3.16 Aesthetics and Visual Resources

3.16.1 Introduction

This section describes the existing visual environment of the Fresno to Bakersfield Section, including scenic resources, and analyzes the potential impacts on aesthetics and visual resources that would result from the HST alternatives. This section also describes the regulatory setting, affected environment, impacts, and mitigation measures for aesthetics and visual resources. The *Fresno to Bakersfield Section: Aesthetics and Visual Resources Technical Report* (Authority and FRA 2012) includes photographs of existing conditions and simulated views at key locations; it also provides additional information on aesthetics and visual resources.

Visual resources are the natural, man-made, and cultural landscape features that people see and that contribute to the public's enjoyment of the environment. Aesthetics relates to the visual character and beauty of visual elements. Aesthetic and visual resource impacts are generally defined as changes in visual character or quality, plus viewer perspective. Impacts are determined based on the extent to which the project's physical elements and characteristics, as well as potential visibility would change the visual character and visual quality of the viewed landscape. Section 3.13, Station Planning, Land Use, and Development, provides information on issues related to land use compatibility.

The Statewide Program EIR/EIS (Authority and FRA 2005) concluded that the HST project would have low potential to result in visual impacts on aesthetic and visual resources in the Central Valley, with the exception of changes at the HST stations. However, project-level analysis indicated that visual impacts would occur in both rural and urban portions of the project. Overall, the HST alternatives incorporate design solutions that would lead to development of attractive project facilities. The facilities are expected to integrate into the landscape context so that view blockage, contrast with settings, light and shadow effects, and other visual impacts would be minimized. Where possible, the design is at-grade, which would reduce view blockage and intrusion from aerial structures. It would also follow existing transportation corridors, reducing changes in visual character. As discussed in Section 3.1.5 and the Executive Summary, the analysis in this chapter includes revisions based on design refinements and analytical refinements. Gray shading is used as a guide to help the reader navigate the revisions.

3.16.2 Laws, Regulations, and Orders

The following federal, state, and local laws, regulations, and agency jurisdiction and management guidance apply to this resource. Consideration of potential impacts on the existing visual environment is informed by federal, state, and local rules and policies. These rules and policies focus on preserving and protecting visual quality, minimizing conflicts with visual resources, improving aesthetic character, and mitigating adverse effects. The federal, state, and local regulations and policies that affect this project are listed below, with a brief explanation.

3.16.2.1 Federal

Department of Transportation Act, Section 4(f) [DOT Act 49 U.S.C.303]

Compliance with Section 4(f) is required for transportation projects undertaken by an operating administration of the U.S. Department of Transportation or that may receive federal funding and/or discretionary approvals. Section 4(f) protects publicly owned land of parks, recreational areas, wildlife refuges, as well as historic sites of national, state, or local significance located on public or private land. The FRA may not approve the use of a Section 4(f) property, as defined in 49 U.S.C. 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).

National Historic Preservation Act [16 U.S.C. Section 470 et seq.]

The NHPA establishes the federal government policy on historic preservation. Section 106 of the NHPA requires federal agencies to take into account 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.

3.16.2.2 State

State Scenic Highways [California Streets and Highways Code Sections 260 to 263]

The State Scenic Highways Program lists highways that are either eligible for designation as a scenic highway or already are designated as a scenic highway. A highway may be designated 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 (Caltrans 2010). Because no designated state scenic highways are located within or in proximity to the HST alignments, they are not discussed further in this section.

3.16.2.3 Local and Regional

Several city and county plans, including general plans, downtown master plans, community plans, and specific plans address aesthetics and visual resources. Policies and regulations include design guidelines, designated scenic corridors/routes, and identify areas of particular scenic value. Local community design guidelines will be addressed during the subsequent phase of detailed architectural design and system engineering. The Authority will coordinate and collaborate with local jurisdictions, residents, and community leaders regarding the appropriate mitigation measures and local design guidelines that are most context-appropriate for the locale's built and natural environment. Table 3.16-1 outlines the policies related to aesthetics and visual resources from Central Valley plans. These local plans and policies were reviewed and considered in the preparation of this analysis.

Table 3.16-1
Summary of Local Plans and Policies

Policy Title	Summary
Fresno County	
Fresno County General Plan, Agriculture and Land Use Element, Policy LU-B.11 (Fresno County 2000a, 2-22)	This policy indicates that new development requiring a County discretionary permit must be planned and designed to maintain the scenic open space character of rangelands, including the view corridors of highways.
Fresno County General Plan, Open Space and Conservation Element, Goal OS-K, Policies OS-K.1 through OS-K.4 (Fresno County 2000b, 5-33)	This goal and these policies are concerned with conservation, protection, and maintenance of scenic quality and development that degrades areas of scenic quality. Policies in this section identify methods to achieve this goal, including encouraging private property owners to enter into open space easements; purchasing sites for park use; requiring development adjacent to scenic areas and roadways to incorporate natural features of the site; and requiring development to minimize impacts on scenic qualities. A system of scenic roadways that includes landscaped drives, scenic drives, and scenic highways is also identified.

Table 3.16-1
Summary of Local Plans and Policies

Policy Title	Summary
City of Fresno	
Fresno 2025 General Plan, Urban Form Element, Policy 3-C-a, Objective C-5, Policy C-5-a, Objective C-18, Policies C-18-a, C-18-b, C-18-h, C-18-j, Objective C-20, and Policy C-20-e (City of Fresno Planning and Development Department 2002, 34-35, 47-49)	These objectives and policies focus on improving the overall image in the Fresno Central Plan Area. This includes, but is not limited to, enhancing the visual image of all "gateway" routes entering the Fresno metropolitan area, such as passenger rail rights-of-way. Properties adjacent to both sides of a gateway are to provide a sense of entry and transition and to serve as initial information points for visitors. Gateways are to include more prominent landscaping, special lighting, orientation signs, and symbols or logos. Unsightly land uses are restricted or subject to special design/buffering standards. Emphasis is on site and building design in order to preserve functionality and community aesthetics. Fulton Corridor Specific Plan is currently still under CEQA review. Comment period ended May 2, 2012.
Draft Fulton Corridor Specific Plan and the Downtown Neighborhoods Community Plan (City of Fresno 2011)	In January 2010, the City of Fresno began preparation of two new plans for the portions of Downtown Fresno potentially affected by the project. These include the Fulton Corridor Specific Plan, covering the area of downtown in which the project is located, and the Downtown Neighborhoods Community Plan, covering the surrounding residential areas. The public draft of the Fulton Corridor Specific Plan was completed in October 2011, and the plan is anticipated to be adopted soon. Policies of that plan applicable to the project, including the Fresno downtown station, will then supersede the existing 1996 Fulton-Lowell Specific Plan and 1989 Central Area Community Plan, and add specificity to policies currently in place under the Urban Form Element.
West Area Community Plan (City of Fresno 2002a), Policy W-7d	Provides specifications for walls and earthen berms (raised barriers associated with roadways or transportation corridors) required to protect the integrity of residential areas adjacent to nonresidential developments.
Highway City Neighborhood *Specific Plan* (City of Fresno 1998), Parks, Recreation, and Open Space Element Policy 5-2 (City of Fresno 2002c); Historic Preservation, Cultural Resources, and Entertainment Element Policies 7-3 and 7-4 (City of Fresno 2002b)	Parks, Recreation, and Open Space Element includes guidance on the visual appearance of pieces of land remaining from development projects (remnant parcels), raised barriers associated with roadways or transportation corridors (berms), and underused land resources. Historic Preservation, Cultural Resources, and Entertainment Element includes guidance on the conservation, revitalization, and support for cultural and entertainment resources, including Forestiere Underground Gardens.
Tower District Specific Plan (City of Fresno 1991), Policy 9	Includes guidance on the enhancement of public open space areas and visual appearance through the landscaping of remnant parcels and berms.
Kings County	
County of Kings 2035 General Plan, Open-Space Element, Scenic Resources OS Goal B1, OS Objectives B1.1 to B1.3 (Kings County Planning Department 2010a, OS-13, OS-14)	The open space policies for scenic resources focus on maintaining and protecting the scenic beauty of Kings County. Objectives and policies in this section include protection and enhancement of roadways that cross scenic areas or serve as scenic entranceways to cities and communities.

Table 3.16-1
Summary of Local Plans and Policies

Policy Title	Summary
County of Kings 2035 General Plan, Resource Conservation Element, RC Goal D3, RC Objective D3.1, RC Policy D3.1.3 (Kings County Planning Department 2010b, RC-47, RC-48)	The Resource Conservation Element includes objectives and policies concerned with protection of scenic qualities in riparian environments. Conservation of fish and wildlife habitat and protection of scenic qualities are to be guiding principles when potential impacts on riparian environment are evaluated.
City of Corcoran	
Corcoran General Plan 2025, Land Use Element, Objective B, Policies 1.4, 1.37, and 1.41 (City of Corcoran 2007, 1-2, 1-3, and 1-10)	Objectives and policies include maintaining and enhancing Corcoran's visual qualities. Scenic entryways (gateways) and roadway corridors are to be developed into the city, including the Whitley Avenue corridor. Special setback and landscape standards, entry signage, open space and park development, and/or land use designations are to be included. Industrial development is not to create significant offsite circulation, noise, dust, odor, visual, and hazardous materials impacts that cannot be adequately mitigated.
Tulare County	
Tulare County General Plan 2030 Update, Land Use, Policy LU-5.6, Goal LU-7, Policies LU-7.6 and LU-7.12 (Tulare County 2012, Part 1: 4-30, 4-31, 4-32, 7-3, 7-8, and Part II: 2-1)	The Land Use goals and policies provide provisions regarding industrial uses and preservation of the character and scale of Tulare County's communities, among other things. Policy LU-5.6 prohibits new heavy industrial uses to a minimum of 500 feet from schools, hospitals, or populated residential areas unless mitigated. Policy LU-7.6 requires landscaping to adequately screen new industrial uses to minimize visual impacts. Policy LU-7.12 encourages preservation of buildings and areas with special and recognized historic, architectural, or aesthetic value.
Tulare County General Plan 2030 Update, Scenic Landscapes, Goal SL-1, Policies SL-1.1, SL-1.2, and SL-4.3 (Tulare County 2012, Part 1: 4-30, 4-31, 4-32, 7-3, 7-8, and Part II: 2-1)	The Scenic Landscape goals and policies emphasize the enhancement and preservation of scenic landscapes in the County. Goal SL-1 is to protect and feature the beauty of working and natural landscapes. Policy SL-1.1 requires that new development not significantly affect or block views of natural landscapes by minimizing obstruction of views from public lands and rights-of-way; keeping development below ridge lines; blending structures into the landscape; screening parking areas from view, including landscaping that screens the development; limiting the impact of new roadways and grading on natural settings; and including signage that is compatible and in character with the location and building design. Policy SL-1.2 requires that new nonagricultural structures and infrastructure located in or adjacent to croplands, orchards, vineyards, and open rangelands be sited so as to not obstruct important viewsheds, be designed to reference traditional agricultural building forms and materials, screen and break up parking and paving with landscaping, and minimize light pollution and bright signage. Policy SL-4.3 encourages rail infrastructure that is planned and designed to limit visual impacts on scenic landscapes by concentrating infrastructure in existing railroad rights-of-way, by avoiding additional grade-separated crossings in viewshed locations, and by using new transit stations supporting rail transit as design features in existing and future core community areas.
Tulare County General Plan 2030 Update, Corridors Framework Plan, Policy C-1.3 (Tulare County 2012, Part 1: 4-30, 4-31, 4-32, 7-3, 7-8, and Part II: 2-1)	Policy C-1.3 supports the development and adoption of scenic corridor protection plans that protect and enhance the scenic qualities of major transportation routes.

Table 3.16-1
Summary of Local Plans and Policies

Policy Title	Summary
Kern County	
Kern County General Plan, Land Use, Open Space, and Conservation Element; Industrial Policies 6 and 7; General Provisions 47, 48, 49, and 66 (Kern County Planning Department 2009b, 48, 71, 72, and 74)	These policies outline measures for upgrading the visual character of existing industrial areas through the use of landscaping, screening, or buffering; for including design features in industrial areas such as screen walls, landscaping, increased height and/or setbacks, and lighting restrictions so as to reduce impacts on residences due to light, noise, sound, and vibration; for ensuring that light and glare from discretionary new development projects are minimized in rural as well as urban areas; for encouraging the use of low-glare lighting; for incorporating aesthetically pleasing and unifying design features that promote a visually pleasing environment; and for promoting the conservation of oak tree woodlands for their environmental value and scenic beauty.
Kern County General Plan, Circulation Element, Scenic Route Corridors Policy 2 (Kern County Planning Department 2009a, 105)	The Circulation Element of the Kern County General Plan contains a scenic route corridors section that focuses primarily on state-designated routes within the County. Policy 2 stipulated that various methods of protecting, and enhancing the scenic qualities of land and uses within the boundaries of a scenic route corridor be devised and carried out.
Kern County General Plan, Kern River Plan Element, Open Space Versus Development Policies 3, 4, 5, 6, and 8 (Kern County Planning Department 1985, Section 3.2.3: 4-5)	The Kern River Plan Element was adopted in 1985 as a part of the General Plans of both the City of Bakersfield and Kern County. Specific policies regarding the aesthetics of Kern River require that buildings, structures, and vegetation be constructed, installed, or planted in a manner that minimizes obstruction of scenic views from highways, streets, trails, parks, or beach areas; that land developments that would detract from scenic quality be screened by vegetation, fencing, or landscaped berms, or be located in a reasonably inconspicuous manner; that natural topography, vegetation, and scenic features be retained to the greatest feasible extent in development along the Kern River; that grading or earthmoving in the secondary floodway blend with existing topography, and that vegetation subsequently be reestablished where it does not conflict with channel maintenance and recharge facilities; that building heights and setbacks not significantly obstruct river views; and that structural improvements be set back as far as possible from the primary floodway line.
City of Hanford	
City of Hanford General Plan, Circulation Element, Policy CI-9.3, CI-9.4 (City of Hanford 2002a); Open Space Conservation and Recreation Element, Policy OCR 5.4 (City of Hanford 2002b)	Policies include spatial separation between railroads and residential or other sensitive uses; open space, landscaping and noise buffers along railroad rights-of-way; open space and landscaped setbacks along SR 198 to create an attractive entry statement to the city of Hanford.
City of Wasco	
City of Wasco General Plan Policies Statement, Land Use Element, Objective A, Policies 1 and 8 (City of Wasco 2010, 2.0-1)	Objectives and policies include maintaining and enhancing Wasco's visual qualities. The Central Business District is to be maintained as the geographical center of the community, and aesthetics along the BNSF Railway gateway into downtown are to be improved.

Table 3.16-1
Summary of Local Plans and Policies

Policy Title	Summary
City of Shafter	
City of Shafter General Plan, Land Use Organization, Policy 5 (City of Shafter 2005)	This policy emphasizes the "entry" function of lands adjacent to the Lerdo Highway and 7th Standard Road interchanges along State Route 99, including lands adjacent to Shafter Airport, and promotes uses that present a positive image of the community.
City of Bakersfield	
Metropolitan Bakersfield General Plan, Land Use Element, Policies 70 and 71 (City of Bakersfield 2007a, II-15)	These policies promote the establishment of attractive entrances into communities, major districts, and transportation terminals, centers, and corridors within the planning area, and encourage landscaping on banks of flood control channels, canals, roadways and other public improvements with trees to provide a strong visual element in the planning area.
Metropolitan Bakersfield General Plan, Open-Space Element, Policy 5 (City of Bakersfield 2007b, VI-5)	This policy indicates that a development location should be sensitive to its relationship to the Kern River.
Metropolitan Bakersfield General Plan and Kern County General Plan, Kern River Plan Element (City of Bakersfield and Kern County 1985)	This plan element includes policies for preservation of visual quality including building and landscaping that minimizes obstruction of scenic views of the Kern River; screening land development that detracts from scenic quality; retention of natural topography, vegetation, and scenery; grading and earthwork that blends with the natural topography; and building heights and setbacks that do not obscure scenic views of the river.

3.16.3 Methods for Evaluating Impacts

A visual resource is a site, object, or landscape feature that contributes to the visual character of the surrounding area or is important because of its visual characteristics or scenic qualities. For this discussion, visual resources also include state designated scenic routes and views toward and within natural areas, parks, and urban areas identified as having historical or cultural significance or that include buildings of similar significance or notable landmark status. Policy documents, cultural resource reports, or observations of scenic value and apparent local popularity identified during fieldwork directed the list of visual resources.

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 California Department of Transportation (Caltrans) guidelines provided in the *Standard Environmental Reference* (Caltrans 2007). The FHWA visual impact assessment methodology, the accepted methodology used by federal and state transportation agencies, provides an approach and the terminology for analyzing both visual quality and viewer response for transportation corridors. Chapter 27 of the *Standard Environmental Reference* provides an overview of the visual and aesthetics review process that Caltrans uses; Chapter 27 references the FHWA methodology for visual impact assessment. The purpose of this methodology is to define the visual character or quality of a landscape and objectively evaluate whether the project has a substantial adverse impact on a scenic vista or substantially degrades the existing visual character or quality of a landscape.

The FHWA visual impact assessment methodology for visual impact assessment includes the following components:

- Define the project setting and viewshed.
- Determine who has views of the proposed project.
- Identify key viewpoints (KVPs) and views for the assessment of visual impacts.
- Analyze changes in existing visual resources and viewer response.
- Depict the visual appearance with the project.
- Assess the project's visual impacts.
- Propose methods to mitigate adverse visual impacts.

Change to the visual quality of each KVP was determined by applying the FHWA visual quality analysis system, using the visual quality analyst's professional judgment and familiarity with the Fresno to Bakersfield Section of the HST System. The analyst also reviewed engineering drawings of project components and aerial images, and examined visual simulations of the KVPs. The determination of the impacts on the entire landscape unit was based in large part upon the impacts on the KVPs within the landscape units; however, the determination also included the analyst's review of engineering drawings of project components within the entire landscape unit and on-the-ground familiarity with the landscape units within the footprint of the Fresno to Bakersfield Section of the HST System. The following describes terms and concepts that are used when evaluating the visual impacts associated with long, linear transportation projects such as the Fresno to Bakersfield Section of the HST System.

Landscape Units are used to "break up" long linear projects into logical geographic entities for which impacts from a proposed project can be assessed. These units generally have broadly similar visual characteristics (or character), although the visual characteristics of specific locations within each landscape unit may differ from the unit's generalized, overall character. In order to assist in characterizing the existing visual conditions of the landscape units and to assist in determining impacts on them, KVPs are used to provide representative examples of existing views of the landscape as seen by key sensitive viewer groups within each landscape unit. KVPs are also used to illustrate how a proposed project would change those views. KVPs represent specific locations within a landscape unit from which a proposed project would be visible to high-sensitivity viewer groups. These locations are typically selected to either represent (1) "typical" views from common types of viewing areas from which a proposed project could be seen by viewers of high visual sensitivity, such as certain highways or residential areas with high exposure to the project, or (2) specific high-sensitivity areas such as parks, scenic viewpoints, and historic districts that may be impacted by a proposed project. KVPs are very useful for depicting the range of visual character and visual quality found within a landscape unit. KVPs selected for analysis serve as representative examples of existing visual conditions, so analysts can evaluate the view with the proposed project simulated in place to assess impacts. The impact determination for an individual KVP may not be the same as the impact determination for the entire landscape unit in which the KVP is located. This is because when determining impacts on landscape units, the entire landscape unit is considered, not just one specific location. Some KVPs are chosen to be representative of the visual condition of the entire landscape unit and some are selected to represent sensitive or unique viewing locations. The condition of the viewed landscape seen from a sensitive or unique KVP may be different than that of the entire landscape unit.

Visual or landscape character is an impartial description of what the landscape consists of and is defined by the relationships between the existing visible natural and built landscape features. These relationships are considered in terms of dominance, scale, diversity, and continuity. Visual character-defining resources and features include landforms, vegetation, land uses, buildings, transportation facilities, overhead utility structures and lighting, open space, viewpoints and views to visual resources, water bodies, historic structures, downtown skylines,

and apparent upkeep and maintenance of property. Examples of types of visual or landscape character found along the Fresno to Bakersfield Section of the HST System include irrigated row crop agriculture, industrial, automobile-oriented retail shopping centers, single-family residential, undeveloped vacant lots, downtown business districts, and parks.

Viewer response. Under the FHWA method for assessing visual impacts, viewer response is an assessment of the concern viewer groups may have to a project based on two factors: (1) viewer sensitivity to visual change, and (2) viewer exposure to those visual changes.

Viewer groups within the study area include such people as roadway/highway/rail users, residents, commercial building users, office users, park and trail users, and agricultural and industrial workers. The FHWA method recognizes viewer activity and awareness, local values, and cultural significance as the key factors in predicting viewer sensitivity, i.e., their degree of concern with the scenic quality of their surroundings and resulting sensitivity to visual change. Sensitivity to visual change varies among viewer groups and activity types. Generally, residents and recreationists are considered to be highly sensitive viewers because visual quality is a primary concern associated with the activity type. However, active recreationists (such as students engaged in sports) often have less viewer sensitivity than other recreationists, because the primary focus of the activity is on the sport, not the scenery, in contrast to hikers, sightseers or picnickers, for whom scenery is a primary concern.

Local business staff and commuters are generally moderately sensitive viewers, although viewer sensitivity in established downtown areas can be high. In these areas—particularly in parks or along pedestrian-oriented sidewalks—viewers are likely to have expectations of a built environment with a higher level of vividness, intactness, and unity associated with an identifiable urban core; such expectations can lead to higher viewer sensitivity. Workers in the workplace are generally considered to have moderate or low sensitivity because visual quality is not typically a focus or expectation associated with their activity. Local values, especially as reflected in public policies related to community design and cultural significance, especially as reflected in designated historic status of a site, are also potential indicators of high viewer sensitivity.

Viewer exposure also determines the response of viewers. Project effects that are not visible or that are highly screened will not have adverse effects on viewers. In contrast, project effects within the visual foreground (0.25 to 0.5 mile or foreground "distance zone") are more likely to have noticeable effects; those outside that distance are not. Viewer number and duration of views are also important exposure factors affecting likely viewer response.

Viewer response ratings reflect the professional judgment of the analyst based on the relative combined levels of viewer sensitivity and exposure that prevail in a particular location. For example:

- Low viewer response may exist when there are few viewers who experience a defined view or when potential views of the project are screened or filtered by intervening terrain, structures or landscaping (low viewer exposure). Low viewer response may also occur where viewers are not particularly concerned about the quality of views due to their activity type (low viewer sensitivity), such as a commuter on the freeway.

- Moderate viewer response may occur where views of a project are distant enough that the project does not dominate the view (moderate viewer exposure), or where viewer activity is not focused on visual quality and expectations are moderate, such as office workers, or shoppers (moderate viewer sensitivity).

- High viewer response occurs where a project is highly prominent, open to view, and seen by relatively high numbers of viewers (high viewer exposure) and where viewer concern and

expectations of visual quality is also high, as in a rural park where scenery is a primary focus, or in a residential neighborhood.

As applied in this study, a 5-point scale of low, moderately low, moderate, moderately high, and high was used to rate both viewer response and its constituent components, which are sensitivity and exposure.

Visual quality is an assessment of the composition of the character-defining features of the landscape. Under the FHWA visual quality analysis system, visual quality is determined by evaluating the viewed landscape's existing characteristics in terms of vividness, intactness, and unity (which are defined below). As applied in this study, a 5-point scale of low, moderately low, moderate, moderately high, and high was used to rate visual quality and its components (vividness, intactness, and unity).To determine overall visual quality, the vividness, intactness, and unity of a viewed landscape are rated, and the ratings of these three factors determine the overall visual quality. The *Fresno to Bakersfield Section: Aesthetics and Visual Resources Technical Report* (Authority and FRA 2012) includes the ratings that were done for the KVPs. The following three factors determine visual quality:

- Vividness is the degree of drama, memorability, or distinctiveness of the landscape components as seen in a particular view.
- Intactness is a measure of the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes as well as in natural settings. High intactness means that the landscape is free of unattractive features, and out-of-place features and elements do not break up the landscape. Low intactness means that visual elements in a view are unattractive or detract from the view's quality.
- Unity is the landscape's degree of visual coherence and compositional harmony considered as a whole. High unity frequently attests to the careful design of individual components and their relationship in the landscape or an undisturbed natural landscape.

Analysts familiar with the FHWA methodology visited the study area on several occasions to determine its existing visual quality. Section 3.16.4.2 (Landscape Units, Key Viewpoints, and Existing Visual Quality) describes the existing visual quality categories for the study area. As indicated above, a 5-point scale of low, moderately low, moderate, moderately high, and high was used to rate visual quality and its components (vividness, intactness, and unity).

3.16.3.1 Method for Evaluating Effects under NEPA

Pursuant to NEPA regulations (40 CFR 1500-1508), project effects are evaluated based on the criteria of context and intensity. Context means 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, location and extent of the effect, duration of the effect (short- or long-term), and other considerations. Beneficial effects are identified and described. When there is no measurable effect, an impact is found not to occur. The intensity of adverse effects is the degree or magnitude of a potential adverse effect, described as negligible, moderate, or substantial. Context and intensity are considered together when determining whether an impact is significant under NEPA. Thus, it is possible that a significant adverse effect may still exist when on balance the impact has negligible intensity or is even beneficial.

For aesthetics and visual resources, the level (negligible, moderate, or substantial) of impact intensity under NEPA was determined based on FHWA methodology (see Section 3.16.3, above, for detailed methodology). Changes in visual quality and the viewer response of people who view

the affected landscape determine the intensity of the effect of a proposed project. For this project, the intensity of the effect was determined for KVPs according to the following:

- An impact with *substantial* intensity is defined as a change in the existing visual quality category by two or more levels (referred to in the analysis as a "strong" decline in visual quality - for example, from high to moderate or moderate to low) in an area where people with high or moderate viewer response would see it, or as a change by one category (a "moderate" decline in visual quality) in an area where people with high viewer response would see it. An impact with substantial intensity would also occur if the project were to (1) introduce elements that would conflict with the visual character of a federally listed or eligible historic property; or (2) substantially affect a park or other area identified as an important visual resource under Section 4(f).

- An impact with *moderate* intensity is defined as a change in the existing visual quality category by one level (a "moderate" decline in visual quality - for example, high to moderately high or moderately low to low) in an area where people with moderate viewer response would see it.

- An impact with *negligible* intensity is defined as a change in the existing visual quality category by one or more levels in an area where people with low viewer response would see it, or as a change in areas where the proposed project would not affect the existing level of visual quality (a "negligible" decline in visual quality) and where the project would be seen by viewers with high, medium, or low viewer response.

3.16.3.2 CEQA Significance Criteria

For this project, the following criteria are used in determining whether the project would result in a significant impact on aesthetics and visual quality in the following instances:

- The project would have a substantial adverse impact on a scenic vista.

- The project would substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historical buildings within a state designated scenic highway.

- The project would substantially degrade the existing visual character or quality of the site and its surroundings. (See "Visual Quality" paragraph in Section 3.16.3, above, for additional discussion regarding determination of degree of impact under CEQA.)

- The project would create a new source of substantial light or glare, which would adversely affect day or nighttime area views.

A significant impact would also occur if the project were to (1) introduce elements that would conflict with the visual character of an historic district, state-, or federally or state listed or eligible historic property, or (2) substantially affect a park, recreational destination, or other feature or area identified as an important visual resource.

In applying the criteria listed above, the term "substantial" is defined as a decrease of two or more levels of visual quality in a landscape viewed by viewers with moderate to high viewer response, or as a decrease of one level in a landscape viewed by viewers with high viewer response.

3.16.3.3 Study Area

The study area for aesthetics and visual resources is the project's viewshed (i.e., the area that could potentially have views of project features, and the area potentially viewed from the

project). The Fresno to Bakersfield Section of the HST System is on mostly flat terrain and includes agricultural and urbanized areas. Viewing distances toward the corridor vary throughout the study area. In agricultural and other open areas, the corridor is visible over extensive areas due to the general scarcity of buildings and tall vegetation that could block views. In these areas the study area is considered to be all areas within a 0.5-mile distance zone of the alignment centerline from which the corridor would be visible. In urbanized areas views toward the corridor are often more restricted by the presence of buildings and tall vegetation. Therefore, the study area in urbanized areas encompasses the distance zone within 0.25 mile of both sides of the centerline of the alignment from which the corridor would be visible.

3.16.4 Affected Environment

This section discusses the affected environment for aesthetics and visual resources. Existing visual resources are inventoried, and the landscape units and subunits into which the study area has been divided for this analysis are described. The *Fresno to Bakersfield Section: Aesthetics and Visual Resources Technical Report* (Authority and FRA 2012) includes photographs and simulations of the HST project for each KVP as well as other viewpoints used to characterize the existing landscape; it also provides additional information on aesthetics and visual resources.

For this discussion, visual resources include designated scenic routes, views toward/within natural areas, parks, and urban areas that have been identified as having historical or cultural significance or that include buildings of similar significance or landmark status. These visual resources have been identified in planning and policy documents, in cultural resource reports, or in evaluations of scenic quality and apparent public popularity during field work related to aesthetics and visual resources. The selection of representative KVPs for this analysis was based on these visual resources as seen by identified sensitive viewer groups.

3.16.4.1 Fresno to Bakersfield Section Visual Resources

Downtown Fresno

Several buildings of historical and cultural significance exist in downtown Fresno, and portions of the downtown area are designated historic districts. The Southern Pacific Depot is adjacent to the UPRR right-of-way and is listed on the National Register of Historic Places. The Pantages/Warnors Theater, San Joaquin Light and Power Building, and the Bank of Italy/Bank of America Building are in the National Register of Historic Places. These buildings lie along the Fulton Mall within approximately 0.25 mile of the proposed HST alignment. Fulton Mall is a six-block-long outdoor pedestrian mall and has been nominated for listing in the National Register of Historic Places. Chinatown, though not listed in the National Register, contains eligible state and national historic sites and directly faces portions of the proposed Downtown Fresno HST station site. Chukchansi Stadium, which was recently constructed and is not historically significant, attracts large numbers of visitors and directly faces the proposed HST alignment and station site. The stadium is a key visual component of the downtown Fresno Station area.

Rural San Joaquin Valley

Panoramic views toward the Sierra Nevada are among the aesthetic and visual resources present throughout the Central Valley. Other natural aesthetic amenities in the area include rivers, and vast areas comprising a mix of orchards and open field crops.

Kings River, Tule River, Cross Creek, and Poso Creek

The project would cross the Kings River, the Tule River, Cross Creek, and Poso Creek. The riparian forest canopy of these four rivers and streams is a highly distinctive natural element of the San Joaquin Valley (also known as the Central Valley) landscape.

Corcoran, Wasco, and Shafter

The BNSF Alternative would pass through the downtown centers of these towns and the Corcoran Elevated Alternative would pass through the downtown center of Corcoran. Each town includes a visually intact, historic town center located within the visual foreground of the BNSF Alternative as well as nearby parks and residential areas. In addition to the adjacent historic town centers mentioned previously (Whitley Avenue in Corcoran, Seventh Street and the Amtrak station in Wasco, and Central Avenue in Shafter), examples of potentially sensitive viewpoints in the immediate project foreground include Centennial Park and Father Wyatt Park in Corcoran; a residential neighborhood on H Street between Sixth and Ninth streets in Wasco; and Kirchenmann Park, nearby residential neighborhoods between E. Tulare Avenue and E. Lerdo Highway, and the Shafter Cemetery (Shafter Memorial Park) in Shafter. Elements contributing to the visual quality of these towns include a preponderance of historic architecture, as well as street trees, median plantings, and other elements of main street redevelopment.

Colonel Allensworth State Historic Park

The BNSF Alternative would adjoin the eastern boundary of this National Register historic site. The integrity of the highly intact rural landscape setting is considered critical to the site's historic value, as described later in this section.

Kern River and Parkway

The project alignments would cross the Kern River west of downtown Bakersfield. The Kern River Parkway is an important scenic and recreational resource of the city, with trails, landscape improvements, habitat restoration areas, and active recreation facilities. Portions of the Greenhorn and Tehachapi Mountains are visible from within the parkway. The Kern River Plan Element, a portion of the Bakersfield General Plan (City of Bakersfield and County of Kern 1985), identifies the river as "the single most valuable visual resource in the southern San Joaquin Valley."[1]

Downtown Bakersfield

The BNSF Alternative would cross portions of the Bakersfield High School campus. The alignment also adjoins the Truxtun Avenue corridor, the core of downtown Bakersfield, and the locations of numerous civic, governmental, and commercial destinations.

3.16.4.2 Landscape Units, Key Viewpoints, and Establishing Existing Visual Quality Categories

This section describes the landscape units in the study area. These landscape units are the smaller geographic units that were used for determining project impacts. This section also describes the representative KVPs and explains how existing visual quality categories were determined. The following landscape units were identified between Fresno and Bakersfield for each HST alternative:

- BNSF Alternative
  - City of Fresno: Central Fresno (Central Business District/Chinatown Landscape Unit)
  - City of Fresno: South Fresno Landscape Unit
  - San Joaquin Valley Rural/Agricultural Landscape Unit
  - Rural Town Landscape Units (Corcoran, Wasco, Shafter)
  - Colonel Allensworth State Historic Park Landscape Unit

[1] The project is not located in the area covered by the Kern River Plan Element. This information is provided to indicate the visual importance of the Kern River to the residents of Kern County.

