

3.16 Aesthetics and Visual Quality

This section describes the existing visual environment of the Bakersfield to Palmdale Project Section (B-P), including scenic resources, and analyzes the potential impacts on aesthetics and visual quality that would result from the California High-Speed Rail (HSR) B-P Build Alternatives. This section evaluates the B-P Build Alternatives, including the César E. Chávez National Monument Design Option (CCNM Design Option), the Refined CCNM Design Option, the portion of the Fresno to Bakersfield Locally Generated Alternative [F-B LGA] alignment from the intersection of 34th Street and L Street to Oswell Street¹, and ancillary facilities from the Bakersfield Station through the Palmdale Station. This analysis is based on the *Bakersfield to Palmdale Project Section Aesthetics and Visual Quality Technical Report* (California HSR Authority [Authority] and Federal Railroad Authority [FRA] 2017) that provides detailed information on aesthetics and visual quality. For information on how to access and review technical reports, please refer to the Authority’s website at www.hsr.ca.gov.

Summary of Results

The HSR system would represent a visual change, with the degree of change dependent on the surrounding environment. The B-P Build Alternatives, the CCNM Design Option, and the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would have adverse changes to visual quality in some areas, either by blocking scenic views or by introducing the visual intrusion of the HSR guideways, associated road crossings, and other project structures that would be out of character or scale with the surroundings. Impacts occur mostly where project components would be near historic resources or residential areas with high-sensitivity viewers, such as the Nuestra Señora Reina de La Paz/César E. Chávez National Monument (La Paz), the Pacific Crest Trail, and residences within 0.25 mile of the alignment in East Bakersfield, Edison, Tehachapi, and Rosamond. In those contexts, the degradation of visual quality would be a significant and unavoidable impact under the California Environmental Quality Act (CEQA). In other instances where the HSR features would be compatible with the existing environment or where no sensitive viewers are located, such as most locations in the Tehachapi Mountains, impacts would be less than significant under CEQA. Alternative 2 would have similar impacts as the rest of the B-P Build Alternatives except in the location of Key Viewpoint (KVP) 3 near Edison Middle School in the community of Edison. Effects at that location would be greater than under the other B-P Build Alternatives. Alternative 2 (regardless of whether the CCNM Design Option or Refined CCNM Design Option is included) would result in a significant and unavoidable impact under CEQA.

Aesthetics and Visual Quality

The California High-Speed Rail Project is expected to be a major public investment. Through the public involvement process, visual impacts have been identified as a key resource of concern. The presence of new infrastructure, such as overhead catenary lines, communications towers, high-speed rail vehicles, viaducts, tunnels, and stations, are examples of facilities with the potential to create visual impacts. This section discusses these visual changes.

Key Viewpoint

A location used to provide representative examples of existing views of the landscape as seen by viewers.

¹ The portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street is analyzed and considered as part of the Bakersfield to Palmdale Project Section under all of the B-P Build Alternatives. The *Fresno to Bakersfield Section Final Supplemental Environmental Impact Report* approved the F-B LGA alignment from the city of Shafter through the Bakersfield F Street Station; however, the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street has not been approved. As such, the approval of this portion of the alignment will occur through approval of the Bakersfield to Palmdale Project Section.

3.16.1 Introduction

Visual resources are components of the natural, cultural, or project environments that people see and that contribute to the visual quality of a place. Visual quality is an aesthetic issue, meaning it determines the perceptual experiences that are pleasing to people. Aesthetics and visual quality impacts are generally defined by the Federal Highway Administration (FHWA) as the extent to which the visual environment can absorb the proposed project based on its compatibility with the environment combined with viewer perspective. Impacts are determined by the extent to which the project may enhance visual quality, create better views of visual resources, and improve the experience of the environment by viewers (beneficial impacts), or how it might affect visual quality adversely by degrading visual resources or obstructing or altering desired views (adverse impacts) (FHWA 2015). In this Environmental Impact Report/Environmental Impact Statement (EIR/EIS), Section 3.13, Station Planning, Land Use, and Development, provides information on issues related to land use compatibility.

The Statewide Final Program EIR/EIS (Authority and FRA 2005) concluded that the HSR project would have a potentially significant impact on aesthetics when viewed on a system-wide basis related to the construction-related short-term visual changes and long-term visual changes from introduction of a new transportation system. Project-level analysis indicates that visual impacts under the National Environmental Policy Act (NEPA) and CEQA would occur in both rural and urban portions of the project alignment (Authority and FRA 2005).

3.16.2 Laws, Regulations, and Orders

Consideration of potential impacts on the existing visual environment is informed by federal, state, and local rules and policies. The following federal and state regulations are relevant to the discussion of aesthetics and visual quality.

3.16.2.1 Federal

U.S. Department of Transportation Act (Section 4[f]) (49 U.S. Code §303)

Compliance with Section 4(f) is required for transportation projects undertaken by an operating administration of the U.S. Department of Transportation or projects that may receive federal funding and/or discretionary approvals. Section 4(f) protects publicly owned land, including parks, recreational areas, wildlife refuges, and historic sites of national, state, or local significance situated on public or private land. The aesthetic features or attributes of Section 4(f) properties are also protected insofar as these features or attributes are considered important elements contributing to the value of the resource. FRA may not approve the use of a Section 4(f) property, as defined in U.S. Code (U.S.C.) Title 49, § 303(c), unless it determines that there is no feasible and prudent alternative to avoid the use of the property and the action includes all possible planning to minimize harm resulting from such use, or the project has a *de minimis* impact on the 4(f) property consistent with the requirements of 49 U.S.C. § 303(d).

Federal Railroad Administration Procedures for Considering Environmental Impacts (64 Federal Register 28545)

The FRA *Procedures for Considering Environmental Impacts* states that “the EIS should identify any significant changes likely to occur in the natural environment and in the developed environment. The EIS should also discuss the consideration given to design quality, art, and architecture in project planning and development as required by U.S. Department of Transportation Order 5610.4” (FRA 1999, pg. 28555).

National Historic Preservation Act (16 U.S. Code § 470 et seq.)

The National Historic Preservation Act establishes the federal government policy on historic preservation. Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of their undertakings on historic properties. Potential adverse effects include change in the physical features of the property’s setting that contribute to its historic significance, or introduction of visual elements that diminish the integrity of the property’s significant historic features.

Federal Land Policy and Management Act (43 U.S. Code 1701 et seq., 102[a], 103[c], 201[a], 505[a])

The Federal Land Policy and Management Act requires that public lands be managed to protect and minimize damage to scenic and aesthetic values. Under the Federal Land Policy and Management Act, the Bureau of Land Management uses a Visual Resource Management System (113 Statute 224, Public Law 106-45-A, August 10, 1999) to manage resources under its jurisdiction. As applicable to sections in or affecting areas managed by the Bureau of Land Management, the evaluation of aesthetic and visual quality shall consider the rules or guidance under the Visual Resource Management System for the purpose of applying area-specific management priorities.

3.16.2 State**State Scenic Highways (California Streets and Highways Code §§260 to 263)**

The State Scenic Highways Program lists highways that are either eligible for designation as a scenic highway or are already designated as a scenic highway. A highway may be designated as scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view (California Department of Transportation [Caltrans] 2019). The Streets and Highways Code establishes state responsibility for protecting, preserving, and enhancing California's natural scenic beauty of scenic routes and areas that require special scenic conservation and treatment.

3.16.2.3 Regional and Local

The HSR project is an undertaking of the Authority in its capacity as a state agency and representative of a federal agency. Therefore, the project is neither subject to the jurisdiction of local governments nor is it required to be consistent with local plans. Council on Environmental Quality and Authority regulations nonetheless call for the discussion of any inconsistency or conflict of a proposed action with regional or local plans and laws. Where inconsistencies or conflicts exist, the Council on Environmental Quality and the Authority require a description of the extent of reconciliation and the reason for proceeding if full reconciliation is not feasible (Code of Federal Regulations [C.F.R.] Title 40, Part 1506.2[d], and 64 *Federal Register* 28545, 14[n][15]). The CEQA Guidelines also require that an EIR discuss the inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans (CEQA Guidelines § 15125[d]). Section 3.16.3, Regional and Local Policy Analysis, and Appendix 2-H, Detailed Plan Consistency Analysis, of this EIR/EIS summarize the Bakersfield to Palmdale Project Section's consistency with regional and local plans and policies governing scenic quality.

3.16.3 Regional and Local Policy Analysis

Regional and local plans and policies related to aesthetics are generally consistent with the Bakersfield to Palmdale Project Section. Table 3.16-1 provides a summary of the project's consistency with the local jurisdictions' planning documents relevant to the Bakersfield to Palmdale Project Section. Please refer to Appendix 2-H, Detailed Plan Consistency Analysis, of this EIR/EIS for a detailed listing and analysis of the Bakersfield to Palmdale Project Section's consistency with specific policies in these documents.

Table 3.16-1 Regional and Local Policy Consistency Analysis Summary

| Plan | Segments | Alternatives | Consistency |
|--|------------------------------------|--|-------------|
| Metropolitan Bakersfield General Plan (City of Bakersfield and Kern County [2002] 2016): Land Use Element | City of Bakersfield | All B-P Build Alternatives and Bakersfield Station | Consistent |
| Metropolitan Bakersfield General Plan (Kern County 2007) (Unincorporated Planning Area): Land Use Element | Unincorporated Kern County/ Edison | All B-P Build Alternatives | Consistent |
| Kern County General Plan (Kern County 2009): Land Use, Open Space, and Conservation Element; Circulation Element | Unincorporated Kern County | All B-P Build Alternatives, CCNM Design Option, and Refined CCNM Design Option | Consistent |
| City of Tehachapi General Plan (City of Tehachapi 2012a, b): Town Form and Natural Resources Elements | City of Tehachapi | All B-P Build Alternatives | Consistent |
| Antelope Valley Areawide General Plan (Los Angeles County 2015): Land Use, and Conservation and Open Space Elements | Unincorporated Los Angeles County | All B-P Build Alternatives | Consistent |
| City of Lancaster General Plan (City of Lancaster 2009a): Plan for the Natural Environment, Plan for Public Health and Safety, and Plan for Physical Development | City of Lancaster | All B-P Build Alternatives | Consistent |
| City of Palmdale General Plan (City of Palmdale 2013): Land Use, Environmental Resources, and Community Design Elements | City of Palmdale | All B-P Build Alternatives and Palmdale Station | Consistent |

B-P = Bakersfield to Palmdale Project Section

3.16.4 Methods for Evaluating Impacts

3.16.4.1 Definition of Resource Study Area

The RSA is the area in which all environmental investigations specific to aesthetics and visual quality are conducted to determine the resource characteristics and potential impacts of the project. The RSA for aesthetics and visual quality is the same as the “area of visual effect,” as defined in the FHWA’s VIA guidelines (FHWA 2015).

The boundaries of the RSA for aesthetics and visual quality extend beyond the project footprint, generally encompassing viewshed(s) or areas from which the project is visible. The RSA takes into account the visual effects of HSR improvements and operations in relation to existing visual quality and character, scenic resources, and types of viewers. In defining the RSA, distance zones are largely determined by the extent to which the project is visible. For direct impacts on aesthetics and visual quality, the RSA is at least the project footprint plus 0.25 mile (urban environments) or 0.5 mile (rural environments) from the project footprint, depending on the visibility of the project components and taking into account the area’s landform (topography), land cover (vegetation and structures), and atmospheric conditions (dust, fog, and precipitation), all of which can limit human sight.

Considering the anticipated scale of the project features in different segments of the Bakersfield to Palmdale Project Section, the zone of highest visual concern is not generally expected to extend beyond a foreground distance of 0.25 mile from the project footprint in urban environments and 0.5 mile in rural environments. Beyond foreground viewing distances of 0.25 mile, the project would have a limited visual presence. Where the project is elevated on berms or low structures, the area of visual effect may increase correspondingly, to as much as 0.5 mile. Where the project would be elevated in urban areas, the potential visibility of the project could increase dramatically because of the height of the structures and the high number of

viewers. However, existing structures and vegetation may limit the area of project visibility in highly site-specific ways. Although buildings and tall vegetation would largely block views outside of 0.25 mile from the project footprint, views of the alternatives may be visible at a greater distance through specific “view corridors” along major arterials, channels or rivers, freeways, and railways or other transportation corridors.

In addition, potential large-scale cuts and fills in mountainous terrain (e.g., in the Tehachapi Mountains) would extend the visibility of project features. Given the size of the project and the physical limits of visibility, 3 miles is assumed to be the maximum viewing distance in which the project would be perceptible and the farthest boundary from which project impacts are likely to generate public concern. The 3-mile distance is generally considered to be the end of the “middle ground” of a viewpoint and the start of the “background.”

The RSA for the Bakersfield to Palmdale Project Section is shown on Figure 3.16-1 (the East Bakersfield and Edison/Rural Valley Landscape Units), Figure 3.16-4 (the Tehachapi Mountains East and West and Tehachapi Valley Landscape Units), and Figure 3.16-10 (the West Mojave, Rosamond Rural, and Lancaster-Palmdale Landscape Units).

3.16.4.2 Impact Avoidance and Minimization Features

As described in Section 2.4.2.1, High-Speed Rail Project Impact Avoidance and Minimization Features, the HSR project incorporate standardized impact avoidance and minimization features (IAMF) to avoid and minimize impacts. The Authority would implement IAMFs during project design and construction. Therefore, the analysis of effects of the B-P Build Alternatives, the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street, the CCNM Design Option, the Refined CCNM Design Option, stations, maintenance facilities, and electric power utility improvements in this section factors in all applicable IAMFs. Appendix 2-E, Impact Avoidance and Minimization Features, provides a detailed description of the IAMFs included as part of the HSR project design. IAMFs applicable to aesthetics and visual quality are discussed further under each impact statement in Section 3.16.6, Environmental Consequences, and include the following:

- **AVQ-IAMF#1: Aesthetic Options.** Prior to construction the Contractor shall document, through issue of a technical memorandum, how the Authority’s aesthetic guidelines have been employed to minimize visual impacts. The Authority seeks to balance providing a consistent, project-wide aesthetic with the local context for the numerous high-speed rail non-station structures across the state. Examples of aesthetic options would be provided to local jurisdictions that can be applied to non-standard structures in the high-speed rail system. Refer to Aesthetic Guidelines for Non-Station Structures, 2011.
- **AVQ-IAMF#2: Aesthetic Review Process.** Prior to construction, the Contractor shall document that the Authority’s aesthetic review process has been followed to guide the development of non-station area structures. Documentation shall be through issuance of a technical memorandum to the Authority. The Authority would identify key non-station structures recommended for aesthetic treatment, consult with local jurisdictions on how best to involve the community in the process, solicit input from local jurisdictions on their aesthetic preferences, and evaluate aesthetic preferences for potential cost, schedule and operational impacts. The Authority would also evaluate compatibility with project-wide aesthetic goals, include recommended aesthetic approaches in the construction procurement documents, and work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Refer to Aesthetic Review Process for Non-Station Structures, 2014.

3.16.4.3 Method for Evaluating Impacts under NEPA

Pursuant to NEPA regulations (40 C.F.R. Parts 1500–1508), project effects under NEPA are evaluated based on the criteria of context and intensity. Context refers to the affected environment in which a proposed project occurs. Intensity refers to the severity of the effect, which is examined in terms of the type, quality, and sensitivity of the resource involved; the

location and extent of the effect; and the duration of the effect (temporary, short- or long-term). Beneficial effects are identified and described where applicable. An impact has no effect when there is no measurable effect. An impact would be identified and described according to the context and intensity of effects caused by the project after consideration of mitigation measures. The effectiveness of measures to avoid, minimize, and/or mitigate effects is considered when determining impact effects under NEPA. Thus, if a measure sufficiently mitigates an adverse effect, there is no effect, or it could be beneficial.

The *California High-Speed Rail Environmental Methodology Guidelines* (Authority 2016) includes the following factors to consider when determining the impact on aesthetics and visual resources:

- Introduction of elements that would conflict with the visual character of a historic district or a federally or state-listed or eligible historic property
- Substantial impacts on a park, recreational destination, or other feature or area identified as an important visual resource
- Introduction or alteration of features that substantially contrasts with the inherent or established character of a view or landscape
- Blocking, removing, or changing a regionally or locally important visual resource or view that results in a dramatic change in the visual character or quality of the resource or view
- Consideration of viewer response where a negative response would increase the perceived impact of a visual change

3.16.4.4 Method for Determining Significance under CEQA

CEQA requires that an EIR identify the significant environmental impacts of a project (CEQA Guidelines § 15126). One of the primary differences between NEPA and CEQA is that CEQA requires a threshold-based analysis of the impacts (see Section 3.1.3.4 for further information). By contrast, under NEPA, significance is used to determine whether an EIS will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole has the potential to “significantly affect the quality of the human environment.” Section 3.16-9, CEQA Significance Conclusions, summarizes the significance of the environmental impacts on aesthetics and visual quality for each of the HSR project components. The Authority uses the following thresholds to determine if a significant impact on aesthetics and visual quality would occur as a result of the HSR project. A significant impact is one that would:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point)
- In urbanized areas, conflict with applicable zoning and other regulations governing scenic quality
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

No designated state scenic highways occur in Kern County or northern Los Angeles County. The nearest eligible state scenic highway to the Bakersfield to Palmdale Project Section is the portion of State Route (SR) 58 east of SR 14 in the Mojave Desert, which is approximately 12 miles east of the B-P Build Alternatives. Because no designated state scenic highways are located in or near the Bakersfield to Palmdale Project Section, they are not discussed further in this section (Caltrans 2016a).

For purposes of CEQA significance, an HSR project component located in a non-urbanized area between Oswell Street and the Palmdale Station would substantially degrade the existing visual

character or quality of public views of a site or its surroundings if it would result in a reduction in visual quality, as defined by the methods outlined in Section 3.16.4.6 with the addition of the HSR project. In urbanized areas, this analysis of impacts to visual quality also evaluates the HSR project's consistency with regional and local planning documents that address scenic quality. If the project would be consistent with applicable regional and local planning documents, as shown in Table 3.16-1, then it is assumed that HSR project components in urbanized areas would avoid conflicts with applicable zoning or other regulations governing scenic quality.

The aesthetic impacts of the F-B LGA segment from the intersection of 34th Street and L Street to Oswell Street in Bakersfield were previously analyzed in the *Fresno to Bakersfield Section Draft Supplemental EIR/EIS* (Authority and FRA 2017) and are incorporated by reference in this environmental document. Because the incorporated analysis of this F-B LGA segment preceded adoption of the CEQA Guidelines updates in December 2018, it evaluates the HSR project's impacts on visual character and quality based on the prior checklist question for this topical area in Appendix G of the CEQA Guidelines: whether the project would "substantially degrade the existing visual character or quality of the site and its surroundings." This analysis of visual character and quality does not differentiate between non-urbanized and urbanized areas. For the purposes of CEQA significance, the HSR project from 34th Street and L Street to Oswell Street would substantially degrade the visual character or quality of the site and its surroundings if it would result in a reduction in visual quality as defined by the methods outlined in Section 3.16.4.5 below.

3.16.4.5 Fresno to Bakersfield Locally Generated Alternative Analysis Methodology

The methodology for the aesthetics analysis for the F-B LGA segment from the intersection of 34th Street and L Street to Oswell Street is described on pages 3.16-2-5 of the *Fresno to Bakersfield Section Draft Supplemental EIR/EIS* (Authority and FRA 2017). The methodology used to evaluate aesthetics and visual quality impacts follows the federal guidelines provided in the *Visual Impact Assessment for Highway Projects* (FHWA 1988) and Caltrans guidelines provided in the *Standard Environmental Reference* (Caltrans 2007), as applied in the *Fresno to Bakersfield Section California High-Speed Train Final EIR/EIS* (Authority and FRA 2014). The 1988 FHWA visual impact assessment (VIA) methodology provides an approach and the terminology for analyzing both visual quality and viewer response for transportation corridors. Chapter 27 of the *Standard Environmental Reference* (Caltrans 2016) provides an overview of the visual and aesthetics review process that Caltrans uses and references the 1988 FHWA methodology for VIA. The purpose of this methodology is to define the visual character or quality of a landscape and objectively evaluate effects on the existing visual character or quality of a landscape. For the purposes of this analysis, the term "scenic vista" either refers to designated scenic viewpoints (as identified in public documents or formally developed for sightseeing) or to a view generally of exceptional scenic quality, particularly if widely recognized or identified in public documents.

3.16.4.6 Bakersfield to Palmdale Project Section Build Alternatives Analysis Methodology

The evaluation of aesthetics and visual quality impacts between Oswell Street and the Palmdale Station is based generally on the VIA methodology described in the FHWA's most recently updated *Guidelines for the Visual Impact Assessment of Highway Projects* (FHWA 2015) and the *Environmental Methodology Guidelines Version 5* (Authority 2016).

The FHWA VIA methodology includes four phases: establishment, inventory, analysis, and mitigation. The first phase *establishes* the resource study area (RSA) and its landscape unit(s) based on the project characteristics and the physical environment's limits on visibility. Second, an *inventory* is compiled of specific visual resources, viewer groups, and the viewers' perceptions of visual quality in the RSA. The third phase *analyzes* and objectively evaluates if the project has a beneficial, adverse, or neutral effect on visual quality based on the project's compatibility with its setting and the sensitivity of viewers. The fourth phase describes *mitigation* measures that would minimize aesthetic impacts. All

four phases of the visual impact process under the FHWA VIA guidelines should consider the intersection of the physical environment with people's perceptions of that environment. During the inventory phase, for example, visual quality is evaluated based on the physical characteristics of visual resources and on viewers' awareness of and exposure to those resources. Similarly, the degree of visual impact generated by a project depends on that project's visual compatibility with its surrounding environment (independent of viewer groups) and on viewers' sensitivity to visual changes. In other words, people's perceptions of the visual environment strongly influence the degree of impacts.

The impact analysis in this section includes the following activities:

- Define the RSA and project setting (the visual character of the RSA's natural environment, cultural environment, and project environment)
- Determine who has views of the proposed project (affected population)
- Identify landscape units and KVPs in each landscape unit for the assessment of visual impacts
- Determine existing visual quality in the RSA
- Analyze the compatibility of the project with the existing natural, cultural, and project environments
- Assess the viewer sensitivity to the visual changes (viewer awareness and exposure)
- Determine the degree of the visual impact (beneficial, adverse, or neutral)

The following describes terms and concepts that are used when evaluating the visual impacts associated with long, linear transportation projects such as the Bakersfield to Palmdale Project Section of the HSR system.

- **Landscape units** are the geographic unit in which impacts are assessed. Landscape units are defined by viewsheds, landscape type, and land use type, including the existing visual character and types of viewers. A landscape unit can be conceived of as a spatially defined area with a particular visual identity—a distinctive “outdoor room.” It can be large or small, depending on how the landscape is divided into analytically manageable, geographic areas. A landscape unit is visually homogeneous, with only one viewshed and one landscape type.
- Viewshed**

A viewshed includes all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway or trail).
- **Key viewpoints** are used to illustrate whether the project would be compatible or incompatible with particular views. KVPs represent specific locations in a landscape unit from which a proposed project would be visible to viewers. KVPs are very useful for depicting the range of visual character and visual quality found in a landscape unit. These locations are typically selected to either represent (1) typical views from common types of viewing areas, such as certain highways or residential areas with exposure to the project, or (2) specific high-sensitivity areas such as parks, scenic viewpoints, and historic districts that may be affected by a proposed project. The impact determination for an individual KVP may not be the same as the overall impact summary for the entire landscape unit in which the KVP is located. This is because the condition of the viewed landscape as seen from a sensitive or unique KVP may be different from that of the overall landscape unit. This analysis identifies one or more KVPs in each landscape unit. KVPs are the basis for the subsequent assessment of visual impacts and are selected to provide an image of critical baseline conditions.
 - **Visual character** is an impartial description of the visible attributes of a scene or object such as form (dominance and scale), line, color, and texture. To determine the existing visual character, the primary visual resources of the affected environment are inventoried. Visual resources and the environment in which they exist are divided into three categories: *natural* (air, land, water, vegetation, and animal life), *cultural* (buildings, structures, transportation infrastructure, and other built artifacts), and *project* (alignment, profile, cross-section, grading, drainage, pavement, signs, signals, plantings, and other elements) environments. Broadly

speaking, a *visual resource* is simply a component capable of being seen. However, visual resources also include specific features such as state-designated scenic routes and views toward and in natural areas, parks, and urban areas identified as having historical or cultural significance, or with buildings of similar significance or notable landmark status.

- **Viewers** are the population affected by the proposed project's aesthetics. Viewers are defined by their relationship to the project and their visual preferences. Viewer sensitivity is a product of *viewer exposure* (proximity, extent, and duration) and *viewer awareness* (attention, focus, and protection). As viewer sensitivity increases, viewers become more concerned about a project's impacts. The following definitions apply to viewer exposure and awareness:
 - Proximity refers to distance from the viewing object. The farther a scene or object is from a viewer ("background views"), the less exposure that viewer has. Conversely, the closer the viewer is to an object or scene ("foreground views"), the more exposure the viewer has.
 - Extent refers to the number of people who would be viewing the scene or object. The greater this number, the higher the overall viewer exposure.
 - Duration measures how long the scene or object is visible to viewers. With respect to a moving observation point (e.g., a vehicle on a scenic highway), the narrower the view and the faster one travels, the shorter the duration.
 - Attention correlates with routine. The more routine the scene is to a viewer, the less sensitive the viewer becomes. By contrast, the more unique a scene is to a viewer, the more sensitive the viewer will be to the scene.
 - Focus refers to the ability to apprehend details. If a view has no specific visual element or point on which the viewer is focused, the viewer will be less sensitive to details of that scene.
 - Protection is provided by restrictions that authorities and the community place on changes to a particular view or object being viewed. This protection can be legal or simply social.

The FHWA VIA guidelines identify common viewer groups and their standard visual preferences. Typically, recreational and residential viewers are assumed to have higher levels of viewer sensitivity to project effects than people working in or passing through a viewshed. Residents are generally assumed to have a high level of interest in or preference for cultural order and natural harmony. Residents have long-term exposure to changes in their natural and cultural environments and therefore generally express concern for the aesthetics of those environments. Recreational viewers often have high levels of concern with natural harmony and cultural order, particularly in settings where scenery is a central focus of the visitor's experience. In contrast, viewers at their places of work are generally assumed to have lower levels of viewer sensitivity, particularly in industrial settings. Motorists and commuters are commonly assumed to have moderate levels of sensitivity unless noteworthy scenic vistas would be affected, or the affected roadways have a scenic designation. Participants in some types of active recreation may have a lower level of viewer sensitivity because scenery may not be central to the recreation experience. The evaluation of viewer sensitivity to visual change was based primarily on viewer type and associated scenic expectations. It is augmented with local priorities and values, particularly as expressed in adopted public policy. Viewer sensitivity is generally determined to be low, moderately low, moderate, moderately high, or high.

- **Visual quality** is what viewers like and dislike about visual resources that compose the visual character of a particular scene. Therefore, visual quality is a result of the interactive experience between viewers and their environment. Individual viewers may evaluate visual resources in different ways and reach varying conclusions about visual quality. The FHWA VIA guidelines recognize three types of visual perception corresponding to each of the three types of visual resources:

- When viewing the components of a scene's natural environment, viewers inherently evaluate (like or dislike) the natural harmony of the existing scene, determining if the composition is harmonious or inharmonious.
- When viewing the components of the cultural environment, viewers evaluate the scene's cultural order to determine if the composition is orderly or disorderly.
- When viewing the project environment, viewers evaluate the coherence of the project components to decide if the project's composition is internally coherent or incoherent.

In this analysis, the characterization of existing visual quality serves as the baseline for evaluating potential impacts. Visual quality is generally described as either low, moderately low, moderate, moderately high, or high. As described in the FHWA's VIA guidelines, viewer sensitivity to the impacts on visual resources influences the degree of impacts on visual quality. Impacts on visual quality are identified as *beneficial*, *adverse*, or *neutral*. The degree of visual impact is determined by evaluating the *compatibility* of the impact and *viewer sensitivity* to the impact.

- **Compatibility** is defined as the ability of the environment to absorb the proposed project, with both the project and the environment having harmonious or congruent visual character. The proposed project can be considered compatible (not contrasting) or incompatible (contrasting) with the natural, cultural, or project environments.

3.16.5 Affected Environment

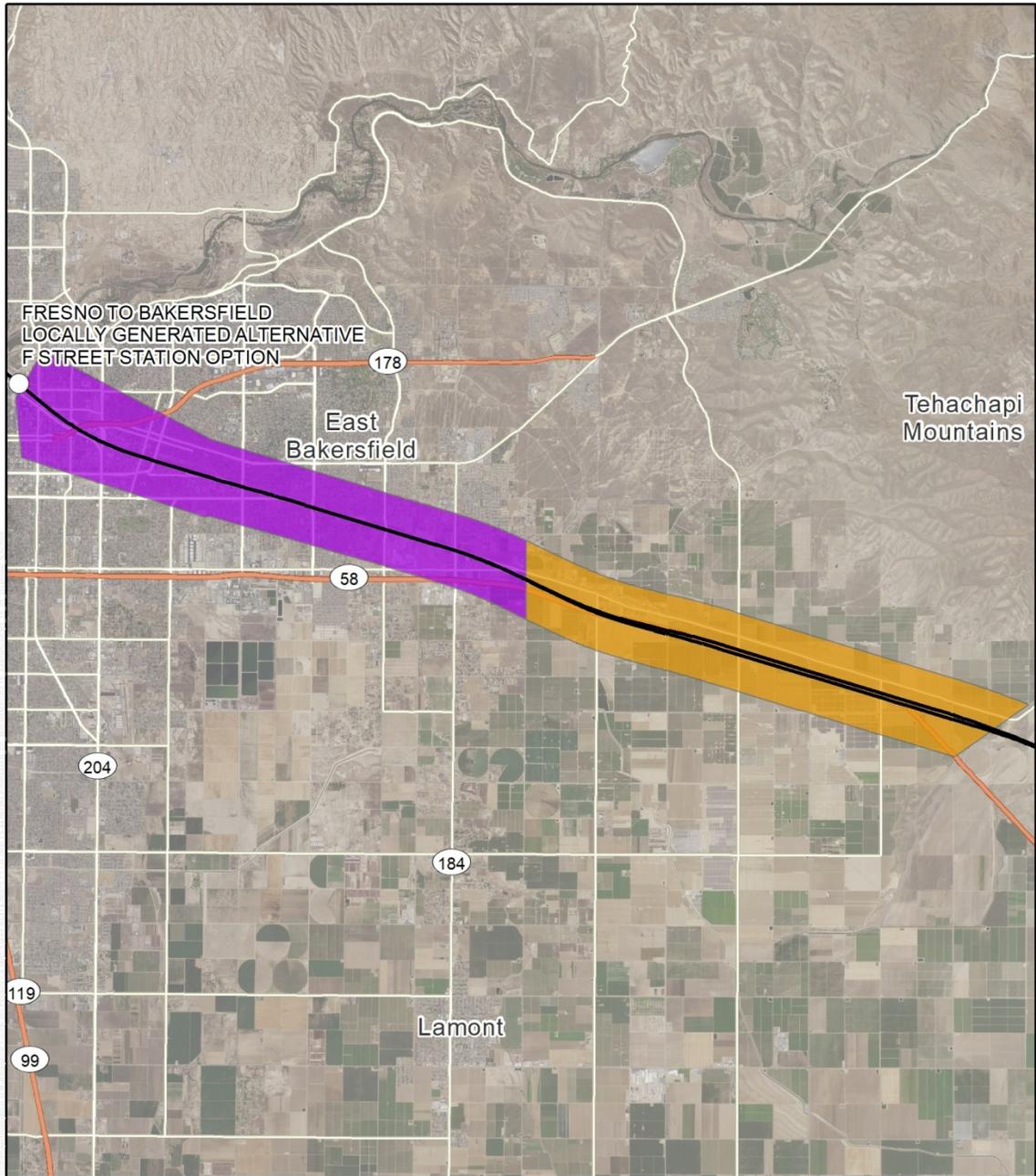
This section describes the aesthetic and visual resources in the natural, cultural, and project environments; the affected populations; and the KVPs representing key views for each landscape unit. This visual baseline reflects sensitive public views that could potentially be affected by the project. Additional details about the visual baseline are available in the *Bakersfield to Palmdale Project Section Aesthetics and Visual Quality Technical Report* (Authority 2017), upon which this section is based. Figures in this section show the RSA for aesthetics and visual quality, the locations of KVPs, and the visual resources in each landscape unit.

The Bakersfield to Palmdale Project Section includes the eight landscape units listed below. Each is discussed in detail in the subsections that follow.

- East Bakersfield Landscape Unit
- Edison/Rural Valley Landscape Unit
- Tehachapi Mountains West Landscape Unit
- Tehachapi Valley Landscape Unit
- Tehachapi Mountains East Landscape Unit
- West Mojave Landscape Unit
- Rosamond Rural Landscape Unit
- Lancaster-Palmdale Landscape Unit

3.16.5.1 East Bakersfield Landscape Unit

The East Bakersfield Landscape Unit extends from the northern terminus of the project section at the intersection of 34th Street and L Street to Vineland Road (Figure 3.16-1). The affected environment for the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street is included in Section 3.16.3 of the *Fresno to Bakersfield Project Section Draft Supplemental EIR/EIS* (Authority and FRA 2017: 3.16-33–46). However, the affected environment discussion included below also reflects this portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).
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Figure 3.16-1 Overview of the East Bakersfield and Edison/Rural Valley Landscape Units

Table 3.16-2 summarizes the key visual components and affected populations in the East Bakersfield Landscape Unit. The topography of this landscape unit is generally flat and the landform is mostly developed with urban structures and infrastructure. Urban development predominates in this landscape unit and the natural environment is limited. Vegetation is composed of urban landscaping, including nonnative, cultivated trees, shrubs, and grasses. Due to the relatively flat topography and low-lying structures, the Sierra Nevada foothills north of the city, Wheeler Ridge in the south, and the Tehachapi foothills in the east can be viewed from most parts of the city, particularly from streets and corridors oriented east-west and north-south. However, atmospheric conditions, including smog or haze, agricultural dust, and dense morning winter fog, often limit long-range visibility to the ridges.

Table 3.16-2 Key Visual Components and Affected Populations in the East Bakersfield Landscape Unit

| Visual Resources and Character | | | Affected Population | Visual Quality |
|---|---|---|--|---|
| Natural Environment | Cultural Environment | Project Environment | | |
| <ul style="list-style-type: none"> ▪ Level terrain ▪ Urban vegetation ▪ Moderate visibility ▪ No major water features; East Side Canal is a minor feature at west end | <ul style="list-style-type: none"> ▪ Typical industrial and residential structures ▪ Transmission lines are dominant vertical element ▪ NRHP-eligible Magunden substation is near SR 58 and proposed alignment | <ul style="list-style-type: none"> ▪ Edison Highway, an existing four-lane roadway adjacent to UPRR corridor | <ul style="list-style-type: none"> ▪ People living in residences, staff and students at schools, and park users within 0.5 mile ▪ Industrial and commercial workers ▪ Motorists on nearby streets and SR 58 | <ul style="list-style-type: none"> ▪ Low to moderate |

NRHP = National Register of Historic Places

SR = State Route

UPRR = Union Pacific Railroad

The cultural environment includes industrial, commercial, and residential buildings and associated infrastructure such as power lines. The change in visual character from residential to commercial/industrial development is often abrupt, with residences directly adjacent to commercial and industrial buildings. The Magunden electrical substation is relatively noticeable, located just north of the Union Pacific Railroad (UPRR) tracks and Edison Highway and east of SR 184/Morning Drive. The Magunden electrical substation is eligible for listing on the National Register of Historic Places (NRHP) and California Register of Historical Resources and is considered a Section 4(f) resource. The aesthetic features of this industrial resource or the surrounding landscape, however, are not important contributing elements to the historic value of the resource. As described in Appendix 2-H of this EIR/EIS, the Kern County General Plan (Kern County 2009) and the Metropolitan Bakersfield General Plan (unincorporated planning area) (Kern County 2007) do not identify any protected scenic resources or scenic views in this landscape unit.

Viewer groups in the East Bakersfield Landscape Unit include residential neighbors, commercial/industrial neighbors, and park and school users within 0.5 mile of the B-P Build Alternatives. They also include motorists traveling in the visual foreground of the alternatives. In this landscape unit, the single-family residential neighborhoods are roughly the same in terms of height and scale, contributing to a sense of cultural order. However, the industrial areas and UPRR tracks lack cultural order or natural harmony, reducing the visual quality of the area. Overall, visual quality is low to moderate.

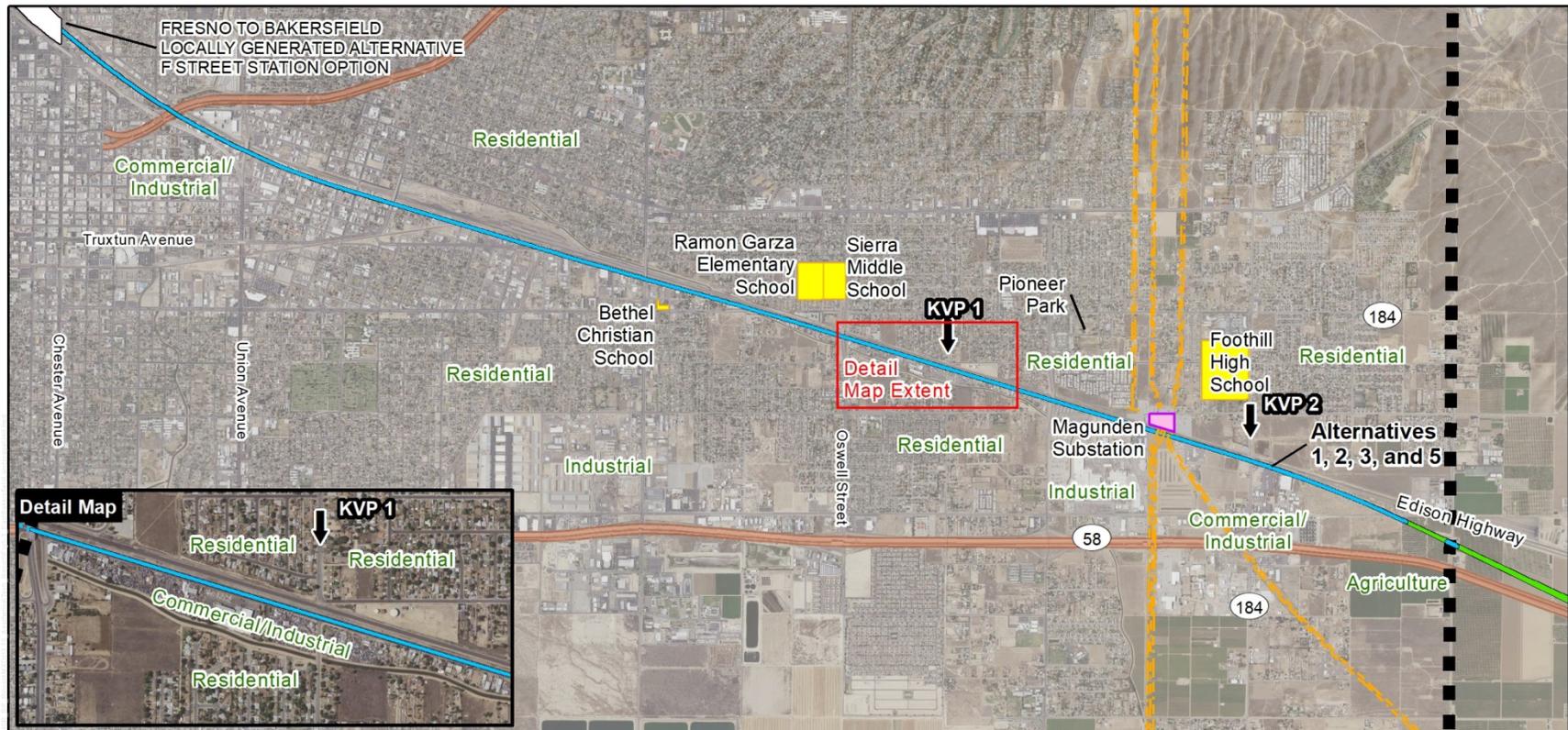
Figure 3.16-2 shows the locations of KVPs in the East Bakersfield Landscape Unit. KVP 1 is located on Sterling Road, oriented south toward the alignments, and represents a key view for all residential viewers within 0.5 mile of the alignments. KVP 2 is located on SR 184/Morning Drive, oriented southward, and represents views across currently open areas for residents. This includes views from vehicles traveling on roadways that serve as view corridors, such as SR 184/Morning Drive.

3.16.5.2 Edison/Rural Valley Landscape Unit

The Edison/Rural Valley Landscape Unit extends from Vineland Road to the base of the Tehachapi Mountains and includes Edison, an unincorporated community approximately 7.5 miles east-southeast of Bakersfield (Figure 3.16-1). Visual quality in this landscape unit is moderate to high. Expansive views of orchards and agricultural land to the south and the foothills of the Tehachapi Mountains to the east contribute to a degree of natural harmony. However, in the Edison area, the scattered industrial uses consist of disorderly utilitarian structures and warehouses that detract from the cultural order of the residential areas.

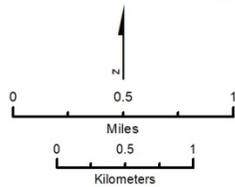
Agriculture-related, light industrial structures and associated infrastructure dominate the cultural environment along Edison Highway in the town of Edison. North of Edison Highway and the UPRR tracks, between approximately Vineland Road and Malaga Road, is a strip of industrial structures that are generally one to two stories high. Edison Middle School is south of Edison Highway and east of Edison Road. The school consists of one-story, white plaster buildings with blue trim on the southern portion of the campus and playfields on the northern portion of the campus. A small residential neighborhood composed of one-story, single-family homes is located south of Edison Highway and west of the middle school. Narrow, paved streets with dirt shoulders, varied landscaping and tree plantings, and houses bordered with chain-link fencing characterize this neighborhood. Above-ground power lines are a dominant visual feature along Edison Highway and throughout the neighborhood. Scattered utilitarian industrial buildings relieved by the scenic views of mountain ridges and agricultural fields in the background typify the overall visual character in the town of Edison.

East of Edison, the visual character changes from predominantly suburban and industrial to rural and agricultural. The natural environment becomes more noticeable and increasingly dominated by trees in orchards and scenic views of the Tehachapi Mountains in the distance to the southeast. The foothills of the Tehachapi Mountains are covered in grasses and appear mostly brown for the majority of the year, while distant higher peaks and ridgelines with evergreen oak woodlands occur appear green throughout the year. In the rural areas east of the town, foreground views contain open agricultural fields and orchards typical of the San Joaquin Valley, with mountain ridges in the background. Agriculture in this area largely comprises row crops and orchards.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).

