°25'21" | 84.50 | 0.10 | | | | | | |
| | CLOTHOID | SC | 1202+17.21 | 2021359.718 | 6042196.306 | | | | | | | | | | | |
| C142 | ARC | SC | 1202+17.21 | 2021359.718 | 6042196.306 | | | | | | | | | | | |
| | ARC | PI | 1204+78.48 | 2021177.133 | 6042383.192 | 11459.19 | 522.45 | 2°36'44" | | | 110 | 2.00 | 2.24 | 0°30'00" | | |
| | ARC | CC | | 2029556.347 | 6050204.322 | | | | | | | | | | | |
| | ARC | CS | 1207+39.66 | 2021003.255 | 6042578.205 | | | | | | | | | | | |
| | CLOTHOID | CS | 1207+39.66 | 2021003.255 | 6042578.205 | | | | | | | | | | S 48°16'45" E | S 48°42'06" E |
| | CLOTHOID | SPI | 1207+95.99 | 2020965.765 | 6042620.252 | | 169.00 | 0°25'21" | 84.50 | 0.10 | | | | | | |
| | CLOTHOID | ST | 1209+08.66 | 2020891.407 | 6042704.897 | | | | | | | | | | | |
| | TANGENT | ST | 1209+08.66 | 2020891.407 | 6042704.897 | | 2065.63 | | | | | | | S 48°42'06" E | | |
| | TANGENT | PI* | 1229+74.29 | 2019528.130 | 6044256.771 | | | | | | | | | | | |
| | TANGENT | PI* | 1229+74.29 | 2019528.130 | 6044256.771 | | 298.28 | | | | | | | S 48°44'01" E | | |
| | TANGENT | TS | 1232+72.57 | 2019331.399 | 6044480.970 | | | | | | | | | | | |
| | CLOTHOID | TS | 1232+72.57 | 2019331.399 | 6044480.970 | | | | | | | | | | S 48°44'01" E | S 47°14'07" E |
| | CLOTHOID | SPI | 1234+79.24 | 2019195.085 | 6044636.316 | | 310.00 | 1°29'54" | 155.00 | 0.68 | | | | | | |
| | CLOTHOID | SC | 1235+82.57 | 2019124.918 | 6044712.183 | | | | | | | | | | | |
| C143 | ARC | SC | 1235+82.57 | 2019124.918 | 6044712.183 | | | | | | | | | | | |
| | ARC | PI | 1237+39.63 | 2019018.271 | 6044827.492 | 5927.22 | 314.05 | 3°02'09" | | | 110 | 3.75 | 4.44 | 0°58'00" | | |
| | ARC | CC | | 2014773.469 | 6040687.654 | | | | | | | | | | | |
| | ARC | CS | 1238+96.62 | 2018905.668 | 6044936.992 | | | | | | | | | | | |
| | CLOTHOID | CS | 1238+96.62 | 2018905.668 | 6044936.992 | | | | | | | | | | S 44°11'57" E | S 42°42'04" E |
| | CLOTHOID | SPI | 1239+99.96 | 2018831.582 | 6045009.036 | | 310.00 | 1°29'54" | 155.00 | 0.68 | | | | | | |
| | CLOTHOID | ST | 1242+06.62 | 2018679.696 | 6045149.196 | | | | | | | | | | | |
| | TANGENT | ST | 1242+06.62 | 2018679.696 | 6045149.196 | | 563.54 | | | | | | | S 42°42'04" E | | |
| | TANGENT | TS | 1247+70.16 | 2018265.551 | 6045531.372 | | | | | | | | | | | |
| | CLOTHOID | TS | 1247+70.16 | 2018265.551 | 6045531.372 | | | | | | | | | | S 42°42'04" E | S 42°14'58" E |
| | CLOTHOID | SPI | 1248+86.83 | 2018179.812 | 6045610.492 | | 175.00 | 0°27'06" | 87.50 | 0.11 | | | | | | |
| | CLOTHOID | SC | 1249+45.16 | 2018136.632 | 6045649.713 | | | | | | | | | | | |
| C144 | ARC | SC | 1249+45.16 | 2018136.632 | 6045649.713 | | | | | | | | | | | |
| | ARC | PI | 1250+37.40 | 2018068.351 | 6045711.734 | 11100.00 | 184.48 | 0°57'08" | | | 110 | 2.00 | 2.37 | 0°30'58" | | |
| | ARC | CC | | 2010673.456 | 6037433.205 | | | | | | | | | | | |
| | ARC | CS | 1251+29.64 | 2017999.048 | 6045772.612 | | | | | | | | | | | |
| | CLOTHOID | CS | 1251+29.64 | 2017999.048 | 6045772.612 | | | | | | | | | | S 41°17'49" E | S 40°50'43" E |
| | CLOTHOID | SPI | 1251+87.97 | 2017955.222 | 6045811.110 | | 175.00 | 0°27'06" | 87.50 | 0.11 | | | | | | |
| | CLOTHOID | ST | 1253+04.64 | 2017866.966 | 6045887.412 | | | | | | | | | | | |
| | TANGENT | ST | 1253+04.64 | 2017866.966 | 6045887.412 | | 102.01 | | | | | | | S 40°50'43" E | | |
| | TANGENT | TS | 1254+06.66 | 2017789.795 | 6045954.132 | | | | | | | | | | | |
| | CLOTHOID | TS | 1254+06.66 | 2017789.795 | 6045954.132 | | | | | | | | | | S 40°50'43" E | S 41°17'49" E |
| | CLOTHOID | SPI | 1255+23.32 | 2017701.539 | 6046030.435 | | 175.00 | 0°27'06" | 87.50 | 0.11 | | | | | | |
| | CLOTHOID | SC | 1255+81.66 | 2017657.713 | 6046068.933 | | | | | | | | | | | |
| C145 | ARC | SC | 1255+81.66 | 2017657.713 | 6046068.933 | | | | | | | | | | | |
| | ARC | PI | 1256+73.63 | 2017588.612 | 6046129.633 | 11100.00 | 183.95 | 0°56'58" | | | 110 | 2.00 | 2.37 | 0°30'58" | | |
| | ARC | CC | | 2024983.305 | 6054408.339 | | | | | | | | | | | |
| | ARC | CS | 1257+65.60 | 2017520.526 | 6046191.471 | | | | | | | | | | | |
| | CLOTHOID | CS | 1257+65.60 | 2017520.526 | 6046191.471 | | | | | | | | | | S 42°14'48" E | S 42°41'54" E |
| | CLOTHOID | SPI | 1258+23.94 | 2017477.344 | 6046230.690 | | 175.00 | 0°27'06" | 87.50 | 0.11 | | | | | | |
| | CLOTHOID | ST | 1259+40.60 | 2017391.601 | 6046309.806 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET
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 NOVEMBER 30, 2021
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HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C142 TO C145

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0012 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 1259+40.60 | 2017391.601 | 6046309.806 | | 855.56 | | | | | | | S 42°41'54" E | | |
| | TANGENT | TS | 1267+96.17 | 2016762.817 | 6046889.995 | | | | | | | | | | | |
| | CLOTHOID | TS | 1267+96.17 | 2016762.817 | 6046889.995 | | | | | | | | | | S 42°41'54" E | S 42°55'02" E |
| | CLOTHOID | SPI | 1268+82.83 | 2016699.123 | 6046948.767 | | 130.00 | 0°13'09" | 65.00 | 0.04 | | | | | | |
| | CLOTHOID | SC | 1269+26.17 | 2016667.388 | 6046978.274 | | | | | | | | | | | |
| C146 | ARC | SC | 1269+26.17 | 2016667.388 | 6046978.274 | | | | | | | | | | | |
| | ARC | PI | 1270+28.15 | 2016592.699 | 6047047.721 | 17000.00 | 203.97 | 0°41'15" | | | 110 | 1.50 | 1.35 | 0°20'13" | | |
| | ARC | CC | | 2028243.401 | 6059428.010 | | | | | | | | | | | |
| | ARC | CS | 1271+30.14 | 2016518.849 | 6047118.059 | | | | | | | | | | | |
| | CLOTHOID | CS | 1271+30.14 | 2016518.849 | 6047118.059 | | | | | | | | | | S 43°36'17" E | S 43°49'26" E |
| | CLOTHOID | SPI | 1271+73.47 | 2016487.471 | 6047147.945 | | 130.00 | 0°13'09" | 65.00 | 0.04 | | | | | | |
| | CLOTHOID | ST | 1272+60.14 | 2016424.943 | 6047207.957 | | | | | | | | | | | |
| | TANGENT | ST | 1272+60.14 | 2016424.943 | 6047207.957 | | 745.55 | | | | | | | S 43°49'26" E | | |
| | TANGENT | TS | 1280+05.68 | 2015887.053 | 6047724.205 | | | | | | | | | | | |
| | CLOTHOID | TS | 1280+05.68 | 2015887.053 | 6047724.205 | | | | | | | | | | S 43°49'26" E | S 44°45'41" E |
| | CLOTHOID | SPI | 1281+72.35 | 2015766.806 | 6047839.614 | | 250.00 | 0°56'15" | 125.00 | 0.34 | | | | | | |
| | CLOTHOID | SC | 1282+55.68 | 2015707.634 | 6047898.295 | | | | | | | | | | | |
| C147 | ARC | SC | 1282+55.68 | 2015707.634 | 6047898.295 | | | | | | | | | | | |
| | ARC | PI | 1283+20.40 | 2015661.682 | 6047943.865 | 7639.49 | 129.43 | 0°58'15" | | | 110 | 3.00 | 3.35 | 0°45'00" | | |
| | ARC | CC | | 2021087.018 | 6053322.687 | | | | | | | | | | | |
| | ARC | CS | 1283+85.11 | 2015616.509 | 6047990.207 | | | | | | | | | | | |
| | CLOTHOID | CS | 1283+85.11 | 2015616.509 | 6047990.207 | | | | | | | | | | S 45°43'55" E | S 46°40'10" E |
| | CLOTHOID | SPI | 1284+68.45 | 2015558.340 | 6048049.883 | | 250.00 | 0°56'15" | 125.00 | 0.34 | | | | | | |
| | CLOTHOID | ST | 1286+35.11 | 2015443.971 | 6048171.119 | | | | | | | | | | | |
| | TANGENT | ST | 1286+35.11 | 2015443.971 | 6048171.119 | | 497.70 | | | | | | | S 46°40'10" E | | |
| | TANGENT | TS | 1291+32.81 | 2015102.447 | 6048533.149 | | | | | | | | | | | |
| | CLOTHOID | TS | 1291+32.81 | 2015102.447 | 6048533.149 | | | | | | | | | | S 46°40'10" E | S 46°02'05" E |
| | CLOTHOID | SPI | 1292+68.81 | 2015009.122 | 6048632.077 | | 204.00 | 0°38'05" | 102.00 | 0.19 | | | | | | |
| | CLOTHOID | SC | 1293+36.81 | 2014961.915 | 6048681.021 | | | | | | | | | | | |
| C148 | ARC | SC | 1293+36.81 | 2014961.915 | 6048681.021 | | | | | | | | | | | |
| | ARC | PI | 1296+37.91 | 2014752.886 | 6048897.741 | 9208.30 | 601.98 | 3°44'44" | | | 110 | 2.25 | 3.02 | 0°37'20" | | |
| | ARC | CC | | 2008334.128 | 6042288.429 | | | | | | | | | | | |
| | ARC | CS | 1299+38.79 | 2014530.146 | 6049100.342 | | | | | | | | | | | |
| | CLOTHOID | CS | 1299+38.79 | 2014530.146 | 6049100.342 | | | | | | | | | | S 42°17'21" E | S 41°39'16" E |
| | CLOTHOID | SPI | 1300+06.79 | 2014479.842 | 6049146.098 | | 204.00 | 0°38'05" | 102.00 | 0.19 | | | | | | |
| | CLOTHOID | ST | 1301+42.79 | 2014378.227 | 6049236.489 | | | | | | | | | | | |
| | TANGENT | ST | 1301+42.79 | 2014378.227 | 6049236.489 | | 624.72 | | | | | | | S 41°39'16" E | | |
| | TANGENT | TS | 1307+67.50 | 2013911.461 | 6049651.698 | | | | | | | | | | | |
| | CLOTHOID | TS | 1307+67.50 | 2013911.461 | 6049651.698 | | | | | | | | | | S 41°39'16" E | S 41°28'52" E |
| | CLOTHOID | SPI | 1308+48.17 | 2013851.189 | 6049705.313 | | 121.00 | 0°10'24" | 60.50 | 0.03 | | | | | | |
| | CLOTHOID | SC | 1308+88.50 | 2013820.973 | 6049732.028 | | | | | | | | | | | |
| C149 | ARC | SC | 1308+88.50 | 2013820.973 | 6049732.028 | | | | | | | | | | | |
| | ARC | PI | 1310+10.03 | 2013729.927 | 6049812.525 | 19985.00 | 243.05 | 0°41'49" | | | 110 | 1.25 | 1.18 | 0°17'12" | | |
| | ARC | CC | | 2000583.452 | 6034759.778 | | | | | | | | | | | |
| | ARC | CS | 1311+31.56 | 2013637.908 | 6049891.910 | | | | | | | | | | | |
| | CLOTHOID | CS | 1311+31.56 | 2013637.908 | 6049891.910 | | | | | | | | | | S 40°47'03" E | S 40°36'39" E |
| | CLOTHOID | SPI | 1311+71.89 | 2013607.369 | 6049918.256 | | 121.00 | 0°10'24" | 60.50 | 0.03 | | | | | | |
| | CLOTHOID | ST | 1312+52.56 | 2013546.131 | 6049970.763 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
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NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C146 TO C149