  - City of Bakersfield: Rosedale/Greenacres Landscape Unit
  - City of Bakersfield: Kern River Landscape Unit
  - City of Bakersfield: Central Bakersfield Landscape Unit

- Hanford West Bypass 1, Bypass 1 Modified, Bypass 2, and Bypass 2 Modified Alternatives
  - San Joaquin Valley Rural/Agricultural Landscape Unit

- Corcoran Elevated Alternative
  - Rural Town (Corcoran) Landscape Unit

- Corcoran Bypass Alternative
  - San Joaquin Valley Rural/Agricultural Landscape Unit

- Allensworth Bypass Alternative
  - Colonel Allensworth State Historic Park Landscape Unit
  - San Joaquin Valley Rural/Agricultural Landscape Unit

- Wasco-Shafter Bypass Alternative
  - San Joaquin Valley Rural/Agricultural Landscape Unit

- Bakersfield South Alternative
  - City of Bakersfield: Central Bakersfield Landscape Unit

- Bakersfield Hybrid Alternative
  - City of Bakersfield: Central Bakersfield Landscape Unit

- Heavy Maintenance Facility Sites (Fresno Works–Fresno, Kings County–Hanford, Kern Council of Governments–Wasco, Kern Council of Governments–Shafter East, and Kern Council of Governments–Shafter West alternatives)
  - San Joaquin Valley Rural/Agricultural Landscape Unit

Figure 3.16-1 shows the general location of each landscape unit in its larger context. The following sections describe the visual quality categories found within each landscape unit, the associated viewer groups and their levels of visual sensitivity, and the KVPs representing key sensitive views within each landscape unit.

BNSF Alternative

Central Fresno Landscape Unit and Key Viewpoints

Figure 3.16-2 depicts the location of landscape units in the city of Fresno. Subsequent figures depict close-up views of the individual landscape units. Despite a broad common character and identity, most landscape units, particularly in urban areas, contain a range of land uses and corresponding image types with varying levels of visual quality, and central Fresno is no exception. The visual quality of existing views toward the proposed HST alternative from locations within the Central Fresno Landscape Unit covers the gamut from low to moderately high.

Figure 3.16-3 shows the location of representative and key viewpoints of the Central Fresno Landscape Unit. Figures 3.16-3 through 3.16-6 depict the range of typical image types found in the landscape unit. As suggested in this range of views, existing rail yards and associated industrial uses of low visual quality (low intactness, unity, and vividness) (Figure 3.16-4) adjoin the commercial, governmental, and recreational uses of the Fresno central business district with moderate or moderately high visual quality (Figures 3.16-5a and 3.16-5b).

Along the UPRR tracks where the HST alignment is located, there is little vividness in the landscape as it is similar in character to many long used industrial areas along freight rail lines in cities throughout the U.S. (Figure 3.16-4). The visual appearance is often chaotic because of the ever-changing patterns of materials and equipment associated with warehousing and auto dismantling operations. Cleared vacant land combined with utilitarian warehouse and manufacturing structures give the landscape low visual coherence and compositional harmony.

There are no sensitive public views from points within the UPRR corridor. This is because the public that frequents the area predominantly comprises those working at the industrial facilities there, or motorists parking, generally near their place of work. People at their workplace become accustomed to the visual character of their surroundings. Because of this familiarity and their focus principally on work, they are typically not highly concerned with the quality of the aesthetics and visual resources of the immediate surroundings of their workplaces.

The visual quality of the central business district is considered moderately high (Figures 3.16-5a and 3.16-5b). The Fresno County governmental center occupies a heavily landscaped four-square-block area between Tulare and Fresno streets, and the downtown includes various historic office buildings and landmarks, street trees, landscaped medians, and similar features that contribute to a relatively high degree of visual intactness and unity. Distinctive early-20th-century masonry office buildings remain throughout the central downtown, including several ranging from 8 to 12 stories high that form the downtown skyline. These and extensive landscaping contribute to moderately high vividness.

Viewer sensitivity in the central business district is considered to be moderately high based on the concentration and type of use (recreational, visitor-serving, governmental, residential), and the importance of the downtown city image. Viewer exposure in the business district is moderately high overall. The predominance of higher buildings would tend to screen the project from much of this area, creating narrow view corridors down the main northeast-southwest streets that would limit visibility of the project from within the downtown to an area between the taller building facades (see viewpoints CBD-a and CBD-b in Figure 3.16-5a). However, the number and sensitivity of viewers in the immediate foreground zone of the project alignments and associated station sites remain high. Crowds attending events at Chukchansi Stadium, substantial numbers of workers and visitors at adjacent retail and governmental offices, and occupants of nearby residential and live-work developments would have direct, unobscured views of the project. Overall, viewer response is expected to be high.

To the southwest of the UPRR, the proposed HST alignment adjoins the historic Chinatown district (Figure 3.16-6). Despite localized redevelopment improvements on F Street, Kern Street, and elsewhere, the prevailing visual quality and vividness within Chinatown ranges from low to moderate, and is moderately low overall. Land uses directly adjoining the alternative alignment on Chinatown's eastern edge are generally industrial, mixed with a high proportion of undeveloped parcels. With some notable exceptions, the district is typified by heterogeneous, nondescript, low-rise architecture, much of it in disrepair, and a relative scarcity of highly memorable, vivid features (Figure 3.16-6).

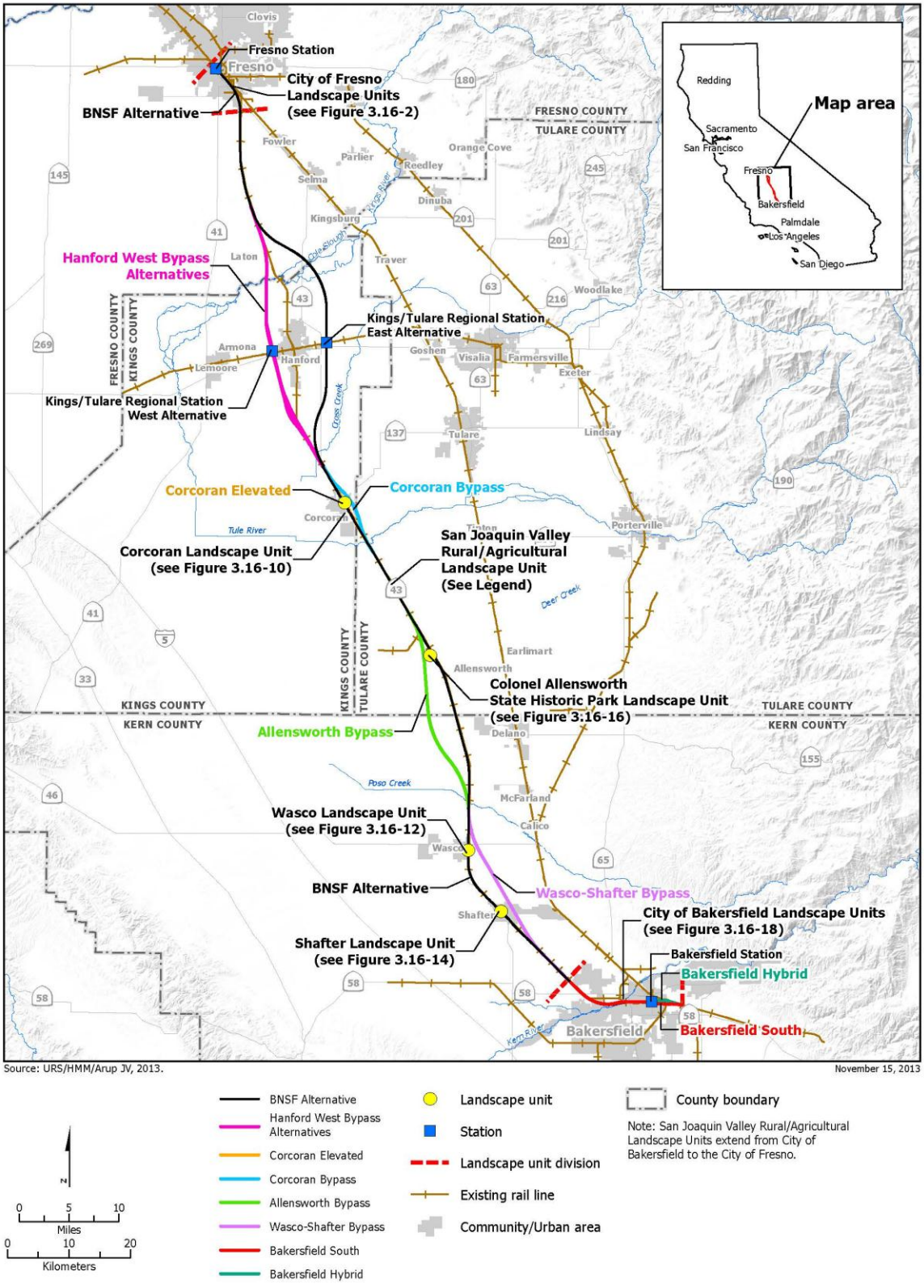


Figure 3.16-1
Fresno to Bakersfield alignments and landscape units

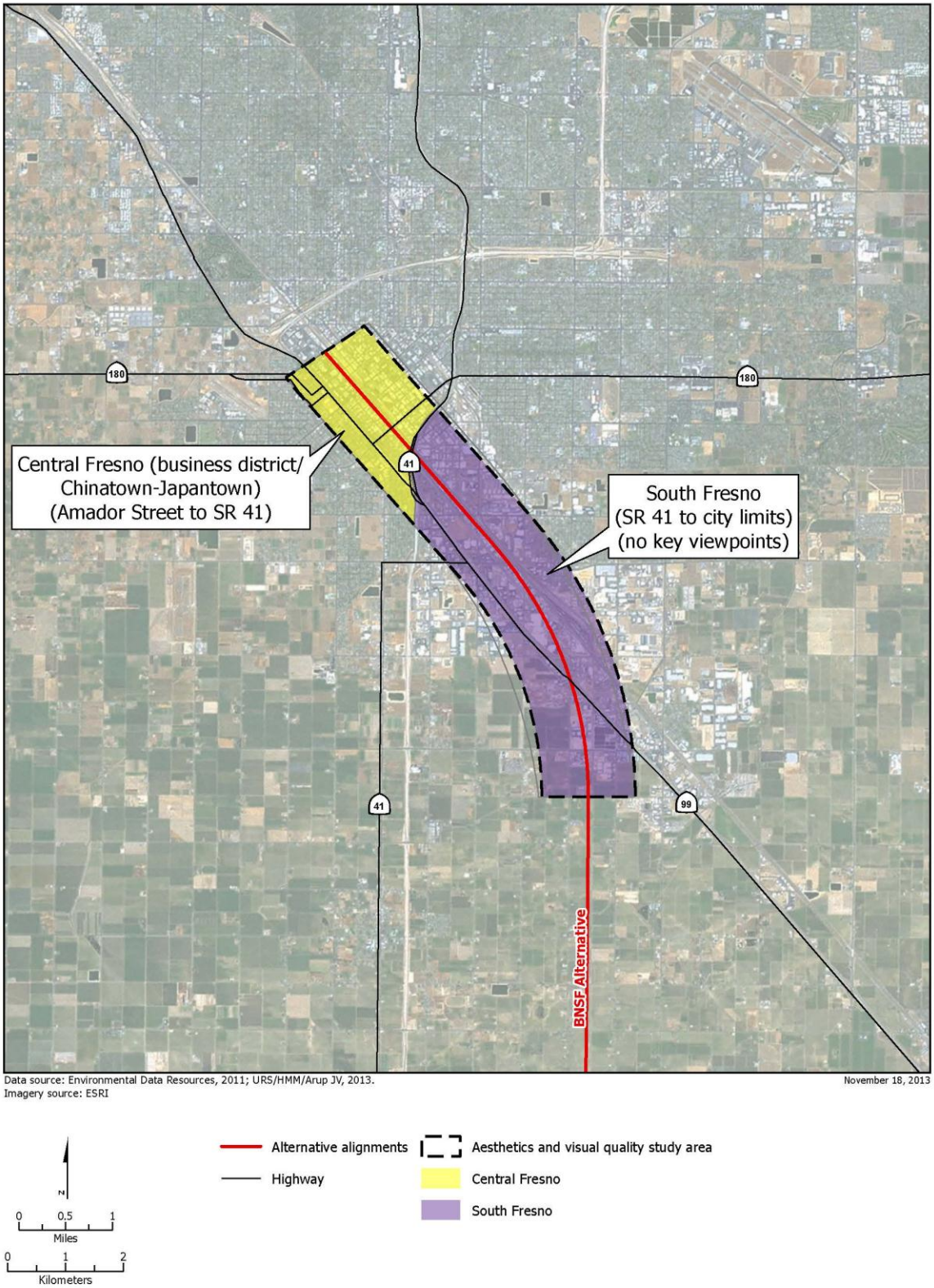


Figure 3.16-2
City of Fresno Landscape Units

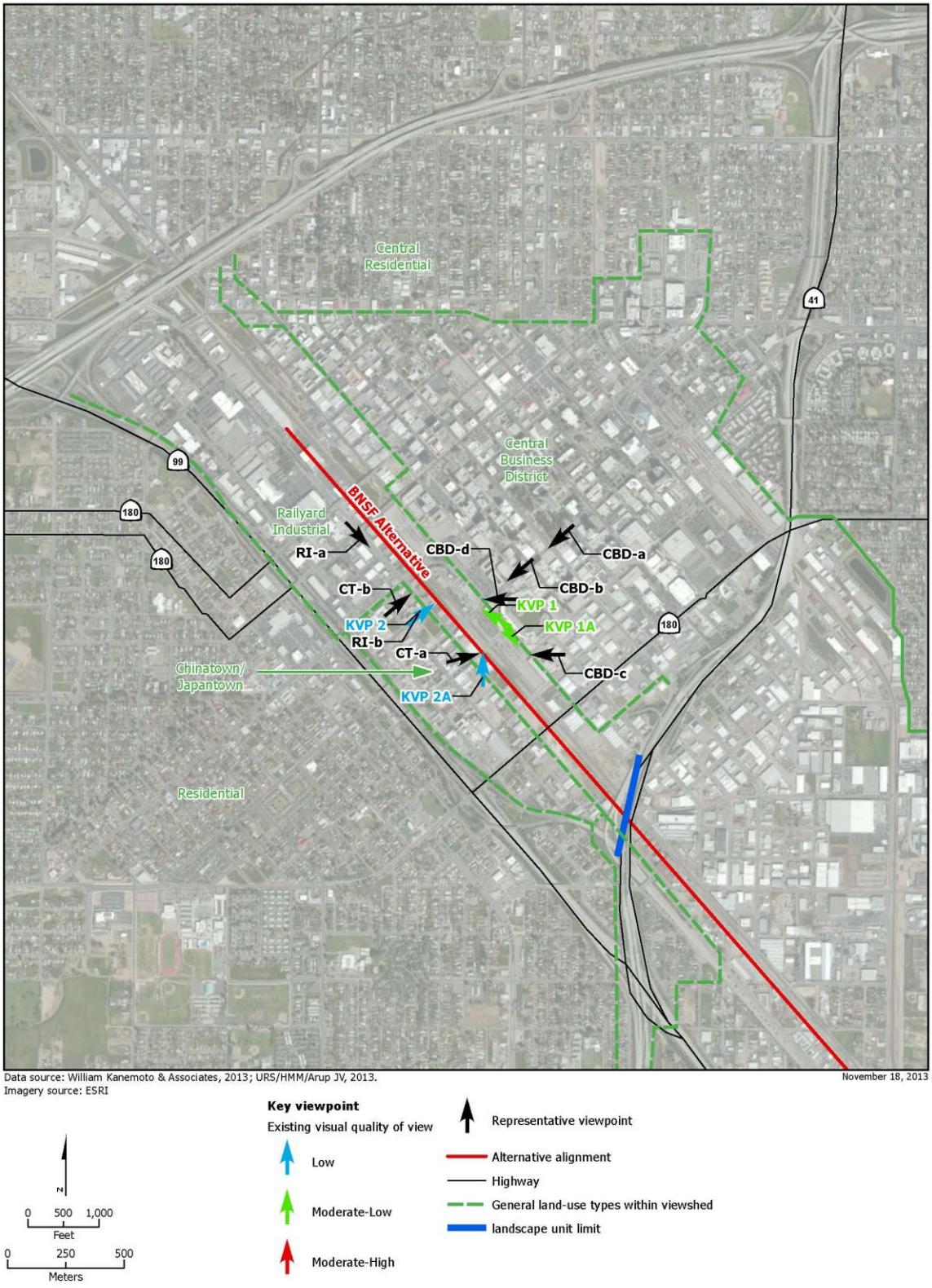
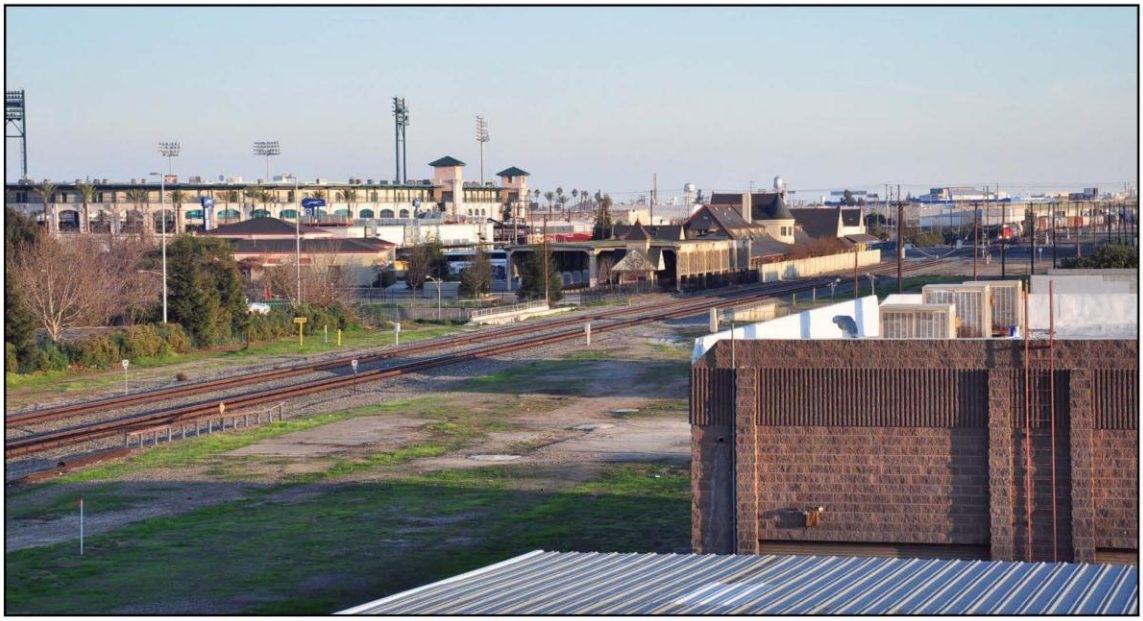


Figure 3.16-3
Central Fresno Landscape Unit:
Representative views, photo locations

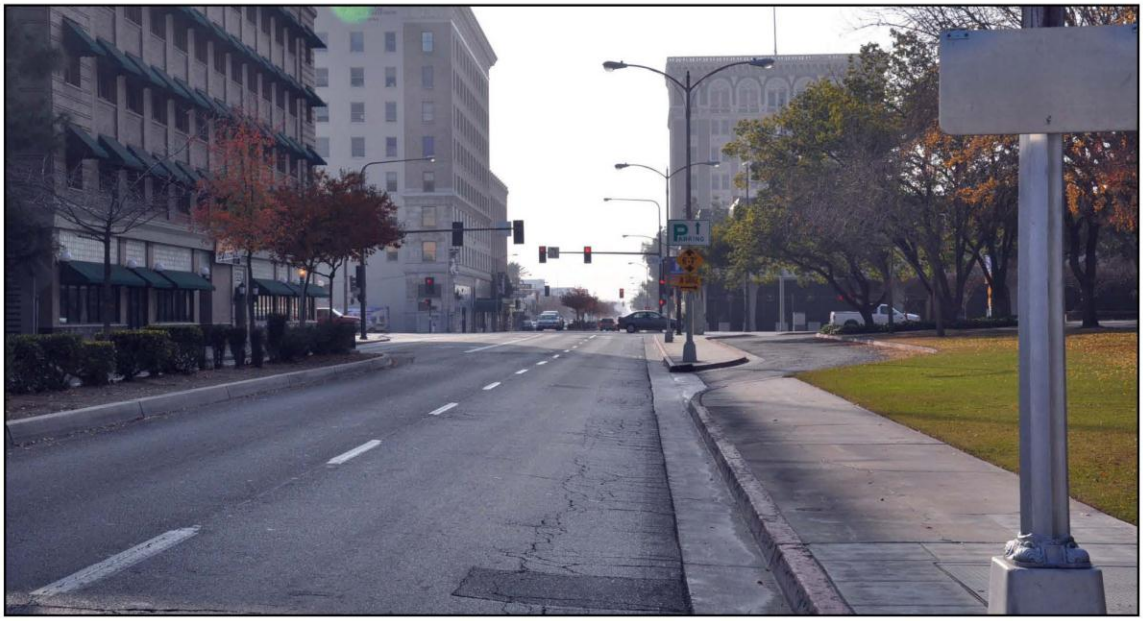


RI-a. View from Tuolumne Street looking southeast down BNSF Alternative and Fresno West alignments toward alternative station locations.

RI-b. View from China Alley near Mariposa Street, looking north toward alignments.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-4
Central Fresno Landscape Unit:
Representative views, industrial image type



CBD-a. Tulare Street at L Street, looking southwest toward alternative station sites, alignment from 1/3 mile (0.5 kilometer).

CBD-b. Tulare Street and Fulton Mall, looking southwest toward alternative station sites, alignment from 800 feet (244 meters).

Source: William Kanemoto & Associates, 2013.

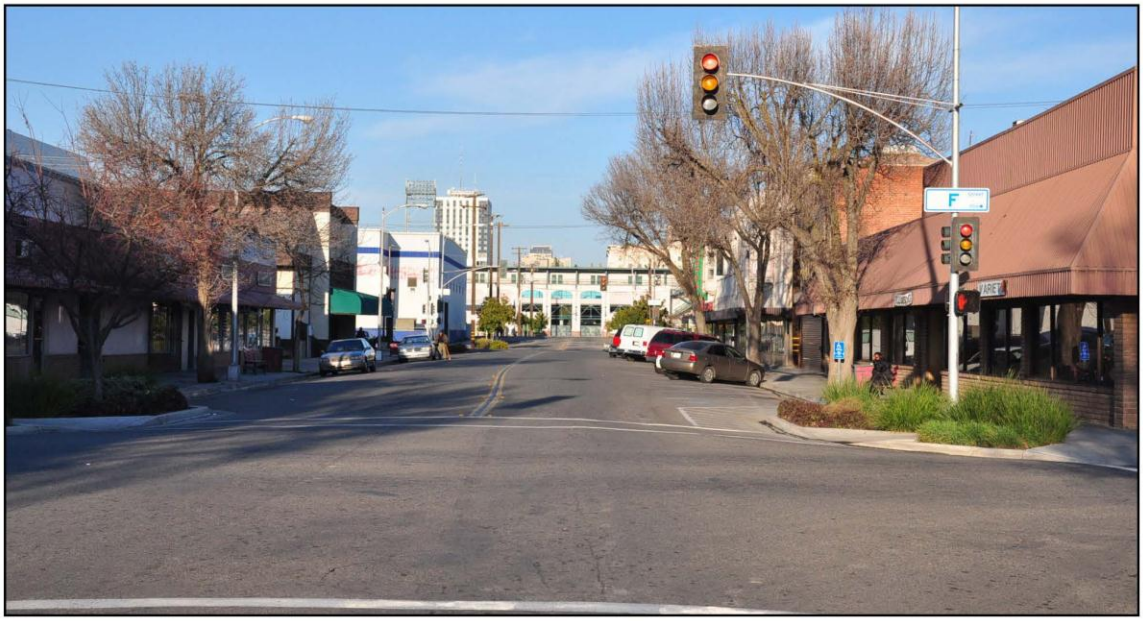
Figure 3.16-5a
Central Fresno Landscape Unit:
Representative views, typical central business district image types

CBD-c. Inyo at H Street, looking west toward alternative station sites, alignment from 500 feet (152.4 meters)

CBD-d. Southern Pacific train station, looking west from Tulare and H Streets

Source: William Kanemoto & Associates, 2013.

Figure 3.16-5b
Central Fresno Landscape Unit:
Representative views, typical central business district image types



CT-a. View from Kern and F Streets, looking northeast toward station alternatives, alignment at 400 feet (122 meters).

CT-b. View from Mariposa and E Streets, looking northeast toward alignment at 600 feet (183 meters).

Source: William Kanemoto & Associates, 2013.

Figure 3.16-6
Central Fresno Landscape Unit:
Representative views, typical Fresno Chinatown image types

Viewer sensitivity within Chinatown, however, is considered to be moderately high, due to the historic significance of the district. Visual exposure to the project from Chinatown is also high; all of the station alternatives have components in Chinatown. This proximity is accentuated by open view corridors over the area's many vacant lots.

Large portions of the alignment in the Central Fresno Landscape Unit are visible from G and H streets, represented by KVP 1 (Figures 3.16-3 and 3.16-5b), which shows the view from H Street at Tulare Street, looking west, and KVP 2 (Figures 3.16-3 and 3.16-6), which shows the view from China Alley between F and G streets, looking north. KVPs 1 and 2 adjoin both of the Fresno station alternatives and parallel the alignment on opposite sides (see Figure 3.16-3). In the same vicinity, KVP 1A (Figures 3.16-3 and 3.16-5b) shows the view from H Street at Tulare Street looking south and KVP 2A (Figures 3.16-3 and 3.16-6) shows the view from G Street near Kern Street looking north.

South Fresno Landscape Unit and Key Viewpoints

The landscape adjoining this section of the alignment is dominated by the adjacent Calwa rail yard to the east and by associated industrial land uses with virtually no sensitive viewers. Calwa, a small residential neighborhood, is located east of the rail yards in the vicinity of Jensen Avenue within foreground distance of the HST alignments. Views of the project from the vicinity of these residences would be highly filtered or strongly dominated by the intervening industrial development and rail yard views.

Like the Central Fresno Landscape Unit adjacent to the UPRR tracks discussed above, there is little vividness in the South Fresno Landscape Unit because it is visually similar to industrial areas adjacent to freight rail lines throughout the country. The visual appearance is often chaotic because of the ever changing patterns of materials and equipment associated with warehousing and auto dismantling operations. Cleared vacant land combined with utilitarian warehouse and manufacturing structures give the landscape low visual coherence and compositional harmony.

Visual quality of the project setting is characterized by low visual unity, intactness, and vividness and is therefore low. Despite the high viewer sensitivity of residents, overall viewer response is also low due to low visual exposure of residences to the HST alignment. Thus, the potential for adverse impacts under the FHWA methodology in this section is very low or nonexistent; representative viewpoints are therefore not depicted.

San Joaquin Valley Rural/Agricultural Landscape Unit and Key Viewpoints

The vast San Joaquin Valley Rural/Agricultural Landscape Unit stretches from the city of Fresno to the city of Bakersfield, comprising the largest portion of the study area (see Figure 3.16-1). This large agricultural landscape is punctuated by several small-to-medium-sized towns and other visually distinct landscape units and associated viewer groups through which the project corridor passes. However, the unit as a whole exhibits a remarkable consistency and continuity of visual character and quality and is hence treated as a whole. Visually distinct landscape units located along the alignments within the San Joaquin Valley, notably the cities of Corcoran, Wasco, and Shafter, and Allensworth State Historic Park, are discussed separately below.

The visual quality of existing views of the study area within the San Joaquin Valley Rural/Agricultural Landscape Unit is predominantly moderate, although ranging from moderately low to moderately high depending on specific local circumstances. The landscape unit consists predominantly of level agricultural land, as shown in Figure 3.16-7. Row crops, orchards, and pasture are interspersed with a variety of scattered rural residential and agro-industrial structures visible from nearby roadways. Though generally of moderate intactness and unity, this landscape often lacks variety and vividness. Views of mountains or natural riparian corridors are few and of limited prominence, typically resulting in low to moderately low vividness in the unit as a whole.

Agro-industrial developments are interspersed throughout the San Joaquin Valley. Though sometimes adding a degree of vividness, these factory facilities are typically of a highly utilitarian visual character with low visual intactness and unity and thus, low or moderately low visual quality.

Rural residences range from isolated homesteads or small aggregations of homes, to denser more suburban-style settlements of generally small scale, primarily in transitional areas on the periphery of both the cities and small towns, as depicted in Figure 3.16-8. Visual quality of these areas within the San Joaquin Valley varies greatly from one site or settlement to another. The visual quality of some settlements may be rated moderately high due to the presence of trees, architectural style, or site landscaping, which contribute a degree of vividness through attractive tree canopies or distinctive architectural forms (weathered barns, water towers, period architecture). Other sites may rate low because of structure deterioration, the presence of abandoned farm equipment, landform disturbances, or visual clutter and other expressions of low visual unity and intactness. The visual quality of residential areas is strongly influenced by the surrounding agricultural landscape, and is typically moderate in the great majority of cases.

The San Joaquin Valley Rural/Agricultural Landscape Unit also includes the riparian canopies of the Kings and Tule rivers, and Cross and Poso creeks. These narrow bands of riparian tree canopy are among the few natural features providing vertical form within the level valley terrain and, given their moderately high vividness, intactness and unity, they typically have moderately high visual quality where visible to the public, as depicted in Figure 3.16-9.

Viewers in the valley are generally few, and viewer activities are predominantly work-oriented. Viewer sensitivity of motorists is considered moderate, and of workers, moderately low. Viewer sensitivity would be higher for views from state-designated scenic highways, but no such routes are located in the project viewshed. The principal sensitive viewers within the valley landscape are residents within the 0.5-mile foreground distance zone of project facilities for all of the alignment alternatives. In general, residents are considered to have high viewer sensitivity. Views of the project from residences, where they occur, would be of extended duration, and residents have a high level of concern for the quality of their day-to-day living environment. Viewer exposure of rural residents in the valley varies primarily by distance because there is often little to screen or filter views; exposure would generally be high within the 0.25-mile foreground distance zone. Overall, viewer exposure in the valley is moderated by a low density of viewers. Viewer sensitivity at creek crossings however varies widely depending on the presence or absence of recreational use. Sensitivity of recreational users on the rivers or associated recreational facilities, such as trails, would be high. In their absence, sensitivity would be low.

In Section 3.16.5 (Environmental Consequences) below, KVPs 3 through 8 (Figures 3.16-34 through 3.16-40), KVP 20 (Figure 3.16-52), and KVPs 21 and 22 (Figures 3.16-53 and 3.16-54) depict simulations of potential HST effects under the range of situations anticipated within the San Joaquin Valley Rural/Agricultural Landscape Unit.

V-a. Typical valley agricultural scene.

V-b. Typical valley agro-industry scene.

V-c. Valley orchard scene.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-7
San Joaquin Valley Rural/Agricultural Landscape Unit:
Representative views, typical valley image types

RR-a. Typical valley farmstead.

RR-b. Valley rural residences at alignment foreground (Monmouth).

RR-c. Valley residential settlement looking toward alignment.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-8
San Joaquin Valley Rural/Agricultural Landscape Unit:
Representative views, rural residential image types

VR-a. Poso Creek at Highway 43.

VR-b. Alignment crossing at Tule River from Highway 43.

VR-c. Kings River near alignment crossing at Highway 43.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-9
San Joaquin Valley Rural/Agricultural Landscape Unit:
Representative views, riparian corridor image type

Rural Town Landscape Units and Key Viewpoints

As noted above, the San Joaquin Valley Rural/Agricultural Landscape Unit is punctuated by other smaller landscape units of contrasting character and quality. These include landscape units in the predominantly agriculture-related communities of Corcoran (see Figures 3.16-10 and 3.16-11), Wasco (see Figures 3.16-12 and 3.16-13), and Shafter (see Figures 3.16-14 and 3.16-15). The BNSF Alternative passes near the community of Laton and the city of Hanford, but skirts them and would not directly affect them. Each of the communities of Corcoran, Wasco, and Shafter supports an historic, defined central business district with associated parks, schools, medical facilities, and local governmental institutions. In marked contrast to the vast areas of suburban sprawl characteristic of the Los Angeles Basin and the San Francisco Bay Area, these historic towns of the San Joaquin Valley remain spatially distinct islands within the wider agricultural landscape, which strongly influences them.

In Corcoran, Wasco, and Shafter most areas within a narrow band immediately adjoining the existing BNSF railway right-of-way are typified by railroad-related industrial uses, often with low visual quality. However, in all three towns, these narrow railroad-related industrial zones are juxtaposed with the historic old town centers, which constitute the key sensitive viewpoints. Visual quality in these old town centers ranges from moderate to moderately high, with corresponding levels of vividness, intactness, and unity. Elements contributing to visual quality include a large proportion of historic architecture, local parks, as well as street trees, median plantings, and other elements of main street redevelopment. These features contribute to a prevailing intactness of character and unity of scale typical of historic main streets.

As reflected in the General Plan policies for the cities of Corcoran, Wasco, and Shafter, viewer sensitivity in these communities is anticipated to be high because of community concern for the integrity and quality of the downtowns, and because of the presence of parks and residential areas near the alignment. In both downtowns and nearby parks, the concentration of potential viewers may also be relatively high, with broad visibility from multiple locations and extended exposure to views. KVP 9 (Figure 3.16-41), KVP 10 (Figure 3.16-42), and KVP 11 (Figure 3.16-43) depict the BNSF Alternative from viewpoints in the downtowns of Corcoran, Wasco, and Shafter, respectively.