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- Key Viewpoint
- Landscape Unit Limit
- Highways
- High-Voltage Transmission Lines

- | Section 4(f) Resources | | HSR Build Alternative Centerlines | |
|------------------------|-------------------|-----------------------------------|----------|
| | Historic Resource | | Surface |
| | School | | Elevated |

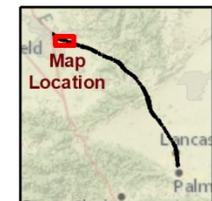


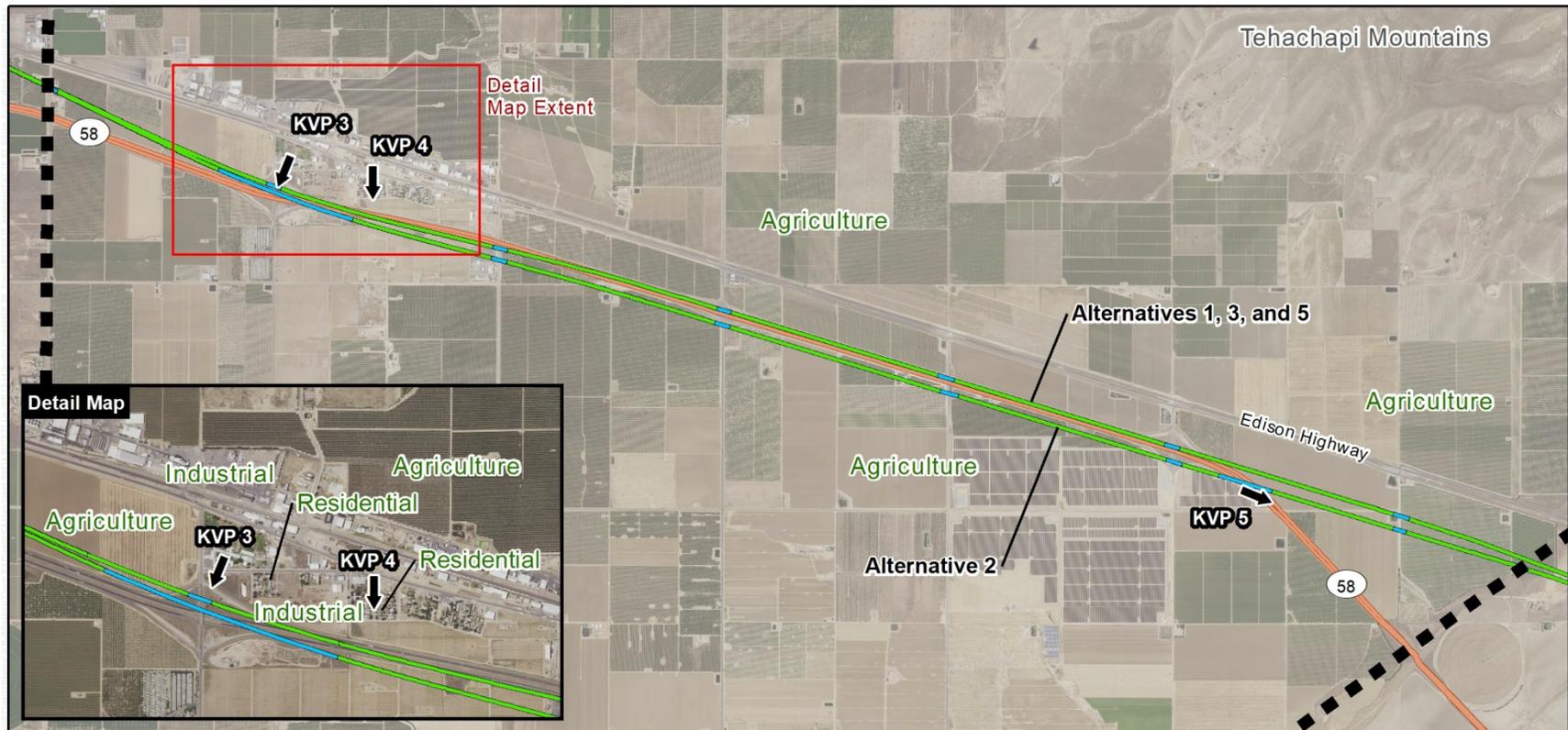
Figure 3.16-2 Visual Resources, Viewer Groups, and Key Viewpoints in the East Bakersfield Landscape Unit

Viewer groups in this landscape unit include residents of the small, residential area in the town of Edison south of Edison Highway, residents in a recreational vehicle park south of SR 58 and east of Edison Road, students and staff at Edison Middle School, agricultural workers east of Edison, and motorists traveling on SR 58. Table 3.16-3 summarizes the key visual components and affected populations in this landscape unit. Figure 3.16-3 depicts the Edison/Rural Valley Landscape Unit, KVPs, and land uses that represent the various viewer groups.

Table 3.16-3 Key Visual Components and Affected Populations in the Edison/Rural Valley Landscape Unit

| Visual Resources and Character | | | Affected Population | Visual Quality |
|---|---|--|--|--|
| Natural Environment | Cultural Environment | Project Environment | | |
| <ul style="list-style-type: none"> ▪ Level terrain ▪ Urban vegetation ▪ Views of Tehachapi ridgelines ▪ No water features | <ul style="list-style-type: none"> ▪ Agricultural-related light industrial structures ▪ Pockets of single-family residences | <ul style="list-style-type: none"> ▪ Alternatives 1, 3, and 5 in an existing transportation corridor (SR 58) ▪ Alternative 2 adjacent to SR 58 | <ul style="list-style-type: none"> ▪ People in residences within 0.5 mile ▪ Edison Middle School students and staff ▪ SR 58 motorists | <ul style="list-style-type: none"> ▪ Moderate to high |

SR = State Route



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (10/2019).

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Figure 3.16-3 Visual Resources, Viewer Groups, and Key Viewpoints in the Edison/Rural Valley Landscape Unit

3.16.5.3 Tehachapi Mountains West Landscape Unit

The Tehachapi Mountains West Landscape Unit extends from the base of the Tehachapi Mountains east of Edison to an area northwest of the City of Tehachapi. Figure 3.16-4 shows an overview of the Tehachapi Mountains West Landscape Unit. In the Tehachapi Mountains West Landscape Unit, the alignments cross the Caliente Creek floodplain and begin ascending the Tehachapi Mountains where the foothills meet the San Joaquin Valley floor at an elevation of about 1,000 feet. The alignments continue their ascent from the vicinity of Bealville Road through the remainder of this landscape unit, which ends at a point about 4,000 feet in elevation near Golden Hills in the Tehachapi Valley, a residential area approximately 0.5 mile northwest of the City of Tehachapi. Table 3.16-4 summarizes affected populations and the key visual components.

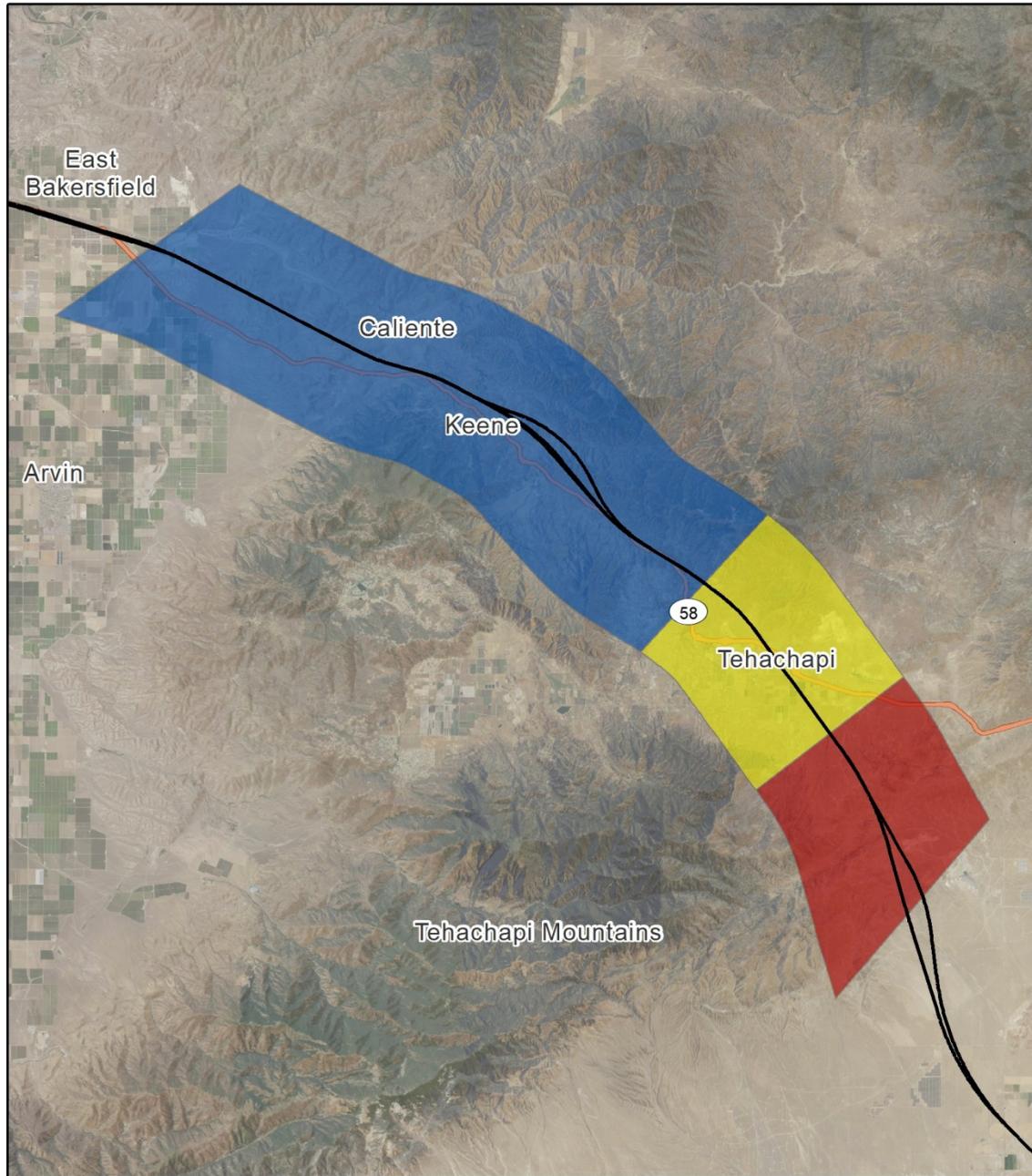
Table 3.16-4 Key Visual Components and Affected Populations in the Tehachapi Mountains West Landscape Unit

| Visual Resources and Character | | | Affected Population | Visual Quality |
|---|--|---|---|---|
| Natural Environment | Cultural Environment | Project Environment | | |
| <ul style="list-style-type: none"> ▪ Undisturbed, natural mountain terrain ▪ Oak woodland ▪ Grasslands ▪ Caliente Creek, Tehachapi Creek, Tweedy Creek, and other small ephemeral streams ▪ Some grazing lands | <ul style="list-style-type: none"> ▪ SR 58 highway infrastructure and cut slopes ▪ UPRR corridor ▪ “Tehachapi Loop,” a UPRR spiral track feature and Designated National Historic Civil Engineering Landmark and State Historical Landmark ▪ Small local roads ▪ Small-scale utility lines ▪ Keene residences ▪ NRHP-listed La Paz ▪ NRHP-eligible Keene Fire Station No. 11 | <ul style="list-style-type: none"> ▪ Largely undeveloped hillsides and not in an existing transportation corridor ▪ Occasionally parallel to or crossing SR 58 corridor and UPRR corridor | <ul style="list-style-type: none"> ▪ SR 58 motorists ▪ La Paz users and visitors ▪ Tehachapi Loop spectators ▪ Bakersfield National Cemetery visitors | <ul style="list-style-type: none"> ▪ Moderately high to high |

La Paz = Nuestra Señora Reina de La Paz/César E. Chávez National Monument
 NRHP = National Register of Historic Places
 SR = State Route
 UPRR = Union Pacific Railroad

The panoramic views of mountain peaks and ridges of the natural landscape are largely undisturbed except for SR 58, the UPRR corridor and its access roads, and the town of Keene. Broad oak and grassland-covered ridges and valleys contribute to the natural harmony of the area. Overall visual quality is moderately high to high.

Built features in the cultural environment of the landscape unit include the SR 58 right-of-way and associated cut slopes; the Bakersfield National Cemetery; La Paz; the town of Keene; the Tehachapi Loop and other visible features of the historic UPRR corridor; local roads, including Woodford-Tehachapi Road, Bena Road, and Bealville Road; and small-scale utility lines.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).
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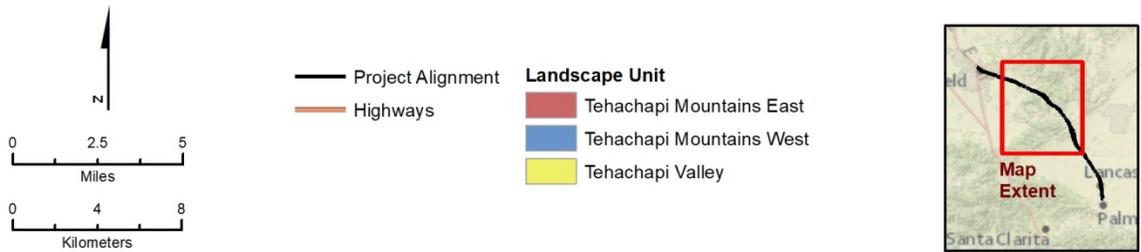


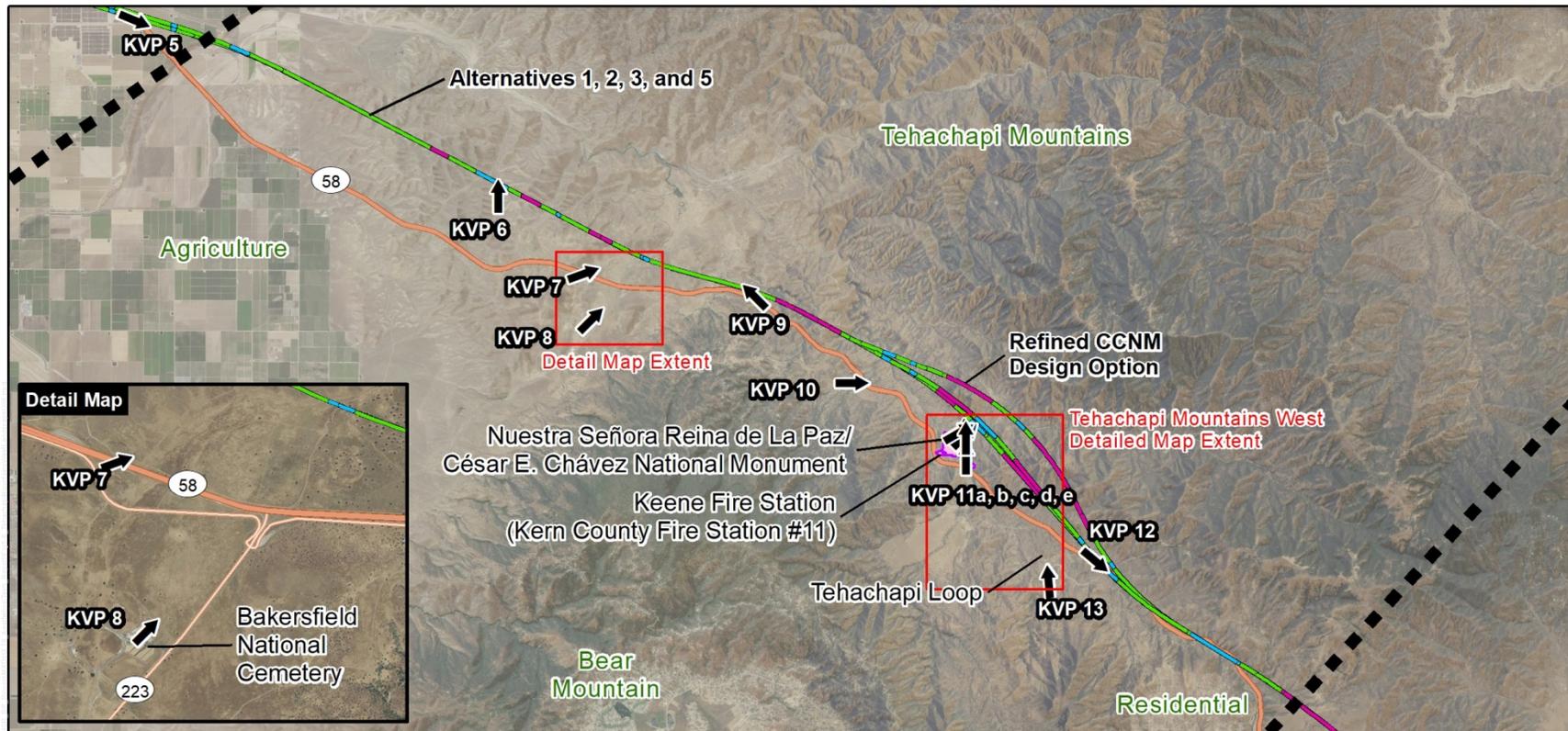
Figure 3.16-4 Overview of Tehachapi Mountains East and West and Tehachapi Valley Landscape Units

Figure 3.16-5 shows this landscape unit and the viewer groups near the alignments. The principal viewer groups are motorists on SR 58, motorists on rural roads, visitors to the Bakersfield National Cemetery and La Paz, and residents of the town of Keene. A large number of railroad enthusiasts visit the Tehachapi Loop to photograph the railroad, trains, and environs. SR 58 in the Tehachapi Mountains is not a designated or eligible state or local scenic highway, and no specific local policies attest to the scenic value of this corridor. KVP 6 is located on Bena Road and represents views from rural roads in the Caliente area. KVPs 7, 9, and 12 are located on SR 58 and represent views of motorists on SR 58. KVP 8 represents views from the Bakersfield National Cemetery.

Residential viewer groups include residents in the town of Keene on the east and west sides of SR 58. Most potential viewer groups in the town of Keene are outside the 0.25- to 0.5-mile zone of highest visual sensitivity. In addition, views of the project environment for most residential viewers would be blocked by the hilly topography. KVP 10 is on Hart Flat Road in the town of Keene and represents views of Keene residents where the alignments may be visible.

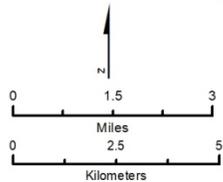
La Paz, in the town of Keene, is a culturally important site listed on the NRHP and designated as a National Historic Landmark and National Monument. This center memorializes labor leader and civil rights activist César Chávez (1927–1993), a founder of the United Farm Workers of America, whose headquarters were moved to Keene, where Chávez spent his last years (César Chávez Foundation 2017). The NRHP listed the property in 2011, and it was designated as a National Historic Landmark and a National Landmark in 2012. The property currently serves as the headquarters of the United Farm Workers of America. In 2014, the National Park Service completed a cultural landscapes inventory of the national monument to identify a series of character-defining features and elements that contribute to the significance of the National Historic Landmark, including a wide panoramic view of the prominent mountain peaks known as “Three Peaks” to the north of the site. The other character-defining feature at the property is the narrow view upon entering the site from the driveway and crossing over Tehachapi Creek. KVPs 11a, 11b, 11c, 11d, and 11e represent views of the alignments from various locations on the La Paz property. Figure 3.16-6 illustrates these KVPs and the location of La Paz.

The historic UPRR through the Tehachapi Mountains is another notable cultural element in this landscape unit. This line includes in particular the Tehachapi Loop, which takes its name from the way in which the track circles back and passes over itself at a higher elevation to overcome the steep mountain grades. The Tehachapi Loop is a designated National Historic Civil Engineering Landmark and California Historical Landmark (#508). KVP 12 is located at a popular viewing point and represents visitor views of the Tehachapi Loop.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).

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- Key Viewpoint
- Landscape Unit Limit
- Highways
- Section 4(f) Resources**
 - Historic Resource
- HSR Build Alternative Centerlines**
 - Surface
 - Elevated
 - Underground

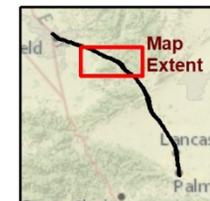
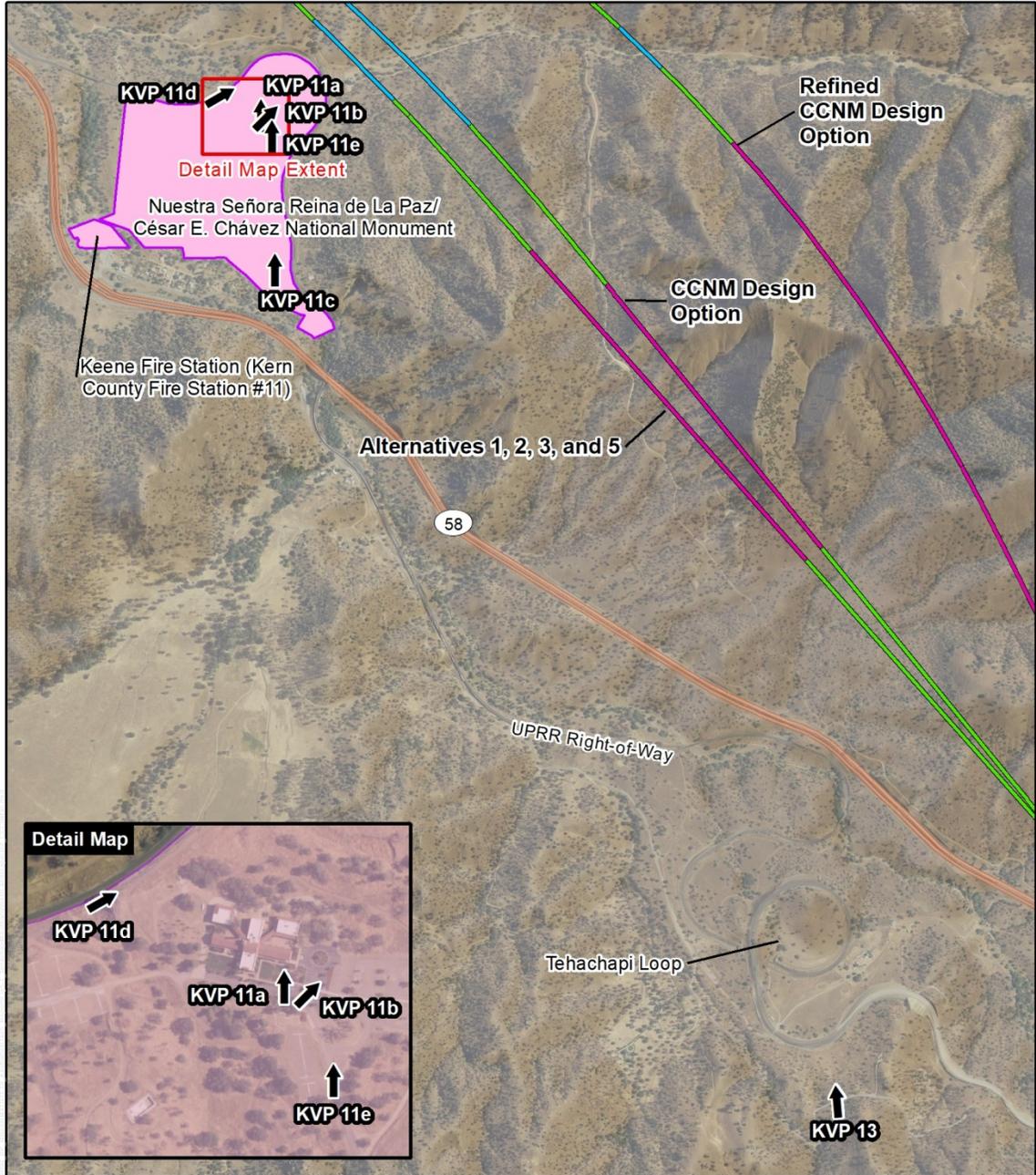


Figure 3.16-5 Visual Resources, Viewer Groups, and Key Viewpoints in the Tehachapi Mountains West Landscape Unit



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).
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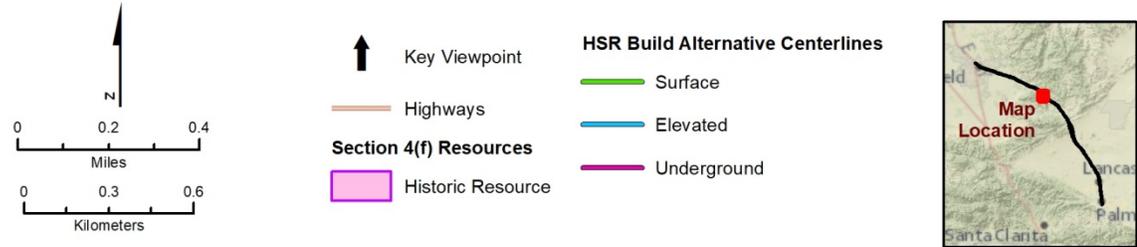


Figure 3.16-6 Tehachapi West Landscape Unit, La Paz, and Tehachapi Loop

3.16.5.4 Tehachapi Valley Landscape Unit

The Tehachapi Valley Landscape Unit extends from the mountains northwest of the city of Tehachapi to just east of Tehachapi Willow Springs Road and the start of the Alta Wind Energy Center. Refer to Figure 3.16-4 for an overview of this landscape unit in relation to the others nearby. The visual character of the Tehachapi Valley is defined by the contrast between undeveloped slopes and ridges of the surrounding mountains, with the expansive and partially developed, level valley floor. Suburban development on the west and southwest of the valley floor mixes with active agriculture and grazing/open space to the east, and some areas of undeveloped, native grasslands, scattered tree plantings, and riparian habitat, particularly east of Tehachapi Willow Springs Road. Overall visual quality in this landscape unit is moderate to moderately high. Table 3.16-5 lists the key visual components and the affected populations in this landscape unit.

Table 3.16-5 Key Visual Components and Affected Populations in the Tehachapi Valley Landscape Unit

| Visual Resources and Character | | | Affected Population | Visual Quality |
|--|--|--|--|---|
| Natural Environment | Cultural Environment | Project Environment | | |
| <ul style="list-style-type: none"> ▪ Native grasslands with scattered tree plantings ▪ Level valley floor ▪ Tehachapi ridgelines to north, west, and south ▪ No water features | <ul style="list-style-type: none"> ▪ Tehachapi central business district surrounded by residential and agricultural uses ▪ Industrial uses near SR 58 and Tehachapi Municipal Airport ▪ UPRR corridor crossing valley ▪ Cement plant and mining operation north of SR 58 ▪ Wind turbines on ridgelines south of City of Tehachapi | <ul style="list-style-type: none"> ▪ Not in an existing transportation corridor | <ul style="list-style-type: none"> ▪ Residents and staff and students at schools within 0.5 mile ▪ SR 58 motorists | <ul style="list-style-type: none"> ▪ Moderate to moderately high |

SR = State Route

UPRR = Union Pacific Railroad

This landscape unit includes the City of Tehachapi, which has a population of approximately 13,200 (U.S. Census Bureau 2014). Views of the Tehachapi Mountains north of the city provide a scenic backdrop. The city has an older central business district along Tehachapi Boulevard that includes a mix of commercial uses and public facilities. Residential neighborhoods surround the central business district and extend south to approximately Highline Road. Agricultural uses such as orchards and various row crops are located along the fringe of the city. The quarry and processing facilities of the Lehigh Tehachapi cement plant and mine are to the northeast. The City of Tehachapi has identified an area north of SR 58 as an area of future growth. KVP 14 represents views from this area.

In a letter to the Authority, the City of Tehachapi has indicated viewer preference to preserve the visual environment through the Tehachapi Mountains, in particular that of the mountain located immediately north of the intersection of Dennison Road and SR 58 (Wiggins 2015). The Tehachapi General Plan also includes an objective and policies to protect views of the mountains and requires that new development consider “valley-wide” and “in-town” viewsheds (City of Tehachapi 2012a, 2012b). Based on these policy documents, viewers in the city prefer a high level of natural harmony for the hillsides north of the city.

Viewers within 0.5 mile of the B-P Build Alternatives include a small residential community on the northernmost edge of the valley north of SR 58 between Arabian Drive and Appaloosa Court and other residences along Dennison Road. KVP 16 is on Arabian Drive and represents views from this group of residents. Other residential neighborhoods on the east side of the town would be located approximately 1 mile from the alignments as they cross the valley floor. KVP 17 represents views from the residences in this area. The nearest portions of the town center lie 0.7 mile or more from the B-P Build Alternatives.

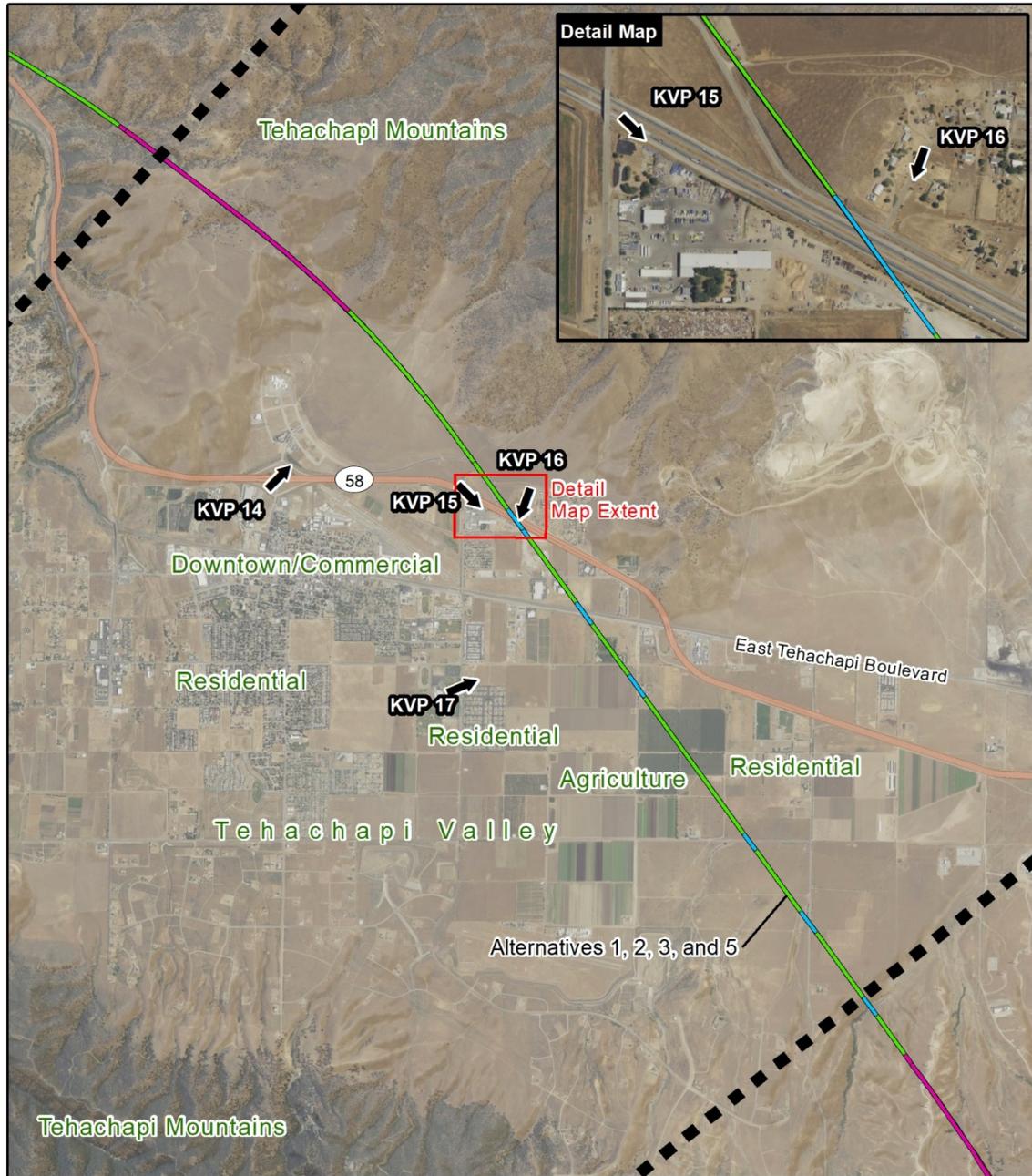
Eastbound SR 58 viewers have expansive views of the valley floor and the ridgelines of the eastern slopes of the Tehachapi Mountains in the distance as they exit the Tehachapi Mountains and enter the Tehachapi Valley floor. The project environment is visible in the foreground, as it crosses SR 58, and in the distance, as it travels southeast across the valley floor. Entering the City of Tehachapi, viewers traveling on westbound SR 58 have foreground views of undeveloped grasslands, scattered industrial development, and the Tehachapi foothills and cut slopes to the north. The ridgelines of the Tehachapi Mountains can be seen in the distance. KVP 15 represents views of SR 58 motorists. Figure 3.16-7 depicts this landscape unit and viewer groups near the alignments.

3.16.5.5 Tehachapi Mountains East Landscape Unit

The Tehachapi Mountains East Landscape Unit extends from the west side of the Alta Wind Energy Center (Alta windfarm) to the west edge of the Mojave Desert. Figure 3.16-4 shows an overview of this landscape unit in relation to others in the area. The rolling hills of the eastern Tehachapi Mountains with ridge tops dominated by scattered large wind turbines (i.e., steel towers or poles with rotating blades used to generate electricity) define the visual character of this landscape unit. This landscape unit is part of the Tehachapi Wind Resource Area (TWRA) and includes a portion of the Alta windfarm. Intensive wind energy development in the TWRA is a defining and rapidly growing visual characteristic in these foothills. The natural harmony of the rolling hillsides of the Tehachapi Mountains and desert landscape near the project environment is highly compromised by wind farms with turbines often over 300 feet in height. Overall, the visual quality is moderate. Table 3.16-6 provides a summary of key visual components and affected populations in this landscape unit.

Table 3.16-6 Key Visual Components and Affected Populations in the Tehachapi Mountains East Landscape Unit

| Visual Resources and Character | | | Affected Population | Visual Quality |
|---|--|--|--|--|
| Natural Environment | Cultural Environment | Project Environment | | |
| <ul style="list-style-type: none"> ▪ Mountain terrain ▪ Oak Creek | <ul style="list-style-type: none"> ▪ Wind turbines and associated infrastructure, including substations and transmission lines ▪ National Scenic Trail—Pacific Crest Trail | <ul style="list-style-type: none"> ▪ Not in an existing transportation corridor | <ul style="list-style-type: none"> ▪ Pacific Crest Trail users ▪ Tehachapi Willow Springs Road motorists | <ul style="list-style-type: none"> ▪ Moderate |



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).
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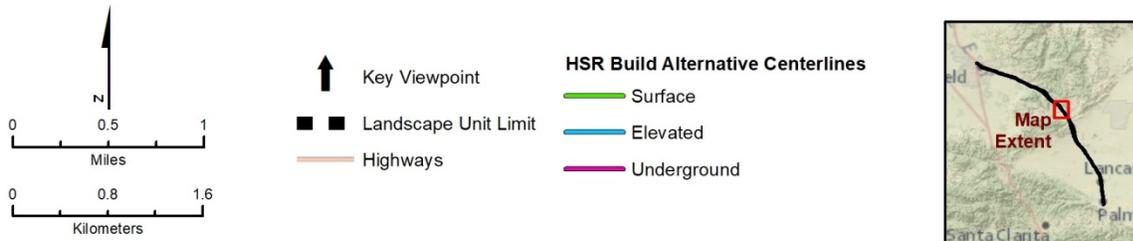


Figure 3.16-7 Visual Resources, Viewer Groups, and Key Viewpoints in the Tehachapi Valley Landscape Unit

The Pacific Crest Trail (PCT) traverses this landscape unit and crosses Tehachapi Willow Springs Road near the intersection of Cameron Canyon Road. Viewer groups in this landscape unit are limited to PCT hikers and motorists on Tehachapi Willow Springs Road. The PCT is a National Scenic Trail under the National Trails System Act. The legal protection of scenic resources on the PCT is an indication of high viewer preference for natural scenic resources. KVPs 18a and 18b represent views by southbound PCT hikers as they approach the alignments. Figure 3.16-8 shows the location of viewer groups, the PCT, other scenic resources, and KVPs in this landscape unit. Figure 3.16-9 provides a more detailed view of the PCT.

3.16.5.6 West Mojave Landscape Unit

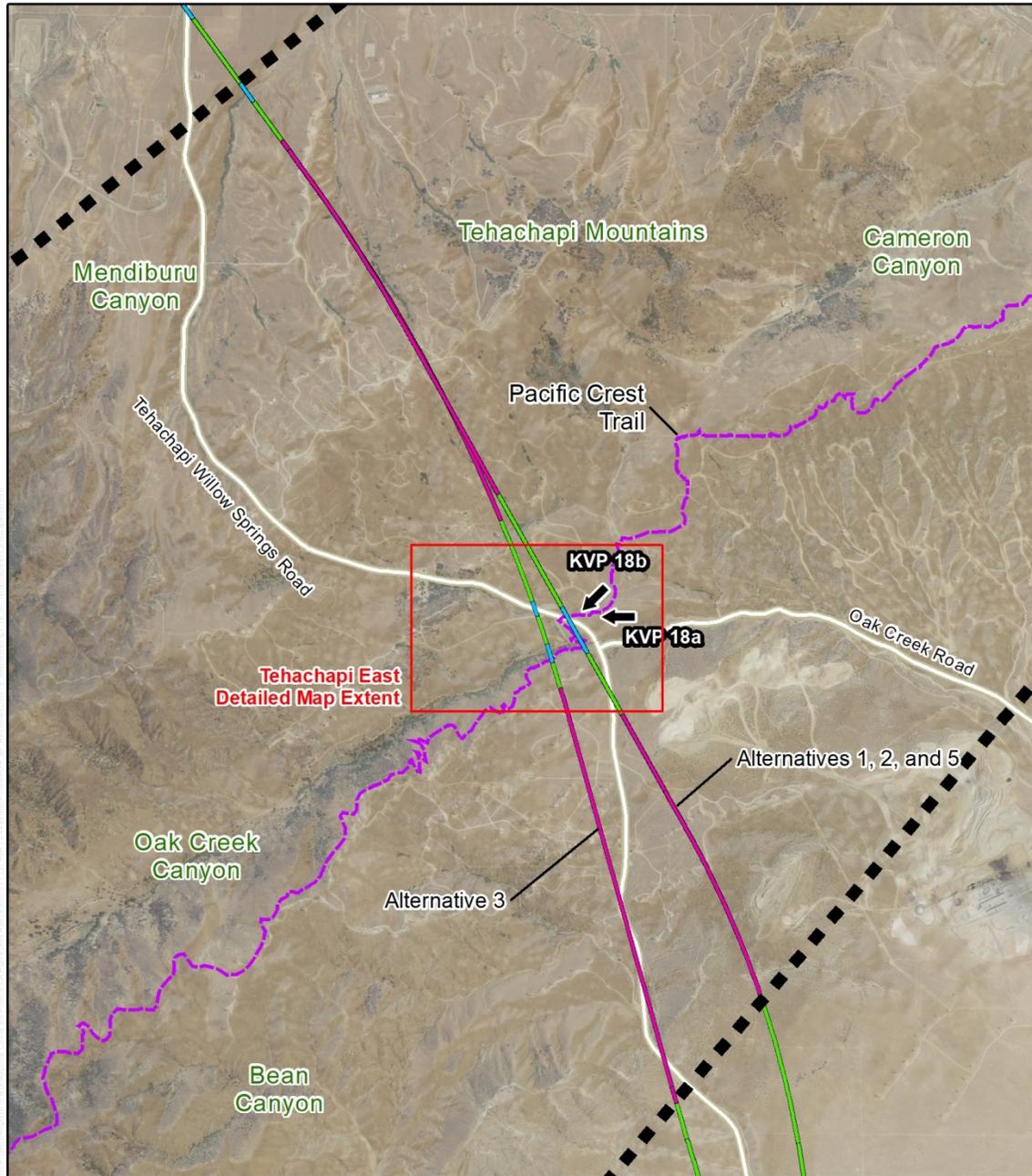
The West Mojave Landscape Unit extends from the base of the Tehachapi Mountains to where the alignments cross Rosamond Avenue. Between the eastern slope of the Tehachapi Mountains and the northern outskirts of Rosamond, the B-P Build Alternatives traverse approximately 13 miles of relatively level desert valley floor. Figure 3.16-10 shows an overview of the West Mojave Landscape Unit along with others nearby.

The West Mojave Landscape Unit is characterized by large, level, arid basins enclosed by periodic steep, rugged, unvegetated mountain ranges. Typical land cover consists of low-growing desert scrub vegetation frequently mixed with distinctive Joshua tree woodland and often-spectacular spring wildflower blooms, including white flower spikes on Joshua trees between March and May. Views of the desert valley floor are characteristically expansive and unimpeded over long distances.

The landscape offers uninterrupted views of the flat Mojave Desert that extend to the surrounding mountains in the background. In addition, the landscape is dotted with several large isolated hills, including the Willow Springs Butte (elevation of approximately 3,275 feet) and Tropico Hill (elevation of approximately 2,890 feet). The intrusion of prominent infrastructure for power generation and transmission in the natural environment reduces existing visual quality in this landscape unit to moderate.

Development in this landscape unit is limited. Some agricultural fields and high-voltage electrical power lines are located on either side of the road where the alignments cross Tehachapi Willow Springs Road. Buildings and houses associated with agricultural uses are scattered in this area. Abutting the southeastern corner of the Willow Springs Butte is the Willow Springs International Raceway, which is located southwest of the alignments, west of 70th Street and north of Stetson Avenue. The raceway is a designated California Point of Historical Interest (Willow Springs International Raceway 2016a) and the main racetrack is eligible for listing on the NRHP. This landscape unit also includes the First Los Angeles Aqueduct, which is designated by the American Society of Civil Engineers as a National Historic Civil Engineering Landmark (American Society of Civil Engineers 2016) and also eligible for listing on the NRHP.

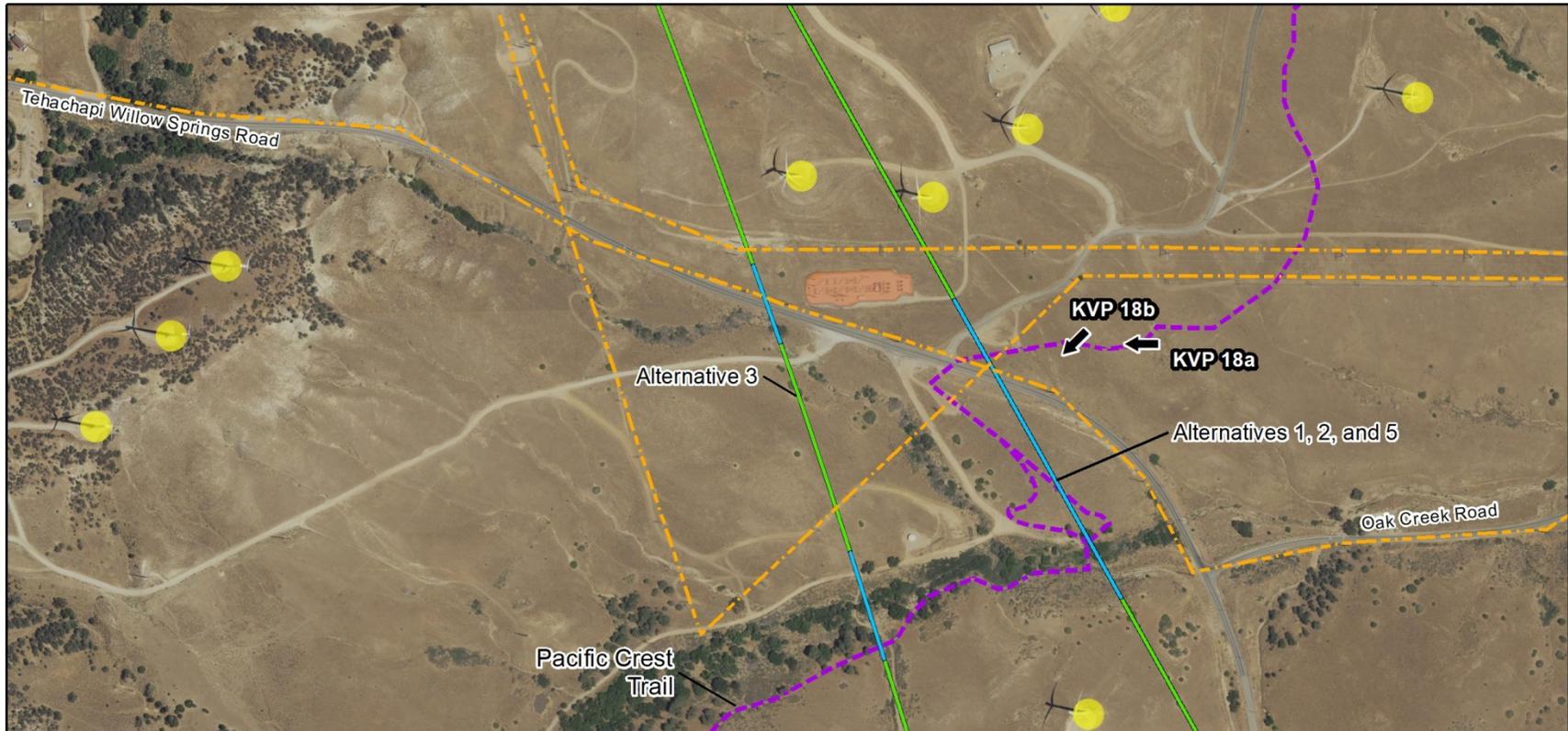
Viewer groups in this landscape unit are very limited. The few motorists who use Tehachapi Willow Springs Road would have several views of the HSR project section alignments as they cross the roadway. Views of the project environment are mostly blocked for the spectators and users of the Willow Springs International Raceway by the topography and orientation of the raceway.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (10/2019).
 January 27, 2020

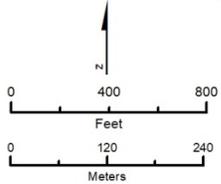


Figure 3.16-8 Visual Resources, Viewer Groups, and Key Viewpoints in the Tehachapi Mountains East Landscape Unit



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (10/2019).