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0013 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|-------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 1312+52.56 | 2013546.131 | 6049970.763 | | 103.93 | | | | | | | S 40°36'39" E | | |
| | TANGENT | TS | 1313+56.49 | 2013467.231 | 6050038.414 | | | | | | | | | | | |
| | CLOTHOID | TS | 1313+56.49 | 2013467.231 | 6050038.414 | | | | | | | | | | S 40°36'39" E | S 40°57'32" E |
| | CLOTHOID | SPI | 1314+61.82 | 2013387.267 | 6050106.978 | | 158.00 | 0°20'53" | 79.00 | 0.08 | | | | | | |
| | CLOTHOID | SC | 1315+14.49 | 2013347.495 | 6050141.502 | | | | | | | | | | | |
| C150 | ARC | SC | 1315+14.49 | 2013347.495 | 6050141.502 | | | | | | | | | | | |
| | ARC | PI | 1315+92.73 | 2013288.407 | 6050192.792 | 13000.00 | 156.48 | 0°41'23" | | | 110 | 1.75 | 1.99 | 0°26'27" | | |
| | ARC | CC | | 2021869.239 | 6059958.827 | | | | | | | | | | | |
| | ARC | CS | 1316+70.97 | 2013229.941 | 6050244.789 | | | | | | | | | | | |
| | CLOTHOID | CS | 1316+70.97 | 2013229.941 | 6050244.789 | | | | | | | | | | S 41°38'55" E | S 41°59'49" E |
| | CLOTHOID | SPI | 1317+23.64 | 2013190.587 | 6050279.789 | | 158.00 | 0°20'53" | 79.00 | 0.08 | | | | | | |
| | CLOTHOID | ST | 1318+28.97 | 2013112.305 | 6050350.267 | | | | | | | | | S 41°59'49" E | | |
| | TANGENT | ST | 1318+28.97 | 2013112.305 | 6050350.267 | | 114.30 | | | | | | | | | |
| | TANGENT | TS | 1319+43.28 | 2013027.357 | 6050426.745 | | | | | | | | | | | |
| | CLOTHOID | TS | 1319+43.28 | 2013027.357 | 6050426.745 | | | | | | | | | | S 41°59'49" E | S 41°50'19" E |
| | CLOTHOID | SPI | 1320+20.61 | 2012969.885 | 6050478.488 | | 116.00 | 0°09'30" | 58.00 | 0.03 | | | | | | |
| | CLOTHOID | SC | 1320+59.28 | 2012941.077 | 6050504.280 | | | | | | | | | | | |
| C151 | ARC | SC | 1320+59.28 | 2012941.077 | 6050504.280 | | | | | | | | | | | |
| | ARC | PI | 1321+23.87 | 2012892.949 | 6050547.370 | 21000.00 | 129.20 | 0°21'09" | | | 110 | 1.25 | 1.06 | 0°16'22" | | |
| | ARC | CC | | 1998933.345 | 6034858.723 | | | | | | | | | | | |
| | ARC | CS | 1321+88.47 | 2012844.557 | 6050590.163 | | | | | | | | | | | |
| | CLOTHOID | CS | 1321+88.47 | 2012844.557 | 6050590.163 | | | | | | | | | | S 41°29'10" E | S 41°19'40" E |
| | CLOTHOID | SPI | 1322+27.14 | 2012815.591 | 6050615.777 | | 116.00 | 0°09'30" | 58.00 | 0.03 | | | | | | |
| | CLOTHOID | ST | 1323+04.47 | 2012757.518 | 6050666.845 | | | | | | | | | S 41°19'40" E | | |
| | TANGENT | ST | 1323+04.47 | 2012757.518 | 6050666.845 | | 1681.17 | | | | | | | | | |
| | TANGENT | TS | 1339+85.64 | 2011495.059 | 6051777.032 | | | | | | | | | | | |
| | CLOTHOID | TS | 1339+85.64 | 2011495.059 | 6051777.032 | | | | | | | | | | S 41°19'40" E | S 41°16'30" E |
| | CLOTHOID | SPI | 1340+40.97 | 2011453.507 | 6051813.572 | | 83.00 | 0°03'10" | 41.50 | 0.01 | | | | | | |
| | CLOTHOID | SC | 1340+68.64 | 2011432.714 | 6051831.823 | | | | | | | | | | | |
| C152 | ARC | SC | 1340+68.64 | 2011432.714 | 6051831.823 | | | | | | | | | | | |
| | ARC | PI | 1341+26.71 | 2011389.072 | 6051870.130 | 45000.00 | 116.14 | 0°08'52" | | | 110 | 1.00 | 0.08 | 0°07'38" | | |
| | ARC | CC | | 1981747.369 | 6018012.002 | | | | | | | | | | | |
| | ARC | CS | 1341+84.78 | 2011345.331 | 6051908.324 | | | | | | | | | | | |
| | CLOTHOID | CS | 1341+84.78 | 2011345.331 | 6051908.324 | | | | | | | | | | S 41°07'38" E | S 41°04'28" E |
| | CLOTHOID | SPI | 1342+12.44 | 2011324.492 | 6051926.521 | | 83.00 | 0°03'10" | 41.50 | 0.01 | | | | | | |
| | CLOTHOID | ST | 1342+67.78 | 2011282.778 | 6051962.877 | | | | | | | | | S 41°04'28" E | | |
| | TANGENT | ST | 1342+67.78 | 2011282.778 | 6051962.877 | | 197.99 | | | | | | | | | |
| | TANGENT | TS | 1344+65.77 | 2011133.519 | 6052092.966 | | | | | | | | | | | |
| | CLOTHOID | TS | 1344+65.77 | 2011133.519 | 6052092.966 | | | | | | | | | | S 41°04'28" E | S 41°07'38" E |
| | CLOTHOID | SPI | 1345+21.10 | 2011091.805 | 6052129.322 | | 83.00 | 0°03'10" | 41.50 | 0.01 | | | | | | |
| | CLOTHOID | SC | 1345+48.77 | 2011070.966 | 6052147.520 | | | | | | | | | | | |
| C153 | ARC | SC | 1345+48.77 | 2011070.966 | 6052147.520 | | | | | | | | | | | |
| | ARC | PI | 1346+06.61 | 2011027.397 | 6052185.563 | 45000.00 | 115.68 | 0°08'50" | | | 110 | 1.00 | 0.08 | 0°07'38" | | |
| | ARC | CC | | 2040668.928 | 6086043.841 | | | | | | | | | | | |
| | ARC | CS | 1346+64.45 | 2010983.927 | 6052223.718 | | | | | | | | | | | |
| | CLOTHOID | CS | 1346+64.45 | 2010983.927 | 6052223.718 | | | | | | | | | | S 41°16'28" E | S 41°19'38" E |
| | CLOTHOID | SPI | 1346+92.12 | 2010963.134 | 6052241.969 | | 83.00 | 0°03'10" | 41.50 | 0.01 | | | | | | |
| | CLOTHOID | ST | 1347+47.45 | 2010921.582 | 6052278.509 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
ALTERNATIVE A
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HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C150 TO C153

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0014 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 1347+47.45 | 2010921.582 | 6052278.509 | | 3394.48 | | | | | | | S 41°19'38" E | | |
| | TANGENT | PI* | 1381+41.92 | 2008372.502 | 6054520.083 | | | | | | | | | | | |
| | TANGENT | PI* | 1381+41.92 | 2008372.502 | 6054520.083 | | 1181.71 | | | | | | | S 41°18'37" E | | |
| | TANGENT | TS | 1393+23.64 | 2007484.863 | 6055300.173 | | | | | | | | | | | |
| | CLOTHOID | TS | 1393+23.64 | 2007484.863 | 6055300.173 | | | | | | | | | | S 41°18'37" E | S 42°15'37" E |
| | CLOTHOID | SPI | 1395+23.64 | 2007334.632 | 6055432.202 | | 300.00 | 0°57'00" | 150.00 | 0.41 | | | | | | |
| | CLOTHOID | SC | 1396+23.64 | 2007260.620 | 6055499.453 | | | | | | | | | | | |
| C154 | ARC | SC | 1396+23.64 | 2007260.620 | 6055499.453 | | | | | | | | | | | |
| | ARC | PI | 1402+08.52 | 2006827.746 | 6055892.790 | 9046.75 | 1168.14 | 7°23'54" | | | 110 | 2.50 | 2.86 | 0°38'00" | | |
| | ARC | CC | | 2013344.549 | 6062194.937 | | | | | | | | | | | |
| | ARC | CS | 1407+91.78 | 2006449.123 | 6056338.591 | | | | | | | | | | | |
| | CLOTHOID | CS | 1407+91.78 | 2006449.123 | 6056338.591 | | | | | | | | | | S 49°39'30" E | S 50°36'30" E |
| | CLOTHOID | SPI | 1408+91.78 | 2006384.387 | 6056414.812 | | 300.00 | 0°57'00" | 150.00 | 0.41 | | | | | | |
| | CLOTHOID | ST | 1410+91.78 | 2006257.462 | 6056569.380 | | | | | | | | | | | |
| | TANGENT | ST | 1410+91.78 | 2006257.462 | 6056569.380 | | 843.22 | | | | | | | S 50°36'30" E | | |
| | TANGENT | PI* | 1419+35.00 | 2005722.341 | 6057221.044 | | | | | | | | | | | |
| EON | TANGENT | PI* | 1419+35.00 | 2005722.341 | 6057221.044 | | 1691.53 | | | | | | | S 50°35'11" E | | |
| | EON | BK | 1419+99.97 | 2005681.091 | 6057271.238 | | | | | | | | | | | |
| | TANGENT | AHD | 1425+00.00 | | | | | | | | | | | | | |
| | TANGENT | PI* | 1441+26.56 | 2004648.369 | 6058527.890 | | | | | | | | | | | |
| | TANGENT | PI* | 1441+26.56 | 2004648.369 | 6058527.890 | | 1204.31 | | | | | | | S 50°35'42" E | | |
| | TANGENT | PI* | 1453+30.87 | 2003883.874 | 6059458.435 | | | | | | | | | | | |
| | TANGENT | PI* | 1453+30.87 | 2003883.874 | 6059458.435 | | 2953.67 | | | | | | | S 50°35'14" E | | |
| | TANGENT | PI* | 1482+84.54 | 2002008.584 | 6061740.417 | | | | | | | | | | | |
| | TANGENT | PI* | 1482+84.54 | 2002008.584 | 6061740.417 | | 4796.03 | | | | | | | S 50°34'52" E | | |
| | TANGENT | PI* | 1530+80.57 | 1998963.177 | 6065445.466 | | | | | | | | | | | |
| | TANGENT | PI* | 1530+80.57 | 1998963.177 | 6065445.466 | | 1052.30 | | | | | | | S 50°35'36" E | | |
| | TANGENT | PI* | 1541+32.87 | 1998295.152 | 6066258.537 | | | | | | | | | | | |
| | TANGENT | PI* | 1541+32.87 | 1998295.152 | 6066258.537 | | 627.19 | | | | | | | S 50°31'50" E | | |
| | TANGENT | PI* | 1547+60.06 | 1997896.470 | 6066742.704 | | | | | | | | | | | |
| | TANGENT | PI* | 1547+60.06 | 1997896.470 | 6066742.704 | | 499.90 | | | | | | | S 50°35'56" E | | |
| | TANGENT | TS | 1552+59.95 | 1997579.161 | 6067128.986 | | | | | | | | | | | |
| | CLOTHOID | TS | 1552+59.95 | 1997579.161 | 6067128.986 | | | | | | | | | | S 50°35'56" E | S 50°37'43" E |
| | CLOTHOID | SPI | 1553+13.29 | 1997545.308 | 6067170.198 | | 80.00 | 0°01'47" | 40.00 | 0.00 | | | | | | |
| | CLOTHOID | SC | 1553+39.95 | 1997528.392 | 6067190.812 | | | | | | | | | | | |
| C155 | ARC | SC | 1553+39.95 | 1997528.392 | 6067190.812 | | | | | | | | | | | |
| | ARC | PI | 1553+95.14 | 1997493.384 | 6067233.475 | 77000.00 | 110.38 | 0°04'56" | | | 110 | 0.50 | 0.13 | 0°04'28" | | |
| | ARC | CC | | 2057053.274 | 6116035.346 | | | | | | | | | | | |
| | ARC | CS | 1554+50.33 | 1997458.437 | 6067276.189 | | | | | | | | | | | |
| | CLOTHOID | CS | 1554+50.33 | 1997458.437 | 6067276.189 | | | | | | | | | | S 50°42'39" E | S 50°44'26" E |
| | CLOTHOID | SPI | 1554+77.00 | 1997441.551 | 6067296.828 | | 80.00 | 0°01'47" | 40.00 | 0.00 | | | | | | |
| | CLOTHOID | ST | 1555+30.33 | 1997407.799 | 6067338.123 | | | | | | | | | | | |
| | TANGENT | ST | 1555+30.33 | 1997407.799 | 6067338.123 | | 873.62 | | | | | | | S 50°44'26" E | | |
| | TANGENT | TS | 1564+03.95 | 1996854.946 | 6068014.554 | | | | | | | | | | | |
| | CLOTHOID | TS | 1564+03.95 | 1996854.946 | 6068014.554 | | | | | | | | | | S 50°44'26" E | S 50°42'39" E |
| | CLOTHOID | SPI | 1564+57.28 | 1996821.194 | 6068055.849 | | 80.00 | 0°01'47" | 40.00 | 0.00 | | | | | | |
| | CLOTHOID | SC | 1564+83.95 | 1996804.308 | 6068076.488 | | | | | | | | | | | |
| C156 | ARC | SC | 1564+83.95 | 1996804.308 | 6068076.488 | | | | | | | | | | | |
| | ARC | PI | 1565+66.55 | 1996752.000 | 6068140.421 | 77000.00 | 165.21 | 0°07'23" | | | 110 | 0.50 | 0.13 | 0°04'28" | | |
| | ARC | CC | | 1937209.472 | 6019317.330 | | | | | | | | | | | |
| | ARC | CS | 1566+49.16 | 1996699.554 | 6068204.242 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C154 TO C156

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0015 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | CLOTHOID | SPI | 1566+75.82 | 1996682.623 | 6068224.844 | | 80.00 | 0°01'47" | 40.00 | 0.00 | | | | | | |
| | CLOTHOID | ST | 1567+29.16 | 1996648.741 | 6068266.032 | | | | | | | | | | | |
| | TANGENT | ST | 1567+29.16 | 1996648.741 | 6068266.032 | | 2912.35 | | | | | | | S 50°33'29" E | | |
| | TANGENT | TS | 1596+41.51 | 1994798.537 | 6070515.147 | | | | | | | | | | | |
| | CLOTHOID | TS | 1596+41.51 | 1994798.537 | 6070515.147 | | | | | | | | | | S 50°33'29" E | S 50°30'44" E |
| | CLOTHOID | SPI | 1596+94.84 | 1994764.654 | 6070556.335 | | 80.00 | 0°02'45" | 40.00 | 0.01 | | | | | | |
| | CLOTHOID | SC | 1597+21.51 | 1994747.696 | 6070576.915 | | | | | | | | | | | |
| | ARC | SC | 1597+21.51 | 1994747.696 | 6070576.915 | | | | | | | | | | | |
| C157 | ARC | PI | 1597+83.36 | 1994708.364 | 6070624.650 | 50000.00 | 123.70 | 0°08'30" | | | 110 | 0.75 | 0.22 | 0°06'53" | | |
| | ARC | CC | | 1956159.693 | 6038781.224 | | | | | | | | | | | |
| | ARC | CS | 1598+45.21 | 1994668.914 | 6070672.287 | | | | | | | | | | | |
| | CLOTHOID | CS | 1598+45.21 | 1994668.914 | 6070672.287 | | | | | | | | | | S 50°22'14" E | S 50°19'29" E |
| | CLOTHOID | SPI | 1598+71.88 | 1994651.906 | 6070692.825 | | 80.00 | 0°02'45" | 40.00 | 0.01 | | | | | | |
| | CLOTHOID | ST | 1599+25.21 | 1994617.856 | 6070733.874 | | | | | | | | | | | |
| | TANGENT | ST | 1599+25.21 | 1994617.856 | 6070733.874 | | 356.43 | | | | | | | S 50°19'29" E | | |
| | TANGENT | TS | 1602+81.64 | 1994390.298 | 6071008.208 | | | | | | | | | | | |
| | CLOTHOID | TS | 1602+81.64 | 1994390.298 | 6071008.208 | | | | | | | | | | S 50°19'29" E | S 50°22'14" E |
| | CLOTHOID | SPI | 1603+34.97 | 1994356.248 | 6071049.257 | | 80.00 | 0°02'45" | 40.00 | 0.01 | | | | | | |
| | CLOTHOID | SC | 1603+61.64 | 1994339.240 | 6071069.796 | | | | | | | | | | | |
| | ARC | SC | 1603+61.64 | 1994339.240 | 6071069.796 | | | | | | | | | | | |
| C158 | ARC | PI | 1604+22.56 | 1994300.381 | 6071116.719 | 50000.00 | 121.85 | 0°08'23" | | | 110 | 0.75 | 0.22 | 0°06'53" | | |
| | ARC | CC | | 2032848.461 | 6102960.858 | | | | | | | | | | | |
| | ARC | CS | 1604+83.49 | 1994261.636 | 6071163.737 | | | | | | | | | | | |
| | CLOTHOID | CS | 1604+83.49 | 1994261.636 | 6071163.737 | | | | | | | | | | S 50°30'36" E | S 50°33'21" E |
| | CLOTHOID | SPI | 1605+10.15 | 1994244.677 | 6071184.317 | | 80.00 | 0°02'45" | 40.00 | 0.01 | | | | | | |
| | CLOTHOID | ST | 1605+63.49 | 1994210.793 | 6071225.503 | | | | | | | | | | | |
| | TANGENT | ST | 1605+63.49 | 1994210.793 | 6071225.503 | | 2376.62 | | | | | | | S 50°33'21" E | | |
| | TANGENT | PI* | 1629+40.11 | 1992700.868 | 6073060.836 | | | | | | | | | | | |
| | TANGENT | PI* | 1629+40.11 | 1992700.868 | 6073060.836 | | 833.97 | | | | | | | S 50°33'57" E | | |
| | TANGENT | PI* | 1637+74.08 | 1992171.139 | 6073704.957 | | | | | | | | | | | |
| | TANGENT | PI* | 1637+74.08 | 1992171.139 | 6073704.957 | | 2284.85 | | | | | | | S 50°32'54" E | | |
| | TANGENT | PI* | 1660+58.92 | 1990719.283 | 6075469.224 | | | | | | | | | | | |
| | TANGENT | PI* | 1660+58.92 | 1990719.283 | 6075469.224 | | 1706.23 | | | | | | | S 50°33'43" E | | |
| | TANGENT | TS | 1677+65.16 | 1989635.407 | 6076786.965 | | | | | | | | | | | |
| | CLOTHOID | TS | 1677+65.16 | 1989635.407 | 6076786.965 | | | | | | | | | | S 50°33'43" E | S 49°32'19" E |
| | CLOTHOID | SPI | 1679+31.83 | 1989529.531 | 6076915.686 | | 250.00 | 1°01'23" | 125.00 | 0.37 | | | | | | |
| | CLOTHOID | SC | 1680+15.16 | 1989475.452 | 6076979.092 | | | | | | | | | | | |
| | ARC | SC | 1680+15.16 | 1989475.452 | 6076979.092 | | | | | | | | | | | |
| C159 | ARC | PI | 1681+77.03 | 1989370.403 | 6077102.256 | 7000.00 | 323.70 | 2°38'58" | | | 110 | 3.00 | 3.94 | 0°49'07" | | |
| | ARC | CC | | 1984149.542 | 6072436.550 | | | | | | | | | | | |
| | ARC | CS | 1683+38.85 | 1989259.774 | 6077220.432 | | | | | | | | | | | |
| | CLOTHOID | CS | 1683+38.85 | 1989259.774 | 6077220.432 | | | | | | | | | | S 46°53'21" E | S 45°51'58" E |
| | CLOTHOID | SPI | 1684+22.19 | 1989202.821 | 6077281.270 | | 250.00 | 1°01'23" | 125.00 | 0.37 | | | | | | |
| | CLOTHOID | ST | 1685+88.85 | 1989086.763 | 6077400.891 | | | | | | | | | | | |
| | TANGENT | ST | 1685+88.85 | 1989086.763 | 6077400.891 | | 180.56 | | | | | | | S 45°51'58" E | | |
| | TANGENT | TS | 1687+69.41 | 1988961.035 | 6077530.479 | | | | | | | | | | | |
| | CLOTHOID | TS | 1687+69.41 | 1988961.035 | 6077530.479 | | | | | | | | | | S 45°51'58" E | S 46°58'40" E |
| | CLOTHOID | SPI | 1689+42.74 | 1988840.334 | 6077654.885 | | 260.00 | 1°06'42" | 130.00 | 0.42 | | | | | | |
| | CLOTHOID | SC | 1690+29.41 | 1988781.200 | 6077718.248 | | | | | | | | | | | |
| | ARC | SC | 1690+29.41 | 1988781.200 | 6077718.248 | | | | | | | | | | | |
| C160 | ARC | PI | 1691+80.10 | 1988678.383 | 6077828.420 | 6700.00 | 301.34 | 2°34'37" | | | 110 | 3.00 | 4.24 | 0°51'19" | | |
| | ARC | CC | | 1993679.495 | 6082289.540 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C157 TO C160