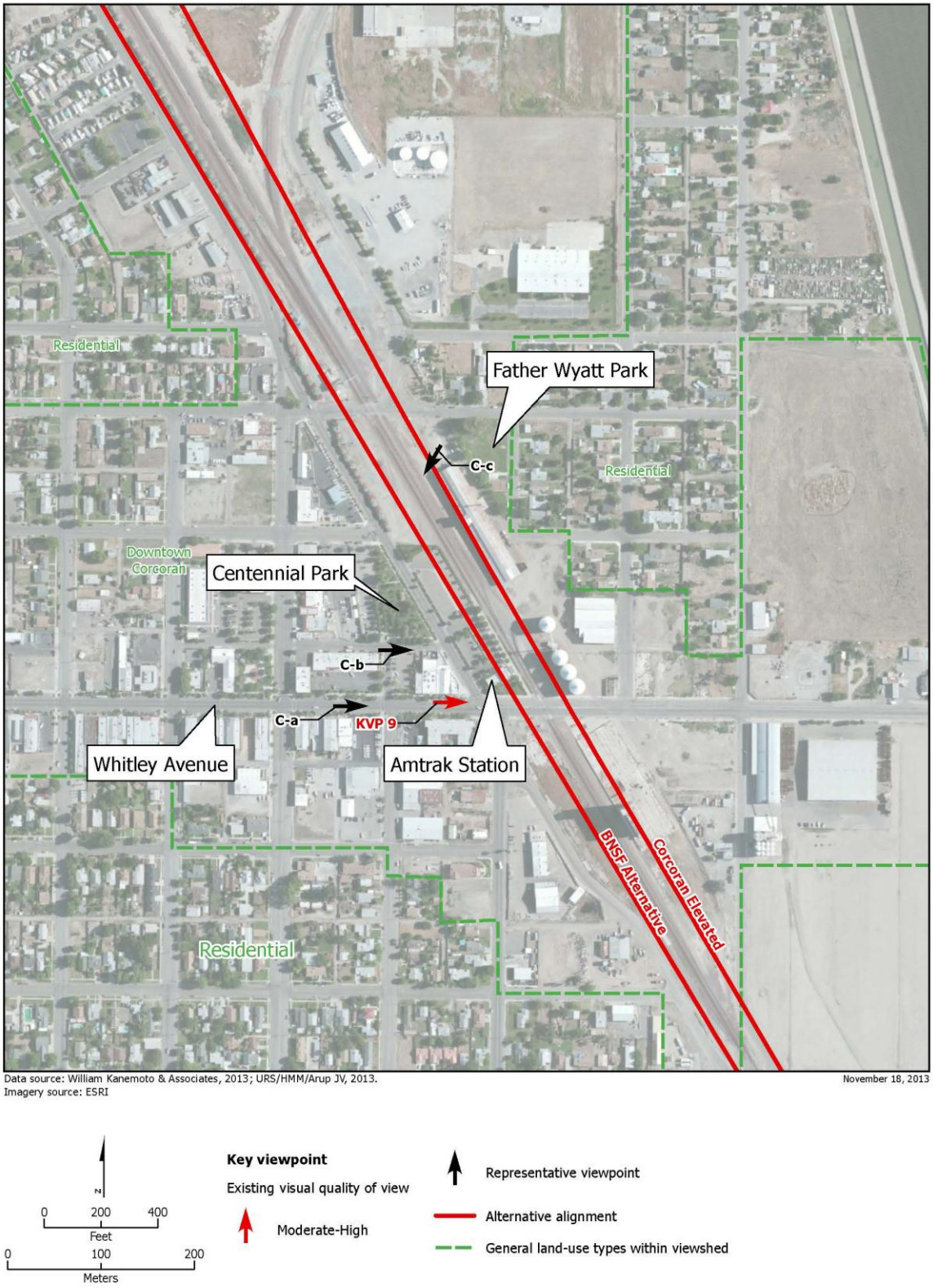


Figure 3.16-10
Corcoran Landscape Unit:
Representative views, photo locations

C-a. Alignment from downtown Corcoran.

C-b. Alignment from Centennial Park, downtown Corcoran.

C-c. Alignment from Father Wyatt Park, downtown Corcoran.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-11
Corcoran Landscape Unit:
Representative views, downtown Corcoran (photos)

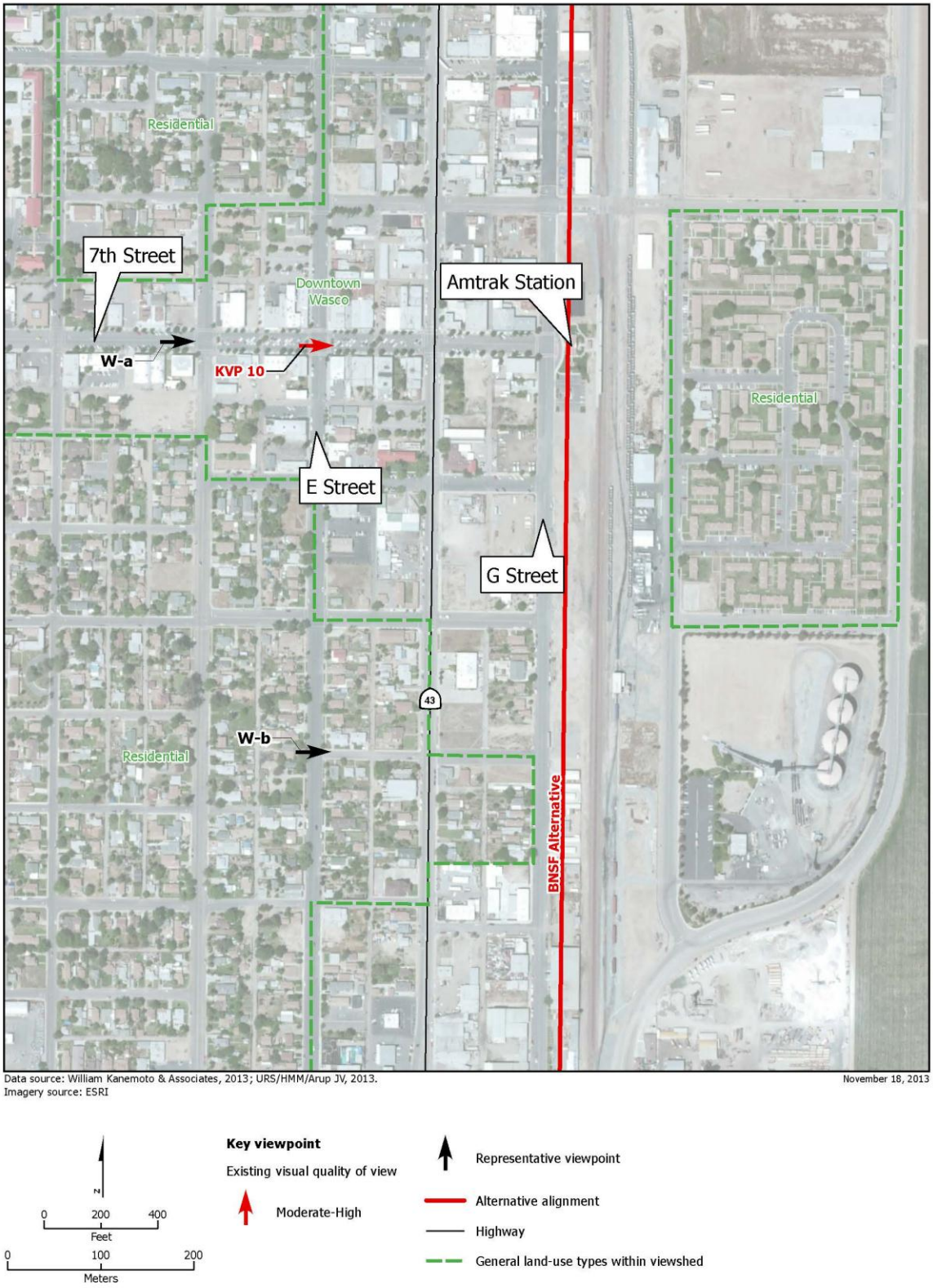


Figure 3.16-12
Wasco Landscape Unit:
Representative views, photo locations

W-a. Downtown Wasco, looking toward Amtrak station, 7th Street.

W-b. Alignment from residential neighborhood, central Wasco.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-13
Wasco Landscape Unit:
Representative views, downtown Wasco (photos)

Figure 3.16-14
Shafter Landscape Unit:
Representative views, photo locations

S-a. Alignment from downtown Shafter.

S-b. Alignment from Stringham Park, downtown Shafter.

S-c. Alignment at Shafter Memorial Park.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-15
Shafter Landscape Unit:
Representative views, Shafter (photos)

Colonel Allensworth State Historic Park Landscape Unit and Key Viewpoints

The Colonel Allensworth State Historic Park is a picturesque historic district marking an African American farm settlement founded in 1908 by the site's namesake (see Figures 3.16-16 and 3.16-17). Because visual integrity of the setting is critical to the district's historic integrity and its experience for visitors, the visual sensitivity of users of the park is considered to be high. Because it adjoins the BNSF Railway alignment with minimal visual buffering, visual exposure is also high. The park entrance crosses the existing BNSF Railway alignment and areas of the park frequented by visitors are within 250 feet of the existing BNSF tracks. Overall, viewer response is therefore high.

Visual quality of the park is moderately high. The terrain of the park and surrounding area is flat, with some scattered shrubs and trees. Buildings are scattered around the park along the original street grid. The elementary school is surrounded by several large trees. Although the surrounding landscape is relatively featureless and lacks vivid elements, the intactness of the setting is striking, with few or no anachronistic features to distract from the historic character of the setting. Vividness, although lacking in the landscape, is provided by the homes and structures of the district itself, which are painted in a variety of colors and are memorable for their historically distinctive and highly intact quality. The setting is similarly unified, spatially expressing the original agricultural and community functions clearly through the street grid and organization of buildings on lots. Due to the site's historic significance, the visual integrity of setting is considered an overriding factor in evaluating visual quality—the intactness of the setting and absence of anachronistic features within the viewshed are paramount. KVP 12 (Figure 3.16-44) depicts the view eastward toward the BNSF Alternative from within the park.

City of Bakersfield

Figure 3.16-18 depicts an overview of landscape units in the Bakersfield metropolitan area. Subsequent figures depict close-up views of the individual landscape units in sequence. Despite a broad common character and identity, most landscape units, particularly in urban areas, contain a range of land uses and corresponding image types with varying levels of visual quality, and the city of Bakersfield is no exception, as described in the analysis below.

City of Bakersfield: Rosedale/Greenacres Landscape Unit and Key Viewpoints

For approximately 4 miles from the point where SR 43 diverges from the BNSF Railway line north of Bakersfield, the BNSF Alternative follows the existing BNSF route through an unincorporated suburban residential area, Rosedale/Greenacres, for approximately 2 miles before diverging eastward from the rail line south of SR 58 (see Figures 3.16-19 and 3.16-20). Adjacent land uses in the northern portion of this section include industrial uses and empty parcels. However, the principal adjoining use consists of dense suburban residential development that continues until the vicinity of Calloway Drive to the southeast. The existing BNSF right-of-way in this section is narrow, with as little as 100 feet separating residences across the right-of-way.

The Rosedale/Greenacres Landscape Unit consists largely of single-story, single-family residential development, mostly built during the latter half of the twentieth century. Most neighborhoods are characterized by homes with wide front lawns and mature landscaping (Figure 3.16-20). Blocks of these neighborhoods are broken up by small commercial development at the intersections of major streets. The residential suburban setting provides moderate vividness, intactness, and unity to the landscape subsection. Visual quality is moderate overall.

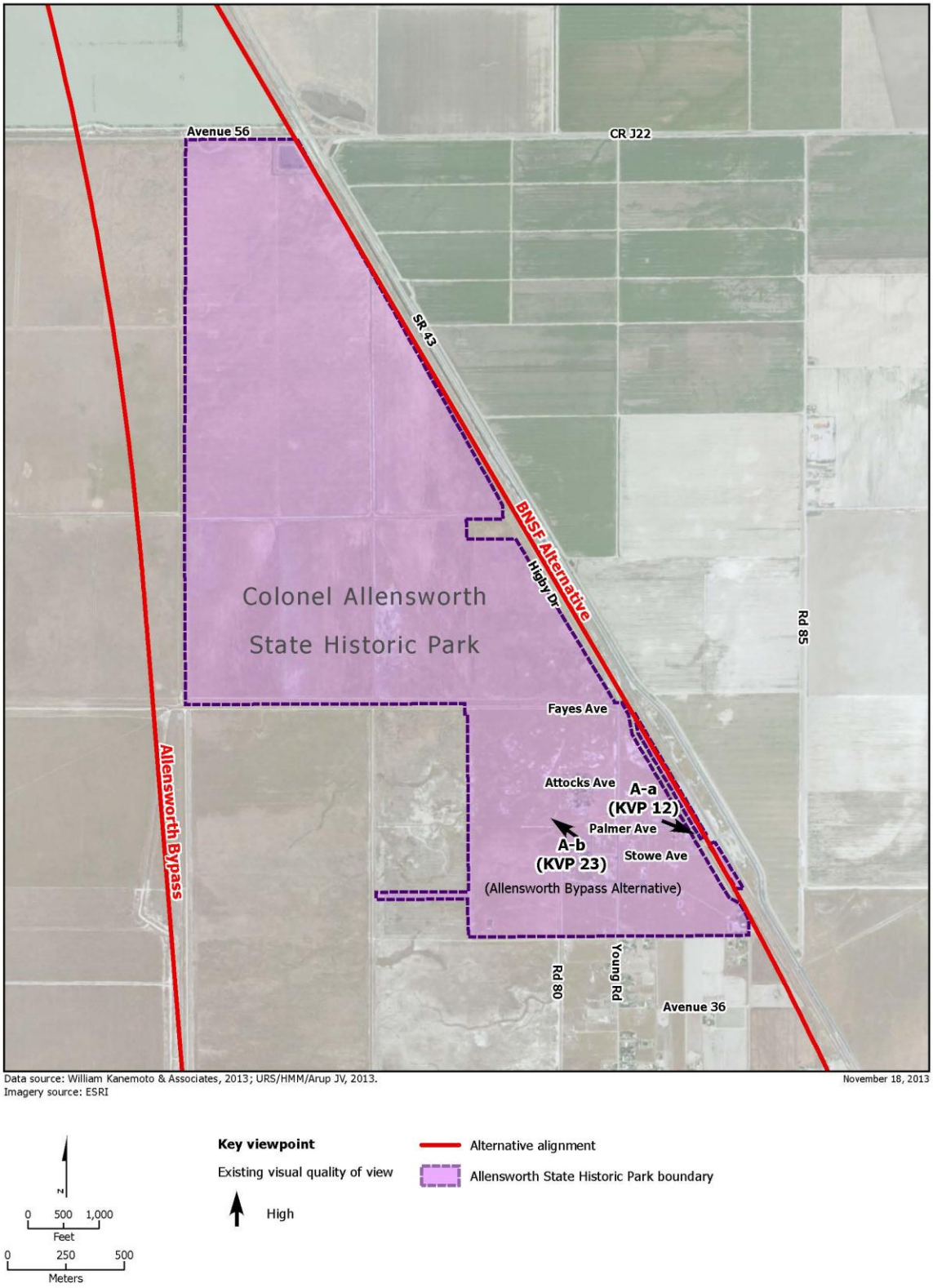


Figure 3.16-16
Colonel Allensworth State Historic Park Landscape Unit:
Representative views, photo locations

A-a. Allensworth State Historic Park view toward BNSF Alternative.

A-b. Allensworth State Historic Park view toward Allensworth Bypass alternative alignment.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-17
Colonel Allensworth State Historic Park Landscape Unit:
Representative views, Colonel Allensworth State Historic Park (photos)

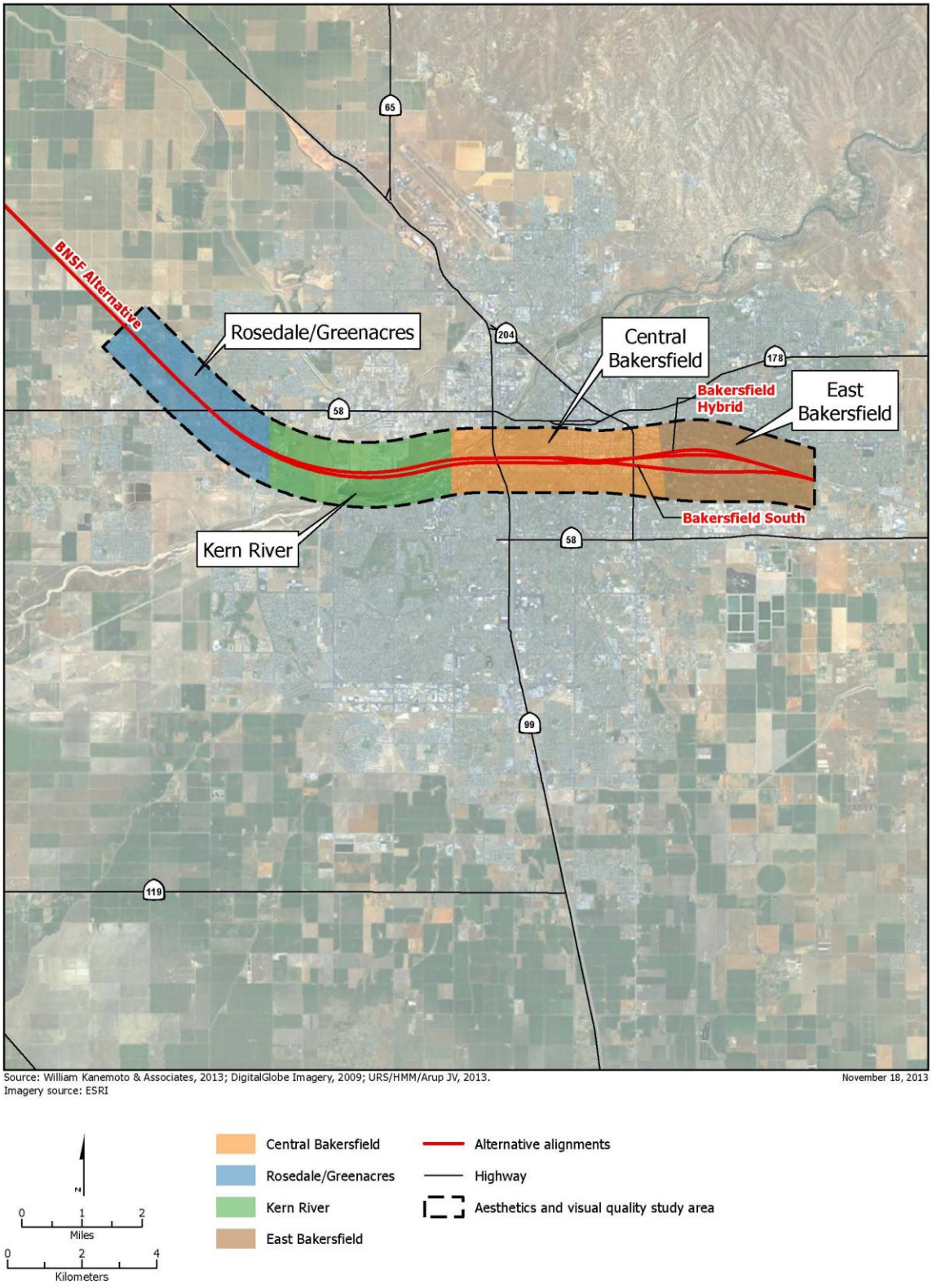


Figure 3.16-18
City of Bakersfield Landscape Units

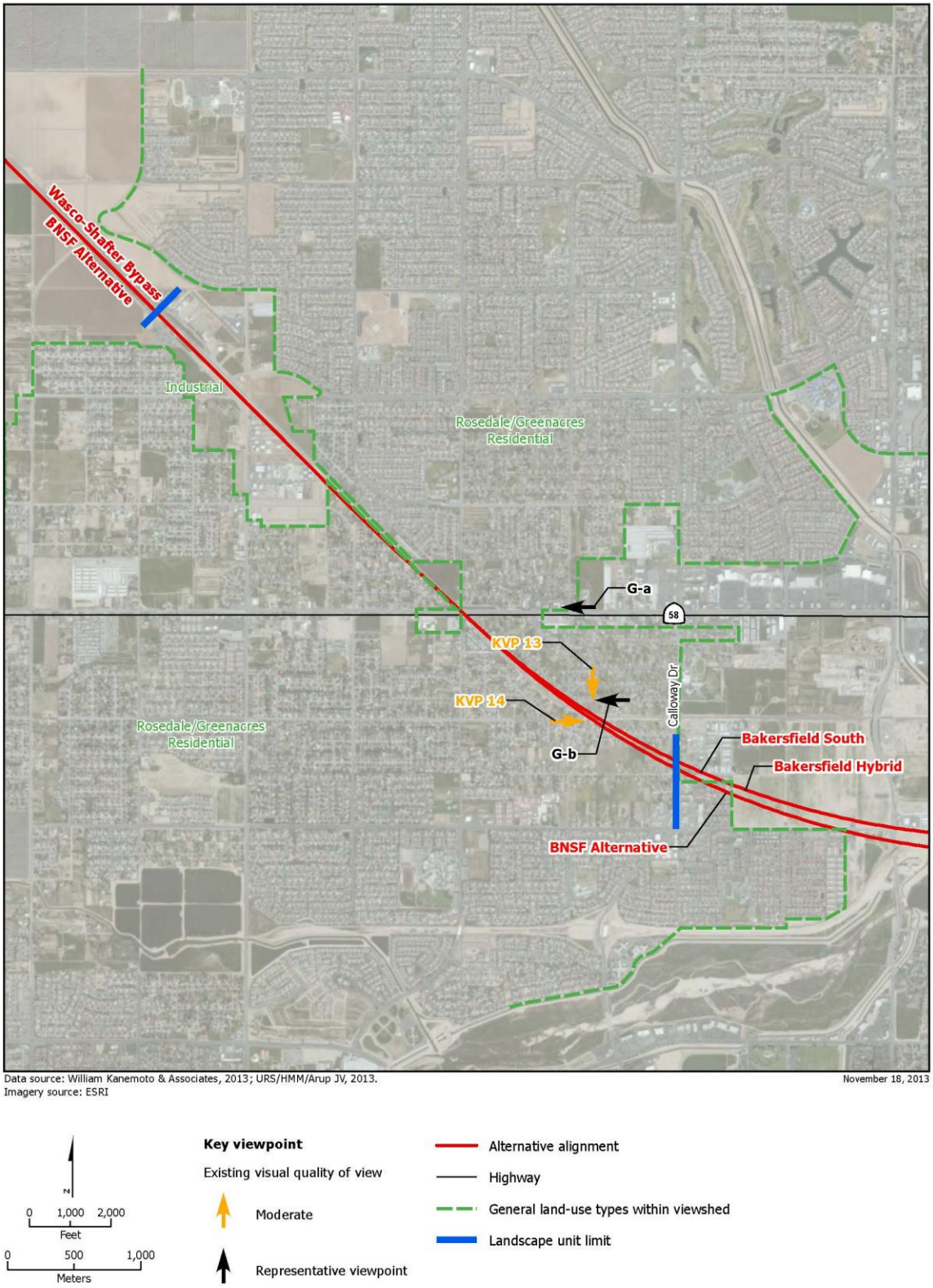


Figure 3.16-19
Rosedale/Greenacres Landscape Unit:
Representative views, photo locations

G-a. Alignment crossing at Highway 58, Greenacres (Rosedale), looking west at ½ mile (0.8 kilometer).

G-b. Alignment crossing, Glen Street, Greenacres (Rosedale), looking west at 500 feet (152.4 meters).

Source: William Kanemoto & Associates, 2013.

Figure 3.16-20
Rosedale/Greenacres Landscape Unit:
Representative views, Rosedale/Greenacres (photos)

Suburban residential development is a land use with high public sensitivity. Views of the BNSF Alternative would be experienced by residents repetitively, would be of extended duration, and would have a high personal significance to the viewers. Key sensitive viewers in this section consist primarily of residents adjoining the alternative alignments. Most or all neighborhoods are partially screened from the existing rail line by fencing, community walls, and landscaping. However, because of the very close proximity of relatively large numbers of residents (in the hundreds) to the alignment, the extended duration of exposure, and the high level of viewer sensitivity, overall viewer response is considered high. KVPs 13 and 14 (Figures 3.16-45 and 3.16-46) depict typical views of the BNSF Alternative as it passes through this residential area.

City of Bakersfield: Kern River Landscape Unit and Key Viewpoints

The visual quality in the vicinity of the Kern River varies greatly, from very low in the industrial floodplain dominated by an oil refinery on the river's west bank to moderately high in the Kern River Parkway along Truxtun Avenue on the east bank (Figures 3.16-21 and 3.16-22). Key sensitive viewer groups in this landscape unit include viewers on the east bank within the Truxtun Avenue corridor and, particularly, recreational users of the bike trail and open space within the Kern River Parkway.

Visual quality on the river's east bank is moderately high. Although the floodplain appears somewhat barren for portions of the year, its vividness is enhanced year-round by riparian vegetation on both banks of the river, including a large area of restored riparian woodland, trails, and a large, attractive artificial lagoon, which adjoins the Kern River Parkway trail north of Truxtun Avenue. Abundant street tree-planting enhances visual quality east of the river along Truxtun Avenue. However, the proposed alignment crossings occupy a small, unimproved portion of the river corridor with no trees and with an existing electrical transmission line and moderately low visual quality. Viewer sensitivity of parkway and bike trail users—a recreational, scenery-oriented viewer group—is high; visual exposure, however, is moderate. Despite the foreground distances to the alignments, most views from Truxtun Avenue and the adjoining, parallel bike trail are filtered by dense landscaping at the edge of the road, within the parkway, and by riparian vegetation on both banks of the river. Overall, viewer response in this area is moderately high. KVP 15 (see Figure 3.16-47) depicts the proposed river crossing over the Kern River as seen from the bike and hiking trail in the Kern River Parkway.

A small area of retail and office commercial uses line Truxtun Avenue to the southeast of the alignment. Viewer sensitivity of these activity types is considered moderate. Views of the project from the vicinity of these land uses are buffered by landscaping, and viewer response from these areas is therefore moderate. Residences south of Truxtun Avenue are visually isolated from the alignment by backyards, landscaping, community walls, and landscaping along the Kern River Parkway. Therefore, viewer exposure and response are minimal.

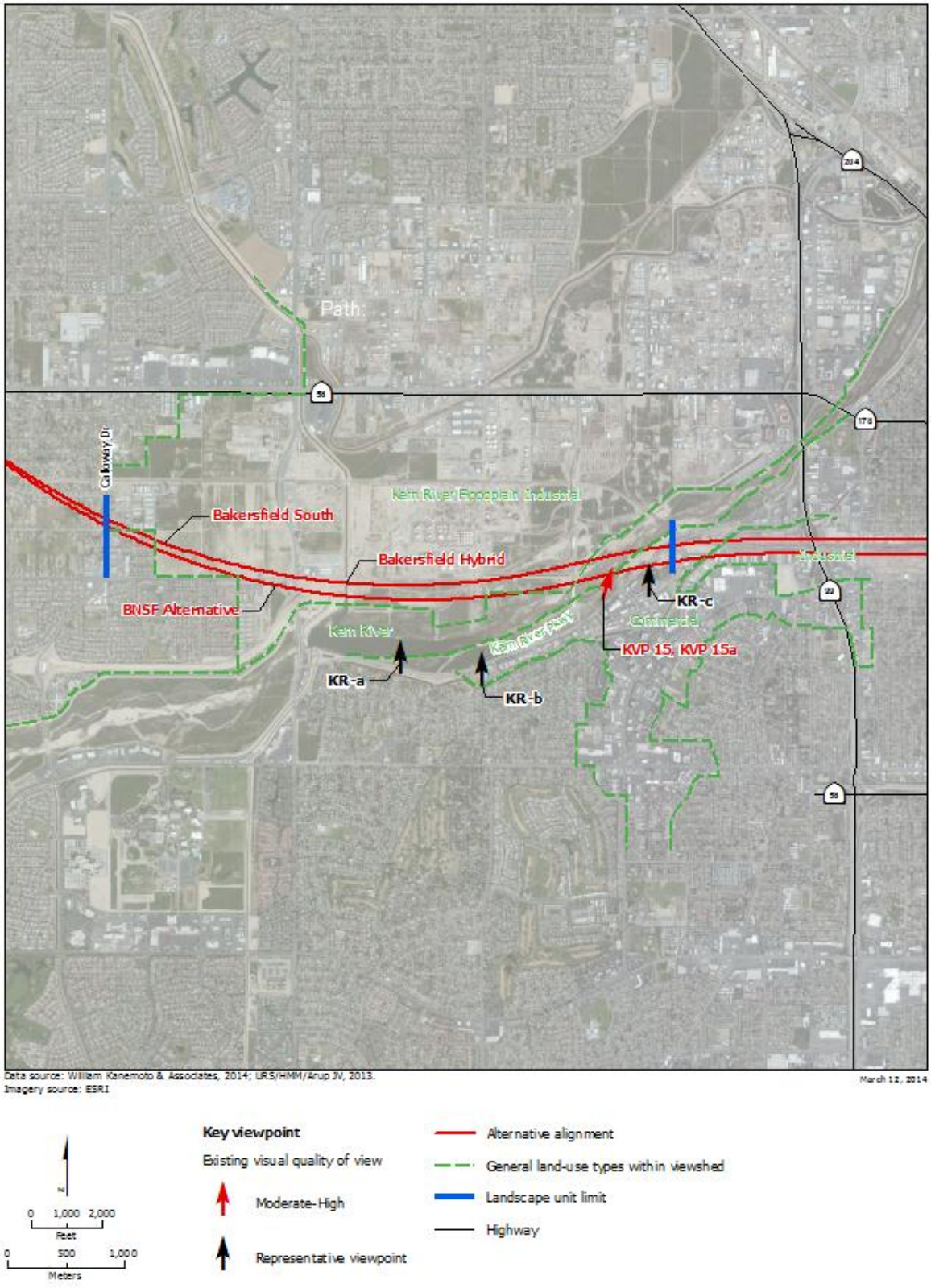


Figure 3.16-21
Kern River Landscape Unit:
Representative views, photo locations

KR-a. Kern River floodplain, View from Kern River Parkway looking north, from approximately 0.25 mile (0.4 kilometer).

KR-b. Kern River Parkway, looking north from Truxtun Avenue.

KR-c. Alignment crossing from Kern River Parkway, looking north from 400 feet (122 meters).

Source: William Kanemoto & Associates, 2013.

Figure 3.16-22
Kern River Landscape Unit:
Representative views, Kern River (photos)

City of Bakersfield: Central Bakersfield Landscape Unit and Key Viewpoints

As noted above, despite a broad common character and identity, most landscape units, particularly in urban areas, contain a range of land uses and corresponding image types with varying levels of visual quality. This is true for central Bakersfield. The visual quality of existing views toward the BNSF Alternative from locations within the Central Bakersfield Landscape Unit range from low to moderately high. Key areas of concern, which are those with high visual quality or viewer response, are identified in the discussion below.

The central business district portion of the BNSF Alternative extends from the Kern River on the west to Union Avenue to the east. The BNSF rail yard is a major visual feature in the western half of this segment up to Bakersfield High School (see Figure 3.16-23). Views of this area encompass auto wrecking yards, warehouses, storage yards, parking, and commercial buildings adjacent to the rail yard and tracks (see Figure 3.16-24). There is little vividness in the landscape as it is similar in character to many long used industrial areas along freight rail lines in cities throughout the U.S. The visual appearance is often chaotic because of the ever-changing patterns of materials and equipment associated with warehousing and auto dismantling operations. Utilitarian warehouse and manufacturing structures give the landscape low visual coherence and compositional harmony.

There are no sensitive public views from points within this landscape subtype. This is because the public that frequents the area predominantly comprises those working at the industrial facilities there, or motorists parking, generally near their place of work. People at their workplace become accustomed to the visual character of their surroundings. Because of this familiarity and their focus principally on work, they are typically not highly concerned with the quality of the aesthetics and visual resources of the immediate surroundings of their workplaces.

The area north of the BNSF Alternative and west of the central business district and most of the section south of California Avenue between SR 99 and Union Avenue consist of extensive older residential, single-story, single-family neighborhoods dating from the early to mid-twentieth century. Mature, large-scale tree canopies line the streets in these residential neighborhoods, providing a visually unifying character. This visual character of settled, mature residential blocks gives the landscape a moderately high vividness. The single-family neighborhoods, local parks, and small commercial areas join together in a pleasing visual intactness that gives the landscape a moderately high degree of unity (see Figures 3.16-23 and 3.16-25). Overall, visual quality is considered moderately high.

Viewer sensitivity for these urban residential areas is considered to be high. Typically, residents are considered sensitive to visual change, due to prolonged periods spent at home and the high value placed on the home environment.

Toward the eastern limit of the BNSF rail yard, a portion of Bakersfield High School is located within the right-of-way of the BNSF Alternative. Truxtun Avenue, the principal downtown east-west corridor, parallels the BNSF Alternative as little as 650 feet to the north. The City of Bakersfield and Kern County governmental centers are located on Truxtun Avenue near Chester Avenue within this section. The city arena and convention center, the Condors' pro hockey stadium, the city library, and the Amtrak station are just east of the government center. The Bakersfield HST station would be located to the east of these.