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- Wind Turbines Near PCT Crossing
 - Key Viewpoint
 - Electrical Substation
 - High-Voltage Transmission Lines
- HSR Build Alternative Centerlines**
 - Surface
 - Elevated
 - Underground
- Section 4(f) Resources**
 - Pacific Crest Trail

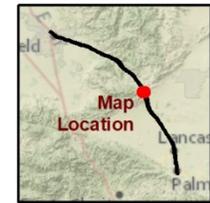


Figure 3.16-9 Detailed View of Pacific Crest Trail



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (10/2019).
 October 28, 2019



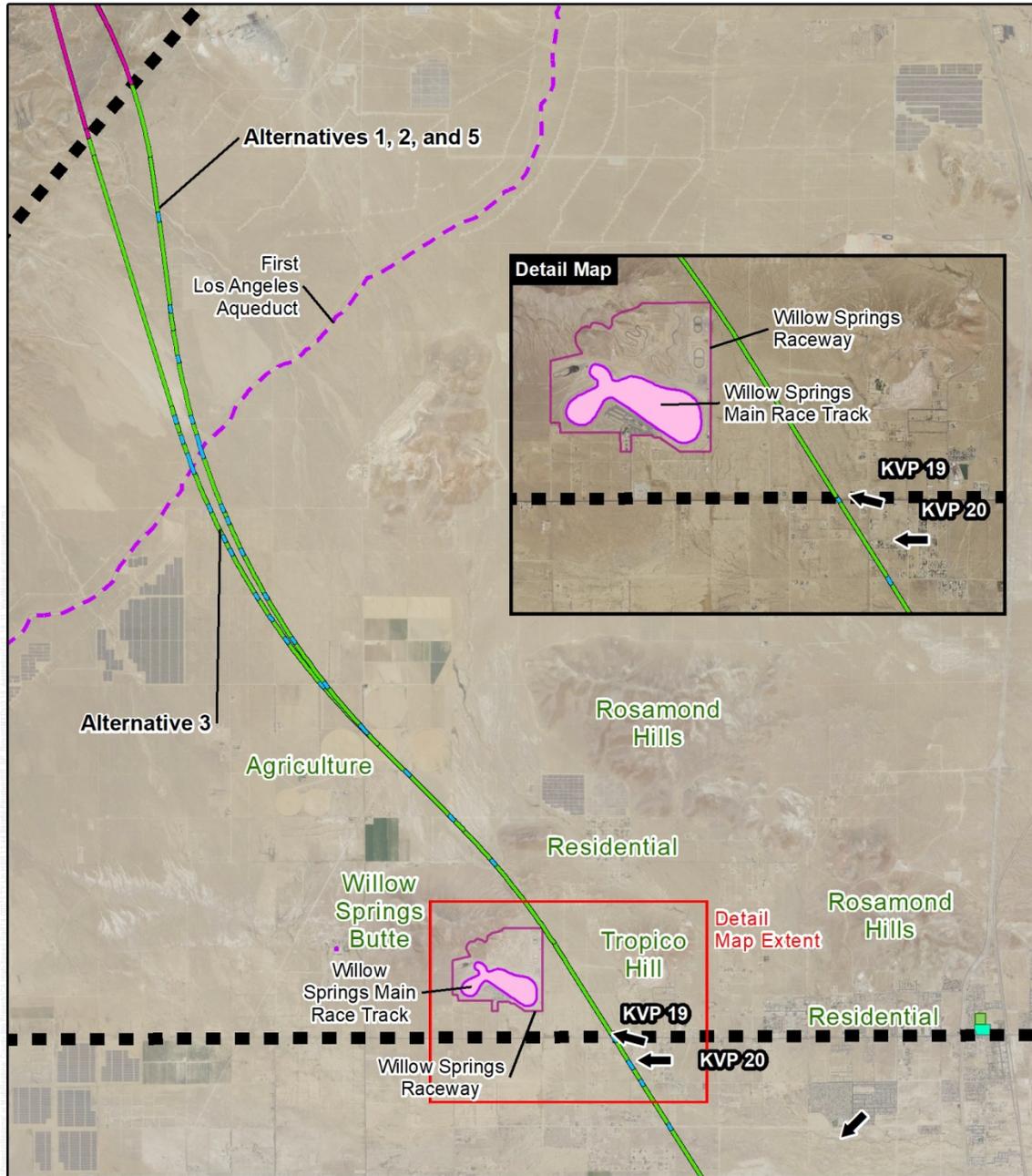
Figure 3.16-10 Overview of West Mojave, Rosamond Rural, and Lancaster-Palmdale Landscape Units

Other viewer groups in this landscape unit include isolated rural residents in the Mojave Desert near Robert Ranch Road and 115th Street and single-family residences near Rosamond Avenue. KVP 19 represents views of motorists traveling on Rosamond Avenue and nearby single-family residences. Table 3.16-7 offers a summary of key visual components and affected populations in this landscape unit, and Figure 3.16-11 shows viewer groups and the location of KVP 19.

Table 3.16-7 Key Visual Components and Affected Populations in the West Mojave Landscape Unit

| Visual Resources and Character | | | Affected Population | Visual Quality |
|--|--|--|---|--|
| Natural Environment | Cultural Environment | Project Environment | | |
| <ul style="list-style-type: none"> ▪ Level arid basins enclosed by steep mountain ranges ▪ Desert scrub vegetation ▪ Joshua tree woodland ▪ Annual wildflower displays in some locations ▪ Background views of occasionally snow-topped mountain ridges | <ul style="list-style-type: none"> ▪ Limited dispersed development ▪ Scattered agriculture ▪ Wind and solar energy power plants ▪ Transmission lines ▪ NRHP-eligible Willow Springs Main Race Track ▪ NRHP-eligible First Los Angeles Aqueduct | <ul style="list-style-type: none"> ▪ Not in an existing transportation corridor | <ul style="list-style-type: none"> ▪ Isolated rural residents ▪ Willow Springs International Raceway users and spectators | <ul style="list-style-type: none"> ▪ Moderate |

NRHP = National Register of Historic Places



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 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).
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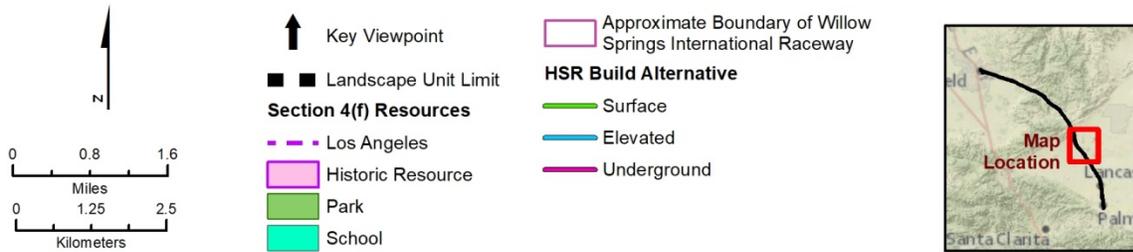


Figure 3.16-11 Visual Resources, Viewer Groups, and Key Viewpoints in the West Mojave Landscape Unit

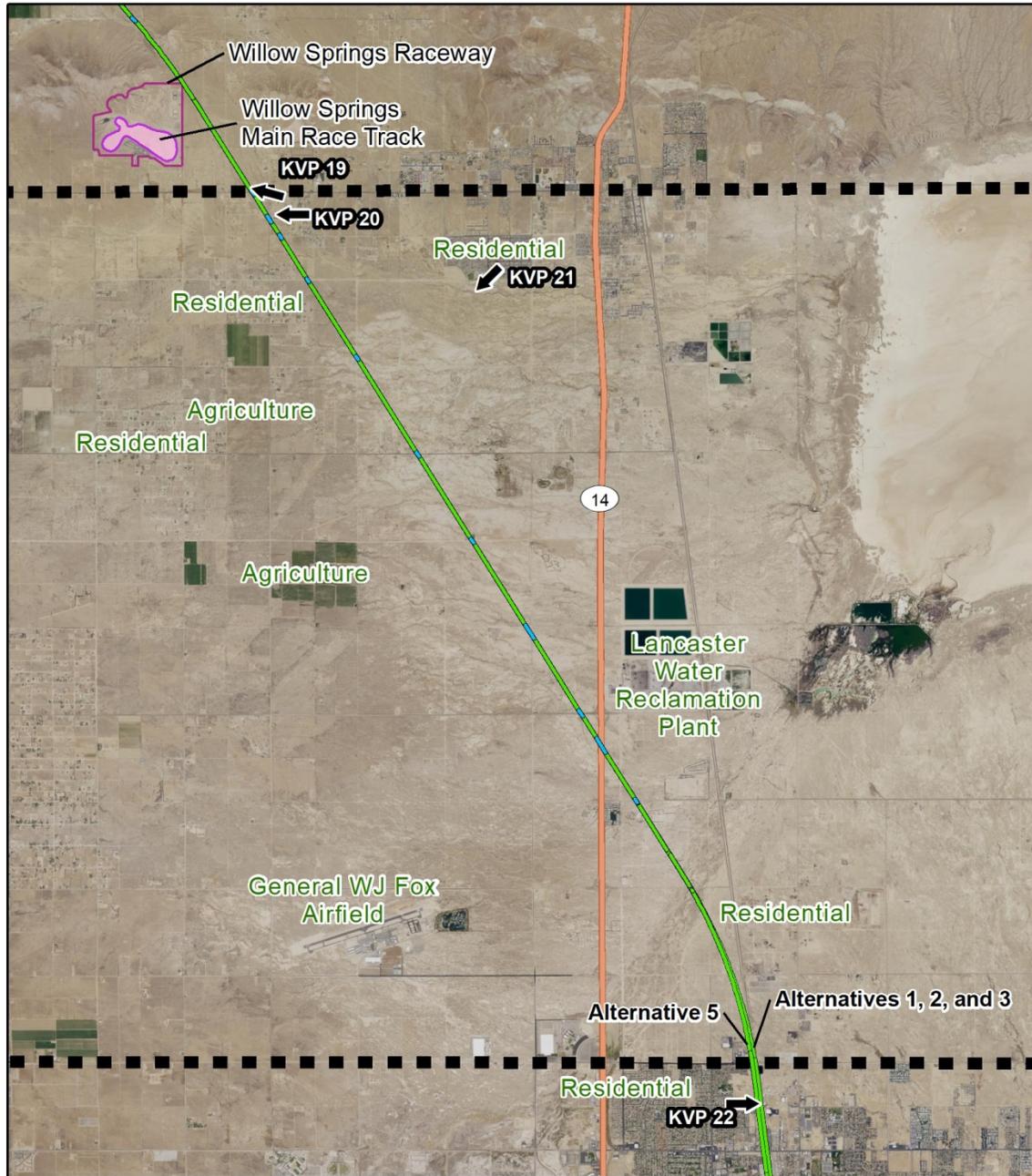
3.16.5.7 Rosamond Rural Landscape Unit

The Rosamond Rural Landscape Unit extends from Rosamond Avenue to Avenue H in Lancaster. Figure 3.16-10 shows an overview of this landscape unit. In this landscape unit, the B-P Build Alternatives would pass through lands that are largely uninhabited within 1 mile. Rosamond is a small, unincorporated town in Kern County located 12.6 miles south of the town of Mojave and 10.3 miles north of Lancaster. The landform is generally flat and undeveloped, with exposed dirt and sparse native desert vegetation. Residences are mostly one-story, single-family homes scattered throughout the area. Isolated agricultural and industrial structures occur in the landscape unit. The natural environment dominates the background, with clear views of buttes and foothills (such as Willow Springs Butte and Tropico Hill) to the north and west. However, the features of the cultural environment generally detract from views of natural scenery, resulting in a moderate degree of existing visual quality in this landscape unit.

Viewer groups in this landscape unit include residential uses between Willow Avenue and Rosamond Boulevard and a mobile home park south of Avenue E. Less sensitive viewer groups are industrial and commercial workers at the Lancaster Water Reclamation facility, a solar power plant and storage facility at Avenue G, and various other industrial and commercial businesses west of Sierra Highway between Avenue H and Avenue G-12. KVP 20 represents viewers from the single-family residences near the alignments. KVP 21 represents views from other residences in the town of Rosamond, approximately 1 mile from the B-P Build Alternative alignments. Table 3.16-8 shows key visual components and affected populations in this landscape unit. Figure 3.16-12 shows viewer groups and the locations of KVPs in this landscape unit.

Table 3.16-8 Key Visual Components and Affected Populations in the Rosamond Rural Landscape Unit

| Visual Resources and Character | | | Affected Population | Visual Quality |
|--|---|--|--|--|
| Natural Environment | Cultural Environment | Project Environment | | |
| <ul style="list-style-type: none"> ▪ Level terrain ▪ Exposed dirt ▪ Sparse native desert vegetation ▪ No water, but background views of snow-topped peaks in winter ▪ Views of surrounding mountains, hills, and buttes | <ul style="list-style-type: none"> ▪ Mostly undeveloped ▪ Scattered one-story residences ▪ Isolated agricultural and industrial structures ▪ Transmission lines ▪ No notable artifacts | <ul style="list-style-type: none"> ▪ Not in an existing transportation corridor | <ul style="list-style-type: none"> ▪ Single-family home residents ▪ Mobile home park residents ▪ Various industrial and commercial business workers | <ul style="list-style-type: none"> ▪ Moderate |



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 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).
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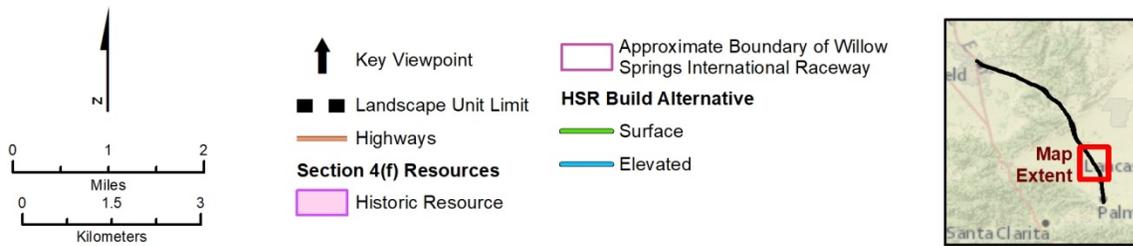


Figure 3.16-12 Visual Resources, Viewer Groups, and Key Viewpoints in the Rosamond Rural Landscape Unit

3.16.5.8 Lancaster-Palmdale Landscape Unit

The Lancaster-Palmdale Landscape Unit extends from Avenue H in Lancaster to the Palmdale Station in Palmdale. The northern subsection of the Lancaster-Palmdale Landscape Unit begins at the northern city limit of Lancaster and ends at Avenue O in northern Palmdale. The southern subsection of the landscape unit from Avenue O to the Palmdale Station overlaps with the Palmdale to Burbank Project Section. The Lancaster-Palmdale Landscape Unit closely parallels the existing UPRR rail line and adjacent Sierra Highway, a four-lane boulevard and major north-south transportation corridor through the city, respectively. The UPRR/Sierra Highway corridor is the primary visual setting where viewers would see the B-P Build Alternatives. This corridor encompasses the original historic, rail-oriented, north-south transportation spine through the towns of the Antelope Valley. Figure 3.16-10 shows an overview of the entire landscape unit and Table 3.16-9 summarizes the key visual components and affected populations in the landscape unit. The following subsections describe the character of the northern and southern subsections of this landscape unit.

Table 3.16-9 Key Visual Components and Affected Populations in the Lancaster-Palmdale Landscape Unit

| Visual Resources and Character | | | Affected Population | Visual Quality |
|---|---|---|--|---|
| Natural Environment | Cultural Environment | Project Environment | | |
| <ul style="list-style-type: none"> ▪ Level terrain ▪ No water, but background views of snow-topped mountains ▪ Mixed urban and desert vegetation | <ul style="list-style-type: none"> ▪ Industrial and commercial uses along UPRR corridor ▪ Typical suburban residential structures ▪ Historic resources: Lancaster Post Office, Western Hotel/Museum, and Denny’s Restaurant #30 (Village Grille diner) ▪ Parks: Whit Carter Park, Jane Reynolds Park/Webber Pool, American Heroes Park, Desert Sands Park, Dr. Robert C. St. Clair Parkway; Hammack Activity Center; Poncitlán Square; Legacy Commons | <ul style="list-style-type: none"> ▪ Alternatives 1, 2, and 3 in the existing UPRR transportation corridor ▪ Alternative 5 in the existing Sierra Highway transportation corridor | <ul style="list-style-type: none"> ▪ People inhabiting residences, and visitors to parks and historic resources within 0.25 mile ▪ Motorists on nearby streets ▪ Sierra Highway bike path users | <ul style="list-style-type: none"> ▪ Moderately low to moderately high |

UPRR = Union Pacific Railroad

Northern Subsection

The northern subsection is primarily in Lancaster, a suburban city with a population of over 150,000. Highly heterogeneous light industrial and commercial strip development, including auto dealerships, auto repair, and other uses, adjoin the UPRR corridor to the east. The Sierra Highway corridor in both Lancaster and northern Palmdale is characterized by dense, nearly continuous landscaping on the east side of the roadway, which effectively screens much of the railroad corridor. Overall, visual quality varies throughout the northern subsection from moderately low to moderately high. Several blocks of Lancaster’s downtown area have been improved with a redesigned streetscape that includes decorative paving, decorative lighting, extensive tree planting, and landscaping in sidewalks and a central median. These

improvements, along with pedestrian-friendly commercial retail storefronts on Lancaster Boulevard, result in a moderately high visual quality.

The historic downtown area of Lancaster is generally bounded by Kettering Street on the north, the UPRR corridor on the east, Milling Street and Newgrove Street on the south, and 10th Street on the west. Lancaster Boulevard bisects the downtown area and includes public facilities, museums, and retail and commercial businesses that range in height from one to three stories. Two historic resources are located in the downtown area on Lancaster Boulevard: the Western Hotel/Museum (537 Lancaster Boulevard), a California Historical Landmark (#658) that may be eligible for listing under the NRHP, and the Lancaster Post Office (567 Lancaster Boulevard), which is eligible for listing under the NRHP. The Western Hotel/Museum was constructed in the late nineteenth century and is a Victorian-style, two-story, yellow wood frame building with blue trim and fenced balconies on the second floor. The Lancaster Post Office building, located next door to the Western Hotel/Museum, was constructed in 1941 with New Deal funds and is a one-story, gray, utilitarian, concrete building. Another historic resource in this landscape unit is the Village Grille diner on Sierra Highway south of Avenue J in Lancaster. This building, constructed in 1960, was number 30 of the first 400 Denny's restaurants and is potentially eligible for listing on the NRHP. It is characterized by its pink plaster exterior, brown roof, and thick blue trim, as well as distinct, large signage.

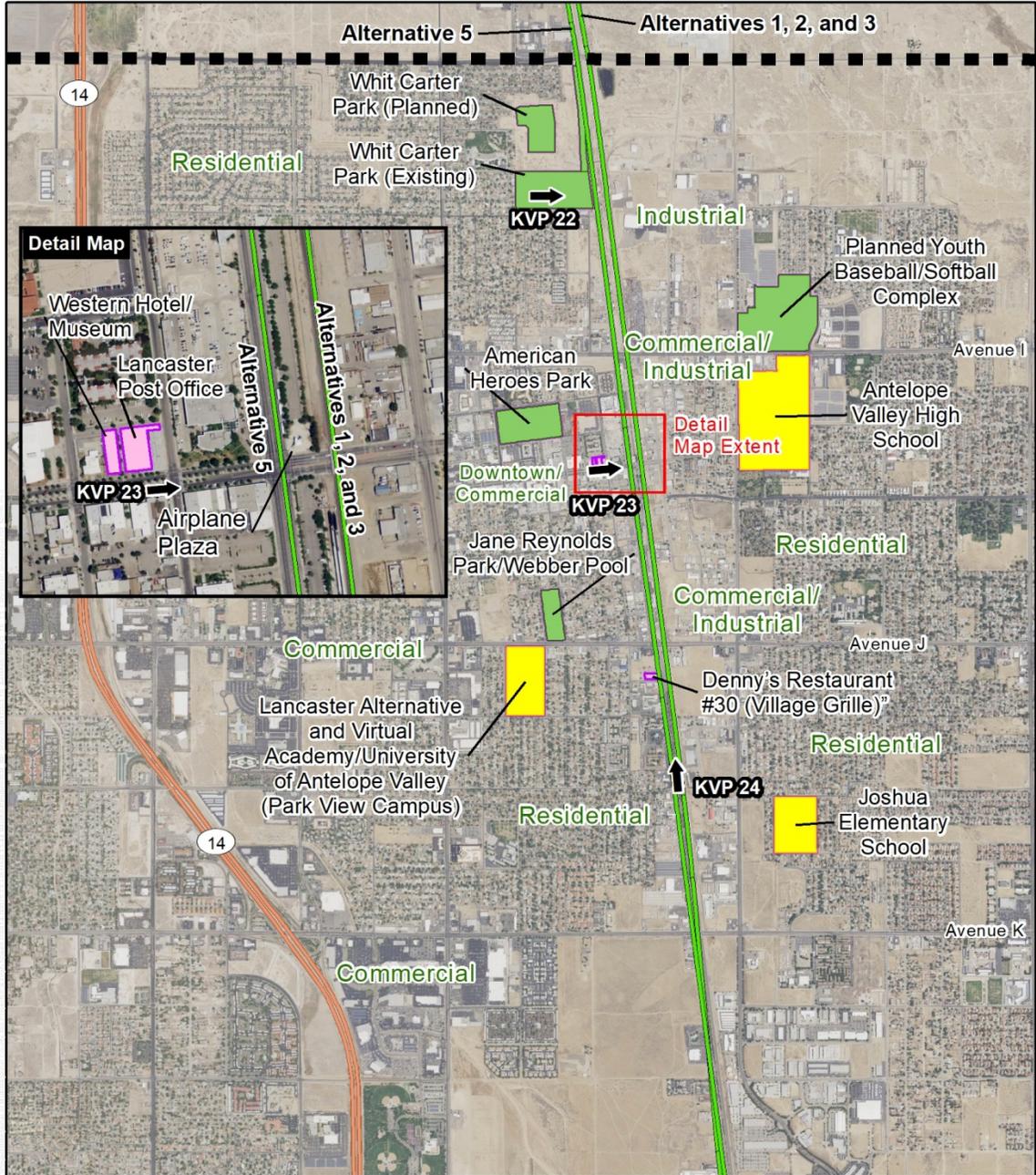
The Lancaster General Plan (City of Lancaster 2009a) identifies several major visual resources, including local views of the surrounding buttes and Quartz Hill, and long-distance panoramas of the San Gabriel Mountains to the south and desert expanses. According to the General Plan, local residents have identified that maintaining views of the mountains and the desert are important for defining community identity (City of Lancaster 2009a). The Lancaster General Plan Master Environmental Assessment (City of Lancaster 2009b) also identifies local roadways that could serve as scenic routes. Except for SR 14/Antelope Valley Freeway, these roadways are not in the RSA for the B-P Build Alternatives. The project environment is not visible from the SR 14/Antelope Valley Freeway inside the Lancaster city limits due to intervening development and the distance from the alignments (over 1 mile).

Avenue M forms the boundary between the Cities of Lancaster and Palmdale. In Palmdale, the northern subsection includes the UPRR corridor and Sierra Highway for approximately 2 miles to Avenue O. The landform in this area is generally flat and undeveloped. Palmdale Regional Airport is located east of the landscape unit in this area. West of the alignments is undeveloped land characterized by desert vegetation, including abundant Joshua tree woodland. The City of Palmdale's Joshua Tree and Native Desert Vegetation Preservation Ordinance aims to protect "the unique natural desert aesthetics" of this vegetation, particularly Joshua trees.

Ridges of the Sierra Pelona Mountains are visible in views to the southwest. This portion of the landscape unit has a degree of natural harmony but is interrupted by scattered urban development, including the large Lockheed plant to the southeast. The Palmdale General Plan includes a goal to protect scenic viewsheds of the San Gabriel, Sierra Pelona, Ritter, and Portal ridges. These ridges are all south of the city and are visible to southbound Sierra Highway motorists (City of Palmdale 1993).

Visitors to public parks are a viewer group in the northern subsection. KVP 22 represents key views from Whit Carter Park, a new 27-acre city park and Section 4(f) recreational resource. The park includes playgrounds, trails, and other community facilities. The eastern border of the park fronts Sierra Highway. Other Section 4(f) resources in this landscape unit include Jane Reynolds Park/Webber Pool, located at 716 Oldfield Street, and American Heroes Park, located at 701 W Kettering Avenue. A youth baseball/softball complex has also been proposed at the northeast corner of Avenue I/Division Street.

Besides the predominant and nonsensitive strip-commercial development along Sierra Highway, a substantial amount of residential and other potentially high-visual-sensitivity uses occur immediately adjacent to or within 0.25 mile of the B-P Build Alternatives, particularly to the west, as indicated by the delineation of land use types on Figure 3.16-13. Nearby residential areas typically indicate potentially sensitive viewer groups.



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 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).
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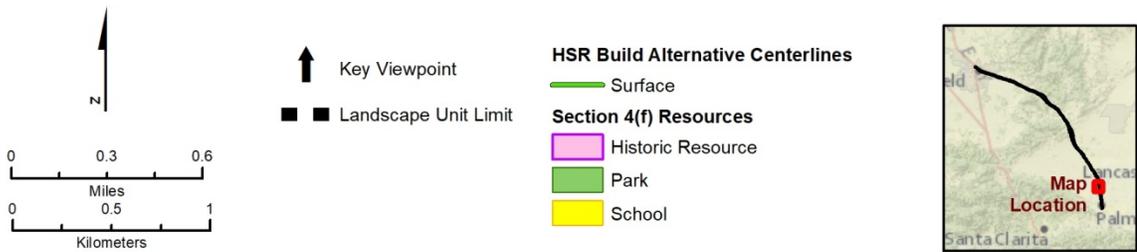
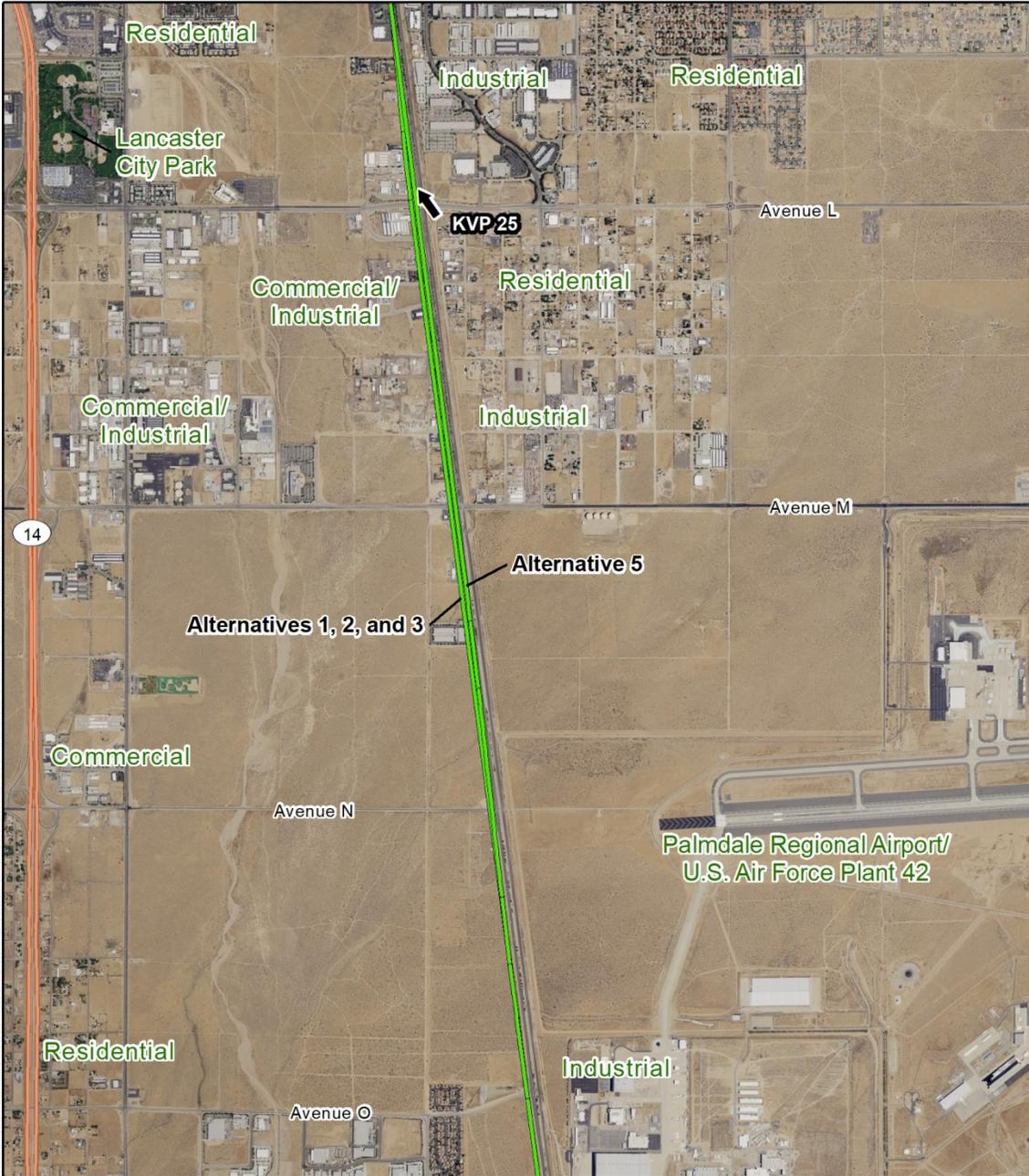


Figure 3.16-13 Visual Resources, Viewer Groups, and Key Viewpoints in the Lancaster-Palmdale Landscape Unit—Northern Subsection
 (Sheet 1 of 2)



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 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (8/2018).
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Figure 3.16-13 Visual Resources, Viewer Groups, and Key Viewpoints in the Lancaster-Palmdale Landscape Unit—Northern Subsection
 (Sheet 2 of 2)

Other potentially sensitive viewpoints within the 0.25-mile distance zone include redeveloped portions of the city's historic, central old town on Lancaster Boulevard; two public parks; pockets of nearby residential development; and the University of Antelope Valley. KVP 23 represents views from the old town area and Lancaster Boulevard. It is assumed that viewers in downtown Lancaster prefer a built environment with a higher level of cultural order associated with an identifiable urban core. The University of Antelope Valley is a private college directly adjoining Sierra Highway between Avenues J and K. The campus consists of buildings and a parking lot and lacks extensive outdoor grounds.

The Sierra Highway Bike Path covers approximately 6 miles between Avenue J in Lancaster and Avenue P8/Technology Drive in Palmdale. The project environment is directly adjacent to the bike path. KVP 24 represents views from bike path users.

As stated previously, a substantial area of potentially sensitive residential use lies in the landscape unit in Lancaster. Most existing views are blocked or heavily filtered by intervening buildings and tree canopies. Nevertheless, prominent corridor views of the project environment are afforded down the east-west collector streets serving these neighborhoods. In some instances, views of the project environment from the nearest residences are without intervening filtering by other land uses. KVP 25 shows views from the Avenue L overpass of Sierra Highway and the UPRR tracks and represents views from east-west collector streets. Figure 3.16-13 shows viewer groups and the locations of KVPs in the landscape unit's northern subsection.

Southern Subsection

The southern subsection of the Lancaster-Palmdale Landscape Unit, from Avenue O to the Palmdale Station in Palmdale, has nearly level terrain and an urban/suburban character with intermittent low-density development and powerlines and overhead poles. In the northern part of the subsection, from approximately Avenue O to Avenue P, the land uses immediately adjacent to the HSR alignment are a mix of open space/undeveloped parcels, isolated pockets of industrial and commercial buildings, business parks, and transportation infrastructure, including the existing Metrolink tracks and Sierra Highway. Vacant parcels are vegetated with native scrub and/or drought-tolerant species. Undeveloped land with desert vegetation predominates to the west of the alignment north of Rancho Vista Boulevard. Figure 3.16-14 shows viewer groups and the locations of KVPs in the landscape unit's southern subsection.

South of Avenue P-8 and the Palmdale Metrolink station, the land uses become more urbanized with commercial and light industrial buildings, business parks, transportation infrastructure, residences, and parks. Several beige-colored civic uses (such as City Hall and the Palmdale Library) are located in this area. The Dr. Robert C. St. Clair Parkway, a linear tree-lined boulevard, parallels Sierra Highway and the railroad to the east between E Avenue Q and E Avenue Q12.

The southern subsection in Palmdale has limited natural harmony. Its continuity is disjointed due to the irregular mixture of developed and undeveloped parcels. Existing visual quality is low throughout the subsection. The mostly flat topography in Palmdale presents wide vistas and a sense of openness where the view is unobstructed by structures. As discussed above, southbound Sierra Highway motorists have views of scenic ridges. The Palmdale General Plan seeks to protect scenic views of the San Gabriel, Sierra Pelona, Ritter, and Portal ridges south of the city. In addition, SR 14 between E Palmdale Boulevard and E Avenue S is considered a Town and Country Scenic Drive by the County of Los Angeles (Los Angeles County 2015). This highway is located approximately 0.75 to 1 mile west of the HSR alignment in the southern subsection.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic (2019); Engineering Data from CHSRA (10/2019).
 October 28, 2019



Figure 3.16-14 Visual Resources, Viewer Groups, and Key Viewpoints in the Lancaster-Palmdale Landscape Unit—Southern Subsection

Desert Sands Park offers recreational views of the HSR alignment in Palmdale. Located southwest of E Avenue P-8 and Third Street E, this park is approximately 0.3 mile west of the alignment. The park is used for active recreation and has baseball, softball, and soccer fields. KVP 26 represents key views from Desert Sands Park. Other Section 4(f) parks and recreational resources in Palmdale include the Hammack Activity Center, Poncitlán Square, Legacy Commons, and Melville J. Courson Park.

Most existing residential views in Palmdale are blocked or heavily filtered by intervening buildings and tree canopies. Nevertheless, prominent corridor views of the project environment are down the east-west collector streets serving these neighborhoods. In some instances, views of the project alignment from the nearest residences are without intervening filtering by other land uses. KVP 27, located on E Avenue Q near its intersection with Fifth Street E in Palmdale, is representative of residential, motorist, pedestrian, and cyclist views. The viewpoint depicts a typical suburban residential landscape. KVP 28, located on E Avenue Q3 near its intersection with Fifth Street in Palmdale, is indicative of many areas in Palmdale where low- to medium-density residential land uses abut vacant lots.

Other viewer groups include motorists on Sierra Highway and surrounding roadways; Metrolink passengers; and employees and visitors of commercial, civic, and industrial buildings. KVP 29, located near the northwest corner of Avenue Q7 in Palmdale, is representative of views from industrial and commercial neighbors. KVP 30 at E Palmdale Boulevard (SR 138) and Sierra Highway is from the Palmdale Library and is representative of urban views available to motorists, as well as civic, institutional, and commercial neighbors; pedestrians; and cyclists in Palmdale. The majority of travelers are likely commuting. However, others may also be touring or shopping travelers.

3.16.6 Environmental Consequences

3.16.6.1 Overview

This section describes how the No Project Alternative and the B-P Build Alternatives, CCNM Design Option, Refined CCNM Design Option, and portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street could affect aesthetics and visual quality.

The No Project Alternative is discussed in Section 3.16.6.2. The impacts of the Bakersfield to Palmdale Project Section are described and organized in Section 3.16.6.3, B-P Build Alternatives, 3.16.6.4, Station Sites, 3.16.6.5, Maintenance Facilities, and 3.16.6.6, Electric Power Utility Improvements, as follows:

Construction Impacts

- Impact AVQ #1: Temporary Impacts Associated with Construction Staging, Equipment, Lighting, and Spoils
- Impact AVQ #2: Permanent Impacts Related to Designated Scenic Highway Corridors, New Sources of Substantial Light or Glare, and Indirect Aesthetic Changes
- Impact AVQ #3: Permanent Impacts Related to Construction of a Large High-Speed Rail Structure

Operations Impacts

- Impact AVQ #4: Permanent Impacts from Operation of High-Speed Rail Trains

Stations

- Impact AVQ #5: Permanent Impacts from Construction of High-Speed Rail Stations in Bakersfield and Palmdale

Maintenance Facilities

- Impact AVQ #6: Permanent Impacts from Construction of Maintenance Facilities

Electric Power Utility Improvements

- Impact AVQ #7: Permanent Impacts from Construction of Electric Power Utility Improvements

3.16.6.2 No Project Alternative

Under the No Project Alternative, the proposed project would not be constructed. Aesthetic and visual impacts associated with the proposed project would not occur for residents in cities and rural areas or on scenic resources and views. If the HSR project is not built, development would still occur in the RSA, including the reasonably foreseeable future projects described under the cumulative impacts discussion in Section 3.19 of this EIR/EIS. It would involve changes unrelated to the proposed project, including new or improved roadways and future residential or commercial development that could affect aesthetics and visual resources in their own right. For example, widening of transportation corridors would not necessarily degrade the visual quality of the area, but the indirect effects that could occur from making adjacent lands freeway-oriented and growing commercial development and increasing billboard-type signage (to the extent permitted by local agencies) alongside these corridors could result in the incremental degradation of views of the existing agricultural landscape. As future residential, commercial, and industrial development would result in conversion of rural agricultural settings to urbanized ones, there would be a corresponding alteration in visual quality. The significance of this alteration would vary depending on specific location. Collectively, these changes would substantially degrade visual quality from moderate to moderately low or low in areas of generally moderate visual quality but with high-sensitivity viewers. Therefore, in the context of the affected landscape units, the incremental changes under the No Project Alternative could be significant under CEQA, although any future development projects would undergo their own environmental review pursuant to CEQA, including the identification of mitigation measures for significant impacts.

3.16.6.3 Bakersfield to Palmdale Project Section Build Alternatives

This section evaluates potential impacts related to aesthetics and visual quality from the proposed B-P Build Alternatives, portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street, CCNM Design Option, and Refined CCNM Design Option based on the NEPA and CEQA impact criteria discussed in Section 3.16.4, Methods for Evaluating Impacts. Impacts are determined based on the extent to which the project may either benefit visual quality by enhancing visual resources or by creating better views of those resources and improving the experience of visual quality by viewers, or, conversely, have an adverse effect on visual quality by degrading visual resources or obstructing or altering desired views (FHWA 2015). Impacts are assessed after consideration of IAMFs but before consideration of the project mitigation measures, which are identified in Section 3.16.7.

Fresno to Bakersfield Locally Generated Alternative from the Intersection of 34th Street and L Street to Oswell Street

The aesthetics and visual quality impacts for the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street are addressed in Section 2.16 of the *Fresno to Bakersfield Project Section Draft Supplemental EIR/EIS* (Authority and FRA 2017) as well as in the *Fresno to Bakersfield Project Section Final Supplemental EIR* (Authority 2018) and the *Fresno to Bakersfield Project Section Final Supplemental EIS* (Authority 2019). However, the analysis below also reflects this portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street in Bakersfield and incorporates relevant analysis from the Supplemental EIR and EIS.

Construction Impacts

Impact AVQ #1: Temporary Impacts Associated with Construction Staging, Equipment, Lighting, and Spoils

Construction activities (e.g., staging, equipment, lighting, and spoils) for the Bakersfield to Palmdale Project Section would introduce new temporary visual elements that could conflict with the existing natural and cultural environments. Construction for the Bakersfield to Palmdale

Project Section would involve the temporary use of six types of facilities in various locations—large construction staging areas, pre-cast operations yards, smaller construction laydown areas, rock crushing areas, rail storage and welding areas, and soil stockpiling areas. These sites would include activities that could contribute to the degree of the impact, such as the movement of materials by trucks to and from construction sites; the disposal of spoils from tunnel boring and grading; and clearing, demolition, grading, and construction of the HSR guideway.

Construction staging areas would store incoming materials; provide areas for material preparation, storage of equipment, maintenance of equipment, operations preparation, and construction offices; and allow good housekeeping throughout the alignment. Five staging areas are proposed, all in the East Bakersfield and Edison/Rural Valley Landscape Units. Staging areas could introduce visual changes to their immediate surroundings, with unsightly, visually chaotic aggregations of stored material and equipment. However, the proposed staging areas would generally be surrounded by agricultural or industrial lands, away from high-sensitivity viewer groups. The staging area at E Brundage Lane would be as close as 0.17 mile south of residences to the north of Edison Highway, and would be partially visible via southward views from these residences across cultivated farmland and beneath the HSR viaduct while it is under construction. However, this staging area would be outside of the immediate foreground (0 to 500 feet) of existing residential, recreational, or other high-sensitivity viewers. Therefore, it would not substantially degrade visual quality for high-sensitivity viewers.

Pre-cast operations yards, including concrete batch plants, would be introduced during construction in the project right-of-way in two locations where extended lengths of pre-cast viaducts would be built. One location is at the interface of urban development and agricultural land between E Brundage Lane and Edison Highway in the East Bakersfield Landscape Unit. The second location is in an agricultural area at Steuber Road, Turf Street, and Abajo Avenue in the Tehachapi Valley Landscape Unit. While the pre-cast operations yard near the City of Tehachapi would not be near any high-sensitivity viewers, the facility in the East Bakersfield Landscape Unit would be in foreground views of residences at the construction staging area at E Brundage Lane. However, as discussed above, this construction facility would be located outside of the immediate foreground (0 to 500 feet) of existing residential, recreational, or other high-sensitivity viewers. Therefore, it would not substantially degrade visual quality for high-sensitivity viewers.

Construction laydown areas used to store construction materials and equipment would be located throughout the length of the right-of-way. Nineteen construction laydown areas ranging in size from 0.6 to 6 acres are proposed between Vineland Road in the East Bakersfield and Edison/Rural Valley Landscape Units and E Avenue M and Sierra Highway in the Lancaster-Palmdale Landscape Unit. While most laydown areas would be established in rural areas away from sensitive viewers, some would be located near residential neighborhoods. For example, the proposed 1.3-acre laydown area at the south corner of E Avenue I and Elm Avenue in Lancaster would be adjacent to apartments to the west and single-family residences to the south. In addition, the proposed 1.4-acre laydown area at Seventh Street W in Lancaster would be located across W Avenue H from residences to the south, although an existing concrete sound wall and mature trees would largely obstruct views of the laydown area. Highly visible construction activities near sensitive viewers would temporarily cause substantial adverse changes to visual quality. In addition, lighting of temporary structures (e.g., trailers, fencing, and parking) and for nighttime construction could spill over to off-site areas, resulting in substantial disturbances to nearby residents and motorists. In urbanized areas like Lancaster, construction laydown areas could conflict with applicable zoning or other regulations governing scenic quality. For example, Policy 19.2.4 in the City of Lancaster General Plan 2030 is to “provide buffers to soften the interface between conflicting land uses and intensities.” As discussed in Appendix 2-H, mitigation measures to provide visual buffers between the HSR footprint and adjacent land uses would ensure consistency with this policy.

To address potential construction impacts associated with laydown areas and lighting, Mitigation Measures AVQ-MM#1 and AVQ-MM#2 are required, as described in Section 3.16.7. Mitigation Measure AVQ-MM#1 would require that construction laydown areas in the immediate foreground distance of residences be screened from viewers using solid materials. This measure would

substantially reduce visual disturbance from laydown areas. Mitigation Measure AVQ-MM#2 requires that nighttime construction lighting be shielded and directed downward in such a manner as to minimize the light that falls outside the construction site boundaries. Therefore, these measures would reduce visual impacts associated with construction laydown areas located near sensitive viewers. In urbanized areas, implementation of these measures would avoid conflicts with applicable zoning or other regulations governing scenic quality. Three rock crushing areas would be required during HSR construction. They are proposed to be located at a rural agricultural area in the Edison/Rural Valley Landscape Unit bounded by Edison Highway, Neumarkel Road, and Towerline Road; an agricultural area near the City of Tehachapi bounded by Steuber Road, Turf Street, and Abajo Avenue; and a rural, vacant site north of Lancaster at W Avenue B and 30th Street W. The rock crushing area in Tehachapi would be located approximately 0.25 mile east of a single-family residential neighborhood, in the foreground distance of viewers in the Tehachapi Valley Landscape Unit. However, an existing concrete wall bordering the east side of the neighborhood would partially obstruct views of rock crushing activities. Furthermore, the rock-crushing site would be located outside the immediate foreground distance (0 to 500 feet) of residences. Therefore, temporary rock crushing activities near sensitive viewers would not cause adverse changes to visual quality.

Five proposed rail storage and welding areas would be located in rural areas of the Tehachapi Mountains and the Rosamond Rural Landscape Unit. Because these sites are located away from high-sensitivity residential or recreational viewers, temporary rail storage, and welding activity would not adversely affect visual quality.

Soil movement during construction, such as grading, excavation, and import or export by truck, could cause the release of dust, which could impair visibility. However, adherence during construction to dust emissions control requirements in the project's IAMFs would reduce potential visibility effects. AQ-IAMF#1 (Fugitive Dust Emissions) requires the preparation of a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas.

Because of the need to stockpile large quantities of spoils from tunnel boring and grading, construction effects in the Tehachapi Mountains could potentially be adverse. The large spoil mounds may disrupt the existing natural harmony of the intact mountainous landscape, which has a high level of visual quality. Under the B-P Build Alternatives, with the exception of the Refined CCNM Design Option, potential spoils sites are located over 0.5 mile north of SR 58 in the Tehachapi Mountains West Landscape Unit near where the alignments cross the Caliente Creek floodplain. The only viewers in this area are SR 58 motorists. However, because of the distance from SR 58 to the potential spoils sites and the intervening mountainous topography, the disposal mounds would not be visible from SR 58. Therefore, the presence of spoils disposal mounds associated with the B-P Build Alternatives and CCNM Design Option would not degrade visual quality for any high-sensitivity viewers.