| | |
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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0016 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | ARC | CS | 1693+30.75 | 1988580.623 | 6077943.104 | | | | | | | | | | | |
| | CLOTHOID | CS | 1693+30.75 | 1988580.623 | 6077943.104 | | | | | | | | | | S 49°33'17" E | S 50°39'59" E |
| | CLOTHOID | SPI | 1694+17.42 | 1988524.398 | 6078009.062 | | 260.00 | 1°06'42" | 130.00 | 0.42 | | | | | | |
| | CLOTHOID | ST | 1695+90.75 | 1988414.532 | 6078143.133 | | | | | | | | | | | |
| | TANGENT | ST | 1695+90.75 | 1988414.532 | 6078143.133 | | 836.48 | | | | | | | S 50°39'59" E | | |
| | TANGENT | TS | 1704+27.23 | 1987884.341 | 6078790.125 | | | | | | | | | | | |
| | CLOTHOID | TS | 1704+27.23 | 1987884.341 | 6078790.125 | | | | | | | | | | S 50°39'59" E | S 51°46'41" E |
| | CLOTHOID | SPI | 1706+00.57 | 1987774.474 | 6078924.196 | | 260.00 | 1°06'42" | 130.00 | 0.42 | | | | | | |
| | CLOTHOID | SC | 1706+87.23 | 1987720.851 | 6078992.285 | | | | | | | | | | | |
| C161 | ARC | SC | 1706+87.23 | 1987720.851 | 6078992.285 | | | | | | | | | | | |
| | ARC | PI | 1708+25.43 | 1987635.343 | 6079100.861 | 6700.00 | 276.36 | 2°21'48" | | | 110 | 3.00 | 4.24 | 0°51'19" | | |
| | ARC | CC | | 1992984.509 | 6083137.632 | | | | | | | | | | | |
| | ARC | CS | 1709+63.59 | 1987554.386 | 6079212.870 | | | | | | | | | | | |
| | CLOTHOID | CS | 1709+63.59 | 1987554.386 | 6079212.870 | | | | | | | | | | S 54°08'29" E | S 55°15'12" E |
| | CLOTHOID | SPI | 1710+50.26 | 1987503.616 | 6079283.113 | | 260.00 | 1°06'42" | 130.00 | 0.42 | | | | | | |
| | CLOTHOID | ST | 1712+23.59 | 1987404.822 | 6079425.540 | | | | | | | | | | | |
| | TANGENT | ST | 1712+23.59 | 1987404.822 | 6079425.540 | | 261.87 | | | | | | | S 55°15'12" E | | |
| | TANGENT | TS | 1714+85.46 | 1987255.570 | 6079640.712 | | | | | | | | | | | |
| | CLOTHOID | TS | 1714+85.46 | 1987255.570 | 6079640.712 | | | | | | | | | | S 55°15'12" E | S 54°08'29" E |
| | CLOTHOID | SPI | 1716+58.80 | 1987156.776 | 6079783.140 | | 260.00 | 1°06'42" | 130.00 | 0.42 | | | | | | |
| | CLOTHOID | SC | 1717+45.46 | 1987106.006 | 6079853.382 | | | | | | | | | | | |
| C162 | ARC | SC | 1717+45.46 | 1987106.006 | 6079853.382 | | | | | | | | | | | |
| | ARC | PI | 1718+83.11 | 1987025.373 | 6079964.943 | 6700.00 | 275.26 | 2°21'14" | | | 110 | 3.00 | 4.24 | 0°51'19" | | |
| | ARC | CC | | 1981675.883 | 6075928.620 | | | | | | | | | | | |
| | ARC | CS | 1720+20.72 | 1986940.227 | 6080073.097 | | | | | | | | | | | |
| | CLOTHOID | CS | 1720+20.72 | 1986940.227 | 6080073.097 | | | | | | | | | | S 51°47'15" E | S 50°40'33" E |
| | CLOTHOID | SPI | 1721+07.39 | 1986886.614 | 6080141.195 | | 260.00 | 1°06'42" | 130.00 | 0.42 | | | | | | |
| | CLOTHOID | ST | 1722+80.72 | 1986776.770 | 6080275.284 | | | | | | | | | | | |
| | TANGENT | ST | 1722+80.72 | 1986776.770 | 6080275.284 | | 541.97 | | | | | | | S 50°40'33" E | | |
| | TANGENT | PI* | 1728+22.69 | 1986433.321 | 6080694.537 | | | | | | | | | | | |
| | TANGENT | PI* | 1728+22.69 | 1986433.321 | 6080694.537 | | 2074.35 | | | | | | | S 50°39'16" E | | |
| | TANGENT | PI* | 1748+97.04 | 1985118.192 | 6082298.707 | | | | | | | | | | | |
| | TANGENT | PI* | 1748+97.04 | 1985118.192 | 6082298.707 | | 1678.96 | | | | | | | S 50°40'05" E | | |
| | TANGENT | PI* | 1765+76.00 | 1984054.041 | 6083597.361 | | | | | | | | | | | |
| | TANGENT | PI* | 1765+76.00 | 1984054.041 | 6083597.361 | | 905.87 | | | | | | | S 50°39'28" E | | |
| | TANGENT | PI* | 1774+81.87 | 1983479.762 | 6084297.937 | | | | | | | | | | | |
| | TANGENT | PI* | 1774+81.87 | 1983479.762 | 6084297.937 | | 602.21 | | | | | | | S 50°41'41" E | | |
| | TANGENT | PI* | 1780+84.08 | 1983098.292 | 6084763.917 | | | | | | | | | | | |
| | TANGENT | PI* | 1780+84.08 | 1983098.292 | 6084763.917 | | 1262.63 | | | | | | | S 50°40'12" E | | |
| | TANGENT | TS | 1793+46.71 | 1982298.056 | 6085740.570 | | | | | | | | | | | |
| | CLOTHOID | TS | 1793+46.71 | 1982298.056 | 6085740.570 | | | | | | | | | | S 50°40'12" E | S 50°21'47" E |
| | CLOTHOID | SPI | 1794+46.71 | 1982234.677 | 6085817.921 | | 150.00 | 0°18'25" | 75.00 | 0.07 | | | | | | |
| | CLOTHOID | SC | 1794+96.71 | 1982202.781 | 6085856.426 | | | | | | | | | | | |
| C163 | ARC | SC | 1794+96.71 | 1982202.781 | 6085856.426 | | | | | | | | | | | |
| | ARC | PI | 1795+84.12 | 1982147.020 | 6085923.741 | 14000.00 | 174.82 | 0°42'56" | | | 110 | 1.75 | 1.71 | 0°24'33" | | |
| | ARC | CC | | 1971421.351 | 6076925.537 | | | | | | | | | | | |
| | ARC | CS | 1796+71.53 | 1982090.423 | 6085990.354 | | | | | | | | | | | |
| | CLOTHOID | CS | 1796+71.53 | 1982090.423 | 6085990.354 | | | | | | | | | | S 49°38'51" E | S 49°20'26" E |
| | CLOTHOID | SPI | 1797+21.53 | 1982058.049 | 6086028.458 | | 150.00 | 0°18'25" | 75.00 | 0.07 | | | | | | |
| | CLOTHOID | ST | 1798+21.53 | 1981992.893 | 6086104.318 | | | | | | | | | | | |
| | TANGENT | ST | 1798+21.53 | 1981992.893 | 6086104.318 | | 107.34 | | | | | | | S 49°20'26" E | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
ALTERNATIVE A
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C161 TO C163

| | |
|--------------|----------|
| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0017 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|-------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | TS | 1799+28.87 | 1981922.955 | 6086185.745 | | | | | | | | | | | |
| | CLOTHOID | TS | 1799+28.87 | 1981922.955 | 6086185.745 | | | | | | | | | | S 49°20'26" E | S 49°38'51" E |
| | CLOTHOID | SPI | 1800+28.87 | 1981857.799 | 6086261.605 | | 150.00 | 0°18'25" | 75.00 | 0.07 | | | | | | |
| | CLOTHOID | SC | 1800+78.87 | 1981825.424 | 6086299.709 | | | | | | | | | | | |
| C164 | ARC | SC | 1800+78.87 | 1981825.424 | 6086299.709 | | | | | | | | | | | |
| | ARC | PI | 1801+64.21 | 1981770.170 | 6086364.742 | 14000.00 | 170.67 | 0°41'55" | | | 110 | 1.75 | 1.71 | 0°24'33" | | |
| | ARC | CC | | 1992494.496 | 6095364.525 | | | | | | | | | | | |
| | ARC | CS | 1802+49.54 | 1981715.712 | 6086430.444 | | | | | | | | | | | |
| | CLOTHOID | CS | 1802+49.54 | 1981715.712 | 6086430.444 | | | | | | | | | | S 50°20'46" E | S 50°39'11" E |
| | CLOTHOID | SPI | 1802+99.54 | 1981683.804 | 6086468.940 | | 150.00 | 0°18'25" | 75.00 | 0.07 | | | | | | |
| | CLOTHOID | ST | 1803+99.54 | 1981620.403 | 6086546.272 | | | | | | | | | | | |
| | TANGENT | ST | 1803+99.54 | 1981620.403 | 6086546.272 | | | | | | | | | S 50°39'11" E | | |
| | TANGENT | PI* | 1817+90.40 | 1980738.577 | 6087621.853 | | | | | | | | | | | |
| | TANGENT | PI* | 1817+90.40 | 1980738.577 | 6087621.853 | | | | | | | | | S 50°40'11" E | | |
| | TANGENT | TS | 1830+84.95 | 1979918.103 | 6088623.193 | | | | | | | | | | | |
| | TANGENT | TS | 1830+84.95 | 1979918.103 | 6088623.193 | | | | | | | | | | S 50°40'11" E | S 50°53'19" E |
| | CLOTHOID | SPI | 1831+71.62 | 1979863.174 | 6088690.231 | | 130.00 | 0°13'09" | 65.00 | 0.04 | | | | | | |
| | CLOTHOID | SC | 1832+14.95 | 1979835.838 | 6088723.854 | | | | | | | | | | | |
| C165 | ARC | SC | 1832+14.95 | 1979835.838 | 6088723.854 | | | | | | | | | | | |
| | ARC | PI | 1833+35.08 | 1979760.060 | 6088817.062 | 17000.00 | 240.25 | 0°48'35" | | | 110 | 1.50 | 1.35 | 0°20'13" | | |
| | ARC | CC | | 1993026.516 | 6099447.940 | | | | | | | | | | | |
| | ARC | CS | 1834+55.20 | 1979685.606 | 6088911.331 | | | | | | | | | | | |
| | CLOTHOID | CS | 1834+55.20 | 1979685.606 | 6088911.331 | | | | | | | | | | S 51°41'54" E | S 51°55'03" E |
| | CLOTHOID | SPI | 1834+98.53 | 1979658.748 | 6088945.337 | | 130.00 | 0°13'09" | 65.00 | 0.04 | | | | | | |
| | CLOTHOID | ST | 1835+85.20 | 1979605.292 | 6089013.555 | | | | | | | | | | | |
| | TANGENT | ST | 1835+85.20 | 1979605.292 | 6089013.555 | | | | | | | | | S 51°55'03" E | | |
| | TANGENT | TS | 1837+05.56 | 1979531.054 | 6089108.294 | | | | | | | | | | | |
| | TANGENT | TS | 1837+05.56 | 1979531.054 | 6089108.294 | | | | | | | | | | S 51°55'03" E | S 51°36'38" E |
| | CLOTHOID | TS | 1837+05.56 | 1979531.054 | 6089108.294 | | | | | | | | | | | |
| | CLOTHOID | SPI | 1838+05.56 | 1979469.374 | 6089187.007 | | 150.00 | 0°18'25" | 75.00 | 0.07 | | | | | | |
| | CLOTHOID | SC | 1838+55.56 | 1979438.324 | 6089226.197 | | | | | | | | | | | |
| C166 | ARC | SC | 1838+55.56 | 1979438.324 | 6089226.197 | | | | | | | | | | | |
| | ARC | PI | 1839+35.53 | 1979388.663 | 6089288.878 | 14000.00 | 159.94 | 0°39'16" | | | 110 | 1.75 | 1.71 | 0°24'33" | | |
| | ARC | CC | | 1968465.013 | 6080532.151 | | | | | | | | | | | |
| | ARC | CS | 1840+15.50 | 1979338.288 | 6089350.988 | | | | | | | | | | | |
| | CLOTHOID | CS | 1840+15.50 | 1979338.288 | 6089350.988 | | | | | | | | | | S 50°57'22" E | S 50°38'57" E |
| | CLOTHOID | SPI | 1840+65.50 | 1979306.792 | 6089389.821 | | 150.00 | 0°18'25" | 75.00 | 0.07 | | | | | | |
| | CLOTHOID | ST | 1841+65.50 | 1979243.385 | 6089467.149 | | | | | | | | | | | |
| | TANGENT | ST | 1841+65.50 | 1979243.385 | 6089467.149 | | | | | | | | | S 50°38'57" E | | |
| | TANGENT | TS | 1876+89.39 | 1977008.997 | 6092192.092 | | | | | | | | | | | |
| | TANGENT | TS | 1876+89.39 | 1977008.997 | 6092192.092 | | | | | | | | | | | |
| | CLOTHOID | TS | 1876+89.39 | 1977008.997 | 6092192.092 | | | | | | | | | | S 50°38'57" E | S 50°35'42" E |
| | CLOTHOID | SPI | 1877+46.05 | 1976973.067 | 6092235.911 | | 85.00 | 0°03'15" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | SC | 1877+74.39 | 1976955.081 | 6092257.803 | | | | | | | | | | | |
| C167 | ARC | SC | 1877+74.39 | 1976955.081 | 6092257.803 | | | | | | | | | | | |
| | ARC | PI | 1878+27.47 | 1976921.383 | 6092298.820 | 45000.00 | 106.17 | 0°08'07" | | | 110 | 1.00 | 0.08 | 0°07'38" | | |
| | ARC | CC | | 1942184.587 | 6063691.866 | | | | | | | | | | | |
| | ARC | CS | 1878+80.55 | 1976887.589 | 6092339.757 | | | | | | | | | | | |
| | CLOTHOID | CS | 1878+80.55 | 1976887.589 | 6092339.757 | | | | | | | | | | S 50°27'35" E | S 50°24'20" E |
| | CLOTHOID | SPI | 1879+08.89 | 1976869.551 | 6092361.607 | | 85.00 | 0°03'15" | 42.50 | 0.01 | | | | | | |
| | CLOTHOID | ST | 1879+65.55 | 1976833.435 | 6092405.273 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C164 TO C167