Existing views of the Bakersfield High School campus currently look out onto rail yards, a parking lot, and school buildings of undistinguished architecture, against a background of more rail lines, and industrial and commercial development with little unity or visual distinction. Because views of the rail yard strongly dominate, the setting is characterized by the visual disorder of freight cars,

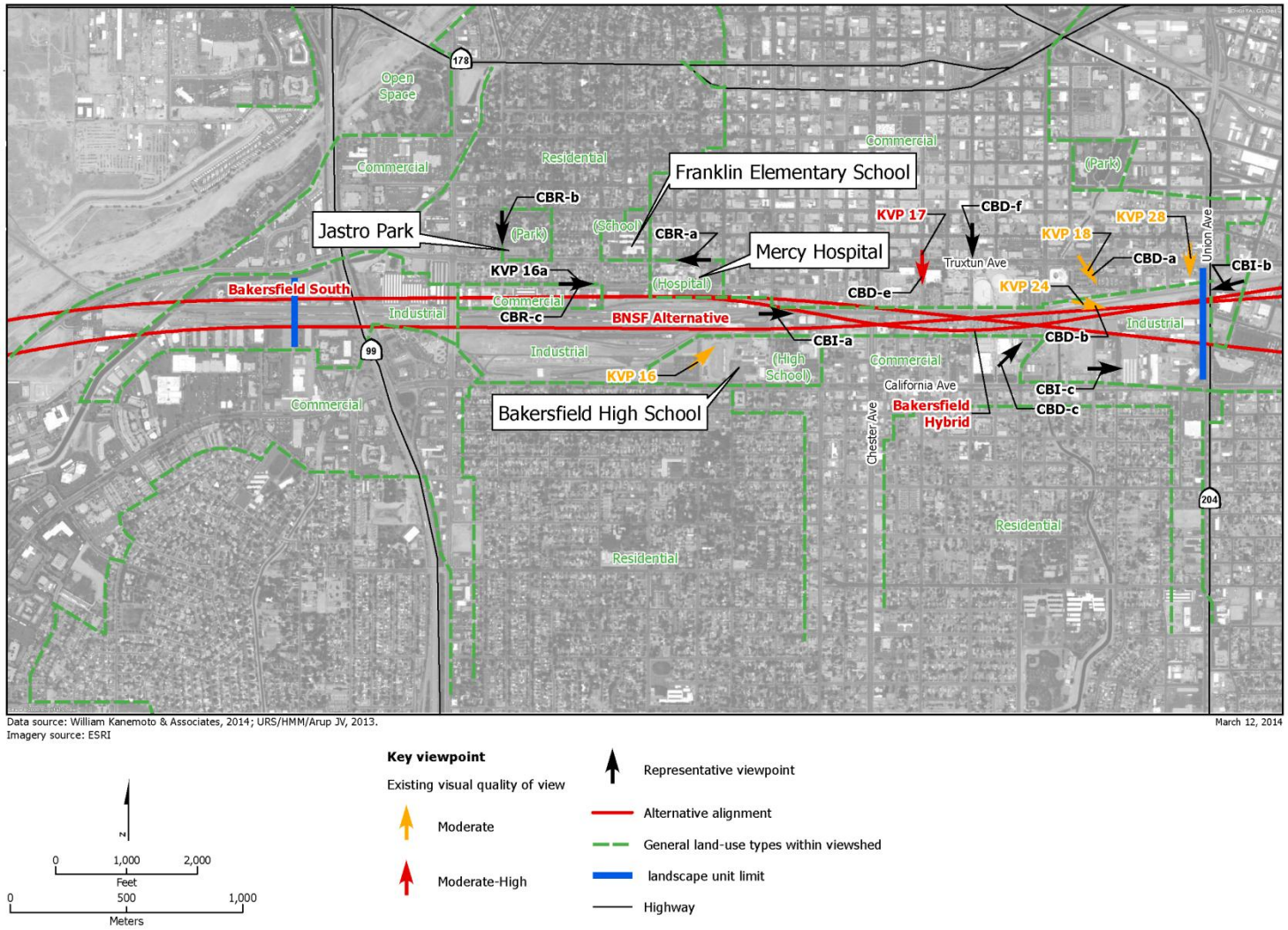
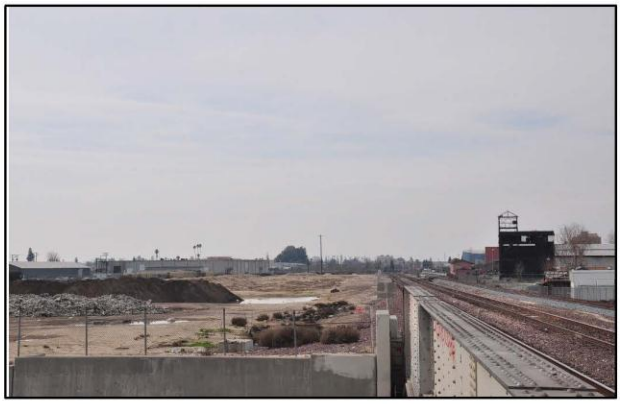


Figure 3.16-23
Central Bakersfield Landscape Unit:
Representative views, photo locations

CBI-a. Project alignments looking east near Chester Avenue, downtown Bakersfield.



CBI-b. Northern station site option, at alignment, looking west at Union Avenue.

CBI-c. South station site option, looking east from 400 feet (122 meters).

Source: William Kanemoto & Associates, 2013.

Figure 3.16-24
Central Bakersfield Landscape Unit:
Representative views, rail yard industrial image type

CBR-a. Central Bakersfield residential, from Truxtun Avenue looking west. Homes to left are within 350 feet (107 meters) of Bakersfield South Alternative Alignment.

CBR-b. Jastro Park, looking south, 800 feet (244 meters) toward Bakersfield South Alternative Alignment.

CBR-c. BNSF Alternative Alignment from 16th Street, looking east. Industrial uses on right would be replaced by Bakersfield South Alternative Alignment.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-25
Central Bakersfield Landscape Unit:
Representative views, residential image type

equipment and material storage, switching equipment and other industrial elements with low visual unity. The strong contrast between the orderly campus and disorderly rail yard contributes to low unity and intactness. Intactness, unity, and overall existing visual quality of views off-campus are thus moderately low. Vivid features are similarly few, limited to tree canopies and architecture within the small campus area. However, unsightly off-campus views to the north are largely blocked from within the campus by the Industrial Arts Building and street trees along 14th Street. Views within the campus are thus somewhat enclosed, focusing attention inward and enhancing visual quality within the campus, causing visual quality to remain moderate. KVP 16, as shown on Figure 3.16-48, depicts a view from the Bakersfield High School stadium, looking northeast.

Truxtun and Chester avenues form the central axes of Downtown Bakersfield, with civic and office buildings ranging from 1 to 12 stories high in a wide range of styles, but with a predominantly modern architectural image. Both Truxtun and Chester avenues are landscaped with side- and center-median street tree planting and landscaping that lend a moderately high level of intactness and unity to the streetscape. Distinctive early twentieth-century, high-rise buildings are scattered within the district, contributing to a vivid and unifying visual image. Overall, visual quality along this streetscape is moderately high, as shown on Figures 3.16-23, 3.16-26a, and 3.16-26b.

Viewer sensitivity is moderately high due to the concentration of high public-profile uses in the central business district and the potential to adversely affect the city's visual image. Viewer expectations of visual quality are typically elevated for such core areas of community activity and city image. Visual exposure in this section is high because of the large number of viewers in the central business district and high potential visibility of the proposed station and elevated guideway from numerous locations, including Truxtun Avenue and its important commercial and civic land uses. Overall, viewer response in this portion of downtown is considered moderately high.

From Truxtun Avenue northward, visibility of the guideway, station, and parking structures would tend to be restricted by building facades to view corridors down north-south streets in the downtown core. However, overall, visual exposure to the project features would be moderately high within 0.25 mile, and particularly south of Truxtun Avenue. Overall, viewer response is considered to be high. KVP 17 (Section 3.16.5, Environmental Consequences; Figure 3.16-49) depicts the existing and simulated views from L Street north of Truxtun Avenue, looking toward the alignment and proposed guideways. KVP 18 (Figure 3.16-50a) depicts the existing view toward the proposed Bakersfield Station–North Alternative site near the BNSF Alternative, as seen from Truxtun Avenue looking southeast.

The area south of the proposed station site is an industrial area south of the BNSF right-of-way bounded by Q Street, California Avenue, and Union Avenue. This area would be the site of the proposed HST station. The existing area is highly industrial, characterized by factories and warehouses with extensive, unsightly open equipment and material storage, worker and truck parking, and abandoned lots. Vividness, intactness, and unity, and hence overall visual quality, of this area are all very low (see Figure 3.16-24, CBI-c). All viewers with potential views of the station site would have low viewer sensitivity. Visibility of the site from public streets is currently moderately low due to intervening industrial buildings. Thus overall viewer response would be low. It is assumed that land uses throughout this area would change in response to introduction of the HST station, from industrial to commercial uses related to the HST station.

CBD-a. Northern station option from Amtrak station, looking southeast.

CBD-b. Northern station option from Truxtun Avenue, looking southeast. Station would begin behind building in foreground.

CBD-c. Overview of alignments and station area from Aquatic Center.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-26a
Central Bakersfield Landscape Unit:
Representative views, central business district image types

CBD-d. Chester Avenue at 19th Street, looking south toward alignment at 0.3 mile (483 meters).

CBD-e. Chester Avenue at 17th Street, looking south toward alignment at 850 feet (259 meters).

CBD-f. N Street at Truxtun Avenue, looking south toward alignment from 800 feet (244 meters).

Source: William Kanemoto & Associates, 2013.

Figure 3.16-26b
Central Bakersfield Landscape Unit:
Representative views, central business district image types

City of Bakersfield: East Bakersfield Landscape Unit and Key Viewpoints

East of Union Avenue, the BNSF Alternative turns northward to parallel Truxtun Avenue and then Edison Highway, as shown on Figure 3.16-27. The BNSF Alternative converges with the Bakersfield South and Bakersfield Hybrid alternatives at Oswell Street, which is the terminus of this analysis.

Immediately east and south of the proposed Bakersfield Station, the BNSF Alternative lies largely within an industrial zone of low visual quality (see Figure 3.16-28, EBI-a). This area south of the existing BNSF tracks east of Union Avenue is typified by warehouses, employee parking, and material storage with low visual unity, no intactness, and no vividness. Industrial workers in the workplace would be the principal viewers in this area and would have low sensitivity to the visual effects of the alternatives. Between Baker and Brown streets, the BNSF Alternative would pass through a small, isolated residential neighborhood surrounded by industrial uses over a distance of roughly eight blocks (see Figure 3.16-29 [EBR-a, EBR-b]). A large number of residential parcels would require relocation, with a large number of remaining parcels adjoining the right-of-way. The entire community, including a middle school and several churches, lies within 0.25 mile of the BNSF Alternative in a section where the HST would be elevated.

Both viewer sensitivity and exposure of these residents would be high due to very close proximity to the alignment. Though visual unity and vividness are moderately low, tree plantings and landscaping lend a degree of intactness, and the visual quality of the neighborhood is generally moderate. East of this residential neighborhood to the terminus at Oswell Street, the BNSF Alternative parallels freight railroad lines south of Edison Highway, passing through an industrial zone of low visual quality. Like the industrial area near Union Avenue described previously, this area is characterized by light industrial uses of very low vividness, intactness, and unity, and is dominated by open material and equipment storage, parking, and a general lack of concern with visual order (Figure 3.16-28, EBI-b). The alignment also passes within 0.25 mile, or less, of residential neighborhoods to the south of Edison Highway. However, while viewer sensitivity of residents is assumed to be high, visual exposure to the alignments by residential viewers in these neighborhoods east of Brown Street is limited. The BNSF Alternative is near but does not bisect these residential areas, and views are isolated and filtered by intervening industrial land uses of low visual quality, including the BNSF freight rail right-of-way, Edison Highway, and other foreground features. Thus, although the visual quality of the neighborhoods is similar to that near Union Avenue as described above, viewer exposure is moderately low, and overall viewer response east of Brown Street would be moderately low.

Hanford West Bypass 1, Bypass 1 Modified, Bypass 2, and Bypass 2 Modified Alternatives

The Hanford West Bypass 1, Bypass 1 Modified, Bypass 2, and Bypass 2 Modified alternatives would all pass entirely through portions of the San Joaquin Valley Rural/Agricultural Landscape Unit, as described above for the BNSF Alternative, which is comprised mainly of orchards, agricultural fields and scattered rural residences. Visual quality in this unit ranges from moderately low to moderately high depending on specific local circumstances, but is predominantly moderate. The setting of all Hanford West Bypass alternatives follows this pattern, consisting predominantly of orchards and open agricultural fields with moderately low vividness, moderate intactness, and moderate unity. Viewer response would be predominantly moderate, except for rural residents within the near-foreground zone (0.25 mile) of the alignments. Viewer response of these receptors would be moderately high to high.

Figure 3.16-30 depicts KVP locations near the Hanford West Bypass 1 and 2 alternatives and the Hanford West Bypass 1 and 2 Modified alternatives. KVP 20 (Figure 3.16-52) depicts the view

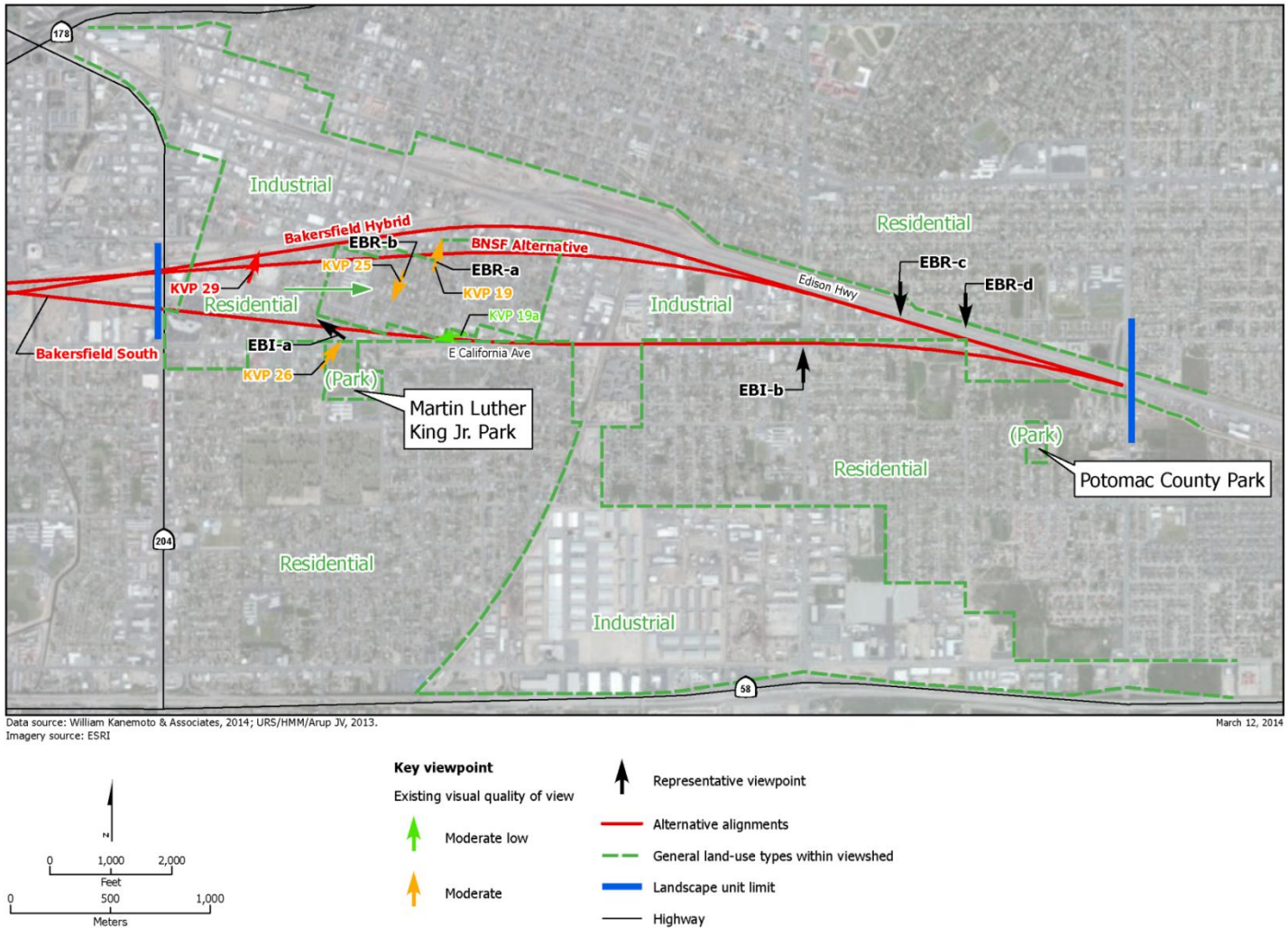


Figure 3.16-27
East Bakersfield Landscape Unit:
Representative views, photo locations

EBI-a. East Bakersfield industrial image type from Martin Luther King Jr. Park at California Avenue and King Street, looking northwest.

EBI-b. East Bakersfield industrial, strip commercial image type. Bakersfield south alignment at Mt. Vernon and E. California Avenues, looking north from 400 feet (122 meters).

Source: William Kanemoto & Associates, 2014.

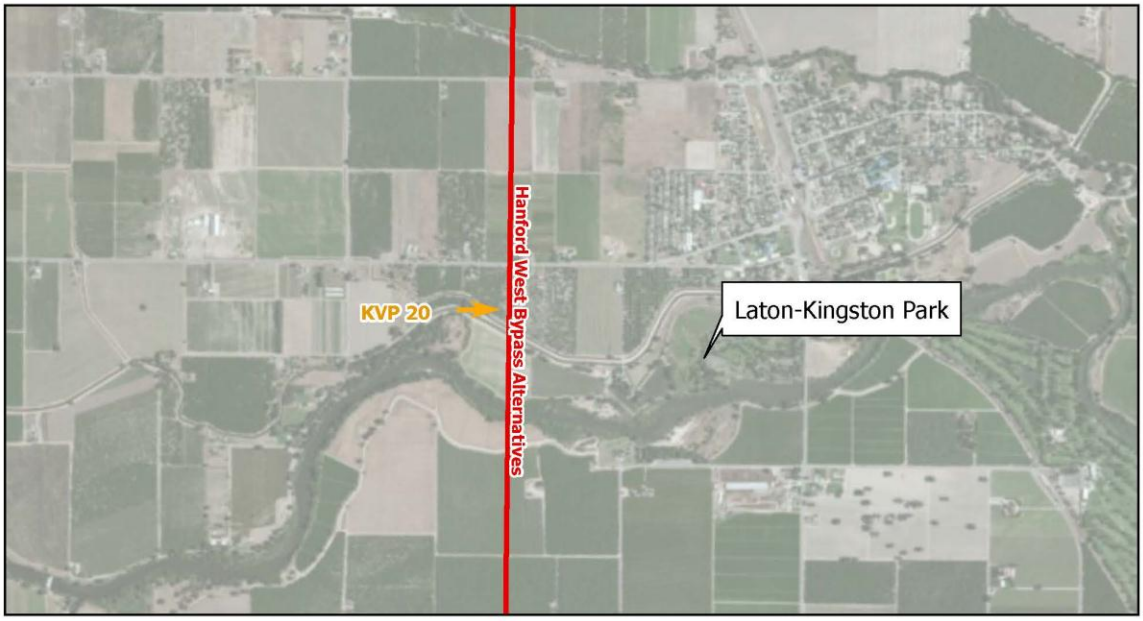
Figure 3.16-28
East Bakersfield Landscape Unit:
Representative views, industrial image types

EBR-a. BNSF, Bakersfield Hybrid alignments from Robinson St., looking north.

EBR-b. Bakersfield South alignment from Owens St., looking south.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-29
East Bakersfield Landscape Unit:
Representative views, residential image types



Key viewpoint: Mt. Whitney Avenue, Laton.

Data source: William Kanemoto & Associates, 2013; URS/HMM/Arup JV, 2013.
Imagery source: ESRI

Key viewpoint: Kings/Tulare Regional Station - West Alternative.

Figure 3.16-30
San Joaquin Valley Rural/Agricultural Landscape Unit: Key viewpoints–Hanford West alternatives alignments

from Mt. Whitney Avenue west of Laton (all four Hanford West alternatives are identical in this location). KVP 21 (Figure 3.16-53) depicts a view toward the Kings/Tulare Regional Station–West Alternative under the Hanford West Bypass 1 and 2 Modified alternatives, with below-grade alignment and corresponding station design. The two modified alternatives would be identical in this location. KVP 22 (Figure 3.16-54) depicts a view toward the Kings/Tulare Regional Station–West Alternative under the Hanford West Bypass 1 and 2 (original) alternatives, with at-grade alignment and corresponding station design. The two original Hanford West Bypass alternatives would be identical in this location.

For a roughly 2.5-mile segment, from the vicinity of Grangeville Boulevard northwest of Hanford to a point south of Hanford-Armona road, all four Hanford West Bypass alternatives would pass through an urbanizing area of unincorporated Kings County at the boundary between the typical rural/agricultural valley landscape and suburban development on the outskirts of the city of Hanford and the community of Armona. Foreground viewer groups in this segment include viewers at College of the Sequoias and Sierra Pacific High School, motorists on adjoining roads (13th Avenue, Lacey Boulevard, Hanford-Armona Road, SR 198), and nearby rural residents. Viewer sensitivity and overall response ranges from moderately high (residents) to moderate (high school, college, motorists). School students are assumed to be largely focused on their classroom activities or, while outdoors, on active recreation whose primary focus is not scenery but sports, etc. In addition, viewer exposure to the alignment of students at these schools is limited. The alignments are buffered by orchards to the north of the schools. The exposed section of alignment near the schools is thus short. Typical of the valley rural/agricultural landscape, visual quality remains generally moderate, but intactness and unity are lowered in this segment by the influence of suburban development, including the college and high school, equipment storage yards, a substation, and a SR 198 highway interchange. In general, viewer exposure of sensitive viewing groups in this segment would be less under the two Modified alternatives than under the original alternatives because the alignment would be shifted roughly 400 feet farther away from them, westward, and would be located below-grade. From the vicinity of Houston Avenue southward, all four Hanford West alternative alignments return to a more typical Rural/Agricultural landscape setting, with sensitive viewers limited to small groups of rural residences near the alignments. From a visual perspective there would be no notable difference in viewer sensitivity or response among the four Hanford West alternatives in the segments south of Houston Avenue.

Corcoran Elevated Alternative

Affected landscape units under this alternative include the San Joaquin Valley Rural/Agricultural Landscape Unit and the Small Town (Corcoran) Landscape Unit, as discussed and depicted under the BNSF Alternative, above. The baseline setting conditions would be the same as those described for the BNSF Alternative for the city of Corcoran under Rural City/Town Landscape Units, above. This alternative would look essentially similar in scale and character to the view depicted in KVP 9 (Figure 3.16-41).

Corcoran Bypass Alternative

The Corcoran Bypass Alternative would pass entirely through sparsely populated portions of the San Joaquin Valley Rural/Agricultural Landscape Unit, as previously described for the BNSF Alternative. Potentially sensitive viewers would consist solely of rural residents within 0.25 mile of the project alignment.

Allensworth Bypass Alternative

The Allensworth Bypass Alternative would pass entirely through a nearly unpopulated portion of the San Joaquin Valley Rural/Agricultural Landscape Unit, as previously described for the BNSF

Alternative, approximately 1 mile west of the developed portion of Colonel Allensworth State Historic Park. KVP 23 (Figure 3.16-55) depicts the view westward from the park toward this alternative. Because the proposed alternative alignment is visually distant from the park and does not pass near high-sensitivity residential viewers, viewer response is low.

Wasco-Shafter Bypass Alternative

The Wasco-Shafter Bypass Alternative would pass entirely through sparely populated portions of the San Joaquin Valley Rural/Agricultural Landscape Unit, as previously described for the BNSF Alternative, to the east of the cities of Wasco and Shafter. Potentially sensitive viewers would consist solely of rural residents within 0.25 mile of the project alignment. For those nearby residential viewers, however, viewer response would be moderately high to high, depending upon site conditions. For example, viewer response would be high where views of the HST are unobstructed by landscaping, other residences, and commercial buildings. Where views of the HST are partially blocked, viewer response would be moderately high.

Bakersfield South Alternative

The Bakersfield South Alternative would be located approximately 450 feet north of the BNSF Alternative in central Bakersfield, and then would turn south of the BNSF Alternative to the terminus of this study at Oswell Street. It would occupy the same landscape units (Central and East Bakersfield Landscape Units) and affect the same general viewer groups as the BNSF Alternative previously described. KVP 24 (Figure 3.16-57) depicts the view of the Bakersfield Station–South Alternative. KVP 25 (Figure 3.16-58) depicts a view from Owens Street toward the Bakersfield South Alternative.

The Bakersfield South Alternative would occupy the center median of East California Avenue in this segment. East California Avenue is a major east-west travel corridor typified by a mix of unrelated land uses that exhibit very low visual unity due to their disparate nature. Though mainly characterized by light industrial uses with low visual intactness and unity, and low viewer sensitivity, pockets of commercial and even residential uses also occur, with correspondingly higher levels of viewer sensitivity. Overall, visual quality of the corridor is moderately low. Viewer response, however, is considered moderate due to the scattered presence of higher-sensitivity uses immediately adjoining the right-of-way, including residences and churches. Dr. Martin Luther King Jr. Park abuts East California Avenue immediately south of the Bakersfield South Alternative. Visual quality of the grassy, well-landscaped park is moderately high, and viewer sensitivity, exposure, and overall response are also considered high. Views from Dr. Martin Luther King Jr. Park toward East California Avenue are depicted in KVP 26, shown on Figure 3.16-59.

Bakersfield Hybrid Alternative

The Bakersfield Hybrid Alternative would occupy the same landscape units (Central and East Bakersfield Landscape Units) and affect the same general viewer groups as the BNSF Alternative. It converges with the BNSF Alternative at Mt. Vernon Avenue to the east and with the Bakersfield South Alternative at Oswell Street. For purposes of visual analysis, the Bakersfield Hybrid Alternative from its starting point at Hageman Road in Rosedale to D Street, north of Bakersfield High School and west of central downtown is essentially the same as the Bakersfield South Alternative. At that point the Bakersfield Hybrid Alternative diverges up to 250 feet south of the Bakersfield South Alternative, and then turns northward to converge with the BNSF Alternative at V Street, where the HST station would be located. The Bakersfield Hybrid Alternative would then proceed eastward to the north of the BNSF Alternative, paralleling the existing BNSF railroad line and largely avoiding the residential neighborhood east of Union Avenue between Inyo and Brown streets (see Figure 3.16-31).

KVP 28 (Figure 3.16-61) depicts the view of the Bakersfield Station–Hybrid Alternative. KVP 29 (Figure 3.16-62) depicts the view from King Street near Owens Middle School looking north to the Bakersfield Hybrid Alternative.

EBR-c. Canal St. looking south toward BNSF, Bakersfield Hybrid alignments.

EBR-d. Barlow St. looking south toward BNSF, Bakersfield Hybrid alignments.

Source: William Kanemoto & Associates, 2013.

Figure 3.16-31
Representative viewpoints: Residential image types

Heavy Maintenance Facility Alternatives

Five potential HMF locations fall within the Fresno to Bakersfield study area: south Fresno, east Hanford, Wasco, and Shafter. All the sites fall within the previously described San Joaquin Valley Rural/Agricultural Landscape Unit. The HMF itself would occupy approximately 150 acres within the larger site study areas described below.

Fresno Works–Fresno HMF Site

The Fresno HMF site includes approximately 590 available acres and is near the southern limit of the city of Fresno and county of Fresno next to the BNSF Railway right-of-way. Visual quality of the area, typical of agricultural, rural residential/farmstead areas described previously under the San Joaquin Valley Rural/Agricultural Landscape Unit, is moderate. Although the exact facility site within the overall site study area is not yet known, the facility could be located within the visual foreground of a relatively high number of rural residences (well over 100 residences within 0.5 mile of the site boundary) whose visual sensitivity and viewer response would be high.

Kings County–Hanford HMF Site

The Hanford HMF site includes a total of about 510 available acres and is located in the San Joaquin Valley Rural Valley/Agricultural Landscape Unit. Surrounding uses consist predominantly of open agricultural fields, which have low vividness, and moderate intactness and unity, interspersed with agro-industrial facilities and scattered rural residences. Although the exact facility site within the overall site study area is not yet known, the facility could be located within the near visual foreground of roughly five residences adjacent to the northern portion of the site study area. These residences would have high visual sensitivity and viewer response.

Kern Council of Governments–Wasco HMF Site

The Wasco HMF site is located directly east of the city of Wasco between SR 46 and Filburn Street. It includes a total of approximately 420 available acres near industrial and residential areas of the city to the west and near agricultural fields to the east. Depending upon the exact siting of the facility, a large concentration of existing multi-unit housing at the eastern boundary of Wasco could adjoin the site. These residences would have high visual sensitivity and viewer response. Visual quality of the potentially affected residents is moderately low: they are bounded to the west by SR 43, light industrial land uses, and the BNSF freight rail right-of-way; and to the north and south by other agro-industrial uses. The setting is thus dominated by views of low vividness, intactness, and unity, moderated by views of open agricultural fields to the east.

Kern Council of Governments–Shafter East and –Shafter West HMF Sites

The Shafter HMF site includes a total of approximately 490 available acres and is located in a relatively sparsely populated area (Crome) north of 7th Standard Road, southeast of the city of Shafter next to the BNSF Alternative and the Wasco-Shafter Bypass Alternative. Two siting options are under consideration for this site, but the setting conditions are essentially the same for both. Nearby receptors at both sites would include motorists on SR 43 and 7th Standard Road with moderate viewer sensitivity and response; a small number (under one dozen) of rural residences potentially within foreground distance of the site; and the Shafter Cemetery, adjoining the site study area at the cemetery's northern boundary. Residences and the cemetery would have high visual sensitivity and viewer response. However, the existing study area consists predominantly of orchards, with a high potential to provide screening of the facility from offsite viewers. Visual quality of the site is moderate, given that it is dominated by these existing orchards with moderate vividness, intactness, and unity.

Scenic Vistas and Highways

For purposes of this analysis, the term "scenic vistas" refers either to designated scenic viewpoints—ones identified in public documents or formally developed for sightseeing—or to views generally of exceptional scenic quality, particularly if widely recognized or identified in public documents. Examples of scenic vistas include the following:

- Public views of definable, widely recognized natural or manmade scenic features of public interest or concern. These may include mountain peaks, bays, rivers, or other natural features of regional importance; or may include vivid manmade scenic features such as the Golden Gate Bridge, the Statue of Liberty, or highly vivid city skylines.

- Public views from designated view locations, such as a Caltrans public vista point along a highway; a view overlook in a national or state forest or park; or view locations designated in a land use planning document adopted by federal, state, or local government.

No formally designated scenic vistas or vista points were identified in the project study area. However, a scenic vista that is not formally designated in the project study area is the view of the Kern River and Greenhorn Mountains by recreational visitors in the Kern River Parkway in Bakersfield. For recreational users of the parkway, views of the river and mountains are among its principal attractions.

In California, state scenic highways are designated by Caltrans. To be designated scenic, a highway must traverse an area of outstanding scenic quality, one containing striking views, flora, geology, or other unique natural attributes. The project study area contains no state or local designated scenic highways.

3.16.5 Environmental Consequences

This section describes potential impacts on aesthetics and visual resources from the proposed HST project using the NEPA and CEQA impact criteria discussed in Section 3.16.3, Methods for Evaluating Impacts. Impacts are identified based on project-related changes in visual quality of the existing landscape setting, prevailing viewer sensitivity, project visibility, and anticipated viewer response. The project would be consistent with applicable general plans and policies regarding aesthetic and visual treatment of the proposed infrastructure. These policies would be fulfilled by the specific design guidelines of the project's final design phases.

3.16.5.1 Overview

The BNSF Alternative would reduce the existing visual character or quality of the cities of Fresno, Corcoran, Wasco, Shafter, and Bakersfield, and of the Colonel Allensworth State Historic Park. This would be an effect with substantial intensity under NEPA and a significant impact under CEQA. Mitigation measures such as visual screening would reduce project effects on the visual character of the city of Fresno to moderate intensity under NEPA, and to less than significant under CEQA.

Mitigation measures would moderate and reduce the overall effect of visual changes in Corcoran, Wasco, Shafter, and Bakersfield. However, views would continue to be affected because many impacts of the HST would result from elevated guideways or roadway overcrossings whose bulk and mass cannot be reduced. Therefore, the visual effects of the BNSF Alternative to Corcoran, Wasco, Shafter, and Bakersfield would remain of substantial intensity under NEPA, and significant under CEQA.

The BNSF Alternative would result in a strong decline in visual quality, and be inconsistent with the early twentieth-century character of Allensworth State Historic Park, under Section 106 of the

National Historic Preservation Act. Consequently, viewer response is considered high in this location, and the project effects in the park landscape would be an effect of substantial intensity under NEPA, and a significant impact under CEQA following mitigation (see Section 3.16.3, above). Because some high-sensitivity rural residents with high viewer exposure and response could experience strong declines in visual quality, the Corcoran Bypass and Wasco-Shafter Bypass alternatives would have impacts of substantial intensity under NEPA and CEQA. High-sensitivity rural residents would not be affected under the Allensworth Bypass Alternative. The Bakersfield South and Bakersfield Hybrid alternatives would have similar effects on the visual character of Bakersfield as the corresponding segment of the BNSF Alternative, which would be of substantial intensity under NEPA and a significant impact under CEQA.

In the rural valley, some features of the HST would be visually prominent and out of character with the existing rural setting. The resulting decline in visual quality that would be experienced by rural residents within 0.25 mile of the HST alignment would be an effect of substantial intensity under NEPA and a significant impact under CEQA. Views of riparian areas and river crossings would not be substantially affected by the HST because of the lack of public access, and thus the limited exposure of potential viewers.

All HST alternatives would have temporary construction impacts related to sources of light and glare, as well as to visual nuisance, which would be avoided and minimized by construction specifications and practices.

Under all alternatives, the proposed HST stations would not substantially degrade the existing visual character or quality of the site and its surroundings. The design of the Fresno and Bakersfield HST stations could offer a strong focal element unifying the surrounding urban elements. This, along with proposed street landscaping, could improve visual quality in those areas.

Although the HMF alternatives could substantially degrade the existing visual character or quality of the site and its surroundings, these impacts could be mitigated so the effect would be moderate in intensity under NEPA and the impact would be less than significant under CEQA. Lighting for safety and security at an HMF would incorporate design-related measures, such as shielding and altering light direction, to avoid and minimize light and glare impacts.

There are no scenic highways in the vicinity of the BNSF Alternative and other build alternatives; therefore, there would be no impact on scenic highways.

3.16.5.2 No Project Alternative

The No Project Alternative would include the future development, both suburban expansion and development in existing urban areas, reported in the general plans of the cities and counties crossed by the Fresno to Bakersfield Section. Much of the future growth in the study area is anticipated to be suburban in nature (see Section 3.18, Regional Growth). This growth would add additional residential and commercial developments and associated infrastructure to the viewed landscape. Section 3.19, Cumulative Impacts, identifies a number of proposed projects that would influence the future visual character of the study area. Visual measures, such as landscaping, would be incorporated into new development and into roadway and infrastructure projects to minimize visual impacts. Such measures have already been undertaken in the case of foreseeable proposed projects. Cities and counties in the region would evaluate the aesthetic impacts of projects in the course of environmental review and require that projects incorporate visual measures to mitigate for potentially significant impacts. If mitigation is not feasible, local jurisdictions would have the opportunity to deny the projects. For this reason, the visual quality of foreseeable future development is not expected to result in significant unmitigable impacts.