However, as described in Section 2.4.2.6, Refined CCNM Design Option, in Chapter 2, Alternatives, of this EIR/EIS, under the Refined CCNM Design Option, tunneling activity in the Tehachapi Mountains would require the temporary storage of an estimated 2 to 14 million cubic yards of removed earthwork at a site immediately to the north of SR 58 and west of Bealville Road, depending on which B-P Build Alternative is selected. This site includes intact oak woodland on rolling hills and has a high level of visual quality. Despite the rural nature of the area, the stockpiling of earthwork could occur within the immediate foreground distance (0 to 500 feet) of isolated rural residences with high viewer sensitivity along Bealville Road. Stockpiled material also could be located in the immediate foreground distance of motorists on SR 58. This highway is not designated as scenic near the potential stockpiling site, but motorists on the highway do have largely undisturbed, panoramic, scenic views of natural vegetation and landforms in the Tehachapi Mountains. Overall, viewer awareness is moderate. Motorists' views would be affected for approximately 1.2 miles of SR 58's passage through the Tehachapi Mountains. While the stockpiles are present, the viewer exposure of SR 58 motorists to the stockpiling site with piles up to 15 feet high would be moderate as the site would be adjacent to the north side of SR 58 but the duration of exposure is relatively short. Therefore, because viewer

awareness and viewer exposure would be moderate, motorists would have moderate viewer sensitivity to the stockpiling site. Nonetheless, sensitivity for the rural residences along Bealville Road would be high.

Large spoil mounds may disrupt the existing natural harmony of the oak woodland landscape. At the stockpiling site adjacent to SR 58, this could degrade the existing high level of visual quality for viewers with moderate and high sensitivity. To address potential impacts associated with the stockpiling site, Mitigation Measures AVQ-MM#1 and AVQ-MM#2 (as described in Section 3.16.7) would be required. These measures would involve the use of solid materials to screen the stockpiling site from the view of residences and motorists in the immediate foreground distance, and the minimization of nighttime construction lighting. In addition to these measures, stockpiling activities would be either temporary in nature and limited to the course of construction activity or until the stockpiled soils are used or revegetated to match the natural landscape. These factors, combined with the implementation of Mitigation Measures AVQ-MM#1 and AVQ-MM#2, would minimize adverse visual effects from stockpiling activities. Therefore, the stockpiling site would not have a substantial adverse visual effect on viewers.

Construction of the HSR guideway throughout the Bakersfield to Palmdale Project Section would involve visual disruption from clearing of existing vegetation; demolition of buildings and other structures; grading activity; and construction and assembly of at-grade, embankment fill, retained fill, elevated viaduct, and tunnel segments. Where guideway construction occurs in the foreground distance of residential, recreational, or other high-sensitivity viewers, it may result in temporary but adverse changes to visual quality. Mitigation Measure AVQ-MM#1 is required, as described in Section 3.16.7, to reduce temporary visual disturbance associated with construction of the HSR guideway. This measure involves minimizing pre-construction clearing, limiting the demolition of buildings to those that would obstruct project components, and preserving existing vegetation along the end of construction areas that would help screen views. Implementation of this measure would minimize visual disruption and changes to visual quality from vegetation clearing, demolition, and construction activity.

CEQA Conclusion

Highly visible construction activities near public viewpoints and soil stockpiling activities in non-urbanized areas would temporarily degrade the visual quality of the site and its surroundings and introduce new temporary sources of light and glare, which could result in a significant impact under CEQA. Further, construction activities in urbanized areas would also temporarily degrade visual quality near residences and introduce new temporary sources of light and glare, which could conflict with applicable zoning or other regulations governing scenic quality, resulting in a significant impact under CEQA. Mitigation Measures AVQ-MM#1 and AVQ-MM#2, as described in Section 3.16.7, would be required to mitigate this impact. With implementation of Mitigation Measure AVQ-MM#1, construction laydown and soil stockpiling areas would be screened and vegetation removal would be minimized. With implementation of Mitigation Measure AVQ-MM#2, nighttime construction lighting would be shielded and directed away from sensitive viewers. These measures would therefore minimize the visual change of construction areas and reduce lighting impacts to nearby light-sensitive receptors, avoiding a substantial degradation of visual quality in non-urbanized areas or conflicts with applicable zoning or other regulations governing scenic quality in urbanized areas. With implementation of Mitigation Measures AVQ-MM#1 and AVQ-MM#2, these impacts would be less than significant under CEQA.

Impact AVQ #2: Permanent Impacts Related to Designated Scenic Highway Corridors, New Sources of Substantial Light or Glare, and Indirect Aesthetic Changes

Because no officially designated state scenic highways exist near the B-P Build Alternatives or other Bakersfield to Palmdale Project Section HSR project components, no impacts on such scenic corridors would occur, and they are not discussed further. Similarly, because no overhead lights on the HSR guideway are proposed and headlights from passing trains would be fleeting from any one vantage point and directed toward the tracks, impacts related to new light and glare sources (such as general illumination and flashing warning lights) are not discussed further.

The HSR system, however, is expected to support local government planning goals to encourage transit-oriented development around stations and therefore would influence development trends around the HSR stations. This could lead to indirect impacts on the existing visual character and quality of the areas surrounding the stations. The area surrounding the Palmdale Station is already largely developed with residential, industrial, and other uses. The HSR station would be expected to have beneficial indirect effects on visual quality by increasing the potential for new development and redevelopment in nearby areas, similar to what would occur for the Bakersfield F Street Station. This would likely influence development patterns near the station and could result in new project and urban design improvements that would upgrade the visual character and quality of these areas over time. In addition, any future development would be subject to review by the local jurisdiction and would be expected to comply with local regulations and policies regarding aesthetics and visual quality. Therefore, although the HSR project is expected to influence development trends surrounding HSR stations, it would not cause significant aesthetic impacts.

CEQA Conclusion

Construction of permanent HSR structures would not impact designated scenic highway corridors, create new permanent sources of light or glare, or create permanent indirect aesthetic impacts. Impacts would be less than significant under CEQA. Therefore, CEQA does not require mitigation.

Impact AVQ #3: Permanent Impacts Related to Construction of a Large High-Speed Rail Structure

Table 3.16-10 provides impact summaries at each landscape unit's KVP, including effects that the HSR project would have on the existing visual quality rating for each KVP. It also offers separate determinations of these impacts on aesthetics and visual quality according to CEQA criteria. This table also compares the relative changes that each B-P Build Alternative, CCNM Design Option, or Refined CCNM Design Option would bring about for each landscape unit.

Table 3.16-10 Summary of Visual Quality Changes and Impacts at Key Viewpoints

| KVP # and Location | Visual Quality Rating—Existing | Visual Quality Rating—with Project | Viewer Sensitivity | CEQA Impact Determination |
|--|--------------------------------|--|--------------------|---|
| East Bakersfield Landscape Unit | | | | |
| KVP 1: Sterling Road, looking south | Moderate | Moderately low | High | Significant but mitigable |
| KVP 2: SR 148/Morning Drive, looking south | Low | Low | High | Less than significant |
| Edison/Rural Valley Landscape Unit | | | | |
| KVP 3: School Street, looking southwest | Moderately low | Alternatives 1, 3, and 5: Moderately low Alternative 2: Low | Moderately high | Alternatives 1, 3, and 5: Less than significant Alternative 2: Significant and unavoidable |
| KVP 4: Jacober Avenue, looking south | Moderate | Alternatives 1, 3, and 5: Moderately low Alternative 2: Low | High | Significant and unavoidable |
| KVP 5: SR 58, looking east-southeast | High | High | Moderate | Less than significant |

| KVP # and Location | Visual Quality Rating—Existing | Visual Quality Rating—with Project | Viewer Sensitivity | CEQA Impact Determination |
|---|--------------------------------|------------------------------------|--------------------|--|
| Tehachapi Mountains West Landscape Unit | | | | |
| KVP 6: Bena Road, looking north | High | High | Low | Less than significant |
| KVP 7: SR 58 west of SR 223, looking east-northeast | High | High | Low | Less than significant |
| KVP 8: Bakersfield National Cemetery, looking north | High | High | Low | Less than significant |
| KVP 9: SR 58 east of Bealville Road, looking northwest | High | Moderate | Moderately high | Significant but mitigable |
| KVP 10: Hart Flat Road, looking east | High | High | Low | Less than significant |
| KVP 11a: CCNM—Villa La Paz Conference Center, looking north | High | Moderately high | High | Significant and unavoidable; CCNM Design Option and Refined CCNM Design Option: Less than significant |
| KVP 11b: CCNM—Villa La Paz Conference Center, looking northeast | High | Moderate | High | Significant and unavoidable; Refined CCNM Design Option: Less than significant |
| KVP 11c: CCNM—Memorial Gardens, looking north | High | High | Low | Less than significant |
| KVP 11d: CCNM—Peace Rocks, looking northeast | High | Moderately High | High | Significant and unavoidable; Refined CCNM Design Option: Less than significant |
| KVP 11e: CCNM—Road to Villa la Paz, looking north | Moderately High | Moderate | High | Significant and unavoidable; Refined CCNM Design Option: Less than significant |
| KVP 12: SR 58 near Broome Road, looking southeast | Moderately high | Moderately low | Moderate | Significant but mitigable Refined CCNM Design Option: Less than significant |
| KVP 13: Tehachapi Loop | Moderately high | Moderately high | Low | Less than significant |

| KVP # and Location | Visual Quality Rating—Existing | Visual Quality Rating—with Project | Viewer Sensitivity | CEQA Impact Determination |
|--|--------------------------------|------------------------------------|--------------------|-----------------------------|
| Tehachapi Valley Landscape Unit | | | | |
| KVP 14: Mill Street overpass, looking north-northeast | Moderate | Moderate | High | Less than significant |
| KVP 15: SR 58, looking southeast | Moderate | Moderate | Moderate | Less than significant |
| KVP 16: Arabian Drive, looking south-southwest | Moderate | Low | High | Significant and unavoidable |
| KVP 17: Dennison Road looking east-northeast | Moderately high | Moderately high | Low | Less than significant |
| Tehachapi Mountains East Landscape Unit | | | | |
| KVP 18a: Pacific Crest Trail, looking west | Moderate | Moderately low | High | Significant and unavoidable |
| KVP 18b: Pacific Crest Trail, looking southwest | Moderate | Moderately low | High | Significant and unavoidable |
| West Mojave Landscape Unit | | | | |
| KVP 19: Rosamond Boulevard, looking west-northwest | Moderately high | Moderately high | Moderately high | Less than significant |
| Rosamond Rural Landscape Unit | | | | |
| KVP 20: Gobi Avenue, looking west | Moderate | Moderately low | High | Significant and unavoidable |
| KVP 21: 40th Street at Holiday Avenue, looking southwest | Moderate | Moderate | Low | Less than significant |
| Lancaster-Palmdale Landscape Unit | | | | |
| KVP 22: Whit Carter Park, looking east | Moderate | Moderate | Moderate | Less than significant |
| KVP 23: Lancaster Avenue, looking east | Moderately high | Moderately high | Moderate | Less than significant |
| KVP 24: Sierra Highway Bike Path, looking north | Moderately low | Moderately low | Moderately high | Less than significant |
| KVP 25: Avenue L Overpass, looking northwest | Moderately low | Moderately low | Low | Less than significant |
| KVP 26: Desert Sands Park, looking east | Low | Low | Moderate | Less than significant |
| KVP 27: E Avenue Q, looking northeast | Low | Moderately low | High | Less than significant |
| KVP 28: E Avenue Q3, looking northeast | Low | Moderately low | High | Less than significant |

| KVP # and Location | Visual Quality Rating—Existing | Visual Quality Rating—with Project | Viewer Sensitivity | CEQA Impact Determination |
|--|--------------------------------|------------------------------------|--------------------|---------------------------|
| KVP 29: Avenue Q7, looking west | Low | Low | Low | Less than significant |
| KVP 30: E Palmdale Boulevard, looking west | Low | Low | Low | Less than significant |

Impact determinations and ratings are the same for each B-P Build Alternative unless otherwise specified. In the Tehachapi Mountains East Landscape Unit, Alternative 3 has a different alignment than Alternatives 1, 2, and 5, but the B-P Build Alternatives all have the same impact determinations. Similarly, in the Lancaster-Palmdale Landscape Unit, Alternative 5 has a different alignment but the same impact determinations as Alternatives 1, 2, and 3. The CCNM Design Option only varies from the B-P Build Alternatives in the vicinity of La Paz. The Refined CCNM Design option only varies from the B-P Build Alternatives in the vicinity of La Paz and Golden Hills.

CEQA = California Environmental Quality Act

CCNM = César E. Chávez National Monument

KVP = key viewpoint

La Paz = Nuestra Señora Reina de La Paz/César E. Chávez National Monument

SR = State Route

The following discussion explains the overall changes (or lack of change) in visual quality rating for each B-P Build Alternative, the CCNM Design Option, and the Refined CCNM Design Option by landscape unit.

Alternative 1

The following discussion analyzes the potential impacts on aesthetics and visual quality under Alternative 1. The discussion is organized by landscape unit, as described in Section 3.16.5.

East Bakersfield Landscape Unit

A substantial number of residences occur in the foreground of the alignment to the north and south of the UPRR right-of-way in this segment. As discussed in Section 3.16.5.1, potentially sensitive viewer groups in this landscape unit include the residential viewers within approximately 0.5 mile of the elevated alignment. For the purposes of CEQA, this landscape unit is considered urbanized.

Fresno to Bakersfield Locally Generated Alternative from the Intersection of 34th Street and L Street to Oswell Street

Between Kern River and Union Avenue, expansive surface parking lots and generic commercial and governmental architecture predominate. Highway-oriented billboards also line SR 204, a four- to six-lane divided highway in this area. Visual quality ranges from low to moderately low. However, the Chester Avenue corridor to the north of SR 204 has a moderate level of visual quality, due to the distinctive Beaux Arts and Mission Revival styles of the historic Kern County Museum building and Beale Memorial Clock Tower. Between Union Avenue and Oswell Street, the most prominent visual elements are industrial facilities and multiple bridges crossing over Sumner Street and Edison Highway. Visual quality is low in this area. Sensitive viewers between the intersection of 34th Street and L Street to Oswell Street include nearby residents, motorists traveling on Sumner Street, students and staff at Valley Oaks Charter School, and visitors to the Mercado Latino Tianguis, a Latino retail and cultural center at Edison Highway and Chamberlain Avenue.

According to the methodology used in the *Fresno to Bakersfield Section Final Supplemental EIR* (Authority 2018), as described in Section 3.16.4.5, the proposed HSR viaduct would alter the existing visual setting by intruding on the adjacent Valley Oaks Charter School, significantly degrading visual quality. Near Chester Avenue, however, the greater distance between HSR facilities and existing historic structures would result in a less than significant impact on visual quality. The HSR viaduct would include overhead straddle bents that loom over the commercial retail segment of Sumner Street near Baker Street, resulting in a significant impact on visual quality as perceived by motorists on Sumner Street. At the Mercado Latino Tianguis, the viaduct would be incompatible with the site’s visual character, but visitors would not be highly sensitive to visual change; therefore, the impact on visual quality would be less than significant. The viaduct

also would be visible from several residential neighborhoods but would not substantially degrade their visual quality relative to existing conditions.

At the Valley Oaks Charter School, Mitigation Measures AVR-MM#2a, AVR-MM#2b, and AVR-MM#2e through AVR-MM#2g would apply. These measures would include design criteria for elevated HSR guideways and stations (AVR-MM#2a), landscaping of areas disturbed by elevated guideways (AVR-MM#2b), off-site landscape screening after construction (AVR-MM#2e), landscape treatments along HSR overcrossings (AVR-MM#2f), and sound barrier treatments for visually sensitive areas (AVR-MM#2e). Mitigation Measures AVR-MM#2a, AVR-MM#2b, and AVR-MM#2g also would apply at the elevated HSR guideway on Sumner Street near Baker Street. Although implementation of these measures would reduce visual degradation to the extent feasible, impacts would remain significant and unavoidable at Valley Oaks Charter School and Sumner Street by Baker Street.

CEQA Conclusion

As concluded in the *Fresno to Bakersfield Section Final Supplemental EIR* (Authority 2018), Alternative 1 from the intersection of 34th Street and L Street to Oswell Street would result in a significant impact under CEQA because the project would substantially degrade the existing visual character and cause a substantial, incompatible change to the cultural environment from the perspective of sensitive motorists and school viewers. Mitigation Measures AVR-MM#2a, AVR-MM#2b, AVR-MM#2e, AVR-MM#2f, and AVR-MM#2g, as described in Section 3.16.7, are required. However, after mitigation, the impact would remain significant and unavoidable at Valley Oaks Charter School and Sumner Street by Baker Street under CEQA.

Key Viewpoint 1: View from Sterling Road Looking South

KVP 1 gives a typical viewpoint in the East Bakersfield's single-family residential areas north of Alternative 1. The viewpoint is from Sterling Road between Gardenia Avenue and Camilla Drive, at a distance of roughly 850 feet from the alignment, in a single-family residential neighborhood in an urbanized area. The single-family residences are roughly the same in terms of height and scale, contributing to a sense of cultural order, but the industrial areas and UPRR tracks south of the neighborhoods lack cultural order or natural harmony and reduce the visual quality of the area. Overall, visual quality in this area is moderate.

The upper image in Figure 3.16-15 shows the existing view from KVP 1 and the lower image shows a visual simulation of Alternative 1 from KVP 1. The guideway in this area would be on an elevated double-track configuration approximately 65 feet high. The overhead contact system (OCS) structure would extend nearly 24 feet above the track. As illustrated in the simulation, the guideway would appear prominently in the immediate foreground of nearby residences and would be visible above the rooftops of nearby homes. The simulation also shows that existing mature tree canopies would filter or screen views of the guideway in some locations.

The construction of this large HSR structure would introduce a prominent permanent visual element to the existing cultural environment. The HSR guideway would be similar in form and materials to the visual elements of the existing railroad, highway, and adjacent commercial and industrial buildings. The aerial structure would be out of scale with the existing one-story residential and commercial development, and the project scale would contrast with the existing cultural environment. Therefore, the project's overall visual character would be incompatible with the visual character of the existing cultural environment.

Viewer groups in this area include residents in surrounding homes and workers at the industrial and commercial areas adjacent to the alignment. Residential viewers would generally have high awareness and concern for their visual environment, but viewer exposure would vary depending on the location of the residence. For residential viewers south of the alignment, even though the alignments would be elevated, viewer exposure would be limited due to filtering from intervening industrial land uses and other foreground structures. For residential viewers north of the alignment, visibility would vary depending on location and the presence of intervening structures and mature trees. For residences on the edge of the neighborhoods, open views of the alignment would be available and exposure would be high. Overall, viewer sensitivity would be high for the

residences on the edge of the neighborhoods closest to the alignment and moderate for residential viewers farther away.

For industrial and commercial viewers, exposure would be high as they would be close to the elevated structure for a longer duration. However, this analysis assumes that viewers at their places of work generally have low levels of awareness because visual quality is not an essential component of their jobs. Therefore, overall viewer sensitivity for industrial and commercial workers is low.

At this location and throughout this landscape unit, Alternative 1 would skirt and not bisect residential neighborhoods. In addition, the alignment would not affect any valued cultural resources or views. Therefore, Alternative 1 would not disrupt the physical form of the community. Nonetheless, the HSR structure would be out of character with the cultural environment and would permanently degrade visual quality from moderate to moderately low. The project would cause an incompatible change to the cultural environment from the perspective of sensitive residential viewers. Mitigation Measures AVQ-MM#3 and AVQ-MM#4 are required (Section 3.16.7) to reduce the contrasting scale of the project with the cultural environment and reduce impacts on visual quality. Mitigation Measure AVQ-MM#3 would incorporate local design and aesthetic preferences into the design of the structure and Mitigation Measure AVQ-MM#4 would provide vegetative screening along the viaduct. With implementation of these mitigation measures, the contrast between the viaduct and the existing cultural environment would be minimized, consistent with policies in the Kern County General Plan's Land Use, Open Space, and Conservation Element to protect the visual quality of residential views through the use of screening, landscaping, and buffering. As discussed in Table 2-H-21 in Appendix 2-H, the HSR project would be consistent with these policies with the inclusion of design features and mitigation measures to minimize negative aesthetic impacts from long-lasting infrastructure.



Figure 3.16-15 Key Viewpoint 1: Existing and Simulated Views of Alternative 1 Looking South from Sterling Road

CEQA Conclusion

At KVP 1, Alternative 1 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality after incorporating Mitigation Measure AVQ-MM#3 to include local design and aesthetic preferences in the design of the structure and AVQ-MM#4 to provide vegetative screening along the viaduct. Mitigation Measure AVQ-MM#3 would incorporate local design and aesthetic preferences into the design of the structure, and Mitigation Measure AVQ-MM#4 would provide vegetative screening along the viaduct. These would reduce the change in visual quality associated with the viaduct. With mitigation, impacts would be less than significant.

Key Viewpoint 2: View from State Route 148/Morning Drive Looking South

KVP 2 is on SR 184/Morning Drive in an urbanized area just south of Breckenridge Road and is oriented south. KVP 2 represents views from surrounding residences and Foothill High School, as well as views from view corridors along Morning Drive and Fairfax Road. In the foreground of this KVP, the existing visual character includes vacant undeveloped land with ruderal vegetation, scattered trees, light industrial buildings, and power poles and lines. In the distance, views of the ridgelines of Grapevine Peak, the Tejon Hills, and Wheeler Ridge may be available depending on atmospheric conditions and visibility. However, these ridgelines and peaks range from 16 to 30 miles away and their visibility would be limited to periods of clear atmospheric conditions. They are not prominent features of the RSA's natural environment and do not substantially improve the low visual quality of the foreground environment. Overall, the visual quality of this area is low.

The upper image in Figure 3.16-16 shows the existing view from KVP 2 and the lower image shows a visual simulation of Alternative 1 from KVP 2. Similar to KVP 1, the permanent construction of Alternative 1 would introduce a prominent, elevated visual element to the existing cultural environment. The elevated structure would be out of scale with the rural nature of the area and the scattered, existing one-story residential and industrial development. Due to the scale and height of the HSR structures, the project's visual character would be incompatible with the visual character of the existing cultural environment.

Potentially sensitive viewers, including those in residences, are located just to the west of KVP 2. Viewer awareness would be high, as would exposure because of the residents' proximity (approximately 700 feet) to the elevated viaduct. It follows that viewer sensitivity would be high. In addition, Foothill High School is located northwest of the KVP. Students and staff at the school may have heightened awareness of the surrounding visual environment through their use of outdoor recreational and gathering areas, where students and school staff may spend substantial time. However, views of the alignment from the school would be mostly blocked by mature trees and existing development south of the school. Viewer exposure from the school would be low; therefore, viewer sensitivity of school users would be low.

Overall, the HSR structure would not substantially reduce visual quality in the area. The open form of the viaduct and columns would filter but not block views of the distant mountains to the south and the urban development south of Edison Highway, preserving some exposure to the natural environment from developed areas. In addition, viewers would see the HSR system behind a visual foreground of the freight rail tracks, Edison Highway, vacant parcels, and light industrial land uses with existing low visual quality. Therefore, Alternative 1 would not substantially lower the already low visual quality (i.e., visual effects would be neutral). In addition, the alignment would not affect any valued cultural resources or views. Further, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the Metropolitan Bakersfield General Plan (unincorporated planning area) (Kern County 2007).



Figure 3.16-16 Key Viewpoint 2: Existing and Simulated Views of Alternative 1 Looking South from State Route 148/Morning Drive

CEQA Conclusion

At KVP 2, Alternative 1 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

Edison/Rural Valley Landscape Unit

The Edison/Rural Valley Landscape Unit begins at Vineland Road just east of where Alternative 1 would transition from viaduct to embankment. For the purposes of CEQA, this landscape unit is considered non-urbanized. Open agricultural fields, vineyards, and orchards characterize this

landscape unit. Related agro-industrial facilities lie north of Edison Highway. Vineland Road, Edison Road, Malaga Road, Comanche Drive, Tejon Highway, Towerline Road, and Neumarkel Road would be lowered to pass under the HSR right-of-way. In addition, the SR 58 eastbound and westbound lanes would be realigned to just south of their current locations.

State Route 58 Motorists West of the Town of Edison

Near Vineland Road to Edison Road, the alignment would traverse orchards and open agricultural fields, closely paralleling the north shoulder of SR 58. The principal viewers in this section would be SR 58 motorists, and their exposure would be moderate. Viewer awareness is also assumed to be moderate since no noteworthy scenic vistas are present. Overall, viewer sensitivity is considered moderate. The existing visual quality of views northward in this area is moderate, with no unique or vivid features in the foreground, and middle ground views are of industrial structures along the railroad. No key views are located in this area.

Between Vineland and Edison Roads, the alignment would be elevated approximately 25 to 40 feet above existing grade. The above-grade tracks and right-of-way area would eliminate the agricultural use between SR 58 and the HSR alignment but would also screen the middle ground view of the industrial area along the railroad. Motorists on SR 58 would have moderate viewer awareness and high viewer exposure because the elevated guideway would appear prominently in the roadway's immediate foreground. While the elevated structure would foreshorten views of agricultural lands, it would not obstruct background views of the distant mountain ridgelines. Therefore, Alternative 1 would not substantially degrade existing visual quality.

CEQA Conclusion

For SR 58 motorists west of the town of Edison, Alternative 1 would not obstruct background views of distant mountain ridgelines. Therefore, the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 3: Edison Middle School Viewers, View from School Street Looking Southwest

KVP 3 is on School Street adjacent to Edison Middle School just east of Edison Road, and is oriented southwest toward where Alternative 1 would be elevated on an embankment. At Edison Road, the alignment would pass within 500 feet of Edison Middle School. Visual quality in this location is moderately low. Views southward from KVP 3 are of open vacant lots and ruderal vegetation along the SR 58 diamond interchange, SR 58, and the Edison Road overhead, with middle-ground views of orchards and agricultural land that provide a degree of natural harmony. Industrial areas to the north and east of KVP 3 (Figure 3.16-3) are composed of disorderly utilitarian structures and warehouses.

The upper image in Figure 3.16-17 shows the existing view southward from KVP 3 toward SR 58 (note the Edison Road overhead behind the tree), and the lower image shows a visual simulation of Alternative 1 from KVP 3. The construction of Alternative 1 would introduce permanent and prominent, elevated visual elements to the existing cultural environment, including an overhead of Edison Road and a retained embankment up to 33 feet above ground level. These transportation elements would be visually incompatible with orchards and agricultural land currently visible to the southwest, but they are similar in context to views of the moving vehicles on SR 58 and Edison Road.



Figure 3.16-17 Key Viewpoint 3: Existing and Simulated Views of Alternative 1 Looking Southwest from School Street

Students and staff at the school may have heightened awareness of the surrounding visual environment as they may spend substantial time using outdoor recreational and gathering areas. From these areas along School Street and Edison Road at Edison Middle School, viewers would have moderately high viewer awareness. Due to the prominence of the retained embankment evident in the foreground of views at KVP 3, viewer exposure would be moderately high. However, because the elevated HSR elements would be similar in context to existing views of roadway corridors, they would have a neutral effect on visual quality at KVP 3.

CEQA Conclusion

At KVP 3 the elevated HSR elements of Alternative 1 would be similar in context to the existing views of roadway corridors, resulting in a neutral effect on visual quality. Therefore, the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 4: Edison Residential Viewers, View from Jacober Avenue Looking South

KVP 4 is on Jacober Avenue just north of Atlantic Street in the Edison area. This KVP is oriented south toward Alternative 1, which would be placed on an approximately 25-foot embankment. Views of vineyards and agricultural land to the south contribute to a degree of natural harmony, but such views also include the movement of vehicles along SR 58. The small residential areas are composed of houses with similar one-story height and architectural design that contribute to perceived cultural order. However, the residential areas are bordered by industrial uses of low visual quality, and thus the overall visual quality at KVP 4 is moderate.

The upper image in Figure 3.16-18 shows the existing view from KVP 4 and the lower image shows a visual simulation of Alternative 1 from KVP 4. The permanent construction of Alternative 1 would introduce a prominent, elevated visual element to the existing cultural environment between SR 58 and the residences. The retained embankment approximately 30 feet above ground level in the immediate foreground of residences would be visually incompatible with the agricultural land to the south and with the residential neighborhood at KVP 4.

Residents at KVP 4 would have high viewer exposure because of the proximity and prominence of the retained embankment, as well as moderately high viewer awareness. Not only would the HSR guideway be visually incompatible with the existing environment from the perspective of residents, but it would also fully obstruct expansive southward views from the neighborhood. Therefore, Alternative 1 would reduce visual quality to moderately low at KVP 4.

This alternative would also introduce a retained embankment near a smaller neighborhood east and south of the middle school, between Buna Lane and Vivian Way, where the nearest homes would be within 375 feet of the proposed centerline. Similar to KVP 4, the alignment would be approximately 30 to 35 feet above grade and prominent in foreground views from residences. Although the number of the residents potentially affected would be low at this location, the level of change to visual quality caused by Alternative 1 would be similar to that at KVP 4. Therefore, overall effects on visual quality for residential viewers would be adverse.

For both of these neighborhoods, Mitigation Measures AVQ-MM#4, AVQ-MM#6, and AVQ-MM#7, as described in Section 3.16.7, are required to reduce impacts on visual quality. These measures require landscape screening adjacent to residential areas, landscape treatments along the embankment, and sound barrier treatments to enhance the design of sound walls. Implementation of these measures would reduce the prominence of the retained embankment and sound wall. Nonetheless, with the implementation of mitigation, the project would still reduce visual quality from moderate to moderately low.



Figure 3.16-18 Key Viewpoint 4: Existing and Simulated Views of Alternative 1 from Jacober Avenue Looking South

CEQA Conclusion

At KVP 4, viewer sensitivity is high and Alternative 1 would change visual quality from moderate to moderately low. Therefore, the project would substantially degrade the existing visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measures AVQ-MM#4, AVQ-MM#6, and AVQ-MM#7, as described in Section 3.16.7, are required to reduce impacts. These measures require landscape screening adjacent to residential areas, landscape treatments along the embankment, and sound barrier treatments to enhance the design of sound walls. Implementation of these measures would reduce the prominence of the retained embankment and sound wall. However, after mitigation, the impact would remain significant and unavoidable under CEQA.

Key Viewpoint 5: View from State Route 58 Looking East-Southeast Toward Tehachapi Mountains

KVP 5 is on SR 58 east of Towerline Road and is oriented east-southeast. KVP 5 represents views for SR 58 motorists as they approach the foothills of the Tehachapi Mountains. Existing visual quality in this area is high. The agricultural fields on the valley floor and the scenic views of the ridgelines of the Tehachapi Mountains contribute to natural harmony of the area. Vistas to the north of SR 58 include the temporal view of railroad traffic on the mainline track located about 1,000 feet north of the highway. Currently, SR 58 eastbound motorists experience uninterrupted views of the Tehachapi Mountains.

The upper image in Figure 3.16-19 shows the existing view from KVP 5, and the lower image shows a visual simulation of Alternative 1 located to the north of SR 58 on a retained embankment. The embankment would obstruct middle-ground views of agricultural land on the valley floor and partially obstruct views of the foothills of the Tehachapi Mountains, but it would not block scenic views of ridgelines to the east or of the mountains to the southeast. Because the HSR structure would not obstruct the key scenic resources visible from KVP 5 and is similar to the nearby existing railroad, it would be visually compatible with the natural and cultural environments. At KVP 5, SR 58 is oriented on a northwest-southeast axis and views straight ahead for eastbound motorists would not be blocked by the HSR alignment north of the freeway. Overall, viewer exposure would be moderate due to the proximity of the alignment, but the Tehachapi ridgelines would draw the motorists' focus forward. Therefore, viewer awareness would be low. Overall, viewer sensitivity would be moderate. The project would have a neutral change to visual quality in this area.

CEQA Conclusion

At KVP 5, viewer sensitivity is moderate and Alternative 1 would have a neutral change to visual quality. Therefore, the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-19 Key Viewpoint 5: Existing and Simulated Views of Alternative 1 from State Route 58 Looking East-Southeast

Tehachapi Mountains West Landscape Unit

The Tehachapi Mountains West Landscape Unit consists of rolling, grass-covered hills and valleys almost devoid of trees or visible human disturbance. This landscape unit has a high degree of natural harmony. A general absence of potential viewers also characterizes this rural portion of the landscape unit. For the purposes of CEQA, this landscape unit is considered non-urbanized.

Key Viewpoint 6: View from Bena Road Looking North

KVP 6 is looking north on Bena Road, a remote, sparsely traveled rural road that predominantly serves local residents and workers, although it may also receive some level of recreational use due to its remote, intact scenic character. Roadway viewers experience a high degree of natural harmony with scenic views of rolling hills, grasslands, oak woodland vegetation, and distant views of mountain ridgelines. The overall visual quality is high, but no public plans specifically recognize Bena Road as a scenic road.

The upper image in Figure 3.16-20 shows the existing view from KVP 6, and the lower image shows a visual simulation of Alternative 1 from KVP 6. The introduction of the tall viaduct feature, with its straight horizontal and vertical lines, would contrast with and be visually incompatible with the natural harmony and scenic character of the rolling hills that are spotted with grasses and oak woodlands.

The viaduct feature would be visible on Bena Road from approximately 0.75 mile in either direction. For motorists seeking a scenic experience, only this portion of the road and its views would be affected. Although the viaduct feature would be prominent and would conflict with the natural harmony of the scenic mountain views, due to the very low number of motorists who could be affected and the short area and duration of exposure (approximately 1 minute traveling at 45 miles per hour), viewer exposure and sensitivity on these roads would be low. Therefore, the effect on overall visual quality for the few motorists on these roadways would be neutral.

CEQA Conclusion

At KVP 6, Alternative 1 would result in a neutral change to visual quality. Therefore, the project would not substantially degrade the existing visual character or quality public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-20 Key Viewpoint 6: Existing and Simulated Views of Alternative 1 Looking North from Bena Road

Key Viewpoint 7: View from State Route 58 West of State Route 223 Looking East-Northeast

The principal public views of Alternative 1 in the Tehachapi Mountains West Landscape Unit would be where the alignment is visible to SR 58 motorists. KVP 7 shows a typical view from eastbound SR 58 motorists. North of the SR 58/SR 223 interchange, Alternative 1 would cross a valley for a distance of roughly 1 mile on an embankment up to 140 feet in height. This KVP is approximately 0.75 mile west of SR 233 looking east-northeast toward Alternative 1 at a distance of 0.75 mile.

The upper image in Figure 3.16-21 shows the existing view from KVP 7, and the lower image shows a visual simulation of Alternative 1 from KVP 7. As shown in the upper image, similar to the rest of this landscape unit, this KVP offers vivid panoramic views of mountain peaks and ridges, a highly intact natural landscape nearly devoid of signs of disturbance, and a broad oak-and-grassland-covered valley ringed by mountain ranges in the distance. These features contribute to a scene with a high degree of natural harmony and high visual quality.

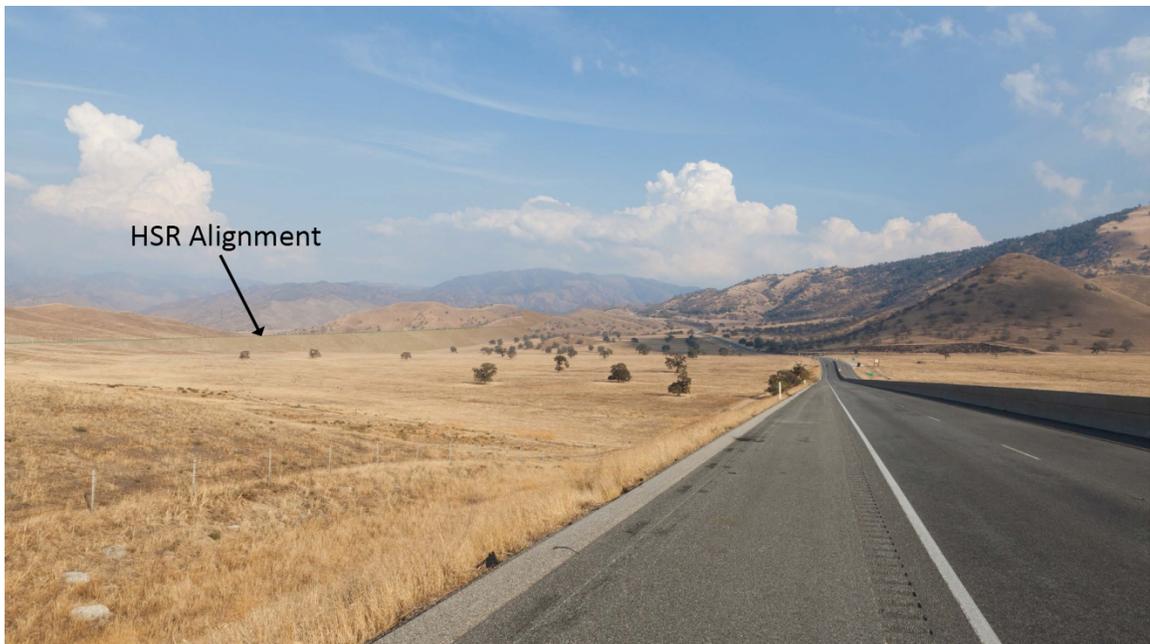


Figure 3.16-21 Key Viewpoint 7: Existing and Simulated Views of Alternative 1 Looking East-Northeast from State Route 58

As shown in the lower image in Figure 3.16-21, at this distance, the embankment structure would be visible but not dominant and would not block background views of the natural hillsides and ridgelines. Though the embankment structure would be visible, the train itself would likely not be visible or would be barely visible. The train is simulated in the bottom image but blends into the background landscape. In either direction, the embankment would be visible for less than 2 minutes of drive time, assuming a vehicle speed of 65 miles per hour. Overall, the alignment would be compatible with the natural harmony of the setting. Furthermore, Alternative 1 would not affect the most striking visual features that draw the viewers' attention, such as the ridgelines and peak of Bear Mountain to the southeast on the other side of SR 58. In this area, SR 58 has a traffic volume of approximately 20,100 trips per day (Caltrans 2014). For SR 58 motorists adjacent to the alignment in this area, the guideways would mirror and blend with the horizontal line of the valley floor. Therefore, viewer awareness would be low and overall viewer sensitivity would be low. When considered with the moderate viewer sensitivity of the motorists, this impact would be neutral.

CEQA Conclusion

At KVP 7, Alternative 1 would result in a neutral change to visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 8: View from Bakersfield National Cemetery Looking Northeast

KVP 8 is in the Bakersfield National Cemetery (adjacent to SR 223 and approximately 0.75 mile south of SR 58). It is oriented northeast toward Alternative 1 at a distance of approximately 1.35 miles and provides representative views of the Tehachapi Mountains for visitors to the cemetery. The upper image in Figure 3.16-22 shows the existing view from KVP 8, while the lower image shows a visual simulation of Alternative 1 from KVP 8.

The visual character of the cemetery is composed of orderly rows of white gravestones with landscaping that includes prominent trees in the foreground and the mountains in the background. The cultural order of the cemetery, including landscaping and upright stones, complements the natural harmony of the mountainous environment, resulting in a high degree of visual quality. As shown in the lower image in Figure 3.16-22, Alternative 1 (which is on an embankment in this location) would not be visible and would blend into the middle and background views of the valley floor, where it would not interrupt views of the ridgelines. Therefore, the alignment would be compatible with the natural harmony and cultural order of the setting.

Viewer awareness of the visual environment for visitors to the cemetery is high as the cemetery site was selected for its harmonious environment, which contributes to an atmosphere of reverence and reflection. Because of the distance of Alternative 1 from the cemetery (over 1 mile), viewer exposure would be low. Therefore, viewer sensitivity to the alignment would be low. Because the alignment would be over 1 mile away and would be minimally visible for cemetery visitors, visual quality would remain high from the perspective of visitors.

CEQA Conclusion

At KVP 8, Alternative 1 would result in a neutral change to visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-22 Key Viewpoint 8: Existing and Simulated Views of Alternative 1 Looking Northeast from the Bakersfield National Cemetery

Key Viewpoint 9: View from State Route 58 East of Bealville Road Looking Northwest

KVP 9 is oriented to the northwest and provides a typical view of the hillsides from westbound SR 58. KVP 9 is approximately 400 feet south of Alternative 1. The upper image in Figure 3.16-23 shows the existing view from KVP 9, and the lower image shows a visual simulation of Alternative 1 from KVP 9. As shown in the upper image in Figure 3.16-23, the existing view north of SR 58 is of low hills with scattered rocks, oak trees, and grasses. This landscape is typical of the Tehachapi Mountains and views along SR 58 in this area. Because of the intact natural landscape surrounding SR 58, visual quality in the area is high.



Figure 3.16-23 Key Viewpoint 9: Existing and Simulated Views of Alternative 1 Looking Northwest from State Route 58

As shown in the lower image in Figure 3.16-23, Alternative 1 would be in an open cut and would then transition to embankment in the distance adjacent to the highway. Because the guideway would be located below grade compared to SR 58, it would not block distant views of the ridgelines to the north. However, this alternative would involve substantial areas of cut in the hillsides and removal of mature trees in the foreground of views from SR 58, which would disrupt the existing natural harmony of the landscape. The linear, engineered form of the alignment cutting through the hillsides, as well as the large-scale cut and fill of hillsides, would be visually incompatible with the surrounding natural environment.

As stated previously, SR 58 is not a designated scenic highway in this location, but motorists on the highway do have scenic views of natural vegetation and landforms in the Tehachapi Mountains, so viewer awareness is moderate. In addition, the viewer exposure of SR 58 motorists to the project would be moderately high as the alignment would be adjacent and parallel to SR 58 for approximately 1 mile. Views from the highway to the alternative would be open and panoramic.

Overall, considering the moderately high viewer sensitivity, construction of the project would reduce visual quality from high to moderate, an adverse change. Therefore, the project would cause an incompatible change to the natural environment from the perspective of SR 58 motorists with moderately high sensitivity. Mitigation Measure AVQ-MM#5 is required (Section 3.16.7) to reduce the contrasting character of the project with the natural environment and reduce impacts on visual quality. In addition, Mitigation Measure BIO-MM#35 is required, as described in Section 3.7, Biological and Aquatic Resources. Under this measure, any protected trees removed during construction would be replaced or compensated for. These mitigation measures would restore the previous oak woodland visual setting such that the visual quality of the area would be maintained.

CEQA Conclusion

At KVP 9, viewer sensitivity is moderately high and Alternative 1 would reduce visual quality from high to moderate. Therefore, the project would substantially degrade the existing visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measure AVQ-MM#5, as described in Section 3.16.7, is required to reduce impacts. Mitigation Measure AVQ-MM#5 would reduce the contrasting character of the project with the natural environment by requiring the Authority to replace vegetation removed during construction and would therefore reduce impacts on visual quality. Mitigation Measure BIO-MM#35, as described in Section 3.7, is also required and would similarly reduce impacts associated with vegetation removal during construction. After mitigation, the impact would be less than significant under CEQA.

Key Viewpoint 10: View from Hart Flat Road Looking East

KVP 10 is on Hart Flat Road in the community of Keene looking eastward, approximately 0.65 mile southwest of Alternative 1. The upper image in Figure 3.16-24 shows the existing view from KVP 10, and the lower image shows a visual simulation of Alternative 1 from KVP 10. The existing visual quality in this area is high as the scenic, rolling hills and ridgelines of the Tehachapi Mountains contribute to a high degree of natural harmony and the design of the scattered single-family homes complements the natural setting. In this area, Alternative 1 would transition from viaduct to an embankment profile and then enter a tunnel. The linear HSR structure would be incompatible with the rolling landscape.

The main viewer group in this area is the residential viewers in the residences south of SR 58 in the community of Keene. These residences are located within approximately 0.2 to 2 miles of KVP 10. Alternative 1 would pass by the northern boundary of this neighborhood but would be located across SR 58 from the residences. As shown in the bottom image on Figure 3.16-24, Alternative 1 would not be visible in this location. The rolling topography of this neighborhood would block views of the alignment, and viewer exposure and awareness from the residences themselves would be low.



Figure 3.16-24 Key Viewpoint 10: Existing and Simulated Views of Alternative 1 Looking East from Hart Flat Road

Hart Flat Road is the main roadway that connects Keene residents to SR 58. This roadway would serve as a view corridor for residents as they exit the residential neighborhood toward the alignment. Because of the distance of KVP 10 from the alignment, viewer exposure for motorists on Hart Flat Road would be low as the alignment would appear to blend into the mountainous scenery. Therefore, visual quality would remain high from the perspective of residential viewers.

CEQA Conclusion

At KVP 10, the project would result in a neutral change to visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 11 (a through e): Views from La Paz

KVPs 11a through 11e show viewpoints from various places in the historic 187-acre La Paz, a Section 4(f) resource located approximately 0.25 to 0.5 mile from Alternative 1. La Paz is composed of several buildings and features, including the 7,000-square-foot Visitor Center, the 1,000-square-foot Memorial Gardens, a residential area with the Chávez residence, desert gardens, and the 17,000-square-foot Villa La Paz Conference and Education Center. The visual character of the center includes these developed features scattered throughout the oak savannah and grassland landscape. The visual quality of the National Chávez Center is high, with a setting dominated by the intact natural landscape, vivid mountainous topography, and architectural and landscape features that complement this natural environment.

