Volume III User Guide

Volume III of the Environmental Impact Report/Environ-mental Impact Statement (EIR/EIS) provides engineering
drawings, figures, and tables for Alternatives A and B for
the San Francisco to San Jose Project. It contains prelimi-inary design information showing alignment, primary
features, anticipated right-of-way requirements, and tem-porary construction easement details in support of
the proposed high-speed rail project.

Volume III is a part of the EIR/EIS document; it defines
the extent of the work proposed in the EIR/EIS. It also provides a useful tool for stakeholders who want
to understand potential property, visual, and circu-lation impacts of the two project alternatives.

Organization of Volume III

Volume III has been split into several books for readability and navigation. Each book begins with an index of draw-ings included in that book, and an associated key map. The General Information Book has the full index of drawings while each Project Alternative Book only includes the index for that book.

General Information Book

The General Information Book provides the index of drawings, the key maps, and several general ele-ments including general notes, abbreviations, systems, and squad gate applications (at-grade crossings where traffic lanes in both directions are protected by safety gates). It provides information that is common to the two alternatives.

Project Alternative Books

In addition to the General Information Book, detailed Volume III books are available for both project alternatives.

Contents of Project Alternative Books

The following information is included in the Project Alternative Books:

- Composite Plan, Profile, and Cross Sections: Engineering drawings of the corridor and detailed plans that show the rail design and effects on adjacent rights-of-way and properties.
- Stations: Illustrations of the planned stations, showing tracks, station platforms, parking lots, transit facilities, and station design elements. Includes tables describing each station program.
- Structures: Plan and section drawings of underpasses, overpasses, viaducts, and tunnels.
- Roadway: Plan drawings showing where streets and roads are closed, redirected, or extended.
- Light Maintenance Facility: Drawings that illustrate the design of the planned light maintenance facility (LMF).
- Track GUIDeway and Horizontal Alignment Data Table: Design information about track guideway curves and geometry, train design speeds, superelevations, and track stationing.

List of Project Alternative Books

Each set of Project Alternative Books is labeled based on the project alternative number, as listed below:

Alternative A Books

4th & King, San Francisco, to W. Aloma Ave, Santa Clara
- A1 Composite Plans, Profile, and Cross Sections
- A2 Composite Plans, Profile, and Cross Sections
- A3 Stations
- A4 Structures, Roadway, Light Maintenance Facility, Alignment Data Table

Alternative B Books

4th & King, San Francisco, to Scott Boulevard, Santa Clara
- B1 Composite Plans, Profile, and Cross Sections
- B2 Composite Plan, Profile, and Cross Sections
- B3 Stations, Structures, and Roadway
- B4 Light Maintenance Facility, Track GUIDeway and Horizontal Alignment Data Table

San Francisco to San Jose Section

Scott Boulevard, Santa Clara, to W. Aloma Ave, San Jose, Via Alum to I-80 Option
- B5 Composite Plan, Station, Structures, Roadway, Alignment Data Table

San Francisco to San Jose Section

Scott Boulevard, Santa Clara, to W. Aloma Ave, San Jose, Via Scott Boulevard Option
- B6 Composite Plan, Station, Structures, Roadway, Alignment Data Table

How to Find a Property in Volume III

You can use Volume III to identify impacts that project alternatives may have on specific areas. This information is contained in the drawings in Volume III books A1 and A2 for Alternative A and B1, B2, B5, and B6 for Alternative B. The composite plans include technical drawings to illustrate high-speed rail’s design and its footprint (the footprint refers to the land used for the rail line, station construction, electric equipment, facilities, access roads, and other rail amenities).

The Key Maps

The Key Maps orient users to identify specific drawings along the corridor. Key Maps for both project alternatives are shown in the Volume III General Information Book on the sheads immediately following the index.

To find a property adjacent to a high-speed rail alignment alternative:

1. Check the Key Maps

   The Key Maps show the drawing numbers for all of the detailed engineering drawings. They are shown on three separate sheets and depict the full project alignment from north to south.

2. Look for the City and Cross Streets

   On the Key Maps, find the city name and cross streets on other landmarks to help you locate the part of the map where you want to take a closer look.

3. Find the Drawing Number

   Each name index represents the boundary of an engineering drawing and is labeled with a unique drawing number.

   For example, if you want to look near Ralston Avenue in Belmont, you’ll find it is shown on the map in the narrow rectangle labeled TD-00113. TD-00113 is the technical drawing for this area.