None of the visual effects resulting from the HST alternatives described in the following sections would occur under the No Project Alternative. Although some redevelopment may occur in the Fresno and Bakersfield downtown areas, as seen from recent past development patterns, the No Project Alternative would not provide an economic incentive to concentrate urban growth in the downtown areas. Therefore, the No Project Alternative would result in limited improvement to the generally moderate to moderately low visual quality in downtown areas. Because of planned development on land that is now in agriculture, there would be a continued loss of the rural landscape in the study area under the No Project Alternative.

3.16.5.3 High-Speed Train Alternatives

The following sections discuss temporary construction impacts and permanent impacts potentially resulting from the project. Such impacts are discussed for each HST alternative, including those that would be common to all build alternatives. The analysis relies on visual simulations to demonstrate effects on visual quality and existing visual character from the HST alternatives. Table 3.16-2 summarizes the characteristics of typical HST components and their potential to affect the aesthetic environment. The Authority and FRA will coordinate and collaborate with local jurisdictions, residents, and community leaders to determine the applicable local design guidelines for mitigation and the measures that are most context-appropriate. Selection from a menu of mitigation measures (see Section 3.16.6) will be part of the final design process and specified to the HST design-builder for construction. Mitigation measures will apply to all HST alternatives.

Table 3.16-2
Characteristics of Typical HST Components

Project Component	Characteristics
Elevated Guideways and Associated Structures (piers/columns, straddle bents)	Piers are columns holding up the guideway; straddle bents are supports made of two columns that support a beam on which the guideway sits. These are often the most visible project components. The aboveground height of the elevated guideway box girders ranges between approximately 30 and 80 feet above grade. In some locations, elevated guideways and their associated overhead contact system (OCS) components can intrude on views, although they may not block them completely. Tall HST stations (and guideways to a lesser extent) can create shadows that could have negative impacts on some areas under some conditions. During final design of the elevated guideways, the Authority will coordinate with local jurisdictions on their design so that the elevated guideways will fit in appropriately with the visual context of the areas near them. The Authority will 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. The working groups will meet on a regular basis to develop a consensus on the urban design elements to be incorporated into the final guideway designs. The process will include activities to solicit community input in the affected neighborhoods. Associated structures would be designed to be attractive architectural elements or features, and would add visual interest to the streetscapes near them. Since some of these structures along with the piers can be targets for graffiti, they can incorporate textured surfaces and artistic patterns that discourage graffiti and add visual interest to the landscape; in addition surface coatings can be applied to them to facilitate cleaning and the removal of graffiti.

Table 3.16-2
Characteristics of Typical HST Components

Project Component	Characteristics
Retaining Walls	A retaining wall can be used to stabilize a steep cut in a hillside; retaining walls in pairs can be used to hold earth and rock between them (retained fill), or used as bridge abutments. Retaining walls are made with hard materials such as concrete that may require surface design treatments to reduce aesthetic and visual impacts. Retaining walls can incorporate textured surfaces and artistic patterns that discourage graffiti and add visual interest to the landscape. In addition, surface coatings can be applied to facilitate cleaning and the removal of graffiti.
Retained Fill Guideways	A pair of retaining walls with the space in between them filled with compacted earth and/or rock provides the base for the guideway or roadway. The height of retained fill ranges from below- or at-grade to generally up to 20 feet high, or up to 30 feet high at roadway overcrossings. Retained fill can be constructed with a wide gap and abutments on both sides that are spanned by a bridge, providing a space for the HST or vehicles to pass underneath. Retained fill can be a less expensive alternative to an elevated guideway on piers. Depending on the height and location of the retained fill, views can be blocked and shadows can create negative impacts on some areas. The walls of retained fill also can be targets for graffiti. The final design process will include coordination with local jurisdictions and take into consideration all applicable design guidelines as part of a collaborative process related to construction. Retaining walls can incorporate textured surfaces and artistic patterns that discourage graffiti and add visual interest to the landscape. In addition, surface coatings can be applied to facilitate cleaning and the removal of graffiti.
At-Grade Guideways	At-grade guideways are generally located in or adjacent to existing streets and railways (UPRR and BNSF); they would be designed to be compatible with the roadway or adjacent streetscape. The height from ground level to the top of rail would typically be a minimum of 4.5 feet, but could be up to 12 feet depending upon topography. The at-grade track will be on either compacted soil and ballast material or on a concrete slab on a low berm. Height will vary when transitioning to retained fill or an elevated structure, and to accommodate topography, drainage, etc. When height increases, views of areas beyond the at-grade guideways may be blocked, depending on the location of the track and level of viewers. In addition, shadows can create negative impacts on some areas. Chain-link security fencing would not block views but may detract from quality of views.
Overhead Contact System	The OCS is a highly visible element from close viewing distances (up to approximately 23 feet in height). OCS components (wires and poles) become less visible as viewing distances increase. The structures may intrude on views but would not block views because of their open and thin profile and cable-like appearance.
Street Modifications	Street-widening relocations can involve the removal of buildings, trees, and other vegetation. In some locations and situations, trees and other vegetation would be replanted with similar plants that mature quickly enough to become similar in appearance to the removed vegetation.

Table 3.16-2
Characteristics of Typical HST Components

Project Component	Characteristics
HST Stations	Depending on their size, bulk, and whether they would be elevated or at-grade, HST stations can block views, cast shadows, or add built features to the landscape. Elevated HST stations would generally be more visible than at-grade stations. HST stations would be designed to be aesthetically and architecturally compatible with their surrounding areas. The final design process would include coordination with local jurisdictions to develop design guidelines as part of a collaborative process, so that during design the HST stations would incorporate local design elements.
Parking Structures	Depending upon size and bulk, parking structures can block existing views. Parking structures can be designed or assigned criteria to match surrounding architecture types to help them aesthetically fit with their surroundings. Design guidelines would be developed as part of a collaborative process with local agencies so that parking structures visually and aesthetically blend into the areas where they would be located.
Lighting	Train lighting would be temporary and directed along the guideway, which should not cause glare impact on nighttime views. If not properly designed and shielded, project-related lighting can create glare impacts, increase the ambient light levels in nearby areas, and increase skyglow, which can adversely affect nighttime star viewing. This would be true during construction and operation of the HST System. Design-related measures, such as shielding and directing lights, would be used where appropriate to avoid and minimize potential impacts while providing adequate general illumination and lighting for safety and security.
Building Removal	Removal of existing buildings can improve or detract from visual settings depending on building condition, style, scale, and color. Areas where buildings would be removed would be limited to areas that contain project components.
Vegetation Removal	Removal of vegetation can open up new scenic views or, conversely, expose unattractive views, such as additional hard surfaces. When possible, the existing vegetation would be preserved, vegetation replanted, trees replaced, and, where appropriate, temporary vegetative screens used to minimize effects of vegetation removal prior to revegetation.
Sound Barriers	Trains and relocated roadway traffic can induce noise impacts that by FRA requirements must be mitigated. Typical noise-reduction methods include sound barriers. While the sound barrier placements, both at-grade and elevated, are not finally determined yet, the walls could block views, create places for unwanted graffiti, and become unattractive. Sound barriers can be made from transparent materials or include surface design enhancements to blend with the area's visual context. Design considerations would be made during final design stages. Section 3.4, Noise and Vibration, includes images of sound barriers built for similar projects.

Table 3.16-2
Characteristics of Typical HST Components

Project Component	Characteristics
HMF	An HMF is an industrial site of approximately 154 acres that would include large spans of open rail yard, several buildings, and employee parking. The buildings, similar in scale to large agricultural storage structures, can potentially block views. Maintenance facilities, designed to be aesthetically compatible with the surrounding uses and landscape, would be screened using fencing, walls, berms, or vegetation so that they would blend in with the areas where they would be located. During facility design, the exterior of the maintenance facilities would undergo appropriate design review to emulate the surrounding rural context.
Traction Power Distribution Stations (TPSSs)	The stations would vary in size and spacing, depending on whether they are paralleling stations, switching stations, or traction power substations (see Chapter 2, Alternatives). Where appropriate, stations would be screened from public view by landscaping and a wall or fence. Some of the stations would include radio communication towers of an open-truss or solid pole design and would include obstruction warning lights on top, depending upon the terrain and tower height.
Acronyms and Abbreviations: HMF = heavy maintenance facility HST = high-speed train TPSS = traction power distribution stations	

Table 3.16-3 presents a generalized summary of impacts from the HST alternatives within each landscape unit, which can be used to compare the alternatives. The change in visual quality at each KVP within the landscape units is detailed further in the discussion that follows.

Table 3.16-3
Summary of Impacts under CEQA and NEPA by HST Alternative

Landscape Unit	BNSF Alternative	Hanford Bypass 1, Bypass 1 Modified, Bypass 2, and Bypass 2 Modified Alternatives	Corcoran Elevated Alternative	Corcoran Bypass Alternative	Allensworth Bypass Alternative	Wasco-Shafter Bypass Alternative	Bakersfield South Alternative	Bakersfield Hybrid Alternative
Central Fresno	Less than significant (CEQA) Negligible Intensity (NEPA)	NA	NA	NA	NA	NA	NA	NA
South Fresno	Less than significant (CEQA) Negligible Intensity (NEPA)	NA	NA	NA	NA	NA	NA	NA
San Joaquin Valley Rural/Agricultural	Significant (CEQA) Substantial Intensity (NEPA)	Significant (CEQA) Substantial Intensity (NEPA)	NA	Significant (CEQA) Substantial Intensity (NEPA)	Less than significant (CEQA) Negligible intensity (NEPA)	Significant (CEQA) Substantial intensity (NEPA)	NA	NA
Small Towns: Corcoran, Wasco, Shafter	Significant (CEQA) Substantial intensity (NEPA)	NA	Significant (CEQA) Substantial intensity (NEPA)	Less than significant (CEQA) Negligible intensity (NEPA)	Less than significant (CEQA) Negligible intensity (NEPA)	Less than significant (CEQA) Negligible intensity (NEPA)	NA	NA
Rosedale (Greenacres)	Significant (CEQA) Substantial intensity (NEPA)	NA	NA	NA	NA	NA	Significant (CEQA) Substantial intensity (NEPA)	Significant (CEQA) Substantial intensity (NEPA)

Table 3.16-3
Summary of Impacts under CEQA and NEPA by HST Alternative

Landscape Unit	BNSF Alternative	Hanford Bypass 1, Bypass 1 Modified, Bypass 2, and Bypass 2 Modified Alternatives	Corcoran Elevated Alternative	Corcoran Bypass Alternative	Allensworth Bypass Alternative	Wasco-Shafter Bypass Alternative	Bakersfield South Alternative	Bakersfield Hybrid Alternative
Kern River	Significant (CEQA) Substantial (NEPA)	NA	NA	NA	NA	NA	Significant (CEQA) Substantial Intensity (NEPA)	Significant (CEQA) Substantial Intensity (NEPA)
Central Bakersfield	Significant (CEQA) Substantial intensity (NEPA) Station: Beneficial NEPA)	NA	NA	NA	NA	NA	Less than significant (CEQA) Negligible intensity (NEPA) Station: Beneficial (NEPA)	Less than significant (CEQA) Negligible intensity (NEPA) Station: Beneficial (NEPA)
East Bakersfield	Significant (CEQA) Substantial intensity (NEPA)	NA	NA	NA	NA	NA	Significant (CEQA) Substantial intensity (NEPA)	Significant (CEQA) Substantial intensity (NEPA)

Note: These generalized determinations for landscape units do not necessarily mean that all KVPs in the landscape unit would have the same determinations of impacts; however, most KVPs did have the same impact determinations. For specifics, see Table 3.16-4.
Acronyms and Abbreviations:
CEQA = California Environmental Quality Act
HST = high-speed train
KVP = key viewpoint
NA = Not applicable, because the landscape unit is not associated with this alternative.
NEPA = National Environmental Policy Act

Construction-Period Impacts

Impact AVR #1–Construction Impacts on Scenic Vistas

As indicated in Section 3.16.4, the project study area contains a scenic vista where the BNSF, Bakersfield South, and Bakersfield Hybrid alternatives would cross the Kern River. Project construction would introduce new lines, forms, and colors causing a decrease in the visual unity and intactness of the scenic vista of the Kern River and Green Mountains from the Kern River Parkway. It is judged that this would decrease the visual quality category of the vista from moderately high to moderate. This impact would be temporary, lasting approximately one year. Because the impact would decrease the visual quality category by one level and viewers would have moderately high sensitivity, it is considered to have moderate intensity under NEPA. Because construction does not decrease the visual quality category by more than one level, it would be a less-than-significant impact under CEQA.

Impact AVR #2–Construction Impacts on Existing Visual Quality

Clearing, earthmoving, and erection of project facilities would introduce new lines, forms, and colors that would typically contrast with the existing landscape forms and patterns in urban and rural areas causing a decrease in the visual unity and intactness of most existing views. This would be most noticeable in rural areas where largely pastoral scenes would be disturbed by intensive construction activities, causing a reduction in the visual quality of landscapes by one to two levels of visual quality depending on the setting. Because the HST alignment alternatives that cross urban areas would typically be located in commercial and industrial areas related to freight rail, the contrast introduced by project construction would be less noticeable and would not decrease the visual quality of the landscape. Most construction activities would cease within 1 to 2 years at any given location. The exception to this would be concrete batch plants used to fabricate project components and some construction laydown areas that would be used for up to 5 years. Because construction could reduce the visual quality category of a landscape by one or two levels, depending upon the setting, and viewer sensitivity would often be moderate or, in some cases, high, the effect of project construction on existing visual quality was judged to have substantial intensity under NEPA, and the impact could be significant under CEQA.

Impact AVR #3–Construction Impacts from Light and Glare

Project construction would create new sources of light and glare that may temporarily affect nighttime views. Lighting associated with nighttime construction would increase ambient light, which may adversely affect nighttime views. This may be an annoyance in urban areas, such as Fresno, Bakersfield, Corcoran, Wasco, and Shafter for the BNSF Alternative, and Corcoran for the Corcoran Elevated Alternative; it may also be an annoyance in rural residential areas along all of the alignment alternatives, and at Colonel Allensworth State Historic Park for the BNSF Alternative. Construction would not occur at night at all times; therefore, this impact would be intermittent over the construction period. Construction at any given location would typically last 1 to 2 years, although construction activities at concrete batch plants and some construction laydown areas would last for up to 5 years. Because construction light and glare could be an annoyance to viewers particularly in rural areas, reducing the visual quality category of a landscape by one level, depending upon the setting, and because viewer sensitivity would often be moderate or, in some cases, high, the effect is judged to have moderate intensity under NEPA, and the impact would be significant under CEQA.

Project Impacts

As described in Section 3.16.3, analysts assessed aesthetic and visual impacts on each landscape unit by examining changes to visual quality at key viewpoints (KVP) using the FHWA visual quality analysis system. In most cases, photo simulations were prepared to support the impact

analysis, as needed. Existing views were compared to photo simulations, considering changes in visual quality and character, and taking into account viewer response, which includes viewer sensitivity and exposure. KVPs studied include one identified scenic vista, the view of the Kern River from the adjoining Kern River Parkway. The FHWA method was then applied to the applicable visual impact criteria of NEPA and CEQA, as discussed in Section 3.16-3. This section includes text describing the impacts on aesthetic and visual resources for each KVP within the landscape units. This section also includes photographs from some of the KVPs in each landscape unit along with simulations of the HST project. This section does not include photographs and simulations of all KVPs, as some are less distinctive and redundant of the photos and simulations that are included in each landscape unit. See the *Fresno to Bakersfield Section: Aesthetics and Visual Resources Technical Report* (Authority and FRA 2012) for photographs and simulations of the HST project from all KVPs.

Common Aesthetics and Visual Quality Impacts

The HST stations in Fresno and Bakersfield would create a beneficial change in visual character when viewed from adjacent downtown locations. Because no officially designated state scenic highways exist near the HST alternatives, no impacts on such resources exist, and they are not discussed further. Similarly, impacts related to new light and glare sources, such as general illumination and flashing warning lights, are not discussed further. The proposed HST stations in Fresno, Kings County, and Bakersfield would be designed to direct lighting downward. No overhead lights on the HST guideway are proposed, and train lights would be directed toward the guideway. This analysis, therefore, focuses on the visual effects caused by project structures, such as stations, guideways, noise walls, and HMF facilities, and generally on whether the project would adversely change visual quality, which may in turn affect other resources, such as historic or park resources.

The indirect effects of the project would be most noticeable at the HST stations and are expected to result in an overall improvement in visual quality. The HST project would also increase the potential for economic incentives through new development and redevelopment in areas near the HST stations. This would likely influence development patterns near the stations and could result in new project and urban design improvements that would improve the visual character and quality of these areas over time. In residential, railroad, highway, and industrial areas, no indirect effects are anticipated because no new development along the alignment is anticipated.

The operation of the HST and any of the alternatives would result in permanent changes to areas adjacent to or within viewing range of the HST. These visual changes would occur through new features introduced in the environment, including HST stations, the HST guideways (both elevated and non-elevated portions), guideway support columns, contact power system, bridges and roadway grade separations, and a variety of HST infrastructure, such as traction power substations, HST alignment fencing, required sound walls up to 14 feet high in some locations, and the HST itself. These features would be incompatible and out of scale with the existing visual character in many locations where viewer sensitivity and exposure are high.

All HST alternatives could cause visual intrusion and potential blocking of views from the use of sound barriers where these are required. Sound barriers used to mitigate impacts from noise (see Section 3.4, Noise and Vibration) may also act as intrusive visual barriers, depending upon their design, height, and location. However, sound barriers at ground level are typically installed in urban areas containing features in the landscape, such as buildings, trees, signs, vehicles, and overpasses, which already block or intrude on scenic views (which, when present, are often distant views). Existing features also can block views of the ground-level sound barriers. Visual quality impacts from ground-level sound barriers can be avoided or minimized by incorporating aesthetic design features and vegetative screening. Sound barriers may be entirely solid or transparent or a combination of the two. When sound barriers are required on elevated

guideways, they are installed on top of guideway walls, and are not of such additional height as to block views of ground-based features from the vicinity of the guideway that are already blocked by the other guideway structures. Except for very tall trees or multistory buildings, generally only a view of more sky would be blocked by sound barriers on elevated guideways. Mitigation related to sound walls is discussed in Section 3.16.6, Mitigation Measures. The final locations, materials, and physical appearance of the sound barriers have not yet been determined, but could be colored and textured to be sensitive to context.

Impact AVR#4–Change to Visual Quality

Table 3.16-4 provides viewpoint-specific impact summaries for KVPs within each landscape unit. The table lists the changes the HST alternatives would have on the existing visual quality rating at each KVP according to the evaluation methodology, and classifies these impacts on aesthetics and visual resources according to NEPA and CEQA criteria. This table provides details for comparing the relative changes that each alternative would have within each landscape unit, and it was used to help develop the impact determinations shown in Table 3.16-3.

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Response	NEPA Impact Intensity	CEQA Impact
BNSF Alternative						
Central Fresno Landscape Unit						
Downtown Tulare and H Streets (see Figure 3.16-3 for KVP locations)	KVP 1, 1A	Moderately low	Moderately high	Moderately high	Beneficial	No impact
Chinatown Mariposa Street (KVP2); G Street (KVP 2A) (see Figure 3.16-3 for KVP locations)	KVP 2, 2A	Moderately Low	Moderately high	Moderately high	Beneficial	No impact
San Joaquin Valley Rural/Agricultural Landscape Unit						
Typical Valley Agriculture View (Viewpoint is typical and generic. No specific KVP location.)	KVP 3	Moderate	0.5-mile distance zone: - At-grade: Moderate - Elevated: Moderately low 0.25-mile distance zone: - At-grade: Moderately low - Elevated: Moderately low	Nearby residents: Moderately high Other viewers: Low	Residents in 0.5-mile distance zone: - At-grade segments: Moderate - Elevated segments: Substantial Residents in 0.25-mile distance zone: - At-grade: Substantial - Elevated: Substantial	Residents in 0.5-mile distance zone: - At-grade segments: Less than significant - Elevated segments: Significant Residents in 0.25-mile distance zone: - At-grade: Significant - Elevated: Significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Response	NEPA Impact Intensity	CEQA Impact
Typical New Rural Road Overcrossing (Floral Avenue)	KVP 4	Moderate	0.5-mile distance zone: Moderately low	Nearby residents: Moderately high Other viewers: Low	Residents in 0.25-mile distance zone: Substantial Residents outside 0.25-mile distance zone: Moderate	Residents in 0.25-mile distance zone: Significant Residents outside 0.25-mile distance zone: Less than significant
Typical New Rural Road Overcrossing	KVP 5	Moderate	0.5-mile distance zone: - At-grade: Moderate - Elevated: Moderately low 0.25-mile distance zone: - At-grade: Moderately low - Elevated: Moderately low	Motorists: Low	Moderate	Less than significant
Typical Rural Residential View	KVP 6	Moderately high	0.5-mile distance zone: - At-grade: Moderate - Elevated: Moderately low 0.25-mile distance zone: - At-grade: Moderately low - Elevated: Moderately low	Nearby residents: Moderately high Other viewers: Low	Residents in 0.5-mile distance zone: - At-grade segments: Moderate - Elevated segments: Substantial Residents in 0.25-mile distance zone: - At-grade: Substantial - Elevated: Substantial	Residents in 0.5-mile distance zone: - At-grade segments: Less than significant - Elevated segments: Significant Residents in 0.25-mile distance zone: - At-grade: Significant - Elevated: Significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Response	NEPA Impact Intensity	CEQA Impact
Typical Rural Agro-industrial View	KVP 7	Moderately low	0.5-mile distance zone: - At-grade: Moderately low - Elevated: Moderately low to low 0.25-mile distance zone: - At-grade: Moderately low to low - Elevated: Moderately low to low	Nearby residents: Moderately high Other viewers: Low	Residents in 0.5-mile distance zone: - At-grade segments: Negligible - Elevated segments: Moderate Residents in 0.25-mile distance zone: - At-grade: Moderate - Elevated: Moderate	Residents in 0.5-mile distance zone: - At-grade segments: Less than significant - Elevated segments: Less than significant Residents in 0.25-mile distance zone: - At-grade: Less than significant - Elevated: Less than significant
Kings/Tulare Regional Station–East Alternative Site from SR 43	KVP 8	Moderate	Moderately low	Adjacent residents: High Motorists: Moderate	Adjacent residents: Substantial Motorists: Moderate	Adjacent residents: Significant Motorists: Less than significant
Rural Town (Corcoran, Wasco, Shafter) Landscape Units						
Downtown Corcoran Otis Avenue, looking east (see Figure 3.16-10 for KVP location)	KVP 9	Moderate	Moderately low Patterson Avenue: Moderately low/ Low	High	Substantial	Significant
Downtown Wasco (see Figure 3.16-12 for KVP location)	KVP 10	Moderate	Moderately low	High	Substantial	Significant
Downtown Shafter (see Figure 3.16-14 for KVP location)	KVP 11	Moderate	Moderately low	High	Substantial	Significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Response	NEPA Impact Intensity	CEQA Impact
Colonel Allensworth State Historic Park Landscape Unit						
Colonel Allensworth State Historic Park (see Figure 3.16-16 for KVP location)	KVP 12	Moderately High	Low	High	Substantial	Significant
Rosedale/Greenacres Landscape Unit						
View from Verdugo Lane, Rosedale (at-grade segment) (see Figure 3.16-19 for KVP location)	KVP 13	Moderate	Moderate (at-grade segment)	High	Moderate	Less than significant
View from Palm Avenue, Rosedale (elevated segment) (see Figure 3.16-19 for KVP location)	KVP 14	Moderate	Moderately low (elevated segment)	High	Moderate	Significant
Kern River Landscape Unit						
Kern River from Parkway Trail (see Figure 3.16-21 for KVP location)	KVP 15	Moderately High	Moderately low	Moderately high	Substantial	Significant
Central Bakersfield Landscape Unit						
Central Bakersfield Residential (see Figure 3.16-23 for KVP location)	KVP 16a	Moderately high	Moderately low (0.25-mile distance zone)	High (Residents in 0.25-mile distance zone)	Substantial	Significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Response	NEPA Impact Intensity	CEQA Impact
Bakersfield High School (see Figure 3.16-23 for KVP location)	KVP 16	Moderate	Low	High	Substantial	Significant
L Street near Truxtun Avenue, looking toward BNSF Alternative guideways (see Figure 3.16-23 for KVP location)	KVP 17	Moderately high	Moderately low	Moderately high	Substantial	Significant
Truxtun Avenue, looking toward BNSF Alternative Station (see Figure 3.16-23 for KVP location)	KVP 18	Moderately high	Moderately high	Moderately high	Beneficial	No impact
East Bakersfield Landscape Unit						
Robinson Street, looking toward BNSF Alternative guideways (see Figure 3.16-27 for KVP location)	KVP 19	Moderate	Low	High	Substantial	Significant
Hanford West Bypass 1 and Hanford West Bypass 2 Alternatives						
San Joaquin Valley Rural/Agricultural Landscape Unit						
Laton, Mount Whitney Avenue, looking east (see Figure 3.16-30 for KVP location)	KVP 20	Moderate	Moderately low	Motorists: Moderate Adjacent residents: High	Motorists: Moderate Adjacent residents: Moderate	Motorists: Less than significant Adjacent residents: Significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Response	NEPA Impact Intensity	CEQA Impact
Kings/Tulare Regional Station–West Alternative (see Figure 3.16-30 for KVP location)	KVP 21 (at-grade) KVP 22 (below-grade)	Moderate	Moderate	Adjacent residents: High Motorists: Moderate	Adjacent residents: Substantial Motorists: Negligible to beneficial	Adjacent residents: Significant Motorists: Negligible to beneficial
See KVPs 3 through 7 (Viewpoints are typical and representative of similar conditions throughout the landscape unit. No specific KVP location.)	Same as KVPs 3 through 7	Moderate	0.5-mile distance zone (at-grade): Moderate 0.25-mile distance zone (at-grade): Moderately low	Nearby residents: Moderately high/High Other viewers: Low	Residents in 0.5-mile distance zone: Moderate Residents in 0.25-mile distance zone: Substantial	Residents in 0.5-mile distance zone: Less than significant Residents in 0.25-mile distance zone: Significant
Corcoran Elevated Alternative						
Small Town (Corcoran) Landscape Unit						
Downtown Corcoran Whitley Avenue, looking east (see Figure 3.16-10 for KVP location)	Same as KVP 9	Moderately high	Moderately low	High	Substantial	Significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Response	NEPA Impact Intensity	CEQA Impact
Corcoran Bypass Alternative						
San Joaquin Valley Rural/Agricultural Landscape Unit						
See KVPs 3 through 7 (Viewpoint is typical and generic. No specific KVP location.)	Same as KVPs 3 through 7	Moderate	0.5-mile distance zone (at-grade): Moderate 0.25-mile distance zone (at-grade): Moderately low	Nearby residents: Moderately high/High Other viewers: Low	Residents: in 0.5-mile distance zone: Moderate Residents in 0.25-mile distance zone: Substantial	Residents in 0.5-mile distance zone: Less than significant Residents in 0.25-mile distance zone: Significant
Wasco-Shafter Bypass Alternative						
See KVPs 3 through 7 (Viewpoint is typical and generic. No specific KVP location.)	Same as KVPs 3 through 7	Moderate	0.5-mile distance zone (at-grade): Moderate 0.25-mile distance zone (at-grade): Moderately low	Nearby residents: Moderately high/High Other viewers: Low	Residents: in 0.5-mile distance zone: Moderate Residents in 0.25-mile distance zone: Substantial	Residents in 0.5-mile distance zone: Less than significant Residents in 0.25-mile distance zone: Significant
Allensworth Bypass Alternative						
Colonel Allensworth State Historic Park Landscape Unit						
Colonel Allensworth State Historic Park, looking northwest (see Figure 3.16-16 for KVP location)	KVP 23	High	High	High	Negligible	Less than significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Response	NEPA Impact Intensity	CEQA Impact
Bakersfield South Alternative						
Kern River Landscape Unit						
Kern River from Parkway Trail (see Figure 3.16-21 for KVP location)	KVP 15a	Moderately High	Moderately low	Moderately high	Substantial	Significant
Central Bakersfield Landscape Unit						
S Street near Amtrak Station, looking toward Bakersfield South Station (see Figure 3.16-23 for KVP location)	KVP 24	Moderate	Moderately high	Moderately high	Central Bakersfield residential, Bakersfield High, foreground of guideways: Substantial Station area: Beneficial	Central Bakersfield residential, Bakersfield High, foreground of guideways: Significant Station area: Beneficial
East Bakersfield Landscape Unit						
Owens Street, looking south (see Figure 3.16-27 for KVP location)	KVP 25	Moderate	Moderately low	High	Substantial	Significant
Dr. Martin Luther King Jr. Park, looking northeast (see Figure 3.16-27 for KVP location)	KVP 26	Moderately high	Moderate	High	Substantial	Significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Response	NEPA Impact Intensity	CEQA Impact
E. California Boulevard, looking west (see Figure 3.16-27 for KVP location)	KVP 19a	Moderately low	Low	Moderate Residents: Moderately high	Residents: Substantial in some locations	Residents: Significant in some locations
Bakersfield Hybrid Alternative						
Kern River Landscape Unit						
Kern River Landscape Unit (see Figure 3.16-21 for KVP location)	KVP 15a	Moderately High	Moderately low	Moderately high	Substantial	Significant
Central Bakersfield Landscape Unit						
Truxtun Avenue at V Street, looking south (see Figure 3.16-23 for KVP location)	KVP 28	Moderately high	Moderately high	Moderately high	Beneficial	No impact
East Bakersfield Landscape Unit						
King Street at Owens Middle School, looking north (see Figure 3.16-27 for KVP location)	KVP 29	Moderate	Moderately low	High	Residents: Substantial in limited locations where remaining residences adjoin right-of-way	Residents: Significant in limited locations where remaining residences adjoin right-of-way

The following discussion highlights and explains the overall changes (or lack of change) in visual quality rating of each alternative on each landscape unit as well as the resulting NEPA intensity of effects and CEQA impacts. The landscape unit determination was based on the KVPs as important viewing locations and representative samples of visual quality with and without the HST project.

BNSF Alternative

The following sections discuss potentially significant impacts on aesthetics and visual resources under the BNSF Alternative. The discussion is organized by landscape units, described previously in Section 3.16.4. Potential impacts are analyzed from KVPs representing those situations where potentially substantial impacts on aesthetics and visual resources could occur. Where adverse impacts are not anticipated, no KVPs were identified.

Central Fresno Landscape Unit

In Downtown Fresno, the BNSF Alternative would be at-grade, adjacent to existing rail lines and to a rail marshaling yard. The at-grade tracks and train would thus blend with the existing rail corridor with minimal visual effect. In contrast, in views from adjacent locations in the downtown area, the proposed Fresno HST station alternatives would be highly prominent and substantially alter the setting's visual character. The visual quality of views within the landscape unit ranges from moderately high in the central business district to low in and around the existing rail corridor. The BNSF Alternative would result in a range of effects within this landscape unit, but in the context of the existing setting these would be primarily neutral or beneficial. The most prominent project feature in Fresno's Central Business District would be the proposed downtown station. Under the BNSF Alternative, the station would be across the street from Chukchansi Stadium, located at the edge of downtown, and would be large in scale and extent. Similarly, the proposed station would be the principal project feature visible from the Chinatown district.

The proposed Fresno station has not yet been fully designed. However, the overall station footprint, layout, volume, and scale as depicted in the simulations reflect the conceptual design of the station. The station layout centered on Mariposa Street is depicted in Figure 3.16-32. The top image in Figure 3.16-32 depicts the conceptual station design with generic "functional" design treatment, with a Tulare Street underpass. The functional station demonstrates the scale and general architectural appearance of a HST station with minimal local agency involvement in the design process. Through collaboration with the City of Fresno, the station design may be further refined to incorporate additional aesthetic features that would result in a more iconic or architecturally distinctive design. The bottom image in Figure 3.16-32 depicts the same conceptual station design with an enhanced, "iconic" design treatment. Together, the two simulations represent a range of the possible design treatments that might be employed in the final design. The visual assessment for KVPs 1 and 2 is for a functional station at the pedestrian level.

Conceptual Station Design (Functional Design Treatment)
with Tulare Street Underpass

Conceptual Station Design (Iconic Design Treatment)
with Tulare Street Underpass

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013.

Figure 3.16-32
Key viewpoint 1: Downtown Fresno Station–Mariposa Alternative from downtown (H Street at Tulare Street), looking west [visual simulations]

Within the context of Fresno's downtown urban form, the proposed station with either of the depicted design treatments would be larger than most nearby existing development and would be highly prominent, but not out of scale or character with its setting. Other existing structures of similar height, or greater, including 10- and 12-story high-rises and 6-story parking structures, are located within a block or two of the site. In the context of the surrounding surface parking and industrial uses, the proposed station would substantially improve visual quality from moderately low to moderately high by introducing well-designed architecture, non-station structural design measures, and enhanced street landscaping into a visually blighted area, with a resulting high degree of visual unity, vividness, and improved intactness. From this KVP, visual quality would thus improve substantially (two levels of visual quality), a beneficial effect under NEPA with no impact under CEQA.

The proposed Fresno station would retain the historic Southern Pacific train depot west of the bus depot on H Street. The Fresno Station–Mariposa Alternative, depicted in the simulations of KVP 1 (Figures 3.16-3, 3.16-32), would adjoin the Southern Pacific Depot and remove the existing bus terminal to make way for station parking, opening up new views of the depot. The layout of the Fresno station has also been configured to enhance views of the historic railroad depot and associated Pullman car sheds for viewers in the vicinity. This increased public visual access to the distinctive, historic structure would be a beneficial impact. This topic is discussed in detail in Section 3.17, Cultural and Paleontological Resources. The Fresno station would include a pedestrian bridge to convey passengers from H Street to the HST platform. This bridge would pass between the depot and the adjacent Pullman car sheds, leaving both structures unaffected. The layout of the preferred Fresno station is depicted on Figure 2-35.