KVP 11a is a short distance southeast of the entrance to the Villa La Paz Conference Center and is oriented north toward the prominent hillside feature known as the Three Peaks that forms a backdrop to the center. As discussed in Section 3.16.5.3, the view of the Three Peaks is a character-defining feature that contributes to the significance of the National Historic Landmark. The upper image in Figure 3.16-25 shows the existing view from KVP 11a, and the lower image in Figure 3.16-25 is a visual simulation of Alternative 1 from KVP 11a. The conference center buildings are Spanish-style architecture with white walls and tile roofs. The area around the conference center is highly landscaped, with a prominent oak tree in the visual foreground as well as decorative deciduous trees throughout the building area and parking lot. Existing visual quality is high.

KVP 11b is located near KVP 11a but is oriented northeast. The upper image in Figure 3.16-26 shows the existing view from KVP 11b, and the lower image is a visual simulation of Alternative 1 from KVP 11b. The parking area in this location is gravel and has light fixtures and decorative deciduous trees. Existing visual quality is high.

KVP 11c is located at the Memorial Gardens that host César Chávez's gravesite. The image in Figure 3.16-27 shows the existing view from KVP 11c; a visual simulation at this viewpoint is not shown because intervening hillsides would completely obstruct any views of Alternative 1. A white stucco wall and mature trees enclose the gardens. The gardens were designed to resemble the courtyards of the Spanish-era California missions (César Chávez Foundation 2016). Existing visual quality is high. Alternative 1 would not be visible from inside the gardens and a visual simulation was not created.

KVP 11d is located at the top of the Peace Rocks and is oriented northeast. The upper image in Figure 3.16-28 shows the existing view from KVP 11d, and the lower image is a visual simulation of Alternative 1 from KVP 11d. The area round the Peace Rocks offers a panoramic view of the Three Peaks, the Villa La Paz buildings, and the oak savannah and grassland landscape. The Peace Rocks are adjacent to the UPRR tracks, which divide the natural landscape and draw visual focus. Nonetheless, existing visual quality is high.

KVP 11e is located at the road leading to Villa La Paz, looking north. The upper image in Figure 3.16-29 shows the existing view from KVP 11e, and the lower image is a visual simulation of Alternative 1 from KVP 11e. Motorists traveling northbound on the roadway toward Villa La Paz are offered foreground views of gravel roadways, signage, light fixtures, and power lines. Middle-ground views are of the Three Peaks. Existing visual quality is moderately high. Although a prominent and undisrupted view of the Three Peaks is available for northbound motorists, the natural setting is slightly disrupted by infrastructure such as light poles and power lines. Therefore, existing visual quality is moderately high.



Figure 3.16-25 Key Viewpoint 11a: Existing and Simulated Views of Alternative 1 from La Paz—Villa La Paz Conference Center Looking North



Figure 3.16-26 Key Viewpoint 11b: Existing and Simulated Views of Alternative 1 from La Paz—Villa La Paz Conference Center Looking Northeast



Figure 3.16-27 Key Viewpoint 11c: Existing View from La Paz—Memorial Garden Looking North²

² There is no visual simulation at KVP 11c because Alternative 1 would not be visible from this location as a result of intervening hillsides between the viewpoint and the elevated viaduct.



Figure 3.16-28 Key Viewpoint 11d: Existing and Simulated Views of Alternative 1 from La Paz—Peace Rocks Looking Northeast



Figure 3.16-29 Key Viewpoint 11e: Existing and Simulated Views of Alternative 1 from La Paz—Road to Villa La Paz Looking North

Alternative 1 would introduce a viaduct up to 160 feet tall northeast of the Chávez Center, approximately 0.25 mile of which would be a noticeable aerial feature, especially from the northeast corner of the center. Alternative 1 would introduce new HSR-related elements into the character-defining viewshed toward the Three Peaks, which would cause a visual intrusion. However, the new elements would block very little of the view of the Three Peaks and would not block the view of the most distinctive part of Three Peaks—the peaks for which it was named—because the project elements would be constructed far below the mountaintops. Alternative 1 would not be visible from the other character-defining view at the entrance road because the topography would block any view of Alternative 1 from that vantage point.

Alternative 1 would be partially visible in other viewsheds that are not specifically character-defining for this historic property but are part of its general setting. For example, Alternative 1 would partially block views of the distant ridgelines southeast of the Three Peaks. Although the viaduct structure would allow for partially unobstructed views of the scenic background between its columns, this project feature would draw the eye, disrupting and potentially dominating these ridgeline views. Overall, Alternative 1 would introduce a new visual element that would change the setting. It would impose an artificial element on the scene that makes a memorable impression on viewers, detracting from existing vivid features, and therefore would not be compatible with the existing natural environment.

The prominence of and exposure to the HSR viaduct with Alternative 1 would vary in relation to the other viewing positions inside the Chávez Center. The main visitor center, the Chávez residence, the Chávez gravesite, and the memorial gardens would be approximately 0.5 mile from Alternative 1. At that distance, exposure to the viaduct would be moderate and much less than that from Villa La Paz, which would be half as far from the viaduct. As can be seen on Figure 3.16-27, the viaduct would not be visible from the memorial gardens or gravesite. However, Figure 3.16-25, Figure 3.16-26, and Figure 3.16-28, show that, as Alternative 1 crosses the Three Peaks and enters the viaduct, it would be visually noticeable from Villa La Paz, the road leading to Villa La Paz, and from the top of the Peace Rocks. From points farther south of these locations, the viaduct would be less noticeable and would not disrupt views of the Three Peaks.

Although viewer exposure would vary throughout the site, overall viewer awareness would be high because of the cultural importance of the site and its status as a National Historic Landmark. Given the high viewer awareness and moderate to high viewer exposure, overall viewer sensitivity would be high.

Overall, the viaduct with Alternative 1 would not block the character-defining views of the Three Peaks. However, it would be an incompatible feature visible to high sensitivity viewers such that visual quality would be reduced to moderately high at KVP 11a, moderate at KVP 11b, moderately high at KVP 11d, and moderate at KVP 11e. Therefore, the effects on visual quality at KVP 11a, KVP 11b, KVP 11d, and KVP 11e would remain adverse³ as the project would cause an incompatible change to the natural and cultural environment from the perspective of sensitive visitors at La Paz. The impact at KVP 11c would be less than significant because Alternative 1 would not be visible from that location.

With Mitigation Measure AVQ-MM#3 (Section 3.16.7), design enhancements to the viaducts and columns could potentially reduce the incompatibility of visual character by decreasing color contrast and reflection from the HSR structure, using textures that blend with the environment and utilizing column shapes that are context-sensitive. These design enhancements would somewhat mitigate the level of overall impact. Similarly, tall-tree screening and other landscape measures could reduce the change in views from inside La Paz by visually filtering views to the viaduct from the center. Nonetheless, because the viaduct would draw attention and would partially disrupt and detract from views of the Three Peaks, impacts would remain significant and unavoidable with mitigation.

³ As previously noted, Alternative 1 would not be visible from KVP 11c.

CEQA Conclusion

The impact of Alternative 1 at KVP 11a, KVP 11b, KVP 11d, and KVP 11e would be significant under CEQA as the project would result in adverse changes to visual quality at these KVPs. The project would not be visible from KVP 11c and therefore would not be significant at this location. Nevertheless, the project with Alternative 1 would substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measure AVQ-MM#3, as described in Section 3.16.7, is required. Mitigation Measure AVQ-MM#3 requires that design enhancements to the viaducts and columns, such as those decreasing color contrast and reflection from the HSR structure, use textures that blend with the environment, and utilize column shapes that are context-sensitive. This would reduce the change in visual quality associated with the viaduct. However, after mitigation, the impact with Alternative 1 would remain significant and unavoidable under CEQA.

Key Viewpoint 12: View from State Route 58 near Broome Road Looking Southeast

KVP 12 is oriented southeast from SR 58 just before the Broome Road overhead toward Alternative 1, which would pass over SR 58 on a viaduct. It is located approximately 1,000 feet west of Alternative 1. The upper image in Figure 3.16-30 shows the existing view from KVP 12, and the lower image shows a visual simulation of Alternative 1 from KVP 12. Although the natural environment features prominently in this area, the on- and off-ramps, highway overhead, fencing, powerlines, and UPRR right-of-way parallel to the south side of the freeway detract somewhat from the intact natural scenery. Visual quality from the perspective of the roadway is moderately high.

SR 58 is not a designated scenic highway and views from SR 58 are not protected. However, the prominent industrial character of the approximately 50-foot-high viaduct would contrast and be visually incompatible with elements of the natural environment, such as the mountain ridges and oak woodland landscape, and the existing project environment, which includes the at-grade SR 58.

Viewer groups in this area are limited to SR 58 motorists. For these motorists, Alternative 1 would closely parallel the highway, crossing it on straddle bents. The viaduct would be a prominent focal point in the foreground, but the duration of exposure would be short. For both eastbound and westbound motorists, the viaduct and portions of Alternative 1 adjacent to SR 58 would be visible for approximately 0.5 mile. Therefore, viewer sensitivity would be moderate.

Because Alternative 1 would introduce a prominent viaduct incompatible with the natural environment in an area with moderately sensitive viewers, it would degrade visual quality from moderately high to moderately low from the perspective of motorists. Mitigation Measures AVQ-MM#3, AVQ-MM#5, and AVQ-MM#6, as described in Section 3.16.7, are required. Mitigation Measure AVQ-MM#3 would incorporate local design and aesthetic preferences into the design of the viaduct, Mitigation Measure AVQ-MM#5 would require replanting unused acquired lands, and Mitigation Measure AVQ-MM#6 would require landscape treatments. With implementation of these mitigation measures, the contrasting scale between the viaduct and the existing natural environment would be reduced and impacts on visual quality would be reduced.

CEQA Conclusion

The impact of Alternative 1 at KVP 12 would be significant under CEQA due to the degradation of visual quality from moderately high to moderately low. Therefore, the project would substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measures AVQ-MM#3, AVQ-MM#5, and AVQ-MM#6, as described in Section 3.16.7, are required. Mitigation Measure AVQ-MM#3 would incorporate local design and aesthetic preferences into the design of the viaduct, Mitigation Measure AVQ-MM#5 would require replanting unused acquired lands, and Mitigation Measure AVQ-MM#6 would require landscape treatments. With implementation of these mitigation measures, the contrasting scale between the viaduct and the existing natural environment would be reduced and impacts on visual quality would be reduced. With mitigation, impacts would be less than significant under CEQA.



Figure 3.16-30 Key Viewpoint 12: Existing and Simulated Views of Alternative 1 from State Route 58 Looking Southeast

Key Viewpoint 13: View toward the Tehachapi Loop

This KVP shows the popular roadside overlook of the Tehachapi Loop, marked with commemorative plaques, on Woodford-Tehachapi Road. KVP 13 is oriented north-northwest, with a view of the Tehachapi Loop in the foreground and Alternative 1 and the ridgelines of the Tehachapi Mountains in the background. KVP 13 is approximately 1.1 miles south of Alternative 1. The upper image in Figure 3.16-31 shows the existing view from KVP 13 and the lower image shows a visual simulation of Alternative 1 from KVP 13. Visual quality in the area is moderately high. This viewing location provides an expansive view of the natural scenery of the Tehachapi Mountains as well as a view of the iconic and memorable Tehachapi Loop.



Figure 3.16-31 Key Viewpoint 13: Existing and Simulated Views of Alternative 1 from Tehachapi Loop Looking North-Northwest

From this viewpoint and in the background of the Tehachapi Loop, the alignment crosses the UPRR tracks on a viaduct approximately 4 miles northwest of the KVP location (minimally visible in the box on the right side of the low image on Figure 3.16-31 shows) and would emerge from a below-grade tunnel and transition to further below grade in retained cut approximately 3 miles north of the KVP location (minimally visible in the box on the left side of the lower image on Figure 3.16-31). The tracks would not be visible but large areas of cut along the hillsides could be visible. The lower image in Figure 3.16-31 shows that from this viewpoint, large cut slopes would not be prominent, and the HSR structure would be compatible with the natural environment.

Although the overlook is designed to showcase the railroad loop in the foreground, it is assumed that many visitors also value the natural scenery of the visual setting. The Tehachapi Loop is notable for its iconic appearance of its historic civil engineering design. This analysis assumes that because the viewers would focus on the railroad, their awareness of the natural setting would be moderate to moderately high. However, as can be seen in the bottom image in Figure 3.16-31, viewer exposure to Alternative 1 would be low because of its distance and the blending of the guideway into the mountainous background. Therefore, overall viewer sensitivity would be low.

Alternative 1 would not disrupt the natural harmony of the setting for the Tehachapi Loop and would not interfere with enjoyment of the cultural site. The overall effect on visual quality from this viewpoint would be neutral without mitigation.

CEQA Conclusion

At KVP 13, Alternative 1 would result in a neutral effect on visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Golden Hills Residences

The community of Golden Hills adjoins the City of Tehachapi to the northwest, with a population of approximately 8,700 and approximately 3,500 households (U.S. Census Bureau 2010). The community is characterized by rural, single-family residences developed into rolling hillsides, with views of the Tehachapi Valley to the south and Tehachapi ridgelines to the west, north, and east. The area contains oak trees and other landscaping features throughout, and visual quality is high.

The main viewer group in the Golden Hills area is residential viewers. Most homes would not have views of Alternative 1 due to grade separation, intervening topography, and existing mature trees that block views. The closest residences to the alignment are the northernmost homes, which would be approximately 0.2 mile from where the alignment would cross SR 58 on an elevated viaduct. However, the alignment in this area would be approximately 80 feet below these residences and would not block views of the Tehachapi Mountains or be a prominent visual feature. Viewer awareness and exposure for these residences would be low.

A small number (fewer than 15) of the easternmost homes on ridge-tops may have views of the at-grade segment of the alignment and associated cut slopes, 300 feet high, approximately 0.35 mile from the residences. Depending on the location and orientation of these residences, they may have expansive views of the hillsides to the north and east. Other existing, large-scale cut slopes up to 300 feet high on SR 58 are visually prominent much closer in the same views than the proposed project. The character of the cut slopes for Alternative 1 would therefore be similar to the existing cuts in these views. Nonetheless, the large cut slopes associated with Alternative 1 may alter the natural harmony of the setting and degrade visual quality and views of the Tehachapi hillsides. However, with Mitigation Measure AVQ-MM#8, as described in Section 3.16.7, retaining walls would be used to avoid the need for cut slopes, which would maintain the natural harmony of the slopes such that visual quality would remain high after implementation of the project. With mitigation, the effects on the intactness and overall visual quality from these residences would be moderate to negligible, depending on the prominence of the retaining walls.

CEQA Conclusion

For Golden Hills residences, the large cut slopes associated with Alternative 1 would substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measure AVQ-MM#8, as described in Section 3.16.7, is required. With Mitigation Measure AVQ-MM#8, retaining walls would be used to avoid the need for cut slopes, which would maintain the natural harmony of the slopes such that visual quality would remain high after implementation of the project. With mitigation, the effects on the intactness and overall visual quality from these residences would be moderate to negligible, depending on the prominence of the retaining walls. After mitigation, the impact would be less than significant under CEQA.

Tehachapi Valley Landscape Unit

This landscape unit begins where Alternative 1 would enter a 0.8-mile tunnel to the north of the City of Tehachapi. Alternative 1 would emerge from the tunnel north of Tehachapi's downtown and would be visible at a distance of roughly 1 mile from SR 58. Although portions of the City of Tehachapi are urbanized, the RSA for Alternative 1 for this landscape unit largely skirts the urbanized areas of town. Within the RSA, the landscape unit includes scattered development, undeveloped land, and agricultural lands. Therefore, for the purposes of CEQA, this landscape unit is considered non-urbanized.

Key Viewpoint 14: View from the Mill Street Overpass over State Route 58 Looking North-Northeast

KVP 14 is at the Mill Street overpass across SR 58 in Tehachapi and is oriented north-northeast toward a large area of proposed cut on the hillside just east of where Alternative 1 would exit the tunnel. KVP 14 is approximately 1 mile south of Alternative 1. The upper image in Figure 3.16-32 shows the existing view from KVP 14 and the lower image shows a visual simulation of Alternative 1 from KVP 14. In this area, the landscape transitions from the rolling hills and ridgelines of the Tehachapi Mountains to the developed valley floor. Overall, the vividness of the landscape composition declines with the intrusion of urban development, although striking views of the Tehachapi Mountains provide a backdrop for the City of Tehachapi. Existing visual quality is moderate.

Because Alternative 1 would exit the tunnel below grade, the tunnel portal would not be visible from KVP 14 and would be compatible with the natural environment in this location. From the tunnel exit, the track would transition from below grade to embankment. The embankment segments of Alternative 1 would contrast with and be visually incompatible with the gently rolling, undeveloped slopes of the foothills.

KVP 14 is representative of the views that motorists would experience on SR 58 and Mills Street. Since Alternative 1 would be located at the base of the foothills, it would not be a prominent feature from the perspective of motorists on SR 58 and Mills Street and would not block views of the hillsides. However, large cut slopes with up to 0.3 mile of exposed slope could be required above the alignment in this section, causing a prominent alteration of landform from the existing undisturbed slopes and oak woodland to a highly engineered slope of exposed rock. Therefore, viewer exposure would be moderate. As described in Section 3.16.5.4, Tehachapi residents value these scenic views of the Tehachapi hillsides.

As this is a planned growth area for the community, future residential viewers would be potentially sensitive to changes in background views of the Tehachapi Mountains from this area. Future residences could be located as close as 0.5 mile to the embankment alignment where it would skirt the base of the foothills. Depending on the location of these residences and if views are hindered or blocked by other development, viewer exposure and awareness may be high. However, only the residences closest to the alignment would experience high exposure, and intervening development would filter other residential views.

The lower image in Figure 3.16-32 depicts the potential extent of the cut slope as seen from Mills Street. As shown, large cut slopes to the northeast of KVP 14 would not result in a substantial change in the visual character of the Tehachapi hillsides from the perspective of this viewpoint and would not conflict with the natural environment. The overall effect on visual quality from this viewpoint would be neutral without mitigation.

CEQA Conclusion

At KVP 14, Alternative 1 would have a neutral effect on visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact under CEQA would be less than significant impact and CEQA does not require mitigation.



Figure 3.16-32 Key Viewpoint 14: Existing and Simulated Views of Alternative 1 from Mill Street Overpass Looking North-Northeast

Key Viewpoint 15: View from State Route 58 Looking Southeast

KVP 15 is located just east of the Burnett Road overpass on SR 58 and is oriented southeast, approximately 0.2 mile east of Alternative 1. The upper image in Figure 3.16-33 shows the existing view from KVP 15 and the lower image shows a visual simulation of Alternative 1 from KVP 15. Eastbound SR 58 motorists have views of the Tehachapi foothills to the north and east. However, compared to the areas of the Tehachapi Mountains that eastbound motorists would have just traversed, views in this area are not as panoramic or scenic. This area is a transitional zone between the undeveloped hillsides and the city of Tehachapi. Industrial development south of the freeway interrupts the natural harmony of the scene, and existing visual quality at KVP 15 is moderate. KVP 15 is representative of the views that motorists traveling eastbound on SR 58 would experience. As shown in the lower image in Figure 3.16-33, Alternative 1 would be visually prominent. In the foreground of views, Alternative 1 would be visible immediately north of the freeway on approximately 50 feet of embankment and would cross the freeway on a viaduct to the east. The embankment and viaduct segments would not be compatible with the existing natural scenery and views of flat undeveloped grasslands leading to the foothills of the Tehachapi Mountains.

Viewer groups in this area are limited to SR 58 motorists. Alternative 1 would be close to the freeway and elevated in the visual foreground, but the duration of exposure would be short and limited to approximately 0.5 mile of roadway travel. Since existing visual quality in this area is moderate and the introduction of project features would not substantially degrade this condition, viewers would not be highly aware of the change in visual quality. Viewer sensitivity would be moderate. Overall, the introduction of Alternative 1 would result in a neutral change to visual quality.

CEQA Conclusion

At KVP 15, Alternative 1 would result in a neutral change to visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-33 Key Viewpoint 15: Existing and Simulated Views of Alternative 1 from State Route 58 Looking Southeast

Key Viewpoint 16: View from Arabian Drive Looking South-Southwest

KVP 16 shows the view from a small residential neighborhood of approximately 50 homes north of Burnett Road and SR 58, between Arabian Drive and Appaloosa Court, which would face a viaduct portion of Alternative 1. The upper image in Figure 3.16-34 shows the existing view from KVP 16 and the lower image shows a visual simulation of Alternative 1 from KVP 16. The visual character of this area includes one-story, single-family homes tucked into a hillside with expansive views of the valley floor and Tehachapi ridgelines in the distance. These views contribute to a sense of natural harmony even though the area is developed. Overall, visual quality is moderate.

The permanent construction of an elevated viaduct would introduce a substantial industrial visual element to the existing natural and cultural environments. The aerial structure would be out of scale with the existing one-story residential and commercial development. Therefore, the project scale would contrast with the existing natural and cultural environments. In addition, the viaduct structure would block expansive views from residences of the valley floor to the Tehachapi ridgelines to the southeast. Overall, due to the scale and height of the HSR structures, the project's visual character would be incompatible with the visual character of the existing natural and cultural environments.

Residential viewers in this area would be highly sensitive to the change in visual quality, with high visual exposure and awareness. The closest residence to the structure would be less than 200 feet away. Impacts on visual quality would be adverse. Mitigation Measures AVQ-MM#3, AVQ-MM#4, and AVQ-MM#5, as described in Section 3.16.7, are required. These measures would incorporate local design and aesthetic preferences into the design of the viaduct, provide screening adjacent to the residential areas, and require replanting of unused portions of land. These measures would reduce the contrasting scale of the project with the cultural environment and reduce impacts on visual quality.

CEQA Conclusion

Due to the height and scale of the HSR structures, as well as the proximity of nearby residences, Alternative 1 at KVP 16 would result in a significant impact under CEQA. The project would substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measures AVQ-MM#3, AVQ-MM#4, and AVQ-MM#5, as described in Section 3.16.7, are required. These measures would incorporate local design and aesthetic preferences into the design of the viaduct, provide screening adjacent to the residential areas, and require replanting of unused portions of land. These measures would reduce the contrasting scale of the project with the cultural environment and reduce impacts on visual quality. However, after mitigation, the impact would remain significant and unavoidable under CEQA.



Figure 3.16-34 Key Viewpoint 16: Existing and Simulated Views of Alternative 1 from Arabian Drive Looking South-Southwest

Key Viewpoint 17: View from Dennison Road Looking East-Northeast

KVP 17 is on Dennison Road at Georgia Street and is oriented east-northeast toward Alternative 1, approximately 1 mile away. The upper image in Figure 3.16-35 shows the existing view from KVP 17 and the lower image shows a visual simulation of Alternative 1 from KVP 17. This area is on the edge of the city limits of Tehachapi, with scattered developed and mainly undeveloped lots and agricultural fields to the east and south. In the foreground of this KVP is an undeveloped, open, grass field with uninterrupted views of the valley floor and Tehachapi ridgelines. Visual quality is moderately high.



Figure 3.16-35 Key Viewpoint 17: Existing and Simulated Views of Alternative 1 from Dennison Road Looking East-Northeast

Near KVP 17, Alternative 1 would introduce a raised guideway on 50 feet of embankment. This industrial element would be generally compatible with nearby transportation infrastructure, including SR 58, the Tehachapi Municipal Airport, and other scattered industrial uses in the

cultural environment. Viewer groups in this area include students and staff at Tehachapi High School, nearby residents, and motorists traveling along Dennison Road. For all of these viewer groups, as Alternative 1 would be situated approximately 1 mile away, exposure would be relatively low. Although the guideway would obstruct expansive views of the valley floor from the immediate area, it would not be visible at a distance of 1 mile and would appear to blend in with the valley floor (as seen in Figure 3.16-35). The alignment would not contrast with the cultural order or natural harmony of the area.

CEQA Conclusion

At KVP 17, Alternative 1 would result in a neutral change to visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Tehachapi Mountains East Landscape Unit

This landscape unit begins approximately 2.5 miles southeast of the City of Tehachapi at the TWRA. In this area, wind turbines dominate the Tehachapi ridgelines. For the purposes of CEQA, this landscape unit is considered non-urbanized.

Key Viewpoint 18 (a and b): Views from the Pacific Crest Trail

KVPs 18a and 18b are located on the PCT just east of where it crosses Tehachapi Willow Springs Road and where Alternative 1 would be constructed above ground in this landscape unit. KVP 18a is approximately 700 feet east of Alternative 1 and is oriented west. KVP 18b is approximately 400 feet east of Alternative 1 and is oriented southwest. The upper image in Figure 3.16-36 shows the existing view from KVP 18a and the lower image shows a visual simulation of Alternative 1 from KVP 18a. The upper image in Figure 3.16-37 shows the existing view from KVP 18b and the lower image shows a visual simulation of Alternative 1 from KVP 18b.

The natural harmony in this segment is compromised, typified by very close-range views of wind farms with turbines often over 300 feet in height. Wind turbines completely dominate immediate foreground views from the PCT in this portion of the TWRA. Despite this industrial context, the PCT offers views of a mountainous landscape at KVPs 18a and 18b in a largely rural context, and hikers anywhere on the trail would have a high level of scenic expectation. Overall, visual quality is moderate.

As illustrated in the lower images of Figure 3.16-36 and Figure 3.16-37, in this area, Alternative 1 would transition from an embankment to a viaduct. Alternative 1 would cross the PCT three times on a pair of elevated viaducts approximately 50 feet above ground level: a 0.3-mile viaduct in one location and another viaduct near the intersection of Tehachapi Willow Springs Road and Oak Creek Road. An electrical substation is also located near this intersection. Therefore, roadway and industrial-looking infrastructure already interrupt the natural harmony of the PCT in this area. In addition, this trail segment occurs in the context of the TWRA and intensive, industrial, large-scale wind development strongly dominates the visual landscape. Therefore, the HSR structure would be somewhat compatible with the existing cultural environment but would nonetheless introduce an urban-style infrastructure into a rural setting.



Figure 3.16-36 Key Viewpoint 18a: Existing and Simulated Views of Alternative 1 from the Pacific Crest Trail Looking West



Figure 3.16-37 Key Viewpoint 18b: Existing and Simulated Views of Alternative 1 from the Pacific Crest Trail Looking Southwest

The viaduct features would be prominent and would draw viewer focus for approximately 0.5 to 1 mile (15 to 45 minutes of hiking time) in either direction of the PCT. Due to the proximity of the alternative (which would pass overhead) and the duration of exposure for hikers, viewer exposure would be high. For northbound hikers, the alignments would be visible for approximately 0.5 mile, or for 10 to 20 minutes of hiking time. According to the Pacific Crest Trail Association, approximately 90 percent of PCT thru-hikers head northbound (Pacific Crest Trail Association 2016). For southbound hikers, the alignments would be visible for approximately 1 mile, or 20 to 40 minutes of hiking time. The viaducts also could be visible from other scenic peaks along the

trail. Although wind energy development already compromises the integrity of the natural environment at KVPs 18a and 18b, the viaducts would further degrade visual quality from the perspective of trail users with high viewer sensitivity. Mitigation Measure PCT-MM#1, as described in Section 3.15, Parks, Recreation, and Open Space, is required. This measure requires the Authority to coordinate with the U.S. Forest Service and the Bureau of Land Management to prepare final design documents that minimize the visual impacts of the HSR future alignment on the Pacific Crest Trail users, such as through landscaping or other design features. This would reduce the contrasting urban appearance of the project with the natural environment and reduce impacts on visual quality.

CEQA Conclusion

The impact of Alternative 1 at KVPs 18a and 18b would be significant under CEQA because the viaducts associated with Alternative 1 would degrade visual quality from the perspective of PCT trail users with high viewer sensitivity. Therefore, Alternative 1 would substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measure PCT-MM#1, as described in Section 3.16.7, would be required. This measure requires the Authority to coordinate with the U.S. Forest Service and Bureau of Land Management to prepare final design documents that minimize the visual impacts of the HSR future alignment on PCT users, such as through landscaping or other design features. This would reduce the contrasting urban appearance of the project with the natural environment and reduce impacts on visual quality. However, after mitigation, the impact would still be significant under CEQA.

West Mojave Landscape Unit

At the transition between the Tehachapi Mountains East and West Mojave Landscape Units, Alternative 1 would emerge from a tunnel and run on retained fill through approximately 13 miles on the Antelope Valley floor to Rosamond Avenue. New roadway overheads would be constructed at Robert Ranch Road, Trotter Avenue, Backus Road, Highgate Road, Dawn Road, and Favorite Avenue. As discussed in Section 3.16.5.6, viewer groups in this landscape unit include motorists on Tehachapi Willow Springs Road and Rosamond Boulevard, isolated rural residents in the Mojave Desert, and residents at the northern edge of the town of Rosamond. For the purposes of CEQA, this landscape unit is considered non-urbanized.

Willow Springs International Raceway

Views of the alignments for the spectators and users of the Willow Springs International Raceway would be mostly blocked by the topography and orientation of the raceway. Spectators would be sensitive to views of the alignments if they would interfere with views of the racetrack; otherwise, the spectators would have a low awareness of the project as their focus is on the raceway event. The balcony viewing area for the main track is located at the northwest corner of the track and faces southeast. Balcony spectators would not have views of the alignments due to the topography of the track and distance (over 1 mile) from the balcony to the alignments (Willow Springs International Raceway 2016b). Therefore, this spectator population is judged to have low to minimal visual sensitivity. Alternative 1 would not conflict with the natural or cultural environments in this area and the effect on visual quality would be minimal.

CEQA Conclusion

At the Willow Springs International Raceway, Alternative 1 would result in a neutral change to visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Isolated Rural Residences in the Mojave Desert

In the vicinity of Robert Ranch Road in the Mojave Desert, Alternative 1 would be constructed on retained fill near isolated rural residences. The nearest residences would be located approximately 340 and 400 feet away from the centerline of the guideway. The natural environment near these residences is characterized by desert scrub vegetation and sparse Joshua tree woodland, with the Tehachapi foothills in the background. The cultural environment includes tall power transmission lines and towers, as well as wind turbines to the north. The intrusion of prominent infrastructure related to power generation and transmission in the natural

environment reduces existing visual quality around isolated rural residences to moderate. In this setting, the HSR guideway would be constructed on a berm ranging from approximately 5 to 40 feet above grade. The guideway would be moderately compatible with the industrial character of transmission lines and wind turbines in the cultural environment. Rural residents would have high awareness of the project. Despite the prominence of the guideway in a landscape with expansive open views, rural residents' exposure would be moderately low because of the small number of people affected and their relative distance from the alignment.

CEQA Conclusion

In the vicinity of Robert Ranch Road in the Mojave Desert, Alternative 1 would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 19: View from Rosamond Boulevard Looking West-Northwest

This KVP shows motorists' views from Rosamond Boulevard toward Alternative 1 and is representative of views from nearby single-family residences to the south and southeast in the town of Rosamond. The upper image in Figure 3.16-38 shows the existing view from this KVP and the lower image shows the view from this KVP with a visual simulation of Alternative 1. As shown in the upper image, prominent existing features in the foreground include the two-lane asphalt surface of Rosamond Boulevard, power lines with wooden poles on the northern shoulder of the roadway, and a religious cross and sign addressed to motorists. KVP 19 provides expansive and unimpeded views across a desert scrub landscape in the Antelope Valley to Willow Springs Butte, about 900 feet above the valley floor to the northwest, and to the Tehachapi foothills in the distance. The existing visual quality at this location is moderately high because of the views of desert landscape and mountainous features in the natural environment. As shown in the lower image in KVP 19, the project would introduce a retained fill guideway with an elevated HSR overhead crossing over Rosamond Boulevard. With a clearance of 17.5 feet and a structure depth of 14.5 feet, this road crossing would rise 32 feet above the surface of Rosamond Boulevard. Leading up to the road crossing, the guideway would be constructed on a sloped berm elevated approximately 32 feet above grade. These project features would intensify the urban character of the cultural environment at the northern margin of Rosamond, but they would be moderately compatible with the existing visual environment.

Motorists on Rosamond Boulevard would have moderate awareness of the road crossing because it would serve as a focal point elevated above the surrounding valley floor. However, they would experience direct exposure to the project for a short time while approaching the road crossing (approximately 1 minute for westbound motorists and 2 minutes for eastbound motorists, assuming a vehicle speed of 45 miles per hour). The overall sensitivity of motorists to the aesthetic environment would be moderate. In a foreground distance of 0.25 mile or less, the road crossing and guideway would partially obstruct motorists' distant westward views of the Tehachapi foothills but would not substantially obstruct views of Willow Springs Butte. Motorists would have a limited duration of exposure and their views of scenic natural resources would not be substantially impaired.

Residential viewers near KVP 19 would have high awareness of the elevated guideway and road crossing near their homes. The visibility of Alternative 1 for residents would vary depending on their location and the presence of intervening structures. Generally, open views of the alignment would be available to residences, although the nearest residence would be located approximately 800 feet away from the road crossing, somewhat reducing viewer exposure. Therefore, residents' exposure would be moderate. Residential viewers would have moderately high sensitivity to visual impacts. For motorist viewers, the project would partially obstruct views of the Tehachapi foothills but would not block views of Willow Springs Butte.

CEQA Conclusion

At KVP 19, motorists would have a limited duration of exposure to Alternative 1 and their views of scenic natural resources would not be substantially impaired. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. This impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-38 Key Viewpoint 19: Existing and Simulated Views of Alternative 1 from Rosamond Avenue Looking West-Northwest

Rosamond Rural Landscape Unit

From the northern edge of Rosamond, Alternative 1 would continue on retained fill in a southeasterly direction through a rural desert landscape to Avenue H near Sierra Highway in northern Lancaster. New roadway overheads would be constructed for the following roadways: Holiday Avenue, Gaskell Road, Avenue B, Avenue C, and Avenue G. As discussed in Section 3.16.5.7, viewer groups in this landscape unit include single-family residences in Rosamond between Rosamond Boulevard and Willow Avenue, a mobile home park south of Avenue E, commuters on SR 14, and scattered commercial and industrial businesses. Impacts on visual quality for residences near Rosamond Boulevard are discussed above under KVP 19 in the West Mojave Landscape Unit. For the purposes of CEQA, this landscape unit is considered non-urbanized.

Key Viewpoint 20: View from Gobi Avenue Looking West

This KVP is representative of residential views in the vicinity of Gobi Avenue in western Rosamond, looking westward toward Alternative 1 from a distance of approximately 0.25 mile. The upper image in Figure 3.16-39 shows the existing view from this KVP, and the lower image shows a visual simulation of Alternative 1. In the upper image, the foreground has a mixture of cultural and natural elements, including the unpaved surface of Gobi Avenue, a single-family residence bordered by chain-link fencing, overhead power lines, and desert scrub vegetation. The natural environment dominates the background, with clear views of Willow Springs Butte at a distance of approximately 2.9 miles and the Tehachapi foothills approximately 18 miles to the west. The features of the cultural environment generally detract from views of natural scenery, resulting in a moderate degree of existing visual quality. As shown in the lower image, at KVP 20, the HSR guideway would run on an elevated berm approximately 30 to 35 feet above the surrounding grade, with a bridge over 60th Street. These features would transform the existing flat topography of the area and would be visually incompatible with the cultural order of the low-density residential neighborhood in the foreground.

Residential viewers at KVP 20 would have moderately high exposure to the guideway and overhead at a distance of 0.25 mile from their homes. Even at this distance, the bridge, berm, and OCS poles would be prominent from their perspective. Furthermore, residences located adjacent to Alternative 1 on Gobi Avenue and Jackson Avenue would have high exposure to the guideway and overhead and therefore high sensitivity to visual impacts. The alignment would fully obstruct existing, scenic, westward views of the Tehachapi foothills and partially obstruct views of Willow Springs Butte. The introduction of incompatible visual elements and obstruction of scenic views would degrade visual quality from moderate to moderately low. Impacts on visual quality would be similar at residences adjacent to Alternative 1 between Rosamond Boulevard and Willow Avenue. Mitigation Measures AVQ-MM#3, AVQ-MM#4, and AVQ-MM#6, as described in Section 3.16.7, are required to screen the guideway from residential views without further obstructing scenic views of the natural landscape, to enhance the design of the elevated viaduct at the overhead, and to plant landscape treatments along the overhead. Although these mitigation measures would reduce impacts on visual quality in the foreground of views from residences, Alternative 1 would still obstruct scenic mountainous views.

CEQA Conclusion

The impact from Alternative 1 at KVP 20 would result in a significant impact under CEQA given residents' high viewer sensitivity and the introduction of incompatible visual elements and obstruction of scenic views that would degrade visual quality from moderate to moderately low. The project would substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measures AVQ-MM#3, AVQ-MM#4, and AVQ-MM#6, as described in Section 3.16.7, are required. These measures would reduce impacts on visual quality in the foreground of viewers by screening the guideways, enhancing the design of the elevated viaduct at the overhead, and planning landscape treatments along the overhead. However, after mitigation, Alternative 1 would still result in a significant impact under CEQA as it would still obstruct scenic mountainous views.



Figure 3.16-39 Key Viewpoint 20: Existing and Simulated Views of Alternative 1 from Gobi Avenue Looking West

Key Viewpoint 21: View from 40th Street at Holiday Avenue Looking Southwest

KVP 21 shows views from the southwest edge of a single-family residential neighborhood in Rosamond, facing southwest toward Alternative 1 from a distance of approximately 1.6 miles. This viewpoint is representative of long-distance views toward the alignment in the Rosamond Rural Landscape Unit. The upper image in Figure 3.16-40 shows the existing view from this KVP, and the lower image provides a visual simulation of Alternative 1. The setting is characterized by a wide asphalt roadway, a chain-link fence bordering Westpark Elementary School, barren ground, desert scrub vegetation in the foreground, and the relatively inconspicuous ridgelines of the Tehachapi and Sierra Pelona Mountains in the background. Near KVP 21, walls separate residents from Holiday Avenue, 35th Street, and 40th Street, partially obstructing ground-floor views toward the alignment. Residences in the neighborhood have a similar contemporary design, and their exterior walls are painted in muted earth tones. The cultural environment has a high degree of order, although it contrasts with the desert scrub landscape in the natural environment. On the whole, existing visual quality in the area is moderate.

To the west of KVP 21, Alternative 1 would be constructed on an embankment, elevated approximately 30 to 40 feet above the surrounding grade. In its immediate environment, the guideway would be visually incompatible with the adjacent natural desert landscape and the cultural order of low-density residential development in Rosamond. However, as shown in the lower image for KVP 21, the guideway for Alternative 1 would be barely discernable against the horizon west of the intersection of Holiday Avenue and 40th Street. Although the at-grade guideway would rise approximately 30 to 40 feet above grade in this area, it would not be substantially visible to residents near KVP 21 because of the distance between residents and Alternative 1. Residents would have low viewer exposure and sensitivity, and visual quality would remain moderate.

CEQA Conclusion

At KVP 21, Alternative 1 would not be substantially visible to residents, resulting in low viewer exposure and sensitivity. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-40 Key Viewpoint 21: Existing and Simulated Views of Alternative 1 from 40th Street Looking Southwest

Mobile Homes at Avenue E and 20th Street

Leisure Lake Mobile Estates, a mobile home community, is located southwest of the intersection of Avenue E and 20th Street, approximately 950 feet west of Alternative 1. This residential community is bordered by a concrete masonry unit wall along Avenue E and 20th Street and a row of pine trees on 20th Street. The wall and trees partially obstruct eastward views toward Alternative 1. Open expanses of desert scrub vegetation surround the residences to the north and east, with views of mountains in the distance. The surrounding desert landscape is relatively undisturbed and has a sense of natural harmony. The high-density, walled residential community

strongly contrasts with this natural landscape, resulting in a moderate degree of existing visual quality.

In this area, Alternative 1 would consist of a retained-fill guideway approximately 35 feet above the existing grade, an HSR access road crossing Avenue E, and another access road extending northward from Avenue E to the western side of the guideway. These project features would be visually incompatible with and disrupt the natural harmony of the surrounding desert scrub landscape. However, while the guideway and overhead would be elevated above the flat topography of the Antelope Valley, residents' exposure would be relatively low because of their distance from these project features. Moreover, these project features would not substantially alter existing background views of mountains. Visual quality at the mobile home community would remain moderate.

CEQA Conclusion

At the Leisure Lake Mobile Estates mobile home community, residential exposure to Alternative 1 would be relatively low and visual quality at the mobile home community would remain moderate. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Motorists on State Route 14

Alternative 1 would cross SR 14, the Antelope Valley Freeway, at a slant between Avenue D and Avenue E. At this location, SR 14 is a divided highway with two lanes in each direction. The highway affords almost entirely uninterrupted panoramic views in all directions across the Antelope Valley, including undisturbed desert scrub vegetation, isolated urban development in the foreground and middle ground, and the Tehachapi, Sierra Pelona, and San Gabriel Mountains in the background. Although SR 14 is neither a designated scenic highway nor eligible for such designation, the Lancaster Master Environmental Assessment identifies the Antelope Valley Freeway between Avenues A and M as a potential scenic route. Therefore, the segment of SR 14 that Alternative 1 would cross does offer scenic views of the natural environment to commuters. Existing visual quality is moderately high because of the panoramic views of natural landscapes. The retained-fill guideway and road crossing over SR 14 for Alternative 1 would be raised approximately 30 to 40 feet above the highway's grade. As a linear transportation route, the HSR guideway would be visually compatible in terms of physical form with SR 14 but not with the natural desert landscape that surrounds the highway.

As the primary north-south highway route through the Antelope Valley, SR 14 carries between approximately 40,000 and 92,000 vehicles per day through the Lancaster and Palmdale areas (Caltrans 2014). For southbound motorists, the alignment would cross SR 14 approximately 0.35 mile south of the Avenue D overpass and southbound motorists would only be exposed to the alignment for a few seconds. North of the Avenue D overpass, views of the alignment would be blocked by the overhead structure. Northbound motorists would have views of the alignment for approximately 0.6 mile between the Avenue E overpass and the alignment road crossing. From the perspective of commuters, the alignment would only be visible for a short period of time (under 1 minute in either direction) and the alignment would be similar in appearance to other roadway overheads that cross the freeway. Exposure to the alignment road crossing would be low due to the short duration, and commuters would have low sensitivity to visual changes. The prominent guideway and overhead would obstruct the background of panoramic views of desert scrub vegetation across the Antelope Valley and would partially obstruct background views of mountains in both the northbound and southbound directions. However, motorists would retain opportunities for substantial scenic views of the Antelope Valley and mountains. Therefore, visual quality near the Alternative 1 overhead would degrade from moderately high to moderate.

CEQA Conclusion

For motorists on SR 14, exposure to the overhead would be low, commuters would have low sensitivity to visual changes, and the visual quality would not be degraded substantially. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Lancaster-Palmdale Landscape Unit

In the Cities of Lancaster and Palmdale, Alternative 1 would follow the Sierra Highway/UPRR corridor. In contrast to the rural conditions in Rosamond, the Sierra Highway corridor in Lancaster is a heavily traveled urban boulevard adjoining a well-defined, cohesive town center and other sensitive viewpoints in the visual foreground of the alignment. These sensitive viewpoints include Whit Carter Park, a substantial number of residences, the town center on Lancaster Boulevard, the University of Antelope Valley, the Sierra Highway Bike Path, and Desert Sands Park. For the purposes of CEQA, this landscape unit is considered urbanized.

Alternative 1 would be constructed at grade through the Lancaster-Palmdale Landscape Unit. In the northern subsection of the landscape unit, north of Avenue O, Alternative 1 would run to the east of Sierra Highway on the existing UPRR tracks, which would be realigned to the west from Avenue H to Avenue K. South of Avenue K, Sierra Highway and the Sierra Highway Bike Path would be realigned approximately 0.2 to 0.6 mile westward and the UPRR tracks would retain their existing right-of-way. The guideway would continue southward along the existing alignment of Sierra Highway. From the northern end of the Lancaster-Palmdale Landscape Unit to Avenue M, the guideway would generally follow within 4 feet of the existing grade. South of that point, it would be up to approximately 40 feet below grade. In addition, new roadway overheads would be constructed over Alternative 1 at Avenues I, J, K, and M and the existing roadway overheads at Avenues L and H would be reconstructed. These features, however, would be visually compatible with existing at-grade transportation corridors parallel to Alternative 1 (i.e., Sierra Highway and the UPRR tracks) and with existing overheads at Avenues H and L.

In the southern subsection of the landscape unit, south of Avenue O, Alternative 1 would be parallel to and west of the Metrolink right-of-way. The alignment would enter Palmdale Station after crossing E Avenue Q approximately 2 miles south of Avenue O. The alignment would follow the existing Sixth Street E right-of-way through Palmdale Station until it intersects with Avenue R. The alignment would continue south of Avenue R for approximately 700 feet to the Palmdale Station. The realigned Sierra Highway would continue southward from Avenue O in a right-of-way parallel to and west of Alternative 1 until a roadway overhead of the HSR guideway south of Avenue P. From Avenue Q to the south, Sierra Highway would remain in its current alignment east of the Metrolink right-of-way. Other new roadway overheads would be constructed on the following east-west routes: Avenue P, E Palmdale Boulevard (SR 38), and Avenue R. KVP 28 in the southern subsection is representative of views of the Palmdale Station and is discussed separately in Section 3.16.6.4, Station Sites.