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0018 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 1879+65.55 | 1976833.435 | 6092405.273 | | 224.09 | | | | | | | S 50°24'20" E | | |
| | TANGENT | TS | 1881+89.64 | 1976690.614 | 6092577.949 | | | | | | | | | | | |
| | CLOTHOID | TS | 1881+89.64 | 1976690.614 | 6092577.949 | | | | | | | | | | S 50°24'20" E | S 50°27'05" E |
| | CLOTHOID | SPI | 1882+42.97 | 1976656.622 | 6092619.046 | | 80.00 | 0°02'45" | 40.00 | 0.01 | | | | | | |
| | CLOTHOID | SC | 1882+69.64 | 1976639.643 | 6092639.608 | | | | | | | | | | | |
| C168 | ARC | SC | 1882+69.64 | 1976639.643 | 6092639.608 | | | | | | | | | | | |
| | ARC | PI | 1883+24.94 | 1976604.430 | 6092682.251 | 50000.00 | 110.60 | 0°07'36" | | | 110 | 0.75 | 0.22 | 0°06'53" | | |
| | ARC | CC | | 2015193.936 | 6124476.167 | | | | | | | | | | | |
| | ARC | CS | 1883+80.24 | 1976569.312 | 6092724.971 | | | | | | | | | | | |
| | CLOTHOID | CS | 1883+80.24 | 1976569.312 | 6092724.971 | | | | | | | | | | S 50°34'42" E | S 50°37'27" E |
| | CLOTHOID | SPI | 1884+06.91 | 1976552.378 | 6092745.571 | | 80.00 | 0°02'45" | 40.00 | 0.01 | | | | | | |
| | CLOTHOID | ST | 1884+60.24 | 1976518.543 | 6092786.798 | | | | | | | | | | | |
| | TANGENT | ST | 1884+60.24 | 1976518.543 | 6092786.798 | | 1396.01 | | | | | | | S 50°37'27" E | | |
| | TANGENT | TS | 1898+56.25 | 1975632.906 | 6093865.914 | | | | | | | | | | | |
| | CLOTHOID | TS | 1898+56.25 | 1975632.906 | 6093865.914 | | | | | | | | | | S 50°37'27" E | S 50°31'43" E |
| | CLOTHOID | SPI | 1899+22.92 | 1975590.612 | 6093917.448 | | 100.00 | 0°05'44" | 50.00 | 0.01 | | | | | | |
| | CLOTHOID | SC | 1899+56.25 | 1975569.422 | 6093943.179 | | | | | | | | | | | |
| C169 | ARC | SC | 1899+56.25 | 1975569.422 | 6093943.179 | | | | | | | | | | | |
| | ARC | PI | 1900+14.94 | 1975532.116 | 6093988.482 | 30000.00 | 117.37 | 0°13'27" | | | 110 | 1.00 | 0.62 | 0°11'28" | | |
| | ARC | CC | | 1952411.168 | 6074872.384 | | | | | | | | | | | |
| | ARC | CS | 1900+73.63 | 1975494.632 | 6094033.638 | | | | | | | | | | | |
| | CLOTHOID | CS | 1900+73.63 | 1975494.632 | 6094033.638 | | | | | | | | | | S 50°18'16" E | S 50°12'32" E |
| | CLOTHOID | SPI | 1901+06.96 | 1975473.342 | 6094059.286 | | 100.00 | 0°05'44" | 50.00 | 0.01 | | | | | | |
| | CLOTHOID | ST | 1901+73.63 | 1975430.676 | 6094110.512 | | | | | | | | | | | |
| | TANGENT | ST | 1901+73.63 | 1975430.676 | 6094110.512 | | 102.04 | | | | | | | S 50°12'32" E | | |
| | TANGENT | TS | 1902+75.66 | 1975365.374 | 6094188.915 | | | | | | | | | | | |
| | CLOTHOID | TS | 1902+75.66 | 1975365.374 | 6094188.915 | | | | | | | | | | S 50°12'32" E | S 50°18'16" E |
| | CLOTHOID | SPI | 1903+42.33 | 1975322.708 | 6094240.141 | | 100.00 | 0°05'44" | 50.00 | 0.01 | | | | | | |
| | CLOTHOID | SC | 1903+75.66 | 1975301.417 | 6094265.789 | | | | | | | | | | | |
| C170 | ARC | SC | 1903+75.66 | 1975301.417 | 6094265.789 | | | | | | | | | | | |
| | ARC | PI | 1904+40.13 | 1975260.241 | 6094315.394 | 30000.00 | 128.94 | 0°14'47" | | | 110 | 1.00 | 0.62 | 0°11'28" | | |
| | ARC | CC | | 1998384.882 | 6113427.043 | | | | | | | | | | | |
| | ARC | CS | 1905+04.60 | 1975219.278 | 6094365.175 | | | | | | | | | | | |
| | CLOTHOID | CS | 1905+04.60 | 1975219.278 | 6094365.175 | | | | | | | | | | S 50°33'02" E | S 50°38'46" E |
| | CLOTHOID | SPI | 1905+37.93 | 1975198.098 | 6094390.915 | | 100.00 | 0°05'44" | 50.00 | 0.01 | | | | | | |
| | CLOTHOID | ST | 1906+04.60 | 1975155.824 | 6094442.465 | | | | | | | | | | | |
| | TANGENT | ST | 1906+04.60 | 1975155.824 | 6094442.465 | | 765.94 | | | | | | | S 50°38'46" E | | |
| | TANGENT | TS | 1913+70.54 | 1974670.134 | 6095034.726 | | | | | | | | | | | |
| | CLOTHOID | TS | 1913+70.54 | 1974670.134 | 6095034.726 | | | | | | | | | | S 50°38'46" E | S 51°51'22" E |
| | CLOTHOID | SPI | 1915+17.21 | 1974577.129 | 6095148.138 | | 220.00 | 1°12'36" | 110.00 | 0.39 | | | | | | |
| | CLOTHOID | SC | 1915+90.54 | 1974531.834 | 6095205.814 | | | | | | | | | | | |
| C171 | ARC | SC | 1915+90.54 | 1974531.834 | 6095205.814 | | | | | | | | | | | |
| | ARC | PI | 1920+24.12 | 1974264.041 | 6095546.805 | 5208.79 | 865.14 | 9°31'00" | | | 90 | 2.25 | 3.99 | 1°06'00" | | |
| | ARC | CC | | 1978628.352 | 6098422.961 | | | | | | | | | | | |
| | ARC | CS | 1924+55.69 | 1974056.311 | 6095927.378 | | | | | | | | | | | |
| | CLOTHOID | CS | 1924+55.69 | 1974056.311 | 6095927.378 | | | | | | | | | | S 61°22'22" E | S 62°34'58" E |
| | CLOTHOID | SPI | 1925+29.02 | 1974021.175 | 6095991.750 | | 220.00 | 1°12'36" | 110.00 | 0.39 | | | | | | |
| | CLOTHOID | ST | 1926+75.69 | 1973953.638 | 6096121.945 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C168 TO C171

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0019 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 1926+75.69 | 1973953.638 | 6096121.945 | | 10583.87 | | | | | | | S 62°34'58" E | | |
| | TANGENT | PI* | 2032+59.55 | 1969080.108 | 6105516.992 | | | | | | | | | | | |
| | TANGENT | PI* | 2032+59.55 | 1969080.108 | 6105516.992 | | 194.92 | | | | | | | S 62°36'55" E | | |
| | TANGENT | TS | 2034+54.47 | 1968990.454 | 6105690.065 | | | | | | | | | | | |
| | CLOTHOID | TS | 2034+54.47 | 1968990.454 | 6105690.065 | | | | | | | | | | S 62°36'55" E | S 62°17'11" E |
| | CLOTHOID | SPI | 2035+57.80 | 1968942.925 | 6105781.819 | | 155.00 | 0°19'44" | 77.50 | 0.07 | | | | | | |
| | CLOTHOID | SC | 2036+09.47 | 1968918.897 | 6105827.559 | | | | | | | | | | | |
| | ARC | SC | 2036+09.47 | 1968918.897 | 6105827.559 | | | | | | | | | | | |
| C172 | ARC | PI | 2036+93.57 | 1968879.787 | 6105902.010 | 13500.00 | 168.19 | 0°42'50" | | | 110 | 1.75 | 1.84 | 0°25'28" | | |
| | ARC | CC | | 1956967.563 | 6099549.373 | | | | | | | | | | | |
| | ARC | CS | 2037+77.66 | 1968839.753 | 6105975.968 | | | | | | | | | | | |
| | CLOTHOID | CS | 2037+77.66 | 1968839.753 | 6105975.968 | | | | | | | | | | S 61°34'22" E | S 61°14'37" E |
| | CLOTHOID | SPI | 2038+29.33 | 1968815.157 | 6106021.404 | | 155.00 | 0°19'44" | 77.50 | 0.07 | | | | | | |
| | CLOTHOID | ST | 2039+32.66 | 1968765.445 | 6106111.994 | | | | | | | | | S 61°14'37" E | | |
| | TANGENT | ST | 2039+32.66 | 1968765.445 | 6106111.994 | | 104.86 | | | | | | | | | |
| | TANGENT | TS | 2040+37.52 | 1968714.997 | 6106203.925 | | | | | | | | | | | |
| | CLOTHOID | TS | 2040+37.52 | 1968714.997 | 6106203.925 | | | | | | | | | | S 61°14'37" E | S 61°33'02" E |
| | CLOTHOID | SPI | 2041+37.52 | 1968666.888 | 6106291.593 | | 150.00 | 0°18'25" | 75.00 | 0.07 | | | | | | |
| | CLOTHOID | SC | 2041+87.52 | 1968643.069 | 6106335.555 | | | | | | | | | | | |
| | ARC | SC | 2041+87.52 | 1968643.069 | 6106335.555 | | | | | | | | | | | |
| C173 | ARC | PI | 2042+65.87 | 1968605.746 | 6106404.442 | 14000.00 | 156.69 | 0°38'29" | | | 110 | 1.75 | 1.71 | 0°24'33" | | |
| | ARC | CC | | 1980952.412 | 6113004.894 | | | | | | | | | | | |
| | ARC | CS | 2043+44.22 | 1968569.196 | 6106473.741 | | | | | | | | | | | |
| | CLOTHOID | CS | 2043+44.22 | 1968569.196 | 6106473.741 | | | | | | | | | | S 62°11'31" E | S 62°29'56" E |
| | CLOTHOID | SPI | 2043+94.22 | 1968545.870 | 6106517.967 | | 150.00 | 0°18'25" | 75.00 | 0.07 | | | | | | |
| | CLOTHOID | ST | 2044+94.22 | 1968499.693 | 6106606.668 | | | | | | | | | | | |
| | TANGENT | ST | 2044+94.22 | 1968499.693 | 6106606.668 | | 721.71 | | | | | | | S 62°29'56" E | | |
| | TANGENT | TS | 2052+15.93 | 1968166.432 | 6107246.826 | | | | | | | | | | | |
| | CLOTHOID | TS | 2052+15.93 | 1968166.432 | 6107246.826 | | | | | | | | | | S 62°29'56" E | S 63°53'38" E |
| | CLOTHOID | SPI | 2054+55.94 | 1968055.605 | 6107459.713 | | 360.00 | 1°23'42" | 180.00 | 0.73 | | | | | | |
| | CLOTHOID | SC | 2055+75.93 | 1968002.798 | 6107567.477 | | | | | | | | | | | |
| | ARC | SC | 2055+75.93 | 1968002.798 | 6107567.477 | | | | | | | | | | | |
| C174 | ARC | PI | 2056+43.89 | 1967972.894 | 6107628.501 | 7393.06 | 135.91 | 1°03'12" | | | 110 | 2.75 | 3.81 | 0°46'30" | | |
| | ARC | CC | | 1974641.622 | 6110820.682 | | | | | | | | | | | |
| | ARC | CS | 2057+11.84 | 1967944.117 | 6107690.065 | | | | | | | | | | | |
| | CLOTHOID | CS | 2057+11.84 | 1967944.117 | 6107690.065 | | | | | | | | | | S 64°56'50" E | S 66°36'48" E |
| | CLOTHOID | SPI | 2058+55.18 | 1967883.417 | 6107819.924 | | 430.00 | 1°39'58" | 214.99 | 1.04 | | | | | | |
| | CLOTHOID | ST | 2061+41.84 | 1967769.625 | 6108083.052 | | | | | | | | | | | |
| | TANGENT | ST | 2061+41.84 | 1967769.625 | 6108083.052 | | 1164.99 | | | | | | | S 66°36'48" E | | |
| | TANGENT | TS | 2073+06.83 | 1967307.203 | 6109152.334 | | | | | | | | | | | |
| | CLOTHOID | TS | 2073+06.83 | 1967307.203 | 6109152.334 | | | | | | | | | | S 66°36'48" E | S 66°49'57" E |
| | CLOTHOID | SPI | 2073+93.49 | 1967272.802 | 6109231.881 | | 130.00 | 0°13'09" | 65.00 | 0.04 | | | | | | |
| | CLOTHOID | SC | 2074+36.83 | 1967255.754 | 6109271.720 | | | | | | | | | | | |
| | ARC | SC | 2074+36.83 | 1967255.754 | 6109271.720 | | | | | | | | | | | |
| C175 | ARC | PI | 2075+49.49 | 1967211.430 | 6109375.297 | 17000.00 | 225.32 | 0°45'34" | | | 110 | 1.50 | 1.35 | 0°20'13" | | |
| | ARC | CC | | 1982884.850 | 6115959.869 | | | | | | | | | | | |
| | ARC | CS | 2076+62.15 | 1967168.483 | 6109479.452 | | | | | | | | | | | |
| | CLOTHOID | CS | 2076+62.15 | 1967168.483 | 6109479.452 | | | | | | | | | | S 67°35'31" E | S 67°48'40" E |
| | CLOTHOID | SPI | 2077+05.48 | 1967151.965 | 6109519.513 | | 130.00 | 0°13'09" | 65.00 | 0.04 | | | | | | |
| | CLOTHOID | ST | 2077+92.15 | 1967119.234 | 6109599.761 | | | | | | | | | | | |

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 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C173 TO C175