Tulare and Ventura streets, roughly between Fulton Mall and E Street, would be transformed into undercrossings. Because the HST station-related improvements in this location would have a substantially beneficial effect on the moderately low existing visual quality of this viewshed, improving vividness, intactness, and unity, associated undercrossings would also be beneficial.

Figure 3.16-33a depicts the existing view and Figure 3.6-33b shows visual simulations of the Fresno Station and guideway from KVP 2 (Figure 3.16-3), Mariposa Street between F and G streets near China Alley in Chinatown, facing northeast toward the proposed southwestern station entrance. The proposed station would be the principal project feature visible from this area. The top image in Figure 3.16-33b depicts the conceptual station design with generic "functional" design treatment; the bottom image depicts the same conceptual station design with a possible enhanced "iconic" design treatment. Together, the two simulations represent a range of the possible design treatments that might be employed in the final design.

As described in the discussion of views of the HST station from downtown to the north, the introduction of the HST station would substantially improve the visual quality of the streetscape as viewed from Chinatown to the south. Vividness and visual unity would be enhanced by a unified architectural and streetscape design, which would replace the heterogeneous, visually chaotic quality of existing industrial uses. The HST station on the BNSF Alternative would thus improve the existing visual character and quality of the site and its surroundings. From this KVP, the change in visual quality from the project combined with the moderately high level of viewer response would result in a beneficial effect under NEPA and no impact under CEQA.

Existing View

Figure 3.16-33a
Key viewpoint 2: Downtown Fresno Station–Mariposa Alternative from Chinatown (China Alley between F and G streets), looking north [existing view]

Conceptual Station Design (Functional Design Treatment)

Conceptual Station Design (Iconic Design Treatment)

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013.

Figure 3.16-33b
Key viewpoint 2: Downtown Fresno Station–Mariposa Alternative from Chinatown (China Alley between F and G streets), looking north [visual simulations]

San Joaquin Valley Rural/Agricultural Landscape Unit

As described in Section 3.16.4, the San Joaquin Valley Rural/Agricultural Landscape Unit makes up the great majority of the project, comprising most of the alignment between the cities of Fresno and Bakersfield. This vast area includes riparian corridors, rural towns, and the Colonel Allensworth State Historic Park, which are discussed separately below.

KVP 3 depicts simulations of typical views of the project within the San Joaquin Valley Rural/Agricultural Landscape Unit. The simulations are not intended to depict a specific location, but rather illustrate the level of the project's visual prominence and effect to viewers at different distances within this landscape.

Figure 3.16-34 depicts simulations of typical views of the HST at-grade in the rural valley setting at distances of 0.25 mile and 0.50 mile. Figure 3.16-35 simulates the HST on an elevated guideway section in the rural valley setting at distances of 0.25 mile and 0.50 mile.

Visual quality varies from location to location within the rural valley, but is generally moderate. Although intactness and unity can sometimes be moderately high, in general they are moderate, and vivid features are generally lacking in the level terrain. As previously described in Section 3.16.4, viewers in this landscape consist principally of agricultural workers, rural residents, and motorists on nearby highways. Of these, nearby rural residents constitute the primary high-sensitivity viewer group that would be affected by the project. Affected rural residents range from single, isolated homes to small rural residential settlements. High-sensitivity recreational viewers in the rural valley are discussed separately below, under the Kings River and Allensworth State Historic Park landscape units. The sensitivity of other viewer groups in this landscape unit ranges from moderate to low.

The height of the at-grade HST rail bed would vary to a maximum of about 12 feet. Within 0.25 mile of the right-of-way, the elevated berm, security fencing, and detail of the OCS poles and wires (up to 23 feet in height) would be visible and their industrial character would contrast with the rural setting. These impacts would be exacerbated when sound walls are constructed in proximity to sensitive viewers. Beyond 0.25 mile, these features would be less prominent. At a distance the low horizontal line of the HST would parallel and blend with the dominant horizontal plane of the prevailing terrain, with a moderate or moderately low overall effect on existing visual intactness and unity.

Roadway overcrossings would be constructed where at-grade segments of the HST alignment cross existing roads. These features would alter the area's character from rural to more urban. More than 50 such overcrossings are anticipated in rural areas with the BNSF Alternative. A substantial proportion, though not all, of these overcrossings would be adjacent to one or more rural residences. Residents are again assumed to have high viewer sensitivity to these impacts, although their overall numbers would be small. KVP 4 (Figure 3.16-36) depicts a typical existing view and a simulation of the HST alignment and an associated road overcrossing, as seen from the vicinity of an adjoining rural residence at close distance. This view is representative of essentially similar conditions at adjoining rural residences near the HST alignment alternatives throughout the rural San Joaquin Valley. As indicated in the simulation, in views from rural residences at distances of under 0.25 mile, the combination of HST alignment and road crossings would be prominent, resulting in a decline in visual intactness and unity, and a corresponding reduction of one level in the visual quality category. The effect of this impact would have moderate intensity under NEPA and the impact would be less than significant under CEQA.

a. Simulated View - 0.25-mile distance

b. Simulated View - 0.50-mile distance

Source: William Kanemoto & Associates, 2013.

Figure 3.16-34
Key viewpoint 3: Simulations of high-speed train at-grade in rural landscape

a. Simulated view - 0.25-mile distance

b. Simulated view - 0.50-mile distance

Source: William Kanemoto & Associates, 2013.

Figure 3.16-35
Key viewpoint 3: Simulations of high-speed train on elevated guideway in rural landscape

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-36
Key viewpoint 4: Existing view and simulation of typical new rural road overcrossing

KVP 5 (Figure 3.16-37), KVP 6 (Figure 3.16-38), and KVP 7 (Figure 3.16-39) portray additional existing and simulated views of the full range of viewing conditions anticipated throughout the San Joaquin Valley Rural/Agricultural Landscape Unit. The HST would often be visible to motorists on nearby highways. KVP 5 simulates a worst-case configuration of HST alignment, which is seen paralleling the highway in the immediate roadway foreground, and with a project road overcrossing. The brightly colored, fast-moving HST trains would enhance vividness in a landscape typified by large, level expanses and relatively low vividness. The industrial, utilitarian character of the contact power system, in contrast, would detract from unity and intactness when seen at close distance. Road overcrossings, though a relatively common feature, would similarly detract from unity and intactness when viewed from close distances. In most situations, where the HST would parallel the highway at such close distance, it would be in segments paralleling the existing BNSF freight rail right-of-way. Consequently, it would most often be seen where the freight rail line is already visible in the highway foreground. As depicted in KVP 5, (Figure 3.16-37), the changes from this worst-case scenario would result in an overall decline of visual quality from a moderate to moderately low level. This level of change would be less where the HST was viewed from a distance of 0.25 mile or more. In an area with moderate viewer response of motorists, this level of change would have moderate intensity under NEPA, and the impact would be less than significant under CEQA.

KVP 6 depicts another view of the HST alignment in close proximity to rural residences. The condition depicted in this simulation is typical of locations under all alternatives in the rural San Joaquin Valley, in which the HST alignments would pass very near scattered rural residences. The number of residences affected in any one location would generally be small. The overall number on a project-wide basis, however, would be considerable. As under KVP 4 the project, seen at such close distance in a rural area, would result in a strong decline in visual intactness and unity, and an overall decrease in visual quality of one to two levels.

KVP 7 depicts a view of the HST alignment in close proximity to rural residences, but in the existing context of a typical agro-industrial setting like those found throughout the San Joaquin Valley portions of the project alternatives. Although the vertical, contrasting forms of such factories have some vividness, the visual disorder and lack of concern with appearance typified in such industrial facilities, along with the contrast with intact rural elements such as agricultural fields, contributes to an existing scene with low intactness, low unity, and moderately low overall visual quality. With introduction of the HST, visual quality would remain moderately low or low. Thus, even in worst-case situations such as this, where the HST would be visible at near-foreground distance from residences, the effect on overall visual quality would be moderate or low. Even with moderately high sensitivity and exposure of residents, this would represent a moderate to negligible effect under NEPA, and a less than significant impact under CEQA.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-37
Key viewpoint 5: Existing view and simulation of typical view of HST alignment as seen by motorists at foreground distance

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-38
Key viewpoint 6: Existing view and simulation of typical view of HST alignment as seen by rural residents at near-foreground distance

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-39
Key viewpoint 7: Existing view and simulation of typical view of HST alignment as seen by rural residents in proximity to rural agro-industrial settings

As indicated above, rural residents are the only viewer group identified with both high viewer sensitivity and exposure to the HST alternatives in the San Joaquin Valley Rural/Agricultural Landscape Unit. These viewers would experience a decline in visual quality of one to two levels in areas where scenes do not include agro-industrial facilities. This reduction in visual quality would be experienced by rural residents for a distance of 0.25 mile where the HST is at-grade and 0.5 mile where the HST is elevated. The impact of this reduction in visual quality combined with the viewer response of rural residents would have substantial intensity under NEPA where residences are present to a distance of 0.25 mile from at-grade and elevated portions of the HST and where residences are present to a distance of 0.5 mile from elevated portions of the HST. The visual quality impact to rural residents not adjacent to agro-industrial facilities would be significant under CEQA out to a distance of 0.5 mile from at-grade and elevated portions of the HST.

Figure 3.16-40 shows the existing view from KVP 8 and a simulation of the Kings/Tulare Regional Station–East Alternative from KVP 8. The view is from the adjoining 8th Avenue (SR 43) at a distance of 0.5 mile, looking northeast. The proposed station, though large and very prominent, would be sufficiently distant from the highway to recede in dominance, and would lie parallel to the horizontal lines of the valley topography and horizon. The middle-ground view of the station by passing motorists would be softened by tree canopies and other landscaping. Consequently, vividness of the scene from such nearby public viewpoints could be enhanced. The introduction of the large structure and parking lots would, however, lower intactness and unity. Overall, the effect of the station would be to reduce visual quality by one level from moderate to moderately low. In an area of moderate viewer response of motorists on SR 43, this impact on motorists would have moderate intensity under NEPA and the impact would be less than significant under CEQA.

The impacts of the Kings/Tulare Regional Station–East Alternative on nearby rural residents would be due primarily to the adjacent aerial structure and would be as described above, under KVP 3. Because a substantial decline in visual quality would be experienced by remaining, adjoining residential viewers with high sensitivity that are not relocated, this effect would be of substantial intensity under NEPA and a significant impact under CEQA for residences abutting the right-of-way to the southeast of the proposed station.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013.

Figure 3.16-40
Key viewpoint 8: Existing and simulated views of Kings/Tulare Regional Station from 8th Avenue (SR 43)

Major creeks and rivers, and their accompanying riparian forest canopy, are highly distinctive and valued features of the Central Valley landscape. The BNSF Alternative would cross four of these, the Kings and Tule rivers and Cross and Poso creeks in the rural San Joaquin Valley. The Kings River is the most prominent river crossing the rural valley in the Fresno to Bakersfield Section, and is identified as an important regional scenic resource in the Kings County General Plan. However, the Kings River crossing of the proposed BNSF Alternative would be located in a setting dominated by fruit tree orchards, which would screen visibility of the HST from all nearby public viewpoints. Consequently, no simulated view of the project is depicted. Effects of the river crossing on viewers on the nearest major roadway, SR 43, would be minor and limited to a momentary view where the HST alignment crosses over SR 43. Because this effect would be of limited severity and momentary in character, the resulting change in visual quality of the setting would be negligible, seen momentarily by motorists with moderate viewer response. This would result in negligible intensity under NEPA, and have a less-than-significant impact under CEQA. River recreationists have higher levels of sensitivity than motorists. However, of the four river crossings, only the Kings River is wide enough in the vicinity of the project crossing to receive any recreational use. At the Kings River, viewer exposure to the alignment crossing would be limited to a very short segment because meanders in the river and the riparian vegetation on its banks would screen most views. In the immediate vicinity of the HST river crossing, the viaduct and trains would result in a considerable decline in vividness, intactness, and unity. This decline of one to two levels in visual quality would occur in an area of low viewer exposure (low numbers of viewers, and very short duration/extent of exposure). Overall viewer response would be moderately low, and the project would thus not extensively degrade the visual character or quality for recreationists. Because of the very limited range of effect, this impact would have moderate intensity under NEPA and would be less than significant under CEQA. No recreational use occurs at the other three crossings. Because viewer sensitivity and exposure would be negligible at these locations, the effect would have negligible intensity under NEPA and a less than significant impact under CEQA.

Rural Town Landscape Units (Corcoran, Wasco, and Shafter)

The BNSF Alternative would follow the existing BNSF right-of-way through the downtowns of Corcoran, Wasco, and Shafter. The main sensitive viewer groups in these towns are residents, users of nearby local parks, and visitors to the town centers. Figures 3.16-10 through 3.16-15 provide viewpoints and existing views in the downtowns of Corcoran, Wasco, and Shafter, respectively. Figure 3.16-41 depicts the view from KVP 9, from Whitley Avenue, Downtown Corcoran's main street, at Otis Avenue near the Amtrak Station, facing east. Figure 3.16-42 depicts the view from KVP 10 in Wasco, from the intersection of 7th Avenue and F Street, Wasco's main street and the heart of the old town, at a distance of roughly 600 feet, facing east. Figure 3.16-43 depicts the view from KVP 11, in Shafter, from the intersection of Poso Avenue and SR 43, looking north to the Shafter Depot Museum at a distance of approximately 450 feet from the alignment. The elevated guideway in Wasco would be an average of approximately 35 feet high. In Shafter it would be approximately 35 to 40 feet high. The OCS poles would extend about 24 feet above the guideway in all cases.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-41
Key viewpoint 9: Existing view and simulated view of high-speed train in Corcoran, from Whitley Avenue near Otis Avenue, looking east

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2014.

Figure 3.16-42
Key viewpoint 10: Existing view and simulated view of high-speed train in Wasco, from 7th Avenue and F Street, looking east toward the Amtrak Station

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-43
Key viewpoint 11: Existing view and simulated view of high-speed train in Shafter from Poso Avenue and SR 43, looking toward the Shafter Depot Museum

Due to the scale and height of the elevated BNSF Alternative guideway in all three towns, the effects of the guideway would strongly intrude into adjacent areas within the foreground distance up to 0.25 mile. The project would be prominent in sight lines down perpendicular streets within foreground distances, and would sometimes be visible above nearby rooftops to high numbers of viewers.

Adverse effects on existing visual intactness and unity would result from the introduction of this visually dominant feature of urban, industrial character into the small agricultural town setting. Because of the central location of the alignment within all three towns, the aerial structures would exert a strong influence on the image and character of these towns, altering the prevailing scale and introducing a strongly contrasting, urban and industrial character into the town centers. In Corcoran and Wasco, the aerial structures would pass directly above the existing Amtrak stations, resulting in an alteration of their visual character. In Shafter, the alignment would be located farther from the town center, and would thus be somewhat less prominent than in the other towns. However, nearby residents, park users, and visitors to the main streets of all these towns would experience a decline in visual quality from moderate to moderately low or low. These effects would be exacerbated wherever sound walls are required. In this area of moderately high to high viewer response of adjacent residents and visitors to the central business districts of these towns, this decline of one to two levels in visual quality would represent an effect of substantial intensity under NEPA and a significant impact under CEQA.

In addition, an at-grade portion of the BNSF Alternative would require relocation of homes in a small settlement of rural residences at 7th Standard Road. The remaining, adjacent homes could experience a decline of one to two levels in visual quality due to their very close proximity to the right-of-way, which could potentially adjoin remaining properties. This would be an effect of substantial intensity under NEPA and a significant impact under CEQA.

Colonel Allensworth State Historic Park Landscape Unit

Figure 3.16-44 shows the existing view (top) and the simulated view (bottom) from KVP 12, the Colonel Allensworth State Historic Park, looking east toward the BNSF Alternative. The centerline of the BNSF Alternative is just over 100 feet from the eastern boundary of the park at this location. At this distance, the project would be a visually dominant feature, noticeably contrasting with the existing visual character. The 24-foot-high OCS system components and wires, right-of-way fencing, and HSTs would introduce distinctly modern industrial elements into the visual foreground that would alter the character of the site and lower visual quality.

The intact landscape setting is a major component of the attraction of the historic district, which evokes an early twentieth-century agricultural valley landscape. The integrity of the landscape setting is thus a critical part of the park experience. The prominent, incongruous project elements would intrude into that experience, reducing the integrity of the visual setting. The high-speed trains would pass the park at close distance, and their considerable length, bright color, and rapid motion would make them highly visible. Under the BNSF Alternative, the HST would reduce the intactness and unity of the park's visual setting, reducing its visual quality from moderately high to low. From this KVP, the level of change in existing visual character or quality of the highly sensitive site and its surroundings by the project would result in an effect of substantial intensity under NEPA and a significant impact under CEQA.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-44
Key viewpoint 12: Existing view and simulated view of high-speed train from Colonel Allensworth State Historic Park

City of Bakersfield: Rosedale/Greenacres Landscape Unit

Figure 3.16-45 shows the existing view from KVP 13 and the visual simulation of sound barriers at the edge of the HST right-of-way in at-grade segments in the community of Rosedale/Greenacres. The walls would be up to 14 feet high and would primarily be seen at the back property lines of residential parcels adjoining the right-of-way, over lots vacated by removal of homes, and occasionally at the end of adjoining streets, as in this simulated view. Approximately 145 residential units would be displaced for the BNSF Alternative in Rosedale. The overall effect of the displacement of these residential units on visual character and quality for remaining residents would be moderate. The primary visual project feature in at-grade segments would remain the sound barriers at the edge of right-of-way. From this KVP, these features would represent a moderate decline in intactness, unity, and overall visual quality, which would result in an effect of moderate intensity under NEPA and a less than significant impact under CEQA.

Figure 3.16-46 shows the existing view from KVP 14 (Palm Avenue in Rosedale/Greenacres, looking east), and simulates the view of the HST elevated guideway from KVP 14. Rosedale/Greenacres is an unincorporated suburb northwest of Bakersfield. Although the existing setting lacks vividness, the presence of the HST on the BNSF Alternative would create very strong declines in intactness and unity, thereby substantially reducing the overall visual quality in those areas where the aerial structure is visible at a foreground distance from residences. The aerial structure would introduce a highly dominant concrete guideway structure of up to 80 feet in height that would noticeably contrast with the single-story, low-density setting. The guideway would be a dominant feature in views from or near residences within roughly 0.25-mile of the right-of-way. In this highly developed setting, beyond this distance even a structure of this height would be largely screened by intervening homes and landscaping. For single-story residences adjacent to the HST in this segment, the effects of the elevated guideway would be exacerbated by views of right-of-way fencing, cleared land under the guideways, and support columns. In an area of moderately high viewer response, the project would degrade the existing visual character or quality of the site and its surroundings from moderate to moderately low, and this would thus be an effect of moderate intensity under NEPA and a significant impact under CEQA.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-45
Key viewpoint 13: Existing view and simulated view of BNSF Alternative at-grade in Rosedale/Greenacres from Verdugo Lane, looking south

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-46
Key viewpoint 14: Existing view and simulated view of high-speed train on BNSF Alternative in Rosedale/Greenacres from Palm Avenue, looking east

City of Bakersfield: Kern River Landscape Unit

Figure 3.16-47(a) depicts the existing view from KVP 15, and Figure 3-16-47(b) is a simulation of the HST on the BNSF Alternative north of Truxtun Avenue and midway between Coffee Road and SR 99. The bicycle trail in the foreground is within the Kern River Parkway, which is approximately 600 feet from the right-of-way. Sensitive viewer groups in this area include recreational visitors of various types, including hikers, bicyclists, picnickers, workers on lunch breaks, and users of nearby tennis courts. The guideway would be up to 80 feet high at this location, with 24-foot OCS poles above. KVP 15 is located toward the northern limit of a highly improved portion of the Kern River Parkway, extending roughly 2 miles east of Coffee Road. The parkway in this reach of the river includes extensive riparian habitat restoration and tree planting, a year-round artificial lake, extensive turfed and landscaped parklands, and bike and walking trails.

As shown in Figure 3.16-47(b), the project would introduce a highly dominant feature of very urban character into views within the parkway, particularly those within roughly 0.25 mile of the alignment. Scenic elements, including distant views of the river, mountains, and sky, would be partially blocked by intrusion of the structure into the middle ground. Intactness and unity of views of the river and parkway would also be compromised by intrusion of the urban, industrial structure into the middle ground of views of the river. However, the Westside Parkway project crossing of the Kern River has recently been completed, and is in the same segment of the river crossed by the proposed HST alignment. Because the parkway structure is a large-scale transportation viaduct that is similar to the proposed HST project, it has similar visual effects, intruding into the existing views of the river and mountains and compromising visual intactness and unity. In addition, the proposed Centennial Corridor project would introduce additional elevated viaduct structures into the same segment of river views. Consequently, the HST project would be one of three structures, each of which would, on its own, reduce the overall visual quality of views from within the parkway from moderately high to moderately low. In an area of moderately high viewer response, the effects of these declines in visual quality of two levels would have substantial intensity under NEPA and the impact would be significant under CEQA.

The BNSF Alternative would cross SR 99 immediately east of the Kern River. Because of its location near the primary interchange/off-ramp leading from SR 99 to downtown, project structures spanning the freeway could create a "gateway" effect to southbound motorists entering the city from the north. However, the project overcrossing of SR 99 would be prominent in views from the freeway for only a short distance (10 to 15 seconds) and brief period of travel, and is thus not expected to strongly lower visual quality from this short affected segment of freeway.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-47
Key viewpoint 15: Existing view and simulated view of high-speed train on BNSF Alternative from Kern River Parkway Bicycle Trail, looking north

City of Bakersfield: Central Bakersfield Landscape Unit

For approximately 0.5 mile between Oak Street and Mercy Hospital and Bakersfield High School at A Street, the BNSF Alternative would pass within 650 feet (1/8 mile) of residences on 16th Street to the north, within similar distances of residences south of California Avenue, and within 0.25 mile of Jastro Park and nearby residences in the surrounding neighborhoods (Figure 3.16-25). For residential viewers within about 0.25 mile of the project, especially homes on 16th Street and California Avenue, the contrasting scale and character of the elevated concrete guideway and support columns as well as associated right-of-way clearing and fencing would result in a moderate decline in the intactness, unity, and overall visual quality of the existing residential setting. In this area of high viewer response typical of residential neighborhoods near the elevated structure, this decline in visual quality from moderately high to moderately low would be an effect of substantial intensity under NEPA and a significant impact under CEQA.

The elevated guideways would be visible from Jastro Park at distances of under 1,000 feet at their nearest point, but the views of these guideways would be highly filtered by intervening foreground structures and tree canopies. At this distance, viewer exposure from the park would be moderate, and the overall decline in visual quality of the park would have negligible intensity under NEPA and the impact would be less than significant under CEQA.

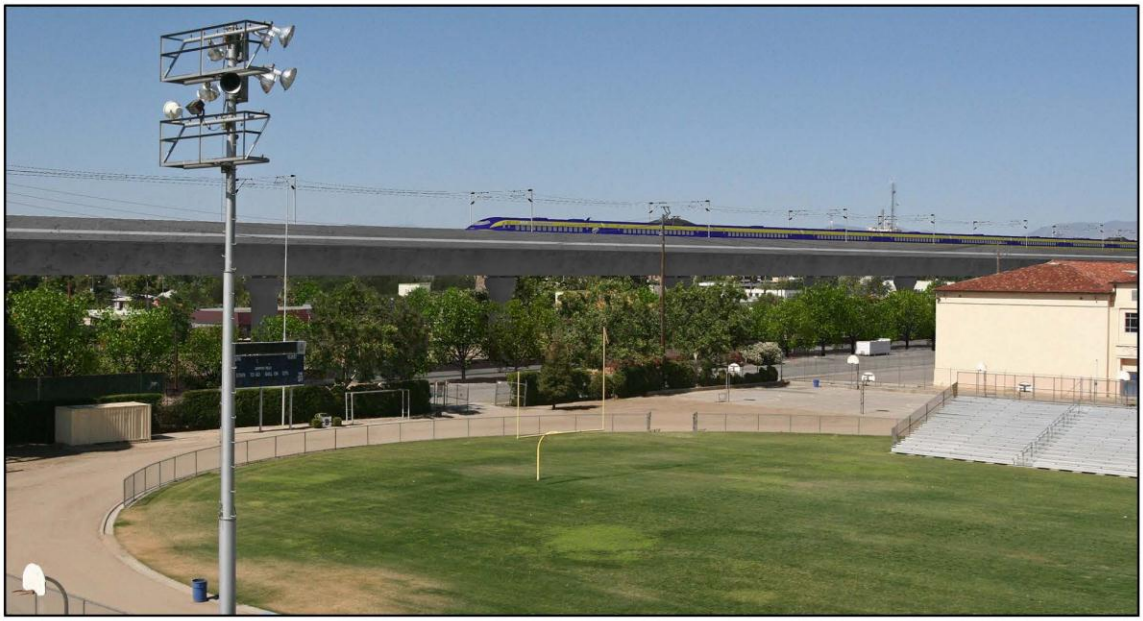
Figure 3.16-48(a) shows the existing view from KVP 16 on the BNSF Alternative, looking northeast from the Bakersfield High School stadium bleachers at a distance of approximately 500 feet. Figure 3.16-48(b) is a visual simulation of the HST from KVP 16. The guideway would be in a two-track configuration about 60 feet high at this location.

The HST on the BNSF Alternative would introduce a highly dominant structure of incompatible industrial character to the Bakersfield High School campus. The HST would replace the existing Industrial Arts Building with a 60-foot-tall guideway and an area of cleared land, and would expose views of the BNSF rail yard and industrial development to the north, strongly reducing intactness and unity. Together, these effects would reduce the visual quality of the campus from moderate to low, particularly along 14th Street. In this area of high viewer response of the campus and the reduction in visual quality of two levels, the project effect would have substantial intensity under NEPA and would be a significant impact under CEQA. Because the guideway would be located north of the school campus, shadow impacts are not anticipated.

KVP 17 is on L Street near Truxtun Avenue in the central business district of downtown Bakersfield. The view is looking south toward the BNSF Alternative. Figure 3.16-49(a) shows the existing view from KVP 17 and Figure 3.16-49(b) provides a simulated view of the HST alignment, which represents a typical foreground view of how the guideway would appear within the central business district.

Due to the height, central location, and presence of the guideway through the entire length of the central portion of the city, the project would be intermittently visible, primarily down north-south-oriented street corridors, over a large area of downtown, and prominent to distances of 0.25 mile or more. Based on the high concentration and type of use (recreational, visitor-serving, governmental, etc.), and the importance of the downtown/Truxtun corridor image, viewer sensitivity is considered moderately high, and overall viewer response similarly is considered moderately high.

a. Existing View



b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-48
Key viewpoint 16: Existing view and simulated view of high-speed train from Bakersfield High School stadium, looking northeast

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-49
Key viewpoint 17: Existing view and simulated view of high-speed train from L Street near Truxtun Avenue in downtown Bakersfield

The guideways would exhibit an industrial and utilitarian character that would contrast with the character of the adjacent commercial buildings and reduce the visual quality of downtown from moderately high to moderately low. These effects would increase where sound barriers are constructed. With the high concentration of visitors to the downtown and moderately high viewer response from this KVP, this decrease in visual quality would have substantial intensity under NEPA and would be a significant impact under CEQA. These impacts could be reduced by proposed project design measures to be undertaken in coordination with the City of Bakersfield.

KVP 18 is on Truxtun Avenue across the street from the Bakersfield Convention Center, looking southeast toward the proposed station site. Figure 3.16-50a shows the existing view from KVP 18, and Figure 3.16-50b depicts two conceptual simulations of the Bakersfield Station–North Alternative on the BNSF Alternative. A portion of the Amtrak station is visible in the background of the photo to the right of the frame. Predominantly low-rise offices and residences south of Truxtun Avenue and east of Q Street would be exposed to unobstructed views of the station and guideway from Truxtun Avenue. These views would be blocked by taller, large-scale office and government buildings farther to the west toward the center of downtown. The top image on Figure 3.16-52a depicts the conceptual station design with generic "functional" design treatment. The functional station demonstrates the scale and general architectural appearance of an HST station with minimal local agency involvement in the design process. Through collaboration with the City of Bakersfield, the station design may be further refined to incorporate additional aesthetic features that would result in a more "iconic" or architecturally distinct design. The bottom image on Figure 3.16-50c depicts the same conceptual station design with an enhanced, "iconic" design treatment. Together, the two simulations represent a range of the possible design treatments that might be employed in the final design. Figure 3.16-50c shows other conceptual simulations of the two levels of possible design treatment from within the proposed station site. The visual assessment for KVP 18 is for a functional station at the pedestrian level.

As suggested in the simulations, the HST station would be large in scale but would remain compatible with the surrounding mid-rise buildings and predominantly modern architecture in the central downtown area. In addition, the station would substantially enhance the area's vividness. The Authority will work closely with the city to develop and refine architectural, site design and landscape treatments for the station and vicinity that enhance the area's character through coherent and unified design, compatible scale and massing, and surface and façade treatments in keeping with the adjoining commercial and governmental uses. No scenic views or view corridors from downtown in the direction of the project would be adversely affected by the HST station or guideways.

Extensive streetscape landscaping associated with the stations would increase intactness and provide visual coherence as tree canopies mature. The station architecture would increase unity with the surrounding setting and enhance vividness with attractive design. There would be a high degree of consistency between the existing foreground of civic and commercial uses and the proposed form, scale, and character of the station. Existing intactness and unity would thus be increased, and vividness enhanced. Considered with the moderately high viewer response in the vicinity, the station would have a beneficial effect on the setting under NEPA and no impact under CEQA.

The southern side of the proposed station would face an area that is characterized by industrial land uses that include warehouses, manufacturing, and storage facilities. This area is composed of low, utilitarian buildings and asphalt surface parking lots that provide little vividness and intactness. As a result, the existing visual quality is low (see Figure 3.16-24, CBI-c). The site of the proposed station and associated guideways, parking structures, intermodal facilities, and access streets are not currently visible from any publicly accessible vantage points within the existing setting, and for that reason have not been depicted in this analysis.

Existing View

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013.

Figure 3.16-50a
Key viewpoint 18: Bakersfield Station–North Alternative, existing view

Conceptual Station Design (Functional Design Treatment)

Conceptual Station Design (Iconic Design Treatment)

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013; Newlands and Company, 2013.

Figure 3.16-50b
Key viewpoint 18: Bakersfield Station–North Alternative from Truxtun Avenue, visual simulations

Conceptual Station Design (Functional Design Treatment)

Conceptual Station Design (Iconic Design Treatment)

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013; Newlands and Company, 2013.

Figure 3.16-50c
Key viewpoint 18: Bakersfield Station–North Alternative, visual simulations

There are currently no moderate or highly sensitive viewer groups south of the proposed station. The city plans to rezone this area to include various mixed-use developments, converting the existing industrial area into a more mixed-use setting (City of Bakersfield 2005a, 2005b). This expected long-term trend would represent a substantial improvement to the future visual quality of the area.

City of Bakersfield: East Bakersfield Landscape Unit

East of downtown and the Bakersfield Station, throughout the roughly 3-mile segment between Union Avenue and Oswell Street, the BNSF Alternative would be visible within 0.25 mile or less of several hundred residences. A short distance east of the downtown station, the alignment would skirt the northern portion of a small, residential neighborhood surrounded by industrial uses. The residential area is roughly bounded by Kern Street, East 19th Street, Butte Street, East California Avenue, and Brown Street. Several homes in this area would be removed to accommodate the BNSF Alternative and some that remain would directly adjoin the right-of-way, with immediate foreground views of the guideways, columns, security fencing and, potentially, sound barriers.

Figure 3.16-51(a) is an existing view and Figure 3.16-51(b) is a simulation of the HST on the BNSF Alternative from KVP 19 (Figure 3.16-27) a typical viewpoint in this neighborhood. The view is from Robinson Street near the intersection of Eureka Street at a distance of roughly 700 feet. The guideway in this area would be a double-track configuration approximately 36 feet high.

As illustrated in this simulation, despite its lower overall height compared to the downtown segment, the guideway would appear very 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 many locations.

The mature tree canopies in KVP 19 would not be substantially affected by the project. However, intactness and unity of view in the neighborhood would reduce visual quality from moderate to low, especially for residents located nearest the right-of-way. In this area of high viewer sensitivity and response in this setting, this reduction in the existing visual character and quality of the site and its surroundings would have substantial intensity under NEPA and would be a significant impact under CEQA.

East of Brown Street to the project terminus at Oswell Street, the project would parallel the southern side of Edison Highway and adjoining parallel UPRR railroad right-of-way for approximately 2 miles. The guideway would be within 300 feet or less of a substantial number of residences in this segment, and possibly require relocation of a small number of residences. However, because the alignment would skirt and not bisect these neighborhoods, viewer exposure and thus overall response of remaining residences would be limited due to filtering of intervening industrial land uses and other foreground structures. The HST guideway would blend with the visual elements of the existing railroad, highway, and commercial buildings and would not affect the intactness, vividness or unity of the view. In this area of moderately low viewer response and little change from existing visual quality, the project effect east of Brown Street would have negligible intensity under NEPA and a less than significant impact under CEQA.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-51
Key viewpoint 19: Existing and simulated views of BNSF Alternative from Robinson Street at Eureka Street, looking north

Hanford West Bypass 1, Bypass 1 Modified, Bypass 2, and Bypass 2 Modified Alternatives

Four variations of the Hanford West Bypass alternative, on two horizontal alignments, are under consideration: the Hanford West Bypass 1 and 2 alternatives (with an at-grade station); and the Hanford West Bypass 1 and 2 Modified alternatives (with a below-grade station). In the northern section south to Flint Avenue, all Hanford West Bypass alternatives are the same. Between Flint Avenue and Idaho Avenue east of the city of Hanford, the two Modified alternatives would be located on horizontal alignments approximately 400 feet farther to the west than the original Hanford West Bypass alternatives. Most of the sensitive visual receptors under the Hanford West Bypass alternatives are located in this segment. South of Idaho Avenue, the Modified alternatives would be located between 400 feet (Bypass 2 Modified alternative) and 1,000 feet (Bypass 1 Modified alternative) farther eastward than the original Hanford West Bypass alignments. However, the setting in this more typically rural southern portion of the Hanford West Bypass alignments has fewer sensitive receptors, and the differences in viewer sensitivity, exposure and response between the alternatives are minor. All four Hanford West Bypass alternatives occur entirely within the San Joaquin Valley Rural/Agricultural Landscape Unit, although the 2-mile segment east of the city of Hanford described above is characterized by somewhat lower visual quality than is typical in this landscape type due to encroachment of suburban development. As is the case with the BNSF Alternative within this landscape unit, the four Hanford West Bypass alternatives would also entail periodic new roadway overcrossings and undercrossings and related road improvements to provide grade separation from the HST alignments. In general, there would be only minor differences in the viewer sensitivity, exposure, and response among the four Hanford West Bypass alternatives. However, in the segment west of the city of Hanford, roughly between Grangeville Boulevard and Houston Avenue, the two Modified alternatives would have lower levels of viewer exposure and response because the alignments would be located approximately 400 feet farther to the west and away from sensitive viewers in the area, almost all located east of the alignments. In addition the Modified alternatives would be below-grade in this segment and thus much less visually exposed.