Key Viewpoint 22: View from Whit Carter Park

Lancaster's Whit Carter Park is located as close as 300 feet to the west of Alternative 1 and includes recreational areas approximately 740 feet from the alignment. Figure 3.16-51 (in the impact analysis of Alternative 5) shows existing conditions at this KVP looking eastward toward Sierra Highway. The visual environment at Whit Carter Park consists of winding concrete walkways, playgrounds, grassy fields, scattered ornamental trees, and pole-mounted lights. Beyond a perimeter chain-link fence, a 35-acre undeveloped portion of the park and an adjacent property to the north are barren. The Avenue H overhead of Sierra Highway and the UPRR tracks are visible approximately 0.5 mile to the northeast. Although Whit Carter Park has a high unity of design and a sense of cultural order, it does not harmonize with the surrounding barren undeveloped areas. Therefore, the existing visual quality is moderate on the whole. Alternative 1 would be constructed at grade parallel to and between Sierra Highway and a realigned UPRR right-of-way. Because the guideway would fit between two major transportation corridors that are also at-grade, it would be compatible with the existing cultural order near Whit Carter Park.

Visitors at this public park would have high viewer awareness because of their concern for the appearance of a public recreational amenity. However, their exposure to Alternative 1 would be moderately low because recreational areas at Whit Carter Park would be situated at least 740 feet from the at-grade elevation of the guideway. Viewer exposure from the parking lot would be moderate, but this analysis assumes that the sensitivity of viewers in recreational areas of the park would be of primary concern. Overall, visual sensitivity for park users would be moderate. Furthermore, while OCS poles on the guideway may be visible from the perspective of the park,

they would be less prominent than the existing Avenue H overpass to the northeast. Moreover, the maturation of recently planted landscaping on-site would filter views toward Alternative 1. Therefore, visual quality at the park would remain moderate. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the City of Lancaster General Plan (City of Lancaster 2009a).

CEQA Conclusion

At KVP 22, Alternative 1 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

Residential Neighborhoods

A substantial number of residences in the Lancaster-Palmdale Landscape Unit occur near Alternative 1 to the west of Sierra Highway. Specific residential areas and their approximate distances from the alignment's centerline are listed below, starting at the northern end of the landscape unit and continuing southward:

- Single-family residences on Trixis Avenue (about 520 feet west)
- Single-family residences on Cedar Avenue (at least 850 feet west)
- Apartment buildings between Jackman Street and Ivesbrook Street (about 300 feet west)
- Single-family residences on Lancaster Boulevard (about 500 feet east)
- Apartments on Beech Avenue south of Newgrove Street (about 540 feet west)
- Single-family residences on Pillsbury Street and Beech Avenue to the north (at least 450 feet west)
- Multifamily residences on Avenue J-8 (about 300 feet west)

Residential areas near Alternative 1 range from cohesive single-family and multifamily developments with a high degree of cultural order to transitional residential-commercial areas with a more heterogeneous appearance. Large vacant lots with disturbed, barren ground or ruderal vegetation commonly separate residential areas from Sierra Highway and Alternative 1, especially between Avenue K and Avenue L and between Avenue H and Avenue I in southern Lancaster. Similar to the setting at Whit Carter Park, these vacant areas contrast with the cultural order of adjacent residential neighborhoods. Views of small-scale, strip-commercial land uses along Sierra Highway and the UPRR freight rail line, sometimes obstructed by intervening buildings or filtered by vegetation, are available to nearby residences. Overall visual quality in residential areas ranges from moderate to moderately low. Alternative 1 would be constructed at grade near residences. In addition, 36-foot-high overheads would be constructed within 0.25 mile of residences at Avenues I, J, and K and reconstructed at Avenues H and L. These features, however, would be visually compatible with existing at-grade transportation corridors parallel to Alternative 1 (i.e., Sierra Highway and the UPRR tracks) and existing overpasses at Avenues H and L.

Residents would have a high level of concern for their visual environment, but their exposure would generally be moderately low to low, considering that Alternative 1 would be at grade and often obscured by intervening buildings and vegetation. Multifamily residences located west of Sierra Highway between Jackman Street and Ivesbrook Street would have direct views toward the new 36-foot-high Avenue I overhead over Sierra Highway and the HSR tracks, located approximately 300 feet to the northeast. Those residents with north-facing windows would have moderate exposure to the reconstructed overhead. However, in the context of vacant lots, strip-commercial development, and the highway and freight rail rights-of-way surrounding these residences, the overhead would not substantially degrade the existing moderately low visual quality.

Although construction of Alternative 1 would involve the removal of vegetation lining the existing bike path, the at-grade guideway would be visually compatible with the adjacent railroad corridor and would not introduce a prominent elevated feature in the project environment. Overall, because of Alternative 1's compatibility with adjacent land uses, visual quality would not substantially decline and would remain moderate to moderately low. Because the HSR guideway would be visually compatible with adjacent land uses near residential neighborhoods in Lancaster, it would not conflict with Policy 19.2.4 in the City of Lancaster General Plan to "provide buffers to soften the interface between conflicting land uses and intensities." Nonetheless, the

Authority would implement AVQ-IAMF#2 (Aesthetic Design Process) to work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Implementation of AVQ-IAMF#2 would enhance the guideway's visual compatibility with surrounding land uses. Therefore, in these urbanized areas, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality.

CEQA Conclusion

For residents in the urbanized Lancaster-Palmdale Landscape Unit, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 23: View from Downtown Lancaster

Alternative 1 would cross the eastern end of the historic Lancaster downtown where the existing UPRR tracks cross Lancaster Boulevard. Figure 3.16-52 (in the impact analysis of Alternative 5) shows the existing view from this KVP. Several blocks of Lancaster Boulevard from Sierra Highway to 10th Street have been extensively improved with a redesigned streetscape, including decorative paving, decorative lighting, and extensive tree planting and landscaping in sidewalks and in a central median. These improvements, along with pedestrian-friendly commercial retail storefronts on Lancaster Boulevard, result in moderately high visual quality in the town center. Alternative 1 would be constructed at grade near Lancaster Boulevard. Because the alignment would be located in a transportation corridor (including adjacent Sierra Highway to the west and the realigned UPRR tracks to the east) and would not be substantially elevated above the existing grade, it would be visually compatible with the surrounding cultural order.

Viewer concern for the visual environment in this heavily used town center is high, but exposure to visual changes would be moderately low. Overall, viewer sensitivity would be moderate. The storefront façades on Lancaster Boulevard create narrow, focused views of the alignment, limiting the length of visible guideway in the view. The guideway also would be at-grade and would not serve as a prominent focal point, although approximately 24-foot-tall OCS poles would be visible to pedestrians on Lancaster Boulevard. Furthermore, the canopies of dense street tree plantings would filter views toward Sierra Highway and Alternative 1 during much of the year. This screening would become increasingly complete and effective with tree maturation. Therefore, visual quality for viewers in the Lancaster town center would remain moderately high. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the City of Lancaster General Plan (City of Lancaster 2009a).

CEQA Conclusion

At KVP 23, Alternative 1 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

University of Antelope Valley

The University of Antelope Valley is located in strip-commercial-style buildings up to two stories high with scattered tall palm trees and large surface parking lots that front Sierra Highway, with overhead power lines on the western side of Sierra Highway, five asphalt lanes on the roadway, and the Sierra Highway Bike Path and adjacent landscaping on the eastern side of Sierra Highway. Because utilitarian, automobile-oriented development dominates, existing visual quality is moderately low. Alternative 1 would be constructed at grade on the eastern side of Sierra Highway and the UPRR tracks would be realigned adjacent to the east. The alignment would be visually compatible with adjacent, at-grade transportation corridors in the cultural environment.

Considering the utilitarian character of the existing area, viewer awareness for students, faculty, and staff at the University of Antelope Valley would be moderate. Their exposure would be moderately low because even though Alternative 1 would be located immediately across Sierra Highway from the property, the university's parking lots fronting Sierra Highway (approximately 250 feet west of Alternative 1) would not be a sensitive viewing location, the east-facing windows in school buildings would not provide clear views of the at-grade guideway, and no outdoor activity areas would face the alignment. The removal of trees and shrubs lining the existing Sierra

Highway Bike Path also would degrade visual quality, although it is anticipated that vegetation would be replanted along a realigned bike path. Overall visual quality from the perspective of the university would remain moderately low in the long term. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the City of Lancaster General Plan (City of Lancaster 2009a).

CEQA Conclusion

At the University of Antelope Valley, Alternative 1 would be in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 24: View from the Sierra Highway Bike Path Looking North

This KVP depicts a northward view of the existing Sierra Highway Bike Path and its surroundings near the University of Antelope Valley. The upper image in Figure 3.16-41 shows the existing view from this KVP, and the lower image shows the view from this KVP with a visual simulation of Alternative 1. As shown in the upper image, landscaped strips with shrubs and occasional trees and grasses line the bike path. This vegetation provides visual relief from the adjacent urban land uses and a modicum of natural harmony. Beyond the screening landscape, trail users have foreground views of five lanes of asphalt roadway on Sierra Highway, strip-commercial development on the west side of the roadway, overhead power lines and pole-mounted lights along Sierra Highway, and the UPRR tracks to the east. The prominence of transportation corridors, utility infrastructure, and automobile-oriented development, while filtered by adjacent landscaping, results in a moderately low degree of visual quality at KVP 24.



Figure 3.16-41 Key Viewpoint 24: Existing and Simulated Views of Alternative 1 from Sierra Highway Bike Path Looking North

Alternative 1 would relocate the UPRR right-of-way to the east to make way for an at-grade HSR guideway immediately in between the Sierra Highway Bike Path and the realigned UPRR tracks. The at-grade guideway would be within 4 feet of the existing ground level. As an at-grade rail corridor located adjacent to realigned at-grade roadway and rail corridors, Alternative 1 would be visually compatible with transportation infrastructure in the surrounding cultural environment.

Viewers on the Sierra Highway Bike Path would include commuting and recreational bicyclists. Outdoor recreational viewers typically have a moderately high to high level of concern for

aesthetics and would pay more attention to the visual setting than would commuters. However, the existing commercial and industrial context of the bike path would lower expectations of natural harmony and cultural order. Therefore, bike path users on the Sierra Highway Bike Path would have moderate viewer awareness. Viewer exposure would be high at KVP 24 since the path would run adjacent to the guideway at this point. South of KVP 24, the bike path would be realigned approximately 0.2 to 0.6 mile west of the alignment for the remainder of the landscape unit. Therefore, viewer exposure would be low in those areas. Overall viewer sensitivity for bike path users would be low to moderately high depending on the distance of the bike path from the alignment. At the location of KVP 24, viewer sensitivity would be moderately high.

The lower image in Figure 3.16-41 is a simulation of the at-grade guideway as viewed from the bike path at KVP 24. This simulation assumes that the realigned bike path would retain the design of the existing bike path and that screening vegetation would border the realigned bike path. Views from the realigned path may be more direct in the initial years after construction of Alternative 1, before screening trees and shrubs mature and serve as visual buffers. However, eastward views of the adjacent at-grade HSR guideway would remain comparable to existing views of the at-grade UPRR right-of-way. Moreover, westward views of the realigned Sierra Highway would remain similar. Although the 24-foot-tall OCS poles would be visible from the bike path, the at-grade guideway would not be a prominent focal point for bicyclists. In the long term, upon maturation of screening vegetation at the realigned bike path, visual quality would remain moderately low. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the City of Lancaster General Plan (City of Lancaster 2009a).

CEQA Conclusion

At KVP 24, Alternative 1 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 25: View from the Avenue L Overpass Looking Northwest

KVP 25 would overlook Alternative 1 from overhead at the Avenue L overpass of Sierra Highway and the UPRR tracks. The upper image in Figure 3.16-42 shows the existing view from this KVP, and the lower image shows the view with a visual simulation of Alternative 1. As shown in the upper image, foreground views include the UPRR tracks, shrubs lining the Sierra Highway Bike Path, the four-lane highway with pole-mounted streetlights, and industrial and commercial development with sparse landscaping to the west. Distant views of hills are available in the background. Existing visual quality is moderately low because of the utilitarian character of the cultural environment. In this area, as shown in the lower image for KVP 25, Alternative 1 would realign Sierra Highway and the Sierra Highway Bike Path approximately 0.3 to 0.4 mile to the west, demolish industrial and commercial buildings on the west side of the existing highway, construct the HSR guideway at grade in place of these buildings, and reconstruct the Avenue L overpass approximately 5 feet higher, to a new height of 36 feet above grade. The alignment would be approximately 2 feet below grade. Although Alternative 1 would displace existing Sierra Highway, it would be visually compatible with the adjacent project environment, including the UPRR rail corridor and industrial and commercial development in the cultural environment.

Commuters on Avenue L would have moderately low awareness of Alternative 1 because KVP 25 does not afford foreground views of unique features in the cultural environment or especially scenic background views toward hills that bound the Antelope Valley. Viewer exposure would be moderately low. Although the guideway would be visible to commuters for a short time while crossing the overpass, its orientation below the overpass and at-grade means that it does not serve as a prominent visual element for motorists. Overall, viewer sensitivity would be low. Alternative 1 would not substantially alter foreground views of the cultural environment and would not obstruct background views of hills. Visual quality from the perspective of commuters on the Avenue L overpass would remain moderately low. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the City of Lancaster General Plan (City of Lancaster 2009a).



Figure 3.16-42 Key Viewpoint 25: Existing and Simulated Views of Alternative 1 from Avenue L Overpass Looking Northwest

CEQA Conclusion

At KVP 25 Alternative 1 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 26: View from Desert Sands Park Looking East

KVP 26 is located at the northeast corner of Desert Sands Park looking east, at a distance of approximately 0.3 mile from the HSR alignment in Palmdale. The upper image in Figure 3.16-43 shows the existing view from this KVP and the lower image shows the same view with a visual simulation of Alternative 1. KVP 26 is representative of views from Desert Sands Park for people participating in active recreation, including baseball, softball, and soccer. Existing views toward the alignment are characterized by vacant land with desert vegetation, juxtaposed to a rectangular building to the right and street lights, power lines, and scattered buildings in the distance. Existing visual quality is considered low because of the lack of any important visual elements and the commonplace nature of what is present.

The lower image in Figure 3.16-43 shows that Alternative 1 would include an at-grade railbed on an embankment that elevates the railway above existing conditions and partially screens the view of existing development in the distance. Twenty-four-foot OCS poles and wires on the HSR guideway would be visible and similar in character to existing streetlights, poles, and power lines. To the north of KVP 26, realigned Sierra Highway would cross over Alternative 1 on a new roadway overcrossing. However, project features would be visually subordinate to and compatible with the setting because they would not introduce substantial new structures.

Active recreationists at KVP 26 would have moderately high viewer awareness. While recreational viewers typically have high awareness of the visual environment, people engaged in baseball, softball, and soccer focus more on athletic activity in their immediate foreground. Viewer exposure would be moderately low. Although the guideway would be visible in the middle ground, behind desert vegetation, the at-grade profile would minimize obtrusiveness from the perspective of Desert Sands Park. Existing evergreen and deciduous trees at the northeast corner of the park and in the park adjacent to E Avenue P-8 and Third Street E also would largely obstruct recreationists' views of the new Sierra Highway overcrossing to the northeast. Overall, viewer sensitivity would be moderate. Because Alternative 1 would be visually compatible with its setting, visual quality would remain low. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with City of Palmdale General Plan (City of Palmdale 2013).

CEQA Conclusion

At KVP 26, Alternative 1 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-43 Key Viewpoint 26: Existing and Simulated Views of Alternative 1 from Desert Sands Park Looking East

Key Viewpoint 27: View from East Avenue Q Looking Northeast

KVP 27 is located on E Avenue Q near its intersection with Fifth Street E, looking northeast toward R. Rex Parris High School. The upper image in Figure 3.16-44 shows the existing view from this KVP and the lower image shows the same view with a visual simulation of Alternative 1. This viewpoint depicts a typical suburban landscape in a residential area. Horizontal and vertical linear elements frame the view. A flat, horizontal road anchors the scene. Power lines pass parallel to one another across the sky. Streetlights and transmission poles line the roadway. A dark metal fence partitions the road and sidewalk from the R. Rex Parris High School parcel. Beyond the fence, trees in a grassy field partially screen the view of a rectangular building with a flat roof and vertical and horizontal striping. Visual signs of construction are present in the form of a long green fence along the far side of E Avenue Q. Existing visual quality is low because of the lack of unity in the cultural environment.

As shown in the lower image in Figure 3.16-44, school facilities on the existing R. Rex Parris High School parcel would be replaced with a new HSR surface parking lot at the Palmdale Station. The project would add streetscape landscaping by lining the perimeter of the parking lot with uniform rows of trees. A new roadway separated by a landscaped median would be perpendicular to the existing road. The landscaped parking lot and roadway with landscaping would be visually compatible with the suburban cultural environment.

Residential neighbors directly across the street from R. Rex Parris High School would have high viewer awareness and exposure to the project features. Travelers, including motorists, pedestrians, and bicyclists, would have moderately low viewer awareness because KVP 27 does not currently afford foreground views of unique features in the cultural environment or scenic background views toward hills. These travelers' exposure would be moderately low due to the brief duration of views. For residents and travelers, parked cars in the new surface parking lot would be prominent foreground elements, yet the removal of existing built features from the school site would open up partial background views of hills. Moreover, the addition of uniform landscaping at the parking lot would neutralize adverse visual effects from parked cars and asphalt pavement as the trees mature and screen the foreground. The addition of uniform landscaping would enhance the cultural order of the scene. Overall, visual quality would change from low to moderately low, a beneficial change. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with City of Palmdale General Plan (City of Palmdale 2013).



Figure 3.16-44 Key Viewpoint 27: Existing and Simulated Views of Alternative 1 from East Avenue Q Looking Northeast

CEQA Conclusion

At KVP 27, Alternative 1 would result in a beneficial change to visual quality. Further, KVP 27 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, this impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 29: View from Avenue Q7 Looking West

KVP 29 is located near the northwest corner of E Avenue Q7 looking west toward Sierra Highway and Dr. Robert C. St. Clair Parkway. The upper image in Figure 3.16-45 shows the existing view from this KVP and the lower image shows the same view with a visual simulation of Alternative 1. In the foreground, this viewpoint captures the flat, paved roadway (Sierra Highway), vertical signage and streetlights, and large, regularly spaced trees associated with Dr. Robert C. St. Clair Parkway, a linear park and bike path that runs parallel to Sierra Highway from E Avenue Q to E Avenue Q12. The trees partially screen the view of buildings and the rail corridor behind Dr. Robert C. St. Clair Parkway. The existing visual quality is low.

As shown in the lower image in Figure 3.16-45, Alternative 1 would construct at-grade tracks and associated fencing behind the existing trees and parkway, along the existing Metrolink rail corridor. The HSR guideway would be similar in form and materials to the visual elements of the existing railroad, highway, and adjacent commercial and industrial buildings. As a linear transportation route, the HSR guideway would be visually compatible in terms of physical form with the Metrolink rail corridor and Sierra Highway. Furthermore, as the track profile would be near the existing ground level and existing trees would remain, the trees would largely camouflage the visual changes. The project would be compatible with the visual character of the scene.

The primary viewer groups represented in KVP 29 are non-sensitive industrial and commercial uses, who would have low awareness of the visual environment. Other viewers include motorists, pedestrians, and cyclists, who would have moderate awareness. Because the existing trees lining Sierra Highway and screening the alignment would remain, viewers would have limited exposure to the alignment. Therefore, viewers would have low sensitivity to visual changes. With the at-grade HSR guideway largely screened from view by existing trees, the effect on visual quality would be neutral and visual quality would remain low. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with City of Palmdale General Plan (City of Palmdale 2013).

CEQA Conclusion

At KVP 28, Alternative 1 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-45 Key Viewpoint 29: Existing and Simulated Views of Alternative 1 from Avenue Q7 Looking West

Key Viewpoint 30: View from East Palmdale Boulevard Looking West

Looking west, KVP 30 is located on E Palmdale Boulevard at Sierra Highway in the northwest corner of the Palmdale Library. The upper image in Figure 3.16-46 shows the existing view from this KVP, and the lower image shows the same view with a visual simulation of Alternative 1. Whereas most of Palmdale is suburban in character, this view is representative of an urbanized area. Transportation infrastructure dominates the view: traffic lights, cobra streetlights, billboards, and the railway crossing infrastructure dominate the vertical plane, breaking up the otherwise open sky with irregular lines and shapes. This intersection is one of the busiest traffic routes in Palmdale, and the developed character is softened by the landscaped linear park and bikeway that composes Dr. Robert C. St. Clair Parkway along Sierra Highway. However, this landscaped element and that of the City Hall complex do not substantially improve visual quality associated with the busy transportation infrastructure and strip-commercial development. Existing visual quality is low because of the utilitarian character of the urban cultural environment.

As shown in the lower image in Figure 3.16-46, Alternative 1 would reconstruct E Palmdale Boulevard as an elevated overcrossing of the at-grade HSR corridor, with engineered fill supporting each end of the overcrossing. This overcrossing would introduce a new dominant vertical visual element to the scene, foreshortening western views as observed at this end of the City Hall complex. Piers supporting the overcrossing would be highly visible, as would the engineered hill that supports the bridge. Twenty-four-foot OCS poles and wires along the tracks would be visible, but they would not be substantially different from the multiple existing streetlights and traffic signals. The prominent overcrossing structure, because of its height, scale, and proximity to the City Hall complex, would be visually incompatible with the existing setting.

KVP 30 is representative of several viewer groups on E Palmdale Boulevard, including motorists; civic, institutional, and commercial neighbors; pedestrians; and cyclists. Travelers and commercial neighbors would have low viewer awareness because of the utilitarian visual character of strip commercial development in the Sierra Highway corridor. Motorists, pedestrians, and cyclists would only view the project for a short duration and therefore would also have low viewer awareness. Overall viewer sensitivity would be low. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with City of Palmdale General Plan (City of Palmdale 2013).

CEQA Conclusion

At KVP 30, Alternative 1 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-46 Key Viewpoint 30: Existing and Simulated Views of Alternative 1 from E Palmdale Boulevard Looking West

Alternative 2

East Bakersfield Landscape Unit

The segments of both Alternatives 1 and 2 that are in the East Bakersfield Landscape Unit are identical. Therefore, the effects of Alternative 2 would be the same as those described for Alternative 1.

Edison/Rural Valley Landscape Unit

East of SR 184, Alternative 2 would change from a viaduct profile to a retained-fill profile with a 0.5-mile viaduct over Edison Road. The SR 58 eastbound and westbound lanes would not be realigned under this alternative. As discussed in Section 3.16.5.2, open agricultural fields, vineyards, and orchards, with related agro-industrial factories north of Edison Highway, characterize this landscape unit. For the purposes of CEQA, this landscape unit is considered non-urbanized.

Key Viewpoint 3: View from School Street Looking Southwest

KVP 3 is located on School Street adjacent to Edison Middle School just east of Edison Road. KVP 3 is oriented southwest toward where Alternative 2 would be elevated on a viaduct. The upper image in Figure 3.16-47 shows the existing view from this location and the lower image shows the visual simulation of the view for Alternative 2. Visual quality in this location is moderately low. Middle-ground views of the expansive orchards and agricultural land to the south contribute to a degree of natural harmony. However, nearby open vacant lots in the SR 58 diamond interchange and industrial areas composed of disorderly utilitarian structures and warehouses conflict with the natural environment.

At Edison Road, Alternative 2 would pass within 750 feet of Edison Middle School and would be elevated on a viaduct with a maximum height of approximately 60 feet. The permanent construction of the large HSR structure would introduce a prominent visual element to the existing natural and cultural environments. The aerial structure would be out of scale with the existing one-story school facilities. Therefore, the project scale would contrast with the existing cultural environment. Due to the scale and height of the HSR structures, the project's overall visual character would be incompatible with the existing visual character.

Students and staff at the school may have heightened awareness of the surrounding visual environment through their use of outdoor recreational and gathering areas, where students and school staff may spend substantial time. From outdoor gathering areas along School Street and outdoor recreational areas along Edison Road at Edison Middle School, people would have moderately high viewer awareness. Due to the prominence of the elevated viaduct in the foreground of views at KVP 3, viewer exposure would be moderately high. As such, Mitigation Measures AVQ-MM#3 and AVQ-MM#6, as described in Section 3.16.7, are required to reduce impacts. These measures would incorporate local design and aesthetic preferences into the design of the viaduct and require landscaping treatments. Implementation of these measures would reduce the prominence of the viaduct. Nonetheless, after implementation of mitigation, the project would remain out of scale with the existing environment and would reduce visual quality from moderate to moderately low.

CEQA Conclusion

The impact of Alternative 2 at KVP 3 would be significant under CEQA because the viaduct would be incompatible with the existing context of at-grade roadway corridors, reducing the visual quality at KVP 3 to low. In addition, viewer exposure at KVP 3 would be moderately high due to the prominence of the elevated viaduct. Therefore, the project would substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. As such, Mitigation Measures AVQ-MM#3 and AVQ-MM#4, as described in Section 3.16.7, are required to reduce impacts. These measures would incorporate local design and aesthetic preferences into the design of the viaduct and require landscaping treatments. Implementation of these measures would reduce the prominence of the viaduct. However, after mitigation, the impact would remain significant and unavoidable under CEQA.



Figure 3.16-47 Key Viewpoint 3: Existing and Simulated Views of Alternative 2 from School Street Looking Southwest

Key Viewpoint 4: View from Jacober Avenue Looking South

KVP 4 is on Jacober Avenue just north of Atlantic Street in the Edison area. This KVP is oriented south toward Alternative 2, which would be placed on an approximately 60-foot retained embankment. Views of the vineyards and agricultural land to the south contribute to a degree of natural harmony, but such views also include the movement of vehicles along SR 58. The small residential areas are composed of houses with similar one-story height and architectural design, which contribute to perceived cultural order. However, the residential areas are bordered by industrial uses of low visual quality. The overall visual quality at KVP 4 is moderate.

The upper image in Figure 3.16-48 shows the existing view from KVP 4, and the lower image shows a visual simulation of Alternative 2 from KVP 4, where the HSR structure would be prominent in the foreground, appearing as a large retaining wall near this alternative's crossing of SR 58 and Edison Road. The retained embankment approximately 60 feet above ground level would be out of scale and visually incompatible with agricultural land to the south and the residential neighborhood at KVP 4. The structure would eliminate views of agricultural areas to the south, limiting exposure to the natural environment.



Figure 3.16-48 Key Viewpoint 4 Existing and Simulated Views of Alternative 2 from Jacober Avenue Looking South

Residents at KVP 4 would have high viewer exposure because of the proximity and prominence of the retained embankment. They would also have moderately high viewer awareness. Not only would the HSR guideway be visually incompatible with the existing environment from the perspective of residents, it would also fully obstruct expansive southward views from the neighborhood. Therefore, Alternative 2 would reduce visual quality to low at KVP 4.

For both of these neighborhoods, Mitigation Measures AVQ-MM#4, AVQ-MM#6, and AVQ-MM#7, as described in Section 3.16.7, are required to reduce impacts. These measures require landscape screening adjacent to residential areas, landscape treatments along the embankment, and sound barrier treatments to enhance the design of sound walls or barriers. Implementation of these measures would reduce the prominence of the retained embankment and sound walls. Nonetheless, with the implementation of mitigation, the project would still reduce visual quality from moderate to low.

CEQA Conclusion

The impact of Alternative 2 at KVP 4 would be significant under CEQA because residents at KVP 4 would have high viewer exposures due to the proximity to and prominence of the retained embankment. Also, the HSR guideway would be visually incompatible with the existing environment from the perspective of residents at KVP 4, reducing the visual quality from moderate to low. Therefore, the project would substantially degrade the visual character or quality of the public views of the site and its surroundings in a non-urbanized area. Mitigation Measures AVQ-MM#4, AVQ-MM#6, and AVQ-MM#7, as described in Section 3.16.7, are required. These measures require landscape screening adjacent to residential areas, landscape treatments along the embankment, and sound barrier treatments to enhance the design of sound walls or barriers. Implementation of these measures would reduce the prominence of the retained embankment and sound walls. Nonetheless, with mitigation, the impact would remain significant and unavoidable under CEQA.

Key Viewpoint 5: View from State Routes 58 Looking East-Southeast into Tehachapi Mountains

KVP 5 is located on SR 58 east of Towerline Road and is oriented east-southeast. KVP 5 represents views from SR 58 motorists as they approach the foothills of the Tehachapi Mountains. The visual quality in this area is high. The agricultural fields on the valley floor and the scenic views of the ridgelines of the Tehachapi Mountains contribute to natural harmony of the area. SR 58 eastbound motorists experience uninterrupted views of the Tehachapi Mountains.

From the perspective of KVP 5, Alternative 2 would be located north of SR 58 on a retained embankment approximately 40 feet high. This embankment would obstruct views of agricultural land on the valley floor and would partially obstruct views of the Tehachapi Mountains to the east. However, it would not block scenic views of the ridgelines to the east or of the mountains to the southeast. Because the HSR structure would not be prominent relative to the scenic resources visible from KVP 5, it would be visually compatible with the natural and cultural environments.

At KVP 5, SR 58 is oriented on a northwest-southeast axis, and views straight ahead for eastbound motorists would not be blocked by the alignment north of the freeway. About 400 feet northwest of KVP 5, however, Alternative 2 would cross SR 58 on an elevated viaduct approximately 40 feet high. This HSR overcrossing would temporarily obstruct views of the Tehachapi Mountains for eastbound motorists on SR 58 as they approach the structure. West of the overcrossing, views straight ahead would not be blocked by the alignment as it would be located south of the freeway. Overall, viewer exposure would be moderately high near KVP 5 due to the proximity of the alignment to the freeway and its overcrossing of SR 58. However, at KVP 5 and to the southeast, the Tehachapi ridgelines would draw the motorists' focus forward and viewer awareness would therefore be low. Overall, viewer sensitivity would be moderate and the project would have a neutral change to visual quality in this area.

CEQA Conclusion

At KVP 5, viewer sensitivity is moderate and Alternative 2 would result in a neutral change to visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Tehachapi Mountains West Landscape Unit

The segments of both Alternatives 1 and 2 that are in the Tehachapi Mountains West Landscape Unit are virtually identical. Therefore, the effects of Alternative 2 would be the same as described above for Alternative 1.

Tehachapi Valley Landscape Unit

The segments of both Alternatives 1 and 2 that are in the Tehachapi Valley Landscape Unit are identical. Therefore, the effects of Alternative 2 would be the same as described above for Alternative 1.

Tehachapi Mountains East Landscape Unit

The segments of both Alternatives 1 and 2 that are in the Tehachapi Mountains East Landscape Unit are identical. Therefore, the effects of Alternative 2 would be the same as described above for Alternative 1.

West Mojave Landscape Unit

The segments of both Alternatives 1 and 2 that are in the West Mojave Landscape Unit are identical. Therefore, the effects of Alternative 2 would be the same as described above for Alternative 1.

Rosamond Rural Landscape Unit

The segments of both Alternatives 1 and 2 that are in the Rosamond Rural Landscape Unit are identical. Therefore, the effects of Alternative 2 would be the same as described above for Alternative 1.

Lancaster-Palmdale Landscape Unit

The segments of both Alternatives 1 and 2 that are in the Lancaster-Palmdale Landscape Unit are identical. Therefore, the effects of Alternative 2 would be the same as described above for Alternative 1.

Alternative 3**East Bakersfield Landscape Unit**

The segments of both Alternatives 1 and 3 that are in the East Bakersfield Landscape Unit are identical. Therefore, the effects of Alternative 3 would be the same as described above for Alternative 1.

Edison/Rural Valley Landscape Unit

The segments of both Alternatives 1 and 3 that are in the Edison/Rural Valley Landscape Unit are identical. Therefore, the effects of Alternative 3 would be the same as described above for Alternative 1.

Tehachapi Mountains West Landscape Unit

The segments of both Alternatives 1 and 3 that are in the Tehachapi Mountains West Landscape Unit are identical. Therefore, the effects of Alternative 3 would be the same as described above for Alternative 1.

Tehachapi Valley Landscape Unit

The segments of both Alternatives 1 and 3 that are in the Tehachapi Valley Landscape Unit are identical. Therefore, the effects of Alternative 3 would be the same as described above for Alternative 1.

Tehachapi Mountains East Landscape Unit

Approximately 2.5 miles southeast of Tehachapi, Alternative 3 would enter the Tehachapi Mountains in the TWRA, where it would almost immediately enter a 2.6-mile tunnel. In this area, wind turbines dominate the Tehachapi ridgelines. Alternative 3 would emerge from the tunnel for approximately 1 mile before entering another approximately 2.5-mile tunnel through the remainder of this landscape unit. For the purposes of CEQA, this landscape unit is considered non-urbanized.

Key Viewpoint 18 (a and b): Views from the Pacific Crest Trail

KVP 18a and b are located on the PCT just east of where the PCT crosses Tehachapi Willow Springs Road and where Alternative 3 would be constructed above ground in this landscape unit.

KVP 18a is located approximately 0.25 mile east of Alternative 3 and is oriented to the west. KVP 18b is located approximately 0.3 mile east of Alternative 3 and is oriented southeast. The upper image in Figure 3.16-49 shows the existing view from KVP 18a, and the lower image shows a visual simulation of Alternative 3 from KVP 18a. The upper image in Figure 3.16-50 shows the existing view from KVP 18b, and the lower image shows a visual simulation of Alternative 3 from KVP 18b.

The natural harmony in this segment is already compromised, typified by very close-range views of wind farms with turbines often over 300 feet in height. Wind turbines completely dominate immediate-foreground views from the PCT in this portion of the TWRA. Despite the industrial attributes of the TWRA, the PCT offers views of a mountainous landscape at KVPs 18a and 18b in a largely rural context, and hikers anywhere on the trail would have a high level of scenic expectation. Overall, visual quality is moderate.

As illustrated in the visual simulations for the above figures, Alternative 3 would pass on an embankment with a short viaduct over Tehachapi Willow Springs Road. Alternative 3 would then cross the PCT on a short viaduct near the intersection of Tehachapi Willow Springs Road and Oak Creek Road. At this crossing, the PCT would be lowered to provide a 12-foot clearance envelope. An electrical substation is located near this intersection. Therefore, roadway and industrial-style infrastructure already interrupt the natural harmony of the surrounding landscape. In addition, this trail segment occurs in the context of several miles of trail that traverse the TWRA and are strongly dominated by intensive, industrial, large-scale wind development. Therefore, the HSR structure would be somewhat compatible with the existing cultural environment but would nonetheless introduce further urban-style infrastructural elements into a largely rural setting.

Unlike Alternatives 1, 2, and 5, which involve crossing the PCT via an approximately 1,500-foot-long viaduct, Alternative 3 would traverse the area primarily on an embankment and would involve construction of a short viaduct to cross over the PCT. The viaduct crossing the PCT would be approximately 450 feet long, or 30 percent the size of the viaduct proposed for Alternatives 1, 2, and 5. The embankment feature, a viaduct, would still be prominent and would draw focus for approximately 0.5 to 1 mile (15 to 40 minutes of hiking time) in either direction of the PCT, but because landscaping of the embankment would be consistent with the vegetation of the adjacent areas, its visibility would be substantially less than Alternatives 1, 2, and 5. Due to the proximity of the alternative (PCT hikers would cross under the alignment) and the duration of exposure for hikers, viewer exposure would be high. Although existing wind development already compromises the integrity of the natural environment at KVPs 18a and 18b, the embankment would further degrade visual quality from the perspective of trail users with high viewer sensitivity. Mitigation Measure PCT-MM#1, as described in Section 3.15, Parks, Recreation, and Open Space, is required. This measure requires the Authority to coordinate with the U.S. Forest Service and the Bureau of Land Management to prepare final design documents that minimize the visual impacts of the future HSR alignment on PCT users, such as through landscaping or other design features. This would reduce the contrasting urban appearance of the project with the natural environment and reduce impacts on visual quality.

CEQA Conclusion

The impact of Alternative 3 at KVP 18a and 18b would be significant under CEQA because the embankment would further degrade visual quality from the perspective of PCT users with high viewer sensitivity. The project would substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measure PCT-MM#1, as described in Section 3.15, Parks, Recreation, and Open Space, is required and would reduce the contrasting urban appearance of the project with the natural environment. However, after mitigation, the impact would remain significant and unavoidable under CEQA.



Figure 3.16-49 Key Viewpoint 18a: Existing and Simulated Views of Alternative 3 from the Pacific Crest Trail Looking West



Figure 3.16-50 Key Viewpoint 18b: Existing and Simulated Views of Alternative 3 from the Pacific Crest Trail Looking Southwest

West Mojave Landscape Unit

Alternative 3 would be nearly parallel to and west of Alternative 1 from the northern boundary of the West Mojave Landscape Unit for approximately 7.5 miles until it merges with the alignment of Alternative 1 between Tehachapi Willow Springs Road and Dawn Road. At the transition between the Tehachapi Mountains East and West Mojave Landscape Units, Alternative 3 would emerge from a tunnel and onto a retained cut before running on an embankment through approximately 13 miles on the Antelope Valley floor to Rosamond Avenue. As discussed in Section 3.16.5.6, viewer groups in this landscape unit include motorists on Tehachapi Willow Springs Road and Rosamond Boulevard, isolated rural residents in the Mojave Desert, and residents at the northern

edge of the town of Rosamond. For the purposes of CEQA, this landscape unit is considered non-urbanized.

Isolated Rural Residences in the Mojave Desert

Alternative 3 would be constructed at grade near isolated rural residences at the edge of the Tehachapi foothills. The nearest residences would be located approximately 800 feet west of the centerline of Alternative 3 near 115th Street and 1,200 feet east of Alternative 3 near Robert Ranch Road. The natural environment near these residences is characterized by desert scrub vegetation, sparse Joshua tree woodland, and the Tehachapi foothills in the foreground, while the cultural environment includes tall power transmission lines and towers to the east, as well as wind turbines to the north and northeast. The intrusion of prominent infrastructure related to power generation and transmission in the natural environment reduces existing visual quality around isolated rural residences to moderate. In this setting, Alternative 3 would involve construction of a guideway from approximately 60 feet below the existing grade to at grade, and would require cuts in the landform. The guideway would be moderately compatible with the industrial character of the transmission lines and wind turbines in the cultural environment.

Rural residents would have high awareness of the project. Despite the prominence of the guideway in a landscape with expansive open views, exposure would be moderately low because of the small number of people affected and their relative distance from the alignment.

CEQA Conclusion

For isolated residences in the West Mojave Landscape Unit, the Alternative 3 guideway would be almost entirely below the existing grade near the residences. As a result, Alternative 3 would not substantially obstruct residents' views of the Tehachapi foothills and natural vegetation in the Antelope Valley. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 19: View from Rosamond Boulevard Looking West-Northwest

In the viewshed of KVP 19, the segments of both Alternatives 1 and 3 that are in the West Mojave Landscape Unit are identical. Therefore, the effects of Alternative 3 would be the same as described above for Alternative 1 for this KVP.

Rosamond Rural Landscape Unit

The segments of both Alternatives 1 and 3 that are in the Rosamond Rural Landscape Unit are identical. Therefore, the effects of Alternative 3 would be the same as described above for Alternative 1.

Lancaster-Palmdale Landscape Unit

The segments of both Alternatives 1 and 3 that are in the Lancaster-Palmdale Landscape Unit are identical. Therefore, the effects of Alternative 3 would be the same as described above for Alternative 1.

Alternative 5

East Bakersfield Landscape Unit

The segments of both Alternatives 1 and 5 that are in the East Bakersfield Landscape Unit are identical. Therefore, the effects of Alternative 5 would be the same as described above for Alternative 1.

Edison/Rural Valley Landscape Unit

The segments of both Alternatives 1 and 5 that are in the Edison/Rural Valley Landscape Unit are identical. Therefore, the effects of Alternative 5 would be the same as described above for Alternative 1.

Tehachapi Mountains West Landscape Unit

The segments of both Alternatives 1 and 5 that are in the Tehachapi Mountains West Landscape Unit are identical. Therefore, the effects of Alternative 5 would be the same as described above for Alternative 1.

Tehachapi Valley Landscape Unit

The segments of both Alternatives 1 and 5 that are in the Tehachapi Valley Landscape Unit are identical. Therefore, the effects of Alternative 5 would be the same as described above for Alternative 1.

Tehachapi Mountains East Landscape Unit

The segments of both Alternatives 1 and 5 that are in the Tehachapi Mountains East Landscape Unit are identical. Therefore, the effects of Alternative 5 would be the same as described above for Alternative 1.

West Mojave Landscape Unit

The segments of both Alternatives 1 and 5 that are in the West Mojave Landscape Unit are identical. Therefore, the effects of Alternative 5 would be the same as described above for Alternative 1.

Rosamond Rural Landscape Unit

The segments of both Alternatives 1 and 5 that are in the Rosamond Rural Landscape Unit are virtually identical. Therefore, the effects of Alternative 5 would be the same as described above for Alternative 1.

Lancaster-Palmdale Landscape Unit

In Lancaster, Alternative 5 is parallel to and west of Alternative 1 until the alignment would cross Avenue K. From this point, Alternative 5 is parallel to and east of Alternative 1, merging back to the Alternative 1 alignment north of Avenue O. From this point to the southern terminus of the landscape unit at the Palmdale Station, which includes KVPs 26 through 30, the effects of Alternative 5 would be the same as described above for Alternative 1. As with Alternative 1, sensitive viewpoints include Whit Carter Park, a substantial number of residences, the town center on Lancaster Boulevard, the University of Antelope Valley, and the Sierra Highway Bike Path.

Alternative 5 would be constructed at grade throughout the Lancaster-Palmdale Landscape Unit. Because this alternative would primarily occupy the existing Sierra Highway right-of-way, the highway and adjacent bike path would be relocated adjacent to and west of their existing alignments until just north of Avenue K. They would then be rerouted approximately 0.2 to 0.6 mile west of its existing location for the remainder of the landscape unit. The existing UPRR tracks would remain in place adjacent to and east of the at-grade guideway. New roadway overheads would be constructed over Alternative 5 at Avenues I, J, K, and M, and the existing roadway overheads at Avenues L and H would be reconstructed. These would be similar in appearance to other roadway overheads that cross the freeway. From the northern end of the Lancaster-Palmdale Landscape Unit to Avenue N, the guideway would be within 4 feet of the existing grade. South of that point, it would be up to approximately 40 feet below grade. The guideways and overheads, however, would be visually compatible with existing at-grade transportation corridors parallel to Alternative 5 (i.e., Sierra Highway and the railroad tracks) and with existing overheads at Avenues H and L.

Key Viewpoint 22: View from Whit Carter Park

Lancaster's Whit Carter Park is located as close as 100 feet west of the centerline of Alternative 5, including recreational areas that are located approximately 500 feet from the alignment. The upper image in Figure 3.16-51 shows existing conditions in the west-central part of Whit Carter Park, looking eastward toward Sierra Highway from a distance of approximately 950 feet. The visual environment at Whit Carter Park consists of winding concrete walkways, playgrounds, grassy fields, scattered ornamental trees, and pole-mounted lights. Beyond a perimeter chain-link fence, a 35-acre undeveloped portion of the park and an adjacent property to the north are barren. The Avenue H overpass of Sierra Highway and the UPRR tracks is visible approximately 0.5 mile to the northeast. Although Whit Carter Park has a high unity of design and a sense of cultural order, it does not harmonize with surrounding barren areas. Therefore, the existing visual quality is moderate on the whole.



Figure 3.16-51 Key Viewpoint 22: Existing and Simulated Views of Alternative 5 from Whit Carter Park

Alternative 5 would be constructed at grade parallel to and between a realigned Sierra Highway to the west and the existing UPRR tracks to the east. The lower image in Figure 3.16-51 shows a visual simulation of Alternative 5. Because the guideway would fit between two major transportation corridors that are also at grade, it would be compatible with the existing cultural order near Whit Carter Park.

Visitors at this public park would have high viewer awareness because of their concern for the appearance of a public recreational amenity. However, their exposure to Alternative 5 would be moderately low because of its distance of at least 500 feet from recreational areas at Whit Carter

Park and the at-grade elevation of the guideway. As can be seen on the figure, from the recreational areas, the HSR train is barely visible and does not stand out from the features associated with the existing transportation corridor. Viewer exposure from the park's parking lot would be moderate, but this analysis assumes that the sensitivity of viewers in recreational areas of the park would be of primary concern. Overall, visual sensitivity for park recreational users would be moderate. While OCS poles on the guideway would be visible from the perspective of the park, they would be less prominent than the existing Avenue H overpass to the northeast. Moreover, the maturation of recently planted landscaping on-site would filter views toward Alternative 5. Therefore, visual quality at the park would remain moderate. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the City of Lancaster General Plan (City of Lancaster 2009a).