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0020 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|-------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 2077+92.15 | 1967119.234 | 6109599.761 | | 107.05 | | | | | | | S 67°48'40" E | | |
| | TANGENT | TS | 2078+99.20 | 1967078.805 | 6109698.884 | | | | | | | | | | | |
| | CLOTHOID | TS | 2078+99.20 | 1967078.805 | 6109698.884 | | | | | | | | | | S 67°48'40" E | S 67°35'31" E |
| | CLOTHOID | SPI | 2079+85.86 | 1967046.074 | 6109779.133 | | 130.00 | 0°13'09" | 65.00 | 0.04 | | | | | | |
| | CLOTHOID | SC | 2080+29.20 | 1967029.555 | 6109819.194 | | | | | | | | | | | |
| C176 | ARC | SC | 2080+29.20 | 1967029.555 | 6109819.194 | | | | | | | | | | | |
| | ARC | PI | 2081+45.93 | 1966985.056 | 6109927.113 | 17000.00 | 233.46 | 0°47'13" | | | 110 | 1.50 | 1.35 | 0°20'13" | | |
| | ARC | CC | | 1951313.188 | 6103338.777 | | | | | | | | | | | |
| | ARC | CS | 2082+62.66 | 1966939.079 | 6110034.411 | | | | | | | | | | | |
| | CLOTHOID | CS | 2082+62.66 | 1966939.079 | 6110034.411 | | | | | | | | | | S 66°48'18" E | S 66°35'10" E |
| | CLOTHOID | SPI | 2083+05.99 | 1966922.012 | 6110074.242 | | 130.00 | 0°13'09" | 65.00 | 0.04 | | | | | | |
| | CLOTHOID | ST | 2083+92.66 | 1966887.573 | 6110153.773 | | | | | | | | | | | |
| | TANGENT | ST | 2083+92.66 | 1966887.573 | 6110153.773 | | 2983.41 | | | | | | | S 66°35'10" E | | |
| | TANGENT | TS | 2113+76.07 | 1965702.050 | 6112891.516 | | | | | | | | | | | |
| | CLOTHOID | TS | 2113+76.07 | 1965702.050 | 6112891.516 | | | | | | | | | | S 66°35'10" E | S 66°43'23" E |
| | CLOTHOID | SPI | 2114+49.40 | 1965672.909 | 6112958.811 | | 110.00 | 0°08'13" | 55.00 | 0.02 | | | | | | |
| | CLOTHOID | SC | 2114+86.07 | 1965658.419 | 6112992.494 | | | | | | | | | | | |
| C177 | ARC | SC | 2114+86.07 | 1965658.419 | 6112992.494 | | | | | | | | | | | |
| | ARC | PI | 2115+45.92 | 1965634.766 | 6113047.476 | 23000.00 | 119.71 | 0°17'54" | | | 110 | 1.25 | 0.86 | 0°14'57" | | |
| | ARC | CC | | 1986786.335 | 6122081.563 | | | | | | | | | | | |
| | ARC | CS | 2116+05.78 | 1965611.399 | 6113102.582 | | | | | | | | | | | |
| | CLOTHOID | CS | 2116+05.78 | 1965611.399 | 6113102.582 | | | | | | | | | | S 67°01'16" E | S 67°09'30" E |
| | CLOTHOID | SPI | 2116+42.44 | 1965597.085 | 6113136.339 | | 110.00 | 0°08'13" | 55.00 | 0.02 | | | | | | |
| | CLOTHOID | ST | 2117+15.78 | 1965568.618 | 6113203.921 | | | | | | | | | | | |
| | TANGENT | ST | 2117+15.78 | 1965568.618 | 6113203.921 | | 118.04 | | | | | | | S 67°09'30" E | | |
| | TANGENT | TS | 2118+33.82 | 1965522.795 | 6113312.707 | | | | | | | | | | | |
| | CLOTHOID | TS | 2118+33.82 | 1965522.795 | 6113312.707 | | | | | | | | | | S 67°09'30" E | S 67°01'16" E |
| | CLOTHOID | SPI | 2119+07.15 | 1965494.328 | 6113380.290 | | 110.00 | 0°08'13" | 55.00 | 0.02 | | | | | | |
| | CLOTHOID | SC | 2119+43.82 | 1965480.014 | 6113414.047 | | | | | | | | | | | |
| C178 | ARC | SC | 2119+43.82 | 1965480.014 | 6113414.047 | | | | | | | | | | | |
| | ARC | PI | 2119+98.99 | 1965458.477 | 6113464.838 | 23000.00 | 110.34 | 0°16'30" | | | 110 | 1.25 | 0.86 | 0°14'57" | | |
| | ARC | CC | | 1944305.078 | 6104435.066 | | | | | | | | | | | |
| | ARC | CS | 2120+54.15 | 1965436.696 | 6113515.524 | | | | | | | | | | | |
| | CLOTHOID | CS | 2120+54.15 | 1965436.696 | 6113515.524 | | | | | | | | | | S 66°44'47" E | S 66°36'34" E |
| | CLOTHOID | SPI | 2120+90.82 | 1965422.220 | 6113549.213 | | 110.00 | 0°08'13" | 55.00 | 0.02 | | | | | | |
| | CLOTHOID | ST | 2121+64.15 | 1965393.107 | 6113616.519 | | | | | | | | | | | |
| | TANGENT | ST | 2121+64.15 | 1965393.107 | 6113616.519 | | 484.83 | | | | | | | S 66°36'34" E | | |
| | TANGENT | PI* | 2126+48.99 | 1965200.630 | 6114061.507 | | | | | | | | | | | |
| | TANGENT | PI* | 2126+48.99 | 1965200.630 | 6114061.507 | | 948.66 | | | | | | | S 66°35'08" E | | |
| | TANGENT | TS | 2135+97.65 | 1964823.650 | 6114932.047 | | | | | | | | | | | |
| | CLOTHOID | TS | 2135+97.65 | 1964823.650 | 6114932.047 | | | | | | | | | | S 66°35'08" E | S 66°27'54" E |
| | CLOTHOID | SPI | 2136+67.65 | 1964795.834 | 6114996.283 | | 105.00 | 0°07'13" | 52.50 | 0.02 | | | | | | |
| | CLOTHOID | SC | 2137+02.65 | 1964781.858 | 6115028.372 | | | | | | | | | | | |
| C179 | ARC | SC | 2137+02.65 | 1964781.858 | 6115028.372 | | | | | | | | | | | |
| | ARC | PI | 2137+69.30 | 1964755.242 | 6115089.483 | 25000.00 | 133.31 | 0°18'20" | | | 110 | 1.25 | 0.69 | 0°13'45" | | |
| | ARC | CC | | 1941861.428 | 6105045.691 | | | | | | | | | | | |
| | ARC | CS | 2138+35.96 | 1964728.300 | 6115150.452 | | | | | | | | | | | |
| | CLOTHOID | CS | 2138+35.96 | 1964728.300 | 6115150.452 | | | | | | | | | | S 66°09'35" E | S 66°02'21" E |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C176 TO C179

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0021 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | CLOTHOID | SPI | 2138+70.96 | 1964714.153 | 6115182.466 | | 105.00 | 0°07'13" | 52.50 | 0.02 | | | | | | |
| | CLOTHOID | ST | 2139+40.96 | 1964685.725 | 6115246.433 | | | | | | | | | | | |
| | TANGENT | ST | 2139+40.96 | 1964685.725 | 6115246.433 | | 107.45 | | | | | | | S 66°02'21" E | | |
| | TANGENT | TS | 2140+48.41 | 1964642.090 | 6115344.622 | | | | | | | | | | | |
| | CLOTHOID | TS | 2140+48.41 | 1964642.090 | 6115344.622 | | | | | | | | | | S 66°02'21" E | S 66°09'35" E |
| | CLOTHOID | SPI | 2141+18.41 | 1964613.662 | 6115408.590 | | 105.00 | 0°07'13" | 52.50 | 0.02 | | | | | | |
| | CLOTHOID | SC | 2141+53.41 | 1964599.515 | 6115440.603 | | | | | | | | | | | |
| | ARC | SC | 2141+53.41 | 1964599.515 | 6115440.603 | | | | | | | | | | | |
| C180 | ARC | PI | 2142+22.52 | 1964571.578 | 6115503.825 | 25000.00 | 138.24 | 0°19'01" | | | 110 | 1.25 | 0.69 | 0°13'45" | | |
| | ARC | CC | | 1987466.387 | 6125545.364 | | | | | | | | | | | |
| | ARC | CS | 2142+91.64 | 1964543.991 | 6115567.200 | | | | | | | | | | | |
| | CLOTHOID | CS | 2142+91.64 | 1964543.991 | 6115567.200 | | | | | | | | | | S 66°28'35" E | S 66°35'48" E |
| | CLOTHOID | SPI | 2143+26.64 | 1964530.021 | 6115599.291 | | 105.00 | 0°07'13" | 52.50 | 0.02 | | | | | | |
| | CLOTHOID | ST | 2143+96.64 | 1964502.217 | 6115663.532 | | | | | | | | | | | |
| | TANGENT | ST | 2143+96.64 | 1964502.217 | 6115663.532 | | 1950.97 | | | | | | | S 66°35'48" E | | |
| | TANGENT | PI* | 2163+47.61 | 1963727.293 | 6117453.997 | | | | | | | | | | | |
| | TANGENT | PI* | 2163+47.61 | 1963727.293 | 6117453.997 | | 873.90 | | | | | | | S 66°33'19" E | | |
| | TANGENT | TS | 2172+21.51 | 1963379.597 | 6118255.754 | | | | | | | | | | | |
| | CLOTHOID | TS | 2172+21.51 | 1963379.597 | 6118255.754 | | | | | | | | | | S 66°33'19" E | S 66°47'09" E |
| | CLOTHOID | SPI | 2173+18.18 | 1963341.137 | 6118344.440 | | 145.00 | 0°13'50" | 72.50 | 0.05 | | | | | | |
| | CLOTHOID | SC | 2173+66.51 | 1963322.085 | 6118388.860 | | | | | | | | | | | |
| | ARC | SC | 2173+66.51 | 1963322.085 | 6118388.860 | | | | | | | | | | | |
| C181 | ARC | PI | 2174+57.61 | 1963286.179 | 6118472.579 | 18015.00 | 182.19 | 0°34'46" | | | 110 | 1.50 | 1.19 | 0°19'05" | | |
| | ARC | CC | | 1979878.546 | 6125489.833 | | | | | | | | | | | |
| | ARC | CS | 2175+48.70 | 1963251.121 | 6118556.656 | | | | | | | | | | | |
| | CLOTHOID | CS | 2175+48.70 | 1963251.121 | 6118556.656 | | | | | | | | | | S 67°21'55" E | S 67°35'45" E |
| | CLOTHOID | SPI | 2175+97.03 | 1963232.519 | 6118601.267 | | 145.00 | 0°13'50" | 72.50 | 0.05 | | | | | | |
| | CLOTHOID | ST | 2176+93.70 | 1963195.676 | 6118690.637 | | | | | | | | | | | |
| | TANGENT | ST | 2176+93.70 | 1963195.676 | 6118690.637 | | 105.05 | | | | | | | S 67°35'45" E | | |
| | TANGENT | TS | 2177+98.74 | 1963155.639 | 6118787.753 | | | | | | | | | | | |
| | CLOTHOID | TS | 2177+98.74 | 1963155.639 | 6118787.753 | | | | | | | | | | S 67°35'45" E | S 67°21'54" E |
| | CLOTHOID | SPI | 2178+95.41 | 1963118.796 | 6118877.123 | | 145.00 | 0°13'51" | 72.50 | 0.05 | | | | | | |
| | CLOTHOID | SC | 2179+43.74 | 1963100.194 | 6118921.734 | | | | | | | | | | | |
| | ARC | SC | 2179+43.74 | 1963100.194 | 6118921.734 | | | | | | | | | | | |
| C182 | ARC | PI | 2180+19.80 | 1963070.922 | 6118991.934 | 18000.00 | 152.12 | 0°29'03" | | | 110 | 1.50 | 1.19 | 0°19'06" | | |
| | ARC | CC | | 1946486.637 | 6111994.274 | | | | | | | | | | | |
| | ARC | CS | 2180+95.86 | 1963041.058 | 6119061.884 | | | | | | | | | | | |
| | CLOTHOID | CS | 2180+95.86 | 1963041.058 | 6119061.884 | | | | | | | | | | S 66°52'51" E | S 66°39'00" E |
| | CLOTHOID | SPI | 2181+44.19 | 1963022.081 | 6119106.336 | | 145.00 | 0°13'51" | 72.50 | 0.05 | | | | | | |
| | CLOTHOID | ST | 2182+40.86 | 1962983.767 | 6119195.086 | | | | | | | | | | | |
| | TANGENT | ST | 2182+40.86 | 1962983.767 | 6119195.086 | | 1249.37 | | | | | | | S 66°39'00" E | | |
| | TANGENT | TS | 2194+90.23 | 1962488.583 | 6120342.138 | | | | | | | | | | | |
| | CLOTHOID | TS | 2194+90.23 | 1962488.583 | 6120342.138 | | | | | | | | | | S 66°39'00" E | S 68°51'22" E |
| | CLOTHOID | SPI | 2197+83.59 | 1962372.312 | 6120611.468 | | 440.00 | 2°12'22" | 219.99 | 1.41 | | | | | | |
| | CLOTHOID | SC | 2199+30.23 | 1962319.400 | 6120748.280 | | | | | | | | | | | |
| | ARC | SC | 2199+30.23 | 1962319.400 | 6120748.280 | | | | | | | | | | | |
| C183 | ARC | PI | 2201+15.20 | 1962252.680 | 6120920.796 | 5713.78 | 369.80 | 3°42'30" | | | 110 | 4.00 | 4.50 | 1°00'10" | | |
| | ARC | CC | | 1967648.515 | 6122809.304 | | | | | | | | | | | |
| | ARC | CS | 2203+00.04 | 1962197.258 | 6121097.265 | | | | | | | | | | | |
| | CLOTHOID | CS | 2203+00.04 | 1962197.258 | 6121097.265 | | | | | | | | | | S 72°33'52" E | S 74°46'14" E |
| | CLOTHOID | SPI | 2204+46.72 | 1962153.305 | 6121237.213 | | 440.00 | 2°12'22" | 219.99 | 1.41 | | | | | | |
| | CLOTHOID | ST | 2207+40.04 | 1962076.245 | 6121520.267 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
ALTERNATIVE A
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C180 TO C183

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0022 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 2207+40.04 | 1962076.245 | 6121520.267 | | 3697.18 | | | | | | | S 74°46'14" E | | |
| | TANGENT | TS | 2244+37.21 | 1961105.048 | 6125087.603 | | | | | | | | | | | |
| | CLOTHOID | TS | 2244+37.21 | 1961105.048 | 6125087.603 | | | | | | | | | | S 74°46'14" E | S 78°21'13" E |
| | CLOTHOID | SPI | 2247+70.61 | 1961017.468 | 6125409.297 | | 500.00 | 3°35'00" | 249.97 | 2.61 | | | | | | |
| | CLOTHOID | SC | 2249+37.21 | 1960983.811 | 6125572.593 | | | | | | | | | | | |
| C184 | ARC | SC | 2249+37.21 | 1960983.811 | 6125572.593 | | | | | | | | | | | |
| | ARC | PI | 2250+80.65 | 1960954.856 | 6125713.077 | 3997.48 | 286.74 | 4°06'36" | | | 110 | 6.00 | 6.14 | 1°26'00" | | |
| | ARC | CC | | 1964898.993 | 6126379.559 | | | | | | | | | | | |
| | ARC | CS | 2252+23.95 | 1960936.043 | 6125855.274 | | | | | | | | | | | |
| | CLOTHOID | CS | 2252+23.95 | 1960936.043 | 6125855.274 | | | | | | | | | | S 82°27'49" E | S 86°02'49" E |
| | CLOTHOID | SPI | 2253+90.68 | 1960914.176 | 6126020.563 | | 500.00 | 3°35'00" | 249.97 | 2.61 | | | | | | |
| | CLOTHOID | ST | 2257+23.95 | 1960891.192 | 6126353.171 | | | | | | | | | | | |
| | TANGENT | ST | 2257+23.95 | 1960891.192 | 6126353.171 | | 989.85 | | | | | | | S 86°02'49" E | | |
| | TANGENT | TS | 2267+13.80 | 1960822.953 | 6127340.667 | | | | | | | | | | | |
| | CLOTHOID | TS | 2267+13.80 | 1960822.953 | 6127340.667 | | | | | | | | | | S 86°02'49" E | S 86°52'14" E |
| | CLOTHOID | SPI | 2268+67.14 | 1960812.383 | 6127493.637 | | 230.00 | 0°49'25" | 115.00 | 0.28 | | | | | | |
| | CLOTHOID | SC | 2269+43.80 | 1960808.197 | 6127570.191 | | | | | | | | | | | |
| C185 | ARC | SC | 2269+43.80 | 1960808.197 | 6127570.191 | | | | | | | | | | | |
| | ARC | PI | 2270+71.54 | 1960801.224 | 6127697.732 | 8000.00 | 255.44 | 1°49'46" | | | 110 | 2.75 | 3.31 | 0°42'58" | | |
| | ARC | CC | | 1968796.268 | 6128006.920 | | | | | | | | | | | |
| | ARC | CS | 2271+99.25 | 1960798.326 | 6127825.432 | | | | | | | | | | | |
| | CLOTHOID | CS | 2271+99.25 | 1960798.326 | 6127825.432 | | | | | | | | | | S 88°42'00" E | S 89°31'25" E |
| | CLOTHOID | SPI | 2272+75.91 | 1960796.587 | 6127902.080 | | 230.00 | 0°49'25" | 115.00 | 0.28 | | | | | | |
| | CLOTHOID | ST | 2274+29.25 | 1960795.313 | 6128055.410 | | | | | | | | | | | |
| | TANGENT | ST | 2274+29.25 | 1960795.313 | 6128055.410 | | 172.73 | | | | | | | S 89°31'25" E | | |
| | TANGENT | TS | 2276+01.98 | 1960793.877 | 6128228.138 | | | | | | | | | | | |
| | CLOTHOID | TS | 2276+01.98 | 1960793.877 | 6128228.138 | | | | | | | | | | S 89°31'25" E | S 89°42'26" E |
| | CLOTHOID | SPI | 2276+85.31 | 1960793.184 | 6128311.469 | | 125.00 | 0°11'01" | 62.50 | 0.03 | | | | | | |
| | CLOTHOID | SC | 2277+26.98 | 1960792.971 | 6128353.135 | | | | | | | | | | | |
| C186 | ARC | SC | 2277+26.98 | 1960792.971 | 6128353.135 | | | | | | | | | | | |
| | ARC | PI | 2278+09.89 | 1960792.547 | 6128436.045 | 19515.00 | 165.82 | 0°29'13" | | | 110 | 1.50 | 0.99 | 0°17'37" | | |
| | ARC | CC | | 1980307.716 | 6128452.861 | | | | | | | | | | | |
| | ARC | CS | 2278+92.80 | 1960792.828 | 6128518.957 | | | | | | | | | | | |
| | CLOTHOID | CS | 2278+92.80 | 1960792.828 | 6128518.957 | | | | | | | | | | N 89°48'21" E | N 89°37'21" E |
| | CLOTHOID | SPI | 2279+34.47 | 1960792.969 | 6128560.623 | | 125.00 | 0°11'01" | 62.50 | 0.03 | | | | | | |
| | CLOTHOID | ST | 2280+17.80 | 1960793.518 | 6128643.955 | | | | | | | | | | | |
| | TANGENT | ST | 2280+17.80 | 1960793.518 | 6128643.955 | | 109.45 | | | | | | | N 89°37'21" E | | |
| | TANGENT | TS | 2281+27.26 | 1960794.240 | 6128753.405 | | | | | | | | | | | |
| | CLOTHOID | TS | 2281+27.26 | 1960794.240 | 6128753.405 | | | | | | | | | | N 89°37'21" E | N 89°48'22" E |
| | CLOTHOID | SPI | 2282+10.59 | 1960794.789 | 6128836.736 | | 125.00 | 0°11'01" | 62.50 | 0.03 | | | | | | |
| | CLOTHOID | SC | 2282+52.26 | 1960794.930 | 6128878.403 | | | | | | | | | | | |
| C187 | ARC | SC | 2282+52.26 | 1960794.930 | 6128878.403 | | | | | | | | | | | |
| | ARC | PI | 2283+32.64 | 1960795.202 | 6128958.791 | 19500.00 | 160.78 | 0°28'21" | | | 110 | 1.50 | 0.99 | 0°17'38" | | |
| | ARC | CC | | 1941295.041 | 6128944.400 | | | | | | | | | | | |
| | ARC | CS | 2284+13.03 | 1960794.811 | 6129039.179 | | | | | | | | | | | |
| | CLOTHOID | CS | 2284+13.03 | 1960794.811 | 6129039.179 | | | | | | | | | | S 89°43'17" E | S 89°32'16" E |
| | CLOTHOID | SPI | 2284+54.70 | 1960794.609 | 6129080.846 | | 125.00 | 0°11'01" | 62.50 | 0.03 | | | | | | |
| | CLOTHOID | ST | 2285+38.03 | 1960793.936 | 6129164.176 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
ALTERNATIVE A
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NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C184 TO C187