4. Locate the Book Number

   The Key Map shows where you’ll find the engineering drawing you seek. If you want to see drawing TD-00113, you’ll find it in Book A1.

5. Go to the Engineering Drawing

   Find each detailed engineering drawing on its own page.

   Open Book A1 and turn to drawing TD-00113. This detailed drawing shows the entire section between 37th Avenue in San Mateo and the northernmost portion of San Carlos.

The Index

Each book begins with an index of drawings included in that book, and an associated key map. The General Information Book includes a complete index. The complete index of drawings lists all of the pages called “sheets” in numerical order. The different columns show the boundary or information available on each page. After finding a property on a Key Map, you can check the index for the specific information you need to find additional information.

Need Assistance?

Call us: 1-800-435-8670
Email us: photodoc@hsrc.org

Viewing Volume III as a PDF online? Downloaded a PDF from the High-Speed Rail Authority website?

You can use built-in PDF bookmarks to navigate the document and the first function to locate pages.

For example, use the find feature (CTRL+f on a PC or Command+f on a Mac) to search for a cross street. All instances of the street label will show up, including those in maps and engineering drawings.

Each project alternative uses the volume and page number for the index. The index is for Book A1.
Understanding the Information in Volume III

Plans

The plans in Volume III are detailed drawings of the project corridor that show the location of proposed high-speed rail infrastructure, existing and proposed rights-of-way, road alignments, utility lines, planned developments, and other features. Four enlarged examples from the plans are annotated below to highlight the different features that are labeled on these drawings.

Example 1: South San Francisco near Blanken Avenue

1. The dashed line labeled “PROP TCE” indicates a proposed temporary construction easement.
2. Dashed lines indicate existing tracks. Solid lines indicate new or relocated track.
3. In this location, lead tracks for trains traveling to and from the Brisbane light maintenance facility (LMF) intersect with the trunk line (or main line).
4. The proposed locations of facilities such as stand-alone radio sites are shown on the plans. In this example, a stand-alone radio site is shown south of the tunnel.

Example 2: North Side of Millbrae-SFO High-Speed Rail Station

1. Brown lines mark utility features such as gas, water, sewer, and telecommunications lines. A series of small slashes (/ / / /) shows where specific utility features will be removed and relocated.
2. The rectangle with small cross-hatching represents the Caltrain platform, while the high-speed rail train platform has large cross-hatching.
3. The dashed line labeled “PROP ROW” indicates the boundary of the proposed high-speed rail right-of-way.
4. Magenta lines show proposed roadways and roadway realignments or restriping.

Example 3: Quad Gates in San Mateo

1. The location and style of quad gates that will be installed on 3rd Ave are labeled.
2. The location and style of quad gates that will be installed on 4th Ave are labeled.
3. The General Information Book contains drawings of the different applications of quad gates.

Cross Sections and Vertical Profiles

In addition to the plan view of the rail corridor, Volume III composite plan sheets include cross sections and a vertical profile of the alignment. Cross sections are shown on each sheet to represent the track configuration at a specific location on that drawing. A vertical profile is an engineering drawing representing what the design would look like from the side, or profile, of the alignment. An example is shown below.

Example 4: 4th and King Station in San Francisco

1. The profile corresponds to the plan above. The limits of the platform are shown in both the plan and profile views.
2. Stationing is provided to identify the limits that the cross section represents.

Colors/Legend

A legend for the composite plans can be found on sheet 15 of the General Information Book. The four previous examples highlight the most common markings that are found on the composite plans, but the legend may be referenced to help understand the information depicted in the plans.

- “MT” means main track and “B” indicates alignment stationing of the southbound passenger track with tick marks at 100’ intervals.
- A 100-year flood event has a 1 in 100 (1%) chance of happening in any given year.
- Caltrain station platforms and high-speed rail station platforms are distinguished by different styles of hatching.
- Utilities are marked with brown lines.
- Structural features, marked with blue lines, generally refer to viaducts and other bridges.
- Realigned roadways are drawn in magenta.

Scale

The drawings in Volume III are scaled, meaning the measurements in these drawings are in proportion to the actual locations they represent. For example, one inch of a drawing might represent 600 feet of the real alignment. All drawings show their scale. Note that some drawings have different horizontal and vertical scales, and these are shown on the drawing.