CEQA Conclusion

At KVP 22, Alternative 5 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

Residential Neighborhoods

A substantial number of residences in the Lancaster-Palmdale Landscape Unit occur near Alternative 5 to the west of Sierra Highway. Specific residential areas and their approximate distances from the alignment's centerline are listed below, starting at the northern end of the landscape unit and continuing southward:

- Single-family residences on Trixis Avenue (about 320 feet west)
- Single-family residences on Cedar Avenue (at least 620 feet west)
- Apartment buildings between Jackman Street and Ivesbrook Street (about 85 feet west)
- Single-family residences on Lancaster Boulevard (about 710 feet east)
- Apartments on Beech Avenue south of Newgrove Street (about 330 feet west)
- Single-family residences on Pillsbury Street and Beech Avenue (at least 270 feet west)
- Multifamily residences on Avenue J8 (about 160 feet west)

Because Alternative 5 is located to the west of Alternative 1 in urban Lancaster, it would be closer to residences on the west side of Sierra Highway. In addition, Sierra Highway would be realigned to be closer to these residences.

Residential areas near Alternative 5 range from cohesive single-family and multifamily developments with a high degree of cultural order to transitional residential-commercial areas with a more heterogeneous appearance. Large vacant lots with disturbed, barren ground or ruderal vegetation commonly separate residential areas from Sierra Highway and Alternative 1, especially between Avenues K and L and Avenues H and I in southern Lancaster. Similar to the setting at Whit Carter Park, these vacant areas contrast with the cultural order of adjacent residential neighborhoods. Views of small-scale, strip-commercial land uses along Sierra Highway and the UPRR freight rail line, sometimes obstructed by intervening buildings or filtered by vegetation, are available to nearby residences. Overall visual quality in residential areas ranges from moderate to moderately low. Alternative 5 would be constructed at-grade near residences, ranging up to approximately 4 feet above the surrounding grade in elevation. In addition, new 36-foot-high roadway overheads would be constructed within 0.25 mile of residences at Avenues H, I, J, and K. These features, however, would be visually compatible with at-grade transportation corridors parallel to Alternative 5 (realigned Sierra Highway and the existing UPRR tracks) and with existing overpasses at Avenues H and L.

Residents would have a high level of concern for their visual environment. However, their exposure would generally be moderately low to low, considering that Alternative 5 would be at-grade and often obscured by intervening buildings and vegetation. Multifamily residents located west of Sierra Highway between Jackman Street and Ivesbrook Street would have direct views toward the new 36-foot-high Avenue I overhead over Sierra Highway and the UPRR tracks located approximately 300 feet to the north. Those residents with north-facing windows would have moderate exposure to the reconstructed overhead. However, in the context of vacant lots,

strip-commercial development, and the highway and freight rail rights-of-way surrounding these residences, the overhead would not substantially degrade the existing moderately low visual quality. Although construction of Alternative 5 would involve the removal of vegetation lining the existing bike path, the at-grade guideway would be visually compatible with the adjacent railroad corridor and would not introduce a prominent elevated feature in the project environment. In addition, in these urbanized areas, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality, as shown in Table 3.16-1.

CEQA Conclusion

For residents in the urbanized Lancaster-Palmdale Landscape Unit, Alternative 5 would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 23: View from Downtown Lancaster

Alternative 5 would cross the eastern end of the historic Lancaster downtown where existing Sierra Highway intersects Lancaster Boulevard. The upper image in Figure 3.16-52 shows the existing view from this KVP. Several blocks of Lancaster Boulevard from Sierra Highway to 10th Street have been extensively improved with a redesigned streetscape, including decorative paving, decorative lighting, and extensive tree planting and landscaping in sidewalks and in a central median. These improvements, along with pedestrian-friendly commercial retail storefronts on Lancaster Boulevard, result in a moderately high visual quality in the town center. Alternative 5 would be constructed at grade near Lancaster Boulevard. The lower image in Figure 3.16-52 shows the view from KVP 23 with a visual simulation of Alternative 5.

Because the alignment would be located in a transportation corridor (including realigned Sierra Highway adjacent to the west and the existing UPRR tracks to the east) and would not be substantially elevated above existing grade, it would be visually compatible with the surrounding cultural order.

Viewer concern for the visual environment in this heavily used town center is high. However, exposure to visual changes would be moderately low. Overall, viewer sensitivity would be moderate. The storefront façades on Lancaster Boulevard create narrow, focused views to the alignment, limiting the length of guideway visible in the view. The guideway would be at-grade and would not serve as a prominent focal point, although approximately 24-foot-tall OCS poles would be visible to pedestrians on Lancaster Boulevard. Furthermore, the canopies of dense street tree plantings would filter views toward Sierra Highway and Alternative 5 during much of the year, and this screening would become increasingly complete and effective with tree maturation. Therefore, visual quality for viewers in the Lancaster town center would remain moderately high. In addition, in this urbanized location, Alternative 1 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the City of Lancaster General Plan (City of Lancaster 2009a).

CEQA Conclusion

At KVP 23, Alternative 5 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-52 Key Viewpoint 23: Existing and Simulated Views of Alternative 5 from Lancaster Town Center

University of Antelope Valley

The University of Antelope Valley is located in strip-commercial-style buildings up to two stories high, with scattered tall palm trees and large surface parking lots that front Sierra Highway. Available views from the university include adjacent automobile-oriented commercial properties, overhead power lines on the western side of Sierra Highway, five asphalt lanes on the roadway, and the Sierra Highway Bike Path and adjacent landscaping on the eastern side of Sierra

Highway. Because utilitarian automobile-oriented development predominates, existing visual quality is moderately low.

Under Alternative 5, the buildings associated with the University of Antelope Valley would be acquired and removed. Therefore, this viewer group would no longer be adjacent to the HSR alignment. Students and staff would not be considered sensitive viewers, and an analysis of impacts on viewers would not be needed.

CEQA Conclusion

The impact of Alternative 5 at the University of Antelope Valley would be less than significant under CEQA because students and staff would not be considered sensitive viewers, assuming the buildings are removed and relocated. Therefore, the project would not conflict with applicable zoning or other regulations governing scenic quality, and CEQA does not require mitigation.

Key Viewpoint 24: View from the Sierra Highway Bike Path Looking North

This KVP depicts a northward view of the existing Sierra Highway Bike Path and its surroundings near the University of Antelope Valley. The upper image in Figure 3.16-41 shows the existing view from this KVP. As shown in the upper image, landscaped strips, including shrubs and occasional trees and grasses, line the bike path. This vegetation provides visual relief from the adjacent urban land uses and a modicum of natural harmony. Beyond the screening landscape, bike path users have foreground views of five lanes of asphalt roadway on Sierra Highway, strip-commercial development on the west side of the roadway, overhead power lines and pole-mounted lights along Sierra Highway, and the UPRR tracks to the east. The prominence of transportation corridors, utility infrastructure, and automobile-oriented development, while filtered by adjacent landscaping, results in a moderately low degree of visual quality at KVP 24.

Alternative 5 would realign the bike path and Sierra Highway to the west to make way for an at-grade HSR guideway immediately in between these realigned facilities and the existing UPRR right-of-way. The design of the realigned Sierra Highway and bike path would be developed in consultation with the City of Lancaster, but would be based on the existing facilities and would have a similar appearance. The at-grade guideway would be within 2 feet of the existing ground level. As an at-grade rail corridor located adjacent to the realigned, at-grade roadway and the existing rail corridors, Alternative 5 would be visually compatible with transportation infrastructure in the surrounding cultural environment.

Viewers on the Sierra Highway Bike Path would include commuting and recreational bicyclists. Outdoor recreational viewers typically have a moderately high to high level of concern for aesthetics and would pay more attention to the visual setting than would commuters, but the existing commercial and industrial context of the bike path would lower expectations of natural harmony and cultural order. Therefore, bike path users on the Sierra Highway Bike Path would have moderate viewer awareness. Viewer exposure would be high at KVP 2. The bike path would run adjacent to the HSR tracks at this viewpoint. Overall viewer sensitivity for bike path users would be moderately high.

Views from the realigned path may be more direct in the initial years after construction of Alternative 5, before screening trees and shrubs mature and serve as visual buffers. However, eastward views of the adjacent at-grade HSR guideway would remain comparable to existing views of the at-grade UPRR right-of-way. Moreover, westward views of realigned Sierra Highway would remain similar. Although the nearly 24-foot-tall OCS poles would be visible from the bike path, the at-grade guideway would not be a prominent focal point for bicyclists. In the long term, upon maturation of screening vegetation at the realigned bike path, visual quality would remain moderately low. In addition, in this urbanized location, Alternative 5 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the City of Lancaster General Plan (City of Lancaster 2009a).

CEQA Conclusion

At KVP 24, Alternative 5 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

Key Viewpoint 25: View from the Avenue L Overpass Looking Northwest

KVP 25 would overlook Alternative 5 from overhead at the Avenue L overpass of Sierra Highway and the UPRR tracks. As shown in the upper image in Figure 3.16-42, existing foreground views at this KVP include the UPRR tracks, shrubs lining the Sierra Highway Bike Path, the five-lane highway with pole-mounted streetlights, and industrial and commercial development with sparse landscaping to the west. Distant views of hills are available in the background. Existing visual quality is moderately low because of the utilitarian character of the cultural environment.

In this area, Alternative 5 would realign Sierra Highway and the Sierra Highway Bike Path approximately 0.3 to 0.4 mile to the west; demolish industrial and commercial buildings on the west side of the existing highway; construct the HSR guideway at-grade; and reconstruct the Avenue L overpass to 36 feet above grade. The guideway would be at the existing ground level. Although Alternative 5 would displace existing Sierra Highway, it would be visually compatible with the adjacent UPRR rail corridor and with industrial and commercial development in the cultural environment.

Commuters on Avenue L would have moderately low awareness of the HSR system with Alternative 5 because KVP 25 does not afford foreground views of unique features in the cultural environment or especially scenic background views toward hills that bound the Antelope Valley. Viewer exposure would be moderately low. Although the guideway would be visible to commuters for a short duration while they cross the overpass, its orientation below the overpass and at-grade would ensure that it does not serve as a prominent visual element for motorists. Overall, viewer sensitivity would be low. Alternative 5 would not substantially alter foreground views of the cultural environment in Lancaster beyond existing Sierra Highway and would not obstruct background views of hills. Visual quality from the perspective of commuters on the Avenue L overpass would remain moderately low. In addition, in this urbanized location, Alternative 5 would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with the City of Lancaster General Plan (City of Lancaster 2009a).

CEQA Conclusion

At KVP 25, Alternative 5 is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, the impact would be less than significant and CEQA does not require mitigation.

CCNM Design Option

The CCNM Design Option is in the vicinity of La Paz. It deviates from Alternative 1 in the Tehachapi Mountains West Landscape Unit between approximately 2 miles northwest of La Paz until approximately 3 miles southeast of La Paz northwest of the SR 58/Broome Road interchange. Only the views from KVP 11(a through e), which are from La Paz in the Tehachapi Mountains West Landscape Unit would change as a result of the CCNM Design Option. Therefore, only KVP 11(a through e) in the Tehachapi Mountains West Landscape Unit is analyzed below.

Tehachapi Mountains West Landscape Unit

The CCNM Design Option would introduce a viaduct up to 163 feet tall approximately 0.3 mile northeast of the La Paz property boundary. This would be approximately the same height as Alternative 1, but approximately 0.09 mile (440 feet) farther away from La Paz. The CCNM Design Option would be approximately 850 feet from the La Paz boundary. Like Alternative 1, the CCNM Design Option would introduce a noticeable aerial feature, especially from viewpoints in the northeast corner of the National Chávez Center. The CCNM Design Option includes tinting on the viaduct adjacent to La Paz. The tinted color would match the natural setting in order to minimize visual contrast with the landscape. In addition, the CCNM Design Option includes a noise barrier at least 12 feet in height along the viaduct. Due to the distance of the noise barrier from vantage points on the La Paz property, the noise barrier itself would not be perceptible or distinguishable from the guideways along the viaduct.

Key Viewpoint 11 (a through e): Views from La Paz

Figure 3.16-25 shows the existing view from KVP 11a. The upper image in Figure 3.16-53 shows the existing view from KVP 11b (Villa La Paz Conference Center looking northeast), and the lower image is a visual simulation of the CCNM Design Option from KVP 11b. The upper image in Figure 3.16-54 shows the existing view from KVP 11d (Peace Rocks looking northeast), and the lower image is a visual simulation of the CCNM Design Option from KVP 11d. The upper image in Figure 3.16-55 shows the existing view from KVP 11e (road leading to Villa La Paz looking north) and the lower image is a visual simulation of the CCNM Design Option from KVP 11e. As discussed in the Alternative 1 analysis, visual quality at KVPs 11b and 11d is high and visual quality at KVP 11e is moderately high.



Figure 3.16-53 Key Viewpoint 11b: Existing and Simulated Views of CCNM Design Option from La Paz—Villa la Paz Conference Center Looking Northeast



Figure 3.16-54 Key Viewpoint 11d: Existing and Simulated Views of CCNM Design Option from La Paz—Peace Rocks Looking Northeast



Figure 3.16-55 Key Viewpoint 11e: Existing and Simulated Views of CCNM Design Option from La Paz—Road to Villa la Paz Looking North

As shown in Figure 3.16-25, the view from KVP 11a includes a prominent view of the Three Peaks. The CCNM Design Option would not block views of the Three Peaks from this location and would be minimally visible. Therefore, from this vantage point, viewers would have low exposure to the viaduct.

As shown in Figure 3.16-53, from KVP 11b, the viaduct structure would not block views of the Three Peaks but would partially obstruct views of scenic hillsides northeast of the Three Peaks by bisecting the hillsides approximately halfway up the ridgeline. At KVPs 11d and 11e, views of these distant hillsides would be minimally obstructed and views of the Three Peaks would be unobstructed. As shown in Figure 3.16-53 and Figure 3.16-54, the CCNM Design Option would be visually noticeable from Villa La Paz and the Peace Rocks.

The prominence of and exposure to the HSR viaduct would vary by viewing positions inside La Paz. The main Visitor Center, the Chávez residence, the Chávez gravesite, and the memorial gardens would be approximately 0.6 mile from the CCNM Design Option. At that distance, the viaduct would not be visible from the memorial gardens or gravesite. From points farther from the northern boundary of La Paz, the viaduct would be minimally visible depending on intervening topography and mature trees. Although viewer exposure would vary throughout the site from moderate to high, overall viewer awareness would be high because of the cultural importance of the site and its status as a National Historic Landmark. Given the high viewer awareness and moderate to high viewer exposure, overall viewer sensitivity would be high.

Overall, the viaduct would not block the character-defining views of the Three Peaks. The CCNM Design Option would be an artificial feature that is visually incompatible with the natural environment in the background and the cultural environment at La Paz from the perspective of high-sensitivity viewers. As a feature of the CCNM Design Option, the viaduct adjacent to Villa La Paz would be tinted to match the color of the surrounding natural setting, which would reduce the overall color contrast of the built structure with the natural environment. Nonetheless, with the addition of the viaduct, visual quality would be reduced to moderate at KVP 11b, moderately high at KVP 11d, and moderate at KVP 11e. Therefore, the effects on visual quality at KVP 11b, KVP 11d, and KVP 11e would be adverse as the project would cause an incompatible change to the natural and cultural environment from the perspective of sensitive visitors La Paz. (As previously noted, the CCNM Design Option would only be minimally visible from KVP 11a and would not be visible from KVP 11c.)

With Mitigation Measure AVQ-MM#3 (see Section 3.16.7), design enhancements to the viaducts and columns (other than the tinting that is a design feature of the CCNM Design Option) would reduce the incompatibility of visual character by incorporating architectural elements and natural textures, which would reduce the magnitude of the overall impact. Similarly, tall tree screening and other landscape measures would reduce the change in views from inside La Paz by visually filtering views to the viaduct from the center. Nonetheless, after the implementation of mitigation measures, impacts would remain significant and unavoidable.

CEQA Conclusion

The impact of the CCNM Design Option at KVP 11b, KVP 11d, and KVP 11e would be significant under CEQA, as the project would result in adverse changes to visual quality at these locations. The project would be minimally visible from KVP 11a and would not be visible from KVP 11c. Therefore, the impact of the project on visual quality would not be significant at these locations. Nonetheless, the CCNM Design Option would substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. Mitigation Measure AVQ-MM#3, as described in Section 3.16.7, is required. However, after mitigation, a significant impact would still occur under CEQA at KVPs 11b, 11d, and 11e. Because the CCNM Design Option would result in a less than significant impact at KVP 11a, it would reduce impacts at La Paz compared to the B-P Build Alternatives without the CCNM Design Option.

Refined CCNM Design Option

The Refined CCNM Design Option is in the vicinity of La Paz. It deviates from Alternative 1 in the Tehachapi Mountains West Landscape Unit between approximately 2 miles northwest of La Paz

until approximately 4 miles southeast of La Paz, southwest of the SR 58/Broome Road interchange. Only the views from KVP 11(a through e), which are from La Paz, and KVP 12 in the Tehachapi Mountains West Landscape Unit would change as a result of the CCNM Design Option. Therefore, only KVP 11(a through e) and KVP 12 in the Tehachapi Mountains West Landscape Unit, plus an additional stockpiling site associated with this design option, are analyzed below.

Tehachapi Mountains West Landscape Unit

The Refined CCNM Design Option would begin 180 feet east of Bealville Road in Keene and would begin at-grade for 1.15 miles and then continue underground for about 1.04 miles. The Refined Design Option would transition to at-grade for 0.81 mile and cross an access road and the UPRR on a 0.17-mile-long viaduct. The Refined CCNM Design Option would then continue east at grade for 0.30 mile, cross over an existing access road on a 0.06-mile long viaduct, then back to at-grade for 0.59 mile where the Refined CCNM Design Option transitions underground for 0.80 mile. The Refined CCNM Design Option would then emerge where it would pass La Paz. The Refined CCNM Design Option would be 0.53 mile north of La Paz at its closest proximity when it emerges from the tunnel.

While passing La Paz, the Refined CCNM Design Option would be at-grade for 0.57 mile at a distance ranging from 0.53 mile to 0.73 mile from the boundary of La Paz before crossing a 0.13-mile viaduct over Tweedy Creek and a local access road. The Refined CCNM Design Option would travel at-grade for approximately 0.25 mile before going underground in a 1.7-mile long tunnel. The Refined CCNM Design Option would then transition to at-grade for 0.71 mile before crossing over an access road for 0.06 mile and back to at-grade for 1.71 miles. The Refined CCNM Design Option would then go over the SR-58 and Tehachapi Creek on a 0.89-mile long viaduct, back to at-grade for 0.87 mile before entering a tunnel for 1.68 miles. The Refined CCNM Design Option would emerge from the tunnel north of the City of Tehachapi at-grade for 1.48 miles before finally ending in a 0.13-mile-long viaduct where it would tie back into the B-P Build Alternatives at SR 58 in the City of Tehachapi.

To reduce anticipated direct (visual and audible) adverse effects of the Refined CCNM Design Option, an approximately 1,700-foot berm would be located at the same level as the catenary for the track. The berm would be an average of 80 feet in height from the existing ground in order to minimize project noise to a level that is considered to have no effect per FRA guidelines. Additionally, areas of ground disturbance would be recontoured and revegetated to minimize the visual effects associated with the earthwork required to construct the project.

Stockpiling Site (north of SR 58, west of Bealville Road)

As discussed in Impact AVQ-#1, the Refined CCNM Design Option would require the temporary storage of an estimated 2 to 14 million cubic yards of removed earthwork at a site immediately to the north of SR 58 and west of Bealville Road. This site includes intact oak woodland on rolling hills and has a high level of visual quality. Despite the rural nature of the area, the stockpiling of earthwork could occur within the immediate foreground distance (0 to 500 feet) of isolated rural residences along Bealville Road. Stockpiled material also could be located in the immediate foreground distance of motorists traveling on SR 58. As discussed in Impact AVQ-#1, viewer sensitivity for motorists on SR 58 would be moderate and viewer sensitivity for rural residences along Bealville Road would be high.

Because mature oak trees are interspersed throughout the stockpiling site, the temporary use of this site for large-scale spoil mounds could require the removal of mature trees. Depending on the scale of tree removal from the stockpiling site, the loss of mature trees could result in a long-term degradation of visual quality in the vicinity from high to moderately high. Tree removal would represent an incompatible change in the natural environment from the perspective of residential viewers and motorists.

Mitigation Measure AVQ-MM#1 would be required (Section 3.16.7) to minimize the loss of existing trees that screen the stockpiling site from view and to replace removed trees. When possible, existing vegetation on the stockpiling site would be preserved, particularly vegetation along the edge of the site that may help screen views. Mitigation Measure AVQ-MM#1 also would

require revegetation of the stockpiling site with plant material similar in numbers and types to that which was removed. Because the stockpiling site would be located in unincorporated Kern County, which has not adopted a protected tree ordinance to regulate tree removal and replacement, Mitigation Measure AVQ-MM#1 would require replacement of removed vegetation at a 1:1 replacement ratio for shrubs and small trees, and a 2:1 ratio for mature trees. These trees should be maintained and periodically monitored by the Authority for five to seven years to ensure survival and their continued health as they mature. By implementing Mitigation Measure AVQ-MM#1, the Authority would preserve mature trees that serve a screening function, to the extent feasible, and would replace mature trees on-site, minimizing the long-term degradation of visual quality.

CEQA Conclusion

At the stockpiling site, implementation of Mitigation Measure AVQ-MM#1 would minimize long-term adverse visual effect from the potential loss of mature oak trees. Therefore, the impact would be less than significant and CEQA does not require further mitigation.

Key Viewpoint 11 (a through e): Views from La Paz

The upper image in Figure 3.16-56 shows the existing view from KVP 11b (Villa La Paz Conference Center looking northeast), and the lower image is a visual simulation of the Refined CCNM Design Option from KVP 11b without the proposed 1,700-foot-long berm that would be located at the same elevation as the catenary for the track. With the proposed berm, the Refined CCNM Design Option would not be visible from the KVP 11b. The simulation without the berm is shown for illustrative purposes. As discussed in the Alternative 1 analysis, visual quality at KVPs 11b is high. The Refined CCNM Design Option would not be visible from KVP 11a, KVP 11c, KVP 11d, and KVP 11e. Therefore, no simulations have been prepared from these viewpoints.

As shown in Figure 3.16-56, from KVP 11b, the viaduct without the proposed berm would be minimally visible, would not block the character-defining views of the Three Peaks, and would not obstruct views of scenic hillsides northeast of the Three Peaks. With the proposed berm, the viaduct would not be visible.

The prominence of and exposure to the HSR viaduct would vary depending on one's specific viewing position inside La Paz. The main Visitor Center, the Chávez residence, the Chávez gravesite, and the memorial gardens would be approximately 1 mile from the Refined CCNM Design Option. At that distance, the viaduct or other parts of the alignment would not be visible from the memorial gardens or gravesite. At viewpoints farther from the northern boundary of La Paz, the alignment and viaduct may be minimally visible depending on intervening topography and mature trees. Although overall viewer awareness would be high because of the cultural importance of the site and its status as a National Historic Landmark, viewer exposure would be low as the HSR structure would mostly be blocked or too far away to be substantially visible. Given the high viewer awareness and low viewer exposure, overall viewer sensitivity would be low.

Therefore, with the addition of the Refined CCNM Design Option, visual quality would remain high at KVP 11b. The effects on visual quality at KVP 11a, 11b, 11c, KVP 11d, and KVP 11e would be neutral.

CEQA Conclusion

The impact of the Refined CCNM Design Option at KVP 11b would be less than significant under CEQA, as the project would not result in adverse changes to visual quality at this location. The project would not be visible from KVP 11a, KVP 11c, KVP 11d, or KVP 11e. Therefore, the impact of the project on visual quality would not be significant at these locations. Because the Refined CCNM Design Option would result in a less than significant impact at KVP 11a, KVP 11d, and KVP 11e, it would reduce impacts at La Paz compared to the B-P Build Alternatives without the Refined CCNM Design Option.



Figure 3.16-56 Key Viewpoint 11b: Existing and Simulated Views of Refined CCNM Design Option from La Paz—Villa la Paz Conference Center Looking Northeast

Key Viewpoint 12: View from State Route 58 near Broome Road Looking Southeast

KVP 12 is oriented southeast along SR 58 near Broome Road toward the Refined CCNM Design Option, which would run at-grade, parallel to the north of SR 58 in this location. The upper image in Figure 3.16-57 shows the existing view from KVP 12, and the lower image shows a visual simulation of the Refined CCNM Design Option from KVP 12. Although the natural environment features prominently in this area, the on- and off-ramps, highway overhead, fencing, powerlines, and UPRR right-of-way parallel to the south side of the freeway detract somewhat from the intact natural scenery. Visual quality from the perspective of the roadway is moderately high.

SR 58 is not a designated scenic highway and views from SR 58 are not protected. Viewer groups in this area are limited to SR 58 motorists. For these motorists, the Refined CCNM Design Option would closely parallel the highway and the duration of exposure would be short. For both eastbound and westbound motorists, the viaduct and portions of the Refined CCNM Design Option adjacent to SR 58 would be visible for approximately 0.4 mile. Therefore, viewer sensitivity would be moderate.

The Refined CCNM Design Option would not be a prominent feature in this location compared to the other roadway infrastructure and would not be visually incompatible with elements of the natural environment. Because the Refined CCNM Design Option would not be incompatible with the natural and cultural environment in this area, and because viewer sensitivity is moderate, it would not degrade visual quality.

CEQA Conclusion

At KVP 12, the Refined CCNM Design Option would result in a neutral effect on visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in a non-urbanized area. The impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-57 Key Viewpoint 12: Existing and Simulated Views of the Refined CCNM Design Option from State Route 58 Looking Southeast

Operations Impacts

This section discusses operations impacts that result from ongoing activities of the HSR system, such as passenger access to and from stations and use of parking structures or lots, maintenance activities along the HSR alignment and at specialized facilities, and guideway and facility security patrols.

Impact AVQ #4: Permanent Impacts from Operation of High-Speed Rail Trains

None of the operational activities associated with the B-P Build Alternatives would involve substantial visual changes to the natural or cultural environments. Maintenance activities and security patrols would be infrequent and would not introduce permanent new structures. Lighting associated with maintenance and security would be minimal. Passing HSR trains would blend into the already-built HSR structure. HSR train headlights would be directed toward the track. Light generated by HSR trains, tracks, signs, and signals would be minimal and would be directed to the tracks. Light spillover would be minimal. Glare from HSR trains and structures would be minimal. It is assumed that retaining walls, guideways, and other built structures would use materials that do not cause substantial amounts of glare.

CEQA Conclusion

The operational activities associated with the B-P Build Alternatives would not involve substantial visual changes to the natural or cultural environments. Therefore, project operation would not substantially degrade the visual character or quality of public views of the site and its surroundings in non-urbanized areas and project operation would not conflict with applicable zoning or other regulations governing scenic quality in urbanized areas. Impacts would be less than significant and CEQA does not require mitigation.

3.16.6.4 Station Sites

Impact AVQ #5: Permanent Impacts from Construction of High-Speed Rail Stations in Bakersfield and Palmdale

Bakersfield Station—F Street (Locally Generated Alternative)

The Draft Supplemental EIR/EIS, Final Supplemental EIR, and Final Supplemental EIS for the Fresno to Bakersfield Project Section are incorporated by reference into the Bakersfield to Palmdale Project Section environmental documents, pursuant to Section 15150 of CEQA and Section 40 C.F.R. 1506.4 of the NEPA Regulations.

The F Street Station would be constructed at a site adjacent to and north of SR 204 at F Street, in an area of central Bakersfield dominated by expansive surface parking lots and generic commercial architecture. The F Street Station site is characterized by automotive commercial development and a vacant lot. The current visual quality in this area is low. The HSR station would be a dominant feature north of SR 204. Regardless of the station's exact appearance, it would be designed to have a distinctive and potentially iconic architectural form that would create a beneficial change in visual character when viewed from adjacent locations.

By introducing a building with distinctive architecture, the station would substantially enhance the area's vividness as compared to existing, on-site commercial development. Whereas the existing pedestrian environment lacks sidewalks or consistent street tree plantings at SR 204 near the F Street, extensive streetscape landscaping and improvements associated with the Bakersfield F Street Station would increase intactness and provide visual coherence as tree canopies mature.

Therefore, the F Street Station is expected to have beneficial indirect effects on visual quality in surrounding areas. The proposed Bakersfield F Street Station and anticipated new transit-oriented development would improve visual quality in the station area from low to moderate. Considering the moderately high viewer response of commuters on SR 204 and cross streets, and the high viewer sensitivity of residents to the south of SR 204, the station would have a beneficial visual effect on the setting.

CEQA Conclusion

The F Street Station would have a beneficial effect on visual quality in Bakersfield. In addition, it would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, this impact would be less than significant and CEQA does not require mitigation.

Palmdale Station

The Palmdale Station would be located between E Avenue Q to the north and Palmdale Boulevard to the south, and would be constructed as part of the Palmdale to Burbank Project Section. A discussion of the visual impacts of the station based on KVP 28 follows.

Key Viewpoint 28: View from East Avenue Q3 Looking Northeast

KVP 28 is located on E Avenue Q3 near its intersection with Fifth Street, looking northeast. The upper image in Figure 3.16-58 shows the existing view from this KVP, and the lower image shows the same view with a visual simulation of the proposed Palmdale Station. This KVP is representative of the transportation spine in Palmdale, where vacant lots are adjacent to a mix of low- to medium-density residential uses that are backed by light industrial uses (mostly automobile-related) along Sixth Street E and the UPRR tracks. Dominant elements visible from KVP 28 are residential uses in the foreground, with industrial uses (large gray building), additional vacant lots, transmission lines, and the UPRR tracks in the middle ground. No distant terrain is visible to form a background from this location. Existing visual quality is low.

The lower image in Figure 3.16-58 provides a visual simulation showing a conceptual design of the Palmdale Station, which would be the principal project feature visible in the background and would include train platforms, surface parking areas, a transit plaza, and pedestrian overhangs. Train platforms would be constructed along either side of the proposed rail alignment, beginning approximately 200 feet south of E Avenue Q. The southbound platform would be west of the southbound tracks, and the northbound platform would be east of the northbound tracks. Each platform would be approximately 1,410 feet long. In addition, a 700-foot Metrolink platform would be constructed east of the HSR platform and north-south along the Metrolink railway. While the Palmdale Station would introduce large-scale structures to the view, these structures would be visually compatible with nearby commercial uses. Regardless of the station's exact appearance, it would be designed to have a distinctive and potentially iconic architectural form that would create a beneficial change in visual character when viewed from adjacent locations. By introducing a building with distinctive architecture, the station would substantially enhance the area's vividness as compared to existing industrial development.

The primary viewers near KVP 28, residential neighbors, would have high awareness of the visual environment, while commercial viewers would have low awareness because of a focus on work activities. Both types of viewers would have high exposure because of the prominence of structures at the Palmdale Station. The new Palmdale Station and associated facilities would enhance cultural order and visual unity as viewed from KVP 28, improving visual quality. In addition, the HSR station would be expected to have beneficial indirect effects on visual quality by increasing the potential for new development and redevelopment in nearby areas, similar to what would occur for the Bakersfield Station alternatives. This would likely influence development patterns near the station and could result in new project and urban design improvements that would upgrade the visual character and quality of these areas over time. Visual quality at KVP 28 would improve from low to moderately low. The indirect benefits would be similar to those anticipated to occur around the Bakersfield station, with beneficial effects on visual quality extending to new development in the area. In addition, in this urbanized location, the Palmdale Station would not conflict with applicable zoning or other regulations governing scenic quality. As shown in Table 3.16-1, the project would be consistent with City of Palmdale General Plan (City of Palmdale 2013).

CEQA Conclusion

The Palmdale Station would have a beneficial effect on visual quality. In addition, it would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, this impact would be less than significant and CEQA does not require mitigation.



Figure 3.16-58 Key Viewpoint 28: Existing and Simulated Views of Palmdale Station from E Avenue Q3 Looking Northeast

3.16.6.5 Maintenance Facilities

Impact AVQ #6: Permanent Impacts from Construction of Maintenance Facilities

The Bakersfield to Palmdale Project Section would include one light maintenance facility (LMF), one maintenance of way facility (MOWF), and two maintenance of infrastructure siding (MOIS) facilities. The LMF would be used to service, inspect, dispatch for daily service, maintain, and store trains for operation of the HSR system. The MOWF would provide regional maintenance machinery servicing and materials storage, as well as the equipment and supplies for maintaining HSR infrastructure, such as track, traction power, and signal systems. The MOIS facilities provide a location for layover of maintenance of infrastructure equipment and temporary storage of materials and other resources. The two MOIS facilities would likely be in Edison and in Tehachapi.

The LMF and MOWF would be situated in the Antelope Valley. A combined LMF and MOWF could be accommodated at the Lancaster North A site, located west of SR 14 and north of Avenue D in the Rosamond Rural Landscape Unit. Alternatively, if the LMF and MOWF were in separate locations, the LMF would be located at the Avenue M LMF site and the MOWF would be located at the Lancaster North B site in the Lancaster/Palmdale Landscape Unit. The Avenue M LMF site is located on the west side of the B-P Build Alternatives and to the west of Sierra Highway. The Lancaster North A combined LMF MOWF site/Lancaster North B MOWF site would be located west of Sierra Highway and SR 14 and north of Avenue D. This area is undeveloped desert landscape. There are no sensitive viewer groups near this site. The Avenue M LMF Zone extends generally between Avenue L and Avenue M, just west of Sierra Highway. This zone contains several undeveloped or vacant parcels, as well as a mix of light industrial, commercial, and motel uses. The area immediately west of the site is characterized by undeveloped, flat terrain with sparse vegetation. The area west of Sierra Highway and north and south of the site is characterized by heterogeneous commercial and light industrial uses. The closest sensitive viewers are the residential neighborhoods approximately 0.75 mile northwest of the site. No Section 4(f) resources are within approximately 3 miles of either site. Because no sensitive viewers are within 0.5 mile of either LMF/MOWF site, the introduction of industrial structures associated with the LMF and MOWF facilities would not affect visual quality.

The two MOIS facilities would be in the vicinity of the communities of Edison and Tehachapi. The Edison MOIS facility would be in the Edison/Rural Valley landscape unit southeast of Edison just west of the location of KVP 5. The maintenance facility would be located either north or south of the SR 58 depending on which of the B-P Build Alternatives is selected (the MOIS for Alternative 1 would be on the south side of SR 58 and the MOIS for Alternatives 1, 3, and 5 would be on the north side of SR 58). The area in the vicinity of this site is agricultural landscape. Except for views from motorists traveling along SR 58, there are no sensitive viewer groups near this site. For motorists on SR 58, viewer exposure would be moderate due to the proximity of the maintenance facility to the freeway, but the Tehachapi ridgelines would draw the motorists' focus forward to the east and the MOIS facility located north or south of the freeway would not block views of the ridgelines. Therefore, overall viewer sensitivity would be moderate and the project would have a neutral change to visual quality in this area.

The Tehachapi MOIS facility would be located in the Tehachapi Valley landscape unit southeast of the city of Tehachapi and approximately 1 mile southeast of the location of KVP 17. The area immediately surrounding this site is largely undeveloped and in agricultural production with scattered industrial and agricultural-related structures scattered throughout the area. A church is located approximately 0.25 mile southwest of the MOIS facility site and single-family residences are located approximately 0.3-0.5 miles northeast of the facility site. No Section 4(f) resources are located in the vicinity of the site. The MOIS facility would include siding tracks, stockpile areas, and parking. For the closest sensitive viewers approximately 0.25 miles away, these features would not be visible and would blend into the existing topography and built structures. Therefore, because of the low viewer exposure to the MOIS facility, viewer sensitivity would be low. The introduction of industrial structures associated with the MOIS facility would not affect visual quality.

CEQA Conclusion

The introduction of industrial structures associated with the maintenance facilities would be less than significant under CEQA because there either there are no sensitive viewers within 0.25 mile of the proposed maintenance facility sites or, in the case of the Edison area MOIS facility, the facility would not degrade visual quality. Therefore, the project would not substantially degrade the visual character or quality of public views of the site and its surroundings in non-urbanized areas, and CEQA does not require mitigation.

3.16.6.6 Electric Power Utility Improvements

Common Impacts on all Bakersfield to Palmdale Project Section Rail Build Alternatives

Impact AVQ #7: Permanent Impacts from Construction of Electric Power Utility Improvements

The transformation and distribution of electricity would occur in three types of stations: traction power substations (TPSS), switching stations, and paralleling stations. TPSSs would be located next to the HSR alignment at approximately 30-mile intervals. In most cases, stations would be situated next to existing utility transmission lines, but in some cases, transmission line extensions may be needed to connect to electrical utilities. Each TPSS would be approximately 32,000 square feet (generally 200 feet by 160 feet). Switching stations would be located midway between, and approximately 15 miles from, the nearest TPSS. Each switching station would be approximately 14,400 square feet (generally 160 feet by 90 feet) adjacent to the proposed HSR alignment. Paralleling stations would be located every 5 miles between the TPSSs and the switching stations. Each paralleling station would be approximately 9,600 square feet (generally 120 feet by 80 feet) and adjacent to the HSR alignment.

The Bakersfield to Palmdale Project Section would have three TPSS locations: (1) at the base of the Tehachapi Mountains near Caliente Creek, at the start of the Tehachapi Mountains West Landscape Unit; (2) north of SR 58 in the city of Tehachapi; and (3) near the intersection of 80th Street and Favorito Avenue north of Willow Springs. The last two TPSS facilities would be located next to existing transmission lines, but the Caliente Creek TPSS would require a utility connection. All of these locations are in undeveloped areas with few viewer groups. Nonetheless, the addition of an industrial substation feature and transmission lines could have an adverse effect on visual quality. Mitigation Measure AVQ-MM#9, as described in Section 3.16.7, would be required. This measure would introduce landscape screening around TPSS sites, which would reduce the effect on visual quality.

CEQA Conclusion

The impact of electric power utility improvements at three TPSS locations would be significant under CEQA because the addition of an industrial substation feature and transmission lines could have an adverse effect on visual quality. Therefore, the project could substantially degrade the visual character and or quality of public views of the site and its surroundings in non-urbanized areas. Mitigation Measure AVQ-MM#9, as described in Section 3.16.7, Mitigation Measures, would implement landscape screening and is required. With implementation of this mitigation measure, the project would not degrade the visual character or quality of public views of the site and its surroundings. After mitigation, the impact would be less than significant under CEQA.

3.16.7 Mitigation Measures

The Authority would implement the mitigation measures described in the Fresno to Bakersfield LGA Mitigation Measures from 34th Street and L Street to Oswell Street, Construction, and Operations subsections below, as appropriate, to further reduce the impacts of the Bakersfield to Palmdale Project Section on aesthetics and visual quality, as described in Section 3.16-6, Environmental Consequences.

3.16.7.1 **Fresno to Bakersfield LGA Mitigation Measures from 34th Street and L Street to Oswell Street**

The Fresno to Bakersfield Section Final Supplemental EIR (Authority 2018) and the Final Supplemental EIS (2019) identified mitigation measures that are applicable to the entire length of the F-B LGA from just north of Poplar Avenue to Oswell Street. As described in Section 3.1.3.7, Mitigation Measures, of Section 3.1, Introduction, of this EIR/EIS, not all measures identified in the Final Supplemental EIR and the Final Supplemental EIS are applicable to the portion of the F-B LGA from 34th Street and L Street to Oswell Street. The following aesthetics and visual resources-related mitigation measures are applicable to the portion of the F-B LGA from 34th Street and L Street to Oswell Street:

- **F-B LGA AVR-MM#1a:** The project will adhere to local jurisdiction construction requirements (if applicable) regarding construction-related visual/aesthetic disruption. In order to minimize visual disruption, construction will employ the following activities:
 - Minimize pre-construction clearing to that necessary for construction.
 - Limit the removal of buildings to those that would obstruct project components.
 - When possible, preserve existing vegetation, particularly vegetation along the edge of construction areas that may help screen views.
 - After construction, regrade areas disturbed by construction, staging, and storage to original contours and revegetate with plant material similar in replacement numbers and types to that which was removed based upon local jurisdictional requirements. If there are no local jurisdictional requirements, replace removed vegetation at a 1:1 replacement ratio for shrubs and small trees, and 2:1 replacement ratio for mature trees. For example, if 10 mature trees in an area are removed, replant 20 younger trees that after 5 to 15 years (depending upon the growth rates of the trees) would provide coverage similar to the coverage provided by the trees that were removed for construction.
 - To the extent feasible, do not locate construction staging sites within the immediate foreground distance (0 to 500 feet) of existing residential, recreational, or other high-sensitivity receptors. Where such siting is unavoidable, staging sites will be screened from sensitive receptors using appropriate solid screening materials such as temporary fencing and walls. Any graffiti or visual defacement of temporary fencing and walls will be painted over or removed within 5 business days.
- **F-B LGA AVR-MM#1b:** Where construction lighting will be required during nighttime construction, the Contractor will be required to shield such lighting and direct it downward in such a manner that the light source is not visible offsite, and so that the light does not fall outside the boundaries of the project site to avoid light spill offsite.
- **F-B LGA AVR-MM#2a:** During final design of the elevated guideways and the Fresno, Kings/Tulare Regional, and Bakersfield stations, the contractor partnering with the Authority will coordinate with local jurisdictions on the design of these facilities so that they are designed appropriately to fit in with the visual context of the areas near them. This will include the following activities:
 - For stations: During the station design process, establish a local consultation process with the Cities of Fresno and Bakersfield, and the cities and communities surrounding the Kings/Tulare Regional Station, as necessary, to identify and integrate local design features into the station design through a collaborative, context-sensitive solutions approach. The process will include activities to solicit community input in their respective station areas. This effort will be coordinated with the station area planning process that will be undertaken by those cities under their station area planning grants.
 - For elevated guideways in cities or unincorporated communities: During the elevated guideway design process, establish a process with the city or county with jurisdiction over the land along the elevated guideway to advance the final design through a collaborative,

context-sensitive solutions approach. Participants in the consultation process will meet on a regular basis to develop a consensus on the urban design elements that are to be incorporated into the final guideway designs. The process will include activities to solicit community input in the affected neighborhoods.

- Actions taken to help achieve integration with the local design context during the context-sensitive solutions process will include the following:
- Design HSR stations and associated structures such as elevators, escalators, and walkways to be attractive architectural elements or features that add visual interest to the streetscapes near them.
- Design HSR station parking structures and adjacent areas to integrate visually into the areas where they would be located. Where the city has adopted applicable downtown design guidelines, the parking structures and adjacent areas will be designed to be compatible with the policies and principles of those guidelines.
- For the elevated guideways and columns, incorporate architectural elements, such as graceful curved or tapered sculptural forms and decorative surfaces, to provide visual interest. Include decorative texture treatments on large-scale concrete surfaces such as parapets and other portions of elevated guideways. Include a variety of texture, shadow lines, and other surface articulation to add visual and thematic interest. Closely coordinate the design of guideway columns and parapets with station and platform architecture to promote unity and coherence where guideways lie adjacent to stations.
- Integrate trees and landscaping into the station streetscape and plaza plans where possible to soften and buffer the appearance of guideways, columns, and elevated stations. This will be consistent with the principles of crime prevention through environmental design.
- For the stations, structures, and related open spaces: incorporate design features that provide interest and reflect the local design context. These features could include landscaping, lighting, and public art.
- The designs in cities and unincorporated communities will reflect the results of the context-sensitive solutions design process. During the context-sensitive solutions design process, the HSR project's obligations and constraints related to planning, mitigation, engineering, performance, funding, and operational requirements will be taken into consideration.
- **F-B LGA AVR-MM#2b:** During development of the final design, the Authority will work with the affected cities and counties to develop a project site and landscape design plan for the areas disturbed by the project. As a result of following these plans, the design features identified in AVR-MM#2a and the park mitigation measure PP-MM#3 will be implemented.
- **F-B LGA AVR-MM#2g:** The contractor will design a range of sound barrier treatments for visually sensitive areas, such as those where residential views of open landscaped areas would change or in urban areas where sound barriers would adversely affect the existing character and setting (see the description of sound barriers in Table 3.16-2 [of the Fresno to Bakersfield Section Final EIR/EIS]). The Authority will develop the treatments during final design and integrate them into the final project design. The treatments will include, but are not limited to, the following:
 - Sound barriers along elevated guideways may incorporate transparent materials where sensitive views would be adversely affected by solid sound barriers.
 - Sound barriers will use non-reflective materials and will be of a neutral color.
 - Surface design enhancements and vegetation appropriate to the visual context of the area will be installed with the sound barriers. Surface enhancements will be consistent with the design features developed under AVR-MM#2a, and will include architectural elements (i.e., stamped pattern, surface articulation, and decorative texture treatment as

determined acceptable to the local jurisdiction. Surface coatings will be used on wood and concrete sound barriers to facilitate cleaning and the removal of graffiti.

3.16.7.2 Construction

The construction mitigation measures listed below for aesthetics and visual quality are consistent with mitigation measures for similar-scale transportation projects, with those approaches discussed in Chapter 7 of FHWA's *Guidelines for the Visual Impact Assessment of Highway Projects* (FHWA 2015). These guidelines discuss various strategies for mitigation and enhancement of the natural, cultural, and project environments. The guidelines indicate that mitigation measures should be acceptable by the community and regulatory agencies and should be technically possible and practical. The mitigation measures have proven to be effective in minimizing the types of impacts noted in Section 3.16.6, Environmental Consequences.

