How to Find a Location in Volume 3

Readers may seek information about impacts that the project option may have on specific areas or communities. Each part of Volume 3 identifies locations where different types of work will be completed. For a more complete understanding of the project, the reader should repeat the process shown below for each engineering discipline.

The Key Map

The Key Map for each engineering discipline and design option is like a table of contents: a master map of detailed engineering drawings that serves as a “key” for readers to find the detailed map they seek. The Key Map contains a Vicinity Map showing the project location as well as surrounding roads and populated areas.

There are Key Maps for all parts of Volume 3.

1. Identify the Location of the Project
   Use the Vicinity Map to identify where the project is located compared to surrounding areas.

2. Check the Key Map
   The Key Map illustrates the drawings numbers for all of the maps.

3. Look for Cities, Highways, and Landmarks
   Look at the city and town names, highways, or landmarks to find the part of the map where you want to take a closer look.

4. Find the Drawing Number
   For example, you may want to look in more detail about how the design option alignment travels next to SR-58 west of Tehachapi.

5. Go to the Engineering Drawing
   Use the drawing number to locate engineering drawing. Use the index of Drawings to find the specific drawing. Alternatively, find the correct page by looking through the plan sheets immediately after the Key Map in that section.

The Index of Drawings

Each of the parts of Volume 3 has an Index of Drawings that is located in the General Sheets part of each document. For the 2017 PEPD Design Alternatives, there is a separate index of drawings for each engineering discipline. The CCNM Design Option and Refined CCNM Design Option each have one index for all engineering disciplines. The Index lists the pages (called “drawings”) in numerical order, with a column showing a description of the drawing. After finding a location on a Key Map, one may consult the Index of Drawings for the location of the drawing.
Understanding the Information in Volume 3

Plans

Plans show portions of the project as viewed from above. The plans in Volume 3 are detailed drawings of the project corridor that show the location of proposed high-speed rail infrastructure, as well as the extent of existing and proposed rights-of-way, existing road alignments and proposed realignments, utility lines, and other features considered by designers. Enlarged sections from several plans are annotated below to help readers understand the different features that are labeled on these drawings.

Example 2: CCNM Design Option - Construction Sequencing - Portion of Drawing Number CV-I1101

On the construction sequencing drawings, red shading represents areas where earth is removed (cut areas). Blue shading represents areas where earth is being placed (fill areas).

The colors along the track represent the suggested phase of construction. According to the legend, the purple portion would be constructed first, followed by the blue, orange, and finally the green.

Example 3: 2017 PEPD Alternative 3 - Track Guideway - Portion of Drawing Number TT-D1122

On the construction sequencing drawings, blue shading represents areas where earth is being placed (fill areas). Blue shading represents areas where earth is being removed (cut areas).

Example 4: Refined CCNM Option - Alignment Drawing - Portion of Drawing Number TT-D1409

Fault zones are areas where the rock is cracked or has moved due to earth movement or earthquakes. This example shows the Garlock Fault Zone.

The match line identifies the drawing number to find the next drawing to continue looking at that portion of the project.

Example 5: CCNM Design Option - Construction Sequencing - Portion of Drawing Number CV-I1101

Scales

Various drawings show the width or expanse of the rail alignment, the heights of bridges and viaducts, and the right-of-way of the alignment in relation to adjacent homes, businesses, farmland, and other properties.

The drawings are scaled, meaning the measurements in these drawings are in proportion to the actual locations they represent. For example, 1 inch of a drawing might represent 10 feet of actual alignment. Most drawings show their scale or have real-world measurements depicted on the drawing.

Some drawings have different horizontal and vertical scales. The abbreviations HOR for horizontal and VERT for vertical differentiate the scales. The horizontal scale measures distances in the North, South, East, or West directions. The vertical scale measures distances up and down as if you are looking at them from the side.

Some drawings have scales that read SCALE APPLICABLE FOR FULL SIZE ONLY. When drawings are printed on paper that is smaller than full size, the nominal scale (1"=100' in the example) may not be accurate. Use a ruler to measure the lines on the graphic scale and use those lengths to find distances or heights.

Cross Sections and Vertical Profiles

In addition to the plan view of the rail corridor, various drawings show the width or expanse of the rail alignment, the heights of bridges and viaducts, and the right-of-way of the alignment in relation to adjacent homes, businesses, farmland, and other properties.

The profile corresponds to the plan above. In this location, a bridge crosses over highway SB-58. The profile shows a clearance envelope for the highway, which is the area that the bridge structure must clear for the highway to operate.

The profile includes a symbol to indicate the location of the cross-section drawing. This symbol is a black line with a black arrowhead. The cross-section drawing is labeled with the letter C and the Drawing Number below the letter C shows the cross-section is applicable.

Example 6: 2017 PEPD - Track Guideway - Portion of Drawing Number TT-D1034

Example 7: 2017 PEPD - Typical Sections - Portion of Drawing Number TT-B3002

Legend

The legend defines the meanings of graphics and lines that are shown in the plans and profiles. Legends are provided for each engineering discipline of Volume 3.