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0023 |
| SCALE | NONE |
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TRACK ALIGNMENT DATA SUMMARY TABLE - FJ SB TRACK

| 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 (EU) (IN) | BEARING (0°00'00") (TANGENT) | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|------|--------------------|---------------------------------|-------------------------------------|------------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 2285+38.03 | 1960793.936 | 6129164.176 | | 2220.94 | | | | | | | S 89°32'16" E | | |
| | TANGENT | TS | 2307+58.97 | 1960776.023 | 6131385.046 | | | | | | | | | | | |
| | CLOTHOID | TS | 2307+58.97 | 1960776.023 | 6131385.046 | | | | | | | | | | S 89°32'16" E | S 86°40'23" E |
| | CLOTHOID | SPI | 2310+79.02 | 1960773.442 | 6131705.078 | | 480.00 | 2°51'53" | 239.98 | 2.00 | | | | | | |
| | CLOTHOID | SC | 2312+38.97 | 1960764.154 | 6131864.846 | | | | | | | | | | | |
| C188 | ARC | SC | 2312+38.97 | 1960764.154 | 6131864.846 | | | | | | | | | | | |
| | ARC | PI | 2322+29.73 | 1960706.658 | 6132853.936 | 4800.00 | 1954.04 | 23°19'30" | | | 110 | 5.75 | 4.36 | 1°11'37" | | |
| | ARC | CC | | 1955972.244 | 6131586.288 | | | | | | | | | | | |
| | ARC | CS | 2331+93.02 | 1960262.233 | 6133739.425 | | | | | | | | | | | |
| | CLOTHOID | CS | 2331+93.02 | 1960262.233 | 6133739.425 | | | | | | | | | | S 63°20'53" E | S 60°29'00" E |
| | CLOTHOID | SPI | 2333+53.05 | 1960190.444 | 6133882.458 | | 480.00 | 2°51'53" | 239.98 | 2.00 | | | | | | |
| | CLOTHOID | ST | 2336+73.02 | 1960032.766 | 6134160.963 | | | | | | | | | | | |
| | TANGENT | ST | 2336+73.02 | 1960032.766 | 6134160.963 | | 829.10 | | | | | | | S 60°29'00" E | | |
| | TANGENT | PI* | 2345+02.12 | 1959624.287 | 6134882.455 | | | | | | | | | | | |
| | TANGENT | PI* | 2345+02.12 | 1959624.287 | 6134882.455 | | 1797.36 | | | | | | | S 60°28'00" E | | |
| | TANGENT | PI* | 2362+99.48 | 1958738.313 | 6136446.282 | | | | | | | | | | | |
| | TANGENT | PI* | 2362+99.48 | 1958738.313 | 6136446.282 | | 1149.26 | | | | | | | S 60°30'05" E | | |
| | TANGENT | PI* | 2374+48.74 | 1958172.412 | 6137446.562 | | | | | | | | | | | |
| | TANGENT | PI* | 2374+48.74 | 1958172.412 | 6137446.562 | | 70.36 | | | | | | | S 60°29'13" E | | |
| | TANGENT | POE | 2375+19.10 | 1958137.752 | 6137507.790 | | | | | | | | | | | |

* NOTE: ANGLE POINTS ARE NOT INTENDED FOR CONSTRUCTION. THEY ARE A "BEST FIT" REPRESENTATION OF THE EXISTING ALIGNMENT OVER LONG TANGENTS.

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
 ALTERNATIVE A
 BOOK A4
 SHEET 100 OF 106

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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN FRANCISCO TO SAN JOSE
 ALTERNATIVE A
 B2 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C188

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B0024 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - JM SB TRACK

| CURVE | ELEMENT | POINT TYPE | MT3 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA) (IN) | UNBALANCED SUPERELEVATION (EU) (IN) | TNGT BEARING/ CHRD DEG. CV. (0°00'00") | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|-------|------|--------------------|---------------------------------|-------------------------------------|--|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | POB | 2872+86.55 | 1958137.752 | 6137507.790 | | 4093.26 | | | | | | | S 60°29'13" E | | |
| | TANGENT | PI | 2913+79.81 | 1956121.329 | 6141069.924 | | | | | | | | | | | |
| | TANGENT | PI | 2913+79.81 | 1956121.329 | 6141069.924 | | 2621.29 | | | | | | | S 60°29'51" E | | |
| | TANGENT | PC | 2940+01.09 | 1954830.444 | 6143351.319 | | | | | | | | | | | |
| C401 | ARC | PC | 2940+01.09 | 1954830.444 | 6143351.319 | | | | | | | | | | | |
| | ARC | PI | 2940+49.22 | 1954806.743 | 6143393.205 | 11459.19 | 96.25 | 0°28'53" | | 79 | 0.00 | 2.18 | 0°30'00" | | | |
| | ARC | CC | | 1944857.125 | 6137708.097 | | | | | | | | | | | |
| | ARC | PT | 2940+97.35 | 1954782.692 | 6143434.890 | | | | | | | | | | | |
| | TANGENT | PT | 2940+97.35 | 1954782.692 | 6143434.890 | | 211.89 | | | | | | | S 60°00'58" E | | |
| | TANGENT | TS | 2943+09.24 | 1954676.799 | 6143618.421 | | | | | | | | | | | |
| | CLOTHOID | TS | 2943+09.24 | 1954676.799 | 6143618.421 | | | | | | | | | | S 60°00'58" E | S 59°43'13" E |
| | CLOTHOID | SPI | 2943+75.90 | 1954643.482 | 6143676.165 | | 100.00 | 0°17'45" | 50.00 | 0.04 | | | | | | |
| | CLOTHOID | SC | 2944+09.24 | 1954626.675 | 6143704.951 | | | | | | | | | | | |
| C402 | ARC | SC | 2944+09.24 | 1954626.675 | 6143704.951 | | | | | | | | | | | |
| | ARC | PI | 2946+31.28 | 1954514.713 | 6143896.707 | 9683.84 | 444.02 | 2°37'38" | | 79 | 1.00 | 1.58 | 0°35'30" | | | |
| | ARC | CC | | 1946263.956 | 6138822.156 | | | | | | | | | | | |
| | ARC | CS | 2948+53.26 | 1954394.080 | 6144083.130 | | | | | | | | | | | |
| | CLOTHOID | CS | 2948+53.26 | 1954394.080 | 6144083.130 | | | | | | | | | | S 57°05'36" E | S 56°47'51" E |
| | CLOTHOID | SPI | 2948+86.59 | 1954375.970 | 6144111.115 | | 100.00 | 0°17'45" | 50.00 | 0.04 | | | | | | |
| | CLOTHOID | ST | 2949+53.26 | 1954339.464 | 6144166.898 | | | | | | | | | | | |
| | TANGENT | ST | 2949+53.26 | 1954339.464 | 6144166.898 | | 2679.51 | | | | | | | S 56°47'51" E | | |
| | TANGENT | PI | 2976+32.77 | 1952872.160 | 6146408.951 | | | | | | | | | | | |
| | TANGENT | PI | 2976+32.77 | 1952872.160 | 6146408.951 | | 4106.14 | | | | | | | S 56°48'33" E | | |
| | TANGENT | PI | 3017+38.91 | 1950624.344 | 6149845.190 | | | | | | | | | | | |
| | TANGENT | PI | 3017+38.91 | 1950624.344 | 6149845.190 | | 1184.94 | | | | | | | S 56°46'21" E | | |
| | TANGENT | TS | 3029+23.85 | 1949975.040 | 6150836.393 | | | | | | | | | | | |
| | CLOTHOID | TS | 3029+23.85 | 1949975.040 | 6150836.393 | | | | | | | | | | S 56°46'21" E | S 58°58'19" E |
| | CLOTHOID | SPI | 3029+97.19 | 1949934.853 | 6150897.741 | | 110.00 | 2°11'58" | 55.00 | 0.35 | | | | | | |
| | CLOTHOID | SC | 3030+33.85 | 1949915.950 | 6150929.166 | | | | | | | | | | | |
| C403 | ARC | SC | 3030+33.85 | 1949915.950 | 6150929.166 | | | | | | | | | | | |
| | ARC | PI | 3031+31.38 | 1949865.675 | 6151012.745 | 1432.69 | 194.77 | 7°47'21" | | 40 | 1.00 | 3.47 | 3°59'57" | | | |
| | ARC | CC | | 1951143.645 | 6151667.654 | | | | | | | | | | | |
| | ARC | CS | 3032+28.62 | 1949827.192 | 6151102.366 | | | | | | | | | | | |
| | CLOTHOID | CS | 3032+28.62 | 1949827.192 | 6151102.366 | | | | | | | | | | S 66°45'40" E | S 68°57'39" E |
| | CLOTHOID | SPI | 3032+65.29 | 1949812.722 | 6151136.062 | | 110.00 | 2°11'58" | 55.00 | 0.35 | | | | | | |
| | CLOTHOID | ST | 3033+38.62 | 1949786.393 | 6151204.512 | | | | | | | | | | | |
| | TANGENT | ST | 3033+38.62 | 1949786.393 | 6151204.512 | | 88.97 | | | | | | | S 68°57'39" E | | |
| | TANGENT | TS | 3034+27.59 | 1949754.451 | 6151287.554 | | | | | | | | | | | |
| | CLOTHOID | TS | 3034+27.59 | 1949754.451 | 6151287.554 | | | | | | | | | | S 68°57'39" E | S 66°45'40" E |
| | CLOTHOID | SPI | 3035+00.93 | 1949728.122 | 6151356.004 | | 110.00 | 2°11'58" | 55.00 | 0.35 | | | | | | |
| | CLOTHOID | SC | 3035+37.59 | 1949713.652 | 6151389.701 | | | | | | | | | | | |
| C404 | ARC | SC | 3035+37.59 | 1949713.652 | 6151389.701 | | | | | | | | | | | |
| | ARC | PI | 3038+41.26 | 1949593.836 | 6151668.731 | 1432.69 | 598.48 | 23°56'03" | | 40 | 1.00 | 3.47 | 3°59'57" | | | |
| | ARC | CC | | 1948397.199 | 6150824.412 | | | | | | | | | | | |
| | ARC | CS | 3041+36.07 | 1949371.124 | 6151875.160 | | | | | | | | | | | |
| | CLOTHOID | CS | 3041+36.07 | 1949371.124 | 6151875.160 | | | | | | | | | | S 42°49'37" E | S 40°37'39" E |
| | CLOTHOID | SPI | 3041+72.74 | 1949344.229 | 6151900.089 | | 110.00 | 2°11'58" | 55.00 | 0.35 | | | | | | |
| | CLOTHOID | ST | 3042+46.07 | 1949288.567 | 6151947.843 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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| IN CHARGE | |
| DATE | |

2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 ALTERNATIVE 4
 BLENDED AT-GRADE
 MT3 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C401 TO C404

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B4001 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - JM SB TRACK

| CURVE | ELEMENT | POINT TYPE | MT3 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA) (IN) | UNBALANCED SUPERELEVATION (EU) (IN) | TNGT BEARING/ CHRD DEG. CV. (0°00'00") | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|-------|------|--------------------|---------------------------------|-------------------------------------|--|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 3042+46.07 | 1949288.567 | 6151947.843 | | 81.28 | | | | | | | S 40°37'39" E | | |
| | TANGENT | TS | 3043+27.35 | 1949226.879 | 6152000.768 | | | | | | | | | | | |
| | CLOTHOID | TS | 3043+27.35 | 1949226.879 | 6152000.768 | | | | | | | | | | S 40°37'39" E | S 37°08'27" E |
| | CLOTHOID | SPI | 3044+30.70 | 1949148.438 | 6152068.065 | | 155.00 | 3°29'12" | 77.49 | 0.79 | | | | | | |
| | CLOTHOID | SC | 3044+82.35 | 1949107.237 | 6152099.271 | | | | | | | | | | | |
| C405 | ARC | SC | 3044+82.35 | 1949107.237 | 6152099.271 | | | | | | | | | | | |
| | ARC | PI | 3046+29.95 | 1948989.578 | 6152188.388 | 1273.57 | 293.89 | 13°13'17" | | | 40 | 1.50 | 3.53 | 4°29'56" | | |
| | ARC | CC | | 1948338.284 | 6151084.041 | | | | | | | | | | | |
| | ARC | CS | 3047+76.24 | 1948854.655 | 6152248.233 | | | | | | | | | | | |
| | CLOTHOID | CS | 3047+76.24 | 1948854.655 | 6152248.233 | | | | | | | | | | S 23°55'10" E | S 20°25'58" E |
| | CLOTHOID | SPI | 3048+27.92 | 1948807.409 | 6152269.188 | | 155.00 | 3°29'12" | 77.49 | 0.79 | | | | | | |
| | CLOTHOID | ST | 3049+31.24 | 1948710.559 | 6152305.270 | | | | | | | | | | | |
| | TANGENT | ST | 3049+31.24 | 1948710.559 | 6152305.270 | | | | | | | | | S 20°25'58" E | | |
| | TANGENT | TS | 3050+29.55 | 1948618.426 | 6152339.594 | | | | | | | | | | | |
| | CLOTHOID | TS | 3050+29.55 | 1948618.426 | 6152339.594 | | | | | | | | | | S 20°25'58" E | S 23°52'04" E |
| | CLOTHOID | SPI | 3051+32.91 | 1948521.576 | 6152375.675 | | 155.00 | 3°26'06" | 77.49 | 0.77 | | | | | | |
| | CLOTHOID | SC | 3051+84.55 | 1948474.312 | 6152396.588 | | | | | | | | | | | |
| C406 | ARC | SC | 3051+84.55 | 1948474.312 | 6152396.588 | | | | | | | | | | | |
| | ARC | PI | 3053+30.73 | 1948340.639 | 6152455.734 | 1292.71 | 291.11 | 12°54'09" | | | 40 | 1.00 | 3.96 | 4°25'56" | | |
| | ARC | CC | | 1948997.378 | 6153578.747 | | | | | | | | | | | |
| | ARC | CS | 3054+75.66 | 1948223.549 | 6152543.234 | | | | | | | | | | | |
| | CLOTHOID | CS | 3054+75.66 | 1948223.549 | 6152543.234 | | | | | | | | | | S 36°46'14" E | S 40°12'19" E |
| | CLOTHOID | SPI | 3055+27.35 | 1948182.147 | 6152574.173 | | 155.00 | 3°26'06" | 77.49 | 0.77 | | | | | | |
| | CLOTHOID | ST | 3056+30.66 | 1948103.213 | 6152640.890 | | | | | | | | | | | |
| | TANGENT | ST | 3056+30.66 | 1948103.213 | 6152640.890 | | | | | | | | | S 40°12'19" E | | |
| | TANGENT | TS | 3066+46.72 | 1947327.217 | 6153296.783 | | 1016.05 | | | | | | | | | |
| | CLOTHOID | TS | 3066+46.72 | 1947327.217 | 6153296.783 | | | | | | | | | | S 40°12'19" E | S 37°47'23" E |
| | CLOTHOID | SPI | 3067+50.06 | 1947248.291 | 6153363.494 | | 155.00 | 2°24'56" | 77.50 | 0.54 | | | | | | |
| | CLOTHOID | SC | 3068+01.72 | 1947207.454 | 6153395.159 | | | | | | | | | | | |
| C407 | ARC | SC | 3068+01.72 | 1947207.454 | 6153395.159 | | | | | | | | | | | |
| | ARC | PI | 3069+74.60 | 1947070.833 | 6153501.094 | 1838.21 | 344.75 | 10°44'44" | | | 15 | 0.50 | 0.00 | 3°07'01" | | |
| | ARC | CC | | 1946081.061 | 6151942.487 | | | | | | | | | | | |
| | ARC | PCC | 3071+46.46 | 1946916.856 | 6153579.699 | | | | | | | | | | | |
| | ARC | PCC | 3071+46.46 | 1946916.856 | 6153579.699 | | | | | | | | | | | |
| | ARC | PI | 3072+73.23 | 1946803.949 | 6153637.338 | 702.18 | 250.84 | 20°28'03" | | | 15 | 0.50 | 0.79 | 8°09'35" | | |
| | ARC | CC | | 1946597.590 | 6152954.298 | | | | | | | | | | | |
| | ARC | PCC | 3073+97.30 | 1946678.014 | 6153651.857 | | | | | | | | | | | |
| | ARC | PCC | 3073+97.30 | 1946678.014 | 6153651.857 | | | | | | | | | | | |
| | ARC | PI | 3074+61.72 | 1946614.020 | 6153659.235 | 1978.01 | 128.79 | 3°43'50" | | | 15 | 0.50 | 0.00 | 2°53'48" | | |
| | ARC | CC | | 1946451.462 | 6151686.864 | | | | | | | | | | | |
| | ARC | PT | 3075+26.09 | 1946549.680 | 6153662.434 | | | | | | | | | | | |
| | TANGENT | PT | 3075+26.09 | 1946549.680 | 6153662.434 | | | | | | | | | S 2°50'46" E | | |
| | TANGENT | PI | 3076+48.13 | 1946427.787 | 6153668.494 | | | | | | | | | | | |
| | TANGENT | PI | 3076+48.13 | 1946427.787 | 6153668.494 | | | | | | | | | S 2°40'24" E | | |
| | TANGENT | PC | 3080+18.89 | 1946057.439 | 6153685.787 | | 370.75 | | | | | | | | | |
| C408 | ARC | PC | 3080+18.89 | 1946057.439 | 6153685.787 | | | | | | | | | | | |
| | ARC | PI | 3080+73.03 | 1946003.357 | 6153688.312 | 2022.41 | 108.26 | 3°04'01" | | | 15 | 0.00 | 0.45 | 2°49'59" | | |
| | ARC | CC | | 1945963.111 | 6151665.578 | | | | | | | | | | | |
| | ARC | PT | 3081+27.14 | 1945949.217 | 6153687.940 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
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
 ALTERNATIVE 4
 BLENDED AT-GRADE
 MT3 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C405 TO C408