AVQ-MM#1: Minimize Visual Disruption from Construction Activities

Prior to Construction (any ground-disturbing activity), the Contractor shall prepare a technical memorandum identifying how the project would minimize construction-related visual/aesthetic disruption and include the following activities:

- Minimize pre-construction clearing to that necessary for construction.
- Limit the removal of buildings to those that would obstruct project components.
- When possible, preserve existing vegetation, particularly vegetation along the edge of construction areas that may help screen views.
- After construction, regrade areas disturbed by construction, staging, and storage to original contours and revegetate with plant material similar in numbers and types to that which was removed, based upon local jurisdictional requirements. If no local jurisdictional requirements exist, replace removed vegetation at a 1:1 replacement ratio for shrubs and small trees, and 2:1 replacement ratio for mature trees. For example, if the Contractor removes 10 mature trees in an area, replant 20 younger trees that after 5 to 15 years (depending upon the growth rates of the trees) would be of a height and spread to provide visual screening similar to the visual screening provided by the trees that were removed for construction. Replaced shrubs shall be a minimum 5 gallon and replaced trees shall be a minimum 24-inch box in size and minimum 8 feet in height. Trees should be maintained and periodically monitored by the Authority for five to seven years to ensure survival and their continued health as they mature.
- To the extent feasible, do not locate construction staging sites in the immediate foreground distance (0 to 500 feet) of existing residential neighborhoods, recreational areas, or other land uses that include high-sensitivity viewers. Where such siting is unavoidable, screen staging sites from viewers using appropriate solid screening materials such as temporary fencing and walls. Paint over or remove any graffiti or visual defacement of temporary fencing and walls within five business days of it occurring.

The technical memorandum shall be submitted to the Authority for review and approval.

AVQ-MM#2: Minimize Light Disturbance during Construction

Prior to Construction (any ground disturbing activity requiring nighttime construction), the Contractor shall prepare a technical memorandum verifying how the Contractor shall shield nighttime construction lighting and direct it downward in such a manner to minimize the light that falls outside the construction site boundaries. The technical memorandum shall be submitted to the Authority for review and approval.

AVQ-MM#3: Incorporate Design Aesthetic Preferences into Final Design and Construction of Non-Station Structures

Prior to Construction (any ground-disturbing activity), the Contractor shall work with the Authority and local jurisdictions to incorporate the Authority-approved aesthetic preferences for non-station

structures into final design and construction. Refer to Aesthetic Guidelines for Non-Station Structures (Authority 2011). This shall include the following activities:

- During the elevated guideway design process, establish a process with the affected jurisdiction over the land along the elevated guideway to advance the final design through a collaborative, context-sensitive solutions approach. Participants in the consultation process shall meet on a regular basis to develop a consensus on the urban design elements that are to be incorporated into the final guideway designs. The process shall include activities to solicit community input in the affected neighborhoods.

Actions taken to help achieve integration with the local design context during the context-sensitive solutions process shall include the following:

- Incorporate architectural elements, such as graceful curved or tapered sculptural forms and decorative surfaces, to provide visual interest. Include decorative texture treatments on large-scale concrete surfaces such as parapets and other portions of the elevated guideways. Also include a variety of textures, shadow lines, and other surface articulations to add visual and thematic interest. Closely coordinate the design of guideway columns and parapets with station and platform architecture to promote unity and coherence where guideways lie adjacent to stations.
- Integrate trees and landscaping where possible to soften and buffer the appearance of guideways, columns, and elevated stations. This will be consistent with the principles of crime prevention through environmental design.
- The designs in cities and unincorporated communities shall reflect the results of the context-sensitive solutions design process. During the context-sensitive solutions design process, the HSR project's obligations and constraints related to planning, mitigation, engineering, performance, funding, and operational requirements shall be taken into consideration.

The technical memorandum shall be submitted to the Authority to document compliance.

AVQ-MM#4: Provide Vegetation Screening along At-grade and Elevated Guideways Adjacent to Residential Areas

Prior to operation and maintenance of HSR, the Contractor shall plant trees (minimum 24-inch box and 8 feet in height) or other vegetation along the edges of the HSR rights-of-way in locations adjacent to residential areas to visually screen the elevated guideway and the residential area. The species of trees to be installed shall be selected based on their mature size and shape, growth rate, hardiness, and drought tolerance. Trees shall be visually consistent with surrounding vegetation in terms of vegetative type, color, texture, and form. No species on the Invasive Species Council of California's list of invasive species shall be planted. Upon maturity, the crowns of trees used shall be tall enough to partially, or fully, screen views of the elevated guideway from adjacent at-grade areas. Upon maturity, trees shall allow ground-level views under the crowns (with pruning if necessary) and will not interfere with the 15-foot clearance requirement for the guideway. The trees shall be maintained and periodically monitored by the Authority for five to seven years to ensure survival and their continued health as they mature. Irrigation systems shall be installed within the tree planting areas.

The Contractor shall prepare a technical memorandum within 90 days of completing any construction section or segment documenting the species of trees that were incorporated into the edges of the HSR right-of-way adjacent to residential uses. The technical memorandum shall be submitted to the Authority to document compliance.

AVQ-MM#5: Replant Unused Portions of Land Acquired for the HSR

Prior to operation and maintenance, the Contractor shall plant vegetation within land acquired for the project (e.g., shifting roadways) that are not used for the HSR or related supporting infrastructure, or other higher or better use. Plantings shall allow adequate space between the vegetation and the HSR alignment and catenary lines. All street trees and other visually important vegetation removed in these areas during construction shall be replaced with similar vegetation

that, upon maturity, shall be similar in size and character to the removed vegetation. Replaced shrubs shall be minimum 5 gallon and trees shall be minimum 24-inch box and 8 feet in height. The Authority shall provide for continuous maintenance with appropriate irrigation systems. The Contractor shall install the irrigation system within the planting areas. No species listed on the Invasive Species Council of California's list of invasive species shall be planted.

AVQ-MM#6: Plant Landscape Treatments along the HSR Project Overheads, Embankment, and Retained-Fill Elements

During final design, the Authority shall consult with the affected local jurisdictions regarding the landscaping program for planting the slopes of overheads, embankments, and retained fill elements. Within 90 days from the completion of construction, the Contractor shall plant the surface of the ground below overheads (slope-fill overheads), embankments, and retained fill elements with plant species that are consistent with the surrounding landscape (in terms of vegetative type, color, texture, and form) and based on their mature size and shape, growth rate, and drought tolerance. No species on the list from the Invasive Species Council of California shall be planted. The landscaping shall be continuously maintained and appropriate irrigation systems shall be installed if needed.

Where wall structures supporting the overheads or retained fill are proposed, the structure shall employ architectural details and low-maintenance trees and other vegetation to screen the structure, minimize graffiti, and reduce the effects of large walls. Surface coatings shall be applied on wood and concrete to facilitate cleaning and the removal of graffiti. Any graffiti or visual defacement or damage of fencing and walls shall be painted over or repaired within a reasonable time (approximately 10 business days) after notification.

The Contractor shall prepare a technical memorandum documenting implementation and submit it to the Authority to demonstrate compliance.

AVQ-MM#7: Provide Sound Barrier Treatments

Prior to Construction (any ground-disturbing activity), the Contractor shall design a range of sound barrier treatments for visually sensitive areas, such as those areas where residential views of open landscaped areas would change or in urban areas where sound barriers would adversely affect the existing character and setting. The Contractor shall develop the treatments during the final design process and integrate them into the final project design. The treatments shall include, but are not limited to, the following:

- Sound barriers along elevated guideways that may incorporate transparent materials where sensitive views would be adversely affected by opaque sound barriers.
- Sound barriers made with nonreflective materials and of a neutral color.
- Surface design enhancements and vegetation appropriate to the visual context of the area shall be installed with the sound barriers. Vegetation shall be installed consistent with the provisions of Project Mitigation Measure AVQ-MM#5. Surface enhancements shall be consistent with the design features developed for Project Mitigation Measure AVQ-MM#3 and shall include architectural elements (e.g., stamped pattern, surface articulation, decorative texture treatment), as determined acceptable to the local jurisdiction. Surface coatings shall be used on wood and concrete sound barriers to facilitate cleaning and the removal of graffiti.

The Contractor shall prepare a technical memorandum documenting implementation and submit it to the Authority to demonstrate compliance.

AVQ-MM#8: Minimize Vertical Cut-Slopes in Tehachapi Mountains with Retaining Walls

Where high-sensitivity views or viewers could be strongly affected by tall, highly exposed, vertical cut slopes needed to accommodate at-grade segments in the Tehachapi Mountains, the Contractor shall incorporate retaining walls to avoid or reduce those impacts. Locations where this measure could be considered include cut-slopes in the vicinity of the Tehachapi Loop (station 18685), Golden Hills (station 18925), and Tehachapi Valley (station 19010). Where such walls are implemented, wall texture and color treatments shall be applied to minimize visual contrast

and reflectivity and to blend with the surrounding setting. The Contractor shall prepare a technical memorandum documenting implementation and submit it to the Authority to demonstrate compliance.

3.16.7.3 Operations

Operations impacts would be less than significant under CEQA. No mitigation measures are required.

3.16.7.4 Station Sites

Station sites would have less than significant impacts under CEQA. No mitigation measures are required.

3.16.7.5 Maintenance Facilities

The introduction of industrial structures associated with maintenance facilities would have less than significant impacts under CEQA. No mitigation measures are required.

3.16.7.6 Electric Power Utility Improvements

AVQ-MM#9: Screen Traction Power Distribution Substations and Radio Communication Towers

Within 90 days of completing traction power substation or radio tower construction, the Contractor shall screen from public view the traction power substations (located at approximately 30-mile intervals along the HSR guideway), including radio towers where required, through the use of landscaping or solid walls/fences. This shall consist of context-appropriate landscaping of a type and scale that does not draw attention to the station or feature. Plant species shall be selected based on their mature size and shape, growth rate, hardiness, and drought tolerance. Planted shrubs shall be a minimum 5 gallon and trees shall be a minimum 24-inch box and 8 feet in height. No species on the Invasive Species Council of California's list shall be planted. The landscaping shall be continuously maintained and appropriate irrigation systems shall be installed within the landscaped areas. Walls shall be constructed of cinder-block or similar material and shall be painted a neutral color to blend in with the surrounding context. If a chain-link or cyclone fence is used, it shall include slats in the fencing.

Any graffiti or visual defacement or damage of fencing and walls shall be painted over or repaired within a reasonable period, as agreed between the Authority and the local jurisdiction.

The Contractor shall prepare a technical memorandum documenting how the requirements in this measure were implemented. The technical memorandum shall be submitted to the Authority to document compliance.

3.16.7.7 Impacts from Implementing Mitigation Measures

The implementation of these mitigation measures is not expected to result in secondary effects. The mitigation measures are typical of visual treatments applied on linear transportation facilities. They have been defined to be specific in range and implementable according to context, and they have been designed in coordination with local jurisdictions.

3.16.8 NEPA Impact Summary

The No Project Alternative would involve changes unrelated to the project, including new or improved roadways and future residential or commercial development, which could affect aesthetics and visual quality. Widening of transportation corridors would not necessarily degrade the visual quality of such corridors, but the indirect effects of opening adjacent lands to freeway-oriented, commercial development (to the extent permitted by local agencies) and of increasing the amount of billboard-type signage could result in the incremental degradation of views toward the existing agricultural landscape. Future residential, commercial, and industrial development would result in conversion of rural agricultural settings to urbanized ones, with a corresponding alteration in visual quality, the significance of which would vary dependent on specific location.

Collectively, these changes would degrade visual quality from moderate to moderately low or low in areas of generally moderate visual quality but with high-sensitivity viewers.

Construction of the HSR project would involve temporary impacts related to new sources of light, glare, and dust. These impacts would be localized and temporary, and, with appropriate mitigation, would minimally affect nearby residences and other sensitive receptors. In addition, construction activities such as earth preparation, railbed or column and guideway construction, and associated truck hauling and other major materials and equipment storage and movement would be highly visible in certain locations near public viewpoints. However, construction equipment would be removed, staging areas dismantled, and areas disturbed by construction remediated after completion. Staging areas and concrete batch plants during construction also could introduce major, unsightly visual changes to their immediate surroundings. To reduce potential construction impacts, construction Mitigation Measures AVQ-MM#1 and AVQ-MM#2 are required, as described in Section 3.16.7.

The construction and placement of permanent construction elements of the B-P Build Alternatives, the CCNM Design Option, the Refined CCNM Design Option, and the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would adversely affect visual quality in some areas, either by blocking scenic views, by removing existing visual elements, or by visual intrusion of the HSR, guideways, associated road crossings, and other project structures that would be out of character or scale with the surroundings. These impacts would occur where project components would be near historic resources or in residential or other areas with high-sensitivity viewers.

Under Alternative 1, the permanent construction of HSR structures would affect existing visual quality for some East Bakersfield residents (e.g., at KVPs 1 and 4), at La Paz (e.g., at KVPs 11a, 11b, 11d, and 11e),⁴ for PCT hikers (e.g., at KVPs 18a and 18b), and for some Tehachapi and Rosamond residents (e.g., at KVPs 9, 16, and 20). Effects in these locations could not be mitigated because of the proximity of sensitive viewers to the HSR alignment or, in the case of La Paz, the incompatibility of the HSR system with the natural and cultural environments. Therefore, Alternative 1 would result in a long-term impact on visual quality in various locations.

Under Alternative 2, adverse effects on visual quality would occur in the same locations as Alternative 1 and would also occur for Edison Middle School viewers in the community of Edison (e.g., at KVP 3). Under Alternatives 3 and 5, the same adverse effects on visual quality would occur as in Alternative 1, with no additional adverse effects.

Unlike Alternatives 1, 2, and 5, which involve crossing the PCT via an approximately 1,500-foot-long viaduct, Alternative 3 would traverse the area around the PCT primarily on an embankment and would involve construction of a short viaduct to cross over the PCT. Because landscaping of the embankment would be consistent with the vegetation of the adjacent areas, its visibility would be substantially less than the other B-P Build Alternatives (e.g., at KVPs 18a and 18b). Therefore, Alternative 3 would reduce the visual effect of the HSR system at this recreational resource compared to the other B-P Build Alternatives, although the effect on visual quality would still be adverse.

Implementation of the CCNM Design Option under the B-P Build Alternatives would alter their visual effects at one viewpoint in the Tehachapi Mountains. Whereas Alternatives 1, 2, 3, and 5 would have an adverse effect on visual quality at KVP 11a (the Villa La Paz Conference Center at La Paz), the CCNM Design Option would not have an adverse effect at this location. At all other KVPs, the visual effects of the B-P Build Alternatives would remain the same under the CCNM Design Option.

Implementation of the Refined CCNM Design Option to any of the B-P Build Alternatives would alter their visual effects at four viewpoints in the Tehachapi Mountains. Whereas Alternatives 1, 2,

⁴ At KVP 11a, the permanent construction of HSR structures would adversely affect visual quality under Alternative 1, but not under the CCNM Design Option.

3, and 5 would have an adverse effect on visual quality at KVP 11a, 11b, 11d, and 11e, the Refined CCNM Design Option would not have adverse effects at these locations.

Table 3.16-11 provides a comparison of impacts of the B-P Build Alternatives.

Table 3.16-11 Comparison of Bakersfield to Palmdale Project Section Build Alternative Impacts for Aesthetics and Visual Quality

| Impact | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 5 | CCNM Design Option ¹ | Refined CCNM Design Option ² |
|--|--|---|--|--|---|---|
| Construction | | | | | | |
| Impact AVQ #1: Temporary Impacts Associated with Construction Staging, Equipment, Lighting, and Spoils | Construction staging, equipment, lighting, and spoils would not impact visual quality because mitigation would reduce the impact. There would be no differentiating effects after mitigation among the B-P Build Alternatives, CCNM Design Option, or Refined CCNM Design Option. | | | | | |
| Impact AVQ #2: Permanent Impacts Related to Designated Scenic Highway Corridors, New Sources of Substantial Light or Glare, and Indirect Aesthetic Changes | Construction of the Bakersfield to Palmdale Project Section would not impact designated state scenic highways, create permanent new sources of substantial light or glare, or create permanent indirect aesthetic impacts. There would be no differentiating effects after mitigation among the B-P Build Alternatives, CCNM Design Option, or Refined CCNM Design Option. | | | | | |
| Impact AVQ #3: Permanent Impacts Related to Construction of a Large High-Speed Rail Structure | 9 key viewpoints with significant and unavoidable decreased visual quality | 10 key viewpoints with significant and unavoidable decreased visual quality | 9 key viewpoints with significant and unavoidable decreased visual quality | 9 key viewpoints with significant and unavoidable decreased visual quality | -1 key viewpoints with significant and unavoidable decreased visual quality | -4 key viewpoints with significant and unavoidable decreased visual quality |
| Operations | | | | | | |
| Impact AVQ #4: Permanent Impacts from Operation of High-Speed Rail Trains | Operation of HSR trains would not introduce substantial changes to the visual character of the natural or cultural environments. There would be no differentiating effects among the B-P Build Alternatives, CCNM Design Option, or Refined CCNM Design Option. | | | | | |
| Station Sites | | | | | | |
| Impact AVQ #5: Permanent Impacts from Construction of High-Speed Rail Stations in Bakersfield and Palmdale | The Bakersfield F Street Station and Palmdale Station at KVP 28 would enhance the visual character of the natural and cultural environments and would be expected to have beneficial indirect effects on visual quality extending to new development in the area. | | | | | |
| Maintenance Facilities | | | | | | |
| Impact AVQ #6: Permanent Impacts from Construction of Maintenance Facilities | The introduction of industrial structures associated with the maintenance facilities would not have an adverse effect on visual quality. There would be no differentiating effects among the two LMF/MOWF facility sites in the Antelope Valley or the two MOIS facility options near the community of Edison. | | | | | |

| Impact | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 5 | CCNM Design Option ¹ | Refined CCNM Design Option ² |
|---|---|---------------|---------------|---------------|---------------------------------|---|
| Electric Power Utility Improvements | | | | | | |
| Impact AVQ #7: Permanent Impacts from Construction of Electric Power Utility Improvements | With mitigation, the impact of electric power utility improvements at the three traction power substation locations would not have an adverse effect on visual quality. | | | | | |

¹ Numbers reflect change with the addition of the CCNM Design Option to Alternative 1, 2, 3 or 5.

² Numbers reflect change with the addition of the Refined CCNM Design Option to Alternative 1, 2, 3 or 5.

3.16.9 CEQA Significance Conclusions

No designated scenic vistas or state designated scenic highways are located in the Bakersfield to Palmdale Project Section RSA. Therefore, the B-P Build Alternatives, including stations, maintenance facilities, design options, and electric power utility improvements, would have no impact on a scenic vista or state designated scenic highway.

As described in Section 5, under the FHWA methodology, a project would degrade the existing visual character or quality of the site and its surroundings if the project would be incompatible with the natural and cultural environments in the context of viewer sensitivity. All B-P Build Alternatives would have adverse effects on visual quality in some non-urbanized areas, either by blocking scenic views or by visual intrusion of the HSR system, guideways, associated road crossings, and other project structures that would be out of character or scale with the surroundings. These impacts would occur where project components would be near historic resources or residential areas with high-sensitivity viewers. In those contexts, the degradation of visual quality would be a significant impact under CEQA. As shown in Table 3.16-12, Alternatives 1, 3, and 5 would have significant and unavoidable impacts in the same areas. Under Alternative 2, significant and unavoidable impacts on visual quality would occur in the same locations, as well as for Edison Middle School viewers in the community of Edison. Because Alternative 3 would cross the PCT primarily on an embankment rather than a viaduct, it would reduce the visual impact of the HSR project at this recreational resource as compared to the other B-P Build Alternatives. However, impacts under CEQA at the PCT would be significant and unavoidable for all B-P Build Alternatives. Although some of these significant impacts could potentially be mitigated to less than significant levels, if the effectiveness of site-specific mitigation measures was uncertain, the residual impact was assumed to be significant. In urbanized areas (east Bakersfield, Lancaster, and Palmdale), the B-P Build Alternatives would not conflict with applicable zoning or other regulations governing scenic quality and impacts would be less than significant.

All of the B-P Build Alternatives (including the CCNM Design Option, the Refined CCNM Design Option, and the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street) could create substantial new sources of temporary night lighting during construction. However, with Mitigation Measure AVQ-MM#2, which includes requirements to shield and minimize nighttime lighting spillover, this impact would be reduced to a less than significant level. The B-P Build Alternatives would not create substantial new sources of night lighting or glare during operation.

Table 3.16-12 lists impacts by B-P Build Alternative, landscape unit, and KVP location, and identifies appropriate mitigation measures and the impact's level of significance after mitigation. Conclusions apply to all alternatives unless otherwise specified. Figure 3.16-59 (Sheets 1 through 3) show the locations of these impacts.

Table 3.16-12 Summary of CEQA Significance Conclusions and Mitigation Measures for Aesthetics and Visual Quality

| Impact | Landscape Unit | Location | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance after Mitigation |
|---|---------------------|---|---|---|--|
| Construction | | | | | |
| Impact AVQ #1: Temporary Impacts Associated with Construction Staging, Equipment, Lighting, and Spoils | | | | | |
| All B-P Build Alternatives, F-B LGA, CCNM Design Option, and Refined CCNM Design Option | All | All | Significant | AVQ-MM#1 AVQ-MM#2 | Less than significant |
| Impact AVQ #2: Permanent Impacts Related to Designated Scenic Highway Corridors, New Sources of Substantial Light or Glare, and Indirect Aesthetic Changes | | | | | |
| All B-P Build Alternatives, F-B LGA, CCNM Design Option, and Refined CCNM Design Option | All | All | Less than Significant | N/A | Less than significant |
| Impact AVQ #3: Permanent Impacts Related to Construction of a Large High-Speed Rail Structure | | | | | |
| Alternative 1 | East Bakersfield | Intersection of 34th Street and L Street to Oswell Street | Significant | AVR-MM#2a AVR-MM#2b AVR-MM#2e AVR-MM#2f AVR-MM#2g (from Section 3.16 of the <i>Fresno to Bakersfield Project Section Final Supplemental EIR/EIS</i> ¹) | Significant and unavoidable |
| | | KVP 1 | Significant | AVQ-MM#3 AVQ-MM#4 | Less than significant |
| | | KVP 2 | Less than significant | N/A | Less than significant |
| | Edison Rural Valley | KVP 3 | Less than significant | N/A | Less than significant |
| | | KVP 4 | Significant | AVQ-MM#4 AVQ-MM#6 AVQ-MM#7 | Significant and unavoidable |
| | | KVP 5 | Less than significant | N/A | Less than significant |

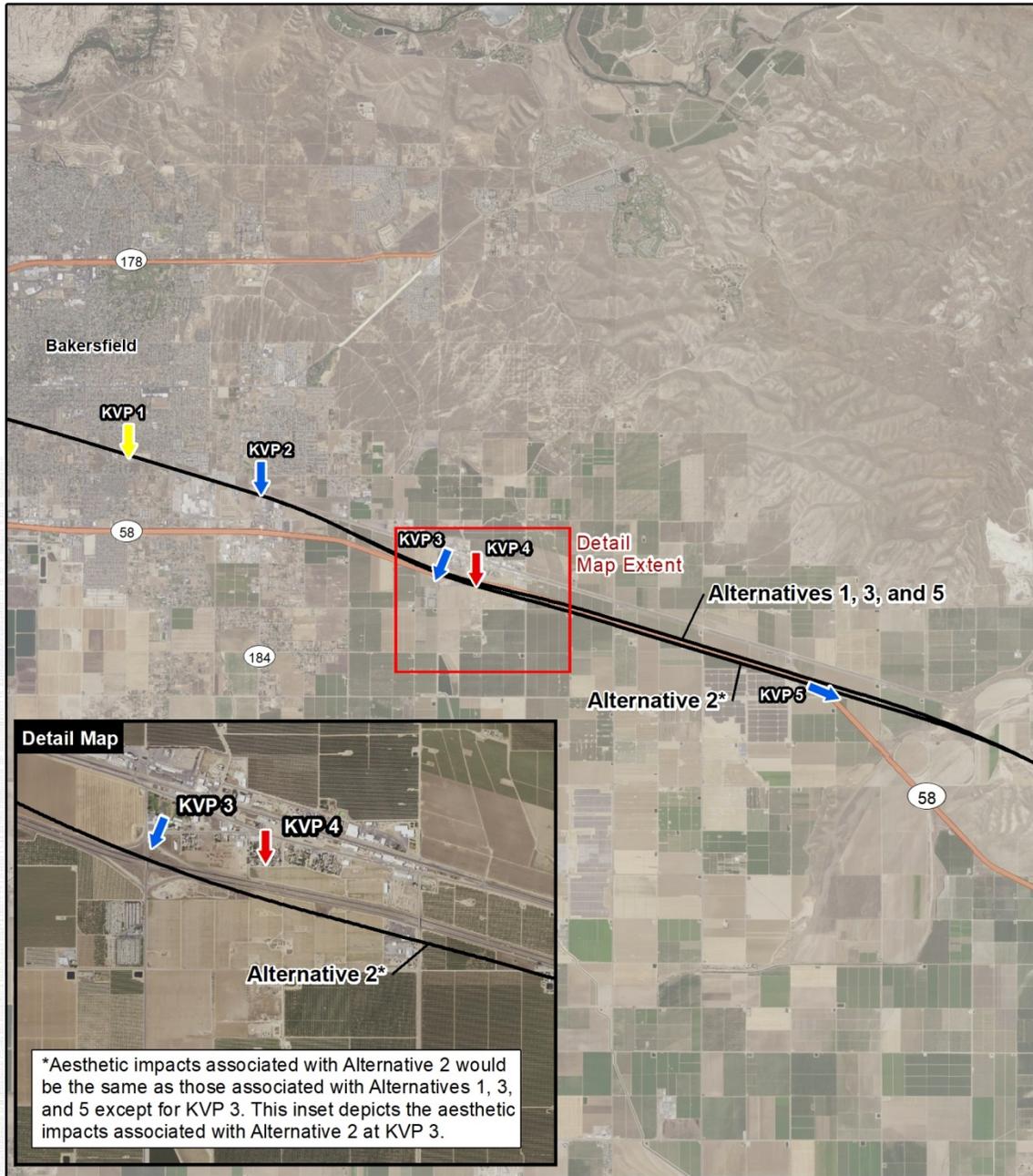
| Impact | Landscape Unit | Location | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance after Mitigation |
|--|--------------------------|-------------------------|---|----------------------------------|--|
| Alternative 1 (Continued from previous page) | Tehachapi Mountains West | KVP 6 | Less than significant | N/A | Less than significant |
| | | KVP 7 | Less than significant | N/A | Less than significant |
| | | KVP 8 | Less than significant | N/A | Less than significant |
| | | KVP 9 | Significant | AVQ-MM#5 | Less than significant |
| | | KVP 10 | Less than significant | N/A | Less than significant |
| | | KVP 11a | Significant | AVQ-MM#3 | Significant and unavoidable |
| | | KVP 11b | Significant | AVQ-MM#3 | Significant and unavoidable |
| | | KVP 11c | Less than significant | N/A | Less than significant |
| | | KVP 11d | Significant | AVQ-MM#3 | Significant and unavoidable |
| | | KVP 11e | Significant | AVQ-MM#3 | Significant and unavoidable |
| | | KVP 12 | Significant | AVQ-MM#3 AVQ-MM#5 AVQ-MM#6 | Less than significant |
| | | KVP 13 | Less than significant | N/A | Less than significant |
| | | Golden Hills Residences | Significant | AVQ-MM#8 | Less than significant |
| | Tehachapi Valley | KVP 14 | Less than significant | N/A | Less than significant |
| | | KVP 15 | Less than significant | N/A | Less than significant |
| | | KVP 16 | Significant | AVQ-MM#3 AVQ-MM#4 AVQ-MM#5 | Significant and unavoidable |
| | | KVP 17 | Less than significant | N/A | Less than significant |
| | Tehachapi Mountains East | KVP 18a | Significant | PCT-MM#1 | Significant and unavoidable |
| | | KVP 18b | Significant | PCT-MM#1 | Significant and unavoidable |
| | West Mojave | KVP 19 | Less than significant | N/A | Less than significant |
| | Rosamond Rural | KVP 20 | Significant | AVQ-MM#3 AVQ-MM#4 AVQ-MM#6 | Significant and unavoidable |
| KVP 21 | | Less than significant | N/A | Less than significant | |

| Impact | Landscape Unit | Location | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance after Mitigation |
|--|---|----------|---|-----------------------|--|
| Alternative 1 (Continued from previous page) | Lancaster-Palmdale | KVP 22 | Less than significant | N/A | Less than significant |
| | | KVP 23 | Less than significant | N/A | Less than significant |
| | | KVP 24 | Less than significant | N/A | Less than significant |
| | | KVP 25 | Less than significant | N/A | Less than significant |
| | | KVP 26 | Less than significant | N/A | Less than significant |
| | | KVP 27 | Less than Significant | N/A | Less than Significant |
| | | KVP 28 | Less than Significant | N/A | Less than Significant |
| | | KVP 29 | Less than significant | N/A | Less than significant |
| | | KVP 30 | Less than significant | N/A | Less than significant |
| Alternative 2 | Same as Alternative 1 for KVPs 1–2 in the East Bakersfield Landscape Unit and KVPs 6–30 in the Tehachapi Mountains West to Lancaster-Palmdale Landscape Units | | | | |
| | Edison/Rural Valley | KVP 3 | Significant | AVQ-MM#3 AVQ-MM#6 | Significant and unavoidable |
| | | KVP 4 | Significant | AVQ-MM#6 AVQ-MM#7 | Significant and unavoidable |
| | | KVP 5 | Less than significant | N/A | Less than significant |
| Alternative 3 | Same as Alternative 1 for KVPs 1–17 in the East Bakersfield to Tehachapi Valley Landscape Units and KVPs 20–30 in the Rosamond Rural and Lancaster-Palmdale Landscape Units | | | | |
| | Tehachapi Mountains East | KVP 18a | Significant | PCT-MM#1 | Significant and unavoidable |
| | | KVP 18b | Significant | PCT-MM#1 | Significant and unavoidable |
| | West Mojave | KVP 19 | Less than significant | N/A | Less than significant |
| Alternative 5 | Same as Alternative 1 for KVPs 1–21 in the East Bakersfield to Rosamond Rural Landscape Units and for KVPs 26–30 in the Lancaster-Palmdale Landscape Unit. | | | | |
| | Lancaster-Palmdale | KVP 22 | Less than significant | N/A | Less than significant |
| | | KVP 23 | Less than significant | N/A | Less than significant |
| | | KVP 24 | Less than significant | N/A | Less than significant |
| | | KVP 25 | Less than significant | N/A | Less than significant |

| Impact | Landscape Unit | Location | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance after Mitigation |
|---|--|-----------------------|---|-----------------------------|--|
| CCMM Design Option ¹ | Same as Alternative 1 for all KVPs except for KVP 11(a–e) | | | | |
| | Tehachapi Mountains West | KVP 11a | Less than significant | N/A | Less than significant |
| | | KVP 11b | Significant | AVQ-MM#3 | Significant and unavoidable |
| | | KVP 11c | Less than significant | N/A | Less than significant |
| | | KVP 11d | Significant | AVQ-MM#3 | Significant and unavoidable |
| KVP 11e | | Significant | AVQ-MM#3 | Significant and unavoidable | |
| Refined CCMM Design Option ¹ | Same as Alternative 1 for all KVPs except for KVP 11(a–e) and KVP 12 | | | | |
| | Tehachapi Mountains West | Stockpiling site | Significant | AVQ-MM#1 | Less than significant |
| | | KVP 11a | Less than significant | N/A | Less than significant |
| | | KVP 11b | Less than significant | N/A | Less than significant |
| | | KVP 11c | Less than significant | N/A | Less than significant |
| | | KVP 11d | Less than significant | N/A | Less than significant |
| | | KVP 11e | Less than significant | N/A | Less than significant |
| KVP 12 | | Less than significant | N/A | Less than significant | |
| Operations | | | | | |
| Impact AVQ #4: Permanent Impacts from Operation of High-Speed Rail Trains | | | | | |
| All B-P Build Alternatives, CCNM Design Option, and Refined CCNM Design Option | All | All | Less than significant | N/A | Less than significant |
| Stations | | | | | |
| Impact AVQ #5: Permanent Impacts from Construction of High-Speed Rail Stations in Bakersfield and Palmdale | | | | | |
| All B-P Build Alternatives—F Street Station | N/A | F Street Station | Less than significant | N/A | Less than significant |
| All B-P Build Alternatives—Palmdale Station | Lancaster-Palmdale | Palmdale Station | Less than significant | N/A | Less than significant |
| Maintenance Facilities | | | | | |
| Impact AVQ #6: Permanent Impacts from Construction of Maintenance Facilities | | | | | |
| All B-P Build Alternatives and Maintenance Facility Sites | All | All | Less than significant | N/A | Less than significant |

| Impact | Landscape Unit | Location | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance after Mitigation |
|--|----------------|----------|---|-----------------------|--|
| Electric Power Utility Improvements | | | | | |
| Impact AVQ #7: Permanent Impacts from Construction of Electric Power Utility Improvements | | | | | |
| All B-P Build Alternatives, F-B LGA, CCNM Design Option, and Refined CCNM Design Option | All | All | Significant | AVQ-MM#9 | Less than significant |

¹ Because the CCNM Design Option or Refined CCNM Design Option could be applied to Alternatives 1, 2, 3, or 5, the increase or decrease in impacts associated with the CCNM Design Option or Refined CCNM Design Option would be identical for all B-P Build Alternatives.
 B-P = Bakersfield to Palmdale Project Section
 EIR/EIS = environmental impact report/environmental impact statement
 F-B LGA = Fresno to Bakersfield Locally Generated Alternative from the Intersection of 34th Street and L Street to Oswell Street
 KVP = key viewpoint
 N/A = not applicable



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic 2018; Engineering Data from CHSRA (8/2018).
 November 4, 2019

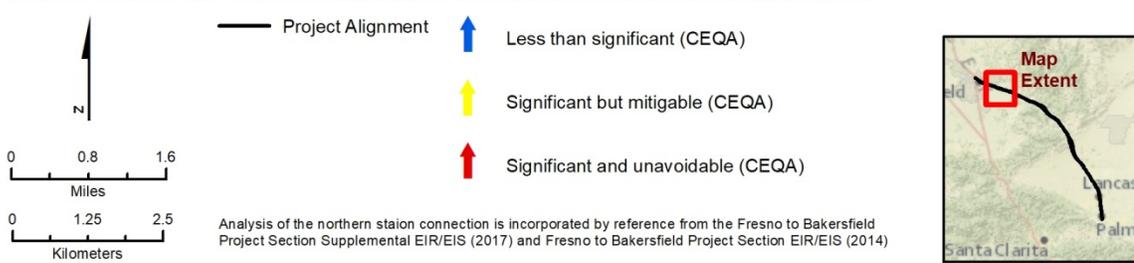
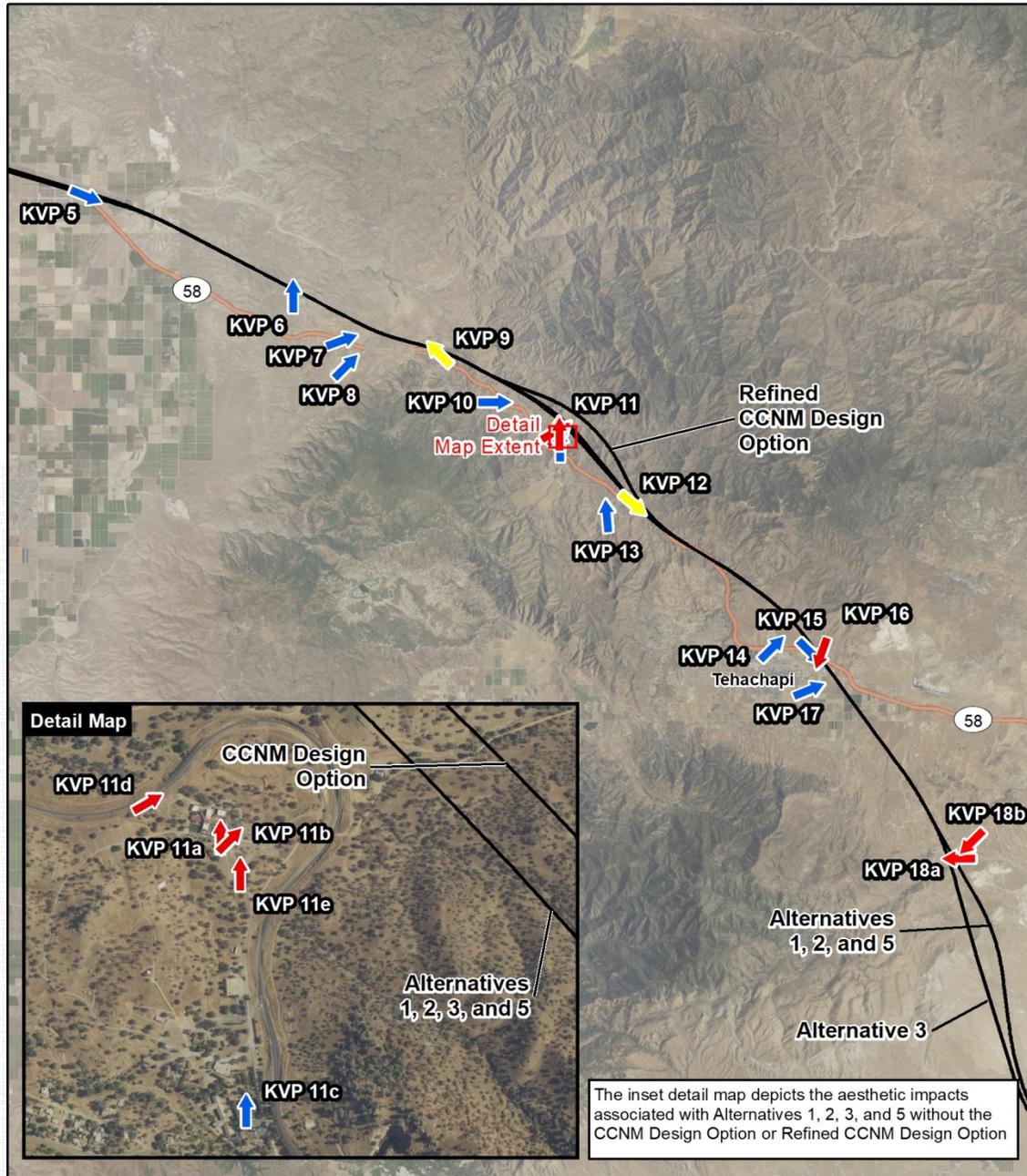


Figure 3.16-59 Summary of Aesthetics and Visual Quality Impacts

(Sheet 1 of 3)



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic 2018; Engineering Data from CHSRA (10/2019).
 October 29, 2019

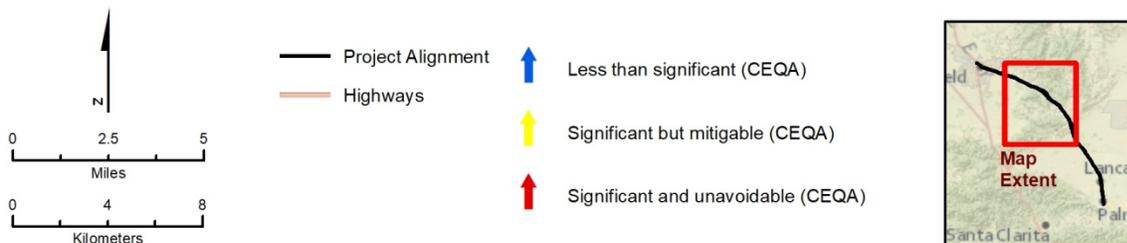
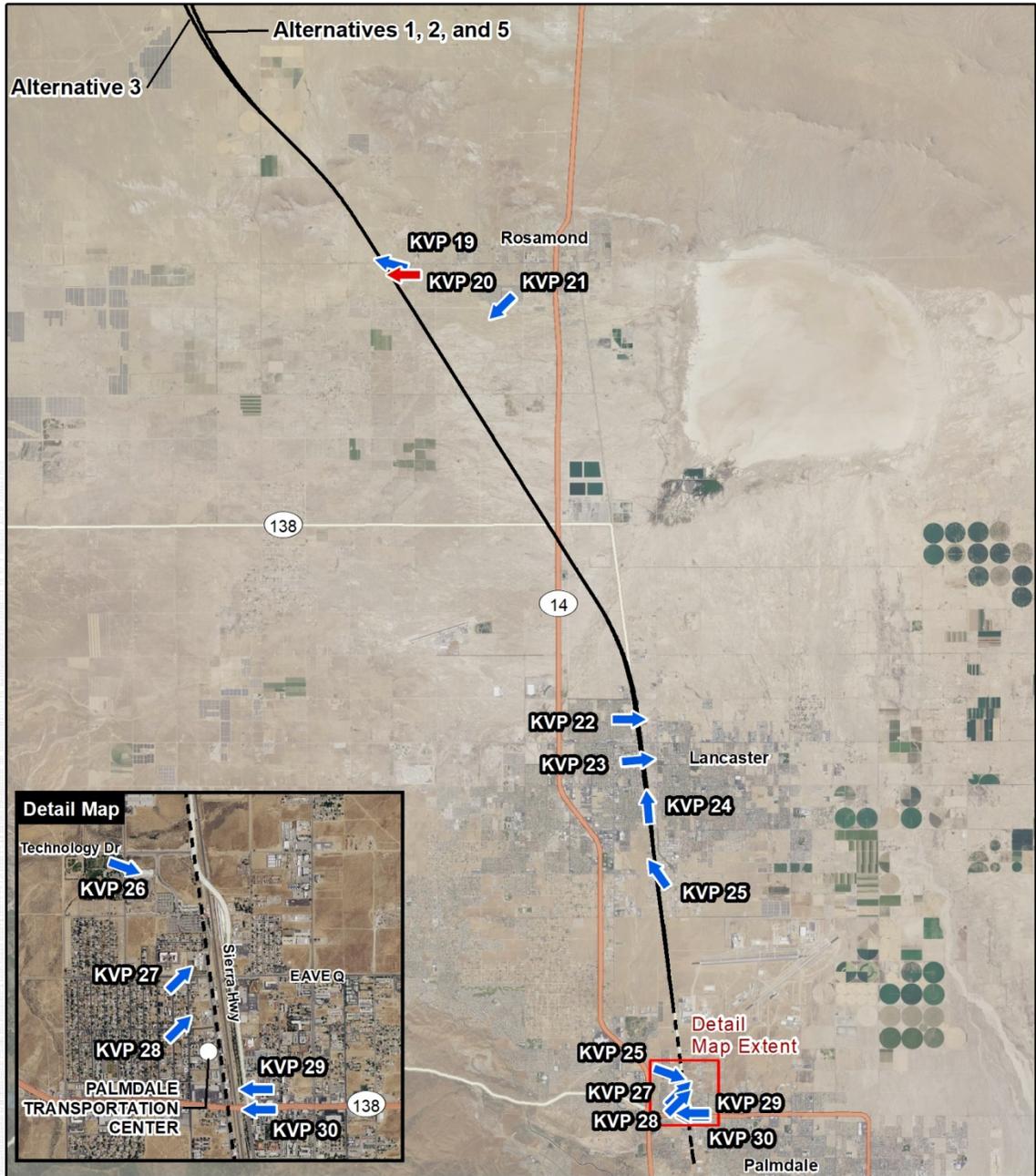


Figure 3.16-59 Summary of Aesthetics and Visual Quality Impacts
 (Sheet 2 of 3)



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 SOURCE: USDA NAIP Imagery (2016); Esri/National Geographic 2018; Engineering Data from CHSRA (10/2019).
 October 29, 2019

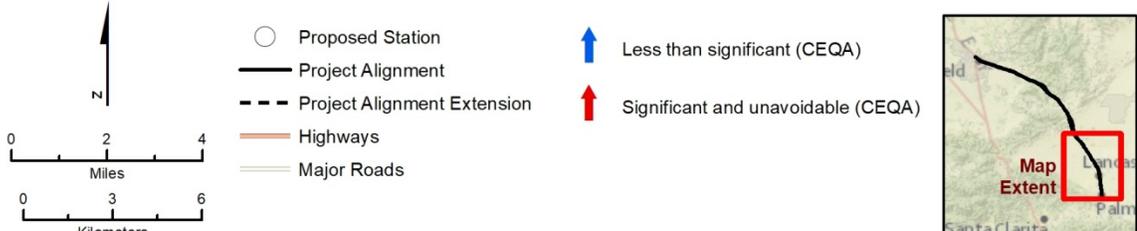


Figure 3.16-59 Summary of Aesthetics and Visual Quality Impacts
 (Sheet 3 of 3)

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