All four Hanford West Bypass alternatives would cross the scenic Kings River on a segment of elevated viaduct east of the community of Laton. The alignments of all four Hanford West alternatives are identical in this segment. Viewer exposure to this crossing is low. The alternatives would not be visible from Laton-Kingston Park, located under 0.5 mile east of the alignment. The viaduct would be visible to boaters and other river recreationists within approximately 0.25 mile to the west and 0.4 mile to the east. However, the structure would be far less prominent than the existing 13th Avenue roadway bridge adjoining Laton-Kingston Park, and would be screened by dense riparian woodland on either bank of the river except in the portion directly over the waterway. The structure would thus have little effect on the vividness, intactness, and unity of the existing view, and therefore would not lower visual quality. The effect on river recreationists and the change from existing visual quality would have negligible intensity under NEPA and a less-than-significant impact under CEQA.

As in other segments of the San Joaquin Valley Rural/Agricultural Landscape Unit, the primary viewer group that would be affected visually by the Hanford West Bypass alternatives would consist of scattered rural residences in very close proximity to the alternative alignments. Figure 3.16-52(a) is an existing view and Figure 3.16-52(b) is a simulated view of the HST under all four Hanford West Bypass alternatives from KVP 20. This viewpoint is from the nearest residence on Mt. Whitney Avenue west of the center of Laton, looking east toward Laton and a segment of the proposed HST elevated guideway. The view is representative of residential views at near-foreground distance, which would occur in several scattered locations along all Hanford West Bypass alternatives. The view is also representative of views for motorists traveling toward Laton on the main access route to the town from the west. (Typical views of at-grade and elevated segments of the HST within the rural valley landscape were also depicted in KVP 3 and KVP 4

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-52
Key viewpoint 20: Existing view and simulated view of Hanford West Bypass alternatives from Mt. Whitney Avenue in Laton, looking east

shown in Figures 3.16-36 through 3.16-38.) At distances of 0.25 mile, or less, in this rural area, the modern, industrial character of the HST guideway and OCS would result in a decline in visual intactness and unity, and an overall decrease in visual quality from moderate to moderately low. Residential viewers are generally assumed to have high viewer sensitivity, particularly where the HST is in foreground views (0.25 mile or less). Due to this sensitive viewer group and the reduction in visual quality, there would be moderate intensity under NEPA and the impact would be significant under CEQA.

In the vicinity of 13th Avenue and West Lacey Boulevard in the unincorporated rural area east of Hanford and west of Armona, the Hanford West Bypass alternatives would be adjacent to the College of the Sequoias campus. In this general area there are essentially two HST design alternatives under consideration: the Hanford West Bypass 1 and 2 alternatives would be identical in this segment, representing an at-grade profile on one horizontal alignment. The Hanford West Bypass 1 and 2 Modified alternatives would be identical in this segment, representing a below-grade design on a horizontal alignment approximately 400 feet farther west than the Bypass 1 and 2 alternatives. All four alternatives would require eastward realignment of 13th Avenue at the intersection with Lacey Boulevard, construction of an undercrossing of 13th Avenue and an overcrossing of Lacey Boulevard, although the precise design details would differ between the Bypass 1 and 2 and the Bypass 1 and 2 Modified alternatives.

Viewers at the college would have moderately high viewer sensitivity and moderate visual exposure to the HST alternatives. All four alternative alignments would be screened along most of the school's adjacent 13th Avenue frontage by existing orchards. All four alternatives would also require removal of a rural residence southwest of the campus which currently blocks views of the alignment, in order to accommodate eastward realignment of 13th Avenue. The introduction of a road undercrossing and overcrossing at Lacey Boulevard would alter the existing scene and introduce structures with a more urban character. The effects of these common urban features on visual character and quality would appear largely in keeping with the urban character of the school and nearby suburban development within the Hanford city limits to the east. These features would contribute, together with the berm and overhead contacts of the at-grade HST, to a decline in intactness and unity as seen at close distance from the southernmost outdoor portions of the campus, including an outdoor amphitheater used for public gatherings. Most of the campus would have low exposure to the alternative alignments and experience moderate or little effect from it. However, the amphitheater and other adjacent outdoor use areas would have open views of the alignment at distances of under 500 feet and experience a moderate to strong decline in intactness and unity without mitigating screening. This view is not currently visible because it is obscured by the existing adjacent residential property, which would be displaced, thereby exposing the view of the HST. Because the alternative alignments are not currently visible due to the existing residence, the view is not reproduced here. The very short portion of the alignment with potential exposure to the school would be conducive to effective screening with landscaping and could therefore be mitigated. Without such mitigation, these effects of the Hanford West Bypass 1 and 2 alternatives would be of substantial intensity under NEPA and impacts would be significant under CEQA.

Under the Hanford West Bypass 1 and 2 Modified alternatives, 13th Avenue would also be realigned eastward and the adjacent residence removed as described previously. However, not only would the Modified alignments be located over 400 feet farther from the campus, they would be below-grade. Thus the HST would be much less evident. Portions of the OCS equipment and at-grade safety fencing would be visible but at this distance would be visually unobtrusive. Intactness of the surroundings would decline somewhat due to the removal of approximately 10 acres of orchard west of 13th Avenue. Overall this would represent a moderate decline in visual quality. These effects of the Hanford West Bypass 1 and 2 Modified alternatives on the college and vicinity would be of moderate intensity under NEPA and less than significant under CEQA.

Under all Hanford West Bypass alternatives, motorists would be the most numerous affected viewer group, particularly on 16 roadways, primarily east-west routes, that cross the alignments and that would require grade separations (new undercrossings or overcrossings) or that in two cases (Mt. Whitney and Kansas avenues) would be crossed by elevated guideways. In general, motorists would have generally moderate sensitivity and overall viewer response.

Effects of the elevated guideway crossings on motorists, common to all Hanford West Bypass alternatives, are depicted in KVP 20, Figure 3.16-52(b). As suggested in that simulation, within roughly a 0.25-mile-distance zone the alignment would appear prominent and cause a decline in existing intactness and unity of the setting by introducing a large structure with urban character. However, the structure is similar in appearance and scale to roadway overcrossing structures commonly encountered by motorists daily, and given the short duration of exposure to the project, the resulting decline in visual quality would have moderate intensity under NEPA and the impact would be less than significant under CEQA.

Figure 3.16-53 shows the existing and simulated views of the Kings/Tulare Regional Station–West Alternative from KVP 21, under the Hanford West Bypass 1 and 2 Modified alternatives. These alternatives, including the station platforms, would be below-grade in this segment. The view is from 13th Avenue at a distance of 0.2 mile, looking southeast from the northwest boundary of the proposed station site.

Figure 3.16-54 shows the existing and simulated views of the Kings/Tulare Regional Station–West Alternative from KVP 22, under the Hanford West Bypass 1 and 2 alternatives. These alternatives, including the station platforms, would be at-grade in this segment. The view is from adjoining 13th Avenue, looking northeast from the Last Ditch Canal crossing at a distance of 0.2 mile. In both cases the proposed station and associated parking structures, though relatively prominent when seen at near-foreground distance from the road, would be moderate in scale when seen by motorists on 13th Avenue.

Although the station would represent a more urban element in the predominantly rural setting, attractive station design would enhance the setting's visual quality in comparison to the existing electrical substation and visually disordered agro-industrial business that currently dominate the site and vicinity. The view of the station by passing motorists would be softened by tree canopies and other landscaping. Consequently, vividness of the scene from such nearby public viewpoints could be enhanced in comparison to the equipment storage currently visible on the site. The introduction of the large structure and parking lots would lower intactness and unity, but to a minor degree in relation to the existing substation and equipment storage. Overall, the effect on visual quality would be neutral to beneficial. In this area of moderate viewer response of motorists on SR 43, this effect would be of negligible intensity under NEPA and a less-than-significant impact under CEQA.

The at-grade Hanford West Bypass 1 and 2 alternatives would require construction of an elevated railroad overcrossing of the San Joaquin Valley Railroad in order to span the HST alignment. This structure would be particularly prominent to the four nearest homes north of 13th Avenue, which would view it at distances of between 50 and 500 feet. Because the Hanford West Bypass 1 and 2 alternatives would be at-grade, they would require an extended elevated overcrossing of nearby SR 198. Consequently, an elevated on-ramp to 13th Road would be introduced within the neighborhood to access SR 198, resulting in the removal of three homes. From the remaining adjacent residences, these structures (railroad overcrossing, highway overcrossing, and highway off-ramp), without mitigation, would result in a strong decline in visual intactness and unity. In this area of strong viewer response from residents, this decrease in visual quality from moderate to low would have substantial intensity under NEPA and the impact would be significant under CEQA.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013.

Figure 3.16-53
Key viewpoint 21: Existing and simulated views of Kings Tulare Regional Station–West Alternative (below-grade) from 13th Avenue, looking southeast

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013.

Figure 3.16-54
Key viewpoint 22: Existing and simulated views of Kings Tulare Regional Station–West Alternative (at-grade) from 13th Avenue, looking northeast

Because the Hanford Bypass Modified alternatives would be below-grade, the aforementioned structures would not be needed. However, because the Modified alternative alignments would be located west of the Bypass 1 and 2 alternatives, the Modified alternatives would also require the removal of three homes. Because the Modified alternatives would be below-grade, however, impacts on the remaining adjacent residences would be moderate, and could be mitigated with landscape screening. Two historic properties, both farmhouses, were identified in the Hanford West Bypass alternatives segment and could experience adverse visual effects to the historic integrity of their settings. For an analysis and discussion of these potential effects, the reader should refer to the Cultural Resources section of this report.

Corcoran Elevated Alternative

For the Corcoran Elevated Alternative, the project would be elevated between roughly Niles Avenue to the north and 4th Avenue to the south of downtown Corcoran on the east side of the BNSF Railway. Starting and end points of the elevated segments would differ between this alternative and the BNSF Alternative, but the BNSF and Corcoran Elevated alternatives would closely parallel each other (on opposite sides of the existing BNSF right-of-way), so impacts would be similar to those of the BNSF Alternative. As with the BNSF Alternative, due to the scale and height of the elevated guideway, the effects of the guideway would strongly intrude into adjacent areas of downtown Corcoran within the foreground distance zone of up to 0.25 mile. The project would be prominent in sight lines down perpendicular streets within foreground distances, and sometimes would be visible above nearby rooftops to a high number of viewers. Views of the project would be essentially similar to that for the BNSF Alternative (KVP-9, Figure 3.16-41).

Strong adverse effects on existing visual intactness and unity would result from the introduction of this visually dominant feature of urban, industrial character into the small agricultural town setting. Due to its central location adjacent to the downtown center, the aerial structure would exert a strong influence on the image and character of the town, altering the prevailing scale and introducing a strongly urban, industrial character into the town center. Nearby residents, park users, and visitors to the town's main streets would experience declines in visual quality from moderately high to moderately low within a distance of roughly 0.25 mile. These effects would be exacerbated wherever sound barriers are required. In this area of moderately high to high viewer response of adjacent residents and visitors to the town's central business district, this strong decline in visual quality from the aerial structure would be an effect of substantial intensity under NEPA and a significant impact under CEQA.

Corcoran Bypass Alternative

The Corcoran Bypass Alternative would require road re-alignments, including an overcrossing of the Corcoran Highway, would require relocation of a number of rural residences, and would skirt several other rural residences at very close distance. The number of affected homes would be relatively small and would depend upon their location and viewing conditions. However, any residences in this area not relocated would experience a decline in visual intactness and unity as the urban, industrial HST tracks, OCS, and train would dominate the more natural rural/agricultural landscape. This would reduce visual quality from moderate to moderately low at distances up to approximately 0.25 mile. In this area of high viewer response of residents, this reduction in visual quality would have moderate intensity under NEPA and the impact would be significant under CEQA.

Allensworth Bypass Alternative

Figure 3.16-55(a) shows the existing view from KVP 23, and Figure 3.16-55(b) is a visual simulation of the HST on the Allensworth Bypass Alternative, as seen from KVP 23. This

viewpoint is from within Colonel Allensworth State Historic Park, looking west at a distance of about 1 mile, the distance from which users of the park would view this alternative. As depicted in this view, the HST would be visually subordinate to the existing landscape and therefore would not change the intactness, vividness, or unity of the view. As a result, the project would cause no decline in visual quality for viewers in the park; therefore, the effect of the Allensworth Bypass Alternative on visual quality would have negligible intensity under NEPA and the impact would be less than significant under CEQA.

Wasco-Shafter Bypass Alternative

The Wasco-Shafter Bypass Alternative would pass largely through sparsely populated agricultural lands and would be entirely at-grade. However, this alternative would impact the same rural residential settlement at 7th Standard Road as under the BNSF Alternative. The Wasco-Shafter Bypass Alternative would also require relocation of homes in this small settlement of rural residences, and construction of a 7th Standard Road overpass a short distance to the south. Some remaining, adjacent homes with high viewer response could experience strong declines in intactness, unity, and overall visual quality due to their very close proximity to the right-of-way, since some could directly adjoin it. This would represent an effect of substantial intensity under NEPA and a significant impact under CEQA.

Bakersfield South Alternative

With the Bakersfield South Alternative, visual impacts of the HST would be similar to those of the BNSF Alternative in the Greenacres/Rosedale and Kern River Landscape Units. However, as depicted in Figure 3.16-56, KVP 15a, the Bakersfield South viaduct over the Kern River would require steel railroad truss structures and large supporting concrete bents, one over 300 feet long, making the river crossing segment of the Bakersfield South alternative more prominent and less visually unified than under the BNSF alternative. This would result in a reduction of visual quality from an existing moderately high level to a moderately low level. In the context of high viewer sensitivity and response in the Kern River Parkway, this would be a significant adverse impact.

Within the Central Bakersfield Landscape Unit, for approximately 0.5 mile between Oak Street and Mercy Hospital and Bakersfield High School at A Street, the Bakersfield South Alternative would pass within 150 feet of residences on 16th Street to the north, adjoining them to the south across 16th Street. This section of the alignment would also require the relocation of various industrial and commercial uses on the south side of 16th Street. For these residential viewers on 16th Street, the contrasting scale and character of the elevated concrete guideway and support columns as well as the associated removal of existing businesses on the street, right-of-way clearing, and introduction of security fencing would result in a strong decline in the intactness and unity, with an overall decrease in visual quality of the existing residential setting from moderately high to moderately low. In this area of high viewer response typical of residential neighborhoods near the elevated alignment, this decrease in visual quality would have a substantial intensity under NEPA and it would be a significant impact under CEQA. In contrast to the BNSF Alternative, the Bakersfield South Alternative would not strongly affect residences south of California Avenue in this section, due to distance, intervening landscaping, and structures. The elevated guideways would be visible from Jastro Park at distances of under 600 feet at their nearest point, but the views of these guideways would be highly filtered by intervening foreground structures and tree canopies. The change in visual quality from within the park and limited viewer exposure would thus have negligible intensity under NEPA, and the impact would be less than significant under CEQA.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-55
Key viewpoint 23: Existing and simulated views of high-speed train on Allensworth Bypass Alternative, looking west from Colonel Allensworth State Historic Park

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2014.

Figure 3.16-56
Key viewpoint 15a: Existing view and simulated view of high-speed train on Bakersfield South Alternative from Kern River Parkway Bicycle Trail, looking north

Under the Bakersfield South Alternative, the project guideway would be approximately 440 feet farther north of Bakersfield High School than the BNSF Alternative. Although the guideway would remain visible from the school, it would be sufficiently distant to substantially recede in visual dominance, and it would remain partially screened by the intervening existing trees and structures, including the Industrial Arts Building north of 14th Street. Because of the reduced visual exposure due to screening and distance and the change to visual intactness and overall visual quality, intensity would be negligible under NEPA, and the impact would be less than significant under CEQA.

Figure 3.16-57(a) shows the existing view from KVP 24, and Figure 3.16-57(b) is a visual simulation from KVP 24 of the Bakersfield Station–South Alternative. This viewpoint is from S Street south of Truxtun Avenue, in front of the Amtrak station. As is the case for other HST stations, the Bakersfield Station–South has not yet been fully designed, and is thus shown in the simulation in conceptual form to depict the bulk, massing, and general visual scale only, with generic "functional" fenestration and facade treatment. The final, specific level of design would be developed in coordination with the City of Bakersfield. This station site would be 400 to 500 feet south of the BNSF Alternative station site. Consequently, the station would be less exposed to public viewpoints, including those from Truxtun Avenue. However, overall visual effects would be similar to those of the BNSF Alternative.

As illustrated by this simulation, the station as seen from the general Truxtun Avenue corridor would be compatible in scale with the surrounding, predominantly modern architecture in the central downtown area, and would enhance vividness. Extensive streetscape landscaping associated with the project would increase the vividness of the station architecture and surrounding setting. Overall, a high degree of consistency would be anticipated between the existing foreground of civic and commercial buildings and the proposed form, scale, and character of the station. Ongoing design coordination with the city would be continued to facilitate that goal.

As under the BNSF Alternative, the southern side of the proposed station site under the Bakersfield South Alternative is characterized by industrial land uses of low visual quality, and there are no sensitive viewer groups. The site of the proposed station and the associated guideways, parking structures, intermodal facilities, and access streets are not currently visible from any publicly accessible vantage points within the existing setting, and for that reason they have not been depicted in this analysis.

The proposed HST station under the Bakersfield South Alternative would not reduce the existing visual quality of the site. Therefore, considering moderately high viewer response in the vicinity, the project effect on visual quality would have negligible intensity under NEPA and the impact would be less than significant under CEQA.

Figure 3.16-58(a) is an existing view, and Figure 3.16-58(b) is a visual simulation of the Bakersfield South Alternative as seen from KVP 25. This viewpoint is on Owens Street at Dolores Street, looking south at a distance of approximately 600 feet from the Bakersfield South Alternative. As under the BNSF Alternative, the Bakersfield South Alternative would also require removal of a small number of residences on Butte Street, and would directly adjoin remaining residences in the small residential neighborhood east of Union Avenue, described above under the BNSF Alternative. The decline in visual quality due to the elevated guideways as seen by the adjacent, high-sensitivity residential viewers would have substantial intensity under NEPA and would be a significant impact under CEQA.

Figures 3.16-59 and 3.16-60 show existing views and visual simulations of KVPs 26 and 19a, respectively. These viewpoints depict the Bakersfield South Alternative as seen within the East California Avenue corridor. KVP 19a is adjacent to Dr. Martin Luther King Jr. Park, located on the southern side of East California Avenue.

a. Existing View

b. Conceptual Station Design (Functional Design Treatment)

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013; Newlands and Company, 2013.

Figure 3.16-57
Key viewpoint 24: Bakersfield Station–South Alternative from S Street

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-58
Key viewpoint 25: Existing view and simulated view of high-speed train from Owens Street at Dolores Street, looking south

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-59
Key viewpoint 26: Existing view and simulated view of high-speed train on Bakersfield South Alternative from Dr. Martin Luther King Jr. Park, looking northeast

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-60
Key viewpoint 19a: Existing view and simulated view of high-speed train on Bakersfield South Alternative from the vicinity of Dr. Martin Luther King Jr. Boulevard, looking west down E. California Avenue

With the Bakersfield South Alternative, the HST alignment would merge with California Avenue near Haley Street where it would occupy the E. California Avenue right-of-way until shortly past Mt. Vernon Avenue, approximately 1 mile to the east.

The Bakersfield South Alternative in this segment would require numerous, wide bent structures straddling much, or all, of the roadway, supported by columns on each side of the street. The columns would require relocation of numerous properties on both sides of the roadway. For residences near E. California Avenue that remain, the decline in visual quality would be severe. KVP 19a depicts the view, looking west on E. California Boulevard near Dr. Martin Luther King Jr. Boulevard. As depicted in the simulation, support columns would require removal of some existing residences but leave other, adjacent ones adjoining the massive new structures. The viaduct support bents would often extend over the entire roadway and the structure would create a 'tunnel' effect, dominating the E. California Avenue corridor, casting shadow over much of the corridor's north side, and resulting in a low level of intactness, unity, and overall visual quality between Haley Street and Webster Street, a distance of approximately 1.2 miles. For residents and other high-sensitivity viewer groups in the corridor, and also for moderate sensitivity viewer groups such as motorists, this would represent an effect of substantial intensity under NEPA and a significant impact under CEQA.

Bakersfield Hybrid Alternative

Under the Bakersfield Hybrid Alternative, visual impacts of the HST would be similar to those of the BNSF and Bakersfield South alternatives in the Greenacres/Rosedale Landscape Unit. However, as depicted in Figure 3.16-56, above, the Bakersfield Hybrid Alternative would have the same alignment and configuration as the Bakersfield South Alternative in the segment crossing the Kern River. As described under the Bakersfield South Alternative, above, the viaduct over the Kern River Bakersfield Hybrid Alternative would require steel railroad truss structures and large supporting concrete bents, one over 300 feet long, making the river crossing segment of the Bakersfield Hybrid Alternative more prominent and less visually unified than under the BNSF Alternative. This would result in a reduction of vividness, intactness, unity, and overall visual quality from existing moderately high levels to a moderately low level. In the context of high viewer sensitivity and response in the Kern River Parkway, this would represent an effect of substantial intensity under NEPA and a significant impact under CEQA.

Impacts would be essentially similar to those of the Bakersfield South Alternative in the Central Bakersfield Landscape Unit between the Kern River and the vicinity of Bakersfield High School.

As under the Bakersfield South Alternative, within the Central Bakersfield Landscape Unit for approximately 0.5 mile between Oak Street and Mercy Hospital and Bakersfield High School at A Street, the Bakersfield Hybrid Alternative would pass within 150 feet of residences on 16th Street to the north, adjoining them to the south across 16th Street. This section of the alignment would also require the relocation of various industrial and commercial uses on the south side of 16th Street. For the residential viewers on 16th Street, the contrasting scale and character of the elevated concrete guideway and support columns as well as the associated removal of existing businesses on the street, right-of-way clearing, and introduction of security fencing would result in a decline in the intactness, unity, and overall visual quality of the existing residential setting. In this area of high viewer response typical of residential neighborhoods near the elevated alignment, the decrease in visual quality would have substantial intensity under NEPA and the impact would be significant under CEQA. In contrast to the BNSF Alternative, the Bakersfield Hybrid Alternative would not strongly affect residences south of California Avenue in this section due to distance, intervening landscaping, and structures. As under the Bakersfield South Alternative, the elevated guideways would be visible from Jastro Park at distances of under 600 feet at their nearest point, but the views of these guideways would be highly filtered by

intervening foreground structures and tree canopies. The visual quality of the park would thus not be substantially affected.

Under the Bakersfield Hybrid Alternative, the project guideway would be between 300 and 360 feet farther north of Bakersfield High School than it would be under the BNSF Alternative, and its distance from the high school would be similar to the distance under the Bakersfield South Alternative, passing the high school between F and G streets to the north of the existing freight rail tracks. However, unlike the Bakersfield South Alternative, the Bakersfield Hybrid Alternative viaduct would require a steel truss support structure between F and G streets. Although the guideway and a small portion of the truss structure would be visible in northward views up F and G streets, they would be sufficiently distant to substantially recede in visual dominance as seen from within the campus, and would remain largely screened by the existing, intervening trees and buildings, including the Industrial Arts Building north of 14th Street. Because of the reduced viewer exposure due to screening and distance, the effective overall viewer response to the project would be moderate. The change to visual intactness and the overall visual quality at Bakersfield High School would also be reduced to a moderate level. Impacts at the high school would thus have negligible intensity under NEPA, and the impact would be less than significant under CEQA.

Figure 3.16-61(a) shows the existing view from KVP 28, and Figure 3.16-61(b) is a visual simulation from KVP 28 of the Bakersfield Station–Hybrid Alternative. This viewpoint is from Truxtun Avenue at V Street, looking south toward the proposed north station entrance and drop-off area. As is the case for other HST station alternatives, the proposed station with the Bakersfield Hybrid Alternative has not yet been fully designed, and is thus shown in the simulation in conceptual form to depict the bulk, massing, and general visual scale only, with generic "functional" fenestration and facade treatment. The final, specific level of design would be developed in coordination with the City of Bakersfield. This station site would be approximately 400 to 500 feet east of the BNSF Alternative station site. Visual exposure of the northern station entrance to viewers on Truxtun Avenue would be very similar to that of the BNSF Alternative station site. In general, overall visual effects of the Bakersfield Station–Hybrid Alternative on the central downtown area would be similar to those of the HST station under the BNSF and Bakersfield South alternatives, although the overall station footprint within the Truxtun Avenue corridor north of the BNSF right-of-way would be somewhat less than that of the HST station under the BNSF Alternative due to its position farther to the east.

As depicted in Figure 3.16-61(b), the proposed station and associated streetscape development would improve visual quality, enhancing vividness and visual unity. Considered with the moderately high viewer response, this would represent a beneficial effect under NEPA, and no impact under CEQA.

As illustrated by this simulation, the station as seen from the general Truxtun Avenue corridor would be compatible in scale with nearby, predominantly modern architecture in the central downtown area, and it would greatly enhance vividness. Extensive streetscape landscaping associated with the project would increase intactness and unity of the station's setting. Overall, a high degree of consistency is anticipated between the existing civic and commercial buildings of central downtown and the proposed form, scale, and character of the station. Ongoing design coordination with the city would be continued to facilitate that goal.

As under the BNSF and Bakersfield South alternatives, the southern side of the proposed station site under the Bakersfield Hybrid Alternative is characterized by industrial land uses of low visual quality, and there are no sensitive viewer groups. The site of the proposed station and the associated guideways, parking structures, intermodal facilities, and access streets are not currently visible from any publicly accessible vantage points within the existing setting, and for that reason have not been depicted in this analysis.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013; VBN Architects, 2013.

Figure 3.16-61
Key viewpoint 28: Bakersfield Station–Hybrid Alternative from Truxtun Avenue, looking south

Figure 3.16-62(a) is an existing view, and Figure 3.16-62(b) is a visual simulation of the Bakersfield Hybrid Alternative as seen from KVP 29. This viewpoint is from King Street at Dolores Street, looking north from the vicinity of Owens Middle School at a distance of approximately 675 feet from the Bakersfield Hybrid Alternative. Several residences on 18th Street in the background of this view would be removed. As under the BNSF and Bakersfield South alternatives, the Bakersfield Hybrid Alternative would directly adjoin a small number of remaining residences in the residential neighborhood east of Union Avenue, described above under the BNSF Alternative. The impact on visual quality of the elevated guideway on the remaining, high-sensitivity residential viewers directly adjoining the new right-of-way would have substantial intensity under NEPA and would be a significant impact under CEQA.

Heavy Maintenance Facility Site Alternatives

The HMF would be a large (approximately 150-acre) industrial facility. Figure 3.16-63 shows a conceptual HMF layout. Although large HMF site study areas have been identified, the exact location of the 150-acre facility within each of these large study areas has not yet been determined. For this reason, the determination of specific key viewpoints would be speculative. However, all HMFs would have the potential to reduce existing visual quality of the Rural Agricultural Landscape Unit within which all the alternative HMF facilities are located. This is because the large-scale industrial facilities would dominate the rural/agricultural setting they are located in, reducing the intactness and disrupting the unity of the existing landscape, and reducing visual quality by two or more levels. The principal viewers of the HMF from any of the alternative sites would be rural residents. While few in number, they are considered to have a high sensitivity to the quality of the landscape. Given the sensitivity of this viewer group and the decrease in visual quality caused by the HMF, the effect would have substantial intensity under NEPA and the visual impact would be significant under CEQA for all of the alternative HMF sites.

a. Existing View

b. Simulated View

Source: William Kanemoto & Associates, 2013.

Figure 3.16-62
Key viewpoint 29: Existing view and simulated view of Bakersfield Hybrid Alternative from Owens Middle School (King Street at Dolores Street), looking north

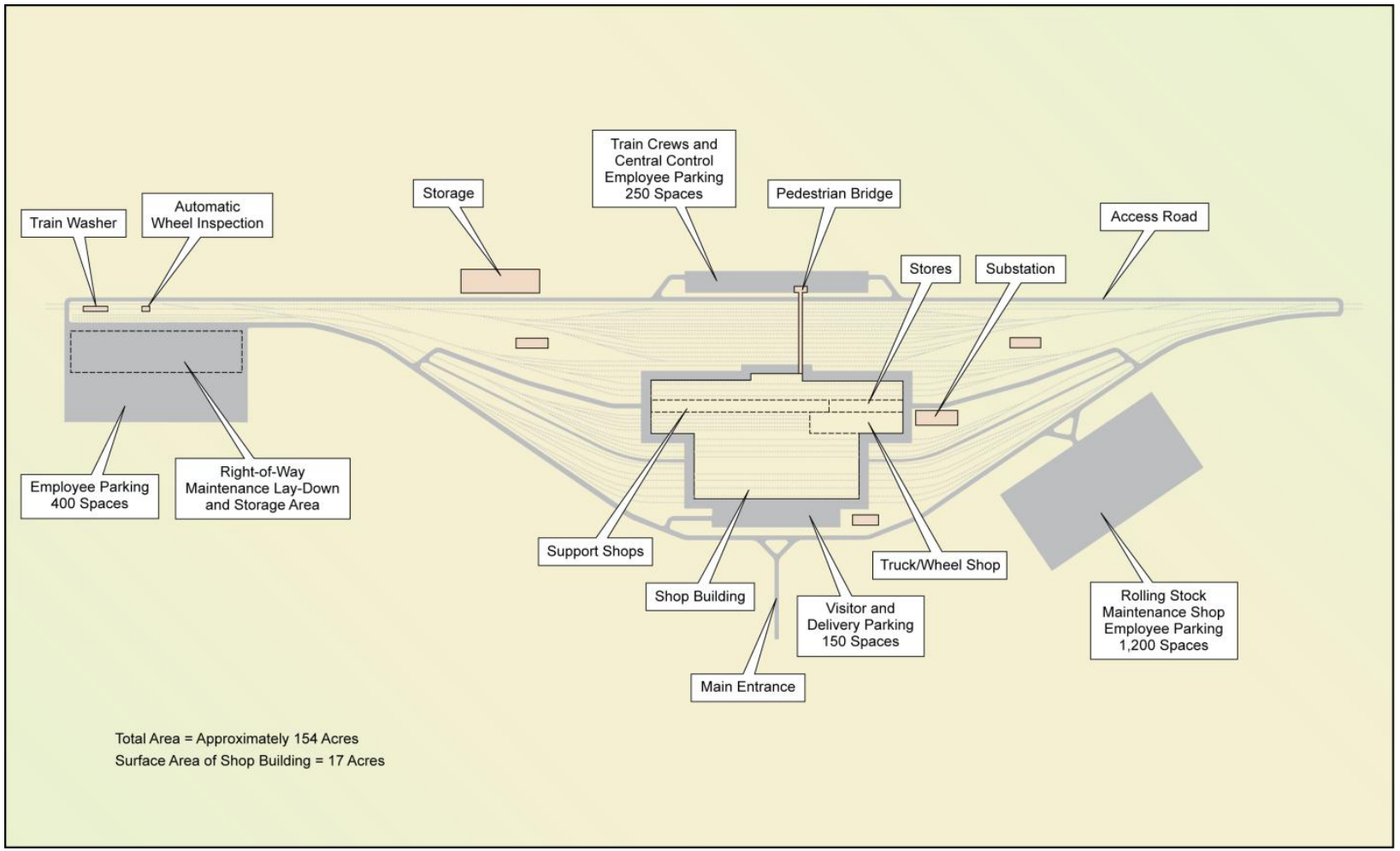


Figure 3.16-63
Conceptual HMF layout

Impact AVR #5–Visual Quality Effects to Schools

The following schools were identified within 0.25 mile of the proposed project alternatives. In general, schools (or other sensitive receptors) within this 0.25-mile near-foreground distance viewing zone could be impacted by the project. At distances greater than approximately 0.25 mile, even major project structures would be likely to cause little change to visual quality and have little visual impact. Within the 0.25-mile zone, potential impacts would be highly dependent on site-specific factors, which are discussed below. School viewers are not presumed to have universally high viewer sensitivity. For example, students engaged in outdoor sports are assumed to be focused on the sports activity and not primarily concerned with scenic quality.

Columbia Elementary School, Fresno

This school is located approximately 0.16 mile from the BNSF Alternative at its nearest point. The project would be minimally visible from the school up the northeastward facing view corridors of Calaveras and San Joaquin streets but would be largely screened by existing landscaping along SR 99. Because the project would be at-grade in Fresno, visibility of the HST from this location would be limited. Therefore, the project would not change the vividness, intactness or unity of the view from the school. With little or no viewer exposure, viewer response would be low. Because the project would have low viewer response and would not change visual quality for the school, the visual impact of the project would have negligible intensity under NEPA and the impact would be less than significant under CEQA.