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B4002 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - JM SB TRACK

| CURVE | ELEMENT | POINT TYPE | MT3 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA) (IN) | UNBALANCED SUPERELEVATION (EU) (IN) | TNGT BEARING/ CHRD DEG. CV. (0°00'00") | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|------|--------------------|---------------------------------|-------------------------------------|--|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 3042+46.07 | 1949288.567 | 6151947.843 | | 81.28 | | | | | | | S 40°37'39" E | | |
| | TANGENT | TS | 3043+27.35 | 1949226.879 | 6152000.768 | | | | | | | | | | | |
| | CLOTHOID | TS | 3043+27.35 | 1949226.879 | 6152000.768 | | | | | | | | | | S 40°37'39" E | S 37°08'27" E |
| | CLOTHOID | SPI | 3044+30.70 | 1949148.438 | 6152068.065 | | 155.00 | 3°29'12" | 77.49 | 0.79 | | | | | | |
| | CLOTHOID | SC | 3044+82.35 | 1949107.237 | 6152099.271 | | | | | | | | | | | |
| C405 | ARC | SC | 3044+82.35 | 1949107.237 | 6152099.271 | | | | | | | | | | | |
| | ARC | PI | 3046+29.95 | 1948989.578 | 6152188.388 | 1273.57 | 293.89 | 13°13'17" | | | 40 | 1.50 | 3.53 | 4°29'56" | | |
| | ARC | CC | | 1948338.284 | 6151084.041 | | | | | | | | | | | |
| | ARC | CS | 3047+76.24 | 1948854.655 | 6152248.233 | | | | | | | | | | | |
| | CLOTHOID | CS | 3047+76.24 | 1948854.655 | 6152248.233 | | | | | | | | | | S 23°55'10" E | S 20°25'58" E |
| | CLOTHOID | SPI | 3048+27.92 | 1948807.409 | 6152269.188 | | 155.00 | 3°29'12" | 77.49 | 0.79 | | | | | | |
| | CLOTHOID | ST | 3049+31.24 | 1948710.559 | 6152305.270 | | | | | | | | | | | |
| | TANGENT | ST | 3049+31.24 | 1948710.559 | 6152305.270 | | 83.54 | | | | | | | S 20°25'58" E | | |
| | TANGENT | TS | 3050+14.78 | 1948632.276 | 6152334.434 | | | | | | | | | | | |
| | CLOTHOID | TS | 3050+14.78 | 1948632.276 | 6152334.434 | | | | | | | | | | S 20°25'58" E | S 23°52'04" E |
| | CLOTHOID | SPI | 3051+18.13 | 1948535.426 | 6152370.515 | | 155.00 | 3°26'06" | 77.49 | 0.77 | | | | | | |
| | CLOTHOID | SC | 3051+69.78 | 1948488.162 | 6152391.428 | | | | | | | | | | | |
| C406A | ARC | SC | 3051+69.78 | 1948488.162 | 6152391.428 | | | | | | | | | | | |
| | ARC | PI | 3053+15.95 | 1948354.490 | 6152450.574 | 1292.71 | 291.11 | 12°54'09" | | | 40 | 1.00 | 3.97 | 4°25'56" | | |
| | ARC | CC | | 1949011.228 | 6153573.587 | | | | | | | | | | | |
| | ARC | CS | 3054+60.89 | 1948237.399 | 6152538.074 | | | | | | | | | | | |
| | CLOTHOID | CS | 3054+60.89 | 1948237.399 | 6152538.074 | | | | | | | | | | S 36°46'14" E | S 40°12'19" E |
| | CLOTHOID | SPI | 3055+12.57 | 1948195.998 | 6152569.013 | | 155.00 | 3°26'06" | 77.49 | 0.77 | | | | | | |
| | CLOTHOID | ST | 3056+15.89 | 1948117.064 | 6152635.730 | | | | | | | | | | | |
| | TANGENT | ST | 3056+15.89 | 1948117.064 | 6152635.730 | | 1119.50 | | | | | | | S 40°12'19" E | | |
| | TANGENT | TS | 3067+35.39 | 1947262.060 | 6153358.403 | | | | | | | | | | | |
| | CLOTHOID | TS | 3067+35.39 | 1947262.060 | 6153358.403 | | | | | | | | | | S 40°12'19" E | S 25°52'53" E |
| | CLOTHOID | SPI | 3069+86.21 | 1947070.497 | 6153520.316 | | 375.00 | 14°19'26" | 187.11 | 7.80 | | | | | | |
| | CLOTHOID | SC | 3071+10.39 | 1946957.361 | 6153575.207 | | | | | | | | | | | |
| C407A | ARC | SC | 3071+10.39 | 1946957.361 | 6153575.207 | | | | | | | | | | | |
| | ARC | PI | 3071+68.65 | 1946904.942 | 6153600.640 | 750.00 | 116.29 | 8°53'03" | | | 40 | 4.50 | 4.06 | 7°38'22" | | |
| | ARC | CC | | 1946629.978 | 6152900.433 | | | | | | | | | | | |
| | ARC | CS | 3072+26.68 | 1946849.223 | 6153617.672 | | | | | | | | | | | |
| | CLOTHOID | CS | 3072+26.68 | 1946849.223 | 6153617.672 | | | | | | | | | | S 16°59'50" E | S 2°40'24" E |
| | CLOTHOID | SPI | 3073+52.43 | 1946728.967 | 6153654.431 | | 375.00 | 14°19'26" | 187.11 | 7.80 | | | | | | |
| | CLOTHOID | ST | 3076+01.68 | 1946478.417 | 6153666.130 | | | | | | | | | | | |
| | TANGENT | ST | 3076+01.68 | 1946478.417 | 6153666.130 | | 290.70 | | | | | | | S 2°40'24" E | | |
| | TANGENT | PC | 3078+92.38 | 1946188.034 | 6153679.689 | | | | | | | | | | | |
| C408A | ARC | PC | 3078+92.38 | 1946188.034 | 6153679.689 | | | | | | | | | | | |
| | ARC | PI | 3079+73.12 | 1946107.385 | 6153683.455 | 6500.00 | 161.47 | 1°25'24" | | | 40 | 0.50 | 0.49 | 0°52'53" | | |
| | ARC | CC | | 1945884.865 | 6147186.763 | | | | | | | | | | | |
| | ARC | PT | 3080+53.85 | 1946026.667 | 6153685.216 | | | | | | | | | | | |
| | TANGENT | PT | 3080+53.85 | 1946026.667 | 6153685.216 | | 162.25 | | | | | | | S 1°15'00" E | | |
| | TANGENT | PC | 3082+16.10 | 1945864.453 | 6153688.756 | | | | | | | | | | | |
| C409A | ARC | PC | 3082+16.10 | 1945864.453 | 6153688.756 | | | | | | | | | | | |
| | ARC | PI | 3082+94.43 | 1945786.145 | 6153690.464 | 6500.00 | 156.65 | 1°22'51" | | | 40 | 0.50 | 0.49 | 0°52'53" | | |
| | ARC | CC | | 1946006.256 | 6160187.209 | | | | | | | | | | | |
| | ARC | PT | 3083+72.75 | 1945707.901 | 6153694.060 | | | | | | | | | | | |
| | TANGENT | PT | 3083+72.75 | 1945707.901 | 6153694.060 | | 895.97 | | | | | | | S 2°37'51" E | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
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2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 ALTERNATIVE 4
 BLENDED AT-GRADE
 MT3 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C405, C406A TO C409A - DIRIDON DESIGN VARIANT

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B4002A |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - JM SB TRACK

| CURVE | ELEMENT | POINT TYPE | MT3 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA) (IN) | UNBALANCED SUPERELEVATION (EU) (IN) | TNGT BEARING/ CHRD DEG. CV. (0°00'00") | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|-------|------|--------------------|---------------------------------|-------------------------------------|--|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | PT | 3081+27.14 | 1945949.217 | 6153687.940 | | 60.45 | | | | | | | S 0°23'37" W | | |
| | TANGENT | PC | 3081+87.59 | 1945888.770 | 6153687.525 | | | | | | | | | | | |
| C409 | ARC | PC | 3081+87.59 | 1945888.770 | 6153687.525 | | | | | | | | | | | |
| | ARC | PI | 3082+21.21 | 1945855.149 | 6153687.294 | 1273.57 | 67.23 | 3°01'28" | | | 15 | 0.00 | 0.71 | 4°29'56" | | |
| | ARC | CC | | 1945880.021 | 6154961.065 | | | | | | | | | | | |
| | ARC | PT | 3082+54.82 | 1945821.563 | 6153688.837 | | | | | | | | | | | |
| | TANGENT | PT | 3082+54.82 | 1945821.563 | 6153688.837 | | 1284.03 | | | | | | | S 2°37'51" E | | |
| | TANGENT | PC | 3095+38.85 | 1944538.888 | 6153747.775 | | | | | | | | | | | |
| C410 | ARC | PC | 3095+38.85 | 1944538.888 | 6153747.775 | | | | | | | | | | | |
| | ARC | PI | 3095+94.39 | 1944483.402 | 6153750.324 | 2864.93 | 111.08 | 2°13'17" | | | 15 | 0.00 | 0.32 | 2°00'00" | | |
| | ARC | CC | | 1944670.391 | 6156609.685 | | | | | | | | | | | |
| | ARC | PRC | 3096+49.92 | 1944428.057 | 6153755.022 | | | | | | | | | | | |
| C411 | ARC | PRC | 3096+49.92 | 1944428.057 | 6153755.022 | | | | | | | | | | | |
| | ARC | PI | 3097+09.98 | 1944368.216 | 6153760.102 | 2864.93 | 120.10 | 2°24'06" | | | 15 | 0.00 | 0.32 | 2°00'00" | | |
| | ARC | CC | | 1944185.724 | 6150900.360 | | | | | | | | | | | |
| | ARC | PT | 3097+70.02 | 1944308.214 | 6153762.670 | | | | | | | | | | | |
| | TANGENT | PT | 3097+70.02 | 1944308.214 | 6153762.670 | | 585.99 | | | | | | | S 2°27'02" E | | |
| | TANGENT | TS | 3103+56.00 | 1943722.762 | 6153787.724 | | | | | | | | | | | |
| | CLOTHOID | TS | 3103+56.00 | 1943722.762 | 6153787.724 | | | | | | | | | | S 2°27'02" E | S 3°39'01" E |
| | CLOTHOID | SPI | 3104+09.34 | 1943669.476 | 6153790.004 | | 80.00 | 1°12'00" | 40.00 | 0.14 | | | | | | |
| | CLOTHOID | SC | 3104+36.01 | 1943642.862 | 6153791.702 | | | | | | | | | | | |
| C412 | ARC | SC | 3104+36.01 | 1943642.862 | 6153791.702 | | | | | | | | | | | |
| | ARC | PI | 3105+00.39 | 1943578.607 | 6153795.801 | 1910.08 | 128.72 | 3°51'40" | | | 20 | 0.50 | 0.34 | 2°59'59" | | |
| | ARC | CC | | 1943764.470 | 6155697.907 | | | | | | | | | | | |
| | ARC | PCC | 3105+64.73 | 1943514.775 | 6153804.218 | | | | | | | | | | | |
| | ARC | PCC | 3105+64.73 | 1943514.775 | 6153804.218 | | | | | | | | | | | |
| | ARC | PI | 3107+29.30 | 1943351.618 | 6153825.732 | 1228.11 | 327.19 | 15°15'52" | | | 30 | 0.50 | 2.44 | 4°39'55" | | |
| | ARC | CC | | 1943675.320 | 6155021.789 | | | | | | | | | | | |
| | ARC | PT | 3108+91.92 | 1943199.881 | 6153889.441 | | | | | | | | | | | |
| | TANGENT | PT | 3108+91.92 | 1943199.881 | 6153889.441 | | 80.40 | | | | | | | S 22°46'34" E | | |
| | TANGENT | TS | 3109+72.32 | 1943125.746 | 6153920.568 | | | | | | | | | | | |
| | CLOTHOID | TS | 3109+72.32 | 1943125.746 | 6153920.568 | | | | | | | | | | S 22°46'34" E | S 24°46'32" E |
| | CLOTHOID | SPI | 3110+38.99 | 1943064.274 | 6153946.379 | | 100.00 | 1°59'59" | 50.00 | 0.29 | | | | | | |
| | CLOTHOID | SC | 3110+72.32 | 1943034.005 | 6153960.349 | | | | | | | | | | | |
| C413 | ARC | SC | 3110+72.32 | 1943034.005 | 6153960.349 | | | | | | | | | | | |
| | ARC | PI | 3112+31.71 | 1942889.290 | 6154027.143 | 1432.69 | 317.47 | 12°41'46" | | | 40 | 1.00 | 3.47 | 3°59'57" | | |
| | ARC | CC | | 1943634.398 | 6155261.168 | | | | | | | | | | | |
| | ARC | CS | 3113+89.79 | 1942762.792 | 6154124.109 | | | | | | | | | | | |
| | CLOTHOID | CS | 3113+89.79 | 1942762.792 | 6154124.109 | | | | | | | | | | S 37°28'18" E | S 39°28'17" E |
| | CLOTHOID | SPI | 3114+23.12 | 1942736.334 | 6154144.390 | | 100.00 | 1°59'59" | 50.00 | 0.29 | | | | | | |
| | CLOTHOID | ST | 3114+89.79 | 1942684.868 | 6154186.772 | | | | | | | | | | | |
| | TANGENT | ST | 3114+89.79 | 1942684.868 | 6154186.772 | | 743.45 | | | | | | | S 39°28'17" E | | |
| | TANGENT | TS | 3122+33.23 | 1942110.970 | 6154659.375 | | | | | | | | | | | |
| | CLOTHOID | TS | 3122+33.23 | 1942110.970 | 6154659.375 | | | | | | | | | | S 39°28'17" E | S 42°26'24" E |
| | CLOTHOID | SPI | 3123+66.59 | 1942008.030 | 6154744.146 | | 200.00 | 2°58'07" | 99.99 | 0.86 | | | | | | |
| | CLOTHOID | SC | 3124+33.23 | 1941958.818 | 6154789.145 | | | | | | | | | | | |
| C414 | ARC | SC | 3124+33.23 | 1941958.818 | 6154789.145 | | | | | | | | | | | |
| | ARC | PI | 3131+54.02 | 1941426.891 | 6155275.543 | 1930.00 | 1379.65 | 40°57'27" | | | 55 | 2.00 | 4.27 | 2°58'07" | | |
| | ARC | CC | | 1943261.217 | 6156213.454 | | | | | | | | | | | |
| | ARC | CS | 3138+12.88 | 1941344.017 | 6155991.547 | | | | | | | | | | | |
| | CLOTHOID | CS | 3138+12.88 | 1941344.017 | 6155991.547 | | | | | | | | | | S 83°23'52" E | S 86°21'59" E |
| | CLOTHOID | SPI | 3138+79.57 | 1941336.350 | 6156057.788 | | 200.00 | 2°58'07" | 99.99 | 0.86 | | | | | | |
| | CLOTHOID | ST | 3140+12.88 | 1941327.898 | 6156190.872 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 104 OF 106