Pacific Union Elementary School, Bowles

This school is located 0.19 mile from the BNSF Alternative. The HST is at-grade in this section, and the alignment is located beyond (east of) the existing BNSF freight rail track, which would partially screen the HST. The principal visual project features in this view would be the OCS poles and trains themselves. At this distance the OCS system would be inconspicuous, and the trains visible but visually subordinate to other existing features in the view, such as homes and landscaping in the visual foreground. As a result the project would not alter the vividness, intactness, or unity of the existing view from the school. Because project visibility would be minimal, viewer exposure and response would be low. Because the project would have low viewer response and would not change visual quality, there would be no visual impact to the school under NEPA or CEQA.

Monroe Elementary School, Unincorporated Fresno County

This school is located about 0.24 mile from the BNSF Alternative at its nearest point. The HST is at-grade in this section, and is entirely screened from the school by an intervening industrial facility or adjacent residential neighborhood. Therefore, the project would have no visual impact to the school under NEPA or CEQA.

John Muir Middle School, Corcoran

This school is located 0.25 mile from the BNSF Alternative where the HST is on an elevated guideway. However, viewer exposure from the campus is very limited due to intervening homes and landscaping of the adjacent residential neighborhood to the east. Therefore, the project would have no visual impact to the school under NEPA or CEQA.

Frontier Elementary, Kings County

Frontier Elementary School lies over 0.25 mile from the alignment and would thus not be adversely affected by the HST. It lies approximately 0.25 mile from a W. Grangeville Boulevard overcrossing that would be constructed over the HST right-of-way. However, the major part of

that overcrossing is located over 0.25 mile from the school. At this distance, the overcrossing would be visually inconspicuous and little noticed by viewers at the school. Decline in visual quality would thus be negligible. Considered together with moderate anticipated viewer response, the project would have no visual impact to the school under NEPA or CEQA.

Sierra Pacific High School, Kings County

Sierra Pacific High School directly adjoins College of the Sequoias to its north and is located 0.08 mile east of the Hanford West Bypass 1 and Bypass 2 alternatives. The campus would be entirely screened from the HST right-of-way by intervening orchards to the west. Therefore, the project would have no visual impact to the school under NEPA or CEQA.

College of the Sequoias, Kings County

In the vicinity of 13th Avenue and West Lacey Boulevard in the unincorporated rural area east of Hanford and west of Armona, the Hanford West Bypass 1 and 2 alternatives would be adjacent to portions of the College of the Sequoias campus. Two HST station designs are under consideration in this segment: an at-grade design (Hanford West Bypass 1 and 2 alternatives) and a below-grade design (Hanford West Bypass 1 and 2 Modified alternatives). For the at-grade design,13th Avenue in the vicinity of the college would retain its existing alignment, and construction of undercrossings of 13th Avenue and Lacey Boulevard would then intersect below-grade.

Viewer groups at the College of the Sequoias include students and faculty. Students and faculty in general typically have moderate expectations about scenic quality of their environment even though in outdoor settings they are often focused on sports or other active recreational activities and not upon scenery or scenic quality. Viewers at the college are assumed to have moderately high viewer sensitivity because of the time students and faculty spend on campus. The HST alignment itself would completely be screened along most of the school's 13th Avenue frontage by existing orchards. Under the at-grade station, the project-related introduction of road undercrossings would alter the existing scene and introduce structures with a more urban character, including an at-grade HST bridge and undercrossing roadways and retaining walls. The effects of these common urban features on visual character and quality would appear largely in keeping with the urban character of the school and nearby suburban development within the Hanford city limits immediately to the east. These features would contribute, together with the berm and OCS of the at-grade HST, to a decline in intactness and unity as seen at close distance from the southernmost outdoor portions of the campus, including an outdoor amphitheater area used for public gatherings. An adjacent farmstead and associated existing landscaping would be removed. Even so, most of the campus would have low exposure to the alignment and experience moderate or little effect from it. However, with removal of the farmstead, the amphitheater and other adjacent outdoor use areas would have open views of the alignment at distances of under 500 feet and experience a moderate to strong decline in intactness and unity that would reduce visual quality by two levels. In this area of moderately high viewer sensitivity, this decline in visual quality would have substantial intensity under NEPA and the impact would be significant under CEQA.

For the below-grade station design (Hanford West Bypass 1 and 2 Modified alternatives), 13th Avenue would require an eastward realignment in the vicinity of the college, but remain at-grade, as would Lacey Boulevard. Both roads would require new at-grade roadway bridges to span the opening above the HST alignment, but these would be little noticed by motorists after construction. The below-grade alignment would not be prominently evident from within the college campus; chain link fencing at the right-of-way would be the primary visible aboveground feature. The below-grade alignment, including below-grade tracks, OCS, and trains, would be visible primarily to motorists from 13th Avenue and Lacey Boulevard.

There would be little change in visual quality or of campus views, and therefore the visual effects of the below-grade station would have negligible intensity under NEPA, and the impact would be less than significant under CEQA.

Parkview Middle School, Kings County

Parkview Middle School lies over 1 mile from the alignment and would thus not be affected by the HST. It lies approximately 0.25 mile from the nearest portion of an elevated San Joaquin Valley Railroad structure that could be constructed over the HST right-of-way under the Hanford West Bypass 1 and 2 alternatives, at-grade design. However, the major part of that structure would be well over 0.25 mile from the school. At this distance, the overcrossing would be highly filtered by intervening foreground development, and would be visually inconspicuous and little noticed by viewers at the school. Decline in visual quality would be negligible. Together with moderate anticipated viewer response, the project would have no visual impact to the school under NEPA or CEQA.

Bethany Christian, Wasco

Bethany Christian School is in downtown Wasco on the town's main street, 7th Street, just under 0.25 mile from an elevated segment of the BNSF Alternative. Although exposed to an elevated segment of the HST, the school is near the limit of the area of downtown likely to be strongly affected by the HST. This is because the only views from the school to the HST, eastward down 7th Street, are highly filtered by the streetfronts of other downtown buildings, and the canopies of street trees down the length of 7th Street. Viewer response in downtown Wasco in general is considered high due to the concentration of viewers and concern for the visual quality of the downtown. However, intensity of visual change at the school would be negligible due to distance and intervening screening. Visual effects of the HST would thus have negligible intensity under NEPA, and the impact would be less than significant under CEQA.

Richland Junior High School, Shafter

This school is located 0.19 mile from the BNSF Alternative. The elevated guideway of the HST would be visible from the northeastern corner of the school grounds. The BNSF Alternative guideway in this section is approximately 65 feet high. However, the exposed area with potential views is very limited, consisting of a small parking lot and portions of the school entrance. Views from primary outdoor use areas would be blocked by intervening structures. Because viewer exposure is low from this site and viewer sensitivity moderate, viewer response would be moderately low. For that reason, and because the project would not change the vividness, intactness, or unity of views from the school, the effect of the project would have negligible intensity under NEPA, and the impact would be less than significant under CEQA.

Freewill Christian Academy, Shafter

Although located under 0.25 mile from the HST alternatives in Shafter, the Freewill Christian Academy is in an area northeast of the right-of-way in which views of the alignments would be seen behind a visual foreground of industrial land uses and vacant lots with low visual quality. Viewer response in this area is considered less acute than in the downtown area, and moderate at this site due to lower expectations of viewers in the context of the prevailing industrial character of adjacent foreground land uses. The HST guideways would result in a moderate decline in visual intactness, unity, and overall visual quality. Together with moderate viewer response, the intensity would be moderate under NEPA, and the impact would be less than significant under CEQA.

Warriors for Christ Academy, Rosedale

The Warriors for Christ Academy is in a residential neighborhood directly adjoining the Bakersfield South and Bakersfield Hybrid alternatives and could potentially require acquisition/relocation under those alternatives. It is less than 400 feet from the BNSF Alternative. All alternatives in this segment would be elevated. Because of the residential character of the neighborhood, viewer sensitivity and overall viewer response is high. The decline in visual quality as a result of the prominent presence of the elevated HST guideways in such close proximity would be strong, as described elsewhere in this study for these neighborhoods in Rosedale. The decline in visual quality and high viewer response would result in substantial intensity under NEPA, and would be a significant impact under CEQA.

Franklin Elementary, Bakersfield

This school is located approximately 0.1 mile north of the Bakersfield South and Bakersfield Hybrid alternatives and 0.19 mile north of the BNSF Alternative. The HST guideways would be approximately 60 feet above-grade in this section. However, views of the three alignment alternatives from within the school grounds would be almost entirely screened by intervening buildings and landscaping. Therefore, the project would have no visual impact to this school under NEPA and CEQA.

Bakersfield High School, Bakersfield

The HST would be visible from Bakersfield High School from the BNSF, Bakersfield South, and Bakersfield Hybrid alternatives. As discussed above, the BNSF Alternative would introduce a highly dominant structure of incompatible industrial character to the Bakersfield High School campus and cause a decrease in visual quality that, together with high viewer response, would have substantial intensity under NEPA, and would be a significant impact under CEQA. Under the Bakersfield South and Bakersfield Hybrid alternatives, the HST guideway would be approximately 300 to 400 feet farther north of Bakersfield High School than under the BNSF Alternative. Although the guideway would remain visible, it would be sufficiently distant to substantially recede in visual dominance, and it would remain partially screened by existing intervening trees and structures, including the Industrial Arts Building north of 14th Street and adjacent street trees. Because of the reduced viewer exposure and visual change due to screening and distance, changes to visual intactness and overall visual quality from the project would have negligible intensity under NEPA, and the impact would be less than significant under CEQA.

Our Lady of Guadalupe School, Bakersfield

This school is on the southern side of E. California Boulevard, approximately 0.11 mile south of the Bakersfield South Alternative and 0.23 mile south of the BNSF Alternative. The HST guideways would be approximately 40 feet above-grade in this section. Intervening buildings and landscape would block views of the BNSF Alternative from the school; therefore, this alternative would have no visual impact on the school. The Bakersfield South Alternative would be visible from the school. The school is two blocks to the west of Dr. Martin Luther King Jr. Park. Views of the Bakersfield South Alternative would thus be essentially similar to the view depicted in Figure 3.16-61, simulating views from Dr. Martin Luther King Jr. Park from the south side of E. California Boulevard in the same section. As illustrated in Figure 3.16-61, the guideway would have moderate to strong adverse effects on intactness and unity, reducing visual quality by one to two levels. In this area of moderate to moderately high viewer response of viewers in and around the school, this reduction in visual quality would have substantial intensity under NEPA and would be a significant impact under CEQA.

Owens Middle School, Bakersfield

Owens Middle School is 0.05 mile south of the BNSF Alternative, 0.13 mile south of the Bakersfield Hybrid Alternative, and 0.16 mile north of the Bakersfield South Alternative. The BNSF Alternative would pass directly over a portion of the parking lot at the school's northwest corner at Eureka and King streets. It would require the removal of residences currently facing the school, replacing them with cleared right-of-way and fencing. The elevated guideway in this section would directly adjoin the parking lot, introducing a highly prominent structure of incompatible industrial character that would be strongly dominant from sidewalks, parking lot, and some classrooms and offices of the school and immediate vicinity. The concrete columns and elevated structure of the HST would disrupt the unity of the current landscape, disrupting the intactness of views. These effects would result in a decline in visual quality of the campus and residential vicinity, from moderate to low quality. In this area of moderate viewer sensitivity and response at this site, this reduction in visual character and quality would have substantial intensity under NEPA and the impact would be significant impact under CEQA. Because the guideway would be located north of the school campus, shadow impacts are not anticipated.

Outdoor play areas in the southernmost portion of the schoolyard would be less than 300 feet from the proposed right-of-way of the Bakersfield South Alternative. The guideways, which would be approximately 40 feet above grade in this section, would be a strongly dominant visual feature as viewed from throughout the outdoor play areas. They would represent a substantial change in visual character, reducing the unity of the view and disrupting its vividness and intactness. This would reduce visual quality from moderate to low. In the context of moderate viewer concern of students engaged in sports and other active outdoor recreation, this reduction in visual quality would have substantial intensity under NEPA, and the impact would be significant under CEQA.

Figure 3.16-62(a) is an existing view, and Figure 3.16-62(b) is a visual simulation of the Bakersfield Hybrid Alternative as seen from KVP 29. This viewpoint is on King Street at Dolores Street, looking north from the vicinity of Owens Middle School at a distance of approximately 675 feet. Several residences on 18th Street in the background of this view would be removed.

As depicted in the simulation from KVP 29, views of the Bakersfield Hybrid Alternative from Owens Middle School and other nearby viewpoints on or west of King Street are partially filtered by existing tree canopies. East of King Street, the Bakersfield Hybrid Alternative would leave the residential neighborhood and enter an area of light industrial use to the north of Truxtun Avenue, paralleling the existing UPRR railroad tracks. In contrast to the BNSF Alternative, which would directly affect the school grounds as discussed previously above, impacts from the Bakersfield Hybrid Alternative would be mitigated by visual screening from existing tree canopies in the vicinity and by the orientation of the alignment away from the school as it continues eastward, as depicted in the simulation of KVP 30. Viewer exposure would be moderately low, and the intactness and unity of the existing view would be largely preserved. Therefore, the visual quality for students at the school would change from moderate to moderately low. This decrease in visual quality and moderately low viewer response would have moderate intensity under NEPA, and the impact would be less than significant under CEQA.

Bethel Christian School, Bakersfield

Bethel Christian School would be located approximately 300 feet south of the BNSF and Bakersfield Hybrid alternatives at its nearest point. The guideway in this section would be approximately 50 feet above grade and appear prominent at this distance. However, views from the school playgrounds would be very limited by intervening structures and landscaping. The HST guideway would have similar visual character to the transportation and commercial facilities viewed from the school. Therefore, the project would not disrupt the unity of the existing views

and have a small effect on the intactness and vividness of the landscape. This would reduce visual quality from moderately low to low. Because viewer exposure would be moderate, this reduction in visual quality would have moderate intensity under NEPA, and the impact would be less than significant under CEQA.

The Bakersfield South Alternative would require the displacement of the Bethel Christian School. Therefore, this alternative would not have a visual impact on the school.

Ramon Garza Elementary School/Sierra Middle School, Bakersfield

Ramon Garza Elementary and Sierra Middle schools are adjacent to each other in east Bakersfield about 0.15 mile north of the point where the BNSF, Bakersfield South, and Bakersfield Hybrid alternatives merge together. The elevated HST guideway would be visible from the school playfields, primarily behind a visual foreground of nearby single-story residences which would filter, but not completely block, views of the guideway. At this distance the guideway would be prominent, remaining visible above the rooftops of intervening residences. They would introduce an industrial structure of somewhat incompatible character, although they would not pass through the center of the neighborhood, with the high viewer exposure that implies, and would be seen within the backdrop of an existing setting of low existing visual intactness and vividness and moderately low unity. Introduction of the guideway would further lower visual unity. This would reduce visual quality from moderately low to low. Viewers engaged in active recreation are typically considered to be focused on their sports activities and not primarily concerned with scenic quality. Viewer sensitivity and response within the school playfields is thus considered moderate. The reduction in visual quality of one level—as well as moderate viewer response—would have moderate intensity under NEPA, and the impact would be less than significant under CEQA. The guideways under this alternative are at sufficient distance from the schoolyard that substantial shadow impacts would not be anticipated.

3.16.6 Project Design Features

The Authority has adopted design standards and design guidelines that are established to create a minimum aesthetic quality for a long-lasting infrastructure. Many of these elements are described in Table 3.16-2 in Section 3.16.5.3, High-Speed Train Alternatives. In addition to the features described in Table 3.16-2, the Authority's *Urban Design Guidelines for the California High Speed Train Project* (Authority 2011b) briefly discusses the principles of context-sensitive solutions to guide the design of stations. This approach is equally applicable to elevated guideways and will be employed to mitigate visual impacts through context-sensitive design. A sound aesthetic design should take into account the interests of the local community. *Aesthetic Guidelines for Non-Station Structures* (TM 200-06) (Authority 2011a), which provides procedures for the Authority's coordination with local communities in the aesthetic design of project facilities, will also guide the design of the HST components. These standards and guidelines work to minimize and avoid aesthetic effects on the adjacent surroundings, where possible. TM 200-06 is consistent with the context-sensitive design approach of Caltrans, outlined in Caltrans Director's Policy DP-22 (Caltrans 2011).

3.16.7 Mitigation Measures

The project will include avoidance and minimization measures consistent with the Statewide and Bay Area to Central Valley Program EIR/EIS commitments, as described in Section 3.16.1, Introduction. Along with a number of more specific design guidelines and solutions, the EIR/EIS commits to a general mitigation strategy that the proposed facilities be designed so that they are attractive and so that they integrate into their settings, reduce potential view blockage and blight, and minimize light/shadow impacts and other potential visual impacts. The time it will take to establish these mitigation measures and the effort it will require to maintain them are two

criteria that will be considered in selecting the site-specific mitigation measures. For example, mitigation will be achieved more quickly when fast-growing species of vegetation are selected and irrigation is applied; mitigation will be maintained longer when durability and ease of cleaning are factored into the construction materials. The selection of native vegetation and use of surface coatings that are resistant to weather and graffiti are specific examples of addressing performance standards. Some visual impact mitigation measures are already addressed under park and recreational resources in Section 3.15; therefore, those measures are already assumed and are not repeated.

As part of final design and the construction management plan, the Authority will work with local jurisdictions to develop appropriate visual/aesthetic treatments. These treatments will need to reflect reasonable costs and meet engineering design parameters. Appropriate treatments will vary by location, but will be compatible with the context of areas adjacent to them. Treatments may include some or all of the following:

- Fencing or screening.
- Vegetation around guideway structures, columns, and other project components, such as HMFs and traction power distribution stations.
- Colors, patterns, and textures on guideway structures, columns, and noise barriers.
- Pavement treatments at stations.

The following mitigation measures will further lessen the impacts on the aesthetics and visual resources that have been identified above.

3.16.7.1 Construction Period

The construction mitigation measures listed below for aesthetics and visual resources are consistent with mitigation measures for similar scale transportation projects, and have proven to be effective in minimizing impacts noted above.

VR-MM#1a Minimize Visual Disruption from Construction Activities

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.

AVR-MM#1b: Minimize Light Disturbance during Construction

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.

3.16.7.2 Project

Mitigation measures for operational impacts on aesthetics and visual resources are consistent with those approaches discussed in Chapter 7 of the FHWA (1988) visual impacts guidance manual. That manual discusses various landscapes and elements of the built and natural environments associated with similar scale transportation projects. The manual indicates (page 101) that highway agencies must coordinate environmental assessment activities with subsequent design, construction, and maintenance phases of the project to ensure the full realization of any mitigation actions. The mitigation measures have proven to be effective in minimizing the impacts noted above.

AVR-MM#2a: Incorporate Design Criteria for Elevated and Station Elements That Can Adapt to Local Context

During final design of the elevated guideways and the Fresno, Kings/Tulare Regional, and Bakersfield stations, 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 HST 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 HST 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 HST project's obligations and constraints related to planning, mitigation, engineering, performance, funding, and operational requirements will be taken into consideration.

AVR-MM#2b: Integrate Elevated Guideway into Affected Cities, Parks, Trail, and Urban Core Designs

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 PK-MM#3 will be implemented.

AVR-MM#2c: Screen At-Grade and Elevated Guideways Adjacent to Residential Areas

Consistent with the design features developed under AVR-MM#2a, the Authority will plant trees along the edges of the rights-of-way in locations adjacent to residential areas. This will help reduce the visual contrast between the elevated guideway and the residential area. The species of trees to be installed will be selected on the basis of their mature size and shape, growth rate, hardiness, and drought tolerance. No species that is listed on the Invasive Species Council of California's list of invasive species will be planted. The crowns of trees used should ultimately be tall enough so that upon maturity they will partially, or fully, block or screen views of the elevated guideway from adjacent at-grade areas. Trees should allow ground-level views under the crowns (with pruning if necessary) while not interfering with the 15-foot clearance requirement for the guideway. The trees will be continuously maintained and appropriate irrigation systems will be installed within the tree planting areas.

AVR-MM#2d: Replant Unused Portions of Lands Acquired for the HST

After construction is complete, the Authority will plant vegetation within lands acquired for the project (e.g., shifting roadways) that are not used for the HST or related supporting infrastructure. Plantings will allow adequate space between the vegetation and the HST alignment and catenary lines. All street trees and other visually important vegetation removed in these areas during construction will be replaced with similar vegetation that, upon maturity, will be similar in size and character to the removed vegetation. The Authority will ensure that vegetation will be continuously maintained and appropriate irrigation systems will be installed

within the planting areas. No species that is listed on the Invasive Species Council of California's list of invasive species will be planted.

AVR-MM#2e: Provide Offsite Landscape Screening Where Appropriate

Where onsite landscape screening measures as described under AVR-MM#2d cannot provide effective screening to significantly affected high-sensitivity receptors such as nearby rural residential areas, provide offsite screening, as appropriate, if desired by affected residential owners.

AVR-MM#2f: Landscape Treatments along the HST Project Overcrossings and Retained Fill Elements of the HST

Upon the completion of construction, the Authority will plant the surface of the ground supporting the overpasses (slope-fill overpasses) and retained fill elements with vegetation consistent with the surrounding landscape in terms of vegetative type, color, texture, and form. During final design, the Authority will consult with the affected cities and counties regarding the landscaping program for planting the slopes of the overcrossings and retained fill. Plant species will be selected on the basis of their mature size and shape, growth rate, and drought tolerance. No species that is listed on the Invasive Species Council of California's list of invasive species will be planted. The landscaping will be continuously maintained and appropriate irrigation systems will be installed if needed. Where wall structures supporting the overpasses or retained fill are proposed, the structure will 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 will 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 will be painted over or repaired within a reasonable time after notification.

AVR-MM#2g: Provide Sound Barrier Treatments

The Authority 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). 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. Vegetation will be installed consistent with the provisions of AVR-MM#2f. 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.

AVR-MM#2h: Screen Traction Power Distribution Stations, HMF, and Radio Communication Towers

Upon completion of station or HMF construction, the Authority will screen the traction power substations (located at approximately 30-mile intervals along any of the HST alternatives), including radio towers where required, and HMF from public view through the use of landscaping or solid walls/fences. This will consist of context-appropriate landscaping of a type and scale that does not draw attention to the station. Plant species will be selected on the basis of their mature size and shape, growth rate, hardiness, and drought tolerance. No species that is listed on the Invasive Species Council of California's list of invasive species will be planted. The landscaping will be continuously maintained and appropriate irrigation systems will be installed within the landscaped areas. Walls will be constructed of cinder-block or similar material and will be painted a neutral color to blend in with the surrounding context. If a chain-link or cyclone fence is used, it will include slats in the fencing. Any graffiti or visual defacement or damage of fencing and walls will be painted over or repaired within a reasonable period as agreed between the Authority and local jurisdiction.

Figure 3.16-64 shows a power substation in an urban environment that is partially screened by landscaping and fencing.

None of the mitigation measure options are 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 designed in coordination with local jurisdictions.

Figure 3.16-64
Example of power substation in urban setting, with landscape screening and fence

3.16.8 NEPA Impacts Summary

The No Project Alternative would include changes unrelated to the project, including new or improved roadways and future residential or commercial development, which could also affect aesthetics and visual resources. These foreseeable future developments are discussed further in Section 3.18, Regional Growth. Widening transportation corridors does not necessarily degrade a corridor's visual quality, but the indirect effects of opening adjacent lands to freeway-oriented commercial development, to the extent permitted by local agencies, and increasing the number of billboard-type signage could include 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 decline in visual quality. Collectively, these changes result in an impact of potentially high intensity in areas of generally moderate visual quality, but in areas in which high-sensitivity viewers would be present. Therefore, in the context of the affected landscape units, the incremental changes would be significant under NEPA.

All HST alternatives would have temporary impacts related to new sources of light and glare during construction. These impacts are of negligible intensity, and because their context would be localized, temporary, and, with appropriate mitigation, minimally affected, they are therefore not significant under NEPA.

The evaluation takes into account the intensity of particular project effects in the context of the landscape units in which they take place. The project effects on a landscape unit are the result of introducing permanent infrastructure, particularly the portions with elevated structures, which (because of their size) can be seen from many view corridors, thus affecting the local context. The HST alternatives would have adverse effects on visual quality in some areas, either by blocking views or by visual intrusion of the HST, guideways, associated road crossings, and other project structures that would be out of character or scale with the surroundings. These proximity impacts would be most likely where project components would be near historic resources or residential areas with high-sensitivity viewers. In those contexts, the resulting lowered visual quality would be of substantial intensity under NEPA. Under the BNSF Alternative, impacts on the existing visual quality of the cities of Corcoran, Wasco, Shafter, and Bakersfield, for Allensworth State Historic Park, and for nearby rural residents throughout the agricultural valley segments of the project would be long-term and of substantial intensity. In each case, substantial long-term declines in visual quality affecting sensitive viewer groups and/or visual or historic resources would be anticipated under this alternative. Impacts on the city of Fresno under the BNSF Alternative would be mitigated to negligible levels of intensity. Impacts on Corcoran, Wasco, Shafter, Bakersfield, and Allensworth State Historic Park under this alternative would not be mitigated to negligible levels of intensity because of the close proximity of sensitive viewers to the HST. Thus, the BNSF Alternative would result in long-term visual effects with substantial intensity in various locations. In the context of the prevailing character of the landscape units in which they are located, these effects were found to be a significant impact under NEPA.

Visual impacts on the towns of Corcoran, Wasco, Shafter, and Allensworth Historic Park resulting from the BNSF Alternative, and visual impacts on Corcoran from the Corcoran Elevated Alternative, would be avoided by the Corcoran Bypass, Wasco-Shafter Bypass, and Allensworth Bypass alternatives, respectively. Impacts on adjacent rural residences could be reduced by mitigation measures described in Section 3.16.8, but could remain of substantial intensity in some instances where rural residents are within hundreds of feet of the HST. In the context of the rural, agricultural landscape unit in which these impacts would occur, the Corcoran Bypass and Wasco-Shafter Bypass alternatives could remain significant under NEPA. Because there would be few sensitive viewers affected by the Allensworth Bypass alternative, the visual effect of that alternative would not be significant under NEPA in the context of the prevailing character of the landscape unit.

At the stations, all alternatives have the ability to improve the visual quality in the Fresno and Bakersfield downtown urban centers, and therefore have a beneficial effect of substantial intensity. These urban centers are also areas of high viewer sensitivity and response, and the change would be long in duration and may result in contributing to other aesthetic improvements by being a catalyst for new development. Together, in the context of their high-profile urban locations, the result is a significant beneficial effect under NEPA.

3.16.9 CEQA Significance Conclusions

The following is a summary of CEQA impacts by Appendix G criteria:

- The project would have a substantial adverse impact on a scenic vista.

- One scenic vista was identified in the study area, views from the Kern River Parkway in Bakersfield. Because the project would cause a strong decline in visual quality as seen by viewers with moderately high viewer response in this location, this impact would be a significant effect on a scenic vista.

- The project would substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historical buildings within a state designated scenic highway viewshed.

- No state designated scenic highways were identified within the study area. Thus, there are no significant impacts under this criterion.

- The project would substantially degrade the existing visual character or quality of the site and its surroundings. (See "CEQA Significance Criteria" paragraph in Section 3.16.3.2, above, for additional discussion regarding determination of degree of impact under CEQA.)

- As described in Section 13.6.3.2, under the FHWA methodology applied in this study, the project would substantially degrade the existing visual character or quality of the site and its surroundings if it would cause a decline in visual quality of two levels in the context of moderate or greater viewer response; or if it would cause a decline in visual quality of one level in the context of high viewer response. This would occur under the following alternatives:

  - BNSF Alternative
  - Corcoran Elevated Alternative
  - Corcoran Bypass Alternative
  - Bakersfield South Alternative
  - Bakersfield Hybrid Alternative

- 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 here to be significant.

- The project would create a new source of substantial light or glare, which would adversely affect day or nighttime area views.

The project could create substantial new sources of temporary and long-term operational night lighting impacts as seen by residents and other high-sensitivity viewers, representing a significant impact. However, with Mitigation Measure AVR-MM#1b these impacts would be reduced to less than significant levels.

Specific mitigation measures would address the identified impacts on aesthetics and scenic resources. Table 3.16-5 lists impacts by alternative and landscape unit, and identifies appropriate mitigation measures and the impact's level of significance after mitigation. Conclusions apply to all applicable alternatives unless otherwise specified.

Significant impacts under CEQA would apply under the same alternatives where substantial impacts are identified in the NEPA Impacts Summary above (Section 3.16.8). Where significant impacts cannot be avoided, mitigation measures would be applied to reduce impacts. However, where the degree of effectiveness of such measures is dependent on site- or design-specific factors that are not yet known, the residual impact after mitigation, provided in Table 3.16-5, is assumed to be significant.

Site-specific impacts are only listed in the table if significant impacts before mitigation are anticipated.

Table 3.16-5
Summary of Significant Aesthetics and Visual Resources Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
Construction			
AVR#2: Construction Impacts of Existing Visual Quality. Construction activities would cause visual impacts.			
All Alternatives	Significant	AVR-MM#1a	Less than significant
AVR#3: Nighttime Lighting during construction. Intrusive nighttime lighting could result in adverse impacts in both rural and urban areas.			
All Alternatives	Significant	AVR-MM#1b	Less than significant
Project			
AVR#4: Lower visual quality in the Rural Valley/Agricultural Landscape Unit. Impacts on the existing visual character and quality of the site and its surroundings, as seen by nearby rural residents due to at-grade and elevated structures, HSTs, road overcrossings, or other prominent project features.			
BNSF Alternative	Significant (Rural residents)	AVR-MM#2a AVR-MM#2b AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f AVR-MM#2g AVR-MM#2h	Significant (Rural residents)
Hanford West Bypass 1, Bypass 1 Modified, Bypass 2, and Bypass 2 Modified Alternatives	Significant (Rural residents, College of Sequoias)	AVR-MM#2a AVR-MM#2b AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f AVR-MM#2g AVR-MM#2h	Significant (Rural residents) Less than significant (College of Sequoias)

Table 3.16-5
Summary of Significant Aesthetics and Visual Resources Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
Corcoran Bypass Alternative	Significant	AVR-MM#2a AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f AVR-MM#2g AVR-MM#2h	Significant
Wasco-Shafter Bypass Alternative	Significant	AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f AVR-MM#2g AVR-MM#2h	Significant
AVR#4: Lower visual quality in Corcoran, Wasco, Shafter, and Allensworth State Historic Park Landscape Units. Impacts on the existing visual character and quality of the site and its surroundings due to at-grade and elevated structures, HSTs, road overcrossings, or other prominent project features.			
BNSF Alternative	Significant	AVR-MM#2a AVR-MM#2b AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f AVR-MM#2g	Significant
Corcoran Elevated Alternative	Significant	AVR-MM#2a AVR-MM#2b AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f AVR-MM#2g	Significant
AVR#4: Lower visual quality in the Rosedale, Kern River, Central Bakersfield, and/or East Bakersfield Landscape Units. Impacts on the existing visual character and quality of the site and its surroundings in Bakersfield due to elevated guideways and sound barriers.			

Table 3.16-5
Summary of Significant Aesthetics and Visual Resources Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
BNSF Alternative	Significant	AVR-MM#2a AVR-MM#2b AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f AVR-MM#2g	Significant
Bakersfield South Alternative	Significant	AVR-MM#2a AVR-MM#2b AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f AVR-MM#2g	Significant
Bakersfield Hybrid Alternative	Significant	AVR-MM#2a AVR-MM#2b AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f AVR-MM#2g	Significant
AVR#4: Traction Power Stations would alter visual character or block views. All of the alternatives would require the placement of Traction Power Distribution Stations of varying sizes at approximately 5-mile intervals along the alignment, which would potentially alter the visual character of adjacent lands and/or block views toward areas beyond the alignment.			
All Alternatives	Significant	AVR-MM#2h	Less than significant
AVR#4: Lower visual quality due to HMF alternatives. The HMF alternatives would substantially degrade the existing visual character and quality of the sites and their surroundings.			

Table 3.16-5
Summary of Significant Aesthetics and Visual Resources Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
All Alternatives	Significant	AVR-MM#1a AVR-MM#1b AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2h	Less than significant
AVR#4: Sound Barriers would lower visual quality or block views. All the alternatives equally would require the use of sound barriers along portions of the guideway in urbanized areas, potentially lowering visual quality and/or blocking existing views, depending on the barrier location and materials.			
All Alternatives	Significant	AVR-MM#2a AVR-MM#2b AVR-MM#2c AVR-MM#2d AVR-MM#2e AVR-MM#2f	Significant
AVR#5: Lower visual quality at Bakersfield High School. The project would substantially degrade the existing visual character of the site and its surroundings.			
BNSF	Significant	AVR-MM#1a AVR-MM#1b AVR-MM#2a AVR-MM#2b AVR-MM#2c AVR-MM#2d AVR-MM#2e	Significant
AVR#5: Lower visual quality at Owens Middle School. The project would substantially degrade the existing visual character of the site and its surroundings.			
BNSF	Significant	AVR-MM#1a AVR-MM#2a AVR-MM#2c AVR-MM#2d AVR-MM#2e	Significant

Table 3.16-5
Summary of Significant Aesthetics and Visual Resources Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
Bakersfield South Alternative	Significant	AVR-MM#1a AVR-MM#2a AVR-MM#2c AVR-MM#2d AVR-MM#2e	Less than significant
AVR#5: Lower visual quality at College of the Sequoias. The project would substantially degrade the existing visual character of the amphitheater and other adjacent outdoor use areas.			
Hanford West Bypass 1 and 2 Alternatives (at-grade)	Significant	AVR-MM#1a AVR-MM#2c AVR-MM#2d AVR-MM#2e	Less than significant
AVR#5: Lower visual quality at Our Lady of Guadalupe School. The project would substantially degrade the existing visual character of the site and its surroundings.			
Bakersfield South Alternative	Significant	AVR-MM#1a AVR-MM#2a AVR-MM#2c AVR-MM#2d AVR-MM#2e	Significant
AVR#5: Lower visual quality at Bethel Christian School. The project would substantially degrade the existing visual character of the site and its surroundings.			
Bakersfield South Alternative	Significant	AVR-MM#1a AVR-MM#2a AVR-MM#2c AVR-MM#2d AVR-MM#2e	Significant