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| DESIGNED BY | |
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| IN CHARGE | |
| DATE | |

2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION


 1111 Broadway
 9th Floor
 Oakland, CA 94607


CALIFORNIA
 High-Speed Rail Authority

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 ALTERNATIVE 4
 BLENDED AT-GRADE
 MT3 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C409 TO C414

| | |
|--------------|----------|
| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B4003 |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - JM SB TRACK

| CURVE | ELEMENT | POINT TYPE | MT3 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA) (IN) | UNBALANCED SUPERELEVATION (EU) (IN) | TNGT BEARING/ CHRD DEG. CV. (0°00'00") | WCB (0°00'00") | |
|-------|------------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|------|--------------------|---------------------------------|-------------------------------------|--|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | PC | 3092+68.72 | 1944812.871 | 6153735.185 | | | | | | | | | | | |
| C410A | ARC | PC | 3092+68.72 | 1944812.871 | 6153735.185 | | | | | | | | | | | |
| | ARC | PI | 3093+27.99 | 1944753.662 | 6153737.906 | 6500.00 | 118.54 | 1°02'42" | | | 40 | 0.50 | 0.49 | 0°52'53" | | |
| | ARC | CC | | 1945111.225 | 6160228.334 | | | | | | | | | | | |
| | ARC | PT | 3093+87.26 | 1944694.512 | 6153741.706 | | | | | | | | | | | |
| | TANGENT | PT | 3093+87.26 | 1944694.512 | 6153741.706 | | 137.60 | | | | | | | S 3°40'33" E | | |
| | TANGENT | PC | 3095+24.87 | 1944557.190 | 6153750.528 | | | | | | | | | | | |
| C411A | ARC | PC | 3095+24.87 | 1944557.190 | 6153750.528 | | | | | | | | | | | |
| | ARC | PI | 3095+94.37 | 1944487.827 | 6153754.984 | 6500.00 | 139.01 | 1°13'31" | | | 40 | 0.50 | 0.49 | 0°52'53" | | |
| | ARC | CC | | 1944140.476 | 6147263.899 | | | | | | | | | | | |
| | ARC | PT | 3096+63.87 | 1944418.385 | 6153757.955 | | | | | | | | | | | |
| | TANGENT | PT | 3096+63.87 | 1944418.385 | 6153757.955 | | 683.89 | | | | | | | S 2°27'02" E | | |
| | TANGENT | TS | 3103+47.76 | 1943735.124 | 6153787.195 | | | | | | | | | | | |
| | CLOTHOID | TS | 3103+47.76 | 1943735.124 | 6153787.195 | | | | | | | | | | S 2°27'02" E | S 6°57'02" E |
| | CLOTHOID | SPI | 3104+81.14 | 1943601.869 | 6153792.898 | | 200.00 | 4°30'00" | 99.98 | 1.31 | | | | | | |
| | CLOTHOID | SC | 3105+47.76 | 1943535.654 | 6153800.970 | | | | | | | | | | | |
| C412A | ARC | SC | 3105+47.76 | 1943535.654 | 6153800.970 | | | | | | | | | | | |
| | ARC | PI | 3106+71.49 | 1943412.831 | 6153815.943 | 1273.24 | 246.69 | 11°06'04" | | | 40 | 2.50 | 2.54 | 4°30'00" | | |
| | ARC | CC | | 1943689.729 | 6155064.853 | | | | | | | | | | | |
| | ARC | CS | 3107+94.45 | 1943295.189 | 6153854.284 | | | | | | | | | | | |
| | C CLOTHOID | CS | 3107+94.45 | 1943295.189 | 6153854.284 | | | | | | | | | | S 18°03'05" E | S 22°39'16" E |
| | C CLOTHOID | SPI | 3108+52.36 | 1943240.132 | 6153872.228 | | 125.00 | 4°36'11" | 22.70 | 0.19 | | | | | | |
| | C CLOTHOID | SC | 3109+19.45 | 1943178.154 | 6153898.096 | | | | | | | | | | | |
| C413A | ARC | SC | 3109+19.45 | 1943178.154 | 6153898.096 | | | | | | | | | | | |
| | ARC | PI | 3110+88.36 | 1943022.277 | 6153963.155 | 2000.00 | 337.02 | 9°39'18" | | | 40 | 1.50 | 1.71 | 2°51'53" | | |
| | ARC | CC | | 1943948.500 | 6155743.784 | | | | | | | | | | | |
| | ARC | CS | 3112+56.47 | 1942879.519 | 6154053.435 | | | | | | | | | | | |
| | CLOTHOID | CS | 3112+56.47 | 1942879.519 | 6154053.435 | | | | | | | | | | S 32°18'34" E | S 39°28'17" E |
| | CLOTHOID | SPI | 3114+23.38 | 1942738.447 | 6154142.650 | | 500.00 | 7°09'43" | 249.87 | 5.21 | | | | | | |
| | CLOTHOID | ST | 3117+56.47 | 1942480.922 | 6154354.721 | | | | | | | | | | | |
| | TANGENT | ST | 3117+56.47 | 1942480.922 | 6154354.721 | | 479.24 | | | | | | | S 39°28'17" E | | |
| EQN | | BK | 3121+02.48 | 1942213.819 | 6154574.679 | | | | | | | | | | | |
| EQN | | AHD | 3121+00.00 | | | | | | | | | | | | | |
| | TANGENT | TS | 3122+33.23 | 1942110.970 | 6154659.375 | | | | | | | | | | | |
| | CLOTHOID | TS | 3122+33.23 | 1942110.970 | 6154659.375 | | | | | | | | | | S 39°28'17" E | S 42°26'24" E |
| | CLOTHOID | SPI | 3123+66.59 | 1942008.030 | 6154744.146 | | 200.00 | 2°58'07" | 99.99 | 0.86 | | | | | | |
| | CLOTHOID | SC | 3124+33.23 | 1941958.818 | 6154789.145 | | | | | | | | | | | |
| C414 | ARC | SC | 3124+33.23 | 1941958.818 | 6154789.145 | | | | | | | | | | | |
| | ARC | PI | 3131+54.02 | 1941426.891 | 6155275.543 | 1930.00 | 1379.65 | 40°57'27" | | | 55 | 2.00 | 4.27 | 2°58'07" | | |
| | ARC | CC | | 1943261.217 | 6156213.454 | | | | | | | | | | | |
| | ARC | CS | 3138+12.88 | 1941344.017 | 6155991.547 | | | | | | | | | | | |
| | CLOTHOID | CS | 3138+12.88 | 1941344.017 | 6155991.547 | | | | | | | | | | S 83°23'52" E | S 86°21'59" E |
| | CLOTHOID | SPI | 3138+79.57 | 1941336.350 | 6156057.788 | | 200.00 | 2°58'07" | 99.99 | 0.86 | | | | | | |
| | CLOTHOID | ST | 3140+12.88 | 1941327.898 | 6156190.872 | | | | | | | | | | | |

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SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
 ALTERNATIVE A
 BOOK A4
 SHEET 105 OF 106

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| IN CHARGE | |
| DATE | |

2021 RECORD SET PEPP
 NOVEMBER 30, 2021
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
 ALTERNATIVE 4
 BLENDED AT-GRADE
 MT3 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C4010A TO C413A, C414 - DIRIDON DESIGN VARIANT

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| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B4003A |
| SCALE | NONE |
| SHEET NO. | |

TRACK ALIGNMENT DATA SUMMARY TABLE - JM SB TRACK

| CURVE | ELEMENT | POINT TYPE | MT3 TRACK STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA) (IN) | UNBALANCED SUPERELEVATION (EU) (IN) | TNGT BEARING/ CHRD DEG. CV. (0°00'00") | WCB (0°00'00") | |
|-------|----------|------------|-------------------|-------------|-------------|-------------|-------------|-----------|--------|-------|--------------------|---------------------------------|-------------------------------------|--|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | 3140+12.88 | 1941327.898 | 6156190.872 | | 338.42 | | | | | | | S 86°21'59" E | | |
| | TANGENT | TS | 3143+51.30 | 1941306.451 | 6156528.610 | | | | | | | | | | | |
| | CLOTHOID | TS | 3143+51.30 | 1941306.451 | 6156528.610 | | | | | | | | | | S 86°21'59" E | S 68°44'11" E |
| | CLOTHOID | SPI | 3149+67.71 | 1941267.385 | 6157143.774 | | 920.00 | 17°37'48" | 458.55 | 23.51 | | | | | | |
| | CLOTHOID | SC | 3152+71.30 | 1941155.156 | 6157432.165 | | | | | | | | | | | |
| C415 | ARC | SC | 3152+71.30 | 1941155.156 | 6157432.165 | | | | | | | | | | | |
| | ARC | PI | 3156+59.65 | 1941014.317 | 6157794.077 | 1494.95 | 759.90 | 29°07'27" | | | 55 | 4.00 | 4.10 | 3°49'57" | | |
| | ARC | CC | | 1939761.981 | 6156890.005 | | | | | | | | | | | |
| | ARC | CS | 3160+31.21 | 1940715.140 | 6158041.683 | | | | | | | | | | | |
| | CLOTHOID | CS | 3160+31.21 | 1940715.140 | 6158041.683 | | | | | | | | | | S 39°36'43" E | S 31°56'49" E |
| | CLOTHOID | SPI | 3161+64.77 | 1940612.247 | 6158126.840 | | 400.00 | 7°39'55" | 199.88 | 4.46 | | | | | | |
| | CLOTHOID | ST | 3164+31.21 | 1940385.758 | 6158268.074 | | | | | | | | | | | |
| | TANGENT | ST | 3164+31.21 | 1940385.758 | 6158268.074 | | 2079.17 | | | | | | | S 31°56'49" E | | |
| | TANGENT | TS | 3185+10.38 | 1938621.498 | 6159368.230 | | | | | | | | | | | |
| | CLOTHOID | TS | 3185+10.38 | 1938621.498 | 6159368.230 | | | | | | | | | | S 31°56'49" E | S 31°37'19" E |
| | CLOTHOID | SPI | 3185+97.04 | 1938547.958 | 6159414.088 | | 130.00 | 0°19'30" | 65.00 | 0.06 | | | | | | |
| | CLOTHOID | SC | 3186+40.38 | 1938511.059 | 6159436.808 | | | | | | | | | | | |
| C416 | ARC | SC | 3186+40.38 | 1938511.059 | 6159436.808 | | | | | | | | | | | |
| | ARC | PI | 3188+19.39 | 1938358.626 | 6159530.665 | 11459.19 | 357.99 | 1°47'24" | | | 90 | 1.50 | 1.33 | 0°30'00" | | |
| | ARC | CC | | 1932502.889 | 6149678.992 | | | | | | | | | | | |
| | ARC | CS | 3189+98.37 | 1938203.335 | 6159619.716 | | | | | | | | | | | |
| | CLOTHOID | CS | 3189+98.37 | 1938203.335 | 6159619.716 | | | | | | | | | | S 29°49'55" E | S 29°30'25" E |
| | CLOTHOID | SPI | 3190+41.70 | 1938165.744 | 6159641.272 | | 130.00 | 0°19'30" | 65.00 | 0.06 | | | | | | |
| | CLOTHOID | ST | 3191+28.37 | 1938090.318 | 6159683.958 | | | | | | | | | | | |
| | TANGENT | ST | 3191+28.37 | 1938090.318 | 6159683.958 | | 292.74 | | | | | | | S 29°30'25" E | | |
| | TANGENT | TS | 3194+21.11 | 1937835.547 | 6159828.140 | | | | | | | | | | | |
| | CLOTHOID | TS | 3194+21.11 | 1937835.547 | 6159828.140 | | | | | | | | | | S 29°30'25" E | S 29°44'43" E |
| | CLOTHOID | SPI | 3195+07.78 | 1937760.122 | 6159870.826 | | 130.00 | 0°14'18" | 65.00 | 0.05 | | | | | | |
| | CLOTHOID | SC | 3195+51.11 | 1937722.498 | 6159892.326 | | | | | | | | | | | |
| C417 | ARC | SC | 3195+51.11 | 1937722.498 | 6159892.326 | | | | | | | | | | | |
| | ARC | PI | 3201+59.58 | 1937194.204 | 6160194.212 | 15626.15 | 1216.32 | 4°27'35" | | | 90 | 1.50 | 0.58 | 0°22'00" | | |
| | ARC | CC | | 1945475.310 | 6173459.581 | | | | | | | | | | | |
| | ARC | CS | 3207+67.43 | 1936690.984 | 6160536.264 | | | | | | | | | | | |
| | CLOTHOID | CS | 3207+67.43 | 1936690.984 | 6160536.264 | | | | | | | | | | S 34°12'18" E | S 34°26'36" E |
| | CLOTHOID | SPI | 3208+10.76 | 1936655.146 | 6160560.624 | | 130.00 | 0°14'18" | 65.00 | 0.05 | | | | | | |
| | CLOTHOID | ST | 3208+97.43 | 1936583.673 | 6160609.642 | | | | | | | | | | | |
| | TANGENT | ST | 3208+97.43 | 1936583.673 | 6160609.642 | | 832.04 | | | | | | | S 34°26'36" E | | |
| | TANGENT | TS | 3217+29.47 | 1935897.497 | 6161080.239 | | | | | | | | | | | |
| | CLOTHOID | TS | 3217+29.47 | 1935897.497 | 6161080.239 | | | | | | | | | | S 34°26'36" E | S 34°02'28" E |
| | CLOTHOID | SPI | 3218+16.14 | 1935826.024 | 6161129.257 | | 130.00 | 0°24'08" | 65.00 | 0.08 | | | | | | |
| | CLOTHOID | SC | 3218+59.47 | 1935790.117 | 6161153.514 | | | | | | | | | | | |
| C418 | ARC | SC | 3218+59.47 | 1935790.117 | 6161153.514 | | | | | | | | | | | |
| | ARC | PI | 3219+96.94 | 1935676.209 | 6161230.465 | 9261.21 | 274.91 | 1°42'03" | | | 90 | 1.50 | 2.00 | 0°37'07" | | |
| | ARC | CC | | 1930605.794 | 6153479.348 | | | | | | | | | | | |
| | ARC | CS | 3221+34.38 | 1935560.067 | 6161304.002 | | | | | | | | | | | |
| | CLOTHOID | CS | 3221+34.38 | 1935560.067 | 6161304.002 | | | | | | | | | | S 32°20'26" E | S 31°56'18" E |
| | CLOTHOID | SPI | 3221+77.71 | 1935523.455 | 6161327.183 | | 130.00 | 0°24'08" | 65.00 | 0.08 | | | | | | |
| | CLOTHOID | ST | 3222+64.38 | 1935449.908 | 6161373.031 | | | | | | | | | | | |

SAN FRANCISCO TO SAN JOSE EIRIS: VOLUME III
ALTERNATIVE A
BOOK A4
SHEET 106 OF 106

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| IN CHARGE | |
| DATE | |

2021 RECORD SET PEPP
 NOVEMBER 30, 2021
NOT FOR CONSTRUCTION

HNTB
 1111 Broadway
 9th Floor
 Oakland, CA 94607



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED
 ALTERNATIVE 4
 BLENDED AT-GRADE
 MT3 TRACK ALIGNMENT DATA TABLE
 CURVE NO. C415 TO C418

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|--------------|----------|
| CONTRACT NO. | HSR15-34 |
| DRAWING NO. | TT-B4004 |
| SCALE | NONE |
| SHEET NO. | |